Thailand

Hydrological Yearbook

Water Year 2011

Volume 54

Royal Irrigation Department

Hydrology Division

Office of Water Management and Hydrology

Bangkok

CONTENTS

			Page
CONTENTS			III
ILLUSTRATION OF STREAM GAUGING ACTIVITIES			XXI
HYDROLOGICAL YEARBOOK PUBLICATION			XXI
Introduction			XXI
Definition of terms and abbreviations			XXI
Order of listing of gauging data			XXII
Series of yearbook pubications			XXIII
STANDARD OF STREAMFLOW DATA PROCUREMENT			XXV
Network design			XXV
Field work			XXV
Office data processing			XXVI
Future plan for computerization			XXVIII
Organization			XXVIII
PARTICIPATION IN STREAM GAUGING WORKS			XXX
UNITS OF MEASURE AND CONVERSION FACTORS			XXXI
STREAM GAUGING DATA			1
SALAWIN RIVER BASIN			
1	Sw.5A	Nam Mae Pai at Ban Tha Pong Daeng, Mae Hong Son	2
2	Sw.6	Huai Mae Lamao at Ban Mae Lamao, Tak	4
KHONG RIVER BASIN			
3	Kh.18	Huai Mong at Ban Na Ang, Udon Thani	6
4	Kh.28A	Loei River at Ban Na Lak, Loei	8
5	Kh.53	Huai Luang at Ban Nong Wua So, Udon Thani	10
6	Kh.58A	Loei River at Ban Fak Loei, Loei	12
7	Kh.61	Loei River at Ban Keng Bong, Loei	14
8	Kh.72	Nam Mae Kham at Ban Mae Kham Lak Chet, Chiang Rai	16
9	Kh.77A	Nam Thop at Ban Kok So, Loei	18
10	Kh.78	Huai Nam Huai at Ban Nam Huai, Loei	20
11	Kh.89	Nam Mae Chan at Ban Hua Saphan, Chiang Rai	22
12	Kh.90	Lam Nam Phung at Ban Tong Khop, Sakon Nakhon	24

13	Kh.91	Huai Chanol at Ban Don Sawan, Nakhon Phanom	26
14	Kh.92	Huai Bang Sai at Ban Kan Luang Dong, Muk Dahan	28
15	Kh.95	Nam San at Ban Kaeng Hai, Loei	30
16	Kh.99A	Huai Bang Sai at Ban Bang Sai , Mukdahan	32
17	Kh.101	Huai Muk at Ban Kaen Tao, Mukdahan	34
18	Kh.103	Huai Luang at Ban Non Toom, Udon Thani	36
19	Kh.105	Huai Puan at Ban Pa Noi, Loei	38

NAM MAE ING BASIN

20	I.6	Nam Waen at Ban Nam Waen, Phayao	40
21	I.14	Nam Mae Ing at Ban Nam Ing, Chiang Rai	42
22	I.17	Nam Mae Ing at Ban Jae Dee Ngam, Phayao	44

NAM MAE KOK BASIN

23	G.4	Nam Mae Kon at Ban Pang Rim Kon, Chiang Rai	46
24	G.8	Nam Mae Lao at Ban Ton Yang, Chiang Rai	48
25	G.9	Nam Mae Suai at Ban Kariang Thung Phrao, Chiang Rai	50
26	G.10	Nam Mae Lao at Ban Nong Phum, Chiang Rai	52
27	G.11	Nam Mae Lao at Ban Don Salee, Chiang Rai	54

CHI RIVER BASIN

28	E.5	Chi River at Ban Non Puai, Chaiyaphum	56
29	E.6C	Lam Pa Thao at Ban Tat Ton, Chaiyaphum	58
30	E.9	Chi River at Ban Chot, Khon Kaen	60
31	E.18	Chi River at Ban Tha Sa Bang, Roi Et	62
32	E.20A	Chi River at Maha Chana Chai, Yasothon	64
33	E.21	Chi River at Ban Kaeng Ko, Chaiyaphum	66
34	E.22B	Lam Nam Phong at Ban Tha Mao, Khon Kaen	68
35	E.23	Chi River at Ban Khai, Chaiyaphum	70
36	E.29	Lam Nam Phong at Ban Pha Nok Khao, Loei	72
37	E.32A	Chi River at Ban Nong O, Chiyaphum	74
38	E.54	Nam Yang at Ban Kaeng Yao, Kalasin	76
39	E.57	Nam Yang at Ban Kut Chim Khum Yai, Kalasin	78
40	E.64	Lam Phaniang at Ban Na Klang, Nong Bua Lamphu	80
41	E.66A	Chi River at Ban Muang Lat, Roi Et	82
42	E.68A	Lam Phaniang at Ban Khong Po, Nong Bua Lamphu	84
43	E.70	Lam Nam Yang at Ban Kut Kwang, Roi Et	86

44	E.72	Lam Chiang at Ban Chiang, Chaiyaphum	88
45	E.73	Lam Chao at Ban Wang Taku, Chaiyaphum	90
46	E.75	Lam Pao at Ban Nong Muang, Kalasin	92
47	E.76A	Huai Sang Ka at Ban Phon, Kalasin	94
48	E.83	Lam Saphung at Ban Na Charoen, Chaiyaphum	96
49	E.84	Chi River at Ban Nang Dad Khok, Chaiyaphum	98
50	E.85	Lam Nam Choen at Ban Non Han, Khon Kaen	100
51	E.86	Lam Phan Chat at Ban Kham Hai, Udon Thani	102
52	E.87	Lam Pao at Ban Wang Hin, Kalasin	104
53	E.89	Lam Nong Sang at Ban Nong Rew Nung, Kalasin	106
54	E.91	Chi River at Ban Kui Chuak, Maha Sarakham	108
55	E.92	Lam Nam Yang at Ban Tha Ngam, Roi Et	110

MUN RIVER BASIN

56	M.2A	Mun River at Ban Dan Taka, Nakhon Ratchasima	112
57	M.4	Mun River at Ban Phong Sawai, Surin	114
58	M.5	Mun River at Ban Mueang Kong, Si Sa Ket	116
59	M.6A	Mun River at Ban Satuk, Buri Ram	118
60	M.7	Mun River at Ban Chumchondee, Ubon Ratchathani	120
61	M.9	Huai Samran at Ban Nongyaplong, Si Sa ket	122
62	M.11B	Mun River at Ban Pho Tak, Ubon Ratchathani	124
63	M.26A	Lam Chi at Ban La Lon, Surin	126
64	M.32	Lam Se Bai at Ban Chiang Pheng, Yasothon	128
65	M.38C	Lam Takhong at Ban Khlong Phai, Nakhon Ratchasima	130
66	M.42	Huai Thap Than at Ban Huai Thap Than, Si Sa Ket	132
67	M.43A	Lam Takhong at Ban Tha Maprang, Nakhon Ratchasima	134
68	M.89	Lam Takhong at Vaccine Serum Office, Nakhon Ratchasima	136
69	M.95	Lam Sieo Yai at Ban Ku, Roi Et.	138
70	M.104	Mun River at Ban Wang Prat, Buri Ram	140
71	M.110	Huai Tunglung at Ban Kud Sonbun, Ubon Ratchathani	142
72	M.112	Huai Takhong at Ban Khok Yai, Buri Ram	144
73	M.127	Huai Ta Thieo at Ban Na Hai, Ubon Ratchathani	146
74	M.145	Lam Phra Phloeng at Ban Wang Ka Lo, Nakhon Ratchasima	148
75	M.155	Huai La - ong at Ban Na Phu, Amnart Charoen	150
76	M.156	Huai Ban at Ban Na Phu, Amnart Charoen	152

77	M.159	Lam Chi at Ban Lum Din, Surin	154
78	M.164	Lam Ta Khong at Ban Send Mari, Nakhon Ratchasima	156
79	M.170	Lam Dom Yai at Ban Kham Samran, Ubon Ratchathani	158
80	M.171	Lam Phra Phloeng at Ban Non Sao - E, Nakhon Ratchasima	160
81	M.172	Khlong Phai at Ban Non Sao - E, Nakhon Ratchasima	162
82	M.173	Mun River at Ban Non Sa - at, Nakhon Ratchasima	164
83	M.176	Huai Khayung at Ban Non Si Khlai, Si Sa Ket	166
84	M.177	Lam Ta Khong at Ban Non Sawang, Nakhon Ratchasima	168
85	M.179	Lam Sa Bai at Ban Tha Wari, Ubon Ratchathani	170
86	M.180	Lam Phra Phloeng at Ban Tha Yiam, Nakhon Ratchasima	172
87	M.182	Mun River at Ban Si Than, Si Sa Ket	174
88	M.183	Huai Hin Lap at Ban Khlong Hin Lap, Nakhon Ratchasima	176
89	M.184	Mun River at Ban Cum, Nakhon Ratchasima	178
90	M.185	Lam Plai Mat at Ban Phai Noi, Nakhon Ratchasima	180
91	M.186	Lam Chakkarat at Ban Non Koy, Nakhon Ratchasima	182
92	M.187	Huai Sanaeng at Mueang, Surin	184
93	M.188	Lam Chiang Krai at Ban Bua, Nakhon Ratchasima	186
94	M.190	Huai Samran at Ban Khwaw, Si Sa Ket	188
95	M.191	Lam Ta Khong at Ban Khok Krod, Nakhon Ratchasima	190

PING RIVER BASIN

96	P.1	Ping River at Nawarat Bridge, Chiang Mai	192
97	P.2A	Ping River at Ban Tha Khae, Tak	194
98	P.4A	Nam Mae Taeng at Ban Mae Taeng, Chiang Mai	196
99	P.5	Nam Mae Kuang at Tha Nang Bridge, Lamphun	198
100	P.7A	Ping River at Ban Huai Yang, Kamphaeng Phet	200
101	P.12C	Ping River at Ban Wang Kra Chao, Tak	202
102	P.14A	Nam Mae Chaem at Tha Kham Bridge, Chiang Mai	204
103	P.15	Ping River at Wat Sri Phirom, Kamphaeng Phet	206
104	P.16	Ping River at Ban San Tor, Kamphaeng Phet	208
105	P.17	Ping River at Ban Tha Ngiu, Nakhon Sawan	210
106	P.20	Ping River at Ban Chiang Dao, Chiang Mai	212
107	P.21	Nam Mae Rim at Ban Mae Rim Tai, Chiang Mai	214
108	P.24A	Nam Mae Klang at Pracha Uthit Bridge, Chiang Mai	216
109	P.26A	Khlong Suan Mak at Ban Mai, Kamphaeng Phet	218

110	P.47	Khlong Suan Mak at Ban Pong Nam Ron, Kamphaeng Phet	220
111	P.50A	Khlong Wang Chao at Ban Thai Tawee, Kamphaeng Phet	222
112	P.56A	Nam Mae Ngat at Ban Sahakorn Romklao, Chiang Mai	224
113	P.67	Ping River at Ban Mae Tae, Chiang Mai	226
114	P.71A	Nam Mae Khan at Ban Klang, Chiang Mai	228
115	P.73	Ping River at Ban Sop Soi, Chiang Mai	230
116	P.75	Ping River at Ban Cho Lae, Chiang Mai	232
117	P.76	Nam Mae Li at Ban Mae E - Hai, Lamphun	234
118	P.77	Nam Mae Tha at Ban Sop Mae Sapuad, Lamphun	236
119	P.78	Khlong Khlung at Ban Sam Ruean, Kamphaeng Phet	238
120	P.79	Nam Mae Kuang at Ban Mae Wan, Chiang Mai	240
121	P.80	Nam Mae Lai at Ban Pong Din, Chiang Mai	242
122	P.81	Nam Mae Kuang at Ban Pong, Chiang Mai	244
123	P.82	Nam Mae Wang at Ban Sop Win, Chiang Mai	246
124	P.84	Nam Mae Wang at Ban Phan Ton, Chiang Mai	248
125	P.85	Nam Mae Li at Ban Lai Khaeo, Lamphun	250
126	P.86	Nam Mae On at Ban Hong, Chiang Mai	252
127	P.87	Nam Mae Tha at Ban Pa Cang Noy, Lamphun	254
128	P.90	Ping River at Ban Thap Dua, Chiang Mai	256
129	P.91	Nam Mae Khod at Ban San Pu Loei, Chiang Mai	258
130	P.92	Nam Mae Taeng at Ban Mueang Kud, Chiang Mai	260
131	P.93	Nam Mae Rim at Ban Saluang Nok, Chiang Mai	262

WANG RIVER BASIN

132	W.1C	Wang River at Setuwaree Bridge, Lampang	264
133	W.3A	Wang River at Ban Don Chai, Lampang	266
134	W.4A	Wang River at Ban Wang Man,Tak	268
135	W.5A	Wang River at Ban Ko Kha, Lampang	270
136	W.6A	Wang River at Ban Sop Prap, Lampang	272
137	W.10A	Wang River at Ban Don Mun, Lampang	274
138	W.16A	Wang River at Ban Hai, Lampang	276
139	W.17	Nam Mae Soi at Ban Nong Nao, Lampang	278
140	W.17A	Nam Mae Soi at Ban Thung Thong, Lampang	280
141	W.18A	Nam Mae Tam at Ban Sop Tam, Lampang	282
142	W.20	Nam Mae Tui at Ban Tha Lo, Lampang	284

143	W.21	Wang River at Ban Tha Dua, Lampang	286
144	W.22	Nam Mae Chang at Ban Wang Phrao, Lampang	288
145	W.23	Wang River at Ban Chiang Rai, Tak	290
146	W.24	Wang River at Ban Tha Phai, Tak	292
147	W.25	Wang River at Ban Huai Kod, Lampang	294
148	W.26	Nam Mae Ta at Ban Huai Mae Ta, Lampang	296

YOM RIVER BASIN

149	Y.1C	Yom River at Ban Nam Khong, Phrae	298
150	Y.3A	Yom River at Ban Wang Mai Khon, Sukhothai	300
151	Y.6	Yom River at Ban Kaeng Luang, Sukhothai	302
152	Y.13A	Nam Ngao at Ban Luang Nua, Lampang	304
153	Y.14	Yom River at Ban Don Rabiang, Sukhothai	306
154	Y.15	Yom River at Ban Kong, Sukhothai	308
155	Y.16	Yom River at Ban Bang Rakam, Phitsanulok	310
156	Y.17	Yom River at Ban Sam Ngam, Phichit	312
157	Y.20	Yom River at Ban Huai Sak, Phrae	314
158	Y.21	Yom River at Ban Na Pla Kang, Sukhothai	316
159	Y.24	Nam Pi at Ban Mang, Phayao	318
160	Y.26	Huai Mae Mok at Ban Mae Phu, Lampang	320
161	Y.30	Huai Pong at Ban Pong, Lampang	322
162	Y.31	Yom River at Ban Thung Nong, Phayao	324
163	Y.33	Yom River at Ban Khlong Tan, Sukhothai	326
164	Y.34	Nam Mae Lai at Ban Mae Lai, Phrae	328
165	Y.36	Nam Khuan at Ban Pa Kha, Phayao	330
166	Y.37	Yom River at Ban Wang Chin, Phrae	332
167	Y.38	Nam Mae Kham Mi at Ban Mae Kham Mi Tamnak Tham, Phrae	334
168	Y.42	Yom River at Ban Tha Tako, Phichit	336
169	Y.43	Yom River at Ban Pak Kang, Phrae	338
170	Y.44	Nam Mae Ta at Ban Nam Rin, Phrae	340
171	Y.45	Nam Mae Kham Mi at Ban Phai Ton, Phrae	342
172	Y.46	Nam Mae Suat at Ban Pang Yao, Nan	344
173	Y.47	Yom River at Ban Bun Ruang, Phayao	346
174	Y.48	Nam Mae Ngim at Ban Hae, Phayao	348

NAN RIVER BASIN

175	N.1	Nan River at Forestry Office, Nan	350
176	N.2B	Nan River at Nai Mueang, Uttaradit	352
177	N.5A	Nan River at Mueang, Phitsanulok	354
178	N.7A	Nan River at Ban Rat Chang Khwan, Phichit	356
179	N.8A	Nan River at Ban Hor Krai, Phichit	358
180	N.10A	Nan River at Ban Taphan Hin, Phichit	360
181	N.12A	Nan River at Ban Hat Phai, Uttaradit	362
182	N.13A	Nan River at Ban Bun Nak, Nan	364
183	N.13B	Nan River at Ban Ngiu Ngam, Nan	366
184	N.14A	Nan River at Wat Luang Pho Kaeo, Nakhon Sawan	368
185	N.22A	Nan River at Ban Tha Ngam, Phitsanulok	370
186	N.24A	Khek River at Ban Wang Nok Aen, Phitsanulok	372
187	N.27A	Nan River at Ban Nong Kham, Phitsanulok	374
188	N.28A	Nan River at Ban Na Klam, Uttaradit	376
189	N.36	Nam Khwae Noi at Ban Nong Krathao, Phitsanulok	378
190	N.43A	Khlong Chom Phu at Ban Chom Phu, Phitsanulok	380
191	N.49	Nam Yao at Ban Nam Yao, Nan	382
192	N.54	Khlong Wang Pong at Ban Wang Pong, Phetchabun	384
193	N.55	Nam Phak at Ban Tha Sakae, Phitsanulok	386
194	N.58	Nam Fua at Ban Nam Fua, Phitsanulok	388
195	N.59	Lam Nam Khan at Ban Na Chan, Phitsanulok	390
196	N.60	Nan River at Ban Hat Song Khwae, Uttaradit	392
197	N.62	Huai Nam Khlung at Ban Huai Tha Nua, Phitsanulok	394
198	N.64	Nan River at Ban Pha Khwang, Nan	396
199	N.65	Nam Yao at Ban Pang Sa, Nan	398
200	N.66	Huai Om Sing at Ban Noen Phoem, Phitsanulok	400
201	N.67	Nan River at Ban Koei Chai, Nakhon Sawan	402
202	N.68	Nan River at Ban Tha Takhian, Phitsunulok	404
203	N.72	Khlong Tron at Ban Wang Pla Kod, Uttaradit	406
204	N.73	Khek River at Ban Tan Tawan, Phetchabun	408
205	N.74	Nan River at Bang Krathum, Phitsanulok	410
206	N.75	Nam Wa at Tha Li Bridge, Nan	412
207	N.76	Khlong Huai Chan at Ban Nong Khon, Nakhon Sawan	414

CHAO PHRAYA RIVER BASIN

208	C.2	Chao Phraya River at Ban Phai Lom, Nakhon Sawan	416
209	C.3	Chao Phraya River at Ban Bang Phutsa, Sing Buri	418
210	C.7A	Chao Phraya River at Ban Bang Kaeo, Ang Thong	420
211	C.13	Chao Phraya River at Ban Bang Luang, Chai Nat	422
212	C.30	Huai Khun Kaeo at Ban Samo Thong, Uthai Thani	424
213	C.36	Chao Phraya River at Ban Bang Luang Dod, Phra Nakhon Si Ayutthaya	426
214	C.37	Chao Phraya River at Ban Bang Ban, Phra Nakhon Si Ayutthaya	428
215	C.44	Chao Phraya River at Ban In Buri, Sing Buri	430
216	C.50	Huai Khun Kaeo at Ban Ngiu Ngam, Uthai Thani	432
217	C.51	Huai Khun Kaeo at Ban Kud Jok, Chai Nat	434

SAKAE KRANG RIVER BASIN

218	Ct.4	Nam Mae Wong at Ban San Chao Kai To, Nakhon Sawan	436
219	Ct.5A	Nam Mae Wong at Ban Pang Makha, Kamphaeng Phet	438
220	Ct.7	Khlong Pho at Ban Mai Khlong Charoen, Nakhon Sawan	440
221	Ct.8	Huai Tak Dad at Ban Khok Mo, Uthai Thani	442
222	Ct.9	Huai Thap Salao at Ban Bung Ai Chiam, Uthai Thani	444
223	Ct.19	Huai Tak Dad at Ban Don Yai, Uthai Thani	446
224	Ct.20	Lower Huai Thap Salao at Ban Saphan Leak, Uthai Thani	448
225	Ct.21	Huai Kan Yao at Ban Phai Khieo, Uthai Thani	450
226	Ct.22	Huai Khwee at Ban Mok Taew, Uthai Thani	452
227	Ct.23	Huai Rang at Ban Huai Rang, Uthai Thani	454

PASAK RIVER BASIN

228	S.4B	Pasak River at Mueang, Phetchabun	456
229	S.5	Pasak River at Panchamathirat Uthit Hospital, Phra Nakhon Si Ayutthaya	458
230	S.7A	Lam Muak Lek at Ban Tharahad, Saraburi	460
231	S.9	Pasak River at Ban Pa, Saraburi	462
232	S.13	Lam Sonthi at Ban Tha Yiam, Lop Buri	464
233	S.14	Lam Sonthi at Ban Tha Ruak, Lop Buri	466
234	S.26	Pasak River at Ban Tha Rua, Phra Nakhon Si Ayutthaya	468
235	S.28	Pasak River at Ban Kaeng Sua Taen, Lop Buri	470
236	S.33	Pasak River at Ban Tha Hi Yong, Phetchabun	472
237	S.36	Pasak River at Ban Non Thong, Phetchabun	474
238	S.42	Pasak River at Ban Bo Rang, Phetchabun	476

239 S.43 Pasak River at Ban Phun Sap, Lop Buri 478

THACHIN RIVER BASIN

240 T.12A Lower Huai Kra Sieo at Ban Thap Man, Suphan Buri 480

MAE KLONG RIVER BASIN

241 K.10 Khwae Noi River at Ban Lum Sum, Kanchanaburi 482

242 K.11A Mae Klong River at Ban Wang Khanai, Kanchanaburi 484

243 K.12 Lam Ta Phoen at Ban Thung Na Nang Rok, Kanchanaburi 486

244 K.17 Lam Phachi at Ban Bo, Ratchaburi 488

245 K.22B Huai Mae Nam Noi at Ban Sai Yok, Kanchanaburi 490

246 K.25A Huai Tha Khoei at Ban Kha, Ratchaburi 492

247 K.30 Huai Mae Nam Lo at Ban Sai Yok, Kanchanaburi 494

248 K.31 Huai Mae Nam Noi at Ban Nam Chon, Kanchanaburi 496

249 K.32A Huai Bong Ti at Ban Bong Ti, Kanchanaburi 498

250 K.35A Khwae Yai River at Ban Nong Bua, Kanchanaburi 500

251 K.37 Khwae Noi River at Ban Wang Yen, Kanchanaburi 502

252 K.38A Huai Lin Thin at Ban Nong Bang, Kanchanaburi 504

253 K.39 Huai Ong Thi at Ban Ong Thi, Kanchanaburi 506

254 K.50 Huai Diso at Ban Hin Laem, Kanchanaburi 508

255 K.53 Huai Mae Kraban at Ban Si Mong Khon, Kanchanaburi 510

256 K.54 Khwae Noi River at Ban Lin Thin, Kanchanaburi 512

257 K.58 Khwae Noi at Ban Pak Saeng, Kanchanaburi 514

258 K.60 Huai Kui Mang at Ban Kui Mang, Kanchanaburi 516

259 K.61 Lam Phachi at Ban Dan Thaptako, Ratchaburi 518

260 K.62 Lam Phachi at Ban Nong Phai, Kanchanaburi 520

PRACHIN BURI RIVER BASIN

261 Kgt.3 Prachin Buri River at Ban Kabin Buri, Prachin Buri 522

262 Kgt.9 Khlong Phra Sathung at Ban Khao Chakan, Sa Kaeo 524

263 Kgt.12 Khlong Phra Prong at Ban Kaeng, Sa Kaeo 526

264 Kgt.13A Khlong Phra Prong at Ban Non Suk Phum, Prachin Buri 528

265 Kgt.14 Huai Yang at Ban Thung Faek, Prachin Buri 530

266 Kgt.15A Huai Samong at Ban Kaeng Din So, Prachin Buri 532

267 Kgt.33 Khwae Nam Sai at Ban Saphan Hin, Prachin Buri 534

268 Kgt.34 Khwae Hanuman at Ban Cha Om, Prachin Buri 536

269 Kgt.38 Khlong Phra Phloeng Yai at Ban Phu Ngoen, Sa Kaeo 538

270	Kgt.40	Upper Khlong Phra Sathung at Ban Thung Kabin, Sa Kaeo	540
271	Kgt.41	Khlong Kuad Kong at Ban Khok Noi, Sa Kaeo	542
272	Kgt.42	Khlong Phra Sathung at Ban Tharapha, Sa Kaeo	544

BANG PAKONG RIVER BASIN

273	Ny.1B	Nakhon Nayok River at Ban Khao Nang Buat, Nakhon Nayok	546
274	Ny.3	Lower Khlong Ban Na at Ban Pa Kha, Nakhon Nayok	548
275	Ny.4	Khlong Samo Pun at Ban Noen Hom, Prachin Buri	550
276	Ny.6	Upper Khlong Ban Na at Ban Cha Om, Saraburi	552

TONLE SAP BASIN

277	Tl.3	Khlong Phra Phut at Ban Pang Ngon, Chanthaburi	554
278	Tl.4	Khlong Ta Kong at Ban Khlong Ta Kong, Chanthaburi	556
279	Tl.6	Khlong Thung Krang at Ban Thung Krang, Chanthaburi	558

EAST COAST-GULF BASIN

280	Z.10	Khlong Yai at Ban Si Bua Thong, Trat	560
281	Z.11	Khlong Prasae at Ban Chak Khrok, Rayong	562
282	Z.13	Chanthaburi River at Ban Puk, Chanthaburi	564
283	Z.14	Khlong Phayat at Ban Chaman, Chanthaburi	566
284	Z.18	Khlong Phlo at Ban Chamkho, Rayong	568
285	Z.21	Khlong Hin Dat at Ban Pong Rong Sen, Chanthaburi	570
286	Z.28	Upper Khlong Tanot at Ban Khun Song, Chanthaburi	572
287	Z.30	Khlong Sato at Ban Nong Bua, Trat	574
288	Z.38	Khlong Thapma at Ban Thapma, Rayong	576
289	Z.43	Khlong Hin Phloeng at Ban Hin Phloeng, Chanthaburi	578
290	Z.45	Khlong Aeng at Ban Nong Bon, Trat	580
291	Z.46	Khlong Sano at Ban Nonthee, Trat	582
292	Z.47A	Khlong Chanthi at Ban Khlong Khwang, Trat	584
293	Z.53	Khlong Thung Ta In at Ban Thung Ta In, Chanthaburi	586
294	Z.55	Chanthaburi River at Ban Bang Cha Ai, Chanthaburi	588
295	Z.56	Khlong Thung Plae at Ban Ta Bok Tia, Chanthaburi	590
296	Z.59	Khlong Bo Rai at Ban Bo Rai, Trat	592

PHETCHABURI RIVER BASIN

297	B.3A	Phetchaburi River at Ban Song Phi Nong, Phetchaburi	594
298	B.8A	Huai Phak at Ban Prong Khae, Phetchaburi	596
299	B.9	Phetchaburi River at Ban Sarahed, Phetchaburi	598

300	B.10	Phetchaburi River at Ban Tha Yang, Phetchaburi	600
301	B.11	Huai Mae Prachan at Ban Cha Prong, Phetchaburi	602

WEST COAST-GULF BASIN

302	Gt.9	Khlong Thap Sakae at Ban Klang, Prachuap Khiri Khan	604
303	Gt.10	Khlong Krut at Ban Nong Ya Plong, Prachuap Khiri Khan	606
304	Gt.11	Khlong Yai at Ban Chang Laek, Prachuap Khiri Khan	608
305	Gt.15	Huai Sai at Ban Suan Son Huai Sai, Prachuap Khiri Khan	610
306	Gt.16	Khlong Hin Chuang at Ban Hin Chuang, Prachuap Khiri Khan	612
307	Gt.17	Huai Yang at Ban Huai Yang, Prachuap Khiri Khan	614
308	Gt.18	Khlong Cha Kra at Ban Cha Kra Bon, Prachuap Khiri Khan	616
309	Gt.19	Khlong Ang Thong at Ban Ang Thong, Prachuap Khiri Khan	618

KUI BURI BASIN

310	Ky.3	Kui Buri River at Ban Thung Faek, Prachuap Khiri Khan	620

SOUTHERN PENINSULA EAST COAST

311	X.53A	Khlong Chumphon at Ban Wang Phai, Chumphon	622
312	X.64	Khlong Tha Sae at Ban Tha Sae, Chumphon	624
313	X.119A	Kolok River at Lantu Bridge, Narathiwat	626
314	X.158	Khlong Tha Taphao at Ban Wang Khrok, Chumphon	628
315	X.201A	Upper Khlong Chumphon at Ban Tha Mai Lai, Chumphon	630
316	X.247	Khlong Tha Sae at Ban Wang Maprang, Chumphon	632
317	X.248	Khlong Rap Ro at Ban Hat Nai, Chumphon	634
318	X.270	Lower Khlong Tako at Ban Nong Chik, Chumphon	636

TAPI RIVER BASIN

319	X.36	Khlong Phum Duang at Ban Tha Khanon, Surat Thani	638
320	X.37A	Tapi River at Ban Yan Din Daeng, Surat Thani	640
321	X.195	Tapi River at Ban Tha Pho, Nakhon Si Thammarat	642
322	X.198	Khlong Sin Pun at Ban Bang Rup, Surat Thani	644
323	X.257	Khlong Chandee at Ban Pak Min, Nakhon Si Thammarat	646
324	X.259	Khlong Trom at Ban Trom, Surat Thani	648
325	X.260	Lower Khlong I - Pan at Ban Arpart, Surat Thani	650

THALE SAP SONGKHLA BASIN

326	X.44	Khlong U - Taphao at Ban Hat Yai Nai, Songkhla	652
327	X.67A	Khlong Ratthaphum at Ban Nasithong, Songkhla	654
328	X.68	Khlong Tha Khae at Ban Tha Khae, Phatthalung	656

329	X.90	Khlong U - Taphao at Ban Bang Sala, Songkhla	658
330	X.112	Khlong Sadao at Ban Takian Pao, Songkhla	660
331	X.113	Khlong La Pang at Ban Thung Prap, Songkhla	662
332	X.170	Khlong Lam at Ban Khlong Lam, Phatthalung	664
333	X.173A	Khlong U - Taphao at Ban Muang Kong, Songkhla	666
334	X.174	Khlong Wa at Ban Khlong Wa, Songkhla	668
335	X.240	Upper Khlong Wat at Ban Hu Rae, Songkhla	670
336	X.266	Khlong Pa Bon at Ban Lo Han, Phatthalung	672
337	X.267	Khlong Tamot at Ban Mae Khree, Phatthalung	674
338	X.276	Upper Khlong Tha Nae at Ban Khao Pu, Phatthalung	676
339	X.277	Lower Khlong Tha Nae at Ban Phikul Thong, Phatthalung	678

SOUTHERN PENINSULA WEST COAST

340	X.56	Trang River at Ban Tha Pradu, Trang	680
341	X.128A	Khlong Nang Noi at Ban Thung Kling, Trang	682
342	X.139A	Khlong Palian at Ban Palian Nai, Trang	684
343	X.150	Khlong Langu at Ban Tha Khian, Satun	686
344	X.187	Khlong Ta Kuaw Pa at Ban Hin Dan, Phang Nga	688
345	X.188A	Khlong Rommanee at Ban Rommanee, Phang Nga	690
346	X.190A	Khlong Bang Yai at Ban Ket Ho, Phuket	692
347	X.191	Khlong Bang Yai at Satree Phuket School, Phuket	694
348	X.192	Khlong Bang Tha at Mueang, Phuket	696
349	X.196	Khlong Kapong at Ban Tha Na, Phang Nga	698
350	X.228	Trang River at Ban Klang, Trang	700
351	X.229	Khlong Nang Noi at Ban Khaow Saae (2), Trang	702
352	X.234	Trang River at Ban Pa Mak, Trang	704
353	X.235	Khlong Lam Phikul at Ban Pak Khlong, Trang	706
354	X.237	Khlong Ton at Ban Ton, Satun	708
355	X.238	Khlong Chaeng at Ban Khlong Hak, Satun	710
356	X.239	Khlong Duson at Ban Cha Lung Nua, Satun	712
357	X.245	Khlong Phangnga at Ban Bang Tong, Phangnga	714
358	X.261	Upper Khlong Tha Prae at Ban Karakat, Satun	716
359	X.262	Khlong Tha Prae at Ban Na Kaeo, Satun	718
360	X.264	Lower Khlong Tha Prae at Ban Ta Lam, Satun	720

LOCATION MAP OF HYDROLOGIC OBSERVATION STATIONS IN 2011 WATER YEAR

SUSPENDED SEDIMENT STATIONS

Page

KHONG RIVER BASIN

1	Kh.18	Huai Mong at Ban Na Ang, Udon Thani	723
2	Kh.28A	Loei River at Ban Na Lak, Loei	724
3	Kh.58A	Loei River at Ban Fak loei, Loei	725
4	Kh.61	Loei River at Ban Keng Bong, Loei	726
5	Kh.90	Lam Nam Phung at Ban Tong Khop, Sakon Nakhon	727
6	Kh.91	Huai Chanot at Ban Khon Sawan, Nakhon Phanom	728
7	Kh.92	Huai Bang Sai at Ban Kan Luang Dong, Muk Dahan	729
8	Kh.103	Huai Luang at Ban Non Toom, Udon Thani	730

NAM MAE KOK BASIN

9	G.8	Nam Mae Lao at Ban Ton Yang, Chiang Rai	731

CHI RIVER BASIN

10	E.5	Chi River at Ban Non Puai , Chaiyaphum	732
11	E.22B	Lam Nam Phong at Ban Tha Mao, Khon Kaen	733
12	E.23	Chi River at Ban Khai , Chaiyaphum	734
13	E.54	Nam Yang at Ban Kaeng Yao, Kalasin	735
14	E.66A	Chi River at Ban Muang Lat, Roi Et	736
15	E.72	Lam Chiang at Ban Chiang, Chaiyaphum	737
16	E.83	Lam Saphung at Ban Na Charoen, Chaiyaphum	738
17	E.84	Chi River at Ban Nang Dad Khok, Chaiyaphum	739
18	E.86	Lam Phan Chat at Ban Kham Hai, Udon Thani	740
19	E.91	Chi River at Ban Kui Chuak, Maha Sarakham	741

MUN RIVER BASIN

20	M.2A	Mun River at Ban Dan Taka, Nakhon Ratchasima	742
21	M.4	Mun River at Ban Pong Sawai, Surin	743
22	M.5	Mun River at Ban Mueang Kong, Si Sa Ket	744
23	M.6A	Mun River at Satuk, Buri Ram	745
24	M.7	Mun River at Seri Prachathipatai Bridge, Ubon Ratchathani	746
25	M.9	Huai Samran at Mueang, Si Sa ket	747
26	M.32	Lam Se Bai at Ban Chiang Pheng, Yasothon	748
27	M.42	Huai Thap Than at Ban Huai Thap Than, Si Sa Ket	749

28	M.89	Lam Takhong at Vaccine Serum Office, Nakhon Ratchasima	750
29	M.110	Huai Tunglung at Ban Don Yai, Ubon Ratchathani	751
30	M.127	Huai TaThieo at Ban Na Hai, Ubon Ratchathani	752
31	M.159	Lam Chi at Ban Lum Din, Surin	753
32	M.164	Lam Ta Khong at Mueang, Nakhon Ratchasima	754
33	M.170	Lam Dom Yai at Ban Kham Samran, Ubon Ratchathani	755
34	M.171	Lam Phra Phloeng at Ban Non Sao - E, Nakhon Ratchasima	756
35	M.176	Huai Khayung at Ban Non Si Khlai, Si Sa Ket	757
36	M.183	Huai Hin Lap at Ban Khlong Hin Lap, Nakhon Ratchasima	758
37	M.184	Mun River at Ban Cum, Nakhon Ratchasima	759
38	M.185	Lam Plai Mat at Ban Phai Noi, Nakhon Ratchasima	760
39	M.187	Huai Sanaeng at Mueang, Surin	761

PING RIVER BASIN

40	P.1	Ping River at Nawarat Bridge, Chiang Mai	762
41	P.4A	Mae Taeng at Ban Mae Taeng, Chiang Mai	763
42	P.5	Nam Mae Kuang at Tha Nang Bridge, Lamphun	764
43	P.21	Nam Mae Rim at Mae Rim Tai, Chiang Mai	765
44	P.56A	Nam Mae Ngat at Ban Sahakorn Romklao, Chiang Mai	766
45	P.67	Ping River at Ban Mae Tae, Chiang Mai	767
46	P.75	Ping River at Ban Cho Lae, Chiang Mai	768
47	P.76	Nam Mae Li at Ban Mae E - Hai, Lamphun	769
48	P.77	Nam Mae Tha at Ban Sop Mae Sapuad, Lamphun	770
49	P.78	Khlong Khlung at Ban Sam Ruean, Kamphaeng Phet	771
50	P.79	Nam Mae Kuang at Ban Mae Wan, Chiang Mai	772
51	P.80	Nam Mae Lai at Ban Pong Din, Chiang Mai	773
52	P.82	Nam Mae Wang at Ban Sop Win, Chiang Mai	774
53	P.84	Nam Mae Wang at Ban Phan Ton, Chiang Mai	775

WANG RIVER BASIN

54	W.1C	Wang River at Setuwaree Bridge, Lampang	776
55	W.3A	Wang River at Ban Don Chai, Lampang	777
56	W.4A	Wang River at Ban Wang Man, Tak	778
57	W.17	Nam Mae Soi at Ban Nong Nao, Lampang	779
58	W.21	Wang River at Ban Tha Dua, Lampang	780
59	W.23	Wang River at Ban Chiang Rai, Tak	781

60	W.25	Wang River at Ban Huai Kod, Lampang	782

YOM RIVER BASIN

61	Y.1C	Yom River at Ban Nam Khong, Phrae	783
62	Y.6	Yom River at Ban Kaeng Luang, Sukhothai	784
63	Y.14	Yom River at Ban Don Rabiang, Sukhothai	785
64	Y.15	Yom River at Ban Kong, Sukhothai	786
65	Y.20	Yom River at Ban Huai Sak, Phrae	787
66	Y.26	Nam Mae Mok at Ban Mae Phu, Lampang	788
67	Y.30	Huai Pong at Ban Pong, Lampang	789
68	Y.37	Yom River at Ban Wang Chin, Phrae	790

NAN RIVER BASIN

69	N.1	Nan River at Forestry Office, Nan	791
70	N.7A	Nan River at Ban Rat Chang Khwan, Phichit	792
71	N.8A	Nan River at Ban Hor Krai, Phichit	793
72	N.22A	Nan River at Ban Tha Ngam, Phitsanulok	794
73	N.24A	Khek River at Ban Wang Nok Aen, Phitsanulok	795
74	N.36	Nam Khwae Noi at Ban Nong Krathao, Phitsanulok	796
75	N.54	Khlong Wang Pong at Ban Wang Pong, Phetchabun	797
76	N.55	Nam Phak at Ban Tha Sakae, Phitsanulok	798
77	N.58	Nam Fua at Ban Nam Fua, Phitsanulok	799
78	N.59	Lam Nam Khan at Ban Na Chan, Phitsanulok	800
79	N.64	Nan River at Ban Pha Khwang, Nan	801
80	N.66	Huai Om Sing at Ban Noen Phoem, Phitsanulok	802
81	N.72	Khlong Tron at Ban Wang Pla Kod, Uttaradit	803

CHAO PHRAYA RIVER BASIN

82	C.3	Chao Phraya River at Ban Bang Phutsa, Sing Buri	804
83	C.7A	Chao Phraya River at Ban Bang Kaeo, Ang Thong	805
84	C.13	Chao Phraya River at Ban Bang Luang, Chai Nat	806

SAKAE KRANG RIVER BASIN

85	Ct.5A	Nam Mae Wong at Ban Pang Makha, Kamphaeng Phet	807
86	Ct.7	Khlong Pho at Ban Mai Khlong Charoen, Nakhon Sawan	808
87	Ct.19	Huai Tak Dad at Ban Don Yai, Uthai Thani	809

PASAK RIVER BASIN

88	S.9	Pasak River at Ban Pa, Saraburi	810
89	S.13	Lam Sonthi at Ban Tha Yiam, Lop Buri	811
90	S.28	Pasak River at Ban Kaeng Sua Taen, Lop Buri	812
91	S.33	Pasak River at Ban Tha Hi Yong, Phetchabun	813
92	S.43	Pasak River at Ban Phun Sap, Lop Buri	814

THACHIN RIVER BASIN

93	T.12A	Lower Huai Kra Sieo at Ban Thap Man, Suphan Buri	815

MAE KLONG RIVER BASIN

94	K.12	Lam Ta Phoen at Ban Thung Na Nang Rok, Kanchanaburi	816
95	K.17	Lam Phachi at Ban Bo, Ratchaburi	817
96	K.31	Huai Mae Nam Noi at Ban Nam Chon, Kanchanaburi	818
97	K.32A	Huai Bong Ti at Ban Bong Ti, Kanchanaburi	819
98	K.37	Khwae Noi River t Ban Wang Yen, Kanchanaburi	820
99	K.38A	Huai Lin Thin at Ban Nong Bang, Kanchanaburi	821
100	K.39	Huai Ong Thi at Ban Ong Thi, Kanchanaburi	822
101	K.50	Huai Diso at Ban Hin Laem, Kanchanaburi	823
102	K.53	Huai Mae Kraban at Ban Si Mong Khon, Kanchanaburi	824
103	K.60	Huai Kui Mang at Ban Kui Mang, Kanchanaburi	825
104	K.61	Lam Phachi at Chom Bung, Ratchaburi	826

PRACHIN BURI RIVER BASIN

105	Kgt.9	Khlong Phra Sathung at Ban Khao Chakan, Sa Kaeo	827
106	Kgt.12	Khlong Phra Prong at Ban Kaeng, Sa Kaeo	828
107	Kgt.13A	Khlong Phra Prong at Ban Non Suk Phum, Prachin Buri	829
108	Kgt.14	Huai Yang at Ban Thung Faek, Prachin Buri	830
109	Kgt.42	Khlong Phra Sathung at Ban Tharapha, Sa Kaeo	831

BANG PAKONG RIVER BASIN

110	Ny.3	Lower Khlong Ban Na at Ban Pa Kha, Nakhon Nayok	832
111	Ny.4	Khlong Samo Pun at Ban Noen Hom, Prachin Buri	833
112	Ny.6	Upper Khlong Ban Na at Ban Cha Om, Saraburi	834

EAST COAST-GULF BASIN

113	Z.10	Khlong Yai at Ban Si Bua Thong, Trat	835
114	Z.13	Chanthaburi River at Ban Puk, Chanthaburi	836
115	Z.14	Khlong Phayat at Ban Chaman, Chanthaburi	837

116	Z.45	Khlong Aeng at Ban Nong Bon, Trat	838

PETCHABURI RIVER BASIN

117	B.3A	Phetchaburi River at Ban Song Phi Nong, Phetchaburi	839
118	B.9	Phetchaburi River at Ban Sarahed, Phetchaburi	840
119	B.10	Phetchaburi River at Ban Tha Yang, Phetchaburi	841

WEST COAST-GULF BASIN

120	Gt.9	Khlong Thap Sakae at Ban Klang, Prachuap Khiri Khan	842
121	Gt.10	Khlong Krut at Ban Nong Ya Plong, Prachuap Khiri Khan	843
122	Gt.11	Khlong Yai at Ban Chang Laek, Prachuap Khiri Khan	844

SOUTHERN PENINSULA EAST COAST

123	X.53A	Khlong Chumphon at Ban Wang Phai, Chumphon	845
124	X.158	Khlong Tha Taphao at Ban Wang Khrok, Chumphon	846
125	X.270	Lower Khlong Tako at Ban Nong Chik, Chumphon	847

TAPI RIVER BASIN

126	X.37A	Tapi River at Ban Yan Din Daeng, Surat Thani	848
127	X.195	Tapi River at Ban Tha Pho, Nakhon Si Thammarat	849
128	X.198	Khlong Sin Pun at Ban Bang Rup, Surat Thani	850
129	X.257	Khlong Chandee at Ban Pak Min, Nakhon Si Thammarat	851
130	X.260	Lower Khlong I - Pan at Ban Arpart, Surat Thani	852

THALE SAP SONGKHLA BASIN

131	X.67A	Khlong Ratthaphum at Ban Nasithong, Songkhla	853
132	X.90	Khlong U - Taphao at Ban Bang Sala, Songkhla	854
133	X.113	Khlong La Pang at Ban Thung Prap, Songkhla	855
134	X.170	Khlong Lam at Ban Khlong Lam, Phatthalung	856
135	X.174	Khlong Wa at Ban Khlong Wa, Songkhla	857
136	X.240	Upper Khlong Wat at Ban Hu Rae, Songkhla	858
137	X.267	Khlong Tamot at Ban Mae Khree, Phatthalung	859
138	X.276	Upper Khlong Tha Nae at Ban Khao Pu, Phatthalung	860

SOUTHERN PENINSULA WEST COAST

139	X.56	Trang River at Ban Tha Pradu, Trang	861
140	X.128A	Khlong Nang Noi at Ban Thung Kling, Trang	862
141	X.150	Khlong Langu at Ban Tha Khian, Satun	863
142	X.187	Khlong Ta Kuaw Pa at Ban Hin Dan, Phang Nga	864

143	X.190A	Khlong Bang Yai at Ban Ket Ho, Phuket	865
144	X.229	Khlong Nang Noi at Ban Khaow Saae (2), Trang	866
145	X.235	Khlong Lam Phikul at Ban Pak Khlong, Trang	867
146	X.239	Khlong Duson at Ban Cha Lung Nua, Satun	868
147	X.245	Khlong Phangnga at Ban Bang Tong, Phangnga	869
148	X.264	Lower Khlong Tha Prae at Ban Ta Lam, Satun	870

APPENDIX

Appendix A Flow Duration Curve for Daily Discharge

Appendix B Mean Annual Runoff vs. Drainage Area

Appendix C Maximum Momentary Discharge vs. Drainage Area

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 :

Volume	Water Years	No. of station – years	Date of Issuance
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

Volume	Water Years	No. of station – years	Date of Issuance
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	Apirl 2013

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 for 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.

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

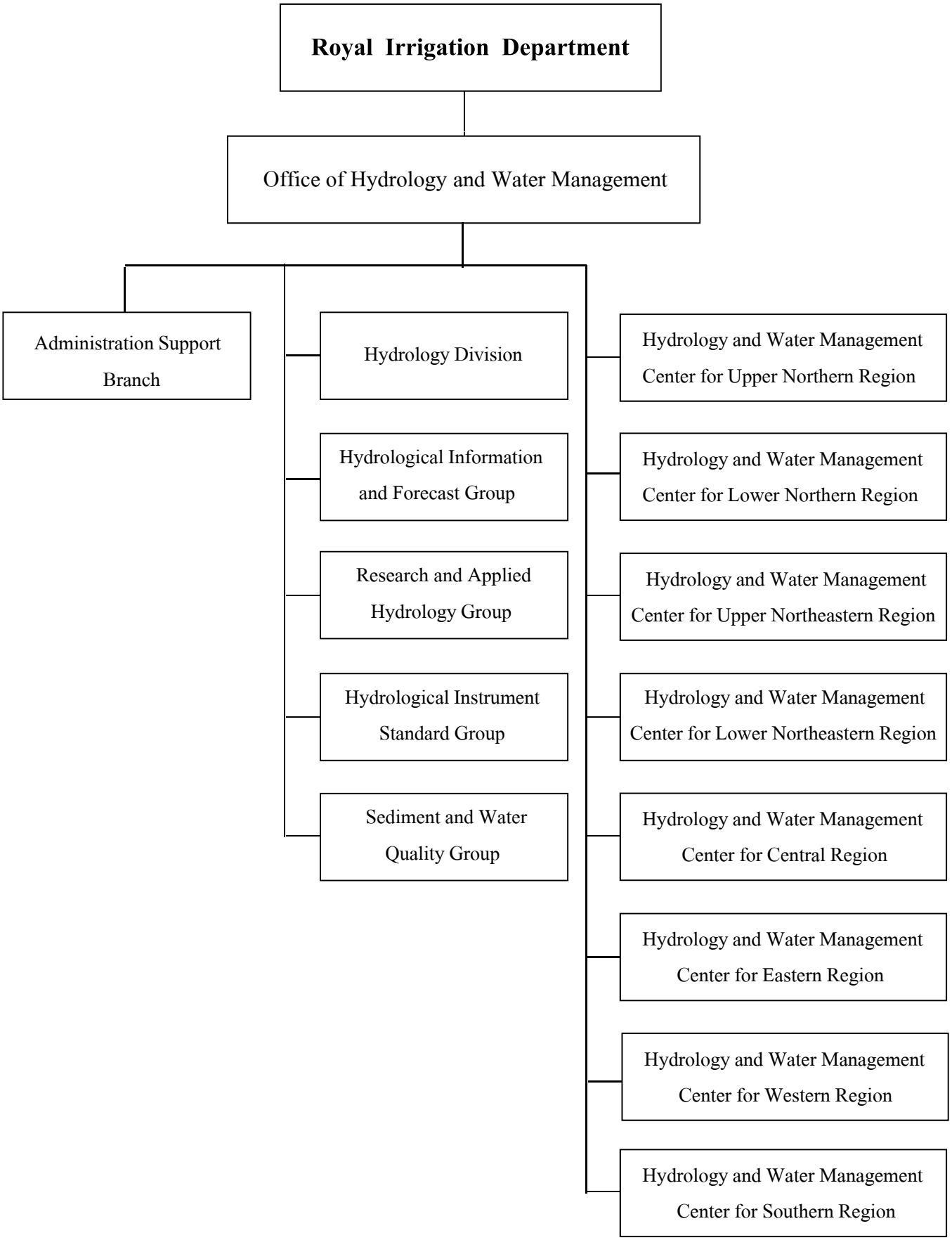
The Royal Irrigation Department (RID) has developed data system which include computerization of storage, Processing and retrieval of rainfall data since 1969. During the stream flow data system was being developed at RID in 1976, the National Economic and Social Development Board has made in agreement 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; row data and analysis data either in the form of computer printouts or in the direct accessible forms like cards of 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 :-


Royal Irrigation Department
Office of Hydrology and Water Management
Administration Support Branch
Hydrology Division
Hydrological Information and Forecast Group
Research and Applied Hydrology Group
Hydrological Instrument Standard Group
Sediment and Water Quality Group
Hydrology and Water Management Center for Upper Northern Region
Hydrology and Water Management Center for Lower Northern Region
Hydrology and Water Management Center for Upper Northeastern Region
Hydrology and Water Management Center for Lower Northeastern Region
Hydrology and Water Management Center for Central Region
Hydrology and Water Management Center for Eastern Region
Hydrology and Water Management Center for Western Region
Hydrology and Water Management Center for Southern Region

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 – Mary 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.

Multiply metric or Thai units	By	To obtain English Unit
	Length	
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)
	Area	
square meters (m^2)	10.76	square feet (ft^2)
	1.196	square yards (yd^2)
	2.47×10^{-4}	acres
rai (1,600 m^2 - Thai)	.3952	acres
hectares (ha)	2.4709	acres
square hectometers (hm^2)	2.4709	acres
square kilometers (km^2)	247.1	acres
	.3861	square miles (mi^2)
	Volume	
liters (l)	.2642	gallons (gal)
Cubic decimeters (dm^3)	.2642	gallons (gal)
	.03531	cubic feet (ft^3)
cubic meters (m^3)	264.2	gallons (gal)
	2.642×10^{-4}	million gallons (10^6 gal)
	35.31	cubic feet (ft^3)
	4.086×10^{-4}	cfs - day (ft^3 / s - day)
	8.11×10^{-4}	acre - feet (acre - ft)
cubic hectometers (hm^3)	264.2	million gallons (10^6 gal)
	408.6	cfs - day (ft^3 / s - day)
	811	acre - feet (acre - ft)
million cubic meters (mcm)	811	acre - feet (acre - ft)
cubic kilometers (km^3)	811×10^3	acre - feet (acre - ft)

Multiply metric or Thai units	By	To obtain English Unit
	Flow	
liters per second (1/s)	.03531	cubic feet per second (ft^3 / s)
	15.85	gallons per minute (gpm)
cubic decimeters per second (dm^3 / s)	.03531	cubic feet per second (ft^3 / s)
	15.85	gallons per minute (gpm)
	22.82×10^{-3}	million gallons per day (mgd)
cubic meters per second (m^3 / s)	35.31	cubic feet per second (ft^3 / s)
	15,850	gallons per minute (gpm)
	22.82	million gallons per day (mgd)

* * * * * * *

Stream Gauging Data

Water Year 2011

WATER YEAR : 2011

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

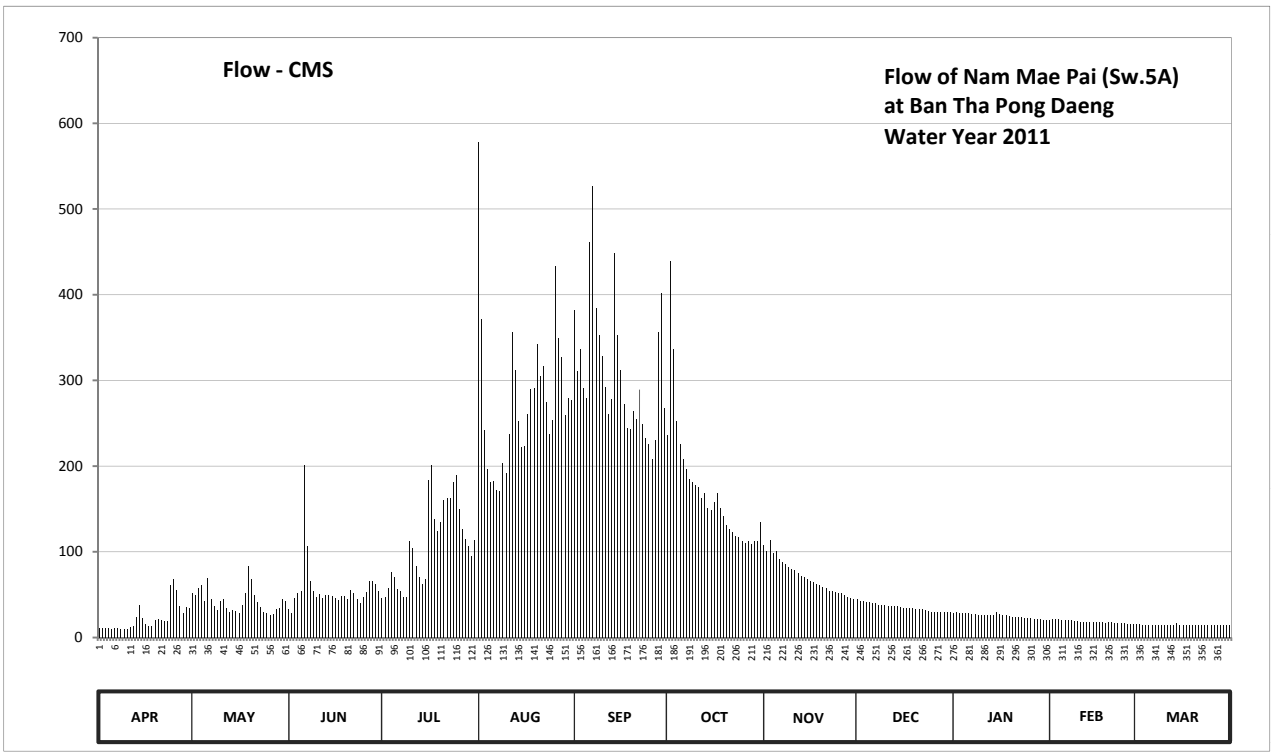
Location : on left bank at Ban Tha Pong Daeng.

	Ban Tha Pong Daeng	**Amphoe** Mueang	**Changwat** Mae Hong Son
Drainge Area	4,470 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+175.757 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the station office.	**Elevation**	+187.423 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings		
Period of Available Gage Records	1980 to date		
Rating Operation			
Period of Rating	1984 to date		
Rated by Flot	-		
Rated by Current Meter	1984 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 203 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	175.44	176.00	175.75	175.92	179.45	178.47	177.57	176.56	175.90	175.69	175.58	175.51	
2	175.43	175.96	175.68	175.93	178.41	178.05	178.78	176.50	175.88	175.70	175.60	175.51	
3	175.43	176.07	175.92	176.07	177.61	178.21	178.21	176.62	175.88	175.69	175.60	175.50	
4	175.43	176.10	176.00	176.26	177.28	177.93	177.68	176.48	175.86	175.69	175.59	175.49	
5	175.42	175.87	176.03	176.20	177.17	177.86	177.50	176.50	175.86	175.68	175.58	175.49	
6	175.44	176.19	177.32	176.05	177.18	178.89	177.37	176.41	175.85	175.68	175.58	175.50	
7	175.44	175.91	176.55	176.02	177.10	179.21	177.28	176.38	175.84	175.67	175.57	175.49	
8	175.42	175.80	176.15	175.93	177.09	178.48	177.20	176.36	175.82	175.67	175.57	175.49	
9	175.41	175.73	176.02	175.93	177.34	178.30	177.17	176.32	175.82	175.66	175.56	175.50	
10	175.41	175.87	175.94	176.60	177.25	178.16	177.14	176.30	175.81	175.66	175.56	175.50	
11	175.45	175.91	175.98	176.53	177.58	177.94	177.12	176.29	175.80	175.66	175.55	175.49	
12	175.48	175.77	175.92	176.33	178.32	177.74	177.02	176.25	175.80	175.65	175.55	175.49	
13	175.62	175.70	175.96	176.20	178.06	177.85	177.07	176.22	175.80	175.65	175.55	175.50	
14	175.81	175.73	175.96	176.12	177.68	178.83	176.93	176.20	175.79	175.65	175.55	175.52	
15	175.61	175.72	175.95	176.18	177.47	178.30	176.91	176.18	175.78	175.71	175.55	175.50	
16	175.51	175.69	175.92	177.19	177.48	178.06	176.98	176.16	175.77	175.67	175.54	175.50	
17	175.47	175.81	175.89	177.32	177.74	177.81	177.07	176.14	175.77	175.65	175.54	175.50	
18	175.47	175.99	175.95	176.83	177.92	177.63	176.93	176.12	175.77	175.65	175.54	175.49	
19	175.58	176.33	175.95	176.71	177.93	177.62	176.85	176.10	175.76	175.64	175.53	175.49	
20	175.60	176.18	175.91	176.80	178.24	177.76	176.77	176.08	175.75	175.62	175.54	175.50	
21	175.57	175.97	176.04	177.00	178.02	177.70	176.73	176.06	175.75	175.62	175.54	175.50	
22	175.56	175.86	176.00	177.02	178.09	177.92	176.70	176.03	175.75	175.62	175.53	175.50	
23	175.56	175.78	175.90	177.02	177.83	177.66	176.66	176.02	175.73	175.62	175.53	175.50	
24	176.10	175.71	175.84	177.17	177.58	177.55	176.64	176.01	175.72	175.61	175.52	175.49	
25	176.18	175.68	175.94	177.23	177.69	177.50	176.61	175.99	175.71	175.61	175.52	175.50	
26	176.04	175.66	176.01	176.92	178.75	177.37	176.58	175.99	175.71	175.61	175.51	175.50	
27	175.80	175.67	176.16	176.73	178.28	177.53	176.60	175.96	175.71	175.60	175.51	175.50	
28	175.68	175.75	176.16	176.63	178.15	178.32	176.57	175.94	175.70	175.60	175.51	175.49	
29	175.78	175.77	176.11	176.55	177.73	178.58	176.61	175.92	175.70	175.59	175.51	175.50	
30	175.76	175.90	176.02	176.45	177.86	177.78	176.61	175.91	175.70	175.58		175.49	
31		175.87		176.62	177.84		176.80		175.70	175.58		175.49	
Mean	175.60	175.87	176.03	176.53	177.81	178.03	177.05	176.20	175.78	175.64	175.55	175.50	
Max	176.18	176.33	177.32	177.32	179.45	179.21	178.78	176.62	175.90	175.71	175.60	175.52	179.45
Min	175.41	175.66	175.68	175.92	177.09	177.37	176.57	175.91	175.70	175.58	175.51	175.49	175.41

Annual Max Momentary Gage Height	180.86	m. (MSL.) ,	at 19.00 Hours , on Aug 1 , 2011		
Zero Gage at Bottom Elevation	175.76	m. (MSL.) ,	River Bed	174.53	m. (MSL)
Left Bank Elevation	183.87	m. (MSL.) ,			
Right Bank Elevation	181.48	m. (MSL.) ,	Drainage Area	4470	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	11.52	52.00	33.25	46.00	577.75	382.25	235.80	107.60	44.50	28.75	20.60	15.70		
2	10.94	49.00	28.00	46.75	371.75	310.25	439.20	101.00	43.00	29.50	22.00	15.70		
3	10.94	58.30	46.00	58.30	241.50	336.75	336.75	114.30	43.00	28.75	22.00	15.00		
4	10.94	61.00	52.00	76.00	195.80	290.80	252.00	98.80	41.50	28.75	21.30	14.42		
5	10.36	42.25	54.70	70.00	181.25	279.60	226.00	101.00	41.50	28.00	20.60	14.42		
6	11.52	69.10	201.20	56.50	182.50	461.00	207.95	91.10	40.75	28.00	20.60	15.00		
7	11.52	45.25	106.50	53.80	172.50	527.10	195.80	88.00	40.00	27.25	19.90	14.42		
8	10.36	37.00	65.50	46.75	171.25	384.00	185.00	86.00	38.50	27.25	19.90	14.42		
9	9.78	31.75	53.80	46.75	203.90	352.50	181.25	82.00	38.50	26.50	19.20	15.00		
10	9.78	42.25	47.50	112.00	191.75	328.40	177.50	80.00	37.75	26.50	19.20	15.00		
11	12.10	45.25	50.50	104.30	237.20	292.40	175.00	79.00	37.00	26.50	18.50	14.42		
12	13.84	34.75	46.00	83.00	356.00	261.00	162.50	75.00	37.00	25.75	18.50	14.42		
13	23.50	29.50	49.00	70.00	311.90	278.00	168.75	72.00	37.00	25.75	18.50	15.00		
14	37.75	31.75	49.00	62.80	252.00	449.00	151.25	70.00	36.25	25.75	18.50	16.40		
15	22.75	31.00	48.25	68.20	221.80	352.50	148.75	68.20	35.50	30.25	18.50	15.00		
16	15.70	28.75	46.00	183.75	223.20	311.90	157.50	66.40	34.75	27.25	17.80	15.00		
17	13.26	37.75	43.75	201.20	261.00	271.60	168.75	64.60	34.75	25.75	17.80	15.00		
18	13.26	51.25	48.25	138.75	289.20	244.50	151.25	62.80	34.75	25.75	17.80	14.42		
19	20.60	83.00	48.25	124.65	290.80	243.00	141.25	61.00	34.00	25.00	17.10	14.42		
20	22.00	68.20	45.25	135.00	342.00	264.00	131.55	59.20	33.25	23.50	17.80	15.00		
21	19.90	49.75	55.60	160.00	305.30	255.00	126.95	57.40	33.25	23.50	17.80	15.00		
22	19.20	41.50	52.00	162.50	316.85	289.20	123.50	54.70	33.25	23.50	17.10	15.00		
23	19.20	35.50	44.50	162.50	274.80	249.00	118.90	53.80	31.75	23.50	17.10	15.00		
24	61.00	30.25	40.00	181.25	237.20	233.00	116.60	52.90	31.00	22.75	16.40	14.42		
25	68.20	28.00	47.50	189.05	253.50	226.00	113.15	51.25	30.25	22.75	16.40	15.00		
26	55.60	26.50	52.90	150.00	433.50	207.95	109.80	51.25	30.25	22.75	15.70	15.00		
27	37.00	27.25	66.40	126.95	349.00	230.20	112.00	49.00	30.25	22.00	15.70	15.00		
28	28.00	33.25	66.40	115.45	326.75	356.00	108.70	47.50	29.50	22.00	15.70	14.42		
29	35.50	34.75	61.90	106.50	259.50	401.50	113.15	46.00	29.50	21.30	15.70	15.00		
30	34.00	44.50	53.80	95.50	279.60	267.00	113.15	45.25	29.50	20.60		14.42		
31		42.25		114.30	276.40		135.00		29.50	20.60		14.42		
Total	680.02	1322.60	1703.70	3348.50	8587.45	9335.40	5284.70	2137.05	1101.25	785.75	533.70	460.84	35280.96	CMSDAY
Mean	22.67	42.66	56.79	108.02	277.01	311.18	170.47	71.24	35.52	25.35	18.40	14.87	96.40	CMS
Max	68.20	83.00	201.20	201.20	577.75	527.10	439.20	114.30	44.50	30.25	22.00	16.40	577.75	CMS
Min	9.78	26.50	28.00	46.00	171.25	207.95	108.70	45.25	29.50	20.60	15.70	14.42	9.78	CMS
Runoff	58.75	114.27	147.20	289.31	741.96	806.58	456.60	184.64	95.15	67.89	46.11	39.82	3048.28	MCM

Momentary Peak 891.40 CMS. at 180.86 m. (MSL.) at 19.00 Hours , on Aug 1 , 2011

Runoff Yield 21.57 Liters/Second/Square KM. Momentary Peak Yield 199.418 Liters/Second/Square KM.

WATER YEAR : 2011

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.

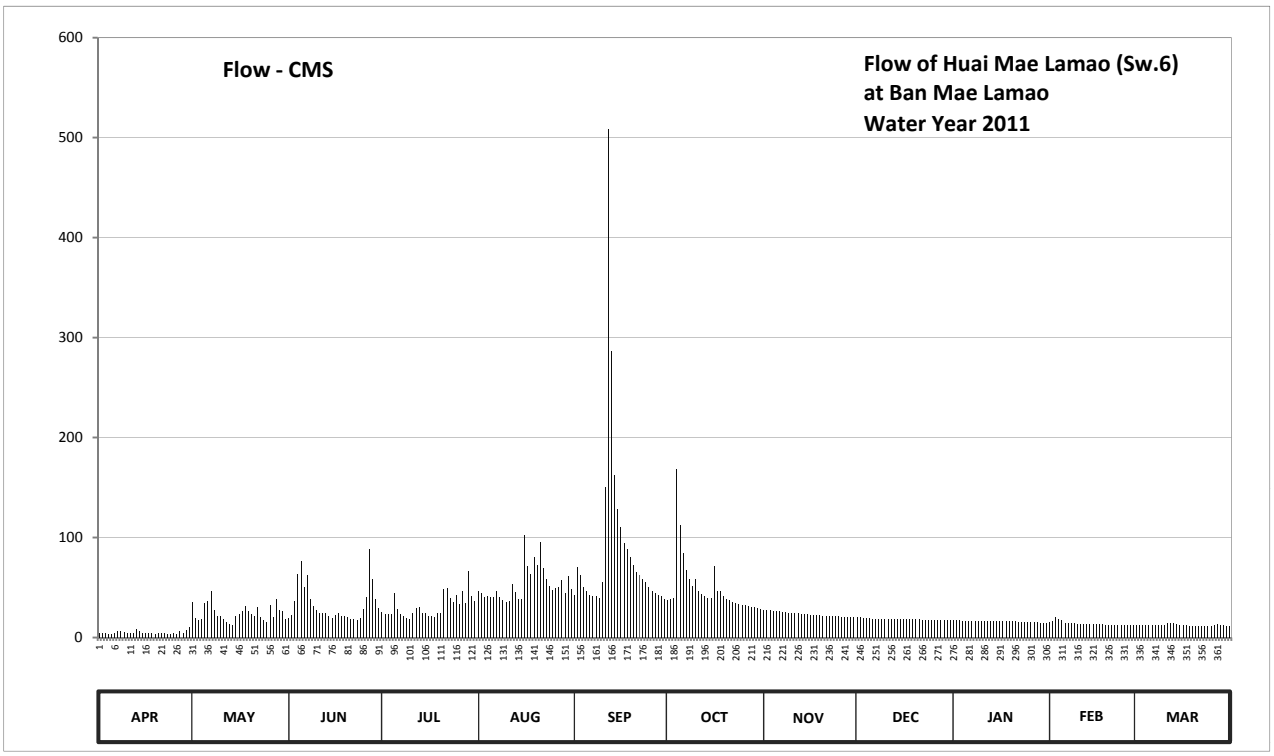
Ban Mae Lamao **Amphoe** Mae Sot **Changwat** Tak

Drainge Area	1,009 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+268.470 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	About 6.25 meters from the automatic gage buiding. **Elevation** +278.846 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings
Period of Available Gage Records	1971 to date
Rating Operation	
Period of Rating	1971 to date
Rated by Flot	-
Rated by Current Meter	1971 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	Overbank flow starts at elevation +275.360 m. (MSL.), records are channel flow only.
General Description	Records good. Stage-discharge relation defined by 11 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	268.79	269.83	269.36	269.54	270.12	270.02	269.88	269.62	269.38	269.28	269.22	269.10	
2	268.77	269.34	269.45	269.49	270.06	270.68	269.91	269.61	269.37	269.27	269.23	269.10	
3	268.76	269.28	269.85	269.47	269.96	270.49	269.94	269.60	269.36	269.27	269.40	269.10	
4	268.75	269.33	270.53	269.47	269.98	270.20	272.32	269.59	269.35	269.26	269.32	269.10	
5	268.74	269.82	270.80	270.06	269.97	270.10	271.58	269.58	269.34	269.26	269.27	269.10	
6	268.79	269.85	270.22	269.63	269.95	270.02	271.00	269.57	269.33	269.26	269.19	269.10	
7	268.85	270.10	270.49	269.47	270.10	269.98	270.62	269.56	269.32	269.25	269.18	269.09	
8	268.84	269.60	269.92	269.41	269.97	269.98	270.40	269.54	269.31	269.25	269.17	269.09	
9	268.83	269.41	269.72	269.36	269.88	269.93	270.24	269.53	269.31	269.24	269.16	269.09	
10	268.78	269.41	269.60	269.33	269.83	270.33	270.40	269.52	269.31	269.24	269.15	269.09	
11	268.76	269.31	269.53	269.52	269.85	272.12	270.12	269.51	269.31	269.24	269.15	269.18	
12	268.76	269.21	269.50	269.68	270.29	274.83	270.04	269.50	269.31	269.24	269.15	269.16	
13	268.95	269.15	269.53	269.71	270.09	273.28	269.99	269.49	269.31	269.24	269.14	269.16	
14	268.84	269.11	269.43	269.50	269.91	272.26	269.94	269.48	269.31	269.24	269.14	269.14	
15	268.78	269.43	269.36	269.50	269.91	271.82	269.93	269.47	269.30	269.24	269.14	269.11	
16	268.80	269.47	269.44	269.43	271.38	271.54	270.69	269.45	269.30	269.24	269.14	269.11	
17	268.80	269.59	269.51	269.42	270.71	271.22	270.11	269.45	269.30	269.23	269.13	269.08	
18	268.77	269.73	269.42	269.38	270.52	271.07	270.11	269.45	269.30	269.23	269.13	269.07	
19	268.75	269.58	269.43	269.51	270.90	270.91	269.99	269.44	269.30	269.23	269.12	269.06	
20	268.78	269.49	269.38	269.52	270.73	270.72	269.92	269.43	269.30	269.23	269.12	269.05	
21	268.80	269.43	269.33	270.16	271.24	270.56	269.88	269.43	269.30	269.23	269.12	269.05	
22	268.76	269.71	269.33	270.18	270.66	270.50	269.84	269.42	269.29	269.22	269.12	269.04	
23	268.74	269.40	269.29	269.94	270.40	270.40	269.81	269.42	269.29	269.22	269.12	269.04	
24	268.74	269.28	269.34	269.83	270.24	270.33	269.78	269.41	269.29	269.21	269.12	269.04	
25	268.77	269.22	269.65	270.00	270.13	270.20	269.76	269.41	269.29	269.21	269.11	269.05	
26	268.75	269.77	269.97	269.78	270.18	270.11	269.74	269.40	269.29	269.21	269.11	269.08	
27	268.85	269.40	271.08	270.10	270.20	270.06	269.72	269.40	269.29	269.20	269.11	269.13	
28	268.80	269.92	270.42	269.81	270.38	270.02	269.69	269.40	269.29	269.20	269.11	269.12	
29	268.89	269.60	269.92	270.58	270.05	269.98	269.70	269.39	269.29	269.19	269.11	269.09	
30	269.00	269.58	269.67	269.99	270.48	269.92	269.67	269.39	269.28	269.19		269.07	
31		269.33		269.87	270.15		269.64		269.28	269.19		269.04	
Mean	268.80	269.51	269.75	269.70	270.27	270.79	270.14	269.48	269.31	269.23	269.16	269.09	
Max	269.00	270.10	271.08	270.58	271.38	274.83	272.32	269.62	269.38	269.28	269.40	269.18	274.83
Min	268.74	269.11	269.29	269.33	269.83	269.92	269.64	269.39	269.28	269.19	269.11	269.04	268.74

Annual Max Momentary Gage Height	275.47	m. (MSL.) ,	at 18.00 Hours , on Sep 12 , 2011		
Zero Gage at Bottom Elevation	268.47	m. (MSL.) ,	River Bed	267.76	m. (MSL)
Left Bank Elevation	277.33	m. (MSL.) ,			
Right Bank Elevation	275.35	m. (MSL.) ,	Drainage Area	1009	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	4.80	35.20	19.80	25.20	46.80	42.80	37.20	27.70	20.40	17.40	15.60	12.50		
2	4.20	19.20	22.50	23.70	44.40	70.60	38.40	27.30	20.10	17.10	15.90	12.50		
3	4.00	17.40	36.00	23.10	40.40	62.00	39.60	27.00	19.80	17.10	21.00	12.50		
4	3.70	18.90	63.90	23.10	41.20	50.00	168.40	26.70	19.50	16.80	18.60	12.50		
5	3.50	34.80	76.00	44.40	40.80	46.00	112.90	26.40	19.20	16.80	17.10	12.50		
6	4.80	36.00	50.80	28.10	40.00	42.80	85.00	26.10	18.90	16.80	14.70	12.50		
7	6.20	46.00	62.00	23.10	46.00	41.20	67.90	25.80	18.60	16.50	14.50	12.20		
8	6.00	27.00	38.80	21.30	40.80	41.20	58.00	25.20	18.30	16.50	14.30	12.20		
9	5.70	21.30	31.20	19.80	37.20	39.20	51.60	24.90	18.30	16.20	14.00	12.20		
10	4.50	21.30	27.00	18.90	35.20	55.20	58.00	24.60	18.30	16.20	13.70	12.20		
11	4.00	18.30	24.90	24.60	36.00	150.60	46.80	24.30	18.30	16.20	13.70	14.50		
12	4.00	15.30	24.00	29.80	53.60	508.50	43.60	24.00	18.30	16.20	13.70	14.00		
13	8.80	13.70	24.90	30.80	45.60	286.40	41.60	23.70	18.30	16.20	13.50	14.00		
14	6.00	12.70	21.90	24.00	38.40	162.70	39.60	23.40	18.30	16.20	13.50	13.50		
15	4.50	21.90	19.80	24.00	38.40	128.40	39.20	23.10	18.00	16.20	13.50	12.70		
16	5.00	23.10	22.20	21.90	102.10	110.70	71.10	22.50	18.00	16.20	13.50	12.70		
17	5.00	26.70	24.30	21.60	71.90	94.90	46.40	22.50	18.00	15.90	13.20	12.00		
18	4.20	31.60	21.60	20.40	63.40	88.20	46.40	22.50	18.00	15.90	13.20	11.70		
19	3.70	26.40	21.90	24.30	80.50	81.00	41.60	22.20	18.00	15.90	13.00	11.50		
20	4.50	23.70	20.40	24.60	72.90	72.40	38.80	21.90	18.00	15.90	13.00	11.20		
21	5.00	21.90	18.90	48.40	95.80	65.20	37.20	21.90	18.00	15.90	13.00	11.20		
22	4.00	30.80	18.90	49.20	69.70	62.50	35.60	21.60	17.70	15.60	13.00	11.00		
23	3.50	21.00	17.70	39.60	58.00	58.00	34.40	21.60	17.70	15.60	13.00	11.00		
24	3.50	17.40	19.20	35.20	51.60	55.20	33.30	21.30	17.70	15.30	13.00	11.00		
25	4.20	15.60	28.70	42.00	47.20	50.00	32.60	21.30	17.70	15.30	12.70	11.20		
26	3.70	32.90	40.80	33.30	49.20	46.40	31.90	21.00	17.70	15.30	12.70	12.00		
27	6.20	21.00	88.60	46.00	50.00	44.40	31.20	21.00	17.70	15.00	12.70	13.20		
28	5.00	38.80	58.90	34.40	57.20	42.80	30.20	21.00	17.70	15.00	12.70	13.00		
29	7.30	27.00	38.80	66.10	44.00	41.20	30.50	20.70	17.70	14.70	12.70	12.20		
30	10.00	26.40	29.50	41.60	61.60	38.80	29.50	20.70	17.40	14.70		11.70		
31		18.90		36.80	48.00		28.40		17.40	14.70		11.00		
Total	149.50	762.20	1013.90	969.30	1647.90	2679.30	1526.90	703.90	567.00	495.30	408.70	380.10	11304.00	CMSDAY
Mean	5.00	24.60	33.80	31.30	53.20	89.30	49.30	23.50	18.30	16.00	14.10	12.30	30.90	CMS
Max	10.00	46.00	88.60	66.10	102.10	508.50	168.40	27.70	20.40	17.40	21.00	14.50	508.50	CMS
Min	3.50	12.70	17.70	18.90	35.20	38.80	28.40	20.70	17.40	14.70	12.70	11.00	3.50	CMS
Runoff	12.92	65.85	87.60	83.75	142.38	231.49	131.92	60.82	48.99	42.79	35.31	32.84	976.67	MCM

Momentary Peak 604.50 CMS. at 275.47 m. (MSL.) at 18.00 Hours , on Sep 12 , 2011

Runoff Yield 30.61 Liters/Second/Square KM. Momentary Peak Yield 599.108 Liters/Second/Square KM.

WATER YEAR : 2011

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.

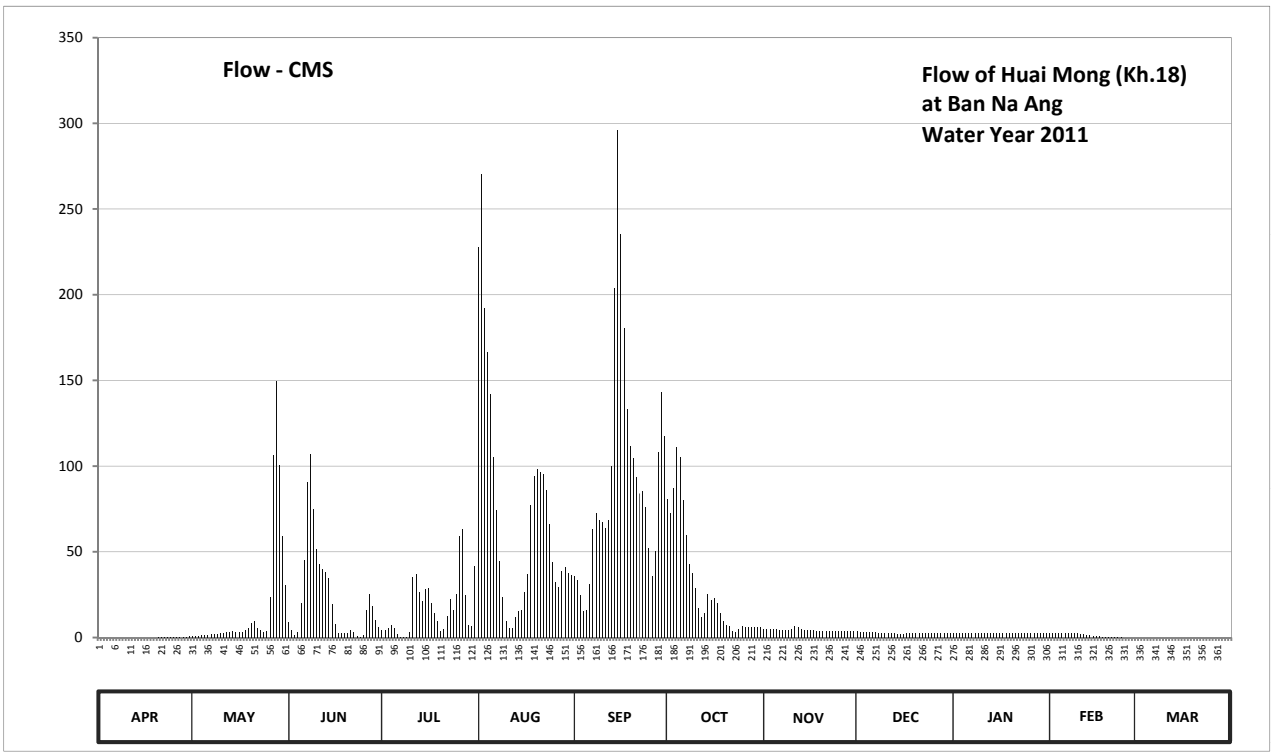
Ban Na Ang **Amphoe** Ban Phu **Changwat** Udon Thani

Drainge Area	1,309 sq.km.
Type of Gage	Water - stage recorder.
Zero Gage at Bottom	+183.430 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank at the automatic gage building. **Elevation** +191.432 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings
Period of Available Gage Records	1957 to date
Rating Operation	
Period of Rating	1957 - 1959 , 1965 - 1966 , 1974 - 1980 , 1997 to date
Rated by Flot	-
Rated by Current Meter	1957 - 1959 , 1965 - 1966 , 1974 - 1980 , 1997 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	Overbank flow starts at elevation +190.110 m.(MSL.) , records are channel flow only.
General Description	Records good. Stage-discharge relation defined by 19 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	184.61	185.85	187.10	186.54	191.79	188.87	190.37	186.66	186.45	186.33	186.32	184.88	
2	184.61	185.91	186.54	186.55	191.93	188.74	190.17	186.66	186.44	186.33	186.32	184.82	
3	184.63	185.98	186.04	186.71	191.63	188.22	190.52	186.66	186.41	186.31	186.31	184.78	
4	184.61	186.04	186.38	186.89	191.49	187.62	190.95	186.64	186.40	186.30	186.31	184.74	
5	184.60	186.09	187.94	186.73	191.31	187.65	190.84	186.62	186.39	186.28	186.32	184.70	
6	184.61	186.12	189.29	186.15	190.84	188.61	190.35	186.59	186.38	186.28	186.32	184.70	
7	184.63	186.14	190.58	185.68	190.21	189.91	189.80	186.58	186.37	186.28	186.31	184.70	
8	184.66	186.17	190.87	185.41	189.27	190.17	189.21	186.56	186.34	186.27	186.29	184.61	
9	184.68	186.21	190.22	185.25	188.18	190.07	188.97	186.57	186.31	186.27	186.27	184.51	
10	184.71	186.25	189.56	186.43	187.16	190.03	188.49	186.66	186.29	186.28	186.24	184.38	
11	184.75	186.30	189.20	188.85	186.70	189.93	187.72	186.84	186.28	186.29	186.20	184.18	
12	184.80	186.36	189.08	188.93	186.70	190.06	187.31	186.78	186.26	186.28	186.16	184.00	
13	184.86	186.43	189.02	188.34	187.33	190.75	187.54	186.63	186.23	186.29	186.11	183.85	
14	184.91	186.49	188.82	188.01	187.60	191.69	188.28	186.57	186.21	186.30	186.06	183.81	
15	184.97	186.38	187.90	188.46	187.64	191.99	188.04	186.57	186.20	186.29	185.93	183.88	
16	185.02	186.37	186.98	188.49	188.35	191.82	188.11	186.54	186.22	186.28	185.92	183.95	
17	185.07	186.44	186.30	187.92	188.94	191.57	187.93	186.53	186.25	186.28	185.91	184.00	
18	185.12	186.55	186.30	187.53	190.28	191.22	187.52	186.51	186.28	186.28	185.76	184.06	
19	185.18	186.72	186.31	187.12	190.64	190.96	187.11	186.49	186.29	186.28	185.68	184.13	
20	185.25	187.04	186.32	186.52	190.72	190.83	186.91	186.48	186.30	186.28	185.61	184.23	
21	185.31	187.14	186.53	186.62	190.69	190.63	186.84	186.48	186.30	186.29	185.51	184.48	
22	185.35	186.72	186.36	187.36	190.67	190.45	186.52	186.48	186.30	186.31	185.41	184.87	
23	185.39	186.56	186.00	188.08	190.50	190.48	186.40	186.48	186.30	186.30	185.30	184.92	
24	185.46	186.39	185.71	187.64	190.01	190.26	186.63	186.47	186.30	186.29	185.24	184.89	
25	185.52	186.49	186.11	188.28	189.25	189.57	186.82	186.48	186.30	186.28	185.20	184.83	
26	185.57	188.16	187.66	189.79	188.67	188.88	186.75	186.47	186.30	186.28	185.15	184.76	
27	185.62	190.86	188.28	189.92	188.53	189.52	186.75	186.47	186.30	186.30	185.07	184.73	
28	185.67	191.37	187.81	188.23	189.04	190.90	186.75	186.46	186.29	186.31	184.99	184.71	
29	185.73	190.76	187.19	186.89	189.12	191.32	186.77	186.46	186.30	186.32	184.94	184.72	
30	185.79	189.79	186.77	186.82	188.97	191.04	186.76	186.46	186.31	186.33		184.72	
31		188.58		189.16	188.92		186.74		186.32	186.32		184.78	
Mean	185.06	187.05	187.64	187.46	189.45	190.13	188.06	186.56	186.31	186.29	185.83	184.49	
Max	185.79	191.37	190.87	189.92	191.93	191.99	190.95	186.84	186.45	186.33	186.32	184.92	191.99
Min	184.60	185.85	185.71	185.25	186.70	187.62	186.40	186.46	186.20	186.27	184.94	183.81	183.81

Annual Max Momentary Gage Height	192.03	m. (MSL.) ,	at 18.00 Hours , on Aug 1 , 2011		
Zero Gage at Bottom Elevation	183.43	m. (MSL.) ,	River Bed	182.74	m. (MSL)
Left Bank Elevation	191.47	m. (MSL.) ,			
Right Bank Elevation	190.11	m. (MSL.) ,	Drainage Area	1309	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.70	9.20	4.14	227.60	35.66	80.80	5.14	3.52	2.85	2.79	0.00		
2	0.00	0.82	4.14	4.22	270.60	33.32	72.80	5.14	3.46	2.85	2.79	0.00		
3	0.00	0.96	1.22	5.56	192.00	24.52	87.12	5.14	3.30	2.74	2.74	0.00		
4	0.00	1.22	3.13	7.08	166.50	15.68	111.20	4.98	3.24	2.68	2.74	0.00		
5	0.00	1.50	20.16	5.73	142.20	16.10	105.04	4.81	3.18	2.57	2.79	0.00		
6	0.00	1.67	44.96	1.84	105.04	30.98	80.00	4.56	3.13	2.57	2.79	0.00		
7	0.00	1.78	90.48	0.48	74.40	63.12	59.60	4.47	3.07	2.57	2.74	0.00		
8	0.00	1.95	106.72	0.21	44.48	72.80	43.04	4.30	2.90	2.51	2.62	0.00		
9	0.00	2.18	74.80	0.05	23.88	68.80	37.46	4.39	2.74	2.51	2.51	0.00		
10	0.00	2.40	51.92	3.41	9.92	67.20	28.84	5.14	2.62	2.57	2.34	0.00		
11	0.00	2.68	42.80	35.30	5.48	63.76	17.08	6.66	2.57	2.62	2.12	0.00		
12	0.00	3.02	39.92	36.74	5.48	68.40	11.72	6.15	2.46	2.57	1.90	0.00		
13	0.00	3.41	38.48	26.44	11.96	100.00	14.56	4.89	2.29	2.62	1.62	0.00		
14	0.00	3.74	34.76	21.16	15.40	204.00	25.48	4.39	2.18	2.68	1.34	0.00		
15	0.00	3.13	19.60	28.36	15.96	295.80	21.64	4.39	2.12	2.62	0.86	0.00		
16	0.00	3.07	7.83	28.84	26.60	235.60	22.76	4.14	2.23	2.57	0.84	0.00		
17	0.00	3.46	2.68	19.88	36.92	180.60	20.02	4.05	2.40	2.57	0.82	0.00		
18	0.00	4.22	2.68	14.42	77.20	133.00	14.28	3.88	2.57	2.57	0.56	0.00		
19	0.00	5.65	2.74	9.44	93.84	111.76	9.32	3.74	2.62	2.57	0.48	0.00		
20	0.05	8.48	2.79	3.97	98.32	104.48	7.24	3.69	2.68	2.57	0.41	0.00		
21	0.11	9.68	4.05	4.81	96.64	93.28	6.66	3.69	2.68	2.62	0.31	0.00		
22	0.15	5.65	3.02	12.32	95.52	84.00	3.97	3.69	2.68	2.74	0.21	0.00		
23	0.19	4.30	1.00	22.28	86.00	85.20	3.24	3.69	2.68	2.68	0.10	0.00		
24	0.26	3.18	0.51	15.96	66.40	76.40	4.89	3.63	2.68	2.62	0.04	0.00		
25	0.32	3.74	1.62	25.48	44.00	52.24	6.49	3.69	2.68	2.57	0.00	0.00		
26	0.37	23.56	16.24	59.28	32.06	35.84	5.90	3.63	2.68	2.57	0.00	0.00		
27	0.42	106.16	25.48	63.44	29.54	50.64	5.90	3.63	2.68	2.68	0.00	0.00		
28	0.47	149.40	18.34	24.68	38.96	108.40	5.90	3.58	2.62	2.74	0.00	0.00		
29	0.53	100.56	10.28	7.08	40.88	143.40	6.07	3.58	2.68	2.79	0.00	0.00		
30	0.59	59.28	6.07	6.49	37.46	117.20	5.98	3.58	2.74	2.85		0.00		
31		30.44		41.84	36.56		5.82		2.79	2.79		0.00		
Total	3.46	551.99	687.62	540.93	2247.80	2772.18	930.82	130.44	84.87	82.03	38.46	0.00	8070.60	CMSDAY
Mean	0.12	17.81	22.92	17.45	72.51	92.41	30.03	4.35	2.74	2.65	1.33	0.00	22.05	CMS
Max	0.59	149.40	106.72	63.44	270.60	295.80	111.20	6.66	3.52	2.85	2.79	0.00	295.80	CMS
Min	0.00	0.70	0.51	0.05	5.48	15.68	3.24	3.58	2.12	2.51	0.00	0.00	0.00	CMS
Runoff	0.30	47.69	59.41	46.74	194.21	239.52	80.42	11.27	7.33	7.09	3.32	0.00	697.30	MCM

Momentary Peak 312.90 CMS. at 192.03 m. (MSL.) at 18.00 Hours , on Aug 1 , 2011

Runoff Yield 16.85 Liters/Second/Square KM. Momentary Peak Yield 239.037 Liters/Second/Square KM.

WATER YEAR : 2011

KHONG RIVER BASIN

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

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

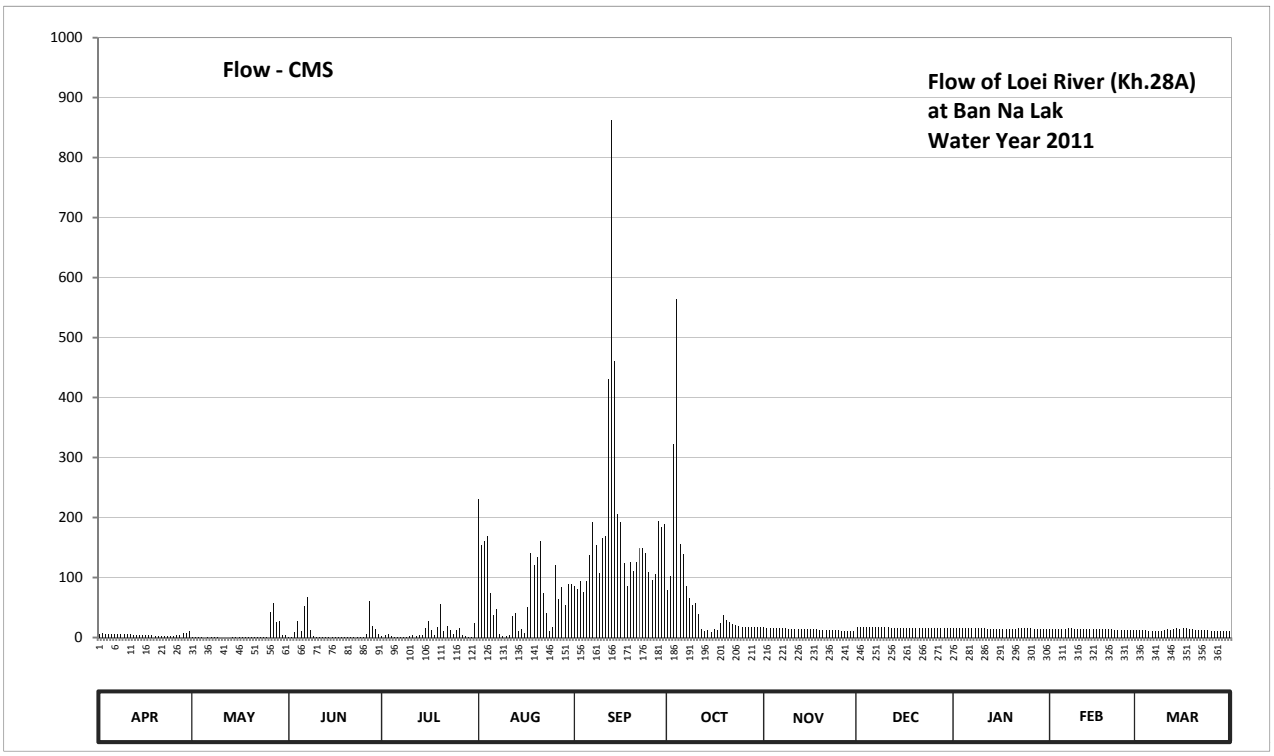
Location : on right bank at the bridge of Wang Saphung - Loei Highway.

	Ban Na Lak	**Amphoe** Wang Saphung	**Changwat** Loei		
Drainge Area	1,271 sq.km.				
Type of Gage	Water - stage recorder.				
Zero Gage at Bottom	+239.620 m. (MSL.)				
Bench Mark	B.M.- Highways Dept.				
Location BM	On right bank upstream at the footpath of the bridge.		**Elevation** +252.730 m. (MSL.)		
Gage Reading Frequency	Recording				
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings				
Period of Available Gage Records	1994 to date				
Rating Operation					
Period of Rating	1994 to date				
Rated by Flot	-				
Rated by Current Meter	1994 to date				
Stability of Channel Regimes	Rather unstable because of backwater effect.				
Overbank Flow Conditions	Overbank flow starts at elevation +245.500 m.(MSL.), records are channel flow only.				
General Description	Records fair. Stage-discharge relation defined by 21 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	239.82	239.96	240.31	240.44	244.57	242.16	242.02	240.28	240.28	240.24	240.16	240.09	
2	239.83	240.02	240.29	240.52	243.54	242.06	242.54	240.27	240.28	240.24	240.16	240.09	
3	239.80	239.97	240.80	240.66	243.62	242.36	245.46	240.26	240.28	240.24	240.17	240.08	
4	239.80	239.79	241.10	240.43	243.75	241.93	247.11	240.25	240.28	240.23	240.18	240.07	
5	239.78	239.73	240.85	240.33	241.91	242.38	243.56	240.24	240.28	240.23	240.19	240.06	
6	239.78	239.82	241.33	240.25	241.15	243.24	243.28	240.23	240.28	240.22	240.20	240.05	
7	239.78	239.92	241.74	240.14	241.21	244.09	242.19	240.22	240.28	240.22	240.21	240.04	
8	239.81	239.85	240.87	240.09	240.64	243.53	241.69	240.21	240.28	240.22	240.21	240.04	
9	239.79	239.85	240.48	240.18	240.51	242.65	241.38	240.20	240.28	240.21	240.20	240.05	
10	239.79	239.74	240.32	240.50	240.45	243.71	241.47	240.19	240.28	240.21	240.20	240.09	
11	239.77	239.69	240.25	240.58	240.52	243.75	241.16	240.18	240.28	240.21	240.18	240.14	
12	239.74	239.65	240.11	240.46	241.14	246.28	240.93	240.17	240.27	240.20	240.18	240.13	
13	239.73	239.72	240.04	240.53	241.17	248.61	240.84	240.16	240.27	240.20	240.18	240.17	
14	239.72	239.93	240.02	240.62	240.86	246.49	240.88	240.16	240.27	240.19	240.17	240.22	
15	239.72	239.87	240.00	240.94	240.92	244.26	240.78	240.15	240.27	240.18	240.17	240.20	
16	239.71	239.83	240.10	241.10	240.74	244.10	240.91	240.15	240.27	240.17	240.17	240.22	
17	239.70	239.82	240.32	240.88	241.30	242.99	240.90	240.14	240.27	240.16	240.16	240.24	
18	239.69	239.81	240.20	240.59	243.31	242.16	241.07	240.14	240.27	240.16	240.16	240.19	
19	239.65	239.92	240.17	240.98	242.94	243.03	240.92	240.12	240.27	240.16	240.15	240.15	
20	239.64	240.18	240.13	241.46	243.19	242.74	240.70	240.11	240.27	240.15	240.15	240.13	
21	239.64	240.27	240.13	240.84	243.63	243.03	240.59	240.10	240.27	240.18	240.14	240.11	
22	239.64	240.06	240.15	241.00	241.91	243.45	240.50	240.09	240.26	240.22	240.13	240.09	
23	239.64	239.91	240.02	240.90	241.17	243.45	240.44	240.08	240.26	240.22	240.13	240.09	
24	239.63	239.90	239.98	240.70	240.84	243.30	240.37	240.07	240.26	240.22	240.12	240.08	
25	239.64	240.28	240.05	240.89	240.98	242.70	240.34	240.07	240.26	240.23	240.12	240.06	
26	239.73	241.18	240.71	240.94	242.94	242.42	240.31	240.06	240.26	240.21	240.11	240.05	
27	239.73	241.48	241.56	240.62	241.67	242.63	240.30	240.06	240.26	240.17	240.11	240.05	
28	239.85	241.08	241.00	240.45	242.15	244.11	240.29	240.05	240.26	240.17	240.10	240.04	
29	239.84	241.10	240.92	240.34	241.38	243.99	240.29	240.05	240.25	240.16	240.10	240.03	
30	240.04	240.56	240.70	240.26	242.24	244.05	240.28	240.04	240.25	240.16		240.02	
31		240.57		241.07	242.27		240.28		240.25	240.15		240.02	
Mean	239.75	240.11	240.49	240.64	241.89	243.52	241.41	240.15	240.27	240.20	240.16	240.10	
Max	240.04	241.48	241.74	241.46	244.57	248.61	247.11	240.28	240.28	240.24	240.21	240.24	248.61
Min	239.63	239.65	239.98	240.09	240.45	241.93	240.28	240.04	240.25	240.15	240.10	240.02	239.63

Annual Max Momentary Gage Height	248.86	m. (MSL.) ,	at 11.00 Hours , on Sep 13 , 2011		
Zero Gage at Bottom Elevation	239.62	m. (MSL.) ,	River Bed	237.64	m. (MSL)
Left Bank Elevation	246.11	m. (MSL.) ,			
Right Bank Elevation	245.49	m. (MSL.) ,	Drainage Area	1271	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	6.40	0.16	0.60	2.10	230.72	85.04	78.88	16.72	16.72	15.76	13.84	12.16		
2	6.60	0.22	0.49	3.30	154.64	80.64	101.92	16.48	16.72	15.76	13.84	12.16		
3	6.00	0.17	9.00	5.40	159.92	93.84	321.68	16.24	16.72	15.76	14.08	11.92		
4	6.00	0.07	27.00	1.95	168.50	75.20	563.80	16.00	16.72	15.52	14.32	11.68		
5	5.60	0.05	11.00	0.80	74.40	94.72	155.96	15.76	16.72	15.52	14.56	11.44		
6	5.60	0.08	51.88	0.45	37.10	137.44	139.68	15.52	16.72	15.28	14.80	11.20		
7	5.60	0.12	67.60	0.34	47.56	192.02	86.36	15.28	16.72	15.28	15.04	10.96		
8	6.20	0.09	11.80	0.29	5.10	153.98	65.60	15.04	16.72	15.28	15.04	10.96		
9	5.80	0.09	2.70	0.38	3.15	107.20	53.68	14.80	16.72	15.04	14.80	11.20		
10	5.80	0.05	0.70	3.00	2.25	165.86	56.92	14.56	16.72	15.04	14.80	12.16		
11	5.40	0.04	0.45	4.20	3.30	168.50	39.12	14.32	16.72	15.04	14.32	13.36		
12	4.80	0.03	0.31	2.40	35.08	430.32	14.80	14.08	16.48	14.80	14.32	13.12		
13	4.60	0.05	0.24	3.45	41.14	862.88	10.60	13.84	16.48	14.80	14.32	14.08		
14	4.40	0.13	0.22	4.80	11.40	460.56	12.20	13.84	16.48	14.56	14.08	15.28		
15	4.40	0.09	0.20	15.40	14.20	205.28	8.40	13.60	16.48	14.32	14.08	14.80		
16	4.20	0.08	0.30	27.00	7.20	192.80	13.60	13.60	16.48	14.08	14.08	15.28		
17	4.00	0.08	0.70	12.20	50.80	123.52	13.00	13.36	16.48	13.84	13.84	15.76		
18	3.80	0.07	0.40	4.35	141.36	85.04	24.60	13.36	16.48	13.84	13.84	14.56		
19	3.00	0.12	0.37	17.80	121.12	125.68	37.12	12.88	16.48	13.84	13.60	13.60		
20	2.80	0.38	0.33	56.56	134.64	111.52	29.20	12.64	16.48	13.60	13.60	13.12		
21	2.80	0.47	0.33	10.60	160.58	125.68	25.24	12.40	16.48	14.32	13.36	12.64		
22	2.80	0.26	0.35	19.00	74.40	149.20	22.00	12.16	16.24	15.28	13.12	12.16		
23	2.80	0.11	0.22	13.00	41.14	149.20	20.56	11.92	16.24	15.28	13.12	12.16		
24	2.60	0.10	0.18	6.00	10.60	140.80	18.88	11.68	16.24	15.28	12.88	11.92		
25	2.80	0.48	0.25	12.60	17.80	109.60	18.16	11.68	16.24	15.52	12.88	11.44		
26	4.60	43.16	6.30	15.40	121.12	96.48	17.44	11.44	16.24	15.04	12.64	11.20		
27	4.60	57.28	60.40	4.80	64.80	106.24	17.20	11.44	16.24	14.08	12.64	11.20		
28	7.00	25.40	19.00	2.25	84.60	193.58	16.96	11.20	16.24	14.08	12.40	10.96		
29	6.80	27.00	14.20	0.90	53.68	184.34	16.96	11.20	16.00	13.84	12.40	10.72		
30	10.96	3.90	6.00	0.46	88.56	188.90	16.72	10.96	16.00	13.84		10.48		
31		4.05		24.60	89.88		16.72		16.00	13.60		10.48		
Total	148.76	164.38	293.52	275.78	2250.74	5396.06	2033.96	408.00	510.40	457.12	400.64	384.16	12723.52	CMSDAY
Mean	4.96	5.30	9.78	8.90	72.60	179.87	65.61	13.60	16.46	14.75	13.82	12.39	34.76	CMS
Max	10.96	57.28	67.60	56.56	230.72	862.88	563.80	16.72	16.72	15.76	15.04	15.76	862.88	CMS
Min	2.60	0.03	0.18	0.29	2.25	75.20	8.40	10.96	16.00	13.60	12.40	10.48	0.03	CMS
Runoff	12.85	14.20	25.36	23.83	194.46	466.22	175.73	35.25	44.10	39.50	34.62	33.19	1099.31	MCM

Momentary Peak 914.88 CMS. at 248.86 m. (MSL.) at 11.00 Hours , on Sep 13 , 2011

Runoff Yield 27.35 Liters/Second/Square KM. Momentary Peak Yield 719.811 Liters/Second/Square KM.

WATER YEAR : 2011

KHONG RIVER BASIN

Huai Luang at Ban Nong Wua So , Udon Thani (Kh.53)

Lat 17 - 15 - 51 N Long 102 - 35 - 47 E

Location : on right bank at the bridge of Udon Thani - Nong Bua Lamphu Highway at guidepost 26.5

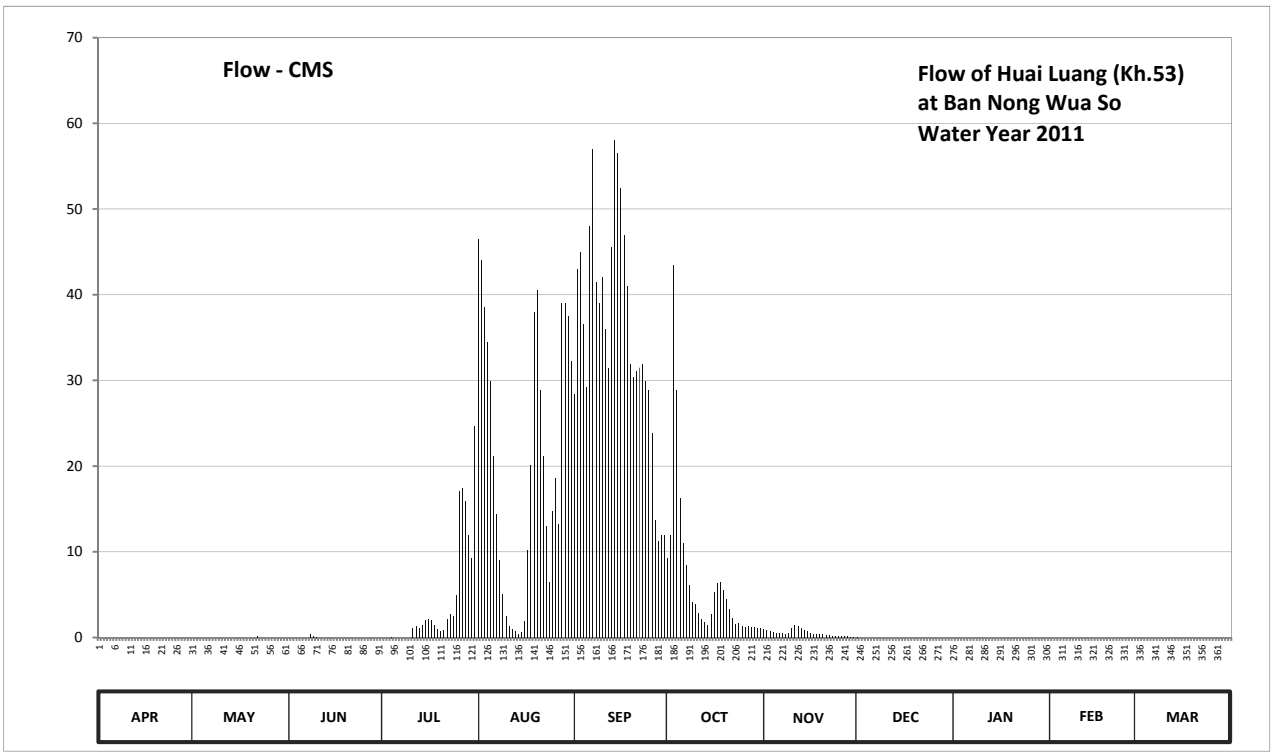
Ban Nong Wua So **Amphoe** Nong Wua So **Changwat** Udon Thani

Drainge Area	421 sq.km.
Type of Gage	Water - stage recorder.
Zero Gage at Bottom	+201.314 m. (MSL.)
Bench Mark	B.M.- H.D.
Location BM	On right bank downstream side at the footpath of the bridge. **Elevation** +206.018 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings
Period of Available Gage Records	1970 to date
Rating Operation	
Period of Rating	1975 - 1986 , 1997 to date
Rated by Flot	-
Rated by Current Meter	1975 - 1986 , 1997 to date
Stability of Channel Regimes	Stable
Overbank Flow Conditions	Overbank flow starts at elevation +206.010 m.(MSL.), records are channel flow only.
General Description	Records good. Flow regulated by Huai Luang barrage.
	Stage-discharge relation defined by 18 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	203.60	203.55	204.08	204.08	205.77	205.38	204.81	204.30	204.11	204.05	203.87	203.68	
2	203.60	203.58	204.08	204.09	205.72	205.70	204.92	204.28	204.10	204.05	203.87	203.68	
3	203.60	203.58	204.07	204.10	205.61	205.74	205.71	204.26	204.10	204.05	203.87	203.68	
4	203.60	203.58	204.07	204.11	205.53	205.57	205.39	204.23	204.10	204.05	203.87	203.67	
5	203.60	203.58	204.07	204.09	205.42	205.40	205.06	204.21	204.10	204.06	203.87	203.67	
6	203.60	203.58	204.07	204.09	205.19	205.80	204.88	204.20	204.10	204.06	203.86	203.66	
7	203.60	203.58	204.09	204.07	205.01	205.98	204.78	204.20	204.10	204.05	203.86	203.64	
8	203.60	203.58	204.17	204.06	204.80	205.67	204.68	204.19	204.10	204.05	203.85	203.61	
9	203.60	203.58	204.14	204.06	204.63	205.62	204.58	204.20	204.09	204.03	203.83	203.61	
10	203.60	203.58	204.12	204.08	204.50	205.68	204.57	204.32	204.09	204.03	203.83	203.61	
11	203.59	203.57	204.10	204.33	204.37	205.56	204.52	204.39	204.09	204.02	203.83	203.62	
12	203.59	203.57	204.09	204.36	204.30	205.46	204.47	204.36	204.09	204.00	203.83	203.62	
13	203.57	203.56	204.09	204.33	204.24	205.75	204.43	204.32	204.08	203.99	203.83	203.63	
14	203.56	203.57	204.10	204.40	204.19	206.00	204.40	204.28	204.07	203.98	203.82	203.64	
15	203.56	203.58	204.09	204.45	204.23	205.97	204.51	204.24	204.07	203.98	203.82	203.64	
16	203.55	203.58	204.08	204.47	204.44	205.89	204.64	204.21	204.07	203.98	203.80	203.64	
17	203.55	203.58	204.08	204.45	204.85	205.78	204.69	204.18	204.07	203.97	203.78	203.62	
18	203.53	203.61	204.07	204.39	205.16	205.66	204.70	204.18	204.07	203.97	203.76	203.62	
19	203.52	203.76	204.07	204.31	205.60	205.47	204.65	204.18	204.07	203.97	203.76	203.62	
20	203.51	203.98	204.07	204.26	205.65	205.43	204.60	204.17	204.07	203.95	203.75	203.62	
21	203.51	204.09	204.08	204.27	205.39	205.45	204.54	204.16	204.06	203.95	203.75	203.61	
22	203.50	204.13	204.07	204.46	205.19	205.46	204.48	204.15	204.06	203.94	203.75	203.60	
23	203.50	204.10	204.07	204.51	204.96	205.47	204.41	204.14	204.06	203.93	203.74	203.59	
24	203.49	204.10	204.07	204.50	204.70	205.42	204.42	204.13	204.06	203.93	203.73	203.58	
25	203.48	204.10	204.07	204.62	205.02	205.39	204.37	204.13	204.06	203.93	203.71	203.57	
26	203.48	204.10	204.09	205.08	205.12	205.26	204.34	204.13	204.06	203.92	203.70	203.56	
27	203.47	204.09	204.10	205.09	204.97	204.99	204.36	204.13	204.06	203.91	203.68	203.54	
28	203.46	204.09	204.09	205.05	205.62	204.89	204.35	204.13	204.05	203.90	203.68	203.54	
29	203.48	204.09	204.09	204.92	205.62	204.92	204.34	204.12	204.05	203.89	203.68	203.53	
30	203.50	204.08	204.09	204.81	205.59	204.92	204.33	204.11	204.05	203.89		203.52	
31		204.08		205.28	205.48		204.32		204.05	203.88		203.51	
Mean	203.55	203.78	204.09	204.42	205.06	205.52	204.62	204.21	204.08	203.98	203.79	203.61	
Max	203.60	204.13	204.17	205.28	205.77	206.00	205.71	204.39	204.11	204.06	203.87	203.68	206.00
Min	203.46	203.55	204.07	204.06	204.19	204.89	204.32	204.11	204.05	203.88	203.68	203.51	203.46

Annual Max Momentary Gage Height	206.09	m. (MSL.) ,	at 03.00 Hours , on Sep 7 , 2011		
Zero Gage at Bottom Elevation	201.31	m. (MSL.) ,	River Bed	203.35	m. (MSL)
Left Bank Elevation	206.00	m. (MSL.) ,			
Right Bank Elevation	206.45	m. (MSL.) ,	Drainage Area	421	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	0.00	0.00	46.50	28.44	9.25	1.00	0.05	0.00	0.00	0.00		
2	0.00	0.00	0.00	0.00	44.00	43.00	12.00	0.90	0.00	0.00	0.00	0.00		
3	0.00	0.00	0.00	0.00	38.50	45.00	43.50	0.80	0.00	0.00	0.00	0.00		
4	0.00	0.00	0.00	0.05	34.50	36.50	28.82	0.65	0.00	0.00	0.00	0.00		
5	0.00	0.00	0.00	0.00	29.96	29.20	16.28	0.55	0.00	0.00	0.00	0.00		
6	0.00	0.00	0.00	0.00	21.22	48.00	11.00	0.50	0.00	0.00	0.00	0.00		
7	0.00	0.00	0.00	0.00	14.38	57.00	8.50	0.50	0.00	0.00	0.00	0.00		
8	0.00	0.00	0.35	0.00	9.00	41.50	6.10	0.45	0.00	0.00	0.00	0.00		
9	0.00	0.00	0.20	0.00	5.10	39.00	4.10	0.50	0.00	0.00	0.00	0.00		
10	0.00	0.00	0.10	0.00	2.50	42.00	3.90	1.10	0.00	0.00	0.00	0.00		
11	0.00	0.00	0.00	1.15	1.35	36.00	2.90	1.45	0.00	0.00	0.00	0.00		
12	0.00	0.00	0.00	1.30	1.00	31.48	2.20	1.30	0.00	0.00	0.00	0.00		
13	0.00	0.00	0.00	1.15	0.70	45.50	1.80	1.10	0.00	0.00	0.00	0.00		
14	0.00	0.00	0.00	1.50	0.45	58.00	1.50	0.90	0.00	0.00	0.00	0.00		
15	0.00	0.00	0.00	2.00	0.65	56.50	2.70	0.70	0.00	0.00	0.00	0.00		
16	0.00	0.00	0.00	2.20	1.90	52.50	5.30	0.55	0.00	0.00	0.00	0.00		
17	0.00	0.00	0.00	2.00	10.25	47.00	6.30	0.40	0.00	0.00	0.00	0.00		
18	0.00	0.00	0.00	1.45	20.08	41.00	6.50	0.40	0.00	0.00	0.00	0.00		
19	0.00	0.00	0.00	1.05	38.00	31.86	5.50	0.40	0.00	0.00	0.00	0.00		
20	0.00	0.00	0.00	0.80	40.50	30.34	4.50	0.35	0.00	0.00	0.00	0.00		
21	0.00	0.00	0.00	0.85	28.82	31.10	3.30	0.30	0.00	0.00	0.00	0.00		
22	0.00	0.15	0.00	2.10	21.22	31.48	2.30	0.25	0.00	0.00	0.00	0.00		
23	0.00	0.00	0.00	2.70	13.00	31.86	1.60	0.20	0.00	0.00	0.00	0.00		
24	0.00	0.00	0.00	2.50	6.50	29.96	1.70	0.15	0.00	0.00	0.00	0.00		
25	0.00	0.00	0.00	4.90	14.76	28.82	1.35	0.15	0.00	0.00	0.00	0.00		
26	0.00	0.00	0.00	17.04	18.56	23.88	1.20	0.15	0.00	0.00	0.00	0.00		
27	0.00	0.00	0.00	17.42	13.25	13.75	1.30	0.15	0.00	0.00	0.00	0.00		
28	0.00	0.00	0.00	15.90	39.00	11.25	1.25	0.15	0.00	0.00	0.00	0.00		
29	0.00	0.00	0.00	12.00	39.00	12.00	1.20	0.10	0.00	0.00	0.00	0.00		
30	0.00	0.00	0.00	9.25	37.50	12.00	1.15	0.05	0.00	0.00		0.00		
31		0.00		24.64	32.24		1.10		0.00	0.00		0.00		
Total	0.00	0.15	0.65	123.95	624.39	1065.92	200.10	16.15	0.05	0.00	0.00	0.00	2031.36	CMSDAY
Mean	0.00	0.00	0.02	4.00	20.14	35.53	6.45	0.54	0.00	0.00	0.00	0.00	5.55	CMS
Max	0.00	0.15	0.35	24.64	46.50	58.00	43.50	1.45	0.05	0.00	0.00	0.00	58.00	CMS
Min	0.00	0.00	0.00	0.00	0.45	11.25	1.10	0.05	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	0.00	0.01	0.06	10.71	53.95	92.10	17.29	1.40	0.00	0.00	0.00	0.00	175.51	MCM

Momentary Peak 63.76 CMS. at 206.09 m. (MSL.) at 03.00 Hours , on Sep 7 , 2011

Runoff Yield 13.18 Liters/Second/Square KM. Momentary Peak Yield 151.449 Liters/Second/Square KM.

WATER YEAR : 2011

KHONG RIVER BASIN

Loei River at Ban Fak loei , Loei (Kh.58A)

Lat 17 - 29 - 36 N Long 101 - 44 - 17 E

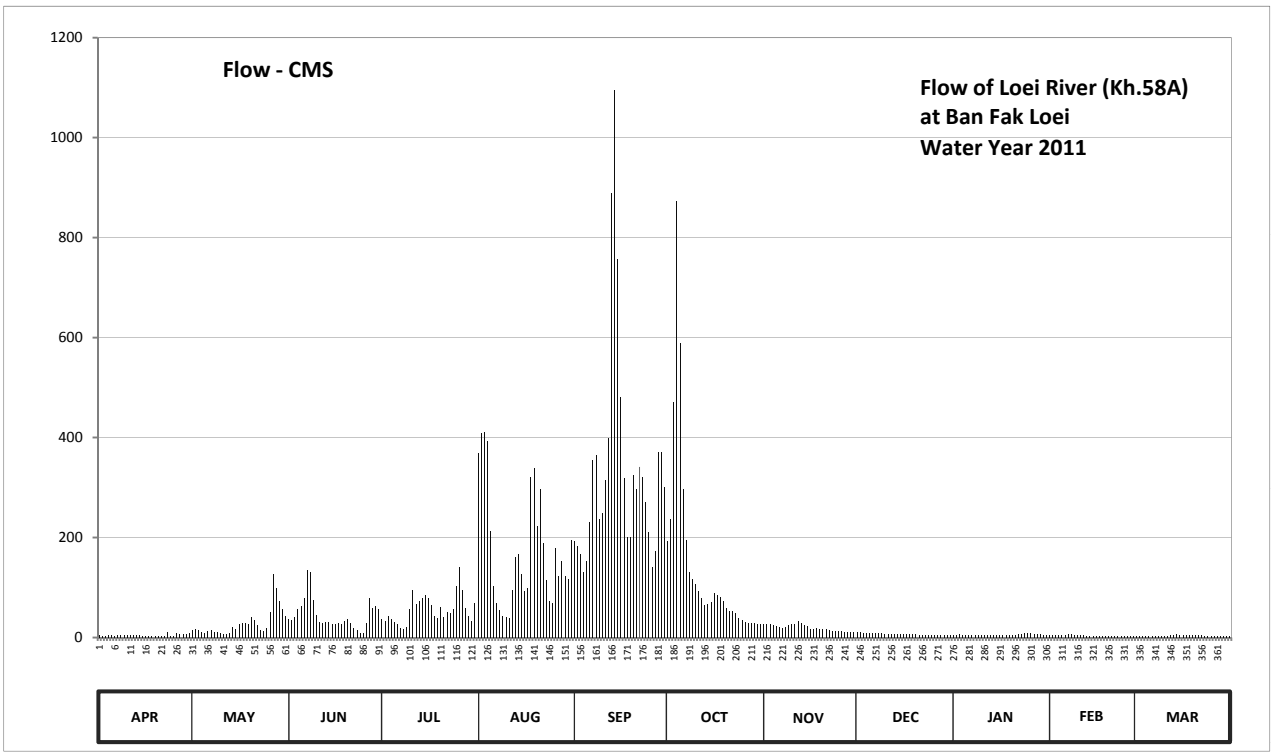
Location : on left bank at the bridge on road.

	Ban Fak Loei	**Amphoe** Mueang	**Changwat** Loei
Drainge Area	3,093 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+229.000 m. (MSL.)		
Bench Mark	B.M.- H.D.		
Location BM	On left bank upstream side at the abutment of the bridge.	**Elevation**	+240.440 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	1979 to date		
Rating Operation			
Period of Rating	1990 to date		
Rated by Flot	-		
Rated by Current Meter	1990 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 42 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	230.20	230.65	231.19	231.22	235.93	233.84	233.81	230.93	230.53	230.26	230.25	230.15	
2	230.19	230.71	231.16	231.08	236.33	233.69	234.40	230.94	230.52	230.29	230.24	230.16	
3	230.19	230.63	231.28	231.33	236.35	233.45	236.91	230.93	230.49	230.30	230.24	230.16	
4	230.22	230.51	231.64	231.18	236.17	232.91	239.08	230.92	230.47	230.29	230.25	230.14	
5	230.23	230.46	231.76	231.06	234.11	233.23	237.74	230.85	230.45	230.29	230.26	230.15	
6	230.19	230.57	232.06	230.94	232.47	234.33	235.13	230.82	230.44	230.28	230.29	230.16	
7	230.20	230.65	232.99	230.77	231.89	235.79	233.85	230.77	230.41	230.28	230.31	230.16	
8	230.22	230.52	232.92	230.71	231.60	235.89	232.91	230.80	230.39	230.28	230.30	230.15	
9	230.27	230.52	231.99	230.81	231.33	234.40	232.68	230.91	230.39	230.27	230.29	230.15	
10	230.25	230.40	231.40	231.63	231.27	234.56	232.53	230.95	230.37	230.27	230.28	230.15	
11	230.23	230.33	231.04	232.33	231.24	235.34	232.30	230.97	230.34	230.27	230.25	230.18	
12	230.21	230.33	231.01	231.83	232.34	236.24	232.05	231.07	230.32	230.26	230.22	230.24	
13	230.21	230.42	231.03	231.94	233.35	239.13	231.80	231.01	230.32	230.26	230.19	230.29	
14	230.20	230.78	231.03	232.05	233.46	239.81	231.83	230.90	230.32	230.25	230.16	230.30	
15	230.18	230.70	230.95	232.17	232.86	238.60	231.91	230.83	230.31	230.25	230.17	230.28	
16	230.16	230.96	230.93	232.05	232.28	237.01	232.22	230.70	230.31	230.24	230.18	230.26	
17	230.16	230.99	230.98	231.80	232.39	235.38	232.17	230.72	230.31	230.23	230.18	230.24	
18	230.16	230.98	230.94	231.34	235.41	233.95	232.09	230.74	230.30	230.23	230.17	230.24	
19	230.17	230.94	231.10	231.26	235.61	233.95	231.97	230.69	230.30	230.22	230.17	230.25	
20	230.14	231.28	231.21	231.72	234.23	235.45	231.67	230.68	230.30	230.23	230.16	230.26	
21	230.11	231.15	231.00	231.30	235.14	235.13	231.56	230.67	230.29	230.28	230.16	230.24	
22	230.17	230.91	230.77	231.52	233.76	235.63	231.55	230.63	230.29	230.32	230.16	230.21	
23	230.52	230.66	230.63	231.50	232.66	235.40	231.48	230.61	230.28	230.36	230.15	230.19	
24	230.12	230.62	230.49	231.66	231.98	234.83	231.25	230.59	230.28	230.41	230.15	230.18	
25	230.16	230.74	230.42	232.47	231.88	234.07	231.14	230.58	230.27	230.41	230.15	230.16	
26	230.48	231.52	231.02	233.06	233.61	233.08	231.06	230.57	230.27	230.39	230.14	230.16	
27	230.32	232.86	232.05	232.33	232.78	233.53	231.02	230.55	230.26	230.36	230.14	230.15	
28	230.30	232.39	231.68	231.68	233.26	235.96	231.01	230.54	230.26	230.36	230.15	230.14	
29	230.30	231.97	231.74	231.36	232.78	235.97	230.99	230.54	230.25	230.33	230.16	230.11	
30	230.39	231.66	231.65	231.08	232.68	235.18	230.97	230.53	230.25	230.26		230.12	
31		231.36		231.86	233.85		230.95		230.24	230.24		230.12	
Mean	230.23	230.94	231.34	231.58	233.39	235.19	232.65	230.76	230.34	230.29	230.20	230.19	
Max	230.52	232.86	232.99	233.06	236.35	239.81	239.08	231.07	230.53	230.41	230.31	230.30	239.81
Min	230.11	230.33	230.42	230.71	231.24	232.91	230.95	230.53	230.24	230.22	230.14	230.11	230.11

Annual Max Momentary Gage Height	239.97	m. (MSL.) ,	at 06.00 Hours , on Sep 14 , 2011		
Zero Gage at Bottom Elevation	229.00	m. (MSL.) ,	River Bed	229.25	m. (MSL)
Left Bank Elevation	240.52	m. (MSL.) ,			
Right Bank Elevation	240.58	m. (MSL.) ,	Drainage Area	3093	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	4.00	15.00	36.60	37.80	367.80	194.00	191.90	26.20	10.90	5.20	5.00	3.00		
2	3.80	17.40	35.40	32.20	409.00	183.60	237.00	26.60	10.60	5.80	4.80	3.20		
3	3.80	14.20	40.20	42.20	411.10	167.00	470.50	26.20	9.80	6.00	4.80	3.20		
4	4.40	10.30	57.00	36.20	392.00	130.50	874.00	25.80	9.40	5.80	5.00	2.80		
5	4.60	9.20	63.00	31.40	213.80	151.90	589.80	23.00	9.00	5.80	5.20	3.00		
6	3.80	12.10	78.70	26.60	103.70	231.40	296.60	21.80	8.80	5.60	5.80	3.20		
7	4.00	15.00	135.40	19.80	69.50	355.30	194.70	19.80	8.20	5.60	6.20	3.20		
8	4.40	10.60	131.10	17.40	55.00	364.20	130.50	21.00	7.80	5.60	6.00	3.00		
9	5.40	10.60	74.50	21.40	42.20	237.00	116.50	25.40	7.80	5.40	5.80	3.00		
10	5.00	8.00	45.00	56.50	39.80	249.80	107.30	27.00	7.40	5.40	5.60	3.00		
11	4.60	6.60	30.60	95.10	38.60	315.30	93.30	27.80	6.80	5.40	5.00	3.60		
12	4.20	6.60	29.40	66.50	95.70	399.40	78.10	31.80	6.40	5.20	4.40	4.80		
13	4.20	8.40	30.20	72.00	160.20	889.00	65.00	29.40	6.40	5.20	3.80	5.80		
14	4.00	20.20	30.20	78.10	167.70	1095.30	66.50	25.00	6.40	5.00	3.20	6.00		
15	3.60	17.00	27.00	85.40	127.50	756.00	70.50	22.20	6.20	5.00	3.40	5.60		
16	3.20	27.40	26.20	78.10	92.10	481.30	88.40	17.00	6.20	4.80	3.60	5.20		
17	3.20	28.60	28.20	65.00	98.80	318.80	85.40	17.80	6.20	4.60	3.60	4.80		
18	3.20	28.20	26.60	42.60	321.50	201.50	80.50	18.60	6.00	4.60	3.40	4.80		
19	3.40	26.60	33.00	39.40	339.30	201.50	73.50	16.60	6.00	4.40	3.40	5.00		
20	2.80	40.20	37.40	61.00	223.40	325.00	58.50	16.20	6.00	4.60	3.20	5.20		
21	2.20	35.00	29.00	41.00	297.50	296.60	53.00	15.80	5.80	5.60	3.20	4.80		
22	3.40	25.40	19.80	51.00	188.40	341.10	52.50	14.20	5.80	6.40	3.20	4.20		
23	10.60	15.40	14.20	50.00	115.30	320.60	49.00	13.40	5.60	7.20	3.00	3.80		
24	2.40	13.80	9.80	58.00	74.00	271.40	39.00	12.70	5.60	8.20	3.00	3.60		
25	3.20	18.60	8.40	103.70	69.00	210.60	34.60	12.40	5.40	8.20	3.00	3.20		
26	9.60	51.00	29.80	140.10	178.10	141.50	31.40	12.10	5.40	7.80	2.80	3.20		
27	6.40	127.50	78.10	95.10	122.60	172.60	29.80	11.50	5.20	7.20	2.80	3.00		
28	6.00	98.80	59.00	59.00	153.90	370.40	29.40	11.20	5.20	7.20	3.00	2.80		
29	6.00	73.50	62.00	43.40	122.60	371.30	28.60	11.20	5.00	6.60	3.20	2.20		
30	7.80	58.00	57.50	32.20	116.50	301.00	27.80	10.90	5.00	5.20		2.40		
31		43.40		68.00	194.70		27.00		4.80	4.80		2.40		
Total	137.20	892.60	1363.30	1746.20	5401.30	10044.90	4370.60	590.60	211.10	179.40	118.40	117.00	25172.60	CMSDAY
Mean	4.60	28.80	45.40	56.30	174.20	334.80	141.00	19.70	6.80	5.80	4.10	3.80	68.80	CMS
Max	10.60	127.50	135.40	140.10	411.10	1095.30	874.00	31.80	10.90	8.20	6.20	6.00	1095.30	CMS
Min	2.20	6.60	8.40	17.40	38.60	130.50	27.00	10.90	4.80	4.40	2.80	2.20	2.20	CMS
Runoff	11.85	77.12	117.79	150.87	466.67	867.88	377.62	51.03	18.24	15.50	10.23	10.11	2174.91	MCM

Momentary Peak 1148.10 CMS. at 239.97 m. (MSL.) at 06.00 Hours , on Sep 14 , 2011

Runoff Yield 22.24 Liters/Second/Square KM. Momentary Peak Yield 371.193 Liters/Second/Square KM.

WATER YEAR : 2011

KHONG RIVER BASIN

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

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

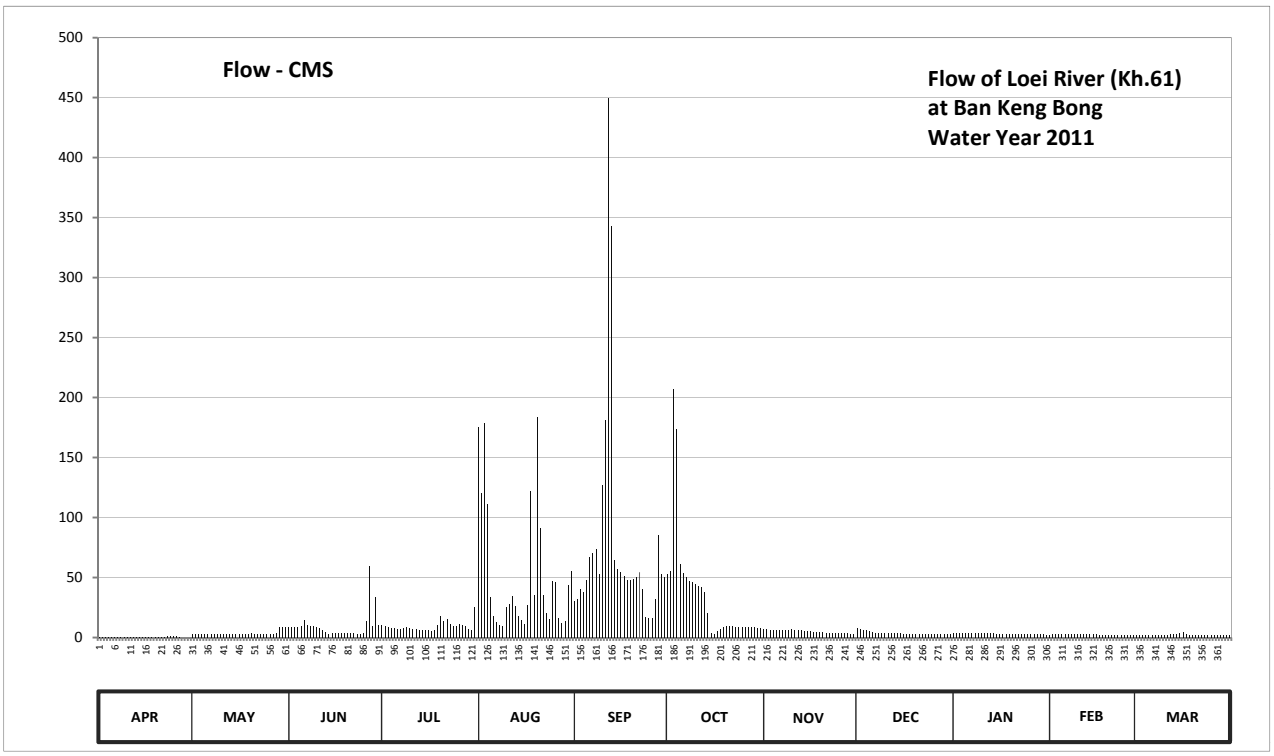
Location : on right bank at the bridge of Amphoe Wang Saphung - Ban Nong Khan Road.

	Ban Keng Bong	**Amphoe** Phu Luang	**Changwat** Loei
Drainge Area	549 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+258.361 m. (MSL.)		
Bench Mark	B.M.- Highways Dept.		
Location BM	On right bank downstream side at the footpath of the bridge.	**Elevation**	+272.020 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	1982 to date		
Rating Operation			
Period of Rating	1993 to date		
Rated by Flot	-		
Rated by Current Meter	1993 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 23 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	259.02	259.28	259.91	260.02	262.76	260.81	261.31	259.74	259.82	259.40	259.27	259.20	
2	259.00	259.28	259.89	259.95	262.21	260.87	261.36	259.72	259.77	259.44	259.28	259.21	
3	259.00	259.29	259.91	259.87	262.79	261.09	263.04	259.71	259.71	259.45	259.29	259.22	
4	259.00	259.29	259.92	259.84	262.11	261.03	262.74	259.71	259.65	259.45	259.30	259.22	
5	258.99	259.29	259.99	259.81	260.91	261.23	261.46	259.69	259.59	259.44	259.31	259.23	
6	258.99	259.29	260.24	259.77	260.42	261.54	261.33	259.68	259.54	259.44	259.32	259.23	
7	258.99	259.29	260.02	259.77	260.17	261.59	261.27	259.67	259.49	259.45	259.33	259.22	
8	259.03	259.29	259.96	259.82	260.01	261.64	261.22	259.68	259.46	259.45	259.33	259.21	
9	259.02	259.29	259.93	259.90	259.93	261.31	261.20	259.71	259.43	259.44	259.32	259.21	
10	259.01	259.29	259.89	259.81	260.68	262.28	261.18	259.74	259.42	259.44	259.32	259.22	
11	259.01	259.29	259.80	259.77	260.74	262.81	261.14	259.70	259.41	259.43	259.31	259.26	
12	259.01	259.29	259.70	259.74	260.93	264.58	261.12	259.68	259.41	259.42	259.31	259.33	
13	258.98	259.29	259.57	259.67	260.70	263.98	261.02	259.66	259.40	259.41	259.30	259.33	
14	258.95	259.29	259.38	259.65	260.45	261.51	260.54	259.64	259.40	259.40	259.30	259.33	
15	258.95	259.29	259.46	259.65	260.26	261.38	259.51	259.62	259.40	259.39	259.29	259.44	
16	258.95	259.29	259.46	259.65	260.05	261.34	259.37	259.60	259.39	259.39	259.28	259.53	
17	258.95	259.29	259.46	259.64	260.73	261.29	259.62	259.58	259.39	259.39	259.27	259.34	
18	258.95	259.29	259.46	259.68	262.23	261.23	259.78	259.56	259.39	259.39	259.26	259.26	
19	258.95	259.34	259.46	260.03	260.95	261.23	259.89	259.54	259.39	259.39	259.25	259.24	
20	258.95	259.42	259.45	260.42	262.83	261.24	259.94	259.52	259.39	259.38	259.24	259.23	
21	258.95	259.37	259.44	260.20	261.88	261.28	259.94	259.50	259.38	259.38	259.23	259.22	
22	258.96	259.35	259.42	260.29	260.95	261.34	259.93	259.49	259.38	259.38	259.22	259.21	
23	259.11	259.33	259.39	260.09	260.55	261.09	259.91	259.46	259.38	259.38	259.22	259.21	
24	259.13	259.36	259.35	259.93	260.31	260.41	259.90	259.44	259.38	259.37	259.22	259.21	
25	259.15	259.39	259.47	259.96	261.21	260.34	259.89	259.43	259.38	259.36	259.21	259.20	
26	259.15	259.39	260.19	260.07	261.20	260.34	259.89	259.42	259.38	259.34	259.21	259.20	
27	258.99	259.39	261.42	260.04	260.35	260.87	259.88	259.41	259.37	259.32	259.21	259.19	
28	258.60	259.43	259.96	259.98	260.10	261.81	259.87	259.40	259.37	259.30	259.21	259.18	
29	258.58	259.86	260.92	259.75	260.18	261.31	259.86	259.39	259.37	259.29	259.20	259.18	
30	258.80	259.89	260.01	259.66	261.16	261.27	259.85	259.38	259.37	259.28		259.17	
31		259.87		260.67	261.36		259.85		259.37	259.27		259.17	
Mean	258.97	259.37	259.81	259.91	261.00	261.47	260.54	259.58	259.45	259.39	259.27	259.25	
Max	259.15	259.89	261.42	260.67	262.83	264.58	263.04	259.74	259.82	259.45	259.33	259.53	264.58
Min	258.58	259.28	259.35	259.64	259.93	260.34	259.37	259.38	259.37	259.27	259.20	259.17	258.58

Annual Max Momentary Gage Height	265.76	m. (MSL.) ,	at 24.00 Hours , on Sep 12 , 2011		
Zero Gage at Bottom Elevation	258.36	m. (MSL.) ,	River Bed	258.91	m. (MSL)
Left Bank Elevation	271.86	m. (MSL.) ,			
Right Bank Elevation	271.78	m. (MSL.) ,	Drainage Area	549	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.64	2.46	8.92	10.36	175.60	30.16	52.60	6.88	7.84	3.30	2.39	1.90		
2	0.50	2.46	8.68	9.40	120.32	32.32	55.60	6.64	7.24	3.58	2.46	1.97		
3	0.50	2.53	8.92	8.44	178.90	40.24	207.20	6.52	6.52	3.65	2.53	2.04		
4	0.50	2.53	9.04	8.08	111.12	38.08	173.40	6.52	5.80	3.65	2.60	2.04		
5	0.47	2.53	9.88	7.72	33.76	47.80	61.60	6.28	5.08	3.58	2.67	2.11		
6	0.47	2.53	14.32	7.24	17.56	66.80	53.80	6.16	4.48	3.58	2.74	2.11		
7	0.47	2.53	10.36	7.24	13.06	70.30	50.20	6.04	3.93	3.65	2.81	2.04		
8	0.71	2.53	9.52	7.84	10.18	73.80	47.20	6.16	3.72	3.65	2.81	1.97		
9	0.64	2.53	9.16	8.80	9.16	52.60	46.00	6.52	3.51	3.58	2.74	1.97		
10	0.57	2.53	8.68	7.72	25.48	126.76	44.92	6.88	3.44	3.58	2.74	2.04		
11	0.57	2.53	7.60	7.24	27.64	181.10	42.76	6.40	3.37	3.51	2.67	2.32		
12	0.57	2.53	6.40	6.88	34.48	449.20	41.68	6.16	3.37	3.44	2.67	2.81		
13	0.44	2.53	4.84	6.04	26.20	342.80	37.72	5.92	3.30	3.37	2.60	2.81		
14	0.35	2.53	3.16	5.80	18.10	64.70	20.44	5.68	3.30	3.30	2.60	2.81		
15	0.35	2.53	3.72	5.80	14.68	56.80	4.12	5.44	3.30	3.23	2.53	3.58		
16	0.35	2.53	3.72	5.80	10.90	54.40	3.09	5.20	3.23	3.23	2.46	4.36		
17	0.35	2.53	3.72	5.68	27.28	51.40	5.44	4.96	3.23	3.23	2.39	2.88		
18	0.35	2.53	3.72	6.16	122.16	47.80	7.36	4.72	3.23	3.23	2.32	2.32		
19	0.35	2.88	3.72	10.54	35.20	47.80	8.68	4.48	3.23	3.23	2.25	2.18		
20	0.35	3.44	3.65	17.56	183.30	48.40	9.28	4.24	3.23	3.16	2.18	2.11		
21	0.35	3.09	3.58	13.60	91.40	50.80	9.28	4.00	3.16	3.16	2.11	2.04		
22	0.38	2.95	3.44	15.22	35.20	54.40	9.16	3.93	3.16	3.16	2.04	1.97		
23	1.27	2.81	3.23	11.62	20.80	40.24	8.92	3.72	3.16	3.16	2.04	1.97		
24	1.41	3.02	2.95	9.16	15.58	17.38	8.80	3.58	3.16	3.09	2.04	1.97		
25	1.55	3.23	3.79	9.52	46.60	16.12	8.68	3.51	3.16	3.02	1.97	1.90		
26	1.55	3.23	13.42	11.26	46.00	16.12	8.68	3.44	3.16	2.88	1.97	1.90		
27	0.47	3.23	59.20	10.72	16.30	32.32	8.56	3.37	3.09	2.74	1.97	1.83		
28	0.00	3.51	9.52	9.76	11.80	85.80	8.44	3.30	3.09	2.60	1.97	1.76		
29	0.00	8.32	34.12	7.00	13.24	52.60	8.32	3.23	3.09	2.53	1.90	1.76		
30	0.00	8.68	10.18	5.92	43.84	50.20	8.20	3.16	3.09	2.46		1.69		
31		8.44		25.12	55.60		8.20		3.09	2.39		1.69		
Total	16.48	102.23	285.16	289.24	1591.44	2339.24	1068.33	153.04	118.76	99.92	69.17	68.85	6201.86	CMSDAY
Mean	0.55	3.30	9.51	9.33	51.34	77.97	34.46	5.10	3.83	3.22	2.39	2.22	16.94	CMS
Max	1.55	8.68	59.20	25.12	183.30	449.20	207.20	6.88	7.84	3.65	2.81	4.36	449.20	CMS
Min	0.00	2.46	2.95	5.68	9.16	16.12	3.09	3.16	3.09	2.39	1.90	1.69	0.00	CMS
Runoff	1.42	8.83	24.64	24.99	137.50	202.11	92.30	13.22	10.26	8.63	5.98	5.95	535.84	MCM

Momentary Peak 692.20 CMS. at 265.76 m. (MSL.) at 24.00 Hours , on Sep 12 , 2011

Runoff Yield 30.87 Liters/Second/Square KM. Momentary Peak Yield 1260.838 Liters/Second/Square KM.

WATER YEAR : 2011

KHONG RIVER BASIN

Nam Mae Kham at Ban Mae Kham Lak Chet , Chiang Rai (Kh.72)

Lat 20 - 13 - 01 N Long 99 - 51 - 38 E

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

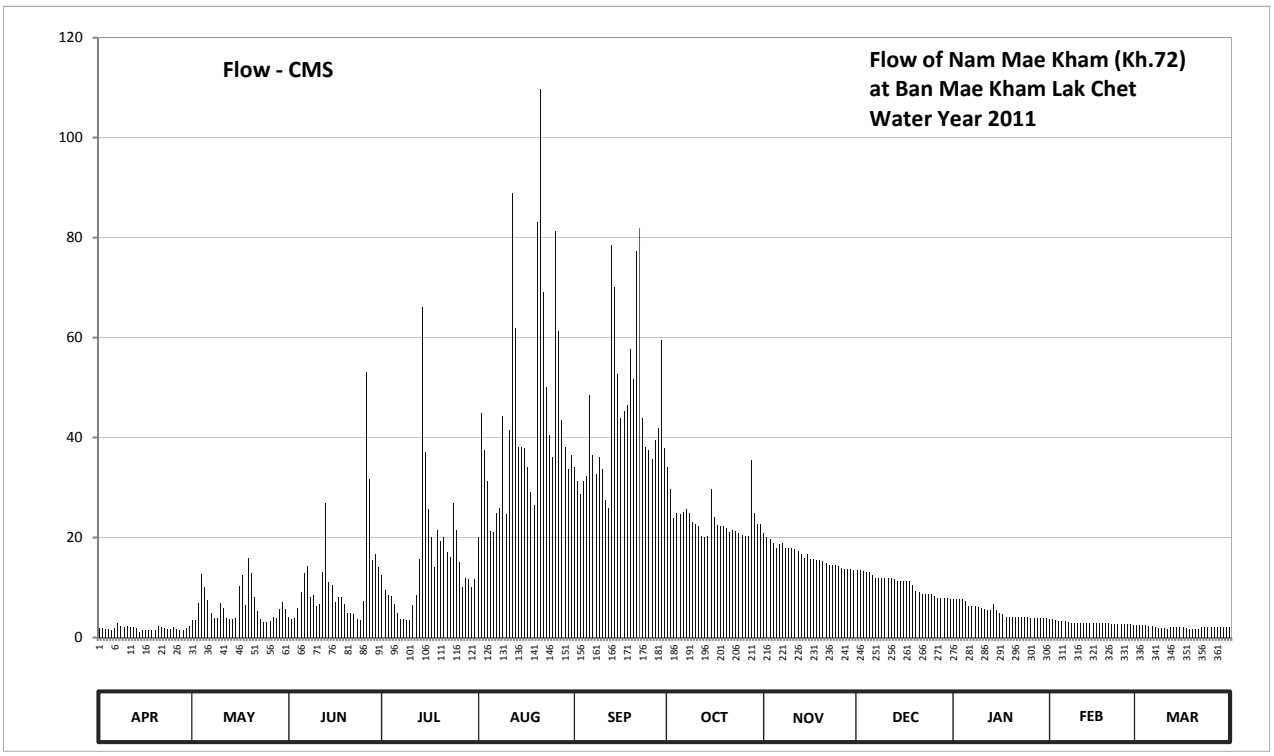
Ban Mae Kham Lak Chet **Amphoe** Mae Chan **Changwat** Chiang Rai

Drainge Area	667 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+393.400 m. (MSL.)
Bench Mark	B.M.- H.D.
Location BM	On right bank about 20 meters from the top staff gage. **Elevation** +399.176 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings
Period of Available Gage Records	1982 to date
Rating Operation	
Period of Rating	1993 to date
Rated by Flot	-
Rated by Current Meter	1993 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Flow effected by the bridge of Chiang Rai - Mae Sai Highway construction. Stage-discharge relation defined by 43 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	394.13	394.32	394.38	394.94	395.29	395.78	395.78	395.32	394.99	394.65	394.35	394.22	
2	394.12	394.33	394.34	394.77	396.08	395.70	395.65	395.29	394.99	394.65	394.34	394.22	
3	394.10	394.60	394.36	394.70	395.88	395.62	395.44	395.27	394.98	394.65	394.33	394.21	
4	394.10	394.95	394.52	394.69	395.70	395.70	395.48	395.24	394.97	394.65	394.31	394.21	
5	394.08	394.81	394.74	394.59	395.34	395.73	395.47	395.20	394.97	394.62	394.30	394.19	
6	394.14	394.64	394.96	394.45	395.33	396.17	395.49	395.23	394.94	394.56	394.29	394.17	
7	394.25	394.45	395.03	394.35	395.48	395.85	395.51	395.24	394.91	394.56	394.27	394.15	
8	394.19	394.36	394.68	394.35	395.52	395.74	395.48	395.20	394.90	394.55	394.26	394.14	
9	394.15	394.37	394.70	394.32	396.07	395.84	395.41	395.20	394.90	394.54	394.25	394.13	
10	394.17	394.60	394.55	394.32	395.47	395.77	395.40	395.20	394.90	394.53	394.25	394.12	
11	394.15	394.53	394.58	394.57	396.00	395.58	395.38	395.19	394.90	394.51	394.25	394.11	
12	394.15	394.37	394.97	394.70	396.99	395.52	395.30	395.17	394.90	394.49	394.25	394.15	
13	394.14	394.35	395.56	395.10	396.48	396.81	395.29	395.14	394.89	394.49	394.25	394.15	
14	394.01	394.35	394.86	396.57	395.90	396.65	395.30	395.11	394.87	394.58	394.25	394.15	
15	394.08	394.37	394.83	395.87	395.90	396.27	395.65	395.14	394.87	394.50	394.25	394.15	
16	394.08	394.82	394.61	395.51	395.89	396.06	395.45	395.10	394.87	394.45	394.25	394.15	
17	394.08	394.94	394.67	395.29	395.78	396.09	395.39	395.10	394.87	394.43	394.25	394.13	
18	394.08	394.57	394.67	395.02	395.63	396.12	395.38	395.09	394.87	394.40	394.25	394.10	
19	394.06	395.11	394.58	395.35	395.54	396.39	395.38	395.09	394.83	394.40	394.25	394.10	
20	394.18	394.96	394.45	395.26	396.89	396.25	395.36	395.08	394.75	394.40	394.25	394.10	
21	394.15	394.67	394.45	395.29	397.31	396.79	395.33	395.06	394.74	394.40	394.24	394.10	
22	394.14	394.48	394.44	395.16	396.63	396.87	395.35	395.04	394.72	394.40	394.24	394.15	
23	394.11	394.34	394.34	395.12	396.21	396.06	395.34	395.04	394.72	394.39	394.24	394.15	
24	394.09	394.28	394.33	395.56	395.97	395.90	395.32	395.04	394.71	394.39	394.24	394.15	
25	394.15	394.27	394.63	395.35	395.84	395.88	395.31	395.03	394.71	394.38	394.23	394.15	
26	394.10	394.31	396.28	395.07	396.86	395.83	395.30	395.01	394.69	394.36	394.23	394.15	
27	394.07	394.39	395.71	394.81	396.47	395.94	395.30	395.00	394.66	394.37	394.23	394.15	
28	394.07	394.37	395.09	394.90	396.05	396.01	395.82	395.00	394.66	394.37	394.22	394.15	
29	394.13	394.51	395.14	394.89	395.90	396.43	395.48	395.00	394.66	394.37	394.22	394.15	
30	394.17	394.61	395.02	394.81	395.77	395.89	395.40	394.99	394.66	394.37		394.15	
31		394.51		394.89	395.85		395.40		394.65	394.37		394.15	
Mean	394.12	394.53	394.78	394.99	396.00	396.04	395.43	395.13	394.83	394.48	394.26	394.15	
Max	394.25	395.11	396.28	396.57	397.31	396.87	395.82	395.32	394.99	394.65	394.35	394.22	397.31
Min	394.01	394.27	394.33	394.32	395.29	395.52	395.29	394.99	394.65	394.36	394.22	394.10	394.01

Annual Max Momentary Gage Height	398.10	m. (MSL.) ,	at 18.00 Hours , on Aug 20 , 2011		
Zero Gage at Bottom Elevation	393.40	m. (MSL.) ,	River Bed	393.94	m. (MSL)
Left Bank Elevation	399.73	m. (MSL.) ,			
Right Bank Elevation	399.71	m. (MSL.) ,	Drainage Area	667	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.91	3.48	4.02	12.52	20.11	34.03	34.03	20.84	13.42	7.67	3.75	2.58		
2	1.84	3.57	3.66	9.53	44.78	31.35	29.67	20.11	13.42	7.67	3.66	2.58		
3	1.70	6.90	3.84	8.45	37.42	28.67	23.84	19.61	13.24	7.67	3.57	2.49		
4	1.70	12.70	5.82	8.30	31.35	31.35	24.88	18.88	13.06	7.67	3.39	2.49		
5	1.56	10.18	9.07	6.76	21.33	32.36	24.62	17.90	13.06	7.21	3.30	2.33		
6	1.98	7.52	12.88	4.88	21.08	48.47	25.14	18.64	12.52	6.36	3.21	2.19		
7	2.85	4.88	14.24	3.75	24.88	36.40	25.66	18.88	11.98	6.36	3.03	2.05		
8	2.33	3.84	8.14	3.75	25.92	32.69	24.88	17.90	11.80	6.22	2.94	1.98		
9	2.05	3.93	8.45	3.48	44.37	36.06	23.06	17.90	11.80	6.09	2.85	1.91		
10	2.19	6.90	6.22	3.48	24.62	33.69	22.80	17.90	11.80	5.95	2.85	1.84		
11	2.05	5.95	6.63	6.50	41.50	27.48	22.31	17.68	11.80	5.69	2.85	1.77		
12	2.05	3.93	13.06	8.45	88.91	25.92	20.35	17.26	11.80	5.41	2.85	2.05		
13	1.98	3.75	26.96	15.75	61.80	78.39	20.11	16.61	11.62	5.41	2.85	2.05		
14	1.07	3.75	11.08	66.08	38.10	70.07	20.35	15.96	11.26	6.63	2.85	2.05		
15	1.56	3.93	10.54	37.08	38.10	52.60	29.67	16.61	11.26	5.55	2.85	2.05		
16	1.56	10.36	7.05	25.66	37.76	43.96	24.10	15.75	11.26	4.88	2.85	2.05		
17	1.56	12.52	7.99	20.11	34.03	45.19	22.56	15.75	11.26	4.60	2.85	1.91		
18	1.56	6.50	7.99	14.03	29.01	46.42	22.31	15.53	11.26	4.20	2.85	1.70		
19	1.42	15.96	6.63	21.58	26.44	57.59	22.31	15.53	10.54	4.20	2.85	1.70		
20	2.26	12.88	4.88	19.37	83.07	51.77	21.82	15.32	9.23	4.20	2.85	1.70		
21	2.05	7.99	4.88	20.11	109.70	77.29	21.08	14.89	9.07	4.20	2.76	1.70		
22	1.98	5.28	4.74	17.04	69.05	81.90	21.58	14.46	8.76	4.20	2.76	2.05		
23	1.77	3.66	3.66	16.18	50.11	43.96	21.33	14.46	8.76	4.11	2.76	2.05		
24	1.63	3.12	3.57	26.96	40.48	38.10	20.84	14.46	8.60	4.11	2.76	2.05		
25	2.05	3.03	7.37	21.58	36.06	37.42	20.59	14.24	8.60	4.02	2.67	2.05		
26	1.70	3.39	53.02	15.11	81.31	35.72	20.35	13.82	8.30	3.84	2.67	2.05		
27	1.49	4.11	31.68	10.18	61.33	39.46	20.35	13.60	7.83	3.93	2.67	2.05		
28	1.49	3.93	15.53	11.80	43.55	41.91	35.38	13.60	7.83	3.93	2.58	2.05		
29	1.91	5.69	16.61	11.62	38.10	59.42	24.88	13.60	7.83	3.93	2.58	2.05		
30	2.19	7.05	14.03	10.18	33.69	37.76	22.80	13.42	7.83	3.93		2.05		
31		5.69		11.62	36.40		22.80		7.67	3.93		2.05		
Total	55.44	196.37	334.24	471.89	1374.36	1337.40	736.45	491.11	328.47	163.77	85.26	63.67	5638.43	CMSDAY
Mean	1.85	6.33	11.14	15.22	44.33	44.58	23.76	16.37	10.60	5.28	2.94	2.05	15.41	CMS
Max	2.85	15.96	53.02	66.08	109.70	81.90	35.38	20.84	13.42	7.67	3.75	2.58	109.70	CMS
Min	1.07	3.03	3.57	3.48	20.11	25.92	20.11	13.42	7.67	3.84	2.58	1.70	1.07	CMS
Runoff	4.79	16.97	28.88	40.77	118.75	115.55	63.63	42.43	28.38	14.15	7.37	5.50	487.16	MCM

Momentary Peak 170.50 CMS. at 398.10 m. (MSL.) at 18.00 Hours , on Aug 20 , 2011

Runoff Yield 23.10 Liters/Second/Square KM. Momentary Peak Yield 255.622 Liters/Second/Square KM.

WATER YEAR : 2011

KHONG RIVER BASIN

Nam Thop at Ban Kok So , Loei (Kh.77A)

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

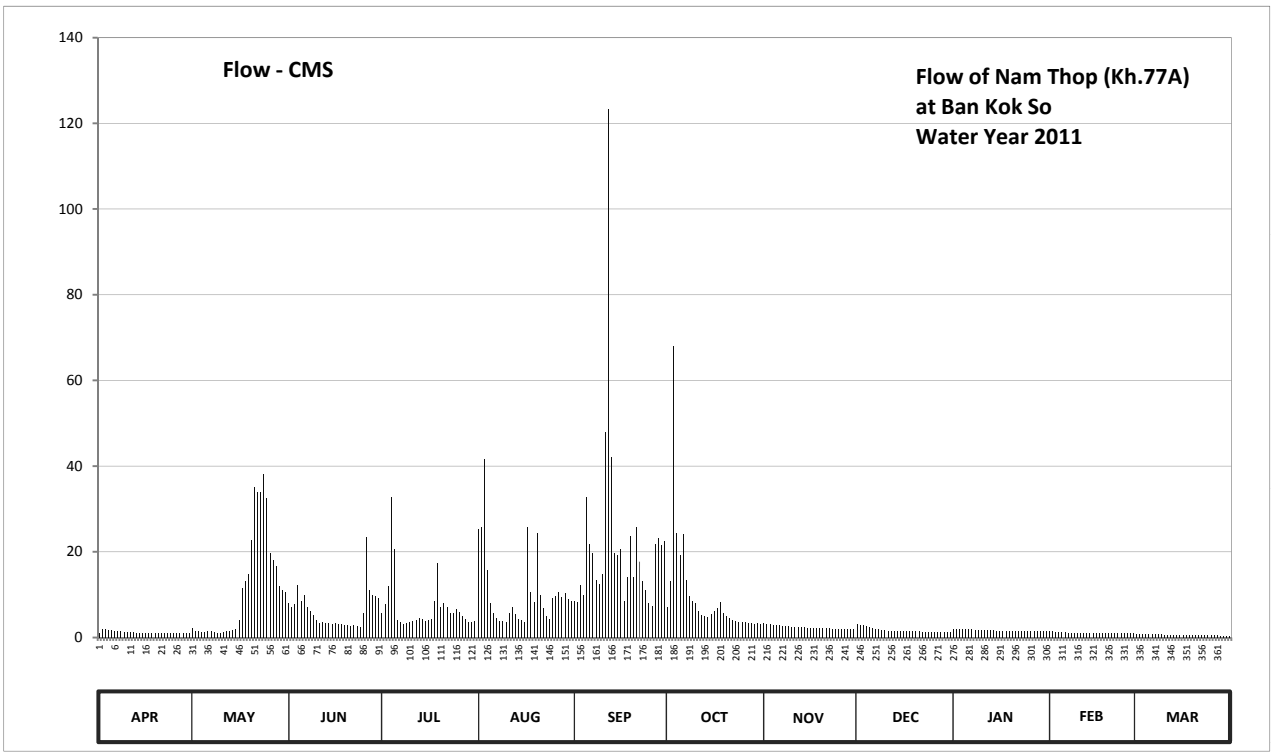
Location : on left bank at Ban Kok So.

	Ban Kok So	**Amphoe** Wang Saphung	**Changwat** Loei
Drainge Area	156 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+260.980 m. (MSL.)		
Bench Mark	B.M.- Highways Dept.		
Location BM	On right bank at the abutment of the bridge.	**Elevation**	+268.630 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings		
Period of Available Gage Records	1983 to date		
Rating Operation			
Period of Rating	1984 to date		
Rated by Flot	-		
Rated by Current Meter	1984 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. The cataract situated downstream from the gage site.		
	Stage-discharge relation defined by 24 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	261.39	261.53	261.90	261.79	262.48	261.92	261.86	261.63	261.62	261.51	261.44	261.37	
2	261.50	261.46	261.85	261.89	262.49	261.91	262.10	261.62	261.60	261.51	261.44	261.36	
3	261.49	261.46	261.89	262.06	262.91	262.07	263.37	261.61	261.58	261.51	261.43	261.36	
4	261.48	261.43	262.07	262.68	262.18	261.99	262.45	261.60	261.56	261.51	261.43	261.35	
5	261.48	261.42	261.93	262.33	261.90	262.68	262.29	261.59	261.54	261.51	261.42	261.35	
6	261.46	261.44	262.00	261.70	261.79	262.37	262.44	261.58	261.52	261.49	261.42	261.34	
7	261.44	261.44	261.86	261.65	261.73	262.30	262.11	261.57	261.50	261.49	261.41	261.34	
8	261.44	261.43	261.81	261.62	261.69	262.11	261.98	261.56	261.49	261.48	261.41	261.33	
9	261.43	261.41	261.76	261.63	261.68	262.08	261.92	261.56	261.48	261.48	261.41	261.33	
10	261.43	261.41	261.70	261.66	261.67	262.15	261.90	261.55	261.47	261.48	261.41	261.32	
11	261.43	261.42	261.64	261.68	261.79	263.06	261.81	261.55	261.46	261.48	261.41	261.32	
12	261.42	261.44	261.66	261.70	261.86	263.92	261.76	261.54	261.46	261.47	261.40	261.32	
13	261.41	261.46	261.64	261.73	261.77	262.92	261.75	261.54	261.45	261.47	261.40	261.31	
14	261.41	261.47	261.63	261.71	261.72	262.30	261.74	261.54	261.45	261.47	261.40	261.31	
15	261.41	261.51	261.62	261.69	261.70	262.29	261.77	261.53	261.45	261.46	261.40	261.31	
16	261.40	261.70	261.63	261.70	261.65	262.33	261.81	261.53	261.44	261.46	261.40	261.30	
17	261.40	262.05	261.62	261.72	262.49	261.93	261.84	261.53	261.44	261.46	261.40	261.30	
18	261.40	262.10	261.62	261.93	262.02	262.13	261.91	261.53	261.44	261.46	261.39	261.29	
19	261.39	262.15	261.60	262.23	261.91	262.43	261.79	261.52	261.44	261.46	261.39	261.29	
20	261.39	262.40	261.58	261.86	262.45	262.13	261.75	261.52	261.44	261.46	261.39	261.28	
21	261.39	262.74	261.57	261.90	262.00	262.49	261.73	261.52	261.44	261.45	261.39	261.28	
22	261.38	262.71	261.58	261.86	261.84	262.24	261.70	261.52	261.43	261.45	261.39	261.27	
23	261.38	262.71	261.56	261.79	261.75	262.10	261.68	261.51	261.43	261.45	261.39	261.27	
24	261.38	262.82	261.55	261.79	261.72	262.03	261.67	261.51	261.43	261.45	261.39	261.27	
25	261.38	262.67	261.79	261.83	261.96	261.90	261.66	261.51	261.43	261.45	261.38	261.26	
26	261.38	262.30	262.42	261.80	261.98	261.87	261.65	261.50	261.43	261.45	261.38	261.26	
27	261.38	262.25	262.03	261.75	262.02	262.37	261.64	261.50	261.42	261.45	261.38	261.26	
28	261.38	262.21	262.00	261.71	261.97	262.41	261.63	261.50	261.42	261.45	261.38	261.25	
29	261.38	262.06	261.98	261.66	262.01	262.36	261.62	261.49	261.42	261.44	261.38	261.25	
30	261.38	262.03	261.96	261.65	261.95	262.39	261.63	261.49	261.42	261.44		261.25	
31		262.02		261.68	261.93		261.62		261.42	261.44		261.25	
Mean	261.41	261.89	261.78	261.82	261.97	262.31	261.89	261.54	261.47	261.47	261.40	261.30	
Max	261.50	262.82	262.42	262.68	262.91	263.92	263.37	261.63	261.62	261.51	261.44	261.37	263.92
Min	261.38	261.41	261.55	261.62	261.65	261.87	261.62	261.49	261.42	261.44	261.38	261.25	261.25

Annual Max Momentary Gage Height	264.19	m. (MSL.) ,	at 06.00 Hours , on Sep 12 , 2011		
Zero Gage at Bottom Elevation	260.98	m. (MSL.) ,	River Bed	261.00	m. (MSL)
Left Bank Elevation	268.68	m. (MSL.) ,			
Right Bank Elevation	268.66	m. (MSL.) ,	Drainage Area	156	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.96	2.30	8.00	5.80	25.36	8.40	7.20	3.30	3.20	2.10	1.40	0.88		
2	2.00	1.60	7.00	7.80	25.68	8.20	13.20	3.20	3.00	2.10	1.40	0.84		
3	1.90	1.60	7.80	11.92	41.58	12.24	67.90	3.10	2.80	2.10	1.30	0.84		
4	1.80	1.30	12.24	32.84	15.76	9.80	24.40	3.00	2.60	2.10	1.30	0.80		
5	1.80	1.20	8.60	20.56	8.00	32.84	19.28	2.90	2.40	2.10	1.20	0.80		
6	1.60	1.40	10.00	4.00	5.80	21.84	24.08	2.80	2.20	1.90	1.20	0.76		
7	1.40	1.40	7.20	3.50	4.60	19.60	13.52	2.70	2.00	1.90	1.10	0.76		
8	1.40	1.30	6.20	3.20	3.90	13.52	9.60	2.60	1.90	1.80	1.10	0.72		
9	1.30	1.10	5.20	3.30	3.80	12.56	8.40	2.60	1.80	1.80	1.10	0.72		
10	1.30	1.10	4.00	3.60	3.70	14.80	8.00	2.50	1.70	1.80	1.10	0.68		
11	1.30	1.20	3.40	3.80	5.80	48.00	6.20	2.50	1.60	1.80	1.10	0.68		
12	1.20	1.40	3.60	4.00	7.20	123.40	5.20	2.40	1.60	1.70	1.00	0.68		
13	1.10	1.60	3.40	4.60	5.40	41.96	5.00	2.40	1.50	1.70	1.00	0.64		
14	1.10	1.70	3.30	4.20	4.40	19.60	4.80	2.40	1.50	1.70	1.00	0.64		
15	1.10	2.10	3.20	3.90	4.00	19.28	5.40	2.30	1.50	1.60	1.00	0.64		
16	1.00	4.00	3.30	4.00	3.50	20.56	6.20	2.30	1.40	1.60	1.00	0.60		
17	1.00	11.60	3.20	4.40	25.68	8.60	6.80	2.30	1.40	1.60	1.00	0.60		
18	1.00	13.20	3.20	8.60	10.64	14.16	8.20	2.30	1.40	1.60	0.96	0.57		
19	0.96	14.80	3.00	17.36	8.20	23.76	5.80	2.20	1.40	1.60	0.96	0.57		
20	0.96	22.80	2.80	7.20	24.40	14.16	5.00	2.20	1.40	1.60	0.96	0.54		
21	0.96	35.12	2.70	8.00	10.00	25.68	4.60	2.20	1.40	1.50	0.96	0.54		
22	0.92	33.98	2.80	7.20	6.80	17.68	4.00	2.20	1.30	1.50	0.96	0.51		
23	0.92	33.98	2.60	5.80	5.00	13.20	3.80	2.10	1.30	1.50	0.96	0.51		
24	0.92	38.16	2.50	5.80	4.40	10.96	3.70	2.10	1.30	1.50	0.96	0.51		
25	0.92	32.46	5.80	6.60	9.20	8.00	3.60	2.10	1.30	1.50	0.92	0.48		
26	0.92	19.60	23.44	6.00	9.60	7.40	3.50	2.00	1.30	1.50	0.92	0.48		
27	0.92	18.00	10.96	5.00	10.64	21.84	3.40	2.00	1.20	1.50	0.92	0.48		
28	0.92	16.72	10.00	4.20	9.40	23.12	3.30	2.00	1.20	1.50	0.92	0.45		
29	0.92	11.92	9.60	3.60	10.32	21.52	3.20	1.90	1.20	1.40	0.92	0.45		
30	0.92	10.96	9.20	3.50	9.00	22.48	3.30	1.90	1.20	1.40		0.45		
31		10.64		3.80	8.60		3.20		1.20	1.40		0.45		
Total	35.42	350.24	188.24	218.08	330.36	659.16	293.78	72.50	52.20	52.40	30.62	19.27	2302.27	CMSDAY
Mean	1.18	11.30	6.27	7.03	10.66	21.97	9.48	2.42	1.68	1.69	1.06	0.62	6.29	CMS
Max	2.00	38.16	23.44	32.84	41.58	123.40	67.90	3.30	3.20	2.10	1.40	0.88	123.40	CMS
Min	0.92	1.10	2.50	3.20	3.50	7.40	3.20	1.90	1.20	1.40	0.92	0.45	0.45	CMS
Runoff	3.06	30.26	16.26	18.84	28.54	56.95	25.38	6.26	4.51	4.53	2.65	1.67	198.92	MCM

Momentary Peak 160.50 CMS. at 264.19 m. (MSL.) at 06.00 Hours , on Sep 12 , 2011

Runoff Yield 40.32 Liters/Second/Square KM. Momentary Peak Yield 1028.846 Liters/Second/Square KM.

WATER YEAR : 2011

KHONG RIVER BASIN

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

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

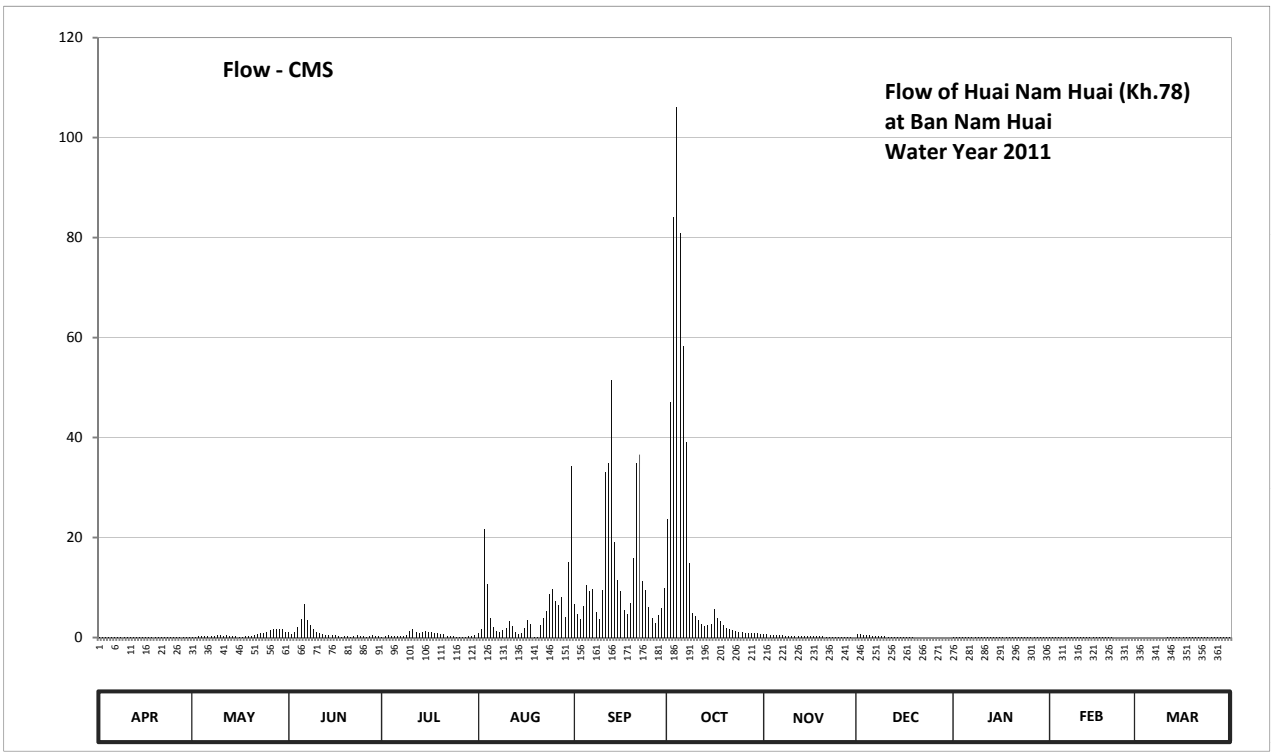
Location : on left bank at the bridge of Amphoe Wang Saphung - Amphoe Mueang Highway.

	Ban Nam Huai	**Amphoe** Mueang	**Changwat** Loei
Drainge Area	219 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+246.224 m. (MSL.)		
Bench Mark	B.M.- Highways Dept.		
Location BM	On left bank downstream side at the footpath of the bridge.	**Elevation**	+256.495 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings		
Period of Available Gage Records	1983 to date		
Rating Operation			
Period of Rating	1993 to date		
Rated by Flot	-		
Rated by Current Meter	1993 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. The concrete weir situated about 700 meters downstream from the gage site. Stage-discharge relation defined by 11 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	248.42	248.42	248.56	248.43	248.53	249.12	250.32	248.52	248.52	248.42	248.42	248.39	
2	248.42	248.43	248.52	248.47	248.63	248.92	251.50	248.51	248.51	248.42	248.42	248.39	
3	248.42	248.45	248.56	248.48	250.20	248.82	253.04	248.50	248.50	248.42	248.42	248.40	
4	248.42	248.45	248.67	248.47	249.47	249.08	253.84	248.49	248.49	248.42	248.42	248.40	
5	248.42	248.46	248.83	248.47	248.84	249.44	252.92	248.48	248.48	248.42	248.42	248.40	
6	248.42	248.47	249.11	248.47	248.67	249.34	252.01	248.48	248.47	248.42	248.42	248.40	
7	248.42	248.47	248.81	248.47	248.59	249.37	251.10	248.48	248.47	248.42	248.43	248.40	
8	248.42	248.47	248.71	248.47	248.57	248.96	249.78	248.47	248.46	248.42	248.43	248.40	
9	248.42	248.48	248.62	248.50	248.60	248.82	248.94	248.47	248.45	248.42	248.43	248.40	
10	248.42	248.49	248.57	248.58	248.65	249.35	248.89	248.47	248.44	248.42	248.43	248.40	
11	248.42	248.47	248.55	248.61	248.78	250.80	248.80	248.46	248.43	248.42	248.43	248.41	
12	248.42	248.48	248.51	248.57	248.69	250.89	248.72	248.46	248.42	248.42	248.42	248.42	
13	248.42	248.47	248.49	248.55	248.57	251.70	248.68	248.46	248.42	248.42	248.42	248.42	
14	248.42	248.45	248.49	248.57	248.52	250.06	248.70	248.45	248.42	248.42	248.42	248.42	
15	248.42	248.44	248.48	248.58	248.55	249.53	248.72	248.45	248.42	248.42	248.42	248.42	
16	248.42	248.42	248.48	248.57	248.64	249.34	249.03	248.45	248.41	248.42	248.42	248.42	
17	248.42	248.43	248.46	248.57	248.81	249.00	248.85	248.45	248.41	248.42	248.42	248.42	
18	248.42	248.45	248.43	248.55	248.72	248.93	248.78	248.44	248.41	248.42	248.41	248.42	
19	248.42	248.46	248.46	248.54	248.42	249.13	248.70	248.44	248.41	248.42	248.41	248.42	
20	248.42	248.47	248.44	248.52	248.42	249.85	248.65	248.44	248.40	248.42	248.41	248.42	
21	248.42	248.49	248.43	248.51	248.70	250.89	248.62	248.43	248.40	248.42	248.41	248.42	
22	248.42	248.51	248.46	248.47	248.84	250.98	248.60	248.43	248.40	248.42	248.40	248.42	
23	248.41	248.53	248.48	248.46	248.99	249.52	248.58	248.43	248.39	248.42	248.40	248.42	
24	248.41	248.54	248.47	248.44	249.28	249.36	248.57	248.42	248.39	248.42	248.40	248.42	
25	248.41	248.56	248.44	248.42	249.38	249.06	248.56	248.42	248.39	248.42	248.40	248.42	
26	248.41	248.60	248.43	248.42	249.16	248.85	248.55	248.42	248.39	248.42	248.40	248.42	
27	248.41	248.62	248.47	248.42	249.10	248.75	248.55	248.41	248.39	248.42	248.39	248.42	
28	248.41	248.62	248.49	248.43	249.23	248.90	248.54	248.41	248.38	248.42	248.39	248.42	
29	248.41	248.62	248.47	248.44	248.86	249.05	248.53	248.41	248.38	248.42	248.39	248.42	
30	248.41	248.61	248.47	248.44	249.79	249.39	248.53	248.40	248.38	248.42		248.42	
31		248.57		248.48	250.86		248.52		248.38	248.42		248.42	
Mean	248.42	248.50	248.55	248.50	248.94	249.51	249.49	248.45	248.43	248.42	248.41	248.41	
Max	248.42	248.62	249.11	248.61	250.86	251.70	253.84	248.52	248.52	248.42	248.43	248.42	253.84
Min	248.41	248.42	248.43	248.42	248.42	248.75	248.52	248.40	248.38	248.42	248.39	248.39	248.38

Annual Max Momentary Gage Height	254.32	m. (MSL.) ,	at 06.00 Hours , on Oct 4 , 2011		
Zero Gage at Bottom Elevation	246.22	m. (MSL.) ,	River Bed	247.62	m. (MSL)
Left Bank Elevation	254.36	m. (MSL.) ,			
Right Bank Elevation	254.57	m. (MSL.) ,	Drainage Area	219	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.10	0.10	1.09	0.15	0.79	6.77	23.76	0.70	0.70	0.10	0.10	0.00		
2	0.10	0.15	0.70	0.35	1.77	4.62	47.00	0.60	0.60	0.10	0.10	0.00		
3	0.10	0.25	1.09	0.40	21.60	3.64	84.04	0.50	0.50	0.10	0.10	0.00		
4	0.10	0.25	2.17	0.35	10.76	6.31	106.20	0.45	0.45	0.10	0.10	0.00		
5	0.10	0.30	3.73	0.35	3.83	10.42	80.92	0.40	0.40	0.10	0.10	0.00		
6	0.10	0.35	6.65	0.35	2.17	9.28	58.24	0.40	0.35	0.10	0.10	0.00		
7	0.10	0.35	3.54	0.35	1.38	9.62	39.00	0.40	0.35	0.10	0.15	0.00		
8	0.10	0.35	2.56	0.35	1.19	5.01	14.96	0.35	0.30	0.10	0.15	0.00		
9	0.10	0.40	1.68	0.50	1.48	3.64	4.81	0.35	0.25	0.10	0.15	0.00		
10	0.10	0.45	1.19	1.28	1.97	9.39	4.32	0.35	0.20	0.10	0.15	0.00		
11	0.10	0.35	0.99	1.58	3.24	33.00	3.44	0.30	0.15	0.10	0.15	0.05		
12	0.10	0.40	0.60	1.19	2.36	34.80	2.66	0.30	0.10	0.10	0.10	0.10		
13	0.10	0.35	0.45	0.99	1.19	51.40	2.26	0.30	0.10	0.10	0.10	0.10		
14	0.10	0.25	0.45	1.19	0.70	19.08	2.46	0.25	0.10	0.10	0.10	0.10		
15	0.10	0.20	0.40	1.28	0.99	11.51	2.66	0.25	0.10	0.10	0.10	0.10		
16	0.10	0.10	0.40	1.19	1.87	9.28	5.74	0.25	0.05	0.10	0.10	0.10		
17	0.10	0.15	0.30	1.19	3.54	5.40	3.93	0.25	0.05	0.10	0.10	0.10		
18	0.10	0.25	0.15	0.99	2.66	4.71	3.24	0.20	0.05	0.10	0.05	0.10		
19	0.10	0.30	0.30	0.89	0.10	6.88	2.46	0.20	0.05	0.10	0.05	0.10		
20	0.10	0.35	0.20	0.70	0.10	15.93	1.97	0.20	0.00	0.10	0.05	0.10		
21	0.10	0.45	0.15	0.60	2.46	34.80	1.68	0.15	0.00	0.10	0.05	0.10		
22	0.10	0.60	0.30	0.35	3.83	36.60	1.48	0.15	0.00	0.10	0.00	0.10		
23	0.05	0.79	0.40	0.30	5.30	11.38	1.28	0.15	0.00	0.10	0.00	0.10		
24	0.05	0.89	0.35	0.20	8.59	9.50	1.19	0.10	0.00	0.10	0.00	0.10		
25	0.05	1.09	0.20	0.10	9.73	6.08	1.09	0.10	0.00	0.10	0.00	0.10		
26	0.05	1.48	0.15	0.10	7.22	3.93	0.99	0.10	0.00	0.10	0.00	0.10		
27	0.05	1.68	0.35	0.10	6.54	2.95	0.99	0.05	0.00	0.10	0.00	0.10		
28	0.05	1.68	0.45	0.15	8.02	4.42	0.89	0.05	0.00	0.10	0.00	0.10		
29	0.05	1.68	0.35	0.20	4.03	5.97	0.79	0.05	0.00	0.10	0.00	0.10		
30	0.05	1.58	0.35	0.20	15.10	9.85	0.79	0.00	0.00	0.10		0.10		
31		1.19		0.40	34.20		0.70		0.00	0.10		0.10		
Total	2.60	18.76	31.69	18.32	168.71	386.17	505.94	7.90	4.85	3.10	2.15	2.05	1152.24	CMSDAY
Mean	0.09	0.61	1.06	0.59	5.44	12.87	16.32	0.26	0.16	0.10	0.07	0.07	3.15	CMS
Max	0.10	1.68	6.65	1.58	34.20	51.40	106.20	0.70	0.70	0.10	0.15	0.10	106.20	CMS
Min	0.05	0.10	0.15	0.10	0.10	2.95	0.70	0.00	0.00	0.10	0.00	0.00	0.00	CMS
Runoff	0.23	1.62	2.74	1.58	14.58	33.37	43.71	0.68	0.42	0.27	0.19	0.18	99.55	MCM

Momentary Peak 120.60 CMS. at 254.32 m. (MSL.) at 06.00 Hours , on Oct 4 , 2011

Runoff Yield 14.38 Liters/Second/Square KM. Momentary Peak Yield 550.685 Liters/Second/Square KM.

WATER YEAR : 2011

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.

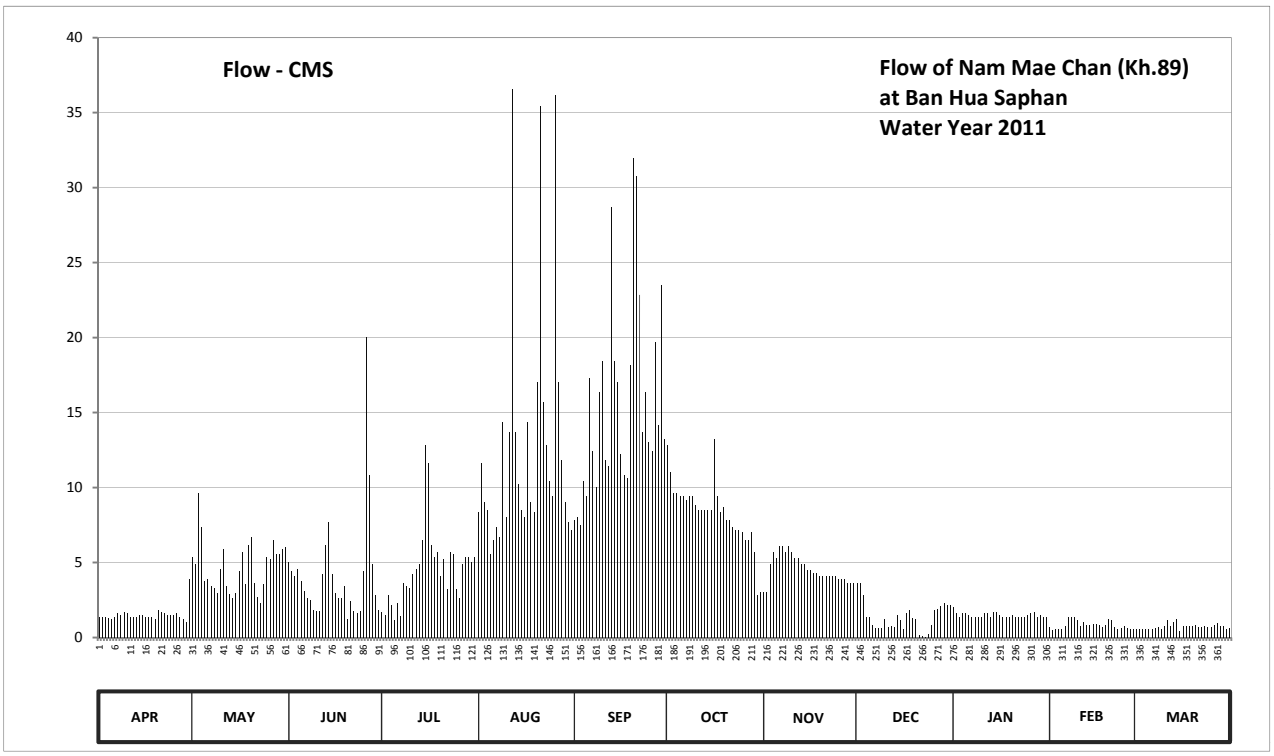
Ban Hua Saphan **Amphoe** Mae Chan **Changwat** Chiang Rai

Drainge Area	248 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+406.385 m. (MSL.)
Bench Mark	B.M.- Temporary.
Location BM	On right bank at the footpath of the bridge. **Elevation** +408.840 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings
Period of Available Gage Records	1993 to date
Rating Operation	
Period of Rating	1993 to date
Rated by Flot	-
Rated by Current Meter	1993 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. The local weir situated about 300 meters downstream from the gage site. Stage-discharge relation defined by 43 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	406.89	406.98	406.96	406.66	407.16	407.13	407.39	407.03	407.06	406.96	406.76	406.67	
2	406.89	406.95	406.92	406.64	407.33	407.14	407.30	407.03	407.06	406.92	406.65	406.69	
3	406.89	407.23	406.90	406.78	407.20	407.11	407.23	407.11	407.02	406.90	406.69	406.69	
4	406.88	407.10	406.93	406.72	407.17	407.27	407.23	407.13	406.89	406.92	406.69	406.69	
5	406.87	406.87	406.87	406.59	406.99	407.22	407.22	407.12	406.89	406.92	406.69	406.69	
6	406.89	406.88	406.81	406.73	407.05	407.59	407.22	407.14	406.81	406.91	406.77	406.69	
7	406.92	406.84	406.76	406.63	407.10	407.37	407.21	407.14	406.72	406.89	406.89	406.73	
8	406.91	406.83	406.75	406.86	407.06	407.25	407.22	407.13	406.72	406.89	406.90	406.75	
9	406.93	406.80	406.68	406.84	407.46	407.55	407.22	407.14	406.73	406.89	406.89	406.69	
10	406.92	406.93	406.67	406.83	407.14	407.63	407.19	407.13	406.87	406.90	406.86	406.78	
11	406.90	407.01	406.67	406.91	407.43	407.34	407.17	407.12	406.74	406.92	406.79	406.86	
12	406.90	406.84	406.91	406.93	408.15	407.32	407.17	407.12	406.77	406.92	406.84	406.77	
13	406.90	406.79	407.03	406.95	407.43	407.94	407.17	407.11	406.75	406.90	406.81	406.84	
14	406.91	406.76	407.12	407.05	407.26	407.63	407.17	407.11	406.91	406.93	406.80	406.87	
15	406.91	406.80	406.91	407.39	407.17	407.58	407.17	407.10	406.86	406.93	406.82	406.62	
16	406.90	406.92	406.80	407.33	407.14	407.36	407.41	407.10	406.68	406.91	406.82	406.78	
17	406.90	407.00	406.76	407.03	407.46	407.29	407.22	407.09	406.92	406.89	406.80	406.79	
18	406.89	406.85	406.76	406.98	407.20	407.28	407.16	407.09	406.94	406.89	406.75	406.79	
19	406.87	407.03	406.84	407.00	407.16	407.62	407.18	407.08	406.88	406.90	406.81	406.79	
20	406.94	407.06	406.60	406.90	407.58	408.03	407.13	407.08	406.87	406.91	406.87	406.81	
21	406.93	406.86	406.74	406.97	408.12	408.00	407.13	407.08	406.39	406.89	406.86	406.76	
22	406.92	406.77	406.67	406.82	407.52	407.77	407.10	407.08	406.29	406.89	406.76	406.74	
23	406.91	406.73	406.65	407.00	407.39	407.43	407.09	407.08	406.24	406.89	406.69	406.78	
24	406.91	406.85	406.67	406.99	407.27	407.55	407.09	407.08	406.43	406.90	406.71	406.76	
25	406.91	406.98	406.92	406.82	407.22	407.40	407.08	407.07	406.80	406.91	406.78	406.76	
26	406.92	406.97	407.68	406.76	408.14	407.37	407.05	407.07	406.94	406.92	406.72	406.80	
27	406.89	407.05	407.29	406.95	407.58	407.67	407.05	407.07	406.95	406.93	406.69	406.83	
28	406.87	406.99	406.95	406.98	407.34	407.45	407.08	407.06	406.97	406.90	406.67	406.79	
29	406.84	406.99	406.78	406.98	407.20	407.79	407.00	407.06	406.99	406.91	406.64	406.78	
30	406.88	407.01	406.68	406.96	407.12	407.41	407.02	407.06	406.98	406.90		406.70	
31		407.02		406.98	407.09		407.03		406.98	406.90		406.72	
Mean	406.90	406.93	406.86	406.90	407.34	407.48	407.16	407.09	406.81	406.91	406.77	406.76	
Max	406.94	407.23	407.68	407.39	408.15	408.03	407.41	407.14	407.06	406.96	406.90	406.87	408.15
Min	406.84	406.73	406.60	406.59	406.99	407.11	407.00	407.03	406.24	406.89	406.64	406.62	406.24

Annual Max Momentary Gage Height	408.59	m. (MSL.) ,	at 18.00 Hours , on Sep 20 , 2011		
Zero Gage at Bottom Elevation	406.39	m. (MSL.) ,	River Bed	405.89	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, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.34	5.38	5.06	1.68	8.34	7.84	12.80	3.03	3.66	2.00	0.72	0.54		
2	1.34	4.90	4.42	1.52	11.60	8.01	11.00	3.03	3.66	1.60	0.50	0.58		
3	1.34	9.60	4.10	2.80	9.00	7.51	9.60	4.90	2.82	1.40	0.58	0.58		
4	1.28	7.35	4.58	2.20	8.51	10.40	9.60	5.70	1.34	1.60	0.58	0.58		
5	1.22	3.77	3.77	1.16	5.54	9.40	9.40	5.30	1.34	1.60	0.58	0.58		
6	1.34	3.88	3.11	2.30	6.52	17.27	9.40	6.10	0.86	1.50	0.74	0.58		
7	1.60	3.44	2.60	1.44	7.35	12.40	9.20	6.10	0.64	1.34	1.34	0.66		
8	1.50	3.33	2.50	3.66	6.69	10.00	9.40	5.70	0.64	1.34	1.40	0.70		
9	1.70	3.00	1.84	3.44	14.35	16.37	9.40	6.10	0.66	1.34	1.34	0.58		
10	1.60	4.58	1.76	3.33	8.01	18.45	8.83	5.70	1.22	1.40	1.16	0.76		
11	1.40	5.87	1.76	4.26	13.67	11.80	8.51	5.30	0.68	1.60	0.78	1.16		
12	1.40	3.44	4.26	4.58	36.57	11.40	8.51	5.30	0.74	1.60	1.04	0.74		
13	1.40	2.90	6.19	4.90	13.67	28.70	8.51	4.90	0.70	1.40	0.86	1.04		
14	1.50	2.60	7.68	6.52	10.20	18.45	8.51	4.90	1.50	1.70	0.80	1.22		
15	1.50	3.00	4.26	12.80	8.51	17.05	8.51	4.50	1.16	1.70	0.92	0.44		
16	1.40	4.42	3.00	11.60	8.01	12.20	13.23	4.50	0.56	1.50	0.92	0.76		
17	1.40	5.70	2.60	6.19	14.35	10.80	9.40	4.29	1.60	1.34	0.80	0.78		
18	1.34	3.55	2.60	5.38	9.00	10.60	8.34	4.29	1.80	1.34	0.70	0.78		
19	1.22	6.19	3.44	5.70	8.34	18.13	8.67	4.08	1.28	1.40	0.86	0.78		
20	1.80	6.69	1.20	4.10	17.05	31.95	7.84	4.08	1.22	1.50	1.22	0.86		
21	1.70	3.66	2.40	5.22	35.42	30.80	7.84	4.08	0.19	1.34	1.16	0.72		
22	1.60	2.70	1.76	3.22	15.70	22.85	7.35	4.08	0.09	1.34	0.72	0.68		
23	1.50	2.30	1.60	5.70	12.80	13.67	7.18	4.08	0.04	1.34	0.58	0.76		
24	1.50	3.55	1.76	5.54	10.40	16.37	7.18	4.08	0.23	1.40	0.62	0.72		
25	1.50	5.38	4.42	3.22	9.40	13.00	7.02	3.87	0.80	1.50	0.76	0.72		
26	1.60	5.22	20.02	2.60	36.19	12.40	6.52	3.87	1.80	1.60	0.64	0.80		
27	1.34	6.52	10.80	4.90	17.05	19.71	6.52	3.87	1.90	1.70	0.58	0.98		
28	1.22	5.54	4.90	5.38	11.80	14.13	7.02	3.66	2.10	1.40	0.54	0.78		
29	1.04	5.54	2.80	5.38	9.00	23.49	5.70	3.66	2.30	1.50	0.48	0.76		
30	3.88	5.87	1.84	5.06	7.68	13.23	2.82	3.66	2.20	1.40		0.60		
31		6.03		5.38	7.18		3.03		2.20	1.40		0.64		
Total	45.50	145.90	123.03	141.16	397.90	468.38	256.84	136.71	41.93	46.12	23.92	22.86	1850.25	CMSDAY
Mean	1.52	4.71	4.10	4.55	12.84	15.61	8.29	4.56	1.35	1.49	0.82	0.74	5.06	CMS
Max	3.88	9.60	20.02	12.80	36.57	31.95	13.23	6.10	3.66	2.00	1.40	1.22	36.57	CMS
Min	1.04	2.30	1.20	1.16	5.54	7.51	2.82	3.03	0.04	1.34	0.48	0.44	0.04	CMS
Runoff	3.93	12.61	10.63	12.20	34.38	40.47	22.19	11.81	3.62	3.99	2.07	1.98	159.86	MCM

Momentary Peak 56.02 CMS. at 408.59 m. (MSL.) at 18.00 Hours , on Sep 20 , 2011

Runoff Yield 20.38 Liters/Second/Square KM. Momentary Peak Yield 225.887 Liters/Second/Square KM.

WATER YEAR : 2011

KHONG RIVER BASIN

Lam Nam Phung at Ban Tong Khop , Sakon Nakhon (Kh.90)

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

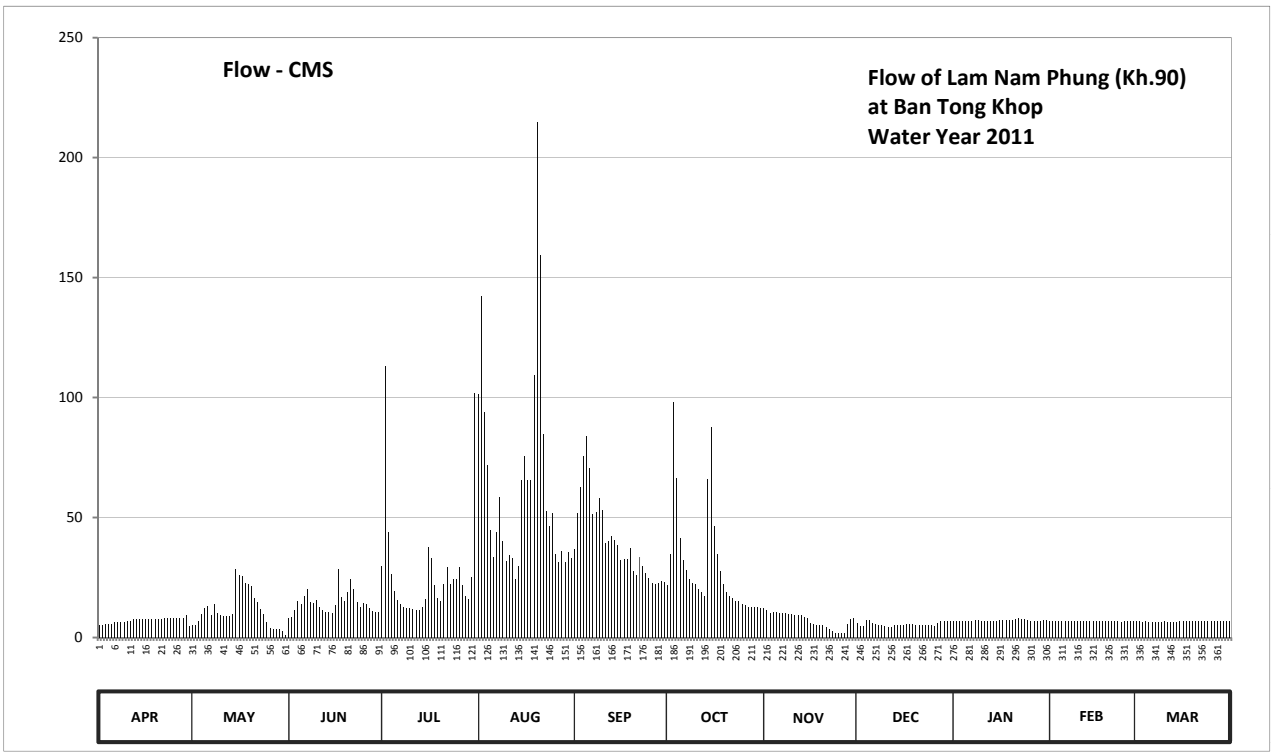
Location : on right bank at the bridge on highway.

	Ban Tong Khop	**Amphoe** Khok Si Suphan	**Changwat** Sakon Nakhon
Drainge Area	861 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+158.500 m. (MSL.)		
Bench Mark	B.M.- Highways Dept.		
Location BM	On right bank at the footpath of the bridge.	**Elevation**	+167.456 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00 , 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings		
Period of Available Gage Records	1996 to date		
Rating Operation			
Period of Rating	1996 to date		
Rated by Flot	-		
Rated by Current Meter	1996 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	Overbank flow starts at elevation +164.020 m.(MSL.), records are channel flow only.		
General Description	Records good. Stage-discharge relation defined by 22 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	158.76	158.75	158.95	160.20	162.92	160.57	159.78	159.21	158.80	158.86	158.87	158.85	
2	158.76	158.76	158.96	163.22	163.74	161.18	160.48	159.15	158.73	158.86	158.86	158.86	
3	158.77	158.86	159.16	160.87	162.68	161.60	162.82	159.08	158.72	158.86	158.86	158.84	
4	158.77	159.04	159.39	160.03	161.92	162.06	161.73	159.09	158.89	158.86	158.87	158.85	
5	158.77	159.20	159.30	159.62	160.90	162.36	160.76	159.09	158.89	158.86	158.86	158.84	
6	158.82	159.25	159.51	159.41	160.42	161.87	160.36	159.08	158.81	158.85	158.86	158.84	
7	158.82	159.03	159.68	159.30	160.87	161.17	160.11	159.08	158.77	158.87	158.85	158.84	
8	158.82	159.31	159.35	159.22	161.44	161.20	159.92	159.07	158.75	158.89	158.86	158.84	
9	158.83	159.06	159.33	159.20	160.71	161.42	159.81	159.05	158.75	158.88	158.87	158.84	
10	158.85	159.01	159.41	159.20	160.33	161.24	159.79	159.04	158.73	158.86	158.87	158.85	
11	158.87	159.00	159.24	159.19	160.47	160.69	159.67	159.02	158.70	158.86	158.86	158.84	
12	158.92	159.00	159.14	159.14	160.40	160.71	159.60	159.01	158.70	158.85	158.87	158.83	
13	158.92	159.00	159.09	159.16	159.92	160.81	159.51	159.01	158.76	158.86	158.87	158.83	
14	158.92	159.05	159.10	159.22	160.21	160.74	161.71	158.98	158.74	158.86	158.86	158.84	
15	158.92	160.15	159.08	159.44	161.69	160.64	162.49	158.93	158.75	158.87	158.86	158.85	
16	158.92	160.01	159.28	160.61	162.06	160.35	160.97	158.79	158.75	158.88	158.87	158.85	
17	158.92	159.99	160.14	160.40	161.70	160.37	160.48	158.77	158.78	158.88	158.87	158.85	
18	158.92	159.81	159.49	159.78	161.70	160.38	160.10	158.76	158.77	158.88	158.86	158.85	
19	158.92	159.80	159.40	159.46	163.13	160.60	159.80	158.75	158.77	158.88	158.86	158.86	
20	158.92	159.74	159.60	159.39	164.68	160.10	159.61	158.75	158.76	158.89	158.87	158.86	
21	158.92	159.46	159.92	159.79	164.02	160.01	159.52	158.70	158.75	158.90	158.86	158.85	
22	158.93	159.37	159.67	160.18	162.38	160.42	159.47	158.65	158.75	158.94	158.85	158.86	
23	158.95	159.17	159.36	159.79	161.22	160.21	159.40	158.57	158.75	158.91	158.85	158.87	
24	158.95	159.04	159.22	159.92	160.97	160.04	159.38	158.53	158.76	158.90	158.84	158.87	
25	158.95	158.82	159.33	159.92	161.18	159.94	159.30	158.53	158.74	158.89	158.85	158.86	
26	158.95	158.67	159.31	160.18	160.48	159.82	159.28	158.52	158.73	158.86	158.85	158.86	
27	158.95	158.65	159.21	159.76	160.31	159.79	159.23	158.53	158.79	158.86	158.86	158.86	
28	158.95	158.65	159.13	159.51	160.54	159.82	159.22	158.77	158.87	158.87	158.86	158.86	
29	159.01	158.65	159.10	159.43	160.30	159.85	159.22	158.92	158.87	158.87	158.86	158.86	
30	158.72	158.58	159.11	159.96	160.53	159.83	159.22	158.93	158.87	158.88		158.86	
31		158.46		162.93	160.40		159.21		158.87	158.88		158.86	
Mean	158.88	159.14	159.33	159.92	161.43	160.66	160.06	158.88	158.78	158.87	158.86	158.85	
Max	159.01	160.15	160.14	163.22	164.68	162.36	162.82	159.21	158.89	158.94	158.87	158.87	164.68
Min	158.72	158.46	158.95	159.14	159.92	159.79	159.21	158.52	158.70	158.85	158.84	158.83	158.46

Annual Max Momentary Gage Height	164.77	m. (MSL.) ,	at 12.00 Hours , on Aug 20 , 2011		
Zero Gage at Bottom Elevation	158.50	m. (MSL.) ,	River Bed	157.48	m. (MSL)
Left Bank Elevation	164.01	m. (MSL.) ,			
Right Bank Elevation	164.22	m. (MSL.) ,	Drainage Area	861	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	5.40	5.25	8.25	29.60	101.44	36.68	22.04	12.36	6.00	6.90	7.05	6.75		
2	5.40	5.40	8.40	113.00	142.40	51.68	34.64	11.40	4.95	6.90	6.90	6.90		
3	5.55	6.90	11.56	43.88	93.76	62.80	98.24	10.28	4.80	6.90	6.90	6.60		
4	5.55	9.64	15.24	26.54	71.76	75.68	66.44	10.44	7.35	6.90	7.05	6.75		
5	5.55	12.20	13.80	19.16	44.60	84.08	41.24	10.44	7.35	6.90	6.90	6.60		
6	6.30	13.00	17.18	15.56	33.56	70.36	32.48	10.28	6.15	6.75	6.90	6.60		
7	6.30	9.48	20.24	13.80	43.88	51.42	27.98	10.28	5.55	7.05	6.75	6.60		
8	6.30	13.96	14.60	12.52	58.44	52.20	24.56	10.12	5.25	7.35	6.90	6.60		
9	6.45	9.96	14.28	12.20	40.04	57.92	22.58	9.80	5.25	7.20	7.05	6.60		
10	6.75	9.16	15.56	12.20	31.94	53.24	22.22	9.64	4.95	6.90	7.05	6.75		
11	7.05	9.00	12.84	12.04	34.46	39.56	20.06	9.32	4.50	6.90	6.90	6.60		
12	7.80	9.00	11.24	11.24	33.20	40.04	18.80	9.16	4.50	6.75	7.05	6.45		
13	7.80	9.00	10.44	11.56	24.56	42.44	17.18	9.16	5.40	6.90	7.05	6.45		
14	7.80	9.80	10.60	12.52	29.78	40.76	65.88	8.70	5.10	6.90	6.90	6.60		
15	7.80	28.70	10.28	16.04	65.32	38.36	87.72	7.95	5.25	7.05	6.90	6.75		
16	7.80	26.18	13.48	37.64	75.68	32.30	46.28	5.85	5.25	7.20	7.05	6.75		
17	7.80	25.82	28.52	33.20	65.60	32.66	34.64	5.55	5.70	7.20	7.05	6.75		
18	7.80	22.58	16.84	22.04	65.60	32.84	27.80	5.40	5.55	7.20	6.90	6.75		
19	7.80	22.40	15.40	16.36	109.20	37.40	22.40	5.25	5.55	7.20	6.90	6.90		
20	7.80	21.32	18.80	15.24	215.00	27.80	18.98	5.25	5.40	7.35	7.05	6.90		
21	7.80	16.36	24.56	22.22	159.40	26.18	17.36	4.50	5.25	7.50	6.90	6.75		
22	7.95	14.92	20.06	29.24	84.64	33.56	16.52	3.75	5.25	8.10	6.75	6.90		
23	8.25	11.72	14.76	22.22	52.72	29.78	15.40	2.55	5.25	7.65	6.75	7.05		
24	8.25	9.64	12.52	24.56	46.28	26.72	15.08	1.95	5.40	7.50	6.60	7.05		
25	8.25	6.30	14.28	24.56	51.68	24.92	13.80	1.95	5.10	7.35	6.75	6.90		
26	8.25	4.05	13.96	29.24	34.64	22.76	13.48	1.80	4.95	6.90	6.75	6.90		
27	8.25	3.75	12.36	21.68	31.58	22.22	12.68	1.95	5.85	6.90	6.90	6.90		
28	8.25	3.75	11.08	17.18	35.96	22.76	12.52	5.55	7.05	7.05	6.90	6.90		
29	9.16	3.75	10.60	15.88	31.40	23.30	12.52	7.80	7.05	7.05	6.90	6.90		
30	4.80	2.70	10.76	25.28	35.72	22.94	12.52	7.95	7.05	7.20		6.90		
31		0.90		101.76	33.20		12.36		7.05	7.20		6.90		
Total	216.01	356.59	432.49	820.16	1977.44	1215.36	906.40	216.38	175.05	220.80	200.40	209.70	6946.78	CMSDAY
Mean	7.20	11.50	14.42	26.46	63.79	40.51	29.24	7.21	5.65	7.12	6.91	6.76	18.98	CMS
Max	9.16	28.70	28.52	113.00	215.00	84.08	98.24	12.36	7.35	8.10	7.05	7.05	215.00	CMS
Min	4.80	0.90	8.25	11.24	24.56	22.22	12.36	1.80	4.50	6.75	6.60	6.45	0.90	CMS
Runoff	18.66	30.81	37.37	70.86	170.85	105.01	78.31	18.70	15.12	19.08	17.32	18.12	600.20	MCM

Momentary Peak 224.00 CMS. at 164.77 m. (MSL.) at 12.00 Hours , on Aug 20 , 2011

Runoff Yield 22.04 Liters/Second/Square KM. Momentary Peak Yield 260.163 Liters/Second/Square KM.

WATER YEAR : 2011

KHONG RIVER BASIN

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

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

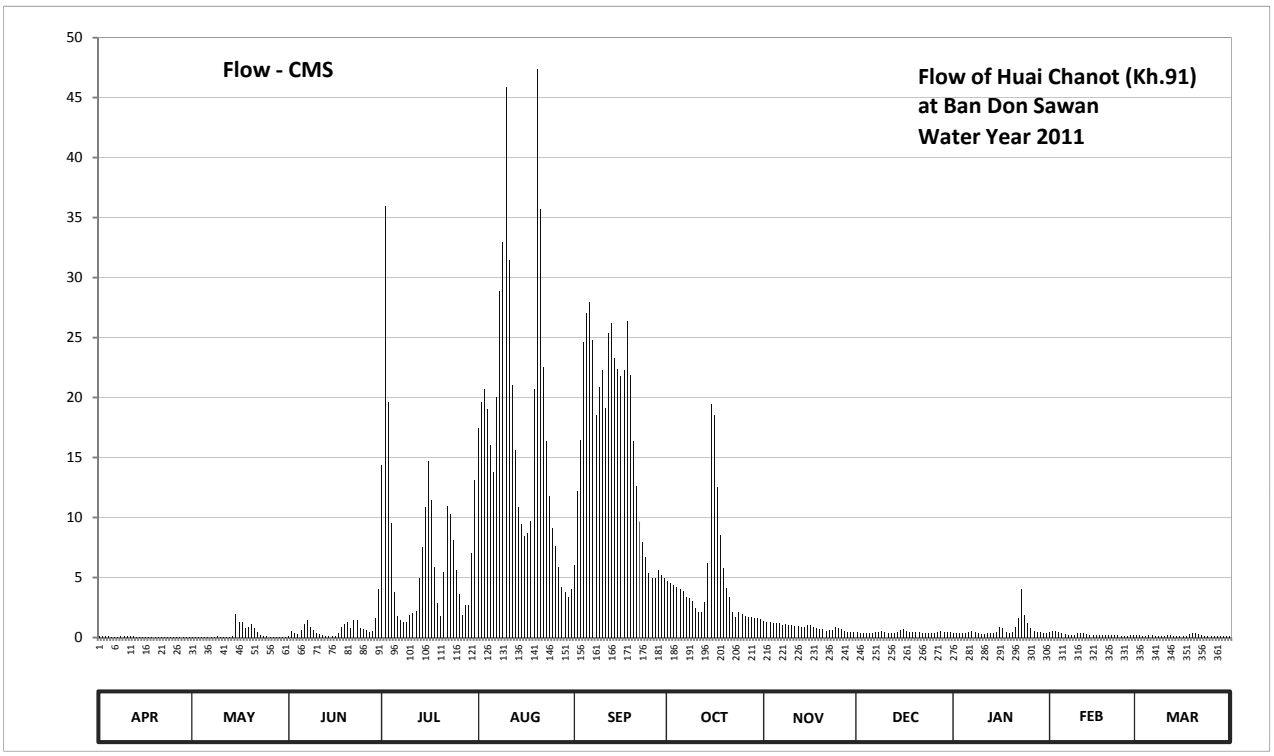
Location : on left bank at the bridge on highway.

	Ban Don Sawan	**Amphoe** That Phanom	**Changwat** Nakhon Phanom
Drainge Area	172 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+149.000 m. (MSL.)		
Bench Mark	B.M.- Highways Dept.		
Location BM	On left bank at the footpath of the bridge.	**Elevation**	+159.228 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00 , 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings		
Period of Available Gage Records	1996 to date		
Rating Operation			
Period of Rating	1996 to date		
Rated by Flot	-		
Rated by Current Meter	1996 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	Overbank flow starts at elevation +153.370 m.(MSL.), records are channel flow only.		
General Description	Records good. Stage-discharge relation defined by 21 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	150.02	149.88	149.98	152.65	152.98	151.51	151.28	150.51	150.21	150.19	150.21	150.08	
2	150.00	149.86	150.24	154.25	153.20	152.39	151.24	150.49	150.20	150.18	150.25	150.07	
3	149.98	149.86	150.19	153.20	153.31	152.88	151.21	150.49	150.20	150.18	150.24	150.05	
4	149.98	149.86	150.16	152.06	153.14	153.67	151.18	150.48	150.20	150.18	150.21	150.05	
5	149.96	149.85	150.28	151.10	152.84	153.82	151.14	150.47	150.20	150.19	150.18	150.10	
6	149.94	149.85	150.43	150.66	152.59	153.87	151.11	150.46	150.20	150.22	150.14	150.10	
7	149.93	149.85	150.55	150.54	153.24	153.68	151.02	150.41	150.21	150.24	150.10	150.05	
8	150.00	149.87	150.35	150.50	153.92	153.09	150.99	150.43	150.23	150.22	150.08	150.05	
9	150.05	150.00	150.26	150.50	154.12	153.33	150.95	150.42	150.24	150.18	150.09	150.05	
10	150.05	149.92	150.17	150.70	154.63	153.47	150.83	150.40	150.21	150.15	150.17	150.05	
11	150.04	149.90	150.16	150.73	154.05	153.15	150.76	150.39	150.20	150.15	150.19	150.07	
12	149.97	149.88	150.07	150.78	153.34	153.72	150.75	150.38	150.19	150.17	150.19	150.10	
13	149.94	149.89	150.00	151.32	152.79	153.77	150.93	150.36	150.18	150.17	150.16	150.03	
14	149.92	149.97	150.00	151.76	152.22	153.56	151.54	150.35	150.21	150.18	150.12	150.00	
15	149.90	150.71	150.00	152.22	152.05	153.48	153.18	150.40	150.26	150.23	150.09	150.00	
16	149.87	150.50	150.01	152.69	151.91	153.42	153.09	150.40	150.30	150.37	150.10	150.00	
17	149.86	150.50	150.20	152.30	151.95	153.47	152.43	150.36	150.25	150.32	150.10	150.01	
18	149.86	150.34	150.36	151.48	152.08	153.78	151.92	150.33	150.21	150.23	150.10	150.15	
19	149.89	150.35	150.45	150.92	153.31	153.43	151.47	150.29	150.23	150.20	150.09	150.19	
20	149.90	150.44	150.50	150.66	154.68	152.87	151.16	150.29	150.21	150.22	150.09	150.17	
21	149.89	150.34	150.32	151.41	154.24	152.44	151.02	150.25	150.21	150.37	150.08	150.14	
22	149.89	150.22	150.55	152.23	153.49	152.07	150.75	150.27	150.20	150.61	150.08	150.10	
23	149.88	150.12	150.55	152.15	152.87	151.83	150.62	150.28	150.20	151.14	150.07	150.01	
24	149.90	150.04	150.33	151.85	152.34	151.61	150.76	150.35	150.18	150.70	150.05	150.00	
25	149.90	149.99	150.29	151.44	152.00	151.40	150.72	150.34	150.18	150.46	150.05	149.99	
26	149.89	149.95	150.28	151.07	151.77	151.32	150.66	150.29	150.19	150.33	150.05	150.00	
27	149.88	149.91	150.22	150.69	151.48	151.32	150.63	150.25	150.21	150.25	150.08	150.00	
28	149.88	149.90	150.24	150.88	151.18	151.44	150.62	150.21	150.25	150.23	150.08	149.98	
29	149.89	149.90	150.60	150.88	151.10	151.37	150.60	150.21	150.22	150.21	150.08	149.98	
30	149.88	149.88	151.15	151.67	151.02	151.33	150.60	150.21	150.21	150.18		149.98	
31		149.87		152.50	151.15		150.57		150.21	150.17		149.98	
Mean	149.93	150.05	150.30	151.54	152.74	152.75	151.15	150.36	150.21	150.28	150.12	150.05	
Max	150.05	150.71	151.15	154.25	154.68	153.87	153.18	150.51	150.30	151.14	150.25	150.19	154.68
Min	149.86	149.85	149.98	150.50	151.02	151.32	150.57	150.21	150.18	150.15	150.05	149.98	149.85

Annual Max Momentary Gage Height	154.71	m. (MSL.) ,	at 09.00 Hours , on Aug 20 , 2011		
Zero Gage at Bottom Elevation	149.00	m. (MSL.) ,	River Bed	149.45	m. (MSL)
Left Bank Elevation	153.36	m. (MSL.) ,			
Right Bank Elevation	155.68	m. (MSL.) ,	Drainage Area	172	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.12	0.04	0.09	14.35	17.40	6.06	4.70	1.33	0.43	0.38	0.43	0.18		
2	0.10	0.03	0.52	35.95	19.60	12.22	4.50	1.27	0.40	0.36	0.55	0.17		
3	0.09	0.03	0.38	19.60	20.70	16.42	4.35	1.27	0.40	0.36	0.52	0.15		
4	0.09	0.03	0.32	9.58	19.00	24.64	4.20	1.24	0.40	0.36	0.43	0.15		
5	0.08	0.03	0.64	3.80	16.06	27.06	4.00	1.21	0.40	0.38	0.36	0.20		
6	0.07	0.03	1.09	1.78	13.82	27.96	3.85	1.18	0.40	0.46	0.28	0.20		
7	0.06	0.03	1.45	1.42	20.00	24.76	3.40	1.03	0.43	0.52	0.20	0.15		
8	0.10	0.03	0.85	1.30	28.88	18.50	3.25	1.09	0.49	0.46	0.18	0.15		
9	0.15	0.10	0.58	1.30	32.96	20.90	3.05	1.06	0.52	0.36	0.19	0.15		
10	0.15	0.06	0.34	1.90	45.90	22.30	2.45	1.00	0.43	0.30	0.34	0.15		
11	0.14	0.05	0.32	2.02	31.45	19.10	2.14	0.97	0.40	0.30	0.38	0.17		
12	0.09	0.04	0.17	2.22	21.00	25.34	2.10	0.94	0.38	0.34	0.38	0.20		
13	0.07	0.04	0.10	4.92	15.61	26.19	2.95	0.88	0.36	0.34	0.32	0.13		
14	0.06	0.09	0.10	7.56	10.86	23.32	6.24	0.85	0.43	0.36	0.24	0.10		
15	0.05	1.94	0.10	10.86	9.50	22.40	19.40	1.00	0.58	0.49	0.19	0.10		
16	0.03	1.30	0.11	14.71	8.47	21.80	18.50	1.00	0.70	0.91	0.20	0.10		
17	0.03	1.30	0.40	11.50	8.75	22.30	12.54	0.88	0.55	0.76	0.20	0.11		
18	0.03	0.82	0.88	5.88	9.74	26.36	8.54	0.79	0.43	0.49	0.20	0.30		
19	0.04	0.85	1.15	2.90	20.70	21.90	5.82	0.67	0.49	0.40	0.19	0.38		
20	0.05	1.12	1.30	1.78	47.40	16.33	4.10	0.67	0.43	0.46	0.19	0.34		
21	0.04	0.82	0.76	5.46	35.72	12.62	3.40	0.55	0.43	0.91	0.18	0.28		
22	0.04	0.46	1.45	10.94	22.50	9.66	2.10	0.61	0.40	1.63	0.18	0.20		
23	0.04	0.24	1.45	10.30	16.33	7.98	1.66	0.64	0.40	4.00	0.17	0.11		
24	0.05	0.14	0.79	8.10	11.82	6.66	2.14	0.85	0.36	1.90	0.15	0.10		
25	0.05	0.10	0.67	5.64	9.10	5.40	1.98	0.82	0.36	1.18	0.15	0.10		
26	0.04	0.07	0.64	3.65	7.62	4.92	1.78	0.67	0.38	0.79	0.15	0.10		
27	0.04	0.06	0.46	1.87	5.88	4.92	1.69	0.55	0.43	0.55	0.18	0.10		
28	0.04	0.05	0.52	2.70	4.20	5.64	1.66	0.43	0.55	0.49	0.18	0.09		
29	0.04	0.05	1.60	2.70	3.80	5.22	1.60	0.43	0.46	0.43	0.18	0.09		
30	0.04	0.04	4.05	7.02	3.40	4.98	1.60	0.43	0.43	0.36		0.09		
31		0.03		13.10	4.05		1.51		0.43	0.34		0.09		
Total	2.02	10.02	23.28	226.81	542.22	493.86	141.20	26.31	13.68	21.37	7.49	4.93	1513.19	CMSDAY
Mean	0.07	0.32	0.78	7.32	17.49	16.46	4.55	0.88	0.44	0.69	0.26	0.16	4.13	CMS
Max	0.15	1.94	4.05	35.95	47.40	27.96	19.40	1.33	0.70	4.00	0.55	0.38	47.40	CMS
Min	0.03	0.03	0.09	1.30	3.40	4.92	1.51	0.43	0.36	0.30	0.15	0.09	0.03	CMS
Runoff	0.18	0.87	2.01	19.60	46.85	42.67	12.20	2.27	1.18	1.85	0.65	0.43	130.74	MCM

Momentary Peak 48.40 CMS. at 154.71 m. (MSL.) at 09.00 Hours , on Aug 20 , 2011

Runoff Yield 24.04 Liters/Second/Square KM. Momentary Peak Yield 281.395 Liters/Second/Square KM.

WATER YEAR : 2011

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

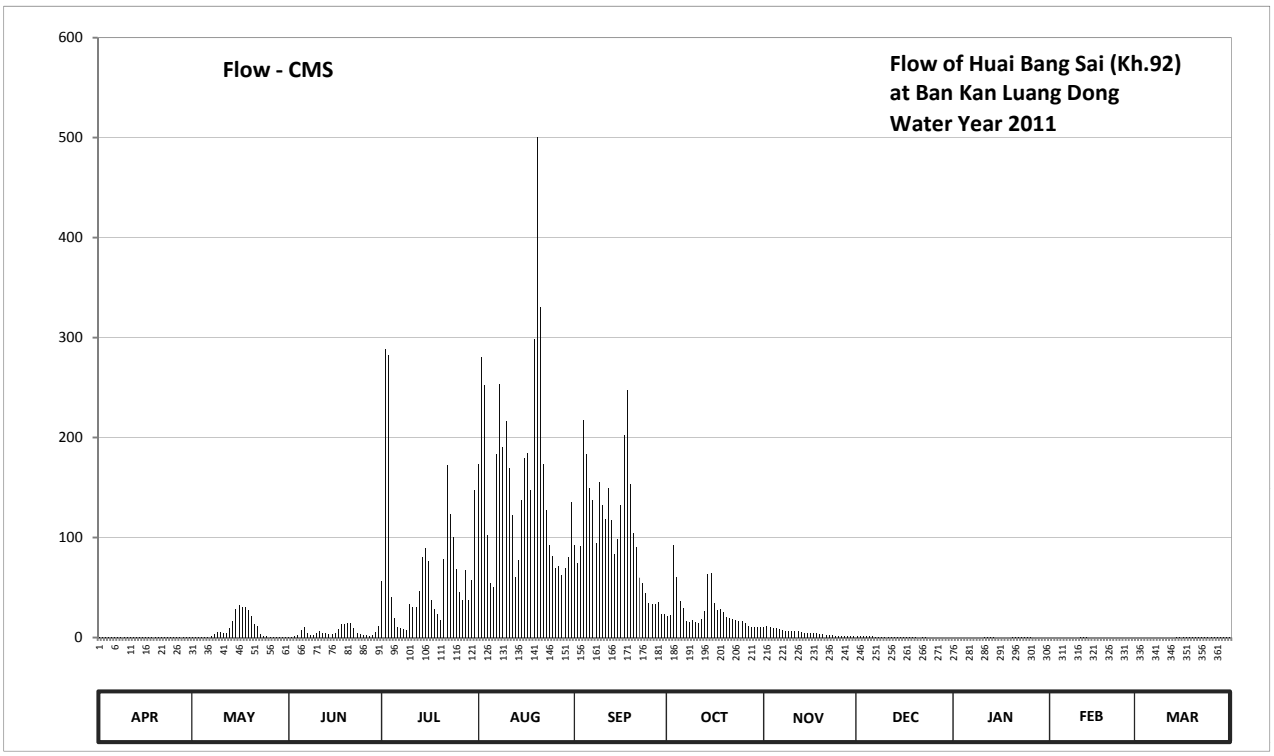
Location : on left bank at the bridge on highway.

	Ban Kan Luang Dong	**Amphoe** Dong Luang	**Changwat** Muk Dahan
Drainge Area	1,119 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+147.840 m. (MSL.)		
Bench Mark	B.M.- Highways Dept.		
Location BM	On left bank at the footpath of the bridge.		**Elevation** +158.890 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00 , 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings		
Period of Available Gage Records	1996 to date		
Rating Operation			
Period of Rating	1996 to date		
Rated by Flot	-		
Rated by Current Meter	1996 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	Overbank flow starts at elevation +153.730 m.(MSL.), records are channel flow only.		
General Description	Records good. The local weir situated downstream from the gage site.		
	Stage-discharge relation defined by 21 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	148.85	148.85	148.85	150.83	153.05	151.61	149.84	149.44	148.94	148.79	148.78	148.79	
2	148.85	148.85	148.89	154.75	154.64	151.23	149.87	149.46	148.94	148.79	148.79	148.79	
3	148.85	148.85	148.90	154.67	154.25	151.60	151.62	149.42	148.92	148.79	148.79	148.79	
4	148.85	148.87	149.00	150.42	151.82	153.74	150.91	149.39	148.93	148.79	148.78	148.77	
5	148.85	148.87	149.26	149.75	150.77	153.21	150.30	149.38	148.90	148.77	148.77	148.77	
6	148.85	148.89	149.42	149.44	150.68	152.66	150.11	149.34	148.92	148.77	148.79	148.77	
7	148.85	148.95	149.14	149.36	153.21	152.46	149.66	149.29	148.89	148.77	148.79	148.74	
8	148.85	149.09	149.04	149.31	154.27	151.66	149.62	149.24	148.89	148.74	148.79	148.76	
9	148.85	149.16	149.00	149.27	153.33	152.76	149.68	149.22	148.89	148.74	148.79	148.77	
10	148.85	149.19	149.11	150.23	153.73	152.38	149.62	149.22	148.89	148.79	148.80	148.77	
11	148.85	149.14	149.22	150.14	152.99	152.13	149.60	149.24	148.87	148.84	148.82	148.79	
12	148.85	149.15	149.14	150.12	152.19	152.65	149.74	149.20	148.87	148.84	148.82	148.79	
13	148.85	149.38	149.11	150.58	150.92	152.11	150.00	149.18	148.87	148.82	148.82	148.79	
14	148.85	149.65	149.09	151.36	151.30	151.42	150.99	149.15	148.87	148.82	148.79	148.82	
15	148.85	150.06	149.09	151.55	152.45	151.74	151.01	149.14	148.84	148.79	148.79	148.84	
16	148.85	150.18	149.13	151.28	153.15	152.38	150.25	149.13	148.84	148.79	148.79	148.87	
17	148.85	150.14	149.30	150.33	153.23	153.52	150.03	149.12	148.84	148.77	148.79	148.87	
18	148.85	150.12	149.57	150.07	152.63	154.17	150.08	149.12	148.82	148.77	148.79	148.84	
19	148.85	150.03	149.55	149.92	154.90	152.72	149.97	149.09	148.82	148.79	148.79	148.84	
20	148.85	149.83	149.58	149.70	157.07	151.86	149.82	149.07	148.82	148.82	148.79	148.84	
21	148.85	149.56	149.60	151.32	155.29	151.57	149.78	149.04	148.79	148.84	148.79	148.87	
22	148.85	149.45	149.36	153.03	153.06	150.90	149.72	149.04	148.82	148.84	148.79	148.87	
23	148.86	149.07	149.14	152.22	152.28	150.78	149.68	149.03	148.85	148.84	148.77	148.87	
24	148.86	148.94	149.05	151.78	151.62	150.53	149.66	148.99	148.80	148.84	148.77	148.84	
25	148.86	148.90	149.02	151.10	151.38	150.25	149.66	148.99	148.79	148.82	148.77	148.84	
26	148.86	148.87	149.02	150.56	151.12	150.21	149.60	148.97	148.77	148.82	148.77	148.84	
27	148.86	148.87	148.99	150.35	151.16	150.23	149.49	148.97	148.77	148.79	148.77	148.84	
28	148.86	148.87	149.01	151.08	150.96	150.29	149.44	148.97	148.77	148.79	148.77	148.84	
29	148.86	148.84	149.16	150.33	151.13	149.92	149.44	148.94	148.74	148.79	148.77	148.84	
30	148.86	148.84	149.46	150.85	151.37	149.92	149.44	148.94	148.74	148.77		148.84	
31		148.84		152.63	152.42		149.42		148.74	148.77		148.84	
Mean	148.85	149.24	149.17	150.91	152.66	151.75	149.94	149.16	148.84	148.80	148.79	148.82	
Max	148.86	150.18	149.60	154.75	157.07	154.17	151.62	149.46	148.94	148.84	148.82	148.87	157.07
Min	148.85	148.84	148.85	149.27	150.68	149.92	149.42	148.94	148.74	148.74	148.77	148.74	148.74

Annual Max Momentary Gage Height	157.29	m. (MSL.) ,	at 08.00 Hours , on Aug 20 , 2011		
Zero Gage at Bottom Elevation	147.84	m. (MSL.) ,	River Bed	148.24	m. (MSL)
Left Bank Elevation	153.73	m. (MSL.) ,			
Right Bank Elevation	157.24	m. (MSL.) ,	Drainage Area	1119	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.50	0.50	0.50	56.86	173.10	92.28	21.52	10.80	1.40	0.00	0.00	0.00		
2	0.50	0.50	0.90	288.00	280.08	74.58	22.36	11.20	1.40	0.00	0.00	0.00		
3	0.50	0.50	1.00	282.24	252.50	91.80	92.76	10.40	1.20	0.00	0.00	0.00		
4	0.50	0.70	2.00	40.28	102.36	217.32	60.22	9.80	1.30	0.00	0.00	0.00		
5	0.50	0.70	7.20	19.00	54.34	183.02	36.20	9.60	1.00	0.00	0.00	0.00		
6	0.50	0.90	10.40	10.80	50.56	149.60	29.74	8.80	1.20	0.00	0.00	0.00		
7	0.50	1.50	4.80	9.20	183.02	137.68	16.48	7.80	0.90	0.00	0.00	0.00		
8	0.50	3.80	2.80	8.20	253.90	94.68	15.36	6.80	0.90	0.00	0.00	0.00		
9	0.50	5.20	2.00	7.40	190.46	155.60	17.04	6.40	0.90	0.00	0.00	0.00		
10	0.50	5.80	4.20	33.82	216.64	133.04	15.36	6.40	0.90	0.00	0.00	0.00		
11	0.50	4.80	6.40	30.76	169.40	118.54	14.80	6.80	0.70	0.40	0.20	0.00		
12	0.50	5.00	4.80	30.08	122.02	149.00	18.72	6.00	0.70	0.40	0.20	0.00		
13	0.50	9.60	4.20	46.36	60.64	117.38	26.00	5.60	0.70	0.20	0.20	0.00		
14	0.50	16.20	3.80	80.56	77.80	83.32	63.58	5.00	0.70	0.20	0.00	0.20		
15	0.50	28.04	3.80	89.40	137.10	98.52	64.46	4.80	0.40	0.00	0.00	0.40		
16	0.50	32.12	4.60	76.88	179.30	133.04	34.50	4.60	0.40	0.00	0.00	0.70		
17	0.50	30.76	8.00	37.22	184.26	202.36	27.02	4.40	0.40	0.00	0.00	0.70		
18	0.50	30.08	13.96	28.38	147.80	246.90	28.72	4.40	0.20	0.00	0.00	0.40		
19	0.50	27.02	13.40	23.76	298.80	153.20	25.16	3.80	0.20	0.00	0.00	0.40		
20	0.50	21.24	14.24	17.60	500.14	104.28	20.96	3.40	0.20	0.20	0.00	0.40		
21	0.50	13.68	14.80	78.72	330.36	90.36	19.84	2.80	0.00	0.40	0.00	0.70		
22	0.50	11.00	9.20	171.86	173.72	59.80	18.16	2.80	0.20	0.40	0.00	0.70		
23	0.60	3.40	4.80	123.76	127.24	54.76	17.04	2.60	0.50	0.40	0.00	0.70		
24	0.60	1.40	3.00	100.44	92.76	44.26	16.48	1.90	0.00	0.40	0.00	0.40		
25	0.60	1.00	2.40	68.60	81.48	34.50	16.48	1.90	0.00	0.20	0.00	0.40		
26	0.60	0.70	2.40	45.52	69.52	33.14	14.80	1.70	0.00	0.20	0.00	0.40		
27	0.60	0.70	1.90	37.90	71.36	33.82	11.80	1.70	0.00	0.00	0.00	0.40		
28	0.60	0.70	2.20	67.68	62.32	35.86	10.80	1.70	0.00	0.00	0.00	0.40		
29	0.60	0.40	5.20	37.22	69.98	23.76	10.80	1.40	0.00	0.00	0.00	0.40		
30	0.60	0.40	11.20	57.70	81.02	23.76	10.80	1.40	0.00	0.00		0.40		
31		0.40		147.80	135.36		10.40		0.00	0.00		0.40		
Total	15.80	258.74	170.10	2154.00	4929.34	3170.16	808.36	156.70	16.40	3.40	0.60	8.50	11692.10	CMSDAY
Mean	0.53	8.35	5.67	69.48	159.01	105.67	26.08	5.22	0.53	0.11	0.02	0.27	31.95	CMS
Max	0.60	32.12	14.80	288.00	500.14	246.90	92.76	11.20	1.40	0.40	0.20	0.70	500.14	CMS
Min	0.50	0.40	0.50	7.40	50.56	23.76	10.40	1.40	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	1.37	22.36	14.70	186.11	425.90	273.90	69.84	13.54	1.42	0.29	0.05	0.73	1010.20	MCM

Momentary Peak 522.58 CMS. at 157.29 m. (MSL.) at 08.00 Hours , on Aug 20 , 2011

Runoff Yield 28.55 Liters/Second/Square KM. Momentary Peak Yield 467.006 Liters/Second/Square KM.

WATER YEAR : 2011

KHONG RIVER BASIN

Nam San at Ban Kaeng Hai , Loei (Kh.95)

Lat 17 - 26 - 20 N Long 101 - 19 - 50 E

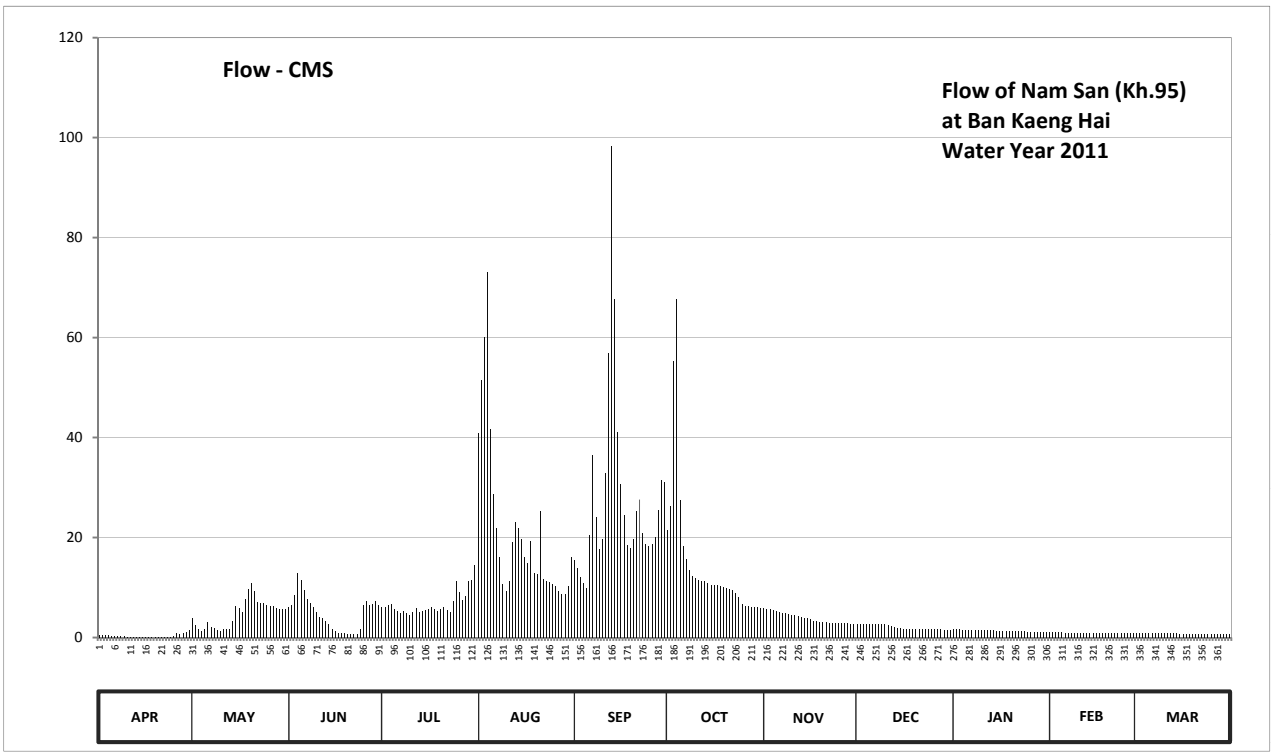
Location : on left bank at the bridge of Amphoe Phu Rua - Amphoe Dan Sai Highway.

	Ban Kaeng Hai	**Amphoe** Phu Rua	**Changwat** Loei
Drainge Area	352 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+593.920 m. (MSL.)		
Bench Mark	B.M.- Highways Dept.		
Location BM	On left bank upstream side at the footpath of the bridge.	**Elevation**	+605.713 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	1998 to date		
Rating Operation			
Period of Rating	1998 to date		
Rated by Flot	-		
Rated by Current Meter	1999 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	Overbank flow starts at elevation +601.800 m.(MSL.), records are channel flow only.		
General Description	Records good. Stage-discharge relation defined by 21 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	595.17	596.19	596.61	596.62	600.86	598.37	599.10	596.57	595.95	595.66	595.44	595.34	
2	595.14	595.91	596.72	596.62	601.36	598.14	599.62	596.55	595.95	595.66	595.43	595.33	
3	595.12	595.68	597.09	596.69	601.60	597.81	601.48	596.52	595.95	595.67	595.42	595.33	
4	595.10	595.54	597.97	596.73	601.89	597.56	601.78	596.49	595.94	595.65	595.42	595.32	
5	595.08	595.70	597.71	596.52	600.91	597.39	599.75	596.46	595.94	595.64	595.41	595.32	
6	595.06	596.03	597.29	596.44	599.86	599.01	598.73	596.43	595.94	595.64	595.40	595.31	
7	595.04	595.82	596.92	596.40	599.15	600.57	598.38	596.40	595.94	595.63	595.39	595.31	
8	595.02	595.76	596.77	596.44	598.44	599.40	598.07	596.37	595.93	595.63	595.38	595.31	
9	595.00	595.62	596.61	596.40	597.54	598.65	597.86	596.34	595.93	595.62	595.38	595.30	
10	594.98	595.58	596.42	596.30	597.27	598.91	597.78	596.31	595.93	595.62	595.37	595.30	
11	594.97	595.72	596.24	596.41	597.66	600.26	597.71	596.28	595.91	595.61	595.37	595.30	
12	594.97	595.73	596.19	596.57	598.83	601.52	597.68	596.25	595.86	595.61	595.37	595.29	
13	594.97	595.68	596.06	596.43	599.28	602.26	597.65	596.22	595.80	595.60	595.36	595.29	
14	594.96	596.08	595.94	596.47	599.15	601.78	597.59	596.19	595.75	595.60	595.36	595.29	
15	594.96	596.66	595.72	596.51	598.89	600.87	597.52	596.16	595.74	595.59	595.36	595.28	
16	594.96	596.57	595.53	596.55	598.43	600.06	597.52	596.12	595.73	595.58	595.36	595.28	
17	594.95	596.43	595.40	596.63	598.26	599.45	597.51	596.08	595.73	595.57	595.36	595.27	
18	594.95	596.93	595.33	596.56	598.85	598.75	597.47	596.05	595.72	595.56	595.35	595.27	
19	594.94	597.32	595.30	596.45	597.99	598.68	597.43	596.03	595.72	595.55	595.35	595.27	
20	594.93	597.59	595.25	596.52	597.92	598.89	597.39	596.01	595.71	595.54	595.35	595.26	
21	594.93	597.25	595.26	596.60	599.53	599.53	597.35	596.00	595.70	595.53	595.35	595.26	
22	594.94	596.81	595.27	596.51	597.75	599.76	597.31	595.99	595.69	595.52	595.35	595.25	
23	594.94	596.77	595.27	596.43	597.65	599.05	597.20	595.98	595.68	595.51	595.35	595.25	
24	594.95	596.78	595.73	596.84	597.60	598.78	597.03	595.97	595.67	595.50	595.34	595.24	
25	595.09	596.71	596.71	597.64	597.53	598.73	596.74	595.97	595.67	595.49	595.34	595.24	
26	595.31	596.67	596.88	597.23	597.46	598.77	596.66	595.97	595.66	595.47	595.34	595.24	
27	595.28	596.64	596.68	596.90	597.27	598.94	596.64	595.96	595.66	595.46	595.34	595.23	
28	595.34	596.59	596.74	597.06	597.13	599.55	596.63	595.96	595.66	595.46	595.34	595.23	
29	595.43	596.53	596.84	597.64	597.13	600.14	596.62	595.95	595.65	595.46	595.34	595.22	
30	595.60	596.53	596.69	597.69	597.47	600.09	596.60	595.95	595.65	595.45		595.21	
31		596.53		598.22	598.44		596.59		595.65	595.44		595.20	
Mean	595.07	596.33	596.30	596.74	598.68	599.39	597.85	596.18	595.79	595.57	595.37	595.28	
Max	595.60	597.59	597.97	598.22	601.89	602.26	601.78	596.57	595.95	595.67	595.44	595.34	602.26
Min	594.93	595.54	595.25	596.30	597.13	597.39	596.59	595.95	595.65	595.44	595.34	595.20	594.93

Annual Max Momentary Gage Height	602.36	m. (MSL.) ,	at 16.00 Hours , on Sep 13 , 2011		
Zero Gage at Bottom Elevation	593.92	m. (MSL.) ,	River Bed	595.09	m. (MSL)
Left Bank Elevation	604.19	m. (MSL.) ,			
Right Bank Elevation	601.79	m. (MSL.) ,	Drainage Area	352	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.54	3.95	6.05	6.10	40.90	15.59	21.40	5.85	2.75	1.58	1.08	0.88		
2	0.48	2.55	6.60	6.10	51.50	13.98	26.20	5.75	2.75	1.58	1.06	0.86		
3	0.44	1.64	8.45	6.45	60.00	12.05	55.30	5.60	2.75	1.61	1.04	0.86		
4	0.40	1.28	12.85	6.65	73.00	10.80	67.60	5.45	2.70	1.55	1.04	0.84		
5	0.36	1.70	11.55	5.60	41.65	9.95	27.50	5.30	2.70	1.52	1.02	0.84		
6	0.32	3.15	9.45	5.20	28.60	20.59	18.34	5.15	2.70	1.52	1.00	0.82		
7	0.28	2.10	7.60	5.00	21.85	36.55	15.66	5.00	2.70	1.49	0.98	0.82		
8	0.24	1.88	6.85	5.20	16.08	24.10	13.49	4.85	2.65	1.49	0.96	0.82		
9	0.20	1.46	6.05	5.00	10.70	17.70	12.30	4.70	2.65	1.46	0.96	0.80		
10	0.18	1.36	5.10	4.50	9.35	19.78	11.90	4.55	2.65	1.46	0.94	0.80		
11	0.17	1.76	4.20	5.05	11.30	32.86	11.55	4.40	2.55	1.43	0.94	0.80		
12	0.17	1.79	3.95	5.85	19.14	56.80	11.40	4.25	2.30	1.43	0.94	0.78		
13	0.17	1.64	3.30	5.15	23.02	98.40	11.25	4.10	2.00	1.40	0.92	0.78		
14	0.16	3.40	2.70	5.35	21.85	67.60	10.95	3.95	1.85	1.40	0.92	0.78		
15	0.16	6.30	1.76	5.55	19.62	41.05	10.60	3.80	1.82	1.38	0.92	0.76		
16	0.16	5.85	1.26	5.75	16.01	30.66	10.60	3.60	1.79	1.36	0.92	0.76		
17	0.15	5.15	1.00	6.15	14.82	24.55	10.55	3.40	1.79	1.34	0.92	0.74		
18	0.15	7.65	0.86	5.80	19.30	18.50	10.35	3.25	1.76	1.32	0.90	0.74		
19	0.14	9.60	0.80	5.25	12.95	17.94	10.15	3.15	1.76	1.30	0.90	0.74		
20	0.13	10.95	0.70	5.60	12.60	19.62	9.95	3.05	1.73	1.28	0.90	0.72		
21	0.13	9.25	0.72	6.00	25.30	25.30	9.75	3.00	1.70	1.26	0.90	0.72		
22	0.14	7.05	0.74	5.55	11.75	27.60	9.55	2.95	1.67	1.24	0.90	0.70		
23	0.14	6.85	0.74	5.15	11.25	20.95	9.00	2.90	1.64	1.22	0.90	0.70		
24	0.15	6.90	1.79	7.20	11.00	18.74	8.15	2.85	1.61	1.20	0.88	0.68		
25	0.38	6.55	6.55	11.20	10.65	18.34	6.70	2.85	1.61	1.18	0.88	0.68		
26	0.82	6.35	7.40	9.15	10.30	18.66	6.30	2.85	1.58	1.14	0.88	0.68		
27	0.76	6.20	6.40	7.50	9.35	20.02	6.20	2.80	1.58	1.12	0.88	0.66		
28	0.88	5.95	6.70	8.30	8.65	25.50	6.15	2.80	1.58	1.12	0.88	0.66		
29	1.06	5.65	7.20	11.20	8.65	31.54	6.10	2.75	1.55	1.12	0.88	0.64		
30	1.40	5.65	6.45	11.45	10.35	30.99	6.00	2.75	1.55	1.10		0.62		
31		5.65		14.54	16.08		5.95		1.55	1.08		0.60		
Total	10.86	147.21	145.77	208.54	657.57	826.71	456.89	117.65	63.97	41.68	27.24	23.28	2727.37	CMSDAY
Mean	0.36	4.75	4.86	6.73	21.21	27.56	14.74	3.92	2.06	1.34	0.94	0.75	7.45	CMS
Max	1.40	10.95	12.85	14.54	73.00	98.40	67.60	5.85	2.75	1.61	1.08	0.88	98.40	CMS
Min	0.13	1.28	0.70	4.50	8.65	9.95	5.95	2.75	1.55	1.08	0.88	0.60	0.13	CMS
Runoff	0.94	12.72	12.60	18.02	56.81	71.43	39.48	10.17	5.53	3.60	2.35	2.01	235.65	MCM

Momentary Peak 108.60 CMS. at 602.36 m. (MSL.) at 16.00 Hours , on Sep 13 , 2011

Runoff Yield 21.17 Liters/Second/Square KM. Momentary Peak Yield 308.523 Liters/Second/Square KM.

WATER YEAR : 2011

KHONG RIVER BASIN

Huai Bang Sai at Ban Bang Sai , Mukdahan (Kh.99A)

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

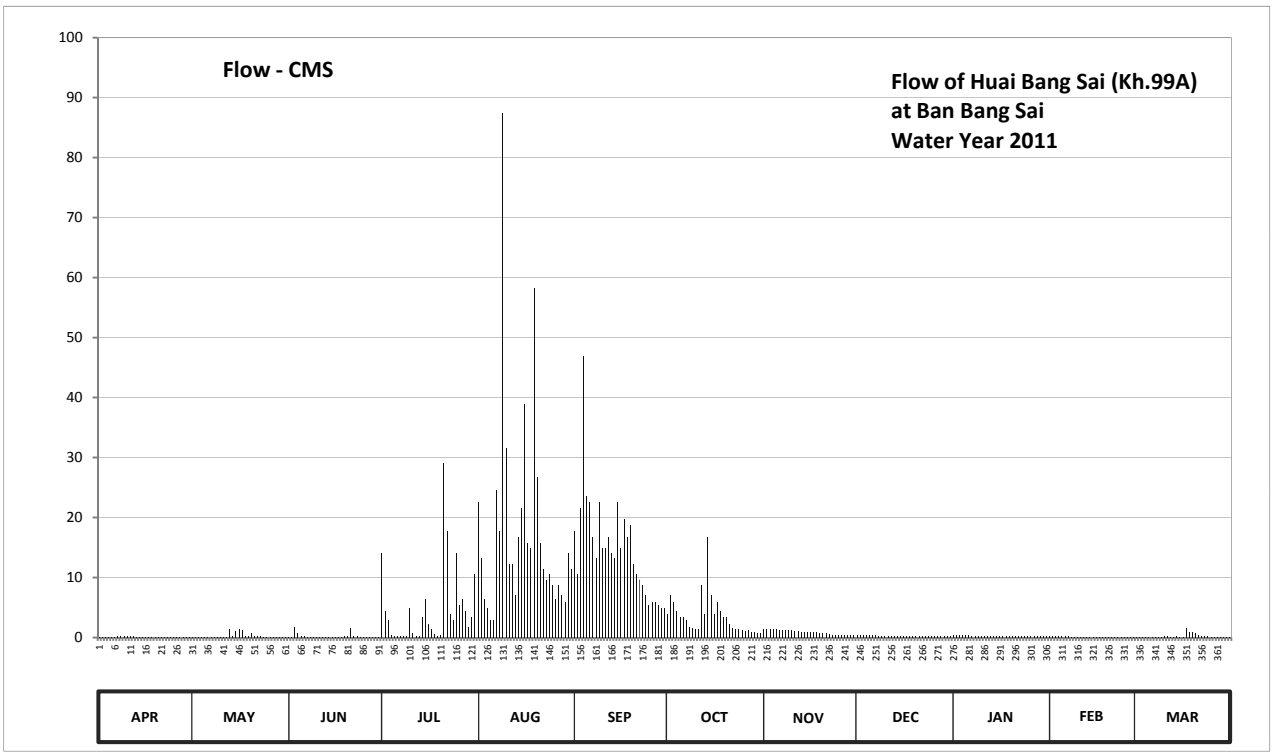
Location : on right bank at Ban Bang Sai

	Ban Bang Sai	**Amphoe** Dong Luang	**Changwat** Mukdahan		
Drainge Area	115 sq.km.				
Type of Gage	Staff gage				
Zero Gage at Bottom	+248.500 m. (MSL.)				
Bench Mark	B.M.- H.D.				
Location BM	On right bank near the gage site.		**Elevation** +255.082 m. (MSL.)		
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.				
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings.				
Period of Available Gage Records	2005 to date				
Rating Operation					
Period of Rating	2005 to date				
Rated by Flot	-				
Rated by Current Meter	2005 to date				
Stability of Channel Regimes	Fairly stable.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records fair. Stage-discharge relation defined by 16 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	250.80	250.79	250.82	251.18	251.27	251.22	251.04	250.98	250.91	250.91	250.85	250.83	
2	250.80	250.79	250.82	251.05	251.17	251.14	251.10	250.97	250.91	250.91	250.85	250.83	
3	250.80	250.79	251.00	251.02	251.09	251.26	251.08	250.97	250.91	250.91	250.85	250.83	
4	250.80	250.79	250.93	250.91	251.06	251.47	251.05	250.97	250.91	250.91	250.85	250.83	
5	250.80	250.79	250.86	250.87	251.02	251.28	251.03	250.97	250.91	250.91	250.85	250.83	
6	250.81	250.79	250.85	250.86	251.02	251.27	251.03	250.96	250.91	250.91	250.85	250.83	
7	250.90	250.79	250.84	250.86	251.29	251.21	251.02	250.96	250.91	250.89	250.85	250.83	
8	250.89	250.79	250.83	250.85	251.22	251.17	251.00	250.96	250.89	250.89	250.84	250.83	
9	250.88	250.79	250.82	250.85	251.74	251.27	250.99	250.96	250.89	250.89	250.84	250.84	
10	250.87	250.79	250.82	251.06	251.35	251.19	250.98	250.96	250.89	250.88	250.84	250.85	
11	250.86	250.79	250.81	250.93	251.16	251.19	250.97	250.95	250.88	250.88	250.84	250.85	
12	250.85	250.81	250.80	250.89	251.16	251.21	251.12	250.95	250.88	250.88	250.84	250.84	
13	250.84	250.97	250.80	250.90	251.10	251.18	251.04	250.94	250.88	250.88	250.84	250.83	
14	250.83	250.89	250.79	251.03	251.21	251.17	251.21	250.94	250.88	250.88	250.84	250.85	
15	250.82	250.95	250.79	251.09	251.26	251.27	251.10	250.94	250.88	250.88	250.84	250.82	
16	250.81	250.97	250.81	251.01	251.41	251.19	251.04	250.94	250.88	250.88	250.84	250.84	
17	250.80	250.96	250.83	250.97	251.20	251.24	251.08	250.94	250.88	250.88	250.84	250.99	
18	250.80	250.89	250.81	250.92	251.19	251.21	251.05	250.94	250.88	250.88	250.83	250.94	
19	250.80	250.88	250.86	250.90	251.55	251.23	251.03	250.93	250.88	250.88	250.83	250.94	
20	250.80	250.93	250.90	250.91	251.31	251.16	251.03	250.93	250.88	250.88	250.83	250.93	
21	250.79	250.87	250.99	251.33	251.20	251.14	251.01	250.93	250.88	250.88	250.83	250.91	
22	250.80	250.85	250.89	251.22	251.15	251.13	250.99	250.92	250.88	250.88	250.83	250.86	
23	250.80	250.85	250.86	251.04	251.13	251.12	250.98	250.91	250.88	250.88	250.83	250.85	
24	250.80	250.81	250.84	251.02	251.14	251.10	250.97	250.91	250.88	250.88	250.83	250.85	
25	250.80	250.80	250.84	251.18	251.12	251.07	250.96	250.91	250.88	250.88	250.83	250.84	
26	250.79	250.81	250.83	251.07	251.09	251.08	250.95	250.91	250.88	250.88	250.83	250.83	
27	250.79	250.80	250.83	251.09	251.12	251.08	250.96	250.91	250.88	250.88	250.83	250.83	
28	250.79	250.80	250.82	251.05	251.10	251.07	250.94	250.91	250.88	250.88	250.83	250.83	
29	250.79	250.80	250.82	251.00	251.08	251.06	250.94	250.91	250.88	250.88	250.83	250.83	
30	250.79	250.79	250.82	251.03	251.18	251.06	250.93	250.91	250.88	250.88		250.83	
31		250.79		251.14	251.15		250.93		250.88	250.88		250.83	
Mean	250.82	250.84	250.84	251.01	251.20	251.18	251.02	250.94	250.89	250.89	250.84	250.85	
Max	250.90	250.97	251.00	251.33	251.74	251.47	251.21	250.98	250.91	250.91	250.85	250.99	251.74
Min	250.79	250.79	250.79	250.85	251.02	251.06	250.93	250.91	250.88	250.88	250.83	250.82	250.79

Annual Max Momentary Gage Height	251.83	m. (MSL.) ,	at 18.00 Hours , on Aug 9 , 2011		
Zero Gage at Bottom Elevation	248.50	m. (MSL.) ,	River Bed	250.49	m. (MSL)
Left Bank Elevation	254.56	m. (MSL.) ,			
Right Bank Elevation	255.18	m. (MSL.) ,	Drainage Area	115	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.05	0.04	0.10	14.04	22.59	17.74	3.88	1.50	0.45	0.45	0.18	0.13		
2	0.05	0.04	0.10	4.40	13.16	10.52	7.00	1.35	0.45	0.45	0.18	0.13		
3	0.05	0.04	1.80	2.84	6.48	21.62	5.96	1.35	0.45	0.45	0.18	0.13		
4	0.05	0.04	0.75	0.45	4.92	46.95	4.40	1.35	0.45	0.45	0.18	0.13		
5	0.05	0.04	0.20	0.22	2.84	23.56	3.36	1.35	0.45	0.45	0.18	0.13		
6	0.07	0.04	0.18	0.20	2.84	22.59	3.36	1.20	0.45	0.45	0.18	0.13		
7	0.30	0.04	0.15	0.20	24.53	16.77	2.84	1.20	0.45	0.28	0.18	0.13		
8	0.28	0.04	0.13	0.18	17.74	13.16	1.80	1.20	0.28	0.28	0.15	0.13		
9	0.25	0.04	0.10	0.18	87.40	22.59	1.65	1.20	0.28	0.28	0.15	0.15		
10	0.22	0.04	0.10	4.92	31.50	14.92	1.50	1.20	0.28	0.25	0.15	0.18		
11	0.20	0.04	0.07	0.75	12.28	14.92	1.35	1.05	0.25	0.25	0.15	0.18		
12	0.18	0.07	0.05	0.28	12.28	16.77	8.76	1.05	0.25	0.25	0.15	0.15		
13	0.15	1.35	0.05	0.30	7.00	14.04	3.88	0.90	0.25	0.25	0.15	0.13		
14	0.13	0.28	0.04	3.36	16.77	13.16	16.77	0.90	0.25	0.25	0.15	0.18		
15	0.10	1.05	0.04	6.48	21.62	22.59	7.00	0.90	0.25	0.25	0.15	0.10		
16	0.07	1.35	0.07	2.32	38.85	14.92	3.88	0.90	0.25	0.25	0.15	0.15		
17	0.05	1.20	0.13	1.35	15.80	19.68	5.96	0.90	0.25	0.25	0.15	1.65		
18	0.05	0.28	0.07	0.60	14.92	16.77	4.40	0.90	0.25	0.25	0.13	0.90		
19	0.05	0.25	0.20	0.30	58.25	18.71	3.36	0.75	0.25	0.25	0.13	0.90		
20	0.05	0.75	0.30	0.45	26.70	12.28	3.36	0.75	0.25	0.25	0.13	0.75		
21	0.04	0.22	1.65	29.10	15.80	10.52	2.32	0.75	0.25	0.25	0.13	0.45		
22	0.05	0.18	0.28	17.74	11.40	9.64	1.65	0.60	0.25	0.25	0.13	0.20		
23	0.05	0.18	0.20	3.88	9.64	8.76	1.50	0.45	0.25	0.25	0.13	0.18		
24	0.05	0.07	0.15	2.84	10.52	7.00	1.35	0.45	0.25	0.25	0.13	0.18		
25	0.05	0.05	0.15	14.04	8.76	5.44	1.20	0.45	0.25	0.25	0.13	0.15		
26	0.04	0.07	0.13	5.44	6.48	5.96	1.05	0.45	0.25	0.25	0.13	0.13		
27	0.04	0.05	0.13	6.48	8.76	5.96	1.20	0.45	0.25	0.25	0.13	0.13		
28	0.04	0.05	0.10	4.40	7.00	5.44	0.90	0.45	0.25	0.25	0.13	0.13		
29	0.04	0.05	0.10	1.80	5.96	4.92	0.90	0.45	0.25	0.25	0.13	0.13		
30	0.04	0.04	0.10	3.36	14.04	4.92	0.75	0.45	0.25	0.25		0.13		
31		0.04		10.52	11.40		0.75		0.25	0.25		0.13		
Total	2.84	8.02	7.62	143.42	548.23	442.82	108.04	26.85	9.24	9.04	4.32	8.40	1318.84	CMSDAY
Mean	0.09	0.26	0.25	4.63	17.68	14.76	3.49	0.90	0.30	0.29	0.15	0.27	3.60	CMS
Max	0.30	1.35	1.80	29.10	87.40	46.95	16.77	1.50	0.45	0.45	0.18	1.65	87.40	CMS
Min	0.04	0.04	0.04	0.18	2.84	4.92	0.75	0.45	0.25	0.25	0.13	0.10	0.04	CMS
Runoff	0.25	0.69	0.66	12.39	47.37	38.26	9.34	2.32	0.80	0.78	0.37	0.73	113.95	MCM

Momentary Peak 101.95 CMS. at 251.83 m. (MSL.) at 18.00 Hours , on Aug 9 , 2011

Runoff Yield 31.33 Liters/Second/Square KM. Momentary Peak Yield 886.522 Liters/Second/Square KM.

WATER YEAR : 2011

KHONG RIVER BASIN

Huai Muk at Ban Kaen Tao , Mukdahan (Kh.101)

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

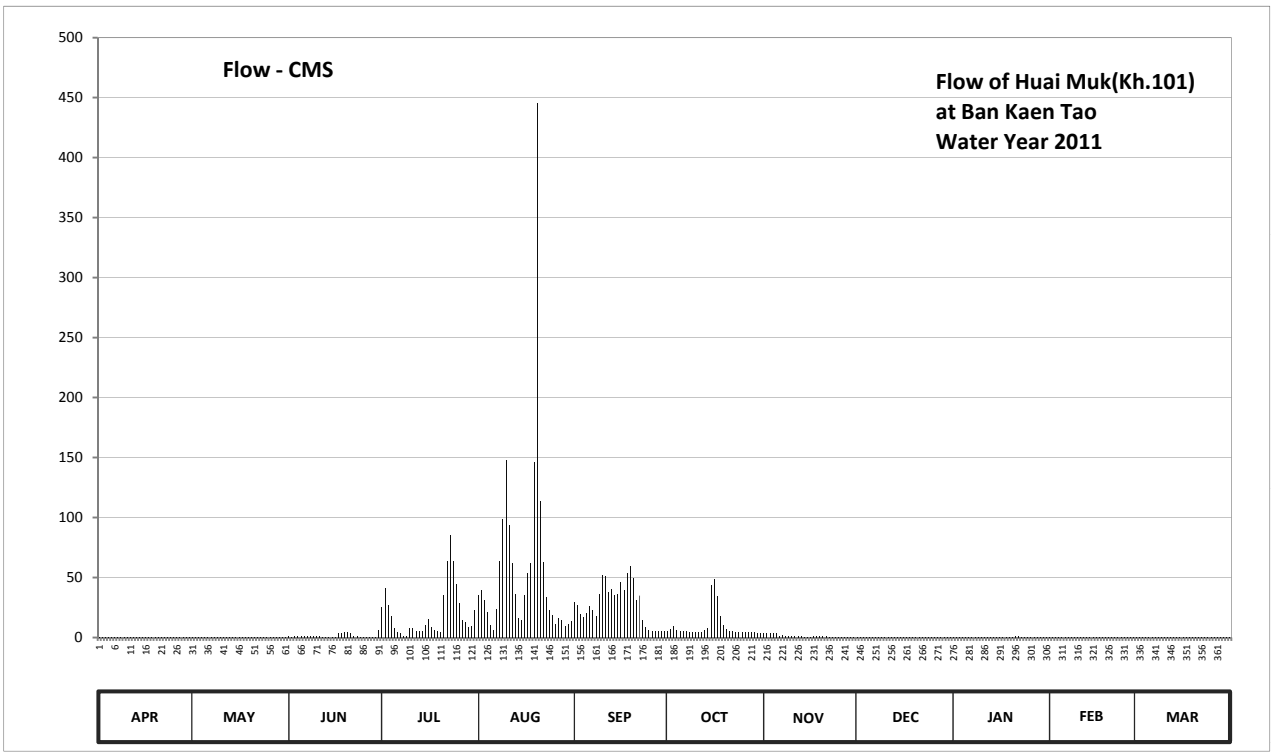
Location : on right bank at the bridge of Amphoe Dong Luang - Muk Dahan Highway.

	Ban Kaen Tao	**Amphoe** Mueang	**Changwat** Mukdahan
Drainge Area	414 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+136.900 m. (MSL.)		
Bench Mark	B.M.- Highways Dept.		
Location BM	On right bank about 1 meter from the top staff gage.	**Elevation**	+146.237 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings.		
Period of Available Gage Records	1999 to date		
Rating Operation			
Period of Rating	1999 to date		
Rated by Flot	-		
Rated by Current Meter	1999 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	Overbank flow starts at elevation +143.640 m.(MSL.), records are channel flow only.		
General Description	Records good. Stage-discharge relation defined by 19 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	137.41	137.40	137.81	141.02	141.84	141.35	138.59	138.11	137.70	137.58	137.51	137.51	
2	137.41	137.40	137.75	142.30	142.19	141.20	139.16	138.10	137.69	137.55	137.53	137.52	
3	137.40	137.40	137.86	141.20	141.52	140.49	139.52	138.09	137.67	137.54	137.52	137.51	
4	137.40	137.41	137.83	140.35	140.65	140.25	139.03	138.06	137.66	137.53	137.50	137.47	
5	137.40	137.42	137.82	139.26	139.56	140.57	138.73	138.03	137.67	137.53	137.50	137.45	
6	137.40	137.41	137.95	138.47	138.92	141.10	138.64	137.98	137.66	137.52	137.50	137.45	
7	137.40	137.41	137.90	138.03	140.88	140.82	138.54	137.99	137.67	137.52	137.50	137.45	
8	137.41	137.40	137.84	137.93	143.62	140.36	138.44	137.96	137.67	137.52	137.50	137.45	
9	137.41	137.40	137.84	137.96	144.10	141.93	138.35	137.95	137.65	137.52	137.49	137.45	
10	137.41	137.40	137.78	139.22	144.34	143.05	138.23	137.93	137.64	137.52	137.48	137.48	
11	137.41	137.39	137.91	139.22	144.06	143.03	138.18	137.93	137.64	137.52	137.48	137.49	
12	137.39	137.40	137.66	138.81	143.56	142.07	138.39	137.91	137.64	137.52	137.46	137.48	
13	137.39	137.41	137.53	138.65	141.94	142.27	138.90	137.79	137.63	137.53	137.45	137.51	
14	137.39	137.43	137.50	138.82	140.19	141.86	139.30	137.77	137.63	137.53	137.46	137.51	
15	137.39	137.44	137.63	139.60	140.07	141.91	142.46	137.77	137.64	137.53	137.46	137.51	
16	137.38	137.51	137.61	140.14	141.89	142.63	142.85	137.75	137.63	137.60	137.47	137.51	
17	137.38	137.62	138.05	139.43	143.18	142.20	141.79	137.81	137.63	137.57	137.47	137.52	
18	137.39	137.60	138.05	139.06	143.56	143.17	140.35	137.81	137.63	137.56	137.46	137.66	
19	137.39	137.59	138.52	138.64	144.33	143.49	139.55	137.82	137.62	137.55	137.46	137.63	
20	137.38	137.64	138.27	138.28	145.31	142.88	139.13	137.80	137.62	137.77	137.46	137.64	
21	137.38	137.63	138.11	141.85	144.18	141.51	138.89	137.80	137.61	137.95	137.46	137.64	
22	137.40	137.61	137.96	143.62	143.60	141.83	138.73	137.77	137.60	137.80	137.47	137.62	
23	137.46	137.60	137.80	143.98	141.70	140.02	138.49	137.77	137.58	137.73	137.46	137.61	
24	137.45	137.57	137.70	143.61	140.82	139.39	138.41	137.76	137.56	137.70	137.46	137.58	
25	137.44	137.54	137.65	142.54	140.41	138.95	138.38	137.74	137.56	137.64	137.46	137.56	
26	137.43	137.50	137.65	141.34	139.67	138.69	138.30	137.73	137.56	137.58	137.47	137.54	
27	137.42	137.48	137.66	140.04	140.19	138.65	138.24	137.73	137.56	137.57	137.48	137.53	
28	137.42	137.47	137.59	139.90	140.07	138.84	138.22	137.72	137.56	137.55	137.50	137.51	
29	137.41	137.45	137.56	139.36	139.52	138.75	138.18	137.71	137.57	137.53	137.51	137.50	
30	137.40	137.45	138.94	139.53	139.67	138.65	138.15	137.71	137.57	137.53		137.48	
31		137.45		140.81	139.96		138.13		137.58	137.51		137.46	
Mean	137.40	137.48	137.86	140.10	141.79	141.06	139.04	137.86	137.62	137.58	137.48	137.52	
Max	137.46	137.64	138.94	143.98	145.31	143.49	142.85	138.11	137.70	137.95	137.53	137.66	145.31
Min	137.38	137.39	137.50	137.93	138.92	138.65	138.13	137.71	137.56	137.51	137.45	137.45	137.38

Annual Max Momentary Gage Height	145.75	m. (MSL.) ,	at 03.00 Hours , on Aug 20 , 2011		
Zero Gage at Bottom Elevation	136.90	m. (MSL.) ,	River Bed	136.57	m. (MSL)
Left Bank Elevation	143.64	m. (MSL.) ,			
Right Bank Elevation	143.79	m. (MSL.) ,	Drainage Area	414	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.11	0.10	0.94	25.24	35.08	29.20	5.10	4.04	0.60	0.36	0.22	0.22		
2	0.11	0.10	0.75	41.20	39.66	27.40	7.12	4.02	0.58	0.30	0.26	0.24		
3	0.10	0.10	1.14	27.40	31.24	19.39	9.68	4.00	0.54	0.28	0.24	0.22		
4	0.10	0.11	1.02	17.85	21.15	16.75	6.21	3.93	0.52	0.26	0.20	0.17		
5	0.10	0.12	0.98	7.82	10.04	20.27	5.41	3.87	0.54	0.26	0.20	0.15		
6	0.10	0.11	1.50	4.83	5.82	26.20	5.21	1.62	0.52	0.24	0.20	0.15		
7	0.10	0.11	1.30	3.87	23.68	23.02	4.99	1.66	0.54	0.24	0.20	0.15		
8	0.11	0.10	1.06	1.42	63.80	17.96	4.77	1.54	0.54	0.24	0.20	0.15		
9	0.11	0.10	1.06	1.54	99.00	36.16	4.57	1.50	0.50	0.24	0.19	0.15		
10	0.11	0.10	0.84	7.54	148.20	51.75	4.31	1.42	0.48	0.24	0.18	0.18		
11	0.11	0.09	1.34	7.54	94.20	51.45	4.20	1.42	0.48	0.24	0.18	0.19		
12	0.09	0.10	0.52	5.58	61.80	37.98	4.66	1.34	0.48	0.24	0.16	0.18		
13	0.09	0.11	0.26	5.23	36.28	40.78	5.78	0.87	0.46	0.26	0.15	0.22		
14	0.09	0.13	0.20	5.60	16.09	35.32	8.10	0.81	0.46	0.26	0.16	0.22		
15	0.09	0.14	0.46	10.40	14.77	35.92	43.44	0.81	0.48	0.26	0.16	0.22		
16	0.08	0.22	0.42	15.54	35.68	45.82	48.90	0.75	0.46	0.40	0.17	0.22		
17	0.08	0.44	3.91	9.01	53.70	39.80	34.48	0.94	0.46	0.34	0.17	0.24		
18	0.09	0.40	3.91	6.42	61.80	53.55	17.85	0.94	0.46	0.32	0.16	0.52		
19	0.09	0.38	4.94	5.21	145.90	59.70	9.95	0.98	0.44	0.30	0.16	0.46		
20	0.08	0.48	4.39	4.42	445.40	49.32	6.91	0.90	0.44	0.81	0.16	0.48		
21	0.08	0.46	4.04	35.20	113.40	31.12	5.76	0.90	0.42	1.50	0.16	0.48		
22	0.10	0.42	1.54	63.80	63.00	34.96	5.41	0.81	0.40	0.90	0.17	0.44		
23	0.16	0.40	0.90	85.40	33.40	14.22	4.88	0.81	0.36	0.69	0.16	0.42		
24	0.15	0.34	0.60	63.40	23.02	8.73	4.70	0.78	0.32	0.60	0.16	0.36		
25	0.14	0.28	0.50	44.56	18.51	5.89	4.64	0.72	0.32	0.48	0.16	0.32		
26	0.13	0.20	0.50	29.08	11.03	5.32	4.46	0.69	0.32	0.36	0.17	0.28		
27	0.12	0.18	0.52	14.44	16.09	5.23	4.33	0.69	0.32	0.34	0.18	0.26		
28	0.12	0.17	0.38	13.10	14.77	5.65	4.28	0.66	0.32	0.30	0.20	0.22		
29	0.11	0.15	0.32	8.52	9.68	5.45	4.20	0.63	0.34	0.26	0.22	0.20		
30	0.10	0.15	5.87	9.77	11.03	5.23	4.13	0.63	0.34	0.26		0.18		
31		0.15		22.91	13.64		4.09		0.36	0.22		0.16		
Total	3.15	6.44	46.11	603.84	1770.86	839.54	292.52	44.68	13.80	12.00	5.30	8.05	3646.29	CMSDAY
Mean	0.11	0.21	1.54	19.48	57.12	27.98	9.44	1.49	0.45	0.39	0.18	0.26	9.96	CMS
Max	0.16	0.48	5.87	85.40	445.40	59.70	48.90	4.04	0.60	1.50	0.26	0.52	445.40	CMS
Min	0.08	0.09	0.20	1.42	5.82	5.23	4.09	0.63	0.32	0.22	0.15	0.15	0.08	CMS
Runoff	0.27	0.56	3.98	52.17	153.00	72.54	25.27	3.86	1.19	1.04	0.46	0.70	315.04	MCM

Momentary Peak 658.50 CMS. at 145.75 m. (MSL.) at 03.00 Hours , on Aug 20 , 2011

Runoff Yield 24.06 Liters/Second/Square KM. Momentary Peak Yield 1590.58 Liters/Second/Square KM.

WATER YEAR : 2011

KHONG RIVER BASIN

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

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

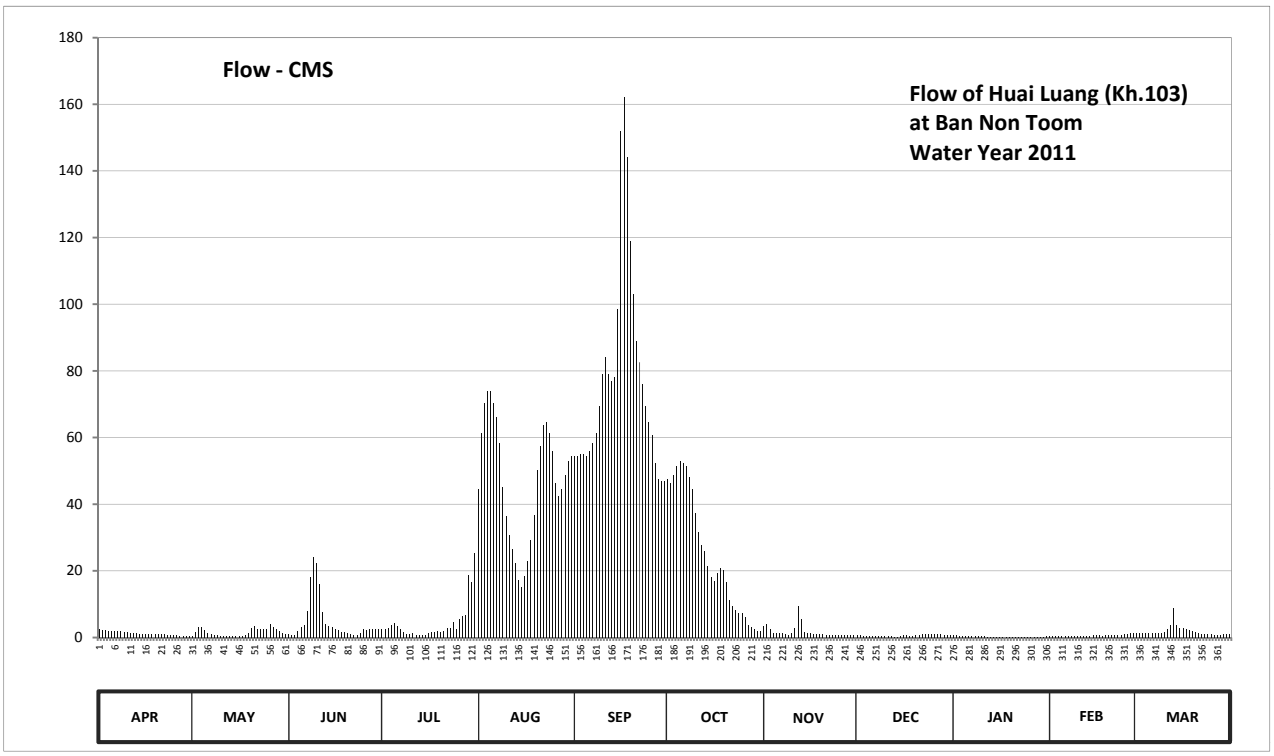
Location : on right bank at the bridge on highway.

	Ban Non Toom	**Amphoe** Mueang	**Changwat** Udon Thani
Drainge Area	1,235 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+166.500 m. (MSL.)		
Bench Mark	B.M.- Highways Dept.		
Location BM	On right bank downstream side at the footpath of the bridge.	**Elevation**	+172.486 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings.		
Period of Available Gage Records	2004 to date		
Rating Operation			
Period of Rating	2004 to date		
Rated by Flot	-		
Rated by Current Meter	2004 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	Overbank flow starts at elevation +170.750 m.(MSL.), records are channel flow only.		
General Description	Records good. Stage-discharge relation defined by 31 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	167.55	167.01	167.13	167.60	171.04	171.19	171.09	167.83	167.04	167.09	166.99	167.23	
2	167.52	167.32	167.09	167.62	171.28	171.19	171.07	167.99	167.04	167.05	166.99	167.20	
3	167.47	167.78	167.05	167.69	171.39	171.20	171.11	167.55	167.01	166.99	166.99	167.19	
4	167.43	167.73	167.42	167.90	171.43	171.20	171.15	167.24	166.97	166.95	166.99	167.20	
5	167.42	167.49	167.72	168.04	171.43	171.19	171.17	167.20	166.96	166.96	166.97	167.20	
6	167.40	167.20	167.91	167.83	171.39	171.21	171.16	167.21	166.95	166.96	166.95	167.21	
7	167.40	167.15	168.49	167.56	171.34	171.24	171.15	167.19	166.95	166.95	166.95	167.24	
8	167.38	167.08	169.62	167.35	171.24	171.28	171.10	167.15	166.94	166.95	166.95	167.27	
9	167.35	167.04	170.18	167.17	171.05	171.38	171.04	167.08	166.95	166.94	166.95	167.28	
10	167.35	167.01	170.04	167.11	170.85	171.48	170.88	167.20	166.95	166.94	166.95	167.35	
11	167.27	166.99	169.41	167.20	170.64	171.52	170.69	167.65	166.95	166.94	166.96	167.57	
12	167.25	166.98	168.45	167.10	170.39	171.48	170.49	168.67	166.94	166.93	166.98	167.95	
13	167.22	166.99	168.01	167.10	170.04	171.46	170.34	168.18	166.90	166.93	166.99	168.59	
14	167.17	166.98	167.86	167.09	169.53	171.47	169.94	167.36	166.90	166.93	167.00	167.91	
15	167.16	167.00	167.73	167.10	169.32	171.61	169.60	167.23	166.94	166.93	167.05	167.67	
16	167.12	166.98	167.57	167.21	169.65	171.95	169.50	167.19	167.03	166.92	167.07	167.66	
17	167.11	166.96	167.46	167.30	170.08	172.01	169.75	167.17	167.04	166.93	167.04	167.58	
18	167.17	167.07	167.36	167.35	170.57	171.90	169.89	167.15	167.02	166.93	167.01	167.50	
19	167.16	167.19	167.31	167.40	170.86	171.74	169.83	167.13	167.01	166.93	167.05	167.41	
20	167.16	167.66	167.24	167.36	171.13	171.64	169.46	167.11	167.05	166.93	167.08	167.33	
21	167.17	167.87	167.15	167.40	171.23	171.55	168.91	167.09	167.10	166.90	167.06	167.23	
22	167.14	167.61	167.09	167.66	171.31	171.51	168.68	167.08	167.17	166.90	167.08	167.16	
23	167.10	167.60	167.07	167.68	171.32	171.45	168.53	167.07	167.15	166.90	167.09	167.14	
24	167.10	167.56	167.21	168.06	171.28	171.38	168.43	167.05	167.11	166.91	167.09	167.14	
25	167.10	167.58	167.54	167.55	171.21	171.32	168.42	167.08	167.14	166.91	167.12	167.14	
26	167.03	168.00	167.48	168.18	171.07	171.27	168.28	167.06	167.13	166.90	167.16	167.10	
27	167.00	167.79	167.56	168.29	171.01	171.16	167.95	167.06	167.12	166.91	167.20	167.09	
28	166.98	167.56	167.54	168.35	171.04	171.09	167.78	167.06	167.13	166.91	167.23	167.10	
29	166.96	167.39	167.56	169.68	171.11	171.08	167.58	167.04	167.10	166.91	167.25	167.14	
30	166.96	167.22	167.59	169.47	171.17	171.08	167.45	167.04	167.10	166.91		167.18	
31		167.16		170.28	171.19		167.39		167.10	166.95		167.13	
Mean	167.22	167.32	167.83	167.76	170.89	171.41	169.67	167.30	167.03	166.94	167.04	167.36	
Max	167.55	168.00	170.18	170.28	171.43	172.01	171.17	168.67	167.17	167.09	167.25	168.59	172.01
Min	166.96	166.96	167.05	167.09	169.32	171.08	167.39	167.04	166.90	166.90	166.95	167.09	166.90

Annual Max Momentary Gage Height	172.03	m. (MSL.) ,	at 03.00 Hours , on Sep 17 , 2011		
Zero Gage at Bottom Elevation	166.50	m. (MSL.) ,	River Bed	166.59	m. (MSL)
Left Bank Elevation	170.74	m. (MSL.) ,			
Right Bank Elevation	170.87	m. (MSL.) ,	Drainage Area	1235	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.43	0.53	0.96	2.60	44.40	54.30	47.40	3.41	0.64	0.81	0.47	1.30		
2	2.32	1.62	0.81	2.67	61.40	54.30	46.20	3.97	0.64	0.68	0.47	1.20		
3	2.15	3.23	0.68	2.92	70.20	55.00	48.70	2.43	0.53	0.47	0.47	1.17		
4	2.00	3.05	1.97	3.65	74.00	55.00	51.50	1.34	0.41	0.35	0.47	1.20		
5	1.97	2.22	3.02	4.32	74.00	54.30	52.90	1.20	0.38	0.38	0.41	1.20		
6	1.90	1.20	3.69	3.41	70.20	55.80	52.20	1.24	0.35	0.38	0.35	1.24		
7	1.90	1.02	7.92	2.46	66.20	58.20	51.50	1.17	0.35	0.35	0.35	1.34		
8	1.83	0.78	18.20	1.73	58.20	61.40	48.00	1.02	0.32	0.35	0.35	1.45		
9	1.73	0.64	24.16	1.09	45.00	69.40	44.40	0.78	0.35	0.32	0.35	1.48		
10	1.73	0.53	22.48	0.89	36.50	79.00	37.40	1.20	0.35	0.32	0.35	1.73		
11	1.45	0.47	16.10	1.20	30.80	84.16	31.80	2.77	0.35	0.32	0.38	2.50		
12	1.38	0.44	7.60	0.85	26.68	79.00	27.88	9.36	0.32	0.29	0.44	3.82		
13	1.27	0.47	4.08	0.85	22.48	77.00	26.08	5.44	0.20	0.29	0.47	8.72		
14	1.09	0.44	3.51	0.81	17.30	78.00	21.40	1.76	0.20	0.29	0.50	3.69		
15	1.06	0.50	3.05	0.85	15.20	98.38	18.00	1.30	0.32	0.29	0.68	2.84		
16	0.92	0.44	2.50	1.24	18.50	152.10	17.00	1.17	0.60	0.26	0.75	2.81		
17	0.89	0.38	2.11	1.55	22.96	162.30	19.50	1.09	0.64	0.29	0.64	2.53		
18	1.09	0.75	1.76	1.73	29.40	144.20	20.90	1.02	0.57	0.29	0.53	2.25		
19	1.06	1.17	1.58	1.90	36.80	118.92	20.30	0.96	0.53	0.29	0.68	1.94		
20	1.06	2.81	1.34	1.76	50.10	103.12	16.60	0.89	0.68	0.29	0.78	1.66		
21	1.09	3.54	1.02	1.90	57.40	88.90	11.28	0.81	0.85	0.20	0.71	1.30		
22	0.99	2.64	0.81	2.81	63.80	82.58	9.44	0.78	1.09	0.20	0.78	1.06		
23	0.85	2.60	0.75	2.88	64.60	76.00	8.24	0.75	1.02	0.20	0.81	0.99		
24	0.85	2.46	1.24	4.48	61.40	69.40	7.44	0.68	0.89	0.23	0.81	0.99		
25	0.85	2.53	2.39	2.43	55.80	64.60	7.36	0.78	0.99	0.23	0.92	0.99		
26	0.60	4.00	2.18	5.44	46.20	60.60	6.24	0.71	0.96	0.20	1.06	0.85		
27	0.50	3.26	2.46	6.32	42.60	52.20	3.82	0.71	0.92	0.23	1.20	0.81		
28	0.44	2.46	2.39	6.80	44.40	47.40	3.23	0.71	0.96	0.23	1.30	0.85		
29	0.38	1.86	2.46	18.80	48.70	46.80	2.53	0.64	0.85	0.23	1.38	0.99		
30	0.38	1.27	2.56	16.70	52.90	46.80	2.07	0.64	0.85	0.23		1.13		
31		1.06		25.36	54.30		1.86		0.85	0.35		0.96		
Total	38.16	50.37	145.78	132.40	1462.42	2329.16	763.17	50.73	18.96	9.84	18.86	56.99	5076.84	CMSDAY
Mean	1.27	1.62	4.86	4.27	47.17	77.64	24.62	1.69	0.61	0.32	0.65	1.84	13.87	CMS
Max	2.43	4.00	24.16	25.36	74.00	162.30	52.90	9.36	1.09	0.81	1.38	8.72	162.30	CMS
Min	0.38	0.38	0.68	0.81	15.20	46.80	1.86	0.64	0.20	0.20	0.35	0.81	0.20	CMS
Runoff	3.30	4.35	12.60	11.44	126.35	201.24	65.94	4.38	1.64	0.85	1.63	4.92	438.64	MCM

Momentary Peak 166.90 CMS. at 172.03 m. (MSL.) at 03.00 Hours , on Sep 17 , 2011

Runoff Yield 11.23 Liters/Second/Square KM. Momentary Peak Yield 135.142 Liters/Second/Square KM.

WATER YEAR : 2011

KHONG RIVER BASIN

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

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

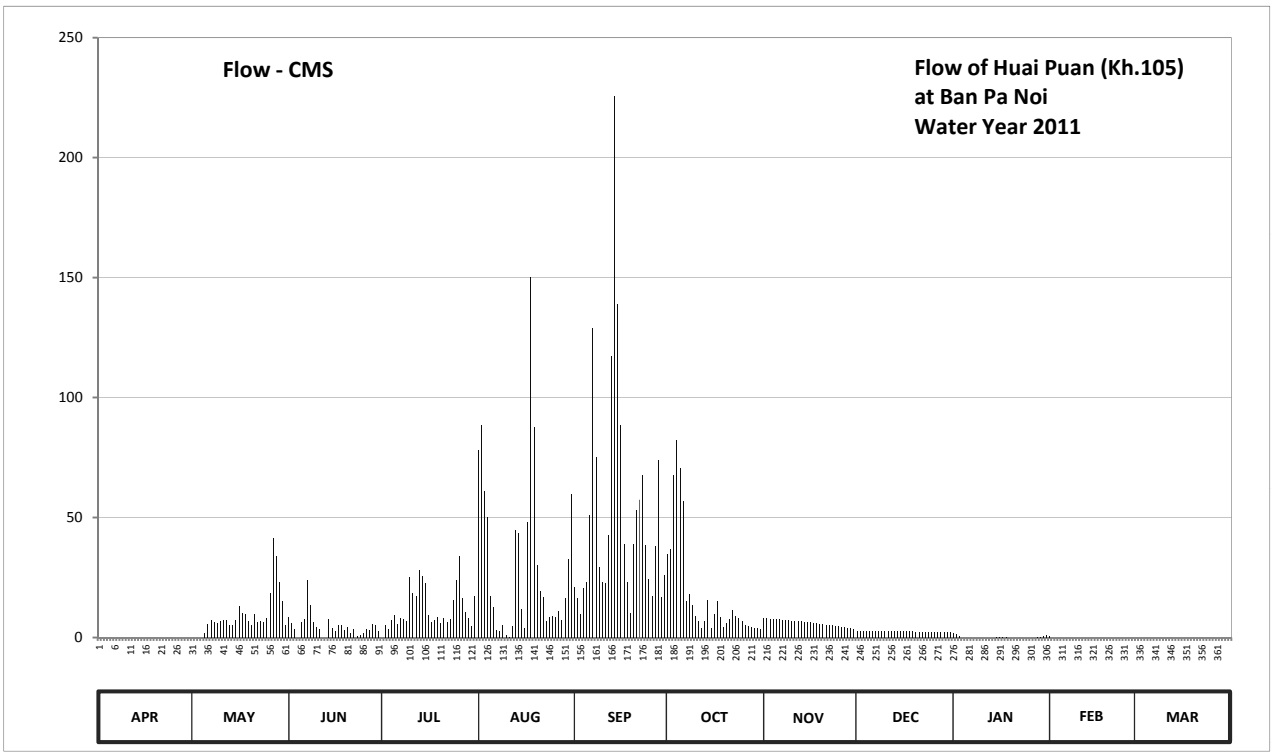
Location : on right bank at the bridge on highway.

	Ban Pa Noi	**Amphoe** Wang Saphung	**Changwat** Loei
Drainge Area	948 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+247.500 m. (MSL.)		
Bench Mark	B.M.- Highways Dept.		
Location BM	On right bank at the footpath of the bridge.	**Elevation**	+258.341 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings.		
Period of Available Gage Records	2006 to date		
Rating Operation			
Period of Rating	2006 to date		
Rated by Flot	-		
Rated by Current Meter	2006 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	Overbank flow starts at elevation +255.700 m.(MSL.), records are channel flow only.		
General Description	Records good. Stage-discharge relation defined by 19 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	249.63	250.46	251.42	251.00	253.31	251.83	252.20	251.40	251.14	251.09	251.04	250.62	
2	249.63	250.63	251.31	251.26	253.55	251.69	252.26	251.40	251.14	251.07	251.00	250.61	
3	249.64	250.77	251.18	251.17	252.90	251.48	253.06	251.39	251.14	251.04	250.96	250.60	
4	249.64	250.91	250.74	251.36	252.61	251.81	253.41	251.39	251.14	251.00	250.93	250.60	
5	249.65	251.10	251.32	251.46	251.71	251.88	253.13	251.38	251.14	250.97	250.93	250.60	
6	249.67	251.28	251.39	251.29	251.58	252.63	252.79	251.38	251.14	250.94	250.90	250.59	
7	249.69	251.37	251.91	251.41	251.15	254.41	251.65	251.37	251.14	250.91	250.81	250.58	
8	249.71	251.33	251.61	251.38	251.13	253.24	251.74	251.36	251.14	250.88	250.75	250.58	
9	249.72	251.31	251.32	251.35	251.27	252.06	251.60	251.36	251.14	250.87	250.71	250.59	
10	249.69	251.35	251.21	251.95	251.05	251.88	251.44	251.35	251.14	250.86	250.71	250.61	
11	249.69	251.36	251.17	251.75	251.02	251.87	251.35	251.35	251.14	250.87	250.72	250.64	
12	249.68	251.36	250.98	251.71	251.24	252.41	251.20	251.34	251.14	250.88	250.74	250.67	
13	249.66	251.27	250.87	252.03	252.47	254.17	251.35	251.34	251.14	250.92	250.76	250.69	
14	249.65	251.27	251.39	251.96	252.43	256.36	251.66	251.33	251.14	250.98	250.78	250.70	
15	249.65	251.36	251.19	251.87	251.55	254.62	251.20	251.33	251.14	251.01	250.81	250.71	
16	249.64	251.59	251.14	251.46	251.19	253.55	251.49	251.32	251.13	251.02	250.81	250.72	
17	249.64	251.51	251.27	251.33	252.56	252.31	251.65	251.31	251.13	251.01	250.79	250.73	
18	249.64	251.48	251.25	251.37	254.86	251.89	251.42	251.30	251.13	251.01	250.79	250.74	
19	249.63	251.35	251.16	251.42	253.54	251.51	251.22	251.29	251.13	250.98	250.78	250.76	
20	249.63	251.27	251.22	251.30	252.09	252.31	251.30	251.28	251.12	250.97	250.76	250.77	
21	249.62	251.48	251.09	251.41	251.78	252.69	251.39	251.27	251.12	250.98	250.75	250.77	
22	249.62	251.32	251.18	251.33	251.70	252.80	251.54	251.26	251.12	250.99	250.74	250.81	
23	249.62	251.35	251.03	251.39	251.34	253.06	251.45	251.25	251.12	251.00	250.73	250.91	
24	250.93	251.33	251.06	251.66	251.42	252.30	251.40	251.24	251.12	251.00	250.72	250.94	
25	250.37	251.41	251.10	251.91	251.45	251.92	251.35	251.23	251.12	250.99	250.70	250.95	
26	250.13	251.75	251.18	252.18	251.42	251.71	251.26	251.22	251.12	250.99	250.67	250.95	
27	249.83	252.38	251.16	251.69	251.53	252.29	251.24	251.21	251.12	251.00	250.65	250.95	
28	249.87	252.18	251.28	251.52	251.36	253.21	251.22	251.20	251.12	251.01	250.64	250.94	
29	250.01	251.88	251.26	251.41	251.69	251.70	251.20	251.19	251.12	251.02	250.63	250.95	
30	250.38	251.65	251.14	251.23	252.15	251.97	251.19	251.18	251.12	251.03		250.95	
31		251.26		251.71	252.86		251.18		251.12	251.05		250.94	
Mean	249.79	251.37	251.22	251.52	252.00	252.59	251.66	251.31	251.13	250.98	250.78	250.75	
Max	250.93	252.38	251.91	252.18	254.86	256.36	253.41	251.40	251.14	251.09	251.04	250.95	256.36
Min	249.62	250.46	250.74	251.00	251.02	251.48	251.18	251.18	251.12	250.86	250.63	250.58	249.62

Annual Max Momentary Gage Height	256.70	m. (MSL.) ,	at 09.00 Hours , on Sep 14 , 2011		
Zero Gage at Bottom Elevation	247.50	m. (MSL.) ,	River Bed	247.71	m. (MSL)
Left Bank Elevation	258.22	m. (MSL.) ,			
Right Bank Elevation	255.69	m. (MSL.) ,	Drainage Area	948	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	8.40	0.00	78.02	21.22	34.60	8.00	2.80	1.80	0.80	0.00		
2	0.00	0.00	6.20	5.20	88.30	16.46	36.88	8.00	2.80	1.40	0.00	0.00		
3	0.00	0.00	3.60	3.40	61.20	9.60	67.52	7.80	2.80	0.80	0.00	0.00		
4	0.00	0.00	0.00	7.20	50.18	20.54	82.22	7.80	2.80	0.00	0.00	0.00		
5	0.00	2.00	6.40	9.20	17.14	22.92	70.46	7.60	2.80	0.00	0.00	0.00		
6	0.00	5.60	7.80	5.80	12.72	50.94	57.02	7.60	2.80	0.00	0.00	0.00		
7	0.00	7.40	23.94	8.20	3.00	128.68	15.10	7.40	2.80	0.00	0.00	0.00		
8	0.00	6.60	13.74	7.60	2.60	75.08	18.16	7.20	2.80	0.00	0.00	0.00		
9	0.00	6.20	6.40	7.00	5.40	29.28	13.40	7.20	2.80	0.00	0.00	0.00		
10	0.00	7.00	4.20	25.30	1.00	22.92	8.80	7.00	2.80	0.00	0.00	0.00		
11	0.00	7.20	3.40	18.50	0.40	22.58	7.00	7.00	2.80	0.00	0.00	0.00		
12	0.00	7.20	0.00	17.14	4.80	42.58	4.00	6.80	2.80	0.00	0.00	0.00		
13	0.00	5.40	0.00	28.14	44.86	117.16	7.00	6.80	2.80	0.00	0.00	0.00		
14	0.00	5.40	7.80	25.64	43.34	225.72	15.44	6.60	2.80	0.00	0.00	0.00		
15	0.00	7.20	3.80	22.58	11.70	138.76	4.00	6.60	2.80	0.20	0.00	0.00		
16	0.00	13.06	2.80	9.20	3.80	88.30	9.80	6.40	2.60	0.40	0.00	0.00		
17	0.00	10.34	5.40	6.60	48.28	38.78	15.10	6.20	2.60	0.20	0.00	0.00		
18	0.00	9.60	5.00	7.40	150.28	23.26	8.40	6.00	2.60	0.20	0.00	0.00		
19	0.00	7.00	3.20	8.40	87.84	10.34	4.40	5.80	2.60	0.00	0.00	0.00		
20	0.00	5.40	4.40	6.00	30.42	38.78	6.00	5.60	2.40	0.00	0.00	0.00		
21	0.00	9.60	1.80	8.20	19.52	53.22	7.80	5.40	2.40	0.00	0.00	0.00		
22	0.00	6.40	3.60	6.60	16.80	57.40	11.36	5.20	2.40	0.00	0.00	0.00		
23	0.00	7.00	0.60	7.80	6.80	67.52	9.00	5.00	2.40	0.00	0.00	0.00		
24	0.00	6.60	1.20	15.44	8.40	38.40	8.00	4.80	2.40	0.00	0.00	0.00		
25	0.00	8.20	2.00	23.94	9.00	24.28	7.00	4.60	2.40	0.00	0.00	0.00		
26	0.00	18.50	3.60	33.84	8.40	17.14	5.20	4.40	2.40	0.00	0.00	0.00		
27	0.00	41.44	3.20	16.46	11.02	38.02	4.80	4.20	2.40	0.00	0.00	0.00		
28	0.00	33.84	5.60	10.68	7.20	73.82	4.40	4.00	2.40	0.20	0.00	0.00		
29	0.00	22.92	5.20	8.20	16.46	16.80	4.00	3.80	2.40	0.40	0.00	0.00		
30	0.00	15.10	2.80	4.60	32.70	25.98	3.80	3.60	2.40	0.60		0.00		
31		5.20		17.14	59.68		3.60		2.40	1.00		0.00		
Total	0.00	287.40	146.08	381.40	941.26	1556.48	554.26	184.40	81.20	7.20	0.80	0.00	4140.48	CMSDAY
Mean	0.00	9.27	4.87	12.30	30.36	51.88	17.88	6.15	2.62	0.23	0.03	0.00	11.31	CMS
Max	0.00	41.44	23.94	33.84	150.28	225.72	82.22	8.00	2.80	1.80	0.80	0.00	225.72	CMS
Min	0.00	0.00	0.00	0.00	0.40	9.60	3.60	3.60	2.40	0.00	0.00	0.00	0.00	CMS
Runoff	0.00	24.83	12.62	32.95	81.33	134.48	47.89	15.93	7.02	0.62	0.07	0.00	357.74	MCM

Momentary Peak 243.40 CMS. at 256.70 m. (MSL.) at 09.00 Hours , on Sep 14 , 2011

Runoff Yield 11.93 Liters/Second/Square KM. Momentary Peak Yield 256.751 Liters/Second/Square KM.

WATER YEAR : 2011

NAM MAE ING RIVER BASIN

Nam Waen at Ban Nam Waen , Phayao (I.6)

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

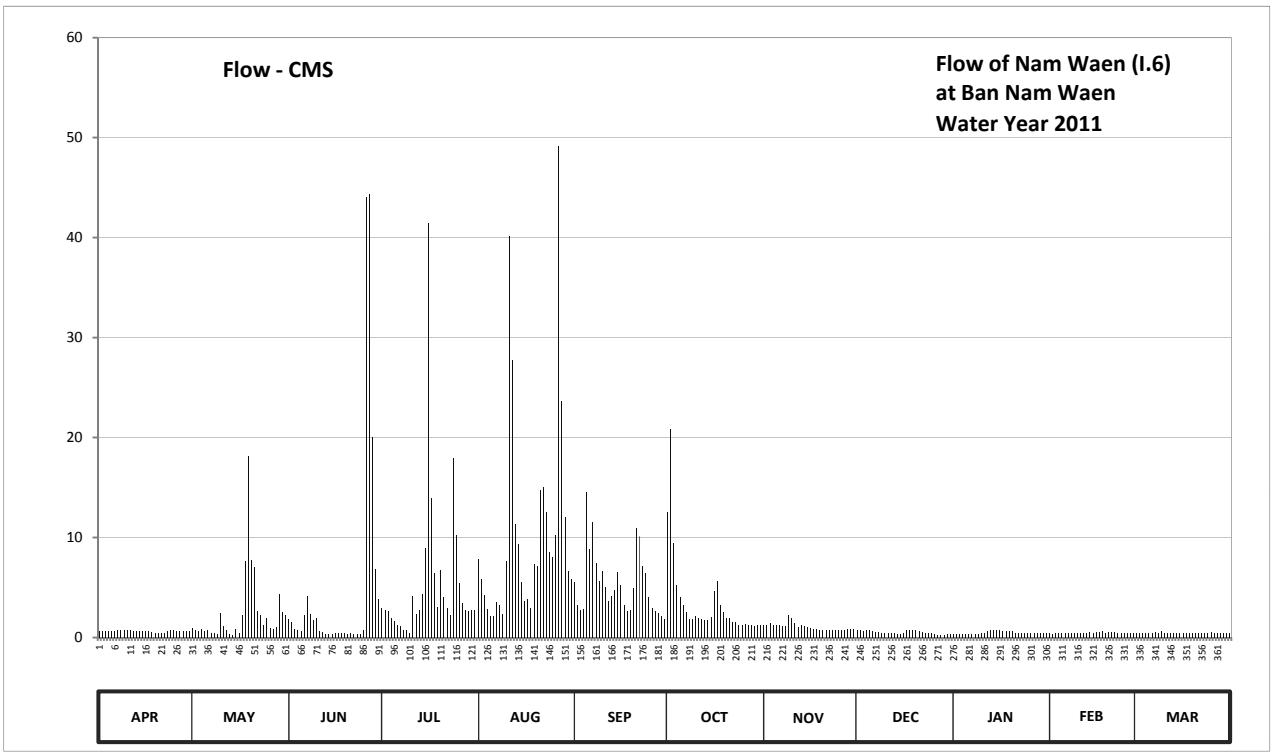
Location : on left bank at the bridge of Amphoe Chum - Amphoe Chiang Kham Highway.

	Ban Nam Waen	**Amphoe** Chiang Kham	**Changwat** Phayao
Drainge Area	151 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+390.745 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank in the vicinity of gage observer's house.	**Elevation**	+397.867 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings		
Period of Available Gage Records	1980 to date		
Rating Operation			
Period of Rating	1997 to date		
Rated by Flot	-		
Rated by Current Meter	1997 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Flow effected by Nam Waen reservoir about 4 - 5 kilometers above gage site. Stage-discharge relation defined by 39 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	391.55	391.65	391.45	391.59	392.02	391.83	392.32	391.35	391.25	391.15	391.17	391.18	
2	391.55	391.60	391.41	391.57	391.85	391.63	392.78	391.34	391.25	391.15	391.16	391.18	
3	391.55	391.59	391.26	391.56	391.72	391.57	392.13	391.39	391.23	391.15	391.18	391.17	
4	391.55	391.63	391.24	391.46	391.58	391.58	391.80	391.35	391.24	391.16	391.18	391.18	
5	391.58	391.55	391.22	391.42	391.49	392.44	391.70	391.34	391.24	391.16	391.19	391.18	
6	391.59	391.60	391.51	391.34	391.49	392.09	391.62	391.35	391.23	391.15	391.18	391.20	
7	391.60	391.50	391.71	391.33	391.65	392.26	391.54	391.33	391.21	391.15	391.19	391.21	
8	391.60	391.42	391.52	391.25	391.62	391.99	391.45	391.32	391.21	391.15	391.19	391.20	
9	391.61	391.35	391.44	391.24	391.52	391.84	391.45	391.50	391.18	391.16	391.18	391.22	
10	391.61	391.80	391.46	391.19	392.00	391.92	391.49	391.46	391.18	391.19	391.18	391.18	
11	391.60	391.69	391.23	391.71	393.63	391.79	391.46	391.39	391.17	391.19	391.18	391.18	
12	391.59	391.60	391.21	391.52	393.11	391.67	391.45	391.31	391.17	391.22	391.18	391.18	
13	391.59	391.36	391.16	391.57	392.25	391.71	391.44	391.35	391.17	391.25	391.20	391.17	
14	391.59	391.23	391.15	391.73	392.12	391.76	391.43	391.32	391.16	391.25	391.21	391.18	
15	391.59	391.62	391.16	392.10	391.83	391.91	391.48	391.31	391.15	391.25	391.20	391.18	
16	391.58	391.49	391.20	393.68	391.67	391.80	391.75	391.29	391.20	391.25	391.21	391.17	
17	391.57	391.51	391.19	392.41	391.68	391.63	391.84	391.28	391.25	391.23	391.21	391.17	
18	391.54	392.00	391.18	391.90	391.59	391.55	391.63	391.27	391.25	391.22	391.22	391.18	
19	391.50	392.64	391.17	391.60	391.98	391.57	391.54	391.25	391.24	391.23	391.20	391.18	
20	391.40	392.01	391.16	391.93	391.96	391.78	391.46	391.25	391.24	391.23	391.21	391.17	
21	391.42	391.95	391.17	391.70	392.45	392.22	391.46	391.25	391.23	391.20	391.21	391.17	
22	391.43	391.56	391.14	391.59	392.47	392.17	391.41	391.25	391.21	391.19	391.21	391.17	
23	391.59	391.51	391.16	391.50	392.32	391.96	391.41	391.25	391.19	391.20	391.20	391.20	
24	391.60	391.36	391.14	392.63	392.07	391.90	391.35	391.24	391.18	391.19	391.20	391.20	
25	391.61	391.46	391.24	392.18	392.03	391.70	391.35	391.25	391.19	391.20	391.19	391.21	
26	391.58	391.29	393.78	391.82	392.18	391.59	391.37	391.25	391.16	391.20	391.19	391.20	
27	391.55	391.27	393.79	391.64	393.97	391.55	391.35	391.25	391.11	391.19	391.19	391.19	
28	391.55	391.30	392.74	391.57	392.92	391.53	391.35	391.26	391.10	391.19	391.18	391.19	
29	391.55	391.73	391.94	391.55	392.29	391.49	391.32	391.26	391.13	391.19	391.18	391.18	
30	391.55	391.54	391.68	391.57	391.92	391.45	391.35	391.26	391.15	391.19		391.18	
31		391.50		391.57	391.85		391.35		391.15	391.19		391.18	
Mean	391.56	391.59	391.53	391.72	392.10	391.80	391.58	391.31	391.19	391.19	391.19	391.18	
Max	391.61	392.64	393.79	393.68	393.97	392.44	392.78	391.50	391.25	391.25	391.22	391.22	393.97
Min	391.40	391.23	391.14	391.19	391.49	391.45	391.32	391.24	391.10	391.15	391.16	391.17	391.10

Annual Max Momentary Gage Height	395.08	m. (MSL.) ,	at 13.00 Hours , on Aug 27 , 2011		
Zero Gage at Bottom Elevation	390.74	m. (MSL.) ,	River Bed	389.93	m. (MSL)
Left Bank Elevation	398.52	m. (MSL.) ,			
Right Bank Elevation	398.55	m. (MSL.) ,	Drainage Area	151	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.60	0.95	1.85	2.92	7.88	5.56	12.52	1.25	0.75	0.35	0.41	0.44		
2	0.60	0.70	1.57	2.76	5.80	3.30	20.80	1.20	0.75	0.35	0.38	0.44		
3	0.60	0.68	0.80	2.68	4.24	2.76	9.48	1.45	0.65	0.35	0.44	0.41		
4	0.60	0.85	0.70	1.92	2.84	2.84	5.20	1.25	0.70	0.38	0.44	0.44		
5	0.66	0.60	0.60	1.64	2.13	14.52	4.00	1.20	0.70	0.38	0.47	0.44		
6	0.68	0.70	2.28	1.20	2.13	8.86	3.20	1.25	0.65	0.35	0.44	0.50		
7	0.70	0.50	4.12	1.15	3.50	11.56	2.52	1.15	0.55	0.35	0.47	0.55		
8	0.70	0.42	2.36	0.75	3.20	7.48	1.85	1.10	0.55	0.35	0.47	0.50		
9	0.75	0.35	1.78	0.70	2.36	5.68	1.85	2.20	0.44	0.38	0.44	0.60		
10	0.75	2.40	1.92	0.47	7.60	6.64	2.13	1.92	0.44	0.47	0.44	0.44		
11	0.70	1.15	0.65	4.12	40.18	5.08	1.92	1.45	0.41	0.47	0.44	0.44		
12	0.68	0.70	0.55	2.36	27.73	3.70	1.85	1.05	0.41	0.60	0.44	0.44		
13	0.68	0.36	0.38	2.76	11.40	4.12	1.78	1.25	0.41	0.75	0.50	0.41		
14	0.68	0.23	0.35	4.36	9.32	4.72	1.71	1.10	0.38	0.75	0.55	0.44		
15	0.68	0.80	0.38	9.00	5.56	6.52	2.06	1.05	0.35	0.75	0.50	0.44		
16	0.66	0.49	0.50	41.48	3.70	5.20	4.60	0.95	0.50	0.75	0.55	0.41		
17	0.64	2.28	0.47	13.98	3.80	3.30	5.68	0.90	0.75	0.65	0.55	0.41		
18	0.58	7.60	0.44	6.40	2.92	2.60	3.30	0.85	0.75	0.60	0.60	0.44		
19	0.50	18.12	0.41	3.00	7.36	2.76	2.52	0.75	0.70	0.65	0.50	0.44		
20	0.40	7.74	0.38	6.76	7.12	4.96	1.92	0.75	0.70	0.65	0.55	0.41		
21	0.42	7.00	0.41	4.00	14.70	10.92	1.92	0.75	0.65	0.50	0.55	0.41		
22	0.43	2.68	0.32	2.92	15.06	10.12	1.57	0.75	0.55	0.47	0.55	0.41		
23	0.68	2.28	0.38	2.20	12.52	7.12	1.57	0.75	0.47	0.50	0.50	0.50		
24	0.70	1.30	0.32	17.94	8.58	6.40	1.25	0.70	0.44	0.47	0.50	0.50		
25	0.75	1.92	0.70	10.28	8.02	4.00	1.25	0.75	0.47	0.50	0.47	0.55		
26	0.66	0.95	44.08	5.44	10.28	2.92	1.35	0.75	0.38	0.50	0.47	0.50		
27	0.60	0.85	44.34	3.40	49.19	2.60	1.25	0.75	0.23	0.47	0.47	0.47		
28	0.60	1.00	20.00	2.76	23.60	2.44	1.25	0.80	0.20	0.47	0.44	0.47		
29	0.60	4.36	6.88	2.60	12.04	2.13	1.10	0.80	0.29	0.47	0.44	0.44		
30	0.60	2.52	3.80	2.76	6.64	1.85	1.25	0.80	0.35	0.47		0.44		
31		2.20		2.76	5.80		1.25		0.35	0.47		0.44		
Total	18.88	74.68	143.72	167.47	327.20	162.66	105.90	31.67	15.92	15.62	13.97	14.17	1091.86	CMSDAY
Mean	0.63	2.41	4.79	5.40	10.55	5.42	3.42	1.06	0.51	0.50	0.48	0.46	2.98	CMS
Max	0.75	18.12	44.34	41.48	49.19	14.52	20.80	2.20	0.75	0.75	0.60	0.60	49.19	CMS
Min	0.40	0.23	0.32	0.47	2.13	1.85	1.10	0.70	0.20	0.35	0.38	0.41	0.20	CMS
Runoff	1.63	6.45	12.42	14.47	28.27	14.05	9.15	2.74	1.38	1.35	1.21	1.22	94.34	MCM

Momentary Peak 80.90 CMS. at 395.08 m. (MSL.) at 13.00 Hours , on Aug 27 , 2011

Runoff Yield 19.76 Liters/Second/Square KM. Momentary Peak Yield 535.762 Liters/Second/Square KM.

WATER YEAR : 2011

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

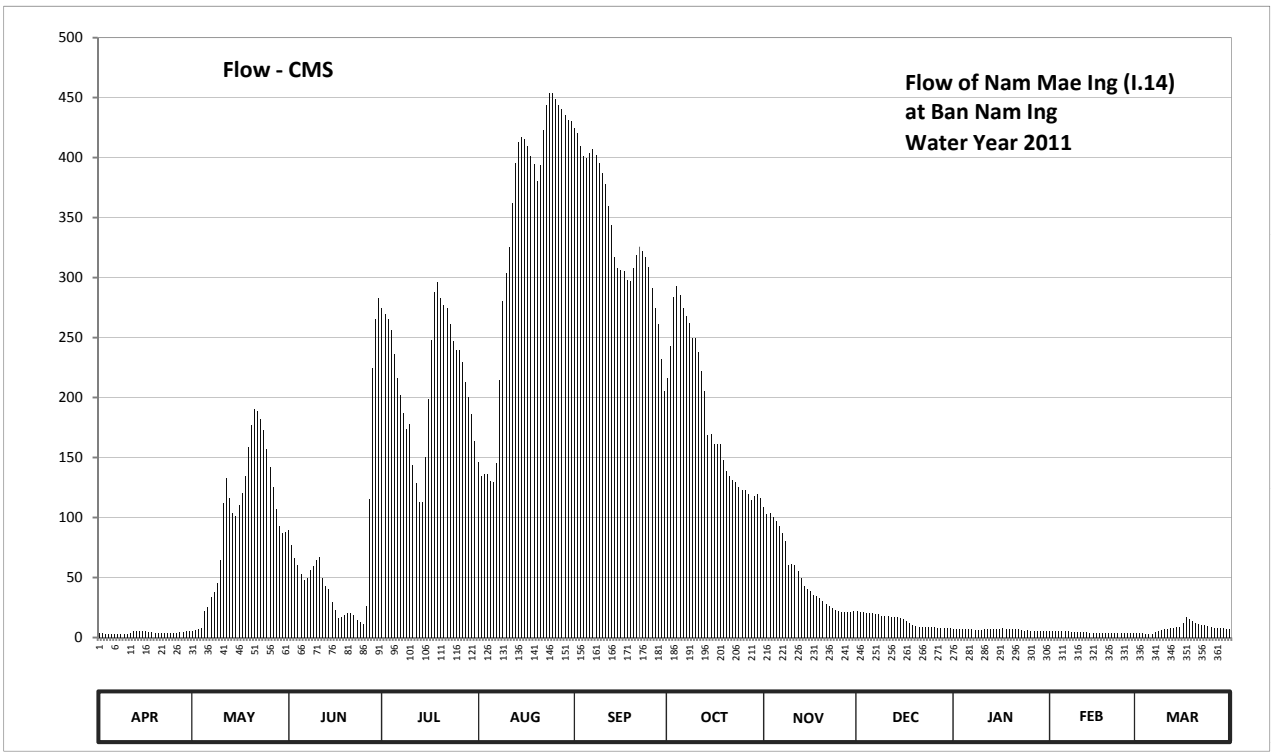
Location : on right bank at the bridge on the road about 2 kilometers from Amphoe Khun Tan.

	Ban Nam Ing	**Amphoe** Khun Tan	**Changwat** Chiang Rai
Drainge Area	6,266 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+351.430 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank downstream side at the approach of the bridge.	**Elevation**	+361.805 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings		
Period of Available Gage Records	1993 to date		
Rating Operation			
Period of Rating	1993 to date		
Rated by Flot	-		
Rated by Current Meter	1993 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Flow effected by the local weir about 100 meters downstream from the gage site. Stage-discharge relation defined by 48 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	352.53	352.67	354.87	357.73	355.93	359.41	357.00	355.25	353.28	352.75	352.66	352.55	
2	352.53	352.70	354.63	357.68	355.73	359.36	357.35	355.13	353.27	352.74	352.66	352.54	
3	352.51	352.73	354.41	357.63	355.76	359.25	357.84	355.15	353.26	352.74	352.66	352.53	
4	352.51	352.80	354.25	357.51	355.77	359.16	357.95	355.09	353.25	352.74	352.66	352.52	
5	352.51	353.28	354.08	357.26	355.66	359.14	357.86	355.02	353.24	352.73	352.66	352.51	
6	352.50	353.38	353.94	357.00	355.64	359.19	357.73	354.93	353.23	352.73	352.66	352.52	
7	352.49	353.59	353.98	356.80	355.92	359.22	357.66	354.83	353.22	352.73	352.65	352.62	
8	352.49	353.70	354.15	356.58	356.98	359.17	357.59	354.69	353.21	352.72	352.64	352.68	
9	352.49	353.88	354.24	356.38	357.80	359.10	357.43	354.27	353.18	352.72	352.63	352.69	
10	352.50	354.36	354.36	356.45	358.08	359.01	357.43	354.28	353.18	352.72	352.63	352.73	
11	352.57	355.32	354.42	355.89	358.33	358.91	357.28	354.26	353.16	352.74	352.63	352.75	
12	352.65	355.70	353.98	355.63	358.73	358.71	357.08	354.13	353.14	352.73	352.63	352.78	
13	352.65	355.40	353.82	355.33	359.10	358.53	356.85	353.98	353.14	352.73	352.61	352.80	
14	352.66	355.15	353.77	355.33	359.28	358.23	356.30	353.82	353.14	352.73	352.60	352.82	
15	352.65	355.11	353.48	356.01	359.33	358.13	356.32	353.75	353.13	352.74	352.56	352.83	
16	352.65	355.28	353.30	356.75	359.31	358.11	356.18	353.72	353.09	352.75	352.54	352.99	
17	352.63	355.48	353.13	357.41	359.25	358.10	356.18	353.64	353.04	352.78	352.55	353.15	
18	352.63	355.73	353.14	357.89	359.16	358.01	356.18	353.62	352.99	352.77	352.59	353.10	
19	352.60	356.15	353.19	357.99	359.09	358.00	355.96	353.57	352.93	352.75	352.58	353.05	
20	352.54	356.43	353.24	357.83	358.94	358.13	355.81	353.52	352.87	352.74	352.58	353.01	
21	352.53	356.63	353.25	357.76	359.08	358.25	355.74	353.45	352.84	352.73	352.58	352.97	
22	352.54	356.61	353.19	357.73	359.39	358.33	355.68	353.41	352.83	352.73	352.58	352.93	
23	352.55	356.51	353.08	357.58	359.61	358.29	355.65	353.36	352.83	352.71	352.58	352.90	
24	352.56	356.36	353.02	357.40	359.71	358.23	355.57	353.30	352.83	352.68	352.58	352.87	
25	352.57	356.11	352.98	357.31	359.71	358.14	355.53	353.28	352.82	352.69	352.58	352.82	
26	352.58	355.87	353.41	357.31	359.66	357.93	355.52	353.27	352.82	352.68	352.58	352.80	
27	352.62	355.57	355.39	357.18	359.61	357.73	355.46	353.26	352.81	352.68	352.58	352.80	
28	352.63	355.23	357.11	356.96	359.57	357.58	355.38	353.27	352.81	352.68	352.56	352.79	
29	352.67	354.93	357.63	356.78	359.52	357.21	355.43	353.27	352.80	352.68	352.56	352.78	
30	352.67	354.83	357.83	356.57	359.48	356.85	355.46	353.28	352.79	352.68		352.75	
31		354.84		356.23	359.47		355.40		352.78	352.68		352.73	
Mean	352.57	354.91	354.18	356.96	358.34	358.45	356.48	353.99	353.03	352.72	352.61	352.78	
Max	352.67	356.63	357.83	357.99	359.71	359.41	357.95	355.25	353.28	352.78	352.66	353.15	359.71
Min	352.49	352.67	352.98	355.33	355.64	356.85	355.38	353.26	352.78	352.68	352.54	352.51	352.49

Annual Max Momentary Gage Height	359.73	m. (MSL.) ,	at 18.00 Hours , on Aug 24 , 2011		
Zero Gage at Bottom Elevation	351.43	m. (MSL.) ,	River Bed	351.05	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, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.30	5.40	89.50	274.05	145.80	424.95	216.00	108.50	21.80	7.00	5.20	3.50		
2	3.30	6.00	77.50	269.80	134.15	420.20	243.00	102.50	21.45	6.80	5.20	3.40		
3	3.10	6.60	66.50	265.55	135.80	409.75	283.40	103.50	21.10	6.80	5.20	3.30		
4	3.10	8.00	60.00	255.80	136.35	401.20	292.75	100.50	20.75	6.80	5.20	3.20		
5	3.10	21.80	53.20	235.80	130.30	399.30	285.10	97.00	20.40	6.60	5.20	3.10		
6	3.00	25.30	47.60	216.00	129.20	404.05	274.05	92.50	20.05	6.60	5.20	3.20		
7	2.90	33.60	49.20	202.00	145.20	406.90	268.10	87.50	19.70	6.60	5.00	4.40		
8	2.90	38.00	56.00	186.70	214.60	402.15	262.20	80.50	19.35	6.40	4.80	5.60		
9	2.90	45.20	59.60	173.70	280.00	395.50	249.40	60.80	18.30	6.40	4.60	5.80		
10	3.00	64.40	64.40	178.25	303.80	386.95	249.40	61.20	18.30	6.40	4.60	6.60		
11	3.70	112.00	67.00	143.40	325.70	377.90	237.40	60.40	17.60	6.80	4.60	7.00		
12	5.00	132.50	49.20	128.65	361.70	359.90	222.00	55.20	16.90	6.60	4.60	7.60		
13	5.00	116.00	42.80	112.50	395.50	343.70	205.50	49.20	16.90	6.60	4.20	8.00		
14	5.20	103.50	40.80	112.50	412.60	316.70	168.50	42.80	16.90	6.60	4.00	8.40		
15	5.00	101.50	29.20	150.60	417.35	308.05	169.80	40.00	16.55	6.80	3.60	8.60		
16	5.00	110.00	22.50	198.50	415.45	306.35	160.80	38.80	15.15	7.00	3.40	11.80		
17	4.60	120.40	16.55	247.80	409.75	305.50	160.80	35.60	13.40	7.60	3.50	17.25		
18	4.60	134.15	16.90	287.65	401.20	297.85	160.80	34.80	11.80	7.40	3.90	15.50		
19	4.00	159.00	18.65	296.15	394.55	297.00	147.60	32.80	10.60	7.00	3.80	13.75		
20	3.40	176.95	20.40	282.55	380.60	308.05	138.60	30.80	9.40	6.80	3.80	12.35		
21	3.30	190.10	20.75	276.60	393.60	318.50	134.70	28.00	8.80	6.60	3.80	11.40		
22	3.40	188.70	18.65	274.05	423.05	325.70	131.40	26.40	8.60	6.60	3.80	10.60		
23	3.50	182.15	14.80	261.40	444.00	322.10	129.75	24.60	8.60	6.20	3.80	10.00		
24	3.60	172.40	12.70	247.00	454.00	316.70	125.35	22.50	8.60	5.60	3.80	9.40		
25	3.70	156.60	11.60	239.80	454.00	308.90	123.15	21.80	8.40	5.80	3.80	8.40		
26	3.80	142.20	26.40	239.80	449.00	291.05	122.60	21.45	8.40	5.60	3.80	8.00		
27	4.40	125.35	115.50	229.50	444.00	274.05	119.30	21.10	8.20	5.60	3.80	8.00		
28	4.60	107.50	224.25	213.20	440.15	261.40	115.00	21.45	8.20	5.60	3.60	7.80		
29	5.40	92.50	265.55	200.60	435.40	231.80	117.65	21.45	8.00	5.60	3.60	7.60		
30	5.40	87.50	282.55	186.05	431.60	205.50	119.30	21.80	7.80	5.60		7.00		
31		88.00		163.95	430.65		116.00		7.60	5.60		6.60		
Total	117.20	3053.30	1940.25	6749.90	10469.05	10127.65	5749.40	1545.45	437.60	200.00	123.40	247.15	40760.35	CMSDAY
Mean	3.91	98.49	64.68	217.74	337.71	337.59	185.46	51.52	14.12	6.45	4.26	7.97	111.37	CMS
Max	5.40	190.10	282.55	296.15	454.00	424.95	292.75	108.50	21.80	7.60	5.20	17.25	454.00	CMS
Min	2.90	5.40	11.60	112.50	129.20	205.50	115.00	21.10	7.60	5.60	3.40	3.10	2.90	CMS
Runoff	10.13	263.81	167.64	583.19	904.53	875.03	496.75	133.53	37.81	17.28	10.66	21.35	3521.70	MCM

Momentary Peak 456.00 CMS. at 359.73 m. (MSL.) at 18.00 Hours , on Aug 24 , 2011

Runoff Yield 17.77 Liters/Second/Square KM. Momentary Peak Yield 72.774 Liters/Second/Square KM.

WATER YEAR : 2011

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

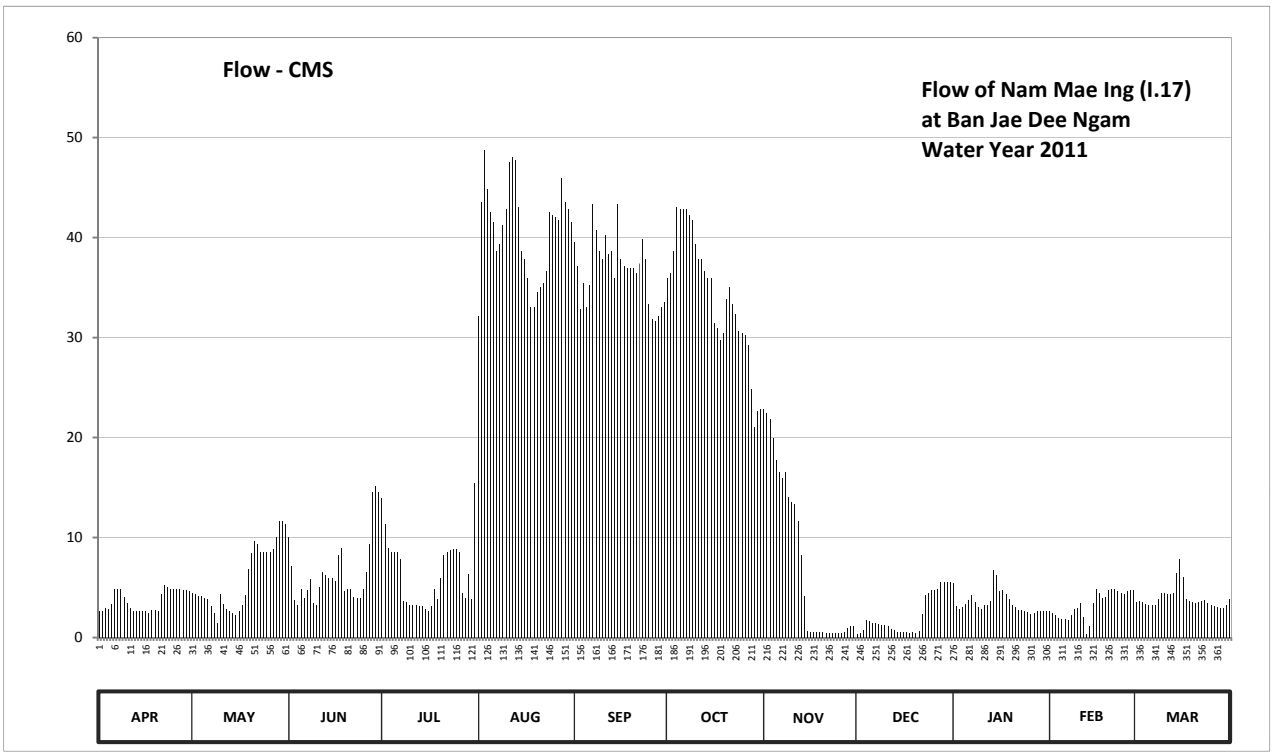
Location : on left bank at Ban Jae Dee Ngam.

	Ban Jae Dee Ngam	**Amphoe** Mueang	**Changwat** Phayao
Drainge Area	1,167 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+386.266 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank about 10 meters from the top staff gage.	**Elevation**	+390.573 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings		
Period of Available Gage Records	2003 to date		
Rating Operation			
Period of Rating	2003 to date		
Rated by Flot	-		
Rated by Current Meter	2003 to date		
Stability of Channel Regimes	Fairly Stable because of backwater effect.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 47 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	387.07	387.33	387.75	387.93	388.23	388.54	388.39	387.79	386.43	387.42	387.07	387.22	
2	387.07	387.31	387.57	387.82	388.70	388.44	388.41	387.77	386.49	387.15	387.05	387.23	
3	387.12	387.29	387.24	387.70	388.90	388.26	388.50	387.74	386.60	387.11	387.01	387.22	
4	387.11	387.29	387.17	387.67	388.75	388.37	388.68	387.64	386.93	387.14	386.95	387.19	
5	387.19	387.27	387.36	387.67	388.66	388.27	388.67	387.52	386.91	387.19	386.94	387.18	
6	387.37	387.26	387.27	387.67	388.62	388.36	388.67	387.45	386.87	387.24	386.94	387.17	
7	387.37	387.16	387.35	387.62	388.50	388.69	388.67	387.42	386.85	387.30	386.93	387.17	
8	387.37	387.04	387.46	387.23	388.53	388.59	388.65	387.45	386.83	387.22	387.01	387.26	
9	387.28	386.85	387.21	387.22	388.61	388.50	388.63	387.30	386.82	387.14	387.11	387.33	
10	387.20	387.31	387.17	387.17	388.67	388.47	388.53	387.27	386.81	387.11	387.13	387.33	
11	387.13	387.19	387.38	387.17	388.85	388.57	388.47	387.26	386.78	387.17	387.21	387.31	
12	387.07	387.11	387.53	387.17	388.87	388.49	388.47	387.15	386.70	387.18	386.97	387.31	
13	387.07	387.07	387.50	387.16	388.86	388.50	388.42	386.90	386.60	387.23	386.42	387.33	
14	387.07	387.04	387.47	387.15	388.68	388.39	388.39	386.56	386.54	387.54	386.78	387.52	
15	387.07	387.01	387.47	387.10	388.50	388.69	388.39	386.55	386.53	387.50	387.21	387.62	
16	387.07	387.08	387.44	387.07	388.47	388.47	388.20	386.53	386.51	387.34	387.37	387.48	
17	387.05	387.17	387.65	387.15	388.39	388.44	388.18	386.51	386.51	387.35	387.32	387.25	
18	387.09	387.30	387.70	387.36	388.27	388.43	388.13	386.51	386.49	387.31	387.27	387.23	
19	387.09	387.55	387.34	387.25	388.27	388.43	388.16	386.51	386.51	387.25	387.28	387.22	
20	387.07	387.66	387.37	387.47	388.33	388.43	388.30	386.53	386.49	387.17	387.35	387.21	
21	387.31	387.73	387.36	387.65	388.35	388.41	388.35	386.47	386.57	387.14	387.37	387.22	
22	387.40	387.72	387.28	387.67	388.37	388.45	388.28	386.47	387.02	387.09	387.37	387.23	
23	387.38	387.67	387.27	387.68	388.42	388.55	388.24	386.45	387.30	387.09	387.34	387.24	
24	387.37	387.67	387.27	387.69	388.66	388.47	388.17	386.45	387.32	387.07	387.32	387.20	
25	387.37	387.67	387.36	387.69	388.65	388.28	388.16	386.45	387.35	387.06	387.31	387.18	
26	387.37	387.67	387.53	387.67	388.64	388.22	388.15	386.48	387.35	387.03	387.34	387.16	
27	387.36	387.69	387.72	387.32	388.63	388.21	388.11	386.53	387.36	387.04	387.35	387.14	
28	387.35	387.75	387.95	387.27	388.79	388.23	387.89	386.72	387.43	387.08	387.35	387.13	
29	387.35	387.83	387.97	387.51	388.70	388.27	387.70	386.77	387.43	387.07	387.27	387.13	
30	387.34	387.83	387.95	387.25	388.67	388.29	387.78	386.77	387.43	387.07		387.18	
31		387.82		387.39	388.62		387.79		387.43	387.07		387.25	
Mean	387.22	387.40	387.47	387.44	388.59	388.42	388.31	386.93	386.88	387.19	387.15	387.25	
Max	387.40	387.83	387.97	387.93	388.90	388.69	388.68	387.79	387.43	387.54	387.37	387.62	388.90
Min	387.05	386.85	387.17	387.07	388.23	388.21	387.70	386.45	386.43	387.03	386.42	387.13	386.42

Annual Max Momentary Gage Height	388.92	m. (MSL.) ,	at 12.00 Hours , on Aug 3, 2011		
Zero Gage at Bottom Elevation	386.27	m. (MSL.) ,	River Bed	384.64	m. (MSL)
Left Bank Elevation	390.57	m. (MSL.) ,			
Right Bank Elevation	390.57	m. (MSL.) ,	Drainage Area	1167	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.62	4.50	10.00	13.90	32.12	39.56	35.96	22.80	0.36	5.40	2.62	3.56		
2	2.62	4.30	7.11	11.40	43.60	37.16	36.44	22.40	0.48	3.10	2.50	3.64		
3	2.92	4.12	3.72	9.00	48.80	32.84	38.60	21.80	0.70	2.86	2.26	3.56		
4	2.86	4.12	3.22	8.55	44.90	35.48	43.08	19.92	1.78	3.04	1.90	3.34		
5	3.34	3.96	4.80	8.55	42.56	33.08	42.82	17.76	1.66	3.34	1.84	3.28		
6	4.90	3.88	3.96	8.55	41.52	35.24	42.82	16.50	1.48	3.72	1.84	3.22		
7	4.90	3.16	4.70	7.80	38.60	43.34	42.82	15.96	1.40	4.20	1.78	3.22		
8	4.90	2.44	5.80	3.64	39.32	40.76	42.30	16.50	1.32	3.56	2.26	3.88		
9	4.04	1.40	3.48	3.56	41.26	38.60	41.78	14.00	1.28	3.04	2.86	4.50		
10	3.40	4.30	3.22	3.22	42.82	37.88	39.32	13.52	1.24	2.86	2.98	4.50		
11	2.98	3.34	5.00	3.22	47.50	40.28	37.88	13.36	1.14	3.22	3.48	4.30		
12	2.62	2.86	6.59	3.22	48.02	38.36	37.88	11.60	0.90	3.28	2.02	4.30		
13	2.62	2.62	6.20	3.16	47.76	38.60	36.68	8.20	0.70	3.64	0.34	4.50		
14	2.62	2.44	5.90	3.10	43.08	35.96	35.96	4.14	0.58	6.72	1.14	6.46		
15	2.62	2.26	5.90	2.80	38.60	43.34	35.96	0.60	0.56	6.20	3.48	7.80		
16	2.62	2.68	5.60	2.62	37.88	37.88	31.40	0.56	0.52	4.60	4.90	6.00		
17	2.50	3.22	8.25	3.10	35.96	37.16	30.92	0.52	0.52	4.70	4.40	3.80		
18	2.74	4.20	9.00	4.80	33.08	36.92	29.72	0.52	0.48	4.30	3.96	3.64		
19	2.74	6.85	4.60	3.80	33.08	36.92	30.44	0.52	0.52	3.80	4.04	3.56		
20	2.62	8.40	4.90	5.90	34.52	36.92	33.80	0.56	0.48	3.22	4.70	3.48		
21	4.30	9.60	4.80	8.25	35.00	36.44	35.00	0.44	0.64	3.04	4.90	3.56		
22	5.20	9.40	4.04	8.55	35.48	37.40	33.32	0.44	2.32	2.74	4.90	3.64		
23	5.00	8.55	3.96	8.70	36.68	39.80	32.36	0.40	4.20	2.74	4.60	3.72		
24	4.90	8.55	3.96	8.85	42.56	37.88	30.68	0.40	4.40	2.62	4.40	3.40		
25	4.90	8.55	4.80	8.85	42.30	33.32	30.44	0.40	4.70	2.56	4.30	3.28		
26	4.90	8.55	6.59	8.55	42.04	31.88	30.20	0.46	4.70	2.38	4.60	3.16		
27	4.80	8.85	9.40	4.40	41.78	31.64	29.24	0.56	4.80	2.44	4.70	3.04		
28	4.70	10.00	14.50	3.96	45.94	32.12	24.80	0.96	5.50	2.68	4.70	2.98		
29	4.70	11.60	15.10	6.33	43.60	33.08	21.00	1.11	5.50	2.62	3.96	2.98		
30	4.60	11.60	14.50	3.80	42.82	33.56	22.60	1.11	5.50	2.62		3.28		
31		11.40		15.44	41.52		22.80		5.50	2.62		3.80		
Total	111.18	181.70	193.60	199.57	1264.70	1103.40	1059.02	228.02	65.86	107.86	96.36	121.38	4732.65	CMSDAY
Mean	3.71	5.86	6.45	6.44	40.80	36.78	34.16	7.60	2.12	3.48	3.32	3.92	12.93	CMS
Max	5.20	11.60	15.10	15.44	48.80	43.34	43.08	22.80	5.50	6.72	4.90	7.80	48.80	CMS
Min	2.50	1.40	3.22	2.62	32.12	31.64	21.00	0.40	0.36	2.38	0.34	2.98	0.34	CMS
Runoff	9.61	15.70	16.73	17.24	109.27	95.33	91.50	19.70	5.69	9.32	8.33	10.49	408.90	MCM

Momentary Peak 49.34 CMS. at 388.92 m. (MSL.) at 12.00 Hours , on Aug 3 , 2011

Runoff Yield 11.08 Liters/Second/Square KM. Momentary Peak Yield 42.279 Liters/Second/Square KM.

WATER YEAR : 2011

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

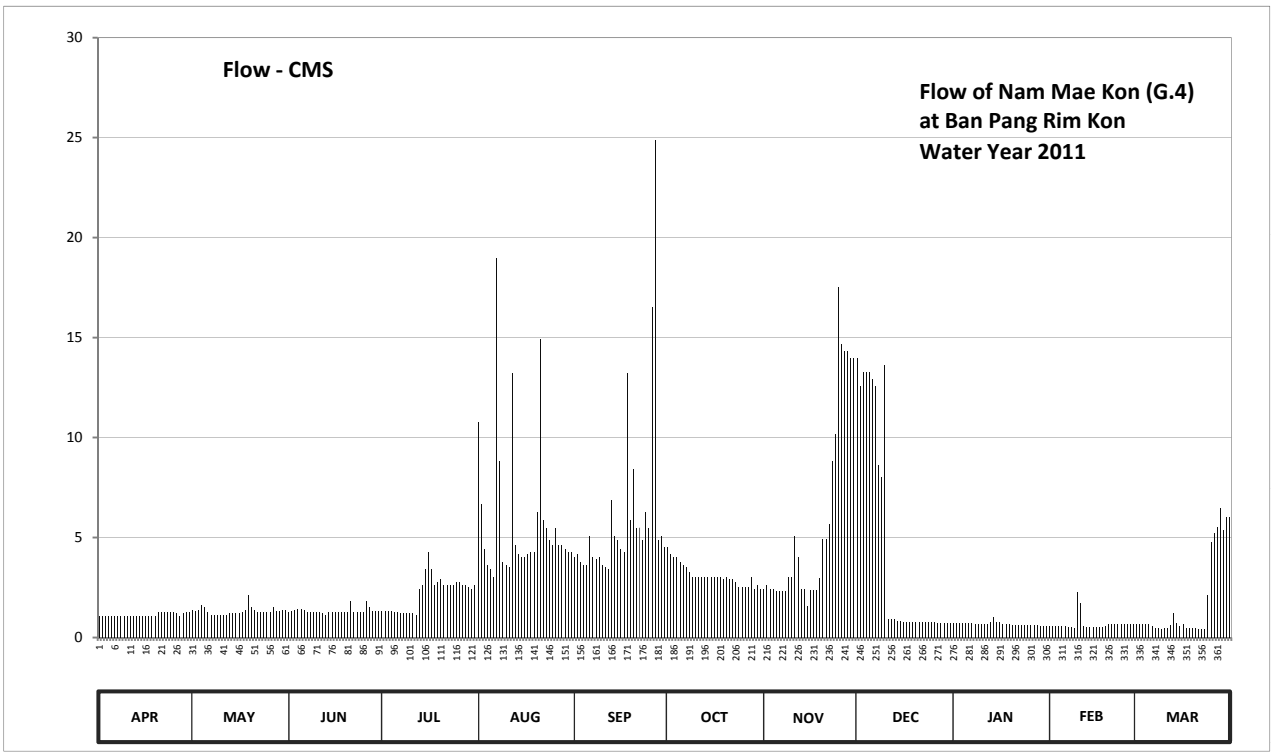
Location : on left bank at Ban Pang Rim Kon.

	Ban Pang Rim Kon	**Amphoe** Mueang	**Changwat** Chiang Rai
Drainge Area	49 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+461.700 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank about 66.50 meters from the top staff gage.	**Elevation**	+465.100 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings		
Period of Available Gage Records	1983 to date		
Rating Operation			
Period of Rating	2000 to date		
Rated by Flot	-		
Rated by Current Meter	2000 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 38 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	462.38	462.43	462.41	462.42	462.88	462.53	462.57	462.40	463.17	462.32	462.29	462.31	
2	462.38	462.42	462.42	462.42	462.69	462.54	462.54	462.42	463.13	462.32	462.29	462.31	
3	462.38	462.43	462.43	462.42	462.56	462.51	462.53	462.40	463.15	462.32	462.29	462.31	
4	462.38	462.47	462.44	462.42	462.50	462.50	462.53	462.40	463.15	462.32	462.29	462.31	
5	462.38	462.45	462.44	462.41	462.48	462.50	462.51	462.39	463.15	462.32	462.29	462.31	
6	462.38	462.41	462.43	462.41	462.45	462.61	462.50	462.39	463.14	462.32	462.29	462.29	
7	462.38	462.39	462.41	462.40	463.17	462.53	462.49	462.39	463.13	462.32	462.28	462.27	
8	462.38	462.39	462.41	462.40	462.80	462.52	462.47	462.39	462.99	462.31	462.28	462.27	
9	462.38	462.39	462.41	462.40	462.51	462.53	462.45	462.45	462.96	462.31	462.27	462.26	
10	462.38	462.39	462.41	462.40	462.50	462.50	462.45	462.45	463.16	462.31	462.56	462.27	
11	462.38	462.39	462.41	462.40	462.49	462.49	462.45	462.61	462.35	462.31	462.49	462.27	
12	462.38	462.39	462.40	462.39	462.98	462.48	462.45	462.53	462.35	462.31	462.29	462.30	
13	462.38	462.40	462.39	462.40	462.58	462.70	462.45	462.40	462.35	462.33	462.28	462.40	
14	462.38	462.40	462.41	462.42	462.54	462.61	462.45	462.40	462.34	462.37	462.28	462.32	
15	462.38	462.40	462.41	462.48	462.53	462.60	462.45	462.46	462.34	462.33	462.28	462.29	
16	462.38	462.40	462.41	462.55	462.53	462.56	462.45	462.57	462.33	462.33	462.28	462.31	
17	462.38	462.41	462.41	462.48	462.54	462.55	462.45	462.57	462.33	462.31	462.28	462.27	
18	462.38	462.43	462.41	462.42	462.55	462.98	462.45	462.57	462.33	462.31	462.28	462.27	
19	462.38	462.54	462.41	462.43	462.55	462.65	462.44	462.63	462.33	462.31	462.29	462.27	
20	462.41	462.45	462.41	462.44	462.67	462.78	462.45	462.78	462.33	462.30	462.31	462.27	
21	462.41	462.43	462.50	462.42	463.04	462.63	462.44	462.78	462.33	462.30	462.31	462.26	
22	462.41	462.41	462.41	462.42	462.65	462.63	462.44	462.83	462.33	462.30	462.31	462.26	
23	462.41	462.41	462.41	462.42	462.63	462.60	462.43	463.00	462.33	462.30	462.31	462.26	
24	462.41	462.41	462.41	462.42	462.60	462.67	462.41	463.05	462.33	462.30	462.31	462.54	
25	462.41	462.41	462.41	462.43	462.58	462.63	462.41	463.23	462.33	462.30	462.31	462.77	
26	462.40	462.41	462.50	462.43	462.63	463.09	462.41	463.19	462.33	462.30	462.31	462.80	
27	462.38	462.45	462.45	462.42	462.58	463.34	462.41	463.18	462.32	462.30	462.31	462.82	
28	462.40	462.42	462.42	462.42	462.58	462.60	462.45	463.18	462.32	462.30	462.31	462.88	
29	462.41	462.42	462.42	462.41	462.56	462.61	462.40	463.17	462.32	462.29	462.31	462.81	
30	462.41	462.43	462.42	462.40	462.55	462.57	462.42	463.17	462.32	462.29		462.85	
31		462.43		462.42	462.55		462.40		462.32	462.29		462.85	
Mean	462.39	462.42	462.42	462.42	462.63	462.63	462.46	462.68	462.58	462.31	462.31	462.42	
Max	462.41	462.54	462.50	462.55	463.17	463.34	462.57	463.23	463.17	462.37	462.56	462.88	463.34
Min	462.38	462.39	462.39	462.39	462.45	462.48	462.40	462.39	462.32	462.29	462.27	462.26	462.26

Annual Max Momentary Gage Height	464.47	m. (MSL.) ,	at 03.00 Hours , on Sep 27 , 2011		
Zero Gage at Bottom Elevation	461.70	m. (MSL.) ,	River Bed	461.80	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, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.08	1.38	1.26	1.32	10.76	4.02	4.53	2.40	13.95	0.72	0.56	0.66		
2	1.08	1.32	1.32	1.32	6.66	4.15	4.15	2.65	12.55	0.72	0.56	0.66		
3	1.08	1.38	1.38	1.32	4.40	3.78	4.02	2.40	13.25	0.72	0.56	0.66		
4	1.08	1.62	1.44	1.32	3.65	3.65	4.02	2.40	13.25	0.72	0.56	0.66		
5	1.08	1.50	1.44	1.26	3.40	3.65	3.78	2.31	13.25	0.72	0.56	0.66		
6	1.08	1.26	1.38	1.26	3.03	5.09	3.65	2.31	12.90	0.72	0.56	0.56		
7	1.08	1.14	1.26	1.20	18.97	4.02	3.52	2.31	12.55	0.72	0.52	0.48		
8	1.08	1.14	1.26	1.20	8.80	3.90	3.28	2.31	8.60	0.66	0.52	0.48		
9	1.08	1.14	1.26	1.20	3.78	4.02	3.03	3.03	8.00	0.66	0.48	0.44		
10	1.08	1.14	1.26	1.20	3.65	3.65	3.03	3.03	13.60	0.66	2.28	0.48		
11	1.08	1.14	1.26	1.20	3.52	3.52	3.03	5.09	0.90	0.66	1.74	0.48		
12	1.08	1.14	1.20	1.14	13.21	3.40	3.03	4.02	0.90	0.66	0.56	0.60		
13	1.08	1.20	1.14	2.40	4.65	6.85	3.03	2.40	0.90	0.78	0.52	1.20		
14	1.08	1.20	1.26	2.65	4.15	5.09	3.03	2.40	0.84	1.02	0.52	0.72		
15	1.08	1.20	1.26	3.40	4.02	4.90	3.03	1.56	0.84	0.78	0.52	0.56		
16	1.08	1.20	1.26	4.27	4.02	4.40	3.03	2.36	0.78	0.78	0.52	0.66		
17	1.08	1.26	1.26	3.40	4.15	4.27	3.03	2.36	0.78	0.66	0.52	0.48		
18	1.08	1.38	1.26	2.65	4.27	13.21	3.03	2.36	0.78	0.66	0.52	0.48		
19	1.08	2.12	1.26	2.77	4.27	5.87	2.90	2.96	0.78	0.66	0.56	0.48		
20	1.26	1.50	1.26	2.90	6.27	8.41	3.03	4.92	0.78	0.60	0.66	0.48		
21	1.26	1.38	1.80	2.65	14.94	5.49	2.90	4.92	0.78	0.60	0.66	0.44		
22	1.26	1.26	1.26	2.65	5.87	5.49	2.90	5.68	0.78	0.60	0.66	0.44		
23	1.26	1.26	1.26	2.65	5.49	4.90	2.77	8.80	0.78	0.60	0.66	0.44		
24	1.26	1.26	1.26	2.65	4.90	6.27	2.53	10.15	0.78	0.60	0.66	2.12		
25	1.26	1.26	1.26	2.77	4.65	5.49	2.53	17.54	0.78	0.60	0.66	4.78		
26	1.20	1.26	1.80	2.77	5.49	16.49	2.53	14.65	0.78	0.60	0.66	5.20		
27	1.08	1.50	1.50	2.65	4.65	24.87	2.53	14.30	0.72	0.60	0.66	5.52		
28	1.20	1.32	1.32	2.65	4.65	4.90	3.03	14.30	0.72	0.60	0.66	6.48		
29	1.26	1.32	1.32	2.53	4.40	5.09	2.40	13.95	0.72	0.56	0.66	5.36		
30	1.26	1.38	1.32	2.40	4.27	4.53	2.65	13.95	0.72	0.56		6.00		
31		1.38		2.65	4.27		2.40		0.72	0.56		6.00		
Total	34.08	40.94	39.78	68.40	183.21	183.37	96.35	173.82	138.46	20.76	19.74	54.66	1053.57	CMSDAY
Mean	1.14	1.32	1.33	2.21	5.91	6.11	3.11	5.79	4.47	0.67	0.68	1.76	2.88	CMS
Max	1.26	2.12	1.80	4.27	18.97	24.87	4.53	17.54	13.95	1.02	2.28	6.48	24.87	CMS
Min	1.08	1.14	1.14	1.14	3.03	3.40	2.40	1.56	0.72	0.56	0.48	0.44	0.44	CMS
Runoff	2.95	3.54	3.44	5.91	15.83	15.84	8.33	15.02	11.96	1.79	1.71	4.72	91.03	MCM

Momentary Peak 94.82 CMS. at 464.47 m. (MSL.) at 03.00 Hours , on Sep 27 , 2011

Runoff Yield 58.58 Liters/Second/Square KM. Momentary Peak Yield 1929.589 Liters/Second/Square KM.

WATER YEAR : 2011

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

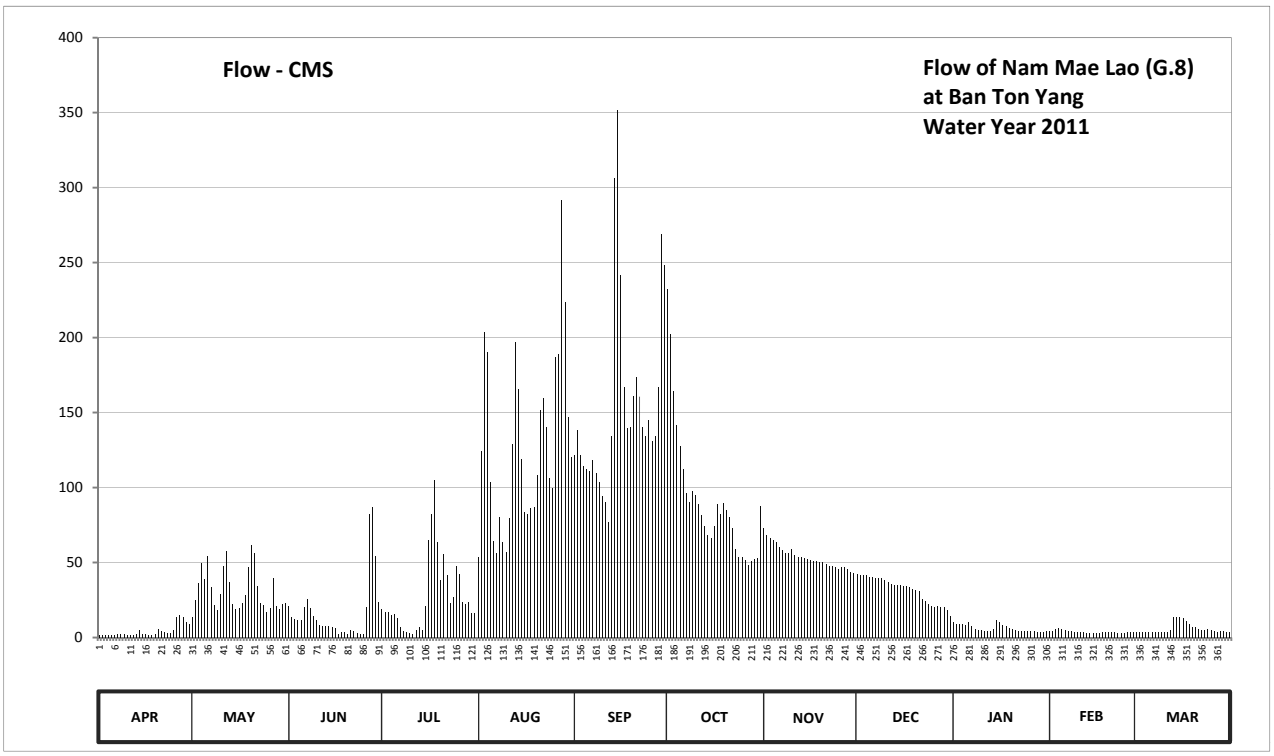
Location : on left bank at the bridge of Chiang Rai - Phayao Highway, Tambon Bua Sali.

	Ban Ton Yang	**Amphoe** Mae Lao	**Changwat** Chiang Rai
Drainge Area	2,909 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+405.100 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank about 8 meters from the top staff gage.	**Elevation**	+410.832 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	1994 to date		
Rating Operation			
Period of Rating	1994 to date		
Rated by Flot	-		
Rated by Current Meter	1994 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Mae Lao weir situated about 10 kilometers above gage site.		
	Stage-discharge relation defined by 46 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	404.99	405.53	405.73	405.68	406.28	407.06	407.95	406.54	406.11	405.41	405.15	405.14	
2	405.00	405.82	405.51	405.63	407.09	407.22	407.74	406.48	406.10	405.35	405.17	405.12	
3	405.00	406.02	405.47	405.62	407.75	407.06	407.45	406.45	406.10	405.35	405.23	405.11	
4	405.00	406.22	405.46	405.57	407.65	406.99	407.25	406.44	406.10	405.35	405.26	405.11	
5	405.00	406.06	405.46	405.59	406.88	406.97	407.12	406.42	406.08	405.33	405.22	405.13	
6	405.01	406.29	405.71	405.49	406.43	406.96	406.97	406.38	406.08	405.40	405.19	405.13	
7	405.03	405.97	405.83	405.29	406.32	407.03	406.80	406.35	406.07	405.30	405.16	405.12	
8	405.03	405.74	405.69	405.17	406.63	406.94	406.74	406.32	406.07	405.23	405.15	405.12	
9	405.03	405.66	405.55	405.11	406.42	406.88	406.82	406.32	406.07	405.21	405.14	405.11	
10	405.01	405.89	405.45	405.10	406.33	406.78	406.79	406.36	406.05	405.18	405.13	405.11	
11	405.01	406.19	405.34	405.06	406.62	406.74	406.72	406.30	406.03	405.16	405.12	405.12	
12	405.01	406.34	405.30	405.21	407.13	406.59	406.64	406.28	406.01	405.15	405.11	405.20	
13	405.04	406.03	405.30	405.27	407.70	407.18	406.55	406.28	406.00	405.16	405.10	405.53	
14	405.18	405.76	405.30	405.20	407.46	408.38	406.48	406.27	406.00	405.24	405.10	405.51	
15	405.05	405.68	405.29	405.73	407.04	408.60	406.45	406.26	406.00	405.45	405.10	405.53	
16	405.03	405.69	405.25	406.44	406.66	408.01	406.55	406.25	405.99	405.40	405.09	405.50	
17	405.02	405.77	405.05	406.65	406.65	407.47	406.72	406.24	405.99	405.33	405.10	405.44	
18	405.02	405.88	405.13	406.89	406.69	407.23	406.65	406.24	405.97	405.30	405.12	405.36	
19	405.06	406.18	405.13	406.42	406.70	407.24	406.73	406.23	405.95	405.26	405.11	405.28	
20	405.22	406.40	405.04	406.05	406.93	407.42	406.68	406.23	405.94	405.22	405.11	405.27	
21	405.17	406.32	405.21	406.31	407.34	407.52	406.63	406.21	405.93	405.19	405.11	405.24	
22	405.11	405.99	405.17	406.10	407.41	407.42	406.54	406.19	405.83	405.17	405.11	405.21	
23	405.09	405.77	405.08	405.78	407.24	407.24	406.36	406.19	405.80	405.16	405.10	405.18	
24	405.10	405.75	405.05	405.85	406.91	407.18	406.28	406.18	405.76	405.15	405.09	405.22	
25	405.18	405.63	405.06	406.19	406.84	407.28	406.28	406.16	405.72	405.15	405.10	405.20	
26	405.53	405.69	405.70	406.11	407.62	407.15	406.25	406.18	405.70	405.15	405.14	405.15	
27	405.56	406.07	406.65	405.79	407.64	407.18	406.20	406.18	405.72	405.17	405.14	405.14	
28	405.51	405.73	406.70	405.76	408.30	407.47	406.24	406.16	405.71	405.14	405.13	405.17	
29	405.40	405.68	406.29	405.79	407.89	408.17	406.26	406.13	405.70	405.13	405.14	405.15	
30	405.36	405.76	405.79	405.60	407.30	408.05	406.27	406.12	405.66	405.13		405.11	
31		405.77		405.60	407.05		406.71		405.54	405.15		405.11	
Mean	405.13	405.91	405.49	405.74	407.06	407.31	406.70	406.28	405.93	405.24	405.14	405.22	
Max	405.56	406.40	406.70	406.89	408.30	408.60	407.95	406.54	406.11	405.45	405.26	405.53	408.60
Min	404.99	405.53	405.04	405.06	406.28	406.59	406.20	406.12	405.54	405.13	405.09	405.11	404.99

Annual Max Momentary Gage Height	408.69	m. (MSL.) ,	at 11.00 Hours , on Sep 15 , 2011		
Zero Gage at Bottom Elevation	405.10	m. (MSL.) ,	River Bed	404.42	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, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.35	13.90	21.20	19.20	53.60	121.30	232.50	73.20	42.15	10.30	4.12	3.95		
2	1.50	25.10	13.30	17.20	124.45	138.20	202.20	68.40	41.50	8.75	4.48	3.60		
3	1.50	36.30	12.10	16.80	203.50	121.30	164.50	66.00	41.50	8.75	5.75	3.42		
4	1.50	49.40	11.80	15.10	190.50	114.05	141.50	65.20	41.50	8.75	6.50	3.42		
5	1.50	38.90	11.80	15.70	103.60	112.15	127.60	63.60	40.20	8.25	5.50	3.77		
6	1.68	54.30	20.40	12.70	64.40	111.20	112.15	60.60	40.20	10.00	4.82	3.77		
7	2.02	33.35	25.65	7.25	56.40	118.15	96.00	58.50	39.55	7.50	4.30	3.60		
8	2.02	21.60	19.60	4.48	80.70	109.30	90.60	56.40	39.55	5.75	4.12	3.60		
9	2.02	18.40	14.50	3.42	63.60	103.60	97.90	56.40	39.55	5.25	3.95	3.42		
10	1.68	28.95	11.50	3.25	57.10	94.20	95.10	59.20	38.25	4.65	3.77	3.42		
11	1.68	47.35	8.50	2.55	79.80	90.60	88.80	55.00	36.95	4.30	3.60	3.60		
12	1.68	57.80	7.50	5.25	128.65	77.20	81.60	53.60	35.65	4.12	3.42	5.00		
13	2.20	36.95	7.50	6.75	197.00	133.90	74.00	53.60	35.00	4.30	3.25	13.90		
14	4.65	22.40	7.50	5.00	165.80	306.40	68.40	52.90	35.00	6.00	3.25	13.30		
15	2.37	19.20	7.25	21.20	119.20	352.00	66.00	52.20	35.00	11.50	3.25	13.90		
16	2.02	19.60	6.25	65.20	83.40	241.70	74.00	51.50	34.45	10.00	3.07	13.00		
17	1.85	22.80	2.37	82.50	82.50	167.10	88.80	50.80	34.45	8.25	3.25	11.20		
18	1.85	28.40	3.77	104.55	86.10	139.30	82.50	50.80	33.35	7.50	3.60	9.00		
19	2.55	46.70	3.77	63.60	87.00	140.40	89.70	50.10	32.25	6.50	3.42	7.00		
20	5.50	62.00	2.20	38.25	108.35	160.60	85.20	50.10	31.70	5.50	3.42	6.75		
21	4.48	56.40	5.25	55.70	151.40	173.60	80.70	48.70	31.15	4.82	3.42	6.00		
22	3.42	34.45	4.48	41.50	159.30	160.60	73.20	47.35	25.65	4.48	3.42	5.25		
23	3.07	22.80	2.90	23.20	140.40	140.40	59.20	47.35	24.00	4.30	3.25	4.65		
24	3.25	22.00	2.37	26.75	106.45	133.90	53.60	46.70	22.40	4.12	3.07	5.50		
25	4.65	17.20	2.55	47.35	99.80	144.80	53.60	45.40	20.80	4.12	3.25	5.00		
26	13.90	19.60	20.00	42.15	186.60	130.75	51.50	46.70	20.00	4.12	3.95	4.12		
27	14.80	39.55	82.50	23.60	189.20	133.90	48.00	46.70	20.80	4.48	3.95	3.95		
28	13.30	21.20	87.00	22.40	292.00	167.10	50.80	45.40	20.40	3.95	3.77	4.48		
29	10.00	19.20	54.30	23.60	223.50	268.90	52.20	43.45	20.00	3.77	3.95	4.12		
30	9.00	22.40	23.60	16.00	147.00	248.50	52.90	42.80	18.40	3.77		3.42		
31		22.80		16.00	120.25		87.90		14.20	4.12		3.42		
Total	122.99	981.00	503.41	848.20	3951.55	4655.10	2822.65	1608.65	985.55	191.97	112.87	182.53	16966.47	CMSDAY
Mean	4.10	31.65	16.78	27.36	127.47	155.17	91.05	53.62	31.79	6.19	3.89	5.89	46.36	CMS
Max	14.80	62.00	87.00	104.55	292.00	352.00	232.50	73.20	42.15	11.50	6.50	13.90	352.00	CMS
Min	1.35	13.90	2.20	2.55	53.60	77.20	48.00	42.80	14.20	3.77	3.07	3.42	1.35	CMS
Runoff	10.63	84.76	43.50	73.28	341.41	402.20	243.88	138.99	85.15	16.59	9.75	15.77	1465.90	MCM

Momentary Peak 372.25 CMS. at 408.69 m. (MSL.) at 11.00 Hours , on Sep 15 , 2011

Runoff Yield 15.94 Liters/Second/Square KM. Momentary Peak Yield 127.965 Liters/Second/Square KM.

WATER YEAR : 2011

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

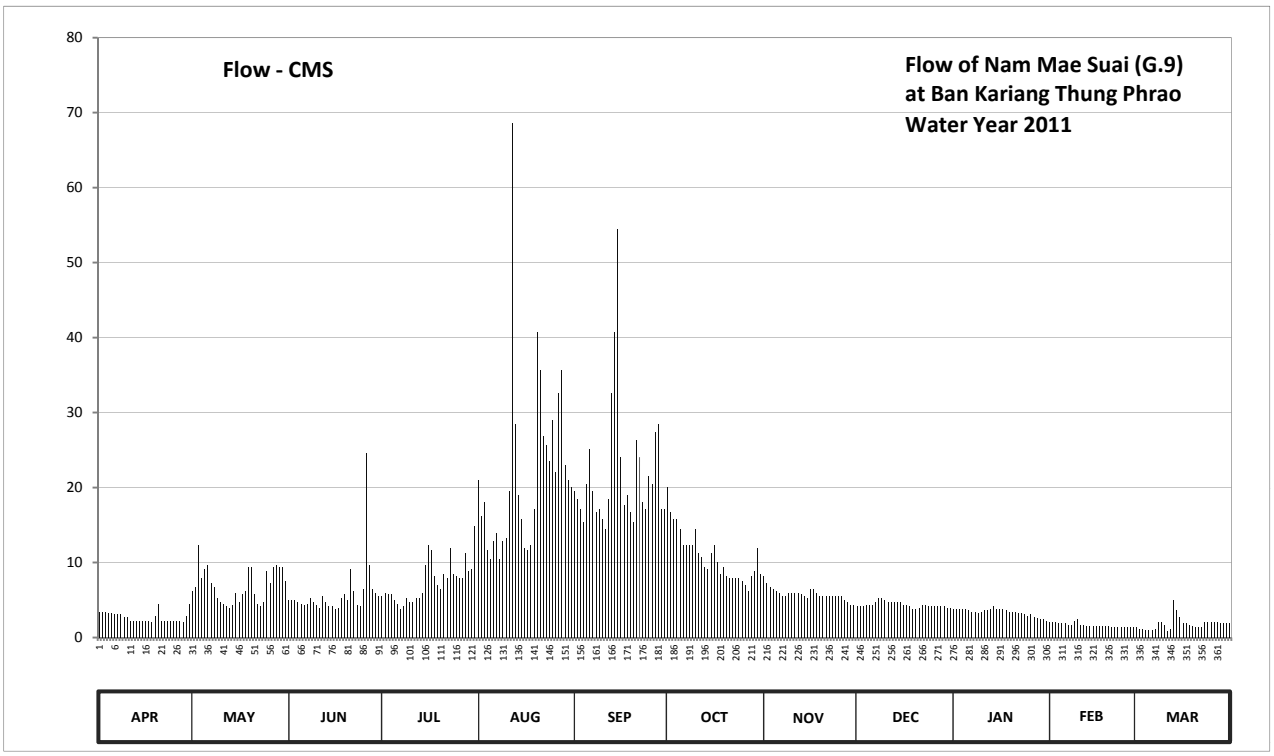
Location : on right bank at the bridge on road.

	Ban Kariang Thung Phrao	**Amphoe** Mae Suai		**Changwat** Chiang Rai	
Drainge Area	386 sq.km.				
Type of Gage	Water - stage recorder				
Zero Gage at Bottom	+514.656 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On right bank about 20 meters from the top staff gage.			**Elevation**	+522.091 m. (MSL.)
Gage Reading Frequency	Recording				
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings				
Period of Available Gage Records	1998 to date				
Rating Operation					
Period of Rating	1998 to date				
Rated by Flot	-				
Rated by Current Meter	1998 to date				
Stability of Channel Regimes	Fairly stable.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records fair. Stage-discharge relation defined by 39 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	515.64	515.77	515.72	515.74	516.15	516.12	516.13	515.84	515.68	515.66	515.56	515.52	
2	515.64	515.79	515.72	515.76	516.05	516.10	516.06	515.81	515.68	515.66	515.56	515.51	
3	515.64	515.96	515.72	515.75	516.09	516.07	516.04	515.79	515.68	515.66	515.56	515.51	
4	515.63	515.83	515.71	515.75	515.94	516.03	516.04	515.78	515.69	515.66	515.55	515.50	
5	515.63	515.87	515.70	515.72	515.91	516.14	516.01	515.77	515.69	515.66	515.55	515.50	
6	515.62	515.89	515.69	515.70	515.97	516.23	515.96	515.76	515.69	515.65	515.55	515.50	
7	515.62	515.81	515.70	515.66	516.00	516.12	515.96	515.74	515.71	515.64	515.54	515.51	
8	515.62	515.79	515.73	515.68	515.91	516.06	515.96	515.74	515.73	515.64	515.54	515.56	
9	515.60	515.73	515.71	515.73	515.97	516.07	515.96	515.76	515.73	515.63	515.57	515.56	
10	515.60	515.71	515.69	515.71	515.98	516.04	516.01	515.76	515.72	515.64	515.58	515.54	
11	515.57	515.70	515.67	515.71	516.12	516.01	515.93	515.76	515.71	515.65	515.54	515.48	
12	515.57	515.68	515.74	515.73	516.85	516.10	515.92	515.76	515.71	515.65	515.54	515.51	
13	515.57	515.67	515.71	515.73	516.29	516.36	515.88	515.75	515.71	515.66	515.53	515.72	
14	515.57	515.69	515.68	515.76	516.11	516.49	515.87	515.74	515.71	515.68	515.53	515.65	
15	515.57	515.76	515.68	515.89	516.04	516.68	515.93	515.73	515.71	515.66	515.53	515.60	
16	515.57	515.71	515.66	515.96	515.95	516.21	515.96	515.78	515.69	515.66	515.53	515.55	
17	515.57	515.75	515.67	515.94	515.94	516.08	515.90	515.78	515.69	515.66	515.53	515.55	
18	515.56	515.77	515.73	515.84	515.96	516.11	515.85	515.76	515.68	515.65	515.53	515.54	
19	515.61	515.88	515.75	515.80	516.07	516.06	515.88	515.74	515.66	515.64	515.53	515.53	
20	515.70	515.88	515.72	515.78	516.49	516.03	515.84	515.74	515.66	515.64	515.53	515.52	
21	515.57	515.75	515.87	515.85	516.41	516.25	515.83	515.74	515.67	515.64	515.52	515.52	
22	515.57	515.70	515.77	515.83	516.26	516.21	515.83	515.74	515.69	515.63	515.52	515.52	
23	515.57	515.68	515.69	515.95	516.24	516.09	515.83	515.74	515.69	515.63	515.52	515.56	
24	515.57	515.71	515.68	515.85	516.20	516.07	515.83	515.74	515.68	515.62	515.52	515.56	
25	515.57	515.86	515.78	515.84	516.30	516.16	515.82	515.74	515.68	515.61	515.52	515.56	
26	515.57	515.81	516.22	515.83	516.17	516.14	515.80	515.74	515.68	515.62	515.52	515.56	
27	515.57	515.88	515.89	515.83	516.36	516.27	515.77	515.72	515.68	515.60	515.52	515.56	
28	515.56	515.89	515.78	515.93	516.41	516.29	515.84	515.71	515.68	515.59	515.52	515.55	
29	515.61	515.88	515.76	515.86	516.19	516.07	515.86	515.69	515.68	515.58	515.52	515.55	
30	515.70	515.88	515.74	515.87	516.15	516.07	515.95	515.69	515.67	515.58		515.55	
31		515.82		516.02	516.13		515.85		515.67	515.57		515.55	
Mean	515.60	515.79	515.74	515.81	516.15	516.16	515.91	515.75	515.69	515.64	515.54	515.55	
Max	515.70	515.96	516.22	516.02	516.85	516.68	516.13	515.84	515.73	515.68	515.58	515.72	516.85
Min	515.56	515.67	515.66	515.66	515.91	516.01	515.77	515.69	515.66	515.57	515.52	515.48	515.48

Annual Max Momentary Gage Height	517.17	m. (MSL.) ,	at 20.00 Hours , on Aug 20 , 2011		
Zero Gage at Bottom Elevation	514.66	m. (MSL.) ,	River Bed	515.04	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, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.45	6.25	5.00	5.50	21.00	19.50	20.00	8.20	4.15	3.80	2.05	1.35		
2	3.45	6.75	5.00	6.00	16.25	18.50	16.70	7.30	4.15	3.80	2.05	1.18		
3	3.45	12.40	5.00	5.75	18.05	17.15	15.80	6.75	4.15	3.80	2.05	1.18		
4	3.27	7.90	4.75	5.75	11.60	15.35	15.80	6.50	4.32	3.80	1.87	1.00		
5	3.27	9.10	4.50	5.00	10.40	20.50	14.45	6.25	4.32	3.80	1.87	1.00		
6	3.10	9.70	4.32	4.50	12.80	25.15	12.40	6.00	4.32	3.63	1.87	1.00		
7	3.10	7.30	4.50	3.80	14.00	19.50	12.40	5.50	4.75	3.45	1.70	1.18		
8	3.10	6.75	5.25	4.15	10.40	16.70	12.40	5.50	5.25	3.45	1.70	2.05		
9	2.75	5.25	4.75	5.25	12.80	17.15	12.40	6.00	5.25	3.27	2.23	2.05		
10	2.75	4.75	4.32	4.75	13.20	15.80	14.45	6.00	5.00	3.45	2.40	1.70		
11	2.23	4.50	3.97	4.75	19.50	14.45	11.20	6.00	4.75	3.63	1.70	0.80		
12	2.23	4.15	5.50	5.25	68.60	18.50	10.80	6.00	4.75	3.63	1.70	1.18		
13	2.23	3.97	4.75	5.25	28.45	32.60	9.40	5.75	4.75	3.80	1.53	5.00		
14	2.23	4.32	4.15	6.00	19.00	40.76	9.10	5.50	4.75	4.15	1.53	3.63		
15	2.23	6.00	4.15	9.70	15.80	54.50	11.20	5.25	4.75	3.80	1.53	2.75		
16	2.23	4.75	3.80	12.40	12.00	24.05	12.40	6.50	4.32	3.80	1.53	1.87		
17	2.23	5.75	3.97	11.60	11.60	17.60	10.00	6.50	4.32	3.80	1.53	1.87		
18	2.05	6.25	5.25	8.20	12.40	19.00	8.50	6.00	4.15	3.63	1.53	1.70		
19	2.92	9.40	5.75	7.00	17.15	16.70	9.40	5.50	3.80	3.45	1.53	1.53		
20	4.50	9.40	5.00	6.50	40.76	15.35	8.20	5.50	3.80	3.45	1.53	1.35		
21	2.23	5.75	9.10	8.50	35.64	26.25	7.90	5.50	3.97	3.45	1.35	1.35		
22	2.23	4.50	6.25	7.90	26.80	24.05	7.90	5.50	4.32	3.27	1.35	1.35		
23	2.23	4.15	4.32	12.00	25.70	18.05	7.90	5.50	4.32	3.27	1.35	2.05		
24	2.23	4.75	4.15	8.50	23.50	17.15	7.90	5.50	4.15	3.10	1.35	2.05		
25	2.23	8.80	6.50	8.20	29.00	21.50	7.60	5.50	4.15	2.92	1.35	2.05		
26	2.23	7.30	24.60	7.90	22.00	20.50	7.00	5.50	4.15	3.10	1.35	2.05		
27	2.23	9.40	9.70	7.90	32.60	27.35	6.25	5.00	4.15	2.75	1.35	2.05		
28	2.05	9.70	6.50	11.20	35.64	28.45	8.20	4.75	4.15	2.58	1.35	1.87		
29	2.92	9.40	6.00	8.80	23.00	17.15	8.80	4.32	4.15	2.40	1.35	1.87		
30	4.50	9.40	5.50	9.10	21.00	17.15	12.00	4.32	3.97	2.40		1.87		
31		7.60		14.90	20.00		8.50		3.97	2.23		1.87		
Total	81.85	215.39	176.30	232.00	680.64	656.41	336.95	173.89	135.25	104.86	47.58	55.80	2896.92	CMSDAY
Mean	2.73	6.95	5.88	7.48	21.96	21.88	10.87	5.80	4.36	3.38	1.64	1.80	7.92	CMS
Max	4.50	12.40	24.60	14.90	68.60	54.50	20.00	8.20	5.25	4.15	2.40	5.00	68.60	CMS
Min	2.05	3.97	3.80	3.80	10.40	14.45	6.25	4.32	3.80	2.23	1.35	0.80	0.80	CMS
Runoff	7.07	18.61	15.23	20.05	58.81	56.71	29.11	15.02	11.69	9.06	4.11	4.82	250.29	MCM

Momentary Peak 96.58 CMS. at 517.17 m. (MSL.) at 20.00 Hours , on Aug 20 , 2011

Runoff Yield 20.51 Liters/Second/Square KM. Momentary Peak Yield 250.207 Liters/Second/Square KM.

WATER YEAR : 2011

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

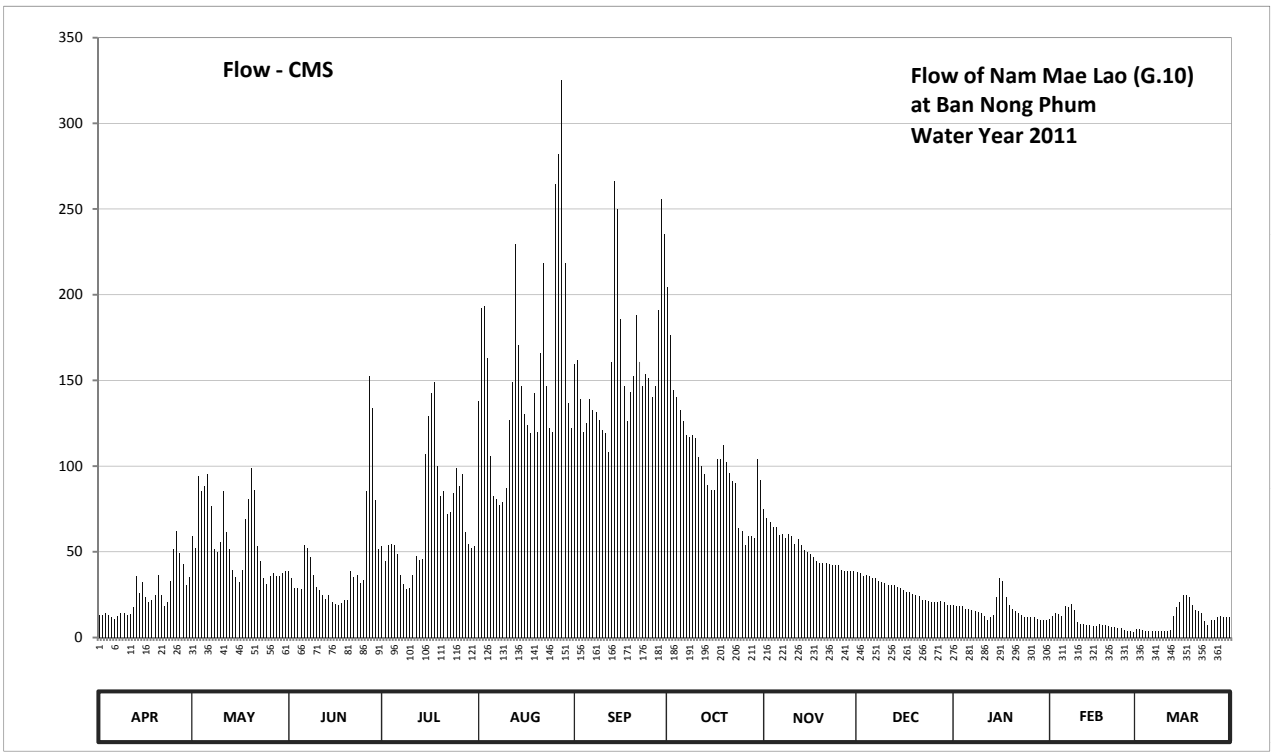
Location : on right bank at Ban Nong Phum.

	Ban Nong Phum	**Amphoe** Mae Suai	**Changwat** Chiang Rai
Drainge Area	2,614 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+433.473 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank at the abutment of the bridge.	**Elevation**	+439.133 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings		
Period of Available Gage Records	2003 to date		
Rating Operation			
Period of Rating	2003 to date		
Rated by Flot	-		
Rated by Current Meter	2003 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 40 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	433.83	434.46	434.21	434.39	435.29	435.48	435.83	434.65	434.20	433.92	433.80	433.69	
2	433.83	434.38	434.15	434.28	435.74	435.50	435.62	434.59	434.19	433.91	433.82	433.69	
3	433.85	434.86	434.07	434.40	435.75	435.30	435.35	434.56	434.17	433.91	433.85	433.68	
4	433.83	434.77	434.07	434.41	435.51	435.12	435.31	434.53	434.18	433.91	433.84	433.67	
5	433.81	434.80	434.06	434.40	434.98	435.17	435.24	434.53	434.17	433.89	433.82	433.67	
6	433.80	434.87	434.40	434.33	434.74	435.30	435.18	434.47	434.15	433.89	433.91	433.67	
7	433.82	434.67	434.38	434.18	434.72	435.24	435.10	434.48	434.15	433.88	433.90	433.67	
8	433.85	434.37	434.31	434.10	434.68	435.23	435.09	434.45	434.13	433.87	433.93	433.67	
9	433.85	434.35	434.18	434.06	434.70	435.19	435.10	434.48	434.12	433.86	433.88	433.67	
10	433.83	434.42	434.08	434.07	434.79	435.13	435.08	434.46	434.11	433.85	433.76	433.67	
11	433.84	434.77	434.05	434.18	435.19	435.11	434.97	434.41	434.09	433.82	433.74	433.67	
12	433.90	434.49	434.01	434.32	435.39	435.00	434.92	434.44	434.09	433.79	433.74	433.68	
13	434.17	434.37	433.98	434.29	436.01	435.49	434.87	434.40	434.09	433.81	433.73	433.82	
14	434.03	434.22	434.01	434.30	435.57	436.26	434.81	434.36	434.08	433.83	433.73	433.90	
15	434.12	434.16	433.95	434.99	435.37	436.15	434.78	434.35	434.07	433.99	433.72	433.95	
16	433.99	434.12	433.93	435.21	435.22	435.69	434.78	434.33	434.05	434.15	433.72	434.01	
17	433.95	434.22	433.92	435.33	435.16	435.37	434.96	434.31	434.04	434.13	433.74	434.01	
18	433.97	434.58	433.94	435.39	435.11	435.18	434.96	434.28	434.04	433.99	433.73	433.99	
19	434.01	434.72	433.97	434.92	435.33	435.34	435.04	434.27	434.02	433.92	433.73	433.92	
20	434.18	434.91	433.97	434.74	435.12	435.42	434.94	434.27	434.01	433.89	433.72	433.88	
21	434.01	434.78	434.21	434.77	435.53	435.71	434.88	434.27	434.00	433.87	433.71	433.87	
22	433.91	434.39	434.16	434.62	435.93	435.49	434.83	434.26	433.97	433.85	433.71	433.85	
23	433.95	434.28	434.18	434.63	435.37	435.37	434.82	434.25	433.97	433.83	433.70	433.77	
24	434.13	434.15	434.11	434.76	435.14	435.43	434.52	434.25	433.96	433.81	433.70	433.73	
25	434.37	434.10	434.14	434.91	435.12	435.41	434.50	434.25	433.95	433.81	433.68	433.79	
26	434.50	434.17	434.77	434.80	436.25	435.31	434.40	434.22	433.95	433.81	433.67	433.79	
27	434.34	434.19	435.42	434.87	436.36	435.37	434.46	434.21	433.95	433.81	433.67	433.81	
28	434.26	434.17	435.25	434.49	436.63	435.73	434.46	434.21	433.96	433.80	433.66	433.82	
29	434.09	434.17	434.71	434.41	435.93	436.19	434.45	434.21	433.95	433.79	433.68	433.81	
30	434.16	434.19	434.37	434.38	435.28	436.05	434.96	434.21	433.92	433.79		433.81	
31		434.21		434.39	435.14		434.84		433.92	433.79		433.81	
Mean	434.01	434.43	434.23	434.56	435.39	435.46	434.94	434.37	434.05	433.88	433.76	433.79	
Max	434.50	434.91	435.42	435.39	436.63	436.26	435.83	434.65	434.20	434.15	433.93	434.01	436.63
Min	433.80	434.10	433.92	434.06	434.68	435.00	434.40	434.21	433.92	433.79	433.66	433.67	433.66

Annual Max Momentary Gage Height	436.71	m. (MSL.) ,	at 24.00 Hours , on Aug 27 , 2011		
Zero Gage at Bottom Elevation	433.47	m. (MSL.) ,	River Bed	432.73	m. (MSL)
Left Bank Elevation	438.96	m. (MSL.) ,			
Right Bank Elevation	438.95	m. (MSL.) ,	Drainage Area	2614	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	12.95	58.95	38.80	53.20	137.90	159.60	204.20	74.87	38.00	18.80	11.00	4.95		
2	12.95	52.40	34.50	44.40	192.20	162.00	176.60	69.67	37.30	18.15	12.30	4.95		
3	14.25	94.00	28.90	54.00	193.50	139.00	144.50	67.20	35.90	18.15	14.25	4.40		
4	12.95	85.37	28.90	54.83	163.20	120.00	140.10	64.72	36.60	18.15	13.60	3.85		
5	11.65	88.00	28.20	54.00	106.00	125.00	132.40	64.72	35.90	16.85	12.30	3.85		
6	11.00	95.00	54.00	48.40	82.75	139.00	126.00	59.78	34.50	16.85	18.15	3.85		
7	12.30	76.63	52.40	36.60	81.00	132.40	118.00	60.60	34.50	16.20	17.50	3.85		
8	14.25	51.60	46.80	31.00	77.50	131.30	117.00	58.13	33.10	15.55	19.45	3.85		
9	14.25	50.00	36.60	28.20	79.25	127.00	118.00	60.60	32.40	14.90	16.20	3.85		
10	12.95	55.65	29.60	28.90	87.13	121.00	116.00	58.95	31.70	14.25	8.80	3.85		
11	13.60	85.37	27.50	36.60	127.00	119.00	105.00	54.83	30.30	12.30	7.70	3.85		
12	17.50	61.42	24.70	47.60	148.90	108.00	100.00	57.30	30.30	10.45	7.70	4.40		
13	35.90	51.60	22.70	45.20	229.45	160.80	95.00	54.00	30.30	11.65	7.15	12.30		
14	26.10	39.60	24.70	46.00	170.40	266.30	89.00	50.80	29.60	12.95	7.15	17.50		
15	32.40	35.20	20.75	107.00	146.70	249.75	86.25	50.00	28.90	23.35	6.60	20.75		
16	23.35	32.40	19.45	129.10	130.20	185.70	86.25	48.40	27.50	34.50	6.60	24.70		
17	20.75	39.60	18.80	142.30	124.00	146.70	104.00	46.80	26.80	33.10	7.70	24.70		
18	22.05	68.85	20.10	148.90	119.00	126.00	104.00	44.40	26.80	23.35	7.15	23.35		
19	24.70	81.00	22.05	100.00	142.30	143.40	112.00	43.60	25.40	18.80	7.15	18.80		
20	36.60	99.00	22.05	82.75	120.00	152.40	102.00	43.60	24.70	16.85	6.60	16.20		
21	24.70	86.25	38.80	85.37	165.60	188.30	96.00	43.60	24.00	15.55	6.05	15.55		
22	18.15	53.20	35.20	72.25	218.20	160.80	91.00	42.80	22.05	14.25	6.05	14.25		
23	20.75	44.40	36.60	73.13	146.70	146.70	90.00	42.00	22.05	12.95	5.50	9.35		
24	33.10	34.50	31.70	84.50	122.00	153.60	63.90	42.00	21.40	11.65	5.50	7.15		
25	51.60	31.00	33.80	99.00	120.00	151.20	62.25	42.00	20.75	11.65	4.40	10.45		
26	62.25	35.90	85.37	88.00	264.75	140.10	54.00	39.60	20.75	11.65	3.85	10.45		
27	49.20	37.30	152.40	95.00	281.80	146.70	58.95	38.80	20.75	11.65	3.85	11.65		
28	42.80	35.90	133.50	61.42	325.10	190.90	58.95	38.80	21.40	11.00	3.30	12.30		
29	30.30	35.90	80.12	54.83	218.20	255.55	58.13	38.80	20.75	10.45	4.40	11.65		
30	35.20	37.30	51.60	52.40	136.80	235.25	104.00	38.80	18.80	10.45		11.65		
31		38.80		53.20	122.00		92.00		18.80	10.45		11.65		
Total	750.50	1772.09	1280.59	2138.08	4779.53	4783.45	3205.48	1540.17	862.00	496.85	257.95	333.90	22200.59	CMSDAY
Mean	25.02	57.16	42.69	68.97	154.18	159.45	103.40	51.34	27.81	16.03	8.89	10.77	60.66	CMS
Max	62.25	99.00	152.40	148.90	325.10	266.30	204.20	74.87	38.00	34.50	19.45	24.70	325.10	CMS
Min	11.00	31.00	18.80	28.20	77.50	108.00	54.00	38.80	18.80	10.45	3.30	3.85	3.30	CMS
Runoff	64.84	153.11	110.64	184.73	412.95	413.29	276.95	133.07	74.48	42.93	22.29	28.85	1918.13	MCM

Momentary Peak 338.70 CMS. at 436.71 m. (MSL.) at 24.00 Hours , on Aug 27 , 2011

Runoff Yield 23.20 Liters/Second/Square KM. Momentary Peak Yield 129.572 Liters/Second/Square KM.

WATER YEAR : 2011

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

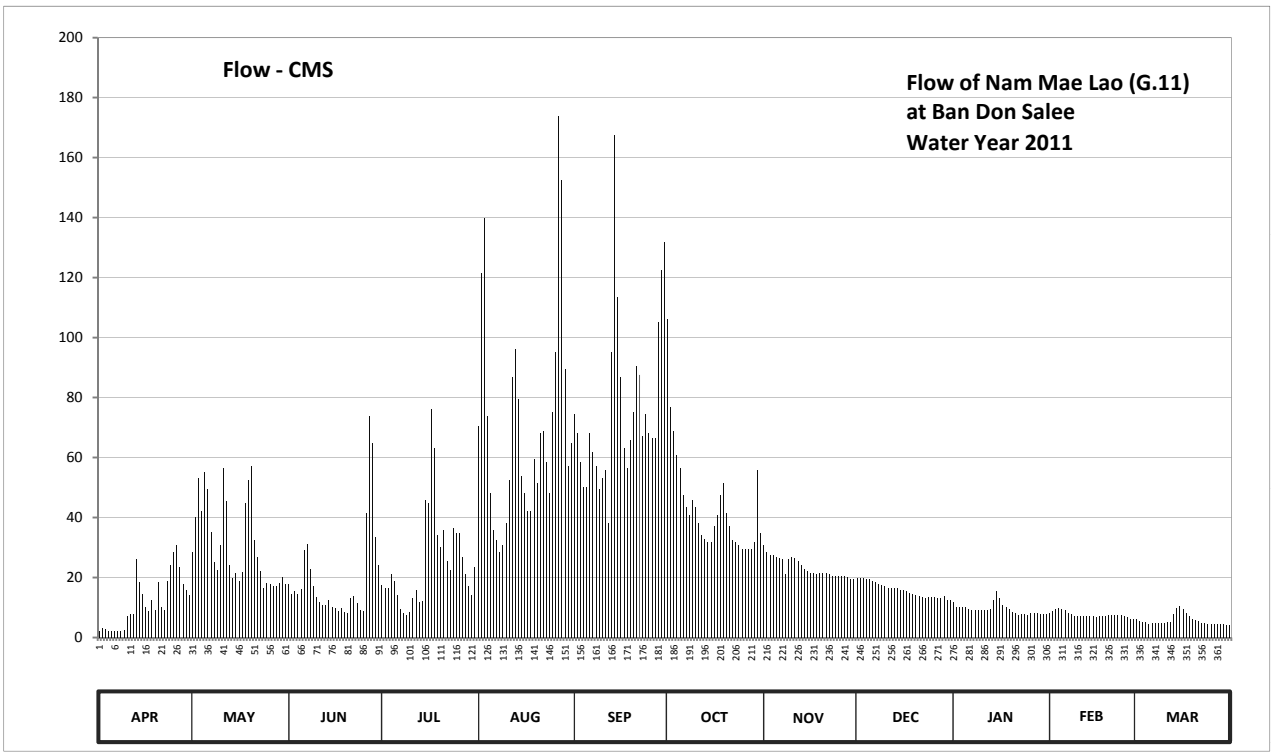
Location : on left bank at Ban Salee.

	Ban Don Salee	**Amphoe** Mae Suai	**Changwat** Chiang Rai
Drainge Area	1,918 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+462.835 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	Near the gage site.		**Elevation** +468.695 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00, and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings		
Period of Available Gage Records	2004 to date		
Rating Operation			
Period of Rating	2004 to date		
Rated by Flot	-		
Rated by Current Meter	2004 to date		
Stability of Channel Regimes	Fairly stable because of backwater effect.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 41 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	463.25	464.01	463.77	463.76	464.63	464.68	465.02	464.05	463.82	463.62	463.50	463.44	
2	463.31	464.21	463.69	463.74	465.16	464.60	464.71	464.01	463.82	463.57	463.53	463.42	
3	463.28	464.40	463.71	463.74	465.32	464.48	464.61	463.99	463.82	463.57	463.55	463.40	
4	463.25	464.24	463.69	463.85	464.67	464.36	464.51	463.99	463.81	463.57	463.56	463.40	
5	463.26	464.43	463.73	463.80	464.33	464.36	464.45	463.98	463.81	463.57	463.55	463.38	
6	463.26	464.35	464.02	463.68	464.14	464.60	464.32	463.97	463.80	463.55	463.54	463.39	
7	463.26	464.13	464.06	463.55	464.08	464.52	464.26	463.96	463.79	463.54	463.51	463.39	
8	463.26	463.94	463.90	463.51	464.01	464.46	464.22	463.85	463.77	463.54	463.49	463.39	
9	463.27	463.89	463.75	463.48	464.05	464.35	464.30	463.96	463.76	463.54	463.47	463.39	
10	463.47	464.05	463.66	463.52	464.18	464.40	464.26	463.98	463.75	463.54	463.47	463.39	
11	463.49	464.45	463.62	463.65	464.39	464.44	464.18	463.97	463.74	463.54	463.47	463.40	
12	463.49	464.29	463.59	463.72	464.82	464.18	464.11	463.95	463.74	463.54	463.47	463.40	
13	463.96	463.92	463.60	463.62	464.92	464.91	464.09	463.92	463.74	463.55	463.47	463.49	
14	463.79	463.82	463.64	463.63	464.74	465.54	464.07	463.90	463.74	463.64	463.47	463.56	
15	463.69	463.86	463.57	464.30	464.41	465.09	464.07	463.88	463.72	463.71	463.47	463.58	
16	463.57	463.80	463.56	464.28	464.33	464.82	464.16	463.86	463.72	463.65	463.46	463.55	
17	463.53	463.87	463.53	464.70	464.24	464.54	464.22	463.86	463.71	463.60	463.47	463.50	
18	463.64	464.28	463.56	464.54	464.24	464.45	464.32	463.85	463.70	463.57	463.47	463.47	
19	463.54	464.39	463.52	464.11	464.49	464.57	464.38	463.86	463.69	463.55	463.47	463.44	
20	463.79	464.46	463.51	464.04	464.38	464.69	464.23	463.86	463.68	463.52	463.48	463.43	
21	463.57	464.08	463.65	464.14	464.60	464.86	464.16	463.86	463.67	463.50	463.48	463.41	
22	463.54	463.98	463.67	463.95	464.61	464.83	464.08	463.85	463.66	463.48	463.48	463.39	
23	463.80	463.88	463.61	463.89	464.48	464.59	464.07	463.84	463.65	463.49	463.48	463.39	
24	463.92	463.74	463.54	464.15	464.33	464.68	464.05	463.84	463.66	463.49	463.48	463.38	
25	464.01	463.78	463.53	464.12	464.69	464.60	464.03	463.84	463.66	463.48	463.47	463.37	
26	464.05	463.77	464.23	464.12	464.91	464.58	464.03	463.84	463.66	463.50	463.46	463.37	
27	463.91	463.75	464.67	463.98	465.59	464.58	464.03	463.84	463.65	463.50	463.44	463.37	
28	463.77	463.75	464.56	463.85	465.42	465.01	464.03	463.83	463.65	463.50	463.44	463.37	
29	463.72	463.78	464.10	463.75	464.85	465.17	464.07	463.81	463.67	463.49	463.44	463.37	
30	463.68	463.83	463.92	463.68	464.46	465.25	464.44	463.81	463.64	463.49		463.35	
31		463.77		463.91	464.56		464.12		463.64	463.49		463.35	
Mean	463.58	464.03	463.77	463.90	464.58	464.67	464.25	463.90	463.72	463.54	463.48	463.42	
Max	464.05	464.46	464.67	464.70	465.59	465.54	465.02	464.05	463.82	463.71	463.56	463.58	465.59
Min	463.25	463.74	463.51	463.48	464.01	464.18	464.03	463.81	463.64	463.48	463.44	463.35	463.25

Annual Max Momentary Gage Height	465.91	m. (MSL.) ,	at 14.00 Hours , on Aug 27 , 2011		
Zero Gage at Bottom Elevation	462.83	m. (MSL.) ,	River Bed	462.65	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, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.10	28.55	17.80	17.40	70.40	74.40	106.10	30.75	19.80	11.80	8.00	6.20		
2	3.20	40.15	14.60	16.60	121.40	68.00	76.88	28.55	19.80	10.10	8.90	5.60		
3	2.64	53.00	15.40	16.60	140.00	58.60	68.80	27.50	19.80	10.10	9.50	5.00		
4	2.10	42.10	14.60	21.00	73.60	50.20	60.80	27.50	19.40	10.10	9.80	5.00		
5	2.28	55.10	16.20	19.00	48.10	50.20	56.50	27.00	19.40	10.10	9.50	4.60		
6	2.28	49.50	29.10	14.20	35.90	68.00	47.40	26.50	19.00	9.50	9.20	4.80		
7	2.28	35.30	31.30	9.50	32.40	61.60	43.40	26.00	18.60	9.20	8.30	4.80		
8	2.28	25.00	23.00	8.30	28.55	57.20	40.80	21.00	17.80	9.20	7.70	4.80		
9	2.46	22.60	17.00	7.40	30.75	49.50	46.00	26.00	17.40	9.20	7.10	4.80		
10	7.10	30.75	13.40	8.60	38.30	53.00	43.40	27.00	17.00	9.20	7.10	4.80		
11	7.70	56.50	11.80	13.00	52.30	55.80	38.30	26.50	16.60	9.20	7.10	5.00		
12	7.70	45.35	10.70	15.80	86.64	38.30	34.10	25.50	16.60	9.20	7.10	5.00		
13	26.00	24.00	11.00	11.80	96.00	95.00	32.95	24.00	16.60	9.50	7.10	7.70		
14	18.60	19.80	12.60	12.20	79.52	167.50	31.85	23.00	16.60	12.60	7.10	9.80		
15	14.60	21.40	10.10	46.00	53.70	113.45	31.85	22.20	15.80	15.40	7.10	10.40		
16	10.10	19.00	9.80	44.70	48.10	86.64	37.10	21.40	15.80	13.00	6.80	9.50		
17	8.90	21.80	8.90	76.00	42.10	63.20	40.80	21.40	15.40	11.00	7.10	8.00		
18	12.60	44.70	9.80	63.20	42.10	56.50	47.40	21.00	15.00	10.10	7.10	7.10		
19	9.20	52.30	8.60	34.10	59.30	65.60	51.60	21.40	14.60	9.50	7.10	6.20		
20	18.60	57.20	8.30	30.20	51.60	75.20	41.45	21.40	14.20	8.60	7.40	5.90		
21	10.10	32.40	13.00	35.90	68.00	90.32	37.10	21.40	13.80	8.00	7.40	5.30		
22	9.20	27.00	13.80	25.50	68.80	87.56	32.40	21.00	13.40	7.40	7.40	4.80		
23	19.00	22.20	11.40	22.60	58.60	67.20	31.85	20.60	13.00	7.70	7.40	4.80		
24	24.00	16.60	9.20	36.50	48.10	74.40	30.75	20.60	13.40	7.70	7.40	4.60		
25	28.55	18.20	8.90	34.70	75.20	68.00	29.65	20.60	13.40	7.40	7.10	4.40		
26	30.75	17.80	41.45	34.70	95.00	66.40	29.65	20.60	13.40	8.00	6.80	4.40		
27	23.50	17.00	73.60	27.00	173.75	66.40	29.65	20.60	13.00	8.00	6.20	4.40		
28	17.80	17.00	64.80	21.00	152.50	105.05	29.65	20.20	13.00	8.00	6.20	4.40		
29	15.80	18.20	33.50	17.00	89.40	122.55	31.85	19.40	13.80	7.70	6.20	4.40		
30	14.20	20.20	24.00	14.20	57.20	131.75	55.80	19.40	12.60	7.70		4.00		
31		17.80		23.50	64.80		34.70		12.60	7.70		4.00		
Total	355.62	968.50	587.65	778.20	2182.11	2287.52	1350.53	700.00	490.60	291.90	218.20	174.50	10385.33	CMSDAY
Mean	11.85	31.24	19.59	25.10	70.39	76.25	43.57	23.33	15.83	9.42	7.52	5.63	28.38	CMS
Max	30.75	57.20	73.60	76.00	173.75	167.50	106.10	30.75	19.80	15.40	9.80	10.40	173.75	CMS
Min	2.10	16.60	8.30	7.40	28.55	38.30	29.65	19.40	12.60	7.40	6.20	4.00	2.10	CMS
Runoff	30.73	83.68	50.77	67.24	188.53	197.64	116.69	60.48	42.39	25.22	18.85	15.08	897.29	MCM

Momentary Peak 215.85 CMS. at 465.91 m. (MSL.) at 14.00 Hours , on Aug 27 , 2011

Runoff Yield 14.79 Liters/Second/Square KM. Momentary Peak Yield 112.539 Liters/Second/Square KM.

WATER YEAR : 2011

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.

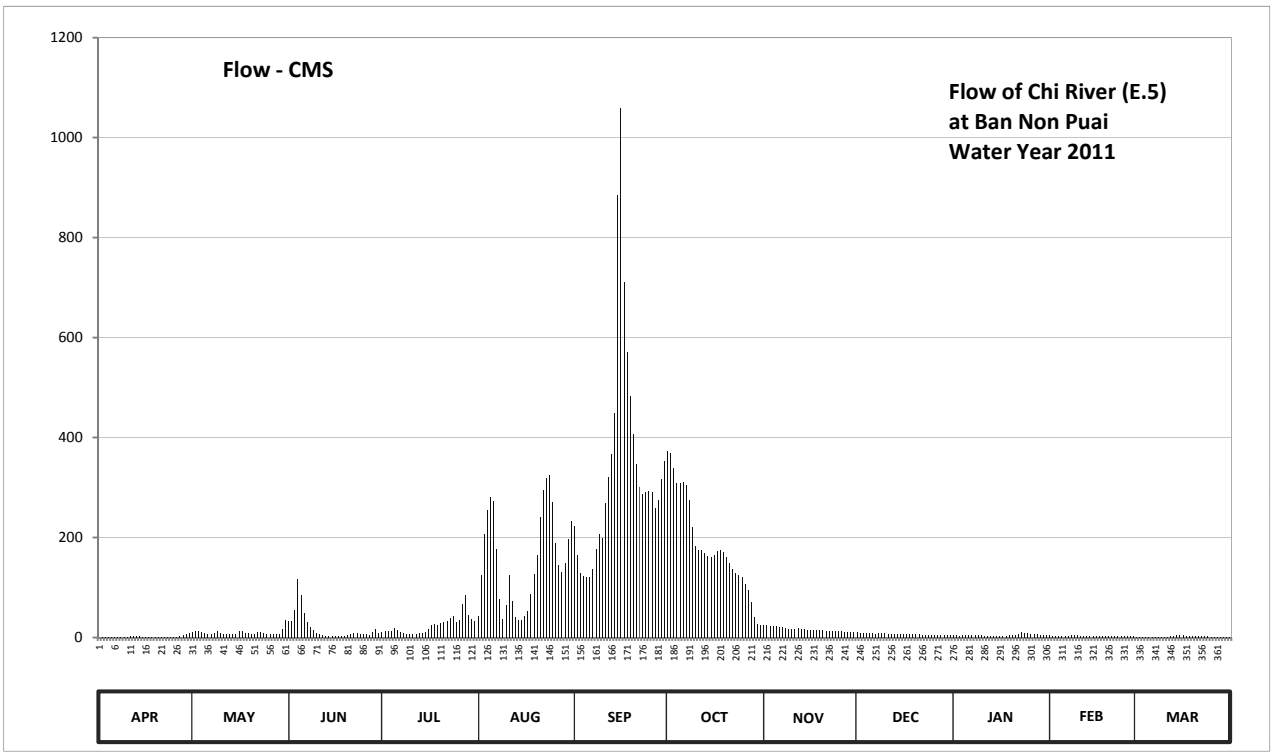
Ban Non Puai **Amphoe** Ban Khwao **Changwat** Chaiyaphum

Drainge Area	4,207 sq.km.
Type of Gage	Water - stage recorder.
Zero Gage at Bottom	+186.070 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	In front of the station office. **Elevation** +199.956 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings
Period of Available Gage Records	1958 to date
Rating Operation	
Period of Rating	1967 - 1971 , 1973, 1979, 1982 to date
Rated by Flot	-
Rated by Current Meter	1967 - 1971 , 1973, 1979, 1982 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	Overbank flow starts at elevation+197.130 m.(MSL.), records are channel flow only.
General Description	Records fair. The local weir situated about 100 meters downstream from the gage site. Stage-discharge relation defined by 21 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	190.19	190.57	191.00	190.56	191.14	194.58	196.94	190.84	190.56	190.38	190.37	190.28	
2	190.21	190.59	191.01	190.60	192.10	193.26	196.89	190.82	190.54	190.37	190.35	190.27	
3	190.23	190.59	191.29	190.61	194.27	192.24	196.57	190.81	190.54	190.36	190.35	190.27	
4	190.22	190.57	191.88	190.61	195.18	192.06	196.15	190.80	190.53	190.37	190.35	190.26	
5	190.22	190.53	191.61	190.73	195.66	191.91	196.13	190.78	190.52	190.37	190.35	190.26	
6	190.21	190.49	191.21	190.64	195.53	191.96	196.18	190.77	190.50	190.38	190.36	190.26	
7	190.22	190.49	190.94	190.55	193.56	192.47	196.06	190.74	190.48	190.38	190.36	190.25	
8	190.24	190.53	190.76	190.51	191.54	193.59	195.56	190.71	190.50	190.38	190.37	190.25	
9	190.25	190.58	190.63	190.47	191.05	194.25	194.55	190.69	190.51	190.37	190.37	190.25	
10	190.28	190.53	190.52	190.45	191.41	194.07	193.70	190.68	190.50	190.37	190.37	190.26	
11	190.31	190.46	190.44	190.44	192.12	195.43	193.54	190.69	190.49	190.36	190.36	190.29	
12	190.31	190.45	190.37	190.47	191.50	196.32	193.52	190.71	190.48	190.36	190.36	190.33	
13	190.31	190.43	190.35	190.51	191.10	196.88	193.36	190.69	190.47	190.35	190.36	190.36	
14	190.30	190.44	190.32	190.50	191.04	197.44	193.22	190.67	190.46	190.35	190.35	190.39	
15	190.29	190.48	190.32	190.55	191.04	198.34	193.15	190.65	190.45	190.36	190.35	190.37	
16	190.28	190.61	190.31	190.68	191.15	198.50	193.27	190.64	190.45	190.36	190.35	190.37	
17	190.26	190.58	190.31	190.86	191.27	198.11	193.47	190.64	190.45	190.36	190.35	190.36	
18	190.25	190.54	190.31	190.87	191.63	197.84	193.54	190.64	190.44	190.36	190.34	190.34	
19	190.23	190.52	190.34	190.86	192.14	197.59	193.44	190.63	190.43	190.37	190.34	190.34	
20	190.21	190.49	190.38	190.92	193.25	197.21	193.17	190.62	190.43	190.38	190.34	190.33	
21	190.21	190.49	190.45	190.96	194.95	196.65	192.83	190.61	190.43	190.39	190.33	190.32	
22	190.21	190.56	190.54	191.01	195.91	196.02	192.51	190.61	190.42	190.43	190.33	190.32	
23	190.22	190.55	190.50	191.09	196.28	195.78	192.25	190.59	190.42	190.56	190.33	190.30	
24	190.23	190.52	190.47	191.13	196.38	195.83	192.08	190.58	190.42	190.53	190.32	190.30	
25	190.25	190.47	190.45	190.97	195.47	195.89	191.93	190.58	190.41	190.51	190.32	190.29	
26	190.27	190.44	190.43	191.04	193.87	195.82	191.79	190.58	190.41	190.49	190.31	190.28	
27	190.32	190.44	190.42	191.44	192.72	195.26	191.69	190.57	190.40	190.48	190.31	190.27	
28	190.39	190.47	190.56	191.61	192.29	195.57	191.47	190.57	190.40	190.45	190.30	190.27	
29	190.46	190.49	190.70	191.16	192.81	196.25	191.10	190.56	190.40	190.42	190.30	190.28	
30	190.53	190.67	190.54	191.05	194.06	196.73	190.89	190.55	190.40	190.41		190.28	
31		191.04		190.98	194.78		190.86		190.39	190.38		190.27	
Mean	190.27	190.54	190.65	190.80	193.14	195.46	193.61	190.67	190.46	190.40	190.34	190.30	
Max	190.53	191.04	191.88	191.61	196.38	198.50	196.94	190.84	190.56	190.56	190.37	190.39	198.50
Min	190.19	190.43	190.31	190.44	191.04	191.91	190.86	190.55	190.39	190.35	190.30	190.25	190.19

Annual Max Momentary Gage Height	198.61	m. (MSL.) ,	at 19.00 Hours, on Sep 15, 2011		
Zero Gage at Bottom Elevation	186.07	m. (MSL.) ,	River Bed	185.86	m. (MSL)
Left Bank Elevation	197.12	m. (MSL.) ,			
Right Bank Elevation	197.86	m. (MSL.) ,	Drainage Area	4207	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	11.50	33.00	11.00	42.80	222.20	372.50	25.00	11.00	4.40	4.10	1.60		
2	0.20	12.50	33.70	13.00	125.00	164.90	367.90	24.00	10.00	4.10	3.50	1.40		
3	0.60	12.50	54.20	13.50	207.40	129.20	338.40	23.50	10.00	3.80	3.50	1.40		
4	0.40	11.50	117.60	13.50	254.10	123.80	309.60	23.00	9.50	4.10	3.50	1.20		
5	0.40	9.50	85.20	19.50	281.00	120.20	308.30	22.00	9.00	4.10	3.50	1.20		
6	0.20	7.70	47.80	15.00	273.70	121.20	311.50	21.50	8.00	4.40	3.80	1.20		
7	0.40	7.70	30.00	10.50	176.50	136.10	303.80	20.00	7.40	4.40	3.80	1.00		
8	0.80	9.50	21.00	8.50	77.40	177.80	275.40	18.50	8.00	4.40	4.10	1.00		
9	1.00	12.00	14.50	7.10	36.50	206.50	220.60	17.50	8.50	4.10	4.10	1.00		
10	1.60	9.50	9.00	6.50	64.90	198.20	182.40	17.00	8.00	4.10	4.10	1.20		
11	2.30	6.80	6.20	6.20	125.60	268.10	175.70	17.50	7.70	3.80	3.80	1.80		
12	2.30	6.50	4.10	7.10	73.00	320.50	174.80	18.50	7.40	3.80	3.80	2.90		
13	2.30	5.90	3.50	8.50	40.00	367.00	168.70	17.50	7.10	3.50	3.80	3.80		
14	2.00	6.20	2.60	8.00	35.80	448.00	163.40	16.50	6.80	3.50	3.50	4.70		
15	1.80	7.40	2.60	10.50	35.80	885.60	160.70	15.50	6.50	3.80	3.50	4.10		
16	1.60	13.50	2.30	17.00	43.50	1060.00	165.30	15.00	6.50	3.80	3.50	4.10		
17	1.20	12.00	2.30	26.00	52.60	710.60	172.90	15.00	6.50	3.80	3.50	3.80		
18	1.00	10.00	2.30	26.50	87.60	571.40	175.70	15.00	6.20	3.80	3.20	3.20		
19	0.60	9.00	3.20	26.00	126.20	483.40	171.70	14.50	5.90	4.10	3.20	3.20		
20	0.20	7.70	4.40	29.00	164.50	406.70	161.50	14.00	5.90	4.40	3.20	2.90		
21	0.20	7.70	6.50	31.00	241.40	345.80	148.90	13.50	5.90	4.70	2.90	2.60		
22	0.20	11.00	10.00	33.70	295.00	301.30	137.40	13.50	5.60	5.90	2.90	2.60		
23	0.40	10.50	8.00	39.30	317.90	287.70	129.50	12.50	5.60	11.00	2.90	2.00		
24	0.60	9.00	7.10	42.10	324.30	290.50	124.40	12.00	5.60	9.50	2.60	2.00		
25	1.00	7.10	6.50	31.50	270.30	293.80	120.60	12.00	5.30	8.50	2.60	1.80		
26	1.40	6.20	5.90	35.80	189.50	289.90	106.80	12.00	5.30	7.70	2.30	1.60		
27	2.60	6.20	5.60	67.60	144.90	258.60	94.80	11.50	5.00	7.40	2.30	1.40		
28	4.70	7.10	11.00	85.20	130.70	275.90	70.30	11.50	5.00	6.50	2.00	1.40		
29	6.80	7.70	18.00	44.20	148.20	316.00	40.00	11.00	5.00	5.60	2.00	1.60		
30	9.50	16.50	10.00	36.50	197.80	353.20	27.50	10.50	5.00	5.30		1.60		
31		35.80		32.00	232.60		26.00		4.70	4.40		1.40		
Total	48.30	313.70	568.10	761.80	4816.50	10134.10	5707.00	491.00	213.90	156.70	95.50	66.70	23373.30	CMSDAY
Mean	1.60	10.10	18.90	24.60	155.40	337.80	184.10	16.40	6.90	5.10	3.30	2.20	63.90	CMS
Max	9.50	35.80	117.60	85.20	324.30	1060.00	372.50	25.00	11.00	11.00	4.10	4.70	1060.00	CMS
Min	0.00	5.90	2.30	6.20	35.80	120.20	26.00	10.50	4.70	3.50	2.00	1.00	0.00	CMS
Runoff	4.17	27.10	49.08	65.82	416.15	875.59	493.08	42.42	18.48	13.54	8.25	5.76	2019.45	MCM

Momentary Peak 1261.99 CMS, at 198.61 m. (MSL), at 19.00 Hours, on Sep 15, 2011

Runoff Yield 15.18 Liters/Second/Square KM. Momentary Peak Yield 299.974 Liters/Second/Square KM.

WATER YEAR : 2011

CHI RIVER BASIN

Lam Pa Thao at Ban Tat Ton , Chaiyaphum (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.

	Ban Tat Ton	**Amphoe** Mueang	**Changwat** Chaiyaphum
Drainge Area	378 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+192.700 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	About 2 meters from the sling pole.		**Elevation** +198.412 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings		
Period of Available Gage Records	1973 to date		
Rating Operation			
Period of Rating	1973 to date		
Rated by Flot	-		
Rated by Current Meter	1973 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	Overbank flow starts at elevation +197.120 m.(MSL.), records are channel flow only.		
General Description	Records good. Lam Pa Thao Dam situated about 2 kilometers upstream from the gage site. Stage-discharge relation defined by 23 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

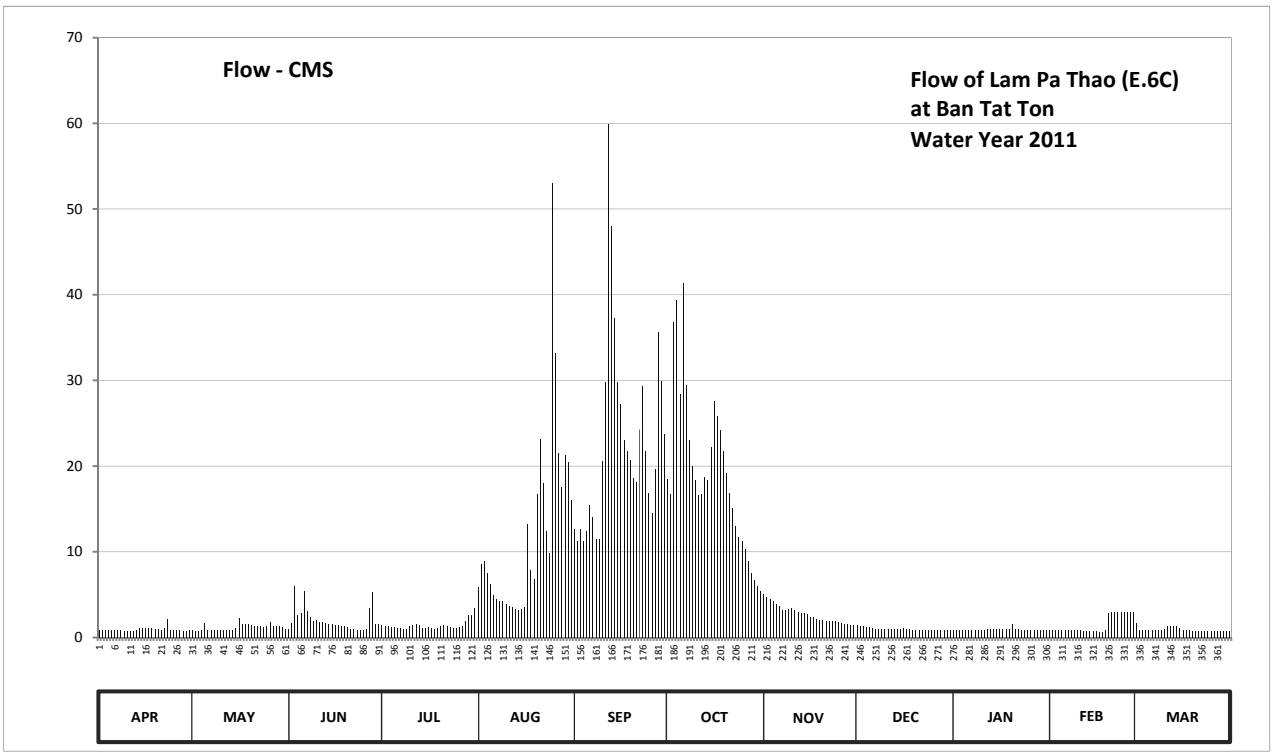
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	193.00	192.95	193.01	193.13	194.05	194.85	195.45	193.92	193.12	192.99	192.98	193.20	
2	193.00	192.90	193.20	193.10	194.38	194.69	195.27	193.85	193.11	193.00	192.98	192.99	
3	193.00	192.90	194.06	193.09	194.42	194.85	196.84	193.79	193.10	193.00	192.98	192.99	
4	193.00	192.96	193.41	193.08	194.25	194.69	196.99	193.74	193.08	193.00	192.98	192.99	
5	193.00	193.18	193.45	193.07	194.09	194.83	196.30	193.68	193.07	193.00	192.97	192.99	
6	192.99	192.98	193.98	193.05	193.89	195.15	197.09	193.63	193.05	193.00	192.96	192.99	
7	192.96	192.95	193.52	193.04	193.79	195.01	196.38	193.53	193.02	193.00	192.96	192.99	
8	192.94	192.94	193.34	193.03	193.74	194.72	195.86	193.54	193.02	193.00	192.95	192.99	
9	192.93	192.94	193.25	193.03	193.74	194.72	195.59	193.56	193.03	193.00	192.94	192.99	
10	192.93	192.95	193.26	193.11	193.69	195.64	195.43	193.58	193.02	193.00	192.94	193.02	
11	192.93	192.95	193.22	193.12	193.63	196.41	195.26	193.54	193.02	193.00	192.94	193.09	
12	192.93	192.95	193.21	193.15	193.60	197.83	195.27	193.49	193.02	193.01	192.92	193.09	
13	192.95	192.95	193.18	193.14	193.57	197.40	195.47	193.46	193.02	193.02	192.91	193.09	
14	193.05	192.98	193.16	193.05	193.54	196.87	195.43	193.46	193.02	193.02	192.90	193.09	
15	193.06	193.04	193.15	193.06	193.57	196.41	195.79	193.43	193.02	193.02	192.89	193.06	
16	193.06	193.32	193.14	193.07	193.62	196.21	196.24	193.37	193.04	193.02	192.87	192.98	
17	193.06	193.16	193.13	193.05	194.91	195.86	196.10	193.34	193.02	193.02	192.86	192.96	
18	193.05	193.15	193.11	193.03	194.30	195.75	195.97	193.31	193.01	193.02	192.86	192.94	
19	193.01	193.17	193.10	193.05	194.16	195.65	195.75	193.28	193.00	193.03	192.98	192.88	
20	193.01	193.13	193.07	193.10	195.27	195.46	195.52	193.26	192.99	193.16	193.46	192.88	
21	193.00	193.11	193.03	193.12	195.88	195.41	195.28	193.24	192.98	193.02	193.48	192.88	
22	193.06	193.10	193.01	193.09	195.40	195.98	195.11	193.24	192.98	193.01	193.48	192.88	
23	193.31	193.09	193.00	193.07	194.83	196.37	194.89	193.24	192.98	193.00	193.49	192.88	
24	193.00	193.08	192.99	193.06	194.54	195.75	194.75	193.23	192.99	193.00	193.49	192.88	
25	192.99	193.09	193.00	193.06	197.60	195.29	194.69	193.22	192.98	193.00	193.50	192.88	
26	192.99	193.21	193.03	193.08	196.63	195.05	194.59	193.18	192.98	193.00	193.50	192.88	
27	192.95	193.10	193.58	193.09	195.73	195.56	194.43	193.17	192.98	193.00	193.50	192.88	
28	192.88	193.09	193.97	193.23	195.35	196.77	194.26	193.16	192.97	193.00	193.50	192.88	
29	192.91	193.09	193.16	193.42	195.71	196.42	194.15	193.14	192.97	192.99	193.49	192.88	
30	192.98	193.08	193.16	193.41	195.63	195.93	194.06	193.13	192.96	192.99		192.88	
31		193.03		193.58	195.20		193.99		192.96	192.98		192.88	
Mean	193.00	193.05	193.26	193.12	194.60	195.72	195.43	193.42	193.02	193.01	193.13	192.96	
Max	193.31	193.32	194.06	193.58	197.60	197.83	197.09	193.92	193.12	193.16	193.50	193.20	197.83
Min	192.88	192.90	192.99	193.03	193.54	194.69	193.99	193.13	192.96	192.98	192.86	192.88	192.86

Annual Max Momentary Gage Height 198.77 m. (MSL.) , at 10.00 Hours, on Aug 25, 2011

Zero Gage at Bottom Elevation 192.70 m. (MSL.) , River Bed 191.94 m. (MSL)

Left Bank Elevation 198.46 m. (MSL.) ,

Right Bank Elevation 198.29 m. (MSL.) , Drainage Area 378 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.90	0.82	0.94	1.45	5.90	12.65	18.50	5.10	1.40	0.89	0.87	1.74		
2	0.90	0.75	1.74	1.32	8.54	11.21	16.70	4.75	1.36	0.90	0.87	0.89		
3	0.90	0.75	5.98	1.28	8.86	12.65	36.78	4.45	1.32	0.90	0.87	0.89		
4	0.90	0.84	2.62	1.24	7.50	11.21	39.33	4.20	1.24	0.90	0.87	0.89		
5	0.90	1.66	2.79	1.19	6.22	12.47	28.40	3.90	1.19	0.90	0.86	0.89		
6	0.89	0.87	5.40	1.11	4.95	15.50	41.30	3.65	1.11	0.90	0.84	0.89		
7	0.84	0.82	3.10	1.07	4.45	14.10	29.44	3.15	0.98	0.90	0.84	0.89		
8	0.81	0.81	2.33	1.03	4.20	11.48	22.96	3.20	0.98	0.90	0.82	0.89		
9	0.79	0.81	1.95	1.03	4.20	11.48	19.99	3.30	1.03	0.90	0.81	0.89		
10	0.79	0.82	1.99	1.36	3.95	20.54	18.30	3.40	0.98	0.90	0.81	0.98		
11	0.79	0.82	1.82	1.40	3.65	29.83	16.60	3.20	0.98	0.90	0.81	1.28		
12	0.79	0.82	1.78	1.53	3.50	59.90	16.70	2.96	0.98	0.94	0.78	1.28		
13	0.82	0.82	1.66	1.49	3.35	48.00	18.70	2.83	0.98	0.98	0.77	1.28		
14	1.11	0.87	1.57	1.11	3.20	37.29	18.30	2.83	0.98	0.98	0.75	1.28		
15	1.15	1.07	1.53	1.15	3.35	29.83	22.19	2.71	0.98	0.98	0.74	1.15		
16	1.15	2.24	1.49	1.19	3.60	27.23	27.62	2.45	1.07	0.98	0.70	0.87		
17	1.15	1.57	1.45	1.11	13.19	22.96	25.80	2.33	0.98	0.98	0.69	0.84		
18	1.11	1.53	1.36	1.03	7.90	21.75	24.17	2.20	0.94	0.98	0.69	0.81		
19	0.94	1.61	1.32	1.11	6.78	20.65	21.75	2.08	0.90	1.03	0.87	0.72		
20	0.94	1.45	1.19	1.32	16.70	18.60	19.22	1.99	0.89	1.57	2.83	0.72		
21	0.90	1.36	1.03	1.40	23.18	18.10	16.80	1.91	0.87	0.98	2.92	0.72		
22	1.15	1.32	0.94	1.28	18.00	24.28	15.10	1.91	0.87	0.94	2.92	0.72		
23	2.20	1.28	0.90	1.19	12.47	29.31	13.01	1.91	0.87	0.90	2.96	0.72		
24	0.90	1.24	0.89	1.15	9.86	21.75	11.75	1.87	0.89	0.90	2.96	0.72		
25	0.89	1.28	0.90	1.15	53.00	16.90	11.21	1.82	0.87	0.90	3.00	0.72		
26	0.89	1.78	1.03	1.24	33.21	14.50	10.31	1.66	0.87	0.90	3.00	0.72		
27	0.82	1.32	3.40	1.28	21.53	19.66	8.94	1.61	0.87	0.90	3.00	0.72		
28	0.72	1.28	5.35	1.87	17.50	35.59	7.58	1.57	0.86	0.90	3.00	0.72		
29	0.77	1.28	1.57	2.66	21.31	29.96	6.70	1.49	0.86	0.89	2.96	0.72		
30	0.87	1.24	1.57	2.62	20.43	23.73	5.98	1.45	0.84	0.89		0.72		
31		1.03		3.40	16.00		5.45		0.84	0.87		0.72		
Total	28.68	36.16	61.59	43.76	370.48	683.11	595.58	81.88	30.78	29.28	44.81	27.99	2034.10	CMSDAY
Mean	0.96	1.17	2.05	1.41	11.95	22.77	19.21	2.73	0.99	0.94	1.55	0.90	5.56	CMS
Max	2.20	2.24	5.98	3.40	53.00	59.90	41.30	5.10	1.40	1.57	3.00	1.74	59.90	CMS
Min	0.72	0.75	0.89	1.03	3.20	11.21	5.45	1.45	0.84	0.87	0.69	0.72	0.69	CMS
Runoff	2.48	3.12	5.32	3.78	32.01	59.02	51.46	7.07	2.66	2.53	3.87	2.42	175.75	MCM

Momentary Peak 103.70 CMS, at 198.77 m. (MSL), at 10.00 Hours, on Aug 25, 2011

Runoff Yield 14.70 Liters/Second/Square KM. Momentary Peak Yield 274.339 Liters/Second/Square KM.

WATER YEAR : 2011

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.

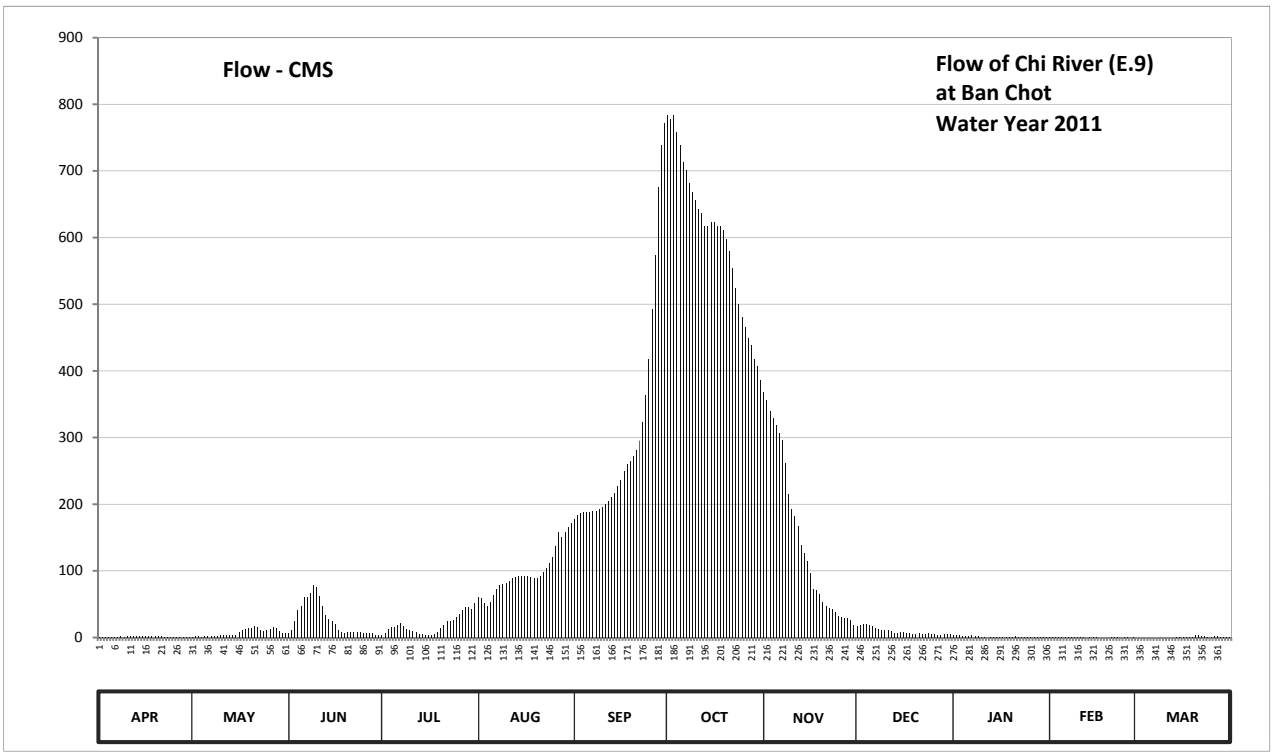
Ban Chot **Amphoe** Manchakhiri **Changwat** Khon Kaen

Drainge Area	10,878 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+151.113 m. (MSL.)
Bench Mark	B.M.- H.D.
Location BM	On left bank about 25 meters from the top staff gage. **Elevation** +167.014 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings
Period of Available Gage Records	1958 to date
Rating Operation	
Period of Rating	1967 - 1973, 1986 - 1987, 1992 to date
Rated by Flot	-
Rated by Current Meter	1967 - 1980, 1983 - 1987, 1992 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	Overbank flow starts at elevation +161.690 m.(MSL.), records are channel flow only.
General Description	Records good. Stage-discharge relation defined by 24 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	152.52	152.52	153.16	152.88	156.25	159.74	162.40	161.59	153.99	152.90	152.50	152.18	
2	152.51	152.60	153.58	153.17	156.17	159.90	162.39	161.56	154.09	152.84	152.49	152.18	
3	152.49	152.57	154.48	153.67	155.89	159.97	162.40	161.52	154.17	152.76	152.48	152.21	
4	152.50	152.55	155.38	153.88	155.68	160.00	162.36	161.48	154.19	152.73	152.48	152.18	
5	152.51	152.57	155.63	153.90	155.97	160.01	162.33	161.43	154.14	152.72	152.48	152.15	
6	152.52	152.62	156.23	154.11	156.36	160.02	162.29	161.36	153.99	152.72	152.47	152.21	
7	152.55	152.60	156.26	154.28	156.69	160.03	162.27	161.30	153.77	152.76	152.47	152.14	
8	152.58	152.65	156.43	153.97	156.87	160.06	162.24	161.12	153.64	152.74	152.49	152.11	
9	152.56	152.74	156.86	153.71	156.94	160.13	162.22	160.68	153.61	152.61	152.47	152.14	
10	152.58	152.76	156.78	153.54	156.99	160.19	162.20	160.13	153.59	152.52	152.45	152.21	
11	152.64	152.79	156.30	153.48	157.09	160.29	162.18	159.86	153.53	152.42	152.36	152.23	
12	152.64	152.79	155.63	153.32	157.22	160.43	162.17	159.47	153.41	152.28	152.33	152.26	
13	152.64	152.78	154.96	153.00	157.29	160.56	162.14	158.69	153.25	152.33	152.31	152.29	
14	152.64	152.79	154.64	152.98	157.31	160.70	162.14	158.34	153.23	152.48	152.33	152.38	
15	152.65	152.90	154.47	152.89	157.32	160.83	162.15	158.03	153.28	152.46	152.41	152.40	
16	152.64	153.29	154.23	152.85	157.32	160.96	162.15	157.45	153.29	152.50	152.33	152.41	
17	152.64	153.58	153.62	152.87	157.30	161.05	162.14	156.64	153.11	152.40	152.18	152.42	
18	152.64	153.68	153.29	153.01	157.27	161.11	162.14	156.60	153.09	152.42	152.20	152.43	
19	152.64	153.77	153.24	153.31	157.24	161.13	162.13	156.41	153.08	152.51	152.23	152.55	
20	152.63	153.79	153.34	153.85	157.24	161.17	162.11	155.99	153.04	152.55	152.27	152.86	
21	152.60	153.96	153.36	154.15	157.30	161.22	162.08	155.63	153.09	152.59	152.32	152.76	
22	152.53	153.90	153.37	154.43	157.51	161.30	162.04	155.49	153.06	152.56	152.35	152.71	
23	152.51	153.57	153.34	154.50	157.71	161.45	161.99	155.42	153.01	152.55	152.35	152.66	
24	152.50	153.44	153.31	154.56	157.95	161.58	161.93	155.20	153.09	152.55	152.31	152.50	
25	152.51	153.54	153.24	154.79	158.19	161.72	161.88	154.92	153.04	152.54	152.34	152.54	
26	152.50	153.67	153.10	155.03	158.64	161.91	161.84	154.77	152.93	152.53	152.37	152.66	
27	152.48	153.90	153.18	155.34	159.22	162.07	161.80	154.72	152.89	152.53	152.30	152.58	
28	152.47	153.78	153.20	155.56	159.02	162.23	161.77	154.69	152.92	152.52	152.34	152.54	
29	152.48	153.40	152.89	155.55	159.24	162.33	161.72	154.57	152.94	152.51	152.51	152.52	
30	152.47	153.11	152.85	155.46	159.44	162.38	161.69	154.12	152.95	152.51		152.51	
31		153.10		155.85	159.58		161.64		152.94	152.51		152.50	
Mean	152.56	153.15	154.35	154.00	157.43	160.88	162.09	157.97	153.37	152.57	152.38	152.40	
Max	152.65	153.96	156.86	155.85	159.58	162.38	162.40	161.59	154.19	152.90	152.51	152.86	162.40
Min	152.47	152.52	152.85	152.85	155.68	159.74	161.64	154.12	152.89	152.28	152.18	152.11	152.11

Annual Max Momentary Gage Height	162.40	m. (MSL.) ,	at 01.00 Hours, on Oct 1, 2011		
Zero Gage at Bottom Elevation	151.11	m. (MSL.) ,	River Bed	148.99	m. (MSL)
Left Bank Elevation	164.12	m. (MSL.) ,			
Right Bank Elevation	161.68	m. (MSL.) ,	Drainage Area	10878	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.16	1.16	6.60	4.04	61.00	177.60	784.00	367.28	16.86	4.20	1.00	0.00		
2	1.08	1.80	11.12	6.70	58.76	184.00	777.60	355.52	18.44	3.72	0.95	0.00		
3	0.95	1.56	24.68	12.38	51.80	186.80	784.00	339.84	19.72	3.08	0.90	0.00		
4	1.00	1.40	41.60	15.32	47.60	188.00	758.40	328.32	20.04	2.84	0.90	0.00		
5	1.08	1.56	46.60	15.60	53.40	188.40	739.20	319.12	19.24	2.76	0.90	0.00		
6	1.16	1.96	60.44	18.76	64.08	188.80	713.60	306.24	16.86	2.76	0.85	0.00		
7	1.40	1.80	61.28	21.48	73.32	189.20	700.80	295.20	13.78	3.08	0.85	0.00		
8	1.64	2.20	66.04	16.58	78.36	190.40	681.60	262.08	11.96	2.92	0.95	0.00		
9	1.48	2.92	78.08	12.94	80.32	193.20	668.80	215.20	11.54	1.88	0.85	0.00		
10	1.64	3.08	75.84	10.56	81.72	195.60	656.00	193.20	11.26	1.16	0.75	0.00		
11	2.12	3.32	62.40	9.80	84.88	199.60	643.20	182.40	10.42	0.60	0.30	0.00		
12	2.12	3.32	46.60	8.20	89.04	205.20	636.80	166.92	9.10	0.00	0.15	0.00		
13	2.12	3.24	33.28	5.00	91.28	210.40	617.60	138.84	7.50	0.15	0.05	0.00		
14	2.12	3.32	27.52	4.84	91.92	216.00	617.60	126.24	7.30	0.90	0.15	0.40		
15	2.20	4.20	24.52	4.12	92.24	226.40	624.00	115.08	7.80	0.80	0.55	0.50		
16	2.12	7.90	20.68	3.80	92.24	236.80	624.00	96.40	7.90	1.00	0.15	0.55		
17	2.12	11.12	11.68	3.96	91.60	249.20	617.60	71.92	6.10	0.50	0.00	0.60		
18	2.12	12.52	7.90	5.10	90.64	260.24	617.60	70.80	5.90	0.60	0.00	0.65		
19	2.12	13.78	7.40	8.10	89.68	263.92	611.20	65.48	5.80	1.08	0.00	1.40		
20	2.04	14.06	8.40	14.90	89.68	271.28	598.40	53.80	5.40	1.40	0.00	3.88		
21	1.80	16.44	8.60	19.40	91.60	280.48	579.20	46.60	5.90	1.72	0.10	3.08		
22	1.24	15.60	8.70	23.88	98.32	295.20	553.60	43.80	5.60	1.48	0.25	2.68		
23	1.08	10.98	8.40	25.00	104.72	322.80	524.08	42.40	5.10	1.40	0.25	2.28		
24	1.00	9.40	8.10	26.08	112.40	363.36	500.56	38.00	5.90	1.40	0.05	1.00		
25	1.08	10.56	7.40	30.22	120.84	418.24	480.96	32.56	5.40	1.32	0.20	1.32		
26	1.00	12.38	6.00	34.60	137.04	492.72	465.28	29.86	4.44	1.24	0.35	2.28		
27	0.90	15.60	6.80	40.80	157.92	572.80	449.60	28.96	4.12	1.24	0.00	1.64		
28	0.85	13.92	7.00	45.20	150.72	675.20	437.84	28.42	4.36	1.16	0.20	1.32		
29	0.90	9.00	4.12	45.00	158.64	739.20	418.24	26.26	4.52	1.08	1.08	1.16		
30	0.85	6.10	3.80	43.20	165.84	771.20	406.48	18.92	4.60	1.08		1.08		
31		6.00		51.00	171.20		386.88		4.52	1.08		1.00		
Total	44.49	222.20	791.58	586.56	3022.80	9152.24	18674.72	4405.66	287.38	49.63	12.73	26.82	37276.81	CMSDAY
Mean	1.48	7.17	26.39	18.92	97.51	305.07	602.41	146.86	9.27	1.60	0.44	0.87	101.85	CMS
Max	2.20	16.44	78.08	51.00	171.20	771.20	784.00	367.28	20.04	4.20	1.08	3.88	784.00	CMS
Min	0.85	1.16	3.80	3.80	47.60	177.60	386.88	18.92	4.12	0.00	0.00	0.00	0.00	CMS
Runoff	3.84	19.20	68.39	50.68	261.17	790.75	1613.50	380.65	24.83	4.29	1.10	2.32	3220.72	MCM

Momentary Peak 784.00 CMS, at 162.40 m. (MSL), at 01.00 Hours, on Oct 1, 2011

Runoff Yield 9.36 Liters/Second/Square KM. Momentary Peak Yield 72.072 Liters/Second/Square KM.

WATER YEAR : 2011

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.

	Ban Tha Sa Bang	**Amphoe** Thung Khao Luang	**Changwat** Roi Et		
Drainge Area	41,187 sq.km.				
Type of Gage	Staff gage				
Zero Gage at Bottom	+122.240 m. (MSL.)				
Bench Mark	B.M.- H.D.				
Location BM	On right bank at the abutment of the bridge.		**Elevation** +132.496 m. (MSL.)		
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.				
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings				
Period of Available Gage Records	1954 to date				
Rating Operation					
Period of Rating	1974 to date				
Rated by Flot	-				
Rated by Current Meter	1974 to date				
Stability of Channel Regimes	Rather unstable.				
Overbank Flow Conditions	Overbank flow starts at elevation +132.520 m.(MSL.), records are channel flow only.				
General Description	Records fair. Stage-discharge relation defined by 72 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

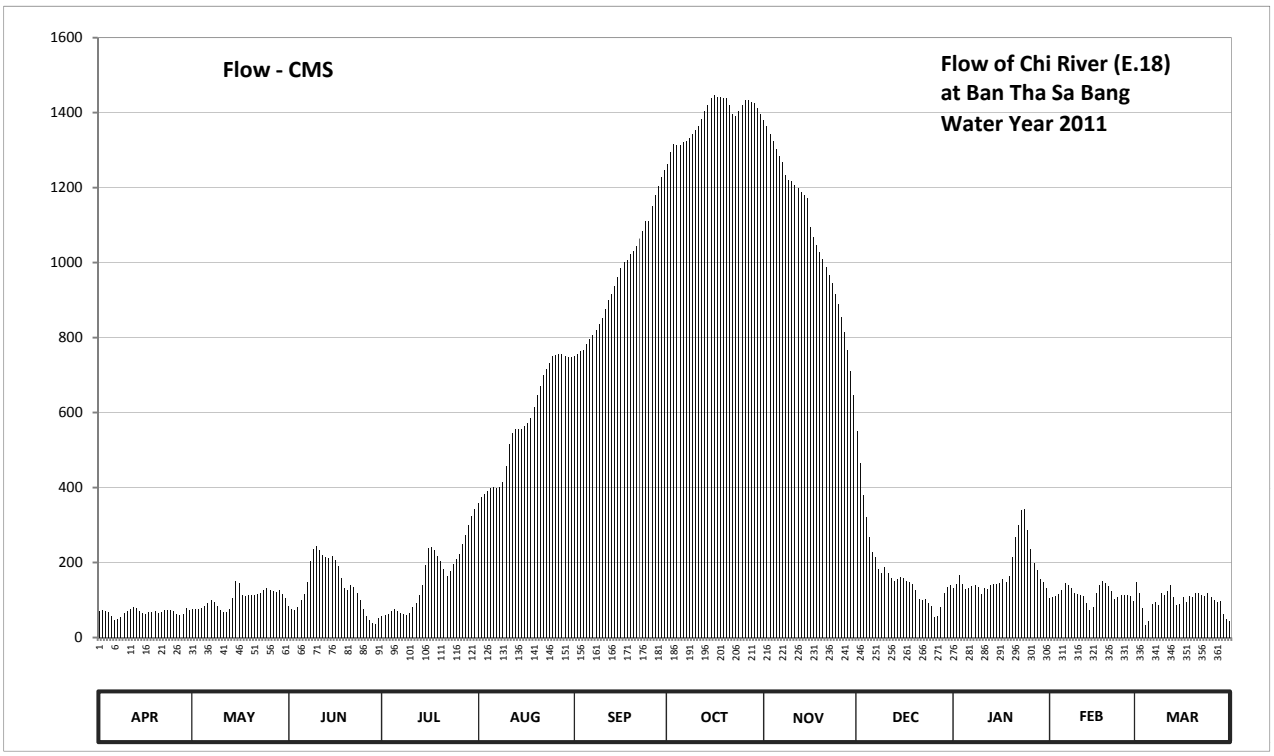
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	125.06	125.12	125.22	124.89	127.65	130.50	132.64	132.96	129.16	125.71	125.44	125.84	
2	125.08	125.12	125.13	124.93	127.78	130.54	132.73	132.92	128.50	125.79	125.48	125.57	
3	125.06	125.13	125.08	124.96	127.86	130.59	132.79	132.86	127.84	126.01	125.51	125.16	
4	125.02	125.15	125.18	125.07	127.93	130.61	132.78	132.81	127.34	125.80	125.55	124.51	
5	124.89	125.20	125.39	125.13	127.98	130.70	132.78	132.75	126.89	125.68	125.65	124.69	
6	124.71	125.30	125.56	125.05	128.01	130.78	132.80	132.70	126.54	125.69	125.82	125.28	
7	124.74	125.38	125.85	125.01	127.99	130.85	132.81	132.66	126.43	125.74	125.76	125.32	
8	124.85	125.32	126.35	124.97	128.00	130.93	132.83	132.56	126.15	125.76	125.71	125.25	
9	125.01	125.20	126.62	124.93	128.12	131.02	132.86	132.53	126.06	125.72	125.58	125.57	
10	125.06	125.09	126.68	125.01	128.44	131.10	132.89	132.52	126.19	125.56	125.55	125.52	
11	125.12	125.02	126.60	125.19	128.90	131.20	132.92	132.49	126.06	125.71	125.54	125.63	
12	125.18	125.02	126.48	125.29	129.12	131.30	132.97	132.46	125.94	125.67	125.50	125.76	
13	125.14	125.13	126.42	125.52	129.20	131.38	133.02	132.43	125.88	125.78	125.30	125.46	
14	125.05	125.45	126.41	125.76	129.19	131.47	133.06	132.40	125.92	125.80	125.08	125.23	
15	124.99	125.87	126.45	126.25	129.20	131.57	133.10	132.38	125.97	125.80	125.17	125.28	
16	124.96	125.81	126.37	126.65	129.26	131.68	133.12	132.12	125.93	125.81	125.57	125.46	
17	125.03	125.54	126.22	126.67	129.31	131.75	133.11	132.03	125.87	125.91	125.77	125.33	
18	125.02	125.51	125.94	126.59	129.40	131.77	133.11	131.95	125.85	125.84	125.86	125.50	
19	125.05	125.53	125.69	126.46	129.62	131.84	133.10	131.87	125.80	125.99	125.82	125.46	
20	125.01	125.53	125.66	126.35	129.85	131.88	133.10	131.78	125.65	126.43	125.74	125.58	
21	125.04	125.54	125.76	126.14	130.02	131.94	133.06	131.69	125.43	126.90	125.63	125.59	
22	125.08	125.55	125.72	125.98	130.19	132.02	133.00	131.60	125.40	127.17	125.42	125.52	
23	125.08	125.57	125.59	126.11	130.30	132.09	132.99	131.50	125.41	127.50	125.49	125.50	
24	125.09	125.66	125.38	126.28	130.39	132.17	133.02	131.38	125.31	127.51	125.54	125.57	
25	125.07	125.71	125.13	126.39	130.50	132.17	133.06	131.26	125.20	127.06	125.54	125.47	
26	124.97	125.65	124.89	126.51	130.53	132.31	133.09	131.11	124.85	126.63	125.54	125.39	
27	124.91	125.63	124.72	126.73	130.54	132.40	133.09	130.90	124.87	126.30	125.51	125.34	
28	124.97	125.60	124.57	126.94	130.54	132.48	133.08	130.61	125.19	126.13	125.36	125.35	
29	125.14	125.64	124.56	127.16	130.51	132.55	133.07	130.26	125.58	125.92	125.64	124.98	
30	125.08	125.56	124.80	127.36	130.49	132.60	133.04	129.85	125.73	125.84		124.74	
31		125.44		127.53	130.49		133.00		125.78	125.69		124.69	
Mean	125.02	125.42	125.68	125.93	129.27	131.54	132.97	131.98	126.09	126.09	125.55	125.34	
Max	125.18	125.87	126.68	127.53	130.54	132.60	133.12	132.96	129.16	127.51	125.86	125.84	133.12
Min	124.71	125.02	124.56	124.89	127.65	130.50	132.64	129.85	124.85	125.56	125.08	124.51	124.51

Annual Max Momentary Gage Height 133.12 m. (MSL.) , at 04.00 Hours, on Oct 16, 2011

Zero Gage at Bottom Elevation 122.24 m. (MSL.) , River Bed 120.70 m. (MSL)

Left Bank Elevation 132.64 m. (MSL.) ,

Right Bank Elevation 132.51 m. (MSL.) , Drainage Area 41187 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	70.40	75.80	84.80	58.00	358.00	749.00	1261.80	1380.20	550.40	133.10	104.60	147.40		
2	72.20	75.80	76.70	60.50	373.60	755.50	1295.10	1365.40	464.00	141.90	108.20	117.70		
3	70.40	76.70	72.20	62.40	383.20	763.60	1317.30	1343.20	380.80	166.20	111.10	79.40		
4	66.80	78.50	81.20	71.30	391.60	766.80	1313.60	1324.70	320.80	143.00	115.50	33.60		
5	58.00	83.00	100.10	76.70	397.60	781.40	1313.60	1302.50	267.30	129.80	126.50	45.20		
6	46.40	92.00	116.60	69.50	401.30	794.40	1321.00	1284.00	227.10	130.90	145.20	90.20		
7	48.40	99.20	148.50	65.90	398.80	805.70	1324.70	1269.20	214.50	136.40	138.60	93.80		
8	55.40	93.80	205.20	63.10	400.00	818.70	1332.10	1232.20	182.30	138.60	133.10	87.50		
9	65.90	83.00	236.30	60.50	415.40	834.60	1343.20	1221.10	171.90	134.20	118.80	117.70		
10	70.40	73.10	243.20	65.90	456.30	852.80	1354.30	1217.40	186.90	116.60	115.50	112.20		
11	75.80	66.80	234.00	82.10	515.20	875.60	1365.40	1207.00	171.90	133.10	114.40	124.30		
12	81.20	66.80	220.20	91.10	544.80	898.40	1383.90	1197.80	158.40	128.70	110.00	138.60		
13	77.60	76.70	213.30	112.20	556.00	916.60	1403.60	1188.70	151.80	140.80	92.00	106.40		
14	69.50	105.50	212.20	138.60	554.60	937.20	1420.80	1179.60	156.20	143.00	72.20	85.70		
15	64.40	150.70	216.70	193.80	556.00	960.00	1438.00	1173.50	161.70	143.00	80.30	90.20		
16	62.40	144.10	207.60	239.80	564.40	985.00	1446.60	1094.50	157.30	144.10	117.70	106.40		
17	67.70	114.40	190.30	242.00	571.40	1001.00	1442.30	1067.10	150.70	155.10	139.70	94.70		
18	66.80	111.10	158.40	232.80	584.00	1005.60	1442.30	1046.60	148.50	147.40	149.60	110.00		
19	69.50	113.30	130.90	217.90	614.80	1021.50	1438.00	1028.40	143.00	163.90	145.20	106.40		
20	65.90	113.30	127.60	205.20	647.00	1030.60	1438.00	1007.80	126.50	214.50	136.40	118.80		
21	68.60	114.40	138.60	181.10	671.20	1044.30	1420.80	987.30	103.70	268.50	124.30	119.90		
22	72.20	115.50	134.20	162.80	698.80	1064.10	1395.00	966.80	101.00	300.40	102.80	112.20		
23	72.20	117.70	119.90	177.70	716.60	1085.40	1391.30	944.00	101.90	340.00	109.10	110.00		
24	73.10	127.60	99.20	197.20	731.20	1109.70	1403.60	916.60	92.90	341.20	114.40	117.70		
25	71.30	133.10	76.70	209.80	749.00	1109.70	1420.80	889.30	83.00	287.20	114.40	107.30		
26	63.10	126.50	58.00	223.70	753.90	1152.20	1433.70	855.10	55.40	237.40	114.40	100.10		
27	59.20	124.30	47.10	249.00	755.50	1179.60	1433.70	813.80	56.70	199.50	111.10	95.60		
28	63.10	121.00	37.50	273.10	755.50	1203.90	1429.40	766.80	82.10	179.90	97.40	96.50		
29	77.60	125.40	36.80	299.20	750.60	1228.50	1425.10	710.10	118.80	156.20	125.40	63.70		
30	72.20	116.60	52.20	323.20	747.40	1247.00	1412.20	647.00	135.30	147.40		48.40		
31		104.60		343.60	747.40		1395.00		140.80	130.90		45.20		
Total	2017.70	3220.30	4076.20	5049.70	17761.10	28978.40	42956.20	32627.70	5563.60	5472.90	3387.90	3022.80	154134.50	CMSDAY
Mean	67.30	103.90	135.90	162.90	572.90	965.90	1385.70	1087.60	179.50	176.50	116.80	97.50	421.10	CMS
Max	81.20	150.70	243.20	343.60	755.50	1247.00	1446.60	1380.20	550.40	341.20	149.60	147.40	1446.60	CMS
Min	46.40	66.80	36.80	58.00	358.00	749.00	1261.80	647.00	55.40	116.60	72.20	33.60	33.60	CMS
Runoff	174.33	278.23	352.18	436.29	1534.56	2503.73	3711.42	2819.03	480.70	472.86	292.71	261.17	13317.22	MCM

Momentary Peak 1446.60 CMS, at 133.12 m. (MSL), at 04.00 Hours, on Oct 16, 2011

Runoff Yield 10.22 Liters/Second/Square KM. Momentary Peak Yield 35.123 Liters/Second/Square KM.

WATER YEAR : 2011

CHI RIVER BASIN

Chi River at Maha Chana Chai , Yasothon (E.20A)

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

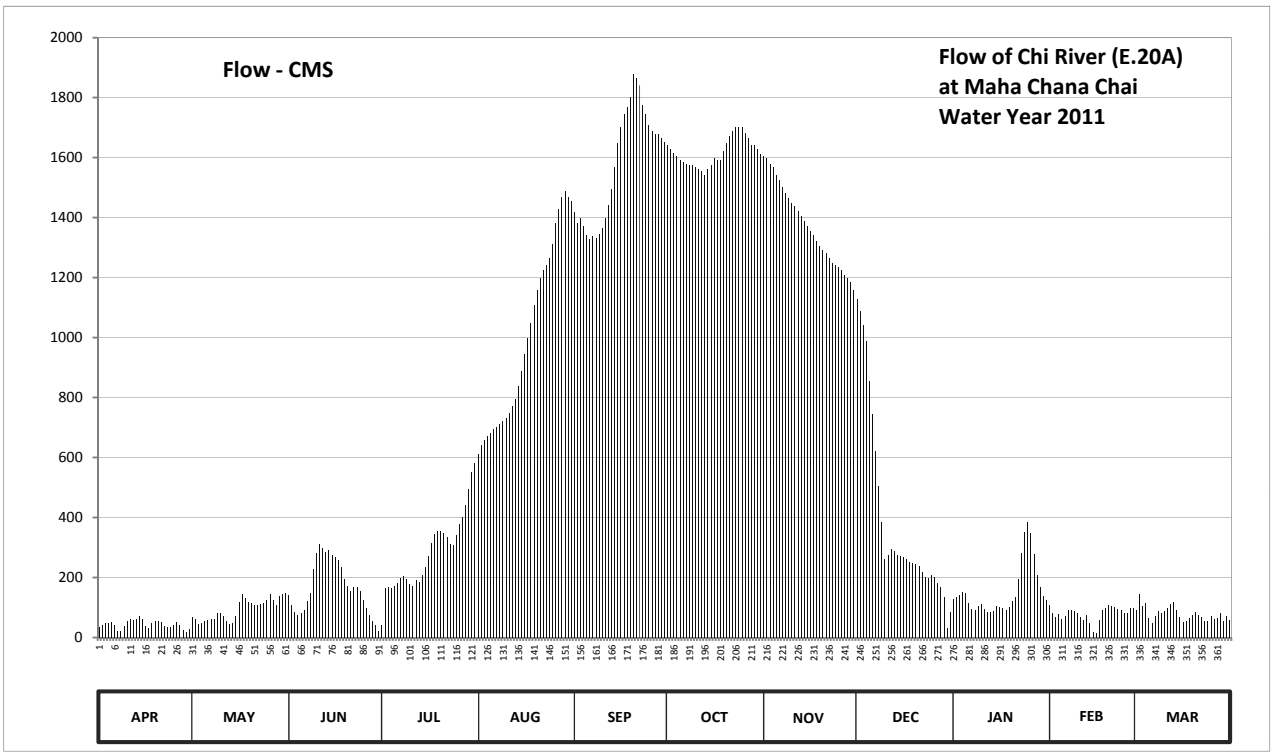
Location : on right bank about 800 meters upstream from E.20 station.

	Ban Maha Chana Chai	**Amphoe** Maha Chana Chai	**Changwat** Yasothon		
Drainge Area	47,800 sq.km.				
Type of Gage	Staff gage				
Zero Gage at Bottom	+112.000 m. (MSL.)				
Bench Mark	B.M.- H.D.				
Location BM	On right bank at the abutment of the bridge.		**Elevation** +126.610 m. (MSL.)		
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.				
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings				
Period of Available Gage Records	1973 to date				
Rating Operation					
Period of Rating	1974 to date				
Rated by Flot	-				
Rated by Current Meter	1974 to date				
Stability of Channel Regimes	Fairly stable.				
Overbank Flow Conditions	Overbank flow starts at elevation +119.310 m.(MSL.), records are channel flow only.				
General Description	Records fair. Tat Noi barrage situated downstream from the gage site.				
	Stage-discharge relation defined by 29 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	116.09	116.37	116.91	116.14	119.63	122.37	122.78	122.72	121.62	116.83	116.68	116.56	
2	116.16	116.30	116.69	116.36	119.76	122.28	122.76	122.71	121.51	116.86	116.48	116.94	
3	116.20	116.18	116.49	116.37	119.85	122.32	122.74	122.68	121.36	116.90	116.36	116.65	
4	116.20	116.19	116.43	116.36	119.91	122.26	122.72	122.66	121.19	116.97	116.44	116.73	
5	116.22	116.27	116.48	116.42	119.96	122.18	122.70	122.62	120.71	116.95	116.30	116.34	
6	116.14	116.28	116.55	116.53	120.02	122.15	122.69	122.59	120.25	116.72	116.39	116.21	
7	115.99	116.30	116.78	116.68	120.05	122.17	122.68	122.55	119.68	116.57	116.55	116.39	
8	115.99	116.31	116.96	116.75	120.10	122.16	122.67	122.52	119.02	116.55	116.56	116.53	
9	116.12	116.46	117.48	116.66	120.14	122.19	122.67	122.49	118.26	116.65	116.52	116.48	
10	116.26	116.48	117.80	116.50	120.18	122.24	122.66	122.45	117.31	116.70	116.48	116.52	
11	116.31	116.40	117.96	116.43	120.26	122.32	122.65	122.42	117.42	116.57	116.36	116.61	
12	116.29	116.26	117.89	116.63	120.37	122.43	122.64	122.38	117.59	116.50	116.28	116.71	
13	116.32	116.17	117.82	116.55	120.47	122.54	122.62	122.34	117.53	116.50	116.41	116.74	
14	116.39	116.21	117.85	116.78	120.65	122.66	122.65	122.30	117.42	116.52	116.21	116.55	
15	116.31	116.39	117.76	117.06	120.85	122.79	122.67	122.26	117.38	116.66	115.94	116.36	
16	116.13	116.76	117.72	117.39	121.05	122.88	122.71	122.22	117.35	116.63	115.92	116.23	
17	116.07	116.94	117.67	117.72	121.22	122.95	122.70	122.18	117.31	116.61	116.29	116.27	
18	116.20	116.85	117.51	117.96	121.38	122.99	122.70	122.13	117.21	116.55	116.54	116.35	
19	116.26	116.75	117.26	118.04	121.56	123.02	122.75	122.09	117.17	116.62	116.60	116.41	
20	116.26	116.72	117.10	118.03	121.70	123.08	122.79	122.06	117.15	116.78	116.69	116.50	
21	116.23	116.68	116.99	118.00	121.81	123.07	122.83	122.03	117.09	116.87	116.65	116.43	
22	116.12	116.69	117.09	117.88	121.88	123.05	122.86	121.99	116.88	117.27	116.63	116.37	
23	116.08	116.71	117.08	117.70	121.93	123.00	122.88	121.95	116.73	117.80	116.58	116.26	
24	116.08	116.73	117.00	117.69	121.99	122.95	122.88	121.93	116.70	118.16	116.54	116.26	
25	116.16	116.80	116.80	117.93	122.11	122.89	122.88	121.91	116.78	118.32	116.47	116.39	
26	116.22	116.93	116.60	118.21	122.28	122.86	122.85	121.88	116.73	118.15	116.48	116.31	
27	116.16	116.81	116.41	118.38	122.40	122.84	122.82	121.84	116.53	117.77	116.60	116.33	
28	116.01	116.68	116.25	118.64	122.50	122.84	122.78	121.81	116.37	117.35	116.61	116.47	
29	115.96	116.89	116.14	118.97	122.53	122.82	122.78	121.77	116.02	117.09	116.52	116.27	
30	116.02	116.93	115.98	119.30	122.50	122.80	122.76	121.70	116.07	116.89		116.39	
31		116.96		119.48	122.46		122.73		116.50	116.79		116.28	
Mean	116.17	116.56	117.05	117.40	121.08	122.64	122.74	122.24	117.96	116.97	116.45	116.45	
Max	116.39	116.96	117.96	119.48	122.53	123.08	122.88	122.72	121.62	118.32	116.69	116.94	123.08
Min	115.96	116.17	115.98	116.14	119.63	122.15	122.62	121.70	116.02	116.50	115.92	116.21	115.92

Annual Max Momentary Gage Height	123.09	m. (MSL.) ,	at 10.00 Hours, on Sep 20, 2011		
Zero Gage at Bottom Elevation	112.00	m. (MSL.) ,	River Bed	111.15	m. (MSL)
Left Bank Elevation	119.31	m. (MSL.) ,			
Right Bank Elevation	126.93	m. (MSL.) ,	Drainage Area	47800	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	34.80	68.40	141.50	40.80	612.30	1417.50	1640.80	1604.20	1128.90	129.50	108.40	92.80		
2	43.20	60.00	109.70	166.40	639.60	1381.10	1628.60	1598.10	1088.70	134.00	82.40	146.00		
3	48.00	45.60	83.70	167.30	658.50	1397.30	1616.40	1579.80	1041.00	140.00	67.20	104.50		
4	48.00	46.80	75.90	166.40	671.10	1373.00	1604.20	1567.60	987.70	150.50	77.20	115.20		
5	50.40	56.40	82.40	171.80	681.60	1340.70	1592.00	1543.20	853.80	147.50	60.00	64.80		
6	40.80	57.60	91.50	182.00	694.40	1328.60	1585.90	1524.90	745.00	113.80	70.80	49.20		
7	22.80	60.00	122.20	197.00	701.00	1336.70	1579.80	1500.50	622.80	94.10	91.50	70.80		
8	22.80	61.20	149.00	204.00	712.00	1332.60	1573.70	1482.20	503.40	91.50	92.80	88.90		
9	38.40	79.80	228.80	195.00	720.80	1344.80	1573.70	1466.00	386.40	104.50	87.60	82.40		
10	55.20	82.40	282.00	179.00	729.60	1365.00	1567.60	1449.80	263.10	111.00	82.40	87.60		
11	61.20	72.00	312.40	172.70	747.20	1397.30	1561.50	1437.70	275.40	94.10	67.20	99.30		
12	58.80	55.20	299.10	192.00	771.40	1441.70	1555.40	1421.50	296.70	85.00	57.60	112.40		
13	62.40	44.40	285.80	184.00	793.40	1494.40	1543.20	1405.40	288.90	85.00	73.30	116.60		
14	70.80	49.20	291.50	207.00	838.40	1567.60	1561.50	1389.20	275.40	87.60	49.20	91.50		
15	61.20	70.80	275.20	235.60	889.60	1646.90	1573.70	1373.00	270.80	105.80	16.80	67.20		
16	39.60	119.40	268.40	271.90	943.70	1701.80	1598.10	1356.90	267.50	101.90	14.40	51.60		
17	32.40	146.00	259.90	313.60	997.10	1744.50	1592.00	1340.70	263.10	99.30	58.80	56.40		
18	48.00	132.50	233.60	344.80	1047.30	1768.90	1592.00	1320.50	252.10	91.50	90.20	66.00		
19	55.20	118.00	194.00	355.60	1107.00	1801.20	1622.50	1304.40	247.70	100.60	98.00	73.30		
20	55.20	113.80	170.00	354.20	1158.20	1880.00	1646.90	1292.20	245.50	122.20	109.70	85.00		
21	51.60	108.40	153.50	350.00	1198.50	1866.90	1671.30	1280.10	238.90	135.50	104.50	75.90		
22	38.40	109.70	168.50	334.40	1224.10	1840.60	1689.60	1264.30	217.00	195.50	101.90	68.40		
23	33.60	112.40	167.00	311.00	1242.40	1775.00	1701.80	1249.70	202.00	282.00	95.40	55.20		
24	33.60	115.20	155.00	309.70	1264.30	1744.50	1701.80	1242.40	199.00	352.00	90.20	55.20		
25	43.20	125.00	125.00	340.90	1312.40	1707.90	1701.80	1235.10	207.00	384.00	81.10	70.80		
26	50.40	144.50	98.00	379.40	1381.10	1689.60	1683.50	1224.10	202.00	350.00	82.40	61.20		
27	43.20	126.50	73.30	403.20	1429.60	1677.40	1665.20	1209.40	182.00	276.90	98.00	63.60		
28	25.20	108.40	54.00	442.40	1470.00	1677.40	1640.80	1198.50	167.30	208.00	99.30	81.10		
29	19.20	138.50	40.80	495.20	1488.30	1665.20	1640.80	1183.80	136.60	168.50	87.60	56.40		
30	26.40	144.50	21.60	551.00	1470.00	1653.00	1628.60	1158.20	32.40	138.50		70.80		
31		149.00		581.60	1453.80		1610.30		85.00	123.60		57.60		
Total	1314.00	2921.60	5013.30	8799.90	31048.70	47359.10	50145.00	41203.40	12173.10	4803.90	2295.90	2437.70	209515.60	CMSDAY
Mean	43.80	94.20	167.10	283.90	1001.60	1578.60	1617.60	1373.40	392.70	155.00	79.20	78.60	572.40	CMS
Max	70.80	149.00	312.40	581.60	1488.30	1880.00	1701.80	1604.20	1128.90	384.00	109.70	146.00	1880.00	CMS
Min	19.20	44.40	21.60	40.80	612.30	1328.60	1543.20	1158.20	32.40	85.00	14.40	49.20	14.40	CMS
Runoff	113.53	252.43	433.15	760.31	2682.61	4091.83	4332.53	3559.97	1051.76	415.06	198.37	210.62	18102.15	MCM

Momentary Peak 1893.12 CMS, at 123.09 m. (MSL), at 10.00 Hours, on Sep 20, 2011

Runoff Yield 11.98 Liters/Second/Square KM. Momentary Peak Yield 39.605 Liters/Second/Square KM.

WATER YEAR : 2011

CHI RIVER BASIN

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

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

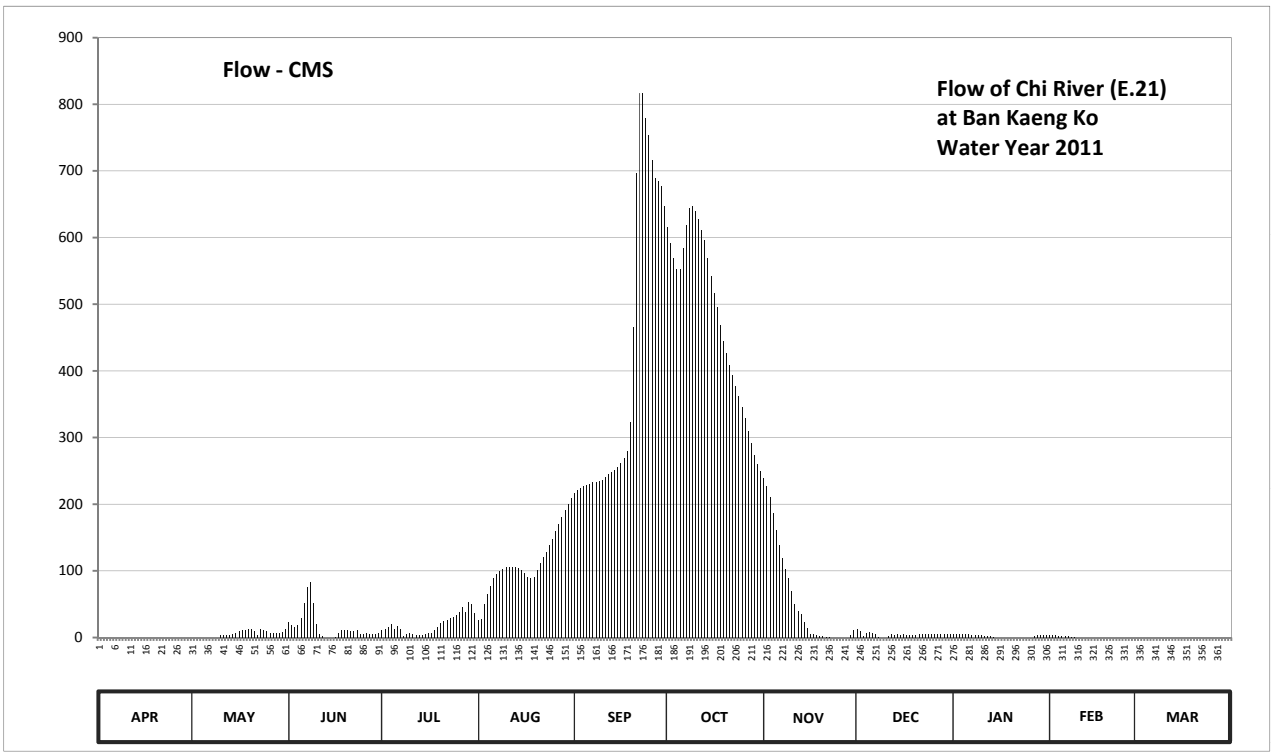
Location : on left bank about 75 meters upstream from the bridge on highway.

	Ban Kaeng Ko	**Amphoe** Mueang	**Changwat** Chaiyaphum
Drainge Area	8,777 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+164.980 m. (MSL.)		
Bench Mark	B.M.- H.D.		
Location BM	In front of the automatic gage buiding.		**Elevation** +177.385 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings		
Period of Available Gage Records	1955 - 1957 , 1967 to date		
Rating Operation			
Period of Rating	1968 - 1971 , 1973 - 1974 , 1982 to date		
Rated by Flot	-		
Rated by Current Meter	1968 - 1971 , 1973 - 1974 , 1982 to date		
Stability of Channel Regimes	Rather unstable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. The rubber weir situated about 2 kilometers downstream from the gage site. Stage-discharge relation defined by 18 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	166.31	166.10	167.78	167.58	167.83	171.83	174.30	172.31	167.61	167.43	167.37	166.44	
2	166.31	166.10	167.72	167.61	167.86	171.92	174.24	172.05	167.56	167.45	167.36	166.41	
3	166.31	166.10	167.68	167.66	168.16	172.01	174.18	171.67	167.31	167.45	167.35	166.38	
4	166.30	166.36	167.73	167.74	168.31	172.07	174.13	171.05	167.50	167.44	167.34	166.33	
5	166.30	166.89	167.88	167.61	168.43	172.10	174.13	170.42	167.52	167.44	167.34	166.29	
6	166.30	166.62	168.17	167.70	168.59	172.12	174.22	169.86	167.49	167.42	167.32	166.25	
7	166.28	166.62	168.42	167.62	168.78	172.17	174.31	169.38	167.46	167.41	167.30	166.21	
8	166.26	166.82	168.48	167.33	168.88	172.19	174.37	168.95	167.25	167.41	167.26	166.20	
9	166.24	167.13	168.17	167.46	168.97	172.22	174.38	168.59	166.73	167.40	167.21	166.19	
10	166.22	167.37	167.74	167.49	169.04	172.25	174.36	168.36	166.88	167.37	167.17	166.18	
11	166.22	167.40	167.45	167.44	169.06	172.32	174.33	168.16	167.30	167.34	167.14	166.18	
12	166.22	167.38	167.31	167.39	169.06	172.42	174.29	168.03	167.42	167.31	167.10	166.19	
13	166.23	167.39	167.19	167.38	169.04	172.48	174.25	167.95	167.40	167.28	167.07	166.19	
14	166.25	167.43	167.13	167.37	169.00	172.53	174.18	167.79	167.42	167.23	167.03	166.19	
15	166.23	167.49	167.02	167.46	168.93	172.61	174.10	167.64	167.40	167.18	166.99	166.18	
16	166.22	167.54	167.22	167.48	168.81	172.71	174.02	167.46	167.42	166.86	166.96	166.18	
17	166.23	167.58	167.51	167.50	168.67	172.82	173.95	167.44	167.40	166.73	166.92	166.18	
18	166.21	167.59	167.58	167.59	168.60	172.93	173.86	167.38	167.39	166.67	166.88	166.18	
19	166.19	167.63	167.59	167.68	168.68	173.25	173.78	167.34	167.40	166.61	166.84	166.18	
20	166.15	167.60	167.57	167.77	168.94	173.85	173.71	167.31	167.41	166.58	166.79	166.19	
21	166.14	167.55	167.55	167.80	169.19	174.50	173.64	167.26	167.44	166.59	166.76	166.18	
22	166.13	167.40	167.54	167.83	169.42	174.69	173.58	167.21	167.44	166.62	166.73	166.15	
23	166.13	167.61	167.57	167.87	169.61	174.69	173.51	167.16	167.46	166.62	166.70	166.11	
24	166.14	167.57	167.42	167.90	169.86	174.63	173.44	167.12	167.45	166.63	166.68	166.05	
25	166.13	167.56	167.45	167.93	170.11	174.59	173.37	167.09	167.46	166.70	166.65	166.03	
26	166.12	167.47	167.47	168.00	170.38	174.53	173.28	167.06	167.45	167.00	166.60	166.01	
27	166.12	167.50	167.46	168.11	170.66	174.48	173.16	167.03	167.43	167.31	166.58	165.98	
28	166.11	167.50	167.45	168.00	170.91	174.47	173.03	167.00	167.44	167.40	166.55	165.98	
29	166.13	167.51	167.44	168.19	171.17	174.45	172.87	167.35	167.44	167.40	166.49	165.97	
30	166.13	167.52	167.50	168.16	171.42	174.38	172.69	167.59	167.45	167.41		165.96	
31		167.60		167.97	171.63		172.51		167.45	167.39		165.95	
Mean	166.21	167.22	167.61	167.70	169.29	173.14	173.81	168.37	167.39	167.13	166.98	166.16	
Max	166.31	167.63	168.48	168.19	171.63	174.69	174.38	172.31	167.61	167.45	167.37	166.44	174.69
Min	166.11	166.10	167.02	167.33	167.83	171.83	172.51	167.00	166.73	166.58	166.49	165.95	165.95

Annual Max Momentary Gage Height	174.71	m. (MSL.) ,	at 20.00 Hours, on Sep 22, 2011		
Zero Gage at Bottom Elevation	164.98	m. (MSL.) ,	River Bed	163.43	m. (MSL)
Left Bank Elevation	175.28	m. (MSL.) ,			
Right Bank Elevation	175.40	m. (MSL.) ,	Drainage Area	8777	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	22.60	11.00	26.10	217.20	615.00	239.50	12.50	4.90	3.40	0.00		
2	0.00	0.00	18.40	12.50	28.20	220.80	591.60	226.50	10.00	5.50	3.20	0.00		
3	0.00	0.00	16.00	15.00	50.40	224.50	569.20	210.80	2.20	5.50	3.00	0.00		
4	0.00	0.00	19.10	19.80	65.00	227.50	552.20	186.00	7.00	5.20	2.80	0.00		
5	0.00	0.00	29.60	12.50	77.60	229.00	552.20	160.80	8.00	5.20	2.80	0.00		
6	0.00	0.00	51.30	17.00	88.70	230.00	583.80	138.40	6.70	4.60	2.40	0.00		
7	0.00	0.00	76.40	13.00	95.20	232.50	619.10	119.20	5.80	4.30	2.00	0.00		
8	0.00	0.00	83.60	2.60	99.20	233.50	643.70	102.00	1.00	4.30	1.20	0.00		
9	0.00	0.00	51.30	5.80	102.80	235.00	647.80	88.70	0.00	4.00	0.20	0.00		
10	0.00	3.40	19.80	6.70	105.60	236.50	639.60	70.00	0.00	3.40	0.00	0.00		
11	0.00	4.00	5.50	5.20	106.40	240.00	627.30	50.40	2.00	2.80	0.00	0.00		
12	0.00	3.60	2.20	3.80	106.40	245.00	611.10	40.10	4.60	2.20	0.00	0.00		
13	0.00	3.80	0.00	3.60	105.60	248.00	595.50	34.50	4.00	1.60	0.00	0.00		
14	0.00	4.90	0.00	3.40	104.00	250.80	569.20	23.30	4.60	0.60	0.00	0.00		
15	0.00	6.70	0.00	5.80	101.20	255.60	542.00	14.00	4.00	0.00	0.00	0.00		
16	0.00	9.00	0.40	6.40	96.40	261.70	516.40	5.80	4.60	0.00	0.00	0.00		
17	0.00	11.00	7.50	7.00	91.10	269.60	495.00	5.20	4.00	0.00	0.00	0.00		
18	0.00	11.50	11.00	11.50	89.00	279.30	468.00	3.60	3.80	0.00	0.00	0.00		
19	0.00	13.50	11.50	16.00	91.40	323.50	444.80	2.80	4.00	0.00	0.00	0.00		
20	0.00	12.00	10.50	21.90	101.60	465.00	426.60	2.20	4.30	0.00	0.00	0.00		
21	0.00	9.50	9.50	24.00	111.60	697.00	408.40	1.20	5.20	0.00	0.00	0.00		
22	0.00	4.00	9.00	26.10	120.80	816.70	393.40	0.20	5.20	0.00	0.00	0.00		
23	0.00	12.50	10.50	28.90	128.40	816.70	377.30	0.00	5.80	0.00	0.00	0.00		
24	0.00	10.50	4.60	31.00	138.40	778.90	361.20	0.00	5.50	0.00	0.00	0.00		
25	0.00	10.00	5.50	33.10	148.40	753.70	346.00	0.00	5.80	0.00	0.00	0.00		
26	0.00	6.10	6.10	38.00	159.20	715.90	328.60	0.00	5.50	0.00	0.00	0.00		
27	0.00	7.00	5.80	45.90	170.40	688.80	309.00	0.00	4.90	2.20	0.00	0.00		
28	0.00	7.00	5.50	38.00	180.40	684.70	290.90	0.00	5.20	4.00	0.00	0.00		
29	0.00	7.50	5.20	53.10	190.80	676.50	273.60	3.00	5.20	4.00	0.00	0.00		
30	0.00	8.00	7.00	50.40	200.80	647.80	260.40	11.50	5.50	4.30		0.00		
31		12.00		35.90	209.20		249.60		5.50	3.80		0.00		
Total	0.00	177.50	505.40	604.90	3490.30	12401.70	14908.50	1739.70	152.40	72.40	21.00	0.00	34073.80	CMSDAY
Mean	0.00	5.73	16.85	19.51	112.59	413.39	480.92	57.99	4.92	2.34	0.72	0.00	93.10	CMS
Max	0.00	13.50	83.60	53.10	209.20	816.70	647.80	239.50	12.50	5.50	3.40	0.00	816.70	CMS
Min	0.00	0.00	0.00	2.60	26.10	217.20	249.60	0.00	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	0.00	15.34	43.67	52.26	301.56	1071.51	1288.09	150.31	13.17	6.26	1.81	0.00	2943.98	MCM

Momentary Peak 830.71 CMS, at 174.71 m. (MSL), at 20.00 Hours, on Sep 22, 2011

Runoff Yield 10.61 Liters/Second/Square KM. Momentary Peak Yield 94.646 Liters/Second/Square KM.

WATER YEAR : 2011

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.

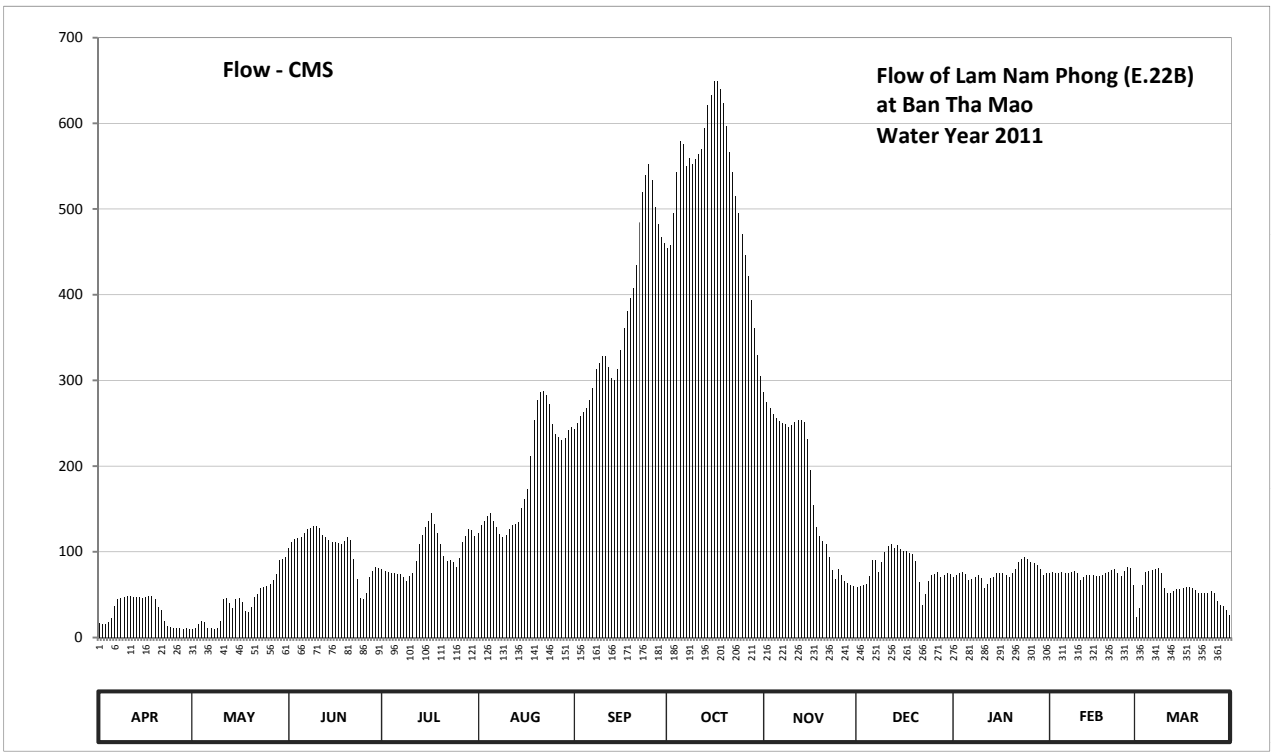
Ban Tha Mao **Amphoe** Nam Phong **Changwat** Khon Kaen

Drainge Area	13,638 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+150.920 m. (MSL.)
Bench Mark	B.M.- Highways Dept.
Location BM	On left bank at the footpath of the bridge. **Elevation** +163.911 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings
Period of Available Gage Records	1965 to date
Rating Operation	
Period of Rating	1966 - 1972 , 1982 - 1987 , 1992 to date
Rated by Flot	-
Rated by Current Meter	1966 - 1972 , 1982 - 1987 , 1992 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Flow regulated by Ubonrat Dam about 35 kilometers above gage site and Nong Wai weir situated about 5 kilometers above gage site. Stage-discharge relation defined by 21 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	152.07	151.67	155.20	154.45	155.69	158.35	161.01	159.05	153.78	154.16	154.32	152.41	
2	151.97	151.75	155.41	154.41	155.92	158.46	161.04	158.88	153.79	154.25	154.34	152.86	
3	152.00	152.00	155.51	154.36	156.05	158.60	161.35	158.77	153.83	154.33	154.32	153.83	
4	152.08	152.19	155.53	154.33	156.19	158.68	161.66	158.65	153.90	154.35	154.33	154.34	
5	152.31	152.08	155.57	154.32	156.27	158.77	161.83	158.57	154.21	154.26	154.34	154.39	
6	152.94	151.73	155.69	154.29	156.05	158.91	161.82	158.50	154.82	154.04	154.32	154.43	
7	153.28	151.72	155.82	154.27	155.87	159.12	161.70	158.46	154.82	154.09	154.32	154.48	
8	153.34	151.70	155.84	154.14	155.67	159.43	161.75	158.45	154.37	154.18	154.34	154.52	
9	153.38	151.72	155.89	154.01	155.59	159.52	161.71	158.39	154.75	154.24	154.41	154.32	
10	153.42	152.15	155.91	154.21	155.63	159.62	161.74	158.43	155.08	154.13	154.32	153.74	
11	153.41	153.29	155.84	154.30	155.80	159.61	161.77	158.49	155.28	153.72	154.05	153.55	
12	153.38	153.31	155.65	154.76	155.93	159.46	161.80	158.52	155.36	153.90	154.17	153.54	
13	153.38	153.08	155.58	155.35	155.95	159.28	161.88	158.53	155.20	154.11	154.22	153.63	
14	153.37	152.87	155.47	155.63	156.03	159.24	161.97	158.48	155.31	154.18	154.23	153.67	
15	153.34	153.27	155.42	155.86	156.43	159.42	162.01	158.14	155.19	154.30	154.22	153.68	
16	153.38	153.30	155.41	156.05	156.70	159.71	162.06	157.42	155.12	154.32	154.21	153.73	
17	153.41	153.14	155.37	156.29	156.99	160.02	162.06	156.50	155.10	154.30	154.20	153.76	
18	153.42	152.72	155.34	155.95	157.74	160.26	162.03	155.88	155.05	154.24	154.24	153.78	
19	153.29	152.68	155.43	155.70	158.53	160.42	161.98	155.60	155.01	154.17	154.33	153.75	
20	152.88	152.88	155.57	155.36	158.91	160.55	161.89	155.43	154.77	154.30	154.37	153.66	
21	152.76	153.37	155.48	154.94	159.05	160.82	161.78	155.35	153.98	154.47	154.43	153.53	
22	152.15	153.50	154.85	154.79	159.07	161.27	161.66	154.92	153.01	154.73	154.45	153.55	
23	151.86	153.72	154.08	154.81	158.99	161.52	161.49	154.43	153.48	154.84	154.33	153.55	
24	151.81	153.78	153.32	154.74	158.83	161.64	161.35	154.09	154.01	154.90	154.21	153.55	
25	151.76	153.82	153.28	154.56	158.45	161.71	161.16	154.47	154.25	154.83	154.41	153.62	
26	151.72	153.89	153.53	154.88	158.26	161.61	160.94	154.25	154.28	154.73	154.53	153.55	
27	151.71	154.06	154.14	155.41	158.19	161.40	160.70	154.02	154.35	154.70	154.51	153.20	
28	151.69	154.27	154.41	155.62	158.12	161.25	160.40	153.91	154.16	154.64	153.85	153.01	
29	151.72	154.81	154.55	155.83	158.18	161.13	160.03	153.86	154.25	154.45	152.46	152.96	
30	151.70	154.85	154.50	155.78	158.34	161.06	159.63	153.80	154.30	154.24		152.76	
31		154.91		155.62	158.39		159.31		154.27	154.30		152.49	
Mean	152.63	153.04	155.12	155.00	157.16	160.03	161.40	156.74	154.49	154.34	154.23	153.61	
Max	153.42	154.91	155.91	156.29	159.07	161.71	162.06	159.05	155.36	154.90	154.53	154.52	162.06
Min	151.69	151.67	153.28	154.01	155.59	158.35	159.31	153.80	153.01	153.72	152.46	152.41	151.67

Annual Max Momentary Gage Height	162.08	m. (MSL.) ,	at 11.00 Hours, on Oct 16, 2011		
Zero Gage at Bottom Elevation	150.92	m. (MSL.) ,	River Bed	150.82	m. (MSL)
Left Bank Elevation	163.40	m. (MSL.) ,			
Right Bank Elevation	163.00	m. (MSL.) ,	Drainage Area	13638	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	17.40	10.05	104.00	79.30	121.60	243.00	454.10	286.50	59.20	70.60	75.40	24.20		
2	15.40	11.25	111.35	78.10	130.80	249.60	457.40	274.80	59.50	73.30	76.00	34.50		
3	16.00	16.00	114.85	76.60	136.00	258.00	495.00	268.20	60.70	75.70	75.40	60.70		
4	17.60	19.80	115.55	75.70	141.60	262.80	542.80	261.00	62.80	76.30	75.70	76.00		
5	22.20	17.60	116.95	75.40	144.80	268.20	579.00	256.20	72.10	73.60	76.00	77.50		
6	36.50	10.95	121.60	74.50	136.00	276.70	576.00	252.00	90.78	67.00	75.40	78.70		
7	45.00	10.80	126.80	73.90	128.80	291.40	550.00	249.60	90.78	68.50	75.40	80.20		
8	46.50	10.50	127.60	70.00	120.80	313.40	560.00	249.00	76.90	71.20	76.00	81.42		
9	47.50	10.80	129.60	66.10	117.65	320.60	552.00	245.40	88.55	73.00	78.10	75.40		
10	48.56	19.00	130.40	72.10	119.20	328.60	558.00	247.80	99.80	69.70	75.40	58.00		
11	48.28	45.25	127.60	74.80	126.00	327.80	564.00	251.40	106.80	57.40	67.30	52.30		
12	47.50	45.75	120.00	88.86	131.20	315.80	570.00	253.20	109.60	62.80	70.90	52.00		
13	47.50	40.00	117.30	109.25	132.00	302.60	594.00	253.80	104.00	69.10	72.40	54.70		
14	47.25	34.75	113.45	119.20	135.20	299.80	621.00	250.80	107.85	71.20	72.70	55.90		
15	46.50	44.75	111.70	128.40	151.20	312.60	633.20	231.00	103.65	74.80	72.40	56.20		
16	47.50	45.50	111.35	136.00	162.00	335.80	649.20	195.00	101.20	75.40	72.10	57.70		
17	48.28	41.50	109.95	145.60	173.60	360.60	649.20	154.00	100.50	74.80	71.80	58.60		
18	48.56	31.00	108.90	132.00	211.00	381.40	639.60	129.20	98.75	73.00	73.00	59.20		
19	45.25	30.00	112.05	122.00	253.80	395.80	624.00	118.00	97.35	70.90	75.70	58.30		
20	35.00	35.00	116.95	109.60	276.70	407.50	597.00	112.05	89.17	74.80	76.90	55.60		
21	32.00	47.25	113.80	94.90	286.50	434.00	566.00	109.25	65.20	79.90	78.70	51.70		
22	19.00	50.80	91.80	89.79	287.90	484.40	542.80	94.20	38.25	87.93	79.30	52.30		
23	13.20	57.40	68.20	90.44	282.30	520.00	515.50	78.70	50.24	91.46	75.70	52.30		
24	12.20	59.20	46.00	88.24	271.80	539.20	495.00	68.50	66.10	93.50	72.10	52.30		
25	11.40	60.40	45.00	82.66	249.00	552.00	471.20	79.90	73.30	91.12	78.10	54.40		
26	10.80	62.50	51.70	92.82	237.60	533.80	446.40	73.30	74.20	87.93	81.73	52.30		
27	10.65	67.60	70.00	111.35	233.50	502.00	422.00	66.40	76.30	87.00	81.11	43.00		
28	10.35	73.90	78.10	118.80	230.00	482.00	394.00	63.10	70.60	85.14	61.30	38.25		
29	10.80	90.44	82.35	127.20	233.00	467.60	361.40	61.60	73.30	79.30	25.20	37.00		
30	10.50	91.80	80.80	125.20	242.40	459.60	329.40	59.80	74.80	73.00		32.00		
31		93.85		118.80	245.40		304.70		73.90	74.80		25.80		
Total	915.18	1285.39	3075.70	3047.61	5849.35	11226.60	16313.90	5293.70	2516.17	2354.18	2117.24	1698.47	55693.49	CMSDAY
Mean	30.51	41.46	102.52	98.31	188.69	374.22	526.25	176.46	81.17	75.94	73.01	54.79	152.17	CMS
Max	48.56	93.85	130.40	145.60	287.90	552.00	649.20	286.50	109.60	93.50	81.73	81.42	649.20	CMS
Min	10.35	10.05	45.00	66.10	117.65	243.00	304.70	59.80	38.25	57.40	25.20	24.20	10.05	CMS
Runoff	79.07	111.06	265.70	263.31	505.38	969.98	149.52	457.38	217.40	203.40	182.93	146.75	4811.92	MCM

Momentary Peak 655.60 CMS, at 162.08 m. (MSL), at 11.00 Hours, on Oct 16, 2011

Runoff Yield 11.16 Liters/Second/Square KM. Momentary Peak Yield 48.072 Liters/Second/Square KM.

WATER YEAR : 2011

CHI RIVER BASIN

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

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

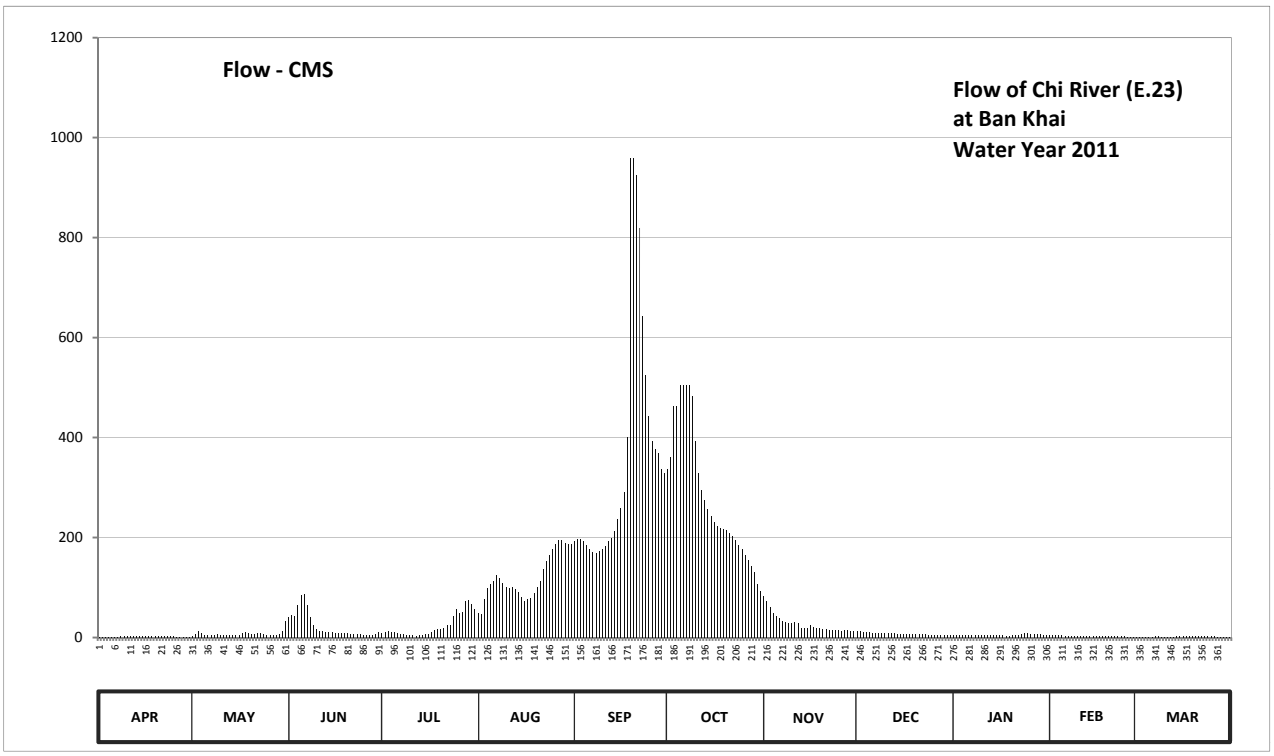
Location : on left bank at the bridge on highway.

	Ban Khai	**Amphoe** Mueang	**Changwat** Chaiyaphum
Drainge Area	6,282 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+176.200 m. (MSL.)		
Bench Mark	B.M.- H.D.		
Location BM	On left bank about 20 meters from the automatic gage building.	**Elevation**	+185.546 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	1954 - 1956 , 1967 to date		
Rating Operation			
Period of Rating	1968 - 1974 , 1982 to date		
Rated by Flot	-		
Rated by Current Meter	1968 - 1974 , 1982 to date		
Stability of Channel Regimes	Fairly stable because of backwater effect.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. The local weir situated about 50 meters downstream from the gage site. Stage-discharge relation defined by 21 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	179.21	179.52	181.30	180.09	181.53	184.30	185.12	182.46	180.24	179.76	179.75	179.07	
2	179.16	179.80	181.40	180.14	181.48	184.37	185.15	182.22	180.21	179.76	179.73	179.01	
3	179.11	180.21	181.34	180.21	182.32	184.37	185.23	181.93	180.16	179.74	179.69	178.96	
4	179.06	180.00	182.04	180.15	182.88	184.30	185.23	181.54	180.14	179.73	179.64	178.90	
5	178.99	179.61	182.54	180.13	183.05	184.22	185.25	181.35	180.12	179.71	179.60	178.89	
6	178.93	179.66	182.59	179.98	183.16	184.12	185.25	181.21	180.09	179.70	179.59	179.00	
7	178.90	179.63	182.04	179.83	183.34	184.05	185.25	181.02	180.06	179.71	179.56	179.32	
8	179.35	179.74	181.30	179.80	183.26	184.02	185.25	180.94	180.07	179.70	179.49	179.31	
9	179.51	179.86	180.76	179.73	183.06	184.06	185.24	180.90	180.05	179.68	179.48	179.27	
10	179.52	179.78	180.43	179.69	182.93	184.11	185.19	180.92	180.04	179.66	179.46	179.25	
11	179.53	179.73	180.27	179.64	182.89	184.19	185.11	180.93	180.03	179.65	179.46	179.25	
12	179.53	179.71	180.20	179.58	182.91	184.30	185.02	180.86	180.02	179.65	179.46	179.24	
13	179.53	179.71	180.18	179.62	182.83	184.39	184.94	180.54	179.98	179.65	179.46	179.28	
14	179.52	179.69	180.15	179.73	182.66	184.53	184.84	180.51	179.96	179.65	179.46	179.41	
15	179.52	179.71	180.14	179.81	182.41	184.71	184.75	180.54	179.95	179.65	179.45	179.44	
16	179.52	179.78	180.10	179.89	182.22	184.85	184.66	180.71	179.94	179.64	179.44	179.53	
17	179.50	180.07	180.07	180.14	182.32	185.01	184.61	180.60	179.92	179.61	179.44	179.57	
18	179.49	180.18	180.04	180.31	182.38	185.20	184.58	180.56	179.91	179.58	179.43	179.52	
19	179.46	180.00	180.01	180.40	182.64	185.40	184.56	180.52	179.89	179.58	179.43	179.40	
20	179.44	179.89	179.98	180.40	182.90	185.40	184.54	180.47	179.83	179.61	179.42	179.31	
21	179.42	179.87	179.95	180.56	183.16	185.39	184.50	180.40	179.81	179.61	179.42	179.32	
22	179.40	180.03	179.93	180.72	183.55	185.36	184.44	180.34	179.79	179.69	179.41	179.38	
23	179.37	180.04	179.89	180.78	183.80	185.31	184.34	180.34	179.79	179.83	179.40	179.37	
24	179.34	179.85	179.83	181.36	183.96	185.26	184.22	180.32	179.78	180.03	179.39	179.35	
25	179.31	179.77	179.78	181.77	184.11	185.22	184.11	180.31	179.77	180.00	179.36	179.33	
26	179.27	179.75	179.74	181.51	184.24	185.19	183.97	180.29	179.77	179.92	179.20	179.31	
27	179.23	179.74	179.68	181.62	184.33	185.17	183.83	180.30	179.77	179.93	179.12	179.29	
28	179.17	179.76	179.70	182.24	184.33	185.16	183.66	180.30	179.75	179.86	179.05	179.26	
29	179.11	179.84	179.88	182.28	184.27	185.12	183.46	180.29	179.74	179.82	179.10	179.23	
30	179.13	180.23	180.12	182.06	184.23	185.11	183.04	180.26	179.75	179.78		179.19	
31		181.00		181.75	184.24		182.71		179.75	179.77		179.15	
Mean	179.32	179.88	180.51	180.51	183.14	184.74	184.58	180.80	179.94	179.73	179.44	179.26	
Max	179.53	181.00	182.59	182.28	184.33	185.40	185.25	182.46	180.24	180.03	179.75	179.57	185.40
Min	178.90	179.52	179.68	179.58	181.48	184.02	182.71	180.26	179.74	179.58	179.05	178.89	178.89

Annual Max Momentary Gage Height	185.41	m. (MSL.) ,	at 17.00 Hours, on Sep 19, 2011		
Zero Gage at Bottom Elevation	176.20	m. (MSL.) ,	River Bed	177.57	m. (MSL)
Left Bank Elevation	185.81	m. (MSL.) ,			
Right Bank Elevation	185.53	m. (MSL.) ,	Drainage Area	6282	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.60	3.20	41.60	9.80	49.00	192.00	336.00	82.40	12.80	5.60	5.50	0.90		
2	1.30	6.00	44.80	10.80	47.40	197.60	360.00	72.80	12.20	5.60	5.30	0.60		
3	1.00	12.20	42.90	12.20	76.80	197.60	462.40	61.80	11.20	5.40	4.90	0.50		
4	0.80	8.00	65.60	11.00	99.20	192.00	462.40	49.30	10.80	5.30	4.40	0.30		
5	0.60	4.10	85.60	10.60	107.50	185.60	504.00	43.20	10.40	5.10	4.00	0.30		
6	0.40	4.60	87.60	7.80	113.60	177.60	504.00	38.70	9.80	5.00	3.90	0.60		
7	0.30	4.30	65.60	6.30	124.40	172.00	504.00	32.60	9.20	5.10	3.60	2.10		
8	2.30	5.40	41.60	6.00	119.60	169.60	504.00	30.30	9.40	5.00	3.00	2.00		
9	3.10	6.60	25.30	5.30	108.00	172.80	483.20	29.20	9.00	4.80	2.90	1.90		
10	3.20	5.80	16.60	4.90	101.50	176.80	392.00	29.80	8.80	4.60	2.80	1.70		
11	3.30	5.30	13.40	4.40	99.60	183.20	328.00	30.00	8.60	4.50	2.80	1.70		
12	3.30	5.10	12.00	3.80	100.50	192.00	294.40	28.10	8.40	4.50	2.80	1.70		
13	3.30	5.10	11.60	4.20	97.20	199.20	276.00	19.10	7.80	4.50	2.80	1.90		
14	3.20	4.90	11.00	5.30	90.40	213.60	257.20	18.30	7.60	4.50	2.80	2.60		
15	3.20	5.10	10.80	6.10	80.40	237.40	243.00	19.10	7.50	4.50	2.70	2.70		
16	3.20	5.80	10.00	6.90	72.80	259.00	230.40	23.90	7.40	4.40	2.70	3.30		
17	3.00	9.40	9.40	10.80	76.80	291.20	223.40	20.80	7.20	4.10	2.70	3.70		
18	3.00	11.60	8.80	14.20	79.20	400.00	219.60	19.70	7.10	3.80	2.60	3.20		
19	2.80	8.00	8.20	16.00	89.60	960.00	217.20	18.60	6.90	3.80	2.60	2.50		
20	2.70	6.90	7.80	16.00	100.00	960.00	214.80	17.40	6.30	4.10	2.60	2.00		
21	2.60	6.70	7.50	19.70	113.60	924.80	210.00	16.00	6.10	4.10	2.60	2.10		
22	2.50	8.60	7.30	24.20	137.00	819.20	204.00	14.80	5.90	4.90	2.60	2.40		
23	2.30	8.80	6.90	25.80	152.00	643.20	195.20	14.80	5.90	6.30	2.50	2.30		
24	2.20	6.50	6.30	43.50	164.80	524.80	185.60	14.40	5.80	8.60	2.40	2.30		
25	2.00	5.70	5.80	56.60	176.80	441.60	176.80	14.20	5.70	8.00	2.30	2.10		
26	1.90	5.50	5.40	48.30	187.20	392.00	165.60	13.80	5.70	7.20	1.50	2.00		
27	1.60	5.40	4.80	51.80	194.40	376.00	154.40	14.00	5.70	7.30	1.10	1.90		
28	1.30	5.60	5.00	73.60	194.40	368.00	143.60	14.00	5.50	6.60	0.80	1.80		
29	1.00	6.40	6.80	75.20	189.60	336.00	131.60	13.80	5.40	6.20	1.00	1.60		
30	1.10	12.60	10.40	66.40	186.40	328.00	107.00	13.20	5.50	5.80		1.40		
31		32.00		56.00	187.20		92.40		5.50	5.70		1.20		
Total	64.10	231.20	686.40	713.50	3716.90	10882.80	8782.20	828.10	241.10	164.90	84.20	57.30	26452.70	CMSDAY
Mean	2.10	7.50	22.90	23.00	119.90	362.80	283.30	27.60	7.80	5.30	2.90	1.80	72.30	CMS
Max	3.30	32.00	87.60	75.20	194.40	960.00	504.00	82.40	12.80	8.60	5.50	3.70	960.00	CMS
Min	0.30	3.20	4.80	3.80	47.40	169.60	92.40	13.20	5.40	3.80	0.80	0.30	0.30	CMS
Runoff	5.54	19.98	59.30	61.65	321.14	940.27	758.78	71.55	20.83	14.25	7.27	4.95	2285.51	MCM

Momentary Peak 1008.04 CMS, at 185.41 m. (MSL), at 17.00 Hours, on Sep 19, 2011

Runoff Yield 11.51 Liters/Second/Square KM. Momentary Peak Yield 160.465 Liters/Second/Square KM.

WATER YEAR : 2011

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.

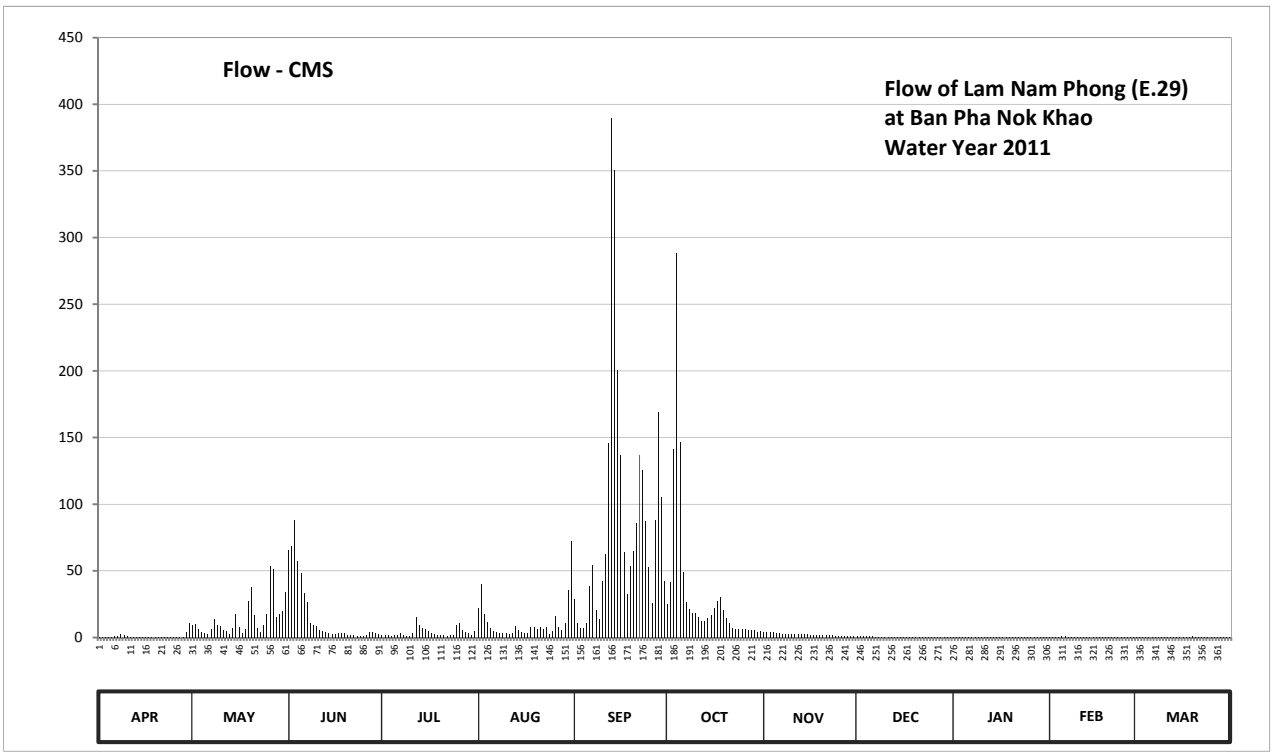
Ban Pha Nok Khao **Amphoe** Phu Kradung **Changwat** Loei

Drainge Area	949 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+225.000 m. (MSL.)
Bench Mark	B.M.- H.D.
Location BM	In front of the automatic gage buiding. **Elevation** +236.945 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings
Period of Available Gage Records	1956 - 1958 , 1967 to date
Rating Operation	
Period of Rating	1978 to date
Rated by Flot	-
Rated by Current Meter	1978 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	Overbank flow starts at elevation +237.980 m.(MSL.), records are channel flow only.
General Description	Records good. Flow effected by Ubonrat Dam.
	Stage-discharge relation defined by 44 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	225.96	227.62	231.31	226.46	229.03	229.42	229.21	226.89	226.23	225.93	225.93	225.83	
2	225.96	227.74	231.43	226.41	230.06	227.81	230.14	226.85	226.22	225.92	225.93	225.83	
3	225.97	227.19	232.23	226.38	228.55	227.35	234.03	226.85	226.20	225.97	225.93	225.84	
4	225.95	226.82	230.92	226.34	227.93	227.39	237.52	226.82	226.18	225.96	226.00	225.85	
5	226.01	226.77	230.50	226.51	227.36	227.81	234.20	226.75	226.15	225.96	226.25	225.85	
6	226.22	226.63	229.68	226.53	227.02	229.97	230.54	226.67	226.14	225.96	226.15	225.85	
7	226.18	227.16	229.29	226.74	226.82	230.80	229.29	226.65	226.13	225.98	226.01	225.84	
8	226.56	228.21	227.87	226.36	226.75	228.85	228.94	226.64	226.13	225.98	225.95	225.84	
9	226.43	227.67	227.65	226.27	226.74	228.19	228.65	226.62	226.12	225.96	225.96	225.84	
10	226.20	227.56	227.56	226.34	226.71	230.20	228.62	226.62	226.11	225.96	225.95	225.91	
11	226.07	227.12	227.13	226.67	226.60	231.15	228.33	226.63	226.10	225.94	225.93	226.05	
12	226.00	227.02	226.95	228.32	226.71	234.17	228.00	226.62	226.10	225.94	225.94	226.01	
13	225.99	226.57	226.85	227.65	227.53	238.65	228.05	226.65	226.09	225.93	225.93	226.07	
14	225.95	227.32	226.76	227.37	227.06	238.25	228.28	226.63	226.08	225.94	225.92	225.98	
15	225.95	228.55	226.63	227.18	226.88	235.62	228.45	226.57	226.07	225.94	225.90	225.96	
16	225.94	227.42	226.64	227.03	226.72	233.89	229.00	226.50	226.06	225.93	225.90	225.95	
17	225.93	226.76	226.70	226.77	226.78	231.23	229.31	226.48	226.06	225.93	225.90	225.98	
18	225.93	227.19	226.68	226.58	227.42	229.64	229.52	226.44	226.05	225.94	225.90	226.05	
19	225.90	229.32	226.78	226.43	227.49	230.76	228.82	226.41	226.05	225.94	225.90	226.24	
20	225.88	229.93	226.50	226.36	227.29	231.28	228.25	226.45	226.05	225.95	225.90	226.00	
21	225.90	228.47	226.42	226.35	227.50	232.13	227.89	226.44	226.05	225.93	225.89	225.98	
22	225.89	227.30	226.40	226.34	227.28	233.90	227.38	226.41	226.03	225.95	225.89	225.93	
23	225.90	226.90	226.34	226.53	227.48	233.52	227.25	226.35	226.00	225.97	225.88	225.89	
24	225.93	227.65	226.28	226.53	226.64	232.20	227.24	226.34	226.00	225.96	225.87	225.88	
25	226.07	228.54	226.29	227.70	226.96	230.71	227.21	226.33	225.98	225.95	225.84	225.88	
26	225.99	230.75	226.50	227.83	228.40	229.23	227.23	226.30	225.97	225.94	225.84	225.87	
27	225.95	230.66	226.86	227.12	227.45	232.22	227.12	226.29	225.96	225.94	225.84	225.87	
28	226.08	228.35	226.85	226.88	227.14	234.91	227.12	226.28	225.94	225.93	225.84	225.85	
29	226.89	228.57	226.66	226.68	227.88	232.84	227.04	226.27	225.92	225.92	225.84	225.84	
30	227.87	228.75	226.63	226.50	229.82	230.17	226.91	226.27	225.88	225.91		225.84	
31		229.71		227.02	231.59		226.95		225.87	225.92		225.84	
Mean	226.12	227.94	227.71	226.78	227.60	231.48	228.92	226.53	226.06	225.94	225.93	225.92	
Max	227.87	230.75	232.23	228.32	231.59	238.65	237.52	226.89	226.23	225.98	226.25	226.24	238.65
Min	225.88	226.57	226.28	226.27	226.60	227.35	226.91	226.27	225.87	225.91	225.84	225.83	225.83

Annual Max Momentary Gage Height	239.21	m. (MSL.) ,	at 19.00 Hours, on Sep 13, 2011		
Zero Gage at Bottom Elevation	225.00	m. (MSL.) ,	River Bed	225.57	m. (MSL)
Left Bank Elevation	237.97	m. (MSL.) ,			
Right Bank Elevation	238.08	m. (MSL.) ,	Drainage Area	949	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.28	8.96	65.82	1.86	22.48	28.72	25.36	4.34	1.08	0.26	0.26	0.20		
2	0.28	9.92	68.46	1.69	40.08	10.48	41.52	4.10	1.05	0.25	0.26	0.20		
3	0.28	6.14	88.44	1.59	17.50	7.10	140.96	4.10	0.98	0.28	0.26	0.20		
4	0.27	3.92	57.24	1.46	11.44	7.34	288.64	3.92	0.91	0.28	0.30	0.21		
5	0.33	3.62	48.00	2.06	7.16	10.48	146.40	3.50	0.81	0.28	1.15	0.21		
6	1.05	2.78	33.24	2.18	5.12	38.46	48.88	3.02	0.78	0.28	0.81	0.21		
7	0.91	5.96	26.64	3.44	3.92	54.60	26.64	2.90	0.74	0.29	0.33	0.20		
8	2.36	14.10	10.96	1.52	3.50	20.50	21.40	2.84	0.74	0.29	0.27	0.20		
9	1.76	9.36	9.20	1.22	3.44	13.90	18.50	2.72	0.71	0.28	0.28	0.20		
10	0.98	8.48	8.48	1.46	3.26	42.60	18.20	2.72	0.67	0.28	0.27	0.25		
11	0.54	5.72	5.78	3.02	2.60	62.30	15.30	2.78	0.64	0.26	0.26	0.47		
12	0.30	5.12	4.70	15.20	3.26	145.44	12.00	2.72	0.64	0.26	0.26	0.33		
13	0.29	2.42	4.10	9.20	8.24	389.50	12.50	2.90	0.61	0.26	0.26	0.54		
14	0.27	6.92	3.56	7.22	5.36	350.50	14.80	2.78	0.57	0.26	0.25	0.29		
15	0.27	17.50	2.78	6.08	4.28	200.78	16.50	2.42	0.54	0.26	0.24	0.28		
16	0.26	7.52	2.84	5.18	3.32	136.70	22.00	2.00	0.50	0.26	0.24	0.27		
17	0.26	3.56	3.20	3.62	3.68	64.06	26.96	1.93	0.50	0.26	0.24	0.29		
18	0.26	6.14	3.08	2.48	7.52	32.52	30.36	1.80	0.47	0.26	0.24	0.47		
19	0.24	27.12	3.68	1.76	7.94	53.72	20.20	1.69	0.47	0.26	0.24	1.12		
20	0.23	37.74	2.00	1.52	6.74	65.16	14.50	1.83	0.47	0.27	0.24	0.30		
21	0.24	16.70	1.73	1.49	8.00	85.64	11.12	1.80	0.47	0.26	0.23	0.29		
22	0.23	6.80	1.66	1.46	6.68	137.00	7.28	1.69	0.40	0.27	0.23	0.26		
23	0.24	4.40	1.46	2.18	7.88	125.60	6.50	1.49	0.30	0.28	0.23	0.23		
24	0.26	9.20	1.25	2.18	2.84	87.60	6.44	1.46	0.30	0.28	0.22	0.23		
25	0.54	17.40	1.29	9.60	4.76	52.62	6.26	1.42	0.29	0.27	0.20	0.23		
26	0.29	53.50	2.00	10.64	16.00	25.68	6.38	1.32	0.28	0.26	0.20	0.22		
27	0.27	51.52	4.16	5.72	7.70	88.16	5.72	1.29	0.28	0.26	0.20	0.22		
28	0.57	15.50	4.10	4.28	5.84	169.12	5.72	1.25	0.26	0.26	0.20	0.21		
29	4.34	17.70	2.96	3.08	11.04	105.52	5.24	1.22	0.25	0.25	0.20	0.20		
30	10.96	19.50	2.78	2.00	35.76	42.06	4.46	1.22	0.23	0.25		0.20		
31		33.78		5.12	72.16		4.70		0.22	0.25		0.20		
Total	29.36	439.00	475.59	121.51	349.50	2653.86	1031.44	71.17	17.16	8.27	8.57	8.93	5214.36	CMSDAY
Mean	0.98	14.16	15.85	3.92	11.27	88.46	33.27	2.37	0.55	0.27	0.30	0.29	14.25	CMS
Max	10.96	53.50	88.44	15.20	72.16	389.50	288.64	4.34	1.08	0.29	1.15	1.12	389.50	CMS
Min	0.23	2.42	1.25	1.22	2.60	7.10	4.46	1.22	0.22	0.25	0.20	0.20	0.20	CMS
Runoff	2.54	37.93	41.09	10.50	30.20	229.29	89.12	6.15	1.48	0.72	0.74	0.77	450.52	MCM

Momentary Peak 459.40 CMS, at 239.21 m. (MSL), at 19.00 Hours, on Sep 13, 2011

Runoff Yield 15.01 Liters/Second/Square KM. Momentary Peak Yield 484.089 Liters/Second/Square KM.

WATER YEAR : 2011

CHI RIVER BASIN

Chi River at Ban Nong O , Chaiyaphum (E.32A)

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

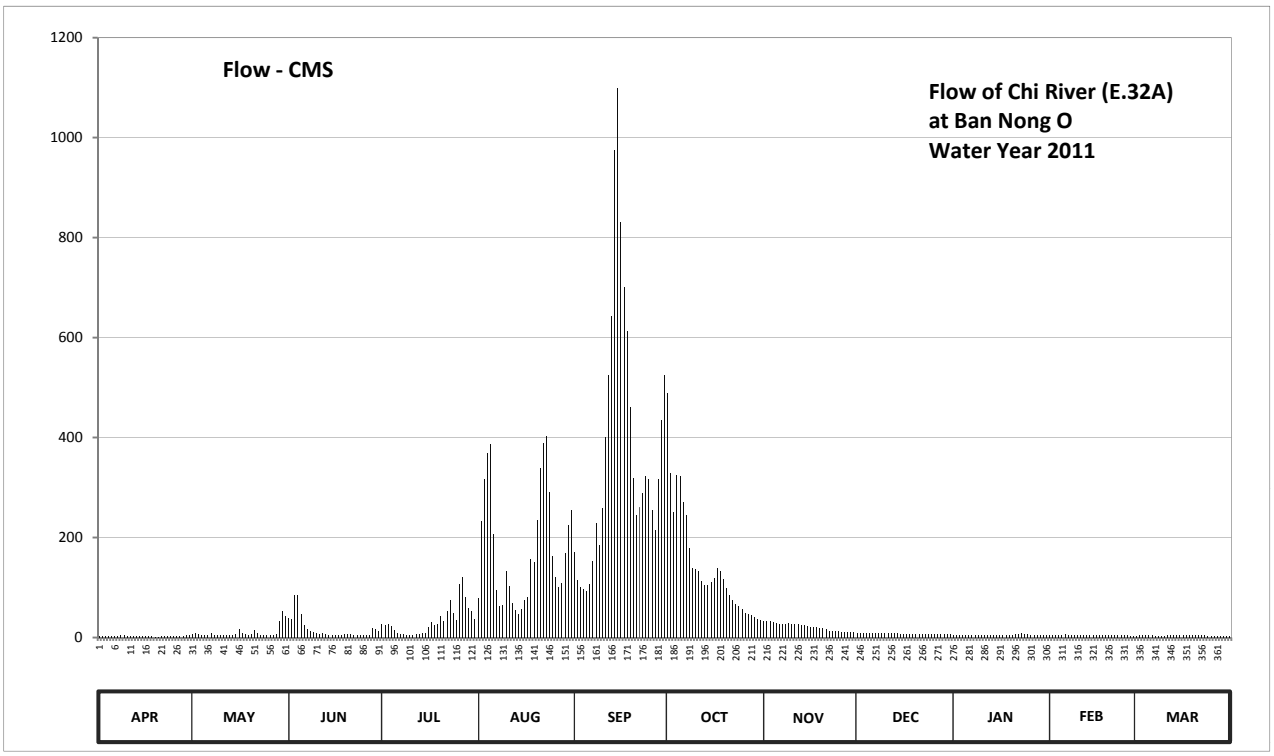
Location : on right bank about 500 meters north of Ban Nong O from about 600 meters upstream from E.32 gaging station.

	Ban Nong O	**Amphoe** Ban Khwao	**Changwat** Chaiyaphum
Drainge Area	2,867 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+198.000 m. (MSL.)		
Bench Mark	B.M.- H.D.		
Location BM	On right bank at the measuring line.		**Elevation** +211.424 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	1966 to date		
Rating Operation			
Period of Rating	1968 to date		
Rated by Flot	-		
Rated by Current Meter	1968 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow		
General Description	Records good. Stage-discharge relation defined by 25 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	198.78	199.33	200.87	200.43	202.05	204.09	208.29	200.73	199.60	199.17	199.10	198.92	
2	198.85	199.47	200.86	200.40	205.19	202.95	206.63	200.69	199.58	199.13	199.09	198.96	
3	198.79	199.27	202.20	200.43	206.48	202.62	205.48	200.67	199.56	199.12	199.09	198.97	
4	198.76	199.09	202.22	200.26	207.13	202.51	206.57	200.64	199.54	199.10	199.10	198.97	
5	198.75	199.02	201.14	199.86	207.32	202.40	206.55	200.55	199.52	199.07	199.13	198.98	
6	198.73	198.96	200.35	199.51	204.76	202.78	205.82	200.47	199.50	199.06	199.23	198.95	
7	198.85	199.39	200.00	199.33	202.49	203.70	205.38	200.44	199.48	199.04	199.14	198.91	
8	199.04	199.17	199.78	199.21	201.69	205.12	204.25	200.46	199.46	199.04	199.12	198.90	
9	198.96	199.09	199.67	199.16	201.70	204.35	203.45	200.51	199.44	199.04	199.12	198.90	
10	198.94	199.03	199.47	199.10	203.31	205.62	203.42	200.49	199.42	199.03	199.09	198.91	
11	198.89	199.01	199.28	199.16	202.68	207.48	203.32	200.47	199.43	199.02	199.06	198.98	
12	198.85	199.03	199.40	199.32	201.82	208.58	202.92	200.44	199.41	199.02	199.06	199.08	
13	198.82	199.01	199.22	199.28	201.40	209.29	202.73	200.39	199.40	199.00	199.06	199.14	
14	198.81	198.98	199.12	199.44	201.19	210.38	202.73	200.32	199.39	199.01	199.04	199.02	
15	198.82	199.19	199.08	199.52	201.46	210.57	202.88	200.20	199.37	199.00	199.04	199.00	
16	198.79	199.89	199.04	200.16	201.98	210.04	203.04	200.17	199.35	199.00	199.02	198.99	
17	198.76	199.59	199.01	200.63	202.11	209.57	203.44	200.15	199.32	198.99	199.01	199.00	
18	198.71	199.31	199.09	200.39	203.79	209.13	203.30	200.12	199.29	198.99	199.00	199.07	
19	198.68	199.18	199.30	200.44	203.66	208.05	202.99	200.08	199.27	198.99	198.99	199.04	
20	198.68	199.30	199.23	201.02	205.21	206.50	202.56	200.03	199.26	199.12	198.99	199.02	
21	198.73	199.81	199.21	200.70	206.75	205.38	202.23	199.93	199.25	199.22	198.98	199.00	
22	198.69	199.38	199.17	201.36	207.36	205.65	201.98	199.78	199.26	199.36	198.97	198.98	
23	198.71	199.17	199.10	201.98	207.50	206.11	201.79	199.75	199.25	199.48	198.96	198.96	
24	198.76	199.09	199.07	201.24	206.12	206.54	201.66	199.72	199.24	199.33	198.96	198.94	
25	198.84	199.05	199.04	200.75	203.91	206.48	201.53	199.70	199.24	199.24	198.96	198.92	
26	198.92	199.04	199.03	202.77	203.08	205.55	201.26	199.68	199.23	199.18	198.95	198.90	
27	198.82	199.11	199.18	203.06	202.63	204.88	201.16	199.66	199.24	199.16	198.91	198.83	
28	198.79	199.20	200.04	202.10	202.82	206.47	201.08	199.65	199.23	199.15	198.88	198.82	
29	199.11	200.71	199.93	201.56	204.02	207.81	201.00	199.64	199.22	199.14	198.86	198.84	
30	199.06	201.38	199.72	201.34	205.06	208.58	200.85	199.62	199.22	199.12		198.83	
31		201.04		200.83	205.54		200.77		199.20	199.10		198.85	
Mean	198.82	199.40	199.73	200.48	203.94	206.31	203.26	200.17	199.36	199.11	199.03	198.95	
Max	199.11	201.38	202.22	203.06	207.50	210.57	208.29	200.73	199.60	199.48	199.23	199.14	210.57
Min	198.68	198.96	199.01	199.10	201.19	202.40	200.77	199.62	199.20	198.99	198.86	198.82	198.68

Annual Max Momentary Gage Height	210.78	m. (MSL.) ,	at 23.00 Hours, on Sep 14, 2011		
Zero Gage at Bottom Elevation	198.00	m. (MSL.) ,	River Bed	196.90	m. (MSL)
Left Bank Elevation	211.17	m. (MSL.) ,			
Right Bank Elevation	211.19	m. (MSL.) ,	Drainage Area	2867	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.60	7.30	38.10	26.60	78.00	171.50	487.90	33.90	10.00	5.80	5.20	3.80		
2	3.20	8.70	37.80	26.00	233.40	114.50	329.40	32.80	9.80	5.40	5.10	4.10		
3	2.70	6.70	84.00	26.60	317.40	100.80	250.80	32.30	9.60	5.40	5.10	4.20		
4	2.50	5.10	84.80	23.20	369.40	96.40	324.60	31.50	9.40	5.20	5.20	4.20		
5	2.40	4.60	46.20	15.20	385.80	92.00	323.00	29.30	9.20	5.00	5.40	4.20		
6	2.20	4.10	25.00	9.10	207.60	107.20	271.20	27.40	9.00	4.90	6.30	4.00		
7	3.20	7.90	18.00	7.30	95.60	152.00	244.80	26.80	8.80	4.70	5.50	3.70		
8	4.70	5.80	13.60	6.10	63.60	229.20	179.50	27.20	8.60	4.70	5.40	3.60		
9	4.10	5.10	11.40	5.70	64.00	184.50	139.50	28.20	8.40	4.70	5.40	3.60		
10	3.90	4.60	8.70	5.20	132.50	259.20	138.00	27.80	8.20	4.60	5.10	3.70		
11	3.50	4.50	6.80	5.70	103.20	401.00	133.00	27.40	8.30	4.60	4.90	4.20		
12	3.20	4.60	8.00	7.20	68.80	525.40	113.00	26.80	8.10	4.60	4.90	5.00		
13	3.00	4.50	6.20	6.80	54.00	642.10	105.20	25.80	8.00	4.40	4.90	5.50		
14	2.90	4.20	5.40	8.40	47.70	974.40	105.20	24.40	7.90	4.50	4.70	4.60		
15	3.00	5.90	5.00	9.20	55.80	1098.40	111.20	22.00	7.70	4.40	4.70	4.40		
16	2.70	15.80	4.70	21.20	75.20	832.00	119.00	21.40	7.50	4.40	4.60	4.30		
17	2.50	9.90	4.50	31.30	80.40	701.40	139.00	21.00	7.20	4.30	4.50	4.40		
18	2.10	7.10	5.10	25.80	156.50	611.70	132.00	20.40	6.90	4.30	4.40	5.00		
19	1.90	5.80	7.00	26.80	150.00	461.50	116.50	19.60	6.70	4.30	4.30	4.70		
20	1.90	7.00	6.30	42.60	234.60	319.00	98.40	18.60	6.60	5.40	4.30	4.60		
21	2.20	14.20	6.10	33.00	339.00	244.80	85.20	16.60	6.50	6.20	4.20	4.40		
22	2.00	7.80	5.80	52.80	389.40	261.00	75.20	13.60	6.60	7.60	4.20	4.20		
23	2.10	5.80	5.20	75.20	403.00	289.70	67.60	13.00	6.50	8.80	4.10	4.10		
24	2.50	5.10	5.00	49.20	290.40	322.20	62.40	12.40	6.40	7.30	4.10	3.90		
25	3.10	4.80	4.70	34.50	162.50	317.40	57.90	12.00	6.40	6.40	4.10	3.80		
26	3.80	4.70	4.60	106.80	121.00	255.00	49.80	11.60	6.30	5.80	4.00	3.60		
27	3.00	5.30	5.80	120.00	101.20	214.80	46.80	11.20	6.40	5.70	3.70	3.00		
28	2.70	6.00	18.80	80.00	108.80	316.60	44.40	11.00	6.30	5.60	3.40	3.00		
29	5.30	33.30	16.60	58.80	168.00	435.10	42.00	10.80	6.20	5.50	3.30	3.10		
30	4.90	53.40	12.40	52.20	225.60	525.40	37.50	10.40	6.20	5.40		3.00		
31		43.20		36.90	254.40		35.10		6.00	5.20		3.20		
Total	89.80	312.80	511.60	1035.40	5536.80	11256.20	4465.10	647.20	235.70	165.10	135.00	125.10	24515.80	CMSDAY
Mean	3.00	10.10	17.10	33.40	178.60	375.20	144.00	21.60	7.60	5.30	4.70	4.00	67.00	CMS
Max	5.30	53.40	84.80	120.00	403.00	1098.40	487.90	33.90	10.00	8.80	6.30	5.50	1098.40	CMS
Min	1.90	4.10	4.50	5.20	47.70	92.00	35.10	10.40	6.00	4.30	3.30	3.00	1.90	CMS
Runoff	7.76	27.03	44.20	89.46	478.38	972.54	385.78	55.92	20.36	14.26	11.66	10.81	2118.17	MCM

Momentary Peak 1296.00 CMS, at 210.78 m. (MSL), at 23.00 Hours, on Sep 14, 2011

Runoff Yield 23.36 Liters/Second/Square KM. Momentary Peak Yield 452.040 Liters/Second/Square KM.

WATER YEAR : 2011

CHI RIVER BASIN

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

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

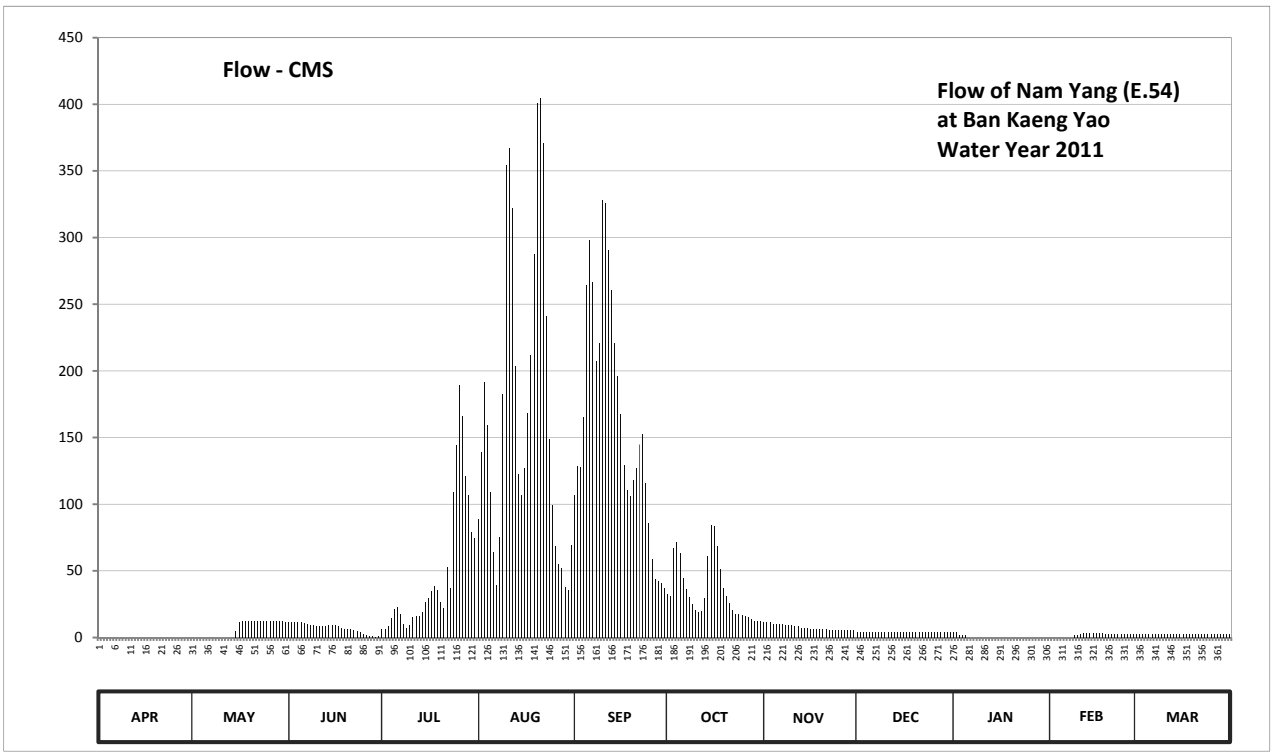
Location : on right bank at Ban Kaeng Yao about 2 kilometers downstream from proposed of USBR Damsite.

	Ban Kaeng Yao	**Amphoe** Kuchinarai	**Changwat** Kalasin		
Drainge Area	1,548 sq.km.				
Type of Gage	Water - stage recorder				
Zero Gage at Bottom	+138.340 m. (MSL.)				
Bench Mark	B.M.- H.D.				
Location BM	On right bank at the abutment of the bridge.		**Elevation** +149.988 m. (MSL.)		
Gage Reading Frequency	Recording				
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings				
Period of Available Gage Records	1969 to date				
Rating Operation					
Period of Rating	1969 - 1977 , 1983 to date				
Rated by Flot	-				
Rated by Current Meter	1969 - 1977 , 1983 to date				
Stability of Channel Regimes	Rather unstable.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records fair. The weir situated about 100 meters downstream from the gage site. Stage-discharge relation defined by 16 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	138.60	138.80	140.45	140.34	141.77	142.07	140.84	140.44	140.30	140.30	139.84	140.26	
2	138.59	138.88	140.45	140.35	142.56	142.41	140.82	140.44	140.30	140.30	139.84	140.26	
3	138.58	138.96	140.44	140.39	143.31	142.40	141.41	140.44	140.30	140.25	139.93	140.26	
4	138.57	139.04	140.44	140.51	142.85	142.93	141.49	140.42	140.30	140.24	139.94	140.26	
5	138.56	139.11	140.44	140.63	142.11	144.28	141.35	140.42	140.30	140.24	140.04	140.26	
6	138.55	139.18	140.43	140.67	141.36	144.71	141.04	140.42	140.30	140.15	140.04	140.26	
7	138.54	139.27	140.42	140.57	140.95	144.31	140.90	140.42	140.30	140.14	140.14	140.26	
8	138.53	139.34	140.41	140.42	141.55	143.53	140.80	140.41	140.30	140.14	140.14	140.26	
9	138.52	139.42	140.40	140.36	143.18	143.72	140.71	140.40	140.30	140.14	140.24	140.26	
10	138.51	139.50	140.39	140.40	145.42	145.09	140.62	140.40	140.30	140.14	140.24	140.26	
11	138.50	139.58	140.39	140.52	145.58	145.06	140.60	140.39	140.30	140.05	140.26	140.26	
12	138.49	139.71	140.39	140.54	145.01	144.62	140.61	140.38	140.30	140.04	140.27	140.26	
13	138.48	139.91	140.39	140.54	143.48	144.24	140.79	140.36	140.30	140.04	140.28	140.26	
14	138.47	140.12	140.40	140.60	142.32	143.72	141.31	140.36	140.30	139.95	140.28	140.26	
15	138.45	140.31	140.40	140.74	142.07	143.37	141.69	140.36	140.30	139.94	140.28	140.26	
16	138.44	140.45	140.41	140.79	142.39	142.96	141.68	140.34	140.30	139.94	140.27	140.26	
17	138.44	140.46	140.38	140.88	142.97	142.42	141.44	140.34	140.30	139.94	140.27	140.26	
18	138.44	140.46	140.36	140.94	143.60	142.13	141.15	140.34	140.30	139.94	140.27	140.26	
19	138.46	140.46	140.34	140.89	144.58	142.06	140.92	140.34	140.30	139.89	140.26	140.26	
20	138.54	140.46	140.34	140.73	146.01	142.25	140.82	140.34	140.30	139.89	140.26	140.26	
21	138.45	140.46	140.34	140.65	146.06	142.38	140.72	140.34	140.30	139.85	140.26	140.26	
22	138.46	140.46	140.33	141.18	145.63	142.64	140.62	140.32	140.30	139.84	140.26	140.26	
23	138.47	140.46	140.31	140.92	143.99	142.75	140.56	140.32	140.30	139.84	140.26	140.26	
24	138.48	140.46	140.29	142.11	142.70	142.21	140.56	140.32	140.30	139.84	140.26	140.26	
25	138.49	140.46	140.26	142.63	141.94	141.72	140.55	140.32	140.30	139.84	140.26	140.26	
26	138.50	140.46	140.24	143.28	141.44	141.28	140.54	140.32	140.30	139.84	140.26	140.26	
27	138.51	140.46	140.22	142.94	141.22	141.03	140.52	140.32	140.30	139.84	140.26	140.26	
28	138.55	140.46	140.22	142.30	141.16	141.00	140.49	140.32	140.30	139.84	140.26	140.26	
29	138.64	140.46	140.21	142.07	140.93	140.98	140.46	140.32	140.30	139.84	140.26	140.26	
30	138.72	140.46	140.22	141.61	140.89	140.92	140.46	140.32	140.30	139.84		140.26	
31		140.45		141.53	141.45		140.46		140.30	139.84		140.26	
Mean	138.52	139.95	140.36	141.07	142.92	142.84	140.87	140.37	140.30	140.00	140.19	140.26	
Max	138.72	140.46	140.45	143.28	146.06	145.09	141.69	140.44	140.30	140.30	140.28	140.26	146.06
Min	138.44	138.80	140.21	140.34	140.89	140.92	140.46	140.32	140.30	139.84	139.84	140.26	138.44

Annual Max Momentary Gage Height	146.14	m. (MSL.) ,	at 18.00 Hours, on Aug 20, 2011		
Zero Gage at Bottom Elevation	138.34	m. (MSL.) ,	River Bed	138.15	m. (MSL)
Left Bank Elevation	148.20	m. (MSL.) ,			
Right Bank Elevation	147.80	m. (MSL.) ,	Drainage Area	1548	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	11.70	6.26	88.85	107.05	32.43	11.20	4.30	4.30	0.00	2.58		
2	0.00	0.00	11.70	6.75	139.20	128.70	31.21	11.20	4.30	4.30	0.00	2.58		
3	0.00	0.00	11.20	8.71	191.70	128.00	67.01	11.20	4.30	2.15	0.00	2.58		
4	0.00	0.00	11.20	14.72	159.50	165.10	71.86	10.20	4.30	1.72	0.00	2.58		
5	0.00	0.00	11.20	20.96	109.47	264.00	63.37	10.20	4.30	1.72	0.00	2.58		
6	0.00	0.00	10.70	23.04	63.97	298.04	44.56	10.20	4.30	0.00	0.00	2.58		
7	0.00	0.00	10.20	17.84	39.10	266.37	36.07	10.20	4.30	0.00	0.00	2.58		
8	0.00	0.00	9.70	10.20	75.50	207.10	30.00	9.70	4.30	0.00	0.00	2.58		
9	0.00	0.00	9.20	7.24	182.60	220.40	25.14	9.20	4.30	0.00	1.72	2.58		
10	0.00	0.00	8.71	9.20	354.25	328.12	20.44	9.20	4.30	0.00	1.72	2.58		
11	0.00	0.00	8.71	15.24	366.92	325.75	19.40	8.71	4.30	0.00	2.58	2.58		
12	0.00	0.00	8.71	16.28	321.79	290.92	19.92	8.22	4.30	0.00	3.01	2.58		
13	0.00	0.00	8.71	16.28	203.60	260.83	29.46	7.24	4.30	0.00	3.44	2.58		
14	0.00	0.00	9.20	19.40	122.40	220.40	60.94	7.24	4.30	0.00	3.44	2.58		
15	0.00	4.79	9.20	26.76	107.05	195.90	83.99	7.24	4.30	0.00	3.44	2.58		
16	0.00	11.70	9.70	29.46	127.30	167.20	83.39	6.26	4.30	0.00	3.01	2.58		
17	0.00	12.20	8.22	34.85	167.90	129.40	68.83	6.26	4.30	0.00	3.01	2.58		
18	0.00	12.20	7.24	38.49	212.00	110.69	51.23	6.26	4.30	0.00	3.01	2.58		
19	0.00	12.20	6.26	35.46	287.75	106.44	37.28	6.26	4.30	0.00	2.58	2.58		
20	0.00	12.20	6.26	26.22	400.96	117.97	31.21	6.26	4.30	0.00	2.58	2.58		
21	0.00	12.20	6.26	22.00	404.92	126.60	25.68	6.26	4.30	0.00	2.58	2.58		
22	0.00	12.20	5.77	53.05	370.88	144.80	20.44	5.28	4.30	0.00	2.58	2.58		
23	0.00	12.20	4.79	37.28	241.04	152.50	17.32	5.28	4.30	0.00	2.58	2.58		
24	0.00	12.20	3.87	109.47	149.00	115.54	17.32	5.28	4.30	0.00	2.58	2.58		
25	0.00	12.20	2.58	144.10	99.16	85.81	16.80	5.28	4.30	0.00	2.58	2.58		
26	0.00	12.20	1.72	189.60	68.83	59.12	16.28	5.28	4.30	0.00	2.58	2.58		
27	0.00	12.20	0.86	165.80	55.48	43.95	15.24	5.28	4.30	0.00	2.58	2.58		
28	0.00	12.20	0.86	121.00	51.84	42.13	13.70	5.28	4.30	0.00	2.58	2.58		
29	0.00	12.20	0.43	107.05	37.89	40.92	12.20	5.28	4.30	0.00	2.58	2.58		
30	0.00	12.20	0.86	79.14	35.46	37.28	12.20	5.28	4.30	0.00		2.58		
31		11.70		74.29	69.43		12.20		4.30	0.00		2.58		
Total	0.00	198.99	215.72	1486.14	5305.74	4887.03	1087.12	226.23	133.30	14.19	56.76	79.98	13691.20	CMSDAY
Mean	0.00	6.42	7.19	47.94	171.15	162.90	35.07	7.54	4.30	0.46	1.96	2.58	37.41	CMS
Max	0.00	12.20	11.70	189.60	404.92	328.12	83.99	11.20	4.30	4.30	3.44	2.58	404.92	CMS
Min	0.00	0.00	0.43	6.26	35.46	37.28	12.20	5.28	4.30	0.00	0.00	2.58	0.00	CMS
Runoff	0.00	17.19	18.64	128.40	458.42	422.24	93.93	19.55	11.52	1.23	4.90	6.91	1182.92	MCM

Momentary Peak 411.25 CMS, at 146.14 m. (MSL), at 18.00 Hours, on Aug 20, 2011

Runoff Yield 24.17 Liters/Second/Square KM. Momentary Peak Yield 265.665 Liters/Second/Square KM.

WATER YEAR : 2011

CHI RIVER BASIN

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

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

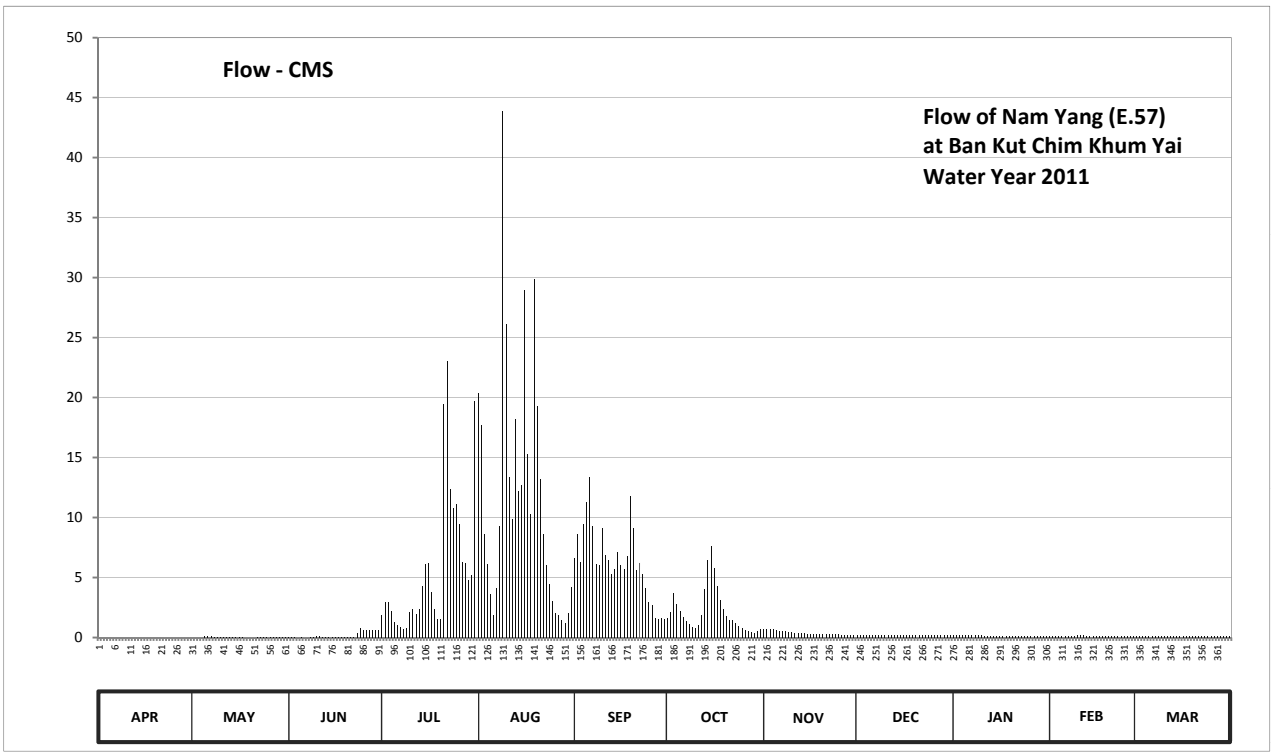
Location : on right bank at the bridge on highway Ban Kut Chim Khum Yai.

	Ban Kut Chim Khum Yai	**Amphoe** Khao Wong		**Changwat** Kalasin	
Drainge Area	103 sq.km.				
Type of Gage	Staff gage				
Zero Gage at Bottom	+170.100 m. (MSL.)				
Bench Mark	B.M.- Highways Dept.				
Location BM	On right bank at the footpath of the bridge.			**Elevation**	+177.810 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.				
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings				
Period of Available Gage Records	1969 - 1971 , 1983 to date				
Rating Operation					
Period of Rating	1969 - 1970 , 1984 to date				
Rated by Flot	-				
Rated by Current Meter	1969 - 1970 , 1984 to date				
Stability of Channel Regimes	Fairly stable.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records fair. The local weir situated about 100 meters from the gage site.				
	Stage-discharge relation defined by 16 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	169.75	169.85	170.05	170.65	172.11	171.25	170.60	170.36	170.19	170.17	170.12	170.14	
2	169.74	169.85	170.05	170.84	171.96	171.40	170.70	170.36	170.19	170.17	170.12	170.14	
3	169.74	169.84	170.06	170.84	171.40	171.22	170.94	170.38	170.19	170.17	170.12	170.14	
4	169.74	169.84	170.00	170.72	171.20	171.46	170.81	170.38	170.19	170.17	170.12	170.14	
5	169.74	170.09	170.04	170.53	170.93	171.58	170.72	170.35	170.19	170.17	170.12	170.14	
6	169.73	170.09	170.00	170.46	170.66	171.71	170.63	170.31	170.19	170.17	170.13	170.14	
7	169.73	170.09	170.00	170.41	170.99	171.45	170.55	170.31	170.19	170.17	170.13	170.14	
8	169.73	170.08	170.04	170.37	171.45	171.20	170.48	170.30	170.19	170.17	170.14	170.14	
9	169.73	170.08	170.02	170.39	173.09	171.19	170.42	170.29	170.19	170.17	170.15	170.14	
10	169.73	170.07	170.09	170.71	172.40	171.44	170.39	170.28	170.19	170.17	170.17	170.14	
11	169.72	170.07	170.09	170.75	171.71	171.27	170.46	170.27	170.19	170.15	170.17	170.14	
12	169.72	170.07	170.08	170.67	171.49	171.23	170.66	170.27	170.18	170.15	170.17	170.14	
13	169.72	170.01	170.08	170.75	171.99	171.12	170.98	170.26	170.18	170.15	170.16	170.14	
14	169.72	170.01	170.07	171.01	171.64	171.16	171.23	170.25	170.18	170.15	170.16	170.14	
15	169.72	170.01	170.07	171.20	171.67	171.29	171.33	170.24	170.18	170.15	170.16	170.14	
16	169.71	170.02	170.06	171.21	172.53	171.19	171.17	170.24	170.18	170.13	170.15	170.14	
17	169.71	170.02	170.06	170.95	171.82	171.16	171.01	170.23	170.18	170.13	170.15	170.14	
18	169.75	169.98	170.05	170.74	171.52	171.26	170.86	170.23	170.18	170.13	170.15	170.14	
19	169.75	169.99	170.05	170.59	172.57	171.61	170.75	170.24	170.18	170.13	170.15	170.14	
20	169.74	169.99	170.04	170.59	172.05	171.44	170.64	170.24	170.18	170.13	170.14	170.14	
21	169.74	170.00	170.04	172.06	171.70	171.15	170.57	170.24	170.18	170.12	170.14	170.14	
22	169.74	170.01	170.04	172.25	171.40	171.21	170.56	170.23	170.17	170.12	170.14	170.14	
23	169.74	170.02	170.25	171.65	171.19	171.12	170.51	170.23	170.17	170.12	170.14	170.14	
24	169.73	170.03	170.39	171.55	171.03	170.99	170.43	170.22	170.17	170.12	170.14	170.14	
25	169.73	170.04	170.35	171.57	170.85	170.84	170.39	170.22	170.17	170.12	170.14	170.14	
26	169.73	170.04	170.34	171.46	170.68	170.80	170.35	170.21	170.17	170.12	170.14	170.14	
27	169.73	170.05	170.33	171.22	170.65	170.61	170.31	170.21	170.17	170.12	170.14	170.14	
28	169.73	170.05	170.33	171.21	170.56	170.58	170.29	170.20	170.17	170.12	170.14	170.14	
29	169.77	170.05	170.33	171.07	170.50	170.61	170.27	170.19	170.17	170.12	170.14	170.14	
30	169.85	170.05	170.35	171.11	170.69	170.59	170.30	170.19	170.17	170.12		170.14	
31		170.05		172.07	171.00		170.36		170.17	170.12		170.14	
Mean	169.74	170.01	170.13	171.02	171.47	171.17	170.63	170.26	170.18	170.14	170.14	170.14	
Max	169.85	170.09	170.39	172.25	173.09	171.71	171.33	170.38	170.19	170.17	170.17	170.14	173.09
Min	169.71	169.84	170.00	170.37	170.50	170.58	170.27	170.19	170.17	170.12	170.12	170.14	169.71

Annual Max Momentary Gage Height	174.68	m. (MSL.) ,	at 12.00 Hours, on Aug 9, 2011		
Zero Gage at Bottom Elevation	170.10	m. (MSL.) ,	River Bed	169.52	m. (MSL)
Left Bank Elevation	177.44	m. (MSL.) ,			
Right Bank Elevation	177.61	m. (MSL.) ,	Drainage Area	103	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	0.05	1.85	20.38	6.65	1.60	0.68	0.19	0.17	0.12	0.14		
2	0.00	0.00	0.05	2.98	17.68	8.60	2.10	0.68	0.19	0.17	0.12	0.14		
3	0.00	0.00	0.06	2.98	8.60	6.32	3.72	0.74	0.19	0.17	0.12	0.14		
4	0.00	0.00	0.00	2.22	6.10	9.44	2.77	0.74	0.19	0.17	0.12	0.14		
5	0.00	0.09	0.04	1.32	3.64	11.28	2.22	0.65	0.19	0.17	0.12	0.14		
6	0.00	0.09	0.00	1.04	1.90	13.37	1.75	0.53	0.19	0.17	0.13	0.14		
7	0.00	0.09	0.00	0.84	4.12	9.30	1.40	0.53	0.19	0.17	0.13	0.14		
8	0.00	0.08	0.04	0.71	9.30	6.10	1.12	0.50	0.19	0.17	0.14	0.14		
9	0.00	0.08	0.02	0.77	43.90	6.00	0.88	0.47	0.19	0.17	0.15	0.14		
10	0.00	0.07	0.09	2.16	26.10	9.16	0.77	0.44	0.19	0.17	0.17	0.14		
11	0.00	0.07	0.09	2.40	13.37	6.87	1.04	0.41	0.19	0.15	0.17	0.14		
12	0.00	0.07	0.08	1.95	9.86	6.43	1.90	0.41	0.18	0.15	0.17	0.14		
13	0.00	0.01	0.08	2.40	18.22	5.30	4.04	0.38	0.18	0.15	0.16	0.14		
14	0.00	0.01	0.07	4.29	12.24	5.70	6.43	0.35	0.18	0.15	0.16	0.14		
15	0.00	0.01	0.07	6.10	12.72	7.09	7.62	0.32	0.18	0.15	0.16	0.14		
16	0.00	0.02	0.06	6.21	28.99	6.00	5.80	0.32	0.18	0.13	0.15	0.14		
17	0.00	0.02	0.06	3.80	15.24	5.70	4.29	0.29	0.18	0.13	0.15	0.14		
18	0.00	0.00	0.05	2.34	10.32	6.76	3.12	0.29	0.18	0.13	0.15	0.14		
19	0.00	0.00	0.05	1.56	29.91	11.76	2.40	0.32	0.18	0.13	0.15	0.14		
20	0.00	0.00	0.04	1.56	19.30	9.16	1.80	0.32	0.18	0.13	0.14	0.14		
21	0.00	0.00	0.04	19.48	13.20	5.60	1.48	0.32	0.18	0.12	0.14	0.14		
22	0.00	0.01	0.04	23.00	8.60	6.21	1.44	0.29	0.17	0.12	0.14	0.14		
23	0.00	0.02	0.35	12.40	6.00	5.30	1.24	0.29	0.17	0.12	0.14	0.14		
24	0.00	0.03	0.77	10.80	4.47	4.12	0.92	0.26	0.17	0.12	0.14	0.14		
25	0.00	0.04	0.65	11.12	3.05	2.98	0.77	0.26	0.17	0.12	0.14	0.14		
26	0.00	0.04	0.62	9.44	2.00	2.70	0.65	0.23	0.17	0.12	0.14	0.14		
27	0.00	0.05	0.59	6.32	1.85	1.65	0.53	0.23	0.17	0.12	0.14	0.14		
28	0.00	0.05	0.59	6.21	1.44	1.52	0.47	0.20	0.17	0.12	0.14	0.14		
29	0.00	0.05	0.59	4.83	1.20	1.65	0.41	0.19	0.17	0.12	0.14	0.14		
30	0.00	0.05	0.65	5.20	2.05	1.56	0.50	0.19	0.17	0.12		0.14		
31		0.05		19.66	4.20		0.68		0.17	0.12		0.14		
Total	0.00	1.10	5.89	177.94	359.95	190.28	65.86	11.83	5.59	4.42	4.14	4.34	831.34	CMSDAY
Mean	0.00	0.04	0.20	5.74	11.61	6.34	2.12	0.39	0.18	0.14	0.14	0.14	2.27	CMS
Max	0.00	0.09	0.77	23.00	43.90	13.37	7.62	0.74	0.19	0.17	0.17	0.14	43.90	CMS
Min	0.00	0.00	0.00	0.71	1.20	1.52	0.41	0.19	0.17	0.12	0.12	0.14	0.00	CMS
Runoff	0.00	0.10	0.51	15.37	31.10	16.44	5.69	1.02	0.48	0.38	0.36	0.38	71.83	MCM

Momentary Peak 118.32 CMS, at 174.68 m. (MSL), at 12.00 Hours, on Aug 9, 2011

Runoff Yield 22.05 Liters/Second/Square KM. Momentary Peak Yield 1148.738 Liters/Second/Square KM.

WATER YEAR : 2011

CHI RIVER BASIN

Lam Phaniang at Ban Na Klang , Nong Bua Lamphu (E.64)

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

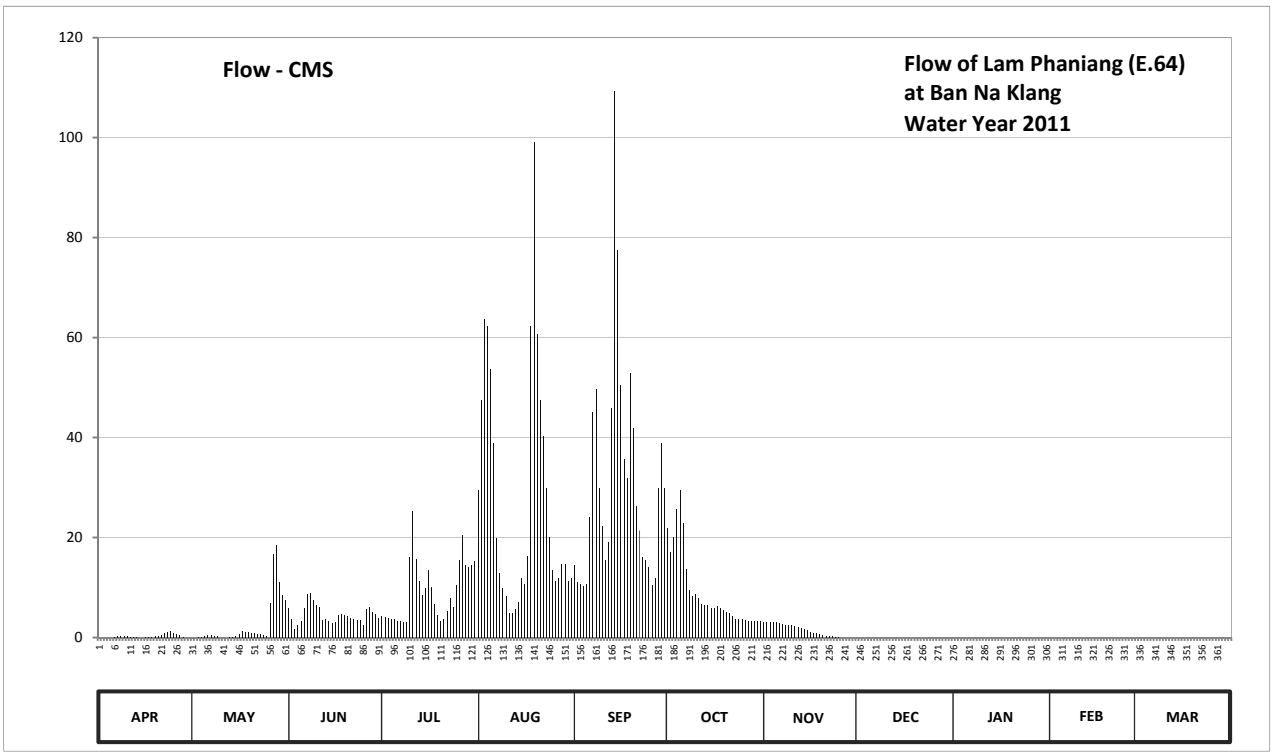
Location : on right bank at the bridge of Udon Thani - Loei Highway.

	Ban Na Klang	**Amphoe** Na Wang		**Changwat** Nong Bua Lamphu	
Drainge Area	362 sq.km.				
Type of Gage	Staff gage				
Zero Gage at Bottom	+254.473 m. (MSL.)				
Bench Mark	B.M.- Highways Dept.				
Location BM	On right bank downstream side at the footpath of the bridge.			**Elevation**	+261.680 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.				
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings				
Period of Available Gage Records	1979 to date				
Rating Operation					
Period of Rating	1979 - 1980 , 1997 to date				
Rated by Flot	-				
Rated by Current Meter	1979 - 1980 , 1997 to date				
Stability of Channel Regimes	Fairly stable.				
Overbank Flow Conditions	Overbank flow starts at elevation +257.880 m.(MSL.), records are channel flow only.				
General Description	Records good. The concrete weir situated downstream from the gage site.				
	Stage-discharge relation defined by 18 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	256.93	256.96	257.72	257.57	258.95	258.40	258.70	257.45	256.97	256.76	256.84	256.85	
2	256.94	256.99	257.51	257.55	259.21	258.15	258.54	257.45	256.96	256.76	256.84	256.85	
3	256.97	257.01	257.25	257.54	259.42	258.12	258.64	257.45	256.94	256.76	256.84	256.84	
4	256.98	257.02	257.35	257.52	259.40	258.09	258.82	257.45	256.93	256.77	256.84	256.84	
5	257.00	257.04	257.48	257.51	259.29	258.12	258.95	257.44	256.91	256.78	256.84	256.84	
6	257.02	257.06	257.71	257.48	259.10	258.77	258.73	257.42	256.90	256.78	256.84	256.83	
7	257.03	257.06	257.97	257.47	258.63	259.18	258.34	257.39	256.89	256.78	256.84	256.83	
8	257.04	257.04	258.00	257.44	258.28	259.24	258.04	257.36	256.90	256.78	256.83	256.82	
9	257.03	257.03	257.86	257.43	258.07	258.96	257.93	257.36	256.87	256.79	256.83	256.82	
10	257.03	257.00	257.78	258.50	257.93	258.71	257.98	257.35	256.86	256.79	256.83	256.81	
11	257.02	256.99	257.73	258.81	257.63	258.46	257.89	257.33	256.84	256.80	256.83	256.81	
12	257.01	256.99	257.50	258.48	257.62	258.60	257.79	257.30	256.84	256.81	256.83	256.81	
13	257.01	257.01	257.52	258.17	257.70	259.19	257.77	257.26	256.83	256.81	256.83	256.81	
14	257.00	257.01	257.46	257.95	257.82	259.72	257.77	257.23	256.82	256.82	256.83	256.81	
15	257.00	257.05	257.42	258.06	258.21	259.55	257.72	257.20	256.81	256.83	256.83	256.81	
16	257.01	257.11	257.45	258.32	258.12	259.25	257.71	257.17	256.81	256.83	256.82	256.82	
17	257.02	257.18	257.59	258.08	258.51	259.06	257.76	257.14	256.80	256.84	256.82	256.82	
18	257.02	257.16	257.61	257.79	259.40	259.01	257.72	257.12	256.80	256.84	256.82	256.82	
19	257.03	257.15	257.59	257.59	259.67	259.28	257.68	257.09	256.79	256.84	256.82	256.82	
20	257.04	257.14	257.57	257.46	259.38	259.14	257.65	257.07	256.79	256.84	256.83	256.82	
21	257.08	257.13	257.54	257.51	259.21	258.84	257.63	257.05	256.79	256.85	256.83	256.81	
22	257.12	257.11	257.52	257.66	259.12	258.68	257.58	257.04	256.78	256.85	256.83	256.81	
23	257.17	257.10	257.50	257.89	258.96	258.50	257.52	257.03	256.78	256.85	256.83	256.81	
24	257.18	257.07	257.49	257.74	258.64	258.46	257.51	257.02	256.78	256.85	256.83	256.80	
25	257.14	257.05	257.36	258.10	258.32	258.36	257.52	257.01	256.78	256.85	256.83	256.80	
26	257.10	257.80	257.69	258.47	258.16	258.11	257.50	257.00	256.78	256.86	256.84	256.80	
27	257.06	258.52	257.74	258.65	258.21	258.21	257.48	257.00	256.78	256.86	256.84	256.80	
28	257.02	258.58	257.65	258.40	258.41	258.96	257.48	256.99	256.77	256.85	256.85	256.80	
29	256.99	258.15	257.60	258.36	258.41	259.10	257.47	256.99	256.77	256.85	256.85	256.79	
30	256.97	257.95	257.53	258.39	258.17	258.96	257.47	256.98	256.77	256.84		256.79	
31		257.87		258.45	258.20		257.46		256.77	256.84		256.79	
Mean	257.03	257.27	257.59	257.95	258.59	258.77	257.90	257.20	256.83	256.82	256.83	256.82	
Max	257.18	258.58	258.00	258.81	259.67	259.72	258.95	257.45	256.97	256.86	256.85	256.85	259.72
Min	256.93	256.96	257.25	257.43	257.62	258.09	257.46	256.98	256.77	256.76	256.82	256.79	256.76

Annual Max Momentary Gage Height	259.82	m. (MSL.) ,	at 18.00 Hours, on Sep 14, 2011		
Zero Gage at Bottom Elevation	254.47	m. (MSL.) ,	River Bed	254.24	m. (MSL)
Left Bank Elevation	257.87	m. (MSL.) ,			
Right Bank Elevation	258.12	m. (MSL.) ,	Drainage Area	362	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	5.92	4.27	29.50	14.60	22.00	3.15	0.00	0.00	0.00	0.00		
2	0.00	0.00	3.61	4.05	47.38	11.10	17.20	3.15	0.00	0.00	0.00	0.00		
3	0.00	0.07	1.75	3.94	63.76	10.68	20.20	3.15	0.00	0.00	0.00	0.00		
4	0.00	0.14	2.45	3.72	62.20	10.26	25.60	3.15	0.00	0.00	0.00	0.00		
5	0.00	0.28	3.36	3.61	53.62	10.68	29.50	3.08	0.00	0.00	0.00	0.00		
6	0.14	0.42	5.81	3.36	38.80	24.10	22.90	2.94	0.00	0.00	0.00	0.00		
7	0.21	0.42	8.67	3.29	19.90	45.04	13.76	2.73	0.00	0.00	0.00	0.00		
8	0.28	0.28	9.00	3.08	12.92	49.72	9.56	2.52	0.00	0.00	0.00	0.00		
9	0.21	0.21	7.46	3.01	9.98	29.80	8.23	2.52	0.00	0.00	0.00	0.00		
10	0.21	0.00	6.58	16.00	8.23	22.30	8.78	2.45	0.00	0.00	0.00	0.00		
11	0.14	0.00	6.03	25.30	4.93	15.44	7.79	2.31	0.00	0.00	0.00	0.00		
12	0.07	0.00	3.50	15.72	4.82	19.00	6.69	2.10	0.00	0.00	0.00	0.00		
13	0.07	0.07	3.72	11.38	5.70	45.82	6.47	1.82	0.00	0.00	0.00	0.00		
14	0.00	0.07	3.22	8.45	7.02	109.40	6.47	1.61	0.00	0.00	0.00	0.00		
15	0.00	0.35	2.94	9.84	11.94	77.50	5.92	1.40	0.00	0.00	0.00	0.00		
16	0.07	0.77	3.15	13.48	10.68	50.50	5.81	1.19	0.00	0.00	0.00	0.00		
17	0.14	1.26	4.49	10.12	16.30	35.68	6.36	0.98	0.00	0.00	0.00	0.00		
18	0.14	1.12	4.71	6.69	62.20	31.78	5.92	0.84	0.00	0.00	0.00	0.00		
19	0.21	1.05	4.49	4.49	99.00	52.84	5.48	0.63	0.00	0.00	0.00	0.00		
20	0.28	0.98	4.27	3.22	60.64	41.92	5.15	0.49	0.00	0.00	0.00	0.00		
21	0.56	0.91	3.94	3.61	47.38	26.20	4.93	0.35	0.00	0.00	0.00	0.00		
22	0.84	0.77	3.72	5.26	40.36	21.40	4.38	0.28	0.00	0.00	0.00	0.00		
23	1.19	0.70	3.50	7.79	29.80	16.00	3.72	0.21	0.00	0.00	0.00	0.00		
24	1.26	0.49	3.43	6.14	20.20	15.44	3.61	0.14	0.00	0.00	0.00	0.00		
25	0.98	0.35	2.52	10.40	13.48	14.04	3.72	0.07	0.00	0.00	0.00	0.00		
26	0.70	6.80	5.59	15.58	11.24	10.54	3.50	0.00	0.00	0.00	0.00	0.00		
27	0.42	16.60	6.14	20.50	11.94	11.94	3.36	0.00	0.00	0.00	0.00	0.00		
28	0.14	18.40	5.15	14.60	14.74	29.80	3.36	0.00	0.00	0.00	0.00	0.00		
29	0.00	11.10	4.60	14.04	14.74	38.80	3.29	0.00	0.00	0.00	0.00	0.00		
30	0.00	8.45	3.83	14.46	11.38	29.80	3.29	0.00	0.00	0.00		0.00		
31		7.57		15.30	11.80		3.22		0.00	0.00		0.00		
Total	8.26	79.63	137.55	284.70	856.58	922.12	280.17	43.26	0.00	0.00	0.00	0.00	2612.27	CMSDAY
Mean	0.28	2.57	4.59	9.18	27.63	30.74	9.04	1.44	0.00	0.00	0.00	0.00	7.14	CMS
Max	1.26	18.40	9.00	25.30	99.00	109.40	29.50	3.15	0.00	0.00	0.00	0.00	109.40	CMS
Min	0.00	0.00	1.75	3.01	4.82	10.26	3.22	0.00	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	0.71	6.88	11.88	24.60	74.01	79.67	24.21	3.74	0.00	0.00	0.00	0.00	225.70	MCM

Momentary Peak 132.61 CMS, at 259.82 m. (MSL), at 18.00 Hours, on Sep 14, 2011

Runoff Yield 19.72 Liters/Second/Square KM. Momentary Peak Yield 366.326 Liters/Second/Square KM.

WATER YEAR : 2011

CHI RIVER BASIN

Chi River at Ban Muang Lat , Roi Et (E.66A)

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

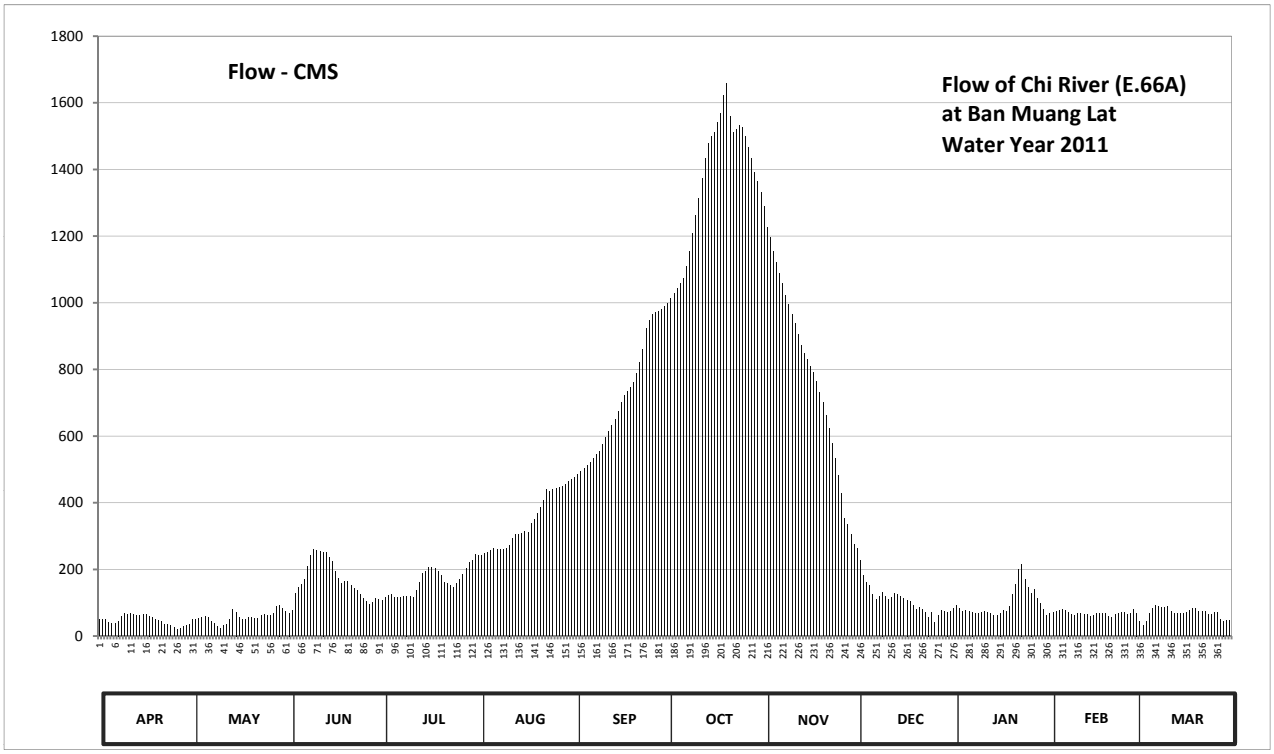
Location : on right bank at the bridge.

	Ban Muang Lat	**Amphoe** Chang Han	**Changwat** Roi Et
Drainge Area	31,879 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+126.900 m. (MSL.)		
Bench Mark	B.M.- Highways Dept.		
Location BM	On right bank at the abutment of the bridge.		**Elevation** +143.406 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings		
Period of Available Gage Records	1999 to date		
Rating Operation			
Period of Rating	1999 to date		
Rated by Flot	-		
Rated by Current Meter	1999 to date		
Stability of Channel Regimes	Fairly stable because of backwater effect.		
Overbank Flow Conditions	Overbank flow starts at elevation +138.610 m.(MSL.) , records are channel flow only.		
General Description	Records fair. Stage-discharge relation defined by 30 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	130.94	130.97	131.32	131.30	133.50	136.69	139.40	139.92	133.81	131.55	131.28	131.32	
2	130.95	130.95	131.45	131.43	133.51	136.77	139.43	139.82	133.28	131.69	131.33	130.83	
3	130.93	131.03	131.66	131.55	133.57	136.89	139.46	139.77	132.61	131.54	131.42	130.51	
4	130.71	131.06	132.00	131.62	133.63	137.00	139.49	139.70	132.25	131.38	131.48	130.82	
5	130.65	131.12	132.16	131.45	133.73	137.09	139.52	139.64	132.10	131.44	131.49	131.30	
6	130.70	131.04	132.39	131.45	133.79	137.19	139.55	139.58	132.18	131.42	131.44	131.56	
7	130.84	130.81	133.02	131.45	133.77	137.29	139.62	139.52	132.00	131.37	131.37	131.70	
8	131.11	130.66	133.49	131.49	133.76	137.40	139.70	139.45	132.11	131.30	131.26	131.67	
9	131.27	130.43	133.75	131.54	133.76	137.49	139.79	139.39	132.30	131.28	131.19	131.60	
10	131.26	130.30	133.72	131.50	133.80	137.69	139.88	139.33	132.13	131.35	131.28	131.61	
11	131.29	130.53	133.68	131.47	133.96	137.87	139.96	139.27	132.01	131.38	131.31	131.65	
12	131.25	130.62	133.65	131.82	134.23	138.01	140.05	139.20	132.07	131.34	131.22	131.42	
13	131.18	130.93	133.64	132.23	134.42	138.13	140.14	139.13	132.22	131.31	131.22	131.27	
14	131.18	131.52	133.40	132.67	134.43	138.25	140.21	139.07	132.21	131.18	131.14	131.31	
15	131.22	131.37	133.22	132.80	134.46	138.39	140.24	139.01	132.11	131.16	131.20	131.28	
16	131.21	131.06	132.77	132.97	134.54	138.53	140.26	138.94	132.04	131.32	131.27	131.27	
17	131.15	130.97	132.47	132.95	134.52	138.62	140.30	138.88	131.97	131.45	131.31	131.36	
18	131.05	130.96	132.21	132.93	134.88	138.67	140.34	138.78	131.88	131.43	131.29	131.44	
19	130.96	131.05	132.31	132.79	135.02	138.72	140.42	138.66	131.70	131.67	131.27	131.57	
20	130.86	131.04	132.31	132.58	135.26	138.77	140.47	138.52	131.53	132.19	131.14	131.56	
21	130.80	131.02	132.11	132.25	135.54	138.87	140.33	138.33	131.62	132.59	131.09	131.38	
22	130.63	131.00	131.95	132.22	135.81	138.98	140.26	138.06	131.53	133.16	131.23	131.38	
23	130.60	131.18	131.84	132.09	136.22	139.10	140.27	137.73	131.35	133.34	131.30	131.39	
24	130.56	131.26	131.62	132.03	136.16	139.24	140.29	137.29	131.10	132.78	131.33	131.25	
25	130.34	131.17	131.42	132.21	136.23	139.29	140.28	136.74	131.36	132.50	131.33	131.22	
26	130.14	131.19	131.20	132.39	136.26	139.33	140.24	136.07	130.77	132.26	131.23	131.34	
27	130.24	131.27	131.03	132.65	136.29	139.34	140.19	135.07	131.16	132.40	131.27	131.34	
28	130.50	131.67	131.17	132.93	136.33	139.35	140.14	134.82	131.48	132.05	131.53	130.98	
29	130.55	131.73	131.42	133.17	136.41	139.36	140.08	134.44	131.41	131.78	131.56	130.84	
30	130.59	131.56	131.36	133.29	136.52	139.38	140.04	133.99	131.37	131.50		130.87	
31		131.41		133.52	136.61		139.99		131.40	131.18		130.90	
Mean	130.86	131.06	132.32	132.22	134.87	138.26	140.01	138.27	131.91	131.75	131.30	131.29	
Max	131.29	131.73	133.75	133.52	136.61	139.38	140.47	139.92	133.81	133.34	131.56	131.70	140.47
Min	130.14	130.30	131.03	131.30	133.50	136.69	139.40	133.99	130.77	131.16	131.09	130.51	130.14

Annual Max Momentary Gage Height	140.50	m. (MSL.) ,	at 06.00 Hours, on Oct 20, 2011		
Zero Gage at Bottom Elevation	126.90	m. (MSL.) ,	River Bed	127.15	m. (MSL)
Left Bank Elevation	138.60	m. (MSL.) ,			
Right Bank Elevation	139.07	m. (MSL.) ,	Drainage Area	31879	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	49.40	50.70	69.30	107.60	242.00	478.00	1000.00	1288.80	263.10	82.10	67.10	69.30		
2	49.80	49.80	76.30	114.40	242.70	484.70	1014.40	1226.40	227.00	90.80	69.80	44.50		
3	48.90	53.60	126.60	120.70	246.80	494.80	1028.80	1196.00	183.00	81.50	74.70	30.40		
4	39.20	55.20	145.00	124.50	250.80	504.00	1043.20	1154.00	160.50	72.50	77.90	44.10		
5	36.60	58.50	154.90	115.40	257.60	513.00	1058.40	1121.60	151.20	75.80	78.50	68.20		
6	38.80	54.20	169.20	115.40	261.70	523.00	1074.00	1089.60	123.30	74.70	75.80	82.70		
7	45.00	43.60	209.40	115.40	260.40	533.00	1110.80	1058.40	110.00	72.00	72.00	91.40		
8	57.90	37.00	241.30	117.50	259.70	544.00	1154.00	1024.00	118.10	68.20	66.00	89.50		
9	66.60	27.80	259.00	120.20	259.70	553.00	1208.00	995.20	132.20	67.10	62.30	85.20		
10	66.00	23.60	257.00	118.00	262.40	574.80	1263.60	966.40	119.60	70.90	67.10	85.80		
11	67.70	31.30	254.20	116.40	273.30	596.40	1314.40	938.20	110.70	72.50	68.70	88.30		
12	65.50	35.30	252.20	135.30	291.60	615.40	1373.00	906.00	115.20	70.40	63.90	74.70		
13	61.70	48.90	251.50	159.30	304.60	632.20	1432.80	873.80	126.30	68.70	63.90	66.60		
14	61.70	80.20	235.20	186.90	305.20	650.00	1479.80	849.80	125.50	61.70	59.60	68.70		
15	63.90	72.00	223.00	195.20	307.30	674.20	1500.20	829.40	118.10	60.60	62.80	67.10		
16	63.30	55.20	193.30	206.10	313.00	702.60	1513.80	808.60	113.00	69.30	66.60	66.60		
17	60.10	50.70	174.10	204.80	311.50	722.80	1541.00	791.40	108.10	76.30	68.70	71.40		
18	54.70	50.20	158.00	203.50	338.10	734.80	1568.60	763.60	102.60	75.20	67.70	75.80		
19	50.20	54.70	164.20	194.60	348.50	747.40	1624.00	732.40	91.40	89.50	66.60	83.30		
20	45.80	54.20	164.20	181.10	366.20	760.90	1659.00	700.40	80.90	124.10	59.60	82.70		
21	43.20	53.10	151.80	160.50	387.00	788.60	1561.70	663.40	86.40	154.00	56.90	72.50		
22	35.70	52.00	142.30	158.60	407.60	820.20	1513.80	622.40	80.90	200.10	64.40	72.50		
23	34.40	61.70	136.40	150.60	439.60	860.00	1520.60	579.60	70.90	215.90	68.20	73.10		
24	32.60	66.00	124.50	146.90	434.80	924.40	1534.20	533.00	57.40	168.80	69.80	65.50		
25	24.90	61.20	113.80	158.00	440.40	947.40	1527.40	482.20	71.40	147.00	69.80	63.90		
26	18.50	62.30	102.40	169.20	442.80	966.40	1500.20	427.60	41.90	129.20	64.40	70.40		
27	21.70	66.60	93.60	185.60	445.20	971.20	1466.30	352.20	60.60	139.60	66.60	70.40		
28	30.00	89.50	100.80	203.50	448.40	976.00	1432.80	333.70	77.90	113.70	80.90	51.10		
29	32.20	93.30	113.80	219.60	454.80	980.80	1392.80	305.90	74.10	96.40	82.70	45.00		
30	34.00	82.70	110.70	227.70	463.70	990.40	1366.40	275.30	72.00	79.00		46.30		
31		74.10		243.40	471.20		1333.60		73.60	61.70		47.60		
Total	1400.00	1749.20	4968.00	4975.90	10538.60	21264.40	42111.60	23889.30	3446.90	3029.30	1983.00	2114.60	121470.80	CMSDAY
Mean	46.70	56.40	165.60	160.50	340.00	708.80	1358.40	796.30	111.20	97.70	68.40	68.20	331.90	CMS
Max	67.70	93.30	259.00	243.40	471.20	990.40	1659.00	1288.80	263.10	215.90	82.70	91.40	1659.00	CMS
Min	18.50	23.60	69.30	107.60	242.00	478.00	1000.00	275.30	41.90	60.60	56.90	30.40	18.50	CMS
Runoff	120.96	151.13	429.24	429.92	91.54	1837.24	3638.44	2064.04	297.81	261.73	171.33	182.70	10495.08	MCM

Momentary Peak 1680.00 CMS, at 140.50 m. (MSL), at 06.00 Hours, on Oct 20, 2011

Runoff Yield 10.41 Liters/Second/Square KM. Momentary Peak Yield 52.699 Liters/Second/Square KM.

WATER YEAR : 2011

CHI RIVER BASIN

Lam Phaniang at Ban Khong Po , Nong Bua Lamphu (E.68A)

Lat 17 - 04 - 47 N Long 102 - 27 - 11 E

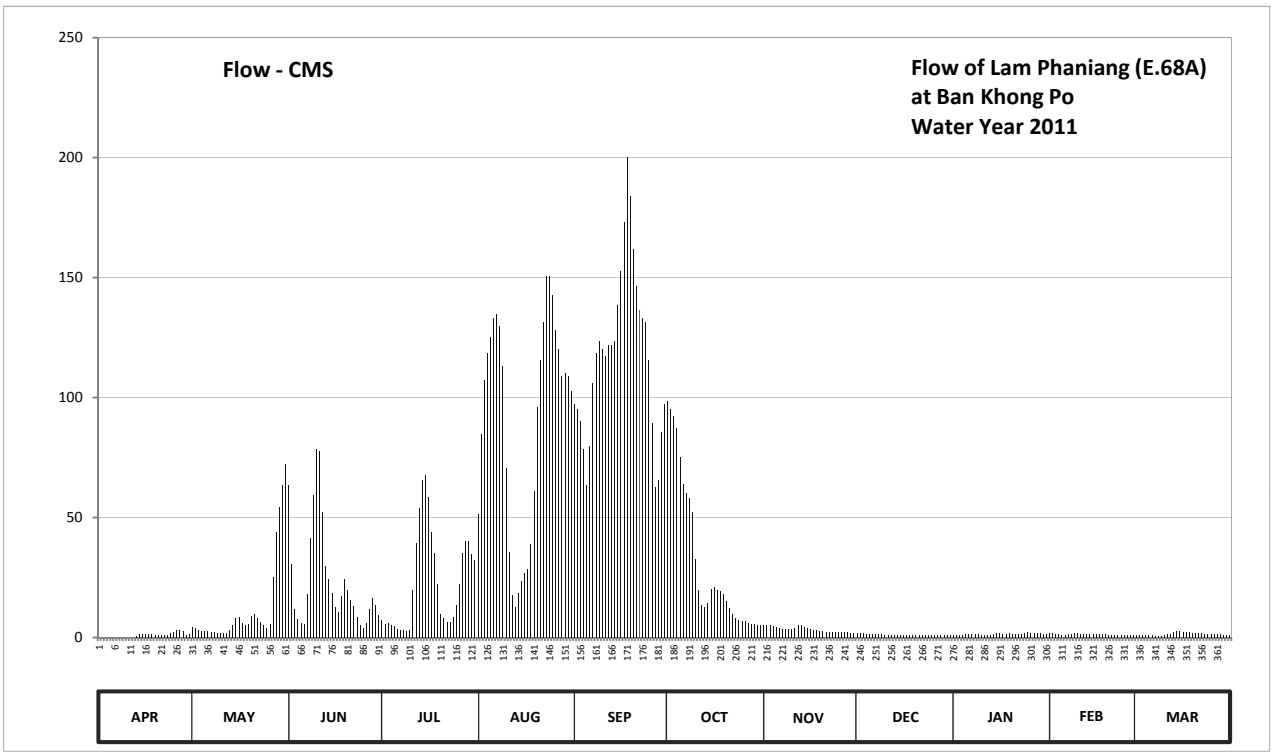
Location : on left bank at the bridge of Nong Bua Lamphu - Amphoe Non Sang Highway.

	Ban Khong Po	**Amphoe** Mueang		**Changwat** Nong Bua Lamphu	
Drainge Area	1,364 sq.km.				
Type of Gage	Staff gage				
Zero Gage at Bottom	+194.730 m. (MSL.)				
Bench Mark	B.M.- Highways Dept.				
Location BM	On left bank downstream site at the footpath of the bridge.			**Elevation**	+201.740 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.				
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings				
Period of Available Gage Records	1997 to date				
Rating Operation					
Period of Rating	1997 to date				
Rated by Flot	-				
Rated by Current Meter	1997 to date				
Stability of Channel Regimes	Fairly stable.				
Overbank Flow Conditions	Overbank flow starts at elevation +198.050 m.(MSL.) , records are channel flow only.				
General Description	Records Fair. The concrete weir situated downstream from the gage site.				
	Stage-discharge relation defined by 21 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	196.29	197.13	199.08	197.31	198.82	199.52	199.53	197.19	196.88	196.78	196.88	196.79	
2	196.29	197.09	198.25	197.22	199.39	199.50	199.50	197.17	196.88	196.78	196.87	196.78	
3	196.28	197.01	197.57	197.24	199.61	199.45	199.47	197.17	196.88	196.78	196.86	196.78	
4	196.28	196.96	197.35	197.19	199.69	199.31	199.42	197.16	196.85	196.79	196.84	196.78	
5	196.28	196.96	197.23	197.14	199.73	199.08	199.27	197.12	196.83	196.86	196.82	196.78	
6	196.27	196.96	197.22	197.07	199.78	199.33	199.09	197.09	196.83	196.86	196.82	196.77	
7	196.27	196.93	197.82	196.99	199.79	199.60	199.01	197.07	196.84	196.83	196.83	196.76	
8	196.27	196.91	198.57	197.01	199.76	199.69	198.97	197.06	196.86	196.83	196.86	196.74	
9	196.27	196.89	199.00	196.97	199.65	199.72	198.84	197.06	196.83	196.83	196.88	196.74	
10	196.27	196.90	199.31	197.01	199.21	199.70	198.32	197.07	196.82	196.81	196.87	196.80	
11	196.26	196.89	199.30	197.89	198.40	199.68	197.89	197.11	196.82	196.80	196.86	196.83	
12	196.28	196.89	198.84	198.51	197.80	199.71	197.65	197.18	196.82	196.77	196.84	196.85	
13	196.71	196.99	198.22	198.88	197.61	199.71	197.61	197.17	196.82	196.81	196.83	196.93	
14	196.84	197.18	198.04	199.12	197.85	199.72	197.67	197.12	196.82	196.84	196.83	196.98	
15	196.84	197.36	197.84	199.16	198.02	199.81	197.90	197.08	196.82	196.87	196.83	196.98	
16	196.83	197.41	197.60	198.98	198.13	199.88	197.94	197.05	196.82	196.88	196.83	196.93	
17	196.83	197.24	197.51	198.64	198.18	199.96	197.89	197.02	196.82	196.86	196.83	196.93	
18	196.83	197.17	197.79	198.39	198.50	200.04	197.88	197.00	196.81	196.84	196.83	196.92	
19	196.82	197.21	198.04	197.97	199.03	200.00	197.82	196.98	196.81	196.87	196.83	196.89	
20	196.81	197.42	197.89	197.46	199.51	199.92	197.70	196.97	196.81	196.86	196.81	196.89	
21	196.80	197.47	197.72	197.38	199.67	199.85	197.58	196.92	196.80	196.86	196.81	196.88	
22	196.80	197.38	197.62	197.27	199.77	199.80	197.47	196.92	196.80	196.83	196.80	196.87	
23	196.82	197.27	197.40	197.27	199.87	199.78	197.37	196.93	196.79	196.83	196.80	196.86	
24	196.89	197.17	197.19	197.40	199.87	199.77	197.32	196.92	196.79	196.88	196.80	196.85	
25	196.92	197.10	197.09	197.65	199.83	199.67	197.29	196.91	196.79	196.91	196.80	196.83	
26	197.02	197.21	197.23	197.98	199.75	199.44	197.28	196.91	196.79	196.90	196.80	196.83	
27	197.02	198.08	197.57	198.39	199.70	199.06	197.23	196.91	196.79	196.90	196.79	196.83	
28	196.97	198.64	197.76	198.53	199.62	199.12	197.21	196.91	196.79	196.90	196.79	196.83	
29	196.80	198.89	197.65	198.54	199.63	199.40	197.20	196.90	196.79	196.89	196.79	196.82	
30	196.83	199.08	197.44	198.38	199.62	199.52	197.18	196.90	196.78	196.86		196.82	
31		199.23		198.31	199.57		197.19		196.78	196.86		196.81	
Mean	196.62	197.39	197.90	197.85	199.21	199.62	198.05	197.03	196.82	196.84	196.83	196.84	
Max	197.02	199.23	199.31	199.16	199.87	200.04	199.53	197.19	196.88	196.91	196.88	196.98	200.04
Min	196.26	196.89	197.09	196.97	197.61	199.06	197.18	196.90	196.78	196.77	196.79	196.74	196.26

Annual Max Momentary Gage Height	200.06	m. (MSL.) ,	at 16.00 Hours, on Sep 18, 2011			
Zero Gage at Bottom Elevation	194.73	m. (MSL.) ,	River Bed	193.47	m. (MSL)	
Left Bank Elevation	198.04	m. (MSL.) ,				
Right Bank Elevation	199.12	m. (MSL.) ,	Drainage Area	1364	Square Kilometers	



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	4.45	63.50	7.15	51.40	97.20	98.30	5.35	1.80	0.90	1.80	0.95		
2	0.00	3.90	30.50	5.80	84.70	95.00	95.00	5.05	1.80	0.90	1.70	0.90		
3	0.00	3.10	11.90	6.10	107.40	90.25	92.15	5.05	1.80	0.90	1.60	0.90		
4	0.00	2.60	7.75	5.35	118.60	78.30	87.40	4.90	1.50	0.95	1.40	0.90		
5	0.00	2.60	5.95	4.60	124.95	63.50	75.25	4.30	1.30	1.60	1.20	0.90		
6	0.00	2.60	5.80	3.70	133.20	79.90	64.00	3.90	1.30	1.60	1.20	0.85		
7	0.00	2.30	18.00	2.90	134.85	106.00	60.00	3.70	1.40	1.30	1.30	0.80		
8	0.00	2.10	41.45	3.10	129.90	118.60	58.15	3.60	1.60	1.30	1.60	0.70		
9	0.00	1.90	59.50	2.70	113.00	123.30	52.30	3.60	1.30	1.30	1.80	0.70		
10	0.00	2.00	78.30	3.10	70.75	120.00	32.70	3.70	1.20	1.10	1.70	1.00		
11	0.00	1.90	77.50	19.75	35.50	117.20	19.75	4.15	1.20	1.00	1.60	1.30		
12	0.00	1.90	52.30	39.35	17.50	121.65	13.75	5.20	1.20	0.85	1.40	1.50		
13	0.55	2.90	29.60	54.10	12.75	121.65	12.75	5.05	1.20	1.10	1.30	2.30		
14	1.40	5.20	24.20	65.60	18.75	123.30	14.25	4.30	1.20	1.40	1.30	2.80		
15	1.40	7.90	18.50	67.80	23.60	138.50	20.00	3.80	1.20	1.70	1.30	2.80		
16	1.30	8.70	12.50	58.60	26.90	152.50	21.20	3.50	1.20	1.80	1.30	2.30		
17	1.30	6.10	10.70	44.10	28.40	173.00	19.75	3.20	1.20	1.60	1.30	2.30		
18	1.30	5.05	17.25	35.15	39.00	200.40	19.50	3.00	1.10	1.40	1.30	2.20		
19	1.20	5.65	24.20	22.10	61.00	184.00	18.00	2.80	1.10	1.70	1.30	1.90		
20	1.10	8.90	19.75	9.70	96.10	162.00	15.00	2.70	1.10	1.60	1.10	1.90		
21	1.00	9.90	15.50	8.20	115.80	146.50	12.10	2.20	1.00	1.60	1.10	1.80		
22	1.00	8.20	13.00	6.55	131.55	136.50	9.90	2.20	1.00	1.30	1.00	1.70		
23	1.20	6.55	8.50	6.55	150.50	133.20	8.05	2.30	0.95	1.30	1.00	1.60		
24	1.90	5.05	5.35	8.50	150.50	131.55	7.30	2.20	0.95	1.80	1.00	1.50		
25	2.20	4.00	3.90	13.75	142.50	115.80	6.85	2.10	0.95	2.10	1.00	1.30		
26	3.20	5.65	5.95	22.40	128.25	89.30	6.70	2.10	0.95	2.00	1.00	1.30		
27	3.20	25.40	11.90	35.15	120.00	62.50	5.95	2.10	0.95	2.00	0.95	1.30		
28	2.70	44.10	16.50	40.05	108.80	65.60	5.65	2.10	0.95	2.00	0.95	1.30		
29	1.00	54.55	13.75	40.40	110.20	85.50	5.50	2.00	0.95	1.90	0.95	1.20		
30	1.30	63.50	9.30	34.80	108.80	97.20	5.20	2.00	0.90	1.60		1.20		
31		72.25		32.35	102.70		5.35		0.90	1.60		1.10		
Total	28.25	380.90	712.80	709.45	2797.85	3529.90	967.75	102.15	37.15	45.20	37.45	45.20	9394.05	CMSDAY
Mean	0.94	12.29	23.76	22.89	90.25	117.66	31.22	3.40	1.20	1.46	1.29	1.46	25.67	CMS
Max	3.20	72.25	78.30	67.80	150.50	200.40	98.30	5.35	1.80	2.10	1.80	2.80	200.40	CMS
Min	0.00	1.90	3.90	2.70	12.75	62.50	5.20	2.00	0.90	0.85	0.95	0.70	0.00	CMS
Runoff	2.44	32.91	61.59	61.30	241.73	304.98	83.61	8.83	3.21	3.91	3.24	3.91	811.65	MCM

Momentary Peak 208.60 CMS, at 200.06 m. (MSL), at 16.00 Hours, on Sep 18, 2011

Runoff Yield 18.82 Liters/Second/Square KM. Momentary Peak Yield 152.933 Liters/Second/Square KM.

WATER YEAR : 2011

CHI RIVER BASIN

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

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

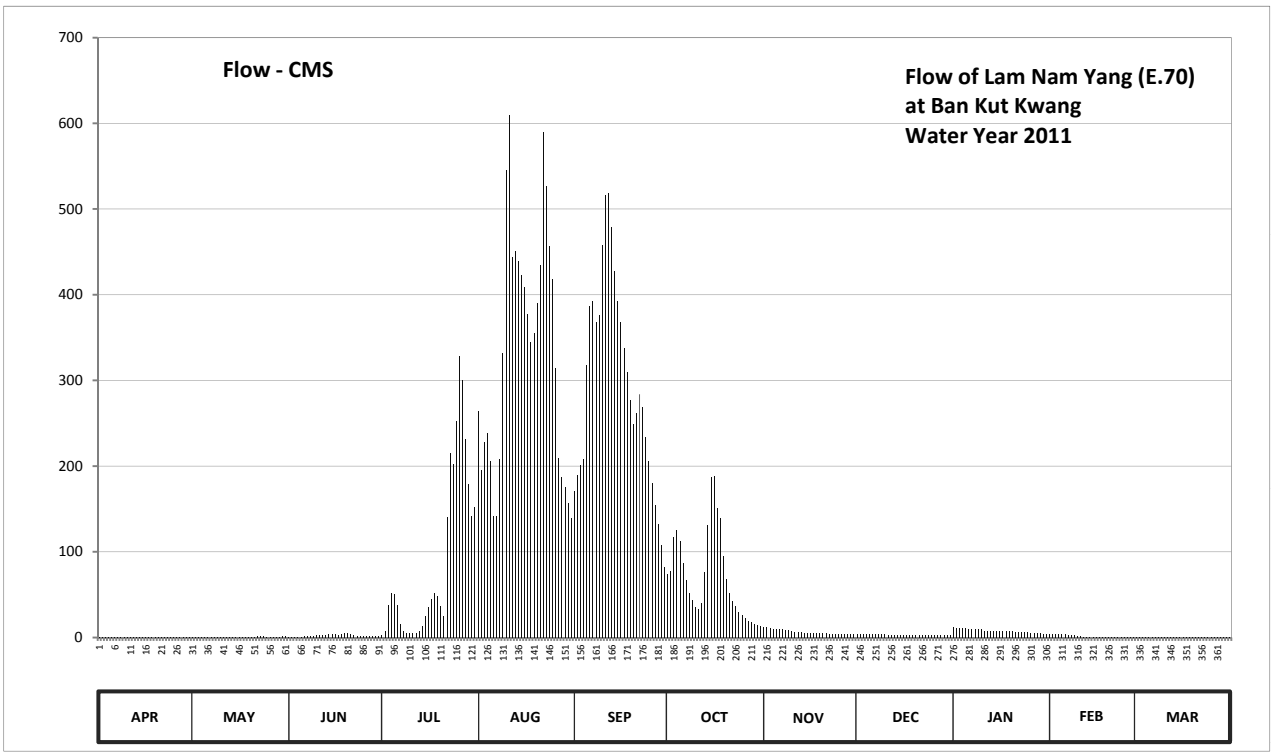
Location : on right bank at the bridge on highway.

	Ban Kut Kwang	**Amphoe** Phon Thong	**Changwat** Roi Et
Drainge Area	2,647 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+132.120 m. (MSL.)		
Bench Mark	B.M.- Highways Dept.		
Location BM	On right bank at the abutment of the bridge.		**Elevation** +144.037 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings		
Period of Available Gage Records	1983 to date		
Rating Operation			
Period of Rating	1984 to date		
Rated by Flot	-		
Rated by Current Meter	1984 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	Overbank flow starts at elevation +138.790 m.(MSL.), records are channel flow only.		
General Description	Records good. Stage-discharge relation defined by 16 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	131.60	131.75	131.93	132.18	137.68	136.25	134.43	132.73	132.21	132.73	132.27	131.92	
2	131.60	131.75	131.93	132.51	136.66	136.55	134.52	132.72	132.21	132.67	132.26	131.92	
3	131.60	131.75	131.96	133.56	137.17	136.75	135.29	132.69	132.21	132.67	132.25	131.92	
4	131.60	131.75	131.96	133.93	137.32	136.87	135.45	132.64	132.21	132.67	132.24	131.92	
5	131.60	131.75	131.98	133.88	136.83	138.46	135.21	132.63	132.21	132.67	132.23	131.92	
6	131.60	131.75	132.04	133.55	135.74	139.32	134.70	132.63	132.21	132.63	132.21	131.92	
7	131.60	131.74	132.06	132.91	135.74	139.39	134.28	132.60	132.21	132.62	132.19	131.92	
8	131.60	131.74	132.09	132.51	136.86	139.08	133.93	132.57	132.21	132.62	132.19	131.92	
9	131.60	131.74	132.08	132.33	138.64	139.19	133.70	132.55	132.21	132.62	132.14	131.92	
10	131.59	131.74	132.16	132.32	140.57	140.12	133.48	132.52	132.21	132.62	132.06	131.92	
11	131.59	131.74	132.17	132.31	140.77	140.47	133.42	132.49	132.20	132.53	132.03	131.92	
12	131.59	131.85	132.15	132.34	139.99	140.48	133.61	132.48	132.20	132.52	132.01	131.92	
13	131.59	131.88	132.17	132.52	140.06	140.27	134.49	132.45	132.20	132.52	132.01	131.92	
14	131.59	131.95	132.22	132.78	139.94	139.83	135.55	132.40	132.20	132.52	132.01	131.92	
15	131.59	131.95	132.25	133.20	139.77	139.39	136.52	132.38	132.20	132.52	132.01	131.92	
16	131.59	131.99	132.24	133.50	139.60	139.09	136.54	132.36	132.20	132.52	132.01	131.92	
17	131.59	131.95	132.19	133.72	139.21	138.70	135.91	132.35	132.20	132.52	132.01	131.92	
18	131.59	131.94	132.24	133.91	138.79	138.34	135.71	132.34	132.20	132.52	132.01	131.92	
19	131.59	131.94	132.30	133.84	138.93	137.87	134.88	132.34	132.20	132.52	132.01	131.92	
20	131.59	131.98	132.32	133.51	139.37	137.47	134.30	132.34	132.20	132.52	132.00	131.92	
21	131.59	132.01	132.28	133.20	139.90	137.66	133.91	132.32	132.19	132.43	132.00	131.92	
22	131.59	132.04	132.12	135.72	140.71	137.97	133.67	132.29	132.19	132.42	131.99	131.92	
23	131.59	132.06	132.06	136.98	140.51	137.76	133.51	132.27	132.19	132.42	131.98	131.92	
24	131.61	132.03	132.07	136.77	140.11	137.26	133.33	132.25	132.19	132.42	131.97	131.92	
25	131.61	131.99	132.08	137.52	139.72	136.83	133.24	132.26	132.19	132.42	131.96	131.92	
26	131.60	131.98	132.08	138.59	138.41	136.40	133.12	132.26	132.19	132.37	131.95	131.92	
27	131.72	131.99	132.08	138.20	136.89	135.97	133.03	132.24	132.19	132.37	131.94	131.92	
28	131.75	132.00	132.08	137.22	136.52	135.57	132.98	132.23	132.19	132.32	131.93	131.92	
29	131.80	132.01	132.08	136.38	136.33	135.12	132.91	132.21	132.19	132.32	131.92	131.92	
30	131.71	132.02	132.07	135.74	136.01	134.61	132.85	132.21	132.19	132.27		131.92	
31		132.03		135.94	135.71		132.79		132.19	132.27		131.92	
Mean	131.62	131.90	132.11	134.31	138.40	137.97	134.23	132.43	132.20	132.51	132.06	131.92	
Max	131.80	132.06	132.32	138.59	140.77	140.48	136.54	132.73	132.21	132.73	132.27	131.92	140.77
Min	131.59	131.74	131.93	132.18	135.71	134.61	132.79	132.21	132.19	132.27	131.92	131.92	131.59

Annual Max Momentary Gage Height	140.92	m. (MSL.) ,	at 12.00 Hours, on Aug 22, 2011		
Zero Gage at Bottom Elevation	132.12	m. (MSL.) ,	River Bed	129.70	m. (MSL)
Left Bank Elevation	140.36	m. (MSL.) ,			
Right Bank Elevation	138.78	m. (MSL.) ,	Drainage Area	2647	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.20	0.50	0.86	3.16	263.60	171.00	73.92	12.06	3.52	12.06	4.24	0.84		
2	0.20	0.50	0.86	7.22	195.60	189.00	77.96	11.84	3.52	10.74	4.12	0.84		
3	0.20	0.50	0.92	38.28	227.90	201.00	116.66	11.18	3.52	10.74	4.00	0.84		
4	0.20	0.50	0.92	52.34	238.40	208.20	125.30	10.08	3.52	10.74	3.88	0.84		
5	0.20	0.50	0.96	50.44	205.80	318.20	112.34	9.86	3.52	10.74	3.76	0.84		
6	0.20	0.50	1.48	37.90	141.44	386.60	86.60	9.86	3.52	9.86	3.52	0.84		
7	0.20	0.48	1.72	16.02	141.44	392.20	67.32	9.20	3.52	9.64	3.28	0.84		
8	0.20	0.48	2.08	7.22	207.60	367.40	52.34	8.54	3.52	9.64	3.28	0.84		
9	0.20	0.48	1.96	4.96	332.20	376.20	43.60	8.10	3.52	9.64	2.68	0.84		
10	0.18	0.48	2.92	4.84	545.40	457.80	35.28	7.44	3.52	9.64	1.72	0.84		
11	0.18	0.48	3.04	4.72	609.40	516.10	33.12	6.88	3.40	7.66	1.36	0.84		
12	0.18	0.70	2.80	5.08	444.00	518.40	40.18	6.76	3.40	7.44	1.12	0.84		
13	0.18	0.76	3.04	7.44	451.00	479.50	76.56	6.40	3.40	7.44	1.12	0.84		
14	0.18	0.90	3.64	13.16	439.00	428.00	130.80	5.80	3.40	7.44	1.12	0.84		
15	0.18	0.90	4.00	25.20	422.60	392.20	187.20	5.56	3.40	7.44	1.12	0.84		
16	0.18	0.98	3.88	36.00	409.00	368.20	188.40	5.32	3.40	7.44	1.12	0.84		
17	0.18	0.90	3.28	44.36	377.80	337.00	150.96	5.20	3.40	7.44	1.12	0.84		
18	0.18	0.88	3.88	51.58	344.20	309.80	139.76	5.08	3.40	7.44	1.12	0.84		
19	0.18	0.88	4.60	48.92	355.40	276.90	95.24	5.08	3.40	7.44	1.12	0.84		
20	0.18	0.96	4.84	36.38	390.60	248.90	68.20	5.08	3.40	7.44	1.00	0.84		
21	0.18	1.12	4.36	25.20	435.00	262.20	51.58	4.84	3.28	6.16	1.00	0.84		
22	0.18	1.48	2.44	140.32	590.20	283.90	42.46	4.48	3.28	6.04	0.98	0.84		
23	0.18	1.72	1.72	214.80	526.20	269.20	36.38	4.24	3.28	6.04	0.96	0.84		
24	0.22	1.36	1.84	202.20	456.40	234.20	29.88	4.00	3.28	6.04	0.94	0.84		
25	0.22	0.98	1.96	252.40	418.60	205.80	26.64	4.12	3.28	6.04	0.92	0.84		
26	0.20	0.96	1.96	328.20	314.70	180.00	22.32	4.12	3.28	5.44	0.90	0.84		
27	0.44	0.98	1.96	300.00	209.40	154.32	19.08	3.88	3.28	5.44	0.88	0.84		
28	0.50	1.00	1.96	231.40	187.20	131.92	17.56	3.76	3.28	4.84	0.86	0.84		
29	0.60	1.12	1.96	178.80	175.80	107.48	16.02	3.52	3.28	4.84	0.84	0.84		
30	0.42	1.24	1.84	141.44	156.60	82.28	14.70	3.52	3.28	4.24		0.84		
31		1.36		152.64	139.76		13.38		3.28	4.24		0.84		
Total	6.92	26.58	73.68	2662.62	10352.24	8853.90	2191.74	195.80	105.28	237.42	54.08	26.04	24786.30	CMSDAY
Mean	0.23	0.86	2.46	85.89	333.94	295.13	70.70	6.53	3.40	7.66	1.86	0.84	67.72	CMS
Max	0.60	1.72	4.84	328.20	609.40	518.40	188.40	12.06	3.52	12.06	4.24	0.84	609.40	CMS
Min	0.18	0.48	0.86	3.16	139.76	82.28	13.38	3.52	3.28	4.24	0.84	0.84	0.18	CMS
Runoff	0.60	2.30	6.37	230.05	894.43	764.98	189.37	16.92	9.10	20.51	4.67	2.25	2141.54	MCM

Momentary Peak 658.80 CMS, at 140.92 m. (MSL), at 12.00 Hours, on Aug 22, 2011

Runoff Yield 25.58 Liters/Second/Square KM. Momentary Peak Yield 248.886 Liters/Second/Square KM.

WATER YEAR : 2011

CHI RIVER BASIN

Lam Chiang at Ban Chiang , Chaiyaphum (E.72)

Lat 16 - 01 - 26 N Long 101 - 30 - 12 E

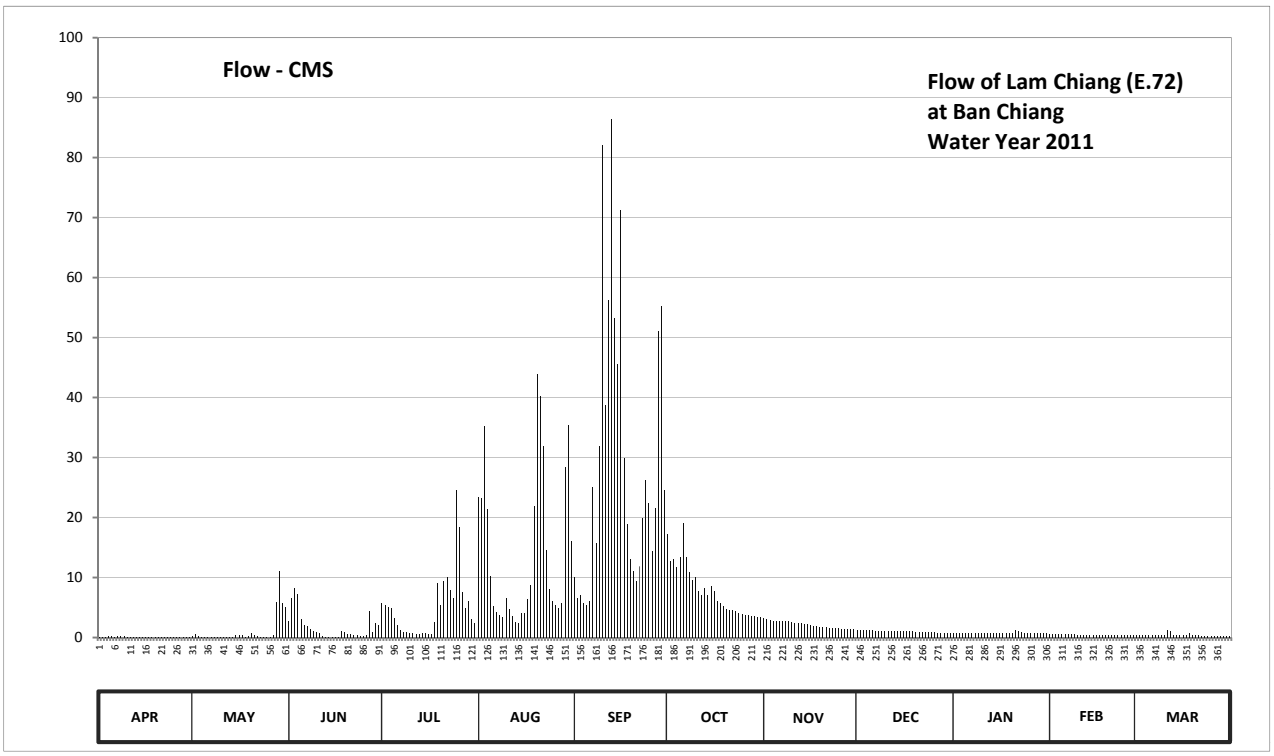
Location : on left bank at Ban Chiang School.

	Ban Chiang	**Amphoe** Phak Di Chumphon	**Changwat** Chaiyaphum		
Drainge Area	323 sq.km.				
Type of Gage	Staff gage				
Zero Gage at Bottom	+234.120 m. (MSL.)				
Bench Mark	B.M.- Highways Dept.				
Location BM	On left bank downstream at the footpath of the bridge.		**Elevation** +243.534 m. (MSL.)		
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.				
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings				
Period of Available Gage Records	1984 to date				
Rating Operation					
Period of Rating	1987 to date				
Rated by Flot	-				
Rated by Current Meter	1987 to date				
Stability of Channel Regimes	Rather unstable.				
Overbank Flow Conditions	Overbank flow starts at elevation +238.790 m.(MSL.), records are channel flow only.				
General Description	Records good. Stage-discharge relation defined by 34 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	234.43	234.60	235.26	235.78	237.76	236.34	237.14	235.36	234.93	234.79	234.74	234.65	
2	234.43	234.72	235.94	235.74	237.75	235.92	236.63	235.32	234.93	234.79	234.74	234.65	
3	234.44	234.56	236.14	235.69	238.75	236.01	236.68	235.28	234.93	234.79	234.73	234.65	
4	234.57	234.52	236.02	235.64	237.59	235.79	236.52	235.25	234.92	234.78	234.73	234.65	
5	234.56	234.53	235.32	235.36	236.36	235.72	236.71	235.24	234.92	234.78	234.72	234.65	
6	234.53	234.51	235.13	235.11	235.71	235.86	237.34	235.24	234.92	234.78	234.72	234.64	
7	234.60	234.50	235.08	234.94	235.54	237.92	236.72	235.24	234.91	234.78	234.71	234.64	
8	234.59	234.49	235.00	234.86	235.46	236.98	236.44	235.24	234.91	234.77	234.71	234.64	
9	234.56	234.49	234.90	234.82	235.37	238.49	236.28	235.24	234.91	234.77	234.70	234.64	
10	234.52	234.51	234.85	234.79	235.92	240.65	236.34	235.20	234.91	234.77	234.69	234.67	
11	234.51	234.50	234.76	234.76	235.62	239.01	236.09	235.19	234.90	234.77	234.69	234.95	
12	234.50	234.50	234.60	234.72	235.41	239.91	236.01	235.18	234.90	234.77	234.69	234.87	
13	234.49	234.49	234.53	234.71	235.22	240.75	236.14	235.17	234.89	234.77	234.68	234.67	
14	234.48	234.50	234.52	234.75	235.17	239.79	236.00	235.16	234.89	234.77	234.68	234.65	
15	234.47	234.67	234.51	234.77	235.51	239.45	236.17	235.15	234.88	234.77	234.68	234.64	
16	234.46	234.65	234.51	234.72	235.52	240.37	236.09	235.12	234.88	234.77	234.68	234.64	
17	234.45	234.63	234.53	234.71	235.91	238.32	235.86	235.09	234.87	234.77	234.68	234.63	
18	234.44	234.53	234.87	235.20	236.20	237.32	235.78	235.07	234.87	234.77	234.68	234.76	
19	234.43	234.54	234.86	236.23	237.63	236.68	235.70	235.06	234.87	234.77	234.67	234.69	
20	234.42	234.80	234.72	235.72	239.36	236.46	235.62	235.05	234.86	234.77	234.67	234.66	
21	234.41	234.66	234.74	236.26	239.11	236.27	235.60	235.04	234.86	234.93	234.67	234.62	
22	234.41	234.58	234.67	236.34	238.49	236.54	235.59	235.03	234.85	234.90	234.66	234.60	
23	234.40	234.53	234.63	236.10	236.85	237.43	235.56	235.02	234.84	234.83	234.66	234.60	
24	234.44	234.47	234.61	235.92	236.13	238.02	235.51	235.02	234.83	234.79	234.66	234.59	
25	234.43	234.47	234.59	237.87	235.86	237.68	235.48	235.01	234.82	234.77	234.66	234.59	
26	234.43	234.48	234.65	237.26	235.75	236.83	235.45	235.00	234.82	234.76	234.66	234.58	
27	234.43	234.66	235.58	236.06	235.64	237.60	235.44	235.00	234.81	234.75	234.66	234.58	
28	234.42	235.82	234.84	235.64	235.80	239.70	235.42	234.99	234.81	234.75	234.65	234.58	
29	234.42	236.46	235.18	235.85	238.20	239.87	235.41	234.98	234.80	234.75	234.65	234.58	
30	234.42	235.78	235.12	235.33	238.76	237.87	235.40	234.98	234.80	234.75		234.58	
31		235.67		235.19	237.00		235.40		234.79	234.75		234.57	
Mean	234.47	234.74	234.96	235.51	236.62	237.85	236.02	235.13	234.87	234.78	234.69	234.65	
Max	234.60	236.46	236.14	237.87	239.36	240.75	237.34	235.36	234.93	234.93	234.74	234.95	240.75
Min	234.40	234.47	234.51	234.71	235.17	235.72	235.40	234.98	234.79	234.75	234.65	234.57	234.40

Annual Max Momentary Gage Height	241.32	m. (MSL.) ,	at 14.00 Hours, on Sep 13, 2011		
Zero Gage at Bottom Elevation	234.12	m. (MSL.) ,	River Bed	234.02	m. (MSL)
Left Bank Elevation	242.95	m. (MSL.) ,			
Right Bank Elevation	238.78	m. (MSL.) ,	Drainage Area	323	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.06	0.30	2.80	5.68	23.36	10.06	17.26	3.30	1.22	0.77	0.62	0.40		
2	0.06	0.56	6.64	5.44	23.25	6.52	12.67	3.10	1.22	0.77	0.62	0.40		
3	0.07	0.22	8.26	5.14	35.25	7.09	13.12	2.90	1.22	0.77	0.59	0.40		
4	0.24	0.14	7.18	4.84	21.49	5.74	11.68	2.75	1.18	0.74	0.59	0.40		
5	0.22	0.16	3.10	3.30	10.24	5.32	13.39	2.70	1.18	0.74	0.56	0.40		
6	0.16	0.12	2.15	2.05	5.26	6.16	19.06	2.70	1.18	0.74	0.56	0.38		
7	0.30	0.10	1.90	1.26	4.24	25.12	13.48	2.70	1.14	0.74	0.53	0.38		
8	0.28	0.10	1.50	0.98	3.80	15.82	10.96	2.70	1.14	0.71	0.53	0.38		
9	0.22	0.10	1.10	0.86	3.35	31.88	9.52	2.70	1.14	0.71	0.50	0.38		
10	0.14	0.12	0.95	0.77	6.52	82.10	10.06	2.50	1.14	0.71	0.48	0.44		
11	0.12	0.10	0.68	0.68	4.72	38.65	7.81	2.45	1.10	0.71	0.48	1.30		
12	0.10	0.10	0.30	0.56	3.55	56.30	7.09	2.40	1.10	0.71	0.48	1.01		
13	0.10	0.10	0.16	0.53	2.60	86.50	8.26	2.35	1.07	0.71	0.46	0.44		
14	0.09	0.10	0.14	0.65	2.35	53.25	7.00	2.30	1.07	0.71	0.46	0.40		
15	0.09	0.44	0.12	0.71	4.06	45.50	8.53	2.25	1.04	0.71	0.46	0.38		
16	0.08	0.40	0.12	0.56	4.12	71.21	7.81	2.10	1.04	0.71	0.46	0.38		
17	0.08	0.36	0.16	0.53	6.46	29.84	6.16	1.95	1.01	0.71	0.46	0.36		
18	0.07	0.16	1.01	2.50	8.80	18.88	5.68	1.85	1.01	0.71	0.46	0.68		
19	0.06	0.18	0.98	9.07	21.93	13.12	5.20	1.80	1.01	0.71	0.44	0.48		
20	0.06	0.80	0.56	5.32	43.90	11.14	4.72	1.75	0.98	0.71	0.44	0.42		
21	0.06	0.42	0.62	9.34	40.15	9.43	4.60	1.70	0.98	1.22	0.44	0.34		
22	0.06	0.26	0.44	10.06	31.88	11.86	4.54	1.65	0.95	1.10	0.42	0.30		
23	0.05	0.16	0.36	7.90	14.65	19.87	4.36	1.60	0.92	0.89	0.42	0.30		
24	0.07	0.09	0.32	6.52	8.17	26.24	4.06	1.60	0.89	0.77	0.42	0.28		
25	0.06	0.09	0.28	24.57	6.16	22.48	3.90	1.55	0.86	0.71	0.42	0.28		
26	0.06	0.09	0.40	18.34	5.50	14.47	3.75	1.50	0.86	0.68	0.42	0.26		
27	0.06	0.42	4.48	7.54	4.84	21.60	3.70	1.50	0.83	0.65	0.42	0.26		
28	0.06	5.92	0.92	4.84	5.80	51.00	3.60	1.46	0.83	0.65	0.40	0.26		
29	0.06	11.14	2.40	6.10	28.40	55.25	3.55	1.42	0.80	0.65	0.40	0.26		
30	0.06	5.68	2.10	3.15	35.38	24.57	3.50	1.42	0.80	0.65		0.26		
31		5.02		2.45	16.00		3.50		0.77	0.65		0.24		
Total	3.20	33.95	52.13	152.24	436.18	876.97	242.52	64.65	31.68	23.12	13.94	12.85	1943.43	CMSDAY
Mean	0.11	1.10	1.74	4.91	14.07	29.23	7.82	2.15	1.02	0.75	0.48	0.41	5.31	CMS
Max	0.30	11.14	8.26	24.57	43.90	86.50	19.06	3.30	1.22	1.22	0.62	1.30	86.50	CMS
Min	0.05	0.09	0.12	0.53	2.35	5.32	3.50	1.42	0.77	0.65	0.40	0.24	0.05	CMS
Runoff	0.28	2.93	4.50	13.15	37.69	75.77	20.95	5.59	2.74	2.00	1.20	1.11	167.91	MCM

Momentary Peak 116.38 CMS, at 241.32 m. (MSL), at 14.00 Hours, on Sep 13, 2011

Runoff Yield 16.44 Liters/Second/Square KM. Momentary Peak Yield 360.310 Liters/Second/Square KM.

WATER YEAR : 2011

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.

Ban Wang Taku **Amphoe** Phak Di Chumphon **Changwat** Chaiyaphum

Drainge Area	251 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+247.240 m. (MSL.)
Bench Mark	B.M.- H.D.
Location BM	On left bank about 2 meters from the top staff gage. **Elevation** +254.832 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings
Period of Available Gage Records	1984 to date
Rating Operation	
Period of Rating	1987 to date
Rated by Flot	-
Rated by Current Meter	1987 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	Overbank flow starts at elevation +254.110 m.(MSL.), records are channel flow only.
General Description	Records fair. The local weir situated about 4 kilometers downstream from the gage site. Stage-discharge relation defined by 27 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

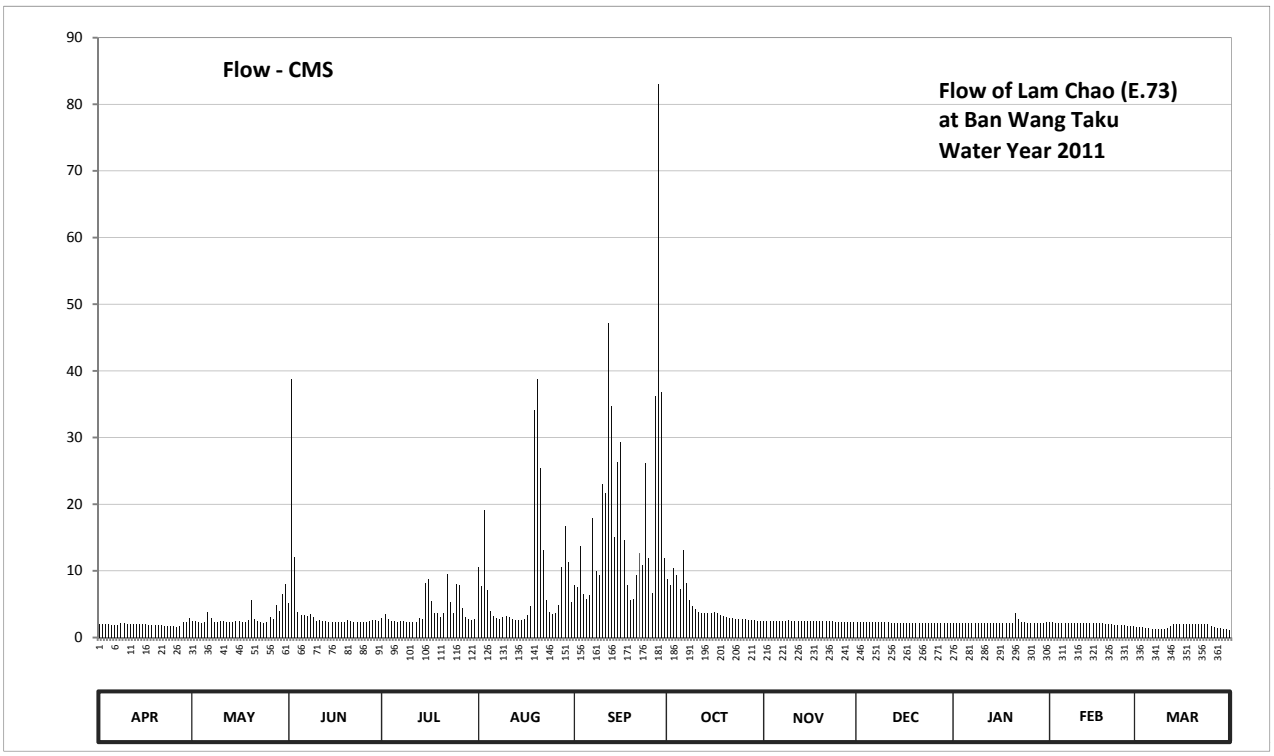
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	249.61	249.69	250.15	249.78	250.71	250.48	250.56	249.71	249.66	249.63	249.65	249.51	
2	249.61	249.70	252.54	249.89	250.47	250.45	250.48	249.70	249.66	249.62	249.65	249.51	
3	249.60	249.65	250.84	249.76	251.37	250.98	250.70	249.71	249.66	249.62	249.64	249.51	
4	249.60	249.63	249.96	249.71	250.39	250.31	250.61	249.70	249.66	249.62	249.64	249.49	
5	249.59	249.65	249.87	249.68	249.99	250.23	250.41	249.70	249.65	249.62	249.64	249.48	
6	249.59	249.97	249.87	249.67	249.84	250.30	250.93	249.70	249.65	249.62	249.64	249.47	
7	249.59	249.78	249.84	249.68	249.77	251.28	250.51	249.70	249.65	249.62	249.64	249.46	
8	249.62	249.67	249.89	249.70	249.76	250.67	250.21	249.71	249.65	249.62	249.64	249.45	
9	249.62	249.66	249.82	249.67	249.80	250.61	250.09	249.73	249.65	249.62	249.64	249.44	
10	249.61	249.69	249.70	249.66	249.85	251.63	250.03	249.71	249.65	249.62	249.64	249.44	
11	249.61	249.68	249.73	249.67	249.82	251.54	249.96	249.70	249.65	249.62	249.63	249.48	
12	249.61	249.66	249.71	249.67	249.76	252.96	249.94	249.70	249.64	249.62	249.62	249.53	
13	249.61	249.65	249.68	249.79	249.73	252.32	249.93	249.70	249.64	249.62	249.62	249.61	
14	249.60	249.66	249.67	249.76	249.72	251.08	249.93	249.70	249.64	249.62	249.62	249.61	
15	249.60	249.71	249.66	250.51	249.73	251.83	249.95	249.70	249.64	249.62	249.62	249.60	
16	249.60	249.71	249.66	250.56	249.74	252.02	249.97	249.70	249.64	249.62	249.62	249.60	
17	249.58	249.66	249.66	250.18	249.87	251.05	249.95	249.70	249.64	249.62	249.62	249.60	
18	249.57	249.65	249.66	249.93	250.09	250.49	249.88	249.69	249.64	249.62	249.62	249.60	
19	249.56	249.73	249.67	249.95	252.28	250.20	249.84	249.69	249.64	249.62	249.61	249.60	
20	249.56	250.21	249.73	249.82	252.54	250.22	249.80	249.68	249.64	249.62	249.60	249.60	
21	249.56	249.75	249.69	249.94	251.78	250.62	249.78	249.68	249.64	249.93	249.60	249.60	
22	249.54	249.70	249.67	250.63	250.93	250.89	249.77	249.69	249.64	249.76	249.59	249.60	
23	249.54	249.66	249.66	250.17	250.20	250.74	249.75	249.68	249.63	249.67	249.58	249.60	
24	249.53	249.64	249.66	249.93	249.97	251.82	249.74	249.67	249.63	249.65	249.57	249.60	
25	249.53	249.66	249.66	250.50	249.89	250.83	249.75	249.67	249.63	249.64	249.56	249.53	
26	249.52	249.80	249.66	250.49	249.93	250.34	249.74	249.67	249.63	249.64	249.55	249.50	
27	249.54	249.74	249.69	250.06	250.11	252.40	249.73	249.67	249.63	249.64	249.55	249.49	
28	249.65	250.10	249.72	249.82	250.71	254.50	249.72	249.66	249.63	249.64	249.55	249.49	
29	249.66	249.99	249.73	249.76	251.19	252.43	249.72	249.66	249.63	249.64	249.54	249.46	
30	249.78	250.32	249.71	249.73	250.78	250.83	249.71	249.66	249.63	249.64		249.44	
31		250.50		249.74	250.17		249.71		249.63	249.65		249.43	
Mean	249.59	249.78	249.87	249.93	250.35	251.20	250.03	249.69	249.64	249.64	249.61	249.53	
Max	249.78	250.50	252.54	250.63	252.54	254.50	250.93	249.73	249.66	249.93	249.65	249.61	254.50
Min	249.52	249.63	249.66	249.66	249.72	250.20	249.71	249.66	249.63	249.62	249.54	249.43	249.43

Annual Max Momentary Gage Height 254.83 m. (MSL.) , at 06.00 Hours, on Sep 28, 2011

Zero Gage at Bottom Elevation 247.24 m. (MSL.) , River Bed 247.60 m. (MSL)

Left Bank Elevation 254.62 m. (MSL.) ,

Right Bank Elevation 254.11 m. (MSL.) , Drainage Area 251 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.05	2.45	5.20	2.90	10.52	7.84	8.72	2.55	2.30	2.15	2.25	1.55		
2	2.05	2.50	38.80	3.45	7.76	7.60	7.84	2.50	2.30	2.10	2.25	1.55		
3	2.00	2.25	12.08	2.80	19.18	13.76	10.40	2.55	2.30	2.10	2.20	1.55		
4	2.00	2.15	3.80	2.55	7.12	6.48	9.32	2.50	2.30	2.10	2.20	1.45		
5	1.95	2.25	3.35	2.40	3.95	5.84	7.28	2.50	2.25	2.10	2.20	1.40		
6	1.95	3.85	3.35	2.35	3.20	6.40	13.16	2.50	2.25	2.10	2.20	1.35		
7	1.95	2.90	3.20	2.40	2.85	17.92	8.12	2.50	2.25	2.10	2.20	1.30		
8	2.10	2.35	3.45	2.50	2.80	10.04	5.68	2.55	2.25	2.10	2.20	1.25		
9	2.10	2.30	3.10	2.35	3.00	9.32	4.72	2.65	2.25	2.10	2.20	1.20		
10	2.05	2.45	2.50	2.30	3.25	23.08	4.24	2.55	2.25	2.10	2.20	1.20		
11	2.05	2.40	2.65	2.35	3.10	21.64	3.80	2.50	2.25	2.10	2.15	1.40		
12	2.05	2.30	2.55	2.35	2.80	47.20	3.70	2.50	2.20	2.10	2.10	1.65		
13	2.05	2.25	2.40	2.95	2.65	34.76	3.65	2.50	2.20	2.10	2.10	2.05		
14	2.00	2.30	2.35	2.80	2.60	15.12	3.65	2.50	2.20	2.10	2.10	2.05		
15	2.00	2.55	2.30	8.12	2.65	26.28	3.75	2.50	2.20	2.10	2.10	2.00		
16	2.00	2.55	2.30	8.72	2.70	29.36	3.85	2.50	2.20	2.10	2.10	2.00		
17	1.90	2.30	2.30	5.44	3.35	14.70	3.75	2.50	2.20	2.10	2.10	2.00		
18	1.85	2.25	2.30	3.65	4.72	7.92	3.40	2.45	2.20	2.10	2.10	2.00		
19	1.80	2.65	2.35	3.75	34.04	5.60	3.20	2.45	2.20	2.10	2.05	2.00		
20	1.80	5.68	2.65	3.10	38.80	5.76	3.00	2.40	2.20	2.10	2.00	2.00		
21	1.80	2.75	2.45	3.70	25.48	9.44	2.90	2.40	2.20	3.65	2.00	2.00		
22	1.70	2.50	2.35	9.56	13.16	12.68	2.85	2.45	2.20	2.80	1.95	2.00		
23	1.70	2.30	2.30	5.36	5.60	10.88	2.75	2.40	2.15	2.35	1.90	2.00		
24	1.65	2.20	2.30	3.65	3.85	26.12	2.70	2.35	2.15	2.25	1.85	2.00		
25	1.65	2.30	2.30	8.00	3.45	11.96	2.75	2.35	2.15	2.20	1.80	1.65		
26	1.60	3.00	2.30	7.92	3.65	6.72	2.70	2.35	2.15	2.20	1.75	1.50		
27	1.70	2.70	2.45	4.48	4.88	36.20	2.65	2.35	2.15	2.20	1.75	1.45		
28	2.25	4.80	2.60	3.10	10.52	83.00	2.60	2.30	2.15	2.20	1.75	1.45		
29	2.30	3.95	2.65	2.80	16.66	36.74	2.60	2.30	2.15	2.20	1.70	1.30		
30	2.90	6.56	2.55	2.65	11.36	11.96	2.55	2.30	2.15	2.20		1.20		
31		8.00		2.70	5.36		2.55		2.15	2.25		1.15		
Total	58.95	93.74	127.23	123.15	265.01	562.32	144.83	73.70	68.50	68.55	59.45	50.65	1696.08	CMSDAY
Mean	1.97	3.02	4.24	3.97	8.55	18.74	4.67	2.46	2.21	2.21	2.05	1.63	4.63	CMS
Max	2.90	8.00	38.80	9.56	38.80	83.00	13.16	2.65	2.30	3.65	2.25	2.05	83.00	CMS
Min	1.60	2.15	2.30	2.30	2.60	5.60	2.55	2.30	2.15	2.10	1.70	1.15	1.15	CMS
Runoff	5.09	8.10	10.99	10.64	22.90	48.58	12.51	6.37	5.92	5.92	5.14	4.38	146.54	MCM

Momentary Peak 91.58 CMS, at 254.83 m. (MSL), at 06.00 Hours, on Sep 28, 2011

Runoff Yield 18.46 Liters/Second/Square KM. Momentary Peak Yield 364.861 Liters/Second/Square KM.

WATER YEAR : 2011

CHI RIVER BASIN

Lam Pao at Ban Nong Muang , Kalasin (E.75)

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

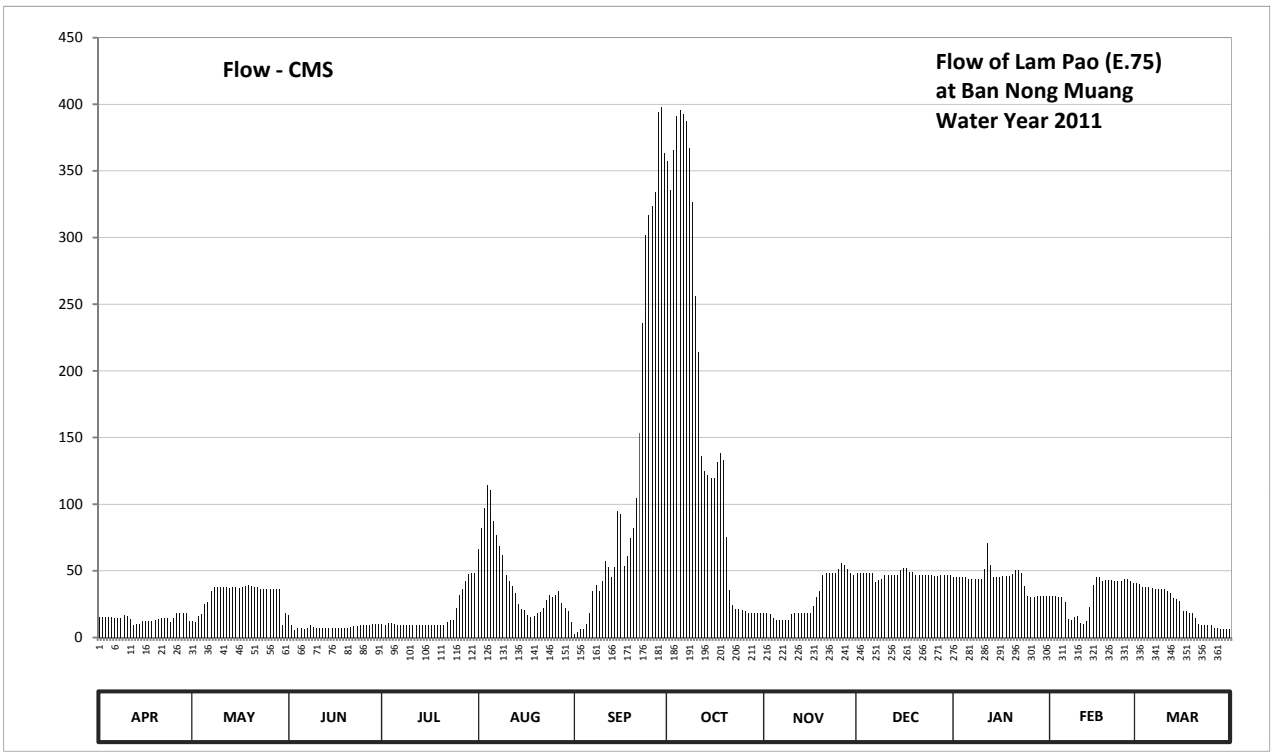
Location : on left bank about 3 kilometers downstream from Lam Pao Damsite.

	Ban Nong Muang	**Amphoe** Mueang	**Changwat** Kalasin
Drainge Area	6,013 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+138.018 m. (MSL.)		
Bench Mark	B.M.- H.D.		
Location BM	On left bank in front of gage observer's house.	**Elevation**	+149.762 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings		
Period of Available Gage Records	1987 to date		
Rating Operation			
Period of Rating	1987 to date		
Rated by Flot	-		
Rated by Current Meter	1987 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Flow regulated by Lam Pao Dam.		
	Stage-discharge relation defined by 28 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	138.36	138.22	138.42	138.09	139.87	137.72	143.78	138.47	139.47	139.37	138.91	139.23	
2	138.36	138.18	138.05	138.08	140.19	137.82	143.57	138.47	139.47	139.37	138.91	139.21	
3	138.36	138.40	137.87	138.13	140.48	137.91	143.86	138.44	139.47	139.38	138.90	139.12	
4	138.36	138.45	137.94	138.13	140.78	137.92	144.09	138.31	139.47	139.38	138.89	139.12	
5	138.36	138.70	137.97	138.10	140.72	138.11	144.12	138.27	139.47	139.37	138.89	139.12	
6	138.34	138.76	137.91	138.08	140.29	138.48	144.10	138.27	139.47	139.33	138.76	139.11	
7	138.34	139.04	137.94	138.05	140.09	139.03	144.06	138.27	139.25	139.33	138.28	139.09	
8	138.34	139.14	138.05	138.05	139.93	139.19	143.88	138.27	139.30	139.32	138.26	139.09	
9	138.42	139.12	137.99	138.05	139.78	139.02	143.49	138.27	139.34	139.32	138.35	139.07	
10	138.40	139.14	137.97	138.07	139.44	139.28	142.75	138.44	139.42	139.32	138.39	139.07	
11	138.30	139.14	137.97	138.05	139.27	139.68	142.24	138.47	139.42	139.56	138.13	139.03	
12	138.08	139.13	137.97	138.05	139.16	139.59	141.13	138.47	139.42	139.97	138.12	138.97	
13	138.12	139.11	137.97	138.05	138.98	139.37	140.96	138.49	139.42	139.61	138.20	138.86	
14	138.12	139.12	137.97	138.05	138.70	139.58	140.91	138.47	139.42	139.37	138.64	138.82	
15	138.22	139.12	137.97	138.05	138.59	140.44	140.87	138.47	139.53	139.37	139.17	138.77	
16	138.22	139.11	137.97	138.05	138.56	140.39	140.87	138.47	139.57	139.37	139.38	138.53	
17	138.22	139.12	137.97	138.05	138.42	139.60	141.07	138.66	139.57	139.40	139.38	138.52	
18	138.22	139.16	137.97	138.05	138.37	139.77	141.17	138.87	139.50	139.41	139.29	138.49	
19	138.25	139.17	137.97	138.05	138.41	140.05	141.09	139.02	139.50	139.41	139.30	138.49	
20	138.29	139.16	137.97	138.05	138.47	140.19	140.07	139.42	139.44	139.46	139.30	138.33	
21	138.31	139.12	138.00	138.06	138.50	140.61	139.05	139.47	139.42	139.54	139.30	138.09	
22	138.32	139.12	138.02	138.19	138.60	141.40	138.69	139.47	139.42	139.53	139.29	138.07	
23	138.32	139.09	138.01	138.26	138.80	142.52	138.59	139.47	139.42	139.47	139.27	138.06	
24	138.18	139.07	138.05	138.25	138.93	143.24	138.57	139.49	139.42	139.16	139.29	138.06	
25	138.32	139.09	138.06	138.61	138.87	143.39	138.54	139.56	139.42	138.91	139.32	138.06	
26	138.47	139.09	138.06	138.94	138.94	143.46	138.52	139.65	139.41	138.88	139.32	137.97	
27	138.48	139.09	138.08	139.09	139.02	143.56	138.48	139.62	139.41	138.89	139.28	137.97	
28	138.48	139.08	138.12	139.28	138.74	144.11	138.47	139.55	139.42	138.91	139.22	137.92	
29	138.48	139.07	138.11	139.46	138.60	144.14	138.47	139.49	139.42	138.91	139.22	137.92	
30	138.22	138.07	138.12	139.47	138.53	143.84	138.47	139.43	139.42	138.91		137.92	
31		138.47		139.47	138.17		138.47		139.42	138.91		137.92	
Mean	138.31	138.93	138.01	138.34	139.17	140.45	141.05	138.85	139.44	139.30	138.93	138.58	
Max	138.48	139.17	138.42	139.47	140.78	144.14	144.12	139.65	139.57	139.97	139.38	139.23	144.14
Min	138.08	138.07	137.87	138.05	138.17	137.72	138.47	138.27	139.25	138.88	138.12	137.92	137.72

Annual Max Momentary Gage Height	144.19	m. (MSL.) ,	at 16.00 Hours, on Sep 28, 2011		
Zero Gage at Bottom Elevation	138.02	m. (MSL.) ,	River Bed	137.38	m. (MSL)
Left Bank Elevation	149.43	m. (MSL.) ,			
Right Bank Elevation	150.36	m. (MSL.) ,	Drainage Area	6013	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	15.20	12.40	16.60	9.80	66.02	2.40	357.12	18.10	48.10	45.10	31.30	40.90		
2	15.20	11.60	9.00	9.60	81.88	4.40	335.28	18.10	48.10	45.10	31.30	40.30		
3	15.20	16.00	5.40	10.60	96.96	6.20	365.44	17.20	48.10	45.40	31.00	37.60		
4	15.20	17.50	6.80	10.60	114.24	6.40	391.52	14.20	48.10	45.40	30.70	37.60		
5	15.20	25.00	7.40	10.00	110.76	10.20	395.36	13.40	48.10	45.10	30.70	37.60		
6	14.80	26.80	6.20	9.60	87.08	18.40	392.80	13.40	48.10	43.90	26.80	37.30		
7	14.80	35.20	6.80	9.00	76.68	34.90	387.68	13.40	41.50	43.90	13.60	36.70		
8	14.80	38.20	9.00	9.00	68.78	39.70	367.52	13.40	43.00	43.60	13.20	36.70		
9	16.60	37.60	7.80	9.00	61.88	34.60	327.00	13.40	44.20	43.60	15.00	36.10		
10	16.00	38.20	7.40	9.40	47.20	42.40	256.00	17.20	46.60	43.60	15.80	36.10		
11	14.00	38.20	7.40	9.00	42.10	57.28	214.24	18.10	46.60	51.76	10.60	34.90		
12	9.60	37.90	7.40	9.00	38.80	53.14	135.58	18.10	46.60	70.62	10.40	33.10		
13	10.40	37.30	7.40	9.00	33.40	45.10	124.68	18.70	46.60	54.06	12.00	29.80		
14	10.40	37.60	7.40	9.00	25.00	52.68	121.78	18.10	46.60	45.10	23.20	28.60		
15	12.40	37.60	7.40	9.00	21.70	94.88	119.46	18.10	50.38	45.10	39.10	27.10		
16	12.40	37.30	7.40	9.00	20.80	92.28	119.46	18.10	52.22	45.10	45.40	19.90		
17	12.40	37.60	7.40	9.00	16.60	53.60	131.62	23.80	52.22	46.00	45.40	19.60		
18	12.40	38.80	7.40	9.00	15.40	61.42	138.22	30.10	49.00	46.30	42.70	18.70		
19	13.00	39.10	7.40	9.00	16.30	74.60	132.94	34.60	49.00	46.30	43.00	18.70		
20	13.80	38.80	7.40	9.00	18.10	81.88	75.64	46.60	47.20	47.80	43.00	14.60		
21	14.20	37.60	8.00	9.20	19.00	104.38	35.50	48.10	46.60	50.84	43.00	9.80		
22	14.40	37.60	8.40	11.80	22.00	153.40	24.70	48.10	46.60	50.38	42.70	9.40		
23	14.40	36.70	8.20	13.20	28.00	235.76	21.70	48.10	46.60	48.10	42.10	9.20		
24	11.60	36.10	9.00	13.00	31.90	302.00	21.10	48.70	46.60	38.80	42.70	9.20		
25	14.40	36.70	9.20	22.30	30.10	317.00	20.20	51.76	46.60	31.30	43.60	9.20		
26	18.10	36.70	9.20	32.20	32.20	324.00	19.60	55.90	46.30	30.40	43.60	7.40		
27	18.40	36.70	9.60	36.70	34.60	334.24	18.40	54.52	46.30	30.70	42.40	7.40		
28	18.40	36.40	10.40	42.40	26.20	394.08	18.10	51.30	46.60	31.30	40.60	6.40		
29	18.40	36.10	10.20	47.80	22.00	397.92	18.10	48.70	46.60	31.30	40.60	6.40		
30	12.40	9.40	10.40	48.10	19.90	363.36	18.10	46.90	46.60	31.30		6.40		
31		18.10		48.10	11.40		18.10		46.60	31.30		6.40		
Total	428.50	996.80	249.00	511.40	1336.98	3792.60	5122.94	898.18	1462.32	1348.56	935.50	709.10	17791.88	CMSDAY
Mean	14.28	32.15	8.30	16.50	43.13	126.42	165.26	29.94	47.17	43.50	32.26	22.87	48.61	CMS
Max	18.40	39.10	16.60	48.10	114.24	397.92	395.36	55.90	52.22	70.62	45.40	40.90	397.92	CMS
Min	9.60	9.40	5.40	9.00	11.40	2.40	18.10	13.40	41.50	30.40	10.40	6.40	2.40	CMS
Runoff	37.02	86.12	21.51	44.19	115.52	327.68	442.62	77.60	126.34	116.52	80.83	61.27	1537.22	MCM

Momentary Peak 404.32 CMS, at 144.19 m. (MSL), at 16.00 Hours, on Sep 28, 2011

Runoff Yield 8.08 Liters/Second/Square KM. Momentary Peak Yield 67.241 Liters/Second/Square KM.

WATER YEAR : 2011

CHI RIVER BASIN

Huai Sang Ka at Ban Phon , Kalasin (E.76A)

Lat 16 - 51 - 33 N Long 103 - 35 - 53 E

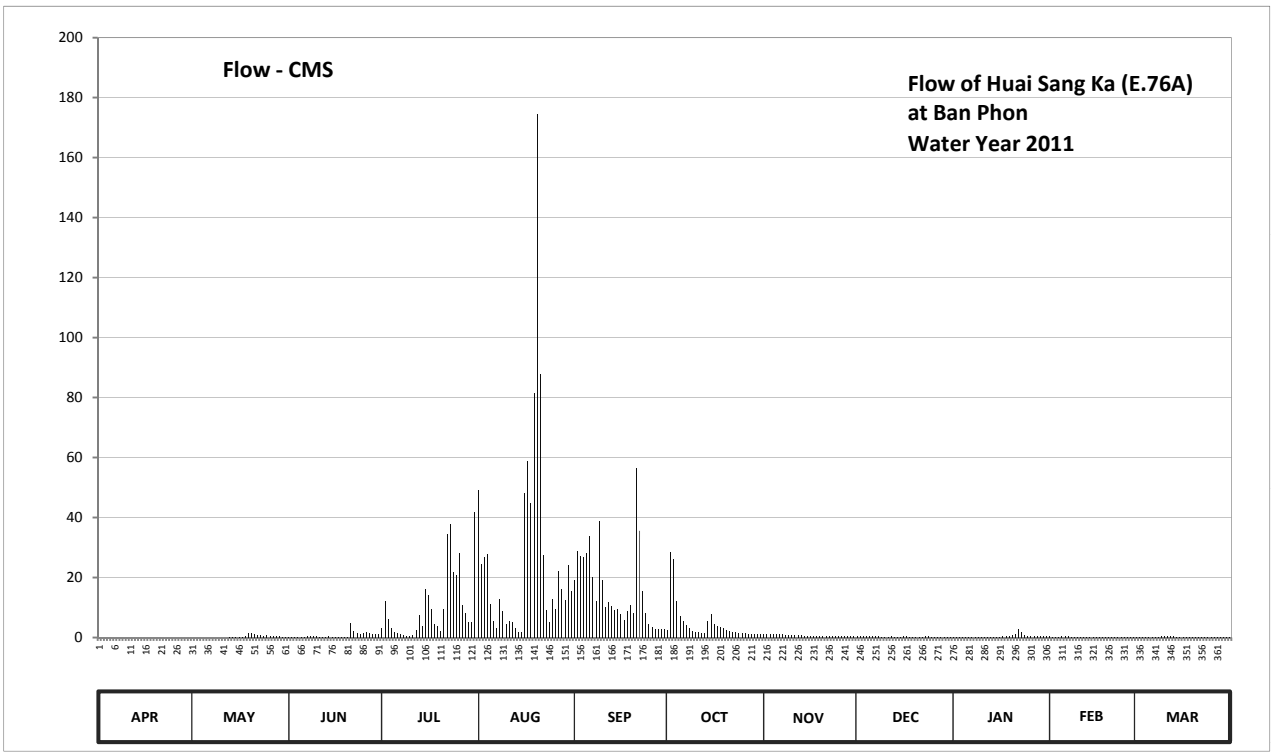
Location : on left bank at the bridge of Ban Phon - Ban Nong Chang Road.

	Ban Phon	**Amphoe** Kham Muang	**Changwat** Kalasin
Drainge Area	195 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+163.900 m. (MSL.)		
Bench Mark	B.M.- Highways Dept.		
Location BM	On left bank about 2.50 meters from the top staff gage.	**Elevation**	+173.809 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings		
Period of Available Gage Records	1999 to date		
Rating Operation			
Period of Rating	1999 to date		
Rated by Flot	-		
Rated by Current Meter	1999 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	Overbank flow starts at elevation +169.480 m.(MSL.), records are channel flow only.		
General Description	Records good. Stage-discharge relation defined by 17 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	164.09	164.02	164.32	165.16	168.66	166.81	165.05	164.66	164.36	164.33	164.35	164.34	
2	164.09	164.02	164.31	166.21	167.17	167.48	167.47	164.65	164.36	164.33	164.34	164.34	
3	164.09	164.00	164.32	165.54	167.35	167.37	167.31	164.65	164.36	164.33	164.34	164.34	
4	164.09	164.00	164.32	165.16	167.42	167.36	166.22	164.63	164.35	164.32	164.34	164.34	
5	164.09	164.02	164.33	164.89	166.12	167.43	165.66	164.61	164.35	164.31	164.35	164.34	
6	164.09	164.10	164.34	164.73	165.41	167.81	165.44	164.61	164.36	164.32	164.35	164.34	
7	164.08	164.11	164.37	164.59	165.16	166.87	165.28	164.60	164.37	164.32	164.35	164.34	
8	164.08	164.11	164.39	164.48	166.27	166.22	165.14	164.56	164.37	164.31	164.34	164.34	
9	164.08	164.12	164.36	164.45	165.84	168.11	165.02	164.53	164.33	164.32	164.34	164.35	
10	164.07	164.13	164.35	164.45	165.31	166.81	164.95	164.50	164.30	164.32	164.33	164.35	
11	164.07	164.14	164.34	164.57	165.45	166.02	164.91	164.50	164.32	164.31	164.33	164.35	
12	164.07	164.17	164.33	165.08	165.38	166.18	164.83	164.48	164.36	164.30	164.32	164.35	
13	164.06	164.22	164.33	165.69	165.16	166.06	164.83	164.46	164.34	164.29	164.31	164.35	
14	164.05	164.23	164.37	165.22	164.97	165.88	165.45	164.44	164.32	164.28	164.32	164.34	
15	164.05	164.25	164.34	166.57	164.95	165.94	165.71	164.43	164.33	164.30	164.32	164.34	
16	164.04	164.31	164.33	166.42	168.61	165.74	165.33	164.42	164.37	164.33	164.33	164.33	
17	164.04	164.31	164.34	165.94	169.13	165.47	165.24	164.40	164.35	164.36	164.33	164.34	
18	164.03	164.37	164.33	165.32	168.44	165.84	165.18	164.42	164.33	164.35	164.34	164.34	
19	164.03	164.84	164.32	165.21	170.12	166.09	165.16	164.41	164.32	164.41	164.34	164.34	
20	164.02	164.72	164.33	165.04	170.92	165.76	165.06	164.40	164.32	164.47	164.34	164.33	
21	164.01	164.61	165.35	165.94	170.31	169.02	165.00	164.41	164.34	164.59	164.33	164.32	
22	164.01	164.55	165.04	167.84	167.40	167.91	164.96	164.40	164.34	165.12	164.34	164.31	
23	164.03	164.46	164.75	168.05	165.87	166.54	164.92	164.39	164.35	164.87	164.33	164.30	
24	164.02	164.43	164.64	166.99	165.39	165.75	164.85	164.39	164.36	164.57	164.33	164.29	
25	164.02	164.47	164.71	166.92	166.29	165.30	164.77	164.38	164.32	164.44	164.33	164.29	
26	164.01	164.45	164.89	167.45	165.92	165.19	164.71	164.37	164.33	164.40	164.34	164.28	
27	164.01	164.39	164.77	166.10	167.00	165.09	164.70	164.37	164.33	164.38	164.34	164.27	
28	164.00	164.37	164.68	165.75	166.57	165.13	164.68	164.36	164.32	164.37	164.33	164.26	
29	164.01	164.35	164.65	165.40	166.24	165.12	164.67	164.37	164.34	164.36	164.33	164.25	
30	164.02	164.33	164.64	165.38	167.14	165.12	164.66	164.37	164.34	164.36		164.24	
31		164.32		168.27	166.54		164.65		164.33	164.35		164.23	
Mean	164.05	164.29	164.50	165.77	166.86	166.38	165.22	164.47	164.34	164.40	164.33	164.32	
Max	164.09	164.84	165.35	168.27	170.92	169.02	167.47	164.66	164.37	165.12	164.35	164.35	170.92
Min	164.00	164.00	164.31	164.45	164.95	165.09	164.65	164.36	164.30	164.28	164.31	164.23	164.00

Annual Max Momentary Gage Height	171.02	m. (MSL.) ,	at 10.00 Hours, on Aug 20, 2011		
Zero Gage at Bottom Elevation	163.90	m. (MSL.) ,	River Bed	163.80	m. (MSL)
Left Bank Elevation	171.40	m. (MSL.) ,			
Right Bank Elevation	169.47	m. (MSL.) ,	Drainage Area	195	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	0.30	3.30	49.20	19.30	2.40	1.20	0.40	0.30	0.40	0.30		
2	0.00	0.00	0.30	12.10	24.40	28.70	28.60	1.10	0.40	0.30	0.30	0.30		
3	0.00	0.00	0.30	6.30	26.90	27.20	26.30	1.10	0.40	0.30	0.30	0.30		
4	0.00	0.00	0.30	3.30	27.90	27.00	12.20	1.10	0.40	0.30	0.30	0.30		
5	0.00	0.00	0.30	1.70	11.20	28.00	7.30	1.00	0.40	0.30	0.40	0.30		
6	0.00	0.00	0.30	1.30	5.30	34.00	5.50	1.00	0.40	0.30	0.40	0.30		
7	0.00	0.00	0.40	1.00	3.30	20.20	4.20	1.00	0.40	0.30	0.40	0.30		
8	0.00	0.00	0.50	0.70	12.70	12.20	3.10	0.90	0.40	0.30	0.30	0.30		
9	0.00	0.00	0.40	0.60	8.70	39.00	2.20	0.80	0.30	0.30	0.30	0.40		
10	0.00	0.00	0.40	0.60	4.50	19.30	1.90	0.80	0.30	0.30	0.30	0.40		
11	0.00	0.00	0.30	0.90	5.60	10.20	1.80	0.80	0.30	0.30	0.30	0.40		
12	0.00	0.00	0.30	2.60	5.00	11.80	1.60	0.70	0.40	0.30	0.30	0.40		
13	0.00	0.10	0.30	7.50	3.30	10.60	1.60	0.70	0.30	0.20	0.30	0.40		
14	0.00	0.10	0.40	3.80	1.90	9.00	5.60	0.60	0.30	0.20	0.30	0.30		
15	0.00	0.10	0.30	16.00	1.90	9.50	7.70	0.60	0.30	0.30	0.30	0.30		
16	0.00	0.30	0.30	14.20	48.20	7.90	4.60	0.60	0.40	0.30	0.30	0.30		
17	0.00	0.30	0.30	9.50	58.70	5.80	3.90	0.50	0.40	0.40	0.30	0.30		
18	0.00	0.40	0.30	4.60	44.90	8.70	3.40	0.60	0.30	0.40	0.30	0.30		
19	0.00	1.60	0.30	3.70	81.50	10.90	3.30	0.50	0.30	0.50	0.30	0.30		
20	0.00	1.30	0.30	2.30	174.60	8.10	2.50	0.50	0.30	0.70	0.30	0.30		
21	0.00	1.00	4.80	9.50	87.70	56.40	2.00	0.50	0.30	1.00	0.30	0.30		
22	0.00	0.90	2.30	34.40	27.60	35.60	1.90	0.50	0.30	3.00	0.30	0.30		
23	0.00	0.70	1.40	37.90	9.00	15.60	1.80	0.50	0.40	1.70	0.30	0.30		
24	0.00	0.60	1.10	21.90	5.10	8.00	1.60	0.50	0.40	0.90	0.30	0.20		
25	0.00	0.70	1.30	20.90	12.90	4.40	1.40	0.50	0.30	0.60	0.30	0.20		
26	0.00	0.60	1.70	28.30	9.40	3.50	1.30	0.40	0.30	0.50	0.30	0.20		
27	0.00	0.50	1.40	11.00	22.00	2.70	1.20	0.40	0.30	0.50	0.30	0.20		
28	0.00	0.40	1.20	8.00	16.00	3.00	1.20	0.40	0.30	0.40	0.30	0.10		
29	0.00	0.40	1.10	5.20	12.40	3.00	1.20	0.40	0.30	0.40	0.30	0.10		
30	0.00	0.30	1.10	5.00	24.00	3.00	1.20	0.40	0.30	0.40		0.10		
31		0.30		41.90	15.60		1.10		0.30	0.40		0.10		
Total	0.00	10.60	24.00	320.00	841.40	482.60	145.60	20.60	10.60	16.40	9.10	8.60	1889.50	CMSDAY
Mean	0.00	0.30	0.80	10.30	27.10	16.10	4.70	0.70	0.30	0.50	0.30	0.30	5.20	CMS
Max	0.00	1.60	4.80	41.90	174.60	56.40	28.60	1.20	0.40	3.00	0.40	0.40	174.60	CMS
Min	0.00	0.00	0.30	0.60	1.90	2.70	1.10	0.40	0.30	0.20	0.30	0.10	0.00	CMS
Runoff	0.00	0.92	2.07	27.65	72.70	41.70	12.58	1.78	0.92	1.42	0.79	0.74	163.25	MCM

Momentary Peak 197.40 CMS, at 171.02 m. (MSL), at 10.00 Hours, on Aug 20, 2011

Runoff Yield 26.47 Liters/Second/Square KM. Momentary Peak Yield 1012.308 Liters/Second/Square KM.

WATER YEAR : 2011

CHI RIVER BASIN

Lam Saphung at Ban Na Charoen , Chaiyaphum (E.83)

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

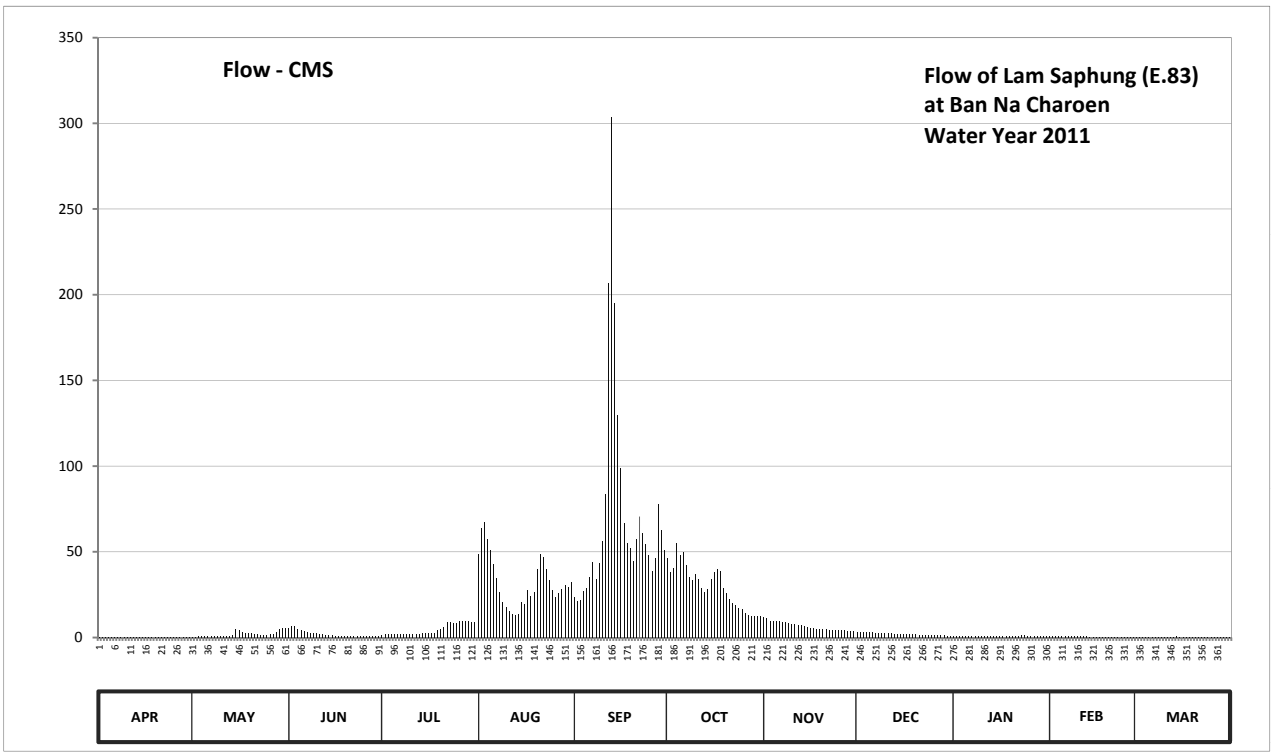
Location : on left bank at Ban Na Charoen.

	Ban Na Charoen	**Amphoe** Nong Bua Daeng	**Changwat** Chaiyaphum
Drainge Area	744 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+222.750 m. (MSL.)		
Bench Mark	B.M.- Highways Dept.		
Location BM	On left bank downstream at the footpath of the bridge.	**Elevation**	+236.237 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings		
Period of Available Gage Records	2004 to date		
Rating Operation			
Period of Rating	2004 to date		
Rated by Flot	-		
Rated by Current Meter	2004 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	Overbank flow starts at elevation +231.790 m.(MSL.), records are channel flow only.		
General Description	Records good. Stage-discharge relation defined by 28 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	223.16	223.22	224.62	223.54	229.54	227.32	229.36	225.79	224.10	223.51	223.36	223.13	
2	223.16	223.27	224.87	223.69	230.67	227.08	228.65	225.76	224.07	223.50	223.35	223.12	
3	223.17	223.38	224.86	223.78	230.91	227.12	228.86	225.44	224.04	223.49	223.34	223.11	
4	223.18	223.48	224.55	223.77	230.24	227.67	230.05	225.40	224.03	223.49	223.33	223.10	
5	223.20	223.44	224.38	223.76	229.75	227.80	229.50	225.39	224.01	223.48	223.36	223.09	
6	223.22	223.39	224.21	223.75	229.07	228.40	229.65	225.36	223.98	223.48	223.37	223.08	
7	223.24	223.37	224.04	223.74	228.34	229.18	229.03	225.32	223.96	223.47	223.39	223.07	
8	223.25	223.35	223.92	223.74	227.58	228.27	228.36	225.30	223.94	223.46	223.41	223.08	
9	223.28	223.33	223.88	223.73	226.99	229.14	228.23	225.19	223.92	223.44	223.40	223.24	
10	223.29	223.32	223.83	223.73	226.67	230.14	228.56	225.10	223.89	223.43	223.38	223.23	
11	223.28	223.38	223.78	223.72	226.36	231.56	228.26	225.05	223.86	223.41	223.37	223.22	
12	223.28	223.42	223.73	223.75	226.12	233.43	227.79	225.00	223.83	223.40	223.35	223.20	
13	223.27	223.43	223.67	223.81	226.03	234.34	227.61	224.89	223.81	223.40	223.32	223.20	
14	223.27	223.59	223.63	223.87	226.07	233.29	227.76	224.80	223.79	223.40	223.29	223.31	
15	223.26	224.50	223.58	223.90	227.02	232.44	228.29	224.74	223.77	223.40	223.27	223.28	
16	223.26	224.27	223.53	223.90	226.92	231.91	228.68	224.66	223.75	223.40	223.26	223.26	
17	223.25	224.08	223.50	223.91	227.69	230.86	228.84	224.63	223.73	223.40	223.25	223.25	
18	223.24	223.94	223.49	223.94	227.39	230.05	228.70	224.52	223.71	223.39	223.25	223.24	
19	223.22	223.91	223.48	224.35	227.60	229.84	227.82	224.49	223.69	223.37	223.23	223.24	
20	223.21	223.87	223.48	224.52	228.83	229.23	227.52	224.42	223.68	223.36	223.23	223.23	
21	223.19	223.80	223.47	224.73	229.54	230.22	227.20	224.40	223.67	223.45	223.22	223.22	
22	223.19	223.70	223.46	225.33	229.39	231.08	226.96	224.38	223.64	223.52	223.20	223.20	
23	223.20	223.65	223.45	225.26	228.82	230.51	226.81	224.35	223.62	223.59	223.19	223.16	
24	223.22	223.62	223.43	225.16	228.24	230.01	226.61	224.34	223.61	223.55	223.18	223.13	
25	223.18	223.60	223.42	225.18	227.69	229.52	226.54	224.32	223.60	223.52	223.18	223.11	
26	223.18	223.69	223.41	225.37	227.33	228.71	226.25	224.30	223.58	223.48	223.18	223.10	
27	223.17	223.81	223.41	225.41	227.55	229.35	226.05	224.27	223.56	223.44	223.18	223.09	
28	223.17	224.09	223.40	225.42	227.77	231.38	225.92	224.21	223.55	223.42	223.17	223.06	
29	223.16	224.48	223.40	225.37	227.96	230.61	225.90	224.18	223.54	223.39	223.17	223.06	
30	223.16	224.62	223.39	225.34	227.85	229.75	225.90	224.17	223.53	223.37		223.06	
31		224.58		225.30	228.13		225.89		223.52	223.36		223.05	
Mean	223.22	223.73	223.78	224.35	228.07	230.01	227.79	224.81	223.77	223.44	223.28	223.16	
Max	223.29	224.62	224.87	225.42	230.91	234.34	230.05	225.79	224.10	223.59	223.41	223.31	234.34
Min	223.16	223.22	223.39	223.54	226.03	227.08	225.89	224.17	223.52	223.36	223.17	223.05	223.05

Annual Max Momentary Gage Height	234.70	m. (MSL.) ,	at 17.00 Hours, on Sep 13, 2011			
Zero Gage at Bottom Elevation	222.75	m. (MSL.) ,	River Bed	222.71	m. (MSL)	
Left Bank Elevation	233.73	m. (MSL.) ,				
Right Bank Elevation	231.78	m. (MSL.) ,	Drainage Area	744	Square Kilometers	



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.32	0.44	5.60	1.16	48.52	23.70	46.32	11.74	3.40	1.04	0.72	0.26		
2	0.32	0.54	6.85	1.76	63.72	21.30	38.15	11.56	3.28	1.00	0.70	0.24		
3	0.34	0.76	6.80	2.12	67.56	21.70	40.46	9.70	3.16	0.98	0.68	0.22		
4	0.36	0.96	5.25	2.08	57.62	27.37	55.15	9.50	3.12	0.98	0.66	0.20		
5	0.40	0.88	4.52	2.04	51.25	28.80	48.00	9.45	3.04	0.96	0.72	0.18		
6	0.44	0.78	3.84	2.00	42.84	35.40	49.95	9.30	2.92	0.96	0.74	0.16		
7	0.48	0.74	3.16	1.96	34.74	44.16	42.36	9.10	2.84	0.94	0.78	0.14		
8	0.50	0.70	2.68	1.96	26.38	33.97	34.96	9.00	2.76	0.92	0.82	0.16		
9	0.56	0.66	2.52	1.92	20.41	43.68	33.53	8.45	2.68	0.88	0.80	0.48		
10	0.58	0.64	2.32	1.92	17.53	56.32	37.16	8.00	2.56	0.86	0.76	0.46		
11	0.56	0.76	2.12	1.88	15.16	83.60	33.86	7.75	2.44	0.82	0.74	0.44		
12	0.56	0.84	1.92	2.00	13.72	206.98	28.69	7.50	2.32	0.80	0.70	0.40		
13	0.54	0.86	1.68	2.24	13.18	303.44	26.71	6.95	2.24	0.80	0.64	0.40		
14	0.54	1.36	1.52	2.48	13.42	194.94	28.36	6.50	2.16	0.80	0.58	0.62		
15	0.52	5.00	1.32	2.60	20.70	129.46	34.19	6.20	2.08	0.80	0.54	0.56		
16	0.52	4.08	1.12	2.60	19.78	98.55	38.48	5.80	2.00	0.80	0.52	0.52		
17	0.50	3.32	1.00	2.64	27.59	66.76	40.24	5.65	1.92	0.80	0.50	0.50		
18	0.48	2.76	0.98	2.76	24.40	55.15	38.70	5.10	1.84	0.78	0.50	0.48		
19	0.44	2.64	0.96	4.40	26.60	52.42	29.02	4.96	1.76	0.74	0.46	0.48		
20	0.42	2.48	0.96	5.10	40.13	44.76	25.72	4.68	1.72	0.72	0.46	0.46		
21	0.38	2.20	0.94	6.15	48.52	57.36	22.50	4.60	1.68	0.90	0.44	0.44		
22	0.38	1.80	0.92	9.15	46.68	70.60	20.14	4.52	1.56	1.08	0.40	0.40		
23	0.40	1.60	0.90	8.80	40.02	61.16	18.79	4.40	1.48	1.36	0.38	0.32		
24	0.44	1.48	0.86	8.30	33.64	54.63	16.99	4.36	1.44	1.20	0.36	0.26		
25	0.36	1.40	0.84	8.40	27.59	48.26	16.36	4.28	1.40	1.08	0.36	0.22		
26	0.36	1.76	0.82	9.35	23.80	38.81	14.50	4.20	1.32	0.96	0.36	0.20		
27	0.34	2.24	0.82	9.55	26.05	46.20	13.30	4.08	1.24	0.88	0.36	0.18		
28	0.34	3.36	0.80	9.60	28.47	78.00	12.52	3.84	1.20	0.84	0.34	0.12		
29	0.32	4.92	0.80	9.35	30.56	62.76	12.40	3.72	1.16	0.78	0.34	0.12		
30	0.32	5.60	0.78	9.20	29.35	51.25	12.40	3.68	1.12	0.74		0.12		
31		5.40		9.00	32.43		12.34		1.08	0.72		0.10		
Total	13.02	62.96	65.60	144.47	1012.36	2141.49	922.25	198.57	64.92	27.92	16.36	9.84	4679.76	CMSDAY
Mean	0.43	2.03	2.19	4.66	32.66	71.38	29.75	6.62	2.09	0.90	0.56	0.32	12.79	CMS
Max	0.58	5.60	6.85	9.60	67.56	303.44	55.15	11.74	3.40	1.36	0.82	0.62	303.44	CMS
Min	0.32	0.44	0.78	1.16	13.18	21.30	12.34	3.68	1.08	0.72	0.34	0.10	0.10	CMS
Runoff	1.13	5.44	5.67	12.48	87.47	185.03	79.68	17.16	5.61	2.41	1.41	0.85	404.33	MCM

Momentary Peak 347.20 CMS, at 234.70 m. (MSL), at 17.00 Hours, on Sep 13, 2011

Runoff Yield 17.19 Liters/Second/Square KM. Momentary Peak Yield 466.667 Liters/Second/Square KM.

WATER YEAR : 2011

CHI RIVER BASIN

Chi River at Ban Nang Dad Khok , Chaiyaphum (E.84)

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

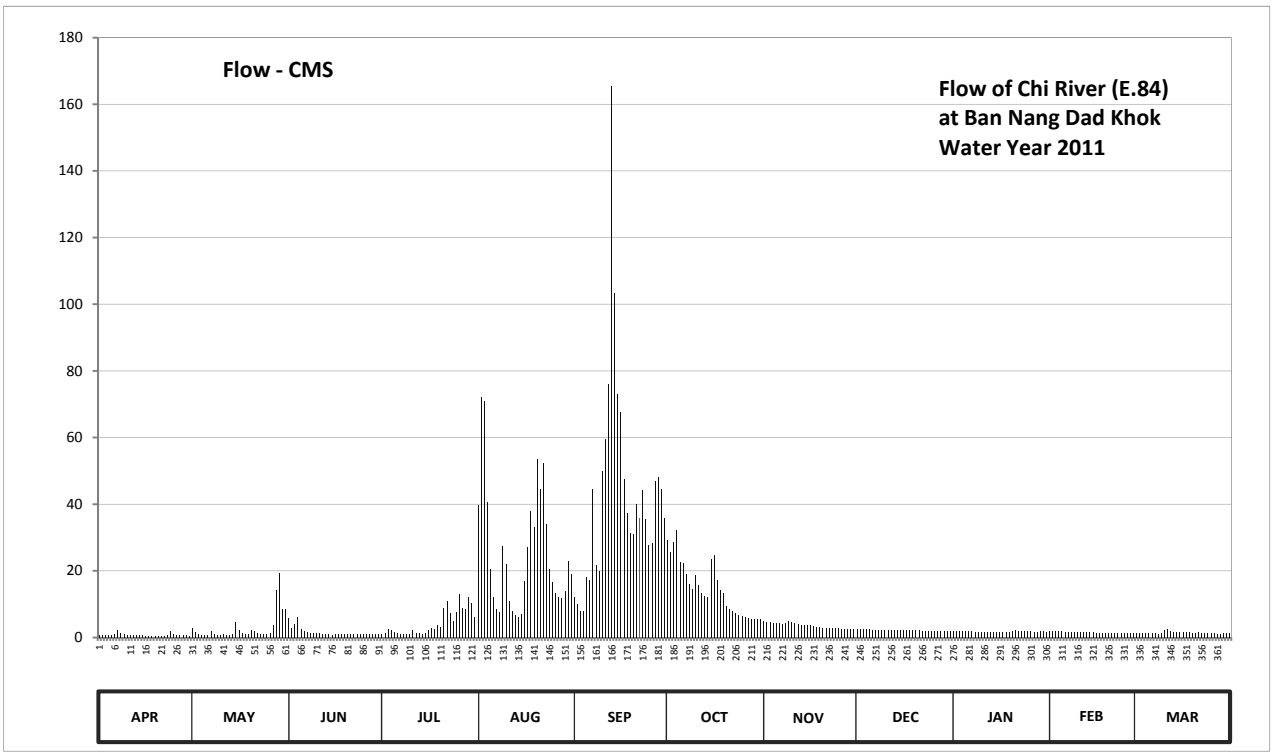
Location : on left bank at Ban Nang Dad Khok.

	Ban Nang Dad Khok	**Amphoe** Nong Bua Daeng	**Changwat** Chaiyaphum
Drainge Area	508 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+237.650 m. (MSL.)		
Bench Mark	B.M.- Highways Dept.		
Location BM	On left bank downstream at the footpath of the bridge.	**Elevation**	+246.755 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings		
Period of Available Gage Records	2004 to date		
Rating Operation			
Period of Rating	2004 to date		
Rated by Flot	-		
Rated by Current Meter	2004 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	Overbank flow starts at elevation +243.210 m.(MSL.), records are channel flow only.		
General Description	Records good. Stage-discharge relation defined by 28 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	239.29	239.79	240.27	239.38	242.68	240.89	242.08	240.13	239.72	239.58	239.59	239.43	
2	239.28	239.51	239.83	239.43	243.33	240.71	241.85	240.11	239.72	239.58	239.58	239.43	
3	239.28	239.34	240.02	239.73	243.32	240.50	242.04	240.08	239.71	239.57	239.57	239.42	
4	239.28	239.29	240.31	239.65	242.72	240.50	242.26	240.06	239.71	239.57	239.56	239.41	
5	239.27	239.28	239.77	239.51	241.53	241.37	241.66	240.05	239.70	239.56	239.55	239.41	
6	239.33	239.31	239.56	239.43	240.89	241.31	241.64	240.04	239.69	239.55	239.54	239.40	
7	239.62	239.55	239.49	239.38	240.56	242.85	241.43	240.03	239.69	239.55	239.53	239.40	
8	239.42	239.37	239.47	239.36	240.47	241.60	241.21	240.04	239.68	239.54	239.52	239.39	
9	239.33	239.30	239.45	239.34	241.97	241.50	241.10	240.15	239.67	239.54	239.51	239.41	
10	239.30	239.30	239.44	239.38	241.62	243.00	241.42	240.11	239.67	239.53	239.50	239.67	
11	239.29	239.32	239.40	239.65	240.78	243.16	241.20	240.04	239.66	239.52	239.50	239.72	
12	239.28	239.29	239.38	239.46	240.50	243.37	240.99	239.99	239.66	239.52	239.50	239.61	
13	239.27	239.28	239.35	239.41	240.35	244.02	240.93	239.96	239.65	239.51	239.49	239.52	
14	239.26	239.35	239.33	239.39	240.28	243.62	240.90	239.96	239.65	239.51	239.48	239.52	
15	239.26	240.09	239.31	239.44	240.39	243.34	241.73	239.94	239.65	239.51	239.48	239.51	
16	239.24	239.62	239.33	239.63	241.30	243.28	241.80	239.93	239.64	239.50	239.47	239.50	
17	239.23	239.46	239.32	239.82	241.94	242.94	241.32	239.89	239.63	239.50	239.47	239.49	
18	239.23	239.39	239.36	239.77	242.60	242.56	241.06	239.85	239.63	239.50	239.46	239.48	
19	239.23	239.39	239.36	239.97	242.33	242.21	240.99	239.84	239.62	239.51	239.45	239.47	
20	239.23	239.64	239.37	239.85	243.06	242.19	240.64	239.83	239.62	239.56	239.44	239.45	
21	239.22	239.59	239.36	240.59	242.85	242.70	240.56	239.82	239.62	239.62	239.44	239.54	
22	239.21	239.43	239.36	240.80	243.04	242.49	240.49	239.81	239.61	239.60	239.44	239.43	
23	239.27	239.36	239.35	240.42	242.38	242.84	240.43	239.80	239.60	239.59	239.44	239.42	
24	239.59	239.34	239.34	240.15	241.53	242.47	240.38	239.79	239.60	239.57	239.44	239.41	
25	239.32	239.34	239.33	240.47	241.27	241.98	240.33	239.78	239.60	239.55	239.44	239.40	
26	239.29	239.43	239.34	240.97	240.99	242.03	240.28	239.77	239.60	239.56	239.44	239.40	
27	239.28	239.94	239.36	240.58	240.89	242.92	240.24	239.76	239.60	239.54	239.44	239.39	
28	239.27	241.07	239.36	240.54	240.87	242.95	240.22	239.75	239.60	239.54	239.44	239.39	
29	239.26	241.46	239.34	240.90	241.05	242.85	240.22	239.74	239.59	239.59	239.44	239.40	
30	239.24	240.54	239.38	240.74	241.68	242.49	240.21	239.73	239.59	239.58		239.40	
31		240.54		240.28	241.44		240.20		239.59	239.50		239.40	
Mean	239.30	239.64	239.49	239.92	241.63	242.35	241.03	239.93	239.64	239.55	239.49	239.46	
Max	239.62	241.46	240.31	240.97	243.33	244.02	242.26	240.15	239.72	239.62	239.59	239.72	244.02
Min	239.21	239.28	239.31	239.34	240.28	240.50	240.20	239.73	239.59	239.50	239.44	239.39	239.21

Annual Max Momentary Gage Height	244.25	m. (MSL.) ,	at 09.00 Hours, on Sep 13, 2011		
Zero Gage at Bottom Elevation	237.65	m. (MSL.) ,	River Bed	238.07	m. (MSL)
Left Bank Elevation	243.20	m. (MSL.) ,			
Right Bank Elevation	243.55	m. (MSL.) ,	Drainage Area	508	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.76	2.76	5.96	1.12	39.60	12.08	29.28	4.84	2.48	1.92	1.96	1.32		
2	0.72	1.64	2.98	1.32	72.00	10.10	25.60	4.68	2.48	1.92	1.92	1.32		
3	0.72	0.96	4.12	2.52	71.00	8.00	28.64	4.48	2.44	1.88	1.88	1.28		
4	0.72	0.76	6.28	2.20	40.60	8.00	32.16	4.36	2.44	1.88	1.84	1.24		
5	0.68	0.72	2.68	1.64	20.48	18.05	22.56	4.30	2.40	1.84	1.80	1.24		
6	0.92	0.84	1.84	1.32	12.08	17.15	22.24	4.24	2.36	1.80	1.76	1.20		
7	2.08	1.80	1.56	1.12	8.60	44.50	18.95	4.18	2.36	1.80	1.72	1.20		
8	1.28	1.08	1.48	1.04	7.70	21.60	15.92	4.24	2.32	1.76	1.68	1.16		
9	0.92	0.80	1.40	0.96	27.52	20.00	14.60	5.00	2.28	1.76	1.64	1.24		
10	0.80	0.80	1.36	1.12	21.92	50.00	18.80	4.68	2.28	1.72	1.60	2.28		
11	0.76	0.88	1.20	2.20	10.80	59.60	15.80	4.24	2.24	1.68	1.60	2.48		
12	0.72	0.76	1.12	1.44	8.00	76.00	13.28	3.94	2.24	1.68	1.60	2.04		
13	0.68	0.72	1.00	1.24	6.60	165.60	12.56	3.76	2.20	1.64	1.56	1.68		
14	0.64	1.00	0.92	1.16	6.04	103.20	12.20	3.76	2.20	1.64	1.52	1.68		
15	0.64	4.54	0.84	1.36	6.92	73.00	23.68	3.64	2.20	1.64	1.52	1.64		
16	0.56	2.08	0.92	2.12	17.00	67.60	24.80	3.58	2.16	1.60	1.48	1.60		
17	0.52	1.44	0.88	2.92	27.04	47.60	17.30	3.34	2.12	1.60	1.48	1.56		
18	0.52	1.16	1.04	2.68	38.00	37.20	14.12	3.10	2.12	1.60	1.44	1.52		
19	0.52	1.16	1.04	3.82	33.28	31.36	13.28	3.04	2.08	1.64	1.40	1.48		
20	0.52	2.16	1.08	3.10	53.60	31.04	9.40	2.98	2.08	1.84	1.36	1.40		
21	0.48	1.96	1.04	8.90	44.50	40.00	8.60	2.92	2.08	2.08	1.36	1.76		
22	0.44	1.32	1.04	11.00	52.40	35.84	7.90	2.86	2.04	2.00	1.36	1.32		
23	0.68	1.04	1.00	7.20	34.08	44.20	7.30	2.80	2.00	1.96	1.36	1.28		
24	1.96	0.96	0.96	5.00	20.48	35.52	6.84	2.76	2.00	1.88	1.36	1.24		
25	0.88	0.96	0.92	7.70	16.64	27.68	6.44	2.72	2.00	1.80	1.36	1.20		
26	0.76	1.32	0.96	13.04	13.28	28.48	6.04	2.68	2.00	1.84	1.36	1.20		
27	0.72	3.64	1.04	8.80	12.08	46.80	5.72	2.64	2.00	1.76	1.36	1.16		
28	0.68	14.24	1.04	8.40	11.84	48.00	5.56	2.60	2.00	1.76	1.36	1.16		
29	0.64	19.40	0.96	12.20	14.00	44.50	5.56	2.56	1.96	1.96	1.36	1.20		
30	0.56	8.40	1.12	10.40	22.88	35.84	5.48	2.52	1.96	1.92		1.20		
31		8.40		6.04	19.10		5.40		1.96	1.60		1.20		
Total	23.48	89.70	49.78	135.08	790.06	1288.54	456.01	107.44	67.48	55.40	45.00	44.48	3152.45	CMSDAY
Mean	0.78	2.89	1.66	4.36	25.49	42.95	14.71	3.58	2.18	1.79	1.55	1.43	8.61	CMS
Max	2.08	19.40	6.28	13.04	72.00	165.60	32.16	5.00	2.48	2.08	1.96	2.48	165.60	CMS
Min	0.44	0.72	0.84	0.96	6.04	8.00	5.40	2.52	1.96	1.60	1.36	1.16	0.44	CMS
Runoff	2.03	7.75	4.30	11.67	68.26	111.33	39.40	9.28	5.83	4.79	3.89	3.84	272.37	MCM

Momentary Peak 217.00 CMS, at 244.25 m. (MSL), at 09.00 Hours, on Sep 13, 2011

Runoff Yield 16.96 Liters/Second/Square KM. Momentary Peak Yield 427.165 Liters/Second/Square KM.

WATER YEAR : 2011

CHI RIVER BASIN

Lam Nam Choen at Ban Non Han , Khon Kaen (E.85)

Lat 16 - 35 - 28 N Long 101 - 59 - 02 E

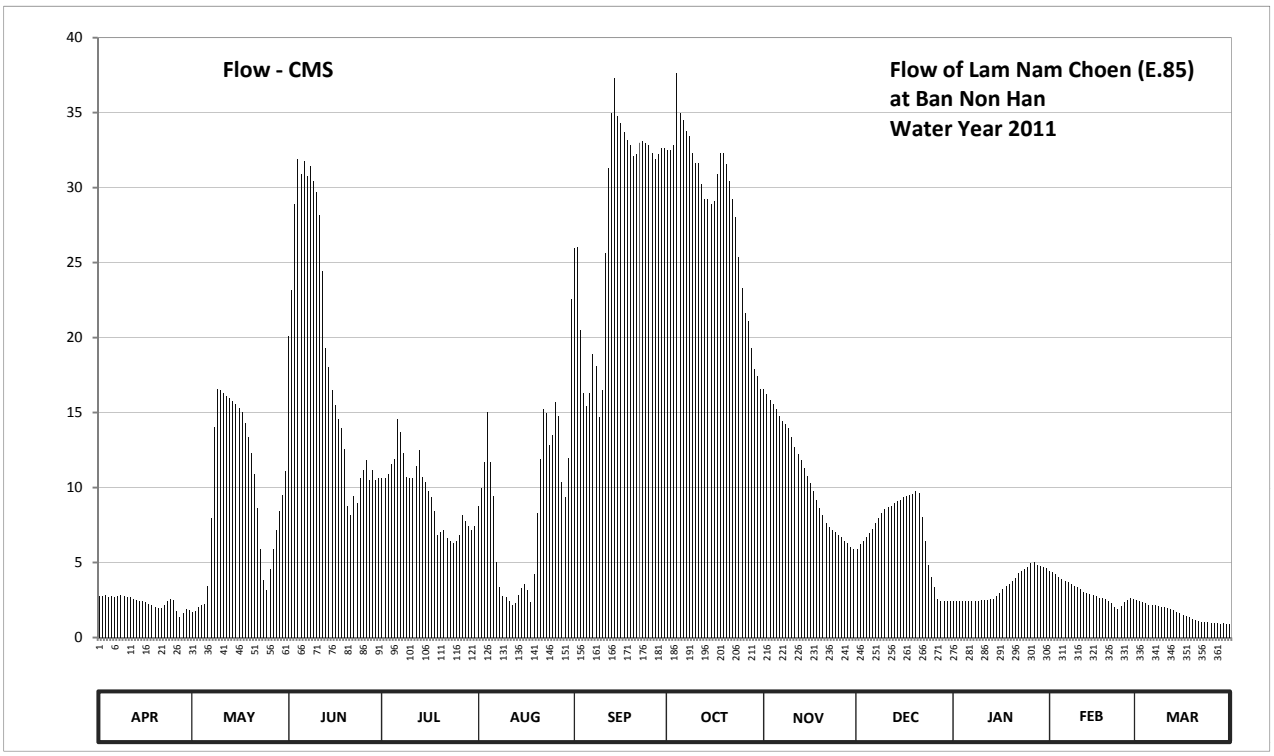
Location : on left bank at Ban Non Han.

	Ban Non Han	**Amphoe** Chum Pae	**Changwat** Khon Kaen
Drainge Area	1,218 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+224.840 m. (MSL.)		
Bench Mark	B.M.- Highways Dept.		
Location BM	On left bank downstream at the footpath of the bridge.	**Elevation**	+235.165 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings		
Period of Available Gage Records	2004 to date		
Rating Operation			
Period of Rating	2004 to date		
Rated by Flot	-		
Rated by Current Meter	2004 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	Overbank flow starts at elevation +230.010 m.(MSL.), records are channel flow only.		
General Description	Records fair. Stage-discharge relation defined by 22 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	226.74	226.54	228.79	227.74	227.51	229.34	229.94	228.43	227.15	226.68	226.97	226.70	
2	226.74	226.55	229.09	227.74	227.66	229.35	229.94	228.39	227.19	226.68	226.96	226.68	
3	226.75	226.60	229.61	227.77	227.87	228.83	229.97	228.35	227.22	226.68	226.94	226.67	
4	226.73	226.63	229.88	227.86	228.26	228.40	230.37	228.32	227.25	226.68	226.92	226.66	
5	226.74	226.65	229.79	227.90	227.87	228.30	230.15	228.28	227.28	226.69	226.90	226.64	
6	226.73	226.83	229.87	228.21	227.59	228.40	230.11	228.23	227.32	226.69	226.88	226.64	
7	226.74	227.41	229.78	228.11	227.04	228.67	230.05	228.19	227.37	226.69	226.87	226.63	
8	226.75	228.15	229.84	227.95	226.82	228.59	230.02	228.17	227.41	226.69	226.85	226.62	
9	226.74	228.43	229.75	227.75	226.74	228.22	229.92	228.14	227.45	226.69	226.83	226.61	
10	226.73	228.42	229.68	227.74	226.73	228.42	229.86	228.07	227.48	226.70	226.82	226.60	
11	226.73	228.40	229.54	227.74	226.68	229.31	229.86	228.00	227.50	226.70	226.80	226.59	
12	226.71	228.38	229.20	227.84	226.64	229.83	229.73	227.94	227.51	226.70	226.78	226.58	
13	226.70	228.36	228.71	227.97	226.66	230.15	229.64	227.89	227.53	226.71	226.77	226.56	
14	226.69	228.34	228.58	227.75	226.75	230.34	229.64	227.82	227.55	226.71	226.76	226.54	
15	226.68	228.32	228.42	227.71	226.81	230.13	229.61	227.76	227.56	226.74	226.75	226.52	
16	226.67	228.29	228.31	227.63	226.85	230.09	229.63	227.70	227.58	226.77	226.74	226.50	
17	226.65	228.26	228.21	227.58	226.79	230.04	229.79	227.63	227.59	226.80	226.72	226.48	
18	226.64	228.18	228.14	227.47	226.67	230.00	229.92	227.56	227.60	226.83	226.72	226.46	
19	226.61	228.07	227.98	227.27	226.94	229.97	229.92	227.49	227.61	226.85	226.71	226.44	
20	226.59	227.95	227.51	227.29	227.45	229.90	229.85	227.43	227.63	226.88	226.69	226.42	
21	226.59	227.77	227.43	227.31	227.90	229.91	229.75	227.37	227.62	226.91	226.66	226.40	
22	226.64	227.49	227.59	227.24	228.28	229.98	229.64	227.33	227.42	226.95	226.61	226.38	
23	226.68	227.15	227.53	227.22	228.25	229.99	229.53	227.31	227.22	226.97	226.58	226.37	
24	226.71	226.89	227.74	227.20	228.01	229.98	229.29	227.29	227.02	226.98	226.62	226.37	
25	226.70	226.79	227.81	227.22	228.09	229.97	229.10	227.27	226.92	227.00	226.67	226.36	
26	226.55	226.98	227.89	227.27	228.33	229.92	228.94	227.25	226.82	227.03	226.70	226.36	
27	226.47	227.15	227.72	227.43	228.23	229.88	228.89	227.22	226.71	227.04	226.72	226.36	
28	226.53	227.31	227.81	227.38	227.71	229.91	228.71	227.20	226.69	227.02	226.71	226.34	
29	226.58	227.47	227.72	227.34	227.58	229.95	228.57	227.17	226.69	227.01	226.79	226.35	
30	226.56	227.60	227.74	227.31	227.91	229.95	228.52	227.15	226.68	227.00		226.33	
31		227.80		227.34	229.03		228.43		226.68	226.99		226.33	
Mean	226.67	227.59	228.59	227.59	227.47	229.52	229.59	227.75	227.27	226.82	226.77	226.50	
Max	226.75	228.43	229.88	228.21	229.03	230.34	230.37	228.43	227.63	227.04	226.97	226.70	230.37
Min	226.47	226.54	227.43	227.20	226.64	228.22	228.43	227.15	226.68	226.68	226.58	226.33	226.33

Annual Max Momentary Gage Height	230.46	m. (MSL.) ,	at 14.00 Hours, on Oct 4, 2011		
Zero Gage at Bottom Elevation	224.84	m. (MSL.) ,	River Bed	225.61	m. (MSL)
Left Bank Elevation	230.97	m. (MSL.) ,			
Right Bank Elevation	230.01	m. (MSL.) ,	Drainage Area	1218	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.78	1.70	20.10	10.62	8.78	25.94	32.54	16.57	5.90	2.40	4.46	2.50		
2	2.78	1.75	23.19	10.62	9.98	26.05	32.54	16.21	6.22	2.40	4.38	2.40		
3	2.85	2.00	28.91	10.86	11.66	20.50	32.87	15.85	6.46	2.40	4.22	2.35		
4	2.71	2.15	31.88	11.58	15.04	16.30	37.64	15.58	6.70	2.40	4.06	2.30		
5	2.78	2.25	30.89	11.90	11.66	15.40	35.00	15.22	6.94	2.45	3.90	2.20		
6	2.71	3.41	31.77	14.59	9.42	16.30	34.52	14.77	7.26	2.45	3.76	2.20		
7	2.78	7.98	30.78	13.69	5.02	18.90	33.80	14.41	7.66	2.45	3.69	2.15		
8	2.85	14.05	31.44	12.30	3.34	18.10	33.44	14.23	7.98	2.45	3.55	2.10		
9	2.78	16.57	30.45	10.70	2.78	14.68	32.32	13.96	8.30	2.45	3.41	2.05		
10	2.71	16.48	29.68	10.62	2.71	16.48	31.66	13.33	8.54	2.50	3.34	2.00		
11	2.71	16.30	28.14	10.62	2.40	25.61	31.66	12.70	8.70	2.50	3.20	1.95		
12	2.57	16.12	24.40	11.42	2.20	31.33	30.23	12.22	8.78	2.50	3.06	1.90		
13	2.50	15.94	19.30	12.46	2.30	35.00	29.24	11.82	8.94	2.57	2.99	1.80		
14	2.45	15.76	18.00	10.70	2.85	37.28	29.24	11.26	9.10	2.57	2.92	1.70		
15	2.40	15.58	16.48	10.38	3.27	34.76	28.91	10.78	9.18	2.78	2.85	1.60		
16	2.35	15.31	15.49	9.74	3.55	34.28	29.13	10.30	9.34	2.99	2.78	1.50		
17	2.25	15.04	14.59	9.34	3.13	33.68	30.89	9.74	9.42	3.20	2.64	1.42		
18	2.20	14.32	13.96	8.46	2.35	33.20	32.32	9.18	9.50	3.41	2.64	1.34		
19	2.05	13.33	12.54	6.86	4.22	32.87	32.32	8.62	9.58	3.55	2.57	1.26		
20	1.95	12.30	8.78	7.02	8.30	32.10	31.55	8.14	9.74	3.76	2.45	1.18		
21	1.95	10.86	8.14	7.18	11.90	32.21	30.45	7.66	9.66	3.98	2.30	1.10		
22	2.20	8.62	9.42	6.62	15.22	32.98	29.24	7.34	8.06	4.30	2.05	1.04		
23	2.40	5.90	8.94	6.46	14.95	33.09	28.03	7.18	6.46	4.46	1.90	1.01		
24	2.57	3.83	10.62	6.30	12.79	32.98	25.39	7.02	4.86	4.54	2.10	1.01		
25	2.50	3.13	11.18	6.46	13.51	32.87	23.30	6.86	4.06	4.70	2.35	0.98		
26	1.75	4.54	11.82	6.86	15.67	32.32	21.60	6.70	3.34	4.94	2.50	0.98		
27	1.38	5.90	10.46	8.14	14.77	31.88	21.10	6.46	2.57	5.02	2.64	0.98		
28	1.65	7.18	11.18	7.74	10.38	32.21	19.30	6.30	2.45	4.86	2.57	0.92		
29	1.90	8.46	10.46	7.42	9.34	32.65	17.90	6.06	2.45	4.78	3.13	0.95		
30	1.80	9.50	10.62	7.18	11.98	32.65	17.40	5.90	2.40	4.70		0.89		
31		11.10		7.42	22.53		16.57		2.40	4.62		0.89		
Total	71.26	297.36	563.61	292.26	268.00	844.60	892.10	322.37	212.95	105.08	88.41	48.65	4006.65	CMSDAY
Mean	2.38	9.59	18.79	9.43	8.65	28.15	28.78	10.75	6.87	3.39	3.05	1.57	10.95	CMS
Max	2.85	16.57	31.88	14.59	22.53	37.28	37.64	16.57	9.74	5.02	4.46	2.50	37.64	CMS
Min	1.38	1.70	8.14	6.30	2.20	14.68	16.57	5.90	2.40	2.40	1.90	0.89	0.89	CMS
Runoff	6.16	25.69	48.70	25.25	23.16	72.97	77.08	27.85	18.40	9.08	7.64	4.20	346.18	MCM

Momentary Peak 38.72 CMS, at 230.46 m. (MSL), at 14.00 Hours, on Oct 4, 2011

Runoff Yield 8.99 Liters/Second/Square KM. Momentary Peak Yield 31.790 Liters/Second/Square KM.

WATER YEAR : 2011

CHI RIVER BASIN

Lam Phan Chat at Ban Kham Hai , Udon Thani (E.86)

Lat 17 - 05 - 29 N Long 103 - 34 - 16 E

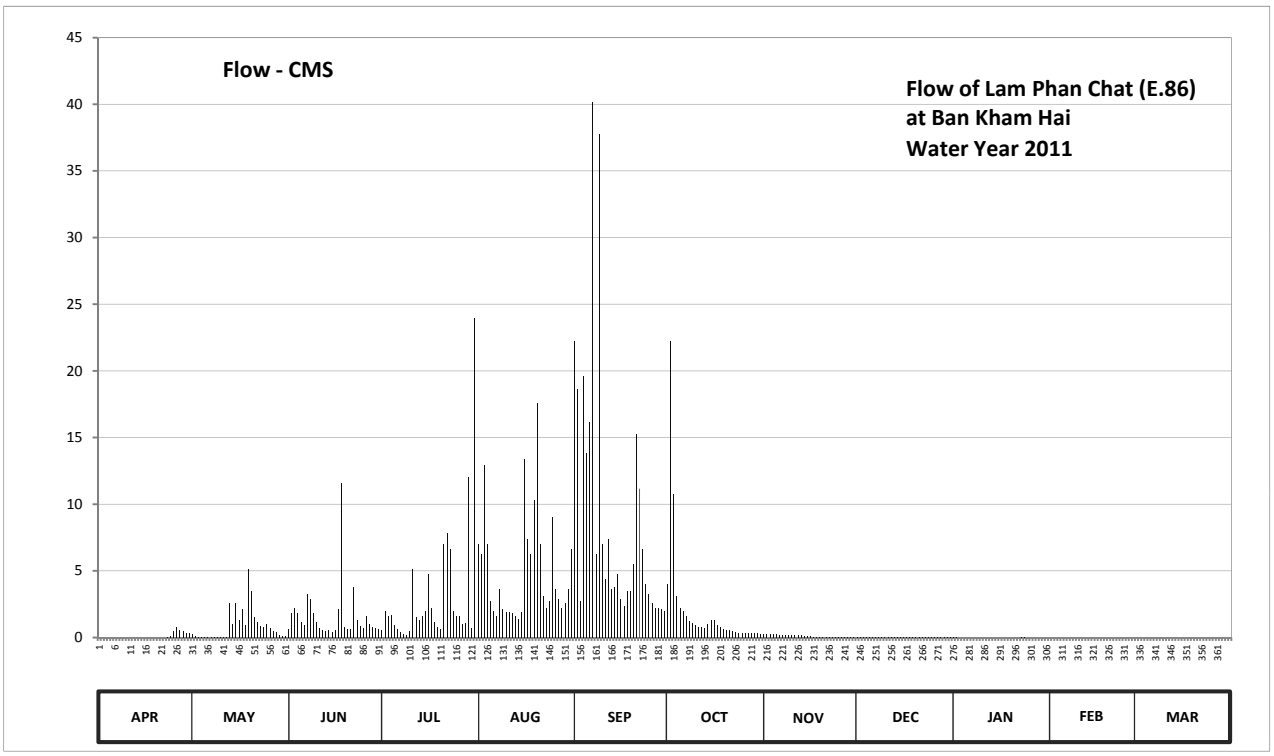
Location : on left bank at Ban Kham Hai.

	Ban Kham Hai	**Amphoe** Wang Sam Mo	**Changwat** Udon Thani
Drainge Area	93 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+204.200 m. (MSL.)		
Bench Mark	B.M.- Highways Dept.		
Location BM	On left bank downstream at the footpath of the bridge.	**Elevation**	+214.372 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings		
Period of Available Gage Records	2004 to date		
Rating Operation			
Period of Rating	2004 to date		
Rated by Flot	-		
Rated by Current Meter	2004 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 21 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	206.26	206.84	207.24	207.19	207.78	208.11	207.70	206.88	206.56	206.44	206.33	206.26	
2	206.26	206.70	207.56	207.58	207.76	208.04	208.11	206.86	206.54	206.43	206.32	206.26	
3	206.26	206.63	207.60	207.54	207.92	207.63	207.87	206.85	206.53	206.42	206.31	206.26	
4	206.26	206.58	207.56	207.55	207.78	208.06	207.65	206.85	206.50	206.41	206.30	206.26	
5	206.26	206.60	207.48	207.44	207.63	207.94	207.60	206.83	206.50	206.41	206.29	206.26	
6	206.26	206.60	207.44	207.24	207.58	207.99	207.58	206.80	206.49	206.40	206.28	206.26	
7	206.26	206.59	207.66	207.00	207.54	208.38	207.54	206.79	206.49	206.40	206.27	206.26	
8	206.26	206.52	207.64	206.82	207.68	207.76	207.50	206.79	206.48	206.40	206.27	206.26	
9	206.26	206.45	207.56	206.80	207.59	208.35	207.47	206.78	206.48	206.39	206.26	206.26	
10	206.26	206.46	207.49	207.08	207.57	207.78	207.43	206.78	206.47	206.39	206.26	206.26	
11	206.26	206.45	207.34	207.73	207.57	207.71	207.40	206.77	206.47	206.39	206.26	206.26	
12	206.26	206.46	207.14	207.53	207.56	207.79	207.36	206.77	206.47	206.39	206.26	206.26	
13	206.26	207.62	207.10	207.51	207.54	207.68	207.33	206.76	206.46	206.39	206.26	206.26	
14	206.26	207.46	207.14	207.54	207.52	207.69	207.46	206.73	206.46	206.39	206.26	206.26	
15	206.26	207.62	206.98	207.58	207.57	207.72	207.51	206.68	206.46	206.39	206.26	206.26	
16	206.26	207.51	207.14	207.72	207.93	207.64	207.51	206.67	206.45	206.39	206.26	206.26	
17	206.26	207.59	207.59	207.60	207.79	207.61	207.43	206.65	206.44	206.39	206.26	206.26	
18	206.26	207.44	207.89	207.48	207.76	207.67	207.36	206.65	206.44	206.39	206.26	206.26	
19	206.26	207.73	207.39	207.37	207.86	207.67	207.25	206.64	206.44	206.39	206.26	206.26	
20	206.26	207.67	207.27	207.25	208.02	207.74	207.18	206.63	206.45	206.39	206.26	206.26	
21	206.26	207.53	207.26	207.78	207.78	207.97	207.14	206.63	206.45	206.40	206.26	206.26	
22	206.26	207.48	207.69	207.80	207.65	207.88	207.08	206.62	206.46	206.41	206.26	206.26	
23	206.63	207.42	207.51	207.77	207.60	207.77	207.02	206.61	206.46	206.43	206.26	206.26	
24	206.74	207.39	207.41	207.58	207.63	207.70	206.97	206.61	206.46	206.43	206.26	206.26	
25	207.09	207.46	207.34	207.54	207.83	207.66	206.95	206.61	206.47	206.40	206.26	206.26	
26	207.40	207.34	207.54	207.54	207.68	207.62	206.94	206.60	206.47	206.38	206.26	206.26	
27	207.18	207.10	207.46	207.46	207.64	207.60	206.93	206.60	206.48	206.37	206.26	206.26	
28	207.07	207.01	207.38	207.47	207.60	207.60	206.93	206.59	206.48	206.36	206.26	206.26	
29	206.94	206.79	207.29	207.90	207.62	207.59	206.92	206.59	206.47	206.36	206.26	206.26	
30	206.91	206.68	207.20	207.32	207.68	207.58	206.91	206.58	206.47	206.35		206.26	
31		206.71		208.14	207.77		206.89		206.46	206.34		206.26	
Mean	206.46	207.05	207.41	207.48	207.69	207.80	207.32	206.71	206.47	206.39	206.27	206.26	
Max	207.40	207.73	207.89	208.14	208.02	208.38	208.11	206.88	206.56	206.44	206.33	206.26	208.38
Min	206.26	206.45	206.98	206.80	207.52	207.58	206.89	206.58	206.44	206.34	206.26	206.26	206.26

Annual Max Momentary Gage Height	208.54	m. (MSL.) ,	at 12.00 Hours, on Sep 9, 2011		
Zero Gage at Bottom Elevation	204.20	m. (MSL.) ,	River Bed	206.02	m. (MSL)
Left Bank Elevation	210.91	m. (MSL.) ,			
Right Bank Elevation	212.81	m. (MSL.) ,	Drainage Area	93	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.24	0.64	0.59	7.04	22.19	4.00	0.28	0.04	0.01	0.00	0.00		
2	0.00	0.10	1.80	2.00	6.28	18.60	22.19	0.26	0.03	0.01	0.00	0.00		
3	0.00	0.07	2.20	1.60	12.92	2.74	10.74	0.25	0.03	0.00	0.00	0.00		
4	0.00	0.04	1.80	1.70	7.04	19.60	3.10	0.25	0.02	0.00	0.00	0.00		
5	0.00	0.05	1.12	0.96	2.74	13.84	2.20	0.23	0.02	0.00	0.00	0.00		
6	0.00	0.05	0.96	0.64	2.00	16.14	2.00	0.20	0.02	0.00	0.00	0.00		
7	0.00	0.05	3.28	0.40	1.60	40.20	1.60	0.19	0.02	0.00	0.00	0.00		
8	0.00	0.03	2.92	0.22	3.64	6.28	1.20	0.19	0.02	0.00	0.00	0.00		
9	0.00	0.01	1.80	0.20	2.10	37.80	1.08	0.18	0.02	0.00	0.00	0.00		
10	0.00	0.01	1.16	0.48	1.90	7.04	0.92	0.18	0.01	0.00	0.00	0.00		
11	0.00	0.01	0.74	5.14	1.90	4.38	0.80	0.17	0.01	0.00	0.00	0.00		
12	0.00	0.01	0.54	1.50	1.80	7.42	0.76	0.17	0.01	0.00	0.00	0.00		
13	0.00	2.56	0.50	1.30	1.60	3.64	0.73	0.16	0.01	0.00	0.00	0.00		
14	0.00	1.04	0.54	1.60	1.40	3.82	1.04	0.13	0.01	0.00	0.00	0.00		
15	0.00	2.56	0.38	2.00	1.90	4.76	1.30	0.09	0.01	0.00	0.00	0.00		
16	0.00	1.30	0.54	4.76	13.38	2.92	1.30	0.08	0.01	0.00	0.00	0.00		
17	0.00	2.10	2.10	2.20	7.42	2.38	0.92	0.07	0.01	0.00	0.00	0.00		
18	0.00	0.96	11.58	1.12	6.28	3.46	0.76	0.07	0.01	0.00	0.00	0.00		
19	0.00	5.14	0.79	0.77	10.32	3.46	0.65	0.07	0.01	0.00	0.00	0.00		
20	0.00	3.46	0.67	0.65	17.60	5.52	0.58	0.07	0.01	0.00	0.00	0.00		
21	0.00	1.50	0.66	7.04	7.04	15.22	0.54	0.07	0.01	0.00	0.00	0.00		
22	0.00	1.12	3.82	7.80	3.10	11.16	0.48	0.06	0.01	0.00	0.00	0.00		
23	0.07	0.88	1.30	6.66	2.20	6.66	0.42	0.05	0.01	0.01	0.00	0.00		
24	0.14	0.79	0.84	2.00	2.74	4.00	0.37	0.05	0.01	0.01	0.00	0.00		
25	0.49	1.04	0.74	1.60	9.06	3.28	0.35	0.05	0.01	0.00	0.00	0.00		
26	0.80	0.74	1.60	1.60	3.64	2.56	0.34	0.05	0.01	0.00	0.00	0.00		
27	0.58	0.50	1.04	1.04	2.92	2.20	0.33	0.05	0.02	0.00	0.00	0.00		
28	0.47	0.41	0.78	1.08	2.20	2.20	0.33	0.05	0.02	0.00	0.00	0.00		
29	0.34	0.19	0.69	12.00	2.56	2.10	0.32	0.05	0.01	0.00	0.00	0.00		
30	0.31	0.09	0.60	0.72	3.64	2.00	0.31	0.04	0.01	0.00		0.00		
31		0.11		23.96	6.66		0.29		0.01	0.00		0.00		
Total	3.20	27.16	48.13	95.33	156.62	277.57	61.95	3.81	0.46	0.04	0.00	0.00	674.27	CMSDAY
Mean	0.11	0.88	1.60	3.08	5.05	9.25	2.00	0.13	0.01	0.00	0.00	0.00	1.84	CMS
Max	0.80	5.14	11.58	23.96	17.60	40.20	22.19	0.28	0.04	0.01	0.00	0.00	40.20	CMS
Min	0.00	0.01	0.38	0.20	1.40	2.00	0.29	0.04	0.01	0.00	0.00	0.00	0.00	CMS
Runoff	0.28	2.35	4.16	8.24	13.53	23.98	5.35	0.33	0.04	0.00	0.00	0.00	58.26	MCM

Momentary Peak 56.32 CMS, at 208.54 m. (MSL), at 12.00 Hours, on Sep 9, 2011

Runoff Yield 19.81 Liters/Second/Square KM. Momentary Peak Yield 605.591 Liters/Second/Square KM.

WATER YEAR : 2011

CHI RIVER BASIN

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

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

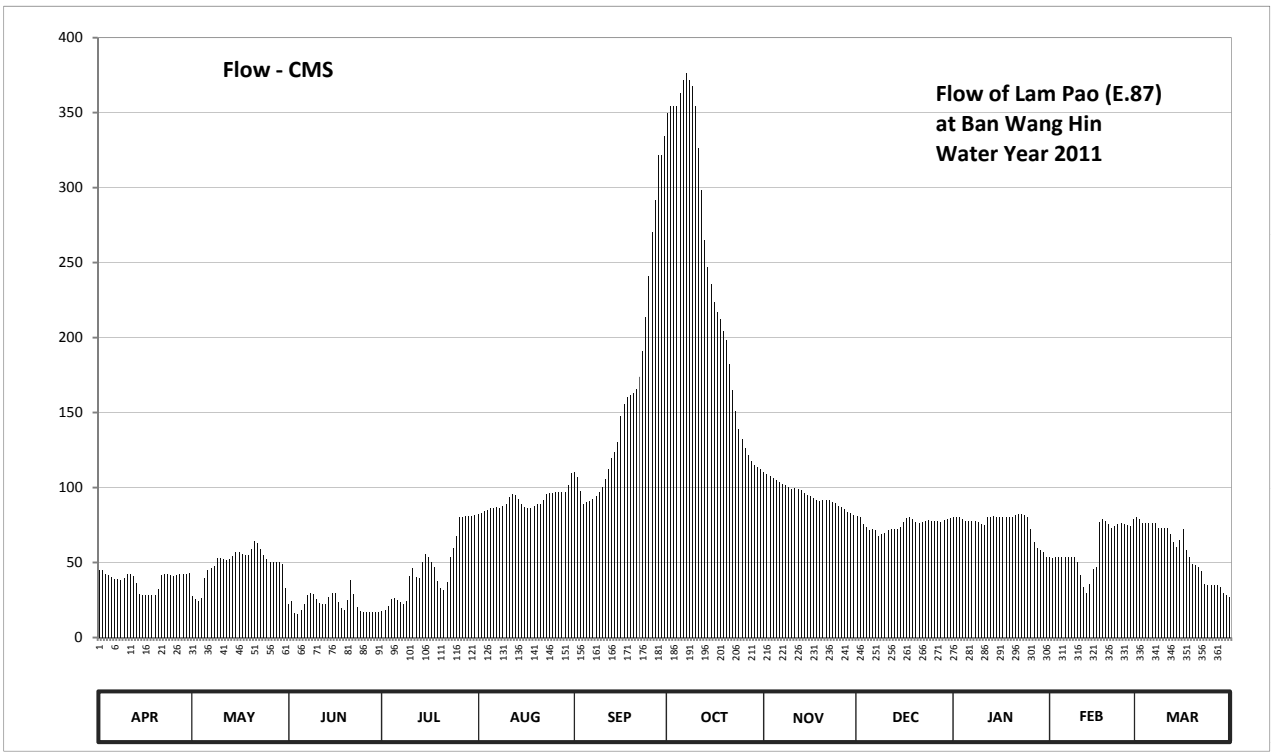
Location : on left bank at Ban Wang Hin.

	Ban Wang Hin	**Amphoe** Kamalasai	**Changwat** Kalasin
Drainge Area	7,068 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+128.900 m. (MSL.)		
Bench Mark	B.M.- Highways Dept.		
Location BM	On left bank downstream at the footpath of the bridge.	**Elevation**	+140.068 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings		
Period of Available Gage Records	2004 to date		
Rating Operation			
Period of Rating	2004 to date		
Rated by Flot	-		
Rated by Current Meter	2004 to date		
Stability of Channel Regimes	Rather unstable because of backwater effect.		
Overbank Flow Conditions	Overbank flow starts at elevation +135.760 m.(MSL.), records are channel flow only.		
General Description	Records fair. Stage-discharge relation defined by 29 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	131.56	130.89	130.69	130.49	133.51	135.58	138.00	135.58	133.09	132.70	131.88	132.85	
2	131.56	130.82	130.75	130.52	133.69	135.47	138.01	135.53	132.79	132.73	131.86	132.68	
3	131.46	130.76	130.42	130.63	133.86	135.03	138.01	135.49	132.59	132.74	131.87	132.60	
4	131.45	130.85	130.37	130.83	134.00	134.51	138.01	135.43	132.52	132.68	131.87	132.60	
5	131.40	131.37	130.52	130.84	134.17	134.56	138.03	135.38	132.46	132.64	131.87	132.60	
6	131.34	131.58	130.68	130.78	134.20	134.62	138.05	135.32	132.48	132.64	131.87	132.60	
7	131.34	131.61	130.92	130.73	134.21	134.71	138.06	135.26	132.45	132.63	131.87	132.60	
8	131.33	131.66	130.98	130.67	134.20	134.85	138.05	135.21	132.34	132.64	131.87	132.51	
9	131.38	131.86	130.95	130.76	134.30	135.00	138.04	135.15	132.38	132.61	131.87	132.51	
10	131.47	131.86	130.81	131.41	134.52	135.16	138.01	135.10	132.40	132.59	131.76	132.50	
11	131.46	131.83	130.71	131.62	134.78	135.41	137.91	135.13	132.46	132.57	131.45	132.51	
12	131.43	131.80	130.68	131.40	134.90	135.65	137.78	135.11	132.49	132.75	131.14	132.38	
13	131.24	131.83	130.68	131.37	134.86	135.87	137.60	135.05	132.47	133.02	131.00	132.20	
14	130.95	131.91	130.88	131.76	134.70	135.97	137.49	134.96	132.48	133.09	131.22	132.10	
15	130.92	132.01	131.00	131.95	134.47	136.12	137.41	134.88	132.52	133.04	131.60	132.24	
16	130.92	132.00	130.98	131.87	134.28	136.44	137.32	134.81	132.62	132.86	131.64	132.47	
17	130.92	131.95	130.74	131.76	134.16	136.57	137.26	134.76	132.69	132.74	132.61	132.03	
18	130.92	131.93	130.56	131.64	134.17	136.63	137.22	134.68	132.70	132.73	132.67	131.87	
19	130.94	131.92	130.52	131.30	134.31	136.65	137.14	134.64	132.68	132.74	132.63	131.72	
20	131.10	132.06	130.80	131.12	134.48	136.67	137.08	134.65	132.62	132.84	132.59	131.70	
21	131.44	132.23	131.32	131.07	134.51	136.71	136.91	134.65	132.60	133.40	132.50	131.65	
22	131.48	132.19	130.95	131.27	134.68	136.81	136.70	134.65	132.61	133.58	132.53	131.54	
23	131.46	132.06	130.59	131.87	134.91	137.01	136.50	134.60	132.64	133.59	132.58	131.21	
24	131.44	131.92	130.47	132.08	134.94	137.23	136.30	134.54	132.66	133.37	132.60	131.20	
25	131.43	131.82	130.45	132.33	134.97	137.45	136.17	134.33	132.64	132.99	132.58	131.19	
26	131.45	131.77	130.45	132.72	135.00	137.63	136.03	134.21	132.64	132.47	132.55	131.18	
27	131.47	131.75	130.44	132.95	134.99	137.75	135.91	134.06	132.64	132.21	132.54	131.18	
28	131.48	131.75	130.44	133.15	134.98	137.89	135.81	133.83	132.62	132.09	132.67	131.14	
29	131.46	131.75	130.43	133.24	134.98	137.89	135.72	133.62	132.66	132.05	132.82	131.00	
30	131.49	131.71	130.44	133.28	135.23	137.94	135.69	133.45	132.68	131.99		130.93	
31		131.12		133.31	135.54		135.63		132.69	131.89		130.88	
Mean	131.32	131.70	130.69	131.64	134.53	136.19	137.16	134.80	132.59	132.73	132.09	131.95	
Max	131.56	132.23	131.32	133.31	135.54	137.94	138.06	135.58	133.09	133.59	132.82	132.85	138.06
Min	130.92	130.76	130.37	130.49	133.51	134.51	135.63	133.45	132.34	131.89	131.00	130.88	130.37

Annual Max Momentary Gage Height	138.06	m. (MSL.) ,	at 03.00 Hours, on Oct 7, 2011		
Zero Gage at Bottom Elevation	128.90	m. (MSL.) ,	River Bed	129.30	m. (MSL)
Left Bank Elevation	135.76	m. (MSL.) ,			
Right Bank Elevation	136.00	m. (MSL.) ,	Drainage Area	7068	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2010 to March 31, 2011

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	44.70	27.40	22.60	17.80	82.10	110.40	350.00	110.40	80.80	80.00	53.60	80.20		
2	44.70	25.70	24.00	18.50	83.10	107.10	354.40	108.90	80.10	80.00	53.10	79.30		
3	42.00	24.20	16.60	21.10	84.20	97.60	354.40	107.70	76.00	80.00	53.40	76.30		
4	41.70	26.40	15.70	25.90	85.00	89.20	354.40	105.90	73.70	79.30	53.40	76.30		
5	40.40	39.60	18.50	26.20	86.40	90.00	363.20	104.60	71.70	77.80	53.40	76.30		
6	38.80	45.20	22.30	24.70	86.60	90.90	372.00	103.40	72.40	77.80	53.40	76.30		
7	38.80	46.10	28.10	23.50	86.70	92.40	376.40	102.20	71.40	77.40	53.40	76.30		
8	38.60	47.50	29.50	22.10	86.60	94.60	372.00	101.20	67.90	77.80	53.40	73.30		
9	39.90	53.10	28.80	24.20	87.40	97.00	367.60	100.00	69.20	76.70	53.40	73.30		
10	42.20	53.10	25.40	40.70	89.30	100.20	354.40	99.00	69.80	76.00	50.30	73.00		
11	42.00	52.20	23.00	46.40	93.50	105.30	326.60	99.60	71.70	75.30	41.70	73.30		
12	41.20	51.40	22.30	40.40	95.40	112.50	298.00	99.20	72.70	80.10	33.60	69.20		
13	36.20	52.20	22.30	39.60	94.80	119.80	265.00	98.00	72.00	80.60	30.00	63.40		
14	28.80	54.50	27.10	50.30	92.20	123.80	246.60	96.40	72.40	80.80	35.70	60.20		
15	28.10	57.30	30.00	55.60	88.80	130.00	235.40	95.10	73.70	80.60	45.80	64.70		
16	28.10	57.00	29.50	53.40	87.20	147.40	223.60	94.00	77.00	80.20	46.90	72.00		
17	28.10	55.60	23.80	50.30	86.30	155.90	216.60	93.20	79.60	80.00	76.70	58.00		
18	28.10	55.00	19.40	46.90	86.40	160.10	212.20	91.90	80.00	80.00	78.90	53.40		
19	28.60	54.80	18.50	37.80	87.50	161.50	204.00	91.20	79.30	80.00	77.40	49.20		
20	32.60	58.90	25.20	33.10	88.80	162.90	198.00	91.40	77.00	80.20	76.00	48.60		
21	41.40	64.40	38.30	31.80	89.20	165.80	181.90	91.40	76.30	81.70	73.00	47.20		
22	42.50	63.10	28.80	37.00	91.90	173.80	165.00	91.40	76.70	82.50	74.00	44.10		
23	42.00	58.90	20.20	53.40	95.60	191.00	151.00	90.60	77.80	82.50	75.60	35.50		
24	41.40	54.80	17.50	59.60	96.00	213.30	139.00	89.60	78.50	81.60	76.30	35.20		
25	41.20	52.00	17.10	67.60	96.50	241.00	132.50	87.60	77.80	80.50	75.60	34.90		
26	41.70	50.60	17.10	80.00	97.00	270.10	126.20	86.70	77.80	72.00	74.70	34.70		
27	42.20	50.00	16.90	80.40	96.80	292.00	121.40	85.50	77.80	63.70	74.30	34.70		
28	42.50	50.00	16.90	80.90	96.70	321.80	117.40	84.00	77.00	59.90	78.90	33.60		
29	42.00	50.00	16.70	81.20	96.70	321.80	114.60	82.70	78.50	58.60	80.10	30.00		
30	42.70	48.90	16.90	81.30	101.60	334.40	113.70	81.80	79.30	56.70		28.30		
31		33.10		81.40	109.20		111.90		79.60	53.90		27.10		
Total	1153.20	1513.00	679.00	1433.10	2825.50	4873.60	7519.40	2864.60	2345.50	2354.20	1756.00	1757.90	31075.00	CMSDAY
Mean	38.40	48.80	22.60	46.20	91.10	162.50	242.60	95.50	75.70	75.90	60.60	56.70	84.90	CMS
Max	44.70	64.40	38.30	81.40	109.20	334.40	376.40	110.40	80.80	82.50	80.10	80.20	376.40	CMS
Min	28.10	24.20	15.70	17.80	82.10	89.20	111.90	81.80	67.90	53.90	30.00	27.10	15.70	CMS
Runoff	99.64	130.72	58.67	123.82	244.12	421.08	649.68	247.50	202.65	203.40	151.72	151.88	2684.88	MCM

Momentary Peak 376.40 CMS, at 138.06 m. (MSL), at 03.00 Hours, on Oct 7, 2011

Runoff Yield 12.01 Liters/Second/Square KM. Momentary Peak Yield 53.254 Liters/Second/Square KM.

WATER YEAR : 2011

CHI RIVER BASIN

Lam Nong Sang at Ban Nong Rew Nung , Kalasin (E.89)

Lat 16 - 40 - 04 N Long 103 - 18 - 16 E

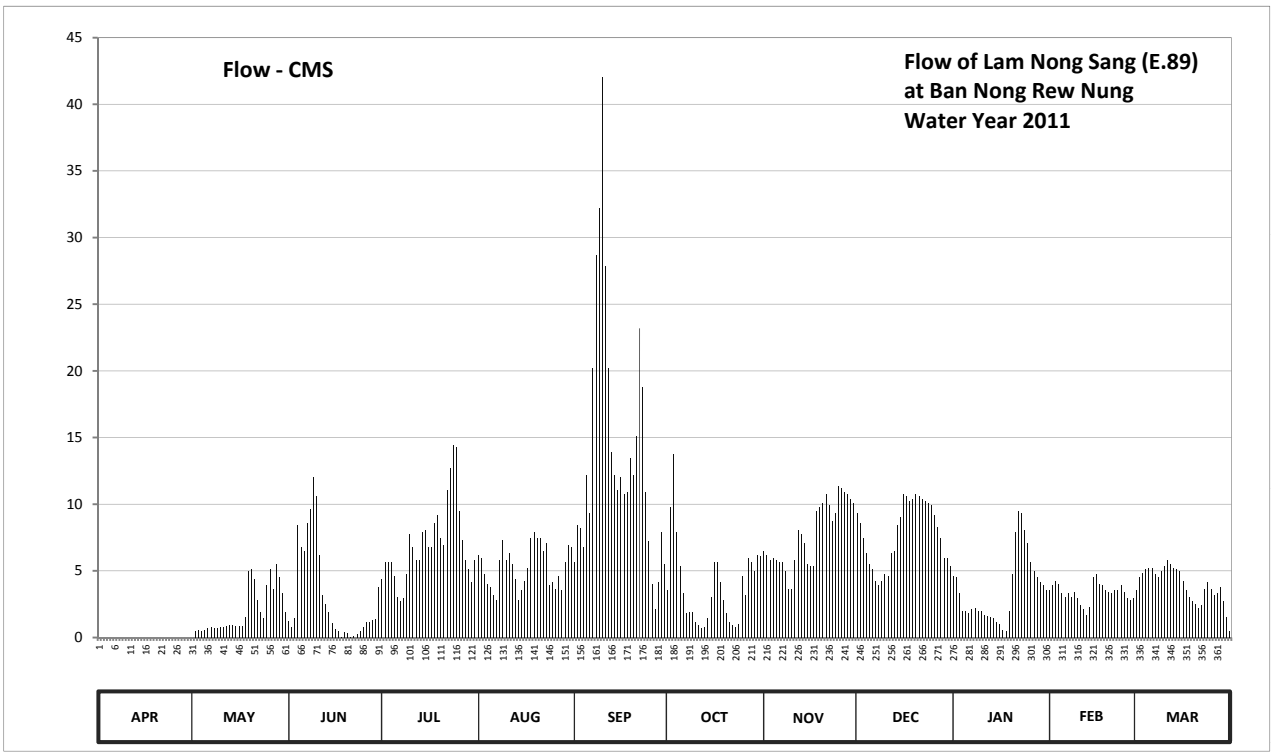
Location : on left bank at Ban Nong Rew Nung.

	Ban Nong Rew Nung	**Amphoe** Nong Kung Si	**Changwat** Kalasin		
Drainge Area	167 sq.km.				
Type of Gage	Water - stage recorder				
Zero Gage at Bottom	+170.600 m. (MSL.)				
Bench Mark	B.M.- Highways Dept.				
Location BM	On left bank upstream at the footpath of the bridge.		**Elevation** +176.238 m. (MSL.)		
Gage Reading Frequency	Recording				
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings				
Period of Available Gage Records	2004 to date				
Rating Operation					
Period of Rating	2004 to date				
Rated by Flot	-				
Rated by Current Meter	2004 to date				
Stability of Channel Regimes	Fairly stable.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records fair. Stage-discharge relation defined by 15 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	171.64	171.66	171.93	172.24	172.38	172.34	172.17	172.40	172.60	172.26	172.17	172.17	
2	171.65	171.80	171.86	172.34	172.36	172.54	172.63	172.38	172.55	172.25	172.20	172.25	
3	171.65	171.81	171.96	172.34	172.27	172.52	172.88	172.35	172.47	172.15	172.23	172.28	
4	171.63	171.80	172.54	172.34	172.21	172.42	172.50	172.36	172.39	172.03	172.21	172.30	
5	171.63	171.81	172.42	172.26	172.19	172.78	172.32	172.35	172.33	172.03	172.15	172.31	
6	171.64	171.84	172.40	172.13	172.14	172.60	172.15	172.34	172.30	172.01	172.13	172.31	
7	171.63	171.85	172.55	172.10	172.11	173.25	172.01	172.34	172.23	172.04	172.15	172.27	
8	171.65	171.84	172.62	172.12	172.35	173.68	172.02	172.29	172.20	172.05	172.13	172.25	
9	171.65	171.84	172.77	172.27	172.46	173.84	172.02	172.18	172.23	172.03	172.16	172.29	
10	171.67	171.85	172.68	172.49	172.35	174.28	171.92	172.18	172.27	172.03	172.12	172.32	
11	171.67	171.86	172.38	172.42	172.39	173.64	171.88	172.35	172.26	172.00	172.07	172.35	
12	171.65	171.87	172.14	172.35	172.33	173.25	171.84	172.51	172.39	171.99	172.04	172.33	
13	171.64	171.88	172.08	172.35	172.24	172.89	171.86	172.49	172.40	171.98	172.00	172.31	
14	171.63	171.88	172.02	172.50	172.11	172.78	171.96	172.44	172.54	171.96	172.06	172.30	
15	171.65	171.87	171.91	172.51	172.17	172.71	172.13	172.33	172.58	171.92	172.25	172.29	
16	171.66	171.87	171.83	172.42	172.23	172.77	172.34	172.32	172.69	171.90	172.27	172.23	
17	171.65	171.87	171.79	172.42	172.31	172.69	172.34	172.32	172.68	171.81	172.21	172.17	
18	171.63	171.98	171.71	172.55	172.47	172.70	172.22	172.61	172.66	171.80	172.20	172.13	
19	171.64	172.29	171.78	172.59	172.50	172.86	172.11	172.63	172.67	172.03	172.17	172.10	
20	171.64	172.30	171.76	172.47	172.47	172.78	172.01	172.65	172.69	172.27	172.16	172.08	
21	171.63	172.24	171.71	172.43	172.47	172.96	171.92	172.69	172.68	172.50	172.15	172.05	
22	171.62	172.11	171.72	172.71	172.40	173.41	171.88	172.64	172.67	172.61	172.17	172.07	
23	171.65	172.02	171.75	172.81	172.44	173.17	171.85	172.56	172.66	172.60	172.17	172.18	
24	171.65	171.96	171.80	172.92	172.20	172.70	171.90	172.60	172.65	172.51	172.20	172.22	
25	171.65	172.20	171.86	172.91	172.22	172.45	172.26	172.73	172.64	172.44	172.16	172.18	
26	171.64	172.30	171.92	172.61	172.18	172.21	172.14	172.72	172.59	172.34	172.12	172.14	
27	171.64	172.18	171.92	172.46	172.26	172.04	172.36	172.70	172.53	172.29	172.11	172.15	
28	171.63	172.33	171.94	172.35	172.17	172.22	172.34	172.69	172.47	172.25	172.12	172.19	
29	171.63	172.25	171.95	172.30	172.34	172.50	172.29	172.67	172.36	172.22	172.14	172.10	
30	171.62	172.15	172.19	172.22	172.43	172.33	172.38	172.65	172.36	172.20		171.98	
31		172.02		172.35	172.42		172.37		172.32	172.17		171.80	
Mean	171.64	171.98	172.06	172.43	172.31	172.84	172.16	172.48	172.49	172.15	172.15	172.20	
Max	171.67	172.33	172.77	172.92	172.50	174.28	172.88	172.73	172.69	172.61	172.27	172.35	174.28
Min	171.62	171.66	171.71	172.10	172.11	172.04	171.84	172.18	172.20	171.80	172.00	171.80	171.62

Annual Max Momentary Gage Height	174.43	m. (MSL.) ,	at 12.00 Hours, on Sep 10, 2011		
Zero Gage at Bottom Elevation	170.60	m. (MSL.) ,	River Bed	170.83	m. (MSL)
Left Bank Elevation	176.25	m. (MSL.) ,			
Right Bank Elevation	176.23	m. (MSL.) ,	Drainage Area	167	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	1.21	4.38	6.22	5.66	3.54	6.50	9.30	4.62	3.54	3.54		
2	0.00	0.50	0.80	5.66	5.94	8.46	9.78	6.22	8.60	4.50	3.90	4.50		
3	0.00	0.55	1.42	5.66	4.74	8.18	13.78	5.80	7.48	3.30	4.26	4.86		
4	0.00	0.50	8.46	5.66	4.02	6.78	7.90	5.94	6.36	2.00	4.02	5.10		
5	0.00	0.55	6.78	4.62	3.78	12.18	5.38	5.80	5.52	2.00	3.30	5.24		
6	0.00	0.70	6.50	3.06	3.18	9.30	3.30	5.66	5.10	1.80	3.06	5.24		
7	0.00	0.75	8.60	2.70	2.82	20.20	1.80	5.66	4.26	2.10	3.30	4.74		
8	0.00	0.70	9.62	2.94	5.80	28.68	1.90	4.98	3.90	2.20	3.06	4.50		
9	0.00	0.70	12.02	4.74	7.34	32.21	1.90	3.66	4.26	2.00	3.42	4.98		
10	0.00	0.75	10.58	7.76	5.80	42.04	1.14	3.66	4.74	2.00	2.94	5.38		
11	0.00	0.80	6.22	6.78	6.36	27.84	0.90	5.80	4.62	1.70	2.40	5.80		
12	0.00	0.85	3.18	5.80	5.52	20.20	0.70	8.04	6.36	1.63	2.10	5.52		
13	0.00	0.90	2.50	5.80	4.38	13.94	0.80	7.76	6.50	1.56	1.70	5.24		
14	0.00	0.90	1.90	7.90	2.82	12.18	1.42	7.06	8.46	1.42	2.30	5.10		
15	0.00	0.85	1.07	8.04	3.54	11.06	3.06	5.52	9.02	1.14	4.50	4.98		
16	0.00	0.85	0.65	6.78	4.26	12.02	5.66	5.38	10.74	1.00	4.74	4.26		
17	0.00	0.85	0.45	6.78	5.24	10.74	5.66	5.38	10.58	0.55	4.02	3.54		
18	0.00	1.56	0.05	8.60	7.48	10.90	4.14	9.46	10.26	0.50	3.90	3.06		
19	0.00	4.98	0.40	9.16	7.90	13.46	2.82	9.78	10.42	2.00	3.54	2.70		
20	0.00	5.10	0.30	7.48	7.48	12.18	1.80	10.10	10.74	4.74	3.42	2.50		
21	0.00	4.38	0.05	6.92	7.48	15.06	1.14	10.74	10.58	7.90	3.30	2.20		
22	0.00	2.82	0.10	11.06	6.50	23.19	0.90	9.94	10.42	9.46	3.54	2.40		
23	0.00	1.90	0.25	12.66	7.06	18.76	0.75	8.74	10.26	9.30	3.54	3.66		
24	0.00	1.42	0.50	14.42	3.90	10.90	1.00	9.30	10.10	8.04	3.90	4.14		
25	0.00	3.90	0.80	14.26	4.14	7.20	4.62	11.38	9.94	7.06	3.42	3.66		
26	0.00	5.10	1.14	9.46	3.66	4.02	3.18	11.22	9.16	5.66	2.94	3.18		
27	0.00	3.66	1.14	7.34	4.62	2.10	5.94	10.90	8.32	4.98	2.82	3.30		
28	0.00	5.52	1.28	5.80	3.54	4.14	5.66	10.74	7.48	4.50	2.94	3.78		
29	0.00	4.50	1.35	5.10	5.66	7.90	4.98	10.42	5.94	4.14	3.18	2.70		
30	0.00	3.30	3.78	4.14	6.92	5.52	6.22	10.10	5.94	3.90		1.56		
31		1.90		5.80	6.78		6.08		5.38	3.54		0.50		
Total	0.00	61.74	93.10	217.26	164.88	417.00	117.85	231.64	240.74	111.24	97.00	121.86	1874.31	CMSDAY
Mean	0.00	1.99	3.10	7.01	5.32	13.90	3.80	7.72	7.77	3.59	3.34	3.93	5.12	CMS
Max	0.00	5.52	12.02	14.42	7.90	42.04	13.78	11.38	10.74	9.46	4.74	5.80	42.04	CMS
Min	0.00	0.00	0.05	2.70	2.82	2.10	0.70	3.66	3.90	0.50	1.70	0.50	0.00	CMS
Runoff	0.00	5.33	8.04	18.77	14.25	36.03	10.18	20.01	20.80	9.61	8.38	10.53	161.94	MCM

Momentary Peak 45.52 CMS, at 174.43 m. (MSL), at 12.00 Hours, on Sep 10, 2011

Runoff Yield 30.67 Liters/Second/Square KM. Momentary Peak Yield 272.575 Liters/Second/Square KM.

WATER YEAR : 2011

CHI RIVER BASIN

Chi River at Ban Kui Chuak , Maha Sarakham (E.91)

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

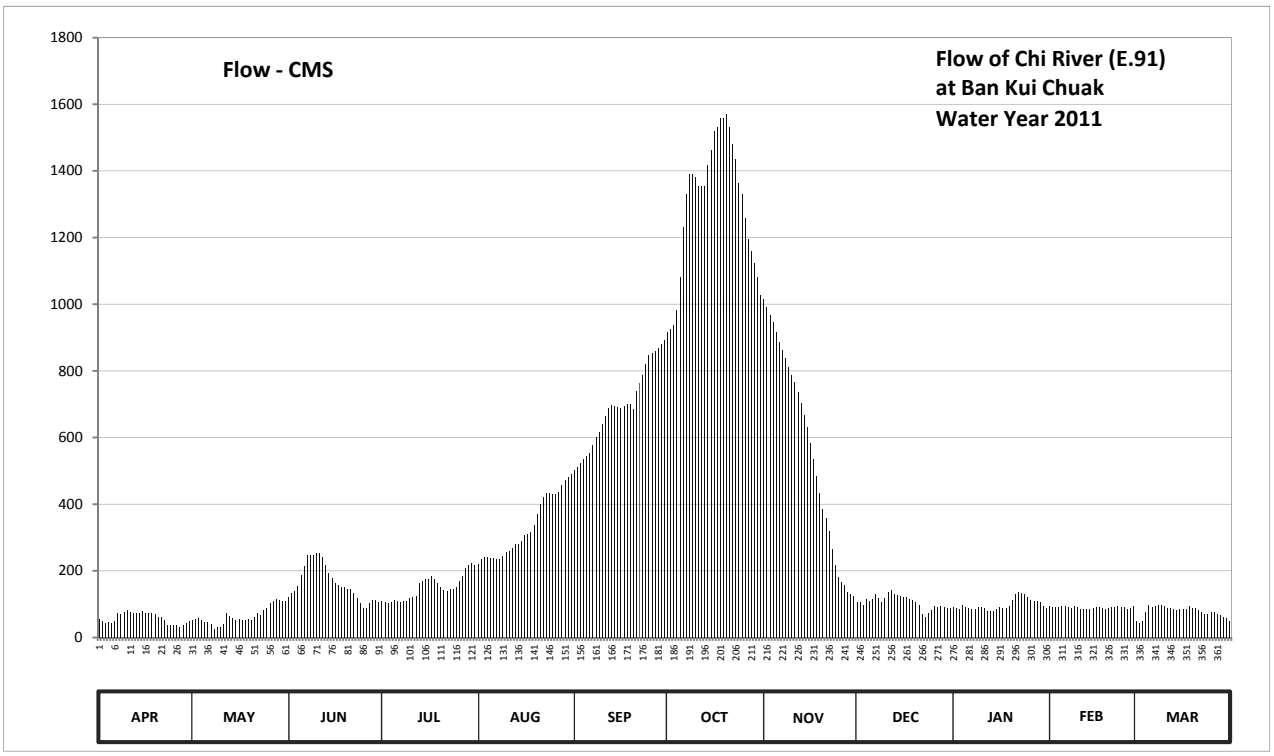
Location : on left bank at Ban Kui Chuak.

	Ban Kui Chuak	**Amphoe** Kosum Phisai	**Changwat** Maha Sarakham		
Drainge Area	29,265 sq.km.				
Type of Gage	Staff gage				
Zero Gage at Bottom	+138.000 m. (MSL.)				
Bench Mark	B.M.- H.D.				
Location BM	On left bank at the abutment of the bridge.		**Elevation** +151.082 m. (MSL.)		
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.				
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings				
Period of Available Gage Records	2005 to date				
Rating Operation					
Period of Rating	2005 to date				
Rated by Flot	-				
Rated by Current Meter	2005 to date				
Stability of Channel Regimes	Fairly stable.				
Overbank Flow Conditions	Overbank flow starts at elevation +150.010 m.(MSL.), records are channel flow only.				
General Description	Records good. Stage-discharge relation defined by 24 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	140.72	140.62	142.00	141.78	143.47	146.80	150.08	150.43	141.76	141.48	141.53	140.57	
2	140.54	140.69	142.17	141.76	143.66	146.90	150.11	150.34	141.76	141.41	141.48	140.44	
3	140.44	140.78	142.25	141.71	143.76	147.04	150.16	150.26	141.61	141.39	141.50	140.56	
4	140.50	140.64	142.52	141.73	143.74	147.16	150.31	150.19	141.90	141.57	141.46	141.16	
5	140.44	140.50	142.99	141.82	143.71	147.24	150.55	150.08	141.77	141.46	141.52	141.57	
6	140.61	140.47	143.40	141.77	143.73	147.34	150.72	149.97	141.88	141.44	141.53	141.46	
7	141.09	140.34	143.84	141.75	143.67	147.59	150.83	149.85	142.11	141.37	141.47	141.56	
8	141.04	139.94	143.84	141.77	143.69	147.85	150.90	149.72	141.93	141.33	141.40	141.59	
9	141.18	140.14	143.84	141.80	143.79	148.02	150.90	149.58	141.75	141.49	141.52	141.61	
10	141.28	140.14	143.90	141.95	143.95	148.26	150.89	149.45	141.95	141.51	141.47	141.55	
11	141.19	140.37	143.91	141.98	144.01	148.52	150.86	149.30	142.22	141.40	141.38	141.44	
12	141.08	141.08	143.76	142.06	144.11	148.72	150.86	149.10	142.32	141.23	141.37	141.41	
13	141.14	140.95	143.43	142.63	144.23	148.80	150.86	148.86	142.12	141.22	141.36	141.33	
14	141.13	140.79	143.10	142.72	144.26	148.78	150.93	148.56	142.07	141.24	141.39	141.31	
15	141.26	140.66	142.86	142.82	144.34	148.75	150.98	148.17	142.03	141.38	141.45	141.34	
16	141.14	140.71	142.64	142.82	144.56	148.74	151.03	147.68	142.00	141.46	141.51	141.33	
17	141.13	140.66	142.57	142.95	144.60	148.77	151.04	147.15	141.99	141.42	141.49	141.38	
18	141.13	140.65	142.46	142.84	144.67	148.84	151.06	146.63	141.88	141.42	141.43	141.53	
19	141.06	140.71	142.45	142.63	144.93	148.83	151.06	146.07	141.85	141.53	141.37	141.45	
20	140.87	140.67	142.39	142.47	145.33	148.71	151.07	145.51	141.72	141.82	141.41	141.41	
21	140.84	140.82	142.39	142.33	145.67	149.13	151.04	145.16	141.61	142.14	141.50	141.28	
22	140.68	141.08	142.18	142.26	145.92	149.29	151.00	144.71	141.06	142.22	141.51	141.19	
23	140.31	140.96	141.95	142.36	146.05	149.44	150.95	144.08	140.85	142.18	141.52	141.03	
24	140.29	141.28	141.67	142.37	146.06	149.63	150.87	143.45	141.08	142.11	141.51	141.07	
25	140.28	141.45	141.44	142.47	146.04	149.76	150.83	142.92	141.29	141.98	141.46	141.20	
26	140.23	141.67	141.44	142.74	146.03	149.79	150.75	142.69	141.52	141.85	141.35	141.19	
27	140.13	141.79	141.68	142.95	146.10	149.82	150.68	142.55	141.51	141.78	141.43	141.03	
28	140.27	141.87	141.82	143.29	146.31	149.87	150.64	142.22	141.52	141.77	141.56	140.99	
29	140.43	141.85	141.83	143.45	146.47	149.93	150.60	142.12	141.51	141.72	141.08	140.83	
30	140.54	141.79	141.76	143.50	146.59	150.00	150.55	142.02	141.45	141.55		140.75	
31		141.80		143.45	146.68		150.47		141.43	141.42		140.56	
Mean	140.77	140.90	142.62	142.42	144.84	148.61	150.76	146.96	141.72	141.59	141.45	141.20	
Max	141.28	141.87	143.91	143.50	146.68	150.00	151.07	150.43	142.32	142.22	141.56	141.61	151.07
Min	140.13	139.94	141.44	141.71	143.47	146.80	150.08	142.02	140.85	141.22	141.08	140.44	139.94

Annual Max Momentary Gage Height	151.07	m. (MSL.) ,	at 01.00 Hours, on Oct 20, 2011		
Zero Gage at Bottom Elevation	138.00	m. (MSL.) ,	River Bed	138.31	m. (MSL)
Left Bank Elevation	150.00	m. (MSL.) ,			
Right Bank Elevation	150.66	m. (MSL.) ,	Drainage Area	29265	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	55.70	51.30	122.00	108.80	219.90	501.20	915.00	1015.80	107.60	91.00	93.80	49.10		
2	47.80	54.40	132.90	107.60	234.20	510.60	923.70	989.90	107.60	87.70	91.00	43.70		
3	43.70	58.30	138.00	104.60	241.80	523.80	938.10	966.90	98.60	86.70	92.00	48.60		
4	46.00	52.20	155.30	105.80	240.20	535.00	981.30	946.70	116.00	96.20	90.10	75.70		
5	43.70	46.00	186.30	111.20	238.00	542.60	1080.40	915.00	108.20	90.10	93.20	96.20		
6	50.80	44.90	215.00	108.20	239.50	552.00	1231.40	886.20	114.80	89.10	93.80	90.10		
7	72.30	39.90	247.80	107.00	234.90	575.50	1329.00	863.20	129.00	85.80	90.60	95.60		
8	69.90	25.20	247.80	108.20	236.40	599.90	1391.20	838.20	117.80	83.80	87.20	97.40		
9	76.60	32.30	247.80	110.00	244.00	615.90	1391.20	811.40	107.00	91.50	93.20	98.60		
10	81.40	32.30	252.40	119.00	256.20	638.40	1382.30	788.40	119.00	92.60	90.60	95.00		
11	77.10	41.10	253.20	120.80	260.80	663.40	1355.70	765.60	136.10	87.20	86.20	89.10		
12	71.80	71.80	241.80	125.80	269.20	687.00	1355.70	735.20	142.50	79.00	85.80	87.70		
13	74.70	65.80	217.10	162.60	279.30	696.40	1355.70	703.50	129.70	78.60	85.30	83.80		
14	74.20	58.80	194.00	168.50	281.80	694.00	1417.80	668.10	126.50	79.50	86.70	82.90		
15	80.50	53.00	177.80	175.10	288.60	690.50	1462.20	630.00	123.90	86.20	89.60	84.30		
16	74.70	55.20	163.20	175.10	307.00	689.30	1519.00	583.90	122.00	90.10	92.60	83.80		
17	74.20	53.00	158.60	183.70	310.40	692.90	1532.00	534.10	121.40	88.20	91.50	86.20		
18	74.20	52.60	151.40	176.40	316.30	701.10	1558.00	485.20	114.80	88.20	88.60	93.80		
19	70.90	55.20	150.80	162.60	338.10	699.90	1558.00	434.30	113.00	93.80	85.80	89.60		
20	62.30	53.50	147.00	152.10	371.70	685.80	1571.00	386.80	105.20	111.20	87.70	87.70		
21	61.00	60.10	147.00	143.10	400.30	739.80	1532.00	357.40	98.60	131.00	92.00	81.40		
22	53.90	71.80	133.50	138.60	421.30	764.10	1480.00	319.60	70.90	136.10	92.60	77.10		
23	38.80	66.20	119.00	145.00	432.50	786.90	1435.60	266.70	61.40	133.50	93.20	69.40		
24	38.00	81.40	102.20	145.70	433.40	821.00	1364.60	218.50	71.80	129.00	92.60	71.40		
25	37.60	89.60	89.10	152.10	431.60	845.90	1329.00	181.70	81.90	120.80	90.10	77.60		
26	35.70	102.20	89.10	169.80	430.70	851.70	1258.00	166.50	93.20	113.00	84.80	77.10		
27	31.90	109.40	102.80	183.70	437.00	857.40	1195.80	157.30	92.60	108.80	88.60	69.40		
28	37.30	114.20	111.20	207.30	455.90	867.00	1160.30	136.10	93.20	108.20	95.60	67.60		
29	43.30	113.00	111.80	218.50	470.30	878.60	1124.80	129.70	92.60	105.20	71.80	60.50		
30	47.80	109.40	107.60	222.00	481.50	892.00	1080.40	123.30	89.60	95.00		57.00		
31		110.00		218.50	489.90		1027.40		88.60	88.20		48.60		
Total	1747.80	2024.10	4913.50	4637.40	10292.70	2799.60	40236.60	17005.20	3295.10	3045.30	2596.60	2416.00	113009.90	CMSDAY
Mean	58.30	65.30	163.80	149.60	332.00	693.30	1298.00	566.80	106.30	98.20	89.50	77.90	308.80	CMS
Max	81.40	114.20	253.20	222.00	489.90	892.00	1571.00	1015.80	142.50	136.10	95.60	98.60	1571.00	CMS
Min	31.90	25.20	89.10	104.60	219.90	501.20	915.00	123.30	61.40	78.60	71.80	43.70	25.20	CMS
Runoff	151.01	174.88	424.53	400.67	889.29	1797.09	3476.44	1469.25	284.70	263.11	224.35	208.74	9764.06	MCM

Momentary Peak 1571.01 CMS, at 151.07 m. (MSL), at 01.00 Hours, on Oct 20, 2011

Runoff Yield 10.55 Liters/Second/Square KM. Momentary Peak Yield 53.682 Liters/Second/Square KM.

WATER YEAR : 2011

CHI RIVER BASIN

Lam Nam Yang at Ban Tha Ngam , Roi Et (E.92)

Lat 16 - 06 - 34 N Long 104 - 00 - 40 E

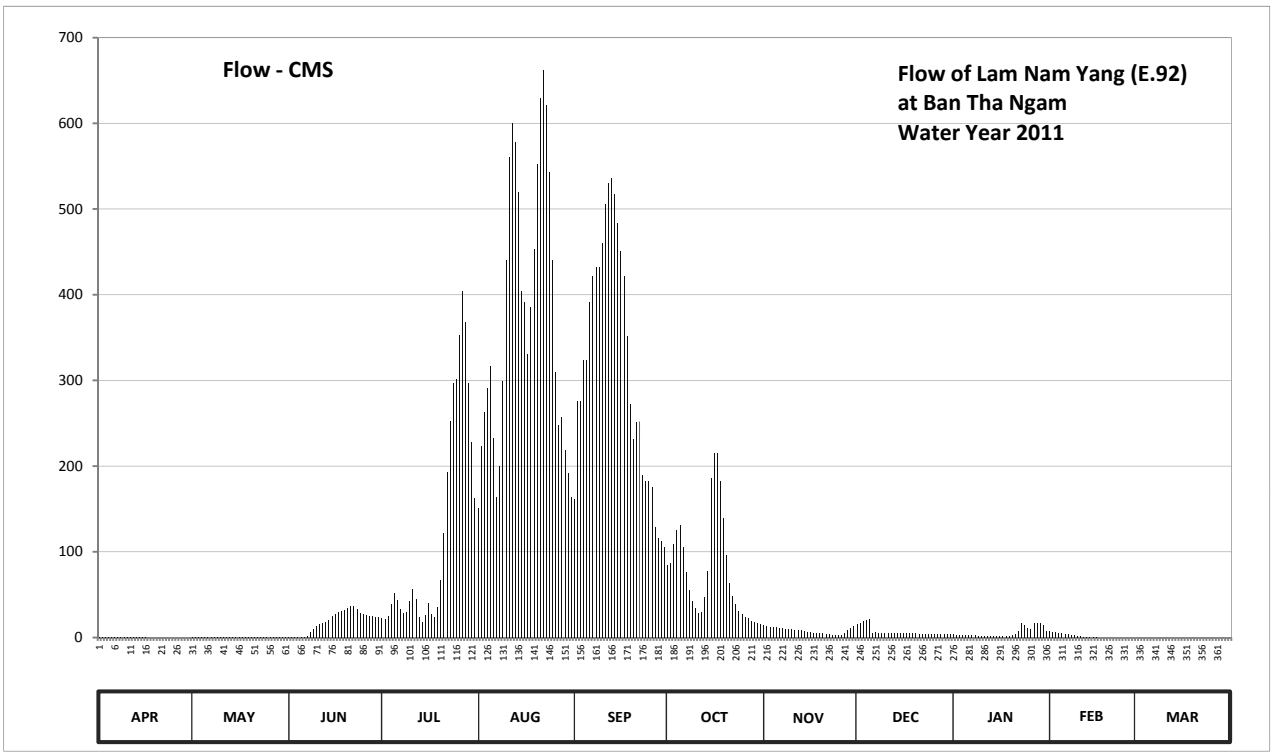
Location : on right bank at the bridge.

	Ban Tha Ngam	**Amphoe** Selaphum	**Changwat** Roi Et
Drainge Area	3,359 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+124.500 m. (MSL.)		
Bench Mark	B.M.- Highways Dept.		
Location BM	On right bank at the footpath of the bridge.		**Elevation** +136.964 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings		
Period of Available Gage Records	2007 to date		
Rating Operation			
Period of Rating	2007 to date		
Rated by Flot	-		
Rated by Current Meter	2007 to date		
Stability of Channel Regimes	Fairly stable because of backwater effect.		
Overbank Flow Conditions	Overbank flow starts at elevation +133.310 m.(MSL.), records are channel flow only.		
General Description	Records good. Stage-discharge relation defined by 31 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	125.54	125.26	126.36	129.55	132.34	132.46	131.42	128.62	128.80	129.40	129.60	128.64	
2	125.54	125.51	126.35	129.46	133.08	133.54	131.47	128.52	129.00	129.38	129.55	128.60	
3	125.54	125.54	126.35	129.71	133.44	133.54	131.80	128.44	129.19	129.37	129.55	128.72	
4	125.54	125.58	126.34	130.39	133.66	133.87	132.03	128.40	129.32	129.36	129.53	128.69	
5	125.54	125.61	126.39	130.76	133.82	133.87	132.10	128.34	129.43	129.35	129.49	128.76	
6	125.54	125.64	126.59	130.56	133.17	134.26	131.74	128.24	129.51	129.34	129.44	128.73	
7	125.54	125.65	126.97	130.22	132.48	134.42	131.26	128.20	129.55	129.33	129.40	128.73	
8	125.54	125.66	127.64	129.97	132.86	134.47	130.85	128.18	129.54	129.33	129.38	128.74	
9	125.53	125.67	128.16	130.05	133.71	134.47	130.52	128.14	129.54	129.31	129.36	128.75	
10	125.53	125.67	128.52	130.51	134.51	134.60	130.23	128.09	129.53	129.30	129.30	128.77	
11	125.53	125.70	128.86	130.88	135.04	134.81	129.95	127.99	129.53	129.29	129.26	128.79	
12	125.53	125.75	128.93	130.60	135.19	134.92	130.05	127.95	129.53	129.28	129.19	128.79	
13	125.53	125.77	129.11	129.62	135.11	134.94	130.66	127.92	129.52	129.27	129.15	128.75	
14	125.52	125.79	129.33	129.15	134.87	134.86	131.29	127.87	129.51	129.26	129.14	128.72	
15	125.52	125.80	129.68	129.82	134.33	134.71	132.71	127.72	129.51	129.26	129.09	128.71	
16	125.51	125.82	129.86	130.45	134.26	134.56	133.01	127.63	129.50	129.26	129.04	128.70	
17	125.01	125.86	130.01	129.86	133.91	134.42	133.01	127.54	129.50	129.25	128.99	128.70	
18	124.58	125.91	130.10	129.66	134.23	134.03	132.68	127.50	129.50	129.25	128.97	128.72	
19	124.57	125.97	130.15	130.30	134.57	133.52	132.20	127.48	129.50	129.27	128.94	128.80	
20	124.56	125.98	130.24	131.09	135.01	133.16	131.61	127.44	129.47	129.33	128.89	128.88	
21	124.56	125.94	130.34	131.98	135.30	133.33	131.03	127.38	129.45	129.40	128.85	128.95	
22	124.65	125.93	130.32	132.78	135.42	133.34	130.69	127.29	129.45	129.60	128.84	128.98	
23	124.89	126.03	130.22	133.34	135.27	132.75	130.40	127.21	129.45	129.95	128.82	129.00	
24	125.08	126.24	129.94	133.70	134.97	132.68	130.09	127.13	129.42	129.87	128.80	129.00	
25	125.13	126.23	129.85	133.73	134.51	132.68	129.89	127.07	129.41	129.78	128.78	129.00	
26	125.17	126.17	129.79	134.04	133.78	132.61	129.66	127.08	129.40	129.74	128.75	129.00	
27	125.18	126.22	129.74	134.33	133.30	132.07	129.54	127.60	129.40	129.95	128.72	129.00	
28	125.18	126.30	129.69	134.13	133.38	131.89	129.26	128.01	129.40	129.95	128.70	128.99	
29	125.17	126.34	129.65	133.70	133.04	131.84	129.13	128.31	129.40	129.95	128.68	128.94	
30	125.17	126.35	129.60	133.12	132.77	131.74	129.02	128.58	129.40	129.87		128.90	
31		126.35		132.47	132.48		128.83		129.40	129.61		128.88	
Mean	125.25	125.88	128.84	131.29	133.99	133.61	130.91	127.86	129.42	129.48	129.11	128.82	
Max	125.54	126.35	130.34	134.33	135.42	134.94	133.01	128.62	129.55	129.95	129.60	129.00	135.42
Min	124.56	125.26	126.34	129.15	132.34	131.74	128.83	127.07	128.80	129.25	128.68	128.60	124.56

Annual Max Momentary Gage Height	135.44	m. (MSL.) ,	at 05.00 Hours, on Aug 22, 2011		
Zero Gage at Bottom Elevation	124.50	m. (MSL.) ,	River Bed	125.00	m. (MSL)
Left Bank Elevation	133.60	m. (MSL.) ,			
Right Bank Elevation	136.61	m. (MSL.) ,	Drainage Area	3359	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.07	0.05	0.34	22.70	151.56	161.64	84.68	13.96	15.40	3.50	7.00	0.00		
2	0.07	0.07	0.33	21.60	222.96	275.20	87.38	13.16	17.00	3.20	6.00	0.00		
3	0.07	0.07	0.33	24.94	263.28	275.20	109.40	12.52	18.90	3.05	6.00	0.00		
4	0.07	0.08	0.32	38.70	291.40	324.20	125.52	12.20	20.20	2.90	5.60	0.00		
5	0.07	0.08	0.37	51.40	316.20	324.20	131.40	11.72	21.30	2.75	4.85	0.00		
6	0.07	0.08	0.69	43.80	233.04	390.80	105.32	10.92	5.20	2.60	4.10	0.00		
7	0.07	0.08	1.79	33.60	163.32	422.00	76.04	10.60	6.00	2.45	3.50	0.00		
8	0.07	0.09	6.12	28.58	200.28	432.00	55.00	10.44	5.80	2.45	3.20	0.00		
9	0.07	0.09	10.28	30.00	298.60	432.00	42.60	10.12	5.80	2.15	2.90	0.00		
10	0.07	0.09	13.16	42.30	440.20	460.00	33.90	9.72	5.60	2.00	2.00	0.00		
11	0.07	0.09	15.88	56.20	560.40	506.20	28.30	8.92	5.60	1.88	1.52	0.00		
12	0.07	0.09	16.44	45.00	600.30	530.80	30.00	8.60	5.60	1.76	0.74	0.00		
13	0.07	0.10	18.10	23.68	578.70	535.60	47.40	8.36	5.40	1.64	0.50	0.00		
14	0.07	0.10	20.30	18.50	519.40	517.20	77.66	7.96	5.20	1.52	0.44	0.00		
15	0.07	0.10	24.52	26.48	404.00	484.20	185.58	6.76	5.20	1.52	0.18	0.00		
16	0.07	0.10	27.04	40.50	390.80	451.20	215.12	6.04	5.00	1.52	0.08	0.00		
17	0.02	0.11	29.20	27.04	330.70	422.00	215.12	5.32	5.00	1.40	0.00	0.00		
18	0.00	0.11	31.00	24.24	385.40	351.10	182.64	5.00	5.00	1.40	0.00	0.00		
19	0.00	0.12	32.00	36.00	453.40	272.60	139.80	4.88	5.00	1.64	0.00	0.00		
20	0.00	0.13	34.20	66.86	552.60	231.92	96.48	4.63	4.55	2.45	0.00	0.00		
21	0.00	0.12	37.20	121.64	630.00	250.96	63.62	4.26	4.25	3.50	0.00	0.00		
22	0.00	0.12	36.60	192.44	662.60	252.08	48.60	3.70	4.25	7.00	0.00	0.00		
23	0.01	0.14	33.60	252.08	621.90	189.50	39.00	3.20	4.25	16.50	0.00	0.00		
24	0.03	0.23	28.16	297.00	542.80	182.64	30.80	2.71	3.80	14.10	0.00	0.00		
25	0.03	0.22	26.90	301.80	440.20	182.64	27.46	2.33	3.65	11.40	0.00	0.00		
26	0.04	0.19	26.06	352.80	309.80	175.78	24.24	2.40	3.50	10.20	0.00	0.00		
27	0.04	0.22	25.36	404.00	247.60	128.88	22.56	5.80	3.50	16.50	0.00	0.00		
28	0.04	0.28	24.66	368.10	256.56	115.52	19.60	9.08	3.50	16.50	0.00	0.00		
29	0.04	0.32	24.10	297.00	218.48	112.12	18.30	11.48	3.50	16.50	0.00	0.00		
30	0.04	0.33	23.40	227.44	191.46	105.32	17.20	13.64	3.50	14.10		0.00		
31		0.33		162.48	163.32		15.64		3.50	7.20		0.00		
Total	1.41	4.33	568.45	3678.90	11641.26	9495.50	2396.36	240.43	213.95	177.28	48.61	0.00	28466.48	CMSDAY
Mean	0.05	0.14	18.95	118.67	375.52	316.52	77.30	8.01	6.90	5.72	1.68	0.00	77.78	CMS
Max	0.07	0.33	37.20	404.00	662.60	535.60	215.12	13.96	21.30	16.50	7.00	0.00	662.60	CMS
Min	0.00	0.05	0.32	18.50	151.56	105.32	15.64	2.33	3.50	1.40	0.00	0.00	0.00	CMS
Runoff	0.12	0.37	49.11	317.86	1005.81	820.41	207.05	20.77	18.49	15.32	4.20	0.00	2459.50	MCM

Momentary Peak 668.20 CMS, at 135.44 m. (MSL), at 05.00 Hours, on Aug 22, 2011

Runoff Yield 23.15 Liters/Second/Square KM. Momentary Peak Yield 198.928 Liters/Second/Square KM.

WATER YEAR : 2011

MUN RIVER BASIN

Mun River at Ban Dan Taka, Nakhon Ratchasima (M.2A)

Lat 14 - 57 - 57 N Long 102 - 14 - 38 E

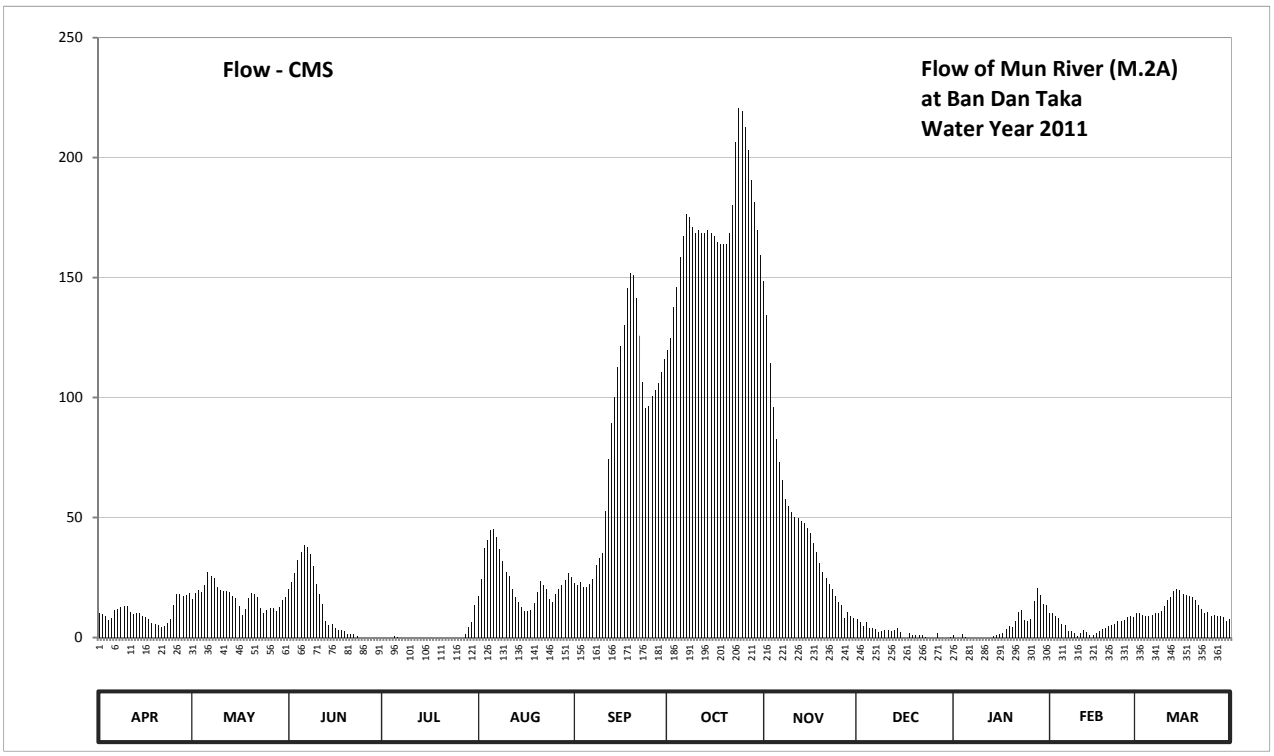
Location : on left bank at Ban Dan Taka.

	Ban Dan Taka	**Amphoe** Chaloem Phra Kiat	**Changwat** Nakhon Ratchasima
Drainge Area	4,724 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+161.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank downstream at the footpath.	**Elevation**	+169.284 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	2001 to date		
Rating Operation			
Period of Rating	2001 to date		
Rated by Flot	-		
Rated by Current Meter	2001 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 34 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	163.41	163.55	163.65	162.87	163.58	163.72	166.52	167.02	163.32	163.05	163.41	163.41	
2	163.39	163.61	163.73	162.84	163.76	163.70	166.63	166.82	163.28	162.96	163.41	163.40	
3	163.37	163.64	163.82	162.87	164.08	163.73	166.88	166.39	163.23	163.00	163.36	163.38	
4	163.31	163.62	163.96	162.94	164.17	163.68	166.99	165.83	163.28	163.07	163.34	163.36	
5	163.34	163.70	164.04	163.04	164.26	163.68	167.13	165.33	163.20	163.02	163.25	163.37	
6	163.44	163.83	164.11	163.01	164.27	163.71	167.21	164.95	163.19	162.95	163.24	163.38	
7	163.45	163.79	164.09	162.99	164.20	163.76	167.28	164.71	163.17	162.89	163.14	163.40	
8	163.47	163.77	164.02	162.97	164.07	163.90	167.27	164.55	163.12	162.87	163.13	163.40	
9	163.48	163.68	163.89	162.95	163.95	163.98	167.24	164.48	163.14	162.86	163.09	163.43	
10	163.48	163.64	163.71	162.89	163.83	164.03	167.22	164.43	163.16	162.86	163.04	163.48	
11	163.42	163.63	163.60	162.77	163.79	164.44	167.23	164.38	163.15	162.90	163.09	163.54	
12	163.39	163.63	163.50	162.67	163.65	164.99	167.22	164.37	163.13	162.89	163.15	163.57	
13	163.40	163.62	163.29	162.69	163.57	165.60	167.22	164.35	163.15	162.96	163.11	163.63	
14	163.40	163.58	163.24	162.74	163.52	165.97	167.23	164.33	163.19	163.03	163.05	163.66	
15	163.37	163.56	163.26	162.76	163.47	166.35	167.22	164.28	163.12	163.06	163.06	163.64	
16	163.35	163.48	163.19	162.78	163.43	166.55	167.21	164.23	162.87	163.07	163.09	163.60	
17	163.32	163.38	163.15	162.84	163.43	166.74	167.19	164.13	162.97	163.10	163.13	163.59	
18	163.27	163.45	163.16	162.85	163.44	166.98	167.18	164.04	163.09	163.17	163.18	163.58	
19	163.26	163.56	163.13	162.89	163.51	167.06	167.18	163.93	163.06	163.22	163.20	163.57	
20	163.24	163.61	163.08	162.96	163.62	167.05	167.18	163.83	163.05	163.21	163.22	163.54	
21	163.21	163.60	163.07	162.99	163.74	166.93	167.22	163.77	163.05	163.30	163.24	163.49	
22	163.22	163.57	163.07	162.94	163.70	166.65	167.31	163.71	163.05	163.42	163.26	163.45	
23	163.27	163.46	163.03	162.93	163.65	166.17	167.49	163.65	163.02	163.44	163.29	163.41	
24	163.32	163.41	162.89	162.89	163.55	165.82	167.58	163.58	162.92	163.31	163.30	163.42	
25	163.49	163.44	162.86	162.94	163.52	165.84	167.57	163.52	162.91	163.30	163.31	163.37	
26	163.60	163.46	162.84	162.96	163.60	165.98	167.53	163.49	162.94	163.32	163.35	163.38	
27	163.60	163.46	162.84	162.96	163.65	166.07	167.47	163.34	163.10	163.53	163.37	163.37	
28	163.58	163.43	162.96	163.07	163.70	166.16	167.39	163.42	163.00	163.67	163.35	163.36	
29	163.59	163.47	162.95	163.21	163.75	166.29	167.32	163.37	162.96	163.59	163.40	163.35	
30	163.61	163.54	162.94	163.28	163.82	166.43	167.23	163.34	163.00	163.50		163.30	
31		163.57		163.49	163.78		167.14		163.01	163.49		163.32	
Mean	163.40	163.57	163.37	162.93	163.74	165.40	167.22	164.39	163.09	163.16	163.23	163.46	
Max	163.61	163.83	164.11	163.49	164.27	167.06	167.58	167.02	163.32	163.67	163.41	163.66	167.58
Min	163.21	163.38	162.84	162.67	163.43	163.68	166.52	163.34	162.87	162.86	163.04	163.30	162.67

Annual Max Momentary Gage Height	167.59	m. (MSL.) ,	at 12.00 Hours , on Oct 24 , 2011		
Zero Gage at Bottom Elevation	161.00	m. (MSL.) ,	River Bed	158.71	m. (MSL)
Left Bank Elevation	169.01	m. (MSL.) ,			
Right Bank Elevation	169.02	m. (MSL.) ,	Drainage Area	4724	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	10.40	16.00	20.00	0.00	17.20	22.80	119.90	148.60	7.60	1.00	10.40	10.40		
2	9.70	18.40	23.20	0.00	24.40	22.00	124.85	134.20	6.40	0.00	10.40	10.00		
3	9.10	19.60	26.80	0.00	37.20	23.20	137.80	114.15	4.90	0.00	8.80	9.40		
4	7.30	18.80	32.40	0.00	40.80	21.20	146.20	95.90	6.40	1.40	8.20	8.80		
5	8.20	22.00	35.60	0.80	44.70	21.20	158.30	82.75	4.00	0.40	5.50	9.10		
6	11.60	27.20	38.40	0.20	45.15	22.40	167.30	73.25	3.80	0.00	5.20	9.40		
7	12.00	25.60	37.60	0.00	42.00	24.40	176.40	65.50	3.40	0.00	2.80	10.00		
8	12.80	24.80	34.80	0.00	36.80	30.00	175.10	57.75	2.40	0.00	2.60	10.00		
9	13.20	21.20	29.60	0.00	32.00	33.20	171.20	54.60	2.80	0.00	1.80	11.20		
10	13.20	19.60	22.40	0.00	27.20	35.20	168.60	52.35	3.20	0.00	0.80	13.20		
11	10.80	19.20	18.00	0.00	25.60	52.80	169.90	50.10	3.00	0.00	1.80	15.60		
12	9.70	19.20	14.00	0.00	20.00	74.25	168.60	49.65	2.60	0.00	3.00	16.80		
13	10.00	18.80	6.70	0.00	16.80	89.50	168.60	48.75	3.00	0.00	2.20	19.20		
14	10.00	17.20	5.20	0.00	14.80	100.10	169.90	47.85	3.80	0.60	1.00	20.40		
15	9.10	16.40	5.80	0.00	12.80	112.75	168.60	45.60	2.40	1.20	1.20	19.60		
16	8.50	13.20	3.80	0.00	11.20	121.25	167.30	43.35	0.00	1.40	1.80	18.00		
17	7.60	9.40	3.00	0.00	11.20	130.00	164.90	39.20	0.00	2.00	2.60	17.60		
18	6.10	12.00	3.20	0.00	11.60	145.40	163.80	35.60	1.80	3.40	3.60	17.20		
19	5.80	16.40	2.60	0.00	14.40	151.80	163.80	31.20	1.20	4.60	4.00	16.80		
20	5.20	18.40	1.60	0.00	18.80	151.00	163.80	27.20	1.00	4.30	4.60	15.60		
21	4.30	18.00	1.40	0.00	23.60	141.40	168.60	24.80	1.00	7.00	5.20	13.60		
22	4.60	16.80	1.40	0.00	22.00	125.75	180.30	22.40	1.00	10.80	5.80	12.00		
23	6.10	12.40	0.60	0.00	20.00	106.45	206.40	20.00	0.40	11.60	6.70	10.40		
24	7.60	10.40	0.00	0.00	16.00	95.60	220.80	17.20	0.00	7.30	7.00	10.80		
25	13.60	11.60	0.00	0.00	14.80	96.20	219.20	14.80	0.00	7.00	7.30	9.10		
26	18.00	12.40	0.00	0.00	18.00	100.40	212.80	13.60	0.00	7.60	8.50	9.40		
27	18.00	12.40	0.00	0.00	20.00	103.10	203.20	8.20	2.00	15.20	9.10	9.10		
28	17.20	11.20	0.00	1.40	22.00	106.10	190.70	10.80	0.00	20.80	8.50	8.80		
29	17.60	12.80	0.00	4.30	24.00	110.65	181.60	9.10	0.00	17.60	10.00	8.50		
30	18.40	15.60	0.00	6.40	26.80	115.85	169.90	8.20	0.00	14.00		7.00		
31		16.80		13.60	25.20		159.40		0.20	13.60		7.60		
Total	315.70	523.80	368.10	26.70	737.05	2485.95	5327.75	1446.65	68.30	152.80	150.40	384.60	11987.80	CMSDAY
Mean	10.52	16.90	12.27	0.86	23.78	82.87	171.86	48.22	2.20	4.93	5.19	12.41	32.75	CMS
Max	18.40	27.20	38.40	13.60	45.15	151.80	220.80	148.60	7.60	20.80	10.40	20.40	220.80	CMS
Min	4.30	9.40	0.00	0.00	11.20	21.20	119.90	8.20	0.00	0.00	0.80	7.00	0.00	CMS
Runoff	27.28	45.26	31.80	2.31	63.68	214.79	460.32	124.99	5.90	13.20	13.00	33.23	1035.75	MCM

Momentary Peak 222.40 CMS. at 167.59 m. (MSL.) at 12.00 Hours , on Oct 24 , 2011

Runoff Yield 6.93 Liters/Second/Square KM. Momentary Peak Yield 47.079 Liters/Second/Square KM.

WATER YEAR : 2011

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.

	Ban Phong Sawai	**Amphoe** Tha Tum	**Changwat** Surin
Drainge Area	34,654 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+117.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	Near the gage site.		**Elevation** +128.995 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	1996-1997, 2005 to date		
Rating Operation			
Period of Rating	1996-1997, 2005 to date		
Rated by Flot	-		
Rated by Current Meter	1996-1997, 2005 to date		
Stability of Channel Regimes	Fairly stable because of backwater effect.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records very good. Stage-discharge relation defined by 30 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

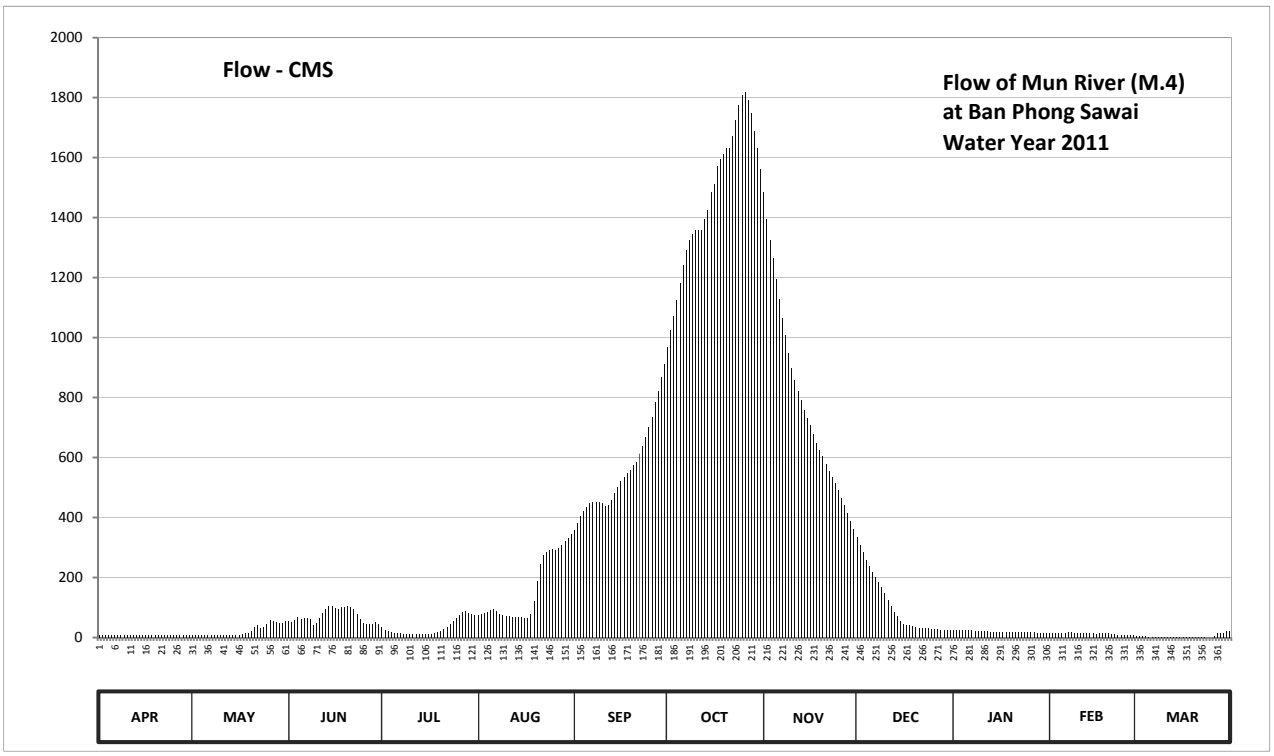
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	117.67	117.56	118.59	118.30	118.90	121.77	124.44	125.20	121.58	118.11	117.86	117.47	
2	117.67	117.59	118.54	118.11	118.94	121.94	124.53	125.09	121.36	118.10	117.86	117.45	
3	117.66	117.58	118.67	118.00	118.98	122.12	124.60	124.99	121.15	118.09	117.84	117.43	
4	117.66	117.58	118.81	117.94	119.05	122.26	124.68	124.90	120.93	118.09	117.82	117.40	
5	117.66	117.58	118.69	117.90	119.15	122.36	124.77	124.79	120.74	118.09	117.82	117.36	
6	117.66	117.56	118.75	117.86	119.18	122.45	124.86	124.69	120.55	118.07	117.86	117.33	
7	117.66	117.54	118.77	117.82	119.08	122.49	124.94	124.59	120.38	118.07	117.92	117.31	
8	117.65	117.54	118.71	117.77	118.96	122.48	124.99	124.50	120.21	118.06	117.94	117.31	
9	117.65	117.54	118.43	117.72	118.89	122.48	125.02	124.41	120.04	118.06	117.89	117.31	
10	117.64	117.55	118.52	117.69	118.86	122.45	125.04	124.33	119.84	118.03	117.87	117.30	
11	117.63	117.55	118.75	117.70	118.83	122.38	125.04	124.25	119.56	118.02	117.86	117.26	
12	117.63	117.54	118.99	117.70	118.80	122.42	125.04	124.17	119.31	118.01	117.85	117.24	
13	117.62	117.54	119.18	117.70	118.78	122.54	125.09	124.10	119.06	117.98	117.81	117.23	
14	117.62	117.54	119.33	117.69	118.80	122.69	125.13	124.02	118.86	117.98	117.80	117.23	
15	117.62	117.54	119.33	117.70	118.81	122.85	125.20	123.94	118.62	117.98	117.80	117.23	
16	117.62	117.59	119.22	117.72	118.75	122.98	125.23	123.87	118.47	117.98	117.79	117.23	
17	117.61	117.72	119.20	117.79	118.76	123.08	125.30	123.77	118.43	117.98	117.83	117.23	
18	117.61	117.83	119.29	117.86	118.96	123.17	125.33	123.66	118.41	117.98	117.87	117.23	
19	117.61	117.90	119.29	117.92	119.51	123.23	125.35	123.56	118.37	117.96	117.86	117.23	
20	117.61	118.04	119.31	118.03	120.26	123.31	125.37	123.46	118.33	117.95	117.82	117.25	
21	117.61	118.32	119.30	118.18	120.81	123.37	125.37	123.34	118.27	117.95	117.76	117.24	
22	117.60	118.41	119.18	118.33	121.08	123.51	125.42	123.21	118.27	117.96	117.70	117.22	
23	117.60	118.27	118.95	118.46	121.17	123.63	125.48	123.08	118.27	117.96	117.66	117.21	
24	117.58	118.31	118.69	118.59	121.22	123.74	125.54	122.94	118.25	117.95	117.61	117.20	
25	117.58	118.46	118.53	118.76	121.23	123.85	125.58	122.77	118.21	117.94	117.58	117.20	
26	117.58	118.66	118.47	118.92	121.22	123.95	125.59	122.59	118.17	117.94	117.55	117.50	
27	117.59	118.63	118.46	119.04	121.26	124.08	125.56	122.40	118.15	117.93	117.55	117.84	
28	117.57	118.56	118.46	119.08	121.35	124.17	125.51	122.20	118.12	117.90	117.54	117.83	
29	117.56	118.52	118.57	119.00	121.45	124.27	125.44	122.01	118.11	117.90	117.53	117.83	
30	117.56	118.53	118.45	118.93	121.54	124.35	125.37	121.79	118.11	117.90		118.00	
31		118.60		118.88	121.64		125.29		118.12	117.89		118.03	
Mean	117.62	117.93	118.85	118.16	119.81	123.01	125.16	123.75	119.17	117.99	117.77	117.39	
Max	117.67	118.66	119.33	119.08	121.64	124.35	125.59	125.20	121.58	118.11	117.94	118.03	125.59
Min	117.56	117.54	118.43	117.69	118.75	121.77	124.44	121.79	118.11	117.89	117.53	117.20	117.20

Annual Max Momentary Gage Height 125.59 m. (MSL.) , at 17.00 Hours , on Oct 25 , 2011

Zero Gage at Bottom Elevation 117.00 m. (MSL.) , River Bed 116.25 m. (MSL)

Left Bank Elevation 128.76 m. (MSL.) ,

Right Bank Elevation 129.27 m. (MSL.) , Drainage Area 34654 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	9.40	7.20	53.30	33.50	75.00	359.70	967.00	1486.00	336.00	24.90	14.80	5.40		
2	9.40	7.80	49.80	24.90	77.80	381.00	1025.50	1394.00	309.20	24.50	14.80	5.00		
3	9.20	7.60	58.90	20.00	80.60	404.10	1071.00	1324.50	284.00	24.00	14.20	4.60		
4	9.20	7.60	68.70	17.60	85.50	422.30	1123.00	1266.00	257.60	24.00	13.60	4.00		
5	9.20	7.60	60.30	16.00	92.50	435.30	1181.50	1194.50	238.00	24.00	13.60	3.20		
6	9.20	7.20	64.50	14.80	94.60	447.00	1240.00	1129.50	219.00	23.10	14.80	2.60		
7	9.20	6.80	65.90	13.60	87.60	452.20	1292.00	1064.50	202.00	23.10	16.80	2.20		
8	9.00	6.80	61.70	12.10	79.20	450.90	1324.50	1006.00	185.00	22.70	17.60	2.20		
9	9.00	6.80	42.10	10.60	74.30	450.90	1345.00	947.50	168.00	22.70	15.70	2.20		
10	8.80	7.00	48.40	9.80	72.20	447.00	1359.00	899.00	149.60	21.30	15.10	2.00		
11	8.60	7.00	64.50	10.00	70.10	437.90	1359.00	858.50	124.40	20.90	14.80	1.20		
12	8.60	6.80	81.30	10.00	68.00	443.10	1359.00	822.50	103.80	20.50	14.50	0.80		
13	8.40	6.80	94.60	10.00	66.60	459.10	1394.00	791.00	86.20	19.20	13.30	0.60		
14	8.40	6.80	105.40	9.80	68.00	480.10	1426.50	759.00	72.20	19.20	13.00	0.60		
15	8.40	6.80	105.40	10.00	68.70	502.50	1486.00	730.00	55.40	19.20	13.00	0.60		
16	8.40	7.80	97.40	10.60	64.50	520.70	1511.50	707.00	44.90	19.20	12.70	0.60		
17	8.20	10.60	96.00	12.70	65.20	534.70	1571.00	677.60	42.10	19.20	13.90	0.60		
18	8.20	13.90	102.30	14.80	79.20	548.70	1596.50	647.20	40.70	19.20	15.10	0.60		
19	8.20	16.00	102.30	16.80	119.90	558.80	1613.50	623.00	38.10	18.40	14.80	0.60		
20	8.20	21.80	103.80	21.30	190.00	573.00	1630.50	603.00	35.40	18.00	13.60	1.00		
21	8.20	34.80	103.00	28.10	245.00	585.00	1630.50	579.00	32.10	18.00	11.80	0.80		
22	8.00	40.70	94.60	35.40	275.60	613.00	1673.00	555.30	32.10	18.40	10.00	0.40		
23	8.00	32.10	78.50	44.20	286.40	639.10	1724.00	534.70	32.10	18.40	9.20	0.20		
24	7.60	34.10	60.30	53.30	292.40	669.20	1775.00	515.10	31.20	18.00	8.20	0.00		
25	7.60	44.20	49.10	65.20	293.60	701.00	1809.00	491.30	29.40	17.60	7.60	0.00		
26	7.60	58.20	44.90	76.40	292.40	733.50	1817.50	466.10	27.60	17.60	7.00	6.00		
27	7.80	56.10	44.20	84.80	297.20	783.00	1792.00	440.50	26.70	17.20	7.00	14.20		
28	7.40	51.20	44.20	87.60	308.00	822.50	1749.50	414.50	25.40	16.00	6.80	13.90		
29	7.20	48.40	51.90	82.00	320.00	867.50	1690.00	389.80	24.90	16.00	6.60	13.90		
30	7.20	49.10	43.50	77.10	331.00	911.00	1630.50	362.30	24.90	16.00		20.00		
31		54.00		73.60	343.50		1562.50		25.40	15.70		21.30		
Total	251.80	679.60	2140.80	1006.60	4964.60	16633.80	45729.50	23678.90	3303.40	616.20	363.90	131.30	99500.40	CMSDAY
Mean	8.40	21.90	71.40	32.50	160.10	554.50	1475.10	789.30	106.60	19.90	12.50	4.20	271.90	CMS
Max	9.40	58.20	105.40	87.60	343.50	911.00	1817.50	1486.00	336.00	24.90	17.60	21.30	1817.50	CMS
Min	7.20	6.80	42.10	9.80	64.50	359.70	967.00	362.30	24.90	15.70	6.60	0.00	0.00	CMS
Runoff	21.76	58.72	184.97	86.97	428.94	1437.16	3951.03	2045.86	285.41	53.24	31.44	11.34	8596.83	MCM

Momentary Peak 1817.50 CMS. at 125.59 m. (MSL.) at 17.00 Hours , on Oct 25 , 2011

Runoff Yield 7.84 Liters/Second/Square KM. Momentary Peak Yield 52.447 Liters/Second/Square KM.

WATER YEAR : 2011

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.

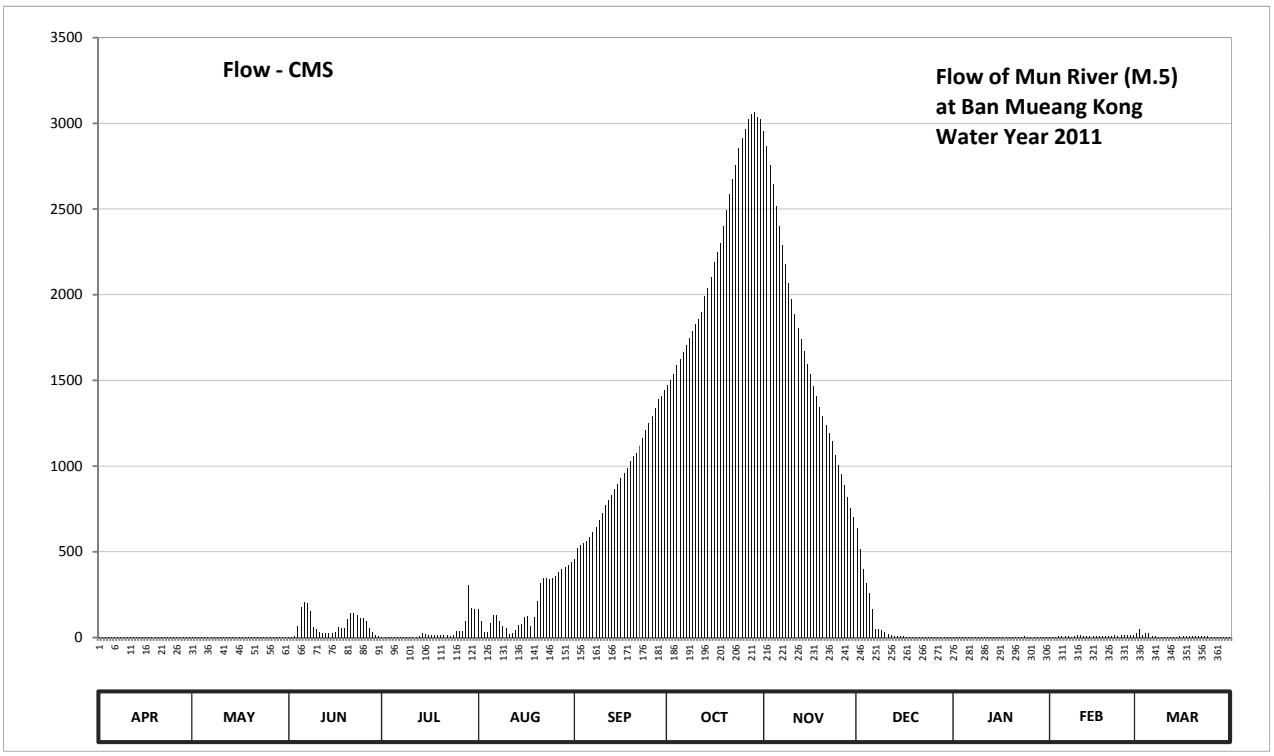
Ban Mueang Kong **Amphoe** Rasi Salai **Changwat** Si Sa Ket

Drainge Area	45,295 sq.km.
Type of Gage	Staff gage.
Zero Gage at Bottom	+110.000 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank downstream side at the footpath of the bridge. **Elevation** +124.814 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings
Period of Available Gage Records	1995 to date
Rating Operation	
Period of Rating	1972 to date
Rated by Flot	-
Rated by Current Meter	1972 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records very good. Flow effected by Rasi Salai barrage about 10 kilometers above gage site. Stage-discharge relation defined by 35 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	110.04	110.12	110.11	110.14	112.28	114.99	119.61	121.41	116.24	110.15	110.10	110.57	
2	110.04	110.12	110.10	110.13	111.55	115.46	119.68	121.35	115.44	110.15	110.10	110.95	
3	110.04	110.12	110.32	110.14	110.67	115.59	119.76	121.27	114.48	110.14	110.10	110.45	
4	110.03	110.12	111.24	110.12	110.67	115.69	119.87	121.19	113.74	110.13	110.22	110.63	
5	110.03	110.12	112.35	110.12	111.46	115.78	119.94	121.08	113.16	110.13	110.30	110.62	
6	110.02	110.12	112.64	110.11	111.93	115.92	120.02	120.98	112.29	110.13	110.29	110.33	
7	110.02	110.11	112.60	110.11	111.93	116.10	120.09	120.87	110.96	110.12	110.21	110.30	
8	110.02	110.11	112.13	110.12	111.56	116.27	120.17	120.76	110.97	110.12	110.12	110.13	
9	110.02	110.10	111.20	110.12	111.22	116.50	120.24	120.63	110.84	110.12	110.22	110.13	
10	110.01	110.10	111.01	110.11	111.12	116.77	120.31	120.52	110.68	110.12	110.36	110.13	
11	110.01	110.11	110.64	110.11	110.51	117.05	120.36	120.41	110.51	110.11	110.36	110.12	
12	110.11	110.11	110.57	110.10	110.59	117.19	120.42	120.27	110.38	110.11	110.34	110.12	
13	110.14	110.11	110.54	110.30	110.85	117.33	120.54	120.16	110.35	110.11	110.32	110.12	
14	110.14	110.12	110.59	110.54	111.35	117.48	120.60	120.03	110.31	110.11	110.32	110.19	
15	110.13	110.12	110.57	110.46	111.41	117.63	120.68	119.89	110.27	110.11	110.32	110.25	
16	110.13	110.12	110.71	110.44	111.78	117.78	120.77	119.76	110.21	110.11	110.32	110.23	
17	110.12	110.12	111.19	110.42	111.88	117.92	120.83	119.60	110.17	110.11	110.32	110.22	
18	110.14	110.12	111.14	110.38	111.26	118.04	120.88	119.45	110.13	110.10	110.32	110.23	
19	110.16	110.12	111.15	110.36	111.79	118.21	120.98	119.29	110.12	110.10	110.32	110.25	
20	110.16	110.11	111.69	110.36	112.71	118.34	121.06	119.13	110.12	110.10	110.31	110.25	
21	110.17	110.10	112.05	110.36	113.73	118.41	121.14	118.97	110.11	110.10	110.33	110.24	
22	110.17	110.10	112.03	110.36	114.02	118.56	121.21	118.80	110.11	110.10	110.42	110.23	
23	110.18	110.10	111.89	110.34	114.04	118.71	121.27	118.64	110.11	110.13	110.35	110.23	
24	110.17	110.11	111.76	110.37	113.95	118.86	121.34	118.35	110.12	110.25	110.36	110.21	
25	110.16	110.11	111.71	110.73	113.99	119.00	121.38	118.12	110.16	110.17	110.37	110.18	
26	110.16	110.10	111.58	110.75	114.15	119.13	121.42	117.89	110.16	110.12	110.38	110.17	
27	110.16	110.10	111.09	110.75	114.35	119.27	121.46	117.59	110.16	110.12	110.38	110.16	
28	110.16	110.09	110.66	111.57	114.50	119.41	121.48	117.26	110.16	110.11	110.39	110.08	
29	110.14	110.09	110.38	113.61	114.57	119.45	121.49	116.95	110.15	110.11	110.39	110.07	
30	110.12	110.09	110.31	112.31	114.68	119.54	121.47	116.60	110.15	110.09		110.06	
31		110.09		112.28	114.83		121.46		110.15	110.09		110.05	
Mean	110.10	110.11	111.20	110.58	112.43	117.55	120.71	119.57	111.06	110.12	110.30	110.25	
Max	110.18	110.12	112.64	113.61	114.83	119.54	121.49	121.41	116.24	110.25	110.42	110.95	121.49
Min	110.01	110.09	110.10	110.10	110.51	114.99	119.61	116.60	110.11	110.09	110.10	110.05	110.01

Annual Max Momentary Gage Height	121.49	m. (MSL.) ,	at 18.00 Hours , on Oct 28 , 2011		
Zero Gage at Bottom Elevation	110.00	m. (MSL.) ,	River Bed	108.92	m. (MSL)
Left Bank Elevation	124.59	m. (MSL.) ,			
Right Bank Elevation	122.62	m. (MSL.) ,	Drainage Area	45295	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.30	4.00	3.80	4.50	168.00	458.80	1469.50	2954.00	640.60	4.80	3.50	24.90		
2	2.30	4.00	3.50	4.20	95.00	519.80	1501.00	2870.00	517.20	4.80	3.50	48.50		
3	2.30	4.00	9.90	4.50	31.60	537.60	1537.00	2758.00	397.80	4.50	3.50	16.80		
4	2.10	4.00	65.60	4.00	31.60	551.60	1586.50	2648.00	317.70	4.20	6.60	28.90		
5	2.10	4.00	175.00	4.00	86.00	565.80	1622.00	2516.00	256.80	4.20	9.00	28.20		
6	1.90	4.00	204.00	3.80	133.00	588.20	1666.00	2400.00	169.00	4.20	8.70	10.30		
7	1.90	3.80	200.00	3.80	133.00	617.50	1704.50	2290.00	48.80	4.00	6.30	9.00		
8	1.90	3.80	153.00	4.00	96.00	645.50	1748.50	2180.00	49.10	4.00	4.00	4.20		
9	1.90	3.50	62.00	4.00	63.80	683.50	1787.00	2064.00	43.00	4.00	6.60	4.20		
10	1.70	3.50	50.30	3.80	54.80	728.00	1826.00	1976.00	32.30	4.00	11.70	4.20		
11	1.70	3.80	29.60	3.80	20.90	775.00	1856.00	1888.00	20.90	3.80	11.70	4.00		
12	3.80	3.80	24.90	3.50	26.20	802.90	1896.00	1803.50	12.60	3.80	10.80	4.00		
13	4.50	3.80	22.90	9.00	43.60	832.30	1992.00	1743.00	11.20	3.80	9.90	4.00		
14	4.50	4.00	26.20	22.90	75.50	863.80	2040.00	1671.50	9.40	3.80	9.90	5.80		
15	4.20	4.00	24.90	17.50	81.00	895.30	2104.00	1595.50	8.10	3.80	9.90	7.50		
16	4.20	4.00	34.30	16.20	118.00	928.40	2190.00	1537.00	6.30	3.80	9.90	6.90		
17	4.00	4.00	61.10	14.80	128.00	960.60	2250.00	1465.00	5.30	3.80	9.90	6.60		
18	4.50	4.00	56.60	12.60	67.40	988.20	2300.00	1406.20	4.20	3.50	9.90	6.90		
19	5.00	4.00	57.50	11.70	119.00	1027.50	2400.00	1346.50	4.00	3.50	9.90	7.50		
20	5.00	3.80	109.00	11.70	211.00	1060.00	2492.00	1290.50	4.00	3.50	9.40	7.50		
21	5.30	3.50	145.00	11.70	316.70	1077.80	2588.00	1241.20	3.80	3.50	10.30	7.20		
22	5.30	3.50	143.00	11.70	347.20	1120.40	2674.00	1191.00	3.80	3.50	14.80	6.90		
23	5.50	3.50	129.00	10.80	349.40	1164.50	2758.00	1143.80	3.80	4.20	11.20	6.90		
24	5.30	3.80	116.00	12.20	339.70	1208.70	2856.00	1062.50	4.00	7.50	11.70	6.30		
25	5.00	3.80	111.00	35.60	343.90	1250.00	2912.00	1006.60	5.00	5.30	12.20	5.50		
26	5.00	3.50	98.00	36.90	361.50	1290.50	2968.00	953.70	5.00	4.00	12.60	5.30		
27	5.00	3.50	52.70	36.90	383.50	1339.50	3024.00	886.90	5.00	4.00	12.60	5.00		
28	5.00	3.30	30.90	97.00	400.00	1391.30	3052.00	817.60	5.00	3.80	13.00	3.10		
29	4.50	3.30	12.60	304.10	408.40	1406.20	3066.00	757.70	4.80	3.80	13.00	2.90		
30	4.00	3.30	9.40	171.00	421.60	1441.00	3038.00	700.00	4.80	3.30		2.70		
31		3.30		168.00	439.60		3024.00		4.80	3.30		2.50		
Total	111.70	116.10	2221.70	1060.20	5894.90	27720.20	69928.00	50163.70	2608.10	126.00	276.00	294.20	160520.80	CMSDAY
Mean	3.70	3.70	74.10	34.20	190.20	924.00	2255.70	1672.10	84.10	4.10	9.50	9.50	438.60	CMS
Max	5.50	4.00	204.00	304.10	439.60	1441.00	3066.00	2954.00	640.60	7.50	14.80	48.50	3066.00	CMS
Min	1.70	3.30	3.50	3.50	20.90	458.80	1469.50	700.00	3.80	3.30	3.50	2.50	1.70	CMS
Runoff	9.65	10.03	191.95	91.60	509.32	2395.03	6041.78	4334.14	225.34	10.89	23.85	25.42	13869.00	MCM

Momentary Peak 3066.00 CMS. at 121.49 m. (MSL.) at 18.00 Hours , on Oct 28 , 2011

Runoff Yield 9.68 Liters/Second/Square KM. Momentary Peak Yield 67.690 Liters/Second/Square KM.

WATER YEAR : 2011

MUN RIVER BASIN

Mun River at Ban Satuk, Buri Ram (M.6A)

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

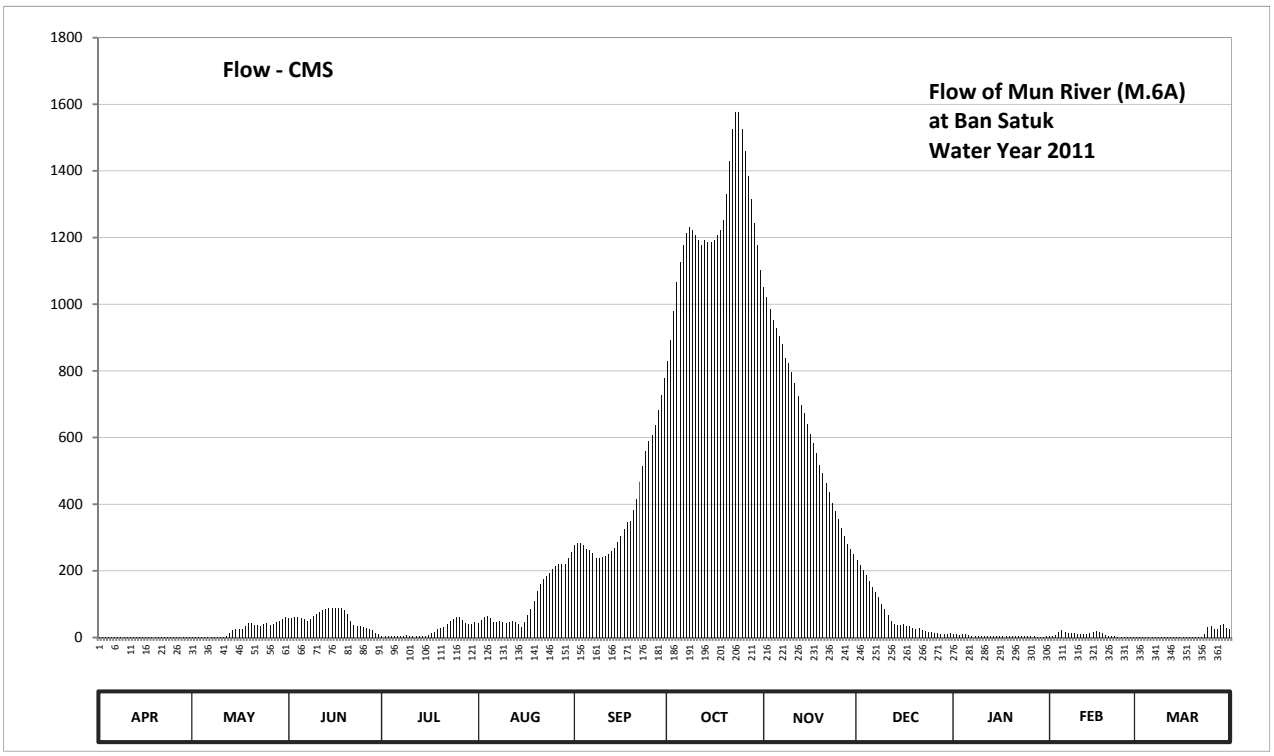
Location : on right bank at Satuk.

	Ban Satuk	**Amphoe** Satuk	**Changwat** Buri Ram
Drainge Area	28,458 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+123.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank at the footpath of the bridge.	**Elevation**	+133.541 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	1964 to date		
Rating Operation			
Period of Rating	1976 to date		
Rated by Flot	-		
Rated by Current Meter	1976 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	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 47 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	123.53	123.58	125.35	124.16	125.09	128.07	129.97	130.32	127.71	124.30	124.06	123.91	
2	123.52	123.58	125.36	124.08	125.27	128.12	130.08	130.28	127.56	124.25	124.05	123.90	
3	123.53	123.58	125.41	124.14	125.45	128.11	130.22	130.23	127.41	124.21	124.17	123.89	
4	123.53	123.58	125.41	124.13	125.51	128.06	130.34	130.18	127.25	124.25	124.44	123.88	
5	123.52	123.58	125.38	124.16	125.38	127.98	130.42	130.14	127.07	124.25	124.55	123.87	
6	123.52	123.58	125.30	124.14	125.14	127.95	130.49	130.10	126.87	124.21	124.45	123.87	
7	123.53	123.57	125.19	124.07	125.11	127.90	130.54	130.06	126.66	124.16	124.33	123.87	
8	123.54	123.57	125.32	124.11	125.22	127.77	130.56	129.99	126.41	124.14	124.35	123.86	
9	123.55	123.59	125.49	124.19	125.13	127.77	130.55	129.96	126.14	124.11	124.37	123.85	
10	123.55	123.59	125.63	124.16	125.09	127.80	130.53	129.91	125.86	124.08	124.30	123.84	
11	123.54	123.69	125.74	124.10	125.12	127.82	130.51	129.85	125.55	124.07	124.25	123.85	
12	123.53	124.07	125.82	124.06	125.16	127.87	130.49	129.77	125.17	124.06	124.29	123.85	
13	123.53	124.36	125.85	124.05	125.15	127.93	130.51	129.71	125.03	124.06	124.29	123.85	
14	123.52	124.56	125.91	124.10	124.99	128.01	130.50	129.65	124.95	124.06	124.36	123.84	
15	123.52	124.70	125.94	124.16	124.82	128.14	130.50	129.57	124.95	124.07	124.45	123.83	
16	123.52	124.70	125.94	124.23	125.11	128.26	130.51	129.49	125.03	124.10	124.48	123.83	
17	123.52	124.67	125.92	124.34	125.53	128.38	130.53	129.41	124.89	124.10	124.44	123.83	
18	123.52	124.87	125.93	124.45	125.85	128.49	130.55	129.32	124.86	124.10	124.33	123.80	
19	123.58	125.04	125.83	124.67	126.27	128.50	130.59	129.21	124.71	124.09	124.22	123.80	
20	123.58	125.08	125.60	124.77	126.70	128.67	130.69	129.12	124.68	124.08	124.14	123.81	
21	123.58	124.98	125.20	124.82	126.95	128.83	130.80	129.01	124.75	124.07	124.09	123.82	
22	123.57	124.93	124.97	124.99	127.14	129.03	130.90	128.92	124.61	124.06	124.04	123.88	
23	123.57	124.88	124.91	125.16	127.24	129.20	130.95	128.77	124.48	124.08	124.00	124.30	
24	123.57	125.00	124.87	125.32	127.33	129.34	130.95	128.66	124.43	124.10	123.96	124.78	
25	123.57	125.04	124.81	125.41	127.44	129.43	130.90	128.53	124.41	124.09	123.95	124.90	
26	123.57	124.96	124.74	125.40	127.55	129.48	130.83	128.40	124.37	124.08	123.94	124.70	
27	123.58	125.02	124.69	125.27	127.60	129.56	130.75	128.26	124.33	124.04	123.93	124.68	
28	123.58	125.13	124.60	125.09	127.61	129.67	130.67	128.10	124.31	123.99	123.92	124.95	
29	123.58	125.22	124.40	125.02	127.61	129.78	130.58	127.98	124.29	123.98	123.91	125.02	
30	123.58	125.33	124.25	125.03	127.77	129.88	130.49	127.86	124.27	124.01		124.77	
31		125.40		125.13	127.92		130.39		124.33	124.07		124.63	
Mean	123.55	124.43	125.33	124.55	126.10	128.53	130.56	129.36	125.40	124.11	124.21	124.11	
Max	123.58	125.40	125.94	125.41	127.92	129.88	130.95	130.32	127.71	124.30	124.55	125.02	130.95
Min	123.52	123.57	124.25	124.05	124.82	127.77	129.97	127.86	124.27	123.98	123.91	123.80	123.52

Annual Max Momentary Gage Height	130.96	m. (MSL.) ,	at 12.00 Hours , on Oct 23 , 2011		
Zero Gage at Bottom Elevation	123.00	m. (MSL.) ,	River Bed	121.26	m. (MSL)
Left Bank Elevation	131.98	m. (MSL.) ,			
Right Bank Elevation	132.11	m. (MSL.) ,	Drainage Area	28458	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.60	0.60	57.50	5.80	44.50	277.80	828.50	1050.00	232.20	11.00	3.40	1.20		
2	0.60	0.60	58.00	3.70	53.50	284.80	893.00	1021.00	216.00	9.00	3.30	1.00		
3	0.60	0.60	60.50	5.20	62.50	283.40	979.00	986.00	201.00	7.40	6.10	1.00		
4	0.60	0.60	60.50	4.90	65.50	276.40	1065.00	953.00	186.50	9.00	16.60	1.00		
5	0.60	0.60	59.00	5.80	59.00	265.40	1125.00	929.00	170.30	9.00	21.00	1.00		
6	0.60	0.60	55.00	5.20	47.00	261.50	1177.50	905.00	152.60	7.40	17.00	1.00		
7	0.60	0.60	49.50	3.60	45.50	255.00	1215.00	881.00	137.20	5.80	12.20	1.00		
8	0.60	0.60	56.00	4.30	51.00	239.40	1230.00	839.50	119.70	5.20	13.00	1.00		
9	0.60	0.70	64.50	6.70	46.50	239.40	1222.50	823.00	101.40	4.30	13.80	0.90		
10	0.60	0.70	71.50	5.80	44.50	243.00	1207.50	795.50	84.60	3.70	11.00	0.90		
11	0.60	0.80	77.40	4.00	46.00	245.40	1192.50	763.50	67.50	3.60	9.00	0.90		
12	0.60	3.60	82.20	3.40	48.00	251.40	1177.50	724.10	48.50	3.40	10.60	0.90		
13	0.60	13.40	84.00	3.30	47.50	258.90	1192.50	698.30	41.50	3.40	10.60	0.90		
14	0.60	21.40	87.60	4.00	39.50	269.40	1185.00	672.50	37.50	3.40	13.40	0.90		
15	0.60	27.00	89.40	5.80	31.80	287.60	1185.00	640.20	37.50	3.60	17.00	0.90		
16	0.60	27.00	89.40	8.20	45.50	305.00	1192.50	611.40	41.50	4.00	18.20	0.90		
17	0.60	25.80	88.20	12.60	66.50	326.20	1207.50	582.60	34.60	4.00	16.60	0.90		
18	0.60	33.80	88.80	17.00	84.00	347.10	1222.50	553.40	33.40	4.00	12.20	0.90		
19	0.60	42.00	82.80	25.80	109.90	349.00	1252.50	518.20	27.40	3.80	7.80	0.90		
20	0.60	44.00	70.00	29.80	140.00	381.30	1332.00	492.60	26.20	3.70	5.20	0.90		
21	0.60	39.00	50.00	31.80	159.50	415.60	1430.00	461.80	29.00	3.60	3.80	0.90		
22	0.60	36.50	38.50	39.50	176.60	467.40	1525.00	436.60	23.40	3.40	3.10	1.00		
23	0.60	34.20	35.50	48.00	185.60	515.00	1577.50	402.40	18.20	3.70	2.50	11.00		
24	0.60	40.00	33.80	56.00	193.70	559.80	1577.50	379.40	16.20	4.00	1.90	30.20		
25	0.60	42.00	31.40	60.50	204.00	589.80	1525.00	354.70	15.40	3.80	1.70	35.00		
26	0.60	38.00	28.60	60.00	215.00	607.80	1458.50	330.00	13.80	3.70	1.60	27.00		
27	0.60	41.00	26.60	53.50	220.00	636.60	1385.00	305.00	12.20	3.10	1.40	26.20		
28	0.60	46.50	23.00	44.50	221.10	681.10	1316.00	282.00	11.40	2.30	1.30	37.50		
29	0.60	51.00	15.00	41.00	221.10	728.40	1245.00	265.40	10.60	2.20	1.20	41.00		
30	0.60	56.50	9.00	41.50	239.40	779.40	1177.50	250.20	9.80	2.70		29.80		
31		60.00		46.50	257.60		1102.50		12.20	3.60		24.20		
Total	18.00	729.70	1723.20	687.70	3471.80	11628.30	38402.00	18907.30	2169.30	144.80	256.50	282.80	78421.40	CMSDAY
Mean	0.60	23.50	57.40	22.20	112.00	387.60	1238.80	630.20	70.00	4.70	8.80	9.10	214.30	CMS
Max	0.60	60.00	89.40	60.50	257.60	779.40	1577.50	1050.00	232.20	11.00	21.00	41.00	1577.50	CMS
Min	0.60	0.60	9.00	3.30	31.80	239.40	828.50	250.20	9.80	2.20	1.20	0.90	0.60	CMS
Runoff	1.56	63.05	148.88	59.42	299.96	1004.69	3317.93	1633.59	187.43	12.51	22.16	24.43	6775.61	MCM

Momentary Peak 1588.01 CMS. at 130.96 m. (MSL.) at 12.00 Hours , on Oct 23 , 2011

Runoff Yield 7.53 Liters/Second/Square KM. Momentary Peak Yield 55.802 Liters/Second/Square KM.

WATER YEAR : 2011

MUN RIVER BASIN

Mun River at Ban Chumchondee, Ubon Ratchathani (M.7)

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

Location : on left bank at Seri Prachathipatai Bridge.

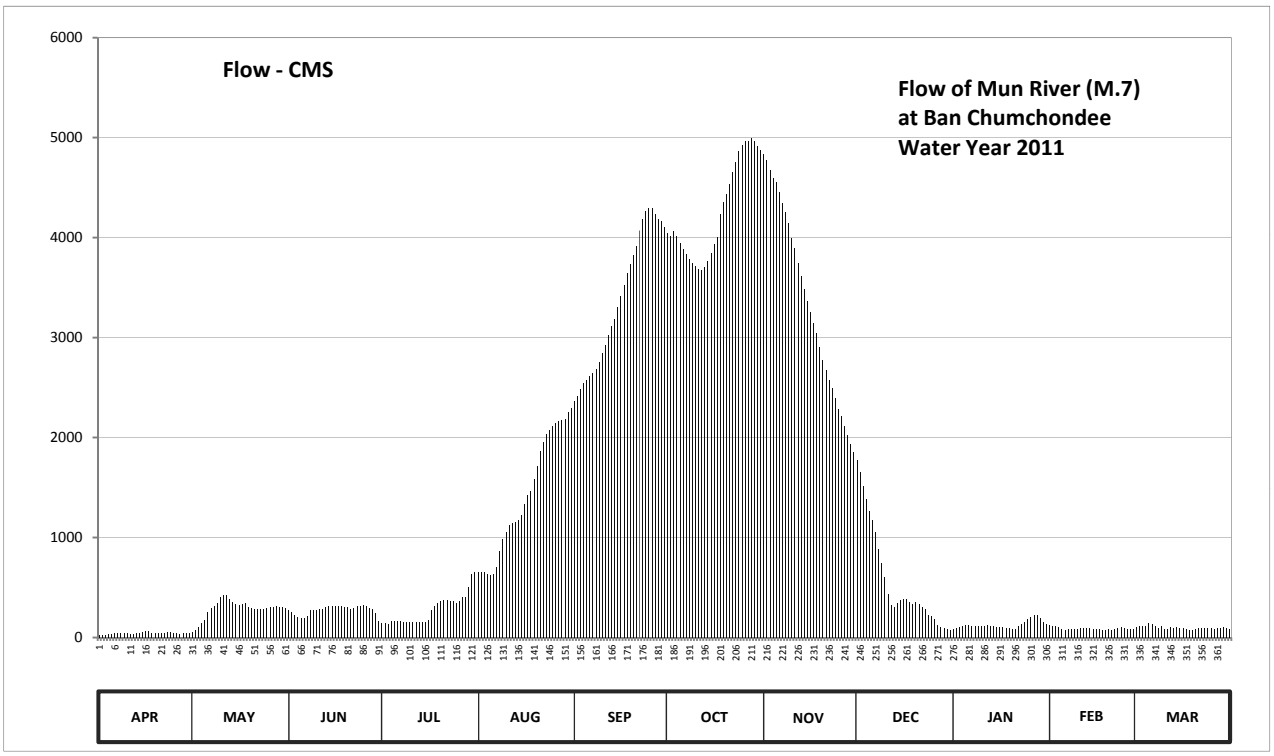
Ban Chumchondee **Amphoe** Mueang **Changwat** Ubon Ratchathani

Drainge Area	107,345 sq.km.
Type of Gage	Water - stage recoder
Zero Gage at Bottom	+105.000 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank at the abutment of 200 years Krung Ratanakosin **Elevation** +121.152 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings
Period of Available Gage Records	1944 to date
Rating Operation	
Period of Rating	1956 - 1958, 1964 - 1981, 1983 to date
Rated by Flot	-
Rated by Current Meter	1956 - 1958, 1964 - 1981, 1983 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	Overbank flow starts at elevation +113.520 m.(MSL.), records are channel flow only.
General Description	Records very good. Pak Mun barrage situated about 90 kilometers downstream from the gage site. Stage-discharge relation defined by 38 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	106.52	106.82	107.65	107.19	108.74	112.00	114.08	114.69	111.03	106.93	107.09	107.01	
2	106.51	106.91	107.61	107.16	108.74	112.08	114.06	114.64	110.82	106.97	107.07	107.06	
3	106.54	107.02	107.50	107.13	108.73	112.20	114.10	114.57	110.58	107.01	107.05	107.04	
4	106.70	107.19	107.42	107.25	108.69	112.30	114.06	114.50	110.33	107.06	107.02	107.06	
5	106.72	107.29	107.36	107.27	108.65	112.36	114.00	114.47	110.09	107.09	106.96	107.17	
6	106.74	107.60	107.36	107.27	108.69	112.42	113.94	114.40	109.91	107.10	106.91	107.15	
7	106.76	107.74	107.45	107.24	108.85	112.48	113.89	114.31	109.68	107.07	106.92	107.04	
8	106.77	107.79	107.67	107.21	109.26	112.54	113.84	114.24	109.32	107.06	106.94	106.97	
9	106.78	107.89	107.67	107.23	109.53	112.64	113.80	114.16	108.96	107.07	106.96	107.06	
10	106.75	108.10	107.67	107.23	109.67	112.75	113.77	114.04	108.60	107.07	106.96	106.93	
11	106.72	108.15	107.68	107.22	109.80	112.86	113.74	113.95	108.18	107.06	106.97	106.95	
12	106.72	108.14	107.71	107.20	109.85	112.98	113.73	113.80	107.83	107.09	106.97	107.00	
13	106.76	108.02	107.75	107.20	109.87	113.09	113.76	113.67	107.76	107.06	106.97	106.99	
14	106.80	107.94	107.79	107.20	109.92	113.18	113.82	113.54	107.91	107.04	106.97	107.00	
15	106.82	107.86	107.80	107.21	110.01	113.33	113.90	113.41	108.01	107.01	106.95	106.99	
16	106.85	107.84	107.79	107.31	110.23	113.47	113.99	113.27	108.04	107.03	106.93	106.97	
17	106.85	107.87	107.80	107.66	110.41	113.58	114.05	113.13	108.04	107.02	106.93	106.93	
18	106.80	107.91	107.81	107.80	110.49	113.70	114.23	113.00	107.94	106.99	106.90	106.90	
19	106.76	107.78	107.78	107.91	110.70	113.79	114.32	112.83	107.87	106.97	106.91	106.89	
20	106.74	107.73	107.76	107.97	110.92	113.88	114.38	112.67	107.92	106.96	106.93	106.96	
21	106.76	107.71	107.71	108.00	111.17	113.97	114.46	112.52	107.86	106.96	106.91	106.97	
22	106.77	107.68	107.74	107.99	111.33	114.10	114.55	112.36	107.77	107.04	106.94	106.97	
23	106.83	107.68	107.79	107.95	111.45	114.19	114.63	112.22	107.68	107.13	106.99	106.97	
24	106.81	107.68	107.80	107.96	111.53	114.25	114.71	112.05	107.51	107.21	107.00	106.98	
25	106.78	107.72	107.82	107.91	111.59	114.27	114.76	111.87	107.47	107.33	106.98	106.97	
26	106.74	107.78	107.80	107.97	111.64	114.27	114.79	111.75	107.35	107.43	106.96	106.96	
27	106.72	107.78	107.74	108.07	111.67	114.23	114.79	111.59	107.09	107.50	106.92	106.98	
28	106.76	107.79	107.70	108.09	111.68	114.19	114.81	111.44	107.01	107.48	106.93	106.98	
29	106.79	107.77	107.57	108.36	111.71	114.17	114.79	111.29	106.97	107.36	106.96	107.01	
30	106.79	107.76	107.26	108.68	111.82	114.13	114.75	111.15	106.93	107.23		106.99	
31		107.74		108.74	111.89		114.72		106.89	107.13		106.95	
Mean	106.75	107.70	107.67	107.63	110.30	113.31	114.23	113.18	108.37	107.11	106.96	106.99	
Max	106.85	108.15	107.82	108.74	111.89	114.27	114.81	114.69	111.03	107.50	107.09	107.17	114.81
Min	106.51	106.82	107.26	107.13	108.65	112.00	113.73	111.15	106.89	106.93	106.90	106.89	106.51

Annual Max Momentary Gage Height	114.81	m. (MSL.) ,	at 01.00 Hours , on Oct 28 , 2011		
Zero Gage at Bottom Elevation	105.00	m. (MSL.) ,	River Bed	101.59	m. (MSL)
Left Bank Elevation	116.07	m. (MSL.) ,			
Right Bank Elevation	113.51	m. (MSL.) ,	Drainage Area	107345	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	21.00	55.00	270.00	147.50	656.00	2360.00	4044.00	4837.00	1778.00	82.50	122.50	102.50		
2	20.50	77.50	258.00	140.00	656.00	2408.00	4018.00	4772.00	1652.00	92.50	117.50	115.00		
3	22.00	105.00	225.00	132.50	652.00	2480.00	4070.00	4681.00	1510.00	102.50	112.50	110.00		
4	35.00	147.50	205.00	162.50	636.00	2540.00	4018.00	4590.00	1385.00	115.00	105.00	115.00		
5	38.00	172.50	190.00	167.50	620.00	2576.00	3940.00	4551.00	1265.00	122.50	90.00	142.50		
6	41.00	255.00	190.00	167.50	636.00	2612.00	3880.00	4460.00	1175.00	125.00	77.50	137.50		
7	44.00	297.00	212.50	160.00	700.00	2648.00	3830.00	4343.00	1060.00	117.50	80.00	110.00		
8	45.50	312.00	276.00	152.50	864.00	2684.00	3780.00	4252.00	888.00	115.00	85.00	92.50		
9	47.00	342.00	276.00	157.50	985.00	2752.00	3740.00	4148.00	744.00	117.50	90.00	115.00		
10	42.50	410.00	276.00	157.50	1055.00	2840.00	3710.00	3992.00	600.00	117.50	90.00	82.50		
11	38.00	427.50	279.00	155.00	1120.00	2928.00	3680.00	3890.00	438.00	115.00	92.50	87.50		
12	38.00	424.00	288.00	150.00	1145.00	3024.00	3670.00	3740.00	324.00	122.50	92.50	100.00		
13	44.00	382.00	300.00	150.00	1155.00	3112.00	3700.00	3610.00	303.00	115.00	92.50	97.50		
14	50.00	357.00	312.00	150.00	1180.00	3184.00	3760.00	3480.00	348.00	110.00	92.50	100.00		
15	55.00	333.00	315.00	152.50	1225.00	3304.00	3840.00	3368.00	378.50	102.50	87.50	97.50		
16	62.50	327.00	312.00	177.50	1335.00	3416.00	3930.00	3256.00	389.00	107.50	82.50	92.50		
17	62.50	336.00	315.00	273.00	1425.00	3520.00	4005.00	3144.00	389.00	105.00	82.50	82.50		
18	50.00	348.00	318.00	315.00	1465.00	3640.00	4239.00	3040.00	357.00	97.50	75.00	75.00		
19	44.00	309.00	309.00	348.00	1580.00	3730.00	4356.00	2904.00	336.00	92.50	77.50	72.50		
20	41.00	294.00	303.00	366.00	1712.00	3820.00	4434.00	2776.00	351.00	90.00	82.50	90.00		
21	44.00	288.00	288.00	375.00	1862.00	3910.00	4538.00	2672.00	333.00	90.00	77.50	92.50		
22	45.50	279.00	297.00	372.00	1958.00	4070.00	4655.00	2576.00	306.00	110.00	85.00	92.50		
23	57.50	279.00	312.00	360.00	2030.00	4187.00	4759.00	2492.00	279.00	132.50	97.50	92.50		
24	52.50	279.00	315.00	363.00	2078.00	4265.00	4863.00	2390.00	228.00	152.50	100.00	95.00		
25	47.00	291.00	321.00	348.00	2114.00	4291.00	4928.00	2282.00	217.50	182.50	95.00	92.50		
26	41.00	309.00	315.00	366.00	2144.00	4291.00	4967.00	2210.00	187.50	207.50	90.00	90.00		
27	38.00	309.00	297.00	399.50	2162.00	4239.00	4967.00	2114.00	122.50	225.00	80.00	95.00		
28	44.00	312.00	285.00	406.50	2168.00	4187.00	4993.00	2024.00	102.50	220.00	82.50	95.00		
29	48.50	306.00	246.00	504.00	2186.00	4161.00	4967.00	1934.00	92.50	190.00	90.00	102.50		
30	48.50	303.00	165.00	632.00	2252.00	4109.00	4915.00	1850.00	82.50	157.50		97.50		
31		297.00		656.00	2294.00		4876.00		72.50	132.50		87.50		
Total	1308.00	8963.00	8270.50	8564.00	44050.00	101288.00	132072.00	100378.00	17694.00	3965.00	2625.00	3050.00	432227.50	CMSDAY
Mean	43.60	289.10	275.70	276.30	1421.00	3376.30	4260.40	3345.90	570.80	127.90	90.50	98.40	1180.90	CMS
Max	62.50	427.50	321.00	656.00	2294.00	4291.00	4993.00	4837.00	1778.00	225.00	122.50	142.50	4993.00	CMS
Min	20.50	55.00	165.00	132.50	620.00	2360.00	3670.00	1850.00	72.50	82.50	75.00	72.50	20.50	CMS
Runoff	113.01	774.40	714.57	739.93	3805.92	8751.28	11411.02	8672.66	1528.76	342.58	226.80	263.52	37344.46	MCM

Momentary Peak 4993.00 CMS. at 114.81 m. (MSL.) at 01.00 Hours , on Oct 28 , 2011

Runoff Yield 11.00 Liters/Second/Square KM. Momentary Peak Yield 46.514 Liters/Second/Square KM.

WATER YEAR : 2011

MUN RIVER BASIN

Huai Samran at Ban Nongyaplong, Si Sa ket (M.9)

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

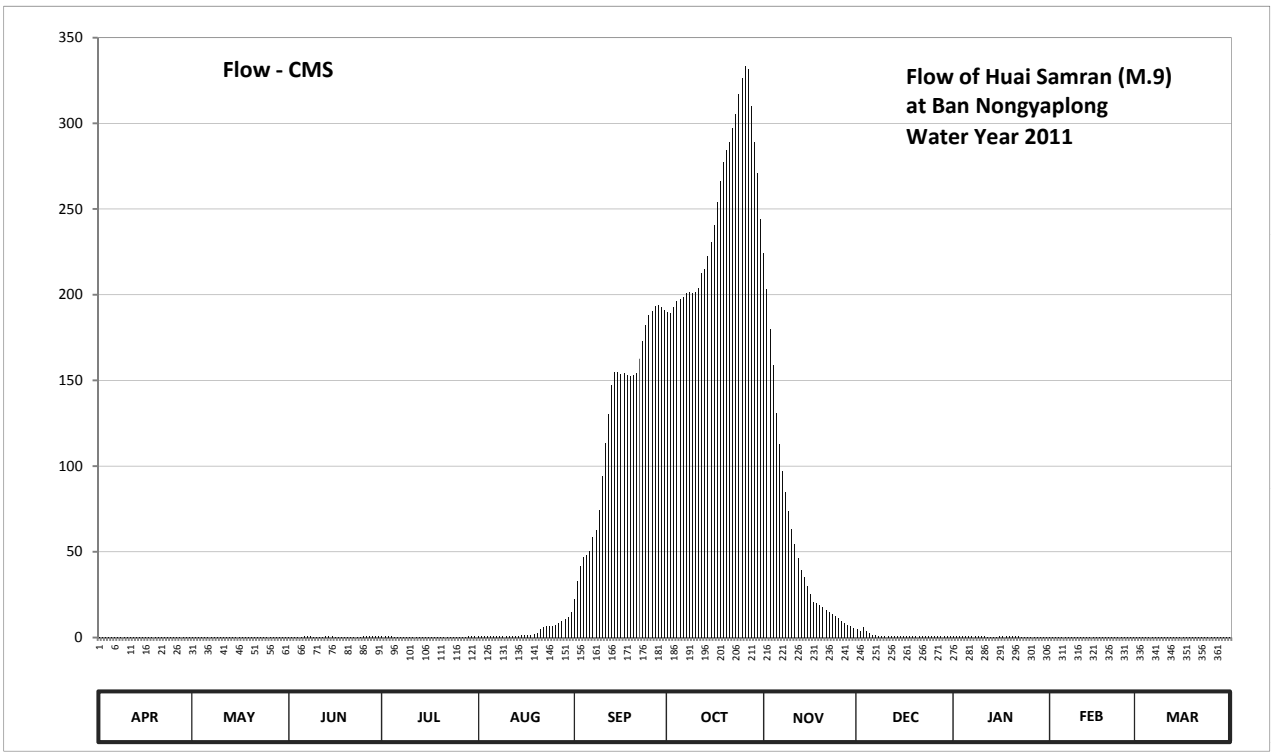
Location : on right bank at the bridge on Highway.

	Ban Nongyaplong	**Amphoe** Mueang	**Changwat** Si Sa Ket
Drainge Area	2,988 sq.km.		
Type of Gage	Water - stage recoder		
Zero Gage at Bottom	+109.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank at the top staff gage.		**Elevation** +124.692 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	1954 to date		
Rating Operation			
Period of Rating	1954, 1972 - 1981, 1987 to date		
Rated by Flot	-		
Rated by Current Meter	1954, 1972 - 1981, 1987 to date		
Stability of Channel Regimes	Fairly stable because of backwater effect.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records very good. The Water Supply weir situated above gage site.		
	Stage-discharge relation defined by 46 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	109.89	109.87	109.87	110.36	110.39	114.17	118.87	120.61	113.93	110.09	109.88	109.72	
2	109.89	109.87	109.87	110.28	110.32	114.69	118.86	120.49	113.43	110.06	109.91	109.75	
3	109.89	109.87	109.85	110.22	110.10	115.03	118.94	120.34	112.83	110.04	109.93	109.73	
4	109.88	109.87	109.85	110.08	110.08	115.20	119.02	120.18	112.20	110.03	109.93	109.73	
5	109.86	109.87	109.85	109.95	110.08	115.24	119.05	119.93	111.82	110.03	109.92	109.73	
6	109.84	109.87	110.01	109.95	110.10	115.31	119.07	119.73	111.56	110.04	109.91	109.73	
7	109.84	109.85	110.17	109.95	110.27	115.59	119.12	119.55	111.16	110.15	109.89	109.73	
8	109.83	109.85	110.12	109.93	110.51	115.69	119.13	119.38	110.76	110.15	109.87	109.73	
9	109.83	109.85	109.85	109.87	110.62	115.98	119.12	119.20	110.39	110.09	109.86	109.73	
10	109.83	109.85	109.83	109.85	110.61	116.48	119.13	119.02	110.24	110.11	109.86	109.73	
11	109.83	109.85	109.85	109.79	110.76	116.96	119.17	118.81	110.18	109.99	109.86	109.69	
12	109.85	109.84	109.86	109.69	110.83	117.38	119.35	118.61	110.17	109.96	109.86	109.58	
13	109.86	109.87	110.03	109.68	110.92	117.80	119.40	118.42	110.16	109.95	109.85	109.56	
14	109.86	109.90	110.15	109.68	110.89	118.00	119.55	118.25	110.16	109.95	109.82	109.57	
15	109.86	109.89	109.98	109.65	111.20	117.99	119.71	117.99	110.15	109.96	109.81	109.68	
16	109.86	109.88	109.84	109.64	111.20	117.97	119.91	117.78	110.14	109.97	109.78	109.65	
17	109.86	109.87	109.85	109.64	111.37	117.98	120.15	117.57	110.12	109.97	109.77	109.65	
18	109.86	109.89	109.85	109.64	111.43	117.95	120.33	117.36	110.10	109.97	109.77	109.65	
19	109.86	109.87	109.84	109.64	111.60	117.94	120.48	117.13	110.09	109.97	109.77	109.65	
20	109.86	109.87	109.83	109.64	111.95	117.95	120.57	116.91	110.08	109.97	109.76	109.70	
21	109.86	109.86	109.83	109.65	112.40	117.98	120.62	116.63	110.08	109.97	109.75	109.61	
22	109.86	109.85	109.83	109.66	112.73	118.19	120.70	116.39	110.07	109.97	109.74	109.56	
23	109.86	109.84	109.83	109.65	112.90	118.44	120.77	116.15	110.05	109.96	109.74	109.64	
24	109.86	109.87	109.91	109.65	112.90	118.68	120.86	115.90	110.04	109.95	109.73	109.67	
25	109.87	109.89	110.58	109.73	112.95	118.82	120.93	115.64	110.04	109.94	109.73	109.65	
26	109.87	109.85	110.66	109.85	113.00	118.89	120.98	115.36	110.06	109.94	109.73	109.65	
27	109.87	109.85	110.56	109.85	113.22	118.96	120.97	115.10	110.11	109.94	109.73	109.67	
28	109.87	109.85	110.54	109.89	113.35	118.97	120.92	114.83	110.14	109.94	109.71	109.65	
29	109.87	109.85	110.41	110.45	113.47	118.94	120.85	114.56	110.05	109.93	109.70	109.65	
30	109.87	109.85	110.38	110.65	113.61	118.90	120.79	114.27	110.07	109.90		109.72	
31		109.86		110.37	113.79		120.70		110.10	109.90		109.68	
Mean	109.86	109.86	110.03	109.89	111.60	117.27	119.94	117.74	110.66	109.99	109.81	109.67	
Max	109.89	109.90	110.66	110.65	113.79	118.97	120.98	120.61	113.93	110.15	109.93	109.75	120.98
Min	109.83	109.84	109.83	109.64	110.08	114.17	118.86	114.27	110.04	109.90	109.70	109.56	109.56

Annual Max Momentary Gage Height	120.99	m. (MSL.) ,	at 18.00 Hours , on Oct 26 , 2011		
Zero Gage at Bottom Elevation	109.00	m. (MSL.) ,	River Bed	108.94	m. (MSL)
Left Bank Elevation	123.25	m. (MSL.) ,			
Right Bank Elevation	123.14	m. (MSL.) ,	Drainage Area	2988	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.54	0.54	0.54	0.78	0.79	22.40	189.80	224.20	4.79	0.64	0.54	0.46		
2	0.54	0.54	0.54	0.74	0.76	32.80	189.40	203.30	3.66	0.63	0.56	0.47		
3	0.54	0.54	0.52	0.71	0.65	41.90	192.60	179.60	6.37	0.62	0.56	0.47		
4	0.54	0.54	0.52	0.64	0.64	47.00	196.00	158.60	3.85	0.61	0.56	0.47		
5	0.53	0.54	0.52	0.57	0.64	48.20	197.50	131.00	2.33	0.61	0.56	0.47		
6	0.52	0.54	0.61	0.57	0.65	50.30	198.50	112.70	1.67	0.62	0.56	0.47		
7	0.52	0.52	0.68	0.57	0.73	58.70	201.00	97.00	1.21	0.68	0.54	0.47		
8	0.52	0.52	0.66	0.56	0.86	62.60	201.50	84.80	0.98	0.68	0.54	0.47		
9	0.52	0.52	0.52	0.54	0.91	74.20	201.00	74.00	0.79	0.64	0.53	0.47		
10	0.52	0.52	0.52	0.52	0.91	94.20	201.50	63.20	0.72	0.66	0.53	0.47		
11	0.52	0.52	0.52	0.49	0.98	113.40	203.50	54.40	0.69	0.59	0.53	0.45		
12	0.52	0.52	0.53	0.45	1.02	130.20	212.50	46.40	0.68	0.58	0.53	0.39		
13	0.53	0.54	0.61	0.44	1.06	147.00	215.00	39.60	0.68	0.57	0.52	0.38		
14	0.53	0.55	0.68	0.44	1.05	155.00	222.50	35.00	0.68	0.57	0.51	0.38		
15	0.53	0.54	0.59	0.43	1.25	154.60	230.50	29.80	0.68	0.58	0.50	0.44		
16	0.53	0.54	0.52	0.42	1.25	153.80	240.50	25.10	0.67	0.59	0.49	0.43		
17	0.53	0.54	0.52	0.42	1.42	154.20	254.00	20.93	0.66	0.59	0.48	0.43		
18	0.53	0.54	0.52	0.42	1.48	153.00	266.10	19.98	0.65	0.59	0.48	0.43		
19	0.53	0.54	0.52	0.42	1.75	152.60	277.40	18.94	0.64	0.59	0.48	0.43		
20	0.53	0.54	0.52	0.42	2.85	153.00	284.60	17.55	0.64	0.59	0.48	0.45		
21	0.53	0.53	0.52	0.43	4.65	154.20	289.00	16.15	0.64	0.59	0.47	0.40		
22	0.53	0.52	0.52	0.43	5.97	162.60	297.00	14.95	0.63	0.59	0.47	0.38		
23	0.53	0.52	0.52	0.43	6.65	172.60	305.40	13.75	0.63	0.58	0.47	0.42		
24	0.53	0.54	0.56	0.43	6.65	182.20	316.80	12.50	0.62	0.57	0.47	0.43		
25	0.54	0.54	0.89	0.47	6.85	187.80	326.20	11.20	0.62	0.57	0.47	0.43		
26	0.54	0.52	0.93	0.52	7.05	190.60	333.20	9.80	0.63	0.57	0.47	0.43		
27	0.54	0.52	0.88	0.52	8.20	193.40	331.80	8.50	0.66	0.57	0.47	0.43		
28	0.54	0.52	0.87	0.54	9.50	193.80	310.40	7.49	0.67	0.57	0.45	0.43		
29	0.54	0.52	0.81	0.82	10.70	192.60	289.00	6.68	0.63	0.56	0.45	0.43		
30	0.54	0.52	0.79	0.93	12.10	191.00	271.00	5.81	0.63	0.55		0.46		
31		0.53		0.79	14.80		244.00		0.65	0.55		0.44		
Total	15.93	16.47	18.45	16.86	114.77	3819.90	7689.20	1742.93	40.05	18.50	14.67	13.58	13521.31	CMSDAY
Mean	0.53	0.53	0.62	0.54	3.70	127.33	248.04	58.10	1.29	0.60	0.51	0.44	36.94	CMS
Max	0.54	0.55	0.93	0.93	14.80	193.80	333.20	224.20	6.37	0.68	0.56	0.47	333.20	CMS
Min	0.52	0.52	0.52	0.42	0.64	22.40	189.40	5.81	0.62	0.55	0.45	0.38	0.38	CMS
Runoff	1.38	1.42	1.59	1.46	9.92	330.04	664.35	150.59	3.46	1.60	1.27	1.17	1168.24	MCM

Momentary Peak 334.60 CMS. at 120.99 m. (MSL.) at 18.00 Hours , on Oct 26 , 2011

Runoff Yield 12.36 Liters/Second/Square KM. Momentary Peak Yield 111.981 Liters/Second/Square KM.

WATER YEAR : 2011

MUN RIVER BASIN

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

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

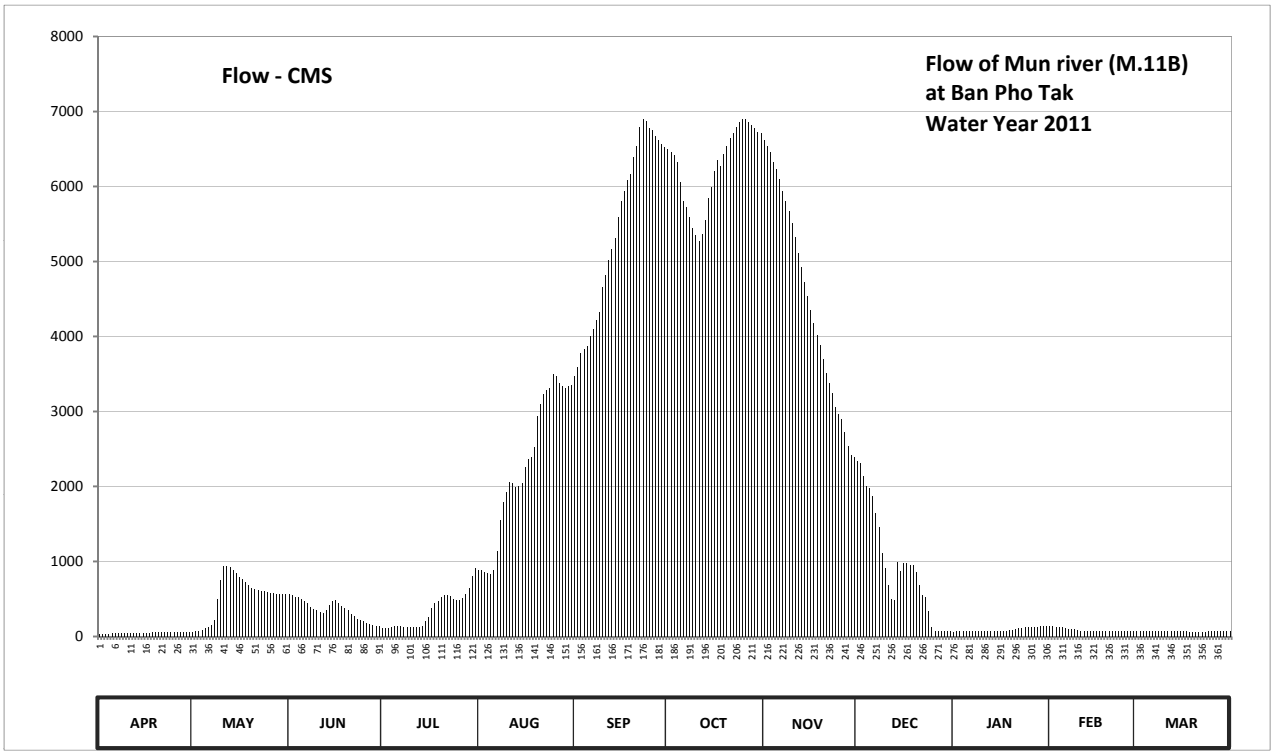
Location : on right bank at the bridge on road.

	Ban Pho Tak	**Amphoe** Phibul Mangsahan	**Changwat** Ubon Ratchathani
Drainge Area	115,687 sq.km.		
Type of Gage	Water - stage recorder.		
Zero Gage at Bottom	+104.00 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank at the footpath of the bridge.	**Elevation**	+113.192 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	2009 to date		
Rating Operation			
Period of Rating	2009 to date		
Rated by Flot	-		
Rated by Current Meter	2009 to date		
Stability of Channel Regimes	Stable		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 28 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	106.35	106.61	107.46	106.89	107.79	109.81	111.40	111.46	109.04	106.66	106.95	106.72	
2	106.35	106.67	107.45	106.88	107.78	109.89	111.38	111.42	109.01	106.67	106.95	106.72	
3	106.36	106.73	107.43	106.88	107.76	110.00	111.36	111.38	108.88	106.67	106.93	106.72	
4	106.37	106.81	107.42	106.92	107.75	110.03	111.32	111.32	108.78	106.68	106.91	106.71	
5	106.40	106.87	107.40	106.95	107.73	110.05	111.19	111.27	108.75	106.68	106.90	106.71	
6	106.42	106.93	107.37	106.95	107.78	110.13	111.07	111.21	108.67	106.69	106.88	106.71	
7	106.43	106.98	107.34	106.94	108.02	110.19	111.03	111.13	108.48	106.69	106.86	106.70	
8	106.45	107.10	107.29	106.91	108.40	110.25	110.96	111.07	108.31	106.70	106.85	106.70	
9	106.46	107.40	107.26	106.90	108.60	110.31	110.89	111.00	107.99	106.70	106.83	106.70	
10	106.47	107.65	107.24	106.91	108.71	110.48	110.84	110.92	107.81	106.71	106.82	106.69	
11	106.47	107.83	107.22	106.91	108.82	110.57	110.80	110.83	107.58	106.72	106.79	106.69	
12	106.48	107.84	107.20	106.90	108.81	110.67	110.85	110.72	107.40	106.72	106.78	106.69	
13	106.48	107.82	107.24	106.91	108.77	110.75	110.94	110.62	107.39	106.73	106.76	106.68	
14	106.49	107.78	107.32	106.96	108.78	110.82	111.09	110.52	107.88	106.74	106.74	106.68	
15	106.49	107.74	107.37	107.07	108.81	110.96	111.16	110.42	107.77	106.75	106.72	106.68	
16	106.50	107.69	107.39	107.14	108.97	111.07	111.26	110.32	107.87	106.75	106.70	106.67	
17	106.51	107.67	107.34	107.27	109.06	111.13	111.33	110.23	107.87	106.76	106.70	106.67	
18	106.52	107.63	107.30	107.34	109.08	111.20	111.29	110.14	107.85	106.78	106.69	106.66	
19	106.52	107.58	107.27	107.37	109.17	111.24	111.37	110.06	107.85	106.81	106.69	106.66	
20	106.53	107.54	107.24	107.42	109.47	111.35	111.42	109.95	107.76	106.82	106.68	106.66	
21	106.55	107.53	107.19	107.45	109.58	111.42	111.47	109.84	107.58	106.85	106.68	106.66	
22	106.56	107.52	107.16	107.45	109.66	111.54	111.50	109.75	107.45	106.87	106.69	106.66	
23	106.58	107.51	107.12	107.44	109.70	111.59	111.54	109.67	107.42	106.89	106.69	106.66	
24	106.59	107.50	107.09	107.40	109.71	111.58	111.57	109.55	107.23	106.90	106.70	106.67	
25	106.59	107.49	107.07	107.38	109.83	111.53	111.59	109.49	106.93	106.90	106.70	106.67	
26	106.59	107.48	107.04	107.38	109.81	111.52	111.59	109.44	106.75	106.91	106.70	106.67	
27	106.59	107.48	107.01	107.41	109.75	111.48	111.57	109.32	106.70	106.92	106.72	106.67	
28	106.59	107.47	106.99	107.46	109.73	111.46	111.55	109.18	106.69	106.93	106.73	106.67	
29	106.59	107.47	106.96	107.55	109.71	111.43	111.53	109.10	106.69	106.94	106.73	106.67	
30	106.59	107.46	106.94	107.71	109.73	111.41	111.51	109.08	106.69	106.94		106.68	
31		107.46		107.81	109.74		111.50		106.67	106.95		106.68	
Mean	106.50	107.39	107.24	107.19	108.94	110.86	111.29	110.35	107.73	106.79	106.77	106.68	
Max	106.59	107.84	107.46	107.81	109.83	111.59	111.59	111.46	109.04	106.95	106.95	106.72	111.59
Min	106.35	106.61	106.94	106.88	107.73	109.81	110.80	109.08	106.67	106.66	106.68	106.66	106.35

Annual Max Momentary Gage Height	111.60	m. (MSL.) ,	at 06.00 Hours , on Sep 23, 2011		
Zero Gage at Bottom Elevation	104.00	m. (MSL.) ,	River Bed	102.69	m. (MSL)
Left Bank Elevation	111.97	m. (MSL.) ,			
Right Bank Elevation	113.01	m. (MSL.) ,	Drainage Area	115687	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	35.00	61.00	560.00	116.00	890.00	3466.00	6500.00	6626.00	2342.00	66.00	140.00	72.00		
2	35.00	67.00	550.00	112.00	880.00	3594.00	6458.00	6542.00	2303.00	67.00	140.00	72.00		
3	36.00	73.00	530.00	112.00	860.00	3780.00	6416.00	6458.00	2134.00	67.00	132.00	72.00		
4	37.00	84.00	520.00	128.00	850.00	3831.00	6332.00	6332.00	2006.00	68.00	124.00	71.00		
5	40.00	108.00	500.00	140.00	830.00	3865.00	6059.00	6227.00	1970.00	68.00	120.00	71.00		
6	42.00	132.00	470.00	140.00	880.00	4001.00	5810.00	6101.00	1874.00	69.00	112.00	71.00		
7	43.00	152.00	440.00	136.00	1142.00	4103.00	5730.00	5933.00	1648.00	69.00	104.00	70.00		
8	45.00	220.00	391.00	124.00	1560.00	4215.00	5590.00	5810.00	1461.00	70.00	100.00	70.00		
9	46.00	500.00	364.00	120.00	1790.00	4329.00	5450.00	5670.00	1109.00	70.00	92.00	70.00		
10	47.00	750.00	346.00	124.00	1922.00	4652.00	5350.00	5510.00	911.00	71.00	88.00	69.00		
11	47.00	933.00	328.00	124.00	2056.00	4823.00	5270.00	5330.00	680.00	72.00	79.00	69.00		
12	48.00	944.00	310.00	120.00	2043.00	5013.00	5370.00	5110.00	500.00	72.00	78.00	69.00		
13	48.00	922.00	346.00	124.00	1994.00	5170.00	5550.00	4918.00	490.00	73.00	76.00	68.00		
14	49.00	880.00	420.00	144.00	2006.00	5310.00	5850.00	4728.00	988.00	74.00	74.00	68.00		
15	49.00	840.00	470.00	202.00	2043.00	5590.00	5996.00	4538.00	870.00	75.00	72.00	68.00		
16	50.00	790.00	490.00	256.00	2251.00	5810.00	6206.00	4348.00	977.00	75.00	70.00	67.00		
17	51.00	770.00	440.00	373.00	2368.00	5933.00	6353.00	4177.00	977.00	76.00	70.00	67.00		
18	52.00	730.00	400.00	440.00	2394.00	6080.00	6269.00	4018.00	955.00	78.00	69.00	66.00		
19	52.00	680.00	373.00	470.00	2518.00	6164.00	6437.00	3882.00	955.00	84.00	69.00	66.00		
20	53.00	640.00	346.00	520.00	2938.00	6395.00	6542.00	3695.00	860.00	88.00	68.00	66.00		
21	55.00	630.00	301.00	550.00	3100.00	6542.00	6647.00	3514.00	680.00	100.00	68.00	66.00		
22	56.00	620.00	274.00	550.00	3226.00	6794.00	6710.00	3370.00	550.00	108.00	69.00	66.00		
23	58.00	610.00	238.00	540.00	3290.00	6899.00	6794.00	3242.00	520.00	116.00	69.00	66.00		
24	59.00	600.00	214.00	500.00	3306.00	6878.00	6857.00	3055.00	337.00	120.00	70.00	67.00		
25	59.00	590.00	202.00	480.00	3498.00	6773.00	6899.00	2966.00	132.00	120.00	70.00	67.00		
26	59.00	580.00	184.00	480.00	3466.00	6752.00	6899.00	2896.00	75.00	124.00	70.00	67.00		
27	59.00	580.00	166.00	510.00	3370.00	6668.00	6857.00	2728.00	70.00	128.00	72.00	67.00		
28	59.00	570.00	156.00	560.00	3338.00	6626.00	6815.00	2532.00	69.00	132.00	73.00	67.00		
29	59.00	570.00	144.00	650.00	3306.00	6563.00	6773.00	2420.00	69.00	136.00	73.00	67.00		
30	59.00	560.00	136.00	810.00	3338.00	6521.00	6731.00	2394.00	69.00	136.00		68.00		
31		560.00		911.00	3354.00		6710.00		67.00	140.00		68.00		
Total	1487.00	16746.00	10609.00	10566.00	70807.00	163140.00	194230.00	135070.00	28648.00	2812.00	2511.00	2118.00	638744.00	CMSDAY
Mean	49.60	540.20	353.60	340.80	2284.10	5438.00	6265.50	4502.30	924.10	90.70	86.60	68.30	1745.20	CMS
Max	59.00	944.00	560.00	911.00	3498.00	6899.00	6899.00	6626.00	2342.00	140.00	140.00	72.00	6899.00	CMS
Min	35.00	61.00	136.00	112.00	830.00	3466.00	5270.00	2394.00	67.00	66.00	68.00	66.00	35.00	CMS
Runoff	128.48	1446.85	916.62	912.90	6117.73	14095.30	16781.47	11670.05	2475.19	242.96	216.95	183.00	55187.48	MCM

Momentary Peak 6920.00 CMS. at 111.60 m. (MSL.) at 06.00 Hours , on Sep 23 , 2011

Runoff Yield 15.09 Liters/Second/Square KM. Momentary Peak Yield 59.817 Liters/Second/Square KM.

WATER YEAR : 2011

MUN RIVER BASIN

Lam Chi at Ban La Lon, Surin (M.26A)

Lat 14 - 54 - 08 N Long 103 - 24 - 12 E

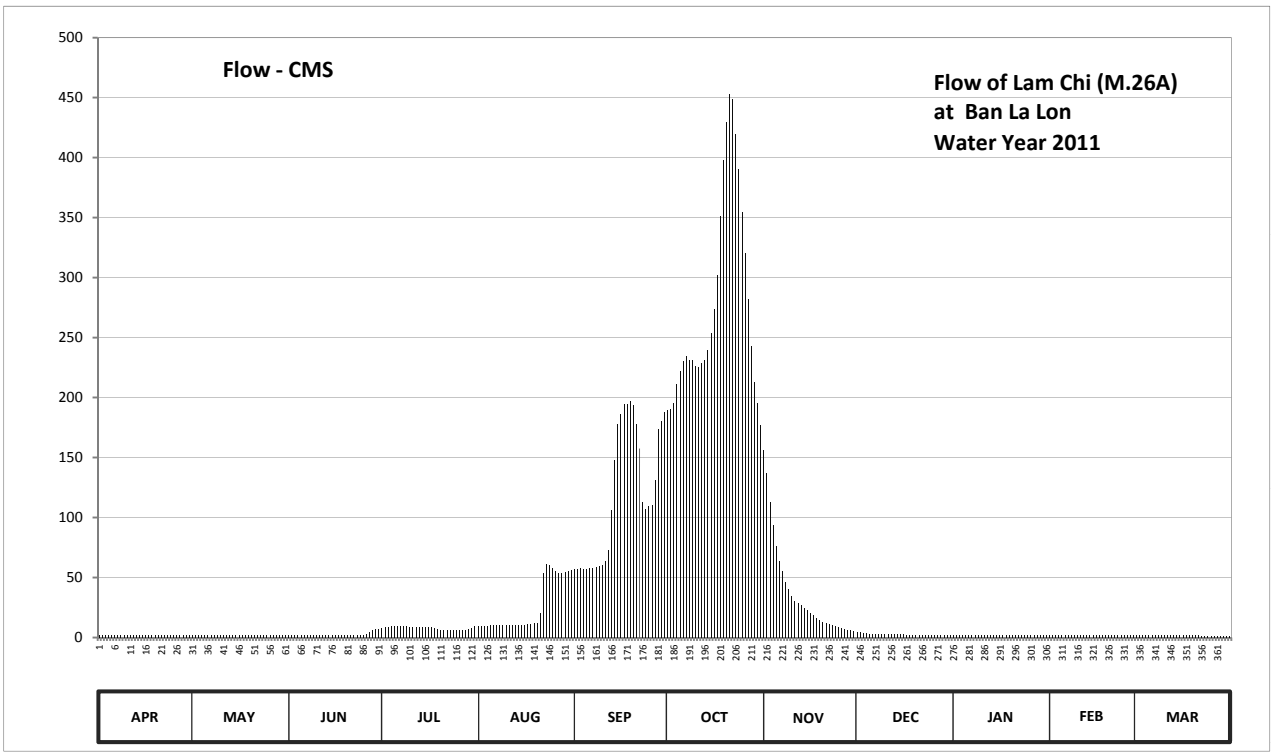
Location : on left bank at railway bridge.

	Ban La Lon	**Amphoe** Mueang	**Changwat** Surin
Drainge Area	3,058 sq.km.		
Type of Gage	Water - stage recorder.		
Zero Gage at Bottom	+127.10 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	Near the automatic gage building.		**Elevation** +140.633 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	2009 to date		
Rating Operation			
Period of Rating	2009 to date		
Rated by Flot	-		
Rated by Current Meter	2009 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Flow effected by Mueang ling weir about 500 meters downstream from the gage site. Stage-discharge relation defined by 28 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	128.60	128.60	128.62	129.45	129.62	132.55	136.90	136.17	129.14	128.71	128.68	128.63	
2	128.60	128.60	128.63	129.55	129.62	132.57	136.91	135.65	129.10	128.70	128.68	128.63	
3	128.60	128.60	128.63	129.56	129.64	132.58	136.98	134.85	129.08	128.70	128.68	128.63	
4	128.60	128.60	128.63	129.60	129.65	132.57	137.18	134.10	129.04	128.70	128.68	128.63	
5	128.60	128.60	128.63	129.60	129.67	132.57	137.30	133.40	128.96	128.69	128.68	128.63	
6	128.60	128.60	128.64	129.60	129.67	132.58	137.38	132.87	128.96	128.68	128.68	128.63	
7	128.60	128.60	128.64	129.60	129.68	132.60	137.42	132.47	128.95	128.68	128.68	128.63	
8	128.60	128.60	128.64	129.60	129.68	132.62	137.39	132.01	128.96	128.68	128.68	128.63	
9	128.60	128.60	128.64	129.60	129.69	132.66	137.39	131.70	128.96	128.68	128.65	128.63	
10	128.60	128.60	128.64	129.57	129.69	132.70	137.34	131.40	128.95	128.68	128.63	128.63	
11	128.60	128.60	128.64	129.55	129.70	132.89	137.33	131.18	128.92	128.68	128.63	128.63	
12	128.60	128.60	128.64	129.55	129.73	133.27	137.37	131.09	128.85	128.68	128.63	128.63	
13	128.60	128.60	128.64	129.55	129.73	134.59	137.39	130.95	128.83	128.68	128.63	128.63	
14	128.60	128.60	128.64	129.55	129.73	135.96	137.47	130.81	128.80	128.68	128.63	128.63	
15	128.60	128.60	128.64	129.55	129.73	136.69	137.60	130.67	128.80	128.68	128.63	128.63	
16	128.60	128.60	128.64	129.55	129.74	136.85	137.74	130.51	128.79	128.68	128.63	128.63	
17	128.60	128.60	128.64	129.55	129.77	136.96	137.94	130.39	128.76	128.68	128.63	128.63	
18	128.60	128.60	128.64	129.50	129.81	136.97	138.24	130.23	128.76	128.68	128.63	128.63	
19	128.60	128.60	128.64	129.35	129.85	137.00	138.50	130.07	128.76	128.68	128.63	128.63	
20	128.60	128.60	128.65	129.25	129.91	136.95	138.67	129.94	128.76	128.68	128.63	128.63	
21	128.60	128.60	128.65	129.25	130.53	136.70	138.79	129.86	128.75	128.68	128.63	128.60	
22	128.60	128.60	128.68	129.25	132.40	136.20	138.77	129.78	128.75	128.70	128.63	128.56	
23	128.60	128.60	128.75	129.25	132.76	134.83	138.62	129.68	128.74	128.69	128.63	128.56	
24	128.60	128.60	128.75	129.25	132.73	134.61	138.46	129.62	128.72	128.68	128.63	128.56	
25	128.60	128.60	128.75	129.25	132.58	134.71	138.26	129.53	128.72	128.68	128.63	128.56	
26	128.60	128.60	128.82	129.28	132.47	134.75	138.05	129.45	128.72	128.68	128.63	128.56	
27	128.60	128.60	129.10	129.30	132.37	135.48	137.80	129.34	128.72	128.68	128.63	128.56	
28	128.60	128.60	129.31	129.30	132.40	136.60	137.50	129.26	128.72	128.68	128.63	128.56	
29	128.60	128.60	129.35	129.34	132.42	136.74	137.20	129.26	128.72	128.68	128.63	128.56	
30	128.60	128.60	129.40	129.44	132.48	136.87	136.98	129.18	128.71	128.68		128.56	
31		128.60		129.60	132.52		136.67		128.71	128.68		128.56	
Mean	128.60	128.60	128.74	129.46	130.64	134.72	137.66	131.18	128.84	128.68	128.64	128.61	
Max	128.60	128.60	129.40	129.60	132.76	137.00	138.79	136.17	129.14	128.71	128.68	128.63	138.79
Min	128.60	128.60	128.62	129.25	129.62	132.55	136.67	129.18	128.71	128.68	128.63	128.56	128.56

Annual Max Momentary Gage Height	138.84	m. (MSL.) ,	at 06.00 Hours , on Oct 22 , 2011		
Zero Gage at Bottom Elevation	127.10	m. (MSL.) ,	River Bed	127.06	m. (MSL)
Left Bank Elevation	140.37	m. (MSL.) ,			
Right Bank Elevation	140.39	m. (MSL.) ,	Drainage Area	3058	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.66	1.66	1.74	7.80	9.50	57.00	189.50	156.30	4.70	2.11	1.99	1.78		
2	1.66	1.66	1.78	8.80	9.50	57.40	190.25	137.25	4.30	2.07	1.99	1.78		
3	1.66	1.66	1.78	8.90	9.70	57.60	195.50	113.10	4.10	2.07	1.99	1.78		
4	1.66	1.66	1.78	9.30	9.80	57.40	211.30	93.60	3.70	2.07	1.99	1.78		
5	1.66	1.66	1.78	9.30	10.00	57.40	222.00	76.00	3.14	2.03	1.99	1.78		
6	1.66	1.66	1.82	9.30	10.00	57.60	230.00	63.40	3.14	1.99	1.99	1.78		
7	1.66	1.66	1.82	9.30	10.10	58.00	234.20	55.40	3.10	1.99	1.99	1.78		
8	1.66	1.66	1.82	9.30	10.10	58.40	231.00	46.20	3.14	1.99	1.99	1.78		
9	1.66	1.66	1.82	9.30	10.20	59.20	231.00	40.10	3.14	1.99	1.86	1.78		
10	1.66	1.66	1.82	9.00	10.20	60.00	226.00	34.50	3.10	1.99	1.78	1.78		
11	1.66	1.66	1.82	8.80	10.30	63.80	225.00	30.54	2.98	1.99	1.78	1.78		
12	1.66	1.66	1.82	8.80	10.60	72.75	229.00	28.92	2.69	1.99	1.78	1.78		
13	1.66	1.66	1.82	8.80	10.60	106.34	231.00	26.60	2.61	1.99	1.78	1.78		
14	1.66	1.66	1.82	8.80	10.60	148.10	239.70	24.64	2.49	1.99	1.78	1.78		
15	1.66	1.66	1.82	8.80	10.60	177.55	254.00	22.68	2.49	1.99	1.78	1.78		
16	1.66	1.66	1.82	8.80	10.70	186.50	273.60	20.44	2.44	1.99	1.78	1.78		
17	1.66	1.66	1.82	8.80	11.00	194.00	302.40	18.76	2.32	1.99	1.78	1.78		
18	1.66	1.66	1.82	8.30	11.40	194.75	351.20	16.52	2.32	1.99	1.78	1.78		
19	1.66	1.66	1.82	6.80	11.80	197.00	398.00	14.28	2.32	1.99	1.78	1.78		
20	1.66	1.66	1.86	5.80	12.40	193.25	429.30	12.70	2.32	1.99	1.78	1.78		
21	1.66	1.66	1.86	5.80	20.72	178.00	453.00	11.90	2.28	1.99	1.78	1.66		
22	1.66	1.66	1.99	5.80	54.00	157.50	449.00	11.10	2.28	2.07	1.78	1.49		
23	1.66	1.66	2.28	5.80	61.20	112.58	419.80	10.10	2.24	2.03	1.78	1.49		
24	1.66	1.66	2.28	5.80	60.60	106.86	390.80	9.50	2.15	1.99	1.78	1.49		
25	1.66	1.66	2.28	5.80	57.60	109.46	354.80	8.60	2.15	1.99	1.78	1.49		
26	1.66	1.66	2.57	6.10	55.40	110.50	320.00	7.80	2.15	1.99	1.78	1.49		
27	1.66	1.66	4.30	6.30	53.40	131.40	282.00	6.70	2.15	1.99	1.78	1.49		
28	1.66	1.66	6.40	6.30	54.00	173.50	243.00	5.90	2.15	1.99	1.78	1.49		
29	1.66	1.66	6.80	6.70	54.40	180.20	213.00	5.90	2.15	1.99	1.78	1.49		
30	1.66	1.66	7.30	7.70	55.60	187.70	195.50	5.10	2.11	1.99		1.49		
31		1.66		9.30	56.40		176.65		2.11	1.99		1.49		
Total	49.80	51.46	74.26	244.20	792.42	3561.74	8591.50	1114.53	84.46	62.21	53.38	52.16	14732.12	CMSDAY
Mean	1.66	1.66	2.48	7.88	25.56	118.72	277.15	37.15	2.72	2.01	1.84	1.68	40.25	CMS
Max	1.66	1.66	7.30	9.30	61.20	197.00	453.00	156.30	4.70	2.11	1.99	1.78	453.00	CMS
Min	1.66	1.66	1.74	5.80	9.50	57.00	176.65	5.10	2.11	1.99	1.78	1.49	1.49	CMS
Runoff	4.30	4.45	6.42	21.10	68.47	307.73	742.31	96.30	7.30	5.38	4.61	4.51	1272.86	MCM

Momentary Peak 463.00 CMS. at 138.84 m. (MSL.) at 06.00 Hours , on Oct 22 , 2011

Runoff Yield 13.16 Liters/Second/Square KM. Momentary Peak Yield 151.406 Liters/Second/Square KM.

WATER YEAR : 2011

MUN RIVER BASIN

Lam Se Bai at Ban Chiang Pheng, Yasothon (M.32)

Lat 15 - 50 - 18 N Long 104 - 27 - 35 E

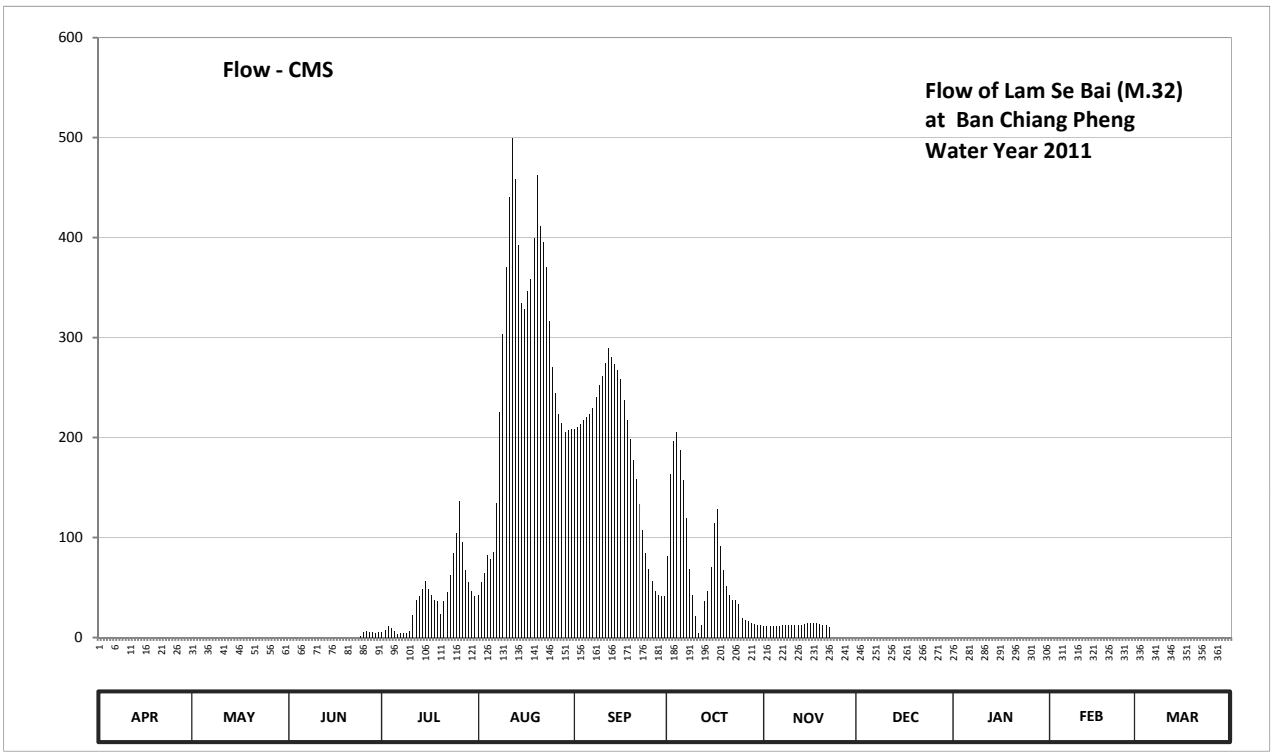
Location : on right bank at Phawaphutanon bridge.

	Ban Chiang Pheng	**Amphoe** Pa Tiu	**Changwat** Yasothon
Drainge Area	1,646 sq.km.		
Type of Gage	Water - stage recorder.		
Zero Gage at Bottom	+120.290 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank at the automatic gage building.	**Elevation**	+130.837 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	1968 - 1974, 1997 to date		
Rating Operation			
Period of Rating	1968 - 1974, 1997 to date		
Rated by Flot	-		
Rated by Current Meter	1968 - 1974, 1997 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. The concrete weir situated about 3 kilometers downstream from the gage site. Stage-discharge relation defined by 30 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	121.40	119.36	119.36	123.75	124.49	126.17	125.19	123.85	123.95	123.83	123.37	122.65	
2	121.31	119.36	119.37	123.78	124.82	126.18	125.85	123.85	123.95	123.82	123.33	122.63	
3	121.21	119.37	119.39	123.85	124.98	126.20	126.09	123.85	123.95	123.80	123.28	122.61	
4	121.12	119.39	119.44	123.82	125.20	126.23	126.15	123.85	123.96	123.78	123.25	122.60	
5	121.02	119.39	119.50	123.77	125.15	126.25	126.03	123.85	123.96	123.76	123.22	122.59	
6	120.92	119.41	119.54	123.70	125.24	126.27	125.80	123.85	123.96	123.74	123.18	122.57	
7	120.83	119.42	119.57	123.74	125.63	126.31	125.51	123.86	123.96	123.72	123.15	122.56	
8	120.73	119.44	119.59	123.74	126.28	126.38	125.03	123.86	123.97	123.70	123.12	122.54	
9	120.63	119.48	119.59	123.73	126.80	126.46	124.47	123.86	123.97	123.68	123.09	122.53	
10	120.52	119.50	119.60	123.76	127.22	126.52	123.97	123.86	123.98	123.66	123.07	122.52	
11	120.41	119.53	119.62	123.98	127.63	126.61	123.74	123.87	123.98	123.64	123.05	122.51	
12	120.32	119.55	119.65	124.22	127.98	126.71	123.86	123.87	123.98	123.62	123.02	122.50	
13	120.23	119.58	119.70	124.46	127.74	126.65	124.20	123.87	123.99	123.60	123.00	122.48	
14	120.14	119.62	120.03	124.70	127.35	126.60	124.62	123.88	123.99	123.58	122.98	122.47	
15	120.06	119.65	121.67	124.86	127.01	126.56	125.05	123.89	124.00	123.58	122.97	122.46	
16	119.97	119.68	122.42	124.69	126.97	126.50	125.47	123.89	124.00	123.57	122.97	122.45	
17	119.88	119.69	122.86	124.49	127.08	126.36	125.58	123.89	124.00	123.57	122.96	122.44	
18	119.79	119.66	122.93	124.29	127.15	126.23	125.29	123.89	123.98	123.56	122.96	122.43	
19	119.71	119.66	122.97	124.10	127.39	126.10	125.02	123.88	123.96	123.55	122.93	122.42	
20	119.63	119.64	123.02	123.99	127.76	125.96	124.75	123.87	123.95	123.53	122.91	122.42	
21	119.58	119.62	123.15	124.12	127.46	125.81	124.49	123.87	123.93	123.51	122.89	122.41	
22	119.57	119.61	123.29	124.58	127.37	125.62	124.28	123.84	123.92	123.50	122.86	122.40	
23	119.55	119.59	123.46	124.95	127.22	125.42	124.22	123.85	123.91	123.48	122.84	122.39	
24	119.52	119.57	123.63	125.23	126.89	125.22	124.08	123.86	123.90	123.47	122.81	122.39	
25	118.98	119.56	123.75	125.40	126.58	125.03	123.95	123.88	123.89	123.46	122.79	122.38	
26	119.46	119.54	123.76	125.64	126.41	124.84	123.93	123.89	123.88	123.45	122.75	122.38	
27	119.44	119.53	123.75	125.33	126.27	124.63	123.91	123.91	123.87	123.44	122.72	122.37	
28	119.41	119.53	123.75	125.02	126.21	124.48	123.89	123.93	123.86	123.43	122.68	122.37	
29	119.38	119.51	123.74	124.82	126.15	124.46	123.88	123.95	123.85	123.42	122.65	122.36	
30	119.36	119.49	123.75	124.63	126.16	124.46	123.87	123.95	123.84	123.41		122.36	
31		119.49		124.46	126.17		123.86		123.83	123.39		122.35	
Mean	120.14	119.53	121.53	124.37	126.54	125.91	124.71	123.88	123.94	123.59	122.99	122.47	
Max	121.40	119.69	123.76	125.64	127.98	126.71	126.15	123.95	124.00	123.83	123.37	122.65	127.98
Min	118.98	119.36	119.36	123.70	124.49	124.46	123.74	123.84	123.83	123.39	122.65	122.35	118.98

Annual Max Momentary Gage Height	128.09	m. (MSL.) ,	at 15.00 Hours , on Aug 12 , 2011		
Zero Gage at Bottom Elevation	120.29	m. (MSL.) ,	River Bed	118.68	m. (MSL)
Left Bank Elevation	130.59	m. (MSL.) ,			
Right Bank Elevation	130.12	m. (MSL.) ,	Drainage Area	1646	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	0.00	5.50	42.70	208.50	81.20	11.50	0.00	0.00	0.00	0.00		
2	0.00	0.00	0.00	7.00	55.00	210.00	163.50	11.50	0.00	0.00	0.00	0.00		
3	0.00	0.00	0.00	11.50	64.60	213.00	196.50	11.50	0.00	0.00	0.00	0.00		
4	0.00	0.00	0.00	9.40	82.00	217.50	205.50	11.50	0.00	0.00	0.00	0.00		
5	0.00	0.00	0.00	6.50	78.00	220.50	187.50	11.50	0.00	0.00	0.00	0.00		
6	0.00	0.00	0.00	3.00	86.00	223.50	157.00	11.50	0.00	0.00	0.00	0.00		
7	0.00	0.00	0.00	5.00	134.90	229.50	119.30	12.20	0.00	0.00	0.00	0.00		
8	0.00	0.00	0.00	5.00	225.00	240.00	68.40	12.20	0.00	0.00	0.00	0.00		
9	0.00	0.00	0.00	4.50	303.00	252.00	42.10	12.20	0.00	0.00	0.00	0.00		
10	0.00	0.00	0.00	6.00	370.40	261.00	21.30	12.20	0.00	0.00	0.00	0.00		
11	0.00	0.00	0.00	22.20	440.10	274.50	5.00	12.90	0.00	0.00	0.00	0.00		
12	0.00	0.00	0.00	37.20	499.60	289.50	12.20	12.90	0.00	0.00	0.00	0.00		
13	0.00	0.00	0.00	41.80	458.80	280.50	37.00	12.90	0.00	0.00	0.00	0.00		
14	0.00	0.00	0.00	49.00	392.50	273.00	46.60	13.60	0.00	0.00	0.00	0.00		
15	0.00	0.00	0.00	57.00	334.70	267.00	70.00	14.30	0.00	0.00	0.00	0.00		
16	0.00	0.00	0.00	48.70	328.50	258.00	114.10	14.30	0.00	0.00	0.00	0.00		
17	0.00	0.00	0.00	42.70	346.60	237.00	128.40	14.30	0.00	0.00	0.00	0.00		
18	0.00	0.00	0.00	37.90	358.50	217.50	91.00	14.30	0.00	0.00	0.00	0.00		
19	0.00	0.00	0.00	36.00	399.30	198.00	67.60	13.60	0.00	0.00	0.00	0.00		
20	0.00	0.00	0.00	23.10	462.20	177.80	51.50	12.90	0.00	0.00	0.00	0.00		
21	0.00	0.00	0.00	36.20	411.20	158.30	42.70	12.90	0.00	0.00	0.00	0.00		
22	0.00	0.00	0.00	45.40	395.90	133.60	37.80	10.80	0.00	0.00	0.00	0.00		
23	0.00	0.00	0.00	62.50	370.40	107.60	37.20	0.00	0.00	0.00	0.00	0.00		
24	0.00	0.00	1.25	85.00	316.50	84.00	33.60	0.00	0.00	0.00	0.00	0.00		
25	0.00	0.00	5.50	105.00	270.00	68.40	19.50	0.00	0.00	0.00	0.00	0.00		
26	0.00	0.00	6.00	136.20	244.50	56.00	17.70	0.00	0.00	0.00	0.00	0.00		
27	0.00	0.00	5.50	95.90	223.50	46.90	15.90	0.00	0.00	0.00	0.00	0.00		
28	0.00	0.00	5.50	67.60	214.50	42.40	14.30	0.00	0.00	0.00	0.00	0.00		
29	0.00	0.00	5.00	55.00	205.50	41.80	13.60	0.00	0.00	0.00	0.00	0.00		
30	0.00	0.00	5.50	46.90	207.00	41.80	12.90	0.00	0.00	0.00		0.00		
31		0.00		41.80	208.50		12.20		0.00	0.00		0.00		
Total	0.00	0.00	34.25	1236.50	8529.90	5529.10	2123.10	277.50	0.00	0.00	0.00	0.00	17730.35	CMSDAY
Mean	0.00	0.00	1.14	39.89	275.16	184.30	68.49	9.25	0.00	0.00	0.00	0.00	48.44	CMS
Max	0.00	0.00	6.00	136.20	499.60	289.50	205.50	14.30	0.00	0.00	0.00	0.00	499.60	CMS
Min	0.00	0.00	0.00	3.00	42.70	41.80	5.00	0.00	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	0.00	0.00	2.96	106.83	736.98	477.71	183.44	23.98	0.00	0.00	0.00	0.00	1531.90	MCM

Momentary Peak 518.30 CMS. at 128.09 m. (MSL.) at 15.00 Hours , on Aug 12 , 2011

Runoff Yield 29.43 Liters/Second/Square KM. Momentary Peak Yield 314.885 Liters/Second/Square KM.

WATER YEAR : 2011

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.

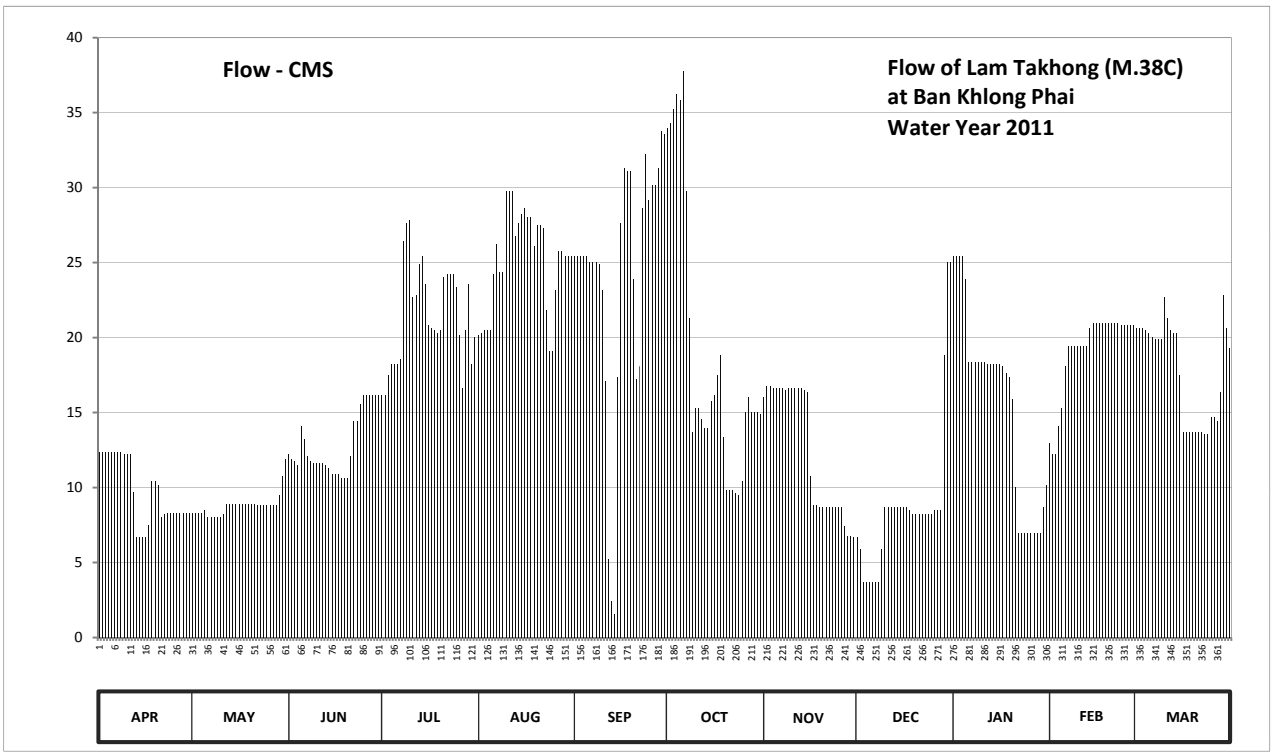
Ban Khlong Phai **Amphoe** Si Khio **Changwat** Nakhon Ratchasima

Drainge Area	1,292 sq.km.
Type of Gage	Water - stage recorder.
Zero Gage at Bottom	+242.000 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank near the gage observer's house. **Elevation** +251.841 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings
Period of Available Gage Records	1983 - 1995, 2006 to date
Rating Operation	
Period of Rating	1983 - 1995, 2006 to date
Rated by Flot	-
Rated by Current Meter	1983 - 1995, 2006 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair.Flow effected by Lam Takhong Dam about 500 meters upstreams from the gage site. Stage-discharge relation defined by 38 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	245.86	245.53	245.85	246.12	246.39	246.70	247.16	246.11	245.37	246.70	245.90	246.42	
2	245.86	245.53	245.83	246.12	246.40	246.70	247.18	246.16	245.29	246.70	245.85	246.42	
3	245.86	245.53	245.82	246.21	246.41	246.70	247.23	246.16	245.06	246.70	245.85	246.42	
4	245.86	245.53	245.80	246.26	246.41	246.70	247.28	246.15	245.06	246.70	245.98	246.41	
5	245.86	245.55	245.98	246.26	246.41	246.70	247.26	246.15	245.06	246.61	246.06	246.40	
6	245.86	245.50	245.92	246.26	246.63	246.68	247.36	246.15	245.06	246.27	246.25	246.38	
7	245.86	245.50	245.84	246.28	246.75	246.68	246.94	246.15	245.06	246.27	246.34	246.37	
8	245.86	245.50	245.82	246.76	246.64	246.68	246.46	246.14	245.06	246.27	246.34	246.37	
9	245.85	245.50	245.81	246.83	246.64	246.67	245.95	246.15	245.29	246.27	246.34	246.37	
10	245.85	245.50	245.81	246.84	246.94	246.57	246.06	246.15	245.57	246.27	246.34	246.54	
11	245.85	245.52	245.81	246.54	246.94	246.18	246.06	246.15	245.57	246.27	246.34	246.46	
12	245.67	245.59	245.81	246.55	246.94	245.22	246.01	246.15	245.57	246.26	246.34	246.41	
13	245.37	245.59	245.80	246.67	246.78	244.87	245.97	246.15	245.57	246.26	246.34	246.40	
14	245.37	245.59	245.79	246.70	246.83	244.73	245.97	246.14	245.57	246.26	246.42	246.40	
15	245.37	245.59	245.76	246.59	246.86	246.20	246.09	246.13	245.57	246.26	246.44	246.21	
16	245.37	245.59	245.76	246.43	246.88	246.83	246.12	245.75	245.57	246.26	246.44	245.95	
17	245.45	245.59	245.76	246.42	246.85	247.02	246.21	245.58	245.57	246.25	246.44	245.95	
18	245.73	245.59	245.74	246.41	246.85	247.01	246.30	245.58	245.55	246.22	246.44	245.95	
19	245.73	245.59	245.74	246.40	246.74	247.01	245.93	245.57	245.52	246.20	246.44	245.95	
20	245.71	245.59	245.74	246.41	246.82	246.61	245.68	245.57	245.52	246.10	246.44	245.95	
21	245.50	245.59	245.84	246.62	246.82	246.19	245.68	245.57	245.52	245.70	246.44	245.95	
22	245.52	245.58	246.00	246.63	246.81	246.25	245.68	245.57	245.52	245.40	246.44	245.95	
23	245.53	245.58	246.00	246.63	246.49	246.88	245.66	245.57	245.52	245.40	246.44	245.94	
24	245.53	245.58	246.08	246.63	246.32	247.07	245.65	245.57	245.52	245.40	246.43	245.94	
25	245.53	245.58	246.12	246.58	246.32	246.91	245.73	245.57	245.52	245.40	246.43	246.02	
26	245.53	245.58	246.12	246.39	246.57	246.96	246.04	245.57	245.55	245.40	246.43	246.02	
27	245.53	245.58	246.12	246.15	246.72	246.96	246.11	245.44	245.55	245.40	246.43	246.00	
28	245.53	245.58	246.12	246.41	246.72	247.02	246.04	245.38	245.55	245.40	246.43	246.13	
29	245.53	245.65	246.12	246.59	246.70	247.15	246.04	245.38	246.30	245.40	246.43	246.55	
30	245.53	245.75	246.12	246.26	246.70	247.14	246.04	245.37	246.68	245.57		246.42	
31		245.83		246.38	246.70		246.03		246.68	245.71		246.33	
Mean	245.65	245.58	245.89	246.46	246.68	246.57	246.26	245.84	245.53	246.04	246.32	246.23	
Max	245.86	245.83	246.12	246.84	246.94	247.15	247.36	246.16	246.68	246.70	246.44	246.55	247.36
Min	245.37	245.50	245.74	246.12	246.32	244.73	245.65	245.37	245.06	245.40	245.85	245.94	244.73

Annual Max Momentary Gage Height	247.87	m. (MSL.) ,	at 18.00 Hours , on Sep 23, 2011		
Zero Gage at Bottom Elevation	242.00	m. (MSL.) ,	River Bed	244.15	m. (MSL)
Left Bank Elevation	251.64	m. (MSL.) ,			
Right Bank Elevation	251.05	m. (MSL.) ,	Drainage Area	1292	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	12.35	8.30	12.21	16.18	20.15	25.40	33.94	16.03	6.70	25.40	12.94	20.64		
2	12.35	8.30	11.91	16.18	20.30	25.40	34.32	16.77	5.90	25.40	12.21	20.64		
3	12.35	8.30	11.77	17.50	20.47	25.40	35.27	16.77	3.68	25.40	12.21	20.64		
4	12.35	8.30	11.47	18.24	20.47	25.40	36.22	16.62	3.68	25.40	14.12	20.47		
5	12.35	8.50	14.12	18.24	20.47	25.40	35.84	16.62	3.68	23.87	15.30	20.30		
6	12.35	8.00	13.24	18.24	24.21	25.06	37.74	16.62	3.68	18.39	18.09	20.01		
7	12.35	8.00	12.06	18.53	26.25	25.06	29.76	16.62	3.68	18.39	19.42	19.86		
8	12.35	8.00	11.77	26.42	24.38	25.06	21.32	16.47	3.68	18.39	19.42	19.86		
9	12.21	8.00	11.62	27.67	24.38	24.89	13.68	16.62	5.90	18.39	19.42	19.86		
10	12.21	8.00	11.62	27.86	29.76	23.19	15.30	16.62	8.70	18.39	19.42	22.68		
11	12.21	8.20	11.62	22.68	29.76	17.06	15.30	16.62	8.70	18.39	19.42	21.32		
12	9.70	8.90	11.62	22.85	29.76	5.20	14.56	16.62	8.70	18.24	19.42	20.47		
13	6.70	8.90	11.47	24.89	26.76	2.42	13.97	16.62	8.70	18.24	19.42	20.30		
14	6.70	8.90	11.32	25.40	27.67	1.58	13.97	16.47	8.70	18.24	20.64	20.30		
15	6.70	8.90	10.88	23.53	28.24	17.36	15.74	16.33	8.70	18.24	20.98	17.50		
16	6.70	8.90	10.88	20.81	28.62	27.67	16.18	10.74	8.70	18.24	20.98	13.68		
17	7.50	8.90	10.88	20.64	28.05	31.28	17.50	8.80	8.70	18.09	20.98	13.68		
18	10.44	8.90	10.59	20.47	28.05	31.09	18.83	8.80	8.50	17.65	20.98	13.68		
19	10.44	8.90	10.59	20.30	26.08	31.09	13.38	8.70	8.20	17.36	20.98	13.68		
20	10.15	8.90	10.59	20.47	27.48	23.87	9.80	8.70	8.20	15.89	20.98	13.68		
21	8.00	8.90	12.06	24.04	27.48	17.21	9.80	8.70	8.20	10.00	20.98	13.68		
22	8.20	8.80	14.41	24.21	27.29	18.09	9.80	8.70	8.20	7.00	20.98	13.68		
23	8.30	8.80	14.41	24.21	21.83	28.62	9.60	8.70	8.20	7.00	20.98	13.53		
24	8.30	8.80	15.59	24.21	19.12	32.23	9.50	8.70	8.20	7.00	20.81	13.53		
25	8.30	8.80	16.18	23.36	19.12	29.19	10.44	8.70	8.20	7.00	20.81	14.71		
26	8.30	8.80	16.18	20.15	23.19	30.14	15.00	8.70	8.50	7.00	20.81	14.71		
27	8.30	8.80	16.18	16.62	25.74	30.14	16.03	7.40	8.50	7.00	20.81	14.41		
28	8.30	8.80	16.18	20.47	25.74	31.28	15.00	6.80	8.50	7.00	20.81	16.33		
29	8.30	9.50	16.18	23.53	25.40	33.75	15.00	6.80	18.83	7.00	20.81	22.85		
30	8.30	10.74	16.18	18.24	25.40	33.56	15.00	6.70	25.06	8.70		20.64		
31		11.91		20.01	25.40		14.86		25.06	10.15		19.27		
Total	293.06	272.65	385.78	666.15	777.02	723.09	582.65	374.06	270.53	480.85	555.13	550.59	5931.56	CMSDAY
Mean	9.77	8.80	12.86	21.49	25.07	24.10	18.80	12.47	8.73	15.51	19.14	17.76	16.21	CMS
Max	12.35	11.91	16.18	27.86	29.76	33.75	37.74	16.77	25.06	25.40	20.98	22.85	37.74	CMS
Min	6.70	8.00	10.59	16.18	19.12	1.58	9.50	6.70	3.68	7.00	12.21	13.53	1.58	CMS
Runoff	25.32	23.56	33.33	57.56	67.14	62.48	50.34	32.32	23.37	41.55	47.96	47.57	512.49	MCM

Momentary Peak 48.91 CMS. at 247.87 m. (MSL.) at 18.00 Hours , on Sep 23, 2011

Runoff Yield 12.54 Liters/Second/Square KM. Momentary Peak Yield 37.856 Liters/Second/Square KM.

WATER YEAR : 2011

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

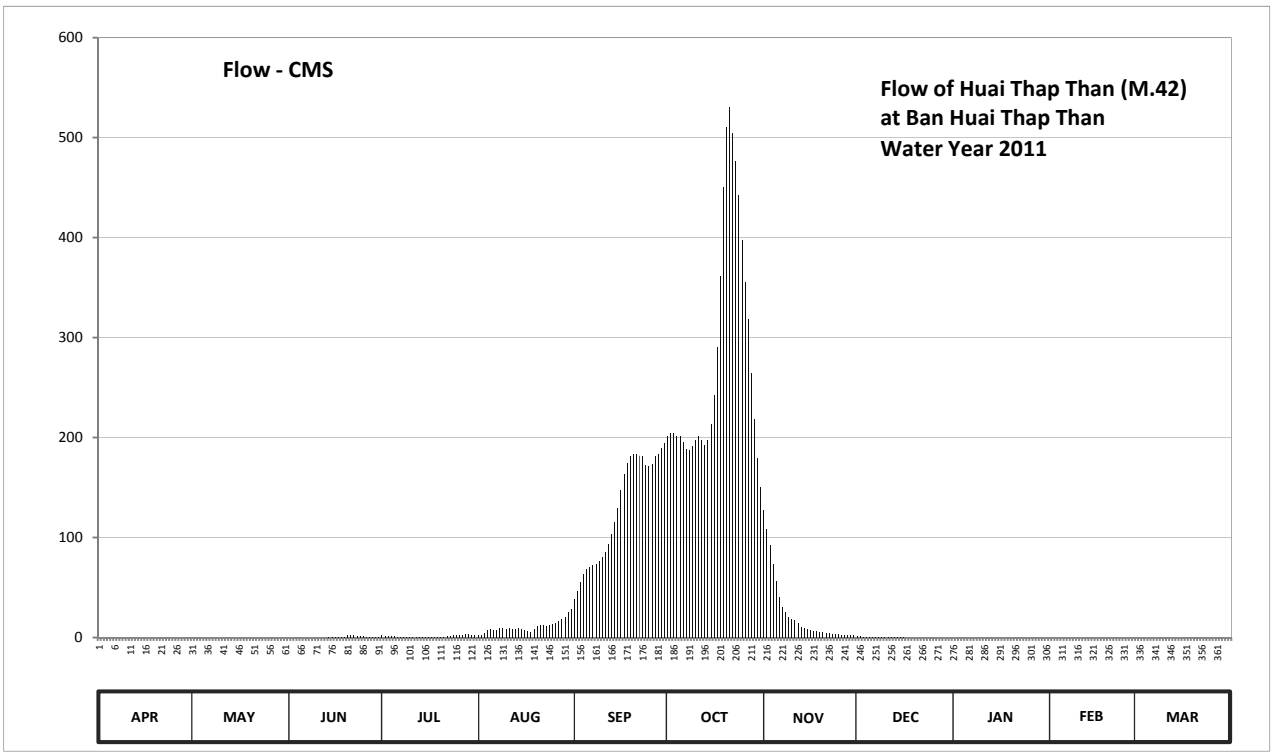
Location : on right bank at the bridge on highway.

	Ban Huai Thap Than	**Amphoe** Huai Thap Thun		**Changwat** Si Sa Ket	
Drainge Area	2,832 sq.km.				
Type of Gage	Water - stage recorder.				
Zero Gage at Bottom	118.850 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On right bank at the footpath of the bridge.			**Elevation**	+130.445 m. (MSL.)
Gage Reading Frequency	Recording				
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings				
Period of Available Gage Records	1972 to date				
Rating Operation					
Period of Rating	1972 - 1981, 1987 to date				
Rated by Flot	-				
Rated by Current Meter	1972 - 1981, 1987 to date				
Stability of Channel Regimes	Stable.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records good. Flow effected by the local weir about 800 meters downstream from the gage site. Stage-discharge relation defined by 22 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	121.48	121.23	121.85	122.24	122.26	123.34	127.93	127.04	122.23	121.88	121.25	120.87	
2	121.48	121.23	121.85	122.23	122.26	123.72	127.95	126.50	122.22	121.85	121.23	120.88	
3	121.47	121.22	121.83	122.22	122.30	124.16	127.95	125.81	122.19	121.84	121.21	120.90	
4	121.46	121.21	121.83	122.20	122.37	124.52	127.93	125.00	122.16	121.82	121.19	120.91	
5	121.44	121.20	121.82	122.20	122.40	124.75	127.93	124.19	122.16	121.80	121.17	120.93	
6	121.44	121.19	121.94	122.19	122.38	124.87	127.89	123.43	122.16	121.77	121.15	120.95	
7	121.44	121.18	122.01	122.18	122.37	124.97	127.83	122.96	122.16	121.73	121.13	120.95	
8	121.46	121.16	122.04	122.17	122.42	125.00	127.82	122.68	122.16	121.69	121.12	120.97	
9	121.45	121.15	122.07	122.17	122.41	125.12	127.85	122.57	122.16	121.68	121.10	120.98	
10	121.44	121.13	122.09	122.16	122.40	125.29	127.90	122.55	122.15	121.67	121.08	120.99	
11	121.43	121.12	122.09	122.16	122.42	125.52	127.93	122.54	122.14	121.64	121.06	121.00	
12	121.41	121.12	122.10	122.15	122.40	125.86	127.90	122.50	122.14	121.61	121.03	121.00	
13	121.40	121.12	122.10	122.15	122.40	126.29	127.86	122.44	122.13	121.59	121.01	121.00	
14	121.40	121.13	122.16	122.16	122.41	126.71	127.90	122.42	122.13	121.57	120.99	121.01	
15	121.39	121.13	122.16	122.15	122.39	127.10	128.01	122.39	122.12	121.54	120.98	121.02	
16	121.38	121.13	122.15	122.15	122.38	127.39	128.19	122.37	122.11	121.52	120.96	121.02	
17	121.37	121.12	122.15	122.15	122.35	127.59	128.45	122.36	122.10	121.50	120.94	121.03	
18	121.36	121.21	122.17	122.18	122.34	127.70	128.79	122.35	122.08	121.47	120.92	121.04	
19	121.35	121.27	122.18	122.17	122.39	127.76	129.17	122.34	122.07	121.45	120.91	121.05	
20	121.34	121.42	122.24	122.19	122.45	127.78	129.39	122.33	122.05	121.43	120.90	121.05	
21	121.32	121.45	122.26	122.19	122.48	127.78	129.43	122.32	122.03	121.41	120.88	121.06	
22	121.32	121.43	122.24	122.23	122.47	127.77	129.37	122.31	122.02	121.42	120.87	121.07	
23	121.31	121.44	122.23	122.22	122.46	127.76	129.27	122.29	122.00	121.43	120.86	121.07	
24	121.30	121.46	122.22	122.24	122.48	127.68	129.14	122.28	121.97	121.42	120.85	121.09	
25	121.29	121.71	122.20	122.25	122.49	127.67	128.95	122.27	121.95	121.40	120.83	121.10	
26	121.28	121.75	122.19	122.26	122.50	127.69	128.76	122.26	121.94	121.38	120.81	121.10	
27	121.27	121.77	122.19	122.25	122.53	127.77	128.59	122.25	121.93	121.35	120.80	121.10	
28	121.26	121.82	122.19	122.27	122.55	127.78	128.32	122.25	121.93	121.33	120.82	121.10	
29	121.26	121.84	122.19	122.27	122.57	127.84	128.04	122.25	121.92	121.31	120.85	121.11	
30	121.25	121.86	122.18	122.26	122.69	127.88	127.75	122.25	121.91	121.29		121.12	
31		121.87		122.25	122.87		127.44		121.90	121.27		121.12	
Mean	121.38	121.36	122.10	122.20	122.44	126.44	128.31	122.98	122.07	121.55	121.00	121.02	
Max	121.48	121.87	122.26	122.27	122.87	127.88	129.43	127.04	122.23	121.88	121.25	121.12	129.43
Min	121.25	121.12	121.82	122.15	122.26	123.34	127.44	122.25	121.90	121.27	120.80	120.87	120.80

Annual Max Momentary Gage Height	129.44	m. (MSL.) ,	at 01.00 Hours , on Oct 21 , 2011		
Zero Gage at Bottom Elevation	118.85	m. (MSL.) ,	River Bed	118.48	m. (MSL)
Left Bank Elevation	130.28	m. (MSL.) ,			
Right Bank Elevation	130.26	m. (MSL.) ,	Drainage Area	2832	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	0.00	2.20	2.80	38.13	201.50	127.60	1.90	0.00	0.00	0.00		
2	0.00	0.00	0.00	1.90	2.80	46.05	204.50	109.00	1.60	0.00	0.00	0.00		
3	0.00	0.00	0.00	1.60	4.00	55.39	204.50	92.09	0.90	0.00	0.00	0.00		
4	0.00	0.00	0.00	1.00	7.15	63.13	201.50	73.45	0.60	0.00	0.00	0.00		
5	0.00	0.00	0.00	1.00	8.50	68.07	201.50	56.04	0.60	0.00	0.00	0.00		
6	0.00	0.00	0.00	0.90	7.60	70.66	195.80	40.01	0.60	0.00	0.00	0.00		
7	0.00	0.00	0.00	0.80	7.15	72.81	188.60	30.41	0.60	0.00	0.00	0.00		
8	0.00	0.00	0.00	0.70	9.60	73.45	187.40	25.02	0.60	0.00	0.00	0.00		
9	0.00	0.00	0.00	0.70	9.05	76.21	191.00	20.65	0.60	0.00	0.00	0.00		
10	0.00	0.00	0.00	0.60	8.50	80.12	197.00	18.75	0.50	0.00	0.00	0.00		
11	0.00	0.00	0.00	0.60	9.60	85.41	201.50	17.80	0.40	0.00	0.00	0.00		
12	0.00	0.00	0.00	0.50	8.50	93.29	197.00	14.00	0.40	0.00	0.00	0.00		
13	0.00	0.00	0.00	0.50	8.50	103.66	192.20	10.70	0.30	0.00	0.00	0.00		
14	0.00	0.00	0.60	0.60	9.05	115.34	197.00	9.60	0.30	0.00	0.00	0.00		
15	0.00	0.00	0.60	0.50	8.05	130.00	213.60	8.05	0.20	0.00	0.00	0.00		
16	0.00	0.00	0.50	0.50	7.60	147.30	242.40	7.15	0.10	0.00	0.00	0.00		
17	0.00	0.00	0.50	0.50	6.25	163.10	290.00	6.70	0.00	0.00	0.00	0.00		
18	0.00	0.00	0.70	0.80	5.80	174.50	361.80	6.25	0.00	0.00	0.00	0.00		
19	0.00	0.00	0.80	0.70	8.05	180.80	450.20	5.80	0.00	0.00	0.00	0.00		
20	0.00	0.00	2.20	0.90	11.25	182.90	511.00	5.35	0.00	0.00	0.00	0.00		
21	0.00	0.00	2.80	0.90	12.90	182.90	530.20	4.90	0.00	0.00	0.00	0.00		
22	0.00	0.00	2.20	1.90	12.35	181.85	505.00	4.45	0.00	0.00	0.00	0.00		
23	0.00	0.00	1.90	1.60	11.80	180.80	476.20	3.70	0.00	0.00	0.00	0.00		
24	0.00	0.00	1.60	2.20	12.90	172.40	442.40	3.40	0.00	0.00	0.00	0.00		
25	0.00	0.00	1.00	2.50	13.45	171.35	397.50	3.10	0.00	0.00	0.00	0.00		
26	0.00	0.00	0.90	2.80	14.00	173.45	355.20	2.80	0.00	0.00	0.00	0.00		
27	0.00	0.00	0.90	2.50	16.85	181.85	318.90	2.50	0.00	0.00	0.00	0.00		
28	0.00	0.00	0.90	3.10	18.75	182.90	264.80	2.50	0.00	0.00	0.00	0.00		
29	0.00	0.00	0.90	3.10	20.65	189.80	218.40	2.50	0.00	0.00	0.00	0.00		
30	0.00	0.00	0.80	2.80	25.21	194.60	179.75	2.50	0.00	0.00		0.00		
31		0.00		2.50	28.63		150.80		0.00	0.00		0.00		
Total	0.00	0.00	19.80	43.40	337.29	3832.22	8669.15	716.77	10.20	0.00	0.00	0.00	13628.83	CMSDAY
Mean	0.00	0.00	0.66	1.40	10.88	127.74	279.65	23.89	0.33	0.00	0.00	0.00	37.24	CMS
Max	0.00	0.00	2.80	3.10	28.63	194.60	530.20	127.60	1.90	0.00	0.00	0.00	530.20	CMS
Min	0.00	0.00	0.00	0.50	2.80	38.13	150.80	2.50	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	0.00	0.00	1.71	3.75	29.14	331.10	749.02	61.93	0.88	0.00	0.00	0.00	1177.53	MCM

Momentary Peak 535.60 CMS. at 129.44 m. (MSL.) at 01.00 Hours , on Oct 21 , 2011

Runoff Yield 13.15 Liters/Second/Square KM. Momentary Peak Yield 189.124 Liters/Second/Square KM.

WATER YEAR : 2011

MUN RIVER BASIN

Lam Takhong at Ban Tha Maprang, Nakhon Ratchasima (M.43A)

Lat 14 - 30 - 43 N Long 101 - 22 - 49 E

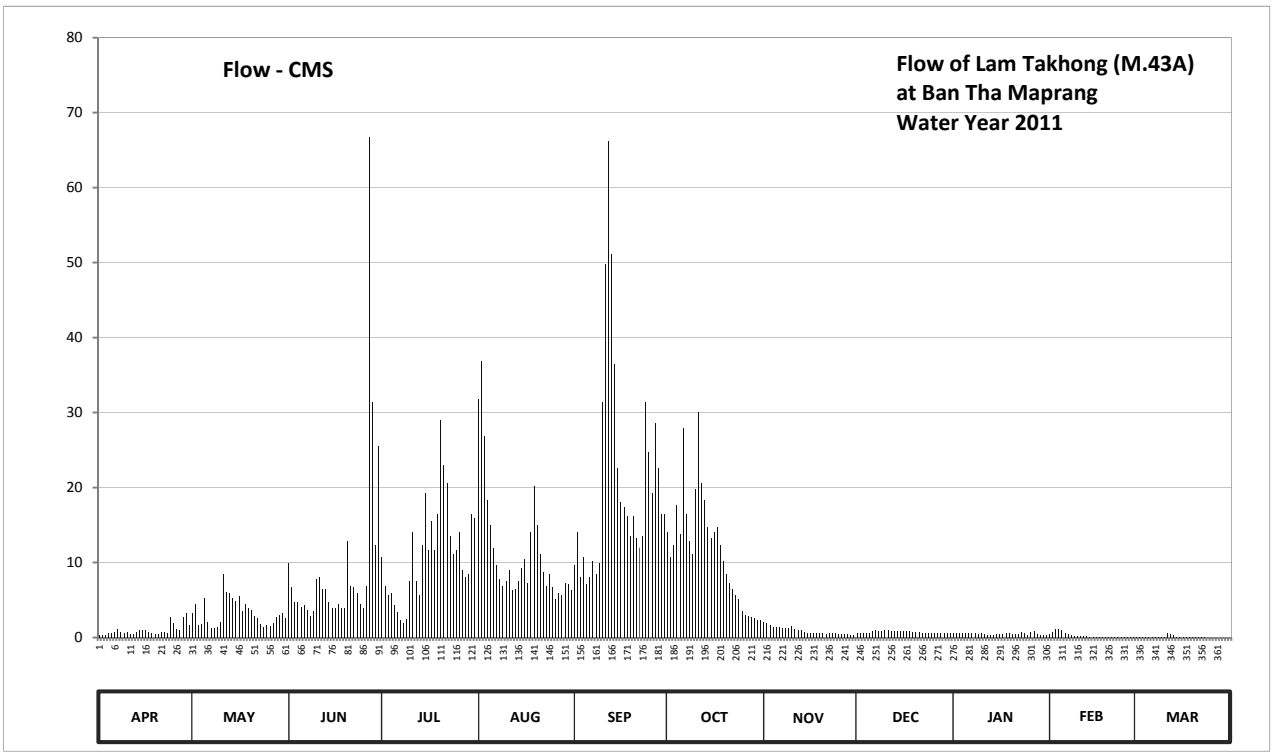
Location : on left bank about 2 kilometers downstream from M.43

	Ban Tha Maprang	**Amphoe**	Pak Chong	**Changwat**	Nakhon Ratchasima
Drainge Area	153 sq.km.				
Type of Gage	Water - stage recorder.				
Zero Gage at Bottom	+372.540 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On left bank downstream at the footpath of the bridge.			**Elevation**	+378.675 m. (MSL.)
Gage Reading Frequency	Recording				
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings				
Period of Available Gage Records	1989 to date				
Rating Operation					
Period of Rating	1989 to date				
Rated by Flot	-				
Rated by Current Meter	1989 to date				
Stability of Channel Regimes	Stable.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records very good. The weir situated above gage site.				
	Stage-discharge relation defined by 40 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	372.39	372.68	372.98	373.01	373.64	372.97	373.12	372.60	372.43	372.44	372.41	372.21	
2	372.38	372.75	372.86	372.87	373.75	373.12	373.01	372.59	372.44	372.44	372.46	372.19	
3	372.37	372.56	372.76	372.81	373.51	372.92	373.06	372.57	372.44	372.44	372.52	372.20	
4	372.43	372.58	372.76	372.82	373.26	373.01	373.24	372.54	372.44	372.44	372.51	372.23	
5	372.44	372.79	372.73	372.74	373.15	372.88	373.11	372.54	372.44	372.44	372.49	372.22	
6	372.45	372.60	372.74	372.69	373.05	372.92	373.54	372.54	372.47	372.44	372.44	372.22	
7	372.52	372.53	372.71	372.62	372.97	372.99	373.20	372.53	372.49	372.43	372.41	372.19	
8	372.46	372.53	372.66	372.59	372.91	372.93	373.08	372.53	372.48	372.42	372.37	372.17	
9	372.44	372.54	372.70	372.63	372.87	372.98	373.02	372.53	372.48	372.41	372.34	372.15	
10	372.45	372.60	372.91	372.90	372.90	373.63	373.31	372.55	372.49	372.42	372.34	372.23	
11	372.40	372.93	372.92	373.12	372.95	374.03	373.60	372.52	372.49	372.40	372.34	372.43	
12	372.40	372.83	372.85	372.90	372.84	374.34	373.33	372.49	372.48	372.39	372.34	372.40	
13	372.45	372.82	372.85	372.81	372.85	374.06	373.26	372.49	372.48	372.39	372.33	372.37	
14	372.50	372.79	372.76	373.06	372.90	373.74	373.14	372.46	372.47	372.39	372.31	372.32	
15	372.50	372.77	372.72	373.29	372.96	373.39	373.09	372.44	372.47	372.40	372.30	372.27	
16	372.49	372.80	372.72	373.04	373.00	373.25	373.12	372.44	372.47	372.41	372.31	372.24	
17	372.46	372.70	372.75	373.17	372.89	373.23	373.14	372.44	372.47	372.41	372.31	372.24	
18	372.43	372.75	372.72	373.04	373.12	373.19	373.06	372.42	372.47	372.42	372.30	372.20	
19	372.41	372.72	372.72	373.20	373.32	373.10	372.99	372.42	372.46	372.42	372.30	372.17	
20	372.40	372.71	373.08	373.57	373.15	373.19	372.93	372.42	372.45	372.40	372.30	372.14	
21	372.46	372.66	372.87	373.40	373.02	373.09	372.89	372.41	372.45	372.40	372.28	372.13	
22	372.45	372.64	372.86	373.33	372.94	373.05	372.85	372.42	372.43	372.41	372.26	372.13	
23	372.44	372.58	372.82	373.10	372.87	373.10	372.81	372.42	372.42	372.46	372.26	372.13	
24	372.65	372.54	372.75	373.02	372.93	373.63	372.78	372.42	372.42	372.42	372.26	372.12	
25	372.59	372.56	372.72	373.04	372.86	373.45	372.70	372.41	372.42	372.39	372.27	372.10	
26	372.52	372.55	372.87	373.12	372.78	373.29	372.67	372.41	372.43	372.45	372.29	372.09	
27	372.50	372.59	374.35	372.95	372.82	373.56	372.66	372.41	372.43	372.47	372.27	372.06	
28	372.65	372.65	373.63	372.92	372.81	373.39	372.65	372.40	372.42	372.41	372.24	372.04	
29	372.68	372.67	373.06	372.93	372.89	373.20	372.64	372.39	372.42	372.39	372.24	372.03	
30	372.57	372.68	373.47	373.20	372.88	373.20	372.62	372.39	372.42	372.37		372.01	
31		372.64		373.18	372.84		372.62		372.42	372.39		371.99	
Mean	372.48	372.67	372.91	373.00	373.02	373.29	373.01	372.47	372.45	372.42	372.34	372.18	
Max	372.68	372.93	374.35	373.57	373.75	374.34	373.60	372.60	372.49	372.47	372.52	372.43	374.35
Min	372.37	372.53	372.66	372.59	372.78	372.88	372.62	372.39	372.42	372.37	372.24	371.99	371.99

Annual Max Momentary Gage Height	375.04	m. (MSL.) ,	at 06.00 Hours , on Jun 27 , 2011			
Zero Gage at Bottom Elevation	372.54	m. (MSL.) ,	River Bed	372.54	m. (MSL)	
Left Bank Elevation	378.39	m. (MSL.) ,				
Right Bank Elevation	378.40	m. (MSL.) ,	Drainage Area	153	Square Kilometers	



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.37	3.20	9.90	10.80	31.84	9.60	14.10	2.00	0.58	0.64	0.46	0.02		
2	0.33	4.50	6.70	6.90	36.90	14.10	10.80	1.90	0.64	0.64	0.76	0.02		
3	0.30	1.60	4.70	5.70	26.85	8.10	12.30	1.70	0.64	0.64	1.20	0.02		
4	0.58	1.80	4.70	5.90	18.30	10.80	17.70	1.40	0.64	0.64	1.10	0.03		
5	0.64	5.30	4.10	4.30	15.00	7.10	13.80	1.40	0.64	0.64	0.94	0.03		
6	0.70	2.00	4.30	3.35	12.00	8.10	27.90	1.40	0.82	0.64	0.64	0.03		
7	1.20	1.30	3.70	2.30	9.60	10.20	16.50	1.30	0.94	0.58	0.46	0.02		
8	0.76	1.30	2.90	1.90	7.80	8.40	12.90	1.30	0.88	0.52	0.30	0.01		
9	0.64	1.40	3.50	2.45	6.90	9.90	11.10	1.30	0.88	0.46	0.20	0.01		
10	0.70	2.00	7.80	7.50	7.50	31.38	19.85	1.50	0.94	0.52	0.20	0.03		
11	0.40	8.40	8.10	14.10	9.00	49.78	30.00	1.20	0.94	0.40	0.20	0.58		
12	0.40	6.10	6.50	7.50	6.30	66.20	20.55	0.94	0.88	0.37	0.20	0.40		
13	0.70	5.90	6.50	5.70	6.50	51.16	18.30	0.94	0.88	0.37	0.16	0.30		
14	1.00	5.30	4.70	12.30	7.50	36.44	14.70	0.76	0.82	0.37	0.09	0.13		
15	1.00	4.90	3.90	19.20	9.30	22.65	13.20	0.64	0.82	0.40	0.06	0.05		
16	0.94	5.50	3.90	11.70	10.50	18.00	14.10	0.64	0.82	0.46	0.09	0.04		
17	0.76	3.50	4.50	15.60	7.30	17.40	14.70	0.64	0.82	0.46	0.09	0.04		
18	0.58	4.50	3.90	11.70	14.10	16.20	12.30	0.52	0.82	0.52	0.06	0.02		
19	0.46	3.90	3.90	16.50	20.20	13.50	10.20	0.52	0.76	0.52	0.06	0.01		
20	0.40	3.70	12.90	28.95	15.00	16.20	8.40	0.52	0.70	0.40	0.06	0.01		
21	0.76	2.90	6.90	23.00	11.10	13.20	7.30	0.46	0.70	0.40	0.05	0.01		
22	0.70	2.60	6.70	20.55	8.70	12.00	6.50	0.52	0.58	0.46	0.04	0.01		
23	0.64	1.80	5.90	13.50	6.90	13.50	5.70	0.52	0.52	0.76	0.04	0.01		
24	2.75	1.40	4.50	11.10	8.40	31.38	5.10	0.52	0.52	0.52	0.04	0.00		
25	1.90	1.60	3.90	11.70	6.70	24.75	3.50	0.46	0.52	0.37	0.05	0.00		
26	1.20	1.50	6.90	14.10	5.10	19.20	3.05	0.46	0.58	0.70	0.06	0.00		
27	1.00	1.90	66.75	9.00	5.90	28.60	2.90	0.46	0.58	0.82	0.05	0.00		
28	2.75	2.75	31.38	8.10	5.70	22.65	2.75	0.40	0.52	0.46	0.04	0.00		
29	3.20	3.05	12.30	8.40	7.30	16.50	2.60	0.37	0.52	0.37	0.04	0.00		
30	1.70	3.20	25.45	16.50	7.10	16.50	2.30	0.37	0.52	0.30		0.00		
31		2.60		15.90	6.30		2.30		0.52	0.37		0.00		
Total	29.46	101.40	281.78	346.20	357.59	623.49	357.40	27.06	21.94	15.72	7.74	1.83	2171.61	CMSDAY
Mean	0.98	3.27	9.39	11.17	11.54	20.78	11.53	0.90	0.71	0.51	0.27	0.06	5.93	CMS
Max	3.20	8.40	66.75	28.95	36.90	66.20	30.00	2.00	0.94	0.82	1.20	0.58	66.75	CMS
Min	0.30	1.30	2.90	1.90	5.10	7.10	2.30	0.37	0.52	0.30	0.04	0.00	0.00	CMS
Runoff	2.55	8.76	24.35	29.91	30.90	53.87	30.88	2.34	1.90	1.36	0.67	0.16	187.63	MCM

Momentary Peak 107.40 CMS. at 375.04 m. (MSL.) at 06.00 Hours , on Jun 27 , 2011

Runoff Yield 38.78 Liters/Second/Square KM. Momentary Peak Yield 701.961 Liters/Second/Square KM.

WATER YEAR : 2011

MUN RIVER BASIN

Lam Takhong at Vaccine Serum Office, Nakhon Ratchasima (M.89)

Lat 14 - 41 - 39 N Long 101 - 25 - 00 E

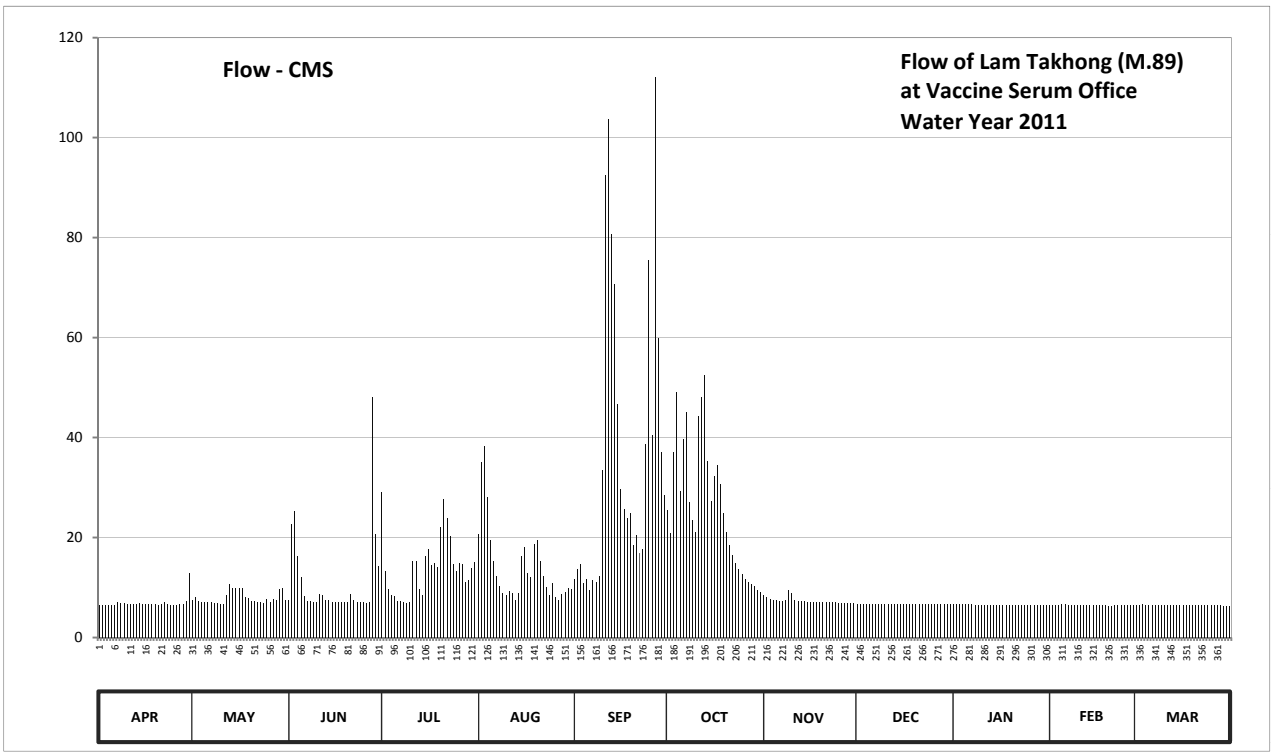
Location : on left bank at the bridge infront of Vaccine Serum Office.

	Ban	-	**Amphoe**	Pak Chong	**Changwat** Nakhon Ratchasima
Drainge Area	713	sq.km.			
Type of Gage	Water - stage recorder.				
Zero Gage at Bottom	+290.920	m. (MSL.)			
Bench Mark	B.M.-H.D.				
Location BM	On left bank at the abutment of the bridge.				**Elevation** +299.985 m. (MSL.)
Gage Reading Frequency	Recording.				
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings				
Period of Available Gage Records	1970 to date				
Rating Operation					
Period of Rating	1971 to date				
Rated by Flot	-				
Rated by Current Meter	1971 to date				
Stability of Channel Regimes	Stable.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records very good. Stage-discharge relation defined by 46 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	292.27	292.70	292.69	293.76	293.36	292.91	293.60	292.75	292.42	292.39	292.35	292.28	
2	292.27	292.73	293.46	292.99	294.00	293.01	293.37	292.73	292.42	292.38	292.34	292.30	
3	292.27	292.59	293.59	292.81	294.13	293.06	294.08	292.71	292.42	292.37	292.34	292.36	
4	292.27	292.57	293.14	292.75	293.72	292.87	294.56	292.69	292.42	292.37	292.35	292.30	
5	292.27	292.55	292.93	292.74	293.30	292.91	293.77	292.67	292.42	292.37	292.36	292.28	
6	292.34	292.52	292.74	292.64	293.09	292.80	294.19	292.65	292.42	292.36	292.36	292.28	
7	292.51	292.54	292.65	292.59	292.94	292.90	294.40	292.64	292.42	292.36	292.34	292.28	
8	292.44	292.47	292.62	292.54	292.84	292.88	293.68	292.69	292.42	292.35	292.33	292.30	
9	292.44	292.43	292.57	292.50	292.77	292.94	293.50	292.80	292.42	292.35	292.32	292.30	
10	292.40	292.42	292.53	292.53	292.75	293.94	293.38	292.77	292.42	292.34	292.35	292.31	
11	292.37	292.42	292.76	293.09	292.79	296.00	294.37	292.69	292.42	292.34	292.34	292.34	
12	292.37	292.75	292.75	293.09	292.77	296.32	294.52	292.63	292.42	292.34	292.32	292.31	
13	292.37	292.86	292.67	292.81	292.68	295.66	294.70	292.60	292.42	292.34	292.32	292.30	
14	292.43	292.82	292.67	292.75	292.77	295.32	294.01	292.58	292.42	292.34	292.32	292.31	
15	292.42	292.82	292.53	293.14	293.14	294.47	293.69	292.57	292.42	292.34	292.31	292.30	
16	292.42	292.82	292.55	293.21	293.23	293.79	293.89	292.56	292.42	292.34	292.31	292.30	
17	292.42	292.82	292.53	293.05	292.97	293.61	293.98	292.55	292.42	292.34	292.31	292.30	
18	292.37	292.73	292.52	293.07	292.93	293.52	293.83	292.53	292.42	292.34	292.29	292.29	
19	292.37	292.72	292.52	293.03	293.26	293.57	293.57	292.52	292.42	292.34	292.29	292.30	
20	292.33	292.63	292.54	293.43	293.30	293.25	293.38	292.51	292.42	292.34	292.24	292.28	
21	292.37	292.62	292.76	293.71	293.09	293.35	293.25	292.52	292.41	292.34	292.25	292.29	
22	292.51	292.57	292.67	293.52	292.94	293.17	293.15	292.52	292.38	292.34	292.30	292.29	
23	292.39	292.52	292.53	293.34	292.83	293.21	293.07	292.52	292.38	292.34	292.29	292.28	
24	292.33	292.50	292.52	293.06	292.75	294.15	293.01	292.52	292.38	292.34	292.28	292.28	
25	292.32	292.71	292.52	292.99	292.87	295.48	292.96	292.50	292.38	292.34	292.30	292.28	
26	292.35	292.57	292.49	293.07	292.73	294.22	292.91	292.49	292.38	292.34	292.30	292.28	
27	292.37	292.71	292.54	293.06	292.68	296.56	292.88	292.49	292.38	292.34	292.28	292.27	
28	292.42	292.68	294.52	292.88	292.76	294.96	292.86	292.48	292.38	292.34	292.27	292.27	
29	292.65	292.81	293.36	292.90	292.78	294.08	292.84	292.48	292.38	292.34	292.27	292.26	
30	292.97	292.82	293.04	293.02	292.82	293.74	292.80	292.47	292.37	292.34		292.26	
31		292.70		293.08	292.81		292.78		292.37	292.34		292.26	
Mean	292.40	292.65	292.80	293.00	293.03	293.96	293.58	292.59	292.41	292.35	292.31	292.29	
Max	292.97	292.86	294.52	293.76	294.13	296.56	294.70	292.80	292.42	292.39	292.36	292.36	296.56
Min	292.27	292.42	292.49	292.50	292.68	292.80	292.78	292.47	292.37	292.34	292.24	292.26	292.24

Annual Max Momentary Gage Height	296.89	m. (MSL.) ,	at 13.00 Hours , on Sep 27, 2011		
Zero Gage at Bottom Elevation	290.92	m. (MSL.) ,	River Bed	291.01	m. (MSL)
Left Bank Elevation	299.98	m. (MSL.) ,			
Right Bank Elevation	300.00	m. (MSL.) ,	Drainage Area	713	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	6.38	7.50	7.47	29.00	20.70	11.70	25.50	8.50	6.77	6.69	6.59	6.41		
2	6.38	8.10	22.70	13.30	35.00	13.70	20.90	8.10	6.77	6.67	6.56	6.46		
3	6.38	7.21	25.30	9.70	38.25	14.70	37.00	7.70	6.77	6.64	6.56	6.62		
4	6.38	7.16	16.30	8.50	28.00	10.90	49.00	7.47	6.77	6.64	6.59	6.46		
5	6.38	7.11	12.10	8.30	19.50	11.70	29.25	7.42	6.77	6.64	6.62	6.41		
6	6.56	7.03	8.30	7.34	15.30	9.50	39.75	7.37	6.77	6.62	6.62	6.41		
7	7.01	7.08	7.37	7.21	12.30	11.50	45.00	7.34	6.77	6.62	6.56	6.41		
8	6.82	6.90	7.29	7.08	10.30	11.10	27.10	7.47	6.77	6.59	6.54	6.46		
9	6.82	6.80	7.16	6.98	8.90	12.30	23.50	9.50	6.77	6.59	6.51	6.46		
10	6.72	6.77	7.06	7.06	8.50	33.50	21.10	8.90	6.77	6.56	6.59	6.49		
11	6.64	6.77	8.70	15.30	9.30	92.50	44.25	7.47	6.77	6.56	6.56	6.56		
12	6.64	8.50	8.50	15.30	8.90	103.70	48.00	7.32	6.77	6.56	6.51	6.49		
13	6.64	10.70	7.42	9.70	7.45	80.80	52.50	7.24	6.77	6.56	6.51	6.46		
14	6.80	9.90	7.42	8.50	8.90	70.60	35.25	7.19	6.77	6.56	6.51	6.49		
15	6.77	9.90	7.06	16.30	16.30	46.75	27.30	7.16	6.77	6.56	6.49	6.46		
16	6.77	9.90	7.11	17.70	18.10	29.75	32.25	7.14	6.77	6.56	6.49	6.46		
17	6.77	9.90	7.06	14.50	12.90	25.70	34.50	7.11	6.77	6.56	6.49	6.46		
18	6.64	8.10	7.03	14.90	12.10	23.90	30.75	7.06	6.77	6.56	6.43	6.43		
19	6.64	7.90	7.03	14.10	18.70	24.90	24.90	7.03	6.77	6.56	6.43	6.46		
20	6.54	7.32	7.08	22.10	19.50	18.50	21.10	7.01	6.77	6.56	6.30	6.41		
21	6.64	7.29	8.70	27.75	15.30	20.50	18.50	7.03	6.75	6.56	6.33	6.43		
22	7.01	7.16	7.42	23.90	12.30	16.90	16.50	7.03	6.67	6.56	6.46	6.43		
23	6.69	7.03	7.06	20.30	10.10	17.70	14.90	7.03	6.67	6.56	6.43	6.41		
24	6.54	6.98	7.03	14.70	8.50	38.75	13.70	7.03	6.67	6.56	6.41	6.41		
25	6.51	7.70	7.03	13.30	10.90	75.40	12.70	6.98	6.67	6.56	6.46	6.41		
26	6.59	7.16	6.95	14.90	8.10	40.50	11.70	6.95	6.67	6.56	6.46	6.41		
27	6.64	7.70	7.08	14.70	7.45	112.10	11.10	6.95	6.67	6.56	6.41	6.38		
28	6.77	7.45	48.00	11.10	8.70	59.80	10.70	6.93	6.67	6.56	6.38	6.38		
29	7.37	9.70	20.70	11.50	9.10	37.00	10.30	6.93	6.67	6.56	6.38	6.36		
30	12.90	9.90	14.30	13.90	9.90	28.50	9.50	6.90	6.64	6.56		6.36		
31		7.50		15.10	9.70		9.10		6.64	6.56		6.36		
Total	206.34	246.12	329.73	434.02	438.95	1104.85	807.60	221.26	208.79	204.02	188.18	199.61	4589.47	CMSDAY
Mean	6.88	7.94	10.99	14.00	14.16	36.83	26.05	7.38	6.74	6.58	6.49	6.44	12.54	CMS
Max	12.90	10.70	48.00	29.00	38.25	112.10	52.50	9.50	6.77	6.69	6.62	6.62	112.10	CMS
Min	6.38	6.77	6.95	6.98	7.45	9.50	9.10	6.90	6.64	6.56	6.30	6.36	6.30	CMS
Runoff	17.83	21.27	28.49	37.50	37.93	95.46	69.78	19.12	18.04	17.63	16.26	17.25	396.53	MCM

Momentary Peak 125.10 CMS. at 296.89 m. (MSL.) at 13.00 Hours , on Sep 27, 2011

Runoff Yield 17.59 Liters/Second/Square KM. Momentary Peak Yield 175.456 Liters/Second/Square KM.

WATER YEAR : 2011

MUN RIVER BASIN

Lam Sieo Yai at Ban Ku, Roi Et. (M.95)

Lat 15 - 34 - 12 N Long 103 - 49 - 27 E

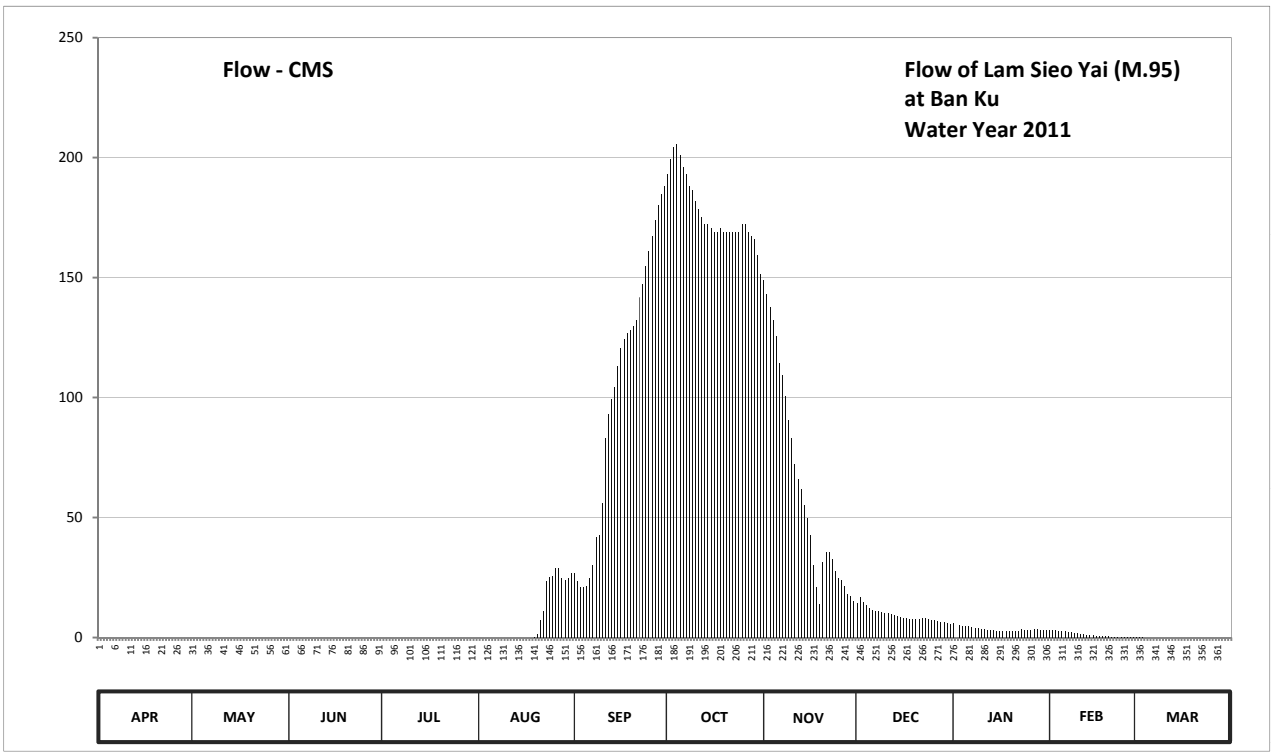
Location : on left bank at the bridge on Highway.

	Ban Ku	**Amphoe** Suwannaphum	**Changwat** Roi Et
Drainge Area	28,458 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+118.100 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the gage site.		**Elevation** +124.511 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings		
Period of Available Gage Records	1978 - 1989, 2005 to date		
Rating Operation			
Period of Rating	1978 - 1989, 2005 to date		
Rated by Flot	-		
Rated by Current Meter	1978 - 1989, 2005 to date		
Stability of Channel Regimes	Fairly stable		
Overbank Flow Conditions	No overbank flow		
General Description	Records fair. Stage-discharge relation defined by 9 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	119.04	118.66	119.00	119.20	119.49	121.00	122.45	122.17	120.78	120.57	120.45	120.05	
2	119.00	118.66	119.01	119.22	119.63	120.94	122.49	122.13	120.83	119.88	120.44	120.03	
3	118.97	118.65	119.02	119.23	119.68	120.90	122.52	122.09	120.79	120.54	120.43	120.01	
4	118.94	118.71	119.04	119.27	119.71	120.90	122.53	122.05	120.76	120.52	120.42	120.00	
5	118.90	118.72	119.06	119.27	119.74	120.91	122.50	122.00	120.73	120.52	120.41	119.98	
6	118.90	118.72	119.07	119.26	119.75	120.96	122.47	121.91	120.71	120.52	120.40	119.96	
7	118.89	118.72	119.06	119.25	119.75	121.05	122.45	121.87	120.70	120.51	120.39	119.95	
8	118.65	118.72	119.06	119.25	119.76	121.21	122.42	121.80	120.70	120.50	120.38	119.95	
9	118.87	118.73	119.05	119.25	119.78	121.22	122.41	121.72	120.69	120.49	120.37	119.94	
10	118.85	118.73	119.06	119.26	119.79	121.38	122.38	121.65	120.68	120.48	120.36	119.93	
11	118.83	118.72	119.06	119.27	119.80	121.65	122.36	121.54	120.68	120.47	120.33	119.90	
12	118.82	118.71	119.05	119.27	119.80	121.74	122.34	121.48	120.67	120.45	120.32	119.89	
13	118.80	118.76	119.04	119.26	119.79	121.79	122.32	121.44	120.66	120.44	120.31	119.88	
14	118.79	118.88	119.03	119.28	119.75	121.83	122.32	121.37	120.65	120.43	120.30	119.86	
15	118.78	118.92	119.03	119.28	119.77	121.90	122.31	121.31	120.64	120.42	120.29	119.84	
16	118.78	118.92	119.02	119.30	119.84	121.96	122.30	121.22	120.63	120.42	120.26	119.83	
17	118.77	118.93	119.02	119.30	119.91	121.99	122.30	121.05	120.63	120.42	120.24	119.81	
18	118.74	118.93	119.02	119.30	119.97	122.01	122.31	120.90	120.62	120.42	120.21	119.80	
19	118.75	118.93	119.05	119.29	120.13	122.02	122.30	120.77	120.62	120.42	120.20	119.80	
20	118.76	118.94	119.20	119.29	120.33	122.03	122.30	121.07	120.62	120.41	120.17	119.78	
21	118.74	118.95	119.24	119.29	120.61	122.05	122.30	121.13	120.62	120.41	120.16	119.78	
22	118.74	118.94	119.20	119.30	120.70	122.12	122.30	121.13	120.63	120.41	120.15	119.77	
23	118.73	118.95	119.20	119.30	120.94	122.16	122.30	121.09	120.63	120.46	120.14	119.76	
24	118.72	118.96	119.21	119.30	120.97	122.21	122.30	121.01	120.62	120.45	120.13	119.75	
25	118.72	118.96	119.21	119.32	120.98	122.25	122.32	120.96	120.61	120.44	120.11	119.73	
26	118.70	118.97	119.21	119.35	121.03	122.29	122.32	120.95	120.61	120.45	120.10	119.72	
27	118.69	118.96	119.22	119.38	121.03	122.33	122.30	120.91	120.60	120.46	120.08	119.70	
28	118.68	118.96	119.21	119.41	120.96	122.37	122.29	120.85	120.58	120.46	120.07	119.69	
29	118.67	118.95	119.21	119.44	120.95	122.40	122.28	120.84	120.58	120.45	120.06	119.67	
30	118.66	118.95	119.21	119.43	120.96	122.42	122.24	120.80	120.57	120.45		119.66	
31		118.99		119.46	121.00		122.19		120.56	120.44		119.64	
Mean	118.80	118.85	119.10	119.30	120.20	121.73	122.35	121.37	120.66	120.44	120.26	119.84	
Max	119.04	118.99	119.24	119.46	121.03	122.42	122.53	122.17	120.83	120.57	120.45	120.05	122.53
Min	118.65	118.65	119.00	119.20	119.49	120.90	122.19	120.77	120.56	119.88	120.06	119.64	118.65

Annual Max Momentary Gage Height	122.55	m. (MSL.) ,	at 06.00 Hours , on Oct 4, 2011		
Zero Gage at Bottom Elevation	118.10	m. (MSL.) ,	River Bed	117.39	m. (MSL)
Left Bank Elevation	124.29	m. (MSL.) ,			
Right Bank Elevation	123.93	m. (MSL.) ,	Drainage Area	28458	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

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	27.00	193.00	148.80	14.20	6.10	3.25	0.13		
2	0.00	0.00	0.00	0.00	0.00	23.40	199.40	143.20	16.80	0.00	3.10	0.07		
3	0.00	0.00	0.00	0.00	0.00	21.00	204.20	137.65	14.60	5.20	2.95	0.03		
4	0.00	0.00	0.00	0.00	0.00	21.00	205.80	132.25	13.40	4.60	2.80	0.00		
5	0.00	0.00	0.00	0.00	0.00	21.60	201.00	125.50	12.20	4.60	2.65	0.00		
6	0.00	0.00	0.00	0.00	0.00	24.60	196.20	114.25	11.40	4.60	2.50	0.00		
7	0.00	0.00	0.00	0.00	0.00	30.25	193.00	109.25	11.00	4.30	2.35	0.00		
8	0.00	0.00	0.00	0.00	0.00	41.80	188.20	100.50	11.00	4.00	2.20	0.00		
9	0.00	0.00	0.00	0.00	0.00	42.60	186.60	90.50	10.60	3.85	2.05	0.00		
10	0.00	0.00	0.00	0.00	0.00	56.20	181.80	83.00	10.20	3.70	1.90	0.00		
11	0.00	0.00	0.00	0.00	0.00	83.00	178.60	72.00	10.20	3.55	1.45	0.00		
12	0.00	0.00	0.00	0.00	0.00	93.00	175.40	66.00	9.80	3.25	1.30	0.00		
13	0.00	0.00	0.00	0.00	0.00	99.25	172.20	62.00	9.40	3.10	1.15	0.00		
14	0.00	0.00	0.00	0.00	0.00	104.25	172.20	55.30	9.00	2.95	1.00	0.00		
15	0.00	0.00	0.00	0.00	0.00	113.00	170.60	49.90	8.60	2.80	0.95	0.00		
16	0.00	0.00	0.00	0.00	0.00	120.50	169.00	42.60	8.20	2.80	0.80	0.00		
17	0.00	0.00	0.00	0.00	0.00	124.25	169.00	30.25	8.20	2.80	0.70	0.00		
18	0.00	0.00	0.00	0.00	0.00	126.85	170.60	21.00	7.80	2.80	0.55	0.00		
19	0.00	0.00	0.00	0.00	0.32	128.20	169.00	13.80	7.80	2.80	0.50	0.00		
20	0.00	0.00	0.00	0.00	1.45	129.55	169.00	31.55	7.80	2.65	0.43	0.00		
21	0.00	0.00	0.00	0.00	7.40	132.25	169.00	35.75	7.80	2.65	0.40	0.00		
22	0.00	0.00	0.00	0.00	11.00	141.80	169.00	35.75	8.20	2.65	0.38	0.00		
23	0.00	0.00	0.00	0.00	23.40	147.40	169.00	32.85	8.20	3.40	0.35	0.00		
24	0.00	0.00	0.00	0.00	25.20	154.60	169.00	27.65	7.80	3.25	0.32	0.00		
25	0.00	0.00	0.00	0.00	25.80	161.00	172.20	24.60	7.40	3.10	0.28	0.00		
26	0.00	0.00	0.00	0.00	28.95	167.40	172.20	24.00	7.40	3.25	0.25	0.00		
27	0.00	0.00	0.00	0.00	28.95	173.80	169.00	21.60	7.00	3.40	0.20	0.00		
28	0.00	0.00	0.00	0.00	24.60	180.20	167.40	18.00	6.40	3.40	0.18	0.00		
29	0.00	0.00	0.00	0.00	24.00	185.00	165.80	17.40	6.40	3.25	0.15	0.00		
30	0.00	0.00	0.00	0.00	24.60	188.20	159.40	15.00	6.10	3.25		0.00		
31		0.00		0.00	27.00		151.60		5.80	3.10		0.00		
Total	0.00	0.00	0.00	0.00	252.67	3062.95	5498.40	1881.90	290.70	105.15	37.09	0.23	11129.09	CMSDAY
Mean	0.00	0.00	0.00	0.00	8.15	102.10	177.37	62.73	9.38	3.39	1.28	0.01	30.41	CMS
Max	0.00	0.00	0.00	0.00	28.95	188.20	205.80	148.80	16.80	6.10	3.25	0.13	205.80	CMS
Min	0.00	0.00	0.00	0.00	0.00	21.00	151.60	13.80	5.80	0.00	0.15	0.00	0.00	CMS
Runoff	0.00	0.00	0.00	0.00	21.83	264.64	475.06	162.60	25.12	9.09	3.21	0.02	961.55	MCM

Momentary Peak 209.00 CMS. at 122.55 m. (MSL.) at 06.00 Hours , on Oct 4, 2011

Runoff Yield 1.07 Liters/Second/Square KM. Momentary Peak Yield 7.344 Liters/Second/Square KM.

WATER YEAR : 2011

MUN RIVER BASIN

Mun River at Ban Wang Prat, Buri Ram (M.104)

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

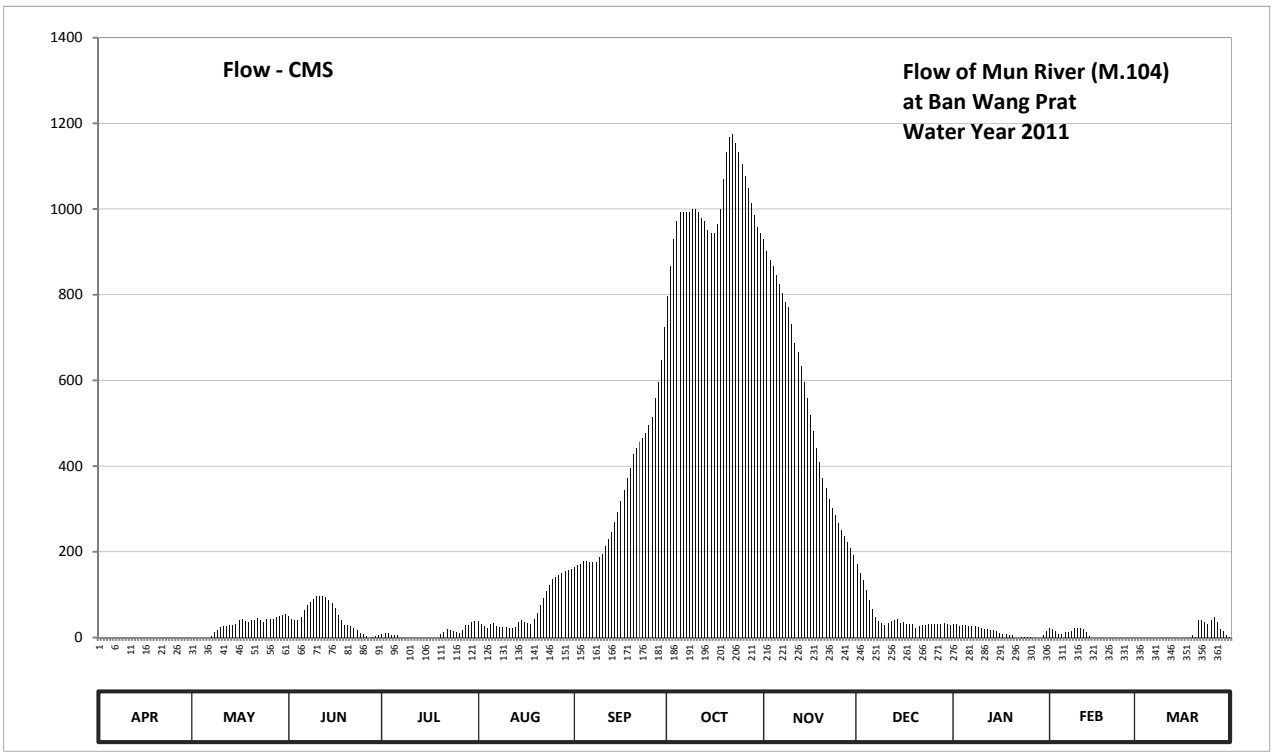
Location : on left bank at the bridge.

	Ban Wang Prat	**Amphoe** Khu Mueang	**Changwat** Buri Ram
Drainge Area	24,841 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+129.760 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank at the footpath of the bridge.		**Elevation** +140.339 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00, and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings		
Period of Available Gage Records	2005 to date		
Rating Operation			
Period of Rating	2005 to date		
Rated by Flot	-		
Rated by Current Meter	2005 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow		
General Description	Records very good. Stage-discharge relation defined by 25 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	130.53	130.74	132.39	131.60	132.19	133.77	135.91	136.10	133.83	132.05	131.85	131.19	
2	130.53	130.76	132.29	131.63	132.05	133.79	136.01	136.06	133.64	132.03	131.84	131.20	
3	130.52	130.78	132.22	131.61	131.94	133.82	136.10	136.03	133.49	131.96	131.74	131.20	
4	130.51	130.81	132.25	131.52	131.87	133.87	136.16	136.01	133.22	131.99	131.58	131.19	
5	130.50	130.94	132.37	131.55	132.04	133.87	136.19	135.98	132.94	132.01	131.58	131.19	
6	130.49	131.30	132.61	131.52	132.08	133.86	136.19	135.95	132.64	131.97	131.68	131.17	
7	130.51	131.51	132.76	131.38	131.97	133.86	136.19	135.92	132.38	131.96	131.68	131.15	
8	130.49	131.67	132.87	131.21	131.90	133.86	136.19	135.89	132.20	131.94	131.72	131.10	
9	130.49	131.76	132.97	131.19	131.89	133.95	136.20	135.87	132.08	131.89	131.86	131.07	
10	130.48	131.91	133.06	131.19	131.89	134.02	136.20	135.81	132.01	131.86	131.87	131.07	
11	130.48	131.96	133.07	131.18	131.87	134.16	136.19	135.74	132.09	131.81	131.86	131.06	
12	130.48	131.96	133.06	131.17	131.85	134.28	136.17	135.71	132.17	131.79	131.84	131.05	
13	130.47	131.98	133.02	131.19	131.91	134.40	136.16	135.66	132.23	131.76	131.69	131.06	
14	130.47	132.00	132.93	131.26	132.14	134.56	136.13	135.60	132.26	131.75	131.50	131.06	
15	130.46	132.04	132.83	131.25	132.23	134.73	136.12	135.54	132.08	131.73	131.38	131.06	
16	130.46	132.25	132.66	131.21	132.16	134.87	136.12	135.47	132.13	131.63	131.19	131.06	
17	130.45	132.28	132.45	131.17	132.08	134.98	136.15	135.39	132.05	131.59	131.19	131.14	
18	130.45	132.19	132.25	131.25	132.06	135.09	136.20	135.29	132.07	131.57	131.21	131.35	
19	130.46	132.15	132.01	131.38	132.27	135.16	136.30	135.20	132.04	131.55	131.23	131.53	
20	130.46	132.24	132.01	131.56	132.51	135.25	136.39	135.09	131.88	131.52	131.25	131.43	
21	130.45	132.25	131.96	131.68	132.76	135.29	136.44	134.99	131.94	131.40	131.26	132.25	
22	130.51	132.33	131.86	131.79	133.00	135.33	136.45	134.89	132.00	131.40	131.25	132.24	
23	130.53	132.25	131.76	131.78	133.20	135.35	136.42	134.79	132.00	131.41	131.24	132.13	
24	130.55	132.16	131.65	131.74	133.35	135.38	136.39	134.67	132.03	131.41	131.24	132.06	
25	130.54	132.27	131.58	131.69	133.51	135.42	136.35	134.55	132.03	131.42	131.24	132.23	
26	130.53	132.26	131.51	131.63	133.56	135.46	136.31	134.43	132.05	131.41	131.22	132.36	
27	130.53	132.26	131.39	131.77	133.60	135.54	136.27	134.32	132.06	131.40	131.21	132.13	
28	130.54	132.36	131.41	131.98	133.65	135.60	136.22	134.22	132.07	131.36	131.20	131.79	
29	130.55	132.41	131.47	132.01	133.68	135.68	136.18	134.12	132.09	131.37	131.18	131.70	
30	130.57	132.45	131.55	132.15	133.71	135.80	136.14	134.00	132.04	131.53		131.55	
31		132.46		132.18	133.73		136.12		132.01	131.74		131.44	
Mean	130.50	131.89	132.27	131.53	132.54	134.70	136.21	135.31	132.31	131.68	131.48	131.46	
Max	130.57	132.46	133.07	132.18	133.73	135.80	136.45	136.10	133.83	132.05	131.87	132.36	136.45
Min	130.45	130.74	131.39	131.17	131.85	133.77	135.91	134.00	131.88	131.36	131.18	131.05	130.45

Annual Max Momentary Gage Height	136.45	m. (MSL.) ,	at 06.00 Hours , on Oct 22 , 2011		
Zero Gage at Bottom Elevation	129.76	m. (MSL.) ,	River Bed	125.55	m. (MSL)
Left Bank Elevation	140.11	m. (MSL.) ,			
Right Bank Elevation	140.10	m. (MSL.) ,	Drainage Area	24841	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	49.40	9.00	38.50	165.40	797.01	930.01	172.60	31.50	21.50	0.00		
2	0.00	0.00	43.50	10.50	31.50	167.80	867.00	902.00	149.80	30.50	21.00	0.00		
3	0.00	0.00	40.00	9.50	26.00	171.40	930.01	881.00	135.10	27.00	16.00	0.00		
4	0.00	0.00	41.50	5.00	22.50	177.40	972.01	867.00	110.80	28.50	8.00	0.00		
5	0.00	0.00	48.20	6.50	31.00	177.40	993.00	846.00	87.80	29.50	8.00	0.00		
6	0.00	0.00	64.70	5.00	33.00	176.20	993.00	825.00	66.80	27.50	13.00	0.00		
7	0.00	4.50	75.20	0.00	27.50	176.20	993.00	804.00	48.80	27.00	13.00	0.00		
8	0.00	12.50	82.90	0.00	24.00	176.20	993.00	783.50	39.00	26.00	15.00	0.00		
9	0.00	17.00	89.90	0.00	23.50	187.00	1000.00	770.50	33.00	23.50	22.00	0.00		
10	0.00	24.50	96.80	0.00	23.50	195.40	1000.00	731.50	29.50	22.00	22.50	0.00		
11	0.00	27.00	97.60	0.00	22.50	213.40	993.00	686.00	33.50	19.50	22.00	0.00		
12	0.00	27.00	96.80	0.00	21.50	230.20	979.00	666.50	37.50	18.50	21.00	0.00		
13	0.00	28.00	93.60	0.00	24.50	247.00	972.01	634.00	40.50	17.00	13.50	0.00		
14	0.00	29.00	87.10	0.00	36.00	269.40	951.01	595.00	42.00	16.50	4.00	0.00		
15	0.00	31.00	80.10	0.00	40.50	293.20	944.00	558.99	33.00	15.50	0.00	0.00		
16	0.00	41.50	68.20	0.00	37.00	318.40	944.00	520.00	35.50	10.50	0.00	0.00		
17	0.00	43.00	53.50	0.00	33.00	345.00	965.00	481.00	31.50	8.50	0.00	0.00		
18	0.00	38.50	41.50	0.00	32.00	372.50	1000.00	441.50	32.50	7.50	0.00	0.00		
19	0.00	36.50	29.50	0.00	42.50	396.00	1070.00	410.00	31.00	6.50	0.00	5.50		
20	0.00	41.00	29.50	7.00	57.70	427.50	1133.00	372.50	23.00	5.00	0.00	1.20		
21	0.00	41.50	27.00	13.00	75.20	441.50	1168.00	347.50	26.00	0.00	0.00	41.50		
22	0.00	45.80	22.00	18.50	92.00	457.00	1175.00	322.80	29.00	0.00	0.00	41.00		
23	0.00	41.50	17.00	18.00	109.00	465.00	1154.00	301.60	29.00	0.40	0.00	35.50		
24	0.00	37.00	11.50	16.00	122.50	477.00	1133.00	284.80	30.50	0.40	0.00	32.00		
25	0.00	42.50	8.00	13.50	136.90	495.00	1105.01	268.00	30.50	0.80	0.00	40.50		
26	0.00	42.00	4.50	10.50	141.40	515.00	1077.00	251.20	31.50	0.40	0.00	47.60		
27	0.00	42.00	0.00	17.50	145.00	558.99	1049.00	235.80	32.00	0.00	0.00	35.50		
28	0.00	47.60	0.40	28.00	151.00	595.00	1014.00	221.80	32.50	0.00	0.00	18.50		
29	0.00	50.70	2.80	29.50	154.60	646.99	986.00	207.80	33.50	0.00	0.00	14.00		
30	0.00	53.50	6.50	36.50	158.20	725.00	958.00	193.00	31.00	5.50		6.50		
31		54.20		38.00	160.60		944.00		29.50	16.00		1.60		
Total	0.00	899.30	1409.20	291.50	2074.60	10259.48	31252.06	16340.30	1548.20	421.50	220.50	320.90	65037.54	CMSDAY
Mean	0.00	29.01	46.97	9.40	66.92	341.98	1008.13	544.68	49.94	13.60	7.60	10.35	177.70	CMS
Max	0.00	54.20	97.60	38.00	160.60	725.00	1175.00	930.01	172.60	31.50	22.50	47.60	1175.00	CMS
Min	0.00	0.00	0.00	0.00	21.50	165.40	797.01	193.00	23.00	0.00	0.00	0.00	0.00	CMS
Runoff	0.00	77.70	121.76	25.19	179.25	886.42	2700.18	1411.80	133.76	36.42	19.05	27.73	5619.24	MCM

Momentary Peak 1175.00 CMS. at 136.45 m. (MSL.) at 06.00 Hours , on Oct 22, 2011

Runoff Yield 7.15 Liters/Second/Square KM. Momentary Peak Yield 47.301 Liters/Second/Square KM.

WATER YEAR : 2011

MUN RIVER BASIN

Huai Tunglung at Ban Kud Sombun, Ubon Ratchathani (M.110)

Lat 15 - 26 - 36 N Long 105 - 18 - 30 E

Location : on left bank at the bridge on trakan Phutphon - Khong Chiam Highway.

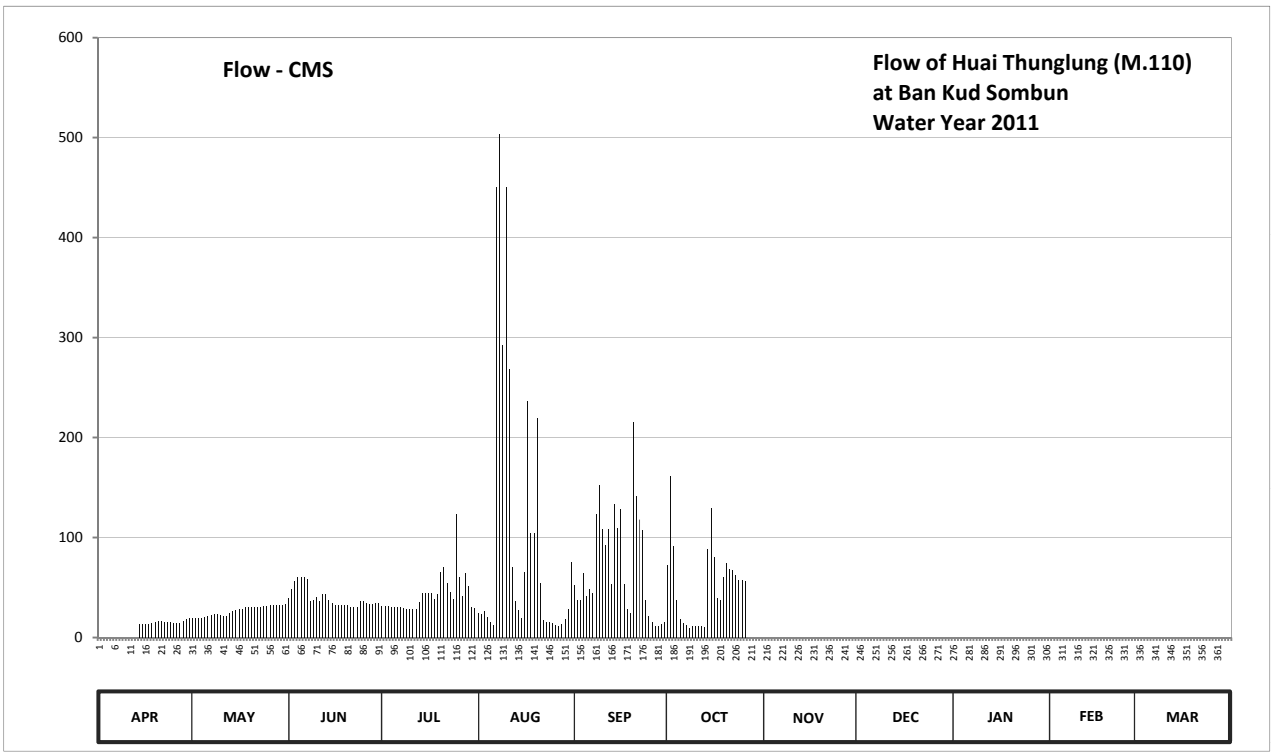
Ban Kud Sombun **Amphoe** Si Mueang Mai **Changwat** Ubon Ratchathani

Drainge Area	570 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+120.070 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank at the footpath of the bridge. **Elevation** +130.465 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings
Period of Available Gage Records	1982 to date
Rating Operation	
Period of Rating	1996 to date
Rated by Flot	-
Rated by Current Meter	1996 to date
Stability of Channel Regimes	Stable
Overbank Flow Conditions	No overbank flow.
General Description	Records good. The weirs situated about 10 kilometers upstream and downstream from the gage site. Stage-discharge relation defined by 18 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	121.42	121.08	121.39	121.29	121.17	121.56	121.80	121.77	122.16	122.57	122.53	122.51	
2	121.41	121.08	121.50	121.29	121.16	121.37	122.65	121.77	122.32	122.57	122.53	122.51	
3	121.41	121.08	121.61	121.29	121.20	121.37	121.98	121.74	122.35	122.57	122.53	122.51	
4	121.40	121.08	121.65	121.28	121.10	121.71	121.37	121.74	122.39	122.57	122.53	122.50	
5	121.40	121.11	121.65	121.28	121.00	121.42	121.06	121.73	122.42	122.57	122.53	122.50	
6	121.39	121.13	121.65	121.28	120.95	121.51	120.99	121.73	122.48	122.57	122.53	122.50	
7	121.39	121.14	121.63	121.27	124.74	121.45	120.93	121.73	122.52	122.57	122.53	122.50	
8	121.33	121.15	121.36	121.26	125.07	122.30	120.87	121.72	122.53	122.57	122.53	122.50	
9	121.19	121.16	121.37	121.25	123.69	122.57	120.91	121.72	122.55	122.57	122.53	122.49	
10	121.13	121.14	121.41	121.24	124.74	122.15	120.90	121.72	122.55	122.57	122.52	122.49	
11	121.06	121.13	121.35	121.24	123.52	121.99	120.90	121.74	122.56	122.56	122.52	122.49	
12	121.02	121.12	121.44	121.25	121.77	122.15	120.90	121.78	122.57	122.56	122.52	122.48	
13	120.97	121.17	121.44	121.34	121.35	121.57	120.88	121.86	122.57	122.56	122.52	122.48	
14	120.96	121.21	121.37	121.46	121.22	122.40	121.95	121.91	122.58	122.56	122.52	122.48	
15	120.96	121.23	121.33	121.46	121.09	122.17	122.36	121.99	122.59	122.56	122.52	122.48	
16	120.96	121.24	121.30	121.46	121.72	122.35	121.87	122.02	122.60	122.56	122.52	122.47	
17	120.97	121.25	121.30	121.46	123.27	121.57	121.39	121.89	122.60	122.56	122.52	122.46	
18	120.99	121.27	121.30	121.38	122.12	121.24	121.37	121.65	122.60	122.55	122.52	122.46	
19	121.00	121.27	121.30	121.44	122.12	121.18	121.66	121.62	122.59	122.55	122.52	122.46	
20	121.02	121.27	121.30	121.72	123.14	123.10	121.81	121.62	122.59	122.55	122.51	122.45	
21	121.02	121.28	121.28	121.77	121.58	122.47	121.75	121.72	122.58	122.55	122.51	122.45	
22	121.00	121.28	121.27	121.58	121.05	122.25	121.74	121.97	122.58	122.55	122.51	122.44	
23	121.00	121.28	121.27	121.47	121.01	122.14	121.68	122.11	122.58	122.55	122.51	122.44	
24	121.00	121.29	121.36	121.38	121.00	121.37	121.62	122.15	122.58	122.55	122.51	122.44	
25	120.99	121.29	121.36	122.30	120.99	121.12	121.62	122.22	122.58	122.55	122.51	122.43	
26	120.99	121.30	121.33	121.66	120.95	121.01	121.61	122.29	122.58	122.55	122.51	122.43	
27	120.99	121.30	121.32	121.42	120.92	120.92	121.63	122.32	122.58	122.54	122.51	122.43	
28	121.02	121.31	121.32	121.71	120.97	120.92	121.77	122.35	122.58	122.54	122.51	122.43	
29	121.07	121.31	121.33	121.54	121.07	120.96	121.77	122.38	122.58	122.54	122.51	122.43	
30	121.08	121.31	121.33	121.27	121.25	121.01	121.77	122.39	122.58	122.54		122.43	
31		121.32		121.26	121.82		121.77		122.58	122.54		122.43	
Mean	121.12	121.21	121.39	121.43	121.90	121.71	121.53	121.91	122.53	122.56	122.52	122.47	
Max	121.42	121.32	121.65	122.30	125.07	123.10	122.65	122.39	122.60	122.57	122.53	122.51	125.07
Min	120.96	121.08	121.27	121.24	120.92	120.92	120.87	121.62	122.16	122.54	122.51	122.43	120.87

Annual Max Momentary Gage Height	126.57	m. (MSL.) ,	at 18.00 Hours , on Aug 7, 2011		
Zero Gage at Bottom Elevation	120.07	m. (MSL.) ,	River Bed	118.70	m. (MSL)
Left Bank Elevation	130.19	m. (MSL.) ,			
Right Bank Elevation	130.22	m. (MSL.) ,	Drainage Area	570	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	19.00	39.20	31.40	24.20	52.80	73.00	0.00	0.00	0.00	0.00	0.00		
2	0.00	19.00	48.00	31.40	23.60	37.60	161.50	0.00	0.00	0.00	0.00	0.00		
3	0.00	19.00	56.80	31.40	26.00	37.60	91.00	0.00	0.00	0.00	0.00	0.00		
4	0.00	19.00	60.00	30.80	20.00	64.90	37.60	0.00	0.00	0.00	0.00	0.00		
5	0.00	20.60	60.00	30.80	15.00	41.60	18.00	0.00	0.00	0.00	0.00	0.00		
6	0.00	21.80	60.00	30.80	13.00	48.80	14.60	0.00	0.00	0.00	0.00	0.00		
7	0.00	22.40	58.40	30.20	450.40	44.00	12.20	0.00	0.00	0.00	0.00	0.00		
8	0.00	23.00	36.80	29.60	503.20	123.00	9.80	0.00	0.00	0.00	0.00	0.00		
9	0.00	23.60	37.60	29.00	292.60	152.70	11.40	0.00	0.00	0.00	0.00	0.00		
10	0.00	22.40	40.80	28.40	450.40	108.00	11.00	0.00	0.00	0.00	0.00	0.00		
11	0.00	21.80	36.00	28.40	268.80	92.00	11.00	0.00	0.00	0.00	0.00	0.00		
12	0.00	21.20	43.20	29.00	70.30	108.00	11.00	0.00	0.00	0.00	0.00	0.00		
13	0.00	24.20	43.20	35.20	36.00	53.60	10.20	0.00	0.00	0.00	0.00	0.00		
14	13.40	26.60	37.60	44.80	27.20	134.00	88.00	0.00	0.00	0.00	0.00	0.00		
15	13.40	27.80	34.40	44.80	19.50	110.00	129.60	0.00	0.00	0.00	0.00	0.00		
16	13.40	28.40	32.00	44.80	65.80	128.50	80.00	0.00	0.00	0.00	0.00	0.00		
17	13.80	29.00	32.00	44.80	236.10	53.60	39.20	0.00	0.00	0.00	0.00	0.00		
18	14.60	30.20	32.00	38.40	105.00	28.40	37.60	0.00	0.00	0.00	0.00	0.00		
19	15.00	30.20	32.00	43.20	105.00	24.80	60.80	0.00	0.00	0.00	0.00	0.00		
20	16.00	30.20	32.00	65.80	219.80	215.00	74.00	0.00	0.00	0.00	0.00	0.00		
21	16.00	30.80	30.80	70.30	54.40	141.70	68.50	0.00	0.00	0.00	0.00	0.00		
22	15.00	30.80	30.20	54.40	17.50	118.00	67.60	0.00	0.00	0.00	0.00	0.00		
23	15.00	30.80	30.20	45.60	15.50	107.00	62.40	0.00	0.00	0.00	0.00	0.00		
24	15.00	31.40	36.80	38.40	15.00	37.60	57.60	0.00	0.00	0.00	0.00	0.00		
25	14.60	31.40	36.80	123.00	14.60	21.20	57.60	0.00	0.00	0.00	0.00	0.00		
26	14.60	32.00	34.40	60.80	13.00	15.50	56.80	0.00	0.00	0.00	0.00	0.00		
27	14.60	32.00	33.60	41.60	11.80	11.80	0.00	0.00	0.00	0.00	0.00	0.00		
28	16.00	32.80	33.60	64.90	13.80	11.80	0.00	0.00	0.00	0.00	0.00	0.00		
29	18.50	32.80	34.40	51.20	18.50	13.40	0.00	0.00	0.00	0.00	0.00	0.00		
30	19.00	32.80	34.40	30.20	29.00	15.50	0.00	0.00	0.00	0.00		0.00		
31		33.60		29.60	75.00		0.00		0.00	0.00		0.00		
Total	257.90	830.60	1187.20	1333.00	3250.00	2152.40	1352.00	0.00	0.00	0.00	0.00	0.00	10363.10	CMSDAY
Mean	8.60	26.80	39.60	43.00	104.80	71.70	43.60	0.00	0.00	0.00	0.00	0.00	28.30	CMS
Max	19.00	33.60	60.00	123.00	503.20	215.00	161.50	0.00	0.00	0.00	0.00	0.00	503.20	CMS
Min	0.00	19.00	30.20	28.40	11.80	11.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	22.28	71.76	102.57	115.17	280.80	185.97	116.81	0.00	0.00	0.00	0.00	0.00	895.37	MCM

Momentary Peak 749.90 CMS. at 126.57 m. (MSL.) at 18.00 Hours , on Aug 7, 2011

Runoff Yield 49.67 Liters/Second/Square KM. Momentary Peak Yield 1315.614 Liters/Second/Square KM.

WATER YEAR : 2011

MUN RIVER BASIN

Huai Takhong at Ban Khok Yai, Buri Ram (M.112)

Lat 15 - 11 - 46 N Long 103 - 12 - 22 E

Location : on left bank at the bridge on highway at Ban Khok Yai.

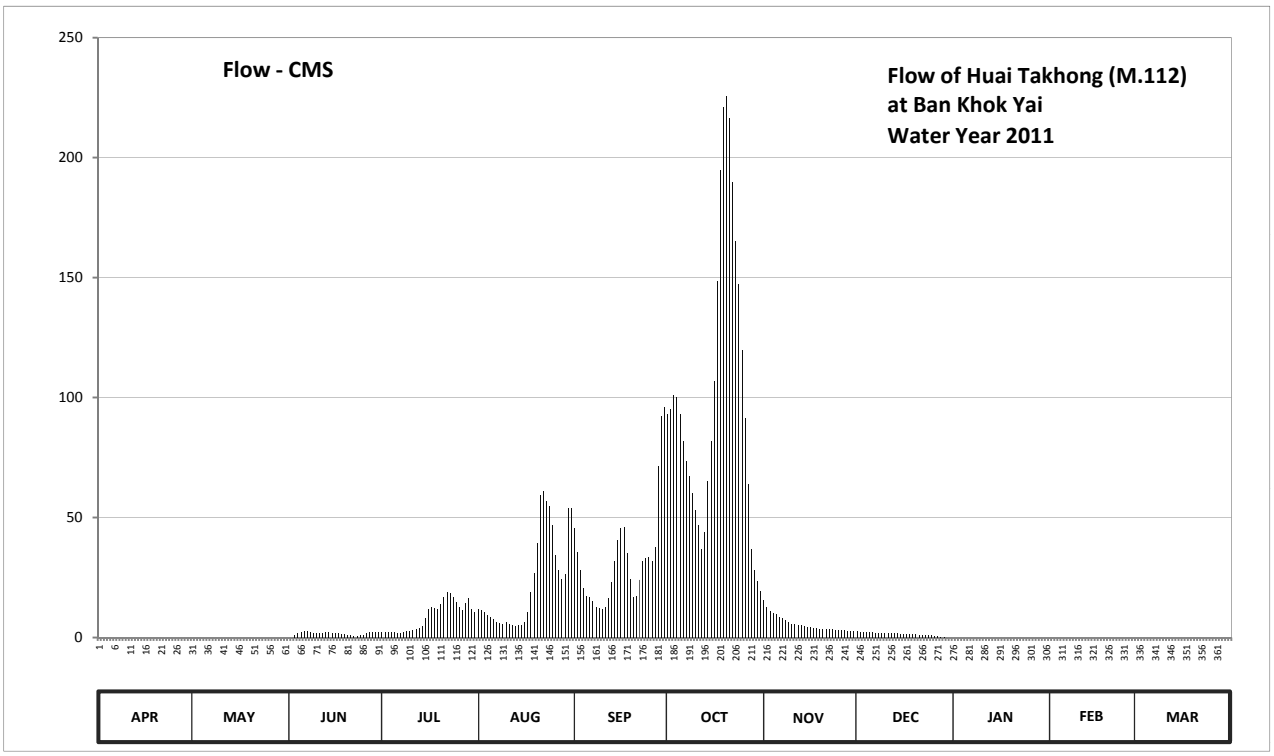
Ban Khok Yai **Amphoe** Satuk **Changwat** Buri Ram

Drainge Area	1,232 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+131.180 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank about 5 meters from the gage site. **Elevation** +140.197 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00,09.00, 12.00,15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings
Period of Available Gage Records	1982 to date
Rating Operation	
Period of Rating	1983 - 1987, 1998 to date
Rated by Flot	-
Rated by Current Meter	1983 - 1987, 1998 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Ban Don Mon weir situated downstream from the gage site. Stage-discharge relation defined by 23 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	134.14	133.81	135.51	135.82	136.19	136.85	137.51	136.29	135.83	135.68	135.43	135.04	
2	134.12	133.80	135.63	135.82	136.18	136.71	137.53	136.22	135.82	135.66	135.43	135.02	
3	134.11	133.79	135.76	135.82	136.15	136.56	137.59	136.17	135.81	135.65	135.42	134.98	
4	134.10	133.78	135.80	135.82	136.11	136.41	137.58	136.14	135.81	135.64	135.42	134.97	
5	134.08	133.78	135.81	135.81	136.08	136.33	137.51	136.13	135.81	135.63	135.41	134.95	
6	134.07	133.77	135.84	135.80	136.05	136.32	137.37	136.09	135.81	135.62	135.41	134.92	
7	134.06	133.77	135.83	135.80	136.02	136.28	137.25	136.07	135.80	135.61	135.39	134.90	
8	134.05	133.76	135.81	135.82	136.00	136.22	137.16	136.04	135.80	135.60	135.38	134.88	
9	134.04	133.75	135.80	135.83	135.99	136.21	137.06	136.01	135.80	135.59	135.37	134.86	
10	134.04	133.72	135.79	135.84	136.01	136.20	136.96	135.99	135.80	135.59	135.36	134.84	
11	134.03	133.69	135.79	135.86	135.99	136.22	136.87	135.99	135.79	135.58	135.35	134.83	
12	134.00	133.69	135.79	135.88	135.96	136.31	136.73	135.97	135.79	135.57	135.34	134.82	
13	133.99	133.70	135.81	135.90	135.94	136.46	136.83	135.95	135.79	135.56	135.32	134.81	
14	133.98	133.73	135.81	135.94	135.96	136.64	137.13	135.93	135.79	135.55	135.30	134.79	
15	133.96	133.76	135.80	136.07	135.97	136.78	137.37	135.92	135.78	135.54	135.28	134.78	
16	133.94	133.76	135.79	136.20	136.01	136.85	137.65	135.91	135.78	135.53	135.26	134.77	
17	133.92	133.76	135.79	136.22	136.15	136.86	138.03	135.90	135.77	135.53	135.24	134.77	
18	133.91	133.82	135.78	136.21	136.37	136.70	138.40	135.89	135.77	135.51	135.23	134.76	
19	133.94	133.96	135.77	136.19	136.54	136.49	138.58	135.88	135.77	135.50	135.21	134.75	
20	133.93	134.08	135.76	136.25	136.76	136.32	138.61	135.88	135.77	135.49	135.19	134.74	
21	133.91	134.11	135.75	136.32	137.05	136.33	138.55	135.88	135.76	135.50	135.17	134.73	
22	133.90	134.12	135.74	136.37	137.07	136.48	138.36	135.87	135.76	135.51	135.14	134.71	
23	133.89	134.14	135.73	136.36	137.01	136.64	138.17	135.87	135.76	135.51	135.12	134.69	
24	133.88	134.15	135.75	136.32	136.98	136.66	138.02	135.86	135.75	135.51	135.11	134.68	
25	133.87	134.18	135.76	136.27	136.87	136.67	137.77	135.86	135.75	135.50	135.10	134.66	
26	133.85	134.21	135.79	136.22	136.69	136.64	137.49	135.85	135.74	135.49	135.09	134.65	
27	133.85	134.29	135.81	136.18	136.56	136.74	137.11	135.85	135.73	135.48	135.09	134.64	
28	133.84	134.34	135.81	136.26	136.49	137.22	136.73	135.84	135.72	135.47	135.08	134.62	
29	133.83	134.50	135.82	136.31	136.53	137.50	136.56	135.83	135.71	135.46	135.07	134.61	
30	133.82	134.78	135.82	136.19	136.97	137.54	136.47	135.83	135.70	135.45		134.59	
31		135.31		136.15	136.97		136.38		135.69	135.44		134.59	
Mean	133.97	133.99	135.78	136.06	136.37	136.60	137.46	135.96	135.77	135.55	135.27	134.79	
Max	134.14	135.31	135.84	136.37	137.07	137.54	138.61	136.29	135.83	135.68	135.43	135.04	138.61
Min	133.82	133.69	135.51	135.80	135.94	136.20	136.38	135.83	135.69	135.44	135.07	134.59	133.69

Annual Max Momentary Gage Height	138.63	m. (MSL.) ,	at 06.00 Hours , on Oct 20, 2011		
Zero Gage at Bottom Elevation	131.18	m. (MSL.) ,	River Bed	133.41	m. (MSL)
Left Bank Elevation	140.17	m. (MSL.) ,			
Right Bank Elevation	140.19	m. (MSL.) ,	Drainage Area	1232	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	0.00	2.40	11.70	45.50	93.00	15.60	2.60	0.00	0.00	0.00		
2	0.00	0.00	0.00	2.40	11.40	35.70	95.00	12.80	2.40	0.00	0.00	0.00		
3	0.00	0.00	1.20	2.40	10.50	28.00	101.00	11.10	2.20	0.00	0.00	0.00		
4	0.00	0.00	2.00	2.40	9.30	20.50	100.00	10.20	2.20	0.00	0.00	0.00		
5	0.00	0.00	2.20	2.20	8.40	17.20	93.00	9.90	2.20	0.00	0.00	0.00		
6	0.00	0.00	2.80	2.00	7.50	16.80	81.90	8.70	2.20	0.00	0.00	0.00		
7	0.00	0.00	2.60	2.00	6.60	15.20	73.50	8.10	2.00	0.00	0.00	0.00		
8	0.00	0.00	2.20	2.40	6.00	12.80	67.20	7.20	2.00	0.00	0.00	0.00		
9	0.00	0.00	2.00	2.60	5.80	12.40	60.20	6.30	2.00	0.00	0.00	0.00		
10	0.00	0.00	1.80	2.80	6.30	12.00	53.20	5.80	2.00	0.00	0.00	0.00		
11	0.00	0.00	1.80	3.20	5.80	12.80	46.90	5.80	1.80	0.00	0.00	0.00		
12	0.00	0.00	1.80	3.60	5.20	16.40	37.10	5.40	1.80	0.00	0.00	0.00		
13	0.00	0.00	2.20	4.00	4.80	23.00	44.10	5.00	1.80	0.00	0.00	0.00		
14	0.00	0.00	2.20	4.80	5.20	32.00	65.10	4.60	1.80	0.00	0.00	0.00		
15	0.00	0.00	2.00	8.10	5.40	40.60	81.90	4.40	1.60	0.00	0.00	0.00		
16	0.00	0.00	1.80	12.00	6.30	45.50	107.00	4.20	1.60	0.00	0.00	0.00		
17	0.00	0.00	1.80	12.80	10.50	46.20	148.30	4.00	1.40	0.00	0.00	0.00		
18	0.00	0.00	1.60	12.40	18.80	35.00	195.00	3.80	1.40	0.00	0.00	0.00		
19	0.00	0.00	1.40	11.70	27.00	24.50	221.00	3.60	1.40	0.00	0.00	0.00		
20	0.00	0.00	1.20	14.00	39.20	16.80	225.60	3.60	1.40	0.00	0.00	0.00		
21	0.00	0.00	1.00	16.80	59.50	17.20	216.50	3.60	1.20	0.00	0.00	0.00		
22	0.00	0.00	0.80	18.80	60.90	24.00	189.80	3.40	1.20	0.00	0.00	0.00		
23	0.00	0.00	0.60	18.40	56.70	32.00	165.10	3.40	1.20	0.00	0.00	0.00		
24	0.00	0.00	1.00	16.80	54.60	33.00	147.20	3.20	1.00	0.00	0.00	0.00		
25	0.00	0.00	1.20	14.80	46.90	33.50	119.70	3.20	1.00	0.00	0.00	0.00		
26	0.00	0.00	1.80	12.80	34.50	32.00	91.20	3.00	0.80	0.00	0.00	0.00		
27	0.00	0.00	2.20	11.40	28.00	37.80	63.70	3.00	0.60	0.00	0.00	0.00		
28	0.00	0.00	2.20	14.40	24.50	71.40	37.10	2.80	0.40	0.00	0.00	0.00		
29	0.00	0.00	2.40	16.40	26.50	92.00	28.00	2.60	0.20	0.00	0.00	0.00		
30	0.00	0.00	2.40	11.70	53.90	96.00	23.50	2.60	0.00	0.00		0.00		
31		0.00		10.50	53.90		19.20		0.00	0.00		0.00		
Total	0.00	0.00	50.20	273.00	711.60	977.80	3091.00	170.90	45.40	0.00	0.00	0.00	5319.90	CMSDAY
Mean	0.00	0.00	1.67	8.81	22.95	32.59	99.71	5.70	1.46	0.00	0.00	0.00	14.54	CMS
Max	0.00	0.00	2.80	18.80	60.90	96.00	225.60	15.60	2.60	0.00	0.00	0.00	225.60	CMS
Min	0.00	0.00	0.00	2.00	4.80	12.00	19.20	2.60	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	0.00	0.00	4.34	23.59	61.48	84.48	267.06	14.77	3.92	0.00	0.00	0.00	459.64	MCM

Momentary Peak 228.80 CMS. at 138.63 m. (MSL.) at 06.00 Hours , on Oct 20 , 2011

Runoff Yield 11.80 Liters/Second/Square KM. Momentary Peak Yield 185.714 Liters/Second/Square KM.

WATER YEAR : 2011

MUN RIVER BASIN

Huai Ta Thieo at Ban Na Hai, Ubon Ratchathani (M.127)

Lat 15 - 38 - 37 N Long 104 - 55 - 57 E

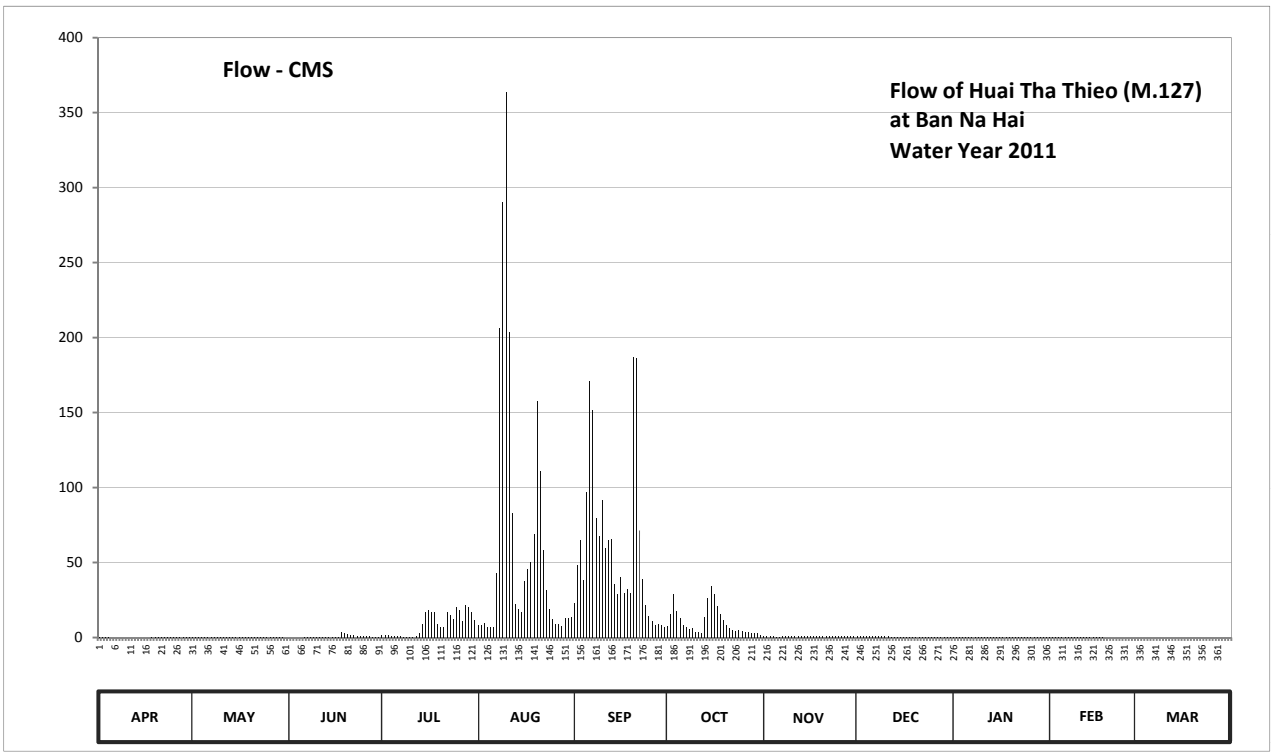
Location : on left bank at the bridge on road.

	Ban Na Hai	**Amphoe** Trakan Phutphon	**Changwat** Ubon Ratchathani
Drainge Area	424 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+115.340 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank downstream side at the abutment of the bridge.	**Elevation**	+126.877 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	1984 to date		
Rating Operation			
Period of Rating	1987 to date		
Rated by Flot	-		
Rated by Current Meter	1987 to date		
Stability of Channel Regimes	Rather unstable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. The weir situsted about 300 meters downstream from the gage site. Stage-discharge relation defined by 27 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	116.54	116.58	116.50	116.74	117.23	117.78	117.17	116.69	116.65	116.61	116.56	116.46	
2	116.52	116.57	116.50	116.76	117.23	118.70	117.50	116.68	116.64	116.61	116.56	116.46	
3	116.51	116.57	116.50	116.79	117.28	119.26	118.01	116.66	116.64	116.61	116.56	116.46	
4	116.51	116.57	116.50	116.72	117.16	118.34	117.59	116.64	116.64	116.61	116.56	116.46	
5	116.50	116.58	116.50	116.70	117.16	120.21	117.40	116.63	116.64	116.61	116.56	116.46	
6	116.50	116.58	116.53	116.65	117.15	121.86	117.21	116.63	116.64	116.61	116.55	116.45	
7	116.49	116.59	116.59	116.64	118.53	121.49	117.14	116.64	116.64	116.60	116.55	116.45	
8	116.49	116.60	116.58	116.63	122.37	119.71	117.07	116.64	116.64	116.60	116.54	116.44	
9	116.49	116.59	116.57	116.62	123.12	119.36	117.13	116.64	116.64	116.59	116.54	116.44	
10	116.48	116.58	116.56	116.62	123.53	120.06	116.97	116.64	116.64	116.58	116.54	116.44	
11	116.47	116.58	116.54	116.62	122.34	119.09	116.94	116.69	116.64	116.57	116.53	116.43	
12	116.47	116.59	116.55	116.65	119.82	119.26	116.93	116.68	116.63	116.57	116.53	116.43	
13	116.46	116.59	116.63	116.86	117.76	119.29	117.44	116.68	116.63	116.57	116.53	116.42	
14	116.46	116.60	116.62	117.26	117.62	118.24	117.90	116.68	116.63	116.57	116.52	116.42	
15	116.45	116.58	116.60	117.57	117.57	118.01	118.19	116.68	116.63	116.57	116.52	116.41	
16	116.44	116.58	116.60	117.61	118.33	118.41	117.99	116.67	116.63	116.57	116.52	116.41	
17	116.43	116.58	116.61	117.57	118.63	118.04	117.70	116.67	116.63	116.57	116.52	116.40	
18	116.54	116.58	116.98	117.55	118.77	118.12	117.51	116.67	116.63	116.57	116.51	116.40	
19	116.57	116.58	116.89	117.26	119.40	118.04	117.35	116.67	116.63	116.57	116.50	116.40	
20	116.57	116.56	116.82	117.16	121.61	122.11	117.23	116.67	116.63	116.57	116.49	116.39	
21	116.57	116.52	116.77	117.16	120.58	122.10	117.13	116.66	116.63	116.57	116.49	116.39	
22	116.57	116.52	116.75	117.57	119.05	119.48	117.06	116.66	116.62	116.58	116.49	116.41	
23	116.57	116.52	116.73	117.49	118.10	118.37	117.02	116.66	116.62	116.58	116.48	116.41	
24	116.56	116.52	116.69	117.38	117.63	117.74	117.04	116.66	116.62	116.58	116.48	116.40	
25	116.56	116.52	116.66	117.67	117.39	117.47	117.02	116.66	116.62	116.59	116.48	116.40	
26	116.54	116.53	116.64	117.61	117.24	117.34	116.98	116.65	116.62	116.59	116.47	116.39	
27	116.53	116.53	116.64	117.34	117.26	117.21	116.94	116.65	116.62	116.58	116.47	116.39	
28	116.53	116.52	116.62	117.73	117.17	117.24	116.91	116.65	116.62	116.58	116.47	116.38	
29	116.57	116.51	116.62	117.67	117.42	117.21	116.89	116.65	116.62	116.58	116.47	116.38	
30	116.59	116.51	116.62	117.57	117.41	117.16	116.87	116.65	116.62	116.57		116.38	
31		116.50		117.35	117.43		116.77		116.62	116.57		116.38	
Mean	116.52	116.56	116.63	117.15	118.69	118.89	117.26	116.66	116.63	116.58	116.52	116.42	
Max	116.59	116.60	116.98	117.73	123.53	122.11	118.19	116.69	116.65	116.61	116.56	116.46	123.53
Min	116.43	116.50	116.50	116.62	117.15	117.16	116.77	116.63	116.62	116.57	116.47	116.38	116.38

Annual Max Momentary Gage Height	123.47	m. (MSL.) ,	at 12.00 Hours , on Aug 10, 2011		
Zero Gage at Bottom Elevation	115.34	m. (MSL.) ,	River Bed	114.56	m. (MSL)
Left Bank Elevation	126.62	m. (MSL.) ,			
Right Bank Elevation	126.60	m. (MSL.) ,	Drainage Area	424	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.20	0.40	0.00	1.40	8.60	22.96	7.40	0.95	0.75	0.55	0.30	0.00		
2	0.10	0.35	0.00	1.60	8.60	48.00	15.40	0.90	0.70	0.55	0.30	0.00		
3	0.05	0.35	0.00	1.90	9.60	64.80	29.17	0.80	0.70	0.55	0.30	0.00		
4	0.05	0.35	0.00	1.20	7.20	38.08	17.83	0.70	0.70	0.55	0.30	0.00		
5	0.00	0.40	0.00	1.00	7.20	96.85	12.70	0.65	0.70	0.55	0.30	0.00		
6	0.00	0.40	0.15	0.75	7.00	170.80	8.20	0.65	0.70	0.55	0.25	0.00		
7	0.00	0.45	0.45	0.70	43.21	151.50	6.80	0.70	0.70	0.50	0.25	0.00		
8	0.00	0.50	0.40	0.65	206.30	79.35	5.40	0.70	0.70	0.50	0.20	0.00		
9	0.00	0.45	0.35	0.60	290.20	67.80	6.60	0.70	0.70	0.45	0.20	0.00		
10	0.00	0.40	0.30	0.60	363.90	91.60	3.70	0.70	0.70	0.40	0.20	0.00		
11	0.00	0.40	0.20	0.60	203.60	59.70	3.40	0.95	0.70	0.35	0.15	0.00		
12	0.00	0.45	0.25	0.75	83.20	64.80	3.30	0.90	0.65	0.35	0.15	0.00		
13	0.00	0.45	0.65	2.60	22.42	65.70	13.78	0.90	0.65	0.35	0.15	0.00		
14	0.00	0.50	0.60	9.20	18.64	35.38	26.20	0.90	0.65	0.35	0.10	0.00		
15	0.00	0.40	0.50	17.29	17.29	29.17	34.03	0.90	0.65	0.35	0.10	0.00		
16	0.00	0.40	0.50	18.37	37.81	39.97	28.63	0.85	0.65	0.35	0.10	0.00		
17	0.00	0.40	0.55	17.29	45.97	29.98	20.80	0.85	0.65	0.35	0.10	0.00		
18	0.20	0.40	3.80	16.75	50.10	32.14	15.67	0.85	0.65	0.35	0.05	0.00		
19	0.35	0.40	2.90	9.20	69.00	29.98	11.35	0.85	0.65	0.35	0.00	0.00		
20	0.35	0.30	2.20	7.20	157.50	186.70	8.60	0.85	0.65	0.35	0.00	0.00		
21	0.35	0.10	1.70	7.20	111.20	186.00	6.60	0.80	0.65	0.35	0.00	0.00		
22	0.35	0.10	1.50	17.29	58.50	71.40	5.20	0.80	0.60	0.40	0.00	0.00		
23	0.35	0.10	1.30	15.13	31.60	38.89	4.40	0.80	0.60	0.40	0.00	0.00		
24	0.30	0.10	0.95	12.16	18.91	21.88	4.80	0.80	0.60	0.40	0.00	0.00		
25	0.30	0.10	0.80	19.99	12.43	14.59	4.40	0.80	0.60	0.45	0.00	0.00		
26	0.20	0.15	0.70	18.37	8.80	11.08	3.80	0.75	0.60	0.45	0.00	0.00		
27	0.15	0.15	0.70	11.08	9.20	8.20	3.40	0.75	0.60	0.40	0.00	0.00		
28	0.15	0.10	0.60	21.61	7.40	8.80	3.10	0.75	0.60	0.40	0.00	0.00		
29	0.35	0.05	0.60	19.99	13.24	8.20	2.90	0.75	0.60	0.40	0.00	0.00		
30	0.45	0.05	0.60	17.29	12.97	7.20	2.70	0.75	0.60	0.35		0.00		
31		0.00		11.35	13.51		1.70		0.60	0.35		0.00		
Total	4.25	9.15	23.25	281.11	1955.10	1781.50	321.96	24.00	20.25	13.00	3.50	0.00	4437.07	CMSDAY
Mean	0.14	0.30	0.78	9.07	63.07	59.38	10.39	0.80	0.65	0.42	0.12	0.00	12.12	CMS
Max	0.45	0.50	3.80	21.61	363.90	186.70	34.03	0.95	0.75	0.55	0.30	0.00	363.90	CMS
Min	0.00	0.00	0.00	0.60	7.00	7.20	1.70	0.65	0.60	0.35	0.00	0.00	0.00	CMS
Runoff	0.37	0.79	2.01	24.29	168.92	153.92	27.82	2.07	1.75	1.12	0.30	0.00	383.36	MCM

Momentary Peak 351.00 CMS, at 123.47 m. (MSL) , at 12.00 Hours , on Aug 10, 2011

Runoff Yield 28.59 Liters/Second/Square KM. Momentary Peak Yield 827.830 Liters/Second/Square KM.

WATER YEAR : 2011

MUN RIVER BASIN

Lam Phra Phloeng at Ban Wang Ka Lo, Nakhon Ratchasima (M.145)

Lat 14 - 29 - 24 N Long 101 - 41 - 14 E

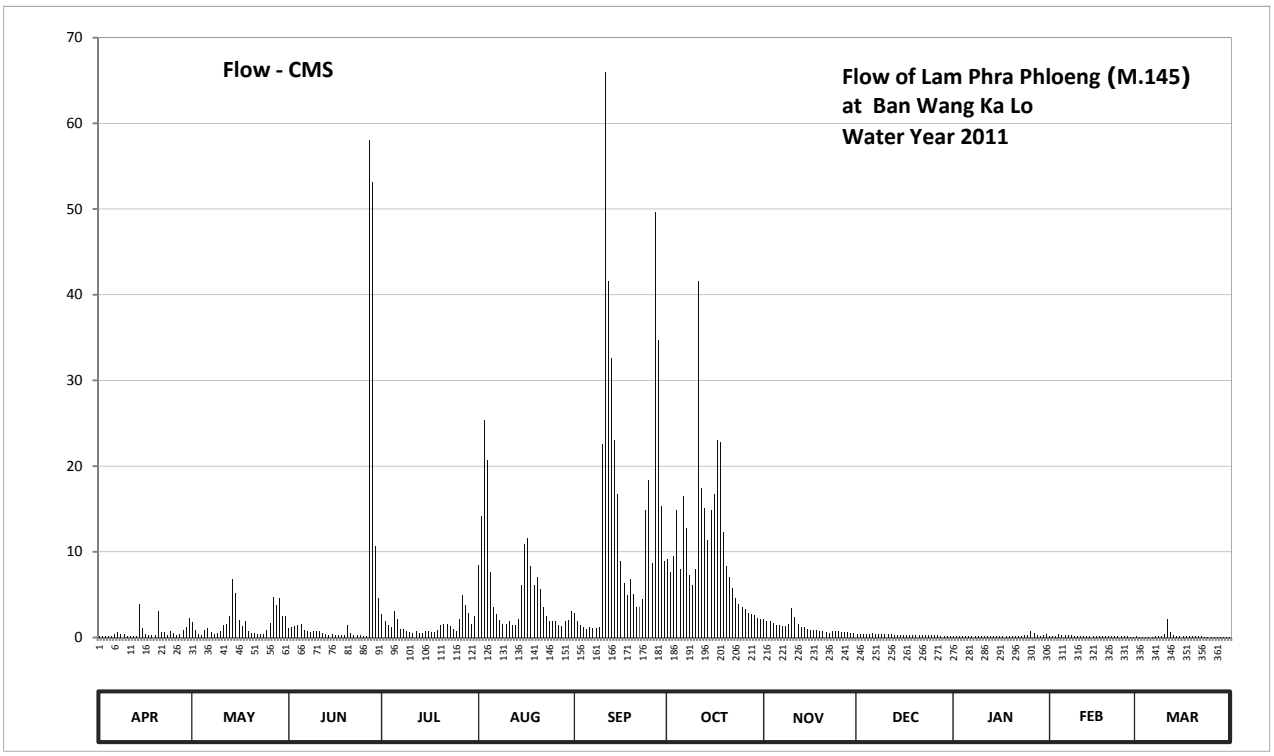
Location : on right bank at Ban Wang Ka Lo.

	Ban Wang Ka Lo	**Amphoe** Pak Chong	**Changwat** Nakhon Ratchasima
Drainge Area	335 sq.km.		
Type of Gage	Staff gage.		
Zero Gage at Bottom	+382.990 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank about 12 meters from the top staff gage.	**Elevation**	+390.970 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	1990 to date		
Rating Operation			
Period of Rating	1990 to date		
Rated by Flot	-		
Rated by Current Meter	1990 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 57 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	386.24	386.58	386.51	386.67	387.10	386.68	387.14	386.61	386.37	386.30	386.23	386.22	
2	386.23	386.47	386.52	386.59	387.38	386.59	387.04	386.59	386.37	386.29	386.29	386.19	
3	386.23	386.38	386.53	386.54	387.86	386.55	387.17	386.59	386.36	386.29	386.29	386.17	
4	386.27	386.33	386.54	386.52	387.66	386.52	387.41	386.57	386.36	386.29	386.38	386.17	
5	386.27	386.48	386.56	386.71	387.04	386.50	387.07	386.55	386.36	386.29	386.31	386.19	
6	386.35	386.51	386.48	386.61	386.75	386.52	387.48	386.54	386.40	386.29	386.31	386.19	
7	386.42	386.42	386.45	386.49	386.67	386.51	387.32	386.53	386.38	386.28	386.31	386.25	
8	386.36	386.38	386.42	386.49	386.60	386.51	387.02	386.53	386.37	386.28	386.34	386.25	
9	386.35	386.41	386.44	386.44	386.56	386.52	386.94	386.56	386.37	386.28	386.29	386.24	
10	386.30	386.44	386.44	386.42	386.56	387.74	387.07	386.74	386.37	386.30	386.29	386.36	
11	386.27	386.54	386.45	386.41	386.59	389.06	388.49	386.64	386.37	386.28	386.27	386.61	
12	386.27	386.56	386.39	386.44	386.55	388.49	387.52	386.56	386.37	386.26	386.25	386.42	
13	386.27	386.65	386.37	386.40	386.55	388.17	387.42	386.52	386.33	386.26	386.24	386.34	
14	386.79	386.99	386.34	386.39	386.62	387.76	387.26	386.52	386.33	386.26	386.24	386.29	
15	386.51	386.88	386.35	386.44	386.94	387.49	387.41	386.49	386.33	386.26	386.24	386.26	
16	386.35	386.60	386.33	386.44	387.24	387.13	387.49	386.48	386.33	386.26	386.23	386.24	
17	386.33	386.53	386.33	386.43	387.27	386.96	387.76	386.48	386.33	386.26	386.23	386.23	
18	386.31	386.59	386.32	386.43	387.09	386.86	387.75	386.48	386.33	386.27	386.22	386.22	
19	386.33	386.46	386.32	386.47	386.94	386.99	387.30	386.44	386.33	386.28	386.22	386.23	
20	386.71	386.40	386.55	386.55	387.00	386.87	387.09	386.44	386.33	386.30	386.22	386.22	
21	386.43	386.40	386.39	386.56	386.91	386.75	387.00	386.42	386.33	386.29	386.22	386.28	
22	386.43	386.36	386.34	386.56	386.75	386.76	386.92	386.41	386.32	386.27	386.22	386.22	
23	386.34	386.38	386.33	386.53	386.65	386.83	386.84	386.44	386.32	386.28	386.22	386.19	
24	386.46	386.37	386.31	386.50	386.59	387.41	386.79	386.45	386.31	386.32	386.22	386.18	
25	386.39	386.47	386.29	386.46	386.59	387.56	386.75	386.44	386.32	386.32	386.24	386.17	
26	386.34	386.57	386.29	386.62	386.59	387.11	386.73	386.43	386.32	386.45	386.23	386.16	
27	386.36	386.85	388.90	386.86	386.55	388.69	386.69	386.42	386.31	386.39	386.21	386.16	
28	386.48	386.78	388.78	386.78	386.53	388.26	386.67	386.42	386.30	386.33	386.19	386.15	
29	386.52	386.84	387.23	386.68	386.59	387.43	386.66	386.40	386.30	386.30	386.22	386.14	
30	386.63	386.65	386.84	386.56	386.60	387.13	386.63	386.40	386.30	386.31		386.14	
31		386.65		386.65	386.71		386.62		386.30	386.37		386.13	
Mean	386.38	386.55	386.61	386.54	386.84	387.21	387.14	386.50	386.34	386.30	386.25	386.23	
Max	386.79	386.99	388.90	386.86	387.86	389.06	388.49	386.74	386.40	386.45	386.38	386.61	389.06
Min	386.23	386.33	386.29	386.39	386.53	386.50	386.62	386.40	386.30	386.26	386.19	386.13	386.13

Annual Max Momentary Gage Height	390.29	m. (MSL.) ,	at 24.00 Hours , on Jun 27, 2011		
Zero Gage at Bottom Elevation	382.99	m. (MSL.) ,	River Bed	384.92	m. (MSL)
Left Bank Elevation	392.97	m. (MSL.) ,			
Right Bank Elevation	391.06	m. (MSL.) ,	Drainage Area	335	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.14	1.80	1.10	2.70	8.50	2.80	9.10	2.10	0.41	0.20	0.13	0.12		
2	0.13	0.85	1.20	1.90	14.20	1.90	7.60	1.90	0.41	0.19	0.19	0.09		
3	0.13	0.44	1.30	1.40	25.40	1.50	9.55	1.90	0.38	0.19	0.19	0.07		
4	0.17	0.29	1.40	1.20	20.73	1.20	14.90	1.70	0.38	0.19	0.44	0.07		
5	0.17	0.90	1.60	3.10	7.60	1.00	8.05	1.50	0.38	0.19	0.23	0.09		
6	0.35	1.10	0.90	2.10	3.50	1.20	16.53	1.40	0.50	0.19	0.23	0.09		
7	0.60	0.60	0.75	0.95	2.70	1.10	12.80	1.30	0.44	0.18	0.23	0.15		
8	0.38	0.44	0.60	0.95	2.00	1.10	7.30	1.30	0.41	0.18	0.32	0.15		
9	0.35	0.55	0.70	0.70	1.60	1.20	6.10	1.60	0.41	0.18	0.19	0.14		
10	0.20	0.70	0.70	0.60	1.60	22.60	8.05	3.40	0.41	0.20	0.19	0.38		
11	0.17	1.40	0.75	0.55	1.90	66.00	41.60	2.40	0.41	0.18	0.17	2.10		
12	0.17	1.60	0.47	0.70	1.50	41.60	17.47	1.60	0.41	0.16	0.15	0.60		
13	0.17	2.50	0.41	0.50	1.50	32.63	15.13	1.20	0.29	0.16	0.14	0.32		
14	3.90	6.85	0.32	0.47	2.20	23.07	11.40	1.20	0.29	0.16	0.14	0.19		
15	1.10	5.20	0.35	0.70	6.10	16.77	14.90	0.95	0.29	0.16	0.14	0.16		
16	0.35	2.00	0.29	0.70	10.93	8.95	16.77	0.90	0.29	0.16	0.13	0.14		
17	0.29	1.30	0.29	0.65	11.63	6.40	23.07	0.90	0.29	0.16	0.13	0.13		
18	0.23	1.90	0.26	0.65	8.35	4.90	22.83	0.90	0.29	0.17	0.12	0.12		
19	0.29	0.80	0.26	0.85	6.10	6.85	12.33	0.70	0.29	0.18	0.12	0.13		
20	3.10	0.50	1.50	1.50	7.00	5.05	8.35	0.70	0.29	0.20	0.12	0.12		
21	0.65	0.50	0.47	1.60	5.65	3.50	7.00	0.60	0.29	0.19	0.12	0.18		
22	0.65	0.38	0.32	1.60	3.50	3.60	5.80	0.55	0.26	0.17	0.12	0.12		
23	0.32	0.44	0.29	1.30	2.50	4.45	4.60	0.70	0.26	0.18	0.12	0.09		
24	0.80	0.41	0.23	1.00	1.90	14.90	3.90	0.75	0.23	0.26	0.12	0.08		
25	0.47	0.85	0.19	0.80	1.90	18.40	3.50	0.70	0.26	0.26	0.14	0.07		
26	0.32	1.70	0.19	2.20	1.90	8.65	3.30	0.65	0.26	0.75	0.13	0.06		
27	0.38	4.75	58.00	4.90	1.50	49.60	2.90	0.60	0.23	0.47	0.11	0.06		
28	0.90	3.80	53.20	3.80	1.30	34.73	2.70	0.60	0.20	0.29	0.09	0.05		
29	1.20	4.60	10.70	2.80	1.90	15.37	2.60	0.50	0.20	0.20	0.12	0.04		
30	2.30	2.50	4.60	1.60	2.00	8.95	2.30	0.50	0.20	0.23		0.04		
31		2.50		2.50	3.10		2.20		0.20	0.41		0.03		
Total	20.38	54.15	143.34	46.97	172.19	409.97	324.63	35.70	9.86	6.99	4.77	6.18	1235.13	CMSDAY
Mean	0.68	1.75	4.78	1.52	5.55	13.67	10.47	1.19	0.32	0.23	0.16	0.20	3.37	CMS
Max	3.90	6.85	58.00	4.90	25.40	66.00	41.60	3.40	0.50	0.75	0.44	2.10	66.00	CMS
Min	0.13	0.29	0.19	0.47	1.30	1.00	2.20	0.50	0.20	0.16	0.09	0.03	0.03	CMS
Runoff	1.76	4.68	12.39	4.06	14.88	35.42	28.05	3.08	0.85	0.60	0.41	0.53	106.72	MCM

Momentary Peak 146.20 CMS, at 390.29 m. (MSL) , at 24.00 Hours , on Jun 27 , 2011

Runoff Yield 10.07 Liters/Second/Square KM. Momentary Peak Yield 436.418 Liters/Second/Square KM.

WATER YEAR : 2011

MUN RIVER BASIN

Huai La - ong at Ban Na Phu, Amnart Charoen (M.155)

Lat 16 - 00 - 15 N Long 104 - 38 - 39 E

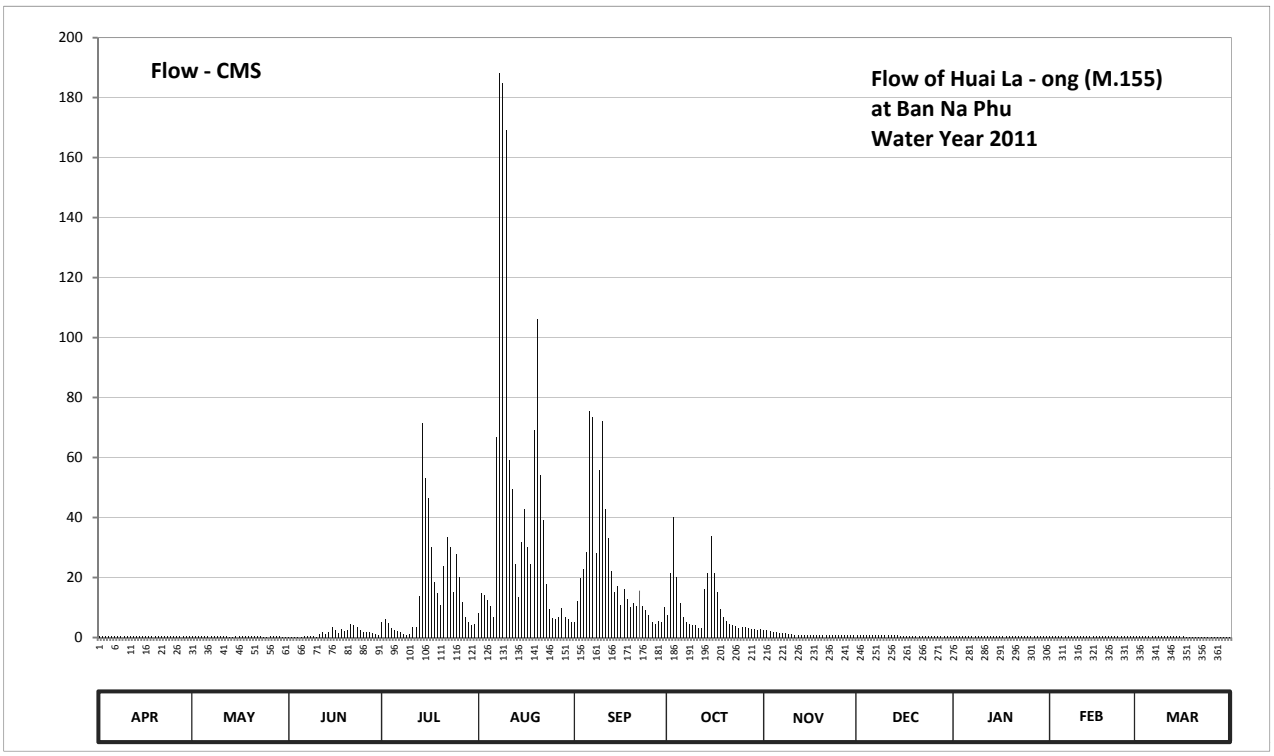
Location : on left bank at the bridge on road.

	Ban Na Phu	**Amphoe** Mueang	**Changwat** Amnart Charoen
Drainge Area	219 sq.km.		
Type of Gage	Staff gage.		
Zero Gage at Bottom	+136.185 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank upstream side at the footpath of the bridge.	**Elevation**	+144.588 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings		
Period of Available Gage Records	1997 to date		
Rating Operation			
Period of Rating	1997 to date		
Rated by Flot	-		
Rated by Current Meter	1997 to date		
Stability of Channel Regimes	Rather unstable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fairly. The weir situated about 1.5 kilometers downstream from the gage site. Stage-discharge relation defined by 28 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	136.76	136.76	136.72	137.33	137.43	137.32	137.41	137.15	136.89	136.79	136.79	136.77	
2	136.76	136.76	136.72	137.37	137.63	137.55	137.82	137.13	136.89	136.79	136.79	136.77	
3	136.76	136.76	136.71	137.31	137.61	137.77	138.36	137.11	136.89	136.79	136.78	136.77	
4	136.76	136.76	136.72	137.19	137.56	137.86	137.78	137.09	136.89	136.79	136.78	136.77	
5	136.76	136.76	136.73	137.14	137.50	138.02	137.53	137.07	136.89	136.78	136.78	136.77	
6	136.76	136.76	136.75	137.12	137.39	139.25	137.39	137.05	136.89	136.78	136.78	136.76	
7	136.76	136.76	136.76	137.09	139.04	139.20	137.32	137.04	136.89	136.78	136.78	136.75	
8	136.76	136.76	136.76	137.01	141.75	138.01	137.29	137.03	136.89	136.78	136.78	136.76	
9	136.76	136.77	136.79	136.94	141.68	138.77	137.28	137.01	136.89	136.78	136.78	136.78	
10	136.75	136.76	136.68	136.99	141.35	139.17	137.26	136.99	136.89	136.78	136.78	136.78	
11	136.75	136.76	137.01	137.23	138.85	138.44	137.19	136.97	136.88	136.78	136.78	136.77	
12	136.75	136.76	137.07	137.22	138.61	138.16	137.20	136.95	136.88	136.78	136.78	136.77	
13	136.75	136.69	137.01	137.60	137.91	137.84	137.67	136.93	136.87	136.78	136.78	136.76	
14	136.75	136.72	137.09	139.15	137.59	137.64	137.82	136.92	136.87	136.78	136.78	136.75	
15	136.75	136.84	137.21	138.70	138.12	137.69	138.18	136.91	136.86	136.78	136.78	136.75	
16	136.75	136.82	137.15	138.54	138.44	137.51	137.82	136.92	136.86	136.78	136.77	136.74	
17	136.75	136.77	137.03	138.07	138.07	137.67	137.64	136.91	136.86	136.78	136.77	136.72	
18	136.77	136.76	137.17	137.73	137.91	137.57	137.47	136.90	136.86	136.78	136.77	136.71	
19	136.77	136.77	137.10	137.63	139.10	137.49	137.39	136.90	136.86	136.78	136.77	136.69	
20	136.76	136.76	137.13	137.51	139.97	137.53	137.34	136.89	136.86	136.78	136.77	136.69	
21	136.76	136.76	137.29	137.89	138.73	137.50	137.30	136.89	136.86	136.78	136.77	136.70	
22	136.77	136.76	137.27	138.17	138.33	137.65	137.27	136.88	136.86	136.78	136.77	136.70	
23	136.78	136.76	137.23	138.07	137.71	137.50	137.24	136.93	136.86	136.78	136.77	136.70	
24	136.76	136.68	137.14	137.64	137.47	137.46	137.20	136.96	136.86	136.78	136.77	136.70	
25	136.76	136.68	137.09	138.00	137.38	137.41	137.22	136.92	136.85	136.78	136.77	136.70	
26	136.76	136.77	137.08	137.78	137.37	137.33	137.23	136.92	136.81	136.78	136.77	136.71	
27	136.76	136.77	137.08	137.54	137.40	137.30	137.20	136.90	136.79	136.78	136.77	136.73	
28	136.76	136.76	137.04	137.39	137.48	137.34	137.18	136.88	136.79	136.78	136.77	136.72	
29	136.76	136.74	136.99	137.33	137.40	137.33	137.16	136.87	136.79	136.78	136.77	136.72	
30	136.76	136.73	136.97	137.28	137.36	137.49	137.14	136.89	136.78	136.80		136.71	
31		136.72		137.29	137.33		137.16		136.78	136.79		136.70	
Mean	136.76	136.75	136.98	137.59	138.31	137.83	137.43	136.96	136.86	136.78	136.78	136.74	
Max	136.78	136.84	137.29	139.15	141.75	139.25	138.36	137.15	136.89	136.80	136.79	136.78	141.75
Min	136.75	136.68	136.68	136.94	137.33	137.30	137.14	136.87	136.78	136.78	136.77	136.69	136.68

Annual Max Momentary Gage Height	142.04	m. (MSL.) ,	at 18.00 Hours, on Aug 9, 2011		
Zero Gage at Bottom Elevation	136.18	m. (MSL.) ,	River Bed	136.26	m. (MSL)
Left Bank Elevation	144.60	m. (MSL.) ,			
Right Bank Elevation	144.59	m. (MSL.) ,	Drainage Area	219	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.40	0.40	0.30	5.25	8.04	5.00	7.35	2.62	0.72	0.47	0.47	0.43		
2	0.40	0.40	0.30	6.25	14.95	12.18	21.51	2.37	0.72	0.47	0.47	0.43		
3	0.40	0.40	0.28	4.75	14.25	19.78	40.16	2.12	0.72	0.47	0.45	0.43		
4	0.40	0.40	0.30	3.12	12.53	22.89	20.13	1.90	0.72	0.47	0.45	0.43		
5	0.40	0.40	0.32	2.50	10.45	28.42	11.49	1.70	0.72	0.45	0.45	0.43		
6	0.40	0.40	0.37	2.25	6.75	75.62	6.75	1.50	0.72	0.45	0.45	0.40		
7	0.40	0.40	0.40	1.90	66.70	73.50	5.00	1.40	0.72	0.45	0.45	0.37		
8	0.40	0.40	0.40	1.10	188.13	28.07	4.37	1.30	0.72	0.45	0.45	0.40		
9	0.40	0.43	0.47	0.85	184.80	55.80	4.25	1.10	0.72	0.45	0.45	0.45		
10	0.37	0.40	0.20	0.98	169.13	72.22	4.00	0.98	0.72	0.45	0.45	0.45		
11	0.37	0.40	1.10	3.62	59.00	42.93	3.12	0.93	0.70	0.45	0.45	0.43		
12	0.37	0.40	1.70	3.50	49.40	33.25	3.25	0.87	0.70	0.45	0.45	0.43		
13	0.37	0.22	1.10	13.91	24.62	22.20	16.33	0.82	0.67	0.45	0.45	0.40		
14	0.37	0.30	1.90	71.37	13.56	15.29	21.51	0.80	0.67	0.45	0.45	0.37		
15	0.37	0.60	3.38	53.00	31.87	17.02	33.95	0.78	0.65	0.45	0.45	0.37		
16	0.37	0.55	2.62	46.60	42.93	10.80	21.51	0.80	0.65	0.45	0.43	0.35		
17	0.37	0.43	1.30	30.15	30.15	16.33	15.29	0.78	0.65	0.45	0.43	0.30		
18	0.43	0.40	2.87	18.40	24.62	12.87	9.42	0.75	0.65	0.45	0.43	0.28		
19	0.43	0.43	2.00	14.95	69.25	10.11	6.75	0.75	0.65	0.45	0.43	0.22		
20	0.40	0.40	2.37	10.80	106.23	11.49	5.50	0.72	0.65	0.45	0.43	0.22		
21	0.40	0.40	4.37	23.93	54.20	10.45	4.50	0.72	0.65	0.45	0.43	0.25		
22	0.43	0.40	4.13	33.60	39.13	15.64	4.13	0.70	0.65	0.45	0.43	0.25		
23	0.45	0.40	3.62	30.15	17.71	10.45	3.75	0.82	0.65	0.45	0.43	0.25		
24	0.40	0.20	2.50	15.29	9.42	9.07	3.25	0.90	0.65	0.45	0.43	0.25		
25	0.40	0.20	1.90	27.73	6.50	7.35	3.50	0.80	0.63	0.45	0.43	0.25		
26	0.40	0.43	1.80	20.13	6.25	5.25	3.62	0.80	0.52	0.45	0.43	0.28		
27	0.40	0.43	1.80	11.84	7.00	4.50	3.25	0.75	0.47	0.45	0.43	0.32		
28	0.40	0.40	1.40	6.75	9.76	5.50	3.00	0.70	0.47	0.45	0.43	0.30		
29	0.40	0.35	0.98	5.25	7.00	5.25	2.75	0.67	0.47	0.45	0.43	0.30		
30	0.40	0.32	0.93	4.25	6.00	10.11	2.50	0.72	0.45	0.50		0.28		
31		0.30		4.37	5.25		2.75		0.45	0.47		0.25		
Total	11.90	11.99	47.11	478.54	1295.58	669.34	298.64	32.57	19.90	14.10	12.81	10.57	2903.05	CMSDAY
Mean	0.40	0.39	1.57	15.44	41.79	22.31	9.63	1.09	0.64	0.45	0.44	0.34	7.93	CMS
Max	0.45	0.60	4.37	71.37	188.13	75.62	40.16	2.62	0.72	0.50	0.47	0.45	188.13	CMS
Min	0.37	0.20	0.20	0.85	5.25	4.50	2.50	0.67	0.45	0.45	0.43	0.22	0.20	CMS
Runoff	1.03	1.04	4.07	41.35	111.94	57.83	25.80	2.81	1.72	1.22	1.11	0.91	250.82	MCM

Momentary Peak 201.90 CMS, at 142.04 m. (MSL), at 18.00 Hours, on Aug 9, 2011

Runoff Yield 36.22 Liters/Second/Square KM. Momentary Peak Yield 921.918 Liters/Second/Square KM.

WATER YEAR : 2011

MUN RIVER BASIN

Huai Ban at Ban Na Phu, Amnart Charoen (M.156)

Lat 15 - 59 - 14 N Long 104 - 38 - 28 E

Location : on left bank at the bridge on road.

	Ban Na Phu	**Amphoe** Mueang	**Changwat** Amnart Charoen
Drainge Area	40 sq.km.		
Type of Gage	Staff gage.		
Zero Gage at Bottom	+139.070 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank at the footpath of the bridge.		**Elevation** +144.52 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings		
Period of Available Gage Records	1997 to date		
Rating Operation			
Period of Rating	1997 to date		
Rated by Flot	-		
Rated by Current Meter	1997 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. The concrete weir situated about 250 meters downstream from the gage site. Stage-discharge relation defined by 26 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

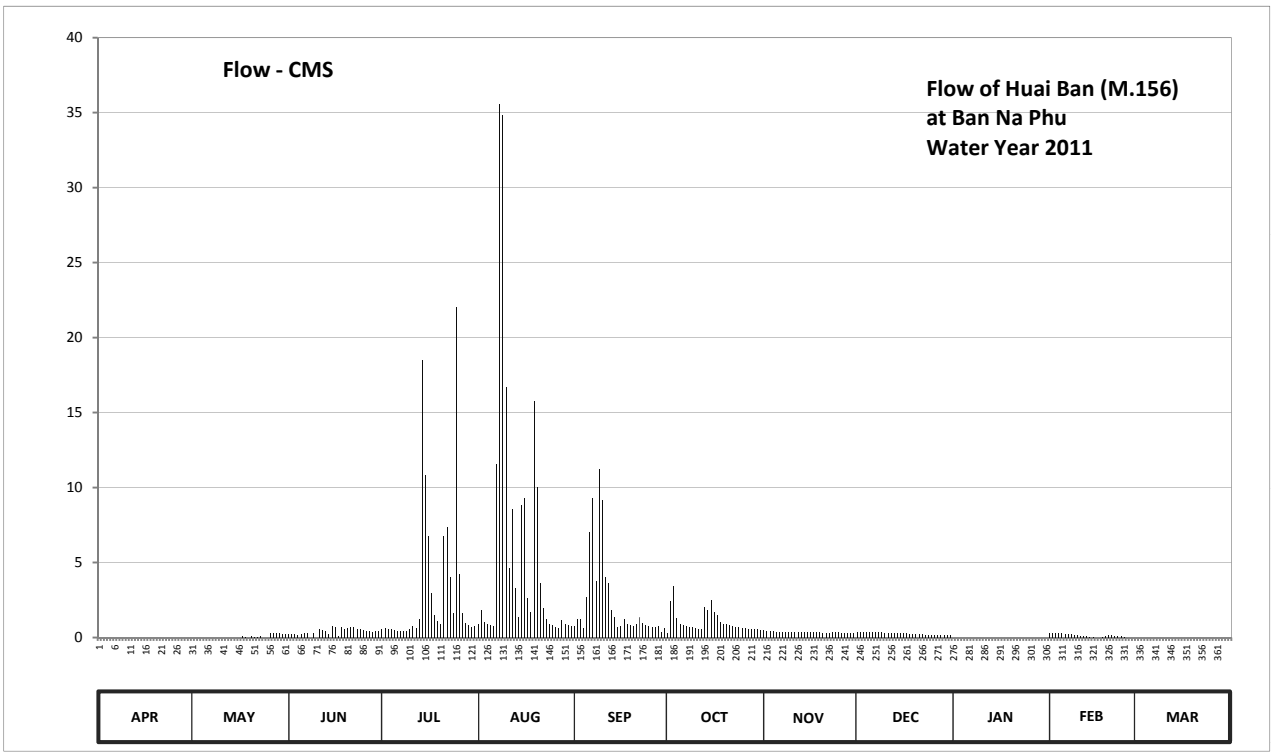
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	140.08	140.11	140.30	140.42	140.57	140.51	140.32	140.39	140.35	140.14	140.33	140.10	
2	140.08	140.11	140.29	140.46	140.76	140.65	140.84	140.38	140.35	140.14	140.33	140.10	
3	140.08	140.11	140.28	140.43	140.60	140.65	140.93	140.37	140.35	140.13	140.32	140.09	
4	140.08	140.11	140.27	140.41	140.56	140.46	140.66	140.36	140.35	140.13	140.32	140.09	
5	140.08	140.11	140.30	140.39	140.52	140.87	140.57	140.35	140.35	140.12	140.31	140.08	
6	140.08	140.11	140.32	140.37	140.50	141.17	140.53	140.35	140.35	140.12	140.30	140.08	
7	140.08	140.11	140.32	140.37	141.47	141.32	140.49	140.35	140.34	140.11	140.29	140.12	
8	140.08	140.11	140.12	140.36	142.67	140.95	140.48	140.35	140.34	140.11	140.28	140.19	
9	140.08	140.11	140.33	140.36	142.64	141.45	140.47	140.35	140.34	140.10	140.27	140.15	
10	140.08	140.11	140.14	140.43	141.81	141.31	140.46	140.34	140.33	140.10	140.26	140.15	
11	140.08	140.11	140.41	140.51	141.01	140.97	140.43	140.34	140.33	140.09	140.25	140.14	
12	140.08	139.95	140.39	140.45	141.27	140.94	140.43	140.34	140.32	140.09	140.24	140.12	
13	140.08	140.13	140.37	140.64	140.92	140.77	140.80	140.34	140.32	140.09	140.23	140.11	
14	140.08	139.97	140.29	141.90	140.68	140.67	140.77	140.34	140.32	140.09	140.22	140.09	
15	140.08	140.18	140.49	141.42	141.29	140.48	140.85	140.34	140.31	140.09	140.21	140.07	
16	140.08	140.03	140.47	141.15	141.32	140.49	140.74	140.34	140.31	140.09	140.20	140.06	
17	139.83	140.25	140.25	140.90	140.86	140.65	140.70	140.34	140.31	140.09	140.19	140.06	
18	139.84	140.22	140.47	140.70	140.74	140.57	140.60	140.34	140.30	140.09	140.21	140.06	
19	140.08	140.20	140.43	140.62	141.75	140.52	140.57	140.34	140.29	140.09	140.25	140.06	
20	140.05	140.23	140.45	140.56	141.37	140.50	140.55	140.32	140.29	140.09	140.27	140.06	
21	140.05	140.22	140.48	141.15	140.94	140.57	140.53	140.32	140.28	140.09	140.26	140.06	
22	140.08	140.21	140.47	141.19	140.79	140.67	140.49	140.31	140.28	140.09	140.25	140.06	
23	139.87	140.23	140.44	140.97	140.64	140.59	140.48	140.34	140.27	140.08	140.24	140.06	
24	140.10	140.06	140.41	140.72	140.57	140.54	140.47	140.34	140.27	140.08	140.23	140.06	
25	140.09	140.10	140.40	142.07	140.52	140.50	140.46	140.34	140.27	140.08	140.22	140.06	
26	140.09	140.33	140.38	140.98	140.47	140.48	140.45	140.33	140.26	140.08	140.19	140.06	
27	140.10	140.32	140.37	140.72	140.46	140.47	140.44	140.33	140.26	140.08	140.15	140.06	
28	139.87	140.31	140.35	140.58	140.63	140.50	140.43	140.33	140.26	140.08	140.12	140.06	
29	139.87	140.31	140.36	140.53	140.56	140.34	140.42	140.33	140.26	140.08	140.11	140.06	
30	140.11	140.30	140.37	140.48	140.53	140.45	140.41	140.33	140.26	140.08		140.06	
31		140.30		140.49	140.50		140.40		140.26	140.08		140.06	
Mean	140.04	140.16	140.36	140.73	140.97	140.70	140.55	140.34	140.31	140.10	140.24	140.09	
Max	140.11	140.33	140.49	142.07	142.67	141.45	140.93	140.39	140.35	140.14	140.33	140.19	142.67
Min	139.83	139.95	140.12	140.36	140.46	140.34	140.32	140.31	140.26	140.08	140.11	140.06	139.83

Annual Max Momentary Gage Height 142.97 m. (MSL.) , at 12.00 Hours, on Aug 8, 2011

Zero Gage at Bottom Elevation 139.07 m. (MSL.) , River Bed 139.96 m. (MSL)

Left Bank Elevation 144.65 m. (MSL.) ,

Right Bank Elevation 144.68 m. (MSL.) , Drainage Area 40 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	0.25	0.55	0.93	0.77	0.30	0.47	0.38	0.00	0.33	0.00		
2	0.00	0.00	0.22	0.65	1.80	1.25	2.40	0.45	0.38	0.00	0.33	0.00		
3	0.00	0.00	0.20	0.57	1.00	1.25	3.45	0.42	0.38	0.00	0.30	0.00		
4	0.00	0.00	0.18	0.53	0.90	0.65	1.30	0.40	0.38	0.00	0.30	0.00		
5	0.00	0.00	0.25	0.47	0.80	2.70	0.93	0.38	0.38	0.00	0.27	0.00		
6	0.00	0.00	0.30	0.42	0.75	7.05	0.82	0.38	0.38	0.00	0.25	0.00		
7	0.00	0.00	0.30	0.42	11.55	9.30	0.73	0.38	0.35	0.00	0.22	0.00		
8	0.00	0.00	0.00	0.40	35.58	3.75	0.70	0.38	0.35	0.00	0.20	0.00		
9	0.00	0.00	0.33	0.40	34.86	11.25	0.67	0.38	0.35	0.00	0.18	0.00		
10	0.00	0.00	0.00	0.57	16.70	9.15	0.65	0.35	0.33	0.00	0.15	0.00		
11	0.00	0.00	0.53	0.77	4.65	4.05	0.57	0.35	0.33	0.00	0.13	0.00		
12	0.00	0.00	0.47	0.62	8.55	3.60	0.57	0.35	0.30	0.00	0.10	0.00		
13	0.00	0.00	0.42	1.20	3.30	1.85	2.00	0.35	0.30	0.00	0.07	0.00		
14	0.00	0.00	0.22	18.50	1.40	1.35	1.85	0.35	0.30	0.00	0.05	0.00		
15	0.00	0.00	0.73	10.80	8.85	0.70	2.50	0.35	0.27	0.00	0.03	0.00		
16	0.00	0.00	0.67	6.75	9.30	0.73	1.70	0.35	0.27	0.00	0.00	0.00		
17	0.00	0.13	0.13	3.00	2.60	1.25	1.50	0.35	0.27	0.00	0.00	0.00		
18	0.00	0.05	0.67	1.50	1.70	0.93	1.00	0.35	0.25	0.00	0.03	0.00		
19	0.00	0.00	0.57	1.10	15.75	0.80	0.93	0.35	0.22	0.00	0.13	0.00		
20	0.00	0.07	0.62	0.90	10.05	0.75	0.87	0.30	0.22	0.00	0.18	0.00		
21	0.00	0.05	0.70	6.75	3.60	0.93	0.82	0.30	0.20	0.00	0.15	0.00		
22	0.00	0.03	0.67	7.35	1.95	1.35	0.73	0.27	0.20	0.00	0.13	0.00		
23	0.00	0.07	0.60	4.05	1.20	0.97	0.70	0.35	0.18	0.00	0.10	0.00		
24	0.00	0.00	0.53	1.60	0.93	0.85	0.67	0.35	0.18	0.00	0.07	0.00		
25	0.00	0.00	0.50	22.04	0.80	0.75	0.65	0.35	0.18	0.00	0.05	0.00		
26	0.00	0.33	0.45	4.20	0.67	0.70	0.62	0.33	0.15	0.00	0.00	0.00		
27	0.00	0.30	0.42	1.60	0.65	0.67	0.60	0.33	0.15	0.00	0.00	0.00		
28	0.00	0.27	0.38	0.95	1.15	0.75	0.57	0.33	0.15	0.00	0.00	0.00		
29	0.00	0.27	0.40	0.82	0.90	0.35	0.55	0.33	0.15	0.00	0.00	0.00		
30	0.00	0.25	0.42	0.70	0.82	0.62	0.53	0.33	0.15	0.00		0.00		
31		0.25		0.73	0.75		0.50		0.15	0.00		0.00		
Total	0.00	2.07	12.13	10.91	184.44	71.07	32.38	10.71	8.23	0.00	3.75	0.00	425.69	CMSDAY
Mean	0.00	0.07	0.40	3.26	5.95	2.37	1.04	0.36	0.27	0.00	0.13	0.00	1.16	CMS
Max	0.00	0.33	0.73	22.04	35.58	11.25	3.45	0.47	0.38	0.00	0.33	0.00	35.58	CMS
Min	0.00	0.00	0.00	0.40	0.65	0.35	0.30	0.27	0.15	0.00	0.00	0.00	0.00	CMS
Runoff	0.00	0.18	1.05	8.72	15.94	6.14	2.80	0.93	0.71	0.00	0.32	0.00	36.78	MCM

Momentary Peak 42.78 CMS, at 142.97 m. (MSL), at 12.00 Hours, on Aug 8, 2011

Runoff Yield 29.08 Liters/Second/Square KM. Momentary Peak Yield 1069.500 Liters/Second/Square KM.

WATER YEAR : 2011

MUN RIVER BASIN

Lam Chi at Ban Lum Din, Surin (M.159)

Lat 15 - 08 - 24 N Long 103 - 25 - 57 E

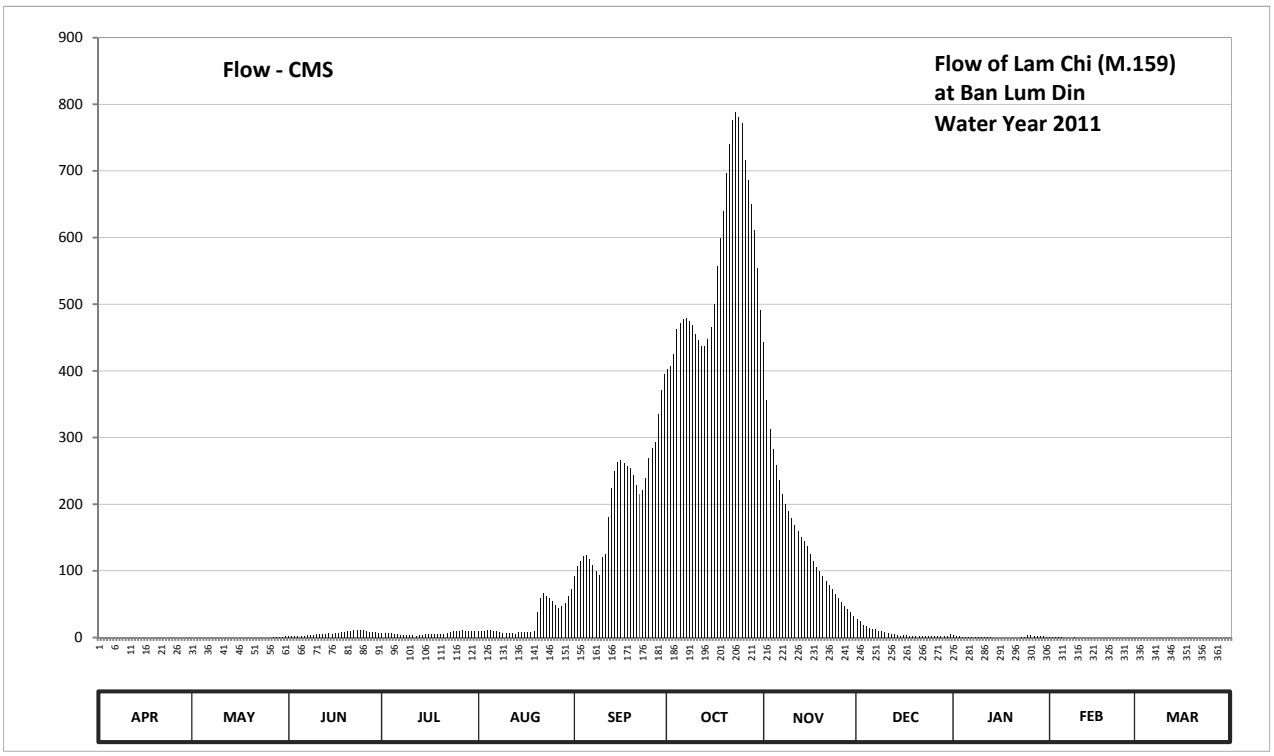
Location : on right bank at Ban Lum Din.

	Ban Lum Din	**Amphoe** Chom Phra	**Changwat** Surin
Drainge Area	4,806 sq.km.		
Type of Gage	Staff gage.		
Zero Gage at Bottom	+120.850 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank at staff gage line.		**Elevation** +131.079 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00, and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings		
Period of Available Gage Records	1999 to date		
Rating Operation			
Period of Rating	1999 to date		
Rated by Flot	-		
Rated by Current Meter	1999 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records very good. Stage-discharge relation defined by 30 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	120.87	121.24	122.07	122.61	122.82	125.36	129.15	129.52	123.91	122.20	121.91	121.16	
2	120.88	121.24	122.11	122.58	122.83	125.60	129.19	128.68	123.78	122.12	121.82	121.15	
3	120.89	121.24	122.13	122.53	122.82	125.70	129.35	128.21	123.61	122.05	121.74	121.15	
4	120.90	121.25	122.15	122.49	122.95	125.81	129.69	127.86	123.47	121.99	121.71	121.15	
5	120.91	121.25	122.18	122.41	122.97	125.82	129.78	127.57	123.34	121.98	121.69	121.15	
6	120.92	121.25	122.19	122.36	122.86	125.75	129.83	127.29	123.23	121.93	121.62	121.15	
7	120.93	121.25	122.22	122.33	122.89	125.62	129.85	127.02	123.10	121.88	121.53	121.16	
8	120.95	121.26	122.26	122.30	122.79	125.48	129.81	126.83	122.93	121.90	121.49	121.16	
9	120.97	121.26	122.33	122.27	122.65	125.39	129.75	126.71	122.83	121.88	121.69	121.16	
10	120.98	121.26	122.44	122.25	122.64	125.79	129.63	126.56	122.72	121.87	121.63	121.16	
11	121.00	121.27	122.47	122.21	122.57	125.84	129.55	126.42	122.60	121.86	121.60	121.16	
12	121.03	121.27	122.48	122.19	122.52	126.58	129.47	126.31	122.47	121.86	121.58	121.16	
13	121.04	121.28	122.48	122.21	122.42	127.13	129.46	126.19	122.34	121.80	121.50	121.16	
14	121.05	121.28	122.49	122.26	122.66	127.45	129.56	126.10	122.25	121.65	121.41	121.16	
15	121.08	121.29	122.48	122.35	122.71	127.61	129.72	126.01	122.19	121.65	121.37	121.17	
16	121.10	121.29	122.53	122.41	122.75	127.65	130.03	125.85	122.20	121.66	121.29	121.17	
17	121.11	121.30	122.62	122.46	122.73	127.60	130.49	125.72	122.20	121.66	121.25	121.17	
18	121.13	121.31	122.69	122.46	122.77	127.55	130.79	125.58	122.18	121.63	121.23	121.17	
19	121.14	121.31	122.77	122.45	122.85	127.51	131.06	125.48	122.12	121.58	121.20	121.17	
20	121.15	121.32	122.86	122.45	124.22	127.38	131.39	125.36	122.09	121.65	121.18	121.17	
21	121.16	121.33	122.92	122.45	124.76	127.18	131.60	125.23	122.13	121.63	121.17	121.17	
22	121.18	121.38	123.01	122.61	124.90	127.02	131.76	125.13	122.10	121.61	121.16	121.17	
23	121.19	121.42	123.06	122.74	124.83	127.10	131.81	125.03	122.14	121.74	121.15	121.17	
24	121.20	121.52	123.03	122.80	124.77	127.32	131.78	124.89	122.13	121.82	121.15	121.17	
25	121.21	121.59	122.99	122.85	124.69	127.70	131.74	124.75	122.13	122.25	121.15	121.17	
26	121.22	121.65	122.82	122.90	124.53	127.87	131.50	124.65	122.13	122.20	121.14	121.17	
27	121.23	121.72	122.78	122.98	124.44	127.98	131.33	124.51	122.12	122.18	121.14	121.17	
28	121.23	121.85	122.75	122.81	124.50	128.45	131.12	124.39	122.17	122.16	121.15	121.17	
29	121.24	121.98	122.68	122.87	124.60	128.84	130.88	124.22	122.17	122.13	121.16	121.17	
30	121.24	122.03	122.63	122.89	124.82	129.08	130.47	124.06	122.09	122.06		121.17	
31		122.05		122.92	125.04		129.95		122.35	121.99		121.17	
Mean	121.07	121.42	122.55	122.53	123.49	126.91	130.37	126.07	122.56	121.89	121.41	121.16	
Max	121.24	122.05	123.06	122.98	125.04	129.08	131.81	129.52	123.91	122.25	121.91	121.17	131.81
Min	120.87	121.24	122.07	122.19	122.42	125.36	129.15	124.06	122.09	121.58	121.14	121.15	120.87

Annual Max Momentary Gage Height	131.81	m. (MSL.) ,	at 06.00 Hours, on Oct 23, 2011		
Zero Gage at Bottom Elevation	120.85	m. (MSL.) ,	River Bed	120.81	m. (MSL)
Left Bank Elevation	132.20	m. (MSL.) ,			
Right Bank Elevation	132.28	m. (MSL.) ,	Drainage Area	4806	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	1.70	7.10	9.20	92.60	402.50	443.20	28.30	3.00	0.55	0.00		
2	0.00	0.00	2.10	6.80	9.30	107.00	406.90	355.20	24.40	2.20	0.34	0.00		
3	0.00	0.00	2.30	6.30	9.20	114.00	424.50	312.90	19.30	1.50	0.18	0.00		
4	0.00	0.00	2.50	5.90	10.50	122.25	461.90	283.10	16.40	0.95	0.12	0.00		
5	0.00	0.00	2.80	5.10	10.70	123.00	471.80	259.10	14.40	0.90	0.08	0.00		
6	0.00	0.00	2.90	4.60	9.60	117.75	477.30	236.70	13.30	0.65	0.00	0.00		
7	0.00	0.00	3.20	4.30	9.90	108.40	479.50	215.10	12.00	0.46	0.00	0.00		
8	0.00	0.00	3.60	4.00	8.90	99.80	475.10	199.90	10.30	0.50	0.00	0.00		
9	0.00	0.00	4.30	3.70	7.50	94.40	468.50	190.30	9.30	0.46	0.08	0.00		
10	0.00	0.00	5.40	3.50	7.40	120.75	455.30	178.50	8.20	0.44	0.00	0.00		
11	0.00	0.00	5.70	3.10	6.70	124.50	446.50	168.00	7.00	0.42	0.00	0.00		
12	0.00	0.00	5.80	2.90	6.20	180.00	437.70	159.75	5.70	0.42	0.00	0.00		
13	0.00	0.00	5.80	3.10	5.20	223.90	436.60	150.75	4.40	0.30	0.00	0.00		
14	0.00	0.00	5.90	3.60	7.60	249.50	447.60	144.00	3.50	0.00	0.00	0.00		
15	0.00	0.00	5.80	4.50	8.10	262.30	465.20	137.25	2.90	0.00	0.00	0.00		
16	0.00	0.00	6.30	5.10	8.50	265.50	499.60	125.25	3.00	0.02	0.00	0.00		
17	0.00	0.00	7.20	5.60	8.30	261.50	556.70	115.50	3.00	0.02	0.00	0.00		
18	0.00	0.00	7.90	5.60	8.70	257.50	598.60	105.80	2.80	0.00	0.00	0.00		
19	0.00	0.00	8.70	5.50	9.50	254.30	640.20	99.80	2.20	0.00	0.00	0.00		
20	0.00	0.00	9.60	5.50	37.60	243.90	697.20	92.60	1.90	0.00	0.00	0.00		
21	0.00	0.00	10.20	5.50	59.00	227.90	740.00	84.80	2.30	0.00	0.00	0.00		
22	0.00	0.00	11.10	7.10	66.00	215.10	776.80	78.80	2.00	0.00	0.00	0.00		
23	0.00	0.00	11.60	8.40	62.50	221.50	788.30	72.80	2.40	0.18	0.00	0.00		
24	0.00	0.00	11.30	9.00	59.50	239.10	781.40	65.50	2.30	0.34	0.00	0.00		
25	0.00	0.00	10.90	9.50	55.50	269.50	772.20	58.50	2.30	3.50	0.00	0.00		
26	0.00	0.00	9.20	10.00	48.20	283.95	717.00	53.50	2.30	3.00	0.00	0.00		
27	0.00	0.14	8.80	10.80	44.60	293.30	686.40	47.40	2.20	2.80	0.00	0.00		
28	0.00	0.40	8.50	9.10	47.00	334.50	650.40	42.70	2.70	2.60	0.00	0.00		
29	0.00	0.90	7.80	9.70	51.00	371.00	612.00	37.60	2.70	2.30	0.00	0.00		
30	0.00	1.30	7.30	9.90	62.00	395.00	554.10	32.80	1.90	1.60		0.00		
31		1.50		10.20	73.40		490.50		4.50	0.95		0.00		
Total	0.00	4.24	196.20	195.00	827.30	6273.70	17318.30	4547.10	219.90	29.51	1.35	0.00	29612.60	CMSDAY
Mean	0.00	0.14	6.54	6.29	26.69	209.12	558.65	151.57	7.09	0.95	0.05	0.00	80.91	CMS
Max	0.00	1.50	11.60	10.80	73.40	395.00	788.30	443.20	28.30	3.50	0.55	0.00	788.30	CMS
Min	0.00	0.00	1.70	2.90	5.20	92.60	402.50	32.80	1.90	0.00	0.00	0.00	0.00	CMS
Runoff	0.00	0.37	16.95	16.85	71.48	542.05	1496.30	392.87	19.00	2.55	0.12	0.00	2558.53	MCM

Momentary Peak 788.30 CMS, at 131.81 m. (MSL), at 06.00 Hours, on Oct 23, 2011

Runoff Yield 16.83 Liters/Second/Square KM. Momentary Peak Yield 164.024 Liters/Second/Square KM.

WATER YEAR : 2011

MUN RIVER BASIN

Lam Ta Khong at Ban Send Mari, Nakhon Ratchasima (M.164)

Lat 14 - 58 - 57 N Long 102 - 05 - 52 E

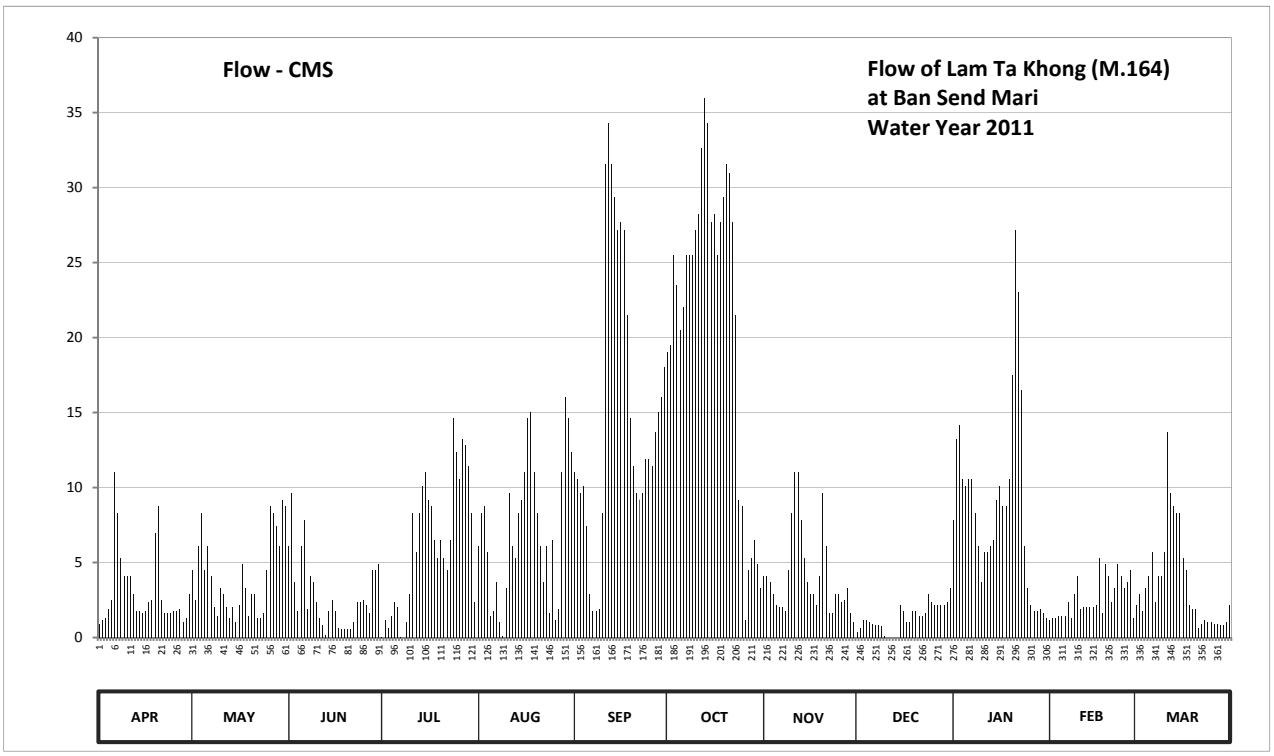
Location : on right bank at the bridge on highway.

	Ban Send Mari	**Amphoe** Mueang	**Changwat** Nakhon Ratchasima
Drainge Area	3,012 sq.km.		
Type of Gage	Water - stage recorder.		
Zero Gage at Bottom	+173.800 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank at staff gage line.		**Elevation** +179.599 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	1999 to date		
Rating Operation			
Period of Rating	1999 to date		
Rated by Flot	-		
Rated by Current Meter	1999 to date		
Stability of Channel Regimes	Rather unstable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 37 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	176.29	176.45	176.49	176.16	176.49	176.60	176.77	176.44	176.23	176.53	176.31	176.38	
2	176.31	176.40	176.57	176.31	176.54	176.59	176.78	176.44	176.26	176.65	176.32	176.41	
3	176.32	176.49	176.43	176.26	176.55	176.57	176.90	176.43	176.31	176.67	176.32	176.35	
4	176.36	176.54	176.35	176.33	176.48	176.58	176.86	176.41	176.31	176.59	176.33	176.42	
5	176.40	176.45	176.49	176.39	176.33	176.52	176.80	176.38	176.30	176.58	176.33	176.44	
6	176.60	176.49	176.53	176.37	176.35	176.41	176.83	176.37	176.29	176.59	176.33	176.48	
7	176.54	176.44	176.36	176.15	176.43	176.35	176.90	176.37	176.28	176.59	176.39	176.39	
8	176.47	176.37	176.44	175.92	176.30	176.35	176.90	176.35	176.28	176.54	176.32	176.44	
9	176.44	176.33	176.43	176.30	176.20	176.36	176.90	176.45	176.27	176.49	176.41	176.44	
10	176.44	176.42	176.39	176.41	176.42	176.54	176.93	176.54	176.19	176.43	176.44	176.48	
11	176.44	176.41	176.32	176.54	176.57	177.01	176.95	176.60	175.93	176.48	176.36	176.66	
12	176.41	176.37	176.28	176.48	176.49	177.06	177.03	176.60	175.74	176.48	176.37	176.57	
13	176.35	176.32	176.21	176.54	176.47	177.01	177.09	176.53	175.69	176.49	176.37	176.55	
14	176.35	176.37	176.35	176.58	176.54	176.97	177.06	176.47	176.01	176.50	176.37	176.54	
15	176.34	176.30	176.40	176.60	176.56	176.93	176.94	176.43	176.38	176.56	176.37	176.54	
16	176.35	176.38	176.35	176.56	176.60	176.94	176.95	176.41	176.35	176.58	176.38	176.47	
17	176.39	176.46	176.26	176.55	176.68	176.93	176.90	176.41	176.30	176.55	176.47	176.45	
18	176.40	176.42	176.25	176.50	176.69	176.82	176.94	176.38	176.30	176.55	176.34	176.38	
19	176.51	176.33	176.25	176.47	176.60	176.68	176.97	176.44	176.35	176.59	176.46	176.36	
20	176.55	176.41	176.25	176.50	176.54	176.61	177.01	176.57	176.35	176.74	176.44	176.36	
21	176.40	176.41	176.25	176.47	176.49	176.57	177.00	176.49	176.33	176.93	176.39	176.26	
22	176.34	176.32	176.30	176.45	176.43	176.56	176.94	176.34	176.33	176.85	176.42	176.29	
23	176.34	176.32	176.39	176.50	176.49	176.57	176.82	176.34	176.34	176.72	176.46	176.31	
24	176.34	176.34	176.39	176.68	176.34	176.62	176.56	176.41	176.41	176.49	176.44	176.30	
25	176.35	176.45	176.40	176.63	176.50	176.62	176.55	176.41	176.39	176.42	176.42	176.30	
26	176.35	176.55	176.38	176.59	176.31	176.61	176.31	176.39	176.38	176.38	176.43	176.29	
27	176.36	176.54	176.34	176.65	176.36	176.66	176.45	176.40	176.38	176.35	176.45	176.29	
28	176.30	176.52	176.45	176.64	176.60	176.69	176.47	176.42	176.38	176.35	176.32	176.28	
29	176.32	176.49	176.45	176.61	176.71	176.71	176.50	176.34	176.38	176.36	176.32	176.28	
30	176.41	176.56	176.46	176.54	176.68	176.75	176.46	176.30	176.39	176.34		176.30	
31		176.55		176.39	176.63		176.42		176.42	176.32		176.38	
Mean	176.39	176.43	176.37	176.45	176.50	176.67	176.80	176.43	176.27	176.54	176.38	176.40	
Max	176.60	176.56	176.57	176.68	176.71	177.06	177.09	176.60	176.42	176.93	176.47	176.66	177.09
Min	176.29	176.30	176.21	175.92	176.20	176.35	176.31	176.30	175.69	176.32	176.31	176.26	175.69

Annual Max Momentary Gage Height	177.16	m. (MSL.) ,	at 21.00 Hours, on Oct 13, 2011		
Zero Gage at Bottom Elevation	173.80	m. (MSL.) ,	River Bed	174.13	m. (MSL)
Left Bank Elevation	179.35	m. (MSL.) ,			
Right Bank Elevation	179.63	m. (MSL.) ,	Drainage Area	3012	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.91	4.50	6.10	0.06	6.10	11.00	19.00	4.10	0.37	7.85	1.15	2.20		
2	1.15	2.50	9.65	1.15	8.30	10.55	19.50	4.10	0.64	13.25	1.30	2.90		
3	1.30	6.10	3.70	0.64	8.75	9.65	25.50	3.70	1.15	14.15	1.30	1.75		
4	1.90	8.30	1.75	1.45	5.70	10.10	23.50	2.90	1.15	10.55	1.45	3.30		
5	2.50	4.50	6.10	2.35	1.45	7.40	20.50	2.20	1.00	10.10	1.45	4.10		
6	11.00	6.10	7.85	2.05	1.75	2.90	22.00	2.05	0.91	10.55	1.45	5.70		
7	8.30	4.10	1.90	0.05	3.70	1.75	25.50	2.05	0.82	10.55	2.35	2.35		
8	5.30	2.05	4.10	0.00	1.00	1.75	25.50	1.75	0.82	8.30	1.30	4.10		
9	4.10	1.45	3.70	1.00	0.10	1.90	25.50	4.50	0.73	6.10	2.90	4.10		
10	4.10	3.30	2.35	2.90	3.30	8.30	27.15	8.30	0.09	3.70	4.10	5.70		
11	4.10	2.90	1.30	8.30	9.65	31.55	28.25	11.00	0.00	5.70	1.90	13.70		
12	2.90	2.05	0.82	5.70	6.10	34.30	32.65	11.00	0.00	5.70	2.05	9.65		
13	1.75	1.30	0.19	8.30	5.30	31.55	35.95	7.85	0.00	6.10	2.05	8.75		
14	1.75	2.05	1.75	10.10	8.30	29.35	34.30	5.30	0.00	6.50	2.05	8.30		
15	1.60	1.00	2.50	11.00	9.20	27.15	27.70	3.70	2.20	9.20	2.05	8.30		
16	1.75	2.20	1.75	9.20	11.00	27.70	28.25	2.90	1.75	10.10	2.20	5.30		
17	2.35	4.90	0.64	8.75	14.60	27.15	25.50	2.90	1.00	8.75	5.30	4.50		
18	2.50	3.30	0.55	6.50	15.05	21.50	27.70	2.20	1.00	8.75	1.60	2.20		
19	6.95	1.45	0.55	5.30	11.00	14.60	29.35	4.10	1.75	10.55	4.90	1.90		
20	8.75	2.90	0.55	6.50	8.30	11.45	31.55	9.65	1.75	17.50	4.10	1.90		
21	2.50	2.90	0.55	5.30	6.10	9.65	31.00	6.10	1.45	27.15	2.35	0.64		
22	1.60	1.30	1.00	4.50	3.70	9.20	27.70	1.60	1.45	23.00	3.30	0.91		
23	1.60	1.30	2.35	6.50	6.10	9.65	21.50	1.60	1.60	16.50	4.90	1.15		
24	1.60	1.60	2.35	14.60	1.60	11.90	9.20	2.90	2.90	6.10	4.10	1.00		
25	1.75	4.50	2.50	12.35	6.50	11.90	8.75	2.90	2.35	3.30	3.30	1.00		
26	1.75	8.75	2.20	10.55	1.15	11.45	1.15	2.35	2.20	2.20	3.70	0.91		
27	1.90	8.30	1.60	13.25	1.90	13.70	4.50	2.50	2.20	1.75	4.50	0.91		
28	1.00	7.40	4.50	12.80	11.00	15.05	5.30	3.30	2.20	1.75	1.30	0.82		
29	1.30	6.10	4.50	11.45	16.00	16.00	6.50	1.60	2.20	1.90	1.30	0.82		
30	2.90	9.20	4.90	8.30	14.60	18.00	4.90	1.00	2.35	1.60		1.00		
31		8.75		2.35	12.35		3.30		3.30	1.30		2.20		
Total	92.86	127.05	84.25	193.25	219.65	448.10	658.65	122.10	41.33	270.50	75.70	112.06	2445.50	CMSDAY
Mean	3.10	4.10	2.81	6.23	7.09	14.94	21.25	4.07	1.33	8.73	2.61	3.61	6.68	CMS
Max	11.00	9.20	9.65	14.60	16.00	34.30	35.95	11.00	3.30	27.15	5.30	13.70	35.95	CMS
Min	0.91	1.00	0.19	0.00	0.10	1.75	1.15	1.00	0.00	1.30	1.15	0.64	0.00	CMS
Runoff	8.02	10.98	7.28	16.70	18.98	38.72	56.91	10.55	3.57	23.37	6.54	9.68	211.29	MCM

Momentary Peak 40.10 CMS, at 177.16 m. (MSL), at 21.00 Hours, on Oct 13, 2011

Runoff Yield 2.22 Liters/Second/Square KM. Momentary Peak Yield 13.313 Liters/Second/Square KM.

WATER YEAR : 2011

MUN RIVER BASIN

Lam Dom Yai at Ban Kham Samran, Ubon Ratehathani (M.170)

Lat 14 - 47 - 19 N Long 105 - 06 - 10 E

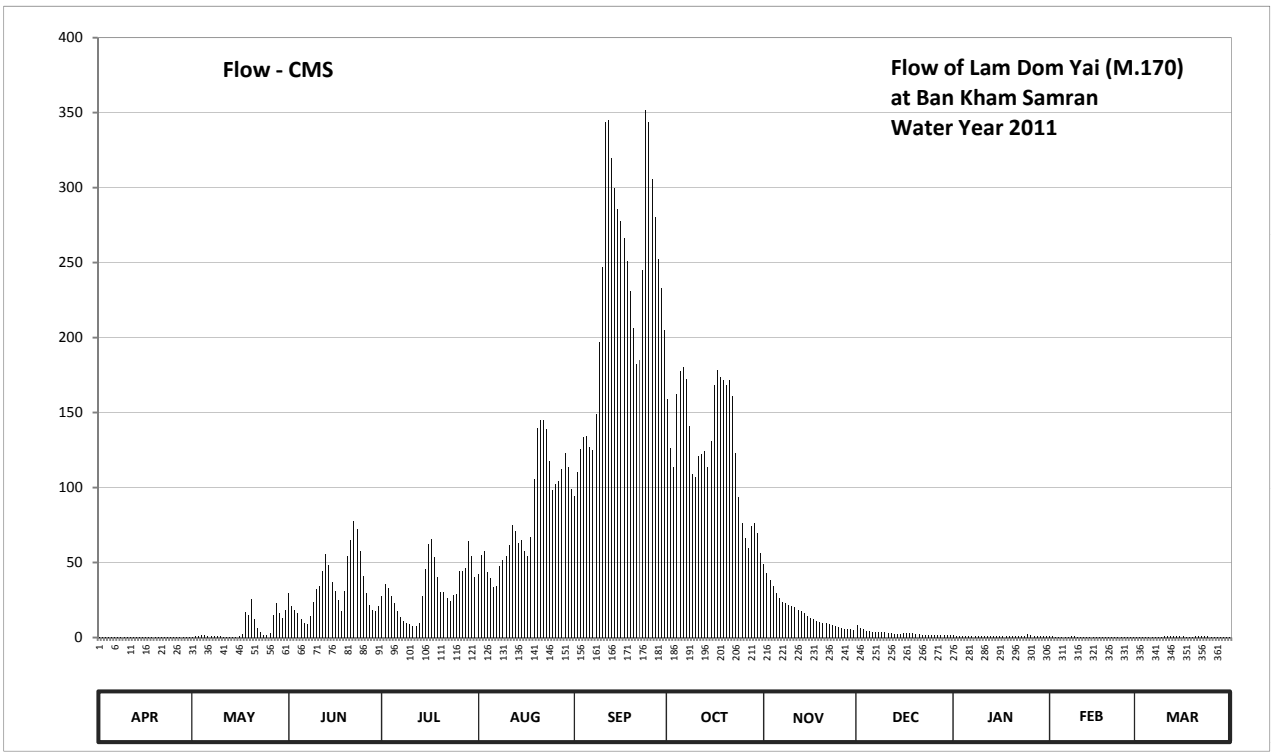
Location : on right bank at the bridge

	Ban Kham Samran	**Amphoe** Det Udom	**Changwat** Ubon Ratchathani
Drainge Area	1,745 sq.km.		
Type of Gage	Staff gage.		
Zero Gage at Bottom	+123.340 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank upstream at the footpath		**Elevation** +133.374 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings		
Period of Available Gage Records	2001 to date		
Rating Operation			
Period of Rating	2001 to date		
Rated by Flot	-		
Rated by Current Meter	2001 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records very good. Stage-discharge relation defined by 35 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	123.66	123.83	125.46	125.36	125.94	127.77	129.50	126.22	124.55	124.02	123.86	123.73	
2	123.66	123.89	125.09	125.69	126.44	128.24	128.70	125.98	124.47	124.01	123.84	123.73	
3	123.65	123.85	124.98	125.59	126.52	128.69	128.34	125.80	124.40	124.00	123.83	123.74	
4	123.65	124.08	124.90	125.36	126.01	128.90	129.58	125.62	124.33	123.99	123.82	123.75	
5	123.65	124.02	124.76	125.19	125.84	128.91	129.91	125.46	124.30	123.98	123.81	123.74	
6	123.66	123.99	124.62	124.96	125.61	128.72	129.96	125.30	124.27	123.97	123.81	123.74	
7	123.66	123.98	124.61	124.81	125.64	128.67	129.80	125.21	124.25	123.97	123.80	123.74	
8	123.65	123.91	124.84	124.71	126.16	129.27	129.09	125.17	124.24	123.98	123.84	123.76	
9	123.65	123.88	125.20	124.64	126.31	130.28	128.20	125.13	124.26	123.97	123.84	123.80	
10	123.65	123.84	125.54	124.59	126.41	131.06	128.14	125.10	124.24	123.97	123.83	123.84	
11	123.65	123.81	125.64	124.54	126.68	132.08	128.57	125.06	124.20	123.96	123.83	123.87	
12	123.64	123.77	126.04	124.52	127.14	132.09	128.60	125.00	124.17	123.96	123.82	123.89	
13	123.64	123.74	126.46	124.62	127.02	131.88	128.65	124.97	124.13	123.94	123.82	123.88	
14	123.64	123.77	126.19	125.37	126.74	131.70	128.34	124.90	124.11	123.93	123.80	123.87	
15	123.64	123.76	125.73	126.09	126.81	131.55	128.82	124.84	124.14	123.90	123.78	123.86	
16	123.64	124.01	125.49	126.71	126.52	131.45	129.71	124.79	124.16	123.89	123.77	123.84	
17	123.64	124.12	125.26	126.82	126.42	131.30	129.93	124.76	124.16	123.92	123.77	123.81	
18	123.66	124.93	124.97	126.39	126.87	131.11	129.83	124.71	124.20	123.92	123.79	123.78	
19	123.67	124.86	125.51	125.86	128.12	130.83	129.79	124.67	124.19	123.92	123.79	123.77	
20	123.66	125.28	126.41	125.47	129.06	130.44	129.71	124.64	124.13	123.92	123.81	123.90	
21	123.64	124.74	126.80	125.47	129.19	130.01	129.79	124.62	124.11	123.89	123.79	123.92	
22	123.64	124.47	127.24	125.32	129.19	130.06	129.55	124.59	124.08	123.88	123.78	123.94	
23	123.67	124.26	127.05	125.23	129.04	131.03	128.61	124.56	124.04	123.88	123.78	123.91	
24	123.66	124.09	126.54	125.39	128.46	132.14	127.76	124.52	124.07	123.95	123.77	123.88	
25	123.65	124.09	125.91	125.42	127.89	132.08	127.20	124.49	124.06	124.10	123.77	123.83	
26	123.65	124.20	125.44	126.03	128.01	131.75	126.84	124.46	124.07	124.02	123.75	123.81	
27	123.64	124.85	125.12	126.02	128.07	131.48	126.61	124.43	124.06	123.96	123.73	123.79	
28	123.66	125.17	125.00	126.11	128.31	131.13	127.12	124.41	124.06	123.91	123.72	123.77	
29	123.71	124.92	124.97	126.78	128.61	130.86	127.19	124.39	124.04	123.90	123.72	123.76	
30	123.79	124.77	125.11	126.42	128.34	130.42	126.96	124.37	124.03	123.93		123.74	
31		124.99		125.86	127.91		126.49		124.03	123.92		123.78	
Mean	123.66	124.25	125.56	125.53	127.27	130.53	128.62	124.94	124.18	123.95	123.80	123.81	
Max	123.79	125.28	127.24	126.82	129.19	132.14	129.96	126.22	124.55	124.10	123.86	123.94	132.14
Min	123.64	123.74	124.61	124.52	125.61	127.77	126.49	124.37	124.03	123.88	123.72	123.73	123.64

Annual Max Momentary Gage Height	132.22	m. (MSL.) ,	at 18.00 Hours, on Sep 24, 2011		
Zero Gage at Bottom Elevation	123.34	m. (MSL.) ,	River Bed	123.05	m. (MSL)
Left Bank Elevation	133.05	m. (MSL.) ,			
Right Bank Elevation	133.08	m. (MSL.) ,	Drainage Area	1745	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.32	0.66	30.00	27.50	42.00	93.98	158.80	49.24	8.00	1.36	0.72	0.46		
2	0.32	0.78	20.75	35.75	55.18	109.96	126.00	43.00	6.55	1.28	0.68	0.46		
3	0.30	0.70	18.00	33.25	57.34	125.62	113.36	38.50	5.50	1.20	0.66	0.48		
4	0.30	1.84	16.00	27.50	43.75	133.60	162.32	34.00	4.45	1.16	0.64	0.50		
5	0.30	1.36	12.50	23.25	39.50	133.98	177.50	30.00	4.00	1.12	0.62	0.48		
6	0.32	1.16	9.40	17.50	33.75	126.76	180.00	26.00	3.70	1.08	0.62	0.48		
7	0.32	1.12	9.20	13.75	34.50	124.86	172.40	23.75	3.50	1.08	0.60	0.48		
8	0.30	0.84	14.50	11.25	47.62	148.68	141.09	22.75	3.40	1.12	0.68	0.52		
9	0.30	0.76	23.50	9.80	51.67	196.80	108.60	21.75	3.60	1.08	0.68	0.60		
10	0.30	0.68	32.00	8.80	54.37	247.20	106.56	21.00	3.40	1.08	0.66	0.68		
11	0.30	0.62	34.50	7.80	61.66	343.60	121.18	20.00	3.00	1.04	0.66	0.74		
12	0.28	0.54	44.50	7.40	74.80	344.80	122.20	18.50	2.70	1.04	0.64	0.78		
13	0.28	0.48	55.72	9.40	71.20	319.80	124.10	17.75	2.30	0.96	0.64	0.76		
14	0.28	0.54	48.43	27.75	63.28	300.00	113.36	16.00	2.10	0.92	0.60	0.74		
15	0.28	0.52	36.75	45.75	65.17	286.00	130.56	14.50	2.40	0.80	0.56	0.72		
16	0.28	1.28	30.75	62.47	57.34	278.00	168.26	13.25	2.60	0.78	0.54	0.68		
17	0.28	2.20	25.00	65.44	54.64	266.00	178.50	12.50	2.60	0.88	0.54	0.62		
18	0.32	16.75	17.75	53.83	66.79	250.80	173.78	11.25	3.00	0.88	0.58	0.56		
19	0.34	15.00	31.25	40.00	105.88	231.10	171.94	10.40	2.90	0.88	0.58	0.54		
20	0.32	25.50	54.37	30.25	139.86	206.40	168.26	9.80	2.30	0.88	0.62	0.80		
21	0.28	12.00	64.90	30.25	145.19	182.50	171.94	9.40	2.10	0.78	0.58	0.88		
22	0.28	6.55	77.80	26.50	145.19	185.00	161.00	8.80	1.84	0.76	0.56	0.96		
23	0.34	3.60	72.10	24.25	139.04	245.10	122.58	8.20	1.52	0.76	0.56	0.84		
24	0.32	1.92	57.88	28.25	117.44	351.40	93.64	7.40	1.76	1.00	0.54	0.76		
25	0.30	1.92	41.25	29.00	98.06	343.60	76.60	6.85	1.68	2.00	0.54	0.66		
26	0.30	3.00	29.50	44.25	102.14	305.50	65.98	6.40	1.76	1.36	0.50	0.62		
27	0.28	14.75	21.50	44.00	104.18	280.40	59.77	5.95	1.68	1.04	0.46	0.58		
28	0.32	22.75	18.50	46.27	112.34	252.40	74.20	5.65	1.68	0.84	0.44	0.54		
29	0.42	16.50	17.75	64.36	122.58	233.20	76.30	5.35	1.52	0.80	0.44	0.52		
30	0.58	12.75	21.25	54.64	113.36	205.20	69.40	5.05	1.44	0.92		0.48		
31		18.25		40.00	98.74		56.53		1.44	0.88		0.56		
Total	9.46	187.32	987.30	990.21	2518.56	6852.24	3946.71	522.99	90.42	31.76	17.14	19.48	16173.59	CMSDAY
Mean	0.32	6.04	32.91	31.94	81.24	228.41	127.31	17.43	2.92	1.02	0.59	0.63	44.19	CMS
Max	0.58	25.50	77.80	65.44	145.19	351.40	180.00	49.24	8.00	2.00	0.72	0.96	351.40	CMS
Min	0.28	0.48	9.20	7.40	33.75	93.98	56.53	5.05	1.44	0.76	0.44	0.46	0.28	CMS
Runoff	0.82	16.18	85.30	85.55	217.60	592.03	341.00	45.19	7.81	2.74	1.48	1.68	1397.40	MCM

Momentary Peak 362.20 CMS, at 132.22 m. (MSL), at 18.00 Hours, on Sep 24, 2011

Runoff Yield 25.32 Liters/Second/Square KM. Momentary Peak Yield 207.564 Liters/Second/Square KM.

WATER YEAR : 2011

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

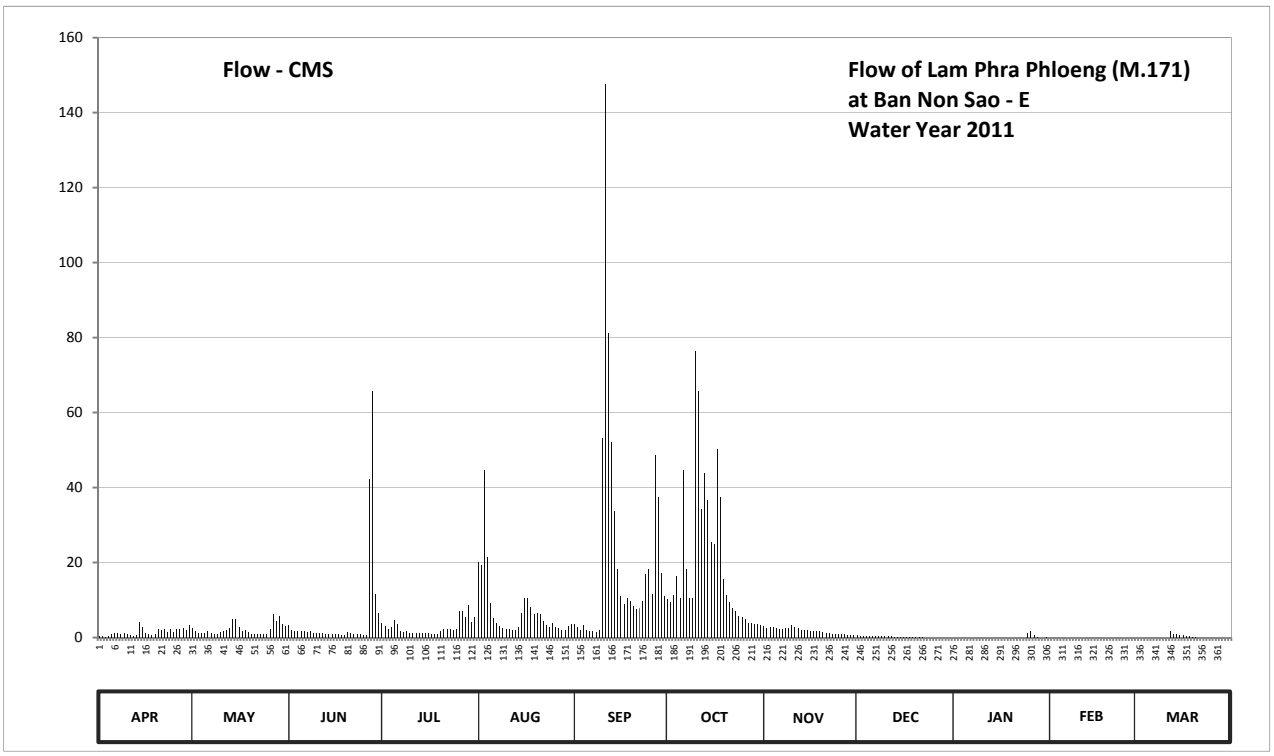
Location : on right bank at Ban Non Sao - E.

	Ban Non Sao - E	**Amphoe** Wang Nam Khieo	**Changwat** Nakhon Ratchasima
Drainge Area	553 sq.km.		
Type of Gage	Water - stage recorder.		
Zero Gage at Bottom	+273.580 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank downstream at the footpath	**Elevation**	+281.114 m. (MSL.)
Gage Reading Frequency	Recording.		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	2002 to date		
Rating Operation			
Period of Rating	2002 to date		
Rated by Flot	-		
Rated by Current Meter	2002 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 44 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	273.48	273.75	273.84	273.88	274.50	273.86	274.21	273.80	273.54	273.39	273.35	273.27	
2	273.46	273.68	273.70	273.80	274.48	273.77	274.17	273.76	273.47	273.39	273.33	273.28	
3	273.44	273.63	273.68	273.73	274.92	273.71	274.26	273.78	273.46	273.39	273.33	273.25	
4	273.49	273.62	273.68	273.79	274.54	273.84	274.41	273.77	273.46	273.37	273.39	273.24	
5	273.60	273.61	273.67	273.93	274.16	273.71	274.22	273.75	273.46	273.36	273.38	273.23	
6	273.63	273.67	273.66	273.87	273.96	273.68	274.92	273.73	273.46	273.36	273.37	273.21	
7	273.63	273.63	273.64	273.67	273.89	273.66	274.46	273.73	273.48	273.35	273.36	273.21	
8	273.60	273.57	273.68	273.65	273.80	273.65	274.22	273.76	273.48	273.34	273.35	273.21	
9	273.63	273.56	273.63	273.67	273.76	273.70	274.22	273.76	273.46	273.33	273.36	273.24	
10	273.56	273.65	273.63	273.63	273.73	275.02	275.22	273.82	273.46	273.33	273.33	273.34	
11	273.53	273.67	273.63	273.63	273.72	275.71	275.13	273.78	273.46	273.33	273.32	273.33	
12	273.50	273.69	273.61	273.61	273.70	275.26	274.79	273.76	273.46	273.33	273.33	273.68	
13	273.52	273.75	273.57	273.61	273.70	275.01	274.91	273.70	273.45	273.32	273.33	273.60	
14	273.90	273.95	273.57	273.61	273.79	274.78	274.82	273.69	273.44	273.32	273.33	273.58	
15	273.79	273.94	273.57	273.61	274.02	274.46	274.63	273.69	273.43	273.32	273.33	273.54	
16	273.63	273.78	273.56	273.61	274.22	274.25	274.62	273.68	273.41	273.32	273.33	273.52	
17	273.60	273.68	273.56	273.60	274.23	274.15	274.99	273.67	273.41	273.32	273.33	273.48	
18	273.53	273.70	273.55	273.60	274.11	274.22	274.83	273.67	273.41	273.32	273.31	273.47	
19	273.57	273.64	273.54	273.60	274.01	274.19	274.39	273.66	273.41	273.33	273.30	273.45	
20	273.72	273.60	273.65	273.68	274.03	274.12	274.26	273.65	273.41	273.34	273.29	273.42	
21	273.70	273.60	273.61	273.74	274.01	274.08	274.17	273.63	273.41	273.32	273.27	273.40	
22	273.73	273.60	273.57	273.72	273.92	274.09	274.09	273.62	273.41	273.32	273.27	273.37	
23	273.64	273.60	273.57	273.72	273.84	274.18	274.05	273.60	273.40	273.32	273.27	273.34	
24	273.73	273.57	273.57	273.70	273.78	274.42	273.99	273.59	273.40	273.35	273.27	273.32	
25	273.64	273.58	273.55	273.74	273.89	274.46	273.97	273.57	273.40	273.62	273.27	273.29	
26	273.72	273.74	273.54	274.05	273.79	274.28	273.95	273.56	273.40	273.66	273.27	273.27	
27	273.73	274.01	274.89	274.05	273.76	274.97	273.89	273.56	273.40	273.54	273.27	273.24	
28	273.75	273.92	275.13	273.98	273.71	274.83	273.88	273.55	273.40	273.42	273.25	273.22	
29	273.70	273.99	274.28	274.13	273.71	274.43	273.87	273.54	273.40	273.40	273.25	273.20	
30	273.82	273.86	274.02	273.90	273.81	274.25	273.86	273.54	273.39	273.39		273.17	
31		273.80		273.98	273.87		273.84		273.39	273.42		273.16	
Mean	273.63	273.71	273.74	273.76	273.98	274.29	274.36	273.68	273.43	273.37	273.32	273.34	
Max	273.90	274.01	275.13	274.13	274.92	275.71	275.22	273.82	273.54	273.66	273.39	273.68	275.71
Min	273.44	273.56	273.54	273.60	273.70	273.65	273.84	273.54	273.39	273.32	273.25	273.16	273.16

Annual Max Momentary Gage Height	276.05	m. (MSL.) ,	at 03.00 Hours, on Sep 11, 2011		
Zero Gage at Bottom Elevation	273.58	m. (MSL.) ,	River Bed	273.07	m. (MSL)
Left Bank Elevation	280.88	m. (MSL.) ,			
Right Bank Elevation	280.88	m. (MSL.) ,	Drainage Area	553	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.40	2.50	3.40	3.80	20.00	3.60	10.20	3.00	0.70	0.00	0.00	0.00		
2	0.30	1.80	2.00	3.00	19.20	2.70	9.40	2.60	0.35	0.00	0.00	0.00		
3	0.20	1.30	1.80	2.30	44.60	2.10	11.20	2.80	0.30	0.00	0.00	0.00		
4	0.45	1.20	1.80	2.90	21.60	3.40	16.40	2.70	0.30	0.00	0.00	0.00		
5	1.00	1.10	1.70	4.60	9.20	2.10	10.40	2.50	0.30	0.00	0.00	0.00		
6	1.30	1.70	1.60	3.70	5.20	1.80	44.60	2.30	0.30	0.00	0.00	0.00		
7	1.30	1.30	1.40	1.70	3.90	1.60	18.40	2.30	0.40	0.00	0.00	0.00		
8	1.00	0.85	1.80	1.50	3.00	1.50	10.40	2.60	0.40	0.00	0.00	0.00		
9	1.30	0.80	1.30	1.70	2.60	2.00	10.40	2.60	0.30	0.00	0.00	0.00		
10	0.80	1.50	1.30	1.30	2.30	53.20	76.40	3.20	0.30	0.00	0.00	0.00		
11	0.65	1.70	1.30	1.30	2.20	147.60	65.60	2.80	0.30	0.00	0.00	0.00		
12	0.50	1.90	1.10	1.10	2.00	81.20	34.40	2.60	0.30	0.00	0.00	1.80		
13	0.60	2.50	0.85	1.10	2.00	52.10	43.80	2.00	0.25	0.00	0.00	1.00		
14	4.00	5.00	0.85	1.10	2.90	33.80	36.60	1.90	0.20	0.00	0.00	0.90		
15	2.90	4.80	0.85	1.10	6.40	18.40	25.50	1.90	0.15	0.00	0.00	0.70		
16	1.30	2.80	0.80	1.10	10.40	11.00	25.00	1.80	0.05	0.00	0.00	0.60		
17	1.00	1.80	0.80	1.00	10.60	9.00	50.20	1.70	0.05	0.00	0.00	0.40		
18	0.65	2.00	0.75	1.00	8.20	10.40	37.40	1.70	0.05	0.00	0.00	0.35		
19	0.85	1.40	0.70	1.00	6.20	9.80	15.60	1.60	0.05	0.00	0.00	0.25		
20	2.20	1.00	1.50	1.80	6.60	8.40	11.20	1.50	0.05	0.00	0.00	0.10		
21	2.00	1.00	1.10	2.40	6.20	7.60	9.40	1.30	0.05	0.00	0.00	0.00		
22	2.30	1.00	0.85	2.20	4.40	7.80	7.80	1.20	0.05	0.00	0.00	0.00		
23	1.40	1.00	0.85	2.20	3.40	9.60	7.00	1.00	0.00	0.00	0.00	0.00		
24	2.30	0.85	0.85	2.00	2.80	16.80	5.80	0.95	0.00	0.00	0.00	0.00		
25	1.40	0.90	0.75	2.40	3.90	18.40	5.40	0.85	0.00	1.20	0.00	0.00		
26	2.20	2.40	0.70	7.00	2.90	11.60	5.00	0.80	0.00	1.60	0.00	0.00		
27	2.30	6.20	42.20	7.00	2.60	48.60	3.90	0.80	0.00	0.70	0.00	0.00		
28	2.50	4.40	65.60	5.60	2.10	37.40	3.80	0.75	0.00	0.10	0.00	0.00		
29	2.00	5.80	11.60	8.60	2.10	17.20	3.70	0.70	0.00	0.00	0.00	0.00		
30	3.20	3.60	6.40	4.00	3.10	11.00	3.60	0.70	0.00	0.00		0.00		
31		3.00		5.60	3.70		3.40		0.00	0.10		0.00		
Total	44.30	69.10	158.50	87.10	226.30	641.70	621.90	55.15	5.20	3.70	0.00	6.10	1919.05	CMSDAY
Mean	1.48	2.23	5.28	2.81	7.30	21.39	20.06	1.84	0.17	0.12	0.00	0.20	5.24	CMS
Max	4.00	6.20	65.60	8.60	44.60	147.60	76.40	3.20	0.70	1.60	0.00	1.80	147.60	CMS
Min	0.20	0.80	0.70	1.00	2.00	1.50	3.40	0.70	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	3.83	5.97	13.69	7.53	19.55	55.44	53.73	4.77	0.45	0.32	0.00	0.53	165.81	MCM

Momentary Peak 211.00 CMS, at 276.05 m. (MSL), at 03.00 Hours, on Sep 11, 2011

Runoff Yield 9.48 Liters/Second/Square KM. Momentary Peak Yield 381.555 Liters/Second/Square KM.

WATER YEAR : 2011

MUN RIVER BASIN

Khlong Phai at Ban Non Sao - E, Nakhon Ratchasima (M.172)

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

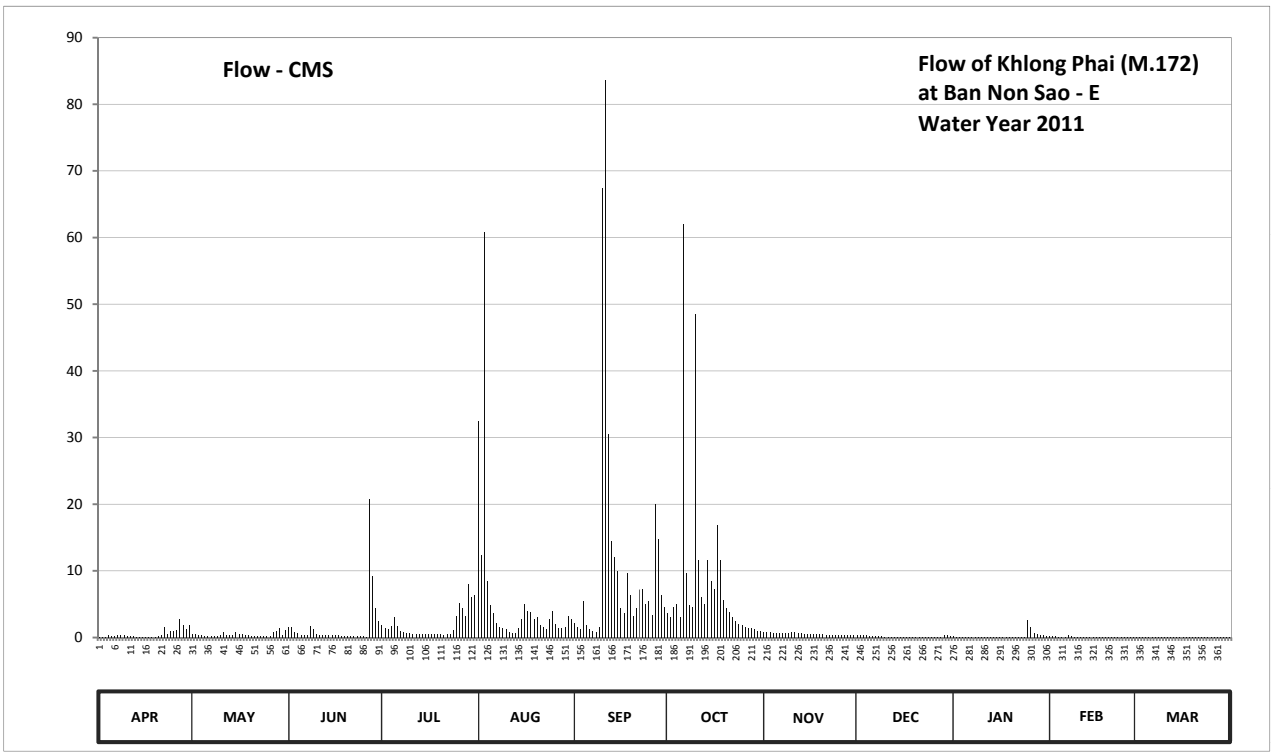
Location : on right bank at the bridge.

	Ban Non Sao - E	**Amphoe** Wang Nam Khieo	**Changwat** Nakhon Ratchasima
Drainge Area	143 sq.km.		
Type of Gage	Staff gage.		
Zero Gage at Bottom	+294.170 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank downstream side at the footpath of the bridge.	**Elevation**	+300.040 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00 , 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings		
Period of Available Gage Records	2003 to date		
Rating Operation			
Period of Rating	2003 to date		
Rated by Flot	-		
Rated by Current Meter	2003 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records poor. Stage-discharge relation defined by 41 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	294.10	294.33	294.45	294.49	295.33	294.51	294.58	294.38	294.25	294.15	294.23	294.07	
2	294.10	294.32	294.46	294.44	294.86	294.46	294.55	294.37	294.25	294.13	294.21	294.07	
3	294.08	294.27	294.38	294.42	295.88	294.42	294.63	294.36	294.25	294.13	294.21	294.07	
4	294.27	294.25	294.34	294.47	294.76	294.67	294.65	294.35	294.25	294.13	294.14	294.07	
5	294.24	294.24	294.28	294.55	294.64	294.49	294.55	294.35	294.24	294.13	294.12	294.07	
6	294.22	294.22	294.30	294.47	294.58	294.43	295.90	294.35	294.24	294.13	294.13	294.07	
7	294.28	294.20	294.28	294.40	294.51	294.39	294.79	294.34	294.19	294.12	294.27	294.07	
8	294.25	294.18	294.47	294.37	294.46	294.37	294.64	294.34	294.19	294.12	294.15	294.07	
9	294.25	294.23	294.43	294.35	294.44	294.45	294.63	294.34	294.17	294.12	294.11	294.07	
10	294.23	294.30	294.33	294.35	294.43	295.99	295.65	294.37	294.13	294.10	294.10	294.07	
11	294.20	294.38	294.30	294.33	294.38	296.26	294.84	294.36	294.11	294.10	294.08	294.10	
12	294.18	294.29	294.28	294.32	294.35	295.29	294.70	294.34	294.11	294.08	294.07	294.08	
13	294.13	294.27	294.26	294.32	294.34	294.91	294.65	294.34	294.11	294.08	294.07	294.07	
14	294.11	294.29	294.28	294.32	294.44	294.85	294.84	294.33	294.11	294.08	294.07	294.07	
15	294.07	294.37	294.28	294.33	294.54	294.80	294.76	294.33	294.10	294.08	294.07	294.07	
16	294.06	294.31	294.27	294.33	294.65	294.62	294.73	294.33	294.10	294.08	294.07	294.07	
17	294.06	294.33	294.26	294.33	294.60	294.58	294.97	294.32	294.08	294.08	294.07	294.07	
18	294.08	294.29	294.24	294.32	294.59	294.79	294.84	294.32	294.08	294.10	294.07	294.07	
19	294.08	294.26	294.23	294.32	294.54	294.71	294.68	294.31	294.08	294.10	294.07	294.07	
20	294.24	294.24	294.20	294.31	294.55	294.56	294.62	294.31	294.08	294.14	294.07	294.07	
21	294.30	294.22	294.18	294.30	294.49	294.62	294.59	294.29	294.08	294.13	294.07	294.07	
22	294.46	294.21	294.19	294.33	294.45	294.73	294.55	294.29	294.08	294.12	294.07	294.07	
23	294.33	294.24	294.19	294.33	294.42	294.73	294.52	294.28	294.08	294.12	294.07	294.07	
24	294.39	294.24	294.15	294.41	294.54	294.65	294.50	294.27	294.08	294.10	294.07	294.07	
25	294.40	294.24	294.17	294.56	294.60	294.67	294.48	294.26	294.08	294.53	294.07	294.07	
26	294.41	294.22	294.10	294.66	294.50	294.57	294.46	294.26	294.08	294.45	294.07	294.07	
27	294.54	294.36	295.07	294.62	294.44	295.05	294.44	294.26	294.07	294.35	294.07	294.07	
28	294.49	294.40	294.78	294.56	294.44	294.92	294.44	294.26	294.07	294.31	294.07	294.07	
29	294.42	294.44	294.62	294.75	294.46	294.71	294.42	294.26	294.29	294.27	294.07	294.07	
30	294.48	294.30	294.52	294.70	294.56	294.63	294.39	294.26	294.26	294.27		294.07	
31		294.41		294.71	294.54		294.39		294.24	294.24		294.07	
Mean	294.25	294.29	294.34	294.43	294.59	294.76	294.69	294.32	294.15	294.16	294.10	294.07	
Max	294.54	294.44	295.07	294.75	295.88	296.26	295.90	294.38	294.29	294.53	294.27	294.10	296.26
Min	294.06	294.18	294.10	294.30	294.34	294.37	294.39	294.26	294.07	294.08	294.07	294.07	294.06

Annual Max Momentary Gage Height	296.52	m. (MSL.) ,	at 18.00 Hours, on Sep 10, 2011		
Zero Gage at Bottom Elevation	294.17	m. (MSL.) ,	River Bed	293.78	m. (MSL)
Left Bank Elevation	300.09	m. (MSL.) ,			
Right Bank Elevation	300.04	m. (MSL.) ,	Drainage Area	143	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.10	0.58	1.50	1.90	32.50	2.20	3.60	0.88	0.30	0.15	0.26	0.09		
2	0.10	0.52	1.60	1.40	12.40	1.60	3.00	0.82	0.30	0.13	0.22	0.09		
3	0.09	0.34	0.88	1.20	60.80	1.20	4.60	0.76	0.30	0.13	0.22	0.09		
4	0.34	0.30	0.64	1.70	8.40	5.40	5.00	0.70	0.30	0.13	0.14	0.09		
5	0.28	0.28	0.36	3.00	4.80	1.90	3.00	0.70	0.28	0.13	0.12	0.09		
6	0.24	0.24	0.40	1.70	3.60	1.30	62.00	0.70	0.28	0.13	0.13	0.09		
7	0.36	0.20	0.36	1.00	2.20	0.94	9.60	0.64	0.19	0.12	0.34	0.09		
8	0.30	0.18	1.70	0.82	1.60	0.82	4.80	0.64	0.19	0.12	0.15	0.09		
9	0.30	0.26	1.30	0.70	1.40	1.50	4.60	0.64	0.17	0.12	0.11	0.09		
10	0.26	0.40	0.58	0.70	1.30	67.40	48.50	0.82	0.13	0.10	0.10	0.09		
11	0.20	0.88	0.40	0.58	0.88	83.60	11.60	0.76	0.11	0.10	0.09	0.10		
12	0.18	0.38	0.36	0.52	0.70	30.50	6.00	0.64	0.11	0.09	0.09	0.09		
13	0.13	0.34	0.32	0.52	0.64	14.40	5.00	0.64	0.11	0.09	0.09	0.09		
14	0.11	0.38	0.36	0.52	1.40	12.00	11.60	0.58	0.11	0.09	0.09	0.09		
15	0.09	0.82	0.36	0.58	2.80	10.00	8.40	0.58	0.10	0.09	0.09	0.09		
16	0.08	0.46	0.34	0.58	5.00	4.40	7.20	0.58	0.10	0.09	0.09	0.09		
17	0.08	0.58	0.32	0.58	4.00	3.60	16.80	0.52	0.09	0.09	0.09	0.09		
18	0.09	0.38	0.28	0.52	3.80	9.60	11.60	0.52	0.09	0.10	0.09	0.09		
19	0.09	0.32	0.26	0.52	2.80	6.40	5.60	0.46	0.09	0.10	0.09	0.09		
20	0.28	0.28	0.20	0.46	3.00	3.20	4.40	0.46	0.09	0.14	0.09	0.09		
21	0.40	0.24	0.18	0.40	1.90	4.40	3.80	0.38	0.09	0.13	0.09	0.09		
22	1.60	0.22	0.19	0.58	1.50	7.20	3.00	0.38	0.09	0.12	0.09	0.09		
23	0.58	0.28	0.19	0.58	1.20	7.20	2.40	0.36	0.09	0.12	0.09	0.09		
24	0.94	0.28	0.15	1.10	2.80	5.00	2.00	0.34	0.09	0.10	0.09	0.09		
25	1.00	0.28	0.17	3.20	4.00	5.40	1.80	0.32	0.09	2.60	0.09	0.09		
26	1.10	0.24	0.10	5.20	2.00	3.40	1.60	0.32	0.09	1.50	0.09	0.09		
27	2.80	0.76	20.80	4.40	1.40	20.00	1.40	0.32	0.09	0.70	0.09	0.09		
28	1.90	1.00	9.20	3.20	1.40	14.80	1.40	0.32	0.09	0.46	0.09	0.09		
29	1.20	1.40	4.40	8.00	1.60	6.40	1.20	0.32	0.38	0.34	0.09	0.09		
30	1.80	0.40	2.40	6.00	3.20	4.60	0.94	0.32	0.32	0.34		0.09		
31		1.10		6.40	2.80		0.94		0.28	0.28		0.09		
Total	17.02	14.32	50.30	58.56	177.82	340.36	257.38	16.42	5.14	8.93	3.50	2.80	952.55	CMSDAY
Mean	0.57	0.46	1.68	1.89	5.74	11.35	8.30	0.55	0.17	0.29	0.12	0.09	2.60	CMS
Max	2.80	1.40	20.80	8.00	60.80	83.60	62.00	0.88	0.38	2.60	0.34	0.10	83.60	CMS
Min	0.08	0.18	0.10	0.40	0.64	0.82	0.94	0.32	0.09	0.09	0.09	0.09	0.08	CMS
Runoff	1.47	1.24	4.35	5.06	15.36	29.41	22.24	1.42	0.44	0.77	0.30	0.24	82.30	MCM

Momentary Peak 100.40 CMS, at 296.52 m. (MSL), at 18.00 Hours, on Sep 10, 2011

Runoff Yield 18.20 Liters/Second/Square KM. Momentary Peak Yield 702.098 Liters/Second/Square KM.

WATER YEAR : 2011

MUN RIVER BASIN

Mun River at Ban Non Sa - at, Nakhon Ratchasima (M.173)

Lat 14 - 44 - 37 N Long 102 - 12 - 54 E

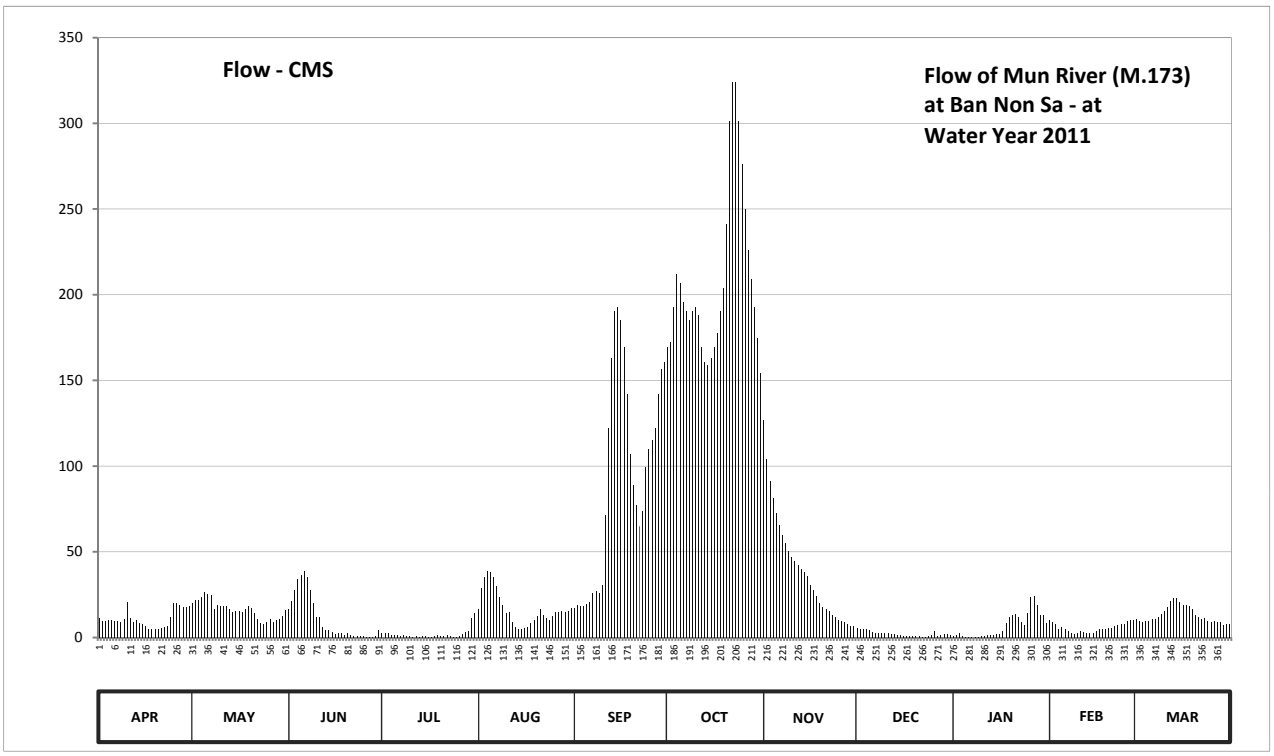
Location : on right bank at Ban Non Sa - at.

	Ban Non Sa - at	**Amphoe** Chok Chai	**Changwat** Nakhon Ratchasima
Drainge Area	4,211 sq.km.		
Type of Gage	Water - stage recorder.		
Zero Gage at Bottom	+0.000 m. (A.D.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank at the footpath of the bridge.	**Elevation**	+9.108 m. (A.D.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	2003 to date		
Rating Operation			
Period of Rating	2003 to date		
Rated by Flot	-		
Rated by Current Meter	2003 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 37 discharge measurements made in 2011.		

Gage Height in Meter (A.D.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	2.63	3.29	3.07	1.80	3.06	3.09	6.81	6.60	2.14	1.54	2.58	2.62	
2	2.52	3.40	3.37	1.82	3.86	3.23	6.82	6.44	2.09	1.71	2.46	2.53	
3	2.53	3.40	3.80	1.80	4.26	3.16	6.90	6.25	2.08	1.86	2.37	2.47	
4	2.55	3.50	4.20	1.68	4.43	3.17	6.97	6.03	2.07	1.48	2.09	2.50	
5	2.54	3.70	4.32	1.65	4.42	3.25	6.95	5.78	1.98	1.27	2.18	2.50	
6	2.53	3.64	4.43	1.63	4.25	3.34	6.91	5.56	1.87	1.25	2.08	2.61	
7	2.53	3.58	4.26	1.59	3.93	3.69	6.89	5.36	1.85	1.21	1.96	2.62	
8	2.44	3.07	3.79	1.67	3.53	3.76	6.87	5.20	1.84	1.27	1.85	2.71	
9	2.61	3.21	3.28	1.60	3.22	3.69	6.89	5.03	1.86	1.31	1.78	2.86	
10	3.31	3.18	2.72	1.44	2.87	4.00	6.90	4.85	1.86	1.49	1.84	2.99	
11	2.64	3.18	2.72	1.35	2.93	5.74	6.88	4.73	1.82	1.57	1.97	3.14	
12	2.48	3.16	2.16	1.44	2.47	6.57	6.81	4.62	1.78	1.65	1.91	3.36	
13	2.55	3.07	1.98	1.37	2.20	6.78	6.77	4.51	1.74	1.70	1.80	3.48	
14	2.41	2.94	2.00	1.52	2.06	6.89	6.76	4.41	1.70	1.71	1.83	3.48	
15	2.33	2.96	1.91	1.40	2.06	6.90	6.78	4.29	1.65	1.73	1.82	3.33	
16	2.21	2.97	1.75	1.26	2.10	6.87	6.81	3.98	1.60	1.75	1.94	3.22	
17	2.08	2.92	1.86	1.32	2.19	6.81	6.84	3.80	1.56	1.92	2.05	3.19	
18	2.09	3.04	1.83	1.51	2.39	6.68	6.89	3.57	1.51	2.40	2.07	3.15	
19	2.03	3.16	1.72	1.71	2.55	6.47	6.94	3.29	1.46	2.72	2.09	3.04	
20	2.07	3.08	1.81	1.44	2.74	6.21	7.07	3.14	1.42	2.81	2.15	2.82	
21	2.13	2.88	1.66	1.41	3.05	5.93	7.25	3.07	1.38	2.85	2.12	2.72	
22	2.16	2.61	1.51	1.64	2.80	5.53	7.31	2.97	1.34	2.70	2.25	2.60	
23	2.22	2.43	1.45	1.41	2.64	5.83	7.31	2.82	1.30	2.48	2.29	2.64	
24	2.70	2.35	1.43	1.28	2.54	6.39	7.25	2.69	1.45	2.30	2.35	2.52	
25	3.28	2.48	1.40	1.27	2.77	6.50	7.18	2.57	1.70	2.88	2.37	2.45	
26	3.27	2.62	1.36	1.62	2.92	6.53	7.10	2.51	1.95	3.51	2.52	2.53	
27	3.19	2.45	1.29	1.79	2.93	6.57	7.02	2.44	1.43	3.56	2.57	2.46	
28	3.14	2.54	1.33	1.89	2.96	6.68	6.96	2.34	1.63	3.21	2.56	2.46	
29	3.13	2.59	1.52	1.94	2.93	6.75	6.90	2.26	1.73	2.80	2.63	2.32	
30	3.16	2.77	2.00	2.66	2.99	6.77	6.83	2.22	1.79	2.78		2.38	
31		3.01		2.91	3.11		6.74		1.68	2.39		2.38	
Mean	2.58	3.01	2.40	1.64	3.01	5.46	6.95	4.11	1.72	2.12	2.15	2.78	
Max	3.31	3.70	4.43	2.91	4.43	6.90	7.31	6.60	2.14	3.56	2.63	3.48	7.31
Min	2.03	2.35	1.29	1.26	2.06	3.09	6.74	2.22	1.30	1.21	1.78	2.32	1.21

Annual Max Momentary Gage Height	7.34	m. (A.D.) ,	at 13.00 Hours, on Oct 22, 2011		
Zero Gage at Bottom Elevation	0.00	m. (A.D.) ,	River Bed	0.95	m. (A.D.)
Left Bank Elevation	9.01	m. (A.D.) ,			
Right Bank Elevation	8.96	m. (A.D.) ,	Drainage Area	4211	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	11.06	20.15	16.85	2.30	16.70	17.15	169.60	127.00	5.70	0.88	10.46	10.94		
2	9.74	21.80	21.35	2.50	28.70	19.25	172.20	104.00	5.20	1.58	9.02	9.86		
3	9.86	21.80	27.80	2.30	35.20	18.20	193.00	91.00	5.10	2.90	8.00	9.14		
4	10.10	23.30	34.00	1.40	38.60	18.35	211.90	81.20	5.00	0.76	5.20	9.50		
5	9.98	26.30	36.40	1.25	38.40	19.55	206.50	72.40	4.10	0.45	6.10	9.50		
6	9.86	25.40	38.60	1.15	35.00	20.90	195.70	65.80	3.00	0.42	5.10	10.82		
7	9.86	24.50	35.20	0.98	29.75	26.15	190.40	59.80	2.80	0.37	3.90	10.94		
8	8.78	16.85	27.65	1.35	23.75	27.20	185.20	55.00	2.70	0.45	2.80	12.02		
9	10.82	18.95	20.00	1.00	19.10	26.15	190.40	50.60	2.90	0.50	2.14	13.82		
10	20.45	18.50	12.14	0.69	13.94	30.80	193.00	47.00	2.90	0.78	2.70	15.65		
11	11.18	18.50	12.14	0.56	14.75	71.20	187.80	44.60	2.50	0.94	4.00	17.90		
12	9.26	18.20	5.90	0.69	9.14	121.90	169.60	42.40	2.14	1.25	3.40	21.20		
13	10.10	16.85	4.10	0.58	6.30	162.80	160.70	40.20	1.82	1.50	2.30	23.00		
14	8.42	14.90	4.30	0.84	4.90	190.40	158.60	38.20	1.50	1.58	2.60	23.00		
15	7.60	15.20	3.40	0.62	4.90	193.00	162.80	35.80	1.25	1.74	2.50	20.75		
16	6.40	15.35	1.90	0.44	5.30	185.20	169.60	30.50	1.00	1.90	3.70	19.10		
17	5.10	14.60	2.90	0.52	6.20	169.60	177.40	27.80	0.92	3.50	4.80	18.65		
18	5.20	16.40	2.60	0.82	8.20	142.20	190.40	24.35	0.82	8.30	5.00	18.05		
19	4.60	18.20	1.66	1.58	10.10	107.00	203.80	20.15	0.73	12.14	5.20	16.40		
20	5.00	17.00	2.40	0.69	12.38	88.60	241.00	17.90	0.66	13.22	5.80	13.34		
21	5.60	14.06	1.30	0.64	16.55	77.20	301.50	16.85	0.59	13.70	5.50	12.14		
22	5.90	10.82	0.82	1.20	13.10	64.90	324.00	15.35	0.54	11.90	6.80	10.70		
23	6.50	8.66	0.71	0.64	11.18	73.90	324.00	13.34	0.49	9.26	7.20	11.18		
24	11.90	7.80	0.67	0.46	9.98	99.40	301.50	11.78	0.71	7.30	7.80	9.74		
25	20.00	9.26	0.62	0.45	12.74	110.00	276.40	10.34	1.50	14.06	8.00	8.90		
26	19.85	10.94	0.57	1.10	14.60	115.10	250.00	9.62	3.80	23.45	9.74	9.86		
27	18.65	8.90	0.48	2.22	14.75	121.90	226.00	8.78	0.67	24.20	10.34	9.02		
28	17.90	9.98	0.53	3.20	15.20	142.20	209.20	7.70	1.15	18.95	10.22	9.02		
29	17.75	10.58	0.84	3.70	14.75	156.50	193.00	6.90	1.74	13.10	11.06	7.50		
30	18.20	12.74	4.30	11.42	15.65	160.70	174.80	6.50	2.22	12.86		8.10		
31		15.95		14.45	17.45		154.40		1.40	8.20		8.10		
Total	325.62	502.44	322.13	61.74	517.26	2777.40	6464.40	1182.86	67.55	212.14	171.38	407.84	13012.76	CMSDAY
Mean	10.85	16.21	10.74	1.99	16.69	92.58	208.53	39.43	2.18	6.84	5.91	13.16	35.55	CMS
Max	20.45	26.30	38.60	14.45	38.60	193.00	324.00	127.00	5.70	24.20	11.06	23.00	324.00	CMS
Min	4.60	7.80	0.48	0.44	4.90	17.15	154.40	6.50	0.49	0.37	2.14	7.50	0.37	CMS
Runoff	28.13	43.41	27.83	5.33	44.69	239.97	558.52	102.20	5.84	18.33	14.81	35.24	1124.30	MCM

Momentary Peak 336.00 CMS, at 7.34 m. (A.D), at 13.00 Hours, on Oct 22, 2011

Runoff Yield 8.44 Liters/Second/Square KM. Momentary Peak Yield 79.791 Liters/Second/Square KM.

WATER YEAR : 2011

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

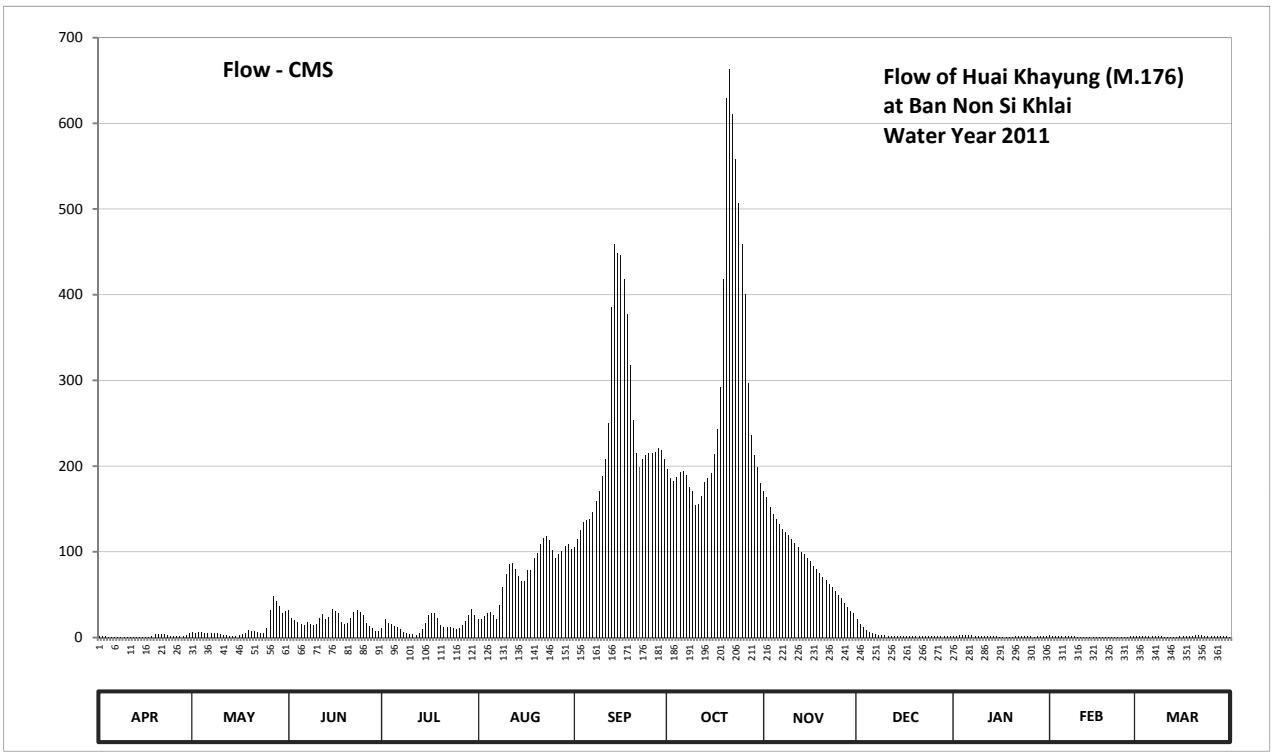
Location : on left bank at Ban Non Si Khlai.

	Ban Non Si Khlai	**Amphoe** Kanthararom	**Changwat** Si Sa Ket
Drainge Area	3,131 sq.km.		
Type of Gage	Staff gage.		
Zero Gage at Bottom	+110.210 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank at the footpath of the bridge.	**Elevation**	+124.131 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings		
Period of Available Gage Records	2003 to date		
Rating Operation			
Period of Rating	2003 to date		
Rated by Flot	-		
Rated by Current Meter	2003 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records very good. Stage-discharge relation defined by 53 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	111.00	111.54	113.20	112.02	112.68	116.20	119.43	118.61	112.72	111.00	111.11	110.93	
2	110.92	111.50	112.78	112.70	112.68	116.60	119.09	118.36	112.39	111.03	111.00	110.92	
3	110.86	111.56	112.66	112.46	112.88	116.99	118.98	117.96	112.13	111.11	110.94	110.92	
4	110.80	111.54	112.52	112.34	113.05	117.32	119.13	117.66	111.80	111.13	110.91	110.92	
5	110.77	111.53	112.38	112.22	113.08	117.44	119.31	117.48	111.55	111.11	110.89	110.91	
6	110.80	111.50	112.26	112.07	112.95	117.46	119.35	117.24	111.37	111.11	110.86	110.91	
7	110.83	111.41	112.53	111.85	112.72	117.78	119.19	117.06	111.27	111.10	110.84	110.90	
8	110.76	111.40	112.35	111.63	113.45	118.19	118.76	116.92	111.20	111.04	110.84	110.91	
9	110.72	111.39	112.24	111.47	114.31	118.58	118.58	116.76	111.15	111.01	110.84	110.84	
10	110.71	111.28	112.38	111.33	114.96	119.16	118.05	116.60	111.10	110.99	110.82	110.68	
11	110.70	111.16	112.77	111.33	115.44	119.76	118.08	116.41	111.04	110.97	110.81	110.70	
12	110.65	111.08	112.99	111.20	115.47	120.45	118.42	116.24	111.01	110.94	110.80	110.73	
13	110.68	111.04	112.72	111.51	115.16	121.19	118.94	116.01	111.00	110.92	110.77	110.72	
14	110.71	110.96	112.81	111.94	114.87	121.48	119.10	115.89	110.97	110.89	110.75	110.78	
15	110.76	111.02	113.23	112.47	114.63	121.44	119.28	115.71	110.95	110.85	110.73	110.86	
16	110.72	111.07	113.15	112.91	114.59	121.43	119.88	115.55	110.92	110.82	110.72	110.93	
17	110.80	111.25	113.02	113.06	115.12	121.32	120.36	115.31	110.90	110.80	110.71	110.96	
18	110.89	111.49	112.55	113.02	115.14	121.15	120.75	115.19	110.91	110.81	110.74	110.98	
19	111.21	111.74	112.36	112.75	115.68	120.88	121.32	114.99	110.90	110.81	110.80	111.00	
20	111.35	111.67	112.47	112.32	115.96	120.49	122.12	114.82	110.90	110.80	110.79	111.07	
21	111.30	111.68	112.78	112.13	116.36	119.90	122.21	114.65	110.91	110.85	110.79	111.09	
22	111.21	111.61	113.08	112.09	116.64	119.50	122.06	114.45	110.91	110.91	110.79	111.08	
23	111.10	111.52	113.17	112.06	116.74	119.76	121.87	114.31	110.93	110.91	110.79	110.98	
24	110.99	111.52	113.10	111.99	116.53	119.86	121.67	114.11	110.92	110.89	110.78	110.92	
25	110.90	112.02	112.91	111.93	116.10	119.89	121.48	113.93	110.91	110.88	110.79	110.88	
26	110.86	113.19	112.49	112.02	115.68	119.91	121.25	113.77	110.90	110.85	110.82	110.85	
27	110.85	113.90	112.16	112.25	115.91	119.93	120.78	113.53	110.89	110.82	110.88	110.88	
28	110.93	113.66	111.99	112.60	116.04	120.01	120.26	113.32	110.88	110.84	110.94	110.96	
29	111.10	113.41	111.73	112.93	116.26	119.96	119.86	113.16	110.87	110.89	110.96	110.98	
30	111.39	113.03	111.73	113.27	116.36	119.75	119.48	113.02	110.98	110.86		110.91	
31		113.13		112.92	116.14		118.92		111.02	110.85		110.77	
Mean	110.91	111.80	112.62	112.22	114.95	119.46	119.93	115.63	111.17	110.93	110.83	110.90	
Max	111.39	113.90	113.23	113.27	116.74	121.48	122.21	118.61	112.72	111.13	111.11	111.09	122.21
Min	110.65	110.96	111.73	111.20	112.68	116.20	118.05	113.02	110.87	110.80	110.71	110.68	110.65

Annual Max Momentary Gage Height	122.22	m. (MSL.) ,	at 06.00 Hours, on Oct 21, 2011		
Zero Gage at Bottom Elevation	110.21	m. (MSL.) ,	River Bed	109.84	m. (MSL)
Left Bank Elevation	123.90	m. (MSL.) ,			
Right Bank Elevation	123.62	m. (MSL.) ,	Drainage Area	3131	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.00	5.94	32.20	11.26	21.10	105.10	196.76	171.30	21.90	2.00	2.77	1.65		
2	1.60	5.50	23.10	21.50	21.10	115.30	185.88	163.80	16.07	2.21	2.00	1.60		
3	1.30	6.16	20.70	16.98	25.10	125.24	182.40	151.90	12.69	2.77	1.70	1.60		
4	1.00	5.94	17.90	15.42	28.68	134.30	187.16	143.65	8.80	2.91	1.55	1.60		
5	0.85	5.83	15.94	13.86	29.38	137.60	192.92	138.70	6.05	2.77	1.45	1.55		
6	1.00	5.50	14.38	11.91	26.50	138.15	194.20	132.10	4.59	2.77	1.30	1.55		
7	1.15	4.87	18.10	9.35	21.90	146.95	189.08	127.15	3.89	2.70	1.20	1.50		
8	0.80	4.80	15.55	6.93	38.07	158.70	175.80	123.46	3.40	2.28	1.20	1.55		
9	0.60	4.73	14.12	5.29	58.59	170.40	170.40	119.38	3.05	2.07	1.20	1.20		
10	0.55	3.96	15.94	4.31	74.52	188.12	154.50	115.30	2.70	1.95	1.10	0.40		
11	0.50	3.12	22.90	4.31	86.28	208.40	155.40	110.46	2.28	1.85	1.05	0.50		
12	0.25	2.56	27.30	3.40	87.02	250.00	165.60	106.12	2.07	1.70	1.00	0.65		
13	0.40	2.28	21.90	5.61	79.42	385.80	181.20	100.26	2.00	1.60	0.85	0.60		
14	0.55	1.80	23.70	10.34	72.32	458.40	186.20	97.30	1.85	1.45	0.75	0.90		
15	0.80	2.14	32.91	17.11	66.43	448.20	191.96	92.89	1.75	1.25	0.65	1.30		
16	0.60	2.49	31.03	25.70	65.45	445.65	214.00	88.98	1.60	1.10	0.60	1.65		
17	1.00	3.75	27.97	28.91	78.44	418.00	243.20	83.09	1.50	1.00	0.55	1.80		
18	1.45	5.43	18.50	27.97	78.93	377.00	292.00	80.16	1.55	1.05	0.70	1.90		
19	3.47	8.14	15.68	22.50	92.16	317.60	418.00	75.25	1.50	1.05	1.00	2.00		
20	4.45	7.37	17.11	15.16	99.02	253.20	629.60	71.09	1.50	1.00	0.95	2.49		
21	4.10	7.48	23.10	12.69	109.18	215.00	663.80	66.93	1.55	1.25	0.95	2.63		
22	3.47	6.71	29.38	12.17	116.32	199.00	610.40	62.02	1.55	1.55	0.95	2.56		
23	2.70	5.72	31.49	11.78	118.87	208.40	558.20	58.59	1.65	1.55	0.95	1.90		
24	1.95	5.72	29.85	10.89	113.51	213.00	506.85	53.70	1.60	1.45	0.90	1.60		
25	1.50	11.26	25.70	10.23	102.55	214.50	458.40	49.36	1.55	1.40	0.95	1.40		
26	1.30	31.97	17.37	11.26	92.16	215.50	400.50	45.59	1.50	1.25	1.10	1.25		
27	1.25	48.65	13.08	14.25	97.80	216.50	296.80	39.95	1.45	1.10	1.40	1.40		
28	1.65	43.01	10.89	19.50	101.02	220.50	236.20	35.02	1.40	1.20	1.70	1.80		
29	2.70	37.14	8.03	26.10	106.63	218.00	213.00	31.26	1.35	1.45	1.80	1.90		
30	4.73	28.20	8.03	33.84	109.18	208.00	198.36	27.97	1.90	1.30		1.55		
31		30.55		25.90	103.57		180.60		2.14	1.25		0.85		
Total	49.67	348.72	623.85	466.43	2321.20	7110.51	8829.37	2762.73	118.38	52.23	34.27	46.83	22764.19	CMSDAY
Mean	1.66	11.25	20.80	15.05	74.88	237.02	284.82	92.09	3.82	1.68	1.18	1.51	62.20	CMS
Max	4.73	48.65	32.91	33.84	118.87	458.40	663.80	171.30	21.90	2.91	2.77	2.63	663.80	CMS
Min	0.25	1.80	8.03	3.40	21.10	105.10	154.50	27.97	1.35	1.00	0.55	0.40	0.25	CMS
Runoff	4.29	30.13	53.90	40.30	200.55	614.35	762.86	238.70	10.23	4.51	2.96	4.05	1966.83	MCM

Momentary Peak 667.60 CMS, at 122.22 m. (MSL), at 06.00 Hours, on Oct 21, 2011

Runoff Yield 19.86 Liters/Second/Square KM. Momentary Peak Yield 213.223 Liters/Second/Square KM.

WATER YEAR : 2011

MUN RIVER BASIN

Lam Ta Khong at Ban Non Sawang, Nakhon Ratchasima (M.177)

Lat 14 - 50 - 57 N Long 101 - 37 - 12 E

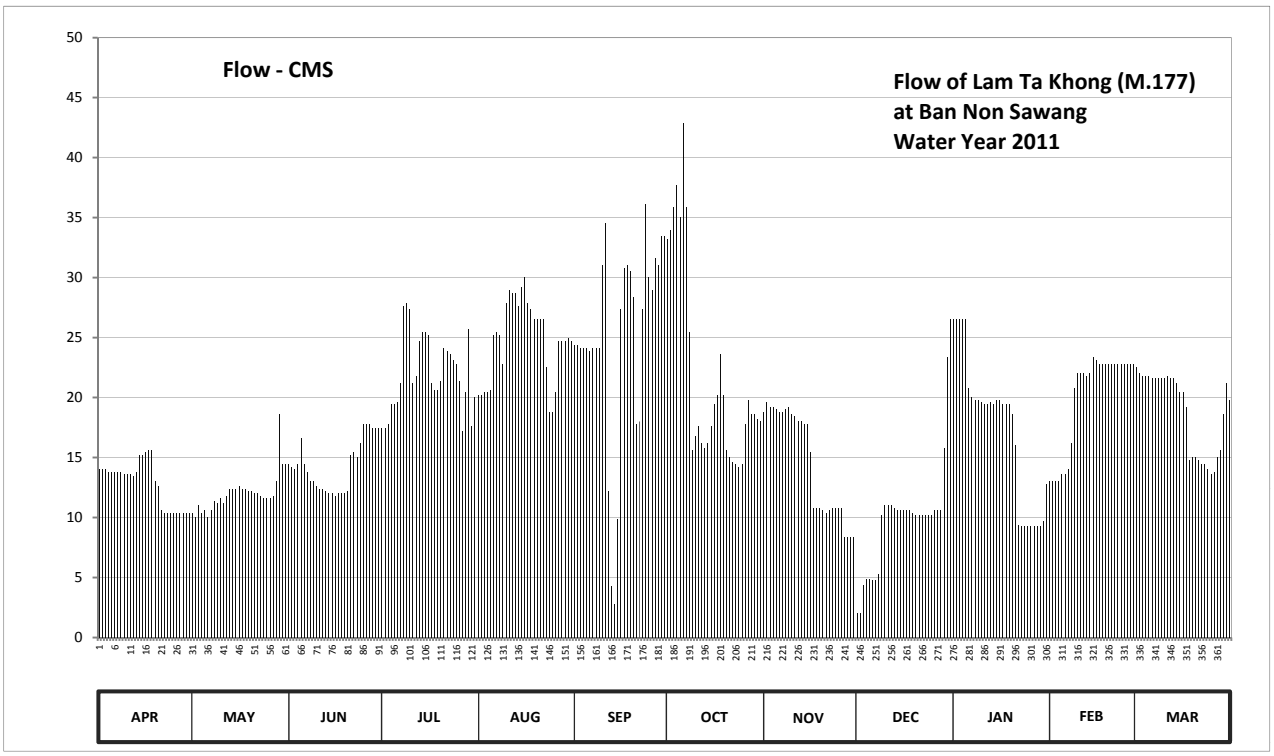
Location : on right bank at the bridge.

	Ban Non Sawang	**Amphoe** Si Khiu	**Changwat** Nakhon Ratchasima
Drainge Area	1,519 sq.km.		
Type of Gage	Water - stage recorder.		
Zero Gage at Bottom	+236.700 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank at the footpath of the bridge.		**Elevation** +243.940 m. (MSL.)
Gage Reading Frequency	Recording.		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	2003 to date		
Rating Operation			
Period of Rating	2003 to date		
Rated by Flot	-		
Rated by Current Meter	2003 to date		
Stability of Channel Regimes	Rather unstable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 38 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	239.90	239.72	239.92	240.07	240.21	240.39	240.72	240.14	238.79	240.47	239.85	240.32	
2	239.90	239.70	239.91	240.07	240.21	240.39	240.75	240.18	238.79	240.47	239.85	240.30	
3	239.90	239.75	239.90	240.09	240.22	240.38	240.82	240.16	239.24	240.47	239.85	240.29	
4	239.89	239.72	239.92	240.17	240.22	240.38	240.89	240.16	239.29	240.47	239.85	240.29	
5	239.89	239.73	240.03	240.17	240.23	240.38	240.79	240.15	239.29	240.47	239.88	240.29	
6	239.89	239.70	239.92	240.18	240.42	240.37	241.04	240.14	239.28	240.24	239.88	240.28	
7	239.89	239.73	239.89	240.26	240.43	240.38	240.82	240.14	239.28	240.20	239.90	240.28	
8	239.89	239.77	239.85	240.51	240.42	240.38	240.43	240.15	239.33	240.19	240.01	240.28	
9	239.88	239.76	239.85	240.52	240.33	240.38	239.98	240.16	239.71	240.19	240.24	240.28	
10	239.88	239.78	239.83	240.50	240.52	240.64	240.04	240.13	239.75	240.18	240.30	240.28	
11	239.88	239.76	239.82	240.26	240.56	240.77	240.08	240.12	239.75	240.17	240.30	240.29	
12	239.87	239.79	239.82	240.29	240.55	239.81	240.01	240.10	239.75	240.17	240.30	240.28	
13	239.89	239.82	239.81	240.40	240.55	239.23	239.99	240.10	239.74	240.18	240.29	240.28	
14	239.96	239.82	239.80	240.43	240.51	238.99	240.01	240.09	239.73	240.17	240.30	240.26	
15	239.96	239.82	239.80	240.43	240.57	239.69	240.08	240.09	239.73	240.19	240.35	240.22	
16	239.97	239.83	239.79	240.42	240.60	240.50	240.17	239.97	239.73	240.19	240.34	240.22	
17	239.98	239.82	239.80	240.26	240.52	240.63	240.21	239.74	239.73	240.17	240.33	240.16	
18	239.98	239.82	239.80	240.23	240.50	240.64	240.36	239.74	239.73	240.17	240.33	239.94	
19	239.85	239.81	239.80	240.23	240.47	240.62	240.21	239.74	239.72	240.17	240.33	239.95	
20	239.83	239.81	239.81	240.27	240.47	240.54	239.98	239.73	239.71	240.13	240.33	239.95	
21	239.73	239.80	239.96	240.38	240.47	240.09	239.95	239.72	239.71	240.00	240.33	239.94	
22	239.72	239.80	239.97	240.37	240.47	240.10	239.93	239.73	239.71	239.66	240.33	239.92	
23	239.72	239.79	239.95	240.36	240.32	240.50	239.92	239.74	239.71	239.65	240.33	239.92	
24	239.72	239.78	240.01	240.34	240.14	240.83	239.91	239.74	239.71	239.65	240.33	239.90	
25	239.72	239.78	240.09	240.33	240.14	240.60	239.92	239.74	239.71	239.65	240.33	239.88	
26	239.72	239.78	240.09	240.27	240.22	240.56	240.09	239.74	239.73	239.65	240.33	239.89	
27	239.72	239.79	240.09	240.06	240.40	240.66	240.19	239.59	239.73	239.65	240.33	239.95	
28	239.72	239.85	240.07	240.22	240.40	240.64	240.13	239.59	239.73	239.65	240.33	239.98	
29	239.72	240.13	240.07	240.44	240.40	240.73	240.13	239.59	239.99	239.65	240.33	240.13	
30	239.72	239.92	240.07	240.08	240.41	240.73	240.11	239.59	240.35	239.68		240.26	
31		239.92		240.20	240.40		240.10		240.47	239.84		240.19	
Mean	239.84	239.80	239.91	240.28	240.40	240.36	240.25	239.92	239.63	240.06	240.20	240.14	
Max	239.98	240.13	240.09	240.52	240.60	240.83	241.04	240.18	240.47	240.47	240.35	240.32	241.04
Min	239.72	239.70	239.79	240.06	240.14	238.99	239.91	239.59	238.79	239.65	239.85	239.88	238.79

Annual Max Momentary Gage Height	241.25	m. (MSL.) ,	at 05.00 Hours, on Sep 11, 2011		
Zero Gage at Bottom Elevation	236.70	m. (MSL.) ,	River Bed	237.61	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, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	14.00	10.40	14.40	17.40	20.20	24.40	33.20	18.80	2.03	26.53	13.00	22.53		
2	14.00	10.00	14.20	17.40	20.20	24.40	34.00	19.60	2.03	26.53	13.00	22.00		
3	14.00	11.00	14.00	17.80	20.40	24.13	35.87	19.20	4.40	26.53	13.00	21.80		
4	13.80	10.40	14.40	19.40	20.40	24.13	37.73	19.20	4.90	26.53	13.00	21.80		
5	13.80	10.60	16.60	19.40	20.60	24.13	35.07	19.00	4.90	26.53	13.60	21.80		
6	13.80	10.00	14.40	19.60	25.20	23.87	42.91	18.80	4.80	20.80	13.60	21.60		
7	13.80	10.60	13.80	21.20	25.47	24.13	35.87	18.80	4.80	20.00	14.00	21.60		
8	13.80	11.40	13.00	27.60	25.20	24.13	25.47	19.00	5.30	19.80	16.20	21.60		
9	13.60	11.20	13.00	27.87	22.80	24.13	15.60	19.20	10.20	19.80	20.80	21.60		
10	13.60	11.60	12.60	27.33	27.87	31.07	16.80	18.60	11.00	19.60	22.00	21.60		
11	13.60	11.20	12.40	21.20	28.93	34.53	17.60	18.40	11.00	19.40	22.00	21.80		
12	13.40	11.80	12.40	21.80	28.67	12.20	16.20	18.00	11.00	19.40	22.00	21.60		
13	13.80	12.40	12.20	24.67	28.67	4.30	15.80	18.00	10.80	19.60	21.80	21.60		
14	15.20	12.40	12.00	25.47	27.60	2.81	16.20	17.80	10.60	19.40	22.00	21.20		
15	15.20	12.40	12.00	25.47	29.20	9.85	17.60	17.80	10.60	19.80	23.33	20.40		
16	15.40	12.60	11.80	25.20	30.00	27.33	19.40	15.40	10.60	19.80	23.07	20.40		
17	15.60	12.40	12.00	21.20	27.87	30.80	20.20	10.80	10.60	19.40	22.80	19.20		
18	15.60	12.40	12.00	20.60	27.33	31.07	23.60	10.80	10.60	19.40	22.80	14.80		
19	13.00	12.20	12.00	20.60	26.53	30.53	20.20	10.80	10.40	19.40	22.80	15.00		
20	12.60	12.20	12.20	21.40	26.53	28.40	15.60	10.60	10.20	18.60	22.80	15.00		
21	10.60	12.00	15.20	24.13	26.53	17.80	15.00	10.40	10.20	16.00	22.80	14.80		
22	10.40	12.00	15.40	23.87	26.53	18.00	14.60	10.60	10.20	9.40	22.80	14.40		
23	10.40	11.80	15.00	23.60	22.53	27.33	14.40	10.80	10.20	9.25	22.80	14.40		
24	10.40	11.60	16.20	23.07	18.80	36.13	14.20	10.80	10.20	9.25	22.80	14.00		
25	10.40	11.60	17.80	22.80	18.80	30.00	14.40	10.80	10.20	9.25	22.80	13.60		
26	10.40	11.60	17.80	21.40	20.40	28.93	17.80	10.80	10.60	9.25	22.80	13.80		
27	10.40	11.80	17.80	17.20	24.67	31.60	19.80	8.35	10.60	9.25	22.80	15.00		
28	10.40	13.00	17.40	20.40	24.67	31.07	18.60	8.35	10.60	9.25	22.80	15.60		
29	10.40	18.60	17.40	25.73	24.67	33.47	18.60	8.35	15.80	9.25	22.80	18.60		
30	10.40	14.40	17.40	17.60	24.93	33.47	18.20	8.35	23.33	9.70		21.20		
31		14.40		20.00	24.67		18.00		26.53	12.80		19.80		
Total	385.80	372.00	428.80	682.41	766.87	748.14	678.52	436.20	309.22	539.50	582.80	584.13	6514.39	CMSDAY
Mean	12.86	12.00	14.29	22.01	24.74	24.94	21.89	14.54	9.97	17.40	20.10	18.84	17.80	CMS
Max	15.60	18.60	17.80	27.87	30.00	36.13	42.91	19.60	26.53	26.53	23.33	22.53	42.91	CMS
Min	10.40	10.00	11.80	17.20	18.80	2.81	14.20	8.35	2.03	9.25	13.00	13.60	2.03	CMS
Runoff	33.33	32.14	37.05	58.96	66.26	64.64	58.62	37.69	26.72	46.61	50.35	50.47	562.84	MCM

Momentary Peak 50.29 CMS, at 241.25 m. (MSL), at 05.00 Hours, on Sep 11, 2011

Runoff Yield 11.72 Liters/Second/Square KM. Momentary Peak Yield 33.107 Liters/Second/Square KM.

WATER YEAR : 2011

MUN RIVER BASIN

Lam Sa Bai at Ban Tha Wari, Ubon Ratchathani (M.179)

Lat 15 - 19 - 34 N Long 104 - 41 - 08 E

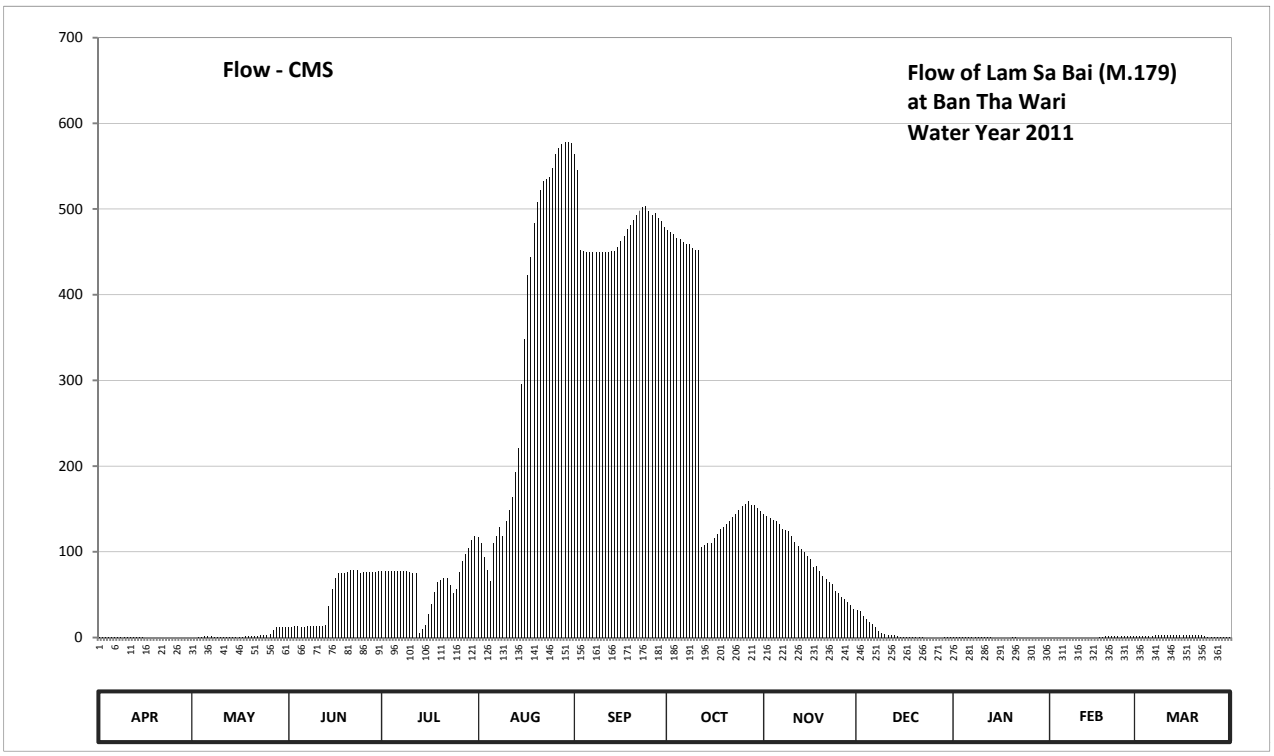
Location : on right bank at the bridge.

	Ban Tha Wari	**Amphoe** Khueang Nai	**Changwat** Ubon Ratchathani
Drainge Area	3,881 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+106.340 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank at the footpath of the bridge.		**Elevation** +119.161 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00 , 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings		
Period of Available Gage Records	2003 to date		
Rating Operation			
Period of Rating	2003 to date		
Rated by Flot	-		
Rated by Current Meter	2003 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 20 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	108.32	108.28	109.06	110.32	110.94	114.87	115.25	115.68	111.72	108.31	108.26	108.61	
2	108.31	108.30	109.07	110.32	110.84	114.75	115.22	115.63	111.64	108.31	108.25	108.61	
3	108.31	108.34	109.09	110.32	110.59	114.72	115.18	115.58	111.27	108.31	108.25	108.61	
4	108.31	108.39	109.09	110.32	110.35	114.66	115.10	115.53	110.98	108.31	108.25	108.61	
5	108.31	108.47	109.08	110.32	110.13	114.58	115.06	115.49	110.71	108.31	108.24	108.59	
6	108.31	108.47	109.06	110.32	110.85	114.50	114.99	115.42	110.48	108.33	108.24	108.59	
7	108.32	108.43	109.09	110.32	110.96	114.47	114.93	115.28	110.02	108.33	108.24	108.72	
8	108.32	108.41	109.09	110.32	111.10	114.48	114.92	115.23	109.30	108.33	108.23	108.72	
9	108.31	108.41	109.09	110.32	110.97	114.45	114.79	115.20	109.11	108.33	108.20	108.72	
10	108.31	108.41	109.09	110.31	111.19	114.47	114.73	115.07	108.92	108.33	108.20	108.72	
11	108.31	108.38	109.09	110.29	112.35	114.52	114.72	114.87	108.76	108.34	108.20	108.72	
12	108.31	108.37	109.09	110.29	111.53	114.55	114.74	114.77	108.71	108.33	108.20	108.72	
13	108.31	108.35	109.17	108.70	111.86	114.62	114.80	114.65	108.65	108.32	108.17	108.72	
14	108.31	108.34	109.64	108.95	112.17	114.68	114.85	114.55	108.55	108.30	108.17	108.72	
15	108.31	108.37	109.98	109.19	112.89	114.85	114.86	114.40	108.42	108.29	108.18	108.72	
16	108.28	108.38	110.18	109.44	113.33	115.00	114.99	114.28	108.42	108.29	108.21	108.72	
17	108.20	108.35	110.28	109.68	113.92	115.14	115.12	113.98	108.42	108.29	108.36	108.72	
18	108.16	108.42	110.29	109.92	114.07	115.27	115.26	114.01	108.42	108.29	108.43	108.72	
19	108.16	108.48	110.29	110.12	114.35	115.35	115.33	113.83	108.39	108.29	108.49	108.72	
20	108.16	108.50	110.30	110.15	114.51	115.46	115.07	113.60	108.37	108.34	108.52	108.72	
21	108.19	108.52	110.34	110.19	114.61	115.54	115.50	113.45	108.37	108.34	108.54	108.72	
22	108.24	108.52	110.34	110.19	114.67	115.59	115.60	113.30	108.34	108.30	108.52	108.72	
23	108.24	108.53	110.34	110.06	114.69	115.64	115.67	113.22	108.30	108.28	108.49	108.58	
24	108.24	108.54	110.29	109.89	114.70	115.65	115.74	112.92	108.30	108.28	108.49	108.46	
25	108.24	108.55	110.30	109.97	114.77	115.59	115.78	112.77	108.30	108.27	108.49	108.46	
26	108.24	108.65	110.31	110.31	114.87	115.53	115.81	112.57	108.30	108.27	108.49	108.44	
27	108.26	108.90	110.31	110.51	114.91	115.56	115.84	112.41	108.28	108.27	108.49	108.44	
28	108.29	109.04	110.31	110.65	114.94	115.50	115.80	112.25	108.28	108.27	108.52	108.44	
29	108.29	109.04	110.31	110.77	114.96	115.44	115.79	112.07	108.31	108.27	108.61	108.44	
30	108.29	109.06	110.32	110.90	114.96	115.31	115.76	111.78	108.31	108.27		108.44	
31		109.06		110.97	114.95		115.73		108.31	108.27		108.44	
Mean	108.27	108.52	109.74	110.14	112.97	115.02	115.26	114.13	109.05	108.30	108.34	108.62	
Max	108.32	109.06	110.34	110.97	114.96	115.65	115.84	115.68	111.72	108.34	108.61	108.72	115.84
Min	108.16	108.28	109.06	108.70	110.13	114.45	114.72	111.78	108.28	108.27	108.17	108.44	108.16

Annual Max Momentary Gage Height	115.84	m. (MSL.) ,	at 06.00 Hours, on Oct 27, 2011		
Zero Gage at Bottom Elevation	106.34	m. (MSL.) ,	River Bed	106.30	m. (MSL)
Left Bank Elevation	118.87	m. (MSL.) ,			
Right Bank Elevation	119.69	m. (MSL.) ,	Drainage Area	3881	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.20	0.00	12.20	77.20	116.80	564.20	475.00	144.00	32.35	0.07	0.00	2.17		
2	0.10	0.00	12.40	77.20	109.80	545.00	473.20	141.50	31.10	0.07	0.00	2.17		
3	0.10	0.40	12.80	77.20	93.40	451.60	470.80	139.20	25.55	0.07	0.00	2.17		
4	0.10	0.90	12.80	77.20	79.00	450.60	466.00	137.20	21.20	0.07	0.00	2.17		
5	0.10	1.70	12.60	77.20	65.80	449.90	464.40	135.60	18.29	0.07	0.00	2.03		
6	0.10	1.70	12.20	77.20	110.50	449.50	461.60	132.80	16.22	0.21	0.00	2.03		
7	0.20	1.30	12.80	77.20	118.20	449.35	459.20	127.20	12.08	0.21	0.00	2.94		
8	0.20	1.10	12.80	77.20	129.00	449.40	458.80	125.20	7.00	0.21	0.00	2.94		
9	0.10	1.10	12.80	77.20	118.90	449.25	453.70	124.00	5.67	0.21	0.00	2.94		
10	0.10	1.10	12.80	76.60	136.20	449.35	451.90	118.80	4.34	0.21	0.00	2.94		
11	0.10	0.80	12.80	75.40	149.00	449.60	451.60	110.80	3.22	0.28	0.00	2.94		
12	0.10	0.70	12.80	75.40	163.40	449.75	105.84	106.92	2.87	0.21	0.00	2.94		
13	0.10	0.50	14.40	5.00	192.40	450.20	108.00	102.80	2.45	0.14	0.00	2.94		
14	0.10	0.40	37.00	10.00	221.00	450.80	110.00	99.60	1.75	0.00	0.00	2.94		
15	0.10	0.70	56.80	14.80	295.90	456.00	110.40	94.80	0.84	0.00	0.00	2.94		
16	0.00	0.80	68.80	27.00	347.60	462.00	115.60	91.20	0.84	0.00	0.00	2.94		
17	0.00	0.50	74.80	39.00	423.20	468.40	120.80	82.20	0.84	0.00	0.42	2.94		
18	0.00	1.20	75.40	53.20	443.45	476.20	126.40	83.10	0.84	0.00	0.91	2.94		
19	0.00	1.80	75.40	65.20	483.75	481.00	129.20	77.98	0.63	0.00	1.33	2.94		
20	0.00	2.00	76.00	67.00	507.50	487.60	132.40	72.00	0.49	0.28	1.54	2.94		
21	0.00	2.20	78.40	69.40	522.60	493.60	136.00	68.10	0.49	0.28	1.68	2.94		
22	0.00	2.20	78.40	69.40	532.20	498.10	140.00	64.20	0.28	0.00	1.54	2.94		
23	0.00	2.30	78.40	61.60	535.40	502.60	143.50	62.12	0.00	0.00	1.33	1.96		
24	0.00	2.40	75.40	51.40	537.00	503.50	149.00	54.74	0.00	0.00	1.33	1.12		
25	0.00	2.50	76.00	56.20	548.20	498.10	153.00	51.62	0.00	0.00	1.33	1.12		
26	0.00	4.00	76.60	76.60	564.20	492.70	156.00	47.46	0.00	0.00	1.33	0.98		
27	0.00	9.00	76.60	88.60	570.60	495.40	159.00	44.42	0.00	0.00	1.33	0.98		
28	0.00	11.80	76.60	97.00	575.40	490.00	155.00	41.63	0.00	0.00	1.54	0.98		
29	0.00	11.80	76.60	104.90	578.60	486.40	154.00	38.47	0.07	0.00	2.17	0.98		
30	0.00	12.20	77.20	114.00	578.60	478.60	151.00	33.40	0.07	0.00		0.98		
31		12.20		118.90	577.00		148.00		0.07	0.00		0.98		
Total	1.80	91.30	1400.60	2111.40	10424.60	14278.70	7789.34	2753.06	189.55	2.59	17.78	69.86	39130.58	CMSDAY
Mean	0.06	2.95	46.69	68.11	336.28	475.96	251.27	91.77	6.11	0.08	0.61	2.25	106.91	CMS
Max	0.20	12.20	78.40	118.90	578.60	564.20	475.00	144.00	32.35	0.28	2.17	2.94	578.60	CMS
Min	0.00	0.00	12.20	5.00	65.80	449.25	105.84	33.40	0.00	0.00	0.00	0.98	0.00	CMS
Runoff	0.16	7.89	121.01	182.43	900.69	1233.68	673.00	237.86	16.38	0.22	1.54	6.04	3380.88	MCM

Momentary Peak 520.60 CMS, at 115.84 m. (MSL), at 06.00 Hours, on Oct 27, 2011

Runoff Yield 27.55 Liters/Second/Square KM. Momentary Peak Yield 134.141 Liters/Second/Square KM.

WATER YEAR : 2011

MUN RIVER BASIN

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

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

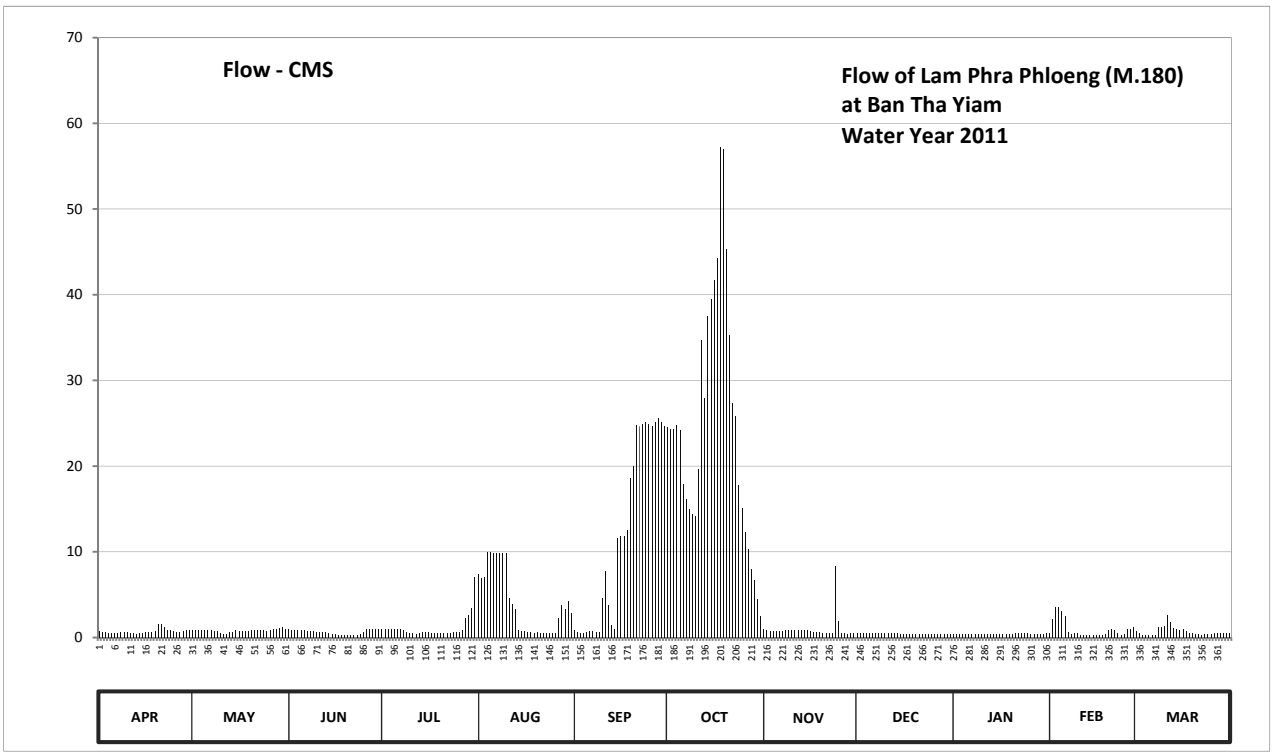
Location : on left bank at Ban Tha Yiam

	Ban Tha Yiam	**Amphoe** Pak Thong Chai	**Changwat** Nakhon Ratchasima
Drainge Area	864 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	219.210 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank at the footpath of the bridge.	**Elevation**	+227.886 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00 , 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings		
Period of Available Gage Records	2003 to date		
Rating Operation			
Period of Rating	2003 to date		
Rated by Flot	-		
Rated by Current Meter	2003 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 28 discharge measurement made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	220.13	220.23	220.34	220.41	221.17	220.21	222.60	220.38	219.87	219.84	219.96	220.15	
2	220.05	220.23	220.25	220.41	221.12	220.06	222.59	220.27	219.87	219.84	220.62	219.94	
3	220.04	220.23	220.24	220.41	221.13	219.94	222.59	220.20	219.87	219.84	220.78	219.71	
4	219.96	220.23	220.27	220.41	221.43	219.94	222.62	220.18	219.88	219.83	220.78	219.71	
5	219.95	220.25	220.30	220.37	221.43	220.02	222.58	220.20	219.88	219.83	220.74	219.71	
6	219.98	220.30	220.24	220.34	221.42	220.19	222.12	220.18	219.87	219.83	220.67	219.69	
7	219.97	220.26	220.20	220.34	221.42	220.11	221.99	220.19	219.87	219.83	219.99	219.67	
8	220.00	220.11	220.14	220.29	221.41	220.06	221.90	220.21	219.87	219.83	219.76	220.45	
9	220.01	220.10	220.10	219.99	221.42	220.06	221.85	220.21	219.87	219.83	219.86	220.45	
10	219.99	219.91	220.06	219.92	221.42	220.89	221.84	220.21	219.87	219.83	219.86	220.47	
11	219.95	219.75	220.01	219.88	220.89	221.21	222.26	220.22	219.87	219.83	219.72	220.69	
12	219.87	219.85	220.01	219.85	220.82	220.81	223.21	220.25	219.87	219.83	219.73	220.56	
13	219.85	220.00	219.99	219.89	220.76	220.48	222.81	220.24	219.87	219.83	219.72	220.42	
14	219.86	220.06	219.89	219.99	220.31	220.39	223.35	220.22	219.86	219.83	219.71	220.33	
15	219.89	220.21	219.81	220.03	220.10	221.59	223.45	220.21	219.84	219.83	219.69	220.27	
16	220.03	220.20	219.78	220.02	220.15	221.62	223.56	220.15	219.84	219.83	219.69	220.36	
17	220.05	220.18	219.74	219.88	220.04	221.61	223.69	220.07	219.84	219.83	219.69	220.12	
18	220.04	220.18	219.68	219.87	220.07	221.68	224.31	220.04	219.84	219.83	219.69	219.92	
19	220.18	220.19	219.69	219.88	219.95	222.18	224.30	220.01	219.84	219.83	219.80	219.90	
20	220.51	220.26	219.69	219.88	219.99	222.28	223.74	219.98	219.85	219.84	220.30	219.79	
21	220.51	220.26	219.70	219.89	219.94	222.62	223.24	219.95	219.84	219.86	220.37	219.82	
22	220.45	220.26	219.70	219.91	219.94	222.61	222.78	219.94	219.84	219.87	220.29	219.74	
23	220.24	220.26	219.71	219.96	219.96	222.63	222.69	219.95	219.84	219.86	219.86	219.79	
24	220.21	220.21	219.75	219.99	219.94	222.64	222.11	221.26	219.84	219.87	219.70	219.83	
25	220.18	220.17	220.02	220.02	219.96	222.63	221.91	220.58	219.84	219.86	219.78	219.85	
26	220.08	220.22	220.41	220.00	219.98	222.61	221.66	219.88	219.84	219.85	220.38	219.91	
27	220.06	220.36	220.41	220.29	220.64	222.64	221.46	219.86	219.84	219.85	220.40	219.95	
28	220.18	220.38	220.41	220.63	220.81	222.67	221.23	219.85	219.84	219.85	220.44	219.93	
29	220.22	220.43	220.41	220.69	220.76	222.64	221.10	219.88	219.84	219.85	220.41	219.93	
30	220.24	220.45	220.41	220.77	220.86	222.61	220.88	219.87	219.84	219.85		219.97	
31		220.40		221.14	220.71		220.67		219.84	219.90		219.88	
Mean	220.09	220.20	220.05	220.17	220.64	221.39	222.49	220.15	219.85	219.84	220.08	220.03	
Max	220.51	220.45	220.41	221.14	221.43	222.67	224.31	221.26	219.88	219.90	220.78	220.69	224.31
Min	219.85	219.75	219.68	219.85	219.94	219.94	220.67	219.85	219.84	219.83	219.69	219.67	219.67

Annual Max Momentary Gage Height	224.43	m. (MSL.) ,	at 06.00 Hours, on Oct 19, 2011		
Zero Gage at Bottom Elevation	219.21	m. (MSL.) ,	River Bed	219.10	m. (MSL)
Left Bank Elevation	227.62	m. (MSL.) ,			
Right Bank Elevation	227.59	m. (MSL.) ,	Drainage Area	864	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.73	0.83	0.94	1.05	7.40	0.81	24.50	0.98	0.47	0.44	0.56	0.75		
2	0.65	0.83	0.85	1.05	6.90	0.66	24.35	0.87	0.47	0.44	2.14	0.54		
3	0.64	0.83	0.84	1.05	7.00	0.54	24.35	0.80	0.47	0.44	3.50	0.31		
4	0.56	0.83	0.87	1.05	10.00	0.54	24.80	0.78	0.48	0.43	3.50	0.31		
5	0.55	0.85	0.90	0.97	10.00	0.62	24.20	0.80	0.48	0.43	3.10	0.31		
6	0.58	0.90	0.84	0.94	9.90	0.79	17.86	0.78	0.47	0.43	2.49	0.29		
7	0.57	0.86	0.80	0.94	9.90	0.71	16.17	0.79	0.47	0.43	0.59	0.27		
8	0.60	0.71	0.74	0.89	9.80	0.66	15.00	0.81	0.47	0.43	0.36	1.25		
9	0.61	0.70	0.70	0.59	9.90	0.66	14.35	0.81	0.47	0.43	0.46	1.25		
10	0.59	0.51	0.66	0.52	9.90	4.60	14.22	0.81	0.47	0.43	0.46	1.35		
11	0.55	0.35	0.61	0.48	4.60	7.80	19.68	0.82	0.47	0.43	0.32	2.63		
12	0.47	0.45	0.61	0.45	3.90	3.80	34.70	0.85	0.47	0.43	0.33	1.80		
13	0.45	0.60	0.59	0.49	3.30	1.40	27.87	0.84	0.47	0.43	0.32	1.10		
14	0.46	0.66	0.49	0.59	0.91	0.99	37.50	0.82	0.46	0.43	0.31	0.93		
15	0.49	0.81	0.41	0.63	0.70	11.60	39.50	0.81	0.44	0.43	0.29	0.87		
16	0.63	0.80	0.38	0.62	0.75	11.90	41.70	0.75	0.44	0.43	0.29	0.96		
17	0.65	0.78	0.34	0.48	0.64	11.80	44.30	0.67	0.44	0.43	0.29	0.72		
18	0.64	0.78	0.28	0.47	0.67	12.50	57.25	0.64	0.44	0.43	0.29	0.52		
19	0.78	0.79	0.29	0.48	0.55	18.64	57.00	0.61	0.44	0.43	0.40	0.50		
20	1.55	0.86	0.29	0.48	0.59	19.94	45.30	0.58	0.45	0.44	0.90	0.39		
21	1.55	0.86	0.30	0.49	0.54	24.80	35.30	0.55	0.44	0.46	0.97	0.42		
22	1.25	0.86	0.30	0.51	0.54	24.65	27.36	0.54	0.44	0.47	0.89	0.34		
23	0.84	0.86	0.31	0.56	0.56	24.95	25.85	0.55	0.44	0.46	0.46	0.39		
24	0.81	0.81	0.35	0.59	0.54	25.10	17.73	8.30	0.44	0.47	0.30	0.43		
25	0.78	0.77	0.62	0.62	0.56	24.95	15.13	1.90	0.44	0.46	0.38	0.45		
26	0.68	0.82	1.05	0.60	0.58	24.65	12.30	0.48	0.44	0.45	0.98	0.51		
27	0.66	0.96	1.05	0.89	2.28	25.10	10.30	0.46	0.44	0.45	1.00	0.55		
28	0.78	0.98	1.05	2.21	3.80	25.55	8.00	0.45	0.44	0.45	1.20	0.53		
29	0.82	1.15	1.05	2.63	3.30	25.10	6.70	0.48	0.44	0.45	1.05	0.53		
30	0.84	1.25	1.05	3.40	4.30	24.65	4.50	0.47	0.44	0.45		0.57		
31		1.00		7.10	2.80		2.49		0.44	0.50		0.48		
Total	21.76	25.05	19.56	33.82	127.11	360.46	770.26	29.80	14.08	13.71	28.13	22.25	1465.99	CMSDAY
Mean	0.73	0.81	0.65	1.09	4.10	12.02	24.85	0.99	0.45	0.44	0.97	0.72	4.01	CMS
Max	1.55	1.25	1.05	7.10	10.00	25.55	57.25	8.30	0.48	0.50	3.50	2.63	57.25	CMS
Min	0.45	0.35	0.28	0.45	0.54	0.54	2.49	0.45	0.44	0.43	0.29	0.27	0.27	CMS
Runoff	1.88	2.16	1.69	2.92	10.98	31.14	66.55	2.58	1.22	1.19	2.43	1.92	126.66	MCM

Momentary Peak 60.25 CMS, at 224.43 m. (MSL), at 06.00 Hours, on Oct 19, 2011

Runoff Yield 4.64 Liters/Second/Square KM. Momentary Peak Yield 69.734 Liters/Second/Square KM.

WATER YEAR : 2011

MUN RIVER BASIN

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

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

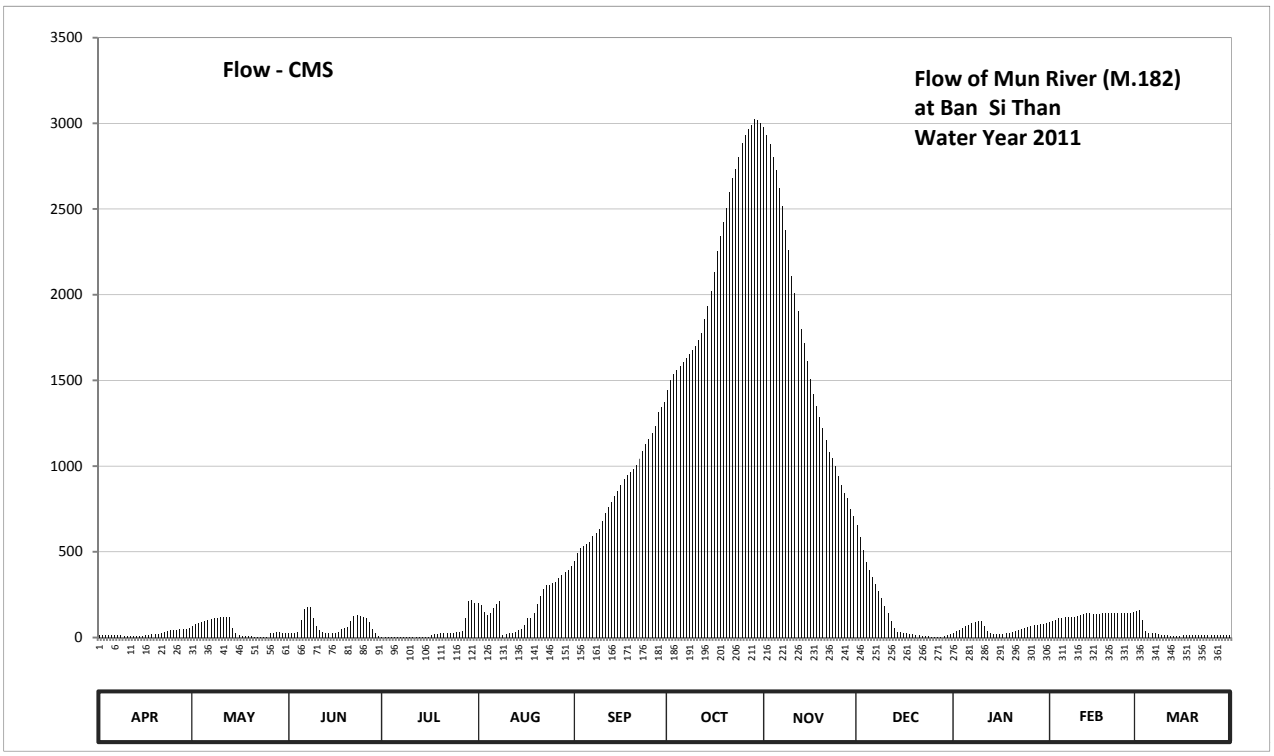
Location : on right bank at the bridge on highway.

	Ban Si Than	**Amphoe** Kanthararom	**Changwat** Si Sa Ket
Drainge Area	49,778 sq.km.		
Type of Gage	Water - stage recorder.		
Zero Gage at Bottom	+106.490 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank at the footpath of the bridge.	**Elevation**	+119.797 m. (MSL.)
Gage Reading Frequency	Recording.		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	2008 to date		
Rating Operation			
Period of Rating	2008 to date		
Rated by Flot	-		
Rated by Current Meter	2008 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records very good. Stage-discharge relation defined by 45 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	108.11	108.70	108.30	107.92	109.84	113.53	116.94	119.33	113.32	108.36	108.92	109.47	
2	108.12	108.80	108.28	107.85	109.72	113.79	116.98	119.28	112.88	108.45	108.98	109.49	
3	108.12	108.85	108.28	107.84	109.40	113.96	117.02	119.21	112.33	108.54	109.04	109.02	
4	108.12	108.91	108.42	107.84	109.26	114.05	117.07	119.12	111.79	108.64	109.09	108.50	
5	108.11	108.97	109.00	107.80	109.34	114.09	117.12	119.02	111.43	108.71	109.13	108.33	
6	108.11	109.01	109.54	107.78	109.58	114.16	117.17	118.88	111.12	108.79	109.16	108.29	
7	108.10	109.06	109.66	107.73	109.78	114.37	117.22	118.74	110.77	108.86	109.18	108.29	
8	108.10	109.10	109.66	107.69	109.95	114.46	117.27	118.56	110.41	108.92	109.18	108.25	
9	108.09	109.13	109.10	107.65	110.03	114.59	117.32	118.39	110.06	108.98	109.18	108.15	
10	108.09	109.15	108.73	107.61	110.13	114.82	117.38	118.16	109.70	108.97	109.21	108.11	
11	108.08	109.16	108.51	107.58	110.21	115.04	117.46	118.00	109.34	108.70	109.26	108.10	
12	108.07	109.17	108.37	107.54	110.27	115.23	117.54	117.81	108.99	108.47	109.31	108.08	
13	108.06	109.16	108.31	107.60	110.32	115.38	117.72	117.60	108.64	108.33	109.35	108.08	
14	108.05	108.64	108.30	107.72	110.45	115.52	117.86	117.41	108.40	108.27	109.38	108.07	
15	108.07	108.34	108.31	107.89	110.59	115.65	118.02	117.18	108.37	108.24	109.32	108.07	
16	108.10	108.17	108.32	107.99	110.81	115.79	118.19	116.94	108.35	108.22	109.30	108.11	
17	108.12	108.08	108.41	108.10	111.12	115.92	118.38	116.69	108.31	108.23	109.32	108.13	
18	108.19	108.06	108.57	108.19	111.13	116.02	118.51	116.49	108.23	108.29	109.33	108.14	
19	108.22	108.04	108.61	108.27	111.33	116.08	118.62	116.28	108.20	108.34	109.33	108.14	
20	108.27	108.00	108.66	108.33	111.73	116.14	118.73	116.06	108.16	108.40	109.33	108.14	
21	108.34	107.96	108.97	108.35	112.12	116.21	118.85	115.83	108.12	108.46	109.33	108.14	
22	108.41	107.93	109.22	108.34	112.40	116.33	118.96	115.54	108.08	108.51	109.33	108.15	
23	108.47	107.90	109.26	108.31	112.57	116.46	119.03	115.38	108.05	108.57	109.36	108.15	
24	108.51	107.91	109.21	108.34	112.58	116.56	119.12	115.19	108.02	108.62	109.37	108.14	
25	108.52	107.98	109.16	108.39	112.65	116.64	119.22	114.89	107.99	108.67	109.37	108.14	
26	108.54	108.28	109.11	108.41	112.71	116.71	119.28	114.64	107.98	108.71	109.38	108.14	
27	108.55	108.32	108.90	108.48	112.86	116.78	119.32	114.41	107.96	108.75	109.38	108.12	
28	108.56	108.40	108.60	109.09	112.99	116.85	119.35	114.23	107.99	108.79	109.39	108.10	
29	108.60	108.40	108.31	109.94	113.08	116.87	119.39	113.89	108.08	108.83	109.40	108.10	
30	108.63	108.35	108.08	110.01	113.18	116.89	119.38	113.64	108.16	108.84		108.10	
31		108.32		109.82	113.33		119.36		108.22	108.86		108.10	
Mean	108.25	108.52	108.74	108.21	111.14	115.50	118.19	116.89	109.27	108.59	109.26	108.27	
Max	108.63	109.17	109.66	110.01	113.33	116.89	119.39	119.33	113.32	108.98	109.40	109.49	119.39
Min	108.05	107.90	108.08	107.54	109.26	113.53	116.94	113.64	107.96	108.22	108.92	108.07	107.54

Annual Max Momentary Gage Height	119.39	m. (MSL.) ,	at 12.00 Hours, on Oct 29, 2011		
Zero Gage at Bottom Elevation	106.49	m. (MSL.) ,	River Bed	106.28	m. (MSL)
Left Bank Elevation	119.54	m. (MSL.) ,			
Right Bank Elevation	119.60	m. (MSL.) ,	Drainage Area	49778	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	12.60	64.00	24.00	2.60	200.80	448.10	1444.50	2975.50	656.20	28.80	90.40	156.40		
2	13.20	76.00	22.80	1.60	186.40	490.60	1501.50	2934.00	587.10	36.00	97.60	158.80		
3	13.20	82.00	22.80	1.50	148.00	520.30	1539.00	2878.00	508.20	44.80	104.80	102.40		
4	13.20	89.20	33.60	1.50	131.20	536.20	1561.50	2806.00	438.80	56.80	110.80	40.00		
5	12.60	96.40	100.00	1.40	140.80	543.20	1584.00	2726.00	393.80	65.20	115.60	26.40		
6	12.60	101.20	164.80	1.30	169.60	555.60	1606.50	2620.00	355.00	74.80	119.20	23.40		
7	12.00	107.20	179.20	1.20	193.60	592.80	1629.00	2515.00	312.40	83.20	121.60	23.40		
8	12.00	112.00	179.20	1.00	214.00	608.80	1651.50	2380.00	269.20	90.40	121.60	21.00		
9	11.40	115.60	112.00	0.90	16.00	633.10	1674.00	2260.70	227.20	97.60	121.60	15.00		
10	11.40	118.00	67.60	0.70	19.50	679.00	1701.00	2109.00	184.00	96.40	125.20	12.60		
11	10.80	119.20	41.20	0.60	23.70	723.00	1737.00	2010.00	140.80	64.00	131.20	12.00		
12	10.20	120.40	29.60	0.50	27.90	761.00	1773.00	1905.50	98.80	37.60	137.20	10.80		
13	9.60	119.20	24.80	0.70	31.40	793.00	1860.00	1800.00	56.80	26.40	142.00	10.80		
14	9.00	56.80	24.00	1.10	40.50	824.70	1933.00	1714.50	32.00	22.20	145.60	10.20		
15	10.20	27.20	24.80	1.70	51.20	855.30	2022.00	1611.00	29.60	20.40	138.40	10.20		
16	12.00	16.20	25.60	5.60	73.30	889.50	2128.50	1509.00	28.00	19.20	136.00	12.60		
17	13.20	10.80	32.80	12.00	113.60	922.60	2254.00	1421.50	24.80	19.80	138.40	13.80		
18	17.40	9.60	48.40	17.40	114.90	948.40	2342.50	1351.50	19.80	23.40	139.60	14.40		
19	19.20	8.40	53.20	22.20	140.90	964.60	2425.00	1284.00	18.00	27.20	139.60	14.40		
20	22.20	6.00	59.20	26.40	192.90	982.00	2507.50	1218.00	15.60	32.00	139.60	14.40		
21	27.20	4.30	96.40	28.00	244.20	1003.30	2597.50	1154.10	13.20	36.80	139.60	14.40		
22	32.80	3.00	126.40	27.20	282.00	1043.00	2680.00	1080.00	10.80	41.20	139.60	15.00		
23	37.60	1.70	131.20	24.80	305.60	1086.60	2734.00	1043.60	9.00	48.40	143.20	15.00		
24	41.20	2.20	125.20	27.20	307.10	1125.50	2806.00	1001.90	7.20	54.40	144.40	14.40		
25	42.40	5.20	119.20	31.20	317.30	1159.50	2886.00	939.00	5.60	60.40	144.40	14.40		
26	44.80	22.80	113.20	32.80	325.90	1191.00	2934.00	889.30	5.20	65.20	145.60	14.40		
27	46.00	25.60	88.00	38.40	347.70	1233.00	2967.00	844.90	4.30	70.00	145.60	13.20		
28	47.20	32.00	52.00	110.80	366.50	1316.20	2992.50	811.40	5.60	74.80	146.80	12.00		
29	52.00	32.00	24.80	212.80	379.60	1344.80	3026.50	751.30	10.80	79.60	148.00	12.00		
30	55.60	28.00	10.80	221.20	394.50	1373.20	3018.00	708.80	15.60	80.80		12.00		
31		25.60		198.40	417.10		3001.00		19.20	83.20		12.00		
Total	684.80	1637.80	2156.80	1054.70	5917.70	26147.90	68517.50	51253.50	4502.60	1661.00	3813.20	851.80	168199.30	CMSDAY
Mean	22.80	52.80	71.90	34.00	190.90	871.60	2210.20	1708.40	145.20	53.60	131.50	27.50	459.60	CMS
Max	55.60	120.40	179.20	221.20	417.10	1373.20	3026.50	2975.50	656.20	97.60	148.00	158.80	3026.50	CMS
Min	9.00	1.70	10.80	0.50	16.00	448.10	1444.50	708.80	4.30	19.20	90.40	10.20	0.50	CMS
Runoff	59.17	141.51	186.35	91.13	511.29	2259.18	5919.91	4428.30	389.02	143.51	329.46	73.60	14532.42	MCM

Momentary Peak 3062.50 CMS, at 119.39 m. (MSL), at 12.00 Hours, on Oct 29, 2011

Runoff Yield 9.23 Liters/Second/Square KM. Momentary Peak Yield 60.800 Liters/Second/Square KM.

WATER YEAR : 2011

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

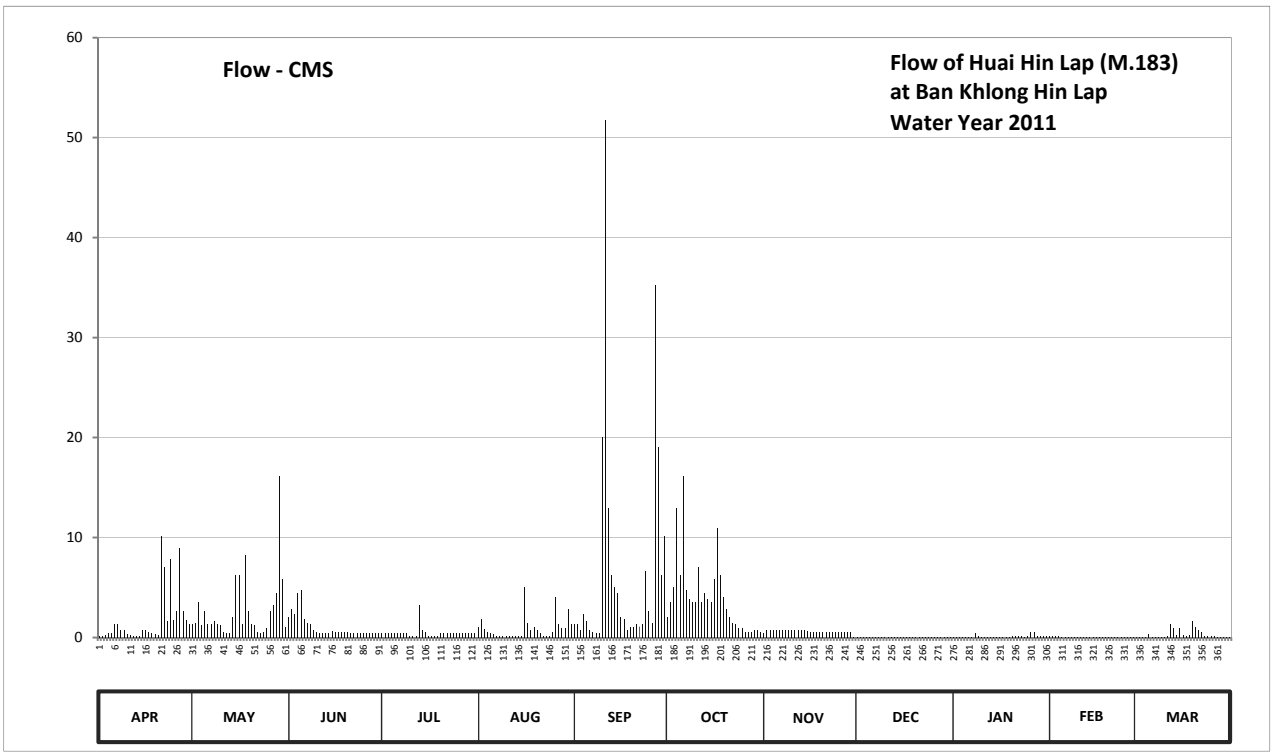
Location : on left bank at the bridge on highway.

	Ban Khlong Hin Lap	**Amphoe** Pak Chong	**Changwat** Nakhon Ratchasima
Drainge Area	250 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+300.800 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the gage site.	**Elevation**	+307.014 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00 , 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings		
Period of Available Gage Records	2007 to date		
Rating Operation			
Period of Rating	2007 to date		
Rated by Flot	-		
Rated by Current Meter	2007 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 36 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	301.20	301.35	301.40	301.25	301.33	301.35	301.40	301.26	301.15	301.19	301.20	301.15	
2	301.20	301.36	301.43	301.25	301.39	301.35	301.45	301.30	301.15	301.19	301.20	301.15	
3	301.22	301.45	301.41	301.25	301.31	301.30	301.50	301.30	301.15	301.19	301.20	301.15	
4	301.25	301.34	301.48	301.25	301.28	301.41	301.70	301.30	301.15	301.19	301.20	301.17	
5	301.25	301.42	301.49	301.25	301.26	301.37	301.53	301.30	301.15	301.19	301.18	301.24	
6	301.35	301.35	301.39	301.25	301.24	301.30	301.77	301.30	301.15	301.19	301.18	301.15	
7	301.35	301.35	301.36	301.25	301.20	301.28	301.49	301.30	301.15	301.17	301.18	301.15	
8	301.30	301.37	301.35	301.25	301.20	301.25	301.46	301.30	301.15	301.25	301.18	301.18	
9	301.30	301.35	301.30	301.25	301.20	301.26	301.45	301.30	301.15	301.20	301.18	301.18	
10	301.24	301.34	301.28	301.20	301.20	301.85	301.45	301.30	301.15	301.17	301.18	301.18	
11	301.23	301.27	301.25	301.20	301.20	302.43	301.55	301.30	301.15	301.15	301.18	301.20	
12	301.20	301.25	301.25	301.20	301.20	301.70	301.45	301.30	301.15	301.15	301.18	301.35	
13	301.20	301.26	301.25	301.44	301.20	301.53	301.48	301.30	301.15	301.15	301.18	301.32	
14	301.20	301.40	301.25	301.30	301.20	301.50	301.46	301.30	301.15	301.15	301.18	301.22	
15	301.30	301.53	301.29	301.27	301.20	301.48	301.45	301.29	301.15	301.15	301.18	301.32	
16	301.30	301.53	301.28	301.20	301.50	301.40	301.52	301.28	301.15	301.15	301.18	301.23	
17	301.27	301.35	301.28	301.20	301.36	301.39	301.65	301.28	301.15	301.15	301.18	301.20	
18	301.25	301.58	301.28	301.20	301.30	301.30	301.53	301.28	301.15	301.15	301.18	301.23	
19	301.24	301.42	301.27	301.20	301.33	301.33	301.47	301.28	301.15	301.15	301.15	301.37	
20	301.23	301.35	301.27	301.25	301.30	301.33	301.43	301.28	301.15	301.20	301.15	301.33	
21	301.63	301.34	301.25	301.25	301.25	301.35	301.40	301.28	301.15	301.20	301.15	301.30	
22	301.55	301.27	301.25	301.25	301.20	301.33	301.36	301.28	301.19	301.20	301.15	301.28	
23	301.37	301.25	301.25	301.25	301.20	301.35	301.35	301.28	301.19	301.20	301.15	301.20	
24	301.57	301.28	301.25	301.25	301.20	301.54	301.32	301.28	301.19	301.19	301.15	301.20	
25	301.38	301.32	301.25	301.25	301.28	301.42	301.32	301.28	301.19	301.20	301.15	301.20	
26	301.42	301.42	301.25	301.25	301.47	301.36	301.28	301.28	301.19	301.28	301.16	301.20	
27	301.60	301.44	301.25	301.25	301.35	302.15	301.28	301.28	301.18	301.27	301.18	301.18	
28	301.42	301.48	301.25	301.25	301.32	301.83	301.28	301.28	301.18	301.20	301.18	301.18	
29	301.38	301.77	301.25	301.25	301.32	301.53	301.30	301.27	301.18	301.20	301.18	301.18	
30	301.35	301.52	301.25	301.25	301.43	301.63	301.30	301.17	301.18	301.20		301.18	
31		301.33		301.25	301.35		301.28		301.18	301.20		301.18	
Mean	301.32	301.39	301.30	301.25	301.28	301.49	301.44	301.28	301.16	301.19	301.17	301.22	
Max	301.63	301.77	301.49	301.44	301.50	302.43	301.77	301.30	301.19	301.28	301.20	301.37	302.43
Min	301.20	301.25	301.25	301.20	301.20	301.25	301.28	301.17	301.15	301.15	301.15	301.15	301.15

Annual Max Momentary Gage Height	302.80	m. (MSL.) ,	at 12.00 Hours, on Sep 11, 2011		
Zero Gage at Bottom Elevation	300.80	m. (MSL.) ,	River Bed	300.92	m. (MSL)
Left Bank Elevation	306.98	m. (MSL.) ,			
Right Bank Elevation	307.01	m. (MSL.) ,	Drainage Area	250	Square Kilometers



Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.10	1.35	2.00	0.40	1.09	1.35	2.00	0.46	0.05	0.09	0.10	0.05		
2	0.10	1.48	2.90	0.40	1.87	1.35	3.50	0.70	0.05	0.09	0.10	0.05		
3	0.22	3.50	2.30	0.40	0.83	0.70	5.00	0.70	0.05	0.09	0.10	0.05		
4	0.40	1.22	4.40	0.40	0.58	2.30	13.00	0.70	0.05	0.09	0.10	0.07		
5	0.40	2.60	4.70	0.40	0.46	1.61	6.20	0.70	0.05	0.09	0.08	0.34		
6	1.35	1.35	1.87	0.40	0.34	0.70	16.15	0.70	0.05	0.09	0.08	0.05		
7	1.35	1.35	1.48	0.40	0.10	0.58	4.70	0.70	0.05	0.07	0.08	0.05		
8	0.70	1.61	1.35	0.40	0.10	0.40	3.80	0.70	0.05	0.40	0.08	0.08		
9	0.70	1.35	0.70	0.40	0.10	0.46	3.50	0.70	0.05	0.10	0.08	0.08		
10	0.34	1.22	0.58	0.10	0.10	20.00	3.50	0.70	0.05	0.07	0.08	0.08		
11	0.28	0.52	0.40	0.10	0.10	51.80	7.00	0.70	0.05	0.05	0.08	0.10		
12	0.10	0.40	0.40	0.10	0.10	13.00	3.50	0.70	0.05	0.05	0.08	1.35		
13	0.10	0.46	0.40	3.20	0.10	6.20	4.40	0.70	0.05	0.05	0.08	0.96		
14	0.10	2.00	0.40	0.70	0.10	5.00	3.80	0.70	0.05	0.05	0.08	0.22		
15	0.70	6.20	0.64	0.52	0.10	4.40	3.50	0.64	0.05	0.05	0.08	0.96		
16	0.70	6.20	0.58	0.10	5.00	2.00	5.80	0.58	0.05	0.05	0.08	0.28		
17	0.52	1.35	0.58	0.10	1.48	1.87	11.00	0.58	0.05	0.05	0.08	0.10		
18	0.40	8.20	0.58	0.10	0.70	0.70	6.20	0.58	0.05	0.05	0.08	0.28		
19	0.34	2.60	0.52	0.10	1.09	1.09	4.10	0.58	0.05	0.05	0.05	1.61		
20	0.28	1.35	0.52	0.40	0.70	1.09	2.90	0.58	0.05	0.10	0.05	1.09		
21	10.20	1.22	0.40	0.40	0.40	1.35	2.00	0.58	0.05	0.10	0.05	0.70		
22	7.00	0.52	0.40	0.40	0.10	1.09	1.48	0.58	0.09	0.10	0.05	0.58		
23	1.61	0.40	0.40	0.40	0.10	1.35	1.35	0.58	0.09	0.10	0.05	0.10		
24	7.80	0.58	0.40	0.40	0.10	6.60	0.96	0.58	0.09	0.09	0.05	0.10		
25	1.74	0.96	0.40	0.40	0.58	2.60	0.96	0.58	0.09	0.10	0.05	0.10		
26	2.60	2.60	0.40	0.40	4.10	1.48	0.58	0.58	0.09	0.58	0.06	0.10		
27	9.00	3.20	0.40	0.40	1.35	35.25	0.58	0.58	0.08	0.52	0.08	0.08		
28	2.60	4.40	0.40	0.40	0.96	19.00	0.58	0.58	0.08	0.10	0.08	0.08		
29	1.74	16.15	0.40	0.40	0.96	6.20	0.70	0.52	0.08	0.10	0.08	0.08		
30	1.35	5.80	0.40	0.40	2.90	10.20	0.70	0.07	0.08	0.10		0.08		
31		1.09		0.40	1.35		0.58		0.08	0.10		0.08		
Total	54.82	83.23	31.30	13.52	27.94	201.72	124.02	18.33	1.90	3.72	2.17	9.93	572.60	CMSDAY
Mean	1.83	2.68	1.04	0.44	0.90	6.72	4.00	0.61	0.06	0.12	0.07	0.32	1.56	CMS
Max	10.20	16.15	4.70	3.20	5.00	51.80	16.15	0.70	0.09	0.58	0.10	1.61	51.80	CMS
Min	0.10	0.40	0.40	0.10	0.10	0.40	0.58	0.07	0.05	0.05	0.05	0.05	0.05	CMS
Runoff	4.74	7.19	2.70	1.17	2.41	17.43	10.72	1.58	0.16	0.32	0.19	0.86	49.47	MCM

Momentary Peak 76.00 CMS, at 302.80 m. (MSL), at 12.00 Hours, on Sep 11, 2011

Runoff Yield 6.26 Liters/Second/Square KM. Momentary Peak Yield 304.000 Liters/Second/Square KM.

WATER YEAR : 2011

MUN RIVER BASIN

Mun River at Ban Cum, Nakhon Ratchasima (M.184)

Lat 15 - 13 - 12 N Long 102 - 25 - 41 E

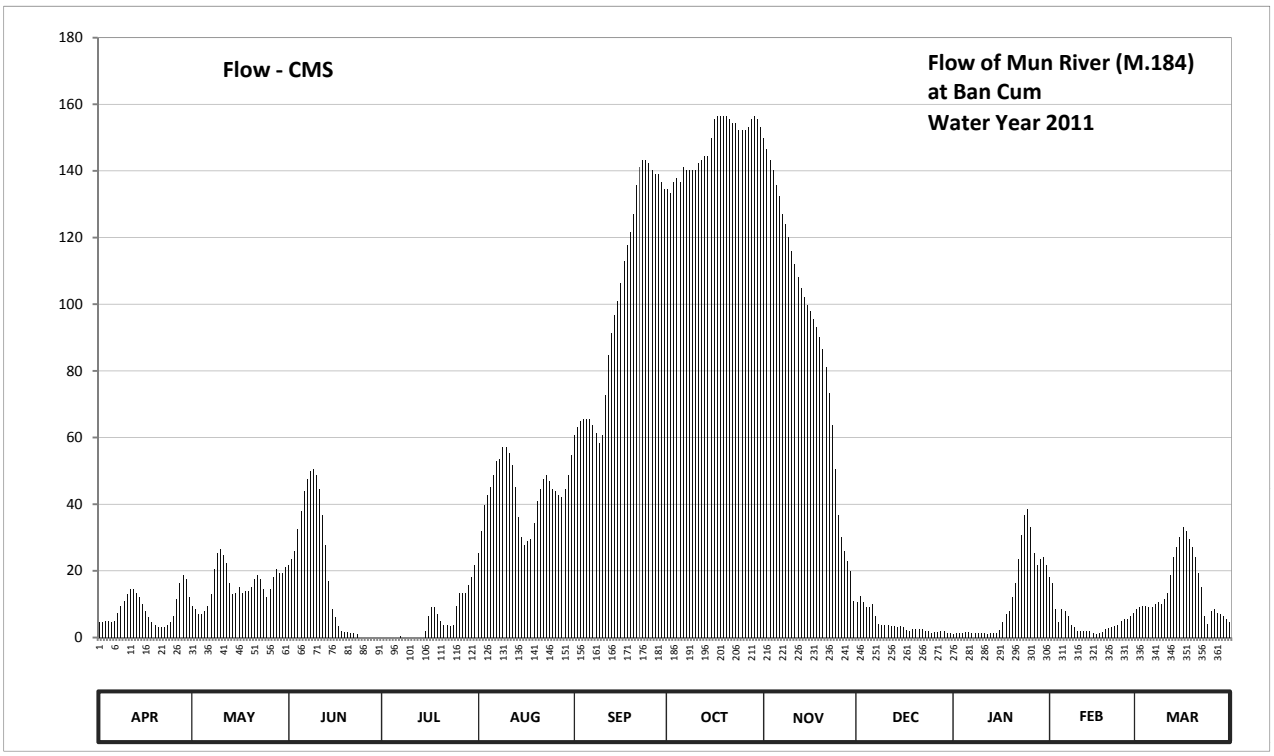
Location : on right at the bridge on highway.

	Ban Cum	**Amphoe** Phimai		**Changwat** Nakhon Ratchasima	
Drainge Area	11,489 sq.km.				
Type of Gage	Water - stage recorder.				
Zero Gage at Bottom	+150.00 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On right bank near the gage site.			**Elevation**	+155.997 m. (MSL.)
Gage Reading Frequency	Recording.				
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings				
Period of Available Gage Records	2008 to date				
Rating Operation					
Period of Rating	2008 to date				
Rated by Flot	-				
Rated by Current Meter	2008 to date				
Stability of Channel Regimes	Stable.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records good. Stage-discharge relation defined by 29 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	153.31	153.41	153.63	151.45	153.69	154.28	155.36	155.50	153.43	153.10	153.57	153.39	
2	153.31	153.39	153.66	151.71	153.80	154.32	155.35	155.47	153.47	153.13	153.54	153.40	
3	153.32	153.36	153.70	152.56	153.93	154.35	155.38	155.44	153.43	153.13	153.39	153.41	
4	153.32	153.36	153.81	152.78	153.98	154.36	155.39	155.41	153.40	153.13	153.31	153.41	
5	153.31	153.38	153.90	152.80	154.02	154.36	155.38	155.37	153.40	153.17	153.39	153.40	
6	153.32	153.41	154.00	152.94	154.08	154.36	155.42	155.34	153.42	153.17	153.38	153.40	
7	153.37	153.48	154.06	153.03	154.15	154.33	155.41	155.29	153.35	153.15	153.35	153.42	
8	153.41	153.61	154.10	153.00	154.16	154.29	155.41	155.25	153.30	153.15	153.29	153.43	
9	153.44	153.69	154.11	152.72	154.22	154.24	155.41	155.20	153.28	153.15	153.25	153.42	
10	153.48	153.71	154.08	152.38	154.22	154.28	155.41	155.15	153.28	153.14	153.18	153.45	
11	153.51	153.68	154.01	152.10	154.19	154.48	155.43	155.10	153.28	153.13	153.18	153.49	
12	153.51	153.64	153.88	151.89	154.13	154.68	155.44	155.05	153.27	153.10	153.18	153.58	
13	153.49	153.54	153.73	151.82	154.02	154.79	155.45	155.01	153.27	153.12	153.20	153.67	
14	153.46	153.48	153.55	152.56	153.87	154.88	155.45	154.97	153.26	153.12	153.19	153.72	
15	153.42	153.49	153.39	153.18	153.77	154.95	155.50	154.93	153.27	153.15	153.14	153.77	
16	153.38	153.52	153.34	153.35	153.73	155.03	155.55	154.90	153.26	153.21	153.11	153.82	
17	153.34	153.49	153.27	153.40	153.75	155.11	155.56	154.86	153.21	153.31	153.13	153.80	
18	153.31	153.50	153.19	153.40	153.76	155.17	155.56	154.82	153.20	153.36	153.16	153.76	
19	153.28	153.50	153.16	153.36	153.84	155.22	155.56	154.77	153.22	153.38	153.22	153.72	
20	153.25	153.52	153.17	153.32	153.95	155.29	155.56	154.71	153.23	153.46	153.24	153.67	
21	153.25	153.56	153.13	153.28	154.01	155.37	155.55	154.62	153.23	153.54	153.25	153.59	
22	153.26	153.58	153.13	153.29	154.06	155.42	155.54	154.49	153.23	153.66	153.27	153.52	
23	153.28	153.56	153.09	153.27	154.08	155.44	155.54	154.33	153.19	153.78	153.28	153.35	
24	153.31	153.51	152.98	153.28	154.05	155.44	155.52	154.11	153.18	153.88	153.32	153.30	
25	153.35	153.46	152.59	153.41	154.01	155.43	155.52	153.88	153.15	153.91	153.33	153.38	
26	153.45	153.51	152.12	153.49	154.00	155.41	155.52	153.77	153.17	153.82	153.33	153.39	
27	153.54	153.57	151.83	153.49	153.98	155.40	155.53	153.70	153.17	153.69	153.35	153.37	
28	153.58	153.61	151.64	153.49	153.97	155.40	155.55	153.65	153.18	153.63	153.37	153.36	
29	153.56	153.59	151.54	153.53	154.01	155.38	155.56	153.60	153.18	153.66	153.38	153.35	
30	153.46	153.59	151.49	153.57	154.08	155.36	155.55	153.44	153.15	153.67		153.33	
31		153.62		153.63	154.18		155.53		153.12	153.63		153.31	
Mean	153.39	153.53	153.24	152.95	153.99	154.89	155.48	154.74	153.26	153.38	153.29	153.50	
Max	153.58	153.71	154.11	153.63	154.22	155.44	155.56	155.50	153.47	153.91	153.57	153.82	155.56
Min	153.25	153.36	151.49	151.45	153.69	154.24	155.35	153.44	153.12	153.10	153.11	153.30	151.45

Annual Max Momentary Gage Height	155.56	m. (MSL.) ,	at 23.00 Hours, on Oct 28, 2011		
Zero Gage at Bottom Elevation	150.00	m. (MSL.) ,	River Bed	149.95	m. (MSL)
Left Bank Elevation	156.07	m. (MSL.) ,			
Right Bank Elevation	155.81	m. (MSL.) ,	Drainage Area	11489	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	4.50	9.50	21.80	0.00	25.40	60.80	134.60	150.00	10.50	1.00	18.20	8.50		
2	4.50	8.50	23.60	0.00	32.00	63.20	133.50	146.70	12.50	1.30	16.40	9.00		
3	5.00	7.00	26.00	0.00	39.80	65.00	136.80	143.40	10.50	1.30	8.50	9.50		
4	5.00	7.00	32.60	0.00	42.80	65.60	137.90	140.10	9.00	1.30	4.50	9.50		
5	4.50	8.00	38.00	0.00	45.20	65.60	136.80	135.70	9.00	1.70	8.50	9.00		
6	5.00	9.50	44.00	0.00	48.80	65.60	141.20	132.40	10.00	1.70	8.00	9.00		
7	7.50	13.00	47.60	0.30	53.00	63.80	140.10	127.20	6.50	1.50	6.50	10.00		
8	9.50	20.60	50.00	0.00	53.60	61.40	140.10	124.00	4.00	1.50	3.80	10.50		
9	11.00	25.40	50.60	0.00	57.20	58.40	140.10	120.00	3.60	1.50	3.00	10.00		
10	13.00	26.60	48.80	0.00	57.20	60.80	140.10	116.00	3.60	1.40	1.80	11.50		
11	14.60	24.80	44.60	0.00	55.40	72.80	142.30	112.00	3.60	1.30	1.80	13.50		
12	14.60	22.40	36.80	0.00	51.80	84.80	143.40	108.00	3.40	1.00	1.80	18.80		
13	13.50	16.40	27.80	0.00	45.20	91.40	144.50	104.80	3.40	1.20	2.00	24.20		
14	12.00	13.00	17.00	0.00	36.20	96.80	144.50	102.20	3.20	1.20	1.90	27.20		
15	10.00	13.50	8.50	1.80	30.20	101.00	150.00	99.80	3.40	1.50	1.40	30.20		
16	8.00	15.20	6.00	6.50	27.80	106.40	155.50	98.00	3.20	2.20	1.10	33.20		
17	6.00	13.50	3.40	9.00	29.00	112.80	156.60	95.60	2.20	4.50	1.30	32.00		
18	4.50	14.00	1.90	9.00	29.60	117.60	156.60	93.20	2.00	7.00	1.60	29.60		
19	3.60	14.00	1.60	7.00	34.40	121.60	156.60	90.20	2.40	8.00	2.40	27.20		
20	3.00	15.20	1.70	5.00	41.00	127.20	156.60	86.60	2.60	12.00	2.80	24.20		
21	3.00	17.60	1.30	3.60	44.60	135.70	155.50	81.20	2.60	16.40	3.00	19.40		
22	3.20	18.80	1.30	3.80	47.60	141.20	154.40	73.40	2.60	23.60	3.40	15.20		
23	3.60	17.60	0.90	3.40	48.80	143.40	154.40	63.80	1.90	30.80	3.60	6.50		
24	4.50	14.60	0.00	3.60	47.00	143.40	152.20	50.60	1.80	36.80	5.00	4.00		
25	6.50	12.00	0.00	9.50	44.60	142.30	152.20	36.80	1.50	38.60	5.50	8.00		
26	11.50	14.60	0.00	13.50	44.00	140.10	152.20	30.20	1.70	33.20	5.50	8.50		
27	16.40	18.20	0.00	13.50	42.80	139.00	153.30	26.00	1.70	25.40	6.50	7.50		
28	18.80	20.60	0.00	13.50	42.20	139.00	155.50	23.00	1.80	21.80	7.50	7.00		
29	17.60	19.40	0.00	15.80	44.60	136.80	156.60	20.00	1.80	23.60	8.00	6.50		
30	12.00	19.40	0.00	18.20	48.80	134.60	155.50	11.00	1.50	24.20		5.50		
31		21.20		21.80	54.80		153.30		1.20	21.80		4.50		
Total	256.40	491.10	535.80	158.80	1345.40	3058.10	4582.90	2741.90	128.70	350.30	145.30	449.20	14243.90	CMSDAY
Mean	8.55	15.84	17.86	5.12	43.40	101.94	147.84	91.40	4.15	11.30	5.01	14.49	38.92	CMS
Max	18.80	26.60	50.60	21.80	57.20	143.40	156.60	150.00	12.50	38.60	18.20	33.20	156.60	CMS
Min	3.00	7.00	0.00	0.00	25.40	58.40	133.50	11.00	1.20	1.00	1.10	4.00	0.00	CMS
Runoff	22.15	42.43	46.29	13.72	116.24	264.22	395.96	236.90	11.12	30.27	12.55	38.81	1230.67	MCM

Momentary Peak 156.60 CMS, at 155.56 m (MSL.), at 23.00 Hours, on Oct 28, 2011

Runoff Yield 3.39 Liters/Second/Square KM. Momentary Peak Yield 13.63 Liters/Second/Square KM.

WATER YEAR : 2011

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.

Ban Phai Noi **Amphoe** Lam Plai Mat **Changwat** Nakhon Ratchasima

Drainge Area	4,880 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+149.700 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank near the gage site. **Elevation** +158.072 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00, and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings
Period of Available Gage Records	2008 to date
Rating Operation	
Period of Rating	2008 to date
Rated by Flot	-
Rated by Current Meter	2008 to date
Stability of Channel Regimes	Unstable because of backwater effect.
Overbank Flow Conditions	Overbank flow starts at elevation + 158.090 m. (MSL.), records are channel flow only.
General Description	Records good. Stage-discharge relation defined by 25 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

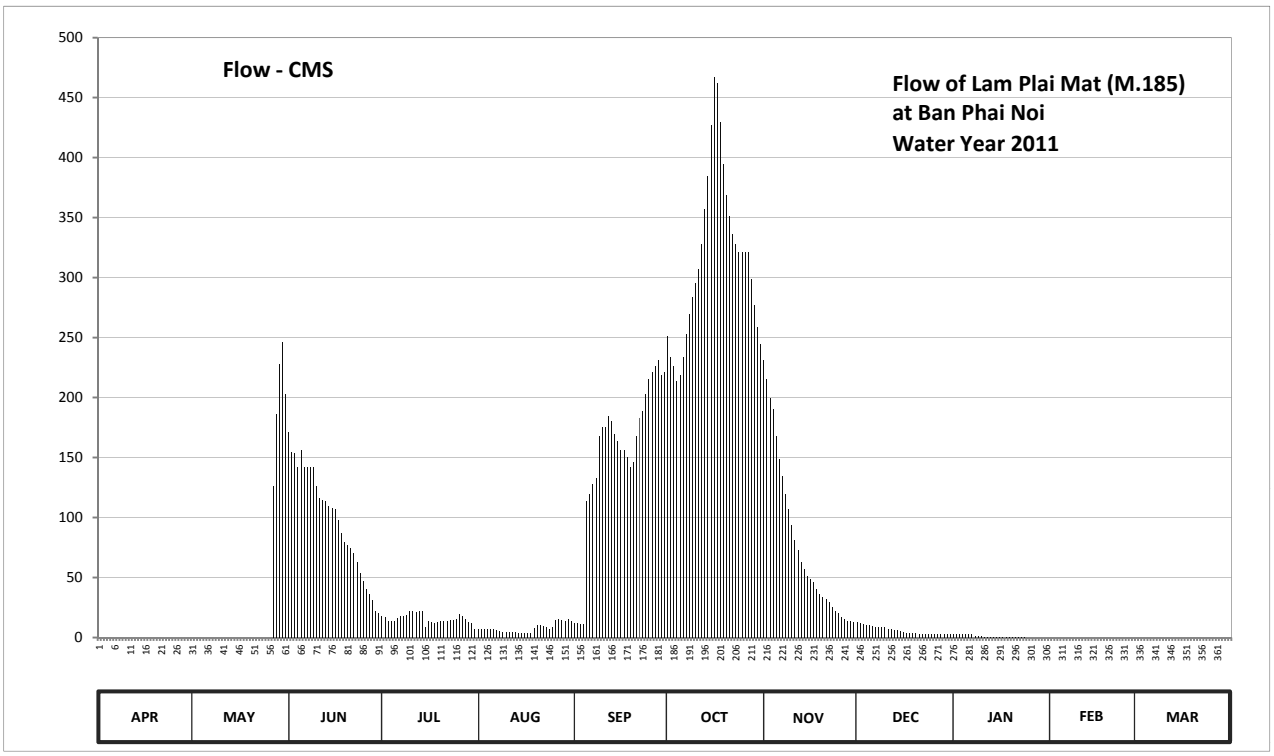
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	154.73	154.50	156.80	155.55	155.87	156.38	157.28	157.17	155.48	155.33	155.15	155.19	
2	154.72	154.49	156.69	155.54	155.95	156.35	157.18	157.08	155.47	155.33	155.14	155.18	
3	154.71	154.48	156.68	155.50	155.95	156.30	157.14	156.99	155.46	155.33	155.13	155.17	
4	154.71	154.47	156.60	155.50	155.93	156.30	157.07	156.93	155.45	155.33	155.12	155.17	
5	154.71	154.45	156.70	155.49	155.93	156.38	157.10	156.78	155.45	155.33	155.11	155.16	
6	154.70	154.44	156.60	155.53	155.88	156.43	157.18	156.65	155.44	155.33	155.10	155.16	
7	154.75	154.30	156.60	155.55	155.83	156.49	157.29	156.54	155.43	155.33	155.09	155.15	
8	154.74	154.29	156.60	155.55	155.75	156.53	157.38	156.43	155.42	155.31	155.08	155.14	
9	154.73	154.28	156.60	155.56	155.68	156.78	157.46	156.33	155.42	155.30	155.07	155.14	
10	154.72	154.25	156.48	155.60	155.65	156.83	157.52	156.23	155.42	155.29	155.06	155.12	
11	154.71	154.45	156.40	155.60	155.65	156.83	157.58	156.13	155.40	155.28	155.05	155.11	
12	154.70	154.23	156.39	155.59	155.64	156.89	157.68	156.07	155.40	155.28	155.04	155.10	
13	154.70	154.20	156.38	155.60	155.63	156.86	157.82	155.99	155.39	155.27	155.03	155.09	
14	154.70	154.19	156.35	155.60	155.59	156.79	157.94	155.95	155.38	155.25	155.02	155.08	
15	154.70	154.18	156.34	156.08	155.55	156.75	158.11	155.90	155.37	155.24	155.00	155.07	
16	154.68	154.18	156.33	156.45	155.54	156.70	158.27	155.88	155.36	155.24	154.99	155.06	
17	154.67	154.18	156.26	156.40	155.54	156.70	158.25	155.85	155.35	155.24	154.98	155.05	
18	154.66	154.17	156.18	156.35	155.53	156.66	158.12	155.79	155.35	155.23	154.97	155.04	
19	154.65	154.19	156.12	156.40	155.96	156.60	157.98	155.75	155.34	155.23	154.96	155.02	
20	154.64	154.20	156.10	156.45	156.27	156.63	157.87	155.73	155.34	155.22	154.95	155.01	
21	154.63	154.19	156.08	156.48	156.27	156.78	157.79	155.71	155.33	155.22	154.97	155.00	
22	154.62	154.18	156.05	156.50	156.17	156.88	157.72	155.68	155.33	155.22	153.75	154.99	
23	154.62	154.17	155.99	156.52	156.07	156.92	157.68	155.64	155.33	155.22	155.12	154.98	
24	154.61	154.17	155.92	156.55	155.92	157.01	157.65	155.60	155.33	155.21	155.15	154.97	
25	154.58	154.17	155.86	156.61	156.10	157.08	157.65	155.58	155.33	155.20	155.16	154.96	
26	154.57	153.84	155.79	156.88	156.55	157.11	157.65	155.54	155.33	155.20	155.18	154.95	
27	154.57	156.48	155.75	156.77	156.57	157.14	157.65	155.52	155.33	155.10	155.19	154.94	
28	154.55	156.90	155.70	156.60	156.52	157.17	157.54	155.50	155.33	155.18	155.19	154.93	
29	154.53	157.15	155.60	156.40	156.51	157.10	157.42	155.49	155.33	155.17	155.19	154.90	
30	154.51	157.25	155.58	156.37	156.57	157.11	157.32	155.48	155.33	155.16		154.89	
31		157.01		155.95	156.46		157.24		155.33	155.15		154.88	
Mean	154.66	154.70	156.25	156.05	155.97	156.75	157.60	156.06	155.38	155.25	155.03	155.05	
Max	154.75	157.25	156.80	156.88	156.57	157.17	158.27	157.17	155.48	155.33	155.19	155.19	158.27
Min	154.51	153.84	155.58	155.49	155.53	156.30	157.07	155.48	155.33	155.10	153.75	154.88	153.75

Annual Max Momentary Gage Height 158.30 m. (MSL.) , at 06.00 Hours, on Oct 17, 2011

Zero Gage at Bottom Elevation 149.70 m. (MSL.) , River Bed 150.34 m. (MSL)

Left Bank Elevation 157.85 m. (MSL.) ,

Right Bank Elevation 158.08 m. (MSL.) , Drainage Area 4880 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	171.00	18.00	6.70	12.20	251.40	231.60	12.60	2.80	0.00	0.00		
2	0.00	0.00	154.60	17.20	7.50	11.75	233.40	215.40	11.90	2.80	0.00	0.00		
3	0.00	0.00	153.20	14.00	7.50	11.00	226.20	199.50	11.20	2.80	0.00	0.00		
4	0.00	0.00	142.00	14.00	7.30	11.00	213.60	190.50	10.50	2.80	0.00	0.00		
5	0.00	0.00	156.00	13.30	7.30	113.40	219.00	168.00	10.50	2.80	0.00	0.00		
6	0.00	0.00	142.00	16.40	6.80	119.90	233.40	149.00	9.80	2.80	0.00	0.00		
7	0.00	0.00	142.00	18.00	6.30	127.70	253.20	134.20	9.10	2.80	0.00	0.00		
8	0.00	0.00	142.00	18.00	5.50	132.90	269.40	119.90	8.40	1.60	0.00	0.00		
9	0.00	0.00	142.00	18.80	4.80	168.00	283.80	106.90	8.40	1.00	0.00	0.00		
10	0.00	0.00	126.40	22.00	4.50	175.50	295.00	93.90	8.40	0.90	0.00	0.00		
11	0.00	0.00	116.00	22.00	4.50	175.50	307.00	80.90	7.00	0.80	0.00	0.00		
12	0.00	0.00	114.70	21.20	4.40	184.50	327.80	73.10	7.00	0.80	0.00	0.00		
13	0.00	0.00	113.40	22.00	4.30	180.00	357.40	62.70	6.40	0.70	0.00	0.00		
14	0.00	0.00	109.50	22.00	3.90	169.50	385.00	57.50	5.80	0.50	0.00	0.00		
15	0.00	0.00	108.20	8.80	3.50	163.50	427.50	51.00	5.20	0.40	0.00	0.00		
16	0.00	0.00	106.90	13.25	3.40	156.00	467.50	49.00	4.60	0.40	0.00	0.00		
17	0.00	0.00	97.80	12.50	3.40	156.00	462.50	46.00	4.00	0.40	0.00	0.00		
18	0.00	0.00	87.40	11.75	3.30	150.40	430.00	40.00	4.00	0.30	0.00	0.00		
19	0.00	0.00	79.60	12.50	7.60	142.00	395.00	36.00	3.40	0.30	0.00	0.00		
20	0.00	0.00	77.00	13.25	10.70	146.20	368.40	34.00	3.40	0.20	0.00	0.00		
21	0.00	0.00	74.40	13.70	10.70	168.00	350.90	32.00	2.80	0.20	0.00	0.00		
22	0.00	0.00	70.50	14.00	9.70	183.00	336.20	29.20	2.80	0.20	0.00	0.00		
23	0.00	0.00	62.70	14.30	8.70	189.00	327.80	25.60	2.80	0.20	0.00	0.00		
24	0.00	0.00	53.60	14.75	7.20	202.80	321.50	22.00	2.80	0.10	0.00	0.00		
25	0.00	0.00	47.00	15.65	9.00	215.40	321.50	20.40	2.80	0.00	0.00	0.00		
26	0.00	0.00	40.00	19.70	14.75	220.80	321.50	17.20	2.80	0.00	0.00	0.00		
27	0.00	126.40	36.00	18.05	15.05	226.20	321.50	15.60	2.80	0.00	0.00	0.00		
28	0.00	186.00	31.00	15.50	14.30	231.60	299.00	14.00	2.80	0.00	0.00	0.00		
29	0.00	228.00	22.00	12.50	14.15	219.00	276.60	13.30	2.80	0.00	0.00	0.00		
30	0.00	246.00	20.40	12.05	15.05	220.80	258.60	12.60	2.80	0.00		0.00		
31		202.80		7.50	13.40		244.20		2.80	0.00		0.00		
Total	0.00	989.20	2939.30	486.65	245.20	4583.55	9785.80	2341.00	182.40	28.60	0.00	0.00	21581.70	CMSDAY
Mean	0.00	31.91	97.98	15.70	7.91	152.78	315.67	78.03	5.88	0.92	0.00	0.00	58.97	CMS
Max	0.00	246.00	171.00	22.00	15.05	231.60	467.50	231.60	12.60	2.80	0.00	0.00	467.50	CMS
Min	0.00	0.00	20.40	7.50	3.30	11.00	213.60	12.60	2.80	0.00	0.00	0.00	0.00	CMS
Runoff	0.00	85.47	253.96	42.05	21.19	396.02	845.49	202.26	15.76	2.47	0.00	0.00	1864.66	MCM

Momentary Peak 475.00 CMS. at 158.30 m (MSL.), at 06.00 Hours, on Oct 17, 2011

Runoff Yield 12.08 Liters/Second/Square KM. Momentary Peak Yield 97.336 Liters/Second/Square KM.

WATER YEAR : 2011

MUN RIVER BASIN

Lam Chakkarat at Ban Non Koy, Nakhon Ratchasima (M.186)

Lat 15 - 03 - 58 N Long 102 - 24 - 09 E

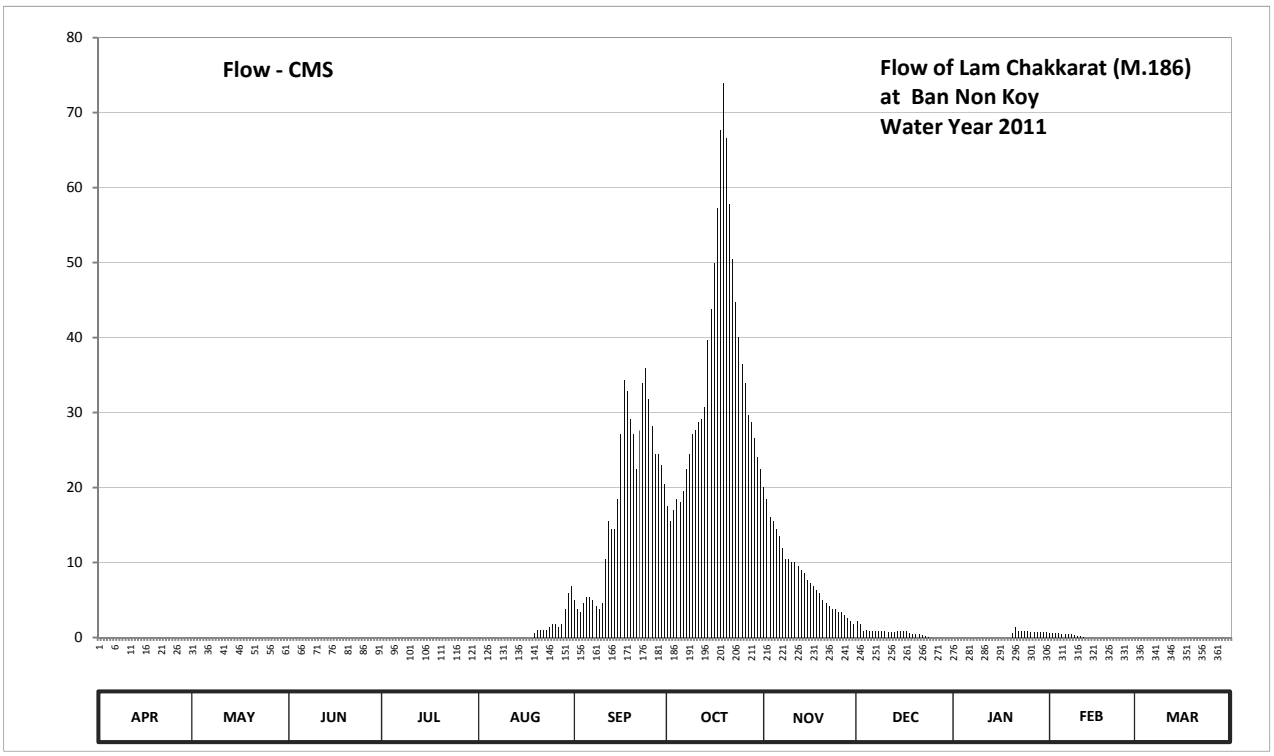
Location : on right at the bridge on highway.

	Ban Non Koy	**Amphoe** Chakkarat	**Changwat** Nakhon Ratchasima
Drainge Area	1,337 sq.km.		
Type of Gage	Water - stage recorder.		
Zero Gage at Bottom	+0.000 m. (A.D.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank near the gage site.		**Elevation** +4.812 m. (A.D.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	2008 to date		
Rating Operation			
Period of Rating	2008 to date		
Rated by Flot	-		
Rated by Current Meter	2008 to date		
Stability of Channel Regimes	Fair stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 11 discharge measurements made in 2011.		

Gage Height in Meter (A.D.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	1.84	1.61	1.62	1.50	2.12	2.60	2.86	2.91	2.53	2.35	2.46	2.22	
2	1.82	1.61	1.62	1.49	2.12	2.57	2.82	2.88	2.52	2.34	2.46	2.21	
3	1.81	1.60	1.62	1.48	2.15	2.56	2.85	2.83	2.48	2.33	2.46	2.20	
4	1.81	1.59	1.62	1.48	2.22	2.59	2.88	2.82	2.50	2.33	2.46	2.19	
5	1.81	1.58	1.62	1.47	2.23	2.61	2.87	2.80	2.49	2.31	2.45	2.19	
6	1.80	1.57	1.64	1.46	2.22	2.61	2.90	2.78	2.49	2.30	2.45	2.18	
7	1.80	1.55	1.64	1.45	2.23	2.60	2.96	2.75	2.49	2.29	2.44	2.17	
8	1.80	1.54	1.63	1.45	2.23	2.58	3.00	2.72	2.49	2.28	2.44	2.15	
9	1.78	1.54	1.63	1.44	2.24	2.57	3.05	2.72	2.49	2.27	2.43	2.14	
10	1.77	1.52	1.62	1.42	2.26	2.59	3.06	2.71	2.48	2.25	2.42	2.14	
11	1.76	1.52	1.60	1.45	2.26	2.72	3.08	2.71	2.47	2.23	2.42	2.17	
12	1.73	1.52	1.59	1.51	2.28	2.82	3.09	2.70	2.47	2.21	2.41	2.16	
13	1.72	1.52	1.59	1.56	2.30	2.80	3.12	2.69	2.47	2.19	2.40	2.15	
14	1.71	1.52	1.58	1.63	2.33	2.80	3.29	2.68	2.48	2.18	2.39	2.16	
15	1.71	1.52	1.57	1.71	2.36	2.88	3.37	2.66	2.48	2.18	2.39	2.15	
16	1.69	1.51	1.56	1.75	2.36	3.05	3.49	2.65	2.48	2.18	2.38	2.14	
17	1.66	1.51	1.55	1.76	2.38	3.19	3.63	2.64	2.48	2.18	2.37	2.14	
18	1.66	1.50	1.55	1.78	2.38	3.16	3.83	2.63	2.46	2.17	2.36	2.13	
19	1.68	1.50	1.55	1.79	2.46	3.09	3.95	2.62	2.45	2.17	2.35	2.12	
20	1.68	1.50	1.55	1.80	2.50	3.05	3.81	2.60	2.45	2.46	2.34	2.13	
21	1.68	1.51	1.55	1.81	2.50	2.96	3.64	2.59	2.44	2.51	2.33	2.13	
22	1.67	1.50	1.54	1.85	2.50	3.06	3.50	2.58	2.43	2.49	2.32	2.12	
23	1.66	1.49	1.53	1.91	2.50	3.18	3.39	2.57	2.42	2.48	2.32	2.11	
24	1.66	1.49	1.52	1.96	2.51	3.22	3.30	2.57	2.41	2.48	2.30	2.09	
25	1.65	1.56	1.51	2.03	2.52	3.14	3.23	2.56	2.40	2.48	2.29	2.08	
26	1.65	1.56	1.50	2.07	2.52	3.07	3.18	2.56	2.39	2.47	2.27	2.07	
27	1.64	1.55	1.51	2.08	2.51	3.00	3.10	2.55	2.38	2.47	2.26	2.05	
28	1.64	1.55	1.52	2.11	2.52	3.00	3.08	2.54	2.38	2.47	2.25	2.04	
29	1.63	1.59	1.52	2.11	2.57	2.97	3.04	2.53	2.37	2.47	2.23	2.03	
30	1.62	1.60	1.52	2.11	2.62	2.92	2.99	2.52	2.36	2.47		2.02	
31		1.60		2.11	2.64		2.96		2.35	2.47		2.01	
Mean	1.72	1.54	1.57	1.73	2.37	2.87	3.20	2.67	2.45	2.34	2.37	2.13	
Max	1.84	1.61	1.64	2.11	2.64	3.22	3.95	2.91	2.53	2.51	2.46	2.22	3.95
Min	1.62	1.49	1.50	1.42	2.12	2.56	2.82	2.52	2.35	2.17	2.23	2.01	1.42

Annual Max Momentary Gage Height	3.98	m. (A.D.) ,	at 05.00 Hours, on Oct 19, 2011		
Zero Gage at Bottom Elevation	0.00	m. (A.D.) ,	River Bed	0.13	m. (A.D.)
Left Bank Elevation	4.87	m. (A.D.) ,			
Right Bank Elevation	4.81	m. (A.D.) ,	Drainage Area	1337	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

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	5.00	17.50	20.00	2.20	0.00	0.60	0.00		
2	0.00	0.00	0.00	0.00	0.00	3.80	15.50	18.50	1.80	0.00	0.60	0.00		
3	0.00	0.00	0.00	0.00	0.00	3.40	17.00	16.00	0.80	0.00	0.60	0.00		
4	0.00	0.00	0.00	0.00	0.00	4.60	18.50	15.50	1.00	0.00	0.60	0.00		
5	0.00	0.00	0.00	0.00	0.00	5.45	18.00	14.50	0.90	0.00	0.50	0.00		
6	0.00	0.00	0.00	0.00	0.00	5.45	19.50	13.50	0.90	0.00	0.50	0.00		
7	0.00	0.00	0.00	0.00	0.00	5.00	22.50	12.00	0.90	0.00	0.40	0.00		
8	0.00	0.00	0.00	0.00	0.00	4.20	24.50	10.50	0.90	0.00	0.40	0.00		
9	0.00	0.00	0.00	0.00	0.00	3.80	27.10	10.50	0.90	0.00	0.30	0.00		
10	0.00	0.00	0.00	0.00	0.00	4.60	27.62	10.00	0.80	0.00	0.20	0.00		
11	0.00	0.00	0.00	0.00	0.00	10.50	28.66	10.00	0.70	0.00	0.20	0.00		
12	0.00	0.00	0.00	0.00	0.00	15.50	29.18	9.50	0.70	0.00	0.10	0.00		
13	0.00	0.00	0.00	0.00	0.00	14.50	30.74	9.05	0.70	0.00	0.00	0.00		
14	0.00	0.00	0.00	0.00	0.00	14.50	39.58	8.60	0.80	0.00	0.00	0.00		
15	0.00	0.00	0.00	0.00	0.00	18.50	43.74	7.70	0.80	0.00	0.00	0.00		
16	0.00	0.00	0.00	0.00	0.00	27.10	49.98	7.25	0.80	0.00	0.00	0.00		
17	0.00	0.00	0.00	0.00	0.00	34.38	57.26	6.80	0.80	0.00	0.00	0.00		
18	0.00	0.00	0.00	0.00	0.00	32.82	67.66	6.35	0.60	0.00	0.00	0.00		
19	0.00	0.00	0.00	0.00	0.60	29.18	73.90	5.90	0.50	0.00	0.00	0.00		
20	0.00	0.00	0.00	0.00	1.00	27.10	66.62	5.00	0.50	0.60	0.00	0.00		
21	0.00	0.00	0.00	0.00	1.00	22.50	57.78	4.60	0.40	1.40	0.00	0.00		
22	0.00	0.00	0.00	0.00	1.00	27.62	50.50	4.20	0.30	0.90	0.00	0.00		
23	0.00	0.00	0.00	0.00	1.00	33.86	44.78	3.80	0.20	0.80	0.00	0.00		
24	0.00	0.00	0.00	0.00	1.40	35.94	40.10	3.80	0.10	0.80	0.00	0.00		
25	0.00	0.00	0.00	0.00	1.80	31.78	36.46	3.40	0.00	0.80	0.00	0.00		
26	0.00	0.00	0.00	0.00	1.80	28.14	33.86	3.40	0.00	0.70	0.00	0.00		
27	0.00	0.00	0.00	0.00	1.40	24.50	29.70	3.00	0.00	0.70	0.00	0.00		
28	0.00	0.00	0.00	0.00	1.80	24.50	28.66	2.60	0.00	0.70	0.00	0.00		
29	0.00	0.00	0.00	0.00	3.80	23.00	26.58	2.20	0.00	0.70	0.00	0.00		
30	0.00	0.00	0.00	0.00	5.90	20.50	24.00	1.80	0.00	0.70		0.00		
31		0.00		0.00	6.80		22.50		0.00	0.70		0.00		
Total	0.00	0.00	0.00	0.00	29.30	541.72	1089.96	249.95	19.00	9.50	5.00	0.00	1944.43	CMSDAY
Mean	0.00	0.00	0.00	0.00	0.95	18.06	35.16	8.33	0.61	0.31	0.17	0.00	5.31	CMS
Max	0.00	0.00	0.00	0.00	6.80	35.94	73.90	20.00	2.20	1.40	0.60	0.00	73.90	CMS
Min	0.00	0.00	0.00	0.00	0.00	3.40	15.50	1.80	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	0.00	0.00	0.00	0.00	2.53	46.81	94.17	21.60	1.64	0.82	0.43	0.00	168.00	MCM

Momentary Peak 75.46 CMS. at 3.98 m (A.D), at 05.00 Hours, on Oct 19, 2011

Runoff Yield 3.97 Liters/Second/Square KM. Momentary Peak Yield 56.440 Liters/Second/Square KM.

WATER YEAR : 2011

MUN RIVER BASIN

Huai Sanaeng at Mueang, Surin (M.187)

Lat 14 - 51 - 26 N Long 103 - 28 - 37 E

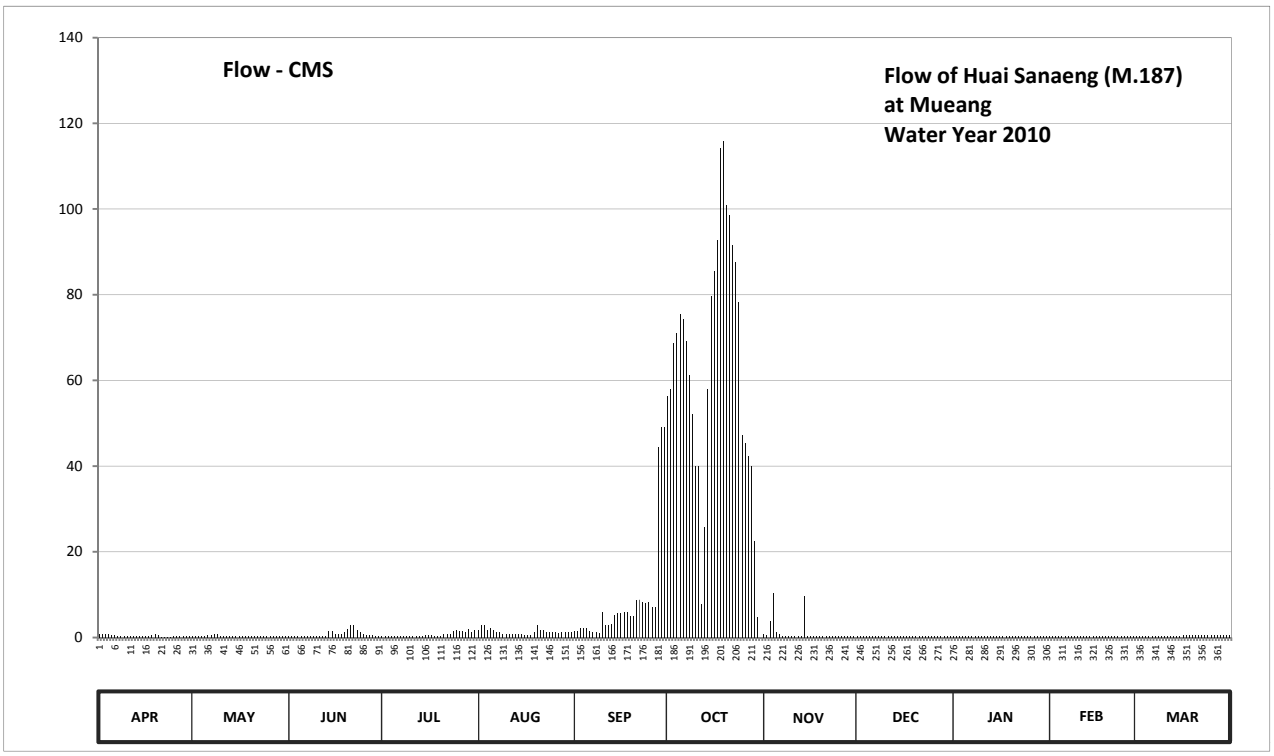
Location : on right at the bridge on highway.

	Ban	-	**Amphoe**	Mueang	**Changwat**	Surin
Drainge Area	614	sq.km.				
Type of Gage	Staff gage					
Zero Gage at Bottom	+0.000	m. (A.D.)				
Bench Mark	B.M.-H.D.					
Location BM	On right bank near the gage site.				**Elevation**	+6.858 m. (A.D.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.					
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings					
Period of Available Gage Records	2008 to date					
Rating Operation						
Period of Rating	2008 to date					
Rated by Flot	-					
Rated by Current Meter	2008 to date					
Stability of Channel Regimes	Stable.					
Overbank Flow Conditions	No overbank flow.					
General Description	Records good. Stage-discharge relation defined by 17 discharge measurements made in 2011.					

Gage Height in Meter (A.D.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	1.50	1.45	1.44	1.46	1.60	1.58	3.46	1.50	1.45	1.45	1.45	1.45	
2	1.50	1.45	1.45	1.46	1.70	1.59	3.50	1.49	1.46	1.45	1.45	1.45	
3	1.50	1.46	1.45	1.46	1.70	1.65	3.74	2.75	1.46	1.45	1.45	1.45	
4	1.50	1.46	1.45	1.46	1.60	1.65	3.79	2.45	1.46	1.45	1.45	1.45	
5	1.47	1.46	1.45	1.46	1.65	1.64	3.89	1.55	1.46	1.45	1.45	1.45	
6	1.47	1.47	1.45	1.46	1.60	1.57	3.86	1.50	1.46	1.45	1.45	1.45	
7	1.45	1.47	1.45	1.46	1.55	1.55	3.75	1.46	1.45	1.44	1.45	1.45	
8	1.45	1.50	1.45	1.46	1.55	1.55	3.57	1.45	1.45	1.44	1.45	1.45	
9	1.45	1.50	1.45	1.46	1.52	1.54	3.37	1.45	1.45	1.44	1.45	1.45	
10	1.45	1.45	1.45	1.46	1.52	2.65	3.10	1.45	1.45	1.44	1.45	1.45	
11	1.45	1.45	1.46	1.45	1.50	2.80	3.10	1.45	1.45	1.44	1.44	1.45	
12	1.45	1.45	1.46	1.45	1.50	2.80	2.83	1.44	1.45	1.44	1.44	1.45	
13	1.45	1.45	1.46	1.45	1.51	2.79	2.94	1.44	1.45	1.44	1.44	1.45	
14	1.45	1.45	1.57	1.45	1.50	2.69	3.50	2.48	1.45	1.44	1.44	1.45	
15	1.45	1.45	1.57	1.48	1.50	2.67	3.98	1.46	1.45	1.44	1.44	1.45	
16	1.45	1.45	1.50	1.48	1.49	2.67	4.10	1.45	1.45	1.44	1.45	1.47	
17	1.45	1.45	1.50	1.48	1.47	2.65	4.23	1.45	1.45	1.44	1.45	1.47	
18	1.47	1.45	1.50	1.46	1.47	2.65	4.62	1.44	1.45	1.44	1.45	1.47	
19	1.50	1.45	1.55	1.46	1.55	2.70	4.65	1.44	1.45	1.44	1.45	1.47	
20	1.47	1.45	1.62	1.46	1.70	2.70	4.38	1.44	1.45	1.44	1.45	1.47	
21	1.43	1.44	1.70	1.51	1.61	2.52	4.34	1.44	1.45	1.44	1.45	1.47	
22	1.43	1.44	1.70	1.51	1.60	2.52	4.21	1.44	1.45	1.46	1.45	1.47	
23	1.43	1.44	1.60	1.51	1.55	2.55	4.14	1.44	1.45	1.46	1.45	1.47	
24	1.43	1.44	1.56	1.57	1.56	2.56	3.95	1.45	1.45	1.46	1.45	1.47	
25	1.45	1.44	1.50	1.61	1.55	2.55	3.26	1.45	1.45	1.45	1.45	1.47	
26	1.45	1.44	1.49	1.59	1.55	2.60	3.22	1.45	1.45	1.45	1.45	1.47	
27	1.45	1.44	1.48	1.59	1.54	2.60	3.15	1.45	1.45	1.45	1.45	1.47	
28	1.45	1.44	1.47	1.55	1.55	3.20	3.10	1.45	1.44	1.45	1.45	1.47	
29	1.45	1.44	1.46	1.62	1.55	3.30	2.92	1.45	1.44	1.45	1.45	1.47	
30	1.45	1.44	1.46	1.55	1.55	3.30	1.85	1.45	1.44	1.45		1.47	
31		1.44		1.60	1.55		1.13		1.44	1.45		1.47	
Mean	1.46	1.45	1.50	1.50	1.56	2.39	3.54	1.57	1.45	1.45	1.45	1.46	
Max	1.50	1.50	1.70	1.62	1.70	3.30	4.65	2.75	1.46	1.46	1.45	1.47	4.65
Min	1.43	1.44	1.44	1.45	1.47	1.54	1.13	1.44	1.44	1.44	1.44	1.45	1.13

Annual Max Momentary Gage Height	4.70	m. (A.D.) ,	at 18.00 Hours , on Oct 18 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (A.D.) ,	River Bed	0.00	m. (A.D.)
Left Bank Elevation	6.86	m. (A.D.) ,			
Right Bank Elevation	6.86	m. (A.D.) ,	Drainage Area	614	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.70	0.35	0.28	0.42	1.70	1.50	56.20	0.70	0.35	0.35	0.35	0.35		
2	0.70	0.35	0.35	0.42	2.90	1.60	58.00	0.63	0.42	0.35	0.35	0.35		
3	0.70	0.42	0.35	0.42	2.90	2.30	68.80	3.91	0.42	0.35	0.35	0.35		
4	0.70	0.42	0.35	0.42	1.70	2.30	71.05	10.30	0.42	0.35	0.35	0.35		
5	0.49	0.42	0.35	0.42	2.30	2.18	75.55	1.20	0.42	0.35	0.35	0.35		
6	0.49	0.49	0.35	0.42	1.70	1.40	74.20	0.70	0.42	0.35	0.35	0.35		
7	0.35	0.49	0.35	0.42	1.20	1.20	69.25	0.42	0.35	0.28	0.35	0.35		
8	0.35	0.70	0.35	0.42	1.20	1.20	61.15	0.35	0.35	0.28	0.35	0.35		
9	0.35	0.70	0.35	0.42	0.90	1.10	52.15	0.35	0.35	0.28	0.35	0.35		
10	0.35	0.35	0.35	0.42	0.90	6.04	40.00	0.35	0.35	0.28	0.35	0.35		
11	0.35	0.35	0.42	0.35	0.70	2.85	40.00	0.35	0.35	0.28	0.28	0.35		
12	0.35	0.35	0.42	0.35	0.70	2.85	7.75	0.28	0.35	0.28	0.28	0.35		
13	0.35	0.35	0.42	0.35	0.80	3.06	25.71	0.28	0.35	0.28	0.28	0.35		
14	0.35	0.35	1.40	0.35	0.70	5.19	58.00	9.67	0.35	0.28	0.28	0.35		
15	0.35	0.35	1.40	0.56	0.70	5.62	79.60	0.42	0.35	0.28	0.28	0.35		
16	0.35	0.35	0.70	0.56	0.63	5.62	85.50	0.35	0.35	0.28	0.35	0.49		
17	0.35	0.35	0.70	0.56	0.49	6.04	92.65	0.35	0.35	0.28	0.35	0.49		
18	0.49	0.35	0.70	0.42	0.49	6.04	114.15	0.28	0.35	0.28	0.35	0.49		
19	0.70	0.35	1.20	0.42	1.20	4.98	115.88	0.28	0.35	0.28	0.35	0.49		
20	0.49	0.35	1.94	0.42	2.90	4.98	100.90	0.28	0.35	0.28	0.35	0.49		
21	0.21	0.28	2.90	0.80	1.82	8.81	98.70	0.28	0.35	0.28	0.35	0.49		
22	0.21	0.28	2.90	0.80	1.70	8.81	91.55	0.28	0.35	0.42	0.35	0.49		
23	0.21	0.28	1.70	0.80	1.20	8.18	87.70	0.28	0.35	0.42	0.35	0.49		
24	0.21	0.28	1.30	1.40	1.30	7.96	78.25	0.35	0.35	0.42	0.35	0.49		
25	0.35	0.28	0.70	1.82	1.20	8.18	47.20	0.35	0.35	0.35	0.35	0.49		
26	0.35	0.28	0.63	1.60	1.20	7.11	45.40	0.35	0.35	0.35	0.35	0.49		
27	0.35	0.28	0.56	1.60	1.10	7.11	42.25	0.35	0.35	0.35	0.35	0.49		
28	0.35	0.28	0.49	1.20	1.20	44.50	40.00	0.35	0.28	0.35	0.35	0.49		
29	0.35	0.28	0.42	1.94	1.20	49.00	22.44	0.35	0.28	0.35	0.35	0.49		
30	0.35	0.28	0.42	1.20	1.20	49.00	4.70	0.35	0.28	0.35		0.49		
31		0.28		1.70	1.20		0.00		0.28	0.35		0.49		
Total	12.25	11.27	24.75	23.40	41.03	266.71	1904.68	34.74	10.92	10.01	9.80	13.09	2362.65	CMSDAY
Mean	0.41	0.36	0.82	0.75	1.32	8.89	61.44	1.16	0.35	0.32	0.34	0.42	6.46	CMS
Max	0.70	0.70	2.90	1.94	2.90	49.00	115.88	10.30	0.42	0.42	0.35	0.49	115.88	CMS
Min	0.21	0.28	0.28	0.35	0.49	1.10	0.00	0.28	0.28	0.28	0.28	0.35	0.00	CMS
Runoff	1.06	0.97	2.14	2.02	3.55	23.04	164.56	3.00	0.94	0.87	0.85	1.13	204.13	MCM

Momentary Peak 118.75 CMS. at 4.70 m. (A.D), at 18.00 Hours, on Oct 18, 2011

Runoff Yield 10.51 Liters/Second/Square KM. Momentary Peak Yield 193.404 Liters/Second/Square KM.

WATER YEAR : 2011

MUN RIVER BASIN

Lam Chiang Krai at Ban Bua, Nakhon Ratchasima (M.188)

Lat 08 - 48 - 34 N Long 98 - 30 - 00 E

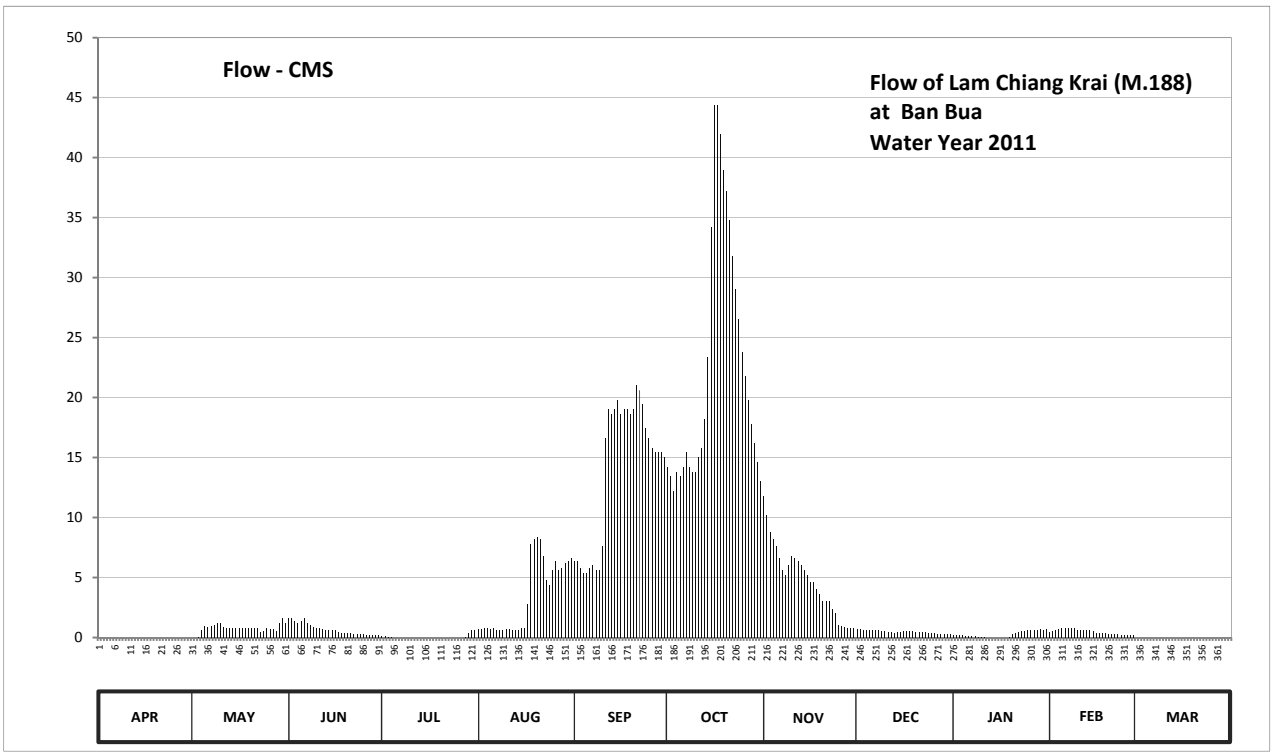
Location : on right at the bridge on highway.

	Ban Bua	**Amphoe** Non Sung		**Changwat** Nakhon Ratchasima	
Drainge Area	2,764 sq.km.				
Type of Gage	Water - stage recorder.				
Zero Gage at Bottom	+157.900 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On right bank near the gage site.			**Elevation**	+168.872 m. (MSL.)
Gage Reading Frequency	Recording.				
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings				
Period of Available Gage Records	2008 to date				
Rating Operation					
Period of Rating	2008 to date				
Rated by Flot	-				
Rated by Current Meter	2008 to date				
Stability of Channel Regimes	Stable.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records fair. Stage-discharge relation defined by 7 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	159.96	160.35	160.63	160.44	160.55	160.87	161.13	161.07	160.55	160.46	160.51	160.40	
2	159.96	160.36	160.63	160.43	160.55	160.87	161.11	161.03	160.55	160.46	160.52	160.38	
3	159.96	160.42	160.62	160.42	160.57	160.84	161.08	160.99	160.54	160.45	160.54	160.37	
4	159.95	160.53	160.61	160.41	160.56	160.82	161.12	160.96	160.54	160.45	160.55	160.36	
5	159.95	160.59	160.62	160.40	160.55	160.82	161.11	160.93	160.53	160.44	160.56	160.36	
6	159.94	160.58	160.63	160.38	160.56	160.84	161.13	160.88	160.53	160.44	160.57	160.35	
7	159.94	160.59	160.61	160.36	160.54	160.85	161.16	160.83	160.53	160.43	160.57	160.34	
8	159.94	160.60	160.60	160.36	160.54	160.83	161.13	160.81	160.53	160.43	160.56	160.33	
9	159.94	160.61	160.58	160.34	160.54	160.83	161.12	160.85	160.52	160.42	160.56	160.31	
10	159.94	160.61	160.57	160.30	160.55	160.93	161.12	160.89	160.52	160.42	160.54	160.31	
11	159.95	160.58	160.56	160.28	160.55	161.19	161.15	160.88	160.51	160.41	160.54	160.33	
12	159.95	160.57	160.55	160.26	160.54	161.25	161.17	160.87	160.51	160.40	160.54	160.34	
13	159.95	160.57	160.54	160.25	160.53	161.24	161.23	160.85	160.50	160.39	160.54	160.33	
14	159.96	160.57	160.53	160.26	160.53	161.25	161.36	160.83	160.51	160.39	160.54	160.34	
15	159.96	160.57	160.53	160.28	160.56	161.27	161.57	160.81	160.51	160.39	160.52	160.33	
16	159.97	160.57	160.53	160.28	160.57	161.24	161.74	160.78	160.52	160.38	160.50	160.32	
17	159.97	160.56	160.51	160.28	160.69	161.25	161.74	160.78	160.52	160.38	160.50	160.32	
18	159.98	160.57	160.50	160.27	160.94	161.25	161.70	160.75	160.52	160.38	160.50	160.32	
19	160.11	160.56	160.49	160.27	160.96	161.24	161.65	160.73	160.52	160.41	160.49	160.30	
20	160.17	160.56	160.49	160.26	160.97	161.25	161.62	160.70	160.51	160.47	160.48	160.30	
21	160.16	160.56	160.49	160.26	160.96	161.30	161.58	160.70	160.51	160.50	160.48	160.30	
22	160.16	160.56	160.48	160.29	160.89	161.29	161.53	160.70	160.51	160.51	160.48	160.28	
23	160.16	160.51	160.47	160.33	160.79	161.26	161.48	160.67	160.51	160.52	160.48	160.28	
24	160.20	160.52	160.47	160.36	160.77	161.21	161.43	160.65	160.50	160.52	160.46	160.28	
25	160.23	160.56	160.47	160.38	160.83	161.19	161.37	160.60	160.50	160.53	160.46	160.28	
26	160.26	160.55	160.46	160.39	160.87	161.17	161.32	160.59	160.49	160.53	160.45	160.28	
27	160.29	160.55	160.45	160.39	160.83	161.16	161.27	160.58	160.48	160.53	160.45	160.28	
28	160.33	160.52	160.45	160.42	160.84	161.16	161.22	160.57	160.48	160.54	160.45	160.28	
29	160.33	160.61	160.45	160.50	160.86	161.16	161.18	160.57	160.47	160.55	160.42	160.25	
30	160.33	160.63	160.45	160.53	160.87	161.15	161.14	160.56	160.47	160.54		160.25	
31		160.61		160.53	160.88		161.10		160.47	160.55		160.25	
Mean	160.06	160.55	160.53	160.35	160.70	161.10	161.31	160.78	160.51	160.46	160.51	160.31	
Max	160.33	160.63	160.63	160.53	160.97	161.30	161.74	161.07	160.55	160.55	160.57	160.40	161.74
Min	159.94	160.35	160.45	160.25	160.53	160.82	161.08	160.56	160.47	160.38	160.42	160.25	159.94

Annual Max Momentary Gage Height	161.76	m. (MSL.) ,	at 19.00 Hours , on Oct 16 , 2011		
Zero Gage at Bottom Elevation	157.90	m. (MSL.) ,	River Bed	157.91	m. (MSL)
Left Bank Elevation	163.55	m. (MSL.) ,			
Right Bank Elevation	162.86	m. (MSL.) ,	Drainage Area	2764	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	1.60	0.16	0.70	6.40	14.20	11.80	0.70	0.24	0.46	0.00		
2	0.00	0.00	1.60	0.12	0.70	6.40	13.40	10.20	0.70	0.24	0.52	0.00		
3	0.00	0.08	1.40	0.08	0.82	5.80	12.20	8.80	0.64	0.20	0.64	0.00		
4	0.00	0.58	1.20	0.04	0.76	5.40	13.80	8.20	0.64	0.20	0.70	0.00		
5	0.00	0.94	1.40	0.00	0.70	5.40	13.40	7.60	0.58	0.16	0.76	0.00		
6	0.00	0.88	1.60	0.00	0.76	5.80	14.20	6.60	0.58	0.16	0.82	0.00		
7	0.00	0.94	1.20	0.00	0.64	6.00	15.40	5.60	0.58	0.12	0.82	0.00		
8	0.00	1.00	1.00	0.00	0.64	5.60	14.20	5.20	0.58	0.12	0.76	0.00		
9	0.00	1.20	0.88	0.00	0.64	5.60	13.80	6.00	0.52	0.08	0.76	0.00		
10	0.00	1.20	0.82	0.00	0.70	7.60	13.80	6.80	0.52	0.08	0.64	0.00		
11	0.00	0.88	0.76	0.00	0.70	16.60	15.00	6.60	0.46	0.04	0.64	0.00		
12	0.00	0.82	0.70	0.00	0.64	19.00	15.80	6.40	0.46	0.00	0.64	0.00		
13	0.00	0.82	0.64	0.00	0.58	18.60	18.20	6.00	0.40	0.00	0.64	0.00		
14	0.00	0.82	0.58	0.00	0.58	19.00	23.40	5.60	0.46	0.00	0.64	0.00		
15	0.00	0.82	0.58	0.00	0.76	19.80	34.20	5.20	0.46	0.00	0.52	0.00		
16	0.00	0.82	0.58	0.00	0.82	18.60	44.40	4.60	0.52	0.00	0.40	0.00		
17	0.00	0.76	0.46	0.00	2.80	19.00	44.40	4.60	0.52	0.00	0.40	0.00		
18	0.00	0.82	0.40	0.00	7.80	19.00	42.00	4.00	0.52	0.00	0.40	0.00		
19	0.00	0.76	0.36	0.00	8.20	18.60	39.00	3.60	0.52	0.04	0.36	0.00		
20	0.00	0.76	0.36	0.00	8.40	19.00	37.20	3.00	0.46	0.28	0.32	0.00		
21	0.00	0.76	0.36	0.00	8.20	21.00	34.80	3.00	0.46	0.40	0.32	0.00		
22	0.00	0.76	0.32	0.00	6.80	20.60	31.80	3.00	0.46	0.46	0.32	0.00		
23	0.00	0.46	0.28	0.00	4.80	19.40	29.00	2.40	0.46	0.52	0.32	0.00		
24	0.00	0.52	0.28	0.00	4.40	17.40	26.50	2.00	0.40	0.52	0.24	0.00		
25	0.00	0.76	0.28	0.00	5.60	16.60	23.80	1.00	0.40	0.58	0.24	0.00		
26	0.00	0.70	0.24	0.00	6.40	15.80	21.80	0.94	0.36	0.58	0.20	0.00		
27	0.00	0.70	0.20	0.00	5.60	15.40	19.80	0.88	0.32	0.58	0.20	0.00		
28	0.00	0.52	0.20	0.08	5.80	15.40	17.80	0.82	0.32	0.64	0.20	0.00		
29	0.00	1.20	0.20	0.40	6.20	15.40	16.20	0.82	0.28	0.70	0.08	0.00		
30	0.00	1.60	0.20	0.58	6.40	15.00	14.60	0.76	0.28	0.64		0.00		
31		1.20		0.58	6.60		13.00		0.28	0.70		0.00		
Total	0.00	24.08	20.68	2.04	105.14	419.20	701.10	142.02	14.84	8.28	13.96	0.00	1451.34	CMSDAY
Mean	0.00	0.78	0.69	0.07	3.39	13.97	22.62	4.73	0.48	0.27	0.48	0.00	3.97	CMS
Max	0.00	1.60	1.60	0.58	8.40	21.00	44.40	11.80	0.70	0.70	0.82	0.00	44.40	CMS
Min	0.00	0.00	0.20	0.00	0.58	5.40	12.20	0.76	0.28	0.00	0.08	0.00	0.00	CMS
Runoff	0.00	2.08	1.79	0.18	9.08	36.22	60.58	12.27	1.28	0.72	1.21	0.00	125.40	MCM

Momentary Peak 45.60 CMS. at 161.76 m. (MSL.), at 19.00 Hours, on Oct 16, 2011

Runoff Yield 1.43 Liters/Second/Square KM. Momentary Peak Yield 16.498 Liters/Second/Square KM.

WATER YEAR : 2011

MUN RIVER BASIN

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

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

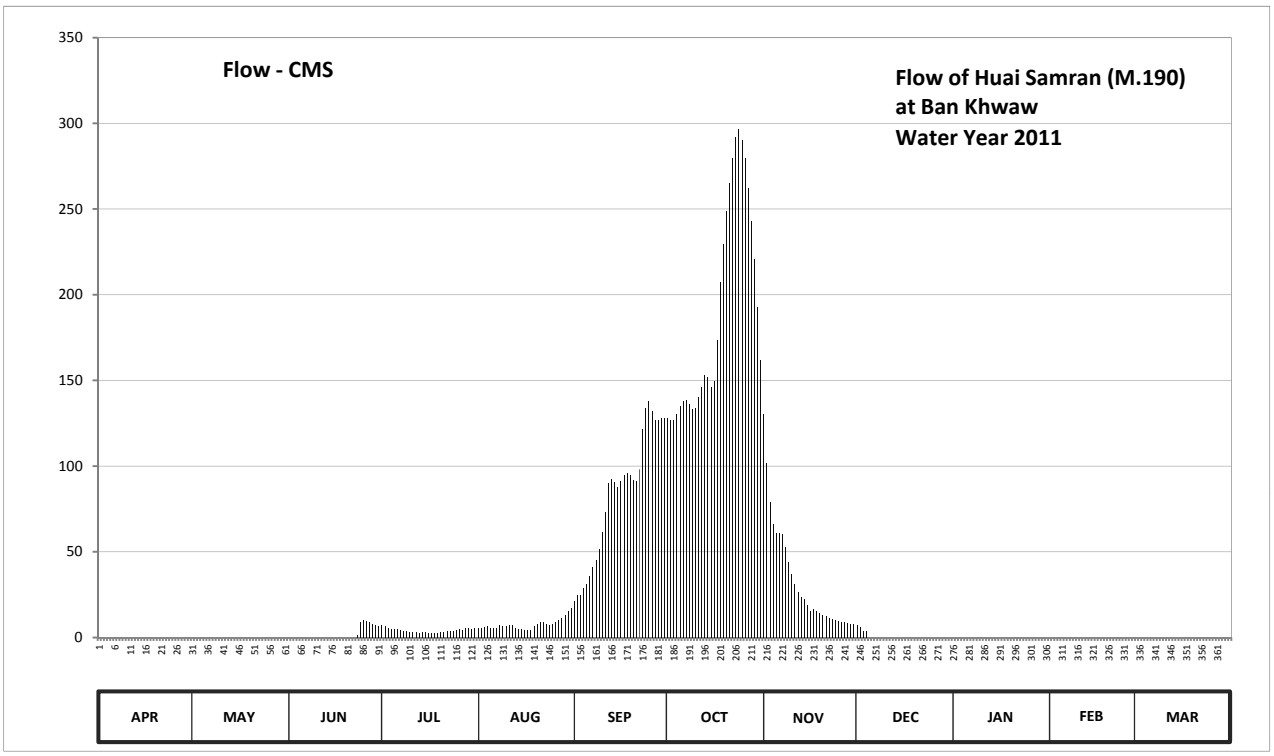
Location : on right at the bridge on highway.

	Ban Khwaw	**Amphoe**	Uthumphon Phisai	**Changwat**	Si Sa Ket
Drainge Area	2,339 sq.km.				
Type of Gage	Water - stage recorder.				
Zero Gage at Bottom	+119.700 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On right bank near the gage site.			**Elevation**	+129.749 m. (MSL.)
Gage Reading Frequency	Recording				
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings				
Period of Available Gage Records	2008 to date				
Rating Operation					
Period of Rating	2008 to date				
Rated by Flot	-				
Rated by Current Meter	2008 to date				
Stability of Channel Regimes	Stable.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records good. Stage-discharge relation defined by 12 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	122.36	122.16	122.69	124.38	124.34	124.68	126.22	126.25	124.38	123.98	123.30	121.91	
2	122.34	122.16	122.85	124.36	124.34	124.75	126.21	125.88	124.35	123.97	123.25	121.88	
3	122.33	122.15	122.97	124.34	124.35	124.75	126.21	125.52	124.30	123.95	123.18	121.86	
4	122.32	122.15	123.06	124.33	124.36	124.81	126.25	125.26	124.28	123.91	123.12	121.84	
5	122.31	122.15	123.13	124.33	124.34	124.84	126.30	125.13	124.28	123.88	123.06	121.81	
6	122.30	122.14	123.19	124.32	124.34	124.90	126.33	125.12	124.27	123.77	123.00	121.78	
7	122.28	122.14	123.23	124.31	124.34	124.95	126.34	125.11	124.27	123.57	122.95	121.75	
8	122.27	122.13	123.26	124.29	124.38	124.99	126.31	125.05	124.27	123.48	122.90	121.72	
9	122.26	122.13	123.29	124.28	124.37	125.04	126.28	124.98	124.27	123.40	122.85	121.70	
10	122.24	122.12	123.30	124.27	124.36	125.14	126.29	124.91	124.27	123.34	122.79	121.68	
11	122.23	122.12	123.36	124.26	124.38	125.42	126.36	124.84	124.27	123.28	122.73	121.65	
12	122.21	122.11	123.42	124.25	124.38	125.70	126.42	124.78	124.27	123.23	122.67	121.61	
13	122.18	122.11	123.45	124.24	124.34	125.74	126.50	124.73	124.27	123.17	122.61	121.58	
14	122.15	122.11	123.56	124.25	124.33	125.71	126.49	124.71	124.26	123.12	122.56	121.53	
15	122.13	122.14	123.61	124.25	124.32	125.66	126.42	124.64	124.26	123.06	122.50	121.51	
16	122.12	122.14	123.63	124.24	124.31	125.72	126.46	124.57	124.26	122.98	122.45	121.49	
17	122.11	122.13	123.63	124.23	124.31	125.78	126.72	124.59	124.26	122.93	122.39	121.47	
18	122.11	122.15	123.63	124.23	124.31	125.80	127.03	124.57	124.25	123.07	122.34	121.46	
19	122.13	122.15	123.62	124.23	124.36	125.78	127.23	124.55	124.25	123.43	122.29	121.43	
20	122.14	122.14	123.66	124.26	124.39	125.73	127.39	124.52	124.24	123.58	122.24	121.42	
21	122.14	122.13	123.63	124.27	124.42	125.72	127.52	124.51	124.24	123.55	122.19	121.39	
22	122.13	122.01	123.89	124.28	124.42	125.83	127.62	124.49	124.22	123.51	122.13	121.36	
23	122.15	122.09	124.18	124.28	124.39	126.15	127.70	124.47	124.21	123.56	122.08	121.36	
24	122.15	122.08	124.42	124.30	124.38	126.29	127.73	124.46	124.20	123.73	122.05	121.50	
25	122.15	122.06	124.45	124.31	124.39	126.33	127.69	124.44	124.18	123.76	122.10	121.52	
26	122.15	122.07	124.44	124.32	124.42	126.27	127.62	124.43	124.16	123.70	122.07	121.50	
27	122.15	122.06	124.43	124.31	124.45	126.21	127.50	124.42	124.13	123.61	122.02	121.47	
28	122.15	122.05	124.39	124.34	124.48	126.21	127.34	124.41	124.09	123.55	121.99	121.43	
29	122.16	122.04	124.38	124.34	124.52	126.22	127.15	124.40	124.05	123.49	121.96	121.39	
30	122.16	122.18	124.37	124.33	124.57	126.22	126.90	124.39	124.02	123.43		121.37	
31		122.46		124.34	124.60		126.60		124.00	123.37		121.37	
Mean	122.20	122.13	123.64	124.29	124.39	125.58	126.81	124.80	124.23	123.50	122.54	121.57	
Max	122.36	122.46	124.45	124.38	124.60	126.33	127.73	126.25	124.38	123.98	123.30	121.91	127.73
Min	122.11	122.01	122.69	124.23	124.31	124.68	126.21	124.39	124.00	122.93	121.96	121.36	121.36

Annual Max Momentary Gage Height	127.73	m. (MSL.) ,	at 04.00 Hours, on Oct 24, 2011		
Zero Gage at Bottom Elevation	119.70	m. (MSL.) ,	River Bed	121.49	m. (MSL)
Left Bank Elevation	129.59	m. (MSL.) ,			
Right Bank Elevation	129.86	m. (MSL.) ,	Drainage Area	2339	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	0.00	7.20	5.60	21.00	127.80	130.50	7.20	0.00	0.00	0.00		
2	0.00	0.00	0.00	6.40	5.60	25.00	126.90	101.60	6.00	0.00	0.00	0.00		
3	0.00	0.00	0.00	5.60	6.00	25.00	126.90	79.20	4.00	0.00	0.00	0.00		
4	0.00	0.00	0.00	5.20	6.40	28.80	130.50	66.40	3.60	0.00	0.00	0.00		
5	0.00	0.00	0.00	5.20	5.60	31.20	135.00	61.20	0.00	0.00	0.00	0.00		
6	0.00	0.00	0.00	4.80	5.60	36.00	137.70	60.80	0.00	0.00	0.00	0.00		
7	0.00	0.00	0.00	4.40	5.60	41.00	138.60	60.40	0.00	0.00	0.00	0.00		
8	0.00	0.00	0.00	3.80	7.20	45.00	135.90	53.00	0.00	0.00	0.00	0.00		
9	0.00	0.00	0.00	3.60	6.80	51.60	133.20	44.00	0.00	0.00	0.00	0.00		
10	0.00	0.00	0.00	3.40	6.40	61.60	134.10	37.00	0.00	0.00	0.00	0.00		
11	0.00	0.00	0.00	3.20	7.20	73.20	140.40	31.20	0.00	0.00	0.00	0.00		
12	0.00	0.00	0.00	3.00	7.20	90.00	145.80	26.80	0.00	0.00	0.00	0.00		
13	0.00	0.00	0.00	2.80	5.60	92.40	153.00	23.80	0.00	0.00	0.00	0.00		
14	0.00	0.00	0.00	3.00	5.20	90.60	152.10	22.60	0.00	0.00	0.00	0.00		
15	0.00	0.00	0.00	3.00	4.80	87.60	145.80	19.00	0.00	0.00	0.00	0.00		
16	0.00	0.00	0.00	2.80	4.40	91.20	149.40	15.50	0.00	0.00	0.00	0.00		
17	0.00	0.00	0.00	2.60	4.40	94.80	173.20	16.50	0.00	0.00	0.00	0.00		
18	0.00	0.00	0.00	2.60	4.40	96.00	207.30	15.50	0.00	0.00	0.00	0.00		
19	0.00	0.00	0.00	2.60	6.40	94.80	229.60	14.50	0.00	0.00	0.00	0.00		
20	0.00	0.00	0.00	3.20	7.60	91.80	248.80	13.00	0.00	0.00	0.00	0.00		
21	0.00	0.00	0.00	3.40	8.80	91.20	265.00	12.50	0.00	0.00	0.00	0.00		
22	0.00	0.00	0.00	3.60	8.80	98.10	280.00	11.60	0.00	0.00	0.00	0.00		
23	0.00	0.00	1.60	3.60	7.60	121.50	292.00	10.80	0.00	0.00	0.00	0.00		
24	0.00	0.00	8.80	4.00	7.20	134.10	296.50	10.40	0.00	0.00	0.00	0.00		
25	0.00	0.00	10.00	4.40	7.60	137.70	290.50	9.60	0.00	0.00	0.00	0.00		
26	0.00	0.00	9.60	4.80	8.80	132.30	280.00	9.20	0.00	0.00	0.00	0.00		
27	0.00	0.00	9.20	4.40	10.00	126.90	262.00	8.80	0.00	0.00	0.00	0.00		
28	0.00	0.00	7.60	5.60	11.20	126.90	242.80	8.40	0.00	0.00	0.00	0.00		
29	0.00	0.00	7.20	5.60	13.00	127.80	220.50	8.00	0.00	0.00	0.00	0.00		
30	0.00	0.00	6.80	5.20	15.50	127.80	193.00	7.60	0.00	0.00		0.00		
31		0.00		5.60	17.00		162.00		0.00	0.00		0.00		
Total	0.00	0.00	60.80	128.60	233.50	2492.90	5856.30	989.40	20.80	0.00	0.00	0.00	9782.30	CMSDAY
Mean	0.00	0.00	2.03	4.15	7.53	83.10	188.91	32.98	0.67	0.00	0.00	0.00	26.73	CMS
Max	0.00	0.00	10.00	7.20	17.00	137.70	296.50	130.50	7.20	0.00	0.00	0.00	296.50	CMS
Min	0.00	0.00	0.00	2.60	4.40	21.00	126.90	7.60	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	0.00	0.00	5.25	11.11	20.17	215.39	505.98	85.48	1.80	0.00	0.00	0.00	845.19	MCM

Momentary Peak 296.50 CMS, at 127.73 m. (MSL.), at 04.00 Hours, on Oct 24, 2011

Runoff Yield 11.43 Liters/Second/Square KM. Momentary Peak Yield 126.764 Liters/Second/Square KM.

WATER YEAR : 2011

MUN RIVER BASIN

Lam Ta Khong at Ban Khok Krod, Nakhon Ratchasima (M.191)

Lat 44 - 55 - 57 N Long 101 - 57 - 07 E

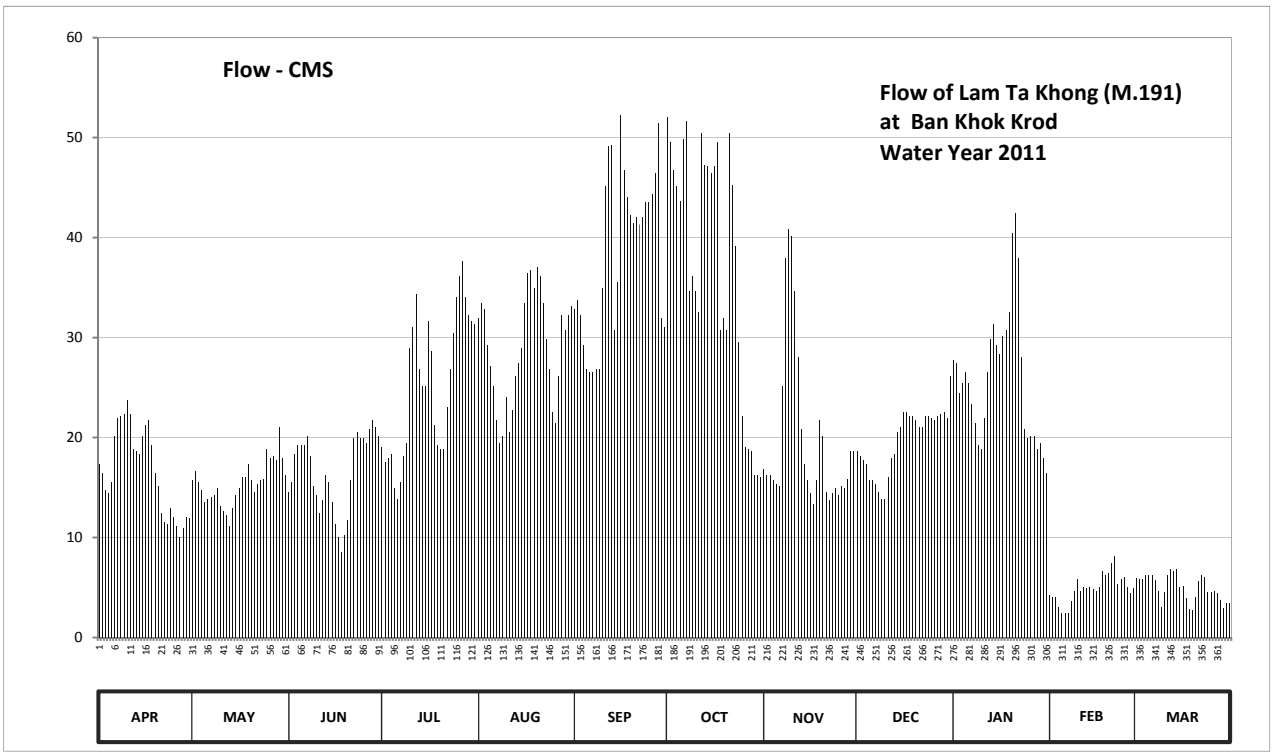
Location : on left bank at the bridge on road.

	Ban Khok Krod	**Amphoe** Mueang		**Changwat** Nakhon Ratchasima	
Drainge Area	2,854 sq.km.				
Type of Gage	Water - stage recorder.				
Zero Gage at Bottom	+191.800 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On left bank near the gage site.			**Elevation**	+195.991 m. (MSL.)
Gage Reading Frequency	Recording.				
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings				
Period of Available Gage Records	2011 to date				
Rating Operation					
Period of Rating	2011 to date				
Rated by Flot	-				
Rated by Current Meter	2011 to date				
Stability of Channel Regimes	Stable.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records fair. Stage-discharge relation defined by 33 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	194.14	194.06	194.00	194.22	194.68	194.71	195.58	194.12	194.20	194.54	193.25	193.45	
2	194.10	194.11	194.05	194.15	194.73	194.74	195.45	194.09	194.18	194.53	193.23	193.44	
3	194.01	194.05	194.19	194.17	194.71	194.69	195.31	194.09	194.16	194.44	193.23	193.44	
4	193.99	194.01	194.23	194.19	194.59	194.59	195.23	194.06	194.14	194.47	193.10	193.48	
5	194.05	193.94	194.23	194.02	194.52	194.51	195.16	194.04	194.06	194.50	193.00	193.48	
6	194.27	193.96	194.23	193.96	194.46	194.50	195.47	194.03	194.06	194.47	192.99	193.48	
7	194.35	193.97	194.27	194.05	194.34	194.50	195.56	194.46	194.04	194.41	192.99	193.43	
8	194.36	193.98	194.18	194.18	194.24	194.51	195.77	194.88	194.00	194.33	193.18	193.30	
9	194.37	194.02	194.03	194.24	194.27	194.51	195.82	195.02	193.96	194.23	193.31	193.11	
10	194.42	193.92	193.98	194.58	194.43	194.78	195.77	194.98	193.96	194.21	193.44	193.29	
11	194.37	193.89	193.88	194.65	194.29	195.23	195.70	194.77	194.08	194.35	193.31	193.48	
12	194.21	193.87	193.95	194.76	194.39	195.43	195.50	194.55	194.17	194.50	193.35	193.53	
13	194.20	193.81	194.09	194.51	194.49	195.44	195.34	194.30	194.19	194.61	193.34	193.51	
14	194.19	193.91	194.05	194.46	194.53	195.64	195.33	194.14	194.29	194.66	193.36	193.53	
15	194.27	193.98	193.94	194.46	194.58	195.80	195.30	194.06	194.31	194.59	193.33	193.36	
16	194.32	194.02	193.82	194.67	194.73	195.59	195.33	193.99	194.38	194.56	193.31	193.37	
17	194.34	194.08	193.75	194.57	194.83	195.31	195.45	193.93	194.38	194.62	193.35	193.22	
18	194.23	194.08	193.66	194.32	194.84	195.18	195.64	194.06	194.36	194.64	193.51	193.07	
19	194.10	194.14	193.76	194.23	194.78	195.09	195.68	194.34	194.36	194.70	193.48	193.04	
20	194.03	194.06	193.84	194.21	194.85	195.05	195.64	194.27	194.34	195.00	193.50	193.23	
21	193.88	194.00	194.06	194.21	194.82	195.08	195.50	194.00	194.31	195.10	193.58	193.42	
22	193.83	194.04	194.26	194.40	194.73	195.04	195.24	193.95	194.31	194.88	193.63	193.48	
23	193.82	194.06	194.29	194.51	194.61	195.08	194.93	193.99	194.36	194.55	193.39	193.46	
24	193.91	194.07	194.26	194.63	194.51	195.15	194.60	194.02	194.36	194.30	193.44	193.29	
25	193.86	194.21	194.26	194.75	194.38	195.15	194.36	193.98	194.35	194.26	193.46	193.29	
26	193.81	194.17	194.24	194.82	194.33	195.19	194.22	194.03	194.34	194.27	193.35	193.31	
27	193.75	194.18	194.30	194.87	194.49	195.30	194.21	194.02	194.36	194.27	193.28	193.28	
28	193.80	194.16	194.34	194.75	194.69	195.55	194.20	194.07	194.37	194.21	193.34	193.19	
29	193.86	194.31	194.31	194.69	194.64	195.68	194.09	194.20	194.38	194.24	193.43	193.09	
30	193.85	194.17	194.27	194.67	194.69	195.65	194.09	194.20	194.35	194.17		193.16	
31		194.09		194.66	194.72		194.08		194.49	194.10		193.16	
Mean	194.09	194.04	194.09	194.44	194.58	195.09	195.15	194.22	194.25	194.47	193.33	193.33	
Max	194.42	194.31	194.34	194.87	194.85	195.80	195.82	195.02	194.49	195.10	193.63	193.53	195.82
Min	193.75	193.81	193.66	193.96	194.24	194.50	194.08	193.93	193.96	194.10	192.99	193.04	192.99

Annual Max Momentary Gage Height	194.82	m. (MSL.) ,	at 06.00 Hours , on Sep 15 , 2011		
Zero Gage at Bottom Elevation	191.80	m. (MSL.) ,	River Bed	191.48	m. (MSL)
Left Bank Elevation	195.63	m. (MSL.) ,			
Right Bank Elevation	196.03	m. (MSL.) ,	Drainage Area	2854	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	17.28	15.68	14.60	19.04	31.90	32.80	52.10	16.84	18.60	27.70	4.20	5.95		
2	16.40	16.62	15.50	17.50	33.40	33.70	49.50	16.22	18.16	27.40	4.04	5.84		
3	14.78	15.50	18.38	17.94	32.80	32.20	46.70	16.22	17.72	24.40	4.04	5.84		
4	14.42	14.78	19.26	18.38	29.20	29.20	45.10	15.68	17.28	25.45	3.00	6.28		
5	15.50	13.52	19.26	14.96	27.10	26.80	43.70	15.32	15.68	26.50	2.50	6.28		
6	20.14	13.88	19.26	13.88	25.10	26.50	49.90	15.14	15.68	25.45	2.45	6.28		
7	21.90	14.06	20.14	15.50	21.68	26.50	51.70	25.10	15.32	23.35	2.45	5.73		
8	22.12	14.24	18.16	18.16	19.48	26.80	34.60	37.90	14.60	21.46	3.64	4.60		
9	22.34	14.96	15.14	19.48	20.14	26.80	36.10	40.90	13.88	19.26	4.68	3.08		
10	23.70	13.16	14.24	28.90	24.05	34.90	34.60	40.10	13.88	18.82	5.84	4.52		
11	22.34	12.62	12.44	31.00	20.58	45.10	32.50	34.60	16.04	21.90	4.68	6.28		
12	18.82	12.26	13.70	34.30	22.78	49.10	50.50	28.00	17.94	26.50	5.00	6.86		
13	18.60	11.18	16.22	26.80	26.15	49.30	47.30	20.80	18.38	29.80	4.92	6.62		
14	18.38	12.98	15.50	25.10	27.40	30.70	47.10	17.28	20.58	31.30	5.08	6.86		
15	20.14	14.24	13.52	25.10	28.90	35.50	46.50	15.68	21.02	29.20	4.84	5.08		
16	21.24	14.96	11.36	31.60	33.40	52.30	47.10	14.42	22.56	28.30	4.68	5.16		
17	21.68	16.04	10.10	28.60	36.40	46.70	49.50	13.34	22.56	30.10	5.00	3.96		
18	19.26	16.04	8.60	21.24	36.70	44.10	30.70	15.68	22.12	30.70	6.62	2.85		
19	16.40	17.28	10.28	19.26	34.90	42.30	31.90	21.68	22.12	32.50	6.28	2.70		
20	15.14	15.68	11.72	18.82	37.00	41.50	30.70	20.14	21.68	40.50	6.50	4.04		
21	12.44	14.60	15.68	18.82	36.10	42.10	50.50	14.60	21.02	42.50	7.46	5.62		
22	11.54	15.32	19.92	23.00	33.40	41.30	45.30	13.70	21.02	37.90	8.15	6.28		
23	11.36	15.68	20.58	26.80	29.80	42.10	39.10	14.42	22.12	28.00	5.32	6.06		
24	12.98	15.86	19.92	30.40	26.80	43.50	29.50	14.96	22.12	20.80	5.84	4.52		
25	12.08	18.82	19.92	34.00	22.56	43.50	22.12	14.24	21.90	19.92	6.06	4.52		
26	11.18	17.94	19.48	36.10	21.46	44.30	19.04	15.14	21.68	20.14	5.00	4.68		
27	10.10	18.16	20.80	37.60	26.15	46.50	18.82	14.96	22.12	20.14	4.44	4.44		
28	11.00	17.72	21.68	34.00	32.20	51.50	18.60	15.86	22.34	18.82	4.92	3.72		
29	12.08	21.02	21.02	32.20	30.70	31.90	16.22	18.60	22.56	19.48	5.73	2.95		
30	11.90	17.94	20.14	31.60	32.20	31.00	16.22	18.60	21.90	17.94		3.48		
31		16.22		31.30	33.10		16.04		26.15	16.40		3.48		
Total	497.24	478.96	496.52	781.38	893.53	1150.50	1149.26	596.12	610.73	802.63	143.36	154.56	7754.79	CMSDAY
Mean	16.57	15.45	16.55	25.21	28.82	38.35	37.07	19.87	19.70	25.89	4.94	4.99	21.19	CMS
Max	23.70	21.02	21.68	37.60	37.00	52.30	52.10	40.90	26.15	42.50	8.15	6.86	52.30	CMS
Min	10.10	11.18	8.60	13.88	19.48	26.50	16.04	13.34	13.88	16.40	2.45	2.70	2.45	CMS
Runoff	42.96	41.38	42.90	67.51	77.20	99.40	99.30	51.51	52.77	69.35	12.39	13.35	670.01	MCM

Momentary Peak 36.10 CMS. at 194.82 m. (MSL.), at 06.00 Hours, on Sep 15, 2011

Runoff Yield 7.42 Liters/Second/Square KM. Momentary Peak Yield 12.649 Liters/Second/Square KM.

WATER YEAR : 2011

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.

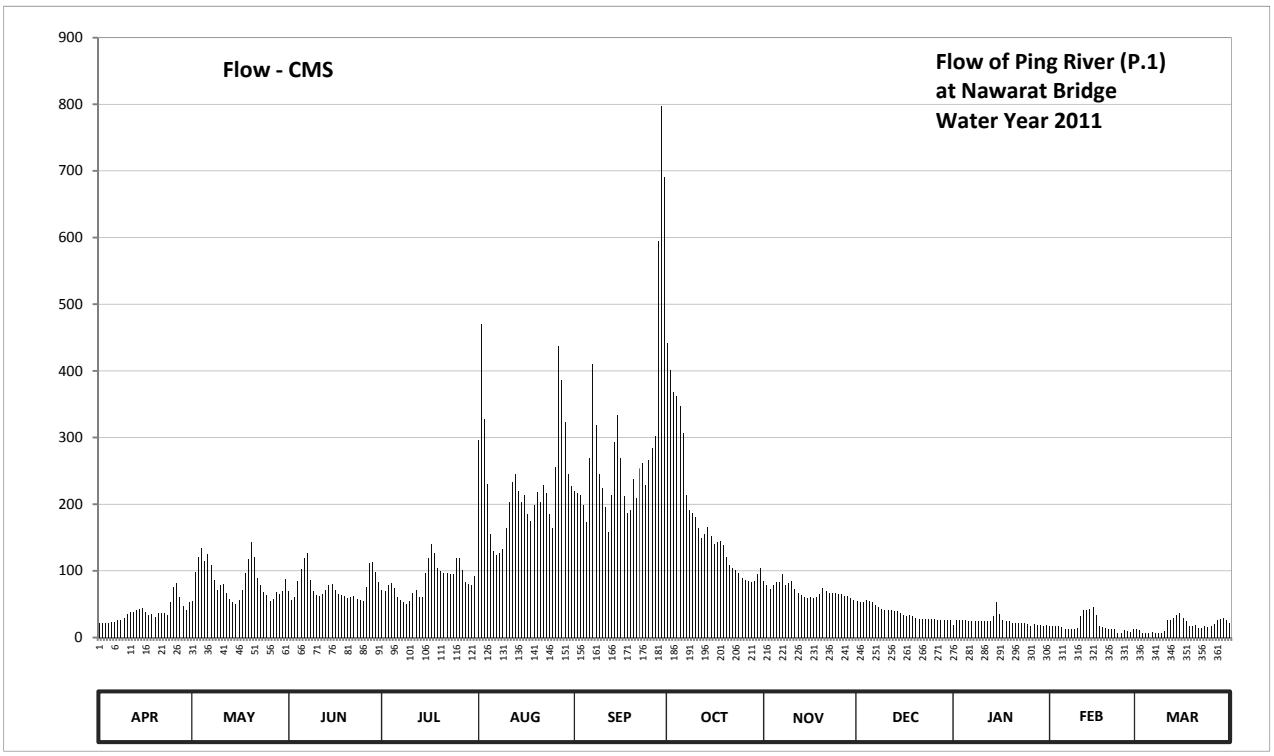
Ban Nawarat Bridge **Amphoe** Mueang **Changwat** Chiang Mai

Drainge Area	6,350 sq.km.
Type of Gage	Water - stage recorder.
Zero Gage at Bottom	+300.500 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank near automatic gage building **Elevation** +305.310 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings
Period of Available Gage Records	1921 to date
Rating Operation	
Period of Rating	1954 - 1960 , 1967 to date
Rated by Flot	1936 - 1938
Rated by Current Meter	1954 - 1960 , 1967 to date
Stability of Channel Regimes	Fairly stable because of backwater effect.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Flow regulated by Mae Ngat Dam and Mae Taeng Weir above gage site. Phaya Kham weir situated about 2 Kilometers dowmstream from the gage site. Stage-discharge relation defined by 37 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	301.85	302.08	302.18	302.19	303.36	303.01	303.99	302.27	302.08	301.82	301.81	301.76	
2	301.84	302.35	302.09	302.18	304.11	302.99	303.82	302.23	302.07	301.88	301.81	301.74	
3	301.85	302.49	302.12	302.23	303.50	302.98	303.68	302.20	302.07	301.88	301.81	301.70	
4	301.85	302.57	302.27	302.25	303.06	302.91	303.65	302.23	302.09	301.88	301.81	301.69	
5	301.86	302.45	302.38	302.21	302.68	302.78	303.59	302.26	302.08	301.88	301.79	301.70	
6	301.86	302.51	302.48	302.12	302.54	303.24	303.41	302.26	302.07	301.87	301.76	301.71	
7	301.89	302.42	302.52	302.09	302.50	303.86	302.98	302.33	302.05	301.87	301.76	301.69	
8	301.89	302.28	302.28	302.07	302.52	303.46	302.87	302.23	302.03	301.87	301.76	301.69	
9	301.91	302.19	302.18	302.06	302.56	303.13	302.85	302.25	302.01	301.87	301.76	301.70	
10	301.95	302.23	302.14	302.08	302.73	303.03	302.82	302.27	302.00	301.87	301.77	301.73	
11	301.98	302.24	302.13	302.16	302.93	302.89	302.73	302.20	302.00	301.87	301.93	301.89	
12	301.98	302.16	302.15	302.19	303.07	302.70	302.65	302.16	302.00	301.87	302.00	301.89	
13	302.00	302.10	302.19	302.12	303.13	302.98	302.68	302.14	301.99	301.87	302.00	301.91	
14	302.01	302.07	302.23	302.12	303.01	303.35	302.74	302.12	301.99	301.93	302.01	301.94	
15	302.02	302.06	302.24	302.34	302.93	303.53	302.67	302.11	301.97	302.07	302.03	301.97	
16	301.98	302.09	302.19	302.48	302.98	303.24	302.60	302.12	301.94	301.95	301.94	301.91	
17	301.94	302.19	302.15	302.60	302.84	302.97	302.62	302.11	301.93	301.89	301.81	301.87	
18	301.95	302.34	302.14	302.52	302.79	302.85	302.63	302.12	301.94	301.87	301.79	301.80	
19	301.92	302.47	302.13	302.39	302.91	302.87	302.59	302.15	301.93	301.87	301.78	301.80	
20	301.96	302.62	302.11	302.36	303.00	303.09	302.49	302.21	301.91	301.85	301.76	301.82	
21	301.96	302.49	302.12	302.34	302.93	302.96	302.42	302.18	301.90	301.84	301.75	301.78	
22	301.96	302.30	302.13	302.34	303.05	303.17	302.39	302.16	301.90	301.84	301.75	301.77	
23	301.94	302.23	302.10	302.33	302.99	303.21	302.37	302.16	301.90	301.84	301.68	301.81	
24	302.07	302.17	302.09	302.33	302.84	303.05	302.34	302.16	301.90	301.84	301.68	301.79	
25	302.22	302.14	302.08	302.48	302.73	303.23	302.30	302.15	301.90	301.83	301.74	301.80	
26	302.25	302.08	302.22	302.48	303.18	303.31	302.28	302.15	301.90	301.81	301.73	301.83	
27	302.12	302.10	302.43	302.37	303.97	303.39	302.27	302.13	301.89	301.83	301.71	301.88	
28	302.04	302.17	302.44	302.26	303.76	304.60	302.26	302.13	301.89	301.82	301.76	301.90	
29	302.00	302.15	302.35	302.24	303.48	305.37	302.27	302.11	301.89	301.82	301.76	301.91	
30	302.07	302.18	302.26	302.23	303.13	304.97	302.33	302.09	301.88	301.81		301.89	
31		302.29		302.32	303.04		302.39		301.88	301.82		301.84	
Mean	301.97	302.26	302.22	302.27	303.04	303.30	302.76	302.18	301.97	301.87	301.81	301.81	
Max	302.25	302.62	302.52	302.60	304.11	305.37	303.99	302.33	302.09	302.07	302.03	301.97	305.37
Min	301.84	302.06	302.08	302.06	302.50	302.70	302.26	302.09	301.88	301.81	301.68	301.69	301.68

Annual Max Momentary Gage Height	305.44	m. (MSL.) ,	at 04.00 Hours , on Sep 29 , 2011		
Zero Gage at Bottom Elevation	300.50	m. (MSL.) ,	River Bed	299.08	m. (MSL)
Left Bank Elevation	307.73	m. (MSL.) ,			
Right Bank Elevation	307.63	m. (MSL.) ,	Drainage Area	6350	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	22.25	54.10	69.85	71.42	295.20	220.10	441.60	84.55	54.10	18.80	17.65	12.90		
2	21.10	97.75	55.67	69.85	470.39	215.95	400.80	77.95	52.53	25.70	17.65	11.10		
3	22.25	121.30	60.40	77.95	327.00	213.90	368.40	73.00	52.53	25.70	17.65	7.50		
4	22.25	134.90	84.55	81.25	230.60	199.55	361.50	77.95	55.67	25.70	17.65	6.77		
5	23.40	114.50	102.70	74.65	154.80	173.30	347.70	82.90	54.10	25.70	15.60	7.50		
6	23.40	124.70	119.60	60.40	129.80	268.80	306.30	82.90	52.53	24.55	12.90	8.40		
7	26.85	109.40	126.40	55.67	123.00	410.40	213.90	94.45	49.37	24.55	12.90	6.77		
8	26.85	86.20	86.20	52.53	126.40	317.80	191.35	77.95	46.22	24.55	12.90	6.77		
9	29.35	71.42	69.85	50.95	133.20	245.30	187.25	81.25	43.08	24.55	12.90	7.50		
10	34.75	77.95	63.55	54.10	164.05	224.30	181.10	84.55	41.50	24.55	13.80	10.20		
11	38.80	79.60	61.97	66.70	203.65	195.45	164.05	73.00	41.50	24.55	32.05	26.85		
12	38.80	66.70	65.12	71.42	232.70	158.50	149.25	66.70	41.50	24.55	41.50	26.85		
13	41.50	57.25	71.42	60.40	245.30	213.90	154.80	63.55	40.15	24.55	41.50	29.35		
14	43.08	52.53	77.95	60.40	220.10	293.00	165.90	60.40	40.15	32.05	43.08	33.40		
15	44.65	50.95	79.60	96.10	203.65	333.90	152.95	58.82	37.45	52.53	46.22	37.45		
16	38.80	55.67	71.42	119.60	213.90	268.80	140.00	60.40	33.40	34.75	33.40	29.35		
17	33.40	71.42	65.12	140.00	185.20	211.85	143.70	58.82	32.05	26.85	17.65	24.55		
18	34.75	96.10	63.55	126.40	175.15	187.25	145.55	60.40	33.40	24.55	15.60	16.50		
19	30.70	117.90	61.97	104.35	199.55	191.35	138.30	65.12	32.05	24.55	14.70	16.50		
20	36.10	143.70	58.82	99.40	218.00	236.90	121.30	74.65	29.35	22.25	12.90	18.80		
21	36.10	121.30	60.40	96.10	203.65	209.80	109.40	69.85	28.00	21.10	12.00	14.70		
22	36.10	89.50	61.97	96.10	228.50	253.70	104.35	66.70	28.00	21.10	12.00	13.80		
23	33.40	77.95	57.25	94.45	215.95	262.20	101.05	66.70	28.00	21.10	6.04	17.65		
24	52.53	68.28	55.67	94.45	185.20	228.50	96.10	66.70	28.00	21.10	6.04	15.60		
25	76.30	63.55	54.10	119.60	164.05	266.60	89.50	65.12	28.00	19.95	11.10	16.50		
26	81.25	54.10	76.30	119.60	255.80	284.20	86.20	65.12	28.00	17.65	10.20	19.95		
27	60.40	57.25	111.10	101.05	436.80	301.80	84.55	61.97	26.85	19.95	8.40	25.70		
28	47.80	68.28	112.80	82.90	386.80	594.00	82.90	61.97	26.85	18.80	12.90	28.00		
29	41.50	65.12	97.75	79.60	322.40	797.90	84.55	58.82	26.85	18.80	12.90	29.35		
30	52.53	69.85	82.90	77.95	245.30	690.20	94.45	55.67	25.70	17.65		26.85		
31		87.85		92.80	226.40		104.35		25.70	18.80		21.10		
Total	1150.94	2607.07	2285.95	2648.14	7122.49	8669.20	5513.10	2097.93	1162.58	751.53	541.78	574.21	35124.92	CMSDAY
Mean	38.36	84.10	76.20	85.42	229.76	288.97	177.84	69.93	37.50	24.24	18.68	18.52	95.97	CMS
Max	81.25	143.70	126.40	140.00	470.39	797.90	441.60	94.45	55.67	52.53	46.22	37.45	797.90	CMS
Min	21.10	50.95	54.10	50.95	123.00	158.50	82.90	55.67	25.70	17.65	6.04	6.77	6.04	CMS
Runoff	99.44	225.25	197.51	228.80	615.38	749.02	476.33	181.26	100.45	64.93	46.81	49.61	3034.79	MCM

Momentary Peak 816.80 CMS. at 305.44 m. (MSL.) at 04.00 Hours , on Sep 29 , 2011

Runoff Yield 15.11 Liters/Second/Square KM. Momentary Peak Yield 128.630 Liters/Second/Square KM.

WATER YEAR : 2011

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.

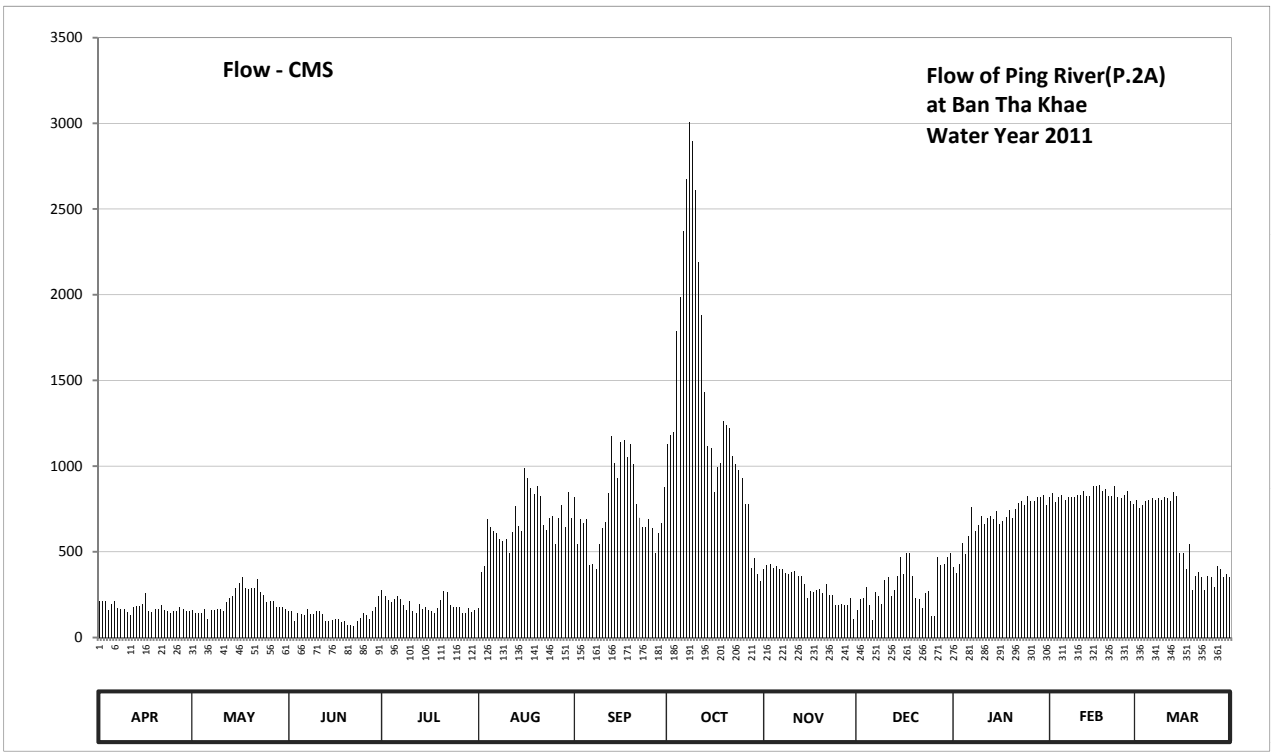
Ban Tha Khae **Amphoe** Mueang **Changwat** Tak

Drainge Area	38,681 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+104.000 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	Near automatic gage building **Elevation** +116.118 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings
Period of Available Gage Records	1952 to date
Rating Operation	
Period of Rating	1952 - 1960 , 1963 - 1967 , 1971 to date
Rated by Flot	-
Rated by Current Meter	1952 - 1960 , 1963 - 1967 , 1971 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Flow regulated by Phumiphol Dam reservoir since 1964. Stage-discharge relation defined by 38 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	104.98	104.81	104.79	105.20	104.84	106.28	106.72	105.52	104.80	105.54	106.28	106.26	
2	104.99	104.74	104.78	105.08	105.48	105.83	106.80	105.57	105.03	105.46	106.32	106.18	
3	104.99	104.75	104.57	105.00	105.56	106.08	106.82	105.58	105.05	105.58	106.24	106.21	
4	104.81	104.75	104.73	104.97	106.08	106.04	107.53	105.53	105.24	105.84	106.28	106.25	
5	104.93	104.83	104.71	105.02	106.00	106.08	107.76	105.56	104.90	105.71	106.30	106.26	
6	104.98	104.61	104.69	105.08	105.96	105.57	108.16	105.51	104.59	105.91	106.26	106.27	
7	104.84	104.80	104.83	105.02	105.94	105.59	108.44	105.51	105.15	106.19	106.28	106.26	
8	104.83	104.80	104.72	104.90	105.88	105.52	108.74	105.46	105.08	105.96	106.28	106.27	
9	104.82	104.83	104.72	104.80	105.86	105.83	108.64	105.44	104.92	106.02	106.28	106.26	
10	104.76	104.83	104.79	104.98	105.88	105.99	108.38	105.48	105.36	106.11	106.30	106.28	
11	104.69	104.78	104.78	104.79	105.73	106.05	107.98	105.49	105.40	106.03	106.30	106.27	
12	104.86	104.96	104.71	104.74	105.95	106.32	107.64	105.42	105.08	106.09	106.34	106.25	
13	104.89	105.04	104.55	104.93	106.20	106.79	107.11	105.42	105.20	106.11	106.29	106.33	
14	104.89	105.08	104.57	104.83	106.01	106.57	106.71	105.29	105.42	106.08	106.29	106.29	
15	104.93	105.23	104.59	104.86	105.96	106.45	106.69	105.05	105.67	106.15	106.38	105.72	
16	105.13	105.31	104.61	104.81	106.53	106.74	106.33	105.18	105.45	106.03	106.38	105.73	
17	104.78	105.40	104.60	104.79	106.45	106.76	106.54	105.15	105.73	106.06	106.39	105.51	
18	104.76	105.22	104.53	104.75	106.36	106.62	106.57	105.19	105.72	106.10	106.34	105.83	
19	104.83	105.21	104.55	104.85	106.31	106.72	106.90	105.21	105.42	106.16	106.35	105.19	
20	104.83	105.23	104.46	105.00	106.38	106.56	106.87	105.14	105.04	106.09	106.29	105.42	
21	104.91	105.23	104.45	105.17	106.29	106.22	106.85	105.29	105.02	106.17	106.29	105.48	
22	104.81	105.37	104.43	105.16	106.02	106.09	106.63	105.10	104.85	106.23	106.38	105.41	
23	104.79	105.15	104.55	104.91	105.97	106.00	106.56	105.11	105.13	106.25	106.28	105.20	
24	104.73	105.11	104.63	104.86	106.09	106.00	106.51	104.90	105.17	106.21	106.27	105.42	
25	104.79	104.97	104.73	104.86	106.11	106.08	106.45	104.91	104.67	106.29	106.30	105.40	
26	104.79	104.99	104.69	104.87	105.83	105.99	106.22	104.92	104.67	106.25	106.34	105.25	
27	104.86	104.98	104.60	104.73	106.09	105.73	106.22	104.90	105.68	106.25	106.25	105.56	
28	104.83	104.86	104.79	104.74	106.21	105.94	105.53	104.90	105.57	106.28	106.22	105.52	
29	104.79	104.87	104.86	104.84	106.00	106.04	105.66	105.04	105.58	106.28	106.27	105.40	
30	104.79	104.87	105.09	104.77	106.33	106.37	105.44	104.60	105.68	106.30		105.45	
31		104.83		104.81	106.09		105.35		105.73	106.21		105.41	
Mean	104.85	104.98	104.67	104.91	106.01	106.16	106.93	105.25	105.23	106.06	106.30	105.82	
Max	105.13	105.40	105.09	105.20	106.53	106.79	108.74	105.58	105.73	106.30	106.39	106.33	108.74
Min	104.69	104.61	104.43	104.73	104.84	105.52	105.35	104.60	104.59	105.46	106.22	105.19	104.43

Annual Max Momentary Gage Height	108.80	m. (MSL.) ,	at 15.00 Hours, on Oct 8, 2011		
Zero Gage at Bottom Elevation	104.00	m. (MSL.) ,	River Bed	103.36	m. (MSL)
Left Bank Elevation	109.00	m. (MSL.) ,			
Right Bank Elevation	110.01	m. (MSL.) ,	Drainage Area	38681	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	210.20	161.80	156.20	279.00	170.20	817.40	1124.60	400.60	159.00	409.20	817.40	804.80		
2	213.10	142.20	153.40	240.80	383.80	547.80	1183.00	422.10	225.30	375.60	843.40	754.40		
3	213.10	145.00	97.80	216.00	417.80	692.00	1198.60	426.40	231.50	426.40	792.20	773.30		
4	161.80	145.00	139.40	207.30	692.00	668.00	1785.40	404.90	293.00	553.40	817.40	798.50		
5	195.70	167.40	133.80	222.20	644.00	692.00	1987.80	417.80	187.00	486.00	830.00	804.80		
6	210.20	107.60	128.40	240.80	621.20	422.10	2373.40	396.30	102.60	592.70	804.80	811.10		
7	170.20	159.00	167.40	222.20	609.80	430.70	2673.40	396.30	263.00	760.70	817.40	804.80		
8	167.40	159.00	136.60	187.00	575.80	400.60	3010.40	375.60	240.80	621.20	817.40	811.10		
9	164.60	167.40	136.60	159.00	564.60	547.80	2896.20	367.40	192.80	656.00	817.40	804.80		
10	147.80	167.40	156.20	210.20	575.80	638.30	2607.60	383.80	336.20	710.30	830.00	817.40		
11	128.40	153.40	153.40	156.20	496.00	674.00	2191.80	387.90	351.00	662.00	830.00	811.10		
12	175.80	204.40	133.80	142.20	615.50	843.40	1882.20	359.20	240.80	698.00	856.80	798.50		
13	184.20	228.40	93.00	195.70	767.00	1175.70	1429.20	359.20	279.00	710.30	823.70	850.10		
14	184.20	240.80	97.80	167.40	650.00	1016.00	1117.30	310.50	359.20	692.00	823.70	823.70		
15	195.70	289.50	102.60	175.80	621.20	932.00	1102.70	231.50	467.20	735.50	883.60	491.00		
16	256.60	317.70	107.60	161.80	988.00	1139.20	850.10	272.60	371.50	662.00	883.60	496.00		
17	153.40	351.00	105.00	156.20	932.00	1153.80	995.00	263.00	496.00	680.00	890.30	396.30		
18	147.80	286.00	88.20	145.00	870.20	1051.60	1016.00	275.80	491.00	704.00	856.80	547.80		
19	167.40	282.50	93.00	173.00	836.70	1124.60	1261.00	282.50	359.20	741.80	863.50	275.80		
20	167.40	289.50	72.20	216.00	883.60	1009.00	1237.60	259.80	228.40	698.00	823.70	359.20		
21	189.90	289.50	70.00	269.40	823.70	779.60	1222.00	310.50	222.20	748.10	823.70	383.80		
22	161.80	339.90	65.60	266.20	656.00	698.00	1058.90	247.00	173.00	785.90	883.60	355.10		
23	156.20	263.00	93.00	189.90	626.90	644.00	1009.00	250.20	256.60	798.50	817.40	279.00		
24	139.40	250.20	112.80	175.80	698.00	644.00	974.00	187.00	269.40	773.30	811.10	359.20		
25	156.20	207.30	139.40	175.80	710.30	692.00	932.00	189.90	123.20	823.70	830.00	351.00		
26	156.20	213.10	128.40	178.60	547.80	638.30	779.60	192.80	123.20	798.50	856.80	296.50		
27	175.80	210.20	105.00	139.40	698.00	496.00	779.60	187.00	471.80	798.50	798.50	417.80		
28	167.40	175.80	156.20	142.20	773.30	609.80	404.90	187.00	422.10	817.40	779.60	400.60		
29	156.20	178.60	175.80	170.20	644.00	668.00	462.60	228.40	426.40	817.40	811.10	351.00		
30	156.20	178.60	243.90	150.60	850.10	876.90	367.40	105.00	471.80	830.00		371.50		
31		167.40		161.80	698.00		332.50		496.00	773.30		355.10		
Total	5230.30	6638.60	3742.50	5893.70	20641.30	22722.60	42245.80	9078.00	9330.20	21339.70	24134.90	17755.10	188752.70	CMSDAY
Mean	174.30	214.10	124.80	190.10	665.80	757.40	1362.80	302.60	301.00	688.40	832.20	572.70	515.70	CMS
Max	256.60	351.00	243.90	279.00	988.00	1175.70	3010.40	426.40	496.00	830.00	890.30	850.10	3010.40	CMS
Min	128.40	107.60	65.60	139.40	170.20	400.60	332.50	105.00	102.60	375.60	779.60	275.80	65.60	CMS
Runoff	451.90	573.58	323.35	509.22	1783.41	1963.23	3650.04	784.34	806.13	1843.75	2085.26	1534.04	16308.23	MCM

Momentary Peak 3080.00 CMS. at 108.80 m. (MSL.) at 15.00 Hours , on Oct 8, 2011

Runoff Yield 13.33 Liters/Second/Square KM. Momentary Peak Yield 79.626 Liters/Second/Square KM.

WATER YEAR : 2011

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.

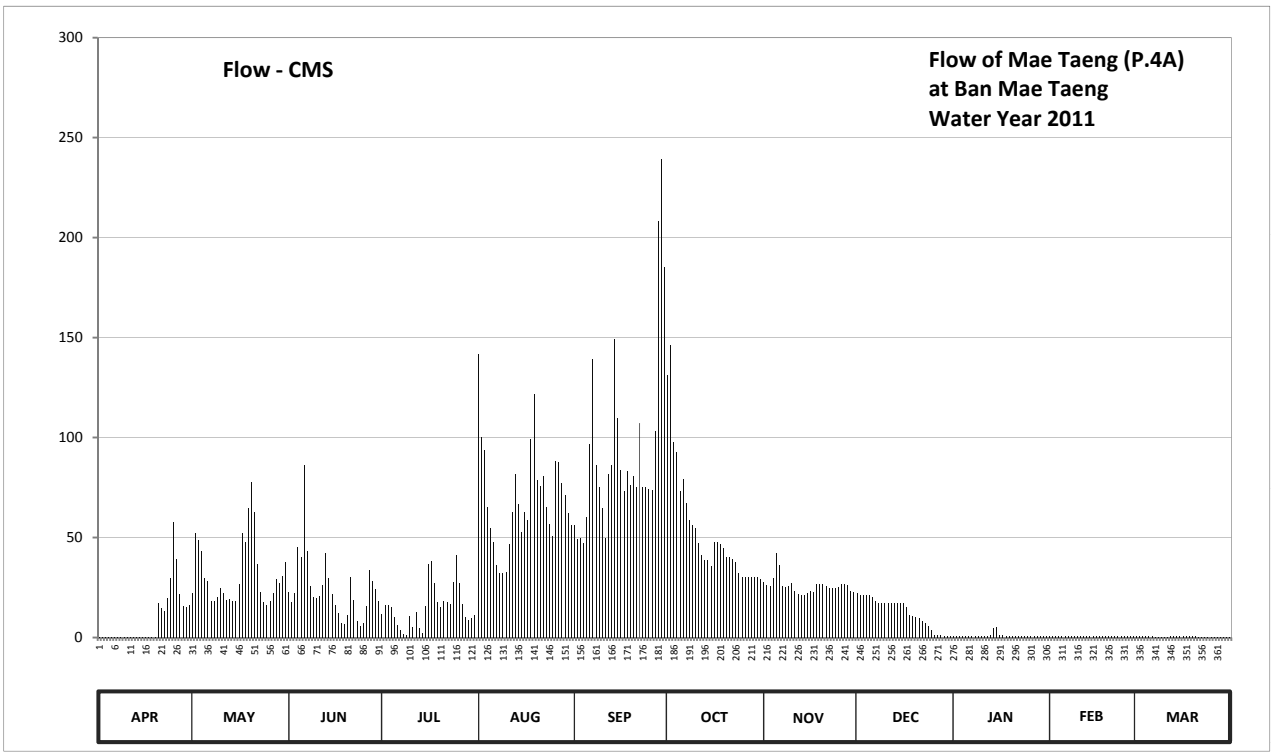
Ban Mae Taeng **Amphoe** Mae Taeng **Changwat** Chiang Mai

Drainge Area	1,930 sq.km.
Type of Gage	Water - stage recorder.
Zero Gage at Bottom	+334.000 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	In the vicinity of Amphoe Mae Taeng office **Elevation** +339.946 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings
Period of Available Gage Records	1955 to date
Rating Operation	
Period of Rating	1955 - 1960 , 1967 to date
Rated by Flot	-
Rated by Current Meter	1955 - 1960 , 1967 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Flow regulated by Mae Taeng weir about 7 kilometers above gage site. Stage-discharge relation defined by 37 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	334.20	334.63	334.64	334.35	336.39	335.28	336.27	334.75	334.63	333.90	333.86	333.83	
2	334.19	335.22	334.51	334.47	335.90	335.17	336.44	334.72	334.61	333.90	333.86	333.83	
3	334.19	335.16	334.63	334.47	335.82	335.18	335.87	334.71	334.60	333.89	333.86	333.82	
4	334.18	335.05	335.09	334.45	335.42	335.13	335.81	334.79	334.60	333.89	333.86	333.82	
5	334.18	334.79	335.00	334.31	335.26	335.34	335.54	335.03	334.60	333.88	333.86	333.82	
6	334.17	334.76	335.72	334.19	335.14	335.86	335.63	334.92	334.58	333.88	333.86	333.82	
7	334.15	334.53	335.05	334.09	334.92	336.36	335.45	334.70	334.53	333.88	333.86	333.81	
8	334.15	334.53	334.70	333.98	334.84	335.72	335.32	334.69	334.50	333.88	333.86	333.80	
9	334.15	334.58	334.58	333.95	334.84	335.57	335.28	334.70	334.50	333.88	333.86	333.80	
10	334.15	334.68	334.56	334.32	334.85	335.41	335.26	334.74	334.50	333.88	333.85	333.80	
11	334.17	334.63	334.59	334.15	335.12	335.18	335.13	334.65	334.50	333.88	333.85	333.81	
12	334.20	334.54	334.72	334.38	335.38	335.66	335.01	334.62	334.50	333.89	333.85	333.83	
13	334.22	334.55	335.03	334.12	335.66	335.72	334.97	334.60	334.50	333.91	333.85	333.83	
14	334.19	334.52	334.79	334.00	335.44	336.47	334.97	334.60	334.50	334.12	333.85	333.84	
15	334.17	334.52	334.62	334.46	335.23	336.02	334.91	334.63	334.50	334.14	333.85	333.84	
16	334.16	334.73	334.48	334.93	335.38	335.69	335.14	334.65	334.50	333.94	333.85	333.84	
17	334.12	335.22	334.36	334.96	335.32	335.54	335.14	334.64	334.45	333.91	333.84	333.84	
18	334.11	335.14	334.22	334.74	335.89	335.68	335.12	334.73	334.34	333.90	333.84	333.84	
19	334.16	335.41	334.21	334.51	336.16	335.59	335.08	334.73	334.32	333.90	333.84	333.84	
20	334.50	335.61	334.33	334.44	335.62	335.65	335.00	334.73	334.30	333.89	333.84	333.84	
21	334.43	335.38	334.80	334.53	335.58	335.57	335.00	334.71	334.29	333.88	333.85	334.26	
22	334.39	334.93	334.54	334.51	335.65	335.99	334.98	334.68	334.25	333.86	333.85	334.40	
23	334.57	334.64	334.25	334.49	335.42	335.57	334.95	334.68	334.22	333.85	333.85	334.40	
24	334.79	334.51	334.16	334.75	335.29	335.57	334.84	334.68	334.17	333.85	333.84	334.40	
25	335.30	334.48	334.22	335.01	335.20	335.56	334.80	334.69	334.09	333.85	333.85	334.40	
26	334.98	334.52	334.46	334.74	335.75	335.55	334.80	334.73	333.95	333.85	333.85	334.40	
27	334.62	334.63	334.87	334.49	335.74	335.94	334.80	334.73	333.91	333.85	333.85	334.40	
28	334.46	334.78	334.76	334.31	335.60	337.08	334.80	334.72	333.91	333.85	333.85	334.40	
29	334.45	334.74	334.67	334.27	335.51	337.38	334.80	334.65	333.90	333.85	333.84	334.40	
30	334.48	334.81	334.53	334.29	335.37	336.85	334.80	334.64	333.90	333.85		334.40	
31		334.95		334.34	335.28		334.78		333.90	333.85		334.40	
Mean	334.34	334.81	334.64	334.42	335.45	335.78	335.18	334.71	334.34	333.89	333.85	334.02	
Max	335.30	335.61	335.72	335.01	336.39	337.38	336.44	335.03	334.63	334.14	333.86	334.40	337.38
Min	334.11	334.48	334.16	333.95	334.84	335.13	334.78	334.60	333.90	333.85	333.84	333.80	333.80

Annual Max Momentary Gage Height	337.49	m. (MSL.) ,	at 04.00 Hours , on Sep 29 , 2011		
Zero Gage at Bottom Elevation	334.00	m. (MSL.) ,	River Bed	333.52	m. (MSL)
Left Bank Elevation	339.86	m. (MSL.) ,			
Right Bank Elevation	339.86	m. (MSL.) ,	Drainage Area	1930	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.20	22.35	22.80	11.75	141.63	56.20	131.12	27.75	22.35	0.90	0.70	0.55		
2	0.19	52.30	17.63	16.13	100.00	49.43	146.20	26.40	21.45	0.90	0.70	0.55		
3	0.19	48.90	22.35	16.13	93.60	49.95	97.60	25.95	21.00	0.85	0.70	0.50		
4	0.18	43.12	45.22	15.38	65.30	47.32	92.80	29.55	21.00	0.85	0.70	0.50		
5	0.18	29.55	40.50	10.35	54.90	60.10	73.10	42.07	21.00	0.80	0.70	0.50		
6	0.17	28.20	86.00	6.26	47.85	96.80	79.25	36.30	20.25	0.80	0.70	0.50		
7	0.15	18.37	43.12	3.89	36.30	139.00	67.25	25.50	18.37	0.80	0.70	0.45		
8	0.15	18.37	25.50	1.78	32.10	86.00	58.80	25.05	17.25	0.80	0.70	0.40		
9	0.15	20.25	20.25	1.45	32.10	75.05	56.20	25.50	17.25	0.80	0.70	0.40		
10	0.15	24.60	19.50	10.70	32.63	64.65	54.90	27.30	17.25	0.80	0.65	0.40		
11	0.17	22.35	20.62	5.30	46.80	49.95	47.32	23.25	17.25	0.80	0.65	0.45		
12	0.20	18.75	26.40	12.80	62.70	81.50	41.03	21.90	17.25	0.85	0.65	0.55		
13	0.22	19.12	42.07	4.58	81.50	86.00	38.93	21.00	17.25	1.01	0.65	0.55		
14	0.19	18.00	29.55	2.00	66.60	148.98	38.93	21.00	17.25	4.58	0.65	0.60		
15	0.17	18.00	21.90	15.75	52.95	109.70	35.78	22.35	17.25	5.06	0.65	0.60		
16	0.16	26.85	16.50	36.82	62.70	83.75	47.85	23.25	17.25	1.34	0.65	0.60		
17	0.12	52.30	12.10	38.40	58.80	73.10	47.85	22.80	15.38	1.01	0.60	0.60		
18	0.11	47.85	7.20	27.30	99.20	83.00	46.80	26.85	11.40	0.90	0.60	0.60		
19	0.16	64.65	6.85	17.63	121.60	76.35	44.70	26.85	10.70	0.90	0.60	0.60		
20	17.25	77.75	11.05	15.00	78.50	80.75	40.50	26.85	10.00	0.85	0.60	0.60		
21	14.62	62.70	30.00	18.37	75.70	75.05	40.50	25.95	9.65	0.80	0.65	0.26		
22	13.15	36.82	18.75	17.63	80.75	107.20	39.45	24.60	8.25	0.70	0.65	0.40		
23	19.88	22.80	8.25	16.87	65.30	75.05	37.88	24.60	7.20	0.65	0.65	0.40		
24	29.55	17.63	5.54	27.75	56.85	75.05	32.10	24.60	5.78	0.65	0.60	0.40		
25	57.50	16.50	7.20	41.03	51.00	74.40	30.00	25.05	3.89	0.65	0.65	0.40		
26	39.45	18.00	15.75	27.30	88.25	73.75	30.00	26.85	1.45	0.65	0.65	0.40		
27	21.90	22.35	33.68	16.87	87.50	103.20	30.00	26.85	1.01	0.65	0.65	0.40		
28	15.75	29.10	28.20	10.35	77.00	208.20	30.00	26.40	1.01	0.65	0.65	0.40		
29	15.38	27.30	24.15	8.95	71.15	239.40	30.00	23.25	0.90	0.65	0.60	0.40		
30	16.50	30.53	18.37	9.65	62.05	185.00	30.00	22.80	0.90	0.65		0.40		
31		37.88		11.40	56.20		29.10		0.90	0.65		0.40		
Total	264.14	993.24	727.00	475.57	2139.51	2813.88	1645.94	778.42	389.09	32.95	19.00	14.76	10293.50	CMSDAY
Mean	8.80	32.04	24.23	15.34	69.02	93.80	53.09	25.95	12.55	1.06	0.66	0.48	28.12	CMS
Max	57.50	77.75	86.00	41.03	141.63	239.40	146.20	42.07	22.35	5.06	0.70	0.60	239.40	CMS
Min	0.11	16.50	5.54	1.45	32.10	47.32	29.10	21.00	0.90	0.65	0.60	0.26	0.11	CMS
Runoff	22.82	85.82	62.81	41.09	184.85	243.12	142.21	67.26	33.62	2.85	1.64	1.28	889.36	MCM

Momentary Peak 251.17 CMS. at 337.49 m. (MSL.) at 04.00 Hours , on Sep 29 , 2011

Runoff Yield 14.57 Liters/Second/Square KM. Momentary Peak Yield 130.14 Liters/Second/Square KM.

WATER YEAR : 2011

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.

Ban Tha Nang Bridge **Amphoe** Mueang **Changwat** Lamphun

Drainge Area	1,569 sq.km.
Type of Gage	Water - stage recorder.
Zero Gage at Bottom	+288.500 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	Near the gage site. **Elevation** +294.592 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings
Period of Available Gage Records	1978 - 1992 , 2006 to date
Rating Operation	
Period of Rating	1978 - 1992 , 2006 to date
Rated by Flot	-
Rated by Current Meter	1978 - 1992 , 2006 to date
Stability of Channel Regimes	Fairly stable because of backwater effect.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 35 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

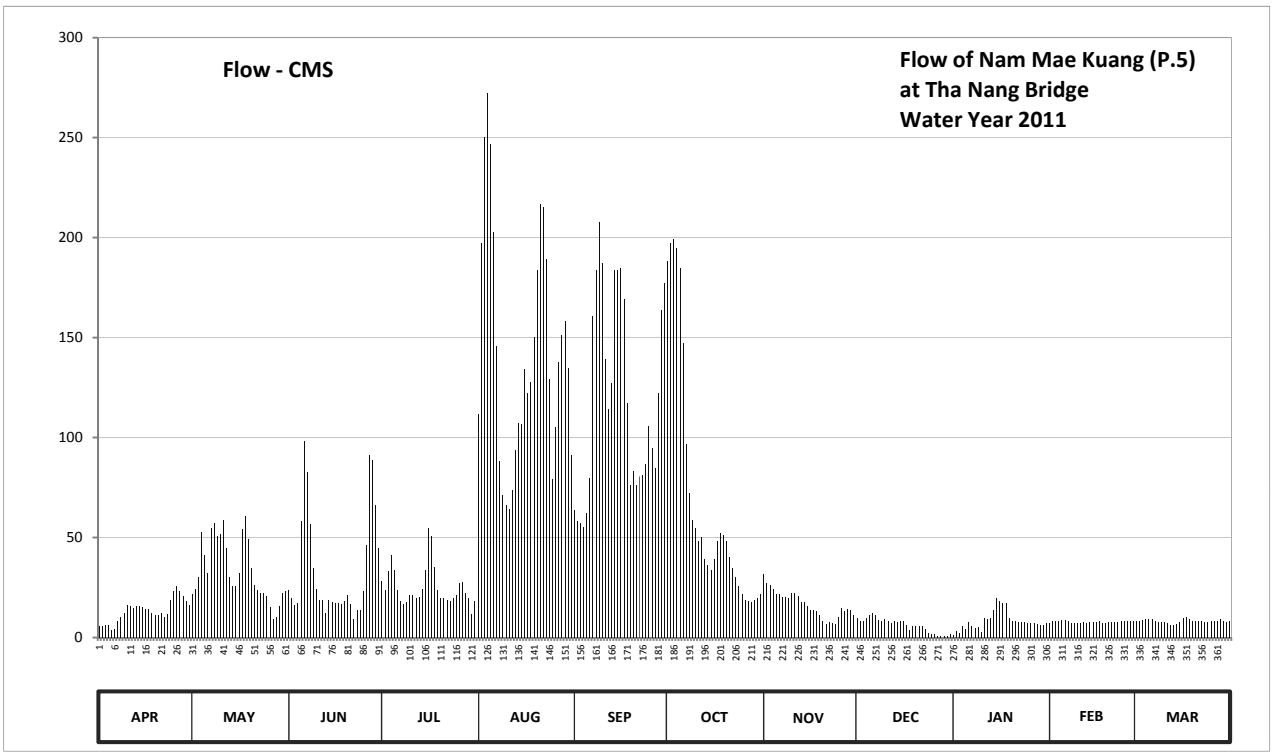
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	291.10	291.44	291.47	291.54	292.69	292.01	293.66	291.58	291.21	290.86	291.23	291.28	
2	291.10	291.48	291.40	291.47	293.77	291.93	293.77	291.52	291.18	290.99	291.26	291.27	
3	291.11	291.56	291.34	291.60	294.39	291.92	293.79	291.51	291.17	290.94	291.27	291.29	
4	291.11	291.85	291.36	291.70	294.65	291.89	293.74	291.48	291.21	291.10	291.28	291.30	
5	291.02	291.70	291.93	291.61	294.35	291.99	293.62	291.44	291.24	291.04	291.29	291.31	
6	291.04	291.59	292.50	291.47	293.83	292.24	293.15	291.44	291.26	291.16	291.29	291.30	
7	291.17	291.88	292.28	291.38	293.13	293.32	292.48	291.41	291.24	291.09	291.27	291.27	
8	291.22	291.92	291.91	291.35	292.36	293.61	292.13	291.41	291.19	291.05	291.23	291.25	
9	291.27	291.81	291.62	291.37	292.12	293.89	291.94	291.40	291.18	291.08	291.22	291.24	
10	291.34	291.83	291.48	291.43	292.05	293.65	291.88	291.45	291.20	290.98	291.22	291.24	
11	291.33	291.94	291.39	291.43	292.02	293.05	291.78	291.45	291.18	291.21	291.22	291.22	
12	291.31	291.74	291.39	291.40	292.15	292.72	291.80	291.42	291.15	291.20	291.25	291.19	
13	291.33	291.56	291.26	291.41	292.44	292.89	291.68	291.37	291.17	291.21	291.23	291.18	
14	291.33	291.50	291.39	291.48	292.63	293.61	291.64	291.37	291.16	291.29	291.24	291.21	
15	291.32	291.50	291.37	291.61	292.62	293.61	291.61	291.33	291.17	291.40	291.25	291.25	
16	291.30	291.59	291.36	291.88	292.98	293.62	291.68	291.29	291.17	291.38	291.25	291.33	
17	291.30	291.87	291.36	291.81	292.83	293.43	291.78	291.29	291.11	291.36	291.26	291.35	
18	291.27	291.97	291.35	291.63	292.90	292.76	291.84	291.28	291.02	291.36	291.23	291.30	
19	291.24	291.79	291.38	291.47	293.19	292.19	291.82	291.24	291.09	291.33	291.23	291.28	
20	291.24	291.62	291.43	291.40	293.61	292.29	291.78	291.18	291.09	291.28	291.24	291.28	
21	291.26	291.51	291.35	291.40	294.00	292.19	291.69	291.12	291.10	291.27	291.25	291.26	
22	291.23	291.47	291.20	291.39	293.98	292.25	291.62	291.16	291.09	291.25	291.25	291.26	
23	291.25	291.45	291.29	291.38	293.67	292.26	291.56	291.15	291.04	291.25	291.25	291.24	
24	291.39	291.45	291.29	291.40	292.92	292.34	291.50	291.13	290.95	291.24	291.26	291.24	
25	291.46	291.42	291.46	291.43	292.23	292.61	291.44	291.22	290.91	291.23	291.27	291.26	
26	291.50	291.32	291.76	291.52	292.60	292.45	291.39	291.31	290.88	291.22	291.28	291.26	
27	291.46	291.20	292.40	291.53	293.03	292.31	291.38	291.28	290.80	291.22	291.27	291.26	
28	291.42	291.22	292.37	291.45	293.20	292.83	291.37	291.30	290.78	291.21	291.28	291.30	
29	291.38	291.33	292.05	291.40	293.29	293.36	291.39	291.29	290.79	291.20	291.27	291.27	
30	291.34	291.45	291.74	291.25	292.99	293.53	291.40	291.24	290.77	291.20		291.25	
31		291.46		291.38	292.40		291.44		290.87	291.22		291.26	
Mean	291.27	291.59	291.60	291.48	293.07	292.76	292.06	291.34	291.08	291.19	291.25	291.26	
Max	291.50	291.97	292.50	291.88	294.65	293.89	293.79	291.58	291.26	291.40	291.29	291.35	294.65
Min	291.02	291.20	291.20	291.25	292.02	291.89	291.37	291.12	290.77	290.86	291.22	291.18	290.77

Annual Max Momentary Gage Height 294.68 m. (MSL.) , at 02.00 Hours , on Aug 4 , 2011

Zero Gage at Bottom Elevation 288.50 m. (MSL.) , River Bed 288.93 m. (MSL)

Left Bank Elevation 295.79 m. (MSL.) ,

Right Bank Elevation 295.80 m. (MSL.) , Drainage Area 1569 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	5.90	21.90	23.70	28.50	111.75	63.70	188.10	31.50	9.50	1.44	7.25	8.50		
2	5.90	24.30	19.50	23.70	197.45	58.10	197.45	27.00	8.38	3.06	8.00	8.25		
3	6.21	30.00	16.20	33.00	250.15	57.40	199.15	26.25	8.07	2.36	8.25	8.75		
4	6.21	53.00	17.30	41.00	272.37	55.40	194.90	24.30	9.50	5.90	8.50	9.00		
5	3.74	41.00	58.10	33.80	246.75	62.30	184.70	21.90	11.00	4.28	8.75	9.28		
6	4.28	32.25	98.00	23.70	202.55	79.80	147.12	21.90	12.00	7.76	8.75	9.00		
7	8.07	54.80	82.60	18.40	145.57	160.60	96.60	20.10	11.00	5.63	8.25	8.25		
8	10.00	57.40	56.70	16.75	88.20	183.85	72.10	20.10	8.69	4.55	7.25	7.75		
9	12.50	50.60	34.60	17.85	71.40	207.65	58.80	19.50	8.38	5.36	7.00	7.50		
10	16.20	51.80	24.30	21.30	66.50	187.25	54.80	22.50	9.00	2.92	7.00	7.50		
11	15.65	58.80	18.95	21.30	64.40	139.37	48.20	22.50	8.38	9.50	7.00	7.00		
12	14.55	44.60	18.95	19.50	73.50	114.00	50.00	20.70	7.45	9.00	7.75	6.30		
13	15.65	30.00	12.00	20.10	93.80	126.98	39.40	17.85	8.07	9.50	7.25	6.10		
14	15.65	25.50	18.95	24.30	107.25	183.85	36.20	17.85	7.76	13.50	7.50	6.75		
15	15.10	25.50	17.85	33.80	106.50	183.85	33.80	15.65	8.07	19.50	7.75	7.75		
16	14.00	32.25	17.30	54.80	133.95	184.70	39.40	13.50	8.07	18.40	7.75	9.84		
17	14.00	54.20	17.30	50.60	122.32	169.40	48.20	13.50	6.21	17.30	8.00	10.40		
18	12.50	60.90	16.75	35.40	127.75	117.00	52.40	13.00	3.74	17.30	7.25	9.00		
19	11.00	49.10	18.40	23.70	150.22	76.30	51.20	11.00	5.63	9.84	7.25	8.50		
20	11.00	34.60	21.30	19.50	183.85	83.30	48.20	8.38	5.63	8.50	7.50	8.50		
21	12.00	26.25	16.75	19.50	217.00	76.30	40.20	6.52	5.90	8.25	7.75	8.00		
22	10.50	23.70	9.00	18.95	215.30	80.50	34.60	7.76	5.63	7.75	7.75	8.00		
23	11.50	22.50	13.50	18.40	188.95	81.20	30.00	7.45	4.28	7.75	7.75	7.50		
24	18.95	22.50	13.50	19.50	129.30	86.80	25.50	6.83	2.50	7.50	8.00	7.50		
25	23.10	20.70	23.10	21.30	79.10	105.75	21.90	10.00	1.94	7.25	8.25	8.00		
26	25.50	15.10	46.40	27.00	105.00	94.50	18.95	14.55	1.62	7.00	8.50	8.00		
27	23.10	9.00	91.00	27.75	137.82	84.70	18.40	13.00	0.90	7.00	8.25	8.00		
28	20.70	10.00	88.90	22.50	151.00	122.32	17.85	14.00	0.78	6.75	8.50	9.00		
29	18.40	15.65	66.50	19.50	158.20	163.80	18.95	13.50	0.84	6.50	8.25	8.25		
30	16.20	22.50	44.60	11.50	134.72	177.40	19.50	11.00	0.72	6.50		7.75		
31		23.10		18.40	91.00		21.90		1.53	7.00		8.00		
Total	398.06	1043.50	1022.00	785.30	4423.62	3568.07	2108.47	493.59	191.17	254.85	227.00	251.92	14767.55	CMSDAY
Mean	13.27	33.66	34.07	25.33	142.70	118.94	68.02	16.45	6.17	8.22	7.83	8.13	40.35	CMS
Max	25.50	60.90	98.00	54.80	272.37	207.65	199.15	31.50	12.00	19.50	8.75	10.40	272.37	CMS
Min	3.74	9.00	9.00	11.50	64.40	55.40	17.85	6.52	0.72	1.44	7.00	6.10	0.72	CMS
Runoff	34.39	90.16	88.30	67.85	382.20	308.28	182.17	42.65	16.52	22.02	19.61	21.77	1275.92	MCM

Momentary Peak 275.00 CMS. at 294.68 m. (MSL.) at 02.00 Hours , on Aug 4 , 2011

Runoff Yield 25.72 Liters/Second/Square KM. Momentary Peak Yield 175.271 Liters/Second/Square KM.

WATER YEAR : 2011

PING RIVER BASIN

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

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

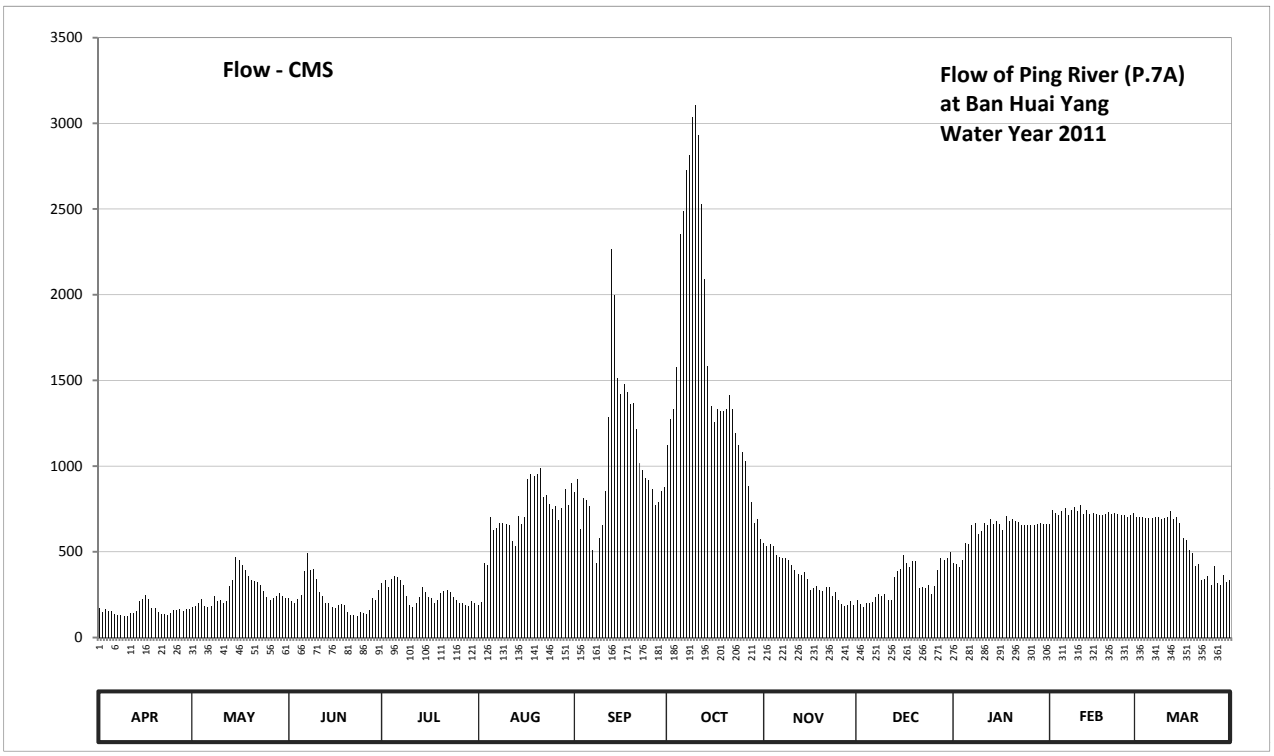
Location : on left bank about 100 meters upstream from the bridge on highway.

	Ban Huai Yang	**Amphoe** Mueang	**Changwat** Kamphaeng Phet		
Drainge Area	42,464 sq.km.				
Type of Gage	Water - stage recorder				
Zero Gage at Bottom	+71.730 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	Near the gage observers house.		**Elevation** +77.717 m. (MSL.)		
Gage Reading Frequency	Recording				
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings				
Period of Available Gage Records	1960 to date				
Rating Operation					
Period of Rating	1960 - 1961 , 1967 to date				
Rated by Flot	-				
Rated by Current Meter	1960 - 1961 , 1967 to date				
Stability of Channel Regimes	Stable.				
Overbank Flow Conditions	Overbank flow starts at elevation +76.760 m.(MSL.), records are channel flow only.				
General Description	Records good. Flow regulated by Phumiphol Dam reservior above gage site.				
	Stage-discharge relation defined by 44 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	72.51	72.53	72.68	72.94	72.57	74.05	74.48	73.50	72.66	73.23	73.72	73.79	
2	72.43	72.54	72.64	72.98	72.62	74.18	74.69	73.46	72.59	73.22	73.87	73.80	
3	72.48	72.60	72.61	72.87	73.24	73.66	74.77	73.48	72.53	73.18	73.84	73.80	
4	72.45	72.67	72.67	73.01	73.21	73.99	75.10	73.46	72.61	73.28	73.82	73.78	
5	72.45	72.54	72.74	73.05	73.79	73.97	76.03	73.34	72.60	73.50	73.86	73.78	
6	72.39	72.52	73.12	73.03	73.65	73.91	76.19	73.31	72.62	73.49	73.89	73.78	
7	72.36	72.54	73.37	72.99	73.67	73.41	76.45	73.30	72.71	73.70	73.82	73.80	
8	72.36	72.72	73.14	72.90	73.73	73.23	76.54	73.30	72.76	73.73	73.87	73.79	
9	72.35	72.64	73.16	72.73	73.73	73.56	76.77	73.28	72.73	73.61	73.90	73.77	
10	72.35	72.65	73.01	72.56	73.72	73.71	76.84	73.21	72.75	73.64	73.86	73.78	
11	72.40	72.60	72.79	72.53	73.70	74.06	76.66	73.14	72.65	73.73	73.92	73.79	
12	72.40	72.63	72.73	72.60	73.52	74.71	76.23	73.08	72.66	73.70	73.83	73.86	
13	72.45	72.89	72.61	72.71	73.46	75.93	75.73	73.06	73.03	73.77	73.87	73.77	
14	72.64	72.98	72.60	72.88	73.81	75.62	75.11	73.11	73.12	73.72	73.83	73.79	
15	72.67	73.31	72.52	72.80	73.72	75.02	74.80	73.01	73.15	73.75	73.84	73.73	
16	72.74	73.28	72.51	72.70	73.79	74.89	74.67	72.83	73.35	73.72	73.83	73.56	
17	72.67	73.21	72.57	72.68	74.18	74.97	74.77	72.85	73.24	73.65	73.82	73.53	
18	72.51	73.14	72.59	72.60	74.22	74.91	74.76	72.89	73.18	73.81	73.82	73.41	
19	72.50	73.05	72.56	72.65	74.20	74.81	74.76	72.83	73.26	73.75	73.83	73.37	
20	72.42	72.98	72.43	72.78	74.22	74.82	74.77	72.81	73.27	73.77	73.85	73.19	
21	72.39	72.97	72.36	72.81	74.28	74.61	74.88	72.87	72.86	73.75	73.83	73.22	
22	72.39	72.96	72.37	72.83	74.00	74.32	74.77	72.87	72.87	73.74	73.84	72.99	
23	72.37	72.91	72.35	72.80	74.02	74.26	74.58	72.72	72.86	73.70	73.83	73.01	
24	72.41	72.81	72.43	72.71	73.93	74.19	74.48	72.79	72.90	73.71	73.82	73.05	
25	72.47	72.70	72.40	72.65	73.88	74.17	74.42	72.66	72.76	73.70	73.82	72.90	
26	72.47	72.65	72.39	72.61	73.91	74.08	74.34	72.59	72.89	73.71	73.80	73.20	
27	72.49	72.69	72.46	72.60	73.76	73.92	74.11	72.55	73.14	73.70	73.82	72.94	
28	72.45	72.72	72.68	72.56	73.89	73.95	73.95	72.56	73.30	73.72	73.84	72.91	
29	72.48	72.77	72.66	72.55	74.08	74.06	73.73	72.64	73.28	73.73	73.77	73.06	
30	72.48	72.73	72.83	72.63	73.92	74.10	73.77	72.56	73.30	73.72		72.95	
31		72.68		72.60	74.14		73.55		73.38	73.72		72.99	
Mean	72.46	72.79	72.67	72.75	73.76	74.30	75.05	73.00	72.94	73.64	73.84	73.45	
Max	72.74	73.31	73.37	73.05	74.28	75.93	76.84	73.50	73.38	73.81	73.92	73.86	76.84
Min	72.35	72.52	72.35	72.53	72.57	73.23	73.55	72.55	72.53	73.18	73.72	72.90	72.35

Annual Max Momentary Gage Height	76.87	m. (MSL.) ,	at 06.00 Hours , on Oct 10 , 2011		
Zero Gage at Bottom Elevation	71.73	m. (MSL.) ,	River Bed	70.50	m. (MSL)
Left Bank Elevation	77.95	m. (MSL.) ,			
Right Bank Elevation	76.75	m. (MSL.) ,	Drainage Area	42464	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	173.00	179.00	227.20	318.40	191.00	847.00	1124.40	553.00	220.40	431.90	663.40	699.80		
2	149.00	182.00	213.60	332.80	206.80	925.80	1272.80	533.80	197.00	427.60	743.50	705.00		
3	164.00	200.00	203.40	293.20	436.20	632.20	1330.40	543.40	179.00	410.80	727.00	705.00		
4	155.00	223.80	223.80	343.80	423.30	811.30	1577.00	533.80	203.40	453.40	716.00	694.60		
5	155.00	182.00	247.60	359.00	699.80	799.90	2351.10	479.20	200.00	553.00	738.00	694.60		
6	137.30	176.00	386.20	351.40	627.00	765.70	2491.20	466.30	206.80	548.20	754.50	694.60		
7	129.20	182.00	492.10	336.40	637.40	509.80	2729.00	462.00	237.40	653.00	716.00	705.00		
8	129.20	240.80	394.40	304.00	668.60	431.90	2814.80	462.00	254.40	668.60	743.50	699.80		
9	126.50	213.60	402.60	244.20	668.60	581.80	3037.90	453.40	244.20	606.20	760.00	689.40		
10	126.50	217.00	343.80	188.00	663.40	658.20	3105.80	423.30	251.00	621.80	738.00	694.60		
11	140.00	200.00	264.60	179.00	653.00	853.00	2931.20	394.40	217.00	668.60	771.40	699.80		
12	140.00	210.20	244.20	200.00	562.60	1287.20	2527.00	370.40	220.40	653.00	721.50	738.00		
13	155.00	300.40	203.40	237.40	533.80	2264.10	2091.80	362.80	351.40	689.40	743.50	689.40		
14	213.60	332.80	200.00	296.80	710.50	1998.80	1584.70	382.10	386.20	663.40	721.50	699.80		
15	223.80	466.30	176.00	268.00	663.40	1515.40	1352.00	343.80	398.50	679.00	727.00	668.60		
16	247.60	453.40	173.00	234.00	699.80	1418.60	1258.40	278.80	483.50	663.40	721.50	581.80		
17	223.80	423.30	191.00	227.20	925.80	1477.80	1330.40	286.00	436.20	627.00	716.00	567.40		
18	173.00	394.40	197.00	200.00	951.20	1433.40	1323.20	300.40	410.80	710.50	716.00	509.80		
19	170.00	359.00	188.00	217.00	938.00	1359.40	1323.20	278.80	444.80	679.00	721.50	492.10		
20	146.00	332.80	149.00	261.20	951.20	1366.80	1330.40	271.60	449.10	689.40	732.50	414.90		
21	137.30	329.20	129.20	271.60	990.80	1215.20	1411.20	293.20	289.60	679.00	721.50	427.60		
22	137.30	325.60	131.90	278.80	817.00	1017.20	1330.40	293.20	293.20	673.80	727.00	336.40		
23	131.90	307.60	126.50	268.00	829.00	977.60	1194.00	240.80	289.60	653.00	721.50	343.80		
24	143.00	271.60	149.00	237.40	777.10	931.90	1124.40	264.60	304.00	658.20	716.00	359.00		
25	161.00	234.00	140.00	217.00	749.00	919.70	1083.60	220.40	254.40	653.00	716.00	304.00		
26	161.00	217.00	137.30	203.40	765.70	865.00	1030.40	197.00	300.40	658.20	705.00	419.00		
27	167.00	230.60	158.00	200.00	684.20	771.40	883.10	185.00	394.40	653.00	716.00	318.40		
28	155.00	240.80	227.20	188.00	754.50	788.50	788.50	188.00	462.00	663.40	727.00	307.60		
29	164.00	257.80	220.40	185.00	865.00	853.00	668.60	213.60	453.40	668.60	689.40	362.80		
30	164.00	244.20	278.80	210.20	771.40	877.00	689.40	188.00	462.00	663.40		322.00		
31		227.20		200.00	901.40		577.00		496.40	663.40		336.40		
Total	4799.00	8354.40	6819.20	7851.20	21716.50	31154.60	49667.30	10463.10	9990.90	19384.20	21031.70	16881.00	208113.10	CMSDAY
Mean	160.00	269.50	227.30	253.30	700.50	1038.50	1602.20	348.80	322.30	625.30	725.20	544.50	568.60	CMS
Max	247.60	466.30	492.10	359.00	990.80	2264.10	3105.80	553.00	496.40	710.50	771.40	738.00	3105.80	CMS
Min	126.50	176.00	126.50	179.00	191.00	431.90	577.00	185.00	179.00	410.80	663.40	304.00	126.50	CMS
Runoff	414.63	721.82	589.18	678.34	1876.31	2691.76	4291.25	904.01	863.21	1674.8	1817.14	1458.52	17980.97	MCM

Momentary Peak 3134.90 CMS. at 76.87 m. (MSL.) at 06.00 Hours , on Oct 10 , 2011

Runoff Yield 13.39 Liters/Second/Square KM. Momentary Peak Yield 73.825 Liters/Second/Square KM.

WATER YEAR : 2011

PING RIVER BASIN

Ping River at Ban Wang Kra Chao , Tak (P.12C)

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

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

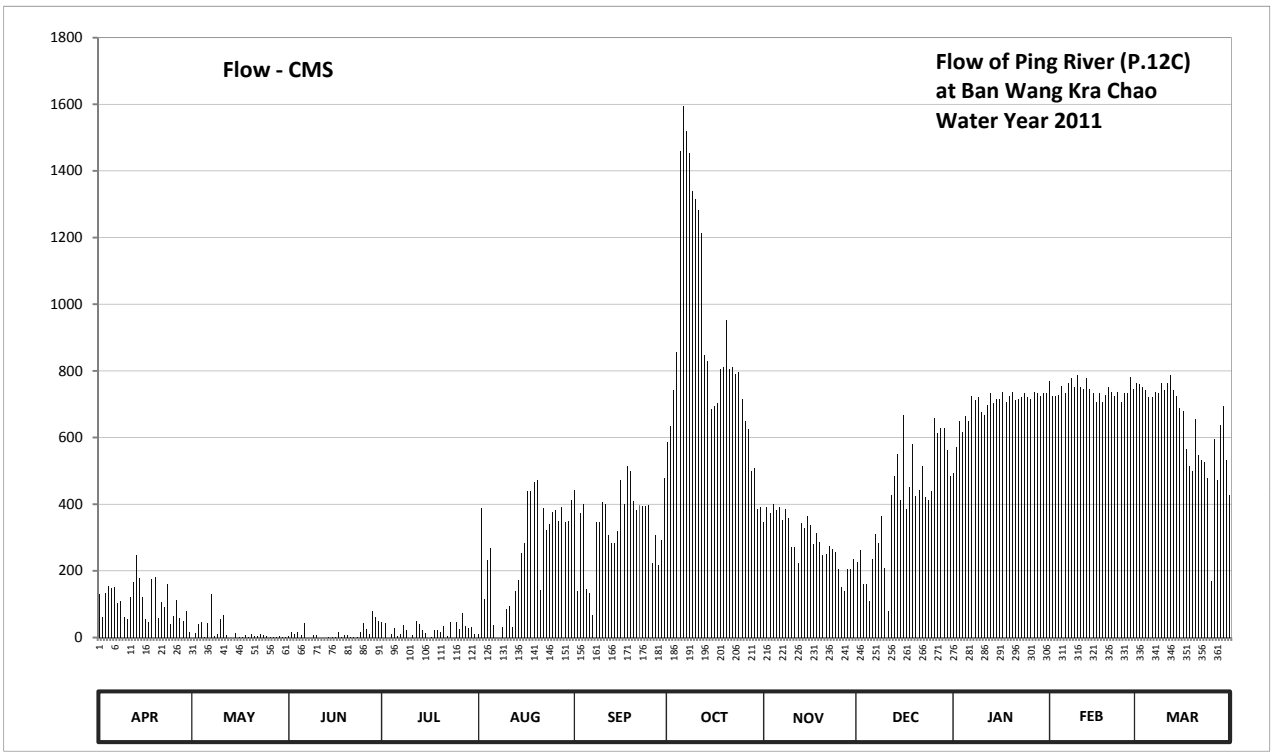
Ban Wang Kra Chao **Amphoe** Sam Ngao **Changwat** Tak

Drainge Area	26,241 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+129.000 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank at the pier of the bridge. **Elevation** +136.995 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings
Period of Available Gage Records	1995 to date
Rating Operation	
Period of Rating	1996 to date
Rated by Flot	-
Rated by Current Meter	1996 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Flow regulated by Phumiphol Dam reservior downstream from the gage site. Stage-discharge relation defined by 16 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	130.35	129.10	129.36	129.82	129.44	131.49	131.86	131.20	130.78	131.62	132.28	132.27	
2	129.95	129.50	129.55	129.80	131.33	130.40	131.97	131.34	130.92	131.82	132.18	132.26	
3	130.38	129.78	129.47	129.10	130.28	131.29	132.22	131.29	130.50	132.01	132.18	132.24	
4	130.47	129.83	129.56	129.48	130.80	131.37	132.47	131.37	130.50	131.93	132.19	132.22	
5	130.45	129.22	129.43	129.68	130.94	130.43	133.58	131.31	130.24	132.04	132.25	132.17	
6	130.46	129.80	129.80	129.34	129.75	130.37	133.80	131.34	130.81	132.01	132.20	132.17	
7	130.21	130.36	129.10	129.48	129.10	129.99	133.68	131.22	131.08	132.18	132.27	132.21	
8	130.24	129.33	129.10	129.75	129.10	131.20	133.57	131.32	130.99	132.15	132.30	132.20	
9	129.94	129.48	129.39	129.62	129.71	131.20	133.38	131.24	131.26	132.17	132.24	132.27	
10	129.90	129.89	129.39	129.10	130.11	131.39	133.34	130.95	130.71	132.07	132.32	132.22	
11	130.31	129.98	129.10	129.43	130.15	131.37	133.28	130.95	130.07	132.05	132.24	132.27	
12	130.53	129.43	129.10	129.85	129.71	131.07	133.16	130.77	131.45	132.12	132.23	132.32	
13	130.86	129.10	129.10	129.77	130.40	130.99	132.45	131.19	131.60	132.20	132.30	132.22	
14	130.58	129.10	129.30	129.62	130.56	130.99	132.41	131.14	131.77	132.13	132.23	132.18	
15	130.31	129.52	129.29	129.50	130.88	131.11	132.09	131.26	131.41	132.16	132.20	132.10	
16	129.90	129.29	129.29	129.10	130.99	131.57	132.11	131.17	132.05	132.16	132.14	132.08	
17	129.82	129.14	129.55	129.28	131.48	131.37	132.13	130.98	131.32	132.21	132.20	131.81	
18	130.57	129.42	129.24	129.62	131.48	131.68	132.36	131.09	131.51	132.14	132.14	131.68	
19	130.60	129.26	129.42	129.62	131.55	131.64	132.37	131.00	131.84	132.18	132.19	131.64	
20	129.91	129.47	129.43	129.55	131.57	131.40	132.67	130.86	131.44	132.21	132.24	132.02	
21	130.22	129.38	129.19	129.73	130.41	131.31	132.36	130.87	131.49	132.15	132.21	131.76	
22	130.13	129.37	129.20	129.32	131.33	131.36	132.37	130.96	131.68	132.16	132.18	131.72	
23	130.50	129.44	129.23	129.83	131.12	131.35	132.33	130.93	131.43	132.17	132.21	131.71	
24	129.79	129.39	129.56	129.10	131.18	131.35	132.34	130.90	131.41	132.20	132.14	131.58	
25	129.96	129.36	129.81	129.82	131.30	131.36	132.16	130.70	131.48	132.17	132.20	130.54	
26	130.26	129.30	129.63	129.64	131.31	130.77	132.01	130.46	132.03	132.16	132.20	131.88	
27	129.91	129.23	129.48	130.03	131.21	131.07	131.95	130.40	131.92	132.21	132.31	131.57	
28	129.85	129.29	130.06	129.72	131.34	130.74	131.64	130.70	131.96	132.20	132.23	131.98	
29	130.07	129.32	129.94	129.68	131.20	131.02	131.66	130.69	131.96	132.18	132.21	132.11	
30	129.55	129.25	129.86	129.71	131.21	131.58	131.32	130.82	131.80	132.20		131.72	
31		129.30		129.45	131.41		131.34		131.60	132.20		131.45	
Mean	130.20	129.44	129.43	129.57	130.72	131.14	132.46	131.01	131.32	132.11	132.22	131.95	
Max	130.86	130.36	130.06	130.03	131.57	131.68	133.80	131.37	132.05	132.21	132.32	132.32	133.80
Min	129.55	129.10	129.10	129.10	129.10	129.99	131.32	130.40	130.07	131.62	132.14	130.54	129.10

Annual Max Momentary Gage Height	133.89	m. (MSL.) ,	at 12.00 Hours , on Oct 6 , 2011		
Zero Gage at Bottom Elevation	129.00	m. (MSL.) ,	River Bed	127.73	m. (MSL)
Left Bank Elevation	134.21	m. (MSL.) ,			
Right Bank Elevation	134.51	m. (MSL.) ,	Drainage Area	26241	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	129.00	0.00	4.90	45.10	8.90	443.30	586.90	346.50	226.60	491.80	768.20	763.80		
2	62.20	12.50	16.70	42.50	387.60	139.00	632.60	390.80	263.70	570.30	724.20	759.40		
3	135.00	40.20	10.70	0.00	115.60	374.80	741.80	374.80	160.00	649.40	724.20	750.60		
4	153.70	46.40	17.60	11.30	231.50	400.40	856.90	400.40	160.00	615.90	728.60	741.80		
5	149.50	1.30	8.30	29.00	269.40	145.30	1460.00	381.20	108.80	662.60	755.00	719.80		
6	151.60	42.50	42.50	4.10	36.70	133.00	1594.00	390.80	234.10	649.40	733.00	719.80		
7	103.70	131.00	0.00	11.30	0.00	67.70	1520.00	352.80	309.30	724.20	763.80	737.40		
8	108.80	3.70	0.00	36.70	0.00	346.50	1454.00	384.40	283.70	711.00	777.00	733.00		
9	60.90	11.30	6.10	23.00	32.20	346.50	1340.30	359.10	365.40	719.80	750.60	763.80		
10	55.50	54.20	6.10	0.00	86.70	406.80	1316.90	272.20	209.50	675.80	786.40	741.80		
11	121.00	66.30	0.00	8.30	93.50	400.40	1281.80	272.20	80.20	667.00	750.60	763.80		
12	166.70	8.30	0.00	49.00	32.20	306.50	1213.00	224.20	428.50	697.80	746.20	786.40		
13	247.40	0.00	0.00	39.10	139.00	283.70	847.50	343.30	484.00	733.00	777.00	741.80		
14	178.00	0.00	2.50	23.00	173.50	283.70	828.70	327.60	550.30	702.20	746.20	724.20		
15	121.00	14.20	2.30	12.50	252.70	318.10	684.60	365.40	413.70	715.40	733.00	689.00		
16	55.50	2.30	2.30	0.00	283.70	472.90	693.40	337.00	667.00	715.40	706.60	680.20		
17	45.10	0.40	16.70	2.20	439.60	400.40	702.20	280.80	384.40	737.40	733.00	566.10		
18	175.80	7.70	1.60	23.00	439.60	515.20	805.20	312.10	450.70	706.60	706.60	515.20		
19	182.50	1.90	7.70	23.00	465.50	499.60	809.90	286.50	578.60	724.20	728.60	499.60		
20	56.90	10.70	8.30	16.70	472.90	410.00	952.30	247.40	424.80	737.40	750.60	653.80		
21	105.40	5.70	0.90	34.40	141.10	381.20	805.20	250.00	443.30	711.00	737.40	546.40		
22	90.10	5.30	1.00	3.30	387.60	397.20	809.90	275.10	515.20	715.40	724.20	530.80		
23	160.00	8.90	1.40	46.40	321.30	394.00	791.10	266.50	421.10	719.80	737.40	526.90		
24	41.30	6.10	17.60	0.00	340.20	394.00	795.80	258.00	413.70	733.00	706.60	476.60		
25	63.60	4.90	43.80	45.10	378.00	397.20	715.40	207.00	439.60	719.80	733.00	169.00		
26	112.20	2.50	24.00	25.00	381.20	224.20	649.40	151.60	658.20	715.40	733.00	595.20		
27	56.90	1.40	11.30	73.80	349.70	306.50	624.20	139.00	611.80	737.40	781.70	472.90		
28	49.00	2.30	78.60	33.30	390.80	216.80	499.60	207.00	628.40	733.00	746.20	636.70		
29	80.20	3.30	60.90	29.00	346.50	292.20	507.40	204.50	628.40	724.20	737.40	693.40		
30	16.70	1.70	50.30	32.20	349.70	476.60	384.40	236.80	562.00	733.00		530.80		
31		2.50		9.50	413.70		390.80		484.00	733.00		428.50		
Total	3235.20	499.50	444.10	731.80	7760.60	10173.70	27295.20	8845.00	12589.00	21581.60	21526.30	19658.50	134340.50	CMSDAY
Mean	107.80	16.10	14.80	23.60	250.30	339.10	880.50	294.80	406.10	696.20	742.30	634.10	367.10	CMS
Max	247.40	131.00	78.60	73.80	472.90	515.20	1594.00	400.40	667.00	737.40	786.40	786.40	1594.00	CMS
Min	16.70	0.00	0.00	0.00	0.00	67.70	384.40	139.00	80.20	491.80	706.60	169.00	0.00	CMS
Runoff	279.52	43.16	38.37	63.23	670.52	879.01	2358.31	764.21	1087.69	1864.65	1859.87	1698.49	11607.02	MCM

Momentary Peak 1649.80 CMS. at 133.89 m. (MSL.) at 12.00 Hours , on Oct 6 , 2011

Runoff Yield 13.99 Liters/Second/Square KM. Momentary Peak Yield 62.871 Liters/Second/Square KM.

WATER YEAR : 2011

PING RIVER BASIN

Nam Mae Chaem at Tha Kham Bridge , Chiang Mai (P.14A)

Lat 18 - 12 - 02 N Long 98 - 37 - 01 E

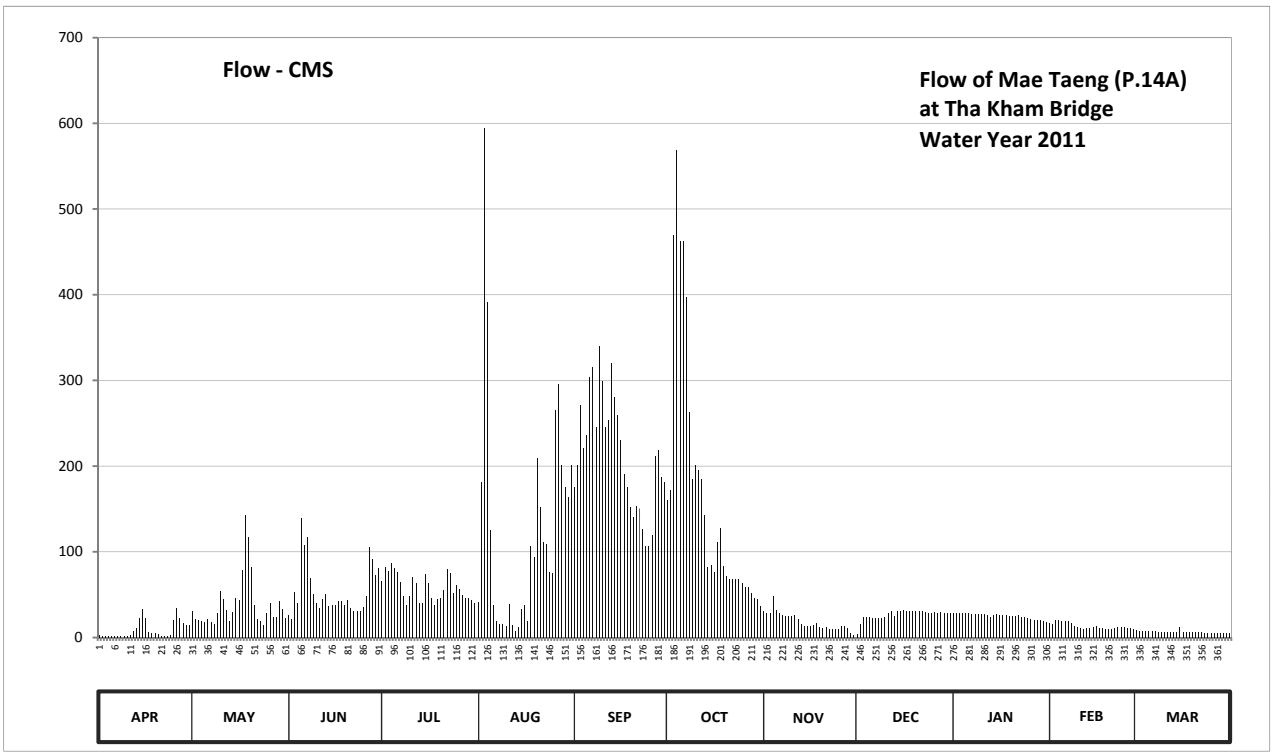
Location : on right bank near the bridge of Hot - Mae Sariang Highway at guidepost 7+500.

	Ban -	**Amphoe** Chom Thong	**Changwat** Chiang Mai
Drainge Area	3,909 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+261.863 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	about 10 meters in front of automatic gage building.	**Elevation**	+267.972 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	1953 to date		
Rating Operation			
Period of Rating	1955 - 1960 , 1967 to date		
Rated by Flot	-		
Rated by Current Meter	1955 - 1960 , 1967 to date		
Stability of Channel Regimes	Fairly stable by some sillting.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. The concrete weir situated about 6 kilometers downstream from the gage site. Stage-discharge relation defined by 37 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	262.91	263.41	263.34	263.83	264.04	265.14	265.05	263.90	263.39	263.87	263.68	263.53	
2	262.87	263.27	263.28	263.98	265.18	265.28	265.12	263.86	263.66	263.87	263.65	263.51	
3	262.86	263.26	263.69	263.94	266.12	265.56	265.96	263.87	263.80	263.87	263.73	263.51	
4	262.86	263.24	263.54	264.03	265.84	265.38	266.09	264.14	263.79	263.87	263.73	263.51	
5	262.86	263.23	264.43	263.97	264.83	265.44	265.95	263.92	263.79	263.86	263.71	263.50	
6	262.86	263.27	264.20	263.93	263.99	265.65	265.95	263.87	263.78	263.86	263.71	263.49	
7	262.86	263.23	264.27	263.82	263.71	265.68	265.85	263.83	263.78	263.84	263.71	263.49	
8	262.86	263.19	263.86	263.64	263.66	265.47	265.53	263.81	263.78	263.84	263.67	263.47	
9	262.86	263.37	263.66	263.51	263.66	265.74	265.20	263.81	263.78	263.84	263.61	263.47	
10	262.87	263.70	263.53	263.64	263.62	265.64	265.28	263.81	263.80	263.84	263.59	263.47	
11	262.94	263.59	263.46	263.87	264.02	265.47	265.25	263.82	263.86	263.84	263.57	263.47	
12	263.03	263.42	263.59	263.80	263.63	265.50	265.20	263.76	263.89	263.83	263.56	263.47	
13	263.11	263.25	263.66	263.54	263.50	265.69	264.94	263.65	263.81	263.80	263.57	263.47	
14	263.29	263.40	263.49	263.54	263.59	265.59	264.49	263.62	263.89	263.83	263.58	263.47	
15	263.45	263.60	263.50	263.91	263.94	265.52	264.52	263.61	263.90	263.84	263.59	263.59	
16	263.30	263.58	263.51	263.80	264.00	265.42	264.44	263.62	263.91	263.83	263.62	263.48	
17	263.02	263.95	263.56	263.61	263.71	265.23	264.74	263.64	263.90	263.83	263.58	263.47	
18	262.98	264.45	263.56	263.50	264.70	265.14	264.85	263.68	263.90	263.82	263.57	263.47	
19	263.00	264.27	263.50	263.59	264.61	265.00	264.51	263.60	263.89	263.81	263.56	263.47	
20	262.95	263.98	263.58	263.60	265.32	264.93	264.39	263.57	263.89	263.81	263.56	263.47	
21	262.90	263.50	263.46	263.71	265.00	265.01	264.36	263.60	263.89	263.81	263.56	263.46	
22	262.88	263.27	263.41	263.96	264.74	264.99	264.36	263.56	263.90	263.82	263.57	263.46	
23	262.86	263.25	263.41	263.92	264.72	264.84	264.35	263.56	263.88	263.80	263.59	263.45	
24	262.93	263.16	263.41	263.68	264.44	264.70	264.36	263.54	263.87	263.79	263.60	263.45	
25	263.26	263.37	263.47	263.78	264.43	264.70	264.30	263.56	263.87	263.77	263.59	263.45	
26	263.46	263.54	263.64	263.73	265.54	264.80	264.26	263.61	263.88	263.76	263.58	263.44	
27	263.30	263.31	264.18	263.65	265.63	265.33	264.25	263.61	263.87	263.74	263.57	263.44	
28	263.21	263.32	264.07	263.61	265.28	265.37	264.18	263.58	263.88	263.74	263.56	263.44	
29	263.16	263.57	263.90	263.61	265.14	265.21	264.11	263.44	263.87	263.73	263.55	263.44	
30	263.17	263.45	263.97	263.58	265.07	265.18	264.09	263.36	263.87	263.71		263.43	
31		263.29		263.53	265.28		263.98		263.87	263.70		263.43	
Mean	263.03	263.47	263.67	263.74	264.55	265.29	264.84	263.69	263.83	263.81	263.61	263.47	
Max	263.46	264.45	264.43	264.03	266.12	265.74	266.09	264.14	263.91	263.87	263.73	263.59	266.12
Min	262.86	263.16	263.28	263.50	263.50	264.70	263.98	263.36	263.39	263.70	263.55	263.43	262.86

Annual Max Momentary Gage Height	267.06	m. (MSL.) ,	at 19.00 Hours , on Aug 3 , 2011		
Zero Gage at Bottom Elevation	261.86	m. (MSL.) ,	River Bed	262.44	m. (MSL)
Left Bank Elevation	268.28	m. (MSL.) ,			
Right Bank Elevation	268.39	m. (MSL.) ,	Drainage Area	3909	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.35	30.75	25.80	66.00	41.00	175.10	160.25	31.00	3.78	29.05	16.90	9.00		
2	1.40	21.05	21.70	81.80	181.70	201.00	171.80	28.40	15.80	29.05	15.25	8.00		
3	1.20	20.40	53.15	77.40	593.99	271.40	469.00	29.05	24.50	29.05	19.95	8.00		
4	1.20	19.10	40.70	87.30	391.00	221.00	569.24	48.90	23.85	29.05	19.95	8.00		
5	1.20	18.45	139.42	80.70	124.80	236.60	462.51	32.40	23.85	28.40	18.65	7.50		
6	1.20	21.05	108.00	76.30	37.30	303.50	462.51	29.05	23.20	28.40	18.65	7.15		
7	1.20	18.45	117.45	65.00	18.65	315.80	397.51	26.45	23.20	27.10	18.65	7.15		
8	1.20	15.95	69.00	48.90	15.80	245.30	262.70	25.15	23.20	27.10	16.35	6.45		
9	1.20	27.90	50.60	38.30	15.80	340.40	185.00	25.15	23.20	27.10	13.05	6.45		
10	1.40	54.00	39.90	48.90	13.60	299.41	201.00	25.15	24.50	27.10	12.00	6.45		
11	3.40	44.70	34.50	70.00	39.50	245.30	195.00	25.80	28.40	27.10	11.00	6.45		
12	7.15	31.50	44.70	63.00	14.15	254.00	185.00	21.90	30.35	26.45	10.50	6.45		
13	11.55	19.75	50.60	40.70	7.50	319.90	142.40	15.25	25.15	24.50	11.00	6.45		
14	22.35	30.00	36.75	40.70	12.00	280.10	81.72	13.60	30.35	26.45	11.50	6.45		
15	33.75	45.50	37.50	74.10	33.80	259.80	84.80	13.05	31.00	27.10	12.00	12.00		
16	23.00	43.90	38.30	63.00	38.00	230.81	76.60	13.60	31.70	26.45	13.60	6.80		
17	6.60	78.50	42.30	46.35	18.65	191.00	111.90	14.70	31.00	26.45	11.50	6.45		
18	4.80	142.38	42.30	37.50	106.50	175.10	128.00	16.90	31.00	25.80	11.00	6.45		
19	5.50	117.45	37.50	44.70	94.35	152.00	83.78	12.50	30.35	25.15	10.50	6.45		
20	3.75	81.80	43.90	45.50	209.00	140.80	71.55	11.00	30.35	25.15	10.50	6.45		
21	2.00	37.50	34.50	54.90	152.00	153.65	68.70	12.50	30.35	25.15	10.50	6.10		
22	1.60	21.05	30.75	79.60	111.90	150.40	68.70	10.50	31.00	25.80	11.00	6.10		
23	1.20	19.75	30.75	75.20	109.20	126.40	67.75	10.50	29.70	24.50	12.00	5.75		
24	3.05	14.30	30.75	52.30	76.60	106.50	68.70	9.50	29.05	23.85	12.50	5.75		
25	20.40	27.90	35.25	61.20	75.57	106.50	63.00	10.50	29.05	22.55	12.00	5.75		
26	34.50	40.70	48.90	56.70	265.60	120.00	59.40	13.05	29.70	21.90	11.50	5.40		
27	23.00	23.70	105.40	49.75	295.30	211.00	58.50	13.05	29.05	20.60	11.00	5.40		
28	17.15	24.40	91.70	46.35	201.00	219.00	52.30	11.50	29.70	20.60	10.50	5.40		
29	14.30	43.10	73.00	46.35	175.10	187.00	46.35	5.40	29.05	19.95	10.00	5.40		
30	14.85	33.75	80.70	43.90	163.55	181.70	44.75	3.12	29.05	18.65		5.05		
31		22.35		39.90	201.00		36.60		29.05	18.00		5.05		
Total	267.45	1191.08	1635.77	1802.30	3833.91	6420.47	5137.02	558.62	833.48	783.55	383.50	205.70	23052.85	CMSDAY
Mean	8.91	38.42	54.53	58.14	123.67	214.02	165.71	18.62	26.89	25.28	13.22	6.64	62.99	CMS
Max	34.50	142.38	139.42	87.30	593.99	340.40	569.24	48.90	31.70	29.05	19.95	12.00	593.99	CMS
Min	1.20	14.30	21.70	37.50	7.50	106.50	36.60	3.12	3.78	18.00	10.00	5.05	1.20	CMS
Runoff	23.11	102.91	141.33	155.72	331.25	554.73	443.84	48.27	72.01	67.70	33.13	17.77	1991.77	MCM

Momentary Peak 2049.98 CMS. at 267.06 m. (MSL.) at 19.00 Hours , on Aug 3 , 2011

Runoff Yield 16.11 Liters/Second/Square KM. Momentary Peak Yield 524.426 Liters/Second/Square KM.

WATER YEAR : 2011

PING RIVER BASIN

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

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

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

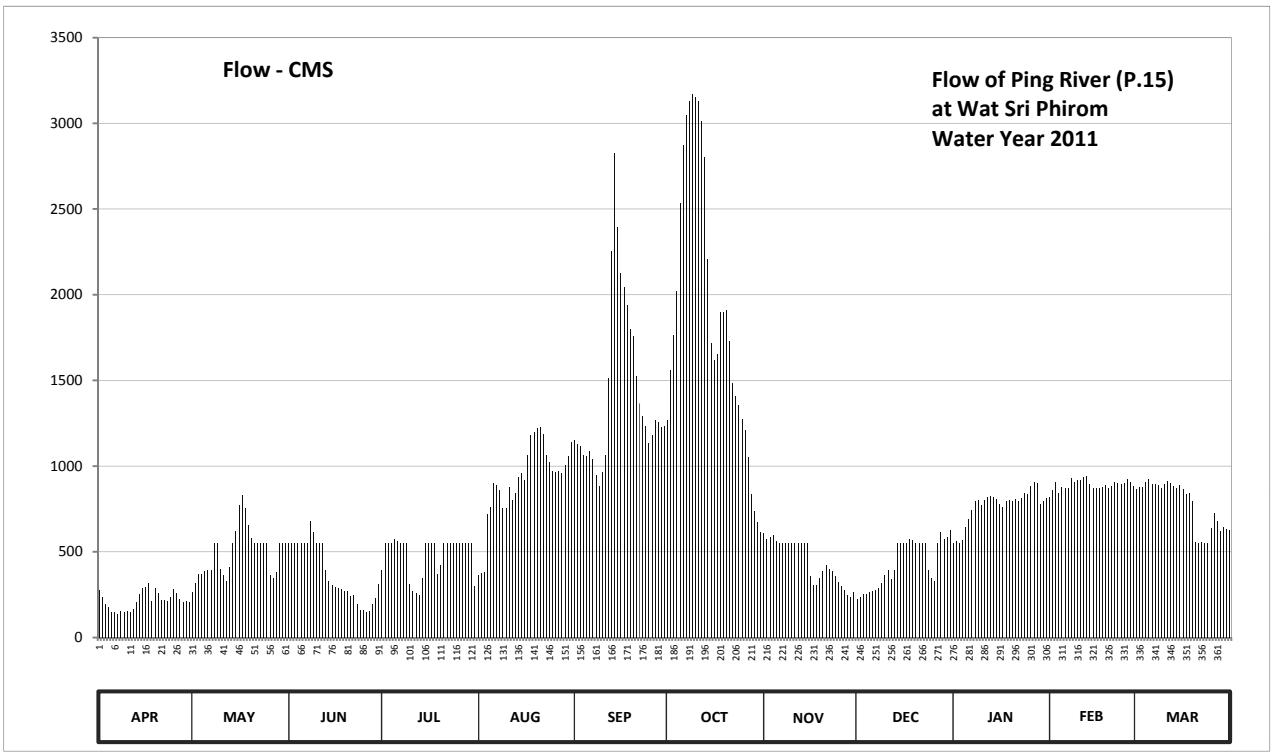
Ban Wat Sri Phirom **Amphoe** Khlong Khlung **Changwat** Kamphaeng Phet

Drainge Area	44,461 sq.km.
Type of Gage	Staff gage.
Zero Gage at Bottom	+51.555 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank about 30 meters from the south of Wat Sri Phirom. **Elevation** +56.617 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings
Period of Available Gage Records	1954 to date
Rating Operation	
Period of Rating	1964 - 1974 , 1997 to date
Rated by Flot	-
Rated by Current Meter	1964 - 1974 , 1997 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	Overbank flow starts at elevation +56.200 m. (MSL.), records are channel flow only
General Description	Records good. Stage-discharge relation defined by 46 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	52.92	52.89	53.55	53.23	53.16	54.68	54.86	53.72	52.76	53.56	54.13	54.21	
2	52.81	53.04	53.47	53.33	53.19	54.64	55.30	53.65	52.81	53.62	54.20	54.23	
3	52.68	53.17	53.41	53.45	53.20	54.62	55.60	53.67	52.85	53.58	54.28	54.23	
4	52.63	53.18	53.38	53.54	53.94	54.54	55.96	53.70	52.86	53.64	54.17	54.28	
5	52.53	53.22	53.40	53.65	54.02	54.53	56.62	53.62	52.89	53.80	54.23	54.31	
6	52.53	53.23	53.38	53.63	54.27	54.58	56.96	53.48	52.91	53.89	54.22	54.26	
7	52.49	53.23	53.60	53.59	54.25	54.50	57.10	53.49	52.93	53.99	54.22	54.26	
8	52.54	53.31	53.87	53.53	54.20	54.35	57.16	53.46	52.95	54.09	54.32	54.25	
9	52.52	53.37	53.74	53.38	54.01	54.24	57.19	53.47	53.04	54.10	54.28	54.22	
10	52.54	53.25	53.58	53.02	54.01	54.38	57.18	53.45	53.16	54.04	54.30	54.26	
11	52.52	53.16	53.51	52.91	54.23	54.54	57.16	53.53	53.24	54.10	54.30	54.29	
12	52.59	53.07	53.37	52.87	54.10	55.23	57.07	53.53	53.10	54.13	54.33	54.27	
13	52.71	53.28	53.23	52.83	54.17	56.27	56.90	53.50	53.24	54.14	54.34	54.24	
14	52.86	53.49	53.07	53.11	54.33	56.92	56.21	53.40	53.50	54.13	54.26	54.22	
15	52.96	53.75	53.01	53.33	54.37	56.46	55.53	53.31	53.55	54.11	54.22	54.25	
16	52.98	54.04	52.97	53.39	54.30	56.10	55.39	53.15	53.55	54.05	54.22	54.21	
17	53.04	54.15	52.95	53.43	54.54	55.99	55.44	53.00	53.57	54.02	54.22	54.16	
18	52.73	54.01	52.94	53.36	54.72	55.85	55.79	53.01	53.65	54.08	54.23	54.17	
19	52.96	53.82	52.91	53.18	54.75	55.65	55.79	53.11	53.64	54.10	54.25	54.09	
20	52.88	53.66	52.91	53.30	54.79	55.59	55.81	53.22	53.58	54.09	54.22	53.61	
21	52.75	53.55	52.82	53.35	54.80	55.25	55.55	53.30	53.34	54.11	54.24	53.55	
22	52.75	53.49	52.83	53.39	54.73	55.01	55.19	53.25	53.38	54.09	54.28	53.61	
23	52.74	53.50	52.68	53.44	54.54	54.90	55.08	53.22	53.44	54.12	54.27	53.50	
24	52.81	53.52	52.56	53.51	54.47	54.81	54.99	53.15	53.23	54.17	54.26	53.55	
25	52.94	53.31	52.56	53.49	54.39	54.65	54.87	53.06	53.12	54.16	54.27	53.78	
26	52.88	53.16	52.53	53.50	54.38	54.72	54.77	52.99	53.08	54.24	54.31	53.95	
27	52.76	53.12	52.54	53.41	54.39	54.86	54.52	52.92	53.34	54.28	54.28	53.86	
28	52.71	53.21	52.68	53.42	54.37	54.84	54.16	52.83	53.73	54.27	54.24	53.75	
29	52.73	53.33	52.79	53.42	54.44	54.80	53.98	52.80	53.65	54.05	54.20	53.80	
30	52.72	53.48	53.03	53.35	54.53	54.81	53.85	52.89	53.67	54.09		53.77	
31		53.41		52.99	54.66		53.73		53.76	54.12		53.76	
Mean	52.74	53.40	53.11	53.33	54.27	55.08	55.67	53.30	53.27	54.03	54.25	54.03	
Max	53.04	54.15	53.87	53.65	54.80	56.92	57.19	53.72	53.76	54.28	54.34	54.31	57.19
Min	52.49	52.89	52.53	52.83	53.16	54.24	53.73	52.80	52.76	53.56	54.13	53.50	52.49

Annual Max Momentary Gage Height	57.19	m. (MSL.) ,	at 18.00 Hours , on Oct 8 , 2011		
Zero Gage at Bottom Elevation	51.56	m. (MSL.) ,	River Bed	51.21	m. (MSL)
Left Bank Elevation	56.59	m. (MSL.) ,			
Right Bank Elevation	56.19	m. (MSL.) ,	Drainage Area	44461	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	275.80	265.60	551.60	392.00	364.00	1152.20	1268.00	608.40	221.80	551.60	821.10	866.70		
2	238.40	317.80	550.90	549.60	376.00	1126.60	1558.00	575.50	238.40	561.40	861.00	878.10		
3	195.80	368.00	550.30	550.70	380.00	1113.80	1765.00	584.90	252.00	551.80	906.60	878.10		
4	180.30	372.00	550.10	551.50	718.80	1064.40	2021.80	599.00	255.40	570.80	843.90	906.60		
5	149.30	388.00	550.20	575.50	760.80	1058.30	2536.20	561.40	265.60	646.00	878.10	924.10		
6	149.30	392.00	550.10	566.10	900.90	1088.80	2873.20	550.90	272.40	692.80	872.40	895.20		
7	137.10	392.00	552.00	551.90	889.50	1040.00	3050.00	551.00	279.20	744.80	872.40	895.20		
8	152.40	549.40	682.40	551.40	861.00	948.50	3129.80	550.80	286.00	798.60	930.20	889.50		
9	146.20	550.00	617.80	550.10	755.40	883.80	3169.70	550.90	317.80	804.00	906.60	872.40		
10	152.40	400.00	551.80	310.40	755.40	966.80	3156.40	550.70	364.00	771.60	918.00	895.20		
11	146.20	364.00	551.20	272.40	878.10	1064.40	3129.80	551.40	396.00	804.00	918.00	912.30		
12	167.90	328.90	550.00	258.80	804.00	1511.10	3011.00	551.40	340.00	821.10	936.30	900.90		
13	205.30	412.00	392.00	245.20	843.90	2252.50	2803.00	551.10	396.00	826.80	942.40	883.80		
14	255.40	551.00	328.90	344.00	936.30	2826.40	2207.50	550.20	551.10	821.10	895.20	872.40		
15	289.40	622.50	306.70	549.60	960.70	2398.00	1716.00	549.40	551.60	809.70	872.40	889.50		
16	296.20	771.60	292.80	550.10	918.00	2125.00	1618.30	360.00	551.60	777.00	872.40	866.70		
17	317.80	832.50	286.00	550.50	1064.40	2043.70	1653.00	303.00	551.70	760.80	872.40	838.20		
18	211.90	755.40	282.60	549.90	1177.80	1941.50	1898.00	306.70	575.50	793.20	878.10	843.90		
19	289.40	656.40	272.40	372.00	1197.00	1800.00	1898.00	344.00	570.80	804.00	889.50	798.60		
20	262.20	580.20	272.40	420.00	1222.60	1758.00	1912.30	388.00	551.80	798.60	872.40	556.70		
21	218.50	551.60	241.80	549.80	1229.00	1524.50	1730.00	420.00	549.70	809.70	883.80	551.60		
22	218.50	551.00	245.20	550.10	1184.20	1365.50	1484.30	400.00	550.10	798.60	906.60	556.70		
23	215.20	551.10	195.80	550.60	1064.40	1294.00	1411.00	388.00	550.60	815.40	900.90	551.10		
24	238.40	551.30	158.60	551.20	1021.70	1235.50	1352.50	360.00	392.00	843.90	895.20	551.60		
25	282.60	549.40	158.60	551.00	972.90	1133.00	1274.50	325.20	348.00	838.20	900.90	636.60		
26	262.20	364.00	149.30	551.10	966.80	1177.80	1209.80	299.60	332.60	883.80	924.10	724.00		
27	221.80	348.00	152.40	550.30	972.90	1268.00	1052.20	275.80	549.70	906.60	906.60	677.20		
28	205.30	384.00	195.80	550.40	960.70	1255.00	838.20	245.20	613.10	900.90	883.80	622.50		
29	211.90	549.60	231.70	550.40	1003.40	1229.00	739.60	235.00	575.50	777.00	861.00	646.00		
30	208.60	550.90	314.10	549.80	1058.30	1235.50	672.00	265.60	584.90	798.60		631.90		
31		550.30		299.60	1139.40		613.10		627.20	815.40		627.20		
Total	6501.70	15370.50	11285.50	15066.00	28338.30	42881.60	58752.20	13353.10	13462.10	23897.80	25822.30	24040.50	278771.60	CMSDAY
Mean	216.70	495.80	376.20	486.00	914.10	1429.40	1895.20	445.10	434.30	770.90	890.40	775.50	761.70	CMS
Max	317.80	832.50	682.40	575.50	1229.00	2826.40	3169.70	608.40	627.20	906.60	942.40	924.10	3169.70	CMS
Min	137.10	265.60	149.30	245.20	364.00	883.80	613.10	235.00	221.80	551.60	821.10	551.10	137.10	CMS
Runoff	561.75	1328.01	975.07	1301.70	2448.43	3704.97	5076.19	1153.71	1163.13	2064.77	2231.05	2077.10	24085.87	MCM

Momentary Peak 3169.70 CMS. at 57.19 m. (MSL.) at 18.00 Hours , on Oct 8 , 2011

Runoff Yield 17.13 Liters/Second/Square KM. Momentary Peak Yield 71.292 Liters/Second/Square KM.

WATER YEAR : 2011

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.

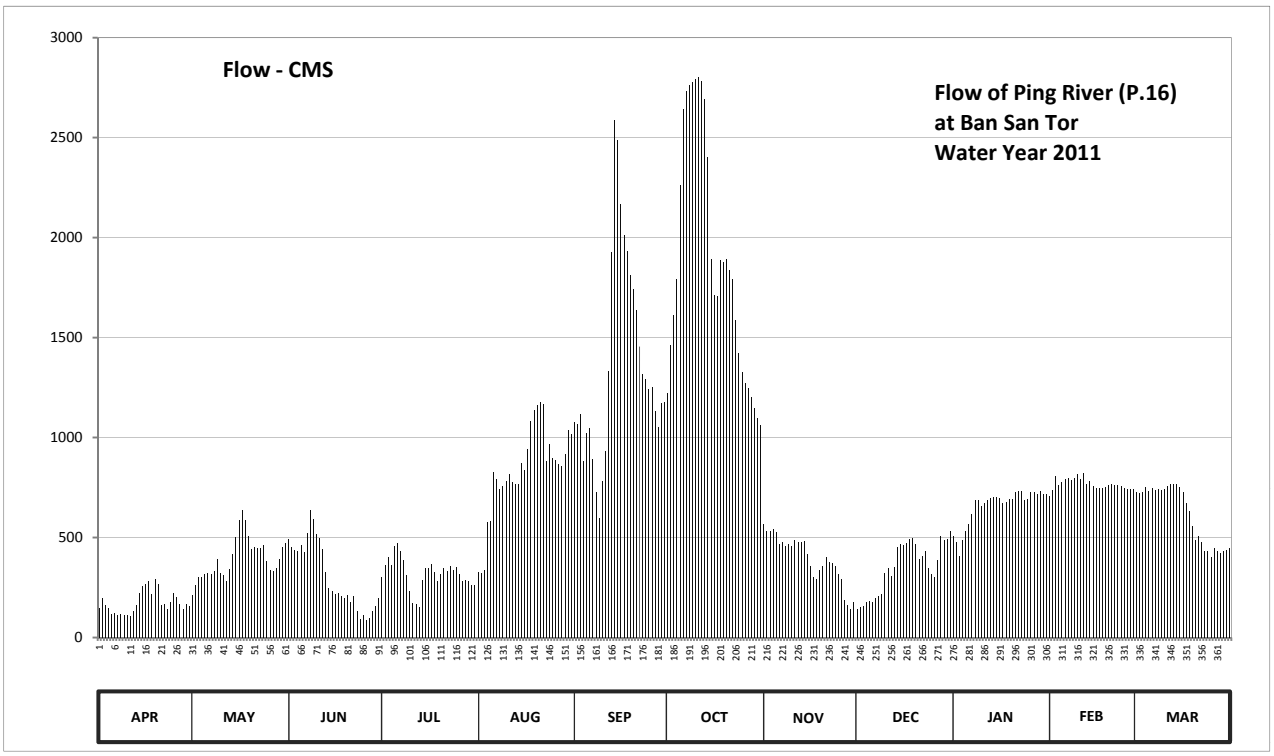
Ban San Tor **Amphoe** Khanu **Changwat** Kamphaeng Phet

Drainge Area	45,076 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+41.780 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank near the automatic gage building. **Elevation** +46.604 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings
Period of Available Gage Records	1954 to date
Rating Operation	
Period of Rating	1960 , 1967 - 1974 , 1990 to date
Rated by Flot	-
Rated by Current Meter	1960 , 1964 - 1975 , 1979 , 1990 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 46 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	41.11	41.31	42.12	41.58	41.66	43.39	43.68	42.30	41.10	42.16	42.62	42.66	
2	41.26	41.46	42.01	41.76	41.64	43.37	44.15	42.21	41.12	42.07	42.68	42.65	
3	41.16	41.59	41.97	41.87	41.68	43.47	44.43	42.21	41.14	41.89	42.83	42.66	
4	41.11	41.58	41.95	41.76	42.33	42.99	44.77	42.24	41.20	42.11	42.73	42.71	
5	41.01	41.63	42.03	42.02	42.34	43.28	45.60	42.20	41.22	42.22	42.77	42.67	
6	41.03	41.65	41.94	42.06	42.87	43.33	46.25	42.05	41.20	42.30	42.80	42.70	
7	41.00	41.63	42.19	41.95	42.80	43.01	46.40	42.07	41.26	42.42	42.81	42.68	
8	41.01	41.67	42.47	41.83	42.69	42.66	46.45	42.02	41.30	42.57	42.79	42.69	
9	41.00	41.84	42.36	41.61	42.72	42.37	46.48	42.05	41.33	42.57	42.81	42.68	
10	41.00	41.65	42.18	41.37	42.78	42.78	46.50	42.02	41.64	42.51	42.85	42.69	
11	40.98	41.61	42.13	41.19	42.85	43.09	46.52	42.11	41.72	42.54	42.80	42.72	
12	41.06	41.53	41.98	41.18	42.77	43.90	46.49	42.08	41.60	42.57	42.86	42.74	
13	41.16	41.70	41.66	41.12	42.75	45.01	46.34	42.07	41.73	42.60	42.75	42.75	
14	41.35	41.91	41.42	41.54	42.74	46.16	45.84	42.09	42.01	42.61	42.78	42.74	
15	41.45	42.14	41.38	41.71	42.97	45.99	44.95	41.91	42.05	42.61	42.72	42.71	
16	41.48	42.35	41.33	41.72	42.90	45.43	44.62	41.74	42.03	42.60	42.70	42.66	
17	41.52	42.47	41.34	41.77	43.11	45.16	44.61	41.59	42.06	42.54	42.70	42.54	
18	41.33	42.35	41.30	41.66	43.40	45.02	44.94	41.55	42.12	42.55	42.70	42.45	
19	41.55	42.15	41.27	41.53	43.51	44.80	44.92	41.69	42.13	42.59	42.71	42.28	
20	41.48	41.98	41.32	41.62	43.56	44.67	44.95	41.75	42.05	42.59	42.73	42.10	
21	41.16	42.01	41.21	41.71	43.59	44.48	44.85	41.87	41.85	42.66	42.74	42.15	
22	41.18	41.99	41.30	41.67	43.57	44.14	44.77	41.80	41.89	42.67	42.73	42.08	
23	41.09	41.99	41.06	41.74	42.99	43.87	44.39	41.78	41.96	42.67	42.73	41.96	
24	41.20	42.04	40.94	41.68	43.17	43.82	44.08	41.74	41.71	42.57	42.72	41.95	
25	41.34	41.82	41.00	41.73	43.02	43.72	43.89	41.62	41.63	42.59	42.70	41.88	
26	41.29	41.68	40.91	41.62	43.00	43.74	43.78	41.55	41.58	42.66	42.69	42.00	
27	41.18	41.67	40.95	41.52	42.96	43.50	43.73	41.23	41.83	42.66	42.69	41.96	
28	41.10	41.71	41.06	41.54	42.94	43.34	43.64	41.15	42.16	42.64	42.69	41.93	
29	41.17	41.85	41.14	41.52	43.06	43.58	43.53	41.09	42.11	42.67	42.75	41.96	
30	41.14	42.01	41.26	41.47	43.31	43.59	43.43	41.20	42.12	42.64		41.97	
31		42.06		41.46	43.27		43.36		42.22	42.64		41.99	
Mean	41.20	41.84	41.57	41.63	42.87	43.92	44.91	41.83	41.71	42.51	42.74	42.40	
Max	41.55	42.47	42.47	42.06	43.59	46.16	46.52	42.30	42.22	42.67	42.86	42.75	46.52
Min	40.98	41.31	40.91	41.12	41.64	42.37	43.36	41.09	41.10	41.89	42.62	41.88	40.91

Annual Max Momentary Gage Height	46.52	m. (MSL.) ,	at 06.00 Hours , on Oct 17 , 2011		
Zero Gage at Bottom Elevation	41.78	m. (MSL.) ,	River Bed	42.12	m. (MSL)
Left Bank Elevation	47.81	m. (MSL.) ,			
Right Bank Elevation	50.39	m. (MSL.) ,	Drainage Area	45076	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	147.20	211.20	494.00	301.20	328.40	1075.10	1220.00	567.00	144.00	510.00	708.20	726.60		
2	195.20	260.40	452.70	363.00	321.60	1065.30	1460.50	530.10	150.40	474.90	735.80	722.00		
3	163.20	304.60	437.90	401.50	335.20	1115.00	1610.20	530.10	156.80	408.50	806.10	726.60		
4	147.20	301.20	430.50	363.00	579.30	882.20	1794.50	542.40	176.00	490.00	759.10	749.70		
5	115.20	318.20	460.10	456.40	583.40	1021.40	2264.00	526.00	182.40	534.20	777.90	731.20		
6	121.60	325.00	426.80	471.20	824.90	1045.70	2641.50	467.50	176.00	567.00	792.00	745.00		
7	112.00	318.20	522.00	430.50	792.00	891.80	2731.00	474.90	195.20	617.00	796.70	735.80		
8	115.20	331.80	639.50	387.50	740.40	726.60	2761.00	456.40	208.00	685.20	787.30	740.40		
9	112.00	391.00	591.60	311.40	754.40	595.70	2779.00	467.50	217.60	685.20	796.70	735.80		
10	112.00	325.00	518.00	230.40	782.60	782.60	2791.00	456.40	321.60	657.60	815.50	740.40		
11	106.20	311.40	498.00	172.80	815.50	930.20	2803.00	490.00	349.00	671.40	792.00	754.40		
12	131.20	284.20	441.60	169.60	777.90	1330.00	2785.00	478.60	308.00	685.20	820.20	763.80		
13	163.20	342.00	328.40	150.40	768.50	1926.60	2695.00	474.90	352.50	699.00	768.50	768.50		
14	224.00	415.70	246.80	287.60	763.80	2588.80	2403.20	482.30	452.70	703.60	782.60	763.80		
15	257.00	502.00	233.60	345.50	872.60	2490.20	1893.50	415.70	467.50	703.60	754.40	749.70		
16	267.20	587.50	217.60	349.00	839.00	2165.40	1712.80	356.00	460.10	699.00	745.00	726.60		
17	280.80	639.50	220.80	366.50	939.80	2010.60	1707.40	304.60	471.20	671.40	745.00	671.40		
18	217.60	587.50	208.00	328.40	1080.00	1932.20	1888.00	291.00	494.00	676.00	745.00	630.50		
19	291.00	506.00	198.40	284.20	1135.00	1811.00	1877.00	338.60	498.00	694.40	749.70	558.80		
20	267.20	441.60	214.40	314.80	1160.00	1739.80	1893.50	359.50	467.50	694.40	759.10	486.00		
21	163.20	452.70	179.20	345.50	1175.00	1637.20	1838.50	401.50	394.50	726.60	763.80	506.00		
22	169.60	445.30	208.00	331.80	1165.00	1455.20	1794.50	377.00	408.50	731.20	759.10	478.60		
23	140.80	445.30	131.20	356.00	882.20	1315.00	1588.60	370.00	434.20	731.20	759.10	434.20		
24	176.00	463.80	94.60	335.20	968.60	1290.00	1423.60	356.00	345.50	685.20	754.40	430.50		
25	220.80	384.00	112.00	352.50	896.60	1240.00	1325.00	314.80	318.20	694.40	745.00	405.00		
26	204.80	335.20	85.90	314.80	887.00	1250.00	1270.00	291.00	301.20	726.60	740.40	449.00		
27	169.60	331.80	97.50	280.80	867.80	1130.00	1245.00	185.60	387.50	726.60	740.40	434.20		
28	144.00	345.50	131.20	287.60	858.20	1050.60	1200.00	160.00	510.00	717.40	740.40	423.10		
29	166.40	394.50	156.80	280.80	915.80	1170.00	1145.00	140.80	490.00	731.20	768.50	434.20		
30	156.80	452.70	195.20	263.80	1035.90	1175.00	1095.00	176.00	494.00	717.40		437.90		
31		471.20		260.40	1016.60		1060.40		534.20	717.40		445.30		
Total	5258.20	12226.00	9172.30	9894.10	25863.00	40839.20	58696.70	11782.20	10866.30	20432.80	22207.90	19105.00	246343.70	CMSDAY
Mean	175.30	394.40	305.70	319.20	834.30	1361.30	1893.40	392.70	350.50	659.10	765.80	616.30	673.10	CMS
Max	291.00	639.50	639.50	471.20	1175.00	2588.80	2803.00	567.00	534.20	731.20	820.20	768.50	2803.00	CMS
Min	106.20	211.20	85.90	150.40	321.60	595.70	1060.40	140.80	144.00	408.50	708.20	405.00	85.90	CMS
Runoff	454.31	1056.33	792.49	854.85	2234.56	3528.51	5071.40	1017.98	938.85	1765.39	1918.76	1650.67	21284.10	MCM

Momentary Peak 2803.00 CMS. at 46.52 m. (MSL.) at 06.00 Hours , on Oct 17 , 2011

Runoff Yield 14.93 Liters/Second/Square KM. Momentary Peak Yield 62.184 Liters/Second/Square KM.

WATER YEAR : 2011

PING RIVER BASIN

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

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

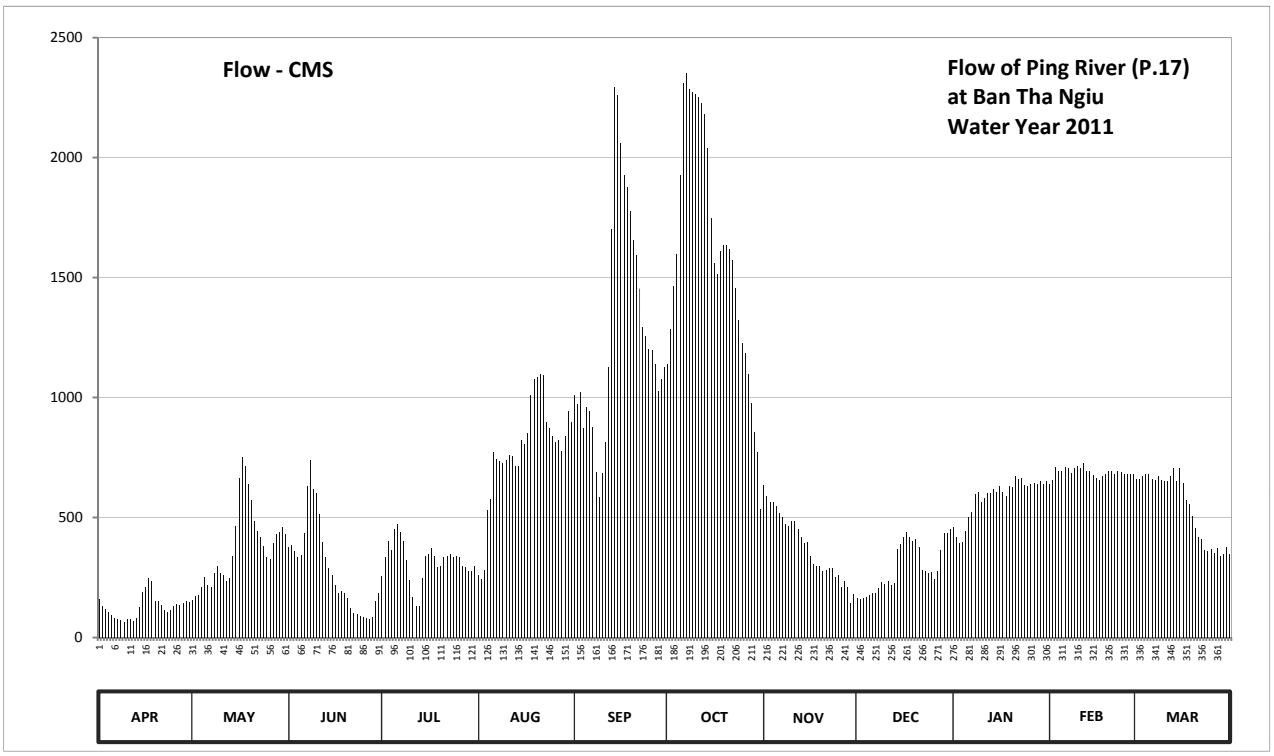
Location : on right bank at Som Sieo Market

	Ban Tha Ngiu	**Amphoe** Banphot Phisai	**Changwat** Nakhon Sawan		
Drainge Area	45,297 sq.km.				
Type of Gage	Water - stage recorder				
Zero Gage at Bottom	+0.000 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On right bank about 5.00 meters from the top staff gage		**Elevation** +37.940 m. (MSL.)		
Gage Reading Frequency	Recording				
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings				
Period of Available Gage Records	1954 to date				
Rating Operation					
Period of Rating	1960, 1967 - 1974, 1990 to date				
Rated by Flot	-				
Rated by Current Meter	1954 - 1979, 1990 to date				
Stability of Channel Regimes	Fairly stable.				
Overbank Flow Conditions	Overbank flow starts at elevation +38.470 m.(MSL.), records are channel flow only.				
General Description	Records good. Flow effected by Phumiphol Dam.				
	Stage-discharge relation defined by 38 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	34.67	34.66	35.28	34.95	34.96	36.58	36.81	35.86	34.68	35.48	35.87	35.91	
2	34.59	34.71	35.30	35.17	34.91	36.51	37.06	35.77	34.67	35.39	35.90	35.91	
3	34.55	34.72	35.24	35.34	35.02	36.60	37.36	35.71	34.68	35.32	36.01	35.93	
4	34.51	34.81	35.17	35.25	35.64	36.33	37.58	35.71	34.69	35.33	35.98	35.95	
5	34.46	34.93	35.20	35.46	35.74	36.49	38.09	35.67	34.72	35.44	35.98	35.95	
6	34.40	34.84	35.42	35.51	36.13	36.46	38.68	35.61	34.74	35.57	36.01	35.91	
7	34.39	34.82	35.85	35.43	36.08	36.34	38.74	35.57	34.74	35.62	36.00	35.90	
8	34.37	34.98	36.07	35.34	36.06	35.97	38.64	35.51	34.80	35.78	35.96	35.93	
9	34.34	35.07	35.83	35.14	36.04	35.76	38.62	35.49	34.87	35.80	36.00	35.90	
10	34.38	34.98	35.79	34.90	36.07	35.96	38.61	35.53	34.85	35.71	36.02	35.89	
11	34.39	34.96	35.60	34.69	36.11	36.22	38.59	35.53	34.88	35.75	36.00	35.89	
12	34.36	34.89	35.33	34.58	36.10	36.79	38.55	35.46	34.84	35.79	36.04	35.93	
13	34.41	34.92	35.17	34.59	36.02	37.74	38.48	35.38	34.86	35.79	35.98	36.00	
14	34.57	35.18	35.04	34.92	36.02	38.65	38.26	35.32	35.26	35.83	35.98	35.89	
15	34.76	35.49	34.96	35.19	36.23	38.60	37.81	35.33	35.31	35.80	35.94	36.00	
16	34.82	35.92	34.84	35.21	36.20	38.29	37.52	35.18	35.39	35.85	35.92	35.88	
17	34.92	36.09	34.75	35.27	36.29	38.09	37.44	35.09	35.43	35.80	35.90	35.73	
18	34.88	36.02	34.77	35.19	36.58	38.01	37.60	35.06	35.39	35.77	35.93	35.69	
19	34.65	35.87	34.75	35.05	36.70	37.86	37.64	35.06	35.34	35.85	35.95	35.58	
20	34.65	35.73	34.68	35.07	36.72	37.67	37.64	35.01	35.36	35.84	35.98	35.47	
21	34.60	35.53	34.56	35.17	36.74	37.57	37.61	35.02	35.28	35.93	35.98	35.39	
22	34.53	35.44	34.49	35.18	36.73	37.34	37.54	35.04	35.02	35.91	35.95	35.36	
23	34.51	35.39	34.47	35.21	36.38	37.07	37.34	35.04	35.01	35.92	35.98	35.25	
24	34.53	35.29	34.44	35.17	36.33	37.01	37.12	34.93	34.98	35.86	35.97	35.24	
25	34.59	35.17	34.43	35.19	36.27	36.92	36.96	34.96	34.99	35.85	35.95	35.26	
26	34.61	35.15	34.41	35.17	36.22	36.91	36.89	34.81	34.91	35.87	35.95	35.22	
27	34.60	35.32	34.38	35.06	36.23	36.81	36.74	34.88	35.00	35.88	35.95	35.27	
28	34.63	35.41	34.42	35.05	36.14	36.61	36.52	34.81	35.25	35.87	35.95	35.19	
29	34.65	35.43	34.65	35.00	36.27	36.70	36.30	34.63	35.42	35.89	35.95	35.21	
30	34.64	35.48	34.75	35.00	36.46	36.79	36.13	34.73	35.42	35.87		35.28	
31		35.41		35.06	36.38		35.65		35.46	35.89		35.21	
Mean	34.57	35.25	35.00	35.11	36.12	37.02	37.57	35.26	35.04	35.75	35.96	35.65	
Max	34.92	36.09	36.07	35.51	36.74	38.65	38.74	35.86	35.46	35.93	36.04	36.00	38.74
Min	34.34	34.66	34.38	34.58	34.91	35.76	35.65	34.63	34.67	35.32	35.87	35.19	34.34

Annual Max Momentary Gage Height	38.76	m. (MSL.) ,	at 06.00 Hours , on Oct 7 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	30.25	m. (MSL)
Left Bank Elevation	38.81	m. (MSL.) ,			
Right Bank Elevation	38.47	m. (MSL.) ,	Drainage Area	45297	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	159.50	156.00	377.00	257.50	261.00	1009.00	1137.80	635.00	163.00	461.00	640.00	660.00		
2	132.00	173.50	385.00	334.50	243.50	970.50	1286.00	591.50	159.50	421.00	655.00	660.00		
3	120.00	177.00	361.00	401.00	282.00	1020.00	1466.00	564.50	163.00	393.00	710.00	670.00		
4	108.00	208.50	334.50	365.00	533.00	871.50	1598.00	564.50	166.50	397.00	695.00	680.00		
5	95.00	250.50	345.00	452.00	578.00	959.50	1928.50	546.50	177.00	443.00	695.00	680.00		
6	80.00	219.00	434.00	474.50	770.00	943.00	2312.00	519.50	184.00	501.50	710.00	660.00		
7	77.50	212.00	630.00	438.50	745.00	877.00	2351.00	501.50	184.00	524.00	705.00	655.00		
8	72.50	268.00	740.00	401.00	735.00	690.00	2286.00	474.50	205.00	596.00	685.00	670.00		
9	65.00	299.50	620.00	324.00	725.00	587.00	2273.00	465.50	229.50	605.00	705.00	655.00		
10	75.00	268.00	600.50	240.00	740.00	685.00	2266.50	483.50	222.50	564.50	715.00	650.00		
11	77.50	261.00	515.00	166.50	760.00	815.00	2253.50	483.50	233.00	582.50	705.00	650.00		
12	70.00	236.50	397.00	129.00	755.00	1126.30	2227.50	452.00	219.00	600.50	725.00	670.00		
13	82.50	247.00	334.50	132.00	715.00	1701.00	2182.00	417.00	226.00	600.50	695.00	705.00		
14	126.00	338.00	289.00	247.00	715.00	2292.50	2039.00	393.00	369.00	620.00	695.00	650.00		
15	191.00	465.50	261.00	341.50	820.00	2260.00	1746.50	397.00	389.00	605.00	675.00	705.00		
16	212.00	665.00	219.00	349.00	805.00	2058.50	1562.00	338.00	421.00	630.00	665.00	645.00		
17	247.00	750.00	187.50	373.00	850.00	1928.50	1514.00	306.50	438.50	605.00	655.00	573.50		
18	233.00	715.00	194.50	341.50	1009.00	1876.50	1610.00	296.00	421.00	591.50	670.00	555.50		
19	152.50	640.00	187.50	292.50	1075.00	1779.00	1636.00	296.00	401.00	630.00	680.00	506.00		
20	152.50	573.50	163.00	299.50	1086.40	1655.50	1636.00	278.50	409.00	625.00	695.00	456.50		
21	135.00	483.50	123.00	334.50	1097.80	1592.00	1616.50	282.00	377.00	670.00	695.00	421.00		
22	114.00	443.00	102.50	338.00	1092.10	1454.00	1574.00	289.00	282.00	660.00	680.00	409.00		
23	108.00	421.00	97.50	349.00	899.00	1292.00	1454.00	289.00	278.50	665.00	695.00	365.00		
24	114.00	381.00	90.00	334.50	871.50	1256.00	1322.00	250.50	268.00	635.00	690.00	361.00		
25	132.00	334.50	87.50	341.50	840.00	1202.00	1226.00	261.00	271.50	630.00	680.00	369.00		
26	138.50	327.50	82.50	334.50	815.00	1196.00	1184.20	208.50	243.50	640.00	680.00	353.00		
27	135.00	393.00	75.00	296.00	820.00	1137.80	1097.80	233.00	275.00	645.00	680.00	373.00		
28	145.50	429.50	85.00	292.50	775.00	1025.50	976.00	208.50	365.00	640.00	680.00	341.50		
29	152.50	438.50	152.50	275.00	840.00	1075.00	855.00	145.50	434.00	650.00	680.00	349.00		
30	149.00	461.00	187.50	275.00	943.00	1126.30	770.00	180.50	434.00	640.00		377.00		
31		429.50		296.00	899.00		537.50		452.00	650.00		349.00		
Total	3852.00	11665.50	8658.00	9826.00	24095.30	38461.90	49924.30	11351.50	9061.00	18121.00	19935.00	16824.00	221775.50	CMSDAY
Mean	128.40	376.30	288.60	317.00	777.30	1282.10	1610.50	378.40	292.30	584.50	687.40	542.70	605.90	CMS
Max	247.00	750.00	740.00	474.50	1097.80	2292.50	2351.00	635.00	452.00	670.00	725.00	705.00	2351.00	CMS
Min	65.00	156.00	75.00	129.00	243.50	587.00	537.50	145.50	159.50	393.00	640.00	341.50	65.00	CMS
Runoff	332.81	1007.90	748.05	848.97	2081.83	3323.11	4313.46	980.77	782.87	1565.65	1722.38	1453.59	19161.40	MCM

Momentary Peak 2364.00 CMS. at 38.76 m. (MSL.) at 06.00 Hours , on Oct 7, 2011

Runoff Yield 13.38 Liters/Second/Square KM. Momentary Peak Yield 52.189 Liters/Second/Square KM.

WATER YEAR : 2011

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.

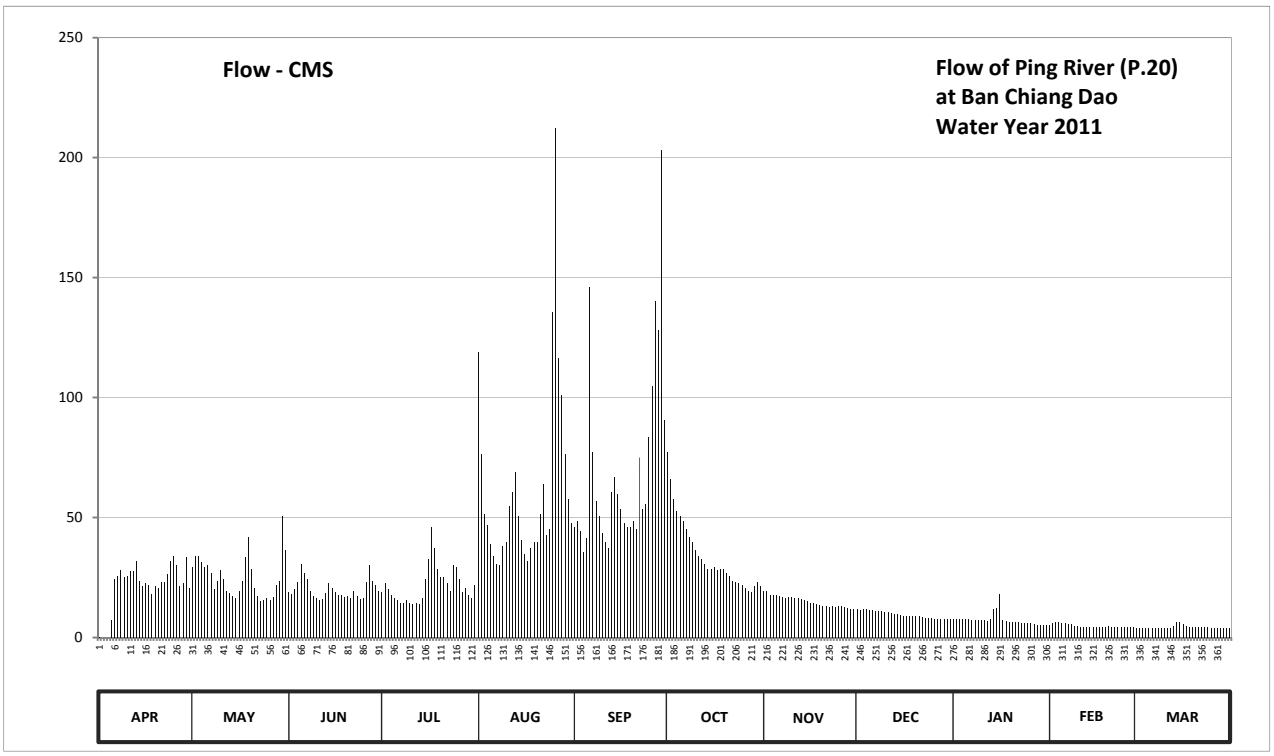
Ban Chiang Dao **Amphoe** Chiang Dao **Changwat** Chiang Mai

Drainge Area	1,345 sq.km.
Type of Gage	Water - stage recorder.
Zero Gage at Bottom	+379.900 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	About 2 meters from automatic gage building. **Elevation** +384.033 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings
Period of Available Gage Records	1954 to date
Rating Operation	
Period of Rating	1979 - 1982 , 1989 to date
Rated by Flot	-
Rated by Current Meter	1979 - 1982 , 1989 to date
Stability of Channel Regimes	Fairly stable because of backwater effect.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Flow effected by the local weir about 300 meters downstream from the gage site. Stage-discharge relation defined by 37 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	380.02	380.55	380.38	380.38	381.40	380.77	381.07	380.39	380.22	380.11	380.03	379.98	
2	380.00	380.62	380.36	380.44	381.06	380.80	380.97	380.39	380.21	380.11	380.05	379.98	
3	380.00	380.62	380.40	380.40	380.83	380.75	380.89	380.35	380.22	380.11	380.06	379.98	
4	379.99	380.58	380.45	380.35	380.78	380.64	380.84	380.35	380.22	380.11	380.06	379.97	
5	380.10	380.55	380.57	380.32	380.68	380.71	380.82	380.35	380.21	380.11	380.05	379.97	
6	380.47	380.56	380.51	380.30	380.62	381.58	380.80	380.34	380.21	380.11	380.05	379.97	
7	380.49	380.51	380.47	380.28	380.57	381.07	380.76	380.33	380.20	380.10	380.04	379.98	
8	380.53	380.40	380.39	380.28	380.56	380.88	380.72	380.32	380.20	380.10	380.04	379.98	
9	380.48	380.46	380.34	380.30	380.67	380.82	380.69	380.33	380.20	380.10	380.01	379.98	
10	380.49	380.53	380.32	380.28	380.69	380.74	380.65	380.33	380.19	380.10	380.01	379.98	
11	380.52	380.47	380.30	380.27	380.86	380.69	380.62	380.32	380.19	380.09	380.00	379.98	
12	380.52	380.39	380.31	380.28	380.92	380.66	380.60	380.32	380.18	380.08	380.00	379.98	
13	380.59	380.37	380.37	380.27	381.00	380.92	380.57	380.31	380.17	380.11	380.00	380.01	
14	380.46	380.34	380.44	380.32	380.82	380.98	380.54	380.30	380.17	380.22	380.00	380.07	
15	380.42	380.32	380.41	380.47	380.70	380.91	380.54	380.29	380.16	380.23	380.00	380.06	
16	380.44	380.39	380.38	380.60	380.63	380.85	380.55	380.28	380.15	380.36	380.00	380.04	
17	380.43	380.46	380.35	380.77	380.59	380.79	380.53	380.28	380.14	380.10	380.00	380.01	
18	380.36	380.61	380.35	380.66	380.66	380.77	380.54	380.27	380.15	380.08	380.00	380.00	
19	380.42	380.72	380.33	380.54	380.69	380.77	380.54	380.26	380.15	380.06	380.00	380.00	
20	380.41	380.54	380.34	380.48	380.69	380.80	380.51	380.25	380.14	380.06	380.01	379.99	
21	380.45	380.41	380.32	380.48	380.83	380.76	380.49	380.25	380.14	380.06	380.00	379.99	
22	380.45	380.34	380.39	380.44	380.95	381.05	380.46	380.24	380.13	380.06	380.00	380.00	
23	380.50	380.29	380.34	380.39	380.73	380.85	380.45	380.25	380.12	380.05	380.00	380.00	
24	380.59	380.30	380.31	380.56	380.76	380.87	380.44	380.24	380.12	380.05	380.00	379.99	
25	380.62	380.32	380.32	380.55	381.51	381.12	380.43	380.25	380.12	380.05	380.00	379.98	
26	380.56	380.30	380.45	380.47	381.95	381.29	380.41	380.25	380.11	380.05	379.99	379.98	
27	380.42	380.33	380.56	380.38	381.38	381.54	380.39	380.24	380.11	380.04	379.99	379.98	
28	380.44	380.43	380.46	380.41	381.26	381.46	380.38	380.23	380.11	380.03	380.00	379.97	
29	380.61	380.46	380.43	380.35	381.06	381.90	380.42	380.22	380.11	380.02	379.99	379.97	
30	380.41	380.82	380.39	380.32	380.89	381.18	380.45	380.22	380.11	380.02		379.97	
31		380.65		380.43	380.79		380.42		380.11	380.02		379.97	
Mean	380.41	380.47	380.39	380.41	380.89	380.96	380.60	380.29	380.16	380.09	380.01	379.99	
Max	380.62	380.82	380.57	380.77	381.95	381.90	381.07	380.39	380.22	380.36	380.06	380.07	381.95
Min	379.99	380.29	380.30	380.27	380.56	380.64	380.38	380.22	380.11	380.02	379.99	379.97	379.97

Annual Max Momentary Gage Height	382.40	m. (MSL.) ,	at 02.00 Hours , on Aug 26 , 2011		
Zero Gage at Bottom Elevation	379.90	m. (MSL.) ,	River Bed	378.87	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, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.08	29.37	19.09	19.09	119.00	46.10	77.40	19.55	11.81	7.75	5.37	4.10		
2	0.00	34.10	18.18	22.50	76.20	48.50	65.93	19.55	11.35	7.75	5.95	4.10		
3	0.00	34.10	20.00	20.00	51.57	44.50	57.73	17.73	11.81	7.75	6.24	4.10		
4	0.00	31.25	23.13	17.73	46.90	35.70	52.60	17.73	11.81	7.75	6.24	3.90		
5	7.40	29.37	30.63	16.36	38.90	41.30	50.55	17.73	11.35	7.75	5.95	3.90		
6	24.38	30.00	26.88	15.45	34.10	146.00	48.50	17.27	11.35	7.75	5.95	3.90		
7	25.62	26.88	24.38	14.54	30.63	77.40	45.30	16.81	10.90	7.40	5.66	4.10		
8	28.12	20.00	19.55	14.54	30.00	56.70	42.10	16.36	10.90	7.40	5.66	4.10		
9	25.00	23.75	17.27	15.45	38.10	50.55	39.70	16.81	10.90	7.40	4.79	4.10		
10	25.62	28.12	16.36	14.54	39.70	43.70	36.50	16.81	10.55	7.40	4.79	4.10		
11	27.50	24.38	15.45	14.08	54.65	39.70	34.10	16.36	10.55	7.11	4.50	4.10		
12	27.50	19.55	15.90	14.54	60.80	37.30	32.50	16.36	10.20	6.82	4.50	4.10		
13	31.87	18.63	18.63	14.08	69.00	60.80	30.63	15.90	9.85	7.75	4.50	4.79		
14	23.75	17.27	22.50	16.36	50.55	66.95	28.75	15.45	9.85	11.81	4.50	6.53		
15	21.25	16.36	20.63	24.38	40.50	59.78	28.75	15.00	9.50	12.27	4.50	6.24		
16	22.50	19.55	19.09	32.50	34.90	53.63	29.37	14.54	9.15	18.18	4.50	5.66		
17	21.87	23.75	17.73	46.10	31.87	47.70	28.12	14.54	8.80	7.40	4.50	4.79		
18	18.18	33.30	17.73	37.30	37.30	46.10	28.75	14.08	9.15	6.82	4.50	4.50		
19	21.25	42.10	16.81	28.75	39.70	46.10	28.75	13.63	9.15	6.24	4.50	4.50		
20	20.63	28.75	17.27	25.00	39.70	48.50	26.88	13.17	8.80	6.24	4.79	4.30		
21	23.13	20.63	16.36	25.00	51.57	45.30	25.62	13.17	8.80	6.24	4.50	4.30		
22	23.13	17.27	19.55	22.50	63.88	75.00	23.75	12.72	8.45	6.24	4.50	4.50		
23	26.25	15.00	17.27	19.55	42.90	53.63	23.13	13.17	8.10	5.95	4.50	4.50		
24	31.87	15.45	15.90	30.00	45.30	55.68	22.50	12.72	8.10	5.95	4.50	4.30		
25	34.10	16.36	16.36	29.37	135.50	83.40	21.87	13.17	8.10	5.95	4.50	4.10		
26	30.00	15.45	23.13	24.38	212.50	104.70	20.63	13.17	7.75	5.95	4.30	4.10		
27	21.25	16.81	30.00	19.09	116.40	140.00	19.55	12.72	7.75	5.66	4.30	4.10		
28	22.50	21.87	23.75	20.63	100.80	128.00	19.09	12.27	7.75	5.37	4.50	3.90		
29	33.30	23.75	21.87	17.73	76.20	203.00	21.25	11.81	7.75	5.08	4.30	3.90		
30	20.63	50.55	19.55	16.36	57.73	90.60	23.13	11.81	7.75	5.08		3.90		
31		36.50		21.87	47.70		21.25		7.75	5.08		3.90		
Total	638.68	780.22	600.95	669.77	1914.55	2076.32	1054.68	452.11	295.78	229.29	141.79	135.41	8989.55	CMSDAY
Mean	21.29	25.17	20.03	21.61	61.76	69.21	34.02	15.07	9.54	7.40	4.89	4.37	24.56	CMS
Max	34.10	50.55	30.63	46.10	212.50	203.00	77.40	19.55	11.81	18.18	6.24	6.53	212.50	CMS
Min	0.00	15.00	15.45	14.08	30.00	35.70	19.09	11.81	7.75	5.08	4.30	3.90	0.00	CMS
Runoff	55.18	67.41	51.92	57.87	165.42	179.39	91.12	39.06	25.56	19.81	12.25	11.70	776.70	MCM

Momentary Peak 311.00 CMS. at 382.40 m. (MSL.) at 02.00 Hours , on Aug 26 , 2011

Runoff Yield 18.26 Liters/Second/Square KM. Momentary Peak Yield 231.227 Liters/Second/Square KM.

WATER YEAR : 2011

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.

Ban Mae Rim Tai **Amphoe** Mae Rim **Changwat** Chiang Mai

Drainge Area	452 sq.km.
Type of Gage	Water - stage recorder.
Zero Gage at Bottom	+319.700 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	In the vicinity of gage observer's house. **Elevation** +325.270 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings
Period of Available Gage Records	1954 to date
Rating Operation	
Period of Rating	1954 - 1960 , 1977 to date
Rated by Flot	-
Rated by Current Meter	1954 - 1960 , 1977 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 37 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

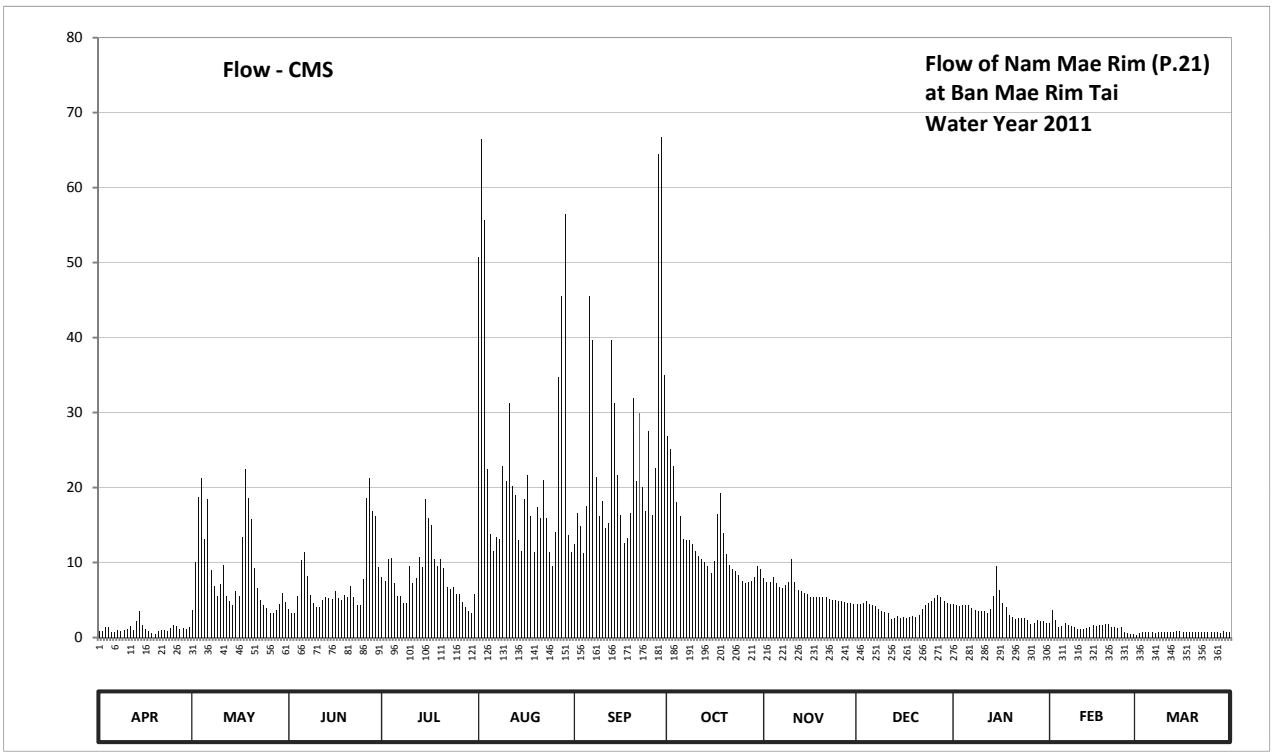
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	320.42	320.73	320.74	321.07	323.11	321.36	322.13	321.06	320.80	320.80	320.57	320.16	
2	320.42	321.20	320.70	321.04	323.68	321.61	322.05	321.03	320.80	320.78	320.73	320.37	
3	320.49	321.73	320.70	321.23	323.29	321.50	321.94	321.03	320.81	320.77	320.61	320.43	
4	320.50	321.86	320.89	321.24	321.92	321.28	321.69	321.07	320.83	320.79	320.50	320.44	
5	320.40	321.40	321.22	321.02	321.44	321.66	321.58	321.02	320.80	320.78	320.52	320.45	
6	320.40	321.71	321.29	320.89	321.30	322.91	321.40	320.98	320.78	320.78	320.56	320.43	
7	320.44	321.13	321.08	320.89	321.42	322.68	321.39	320.97	320.77	320.75	320.53	320.38	
8	320.43	320.99	320.90	320.81	321.40	321.87	321.39	321.00	320.74	320.73	320.52	320.43	
9	320.44	320.89	320.81	320.81	321.94	321.58	321.36	321.03	320.72	320.72	320.50	320.43	
10	320.46	321.01	320.76	321.17	321.84	321.70	321.30	321.23	320.71	320.72	320.47	320.43	
11	320.51	321.18	320.76	321.02	322.33	321.49	321.26	321.03	320.70	320.72	320.47	320.44	
12	320.44	320.89	320.84	321.06	321.81	321.53	321.23	320.95	320.62	320.70	320.46	320.49	
13	320.60	320.83	320.87	321.25	321.74	322.68	321.20	320.94	320.64	320.74	320.48	320.49	
14	320.72	320.78	320.86	321.16	321.39	322.33	321.17	320.92	320.66	320.89	320.49	320.51	
15	320.53	320.94	320.85	321.71	321.30	321.88	321.11	320.91	320.63	321.17	320.53	320.58	
16	320.46	320.89	320.94	321.57	321.71	321.59	321.21	320.88	320.65	320.95	320.52	320.46	
17	320.42	321.42	320.86	321.51	321.88	321.37	321.60	320.88	320.64	320.81	320.53	320.45	
18	320.39	321.92	320.84	321.23	321.58	321.41	321.76	320.88	320.65	320.76	320.54	320.47	
19	320.37	321.72	320.90	321.17	321.29	321.61	321.45	320.88	320.66	320.67	320.55	320.46	
20	320.42	321.56	320.88	321.23	321.65	322.36	321.27	320.87	320.65	320.65	320.55	320.47	
21	320.44	321.15	320.99	321.15	321.57	321.84	321.18	320.87	320.67	320.62	320.50	320.45	
22	320.44	320.97	320.88	320.98	321.85	322.27	321.14	320.85	320.74	320.63	320.49	320.45	
23	320.43	320.84	320.78	320.96	321.57	321.80	321.12	320.84	320.78	320.64	320.48	320.45	
24	320.48	320.78	320.78	320.98	321.29	321.62	321.09	320.84	320.81	320.64	320.49	320.45	
25	320.54	320.75	321.05	320.91	321.17	322.16	321.04	320.83	320.83	320.61	320.46	320.43	
26	320.51	320.70	321.72	320.91	321.46	321.59	321.02	320.83	320.86	320.55	320.31	320.41	
27	320.46	320.69	321.86	320.82	322.48	321.93	321.03	320.82	320.90	320.57	320.23	320.41	
28	320.48	320.73	321.62	320.76	322.91	323.61	321.04	320.81	320.87	320.61	320.19	320.40	
29	320.47	320.80	321.58	320.72	323.32	323.69	321.07	320.81	320.83	320.60	320.20	320.54	
30	320.50	320.92	321.16	320.70	321.43	322.49	321.17	320.80	320.81	320.59		320.48	
31		320.82		320.91	321.29		321.14		320.80	320.57		320.47	
Mean	320.47	321.09	321.00	321.06	321.88	321.98	321.34	320.93	320.75	320.72	320.48	320.44	
Max	320.72	321.92	321.86	321.71	323.68	323.69	322.13	321.23	320.90	321.17	320.73	320.58	323.69
Min	320.37	320.69	320.70	320.70	321.17	321.28	321.02	320.80	320.62	320.55	320.19	320.16	320.16

Annual Max Momentary Gage Height 324.36 m. (MSL.) , at 24.00 Hours , on Sep 28 , 2011

Zero Gage at Bottom Elevation 319.70 m. (MSL.) , River Bed 319.72 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, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.84	3.66	3.78	8.05	50.77	12.48	26.86	7.90	4.50	4.50	1.96	0.36		
2	0.84	10.00	3.30	7.60	66.52	16.67	25.10	7.45	4.50	4.26	3.66	0.61		
3	1.33	18.78	3.30	10.47	55.67	14.80	22.80	7.45	4.62	4.14	2.31	0.69		
4	1.40	21.20	5.58	10.62	22.40	11.24	18.08	8.05	4.86	4.38	1.40	0.71		
5	0.70	13.10	10.31	7.30	13.78	17.55	16.16	7.30	4.50	4.26	1.56	0.73		
6	0.70	18.42	11.40	5.58	11.55	45.51	13.10	6.74	4.26	4.26	1.88	0.69		
7	0.98	8.95	8.20	5.58	13.44	39.64	12.95	6.61	4.14	3.90	1.64	0.62		
8	0.91	6.87	5.70	4.62	13.10	21.40	12.95	7.00	3.78	3.66	1.56	0.69		
9	0.98	5.58	4.62	4.62	22.80	16.16	12.48	7.45	3.54	3.54	1.40	0.69		
10	1.12	7.15	4.02	9.55	20.80	18.25	11.55	10.47	3.42	3.54	1.19	0.69		
11	1.48	9.70	4.02	7.30	31.26	14.63	10.93	7.45	3.30	3.54	1.19	0.71		
12	0.98	5.58	4.98	7.90	20.20	15.31	10.47	6.35	2.42	3.30	1.12	0.78		
13	2.20	4.86	5.34	10.77	18.95	39.64	10.00	6.22	2.64	3.78	1.26	0.78		
14	3.54	4.26	5.22	9.40	12.95	31.26	9.55	5.96	2.86	5.58	1.33	0.82		
15	1.64	6.22	5.10	18.42	11.55	21.60	8.65	5.83	2.53	9.55	1.64	0.92		
16	1.12	5.58	6.22	15.99	18.42	16.33	10.15	5.46	2.75	6.35	1.56	0.74		
17	0.84	13.44	5.22	14.97	21.60	12.63	16.50	5.46	2.64	4.62	1.64	0.73		
18	0.63	22.40	4.98	10.47	16.16	13.27	19.30	5.46	2.75	4.02	1.72	0.76		
19	0.49	18.60	5.70	9.55	11.40	16.67	13.95	5.46	2.86	2.97	1.80	0.74		
20	0.84	15.82	5.46	10.47	17.37	31.92	11.08	5.34	2.75	2.75	1.80	0.76		
21	0.98	9.25	6.87	9.25	15.99	20.80	9.70	5.34	2.97	2.42	1.40	0.73		
22	0.98	6.61	5.46	6.74	21.00	29.94	9.10	5.10	3.78	2.53	1.33	0.73		
23	0.91	4.98	4.26	6.48	15.99	20.00	8.80	4.98	4.26	2.64	1.26	0.73		
24	1.26	4.26	4.26	6.74	11.40	16.85	8.35	4.98	4.62	2.64	1.33	0.73		
25	1.72	3.90	7.75	5.83	9.55	27.52	7.60	4.86	4.86	2.31	0.74	0.69		
26	1.48	3.30	18.60	5.83	14.12	16.33	7.30	4.86	5.22	1.80	0.52	0.67		
27	1.12	3.19	21.20	4.74	34.72	22.60	7.45	4.74	5.70	1.96	0.43	0.67		
28	1.26	3.66	16.85	4.02	45.51	64.49	7.60	4.62	5.34	2.31	0.39	0.65		
29	1.19	4.50	16.16	3.54	56.50	66.81	8.05	4.62	4.86	2.20	0.40	0.86		
30	1.40	5.96	9.40	3.30	13.61	34.96	9.55	4.50	4.62	2.12		0.77		
31		4.74		5.83	11.40		9.10		4.50	1.96		0.76		
Total	35.86	274.52	223.26	251.53	720.48	747.26	385.21	184.01	120.35	111.79	41.42	22.21	3117.90	CMSDAY
Mean	1.20	8.86	7.44	8.11	23.24	24.91	12.43	6.13	3.88	3.61	1.43	0.72	8.52	CMS
Max	3.54	22.40	21.20	18.42	66.52	66.81	26.86	10.47	5.70	9.55	3.66	0.92	66.81	CMS
Min	0.49	3.19	3.30	3.30	9.55	11.24	7.30	4.50	2.42	1.80	0.39	0.36	0.36	CMS
Runoff	3.10	23.72	19.29	21.73	62.25	64.56	33.28	15.90	10.40	9.66	3.58	1.92	269.39	MCM

Momentary Peak 86.80 CMS. at 324.36 m. (MSL.) at 24.00 Hours , on Sep 28 , 2011

Runoff Yield 18.85 Liters/Second/Square KM. Momentary Peak Yield 192.035 Liters/Second/Square KM.

WATER YEAR : 2011

PING RIVER BASIN

Nam Mae Klang at Pracha Uthit Bridge , Chiang Mai (P.24A)

Lat 18 - 25 - 02 N Long 98 - 40 - 29 E

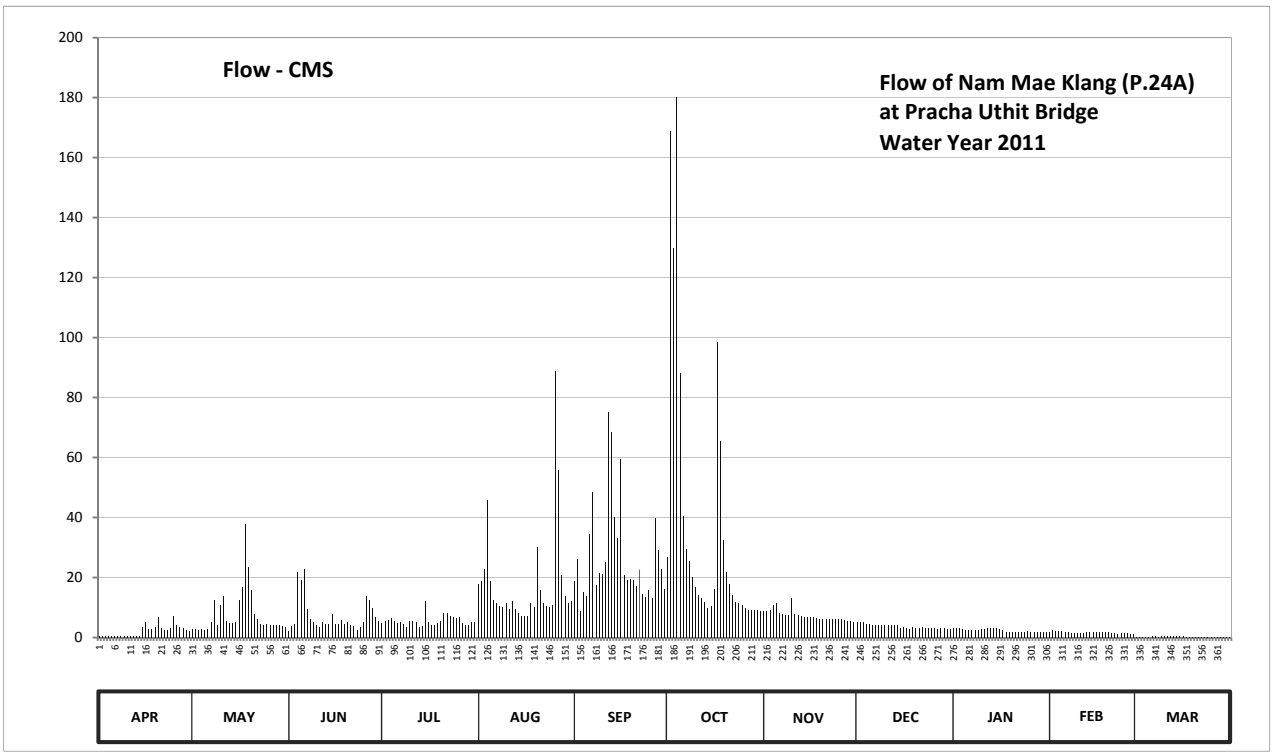
Location : on left bank at Pracha Uthit Bridge.

	Ban Pracha Uthit Bridge	**Amphoe** Chom Thong	**Changwat** Chiang Mai
Drainge Area	452 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+275.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	near the gage observer's house.	**Elevation**	+277.954 m. (MSL.)
Gage Reading Frequency	3-time daily reading at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings		
Period of Available Gage Records	1973 to date		
Rating Operation			
Period of Rating	1973 to date		
Rated by Flot	-		
Rated by Current Meter	1973 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 36 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	275.65	275.68	275.62	275.91	276.52	276.56	276.81	276.17	275.93	275.72	275.57	275.44	
2	275.66	275.69	275.80	275.96	276.56	276.79	279.06	276.16	275.93	275.72	275.65	275.45	
3	275.66	275.63	275.88	275.98	276.69	276.16	278.60	276.18	275.92	275.72	275.62	275.47	
4	275.66	275.69	276.66	276.04	277.28	276.43	279.19	276.26	275.88	275.70	275.60	275.47	
5	275.66	275.66	276.57	275.96	276.56	276.38	278.04	276.28	275.86	275.66	275.59	275.49	
6	275.67	275.70	276.69	275.91	276.33	277.01	277.16	276.13	275.85	275.66	275.56	275.54	
7	275.67	275.93	276.19	275.92	276.28	277.33	276.88	276.11	275.84	275.64	275.54	275.54	
8	275.68	276.33	276.01	275.86	276.24	276.51	276.77	276.10	275.83	275.64	275.52	275.53	
9	275.68	275.84	275.92	275.75	276.23	276.65	276.61	276.10	275.83	275.66	275.50	275.54	
10	275.69	276.25	275.85	275.96	276.28	276.64	276.49	276.35	275.83	275.70	275.51	275.56	
11	275.71	276.39	275.78	275.97	276.19	276.76	276.40	276.12	275.83	275.68	275.51	275.54	
12	275.74	275.95	275.92	275.92	276.32	277.83	276.35	276.10	275.82	275.73	275.51	275.57	
13	275.72	275.91	275.86	275.76	276.19	277.71	276.30	276.07	275.83	275.72	275.55	275.57	
14	275.70	275.89	275.87	275.80	276.14	277.15	276.21	276.06	275.82	275.73	275.55	275.57	
15	275.76	275.94	276.11	276.32	276.08	276.98	276.24	276.06	275.73	275.72	275.55	275.55	
16	275.94	276.33	275.86	275.94	276.08	277.55	276.47	276.05	275.77	275.67	275.55	275.54	
17	275.70	276.49	275.86	275.84	276.08	276.63	278.19	276.05	275.72	275.64	275.55	275.50	
18	275.67	277.09	275.98	275.84	276.29	276.57	277.66	276.03	275.70	275.58	275.56	275.50	
19	275.78	276.71	275.88	275.90	276.23	276.58	276.96	276.00	275.76	275.58	275.57	275.50	
20	276.06	276.46	275.92	275.97	276.90	276.57	276.66	276.00	275.74	275.57	275.54	275.50	
21	275.74	276.11	275.85	276.13	276.46	276.50	276.52	276.00	275.74	275.56	275.49	275.50	
22	275.65	276.01	275.79	276.13	276.29	276.68	276.40	276.00	275.78	275.56	275.49	275.50	
23	275.66	275.87	275.66	276.08	276.24	276.41	276.30	276.00	275.74	275.54	275.48	275.50	
24	275.74	275.82	275.76	276.05	276.23	276.37	276.28	276.00	275.74	275.55	275.49	275.49	
25	276.07	275.86	275.92	276.03	276.25	276.46	276.25	276.00	275.73	275.59	275.49	275.49	
26	275.85	275.85	276.38	276.06	278.05	276.36	276.21	276.01	275.73	275.58	275.49	275.49	
27	275.76	275.84	276.33	275.90	277.48	277.14	276.18	275.99	275.71	275.58	275.46	275.50	
28	275.73	275.84	276.22	275.83	276.63	276.87	276.18	275.96	275.72	275.57	275.44	275.51	
29	275.65	275.84	276.06	275.82	276.39	276.69	276.18	275.95	275.72	275.54	275.44	275.51	
30	275.60	275.81	275.96	275.92	276.28	276.47	276.18	275.93	275.71	275.54		275.53	
31		275.77		275.92	276.31		276.17		275.71	275.57		275.52	
Mean	275.73	276.01	276.01	275.95	276.45	276.76	276.84	276.07	275.79	275.63	275.53	275.51	
Max	276.07	277.09	276.69	276.32	278.05	277.83	279.19	276.35	275.93	275.73	275.65	275.57	279.19
Min	275.60	275.63	275.62	275.75	276.08	276.16	276.17	275.93	275.70	275.54	275.44	275.44	275.44

Annual Max Momentary Gage Height	279.82	m. (MSL.) ,	at 05.00 Hours , on Oct 3 , 2011		
Zero Gage at Bottom Elevation	275.00	m. (MSL.) ,	River Bed	274.55	m. (MSL)
Left Bank Elevation	280.19	m. (MSL.) ,			
Right Bank Elevation	280.08	m. (MSL.) ,	Drainage Area	452	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.47	2.74	2.26	4.92	17.68	18.84	26.88	8.90	5.16	3.08	1.89	0.24		
2	0.49	2.82	3.80	5.52	18.84	26.18	168.75	8.70	5.16	3.08	2.50	0.25		
3	0.49	2.34	4.60	5.76	22.93	8.70	129.80	9.10	5.04	3.08	2.26	0.27		
4	0.49	2.82	21.95	6.60	46.00	15.07	180.12	10.91	4.60	2.90	2.10	0.27		
5	0.49	2.58	19.13	5.52	18.84	13.73	88.24	11.38	4.40	2.58	2.03	0.29		
6	0.51	2.90	22.93	4.92	12.55	34.41	40.56	8.10	4.30	2.58	1.82	0.34		
7	0.51	5.16	9.30	5.04	11.38	48.37	29.50	7.70	4.20	2.42	1.68	0.34		
8	0.52	12.55	6.15	4.40	10.44	17.39	25.52	7.50	4.10	2.42	1.54	0.33		
9	0.52	4.20	5.04	3.35	10.21	21.62	20.32	7.50	4.10	2.58	1.40	0.34		
10	0.54	10.67	4.30	5.52	11.38	21.30	16.81	13.03	4.10	2.90	1.47	0.36		
11	0.56	13.97	3.62	5.64	9.30	25.20	14.20	7.90	4.10	2.74	1.47	0.34		
12	0.61	5.40	5.04	5.04	12.32	75.21	13.03	7.50	4.00	3.17	1.47	0.37		
13	0.58	4.92	4.40	3.44	9.30	68.27	11.85	7.05	4.10	3.08	1.75	0.37		
14	0.55	4.70	4.50	3.80	8.30	40.15	9.73	6.90	4.00	3.17	1.75	0.37		
15	3.44	5.28	7.70	12.32	7.20	33.25	10.44	6.90	3.17	3.08	1.75	0.35		
16	5.28	12.55	4.40	5.28	7.20	59.42	16.23	6.75	3.53	2.66	1.75	0.34		
17	2.90	16.81	4.40	4.20	7.20	20.98	98.51	6.75	3.08	2.42	1.75	0.30		
18	2.66	37.69	5.76	4.20	11.62	19.13	65.42	6.45	2.90	1.96	1.82	0.30		
19	3.62	23.57	4.60	4.80	10.21	19.42	32.50	6.00	3.44	1.96	1.89	0.30		
20	6.90	15.94	5.04	5.64	30.25	19.13	21.95	6.00	3.26	1.89	1.68	0.30		
21	3.26	7.70	4.30	8.10	15.94	17.10	17.68	6.00	3.26	1.82	1.34	0.30		
22	2.50	6.15	3.71	8.10	11.62	22.60	14.20	6.00	3.62	1.82	1.34	0.30		
23	2.58	4.50	2.58	7.20	10.44	14.49	11.85	6.00	3.26	1.68	1.28	0.30		
24	3.26	4.00	3.44	6.75	10.21	13.49	11.38	6.00	3.26	1.75	1.34	0.29		
25	7.05	4.40	5.04	6.45	10.67	15.94	10.67	6.00	3.17	2.03	1.34	0.29		
26	4.30	4.30	13.73	6.90	88.92	13.26	9.73	6.15	3.17	1.96	1.34	0.29		
27	3.44	4.20	12.55	4.80	55.82	39.74	9.10	5.88	2.99	1.96	1.16	0.30		
28	3.17	4.20	9.97	4.10	20.98	29.13	9.10	5.52	3.08	1.89	1.04	0.31		
29	2.50	4.20	6.90	4.00	13.97	22.93	9.10	5.40	3.08	1.68	1.04	0.31		
30	2.10	3.90	5.52	5.04	11.38	16.23	9.10	5.16	2.99	1.68		0.33		
31		3.53		5.04	12.08		8.90		2.99	1.89		0.32		
Total	66.29	240.69	216.66	172.39	555.18	810.68	1141.17	219.13	115.61	73.91	46.99	9.71	3668.41	CMSDAY
Mean	2.21	7.76	7.22	5.56	17.91	27.02	36.81	7.30	3.73	2.38	1.62	0.31	10.02	CMS
Max	7.05	37.69	22.93	12.32	88.92	75.21	180.12	13.03	5.16	3.17	2.50	0.37	180.12	CMS
Min	0.47	2.34	2.26	3.35	7.20	8.70	8.90	5.16	2.90	1.68	1.04	0.24	0.24	CMS
Runoff	5.73	20.80	18.72	14.89	47.97	70.04	98.60	18.93	9.99	6.39	4.06	0.84	316.95	MCM

Momentary Peak 239.00 CMS. at 279.82 m. (MSL.) at 05.00 Hours , on Oct 3 , 2011

Runoff Yield 22.17 Liters/Second/Square KM. Momentary Peak Yield 528.761 Liters/Second/Square KM.

WATER YEAR : 2011

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 tha Kradan Wair.

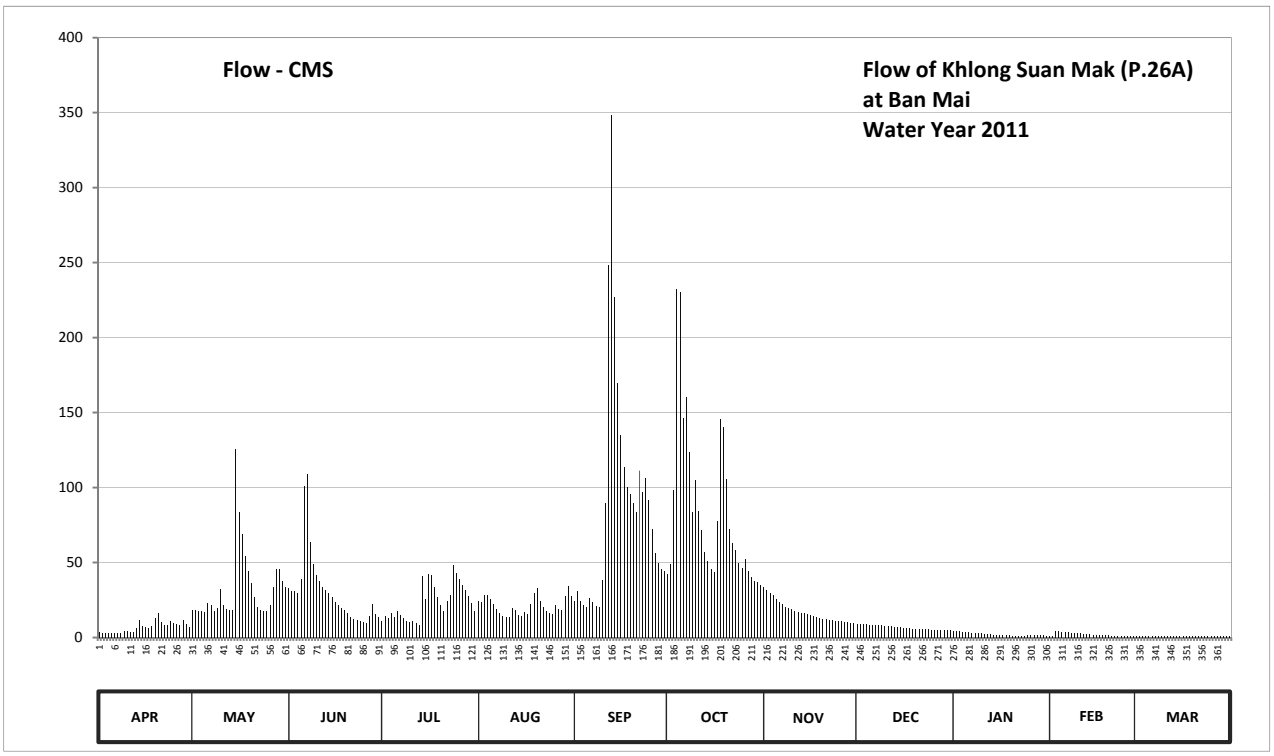
Ban Mai **Amphoe** Mueang **Changwat** Kamphaeng Phet

Drainge Area	974 sq.km.
Type of Gage	Staff gage.
Zero Gage at Bottom	+84.110 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank about 30 meters from the south of Wat Sri Phirom. **Elevation** +89.637 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings
Period of Available Gage Records	1971 to date
Rating Operation	
Period of Rating	1972 - 1974 , 1980 to date
Rated by Flot	-
Rated by Current Meter	1972 - 1974 , 1980 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	Overbank flow starts at elevation + 88.140 m. (MSL.), records are channel flow only
General Description	Records good. Flow effected by Tha Kradan weir about 3.5 kilometers above gage site. Stage-discharge relation defined by 36 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	84.17	84.74	85.09	84.49	84.89	84.90	85.29	85.10	84.44	84.22	84.03	83.98	
2	84.16	84.73	85.05	84.61	84.88	85.05	85.42	85.06	84.44	84.21	84.03	83.98	
3	84.16	84.72	85.04	84.57	84.99	84.89	86.19	85.02	84.43	84.20	84.21	83.98	
4	84.15	84.71	85.02	84.68	84.99	84.83	87.70	84.98	84.43	84.19	84.20	83.98	
5	84.15	84.70	85.22	84.59	84.92	84.79	87.68	84.93	84.42	84.18	84.19	83.98	
6	84.15	84.86	86.23	84.71	84.84	84.94	86.81	84.88	84.42	84.17	84.18	83.98	
7	84.14	84.82	86.34	84.64	84.76	84.87	86.97	84.85	84.41	84.16	84.17	83.98	
8	84.14	84.72	85.66	84.56	84.68	84.81	86.53	84.80	84.41	84.15	84.16	83.98	
9	84.22	84.78	85.42	84.49	84.61	84.79	85.98	84.77	84.40	84.14	84.15	83.98	
10	84.21	85.08	85.27	84.48	84.58	85.21	86.28	84.75	84.39	84.13	84.14	83.98	
11	84.19	84.82	85.19	84.51	84.58	86.07	85.99	84.72	84.38	84.12	84.13	83.98	
12	84.18	84.76	85.11	84.45	84.78	87.85	85.79	84.70	84.37	84.11	84.12	83.98	
13	84.31	84.73	85.06	84.42	84.73	88.70	85.55	84.68	84.36	84.10	84.11	83.98	
14	84.52	84.74	85.01	85.26	84.64	87.65	85.45	84.67	84.35	84.09	84.10	83.98	
15	84.39	86.56	84.96	84.93	84.61	87.08	85.36	84.66	84.34	84.08	84.09	83.98	
16	84.34	85.98	84.88	85.28	84.70	86.67	85.31	84.64	84.33	84.07	84.08	83.98	
17	84.32	85.75	84.83	85.27	84.66	86.40	85.89	84.62	84.32	84.06	84.07	83.98	
18	84.39	85.51	84.78	85.10	84.85	86.22	86.80	84.60	84.31	84.05	84.06	83.98	
19	84.56	85.33	84.74	84.96	85.02	86.15	86.74	84.57	84.30	84.04	84.05	83.98	
20	84.68	85.16	84.68	84.83	85.09	86.07	86.29	84.55	84.30	84.03	84.04	83.98	
21	84.47	84.96	84.60	84.72	84.90	85.98	85.81	84.54	84.29	84.02	84.03	83.98	
22	84.41	84.79	84.54	84.89	84.80	86.37	85.65	84.53	84.28	84.01	84.02	83.98	
23	84.41	84.74	84.52	84.99	84.72	86.17	85.57	84.52	84.27	84.00	84.01	83.98	
24	84.51	84.72	84.50	85.40	84.67	86.30	85.43	84.51	84.27	84.00	84.00	83.98	
25	84.45	84.71	84.47	85.30	84.65	86.09	85.37	84.50	84.26	84.09	84.00	83.98	
26	84.44	84.83	84.45	85.22	84.82	85.81	85.47	84.49	84.26	84.08	83.99	83.98	
27	84.42	85.10	84.61	85.14	84.75	85.54	85.32	84.48	84.25	84.07	83.99	83.98	
28	84.53	85.35	84.84	85.06	84.73	85.43	85.24	84.47	84.25	84.06	83.98	83.98	
29	84.44	85.36	84.66	84.97	84.97	85.35	85.20	84.46	84.24	84.05	83.98	83.98	
30	84.36	85.20	84.59	84.86	85.12	85.32	85.17	84.45	84.24	84.04		83.98	
31		85.11		84.71	84.97		85.14		84.24	84.03		84.01	
Mean	84.33	85.03	84.98	84.84	84.80	85.88	85.92	84.68	84.34	84.10	84.08	83.98	
Max	84.68	86.56	86.34	85.40	85.12	88.70	87.70	85.10	84.44	84.22	84.21	84.01	88.70
Min	84.14	84.70	84.45	84.42	84.58	84.79	85.14	84.45	84.24	84.00	83.98	83.98	83.98

Annual Max Momentary Gage Height	88.91	m. (MSL.) ,	at 06.00 Hours , on Sep 13 , 2011		
Zero Gage at Bottom Elevation	84.11	m. (MSL.) ,	River Bed	84.23	m. (MSL)
Left Bank Elevation	88.13	m. (MSL.) ,			
Right Bank Elevation	89.58	m. (MSL.) ,	Drainage Area	974	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.40	18.40	33.05	10.70	24.10	24.50	42.50	33.50	9.20	4.40	1.30	0.90		
2	3.20	18.05	31.25	14.30	23.70	31.25	49.20	31.70	9.20	4.20	1.30	0.90		
3	3.20	17.70	30.80	13.10	28.55	24.10	98.30	29.90	8.90	4.00	4.20	0.90		
4	3.00	17.35	29.90	16.40	28.55	21.70	232.00	28.10	8.90	3.80	4.00	0.90		
5	3.00	17.00	39.00	13.70	25.40	20.15	229.90	25.85	8.60	3.60	3.80	0.90		
6	3.00	22.90	101.10	17.35	22.10	26.30	146.35	23.70	8.60	3.40	3.60	0.90		
7	2.80	21.30	109.00	15.20	19.10	23.30	159.95	22.50	8.30	3.20	3.40	0.90		
8	2.80	17.70	63.60	12.80	16.40	20.90	123.40	20.50	8.30	3.00	3.20	0.90		
9	4.40	19.80	49.20	10.70	14.30	20.15	83.70	19.45	8.00	2.80	3.00	0.90		
10	4.20	32.60	41.50	10.40	13.40	38.50	104.60	18.75	7.80	2.60	2.80	0.90		
11	3.80	21.30	37.55	11.30	13.40	89.90	84.35	17.70	7.60	2.40	2.60	0.90		
12	3.60	19.10	33.95	9.50	19.80	248.55	71.40	17.00	7.40	2.20	2.40	0.90		
13	6.20	18.05	31.70	8.60	18.05	348.50	57.00	16.40	7.20	2.00	2.20	0.90		
14	11.60	18.40	29.45	41.00	15.20	226.75	51.00	16.10	7.00	1.90	2.00	0.90		
15	7.80	125.80	27.20	25.85	14.30	169.70	46.00	15.80	6.80	1.80	1.90	0.90		
16	6.80	83.70	23.70	42.00	17.00	134.60	43.50	15.20	6.60	1.70	1.80	0.90		
17	6.40	69.00	21.70	41.50	15.80	113.50	77.85	14.60	6.40	1.60	1.70	0.90		
18	7.80	54.60	19.80	33.50	22.50	100.40	145.50	14.00	6.20	1.50	1.60	0.90		
19	12.80	44.50	18.40	27.20	29.90	95.50	140.40	13.10	6.00	1.40	1.50	0.90		
20	16.40	36.20	16.40	21.70	33.05	89.90	105.30	12.50	6.00	1.30	1.40	0.90		
21	10.10	27.20	14.00	17.70	24.50	83.70	72.65	12.20	5.80	1.20	1.30	0.90		
22	8.30	20.15	12.20	24.10	20.50	111.25	63.00	11.90	5.60	1.10	1.20	0.90		
23	8.30	18.40	11.60	28.55	17.70	96.90	58.20	11.60	5.40	1.00	1.10	0.90		
24	11.30	17.70	11.00	48.00	16.10	106.00	49.80	11.30	5.40	1.00	1.00	0.90		
25	9.50	17.35	10.10	43.00	15.50	91.30	46.50	11.00	5.20	1.90	1.00	0.90		
26	9.20	21.70	9.50	39.00	21.30	72.65	52.20	10.70	5.20	1.80	0.95	0.90		
27	8.60	33.50	14.30	35.30	18.75	56.40	44.00	10.40	5.00	1.70	0.95	0.90		
28	11.90	45.50	22.10	31.70	18.05	49.80	40.00	10.10	5.00	1.60	0.90	0.90		
29	9.20	46.00	15.80	27.65	27.65	45.50	38.00	9.80	4.80	1.50	0.90	0.90		
30	7.20	38.00	13.70	22.90	34.40	44.00	36.65	9.50	4.80	1.40		0.90		
31		33.95		17.35	27.65		35.30		4.80	1.30		1.10		
Total	209.80	1012.90	922.55	732.05	656.70	2625.65	2628.50	514.85	210.00	68.30	59.00	28.10	9668.40	CMSDAY
Mean	6.99	32.67	30.75	23.61	21.18	87.52	84.79	17.16	6.77	2.20	2.03	0.91	26.42	CMS
Max	16.40	125.80	109.00	48.00	34.40	348.50	232.00	33.50	9.20	4.40	4.20	1.10	348.50	CMS
Min	2.80	17.00	9.50	8.60	13.40	20.15	35.30	9.50	4.80	1.00	0.90	0.90	0.90	CMS
Runoff	18.13	87.52	79.71	63.25	56.74	226.86	227.10	44.48	18.14	5.90	5.10	2.43	835.35	MCM

Momentary Peak 375.30 CMS. at 88.91 m. (MSL.) at 06.00 Hours , on Sep 13 , 2011

Runoff Yield 27.12 Liters/Second/Square KM. Momentary Peak Yield 385.318 Liters/Second/Square KM.

WATER YEAR : 2011

PING RIVER BASIN

Khlong Suan Mak at Ban Pong Nam Ron , Kamphaeng Phet (P.47)

Lat 16 - 20 - 04 N Long 99 - 26 - 16 E

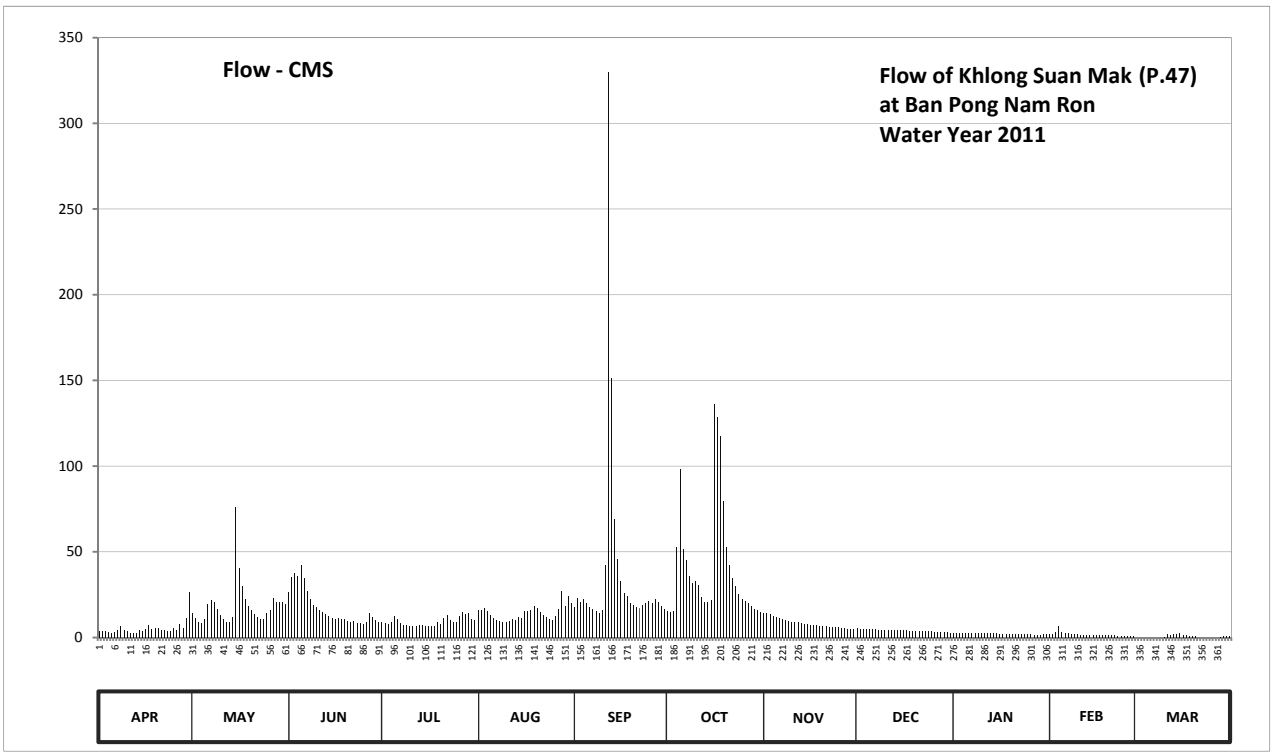
Location : on right bank at Ban Pong Ron.

	Ban Pong Nam Ron	**Amphoe** Khlong Lan	**Changwat** Kamphaeng Phet		
Drainge Area	529 sq.km.				
Type of Gage	Staff gage				
Zero Gage at Bottom	+143.770 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On right bank about 9 meters from the top staff gage.	**Elevation** +153.140 m. (MSL.)			
Gage Reading Frequency	5-time daily reading at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.				
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings				
Period of Available Gage Records	1983 to date				
Rating Operation					
Period of Rating	1983 to date				
Rated by Flot	-				
Rated by Current Meter	1983 to date				
Stability of Channel Regimes	Stable.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records good. Stage-discharge relation defined by 33 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	144.37	144.84	145.22	144.61	144.90	144.95	144.87	144.84	144.44	144.32	144.26	144.06	
2	144.36	144.72	145.42	144.59	144.90	145.13	144.86	144.82	144.43	144.32	144.26	144.06	
3	144.35	144.63	145.46	144.57	144.94	145.06	144.87	144.80	144.43	144.32	144.33	144.06	
4	144.34	144.60	145.43	144.61	144.87	145.11	145.68	144.76	144.42	144.32	144.51	144.06	
5	144.32	144.70	145.53	144.77	144.78	145.04	146.07	144.73	144.42	144.32	144.34	144.06	
6	144.33	145.01	145.40	144.69	144.71	144.95	145.66	144.71	144.41	144.32	144.31	144.06	
7	144.38	145.10	145.23	144.59	144.67	144.92	145.58	144.68	144.41	144.32	144.29	144.06	
8	144.52	145.05	145.12	144.55	144.64	144.87	145.43	144.66	144.40	144.31	144.27	144.06	
9	144.39	144.93	145.00	144.54	144.62	144.82	145.34	144.64	144.40	144.31	144.25	144.06	
10	144.35	144.79	144.96	144.52	144.62	144.90	145.36	144.62	144.40	144.30	144.25	144.14	
11	144.32	144.68	144.89	144.52	144.65	145.53	145.32	144.61	144.40	144.30	144.24	144.26	
12	144.31	144.61	144.85	144.52	144.70	147.17	145.15	144.61	144.39	144.30	144.24	144.23	
13	144.31	144.63	144.81	144.54	144.66	146.42	145.06	144.60	144.39	144.29	144.23	144.28	
14	144.38	144.75	144.77	144.53	144.73	145.84	145.06	144.57	144.39	144.29	144.23	144.25	
15	144.36	145.90	144.72	144.52	144.72	145.59	145.10	144.56	144.38	144.29	144.23	144.31	
16	144.43	145.51	144.69	144.52	144.87	145.36	146.33	144.55	144.38	144.28	144.22	144.22	
17	144.54	145.30	144.71	144.51	144.88	145.21	146.28	144.54	144.38	144.28	144.22	144.21	
18	144.43	145.11	144.69	144.50	144.90	145.16	146.21	144.53	144.37	144.28	144.21	144.19	
19	144.46	144.98	144.68	144.61	144.98	145.04	145.93	144.52	144.37	144.27	144.22	144.16	
20	144.46	144.90	144.65	144.58	144.94	145.00	145.68	144.51	144.36	144.27	144.23	144.16	
21	144.40	144.80	144.63	144.71	144.85	144.96	145.53	144.50	144.36	144.26	144.22	144.08	
22	144.39	144.73	144.64	144.78	144.79	144.94	145.40	144.49	144.35	144.26	144.21	144.04	
23	144.35	144.69	144.60	144.67	144.73	145.00	145.30	144.49	144.35	144.25	144.20	144.04	
24	144.36	144.69	144.59	144.63	144.70	145.03	145.20	144.48	144.35	144.26	144.19	144.04	
25	144.46	144.83	144.58	144.61	144.67	145.08	145.12	144.47	144.35	144.25	144.19	144.04	
26	144.38	144.90	144.63	144.77	144.76	145.03	145.07	144.45	144.34	144.25	144.18	144.05	
27	144.57	145.13	144.82	144.85	144.92	145.12	145.04	144.44	144.34	144.24	144.18	144.05	
28	144.44	145.06	144.74	144.81	145.23	145.06	144.97	144.42	144.33	144.24	144.17	144.14	
29	144.71	145.05	144.66	144.83	144.97	144.97	144.93	144.42	144.33	144.24	144.14	144.19	
30	145.22	145.05	144.61	144.70	145.17	144.91	144.90	144.43	144.33	144.25		144.17	
31		145.02		144.67	145.04		144.86		144.32	144.26		144.19	
Mean	144.43	144.93	144.89	144.63	144.82	145.21	145.36	144.58	144.38	144.28	144.24	144.13	
Max	145.22	145.90	145.53	144.85	145.23	147.17	146.33	144.84	144.44	144.32	144.51	144.31	147.17
Min	144.31	144.60	144.58	144.50	144.62	144.82	144.86	144.42	144.32	144.24	144.14	144.04	144.04

Annual Max Momentary Gage Height	147.72	m. (MSL.) ,	at 12.00 Hours , on Sep 12 , 2011		
Zero Gage at Bottom Elevation	143.77	m. (MSL.) ,	River Bed	143.96	m. (MSL)
Left Bank Elevation	148.14	m. (MSL.) ,			
Right Bank Elevation	148.89	m. (MSL.) ,	Drainage Area	529	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.90	14.50	26.40	8.75	16.00	17.50	15.25	14.50	5.30	2.90	1.90	0.00		
2	3.70	11.50	35.60	8.30	16.00	23.05	15.00	14.00	5.10	2.90	1.90	0.00		
3	3.50	9.25	37.80	7.90	17.20	20.80	15.25	13.50	5.10	2.90	3.10	0.00		
4	3.30	8.50	36.15	8.75	15.25	22.35	52.90	12.50	4.90	2.90	6.70	0.00		
5	2.90	11.00	41.95	12.75	13.00	20.20	97.95	11.75	4.90	2.90	3.30	0.00		
6	3.10	19.30	34.50	10.75	11.25	17.50	51.30	11.25	4.70	2.90	2.70	0.00		
7	4.10	22.00	26.85	8.30	10.25	16.60	45.20	10.50	4.70	2.90	2.35	0.00		
8	6.90	20.50	22.70	7.50	9.50	15.25	36.15	10.00	4.50	2.70	2.05	0.00		
9	4.30	16.90	19.00	7.30	9.00	14.00	31.80	9.50	4.50	2.70	1.75	0.00		
10	3.50	13.25	17.80	6.90	9.00	16.00	32.70	9.00	4.50	2.50	1.75	0.40		
11	2.90	10.50	15.75	6.90	9.75	41.95	30.90	8.75	4.50	2.50	1.60	1.90		
12	2.70	8.75	14.75	6.90	11.00	329.70	23.75	8.75	4.30	2.50	1.60	1.45		
13	2.70	9.25	13.75	7.30	10.00	151.10	20.80	8.50	4.30	2.35	1.45	2.20		
14	4.10	12.25	12.75	7.10	11.75	69.10	20.80	7.90	4.30	2.35	1.45	1.75		
15	3.70	76.00	11.50	6.90	11.50	45.85	22.00	7.70	4.10	2.35	1.45	2.70		
16	5.10	40.65	10.75	6.90	15.25	32.70	136.30	7.50	4.10	2.20	1.30	1.30		
17	7.30	30.00	11.25	6.70	15.50	25.95	128.40	7.30	4.10	2.20	1.30	1.15		
18	5.10	22.35	10.75	6.50	16.00	24.10	117.55	7.10	3.90	2.20	1.15	0.90		
19	5.70	18.40	10.50	8.75	18.40	20.20	79.75	6.90	3.90	2.05	1.30	0.60		
20	5.70	16.00	9.75	8.10	17.20	19.00	52.90	6.70	3.70	2.05	1.45	0.60		
21	4.50	13.50	9.25	11.25	14.75	17.80	41.95	6.50	3.70	1.90	1.30	0.00		
22	4.30	11.75	9.50	13.00	13.25	17.20	34.50	6.30	3.50	1.90	1.15	0.00		
23	3.50	10.75	8.50	10.25	11.75	19.00	30.00	6.30	3.50	1.75	1.00	0.00		
24	3.70	10.75	8.30	9.25	11.00	19.90	25.50	6.10	3.50	1.90	0.90	0.00		
25	5.70	14.25	8.10	8.75	10.25	21.40	22.70	5.90	3.50	1.75	0.90	0.00		
26	4.10	16.00	9.25	12.75	12.50	19.90	21.10	5.50	3.30	1.75	0.80	0.00		
27	7.90	23.05	14.00	14.75	16.60	22.70	20.20	5.30	3.30	1.60	0.80	0.00		
28	5.30	20.80	12.00	13.75	26.85	20.80	18.10	4.90	3.10	1.60	0.70	0.40		
29	11.25	20.50	10.00	14.25	18.10	18.10	16.90	4.90	3.10	1.60	0.40	0.90		
30	26.40	20.50	8.75	11.00	24.45	16.30	16.00	5.10	3.10	1.75		0.70		
31		19.60		10.25	20.20		15.00		2.90	1.90		0.90		
Total	160.85	572.30	517.90	288.50	442.50	1136.00	1288.60	250.40	125.90	70.35	49.50	17.85	4920.65	CMSDAY
Mean	5.36	18.46	17.26	9.31	14.27	37.87	41.57	8.35	4.06	2.27	1.71	0.58	13.44	CMS
Max	26.40	76.00	41.95	14.75	26.85	329.70	136.30	14.50	5.30	2.90	6.70	2.70	329.70	CMS
Min	2.70	8.50	8.10	6.50	9.00	14.00	15.00	4.90	2.90	1.60	0.40	0.00	0.00	CMS
Runoff	13.90	49.45	44.75	24.93	38.23	98.15	111.34	21.64	10.88	6.08	4.28	1.54	425.14	MCM

Momentary Peak 526.50 CMS. at 147.72 m. (MSL.) at 12.00 Hours , on Sep 12 , 2011

Runoff Yield 25.41 Liters/Second/Square KM. Momentary Peak Yield 995.274 Liters/Second/Square KM.

WATER YEAR : 2011

PING RIVER BASIN

Khlong Wang Chao at Ban Thai Tawee , Kamphaeng Phet (P.50A)

Lat 16 - 32 - 45 N Long 99 - 14 - 57 E

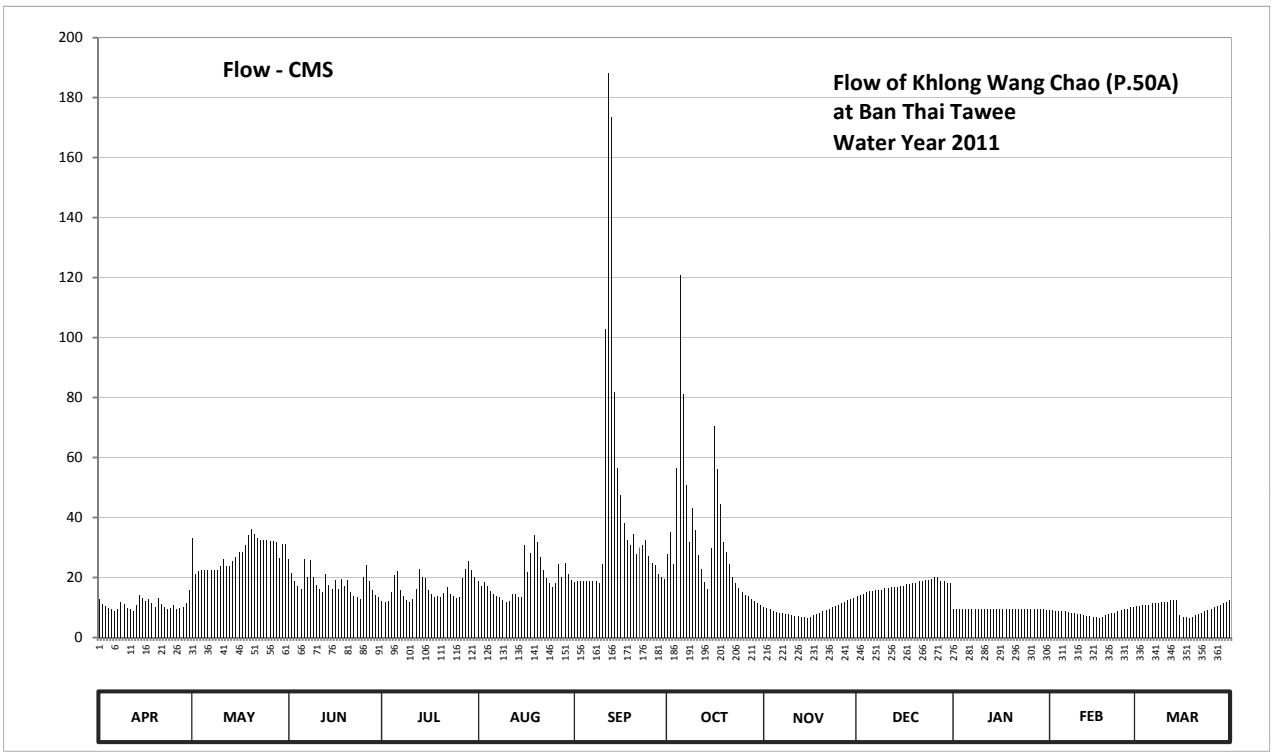
Location : on left bank at Ban Thai Tawee.

	Ban Thai Tawee	**Amphoe** Kosumpee Nakhon	**Changwat** Kamphaeng Phet		
Drainge Area	480 sq.km.				
Type of Gage	Staff gage				
Zero Gage at Bottom	+104.360 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On left bank about 10 meters from the top staff gage.	**Elevation** +109.931 m. (MSL.)			
Gage Reading Frequency	5-time daily reading at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.				
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings				
Period of Available Gage Records	1999 to date				
Rating Operation					
Period of Rating	1999 to date				
Rated by Flot	-				
Rated by Current Meter	1999 to date				
Stability of Channel Regimes	Stable.				
Overbank Flow Conditions	Overbank flow starts at elevation +107.000 m.(MSL), records are channel flow only.				
General Description	Records good. Stage-discharge relation defined by 31 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	105.51	106.38	106.11	105.49	105.80	105.79	106.17	105.39	105.04	105.34	105.33	105.11	
2	105.44	105.91	105.92	105.47	105.73	105.80	106.45	105.37	105.03	105.34	105.33	105.11	
3	105.40	105.95	105.80	105.49	105.79	105.80	106.04	105.34	105.02	105.34	105.32	105.10	
4	105.36	105.96	105.73	105.63	105.73	105.80	107.10	105.32	105.01	105.34	105.32	105.10	
5	105.34	105.96	105.69	105.89	105.65	105.80	107.95	105.30	105.00	105.34	105.31	105.10	
6	105.32	105.96	106.11	105.95	105.60	105.80	107.56	105.29	105.00	105.34	105.31	105.09	
7	105.34	105.96	105.86	105.67	105.57	105.80	106.95	105.28	104.99	105.34	105.30	105.09	
8	105.47	105.96	106.09	105.56	105.54	105.80	106.33	105.27	104.99	105.34	105.29	105.09	
9	105.43	105.96	105.87	105.50	105.50	105.78	106.73	105.26	104.99	105.34	105.28	105.08	
10	105.36	106.01	105.74	105.47	105.47	106.04	106.48	105.25	104.98	105.34	105.27	105.08	
11	105.34	106.10	105.68	105.51	105.48	107.81	106.16	105.24	104.98	105.34	105.26	105.08	
12	105.31	106.01	105.63	105.69	105.60	108.33	105.98	105.23	104.97	105.34	105.25	105.07	
13	105.42	106.01	105.90	105.98	105.60	108.26	105.79	105.22	104.97	105.34	105.24	105.07	
14	105.58	106.08	105.74	105.86	105.54	107.57	105.69	105.21	104.97	105.34	105.23	105.07	
15	105.53	106.13	105.69	105.84	105.55	107.10	106.26	105.20	104.96	105.34	105.22	105.25	
16	105.48	106.20	105.82	105.67	106.29	106.86	107.39	105.19	104.96	105.34	105.21	105.22	
17	105.51	106.20	105.69	105.60	105.93	106.56	107.09	105.18	104.95	105.34	105.20	105.21	
18	105.45	106.29	105.83	105.55	106.18	106.36	106.78	105.17	104.95	105.34	105.19	105.20	
19	105.38	106.41	105.73	105.57	106.41	106.29	106.33	105.16	104.94	105.34	105.18	105.19	
20	105.53	106.49	105.82	105.55	106.33	106.43	106.20	105.15	104.94	105.34	105.17	105.18	
21	105.44	106.43	105.63	105.62	106.14	106.17	106.04	105.14	104.93	105.34	105.16	105.17	
22	105.39	106.38	105.57	105.71	105.96	106.26	105.87	105.13	104.93	105.34	105.16	105.16	
23	105.35	106.36	105.54	105.60	105.85	106.30	105.78	105.12	104.92	105.34	105.15	105.15	
24	105.37	106.35	105.52	105.57	105.77	106.36	105.70	105.11	104.92	105.34	105.14	105.14	
25	105.41	106.35	105.87	105.53	105.71	106.15	105.63	105.10	104.91	105.34	105.13	105.13	
26	105.35	106.34	106.03	105.55	105.77	106.05	105.59	105.09	104.90	105.34	105.13	105.12	
27	105.37	106.34	105.81	105.84	106.04	106.03	105.57	105.08	104.90	105.34	105.12	105.11	
28	105.38	106.33	105.67	105.97	105.87	105.91	105.52	105.07	104.89	105.34	105.12	105.10	
29	105.45	106.12	105.58	106.08	106.05	105.86	105.48	105.06	104.89	105.34	105.11	105.09	
30	105.67	106.31	105.54	105.96	105.90	105.83	105.45	105.05	104.88	105.34		105.08	
31		106.31		105.87	105.82		105.42		104.88	105.14		105.07	
Mean	105.42	106.18	105.77	105.69	105.81	106.36	106.24	105.20	104.95	105.33	105.22	105.12	
Max	105.67	106.49	106.11	106.08	106.41	108.33	107.95	105.39	105.04	105.34	105.33	105.25	108.33
Min	105.31	105.91	105.52	105.47	105.47	105.78	105.42	105.05	104.88	105.14	105.11	105.07	104.88

Annual Max Momentary Gage Height	108.75	m. (MSL.) ,	at 15.00 Hours , on Sep 12 , 2011		
Zero Gage at Bottom Elevation	104.36	m. (MSL.) ,	River Bed	104.19	m. (MSL)
Left Bank Elevation	106.99	m. (MSL.) ,			
Right Bank Elevation	107.88	m. (MSL.) ,	Drainage Area	480	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	12.70	33.20	26.25	12.30	18.75	18.53	27.75	10.30	13.70	9.30	9.10	10.55		
2	11.30	21.25	21.50	11.90	17.18	18.75	35.12	9.90	14.15	9.30	9.10	10.55		
3	10.50	22.25	18.75	12.30	18.53	18.75	24.50	9.30	14.60	9.30	8.90	11.00		
4	9.70	22.50	17.18	15.10	17.18	18.75	56.50	8.90	15.05	9.30	8.90	11.00		
5	9.30	22.50	16.30	20.77	15.50	18.75	120.75	8.50	15.50	9.30	8.70	11.00		
6	8.90	22.50	26.25	22.25	14.50	18.75	81.20	8.30	15.50	9.30	8.70	11.45		
7	9.30	22.50	20.10	15.90	13.90	18.75	50.62	8.10	15.95	9.30	8.50	11.45		
8	11.90	22.50	25.75	13.70	13.30	18.75	31.82	7.90	15.95	9.30	8.30	11.45		
9	11.10	22.50	20.33	12.50	12.50	18.30	43.15	7.70	15.95	9.30	8.10	11.90		
10	9.70	23.75	17.40	11.90	11.90	24.50	35.95	7.50	16.40	9.30	7.90	11.90		
11	9.30	26.00	16.10	12.70	12.10	102.75	27.50	7.30	16.40	9.30	7.70	11.90		
12	8.70	23.75	15.10	16.30	14.50	188.25	23.00	7.10	16.85	9.30	7.50	12.35		
13	10.90	23.75	21.00	23.00	14.50	173.50	18.53	6.90	16.85	9.30	7.30	12.35		
14	14.10	25.50	17.40	20.10	13.30	81.90	16.30	6.70	16.85	9.30	7.10	12.35		
15	13.10	26.75	16.30	19.65	13.50	56.50	30.00	6.50	17.30	9.30	6.90	7.50		
16	12.10	28.50	19.20	15.90	30.75	47.35	70.50	6.95	17.30	9.30	6.70	6.90		
17	12.70	28.50	16.30	14.50	21.75	38.15	56.10	7.40	17.75	9.30	6.50	6.70		
18	11.50	30.75	19.43	13.50	28.00	32.65	44.65	7.85	17.75	9.30	6.95	6.50		
19	10.10	34.03	17.18	13.90	34.03	30.75	31.82	8.30	18.20	9.30	7.40	6.95		
20	13.10	36.22	19.20	13.50	31.82	34.57	28.50	8.75	18.20	9.30	7.85	7.40		
21	11.30	34.57	15.10	14.90	27.00	27.75	24.50	9.20	18.65	9.30	8.30	7.85		
22	10.30	33.20	13.90	16.73	22.50	30.00	20.33	9.65	18.65	9.30	8.30	8.30		
23	9.50	32.65	13.30	14.50	19.87	31.00	18.30	10.10	19.10	9.30	8.75	8.75		
24	9.90	32.37	12.90	13.90	18.07	32.65	16.50	10.55	19.10	9.30	9.20	9.20		
25	10.70	32.37	20.33	13.10	16.73	27.25	15.10	11.00	19.55	9.30	9.65	9.65		
26	9.50	32.10	24.25	13.50	18.07	24.75	14.30	11.45	20.00	9.30	9.65	10.10		
27	9.90	32.10	18.97	19.65	24.50	24.25	13.90	11.90	20.00	9.30	10.10	10.55		
28	10.10	31.82	15.90	22.75	20.33	21.25	12.90	12.35	19.00	9.30	10.10	11.00		
29	11.50	26.50	14.10	25.50	24.75	20.10	12.10	12.80	19.00	9.30	10.55	11.45		
30	15.90	31.27	13.30	22.50	21.00	19.43	11.50	13.25	18.00	9.30		11.90		
31		31.27		20.33	19.20		10.90		18.00	9.20		12.35		
Total	328.60	869.42	549.07	509.03	599.51	1237.38	1024.59	272.40	535.25	288.20	242.70	314.25	6770.40	CMSDAY
Mean	10.95	28.05	18.30	16.42	19.34	41.25	33.05	9.08	17.27	9.30	8.37	10.14	18.50	CMS
Max	15.90	36.22	26.25	25.50	34.03	188.25	120.75	13.25	20.00	9.30	10.55	12.35	188.25	CMS
Min	8.70	21.25	12.90	11.90	11.90	18.30	10.90	6.50	13.70	9.20	6.50	6.50	6.50	CMS
Runoff	28.39	75.12	47.44	43.98	51.80	106.91	88.53	23.54	46.25	24.90	20.97	27.15	584.96	MCM

Momentary Peak 301.25 CMS. at 108.75 m. (MSL.) at 15.00 Hours , on Sep 12 , 2011

Runoff Yield 38.54 Liters/Second/Square KM. Momentary Peak Yield 627.604 Liters/Second/Square KM.

WATER YEAR : 2011

PING RIVER BASIN

Nam Mae Ngat at Ban Sahakorn Romklao , Chiang Mai (P.56A)

Lat 19 - 17 - 04 N Long 99 - 11 - 23 E

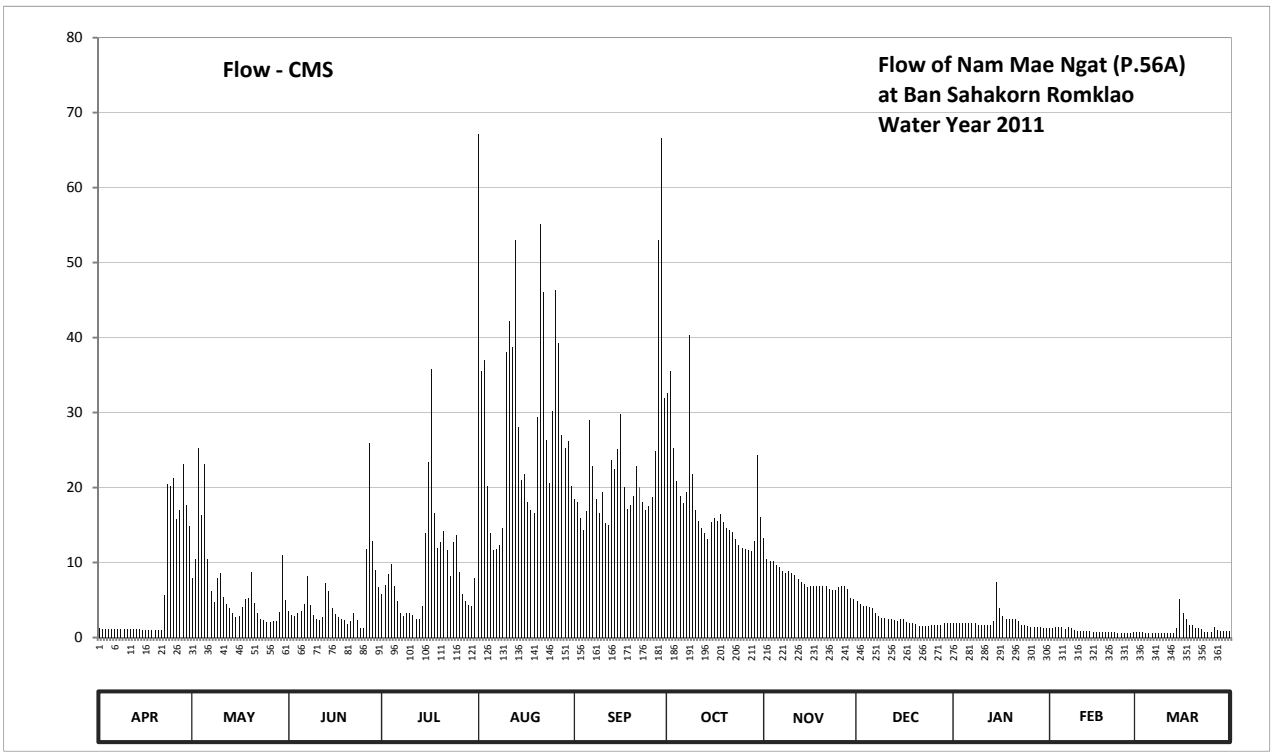
Location : on left bank at the bridge near land Cooperative Office.

	Ban Sahakorn Romklao	**Amphoe** Phrao	**Changwat** Chiang Mai
Drainge Area	546 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+408.300 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank about 10 meters from the top staff gage.	**Elevation**	+416.250 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	1998 to date		
Rating Operation			
Period of Rating	1998 to date		
Rated by Flot	-		
Rated by Current Meter	1998 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 34 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	409.51	410.16	409.79	410.00	412.76	410.84	411.51	410.54	410.26	410.02	409.94	409.84	
2	409.50	410.36	409.74	410.09	411.63	410.82	411.63	410.50	410.23	410.02	409.94	409.84	
3	409.50	411.18	409.73	410.20	411.69	410.70	411.18	410.49	410.22	410.02	409.96	409.84	
4	409.49	410.72	409.76	410.31	410.93	410.61	410.96	410.49	410.22	410.02	409.96	409.83	
5	409.49	411.07	409.79	410.08	410.58	410.75	410.86	410.47	410.21	410.03	409.96	409.83	
6	409.49	410.36	409.88	409.92	410.44	411.35	410.81	410.46	410.20	410.02	409.92	409.83	
7	409.48	410.03	410.18	409.76	410.45	411.06	410.89	410.44	410.15	410.02	409.95	409.83	
8	409.48	409.90	409.86	409.73	410.48	410.84	411.82	410.43	410.12	410.02	409.94	409.83	
9	409.48	410.16	409.74	409.77	410.62	410.74	411.01	410.44	410.10	410.00	409.90	409.83	
10	409.48	410.21	409.68	409.76	411.73	410.89	410.76	410.43	410.10	410.00	409.88	409.83	
11	409.48	409.96	409.67	409.74	411.89	410.66	410.68	410.42	410.09	410.00	409.87	409.83	
12	409.48	409.88	409.71	409.69	411.76	410.65	410.62	410.40	410.08	410.00	409.87	409.83	
13	409.48	409.83	410.11	409.69	412.28	411.10	410.58	410.38	410.07	410.00	409.86	409.83	
14	409.48	409.77	410.03	409.85	411.31	411.04	410.53	410.37	410.06	410.05	409.86	409.94	
15	409.47	409.72	409.83	410.58	410.97	411.17	410.67	410.35	410.08	410.38	409.85	410.27	
16	409.47	409.73	409.75	411.09	411.01	411.39	410.70	410.36	410.09	410.20	409.85	410.15	
17	409.46	409.84	409.71	411.64	410.82	410.92	410.68	410.36	410.04	410.12	409.85	410.09	
18	409.46	409.94	409.69	410.74	410.76	410.77	410.73	410.36	410.02	410.08	409.85	410.00	
19	409.46	409.95	409.66	410.46	410.74	410.80	410.67	410.36	410.02	410.08	409.84	409.99	
20	409.46	410.23	409.60	410.51	411.37	410.86	410.62	410.36	410.01	410.08	409.84	409.93	
21	409.46	409.89	409.64	410.60	412.36	411.06	410.61	410.36	409.98	410.08	409.84	409.93	
22	409.99	409.76	409.76	410.44	412.03	410.92	410.59	410.34	409.97	410.06	409.84	409.91	
23	410.94	409.69	409.66	410.18	411.23	410.82	410.53	410.33	409.98	410.00	409.83	409.85	
24	410.93	409.66	409.52	410.51	410.95	410.76	410.48	410.33	409.98	409.99	409.81	409.84	
25	410.98	409.63	409.51	410.57	411.41	410.79	410.46	410.35	409.99	409.97	409.82	409.85	
26	410.69	409.63	410.45	410.23	412.04	410.85	410.45	410.36	410.00	409.95	409.83	409.95	
27	410.76	409.64	411.21	410.00	411.78	411.16	410.44	410.36	410.00	409.96	409.83	409.89	
28	411.07	409.64	410.52	409.92	411.26	412.28	410.43	410.34	410.00	409.96	409.84	409.88	
29	410.80	409.78	410.25	409.87	411.18	412.74	410.52	410.28	410.02	409.95	409.84	409.88	
30	410.64	410.40	410.07	409.85	411.22	411.48	411.13	410.27	410.02	409.94		409.88	
31		409.93		410.16	410.93		410.71		410.02	409.93		409.87	
Mean	409.86	410.02	409.88	410.19	411.31	411.03	410.78	410.39	410.08	410.03	409.87	409.90	
Max	411.07	411.18	411.21	411.64	412.76	412.74	411.82	410.54	410.26	410.38	409.96	410.27	412.76
Min	409.46	409.63	409.51	409.69	410.44	410.61	410.43	410.27	409.97	409.93	409.81	409.83	409.46

Annual Max Momentary Gage Height	413.15	m. (MSL.) ,	at 12.00 Hours , on Aug 1 , 2011		
Zero Gage at Bottom Elevation	408.30	m. (MSL.) ,	River Bed	409.20	m. (MSL)
Left Bank Elevation	415.73	m. (MSL.) ,			
Right Bank Elevation	415.77	m. (MSL.) ,	Drainage Area	546	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.26	7.88	3.50	5.80	67.16	18.48	32.59	13.24	4.92	1.88	1.28	0.70		
2	1.20	10.48	3.00	6.97	35.47	18.09	35.47	10.50	4.41	1.88	1.28	0.70		
3	1.20	25.29	2.90	8.40	37.00	15.95	25.29	10.23	4.24	1.88	1.42	0.70		
4	1.14	16.30	3.20	9.83	20.23	14.37	20.82	10.23	4.24	1.88	1.42	0.65		
5	1.14	23.04	3.50	6.84	13.88	16.83	18.87	9.69	4.07	1.97	1.42	0.65		
6	1.14	10.48	4.48	4.92	11.64	28.93	17.90	9.42	3.90	1.88	1.14	0.65		
7	1.08	6.19	8.14	3.20	11.80	22.83	19.46	8.88	3.25	1.88	1.35	0.65		
8	1.08	4.70	4.26	2.90	12.28	18.48	40.34	8.61	2.86	1.88	1.28	0.65		
9	1.08	7.88	3.00	3.30	14.55	16.65	21.81	8.88	2.60	1.70	1.00	0.65		
10	1.08	8.53	2.44	3.20	38.02	19.46	17.00	8.61	2.60	1.70	0.90	0.65		
11	1.08	5.36	2.36	3.00	42.23	15.25	15.60	8.34	2.51	1.70	0.85	0.65		
12	1.08	4.48	2.70	2.52	38.78	15.07	14.55	7.80	2.42	1.70	0.85	0.65		
13	1.08	3.93	7.23	2.52	52.94	23.65	13.88	7.36	2.33	1.70	0.80	0.65		
14	1.08	3.30	6.19	4.15	28.06	22.42	13.08	7.14	2.24	2.15	0.80	1.28		
15	1.02	2.80	3.93	13.88	21.02	25.09	15.43	6.70	2.42	7.36	0.75	5.09		
16	1.02	2.90	3.10	23.44	21.81	29.79	15.95	6.92	2.51	3.90	0.75	3.25		
17	0.96	4.04	2.70	35.72	18.09	20.04	15.60	6.92	2.06	2.86	0.75	2.51		
18	0.96	5.14	2.52	16.65	17.00	17.17	16.48	6.92	1.88	2.42	0.75	1.70		
19	0.96	5.25	2.28	11.96	16.65	17.70	15.43	6.92	1.88	2.42	0.70	1.63		
20	0.96	8.79	1.80	12.76	29.35	18.87	14.55	6.92	1.79	2.42	0.70	1.21		
21	0.96	4.59	2.12	14.20	55.18	22.83	14.37	6.92	1.56	2.42	0.70	1.21		
22	5.69	3.20	3.20	11.64	46.02	20.04	14.04	6.48	1.49	2.24	0.70	1.07		
23	20.43	2.52	2.28	8.14	26.35	18.09	13.08	6.26	1.56	1.70	0.65	0.75		
24	20.23	2.28	1.32	12.76	20.63	17.00	12.28	6.26	1.56	1.63	0.55	0.70		
25	21.21	2.04	1.26	13.72	30.24	17.53	11.96	6.70	1.63	1.49	0.60	0.75		
26	15.78	2.04	11.80	8.79	46.30	18.68	11.80	6.92	1.70	1.35	0.65	1.35		
27	17.00	2.12	25.91	5.80	39.29	24.88	11.64	6.92	1.70	1.42	0.65	0.95		
28	23.04	2.12	12.92	4.92	26.99	52.94	11.48	6.48	1.70	1.42	0.70	0.90		
29	17.70	3.40	9.05	4.37	25.29	66.54	12.92	5.26	1.88	1.35	0.70	0.90		
30	14.90	11.00	6.71	4.15	26.13	31.88	24.26	5.09	1.88	1.28		0.90		
31		5.03		7.88	20.23		16.12		1.88	1.21		0.85		
Total	178.54	207.10	149.80	278.33	910.61	685.53	554.05	233.52	77.67	64.67	26.09	35.60	3401.51	CMSDAY
Mean	5.95	6.68	4.99	8.98	29.37	22.85	17.87	7.78	2.51	2.09	0.90	1.15	9.29	CMS
Max	23.04	25.29	25.91	35.72	67.16	66.54	40.34	13.24	4.92	7.36	1.42	5.09	67.16	CMS
Min	0.96	2.04	1.26	2.52	11.64	14.37	11.48	5.09	1.49	1.21	0.55	0.65	0.55	CMS
Runoff	15.43	17.89	12.94	24.05	78.68	59.23	47.87	20.18	6.71	5.59	2.25	3.08	293.89	MCM

Momentary Peak 79.25 CMS. at 413.15 m. (MSL.) at 12.00 Hours , on Aug 1 , 2011

Runoff Yield 17.02 Liters/Second/Square KM. Momentary Peak Yield 145.147 Liters/Second/Square KM.

WATER YEAR : 2011

PING RIVER BASIN

Ping River at Ban Mae Tae , Chiang Mai (P.67)

Lat 19 - 01 - 11 N Long 98 - 57 - 43 E

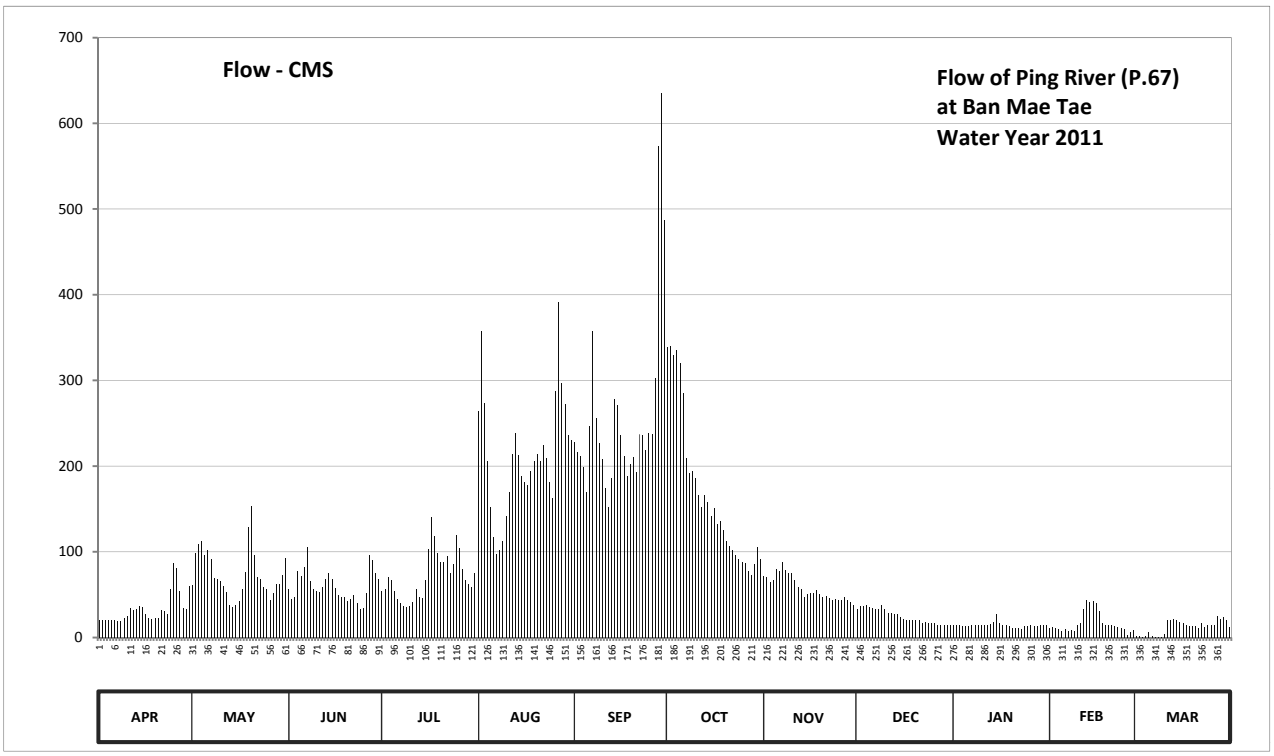
Location : on left bank at the bridge on highway.

	Ban Mae Tae	**Amphoe** San Sai	**Changwat** Chiang Mai
Drainge Area	5,323 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+315.926 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank about 20 meters from the top staff gage.	**Elevation**	+323.690 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	1995 to date		
Rating Operation			
Period of Rating	1995 to date		
Rated by Flot	-		
Rated by Current Meter	1995 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Flow regulated by Mae Faek and Mae Taeng weir situated above gage site. Flow effected by the sand-dredger about 10 kilometers downstream from the gage site. Stage-discharge relation defined by 42 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	315.83	316.46	316.41	316.37	318.27	318.00	318.79	316.58	316.08	315.70	315.60	315.31	
2	315.83	316.87	316.25	316.40	318.91	317.91	318.80	316.57	316.13	315.70	315.62	315.27	
3	315.83	316.98	316.28	316.57	318.34	317.87	318.73	316.50	316.14	315.69	315.60	315.25	
4	315.83	317.01	316.65	316.53	317.82	317.76	318.77	316.53	316.16	315.67	315.58	315.27	
5	315.83	316.85	316.59	316.37	317.37	317.52	318.66	316.67	316.12	315.67	315.51	315.46	
6	315.84	316.90	316.70	316.25	317.06	318.14	318.42	316.65	316.10	315.67	315.55	315.26	
7	315.82	316.79	316.94	316.19	316.86	318.91	317.85	316.76	316.08	315.69	315.49	315.24	
8	315.82	316.56	316.52	316.13	316.90	318.21	317.71	316.66	316.08	315.70	315.52	315.24	
9	315.88	316.55	316.41	316.12	317.02	317.99	317.73	316.63	316.15	315.70	315.49	315.25	
10	315.95	316.51	316.37	316.14	317.28	317.84	317.66	316.63	316.08	315.69	315.71	315.38	
11	316.09	316.45	316.36	316.20	317.52	317.56	317.49	316.53	316.01	315.68	315.76	315.84	
12	316.06	316.36	316.44	316.40	317.89	317.37	317.38	316.43	316.00	315.69	316.08	315.85	
13	316.08	316.15	316.55	316.29	318.08	317.66	317.49	316.41	315.98	315.72	316.23	315.86	
14	316.13	316.12	316.62	316.26	317.88	318.37	317.43	316.28	315.98	315.80	316.20	315.85	
15	316.12	316.15	316.55	316.53	317.68	318.32	317.28	316.33	315.93	315.98	316.22	315.80	
16	315.99	316.22	316.42	316.92	317.62	318.06	317.36	316.34	315.86	315.76	316.18	315.76	
17	315.90	316.41	316.32	317.27	317.59	317.87	317.20	316.34	315.84	315.70	316.04	315.70	
18	315.86	316.64	316.28	317.07	317.73	317.68	317.23	316.39	315.83	315.68	315.77	315.66	
19	315.88	317.16	316.28	316.87	317.82	317.79	317.13	316.33	315.84	315.65	315.71	315.66	
20	315.90	317.39	316.22	316.76	317.89	317.86	317.01	316.28	315.83	315.61	315.69	315.65	
21	316.06	316.84	316.25	316.76	317.82	317.72	316.95	316.30	315.85	315.61	315.68	315.61	
22	316.04	316.57	316.32	316.83	317.97	318.07	316.90	316.27	315.76	315.61	315.65	315.77	
23	315.98	316.55	316.18	316.63	317.85	318.06	316.85	316.24	315.78	315.58	315.62	315.62	
24	316.40	316.44	316.08	316.73	317.62	317.92	316.79	316.25	315.77	315.67	315.61	315.69	
25	316.75	316.40	316.10	317.08	317.46	318.08	316.76	316.23	315.76	315.66	315.55	315.68	
26	316.68	316.24	316.34	316.93	318.44	318.07	316.75	316.23	315.75	315.68	315.33	315.71	
27	316.37	316.34	316.85	316.67	319.13	318.54	316.65	316.28	315.71	315.67	315.44	315.94	
28	316.10	316.48	316.78	316.53	318.50	320.18	316.60	316.23	315.69	315.66	315.54	315.87	
29	316.07	316.47	316.62	316.47	318.33	320.52	316.73	316.20	315.68	315.68	315.43	315.92	
30	316.45	316.60	316.54	316.43	318.06	319.70	316.94	316.16	315.68	315.69		315.84	
31		316.81		316.62	318.02		316.79		315.70	315.68		315.63	
Mean	316.05	316.59	316.44	316.56	317.83	318.18	317.45	316.41	315.91	315.69	315.70	315.61	
Max	316.75	317.39	316.94	317.27	319.13	320.52	318.80	316.76	316.16	315.98	316.23	315.94	320.52
Min	315.82	316.12	316.08	316.12	316.86	317.37	316.60	316.16	315.68	315.58	315.33	315.24	315.24

Annual Max Momentary Gage Height	320.83	m. (MSL.) ,	at 22.00 Hours , on Sep 28 , 2011		
Zero Gage at Bottom Elevation	315.93	m. (MSL.) ,	River Bed	313.75	m. (MSL)
Left Bank Elevation	326.33	m. (MSL.) ,			
Right Bank Elevation	326.20	m. (MSL.) ,	Drainage Area	5323	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	19.85	61.10	56.85	53.75	263.80	228.00	338.55	71.30	33.20	14.75	11.00	2.27		
2	19.85	98.65	44.75	56.00	357.05	216.75	340.00	70.45	36.45	14.75	11.75	1.40		
3	19.85	109.10	47.00	70.45	273.60	211.75	329.85	64.50	37.10	14.38	11.00	1.00		
4	19.85	112.10	77.75	67.05	205.50	198.20	335.65	67.05	38.40	13.63	10.34	1.40		
5	19.85	96.75	72.15	53.75	151.70	169.40	319.70	79.65	35.80	13.63	8.03	6.50		
6	20.30	101.50	82.50	44.75	117.60	246.20	284.90	77.75	34.50	13.63	9.35	1.20		
7	19.40	91.05	105.30	40.35	97.70	357.05	209.25	88.20	33.20	14.38	7.40	0.80		
8	19.40	69.60	66.20	36.45	101.50	255.40	192.20	78.70	33.20	14.75	8.36	0.80		
9	22.10	68.75	56.85	35.80	113.20	226.75	194.60	75.85	37.75	14.75	7.40	1.00		
10	25.50	65.35	53.75	37.10	141.80	208.00	186.20	75.85	33.20	14.38	15.12	4.16		
11	33.85	60.25	53.00	41.00	169.40	174.20	165.80	67.05	28.65	14.00	17.00	20.30		
12	31.90	53.00	59.40	56.00	214.25	151.70	152.80	58.55	28.00	14.38	33.20	20.75		
13	33.20	37.75	68.75	47.75	238.40	186.20	165.80	56.85	27.00	15.50	43.25	21.20		
14	36.45	35.80	74.90	45.50	213.00	277.80	158.60	47.00	27.00	18.50	41.00	20.75		
15	35.80	37.75	68.75	67.05	188.60	270.80	141.80	50.75	24.50	27.00	42.50	18.50		
16	27.50	42.50	57.70	103.40	181.40	235.80	150.60	51.50	21.20	17.00	39.70	17.00		
17	23.00	56.85	50.00	140.70	177.80	211.75	133.00	51.50	20.30	14.75	30.60	14.75		
18	21.20	76.80	47.00	118.70	194.60	188.60	136.30	55.25	19.85	14.00	17.37	13.25		
19	22.10	128.60	47.00	98.65	205.50	201.80	125.30	50.75	20.30	12.87	15.12	13.25		
20	23.00	153.90	42.50	88.20	214.25	210.50	112.10	47.00	19.85	11.37	14.38	12.87		
21	31.90	95.80	44.75	88.20	205.50	193.40	106.25	48.50	20.75	11.37	14.00	11.37		
22	30.60	70.45	50.00	94.85	224.25	237.10	101.50	46.25	17.00	11.37	12.87	17.37		
23	27.00	68.75	39.70	75.85	209.25	235.80	96.75	44.00	17.75	10.34	11.75	11.75		
24	56.00	59.40	33.20	85.35	181.40	218.00	91.05	44.75	17.37	13.63	11.37	14.38		
25	87.25	56.00	34.50	119.80	162.20	238.40	88.20	43.25	17.00	13.25	9.35	14.00		
26	80.60	44.00	51.50	104.35	287.80	237.10	87.25	43.25	16.63	14.00	2.81	15.12		
27	53.75	51.50	96.75	79.65	391.80	302.30	77.75	47.00	15.12	13.63	5.90	25.00		
28	34.50	62.80	90.10	67.05	296.50	573.40	73.00	43.25	14.38	13.25	9.02	21.65		
29	32.55	61.95	74.90	61.95	272.20	635.80	85.35	41.00	14.00	14.00	5.60	24.00		
30	60.25	73.00	67.90	58.55	235.80	487.00	105.30	38.40	14.00	14.38		20.30		
31		92.95		74.90	230.60		91.05		14.75	14.00		12.13		
Total	988.35	2293.75	1815.40	2212.90	6517.95	7784.95	5176.45	1725.15	768.20	445.62	476.54	380.22	30585.48	CMSDAY
Mean	32.94	73.99	60.51	71.38	210.26	259.50	166.98	57.51	24.78	14.37	16.43	12.27	83.57	CMS
Max	87.25	153.90	105.30	140.70	391.80	635.80	340.00	88.20	38.40	27.00	43.25	25.00	635.80	CMS
Min	19.40	35.80	33.20	35.80	97.70	151.70	73.00	38.40	14.00	10.34	2.81	0.80	0.80	CMS
Runoff	85.39	198.18	156.85	191.20	563.15	672.62	447.25	149.05	66.37	38.50	41.17	32.85	2642.59	MCM

Momentary Peak 694.70 CMS. at 320.83 m. (MSL.) at 22.00 Hours , on Sep 28 , 2011

Runoff Yield 15.70 Liters/Second/Square KM. Momentary Peak Yield 130.509 Liters/Second/Square KM.

WATER YEAR : 2011

PING RIVER BASIN

Nam Mae Khan at Ban Klang , Chiang Mai (P.71A)

Lat 18 - 32 - 50 N Long 98 - 51 - 44 E

Location : on left bank at the bridge on highway.

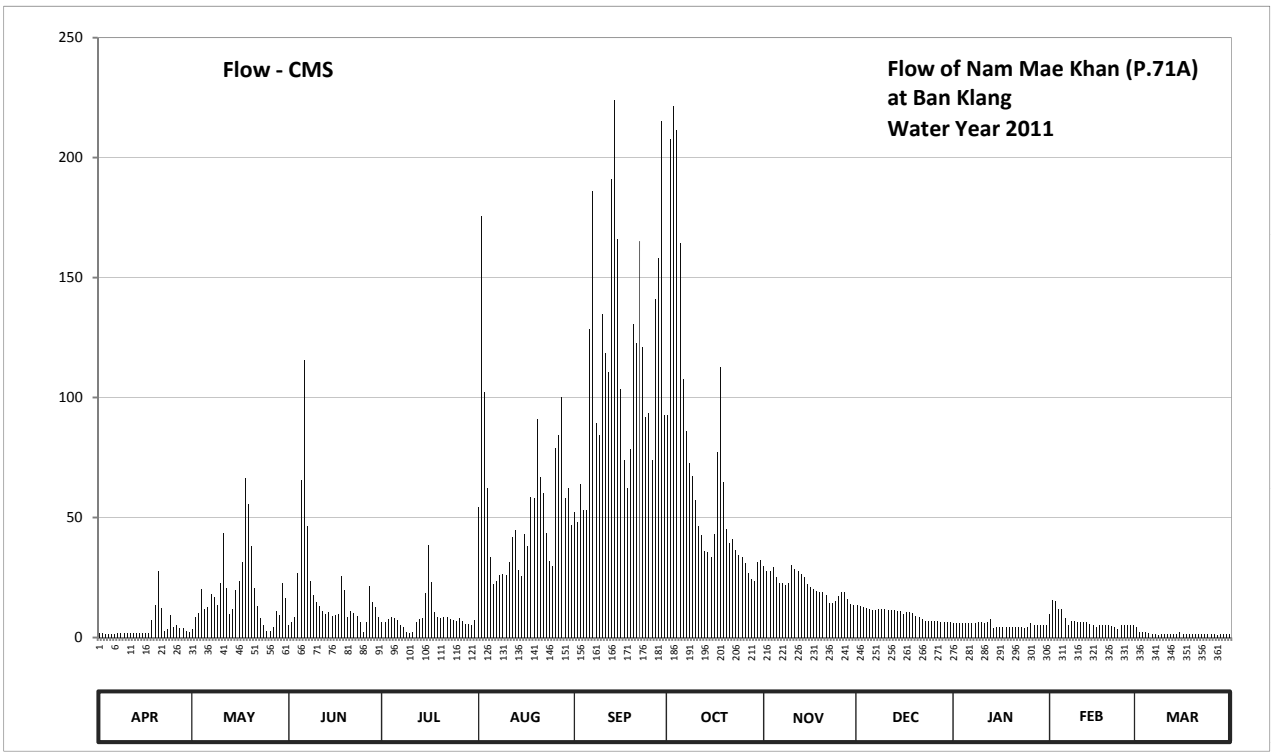
Ban Klang **Amphoe** San Pa Tong **Changwat** Chiang Mai

Drainge Area	1,634 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+283.285 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank about 3 meters from the top staff gage. **Elevation** +288.545 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings
Period of Available Gage Records	1996 to date
Rating Operation	
Period of Rating	1996 to date
Rated by Flot	-
Rated by Current Meter	1996 to date
Stability of Channel Regimes	Fairly stablebecause of backwater effect.
Overbank Flow Conditions	No overbank flow
General Description	Records good. 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 36 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	284.55	284.63	284.69	284.73	285.92	285.88	286.63	285.38	284.94	284.71	284.83	284.65	
2	284.54	284.79	284.72	284.72	287.82	285.79	288.21	285.33	284.93	284.71	285.00	284.57	
3	284.53	284.84	284.79	284.77	286.79	286.10	288.36	285.32	284.92	284.71	284.99	284.57	
4	284.53	285.12	285.30	284.79	286.07	285.89	288.25	285.37	284.91	284.71	284.90	284.57	
5	284.53	284.89	286.13	284.78	285.47	285.89	287.68	285.26	284.89	284.71	284.89	284.56	
6	284.53	284.92	286.99	284.75	285.18	287.19	286.87	285.19	284.88	284.71	284.78	284.53	
7	284.54	285.07	285.76	284.69	285.22	287.95	286.51	285.19	284.88	284.71	284.69	284.53	
8	284.54	285.04	285.22	284.65	285.28	286.57	286.27	285.17	284.89	284.71	284.74	284.51	
9	284.54	284.94	285.06	284.58	285.29	286.48	286.17	285.19	284.89	284.73	284.74	284.52	
10	284.54	285.19	284.98	284.55	285.28	287.28	285.98	285.39	284.89	284.72	284.73	284.52	
11	284.55	285.70	284.93	284.58	285.42	287.04	285.76	285.35	284.88	284.71	284.73	284.52	
12	284.55	285.14	284.87	284.73	285.66	286.92	285.68	285.33	284.88	284.72	284.72	284.52	
13	284.56	284.83	284.83	284.76	285.72	288.01	285.53	285.29	284.88	284.77	284.72	284.52	
14	284.56	284.90	284.86	284.78	285.34	288.39	285.52	285.26	284.87	284.64	284.70	284.52	
15	284.56	285.11	284.81	285.08	285.27	287.70	285.47	285.18	284.87	284.66	284.68	284.58	
16	284.55	285.21	284.82	285.59	285.69	286.81	285.69	285.15	284.83	284.66	284.66	284.53	
17	284.56	285.42	284.83	285.20	285.58	286.29	286.35	285.12	284.86	284.66	284.69	284.52	
18	284.75	286.15	285.27	284.86	286.00	286.07	286.95	285.10	284.86	284.66	284.69	284.52	
19	284.95	285.94	285.11	284.79	285.99	286.37	286.12	285.09	284.84	284.66	284.68	284.52	
20	285.33	285.58	284.80	284.78	286.60	287.22	285.73	285.09	284.81	284.65	284.68	284.52	
21	284.91	285.14	284.87	284.80	286.16	287.10	285.61	285.06	284.79	284.65	284.67	284.52	
22	284.59	284.93	284.85	284.80	286.03	287.69	285.64	284.97	284.76	284.65	284.65	284.52	
23	284.63	284.78	284.81	284.77	285.70	287.08	285.54	284.97	284.74	284.65	284.62	284.52	
24	284.82	284.68	284.73	284.75	285.43	286.61	285.49	284.99	284.74	284.64	284.68	284.52	
25	284.66	284.59	284.58	284.74	285.38	286.64	285.47	285.05	284.74	284.66	284.69	284.52	
26	284.68	284.59	284.72	284.78	286.38	286.29	285.41	285.09	284.74	284.71	284.69	284.52	
27	284.64	284.66	285.16	284.74	286.48	287.37	285.30	285.09	284.74	284.68	284.69	284.50	
28	284.64	284.87	284.98	284.70	286.75	287.60	285.24	285.01	284.72	284.68	284.68	284.52	
29	284.59	284.82	284.92	284.70	285.99	288.29	285.21	284.96	284.72	284.68	284.69	284.52	
30	284.58	285.19	284.79	284.69	286.07	286.63	285.42	284.95	284.72	284.68		284.52	
31		285.03		284.75	285.77		285.44		284.72	284.69		284.52	
Mean	284.63	285.05	285.04	284.79	285.86	286.90	286.11	285.16	284.83	284.69	284.73	284.53	
Max	285.33	286.15	286.99	285.59	287.82	288.39	288.36	285.39	284.94	284.77	285.00	284.65	288.39
Min	284.53	284.59	284.58	284.55	285.18	285.79	285.21	284.95	284.72	284.64	284.62	284.50	284.50

Annual Max Momentary Gage Height	288.49	m. (MSL.) ,	at 12.00 Hours , on Sep 14 , 2011		
Zero Gage at Bottom Elevation	283.29	m. (MSL.) ,	River Bed	282.82	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, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.85	3.60	5.40	6.60	54.50	52.50	92.80	29.75	13.40	6.00	9.69	4.20		
2	1.68	8.40	6.30	6.30	175.60	48.03	207.90	27.87	13.05	6.00	15.50	2.19		
3	1.51	10.02	8.40	7.80	102.40	63.75	221.40	27.50	12.70	6.00	15.15	2.19		
4	1.51	20.00	26.75	8.40	62.18	53.00	211.50	29.38	12.35	6.00	12.00	2.19		
5	1.51	11.67	65.32	8.10	33.48	53.00	164.40	25.25	11.67	6.00	11.67	2.02		
6	1.51	12.70	115.35	7.20	22.25	128.35	107.55	22.63	11.34	6.00	8.10	1.51		
7	1.68	18.13	46.60	5.40	23.75	186.00	86.05	22.63	11.34	6.00	5.40	1.51		
8	1.68	17.00	23.75	4.20	26.00	89.35	72.85	21.88	11.67	6.00	6.90	1.17		
9	1.68	13.40	17.75	2.36	26.38	84.40	67.43	22.63	11.67	6.60	6.90	1.34		
10	1.68	22.63	14.80	1.85	26.00	134.60	57.50	30.13	11.67	6.30	6.60	1.34		
11	1.85	43.75	13.05	2.36	31.35	118.60	46.60	28.63	11.34	6.00	6.60	1.34		
12	1.85	20.75	11.01	6.60	41.85	110.80	42.80	27.87	11.34	6.30	6.30	1.34		
13	2.02	9.69	9.69	7.50	44.70	190.85	36.02	26.38	11.34	7.80	6.30	1.34		
14	2.02	12.00	10.68	8.10	28.25	224.10	35.60	25.25	11.01	3.90	5.70	1.34		
15	2.02	19.62	9.03	18.50	25.62	166.00	33.48	22.25	11.01	4.50	5.10	2.36		
16	1.85	23.37	9.36	38.57	43.28	103.65	43.28	21.12	9.69	4.50	4.50	1.51		
17	2.02	31.35	9.69	23.00	38.15	73.95	77.25	20.00	10.68	4.50	5.40	1.34		
18	7.20	66.37	25.62	10.68	58.50	62.18	112.75	19.25	10.68	4.50	5.40	1.34		
19	13.75	55.50	19.62	8.40	58.00	78.35	64.80	18.87	10.02	4.50	5.10	1.34		
20	27.87	38.15	8.70	8.10	91.00	130.40	45.18	18.87	9.03	4.20	5.10	1.34		
21	12.35	20.75	11.01	8.70	66.90	122.50	39.47	17.75	8.40	4.20	4.80	1.34		
22	2.53	13.05	10.35	8.70	60.07	165.20	40.90	14.45	7.50	4.20	4.20	1.34		
23	3.60	8.10	9.03	7.80	43.75	121.20	36.45	14.45	6.90	4.20	3.30	1.34		
24	9.36	5.10	6.60	7.20	31.77	91.60	34.32	15.15	6.90	3.90	5.10	1.34		
25	4.50	2.53	2.36	6.90	29.75	93.40	33.48	17.37	6.90	4.50	5.40	1.34		
26	5.10	2.53	6.30	8.10	78.90	73.95	30.93	18.87	6.90	6.00	5.40	1.34		
27	3.90	4.50	21.50	6.90	84.40	140.90	26.75	18.87	6.90	5.10	5.40	1.00		
28	3.90	11.01	14.80	5.70	100.00	158.00	24.50	15.88	6.30	5.10	5.10	1.34		
29	2.53	9.36	12.70	5.70	58.00	215.10	23.37	14.10	6.30	5.10	5.40	1.34		
30	2.36	22.63	8.40	5.40	62.18	92.80	31.35	13.75	6.30	5.10		1.34		
31		16.62		7.20	47.07		32.20		6.30	5.40		1.34		
Total	128.87	574.28	559.92	268.32	1676.03	3426.51	2180.86	648.78	302.60	164.40	197.51	48.65	10176.73	CMSDAY
Mean	4.30	18.53	18.66	8.66	54.07	114.22	70.35	21.63	9.76	5.30	6.81	1.57	27.81	CMS
Max	27.87	66.37	115.35	38.57	175.60	224.10	221.40	30.13	13.40	7.80	15.50	4.20	224.10	CMS
Min	1.51	2.53	2.36	1.85	22.25	48.03	23.37	13.75	6.30	3.90	3.30	1.00	1.00	CMS
Runoff	11.13	49.62	48.38	23.18	144.81	296.05	188.43	56.06	26.15	14.20	17.07	4.20	879.27	MCM

Momentary Peak 233.10 CMS. at 288.49 m. (MSL.) at 12.00 Hours , on Sep 14 , 2011

Runoff Yield 17.02 Liters/Second/Square KM. Momentary Peak Yield 142.656 Liters/Second/Square KM.

WATER YEAR : 2011

PING RIVER BASIN

Ping River at Ban Sop Soi , Chiang Mai (P.73)

Lat 18 - 17 - 25 N Long 98 - 39 - 01 E

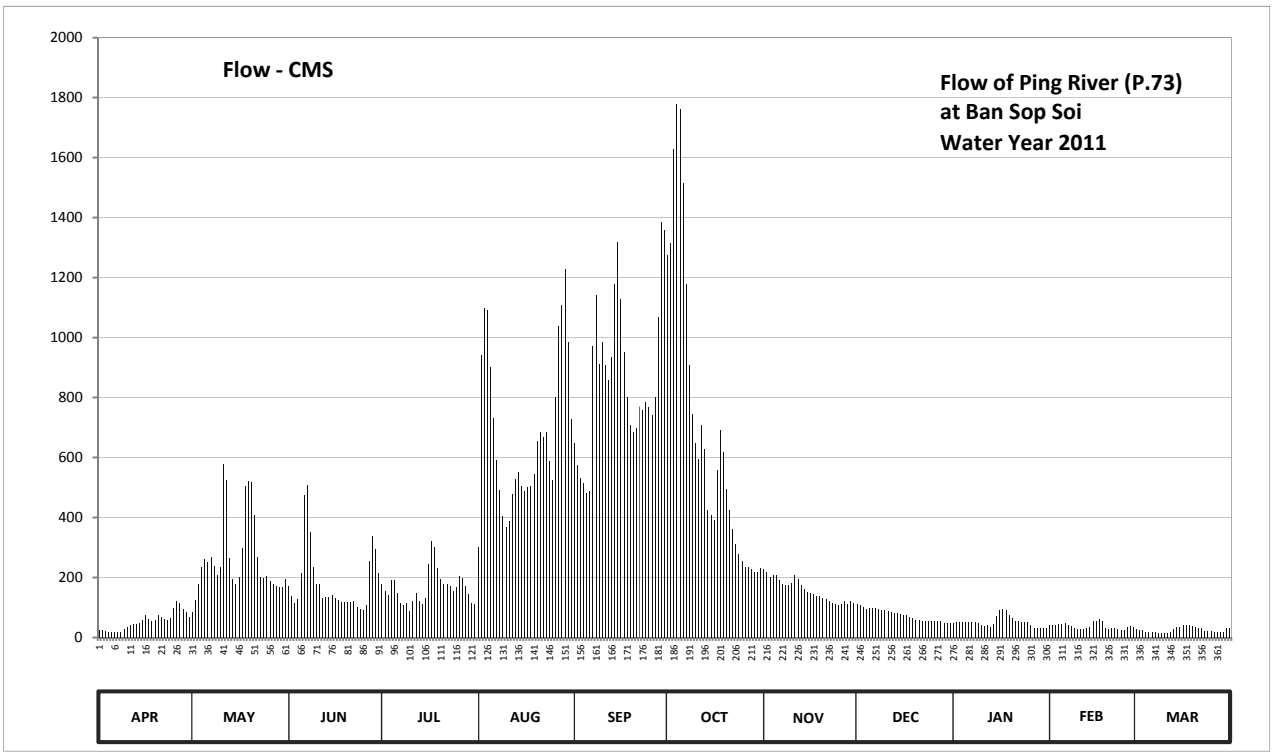
Location : on left bank at Sop Soi Phatana Bridge.

	Ban Sop Soi	**Amphoe** Chom Thong	**Changwat** Chiang Mai
Drainge Area	14,814 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+261.750 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank about 15 meters from the abutment of the bridge.	**Elevation**	+267.505 m. (MSL.)
Gage Reading Frequency	Recording.		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	1997 to date		
Rating Operation			
Period of Rating	1997 to date		
Rated by Flot	-		
Rated by Current Meter	1998 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	Overbank flow starts at elevation +267.730 m.(MSL.), records are channel flow only.		
General Description	Records good. No gage height in the drought period.		
	Stage-discharge relation defined by 43 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	261.05	261.60	262.20	262.26	262.94	264.38	266.59	262.56	261.80	261.30	261.23	261.09	
2	261.03	261.89	261.99	262.09	265.47	264.10	266.71	262.52	261.77	261.33	261.23	261.06	
3	261.00	262.25	261.82	262.02	266.02	263.93	267.71	262.42	261.72	261.33	261.24	261.03	
4	260.95	262.61	261.91	262.35	265.99	263.86	268.17	262.45	261.68	261.33	261.26	260.97	
5	260.93	262.75	262.50	262.35	265.33	263.71	268.12	262.45	261.71	261.33	261.28	260.95	
6	260.93	262.70	263.69	262.05	264.70	263.74	267.35	262.35	261.71	261.33	261.29	260.95	
7	260.93	262.79	263.83	261.83	264.16	265.58	266.27	262.25	261.71	261.33	261.24	260.93	
8	260.96	262.63	263.17	261.77	263.76	266.16	265.35	262.23	261.67	261.33	261.22	260.90	
9	261.10	262.46	262.61	261.83	263.39	265.36	264.75	262.23	261.65	261.30	261.14	260.91	
10	261.16	262.61	262.25	261.63	263.24	265.63	264.39	262.28	261.64	261.23	261.11	260.91	
11	261.25	264.12	262.26	261.86	263.32	265.35	264.18	262.46	261.62	261.21	261.09	260.91	
12	261.28	263.90	261.94	262.06	263.70	265.17	264.61	262.36	261.60	261.24	261.10	260.97	
13	261.26	262.77	261.96	261.88	263.92	265.45	264.31	262.24	261.58	261.18	261.12	261.07	
14	261.30	262.37	261.97	261.81	264.01	266.27	263.47	262.15	261.58	261.27	261.19	261.17	
15	261.39	262.26	262.00	261.94	263.81	266.73	263.41	262.07	261.55	261.50	261.37	261.18	
16	261.52	262.41	261.95	262.65	263.75	266.11	263.33	262.05	261.52	261.64	261.36	261.25	
17	261.42	262.93	261.90	263.03	263.80	265.51	264.04	262.03	261.52	261.68	261.41	261.24	
18	261.34	263.81	261.85	262.95	263.82	264.95	264.55	261.98	261.48	261.64	261.34	261.23	
19	261.39	263.88	261.85	262.59	263.98	264.61	264.27	261.98	261.44	261.53	261.14	261.21	
20	261.51	263.87	261.84	262.37	264.41	264.53	263.77	261.95	261.39	261.45	261.11	261.18	
21	261.46	263.40	261.84	262.25	264.52	264.57	263.48	261.91	261.38	261.36	261.13	261.15	
22	261.42	262.78	261.86	262.25	264.46	264.84	263.21	261.87	261.35	261.36	261.13	261.14	
23	261.39	262.40	261.73	262.21	264.52	264.80	263.00	261.83	261.35	261.33	261.07	261.02	
24	261.44	262.38	261.68	262.09	264.15	264.89	262.83	261.81	261.35	261.33	261.03	260.99	
25	261.70	262.43	261.65	262.18	263.90	264.83	262.71	261.79	261.35	261.32	261.04	260.99	
26	261.88	262.32	261.78	262.44	264.95	264.74	262.61	261.80	261.35	261.24	261.17	260.97	
27	261.83	262.26	262.71	262.39	265.81	264.96	262.60	261.86	261.35	261.12	261.20	260.98	
28	261.69	262.21	263.11	262.20	266.05	265.91	262.56	261.81	261.34	261.12	261.17	260.94	
29	261.59	262.19	262.92	262.03	266.44	266.94	262.51	261.86	261.31	261.13	261.14	260.98	
30	261.48	262.19	262.50	261.83	265.63	266.86	262.51	261.83	261.31	261.13		261.14	
31		262.36		261.81	264.68		262.58		261.30	261.14		261.14	
Mean	261.32	262.69	262.24	262.16	264.47	265.15	264.39	262.11	261.52	261.32	261.19	261.05	
Max	261.88	264.12	263.83	263.03	266.44	266.94	268.17	262.56	261.80	261.68	261.41	261.25	268.17
Min	260.93	261.60	261.65	261.63	262.94	263.71	262.51	261.79	261.30	261.12	261.03	260.90	260.90

Annual Max Momentary Gage Height	268.30	m. (MSL.) ,	at 18.00 Hours , on Oct 4 , 2011		
Zero Gage at Bottom Elevation	261.75	m. (MSL.) ,	River Bed	259.79	m. (MSL)
Left Bank Elevation	267.72	m. (MSL.) ,			
Right Bank Elevation	268.02	m. (MSL.) ,	Drainage Area	14814	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	25.00	85.00	170.00	179.00	300.70	646.80	1275.90	226.40	111.00	48.50	40.45	28.20		
2	23.40	124.05	138.55	153.50	939.90	574.00	1313.10	218.80	107.10	51.95	40.45	25.80		
3	21.00	177.50	113.90	143.00	1099.20	531.55	1630.20	203.00	100.60	51.95	41.60	23.40		
4	18.00	235.90	126.95	192.50	1090.10	515.10	1777.41	207.50	95.40	51.95	43.90	19.20		
5	16.80	262.50	215.00	192.50	902.10	479.85	1761.40	207.50	99.30	51.95	46.20	18.00		
6	16.80	253.00	475.15	147.50	732.00	486.90	1515.00	192.50	99.30	51.95	47.35	18.00		
7	16.80	270.10	508.05	115.35	589.60	971.20	1176.70	177.50	99.30	51.95	41.60	16.80		
8	18.60	239.70	352.95	107.10	491.60	1142.60	907.50	174.50	94.10	51.95	39.30	15.00		
9	29.00	209.00	235.90	115.35	404.65	910.20	745.50	174.50	91.50	48.50	32.20	15.60		
10	33.80	235.90	177.50	88.90	369.40	985.70	649.40	182.00	90.20	40.45	29.80	15.60		
11	42.75	579.20	179.00	119.70	388.20	907.50	594.80	209.00	87.60	38.15	28.20	15.60		
12	46.20	524.50	131.30	149.00	477.50	858.90	707.70	194.00	85.00	41.60	29.00	19.20		
13	43.90	266.30	134.20	122.60	529.20	934.50	628.60	176.00	82.50	35.40	30.60	26.60		
14	48.50	195.50	135.65	112.45	550.60	1176.70	423.45	162.50	82.50	45.05	36.20	34.60		
15	58.85	179.00	140.00	131.30	503.35	1319.30	409.35	150.50	78.75	72.50	56.55	35.40		
16	75.00	201.50	132.75	243.50	489.25	1127.10	390.55	147.50	75.00	90.20	55.40	42.75		
17	62.50	298.65	125.50	320.05	501.00	950.90	558.40	144.50	75.00	95.40	61.25	41.60		
18	53.10	503.35	118.25	302.75	505.70	799.50	691.50	137.10	70.00	90.20	53.10	40.45		
19	58.85	519.80	118.25	232.10	543.30	707.70	618.20	137.10	65.00	76.25	32.20	38.15		
20	73.75	517.45	116.80	195.50	654.60	686.10	493.95	132.75	58.85	66.25	29.80	35.40		
21	67.50	407.00	116.80	177.50	683.40	696.90	425.80	126.95	57.70	55.40	31.40	33.00		
22	62.50	268.20	119.70	177.50	667.60	769.80	362.35	121.15	54.25	55.40	31.40	32.20		
23	58.85	200.00	101.90	171.50	683.40	759.00	313.00	115.35	54.25	51.95	26.60	22.60		
24	65.00	197.00	95.40	153.50	587.00	783.30	278.15	112.45	54.25	51.95	23.40	20.40		
25	98.00	204.50	91.50	167.00	524.50	767.10	254.90	109.70	54.25	50.80	24.20	20.40		
26	122.60	188.00	108.40	206.00	799.50	742.80	235.90	111.00	54.25	41.60	34.60	19.20		
27	115.35	179.00	254.90	198.50	1037.90	802.20	234.00	119.70	54.25	30.60	37.00	19.80		
28	96.70	171.50	338.85	170.00	1108.50	1066.90	226.40	112.45	53.10	30.60	34.60	17.40		
29	83.75	168.50	296.60	144.50	1229.40	1384.40	216.90	119.70	49.65	31.40	32.20	19.80		
30	70.00	168.50	215.00	115.35	985.70	1359.60	216.90	115.35	49.65	31.40		32.20		
31		194.00		112.45	726.60		230.20		48.50	32.20		32.20		
Total	1622.85	8224.10	5584.70	5157.45	21095.45	25844.10	21263.11	4718.95	2332.10	1615.40	1090.55	794.55	99343.31	CMSDAY
Mean	54.09	265.29	186.16	166.37	680.50	861.47	685.91	157.30	75.23	52.11	37.61	25.63	271.43	CMS
Max	122.60	579.20	508.05	320.05	1229.40	1384.40	1777.41	226.40	111.00	95.40	61.25	42.75	1777.41	CMS
Min	16.80	85.00	91.50	88.90	300.70	479.85	216.90	109.70	48.50	30.60	23.40	15.00	15.00	CMS
Runoff	140.21	710.56	482.52	445.60	1822.65	2232.93	1837.13	407.72	201.49	139.57	94.22	68.65	8583.26	MCM

Momentary Peak 1819.00 CMS. at 268.30 m. (MSL.) at 18.00 Hours , on Oct 4 , 2011

Runoff Yield 18.32 Liters/Second/Square KM. Momentary Peak Yield 122.789 Liters/Second/Square KM.

WATER YEAR : 2011

PING RIVER BASIN

Ping River at Ban Cho Lae , Chiang Mai (P.75)

Lat 19 - 08 - 58 N Long 99 - 00 - 43 E

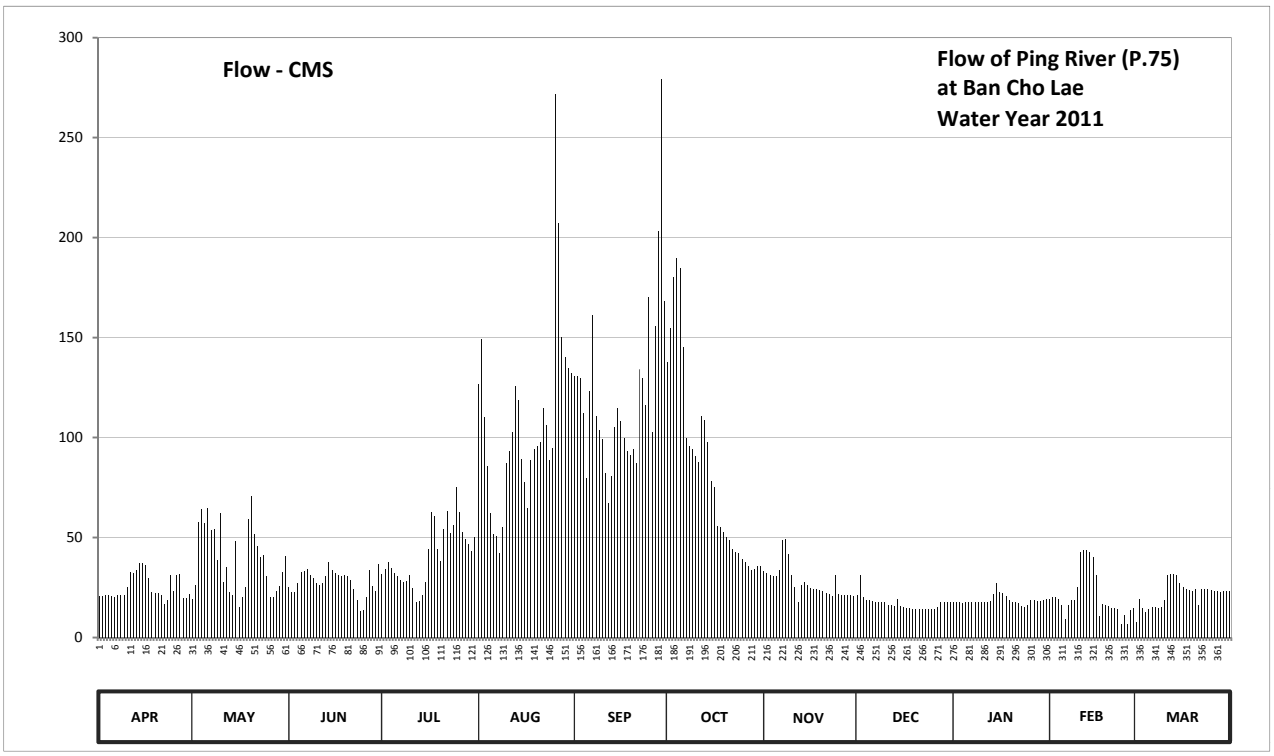
Location : on left bank at the bridge on road.

	Ban Cho Lae	**Amphoe** Mae Teang	**Changwat** Chiang Mai
Drainge Area	3,088 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+337.600 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank about 3 meters from the top staff gage.		**Elevation** +341.805 m. (MSL.)
Gage Reading Frequency	Recording.		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	1998 to date		
Rating Operation			
Period of Rating	1998 to date		
Rated by Flot	-		
Rated by Current Meter	1999 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 38 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	338.69	338.65	338.80	338.97	340.57	340.62	340.70	339.00	338.70	338.60	338.65	338.30	
2	338.69	338.83	338.74	339.03	340.83	340.62	340.88	338.98	338.95	338.60	338.68	338.65	
3	338.70	339.52	338.74	339.10	340.36	340.61	341.10	338.96	338.67	338.60	338.67	338.52	
4	338.70	339.64	338.85	339.04	340.01	340.39	341.18	338.94	338.64	338.59	338.65	338.46	
5	338.69	339.51	338.99	338.98	339.60	339.91	341.14	338.94	338.63	338.61	338.56	338.51	
6	338.68	339.65	339.00	338.94	339.40	340.53	340.79	339.02	338.62	338.61	338.36	338.54	
7	338.70	339.44	339.03	338.89	339.38	340.94	340.21	339.34	338.61	338.61	338.57	338.54	
8	338.70	339.45	338.96	338.87	339.20	340.37	340.15	339.35	338.60	338.60	338.63	338.52	
9	338.70	339.13	338.92	338.88	339.47	340.27	340.13	339.19	338.60	338.60	338.63	338.54	
10	338.80	339.60	338.86	338.95	340.03	340.20	340.08	338.95	338.60	338.60	338.81	338.64	
11	338.99	338.87	338.83	338.79	340.12	339.95	340.04	338.80	338.57	338.60	339.22	338.95	
12	338.98	339.05	338.85	338.60	340.25	339.69	340.37	338.61	338.56	338.60	339.24	338.97	
13	339.02	338.74	338.94	338.62	340.56	339.92	340.34	338.83	338.55	338.62	339.24	338.97	
14	339.09	338.70	339.11	338.70	340.47	340.29	340.18	338.87	338.65	338.72	339.22	338.96	
15	339.09	339.33	339.02	338.87	340.06	340.42	339.88	338.83	338.55	338.85	339.16	338.85	
16	339.07	338.53	338.98	339.25	339.87	340.33	339.83	338.79	338.53	338.74	338.96	338.81	
17	338.92	338.68	338.95	339.61	339.65	340.21	339.48	338.78	338.52	338.73	338.41	338.78	
18	338.74	338.81	338.94	339.58	340.05	340.12	339.47	338.78	338.52	338.69	338.58	338.77	
19	338.73	339.55	338.95	339.25	340.13	340.09	339.42	338.77	338.51	338.63	338.57	338.76	
20	338.73	339.75	338.94	339.12	340.15	340.13	339.37	338.75	338.50	338.61	338.55	338.78	
21	338.71	339.40	338.89	339.45	340.18	340.03	339.34	338.73	338.50	338.60	338.52	338.56	
22	338.58	339.28	338.78	339.62	340.42	340.66	339.25	338.72	338.50	338.59	338.52	338.78	
23	338.64	339.16	338.64	339.41	340.30	340.61	339.22	338.69	338.50	338.55	338.51	338.78	
24	338.96	339.18	338.48	339.49	340.05	340.44	339.21	338.96	338.51	338.54	338.27	338.78	
25	338.76	338.94	338.49	339.83	340.14	341.02	339.14	338.72	338.50	338.56	338.42	338.77	
26	338.95	338.67	338.68	339.61	341.74	340.25	339.10	338.70	338.51	338.63	338.27	338.76	
27	338.97	338.68	339.02	339.42	341.31	340.89	339.06	338.71	338.53	338.63	338.49	338.76	
28	338.66	338.76	338.82	339.35	340.84	341.28	339.02	338.71	338.60	338.62	338.52	338.74	
29	338.66	338.82	338.75	339.30	340.73	341.79	339.03	338.70	338.60	338.62	338.49	338.76	
30	338.72	338.99	339.08	339.23	340.67	341.00	339.06	338.69	338.60	338.64		338.76	
31		339.17		339.37	340.64		339.06		338.60	338.65		338.75	
Mean	338.80	339.11	338.87	339.17	340.23	340.45	339.85	338.86	338.58	338.63	338.67	338.71	
Max	339.09	339.75	339.11	339.83	341.74	341.79	341.18	339.35	338.95	338.85	339.24	338.97	341.79
Min	338.58	338.53	338.48	338.60	339.20	339.69	339.02	338.61	338.50	338.54	338.27	338.30	338.27

Annual Max Momentary Gage Height	342.12	m. (MSL.) ,	at 11.00 Hours , on Aug 26 , 2011		
Zero Gage at Bottom Elevation	337.60	m. (MSL.) ,	River Bed	336.97	m. (MSL)
Left Bank Elevation	345.12	m. (MSL.) ,			
Right Bank Elevation	345.13	m. (MSL.) ,	Drainage Area	3088	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	20.65	19.25	25.00	31.80	126.60	130.70	137.50	33.00	21.00	17.50	19.25	7.50		
2	20.65	26.20	22.60	34.35	149.30	130.70	154.80	32.20	31.00	17.50	20.30	19.25		
3	21.00	57.80	22.60	37.50	110.20	129.85	180.00	31.40	19.95	17.50	19.95	14.70		
4	21.00	64.30	27.00	34.80	85.70	112.30	189.60	30.60	18.90	17.15	19.25	12.60		
5	20.65	57.28	32.60	32.20	62.00	79.83	184.80	30.60	18.55	17.85	16.10	14.35		
6	20.30	64.87	33.00	30.60	51.50	123.40	145.15	33.90	18.20	17.85	9.30	15.40		
7	21.00	53.60	34.35	28.60	50.55	161.40	99.70	48.65	17.85	17.85	16.45	15.40		
8	21.00	54.13	31.40	27.80	42.00	110.90	95.50	49.13	17.50	17.50	18.55	14.70		
9	21.00	38.85	29.80	28.20	55.18	103.90	94.10	41.55	17.50	17.50	18.55	15.40		
10	25.00	62.00	27.40	31.00	87.10	99.00	90.60	31.00	17.50	17.50	25.40	18.90		
11	32.60	27.80	26.20	24.60	93.40	82.13	87.80	25.00	16.45	17.50	42.95	31.00		
12	32.20	35.25	27.00	17.50	102.50	67.17	110.90	17.85	16.10	17.50	43.90	31.80		
13	33.90	22.60	30.60	18.20	125.80	80.40	108.80	26.20	15.75	18.20	43.90	31.80		
14	37.05	21.00	37.95	21.00	118.60	105.30	97.60	27.80	19.25	21.80	42.95	31.40		
15	37.05	48.17	33.90	27.80	89.20	114.60	78.10	26.20	15.75	27.00	40.20	27.00		
16	36.15	15.05	32.20	44.37	77.52	108.10	75.22	24.60	15.05	22.60	31.40	25.40		
17	29.80	20.30	31.00	62.57	64.87	99.70	55.70	24.20	14.70	22.20	10.85	24.20		
18	22.60	25.40	30.60	60.95	88.50	93.40	55.18	24.20	14.70	20.65	16.80	23.80		
19	22.20	59.37	31.00	44.37	94.10	91.30	52.55	23.80	14.35	18.55	16.45	23.40		
20	22.20	70.62	30.60	38.40	95.50	94.10	50.07	23.00	14.00	17.85	15.75	24.20		
21	21.40	51.50	28.60	54.13	97.60	87.10	48.65	22.20	14.00	17.50	14.70	16.10		
22	16.80	45.80	24.20	63.15	114.60	134.10	44.37	21.80	14.00	17.15	14.70	24.20		
23	18.90	40.20	18.90	52.03	106.00	129.85	42.95	20.65	14.00	15.75	14.35	24.20		
24	31.40	41.10	13.30	56.22	88.50	116.20	42.47	31.40	14.35	15.40	6.60	24.20		
25	23.40	30.60	13.65	75.22	94.80	170.40	39.30	21.80	14.00	16.10	11.20	23.80		
26	31.00	19.95	20.30	62.57	271.70	102.50	37.50	21.00	14.35	18.55	6.60	23.40		
27	31.80	20.30	33.90	52.55	207.40	155.90	35.70	21.40	15.05	18.55	13.65	23.40		
28	19.60	23.40	25.80	49.13	150.40	203.20	33.90	21.40	17.50	18.20	14.70	22.60		
29	19.60	25.80	23.00	46.75	140.05	279.45	34.35	21.00	17.50	18.20	13.65	23.40		
30	21.80	32.60	36.60	43.43	134.95	168.00	35.70	20.65	17.50	18.90		23.40		
31		40.65		50.07	132.40		35.70		17.50	19.25		23.00		
Total	753.70	1215.74	835.05	1281.86	3308.52	3664.88	2574.26	828.18	523.80	573.10	598.40	673.90	16831.39	CMSDAY
Mean	25.12	39.22	27.83	41.35	106.73	122.16	83.04	27.61	16.90	18.49	20.63	21.74	45.99	CMS
Max	37.05	70.62	37.95	75.22	271.70	279.45	189.60	49.13	31.00	27.00	43.90	31.80	279.45	CMS
Min	16.80	15.05	13.30	17.50	42.00	67.17	33.90	17.85	14.00	15.40	6.60	7.50	6.60	CMS
Runoff	65.12	105.04	72.15	110.75	285.86	316.65	222.42	71.56	45.26	49.52	51.70	58.23	1454.23	MCM

Momentary Peak 337.80 CMS. at 342.12 m. (MSL.) at 11.00 Hours , on Aug 26 , 2011

Runoff Yield 14.89 Liters/Second/Square KM. Momentary Peak Yield 109.391 Liters/Second/Square KM.

WATER YEAR : 2011

PING RIVER BASIN

Nam Mae Li at Ban Mae E - Hai , Lamphun (P.76)

Lat 18 - 08 - 23 N Long 98 - 53 - 58 E

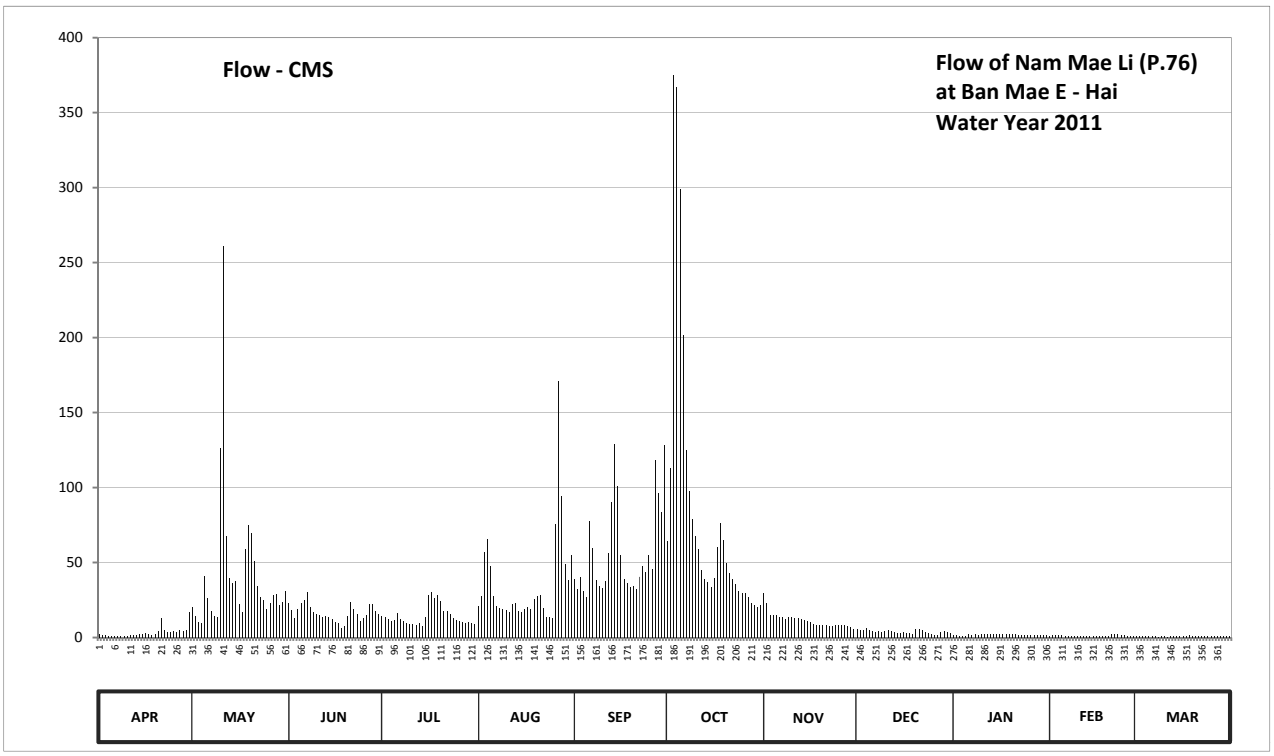
Location : on left bank near the bridge of Li - Ban Mae E - Hai road.

	Ban Mae E - Hai	**Amphoe** Li	**Changwat** Lamphun
Drainge Area	1,544 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+363.617 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank about 15 meters from the top staff gage.	**Elevation**	+370.937 m. (MSL.)
Gage Reading Frequency	Recording.		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	1999 to date		
Rating Operation			
Period of Rating	1999 to date		
Rated by Flot	-		
Rated by Current Meter	1999 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 37 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	364.28	365.00	365.07	364.85	365.02	365.43	365.87	365.23	364.76	364.54	364.50	364.47	
2	364.25	364.85	364.95	364.82	365.19	365.29	366.56	365.08	364.75	364.53	364.54	364.46	
3	364.22	364.71	364.81	364.79	365.75	365.46	368.94	365.04	364.73	364.49	364.55	364.46	
4	364.18	364.69	364.98	364.74	365.89	365.26	368.88	365.04	364.81	364.48	364.53	364.45	
5	364.18	365.47	365.07	364.76	365.58	365.18	368.36	365.04	364.75	364.49	364.52	364.46	
6	364.18	365.15	365.12	364.90	365.19	366.08	367.52	365.02	364.70	364.56	364.50	364.44	
7	364.18	364.94	365.25	364.79	365.02	365.79	366.71	365.02	364.67	364.55	364.49	364.44	
8	364.17	364.85	365.01	364.74	364.99	365.42	366.37	364.98	364.72	364.56	364.49	364.42	
9	364.14	364.83	364.92	364.70	364.98	365.34	366.10	365.01	364.67	364.55	364.48	364.43	
10	364.18	366.73	364.88	364.65	364.96	365.31	365.92	365.02	364.72	364.57	364.47	364.43	
11	364.25	368.04	364.86	364.67	364.92	365.41	365.78	365.00	364.74	364.58	364.48	364.42	
12	364.22	365.92	364.83	364.63	365.06	365.73	365.54	364.99	364.70	364.58	364.48	364.44	
13	364.25	365.44	364.84	364.70	365.08	366.26	365.43	364.98	364.67	364.58	364.49	364.47	
14	364.32	365.38	364.82	364.61	364.94	366.76	365.40	364.97	364.65	364.58	364.46	364.47	
15	364.32	365.41	364.79	364.82	364.92	366.41	365.32	364.95	364.64	364.59	364.47	364.46	
16	364.33	365.06	364.72	365.21	364.98	365.71	365.45	364.93	364.68	364.57	364.47	364.47	
17	364.29	364.92	364.70	365.25	365.00	365.43	365.81	364.90	364.64	364.59	364.47	364.47	
18	364.27	365.78	364.55	365.16	364.97	365.39	366.06	364.86	364.64	364.57	364.45	364.51	
19	364.29	366.04	364.60	365.21	365.14	365.33	365.88	364.87	364.57	364.57	364.46	364.50	
20	364.44	365.96	364.85	365.10	365.19	365.34	365.62	364.86	364.76	364.57	364.47	364.49	
21	364.81	365.64	365.09	364.93	365.21	365.30	365.51	364.87	364.77	364.56	364.58	364.49	
22	364.49	365.34	364.98	364.94	364.99	365.46	365.43	364.85	364.73	364.55	364.57	364.47	
23	364.38	365.17	364.88	364.88	364.83	365.59	365.37	364.84	364.69	364.55	364.56	364.46	
24	364.40	365.12	364.73	364.80	364.82	365.52	365.27	364.86	364.64	364.54	364.53	364.46	
25	364.42	364.97	364.81	364.77	364.81	365.71	365.24	364.87	364.58	364.53	364.52	364.45	
26	364.41	365.08	364.86	364.74	366.05	365.55	365.23	364.86	364.55	364.52	364.49	364.43	
27	364.46	365.21	365.06	364.71	367.22	366.63	365.18	364.86	364.53	364.52	364.47	364.44	
28	364.42	365.22	365.06	364.70	366.32	366.35	365.07	364.84	364.69	364.52	364.48	364.44	
29	364.48	365.04	364.94	364.71	365.61	366.17	365.03	364.82	364.72	364.52	364.47	364.44	
30	364.92	365.09	364.88	364.68	365.42	366.75	365.00	364.77	364.67	364.52		364.43	
31		365.27		364.66	365.71		365.04		364.65	364.52		364.43	
Mean	364.34	365.37	364.90	364.83	365.28	365.71	365.96	364.94	364.68	364.55	364.50	364.45	
Max	364.92	368.04	365.25	365.25	367.22	366.76	368.94	365.23	364.81	364.59	364.58	364.51	368.94
Min	364.14	364.69	364.55	364.61	364.81	365.18	365.00	364.77	364.53	364.48	364.45	364.42	364.14

Annual Max Momentary Gage Height	370.22	m. (MSL.) ,	at 24.00 Hours , on May 10 , 2011		
Zero Gage at Bottom Elevation	363.62	m. (MSL.) ,	River Bed	363.66	m. (MSL)
Left Bank Elevation	371.47	m. (MSL.) ,			
Right Bank Elevation	371.47	m. (MSL.) ,	Drainage Area	1544	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.00	20.10	22.87	14.45	20.89	38.72	64.38	29.35	5.32	1.74	1.30	1.06		
2	1.70	14.45	18.15	13.40	27.60	32.05	112.80	23.26	5.10	1.63	1.74	0.98		
3	1.40	10.18	13.05	12.42	57.13	40.45	374.90	15.00	4.66	1.22	1.85	0.98		
4	1.06	9.66	19.32	11.02	65.63	30.70	366.80	15.00	6.50	1.14	1.63	0.90		
5	1.06	41.03	22.87	11.58	47.35	27.21	299.20	15.00	5.10	1.22	1.52	0.98		
6	1.06	26.02	24.84	16.20	27.60	77.90	201.20	14.00	4.00	1.96	1.30	0.82		
7	1.06	17.76	30.25	12.42	20.89	59.43	124.80	14.00	3.52	1.85	1.22	0.82		
8	0.99	14.45	20.50	11.02	19.71	38.15	97.90	12.24	4.44	1.96	1.22	0.66		
9	0.78	13.75	16.98	9.90	19.32	34.30	79.25	13.50	3.52	1.85	1.14	0.74		
10	1.06	126.40	15.50	8.70	18.54	32.95	67.50	14.00	4.44	2.07	1.06	0.74		
11	1.70	260.80	14.80	9.18	16.98	37.58	58.85	13.00	4.88	2.18	1.14	0.66		
12	1.40	67.50	13.75	8.22	22.47	55.98	45.05	12.62	4.00	2.18	1.14	0.82		
13	1.70	39.30	14.10	9.90	23.26	90.20	38.72	12.24	3.52	2.18	1.22	1.06		
14	2.50	36.10	13.40	7.74	17.76	128.80	37.00	11.86	3.20	2.18	0.98	1.06		
15	2.50	37.58	12.42	13.40	16.98	100.80	33.40	11.10	3.04	2.29	1.06	0.98		
16	2.65	22.47	10.46	28.45	19.32	54.83	39.88	10.34	3.68	2.07	1.06	1.06		
17	2.10	16.98	9.90	30.25	20.10	38.72	60.63	9.20	3.04	2.29	1.06	1.06		
18	1.90	58.85	6.45	26.42	18.93	36.55	76.55	8.00	3.04	2.07	0.90	1.41		
19	2.10	75.20	7.50	28.45	25.63	33.85	65.00	8.30	2.07	2.07	0.98	1.30		
20	4.38	70.00	14.45	24.05	27.60	34.30	49.65	8.00	5.32	2.07	1.06	1.22		
21	13.05	50.80	23.65	17.37	28.45	32.50	43.33	8.30	5.54	1.96	2.18	1.22		
22	5.23	34.30	19.32	17.76	19.71	40.45	38.72	7.70	4.66	1.85	2.07	1.06		
23	3.40	26.82	15.50	15.50	13.75	47.93	35.65	7.40	3.84	1.85	1.96	0.98		
24	3.70	24.84	10.74	12.70	13.40	43.90	31.15	8.00	3.04	1.74	1.63	0.98		
25	4.04	18.93	13.05	11.86	13.05	54.83	29.80	8.30	2.18	1.63	1.52	0.90		
26	3.87	23.26	14.80	11.02	75.87	45.62	29.35	8.00	1.85	1.52	1.22	0.74		
27	4.72	28.45	22.47	10.18	170.90	118.40	27.21	8.00	1.63	1.52	1.06	0.82		
28	4.04	28.90	22.47	9.90	94.40	96.50	22.87	7.40	3.84	1.52	1.14	0.82		
29	5.06	21.68	17.76	10.18	49.07	83.98	21.28	6.80	4.44	1.52	1.06	0.82		
30	16.98	23.65	15.50	9.42	38.15	128.00	20.10	5.54	3.52	1.52		0.74		
31		31.15		8.94	54.83		21.68		3.20	1.52		0.74		
Total	99.19	1291.36	496.82	442.00	1105.27	1715.58	2614.60	345.45	120.13	56.37	38.42	29.13	8354.32	CMSDAY
Mean	3.31	41.66	16.56	14.26	35.65	57.19	84.34	11.51	3.88	1.82	1.32	0.94	22.83	CMS
Max	16.98	260.80	30.25	30.25	170.90	128.80	374.90	29.35	6.50	2.29	2.18	1.41	374.90	CMS
Min	0.78	9.66	6.45	7.74	13.05	27.21	20.10	5.54	1.63	1.14	0.90	0.66	0.66	CMS
Runoff	8.57	111.57	42.93	38.19	95.50	148.23	225.90	29.85	10.38	4.87	3.32	2.52	721.81	MCM

Momentary Peak 558.75 CMS. at 370.22 m. (MSL.) at 24.00 Hours , on May 10 , 2011

Runoff Yield 14.78 Liters/Second/Square KM. Momentary Peak Yield 361.885 Liters/Second/Square KM.

WATER YEAR : 2011

PING RIVER BASIN

Nam Mae Tha at Ban Sop Mae Sapuad , Lamphun (P.77)

Lat 18 - 25 - 57 N Long 99 - 05 - 02 E

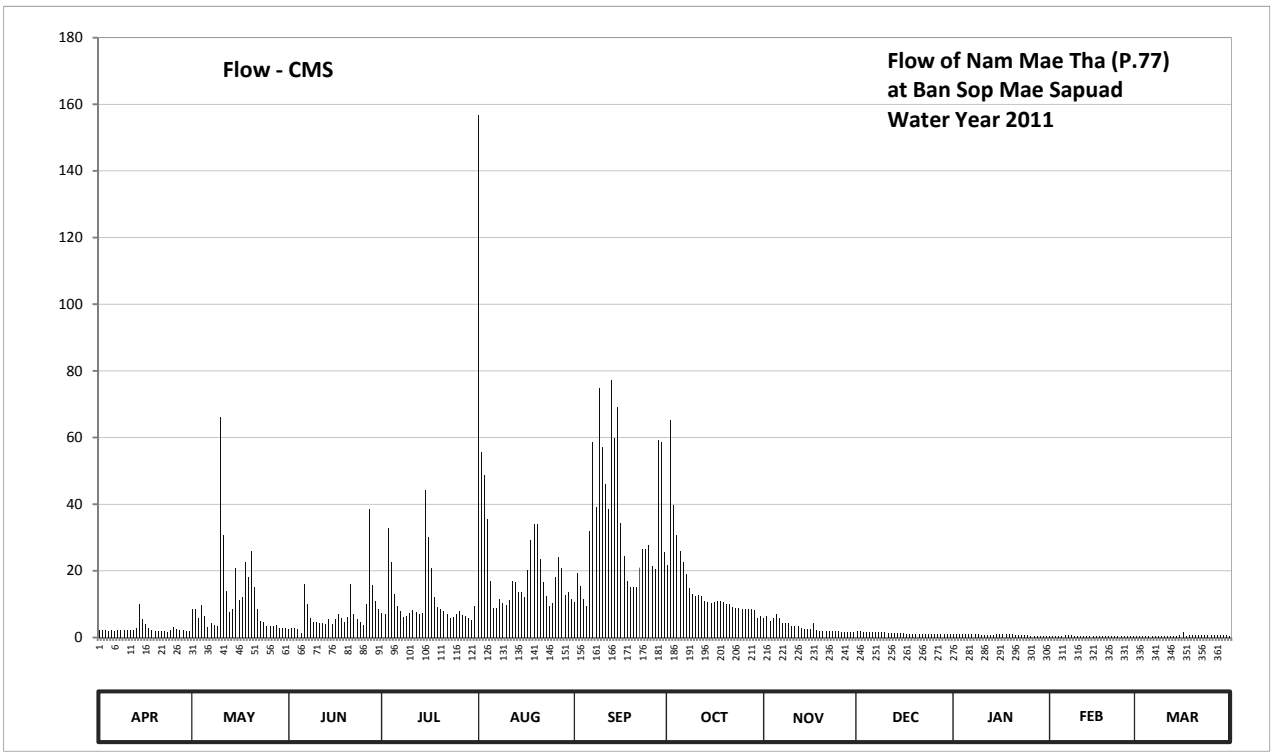
Location : on left bank at the bridge on road.

	Ban Sop Mae Sapuad	**Amphoe** Mae Tha		**Changwat** Lamphun	
Drainge Area	550 sq.km.				
Type of Gage	Water - stage recorder				
Zero Gage at Bottom	+364.378 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On left bank about 20 meters from the top staff gage.			**Elevation**	+369.286 m. (MSL.)
Gage Reading Frequency	Recording.				
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings				
Period of Available Gage Records	1999 to date				
Rating Operation					
Period of Rating	1999 to date				
Rated by Flot	-				
Rated by Current Meter	1999 to date				
Stability of Channel Regimes	Fairly stable because of backwater effect.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records fair. Stage-discharge relation defined by 37 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	365.81	366.14	365.85	366.10	368.14	366.22	366.53	366.14	366.05	365.99	365.87	365.88	
2	365.81	366.14	365.86	366.09	367.11	366.47	367.24	366.15	366.05	365.99	365.85	365.85	
3	365.81	366.03	365.88	366.75	367.01	366.37	366.87	366.13	366.04	365.99	365.88	365.88	
4	365.80	366.19	365.84	366.55	366.80	366.25	366.71	366.14	366.03	365.99	365.89	365.88	
5	365.81	366.06	365.73	366.30	366.41	366.18	366.62	366.16	366.03	365.99	365.91	365.88	
6	365.80	365.89	366.39	366.18	366.16	366.73	366.55	366.14	366.04	365.98	365.96	365.88	
7	365.82	365.96	366.20	366.12	366.16	367.15	366.46	366.12	366.03	365.98	365.95	365.89	
8	365.81	365.93	366.03	366.05	366.25	366.86	366.35	366.12	366.03	365.98	365.94	365.88	
9	365.81	365.91	365.98	366.06	366.21	367.36	366.30	366.12	366.03	365.98	365.90	365.88	
10	365.81	367.25	365.98	366.10	366.19	367.13	366.28	366.11	366.03	365.97	365.90	365.88	
11	365.81	366.71	365.96	366.13	366.24	366.97	366.29	366.11	366.01	365.96	365.90	365.88	
12	365.81	366.33	365.96	366.11	366.41	366.85	366.28	366.11	366.02	365.95	365.90	365.89	
13	365.87	366.11	365.95	366.09	366.40	367.39	366.23	366.10	366.01	365.95	365.87	365.89	
14	366.20	366.14	366.02	366.10	366.32	367.17	366.22	366.09	366.01	365.96	365.90	365.90	
15	366.02	366.51	365.95	366.94	366.32	367.29	366.21	366.08	366.01	365.98	365.90	365.92	
16	365.95	366.24	366.02	366.70	366.27	366.78	366.22	366.08	366.01	365.99	365.90	366.03	
17	365.88	366.27	366.09	366.51	366.49	366.59	366.23	366.12	366.00	365.99	365.89	365.89	
18	365.81	366.55	366.03	366.27	366.68	366.41	366.23	366.06	366.00	365.99	365.89	365.92	
19	365.80	366.44	365.98	366.17	366.77	366.36	366.22	366.05	365.99	365.99	365.89	365.97	
20	365.79	366.62	366.05	366.15	366.77	366.36	366.20	366.05	366.00	365.99	365.89	365.95	
21	365.79	366.36	366.39	366.12	366.57	366.36	366.20	366.05	366.00	365.97	365.87	365.96	
22	365.79	366.15	366.09	366.09	366.40	366.51	366.17	366.05	366.00	365.96	365.90	365.97	
23	365.77	365.99	366.02	366.04	366.28	366.63	366.16	366.05	366.00	365.96	365.90	365.96	
24	365.81	365.98	365.98	366.05	366.18	366.63	366.16	366.05	366.00	365.95	365.90	365.96	
25	365.89	365.92	365.93	366.09	366.21	366.65	366.15	366.05	366.00	365.93	365.89	365.95	
26	365.85	365.92	366.20	366.12	366.44	366.52	366.14	366.04	366.00	365.86	365.89	365.94	
27	365.83	365.92	366.85	366.07	366.58	366.50	366.14	366.04	365.99	365.87	365.89	365.95	
28	365.81	365.93	366.38	366.06	366.51	367.16	366.14	366.04	366.00	365.86	365.89	365.93	
29	365.78	365.87	366.23	366.04	366.29	367.15	366.13	366.04	366.00	365.86	365.89	365.93	
30	365.78	365.87	366.14	366.01	366.32	366.61	366.14	366.04	366.00	365.87		365.92	
31		365.87		366.18	366.25		366.15		365.99	365.87		365.91	
Mean	365.84	366.17	366.07	366.20	366.49	366.72	366.32	366.09	366.01	365.95	365.90	365.92	
Max	366.20	367.25	366.85	366.94	368.14	367.39	367.24	366.16	366.05	365.99	365.96	366.03	368.14
Min	365.77	365.87	365.73	366.01	366.16	366.18	366.13	366.04	365.99	365.86	365.85	365.85	365.73

Annual Max Momentary Gage Height	369.15	m. (MSL.) ,	at 16.00 Hours , on Aug 1 , 2011		
Zero Gage at Bottom Elevation	364.38	m. (MSL.) ,	River Bed	365.42	m. (MSL)
Left Bank Elevation	370.12	m. (MSL.) ,			
Right Bank Elevation	374.23	m. (MSL.) ,	Drainage Area	550	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.12	8.38	2.60	7.30	156.80	10.60	21.85	5.68	1.90	0.95	0.38	0.42		
2	2.12	8.38	2.72	7.07	55.70	19.30	65.20	6.40	1.90	0.95	0.30	0.30		
3	2.12	5.69	2.96	32.88	48.70	15.45	39.88	4.96	1.72	0.95	0.42	0.42		
4	2.00	9.73	2.48	22.75	35.50	11.50	30.77	5.68	1.54	0.95	0.46	0.42		
5	2.12	6.38	1.30	13.00	16.90	9.46	26.05	7.12	1.54	0.95	0.55	0.42		
6	2.00	3.08	16.15	9.46	8.92	31.83	22.75	5.68	1.72	0.90	0.80	0.42		
7	2.24	4.28	10.00	7.84	8.92	58.50	18.90	4.24	1.54	0.90	0.75	0.46		
8	2.12	3.74	5.69	6.15	11.50	39.25	14.75	4.24	1.54	0.90	0.70	0.42		
9	2.12	3.38	4.64	6.38	10.30	74.80	13.00	4.24	1.54	0.90	0.50	0.42		
10	2.12	66.00	4.64	7.30	9.73	57.10	12.40	3.52	1.54	0.85	0.50	0.42		
11	2.12	30.77	4.28	8.11	11.20	46.13	12.70	3.52	1.18	0.80	0.50	0.42		
12	2.12	14.05	4.28	7.57	16.90	38.63	12.40	3.52	1.36	0.75	0.50	0.46		
13	2.84	7.57	4.10	7.07	16.50	77.20	10.90	2.80	1.18	0.75	0.38	0.46		
14	10.00	8.38	5.46	7.30	13.70	59.90	10.60	2.62	1.18	0.80	0.50	0.50		
15	5.46	20.95	4.10	44.25	13.70	69.20	10.30	2.44	1.18	0.90	0.50	0.60		
16	4.10	11.20	5.46	30.25	12.10	34.45	10.60	2.44	1.18	0.95	0.50	1.54		
17	2.96	12.10	7.07	20.95	20.10	24.55	10.90	4.24	1.00	0.95	0.46	0.46		
18	2.12	22.75	5.69	12.10	29.20	16.90	10.90	2.08	1.00	0.95	0.46	0.60		
19	2.00	18.10	4.64	9.19	33.92	15.10	10.60	1.90	0.95	0.95	0.46	0.85		
20	1.90	26.05	6.15	8.65	33.92	15.10	10.00	1.90	1.00	0.95	0.46	0.75		
21	1.90	15.10	16.15	7.84	23.65	15.10	10.00	1.90	1.00	0.85	0.38	0.80		
22	1.90	8.65	7.07	7.07	16.50	20.95	9.19	1.90	1.00	0.80	0.50	0.85		
23	1.70	4.82	5.46	5.92	12.40	26.58	8.92	1.90	1.00	0.80	0.50	0.80		
24	2.12	4.64	4.64	6.15	9.46	26.58	8.92	1.90	1.00	0.75	0.50	0.80		
25	3.08	3.56	3.74	7.07	10.30	27.62	8.65	1.90	1.00	0.65	0.46	0.75		
26	2.60	3.56	10.00	7.84	18.10	21.40	8.38	1.72	1.00	0.34	0.46	0.70		
27	2.36	3.56	38.63	6.61	24.10	20.50	8.38	1.72	0.95	0.38	0.46	0.75		
28	2.12	3.74	15.80	6.38	20.95	59.20	8.38	1.72	1.00	0.34	0.46	0.65		
29	1.80	2.84	10.90	5.92	12.70	58.50	8.11	1.72	1.00	0.34	0.46	0.65		
30	1.80	2.84	8.38	5.23	13.70	25.52	5.68	1.72	1.00	0.38		0.60		
31		2.84		9.46	11.50		6.40		0.95	0.38		0.55		
Total	78.08	347.11	225.18	351.06	737.57	1026.90	466.46	97.32	38.59	23.96	14.26	18.66	3425.15	CMSDAY
Mean	2.60	11.20	7.51	11.32	23.79	34.23	15.05	3.24	1.24	0.77	0.49	0.60	9.36	CMS
Max	10.00	66.00	38.63	44.25	156.80	77.20	65.20	7.12	1.90	0.95	0.80	1.54	156.80	CMS
Min	1.70	2.84	1.30	5.23	8.92	9.46	5.68	1.72	0.95	0.34	0.30	0.30	0.30	CMS
Runoff	6.75	29.99	19.46	30.33	63.73	88.72	40.30	8.41	3.33	2.07	1.23	1.61	295.93	MCM

Momentary Peak 300.00 CMS. at 369.15 m. (MSL.) at 16.00 Hours , on Aug 1 , 2011

Runoff Yield 17.02 Liters/Second/Square KM. Momentary Peak Yield 545.455 Liters/Second/Square KM.

WATER YEAR : 2011

PING RIVER BASIN

Khlong Khlung at Ban Sam Ruean , Kamphaeng Phet (P.78)

Lat 16 - 11 - 03 N Long 99 - 36 - 09 E

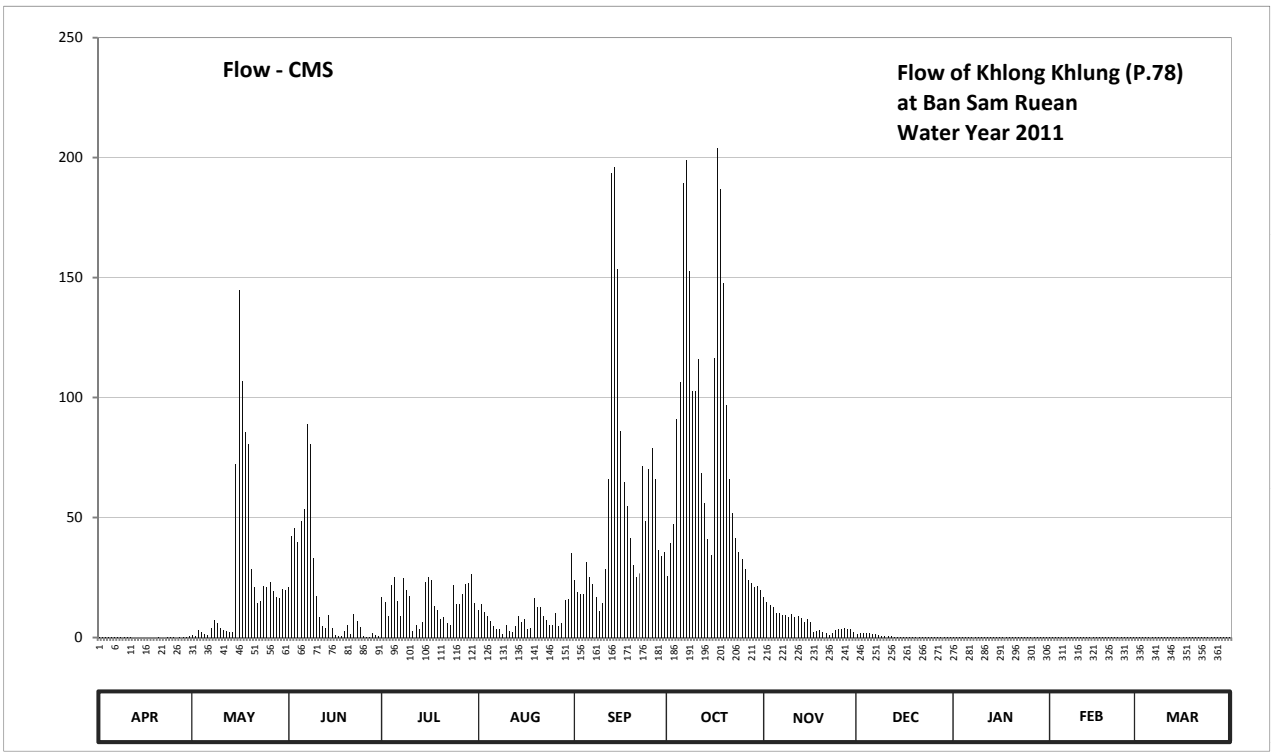
Location : on left bank at Ban Sam Ruean.

	Ban Sam Ruean	**Amphoe** Khlong Khlung	**Changwat** Tak
Drainge Area	1,119 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+65.177 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	Near the gage site.	**Elevation**	+73.494 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	2005 to date		
Rating Operation			
Period of Rating	2005 to date		
Rated by Flot	-		
Rated by Current Meter	2005 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	Overbank flow starts at elevation +71.400 m. (MSL.), records are channel flow only.		
General Description	Records fair. Stage-discharge relation defined by 28 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	66.32	66.57	67.85	67.65	67.37	67.98	68.05	67.64	66.64	66.38	66.37	66.36	
2	66.31	66.56	68.69	67.53	67.49	67.74	68.59	67.54	66.70	66.38	66.37	66.36	
3	66.30	66.80	68.80	67.25	67.34	67.70	68.85	67.47	66.69	66.38	66.37	66.36	
4	66.29	66.73	68.60	67.88	67.25	67.70	70.04	67.43	66.68	66.38	66.37	66.36	
5	66.28	66.65	68.89	68.04	67.10	68.29	70.35	67.31	66.67	66.38	66.37	66.36	
6	66.27	66.61	69.05	67.57	66.96	68.04	71.60	67.32	66.66	66.38	66.37	66.36	
7	66.26	66.89	70.00	67.24	66.87	67.90	71.72	67.27	66.64	66.38	66.37	66.36	
8	66.25	67.14	69.81	68.02	66.86	67.64	71.11	67.26	66.57	66.38	66.37	66.36	
9	66.24	67.05	68.35	67.78	66.65	67.35	70.28	67.22	66.51	66.38	66.37	66.36	
10	66.23	66.91	67.67	67.67	67.01	67.52	70.28	67.28	66.48	66.38	66.37	66.36	
11	66.22	66.81	67.21	66.77	66.76	68.17	70.54	67.21	66.48	66.38	66.37	66.36	
12	66.21	66.75	66.95	67.00	66.71	69.43	69.50	67.24	66.47	66.38	66.37	66.36	
13	66.20	66.74	66.89	66.84	66.96	71.65	69.13	67.18	66.46	66.38	66.37	66.36	
14	66.19	66.71	67.27	67.09	67.25	71.68	68.64	67.07	66.45	66.38	66.37	66.36	
15	66.18	69.61	66.90	67.94	67.08	71.12	68.40	67.16	66.44	66.38	66.37	66.36	
16	66.17	71.00	66.59	68.03	67.17	69.93	70.55	67.07	66.44	66.38	66.37	66.36	
17	66.17	70.36	66.56	67.97	66.87	69.40	71.78	66.73	66.43	66.38	66.37	66.36	
18	66.16	69.92	66.54	67.45	66.88	69.09	71.57	66.78	66.42	66.38	66.37	66.36	
19	66.16	69.81	66.78	67.37	67.62	68.65	71.04	66.80	66.42	66.38	66.36	66.36	
20	66.37	68.18	67.01	67.16	67.43	68.23	70.16	66.73	66.41	66.38	66.36	66.36	
21	66.19	67.85	66.64	67.21	67.44	68.04	69.43	66.69	66.41	66.38	66.36	66.36	
22	66.16	67.52	67.28	67.04	67.25	68.10	69.01	66.60	66.40	66.38	66.36	66.36	
23	66.28	67.57	67.11	66.99	67.13	69.58	68.66	66.68	66.39	66.38	66.36	66.36	
24	66.30	67.87	66.94	67.89	67.00	68.89	68.45	66.80	66.39	66.38	66.36	66.36	
25	66.25	67.84	66.50	67.50	67.00	69.55	68.33	66.84	66.38	66.38	66.36	66.36	
26	66.21	67.93	66.42	67.50	67.30	69.77	68.18	66.87	66.38	66.38	66.36	66.36	
27	66.22	67.76	66.37	67.71	66.97	69.44	67.98	66.88	66.38	66.38	66.36	66.36	
28	66.42	67.64	66.67	67.91	67.05	68.48	67.92	66.84	66.38	66.38	66.36	66.36	
29	66.37	67.63	66.60	67.92	67.58	68.39	67.84	66.85	66.38	66.38	66.36	66.36	
30	66.54	67.81	66.48	68.09	67.60	68.45	67.87	66.72	66.38	66.38		66.36	
31		67.78		67.51	68.44		67.79		66.38	66.38		66.36	
Mean	66.26	67.71	67.45	67.53	67.17	68.80	69.47	67.05	66.48	66.38	66.37	66.36	
Max	66.54	71.00	70.00	68.09	68.44	71.68	71.78	67.64	66.70	66.38	66.37	66.36	71.78
Min	66.16	66.56	66.37	66.77	66.65	67.35	67.79	66.60	66.38	66.38	66.36	66.36	66.16

Annual Max Momentary Gage Height	71.88	m. (MSL.) ,	at 18.00 Hours , on Sep 13 , 2011		
Zero Gage at Bottom Elevation	65.18	m. (MSL.) ,	River Bed	65.98	m. (MSL)
Left Bank Elevation	71.39	m. (MSL.) ,			
Right Bank Elevation	72.53	m. (MSL.) ,	Drainage Area	1119	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.13	0.85	21.12	17.00	11.40	24.05	25.63	16.80	1.40	0.22	0.21	0.19		
2	0.11	0.80	42.45	14.60	13.80	18.80	39.47	14.80	2.00	0.22	0.21	0.19		
3	0.10	3.00	45.75	9.13	10.80	18.00	47.25	13.40	1.90	0.22	0.21	0.19		
4	0.09	2.30	39.75	21.80	9.13	18.00	90.90	12.60	1.80	0.22	0.21	0.19		
5	0.08	1.50	48.45	25.40	6.75	31.50	106.25	10.20	1.70	0.22	0.21	0.19		
6	0.07	1.10	53.38	15.40	4.75	25.40	189.50	10.40	1.60	0.22	0.21	0.19		
7	0.06	3.90	89.00	8.95	3.70	22.25	199.10	9.47	1.40	0.22	0.21	0.19		
8	0.05	7.35	80.45	24.95	3.60	16.80	152.72	9.30	0.85	0.22	0.21	0.19		
9	0.04	6.00	33.00	19.60	1.50	11.00	102.75	8.60	0.55	0.22	0.21	0.19		
10	0.03	4.13	17.40	17.40	5.40	14.40	102.75	9.65	0.45	0.22	0.21	0.19		
11	0.02	3.10	8.43	2.70	2.60	28.50	115.85	8.43	0.45	0.22	0.21	0.19		
12	0.01	2.50	4.62	5.25	2.10	65.80	68.25	8.95	0.43	0.22	0.21	0.19		
13	0.00	2.40	3.90	3.40	4.75	193.50	55.97	7.95	0.40	0.22	0.21	0.19		
14	0.00	2.10	9.47	6.60	9.13	195.90	40.95	6.30	0.37	0.22	0.21	0.19		
15	0.00	72.40	4.00	23.15	6.45	153.45	34.25	7.65	0.35	0.22	0.21	0.19		
16	0.00	144.75	0.95	25.17	7.80	85.85	116.38	6.30	0.35	0.22	0.21	0.19		
17	0.00	106.75	0.80	23.83	3.70	64.75	203.90	2.30	0.32	0.22	0.21	0.19		
18	0.00	85.40	0.70	13.00	3.80	54.67	187.10	2.80	0.30	0.22	0.21	0.19		
19	0.00	80.45	2.80	11.40	16.40	41.25	147.65	3.00	0.30	0.22	0.19	0.19		
20	0.21	28.75	5.40	7.65	12.60	30.00	96.75	2.30	0.28	0.22	0.19	0.19		
21	0.00	21.12	1.40	8.43	12.80	25.40	65.80	1.90	0.28	0.22	0.19	0.19		
22	0.00	14.40	9.65	5.85	9.13	26.75	52.08	1.00	0.25	0.22	0.19	0.19		
23	0.08	15.40	6.90	5.12	7.20	71.25	41.55	1.80	0.23	0.22	0.19	0.19		
24	0.10	21.58	4.50	22.02	5.25	48.45	35.62	3.00	0.23	0.22	0.19	0.19		
25	0.05	20.90	0.50	14.00	5.25	70.13	32.50	3.40	0.22	0.22	0.19	0.19		
26	0.01	22.92	0.30	14.00	10.00	78.80	28.75	3.70	0.22	0.22	0.19	0.19		
27	0.02	19.20	0.21	18.20	4.88	66.15	24.05	3.80	0.22	0.22	0.19	0.19		
28	0.30	16.80	1.70	22.48	6.00	36.45	22.70	3.40	0.22	0.22	0.19	0.19		
29	0.21	16.60	1.00	22.70	15.60	34.00	20.90	3.50	0.22	0.22	0.19	0.19		
30	0.70	20.22	0.45	26.52	16.00	35.62	21.58	2.20	0.22	0.22		0.19		
31		19.60		14.20	35.35		19.80		0.22	0.22		0.19		
Total	2.47	768.27	538.43	469.90	267.62	1606.87	2488.70	198.90	19.73	6.82	5.87	5.89	6379.47	CMSDAY
Mean	0.08	24.78	17.95	15.16	8.63	53.56	80.28	6.63	0.64	0.22	0.20	0.19	17.43	CMS
Max	0.70	144.75	89.00	26.52	35.35	195.90	203.90	16.80	2.00	0.22	0.21	0.19	203.90	CMS
Min	0.00	0.80	0.21	2.70	1.50	11.00	19.80	1.00	0.22	0.22	0.19	0.19	0.00	CMS
Runoff	0.21	66.38	46.52	40.60	23.12	138.83	215.02	17.19	1.71	0.59	0.51	0.51	551.19	MCM

Momentary Peak 212.10 CMS. at 71.88 m. (MSL.) at 18.00 Hours , on Sep 13 , 2011

Runoff Yield 15.58 Liters/Second/Square KM. Momentary Peak Yield 189.544 Liters/Second/Square KM.

WATER YEAR : 2011

PING RIVER BASIN

Nam Mae Kuang at Ban Mae Wan , Chiang Mai (P.79)

Lat 18 - 57 - 45 N Long 99 - 14 - 31 E

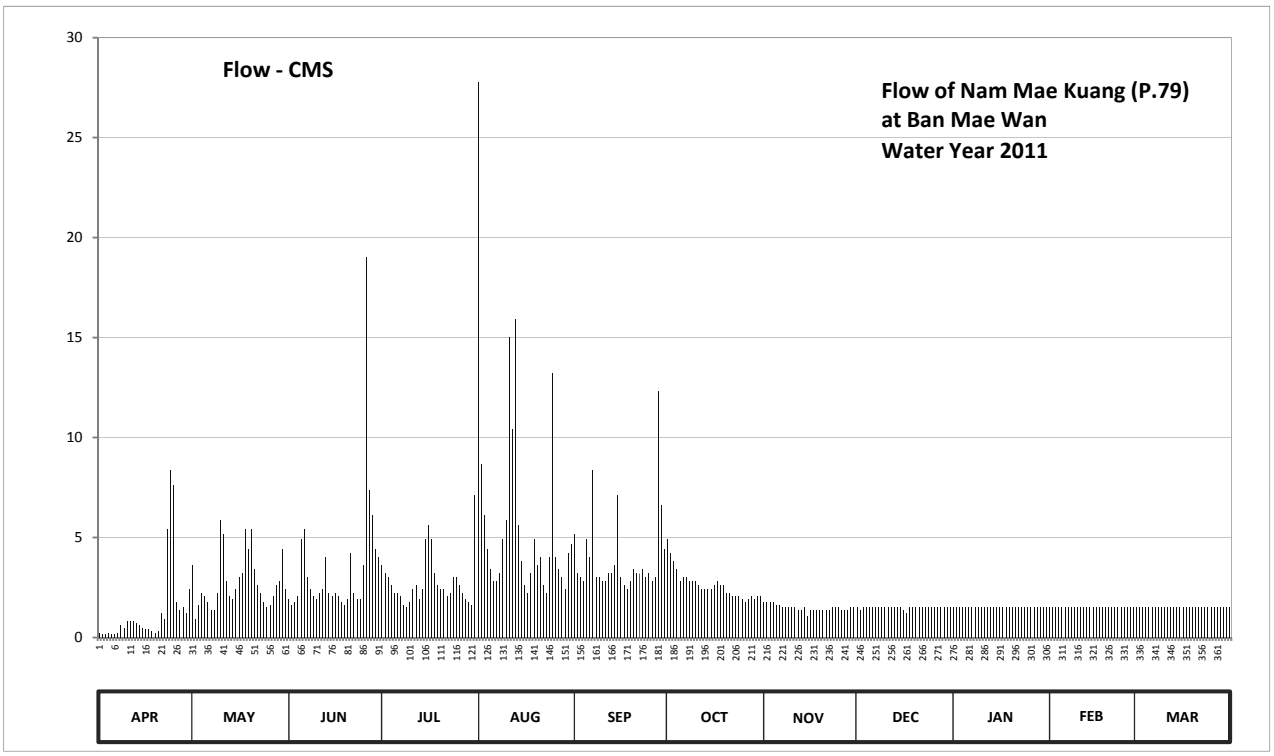
Location : on left bank at the bridge on road.

	Ban Mae Wan	**Amphoe** Doi Saket	**Changwat** Chiang Mai
Drainge Area	136 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+442.300 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank at the approach of the bridge.	**Elevation**	+447.326 m. (MSL.)
Gage Reading Frequency	Recording.		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	2001 to date		
Rating Operation			
Period of Rating	2001 to date		
Rated by Flot	-		
Rated by Current Meter	2001 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 36 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	442.63	442.87	442.78	442.87	443.69	442.94	442.93	442.77	442.75	442.75	442.75	442.75	
2	442.62	442.71	442.76	442.85	443.08	442.85	442.90	442.77	442.74	442.75	442.75	442.75	
3	442.62	442.76	442.77	442.84	442.98	442.84	442.88	442.77	442.75	442.75	442.75	442.75	
4	442.63	442.80	442.79	442.82	442.91	442.83	442.86	442.77	442.75	442.75	442.75	442.75	
5	442.62	442.79	442.93	442.80	442.86	442.93	442.83	442.76	442.75	442.75	442.75	442.75	
6	442.62	442.77	442.95	442.80	442.83	442.89	442.84	442.76	442.75	442.75	442.75	442.75	
7	442.63	442.74	442.84	442.79	442.83	443.07	442.84	442.75	442.75	442.75	442.75	442.75	
8	442.68	442.74	442.81	442.76	442.85	442.84	442.83	442.75	442.75	442.75	442.75	442.75	
9	442.66	442.80	442.79	442.75	442.93	442.84	442.83	442.75	442.75	442.75	442.75	442.75	
10	442.70	442.97	442.78	442.77	442.97	442.83	442.83	442.75	442.75	442.75	442.75	442.75	
11	442.70	442.94	442.80	442.81	443.31	442.83	442.82	442.75	442.75	442.75	442.75	442.75	
12	442.70	442.83	442.81	442.82	443.15	442.85	442.81	442.74	442.75	442.75	442.75	442.75	
13	442.69	442.79	442.89	442.78	443.34	442.85	442.81	442.74	442.75	442.75	442.75	442.75	
14	442.68	442.78	442.80	442.81	442.96	442.87	442.81	442.75	442.75	442.75	442.75	442.75	
15	442.66	442.81	442.79	442.93	442.88	443.02	442.81	442.72	442.75	442.75	442.75	442.75	
16	442.65	442.84	442.80	442.96	442.82	442.84	442.82	442.74	442.74	442.75	442.75	442.75	
17	442.65	442.85	442.79	442.93	442.80	442.82	442.83	442.74	442.73	442.75	442.75	442.75	
18	442.64	442.95	442.77	442.85	442.85	442.81	442.82	442.74	442.75	442.75	442.75	442.75	
19	442.63	442.91	442.76	442.82	442.93	442.83	442.82	442.74	442.75	442.75	442.75	442.75	
20	442.64	442.95	442.78	442.81	442.87	442.86	442.80	442.74	442.75	442.75	442.75	442.75	
21	442.73	442.86	442.90	442.81	442.89	442.85	442.80	442.74	442.75	442.75	442.75	442.75	
22	442.71	442.82	442.80	442.79	442.82	442.85	442.79	442.74	442.75	442.75	442.75	442.75	
23	442.95	442.80	442.78	442.80	442.80	442.86	442.79	442.75	442.75	442.75	442.75	442.75	
24	443.07	442.77	442.78	442.84	442.89	442.84	442.79	442.75	442.75	442.75	442.75	442.75	
25	443.04	442.75	442.87	442.84	443.25	442.85	442.78	442.75	442.75	442.75	442.75	442.75	
26	442.77	442.76	443.44	442.82	442.89	442.83	442.77	442.74	442.75	442.75	442.75	442.75	
27	442.74	442.79	443.03	442.80	442.86	442.84	442.78	442.74	442.75	442.75	442.75	442.75	
28	442.75	442.82	442.98	442.78	442.84	443.22	442.79	442.74	442.75	442.75	442.75	442.75	
29	442.73	442.83	442.91	442.77	442.81	443.00	442.78	442.75	442.75	442.75	442.75	442.75	
30	442.81	442.91	442.89	442.76	442.90	442.91	442.79	442.75	442.75	442.75		442.75	
31		442.81		443.02	442.92		442.79		442.75	442.75		442.75	
Mean	442.71	442.82	442.85	442.83	442.96	442.88	442.82	442.75	442.75	442.75	442.75	442.75	
Max	443.07	442.97	443.44	443.02	443.69	443.22	442.93	442.77	442.75	442.75	442.75	442.75	443.69
Min	442.62	442.71	442.76	442.75	442.80	442.81	442.77	442.72	442.73	442.75	442.75	442.75	442.62

Annual Max Momentary Gage Height	444.75	m. (MSL.) ,	at 07.00 Hours , on Aug 1 , 2011		
Zero Gage at Bottom Elevation	442.30	m. (MSL.) ,	River Bed	442.30	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, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.24	3.60	1.92	3.60	27.77	5.16	4.92	1.78	1.50	1.50	1.50	1.50		
2	0.16	0.94	1.64	3.20	8.64	3.20	4.20	1.78	1.36	1.50	1.50	1.50		
3	0.16	1.64	1.78	3.00	6.12	3.00	3.80	1.78	1.50	1.50	1.50	1.50		
4	0.24	2.20	2.06	2.60	4.44	2.80	3.40	1.78	1.50	1.50	1.50	1.50		
5	0.16	2.06	4.92	2.20	3.40	4.92	2.80	1.64	1.50	1.50	1.50	1.50		
6	0.16	1.78	5.40	2.20	2.80	4.00	3.00	1.64	1.50	1.50	1.50	1.50		
7	0.24	1.36	3.00	2.06	2.80	8.39	3.00	1.50	1.50	1.50	1.50	1.50		
8	0.64	1.36	2.40	1.64	3.20	3.00	2.80	1.50	1.50	1.50	1.50	1.50		
9	0.48	2.20	2.06	1.50	4.92	3.00	2.80	1.50	1.50	1.50	1.50	1.50		
10	0.80	5.88	1.92	1.78	5.88	2.80	2.80	1.50	1.50	1.50	1.50	1.50		
11	0.80	5.16	2.20	2.40	15.00	2.80	2.60	1.50	1.50	1.50	1.50	1.50		
12	0.80	2.80	2.40	2.60	10.42	3.20	2.40	1.36	1.50	1.50	1.50	1.50		
13	0.72	2.06	4.00	1.92	15.90	3.20	2.40	1.36	1.50	1.50	1.50	1.50		
14	0.64	1.92	2.20	2.40	5.64	3.60	2.40	1.50	1.50	1.50	1.50	1.50		
15	0.48	2.40	2.06	4.92	3.80	7.11	2.40	1.08	1.50	1.50	1.50	1.50		
16	0.40	3.00	2.20	5.64	2.60	3.00	2.60	1.36	1.36	1.50	1.50	1.50		
17	0.40	3.20	2.06	4.92	2.20	2.60	2.80	1.36	1.22	1.50	1.50	1.50		
18	0.32	5.40	1.78	3.20	3.20	2.40	2.60	1.36	1.50	1.50	1.50	1.50		
19	0.24	4.44	1.64	2.60	4.92	2.80	2.60	1.36	1.50	1.50	1.50	1.50		
20	0.32	5.40	1.92	2.40	3.60	3.40	2.20	1.36	1.50	1.50	1.50	1.50		
21	1.22	3.40	4.20	2.40	4.00	3.20	2.20	1.36	1.50	1.50	1.50	1.50		
22	0.94	2.60	2.20	2.06	2.60	3.20	2.06	1.36	1.50	1.50	1.50	1.50		
23	5.40	2.20	1.92	2.20	2.20	3.40	2.06	1.50	1.50	1.50	1.50	1.50		
24	8.39	1.78	1.92	3.00	4.00	3.00	2.06	1.50	1.50	1.50	1.50	1.50		
25	7.62	1.50	3.60	3.00	13.20	3.20	1.92	1.50	1.50	1.50	1.50	1.50		
26	1.78	1.64	19.02	2.60	4.00	2.80	1.78	1.36	1.50	1.50	1.50	1.50		
27	1.36	2.06	7.36	2.20	3.40	3.00	1.92	1.36	1.50	1.50	1.50	1.50		
28	1.50	2.60	6.12	1.92	3.00	12.30	2.06	1.36	1.50	1.50	1.50	1.50		
29	1.22	2.80	4.44	1.78	2.40	6.60	1.92	1.50	1.50	1.50	1.50	1.50		
30	2.40	4.44	4.00	1.64	4.20	4.44	2.06	1.50	1.50	1.50		1.50		
31		2.40		7.11	4.68		2.06		1.50	1.50		1.50		
Total	40.23	86.22	104.34	86.69	184.93	119.52	80.62	44.30	45.94	46.50	43.50	46.50	929.29	CMSDAY
Mean	1.34	2.78	3.48	2.80	5.97	3.98	2.60	1.48	1.48	1.50	1.50	1.50	2.54	CMS
Max	8.39	5.88	19.02	7.11	27.77	12.30	4.92	1.78	1.50	1.50	1.50	1.50	27.77	CMS
Min	0.16	0.94	1.64	1.50	2.20	2.40	1.78	1.08	1.22	1.50	1.50	1.50	0.16	CMS
Runoff	3.48	7.45	9.02	7.49	15.98	10.33	6.97	3.83	3.97	4.02	3.76	4.02	80.29	MCM

Momentary Peak 82.00 CMS. at 444.75 m. (MSL.) at 07.00 Hours , on Aug 1 , 2011

Runoff Yield 18.67 Liters/Second/Square KM. Momentary Peak Yield 602.941 Liters/Second/Square KM.

WATER YEAR : 2011

PING RIVER BASIN

Nam Mae Lai at Ban Pong Din , Chiang Mai (P.80)

Lat 18 - 54 - 49 N Long 99 - 14 - 17 E

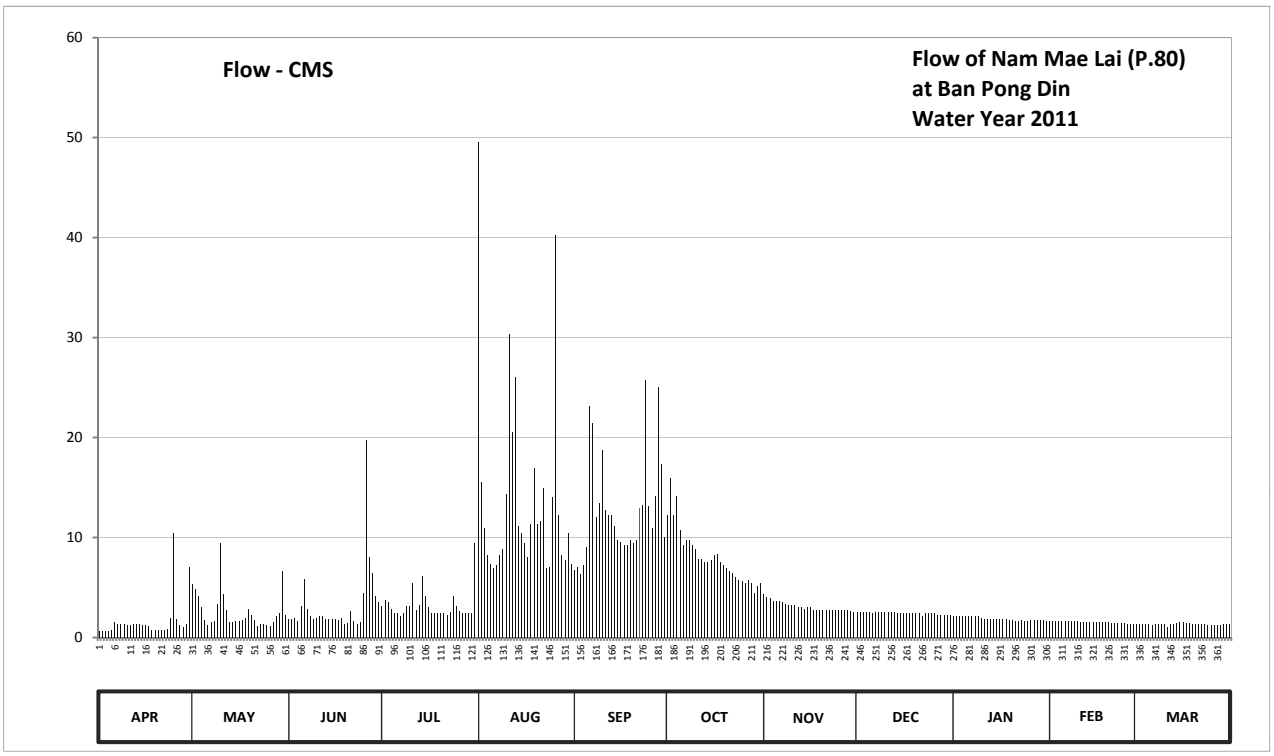
Location : on left bank at the bridge on road.

	Ban Pong Din	**Amphoe** Doi Saket	**Changwat** Chiang Mai
Drainge Area	129 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+455.096 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank at the approach of the bridge.	**Elevation**	+462.021 m. (MSL.)
Gage Reading Frequency	Recording.		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	2001 to date		
Rating Operation			
Period of Rating	2001 to date		
Rated by Flot	-		
Rated by Current Meter	2001 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 36 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	455.65	456.07	455.80	455.91	457.93	456.17	456.49	456.00	455.86	455.83	455.78	455.75	
2	455.65	456.04	455.80	455.96	456.67	456.19	456.69	455.98	455.86	455.83	455.78	455.75	
3	455.65	455.99	455.81	455.94	456.42	456.14	456.49	455.97	455.86	455.83	455.78	455.75	
4	455.65	455.90	455.78	455.89	456.26	456.20	456.60	455.95	455.86	455.83	455.78	455.75	
5	455.66	455.79	455.91	455.85	456.21	456.31	456.41	455.95	455.86	455.83	455.78	455.75	
6	455.77	455.74	456.11	455.85	456.18	457.02	456.32	455.95	455.85	455.83	455.78	455.74	
7	455.75	455.77	455.89	455.83	456.20	456.95	456.35	455.94	455.86	455.83	455.78	455.75	
8	455.75	455.78	455.83	455.85	456.26	456.48	456.35	455.93	455.86	455.83	455.78	455.75	
9	455.75	455.93	455.80	455.91	456.30	456.56	456.32	455.92	455.86	455.83	455.78	455.75	
10	455.74	456.33	455.81	455.91	456.61	456.83	456.30	455.92	455.86	455.81	455.78	455.75	
11	455.74	456.00	455.83	456.08	457.31	456.52	456.24	455.92	455.86	455.80	455.77	455.72	
12	455.75	455.88	455.83	455.88	456.91	456.49	456.24	455.90	455.86	455.80	455.77	455.75	
13	455.75	455.77	455.80	455.92	457.14	456.49	456.22	455.90	455.86	455.80	455.77	455.75	
14	455.75	455.77	455.80	456.13	456.43	456.43	456.22	455.89	455.85	455.80	455.77	455.76	
15	455.74	455.78	455.80	455.99	456.39	456.35	456.23	455.90	455.85	455.80	455.77	455.77	
16	455.74	455.78	455.80	455.90	456.33	456.34	456.26	455.90	455.85	455.80	455.77	455.77	
17	455.73	455.79	455.79	455.85	456.25	456.32	456.27	455.88	455.85	455.80	455.77	455.76	
18	455.66	455.81	455.81	455.85	456.44	456.32	456.22	455.88	455.85	455.80	455.77	455.76	
19	455.66	455.89	455.75	455.85	456.74	456.35	456.20	455.88	455.85	455.79	455.77	455.75	
20	455.66	455.84	455.76	455.85	456.44	456.33	456.18	455.88	455.85	455.79	455.77	455.75	
21	455.66	455.79	455.87	455.85	456.46	456.35	456.16	455.88	455.85	455.78	455.76	455.75	
22	455.66	455.73	455.78	455.84	456.64	456.53	456.15	455.88	455.83	455.78	455.76	455.75	
23	455.68	455.75	455.75	455.86	456.18	456.55	456.12	455.88	455.85	455.79	455.76	455.75	
24	455.81	455.75	455.77	455.99	456.19	457.13	456.10	455.88	455.85	455.78	455.76	455.74	
25	456.39	455.74	456.01	455.91	456.59	456.54	456.09	455.88	455.85	455.78	455.76	455.74	
26	455.80	455.73	456.87	455.87	457.65	456.42	456.08	455.88	455.85	455.79	455.75	455.74	
27	455.74	455.77	456.25	455.85	456.49	456.60	456.10	455.88	455.84	455.79	455.75	455.74	
28	455.72	455.83	456.15	455.85	456.26	457.10	456.08	455.88	455.84	455.79	455.75	455.74	
29	455.75	455.85	455.99	455.85	456.23	456.76	456.01	455.87	455.84	455.79	455.75	455.75	
30	456.19	456.16	455.94	455.85	456.39	456.37	456.06	455.86	455.84	455.79		455.75	
31		455.84		456.33	456.21		456.08		455.84	455.78		455.75	
Mean	455.75	455.86	455.90	455.91	456.54	456.50	456.25	455.91	455.85	455.80	455.77	455.75	
Max	456.39	456.33	456.87	456.33	457.93	457.13	456.69	456.00	455.86	455.83	455.78	455.77	457.93
Min	455.65	455.73	455.75	455.83	456.18	456.14	456.01	455.86	455.83	455.78	455.75	455.72	455.65

Annual Max Momentary Gage Height	459.72	m. (MSL.) ,	at 09.00 Hours , on Aug 1 , 2011		
Zero Gage at Bottom Elevation	455.10	m. (MSL.) ,	River Bed	455.27	m. (MSL)
Left Bank Elevation	461.89	m. (MSL.) ,			
Right Bank Elevation	461.91	m. (MSL.) ,	Drainage Area	129	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.65	5.32	1.80	3.13	49.55	6.77	12.22	4.30	2.52	2.16	1.62	1.35		
2	0.65	4.88	1.80	3.78	15.57	7.05	15.96	4.04	2.52	2.16	1.62	1.35		
3	0.65	4.17	1.92	3.52	10.96	6.33	12.22	3.91	2.52	2.16	1.62	1.35		
4	0.65	3.00	1.62	2.88	8.22	7.20	14.20	3.65	2.52	2.16	1.62	1.35		
5	0.70	1.71	3.13	2.40	7.37	9.07	10.78	3.65	2.52	2.16	1.62	1.35		
6	1.53	1.26	5.89	2.40	6.91	23.09	9.24	3.65	2.40	2.16	1.62	1.26		
7	1.35	1.53	2.88	2.16	7.20	21.48	9.75	3.52	2.52	2.16	1.62	1.35		
8	1.35	1.62	2.16	2.40	8.22	12.04	9.75	3.39	2.52	2.16	1.62	1.35		
9	1.35	3.39	1.80	3.13	8.90	13.48	9.24	3.26	2.52	2.16	1.62	1.35		
10	1.26	9.41	1.92	3.13	14.39	18.77	8.90	3.26	2.52	1.92	1.62	1.35		
11	1.26	4.30	2.16	5.46	30.36	12.76	7.88	3.26	2.52	1.80	1.53	1.08		
12	1.35	2.76	2.16	2.76	20.58	12.22	7.88	3.00	2.52	1.80	1.53	1.35		
13	1.35	1.53	1.80	3.26	26.03	12.22	7.54	3.00	2.52	1.80	1.53	1.35		
14	1.35	1.53	1.80	6.18	11.14	11.14	7.54	2.88	2.40	1.80	1.53	1.44		
15	1.26	1.62	1.80	4.17	10.43	9.75	7.71	3.00	2.40	1.80	1.53	1.53		
16	1.26	1.62	1.80	3.00	9.41	9.58	8.22	3.00	2.40	1.80	1.53	1.53		
17	1.17	1.71	1.71	2.40	8.05	9.24	8.39	2.76	2.40	1.80	1.53	1.44		
18	0.70	1.92	1.92	2.40	11.32	9.24	7.54	2.76	2.40	1.80	1.53	1.44		
19	0.70	2.88	1.35	2.40	16.93	9.75	7.20	2.76	2.40	1.71	1.53	1.35		
20	0.70	2.28	1.44	2.40	11.32	9.41	6.91	2.76	2.40	1.71	1.53	1.35		
21	0.70	1.71	2.64	2.40	11.68	9.75	6.62	2.76	2.40	1.62	1.44	1.35		
22	0.70	1.17	1.62	2.28	14.98	12.94	6.47	2.76	2.16	1.62	1.44	1.35		
23	0.80	1.35	1.35	2.52	6.91	13.30	6.04	2.76	2.40	1.71	1.44	1.35		
24	1.92	1.35	1.53	4.17	7.05	25.78	5.75	2.76	2.40	1.62	1.44	1.26		
25	10.43	1.26	4.45	3.13	14.02	13.12	5.60	2.76	2.40	1.62	1.44	1.26		
26	1.80	1.17	19.68	2.64	40.20	10.96	5.46	2.76	2.40	1.71	1.35	1.26		
27	1.26	1.53	8.05	2.40	12.22	14.20	5.75	2.76	2.28	1.71	1.35	1.26		
28	1.08	2.16	6.47	2.40	8.22	25.05	5.46	2.76	2.28	1.71	1.35	1.26		
29	1.35	2.40	4.17	2.40	7.71	17.32	4.45	2.64	2.28	1.71	1.35	1.35		
30	7.05	6.62	3.52	2.40	10.43	10.09	5.17	2.52	2.28	1.71		1.35		
31		2.28		9.41	7.37		5.46		2.28	1.62		1.35		
Total	48.33	81.44	96.34	99.51	433.65	383.10	251.30	93.05	75.00	57.54	44.10	41.67	1705.03	CMSDAY
Mean	1.61	2.63	3.21	3.21	13.99	12.77	8.11	3.10	2.42	1.86	1.52	1.34	4.66	CMS
Max	10.43	9.41	19.68	9.41	49.55	25.78	15.96	4.30	2.52	2.16	1.62	1.53	49.55	CMS
Min	0.65	1.17	1.35	2.16	6.91	6.33	4.45	2.52	2.16	1.62	1.35	1.08	0.65	CMS
Runoff	4.18	7.04	8.32	8.60	37.47	33.10	21.71	8.04	6.48	4.97	3.81	3.60	147.32	MCM

Momentary Peak 129.84 CMS. at 459.72 m. (MSL.) at 09.00 Hours , on Aug 1 , 2011

Runoff Yield 36.11 Liters/Second/Square KM. Momentary Peak Yield 1006.512 Liters/Second/Square KM.

WATER YEAR : 2011

PING RIVER BASIN

Nam Mae Kuang at Ban Pong , Chiang Mai (P.81)

Lat 18 - 41 - 37 N Long 99 - 04 - 55 E

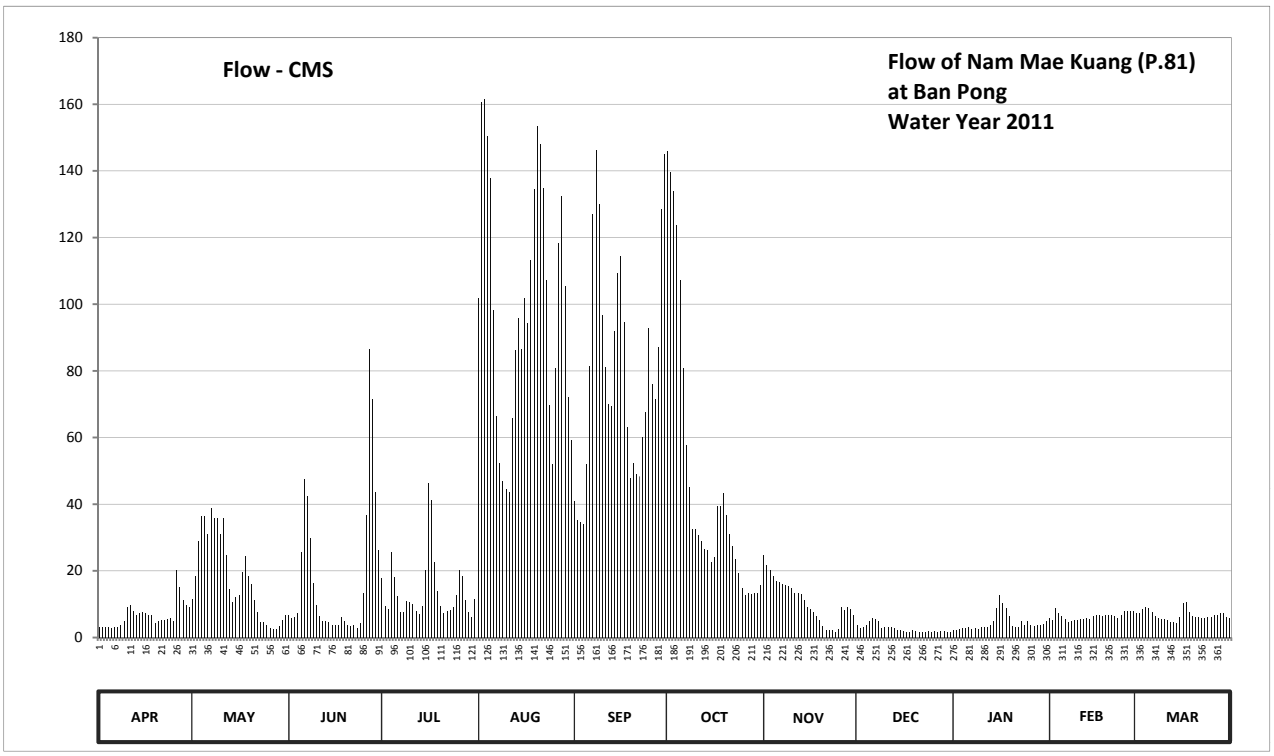
Location : on right bank at Ban Pong.

	Ban Pong	**Amphoe**	San Kamphaeng	**Changwat**	Chiang Mai
Drainge Area	1,190 sq.km.				
Type of Gage	Water - stage recorder				
Zero Gage at Bottom	+289.919 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On right bank at the abutment of the bridge.			**Elevation**	+295.749 m. (MSL.)
Gage Reading Frequency	Recording.				
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings				
Period of Available Gage Records	2002 to date				
Rating Operation					
Period of Rating	2002 to date				
Rated by Flot	-				
Rated by Current Meter	2002 to date				
Stability of Channel Regimes	Fairly stable.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records good. Stage-discharge relation defined by 37 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	291.02	291.80	291.43	292.16	295.17	293.25	296.21	292.54	291.09	290.91	291.32	291.46	
2	291.02	292.19	291.32	291.64	296.56	293.01	296.06	292.38	291.01	290.91	291.27	291.48	
3	291.02	292.73	291.35	291.57	296.58	292.99	295.93	292.30	291.02	290.95	291.59	291.55	
4	291.02	293.06	291.46	292.59	296.32	292.96	295.69	292.20	291.11	291.00	291.48	291.62	
5	290.99	293.06	292.59	292.18	296.02	293.67	295.30	292.12	291.25	290.99	291.39	291.59	
6	291.02	292.83	293.51	291.85	295.07	294.61	294.59	292.10	291.33	291.03	291.29	291.49	
7	291.04	293.16	293.32	291.49	294.15	295.77	293.87	292.06	291.30	290.95	291.22	291.39	
8	291.11	293.04	292.78	291.49	293.68	296.22	293.42	292.05	291.23	291.00	291.23	291.32	
9	291.24	293.04	292.09	291.75	293.49	295.84	292.89	292.03	291.00	290.94	291.27	291.30	
10	291.60	292.83	291.66	291.72	293.40	295.03	292.89	292.01	291.03	291.03	291.28	291.30	
11	291.66	293.04	291.39	291.69	293.37	294.60	292.82	291.92	291.02	291.02	291.30	291.27	
12	291.51	292.53	291.24	291.52	294.13	294.26	292.74	291.92	291.02	291.03	291.31	291.22	
13	291.43	291.98	291.26	291.45	294.75	294.24	292.63	291.89	290.99	291.11	291.32	291.21	
14	291.48	291.73	291.21	291.64	295.01	294.90	292.62	291.77	290.92	291.26	291.31	291.17	
15	291.49	291.83	291.12	292.29	294.76	295.35	292.42	291.61	290.92	291.58	291.39	291.37	
16	291.46	291.87	291.11	293.47	295.17	295.47	292.50	291.56	290.89	291.87	291.42	291.71	
17	291.43	292.27	291.12	293.27	294.97	294.98	293.19	291.50	290.81	291.71	291.41	291.73	
18	291.41	292.52	291.37	292.43	295.44	294.05	293.19	291.39	290.84	291.59	291.39	291.49	
19	291.19	292.19	291.25	291.94	295.94	293.52	293.35	291.27	290.92	291.40	291.42	291.40	
20	291.24	292.07	291.10	291.63	296.39	293.68	293.08	291.05	290.89	291.06	291.42	291.37	
21	291.27	291.78	291.08	291.47	296.26	293.56	292.83	290.93	290.82	291.02	291.42	291.35	
22	291.27	291.50	291.10	291.51	295.95	293.54	292.67	290.92	290.82	291.04	291.39	291.32	
23	291.31	291.22	290.99	291.53	295.30	293.95	292.48	290.90	290.84	291.23	291.34	291.34	
24	291.32	291.20	291.19	291.61	294.25	294.19	292.25	290.82	290.85	291.12	291.43	291.37	
25	291.25	291.10	291.92	291.87	293.67	294.93	292.00	290.97	290.83	291.23	291.51	291.38	
26	292.30	291.01	293.08	292.29	294.59	294.45	291.88	291.61	290.86	291.10	291.51	291.42	
27	292.02	290.95	294.76	292.19	295.56	294.31	291.91	291.54	290.83	291.08	291.52	291.42	
28	291.77	290.94	294.31	291.79	295.89	294.77	291.89	291.62	290.85	291.11	291.51	291.47	
29	291.66	291.08	293.37	291.49	295.26	295.80	291.92	291.55	290.85	291.12	291.47	291.46	
30	291.61	291.27	292.62	291.38	294.33	296.19	291.92	291.43	290.81	291.14		291.37	
31		291.42		291.80	293.92		292.05		290.84	291.23		291.32	
Mean	291.37	292.04	291.94	291.89	295.01	294.47	293.20	291.67	290.96	291.15	291.38	291.41	
Max	292.30	293.16	294.76	293.47	296.58	296.22	296.21	292.54	291.33	291.87	291.59	291.73	296.58
Min	290.99	290.94	290.99	291.38	293.37	292.96	291.88	290.82	290.81	290.91	291.22	291.17	290.81

Annual Max Momentary Gage Height	296.66	m. (MSL.) ,	at 15.00 Hours , on Aug 2 , 2011		
Zero Gage at Bottom Elevation	289.92	m. (MSL.) ,	River Bed	290.06	m. (MSL)
Left Bank Elevation	296.86	m. (MSL.) ,			
Right Bank Elevation	296.87	m. (MSL.) ,	Drainage Area	1190	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.06	11.50	6.87	17.76	101.88	40.90	145.92	24.79	3.62	2.18	5.70	7.25		
2	3.06	18.32	5.70	9.50	160.80	35.14	139.55	21.83	2.98	2.18	5.20	7.50		
3	3.06	28.83	6.00	8.63	161.65	34.67	134.02	20.35	3.06	2.50	8.88	8.37		
4	3.06	36.34	7.25	25.71	150.60	34.00	123.82	18.50	3.78	2.90	7.50	9.25		
5	2.82	36.34	25.71	18.13	137.85	51.93	107.25	17.02	5.00	2.82	6.40	8.88		
6	3.06	31.07	47.53	12.33	98.13	81.35	80.67	16.65	5.80	3.14	5.40	7.62		
7	3.22	38.74	42.58	7.62	66.37	127.22	57.60	15.91	5.50	2.50	4.70	6.40		
8	3.78	35.86	29.95	7.62	52.20	146.35	45.05	15.72	4.80	2.90	4.80	5.70		
9	4.90	35.86	16.46	10.88	46.97	130.20	32.43	15.35	2.90	2.42	5.20	5.50		
10	9.00	31.07	9.75	10.50	44.50	96.62	32.43	14.99	3.14	3.14	5.30	5.50		
11	9.75	35.86	6.40	10.13	43.78	81.00	30.85	13.48	3.06	3.06	5.50	5.20		
12	7.88	24.60	4.90	8.00	65.73	69.95	29.05	13.48	3.06	3.14	5.60	4.70		
13	6.87	14.47	5.10	7.13	86.25	69.30	26.57	12.99	2.82	3.78	5.70	4.60		
14	7.50	10.63	4.60	9.50	95.88	91.75	26.35	11.13	2.26	5.10	5.60	4.26		
15	7.62	11.99	3.86	20.17	86.60	109.37	22.57	9.12	2.26	8.75	6.40	6.20		
16	7.25	12.66	3.78	46.43	101.88	114.47	24.05	8.50	2.04	12.66	6.75	10.38		
17	6.87	19.79	3.86	41.38	94.38	94.75	39.46	7.75	1.56	10.38	6.63	10.63		
18	6.63	24.42	6.20	22.75	113.20	63.12	39.46	6.40	1.74	8.88	6.40	7.62		
19	4.42	18.32	5.00	13.81	134.45	47.80	43.30	5.20	2.26	6.50	6.75	6.50		
20	4.90	16.10	3.70	9.38	153.58	52.20	36.82	3.30	2.04	3.38	6.75	6.20		
21	5.20	11.25	3.54	7.38	148.05	48.90	31.07	2.34	1.62	3.06	6.75	6.00		
22	5.20	7.75	3.70	7.88	134.88	48.35	27.48	2.26	1.62	3.22	6.40	5.70		
23	5.60	4.70	2.82	8.13	107.25	60.00	23.68	2.10	1.74	4.80	5.90	5.90		
24	5.70	4.50	4.42	9.12	69.62	67.68	19.42	1.62	1.80	3.86	6.87	6.20		
25	5.00	3.70	13.48	12.66	51.93	92.87	14.80	2.66	1.68	4.80	7.88	6.30		
26	20.35	2.98	36.82	20.17	80.67	76.13	12.82	9.12	1.86	3.70	7.88	6.75		
27	15.17	2.50	86.60	18.32	118.30	71.57	13.32	8.25	1.68	3.54	8.00	6.75		
28	11.13	2.42	71.57	11.38	132.33	86.95	12.99	9.25	1.80	3.78	7.88	7.38		
29	9.75	3.54	43.78	7.62	105.55	128.50	13.48	8.37	1.80	3.86	7.38	7.25		
30	9.12	5.20	26.35	6.30	72.22	145.07	13.48	6.87	1.56	4.02		6.20		
31		6.75		11.50	59.10		15.72		1.74	4.80		5.70		
Total	200.93	548.06	538.28	437.82	3076.58	2398.11	1415.48	325.30	82.58	135.75	186.10	208.39	9553.38	CMSDAY
Mean	6.70	17.68	17.94	14.12	99.24	79.94	45.66	10.84	2.66	4.38	6.42	6.72	26.10	CMS
Max	20.35	38.74	86.60	46.43	161.65	146.35	145.92	24.79	5.80	12.66	8.88	10.63	161.65	CMS
Min	2.82	2.42	2.82	6.30	43.78	34.00	12.82	1.62	1.56	2.18	4.70	4.26	1.56	CMS
Runoff	17.36	47.35	46.51	37.83	265.82	207.20	122.30	28.11	7.14	11.73	16.08	18.01	825.41	MCM

Momentary Peak 165.05 CMS. at 296.66 m. (MSL.) at 15.00 Hours , on Aug 2 , 2011

Runoff Yield 21.93 Liters/Second/Square KM. Momentary Peak Yield 138.697 Liters/Second/Square KM.

WATER YEAR : 2011

PING RIVER BASIN

Nam Mae Wang at Ban Sop Win , Chiang Mai (P.82)

Lat 18 - 39 - 08 N Long 98 - 41 - 26 E

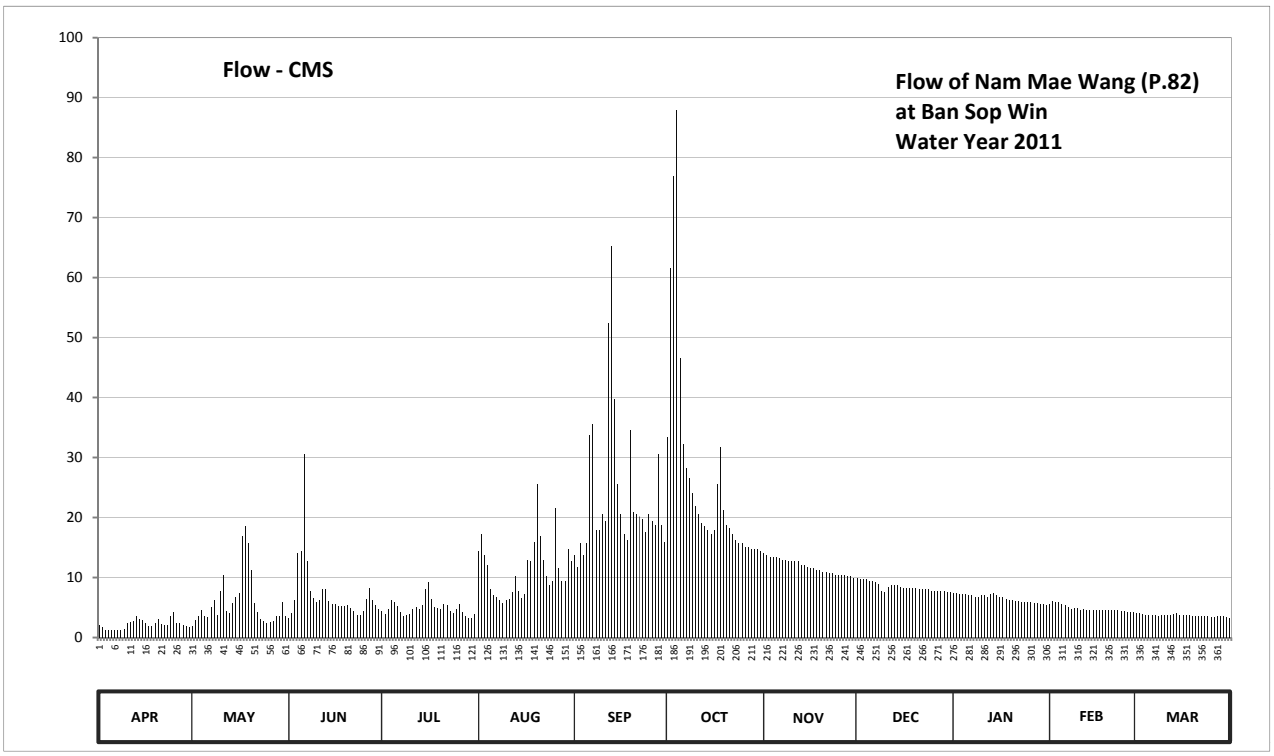
Location : on left bank at Ban Sop Win.

	Ban Sop Win	**Amphoe** Mae Wang	**Changwat** Chiang Mai
Drainge Area	389 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+400.196 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank about 5.00 meters from the top staff gage.	**Elevation**	+406.756 m. (MSL.)
Gage Reading Frequency	Recording.		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	2003 to date		
Rating Operation			
Period of Rating	2003 to date		
Rated by Flot	-		
Rated by Current Meter	2003 to date		
Stability of Channel Regimes	Rather unstable by some scouring.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 36 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	401.00	400.99	401.11	401.19	401.63	401.61	402.16	401.62	401.47	401.36	401.26	401.17	
2	400.97	401.08	401.17	401.16	401.72	401.54	402.71	401.61	401.46	401.36	401.29	401.17	
3	400.93	401.14	401.30	401.21	401.61	401.67	402.96	401.60	401.46	401.35	401.28	401.16	
4	400.93	401.20	401.62	401.30	401.55	401.61	403.12	401.60	401.46	401.35	401.28	401.15	
5	400.93	401.14	401.63	401.28	401.39	401.67	402.44	401.60	401.45	401.35	401.26	401.15	
6	400.93	401.12	402.09	401.24	401.34	402.17	402.13	401.59	401.45	401.34	401.25	401.15	
7	400.93	401.23	401.57	401.18	401.33	402.21	402.03	401.58	401.44	401.34	401.23	401.15	
8	400.93	401.30	401.38	401.14	401.30	401.74	401.99	401.58	401.43	401.33	401.21	401.13	
9	400.95	401.15	401.32	401.15	401.27	401.74	401.92	401.57	401.38	401.33	401.22	401.15	
10	401.04	401.38	401.28	401.16	401.30	401.82	401.86	401.57	401.37	401.34	401.22	401.15	
11	401.05	401.49	401.30	401.21	401.31	401.79	401.82	401.57	401.41	401.34	401.20	401.15	
12	401.07	401.19	401.39	401.23	401.37	402.55	401.78	401.57	401.42	401.33	401.21	401.15	
13	401.13	401.17	401.39	401.21	401.48	402.77	401.76	401.55	401.42	401.35	401.20	401.16	
14	401.10	401.27	401.29	401.25	401.38	402.30	401.74	401.55	401.42	401.36	401.20	401.17	
15	401.09	401.33	401.26	401.39	401.32	401.96	401.72	401.54	401.41	401.34	401.20	401.15	
16	401.03	401.36	401.26	401.44	401.35	401.82	401.74	401.53	401.40	401.33	401.20	401.15	
17	400.99	401.71	401.24	401.31	401.58	401.72	401.96	401.53	401.40	401.33	401.20	401.15	
18	400.99	401.76	401.24	401.23	401.57	401.69	402.12	401.52	401.40	401.31	401.20	401.15	
19	401.03	401.67	401.24	401.22	401.68	402.19	401.84	401.52	401.40	401.30	401.20	401.13	
20	401.10	401.52	401.25	401.21	401.96	401.83	401.77	401.51	401.40	401.30	401.20	401.13	
21	401.02	401.27	401.22	401.26	401.71	401.82	401.75	401.51	401.39	401.29	401.20	401.13	
22	401.00	401.18	401.19	401.25	401.58	401.81	401.72	401.50	401.39	401.29	401.20	401.13	
23	401.01	401.10	401.15	401.19	401.48	401.80	401.69	401.50	401.39	401.28	401.20	401.13	
24	401.14	401.06	401.15	401.17	401.42	401.73	401.67	401.49	401.39	401.28	401.19	401.13	
25	401.18	401.04	401.19	401.21	401.45	401.82	401.67	401.49	401.38	401.28	401.19	401.12	
26	401.04	401.05	401.31	401.26	401.85	401.79	401.65	401.49	401.38	401.28	401.18	401.12	
27	401.04	401.06	401.40	401.18	401.53	401.77	401.65	401.49	401.38	401.27	401.18	401.13	
28	401.00	401.13	401.30	401.14	401.45	402.09	401.64	401.48	401.38	401.27	401.18	401.13	
29	400.99	401.14	401.25	401.11	401.45	401.77	401.64	401.48	401.38	401.26	401.18	401.13	
30	400.98	401.28	401.21	401.11	401.64	401.68	401.64	401.47	401.37	401.26		401.12	
31		401.13		401.16	401.57		401.63		401.37	401.25		401.11	
Mean	401.02	401.25	401.32	401.22	401.50	401.88	401.93	401.54	401.41	401.31	401.21	401.14	
Max	401.18	401.76	402.09	401.44	401.96	402.77	403.12	401.62	401.47	401.36	401.29	401.17	403.12
Min	400.93	400.99	401.11	401.11	401.27	401.54	401.63	401.47	401.37	401.25	401.18	401.11	400.93

Annual Max Momentary Gage Height	403.94	m. (MSL.) ,	at 04.00 Hours , on Oct 4 , 2011		
Zero Gage at Bottom Elevation	400.20	m. (MSL.) ,	River Bed	400.32	m. (MSL)
Left Bank Elevation	405.99	m. (MSL.) ,			
Right Bank Elevation	406.20	m. (MSL.) ,	Drainage Area	389	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.00	1.90	3.24	4.36	14.43	13.81	33.40	14.12	9.95	7.40	5.52	4.08		
2	1.70	2.88	4.08	3.94	17.24	11.82	61.60	13.81	9.70	7.40	6.03	4.08		
3	1.30	3.66	6.20	4.67	13.81	15.67	77.00	13.50	9.70	7.20	5.86	3.94		
4	1.30	4.50	14.12	6.20	12.10	13.81	87.90	13.50	9.70	7.20	5.86	3.80		
5	1.30	3.66	14.43	5.86	8.00	15.67	46.60	13.50	9.45	7.20	5.52	3.80		
6	1.30	3.38	30.60	5.18	7.00	33.80	32.20	13.22	9.45	7.00	5.35	3.80		
7	1.30	5.01	12.66	4.22	6.80	35.47	28.20	12.94	9.20	7.00	5.01	3.80		
8	1.30	6.20	7.80	3.66	6.20	17.88	26.63	12.94	8.95	6.80	4.67	3.52		
9	1.50	3.80	6.60	3.80	5.69	17.88	24.04	12.66	7.80	6.80	4.84	3.80		
10	2.44	7.80	5.86	3.94	6.20	20.50	21.90	12.66	7.60	7.00	4.84	3.80		
11	2.55	10.45	6.20	4.67	6.40	19.48	20.50	12.66	8.45	7.00	4.50	3.80		
12	2.77	4.36	8.00	5.01	7.60	52.37	19.16	12.66	8.70	6.80	4.67	3.80		
13	3.52	4.08	8.00	4.67	10.20	65.20	18.52	12.10	8.70	7.20	4.50	3.94		
14	3.10	5.69	6.03	5.35	7.80	39.75	17.88	12.10	8.70	7.40	4.50	4.08		
15	2.99	6.80	5.52	8.00	6.60	25.52	17.24	11.82	8.45	7.00	4.50	3.80		
16	2.33	7.40	5.52	9.20	7.20	20.50	17.88	11.54	8.20	6.80	4.50	3.80		
17	1.90	16.92	5.18	6.40	12.94	17.24	25.52	11.54	8.20	6.80	4.50	3.80		
18	1.90	18.52	5.18	5.01	12.66	16.29	31.80	11.26	8.20	6.40	4.50	3.80		
19	2.33	15.67	5.18	4.84	15.98	34.60	21.20	11.26	8.20	6.20	4.50	3.52		
20	3.10	11.26	5.35	4.67	25.52	20.85	18.84	10.98	8.20	6.20	4.50	3.52		
21	2.22	5.69	4.84	5.52	16.92	20.50	18.20	10.98	8.00	6.03	4.50	3.52		
22	2.00	4.22	4.36	5.35	12.94	20.15	17.24	10.70	8.00	6.03	4.50	3.52		
23	2.11	3.10	3.80	4.36	10.20	19.80	16.29	10.70	8.00	5.86	4.50	3.52		
24	3.66	2.66	3.80	4.08	8.70	17.56	15.67	10.45	8.00	5.86	4.36	3.52		
25	4.22	2.44	4.36	4.67	9.45	20.50	15.67	10.45	7.80	5.86	4.36	3.38		
26	2.44	2.55	6.40	5.52	21.55	19.48	15.05	10.45	7.80	5.86	4.22	3.38		
27	2.44	2.66	8.20	4.22	11.54	18.84	15.05	10.45	7.80	5.69	4.22	3.52		
28	2.00	3.52	6.20	3.66	9.45	30.60	14.74	10.20	7.80	5.69	4.22	3.52		
29	1.90	3.66	5.35	3.24	9.45	18.84	14.74	10.20	7.80	5.52	4.22	3.52		
30	1.80	5.86	4.67	3.24	14.74	15.98	14.74	9.95	7.60	5.52		3.38		
31		3.52		3.94	12.66		14.43		7.60	5.35		3.24		
Total	66.72	183.82	217.73	151.45	347.97	710.36	819.83	355.30	261.70	202.07	137.77	114.30	3569.02	CMSDAY
Mean	2.22	5.93	7.26	4.89	11.22	23.68	26.45	11.84	8.44	6.52	4.75	3.69	9.75	CMS
Max	4.22	18.52	30.60	9.20	25.52	65.20	87.90	14.12	9.95	7.40	6.03	4.08	87.90	CMS
Min	1.30	1.90	3.24	3.24	5.69	11.82	14.43	9.95	7.60	5.35	4.22	3.24	1.30	CMS
Runoff	5.77	15.88	18.81	13.09	30.07	61.38	70.83	30.70	22.61	17.46	11.90	9.88	308.36	MCM

Momentary Peak 151.90 CMS. at 403.94 m. (MSL.) at 04.00 Hours , on Oct 4 , 2011

Runoff Yield 25.07 Liters/Second/Square KM. Momentary Peak Yield 390.488 Liters/Second/Square KM.

WATER YEAR : 2011

PING RIVER BASIN

Nam Mae Wang at Ban Phan Ton , Chiang Mai (P.84)

Lat 18 - 35 - 20 N Long 98 - 47 - 59 E

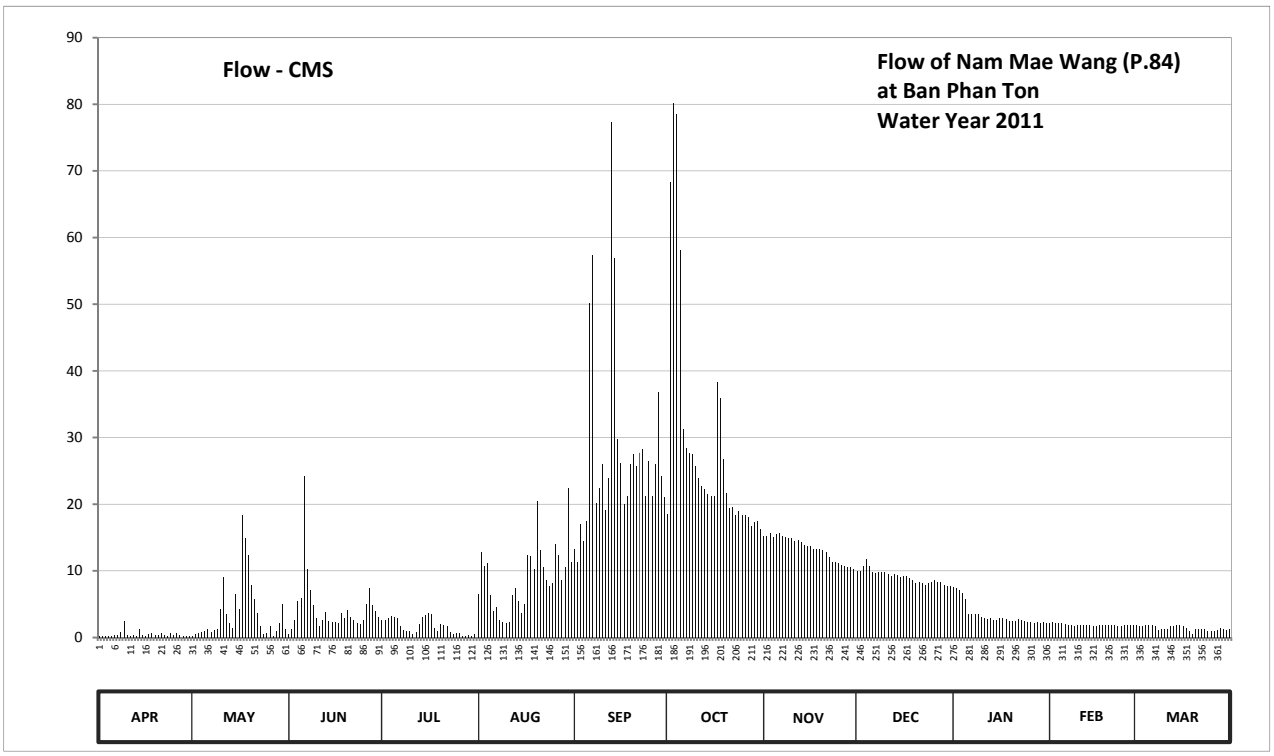
Location : on left bank at Ban Phan Ton.

	Ban Phan Ton	**Amphoe** Mae Wang	**Changwat** Chiang Mai
Drainge Area	491 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+303.244 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank at the abutment of the bridge.	**Elevation**	+309.244 m. (MSL.)
Gage Reading Frequency	Recording.		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	2003 to date		
Rating Operation			
Period of Rating	2003 to date		
Rated by Flot	-		
Rated by Current Meter	2003 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records Fair. Stage-discharge relation defined by 39 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	303.49	303.50	303.56	303.85	304.19	304.59	304.85	304.69	304.41	304.26	304.03	303.99	
2	303.48	303.56	303.69	303.85	304.56	304.48	306.48	304.69	304.41	304.25	304.04	303.95	
3	303.49	303.57	303.85	303.88	304.45	304.78	306.77	304.71	304.45	304.23	304.02	303.96	
4	303.47	303.61	304.10	303.92	304.47	304.65	306.73	304.68	304.51	304.20	304.02	303.97	
5	303.48	303.63	304.14	303.91	304.17	304.80	306.21	304.70	304.45	304.13	304.03	303.97	
6	303.51	303.69	305.10	303.88	303.98	305.99	305.38	304.71	304.40	304.22	304.00	303.97	
7	303.52	303.60	304.43	303.74	304.03	306.19	305.27	304.69	304.39	304.21	303.97	303.95	
8	303.61	303.65	304.23	303.64	303.86	304.93	305.24	304.68	304.40	304.21	303.97	303.85	
9	303.83	303.67	304.06	303.63	303.82	305.03	305.23	304.67	304.40	304.22	303.95	303.89	
10	303.51	304.00	303.88	303.62	303.80	305.17	305.16	304.67	304.40	304.15	303.98	303.87	
11	303.49	304.35	303.74	303.56	303.81	304.88	305.09	304.65	304.38	304.13	303.97	303.89	
12	303.51	303.94	303.86	303.61	304.17	305.09	305.04	304.66	304.36	304.12	303.97	303.94	
13	303.50	303.79	303.97	303.78	304.25	306.70	305.02	304.64	304.38	304.14	303.98	303.95	
14	303.68	303.70	303.83	303.90	304.10	306.18	304.99	304.62	304.37	304.10	303.97	303.98	
15	303.53	304.19	303.82	303.93	303.95	305.32	304.98	304.61	304.35	304.11	303.94	303.99	
16	303.48	304.01	303.82	303.95	304.07	305.18	304.98	304.61	304.36	304.13	303.94	303.94	
17	303.55	304.84	303.79	303.94	304.54	304.92	305.63	304.59	304.36	304.14	303.97	303.91	
18	303.57	304.67	303.95	303.71	304.53	304.98	305.55	304.59	304.34	304.12	303.97	303.82	
19	303.51	304.54	303.89	303.63	304.43	305.17	305.20	304.59	304.32	304.09	303.98	303.72	
20	303.52	304.28	303.99	303.77	304.94	305.23	305.00	304.58	304.29	304.07	303.97	303.88	
21	303.57	304.13	303.91	303.76	304.58	305.16	304.89	304.56	304.30	304.08	303.97	303.89	
22	303.51	303.95	303.85	303.73	304.44	305.24	304.90	304.52	304.29	304.12	303.97	303.88	
23	303.49	303.73	303.79	303.60	304.32	305.26	304.84	304.48	304.28	304.11	303.96	303.86	
24	303.59	303.55	303.78	303.56	304.27	304.98	304.87	304.48	304.29	304.09	303.96	303.81	
25	303.52	303.57	303.86	303.59	304.29	305.19	304.84	304.47	304.30	304.06	303.97	303.82	
26	303.57	303.73	304.07	303.58	304.63	304.98	304.84	304.46	304.32	304.04	303.97	303.81	
27	303.51	303.50	304.25	303.47	304.54	305.17	304.83	304.45	304.30	304.03	303.99	303.84	
28	303.50	303.63	304.06	303.47	304.32	305.58	304.76	304.44	304.30	304.04	303.97	303.91	
29	303.48	303.79	303.98	303.52	304.44	305.10	304.79	304.44	304.28	304.03	303.98	303.87	
30	303.50	304.07	303.91	303.47	305.03	304.97	304.80	304.43	304.27	304.04		303.84	
31		303.68		303.56	304.48		304.74		304.27	304.02		303.86	
Mean	303.53	303.87	303.97	303.71	304.31	305.20	305.22	304.59	304.35	304.13	303.98	303.90	
Max	303.83	304.84	305.10	303.95	305.03	306.70	306.77	304.71	304.51	304.26	304.04	303.99	306.77
Min	303.47	303.50	303.56	303.47	303.80	304.48	304.74	304.43	304.27	304.02	303.94	303.72	303.47

Annual Max Momentary Gage Height	307.38	m. (MSL.) ,	at 18.00 Hours , on Sep 13 , 2011		
Zero Gage at Bottom Elevation	303.24	m. (MSL.) ,	River Bed	303.30	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, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.22	0.25	0.58	2.60	6.57	13.31	18.55	15.30	9.99	7.63	2.18	1.94		
2	0.20	0.58	1.34	2.60	12.76	11.28	68.40	15.30	9.99	7.47	2.24	1.70		
3	0.22	0.64	2.60	2.84	10.73	17.10	80.25	15.70	10.73	7.17	2.12	1.76		
4	0.18	0.86	5.45	3.24	11.10	14.50	78.60	15.10	11.84	6.70	2.12	1.82		
5	0.20	0.98	5.95	3.12	6.33	17.50	58.07	15.50	10.73	5.82	2.18	1.82		
6	0.31	1.34	24.20	2.84	3.96	50.16	31.20	15.70	9.80	3.58	2.00	1.82		
7	0.36	0.80	10.35	1.72	4.57	57.34	28.45	15.30	9.65	3.49	1.82	1.70		
8	0.86	1.10	7.17	1.04	2.68	20.23	27.70	15.10	9.80	3.49	1.82	1.15		
9	2.44	1.22	4.95	0.98	2.36	22.45	27.45	14.90	9.80	3.58	1.70	1.35		
10	0.31	4.20	2.84	0.92	2.20	25.95	25.70	14.90	9.80	3.00	1.88	1.25		
11	0.22	9.03	1.72	0.58	2.28	19.18	23.95	14.50	9.49	2.84	1.82	1.35		
12	0.31	3.48	2.68	0.86	6.33	23.95	22.70	14.70	9.18	2.76	1.82	1.64		
13	0.25	2.12	3.84	2.04	7.47	77.35	22.20	14.30	9.49	2.92	1.88	1.70		
14	1.28	1.40	2.44	3.00	5.45	56.98	21.49	13.90	9.33	2.60	1.82	1.88		
15	0.41	6.57	2.36	3.36	3.60	29.70	21.28	13.70	9.03	2.68	1.64	1.94		
16	0.20	4.33	2.36	3.60	5.08	26.20	21.28	13.70	9.18	2.84	1.64	1.64		
17	0.52	18.34	2.12	3.48	12.39	20.02	38.35	13.31	9.18	2.92	1.82	1.46		
18	0.64	14.90	3.60	1.48	12.20	21.28	35.97	13.31	8.87	2.76	1.82	1.00		
19	0.31	12.39	2.92	0.98	10.35	25.95	26.70	13.31	8.56	2.54	1.88	0.50		
20	0.36	7.94	4.08	1.96	20.44	27.45	21.70	13.13	8.10	2.42	1.82	1.30		
21	0.64	5.82	3.12	1.88	13.13	25.70	19.39	12.76	8.25	2.48	1.82	1.35		
22	0.31	3.60	2.60	1.64	10.54	27.70	19.60	12.02	8.10	2.76	1.82	1.30		
23	0.22	1.64	2.12	0.80	8.56	28.20	18.34	11.28	7.94	2.68	1.76	1.20		
24	0.74	0.52	2.04	0.58	7.78	21.28	18.97	11.28	8.10	2.54	1.76	0.95		
25	0.36	0.64	2.68	0.74	8.10	26.45	18.34	11.10	8.25	2.36	1.82	1.00		
26	0.64	1.64	5.08	0.69	14.10	21.28	18.34	10.91	8.56	2.24	1.82	0.95		
27	0.31	0.25	7.47	0.18	12.39	25.95	18.13	10.73	8.25	2.18	1.94	1.10		
28	0.25	0.98	4.95	0.18	8.56	36.83	16.70	10.54	8.25	2.24	1.82	1.46		
29	0.20	2.12	3.96	0.36	10.54	24.20	17.30	10.54	7.94	2.18	1.88	1.25		
30	0.25	5.08	3.12	0.18	22.45	21.07	17.50	10.35	7.78	2.24		1.10		
31		1.28		0.58	11.28		16.30		7.78	2.12		1.20		
Total	13.72	116.04	130.69	51.05	276.28	836.54	898.90	402.17	281.74	105.23	54.46	43.58	3210.40	CMSDAY
Mean	0.46	3.74	4.36	1.65	8.91	27.88	29.00	13.41	9.09	3.39	1.88	1.41	8.77	CMS
Max	2.44	18.34	24.20	3.60	22.45	77.35	80.25	15.70	11.84	7.63	2.24	1.94	80.25	CMS
Min	0.18	0.25	0.58	0.18	2.20	11.28	16.30	10.35	7.78	2.12	1.64	0.50	0.18	CMS
Runoff	1.19	10.03	11.29	4.41	23.87	72.28	77.67	34.75	24.34	9.09	4.71	3.77	277.38	MCM

Momentary Peak 106.89 CMS. at 307.38 m. (MSL.) at 18.00 Hours , on Sep 13 , 2011

Runoff Yield 17.86 Liters/Second/Square KM. Momentary Peak Yield 217.699 Liters/Second/Square KM.

WATER YEAR : 2011

PING RIVER BASIN

Nam Mae Li at Ban Lai Khaeo , Lamphun (P.85)

Lat 18 - 21 - 50 N Long 98 - 46 - 32 E

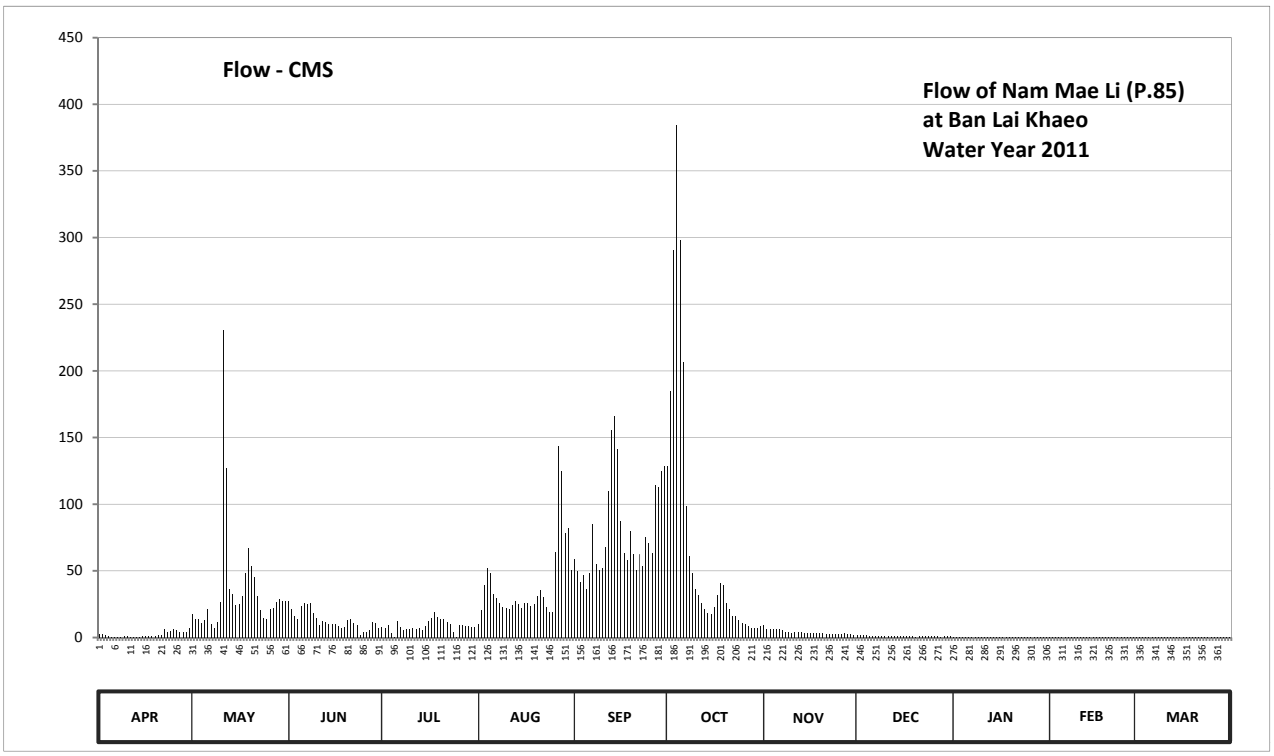
Location : on right bank at Ban Lai Khaeo.

	Ban Lai Khaeo	**Amphoe** Ban Hong		**Changwat** Lamphun	
Drainge Area	2,037 sq.km.				
Type of Gage	Water - stage recorder				
Zero Gage at Bottom	+290.368 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On right bank at the abutment of the bridge.			**Elevation**	+295.123 m. (MSL.)
Gage Reading Frequency	Recording.				
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings				
Period of Available Gage Records	2003 to date				
Rating Operation					
Period of Rating	2003 to date				
Rated by Flot	-				
Rated by Current Meter	2003 to date				
Stability of Channel Regimes	Fairly stable because of back water effect.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records good. Stage-discharge relation defined by 37 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	290.91	291.33	291.33	291.09	290.64	292.02	292.88	290.58	289.91	289.67	289.47	289.50	
2	290.92	291.24	291.14	291.07	291.10	291.85	293.39	290.41	289.90	289.67	289.49	289.50	
3	290.85	291.24	290.95	291.14	291.63	291.68	294.12	290.38	289.89	289.66	289.49	289.50	
4	290.74	291.17	290.83	290.95	291.90	291.80	294.66	290.39	289.86	289.62	289.49	289.50	
5	290.52	291.22	291.21	290.52	291.82	291.56	294.17	290.37	289.77	289.62	289.49	289.50	
6	290.47	291.42	291.28	291.20	291.47	291.83	293.55	290.37	289.74	289.59	289.49	289.50	
7	290.60	291.16	291.26	291.10	291.38	292.41	292.56	290.32	289.76	289.62	289.49	289.50	
8	290.64	291.08	291.27	291.03	291.27	291.96	292.06	290.22	289.81	289.62	289.49	289.50	
9	290.70	291.19	291.04	291.05	291.19	291.87	291.82	290.17	289.76	289.62	289.49	289.49	
10	290.77	291.53	290.86	291.05	291.16	291.90	291.57	290.13	289.77	289.62	289.49	289.49	
11	290.64	293.72	290.62	291.07	291.12	292.17	291.45	290.19	289.77	289.62	289.49	289.49	
12	290.45	292.86	290.77	291.06	291.23	292.68	291.27	290.22	289.75	289.62	289.49	289.49	
13	290.46	291.71	290.73	291.07	291.31	293.14	291.12	290.23	289.73	289.62	289.50	289.49	
14	290.64	291.65	290.66	291.04	291.25	293.23	291.04	290.12	289.73	289.62	289.48	289.48	
15	290.78	291.48	290.66	291.11	291.15	293.01	290.99	290.15	289.73	289.62	289.47	289.48	
16	290.82	291.50	290.64	291.21	291.28	292.44	291.18	290.11	289.73	289.62	289.47	289.49	
17	290.82	291.62	290.54	291.26	291.28	292.10	291.44	290.10	289.76	289.62	289.47	289.49	
18	290.82	291.91	290.46	291.37	291.21	292.01	291.67	290.09	289.73	289.62	289.47	289.49	
19	290.82	292.19	290.49	291.28	291.26	292.34	291.63	290.09	289.73	289.62	289.47	289.49	
20	290.83	291.99	290.82	291.24	291.43	292.08	291.27	290.07	289.67	289.62	289.47	289.49	
21	290.87	291.86	290.83	291.25	291.54	291.87	291.13	290.04	289.71	289.62	289.50	289.49	
22	291.06	291.62	290.69	291.18	291.41	292.08	290.95	290.05	289.74	289.62	289.52	289.49	
23	290.99	291.40	290.58	291.15	291.20	291.92	290.93	289.98	289.76	289.55	289.51	289.49	
24	291.00	291.27	290.84	290.97	291.05	292.28	290.79	289.96	289.72	289.47	289.50	289.49	
25	291.05	291.25	290.98	290.61	291.05	292.21	290.70	289.97	289.72	289.47	289.50	289.49	
26	291.04	291.12	290.97	290.59	292.11	292.10	290.63	290.04	289.70	289.46	289.50	289.49	
27	290.99	291.17	291.02	290.57	293.03	292.73	290.55	290.06	289.69	289.47	289.50	289.49	
28	290.97	291.30	291.19	290.55	292.84	292.71	290.47	290.01	289.67	289.48	289.50	289.51	
29	290.97	291.37	291.17	290.53	292.32	292.84	290.42	289.96	289.69	289.50	289.50	289.50	
30	291.07	291.31	291.07	290.52	292.37	292.88	290.42	289.94	289.69	289.50		289.49	
31		291.31		290.52	291.87		290.54		289.69	289.50		289.58	
Mean	290.81	291.55	290.90	290.98	291.51	292.26	291.66	290.16	289.75	289.59	289.49	289.50	
Max	291.07	293.72	291.33	291.37	293.03	293.23	294.66	290.58	289.91	289.67	289.52	289.58	294.66
Min	290.45	291.08	290.46	290.52	290.64	291.56	290.42	289.94	289.67	289.46	289.47	289.48	289.46

Annual Max Momentary Gage Height	294.85	m. (MSL.) ,	at 03.00 Hours , on Oct 4 , 2011		
Zero Gage at Bottom Elevation	290.37	m. (MSL.) ,	River Bed	288.11	m. (MSL)
Left Bank Elevation	295.36	m. (MSL.) ,			
Right Bank Elevation	295.35	m. (MSL.) ,	Drainage Area	2037	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.70	17.35	27.62	7.65	10.08	58.75	128.60	9.08	1.87	0.71	0.14	0.20		
2	2.90	13.60	21.49	6.95	20.35	49.63	184.80	6.63	1.80	0.71	0.18	0.20		
3	1.85	13.60	16.35	9.60	39.10	41.42	290.60	6.24	1.74	0.68	0.18	0.20		
4	0.93	10.80	13.66	3.50	52.25	47.00	384.40	6.37	1.56	0.56	0.18	0.20		
5	0.56	12.80	23.54	0.56	48.05	36.16	298.35	6.11	1.08	0.56	0.18	0.20		
6	0.50	21.40	25.92	12.00	32.70	48.57	206.25	6.11	0.96	0.47	0.18	0.20		
7	0.64	10.40	25.24	8.00	29.32	84.90	98.40	5.46	1.04	0.56	0.18	0.20		
8	0.69	7.30	25.58	5.55	25.58	55.40	61.25	4.24	1.26	0.56	0.18	0.20		
9	0.75	11.60	18.64	6.25	22.91	50.68	48.05	3.76	1.04	0.56	0.18	0.18		
10	1.06	26.50	14.32	6.25	22.06	52.25	36.55	3.44	1.08	0.56	0.18	0.18		
11	0.69	230.40	9.74	6.95	20.92	68.13	31.93	3.92	1.08	0.56	0.18	0.18		
12	0.48	126.70	12.43	6.60	24.22	109.60	25.58	4.24	1.00	0.56	0.18	0.18		
13	0.49	36.10	11.67	6.95	26.94	155.40	20.92	4.36	0.92	0.56	0.20	0.18		
14	0.69	32.75	10.42	5.90	24.90	165.60	18.64	3.36	0.92	0.56	0.16	0.16		
15	1.11	24.10	10.42	8.40	21.77	141.10	17.27	3.60	0.92	0.56	0.14	0.16		
16	1.46	25.00	10.08	12.40	25.92	87.60	22.63	3.28	0.92	0.56	0.14	0.18		
17	1.46	31.10	8.44	14.40	25.92	63.75	31.54	3.20	1.04	0.56	0.14	0.18		
18	1.46	48.65	7.28	19.15	23.54	58.13	40.96	3.13	0.92	0.56	0.14	0.18		
19	1.46	67.32	7.67	15.20	25.24	79.80	39.10	3.13	0.92	0.56	0.14	0.18		
20	1.59	53.85	13.44	13.60	31.15	62.50	25.58	2.99	0.71	0.56	0.14	0.18		
21	2.11	45.40	13.66	14.00	35.39	50.68	21.20	2.78	0.84	0.56	0.20	0.18		
22	6.60	31.10	10.93	11.20	30.39	62.50	16.35	2.85	0.96	0.56	0.26	0.18		
23	4.30	20.50	9.08	10.00	23.20	53.30	15.89	2.36	1.04	0.35	0.23	0.18		
24	4.50	14.80	1.72	3.90	18.92	75.60	12.81	2.22	0.88	0.14	0.20	0.18		
25	6.25	14.00	4.10	0.65	18.92	70.70	11.10	2.29	0.88	0.14	0.20	0.18		
26	5.90	20.92	3.90	9.24	64.37	63.75	9.91	2.78	0.80	0.12	0.20	0.18		
27	4.30	22.35	5.20	8.92	143.30	114.35	8.60	2.92	0.77	0.14	0.20	0.18		
28	3.90	26.60	11.60	8.60	124.80	112.45	7.41	2.57	0.71	0.16	0.20	0.23		
29	3.90	28.98	10.80	8.28	78.40	124.80	6.76	2.22	0.77	0.20	0.20	0.20		
30	6.95	26.94	6.95	8.12	81.90	128.60	6.76	2.08	0.77	0.20		0.18		
31		26.94		8.12	50.68		8.44		0.77	0.20		0.44		
Total	72.18	1099.85	391.89	266.89	1223.19	2373.10	2136.63	117.72	31.97	14.30	5.21	6.03	7738.96	CMSDAY
Mean	2.41	35.48	13.06	8.61	39.46	79.10	68.92	3.92	1.03	0.46	0.18	0.19	21.14	CMS
Max	6.95	230.40	27.62	19.15	143.30	165.60	384.40	9.08	1.87	0.71	0.26	0.44	384.40	CMS
Min	0.48	7.30	1.72	0.56	10.08	36.16	6.76	2.08	0.71	0.12	0.14	0.16	0.12	CMS
Runoff	6.24	95.03	33.86	23.06	105.68	205.04	184.61	10.17	2.76	1.24	0.45	0.52	668.65	MCM

Momentary Peak 420.75 CMS. at 294.85 m. (MSL.) at 03.00 Hours , on Oct 4 , 2011

Runoff Yield 10.38 Liters/Second/Square KM. Momentary Peak Yield 206.554 Liters/Second/Square KM.

WATER YEAR : 2011

PING RIVER BASIN

Nam Mae On at Ban Hong , Chiang Mai (P.86)

Lat 18 - 44 - 18 N Long 99 - 13 - 18 E

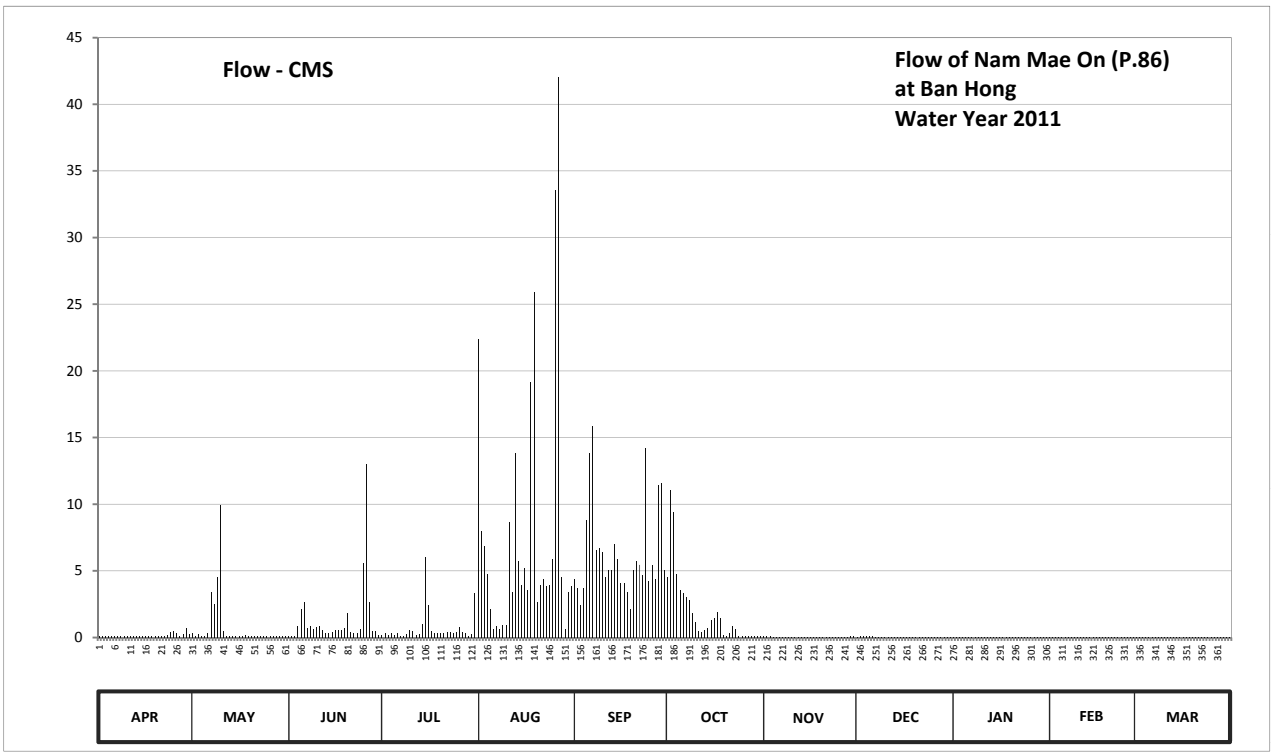
Location : on left bank at Ban Hong.

	Ban Hong	**Amphoe** San Kamphaeng	**Changwat** Chiang Mai
Drainge Area	97 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+341.205 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank at the abutment of the bridge.	**Elevation**	+345.535 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	2004 to date		
Rating Operation			
Period of Rating	2004 to date		
Rated by Flot	-		
Rated by Current Meter	2004 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 37 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	341.61	341.66	341.61	341.62	343.02	342.05	342.06	341.58	341.57	341.54	341.56	341.56	
2	341.61	341.61	341.61	341.65	342.30	342.00	342.48	341.61	341.61	341.54	341.56	341.56	
3	341.61	341.63	341.61	341.62	342.23	341.90	342.39	341.60	341.61	341.54	341.56	341.56	
4	341.61	341.61	341.75	341.65	342.08	342.00	342.08	341.56	341.61	341.54	341.56	341.56	
5	341.61	341.61	341.88	341.62	341.88	342.35	341.99	341.56	341.61	341.54	341.56	341.56	
6	341.61	341.65	341.92	341.65	341.72	342.63	341.97	341.56	341.60	341.54	341.56	341.57	
7	341.61	341.98	341.73	341.61	341.75	342.73	341.95	341.56	341.55	341.54	341.56	341.56	
8	341.61	341.91	341.75	341.61	341.72	342.21	341.93	341.56	341.51	341.54	341.56	341.56	
9	341.61	342.06	341.72	341.64	341.76	342.22	341.85	341.56	341.51	341.54	341.56	341.56	
10	341.61	342.42	341.74	341.71	341.76	342.20	341.79	341.56	341.51	341.54	341.56	341.56	
11	341.61	341.70	341.75	341.69	342.34	342.06	341.70	341.56	341.51	341.54	341.56	341.56	
12	341.61	341.61	341.71	341.62	341.98	342.10	341.68	341.56	341.51	341.55	341.56	341.56	
13	341.61	341.61	341.66	341.64	342.63	342.10	341.71	341.56	341.53	341.55	341.56	341.56	
14	341.61	341.61	341.66	341.77	342.15	342.24	341.73	341.54	341.56	341.56	341.55	341.56	
15	341.61	341.61	341.68	342.17	342.02	342.16	341.81	341.56	341.56	341.56	341.56	341.56	
16	341.61	341.61	341.71	341.90	342.11	342.03	341.82	341.56	341.56	341.56	341.56	341.56	
17	341.61	341.61	341.71	341.69	341.99	342.03	341.86	341.56	341.56	341.55	341.56	341.56	
18	341.61	341.62	341.71	341.66	342.88	341.98	341.82	341.56	341.56	341.55	341.56	341.56	
19	341.61	341.61	341.73	341.66	343.16	341.88	341.62	341.56	341.56	341.56	341.56	341.56	
20	341.61	341.61	341.85	341.66	341.92	342.10	341.61	341.56	341.56	341.56	341.56	341.56	
21	341.61	341.61	341.67	341.66	342.02	342.15	341.66	341.56	341.56	341.56	341.56	341.56	
22	341.61	341.61	341.66	341.67	342.05	342.13	341.75	341.56	341.55	341.56	341.56	341.56	
23	341.62	341.61	341.66	341.67	342.01	342.07	341.72	341.55	341.54	341.56	341.56	341.55	
24	341.67	341.61	341.72	341.66	342.02	342.65	341.61	341.56	341.54	341.56	341.56	341.55	
25	341.70	341.61	342.14	341.67	342.16	342.04	341.61	341.56	341.54	341.54	341.56	341.56	
26	341.65	341.61	342.59	341.74	343.45	342.13	341.61	341.56	341.54	341.56	341.56	341.56	
27	341.61	341.61	341.92	341.67	343.74	342.05	341.61	341.56	341.54	341.56	341.56	341.56	
28	341.63	341.61	341.69	341.65	342.06	342.50	341.61	341.57	341.54	341.56	341.56	341.56	
29	341.73	341.61	341.69	341.61	341.72	342.51	341.61	341.61	341.54	341.56	341.56	341.56	
30	341.63	341.61	341.62	341.63	341.98	342.10	341.61	341.61	341.54	341.56		341.56	
31		341.61		341.97	342.01		341.61		341.54	341.56		341.56	
Mean	341.62	341.68	341.76	341.69	342.21	342.18	341.80	341.57	341.55	341.55	341.56	341.56	
Max	341.73	342.42	342.59	342.17	343.74	342.73	342.48	341.61	341.61	341.56	341.56	341.57	343.74
Min	341.61	341.61	341.61	341.61	341.72	341.88	341.61	341.54	341.51	341.54	341.55	341.55	341.51

Annual Max Momentary Gage Height	344.38	m. (MSL.) ,	at 03.00 Hours , on Aug 19 , 2011		
Zero Gage at Bottom Elevation	341.20	m. (MSL.) ,	River Bed	341.51	m. (MSL)
Left Bank Elevation	345.43	m. (MSL.) ,			
Right Bank Elevation	345.38	m. (MSL.) ,	Drainage Area	97	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.14	0.34	0.14	0.18	22.40	4.37	4.51	0.08	0.07	0.04	0.06	0.06		
2	0.14	0.14	0.14	0.30	8.00	3.70	11.04	0.14	0.14	0.04	0.06	0.06		
3	0.14	0.22	0.14	0.18	6.88	2.40	9.44	0.10	0.14	0.04	0.06	0.06		
4	0.14	0.14	0.85	0.30	4.78	3.70	4.78	0.06	0.14	0.04	0.06	0.06		
5	0.14	0.14	2.16	0.18	2.16	8.80	3.57	0.06	0.14	0.04	0.06	0.06		
6	0.14	0.30	2.66	0.30	0.64	13.82	3.31	0.06	0.10	0.04	0.06	0.07		
7	0.14	3.44	0.71	0.14	0.85	15.87	3.05	0.06	0.05	0.04	0.06	0.06		
8	0.14	2.53	0.85	0.14	0.64	6.56	2.79	0.06	0.01	0.04	0.06	0.06		
9	0.14	4.51	0.64	0.26	0.92	6.72	1.80	0.06	0.01	0.04	0.06	0.06		
10	0.14	9.96	0.78	0.57	0.92	6.40	1.13	0.06	0.01	0.04	0.06	0.06		
11	0.14	0.50	0.85	0.46	8.64	4.51	0.50	0.06	0.01	0.04	0.06	0.06		
12	0.14	0.14	0.57	0.18	3.44	5.05	0.42	0.06	0.01	0.05	0.06	0.06		
13	0.14	0.14	0.34	0.26	13.82	5.05	0.57	0.06	0.03	0.05	0.06	0.06		
14	0.14	0.14	0.34	0.99	5.72	7.04	0.71	0.04	0.06	0.06	0.05	0.06		
15	0.14	0.14	0.42	6.00	3.97	5.86	1.32	0.06	0.06	0.06	0.06	0.06		
16	0.14	0.14	0.57	2.40	5.18	4.10	1.44	0.06	0.06	0.06	0.06	0.06		
17	0.14	0.14	0.57	0.46	3.57	4.10	1.92	0.06	0.06	0.05	0.06	0.06		
18	0.14	0.18	0.57	0.34	19.14	3.44	1.44	0.06	0.06	0.05	0.06	0.06		
19	0.14	0.14	0.71	0.34	25.90	2.16	0.18	0.06	0.06	0.06	0.06	0.06		
20	0.14	0.14	1.80	0.34	2.66	5.05	0.14	0.06	0.06	0.06	0.06	0.06		
21	0.14	0.14	0.38	0.34	3.97	5.72	0.34	0.06	0.06	0.06	0.06	0.06		
22	0.14	0.14	0.34	0.38	4.37	5.45	0.85	0.06	0.05	0.06	0.06	0.06		
23	0.18	0.14	0.34	0.38	3.84	4.65	0.64	0.05	0.04	0.06	0.06	0.05		
24	0.38	0.14	0.64	0.34	3.97	14.22	0.14	0.06	0.04	0.06	0.06	0.05		
25	0.50	0.14	5.59	0.38	5.86	4.24	0.14	0.06	0.04	0.04	0.06	0.06		
26	0.30	0.14	13.02	0.78	33.53	5.45	0.14	0.06	0.04	0.06	0.06	0.06		
27	0.14	0.14	2.66	0.38	42.07	4.37	0.14	0.06	0.04	0.06	0.06	0.06		
28	0.22	0.14	0.46	0.30	4.51	11.40	0.14	0.07	0.04	0.06	0.06	0.06		
29	0.71	0.14	0.46	0.14	0.64	11.58	0.14	0.14	0.04	0.06	0.06	0.06		
30	0.22	0.14	0.18	0.22	3.44	5.05	0.14	0.14	0.04	0.06		0.06		
31		0.14		3.31	3.84		0.14		0.04	0.06		0.06		
Total	5.73	25.06	39.88	21.27	250.27	190.83	57.01	2.08	1.75	1.58	1.73	1.85	599.04	CMSDAY
Mean	0.19	0.81	1.33	0.69	8.07	6.36	1.84	0.07	0.06	0.05	0.06	0.06	1.64	CMS
Max	0.71	9.96	13.02	6.00	42.07	15.87	11.04	0.14	0.14	0.06	0.06	0.07	42.07	CMS
Min	0.14	0.14	0.14	0.14	0.64	2.16	0.14	0.04	0.01	0.04	0.05	0.05	0.01	CMS
Runoff	0.50	2.17	3.45	1.84	21.62	16.49	4.93	0.18	0.15	0.14	0.15	0.16	51.76	MCM

Momentary Peak 63.12 CMS. at 344.38 m. (MSL.) at 03.00 Hours , on Aug 19 , 2011

Runoff Yield 16.87 Liters/Second/Square KM. Momentary Peak Yield 650.722 Liters/Second/Square KM.

WATER YEAR : 2011

PING RIVER BASIN

Nam Mae Tha at Ban Pa Cang Noy, Lamphun (P.87)

Lat 18 - 31 - 04 N Long 98 - 56 - 42 E

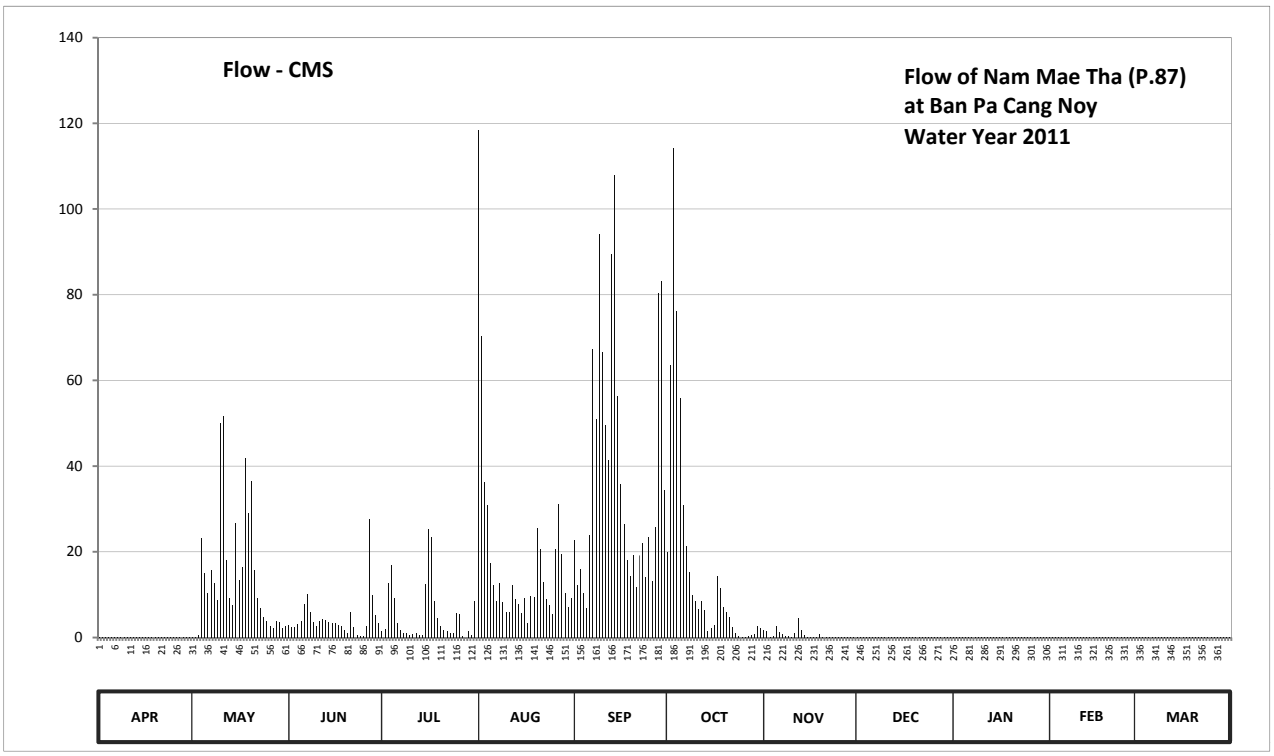
Location : on left bank at Ban Pa Cang Noy.

	Ban Pa Cang Noy	**Amphoe** Pa Sang	**Changwat** Lamphun
Drainge Area	934 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+288.954 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the gage site.		**Elevation** +293.954 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	2005 to date		
Rating Operation			
Period of Rating	2005 to date		
Rated by Flot	-		
Rated by Current Meter	2005 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	Overbank flow starts at elevation +293.690 m.(MSL.), records are channel flow only.		
General Description	Records fair. Stage-discharge relation defined by 39 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	289.49	289.50	289.83	289.71	292.76	290.76	290.66	289.73	289.45	289.35	289.35	289.35	
2	289.49	289.50	289.78	289.74	291.93	290.34	291.80	289.70	289.44	289.35	289.35	289.34	
3	289.49	289.60	289.78	290.36	291.17	290.50	292.69	289.51	289.43	289.35	289.35	289.35	
4	289.49	290.77	289.84	290.54	291.02	290.25	292.04	289.56	289.42	289.35	289.35	289.35	
5	289.49	290.46	289.88	290.19	290.56	290.06	291.64	289.81	289.41	289.35	289.35	289.35	
6	289.49	290.25	290.12	289.85	290.34	290.80	291.02	289.69	289.41	289.35	289.35	289.35	
7	289.50	290.49	290.24	289.72	290.16	291.87	290.71	289.63	289.41	289.35	289.35	289.35	
8	289.50	290.36	290.01	289.64	290.36	291.53	290.47	289.56	289.37	289.35	289.35	289.35	
9	289.50	290.17	289.87	289.65	290.14	292.36	290.23	289.53	289.36	289.35	289.35	289.35	
10	289.50	291.51	289.81	289.60	290.01	291.86	290.16	289.51	289.36	289.35	289.35	289.35	
11	289.50	291.55	289.89	289.62	290.02	291.50	290.05	289.66	289.35	289.35	289.35	289.35	
12	289.50	290.59	289.92	289.67	290.34	291.31	290.16	289.93	289.35	289.35	289.35	289.35	
13	289.50	290.20	289.90	289.59	290.18	292.28	290.04	289.72	289.35	289.35	289.35	289.35	
14	289.50	290.11	289.87	289.58	290.12	292.59	289.70	289.58	289.36	289.35	289.35	289.34	
15	289.50	290.89	289.85	290.35	290.00	291.65	289.77	289.43	289.37	289.36	289.35	289.34	
16	289.50	290.40	289.85	290.84	290.20	291.16	289.83	289.40	289.35	289.36	289.35	289.35	
17	289.50	290.52	289.82	290.78	289.86	290.88	290.44	289.40	289.35	289.36	289.35	289.35	
18	289.50	291.32	289.81	290.15	290.22	290.59	290.31	289.49	289.35	289.35	289.35	289.35	
19	289.49	290.96	289.72	289.93	290.21	290.44	290.08	289.63	289.35	289.35	289.35	289.35	
20	289.50	291.18	289.66	289.80	290.85	290.63	290.02	289.45	289.35	289.35	289.34	289.35	
21	289.50	290.49	290.01	289.72	290.68	290.32	289.94	289.42	289.35	289.35	289.35	289.35	
22	289.50	290.20	289.78	289.70	290.37	290.63	289.79	289.42	289.35	289.35	289.35	289.35	
23	289.50	290.07	289.61	289.66	290.18	290.73	289.66	289.40	289.35	289.35	289.35	289.35	
24	289.50	289.94	289.53	289.65	290.11	290.42	289.55	289.40	289.35	289.35	289.35	289.35	
25	289.50	289.89	289.55	290.00	289.99	290.78	289.47	289.42	289.35	289.35	289.35	289.35	
26	289.50	289.81	289.81	289.99	290.68	290.38	289.49	289.49	289.35	289.35	289.35	289.35	
27	289.50	289.77	290.92	289.56	291.03	290.86	289.57	289.47	289.35	289.35	289.35	289.35	
28	289.49	289.89	290.23	289.22	290.64	292.12	289.60	289.52	289.35	289.35	289.35	289.34	
29	289.49	289.87	289.97	289.71	290.25	292.17	289.63	289.49	289.35	289.35	289.35	289.34	
30	289.49	289.76	289.86	289.58	290.08	291.12	289.81	289.47	289.35	289.35		289.34	
31		289.80		290.16	290.20		289.76		289.35	289.35		289.34	
Mean	289.50	290.32	289.89	289.88	290.47	291.10	290.26	289.55	289.37	289.35	289.35	289.35	
Max	289.50	291.55	290.92	290.84	292.76	292.59	292.69	289.93	289.45	289.36	289.35	289.35	292.76
Min	289.49	289.50	289.53	289.22	289.86	290.06	289.47	289.40	289.35	289.35	289.34	289.34	289.22

Annual Max Momentary Gage Height	293.75	m. (MSL.) ,	at 22.00 Hours , on Aug 1 , 2011		
Zero Gage at Bottom Elevation	288.95	m. (MSL.) ,	River Bed	289.23	m. (MSL)
Left Bank Elevation	293.93	m. (MSL.) ,			
Right Bank Elevation	293.68	m. (MSL.) ,	Drainage Area	934	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.09	0.10	3.02	1.52	118.50	22.86	20.01	1.76	0.07	0.02	0.02	0.02		
2	0.09	0.10	2.36	1.88	70.32	12.24	63.50	1.40	0.06	0.02	0.02	0.02		
3	0.09	0.60	2.36	12.66	36.15	15.90	114.13	0.15	0.06	0.02	0.02	0.02		
4	0.09	23.14	3.16	16.86	30.90	10.35	76.14	0.40	0.05	0.02	0.02	0.02		
5	0.09	14.94	3.72	9.12	17.34	6.78	55.90	2.74	0.05	0.02	0.02	0.02		
6	0.09	10.35	7.86	3.30	12.24	24.00	30.90	1.32	0.05	0.02	0.02	0.02		
7	0.10	15.66	10.14	1.64	8.58	67.18	21.43	0.84	0.05	0.02	0.02	0.02		
8	0.10	12.66	5.88	0.92	12.66	50.85	15.18	0.40	0.03	0.02	0.02	0.02		
9	0.10	8.76	3.58	1.00	8.22	94.14	9.93	0.25	0.02	0.02	0.02	0.02		
10	0.10	49.95	2.74	0.60	5.88	66.65	8.58	0.15	0.02	0.02	0.02	0.02		
11	0.10	51.75	3.86	0.76	6.06	49.50	6.60	1.08	0.02	0.02	0.02	0.02		
12	0.10	18.06	4.34	1.16	12.24	41.49	8.58	4.51	0.02	0.02	0.02	0.02		
13	0.10	9.30	4.00	0.55	8.94	89.42	6.42	1.64	0.02	0.02	0.02	0.02		
14	0.10	7.68	3.58	0.50	7.86	107.90	1.40	0.50	0.02	0.02	0.02	0.02		
15	0.10	26.79	3.30	12.45	5.70	56.37	2.24	0.06	0.03	0.02	0.02	0.02		
16	0.10	13.50	3.30	25.24	9.30	35.80	3.02	0.04	0.02	0.02	0.02	0.02		
17	0.10	16.38	2.88	23.43	3.44	26.48	14.46	0.04	0.02	0.02	0.02	0.02		
18	0.10	41.88	2.74	8.40	9.72	18.06	11.61	0.09	0.02	0.02	0.02	0.02		
19	0.09	28.96	1.64	4.51	9.51	14.46	7.14	0.84	0.02	0.02	0.02	0.02		
20	0.10	36.50	1.08	2.60	25.55	19.16	6.06	0.07	0.02	0.02	0.02	0.02		
21	0.10	15.66	5.88	1.64	20.58	11.82	4.68	0.05	0.02	0.02	0.02	0.02		
22	0.10	9.30	2.36	1.40	12.87	19.16	2.48	0.05	0.02	0.02	0.02	0.02		
23	0.10	6.96	0.68	1.08	8.94	22.01	1.08	0.04	0.02	0.02	0.02	0.02		
24	0.10	4.68	0.25	1.00	7.68	13.98	0.35	0.04	0.02	0.02	0.02	0.02		
25	0.10	3.86	0.35	5.70	5.53	23.43	0.08	0.05	0.02	0.02	0.02	0.02		
26	0.10	2.74	2.74	5.53	20.58	13.08	0.09	0.09	0.02	0.02	0.02	0.02		
27	0.10	2.24	27.72	0.40	31.25	25.86	0.45	0.08	0.02	0.02	0.02	0.02		
28	0.09	3.86	9.93	0.00	19.44	80.42	0.60	0.20	0.02	0.02	0.02	0.02		
29	0.09	3.58	5.19	1.52	10.35	83.10	0.84	0.09	0.02	0.02	0.02	0.02		
30	0.09	2.12	3.44	0.50	7.14	34.40	2.74	0.08	0.02	0.02		0.02		
31		2.60		8.58	9.30		2.12		0.02	0.02		0.02		
Total	2.90	444.66	134.08	156.45	572.77	1156.85	498.74	19.05	0.89	0.62	0.58	0.62	2988.21	CMSDAY
Mean	0.10	14.34	4.47	5.05	18.48	38.56	16.09	0.64	0.03	0.02	0.02	0.02	8.16	CMS
Max	0.10	51.75	27.72	25.24	118.50	107.90	114.13	4.51	0.07	0.02	0.02	0.02	118.50	CMS
Min	0.09	0.10	0.25	0.00	3.44	6.78	0.08	0.04	0.02	0.02	0.02	0.02	0.00	CMS
Runoff	0.25	38.42	11.59	13.52	49.49	99.95	43.09	1.65	0.08	0.05	0.05	0.05	258.18	MCM

Momentary Peak 186.80 CMS. at 293.75 m. (MSL.) at 22.00 Hours , on Aug 1 , 2011

Runoff Yield 8.74 Liters/Second/Square KM. Momentary Peak Yield 200.000 Liters/Second/Square KM.

WATER YEAR : 2011

PING RIVER BASIN

Ping River at Ban Thap Dua, Chiang Mai (P.90)

Lat 19 - 12 - 54 N Long 98 - 58 - 20 E

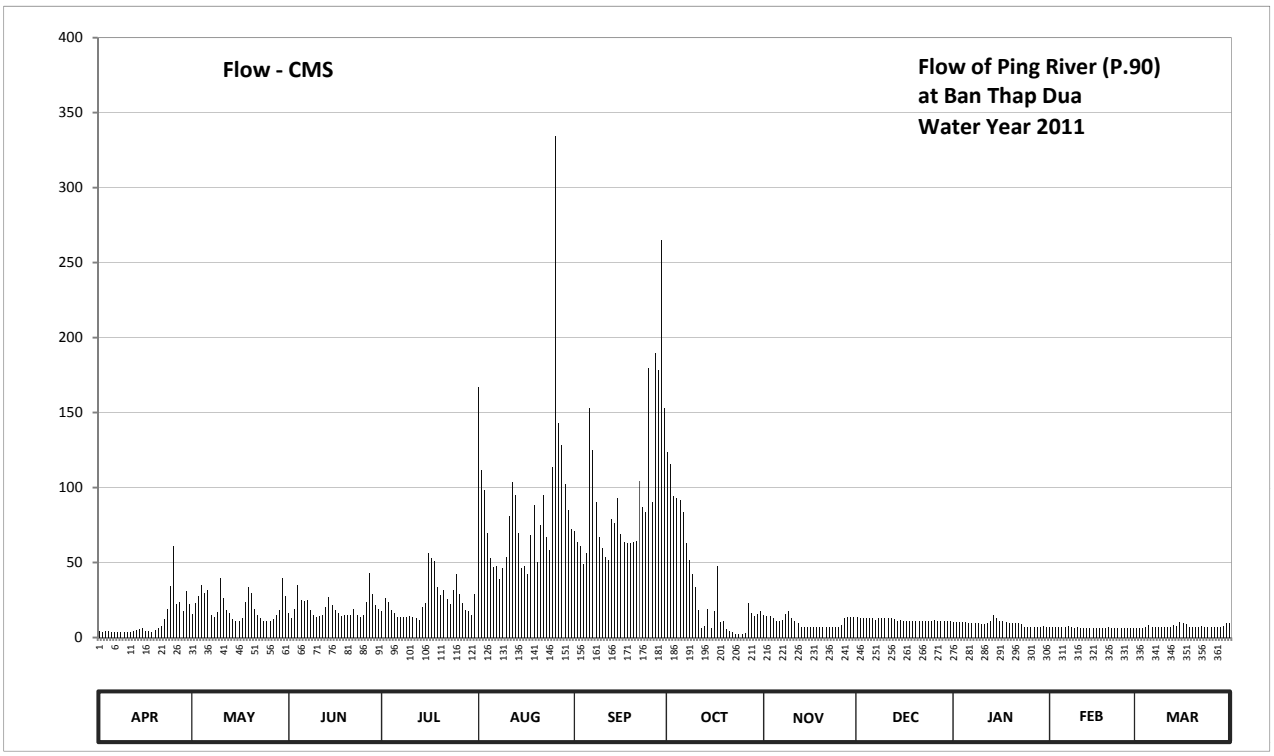
Location : on right bank at Ban Thap Dua.

	Ban Thap Dua	**Amphoe** Mae Taeng	**Changwat** Chiang Mai
Drainge Area	1,661 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+343.338 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank near the gage site.		**Elevation** +348.850 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	2011 to date		
Rating Operation			
Period of Rating	2011 to date		
Rated by Flot	-		
Rated by Current Meter	2011 to date		
Stability of Channel Regimes	Fairly stable because of backwater effect.		
Overbank Flow Conditions	Overbank flow starts at elevation +346.410 m.(MSL.) and is including overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 36 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	343.83	344.17	344.20	344.22	346.01	345.12	345.64	344.15	344.12	344.03	343.94	343.91	
2	343.82	344.35	344.10	344.42	345.53	345.04	345.57	344.14	344.11	344.03	343.94	343.91	
3	343.83	344.44	344.26	344.36	345.40	345.01	345.36	344.14	344.11	344.03	343.94	343.92	
4	343.83	344.59	344.60	344.24	345.11	344.83	345.35	344.11	344.11	344.03	343.94	343.94	
5	343.82	344.49	344.39	344.19	344.89	344.94	345.34	344.04	344.11	344.03	343.94	343.97	
6	343.82	344.52	344.37	344.13	344.80	345.89	345.26	344.04	344.10	344.02	343.94	343.94	
7	343.82	344.16	344.39	344.12	344.81	345.65	345.03	344.06	344.06	344.01	343.95	343.94	
8	343.82	344.13	344.24	344.12	344.67	345.32	344.87	344.18	344.11	344.01	343.94	343.94	
9	343.81	344.21	344.15	344.13	344.79	345.08	344.72	344.23	344.11	344.01	343.92	343.94	
10	343.81	344.68	344.13	344.14	344.91	345.00	344.57	344.11	344.11	344.00	343.93	343.94	
11	343.82	344.41	344.14	344.13	345.23	344.90	344.24	344.05	344.10	344.00	343.92	343.94	
12	343.83	344.24	344.16	344.10	345.45	344.87	343.91	344.01	344.10	344.01	343.92	343.94	
13	343.86	344.19	344.29	344.06	345.37	345.21	343.96	343.94	344.09	344.04	343.92	343.98	
14	343.90	344.09	344.43	344.29	345.11	345.18	344.25	343.94	344.05	344.15	343.92	343.96	
15	343.92	344.05	344.31	344.35	344.79	345.35	343.91	343.94	344.07	344.10	343.92	344.03	
16	343.85	344.04	344.24	344.95	344.81	345.10	344.23	343.94	344.04	344.04	343.92	344.02	
17	343.83	344.11	344.20	344.89	344.72	345.04	344.81	343.94	344.04	344.04	343.92	343.99	
18	343.82	344.36	344.14	344.86	345.09	345.03	344.03	343.94	344.04	344.03	343.92	343.94	
19	343.86	344.57	344.15	344.57	345.30	345.03	344.04	343.94	344.04	344.02	343.92	343.94	
20	343.91	344.48	344.15	344.46	344.85	345.04	343.90	343.94	344.04	344.01	343.93	343.94	
21	343.96	344.26	344.16	344.52	345.17	345.05	343.84	343.94	344.04	344.01	343.92	343.94	
22	344.08	344.15	344.25	344.40	345.37	345.46	343.82	343.93	344.04	344.01	343.92	343.96	
23	344.25	344.10	344.15	344.33	345.08	345.29	343.74	343.93	344.04	343.99	343.92	343.94	
24	344.58	344.04	344.13	344.53	344.97	345.26	343.74	343.94	344.04	343.94	343.92	343.93	
25	345.01	344.04	344.15	344.72	345.55	346.11	343.74	343.94	344.04	343.94	343.92	343.94	
26	344.33	344.05	344.36	344.47	347.09	345.32	343.80	343.98	344.06	343.94	343.92	343.94	
27	344.36	344.09	344.74	344.34	345.81	346.19	344.35	344.11	344.04	343.94	343.92	343.94	
28	344.22	344.15	344.47	344.24	345.68	346.10	344.20	344.12	344.04	343.94	343.91	343.94	
29	344.51	344.24	344.31	344.22	345.44	346.68	344.14	344.12	344.04	343.94	343.91	343.95	
30	344.33	344.68	344.25	344.15	345.27	345.89	344.17	344.13	344.04	343.95		344.01	
31		344.44		344.47	345.14		344.23		344.04	343.94		344.01	
Mean	344.01	344.27	344.27	344.36	345.23	345.33	344.41	344.03	344.07	344.01	343.93	343.95	
Max	345.01	344.68	344.74	344.95	347.09	346.68	345.64	344.23	344.12	344.15	343.95	344.03	347.09
Min	343.81	344.04	344.10	344.06	344.67	344.83	343.74	343.93	344.04	343.94	343.91	343.91	343.74

Annual Max Momentary Gage Height	348.28	m. (MSL.) ,	at 10.00 Hours , on Aug 26 , 2011		
Zero Gage at Bottom Elevation	343.34	m. (MSL.) ,	River Bed	343.30	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, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.98	15.39	16.50	17.36	167.25	70.80	123.60	14.65	13.54	10.28	7.16	6.14		
2	3.72	23.20	12.80	26.56	111.65	63.60	115.85	14.28	13.17	10.28	7.16	6.14		
3	3.98	27.52	19.08	23.68	98.00	60.90	94.00	14.28	13.17	10.28	7.16	6.48		
4	3.98	34.72	35.20	18.22	69.90	48.69	93.00	13.17	13.17	10.28	7.16	7.16		
5	3.72	29.92	25.12	16.13	52.69	56.01	92.00	10.64	13.17	10.28	7.16	8.18		
6	3.72	31.36	24.16	13.91	46.70	152.80	84.00	10.64	12.80	9.92	7.16	7.16		
7	3.72	15.02	25.12	13.54	47.37	124.75	62.70	11.36	11.36	9.56	7.50	7.16		
8	3.72	13.91	18.22	13.54	39.23	90.00	51.36	15.76	13.17	9.56	7.16	7.16		
9	3.46	16.93	14.65	13.91	46.13	67.20	42.10	17.79	13.17	9.56	6.48	7.16		
10	3.46	39.80	13.91	14.28	54.02	60.00	33.76	13.17	13.17	9.20	6.82	7.16		
11	3.72	26.08	14.28	13.91	81.00	53.35	18.22	11.00	12.80	9.20	6.48	7.16		
12	3.98	18.22	15.02	12.80	103.25	51.36	6.14	9.56	12.80	9.56	6.48	7.16		
13	4.76	16.13	20.37	11.36	95.00	79.00	7.84	7.16	12.44	10.64	6.48	8.52		
14	5.80	12.44	27.04	20.37	69.90	76.20	18.65	7.16	11.00	14.65	6.48	7.84		
15	6.48	11.00	21.28	23.20	46.13	93.00	6.14	7.16	11.72	12.80	6.48	10.28		
16	4.50	10.64	18.22	56.68	47.37	69.00	17.79	7.16	10.64	10.64	6.48	9.92		
17	3.98	13.17	16.50	52.69	42.10	63.60	47.37	7.16	10.64	10.64	6.48	8.86		
18	3.72	23.68	14.28	50.69	68.10	62.70	10.28	7.16	10.64	10.28	6.48	7.16		
19	4.76	33.76	14.65	33.76	88.00	62.70	10.64	7.16	10.64	9.92	6.48	7.16		
20	6.14	29.44	14.65	28.48	50.03	63.60	5.80	7.16	10.64	9.56	6.82	7.16		
21	7.84	19.08	15.02	31.36	75.30	64.50	4.24	7.16	10.64	9.56	6.48	7.16		
22	12.08	14.65	18.65	25.60	95.00	104.30	3.72	6.82	10.64	9.56	6.48	7.84		
23	18.65	12.80	14.65	22.24	67.20	87.00	2.18	6.82	10.64	8.86	6.48	7.16		
24	34.24	10.64	13.91	31.84	58.01	84.00	2.18	7.16	10.64	7.16	6.48	6.82		
25	60.90	10.64	14.65	42.10	113.75	179.75	2.18	7.16	10.64	7.16	6.48	7.16		
26	22.24	11.00	23.68	28.96	334.20	90.00	3.20	8.52	11.36	7.16	6.48	7.16		
27	23.68	12.44	43.25	22.72	143.20	189.75	23.20	13.17	10.64	7.16	6.48	7.16		
28	17.36	14.65	28.96	18.22	128.20	178.50	16.50	13.54	10.64	7.16	6.14	7.16		
29	30.88	18.22	21.28	17.36	102.20	264.80	14.28	13.54	10.64	7.16	6.14	7.50		
30	22.24	39.80	18.65	14.65	85.00	152.80	15.39	13.91	10.64	7.50		9.56		
31		27.52		28.96	72.60		17.79		10.64	7.16		9.56		
Total	335.41	633.77	593.75	759.08	2698.48	2864.66	1046.10	311.38	361.61	292.69	193.70	235.36	10325.99	CMSDAY
Mean	11.18	20.44	19.79	24.49	87.05	95.49	33.75	10.38	11.66	9.44	6.68	7.59	28.21	CMS
Max	60.90	39.80	43.25	56.68	334.20	264.80	123.60	17.79	13.54	14.65	7.50	10.28	334.20	CMS
Min	3.46	10.64	12.80	11.36	39.23	48.69	2.18	6.82	10.64	7.16	6.14	6.14	2.18	CMS
Runoff	28.98	54.76	51.30	65.59	233.15	247.51	90.38	26.90	31.24	25.29	16.74	20.34	892.17	MCM

Momentary Peak 584.40 CMS. at 348.28 m. (MSL.) at 10.00 Hours , on Aug 26 , 2011

Runoff Yield 16.99 Liters/Second/Square KM. Momentary Peak Yield 351.836 Liters/Second/Square KM.

WATER YEAR : 2011

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

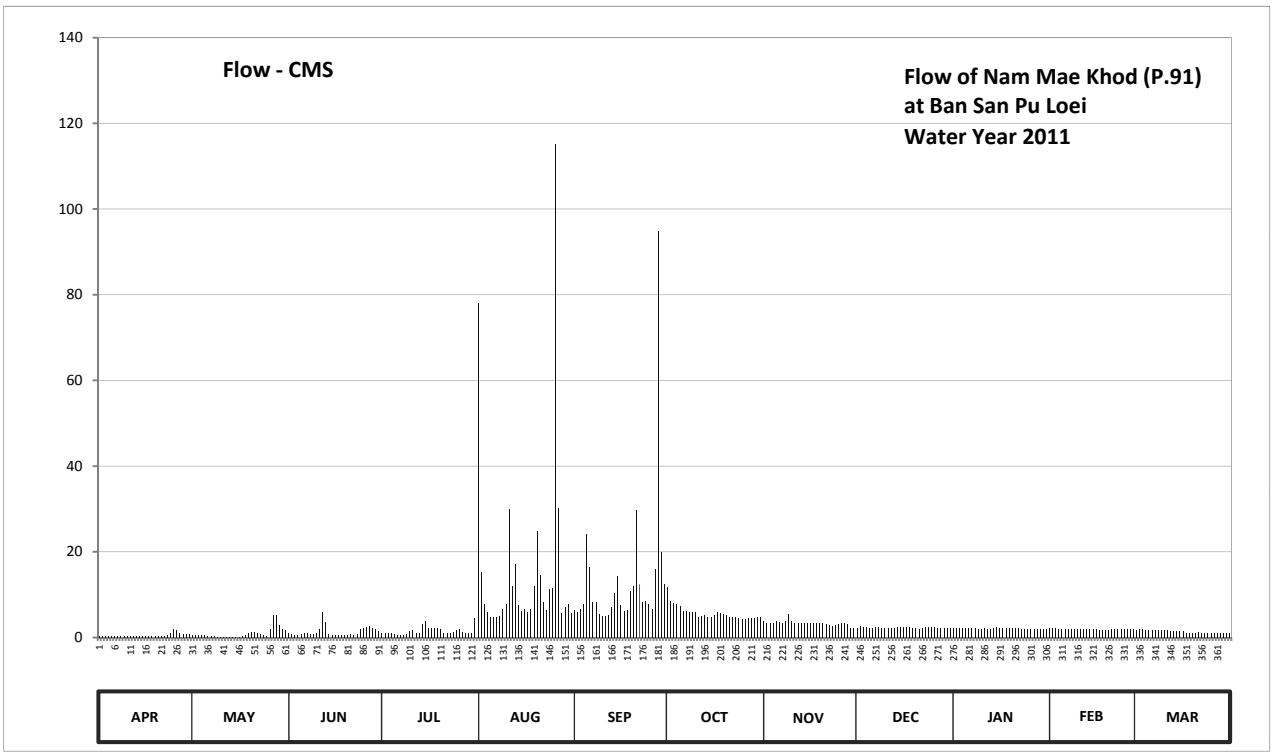
Location : on right bank at Ban San Pu Loei.

	Ban San Pu Loei	**Amphoe** Phrao		**Changwat** Chiang Mai	
Drainge Area	130 sq.km.				
Type of Gage	Water - stage recorder				
Zero Gage at Bottom	+413.100 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On right bank near the gage site.			**Elevation**	+419.380 m. (MSL.)
Gage Reading Frequency	Recording				
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings				
Period of Available Gage Records	2011 to date				
Rating Operation					
Period of Rating	2011 to date				
Rated by Flot	-				
Rated by Current Meter	2011 to date				
Stability of Channel Regimes	Fairly stable.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records fair. Stage-discharge relation defined by 34 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	413.66	413.73	413.80	413.80	416.15	414.19	414.46	414.04	413.90	413.90	413.90	413.86	
2	413.67	413.71	413.74	413.79	414.61	414.17	414.31	414.00	413.94	413.90	413.90	413.87	
3	413.67	413.69	413.71	413.78	414.27	414.21	414.28	414.00	413.92	413.90	413.90	413.87	
4	413.67	413.69	413.73	413.78	414.16	414.27	414.27	414.01	413.92	413.90	413.88	413.86	
5	413.66	413.68	413.76	413.76	414.10	414.93	414.24	414.04	413.91	413.90	413.87	413.86	
6	413.66	413.66	413.79	413.73	414.10	414.65	414.18	414.02	413.91	413.90	413.87	413.86	
7	413.66	413.66	413.78	413.70	414.10	414.29	414.18	414.01	413.92	413.90	413.88	413.86	
8	413.66	413.64	413.76	413.70	414.11	414.29	414.17	414.04	413.92	413.90	413.88	413.86	
9	413.66	413.52	413.74	413.74	414.21	414.13	414.17	414.14	413.91	413.89	413.88	413.86	
10	413.66	413.50	413.77	413.84	414.27	414.11	414.16	414.04	413.90	413.88	413.88	413.86	
11	413.65	413.49	413.88	413.86	415.11	414.11	414.10	414.00	413.90	413.90	413.88	413.86	
12	413.65	413.49	414.17	413.77	414.47	414.12	414.11	414.00	413.90	413.88	413.88	413.84	
13	413.65	413.48	414.02	413.78	414.68	414.23	414.12	414.00	413.91	413.88	413.88	413.83	
14	413.65	413.51	413.75	413.99	414.26	414.40	414.10	414.00	413.93	413.90	413.88	413.84	
15	413.65	413.53	413.71	414.03	414.18	414.57	414.10	414.00	413.92	413.92	413.88	413.84	
16	413.65	413.54	413.70	413.90	414.21	414.26	414.12	414.00	413.92	413.90	413.88	413.83	
17	413.65	413.60	413.70	413.90	414.16	414.18	414.17	414.00	413.92	413.90	413.86	413.80	
18	413.65	413.71	413.69	413.90	414.21	414.20	414.15	414.00	413.92	413.90	413.86	413.80	
19	413.65	413.77	413.68	413.90	414.47	414.42	414.14	414.00	413.91	413.90	413.86	413.80	
20	413.65	413.81	413.70	413.87	414.95	414.47	414.12	414.00	413.90	413.90	413.86	413.80	
21	413.59	413.82	413.75	413.79	414.58	415.10	414.10	413.99	413.89	413.90	413.88	413.81	
22	413.59	413.80	413.72	413.80	414.29	414.49	414.10	413.96	413.91	413.90	413.88	413.80	
23	413.72	413.76	413.75	413.80	414.19	414.29	414.09	413.94	413.92	413.88	413.88	413.79	
24	413.80	413.72	413.87	413.82	414.44	414.31	414.08	413.96	413.92	413.89	413.87	413.80	
25	413.89	413.66	413.91	413.86	414.45	414.27	414.06	413.98	413.92	413.87	413.88	413.80	
26	413.85	413.89	413.93	413.87	416.72	414.21	414.06	414.00	413.92	413.87	413.88	413.80	
27	413.80	414.12	413.94	413.81	415.12	414.64	414.07	414.00	413.90	413.88	413.88	413.80	
28	413.76	414.12	413.91	413.80	414.15	416.42	414.08	413.98	413.90	413.88	413.88	413.80	
29	413.75	413.97	413.88	413.80	414.23	414.78	414.07	413.90	413.91	413.88	413.88	413.80	
30	413.74	413.89	413.84	413.79	414.27	414.49	414.09	413.90	413.90	413.88		413.80	
31		413.86		414.07	414.15		414.09		413.90	413.89		413.80	
Mean	413.69	413.71	413.80	413.83	414.50	414.44	414.15	414.00	413.91	413.89	413.88	413.83	
Max	413.89	414.12	414.17	414.07	416.72	416.42	414.46	414.14	413.94	413.92	413.90	413.87	416.72
Min	413.59	413.48	413.68	413.70	414.10	414.11	414.06	413.90	413.89	413.87	413.86	413.79	413.48

Annual Max Momentary Gage Height	417.26	m. (MSL.) ,	at 09.00 Hours , on Aug 1 , 2011		
Zero Gage at Bottom Elevation	413.10	m. (MSL.) ,	River Bed	413.37	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, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.42	0.68	1.10	1.10	78.12	6.34	11.71	3.94	2.20	2.20	2.20	1.76		
2	0.44	0.56	0.74	1.04	15.27	6.02	8.59	3.30	2.64	2.20	2.20	1.87		
3	0.44	0.48	0.56	0.98	7.83	6.69	8.02	3.30	2.42	2.20	2.20	1.87		
4	0.44	0.48	0.68	0.98	5.86	7.83	7.83	3.46	2.42	2.20	1.98	1.76		
5	0.42	0.46	0.86	0.86	4.90	24.23	7.26	3.94	2.31	2.20	1.87	1.76		
6	0.42	0.42	1.04	0.68	4.90	16.35	6.18	3.62	2.31	2.20	1.87	1.76		
7	0.42	0.42	0.98	0.50	4.90	8.21	6.18	3.46	2.42	2.20	1.98	1.76		
8	0.42	0.38	0.86	0.50	5.06	8.21	6.02	3.94	2.42	2.20	1.98	1.76		
9	0.42	0.14	0.74	0.74	6.69	5.38	6.02	5.54	2.31	2.09	1.98	1.76		
10	0.42	0.10	0.92	1.54	7.83	5.06	5.86	3.94	2.20	1.98	1.98	1.76		
11	0.40	0.09	1.98	1.76	29.98	5.06	4.90	3.30	2.20	2.20	1.98	1.76		
12	0.40	0.09	6.02	0.92	11.95	5.22	5.06	3.30	2.20	1.98	1.98	1.54		
13	0.40	0.08	3.62	0.98	17.16	7.07	5.22	3.30	2.31	1.98	1.98	1.43		
14	0.40	0.12	0.80	3.19	7.64	10.30	4.90	3.30	2.53	2.20	1.98	1.54		
15	0.40	0.16	0.56	3.78	6.18	14.30	4.90	3.30	2.42	2.42	1.98	1.54		
16	0.40	0.18	0.50	2.20	6.69	7.64	5.22	3.30	2.42	2.20	1.98	1.43		
17	0.40	0.30	0.50	2.20	5.86	6.18	6.02	3.30	2.42	2.20	1.76	1.10		
18	0.40	0.56	0.48	2.20	6.69	6.50	5.70	3.30	2.42	2.20	1.76	1.10		
19	0.40	0.92	0.46	2.20	11.95	10.77	5.54	3.30	2.31	2.20	1.76	1.10		
20	0.40	1.21	0.50	1.87	24.83	11.95	5.22	3.30	2.20	2.20	1.76	1.10		
21	0.28	1.32	0.80	1.04	14.53	29.65	4.90	3.19	2.09	2.20	1.98	1.21		
22	0.28	1.10	0.62	1.10	8.21	12.41	4.90	2.86	2.31	2.20	1.98	1.10		
23	0.62	0.86	0.80	1.10	6.34	8.21	4.74	2.64	2.42	1.98	1.98	1.04		
24	1.10	0.62	1.87	1.32	11.24	8.59	4.58	2.86	2.42	2.09	1.87	1.10		
25	2.09	0.42	2.31	1.76	11.48	7.83	4.26	3.08	2.42	1.87	1.98	1.10		
26	1.65	2.09	2.53	1.87	115.20	6.69	4.26	3.30	2.42	1.87	1.98	1.10		
27	1.10	5.22	2.64	1.21	30.32	16.08	4.42	3.30	2.20	1.98	1.98	1.10		
28	0.86	5.22	2.31	1.10	5.70	94.80	4.58	3.08	2.20	1.98	1.98	1.10		
29	0.80	2.97	1.98	1.10	7.07	19.86	4.42	2.20	2.31	1.98	1.98	1.10		
30	0.74	2.09	1.54	1.04	7.83	12.41	4.74	2.20	2.20	1.98		1.10		
31		1.76		4.42	5.70		4.74		2.20	2.09		1.10		
Total	17.78	31.50	41.30	47.28	493.91	395.84	176.89	100.15	72.27	65.67	56.87	43.61	1543.07	CMSDAY
Mean	0.59	1.02	1.38	1.53	15.93	13.19	5.71	3.34	2.33	2.12	1.96	1.41	4.22	CMS
Max	2.09	5.22	6.02	4.42	115.20	94.80	11.71	5.54	2.64	2.42	2.20	1.87	115.20	CMS
Min	0.28	0.08	0.46	0.50	4.90	5.06	4.26	2.20	2.09	1.87	1.76	1.04	0.08	CMS
Runoff	1.54	2.72	3.57	4.09	42.67	34.20	15.28	8.65	6.24	5.67	4.91	3.77	133.32	MCM

Momentary Peak 155.80 CMS. at 417.26 m. (MSL.) at 09.00 Hours , on Aug 1 , 2011

Runoff Yield 32.43 Liters/Second/Square KM. Momentary Peak Yield 1198.462 Liters/Second/Square KM.

WATER YEAR : 2011

PING RIVER BASIN

Nam Mae Taeng at Ban Mueang Kud, Chiang Mai (P.92)

Lat 19 - 13 - 15 N Long 98 - 50 - 51 E

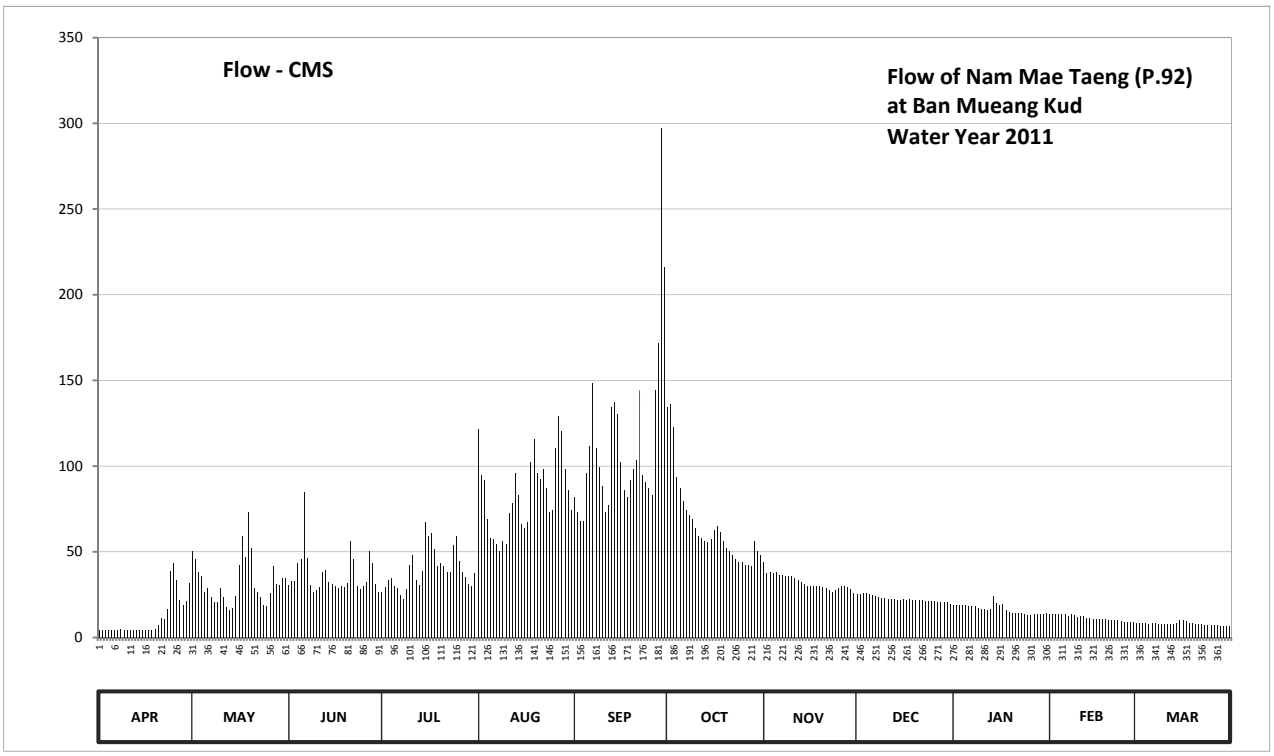
Location : on left bank at Ban Mueang Kud.

	Ban Mueang Kud	**Amphoe** Mae Taeng	**Changwat** Chiang Mai
Drainge Area	1653 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+440.645 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the gage site.		**Elevation** +447.535 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	2011 to date		
Rating Operation			
Period of Rating	2011 to date		
Rated by Flot	-		
Rated by Current Meter	2011 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 35 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	440.95	441.63	441.36	441.30	442.31	441.96	442.41	441.55	441.27	441.15	441.03	440.90	
2	440.95	441.57	441.40	441.34	442.08	441.88	442.42	441.46	441.27	441.14	441.03	440.90	
3	440.95	441.47	441.40	441.41	442.05	441.83	442.32	441.47	441.28	441.14	441.03	440.90	
4	440.95	441.44	441.54	441.42	441.84	441.83	442.07	441.46	441.28	441.15	441.03	440.90	
5	440.95	441.30	441.57	441.35	441.72	442.09	442.01	441.47	441.27	441.14	441.03	440.89	
6	440.95	441.33	441.99	441.33	441.71	442.23	441.94	441.45	441.26	441.13	441.03	440.90	
7	440.95	441.24	441.58	441.26	441.68	442.51	441.89	441.45	441.25	441.13	441.01	440.90	
8	440.96	441.18	441.36	441.22	441.63	442.22	441.86	441.44	441.24	441.13	441.03	440.89	
9	440.95	441.18	441.30	441.32	441.70	442.12	441.84	441.44	441.23	441.11	441.02	440.89	
10	440.95	441.33	441.31	441.53	441.68	442.02	441.79	441.44	441.23	441.10	440.99	440.89	
11	440.95	441.24	441.34	441.60	441.87	441.88	441.73	441.42	441.22	441.09	441.00	440.88	
12	440.95	441.12	441.47	441.41	441.93	441.92	441.72	441.41	441.22	441.08	441.00	440.88	
13	440.95	441.08	441.49	441.36	442.09	442.41	441.70	441.39	441.22	441.10	440.98	440.89	
14	440.95	441.11	441.39	441.48	441.97	442.43	441.69	441.37	441.21	441.25	440.97	440.90	
15	440.95	441.25	441.37	441.82	441.81	442.38	441.71	441.35	441.21	441.17	440.96	440.95	
16	440.95	441.53	441.35	441.73	441.79	442.15	441.77	441.35	441.22	441.15	440.96	440.94	
17	440.95	441.73	441.33	441.75	441.82	442.00	441.80	441.35	441.21	441.16	440.96	440.93	
18	440.95	441.59	441.35	441.64	442.15	441.96	441.76	441.35	441.22	441.08	440.96	440.90	
19	440.97	441.88	441.34	441.52	442.26	442.05	441.70	441.35	441.21	441.06	440.96	440.90	
20	441.01	441.65	441.38	441.54	442.09	442.11	441.65	441.34	441.20	441.05	440.95	440.89	
21	441.05	441.33	441.70	441.52	442.06	442.16	441.63	441.33	441.20	441.05	440.95	440.89	
22	441.04	441.29	441.57	441.47	442.11	442.48	441.60	441.31	441.20	441.05	440.95	440.89	
23	441.10	441.24	441.35	441.47	442.01	442.08	441.57	441.30	441.19	441.04	440.95	440.87	
24	441.48	441.15	441.32	441.67	441.88	442.04	441.55	441.31	441.19	441.03	440.93	440.86	
25	441.54	441.13	441.35	441.73	441.89	442.01	441.55	441.33	441.19	441.02	440.92	440.86	
26	441.41	441.28	441.39	441.56	442.22	441.97	441.53	441.35	441.19	441.02	440.91	440.86	
27	441.21	441.52	441.63	441.47	442.37	442.48	441.53	441.35	441.18	441.03	440.91	440.86	
28	441.15	441.37	441.54	441.43	442.30	442.67	441.52	441.34	441.18	441.03	440.91	440.85	
29	441.19	441.36	441.37	441.37	442.11	443.40	441.70	441.32	441.18	441.03	440.90	440.85	
30	441.38	441.42	441.30	441.35	442.00	442.95	441.63	441.28	441.18	441.03		440.85	
31		441.42		441.46	441.89		441.60		441.16	441.04		440.85	
Mean	441.05	441.37	441.44	441.48	441.97	442.21	441.78	441.38	441.22	441.09	440.97	440.89	
Max	441.54	441.88	441.99	441.82	442.37	443.40	442.42	441.55	441.28	441.25	441.03	440.95	443.40
Min	440.95	441.08	441.30	441.22	441.63	441.83	441.52	441.28	441.16	441.02	440.90	440.85	440.85

Annual Max Momentary Gage Height	443.64	m. (MSL.) ,	at 15.00 Hours , on Sep 29 , 2011		
Zero Gage at Bottom Elevation	440.64	m. (MSL.) ,	River Bed	439.94	m. (MSL)
Left Bank Elevation	447.41	m. (MSL.) ,			
Right Bank Elevation	447.31	m. (MSL.) ,	Drainage Area	1653	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	4.40	50.55	30.58	26.80	121.75	81.80	134.40	44.10	25.24	19.20	13.65	8.40		
2	4.40	45.66	33.10	29.32	94.80	73.40	135.80	37.36	25.24	18.72	13.65	8.40		
3	4.40	38.07	33.10	33.81	91.50	68.15	123.00	38.07	25.76	18.72	13.65	8.40		
4	4.40	35.94	43.32	34.52	69.20	68.15	93.70	37.36	25.76	19.20	13.65	8.40		
5	4.40	26.80	45.66	29.95	58.20	95.90	87.10	38.07	25.24	18.72	13.65	8.08		
6	4.40	28.69	84.95	28.69	57.35	111.75	79.70	36.65	24.72	18.24	13.65	8.40		
7	4.40	23.68	46.44	24.72	54.80	148.40	74.45	36.65	24.20	18.24	12.75	8.40		
8	4.82	20.64	30.58	22.64	50.55	110.50	71.30	35.94	23.68	18.24	13.65	8.08		
9	4.40	20.64	26.80	28.06	56.50	99.20	69.20	35.94	23.16	17.28	13.20	8.08		
10	4.40	28.69	27.43	42.54	54.80	88.20	64.15	35.94	23.16	16.80	11.91	8.08		
11	4.40	23.68	29.32	48.00	72.35	73.40	59.05	34.52	22.64	16.35	12.30	7.76		
12	4.40	17.76	38.07	33.81	78.65	77.60	58.20	33.81	22.64	15.90	12.30	7.76		
13	4.40	15.90	39.49	30.58	95.90	134.40	56.50	32.47	22.64	16.80	11.52	8.08		
14	4.40	17.28	32.47	38.78	82.85	137.20	55.65	31.21	22.12	24.20	11.13	8.40		
15	4.40	24.20	31.21	67.10	66.05	130.50	57.35	29.95	22.12	20.16	10.74	10.35		
16	4.40	42.54	29.95	59.05	64.15	102.50	62.45	29.95	22.64	19.20	10.74	9.96		
17	4.40	59.05	28.69	60.75	67.10	86.00	65.00	29.95	22.12	19.68	10.74	9.57		
18	4.40	47.22	29.95	51.40	102.50	81.80	61.60	29.95	22.64	15.90	10.74	8.40		
19	5.24	73.40	29.32	41.76	115.50	91.50	56.50	29.95	22.12	15.00	10.74	8.40		
20	7.51	52.25	31.84	43.32	95.90	98.10	52.25	29.32	21.60	14.55	10.35	8.08		
21	11.55	28.69	56.50	41.76	92.60	103.60	50.55	28.69	21.60	14.55	10.35	8.08		
22	10.54	26.28	45.66	38.07	98.10	144.20	48.00	27.43	21.60	14.55	10.35	8.08		
23	16.80	23.68	29.95	38.07	87.10	94.80	45.66	26.80	21.12	14.10	10.35	7.44		
24	38.78	19.20	28.06	53.95	73.40	90.40	44.10	27.43	21.12	13.65	9.57	7.12		
25	43.32	18.24	29.95	59.05	74.45	87.10	44.10	28.69	21.12	13.20	9.18	7.12		
26	33.81	25.76	32.47	44.88	110.50	82.85	42.54	29.95	21.12	13.20	8.79	7.12		
27	22.12	41.76	50.55	38.07	129.25	144.20	42.54	29.95	20.64	13.65	8.79	7.12		
28	19.20	31.21	43.32	35.23	120.50	171.50	41.76	29.32	20.64	13.65	8.79	6.80		
29	21.12	30.58	31.21	31.21	98.10	297.00	56.50	28.06	20.64	13.65	8.40	6.80		
30	31.84	34.52	26.80	29.95	86.00	215.75	50.55	25.76	20.64	13.65		6.80		
31		34.52		37.36	74.45		48.00		19.68	14.10		6.80		
Total	341.45	1007.08	1096.74	1223.20	2594.85	3389.85	2031.65	969.24	699.36	513.05	329.28	248.76	14444.51	CMSDAY
Mean	11.38	32.49	36.56	39.46	83.70	113.00	65.54	32.31	22.56	16.55	11.35	8.02	39.47	CMS
Max	43.32	73.40	84.95	67.10	129.25	297.00	135.80	44.10	25.76	24.20	13.65	10.35	297.00	CMS
Min	4.40	15.90	26.80	22.64	50.55	68.15	41.76	25.76	19.68	13.20	8.40	6.80	4.40	CMS
Runoff	29.50	87.01	94.76	105.68	224.20	292.88	175.54	83.74	60.43	44.33	28.45	21.49	1248.01	MCM

Momentary Peak 341.60 CMS. at 443.64 m. (MSL.) at 15.00 Hours , on Sep 29 , 2011

Runoff Yield 23.88 Liters/Second/Square KM. Momentary Peak Yield 206.655 Liters/Second/Square KM.

WATER YEAR : 2011

PING RIVER BASIN

Nam Mae Rim at Ban Saluang Nok, Chiang Mai (P.93)

Lat 19 - 00 - 54 N Long 98 - 52 - 50 E

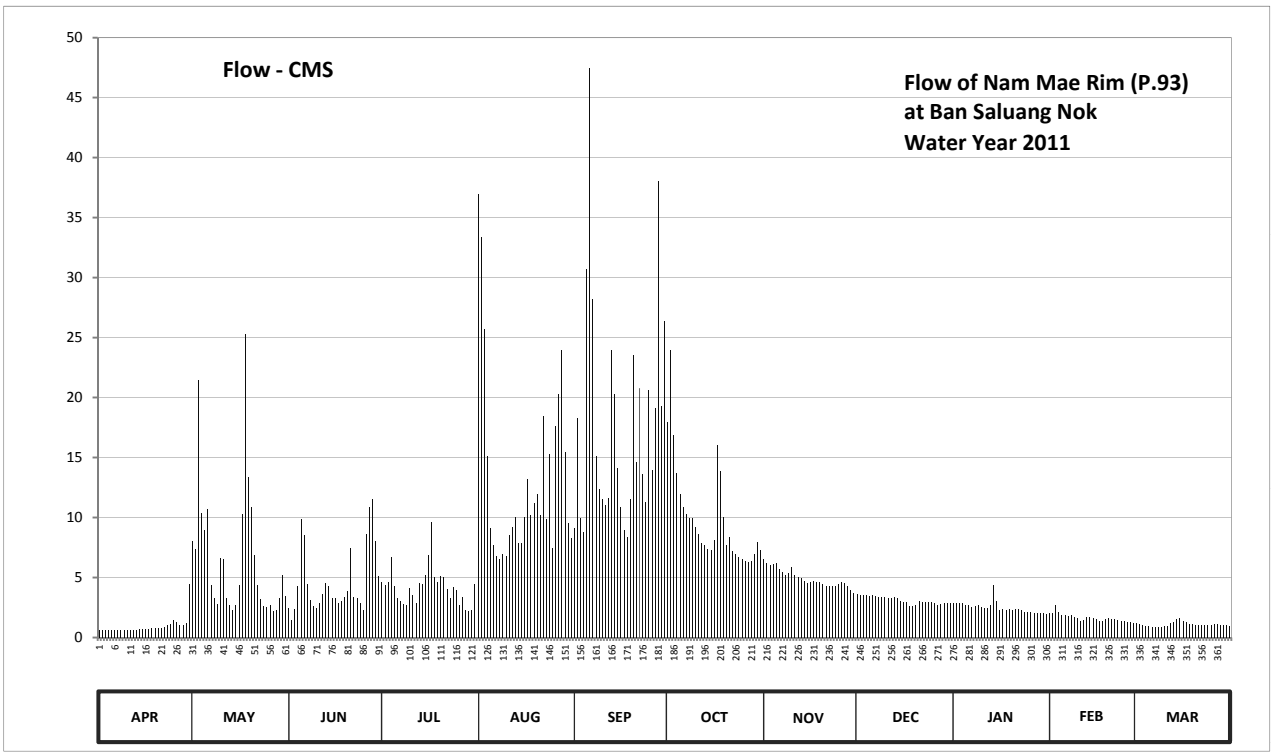
Location : on left bank at Ban Saluang Nok.

	Ban Saluang Nok	**Amphoe** Mae Rim	**Changwat** Chiang Mai
Drainge Area	411 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+340.588 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the gage site.	**Elevation**	+344.720 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	2011 to date		
Rating Operation			
Period of Rating	2011 to date		
Rated by Flot	-		
Rated by Current Meter	2011 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	Overbank flow starts at elevation +344.090 m.(MSL.) records are channel flow only.		
General Description	Records fair. Stage-discharge relation defined by 37 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	340.61	341.76	341.03	341.35	343.45	341.87	342.57	341.59	341.22	341.10	340.94	340.77	
2	340.61	341.69	340.83	341.32	343.32	342.59	342.91	341.55	341.20	341.09	340.94	340.75	
3	340.61	342.78	341.01	341.35	343.00	341.95	342.50	341.53	341.20	341.09	341.07	340.73	
4	340.61	341.99	341.31	341.61	342.38	341.84	342.27	341.54	341.20	341.09	340.96	340.72	
5	340.62	341.85	341.94	341.31	341.87	343.22	342.13	341.55	341.19	341.06	340.91	340.71	
6	340.62	342.02	341.81	341.17	341.72	343.80	342.03	341.49	341.20	341.06	340.91	340.70	
7	340.62	341.32	341.33	341.13	341.62	343.11	341.98	341.46	341.19	341.04	340.90	340.70	
8	340.62	341.16	341.14	341.08	341.59	342.38	341.95	341.43	341.18	341.05	340.91	340.70	
9	340.62	341.08	341.05	341.06	341.64	342.16	341.95	341.45	341.18	341.07	340.89	340.70	
10	340.62	341.60	341.03	341.28	341.62	342.09	341.88	341.51	341.18	341.04	340.86	340.71	
11	340.63	341.59	341.09	341.21	341.81	342.05	341.82	341.43	341.17	341.02	340.81	340.72	
12	340.63	341.17	341.22	341.09	341.88	342.10	341.74	341.41	341.17	341.02	340.83	340.78	
13	340.63	341.07	341.34	341.34	341.96	342.91	341.72	341.39	341.18	341.07	340.89	340.79	
14	340.64	340.99	341.30	341.33	341.74	342.71	341.69	341.36	341.17	341.32	340.88	340.84	
15	340.64	341.06	341.17	341.43	341.74	342.30	341.68	341.34	341.13	341.12	340.86	340.86	
16	340.64	341.32	341.17	341.63	341.96	342.03	341.77	341.35	341.11	341.00	340.84	340.81	
17	340.65	341.98	341.09	341.92	342.23	341.85	342.44	341.36	341.11	341.01	340.82	340.79	
18	340.68	342.98	341.12	341.40	341.97	341.80	342.28	341.35	341.05	341.00	340.82	340.75	
19	340.68	342.24	341.18	341.35	342.06	342.09	341.96	341.35	341.05	341.01	340.84	340.75	
20	340.68	342.03	341.25	341.42	342.13	342.89	341.72	341.33	341.07	341.00	340.86	340.74	
21	340.68	341.63	341.70	341.40	341.97	342.34	341.80	341.31	341.12	341.01	340.85	340.74	
22	340.69	341.32	341.18	341.27	342.60	342.74	341.67	341.30	341.11	341.01	340.84	340.74	
23	340.74	341.15	341.17	341.17	341.94	342.26	341.64	341.30	341.11	341.00	340.83	340.74	
24	340.75	341.05	341.10	341.29	342.39	342.07	341.61	341.30	341.11	340.97	340.82	340.74	
25	340.83	341.04	341.00	341.26	341.70	342.73	341.59	341.33	341.11	340.97	340.81	340.73	
26	340.80	341.06	341.82	341.06	342.55	342.29	341.57	341.35	341.10	340.96	340.80	340.75	
27	340.73	340.98	342.03	341.18	342.71	342.64	341.56	341.34	341.07	340.94	340.79	340.75	
28	340.74	340.99	342.09	341.00	342.91	343.49	341.57	341.30	341.08	340.94	340.77	340.74	
29	340.77	341.17	341.76	340.98	342.40	342.65	341.64	341.26	341.10	340.94	340.77	340.74	
30	341.33	341.43	341.42	340.99	341.91	343.03	341.75	341.23	341.10	340.94		340.73	
31		341.19		341.33	341.79		341.68		341.10	340.93		340.72	
Mean	340.69	341.51	341.32	341.28	342.15	342.47	341.91	341.39	341.14	341.03	340.86	340.75	
Max	341.33	342.98	342.09	341.92	343.45	343.80	342.91	341.59	341.22	341.32	341.07	340.86	343.80
Min	340.61	340.98	340.83	340.98	341.59	341.80	341.56	341.23	341.05	340.93	340.77	340.70	340.61

Annual Max Momentary Gage Height	344.19	m. (MSL.) ,	at 22.00 Hours , on Sep 5 , 2011		
Zero Gage at Bottom Elevation	340.59	m. (MSL.) ,	River Bed	340.15	m. (MSL)
Left Bank Elevation	344.19	m. (MSL.) ,			
Right Bank Elevation	344.08	m. (MSL.) ,	Drainage Area	411	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.58	8.04	2.48	4.63	36.93	9.14	17.95	6.52	3.65	2.90	2.00	1.18		
2	0.58	7.41	1.45	4.40	33.38	18.25	23.95	6.20	3.50	2.84	2.00	1.10		
3	0.58	21.46	2.36	4.63	25.70	9.98	16.90	6.04	3.50	2.84	2.72	1.02		
4	0.58	10.39	4.32	6.69	15.14	8.82	13.71	6.12	3.50	2.84	2.10	0.98		
5	0.62	8.93	9.87	4.32	9.14	30.73	11.99	6.20	3.44	2.66	1.85	0.94		
6	0.62	10.73	8.51	3.32	7.68	47.50	10.84	5.72	3.50	2.66	1.85	0.90		
7	0.62	4.40	4.47	3.08	6.78	28.17	10.29	5.48	3.44	2.54	1.80	0.90		
8	0.62	3.26	3.14	2.78	6.52	15.14	9.98	5.24	3.38	2.60	1.85	0.90		
9	0.62	2.78	2.60	2.66	6.96	12.34	9.98	5.40	3.38	2.72	1.75	0.90		
10	0.62	6.60	2.48	4.10	6.78	11.53	9.24	5.88	3.38	2.54	1.60	0.94		
11	0.65	6.52	2.84	3.57	8.51	11.07	8.61	5.24	3.32	2.42	1.35	0.98		
12	0.65	3.32	3.65	2.84	9.24	11.65	7.86	5.08	3.32	2.42	1.45	1.22		
13	0.65	2.72	4.55	4.55	10.08	23.95	7.68	4.93	3.38	2.72	1.75	1.26		
14	0.69	2.25	4.25	4.47	7.86	20.27	7.41	4.70	3.32	4.40	1.70	1.50		
15	0.69	2.66	3.32	5.24	7.86	14.10	7.32	4.55	3.08	3.02	1.60	1.60		
16	0.69	4.40	3.32	6.87	10.08	10.84	8.13	4.63	2.96	2.30	1.50	1.35		
17	0.72	10.29	2.84	9.66	13.19	8.93	16.00	4.70	2.96	2.36	1.40	1.26		
18	0.83	25.31	3.02	5.00	10.19	8.40	13.84	4.63	2.60	2.30	1.40	1.10		
19	0.83	13.32	3.38	4.63	11.19	11.53	10.08	4.63	2.60	2.36	1.50	1.10		
20	0.83	10.84	3.87	5.16	11.99	23.56	7.68	4.47	2.72	2.30	1.60	1.06		
21	0.83	6.87	7.50	5.00	10.19	14.62	8.40	4.32	3.02	2.36	1.55	1.06		
22	0.86	4.40	3.38	4.02	18.40	20.78	7.23	4.25	2.96	2.36	1.50	1.06		
23	1.06	3.20	3.32	3.32	9.87	13.58	6.96	4.25	2.96	2.30	1.45	1.06		
24	1.10	2.60	2.90	4.18	15.27	11.31	6.69	4.25	2.96	2.15	1.40	1.06		
25	1.45	2.54	2.30	3.95	7.50	20.61	6.52	4.47	2.96	2.15	1.35	1.02		
26	1.30	2.66	8.61	2.66	17.65	13.97	6.36	4.63	2.90	2.10	1.30	1.10		
27	1.02	2.20	10.84	3.38	20.27	19.08	6.28	4.55	2.72	2.00	1.26	1.10		
28	1.06	2.25	11.53	2.30	23.95	38.06	6.36	4.25	2.78	2.00	1.18	1.06		
29	1.18	3.32	8.04	2.20	15.40	19.25	6.96	3.95	2.90	2.00	1.18	1.06		
30	4.47	5.24	5.16	2.25	9.56	26.37	7.95	3.73	2.90	2.00		1.02		
31		3.44		4.47	8.31		7.32		2.90	1.95		0.98		
Total	27.60	204.35	140.30	130.33	411.57	533.53	306.47	149.01	96.89	77.11	46.94	33.77	2157.87	CMSDAY
Mean	0.92	6.59	4.68	4.20	13.28	17.78	9.89	4.97	3.13	2.49	1.62	1.09	5.90	CMS
Max	4.47	25.31	11.53	9.66	36.93	47.50	23.95	6.52	3.65	4.40	2.72	1.60	47.50	CMS
Min	0.58	2.20	1.45	2.20	6.52	8.40	6.28	3.73	2.60	1.95	1.18	0.90	0.58	CMS
Runoff	2.39	17.66	12.12	11.26	35.56	46.10	26.48	12.87	8.37	6.66	4.06	2.92	186.44	MCM

Momentary Peak 60.94 CMS. at 344.19 m. (MSL.) at 22.00 Hours , on Sep 5 , 2011

Runoff Yield 14.35 Liters/Second/Square KM. Momentary Peak Yield 148.273 Liters/Second/Square KM.

WATER YEAR : 2011

WANG RIVER BASIN

Wang River at Setuwaree Bridge , Lampang (W.1C)

Lat 18 - 17 - 51 N Long 99 - 30 - 56 E

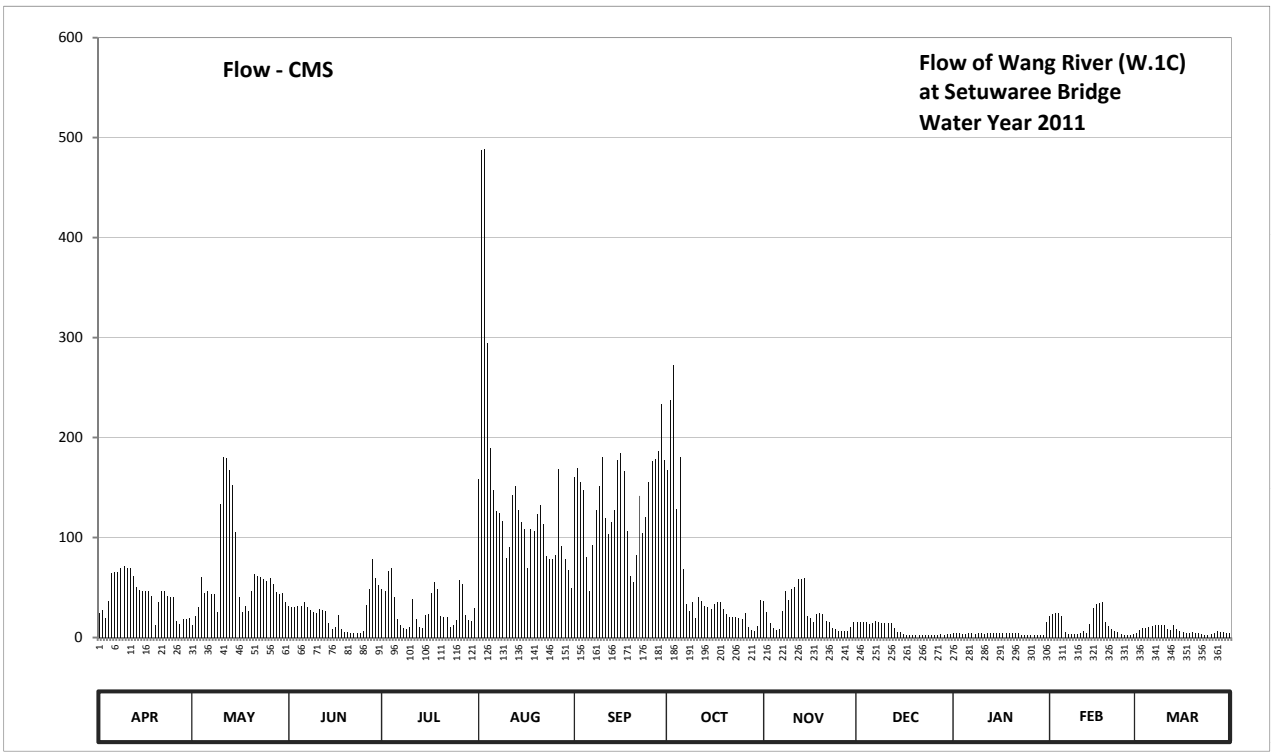
Location : on left bank at the bridge.

	Ban Setuwaree Bridge	**Amphoe** Mueang	**Changwat** Lampang
Drainge Area	3,478 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+229.300 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank at the approach of the bridge.	**Elevation**	+234.725 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	1990 - 1998, 2006 to date		
Rating Operation			
Period of Rating	1990 - 1998, 2006 to date		
Rated by Flot	-		
Rated by Current Meter	1990 - 1998, 2006 to date		
Stability of Channel Regimes	Fairly stable because of backwater effect.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 51 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	229.39	229.08	229.53	229.84	231.26	231.28	231.35	229.62	229.19	228.72	229.33	228.70	
2	229.45	229.33	229.51	229.80	233.55	231.37	231.99	229.41	229.18	228.76	229.37	228.87	
3	229.28	229.50	229.51	230.13	233.56	231.23	232.27	229.15	229.18	228.72	229.40	228.96	
4	229.62	230.03	229.53	230.17	232.44	231.15	230.95	228.96	229.18	228.63	229.38	228.99	
5	230.10	229.77	229.52	229.69	231.56	230.34	231.48	228.90	229.13	228.63	229.32	229.01	
6	230.11	229.80	229.60	229.25	231.15	229.80	230.16	228.95	229.15	228.73	228.80	229.04	
7	230.12	229.76	229.50	229.09	230.92	230.50	229.57	229.43	229.21	228.70	228.68	229.09	
8	230.18	229.76	229.45	228.99	230.90	230.93	229.42	229.81	229.18	228.69	228.65	229.09	
9	230.20	229.41	229.41	228.91	230.81	231.19	229.60	229.64	229.15	228.72	228.68	229.07	
10	230.18	231.01	229.40	229.00	230.32	231.48	229.28	229.85	229.16	228.72	228.66	229.10	
11	230.18	231.48	229.46	229.67	230.47	230.84	229.70	229.87	229.16	228.69	228.72	228.91	
12	230.06	231.47	229.45	229.25	231.10	230.64	229.63	230.00	229.16	228.71	228.85	228.88	
13	229.87	231.35	229.43	229.00	231.19	230.79	229.52	230.01	228.98	228.74	228.73	229.07	
14	229.83	231.20	229.15	228.96	230.93	230.93	229.51	230.02	228.78	228.73	229.12	228.92	
15	229.80	230.67	228.95	229.35	230.79	231.45	229.46	229.32	228.79	228.74	229.49	228.84	
16	229.80	229.70	229.00	229.36	230.70	231.52	229.57	229.28	228.65	228.74	229.57	228.77	
17	229.80	229.41	229.35	229.78	230.17	231.34	229.61	229.19	228.59	228.75	229.58	228.74	
18	229.71	229.53	228.94	229.96	230.70	230.68	229.60	229.37	228.59	228.73	229.60	228.74	
19	229.07	229.42	228.82	229.85	230.68	230.06	229.46	229.39	228.57	228.73	229.17	228.79	
20	229.60	229.80	228.77	229.33	230.89	229.95	229.36	229.37	228.55	228.72	229.05	228.76	
21	229.80	230.08	228.75	229.31	231.00	230.36	229.31	229.22	228.54	228.73	228.94	228.73	
22	229.81	230.05	228.75	229.31	230.77	231.09	229.31	229.17	228.55	228.70	228.84	228.64	
23	229.71	230.04	228.75	229.02	230.35	230.66	229.31	228.99	228.62	228.60	228.78	228.60	
24	229.69	230.00	228.76	229.07	230.31	230.85	229.28	228.95	228.62	228.58	228.67	228.62	
25	229.70	229.98	228.84	229.24	230.31	231.23	229.26	228.85	228.60	228.58	228.62	228.66	
26	229.21	230.02	229.55	229.99	230.37	231.44	229.38	228.85	228.61	228.57	228.60	228.76	
27	229.13	229.92	229.85	229.93	231.36	231.46	229.02	228.85	228.60	228.55	228.59	228.83	
28	229.25	229.79	230.31	229.34	230.48	231.54	228.88	228.86	228.63	228.53	228.64	228.82	
29	229.25	229.76	230.02	229.24	230.31	231.95	228.85	229.00	228.61	228.53	228.70	228.78	
30	229.27	229.78	229.91	229.21	230.15	231.45	229.05	229.19	228.64	228.58		228.75	
31		229.61		229.49	229.86		229.65		228.68	229.18		228.75	
Mean	229.71	230.02	229.33	229.44	230.95	230.98	229.77	229.32	228.85	228.69	228.98	228.85	
Max	230.20	231.48	230.31	230.17	233.56	231.95	232.27	230.02	229.21	229.18	229.60	229.10	233.56
Min	229.07	229.08	228.75	228.91	229.86	229.80	228.85	228.85	228.54	228.53	228.59	228.60	228.53

Annual Max Momentary Gage Height	234.04	m. (MSL.) ,	at 16.00 Hours , on Aug 3 , 2011		
Zero Gage at Bottom Elevation	229.30	m. (MSL.) ,	River Bed	227.62	m. (MSL)
Left Bank Elevation	234.51	m. (MSL.) ,			
Right Bank Elevation	235.05	m. (MSL.) ,	Drainage Area	3478	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	24.55	12.40	31.50	48.40	158.00	160.00	167.00	36.10	15.70	4.30	21.85	4.00		
2	27.50	21.85	30.50	46.00	487.00	169.00	237.80	25.50	15.40	4.90	23.65	7.07		
3	19.60	30.00	30.50	66.45	489.00	155.00	272.75	14.50	15.40	4.30	25.00	9.10		
4	36.10	59.95	31.50	69.05	294.60	147.25	128.75	9.10	15.40	2.95	24.10	9.78		
5	64.50	44.35	31.00	39.95	188.80	80.80	180.40	7.75	13.90	2.95	21.40	10.30		
6	65.15	46.00	35.00	18.25	147.25	46.00	68.40	8.87	14.50	4.45	5.50	11.20		
7	65.80	43.80	30.00	12.70	126.20	92.50	33.50	26.50	16.45	4.00	3.70	12.70		
8	69.70	43.80	27.50	9.78	124.50	127.05	26.00	46.60	15.40	3.85	3.25	12.70		
9	71.00	25.50	25.50	7.98	116.85	151.05	35.00	37.20	14.50	4.30	3.70	12.10		
10	69.70	133.95	25.00	10.00	79.40	180.40	19.60	49.00	14.80	4.30	3.40	13.00		
11	69.70	180.40	28.00	38.85	90.25	119.40	40.50	50.20	14.80	3.85	4.30	7.98		
12	61.90	179.35	27.50	18.25	142.50	103.20	36.65	58.00	14.80	4.15	6.63	7.30		
13	50.20	167.00	26.50	10.00	151.05	115.20	31.00	58.65	9.55	4.60	4.45	12.10		
14	47.80	152.00	14.50	9.10	127.05	127.05	30.50	59.30	5.20	4.45	13.60	8.20		
15	46.00	105.60	8.87	22.75	115.20	177.25	28.00	21.40	5.35	4.60	29.50	6.40		
16	46.00	40.50	10.00	23.20	108.00	184.60	33.50	19.60	3.25	4.60	33.50	5.05		
17	46.00	25.50	22.75	44.90	69.05	166.00	35.55	15.70	2.43	4.75	34.00	4.60		
18	41.05	31.50	8.65	55.60	108.00	106.40	35.00	23.65	2.43	4.45	35.00	4.60		
19	12.10	26.00	5.95	49.00	106.40	61.90	28.00	24.55	2.31	4.45	15.10	5.35		
20	35.00	46.00	5.05	21.85	123.65	55.00	23.20	23.65	2.18	4.30	11.50	4.90		
21	46.00	63.20	4.75	20.95	133.00	82.20	20.95	16.90	2.11	4.45	8.65	4.45		
22	46.60	61.25	4.75	20.95	113.60	141.55	20.95	15.10	2.18	4.00	6.40	3.10		
23	41.05	60.60	4.75	10.60	81.50	104.80	20.95	9.78	2.80	2.50	5.20	2.50		
24	39.95	58.00	4.90	12.10	78.70	120.25	19.60	8.87	2.80	2.37	3.55	2.80		
25	40.50	56.80	6.40	17.80	78.70	155.00	18.70	6.63	2.50	2.37	2.80	3.40		
26	16.45	59.30	32.50	57.40	82.90	176.20	24.10	6.63	2.65	2.31	2.50	4.90		
27	13.90	53.20	49.00	53.80	168.00	178.30	10.60	6.63	2.50	2.18	2.43	6.17		
28	18.25	45.45	78.70	22.30	91.00	186.70	7.30	6.85	2.95	2.04	3.10	5.95		
29	18.25	43.80	59.30	17.80	78.70	233.00	6.63	10.00	2.65	2.04	4.00	5.20		
30	19.15	44.90	52.60	16.45	67.75	177.25	11.50	15.70	3.10	2.37		4.75		
31		35.55		29.50	49.60		37.75		3.70	15.40		4.75		
Total	1269.45	1997.50	753.42	901.71	4376.20	4080.30	1690.13	718.91	243.69	126.53	361.76	216.40	16736.00	CMSDAY
Mean	42.32	64.44	25.11	29.09	141.17	136.01	54.52	23.96	7.86	4.08	12.47	6.98	45.73	CMS
Max	71.00	180.40	78.70	69.05	489.00	233.00	272.75	59.30	16.45	15.40	35.00	13.00	489.00	CMS
Min	12.10	12.40	4.75	7.98	49.60	46.00	6.63	6.63	2.11	2.04	2.43	2.50	2.04	CMS
Runoff	109.68	172.58	65.10	77.91	378.10	352.54	146.03	62.11	21.06	10.93	31.26	18.70	1445.99	MCM

Momentary Peak 593.20 CMS. at 234.04 m. (MSL.) at 16.00 Hours , on Aug 3 , 2011

Runoff Yield 13.15 Liters/Second/Square KM. Momentary Peak Yield 170.558 Liters/Second/Square KM.

WATER YEAR : 2011

WANG RIVER BASIN

Wang River at Ban Don Chai , Lampang (W.3A)

Lat 17 - 38 - 28 N Long 99 - 14 - 01 E

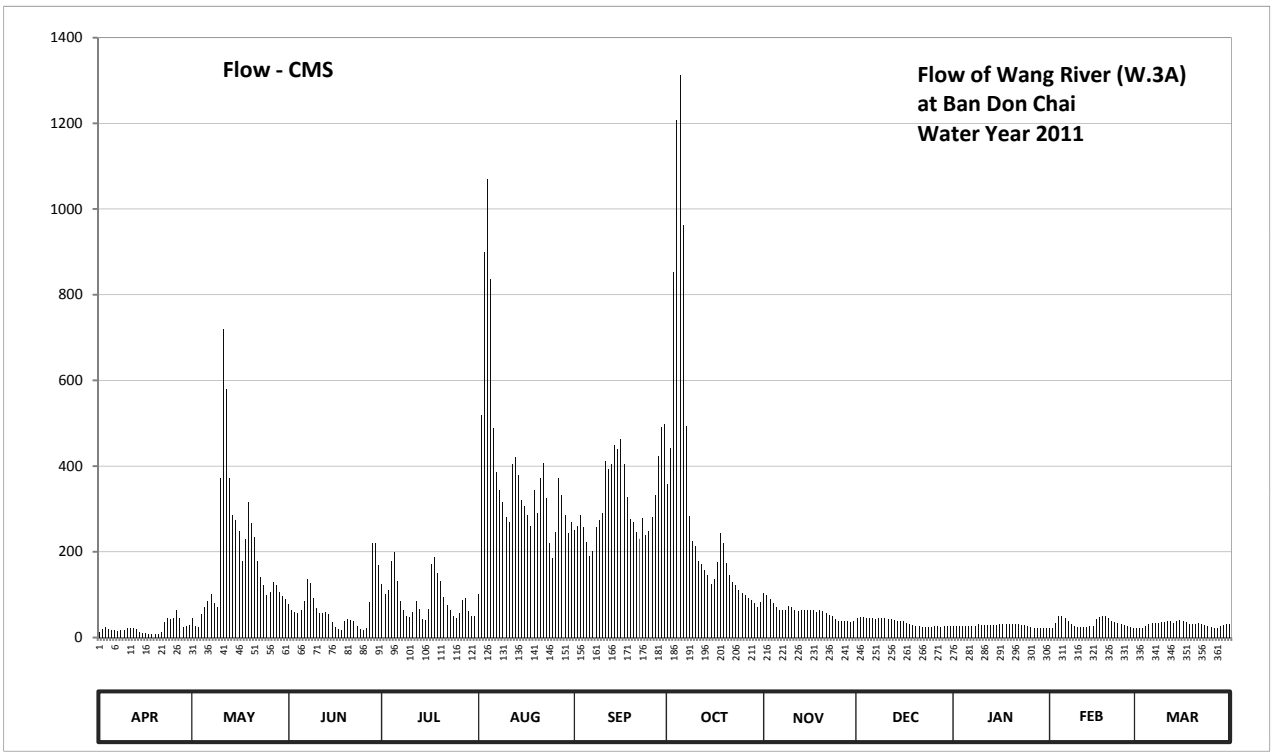
Location : on right bank about 30 meters upstream from Siriyong Bridge.

	Ban Don Chai	**Amphoe** Thoen	**Changwat** Lampang
Drainge Area	8,924 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+161.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank about 15 meters from automatic gage building	**Elevation**	+167.074 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	1967 to date		
Rating Operation			
Period of Rating	1967 to date		
Rated by Flot	-		
Rated by Current Meter	1967 to date		
Stability of Channel Regimes	Fairly stable because of backwater effect.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. The channel is fulled of the Mimosa pudica plants.		
	Stage-discharge relation defined by 46 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	160.94	161.48	161.86	162.27	162.07	163.14	163.76	162.09	161.49	161.19	161.12	161.12	
2	161.09	161.20	161.69	162.08	164.49	163.20	164.14	162.06	161.50	161.19	161.11	161.12	
3	161.16	161.16	161.64	162.17	165.82	163.36	165.68	161.97	161.50	161.20	161.32	161.14	
4	161.07	161.60	161.61	162.68	166.31	163.19	166.68	161.87	161.49	161.20	161.55	161.22	
5	161.03	161.78	161.69	162.81	165.63	162.97	166.95	161.77	161.49	161.21	161.54	161.29	
6	161.04	161.92	161.93	162.34	164.35	162.76	166.00	161.70	161.48	161.21	161.49	161.31	
7	161.01	162.08	162.38	161.93	163.89	162.83	164.37	161.69	161.45	161.20	161.37	161.31	
8	161.03	161.88	162.29	161.69	163.68	163.19	163.34	161.71	161.47	161.22	161.28	161.31	
9	161.05	161.78	161.99	161.54	163.53	163.28	162.99	161.81	161.48	161.28	161.20	161.35	
10	161.11	163.82	161.75	161.50	163.33	163.39	162.91	161.77	161.47	161.25	161.18	161.35	
11	161.13	165.25	161.62	161.66	163.25	164.01	162.67	161.69	161.45	161.26	161.16	161.38	
12	161.14	164.73	161.63	161.91	163.97	163.92	162.62	161.68	161.44	161.25	161.16	161.37	
13	161.07	163.82	161.66	161.74	164.05	163.98	162.52	161.69	161.43	161.25	161.16	161.32	
14	160.92	163.36	161.59	161.44	163.85	164.18	162.44	161.70	161.40	161.24	161.19	161.40	
15	160.90	163.28	161.36	161.42	163.57	164.13	162.27	161.70	161.40	161.25	161.22	161.43	
16	160.88	163.13	161.18	161.74	163.48	164.24	162.37	161.70	161.37	161.30	161.44	161.39	
17	160.81	162.68	161.07	162.63	163.35	163.97	162.66	161.69	161.33	161.30	161.51	161.34	
18	160.76	163.02	161.06	162.74	163.20	163.60	163.10	161.66	161.30	161.29	161.55	161.30	
19	160.76	163.53	161.40	162.47	163.69	163.30	162.95	161.69	161.25	161.29	161.54	161.29	
20	160.82	163.24	161.45	162.34	163.38	163.25	162.64	161.67	161.20	161.28	161.49	161.29	
21	160.93	163.04	161.43	162.01	163.82	163.12	162.44	161.62	161.19	161.27	161.40	161.31	
22	161.35	162.68	161.39	161.84	163.99	163.02	162.31	161.58	161.18	161.27	161.36	161.30	
23	161.49	162.41	161.22	161.71	163.59	163.31	162.25	161.53	161.17	161.26	161.31	161.25	
24	161.44	162.25	161.10	161.55	162.96	163.07	162.16	161.44	161.17	161.24	161.28	161.21	
25	161.48	162.06	161.05	161.48	162.72	163.13	162.09	161.40	161.17	161.20	161.24	161.16	
26	161.71	162.12	161.14	161.63	163.12	163.33	162.06	161.38	161.19	161.17	161.19	161.13	
27	161.49	162.32	161.89	161.94	163.82	163.63	162.00	161.38	161.20	161.15	161.16	161.14	
28	161.18	162.26	162.95	162.00	163.63	164.06	161.95	161.37	161.18	161.15	161.15	161.19	
29	161.20	162.12	162.95	161.67	163.35	164.36	161.87	161.36	161.19	161.14	161.14	161.25	
30	161.26	162.03	162.61	161.54	163.10	164.40	161.79	161.39	161.20	161.13		161.29	
31		161.96		161.55	163.25		161.89		161.19	161.12		161.29	
Mean	161.11	162.58	161.69	161.94	163.75	163.51	163.09	161.66	161.34	161.22	161.30	161.28	
Max	161.71	165.25	162.95	162.81	166.31	164.40	166.95	162.09	161.50	161.30	161.55	161.43	166.95
Min	160.76	161.16	161.05	161.42	162.07	162.76	161.79	161.36	161.17	161.12	161.11	161.12	160.76

Annual Max Momentary Gage Height	167.05	m. (MSL.) ,	at 05.00 Hours , on Oct 5 , 2011		
Zero Gage at Bottom Elevation	161.00	m. (MSL.) ,	River Bed	159.70	m. (MSL)
Left Bank Elevation	169.04	m. (MSL.) ,			
Right Bank Elevation	169.07	m. (MSL.) ,	Drainage Area	8924	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	12.90	45.40	79.00	123.80	100.70	250.10	359.00	102.90	46.20	25.50	21.60	21.60		
2	19.90	26.00	63.10	101.80	519.70	260.00	440.80	99.60	47.00	25.50	21.10	21.60		
3	23.80	23.80	58.60	111.70	899.90	286.40	853.40	90.00	47.00	26.00	33.80	22.70		
4	18.90	55.00	55.90	179.60	1070.60	258.40	1208.20	80.00	46.20	26.00	51.00	27.30		
5	16.60	71.20	63.10	198.50	836.90	222.50	1312.70	70.30	46.20	26.70	50.20	31.80		
6	17.20	85.00	86.00	132.50	487.80	191.20	962.00	64.00	45.40	26.70	46.20	33.20		
7	15.50	101.80	137.50	86.00	386.30	201.50	492.30	63.10	43.00	26.00	37.10	33.20		
8	16.60	81.00	126.20	63.10	343.00	258.40	283.10	64.90	44.60	27.30	31.20	33.20		
9	17.80	71.20	92.00	50.20	315.10	273.20	225.50	74.00	45.40	31.20	26.00	35.80		
10	21.10	371.30	68.50	47.00	281.50	291.40	213.50	70.30	44.60	29.30	24.90	35.80		
11	22.20	719.50	56.80	60.40	268.30	412.20	178.10	63.10	43.00	29.90	23.80	37.70		
12	22.70	579.40	57.70	84.00	403.60	392.80	170.90	62.20	42.20	29.30	23.80	37.10		
13	18.90	371.30	60.40	67.60	421.00	405.70	156.80	63.10	41.40	29.30	23.80	33.80		
14	12.20	286.40	54.20	42.20	377.80	449.60	145.60	64.00	39.00	28.60	25.50	39.00		
15	11.50	273.20	36.40	40.60	321.90	438.60	123.80	64.00	39.00	29.30	27.30	41.40		
16	10.80	248.50	24.90	67.60	306.60	463.00	136.30	64.00	37.10	32.50	42.20	38.40		
17	8.30	179.60	18.90	172.30	284.80	403.60	176.70	63.10	34.50	32.50	47.80	35.10		
18	7.20	230.30	18.30	188.30	260.00	327.00	243.50	60.40	32.50	31.80	51.00	32.50		
19	7.20	315.10	39.00	149.80	345.00	276.50	219.50	63.10	29.30	31.80	50.20	31.80		
20	8.70	266.60	43.00	132.50	289.70	268.30	173.80	61.30	26.00	31.20	46.20	31.80		
21	12.50	233.60	41.40	94.10	371.30	246.80	145.60	56.80	25.50	30.60	39.00	33.20		
22	35.80	179.60	38.40	77.00	407.90	230.30	128.80	53.40	24.90	30.60	36.40	32.50		
23	46.20	141.40	27.30	64.90	325.30	278.20	121.30	49.40	24.40	29.90	33.20	29.30		
24	42.20	121.30	20.50	51.00	221.00	238.60	110.60	42.20	24.40	28.60	31.20	26.70		
25	45.40	99.60	17.80	45.40	185.40	248.50	102.90	39.00	24.40	26.00	28.60	23.80		
26	64.90	106.20	22.70	57.70	246.80	281.50	99.60	37.70	25.50	24.40	25.50	22.20		
27	46.20	130.00	82.00	87.00	371.30	333.00	93.00	37.70	26.00	23.20	23.80	22.70		
28	24.90	122.50	219.50	93.00	333.00	423.20	88.00	37.10	24.90	23.20	23.20	25.50		
29	26.00	106.20	219.50	61.30	284.80	490.00	80.00	36.40	25.50	22.70	22.70	29.30		
30	29.90	96.30	169.40	50.20	243.50	499.00	72.10	38.40	26.00	22.20		31.80		
31		89.00		51.00	268.30		82.00		25.50	21.60		31.80		
Total	684.00	5827.30	2098.00	2832.10	11778.80	9599.50	9199.40	1835.50	1096.60	859.40	968.30	963.60	47742.50	CMSDAY
Mean	22.80	188.00	69.90	91.40	380.00	320.00	296.80	61.20	35.40	27.70	33.40	31.10	130.40	CMS
Max	64.90	719.50	219.50	198.50	1070.60	499.00	1312.70	102.90	47.00	32.50	51.00	41.40	1312.70	CMS
Min	7.20	23.80	17.80	40.60	100.70	191.20	72.10	36.40	24.40	21.60	21.10	21.60	7.20	CMS
Runoff	59.10	503.48	181.27	244.69	1017.69	829.40	794.83	158.59	94.75	74.25	83.66	83.26	4124.95	MCM

Momentary Peak 1352.75 CMS. at 167.05 m. (MSL.) at 05.00 Hours , on Oct 5 , 2011

Runoff Yield 14.62 Liters/Second/Square KM. Momentary Peak Yield 151.586 Liters/Second/Square KM.

WATER YEAR : 2011

WANG RIVER BASIN

Wang River at Ban Wang Man , Tak (W.4A)

Lat 17 - 12 - 19 N Long 99 - 06 - 05 E

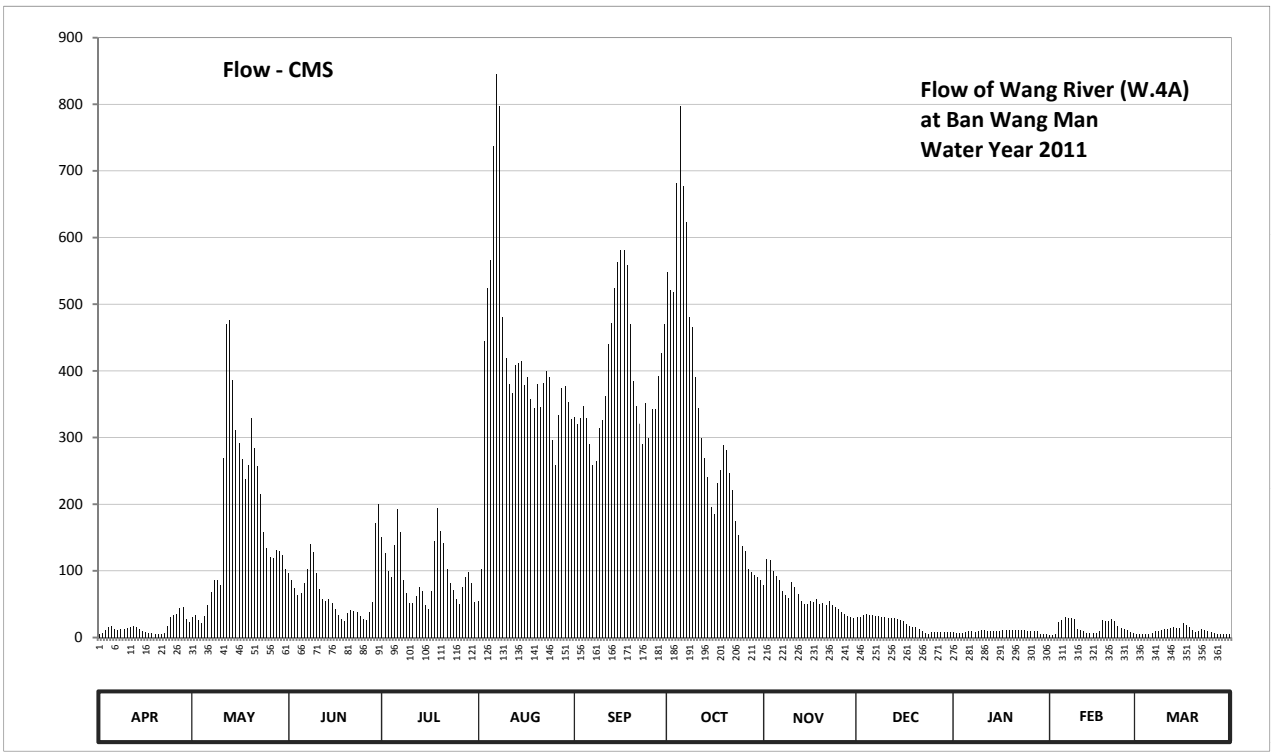
Location : on left bank about 200 meters upstream from the bridge on highway.

	Ban Wang Man	**Amphoe** Sam Ngao	**Changwat** Tak
Drainge Area	10,439 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+130.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	In front of Wat Wang Man		**Elevation** +143.191 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	1968 to date		
Rating Operation			
Period of Rating	1971 to date		
Rated by Flot	-		
Rated by Current Meter	1971 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good.Stage-discharge relation defined by 26 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	130.66	131.40	132.66	133.41	131.92	135.22	136.43	132.36	131.42	130.78	130.60	130.69	
2	130.72	131.50	132.48	133.08	132.73	135.14	136.35	132.95	131.43	130.77	130.61	130.65	
3	130.89	131.30	132.29	132.69	136.03	135.21	136.34	132.93	131.48	130.76	130.66	130.65	
4	131.05	131.19	132.11	132.56	136.36	135.35	136.73	132.69	131.52	130.77	131.21	130.65	
5	131.06	131.47	132.17	133.26	136.48	135.21	136.93	132.59	131.49	130.78	131.32	130.65	
6	130.95	131.82	132.40	133.92	136.83	134.88	136.72	132.48	131.48	130.85	131.42	130.71	
7	130.90	132.18	132.75	133.50	137.01	134.61	136.62	132.20	131.46	130.84	131.38	130.84	
8	130.94	132.49	133.27	132.49	136.93	134.66	136.21	132.10	131.46	130.82	131.37	130.87	
9	130.96	132.48	133.11	132.15	136.21	135.09	136.14	132.01	131.43	130.85	131.34	130.92	
10	131.00	132.35	132.65	131.88	135.87	135.19	135.68	132.44	131.41	130.92	130.93	130.95	
11	131.04	134.70	132.27	131.87	135.60	135.46	135.32	132.31	131.39	130.89	130.89	130.96	
12	131.06	136.16	132.00	132.09	135.50	136.01	134.96	132.12	131.37	130.84	130.84	131.02	
13	131.05	136.19	131.95	132.30	135.80	136.17	134.70	131.92	131.36	130.85	130.73	131.05	
14	130.97	135.64	132.00	132.20	135.82	136.36	134.42	131.85	131.35	130.85	130.70	131.02	
15	130.86	135.06	131.87	131.80	135.84	136.47	133.96	131.85	131.32	130.85	130.70	131.01	
16	130.81	134.90	131.70	131.69	135.59	136.52	133.84	131.93	131.25	130.86	130.70	131.20	
17	130.77	134.69	131.49	132.22	135.67	136.52	134.33	131.91	131.15	130.91	130.86	131.10	
18	130.73	134.39	131.33	133.34	135.43	136.46	134.53	131.99	131.07	130.92	131.30	131.03	
19	130.69	134.60	131.26	133.93	135.32	136.16	134.87	131.85	131.04	130.91	131.25	130.92	
20	130.64	135.21	131.56	133.52	135.60	135.63	134.81	131.87	131.03	130.90	131.25	130.79	
21	130.68	134.83	131.66	133.29	135.33	135.35	134.49	131.83	130.95	130.90	131.34	130.87	
22	130.76	134.59	131.64	132.74	135.61	135.14	134.23	131.92	130.87	130.90	131.25	130.95	
23	131.06	134.17	131.60	132.40	135.74	134.89	133.70	131.82	130.75	130.89	131.09	130.91	
24	131.41	133.51	131.46	132.24	135.68	135.38	133.45	131.76	130.65	130.89	131.02	130.85	
25	131.50	133.19	131.35	132.00	134.93	134.96	133.22	131.69	130.80	130.87	130.94	130.80	
26	131.53	132.99	131.32	131.85	134.61	135.31	133.13	131.59	130.79	130.84	130.90	130.72	
27	131.72	132.97	131.60	132.30	135.24	135.31	132.75	131.53	130.82	130.84	130.83	130.67	
28	131.75	133.15	131.91	132.57	135.56	135.69	132.68	131.47	130.83	130.84	130.74	130.66	
29	131.34	133.13	133.68	132.67	135.58	135.92	132.61	131.41	130.82	130.65	130.72	130.65	
30	131.24	133.03	134.01	132.41	135.39	136.16	132.56	131.37	130.78	130.66		130.65	
31		132.73		131.90	135.20		132.49		130.78	130.62		130.66	
Mean	131.02	133.48	132.12	132.59	135.53	135.55	134.68	132.02	131.15	130.83	131.00	130.84	
Max	131.75	136.19	134.01	133.93	137.01	136.52	136.93	132.95	131.52	130.92	131.42	131.20	137.01
Min	130.64	131.19	131.26	131.69	131.92	134.61	132.49	131.37	130.65	130.62	130.60	130.65	130.60

Annual Max Momentary Gage Height	137.07	m. (MSL.) ,	at 06.00 Hours , on Aug 8 , 2011		
Zero Gage at Bottom Elevation	130.00	m. (MSL.) ,	River Bed	129.41	m. (MSL)
Left Bank Elevation	140.65	m. (MSL.) ,			
Right Bank Elevation	140.91	m. (MSL.) ,	Drainage Area	10439	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	5.20	30.00	97.20	150.80	54.00	330.60	547.40	78.60	30.80	7.60	4.00	5.80		
2	6.40	34.00	85.80	126.60	102.10	320.80	521.50	117.50	31.20	7.40	4.20	5.00		
3	10.70	26.00	74.40	99.30	444.00	329.30	518.60	116.10	33.20	7.20	5.20	5.00		
4	16.00	21.60	64.10	90.60	524.40	347.50	682.20	99.30	34.80	7.40	22.40	5.00		
5	16.40	32.80	67.40	139.50	566.40	329.30	796.70	92.40	33.60	7.60	26.80	5.00		
6	12.50	49.00	81.00	192.80	737.70	289.60	676.80	85.80	33.20	9.50	30.80	6.20		
7	11.00	67.90	103.50	158.00	845.60	259.10	622.80	69.00	32.40	9.20	29.20	9.20		
8	12.20	86.40	140.30	86.40	796.70	264.60	480.90	63.50	32.40	8.60	28.80	10.10		
9	12.80	85.80	128.70	66.20	480.90	314.80	466.00	58.50	31.20	9.50	27.60	11.60		
10	14.00	78.00	96.50	52.00	418.50	326.80	391.20	83.40	30.40	11.60	11.90	12.50		
11	15.60	269.00	73.20	51.50	380.00	361.80	343.60	75.60	29.60	10.70	10.70	12.80		
12	16.40	470.00	58.00	62.90	367.00	440.00	299.20	64.60	28.80	9.20	9.20	14.80		
13	16.00	476.00	55.50	75.00	408.00	472.00	269.00	54.00	28.40	9.50	6.60	16.00		
14	13.10	385.60	58.00	69.00	411.00	524.40	240.00	50.50	28.00	9.50	6.00	14.80		
15	9.80	311.20	51.50	48.00	414.00	562.60	196.40	50.50	26.80	9.50	6.00	14.40		
16	8.30	292.00	43.00	42.50	378.70	581.60	185.60	54.50	24.00	9.80	6.00	22.00		
17	7.40	267.90	33.60	70.20	389.80	581.60	231.00	53.50	20.00	11.30	9.80	18.00		
18	6.60	237.00	27.20	145.50	357.90	558.80	251.00	57.50	16.80	11.60	26.00	15.20		
19	5.80	258.00	24.40	193.70	343.60	470.00	288.40	50.50	15.60	11.30	24.00	11.60		
20	4.80	329.30	36.40	159.60	380.00	384.20	281.20	51.50	15.20	11.00	24.00	7.80		
21	5.60	283.60	41.00	141.70	344.90	347.50	247.00	49.50	12.50	11.00	27.60	10.10		
22	7.20	257.00	40.00	102.80	381.40	320.80	221.00	54.00	10.10	11.00	24.00	12.50		
23	16.40	215.30	38.00	81.00	399.60	290.80	174.00	49.00	7.00	10.70	17.60	11.30		
24	30.40	158.80	32.40	71.40	391.20	351.40	154.00	46.00	5.00	10.70	14.80	9.50		
25	34.00	134.30	28.00	58.00	295.60	299.20	136.50	42.50	8.00	10.10	12.20	8.00		
26	35.20	120.30	26.80	50.50	259.10	342.30	130.10	37.60	7.80	9.20	11.00	6.40		
27	44.00	118.90	38.00	75.00	333.20	342.30	103.50	35.20	8.60	9.20	8.90	5.40		
28	45.50	131.50	53.50	91.20	374.80	392.60	98.60	32.80	8.90	9.20	6.80	5.20		
29	27.60	130.10	172.40	97.90	377.40	426.00	93.70	30.40	8.60	5.00	6.40	5.00		
30	23.60	123.10	200.90	81.60	352.70	470.00	90.60	28.80	7.60	5.20		5.00		
31		102.10		53.00	328.00		86.40		7.60	4.40		5.20		
Total	490.50	5582.50	2070.70	2984.20	12638.20	11632.30	9824.90	1832.60	648.10	284.70	448.50	306.40	48743.60	CMSDAY
Mean	16.40	180.10	69.00	96.30	407.70	387.70	316.90	61.10	20.90	9.20	15.50	9.90	133.20	CMS
Max	45.50	476.00	200.90	193.70	845.60	581.60	796.70	117.50	34.80	11.60	30.80	22.00	845.60	CMS
Min	4.80	21.60	24.40	42.50	54.00	259.10	86.40	28.80	5.00	4.40	4.00	5.00	4.00	CMS
Runoff	42.38	482.33	178.91	257.83	1091.94	1005.03	848.87	158.34	56.00	24.60	38.75	26.47	4211.45	MCM

Momentary Peak 891.20 CMS. at 137.07 m. (MSL.) at 06.00 Hours , on Aug 8 , 2011

Runoff Yield 12.76 Liters/Second/Square KM. Momentary Peak Yield 85.372 Liters/Second/Square KM.

WATER YEAR : 2011

WANG RIVER BASIN

Wang River at Ban Ko Kha , Lampang (W.5A)

Lat 18 - 11 - 21 N Long 99 - 24 - 04 E

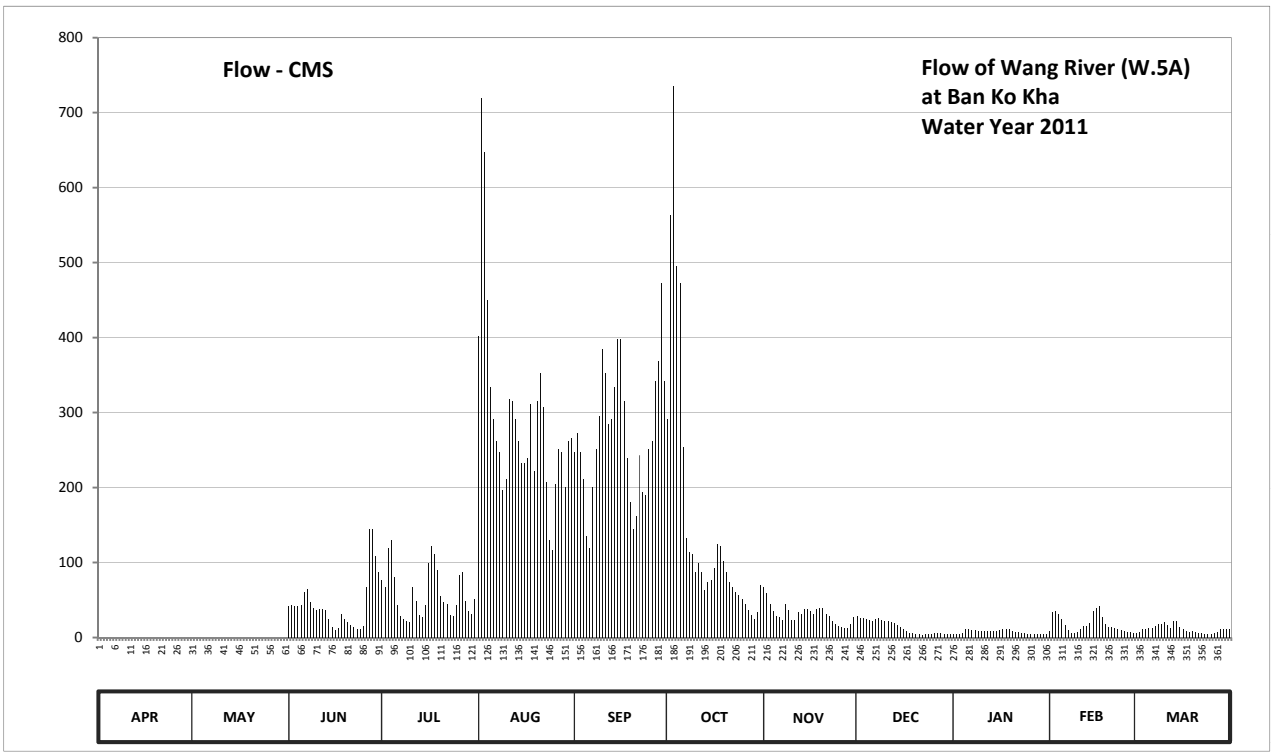
Location : on right bank upstream from Siriyong Bridge.

	Ban Ko Kha	**Amphoe** Ko Kha	**Changwat** Lampang
Drainge Area	5,278 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+216.855 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank near automatic gage building	**Elevation**	+219.743 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	2011 to date		
Rating Operation			
Period of Rating	2011 to date		
Rated by Flot	-		
Rated by Current Meter	2011 to date		
Stability of Channel Regimes	Fairly stable because of backwater effect.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 46 discharge measurements made in 2011.		
Remark	beginning on 1st May 2011		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	*******	0.29	217.29	217.46	218.44	218.04	218.16	217.42	217.21	216.95	217.04	216.99	
2	*******	0.30	217.30	217.42	219.08	218.11	218.79	217.38	217.19	216.95	217.24	217.01	
3	*******	0.31	217.29	217.64	218.95	218.04	219.11	217.31	217.19	216.96	217.25	217.06	
4	*******	0.52	217.29	217.68	218.55	217.94	218.65	217.25	217.18	217.00	217.23	217.07	
5	*******	0.48	217.30	217.48	218.27	217.70	218.60	217.21	217.17	217.06	217.18	217.08	
6	*******	0.48	217.39	217.30	218.16	217.64	218.06	217.20	217.16	217.06	217.12	217.09	
7	*******	0.48	217.41	217.21	218.08	217.91	217.69	217.17	217.18	217.05	217.05	217.11	
8	*******	0.47	217.32	217.18	218.04	218.05	217.62	217.31	217.19	217.05	217.00	217.13	
9	*******	0.55	217.28	217.16	217.90	218.17	217.61	217.26	217.17	217.04	216.99	217.13	
10	*******	1.26	217.26	217.15	217.94	218.40	217.51	217.17	217.16	217.04	217.01	217.15	
11	*******	1.48	217.27	217.42	218.23	218.32	217.56	217.17	217.16	217.03	217.07	217.12	
12	*******	1.19	217.27	217.33	218.22	218.14	217.51	217.24	217.15	217.03	217.11	217.08	
13	*******	1.07	217.26	217.22	218.16	218.16	217.40	217.23	217.14	217.03	217.11	217.16	
14	*******	0.99	217.18	217.20	218.08	218.27	217.45	217.27	217.12	217.04	217.14	217.16	
15	*******	0.96	217.10	217.30	218.00	218.43	217.46	217.27	217.10	217.04	217.25	217.10	
16	*******	0.68	217.05	217.56	218.00	218.43	217.53	217.25	217.07	217.05	217.28	217.07	
17	*******	0.51	217.08	217.65	218.02	218.22	217.66	217.23	217.04	217.06	217.29	217.03	
18	*******	0.73	217.23	217.61	218.21	218.02	217.65	217.27	217.00	217.06	217.20	217.01	
19	*******	0.61	217.18	217.52	217.97	217.85	217.57	217.28	216.98	217.06	217.13	217.03	
20	*******	0.66	217.15	217.36	218.22	217.73	217.51	217.28	216.95	217.04	217.10	217.01	
21	*******	0.71	217.12	217.32	218.32	217.79	217.45	217.23	216.95	217.02	217.10	217.00	
22	*******	0.65	217.10	217.31	218.20	218.03	217.42	217.21	216.94	217.01	217.08	216.99	
23	*******	0.62	217.07	217.22	217.93	217.89	217.39	217.16	216.95	216.99	217.07	216.96	
24	*******	0.60	217.07	217.21	217.68	217.88	217.37	217.13	216.96	216.98	217.05	216.96	
25	*******	0.58	217.11	217.30	217.63	218.05	217.34	217.11	216.97	216.97	217.04	216.95	
26	*******	0.62	217.42	217.49	217.92	218.08	217.31	217.10	216.98	216.96	217.02	216.99	
27	*******	0.60	217.73	217.51	218.05	218.29	217.26	217.09	216.99	216.96	217.01	217.02	
28	*******	0.55	217.73	217.33	218.04	218.36	217.22	217.09	216.98	216.96	217.00	217.06	
29	*******	0.52	217.60	217.25	217.91	218.60	217.18	217.13	216.97	216.96	216.98	217.06	
30	*******	0.52	217.51	217.23	218.08	218.29	217.24	217.20	216.96	216.95		217.07	
31		0.48		217.34	218.09		217.43		216.95	216.95		217.07	
Mean	*******	0.66	217.28	217.37	218.14	218.09	217.67	217.22	217.07	217.01	217.11	217.06	
Max	*******	1.48	217.73	217.68	219.08	218.60	219.11	217.42	217.21	217.06	217.29	217.16	219.11
Min	*******	0.29	217.05	217.15	217.63	217.64	217.18	217.09	216.94	216.95	216.98	216.95	*******

Annual Max Momentary Gage Height	219.38	m. (MSL.) ,	at 16.00 Hours , on Oct 3 , 2011		
Zero Gage at Bottom Elevation	216.86	m. (MSL.) ,	River Bed	212.48	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, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	*******	0.00	41.40	76.20	401.80	246.80	291.80	67.40	28.60	4.00	9.20	5.60		
2	*******	0.00	43.00	67.40	718.80	272.80	563.00	59.00	25.70	4.00	33.40	6.80		
3	*******	0.00	41.40	119.40	647.00	246.80	735.80	45.00	25.70	4.40	35.00	10.80		
4	*******	0.00	41.40	129.80	449.50	211.00	495.00	35.00	24.40	6.00	31.80	11.60		
5	*******	0.00	43.00	80.60	333.60	135.00	472.00	28.60	23.10	10.80	24.40	12.40		
6	*******	0.00	61.00	43.00	291.80	119.40	254.20	27.00	21.80	10.80	16.60	13.20		
7	*******	0.00	65.20	28.60	261.60	200.50	132.40	23.10	24.40	10.00	10.00	15.30		
8	*******	0.00	47.00	24.40	246.80	250.50	114.20	45.00	25.70	10.00	6.00	17.90		
9	*******	0.00	39.80	21.80	197.00	295.60	111.60	36.60	23.10	9.20	5.60	17.90		
10	*******	0.00	36.60	20.50	211.00	385.00	87.40	23.10	21.80	9.20	6.80	20.50		
11	*******	0.00	38.20	67.40	318.40	353.00	99.40	23.10	21.80	8.40	11.60	16.60		
12	*******	0.00	38.20	49.00	314.60	284.20	87.40	33.40	20.50	8.40	15.30	12.40		
13	*******	0.00	36.60	30.20	291.80	291.80	63.00	31.80	19.20	8.40	15.30	21.80		
14	*******	0.00	24.40	27.00	261.60	333.60	74.00	38.20	16.60	9.20	19.20	21.80		
15	*******	0.00	14.00	43.00	232.00	397.60	76.20	38.20	14.00	9.20	35.00	14.00		
16	*******	0.00	10.00	99.40	232.00	397.60	92.20	35.00	11.60	10.00	39.80	11.60		
17	*******	0.00	12.40	122.00	239.40	314.60	124.60	31.80	9.20	10.80	41.40	8.40		
18	*******	0.00	31.80	111.60	310.80	239.40	122.00	38.20	6.00	10.80	27.00	6.80		
19	*******	0.00	24.40	89.80	221.50	181.00	101.80	39.80	5.20	10.80	17.90	8.40		
20	*******	0.00	20.50	55.00	314.60	144.00	87.40	39.80	4.00	9.20	14.00	6.80		
21	*******	0.00	16.60	47.00	353.00	162.00	74.00	31.80	4.00	7.60	14.00	6.00		
22	*******	0.00	14.00	45.00	307.00	243.10	67.40	28.60	3.60	6.80	12.40	5.60		
23	*******	0.00	11.60	30.20	207.50	193.80	61.00	21.80	4.00	5.60	11.60	4.40		
24	*******	0.00	11.60	28.60	129.80	190.60	57.00	17.90	4.40	5.20	10.00	4.40		
25	*******	0.00	15.30	43.00	116.80	250.50	51.00	15.30	4.80	4.80	9.20	4.00		
26	*******	0.00	67.40	82.80	204.00	261.60	45.00	14.00	5.20	4.40	7.60	5.60		
27	*******	0.00	144.00	87.40	250.50	341.20	36.60	13.20	5.60	4.40	6.80	7.60		
28	*******	0.00	144.00	49.00	246.80	369.00	30.20	13.20	5.20	4.40	6.00	10.80		
29	*******	0.00	109.00	35.00	200.50	472.00	24.40	17.90	4.80	4.40	5.20	10.80		
30	*******	0.00	87.40	31.80	261.60	341.20	33.40	27.00	4.40	4.00		11.60		
31		0.00		51.00	265.30		69.60		4.00	4.00		11.60		
Total	*******	0.00	1331.20	1836.90	9038.40	8125.20	4735.00	939.80	422.40	229.20	498.10	343.00	*******	CMSDAY
Mean	*******	0.00	44.37	59.25	291.56	270.84	152.74	31.33	13.63	7.39	17.18	11.06	*******	CMS
Max	*******	0.00	144.00	129.80	718.80	472.00	735.80	67.40	28.60	10.80	41.40	21.80	735.80	CMS
Min	*******	0.00	10.00	20.50	116.80	119.40	24.40	13.20	3.60	4.00	5.20	4.00	*******	CMS
Runoff	*******	0.00	115.02	158.71	780.92	702.02	409.10	81.20	36.50	19.80	43.04	29.64	*******	MCM

Momentary Peak 901.21 CMS. at 219.38 m. (MSL.) at 16.00 Hours , on Oct 3 , 2011

Runoff Yield ******* Liters/Second/Square KM. Momentary Peak Yield 170.748 Liters/Second/Square KM.

WATER YEAR : 2011

WANG RIVER BASIN

Wang River at Ban Sop Prap , Lampang (W.6A)

Lat 17 - 52 - 41 N Long 99 - 19 - 52 E

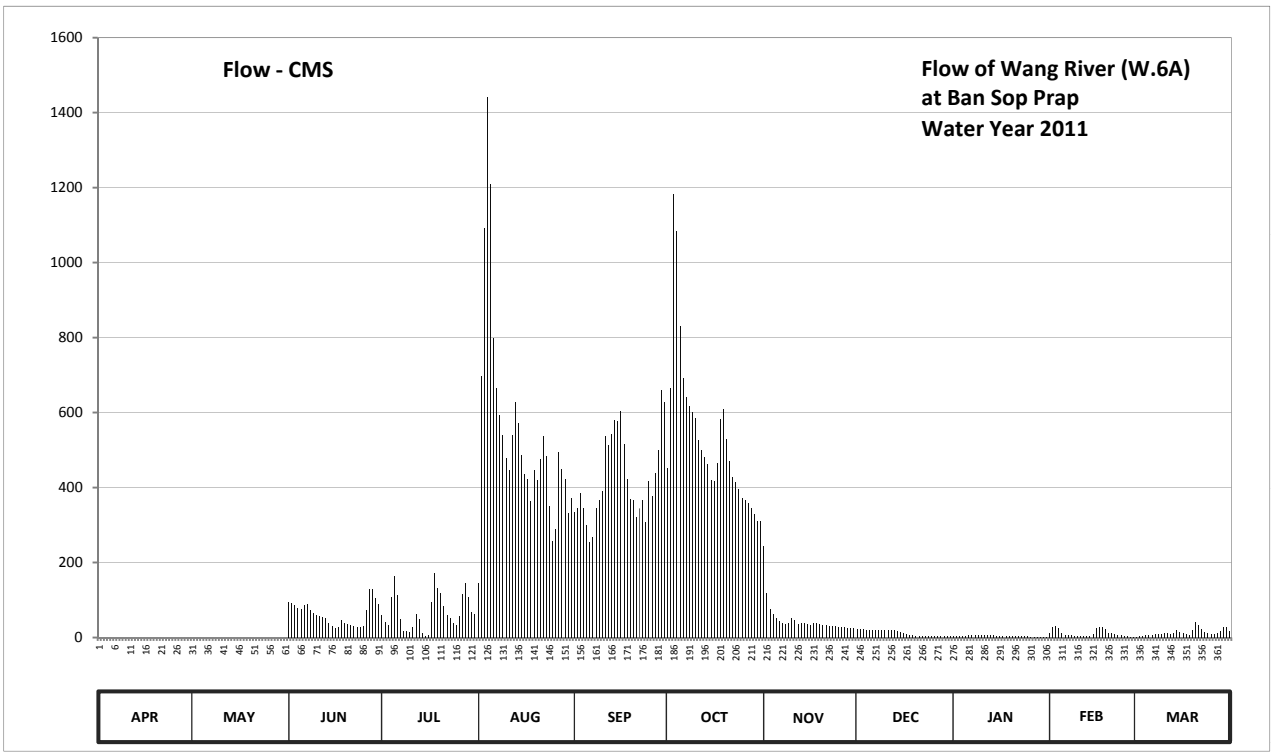
Location : on left bank at Ban Sop Prap.

	Ban Sop Prap	**Amphoe** Sop Prap	**Changwat** Lampang
Drainge Area	8,150 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+184.050 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the gage site.		**Elevation** +187.165 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	2011 to date		
Rating Operation			
Period of Rating	2011 to date		
Rated by Flot	-		
Rated by Current Meter	2011 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	Overbank flow starts at elevation +189.810 m.(MSL.), records are channel flow only.		
General Description	Records fair. Stage-discharge relation defined by 39 discharge measurements made in 2011.		
Remark	beginning on 1st May 2011		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	*******	1.10	185.73	185.52	186.01	186.96	187.47	186.53	185.22	184.83	185.07	184.79	
2	*******	1.10	185.71	185.39	188.43	187.01	188.32	185.87	185.21	184.83	185.26	184.81	
3	*******	1.09	185.68	185.33	189.79	187.18	190.06	185.62	185.21	184.83	185.29	184.87	
4	*******	1.30	185.64	185.80	190.79	187.01	189.76	185.53	185.20	184.83	185.24	184.96	
5	*******	1.27	185.63	186.11	190.14	186.79	188.92	185.46	185.19	184.87	185.10	184.98	
6	*******	1.29	185.69	185.84	188.81	186.58	188.42	185.40	185.18	184.95	184.99	184.99	
7	*******	1.30	185.70	185.45	188.31	186.65	188.22	185.36	185.18	184.95	184.94	185.02	
8	*******	1.30	185.61	185.17	188.04	187.01	188.13	185.35	185.18	184.95	184.91	185.03	
9	*******	1.46	185.56	185.16	187.84	187.10	188.07	185.37	185.18	184.95	184.88	185.04	
10	*******	3.63	185.52	185.11	187.59	187.21	188.01	185.47	185.18	184.95	184.85	185.06	
11	*******	4.62	185.51	185.26	187.45	187.83	187.78	185.43	185.18	184.95	184.82	185.10	
12	*******	3.73	185.49	185.53	187.84	187.73	187.67	185.35	185.18	184.94	184.81	185.03	
13	*******	2.96	185.46	185.44	188.17	187.85	187.60	185.37	185.18	184.92	184.81	185.05	
14	*******	2.57	185.37	185.10	187.96	187.99	187.52	185.37	185.16	184.91	184.81	185.18	
15	*******	2.61	185.29	184.89	187.62	187.98	187.34	185.35	185.11	184.90	185.03	185.12	
16	*******	2.36	185.24	184.99	187.40	188.08	187.32	185.33	185.05	184.89	185.25	185.07	
17	*******	1.94	185.27	185.73	187.35	187.74	187.53	185.37	185.00	184.88	185.27	185.01	
18	*******	2.52	185.42	186.15	187.09	187.35	188.00	185.36	184.95	184.87	185.26	184.95	
19	*******	2.68	185.37	185.94	187.45	187.11	188.10	185.34	184.91	184.86	185.23	185.19	
20	*******	2.43	185.34	185.87	187.34	187.10	187.79	185.33	184.90	184.85	185.10	185.38	
21	*******	2.30	185.31	185.67	187.57	186.89	187.55	185.31	184.90	184.84	185.06	185.33	
22	*******	2.04	185.29	185.52	187.82	187.00	187.37	185.30	184.89	184.84	185.01	185.23	
23	*******	1.88	185.26	185.46	187.61	187.10	187.31	185.30	184.89	184.83	184.97	185.11	
24	*******	1.77	185.26	185.37	187.03	186.83	187.23	185.29	184.88	184.81	184.92	185.06	
25	*******	1.71	185.30	185.33	186.59	187.32	187.13	185.27	184.87	184.81	184.85	185.04	
26	*******	1.72	185.61	185.50	186.74	187.15	187.10	185.26	184.86	184.80	184.81	185.04	
27	*******	1.73	185.92	185.85	187.65	187.41	187.06	185.26	184.86	184.79	184.78	185.09	
28	*******	1.71	185.92	186.01	187.46	187.67	187.00	185.25	184.85	184.79	184.75	185.17	
29	*******	1.70	185.79	185.81	187.35	188.29	186.93	185.24	184.85	184.79	184.77	185.26	
30	*******	1.70	185.70	185.57	186.94	188.17	186.84	185.24	184.84	184.78		185.27	
31		1.70		185.53	187.12		186.84		184.83	184.78		185.17	
Mean	*******	2.04	185.52	185.53	187.78	187.34	187.75	185.41	185.03	184.86	184.99	185.08	
Max	*******	4.62	185.92	186.15	190.79	188.29	190.06	186.53	185.22	184.95	185.29	185.38	190.79
Min	*******	1.09	185.24	184.89	186.01	186.58	186.84	185.24	184.83	184.78	184.75	184.79	*******

Annual Max Momentary Gage Height	190.87	m. (MSL.) ,	at 14.00 Hours , on Aug 4 , 2011		
Zero Gage at Bottom Elevation	184.05	m. (MSL.) ,	River Bed	180.86	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, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	*******	0.00	94.40	60.00	145.85	335.70	450.95	244.00	22.20	3.25	11.50	2.35		
2	*******	0.00	90.80	41.80	695.60	346.70	666.30	119.95	21.10	3.25	26.60	2.75		
3	*******	0.00	85.60	34.60	1093.30	384.10	1182.90	75.40	21.10	3.25	29.90	4.25		
4	*******	0.00	78.80	107.00	1442.80	346.70	1083.70	61.50	20.00	3.25	24.40	6.80		
5	*******	0.00	77.10	164.35	1210.10	298.85	830.10	51.40	19.30	4.25	13.00	7.40		
6	*******	0.00	87.30	114.40	799.30	254.00	692.90	43.00	18.60	6.50	7.70	7.70		
7	*******	0.00	89.00	50.00	663.65	268.75	639.80	38.20	18.60	6.50	6.20	9.00		
8	*******	0.00	73.70	17.90	592.90	346.70	616.30	37.00	18.60	6.50	5.30	9.50		
9	*******	0.00	66.00	17.20	540.90	366.50	600.70	39.40	18.60	6.50	4.50	10.00		
10	*******	0.00	60.00	13.70	479.15	390.80	585.10	52.80	18.60	6.50	3.75	11.00		
11	*******	0.00	58.50	26.60	446.25	538.30	525.60	47.20	18.60	6.50	3.00	13.00		
12	*******	0.00	55.60	61.50	540.90	513.35	498.65	37.00	18.60	6.20	2.75	9.50		
13	*******	0.00	51.40	48.60	626.70	543.50	481.50	39.40	18.60	5.60	2.75	10.50		
14	*******	0.00	39.40	13.00	572.10	579.90	462.70	39.40	17.20	5.30	2.75	18.60		
15	*******	0.00	29.90	4.75	486.40	577.30	420.70	37.00	13.70	5.00	9.50	14.40		
16	*******	0.00	24.40	7.70	434.50	603.30	416.10	34.60	10.50	4.75	25.50	11.50		
17	*******	0.00	27.70	94.40	423.00	515.80	465.05	39.40	8.00	4.50	27.70	8.50		
18	*******	0.00	45.80	171.75	364.30	423.00	582.50	38.20	6.50	4.25	26.60	6.50		
19	*******	0.00	39.40	132.90	446.25	368.70	608.50	35.80	5.30	4.00	23.30	19.30		
20	*******	0.00	35.80	119.95	420.70	366.50	528.05	34.60	5.00	3.75	13.00	40.60		
21	*******	0.00	32.20	83.90	474.45	320.35	469.75	32.20	5.00	3.50	11.00	34.60		
22	*******	0.00	29.90	60.00	535.70	344.50	427.60	31.00	4.75	3.50	8.50	23.30		
23	*******	0.00	26.60	51.40	483.95	366.50	413.80	31.00	4.75	3.25	7.10	13.70		
24	*******	0.00	26.60	39.40	351.10	307.45	395.40	29.90	4.50	2.75	5.60	11.00		
25	*******	0.00	31.00	34.60	256.00	416.10	373.10	27.70	4.25	2.75	3.75	10.00		
26	*******	0.00	73.70	57.00	288.10	377.50	366.50	26.60	4.00	2.50	2.75	10.00		
27	*******	0.00	129.20	116.25	493.75	436.85	357.70	26.60	4.00	2.35	2.20	12.50		
28	*******	0.00	129.20	145.85	448.60	498.65	344.50	25.50	3.75	2.35	1.75	17.90		
29	*******	0.00	105.20	108.85	423.00	658.35	329.10	24.40	3.75	2.35	2.05	26.60		
30	*******	0.00	89.00	67.50	331.30	626.70	309.60	24.40	3.50	2.20		27.70		
31		0.00		61.50	370.90		309.60		3.25	2.20		17.90		
Total	*******	0.00	1883.20	2128.35	16881.50	12721.40	16434.75	1424.55	364.20	129.30	314.40	428.35	*******	CMSDAY
Mean	*******	0.00	62.77	68.66	544.56	424.05	530.15	47.48	11.75	4.17	10.84	13.82	*******	CMS
Max	*******	0.00	129.20	171.75	1442.80	658.35	1182.90	244.00	22.20	6.50	29.90	40.60	1442.80	CMS
Min	*******	0.00	24.40	4.75	145.85	254.00	309.60	24.40	3.25	2.20	1.75	2.35	*******	CMS
Runoff	*******	0.00	162.71	183.89	1458.56	1099.13	1419.96	123.08	31.47	11.17	27.16	37.01	*******	MCM

Momentary Peak 1473.10 CMS. at 190.87 m. (MSL.) at 14.00 Hours , on Aug 4 , 2011

Runoff Yield ******* Liters/Second/Square KM. Momentary Peak Yield 180.748 Liters/Second/Square KM.

WATER YEAR : 2011

WANG RIVER BASIN

Wang River at Ban Don Mun , Lampang (W.10A)

Lat 18 - 31 - 16 N Long 99 - 37 - 52 E

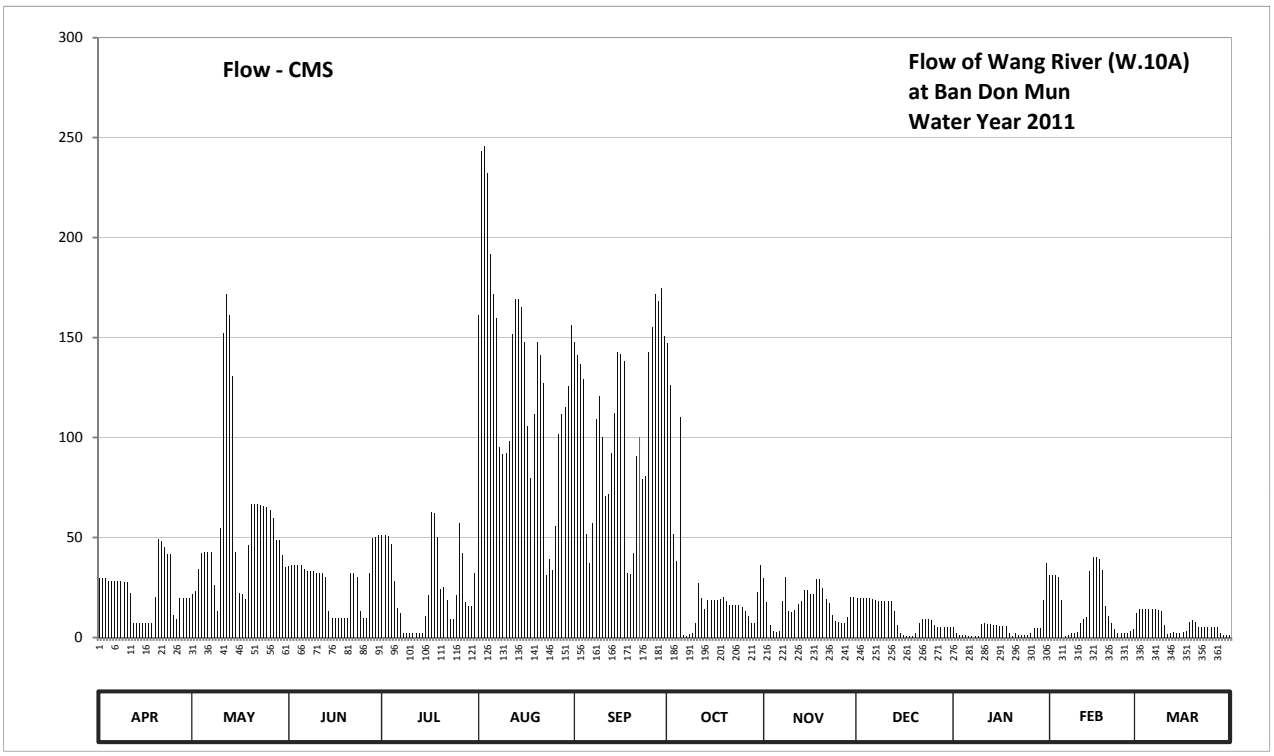
Location : on left bank at Ban Don Mun

	Ban Don Mun	**Amphoe** Mueang	**Changwat** Lampang
Drainge Area	2,798 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+259.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank at the bridge.		**Elevation** +270.290 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	1984 to date		
Rating Operation			
Period of Rating	1984 to date		
Rated by Flot	-		
Rated by Current Meter	1984 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good.Stage-discharge relation defined by 47 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	259.76	259.59	259.88	260.18	261.79	261.61	261.60	259.76	259.55	259.20	259.79	259.38	
2	259.76	259.63	259.89	260.18	262.81	261.52	261.32	259.50	259.55	259.08	259.79	259.43	
3	259.76	259.85	259.90	260.17	262.84	261.46	260.19	259.23	259.55	258.97	259.79	259.43	
4	259.74	260.01	259.90	260.10	262.68	261.36	259.94	259.12	259.55	258.97	259.78	259.43	
5	259.74	260.02	259.90	259.73	262.17	260.19	261.09	259.11	259.55	258.97	259.53	259.43	
6	259.73	260.02	259.85	259.44	261.92	259.91	259.01	259.13	259.54	258.93	258.93	259.43	
7	259.73	260.02	259.83	259.38	261.77	260.28	258.96	259.51	259.53	258.89	258.98	259.43	
8	259.73	259.69	259.83	259.08	260.88	261.08	259.03	259.78	259.52	258.89	259.09	259.42	
9	259.72	259.40	259.83	259.07	260.83	261.24	259.07	259.40	259.52	258.89	259.09	259.41	
10	259.72	260.24	259.82	259.07	260.84	260.95	259.26	259.39	259.52	259.24	259.11	259.23	
11	259.60	261.67	259.82	259.07	260.92	260.50	259.71	259.42	259.52	259.25	259.25	259.05	
12	259.26	261.92	259.81	259.09	261.66	260.52	259.55	259.48	259.52	259.24	259.30	259.07	
13	259.25	261.79	259.78	259.07	261.89	260.84	259.43	259.51	259.41	259.24	259.33	259.11	
14	259.25	261.38	259.41	259.10	261.89	261.12	259.53	259.64	259.23	259.23	259.83	259.10	
15	259.25	260.02	259.32	259.34	261.84	261.54	259.53	259.64	259.08	259.23	259.98	259.10	
16	259.25	259.60	259.32	259.58	261.61	261.53	259.53	259.59	258.98	259.22	259.97	259.11	
17	259.25	259.59	259.32	260.37	261.03	261.48	259.53	259.59	258.96	259.22	259.95	259.12	
18	259.25	259.54	259.32	260.36	260.65	259.81	259.54	259.75	258.96	259.22	259.84	259.27	
19	259.56	260.09	259.32	260.16	261.11	259.80	259.56	259.75	258.96	259.06	259.46	259.29	
20	260.14	260.44	259.32	259.65	261.61	260.01	259.51	259.66	259.07	258.92	259.34	259.27	
21	260.12	260.44	259.82	259.67	261.52	260.82	259.47	259.54	259.26	259.07	259.25	259.20	
22	260.07	260.44	259.81	259.53	261.33	260.95	259.47	259.49	259.31	258.98	259.17	259.20	
23	260.00	260.43	259.78	259.31	259.79	260.64	259.47	259.36	259.31	258.98	259.07	259.20	
24	260.00	260.42	259.41	259.31	259.95	260.66	259.47	259.28	259.31	258.97	259.07	259.20	
25	259.35	260.41	259.32	259.58	259.84	261.54	259.45	259.27	259.29	258.97	259.07	259.21	
26	259.30	260.39	259.32	260.28	260.25	261.71	259.40	259.26	259.23	259.08	259.07	259.21	
27	259.55	260.32	259.81	260.01	260.97	261.92	259.34	259.26	259.21	259.19	259.12	259.21	
28	259.55	260.13	260.15	259.50	261.11	261.88	259.25	259.33	259.21	259.19	259.18	259.10	
29	259.55	260.13	260.16	259.46	261.16	261.96	259.25	259.56	259.21	259.19	259.18	258.98	
30	259.55	259.99	260.18	259.46	261.31	261.65	259.62	259.56	259.21	259.53		258.99	
31		259.87		259.82	261.72		259.90		259.20	259.91		258.99	
Mean	259.62	260.24	259.70	259.62	261.34	261.02	259.64	259.46	259.32	259.13	259.39	259.23	
Max	260.14	261.92	260.18	260.37	262.84	261.96	261.60	259.78	259.55	259.91	259.98	259.43	262.84
Min	259.25	259.40	259.32	259.07	259.79	259.80	258.96	259.11	258.96	258.89	258.93	258.98	258.89

Annual Max Momentary Gage Height	262.92	m. (MSL.) ,	at 09.00 Hours , on Aug 2 , 2011		
Zero Gage at Bottom Elevation	259.00	m. (MSL.) ,	River Bed	257.55	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, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	29.50	21.55	35.50	51.40	161.25	147.75	147.00	29.50	19.75	5.00	31.00	12.20		
2	29.50	23.35	36.00	51.40	243.35	141.00	126.33	17.50	19.75	2.24	31.00	14.35		
3	29.50	34.00	36.50	50.85	245.90	136.50	51.95	6.20	19.75	0.99	31.00	14.35		
4	28.50	42.05	36.50	47.00	232.40	129.17	38.50	3.00	19.75	0.99	30.50	14.35		
5	28.50	42.60	36.50	28.00	191.60	51.95	110.04	2.75	19.75	0.99	18.85	14.35		
6	28.00	42.60	34.00	14.80	171.60	37.00	1.33	3.25	19.30	0.71	0.71	14.35		
7	28.00	42.60	33.00	12.20	159.75	57.30	0.92	17.95	18.85	0.50	1.06	14.35		
8	28.00	26.05	33.00	2.24	95.17	109.33	1.59	30.50	18.40	0.50	2.37	13.90		
9	27.50	13.00	33.00	2.11	91.62	120.67	2.11	13.00	18.40	0.50	2.37	13.45		
10	27.50	54.90	32.50	2.11	92.33	100.13	7.40	12.60	18.40	6.60	2.75	6.20		
11	22.00	152.25	32.50	2.11	98.00	70.50	27.00	13.90	18.40	7.00	7.00	1.85		
12	7.40	171.60	32.00	2.37	151.50	71.70	19.75	16.60	18.40	6.60	9.00	2.11		
13	7.00	161.25	30.50	2.11	169.20	92.33	14.35	17.95	13.45	6.60	10.20	2.75		
14	7.00	130.58	13.45	2.50	169.20	112.17	18.85	23.80	6.20	6.20	33.00	2.50		
15	7.00	42.60	9.80	10.60	165.20	142.50	18.85	23.80	2.24	6.20	40.50	2.50		
16	7.00	22.00	9.80	21.10	147.75	141.75	18.85	21.55	1.06	5.80	40.00	2.75		
17	7.00	21.55	9.80	62.70	105.79	138.00	18.85	21.55	0.92	5.80	39.00	3.00		
18	7.00	19.30	9.80	62.10	79.75	32.00	19.30	29.00	0.92	5.80	33.50	7.80		
19	20.20	46.45	9.80	50.30	111.46	31.50	20.20	29.00	0.92	1.98	15.70	8.60		
20	49.20	66.90	9.80	24.25	147.75	42.05	17.95	24.70	2.11	0.64	10.60	7.80		
21	48.10	66.90	32.50	25.15	141.00	90.92	16.15	19.30	7.40	2.11	7.00	5.00		
22	45.35	66.90	32.00	18.85	127.04	100.13	16.15	17.05	9.40	1.06	4.25	5.00		
23	41.50	66.30	30.50	9.40	31.00	79.10	16.15	11.40	9.40	1.06	2.11	5.00		
24	41.50	65.70	13.45	9.40	39.00	80.40	16.15	8.20	9.40	0.99	2.11	5.00		
25	11.00	65.10	9.80	21.10	33.50	142.50	15.25	7.80	8.60	0.99	2.11	5.40		
26	9.00	63.90	9.80	57.30	55.50	155.25	13.00	7.40	6.20	2.24	2.11	5.40		
27	19.75	59.70	32.00	42.05	101.54	171.60	10.60	7.40	5.40	4.75	3.00	5.40		
28	19.75	48.65	49.75	17.50	111.46	168.40	7.00	10.20	5.40	4.75	4.50	2.50		
29	19.75	48.65	50.30	15.70	115.00	174.80	7.00	20.20	5.40	4.75	4.50	1.06		
30	19.75	41.00	51.40	15.70	125.63	150.75	22.90	20.20	5.40	18.85		1.13		
31		35.00		32.50	156.00		36.50		5.00	37.00		1.13		
Total	700.75	1804.98	825.25	766.90	4067.24	3219.15	857.97	487.25	333.72	150.19	421.80	215.53	13850.73	CMSDAY
Mean	23.36	58.23	27.51	24.74	131.20	107.31	27.68	16.24	10.77	4.84	14.54	6.95	37.84	CMS
Max	49.20	171.60	51.40	62.70	245.90	174.80	147.00	30.50	19.75	37.00	40.50	14.35	245.90	CMS
Min	7.00	13.00	9.80	2.11	31.00	31.50	0.92	2.75	0.92	0.50	0.71	1.06	0.50	CMS
Runoff	60.55	155.95	71.30	66.26	351.41	278.14	74.13	42.10	28.83	12.98	36.44	18.62	1196.70	MCM

Momentary Peak 252.70 CMS. at 262.92 m. (MSL.) at 09.00 Hours , on Aug 2 , 2011

Runoff Yield 13.53 Liters/Second/Square KM. Momentary Peak Yield 90.315 Liters/Second/Square KM.

WATER YEAR : 2011

WANG RIVER BASIN

Wang River at Ban Hai , Lampang (W.16A)

Lat 18 - 46 - 45 N Long 99 - 37 - 52 E

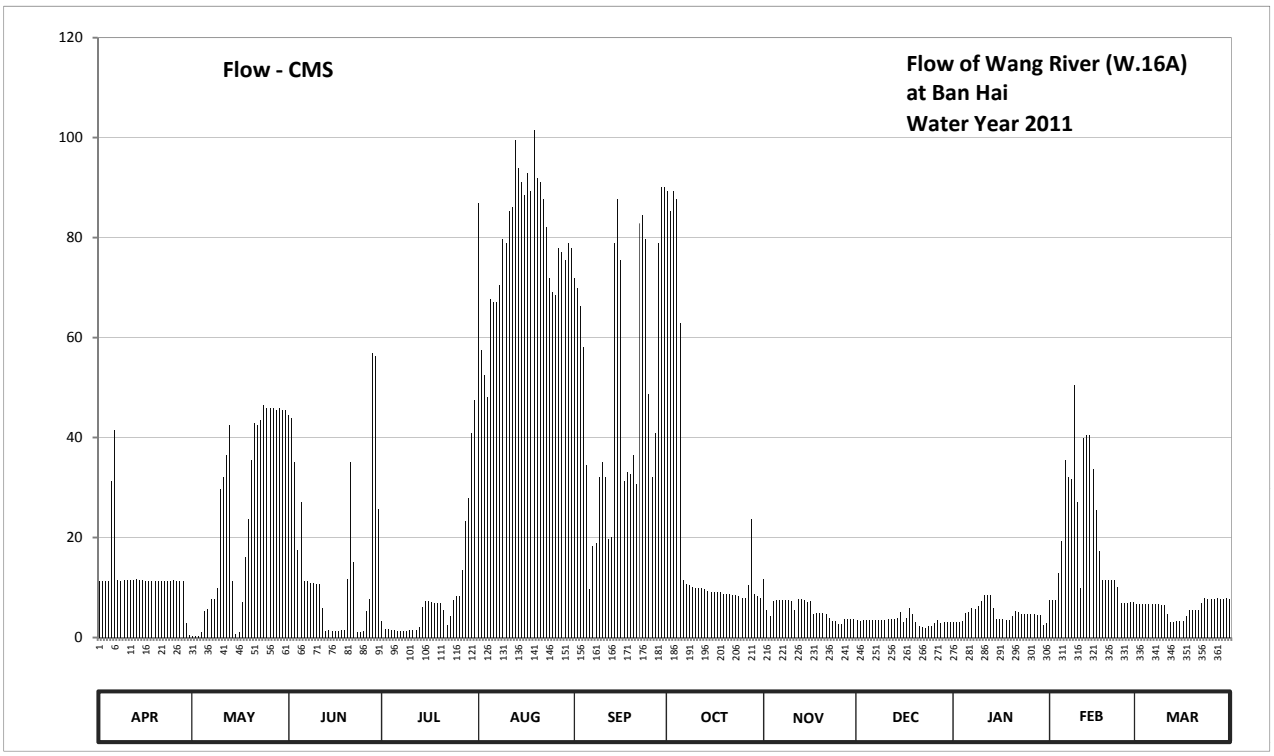
Location : on left bank at Ban Hai

	Ban Hai	**Amphoe** Chae Hom	**Changwat** Lampang
Drainge Area	1,392 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+304.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank about 10.00 meters from the top staff gage.	**Elevation**	+310.177 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	1995 to date		
Rating Operation			
Period of Rating	1995 to date		
Rated by Flot	-		
Rated by Current Meter	1995 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair.The pumping station is located about 150 meters upstream from the gage site. Stage-discharge relation defined by 44 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	305.33	304.63	306.13	304.97	306.75	306.56	306.78	305.35	304.99	304.96	305.19	305.15	
2	305.33	304.61	306.12	304.84	306.35	306.53	306.73	305.09	304.98	304.96	305.19	305.15	
3	305.33	304.60	305.94	304.84	306.27	306.48	306.78	305.03	304.99	304.96	305.19	305.15	
4	305.33	304.78	305.53	304.82	306.20	306.36	306.76	305.18	304.99	304.98	305.39	305.15	
5	305.86	305.08	305.77	304.81	306.50	305.93	306.43	305.19	304.99	305.06	305.58	305.15	
6	306.07	305.10	305.33	304.80	306.49	305.27	305.34	305.19	304.99	305.07	305.95	305.15	
7	305.34	305.20	305.33	304.80	306.49	305.55	305.31	305.19	304.99	305.11	305.88	305.15	
8	305.33	305.20	305.32	304.79	306.54	305.57	305.30	305.19	304.99	305.10	305.87	305.15	
9	305.34	305.28	305.32	304.79	306.66	305.88	305.29	305.19	304.99	305.13	306.24	305.14	
10	305.34	305.83	305.31	304.81	306.65	305.94	305.28	305.18	304.99	305.18	305.77	305.14	
11	305.34	305.88	305.31	304.83	306.73	305.88	305.28	305.09	305.00	305.23	305.28	305.05	
12	305.34	305.97	305.11	304.81	306.74	305.59	305.28	305.20	305.00	305.23	306.04	304.96	
13	305.35	306.09	304.80	304.89	306.89	305.60	305.27	305.20	305.00	305.23	306.05	304.96	
14	305.34	305.33	304.81	305.12	306.83	306.65	305.26	305.19	305.01	305.11	306.05	304.98	
15	305.34	304.71	304.80	305.18	306.80	306.76	305.25	305.17	305.07	305.00	305.91	304.98	
16	305.33	304.78	304.79	305.18	306.77	306.61	305.25	305.18	304.96	305.00	305.73	304.97	
17	305.33	305.17	304.79	305.17	306.82	305.86	305.25	305.05	305.01	305.00	305.52	305.03	
18	305.33	305.49	304.81	305.16	306.78	305.90	305.25	305.06	305.11	304.99	305.34	305.09	
19	305.33	305.69	304.81	305.16	306.91	305.89	305.24	305.06	305.05	304.99	305.34	305.09	
20	305.33	305.95	305.35	305.16	306.81	305.97	305.24	305.06	304.96	305.03	305.34	305.09	
21	305.33	306.10	305.94	305.09	306.80	305.85	305.24	305.05	304.91	305.08	305.34	305.09	
22	305.33	306.09	305.46	304.92	306.76	306.70	305.23	305.01	304.88	305.07	305.34	305.16	
23	305.33	306.11	304.78	305.03	306.69	306.72	305.23	304.97	304.86	305.05	305.29	305.21	
24	305.33	306.17	304.77	305.19	306.56	306.66	305.22	304.97	304.91	305.05	305.16	305.20	
25	305.34	306.16	304.79	305.22	306.52	306.21	305.21	304.93	304.91	305.05	305.16	305.20	
26	305.33	306.16	305.08	305.22	306.51	305.88	305.21	304.93	304.94	305.05	305.16	305.20	
27	305.33	306.16	305.20	305.41	306.64	306.06	305.30	305.00	304.99	305.05	305.17	305.21	
28	305.33	306.15	306.34	305.68	306.63	306.65	305.69	305.00	304.94	305.04	305.17	305.20	
29	304.95	306.16	306.33	305.79	306.61	306.79	305.24	305.00	304.96	305.04	305.15	305.20	
30	304.64	306.15	305.74	306.06	306.65	306.79	305.22	305.00	304.96	304.92		305.21	
31		306.15		306.19	306.64		305.21		304.96	304.95		305.20	
Mean	305.34	305.58	305.33	305.12	306.64	306.17	305.50	305.10	304.98	305.05	305.51	305.12	
Max	306.07	306.17	306.34	306.19	306.91	306.79	306.78	305.35	305.11	305.23	306.24	305.21	306.91
Min	304.64	304.60	304.77	304.79	306.20	305.27	305.21	304.93	304.86	304.92	305.15	304.96	304.60

Annual Max Momentary Gage Height	307.17	m. (MSL.) ,	at 10.00 Hours , on Aug 1 , 2011		
Zero Gage at Bottom Elevation	304.00	m. (MSL.) ,	River Bed	302.95	m. (MSL)
Left Bank Elevation	310.18	m. (MSL.) ,			
Right Bank Elevation	310.11	m. (MSL.) ,	Drainage Area	1392	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	11.21	0.35	44.46	3.25	86.93	71.90	89.37	11.75	3.55	3.10	7.50	6.70		
2	11.21	0.25	43.96	1.66	57.53	69.80	85.30	5.50	3.40	3.10	7.50	6.70		
3	11.21	0.20	35.02	1.66	52.44	66.30	89.37	4.30	3.55	3.10	7.50	6.70		
4	11.21	1.18	17.58	1.48	48.00	58.16	87.74	7.30	3.55	3.40	12.83	6.70		
5	31.18	5.30	27.05	1.39	67.70	34.54	62.80	7.50	3.55	4.90	19.31	6.70		
6	41.44	5.70	11.21	1.30	67.00	9.59	11.48	7.50	3.55	5.10	35.50	6.70		
7	11.48	7.70	11.21	1.30	67.00	18.27	10.67	7.50	3.55	5.90	32.14	6.70		
8	11.21	7.70	10.94	1.24	70.50	18.97	10.40	7.50	3.55	5.70	31.66	6.70		
9	11.48	9.86	10.94	1.24	79.59	32.14	10.13	7.50	3.55	6.30	50.54	6.50		
10	11.48	29.74	10.67	1.39	78.77	35.02	9.86	7.30	3.55	7.30	27.05	6.50		
11	11.48	32.14	10.67	1.57	85.30	32.14	9.86	5.50	3.70	8.51	9.86	4.70		
12	11.48	36.46	5.90	1.39	86.11	19.65	9.86	7.70	3.70	8.51	39.92	3.10		
13	11.75	42.44	1.30	2.11	99.55	20.00	9.59	7.70	3.70	8.51	40.42	3.10		
14	11.48	11.21	1.39	6.10	93.85	78.77	9.32	7.50	3.90	5.90	40.42	3.40		
15	11.48	0.76	1.30	7.30	91.00	87.74	9.05	7.10	5.10	3.70	33.58	3.40		
16	11.21	1.18	1.24	7.30	88.55	75.51	9.05	7.30	3.10	3.70	25.40	3.25		
17	11.21	7.10	1.24	7.10	92.90	31.18	9.05	4.70	3.90	3.70	17.24	4.30		
18	11.21	16.20	1.39	6.90	89.37	33.10	9.05	4.90	5.90	3.55	11.48	5.50		
19	11.21	23.74	1.39	6.90	101.45	32.62	8.78	4.90	4.70	3.55	11.48	5.50		
20	11.21	35.50	11.75	6.90	91.95	36.46	8.78	4.90	3.10	4.30	11.48	5.50		
21	11.21	42.95	35.02	5.50	91.00	30.70	8.78	4.70	2.35	5.30	11.48	5.50		
22	11.21	42.44	15.17	2.50	87.74	82.85	8.51	3.90	2.02	5.10	11.48	6.90		
23	11.21	43.45	1.18	4.30	82.04	84.48	8.51	3.25	1.84	4.70	10.13	7.97		
24	11.21	46.49	1.12	7.50	71.90	79.59	8.24	3.25	2.35	4.70	6.90	7.70		
25	11.48	45.98	1.24	8.24	69.10	48.63	7.97	2.65	2.35	4.70	6.90	7.70		
26	11.21	45.98	5.30	8.24	68.40	32.14	7.97	2.65	2.80	4.70	6.90	7.70		
27	11.21	45.98	7.70	13.45	77.96	40.93	10.40	3.70	3.55	4.70	7.10	7.97		
28	11.21	45.47	56.89	23.32	77.15	78.77	23.74	3.70	2.80	4.50	7.10	7.70		
29	2.95	45.98	56.25	27.89	75.51	90.19	8.78	3.70	3.10	4.50	6.70	7.70		
30	0.40	45.47	25.81	40.93	78.77	90.19	8.24	3.70	3.10	2.50		7.97		
31		45.47		47.49	77.96		7.97		3.10	2.95		7.70		
Total	370.13	770.37	466.29	258.84	2453.02	1520.33	668.62	171.05	105.51	150.18	547.50	190.86	7672.70	CMSDAY
Mean	12.34	24.85	15.54	8.35	79.13	50.68	21.57	5.70	3.40	4.84	18.88	6.16	20.96	CMS
Max	41.44	46.49	56.89	47.49	101.45	90.19	89.37	11.75	5.90	8.51	50.54	7.97	101.45	CMS
Min	0.40	0.20	1.12	1.24	48.00	9.59	7.97	2.65	1.84	2.50	6.70	3.10	0.20	CMS
Runoff	31.98	66.56	40.29	22.36	211.94	131.36	57.77	14.78	9.12	12.98	47.30	16.49	662.92	MCM

Momentary Peak 128.70 CMS. at 307.17 m. (MSL.) at 10.00 Hours , on Aug 1 , 2011

Runoff Yield 15.06 Liters/Second/Square KM. Momentary Peak Yield 92.457 Liters/Second/Square KM.

WATER YEAR : 2011

WANG RIVER BASIN

Nam Mae Soi at Ban Nong Nao , Lampang (W.17)

Lat 18 - 43 - 13 N Long 99 - 34 - 04 E

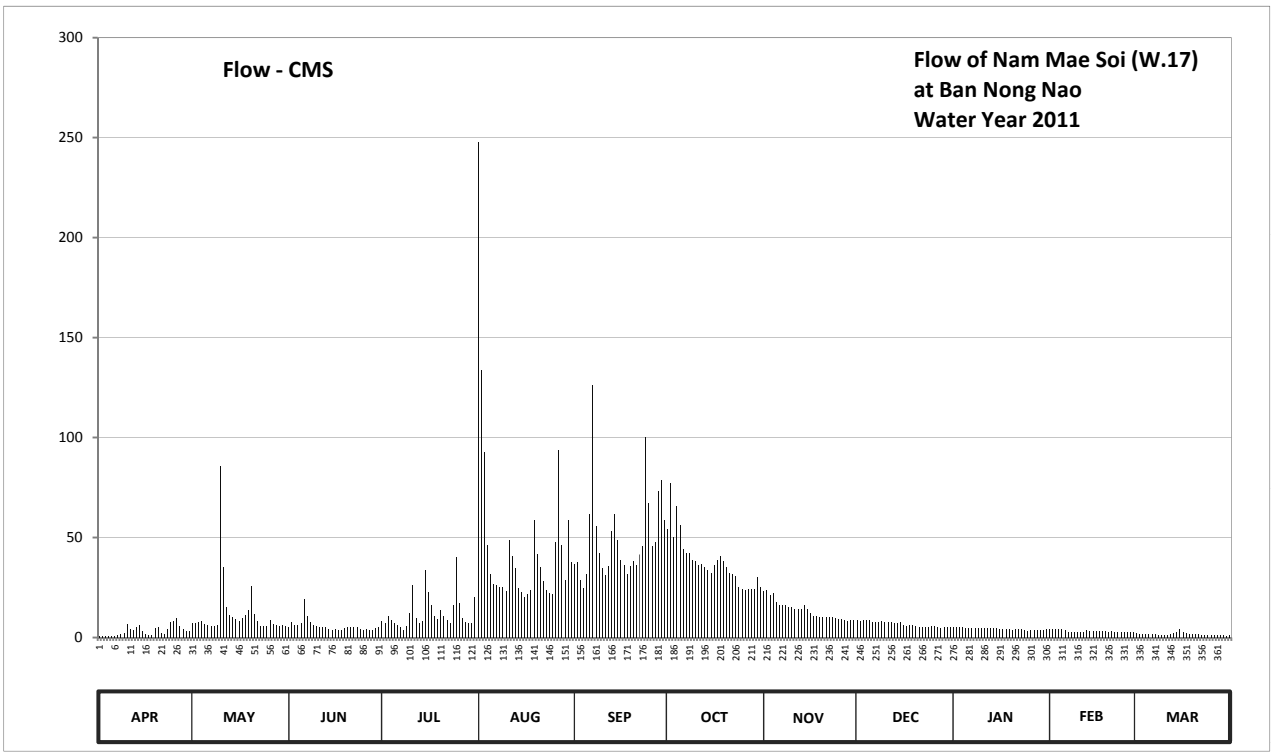
Location : on right at the bridge of Lampang - Wang Nua Road.

	Ban Nong Nao	**Amphoe** Chae Hom	**Changwat** Lampang
Drainge Area	726 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+292.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	About 21 meters from the top staff gage.	**Elevation**	+296.000 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	1980 to date		
Rating Operation			
Period of Rating	1980 to date		
Rated by Flot	-		
Rated by Current Meter	1980 to date		
Stability of Channel Regimes	Fairly stable because of backwater effect.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair.The local weir situated about 500 meters downstream from the gage site.		
	Stage-discharge relation defined by 46 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	291.42	291.72	291.64	291.77	294.39	292.39	292.64	292.13	291.92	291.80	291.74	291.63	
2	291.42	291.73	291.74	291.73	293.51	292.40	292.93	292.14	291.91	291.81	291.75	291.60	
3	291.42	291.74	291.70	291.85	293.10	292.24	292.59	292.09	291.93	291.81	291.75	291.59	
4	291.39	291.76	291.69	291.78	292.53	292.17	292.79	292.16	291.92	291.81	291.75	291.58	
5	291.39	291.71	291.72	291.72	292.30	292.30	292.67	292.11	291.92	291.77	291.74	291.57	
6	291.39	291.69	292.05	291.70	292.21	292.74	292.50	292.10	291.90	291.78	291.70	291.56	
7	291.46	291.66	291.85	291.65	292.20	293.44	292.47	292.10	291.89	291.77	291.66	291.56	
8	291.47	291.66	291.75	291.59	292.18	292.66	292.47	292.09	291.89	291.77	291.64	291.55	
9	291.52	291.69	291.69	291.66	292.18	292.47	292.42	292.07	291.91	291.76	291.65	291.55	
10	291.71	293.03	291.67	291.89	292.13	292.35	292.41	292.07	291.90	291.77	291.66	291.55	
11	291.61	292.36	291.64	292.20	292.57	292.29	292.38	292.06	291.90	291.76	291.66	291.54	
12	291.58	291.96	291.64	291.82	292.45	292.37	292.39	292.06	291.89	291.77	291.66	291.58	
13	291.65	291.86	291.64	291.72	292.35	292.63	292.36	292.06	291.88	291.76	291.70	291.63	
14	291.69	291.83	291.62	291.76	292.17	292.74	292.33	292.09	291.88	291.77	291.69	291.64	
15	291.55	291.80	291.58	292.33	292.12	292.57	292.31	292.05	291.89	291.78	291.69	291.73	
16	291.49	291.77	291.60	292.12	292.07	292.42	292.38	292.01	291.83	291.74	291.69	291.65	
17	291.44	291.82	291.58	291.98	292.10	292.38	292.42	291.98	291.82	291.74	291.67	291.61	
18	291.43	291.86	291.59	291.84	292.14	292.30	292.45	291.98	291.84	291.73	291.69	291.60	
19	291.63	291.93	291.63	291.80	292.70	292.37	292.41	291.97	291.84	291.73	291.67	291.57	
20	291.64	292.19	291.65	291.93	292.46	292.41	292.36	291.97	291.82	291.72	291.65	291.56	
21	291.52	291.87	291.64	291.85	292.36	292.38	292.31	291.97	291.79	291.73	291.67	291.56	
22	291.48	291.77	291.64	291.78	292.23	292.46	292.30	291.96	291.80	291.75	291.65	291.54	
23	291.60	291.67	291.64	291.72	292.14	292.52	292.28	291.97	291.81	291.74	291.64	291.53	
24	291.74	291.66	291.62	291.99	292.11	293.18	292.18	291.95	291.81	291.72	291.64	291.52	
25	291.77	291.66	291.58	292.44	292.10	292.81	292.15	291.94	291.82	291.69	291.64	291.51	
26	291.82	291.78	291.60	292.01	292.55	292.52	292.14	291.94	291.82	291.70	291.65	291.51	
27	291.66	291.71	291.58	291.81	293.11	292.55	292.16	291.93	291.80	291.70	291.65	291.52	
28	291.61	291.68	291.59	291.75	292.53	292.88	292.15	291.91	291.77	291.70	291.64	291.52	
29	291.57	291.67	291.63	291.73	292.24	292.95	292.16	291.92	291.80	291.70	291.64	291.52	
30	291.55	291.69	291.65	291.72	292.70	292.70	292.27	291.92	291.81	291.71		291.50	
31		291.67		292.07	292.40		292.18		291.81	291.74		291.52	
Mean	291.55	291.83	291.66	291.86	292.46	292.55	292.39	292.02	291.86	291.75	291.68	291.57	
Max	291.82	293.03	292.05	292.44	294.39	293.44	292.93	292.16	291.93	291.81	291.75	291.73	294.39
Min	291.39	291.66	291.58	291.59	292.07	292.17	292.14	291.91	291.77	291.69	291.64	291.50	291.39

Annual Max Momentary Gage Height	295.27	m. (MSL.) ,	at 12.00 Hours , on Aug 1 , 2011		
Zero Gage at Bottom Elevation	292.00	m. (MSL.) ,	River Bed	291.05	m. (MSL)
Left Bank Elevation	296.45	m. (MSL.) ,			
Right Bank Elevation	296.49	m. (MSL.) ,	Drainage Area	726	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.88	7.04	5.00	8.39	247.55	36.95	54.10	23.04	8.54	5.20	4.18	2.38		
2	0.88	7.31	7.58	7.31	133.55	37.50	77.22	23.52	8.17	5.46	4.35	1.90		
3	0.88	7.58	6.50	10.95	92.50	28.62	50.32	21.12	8.91	5.46	4.35	1.80		
4	0.54	8.12	6.25	8.66	46.27	24.96	65.73	22.50	8.54	5.46	4.35	1.70		
5	0.54	6.77	7.04	7.04	31.95	31.95	56.43	17.50	8.54	4.69	4.18	1.60		
6	0.54	6.25	19.20	6.50	26.95	61.85	44.25	16.50	7.80	4.86	3.50	1.50		
7	1.44	5.50	10.95	5.25	26.40	126.20	42.23	16.50	7.54	4.69	2.86	1.50		
8	1.58	5.50	7.85	3.80	25.44	55.65	42.23	16.00	7.54	4.69	2.54	1.40		
9	2.40	6.25	6.25	5.50	25.44	42.23	38.85	15.00	8.17	4.52	2.70	1.40		
10	6.77	85.85	5.75	12.35	23.04	34.73	38.18	15.00	7.80	4.69	2.86	1.40		
11	4.25	35.28	5.00	26.40	48.98	31.40	36.39	14.50	7.80	4.52	2.86	1.30		
12	3.60	15.16	5.00	9.90	40.88	35.83	36.95	14.50	7.54	4.69	2.86	1.70		
13	5.25	11.30	5.00	7.04	34.73	53.33	35.28	14.50	7.28	4.52	3.50	2.38		
14	6.25	10.25	4.50	8.12	24.96	61.85	33.61	16.00	7.28	4.69	3.34	2.54		
15	3.00	9.20	3.60	33.61	22.56	48.98	32.50	14.00	7.54	4.86	3.34	4.01		
16	1.86	8.39	4.00	22.56	20.16	38.85	36.39	12.00	5.98	4.18	3.34	2.70		
17	1.16	9.90	3.60	15.98	21.60	36.39	38.85	10.76	5.72	4.18	3.02	2.06		
18	1.02	11.30	3.80	10.60	23.52	31.95	40.88	10.76	6.24	4.01	3.34	1.90		
19	4.75	13.93	4.75	9.20	58.75	35.83	38.18	10.39	6.24	4.01	3.02	1.60		
20	5.00	25.92	5.25	13.93	41.55	38.18	35.28	10.39	5.72	3.84	2.70	1.50		
21	2.40	11.65	5.00	10.95	35.28	36.39	32.50	10.39	5.03	4.01	3.02	1.50		
22	1.72	8.39	5.00	8.66	28.07	41.55	31.95	10.02	5.20	4.35	2.70	1.30		
23	4.00	5.75	5.00	7.04	23.52	45.60	30.84	10.39	5.46	4.18	2.54	1.20		
24	7.58	5.50	4.50	16.39	22.08	100.10	25.44	9.65	5.46	3.84	2.54	1.10		
25	8.39	5.50	3.60	40.20	21.60	67.33	24.00	9.28	5.72	3.34	2.54	1.00		
26	9.90	8.66	4.00	17.28	47.62	45.60	23.52	9.28	5.72	3.50	2.70	1.00		
27	5.50	6.77	3.60	9.55	93.45	47.62	24.48	8.91	5.20	3.50	2.70	1.10		
28	4.25	6.00	3.80	7.85	46.27	73.10	24.00	8.17	4.69	3.50	2.54	1.10		
29	3.40	5.75	4.75	7.31	28.62	78.88	24.48	8.54	5.20	3.50	2.54	1.10		
30	3.00	6.25	5.25	7.04	58.75	58.75	30.28	8.54	5.46	3.67		0.90		
31		5.75		20.16	37.50		25.44		5.46	4.18		1.10		
Total	102.73	372.77	171.37	385.52	1459.54	1488.15	1170.78	407.65	207.49	134.79	91.01	50.67	6042.47	CMSDAY
Mean	3.42	12.02	5.71	12.44	47.08	49.60	37.77	13.59	6.69	4.35	3.14	1.63	16.51	CMS
Max	9.90	85.85	19.20	40.20	247.55	126.20	77.22	23.52	8.91	5.46	4.35	4.01	247.55	CMS
Min	0.54	5.50	3.60	3.80	20.16	24.96	23.52	8.17	4.69	3.34	2.54	0.90	0.54	CMS
Runoff	8.88	32.21	14.81	33.31	126.10	128.58	101.16	35.22	17.93	11.65	7.86	4.38	522.07	MCM

Momentary Peak 404.00 CMS. at 295.27 m. (MSL.) at 12.00 Hours , on Aug 1 , 2011

Runoff Yield 22.74 Liters/Second/Square KM. Momentary Peak Yield 556.474 Liters/Second/Square KM.

WATER YEAR : 2011

WANG RIVER BASIN

Nam Mae Soi at Ban Thung Thong , Lampang (W.17A)

Lat 18 - 42 - 16 N Long 99 - 53 - 52 E

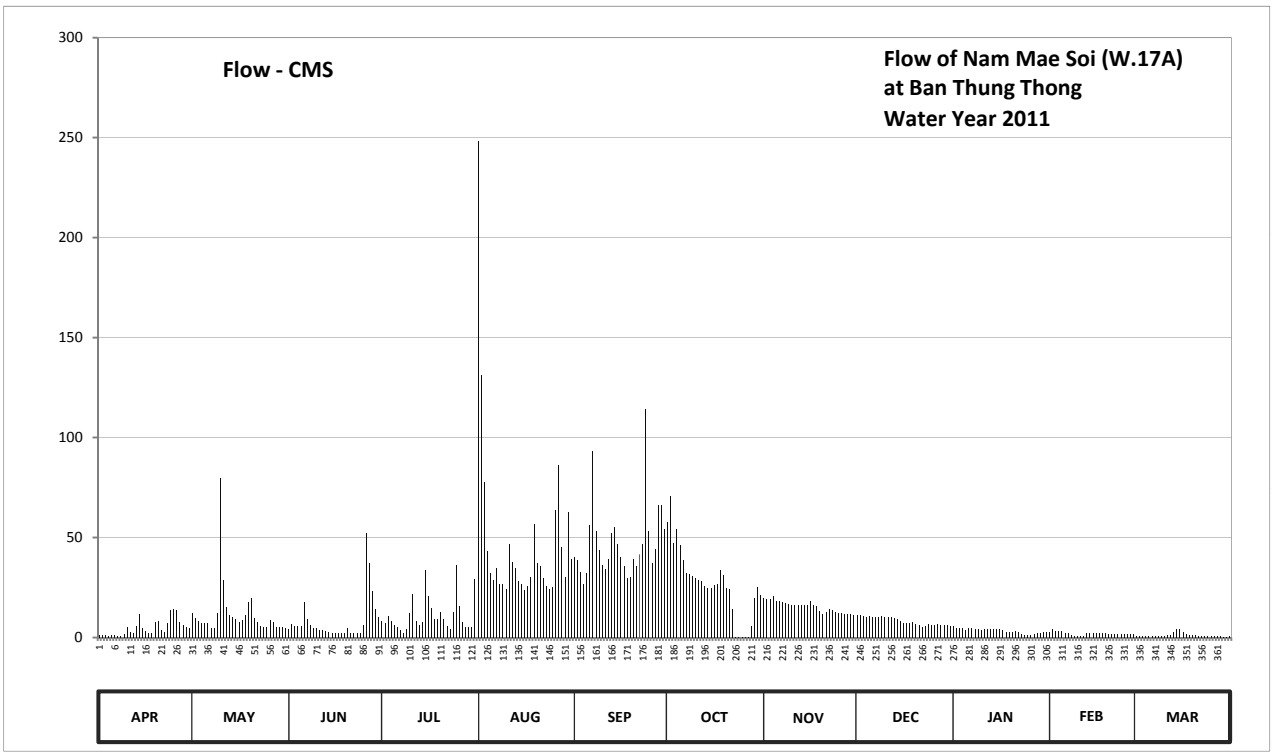
Location : on left bank at Ban Thung Thong.

	Ban Thung Thong	**Amphoe** Chae Hom	**Changwat** Lampang
Drainge Area	788 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+295.655 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	About 21 meters from the top staff gage.	**Elevation**	+300.250 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	2011 to date		
Rating Operation			
Period of Rating	2011 to date		
Rated by Flot	-		
Rated by Current Meter	2011 to date		
Stability of Channel Regimes	Rather unstable by some scouring.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair.Stage-discharge relation defined by 45 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	296.03	296.56	296.26	296.42	298.62	297.09	297.31	296.74	296.52	296.32	296.18	296.01	
2	296.03	296.47	296.37	296.39	297.95	297.07	297.45	296.73	296.52	296.27	296.25	296.00	
3	296.02	296.42	296.33	296.51	297.52	296.99	297.19	296.73	296.51	296.29	296.21	296.01	
4	296.00	296.38	296.33	296.42	297.13	296.88	297.27	296.76	296.50	296.29	296.21	296.00	
5	296.02	296.38	296.33	296.35	296.98	296.98	297.17	296.71	296.51	296.24	296.21	295.99	
6	296.03	296.38	296.69	296.31	296.91	297.29	297.07	296.71	296.50	296.27	296.16	296.00	
7	295.98	296.28	296.46	296.23	297.02	297.66	296.98	296.69	296.50	296.27	296.12	296.01	
8	295.99	296.29	296.34	296.15	296.88	297.26	296.97	296.68	296.49	296.26	296.05	296.01	
9	296.07	296.56	296.28	296.25	296.88	297.14	296.95	296.67	296.51	296.25	296.00	296.00	
10	296.30	297.54	296.27	296.56	296.83	297.04	296.93	296.66	296.50	296.24	296.01	296.01	
11	296.19	296.91	296.23	296.78	297.18	297.01	296.91	296.66	296.49	296.25	296.00	296.02	
12	296.15	296.64	296.23	296.43	297.06	297.08	296.90	296.66	296.49	296.26	296.01	296.05	
13	296.32	296.52	296.21	296.35	297.02	297.25	296.86	296.66	296.47	296.25	296.14	296.20	
14	296.54	296.49	296.18	296.40	296.90	297.28	296.84	296.66	296.46	296.26	296.12	296.25	
15	296.29	296.45	296.12	297.00	296.88	297.18	296.84	296.66	296.43	296.25	296.11	296.25	
16	296.22	296.41	296.14	296.76	296.82	297.09	296.87	296.71	296.39	296.26	296.12	296.18	
17	296.13	296.44	296.11	296.63	296.86	297.03	296.88	296.66	296.39	296.23	296.11	296.08	
18	296.12	296.52	296.14	296.46	296.94	296.93	297.00	296.65	296.38	296.20	296.12	296.06	
19	296.40	296.69	296.16	296.45	297.30	296.94	296.96	296.59	296.40	296.20	296.12	296.03	
20	296.42	296.74	296.27	296.58	297.05	297.08	296.84	296.54	296.37	296.20	296.09	296.04	
21	296.24	296.48	296.16	296.45	297.03	297.03	296.83	296.57	296.34	296.21	296.09	296.01	
22	296.19	296.40	296.13	296.33	296.93	297.11	296.62	296.62	296.30	296.20	296.08	296.00	
23	296.38	296.32	296.12	296.25	296.86	297.18	295.81	296.60	296.33	296.10	296.09	296.00	
24	296.60	296.31	296.12	296.57	296.83	297.83	295.79	296.57	296.36	296.06	296.09	295.97	
25	296.61	296.31	296.35	297.04	296.85	297.26	295.76	296.56	296.35	296.03	296.09	295.94	
26	296.60	296.44	297.25	296.65	297.38	297.05	295.76	296.56	296.35	296.04	296.08	295.94	
27	296.41	296.40	297.05	296.40	297.60	297.15	295.81	296.54	296.36	296.09	296.08	295.95	
28	296.35	296.31	296.81	296.31	297.16	297.41	296.32	296.54	296.34	296.15	296.08	295.94	
29	296.30	296.31	296.61	296.31	296.94	297.41	296.74	296.54	296.34	296.16	296.01	295.92	
30	296.28	296.30	296.50	296.30	297.37	297.27	296.85	296.53	296.34	296.18		295.92	
31		296.29		296.92	297.08		296.77		296.33	296.18		295.94	
Mean	296.24	296.48	296.35	296.48	297.12	297.17	296.75	296.64	296.42	296.21	296.10	296.02	
Max	296.61	297.54	297.25	297.04	298.62	297.83	297.45	296.76	296.52	296.32	296.25	296.25	298.62
Min	295.98	296.28	296.11	296.15	296.82	296.88	295.76	296.53	296.30	296.03	296.00	295.92	295.76

Annual Max Momentary Gage Height	299.49	m. (MSL.) ,	at 11.00 Hours , on Aug 1 , 2011		
Zero Gage at Bottom Elevation	295.66	m. (MSL.) ,	River Bed	295.48	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, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.11	12.30	4.28	8.10	248.40	40.11	57.71	19.80	11.10	5.66	2.69	0.91		
2	1.11	9.60	6.81	7.27	131.00	38.65	70.63	19.35	11.10	4.51	4.05	0.80		
3	1.01	8.10	5.89	10.80	77.80	32.95	47.46	19.35	10.80	4.97	3.13	0.91		
4	0.80	7.04	5.89	8.10	43.05	26.90	54.25	20.70	10.50	4.97	3.13	0.80		
5	1.01	7.04	5.89	6.35	32.40	32.40	46.00	18.45	10.80	3.82	3.13	0.76		
6	1.11	7.04	17.55	5.43	28.55	55.99	38.65	18.45	10.50	4.51	2.48	0.80		
7	0.72	4.74	9.30	3.59	34.97	93.20	32.40	17.55	10.50	4.51	2.06	0.91		
8	0.76	4.97	6.12	2.37	26.90	53.39	31.85	17.10	10.20	4.28	1.32	0.91		
9	1.54	12.30	4.74	4.05	26.90	43.79	30.75	16.65	10.80	4.05	0.80	0.80		
10	5.20	79.85	4.51	12.30	24.15	36.44	29.65	16.20	10.50	3.82	0.91	0.91		
11	2.79	28.55	3.59	21.60	46.73	34.24	28.55	16.20	10.20	4.05	0.80	1.01		
12	2.37	15.30	3.59	8.40	37.91	39.38	28.00	16.20	10.20	4.28	0.91	1.32		
13	5.66	11.10	3.13	6.35	34.97	52.52	25.80	16.20	9.60	4.05	2.27	2.90		
14	11.70	10.20	2.69	7.50	28.00	55.12	24.70	16.20	9.30	4.28	2.06	4.05		
15	4.97	9.00	2.06	33.50	26.90	46.73	24.70	16.20	8.40	4.05	1.95	4.05		
16	3.36	7.80	2.27	20.70	23.60	40.11	26.35	18.45	7.27	4.28	2.06	2.69		
17	2.16	8.70	1.95	14.85	25.80	35.70	26.90	16.20	7.27	3.59	1.95	1.64		
18	2.06	11.10	2.27	9.30	30.20	29.65	33.50	15.75	7.04	2.90	2.06	1.43		
19	7.50	17.55	2.48	9.00	56.85	30.20	31.30	13.20	7.50	2.90	2.06	1.11		
20	8.10	19.80	4.51	12.90	37.17	39.38	24.70	11.70	6.81	2.90	1.74	1.22		
21	3.82	9.90	2.48	9.00	35.70	35.70	24.15	12.60	6.12	3.13	1.74	0.91		
22	2.79	7.50	2.16	5.89	29.65	41.58	14.40	14.40	5.20	2.90	1.64	0.80		
23	7.04	5.66	2.06	4.05	25.80	46.73	0.13	13.50	5.89	1.85	1.74	0.80		
24	13.50	5.43	2.06	12.60	24.15	114.20	0.09	12.60	6.58	1.43	1.74	0.68		
25	13.95	5.43	6.35	36.44	25.25	53.39	0.06	12.30	6.35	1.11	1.74	0.56		
26	13.50	8.70	52.52	15.75	63.77	37.17	0.06	12.30	6.35	1.22	1.64	0.56		
27	7.80	7.50	37.17	7.50	86.00	44.52	0.13	11.70	6.58	1.74	1.64	0.60		
28	6.35	5.43	23.05	5.43	45.26	66.53	5.66	11.70	6.12	2.37	1.64	0.56		
29	5.20	5.43	13.95	5.43	30.20	66.53	19.80	11.70	6.12	2.48	0.91	0.48		
30	4.74	5.20	10.50	5.20	62.90	54.25	25.25	11.40	6.12	2.69		0.48		
31		4.97		29.10	39.38		21.15		5.89	2.69		0.56		
Total	143.73	363.23	251.82	348.85	1490.31	1417.45	824.73	464.10	257.71	105.99	55.99	36.92	5760.83	CMSDAY
Mean	4.79	11.72	8.39	11.25	48.07	47.25	26.60	15.47	8.31	3.42	1.93	1.19	15.74	CMS
Max	13.95	79.85	52.52	36.44	248.40	114.20	70.63	20.70	11.10	5.66	4.05	4.05	248.40	CMS
Min	0.72	4.74	1.95	2.37	23.60	26.90	0.06	11.40	5.20	1.11	0.80	0.48	0.06	CMS
Runoff	12.42	31.38	21.76	30.14	128.76	122.47	71.26	40.10	22.27	9.16	4.84	3.19	497.74	MCM

Momentary Peak 467.00 CMS. at 299.49 m. (MSL.) at 11.00 Hours , on Aug 1 , 2011

Runoff Yield 19.97 Liters/Second/Square KM. Momentary Peak Yield 592.640 Liters/Second/Square KM.

WATER YEAR : 2011

WANG RIVER BASIN

Nam Mae Tam at Ban Sop Tam , Lampang (W.18A)

Lat 18 - 02 - 38 N Long 99 - 14 - 14 E

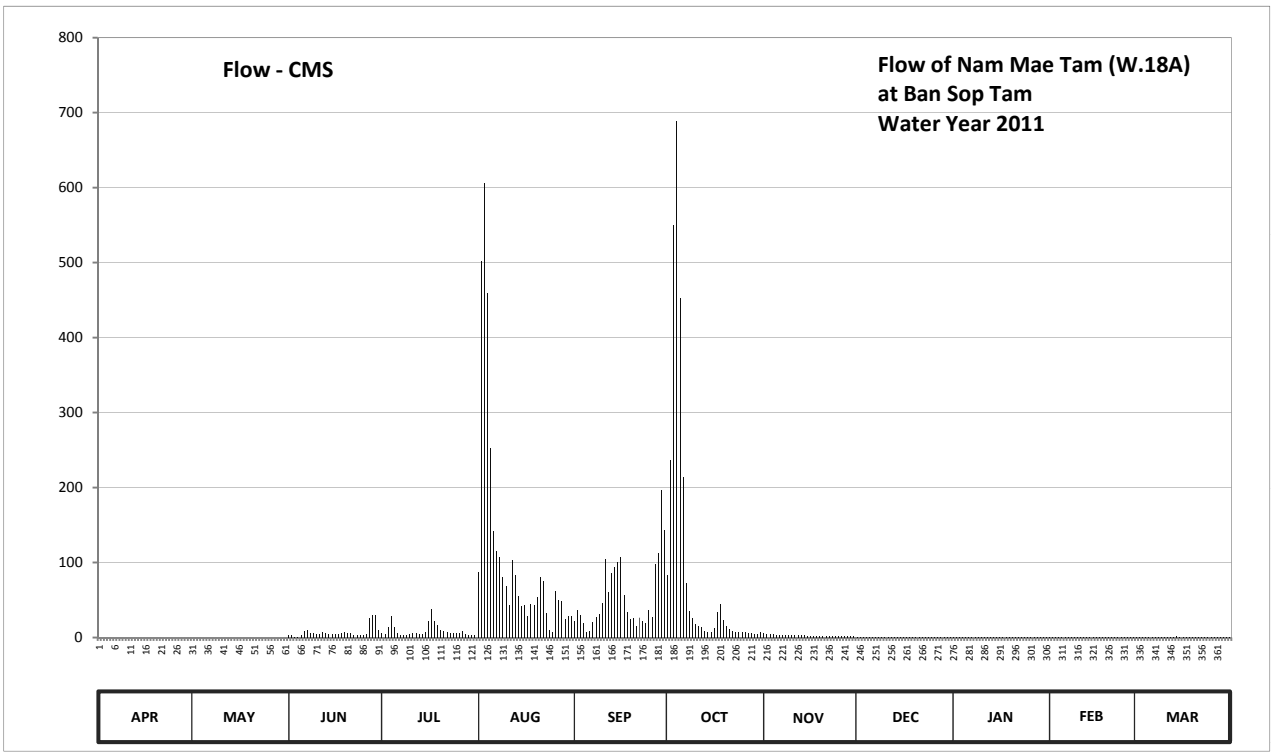
Location : on left bank at Ban Sop Tam.

	Ban Sop Tam	**Amphoe** Ko Kha	**Changwat** Lampang
Drainge Area	371 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+204.920 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	About 21 meters from the top staff gage.	**Elevation**	+213.703 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	2011 to date		
Rating Operation			
Period of Rating	2011 to date		
Rated by Flot	-		
Rated by Current Meter	2011 to date		
Stability of Channel Regimes	Fairly stable because of backwater effect.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair.Stage-discharge relation defined by 40 discharge measurements made in 2011.		
Remark	beginning on 1st May 2011		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	*******	0.35	205.48	205.75	207.89	207.35	207.82	205.70	205.33	205.26	205.16	205.16	
2	*******	0.36	205.50	205.65	211.71	207.77	209.67	205.64	205.30	205.26	205.19	205.15	
3	*******	0.37	205.33	206.17	212.36	207.61	212.01	205.60	205.26	205.26	205.21	205.15	
4	*******	0.47	205.32	206.70	211.44	207.22	212.88	205.60	205.24	205.26	205.22	205.14	
5	*******	0.58	205.51	206.18	209.82	206.72	211.39	205.53	205.21	205.26	205.22	205.14	
6	*******	0.60	205.90	205.72	208.65	206.79	209.46	205.49	205.18	205.26	205.22	205.13	
7	*******	0.54	205.99	205.54	208.30	207.27	207.64	205.49	205.15	205.26	205.21	205.13	
8	*******	0.48	205.75	205.49	208.18	207.50	206.87	205.49	205.13	205.26	205.21	205.14	
9	*******	0.70	205.67	205.49	207.78	207.62	206.62	205.49	205.14	205.26	205.21	205.14	
10	*******	4.17	205.61	205.65	207.58	208.02	206.37	205.49	205.14	205.25	205.20	205.14	
11	*******	4.67	205.58	205.76	207.94	208.83	206.26	205.48	205.23	205.25	205.20	205.16	
12	*******	3.24	205.81	205.67	208.82	208.28	206.17	205.48	205.25	205.25	205.20	205.17	
13	*******	2.40	205.70	205.60	208.61	208.63	205.93	205.48	205.24	205.25	205.19	205.30	
14	*******	2.07	205.63	205.61	208.21	208.72	205.82	205.47	205.24	205.24	205.19	205.34	
15	*******	1.95	205.58	205.84	207.91	208.80	205.85	205.46	205.24	205.24	205.19	205.32	
16	*******	1.40	205.59	206.50	207.95	208.86	206.13	205.45	205.24	205.24	205.18	205.30	
17	*******	1.04	205.66	206.95	207.55	208.23	206.85	205.44	205.24	205.23	205.18	205.28	
18	*******	2.38	205.70	206.47	208.00	207.71	207.09	205.43	205.24	205.23	205.18	205.27	
19	*******	2.07	205.80	206.32	207.97	207.43	206.55	205.42	205.24	205.22	205.17	205.26	
20	*******	1.87	205.69	205.99	208.18	207.48	206.24	205.41	205.25	205.21	205.17	205.24	
21	*******	1.53	205.67	205.89	208.57	207.07	206.07	205.40	205.25	205.21	205.18	205.22	
22	*******	1.15	205.56	205.81	208.49	207.48	205.93	205.40	205.25	205.20	205.18	205.20	
23	*******	0.94	205.49	205.76	207.67	207.33	205.81	205.39	205.26	205.20	205.18	205.19	
24	*******	0.81	205.49	205.76	206.82	207.22	205.82	205.38	205.26	205.19	205.18	205.19	
25	*******	0.73	205.49	205.68	206.73	207.76	205.82	205.38	205.26	205.18	205.18	205.18	
26	*******	0.86	205.61	205.77	208.30	207.49	205.78	205.37	205.27	205.17	205.18	205.19	
27	*******	0.85	206.62	205.86	208.09	208.06	205.75	205.36	205.27	205.17	205.18	205.19	
28	*******	0.82	206.75	205.58	208.06	208.27	205.69	205.36	205.27	205.16	205.18	205.18	
29	*******	0.70	206.75	205.49	207.44	209.28	205.62	205.35	205.26	205.16	205.17	205.19	
30	*******	0.66	206.00	205.49	207.57	208.67	205.63	205.34	205.26	205.15		205.20	
31		0.62		205.55	207.54		205.78		205.26	205.15		205.20	
Mean	*******	1.33	205.74	205.86	208.39	207.85	207.01	205.46	205.24	205.22	205.19	205.20	
Max	*******	4.67	206.75	206.95	212.36	209.28	212.88	205.70	205.33	205.26	205.22	205.34	212.88
Min	*******	0.35	205.32	205.49	206.73	206.72	205.62	205.34	205.13	205.15	205.16	205.13	*******

Annual Max Momentary Gage Height	213.37	m. (MSL.) ,	at 01.00 Hours , on Oct 4 , 2011		
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	213.09	m. (MSL.) ,	Drainage Area	371	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	*******	0.00	2.78	6.35	87.40	22.55	83.20	5.60	1.27	0.72	0.22	0.22		
2	*******	0.00	3.00	4.90	501.60	36.38	236.35	4.76	1.00	0.72	0.28	0.20		
3	*******	0.00	1.27	13.29	605.60	30.37	549.60	4.20	0.72	0.72	0.37	0.20		
4	*******	0.00	1.18	28.50	459.60	18.78	688.80	4.20	0.58	0.72	0.44	0.18		
5	*******	0.00	3.12	13.46	252.30	7.44	452.60	3.36	0.37	0.72	0.44	0.18		
6	*******	0.00	8.70	5.90	141.37	8.98	214.30	2.89	0.26	0.72	0.44	0.16		
7	*******	0.00	10.23	3.48	115.00	20.23	72.40	2.89	0.20	0.72	0.37	0.16		
8	*******	0.00	6.35	2.89	106.60	27.00	34.80	2.89	0.16	0.72	0.37	0.18		
9	*******	0.00	5.18	2.89	80.80	30.75	25.70	2.89	0.18	0.72	0.37	0.18		
10	*******	0.00	4.34	4.90	68.80	46.00	18.56	2.89	0.18	0.65	0.30	0.18		
11	*******	0.00	3.96	6.50	42.75	104.45	15.48	2.78	0.51	0.65	0.30	0.22		
12	*******	0.00	7.26	5.18	103.30	60.20	13.29	2.78	0.65	0.65	0.30	0.24		
13	*******	0.00	5.60	4.20	83.90	85.70	9.21	2.78	0.58	0.65	0.28	1.00		
14	*******	0.00	4.62	4.34	55.65	93.80	7.42	2.67	0.58	0.58	0.28	1.36		
15	*******	0.00	3.96	7.74	41.63	101.00	7.90	2.56	0.58	0.58	0.28	1.18		
16	*******	0.00	4.08	22.20	43.12	107.90	12.61	2.45	0.58	0.58	0.26	1.00		
17	*******	0.00	5.04	38.00	28.50	56.95	34.00	2.34	0.58	0.51	0.26	0.86		
18	*******	0.00	5.60	21.36	45.00	34.13	44.32	2.23	0.58	0.51	0.26	0.79		
19	*******	0.00	7.10	17.16	43.88	24.90	23.60	2.12	0.58	0.44	0.24	0.72		
20	*******	0.00	5.46	10.23	54.00	26.40	14.92	2.01	0.65	0.37	0.24	0.58		
21	*******	0.00	5.18	8.54	80.75	15.21	11.59	1.90	0.65	0.37	0.26	0.44		
22	*******	0.00	3.72	7.26	74.75	26.40	9.21	1.90	0.65	0.30	0.26	0.30		
23	*******	0.00	2.89	6.50	32.62	21.97	7.26	1.81	0.72	0.30	0.26	0.28		
24	*******	0.00	2.89	6.50	9.64	18.78	7.42	1.72	0.72	0.28	0.26	0.28		
25	*******	0.00	2.89	5.32	7.66	36.00	7.42	1.72	0.72	0.26	0.26	0.26		
26	*******	0.00	4.34	6.65	61.50	26.70	6.80	1.63	0.79	0.24	0.26	0.28		
27	*******	0.00	25.70	8.06	49.50	98.20	6.35	1.54	0.79	0.24	0.26	0.28		
28	*******	0.00	30.25	3.96	48.00	112.90	5.46	1.54	0.79	0.22	0.26	0.26		
29	*******	0.00	30.25	2.89	25.20	196.60	4.48	1.45	0.72	0.22	0.24	0.28		
30	*******	0.00	10.40	2.89	29.10	142.92	4.62	1.36	0.72	0.20		0.30		
31		0.00		3.60	28.20		6.80		0.72	0.20		0.30		
Total	*******	0.00	217.34	285.64	3407.72	1639.59	2636.47	77.86	18.78	15.48	8.62	13.05	*******	CMSDAY
Mean	*******	0.00	7.24	9.21	109.93	54.65	85.05	2.60	0.61	0.50	0.30	0.42	*******	CMS
Max	*******	0.00	30.25	38.00	605.60	196.60	688.80	5.60	1.27	0.72	0.44	1.36	688.80	CMS
Min	*******	0.00	1.18	2.89	7.66	7.44	4.48	1.36	0.16	0.20	0.22	0.16	*******	CMS
Runoff	*******	0.00	18.78	24.68	294.43	141.66	227.79	6.73	1.62	1.34	0.75	1.13	*******	MCM

Momentary Peak 774.60 CMS. at 213.37 m. (MSL.) at 01.00 Hours , on Oct 4 , 2011

Runoff Yield ******* Liters/Second/Square KM. Momentary Peak Yield 2087.871 Liters/Second/Square KM.

WATER YEAR : 2011

WANG RIVER BASIN

Nam Mae Tui at Ban Tha Lo , Lampang (W.20)

Lat 18 - 18 - 34 N Long 99 - 27 - 40 E

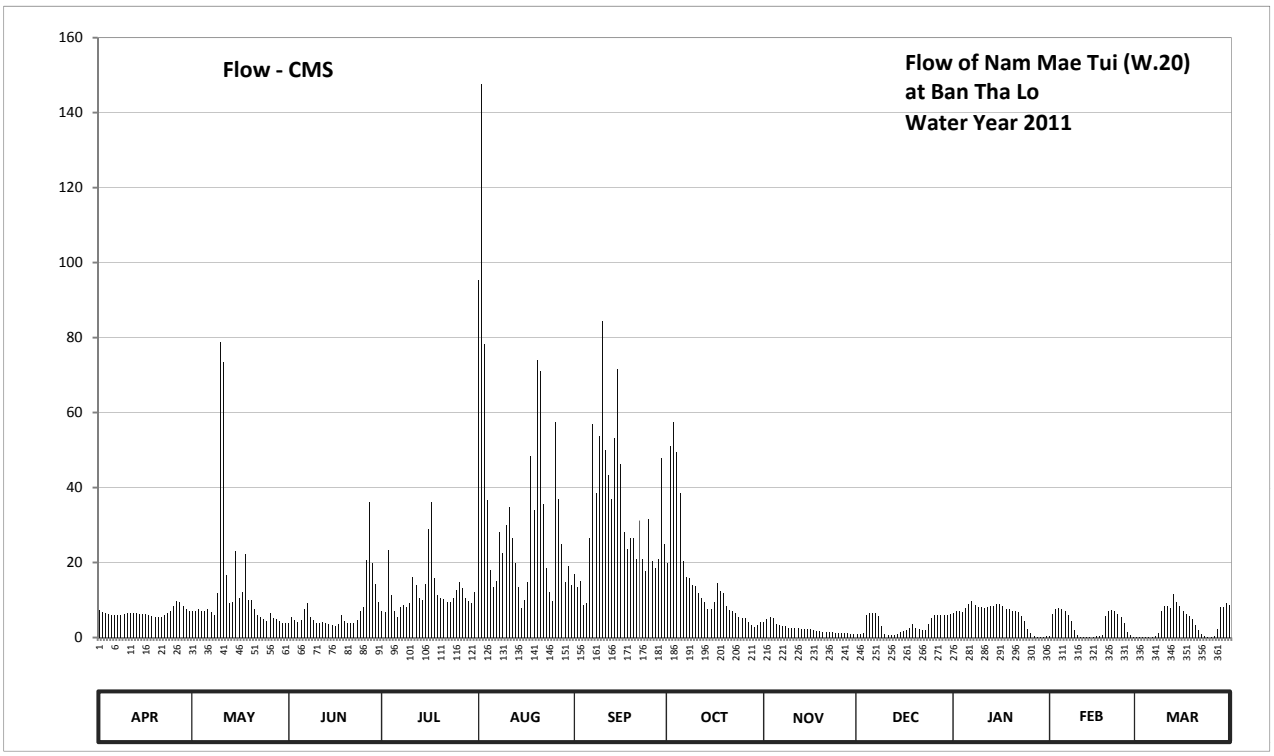
Location : on left bank at the bridge of Lampang - Hang Chat Highway.

	Ban Tha Lo	**Amphoe** Mueang	**Changwat** Lampang
Drainge Area	941 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+230.420 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank at the approach of the bridge.		**Elevation** +237.644 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings.		
Period of Available Gage Records	1993 to date		
Rating Operation			
Period of Rating	1993 to date		
Rated by Flot	-		
Rated by Current Meter	1993 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair.Flow effected by the local weir about 200 meters downstream from the gage site. Stage-discharge relation defined by 50 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	230.70	230.68	230.48	230.68	232.62	231.09	231.18	230.50	230.19	230.66	230.03	229.87	
2	230.67	230.69	230.59	230.67	233.35	230.97	231.87	230.55	230.18	230.68	230.64	229.82	
3	230.65	230.71	230.54	231.27	232.35	231.03	231.99	230.59	230.24	230.68	230.71	229.83	
4	230.64	230.68	230.50	230.88	231.58	230.77	231.84	230.58	230.63	230.67	230.73	229.87	
5	230.63	230.68	230.54	230.68	231.12	230.80	231.62	230.47	230.66	230.73	230.72	229.89	
6	230.63	230.71	230.72	230.59	230.97	231.35	231.19	230.44	230.66	230.78	230.68	229.96	
7	230.63	230.67	230.79	230.74	231.03	231.98	231.06	230.41	230.65	230.82	230.63	230.01	
8	230.63	230.62	230.60	230.77	231.39	231.62	231.05	230.41	230.61	230.77	230.52	230.23	
9	230.64	230.91	230.54	230.74	231.25	231.92	230.99	230.38	230.42	230.74	230.32	230.68	
10	230.65	232.36	230.49	230.79	231.43	232.45	230.98	230.38	230.19	230.74	230.11	230.75	
11	230.65	232.27	230.48	231.06	231.54	231.85	230.91	230.38	230.10	230.73	229.96	230.76	
12	230.65	231.08	230.50	230.99	231.35	231.72	230.85	230.37	230.09	230.74	229.92	230.73	
13	230.65	230.80	230.48	230.85	231.18	231.59	230.81	230.36	230.09	230.75	229.89	230.89	
14	230.64	230.81	230.47	230.83	230.97	231.91	230.71	230.36	230.15	230.76	229.91	230.81	
15	230.64	231.26	230.43	231.00	230.73	232.24	230.71	230.35	230.27	230.78	229.90	230.75	
16	230.64	230.85	230.41	231.41	230.83	231.78	230.81	230.35	230.28	230.78	229.98	230.69	
17	230.63	230.92	230.47	231.57	231.02	231.39	231.01	230.31	230.33	230.75	230.04	230.64	
18	230.61	231.24	230.62	231.05	231.82	231.28	230.93	230.29	230.38	230.72	230.12	230.61	
19	230.60	230.83	230.51	230.88	231.52	231.35	230.91	230.28	230.46	230.71	230.61	230.56	
20	230.60	230.83	230.49	230.85	232.28	231.35	230.75	230.27	230.37	230.68	230.69	230.44	
21	230.60	230.71	230.49	230.84	232.23	231.21	230.70	230.26	230.34	230.69	230.70	230.32	
22	230.63	230.62	230.48	230.81	231.56	231.46	230.68	230.26	230.33	230.67	230.69	230.15	
23	230.66	230.59	230.54	230.81	231.14	231.21	230.65	230.25	230.32	230.61	230.64	229.98	
24	230.69	230.56	230.68	230.85	230.92	231.11	230.60	230.23	230.46	230.52	230.60	229.94	
25	230.75	230.53	230.74	230.94	230.82	231.47	230.57	230.22	230.58	230.34	230.48	229.96	
26	230.82	230.65	231.20	231.02	231.99	231.19	230.57	230.22	230.63	230.21	230.25	230.02	
27	230.81	230.58	231.57	230.96	231.59	231.14	230.50	230.21	230.63	230.02	230.09	230.36	
28	230.75	230.56	231.18	230.85	231.31	231.21	230.43	230.21	230.63	229.93	229.91	230.74	
29	230.72	230.53	231.00	230.82	231.02	231.81	230.40	230.20	230.63	229.88	229.88	230.74	
30	230.69	230.49	230.81	230.79	231.15	231.31	230.44	230.20	230.63	229.91		230.79	
31		230.48		230.92	230.99		230.50		230.64	230.02		230.77	
Mean	230.66	230.84	230.64	230.90	231.45	231.45	230.91	230.34	230.41	230.56	230.32	230.37	
Max	230.82	232.36	231.57	231.57	233.35	232.45	231.99	230.59	230.66	230.82	230.73	230.89	233.35
Min	230.60	230.48	230.41	230.59	230.73	230.77	230.40	230.20	230.09	229.88	229.88	229.82	229.82

Annual Max Momentary Gage Height	234.49	m. (MSL.) ,	at 01.00 Hours , on Aug 2 , 2011		
Zero Gage at Bottom Elevation	230.42	m. (MSL.) ,	River Bed	230.06	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, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	7.30	6.94	3.84	6.94	95.34	17.00	19.94	4.10	0.96	6.58	0.39	0.17		
2	6.76	7.12	5.36	6.76	147.70	13.52	50.94	4.80	0.92	6.94	6.22	0.12		
3	6.40	7.50	4.66	23.33	78.25	15.20	57.45	5.36	1.32	6.94	7.50	0.13		
4	6.22	6.94	4.10	11.22	36.60	8.70	49.38	5.22	6.04	6.76	7.90	0.17		
5	6.04	6.94	4.66	6.94	17.96	9.30	38.44	3.71	6.58	7.90	7.70	0.19		
6	6.04	7.50	7.70	5.36	13.52	26.50	20.27	3.32	6.58	8.90	6.94	0.26		
7	6.04	6.76	9.10	8.10	15.20	56.90	16.10	2.93	6.40	9.78	6.04	0.33		
8	6.04	5.86	5.50	8.70	28.10	38.44	15.80	2.93	5.68	8.70	4.38	1.24		
9	6.22	11.96	4.66	8.10	22.55	53.60	14.04	2.60	3.06	8.10	2.00	6.94		
10	6.40	78.86	3.97	9.10	29.85	84.40	13.78	2.60	0.96	8.10	0.64	8.30		
11	6.40	73.43	3.84	16.10	34.80	49.90	11.96	2.60	0.60	7.90	0.26	8.50		
12	6.40	16.70	4.10	14.04	26.50	43.22	10.50	2.50	0.57	8.10	0.22	7.90		
13	6.40	9.30	3.84	10.50	19.94	37.05	9.54	2.40	0.57	8.30	0.19	11.46		
14	6.22	9.54	3.71	10.02	13.52	53.05	7.50	2.40	0.80	8.50	0.21	9.54		
15	6.22	22.94	3.19	14.30	7.90	71.66	7.50	2.30	1.56	8.90	0.20	8.30		
16	6.22	10.50	2.93	28.95	10.02	46.28	9.54	2.30	1.64	8.90	0.28	7.12		
17	6.04	12.22	3.71	36.15	14.90	28.10	14.60	1.90	2.10	8.30	0.42	6.22		
18	5.68	22.16	5.86	15.80	48.34	23.72	12.48	1.72	2.60	7.70	0.68	5.68		
19	5.50	10.02	4.24	11.22	33.90	26.50	11.96	1.64	3.58	7.50	5.68	4.94		
20	5.50	10.02	3.97	10.50	74.02	26.50	8.30	1.56	2.50	6.94	7.12	3.32		
21	5.50	7.50	3.97	10.26	71.07	20.99	7.30	1.48	2.20	7.12	7.30	2.00		
22	6.04	5.86	3.84	9.54	35.70	31.20	6.94	1.48	2.10	6.76	7.12	0.80		
23	6.58	5.36	4.66	9.54	18.62	20.99	6.40	1.40	2.00	5.68	6.22	0.28		
24	7.12	4.94	6.94	10.50	12.22	17.63	5.50	1.24	3.58	4.38	5.50	0.24		
25	8.30	4.52	8.10	12.74	9.78	31.65	5.08	1.16	5.22	2.20	3.84	0.26		
26	9.78	6.40	20.60	14.90	57.45	20.27	5.08	1.16	6.04	1.08	1.40	0.36		
27	9.54	5.22	36.15	13.26	37.05	18.62	4.10	1.08	6.04	0.36	0.57	2.40		
28	8.30	4.94	19.94	10.50	24.90	20.99	3.19	1.08	6.04	0.23	0.21	8.10		
29	7.70	4.52	14.30	9.78	14.90	47.82	2.80	1.00	6.04	0.18	0.18	8.10		
30	7.12	3.97	9.54	9.10	18.95	24.90	3.32	1.00	6.04	0.21		9.10		
31		3.84		12.22	14.04		4.10		6.22	0.36		8.70		
Total	200.02	400.28	220.98	384.47	1083.59	984.60	453.83	70.97	106.54	188.30	97.31	131.17	4322.06	CMSDAY
Mean	6.67	12.91	7.37	12.40	34.95	32.82	14.64	2.37	3.44	6.07	3.36	4.23	11.81	CMS
Max	9.78	78.86	36.15	36.15	147.70	84.40	57.45	5.36	6.58	9.78	7.90	11.46	147.70	CMS
Min	5.50	3.84	2.93	5.36	7.90	8.70	2.80	1.00	0.57	0.18	0.18	0.12	0.12	CMS
Runoff	17.28	34.58	19.09	33.22	93.62	85.07	39.21	6.13	9.21	16.27	8.41	11.33	373.43	MCM

Momentary Peak 240.85 CMS. at 234.49 m. (MSL.) at 01.00 Hours , on Aug 2 , 2011

Runoff Yield 12.55 Liters/Second/Square KM. Momentary Peak Yield 255.951 Liters/Second/Square KM.

WATER YEAR : 2011

WANG RIVER BASIN

Wang River at Ban Tha Dua , Lampang (W.21)

Lat 18 - 20 - 18 N Long 99 - 32 - 27 E

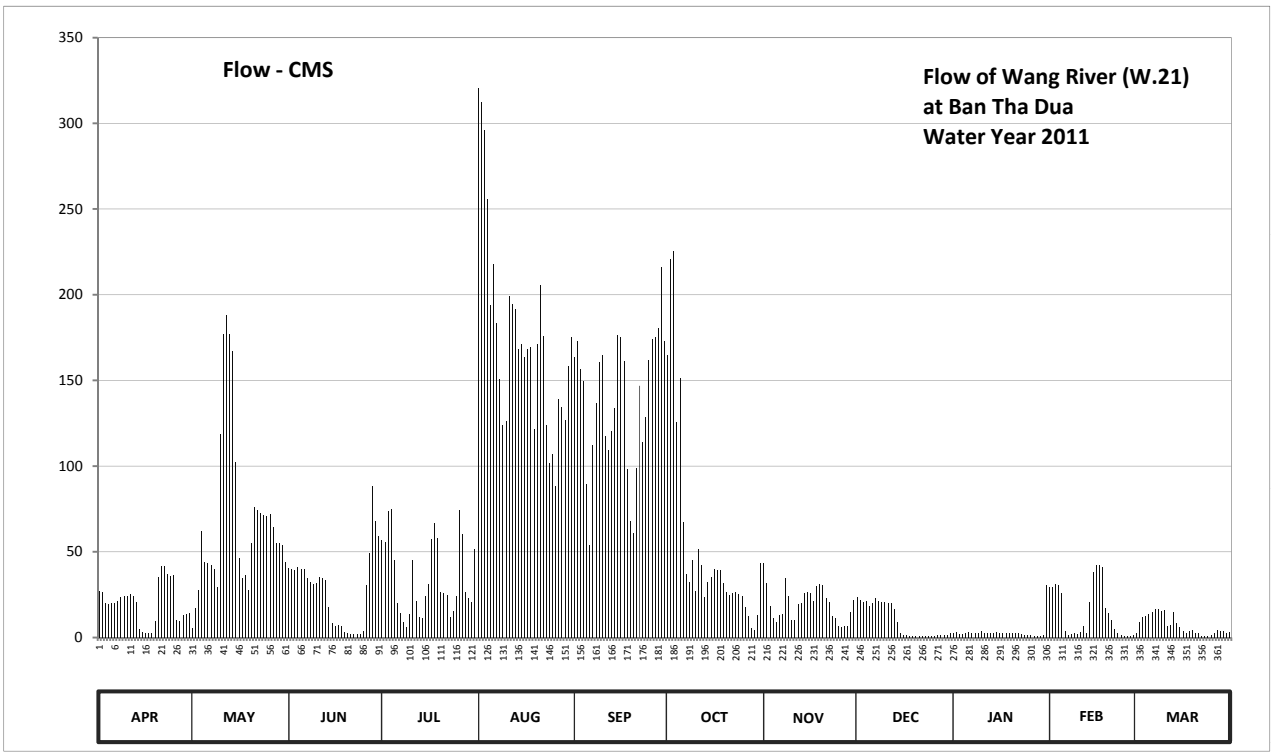
Location : on left bank at the bridge on highway.

	Ban Tha Dua	**Amphoe** Mueang	**Changwat** Lampang
Drainge Area	3,367 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+232.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank about 5 meters from the top staff gage.	**Elevation**	+236.495 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings.		
Period of Available Gage Records	1999 to date		
Rating Operation			
Period of Rating	1999 to date		
Rated by Flot	-		
Rated by Current Meter	1999 to date		
Stability of Channel Regimes	Fairly stable because of backwater effect.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair.Stage-discharge relation defined by 48 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	232.59	231.90	232.90	233.24	236.70	234.99	235.01	232.96	232.48	231.78	232.64	231.79	
2	232.57	232.30	232.89	233.22	236.64	235.11	235.70	232.70	232.44	231.81	232.65	232.03	
3	232.38	232.60	232.88	233.58	236.50	234.90	235.75	232.34	232.41	231.72	232.69	232.13	
4	232.37	233.35	232.91	233.60	236.09	234.81	234.47	232.11	232.42	231.68	232.68	232.15	
5	232.38	232.98	232.89	233.00	235.38	233.87	234.83	232.04	232.33	231.78	232.56	232.18	
6	232.39	232.97	232.89	232.38	235.66	233.18	233.45	232.17	232.38	231.81	231.83	232.23	
7	232.42	232.94	232.77	232.20	235.25	234.26	232.82	232.18	232.47	231.77	231.67	232.28	
8	232.49	232.89	232.72	232.04	234.82	234.63	232.72	232.77	232.42	231.74	231.68	232.27	
9	232.51	232.65	232.69	231.93	234.44	234.95	233.01	232.51	232.40	231.78	231.74	232.25	
10	232.51	234.36	232.70	232.18	234.48	235.01	232.59	232.08	232.40	231.82	231.68	232.26	
11	232.53	235.17	232.78	233.01	235.44	234.35	233.14	232.07	232.39	231.76	231.80	231.94	
12	232.51	235.31	232.77	232.43	235.39	234.22	232.94	232.37	232.39	231.75	231.95	231.96	
13	232.41	235.17	232.74	232.13	235.35	234.39	232.49	232.39	232.27	231.79	231.77	232.23	
14	231.89	235.04	232.31	232.11	235.05	234.59	232.71	232.56	232.04	231.79	232.40	232.01	
15	231.81	234.10	232.02	232.51	235.09	235.16	232.78	232.58	231.79	231.80	232.85	231.93	
16	231.78	233.03	231.95	232.69	234.99	235.14	232.89	232.55	231.65	231.77	232.94	231.82	
17	231.77	232.77	231.96	233.26	235.05	234.96	232.87	232.42	231.62	231.78	232.94	231.76	
18	231.78	232.81	231.95	233.44	235.07	234.03	232.88	232.66	231.60	231.76	232.91	231.82	
19	232.06	232.61	231.80	233.27	234.41	233.47	232.70	232.69	231.56	231.76	232.30	231.86	
20	232.79	233.21	231.73	232.57	235.09	233.33	232.58	232.67	231.54	231.76	232.21	231.78	
21	232.92	233.62	231.72	232.55	235.52	234.04	232.52	232.47	231.56	231.77	232.08	231.74	
22	232.93	233.59	231.69	232.52	235.15	234.77	232.56	232.40	231.59	231.73	231.89	231.60	
23	232.82	233.55	231.72	232.13	234.44	234.29	232.57	232.16	231.58	231.69	231.78	231.57	
24	232.80	233.53	231.70	232.25	234.09	234.51	232.53	232.11	231.56	231.67	231.66	231.60	
25	232.81	233.52	231.83	232.51	234.18	234.97	232.51	231.95	231.58	231.62	231.58	231.64	
26	232.08	233.54	232.67	233.59	233.85	235.13	232.32	231.93	231.60	231.62	231.58	231.79	
27	232.05	233.40	233.09	233.32	234.66	235.14	232.15	231.94	231.63	231.57	231.58	231.85	
28	232.17	233.21	233.85	232.57	234.60	235.21	231.90	231.95	231.66	231.55	231.63	231.84	
29	232.19	233.21	233.46	232.47	234.49	235.64	231.86	232.22	231.67	231.53	231.74	231.82	
30	232.20	233.18	233.29	232.40	234.92	235.11	232.17	232.44	231.67	231.64		231.79	
31		232.98		233.13	235.14		232.96		231.73	232.68		231.81	
Mean	232.36	233.40	232.51	232.72	235.09	234.61	233.04	232.35	231.96	231.76	232.12	231.93	
Max	232.93	235.31	233.85	233.60	236.70	235.64	235.75	232.96	232.48	232.68	232.94	232.28	236.70
Min	231.77	231.90	231.69	231.93	233.85	233.18	231.86	231.93	231.54	231.53	231.58	231.57	231.53

Annual Max Momentary Gage Height	237.64	m. (MSL.) ,	at 15.00 Hours , on Aug 1 , 2011		
Zero Gage at Bottom Elevation	232.00	m. (MSL.) ,	River Bed	230.44	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, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	27.15	5.50	40.50	56.70	320.75	163.49	165.01	43.20	23.30	2.80	29.20	2.90		
2	26.45	17.25	40.05	55.73	312.20	172.64	221.00	31.75	21.90	3.25	29.62	8.90		
3	19.85	27.50	39.60	73.95	296.00	156.62	225.25	18.55	20.85	2.20	31.32	11.90		
4	19.53	62.06	40.95	75.00	255.60	149.76	125.73	11.30	21.20	1.80	30.90	12.50		
5	19.85	44.10	40.05	45.00	193.90	89.35	151.29	9.20	18.23	2.80	26.10	13.40		
6	20.18	43.65	40.05	19.85	217.60	53.77	67.12	13.10	19.85	3.25	3.75	14.97		
7	21.20	42.30	34.73	14.00	183.50	111.90	36.90	13.40	22.95	2.70	1.70	16.60		
8	23.65	40.05	32.60	9.20	150.53	136.67	32.60	34.73	21.20	2.40	1.80	16.28		
9	24.35	29.62	31.32	6.25	123.70	160.44	45.49	24.35	20.50	2.80	2.40	15.63		
10	24.35	118.40	31.75	13.40	126.40	165.01	27.15	10.40	20.50	3.50	1.80	15.95		
11	25.05	177.21	35.15	45.49	198.90	117.75	51.83	10.10	20.18	2.60	3.00	6.50		
12	24.35	188.30	34.73	21.55	194.70	109.30	42.30	19.53	20.18	2.50	6.75	7.00		
13	20.85	177.21	33.45	11.90	191.50	120.35	23.65	20.18	16.28	2.90	2.70	14.97		
14	5.25	167.30	17.58	11.30	168.06	133.82	32.18	26.10	9.20	2.90	20.50	8.30		
15	3.25	102.25	8.60	24.35	171.11	176.45	35.15	26.80	2.90	3.00	38.25	6.25		
16	2.80	46.46	6.75	31.32	163.49	174.93	40.05	25.75	1.50	2.70	42.30	3.50		
17	2.70	34.73	7.00	57.67	168.06	161.20	39.15	21.20	1.20	2.80	42.30	2.60		
18	2.80	36.45	6.75	66.60	169.59	98.22	39.60	30.05	1.00	2.60	40.95	3.50		
19	9.80	27.92	3.00	58.16	121.68	68.18	31.75	31.32	0.80	2.60	17.25	4.50		
20	35.57	55.24	2.30	26.45	171.11	61.09	26.80	30.47	0.70	2.60	14.33	2.80		
21	41.40	76.05	2.20	25.75	205.70	98.80	24.70	22.95	0.80	2.70	10.40	2.40		
22	41.85	74.47	1.90	24.70	175.69	146.83	26.10	20.50	0.95	2.30	5.25	1.00		
23	36.90	72.37	2.20	11.90	123.70	113.85	26.45	12.80	0.90	1.90	2.80	0.85		
24	36.00	71.32	2.00	15.63	101.67	128.42	25.05	11.30	0.80	1.70	1.60	1.00		
25	36.45	70.80	3.75	24.35	106.85	161.96	24.35	6.75	0.90	1.20	0.90	1.40		
26	10.40	71.85	30.47	74.47	88.25	174.16	17.90	6.25	1.00	1.20	0.90	2.90		
27	9.50	64.50	49.39	60.60	138.85	174.93	12.50	6.50	1.30	0.85	0.90	4.25		
28	13.10	55.24	88.25	26.45	134.50	180.30	5.50	6.75	1.60	0.75	1.30	4.00		
29	13.70	55.24	67.65	22.95	127.08	215.90	4.50	14.65	1.70	0.65	2.40	3.50		
30	14.00	53.77	59.14	20.50	158.15	172.64	13.10	21.90	1.70	1.40		2.90		
31		44.10		51.34	174.93		43.20		2.30	30.90		3.25		
Total	612.28	2153.21	833.86	1082.51	5433.75	4148.73	1683.35	581.83	298.37	100.25	413.37	216.40	17557.91	CMSDAY
Mean	20.41	69.46	27.80	34.92	175.28	138.29	54.30	19.39	9.62	3.23	14.25	6.98	47.97	CMS
Max	41.85	188.30	88.25	75.00	320.75	215.90	225.25	43.20	23.30	30.90	42.30	16.60	320.75	CMS
Min	2.70	5.50	1.90	6.25	88.25	53.77	4.50	6.25	0.70	0.65	0.90	0.85	0.65	CMS
Runoff	52.90	186.04	72.05	93.53	469.48	358.45	145.44	50.27	25.78	8.66	35.72	18.70	1517.00	MCM

Momentary Peak 450.40 CMS. at 237.64 m. (MSL.) at 15.00 Hours , on Aug 1 , 2011

Runoff Yield 14.25 Liters/Second/Square KM. Momentary Peak Yield 133.769 Liters/Second/Square KM.

WATER YEAR : 2011

WANG RIVER BASIN

Nam Mae Chang at Ban Wang Phrao , Lampang (W.22)

Lat 18 - 08 - 35 N Long 99 - 24 - 48 E

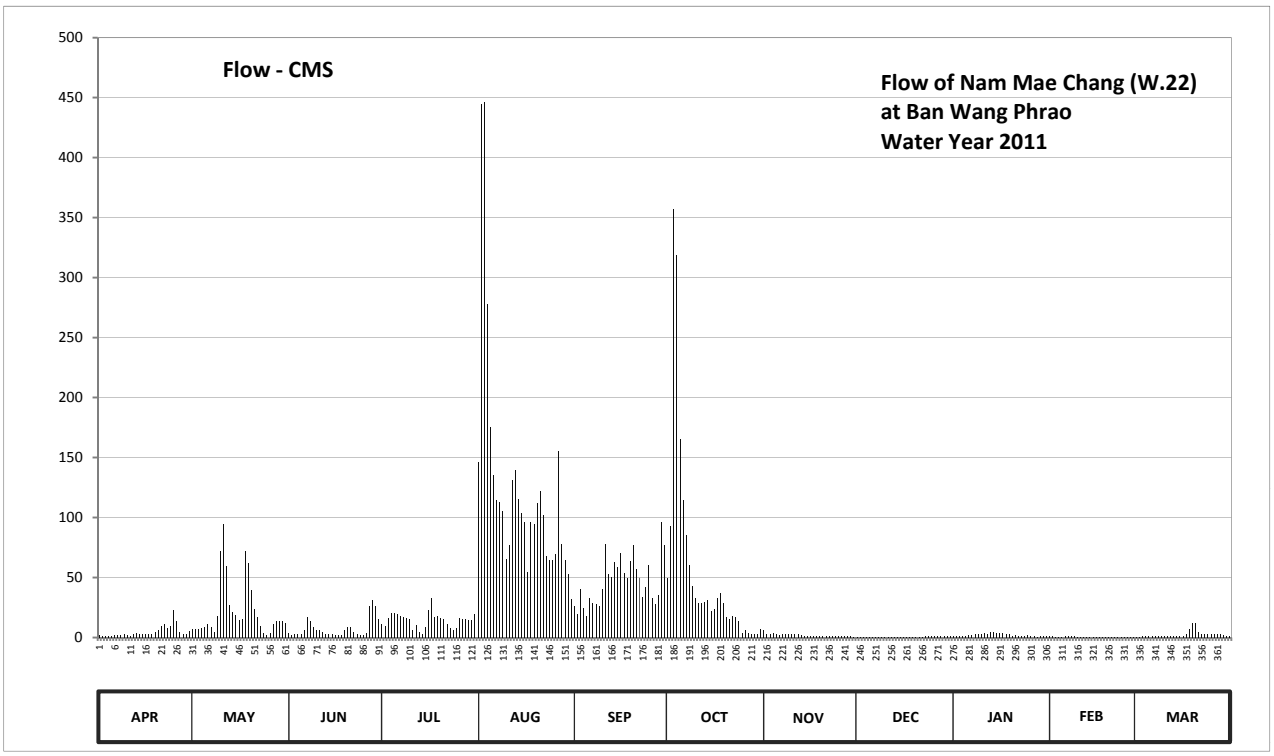
Location : on right bank at the bridge.

	Ban Wang Phrao	**Amphoe** Ko Kha	**Changwat** Lampang		
Drainge Area	1,549 sq.km.				
Type of Gage	Water - stage recorder				
Zero Gage at Bottom	+215.161 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On right bank at the approach of the bridge.		**Elevation** +221.137 m. (MSL.)		
Gage Reading Frequency	Recording				
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings.				
Period of Available Gage Records	2001 to date				
Rating Operation					
Period of Rating	2001 to date				
Rated by Flot	-				
Rated by Current Meter	2001 to date				
Stability of Channel Regimes	Rather unstable because of backwater effect.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records Fair.Stage-discharge relation defined by 48 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	215.08	215.27	215.21	215.35	217.12	215.63	215.97	215.25	214.93	215.04	214.96	214.90	
2	215.05	215.28	215.10	215.32	219.41	215.51	216.52	215.18	214.92	215.01	214.96	214.93	
3	215.03	215.28	215.13	215.45	219.42	215.84	218.86	215.15	214.90	215.02	214.94	214.95	
4	215.00	215.29	215.15	215.53	218.30	215.61	218.60	215.19	214.85	215.02	214.94	214.97	
5	215.03	215.30	215.17	215.53	217.42	215.49	217.32	215.12	214.82	215.02	214.94	214.97	
6	215.09	215.35	215.26	215.52	217.01	215.74	216.78	215.11	214.86	215.06	214.95	214.98	
7	215.06	215.30	215.46	215.49	216.78	215.67	216.43	215.13	214.91	215.08	214.95	214.98	
8	215.07	215.22	215.41	215.47	216.76	215.66	216.11	215.14	214.91	215.13	214.95	214.98	
9	215.12	215.49	215.30	215.45	216.67	215.63	215.88	215.14	214.91	215.14	214.95	214.99	
10	215.07	216.26	215.26	215.44	216.18	215.84	215.74	215.14	214.91	215.14	214.94	214.99	
11	215.05	216.54	215.25	215.26	216.33	216.34	215.67	215.18	214.91	215.19	214.93	214.99	
12	215.14	216.10	215.23	215.33	216.96	216.01	215.67	215.12	214.91	215.18	214.91	214.98	
13	215.21	215.65	215.18	215.23	217.05	215.98	215.69	215.08	214.91	215.23	214.93	214.98	
14	215.17	215.55	215.15	215.17	216.79	216.14	215.71	215.05	214.91	215.23	214.93	215.01	
15	215.14	215.50	215.14	215.31	216.65	216.09	215.56	215.04	214.91	215.19	214.94	215.04	
16	215.15	215.42	215.08	215.58	216.56	216.24	215.60	215.05	214.92	215.19	214.92	215.05	
17	215.16	215.44	215.08	215.74	216.03	216.02	215.74	215.03	214.93	215.20	214.91	215.13	
18	215.17	216.26	215.08	215.46	216.56	215.97	215.80	215.03	214.93	215.18	214.91	215.27	
19	215.23	216.13	215.25	215.48	216.54	216.16	215.67	215.03	214.81	215.14	214.91	215.37	
20	215.25	215.83	215.31	215.45	216.75	216.33	215.47	215.01	214.73	215.04	214.91	215.37	
21	215.32	215.60	215.30	215.43	216.86	216.07	215.44	215.01	214.73	215.09	214.91	215.22	
22	215.35	215.47	215.22	215.36	216.63	215.97	215.49	215.01	214.76	215.00	214.91	215.17	
23	215.29	215.32	215.18	215.29	216.21	215.75	215.46	215.02	214.97	215.03	214.91	215.14	
24	215.32	215.20	215.09	215.26	216.17	215.87	215.41	215.02	215.04	215.03	214.91	215.14	
25	215.58	215.10	215.08	215.29	216.17	216.11	215.20	215.01	215.04	215.11	214.91	215.16	
26	215.41	215.21	215.20	215.45	216.23	215.73	215.26	215.00	215.01	214.95	214.91	215.14	
27	215.23	215.36	215.63	215.44	217.22	215.66	215.20	214.99	215.01	214.95	214.91	215.15	
28	215.17	215.41	215.71	215.44	216.34	215.77	215.16	214.97	215.04	214.94	214.91	215.18	
29	215.17	215.41	215.63	215.42	216.17	216.56	215.16	214.96	215.02	214.95	214.90	215.10	
30	215.24	215.41	215.44	215.42	216.01	216.33	215.17	214.94	215.02	214.95		215.01	
31		215.37		215.51	215.72		215.28		215.04	214.95		215.02	
Mean	215.18	215.53	215.26	215.42	216.81	215.92	215.90	215.07	214.92	215.08	214.93	215.07	
Max	215.58	216.54	215.71	215.74	219.42	216.56	218.86	215.25	215.04	215.23	214.96	215.37	219.42
Min	215.00	215.10	215.08	215.17	215.72	215.49	215.16	214.94	214.73	214.94	214.90	214.90	214.73

Annual Max Momentary Gage Height	220.15	m. (MSL.) ,	at 19.00 Hours , on Oct 3 , 2011		
Zero Gage at Bottom Elevation	215.16	m. (MSL.) ,	River Bed	213.84	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, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.96	6.94	3.91	10.98	145.82	25.95	49.75	5.93	0.79	1.48	0.88	0.70		
2	1.60	7.44	2.20	9.46	444.70	19.27	92.90	3.16	0.76	1.12	0.88	0.79		
3	1.36	7.44	2.56	16.12	446.40	40.00	357.00	2.80	0.70	1.24	0.82	0.85		
4	1.00	7.94	2.80	20.32	277.50	24.65	319.00	3.28	0.55	1.24	0.82	0.91		
5	1.36	8.45	3.04	20.32	175.60	18.23	165.50	2.44	0.46	1.24	0.82	0.91		
6	2.08	10.98	6.43	19.80	135.26	33.10	114.80	2.32	0.58	1.72	0.85	0.94		
7	1.72	8.45	16.65	18.23	114.80	28.55	85.47	2.56	0.73	1.96	0.85	0.94		
8	1.84	4.41	14.03	17.18	113.10	27.90	60.25	2.68	0.73	2.56	0.85	0.94		
9	2.44	18.23	8.45	16.12	105.45	25.95	43.00	2.68	0.73	2.68	0.85	0.97		
10	1.84	71.80	6.43	15.60	65.50	40.00	33.10	2.68	0.73	2.68	0.82	0.97		
11	1.60	94.55	5.93	6.43	77.40	78.20	28.55	3.16	0.73	3.28	0.79	0.97		
12	2.68	59.50	4.91	9.97	130.74	52.75	28.55	2.44	0.73	3.16	0.73	0.94		
13	3.91	27.25	3.16	4.91	139.10	50.50	29.85	1.96	0.73	4.91	0.79	0.94		
14	3.04	21.37	2.80	3.04	115.65	62.50	31.15	1.60	0.73	4.91	0.79	1.12		
15	2.68	18.75	2.68	8.96	103.75	58.75	21.90	1.48	0.73	3.28	0.82	1.48		
16	2.80	14.55	1.96	22.95	96.20	70.20	24.00	1.60	0.76	3.28	0.76	1.60		
17	2.92	15.60	1.96	33.10	54.25	53.50	33.10	1.36	0.79	3.40	0.73	2.56		
18	3.04	71.80	1.96	16.65	96.20	49.75	37.00	1.36	0.79	3.16	0.73	6.94		
19	4.91	61.75	5.93	17.70	94.55	64.00	28.55	1.36	0.43	2.68	0.73	11.99		
20	5.93	39.25	8.96	16.12	112.25	77.40	17.18	1.12	0.26	1.48	0.73	11.99		
21	9.46	24.00	8.45	15.07	121.84	57.25	15.60	1.12	0.26	2.08	0.73	4.41		
22	10.98	17.18	4.41	11.48	102.05	49.75	18.23	1.12	0.32	1.00	0.73	3.04		
23	7.94	9.46	3.16	7.94	67.80	33.75	16.65	1.24	0.91	1.36	0.73	2.68		
24	9.46	3.40	2.08	6.43	64.75	42.25	14.03	1.24	1.48	1.36	0.73	2.68		
25	22.95	2.20	1.96	7.94	64.75	60.25	3.40	1.12	1.48	2.32	0.73	2.92		
26	14.03	3.91	3.40	16.12	69.40	32.45	6.43	1.00	1.12	0.85	0.73	2.68		
27	4.91	11.48	25.95	15.60	155.50	27.90	3.40	0.97	1.12	0.85	0.73	2.80		
28	3.04	14.03	31.15	15.60	78.20	35.05	2.92	0.91	1.48	0.82	0.73	3.16		
29	3.04	14.03	25.95	14.55	64.75	96.20	2.92	0.88	1.24	0.85	0.70	2.20		
30	5.42	14.03	15.60	14.55	52.75	77.40	3.04	0.82	1.24	0.85		1.12		
31		11.99		19.27	31.80		7.44		1.48	0.85		1.24		
Total	141.94	702.16	228.86	448.51	3917.81	1413.40	1694.66	58.39	25.57	64.65	22.58	78.38	8796.91	CMSDAY
Mean	4.73	22.65	7.63	14.47	126.38	47.11	54.67	1.95	0.82	2.09	0.78	2.53	24.04	CMS
Max	22.95	94.55	31.15	33.10	446.40	96.20	357.00	5.93	1.48	4.91	0.88	11.99	446.40	CMS
Min	1.00	2.20	1.96	3.04	31.80	18.23	2.92	0.82	0.26	0.82	0.70	0.70	0.26	CMS
Runoff	12.26	60.67	19.77	38.75	338.50	122.12	146.42	5.05	2.21	5.59	1.95	6.77	760.05	MCM

Momentary Peak 573.25 CMS. at 220.15 m. (MSL.) at 19.00 Hours , on Oct 3 , 2011

Runoff Yield 15.52 Liters/Second/Square KM. Momentary Peak Yield 370.077 Liters/Second/Square KM.

WATER YEAR : 2011

WANG RIVER BASIN

Wang River at Ban Chiang Rai , Tak (W.23)

Lat 17 - 22 - 01 N Long 99 - 06 - 55 E

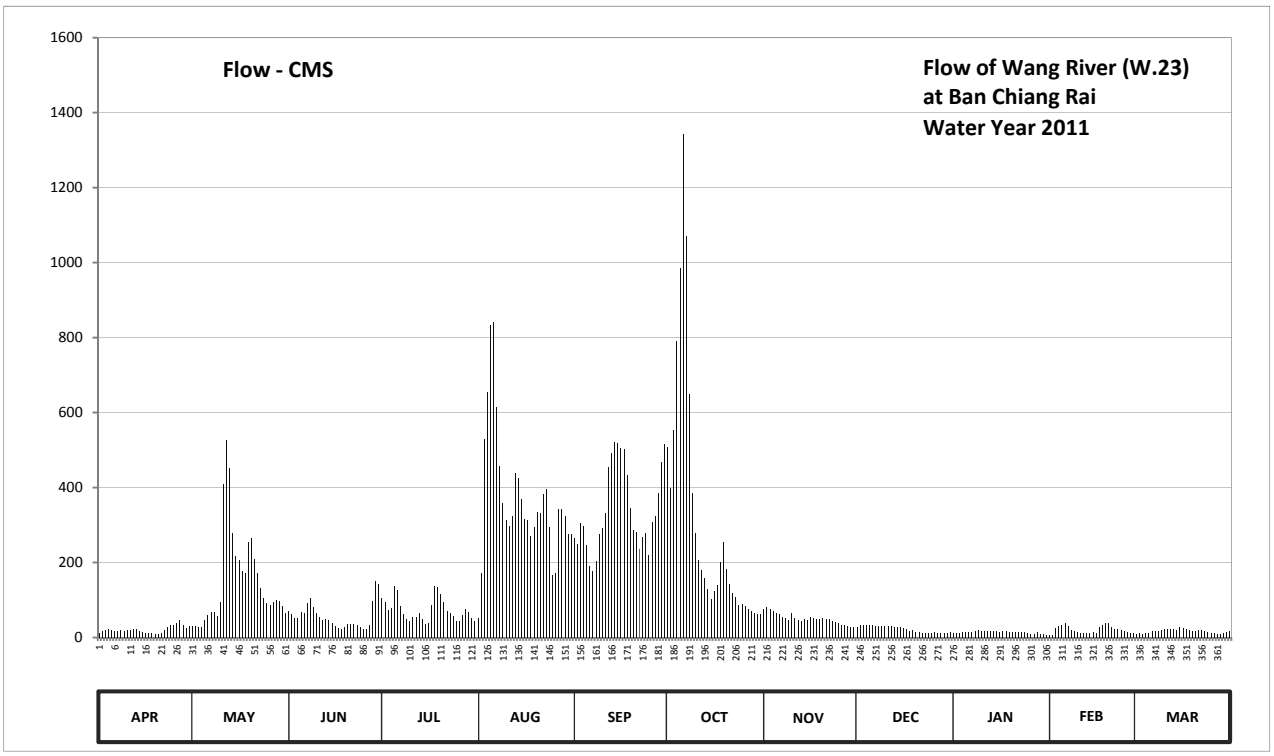
Location : on left bank at Amphoe Sam Ngao.

	Ban Chiang Rai	**Amphoe** Sam Ngao	**Changwat** Tak
Drainge Area	9,930 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+141.291 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the gage site.	**Elevation**	+148.844 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings.		
Period of Available Gage Records	2001 to date		
Rating Operation			
Period of Rating	2001 to date		
Rated by Flot	-		
Rated by Current Meter	2001 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	Overbank flow starts at elevation +147.560 m. (MSL.), records are channel flow only.		
General Description	Records very good.Stage-discharge relation defined by 24 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	142.27	142.72	143.33	143.83	143.05	145.61	147.57	143.43	142.65	142.28	142.09	142.20	
2	142.37	142.71	143.21	143.68	144.63	145.45	146.73	143.52	142.78	142.28	142.10	142.22	
3	142.48	142.63	143.06	143.37	147.72	145.97	147.89	143.41	142.77	142.28	142.58	142.20	
4	142.53	142.63	143.07	143.46	148.41	145.88	148.74	143.34	142.75	142.32	142.71	142.21	
5	142.44	142.98	143.29	144.25	148.82	145.43	149.03	143.28	142.73	142.33	142.79	142.29	
6	142.41	143.20	143.26	144.11	148.83	144.86	149.37	143.22	142.74	142.33	142.87	142.37	
7	142.40	143.29	143.64	143.53	148.24	144.70	149.13	143.09	142.72	142.32	142.72	142.41	
8	142.44	143.32	143.83	143.22	147.20	144.99	148.39	143.06	142.68	142.39	142.47	142.43	
9	142.43	143.15	143.49	143.03	146.41	145.71	146.63	142.98	142.69	142.44	142.38	142.46	
10	142.46	143.70	143.27	142.92	146.02	145.85	145.72	143.26	142.70	142.39	142.30	142.50	
11	142.48	146.81	143.08	143.09	145.89	146.18	145.02	143.04	142.68	142.37	142.27	142.52	
12	142.50	147.70	142.98	143.11	146.13	147.17	144.73	142.98	142.68	142.37	142.25	142.54	
13	142.50	147.16	143.00	143.26	147.05	147.45	144.48	142.95	142.67	142.37	142.21	142.54	
14	142.42	145.72	142.96	143.01	146.94	147.67	144.15	143.01	142.66	142.37	142.21	142.46	
15	142.31	145.14	142.87	142.82	146.50	147.65	143.82	142.99	142.63	142.37	142.31	142.66	
16	142.26	145.03	142.72	142.85	146.05	147.55	144.06	143.09	142.57	142.35	142.27	142.61	
17	142.24	144.71	142.60	143.57	146.02	147.53	144.27	143.05	142.49	142.37	142.67	142.55	
18	142.21	144.64	142.53	144.23	145.65	147.01	144.97	143.00	142.43	142.38	142.77	142.48	
19	142.19	145.49	142.63	144.20	145.87	146.30	145.49	143.00	142.46	142.36	142.86	142.42	
20	142.19	145.60	142.80	143.97	146.22	145.79	144.77	143.04	142.34	142.34	142.85	142.41	
21	142.24	145.04	142.81	143.68	146.18	145.75	144.31	143.03	142.33	142.35	142.66	142.48	
22	142.44	144.63	142.80	143.33	146.61	145.33	144.01	143.02	142.23	142.33	142.54	142.46	
23	142.66	144.16	142.76	143.27	146.72	145.62	143.86	142.92	142.27	142.32	142.49	142.40	
24	142.79	143.85	142.62	143.13	145.87	145.72	143.60	142.89	142.28	142.31	142.44	142.32	
25	142.76	143.65	142.52	142.95	144.59	145.15	143.63	142.84	142.25	142.28	142.38	142.27	
26	142.85	143.56	142.51	142.94	144.63	145.99	143.53	142.77	142.32	142.20	142.33	142.21	
27	142.98	143.68	142.77	143.20	146.27	146.12	143.42	142.74	142.28	142.14	142.28	142.20	
28	142.73	143.77	143.74	143.43	146.29	146.62	143.34	142.68	142.26	142.34	142.23	142.19	
29	142.58	143.72	144.42	143.32	146.13	147.28	143.26	142.65	142.28	142.14	142.20	142.22	
30	142.68	143.55	144.30	143.04	145.69	147.63	143.24	142.64	142.27	142.12		142.32	
31		143.27		142.94	145.71		143.22		142.32	142.09		142.38	
Mean	142.47	144.23	143.10	143.38	146.33	146.20	145.30	143.03	142.51	142.31	142.46	142.38	
Max	142.98	147.70	144.42	144.25	148.83	147.67	149.37	143.52	142.78	142.44	142.87	142.66	149.37
Min	142.19	142.63	142.51	142.82	143.05	144.70	143.22	142.64	142.23	142.09	142.09	142.19	142.09

Annual Max Momentary Gage Height	149.38	m. (MSL.) ,	at 06.00 Hours , on Oct 23 , 2011		
Zero Gage at Bottom Elevation	141.29	m. (MSL.) ,	River Bed	140.78	m. (MSL)
Left Bank Elevation	147.55	m. (MSL.) ,			
Right Bank Elevation	148.66	m. (MSL.) ,	Drainage Area	9930	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	12.50	31.40	69.50	104.40	51.30	266.10	507.80	76.10	28.20	12.80	7.20	10.00		
2	16.00	31.00	61.70	93.60	170.70	249.30	398.20	82.40	34.10	12.80	7.50	10.70		
3	20.60	27.40	51.90	72.10	528.80	306.60	553.50	74.70	33.70	12.80	25.10	10.00		
4	22.90	27.40	52.60	78.20	655.60	296.20	791.20	70.10	32.70	14.20	31.00	10.40		
5	18.80	46.70	66.80	138.00	834.00	247.10	985.20	66.20	31.80	14.60	34.50	13.10		
6	17.50	61.00	64.90	126.80	841.00	191.40	1342.20	62.30	32.30	14.60	39.50	16.00		
7	17.00	66.80	90.80	83.10	615.20	177.00	1069.20	53.80	31.40	14.20	31.40	17.50		
8	18.80	68.80	104.40	62.30	458.00	203.10	649.70	51.90	29.60	16.70	20.20	18.30		
9	18.30	57.70	80.30	49.90	358.30	277.10	385.80	46.70	30.10	18.80	16.30	19.70		
10	19.70	95.00	65.60	42.80	312.30	292.80	278.20	64.90	30.50	16.70	13.50	21.50		
11	20.60	408.20	53.20	53.80	297.30	330.70	206.00	50.60	29.60	16.00	12.50	22.40		
12	21.50	526.00	46.70	55.20	325.00	454.10	179.70	46.70	29.60	16.00	11.80	23.30		
13	21.50	452.80	48.00	64.90	438.50	491.00	157.20	44.70	29.10	16.00	10.40	23.30		
14	17.90	278.20	45.40	48.60	424.50	521.80	130.00	48.60	28.70	16.00	10.40	19.70		
15	13.90	218.00	39.50	36.30	369.50	519.00	103.60	47.40	27.40	16.00	13.90	28.70		
16	12.10	207.00	31.40	38.30	315.80	505.00	122.80	53.80	24.70	15.30	12.50	26.50		
17	11.40	177.90	26.00	85.90	312.30	502.20	139.60	51.30	21.10	16.00	29.10	23.80		
18	10.40	171.60	22.90	136.40	270.50	433.30	201.30	48.00	18.30	16.30	33.70	20.60		
19	9.80	253.50	27.40	134.00	295.00	345.00	253.50	48.00	19.70	15.60	38.90	17.90		
20	9.80	265.00	35.00	115.60	335.40	285.90	183.30	50.60	14.90	14.90	38.30	17.50		
21	11.40	208.00	35.60	93.60	330.70	281.50	142.80	49.90	14.60	15.30	28.70	20.60		
22	18.80	170.70	35.00	69.50	383.30	237.00	118.80	49.30	11.00	14.60	23.30	19.70		
23	28.70	130.80	33.20	65.60	397.00	267.20	106.80	42.80	12.50	14.20	21.10	17.00		
24	34.50	106.00	26.90	56.50	295.00	278.20	88.00	40.80	12.80	13.90	18.80	14.20		
25	33.20	91.50	22.40	44.70	167.10	219.00	90.10	37.60	11.80	12.80	16.30	12.50		
26	38.30	85.20	21.90	44.10	170.70	308.90	83.10	33.70	14.20	10.00	14.60	10.40		
27	46.70	93.60	33.70	61.00	341.40	323.80	75.40	32.30	12.80	8.50	12.80	10.00		
28	31.80	99.90	97.80	76.10	343.80	384.50	70.10	29.60	12.10	14.90	11.00	9.80		
29	25.10	96.40	151.80	68.80	325.00	468.40	64.90	28.20	12.80	8.50	10.00	10.70		
30	29.60	84.50	142.00	50.60	274.90	516.20	63.60	27.80	12.50	8.00		14.20		
31		65.60		44.10	277.10		62.30		14.20	7.20		16.30		
Total	629.10	4703.60	1684.30	2294.80	11515.00	10179.40	9603.90	1510.80	698.80	434.20	594.30	526.30	44374.50	CMSDAY
Mean	21.00	151.70	56.10	74.00	371.50	339.30	309.80	50.40	22.50	14.00	20.50	17.00	121.20	CMS
Max	46.70	526.00	151.80	138.00	841.00	521.80	1342.20	82.40	34.10	18.80	39.50	28.70	1342.20	CMS
Min	9.80	27.40	21.90	36.30	51.30	177.00	62.30	27.80	11.00	7.20	7.20	9.80	7.20	CMS
Runoff	54.35	406.39	145.52	198.27	994.90	879.50	829.78	130.53	60.38	37.51	51.35	45.47	3833.96	MCM

Momentary Peak 1354.81 CMS. at 149.38 m. (MSL.) at 06.00 Hours , on Oct 23 , 2011

Runoff Yield 12.21 Liters/Second/Square KM. Momentary Peak Yield 136.436 Liters/Second/Square KM.

WATER YEAR : 2011

WANG RIVER BASIN

Wang River at Ban Tha Phai , Tak (W.24)

Lat 17 - 19 - 11 N Long 99 - 04 - 51 E

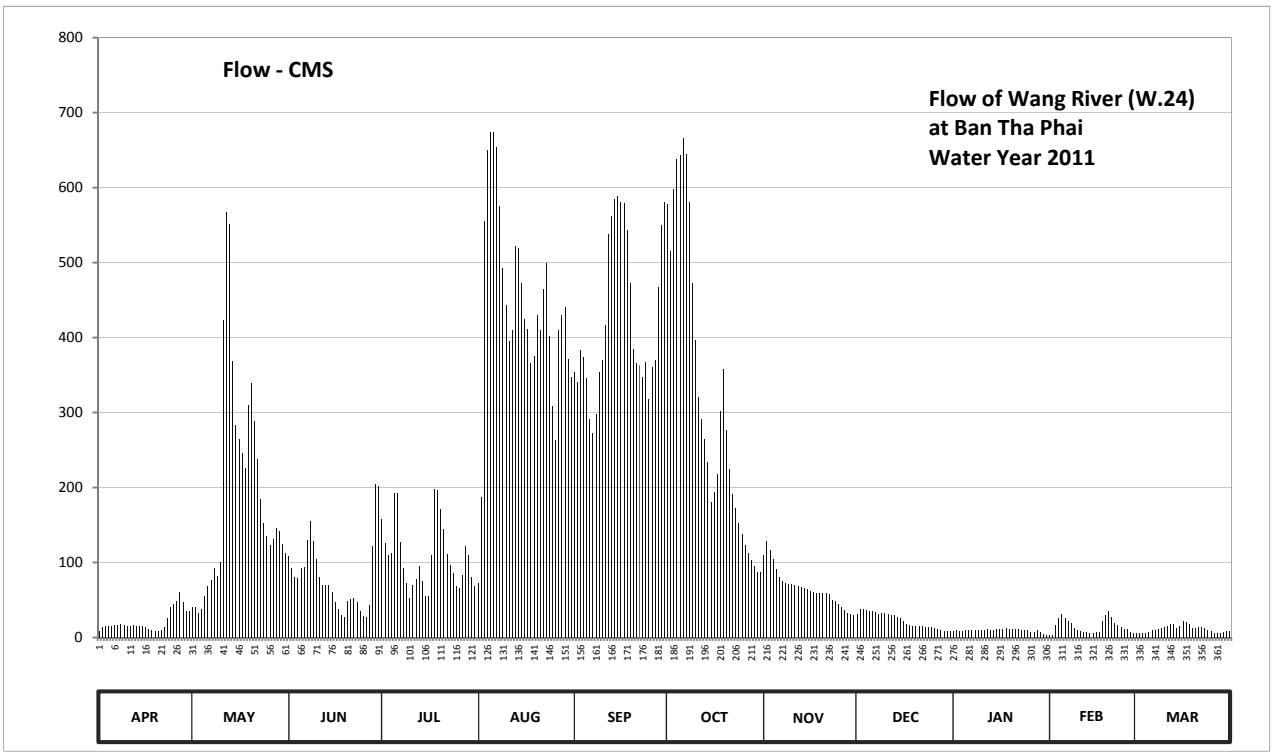
Location : on left bank at Ban Tha Phai

	Ban Tha Phai	**Amphoe** Sam Ngao	**Changwat** Tak
Drainge Area	- sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+135.430 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the gage site.	**Elevation**	+146.049 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings.		
Period of Available Gage Records	2010 to date		
Rating Operation			
Period of Rating	2010 to date		
Rated by Flot	-		
Rated by Current Meter	2010 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	Overbank flow starts at elevation +143.960 m. (MSL.), records are channel flow only.		
General Description	Records good.Stage-discharge relation defined by 24 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	137.12	137.87	138.91	139.56	138.40	141.62	143.59	138.92	137.69	137.12	136.88	136.98	
2	137.28	137.87	138.68	139.15	139.92	141.51	143.06	139.19	137.81	137.13	136.88	136.98	
3	137.33	137.73	138.50	138.92	143.40	141.89	143.76	139.03	137.82	137.12	137.38	136.98	
4	137.34	137.81	138.49	138.97	144.19	141.81	144.09	138.86	137.80	137.12	137.60	136.98	
5	137.33	138.13	138.69	139.99	144.39	141.55	144.14	138.66	137.77	137.13	137.70	137.06	
6	137.38	138.34	138.70	140.00	144.39	141.03	144.32	138.50	137.76	137.14	137.60	137.15	
7	137.38	138.45	139.22	139.17	144.23	140.85	144.15	138.43	137.75	137.15	137.52	137.18	
8	137.41	138.68	139.53	138.68	143.57	141.10	143.62	138.39	137.70	137.16	137.44	137.22	
9	137.38	138.53	139.19	138.40	142.86	141.62	142.68	138.38	137.71	137.16	137.27	137.25	
10	137.35	138.80	138.85	138.07	142.43	141.77	142.01	138.38	137.71	137.17	137.15	137.30	
11	137.36	142.25	138.51	138.35	142.00	142.20	141.32	138.36	137.70	137.18	137.11	137.35	
12	137.39	143.50	138.36	138.47	142.13	143.25	141.03	138.34	137.68	137.19	137.07	137.42	
13	137.36	143.37	138.35	138.71	143.11	143.46	140.77	138.32	137.66	137.18	137.04	137.41	
14	137.33	141.76	138.35	138.43	143.09	143.65	140.45	138.29	137.63	137.17	137.02	137.25	
15	137.32	140.95	138.21	138.13	142.68	143.68	139.85	138.26	137.59	137.21	137.01	137.36	
16	137.28	140.77	137.98	138.13	142.26	143.61	140.02	138.23	137.51	137.22	137.05	137.52	
17	137.21	140.57	137.83	138.93	142.15	143.60	140.28	138.21	137.42	137.23	137.03	137.47	
18	137.15	140.36	137.68	140.06	141.73	143.30	141.14	138.18	137.38	137.24	137.50	137.42	
19	137.11	141.22	137.62	140.04	141.82	142.68	141.66	138.18	137.36	137.23	137.68	137.26	
20	137.11	141.49	138.02	139.72	142.31	141.90	140.88	138.18	137.34	137.23	137.77	137.27	
21	137.15	141.01	138.06	139.40	142.13	141.73	140.35	138.18	137.33	137.22	137.62	137.28	
22	137.31	140.49	138.07	138.94	142.61	141.71	139.98	138.16	137.32	137.20	137.45	137.29	
23	137.60	139.90	137.98	138.73	142.92	141.57	139.75	138.04	137.31	137.18	137.37	137.24	
24	137.87	139.49	137.78	138.58	142.06	141.75	139.49	138.02	137.30	137.18	137.30	137.15	
25	137.93	139.28	137.65	138.34	141.20	141.30	139.31	137.95	137.28	137.13	137.23	137.09	
26	138.00	139.12	137.62	138.30	140.75	141.69	139.11	137.86	137.25	137.06	137.19	137.02	
27	138.22	139.23	137.92	138.54	142.14	141.77	138.96	137.80	137.19	137.03	137.07	136.98	
28	137.99	139.41	139.10	139.09	142.31	142.64	138.84	137.73	137.14	137.16	137.01	136.97	
29	137.77	139.37	140.14	138.93	142.41	143.36	138.72	137.70	137.12	137.07	136.98	137.05	
30	137.78	139.14	140.11	138.50	141.78	143.62	138.61	137.68	137.08	136.92		137.11	
31		138.97		138.33	141.57		138.60		137.12	136.88		137.12	
Mean	137.45	139.80	138.47	138.89	142.35	142.24	141.11	138.28	137.49	137.15	137.27	137.20	
Max	138.22	143.50	140.14	140.06	144.39	143.68	144.32	139.19	137.82	137.24	137.77	137.52	144.39
Min	137.11	137.73	137.62	138.07	138.40	140.85	138.60	137.68	137.08	136.88	136.88	136.97	136.88

Annual Max Momentary Gage Height	144.40	m. (MSL.) ,	at 06.00 Hours , on Oct 23 , 2011		
Zero Gage at Bottom Elevation	135.43	m. (MSL.) ,	River Bed	135.49	m. (MSL)
Left Bank Elevation	143.95	m. (MSL.) ,			
Right Bank Elevation	144.18	m. (MSL.) ,	Drainage Area	Square Kilometers	



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	9.00	40.85	108.70	157.80	73.00	353.20	577.80	109.40	30.95	9.00	3.60	5.60		
2	13.40	40.85	92.60	125.50	186.60	341.10	515.90	128.30	37.55	9.25	3.60	5.60		
3	14.90	33.15	80.00	109.40	555.00	382.90	598.20	117.10	38.10	9.00	16.40	5.60		
4	15.20	37.55	79.30	112.90	649.80	374.10	637.80	105.20	37.00	9.00	26.00	5.60		
5	14.90	55.80	93.30	192.20	673.80	345.50	643.80	91.20	35.35	9.25	31.50	7.50		
6	16.40	69.10	94.00	193.00	673.80	291.00	665.40	80.00	34.80	9.50	26.00	9.75		
7	16.40	76.50	130.60	126.90	654.60	273.00	645.00	75.10	34.25	9.75	22.40	10.50		
8	17.45	92.60	155.40	92.60	575.40	298.00	581.40	72.35	31.50	10.00	18.80	11.60		
9	16.40	82.10	128.30	73.00	492.90	353.20	472.20	71.70	32.05	10.00	13.10	12.50		
10	15.50	101.00	104.50	52.20	443.45	369.70	396.10	71.70	32.05	10.25	9.75	14.00		
11	15.80	422.75	80.70	69.75	395.00	417.00	320.60	70.40	31.50	10.50	8.75	15.50		
12	16.70	567.00	70.40	77.90	409.30	537.75	291.00	69.10	30.40	10.75	7.75	17.90		
13	15.80	551.55	69.75	94.70	521.65	562.20	265.00	67.80	29.30	10.50	7.00	17.45		
14	14.90	368.60	69.75	75.10	519.35	585.00	233.75	65.85	27.65	10.25	6.50	12.50		
15	14.60	283.00	60.65	55.80	472.20	588.60	181.00	63.90	25.55	11.30	6.25	15.80		
16	13.40	265.00	46.90	55.80	423.90	580.20	194.70	61.95	21.95	11.60	7.25	22.40		
17	11.30	245.15	38.65	110.10	411.50	579.00	217.60	60.65	17.90	11.90	6.75	20.15		
18	9.75	225.20	30.40	198.10	365.30	543.50	302.00	58.80	16.40	12.20	21.50	17.90		
19	8.75	310.10	27.10	196.40	375.20	472.20	357.60	58.80	15.80	11.90	30.40	12.80		
20	8.75	338.90	49.20	170.60	429.65	384.00	276.00	58.80	15.20	11.90	35.35	13.10		
21	9.75	289.00	51.60	145.00	409.30	365.30	224.25	58.80	14.90	11.60	27.10	13.40		
22	14.30	237.55	52.20	110.80	464.15	363.10	191.40	57.60	14.60	11.00	19.25	13.70		
23	26.00	185.00	46.90	96.10	499.80	347.70	173.00	50.40	14.30	10.50	16.10	12.20		
24	40.85	152.20	35.90	85.60	401.60	367.50	152.20	49.20	14.00	10.50	14.00	9.75		
25	44.15	135.40	28.75	69.10	308.00	318.50	137.80	45.25	13.40	9.25	11.90	8.25		
26	48.00	123.40	27.10	66.50	263.00	360.90	122.70	40.30	12.50	7.50	10.75	6.50		
27	61.30	131.40	43.60	82.80	410.40	369.70	112.20	37.00	10.75	6.75	7.75	5.60		
28	47.45	145.80	122.00	121.30	429.65	467.60	103.80	33.15	9.50	10.00	6.25	5.40		
29	35.35	142.60	204.90	110.10	441.15	550.40	95.40	31.50	9.00	7.75	5.60	7.25		
30	35.90	124.80	202.35	80.00	370.80	581.40	87.70	30.40	8.00	4.40		8.75		
31		112.90		68.45	347.70		87.00		9.00	3.60		9.00		
Total	642.35	5986.80	2425.50	3375.50	13646.95	12723.25	9860.30	1991.70	705.20	300.65	427.35	353.55	52439.11	CMSDAY
Mean	21.41	193.12	80.85	108.89	440.22	424.11	318.07	66.39	22.75	9.70	14.74	11.40	143.28	CMS
Max	61.30	567.00	204.90	198.10	673.80	588.60	665.40	128.30	38.10	12.20	35.35	22.40	673.80	CMS
Min	8.75	33.15	27.10	52.20	73.00	273.00	87.00	30.40	8.00	3.60	3.60	5.40	3.60	CMS
Runoff	55.50	517.26	209.56	291.64	1179.10	1099.29	851.93	172.08	60.93	25.98	36.92	30.55	4530.74	MCM

Momentary Peak 675.00 CMS. at 144.40 m. (MSL.) at 06.00 Hours , on Oct 23 , 2011

Runoff Yield ***** Liters/Second/Square KM. Momentary Peak Yield ***** Liters/Second/Square KM.

WATER YEAR : 2011

WANG RIVER BASIN

Wang River at Ban Huai Kod , Lampang (W.25)

Lat 19 - 02 - 09 N Long 99 - 37 - 10 E

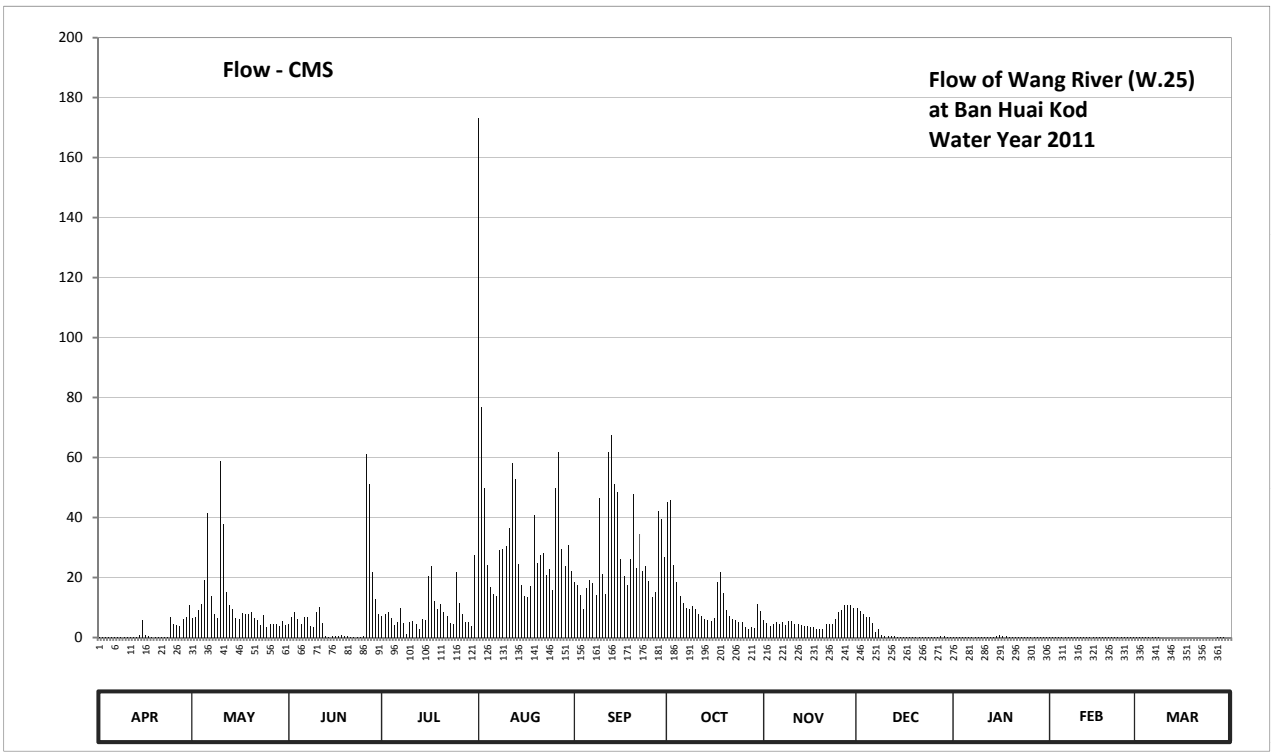
Location : on left bank at Ban Huai Kod.

	Ban Huai Kod	**Amphoe** Wang Nua	**Changwat** Lampang
Drainge Area	762 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+381.903 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank at the approach of the bridge.	**Elevation**	+387.093 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings.		
Period of Available Gage Records	2009 to date		
Rating Operation			
Period of Rating	2009 to date		
Rated by Flot	-		
Rated by Current Meter	2009 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair.Stage-discharge relation defined by 44 discharge measurements made in 2010.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	381.64	382.19	381.98	382.23	384.34	382.60	383.14	382.17	381.89	381.69	381.50	381.48	
2	381.64	382.22	381.95	382.25	383.55	382.57	383.15	382.11	381.88	381.69	381.50	381.48	
3	381.64	382.30	381.93	382.28	383.21	382.47	382.74	382.06	381.87	381.67	381.54	381.48	
4	381.63	382.37	381.96	382.20	382.74	382.32	382.60	382.10	381.86	381.62	381.65	381.48	
5	381.64	382.62	382.09	382.08	382.55	382.54	382.46	382.13	381.86	381.61	381.61	381.48	
6	381.65	383.08	382.21	381.97	382.48	382.62	382.38	382.10	381.84	381.65	381.52	381.49	
7	381.64	382.46	382.21	381.89	382.46	382.59	382.33	382.12	381.81	381.62	381.50	381.48	
8	381.65	382.25	382.06	381.84	382.85	382.47	382.31	382.08	381.82	381.62	381.50	381.48	
9	381.64	382.20	381.99	381.80	382.86	383.16	382.35	382.14	381.79	381.67	381.50	381.47	
10	381.64	383.33	381.93	382.13	382.88	382.67	382.31	382.14	381.75	381.64	381.50	381.46	
11	381.64	383.02	381.91	382.14	383.00	382.48	382.25	382.10	381.73	381.61	381.50	381.46	
12	381.64	382.50	381.84	382.10	383.32	383.37	382.23	382.09	381.75	381.61	381.50	381.46	
13	381.65	382.36	381.73	382.01	383.25	383.44	382.18	382.07	381.73	381.65	381.49	381.46	
14	381.78	382.31	381.69	381.96	382.75	383.23	382.17	382.06	381.68	381.68	381.49	381.47	
15	381.85	382.20	381.74	382.17	382.57	383.19	382.15	382.05	381.67	381.72	381.50	381.47	
16	381.77	382.18	381.74	382.65	382.46	382.79	382.20	382.04	381.69	381.76	381.50	381.47	
17	381.73	382.27	381.74	382.73	382.45	382.65	382.60	382.03	381.68	381.73	381.48	381.46	
18	381.66	382.25	381.79	382.40	382.56	382.57	382.68	382.00	381.65	381.71	381.48	381.46	
19	381.65	382.25	381.74	382.32	383.07	382.79	382.49	382.00	381.69	381.65	381.48	381.46	
20	381.65	382.28	381.74	382.37	382.76	383.18	382.30	382.00	381.68	381.60	381.48	381.46	
21	381.66	382.19	381.69	382.28	382.82	382.72	382.23	381.98	381.69	381.60	381.49	381.47	
22	381.67	382.16	381.68	382.23	382.83	382.96	382.18	381.98	381.68	381.58	381.48	381.47	
23	381.70	382.07	381.65	382.11	382.66	382.69	382.17	381.98	381.67	381.58	381.48	381.46	
24	381.95	381.94	381.67	382.09	382.71	382.73	382.13	381.96	381.66	381.57	381.49	381.46	
25	382.10	382.04	381.72	382.68	382.52	382.61	382.12	381.93	381.66	381.57	381.49	381.46	
26	382.07	382.09	383.36	382.38	383.21	382.45	382.04	381.92	381.67	381.56	381.50	381.46	
27	382.06	382.10	383.23	382.25	383.37	382.50	382.01	381.90	381.70	381.55	381.52	381.50	
28	381.96	382.10	382.68	382.13	382.86	383.09	382.04	381.90	381.73	381.52	381.49	381.52	
29	381.95	382.06	382.43	382.13	382.73	383.05	382.02	381.90	381.73	381.50	381.48	381.51	
30	381.90	382.14	382.25	382.06	382.89	382.81	382.37	381.89	381.69	381.50		381.47	
31		382.07		382.82	382.69		382.29		381.69	381.50		381.47	
Mean	381.75	382.31	382.01	382.22	382.88	382.78	382.34	382.03	381.74	381.62	381.50	381.47	
Max	382.10	383.33	383.36	382.82	384.34	383.44	383.15	382.17	381.89	381.76	381.65	381.52	384.34
Min	381.63	381.94	381.65	381.80	382.45	382.32	382.01	381.89	381.65	381.50	381.48	381.46	381.46

Annual Max Momentary Gage Height	384.75	m. (MSL.) ,	at 09.00 Hours , on Aug 1 , 2011		
Zero Gage at Bottom Elevation	381.90	m. (MSL.) ,	River Bed	380.72	m. (MSL)
Left Bank Elevation	387.24	m. (MSL.) ,			
Right Bank Elevation	387.32	m. (MSL.) ,	Drainage Area	762	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.14	6.31	4.40	7.25	173.30	18.50	45.25	5.95	9.82	0.27	0.02	0.02		
2	0.14	7.00	6.80	7.75	76.75	17.53	45.87	4.83	8.84	0.27	0.02	0.02		
3	0.14	9.00	8.40	8.50	49.75	14.28	24.10	3.91	7.86	0.22	0.03	0.02		
4	0.12	11.10	6.00	6.50	24.10	9.60	18.50	4.65	6.88	0.09	0.17	0.02		
5	0.14	19.30	4.46	4.28	16.87	16.55	13.95	5.20	6.88	0.07	0.07	0.02		
6	0.17	41.50	6.75	5.20	14.60	19.30	11.40	4.65	4.92	0.17	0.02	0.02		
7	0.14	13.95	6.75	9.82	13.95	18.17	9.90	5.02	1.98	0.09	0.02	0.02		
8	0.17	7.75	3.91	4.92	29.00	14.28	9.30	4.28	2.96	0.09	0.02	0.02		
9	0.14	6.50	3.60	1.00	29.50	46.50	10.50	5.39	0.93	0.22	0.02	0.01		
10	0.14	58.75	8.40	5.20	30.50	21.30	9.30	5.39	0.65	0.14	0.02	0.01		
11	0.14	37.75	10.00	5.39	36.50	14.60	7.75	4.65	0.51	0.07	0.02	0.01		
12	0.14	15.25	4.92	4.65	58.00	61.75	7.25	4.46	0.65	0.07	0.02	0.01		
13	0.17	10.80	0.51	2.99	52.75	67.40	6.13	4.10	0.51	0.17	0.02	0.01		
14	0.86	9.30	0.27	6.00	24.50	51.25	5.95	3.91	0.25	0.25	0.02	0.01		
15	5.90	6.50	0.58	5.95	17.53	48.37	5.57	3.72	0.22	0.44	0.02	0.01		
16	0.79	6.13	0.58	20.50	13.95	26.10	6.50	3.54	0.27	0.72	0.02	0.01		
17	0.51	8.25	0.58	23.70	13.63	20.50	18.50	3.35	0.25	0.51	0.02	0.01		
18	0.20	7.75	0.93	12.00	17.20	17.53	21.70	2.80	0.17	0.37	0.02	0.01		
19	0.17	7.75	0.58	9.60	40.88	26.10	14.92	2.80	0.27	0.17	0.02	0.01		
20	0.17	8.50	0.58	11.10	24.90	47.75	9.00	2.80	0.25	0.04	0.02	0.01		
21	0.20	6.31	0.27	8.50	27.50	23.30	7.25	4.40	0.27	0.04	0.02	0.01		
22	0.22	5.76	0.25	7.25	28.00	34.50	6.13	4.40	0.25	0.04	0.02	0.01		
23	0.30	4.10	0.17	4.83	20.90	22.10	5.95	4.40	0.22	0.04	0.02	0.01		
24	6.80	7.60	0.22	4.46	22.90	23.70	5.20	6.00	0.20	0.03	0.02	0.01		
25	4.65	3.54	0.44	21.70	15.90	18.90	5.02	8.40	0.20	0.03	0.02	0.01		
26	4.10	4.46	61.00	11.40	49.75	13.63	3.54	9.20	0.22	0.03	0.02	0.01		
27	3.91	4.65	51.25	7.75	61.75	15.25	2.99	10.80	0.30	0.03	0.02	0.02		
28	6.00	4.65	21.70	5.20	29.50	42.12	3.54	10.80	0.51	0.02	0.02	0.02		
29	6.80	3.91	12.97	5.20	23.70	39.62	3.17	10.80	0.51	0.02	0.02	0.02		
30	10.80	5.39	7.75	3.91	31.00	27.00	11.10	9.82	0.27	0.02		0.01		
31		4.10		27.50	22.10		8.75		0.27	0.02		0.01		
Total	54.27	353.61	235.02	270.00	1091.16	837.48	363.98	164.42	58.29	4.76	0.79	0.42	3434.20	CMSDAY
Mean	1.81	11.41	7.83	8.71	35.20	27.92	11.74	5.48	1.88	0.15	0.03	0.01	9.38	CMS
Max	10.80	58.75	61.00	27.50	173.30	67.40	45.87	10.80	9.82	0.72	0.17	0.02	173.30	CMS
Min	0.12	3.54	0.17	1.00	13.63	9.60	2.99	2.80	0.17	0.02	0.02	0.01	0.01	CMS
Runoff	4.69	30.55	20.31	23.33	94.28	72.36	31.45	14.21	5.04	0.41	0.07	0.04	296.72	MCM

Momentary Peak 239.50 CMS. at 384.75 m. (MSL.) at 09.00 Hours , on Aug 1 , 2011

Runoff Yield 12.31 Liters/Second/Square KM. Momentary Peak Yield 314.304 Liters/Second/Square KM.

WATER YEAR : 2011

WANG RIVER BASIN

Nam Mae Ta at Ban Huai Mae Ta , Lampang (W.26)

Lat 18 - 36 - 26 N Long 99 - 37 - 44 E

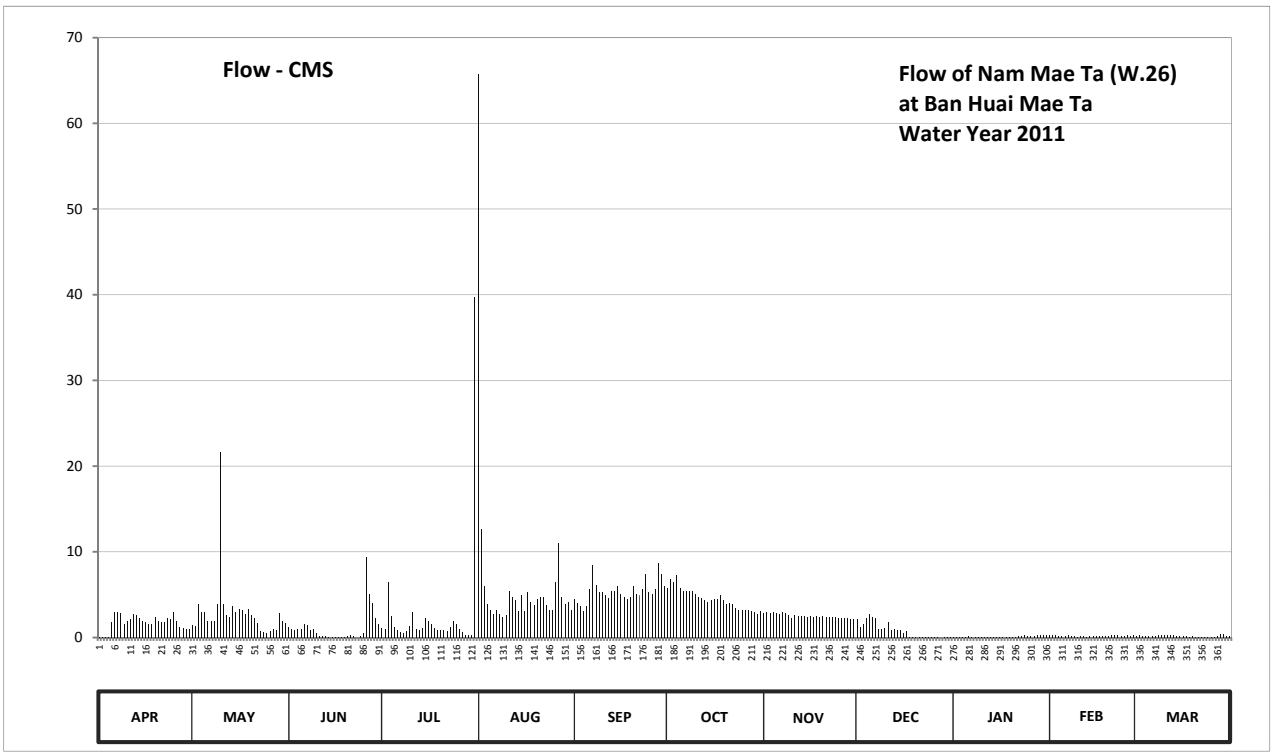
Location : on left bank at Ban Huai Mae Ta.

	Ban Huai Mae Ta	**Amphoe** Chae Hom	**Changwat** Lampang		
Drainge Area	150 sq.km.				
Type of Gage	Water - stage recorder				
Zero Gage at Bottom	+286.470 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On left bank at the approach of the bridge.		**Elevation** +290.173 m. (MSL.)		
Gage Reading Frequency	Recording				
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings.				
Period of Available Gage Records	2011 to date				
Rating Operation					
Period of Rating	2011 to date				
Rated by Flot	-				
Rated by Current Meter	2011 to date				
Stability of Channel Regimes	Fairly stable because of backwater effect.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records fair.Stage-discharge relation defined by 46 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	286.51	286.50	286.46	286.43	288.22	286.79	286.87	286.67	286.60	286.47	286.72	286.71	
2	286.50	286.49	286.41	286.39	287.18	286.76	286.93	286.68	286.45	286.62	286.73	286.72	
3	286.52	286.75	286.34	286.91	286.88	286.73	286.91	286.67	286.53	286.62	286.72	286.69	
4	286.49	286.68	286.38	286.64	286.75	286.69	286.95	286.68	286.61	286.56	286.70	286.70	
5	286.55	286.68	286.41	286.45	286.70	286.73	286.87	286.67	286.66	286.55	286.68	286.68	
6	286.68	286.57	286.53	286.34	286.66	286.86	286.85	286.66	286.63	286.65	286.69	286.71	
7	286.68	286.57	286.51	286.27	286.70	287.01	286.85	286.68	286.61	286.61	286.73	286.67	
8	286.67	286.57	286.37	286.25	286.66	286.89	286.85	286.67	286.41	286.63	286.71	286.72	
9	286.52	286.75	286.39	286.33	286.63	286.84	286.85	286.65	286.39	286.62	286.68	286.76	
10	286.57	287.44	286.25	286.49	286.65	286.84	286.83	286.62	286.44	286.58	286.63	286.76	
11	286.60	286.75	286.10	286.68	286.85	286.82	286.81	286.65	286.55	286.61	286.64	286.76	
12	286.66	286.65	286.06	286.41	286.81	286.80	286.80	286.64	286.35	286.60	286.64	286.76	
13	286.65	286.63	286.06	286.34	286.78	286.85	286.78	286.64	286.38	286.55	286.63	286.76	
14	286.61	286.73	286.05	286.43	286.69	286.85	286.77	286.64	286.35	286.61	286.64	286.70	
15	286.57	286.68	286.04	286.62	286.82	286.88	286.78	286.63	286.35	286.61	286.65	286.67	
16	286.56	286.71	286.03	286.57	286.69	286.83	286.79	286.64	286.23	286.55	286.65	286.68	
17	286.53	286.70	286.04	286.52	286.84	286.81	286.79	286.63	286.30	286.55	286.64	286.65	
18	286.53	286.66	286.03	286.44	286.77	286.79	286.82	286.64	286.48	286.56	286.65	286.63	
19	286.63	286.71	286.05	286.37	286.74	286.81	286.78	286.63	286.60	286.53	286.66	286.64	
20	286.58	286.65	286.10	286.36	286.79	286.88	286.75	286.64	286.59	286.46	286.69	286.62	
21	286.55	286.62	286.13	286.34	286.81	286.83	286.76	286.63	286.58	286.51	286.74	286.59	
22	286.55	286.54	286.06	286.30	286.81	286.82	286.75	286.63	286.57	286.65	286.74	286.58	
23	286.62	286.31	286.00	286.46	286.74	286.86	286.72	286.63	286.57	286.69	286.76	286.57	
24	286.60	286.27	286.09	286.57	286.70	286.96	286.70	286.63	286.52	286.74	286.71	286.56	
25	286.68	286.24	286.23	286.52	286.70	286.84	286.70	286.61	286.61	286.71	286.70	286.57	
26	286.57	286.32	287.05	286.38	286.91	286.83	286.70	286.62	286.63	286.71	286.72	286.58	
27	286.46	286.38	286.83	286.27	287.12	286.86	286.70	286.61	286.61	286.71	286.70	286.65	
28	286.42	286.37	286.76	286.13	286.81	287.02	286.69	286.61	286.40	286.74	286.72	286.78	
29	286.41	286.67	286.62	286.16	286.75	286.96	286.68	286.60	286.57	286.74	286.66	286.78	
30	286.39	286.58	286.53	286.13	286.77	286.88	286.66	286.60	286.57	286.73		286.68	
31		286.54		287.83	286.70		286.69		286.50	286.74		286.65	
Mean	286.56	286.60	286.30	286.46	286.83	286.84	286.79	286.64	286.50	286.62	286.69	286.68	
Max	286.68	287.44	287.05	287.83	288.22	287.02	286.95	286.68	286.66	286.74	286.76	286.78	288.22
Min	286.39	286.24	286.00	286.13	286.63	286.69	286.66	286.60	286.23	286.46	286.63	286.56	286.00

Annual Max Momentary Gage Height	289.49	m. (MSL.) ,	at 22.00 Hours , on Jul 31 , 2011		
Zero Gage at Bottom Elevation	286.47	m. (MSL.) ,	River Bed	284.68	m. (MSL)
Left Bank Elevation	291.23	m. (MSL.) ,			
Right Bank Elevation	291.26	m. (MSL.) ,	Drainage Area	150	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.02	1.40	1.24	1.12	65.80	4.46	5.79	2.87	2.10	0.01	0.24	0.22		
2	0.02	1.36	1.04	0.97	12.66	4.04	6.87	2.98	1.20	0.09	0.26	0.24		
3	0.03	3.90	0.82	6.49	5.96	3.62	6.49	2.87	1.61	0.09	0.24	0.19		
4	0.02	2.98	0.94	2.54	3.90	3.09	7.25	2.98	2.21	0.04	0.20	0.20		
5	1.75	2.98	1.04	1.20	3.20	3.62	5.79	2.87	2.76	0.04	0.17	0.17		
6	2.98	1.89	1.61	0.82	2.76	5.62	5.45	2.76	2.43	0.13	0.19	0.22		
7	2.98	1.89	1.47	0.61	3.20	8.43	5.45	2.98	2.21	0.07	0.26	0.16		
8	2.87	1.89	0.91	0.55	2.76	6.13	5.45	2.87	1.04	0.10	0.22	0.24		
9	1.54	3.90	0.97	0.79	2.43	5.28	5.45	2.65	0.97	0.09	0.17	0.32		
10	1.89	21.60	0.55	1.36	2.65	5.28	5.11	2.32	1.16	0.05	0.10	0.32		
11	2.10	3.90	0.20	2.98	5.45	4.94	4.77	2.65	1.75	0.07	0.12	0.32		
12	2.76	2.65	0.12	1.04	4.77	4.60	4.60	2.54	0.85	0.06	0.12	0.32		
13	2.65	2.43	0.12	0.82	4.32	5.45	4.32	2.54	0.94	0.04	0.10	0.32		
14	2.21	3.62	0.10	1.12	3.09	5.45	4.18	2.54	0.85	0.07	0.12	0.20		
15	1.89	2.98	0.08	2.32	4.94	5.96	4.32	2.43	0.85	0.07	0.13	0.16		
16	1.82	3.34	0.06	1.89	3.09	5.11	4.46	2.54	0.49	0.04	0.13	0.17		
17	1.61	3.20	0.08	1.54	5.28	4.77	4.46	2.43	0.70	0.04	0.12	0.13		
18	1.61	2.76	0.06	1.16	4.18	4.46	4.94	2.54	0.02	0.04	0.13	0.10		
19	2.43	3.34	0.10	0.91	3.76	4.77	4.32	2.43	0.06	0.03	0.14	0.12		
20	1.96	2.65	0.20	0.88	4.46	5.96	3.90	2.54	0.06	0.01	0.19	0.09		
21	1.75	2.32	0.26	0.82	4.77	5.11	4.04	2.43	0.05	0.02	0.28	0.06		
22	1.75	1.68	0.12	0.70	4.77	4.94	3.90	2.43	0.05	0.13	0.28	0.05		
23	2.32	0.73	0.00	1.24	3.76	5.62	3.48	2.43	0.05	0.19	0.32	0.05		
24	2.10	0.61	0.18	1.89	3.20	7.44	3.20	2.43	0.03	0.28	0.22	0.04		
25	2.98	0.52	0.49	1.54	3.20	5.28	3.20	2.21	0.07	0.22	0.20	0.05		
26	1.89	0.76	9.35	0.94	6.49	5.11	3.20	2.32	0.10	0.22	0.24	0.05		
27	1.24	0.94	5.11	0.61	11.04	5.62	3.20	2.21	0.07	0.22	0.20	0.13		
28	1.08	0.91	4.04	0.26	4.77	8.66	3.09	2.21	0.00	0.28	0.24	0.36		
29	1.04	2.87	2.32	0.32	3.90	7.44	2.98	2.10	0.05	0.28	0.14	0.36		
30	0.97	1.96	1.61	0.26	4.18	5.96	2.76	2.10	0.05	0.26		0.17		
31		1.68		39.72	3.20		3.09		0.02	0.28		0.13		
Total	52.26	89.64	35.19	79.41	201.94	162.22	139.51	76.20	24.80	3.56	5.47	5.66	875.86	CMSDAY
Mean	1.74	2.89	1.17	2.56	6.51	5.41	4.50	2.54	0.80	0.11	0.19	0.18	2.39	CMS
Max	2.98	21.60	9.35	39.72	65.80	8.66	7.25	2.98	2.76	0.28	0.32	0.36	65.80	CMS
Min	0.02	0.52	0.00	0.26	2.43	3.09	2.76	2.10	0.00	0.01	0.10	0.04	0.00	CMS
Runoff	4.52	7.75	3.04	6.86	17.45	14.02	12.05	6.58	2.14	0.31	0.47	0.49	75.67	MCM

Momentary Peak 224.40 CMS. at 289.49 m. (MSL.) at 22.00 Hours , on Jul 31 , 2011

Runoff Yield 15.95 Liters/Second/Square KM. Momentary Peak Yield 1496.000 Liters/Second/Square KM.

WATER YEAR : 2011

YOM RIVER BASIN

Yom River at Ban Nam Khong , Phrae (Y.1C)

Lat 18 - 07 - 57 N Long 100 - 07 - 42 E

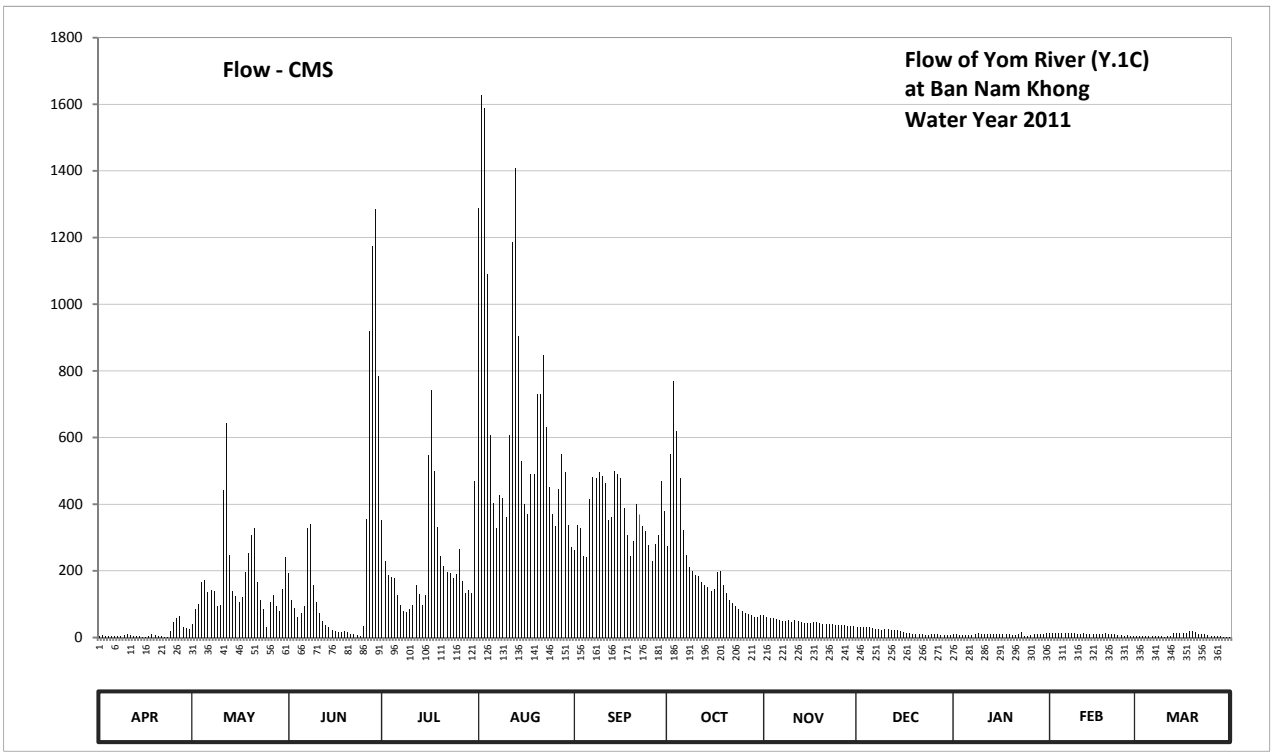
Location : on right bank about 5 meters downstream from Phathana Phak Nua 8 Bridge.

	Ban Nam Khong	**Amphoe** Mueang	**Changwat** Phrae
Drainge Area	7,749 sq.km.		
Type of Gage	Water - stage recorder.		
Zero Gage at Bottom	+143.500 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	In front of the station office	**Elevation**	+153.972 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	1979 to date		
Rating Operation			
Period of Rating	1979 to date		
Rated by Flot	-		
Rated by Current Meter	1979 to date		
Stability of Channel Regimes	Fairly stable because of backwater effect.		
Overbank Flow Conditions	Overbank flow starts at elevation +153.860 m.(MSL.), records are channel flow only.		
General Description	Records good. Mae yom weir situated about 76 kilometers above gage site. Stage-discharge relation defined by 76 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	144.27	144.78	146.06	147.33	152.84	146.61	146.71	144.79	144.37	144.09	144.43	144.24	
2	144.30	145.01	145.27	146.36	153.78	147.22	148.77	144.71	144.37	144.08	144.43	144.23	
3	144.27	145.14	145.02	145.99	153.69	147.15	150.23	144.70	144.37	144.05	144.44	144.23	
4	144.26	145.80	144.89	145.95	152.09	146.47	149.24	144.68	144.37	144.04	144.44	144.23	
5	144.25	145.87	144.95	145.91	149.15	146.45	148.26	144.65	144.35	144.05	144.44	144.26	
6	144.25	145.51	145.08	145.41	147.73	147.81	147.09	144.64	144.33	144.05	144.44	144.26	
7	144.28	145.56	147.16	145.12	147.15	148.27	146.50	144.61	144.30	144.05	144.45	144.25	
8	144.26	145.53	147.24	144.94	147.90	148.25	146.20	144.60	144.28	144.08	144.44	144.25	
9	144.35	145.10	145.74	144.89	147.84	148.39	146.09	144.62	144.26	144.11	144.43	144.25	
10	144.41	145.11	145.22	145.00	147.41	148.31	146.00	144.57	144.28	144.09	144.42	144.20	
11	144.31	148.01	144.95	145.12	149.16	148.16	145.96	144.64	144.28	144.07	144.42	144.25	
12	144.26	149.40	144.83	145.72	152.48	147.33	145.80	144.59	144.26	144.08	144.43	144.27	
13	144.24	146.49	144.76	145.46	153.21	147.42	145.71	144.54	144.25	144.08	144.42	144.45	
14	144.23	145.54	144.69	145.12	151.08	148.41	145.67	144.52	144.25	144.09	144.41	144.46	
15	144.22	145.40	144.60	145.41	148.62	148.35	145.54	144.51	144.23	144.10	144.38	144.45	
16	144.22	145.21	144.54	148.75	147.71	148.26	145.61	144.52	144.17	144.10	144.40	144.45	
17	144.28	145.35	144.52	150.05	147.49	147.61	146.07	144.56	144.12	144.07	144.41	144.44	
18	144.38	146.08	144.50	148.41	148.35	146.99	146.09	144.56	144.11	144.08	144.39	144.54	
19	144.35	146.56	144.55	147.17	148.35	146.47	145.74	144.51	144.10	144.07	144.47	144.56	
20	144.28	146.99	144.49	146.47	149.99	146.83	145.48	144.48	144.08	144.05	144.40	144.53	
21	144.25	147.14	144.40	146.23	149.99	147.70	145.28	144.47	144.07	144.05	144.40	144.42	
22	144.19	145.80	144.38	146.07	150.73	147.47	145.17	144.47	144.07	144.07	144.39	144.39	
23	144.16	145.28	144.33	146.04	149.33	147.19	145.09	144.48	144.05	144.19	144.36	144.37	
24	144.56	145.01	144.28	145.92	148.07	147.08	144.99	144.45	144.05	144.27	144.31	144.30	
25	144.82	144.69	144.40	146.02	147.49	146.75	144.92	144.44	144.06	144.29	144.27	144.29	
26	144.87	145.21	147.37	146.64	147.19	146.34	144.85	144.44	144.07	144.36	144.31	144.26	
27	144.90	145.41	151.19	145.85	148.03	146.77	144.81	144.43	144.06	144.41	144.29	144.25	
28	144.69	145.08	152.43	145.48	148.76	146.99	144.80	144.41	144.05	144.39	144.29	144.24	
29	144.67	144.97	152.83	145.56	148.39	148.19	144.74	144.41	144.03	144.42	144.24	144.21	
30	144.64	145.61	150.33	145.48	147.23	147.56	144.74	144.41	144.04	144.42		144.21	
31		146.44		148.20	146.70		144.78		144.03	144.43		144.20	
Mean	144.38	145.78	145.97	146.20	149.29	147.43	146.03	144.55	144.18	144.15	144.39	144.32	
Max	144.90	149.40	152.83	150.05	153.78	148.41	150.23	144.79	144.37	144.43	144.47	144.56	153.78
Min	144.16	144.69	144.28	144.89	146.70	146.34	144.74	144.41	144.03	144.04	144.24	144.20	144.03

Annual Max Momentary Gage Height	154.02	m. (MSL.) ,	at 21.00 Hours , on Aug 2 , 2011		
Zero Gage at Bottom Elevation	143.50	m. (MSL.) ,	River Bed	141.03	m. (MSL)
Left Bank Elevation	153.85	m. (MSL.) ,			
Right Bank Elevation	153.85	m. (MSL.) ,	Drainage Area	7749	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	4.80	40.00	194.90	351.25	1288.00	261.25	273.75	67.10	31.60	10.85	11.80	3.60		
2	6.00	86.95	112.00	230.20	1626.50	337.50	550.65	59.90	31.60	10.20	11.80	3.20		
3	4.80	99.30	87.90	186.85	1588.25	328.75	768.65	59.00	31.60	8.25	12.40	3.20		
4	4.40	165.00	61.80	182.25	1090.25	243.75	619.00	57.20	31.60	7.60	12.40	3.20		
5	4.00	173.05	75.00	177.65	605.75	241.25	478.40	54.50	30.00	8.25	12.40	4.40		
6	4.00	136.00	93.60	126.00	404.20	415.40	321.25	53.60	28.40	8.25	12.40	4.40		
7	5.20	141.00	330.00	97.40	328.75	479.80	247.50	50.90	26.00	8.25	13.00	4.00		
8	4.40	138.00	340.00	80.60	428.00	477.00	211.00	50.00	24.40	10.20	12.40	4.00		
9	8.00	95.50	159.00	76.10	419.60	496.60	198.35	51.80	22.80	12.15	11.80	4.00		
10	10.60	96.45	107.00	86.00	361.30	485.40	188.00	47.60	24.40	10.85	11.20	2.00		
11	6.40	443.40	75.00	97.40	607.20	464.40	183.40	53.60	24.40	9.55	11.20	4.00		
12	4.40	643.00	48.60	157.00	1186.20	351.25	165.00	49.20	22.80	10.20	11.80	4.80		
13	3.60	246.25	38.00	131.00	1408.50	362.60	156.00	45.20	22.00	10.20	11.20	13.00		
14	3.20	139.00	31.00	97.40	902.80	499.40	152.00	43.60	22.00	10.85	10.60	13.60		
15	2.80	125.00	22.00	126.00	528.90	491.00	139.00	42.80	20.40	11.50	9.20	13.00		
16	2.80	106.00	18.40	547.75	401.40	478.40	146.00	43.60	16.05	11.50	10.00	13.00		
17	5.20	120.00	17.20	740.75	371.70	387.40	196.05	46.80	12.80	9.55	10.60	12.40		
18	9.20	197.20	16.00	499.40	491.00	308.75	198.35	46.80	12.15	10.20	9.60	18.40		
19	8.00	255.00	19.00	331.25	491.00	243.75	159.00	42.80	11.50	9.55	14.20	19.60		
20	5.20	308.75	15.40	243.75	731.50	288.75	133.00	40.40	10.20	8.25	10.00	17.80		
21	4.00	327.50	10.00	214.60	731.50	400.00	113.00	39.60	9.55	8.25	10.00	11.20		
22	1.95	165.00	9.20	196.05	846.80	369.10	102.15	39.60	9.55	9.55	9.60	9.60		
23	1.80	113.00	7.20	192.60	632.50	333.75	94.55	40.40	8.25	17.35	8.40	8.80		
24	19.60	86.95	5.20	178.80	451.80	320.00	85.10	38.00	8.25	4.80	6.40	6.00		
25	46.40	31.00	34.00	190.30	371.70	278.75	78.80	37.20	8.90	5.60	4.80	5.60		
26	57.40	106.00	356.25	265.00	333.75	227.80	72.50	37.20	9.55	8.40	6.40	4.40		
27	64.00	126.00	920.40	170.75	446.20	281.25	68.90	36.40	8.90	10.60	5.60	4.00		
28	31.00	93.60	1172.95	133.00	549.20	308.75	68.00	34.80	8.25	9.60	5.60	3.60		
29	29.00	79.40	1284.75	141.00	496.60	468.60	62.60	34.80	6.95	11.20	3.60	2.40		
30	26.00	146.00	784.15	133.00	338.75	380.80	62.60	34.80	7.60	11.20		2.40		
31		240.00		470.00	272.50		66.20		6.95	11.80		2.00		
Total	388.15	5269.30	6445.90	6851.10	20732.10	11011.20	6358.75	1379.20	549.40	304.55	290.40	225.60	59805.65	CMSDAY
Mean	12.94	169.98	214.86	221.00	668.78	367.04	205.12	45.97	17.72	9.82	10.01	7.28	163.40	CMS
Max	64.00	643.00	1284.75	740.75	1626.50	499.40	768.65	67.10	31.60	17.35	14.20	19.60	1626.50	CMS
Min	1.80	31.00	5.20	76.10	272.50	227.80	62.60	34.80	6.95	4.80	3.60	2.00	1.80	CMS
Runoff	33.54	455.27	556.93	591.94	1791.25	951.37	549.40	119.16	47.47	26.31	25.09	19.49	5167.21	MCM

Momentary Peak 1729.00 CMS. at 154.02 m. (MSL.) at 21.00 Hours , on Aug 2 , 2011

Runoff Yield 21.09 Liters/Second/Square KM. Momentary Peak Yield 223.126 Liters/Second/Square KM.

WATER YEAR : 2011

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.

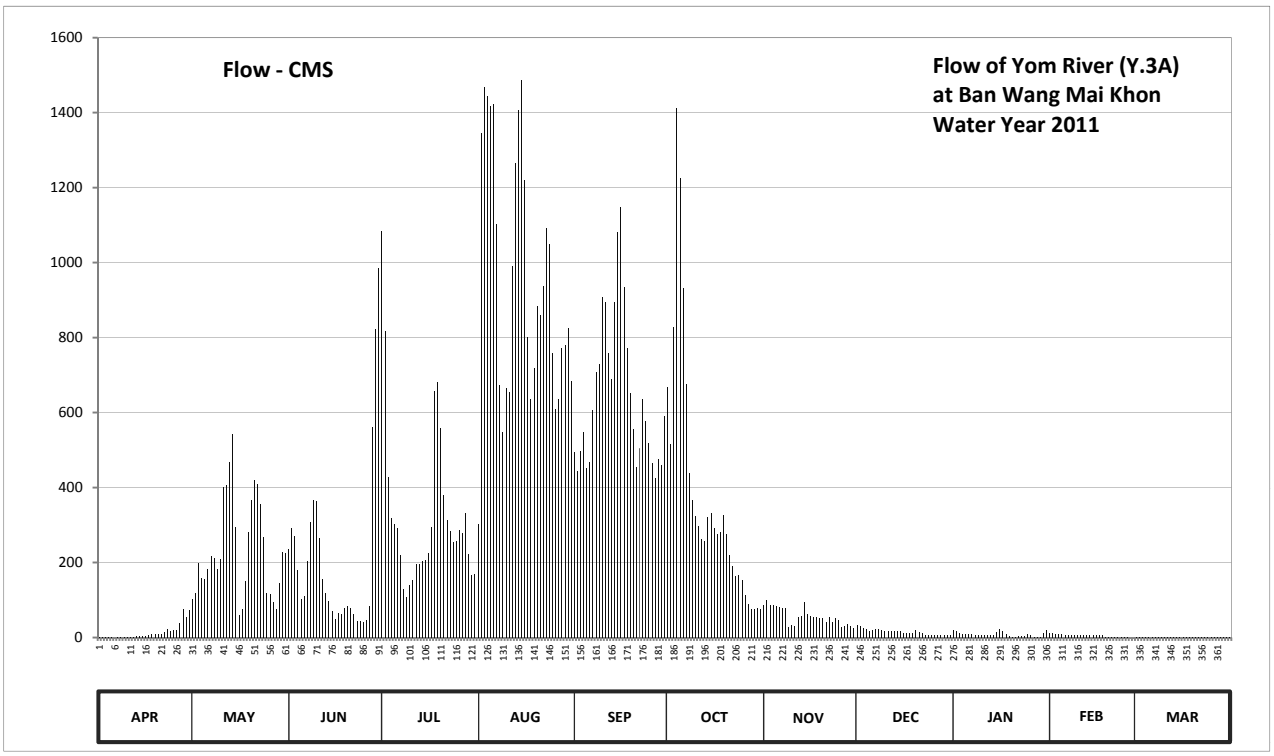
Ban Wang Mai Khon **Amphoe** Sawankhalok **Changwat** Sukhothai

Drainge Area	13,331 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+51.000 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	In front of automatic gage building. **Elevation** +65.350 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings
Period of Available Gage Records	1967 to date
Rating Operation	
Period of Rating	1967 to date
Rated by Flot	-
Rated by Current Meter	1967 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Stage-discharge relation defined by 22 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	50.63	52.78	54.35	60.69	55.00	56.71	58.01	52.57	51.64	51.39	51.16	50.71	
2	50.60	52.99	54.89	59.08	61.57	56.27	56.87	52.76	51.61	51.31	51.15	50.71	
3	50.39	53.93	54.70	56.15	61.82	56.73	59.15	52.55	51.49	51.20	51.08	50.70	
4	50.31	53.50	53.74	55.16	61.78	57.11	61.72	52.53	51.43	51.10	50.99	50.70	
5	50.29	53.46	52.78	55.01	61.73	56.35	61.24	52.51	51.31	51.04	50.99	50.68	
6	50.23	53.77	52.91	54.91	61.74	56.47	59.84	52.47	51.40	50.99	50.96	50.68	
7	50.38	54.15	53.99	54.19	60.43	57.58	58.07	52.42	51.41	50.99	50.92	50.67	
8	50.64	54.10	55.06	53.12	58.04	58.29	56.23	52.42	51.41	50.98	50.92	50.58	
9	50.63	53.75	55.62	52.87	57.13	58.44	55.61	51.54	51.39	50.97	50.92	50.39	
10	50.55	54.05	55.60	53.27	58.00	59.67	55.22	51.66	51.30	50.97	50.91	50.34	
11	50.55	55.93	54.63	53.44	57.92	59.59	54.95	51.63	51.33	50.96	50.91	50.33	
12	50.56	55.96	53.47	53.91	60.22	58.66	54.61	52.09	51.31	50.91	50.91	50.33	
13	50.75	56.48	52.99	53.92	61.36	58.16	54.54	52.14	51.30	50.88	50.91	50.60	
14	50.77	57.07	52.72	54.01	61.71	59.59	55.19	52.66	51.29	50.88	50.91	50.33	
15	50.80	54.93	52.34	54.02	61.85	60.58	55.30	52.22	51.29	51.21	50.90	50.33	
16	50.82	52.17	52.00	54.22	61.22	60.49	54.90	52.14	51.19	51.46	50.90	50.33	
17	50.88	52.41	52.25	54.92	58.96	59.85	54.74	52.10	51.19	51.30	50.89	50.33	
18	51.05	53.40	52.19	57.93	57.78	58.75	54.79	52.09	51.19	50.99	50.88	50.33	
19	51.05	54.80	52.43	58.11	58.37	57.90	55.25	52.05	51.18	50.85	50.73	50.33	
20	51.09	55.61	52.50	57.21	59.52	57.18	54.73	52.03	51.35	50.70	50.38	50.33	
21	51.06	56.08	52.43	55.75	59.35	56.37	54.17	51.82	51.26	50.71	50.37	50.33	
22	51.24	56.00	52.20	55.12	59.88	56.79	53.86	52.08	51.14	50.74	50.35	50.37	
23	51.42	55.53	51.85	54.81	60.57	57.78	53.57	51.81	50.96	50.74	50.33	50.66	
24	51.28	54.67	51.85	54.53	60.36	57.34	53.59	52.01	50.95	50.76	50.31	50.68	
25	51.35	52.99	51.84	54.54	58.65	56.89	53.43	51.93	50.95	50.99	50.30	50.67	
26	51.38	52.96	51.95	54.84	57.60	56.46	52.93	51.54	50.95	50.87	50.28	50.66	
27	51.77	52.67	52.51	54.78	57.78	56.12	52.59	51.59	50.95	50.73	50.26	50.65	
28	52.40	52.41	57.22	55.29	58.76	56.54	52.41	51.72	50.95	50.73	50.24	50.65	
29	52.06	53.34	59.10	54.21	58.81	56.42	52.38	51.59	50.95	50.73	50.60	50.67	
30	52.35	54.26	60.19	53.59	59.13	57.44	52.43	51.49	50.94	51.20		50.65	
31		54.22		53.62	58.12		52.38		50.91	51.36		50.64	
Mean	50.98	54.21	53.74	55.07	59.52	57.75	55.31	52.07	51.22	50.99	50.74	50.53	
Max	52.40	57.07	60.19	60.69	61.85	60.58	61.72	52.76	51.64	51.46	51.16	50.71	61.85
Min	50.23	52.17	51.84	52.87	55.00	56.12	52.38	51.49	50.91	50.70	50.24	50.33	50.23

Annual Max Momentary Gage Height	61.89	m. (MSL.) ,	at 12.00 Hours , on Aug 15 , 2011		
Zero Gage at Bottom Elevation	51.00	m. (MSL.) ,	River Bed	48.76	m. (MSL)
Left Bank Elevation	62.98	m. (MSL.) ,			
Right Bank Elevation	66.66	m. (MSL.) ,	Drainage Area	13331	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.30	102.60	237.00	1082.80	302.00	495.20	667.40	87.90	32.00	20.60	11.80	2.20		
2	1.00	118.20	291.00	818.00	1346.40	442.40	515.10	101.20	30.50	17.40	11.50	2.20		
3	0.50	197.70	272.00	428.00	1467.40	497.60	828.50	86.50	24.60	13.00	9.60	2.00		
4	0.30	159.00	180.60	318.00	1444.40	546.30	1412.60	85.10	22.20	10.00	7.80	2.00		
5	0.20	155.80	102.60	303.00	1417.90	452.00	1226.20	83.70	17.40	8.80	7.80	1.80		
6	0.10	183.30	111.80	293.00	1423.20	466.40	932.00	80.90	21.00	7.80	7.20	1.80		
7	0.50	217.50	203.10	221.10	1103.50	607.40	675.80	77.40	21.40	7.80	6.40	1.70		
8	1.40	213.00	308.00	128.60	671.60	706.60	437.60	77.40	21.40	7.60	6.40	1.00		
9	1.30	181.50	366.20	108.90	548.90	727.60	365.10	27.00	20.60	7.40	6.40	0.50		
10	0.90	208.50	364.00	140.60	666.00	906.50	324.00	33.00	17.00	7.40	6.20	0.40		
11	0.90	401.60	265.00	154.20	654.80	894.50	297.00	31.50	18.20	7.20	6.20	0.30		
12	0.90	405.20	156.60	195.90	990.40	758.40	263.00	55.40	17.40	6.20	6.20	0.30		
13	3.00	467.60	118.20	196.80	1266.40	688.40	256.00	58.40	17.00	5.60	6.20	1.00		
14	3.40	541.10	98.40	204.90	1407.30	894.50	321.00	94.20	16.60	5.60	6.20	0.30		
15	4.00	295.00	71.80	205.80	1486.00	1081.80	332.00	63.40	16.60	13.40	6.00	0.30		
16	4.40	60.20	50.00	224.00	1219.60	1149.40	292.00	58.40	12.70	23.40	6.00	0.30		
17	5.60	76.70	65.50	294.00	800.40	933.50	276.00	56.00	12.70	17.00	5.80	0.30		
18	9.00	151.00	61.40	656.20	635.20	771.00	281.00	55.40	12.70	7.80	5.60	0.30		
19	9.00	282.00	78.10	681.40	717.80	652.00	327.00	53.00	12.40	5.00	2.60	0.30		
20	9.80	365.10	83.00	559.30	884.00	555.40	275.00	51.80	19.00	2.00	0.50	0.30		
21	9.20	419.60	78.10	380.50	858.50	454.40	219.30	41.00	15.40	2.20	0.40	0.30		
22	14.60	410.00	62.00	314.00	938.00	504.80	191.40	54.80	11.20	2.80	0.40	0.40		
23	21.80	356.30	42.50	283.00	1091.20	635.20	165.30	40.50	7.20	2.80	0.30	1.60		
24	16.20	269.00	42.50	255.00	1049.90	576.20	167.10	50.60	7.00	3.20	0.30	1.80		
25	19.00	118.20	42.00	256.00	757.00	517.70	153.40	46.50	7.00	7.80	0.20	1.70		
26	20.20	115.80	47.50	286.00	610.00	465.20	113.40	27.00	7.00	5.40	0.20	1.60		
27	38.50	94.90	83.70	280.00	635.20	424.40	89.30	29.50	7.00	2.60	0.10	1.50		
28	76.00	76.70	560.60	331.00	772.40	474.80	76.70	36.00	7.00	2.60	0.10	1.50		
29	53.60	146.20	821.00	223.00	779.40	460.40	74.60	29.50	7.00	2.60	1.00	1.70		
30	72.50	228.00	985.40	167.10	825.50	589.20	78.10	24.60	6.80	13.00		1.50		
31		224.00		169.80	682.80		74.60		6.20	19.40		1.40		
Total	399.10	7241.30	6249.60	10159.90	29453.10	19329.20	11707.50	1697.60	472.20	265.40	135.40	34.30	87144.60	CMSDAY
Mean	13.30	233.60	208.30	327.70	950.10	644.30	377.70	56.60	15.20	8.60	4.70	1.10	238.10	CMS
Max	76.00	541.10	985.40	1082.80	1486.00	1149.40	1412.60	101.20	32.00	23.40	11.80	2.20	1486.00	CMS
Min	0.10	60.20	42.00	108.90	302.00	424.40	74.60	24.60	6.20	2.00	0.10	0.30	0.10	CMS
Runoff	34.48	625.65	539.97	877.82	2544.75	1670.04	1011.53	146.67	40.80	22.93	11.70	2.96	7529.29	MCM

Momentary Peak 1510.80 CMS. at 61.89 m. (MSL.) at 12.00 Hours , on Aug 15 , 2011

Runoff Yield 17.86 Liters/Second/Square KM. Momentary Peak Yield 113.330 Liters/Second/Square KM.

WATER YEAR : 2011

YOM RIVER BASIN

Yom River at Ban Kaeng Luang , Sukhothai (Y.6)

Lat 17 - 26 - 05 N Long 99 - 47 - 30 E

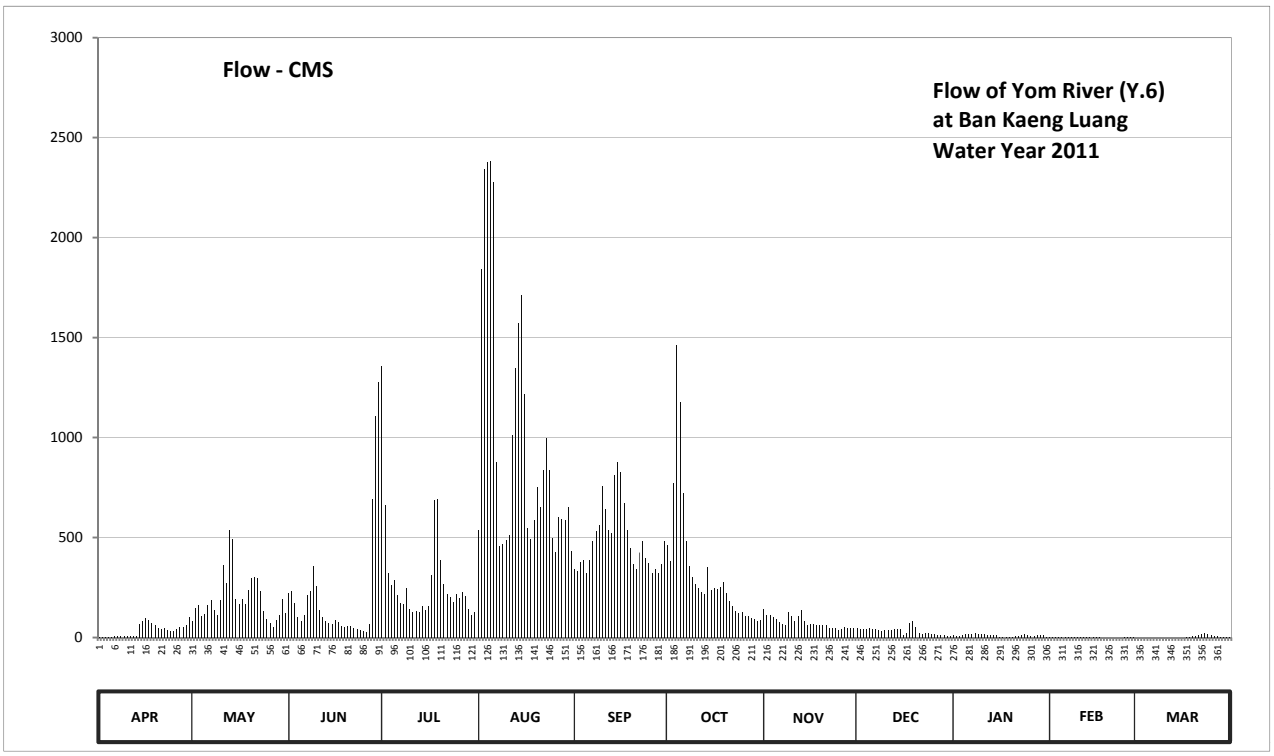
Location : on left bank about 150 meters upstream from Kaeng Luang.

	Ban Kaeng Luang	**Amphoe** Si Satchanalai	**Changwat** Sukhothai
Drainge Area	12,769 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+59.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	Near automatic gage building	**Elevation**	+68.928 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	1952 to date		
Rating Operation			
Period of Rating	1952 to date		
Rated by Flot	-		
Rated by Current Meter	1952 to date		
Stability of Channel Regimes	Stable because of backwater effect.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 18 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	60.15	61.43	62.51	66.59	63.99	63.14	63.68	62.00	60.92	61.05	60.50	59.62	
2	60.27	62.03	62.56	64.50	67.68	63.11	63.34	61.74	60.83	61.01	60.35	59.49	
3	60.45	62.13	62.20	63.04	68.66	63.31	64.88	61.76	60.84	60.99	60.18	59.44	
4	60.62	61.70	61.65	62.75	68.73	63.36	66.84	61.67	60.83	61.04	60.10	59.40	
5	60.75	61.79	61.46	62.87	68.74	63.04	66.12	61.55	60.92	61.19	60.06	59.37	
6	60.86	62.12	61.72	62.46	68.54	63.36	64.71	61.40	60.89	61.23	60.06	59.35	
7	60.88	62.29	62.46	62.18	65.22	63.76	63.76	61.27	60.84	61.24	59.97	59.35	
8	60.87	61.94	62.57	62.16	63.67	63.98	63.22	61.21	60.78	61.27	59.99	59.36	
9	60.86	61.73	63.23	62.67	63.70	64.11	62.94	61.86	60.71	61.24	60.05	59.35	
10	60.86	62.29	62.70	61.96	63.80	64.83	62.77	61.69	60.75	61.22	60.06	59.37	
11	60.88	63.25	61.94	61.88	63.90	64.41	62.66	61.46	60.79	61.22	60.06	59.37	
12	60.83	62.80	61.65	61.90	65.64	64.00	62.53	61.69	60.79	61.14	60.05	59.31	
13	60.98	63.99	61.47	61.87	66.57	63.93	62.47	61.95	60.81	61.18	60.04	59.24	
14	61.25	63.82	61.32	62.10	67.09	65.02	63.20	61.44	60.81	61.15	60.01	59.42	
15	61.44	62.32	61.25	61.94	67.41	65.23	62.60	61.22	60.84	61.05	59.96	59.34	
16	61.59	62.17	61.52	62.09	66.22	65.07	62.65	61.27	61.08	60.65	59.88	59.38	
17	61.49	62.32	61.39	63.01	64.05	64.53	62.61	61.23	61.27	60.26	59.77	59.96	
18	61.31	62.16	61.09	64.59	63.82	63.99	62.69	61.21	61.39	60.16	59.66	60.37	
19	61.19	62.59	61.02	64.61	64.20	63.62	62.82	61.20	61.45	60.30	59.58	60.78	
20	60.97	62.92	61.10	63.36	64.82	63.26	62.51	61.15	61.35	60.58	59.54	61.03	
21	60.89	62.96	61.08	62.76	64.46	63.16	62.25	61.17	61.27	60.80	59.51	61.12	
22	60.99	62.92	60.95	62.47	65.10	63.52	62.07	60.93	61.24	61.00	59.53	61.24	
23	60.75	62.57	60.86	62.38	65.59	63.78	61.92	60.98	61.26	61.15	59.57	61.26	
24	60.69	61.90	60.74	62.24	65.09	63.40	61.81	60.94	61.27	61.25	59.66	61.22	
25	60.67	61.56	60.65	62.48	63.84	63.29	61.88	60.76	61.24	61.13	59.74	61.11	
26	60.83	61.33	60.57	62.36	63.54	63.05	61.68	60.90	61.21	61.00	59.82	60.98	
27	61.01	61.06	61.27	62.54	64.26	63.14	61.68	61.04	61.16	61.03	59.89	60.83	
28	61.00	61.52	64.61	62.41	64.23	63.04	61.61	60.96	61.08	61.05	59.91	60.76	
29	61.20	61.72	65.92	61.96	64.21	63.26	61.53	60.93	61.04	61.10	59.76	60.67	
30	61.64	62.31	66.38	61.76	64.46	63.76	61.44	60.97	61.03	61.10		60.57	
31		61.83		61.86	63.56		61.51		61.03	60.75		60.45	
Mean	60.94	62.24	61.99	62.70	65.32	63.75	62.85	61.32	61.02	60.98	59.91	60.08	
Max	61.64	63.99	66.38	66.59	68.74	65.23	66.84	62.00	61.45	61.27	60.50	61.26	68.74
Min	60.15	61.06	60.57	61.76	63.54	63.04	61.44	60.76	60.71	60.16	59.51	59.24	59.24

Annual Max Momentary Gage Height	68.75	m. (MSL.) ,	at 06.00 Hours , on Aug 5 , 2011		
Zero Gage at Bottom Elevation	59.00	m. (MSL.) ,	River Bed	58.59	m. (MSL)
Left Bank Elevation	69.81	m. (MSL.) ,			
Right Bank Elevation	69.45	m. (MSL.) ,	Drainage Area	12769	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.00	80.70	222.70	1357.00	535.60	340.40	461.40	145.00	45.20	10.30	2.40	0.10		
2	1.30	149.20	231.20	665.00	1842.40	334.10	383.20	112.40	40.50	9.30	1.70	0.00		
3	2.20	163.20	173.00	320.00	2341.80	376.30	772.00	114.60	41.00	8.80	1.00	0.00		
4	3.40	108.00	102.50	263.50	2378.90	387.80	1461.20	104.70	40.50	10.00	0.80	0.00		
5	4.80	117.90	83.40	286.00	2384.20	320.00	1177.40	92.00	45.20	15.00	0.80	0.00		
6	6.40	161.80	110.20	214.60	2278.20	387.80	722.80	78.00	43.50	17.70	0.80	0.00		
7	6.70	187.40	214.60	170.20	875.40	480.40	480.40	67.90	41.00	18.40	0.80	0.00		
8	6.50	137.20	232.90	167.40	459.10	533.20	357.20	63.70	38.00	20.70	0.80	0.00		
9	6.40	111.30	359.30	249.90	466.00	564.50	300.00	126.80	34.50	18.40	0.80	0.00		
10	6.40	187.40	255.00	139.80	490.00	757.00	266.90	106.90	36.50	16.90	0.80	0.00		
11	6.70	363.50	137.20	129.40	514.00	640.70	248.20	83.40	38.50	16.90	0.80	0.00		
12	5.90	272.00	102.50	132.00	1013.20	538.00	226.10	106.90	38.50	13.10	0.80	0.00		
13	8.60	535.60	84.30	128.10	1349.00	521.20	216.20	138.50	39.50	14.60	0.80	0.00		
14	66.50	494.80	71.60	159.00	1569.60	814.00	353.00	81.60	39.50	13.50	0.80	0.00		
15	81.60	192.20	66.50	137.20	1713.70	878.60	238.00	64.40	41.00	10.30	0.80	0.00		
16	96.00	168.80	89.00	157.60	1214.60	829.00	246.50	67.90	11.10	3.70	0.70	0.00		
17	86.10	192.20	77.20	314.00	550.00	673.10	239.70	65.10	20.70	1.30	0.20	0.80		
18	70.80	167.40	55.40	689.30	494.80	535.60	253.30	63.70	72.50	1.00	0.10	1.80		
19	62.30	236.30	51.20	694.80	587.00	447.60	276.00	63.00	82.50	1.50	0.10	5.20		
20	48.20	296.00	56.00	387.80	754.00	365.60	222.70	59.50	50.50	3.00	0.10	9.80		
21	43.50	304.00	54.80	265.20	654.20	344.60	181.00	60.90	20.70	5.50	0.10	12.40		
22	49.40	296.00	47.00	216.20	838.00	424.60	154.80	45.80	18.40	9.00	0.10	18.40		
23	36.50	232.90	42.00	201.80	996.70	485.20	134.60	48.80	20.00	13.50	0.10	20.00		
24	33.50	132.00	36.00	179.40	835.00	397.00	120.30	46.40	20.70	19.20	0.10	16.90		
25	32.50	93.00	31.50	217.80	499.60	371.90	129.40	37.00	18.40	12.70	0.20	12.00		
26	40.50	72.40	27.50	198.60	429.20	322.00	105.80	44.00	16.20	9.00	0.70	8.60		
27	50.60	53.60	67.90	227.80	602.00	340.40	105.80	52.40	13.90	9.80	0.70	5.90		
28	50.00	89.00	694.80	206.60	594.50	320.00	98.10	47.60	11.10	10.30	0.70	4.90		
29	63.00	110.20	1106.80	139.80	589.50	365.60	90.00	45.80	10.00	11.60	0.20	3.90		
30	101.40	190.60	1275.40	114.60	654.20	480.40	81.60	48.20	9.80	11.60		3.00		
31		122.90		126.80	433.80		88.00		9.80	4.80		2.20		
Total	1078.70	6019.50	6159.40	8857.20	30938.20	14576.60	10191.60	2282.90	1009.20	341.40	18.80	125.90	81599.40	CMSDAY
Mean	36.00	194.20	205.30	285.70	998.00	485.90	328.80	76.10	32.60	11.00	0.60	4.10	222.90	CMS
Max	101.40	535.60	1275.40	1357.00	2384.20	878.60	1461.20	145.00	82.50	20.70	2.40	20.00	2384.20	CMS
Min	1.00	53.60	27.50	114.60	429.20	320.00	81.60	37.00	9.80	1.00	0.10	0.00	0.00	CMS
Runoff	93.20	520.08	532.17	765.26	2673.06	1259.42	880.55	197.24	87.19	29.50	1.62	10.88	7050.19	MCM

Momentary Peak 2389.50 CMS. at 68.75 m. (MSL.) at 06.00 Hours , on Aug 5 , 2011

Runoff Yield 17.46 Liters/Second/Square KM. Momentary Peak Yield 187.133 Liters/Second/Square KM.

WATER YEAR : 2011

YOM RIVER BASIN

Nam Ngao at Ban Luang Nua , Lampang (Y.13A)

Lat 18 - 45 - 32 N Long 99 - 58 - 33 E

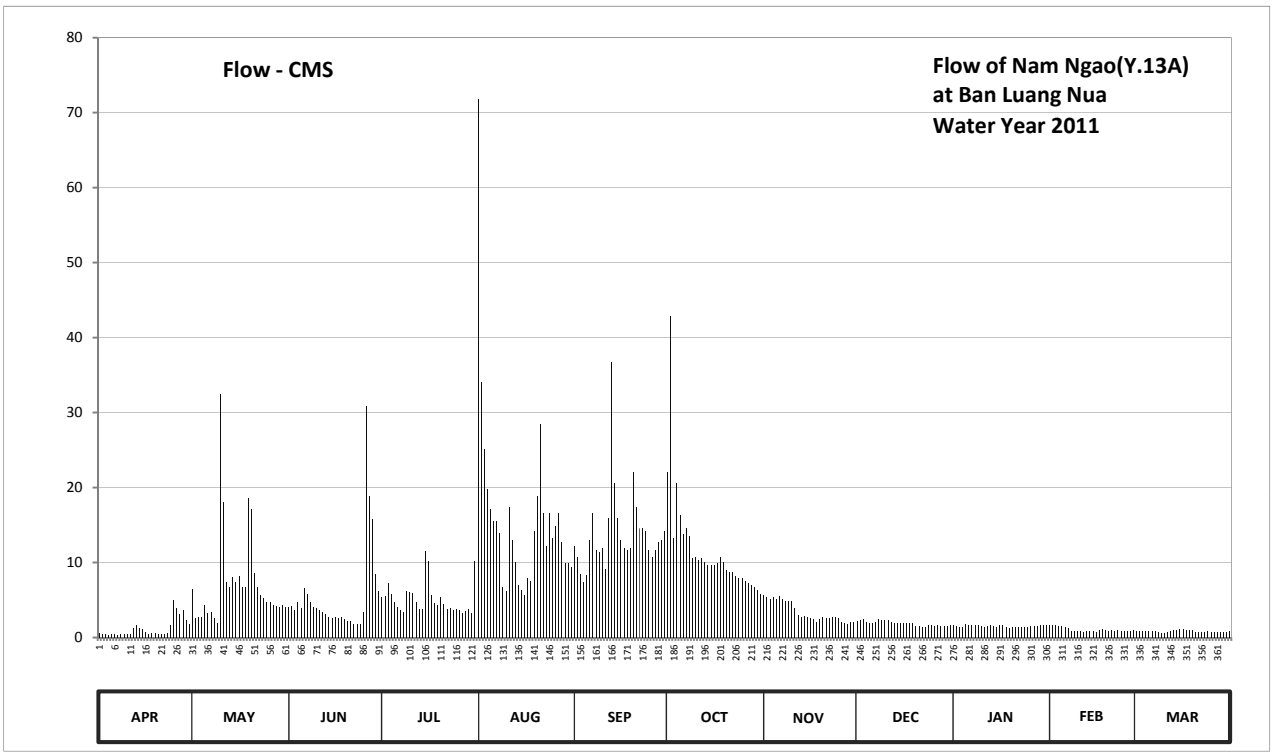
Location : on left bank at the bridge on highway about 1.6 kilometers upstream from station Y.13

	Ban Luang Nua	**Amphoe** Ngao	**Changwat** Lampang
Drainge Area	381 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+268.300 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank about 10 meters from the top staff gage.	**Elevation**	+272.644 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	1988 - 1995, 2001 to date		
Rating Operation			
Period of Rating	1988 - 1995, 2001 to date		
Rated by Flot	-		
Rated by Current Meter	1988 - 1995, 2001 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 47 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	268.61	269.16	269.00	269.09	270.79	269.85	270.11	269.54	269.22	269.12	269.13	268.97	
2	268.60	268.87	269.01	269.10	270.10	269.80	270.35	269.52	269.23	269.11	269.12	268.96	
3	268.57	268.88	268.97	269.21	269.86	269.70	269.89	269.51	269.25	269.09	269.12	268.94	
4	268.55	268.89	269.05	269.12	269.71	269.64	270.08	269.52	269.21	269.08	269.11	268.94	
5	268.56	269.02	268.99	269.05	269.62	269.69	269.98	269.51	269.18	269.16	269.10	268.94	
6	268.56	268.93	269.17	269.00	269.56	269.88	269.91	269.53	269.18	269.14	269.08	268.94	
7	268.55	268.94	269.12	268.97	269.56	269.99	269.93	269.51	269.21	269.14	269.05	268.95	
8	268.57	268.87	269.05	268.94	269.50	269.83	269.90	269.48	269.24	269.12	268.97	268.90	
9	268.58	268.81	269.00	269.15	269.60	269.82	269.79	269.48	269.23	269.12	268.95	268.85	
10	268.58	270.06	268.99	269.14	269.57	269.84	269.80	269.48	269.23	269.10	268.95	268.84	
11	268.58	269.65	268.97	269.13	270.01	269.73	269.78	269.39	269.23	269.07	268.94	268.90	
12	268.71	269.22	268.95	269.05	269.88	269.97	269.79	269.30	269.21	269.11	268.93	268.96	
13	268.77	269.18	268.92	268.98	269.77	270.29	269.77	269.28	269.19	269.12	268.97	268.99	
14	268.72	269.25	268.88	268.98	269.62	270.08	269.75	269.29	269.18	269.11	268.96	269.01	
15	268.69	269.22	268.87	269.40	269.58	269.97	269.75	269.28	269.18	269.09	268.94	269.03	
16	268.63	269.26	268.88	269.35	269.54	269.88	269.75	269.26	269.19	269.12	268.93	269.02	
17	268.59	269.18	268.87	269.11	269.67	269.84	269.76	269.24	269.18	269.12	269.00	269.00	
18	268.62	269.18	268.88	269.04	269.65	269.83	269.80	269.21	269.18	269.09	269.03	269.00	
19	268.62	269.67	268.86	269.02	269.92	269.84	269.77	269.24	269.18	269.06	268.98	269.00	
20	268.60	269.62	268.83	269.09	270.04	270.11	269.72	269.28	269.10	269.07	268.97	268.93	
21	268.59	269.28	268.83	269.03	270.21	270.01	269.71	269.26	269.10	269.08	268.98	268.90	
22	268.59	269.18	268.80	268.98	269.99	269.93	269.71	269.26	269.09	269.07	268.97	268.91	
23	268.62	269.11	268.80	268.99	269.85	269.93	269.68	269.27	269.08	269.08	268.99	268.93	
24	268.78	269.08	268.79	268.97	269.99	269.92	269.67	269.28	269.12	269.09	268.97	268.95	
25	269.07	269.05	268.94	268.98	269.89	269.83	269.67	269.26	269.13	269.09	268.97	268.92	
26	268.99	269.05	270.02	268.97	269.94	269.80	269.65	269.21	269.10	269.10	268.96	268.90	
27	268.92	269.02	269.68	268.93	269.99	269.83	269.63	269.18	269.12	269.10	268.96	268.89	
28	268.97	269.01	269.57	268.96	269.87	269.87	269.62	269.17	269.11	269.10	268.98	268.91	
29	268.85	269.00	269.27	268.98	269.76	269.88	269.60	269.21	269.11	269.13	268.98	268.91	
30	268.80	269.02	269.15	268.93	269.76	269.92	269.58	269.21	269.11	269.13		268.93	
31		269.00		269.35	269.74		269.55		269.13	269.13		268.94	
Mean	268.68	269.15	269.04	269.06	269.82	269.88	269.79	269.34	269.17	269.10	269.00	268.94	
Max	269.07	270.06	270.02	269.40	270.79	270.29	270.35	269.54	269.25	269.16	269.13	269.03	270.79
Min	268.55	268.81	268.79	268.93	269.50	269.64	269.55	269.17	269.08	269.06	268.93	268.84	268.55

Annual Max Momentary Gage Height	271.19	m. (MSL.) ,	at 10.00 Hours , on Aug 1 , 2011		
Zero Gage at Bottom Elevation	268.30	m. (MSL.) ,	River Bed	268.01	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, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.56	6.40	4.00	5.35	71.85	12.15	22.10	5.68	2.20	1.60	1.65	0.91		
2	0.50	2.57	4.15	5.50	34.00	10.80	42.88	5.34	2.30	1.55	1.60	0.88		
3	0.43	2.68	3.67	7.20	25.10	8.50	13.23	5.17	2.50	1.45	1.60	0.82		
4	0.37	2.79	4.75	5.80	19.85	7.42	20.60	5.34	2.10	1.40	1.55	0.82		
5	0.40	4.30	3.89	4.75	17.10	8.32	16.30	5.17	1.90	1.80	1.50	0.82		
6	0.40	3.23	6.55	4.00	15.50	12.96	13.85	5.51	1.90	1.70	1.40	0.82		
7	0.37	3.34	5.80	3.67	15.50	16.65	14.55	5.17	2.10	1.70	1.25	0.85		
8	0.43	2.57	4.75	3.34	14.00	11.61	13.50	4.80	2.40	1.60	0.91	0.70		
9	0.45	1.91	4.00	6.25	6.70	11.34	10.57	4.80	2.30	1.60	0.85	0.55		
10	0.45	32.40	3.89	6.10	6.19	11.88	10.80	4.80	2.30	1.50	0.85	0.52		
11	0.45	18.00	3.67	5.95	17.45	9.19	10.34	3.90	2.30	1.35	0.82	0.70		
12	1.21	7.40	3.45	4.75	12.96	15.95	10.57	3.00	2.10	1.55	0.79	0.88		
13	1.60	6.70	3.12	3.78	10.11	36.73	10.11	2.80	1.95	1.60	0.91	0.97		
14	1.28	8.00	2.68	3.78	7.06	20.60	9.65	2.90	1.90	1.55	0.88	1.05		
15	1.09	7.40	2.57	11.50	6.36	15.95	9.65	2.80	1.90	1.45	0.82	1.15		
16	0.70	8.20	2.68	10.25	5.68	12.96	9.65	2.60	1.95	1.60	0.79	1.10		
17	0.47	6.70	2.57	5.65	7.96	11.88	9.88	2.40	1.90	1.60	1.00	1.00		
18	0.63	6.70	2.68	4.60	7.60	11.61	10.80	2.10	1.90	1.45	1.15	1.00		
19	0.63	18.60	2.46	4.30	14.20	11.88	10.11	2.40	1.90	1.30	0.94	1.00		
20	0.50	17.10	2.13	5.35	18.80	22.10	8.96	2.80	1.50	1.35	0.91	0.79		
21	0.47	8.60	2.13	4.45	28.52	17.45	8.73	2.60	1.50	1.40	0.94	0.70		
22	0.47	6.70	1.80	3.78	16.65	14.55	8.73	2.60	1.45	1.35	0.91	0.73		
23	0.63	5.65	1.80	3.89	12.15	14.55	8.14	2.70	1.40	1.40	0.97	0.79		
24	1.67	5.20	1.74	3.67	16.65	14.20	7.96	2.80	1.60	1.45	0.91	0.85		
25	5.05	4.75	3.34	3.78	13.23	11.61	7.96	2.60	1.65	1.45	0.91	0.76		
26	3.89	4.75	30.80	3.67	14.90	10.80	7.60	2.10	1.50	1.50	0.88	0.70		
27	3.12	4.30	18.90	3.23	16.65	11.61	7.24	1.90	1.60	1.50	0.88	0.67		
28	3.67	4.15	15.75	3.56	12.69	12.69	7.06	1.85	1.55	1.50	0.94	0.73		
29	2.35	4.00	8.40	3.78	9.88	12.96	6.70	2.10	1.55	1.65	0.94	0.73		
30	1.80	4.30	6.25	3.23	9.88	14.20	6.36	2.10	1.55	1.65		0.79		
31		4.00		10.25	9.42		5.85		1.65	1.65		0.82		
Total	36.04	223.39	164.37	159.16	494.59	415.10	360.43	102.83	58.30	47.20	30.45	25.60	2117.46	CMSDAY
Mean	1.20	7.21	5.48	5.13	15.95	13.84	11.63	3.43	1.88	1.52	1.05	0.83	5.79	CMS
Max	5.05	32.40	30.80	11.50	71.85	36.73	42.88	5.68	2.50	1.80	1.65	1.15	71.85	CMS
Min	0.37	1.91	1.74	3.23	5.68	7.42	5.85	1.85	1.40	1.30	0.79	0.52	0.37	CMS
Runoff	3.11	19.30	14.20	13.75	42.73	35.87	31.14	8.89	5.04	4.08	2.63	2.21	182.95	MCM

Momentary Peak 100.25 CMS. at 271.19 m. (MSL.) at 10.00 Hours , on Aug 1 , 2011

Runoff Yield 15.18 Liters/Second/Square KM. Momentary Peak Yield 263.123 Liters/Second/Square KM.

WATER YEAR : 2011

YOM RIVER BASIN

Yom River at Ban Don Rabiang , Sukhothai (Y.14)

Lat 17 - 35 - 42 N Long 99 - 43 - 06 E

Location : on left bank about 50 meters from Si Satchanalai - Den Chai Highway No.101 at guidepost 44 th.

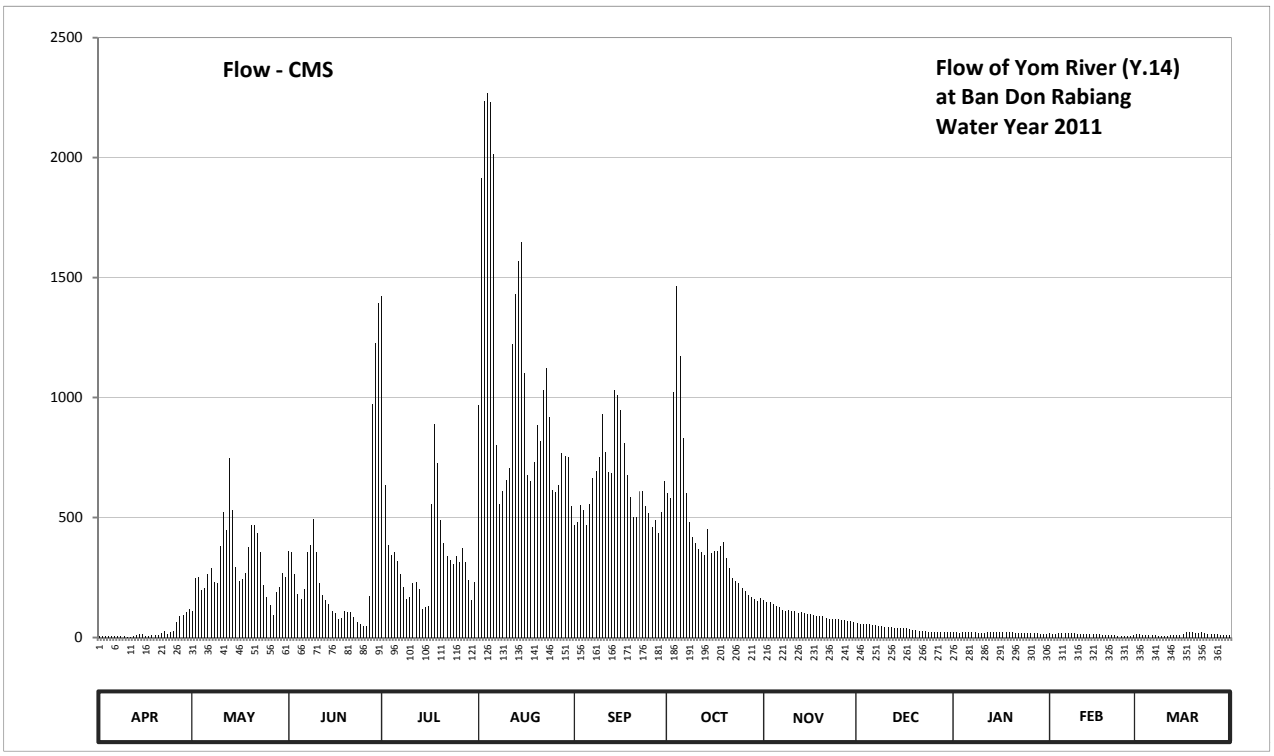
Ban Don Rabiang **Amphoe** Si Satchanalai **Changwat** Sukhothai

Drainge Area	12,100 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+65.100 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	In front of gage observer's house. **Elevation** +78.363 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings
Period of Available Gage Records	1964 to date
Rating Operation	
Period of Rating	1964 to date
Rated by Flot	-
Rated by Current Meter	1964 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	Overbank flow starts at elevation +74.480 m. (MSL.), records are channel flow only.
General Description	Records good. Stage-discharge relation defined by 19 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	65.90	67.19	68.92	73.85	72.02	69.55	70.28	67.55	66.71	66.28	66.17	66.09	
2	65.90	68.21	68.91	70.47	75.71	69.63	70.17	67.51	66.70	66.26	66.16	66.08	
3	65.90	68.24	68.34	69.09	76.81	70.01	72.26	67.49	66.68	66.24	66.16	66.00	
4	65.90	67.86	67.75	68.82	76.93	69.89	74.02	67.42	66.68	66.25	66.18	65.99	
5	65.90	67.94	67.60	68.90	76.80	69.56	72.89	67.37	66.66	66.29	66.20	65.99	
6	65.89	68.34	67.91	68.66	76.05	70.04	71.41	67.32	66.64	66.28	66.18	65.98	
7	65.89	68.49	68.90	68.32	71.27	70.61	70.29	67.23	66.61	66.27	66.19	65.98	
8	65.88	68.11	69.09	67.96	70.05	70.77	69.62	67.21	66.60	66.26	66.21	65.96	
9	65.88	68.07	69.70	67.58	70.34	71.05	69.28	67.22	66.59	66.24	66.18	65.96	
10	65.86	69.06	68.90	67.67	70.57	71.86	69.12	67.18	66.56	66.24	66.16	65.95	
11	65.86	69.85	68.09	68.07	70.83	71.14	68.99	67.18	66.54	66.24	66.16	65.97	
12	65.90	69.44	67.72	68.11	73.08	70.75	68.90	67.11	66.52	66.26	66.15	66.03	
13	65.99	71.02	67.56	67.90	73.89	70.72	68.83	67.16	66.50	66.29	66.14	66.04	
14	66.13	69.91	67.43	67.28	74.42	72.30	69.47	67.10	66.50	66.27	66.14	66.03	
15	66.08	68.52	67.20	67.32	74.72	72.21	68.87	67.09	66.49	66.27	66.14	66.00	
16	65.92	68.12	67.12	67.36	72.59	71.93	68.92	67.08	66.49	66.27	66.13	66.16	
17	65.97	68.18	66.89	70.05	70.67	71.32	68.93	67.03	66.47	66.25	66.12	66.30	
18	65.98	68.36	66.94	71.67	70.55	70.68	69.05	67.01	66.44	66.25	66.05	66.30	
19	65.98	69.02	67.18	70.92	70.94	70.19	69.15	67.02	66.41	66.25	66.04	66.27	
20	65.99	69.55	67.17	69.68	71.66	69.75	68.74	67.00	66.38	66.25	66.03	66.22	
21	66.20	69.56	67.15	69.13	71.35	69.74	68.48	66.93	66.36	66.24	66.02	66.21	
22	66.33	69.38	66.95	68.81	72.30	70.33	68.21	66.90	66.35	66.24	65.98	66.25	
23	66.16	68.90	66.76	68.69	72.69	70.33	68.15	66.90	66.33	66.22	65.96	66.21	
24	66.28	68.03	66.70	68.59	71.80	70.00	68.08	66.88	66.31	66.20	65.95	66.14	
25	66.33	67.65	66.57	68.81	70.36	69.84	67.93	66.88	66.31	66.19	65.94	66.12	
26	66.76	67.40	66.59	68.65	70.31	69.51	67.84	66.86	66.30	66.18	65.93	66.11	
27	66.99	67.04	67.69	69.01	70.47	69.67	67.72	66.83	66.29	66.17	65.93	66.08	
28	67.05	67.82	72.04	68.65	71.12	69.37	67.67	66.80	66.28	66.17	66.03	66.05	
29	67.17	67.95	73.09	68.17	71.06	69.86	67.60	66.80	66.28	66.16	66.09	66.01	
30	67.25	68.37	73.75	67.56	71.05	70.54	67.53	66.76	66.28	66.15		66.00	
31		68.26		68.11	69.99		67.63		66.28	66.15		65.99	
Mean	66.17	68.51	68.22	68.83	72.34	70.44	69.23	67.09	66.47	66.23	66.09	66.08	
Max	67.25	71.02	73.75	73.85	76.93	72.30	74.02	67.55	66.71	66.29	66.21	66.30	76.93
Min	65.86	67.04	66.57	67.28	69.99	69.37	67.53	66.76	66.28	66.15	65.93	65.95	65.86

Annual Max Momentary Gage Height	76.96	m. (MSL.) ,	at 18.00 Hours , on Aug 4 , 2011		
Zero Gage at Bottom Elevation	65.10	m. (MSL.) ,	River Bed	62.37	m. (MSL)
Left Bank Elevation	78.34	m. (MSL.) ,			
Right Bank Elevation	74.47	m. (MSL.) ,	Drainage Area	12100	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	5.00	109.90	358.40	1421.00	967.60	468.00	600.20	154.50	59.00	22.80	16.50	12.60		
2	5.00	246.50	356.70	636.30	1914.00	482.40	579.60	149.30	58.00	21.60	16.00	12.20		
3	5.00	251.00	266.00	387.30	2234.90	550.80	1022.80	146.70	56.20	20.40	16.00	9.00		
4	5.00	196.40	181.00	342.20	2269.70	529.20	1465.20	137.60	56.20	21.00	17.00	8.60		
5	5.00	207.60	161.00	355.00	2232.00	469.80	1174.50	131.40	54.40	23.40	18.00	8.60		
6	4.70	266.00	203.40	316.60	2014.50	556.20	830.20	125.40	52.60	22.80	17.00	8.20		
7	4.70	289.40	355.00	263.00	799.40	663.00	602.10	114.60	49.90	22.20	17.50	8.20		
8	4.40	231.50	387.30	210.40	558.00	695.00	480.60	112.20	49.00	21.60	18.60	7.40		
9	4.40	225.80	495.00	158.40	611.60	752.50	419.60	113.40	48.10	20.40	17.00	7.40		
10	3.80	382.20	355.00	170.10	655.30	930.80	392.40	108.80	45.40	20.40	16.00	7.00		
11	3.80	522.00	228.60	225.80	707.00	771.40	370.30	108.80	43.60	20.40	16.00	7.80		
12	5.00	448.20	176.80	231.50	1222.00	691.00	355.00	101.10	41.80	21.60	15.50	10.20		
13	8.60	746.20	155.80	202.00	1431.40	685.00	343.80	106.60	40.00	23.40	15.00	10.60		
14	14.50	532.80	138.90	120.60	1569.20	1032.00	453.60	100.00	40.00	22.20	15.00	10.20		
15	12.20	294.20	111.00	125.40	1647.10	1011.30	350.20	98.90	39.20	22.20	15.00	9.00		
16	5.80	233.00	102.20	130.20	1100.60	946.90	358.40	97.80	39.20	22.20	14.50	16.00		
17	7.80	242.00	77.00	558.00	675.00	810.40	360.10	92.30	37.60	21.00	14.00	24.00		
18	8.20	269.00	82.40	887.40	651.50	677.00	380.50	90.10	35.20	21.00	11.00	24.00		
19	8.20	375.40	108.80	725.20	729.40	583.20	397.50	91.20	32.80	21.00	10.60	22.20		
20	8.60	468.00	107.70	491.40	885.20	504.00	329.40	89.00	30.40	21.00	10.20	19.20		
21	18.00	469.80	105.50	394.10	817.00	502.20	287.80	81.30	28.80	20.40	9.80	18.60		
22	26.40	437.40	83.50	340.60	1032.00	609.70	246.50	78.00	28.00	20.40	8.20	21.00		
23	16.00	355.00	64.00	321.40	1124.60	609.70	237.50	78.00	26.40	19.20	7.40	18.60		
24	22.80	220.20	58.00	305.40	917.00	549.00	227.20	76.00	24.80	18.00	7.00	15.00		
25	26.40	167.50	46.30	340.60	615.40	520.20	206.20	76.00	24.80	17.50	6.60	14.00		
26	64.00	135.00	48.10	315.00	605.90	460.80	193.60	74.00	24.00	17.00	6.20	13.50		
27	87.90	93.40	172.70	373.70	636.30	489.60	176.80	71.00	23.40	16.50	6.20	12.20		
28	94.50	190.80	972.20	315.00	767.20	435.60	170.10	68.00	22.80	16.50	10.20	11.00		
29	107.70	209.00	1224.50	240.50	754.60	523.80	161.00	68.00	22.80	16.00	12.60	9.40		
30	117.00	270.50	1395.00	155.80	752.50	649.60	151.90	64.00	22.80	15.50		9.00		
31		254.00		231.50	547.20		164.90		22.80	15.50		8.60		
Total	710.40	9339.70	8577.80	11291.40	33445.10	19160.10	13489.50	3004.00	1180.00	625.10	380.60	393.30	101597.00	CMSDAY
Mean	23.70	301.30	285.90	364.20	1078.90	638.70	435.10	100.10	38.10	20.20	13.10	12.70	277.60	CMS
Max	117.00	746.20	1395.00	1421.00	2269.70	1032.00	1465.20	154.50	59.00	23.40	18.60	24.00	2269.70	CMS
Min	3.80	93.40	46.30	120.60	547.20	435.60	151.90	64.00	22.80	15.50	6.20	7.00	3.80	CMS
Runoff	61.38	806.95	741.12	975.58	2889.66	1655.43	1165.49	259.55	101.95	54.01	32.88	33.98	8777.98	MCM

Momentary Peak 2278.40 CMS. at 76.96 m. (MSL.) at 18.00 Hours , on Aug 4 , 2011

Runoff Yield 22.94 Liters/Second/Square KM. Momentary Peak Yield 188.298 Liters/Second/Square KM.

WATER YEAR : 2011

YOM RIVER BASIN

Yom River at Ban Kong , Sukhothai (Y.15)

Lat 16 - 55 - 47 N Long 99 - 57 - 41 E

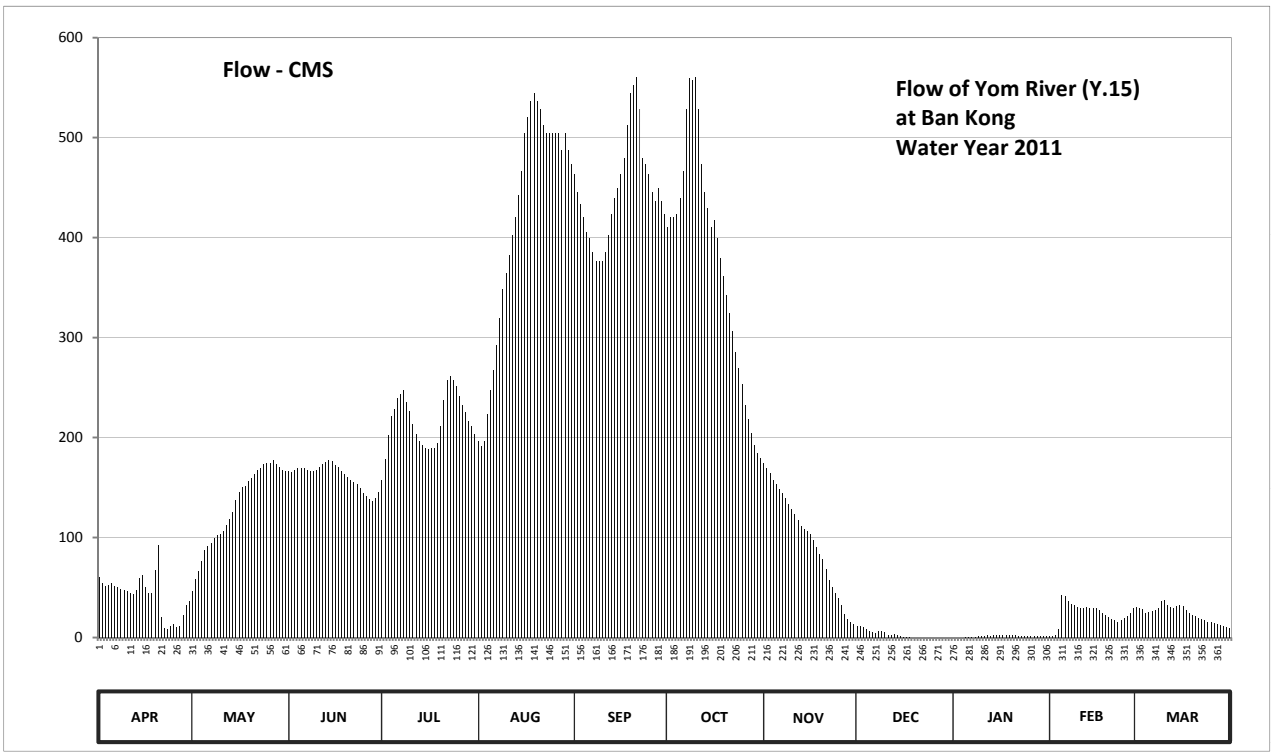
Location : on left bank at Ban Kong.

	Ban Kong	**Amphoe** Kong Krailat	**Changwat** Sukhothai
Drainge Area	19,936 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+35.320 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the gage site.	**Elevation**	+46.520 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	2010 to date		
Rating Operation			
Period of Rating	2010 to date		
Rated by Flot	-		
Rated by Current Meter	2010 to date		
Stability of Channel Regimes	Fairly stable because of backwater effect.		
Overbank Flow Conditions	Overbank flow starts at elevation + 41.220 m. (MSL.), records are channel flow only.		
General Description	Records fair. Stage-discharge relation defined by 18 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	40.25	39.75	42.80	42.66	43.20	44.35	44.19	42.94	37.77	35.33	36.36	39.09	
2	40.06	40.19	42.79	42.99	43.15	44.30	44.22	42.86	37.77	35.27	36.44	39.05	
3	39.94	40.45	42.82	43.25	43.20	44.26	44.22	42.77	37.65	35.52	36.57	38.99	
4	39.99	40.75	42.85	43.38	43.39	44.22	44.23	42.66	37.37	35.63	37.43	38.81	
5	40.04	41.04	42.86	43.42	43.52	44.17	44.28	42.58	37.19	35.66	39.58	38.83	
6	39.96	41.15	42.85	43.48	43.62	44.15	44.36	42.49	37.06	35.67	39.57	38.88	
7	39.91	41.22	42.82	43.50	43.74	44.10	44.46	42.40	36.94	35.72	39.35	38.95	
8	39.84	41.35	42.80	43.52	43.86	44.07	44.53	42.30	37.11	35.89	39.24	39.07	
9	39.79	41.44	42.81	43.46	43.97	44.07	44.56	42.17	37.22	36.08	39.22	39.34	
10	39.75	41.47	42.83	43.41	44.03	44.07	44.51	42.07	37.01	36.26	39.08	39.41	
11	39.66	41.55	42.87	43.33	44.09	44.10	44.46	41.96	36.50	36.42	39.05	39.21	
12	39.62	41.69	42.92	43.26	44.16	44.16	44.38	41.81	36.63	36.49	39.03	39.09	
13	39.81	41.84	42.95	43.20	44.22	44.23	44.30	41.66	36.71	36.48	39.09	39.07	
14	40.23	41.99	42.97	43.16	44.29	44.28	44.25	41.59	36.57	36.53	39.07	39.15	
15	40.31	42.27	42.96	43.13	44.36	44.31	44.19	41.55	36.32	36.57	39.06	39.17	
16	39.92	42.44	42.91	43.11	44.43	44.35	44.21	41.46	36.04	36.61	39.05	39.13	
17	39.70	42.53	42.87	43.12	44.45	44.40	44.15	41.30	35.82	36.61	38.95	38.93	
18	39.67	42.55	42.81	43.13	44.47	44.44	44.08	41.13	35.67	36.61	38.76	38.77	
19	40.48	42.64	42.75	43.18	44.48	44.48	44.02	40.94	35.52	36.60	38.65	38.67	
20	41.18	42.69	42.70	43.32	44.47	44.49	43.95	40.78	35.46	36.59	38.52	38.59	
21	38.55	42.75	42.66	43.47	44.46	44.51	43.88	40.50	35.45	36.53	38.41	38.48	
22	37.59	42.83	42.62	43.57	44.44	44.46	43.80	40.16	35.43	36.44	38.30	38.38	
23	37.46	42.86	42.58	43.59	44.43	44.40	43.71	39.92	35.42	36.32	38.18	38.30	
24	37.70	42.92	42.50	43.57	44.43	44.38	43.63	39.67	35.41	36.22	38.34	38.18	
25	37.97	42.94	42.41	43.54	44.43	44.35	43.55	39.49	35.40	36.17	38.46	38.10	
26	37.64	42.93	42.35	43.49	44.43	44.30	43.44	39.19	35.40	36.18	38.59	38.03	
27	37.71	42.97	42.28	43.44	44.43	44.27	43.36	38.75	35.39	36.20	38.81	37.92	
28	38.64	42.92	42.25	43.40	44.41	44.31	43.27	38.36	35.39	36.22	39.04	37.83	
29	39.21	42.87	42.31	43.35	44.43	44.27	43.16	38.18	35.38	36.26	39.09	37.72	
30	39.36	42.82	42.44	43.32	44.41	44.23	43.07	37.93	35.36	36.30		37.61	
31		42.80		43.26	44.38		43.00		35.35	36.31		37.51	
Mean	39.40	42.02	42.71	43.32	44.12	44.28	43.98	41.05	36.25	36.18	38.60	38.65	
Max	41.18	42.97	42.97	43.59	44.48	44.51	44.56	42.94	37.77	36.61	39.58	39.41	44.56
Min	37.46	39.75	42.25	42.66	43.15	44.07	43.00	37.93	35.35	35.27	36.36	37.51	35.27

Annual Max Momentary Gage Height	44.57	m. (MSL.) ,	at 09.00 Hours , on Oct 9 , 2011		
Zero Gage at Bottom Elevation	35.32	m. (MSL.) ,	River Bed	33.46	m. (MSL)
Left Bank Elevation	43.95	m. (MSL.) ,			
Right Bank Elevation	41.21	m. (MSL.) ,	Drainage Area	19936	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	60.50	46.30	166.00	157.60	196.00	463.00	411.10	174.80	11.70	0.00	1.70	30.30		
2	54.80	58.70	165.40	178.30	191.50	446.00	420.40	169.60	11.70	0.00	1.80	29.50		
3	51.30	66.90	167.20	202.00	196.00	433.20	420.40	164.20	10.50	0.00	2.30	28.30		
4	52.70	77.00	169.00	221.60	223.30	420.40	423.60	157.60	8.00	0.00	8.50	24.70		
5	54.20	87.50	169.60	228.60	247.00	405.30	439.60	153.00	6.70	0.10	42.00	25.10		
6	51.90	91.60	169.00	239.40	267.00	399.50	466.40	148.50	5.70	0.10	41.70	26.10		
7	50.50	94.30	167.20	243.00	292.20	385.00	528.60	144.00	4.80	0.10	36.20	27.50		
8	48.60	99.10	166.00	247.00	319.80	376.30	559.20	139.00	6.10	0.50	33.50	29.90		
9	47.30	102.50	166.60	235.80	347.90	376.30	557.40	133.10	6.90	1.00	33.00	36.00		
10	46.30	103.60	167.80	226.80	364.70	376.30	560.40	128.60	5.30	1.40	30.10	37.70		
11	44.00	106.70	170.20	213.10	382.10	385.00	528.60	123.70	2.00	1.80	29.50	32.70		
12	43.00	112.30	173.40	203.20	402.40	402.40	473.20	117.20	2.70	2.00	29.10	30.30		
13	47.80	118.50	175.50	196.00	420.40	423.60	446.00	111.20	3.10	1.90	30.30	29.90		
14	59.90	125.10	176.90	192.40	442.80	439.60	430.00	108.40	2.30	2.10	29.90	31.50		
15	62.30	137.70	176.20	189.70	466.40	449.40	411.10	106.70	1.50	2.30	29.70	31.90		
16	50.80	146.00	172.70	187.90	504.30	463.00	417.20	103.20	0.90	2.60	29.50	31.10		
17	45.00	150.50	170.20	188.80	520.50	480.00	399.50	97.20	0.30	2.60	27.50	27.10		
18	44.20	151.50	166.60	189.70	536.70	512.40	379.20	90.90	0.10	2.60	23.90	24.10		
19	67.90	156.40	163.00	194.20	544.80	544.80	361.80	83.70	0.00	2.50	22.30	22.50		
20	92.70	159.40	160.00	211.40	536.70	552.90	342.50	78.00	0.00	2.40	20.30	21.30		
21	20.70	163.00	157.60	237.60	528.60	560.40	324.40	68.50	0.00	2.10	18.60	19.70		
22	9.90	167.80	155.20	257.00	512.40	528.60	306.00	57.80	0.00	1.80	17.20	18.20		
23	8.70	169.60	153.00	261.00	504.30	480.00	285.30	50.80	0.00	1.50	15.80	17.20		
24	11.00	173.40	149.00	257.00	504.30	473.20	269.00	44.20	0.00	1.30	17.70	15.80		
25	13.70	174.80	144.50	251.00	504.30	463.00	253.00	39.80	0.00	1.20	19.40	15.00		
26	10.40	174.10	141.50	241.20	504.30	446.00	232.20	32.30	0.00	1.20	21.30	14.30		
27	11.10	176.90	138.10	232.20	504.30	436.40	218.20	23.80	0.00	1.30	24.70	13.20		
28	22.10	173.40	136.80	225.00	488.10	449.40	204.40	18.00	0.00	1.30	29.30	12.30		
29	32.70	170.20	139.50	216.50	504.30	436.40	192.40	15.80	0.00	1.40	30.30	11.20		
30	36.50	167.20	146.00	211.40	488.10	423.60	184.60	13.30	0.00	1.50		10.10		
31		166.00		203.20	473.20		179.00		0.00	1.50		9.10		
Total	1252.50	4068.00	4839.70	6739.60	12918.70	13431.40	11624.70	2896.90	90.30	42.10	697.10	733.60	59334.60	CMSDAY
Mean	41.70	131.20	161.30	217.40	416.70	447.70	375.00	96.60	2.90	1.40	24.00	23.70	162.10	CMS
Max	92.70	176.90	176.90	261.00	544.80	560.40	560.40	174.80	11.70	2.60	42.00	37.70	560.40	CMS
Min	8.70	46.30	136.80	157.60	191.50	376.30	179.00	13.30	0.00	0.00	1.70	9.10	0.00	CMS
Runoff	108.22	351.48	418.15	582.30	1116.18	1160.47	1004.37	250.29	7.80	3.64	60.23	63.38	5126.51	MCM

Momentary Peak 556.80 CMS. at 44.57 m. (MSL.) at 09.00 Hours , on Oct 9 , 2011

Runoff Yield 8.13 Liters/Second/Square KM. Momentary Peak Yield 27.929 Liters/Second/Square KM.

WATER YEAR : 2011

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.

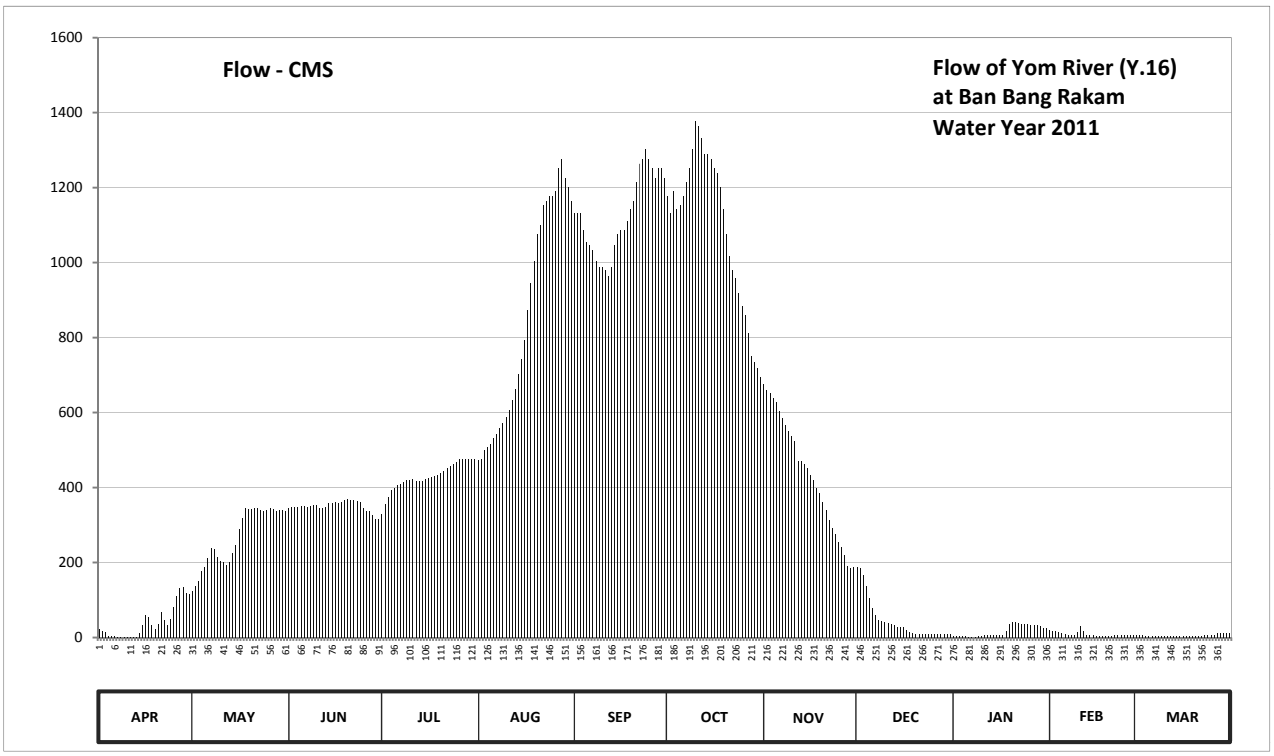
Ban Bang Rakam **Amphoe** Bang Rakam **Changwat** Phitsanulok

Drainge Area	20,201 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+31.630 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank about 13 meters from the top staff gage. **Elevation** +42.630 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings
Period of Available Gage Records	1967 to date
Rating Operation	
Period of Rating	1967 , 1995 to date
Rated by Flot	-
Rated by Current Meter	1967 , 1995 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	Overbank flow starts at elevation +42.080 m. (MSL.), records are channel flow only.
General Description	Records good. Stage-discharge relation defined by 14 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	33.27	35.53	38.41	38.25	39.63	42.67	42.71	41.35	36.51	32.48	33.26	32.55	
2	33.13	35.79	38.43	38.50	39.65	42.67	42.67	41.23	36.48	32.46	33.18	32.53	
3	32.98	36.01	38.43	38.69	39.87	42.67	42.72	41.16	36.22	32.40	33.12	32.53	
4	32.52	36.36	38.43	38.87	39.95	42.63	42.68	41.05	35.78	32.37	33.01	32.49	
5	32.33	36.51	38.45	38.94	40.02	42.60	42.69	40.96	35.24	32.28	32.86	32.43	
6	32.27	36.87	38.46	39.01	40.16	42.59	42.71	40.77	34.71	32.23	32.78	32.45	
7	32.14	37.21	38.44	39.05	40.25	42.57	42.74	40.60	34.26	32.19	32.66	32.44	
8	32.03	37.16	38.45	39.09	40.39	42.53	42.77	40.46	33.91	32.19	32.63	32.41	
9	31.98	36.91	38.47	39.15	40.50	42.51	42.81	40.32	33.87	32.37	32.63	32.42	
10	31.98	36.76	38.47	39.15	40.63	42.51	42.86	40.20	33.78	32.52	33.07	32.42	
11	31.95	36.70	38.40	39.17	40.79	42.50	42.85	40.10	33.76	32.56	33.54	32.42	
12	31.96	36.61	38.41	39.12	41.02	42.47	42.83	39.61	33.66	32.59	33.13	32.41	
13	32.07	36.72	38.44	39.11	41.26	42.51	42.80	39.60	33.58	32.63	32.53	32.41	
14	32.83	37.01	38.53	39.13	41.57	42.59	42.80	39.53	33.49	32.63	32.53	32.41	
15	33.64	37.31	38.53	39.18	41.86	42.62	42.79	39.45	33.48	32.61	32.53	32.41	
16	34.29	37.78	38.55	39.21	42.12	42.63	42.77	39.27	33.44	32.56	32.51	32.41	
17	34.15	38.11	38.53	39.23	42.31	42.63	42.76	39.16	33.20	32.53	32.51	32.38	
18	33.59	38.41	38.56	39.24	42.44	42.65	42.73	38.94	32.98	33.17	32.51	32.38	
19	33.31	38.39	38.63	39.28	42.53	42.68	42.68	38.79	32.88	33.70	32.48	32.38	
20	33.68	38.37	38.65	39.33	42.62	42.70	42.62	38.57	32.79	33.80	32.48	32.37	
21	34.49	38.40	38.63	39.37	42.64	42.74	42.55	38.35	32.79	33.81	32.52	32.40	
22	33.95	38.40	38.62	39.44	42.69	42.78	42.50	38.06	32.78	33.76	32.63	32.50	
23	33.62	38.36	38.60	39.49	42.70	42.79	42.46	37.81	32.76	33.70	32.63	32.60	
24	34.01	38.32	38.57	39.53	42.71	42.81	42.39	37.65	32.74	33.66	32.61	32.60	
25	34.75	38.36	38.41	39.58	42.71	42.79	42.33	37.39	32.73	33.65	32.66	32.63	
26	35.31	38.41	38.33	39.66	42.72	42.77	42.28	37.22	32.73	33.63	32.66	32.67	
27	35.70	38.38	38.32	39.65	42.77	42.75	42.17	36.96	32.73	33.63	32.66	32.83	
28	35.73	38.32	38.21	39.65	42.79	42.77	41.92	36.58	32.73	33.60	32.61	32.83	
29	35.45	38.36	38.08	39.67	42.75	42.77	41.81	36.48	32.73	33.53	33.53	32.83	
30	35.41	38.35	38.09	39.67	42.73	42.75	41.69	36.51	32.73	33.43		32.83	
31		38.33		39.66	42.70		41.51		32.73	33.39		32.83	
Mean	33.48	37.50	38.45	39.23	41.60	42.66	42.54	39.14	33.68	32.97	32.77	32.52	
Max	35.73	38.41	38.65	39.67	42.79	42.81	42.86	41.35	36.51	33.81	33.54	32.83	42.86
Min	31.95	35.53	38.08	38.25	39.63	42.47	41.51	36.48	32.73	32.19	32.48	32.37	31.95

Annual Max Momentary Gage Height	42.87	m. (MSL.) ,	at 09.00 Hours , on Oct 10 , 2011		
Zero Gage at Bottom Elevation	31.63	m. (MSL.) ,	River Bed	30.73	m. (MSL)
Left Bank Elevation	42.08	m. (MSL.) ,			
Right Bank Elevation	44.20	m. (MSL.) ,	Drainage Area	20201	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	21.10	122.80	346.00	330.50	472.30	1132.00	1177.30	674.50	186.70	4.80	20.80	5.50		
2	16.90	138.40	348.00	355.00	474.50	1132.00	1132.00	659.60	184.60	4.60	18.40	5.30		
3	13.60	151.70	348.00	374.00	498.70	1132.00	1189.60	651.20	166.40	4.00	16.60	5.30		
4	5.20	176.20	348.00	392.00	507.50	1088.00	1143.00	638.00	137.80	3.70	14.20	4.90		
5	3.30	186.70	350.00	399.00	515.20	1055.00	1154.00	627.20	106.00	2.80	11.20	4.30		
6	2.70	212.60	351.00	406.00	531.20	1047.50	1177.30	604.40	79.50	2.30	9.60	4.50		
7	1.40	239.80	349.00	410.00	542.00	1032.50	1214.20	584.00	59.40	1.90	7.20	4.40		
8	0.60	235.80	350.00	414.00	558.80	1002.50	1251.10	567.20	45.40	1.90	6.60	4.10		
9	0.40	215.80	352.00	420.00	572.00	987.50	1303.00	550.40	43.80	3.70	6.60	4.20		
10	0.40	204.20	352.00	420.00	587.60	987.50	1378.00	536.00	40.20	5.20	15.40	4.20		
11	0.30	200.00	345.00	422.00	606.80	980.00	1363.00	524.00	39.40	5.60	30.60	4.20		
12	0.30	193.70	346.00	417.00	634.40	962.90	1333.00	470.10	35.40	5.90	16.90	4.10		
13	0.90	201.40	349.00	416.00	663.20	987.50	1288.00	469.00	32.20	6.60	5.30	4.10		
14	10.60	223.80	358.00	418.00	703.10	1047.50	1288.00	461.30	28.60	6.60	5.30	4.10		
15	34.60	247.80	358.00	423.00	741.40	1077.00	1275.70	452.50	28.20	6.20	5.30	4.10		
16	60.60	288.20	360.00	426.10	793.80	1088.00	1251.10	432.70	26.60	5.60	5.10	4.10		
17	55.00	317.90	358.00	428.30	873.50	1088.00	1238.80	421.00	19.00	5.30	5.10	3.80		
18	32.60	346.00	361.00	429.40	945.80	1110.00	1201.90	399.00	13.60	18.10	5.10	3.80		
19	22.30	344.00	368.00	433.80	1002.50	1143.00	1143.00	384.00	11.60	37.00	4.80	3.80		
20	36.20	342.00	370.00	439.30	1077.00	1165.00	1077.00	362.00	9.80	41.00	4.80	3.70		
21	68.60	345.00	368.00	443.70	1099.00	1214.20	1017.50	340.00	9.80	41.40	5.20	4.00		
22	47.00	345.00	367.00	451.40	1154.00	1263.40	980.00	313.40	9.60	39.40	6.60	5.00		
23	33.80	341.00	365.00	456.90	1165.00	1275.70	957.20	290.90	9.20	37.00	6.60	6.00		
24	49.40	337.00	362.00	461.30	1177.30	1303.00	917.50	276.50	8.80	35.40	6.20	6.00		
25	81.50	341.00	346.00	466.80	1177.30	1275.70	884.50	254.20	8.60	35.00	7.20	6.60		
26	109.60	346.00	338.00	475.60	1189.60	1251.10	858.60	240.60	8.60	34.20	7.20	7.40		
27	133.00	343.00	337.00	474.50	1251.10	1226.50	810.80	219.80	8.60	34.20	7.20	10.60		
28	134.80	337.00	326.90	474.50	1275.70	1251.10	750.20	191.60	8.60	33.00	6.20	10.60		
29	118.00	341.00	315.20	476.70	1226.50	1251.10	734.40	184.60	8.60	30.20	30.20	10.60		
30	115.60	340.00	316.10	476.70	1201.90	1226.50	718.70	186.70	8.60	26.20		10.60		
31		338.00		475.60	1165.00		695.30		8.60	24.70		10.60		
Total	1210.30	8342.80	10508.20	13307.10	26383.70	33783.70	33903.70	12966.40	1391.80	543.50	297.50	174.50	142813.20	CMSDAY
Mean	40.30	269.10	350.30	429.30	851.10	1126.10	1093.70	432.20	44.90	17.50	10.30	5.60	390.20	CMS
Max	134.80	346.00	370.00	476.70	1275.70	1303.00	1378.00	674.50	186.70	41.40	30.60	10.60	1378.00	CMS
Min	0.30	122.80	315.20	330.50	472.30	962.90	695.30	184.60	8.60	1.90	4.80	3.70	0.30	CMS
Runoff	104.57	720.82	907.91	1149.73	2279.55	2918.91	2929.28	1120.30	120.25	46.96	25.70	15.08	12339.06	MCM

Momentary Peak 1393.00 CMS. at 42.87 m. (MSL.) at 09.00 Hours , on Oct 10 , 2011

Runoff Yield 19.32 Liters/Second/Square KM. Momentary Peak Yield 68.957 Liters/Second/Square KM.

WATER YEAR : 2011

YOM RIVER BASIN

Yom River at Ban Sam Ngam , Phichit (Y.17)

Lat 16 - 30 - 24 N Long 100 - 12 - 27 E

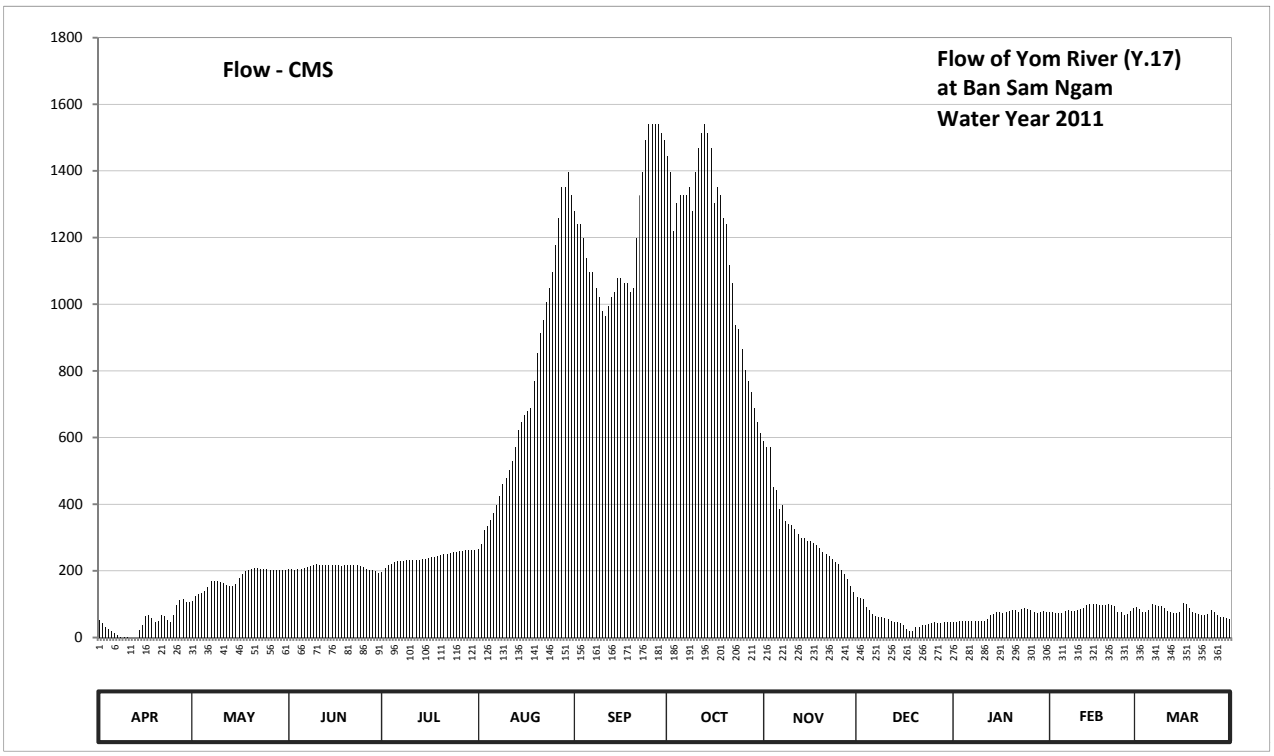
Location : on left bank at the bridge on highway from in front of Amphoe Sam Ngam office.

	Ban Sam Ngam	**Amphoe** Sam Ngam	**Changwat** Phichit
Drainge Area	22,034 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+31.490 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank about 50 meters from Amphoe Sam Ngam Office.	**Elevation**	+40.506 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	1967 to date		
Rating Operation			
Period of Rating	1967 , 1990 to date		
Rated by Flot	-		
Rated by Current Meter	1967 , 1990 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 22 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	32.97	34.11	35.83	35.69	36.70	38.30	38.37	37.80	34.37	32.83	33.49	33.77	
2	32.81	34.40	35.82	35.88	36.90	38.28	38.35	37.78	34.31	32.84	33.49	33.68	
3	32.55	34.51	35.79	36.00	37.33	38.28	38.27	37.78	34.25	32.91	33.45	33.49	
4	32.37	34.59	35.85	36.08	37.41	38.26	38.31	37.64	33.78	32.92	33.40	33.50	
5	32.20	34.71	35.85	36.14	37.49	38.23	38.32	37.63	33.57	32.93	33.44	33.62	
6	32.11	34.89	35.86	36.18	37.53	38.21	38.32	37.55	33.33	32.93	33.51	33.95	
7	31.98	35.23	35.90	36.20	37.57	38.21	38.32	37.57	33.22	32.94	33.60	33.87	
8	31.92	35.24	35.95	36.21	37.61	38.18	38.33	37.48	33.17	32.95	33.56	33.84	
9	31.79	35.24	36.01	36.22	37.65	38.16	38.30	37.44	33.16	32.94	33.54	33.84	
10	31.67	35.16	36.05	36.23	37.67	38.13	38.35	37.42	33.09	32.93	33.60	33.70	
11	31.60	35.10	36.01	36.24	37.70	38.12	38.38	37.35	33.08	32.93	33.68	33.53	
12	31.54	35.02	36.01	36.24	37.73	38.14	38.40	37.24	32.94	33.08	33.71	33.47	
13	31.65	34.97	36.01	36.24	37.78	38.16	38.41	37.12	32.88	33.29	33.88	33.44	
14	32.29	34.98	36.01	36.26	37.83	38.17	38.40	37.10	32.84	33.35	33.94	33.45	
15	32.67	35.09	36.01	36.27	37.85	38.20	38.38	36.98	32.78	33.47	33.94	33.48	
16	33.22	35.38	36.01	36.31	37.87	38.20	38.31	37.01	32.64	33.46	33.94	34.03	
17	33.27	35.58	35.99	36.34	37.88	38.19	38.33	36.93	32.36	33.43	33.91	33.96	
18	33.09	35.75	35.98	36.37	37.89	38.19	38.32	36.84	32.25	33.49	33.89	33.71	
19	32.83	35.79	36.01	36.41	37.96	38.17	38.29	36.74	32.23	33.55	33.91	33.49	
20	32.93	35.85	36.01	36.44	38.03	38.18	38.28	36.56	32.52	33.61	33.94	33.43	
21	33.27	35.87	36.03	36.47	38.08	38.26	38.22	36.51	32.54	33.60	33.91	33.38	
22	33.25	35.87	36.03	36.51	38.11	38.32	38.19	36.42	32.65	33.49	33.83	33.32	
23	32.98	35.84	36.00	36.54	38.15	38.35	38.10	36.28	32.68	33.65	33.49	33.28	
24	32.85	35.83	35.96	36.57	38.18	38.39	38.09	36.13	32.74	33.71	33.47	33.36	
25	33.29	35.83	35.92	36.60	38.21	38.41	38.04	36.05	32.81	33.69	33.29	33.59	
26	33.89	35.78	35.84	36.61	38.25	38.41	37.99	35.79	32.83	33.62	33.37	33.48	
27	34.22	35.77	35.79	36.63	38.29	38.41	37.96	35.57	32.81	33.48	33.53	33.30	
28	34.27	35.79	35.76	36.64	38.33	38.41	37.93	35.35	32.81	33.45	33.74	33.21	
29	34.10	35.78	35.74	36.65	38.33	38.40	37.89	34.98	32.82	33.49	33.74	33.15	
30	34.08	35.77	35.65	36.66	38.35	38.39	37.85	34.63	32.84	33.56		33.09	
31		35.79		36.66	38.32		37.82		32.86	33.49		33.05	
Mean	32.79	35.34	35.92	36.34	37.84	38.26	38.22	36.79	33.01	33.29	33.66	33.53	
Max	34.27	35.87	36.05	36.66	38.35	38.41	38.41	37.80	34.37	33.71	33.94	34.03	38.41
Min	31.54	34.11	35.65	35.69	36.70	38.12	37.82	34.63	32.23	32.83	33.29	33.05	31.54

Annual Max Momentary Gage Height	38.42	m. (MSL.) ,	at 16.00 Hours , on Sep 25 , 2011		
Zero Gage at Bottom Elevation	31.49	m. (MSL.) ,	River Bed	29.81	m. (MSL)
Left Bank Elevation	40.45	m. (MSL.) ,			
Right Bank Elevation	40.43	m. (MSL.) ,	Drainage Area	22034	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	51.70	108.00	205.50	196.60	266.00	1280.00	1444.50	590.00	121.80	45.40	77.00	91.00		
2	44.50	123.50	204.80	208.70	282.00	1239.40	1397.50	572.50	118.60	45.80	77.00	86.50		
3	32.70	129.50	202.90	216.50	322.50	1239.40	1219.10	572.50	115.20	49.00	75.00	77.00		
4	25.30	134.00	206.70	221.70	335.20	1198.80	1303.50	451.50	91.50	49.40	72.50	77.50		
5	18.50	140.50	206.70	225.80	352.80	1137.90	1327.00	443.00	81.00	49.90	74.50	83.50		
6	14.90	150.40	207.40	228.60	373.70	1097.30	1327.00	386.20	69.00	49.90	78.00	100.00		
7	6.30	169.20	210.00	230.00	398.80	1097.30	1327.00	398.80	63.50	50.30	82.50	96.00		
8	2.10	169.70	213.30	230.70	426.00	1049.00	1350.50	350.60	61.00	50.80	80.50	94.50		
9	0.50	169.70	217.10	231.40	460.00	1021.00	1280.00	341.80	60.50	50.30	79.50	94.50		
10	0.20	165.30	219.80	232.10	477.00	979.00	1397.50	337.40	57.10	49.90	82.50	87.50		
11	0.00	162.00	217.10	232.80	502.50	965.00	1468.00	325.50	56.60	49.90	86.50	79.00		
12	0.00	157.60	217.10	232.80	528.70	993.00	1515.00	310.80	50.30	56.60	88.00	76.00		
13	0.10	154.90	217.10	232.80	572.50	1021.00	1541.00	299.60	47.60	67.00	96.50	74.50		
14	22.10	155.40	217.10	234.20	623.00	1035.00	1515.00	298.00	45.80	70.00	99.50	75.00		
15	38.10	161.50	217.10	234.90	645.00	1077.00	1468.00	288.40	43.10	76.00	99.50	76.50		
16	63.50	177.80	217.10	237.70	667.00	1077.00	1303.50	290.80	36.80	75.50	99.50	104.00		
17	66.00	189.80	215.90	239.80	678.00	1063.00	1350.50	284.40	24.90	74.00	98.00	100.50		
18	57.10	200.40	215.20	241.90	689.00	1063.00	1327.00	277.20	20.50	77.00	97.00	88.00		
19	45.40	202.90	217.10	244.70	769.00	1035.00	1259.70	269.20	19.70	80.00	98.00	77.00		
20	49.90	206.70	217.10	246.80	851.60	1049.00	1239.40	255.20	31.40	83.00	99.50	74.00		
21	66.00	208.00	218.50	248.90	912.60	1198.80	1117.60	251.70	32.30	82.50	98.00	71.50		
22	65.00	208.00	218.50	251.70	951.00	1327.00	1063.00	245.40	37.30	77.00	94.00	68.50		
23	52.10	206.10	216.50	253.80	1007.00	1397.50	937.00	235.60	38.60	85.00	77.00	66.50		
24	46.20	205.50	213.90	255.90	1049.00	1491.50	924.80	225.10	41.30	88.00	76.00	70.50		
25	67.00	205.50	211.30	258.00	1097.30	1541.00	863.80	219.80	44.50	87.00	67.00	82.00		
26	97.00	202.20	206.10	258.80	1178.50	1541.00	803.50	202.90	45.40	83.50	71.00	76.50		
27	113.60	201.60	202.90	260.40	1259.70	1541.00	769.00	189.20	44.50	76.50	79.00	67.50		
28	116.30	202.90	201.00	261.20	1350.50	1541.00	734.50	176.00	44.50	75.00	89.50	63.00		
29	107.50	202.20	199.80	262.00	1350.50	1515.00	689.00	155.40	44.90	77.00	89.50	60.00		
30	106.50	201.60	194.10	262.80	1397.50	1491.50	645.00	136.20	45.80	80.50		57.10		
31		202.90		262.80	1327.00		612.00		46.70	77.00		55.30		
Total	1376.10	5475.30	6344.70	7436.80	23100.90	36302.40	36519.90	9380.70	1681.70	2088.70	2482.00	2450.90	134640.10	CMSDAY
Mean	45.90	176.60	211.50	239.90	745.20	1210.10	1178.10	312.70	54.20	67.40	85.60	79.10	367.90	CMS
Max	116.30	208.00	219.80	262.80	1397.50	1541.00	1541.00	590.00	121.80	88.00	99.50	104.00	1541.00	CMS
Min	0.00	108.00	194.10	196.60	266.00	965.00	612.00	136.20	19.70	45.40	67.00	55.30	0.00	CMS
Runoff	118.90	473.07	548.18	642.54	1995.92	3136.53	3155.32	810.49	145.30	180.46	214.44	211.76	11632.91	MCM

Momentary Peak 1566.99 CMS. at 38.42 m. (MSL.) at 16.00 Hours , on Sep 25 , 2011

Runoff Yield 16.70 Liters/Second/Square KM. Momentary Peak Yield 71.117 Liters/Second/Square KM.

WATER YEAR : 2011

YOM RIVER BASIN

Yom River at Ban Huai Sak , Phrae (Y.20)

Lat 18 - 35 - 06 N Long 100 - 09 - 16 E

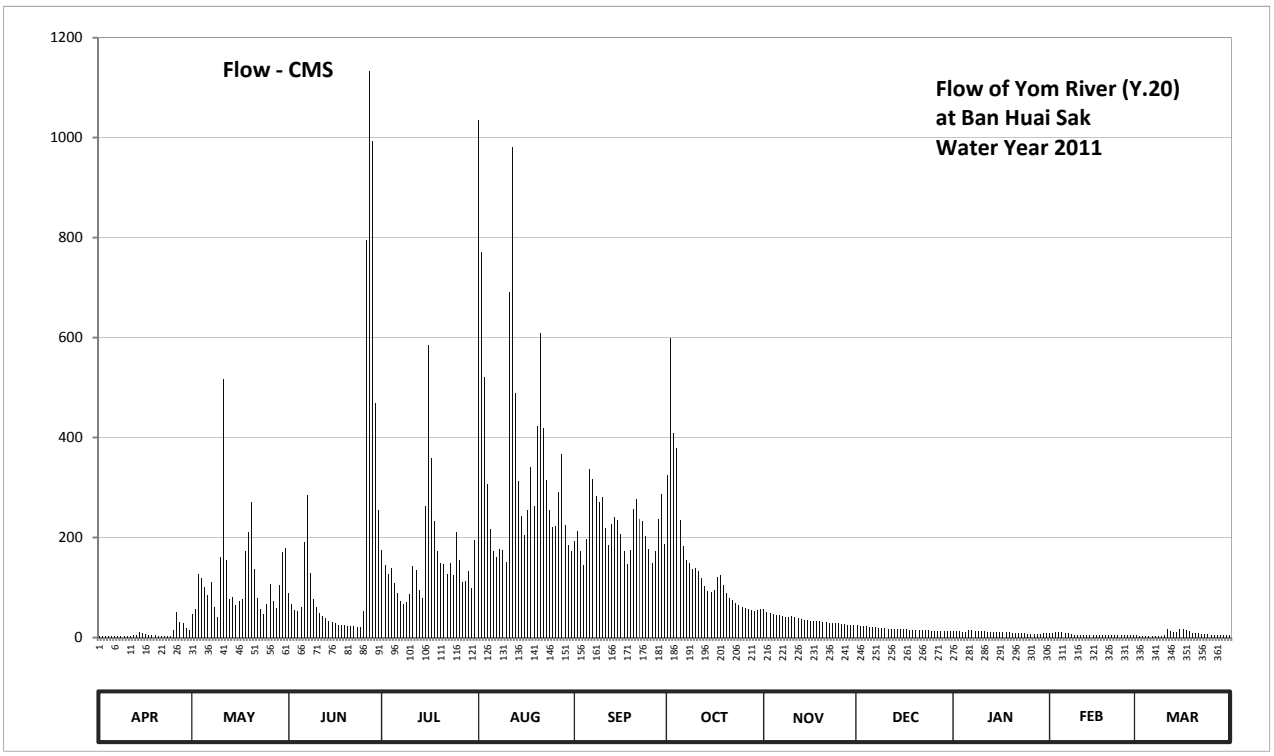
Location : on left bank about 1 kilometer downstream from Sop Ngao.

	Ban Huai Sak	**Amphoe** Song	**Changwat** Phrae
Drainge Area	5,394 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+181.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	Near the automatic gage building.		**Elevation** +193.552 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	1971 to date		
Rating Operation			
Period of Rating	1972 to date		
Rated by Flot	-		
Rated by Current Meter	1972 to date		
Stability of Channel Regimes	Fairly stable because of backwater effect.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Mae yom weir situated about 15 kilometers above site.		
	Stage-discharge relation defined by 48 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	181.66	182.78	183.54	184.65	189.39	184.84	185.94	182.96	182.29	182.03	181.94	181.77	
2	181.66	182.99	183.18	184.29	188.38	185.04	187.59	182.85	182.26	182.02	181.94	181.69	
3	181.65	184.05	182.93	184.06	187.18	184.62	186.53	182.80	182.25	182.00	181.95	181.66	
4	181.64	183.95	182.90	184.23	185.81	184.29	186.33	182.77	182.25	181.99	181.95	181.65	
5	181.63	183.69	183.05	183.81	185.08	184.89	185.24	182.75	182.24	181.99	181.95	181.68	
6	181.62	183.48	184.83	183.51	184.62	186.03	184.74	182.72	182.21	182.05	181.92	181.70	
7	181.61	183.82	185.64	183.29	184.48	185.88	184.41	182.70	182.20	182.08	181.90	181.68	
8	181.63	183.05	184.09	183.15	184.67	185.62	184.33	182.68	182.18	182.04	181.85	181.69	
9	181.63	182.65	183.35	183.25	184.64	185.53	184.21	182.65	182.16	182.02	181.82	181.68	
10	181.66	184.49	183.04	183.49	184.37	185.60	184.23	182.71	182.16	182.01	181.80	181.81	
11	181.66	187.15	182.83	184.28	188.03	185.10	184.14	182.68	182.15	182.01	181.80	182.10	
12	181.74	184.41	182.71	184.16	189.20	184.77	183.95	182.63	182.14	181.99	181.79	182.03	
13	181.80	183.34	182.60	183.61	186.99	185.18	183.73	182.57	182.14	181.97	181.77	181.98	
14	181.95	183.40	182.51	183.37	185.86	185.29	183.59	182.54	182.13	181.96	181.76	181.96	
15	181.90	183.12	182.43	185.46	185.30	185.24	183.55	182.52	182.13	181.97	181.76	182.12	
16	181.83	183.27	182.40	187.52	184.97	184.99	183.62	182.51	182.12	181.98	181.75	182.10	
17	181.79	183.35	182.33	186.19	185.40	184.62	183.98	182.50	182.10	181.99	181.76	182.06	
18	181.77	184.63	182.33	185.23	186.06	184.31	184.03	182.49	182.09	181.96	181.77	182.01	
19	181.72	185.03	182.31	184.62	185.46	184.65	183.76	182.48	182.08	181.95	181.77	181.94	
20	181.70	185.52	182.27	184.35	186.61	185.41	183.51	182.45	182.07	181.94	181.77	181.90	
21	181.70	184.19	182.25	184.31	187.64	185.57	183.39	182.43	182.06	181.94	181.77	181.88	
22	181.67	183.37	182.25	184.06	186.59	185.26	183.30	182.41	182.06	181.93	181.76	181.86	
23	181.66	182.99	182.24	184.33	185.87	185.23	183.21	182.40	182.07	181.91	181.73	181.85	
24	181.69	182.76	182.21	184.02	185.40	184.96	183.13	182.39	182.05	181.89	181.73	181.84	
25	182.08	183.16	182.91	185.02	185.11	184.67	183.06	182.38	182.04	181.87	181.73	181.80	
26	182.86	183.79	188.48	184.42	185.14	184.34	183.01	182.36	182.04	181.87	181.73	181.78	
27	182.43	183.29	189.73	183.82	185.68	184.62	183.00	182.35	182.04	181.86	181.73	181.79	
28	182.38	183.02	189.24	183.86	186.24	185.25	182.93	182.33	182.04	181.87	181.73	181.77	
29	182.18	183.75	186.88	184.15	185.15	185.66	182.91	182.32	182.04	181.86	181.77	181.77	
30	182.07	184.59	185.40	183.66	184.76	184.80	182.93	182.31	182.03	181.88		181.76	
31		184.70		184.87	184.62		183.00		182.04	181.92		181.74	
Mean	181.83	183.80	183.76	184.29	185.96	185.08	184.04	182.55	182.12	181.96	181.81	181.84	
Max	182.86	187.15	189.73	187.52	189.39	186.03	187.59	182.96	182.29	182.08	181.95	182.12	189.73
Min	181.61	182.65	182.21	183.15	184.37	184.29	182.91	182.31	182.03	181.86	181.73	181.65	181.61

Annual Max Momentary Gage Height	190.80	m. (MSL.) ,	at 19.00 Hours , on Jun 27 , 2011		
Zero Gage at Bottom Elevation	181.00	m. (MSL.) ,	River Bed	179.46	m. (MSL)
Left Bank Elevation	193.51	m. (MSL.) ,			
Right Bank Elevation	193.76	m. (MSL.) ,	Drainage Area	5394	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.25	47.00	89.97	175.25	1035.15	192.00	323.90	56.00	24.05	13.20	9.90	4.63		
2	3.25	57.50	67.90	144.65	770.40	212.40	598.00	50.50	22.70	12.80	9.90	3.63		
3	3.12	126.31	54.50	127.03	521.50	172.70	409.50	48.00	22.25	12.00	10.25	3.25		
4	3.00	119.19	53.00	139.55	306.35	144.65	379.50	46.50	22.25	11.65	10.25	3.12		
5	2.88	100.66	60.75	109.21	216.80	197.00	235.00	45.50	21.80	11.65	10.25	3.50		
6	2.75	85.70	191.00	87.84	172.70	336.20	182.90	44.00	20.45	14.00	9.20	3.75		
7	2.63	109.93	285.00	73.95	160.80	315.80	154.85	43.00	20.00	15.20	8.50	3.50		
8	2.88	60.75	129.16	66.25	176.95	282.50	148.05	42.00	19.20	13.60	6.75	3.63		
9	2.88	40.50	77.25	71.75	174.40	271.25	137.85	40.50	18.40	12.80	5.70	3.50		
10	3.25	161.65	60.20	86.41	151.45	280.00	139.55	43.50	18.40	12.40	5.00	5.35		
11	3.25	516.25	49.50	143.80	690.75	219.00	132.73	42.00	18.00	12.40	5.00	16.00		
12	4.25	154.85	43.50	134.15	981.00	185.45	119.19	39.50	17.60	11.65	4.87	13.20		
13	5.00	76.70	38.00	94.96	488.25	227.80	103.51	36.65	17.60	10.95	4.63	11.30		
14	10.25	80.00	33.95	78.35	313.10	241.25	93.54	35.30	17.20	10.60	4.50	10.60		
15	8.50	64.60	30.35	262.50	242.50	235.00	90.69	34.40	17.20	10.95	4.50	16.80		
16	6.05	72.85	29.00	584.00	205.00	207.00	95.68	33.95	16.80	11.30	4.37	16.00		
17	4.87	77.25	25.85	358.60	255.00	172.70	121.32	33.50	16.00	11.65	4.50	14.40		
18	4.63	173.55	25.85	233.75	340.40	146.35	124.89	33.05	15.60	10.60	4.63	12.40		
19	4.00	211.30	24.95	172.70	262.50	175.25	105.65	32.60	15.20	10.25	4.63	9.90		
20	3.75	270.00	23.15	149.75	421.75	256.25	87.84	31.25	14.80	9.90	4.63	8.50		
21	3.75	136.29	22.25	146.35	608.00	276.25	79.45	30.35	14.40	9.90	4.63	7.80		
22	3.37	78.35	22.25	127.03	418.50	237.50	74.50	29.45	14.40	9.55	4.50	7.10		
23	3.25	57.50	21.80	148.05	314.45	233.75	69.55	29.00	14.80	8.85	4.12	6.75		
24	3.63	46.00	20.45	124.18	255.00	204.00	65.15	28.55	14.00	8.15	4.12	6.40		
25	15.20	66.80	53.50	210.20	220.10	176.95	61.30	28.10	13.60	7.45	4.12	5.00		
26	51.00	107.79	794.60	155.70	223.40	148.90	58.55	27.20	13.60	7.45	4.12	4.75		
27	30.35	73.95	1133.70	109.93	290.00	172.70	58.00	26.75	13.60	7.10	4.12	4.87		
28	28.10	59.10	992.40	112.78	366.00	236.25	54.50	25.85	13.60	7.45	4.12	4.63		
29	19.20	104.94	469.00	133.44	224.50	287.50	53.50	25.40	13.60	7.10	4.63	4.63		
30	14.80	170.15	255.00	98.53	184.60	188.00	54.50	24.95	13.20	7.80		4.50		
31		179.50		195.00	172.70		58.00		13.60	9.20		4.25		
Total	257.09	3686.91	5177.78	4855.64	11164.00	6632.35	4471.14	1087.30	527.90	329.55	170.44	227.64	38587.75	CMSDAY
Mean	8.57	118.93	172.59	156.63	360.13	221.08	144.23	36.24	17.03	10.63	5.88	7.34	105.43	CMS
Max	51.00	516.25	1133.70	584.00	1035.15	336.20	598.00	56.00	24.05	15.20	10.25	16.80	1133.70	CMS
Min	2.63	40.50	20.45	66.25	151.45	144.65	53.50	24.95	13.20	7.10	4.12	3.12	2.63	CMS
Runoff	22.21	318.55	447.36	419.53	964.57	573.04	386.31	93.94	45.61	28.47	14.73	19.67	3333.98	MCM

Momentary Peak 1464.00 CMS. at 190.80 m. (MSL.) at 19.00 Hours , on Jun 27 , 2011

Runoff Yield 19.55 Liters/Second/Square KM. Momentary Peak Yield 271.413 Liters/Second/Square KM.

WATER YEAR : 2011

YOM RIVER BASIN

Yom River at Ban Na Pla Kang , Sukhothai (Y.21)

Lat 17 - 47 - 31 N Long 99 - 47 - 27 E

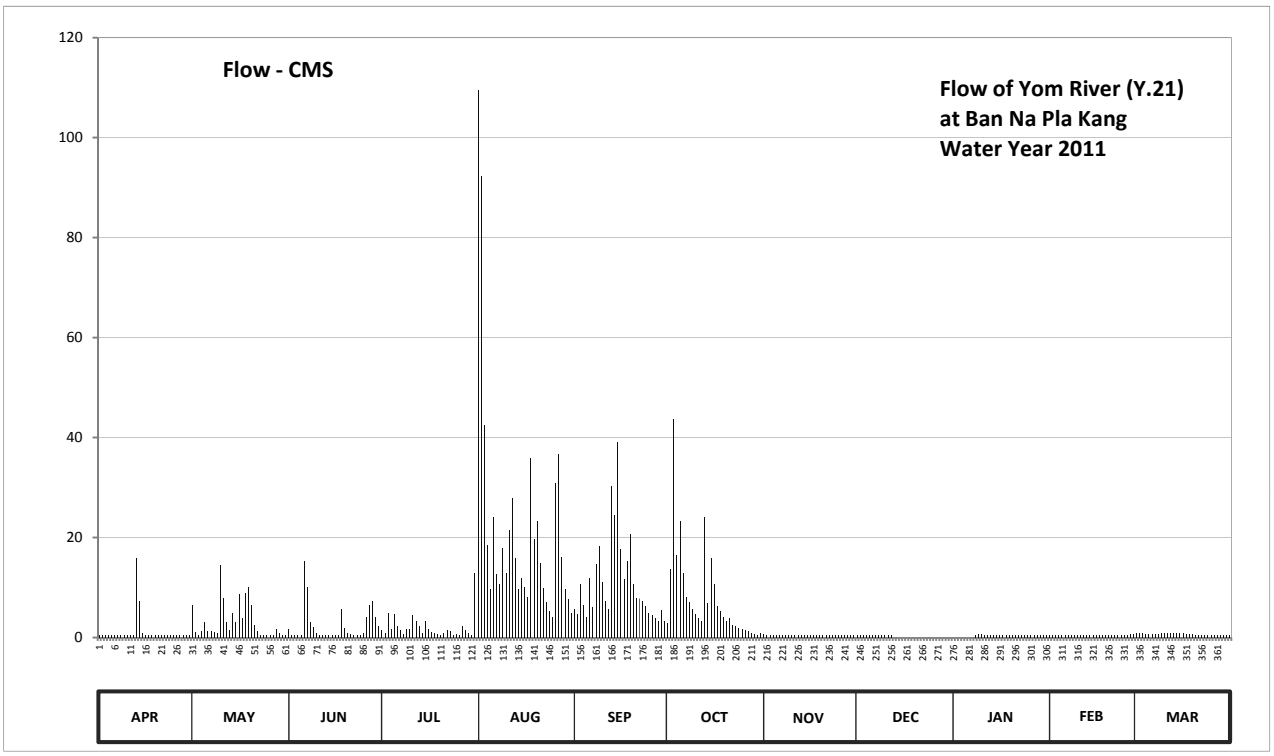
Location : on right bank at Ban Na Pla Kang.

	Ban Na Pla Kang	**Amphoe** Si Satchanalai	**Changwat** Sukhothai		
Drainge Area	310 sq.km.				
Type of Gage	Staff gage				
Zero Gage at Bottom	+114.456 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On left bank near the gage site.	**Elevation** +119.519 m. (MSL.)			
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.				
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings				
Period of Available Gage Records	2007 to date				
Rating Operation					
Period of Rating	2007 to date				
Rated by Flot	-				
Rated by Current Meter	2007 to date				
Stability of Channel Regimes	Fairly stable.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records fair. Stage-discharge relation defined by 19 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	115.57	115.96	115.67	115.66	118.50	115.93	115.75	115.61	115.42	115.37	115.59	115.62	
2	115.56	115.64	115.59	115.62	118.19	115.87	116.30	115.60	115.42	115.37	115.58	115.62	
3	115.56	115.54	115.56	115.88	117.18	116.17	117.21	115.59	115.42	115.37	115.58	115.62	
4	115.57	115.65	115.57	115.67	116.48	115.96	116.41	115.58	115.43	115.37	115.58	115.61	
5	115.57	115.76	115.55	115.87	116.12	115.83	116.64	115.57	115.43	115.37	115.58	115.61	
6	115.57	115.65	116.36	115.72	116.67	116.22	116.26	115.56	115.42	115.37	115.58	115.61	
7	115.57	115.65	116.14	115.66	116.25	115.94	116.04	115.56	115.42	115.36	115.58	115.61	
8	115.57	115.64	115.77	115.61	116.17	116.34	115.99	115.55	115.41	115.46	115.57	115.61	
9	115.57	115.62	115.70	115.67	116.46	116.47	115.93	115.54	115.42	115.61	115.57	115.62	
10	115.57	116.33	115.63	115.67	116.27	116.18	115.86	115.54	115.41	115.61	115.57	115.62	
11	115.57	116.03	115.60	115.85	116.58	116.01	115.82	115.53	115.41	115.60	115.56	115.63	
12	115.57	115.76	115.59	115.79	116.79	115.93	115.78	115.53	115.41	115.59	115.56	115.63	
13	116.39	115.66	115.57	115.71	116.39	116.86	116.67	115.52	115.40	115.58	115.55	115.63	
14	116.01	115.88	115.55	115.62	116.12	116.68	115.98	115.51	115.40	115.57	115.54	115.62	
15	115.62	115.77	115.52	115.79	116.22	117.10	116.39	115.50	115.40	115.57	115.52	115.62	
16	115.48	116.07	115.50	115.67	116.14	116.45	116.17	115.50	115.40	115.57	115.50	115.62	
17	115.47	115.81	115.49	115.64	116.05	116.21	115.95	115.49	115.39	115.57	115.51	115.61	
18	115.48	116.08	115.92	115.62	117.02	116.36	115.90	115.49	115.39	115.57	115.52	115.61	
19	115.50	116.14	115.69	115.61	116.52	116.55	115.84	115.49	115.39	115.57	115.53	115.61	
20	115.50	115.96	115.63	115.59	116.64	116.17	115.78	115.48	115.38	115.57	115.54	115.60	
21	115.50	115.74	115.61	115.63	116.35	116.03	115.81	115.48	115.38	115.57	115.54	115.60	
22	115.50	115.65	115.57	115.66	116.13	116.03	115.74	115.48	115.38	115.56	115.53	115.59	
23	115.51	115.60	115.58	115.65	115.99	116.00	115.72	115.47	115.38	115.56	115.53	115.58	
24	115.52	115.55	115.56	115.60	115.90	115.95	115.69	115.47	115.38	115.56	115.53	115.57	
25	115.53	115.51	115.62	115.61	115.84	115.88	115.68	115.46	115.38	115.56	115.53	115.56	
26	115.52	115.56	115.83	115.60	116.88	115.85	115.66	115.46	115.38	115.56	115.60	115.55	
27	115.51	115.58	115.96	115.72	117.04	115.82	115.65	115.45	115.38	115.56	115.61	115.54	
28	115.50	115.67	116.01	115.66	116.40	115.79	115.63	115.45	115.38	115.56	115.61	115.54	
29	115.50	115.63	115.83	115.63	116.12	115.91	115.61	115.44	115.37	115.57	115.62	115.53	
30	115.54	115.59	115.72	115.58	116.02	115.78	115.60	115.44	115.37	115.57		115.54	
31		115.60		116.27	115.89		115.63		115.37	115.58		115.54	
Mean	115.58	115.75	115.70	115.69	116.49	116.14	115.97	115.51	115.40	115.52	115.56	115.60	
Max	116.39	116.33	116.36	116.27	118.50	117.10	117.21	115.61	115.43	115.61	115.62	115.63	118.50
Min	115.47	115.51	115.49	115.58	115.84	115.78	115.60	115.44	115.37	115.36	115.50	115.53	115.36

Annual Max Momentary Gage Height	119.11	m. (MSL.) ,	at 06.00 Hours , on Aug 1 , 2011		
Zero Gage at Bottom Elevation	114.46	m. (MSL.) ,	River Bed	113.48	m. (MSL)
Left Bank Elevation	119.80	m. (MSL.) ,			
Right Bank Elevation	119.83	m. (MSL.) ,	Drainage Area	310	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.50	6.40	1.60	1.40	109.60	5.80	2.80	0.70	0.40	0.00	0.50	0.80		
2	0.50	1.10	0.50	0.80	92.30	4.70	13.70	0.50	0.40	0.00	0.50	0.80		
3	0.50	0.50	0.50	4.90	42.50	10.70	43.70	0.50	0.40	0.00	0.50	0.80		
4	0.50	1.30	0.50	1.60	18.50	6.40	16.50	0.50	0.40	0.00	0.50	0.70		
5	0.50	3.00	0.50	4.70	9.60	4.10	23.20	0.50	0.40	0.00	0.50	0.70		
6	0.50	1.30	15.20	2.30	24.20	11.90	12.80	0.50	0.40	0.00	0.50	0.70		
7	0.50	1.30	10.10	1.40	12.60	6.00	8.00	0.50	0.40	0.00	0.50	0.70		
8	0.50	1.10	3.10	0.70	10.70	14.70	7.00	0.50	0.40	0.40	0.50	0.70		
9	0.50	0.80	2.00	1.60	17.90	18.20	5.80	0.50	0.40	0.70	0.50	0.80		
10	0.50	14.40	0.90	1.60	13.00	11.00	4.60	0.50	0.40	0.70	0.50	0.80		
11	0.50	7.80	0.50	4.40	21.40	7.40	3.90	0.50	0.40	0.50	0.50	0.90		
12	0.50	3.00	0.50	3.40	27.90	5.80	3.30	0.50	0.40	0.50	0.50	0.90		
13	15.90	1.40	0.50	2.20	15.90	30.20	24.20	0.50	0.00	0.50	0.50	0.90		
14	7.40	4.90	0.50	0.80	9.60	24.50	6.80	0.40	0.00	0.50	0.50	0.80		
15	0.80	3.10	0.50	3.40	11.90	39.10	15.90	0.40	0.00	0.50	0.50	0.80		
16	0.40	8.60	0.40	1.60	10.10	17.60	10.70	0.40	0.00	0.50	0.40	0.80		
17	0.40	3.80	0.40	1.10	8.20	11.60	6.20	0.40	0.00	0.50	0.40	0.70		
18	0.40	8.80	5.60	0.80	35.90	15.20	5.20	0.40	0.00	0.50	0.50	0.70		
19	0.40	10.10	1.90	0.70	19.70	20.60	4.20	0.40	0.00	0.50	0.50	0.70		
20	0.40	6.40	0.90	0.50	23.20	10.70	3.30	0.40	0.00	0.50	0.50	0.50		
21	0.40	2.60	0.70	0.90	14.90	7.80	3.80	0.40	0.00	0.50	0.50	0.50		
22	0.40	1.30	0.50	1.40	9.90	7.80	2.60	0.40	0.00	0.50	0.50	0.50		
23	0.40	0.50	0.50	1.30	7.00	7.20	2.30	0.40	0.00	0.50	0.50	0.50		
24	0.50	0.50	0.50	0.50	5.20	6.20	1.90	0.40	0.00	0.50	0.50	0.50		
25	0.50	0.40	0.80	0.70	4.20	4.90	1.70	0.40	0.00	0.50	0.50	0.50		
26	0.50	0.50	4.10	0.50	30.90	4.40	1.40	0.40	0.00	0.50	0.50	0.50		
27	0.40	0.50	6.40	2.30	36.70	3.90	1.30	0.40	0.00	0.50	0.70	0.50		
28	0.40	1.60	7.40	1.40	16.20	3.40	0.90	0.40	0.00	0.50	0.70	0.50		
29	0.40	0.90	4.10	0.90	9.60	5.40	0.70	0.40	0.00	0.50	0.80	0.50		
30	0.50	0.50	2.30	0.50	7.60	3.30	0.50	0.40	0.00	0.50		0.50		
31		0.50		13.00	5.00		0.90		0.00	0.50		0.50		
Total	36.50	98.90	73.90	63.30	681.90	330.50	239.80	13.50	4.80	12.30	15.00	20.70	1591.10	CMSDAY
Mean	1.20	3.20	2.50	2.00	22.00	11.00	7.70	0.40	0.20	0.40	0.50	0.70	4.30	CMS
Max	15.90	14.40	15.20	13.00	109.60	39.10	43.70	0.70	0.40	0.70	0.80	0.90	109.60	CMS
Min	0.40	0.40	0.40	0.50	4.20	3.30	0.50	0.40	0.00	0.00	0.40	0.50	0.00	CMS
Runoff	3.15	8.54	6.38	5.47	58.92	28.56	20.72	1.17	0.41	1.06	1.30	1.79	137.47	MCM

Momentary Peak 145.40 CMS. at 119.11 m. (MSL.) at 06.00 Hours , on Aug 1 , 2011

Runoff Yield 14.02 Liters/Second/Square KM. Momentary Peak Yield 469.032 Liters/Second/Square KM.

WATER YEAR : 2011

YOM RIVER BASIN

Nam Pi at Ban Mang , Phayao (Y.24)

Lat 18 - 53 - 11 N Long 100 - 17 - 20 E

Location : on right bank upstream of the bridge from Pong Sanuk - Chiang Muan road.

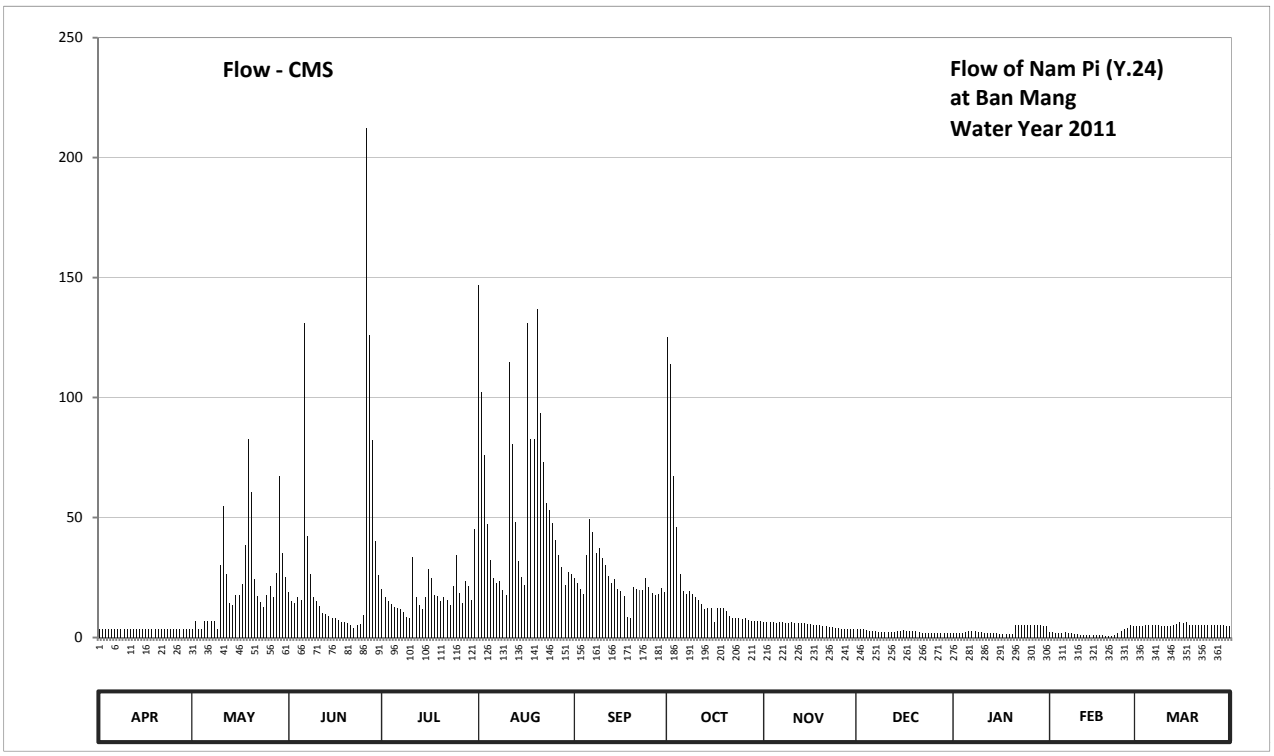
Ban Mang **Amphoe** Chiang Muan **Changwat** Phayao

Drainge Area	590 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+257.765 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank at the abutment of the bridge. **Elevation** +264.800 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings
Period of Available Gage Records	1977 to date
Rating Operation	
Period of Rating	1979 - 1986 , 1996 to date
Rated by Flot	-
Rated by Current Meter	1979 - 1986 , 1996 to date
Stability of Channel Regimes	Fairly stable because of backwater effect.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. The channel flow silted about 100 meters downstream from the gage site. Stage-discharge relation defined by 48 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	259.77	260.13	260.25	260.28	262.22	260.39	261.96	259.88	259.76	259.67	259.68	259.82	
2	259.81	260.25	260.15	260.20	261.67	260.34	261.82	259.88	259.76	259.67	259.68	259.82	
3	259.79	260.15	260.12	260.15	261.31	260.28	261.18	259.87	259.76	259.67	259.66	259.82	
4	259.79	260.20	260.20	260.11	260.84	260.23	260.82	259.87	259.74	259.67	259.67	259.83	
5	259.74	260.28	260.16	260.07	260.55	260.60	260.43	259.86	259.71	259.69	259.67	259.83	
6	259.74	260.28	262.03	260.05	260.39	260.88	260.26	259.87	259.70	259.72	259.68	259.83	
7	259.74	260.37	260.75	260.04	260.34	260.78	260.23	259.87	259.70	259.71	259.67	259.84	
8	259.70	260.30	260.43	260.00	260.36	260.61	260.26	259.86	259.68	259.71	259.66	259.83	
9	259.68	260.16	260.19	259.94	260.27	260.65	260.23	259.86	259.68	259.69	259.62	259.82	
10	259.68	260.51	260.15	259.92	260.22	260.57	260.20	259.88	259.69	259.68	259.62	259.82	
11	260.06	260.98	260.08	260.58	261.83	260.51	260.16	259.86	259.68	259.67	259.57	259.82	
12	260.02	260.43	259.99	260.20	261.38	260.41	260.11	259.86	259.69	259.66	259.57	259.82	
13	260.07	260.12	259.98	260.09	260.86	260.34	260.04	259.86	259.69	259.65	259.58	259.83	
14	260.02	260.09	259.95	260.04	260.54	260.38	260.06	259.86	259.70	259.66	259.57	259.85	
15	260.00	260.22	259.93	260.20	260.40	260.28	260.06	259.85	259.72	259.65	259.57	259.87	
16	259.95	260.22	259.92	260.47	260.32	260.26	259.88	259.85	259.75	259.63	259.57	259.86	
17	259.90	260.33	259.90	260.39	262.03	260.21	260.06	259.84	259.72	259.62	259.57	259.87	
18	259.86	260.68	259.88	260.22	261.41	259.94	260.06	259.84	259.71	259.62	259.57	259.84	
19	259.88	261.41	259.87	260.21	261.41	259.93	260.05	259.83	259.70	259.62	259.56	259.84	
20	259.92	261.07	259.86	260.15	262.10	260.30	260.01	259.82	259.70	259.62	259.53	259.84	
21	259.91	260.38	259.83	260.19	261.56	260.28	259.95	259.82	259.69	259.84	259.55	259.84	
22	259.87	260.21	259.80	260.16	261.27	260.27	259.93	259.81	259.67	259.84	259.61	259.84	
23	259.82	260.13	259.84	260.10	261.00	260.27	259.92	259.81	259.66	259.84	259.65	259.84	
24	259.81	260.07	259.85	260.31	260.95	260.39	259.92	259.80	259.67	259.84	259.72	259.84	
25	260.19	260.22	259.97	260.60	260.85	260.30	259.91	259.79	259.67	259.84	259.76	259.84	
26	260.11	260.31	262.96	260.24	260.72	260.24	259.92	259.78	259.67	259.83	259.80	259.83	
27	260.00	260.19	261.97	260.12	260.60	260.22	259.90	259.78	259.67	259.83	259.83	259.83	
28	259.91	260.44	261.40	260.36	260.49	260.23	259.89	259.77	259.67	259.83	259.82	259.83	
29	259.90	261.18	260.71	260.31	260.32	260.29	259.89	259.77	259.67	259.83	259.82	259.83	
30	259.92	260.61	260.42	260.16	260.45	260.25	259.89	259.76	259.67	259.82		259.82	
31		260.40		260.80	260.43		259.89		259.67	259.82		259.82	
Mean	259.89	260.40	260.35	260.21	260.94	260.35	260.22	259.84	259.70	259.72	259.65	259.83	
Max	260.19	261.41	262.96	260.80	262.22	260.88	261.96	259.88	259.76	259.84	259.83	259.87	262.96
Min	259.68	260.07	259.80	259.92	260.22	259.93	259.88	259.76	259.66	259.62	259.53	259.82	259.53

Annual Max Momentary Gage Height	263.30	m. (MSL.) ,	at 12.00 Hours , on Jun 26 , 2011		
Zero Gage at Bottom Elevation	257.77	m. (MSL.) ,	River Bed	255.80	m. (MSL)
Left Bank Elevation	266.24	m. (MSL.) ,			
Right Bank Elevation	266.70	m. (MSL.) ,	Drainage Area	590	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.30	3.30	19.00	20.20	146.70	24.60	125.30	6.60	3.40	2.05	2.20	4.65		
2	3.30	6.90	15.37	17.00	102.10	22.60	114.10	6.60	3.40	2.05	2.20	4.65		
3	3.30	3.30	14.40	15.37	75.92	20.20	67.25	6.28	3.40	2.05	1.90	4.65		
4	3.30	3.30	17.00	14.07	47.20	18.20	46.10	6.28	3.10	2.05	2.05	4.97		
5	3.30	6.90	15.70	12.78	32.12	34.50	26.42	5.95	2.65	2.35	2.05	4.97		
6	3.30	6.90	130.97	12.12	24.60	49.40	19.40	6.28	2.50	2.80	2.20	4.97		
7	3.30	6.90	42.38	11.80	22.60	43.95	18.20	6.28	2.50	2.65	2.05	5.30		
8	3.30	6.90	26.42	10.50	23.40	35.02	19.40	5.95	2.20	2.65	1.90	4.97		
9	3.30	3.30	16.67	8.55	19.80	37.12	18.20	5.95	2.20	2.35	1.30	4.65		
10	3.30	30.23	15.37	7.90	17.80	33.08	17.00	6.60	2.35	2.20	1.30	4.65		
11	3.30	54.90	13.10	33.55	114.90	30.23	15.70	5.95	2.20	2.05	0.85	4.65		
12	3.30	26.42	10.17	17.00	80.65	25.48	14.07	5.95	2.35	1.90	0.85	4.65		
13	3.30	14.40	9.85	13.42	48.30	22.60	11.80	5.95	2.35	1.75	0.90	4.97		
14	3.30	13.42	8.88	11.80	31.65	24.20	12.45	5.95	2.50	1.90	0.85	5.63		
15	3.30	17.80	8.22	17.00	25.00	20.20	12.45	5.63	2.80	1.75	0.85	6.28		
16	3.30	17.80	7.90	28.33	21.80	19.40	6.60	5.63	3.25	1.45	0.85	5.95		
17	3.30	22.20	7.25	24.60	130.97	17.40	12.45	5.30	2.80	1.30	0.85	6.28		
18	3.30	38.70	6.60	17.80	82.73	8.55	12.45	5.30	2.65	1.30	0.85	5.30		
19	3.30	82.73	6.28	17.40	82.73	8.22	12.12	4.97	2.50	1.30	0.80	5.30		
20	3.30	60.38	5.95	15.37	136.75	21.00	10.83	4.65	2.50	1.30	0.65	5.30		
21	3.30	24.20	4.97	16.67	93.60	20.20	8.88	4.65	2.35	5.30	0.75	5.30		
22	3.30	17.40	4.00	15.70	73.22	19.80	8.22	4.33	2.05	5.30	1.15	5.30		
23	3.30	14.72	5.30	13.75	56.00	19.80	7.90	4.33	1.90	5.30	1.75	5.30		
24	3.30	12.78	5.63	21.40	53.25	24.60	7.90	4.00	2.05	5.30	2.80	5.30		
25	3.30	17.80	9.53	34.50	47.75	21.00	7.58	3.85	2.05	5.30	3.40	5.30		
26	3.30	21.40	212.40	18.60	40.80	18.60	7.90	3.70	2.05	4.97	4.00	4.97		
27	3.30	16.67	126.10	14.40	34.50	17.80	7.25	3.70	2.05	4.97	4.97	4.97		
28	3.30	26.90	82.00	23.40	29.27	18.20	6.93	3.55	2.05	4.97	4.65	4.97		
29	3.30	67.25	40.27	21.40	21.80	20.60	6.93	3.55	2.05	4.97	4.65	4.97		
30	3.30	35.02	25.95	15.70	27.38	19.00	6.93	3.40	2.05	4.65		4.65		
31		25.00		45.00	26.42		6.93		2.05	4.65		4.65		
Total	99.00	705.82	913.63	567.08	1771.71	715.55	675.64	157.11	76.30	94.88	55.57	158.42	5990.71	CMSDAY
Mean	3.30	22.77	30.45	18.29	57.15	23.85	21.79	5.24	2.46	3.06	1.92	5.11	16.37	CMS
Max	3.30	82.73	212.40	45.00	146.70	49.40	125.30	6.60	3.40	5.30	4.97	6.28	212.40	CMS
Min	3.30	3.30	4.00	7.90	17.80	8.22	6.60	3.40	1.90	1.30	0.65	4.65	0.65	CMS
Runoff	8.55	60.98	78.94	49.00	153.08	61.82	58.38	13.57	6.59	8.20	4.80	13.69	517.60	MCM

Momentary Peak 244.45 CMS. at 263.30 m. (MSL.) at 12.00 Hours , on Jun 26 , 2011

Runoff Yield 27.74 Liters/Second/Square KM. Momentary Peak Yield 414.322 Liters/Second/Square KM.

WATER YEAR : 2011

YOM RIVER BASIN

Huai Mae Mok at Ban Mae Phu , Lampang (Y.26)

Lat 17 - 19 - 37 N Long 99 - 27 - 42 E

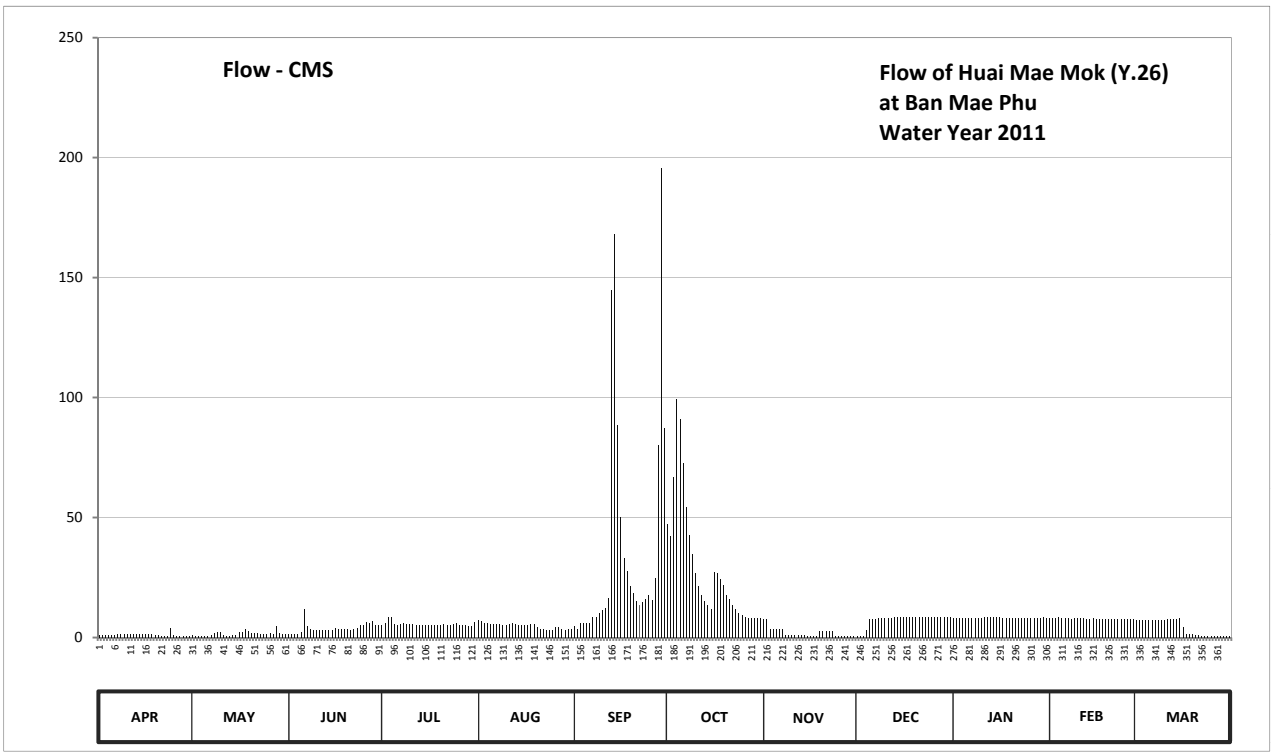
Location : on left bank downstream from Ban Mae Phu Tambon Wiang Mok.

	Ban Mae Phu	**Amphoe** Thoen	**Changwat** Lampang
Drainge Area	784 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+100.380 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	In front of gage observer's house.		**Elevation** +108.338 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	1979 to date		
Rating Operation			
Period of Rating	1979 to date		
Rated by Flot	-		
Rated by Current Meter	1979 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 17 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	100.98	101.00	101.04	101.38	101.53	101.34	103.35	101.56	100.89	101.60	101.60	101.54	
2	100.98	100.94	101.03	101.43	101.50	101.25	103.17	101.56	100.89	101.60	101.60	101.54	
3	100.97	100.94	101.03	101.63	101.45	101.44	103.93	101.26	100.89	101.59	101.60	101.54	
4	100.97	100.93	101.03	101.63	101.43	101.43	104.61	101.25	101.21	101.59	101.61	101.54	
5	100.97	100.95	101.11	101.41	101.41	101.43	104.46	101.25	101.56	101.59	101.60	101.53	
6	100.97	100.95	101.84	101.39	101.40	101.44	104.07	101.25	101.57	101.59	101.59	101.53	
7	101.05	101.02	101.35	101.40	101.40	101.62	103.59	101.25	101.57	101.59	101.58	101.53	
8	101.05	101.07	101.23	101.45	101.40	101.63	103.19	100.99	101.58	101.59	101.57	101.53	
9	101.05	101.14	101.22	101.40	101.39	101.74	102.89	100.98	101.58	101.58	101.58	101.53	
10	101.05	101.13	101.20	101.40	101.39	101.82	102.58	100.98	101.58	101.58	101.59	101.53	
11	101.05	101.00	101.20	101.41	101.42	101.85	102.33	100.97	101.59	101.61	101.59	101.56	
12	101.04	100.96	101.20	101.38	101.43	102.09	102.14	100.98	101.60	101.61	101.59	101.55	
13	101.04	100.95	101.21	101.38	101.40	105.32	102.02	100.98	101.61	101.61	101.57	101.56	
14	101.04	101.00	101.20	101.38	101.36	105.63	101.93	100.98	101.61	101.61	101.57	101.56	
15	101.04	100.99	101.21	101.38	101.36	104.41	101.84	100.91	101.62	101.61	101.58	101.60	
16	101.03	101.12	101.28	101.38	101.39	103.45	102.59	100.91	101.62	101.61	101.57	101.32	
17	101.03	101.11	101.23	101.38	101.38	102.82	102.58	100.91	101.62	101.60	101.57	101.03	
18	101.03	101.23	101.26	101.38	101.41	102.60	102.47	100.91	101.62	101.60	101.57	101.05	
19	101.00	101.15	101.23	101.38	101.40	102.34	102.35	101.18	101.63	101.60	101.57	101.05	
20	100.99	101.10	101.23	101.38	101.31	102.18	102.15	101.18	101.63	101.60	101.56	100.98	
21	100.93	101.09	101.22	101.40	101.25	102.03	102.06	101.18	101.63	101.60	101.56	100.97	
22	100.93	101.08	101.23	101.39	101.24	101.93	101.94	101.18	101.63	101.60	101.56	100.96	
23	100.93	101.04	101.27	101.39	101.21	102.01	101.83	101.18	101.63	101.60	101.55	100.96	
24	101.27	101.03	101.39	101.40	101.21	102.06	101.74	100.93	101.63	101.60	101.55	100.96	
25	101.01	101.03	101.37	101.43	101.20	102.15	101.67	100.92	101.62	101.59	101.55	100.96	
26	100.95	101.07	101.47	101.39	101.31	102.05	101.63	100.91	101.62	101.60	101.55	100.96	
27	100.94	101.04	101.44	101.38	101.31	102.49	101.59	100.91	101.62	101.60	101.55	100.96	
28	100.94	101.34	101.49	101.37	101.24	104.24	101.58	100.91	101.61	101.60	101.55	100.96	
29	100.95	101.09	101.39	101.35	101.21	105.97	101.58	100.90	101.61	101.60	101.55	100.96	
30	100.95	101.06	101.38	101.34	101.26	104.38	101.59	100.89	101.62	101.61		100.96	
31		101.05		101.47	101.26		101.59		101.62	101.60		100.95	
Mean	101.00	101.05	101.27	101.41	101.35	102.57	102.49	101.07	101.53	101.60	101.57	101.26	
Max	101.27	101.34	101.84	101.63	101.53	105.97	104.61	101.56	101.63	101.61	101.61	101.60	105.97
Min	100.93	100.93	101.03	101.34	101.20	101.25	101.58	100.89	100.89	101.58	101.55	100.95	100.89

Annual Max Momentary Gage Height	106.25	m. (MSL.) ,	at 06.00 Hours , on Sep 29 , 2011		
Zero Gage at Bottom Elevation	100.38	m. (MSL.) ,	River Bed	100.42	m. (MSL)
Left Bank Elevation	108.22	m. (MSL.) ,			
Right Bank Elevation	107.32	m. (MSL.) ,	Drainage Area	784	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.90	1.00	1.40	5.25	7.20	4.75	47.12	7.65	0.45	8.25	8.25	7.35		
2	0.90	0.70	1.30	5.88	6.75	3.63	42.17	7.65	0.45	8.25	8.25	7.35		
3	0.85	0.70	1.30	8.70	6.12	6.00	66.95	3.75	0.45	8.10	8.25	7.35		
4	0.85	0.65	1.30	8.70	5.88	5.88	99.30	3.63	3.13	8.10	8.40	7.35		
5	0.85	0.75	2.10	5.63	5.63	5.88	91.15	3.63	7.65	8.10	8.25	7.20		
6	0.85	0.75	11.95	5.38	5.50	6.00	72.73	3.63	7.80	8.10	8.10	7.20		
7	1.50	1.20	4.88	5.50	5.50	8.55	54.42	3.63	7.80	8.10	7.95	7.20		
8	1.50	1.70	3.38	6.12	5.50	8.70	42.73	0.95	7.95	8.10	7.80	7.20		
9	1.50	2.40	3.25	5.50	5.38	10.35	34.75	0.90	7.95	7.95	7.95	7.20		
10	1.50	2.30	3.00	5.50	5.38	11.60	27.00	0.90	7.95	7.95	8.10	7.20		
11	1.50	1.00	3.00	5.63	5.75	12.12	21.35	0.85	8.10	8.40	8.10	7.65		
12	1.40	0.80	3.00	5.25	5.88	16.55	17.55	0.90	8.25	8.40	8.10	7.50		
13	1.40	0.75	3.13	5.25	5.50	144.70	15.15	0.90	8.40	8.40	7.80	7.65		
14	1.40	1.00	3.00	5.25	5.00	168.15	13.52	0.90	8.40	8.40	7.80	7.65		
15	1.40	0.95	3.13	5.25	5.00	88.53	11.95	0.55	8.55	8.40	7.95	8.25		
16	1.30	2.20	4.00	5.25	5.38	50.00	27.25	0.55	8.55	8.40	7.80	4.50		
17	1.30	2.10	3.38	5.25	5.25	33.00	27.00	0.55	8.55	8.25	7.80	1.30		
18	1.30	3.38	3.75	5.25	5.63	27.50	24.33	0.55	8.55	8.25	7.80	1.50		
19	1.00	2.50	3.38	5.25	5.50	21.55	21.75	2.80	8.70	8.25	7.80	1.50		
20	0.95	2.00	3.38	5.25	4.37	18.35	17.75	2.80	8.70	8.25	7.65	0.90		
21	0.65	1.90	3.25	5.50	3.63	15.35	15.95	2.80	8.70	8.25	7.65	0.85		
22	0.65	1.80	3.38	5.38	3.50	13.52	13.70	2.80	8.70	8.25	7.65	0.80		
23	0.65	1.40	3.87	5.38	3.13	14.95	11.77	2.80	8.70	8.25	7.50	0.80		
24	3.87	1.30	5.38	5.50	3.13	15.95	10.35	0.65	8.70	8.25	7.50	0.80		
25	1.10	1.30	5.13	5.88	3.00	17.75	9.30	0.60	8.55	8.10	7.50	0.80		
26	0.75	1.70	6.38	5.38	4.37	15.75	8.70	0.55	8.55	8.25	7.50	0.80		
27	0.70	1.40	6.00	5.25	4.37	24.77	8.10	0.55	8.55	8.25	7.50	0.80		
28	0.70	4.75	6.62	5.13	3.50	80.30	7.95	0.55	8.40	8.25	7.50	0.80		
29	0.75	1.90	5.38	4.88	3.13	195.53	7.95	0.50	8.40	8.25	7.50	0.80		
30	0.75	1.60	5.25	4.75	3.75	87.00	8.10	0.45	8.55	8.40		0.80		
31		1.50		6.38	3.75		8.10		8.55	8.25		0.75		
Total	34.72	49.38	117.65	174.45	151.36	1132.66	885.89	59.92	230.68	255.15	227.70	129.80	3449.36	CMSDAY
Mean	1.16	1.59	3.92	5.63	4.88	37.76	28.58	2.00	7.44	8.23	7.85	4.19	9.42	CMS
Max	3.87	4.75	11.95	8.70	7.20	195.53	99.30	7.65	8.70	8.40	8.40	8.25	195.53	CMS
Min	0.65	0.65	1.30	4.75	3.00	3.63	7.95	0.45	0.45	7.95	7.50	0.75	0.45	CMS
Runoff	3.00	4.27	10.17	15.07	13.08	97.86	76.54	5.18	19.93	22.05	19.67	11.22	298.03	MCM

Momentary Peak 219.25 CMS. at 106.25 m. (MSL.) at 06.00 Hours , on Sep 29 , 2011

Runoff Yield 12.02 Liters/Second/Square KM. Momentary Peak Yield 279.656 Liters/Second/Square KM.

WATER YEAR : 2011

YOM RIVER BASIN

Huai Pong at Ban Pong , Lampang (Y.30)

Lat 18 - 42 - 29 N Long 99 - 57 - 40 E

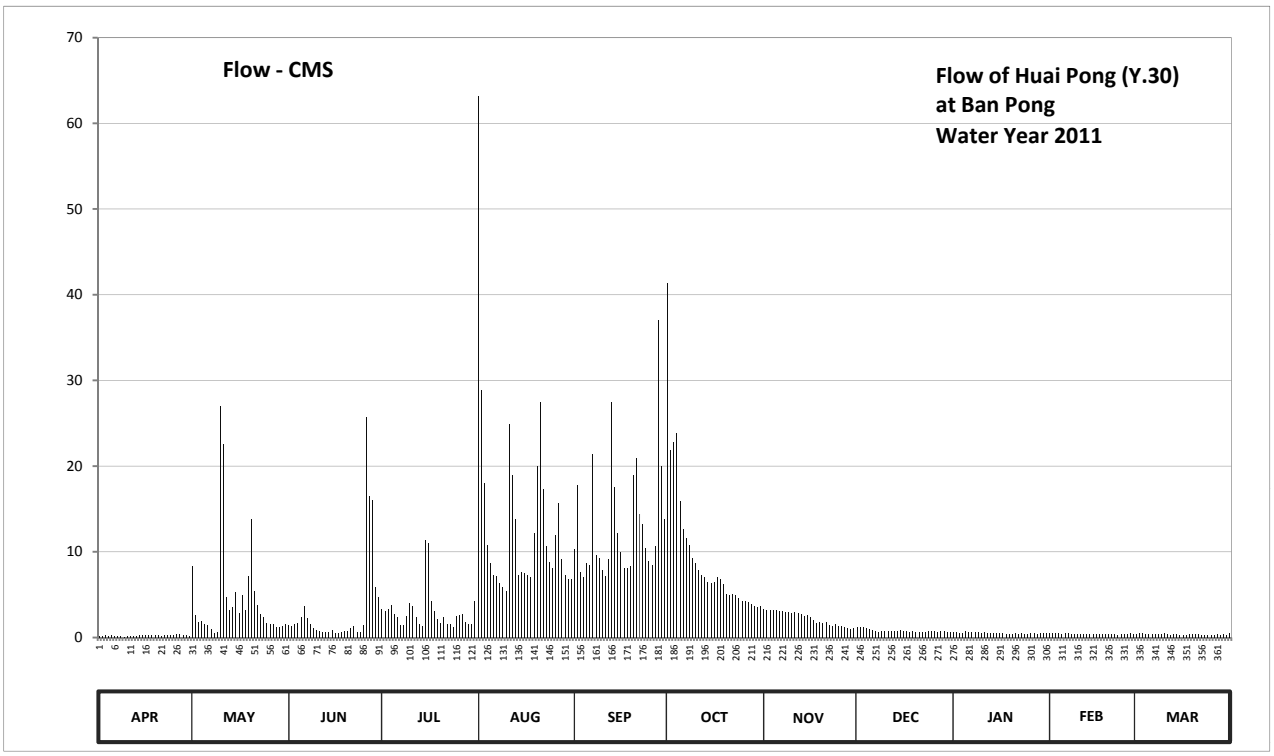
Location : on right bank at the bridge on highway.

	Ban Pong	**Amphoe** Ngao	**Changwat** Lampang
Drainge Area	325 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+265.630 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank about 25 meters from the top staff gage.	**Elevation**	+271.053 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00, and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings		
Period of Available Gage Records	1983 to date		
Rating Operation			
Period of Rating	1983 to date		
Rated by Flot	-		
Rated by Current Meter	1983 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. The carcass of the bridge is near the gage site.		
	Stage-discharge relation defined by 48 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	266.04	266.68	266.17	266.35	268.70	266.80	268.06	266.35	266.14	266.07	266.04	266.01	
2	266.06	266.29	266.16	266.33	267.63	267.18	267.36	266.34	266.14	266.06	266.05	266.04	
3	266.07	266.21	266.18	266.35	267.19	266.64	267.40	266.34	266.14	266.05	266.04	266.03	
4	266.05	266.22	266.20	266.38	266.83	266.60	267.44	266.34	266.13	266.05	266.04	266.02	
5	266.07	266.18	266.27	266.30	266.70	266.70	267.09	266.34	266.12	266.08	266.02	266.01	
6	266.04	266.17	266.37	266.26	266.62	266.69	266.93	266.33	266.10	266.07	266.03	266.02	
7	266.03	266.11	266.25	266.17	266.61	267.34	266.87	266.33	266.08	266.06	266.03	266.01	
8	266.01	266.05	266.18	266.17	266.56	266.76	266.83	266.32	266.07	266.06	266.01	266.02	
9	265.99	266.06	266.13	266.28	266.53	266.74	266.74	266.32	266.09	266.06	266.01	266.01	
10	266.05	267.56	266.10	266.40	266.50	266.65	266.70	266.31	266.09	266.05	266.02	266.03	
11	266.03	267.39	266.08	266.37	267.48	266.61	266.65	266.32	266.09	266.06	266.02	266.01	
12	266.05	266.45	266.07	266.27	267.23	266.73	266.62	266.31	266.09	266.04	266.02	266.00	
13	266.06	266.34	266.06	266.19	266.99	267.58	266.60	266.30	266.09	266.04	266.02	266.01	
14	266.10	266.36	266.07	266.16	266.62	267.17	266.57	266.28	266.09	266.04	266.02	266.01	
15	266.14	266.49	266.10	266.86	266.64	266.90	266.56	266.29	266.10	266.04	266.02	266.00	
16	266.13	266.31	266.05	266.84	266.63	266.78	266.57	266.27	266.08	266.04	266.01	266.00	
17	266.12	266.47	266.05	266.42	266.62	266.67	266.60	266.23	266.08	266.03	266.01	266.00	
18	266.11	266.34	266.07	266.33	266.60	266.67	266.59	266.20	266.07	266.02	266.02	266.02	
19	266.09	266.61	266.08	266.24	266.90	266.68	266.55	266.21	266.09	266.01	266.01	266.01	
20	266.09	266.99	266.08	266.20	267.28	267.23	266.48	266.20	266.07	266.01	266.01	266.02	
21	266.06	266.50	266.13	266.26	267.58	267.32	266.47	266.21	266.07	266.03	266.01	266.01	
22	266.08	266.38	266.16	266.18	267.16	267.02	266.48	266.17	266.06	266.02	266.01	266.00	
23	266.10	266.30	266.06	266.18	266.82	266.96	266.47	266.16	266.07	266.03	266.00	266.00	
24	266.14	266.26	266.06	266.15	266.71	266.81	266.44	266.18	266.08	266.02	266.01	266.00	
25	266.13	266.20	266.17	266.28	266.67	266.72	266.42	266.16	266.08	266.02	266.02	265.99	
26	266.19	266.18	267.51	266.29	266.89	266.69	266.42	266.16	266.08	266.03	266.02	266.00	
27	266.17	266.18	267.12	266.30	267.08	266.82	266.41	266.15	266.07	266.03	266.03	266.01	
28	266.09	266.15	267.10	266.21	266.73	267.92	266.39	266.13	266.08	266.02	266.02	266.00	
29	266.08	266.14	266.53	266.18	266.62	267.28	266.37	266.12	266.08	266.03	266.03	266.01	
30	266.02	266.16	266.45	266.18	266.59	266.99	266.36	266.13	266.07	266.04		266.00	
31		266.18		266.42	266.59		266.37		266.07	266.03		266.05	
Mean	266.08	266.38	266.27	266.31	266.91	266.92	266.70	266.25	266.09	266.04	266.02	266.01	
Max	266.19	267.56	267.51	266.86	268.70	267.92	268.06	266.35	266.14	266.08	266.05	266.05	268.70
Min	265.99	266.05	266.05	266.15	266.50	266.60	266.36	266.12	266.06	266.01	266.00	265.99	265.99

Annual Max Momentary Gage Height	269.11	m. (MSL.) ,	at 12.00 Hours , on Aug 1 , 2011		
Zero Gage at Bottom Elevation	265.63	m. (MSL.) ,	River Bed	265.73	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, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.18	8.32	1.45	3.38	63.15	10.30	41.32	3.38	1.19	0.69	0.52	0.36		
2	0.22	2.65	1.36	3.12	28.81	17.78	21.88	3.25	1.19	0.63	0.57	0.52		
3	0.23	1.80	1.53	3.38	17.99	7.66	22.80	3.25	1.19	0.57	0.52	0.46		
4	0.20	1.91	1.70	3.75	10.85	7.00	23.84	3.25	1.10	0.57	0.52	0.41		
5	0.23	1.53	2.43	2.75	8.65	8.65	15.89	3.25	1.02	0.74	0.41	0.36		
6	0.18	1.45	3.63	2.33	7.33	8.49	12.70	3.12	0.85	0.69	0.46	0.41		
7	0.17	0.93	2.23	1.45	7.16	21.42	11.60	3.12	0.74	0.63	0.46	0.36		
8	0.14	0.57	1.53	1.45	6.36	9.64	10.85	3.00	0.69	0.63	0.36	0.41		
9	0.11	0.63	1.10	2.54	5.88	9.31	9.31	3.00	0.79	0.63	0.36	0.36		
10	0.20	26.96	0.85	4.00	5.40	7.82	8.65	2.88	0.79	0.57	0.41	0.46		
11	0.17	22.57	0.74	3.63	24.88	7.16	7.82	3.00	0.79	0.63	0.41	0.36		
12	0.20	4.70	0.69	2.43	18.89	9.15	7.33	2.88	0.79	0.52	0.41	0.30		
13	0.22	3.25	0.63	1.61	13.81	27.48	7.00	2.75	0.79	0.52	0.41	0.36		
14	0.28	3.50	0.69	1.36	7.33	17.57	6.52	2.54	0.79	0.52	0.41	0.36		
15	0.34	5.26	0.85	11.41	7.66	12.15	6.36	2.65	0.85	0.52	0.41	0.30		
16	0.32	2.88	0.57	11.04	7.50	9.97	6.52	2.43	0.74	0.52	0.36	0.30		
17	0.31	4.98	0.57	4.28	7.33	8.16	7.00	2.02	0.74	0.46	0.36	0.30		
18	0.29	3.25	0.69	3.12	7.00	8.16	6.84	1.70	0.69	0.41	0.41	0.41		
19	0.26	7.16	0.74	2.12	12.15	8.32	6.20	1.80	0.79	0.36	0.36	0.36		
20	0.26	13.81	0.74	1.70	20.04	18.89	5.12	1.70	0.69	0.36	0.36	0.41		
21	0.22	5.40	1.10	2.33	27.48	20.96	4.98	1.80	0.69	0.46	0.36	0.36		
22	0.25	3.75	1.36	1.53	17.36	14.42	5.12	1.45	0.63	0.41	0.36	0.30		
23	0.28	2.75	0.63	1.53	10.67	13.26	4.98	1.36	0.69	0.46	0.30	0.30		
24	0.34	2.33	0.63	1.27	8.81	10.49	4.56	1.53	0.74	0.41	0.36	0.30		
25	0.32	1.70	1.45	2.54	8.16	8.98	4.28	1.36	0.74	0.41	0.41	0.27		
26	0.41	1.53	25.66	2.65	11.97	8.49	4.28	1.36	0.74	0.46	0.41	0.30		
27	0.38	1.53	16.52	2.75	15.68	10.67	4.14	1.27	0.69	0.46	0.46	0.36		
28	0.26	1.27	16.10	1.80	9.15	37.00	3.88	1.10	0.74	0.41	0.41	0.30		
29	0.25	1.19	5.88	1.53	7.33	20.04	3.63	1.02	0.74	0.46	0.46	0.36		
30	0.15	1.36	4.70	1.53	6.84	13.81	3.50	1.10	0.69	0.52		0.30		
31		1.53		4.28	6.84		3.63		0.69	0.46		0.57		
Total	7.37	142.45	98.75	94.59	418.46	393.20	292.53	68.32	24.99	16.09	12.02	11.29	1580.06	CMSDAY
Mean	0.25	4.60	3.29	3.05	13.50	13.11	9.44	2.28	0.81	0.52	0.41	0.36	4.32	CMS
Max	0.41	26.96	25.66	11.41	63.15	37.00	41.32	3.38	1.19	0.74	0.57	0.57	63.15	CMS
Min	0.11	0.57	0.57	1.27	5.40	7.00	3.50	1.02	0.63	0.36	0.30	0.27	0.11	CMS
Runoff	0.64	12.31	8.53	8.17	36.16	33.97	25.28	5.90	2.16	1.39	1.04	0.98	136.52	MCM

Momentary Peak 78.27 CMS. at 269.11 m. (MSL.) at 12.00 Hours , on Aug 1 , 2011

Runoff Yield 13.28 Liters/Second/Square KM. Momentary Peak Yield 240.831 Liters/Second/Square KM.

WATER YEAR : 2011

YOM RIVER BASIN

Yom River at Ban Thung Nong , Phayao (Y.31)

Lat 18 - 57 - 28 N Long 100 - 15 - 58 E

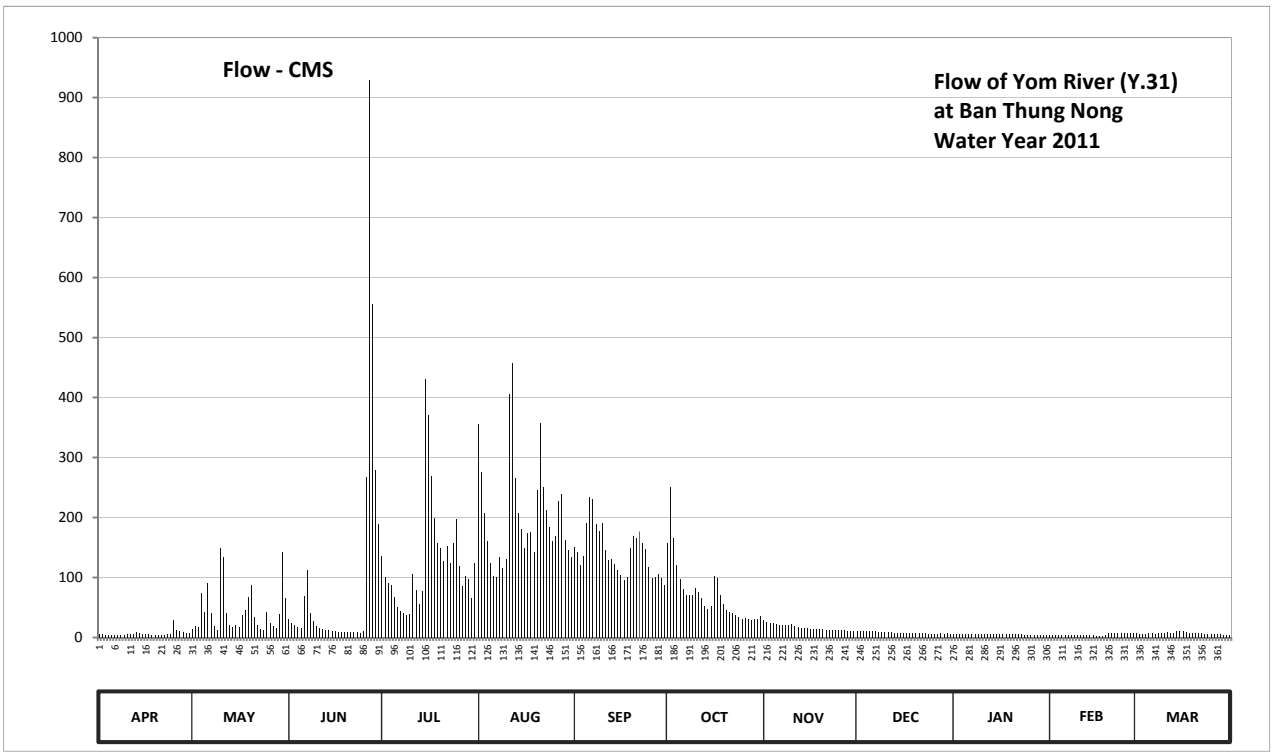
Location : on right bank downstream of the bridge of Pong - Chiang Muan road.

	Ban Thung Nong	**Amphoe** Chiang Muan	**Changwat** Phayao
Drainge Area	1,981 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+257.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank about 5 meters from the top staff gage.	**Elevation**	+266.960 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	1983 to date		
Rating Operation			
Period of Rating	1996 to date		
Rated by Flot	-		
Rated by Current Meter	1996 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Flow effected by the islet about 200 meters dowmstream from the gage site. Stage-discharge relation defined by 48 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	258.03	258.38	258.74	260.18	261.83	260.33	260.40	258.69	258.28	258.06	257.96	258.14	
2	258.01	258.50	258.60	259.80	261.38	260.25	261.21	258.63	258.27	258.05	257.98	258.07	
3	257.99	258.47	258.54	259.68	260.86	260.01	260.47	258.60	258.27	258.05	257.98	258.03	
4	257.98	259.46	258.48	259.63	260.42	260.17	260.01	258.59	258.26	258.04	257.98	258.04	
5	257.97	258.98	258.44	259.35	260.06	260.71	259.76	258.58	258.26	258.04	257.97	258.08	
6	257.98	259.67	259.39	259.12	259.81	261.08	259.55	258.54	258.25	258.04	257.95	258.08	
7	257.98	258.92	259.92	259.01	259.79	261.06	259.42	258.53	258.24	258.04	257.94	258.07	
8	257.96	258.50	258.94	258.92	260.16	260.70	259.40	258.52	258.23	258.03	257.93	258.08	
9	257.96	258.31	258.65	258.87	259.96	260.59	259.42	258.53	258.22	258.02	257.92	258.08	
10	258.00	260.32	258.51	258.90	260.12	260.71	259.57	258.56	258.20	258.02	257.92	258.15	
11	258.02	260.15	258.44	259.85	262.08	260.28	259.48	258.50	258.18	258.02	257.92	258.23	
12	258.04	258.94	258.37	259.53	262.30	260.10	259.33	258.47	258.18	258.02	257.92	258.12	
13	258.19	258.52	258.35	259.20	261.31	260.12	259.15	258.45	258.16	258.02	257.91	258.09	
14	258.09	258.47	258.32	259.50	260.87	260.04	259.07	258.44	258.15	258.02	257.90	258.25	
15	258.05	258.55	258.30	262.20	260.61	259.92	259.15	258.43	258.14	258.03	257.89	258.28	
16	258.03	258.46	258.26	261.91	260.32	259.83	259.81	258.42	258.14	258.04	257.88	258.24	
17	258.01	258.87	258.21	261.34	260.56	259.73	259.77	258.41	258.13	258.02	257.87	258.20	
18	257.99	259.02	258.21	260.79	260.57	259.80	259.41	258.40	258.11	258.01	257.87	258.16	
19	257.97	259.37	258.22	260.39	260.25	260.32	259.19	258.38	258.10	258.02	257.96	258.10	
20	257.94	259.63	258.21	260.31	261.17	260.50	259.04	258.37	258.10	258.02	258.11	258.09	
21	257.93	258.82	258.18	260.09	261.84	260.48	258.97	258.36	258.08	258.01	258.12	258.08	
22	257.93	258.54	258.17	260.34	261.21	260.58	258.92	258.36	258.09	258.01	258.12	258.08	
23	258.06	258.42	258.17	260.06	260.91	260.40	258.86	258.36	258.08	258.00	258.12	258.06	
24	258.05	258.33	258.16	260.40	260.65	260.29	258.80	258.35	258.06	257.98	258.11	258.05	
25	258.71	258.97	258.26	260.78	260.43	259.98	258.75	258.33	258.06	257.96	258.13	258.05	
26	258.32	258.61	261.33	260.00	260.50	259.78	258.76	258.33	258.06	257.95	258.13	258.03	
27	258.30	258.49	263.57	259.60	261.03	259.79	258.72	258.31	258.07	257.96	258.13	258.01	
28	258.20	258.43	262.65	259.81	261.13	259.85	258.70	258.30	258.08	257.95	258.14	258.00	
29	258.10	258.89	261.41	259.76	260.44	259.78	258.75	258.29	258.07	257.95	258.15	257.98	
30	258.12	260.25	260.70	259.34	260.27	259.64	258.74	258.29	258.08	257.95		257.98	
31		259.33		260.05	260.15		258.84		258.07	257.95		257.98	
Mean	258.06	258.92	259.06	259.96	260.74	260.23	259.34	258.44	258.15	258.01	258.00	258.09	
Max	258.71	260.32	263.57	262.20	262.30	261.08	261.21	258.69	258.28	258.06	258.15	258.28	263.57
Min	257.93	258.31	258.16	258.87	259.79	259.64	258.70	258.29	258.06	257.95	257.87	257.98	257.87

Annual Max Momentary Gage Height	263.90	m. (MSL.) ,	at 05.00 Hours , on Jun 27 , 2011		
Zero Gage at Bottom Elevation	257.00	m. (MSL.) ,	River Bed	253.89	m. (MSL)
Left Bank Elevation	267.61	m. (MSL.) ,			
Right Bank Elevation	267.29	m. (MSL.) ,	Drainage Area	1981	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	5.60	13.50	31.00	136.10	355.00	151.00	158.00	28.50	11.00	6.20	4.40	7.80		
2	5.20	19.00	24.00	101.00	275.10	143.00	250.45	25.50	10.75	6.00	4.70	6.40		
3	4.85	17.50	21.00	91.40	206.90	119.95	165.35	24.00	10.75	6.00	4.70	5.60		
4	4.70	74.50	18.00	87.40	160.10	135.15	119.95	23.50	10.50	5.80	4.70	5.80		
5	4.55	43.00	16.00	66.50	124.70	190.55	97.80	23.00	10.50	5.80	4.55	6.60		
6	4.70	90.60	69.30	51.20	101.90	233.40	81.25	21.00	10.25	5.80	4.25	6.60		
7	4.70	40.00	111.80	44.60	100.20	230.80	71.50	20.50	10.00	5.80	4.10	6.40		
8	4.40	19.00	41.00	40.00	134.20	189.50	70.00	20.00	9.75	5.60	3.95	6.60		
9	4.40	11.75	26.50	37.50	115.40	177.95	71.50	20.50	9.50	5.40	3.80	6.60		
10	5.00	150.00	19.50	39.00	130.40	190.55	82.75	22.00	9.00	5.40	3.80	8.00		
11	5.40	133.25	16.00	105.50	405.40	146.00	76.00	19.00	8.60	5.40	3.80	9.75		
12	5.80	41.00	13.25	79.75	457.49	128.50	65.10	17.50	8.60	5.40	3.80	7.40		
13	8.80	20.00	12.75	56.00	264.95	130.40	53.00	16.50	8.20	5.40	3.65	6.80		
14	6.80	17.50	12.00	77.50	208.05	122.80	48.20	16.00	8.00	5.40	3.50	10.25		
15	6.00	21.50	11.50	430.00	180.05	111.80	53.00	15.50	7.80	5.60	3.35	11.00		
16	5.60	17.00	10.50	371.00	150.00	103.70	101.90	15.00	7.80	5.80	3.20	10.00		
17	5.20	37.50	9.25	269.30	174.80	95.40	98.60	14.50	7.60	5.40	3.05	9.00		
18	4.85	45.20	9.25	198.95	175.85	101.00	70.75	14.00	7.20	5.20	3.05	8.20		
19	4.55	67.90	9.50	157.00	143.00	150.00	55.40	13.50	7.00	5.40	4.40	7.00		
20	4.10	87.40	9.25	149.00	245.10	168.50	46.40	13.25	7.00	5.40	7.20	6.80		
21	3.95	35.00	8.60	127.55	357.00	166.40	42.50	13.00	6.60	5.20	7.40	6.60		
22	3.95	21.00	8.40	152.00	250.45	176.90	40.00	13.00	6.80	5.20	7.40	6.60		
23	6.20	15.00	8.40	124.70	212.65	158.00	37.00	13.00	6.60	5.00	7.40	6.20		
24	6.00	12.25	8.20	158.00	184.25	147.00	34.00	12.75	6.20	4.70	7.20	6.00		
25	29.50	42.50	10.50	197.90	161.15	117.20	31.50	12.25	6.20	4.40	7.60	6.00		
26	12.00	24.50	267.85	119.00	168.50	99.40	32.00	12.25	6.20	4.25	7.60	5.60		
27	11.50	18.50	930.00	85.00	226.90	100.20	30.00	11.75	6.40	4.40	7.60	5.20		
28	9.00	15.50	555.00	101.90	239.90	105.50	29.00	11.50	6.60	4.25	7.80	5.00		
29	7.00	38.50	279.60	97.80	162.20	99.40	31.50	11.25	6.40	4.25	8.00	4.70		
30	7.40	143.00	189.50	65.80	145.00	88.20	31.00	11.25	6.60	4.25		4.70		
31		65.10		123.75	133.25		36.00		6.40	4.25		4.70		
Total	201.70	1397.95	2757.40	3942.10	6349.84	4278.15	2211.40	505.25	250.80	162.35	149.95	213.90	22420.79	CMSDAY
Mean	6.72	45.10	91.91	127.16	204.83	142.60	71.34	16.84	8.09	5.24	5.17	6.90	61.26	CMS
Max	29.50	150.00	930.00	430.00	457.49	233.40	250.45	28.50	11.00	6.20	8.00	11.00	930.00	CMS
Min	3.95	11.75	8.20	37.50	100.20	88.20	29.00	11.25	6.20	4.25	3.05	4.70	3.05	CMS
Runoff	17.43	120.78	238.24	340.60	548.63	369.63	191.07	43.65	21.67	14.03	12.96	18.48	1937.16	MCM

Momentary Peak 1110.00 CMS. at 263.90 m. (MSL.) at 05.00 Hours , on Jun 27 , 2011

Runoff Yield 30.92 Liters/Second/Square KM. Momentary Peak Yield 560.323 Liters/Second/Square KM.

WATER YEAR : 2011

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.

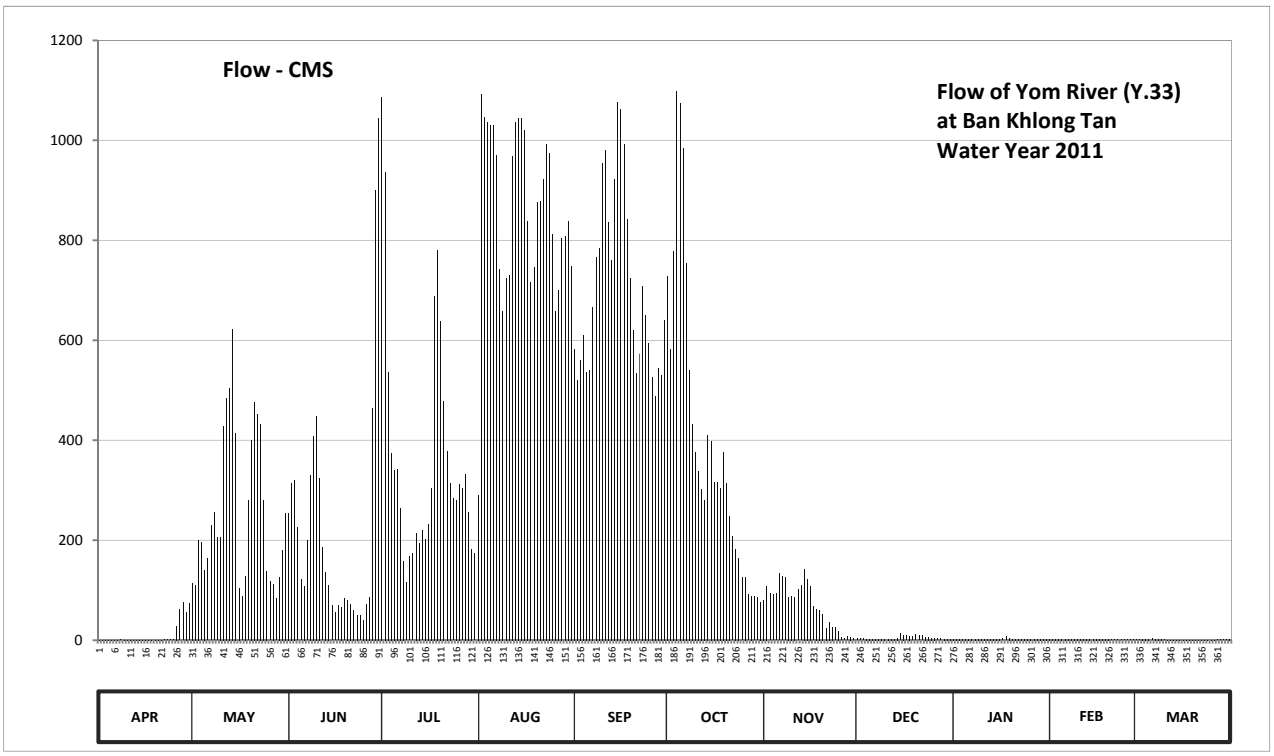
Ban Khlong Tan **Amphoe** Si Samrong **Changwat** Sukhothai

Drainge Area	13,948 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+45.820 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank about 20.30 meters from the top staff gage. **Elevation** +56.820 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings
Period of Available Gage Records	1990 to date
Rating Operation	
Period of Rating	1990 to date
Rated by Flot	-
Rated by Current Meter	1990 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	Overbank flow starts at elevation + 55.350 m. (MSL), records are channel flow only.
General Description	Records fair. Flow effected by the temporary weir about 500 meters dowmstream from the gage site. Stage-discharge relation defined by 19 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	46.78	49.37	51.16	57.05	51.52	53.90	54.90	48.76	48.70	48.62	48.57	47.63	
2	46.71	49.31	51.76	56.20	57.08	53.45	53.89	49.27	48.73	48.61	48.48	47.85	
3	46.58	50.58	51.80	53.56	56.83	53.73	55.23	49.03	48.69	48.56	48.49	48.19	
4	46.44	50.52	50.86	52.28	56.77	54.10	57.11	48.99	48.64	48.55	48.49	48.36	
5	46.59	49.77	49.50	52.00	56.74	53.57	56.98	49.02	48.52	48.54	48.48	48.53	
6	46.73	50.09	49.27	52.01	56.74	53.59	56.48	49.66	48.50	48.48	48.45	48.71	
7	46.84	50.91	50.57	51.27	56.40	54.49	55.07	49.58	48.56	48.42	48.33	48.61	
8	47.71	51.17	51.91	50.03	55.00	55.16	53.59	49.55	48.54	48.40	48.28	48.57	
9	46.75	50.64	52.57	49.39	54.44	55.28	52.76	48.90	48.53	48.37	48.27	48.56	
10	46.73	50.65	52.90	50.15	54.87	56.30	52.31	48.94	48.43	48.36	48.28	48.05	
11	46.70	52.73	51.84	50.24	54.91	56.45	51.98	48.90	48.42	48.33	48.27	47.08	
12	46.84	53.18	50.40	50.74	56.39	55.61	51.64	49.16	48.42	48.31	48.25	47.05	
13	46.99	53.34	49.71	50.51	56.77	55.11	51.43	49.29	48.47	48.28	48.22	47.02	
14	46.92	54.18	49.30	50.80	56.81	56.12	52.58	49.79	48.78	48.23	48.20	47.02	
15	46.92	52.62	48.55	50.61	56.81	56.99	52.49	49.51	48.96	48.21	48.17	47.02	
16	46.81	49.21	48.26	50.94	56.68	56.91	51.78	49.28	48.93	48.42	48.16	47.02	
17	47.06	48.91	48.55	51.67	55.62	56.52	51.77	49.30	48.91	48.71	48.15	47.02	
18	47.16	49.60	48.49	54.64	54.82	55.64	51.66	49.28	48.89	48.88	48.13	47.00	
19	47.03	51.41	48.83	55.25	55.02	54.88	52.31	49.27	48.87	48.78	48.11	47.00	
20	47.16	52.51	48.78	54.29	55.84	54.17	51.76	49.23	48.94	48.60	48.10	46.98	
21	47.13	53.13	48.62	53.14	55.86	53.55	51.10	49.06	48.91	48.51	48.03	46.95	
22	47.34	52.93	48.37	52.32	56.12	53.83	50.66	49.14	48.91	48.49	47.91	46.96	
23	47.59	52.77	48.13	51.76	56.53	54.77	50.35	49.08	48.84	48.48	47.80	47.08	
24	47.34	51.43	48.12	51.46	56.42	54.38	50.10	49.07	48.84	48.42	47.77	47.21	
25	47.55	49.73	47.90	51.42	55.45	53.98	49.55	49.02	48.79	48.40	47.70	47.22	
26	47.58	49.43	48.60	51.73	54.44	53.50	49.57	48.82	48.77	48.58	47.61	47.22	
27	48.39	49.34	48.89	51.65	54.72	53.22	48.99	48.74	48.72	48.52	47.55	47.29	
28	48.66	48.83	53.03	51.92	55.40	53.62	48.92	48.87	48.68	48.35	47.51	47.54	
29	48.29	49.57	55.98	51.19	55.42	53.52	48.91	48.83	48.66	48.30	47.43	47.83	
30	48.64	50.33	56.82	50.36	55.62	54.31	48.87	48.69	48.62	48.30		48.05	
31		51.16		50.23	55.03		48.69		48.62	48.52		48.25	
Mean	47.20	50.95	50.32	51.96	55.71	54.69	52.05	49.13	48.70	48.47	48.11	47.58	
Max	48.66	54.18	56.82	57.05	57.08	56.99	57.11	49.79	48.96	48.88	48.57	48.71	57.11
Min	46.44	48.83	47.90	49.39	51.52	53.22	48.69	48.69	48.42	48.21	47.43	46.95	46.44

Annual Max Momentary Gage Height	57.15	m. (MSL.) ,	at 15.00 Hours , on Aug 2 , 2011		
Zero Gage at Bottom Elevation	45.82	m. (MSL.) ,	River Bed	44.65	m. (MSL)
Left Bank Elevation	55.35	m. (MSL.) ,			
Right Bank Elevation	56.52	m. (MSL.) ,	Drainage Area	13948	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.60	114.20	254.00	1087.00	290.00	583.00	728.00	80.00	3.00	2.80	2.70	1.40		
2	0.50	110.60	314.60	937.00	1092.40	520.00	581.60	108.20	3.50	2.80	2.60	1.60		
3	0.40	200.40	319.00	535.40	1047.40	559.20	777.50	93.80	3.00	2.70	2.60	2.10		
4	0.20	195.60	225.40	373.60	1036.60	611.00	1097.80	91.50	2.80	2.70	2.60	2.40		
5	0.40	140.90	122.00	341.00	1031.20	536.80	1074.40	93.20	2.60	2.70	2.60	2.60		
6	0.50	163.30	108.20	342.10	1031.20	539.60	984.60	133.20	2.60	2.60	2.50	3.20		
7	0.60	229.90	199.60	265.00	971.00	666.50	753.50	127.60	2.70	2.50	2.30	2.80		
8	1.50	255.00	331.10	159.10	743.00	767.00	539.60	125.50	2.70	2.50	2.30	2.70		
9	0.50	205.60	408.40	115.40	659.00	785.00	431.20	87.00	2.60	2.40	2.30	2.70		
10	0.50	206.50	448.00	167.50	723.50	954.00	377.20	89.00	2.50	2.40	2.30	1.90		
11	0.50	427.60	323.40	173.80	729.50	979.50	338.80	87.00	2.50	2.30	2.30	0.90		
12	0.60	483.40	186.00	214.60	969.30	837.60	302.00	101.60	2.50	2.30	2.20	0.80		
13	0.80	504.60	136.70	194.80	1036.60	759.50	281.00	109.40	2.60	2.30	2.20	0.80		
14	0.70	622.20	110.00	220.00	1043.80	923.40	409.60	142.30	4.40	2.20	2.20	0.80		
15	0.70	414.40	69.50	202.90	1043.80	1076.20	398.80	122.70	13.00	2.20	2.10	0.80		
16	0.60	104.60	55.40	232.60	1020.40	1061.80	316.80	108.80	10.70	2.50	2.10	0.80		
17	0.90	87.50	69.50	305.00	839.20	991.60	315.70	67.00	9.20	3.20	2.10	0.80		
18	1.00	129.00	66.50	689.00	716.00	842.40	304.00	62.90	8.00	7.70	2.00	0.80		
19	0.80	279.00	83.50	780.50	746.00	725.00	377.20	60.90	7.30	4.40	2.00	0.80		
20	1.00	401.20	81.00	637.60	875.80	620.80	314.60	52.80	11.40	2.70	2.00	0.80		
21	0.90	476.90	73.00	478.20	879.20	534.00	248.00	23.80	9.20	2.60	1.90	0.70		
22	1.10	451.60	60.50	378.40	923.40	573.20	207.40	36.10	9.20	2.60	1.70	0.80		
23	1.40	432.40	50.20	314.60	993.40	708.50	182.00	26.40	6.20	2.60	1.60	0.90		
24	1.10	281.00	49.80	284.00	974.40	650.20	164.00	25.10	6.20	2.50	1.60	1.00		
25	1.30	138.10	41.00	280.00	812.00	594.20	125.50	18.60	4.60	2.50	1.50	1.00		
26	28.20	117.80	72.00	311.30	659.00	527.00	126.90	5.50	4.30	2.70	1.40	1.00		
27	61.50	112.40	86.50	303.00	701.00	488.60	91.50	3.70	3.40	2.60	1.30	1.10		
28	75.00	83.50	463.90	332.20	804.00	543.80	88.00	7.30	3.00	2.40	1.30	1.30		
29	56.60	126.90	899.60	257.00	807.20	529.80	87.50	5.90	2.90	2.30	1.20	1.60		
30	74.00	180.40	1045.60	182.80	839.20	640.40	85.50	3.00	2.80	2.30		1.90		
31		254.00		173.10	747.50		76.50		2.80	2.60		2.20		
Total	314.40	7930.50	6753.90	11268.50	26786.00	21129.60	12186.70	2099.80	154.20	85.60	59.50	45.00	88813.70	CMSDAY
Mean	10.50	255.80	225.10	363.50	864.10	704.30	393.10	70.00	5.00	2.80	2.10	1.50	242.70	CMS
Max	75.00	622.20	1045.60	1087.00	1092.40	1076.20	1097.80	142.30	13.00	7.70	2.70	3.20	1097.80	CMS
Min	0.20	83.50	41.00	115.40	290.00	488.60	76.50	3.00	2.50	2.20	1.20	0.70	0.20	CMS
Runoff	27.16	685.20	583.54	973.60	2314.31	1825.60	1052.93	181.42	13.32	7.40	5.14	3.89	7673.50	MCM

Momentary Peak 1105.00 CMS. at 57.15 m. (MSL.) at 15.00 Hours , on Aug 2 , 2011

Runoff Yield 17.40 Liters/Second/Square KM. Momentary Peak Yield 79.223 Liters/Second/Square KM.

WATER YEAR : 2011

YOM RIVER BASIN

Nam Mae Lai at Ban Mae Lai , Phrae (Y.34)

Lat 18 - 12 - 59 N Long 100 - 12 - 36 E

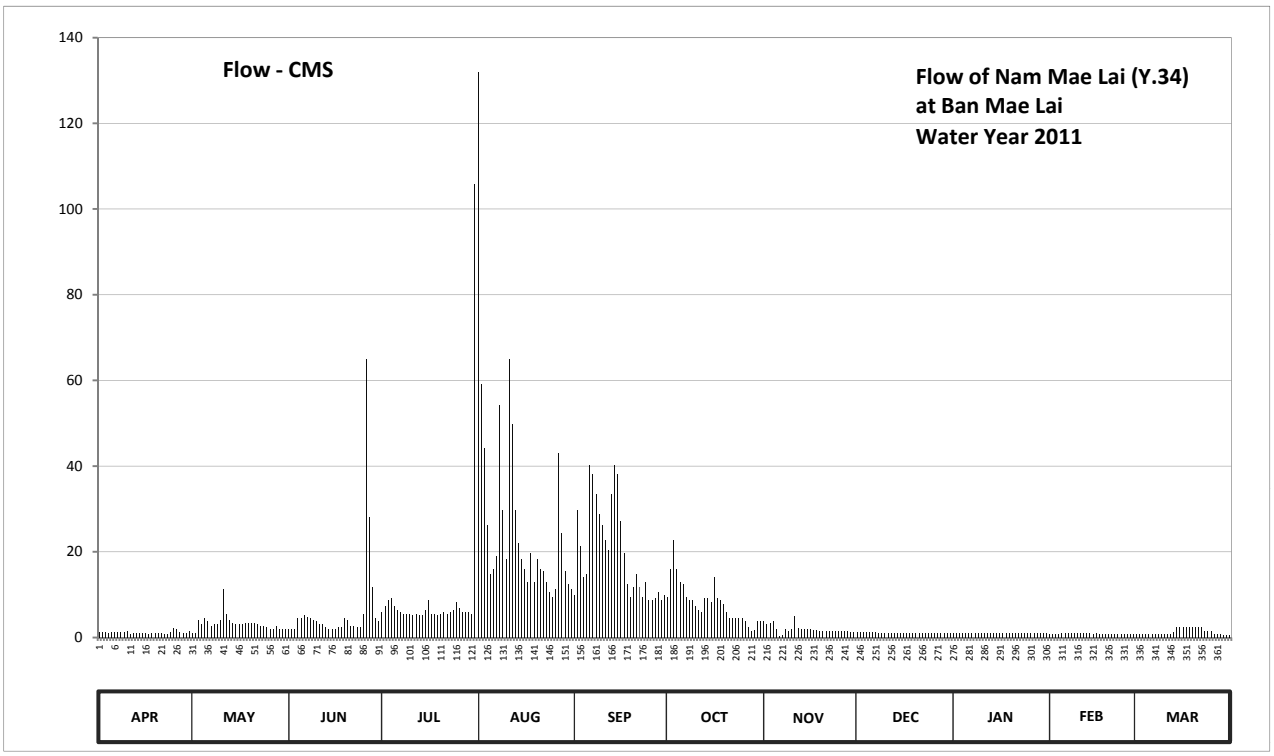
Location : on left bank at the bridge on highway.

	Ban Mae Lai	**Amphoe** Mueang	**Changwat** Phrae
Drainge Area	336 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+157.270 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank about 10 meters from the top staff gage.	**Elevation**	+167.293 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	1996 to date		
Rating Operation			
Period of Rating	1996 to date		
Rated by Flot	-		
Rated by Current Meter	1996 to date		
Stability of Channel Regimes	Fairly stable because of bakwater effect.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Flow effected by the temporary weir about 300 meters dowmstream from the gage site. Stage-discharge relation defined by 46 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	159.21	159.20	159.19	159.31	160.44	159.40	159.39	159.25	159.21	159.20	159.18	159.17	
2	159.21	159.20	159.19	159.34	159.95	159.67	159.50	159.23	159.21	159.20	159.18	159.17	
3	159.21	159.26	159.20	159.37	159.82	159.57	159.59	159.24	159.21	159.20	159.18	159.17	
4	159.20	159.23	159.27	159.38	159.63	159.47	159.50	159.25	159.21	159.20	159.18	159.17	
5	159.21	159.27	159.27	159.34	159.48	159.48	159.45	159.19	159.21	159.20	159.20	159.17	
6	159.21	159.25	159.29	159.32	159.50	159.78	159.44	159.09	159.21	159.20	159.20	159.17	
7	159.21	159.22	159.28	159.31	159.54	159.76	159.39	159.15	159.21	159.20	159.20	159.17	
8	159.21	159.23	159.27	159.30	159.91	159.71	159.37	159.25	159.20	159.20	159.20	159.17	
9	159.21	159.23	159.26	159.30	159.67	159.66	159.37	159.22	159.20	159.20	159.19	159.17	
10	159.22	159.26	159.25	159.30	159.53	159.63	159.34	159.24	159.20	159.20	159.19	159.17	
11	159.18	159.42	159.23	159.29	160.00	159.59	159.32	159.34	159.20	159.20	159.19	159.17	
12	159.19	159.30	159.23	159.30	159.87	159.56	159.31	159.26	159.20	159.20	159.19	159.17	
13	159.19	159.26	159.21	159.29	159.67	159.71	159.38	159.25	159.20	159.20	159.19	159.21	
14	159.19	159.24	159.19	159.29	159.58	159.78	159.38	159.24	159.20	159.20	159.19	159.27	
15	159.19	159.23	159.19	159.32	159.53	159.76	159.36	159.24	159.20	159.20	159.18	159.27	
16	159.19	159.23	159.20	159.37	159.50	159.64	159.47	159.24	159.20	159.20	159.19	159.27	
17	159.18	159.23	159.21	159.30	159.45	159.55	159.38	159.23	159.20	159.20	159.17	159.27	
18	159.19	159.24	159.21	159.30	159.55	159.44	159.37	159.23	159.20	159.19	159.17	159.27	
19	159.19	159.24	159.27	159.29	159.45	159.39	159.35	159.22	159.20	159.19	159.17	159.27	
20	159.19	159.24	159.26	159.30	159.53	159.43	159.31	159.22	159.20	159.19	159.17	159.27	
21	159.19	159.24	159.22	159.31	159.50	159.48	159.27	159.22	159.20	159.20	159.17	159.27	
22	159.18	159.23	159.22	159.30	159.49	159.43	159.27	159.22	159.20	159.20	159.17	159.27	
23	159.18	159.22	159.21	159.31	159.45	159.39	159.27	159.22	159.20	159.20	159.17	159.22	
24	159.21	159.22	159.21	159.32	159.41	159.45	159.27	159.22	159.20	159.20	159.17	159.22	
25	159.26	159.21	159.30	159.36	159.39	159.37	159.27	159.22	159.20	159.20	159.17	159.22	
26	159.24	159.19	160.00	159.33	159.42	159.37	159.25	159.22	159.20	159.20	159.17	159.17	
27	159.21	159.20	159.65	159.31	159.81	159.38	159.21	159.22	159.20	159.20	159.17	159.17	
28	159.20	159.22	159.43	159.31	159.61	159.41	159.17	159.22	159.20	159.19	159.17	159.17	
29	159.20	159.20	159.27	159.31	159.49	159.37	159.18	159.21	159.20	159.19	159.17	159.15	
30	159.22	159.20	159.25	159.30	159.44	159.40	159.25	159.21	159.20	159.19		159.15	
31		159.19		160.28	159.42		159.25		159.20	159.19		159.15	
Mean	159.20	159.24	159.28	159.35	159.61	159.53	159.34	159.23	159.20	159.20	159.18	159.20	
Max	159.26	159.42	160.00	160.28	160.44	159.78	159.59	159.34	159.21	159.20	159.20	159.27	160.44
Min	159.18	159.19	159.19	159.29	159.39	159.37	159.17	159.09	159.20	159.19	159.17	159.15	159.09

Annual Max Momentary Gage Height	161.13	m. (MSL.) ,	at 20.00 Hours , on Jul 31 , 2011		
Zero Gage at Bottom Elevation	157.27	m. (MSL.) ,	River Bed	158.24	m. (MSL)
Left Bank Elevation	167.47	m. (MSL.) ,			
Right Bank Elevation	167.46	m. (MSL.) ,	Drainage Area	336	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.22	1.00	1.85	5.95	132.00	10.00	9.55	3.75	1.22	1.00	0.86	0.79		
2	1.22	1.00	1.85	7.30	59.00	29.80	16.00	3.05	1.22	1.00	0.86	0.79		
3	1.22	4.10	2.00	8.65	44.20	21.25	22.75	3.40	1.22	1.00	0.86	0.79		
4	1.00	3.05	4.45	9.10	26.20	14.20	16.00	3.75	1.22	1.00	0.86	0.79		
5	1.22	4.45	4.45	7.30	14.80	14.80	13.00	1.85	1.22	1.00	1.00	0.79		
6	1.22	3.75	5.15	6.40	16.00	40.10	12.40	0.45	1.22	1.00	1.00	0.79		
7	1.22	2.70	4.80	5.95	19.00	38.20	9.55	0.65	1.22	1.00	1.00	0.79		
8	1.22	3.05	4.45	5.50	54.20	33.45	8.65	2.10	1.00	1.00	1.00	0.79		
9	1.22	3.05	4.10	5.50	29.80	28.90	8.65	1.44	1.00	1.00	0.93	0.79		
10	1.44	4.10	3.75	5.50	18.25	26.20	7.30	1.88	1.00	1.00	0.93	0.79		
11	0.86	11.20	3.05	5.15	65.00	22.75	6.40	5.12	1.00	1.00	0.93	0.79		
12	0.93	5.50	3.05	5.50	49.70	20.50	5.95	2.32	1.00	1.00	0.93	0.79		
13	0.93	4.10	2.35	5.15	29.80	33.45	9.10	2.10	1.00	1.00	0.93	1.22		
14	0.93	3.40	1.85	5.15	22.00	40.10	9.10	1.88	1.00	1.00	0.93	2.54		
15	0.93	3.05	1.85	6.40	18.25	38.20	8.20	1.88	1.00	1.00	0.86	2.54		
16	0.93	3.05	2.00	8.65	16.00	27.10	14.20	1.88	1.00	1.00	0.93	2.54		
17	0.86	3.05	2.35	5.50	13.00	19.75	9.10	1.66	1.00	1.00	0.79	2.54		
18	0.93	3.40	2.35	5.50	19.75	12.40	8.65	1.66	1.00	0.93	0.79	2.54		
19	0.93	3.40	4.45	5.15	13.00	9.55	7.75	1.44	1.00	0.93	0.79	2.54		
20	0.93	3.40	4.10	5.50	18.25	11.80	5.95	1.44	1.00	0.93	0.79	2.54		
21	0.93	3.40	2.70	5.95	16.00	14.80	4.45	1.44	1.00	1.00	0.79	2.54		
22	0.86	3.05	2.70	5.50	15.40	11.80	4.45	1.44	1.00	1.00	0.79	2.54		
23	0.86	2.70	2.35	5.95	13.00	9.55	4.45	1.44	1.00	1.00	0.79	1.44		
24	1.22	2.70	2.35	6.40	10.60	13.00	4.45	1.44	1.00	1.00	0.79	1.44		
25	2.32	2.35	5.50	8.20	9.55	8.65	4.45	1.44	1.00	1.00	0.79	1.44		
26	1.88	1.85	65.00	6.85	11.20	8.65	3.75	1.44	1.00	1.00	0.79	0.79		
27	1.22	2.00	28.00	5.95	43.10	9.10	2.35	1.44	1.00	1.00	0.79	0.79		
28	1.00	2.70	11.80	5.95	24.40	10.60	1.55	1.44	1.00	0.93	0.79	0.79		
29	1.00	2.00	4.45	5.95	15.40	8.65	1.70	1.22	1.00	0.93	0.79	0.65		
30	1.44	2.00	3.75	5.50	12.40	10.00	3.75	1.22	1.00	0.93		0.65		
31		1.85		105.80	11.20		3.75		1.00	0.93		0.65		
Total	34.09	100.40	192.85	292.80	860.45	597.30	247.35	57.66	32.54	30.51	25.08	42.20	2513.23	CMSDAY
Mean	1.14	3.24	6.43	9.45	27.76	19.91	7.98	1.92	1.05	0.98	0.86	1.36	6.87	CMS
Max	2.32	11.20	65.00	105.80	132.00	40.10	22.75	5.12	1.22	1.00	1.00	2.54	132.00	CMS
Min	0.86	1.00	1.85	5.15	9.55	8.65	1.55	0.45	1.00	0.93	0.79	0.65	0.45	CMS
Runoff	2.95	8.68	16.66	25.30	74.34	51.61	21.37	4.98	2.81	2.64	2.17	3.65	217.14	MCM

Momentary Peak 262.15 CMS. at 161.13 m. (MSL.) at 20.00 Hours , on Jul 31 , 2011

Runoff Yield 20.44 Liters/Second/Square KM. Momentary Peak Yield 780.208 Liters/Second/Square KM.

WATER YEAR : 2011

YOM RIVER BASIN

Nam Khuan at Ban Pa Kha , Phayao (Y.36)

Lat 19 - 09 - 24 N Long 100 - 19 - 36 E

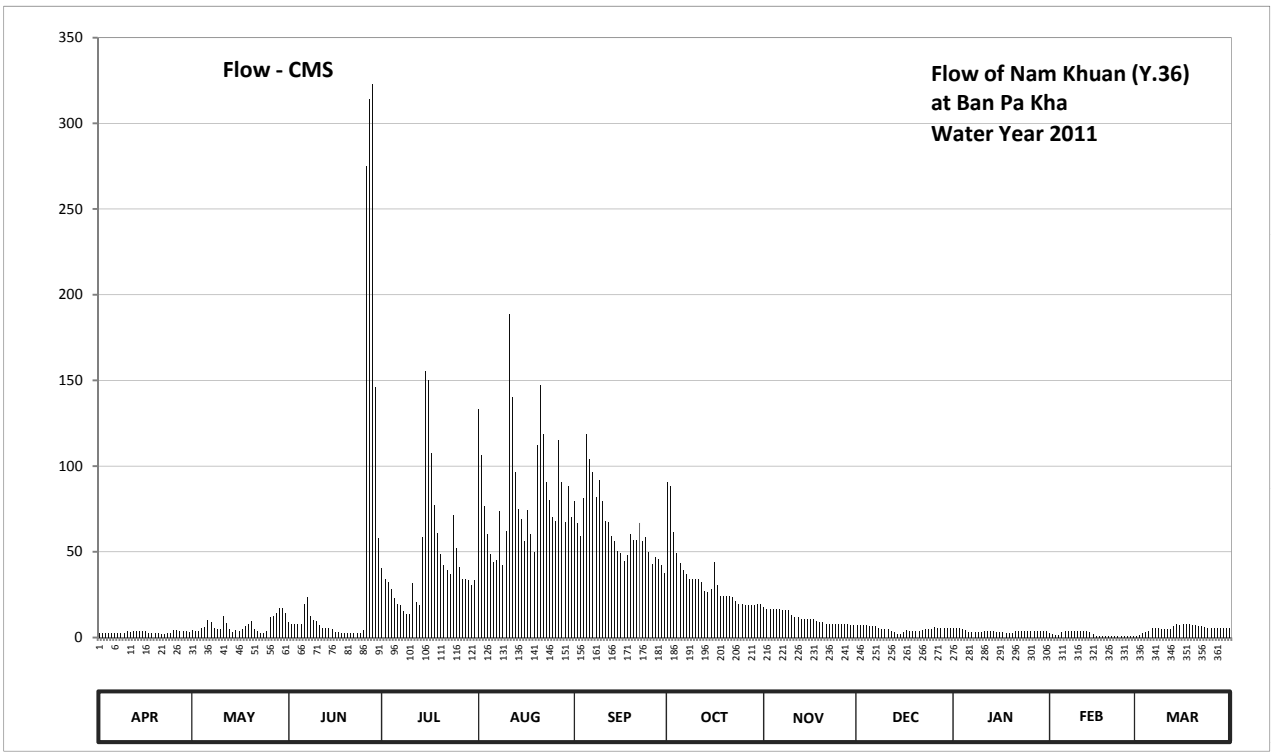
Location : on left bank at the bridge.

	Ban Pa Kha	**Amphoe** Pong	**Changwat** Phayao
Drainge Area	853 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+298.568 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank about 20 meters from the abutment of the bridge.	**Elevation**	+307.764 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings		
Period of Available Gage Records	1998 to date		
Rating Operation			
Period of Rating	1998 to date		
Rated by Flot	-		
Rated by Current Meter	1998 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Flow effected by the islet at the gage site.		
	Stage-discharge relation defined by 47 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	300.32	300.41	300.64	301.41	302.62	302.02	302.16	300.93	300.56	300.49	300.32	300.19	
2	300.32	300.39	300.59	301.29	302.34	301.84	302.13	300.89	300.56	300.49	300.27	300.21	
3	300.32	300.40	300.59	301.26	301.98	301.73	301.76	300.89	300.55	300.49	300.24	300.30	
4	300.30	300.47	300.59	301.18	301.74	302.04	301.57	300.89	300.55	300.45	300.24	300.35	
5	300.30	300.51	300.58	301.07	301.56	302.47	301.46	300.89	300.54	300.41	300.33	300.40	
6	300.29	300.68	300.99	300.99	301.47	302.31	301.39	300.89	300.53	300.35	300.38	300.47	
7	300.29	300.64	301.08	300.96	301.49	302.23	301.35	300.87	300.52	300.35	300.38	300.49	
8	300.29	300.48	300.76	300.84	301.94	302.05	301.29	300.87	300.49	300.34	300.39	300.49	
9	300.30	300.46	300.67	300.79	301.44	302.17	301.29	300.86	300.46	300.34	300.39	300.46	
10	300.37	300.46	300.66	300.79	301.77	302.02	301.29	300.77	300.44	300.34	300.39	300.46	
11	300.36	300.75	300.56	301.25	303.12	301.86	301.29	300.74	300.43	300.37	300.38	300.44	
12	300.38	300.61	300.49	301.02	302.69	301.85	301.26	300.73	300.39	300.37	300.37	300.46	
13	300.38	300.44	300.49	300.97	302.23	301.73	301.16	300.69	300.33	300.39	300.37	300.53	
14	300.37	300.36	300.49	301.72	301.96	301.68	301.14	300.69	300.28	300.37	300.35	300.58	
15	300.37	300.41	300.43	302.84	301.87	301.59	301.19	300.69	300.25	300.35	300.26	300.57	
16	300.37	300.39	300.34	302.79	301.68	301.57	301.47	300.69	300.34	300.34	300.19	300.59	
17	300.32	300.43	300.34	302.35	301.95	301.48	301.23	300.69	300.41	300.33	300.19	300.59	
18	300.31	300.52	300.32	301.99	301.74	301.55	301.09	300.66	300.39	300.31	300.19	300.59	
19	300.29	300.59	300.29	301.75	301.58	301.74	301.09	300.64	300.39	300.30	300.19	300.57	
20	300.30	300.66	300.29	301.56	302.40	301.69	301.09	300.64	300.39	300.31	300.19	300.57	
21	300.27	300.45	300.29	301.44	302.76	301.69	301.09	300.59	300.40	300.39	300.19	300.53	
22	300.27	300.37	300.29	301.39	302.47	301.84	301.08	300.59	300.41	300.39	300.19	300.52	
23	300.29	300.32	300.29	301.35	302.16	301.68	301.03	300.59	300.43	300.39	300.19	300.50	
24	300.30	300.31	300.31	301.91	302.03	301.72	300.99	300.59	300.44	300.39	300.19	300.49	
25	300.42	300.40	300.41	301.62	301.89	301.58	300.99	300.59	300.46	300.39	300.19	300.49	
26	300.41	300.74	303.78	301.42	301.86	301.45	300.97	300.59	300.50	300.39	300.19	300.48	
27	300.39	300.76	304.04	301.29	302.43	301.53	300.96	300.58	300.49	300.39	300.19	300.48	
28	300.37	300.80	304.10	301.29	302.16	301.51	300.96	300.58	300.49	300.39	300.19	300.48	
29	300.37	300.90	302.75	301.28	301.85	301.44	300.96	300.57	300.49	300.39	300.19	300.47	
30	300.36	300.90	301.71	301.23	302.13	301.36	300.99	300.56	300.49	300.39		300.47	
31		300.80		301.28	301.89		300.99		300.49	300.39		300.47	
Mean	300.33	300.54	300.97	301.43	302.04	301.78	301.25	300.71	300.45	300.38	300.27	300.47	
Max	300.42	300.90	304.10	302.84	303.12	302.47	302.16	300.93	300.56	300.49	300.39	300.59	304.10
Min	300.27	300.31	300.29	300.79	301.44	301.36	300.96	300.56	300.25	300.30	300.19	300.19	300.19

Annual Max Momentary Gage Height	305.38	m. (MSL.) ,	at 20.00 Hours , on Jun 26 , 2011		
Zero Gage at Bottom Elevation	298.57	m. (MSL.) ,	River Bed	298.94	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, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.80	4.20	9.20	40.55	133.00	79.60	90.80	17.90	7.20	5.80	2.80	0.95		
2	2.80	3.85	7.80	33.95	106.60	66.80	88.40	16.70	7.20	5.80	2.05	1.15		
3	2.80	4.00	7.80	32.30	76.60	59.45	61.40	16.70	7.00	5.80	1.60	2.50		
4	2.50	5.40	7.80	28.10	60.10	81.20	49.35	16.70	7.00	5.00	1.60	3.25		
5	2.50	6.20	7.60	23.15	48.80	118.65	43.30	16.70	6.80	4.20	2.95	4.00		
6	2.35	10.40	19.70	19.70	43.85	103.90	39.45	16.70	6.60	3.25	3.70	5.40		
7	2.35	9.20	23.60	18.80	44.95	96.70	37.25	16.10	6.40	3.25	3.70	5.80		
8	2.35	5.60	12.80	15.20	73.80	82.00	33.95	16.10	5.80	3.10	3.85	5.80		
9	2.50	5.20	10.10	13.70	42.20	91.60	33.95	15.80	5.20	3.10	3.85	5.20		
10	3.55	5.20	9.80	13.70	62.05	79.60	33.95	13.10	4.80	3.10	3.85	5.20		
11	3.40	12.50	7.20	31.75	188.40	68.20	33.95	12.20	4.60	3.55	3.70	4.80		
12	3.70	8.30	5.80	20.90	140.00	67.50	32.30	11.90	3.85	3.55	3.55	5.20		
13	3.70	4.80	5.80	19.10	96.70	59.45	27.20	10.70	2.95	3.85	3.55	6.60		
14	3.55	3.40	5.80	58.80	75.20	56.20	26.30	10.70	2.20	3.55	3.25	7.60		
15	3.55	4.20	4.60	155.60	68.90	50.45	28.55	10.70	1.75	3.25	1.90	7.40		
16	3.55	3.85	3.10	150.00	56.20	49.35	43.85	10.70	3.10	3.10	0.95	7.80		
17	2.80	4.60	3.10	107.50	74.50	44.40	30.65	10.70	4.20	2.95	0.95	7.80		
18	2.65	6.40	2.80	77.30	60.10	48.25	24.05	9.80	3.85	2.65	0.95	7.80		
19	2.35	7.80	2.35	60.75	49.90	60.10	24.05	9.20	3.85	2.50	0.95	7.40		
20	2.50	9.80	2.35	48.80	112.00	56.85	24.05	9.20	3.85	2.65	0.95	7.40		
21	2.05	5.00	2.35	42.20	147.00	56.85	24.05	7.80	4.00	3.85	0.95	6.60		
22	2.05	3.55	2.35	39.45	118.65	66.80	23.60	7.80	4.20	3.85	0.95	6.40		
23	2.35	2.80	2.35	37.25	90.80	56.20	21.35	7.80	4.60	3.85	0.95	6.00		
24	2.50	2.65	2.65	71.70	80.40	58.80	19.70	7.80	4.80	3.85	0.95	5.80		
25	4.40	4.00	4.20	52.30	70.30	49.90	19.70	7.80	5.20	3.85	0.95	5.80		
26	4.20	12.20	275.20	41.10	68.20	42.75	19.10	7.80	6.00	3.85	0.95	5.60		
27	3.85	12.80	314.00	33.95	114.85	47.15	18.80	7.60	5.80	3.85	0.95	5.60		
28	3.55	14.00	323.00	33.95	90.80	46.05	18.80	7.60	5.80	3.85	0.95	5.60		
29	3.55	17.00	146.00	33.40	67.50	42.20	18.80	7.40	5.80	3.85	0.95	5.40		
30	3.40	17.00	58.15	30.65	88.40	37.80	19.70	7.20	5.80	3.85		5.40		
31		14.00		33.40	70.30		19.70		5.80	3.85		5.40		
Total	90.15	229.90	1289.35	1419.00	2621.05	1924.75	1030.05	344.90	156.00	116.35	59.20	172.65	9453.35	CMSDAY
Mean	3.01	7.42	42.98	45.77	84.55	64.16	33.23	11.50	5.03	3.75	2.04	5.57	25.83	CMS
Max	4.40	17.00	323.00	155.60	188.40	118.65	90.80	17.90	7.20	5.80	3.85	7.80	323.00	CMS
Min	2.05	2.65	2.35	13.70	42.20	37.80	18.80	7.20	1.75	2.50	0.95	0.95	0.95	CMS
Runoff	7.79	19.86	111.40	122.60	226.46	166.30	89.00	29.80	13.48	10.05	5.12	14.92	816.77	MCM

Momentary Peak 526.60 CMS. at 305.38 m. (MSL.) at 20.00 Hours , on Jun 26 , 2011

Runoff Yield 30.28 Liters/Second/Square KM. Momentary Peak Yield 617.351 Liters/Second/Square KM.

WATER YEAR : 2011

YOM RIVER BASIN

Yom River at Ban Wang Chin , Phrae (Y.37)

Lat 17 - 53 - 48 N Long 99 - 36 - 28 E

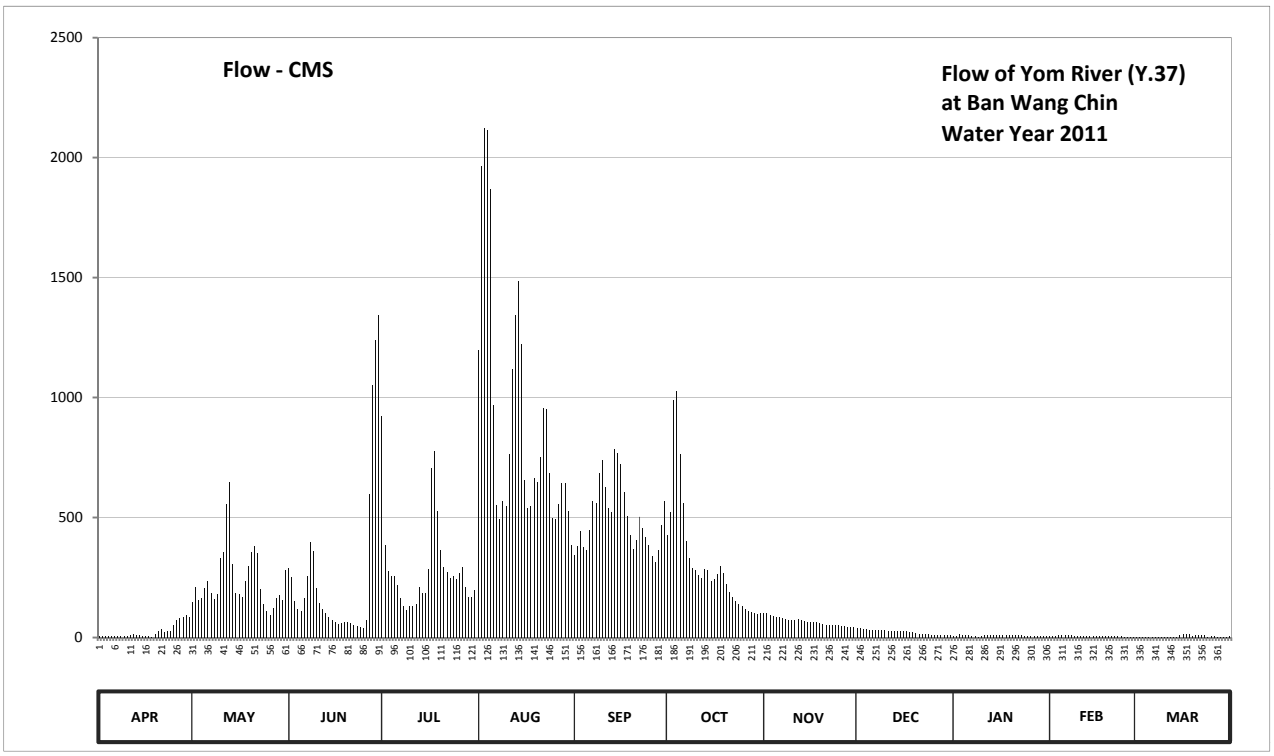
Location : on left bank at the bridge on road.

	Ban Wang Chin	**Amphoe** Wang Chin	**Changwat** Phrae
Drainge Area	10,305 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+92.280 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank about 5 meters from the top staff gage.	**Elevation**	+105.250 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	1999 to date		
Rating Operation			
Period of Rating	1999 to date		
Rated by Flot	-		
Rated by Current Meter	1999 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	Overbank flow starts at elevation + 105.350 m.(MSL.), records are channel flow only.		
General Description	Records good. The weir situated about 1 kilometer downstream from the gage site. Stage-discharge relation defined by 49 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	94.52	95.97	97.13	100.81	102.03	97.54	98.10	95.52	94.85	94.35	94.48	94.39	
2	94.51	96.51	96.83	97.83	105.04	97.80	98.69	95.52	94.83	94.35	94.49	94.39	
3	94.50	96.04	95.98	97.04	105.63	98.22	101.13	95.45	94.78	94.45	94.51	94.38	
4	94.49	96.10	95.68	96.88	105.60	97.79	101.30	95.43	94.76	94.41	94.53	94.37	
5	94.48	96.48	95.61	96.87	104.67	97.70	100.04	95.39	94.70	94.38	94.54	94.36	
6	94.46	96.71	96.11	96.59	101.03	98.23	98.92	95.35	94.73	94.37	94.54	94.36	
7	94.44	96.29	96.89	96.12	98.87	98.95	97.94	95.31	94.75	94.35	94.54	94.36	
8	94.44	96.06	97.92	95.81	98.52	98.91	97.43	95.28	94.74	94.35	94.53	94.35	
9	94.43	96.25	97.67	95.67	98.95	99.61	97.14	95.25	94.71	94.38	94.52	94.37	
10	94.46	97.44	96.48	95.81	98.84	99.91	97.06	95.24	94.70	94.42	94.52	94.38	
11	94.59	97.64	95.94	95.82	100.04	99.30	96.91	95.21	94.68	94.56	94.52	94.38	
12	94.63	98.88	95.68	95.88	101.70	98.79	96.80	95.27	94.68	94.58	94.52	94.38	
13	94.61	99.41	95.52	96.51	102.65	98.70	97.12	95.21	94.66	94.58	94.50	94.38	
14	94.56	97.26	95.38	96.28	103.20	100.13	97.06	95.17	94.66	94.58	94.48	94.40	
15	94.51	96.27	95.24	96.29	102.13	100.05	96.72	95.14	94.64	94.58	94.46	94.57	
16	94.47	96.24	95.14	97.12	99.44	99.80	96.76	95.12	94.64	94.58	94.45	94.66	
17	94.42	96.14	95.05	99.71	98.79	99.18	96.93	95.13	94.63	94.58	94.44	94.68	
18	94.40	96.70	95.08	100.09	98.84	98.60	97.19	95.12	94.60	94.58	94.44	94.64	
19	94.49	97.20	95.13	98.71	99.49	98.10	96.98	95.09	94.58	94.58	94.44	94.48	
20	94.63	97.63	95.12	97.69	99.41	97.71	96.61	95.05	94.54	94.58	94.42	94.53	
21	94.77	97.81	95.07	97.18	99.97	97.97	96.34	95.01	94.47	94.57	94.43	94.58	
22	94.61	97.60	95.00	97.00	100.97	98.57	96.15	95.01	94.46	94.55	94.43	94.60	
23	94.68	96.44	94.94	96.81	100.95	98.29	96.01	95.00	94.46	94.54	94.41	94.58	
24	94.69	95.88	94.87	96.88	99.60	98.04	95.90	94.98	94.44	94.52	94.41	94.37	
25	94.99	95.63	94.83	96.77	98.55	97.85	95.79	94.96	94.43	94.51	94.39	94.49	
26	95.23	95.44	95.25	96.99	98.52	97.50	95.70	94.94	94.42	94.51	94.38	94.45	
27	95.33	95.73	99.12	97.18	98.88	97.33	95.62	94.93	94.40	94.51	94.38	94.40	
28	95.37	96.11	101.41	96.51	99.38	97.68	95.58	94.91	94.38	94.50	94.38	94.36	
29	95.44	96.23	102.21	96.14	99.39	98.36	95.54	94.89	94.38	94.50	94.38	94.28	
30	95.36	96.04	102.64	96.13	98.72	98.96	95.51	94.88	94.37	94.48		94.27	
31		97.07		96.40	97.84		95.52		94.36	94.50		94.42	
Mean	94.68	96.68	96.50	97.02	100.57	98.52	97.11	95.16	94.59	94.49	94.46	94.44	
Max	95.44	99.41	102.64	100.81	105.63	100.13	101.30	95.52	94.85	94.58	94.54	94.68	105.63
Min	94.40	95.44	94.83	95.67	97.84	97.33	95.51	94.88	94.36	94.35	94.38	94.27	94.27

Annual Max Momentary Gage Height	105.73	m. (MSL.) ,	at 01.00 Hours , on Aug 4 , 2011		
Zero Gage at Bottom Elevation	92.28	m. (MSL.) ,	River Bed	91.90	m. (MSL)
Left Bank Elevation	105.34	m. (MSL.) ,			
Right Bank Elevation	106.41	m. (MSL.) ,	Drainage Area	10305	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	7.80	148.70	288.90	920.20	1197.00	343.90	426.00	100.00	40.20	8.10	6.40	3.80		
2	7.40	211.20	250.80	384.50	1966.60	380.00	523.30	100.00	38.50	8.10	6.70	3.80		
3	7.00	156.60	149.80	277.20	2123.10	445.20	990.60	93.00	34.70	13.20	7.40	3.60		
4	6.70	163.50	116.80	257.00	2115.00	378.60	1028.00	91.00	33.40	10.70	8.20	3.50		
5	6.40	207.60	109.10	255.80	1868.50	366.00	765.60	87.10	29.50	9.20	8.60	3.30		
6	5.80	235.80	164.70	220.80	968.60	446.80	562.40	83.50	31.50	8.90	8.60	3.30		
7	5.20	185.30	258.20	165.80	553.90	567.50	401.00	79.90	32.70	8.10	8.60	3.30		
8	5.20	158.90	398.00	131.10	494.40	560.70	329.10	77.20	32.10	8.10	8.20	3.10		
9	4.90	180.70	361.80	115.70	567.50	684.80	290.20	74.50	30.10	3.60	7.80	3.50		
10	5.80	330.40	207.60	131.10	548.80	740.90	279.80	73.60	29.50	4.60	7.80	3.60		
11	10.60	357.60	145.40	132.20	765.60	628.00	260.80	70.90	28.20	9.40	7.80	3.60		
12	12.80	555.60	116.80	138.80	1119.50	540.30	247.00	76.30	28.20	10.20	7.80	3.60		
13	11.60	647.90	100.00	211.20	1344.50	525.00	287.60	70.90	26.90	10.20	7.00	3.60		
14	9.40	306.10	86.20	184.20	1484.00	782.70	279.80	67.50	26.90	10.20	6.40	4.00		
15	7.40	183.00	73.60	185.30	1220.50	767.50	237.00	64.90	25.60	10.20	5.80	9.80		
16	6.10	179.60	64.90	287.60	653.40	720.00	242.00	63.20	25.60	10.20	5.50	14.60		
17	4.60	168.10	57.30	703.30	540.30	606.60	263.30	64.00	24.90	10.20	5.20	15.80		
18	4.00	234.50	59.80	775.10	548.80	508.00	296.70	63.20	23.00	10.20	5.20	13.40		
19	15.80	298.00	64.00	526.70	662.60	426.00	269.50	60.60	21.70	10.20	5.20	6.40		
20	24.90	356.20	63.20	364.60	647.90	367.40	223.30	57.30	19.10	10.20	4.60	8.20		
21	34.00	381.50	59.00	295.40	752.30	405.50	191.10	53.90	14.50	9.80	4.90	10.20		
22	23.60	352.00	53.00	272.00	955.40	502.90	169.30	53.90	13.90	9.00	4.90	11.00		
23	28.20	202.80	47.90	248.20	951.00	456.40	153.20	53.00	13.90	8.60	4.30	10.20		
24	28.80	138.80	42.00	257.00	683.00	416.40	141.00	51.30	12.60	7.80	4.30	3.50		
25	52.10	111.30	38.50	243.20	499.50	387.50	128.90	49.60	11.90	7.40	3.80	6.70		
26	72.70	92.00	74.50	270.70	494.40	338.50	119.00	47.90	11.30	7.40	3.60	5.50		
27	81.70	122.30	596.40	295.40	555.60	315.60	110.20	47.00	10.00	7.40	3.60	4.00		
28	85.30	164.70	1052.30	211.20	642.40	363.20	106.00	45.40	9.20	7.00	3.60	3.30		
29	92.00	178.50	1239.30	168.10	644.20	467.60	102.00	43.60	9.20	7.00	3.60	2.00		
30	84.40	156.60	1342.00	166.90	528.40	569.20	99.00	42.80	8.90	6.40		1.80		
31		281.10		198.00	386.00		100.00		8.50	7.00		4.60		
Total	752.20	7446.90	7681.80	8994.30	28482.70	15008.70	9622.70	2007.00	706.20	268.60	175.40	180.60	81327.10	CMSDAY
Mean	25.10	240.20	256.10	290.10	918.80	500.30	310.40	66.90	22.80	8.70	6.00	5.80	222.20	CMS
Max	92.00	647.90	1342.00	920.20	2123.10	782.70	1028.00	100.00	40.20	13.20	8.60	15.80	2123.10	CMS
Min	4.00	92.00	38.50	115.70	386.00	315.60	99.00	42.80	8.50	3.60	3.60	1.80	1.80	CMS
Runoff	64.99	643.41	663.71	777.11	2460.91	1296.75	831.40	173.40	61.02	23.21	15.15	15.60	7026.66	MCM

Momentary Peak 2150.10 CMS. at 105.73 m. (MSL.) at 01.00 Hours , on Aug 4 , 2011

Runoff Yield 21.56 Liters/Second/Square KM. Momentary Peak Yield 208.646 Liters/Second/Square KM.

WATER YEAR : 2011

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.

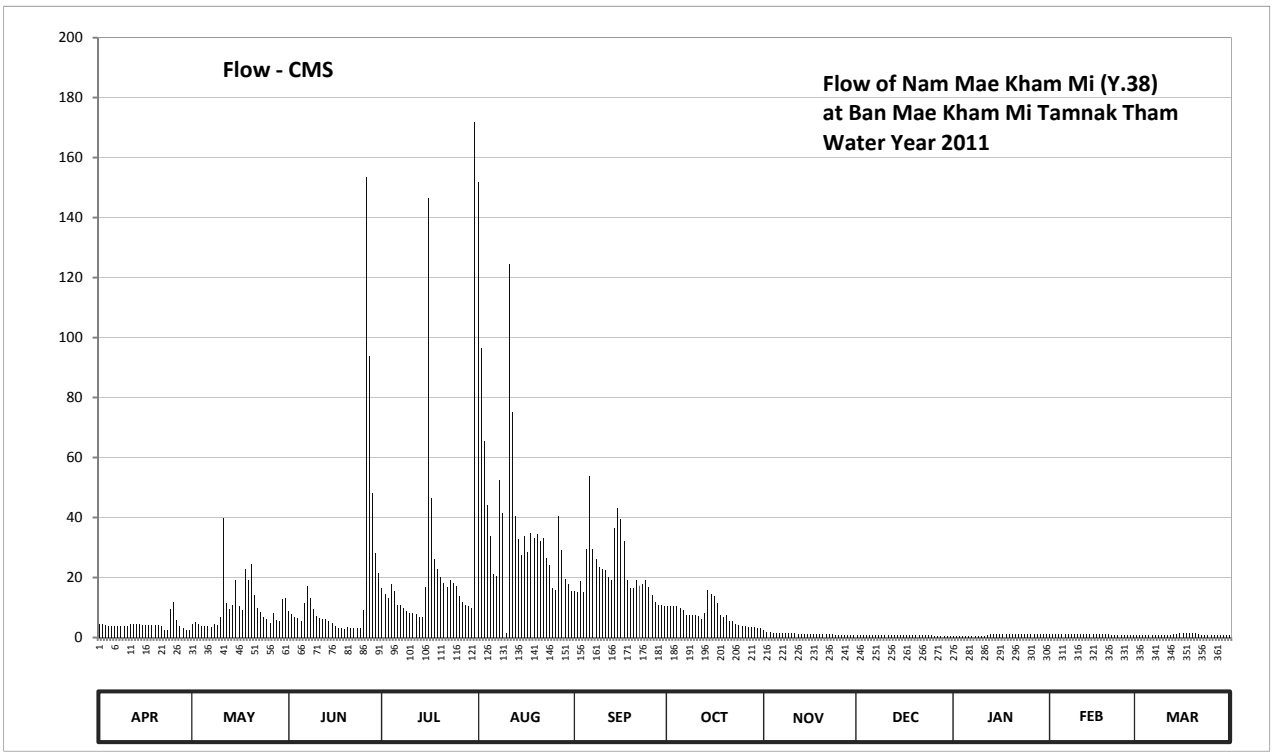
Ban Mae Kham Mi Tamnak Tham **Amphoe** Nong Muang Khai **Changwat** Phrae

Drainge Area	425 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+170.100 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank about 15 meters from the top staff gage. **Elevation** +179.900 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings
Period of Available Gage Records	1999 to date
Rating Operation	
Period of Rating	1999 to date
Rated by Flot	-
Rated by Current Meter	1999 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. The islet situated of the gage site.
	Stage-discharge relation defined by 46 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	172.16	172.16	172.33	172.52	174.70	172.50	172.38	172.04	171.74	171.66	171.80	171.76	
2	172.16	172.20	172.29	172.48	173.93	172.49	172.38	171.99	171.73	171.66	171.80	171.76	
3	172.15	172.17	172.26	172.45	173.44	172.57	172.38	171.96	171.70	171.66	171.80	171.76	
4	172.12	172.11	172.25	172.55	173.06	172.49	172.38	171.93	171.70	171.66	171.80	171.76	
5	172.12	172.12	172.22	172.50	172.87	172.79	172.36	171.91	171.70	171.66	171.80	171.76	
6	172.12	172.12	172.41	172.40	172.62	173.23	172.34	171.90	171.70	171.66	171.80	171.76	
7	172.12	172.10	172.54	172.39	172.61	172.79	172.28	171.87	171.70	171.66	171.80	171.76	
8	172.12	172.17	172.45	172.36	173.21	172.72	172.28	171.86	171.70	171.66	171.80	171.76	
9	172.12	172.15	172.35	172.33	173.01	172.67	172.28	171.86	171.70	171.66	171.80	171.76	
10	172.13	172.26	172.27	172.30	171.91	172.66	172.28	171.86	171.70	171.66	171.80	171.76	
11	172.16	172.98	172.25	172.30	174.34	172.65	172.27	171.86	171.70	171.66	171.80	171.76	
12	172.16	172.41	172.24	172.29	173.60	172.60	172.24	171.85	171.70	171.75	171.80	171.78	
13	172.16	172.35	172.24	172.26	172.99	172.58	172.30	171.84	171.70	171.82	171.80	171.82	
14	172.16	172.40	172.22	172.26	172.85	172.92	172.51	171.84	171.70	171.82	171.80	171.85	
15	172.14	172.58	172.18	172.53	172.75	173.04	172.48	171.84	171.70	171.82	171.80	171.86	
16	172.14	172.38	172.11	174.63	172.87	172.97	172.46	171.83	171.70	171.82	171.80	171.86	
17	172.14	172.34	172.08	173.10	172.77	172.84	172.41	171.80	171.70	171.82	171.80	171.86	
18	172.14	172.66	172.07	172.72	172.89	172.58	172.28	171.80	171.70	171.82	171.80	171.86	
19	172.14	172.58	172.05	172.66	172.86	172.52	172.26	171.80	171.70	171.82	171.80	171.86	
20	172.14	172.69	172.09	172.60	172.88	172.52	172.28	171.80	171.70	171.82	171.80	171.86	
21	172.12	172.47	172.08	172.56	172.84	172.58	172.22	171.80	171.70	171.82	171.79	171.83	
22	172.04	172.36	172.08	172.53	172.86	172.54	172.21	171.80	171.69	171.82	171.76	171.76	
23	172.04	172.32	172.08	172.58	172.73	172.55	172.16	171.80	171.68	171.82	171.76	171.76	
24	172.35	172.26	172.08	172.56	172.68	172.58	172.15	171.78	171.67	171.82	171.76	171.76	
25	172.42	172.24	172.34	172.54	172.52	172.53	172.13	171.78	171.67	171.82	171.76	171.76	
26	172.23	172.18	174.72	172.46	172.51	172.47	172.11	171.79	171.66	171.80	171.76	171.76	
27	172.11	172.31	173.89	172.42	172.99	172.42	172.10	171.78	171.66	171.80	171.76	171.76	
28	172.07	172.23	173.13	172.40	172.78	172.40	172.10	171.74	171.66	171.80	171.76	171.76	
29	172.04	172.22	172.76	172.38	172.59	172.40	172.09	171.74	171.66	171.80	171.76	171.76	
30	172.04	172.44	172.63	172.36	172.55	172.38	172.08	171.74	171.66	171.80		171.76	
31		172.45		174.95	172.50		172.08		171.66	171.80		171.76	
Mean	172.14	172.34	172.42	172.62	172.96	172.63	172.27	171.84	171.69	171.76	171.79	171.79	
Max	172.42	172.98	174.72	174.95	174.70	173.23	172.51	172.04	171.74	171.82	171.80	171.86	174.95
Min	172.04	172.10	172.05	172.26	171.91	172.38	172.08	171.74	171.66	171.66	171.76	171.76	171.66

Annual Max Momentary Gage Height	177.20	m. (MSL.) ,	at 15.00 Hours , on Jul 31 , 2011		
Zero Gage at Bottom Elevation	170.10	m. (MSL.) ,	River Bed	171.45	m. (MSL)
Left Bank Elevation	180.09	m. (MSL.) ,			
Right Bank Elevation	180.07	m. (MSL.) ,	Drainage Area	425	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	4.40	4.40	8.90	16.40	152.00	15.50	10.40	2.60	0.85	0.65	1.00	0.90		
2	4.40	5.00	7.70	14.60	96.45	15.05	10.40	1.95	0.82	0.65	1.00	0.90		
3	4.25	4.55	6.80	13.25	65.40	18.65	10.40	1.80	0.75	0.65	1.00	0.90		
4	3.80	3.65	6.50	17.75	44.30	15.05	10.40	1.65	0.75	0.65	1.00	0.90		
5	3.80	3.80	5.60	15.50	33.85	29.50	9.80	1.55	0.75	0.65	1.00	0.90		
6	3.80	3.80	11.45	11.00	21.00	53.65	9.20	1.50	0.75	0.65	1.00	0.90		
7	3.80	3.50	17.30	10.70	20.50	29.50	7.40	1.35	0.75	0.65	1.00	0.90		
8	3.80	4.55	13.25	9.80	52.55	26.00	7.40	1.30	0.75	0.65	1.00	0.90		
9	3.80	4.25	9.50	8.90	41.55	23.50	7.40	1.30	0.75	0.65	1.00	0.90		
10	3.95	6.80	7.10	8.00	1.55	23.00	7.40	1.30	0.75	0.65	1.00	0.90		
11	4.40	39.90	6.50	8.00	124.50	22.50	7.10	1.30	0.75	0.65	1.00	0.90		
12	4.40	11.45	6.20	7.70	75.00	20.00	6.20	1.25	0.75	0.87	1.00	0.95		
13	4.40	9.50	6.20	6.80	40.45	19.10	8.00	1.20	0.75	1.10	1.00	1.10		
14	4.40	11.00	5.60	6.80	32.75	36.60	15.95	1.20	0.75	1.10	1.00	1.25		
15	4.10	19.10	4.70	16.85	27.50	43.20	14.60	1.20	0.75	1.10	1.00	1.30		
16	4.10	10.40	3.65	146.40	33.85	39.35	13.70	1.15	0.75	1.10	1.00	1.30		
17	4.10	9.20	3.20	46.50	28.50	32.20	11.45	1.00	0.75	1.10	1.00	1.30		
18	4.10	23.00	3.05	26.00	34.95	19.10	7.40	1.00	0.75	1.10	1.00	1.30		
19	4.10	19.10	2.75	23.00	33.30	16.40	6.80	1.00	0.75	1.10	1.00	1.30		
20	4.10	24.50	3.35	20.00	34.40	16.40	7.40	1.00	0.75	1.10	1.00	1.30		
21	3.80	14.15	3.20	18.20	32.20	19.10	5.60	1.00	0.75	1.10	0.97	1.15		
22	2.60	9.80	3.20	16.85	33.30	17.30	5.30	1.00	0.73	1.10	0.90	0.90		
23	2.60	8.60	3.20	19.10	26.50	17.75	4.40	1.00	0.70	1.10	0.90	0.90		
24	9.50	6.80	3.20	18.20	24.00	19.10	4.25	0.95	0.67	1.10	0.90	0.90		
25	11.90	6.20	9.20	17.30	16.40	16.85	3.95	0.95	0.67	1.10	0.90	0.90		
26	5.90	4.70	153.60	13.70	15.95	14.15	3.65	0.97	0.65	1.00	0.90	0.90		
27	3.65	8.30	93.85	11.90	40.45	11.90	3.50	0.95	0.65	1.00	0.90	0.90		
28	3.05	5.90	48.15	11.00	29.00	11.00	3.50	0.85	0.65	1.00	0.90	0.90		
29	2.60	5.60	28.00	10.40	19.55	11.00	3.35	0.85	0.65	1.00	0.90	0.90		
30	2.60	12.80	21.50	9.80	17.75	10.40	3.20	0.85	0.65	1.00		0.90		
31		13.25		172.00	15.50		3.20		0.65	1.00		0.90		
Total	130.20	317.55	506.40	752.40	1264.95	662.80	232.70	36.97	22.59	28.32	28.17	31.15	4014.20	CMSDAY
Mean	4.34	10.24	16.88	24.27	40.80	22.09	7.51	1.23	0.73	0.91	0.97	1.00	10.97	CMS
Max	11.90	39.90	153.60	172.00	152.00	53.65	15.95	2.60	0.85	1.10	1.00	1.30	172.00	CMS
Min	2.60	3.50	2.75	6.80	1.55	10.40	3.20	0.85	0.65	0.65	0.90	0.90	0.65	CMS
Runoff	11.25	27.44	43.75	65.01	109.29	57.27	20.11	3.19	1.95	2.45	2.43	2.69	346.83	MCM

Momentary Peak 420.00 CMS. at 177.20 m. (MSL.) at 15.00 Hours , on Jul 31 , 2011

Runoff Yield 25.81 Liters/Second/Square KM. Momentary Peak Yield 988.235 Liters/Second/Square KM.

WATER YEAR : 2011

YOM RIVER BASIN

Yom River at Ban Tha Tako , Phichit (Y.42)

Lat 16 - 18 - 40 N Long 100 - 16 - 19 E

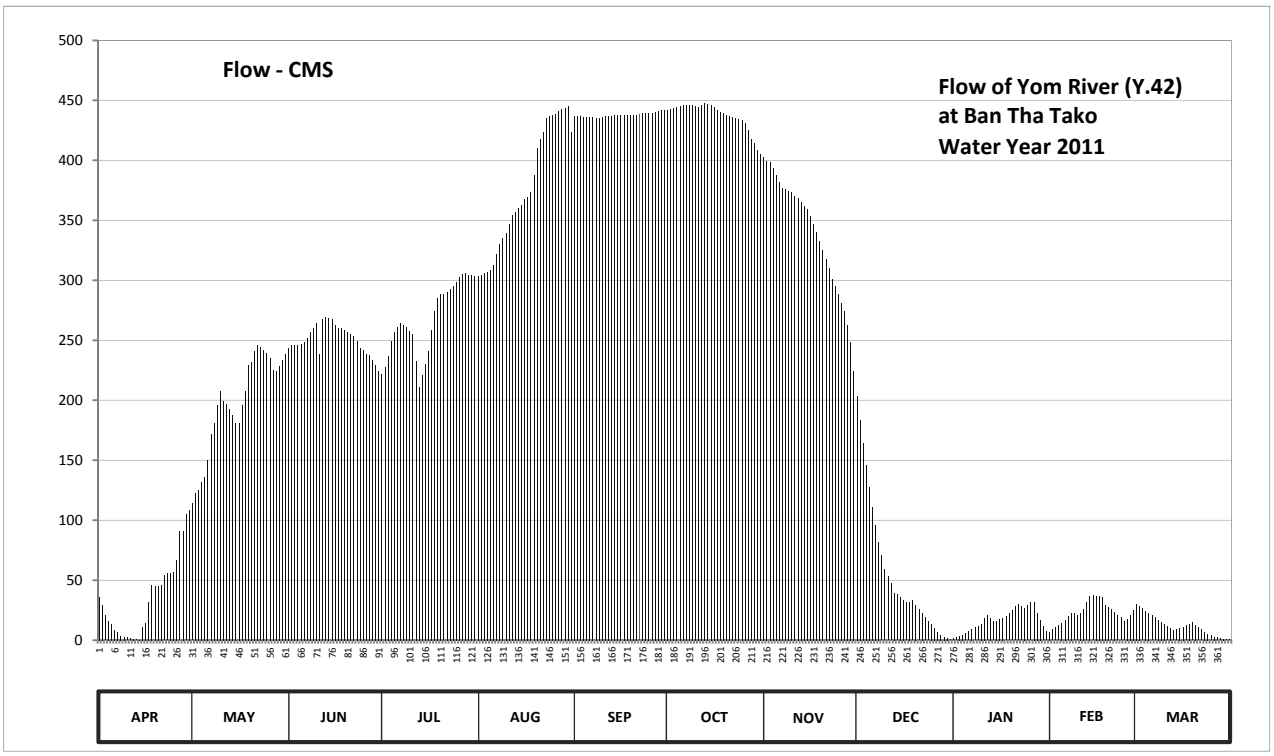
Location : on left bank at Ban Tha Tako

	Ban Tha Tako	**Amphoe** Pho Prathap Chang	**Changwat** Phichit
Drainge Area	- sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+0.000 m. (A.D.)		
Bench Mark	B.M.-H.D.		
Location BM	Near the gage observers house.	**Elevation**	+8.785 m. (A.D.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	2011 to date		
Rating Operation			
Period of Rating	2011 to date		
Rated by Flot	-		
Rated by Current Meter	2011 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	Overbank flow starts at elevation + 8.400 m.(A.D.), records are channel flow only.		
General Description	Records fair.Stage-discharge relation defined by 23 discharge measurements made in 2011.		

Gage Height in Meter (A.D.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	2.62	4.37	6.44	6.14	7.29	9.04	9.10	8.61	5.86	1.38	1.72	2.45	
2	2.43	4.53	6.48	6.22	7.30	9.04	9.11	8.57	5.55	1.45	1.79	2.40	
3	2.17	4.58	6.48	6.35	7.32	9.04	9.12	8.55	5.24	1.52	1.86	2.34	
4	2.05	4.69	6.48	6.53	7.33	9.03	9.13	8.49	4.94	1.59	1.93	2.28	
5	1.96	4.77	6.49	6.64	7.35	9.03	9.14	8.41	4.62	1.66	2.00	2.24	
6	1.78	5.01	6.52	6.70	7.41	9.03	9.15	8.33	4.31	1.74	2.07	2.17	
7	1.72	5.37	6.56	6.74	7.53	9.03	9.15	8.27	4.01	1.82	2.15	2.13	
8	1.54	5.52	6.63	6.72	7.64	9.02	9.15	8.25	3.71	1.86	2.23	2.07	
9	1.48	5.74	6.68	6.69	7.71	9.02	9.15	8.23	3.46	1.89	2.22	2.02	
10	1.44	5.92	6.74	6.65	7.76	9.03	9.14	8.22	3.20	1.96	2.17	1.97	
11	1.40	5.79	6.37	6.61	7.86	9.04	9.13	8.18	3.05	2.11	2.24	1.90	
12	1.36	5.76	6.79	6.29	7.96	9.04	9.15	8.15	2.91	2.18	2.33	1.84	
13	1.31	5.69	6.81	5.97	8.00	9.04	9.17	8.11	2.71	2.12	2.48	1.77	
14	1.28	5.62	6.80	6.13	8.04	9.05	9.16	8.07	2.67	2.03	2.64	1.80	
15	1.88	5.52	6.79	6.26	8.08	9.05	9.15	8.03	2.62	2.05	2.65	1.84	
16	2.00	5.51	6.72	6.41	8.14	9.05	9.13	7.95	2.54	2.09	2.64	1.88	
17	2.49	5.74	6.68	6.66	8.17	9.05	9.10	7.86	2.48	2.12	2.64	1.92	
18	2.87	5.92	6.68	6.88	8.22	9.05	9.08	7.78	2.50	2.15	2.62	1.96	
19	2.85	6.25	6.66	7.04	8.41	9.05	9.07	7.67	2.53	2.22	2.43	2.01	
20	2.85	6.28	6.64	7.08	8.70	9.05	9.05	7.58	2.43	2.29	2.38	1.94	
21	2.88	6.41	6.61	7.09	8.80	9.05	9.04	7.47	2.32	2.39	2.32	1.87	
22	3.07	6.48	6.59	7.11	8.87	9.06	9.03	7.37	2.23	2.44	2.25	1.79	
23	3.11	6.46	6.53	7.14	9.01	9.07	9.01	7.25	2.13	2.39	2.18	1.71	
24	3.13	6.42	6.44	7.18	9.04	9.07	9.00	7.17	2.03	2.35	2.13	1.64	
25	3.14	6.39	6.42	7.22	9.05	9.07	8.99	7.08	1.96	2.41	2.03	1.56	
26	3.37	6.33	6.38	7.27	9.06	9.07	8.96	6.98	1.84	2.48	2.09	1.48	
27	3.90	6.19	6.36	7.31	9.09	9.08	8.89	6.88	1.72	2.50	2.19	1.44	
28	3.91	6.17	6.30	7.32	9.11	9.09	8.80	6.72	1.60	2.23	2.31	1.40	
29	4.19	6.23	6.24	7.30	9.12	9.10	8.75	6.52	1.48	2.06	2.42	1.36	
30	4.26	6.30	6.17	7.30	9.14	9.10	8.68	6.17	1.41	1.90		1.32	
31		6.37		7.29	8.87		8.64		1.33	1.74		1.29	
Mean	2.48	5.75	6.55	6.78	8.24	9.05	9.04	7.76	2.95	2.04	2.25	1.86	
Max	4.26	6.48	6.81	7.32	9.14	9.10	9.17	8.61	5.86	2.50	2.65	2.45	9.17
Min	1.28	4.37	6.17	5.97	7.29	9.02	8.64	6.17	1.33	1.38	1.72	1.29	1.28

Annual Max Momentary Gage Height	9.17	m. (A.D.) ,	at 12.00 Hours , on Oct 13 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (A.D.) ,	River Bed	-0.20	m. (MSL)
Left Bank Elevation	8.39	m. (A.D.) ,			
Right Bank Elevation	9.35	m. (A.D.) ,	Drainage Area	Square Kilometers	



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	36.20	114.00	242.97	221.82	303.75	437.20	442.00	402.80	203.40	1.30	7.00	30.25		
2	29.55	122.65	245.79	227.46	304.50	437.20	442.80	399.75	183.25	2.25	8.75	28.50		
3	20.45	125.40	245.79	236.63	306.00	437.20	443.60	398.25	164.21	3.30	10.50	26.40		
4	16.25	131.45	245.79	249.32	306.75	436.40	444.40	393.75	146.00	4.35	12.40	24.30		
5	13.30	135.85	246.50	257.07	308.25	436.40	445.20	387.75	127.60	5.70	14.50	22.90		
6	8.50	150.25	248.61	261.30	312.75	436.40	446.00	381.75	111.00	7.50	16.95	20.45		
7	7.00	172.11	251.43	264.12	321.75	436.40	446.00	377.25	96.00	9.50	19.75	19.05		
8	3.60	181.30	256.37	262.71	330.00	435.60	446.00	375.75	81.95	10.50	22.55	16.95		
9	2.70	195.60	259.89	260.60	335.25	435.60	446.00	374.25	70.70	11.25	22.20	15.20		
10	2.10	207.30	264.12	257.78	339.00	436.40	445.20	373.50	59.00	13.30	20.45	13.60		
11	1.50	198.85	238.04	254.96	346.50	437.20	444.40	370.50	53.00	18.35	22.90	11.50		
12	1.10	196.90	267.65	232.40	354.00	437.20	446.00	368.25	47.40	20.80	26.05	10.00		
13	0.60	192.35	269.05	210.55	357.00	437.20	447.60	365.25	39.40	18.70	31.30	8.25		
14	0.40	187.80	268.35	221.12	360.00	438.00	446.80	362.25	37.95	15.55	36.90	9.00		
15	11.00	181.30	267.65	230.28	363.00	438.00	446.00	359.25	36.20	16.25	37.25	10.00		
16	14.50	180.65	262.71	240.86	367.50	438.00	444.40	353.25	33.40	17.65	36.90	11.00		
17	31.65	195.60	259.89	258.48	369.75	438.00	442.00	346.50	31.30	18.70	36.90	12.10		
18	45.80	207.30	259.89	273.99	373.50	438.00	440.40	340.50	32.00	19.75	36.20	13.30		
19	45.00	229.58	258.48	285.27	387.75	438.00	439.60	332.25	33.05	22.20	29.55	14.85		
20	45.00	231.69	257.07	288.09	410.00	438.00	438.00	325.50	29.55	24.65	27.80	12.70		
21	46.20	240.86	254.96	288.80	418.00	438.00	437.20	317.25	25.70	28.15	25.70	10.75		
22	53.80	245.79	253.55	290.25	423.60	438.80	436.40	309.75	22.55	29.90	23.25	8.75		
23	55.40	244.38	249.32	292.50	434.80	439.60	434.80	300.75	19.05	28.15	20.80	6.75		
24	56.20	241.56	242.97	295.50	437.20	439.60	434.00	294.75	15.55	26.75	19.05	5.30		
25	56.60	239.44	241.56	298.50	438.00	439.60	433.20	288.09	13.30	28.85	15.55	3.90		
26	66.65	235.22	238.74	302.25	438.80	439.60	430.80	281.04	10.00	31.30	17.65	2.70		
27	90.50	225.35	237.33	305.25	441.20	440.40	425.20	273.99	7.00	32.00	21.15	2.10		
28	91.00	223.94	233.10	306.00	442.80	441.20	418.00	262.71	4.50	22.55	25.35	1.50		
29	105.00	228.17	228.87	304.50	443.60	442.00	414.00	248.61	2.70	16.60	29.20	1.10		
30	108.50	233.10	223.94	304.50	445.20	442.00	408.40	223.94	1.65	11.50		0.70		
31		238.04		303.75	423.60		405.20		0.80	7.50		0.45		
Total	1066.05	6133.78	7520.38	8286.61	11643.80	13143.20	13559.60	10189.18	1739.16	524.80	674.50	374.30	74855.36	CMSDAY
Mean	35.53	197.86	250.68	267.31	375.61	438.11	437.41	339.64	56.10	16.93	23.26	12.07	204.52	CMS
Max	108.50	245.79	269.05	306.00	445.20	442.00	447.60	402.80	203.40	32.00	37.25	30.25	447.60	CMS
Min	0.40	114.00	223.94	210.55	303.75	435.60	405.20	223.94	0.80	1.30	7.00	0.45	0.40	CMS
Runoff	92.11	529.96	649.76	715.96	1006.02	1135.57	1171.55	880.35	150.26	45.34	58.28	32.34	6467.50	MCM

Momentary Peak 447.60 CMS. at 9.17 m. (A.D.) at 12.00 Hours , on Oct 13 , 2011

Runoff Yield ***** Liters/Second/Square KM. Momentary Peak Yield ***** Liters/Second/Square KM.

WATER YEAR : 2011

YOM RIVER BASIN

Yom River at Ban Pak Kang , Phrae (Y.43)

Lat 18 - 02 - 41 N Long 99 - 48 - 03 E

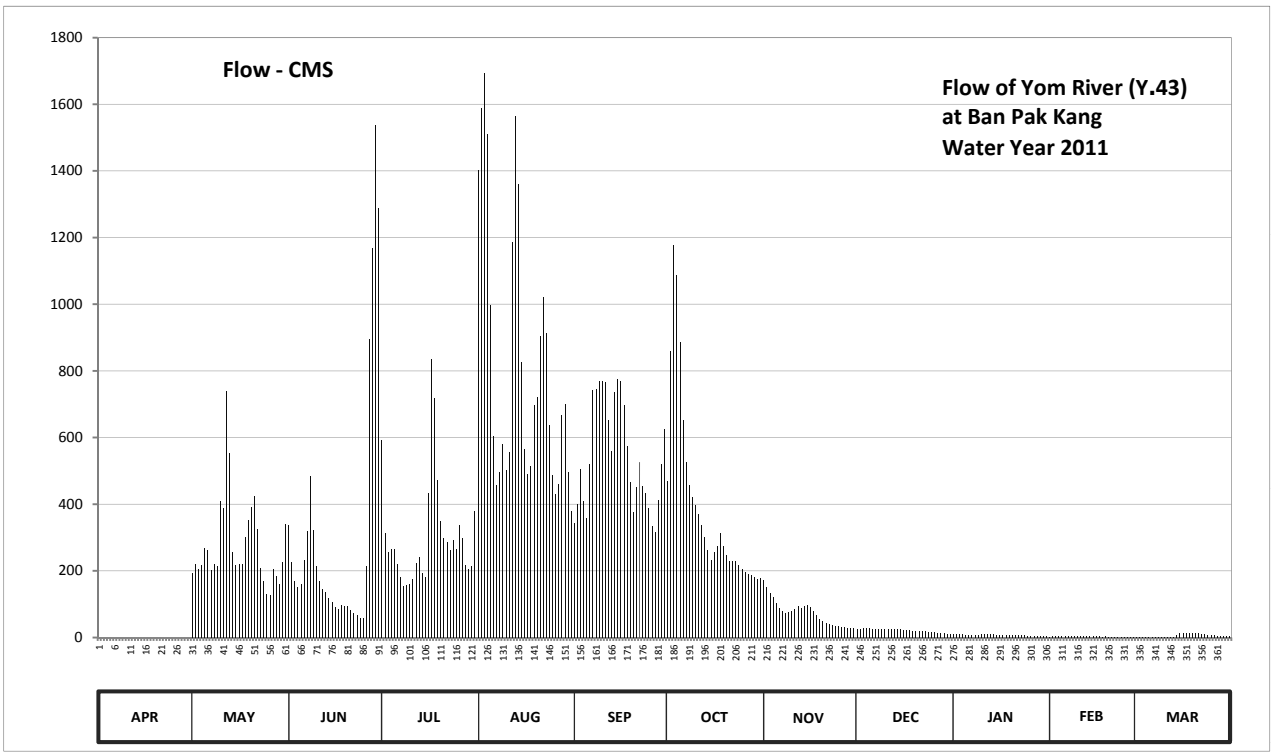
Location : on right bank at the bridge on road.

	Ban Pak Kang	**Amphoe** Long	**Changwat** Phrae
Drainge Area	9,881 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+98.379 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	Near the automatic gage building.	**Elevation**	+113.952 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	2011 to date		
Rating Operation			
Period of Rating	2011 to date		
Rated by Flot	-		
Rated by Current Meter	2011 to date		
Stability of Channel Regimes	Stable because of backwater effect.		
Overbank Flow Conditions	No overbank flow		
General Description	Records good. Stage-discharge relation defined by 29 discharge measurements made in 2011.		
Remark	beginning on 1st May 2011		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	*******	101.92	102.94	104.46	108.82	102.97	103.75	101.78	100.34	99.99	100.05	100.14	
2	*******	102.12	102.18	102.77	109.77	103.33	105.99	101.62	100.33	99.98	100.39	100.13	
3	*******	102.01	101.76	102.40	110.30	103.96	107.66	101.48	100.36	99.97	100.40	100.11	
4	*******	102.11	101.60	102.44	109.38	103.39	107.20	101.37	100.36	99.97	100.37	100.10	
5	*******	102.48	101.68	102.46	106.72	103.06	106.14	101.21	100.35	99.96	100.41	100.09	
6	*******	102.43	102.21	102.13	104.54	104.06	104.82	101.08	100.34	99.96	100.40	100.09	
7	*******	102.00	102.81	101.84	103.67	105.33	104.09	100.98	100.31	99.96	100.39	100.09	
8	*******	102.12	103.83	101.63	103.91	105.34	103.67	100.93	100.31	99.96	100.39	100.09	
9	*******	102.08	102.83	101.65	104.40	105.48	103.46	100.96	100.30	99.96	100.41	100.09	
10	*******	103.39	102.08	101.68	103.95	105.48	103.31	100.99	100.30	99.97	100.39	100.09	
11	*******	103.26	101.75	101.80	104.26	105.47	103.14	101.04	100.29	99.97	100.38	100.06	
12	*******	105.31	101.56	102.16	107.71	104.81	102.92	101.13	100.29	99.97	100.36	100.02	
13	*******	104.25	101.49	102.29	109.65	104.28	102.68	101.09	100.28	99.97	100.34	100.11	
14	*******	102.40	101.33	101.93	108.60	105.30	102.43	101.12	100.28	99.97	100.34	100.48	
15	*******	102.11	101.23	101.84	105.80	105.51	102.21	101.15	100.28	99.96	100.33	100.57	
16	*******	102.12	101.11	103.53	104.31	105.48	102.38	101.10	100.26	99.96	100.32	100.56	
17	*******	102.13	101.04	105.86	103.87	105.07	102.51	100.98	100.23	99.96	100.30	100.55	
18	*******	102.69	101.15	105.19	104.01	104.37	102.77	100.86	100.22	99.96	100.29	100.55	
19	*******	103.02	101.12	103.76	105.07	103.72	102.50	100.75	100.20	99.95	100.30	100.55	
20	*******	103.27	101.14	103.01	105.21	103.18	102.32	100.66	100.19	99.95	100.29	100.54	
21	*******	103.48	101.02	102.67	106.23	103.63	102.19	100.59	100.19	99.94	100.27	100.54	
22	*******	102.86	100.92	102.59	106.86	104.09	102.19	100.53	100.18	99.91	100.26	100.53	
23	*******	102.04	100.86	102.43	106.28	103.65	102.19	100.49	100.16	99.90	100.24	100.50	
24	*******	101.75	100.77	102.64	104.73	103.53	102.11	100.46	100.14	99.89	100.23	100.47	
25	*******	101.44	100.77	102.46	103.86	103.26	102.03	100.45	100.13	99.87	100.22	100.45	
26	*******	101.43	102.08	102.94	103.52	102.91	101.95	100.43	100.11	99.86	100.20	100.43	
27	*******	102.02	106.19	102.66	103.70	102.79	101.91	100.41	100.09	99.85	100.19	100.41	
28	*******	101.87	107.61	102.11	104.90	103.40	101.88	100.39	100.08	99.85	100.18	100.40	
29	*******	101.68	109.51	102.02	105.09	104.05	101.83	100.38	100.05	99.84	100.18	100.38	
30	*******	102.17	108.24	102.09	103.90	104.65	101.79	100.36	100.03	99.84		100.36	
31		102.95		103.20	103.20		101.82		100.00	99.83		100.34	
Mean	*******	102.48	102.49	102.67	105.68	104.18	103.16	100.89	100.23	99.93	100.30	100.32	
Max	*******	105.31	109.51	105.86	110.30	105.51	107.66	101.78	100.36	99.99	100.41	100.57	110.30
Min	*******	101.43	100.77	101.63	103.20	102.79	101.79	100.36	100.00	99.83	100.05	100.02	*******

Annual Max Momentary Gage Height	110.41	m. (MSL.) ,	at 07.00 Hours , on Aug 3 , 2011		
Zero Gage at Bottom Elevation	98.38	m. (MSL.) ,	River Bed	98.38	m. (MSL)
Left Bank Elevation	114.69	m. (MSL.) ,			
Right Bank Elevation	113.57	m. (MSL.) ,	Drainage Area	9881	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	*******	192.20	339.00	590.50	1402.90	343.50	469.75	173.40	27.00	9.65	1.20	1.64		
2	*******	219.20	227.30	313.50	1588.15	400.80	858.25	152.60	26.50	9.30	4.98	1.58		
3	*******	204.35	170.80	258.00	1694.00	504.40	1176.70	135.00	28.00	8.95	5.20	1.46		
4	*******	217.85	150.00	264.00	1512.10	410.40	1087.00	121.55	28.00	8.95	4.54	1.40		
5	*******	270.00	160.40	267.00	995.80	357.60	885.90	103.15	27.50	8.60	5.63	1.36		
6	*******	262.50	231.40	220.55	604.50	521.20	653.50	88.80	27.00	8.60	5.20	1.36		
7	*******	203.00	319.50	181.40	456.55	742.75	526.30	78.00	25.50	8.60	4.98	1.36		
8	*******	219.20	482.95	153.90	496.15	744.50	456.55	73.00	25.50	8.60	4.98	1.36		
9	*******	213.80	322.50	156.50	580.00	769.00	421.90	76.00	25.00	8.60	5.63	1.36		
10	*******	410.40	213.80	160.40	502.75	769.00	397.60	79.00	25.00	8.95	4.98	1.36		
11	*******	389.60	169.50	176.00	555.50	767.25	370.40	84.40	24.50	8.95	4.76	1.24		
12	*******	739.25	145.00	224.60	1186.45	651.75	336.00	94.30	24.50	8.95	4.32	1.08		
13	*******	553.75	136.25	242.60	1564.75	559.00	300.00	89.90	24.00	8.95	3.88	1.46		
14	*******	258.00	116.95	193.55	1360.00	737.50	262.50	93.20	24.00	8.95	3.88	8.64		
15	*******	217.85	105.45	181.40	825.00	774.25	231.40	96.50	24.00	8.60	3.66	13.70		
16	*******	219.20	92.10	433.45	564.25	769.00	255.20	91.00	23.00	8.60	3.44	13.10		
17	*******	220.55	84.40	835.50	489.55	697.25	274.50	78.00	21.50	8.60	3.00	12.50		
18	*******	301.50	96.50	718.25	512.70	574.75	313.50	66.00	21.00	8.60	2.90	12.50		
19	*******	351.20	93.20	471.40	697.25	464.80	273.00	56.25	20.00	8.25	3.00	12.50		
20	*******	391.20	95.40	349.60	721.75	376.80	246.80	49.50	19.50	8.25	2.90	11.90		
21	*******	425.20	82.20	298.50	902.70	449.95	228.65	44.25	19.50	7.90	2.70	11.90		
22	*******	327.00	72.00	286.50	1022.40	526.30	228.65	39.75	19.00	6.85	2.60	11.30		
23	*******	208.40	66.00	262.50	912.20	453.25	228.65	36.75	18.00	6.50	2.40	9.50		
24	*******	169.50	57.75	294.00	637.75	433.45	217.85	34.50	17.00	6.15	2.30	8.21		
25	*******	130.00	57.75	267.00	487.90	389.60	207.05	33.75	16.50	5.45	2.20	7.35		
26	*******	128.75	213.80	339.00	431.80	334.50	196.25	32.25	15.50	5.10	2.00	6.49		
27	*******	205.70	895.15	297.00	461.50	316.50	190.85	30.75	14.50	4.75	1.94	5.63		
28	*******	185.45	1166.95	217.85	667.50	412.00	186.80	29.50	14.00	4.75	1.88	5.20		
29	*******	160.40	1537.45	205.70	700.75	519.50	180.05	29.00	12.50	4.40	1.88	4.76		
30	*******	225.95	1289.80	215.15	494.50	623.75	174.70	28.00	11.50	4.40		4.32		
31		340.50		380.00	380.00		178.70		10.00	4.05		3.88		
Total	*******	8561.45	9191.25	9455.30	25409.10	16394.30	12014.95	2218.05	659.00	235.80	102.96	181.40	*******	CMSDAY
Mean	*******	276.18	306.38	305.01	819.65	546.48	387.58	73.94	21.26	7.61	3.55	5.85	*******	CMS
Max	*******	739.25	1537.45	835.50	1694.00	774.25	1176.70	173.40	28.00	9.65	5.63	13.70	1694.00	CMS
Min	*******	128.75	57.75	153.90	380.00	316.50	174.70	28.00	10.00	4.05	1.20	1.08	*******	CMS
Runoff	*******	739.71	794.12	816.94	2195.35	1416.47	1038.09	191.64	56.94	20.37	8.90	15.67	*******	MCM

Momentary Peak 1716.00 CMS. at 110.41 m. (MSL.) at 07.00 Hours , on Aug 3 , 2011

Runoff Yield ******* Liters/Second/Square KM. Momentary Peak Yield 173.667 Liters/Second/Square KM.

WATER YEAR : 2011

YOM RIVER BASIN

Nam Mae Ta at Ban Nam Rin , Phrae (Y.44)

Lat 18 - 09 - 32 N Long 99 - 56 - 35 E

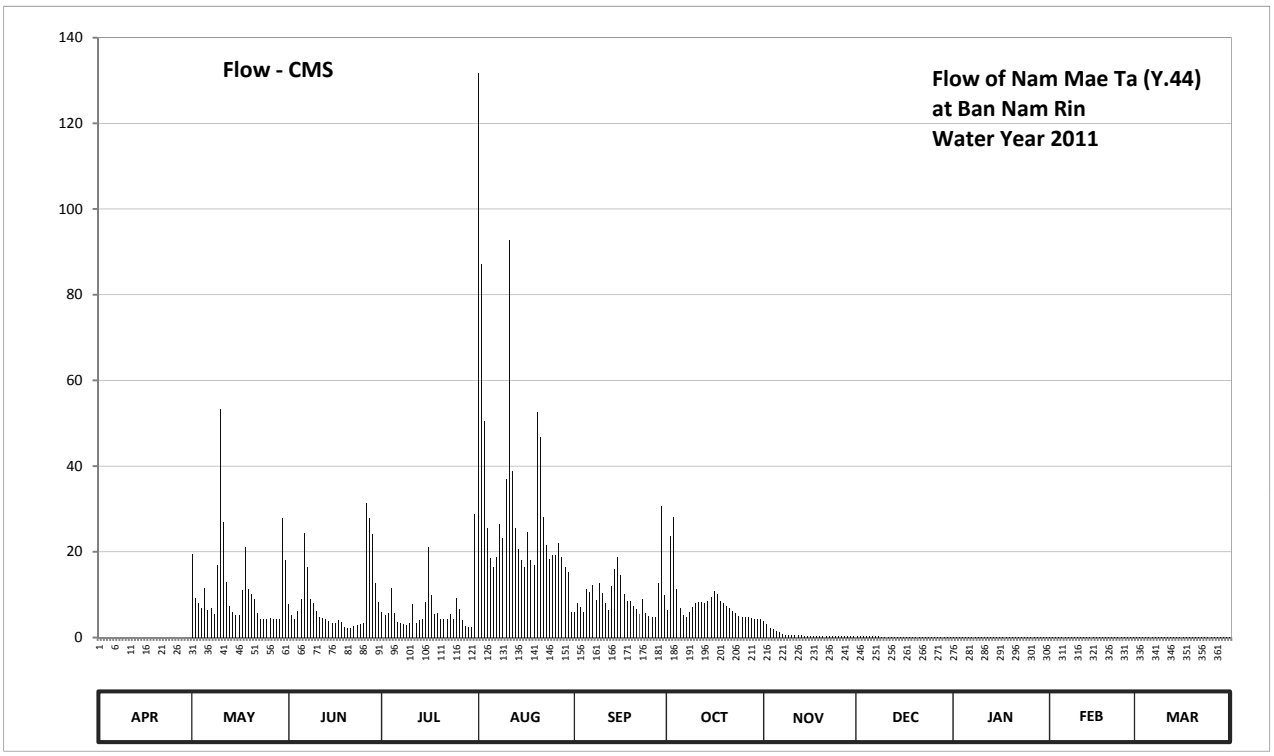
Location : on right bank at the bridge on road.

	Ban Nam Rin	**Amphoe** Long	**Changwat** Phrae
Drainge Area	317 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+147.695 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	Near automatic gage building		**Elevation** +156.872 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	2011 to date		
Rating Operation			
Period of Rating	2011 to date		
Rated by Flot	-		
Rated by Current Meter	2011 to date		
Stability of Channel Regimes	Fairly stable because of backwater effect.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 29 discharge measurements made in 2011.		
Remark	beginning on 1st May 2011		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	*******	149.23	148.77	148.69	151.45	149.07	149.09	148.93	148.40	148.26	148.26	148.26	
2	*******	148.83	148.65	148.65	150.82	149.16	149.57	148.87	148.40	148.26	148.26	148.26	
3	*******	148.78	148.61	148.67	150.12	149.12	149.63	148.77	148.39	148.26	148.26	148.26	
4	*******	148.73	148.70	148.93	149.44	149.06	149.29	148.74	148.38	148.26	148.26	148.26	
5	*******	148.93	148.82	148.68	149.20	149.29	149.11	148.69	148.37	148.26	148.26	148.26	
6	*******	148.71	149.40	148.57	149.12	149.26	149.02	148.64	148.36	148.26	148.26	148.26	
7	*******	148.73	149.12	148.56	149.21	149.32	148.99	148.58	148.35	148.26	148.26	148.26	
8	*******	148.66	148.82	148.54	149.47	149.19	149.06	148.52	148.34	148.26	148.26	148.26	
9	*******	149.13	148.78	148.53	149.36	149.33	149.12	148.51	148.33	148.26	148.26	148.26	
10	*******	150.19	148.70	148.56	149.78	149.25	149.16	148.51	148.32	148.26	148.26	148.26	
11	*******	149.48	148.63	148.77	150.91	149.16	149.17	148.50	148.32	148.26	148.26	148.26	
12	*******	148.98	148.62	148.55	149.83	149.09	149.17	148.50	148.31	148.26	148.26	148.26	
13	*******	148.75	148.60	148.59	149.44	149.31	149.16	148.49	148.30	148.26	148.26	148.26	
14	*******	148.69	148.58	148.61	149.27	149.42	149.18	148.47	148.30	148.26	148.26	148.26	
15	*******	148.65	148.56	148.79	149.18	149.48	149.22	148.45	148.29	148.26	148.26	148.26	
16	*******	148.65	148.56	149.29	149.12	149.39	149.27	148.44	148.28	148.26	148.26	148.26	
17	*******	148.91	148.59	148.86	149.41	149.24	149.24	148.43	148.28	148.26	148.26	148.26	
18	*******	149.29	148.57	148.66	149.18	149.18	149.18	148.43	148.27	148.26	148.26	148.26	
19	*******	148.92	148.50	148.67	149.13	149.18	149.16	148.43	148.27	148.26	148.26	148.26	
20	*******	148.87	148.49	148.61	150.17	149.13	149.13	148.42	148.26	148.26	148.26	148.26	
21	*******	148.82	148.48	148.61	150.03	149.10	149.11	148.42	148.26	148.26	148.26	148.26	
22	*******	148.67	148.51	148.61	149.52	149.04	149.08	148.42	148.26	148.26	148.26	148.26	
23	*******	148.61	148.53	148.66	149.30	149.20	149.05	148.42	148.26	148.26	148.26	148.26	
24	*******	148.61	148.54	148.61	149.19	149.05	149.01	148.42	148.26	148.26	148.26	148.26	
25	*******	148.61	148.55	148.83	149.22	149.01	149.00	148.41	148.26	148.26	148.26	148.26	
26	*******	148.62	149.62	148.72	149.22	148.99	149.00	148.41	148.26	148.26	148.26	148.26	
27	*******	148.61	149.51	148.59	149.32	149.00	148.99	148.41	148.26	148.26	148.26	148.26	
28	*******	148.61	149.39	148.52	149.21	149.33	148.98	148.40	148.26	148.26	148.26	148.26	
29	*******	148.61	148.97	148.50	149.12	149.66	148.97	148.40	148.26	148.26	148.26	148.26	
30	*******	149.51	148.79	148.50	149.07	149.23	148.96	148.40	148.26	148.26		148.26	
31		149.18		149.54	149.07		148.96		148.26	148.26		148.26	
Mean	*******	148.89	148.77	148.69	149.54	149.21	149.13	148.51	148.30	148.26	148.26	148.26	
Max	*******	150.19	149.62	149.54	151.45	149.66	149.63	148.93	148.40	148.26	148.26	148.26	151.45
Min	*******	148.61	148.48	148.50	149.07	148.99	148.96	148.40	148.26	148.26	148.26	148.26	*******

Annual Max Momentary Gage Height	152.40	m. (MSL.) ,	at 07.00 Hours , on Aug 1 , 2011		
Zero Gage at Bottom Elevation	147.70	m. (MSL.) ,	River Bed	147.79	m. (MSL)
Left Bank Elevation	155.66	m. (MSL.) ,			
Right Bank Elevation	156.94	m. (MSL.) ,	Drainage Area	317	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	*******	19.47	7.81	6.00	131.70	6.06	6.42	3.82	0.30	0.16	0.16	0.16		
2	*******	9.19	5.20	5.20	87.04	8.04	23.79	3.10	0.30	0.16	0.16	0.16		
3	*******	8.04	4.40	5.60	50.36	7.08	28.05	2.13	0.29	0.16	0.16	0.16		
4	*******	6.89	6.20	11.58	25.64	5.88	11.43	1.86	0.28	0.16	0.16	0.16		
5	*******	11.58	8.96	5.80	18.60	11.43	6.84	1.45	0.27	0.16	0.16	0.16		
6	*******	6.43	24.40	3.66	16.52	10.62	5.16	1.20	0.26	0.16	0.16	0.16		
7	*******	6.89	16.52	3.48	18.89	12.36	4.66	0.90	0.25	0.16	0.16	0.16		
8	*******	5.40	8.96	3.12	26.57	8.76	5.88	0.60	0.24	0.16	0.16	0.16		
9	*******	16.78	8.04	2.94	23.24	12.69	7.08	0.55	0.23	0.16	0.16	0.16		
10	*******	53.37	6.20	3.48	36.96	10.35	8.04	0.55	0.22	0.16	0.16	0.16		
11	*******	26.88	4.80	7.81	92.68	8.04	8.28	0.50	0.22	0.16	0.16	0.16		
12	*******	12.88	4.60	3.30	38.84	6.42	8.28	0.50	0.21	0.16	0.16	0.16		
13	*******	7.35	4.20	4.02	25.64	12.03	8.04	0.48	0.20	0.16	0.16	0.16		
14	*******	6.00	3.84	4.40	20.63	15.96	8.52	0.44	0.20	0.16	0.16	0.16		
15	*******	5.20	3.48	8.27	18.08	18.84	9.54	0.40	0.19	0.16	0.16	0.16		
16	*******	5.20	3.48	21.21	16.52	14.67	10.89	0.38	0.18	0.16	0.16	0.16		
17	*******	11.06	4.02	9.88	24.71	10.08	10.08	0.36	0.18	0.16	0.16	0.16		
18	*******	21.21	3.66	5.40	18.08	8.52	8.52	0.36	0.17	0.16	0.16	0.16		
19	*******	11.32	2.40	5.60	16.78	8.52	8.04	0.36	0.17	0.16	0.16	0.16		
20	*******	10.11	2.30	4.40	52.51	7.32	7.32	0.34	0.16	0.16	0.16	0.16		
21	*******	8.96	2.20	4.40	46.63	6.60	6.84	0.34	0.16	0.16	0.16	0.16		
22	*******	5.60	2.58	4.40	28.14	5.52	6.24	0.34	0.16	0.16	0.16	0.16		
23	*******	4.40	2.94	5.40	21.50	9.00	5.70	0.34	0.16	0.16	0.16	0.16		
24	*******	4.40	3.12	4.40	18.34	5.70	4.98	0.34	0.16	0.16	0.16	0.16		
25	*******	4.40	3.30	9.19	19.18	4.98	4.80	0.32	0.16	0.16	0.16	0.16		
26	*******	4.60	31.36	6.66	19.18	4.66	4.80	0.32	0.16	0.16	0.16	0.16		
27	*******	4.40	27.82	4.02	22.08	4.80	4.66	0.32	0.16	0.16	0.16	0.16		
28	*******	4.40	24.11	2.76	18.89	12.69	4.52	0.30	0.16	0.16	0.16	0.16		
29	*******	4.40	12.62	2.40	16.52	30.60	4.38	0.30	0.16	0.16	0.16	0.16		
30	*******	27.82	8.27	2.40	15.22	9.81	4.24	0.30	0.16	0.16		0.16		
31		18.08		28.78	6.06		4.24		0.16	0.16		0.16		
Total	*******	352.71	251.79	199.96	991.73	298.03	250.26	23.50	6.28	4.96	4.64	4.96	*******	CMSDAY
Mean	*******	11.38	8.39	6.45	31.99	9.93	8.07	0.78	0.20	0.16	0.16	0.16	*******	CMS
Max	*******	53.37	31.36	28.78	131.70	30.60	28.05	3.82	0.30	0.16	0.16	0.16	131.70	CMS
Min	*******	4.40	2.20	2.40	6.06	4.66	4.24	0.30	0.16	0.16	0.16	0.16	*******	CMS
Runoff	*******	30.47	21.76	17.28	85.69	25.75	21.62	2.03	0.54	0.43	0.40	0.43	*******	MCM

Momentary Peak 211.80 CMS. at 152.40 m. (MSL.) at 07.00 Hours , on Aug 1 , 2011

Runoff Yield ******* Liters/Second/Square KM. Momentary Peak Yield 668.139 Liters/Second/Square KM.

WATER YEAR : 2011

YOM RIVER BASIN

Nam Mae Kham Mi at Ban Phai Ton , Phrae (Y.45)

Lat 18 - 23 - 27 N Long 100 - 26 - 01 E

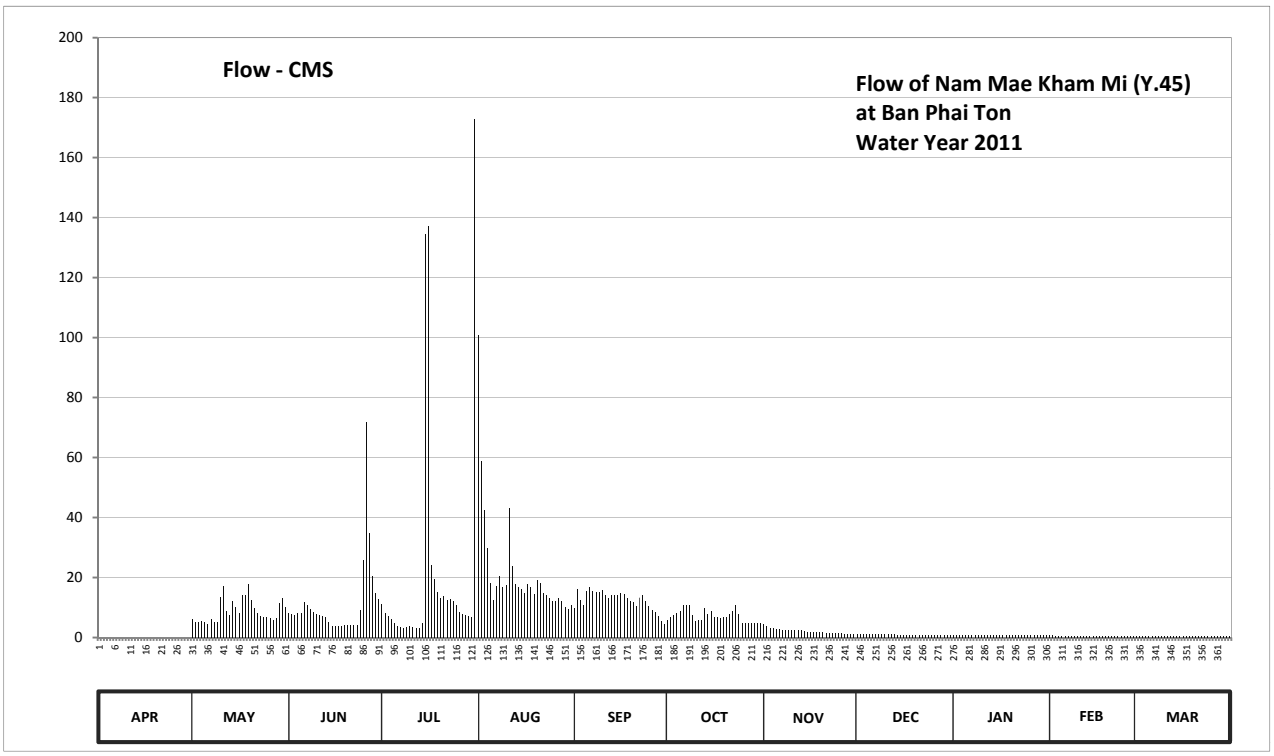
Location : on left bank at Ban Phai Ton.

	Ban Phai Ton	**Amphoe** Rong Kwang	**Changwat** Phrae
Drainge Area	142 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+270.973 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	Near the automatic gage building.	**Elevation**	+276.119 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	2011 to date		
Rating Operation			
Period of Rating	2011 to date		
Rated by Flot	-		
Rated by Current Meter	2011 to date		
Stability of Channel Regimes	Fairly stable because of backwater effect.		
Overbank Flow Conditions	Overbank flow starts at elevation +276.490 m.(MSL.), records are channel flow only.		
General Description	Records fair. Stage-discharge relation defined by 43 discharge measurements made in 2011.		
Remark	beginning on 1st May 2011		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	*******	272.07	272.21	272.33	273.95	272.27	272.05	271.96	271.61	271.58	271.54	271.51	
2	*******	272.01	272.18	272.20	273.38	272.52	272.11	271.92	271.61	271.58	271.54	271.51	
3	*******	272.01	272.17	272.15	273.10	272.38	272.16	271.88	271.61	271.58	271.53	271.50	
4	*******	272.03	272.20	272.07	272.86	272.31	272.20	271.86	271.62	271.57	271.53	271.50	
5	*******	272.00	272.20	271.98	272.58	272.50	272.23	271.83	271.62	271.57	271.53	271.50	
6	*******	271.97	272.35	271.93	272.38	272.54	272.31	271.81	271.62	271.57	271.52	271.50	
7	*******	272.07	272.32	271.89	272.55	272.50	272.31	271.79	271.62	271.57	271.52	271.50	
8	*******	272.00	272.26	271.85	272.64	272.49	272.31	271.78	271.61	271.57	271.52	271.50	
9	*******	272.00	272.22	271.89	272.54	272.49	272.17	271.77	271.61	271.57	271.51	271.50	
10	*******	272.42	272.18	271.92	272.56	272.51	272.03	271.77	271.61	271.57	271.51	271.49	
11	*******	272.55	272.17	271.89	273.11	272.45	272.05	271.77	271.60	271.57	271.50	271.47	
12	*******	272.23	272.15	271.87	272.72	272.40	272.05	271.77	271.60	271.57	271.50	271.49	
13	*******	272.16	272.13	271.86	272.57	272.45	272.27	271.77	271.60	271.57	271.49	271.49	
14	*******	272.36	272.00	271.99	272.54	272.45	272.18	271.75	271.59	271.57	271.49	271.49	
15	*******	272.28	271.93	274.31	272.52	272.45	272.23	271.72	271.59	271.57	271.49	271.49	
16	*******	272.21	271.93	274.34	272.47	272.47	272.12	271.70	271.59	271.57	271.48	271.49	
17	*******	272.45	271.92	272.73	272.57	272.46	272.12	271.69	271.59	271.57	271.48	271.48	
18	*******	272.44	271.93	272.62	272.54	272.41	272.10	271.69	271.59	271.57	271.49	271.48	
19	*******	272.57	271.95	272.49	272.46	272.37	272.12	271.69	271.59	271.57	271.49	271.48	
20	*******	272.38	271.95	272.41	272.61	272.35	272.13	271.69	271.59	271.57	271.50	271.48	
21	*******	272.27	271.94	272.43	272.58	272.30	272.19	271.68	271.59	271.57	271.51	271.48	
22	*******	272.20	271.94	272.38	272.48	272.41	272.23	271.68	271.59	271.57	271.51	271.47	
23	*******	272.15	271.94	272.39	272.45	272.44	272.31	271.67	271.59	271.57	271.51	271.47	
24	*******	272.11	272.24	272.36	272.40	272.36	272.19	271.66	271.59	271.57	271.51	271.47	
25	*******	272.12	272.77	272.31	272.37	272.30	271.99	271.65	271.59	271.57	271.51	271.47	
26	*******	272.10	273.57	272.22	272.37	272.25	271.98	271.64	271.59	271.57	271.51	271.47	
27	*******	272.06	272.96	272.18	272.41	272.22	271.98	271.63	271.58	271.57	271.51	271.47	
28	*******	272.10	272.64	272.16	272.36	272.14	271.98	271.63	271.58	271.57	271.51	271.46	
29	*******	272.34	272.48	272.14	272.29	272.02	271.98	271.62	271.58	271.57	271.51	271.46	
30	*******	272.41	272.39	272.12	272.26	271.97	271.98	271.61	271.58	271.57		271.46	
31		272.29		274.71	272.31		271.98		271.58	271.57		271.46	
Mean	*******	272.21	272.24	272.39	272.61	272.37	272.13	271.74	271.60	271.57	271.51	271.48	
Max	*******	272.57	273.57	274.71	273.95	272.54	272.31	271.96	271.62	271.58	271.54	271.51	274.71
Min	*******	271.97	271.92	271.85	272.26	271.97	271.98	271.61	271.58	271.57	271.48	271.46	*******

Annual Max Momentary Gage Height	276.96	m. (MSL.) ,	at 15.00 Hours , on Jul 31 , 2011		
Zero Gage at Bottom Elevation	270.97	m. (MSL.) ,	River Bed	271.43	m. (MSL)
Left Bank Elevation	277.86	m. (MSL.) ,			
Right Bank Elevation	276.48	m. (MSL.) ,	Drainage Area	142	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	*******	6.05	8.25	11.25	100.75	9.75	5.75	4.40	1.08	0.90	0.70	0.55		
2	*******	5.15	7.70	8.00	58.80	16.16	6.65	3.80	1.08	0.90	0.70	0.55		
3	*******	5.15	7.55	7.25	42.50	12.50	7.40	3.32	1.08	0.90	0.65	0.50		
4	*******	5.45	8.00	6.05	30.00	10.75	8.00	3.14	1.16	0.85	0.65	0.50		
5	*******	5.00	8.00	4.70	18.14	15.50	8.75	2.87	1.16	0.85	0.65	0.50		
6	*******	4.55	11.75	3.95	12.50	16.82	10.75	2.69	1.16	0.85	0.60	0.50		
7	*******	6.05	11.00	3.41	17.15	15.50	10.75	2.52	1.16	0.85	0.60	0.50		
8	*******	5.00	9.50	3.05	20.44	15.25	10.75	2.44	1.08	0.85	0.60	0.50		
9	*******	5.00	8.50	3.41	16.82	15.25	7.55	2.36	1.08	0.85	0.55	0.50		
10	*******	13.50	7.70	3.80	17.48	15.83	5.45	2.36	1.08	0.85	0.55	0.48		
11	*******	17.15	7.55	3.41	43.05	14.25	5.75	2.36	1.00	0.85	0.50	0.44		
12	*******	8.75	7.25	3.23	23.72	13.00	5.75	2.36	1.00	0.85	0.50	0.48		
13	*******	7.40	6.95	3.14	17.81	14.25	9.75	2.36	1.00	0.85	0.48	0.48		
14	*******	12.00	5.00	4.85	16.82	14.25	7.70	2.20	0.95	0.85	0.48	0.48		
15	*******	10.00	3.95	134.45	16.16	14.25	8.75	1.96	0.95	0.85	0.48	0.48		
16	*******	8.25	3.95	137.30	14.75	14.75	6.80	1.80	0.95	0.85	0.46	0.48		
17	*******	14.25	3.80	24.13	17.81	14.50	6.80	1.72	0.95	0.85	0.46	0.46		
18	*******	14.00	3.95	19.62	16.82	13.25	6.50	1.72	0.95	0.85	0.48	0.46		
19	*******	17.81	4.25	15.25	14.50	12.25	6.80	1.72	0.95	0.85	0.48	0.46		
20	*******	12.50	4.25	13.25	19.21	11.75	6.95	1.72	0.95	0.85	0.50	0.46		
21	*******	9.75	4.10	13.75	18.14	10.50	7.85	1.64	0.95	0.85	0.55	0.46		
22	*******	8.00	4.10	12.50	15.00	13.25	8.75	1.64	0.95	0.85	0.55	0.44		
23	*******	7.25	4.10	12.75	14.25	14.00	10.75	1.56	0.95	0.85	0.55	0.44		
24	*******	6.65	9.00	12.00	13.00	12.00	7.85	1.48	0.95	0.85	0.55	0.44		
25	*******	6.80	25.77	10.75	12.25	10.50	4.85	1.40	0.95	0.85	0.55	0.44		
26	*******	6.50	71.90	8.50	12.25	9.25	4.70	1.32	0.95	0.85	0.55	0.44		
27	*******	5.90	35.00	7.70	13.25	8.50	4.70	1.24	0.90	0.85	0.55	0.44		
28	*******	6.50	20.44	7.40	12.00	7.10	4.70	1.24	0.90	0.85	0.55	0.42		
29	*******	11.50	15.00	7.10	10.25	5.30	4.70	1.16	0.90	0.85	0.55	0.42		
30	*******	13.25	12.75	6.80	9.50	4.55	4.70	1.08	0.90	0.85		0.42		
31		10.25		173.00	10.75		4.70		0.90	0.85		0.42		
Total	********	275.36	341.01	685.75	675.87	374.76	221.60	63.58	30.97	26.50	16.02	14.54	*******	CMSDAY
Mean	*******	8.88	11.37	22.12	21.80	12.49	7.15	2.12	1.00	0.85	0.55	0.47	*******	CMS
Max	*******	17.81	71.90	173.00	100.75	16.82	10.75	4.40	1.16	0.90	0.70	0.55	173.00	CMS
Min	*******	4.55	3.80	3.05	9.50	4.55	4.70	1.08	0.90	0.85	0.46	0.42	*******	CMS
Runoff	********	23.79	29.46	59.25	58.40	32.38	19.15	5.49	2.68	2.29	1.38	1.26	*******	MCM

Momentary Peak 454.80 CMS. at 276.96 m. (MSL.) at 15.00 Hours , on JuL 31 , 2011

Runoff Yield ******* Liters/Second/Square KM. Momentary Peak Yield 3202.817 Liters/Second/Square KM.

WATER YEAR : 2011

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.

	Ban Pang Yao	**Amphoe** Ban Luang	**Changwat** Nan
Drainge Area	191 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+340.846 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	Near the automatic gage building.		**Elevation** +345.541 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	2011 to date		
Rating Operation			
Period of Rating	2011 to date		
Rated by Flot	-		
Rated by Current Meter	2011 to date		
Stability of Channel Regimes	Stable because of backwater effect.		
Overbank Flow Conditions	Overbank flow starts at elevation +344.170 m.(MSL.), records are channel flow only.		
General Description	Records good. Stage-discharge relation defined by 47 discharge measurements made in 2011.		
Remark	beginning on 1st May 2011		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

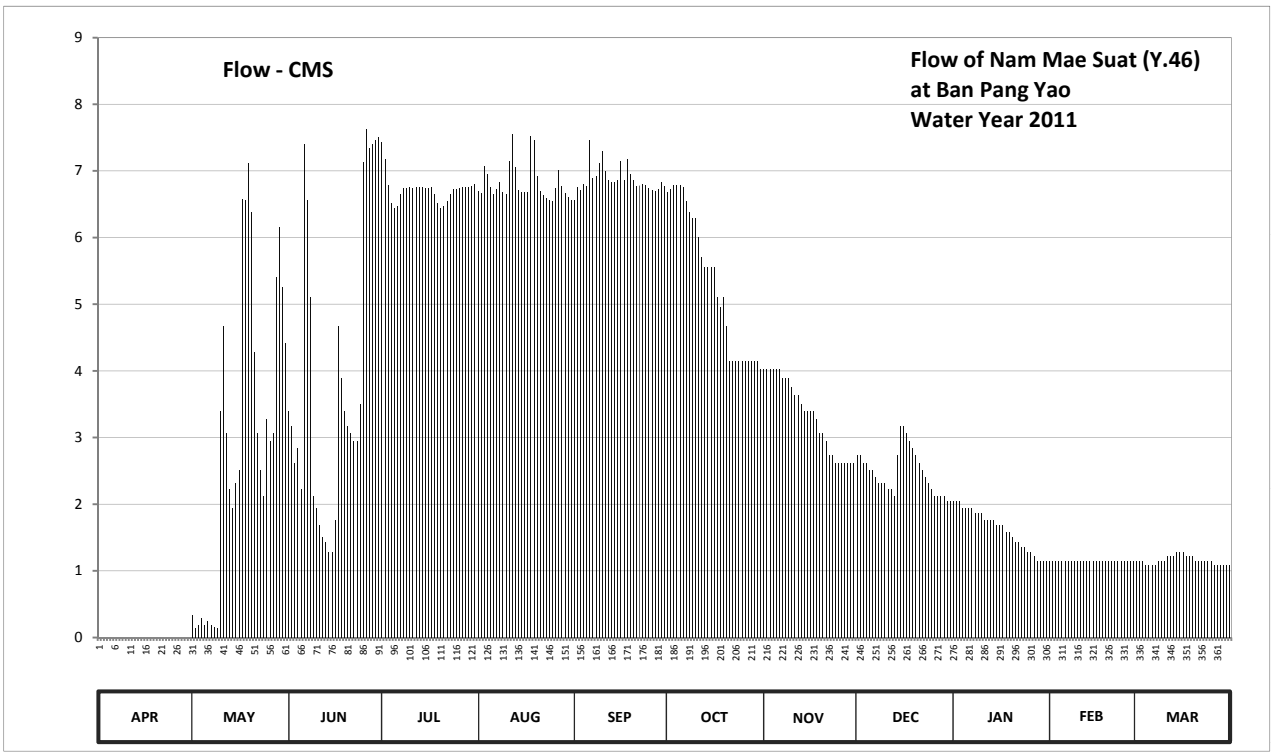
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	*******	342.14	342.29	343.24	342.76	342.67	342.75	342.34	342.23	342.16	342.05	342.05	
2	*******	341.94	342.27	343.07	342.74	342.80	342.78	342.34	342.23	342.16	342.05	342.05	
3	*******	341.99	342.22	342.82	343.00	342.77	342.82	342.34	342.22	342.16	342.05	342.05	
4	*******	342.09	342.24	342.64	342.93	342.83	342.82	342.34	342.22	342.15	342.05	342.04	
5	*******	341.98	342.18	342.60	342.80	342.81	342.82	342.34	342.21	342.15	342.05	342.04	
6	*******	342.05	343.21	342.61	342.73	343.25	342.80	342.34	342.21	342.15	342.05	342.04	
7	*******	341.99	342.67	342.73	342.78	342.88	342.66	342.33	342.20	342.15	342.05	342.04	
8	*******	341.95	342.42	342.79	342.85	342.91	342.56	342.33	342.19	342.14	342.05	342.05	
9	*******	341.94	342.17	342.79	342.75	343.03	342.50	342.33	342.19	342.14	342.05	342.05	
10	*******	342.29	342.15	342.80	342.73	343.15	342.50	342.32	342.19	342.14	342.05	342.05	
11	*******	342.39	342.12	342.79	343.05	342.95	342.48	342.31	342.18	342.13	342.05	342.06	
12	*******	342.26	342.10	342.80	343.31	342.87	342.46	342.31	342.18	342.13	342.05	342.06	
13	*******	342.18	342.09	342.80	342.99	342.85	342.45	342.30	342.17	342.13	342.05	342.06	
14	*******	342.15	342.07	342.80	342.77	342.85	342.45	342.29	342.23	342.13	342.05	342.07	
15	*******	342.19	342.07	342.79	342.75	342.86	342.45	342.29	342.27	342.12	342.05	342.07	
16	*******	342.21	342.13	342.79	342.75	343.05	342.45	342.29	342.27	342.12	342.05	342.07	
17	*******	342.68	342.39	342.80	342.75	342.86	342.42	342.29	342.26	342.12	342.05	342.06	
18	*******	342.67	342.33	342.73	343.29	343.07	342.41	342.28	342.25	342.11	342.05	342.06	
19	*******	343.03	342.29	342.64	343.25	342.93	342.42	342.26	342.24	342.11	342.05	342.06	
20	*******	342.56	342.27	342.60	342.91	342.87	342.39	342.26	342.23	342.10	342.05	342.05	
21	*******	342.36	342.26	342.61	342.76	342.81	342.35	342.25	342.22	342.09	342.05	342.05	
22	*******	342.26	342.25	342.66	342.72	342.81	342.35	342.23	342.21	342.09	342.05	342.05	
23	*******	342.21	342.25	342.73	342.69	342.83	342.35	342.23	342.20	342.08	342.05	342.05	
24	*******	342.17	342.30	342.78	342.67	342.82	342.35	342.22	342.19	342.08	342.05	342.05	
25	*******	342.28	343.04	342.78	342.66	342.79	342.35	342.22	342.18	342.07	342.05	342.05	
26	*******	342.25	343.36	342.79	342.79	342.77	342.35	342.22	342.17	342.07	342.05	342.04	
27	*******	342.26	343.18	342.80	342.96	342.76	342.35	342.22	342.17	342.06	342.05	342.04	
28	*******	342.44	343.21	342.80	342.81	342.78	342.35	342.22	342.17	342.05	342.05	342.04	
29	*******	342.49	343.25	342.80	342.74	342.85	342.35	342.22	342.17	342.05	342.05	342.04	
30	*******	342.43	343.28	342.81	342.70	342.81	342.35	342.22	342.16	342.05		342.04	
31		342.37		342.83	342.67		342.34		342.16	342.05		342.04	
Mean	*******	342.26	342.47	342.77	342.84	342.88	342.49	342.28	342.21	342.11	342.05	342.05	
Max	*******	343.03	343.36	343.24	343.31	343.25	342.82	342.34	342.27	342.16	342.05	342.07	343.36
Min	*******	341.94	342.07	342.60	342.66	342.67	342.34	342.22	342.16	342.05	342.05	342.04	*******

Annual Max Momentary Gage Height 344.40 m. (MSL.) , at 08.00 Hours , on Jun 6 , 2011

Zero Gage at Bottom Elevation 340.85 m. (MSL.) , River Bed 341.77 m. (MSL)

Left Bank Elevation 344.16 m. (MSL.) ,

Right Bank Elevation 345.37 m. (MSL.) , Drainage Area 191 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	*******	0.34	3.39	7.44	6.70	6.56	6.69	4.02	2.73	2.04	1.15	1.15		
2	*******	0.14	3.17	7.18	6.67	6.76	6.73	4.02	2.73	2.04	1.15	1.15		
3	*******	0.19	2.62	6.79	7.07	6.72	6.79	4.02	2.62	2.04	1.15	1.15		
4	*******	0.29	2.84	6.52	6.96	6.81	6.79	4.02	2.62	1.95	1.15	1.08		
5	*******	0.18	2.22	6.45	6.76	6.78	6.79	4.02	2.51	1.95	1.15	1.08		
6	*******	0.25	7.40	6.47	6.66	7.46	6.76	4.02	2.51	1.95	1.15	1.08		
7	*******	0.19	6.56	6.66	6.73	6.89	6.55	3.89	2.40	1.95	1.15	1.08		
8	*******	0.15	5.10	6.75	6.84	6.93	6.39	3.89	2.31	1.86	1.15	1.15		
9	*******	0.14	2.13	6.75	6.69	7.12	6.30	3.89	2.31	1.86	1.15	1.15		
10	*******	3.39	1.95	6.76	6.66	7.30	6.30	3.76	2.31	1.86	1.15	1.15		
11	*******	4.67	1.68	6.75	7.15	7.00	6.00	3.63	2.22	1.77	1.15	1.22		
12	*******	3.06	1.50	6.76	7.55	6.87	5.70	3.63	2.22	1.77	1.15	1.22		
13	*******	2.22	1.43	6.76	7.06	6.84	5.55	3.50	2.13	1.77	1.15	1.22		
14	*******	1.95	1.29	6.76	6.72	6.84	5.55	3.39	2.73	1.77	1.15	1.29		
15	*******	2.31	1.29	6.75	6.69	6.86	5.55	3.39	3.17	1.68	1.15	1.29		
16	*******	2.51	1.77	6.75	6.69	7.15	5.55	3.39	3.17	1.68	1.15	1.29		
17	*******	6.58	4.67	6.76	6.69	6.86	5.10	3.39	3.06	1.68	1.15	1.22		
18	*******	6.56	3.89	6.66	7.52	7.18	4.95	3.28	2.95	1.59	1.15	1.22		
19	*******	7.12	3.39	6.52	7.46	6.96	5.10	3.06	2.84	1.59	1.15	1.22		
20	*******	6.39	3.17	6.45	6.93	6.87	4.67	3.06	2.73	1.50	1.15	1.15		
21	*******	4.28	3.06	6.47	6.70	6.78	4.15	2.95	2.62	1.43	1.15	1.15		
22	*******	3.06	2.95	6.55	6.64	6.78	4.15	2.73	2.51	1.43	1.15	1.15		
23	*******	2.51	2.95	6.66	6.59	6.81	4.15	2.73	2.40	1.36	1.15	1.15		
24	*******	2.13	3.50	6.73	6.56	6.79	4.15	2.62	2.31	1.36	1.15	1.15		
25	*******	3.28	7.13	6.73	6.55	6.75	4.15	2.62	2.22	1.29	1.15	1.15		
26	*******	2.95	7.63	6.75	6.75	6.72	4.15	2.62	2.13	1.29	1.15	1.08		
27	*******	3.06	7.35	6.76	7.01	6.70	4.15	2.62	2.13	1.22	1.15	1.08		
28	*******	5.40	7.40	6.76	6.78	6.73	4.15	2.62	2.13	1.15	1.15	1.08		
29	*******	6.15	7.46	6.76	6.67	6.84	4.15	2.62	2.13	1.15	1.15	1.08		
30	*******	5.25	7.51	6.78	6.61	6.78	4.15	2.62	2.04	1.15		1.08		
31		4.41		6.81	6.56		4.02		2.04	1.15		1.08		
Total	*******	91.11	118.40	208.45	211.62	206.44	165.33	100.02	76.93	50.28	33.35	35.79	*******	CMSDAY
Mean	*******	2.94	3.95	6.72	6.83	6.88	5.33	3.33	2.48	1.62	1.15	1.15	*******	CMS
Max	*******	7.12	7.63	7.44	7.55	7.46	6.79	4.02	3.17	2.04	1.15	1.29	7.63	CMS
Min	*******	0.14	1.29	6.45	6.55	6.56	4.02	2.62	2.04	1.15	1.15	1.08	*******	CMS
Runoff	*******	7.87	10.23	18.01	18.28	17.84	14.29	8.64	6.65	4.34	2.88	3.09	*******	MCM

Momentary Peak 70.80 CMS. at 344.40 m. (MSL.) at 08.00 Hours , on Jun 6 , 2011

Runoff Yield ******* Liters/Second/Square KM. Momentary Peak Yield 370.681 Liters/Second/Square KM.

WATER YEAR : 2011

YOM RIVER BASIN

Yom River at Ban Bun Ruang , Phayao (Y.47)

Lat 19 - 09 - 03 N Long 100 - 16 - 29 E

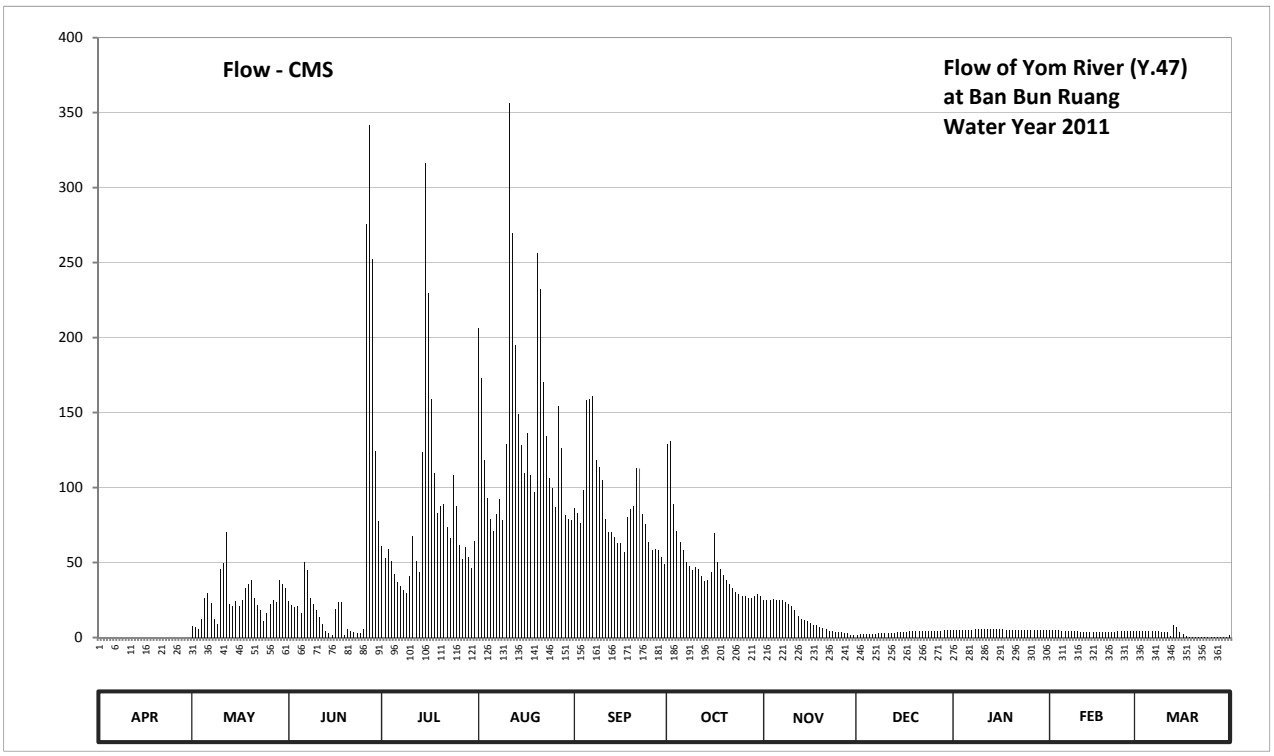
Location : on right bank at Ban Bun Ruang.

	Ban Bun Ruang	**Amphoe** Pong	**Changwat** Phayao
Drainge Area	444 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+287.727 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	Near the automatic gage building.		**Elevation** +294.545 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	2011 to date		
Rating Operation			
Period of Rating	2011 to date		
Rated by Flot	-		
Rated by Current Meter	2011 to date		
Stability of Channel Regimes	Stable because of backwater effect.		
Overbank Flow Conditions	Overbank flow starts at elevation +293.390 m.(MSL.) and is including overbank flow.		
General Description	Records good. Stage-discharge relation defined by 48 discharge measurements made in 2011.		
Remark	beginning on 1st May 2011		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	*******	289.49	289.70	290.34	291.96	290.70	291.21	289.72	289.40	289.25	289.15	289.13	
2	*******	289.47	289.64	290.22	291.66	290.66	291.23	289.72	289.39	289.24	289.14	289.13	
3	*******	289.45	289.61	290.31	291.09	290.57	290.74	289.72	289.39	289.24	289.14	289.13	
4	*******	289.52	289.62	290.18	290.79	290.85	290.50	289.73	289.38	289.24	289.14	289.13	
5	*******	289.75	289.56	290.04	290.61	291.52	290.39	289.71	289.37	289.23	289.13	289.12	
6	*******	289.82	290.17	289.95	290.50	291.53	290.30	289.71	289.37	289.23	289.13	289.12	
7	*******	289.67	290.08	289.90	290.65	291.55	290.17	289.72	289.37	289.23	289.12	289.11	
8	*******	289.52	289.74	289.85	290.78	291.09	290.13	289.69	289.36	289.22	289.12	289.11	
9	*******	289.48	289.65	289.81	290.60	291.04	290.08	289.66	289.36	289.22	289.11	289.10	
10	*******	290.10	289.58	290.02	291.21	290.94	290.12	289.63	289.35	289.21	289.11	289.10	
11	*******	290.16	289.53	290.45	292.94	290.61	290.10	289.58	289.34	289.21	289.10	289.10	
12	*******	290.49	289.48	290.18	292.43	290.49	290.02	289.54	289.33	289.20	289.10	289.15	
13	*******	289.66	289.43	290.06	291.86	290.49	289.96	289.52	289.33	289.20	289.09	289.50	
14	*******	289.62	289.41	291.15	291.43	290.44	289.97	289.51	289.32	289.19	289.09	289.48	
15	*******	289.70	289.40	292.72	291.20	290.38	290.06	289.50	289.32	289.19	289.08	289.39	
16	*******	289.63	289.59	292.15	290.99	290.38	290.48	289.49	289.31	289.18	289.08	289.31	
17	*******	289.71	289.68	291.53	291.29	290.28	290.17	289.47	289.30	289.18	289.08	289.21	
18	*******	289.88	289.69	290.99	290.98	290.63	290.10	289.47	289.29	289.17	289.09	289.04	
19	*******	289.93	289.40	290.66	290.84	290.69	290.03	289.46	289.29	289.17	289.09	289.00	
20	*******	289.97	289.19	290.72	292.34	290.72	289.97	289.45	289.28	289.17	289.09	288.96	
21	*******	289.74	289.13	290.74	292.17	291.03	289.93	289.44	289.28	289.17	289.10	288.93	
22	*******	289.64	289.09	290.53	291.64	291.03	289.88	289.43	289.28	289.17	289.10	288.91	
23	*******	289.58	289.06	290.43	291.27	290.65	289.83	289.43	289.27	289.17	289.11	288.90	
24	*******	289.50	289.04	290.98	290.95	290.56	289.80	289.42	289.27	289.16	289.11	288.89	
25	*******	289.56	289.19	290.72	290.87	290.39	289.77	289.42	289.27	289.16	289.12	288.88	
26	*******	289.65	292.47	290.35	290.71	290.30	289.77	289.42	289.26	289.16	289.12	288.87	
27	*******	289.71	293.47	290.21	291.48	290.31	289.75	289.41	289.26	289.16	289.13	288.86	
28	*******	289.68	292.31	290.33	291.18	290.30	289.75	289.41	289.26	289.16	289.13	288.85	
29	*******	289.97	291.16	290.23	290.64	290.23	289.77	289.40	289.25	289.16	289.13	288.85	
30	*******	289.93	290.59	290.11	290.61	290.15	289.80	289.40	289.25	289.15		289.00	
31		289.88		290.40	290.60		289.77		289.25	289.15		289.27	
Mean	*******	289.74	289.92	290.52	291.23	290.68	290.11	289.54	289.31	289.19	289.11	289.08	
Max	*******	290.49	293.47	292.72	292.94	291.55	291.23	289.73	289.40	289.25	289.15	289.50	293.47
Min	*******	289.45	289.04	289.81	290.50	290.15	289.75	289.40	289.25	289.15	289.08	288.85	*******

Annual Max Momentary Gage Height	294.68	m. (MSL.) ,	at 19.00 Hours , on Jun 26 , 2011		
Zero Gage at Bottom Elevation	287.73	m. (MSL.) ,	River Bed	287.73	m. (MSL)
Left Bank Elevation	293.38	m. (MSL.) ,			
Right Bank Elevation	294.95	m. (MSL.) ,	Drainage Area	444	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	*******	7.60	24.30	60.68	206.40	86.10	128.90	25.20	1.80	4.80	4.85	4.47		
2	*******	6.80	21.60	53.24	172.60	82.94	130.70	25.20	2.00	5.00	4.66	4.47		
3	*******	6.00	20.25	58.82	118.10	76.13	89.26	25.20	2.00	5.00	4.66	4.47		
4	*******	12.60	20.70	50.78	93.21	98.00	71.30	25.65	2.20	5.00	4.66	4.47		
5	*******	26.55	16.20	42.24	78.99	158.00	63.78	24.75	2.40	5.20	4.47	4.28		
6	*******	29.90	50.17	37.05	71.30	159.00	58.20	24.75	2.40	5.20	4.47	4.28		
7	*******	22.95	44.68	34.30	82.15	161.00	50.17	25.20	2.40	5.20	4.28	4.09		
8	*******	12.60	26.10	31.55	92.42	118.10	47.73	23.85	2.60	5.40	4.28	4.09		
9	*******	9.00	22.05	29.35	78.20	113.60	44.68	22.50	2.60	5.40	4.09	3.90		
10	*******	45.90	18.00	41.02	128.90	105.20	47.12	21.15	2.80	5.60	4.09	3.90		
11	*******	49.56	13.50	67.85	356.60	78.99	45.90	18.00	3.00	5.60	3.90	3.90		
12	*******	70.61	9.00	50.78	269.62	70.61	41.02	14.40	3.20	5.80	3.90	0.80		
13	*******	22.50	4.50	43.46	194.90	70.61	37.60	12.60	3.20	5.80	3.71	8.00		
14	*******	20.70	2.70	123.50	149.00	67.16	38.15	11.70	3.40	5.61	3.71	7.20		
15	*******	24.30	1.80	316.32	128.00	63.16	43.46	10.80	3.40	5.61	3.52	3.80		
16	*******	21.15	18.90	229.75	109.20	63.16	69.92	9.90	3.60	5.42	3.52	2.20		
17	*******	24.75	23.40	159.00	136.10	56.96	50.17	8.10	3.80	5.42	3.52	1.10		
18	*******	33.20	23.85	109.20	108.40	80.57	45.90	8.10	4.00	5.23	3.71	0.48		
19	*******	35.95	1.80	82.94	97.20	85.31	41.63	7.20	4.00	5.23	3.71	0.40		
20	*******	38.15	5.61	87.68	256.30	87.68	38.15	6.30	4.20	5.23	3.71	0.32		
21	*******	26.10	4.47	89.26	232.25	112.70	35.95	5.40	4.20	5.23	3.90	0.26		
22	*******	21.60	3.71	73.37	170.40	112.70	33.20	4.50	4.20	5.23	3.90	0.22		
23	*******	18.00	3.14	66.47	134.30	82.15	30.45	4.50	4.40	5.23	4.09	0.20		
24	*******	10.80	2.76	108.40	106.00	75.44	28.80	3.60	4.40	5.04	4.09	0.18		
25	*******	16.20	5.61	87.68	99.60	63.78	27.45	3.60	4.40	5.04	4.28	0.16		
26	*******	22.05	275.78	61.30	86.89	58.20	27.45	3.60	4.60	5.04	4.28	0.14		
27	*******	24.75	341.80	52.62	154.00	58.82	26.55	2.70	4.60	5.04	4.47	0.12		
28	*******	23.40	251.95	60.06	126.20	58.20	26.55	2.70	4.60	5.04	4.47	0.10		
29	*******	38.15	124.40	53.86	81.36	53.86	27.45	1.80	4.80	5.04	4.47	0.10		
30	*******	35.95	77.51	46.51	78.99	48.95	28.80	1.80	4.80	4.85		0.40		
31		33.20		64.40	78.20		27.45		4.80	4.85		1.70		
Total	*******	790.97	1460.24	2473.44	4275.78	2607.08	1503.84	384.75	108.80	162.38	119.37	74.20	*******	CMSDAY
Mean	*******	25.52	48.67	79.79	137.93	86.90	48.51	12.83	3.51	5.24	4.12	2.39	*******	CMS
Max	*******	70.61	341.80	316.32	356.60	161.00	130.70	25.65	4.80	5.80	4.85	8.00	356.60	CMS
Min	*******	6.00	1.80	29.35	71.30	48.95	26.55	1.80	1.80	4.80	3.52	0.10	*******	CMS
Runoff	*******	68.34	126.17	213.71	369.43	225.25	129.93	33.24	9.40	14.03	10.31	6.41	*******	MCM

Momentary Peak 798.20 CMS. at 294.68 m. (MSL.) at 19.00 Hours , on Jun 26 , 2011

Runoff Yield ******* Liters/Second/Square KM. Momentary Peak Yield 1797.748 Liters/Second/Square KM.

WATER YEAR : 2011

YOM RIVER BASIN

Nam Mae Ngim at Ban Hae , Phayao (Y.48)

Lat 19 - 18 - 09 N Long 100 - 23 - 27 E

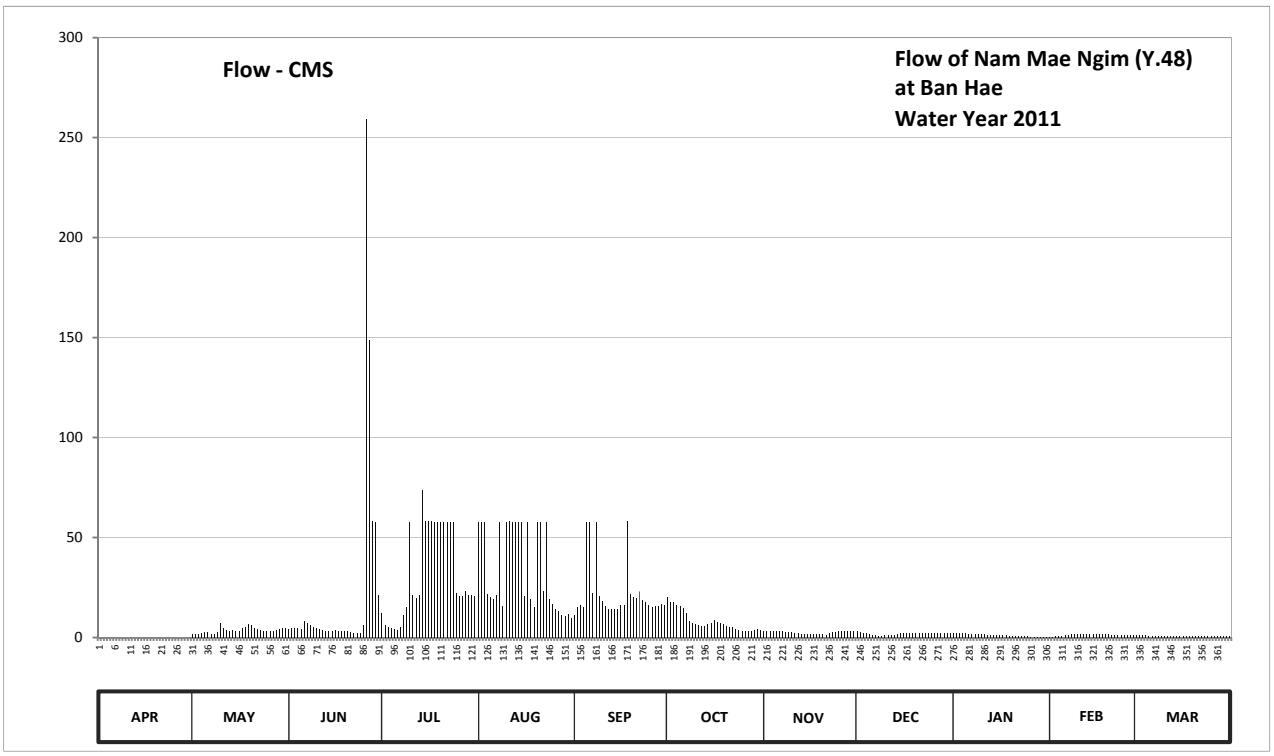
Location : on right bank at Ban Hae.

	Ban Hae	**Amphoe** Pong	**Changwat** Phayao
Drainge Area	55 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+345.240 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	Near the automatic gage building.		**Elevation** +355.940 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	2011 to date		
Rating Operation			
Period of Rating	2011 to date		
Rated by Flot	-		
Rated by Current Meter	2011 to date		
Stability of Channel Regimes	Stable because of backwater effect.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 47 discharge measurements made in 2011.		
Remark	beginning on 1st May 2011		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	*******	345.83	345.97	346.20	346.44	346.18	346.35	345.91	345.91	345.85	345.66	345.80	
2	*******	345.83	345.98	346.04	346.46	346.26	346.30	345.91	345.89	345.85	345.69	345.80	
3	*******	345.84	345.99	346.01	346.41	346.28	346.30	345.91	345.87	345.85	345.72	345.80	
4	*******	345.85	345.99	345.98	346.38	346.26	346.28	345.91	345.86	345.85	345.73	345.80	
5	*******	345.88	345.97	345.96	346.35	346.50	346.27	345.91	345.83	345.85	345.76	345.79	
6	*******	345.89	346.09	345.94	346.33	346.45	346.25	345.91	345.81	345.84	345.80	345.79	
7	*******	345.83	346.06	346.00	346.37	346.39	346.20	345.91	345.80	345.84	345.82	345.79	
8	*******	345.84	346.03	346.18	346.52	346.43	346.10	345.89	345.79	345.84	345.83	345.79	
9	*******	345.89	346.00	346.26	346.27	346.36	346.06	345.89	345.79	345.83	345.83	345.78	
10	*******	346.07	345.98	346.46	346.61	346.31	346.05	345.89	345.81	345.83	345.83	345.78	
11	*******	345.99	345.97	346.37	346.64	346.27	346.04	345.86	345.82	345.83	345.84	345.78	
12	*******	345.94	345.94	346.34	346.55	346.24	346.02	345.85	345.81	345.82	345.84	345.79	
13	*******	345.91	345.92	346.37	346.58	346.24	346.02	345.84	345.80	345.82	345.84	345.79	
14	*******	345.94	345.92	346.93	346.53	346.24	346.05	345.84	345.84	345.82	345.84	345.79	
15	*******	345.92	345.91	346.80	346.44	346.24	346.07	345.84	345.87	345.82	345.84	345.79	
16	*******	345.91	345.94	346.78	346.36	346.28	346.11	345.84	345.87	345.82	345.84	345.79	
17	*******	345.98	345.92	346.67	346.46	346.28	346.08	345.84	345.87	345.81	345.84	345.79	
18	*******	346.00	345.92	346.51	346.33	346.67	346.06	345.84	345.87	345.81	345.83	345.79	
19	*******	346.05	345.92	346.49	346.26	346.38	346.05	345.83	345.87	345.79	345.83	345.78	
20	*******	346.03	345.90	346.60	346.41	346.35	346.02	345.83	345.87	345.78	345.83	345.78	
21	*******	345.99	345.88	346.48	346.44	346.34	346.00	345.82	345.87	345.76	345.82	345.78	
22	*******	345.95	345.86	346.45	346.40	346.40	346.00	345.85	345.87	345.75	345.82	345.78	
23	*******	345.93	345.86	346.44	346.49	346.32	345.97	345.88	345.86	345.74	345.82	345.78	
24	*******	345.92	345.86	346.42	346.33	346.30	345.94	345.89	345.86	345.73	345.82	345.78	
25	*******	345.91	346.03	346.39	346.29	346.28	345.91	345.90	345.86	345.71	345.82	345.78	
26	*******	345.92	347.92	346.36	346.24	346.26	345.92	345.91	345.86	345.69	345.81	345.77	
27	*******	345.92	347.43	346.36	346.22	346.27	345.91	345.92	345.86	345.67	345.81	345.77	
28	*******	345.94	346.73	346.40	346.18	346.27	345.90	345.92	345.86	345.66	345.81	345.77	
29	*******	345.97	346.51	346.37	346.16	346.29	345.94	345.91	345.86	345.65	345.81	345.77	
30	*******	345.98	346.37	346.37	346.19	346.28	345.95	345.91	345.86	345.65		345.77	
31		345.98		346.36	346.14		345.93		345.85	345.64		345.77	
Mean	*******	345.93	346.13	346.36	346.38	346.32	346.07	345.88	345.85	345.78	345.81	345.78	
Max	*******	346.07	347.92	346.93	346.64	346.67	346.35	345.92	345.91	345.85	345.84	345.80	347.92
Min	*******	345.83	345.86	345.94	346.14	346.18	345.90	345.82	345.79	345.64	345.66	345.77	*******

Annual Max Momentary Gage Height	348.57	m. (MSL.) ,	at 17.00 Hours , on Jun 26 , 2011		
Zero Gage at Bottom Elevation	345.24	m. (MSL.) ,	River Bed	345.82	m. (MSL)
Left Bank Elevation	350.46	m. (MSL.) ,			
Right Bank Elevation	349.72	m. (MSL.) ,	Drainage Area	55	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	*******	1.60	4.40	12.00	57.93	11.30	20.25	3.20	3.20	2.00	0.30	1.00		
2	*******	1.60	4.60	6.40	57.93	15.30	17.50	3.20	2.80	2.00	0.45	1.00		
3	*******	1.80	4.80	5.35	57.92	16.40	17.50	3.20	2.40	2.00	0.60	1.00		
4	*******	2.00	4.80	4.60	21.90	15.30	16.40	3.20	2.20	2.00	0.65	1.00		
5	*******	2.60	4.40	4.20	20.25	57.94	15.85	3.20	1.60	2.00	0.80	0.95		
6	*******	2.80	8.15	3.80	19.15	57.93	14.75	3.20	1.20	1.80	1.00	0.95		
7	*******	1.60	7.10	5.00	21.35	22.45	12.00	3.20	1.00	1.80	1.40	0.95		
8	*******	1.80	6.05	11.30	57.94	57.93	8.50	2.80	0.95	1.80	1.60	0.95		
9	*******	2.80	5.00	15.30	15.85	20.80	7.10	2.80	0.95	1.60	1.60	0.90		
10	*******	7.45	4.60	57.93	57.96	18.05	6.75	2.80	1.20	1.60	1.60	0.90		
11	*******	4.80	4.40	21.35	57.97	15.85	6.40	2.20	1.40	1.60	1.80	0.90		
12	*******	3.80	3.80	19.70	57.95	14.20	5.70	2.00	1.20	1.40	1.80	0.95		
13	*******	3.20	3.40	21.35	57.96	14.20	5.70	1.80	1.00	1.40	1.80	0.95		
14	*******	3.80	3.40	73.60	57.95	14.20	6.75	1.80	1.80	1.40	1.80	0.95		
15	*******	3.40	3.20	58.00	57.93	14.20	7.45	1.80	2.40	1.40	1.80	0.95		
16	*******	3.20	3.80	58.00	20.80	16.40	8.85	1.80	2.40	1.40	1.80	0.95		
17	*******	4.60	3.40	57.97	57.93	16.40	7.80	1.80	2.40	1.20	1.80	0.95		
18	*******	5.00	3.40	57.94	19.15	57.97	7.10	1.80	2.40	1.20	1.60	0.95		
19	*******	6.75	3.40	57.94	15.30	21.90	6.75	1.60	2.40	0.95	1.60	0.90		
20	*******	6.05	3.00	57.96	57.92	20.25	5.70	1.60	2.40	0.90	1.60	0.90		
21	*******	4.80	2.60	57.94	57.93	19.70	5.00	1.40	2.40	0.80	1.40	0.90		
22	*******	4.00	2.20	57.93	23.00	23.00	5.00	2.00	2.40	0.75	1.40	0.90		
23	*******	3.60	2.20	57.93	57.94	18.60	4.40	2.60	2.20	0.70	1.40	0.90		
24	*******	3.40	2.20	57.92	19.15	17.50	3.80	2.80	2.20	0.65	1.40	0.90		
25	*******	3.20	6.05	22.45	16.95	16.40	3.20	3.00	2.20	0.55	1.40	0.90		
26	*******	3.40	259.40	20.80	14.20	15.30	3.40	3.20	2.20	0.45	1.20	0.85		
27	*******	3.40	148.85	20.80	13.10	15.85	3.20	3.40	2.20	0.35	1.20	0.85		
28	*******	3.80	57.99	23.00	11.30	15.85	3.00	3.40	2.20	0.30	1.20	0.85		
29	*******	4.40	57.94	21.35	10.60	16.95	3.80	3.20	2.20	0.25	1.20	0.85		
30	*******	4.60	21.35	21.35	11.65	16.40	4.00	3.20	2.20	0.25		0.85		
31		4.60		20.80	9.90		3.60		2.00	0.20		0.85		
Total	*******	113.85	649.88	991.96	1094.76	674.52	247.20	77.20	61.70	36.70	39.20	28.55	*******	CMSDAY
Mean	*******	3.67	21.66	32.00	35.31	22.48	7.97	2.57	1.99	1.18	1.35	0.92	*******	CMS
Max	*******	7.45	259.40	73.60	57.97	57.97	20.25	3.40	3.20	2.00	1.80	1.00	259.40	CMS
Min	*******	1.60	2.20	3.80	9.90	11.30	3.00	1.40	0.95	0.20	0.30	0.85	*******	CMS
Runoff	*******	9.84	56.15	85.71	94.59	58.28	21.36	6.67	5.33	3.17	3.39	2.47	*******	MCM

Momentary Peak 463.50 CMS. at 348.57 m. (MSL.) at 17.00 Hours , on Jun 26 , 2011

Runoff Yield ******* Liters/Second/Square KM. Momentary Peak Yield 8427.272 Liters/Second/Square KM.

WATER YEAR : 2011

NAN RIVER BASIN

Nan River at Forestry Office , Nan (N.1)

Lat 18 - 46 - 26 N Long 100 - 46 - 56 E

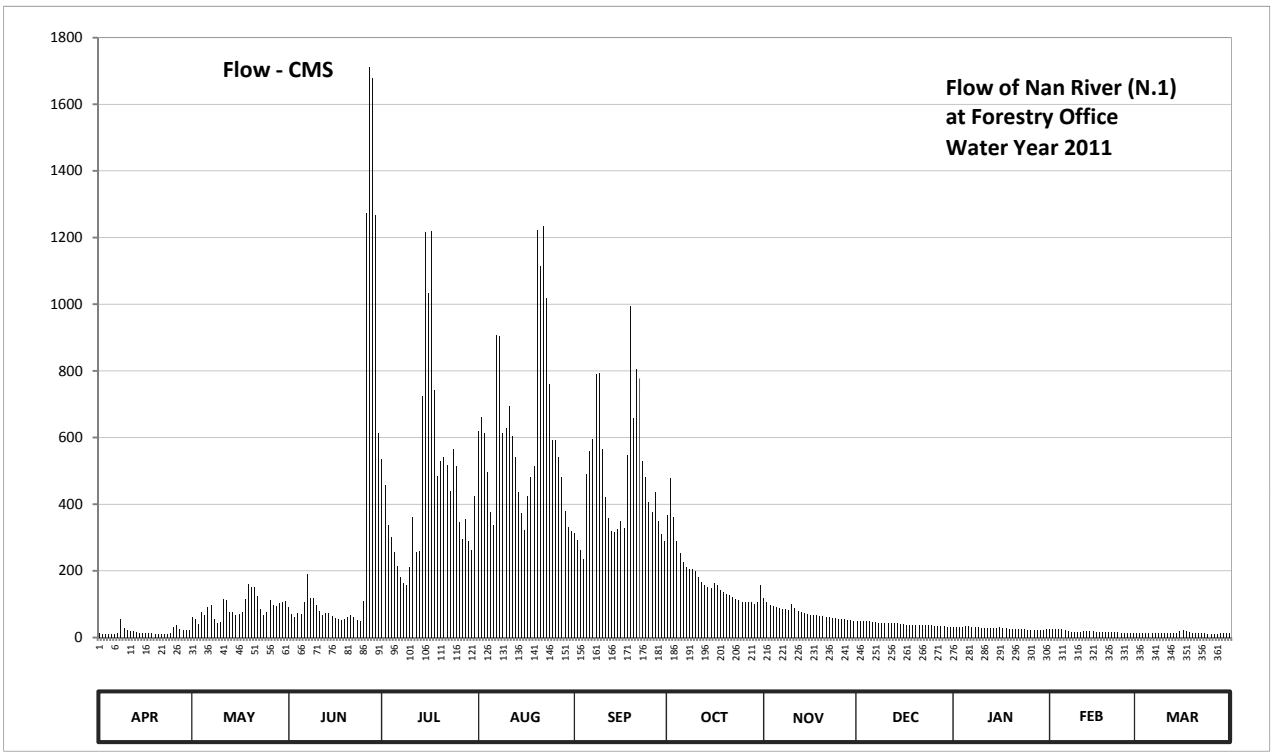
Location : on right bank in front of Forestry Office.

	Ban Forestry Office	**Amphoe** Mueang		**Changwat** Nan	
Drainge Area	4,560 sq.km.				
Type of Gage	Water - stage recorder.				
Zero Gage at Bottom	+192.200 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On west side of automatic gage building.			**Elevation**	+199.868 m. (MSL.)
Gage Reading Frequency	Recording				
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings				
Period of Available Gage Records	1922 - 1956 , 1962 to date				
Rating Operation					
Period of Rating	1954 - 1956 , 1979 to date				
Rated by Flot	-				
Rated by Current Meter	1954 - 1956 , 1979 to date				
Stability of Channel Regimes	Stable.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records good. Stage-discharge relation defined by 46 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	192.12	192.77	193.11	196.17	196.55	194.96	195.28	193.39	192.65	192.43	192.32	192.16	
2	192.10	192.70	192.88	195.79	196.73	194.82	195.89	193.27	192.65	192.43	192.32	192.15	
3	192.09	192.55	192.79	195.11	196.52	194.59	195.24	193.17	192.64	192.43	192.33	192.15	
4	192.08	192.93	192.90	194.88	195.98	194.41	194.78	193.13	192.64	192.42	192.33	192.15	
5	192.07	192.86	192.88	194.56	195.34	195.95	194.53	193.11	192.63	192.45	192.32	192.15	
6	192.07	193.09	193.27	194.23	195.10	196.29	194.33	193.08	192.61	192.45	192.31	192.14	
7	192.16	193.16	194.05	193.98	197.72	196.44	194.21	193.05	192.60	192.44	192.27	192.14	
8	192.71	192.71	193.38	193.83	197.70	197.26	194.17	193.02	192.59	192.43	192.22	192.14	
9	192.39	192.58	193.37	193.78	196.53	197.27	194.17	193.01	192.58	192.41	192.22	192.13	
10	192.30	192.61	193.16	194.21	196.59	196.31	194.11	193.18	192.58	192.40	192.22	192.13	
11	192.26	193.35	192.96	195.25	196.87	195.58	193.97	193.06	192.57	192.39	192.22	192.14	
12	192.23	193.31	192.85	194.55	196.48	195.23	193.85	192.98	192.57	192.39	192.24	192.15	
13	192.20	192.95	192.90	194.58	196.20	194.99	193.76	192.95	192.56	192.38	192.25	192.17	
14	192.16	192.93	192.92	196.99	195.67	194.98	193.70	192.92	192.56	192.38	192.24	192.17	
15	192.16	192.84	192.83	198.80	195.31	195.04	193.68	192.89	192.55	192.39	192.23	192.23	
16	192.15	192.88	192.76	198.17	195.01	195.17	193.83	192.86	192.53	192.42	192.22	192.29	
17	192.13	192.95	192.73	198.81	195.61	195.05	193.79	192.85	192.52	192.40	192.22	192.25	
18	192.12	193.36	192.69	197.07	195.91	196.23	193.63	192.84	192.50	192.37	192.22	192.21	
19	192.09	193.81	192.73	195.92	196.07	198.03	193.57	192.83	192.50	192.36	192.22	192.17	
20	192.08	193.71	192.79	196.15	198.82	196.72	193.51	192.82	192.49	192.35	192.21	192.14	
21	192.08	193.72	192.86	196.21	198.45	197.32	193.46	192.80	192.49	192.34	192.20	192.13	
22	192.09	193.44	192.78	196.09	198.86	197.21	193.41	192.78	192.49	192.34	192.19	192.12	
23	192.09	193.03	192.68	195.68	198.11	196.14	193.36	192.76	192.48	192.33	192.19	192.12	
24	192.13	192.84	192.64	196.31	197.14	195.91	193.32	192.75	192.48	192.32	192.18	192.11	
25	192.42	192.94	193.30	196.07	196.43	195.51	193.27	192.73	192.48	192.31	192.18	192.11	
26	192.51	193.32	199.00	195.15	196.43	195.34	193.26	192.72	192.47	192.31	192.17	192.11	
27	192.36	193.17	200.38	194.84	196.21	195.67	193.25	192.71	192.46	192.31	192.17	192.11	
28	192.29	193.14	200.28	195.21	195.90	195.18	193.25	192.69	192.46	192.30	192.17	192.14	
29	192.31	193.23	198.97	194.79	195.35	194.93	193.20	192.67	192.45	192.30	192.16	192.16	
30	192.31	193.27	196.53	194.59	195.06	194.79	193.26	192.66	192.44	192.31		192.14	
31		193.30		195.60	195.00		193.79		192.43	192.32		192.13	
Mean	192.21	193.08	193.98	195.59	196.44	195.78	193.90	192.92	192.54	192.37	192.23	192.15	
Max	192.71	193.81	200.38	198.81	198.86	198.03	195.89	193.39	192.65	192.45	192.33	192.29	200.38
Min	192.07	192.55	192.64	193.78	195.00	194.41	193.20	192.66	192.43	192.30	192.16	192.11	192.07

Annual Max Momentary Gage Height	200.50	m. (MSL.) ,	at 20.00 Hours , on Jun 27 , 2011		
Zero Gage at Bottom Elevation	192.20	m. (MSL.) ,	River Bed	188.19	m. (MSL)
Left Bank Elevation	203.91	m. (MSL.) ,			
Right Bank Elevation	203.82	m. (MSL.) ,	Drainage Area	4560	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	11.73	60.30	92.45	534.00	618.75	314.20	367.60	119.05	49.50	31.82	24.10	13.87		
2	10.67	54.00	70.60	458.20	659.90	293.90	478.00	107.65	49.50	31.82	24.10	13.33		
3	10.13	41.13	62.10	338.70	612.00	261.60	360.80	98.15	48.60	31.82	24.78	13.33		
4	9.60	75.35	72.50	302.60	496.00	236.40	288.20	94.35	48.60	31.05	24.78	13.33		
5	9.07	68.70	70.60	257.40	377.80	490.00	253.20	92.45	47.70	33.38	24.10	13.33		
6	9.07	90.55	107.65	213.75	337.00	560.25	226.25	89.60	45.90	33.38	23.43	12.80		
7	13.87	97.20	191.25	182.50	908.00	594.00	211.25	86.75	45.00	32.60	20.73	12.80		
8	54.90	54.90	118.10	163.75	902.50	790.00	206.25	83.90	44.22	31.82	17.35	12.80		
9	28.83	43.45	117.15	158.00	614.25	792.50	206.25	82.95	43.45	30.28	17.35	12.27		
10	22.75	45.90	97.20	211.25	627.75	564.75	198.75	99.10	43.45	29.50	17.35	12.27		
11	20.05	115.25	78.20	362.50	693.15	420.40	181.25	87.70	42.68	28.83	17.35	12.80		
12	18.02	111.45	67.75	256.00	603.00	359.10	166.25	80.10	42.68	28.83	18.70	13.33		
13	16.00	77.25	72.50	260.20	540.00	318.55	156.00	77.25	41.90	28.15	19.38	14.40		
14	13.87	75.35	74.40	722.55	436.60	317.10	150.00	74.40	41.90	28.15	18.70	14.40		
15	13.87	66.80	65.85	1216.00	372.70	326.80	148.00	71.55	41.13	28.83	18.02	18.02		
16	13.33	70.60	59.40	1033.60	321.70	348.90	163.75	68.70	39.57	31.05	17.35	22.07		
17	12.27	77.25	56.70	1218.95	425.80	328.50	159.00	67.75	38.80	29.50	17.35	19.38		
18	11.73	116.20	53.10	742.50	482.00	546.75	143.00	66.80	37.25	27.48	17.35	16.68		
19	10.13	161.25	56.70	484.00	514.00	994.40	137.00	65.85	37.25	26.80	17.35	14.40		
20	9.60	151.00	62.10	530.00	1221.90	657.60	131.00	64.90	36.48	26.13	16.68	12.80		
21	9.60	152.00	68.70	542.25	1114.50	805.00	126.00	63.00	36.48	25.45	16.00	12.27		
22	10.13	124.00	61.20	518.00	1233.70	777.50	121.00	61.20	36.48	25.45	15.47	11.73		
23	10.13	84.85	52.20	438.40	1016.80	528.00	116.20	59.40	35.70	24.78	15.47	11.73		
24	12.27	66.80	48.60	564.75	760.00	482.00	112.40	58.50	35.70	24.10	14.93	11.20		
25	31.05	76.30	110.50	514.00	591.75	407.80	107.65	56.70	35.70	23.43	14.93	11.20		
26	38.02	112.40	1275.00	345.50	591.75	377.80	106.70	55.80	34.93	23.43	14.40	11.20		
27	26.80	98.15	1711.40	296.80	542.25	436.60	105.75	54.90	34.15	23.43	14.40	11.20		
28	22.07	95.30	1678.40	355.70	480.00	350.60	105.75	53.10	34.15	22.75	14.40	12.80		
29	23.43	103.85	1266.15	289.60	379.50	309.85	101.00	51.30	33.38	22.75	13.87	13.87		
30	23.43	107.65	614.25	261.60	330.20	289.60	106.70	50.40	32.60	23.43		12.80		
31		110.50		424.00	320.00		159.00		31.82	24.10		12.27		
Total	526.42	2785.68	8532.70	14197.05	19125.25	14280.45	5599.95	2243.25	1246.65	864.32	530.17	420.68	70352.57	CMSDAY
Mean	17.55	89.86	284.42	457.97	616.94	476.01	180.64	74.78	40.21	27.88	18.28	13.57	192.22	CMS
Max	54.90	161.25	1711.40	1218.95	1233.70	994.40	478.00	119.05	49.50	33.38	24.78	22.07	1711.40	CMS
Min	9.07	41.13	48.60	158.00	320.00	236.40	101.00	50.40	31.82	22.75	13.87	11.20	9.07	CMS
Runoff	45.48	240.68	737.23	1226.63	1652.42	1233.83	483.84	193.82	107.71	74.68	45.81	36.35	6078.46	MCM

Momentary Peak 1752.00 CMS. at 200.50 m. (MSL.) at 20.00 Hours , on Jun 27 , 2011

Runoff Yield 42.15 Liters/Second/Square KM. Momentary Peak Yield 384.211 Liters/Second/Square KM.

WATER YEAR : 2011

NAN RIVER BASIN

Nan River at Nai Mueang , Uttaradit (N.2B)

Lat 17 - 36 - 30 N Long 100 - 06 - 08 E

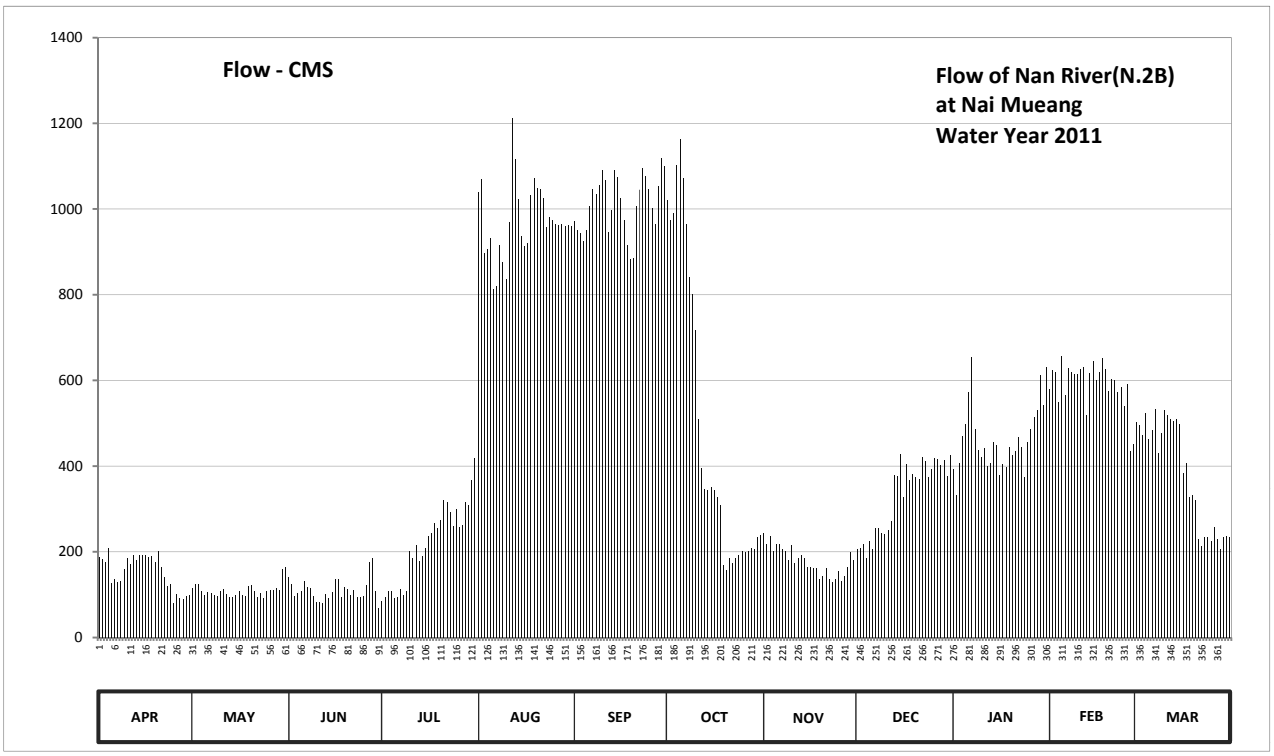
Location : on right bank at Mueang, Uttaradit.

	Ban Nai Mueang	**Amphoe** Mueang	**Changwat** Uttaradit
Drainge Area	16,865 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+52.300 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank near the gage site.	**Elevation**	+63.138 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	1993 to date		
Rating Operation			
Period of Rating	1993 to date		
Rated by Flot	-		
Rated by Current Meter	1993 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records very good. Stage-discharge relation defined by 29 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	53.41	52.89	53.07	52.65	58.16	57.84	58.08	53.77	53.53	54.68	55.76	55.31	
2	53.38	52.96	52.96	52.73	58.31	57.73	57.85	53.62	53.56	54.33	56.03	55.27	
3	53.33	52.96	52.75	52.83	57.46	57.70	57.93	53.73	53.61	54.77	56.01	55.14	
4	53.56	52.83	52.80	52.83	57.51	57.60	58.47	53.51	53.39	55.13	55.58	55.43	
5	52.97	52.77	52.84	52.71	57.64	57.73	58.75	53.62	53.65	55.28	56.23	55.09	
6	53.04	52.82	53.02	52.72	57.02	58.01	58.32	53.61	53.53	55.73	55.68	55.21	
7	53.00	52.80	52.91	52.86	57.06	58.20	57.80	53.53	53.85	56.21	56.06	55.49	
8	53.01	52.77	52.88	52.76	57.55	58.14	57.17	53.51	53.85	55.22	56.00	54.90	
9	53.21	52.75	52.75	52.83	57.35	58.24	56.97	53.37	53.78	54.94	55.98	55.16	
10	53.40	52.83	52.64	53.51	57.14	58.41	56.53	53.59	53.76	54.85	55.97	55.48	
11	53.29	52.86	52.63	53.40	57.82	58.30	55.35	53.31	53.81	54.96	56.05	55.41	
12	53.44	52.78	52.61	53.60	58.99	57.71	54.70	53.39	53.95	54.72	56.08	55.35	
13	53.37	52.72	52.78	53.34	58.53	57.96	54.41	53.45	54.60	54.77	55.41	55.32	
14	53.44	52.72	52.70	53.43	58.09	58.41	54.40	53.40	54.59	55.04	55.99	55.35	
15	53.45	52.76	52.82	53.55	57.66	58.33	54.43	53.25	54.89	55.01	56.16	55.29	
16	53.45	52.83	53.05	53.73	57.54	58.10	54.40	53.25	54.29	54.60	55.89	54.63	
17	53.42	52.76	53.04	53.77	57.57	57.85	54.29	53.23	54.75	54.75	56.01	54.77	
18	53.43	52.74	52.73	53.92	58.13	57.55	54.19	53.23	54.54	54.71	56.20	54.30	
19	53.33	52.93	52.90	53.85	58.32	57.39	53.28	53.04	54.62	54.98	56.04	54.32	
20	53.51	52.95	52.86	53.97	58.21	57.40	53.19	53.09	54.57	54.87	55.74	54.26	
21	53.25	52.84	52.76	54.25	58.20	58.01	53.39	53.23	54.55	54.92	55.91	53.69	
22	53.07	52.72	52.85	54.23	58.10	58.19	53.32	53.04	54.84	55.11	55.89	53.58	
23	52.92	52.80	52.73	54.08	57.77	58.43	53.39	53.00	54.79	54.98	55.73	53.72	
24	52.96	52.70	52.73	53.88	57.88	58.34	53.45	53.04	54.57	54.57	55.79	53.71	
25	52.61	52.83	52.74	54.12	57.85	58.20	53.51	53.18	54.68	55.05	55.53	53.66	
26	52.78	52.85	52.94	53.86	57.80	57.99	53.49	53.01	54.83	55.22	55.83	53.86	
27	52.70	52.85	53.33	53.89	57.79	57.80	53.51	53.10	54.82	55.38	54.92	53.68	
28	52.69	52.88	53.39	54.23	57.80	58.23	53.56	53.25	54.74	55.48	55.02	53.53	
29	52.75	52.85	52.83	54.19	57.78	58.54	53.54	53.49	54.80	55.96	55.31	53.71	
30	52.76	53.21	52.51	54.54	57.79	58.45	53.71	53.37	54.59	55.55		53.73	
31		53.25		54.83	57.78		53.75		54.87	56.08		53.71	
Mean	53.16	52.85	52.85	53.58	57.83	58.03	55.13	53.34	54.30	55.09	55.82	54.58	
Max	53.56	53.25	53.39	54.83	58.99	58.54	58.75	53.77	54.89	56.21	56.23	55.49	58.99
Min	52.61	52.70	52.51	52.65	57.02	57.39	53.19	53.00	53.39	54.33	54.92	53.53	52.51

Annual Max Momentary Gage Height	59.07	m. (MSL.) ,	at 15.00 Hours , on Aug 12 , 2011		
Zero Gage at Bottom Elevation	52.30	m. (MSL.) ,	River Bed	47.18	m. (MSL)
Left Bank Elevation	59.93	m. (MSL.) ,			
Right Bank Elevation	60.83	m. (MSL.) ,	Drainage Area	16865	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	187.50	115.70	139.80	84.50	1038.60	973.00	1021.80	243.20	205.50	392.00	578.30	502.30		
2	183.20	124.80	124.80	94.90	1070.10	951.00	975.00	219.20	210.00	333.50	623.50	495.20		
3	176.20	124.80	97.50	107.90	897.00	945.00	991.00	236.80	217.60	407.80	620.20	472.50		
4	210.00	107.90	104.00	107.90	907.00	925.00	1103.70	202.50	184.60	470.80	548.20	523.00		
5	126.10	100.10	109.20	92.30	933.00	951.00	1162.50	219.20	224.00	497.00	657.80	463.70		
6	135.60	106.60	132.80	93.60	811.90	1007.10	1072.20	217.60	205.50	573.30	564.90	484.70		
7	130.00	104.00	118.30	111.80	819.70	1047.00	965.00	205.50	256.00	653.90	628.60	533.10		
8	131.40	100.10	114.40	98.80	915.00	1034.40	841.10	202.50	256.00	486.50	618.50	430.50		
9	159.40	97.50	97.50	107.90	875.50	1055.40	802.20	181.80	244.80	437.50	615.10	476.00		
10	186.00	107.90	83.20	202.50	835.30	1091.10	716.30	214.50	241.60	421.70	613.50	531.40		
11	170.60	111.80	81.90	186.00	969.00	1068.00	509.20	173.40	249.60	441.00	626.90	519.70		
12	192.00	101.40	79.30	216.00	1212.90	947.00	395.50	184.60	272.00	399.00	631.90	509.20		
13	181.80	93.60	101.40	177.60	1116.30	997.00	346.70	193.50	378.00	407.80	519.70	504.00		
14	192.00	93.60	91.00	190.50	1023.90	1091.10	345.00	186.00	376.40	455.00	616.80	509.20		
15	193.50	98.80	106.60	208.50	937.00	1074.30	350.00	165.00	428.70	449.70	645.30	498.70		
16	193.50	107.90	137.00	236.80	913.00	1026.00	345.00	165.00	326.90	378.00	600.10	383.30		
17	189.00	98.80	135.60	243.20	919.00	975.00	326.90	162.20	404.30	404.30	620.20	407.80		
18	190.50	96.20	94.90	267.20	1032.30	915.00	310.40	162.20	368.10	397.30	652.00	328.50		
19	176.20	120.90	117.00	256.00	1072.20	883.10	169.20	135.60	381.50	444.50	625.20	331.80		
20	202.50	123.50	111.80	275.20	1049.10	885.00	156.60	142.60	373.10	425.20	575.00	321.90		
21	165.00	109.20	98.80	320.20	1047.00	1007.10	184.60	162.20	369.80	434.00	603.40	230.40		
22	139.80	93.60	110.50	316.90	1026.00	1044.90	174.80	135.60	420.00	467.30	600.10	213.00		
23	119.60	104.00	94.90	292.80	959.00	1095.30	184.60	130.00	411.30	444.50	573.30	235.20		
24	124.80	91.00	94.90	260.80	981.00	1076.40	193.50	135.60	373.10	373.10	583.30	233.60		
25	79.30	107.90	96.20	299.20	975.00	1047.00	202.50	155.20	392.00	456.70	539.80	225.60		
26	101.40	110.50	122.20	257.60	965.00	1003.00	199.50	131.40	418.30	486.50	590.00	257.60		
27	91.00	110.50	176.20	262.40	963.00	965.00	202.50	144.00	416.50	514.50	434.00	228.80		
28	89.70	114.40	184.60	316.90	965.00	1053.30	210.00	165.00	402.50	531.40	451.50	205.50		
29	97.50	110.50	107.90	310.40	961.00	1118.40	207.00	199.50	413.00	611.80	502.30	233.60		
30	98.80	159.40	68.10	368.10	963.00	1099.50	233.60	181.80	376.40	543.10		236.80		
31		165.00		418.30	961.00		240.00		425.20	631.90		233.60		
Total	4613.90	3411.90	3332.30	6782.70	30113.80	30351.40	15137.90	5353.20	10222.30	14370.60	17059.40	11760.20	152509.60	CMSDAY
Mean	153.80	110.10	111.10	218.80	971.40	1011.70	488.30	178.40	329.80	463.60	588.30	379.40	416.70	CMS
Max	210.00	165.00	184.60	418.30	1212.90	1118.40	1162.50	243.20	428.70	653.90	657.80	533.10	1212.90	CMS
Min	79.30	91.00	68.10	84.50	811.90	883.10	156.60	130.00	184.60	333.50	434.00	205.50	68.10	CMS
Runoff	398.64	294.79	287.91	586.03	2601.83	2622.36	1307.91	462.52	883.21	1241.62	1473.93	1016.08	13176.83	MCM

Momentary Peak 1230.40 CMS. at 59.07 m. (MSL.) at 15.00 Hours , on Aug 12 , 2011

Runoff Yield 24.71 Liters/Second/Square KM. Momentary Peak Yield 72.956 Liters/Second/Square KM.

WATER YEAR : 2011

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

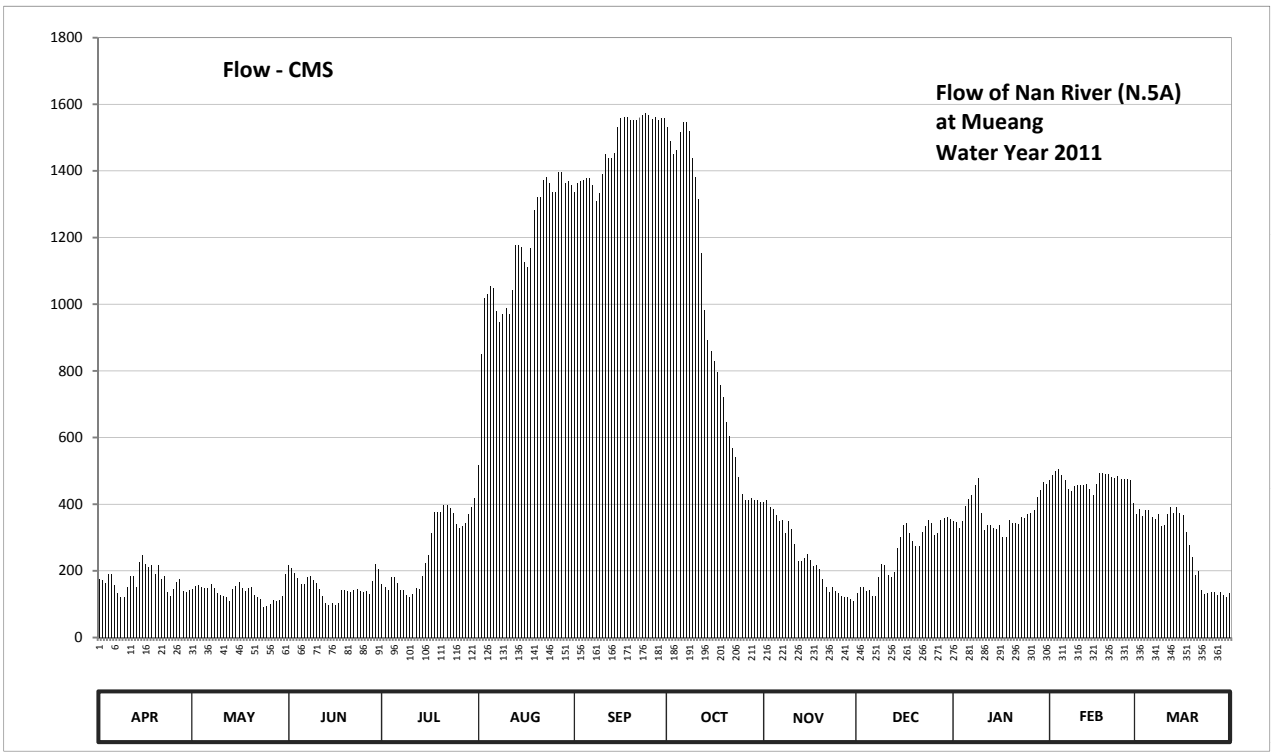
Ban Nai Mueang **Amphoe** Mueang **Changwat** Phitsanulok

Drainge Area	25,039 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+34.500 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	Near the automatic gage building. **Elevation** +44.800 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings
Period of Available Gage Records	1963 to date
Rating Operation	
Period of Rating	1966 to date
Rated by Flot	-
Rated by Current Meter	1966 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	Overbank flow starts at elevation +44.400 m. (MSL.), records are channel flow only.
General Description	Records good. Flow effected by Naresuan Dam.
	Stage-discharge relation defined by 24 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	36.79	36.41	37.30	36.61	40.25	44.65	45.31	39.30	36.24	38.73	39.88	38.95	
2	36.75	36.52	37.18	36.48	42.54	44.74	45.17	39.38	36.49	38.69	40.00	39.09	
3	36.62	36.53	37.02	36.35	43.42	44.76	45.04	39.15	36.48	38.54	40.11	38.88	
4	36.97	36.47	36.81	36.86	43.47	44.77	45.08	39.09	36.32	38.74	40.16	39.07	
5	36.96	36.42	36.59	36.87	43.57	44.79	45.26	38.92	36.36	39.19	40.01	39.05	
6	36.56	36.44	36.61	36.64	43.55	44.79	45.36	38.72	36.13	39.39	39.88	38.85	
7	36.21	36.58	36.85	36.35	43.23	44.72	45.36	38.76	36.10	39.51	39.65	38.79	
8	36.08	36.45	36.91	36.36	43.07	44.55	45.27	38.38	36.84	39.75	39.61	38.95	
9	36.09	36.25	36.74	36.15	43.19	44.63	45.00	38.72	37.34	39.94	39.74	38.58	
10	36.48	36.14	36.63	36.08	43.28	44.84	44.81	38.49	37.30	38.98	39.76	38.62	
11	36.89	36.13	36.39	36.18	43.19	45.03	44.57	38.01	36.92	38.47	39.76	38.95	
12	36.91	36.06	36.12	36.42	43.52	44.99	43.99	37.42	36.85	38.63	39.75	39.15	
13	36.47	35.93	35.84	36.40	44.08	44.99	43.25	37.42	37.04	38.62	39.78	38.99	
14	37.39	36.40	35.77	36.90	44.08	45.05	42.77	37.54	37.87	38.53	39.65	39.16	
15	37.65	36.52	35.85	37.37	44.05	45.31	42.60	37.66	38.23	38.51	39.50	38.96	
16	37.32	36.68	35.76	37.65	43.88	45.40	42.42	37.47	38.61	38.61	39.77	38.91	
17	37.22	36.45	35.85	38.36	43.82	45.41	42.23	37.24	38.67	38.25	40.06	38.41	
18	37.27	36.33	36.34	39.02	44.04	45.41	41.99	37.30	38.38	38.22	40.06	37.98	
19	36.96	36.43	36.35	39.01	44.45	45.38	41.75	37.14	38.09	38.78	40.03	37.58	
20	37.29	36.48	36.30	39.02	44.59	45.38	41.22	36.79	37.94	38.67	40.04	36.94	
21	36.78	36.17	36.28	39.22	44.59	45.38	40.92	36.46	37.94	38.68	39.95	37.07	
22	36.90	36.05	36.35	39.20	44.77	45.40	40.65	36.26	38.40	38.64	39.93	36.36	
23	36.27	36.00	36.41	39.14	44.81	45.43	40.44	36.47	38.58	38.84	39.99	36.20	
24	36.12	35.66	36.33	38.97	44.74	45.45	39.95	36.31	38.78	38.82	39.92	36.25	
25	36.40	35.72	36.29	38.65	44.64	45.43	39.52	36.21	38.68	38.94	39.90	36.29	
26	36.66	35.78	36.31	38.53	44.64	45.39	39.36	36.10	38.31	38.97	39.90	36.28	
27	36.77	35.94	36.20	38.59	44.86	45.41	39.36	36.08	38.36	39.06	39.87	36.16	
28	36.33	35.91	36.71	38.68	44.86	45.38	39.43	36.08	38.78	39.44	39.27	36.26	
29	36.27	35.97	37.34	38.94	44.74	45.40	39.36	36.00	38.81	39.64	39.08	36.14	
30	36.34	36.10	37.15	39.15	44.76	45.40	39.36	35.90	38.86	39.84		36.06	
31		36.98		39.41	44.72		39.30		38.79	39.77		36.23	
Mean	36.72	36.25	36.49	37.73	43.92	45.12	42.45	37.49	37.69	38.95	39.83	37.84	
Max	37.65	36.98	37.34	39.41	44.86	45.45	45.36	39.38	38.86	39.94	40.16	39.16	45.45
Min	36.08	35.66	35.76	36.08	40.25	44.55	39.30	35.90	36.10	38.22	39.08	36.06	35.66

Annual Max Momentary Gage Height	45.47	m. (MSL.) ,	at 14.00 Hours , on Sep 24 , 2011		
Zero Gage at Bottom Elevation	34.50	m. (MSL.) ,	River Bed	33.12	m. (MSL)
Left Bank Elevation	44.39	m. (MSL.) ,			
Right Bank Elevation	45.21	m. (MSL.) ,	Drainage Area	25039	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	176.20	146.80	218.50	161.80	516.50	1338.00	1533.00	406.00	134.00	349.00	471.60	371.00		
2	173.00	155.00	208.30	152.00	849.80	1363.20	1491.00	414.00	152.80	345.00	486.00	385.00		
3	162.60	155.80	194.70	142.20	1018.60	1368.80	1452.00	391.00	152.00	330.00	499.20	364.00		
4	190.60	151.30	177.80	181.80	1030.10	1371.60	1464.00	385.00	140.00	350.00	505.20	383.00		
5	189.80	147.50	160.30	182.60	1053.10	1377.20	1518.00	368.00	143.00	395.00	487.20	381.00		
6	158.00	149.00	161.80	164.20	1048.50	1377.20	1548.00	348.00	125.80	415.00	471.60	361.00		
7	131.80	159.50	181.00	142.20	978.30	1357.60	1548.00	352.00	123.50	428.10	444.00	355.00		
8	122.00	149.80	185.80	143.00	947.30	1310.00	1521.00	314.20	180.20	456.00	439.20	371.00		
9	122.80	134.80	172.20	127.30	970.10	1332.40	1440.00	348.00	221.90	478.80	454.80	334.00		
10	152.00	126.50	163.40	122.00	988.80	1392.00	1383.00	325.00	218.50	374.00	457.20	338.00		
11	184.20	125.80	145.30	129.50	970.10	1449.00	1315.60	280.90	186.60	323.00	457.20	371.00		
12	185.80	120.50	125.00	147.50	1041.60	1437.00	1153.50	228.70	181.00	339.00	456.00	391.00		
13	151.30	110.80	104.00	146.00	1178.40	1437.00	982.50	228.70	196.40	338.00	459.60	375.00		
14	226.20	146.00	98.90	185.00	1178.40	1455.00	890.60	238.90	268.30	329.00	444.00	392.00		
15	248.50	155.00	104.70	224.40	1170.00	1533.00	860.00	249.40	300.70	327.00	427.00	372.00		
16	220.20	167.40	98.20	248.50	1126.00	1560.00	829.40	233.00	337.00	337.00	458.40	367.00		
17	211.70	149.80	104.70	312.40	1111.00	1563.00	797.10	213.40	343.00	302.50	493.20	317.00		
18	216.00	140.80	141.50	378.00	1167.20	1563.00	758.40	218.50	314.20	299.80	493.20	278.20		
19	189.80	148.30	142.20	377.00	1282.00	1554.00	720.50	204.90	288.10	354.00	489.60	242.30		
20	217.70	152.00	138.50	378.00	1321.20	1554.00	644.80	176.20	274.60	343.00	490.80	188.20		
21	175.40	128.70	137.00	398.00	1321.20	1554.00	603.60	150.50	274.60	344.00	480.00	198.90		
22	185.00	119.80	142.20	396.00	1371.60	1560.00	568.50	135.50	316.00	340.00	477.60	143.00		
23	136.30	116.00	146.80	390.00	1383.00	1569.00	541.20	151.30	334.00	360.00	484.80	131.00		
24	125.00	91.20	140.80	373.00	1363.20	1575.00	480.00	139.30	354.00	358.00	476.40	134.80		
25	146.00	95.40	137.80	341.00	1335.20	1569.00	429.20	131.80	344.00	370.00	474.00	137.80		
26	165.80	99.60	139.30	329.00	1335.20	1557.00	412.00	123.50	307.90	373.00	474.00	137.00		
27	174.60	111.50	131.00	335.00	1398.00	1563.00	412.00	122.00	312.40	382.00	470.40	128.00		
28	140.80	109.30	169.80	344.00	1398.00	1554.00	419.30	122.00	354.00	420.40	403.00	135.50		
29	136.30	113.80	221.90	370.00	1363.20	1560.00	412.00	116.00	357.00	442.80	384.00	126.50		
30	141.50	123.50	205.80	391.00	1368.80	1560.00	412.00	108.50	362.00	466.80		120.50		
31		191.40		417.10	1357.60		406.00		355.00	458.40		133.30		
Total	5156.90	4192.60	4599.20	8129.50	35942.00	44314.00	28946.20	7224.20	7952.50	11528.60	13509.20	8463.00	179957.90	CMSDAY
Mean	171.90	135.20	153.30	262.20	1159.40	1477.10	933.70	240.80	256.50	371.90	465.80	273.00	491.70	CMS
Max	248.50	191.40	221.90	417.10	1398.00	1575.00	1548.00	414.00	362.00	478.80	505.20	392.00	1575.00	CMS
Min	122.00	91.20	98.20	122.00	516.50	1310.00	406.00	108.50	123.50	299.80	384.00	120.50	91.20	CMS
Runoff	445.56	362.24	397.37	702.39	3105.39	3828.73	2500.95	624.17	687.10	996.07	1167.19	731.20	15548.36	MCM

Momentary Peak 1581.00 CMS. at 45.47 m. (MSL.) at 14.00 Hours , on Sep 24 , 2011

Runoff Yield 19.64 Liters/Second/Square KM. Momentary Peak Yield 63.141 Liters/Second/Square KM.

WATER YEAR : 2011

NAN RIVER BASIN

Nan River at Ban Rat Chang Khwan , Phichit (N.7A)

Lat 16 - 28 - 03 N Long 100 - 20 - 05 E

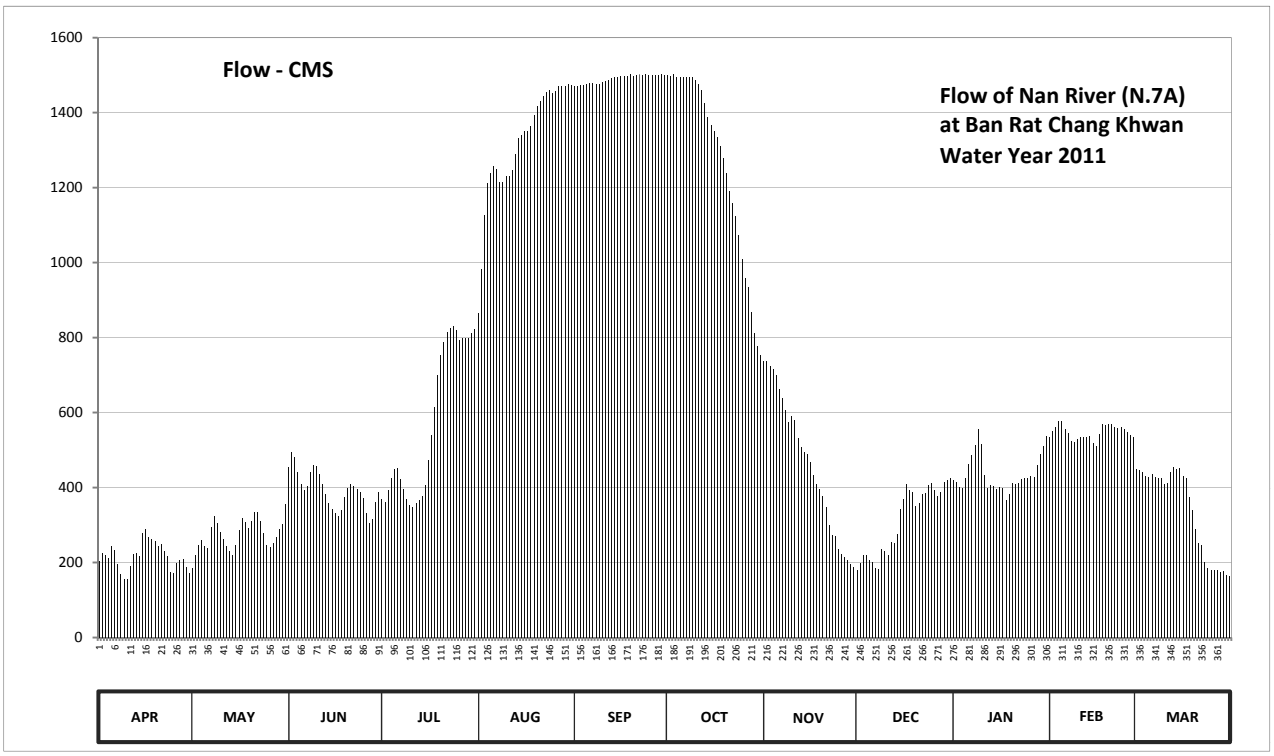
Location : on right bank in front of Phichit Phitthaya Khom School

	Ban Rat Chang Khwan	**Amphoe** Mueang	**Changwat** Phichit
Drainge Area	27,897 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+26.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	In front of Phichit Phitthaya Khom School.	**Elevation**	+42.146 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	2000 to date		
Rating Operation			
Period of Rating	2000 to date		
Rated by Flot	-		
Rated by Current Meter	2000 to date		
Stability of Channel Regimes	Fairly Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Flow effected by Naresuan Dam.		
	Stage-discharge relation defined by 30 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	28.55	28.31	31.34	30.44	34.21	37.39	37.53	33.45	28.25	31.00	32.02	31.29	
2	28.79	28.72	31.68	30.35	34.87	37.39	37.52	33.45	28.49	30.94	32.15	31.26	
3	28.74	29.05	31.56	30.71	35.65	37.40	37.54	33.37	28.73	30.80	32.25	31.21	
4	28.63	29.19	31.21	31.06	36.09	37.40	37.50	33.32	28.74	30.78	32.37	31.12	
5	29.02	29.02	30.89	31.28	36.22	37.41	37.50	33.23	28.58	31.05	32.37	31.08	
6	28.89	28.95	30.71	31.30	36.32	37.42	37.51	32.99	28.50	31.40	32.19	31.16	
7	28.44	29.61	30.84	31.02	36.28	37.43	37.51	32.83	28.32	31.61	32.10	31.07	
8	28.14	29.94	31.20	30.75	36.10	37.41	37.51	32.60	28.29	31.85	31.92	31.05	
9	27.96	29.73	31.37	30.45	36.10	37.41	37.51	32.35	28.93	32.19	31.90	31.06	
10	27.97	29.45	31.36	30.26	36.18	37.44	37.46	32.48	28.85	31.87	31.97	30.90	
11	28.38	29.23	31.16	30.20	36.18	37.45	37.41	32.38	28.72	31.13	32.01	30.91	
12	28.76	29.02	30.90	30.33	36.26	37.47	37.33	31.99	29.13	30.77	32.01	31.20	
13	28.78	28.85	30.60	30.42	36.47	37.49	37.16	31.80	29.10	30.85	32.01	31.33	
14	28.70	28.73	30.33	30.53	36.69	37.50	36.97	31.69	29.38	30.83	32.04	31.27	
15	29.43	29.05	30.15	30.85	36.73	37.51	36.86	31.65	30.14	30.74	31.88	31.31	
16	29.55	29.50	30.02	31.49	36.78	37.52	36.78	31.44	30.46	30.80	31.82	31.10	
17	29.28	29.87	29.94	32.06	36.78	37.52	36.70	31.13	30.90	30.77	32.09	31.06	
18	29.22	29.75	30.11	32.66	36.85	37.52	36.58	30.89	30.72	30.41	32.30	30.50	
19	29.18	29.58	30.51	33.23	37.00	37.54	36.42	30.74	30.64	30.59	32.28	30.12	
20	29.01	29.78	30.77	33.55	37.12	37.52	36.22	30.53	30.25	30.92	32.30	29.55	
21	29.07	30.05	30.88	33.78	37.19	37.53	35.98	30.21	30.32	30.89	32.31	29.09	
22	28.85	30.05	30.84	33.93	37.25	37.54	35.81	29.66	30.60	30.91	32.24	29.05	
23	28.69	29.80	30.74	34.00	37.31	37.53	35.63	29.35	30.62	31.03	32.23	28.50	
24	28.19	29.43	30.65	34.02	37.33	37.54	35.36	29.34	30.85	31.05	32.24	28.31	
25	28.18	29.05	30.47	33.96	37.29	37.53	35.02	28.92	30.93	31.06	32.20	28.27	
26	28.49	28.98	30.04	33.80	37.32	37.53	34.74	28.77	30.71	31.12	32.14	28.27	
27	28.58	29.11	29.74	33.83	37.38	37.53	34.60	28.65	30.52	31.07	32.07	28.26	
28	28.61	29.31	29.86	33.83	37.38	37.53	34.23	28.56	30.65	31.37	32.01	28.19	
29	28.35	29.53	30.35	33.84	37.39	37.54	33.91	28.45	30.96	31.65	31.52	28.24	
30	28.15	29.69	30.67	33.92	37.41	37.53	33.71	28.34	30.99	31.81		28.09	
31		30.29		33.98	37.40		33.55		31.06	32.05		28.08	
Mean	28.69	29.37	30.70	32.12	36.63	37.48	36.32	31.15	29.78	31.14	32.10	30.06	
Max	29.55	30.29	31.68	34.02	37.41	37.54	37.54	33.45	31.06	32.19	32.37	31.33	37.54
Min	27.96	28.31	29.74	30.20	34.21	37.39	33.55	28.34	28.25	30.41	31.52	28.08	27.96

Annual Max Momentary Gage Height	37.57	m. (MSL.) ,	at 09.00 Hours , on Oct 3 , 2011		
Zero Gage at Bottom Elevation	26.00	m. (MSL.) ,	River Bed	20.24	m. (MSL)
Left Bank Elevation	41.88	m. (MSL.) ,			
Right Bank Elevation	41.27	m. (MSL.) ,	Drainage Area	27897	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	204.70	184.30	455.40	368.60	863.80	1472.00	1500.00	736.00	179.30	419.00	534.40	449.90		
2	225.20	219.20	493.60	360.50	982.60	1472.00	1498.00	736.00	199.60	413.60	550.00	446.60		
3	220.90	247.20	479.60	392.90	1127.50	1474.00	1502.00	723.20	220.00	401.00	562.20	441.10		
4	211.50	259.20	441.10	425.30	1212.00	1474.00	1494.00	715.20	220.90	399.20	577.20	431.60		
5	244.70	244.70	409.10	448.80	1238.00	1476.00	1494.00	700.80	207.30	424.20	577.20	427.40		
6	233.60	238.80	392.90	451.00	1258.00	1478.00	1496.00	662.50	200.50	462.00	554.80	435.80		
7	195.40	294.90	404.60	421.10	1250.00	1480.00	1496.00	638.50	185.20	485.20	544.00	426.30		
8	169.90	323.60	440.00	396.50	1214.00	1476.00	1496.00	606.00	182.70	514.00	522.40	424.20		
9	154.80	305.10	458.70	369.50	1214.00	1476.00	1496.00	574.70	237.10	554.80	520.00	425.30		
10	155.60	281.30	457.60	352.40	1230.00	1482.00	1486.00	591.00	230.30	516.40	528.40	410.00		
11	190.30	262.60	435.80	347.00	1230.00	1484.00	1476.00	578.50	219.20	432.60	533.20	410.90		
12	222.60	244.70	410.00	358.70	1246.00	1488.00	1460.00	530.80	254.00	398.30	533.20	440.00		
13	224.30	230.30	383.00	366.80	1288.00	1492.00	1426.00	508.00	251.50	405.50	533.20	454.30		
14	217.50	220.00	358.70	376.70	1332.00	1494.00	1388.00	494.80	275.30	403.70	536.80	447.70		
15	279.60	247.20	342.50	405.50	1340.00	1496.00	1366.00	490.00	341.60	395.60	517.60	452.10		
16	289.70	285.50	330.80	471.90	1350.00	1498.00	1350.00	466.40	370.40	401.00	510.40	429.50		
17	266.80	317.30	323.60	539.20	1350.00	1498.00	1334.00	432.60	410.00	398.30	542.80	425.30		
18	261.70	306.80	338.90	614.40	1364.00	1498.00	1310.00	409.10	393.80	365.90	568.50	374.00		
19	258.30	292.30	374.90	700.80	1394.00	1502.00	1278.00	395.60	386.60	382.10	566.00	339.80		
20	243.90	309.30	398.30	752.00	1418.00	1498.00	1238.00	376.70	351.50	411.80	568.50	289.70		
21	249.00	333.50	408.20	788.80	1432.00	1500.00	1190.20	347.90	357.80	409.10	569.80	250.70		
22	230.30	333.50	404.60	814.10	1444.00	1502.00	1157.90	299.10	383.00	410.90	561.00	247.20		
23	216.70	311.00	395.60	826.00	1456.00	1500.00	1123.70	272.80	384.80	422.20	559.70	200.50		
24	174.20	279.60	387.50	829.60	1460.00	1502.00	1072.40	271.90	405.50	424.20	561.00	184.30		
25	173.30	247.20	371.30	819.20	1452.00	1500.00	1009.60	236.20	412.70	425.30	556.00	181.00		
26	199.60	241.30	332.60	792.00	1458.00	1500.00	959.20	223.50	392.90	431.60	548.80	181.00		
27	207.30	252.40	305.90	797.10	1470.00	1500.00	934.00	213.30	375.80	426.30	540.40	180.10		
28	209.90	269.30	316.40	797.10	1470.00	1500.00	867.40	205.60	387.50	458.70	533.20	174.20		
29	187.80	288.10	360.50	798.80	1472.00	1502.00	810.70	196.30	415.40	490.00	475.20	178.40		
30	170.70	301.70	389.30	812.40	1476.00	1500.00	777.60	186.90	418.10	509.20		165.70		
31		355.10		822.60	1474.00		752.00		425.30	538.00		164.80		
Total	6489.80	8527.00	11801.00	17817.30	40965.90	44714.00	39238.70	13819.90	9675.60	13529.70	15785.90	10489.40	232854.20	CMSDAY
Mean	216.30	275.10	393.40	574.80	1321.50	1490.50	1265.80	460.70	312.10	436.40	544.30	338.40	636.20	CMS
Max	289.70	355.10	493.60	829.60	1476.00	1502.00	1502.00	736.00	425.30	554.80	577.20	454.30	1502.00	CMS
Min	154.80	184.30	305.90	347.00	863.80	1472.00	752.00	186.90	179.30	365.90	475.20	164.80	154.80	CMS
Runoff	560.72	736.73	1019.61	1539.41	3539.45	3863.29	3390.22	1194.04	835.97	1168.97	1363.90	906.28	20118.61	MCM

Momentary Peak 1508.00 CMS. at 37.57 m. (MSL.) at 09.00 Hours , on Oct 3 , 2011

Runoff Yield 22.81 Liters/Second/Square KM. Momentary Peak Yield 54.056 Liters/Second/Square KM.

WATER YEAR : 2011

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.

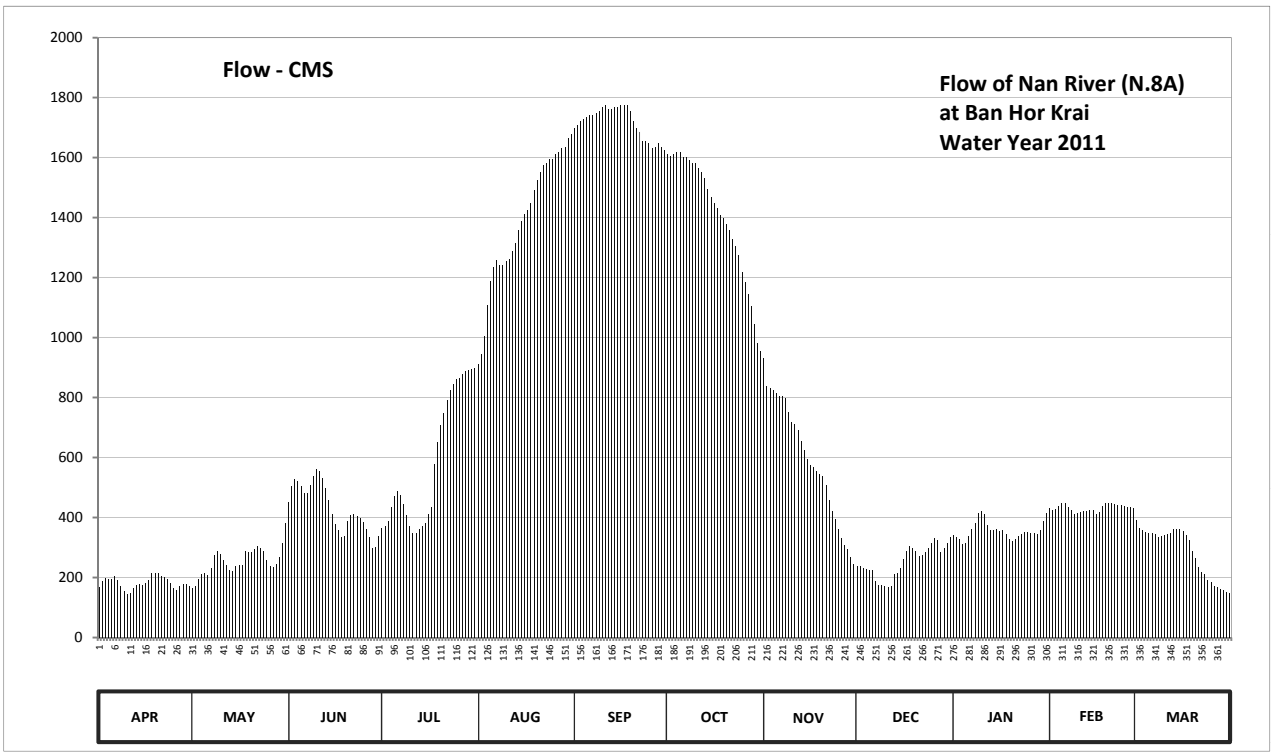
Ban Hor Krai **Amphoe** Bang Mun Nak **Changwat** Phichit

Drainge Area	31,472 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+20.000 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank about 89 meters upstream from the top staff gage. **Elevation** +30.948 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings
Period of Available Gage Records	2000 to date
Rating Operation	
Period of Rating	2000 to date
Rated by Flot	-
Rated by Current Meter	2000 to date
Stability of Channel Regimes	Fairly Stable.
Overbank Flow Conditions	Overbank flow starts at elevation +30.670 m.(MSL.), records are channel flow only.
General Description	Records Fair. Flow effected by Naresuan Dam.
	Stage-discharge relation defined by 28 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	22.67	22.64	26.84	25.81	29.80	31.75	31.61	29.88	23.97	25.55	26.62	26.16	
2	23.01	22.75	27.43	25.89	29.93	31.77	31.60	29.51	23.92	25.47	26.54	25.83	
3	23.20	23.18	27.66	26.12	30.14	31.79	31.61	29.48	23.82	25.36	26.60	25.74	
4	23.16	23.49	27.60	26.68	30.46	31.80	31.62	29.45	23.75	25.14	26.71	25.67	
5	23.14	23.51	27.42	27.07	30.67	31.81	31.62	29.40	23.72	25.15	26.81	25.60	
6	23.32	23.43	27.17	27.24	30.78	31.82	31.59	29.36	23.70	25.50	26.81	25.62	
7	23.08	23.83	27.18	27.11	30.84	31.82	31.59	29.35	23.06	25.79	26.68	25.57	
8	22.71	24.58	27.44	26.78	30.80	31.83	31.57	29.32	22.83	26.05	26.56	25.47	
9	22.41	24.80	27.75	26.35	30.80	31.84	31.55	29.11	22.77	26.42	26.40	25.50	
10	22.25	24.65	27.94	25.92	30.83	31.86	31.55	28.95	22.73	26.53	26.43	25.55	
11	22.31	24.32	27.89	25.60	30.85	31.87	31.52	28.91	22.69	26.41	26.47	25.58	
12	22.62	24.00	27.70	25.62	30.91	31.85	31.49	28.79	22.73	25.94	26.50	25.60	
13	22.77	23.72	27.35	25.76	30.98	31.85	31.45	28.59	23.44	25.73	26.53	25.77	
14	22.84	23.65	26.92	25.89	31.08	31.86	31.38	28.41	23.53	25.75	26.57	25.80	
15	22.80	23.94	26.38	26.02	31.15	31.86	31.32	28.21	23.86	25.76	26.55	25.77	
16	22.90	24.04	26.01	26.38	31.20	31.87	31.28	28.06	24.35	25.69	26.41	25.68	
17	23.12	23.98	25.74	26.66	31.23	31.87	31.24	27.99	24.80	25.75	26.47	25.55	
18	23.53	24.79	25.45	28.07	31.28	31.87	31.19	27.90	25.03	25.56	26.69	25.31	
19	23.52	24.76	25.49	28.56	31.37	31.84	31.17	27.83	24.92	25.37	26.80	24.78	
20	23.50	24.72	26.10	28.88	31.44	31.79	31.12	27.76	24.79	25.24	26.82	24.42	
21	23.36	24.91	26.36	29.10	31.49	31.75	31.08	27.45	24.52	25.34	26.83	23.88	
22	23.28	25.01	26.41	29.30	31.54	31.73	31.01	26.94	24.59	25.51	26.77	23.59	
23	23.16	24.95	26.33	29.44	31.55	31.68	30.95	26.50	24.72	25.58	26.75	23.49	
24	22.90	24.78	26.25	29.54	31.58	31.68	30.88	26.21	24.94	25.66	26.73	23.09	
25	22.63	24.30	26.07	29.61	31.58	31.67	30.74	25.77	25.19	25.65	26.70	22.98	
26	22.50	23.93	25.79	29.62	31.61	31.64	30.66	25.41	25.42	25.63	26.68	22.73	
27	22.71	23.87	25.45	29.67	31.62	31.65	30.56	25.08	25.33	25.63	26.65	22.69	
28	22.88	24.07	24.95	29.71	31.64	31.67	30.45	24.91	24.75	25.56	26.63	22.57	
29	22.84	24.46	25.00	29.73	31.65	31.65	30.27	24.49	24.94	25.73	26.39	22.48	
30	22.73	25.16	25.51	29.74	31.70	31.63	30.06	24.08	25.18	26.12		22.36	
31		26.05		29.75	31.72		29.97		25.46	26.45		22.31	
Mean	22.93	24.20	26.59	27.67	31.10	31.78	31.15	27.77	24.18	25.71	26.62	24.62	
Max	23.53	26.05	27.94	29.75	31.72	31.87	31.62	29.88	25.46	26.53	26.83	26.16	31.87
Min	22.25	22.64	24.95	25.60	29.80	31.63	29.97	24.08	22.69	25.14	26.39	22.31	22.25

Annual Max Momentary Gage Height	31.88	m. (MSL.) ,	at 06.00 Hours , on Sep 16 , 2011		
Zero Gage at Bottom Elevation	20.00	m. (MSL.) ,	River Bed	18.80	m. (MSL)
Left Bank Elevation	30.66	m. (MSL.) ,			
Right Bank Elevation	31.32	m. (MSL.) ,	Drainage Area	31472	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	167.90	166.20	450.60	363.80	910.00	1697.50	1612.10	931.60	239.30	343.00	430.80	391.80		
2	186.60	172.30	505.00	370.20	945.10	1709.70	1606.00	839.30	236.60	336.60	423.90	365.40		
3	197.00	195.90	528.00	388.60	1004.60	1721.90	1612.10	832.40	231.10	328.20	429.00	358.20		
4	194.80	213.00	522.00	436.20	1108.20	1728.00	1618.20	825.50	227.30	312.80	438.90	352.60		
5	193.70	214.10	504.00	471.30	1188.70	1734.80	1618.20	814.00	225.60	313.50	447.90	347.00		
6	203.60	209.70	480.30	486.80	1233.80	1741.60	1601.00	805.20	224.50	339.00	447.90	348.60		
7	190.40	231.70	481.20	474.90	1258.40	1741.60	1601.00	803.00	189.30	362.20	436.20	344.60		
8	170.00	274.70	506.00	445.20	1242.00	1748.40	1591.00	796.40	176.70	383.00	425.60	336.60		
9	153.60	289.00	537.00	407.70	1242.00	1755.20	1581.00	751.10	173.40	413.70	412.00	339.00		
10	144.80	279.30	560.20	372.60	1254.30	1768.80	1581.00	719.00	171.20	423.10	414.50	343.00		
11	148.10	258.60	553.70	347.00	1262.50	1775.60	1566.00	711.80	169.00	412.80	417.90	345.40		
12	165.10	241.00	532.00	348.60	1287.10	1762.00	1551.00	690.20	171.20	374.20	420.50	347.00		
13	173.40	225.60	497.30	359.80	1315.80	1762.00	1531.00	654.40	210.20	357.40	423.10	360.60		
14	177.20	221.80	457.80	370.20	1359.20	1768.80	1496.60	625.60	215.20	359.00	426.40	363.00		
15	175.00	237.70	410.30	380.60	1390.00	1768.80	1468.40	595.50	233.30	359.80	424.70	360.60		
16	180.50	243.20	379.80	410.30	1412.00	1775.60	1449.60	575.80	260.30	354.20	412.80	353.40		
17	192.60	239.90	358.20	434.40	1426.10	1775.60	1430.80	566.70	289.00	359.00	417.90	343.00		
18	215.20	288.40	335.00	577.10	1449.60	1775.60	1407.60	555.00	305.10	343.80	437.10	324.70		
19	214.60	286.40	338.20	649.60	1491.90	1755.20	1398.80	545.90	297.40	328.90	447.00	287.70		
20	213.50	283.80	387.00	706.40	1526.00	1721.90	1376.80	538.00	288.40	319.80	448.80	264.30		
21	205.80	296.70	408.60	749.00	1551.00	1697.50	1359.20	507.00	270.80	326.80	449.70	234.40		
22	201.40	303.70	412.80	792.00	1576.00	1685.30	1328.40	459.60	275.40	339.80	444.30	218.50		
23	194.80	299.50	406.00	823.20	1581.00	1654.80	1303.50	420.50	283.80	345.40	442.50	213.00		
24	180.50	287.70	399.20	846.20	1596.00	1654.80	1274.80	395.80	298.80	351.80	440.70	191.00		
25	165.60	257.50	384.60	862.50	1596.00	1648.70	1217.40	360.60	316.30	351.00	438.00	184.90		
26	158.50	237.20	362.20	865.00	1612.10	1630.40	1184.60	331.80	332.60	349.40	436.20	171.20		
27	170.00	233.90	335.00	877.50	1618.20	1636.50	1145.20	308.60	326.10	349.40	433.50	169.00		
28	179.40	244.90	299.50	887.50	1630.40	1648.70	1104.50	296.70	285.80	343.80	431.70	162.40		
29	177.20	266.90	303.00	892.50	1636.50	1636.50	1044.40	268.80	298.80	357.40	411.10	157.40		
30	171.20	314.20	339.80	895.00	1667.00	1624.30	981.40	245.40	315.60	388.60		150.80		
31		383.00		897.50	1679.20		955.90		335.80	416.30		148.10		
Total	5462.00	7897.50	12974.30	18189.20	43050.70	51506.10	43597.50	17771.20	7873.90	11043.70	12510.60	8877.20	240753.90	CMSDAY
Mean	182.10	254.80	432.50	586.70	1388.70	1716.90	1406.40	592.40	254.00	356.20	431.40	286.40	657.80	CMS
Max	215.20	383.00	560.20	897.50	1679.20	1775.60	1618.20	931.60	335.80	423.10	449.70	391.80	1775.60	CMS
Min	144.80	166.20	299.50	347.00	910.00	1624.30	955.90	245.40	169.00	312.80	411.10	148.10	144.80	CMS
Runoff	471.92	682.34	1120.98	1571.55	3719.58	4450.13	3766.82	1535.43	680.30	954.18	1080.92	766.99	20801.14	MCM

Momentary Peak 1782.40 CMS. at 31.88 m. (MSL.) at 06.00 Hours , on Sep 16 , 2011

Runoff Yield 20.90 Liters/Second/Square KM. Momentary Peak Yield 56.634 Liters/Second/Square KM.

WATER YEAR : 2011

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

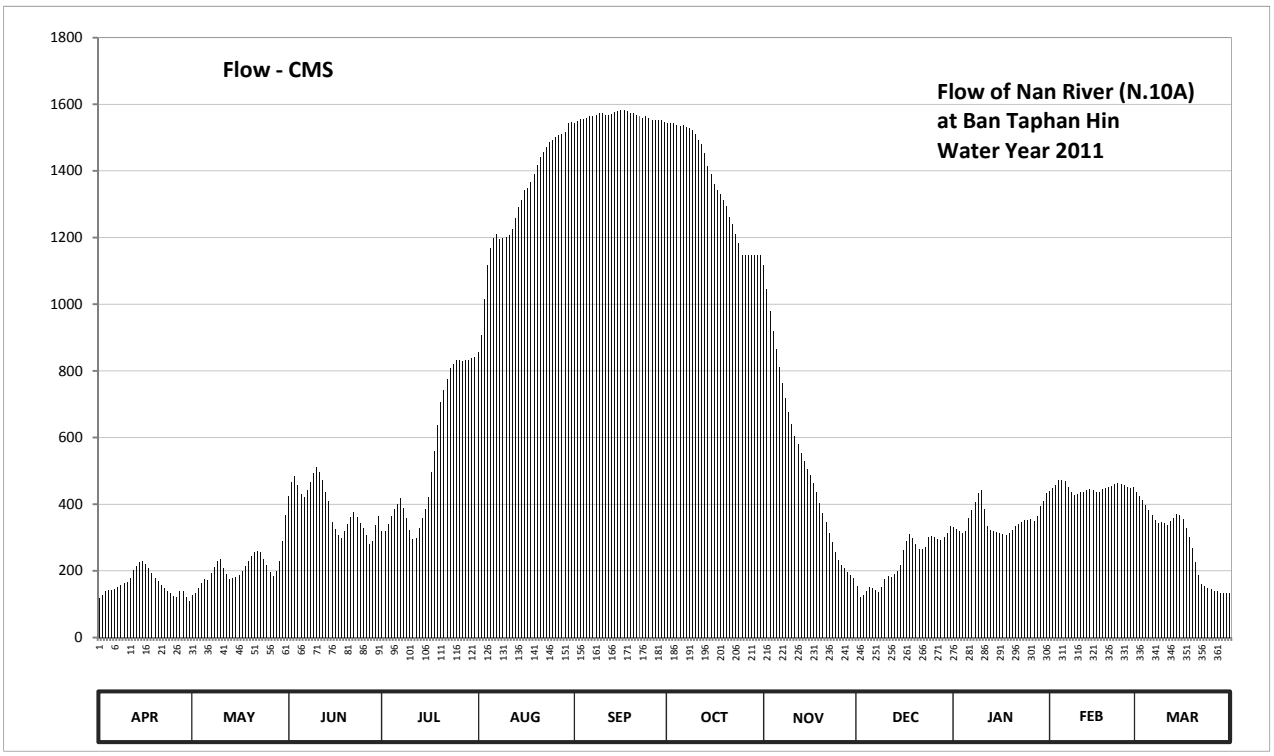
Ban Taphan Hin **Amphoe** Taphan Hin **Changwat** Phichit

Drainge Area	30,328 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+22.280 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank near automatic gage building. **Elevation** +33.300 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings
Period of Available Gage Records	1969 to date
Rating Operation	
Period of Rating	1974 - 1979, 1991 to date
Rated by Flot	-
Rated by Current Meter	1974 - 1982, 1987, 1991 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Flow effected by Naresuan Dam.
	Stage-discharge relation defined by 18 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	24.07	24.22	27.85	26.67	30.82	33.38	33.38	31.92	24.60	26.81	27.99	27.96	
2	24.22	24.30	28.24	26.66	31.06	33.40	33.38	31.65	24.14	26.74	28.06	27.85	
3	24.38	24.49	28.36	26.92	31.53	33.42	33.38	31.39	24.20	26.66	28.15	27.69	
4	24.42	24.70	28.17	27.17	31.92	33.42	33.36	31.12	24.38	26.61	28.27	27.53	
5	24.43	24.88	27.90	27.39	32.11	33.43	33.35	30.86	24.55	26.68	28.28	27.36	
6	24.47	24.86	27.80	27.58	32.22	33.45	33.36	30.60	24.50	27.10	28.26	27.21	
7	24.55	25.15	28.01	27.77	32.26	33.45	33.34	30.34	24.40	27.37	28.11	27.05	
8	24.62	25.38	28.23	27.43	32.21	33.46	33.33	30.08	24.35	27.64	27.97	26.94	
9	24.70	25.60	28.45	27.10	32.22	33.48	33.32	29.82	24.53	27.91	27.86	26.98	
10	24.77	25.71	28.64	26.71	32.23	33.48	33.28	29.57	24.90	28.01	27.88	26.93	
11	24.94	25.36	28.49	26.41	32.25	33.46	33.22	29.33	25.01	27.41	27.94	26.87	
12	25.29	25.10	28.27	26.44	32.32	33.46	33.18	29.15	25.00	26.85	27.97	27.00	
13	25.43	24.91	27.94	26.76	32.43	33.47	33.09	28.96	25.12	26.69	28.01	27.12	
14	25.57	24.95	27.67	27.09	32.55	33.49	32.96	28.77	25.24	26.66	28.04	27.23	
15	25.63	24.98	26.97	27.42	32.63	33.50	32.88	28.58	25.45	26.64	28.00	27.20	
16	25.50	25.05	26.75	27.80	32.72	33.51	32.79	28.40	26.03	26.61	27.95	27.08	
17	25.36	25.23	26.54	28.48	32.75	33.51	32.72	28.21	26.35	26.56	27.96	26.77	
18	25.15	25.42	26.44	29.01	32.80	33.50	32.69	27.96	26.56	26.55	28.04	26.46	
19	24.95	25.61	26.68	29.56	32.89	33.48	32.63	27.62	26.44	26.60	28.07	26.11	
20	24.80	25.80	26.92	30.00	32.98	33.48	32.56	27.28	26.24	26.69	28.10	25.59	
21	24.63	25.94	27.15	30.21	33.05	33.46	32.45	26.96	26.07	26.84	28.14	25.08	
22	24.49	25.98	27.30	30.42	33.10	33.45	32.37	26.62	26.08	26.91	28.18	24.68	
23	24.38	25.97	27.13	30.59	33.15	33.43	32.26	26.30	26.13	26.98	28.21	24.59	
24	24.27	25.71	26.95	30.64	33.20	33.45	32.16	25.96	26.46	27.03	28.20	24.51	
25	24.17	25.45	26.76	30.71	33.22	33.43	32.04	25.65	26.52	27.05	28.16	24.45	
26	24.10	25.19	26.54	30.70	33.25	33.41	32.04	25.48	26.48	27.06	28.09	24.39	
27	24.36	25.03	26.25	30.69	33.27	33.41	32.04	25.35	26.42	27.02	28.06	24.36	
28	24.36	25.23	26.35	30.70	33.28	33.41	32.04	25.21	26.36	27.16	28.09	24.31	
29	24.13	25.61	26.86	30.71	33.30	33.41	32.04	25.06	26.46	27.50	27.74	24.29	
30	23.94	26.32	27.18	30.74	33.38	33.39	32.04	24.93	26.62	27.68		24.30	
31		27.21		30.75	33.39		32.04		26.85	27.93		24.29	
Mean	24.67	25.33	27.43	28.62	32.60	33.45	32.77	28.30	25.56	27.03	28.06	26.13	
Max	25.63	27.21	28.64	30.75	33.39	33.51	33.38	31.92	26.85	28.01	28.28	27.96	33.51
Min	23.94	24.22	26.25	26.41	30.82	33.38	32.04	24.93	24.14	26.55	27.74	24.29	23.94

Annual Max Momentary Gage Height	33.52	m. (MSL.) ,	at 22.00 Hours , on Sep 15 , 2011		
Zero Gage at Bottom Elevation	22.28	m. (MSL.) ,	River Bed	19.92	m. (MSL)
Left Bank Elevation	33.99	m. (MSL.) ,			
Right Bank Elevation	33.71	m. (MSL.) ,	Drainage Area	30328	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	117.90	128.40	426.00	319.30	855.20	1542.80	1542.80	1116.20	155.00	331.90	440.00	437.00		
2	128.40	134.00	466.40	318.40	906.20	1549.00	1542.80	1046.00	122.80	325.60	447.00	426.00		
3	139.60	147.30	482.60	341.80	1015.50	1555.20	1542.80	980.70	127.00	318.40	456.00	411.10		
4	142.40	162.00	458.00	364.30	1116.20	1555.20	1536.60	919.40	139.60	313.90	470.50	396.70		
5	143.10	174.60	431.00	384.10	1167.80	1558.30	1533.50	863.60	151.50	320.20	471.80	381.40		
6	145.90	173.20	421.00	401.20	1198.60	1564.50	1536.60	811.00	148.00	358.00	469.10	367.90		
7	151.50	193.50	442.00	418.30	1209.80	1564.50	1530.40	762.80	141.00	382.30	452.00	353.50		
8	156.40	210.40	465.00	387.70	1195.80	1567.60	1527.30	718.60	137.50	406.60	438.00	343.60		
9	162.00	228.00	492.80	358.00	1198.60	1573.80	1524.20	676.20	150.10	432.00	427.00	347.20		
10	166.90	236.80	512.20	322.90	1201.40	1573.80	1511.80	638.80	176.00	442.00	429.00	342.70		
11	178.80	208.80	496.50	295.90	1207.00	1567.60	1493.20	605.20	183.70	385.90	435.00	337.30		
12	203.30	190.00	470.50	298.60	1226.60	1567.60	1480.80	580.00	183.00	335.50	438.00	349.00		
13	214.40	176.70	435.00	327.40	1257.40	1570.70	1452.90	553.80	191.40	321.10	442.00	359.80		
14	225.60	179.50	409.30	357.10	1291.00	1576.90	1413.00	529.10	199.80	318.40	445.00	369.70		
15	230.40	181.60	346.30	386.80	1314.00	1580.00	1389.00	505.10	216.00	316.60	441.00	367.00		
16	220.00	186.50	326.50	421.00	1341.00	1583.10	1362.00	488.00	262.40	313.90	436.00	356.20		
17	208.80	199.10	307.60	495.60	1350.00	1583.10	1341.00	462.30	290.50	309.40	437.00	328.30		
18	193.50	213.60	298.60	560.40	1365.00	1580.00	1332.00	437.00	309.40	308.50	445.00	300.40		
19	179.50	228.80	320.20	637.40	1392.00	1573.80	1314.00	404.80	298.60	313.00	448.00	268.90		
20	169.00	244.00	341.80	705.00	1419.00	1573.80	1293.80	374.20	280.60	321.10	451.00	227.20		
21	157.10	255.20	362.50	740.70	1440.50	1567.60	1263.00	345.40	265.60	334.60	455.00	188.60		
22	147.30	258.40	376.00	776.60	1456.00	1564.50	1240.60	314.80	266.40	340.90	459.00	160.60		
23	139.60	257.60	360.70	809.00	1471.50	1558.30	1209.80	286.00	270.70	347.20	462.30	154.30		
24	131.90	236.80	344.50	819.00	1487.00	1564.50	1181.80	256.80	300.40	351.70	461.00	148.70		
25	124.90	216.00	327.40	833.00	1493.20	1558.30	1148.20	232.00	305.80	353.50	457.00	144.50		
26	120.00	196.30	307.60	831.00	1502.50	1552.10	1148.20	218.40	302.20	354.40	450.00	140.30		
27	138.20	185.10	281.50	829.00	1508.70	1552.10	1148.20	208.00	296.80	350.80	447.00	138.20		
28	138.20	199.10	290.50	831.00	1511.80	1552.10	1148.20	197.70	291.40	363.40	450.00	134.70		
29	122.10	228.80	336.40	833.00	1518.00	1552.10	1148.20	187.20	300.40	394.00	415.60	133.30		
30	109.40	287.80	365.20	839.00	1542.80	1545.90	1148.20	178.10	314.80	410.20		134.00		
31		367.90		841.00	1545.90		1148.20		335.50	434.00		133.30		
Total	4806.10	6485.80	11701.60	17083.50	40706.00	46928.80	42133.10	15897.20	7113.90	10909.00	12975.30	8681.40	225421.70	CMSDAY
Mean	160.20	209.20	390.10	551.10	1313.10	1564.30	1359.10	529.90	229.50	351.90	447.40	280.00	615.90	CMS
Max	230.40	367.90	512.20	841.00	1545.90	1583.10	1542.80	1116.20	335.50	442.00	471.80	437.00	1583.10	CMS
Min	109.40	128.40	281.50	295.90	855.20	1542.80	1148.20	178.10	122.80	308.50	415.60	133.30	109.40	CMS
Runoff	415.25	560.37	1011.02	1476.01	3517.00	4054.65	3640.30	1373.52	614.64	942.54	1121.07	750.07	19476.44	MCM

Momentary Peak 1586.20 CMS. at 33.52 m. (MSL.) at 22.00 Hours , on Sep 15 , 2011

Runoff Yield 20.31 Liters/Second/Square KM. Momentary Peak Yield 52.302 Liters/Second/Square KM.

WATER YEAR : 2011

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.

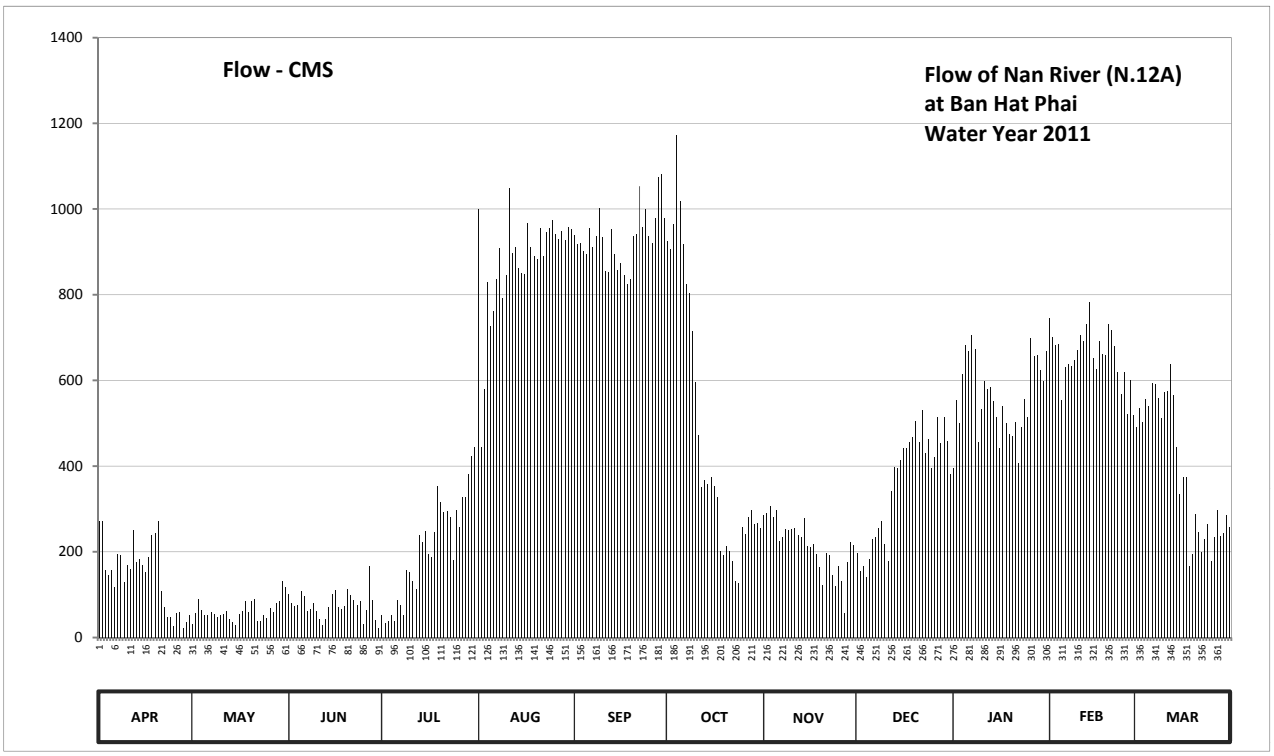
Ban Hat Phai **Amphoe** Tha Pla **Changwat** Uttaradit

Drainge Area	15,579 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+69.000 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank in front of gage observer's house. **Elevation** +84.000 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings
Period of Available Gage Records	1966 to date
Rating Operation	
Period of Rating	1966 to date
Rated by Flot	-
Rated by Current Meter	1966 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Flow regulated by Sirikit Dam reservoir about 6 kilometers above gage site. Stage-discharge relation defined by 25 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	71.85	70.30	70.84	70.49	75.02	74.79	74.73	71.92	71.42	72.48	74.02	72.95	
2	71.85	70.54	70.69	70.32	72.73	74.71	74.66	71.94	71.17	73.23	73.84	73.15	
3	71.18	70.76	70.65	70.39	73.34	74.72	74.89	72.04	71.24	72.99	73.77	73.00	
4	71.12	70.59	70.67	70.50	74.36	74.64	75.64	71.89	71.09	73.49	73.78	73.24	
5	71.18	70.50	70.88	70.39	73.95	74.62	75.09	71.98	71.33	73.77	73.23	73.17	
6	70.94	70.50	70.81	70.75	74.09	74.85	74.71	71.58	71.61	73.71	73.55	73.40	
7	71.41	70.55	70.57	70.66	74.38	74.68	74.34	71.64	71.64	73.86	73.58	73.39	
8	71.39	70.51	70.60	70.50	74.67	74.78	74.25	71.74	71.75	73.73	73.56	73.25	
9	71.02	70.46	70.69	71.19	74.21	75.03	73.90	71.73	71.84	72.78	73.62	73.04	
10	71.25	70.50	70.56	71.16	74.42	74.77	73.41	71.74	71.54	73.14	73.72	73.31	
11	71.20	70.51	70.42	71.04	75.20	74.46	72.86	71.75	71.31	73.42	73.86	73.32	
12	71.73	70.56	70.29	70.91	74.63	74.45	72.26	71.66	72.22	73.34	73.81	73.58	
13	71.30	70.42	70.42	71.66	74.68	74.84	72.35	71.63	72.50	73.36	73.96	73.28	
14	71.33	70.36	70.63	71.57	74.49	74.62	72.30	71.88	72.48	73.22	74.17	72.72	
15	71.25	70.27	70.84	71.71	74.44	74.47	72.38	71.51	72.58	73.05	73.64	72.18	
16	71.16	70.51	70.90	71.40	74.43	74.53	72.28	71.50	72.71	72.71	73.53	72.38	
17	71.37	70.56	70.63	71.36	74.90	74.42	72.14	71.54	72.71	73.17	73.81	72.38	
18	71.66	70.72	70.60	71.70	74.68	74.34	71.45	71.41	72.78	72.99	73.68	71.24	
19	71.69	70.55	70.65	72.28	74.60	74.38	71.39	71.23	72.84	72.87	73.67	71.41	
20	71.84	70.72	70.92	72.08	74.57	74.78	71.52	70.98	73.01	72.85	73.96	71.93	
21	70.89	70.76	70.82	71.96	74.85	74.80	71.44	71.42	72.78	73.00	73.91	71.70	
22	70.63	70.37	70.74	71.97	74.60	75.22	71.31	71.39	73.13	72.54	73.76	71.43	
23	70.46	70.39	70.67	71.89	74.82	74.86	71.03	71.11	72.66	72.95	73.50	71.61	
24	70.45	70.50	70.72	71.32	74.85	75.02	71.01	70.96	72.81	73.24	73.29	71.81	
25	70.24	70.44	70.30	71.99	74.92	74.78	71.77	71.24	72.48	73.05	73.50	71.31	
26	70.54	70.62	70.59	71.77	74.80	74.72	71.67	71.04	72.61	73.83	73.09	71.63	
27	70.55	70.55	71.24	72.15	74.75	74.94	71.89	70.54	73.05	73.66	73.43	71.98	
28	70.21	70.70	70.75	72.15	74.83	75.30	71.99	71.29	72.77	73.67	73.08	71.65	
29	70.35	70.73	70.40	72.41	74.74	75.32	71.81	71.57	73.05	73.52	73.02	71.69	
30	70.49	71.04	70.21	72.62	74.86	74.94	71.82	71.53	72.79	73.42		71.92	
31		70.94		72.72	74.84		71.75		72.42	73.71		71.77	
Mean	71.08	70.56	70.66	71.45	74.54	74.76	72.71	71.51	72.27	73.25	73.63	72.41	
Max	71.85	71.04	71.24	72.72	75.20	75.32	75.64	72.04	73.13	73.86	74.17	73.58	75.64
Min	70.21	70.27	70.21	70.32	72.73	74.34	71.01	70.54	71.09	72.48	73.02	71.24	70.21

Annual Max Momentary Gage Height	75.85	m. (MSL.) ,	at 12.00 Hours , on Aug 1 , 2011		
Zero Gage at Bottom Elevation	69.00	m. (MSL.) ,	River Bed	67.27	m. (MSL)
Left Bank Elevation	82.53	m. (MSL.) ,			
Right Bank Elevation	83.73	m. (MSL.) ,	Drainage Area	15579	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	273.00	31.00	102.00	51.70	999.40	939.40	923.80	285.60	197.40	394.00	745.00	491.50		
2	273.00	58.20	79.50	32.80	445.30	918.60	905.60	289.20	154.90	553.20	700.00	535.00		
3	156.60	90.00	73.50	39.10	579.60	921.20	965.40	307.60	166.80	499.90	682.80	502.00		
4	146.40	64.70	76.50	53.00	830.00	900.40	1171.60	280.20	141.30	615.60	685.20	555.60		
5	156.60	53.00	108.00	39.10	727.50	895.20	1018.30	296.40	182.10	682.80	553.20	539.40		
6	117.00	53.00	97.50	88.50	762.50	955.00	918.60	224.60	229.80	668.40	630.00	594.00		
7	195.70	59.50	62.10	75.00	835.00	910.80	825.00	235.20	235.20	705.00	637.20	591.60		
8	192.30	54.30	66.00	53.00	908.20	936.80	802.50	253.20	255.00	673.20	632.40	558.00		
9	129.40	47.80	79.50	158.30	792.50	1002.10	715.00	251.40	271.20	455.80	646.80	510.80		
10	168.50	53.00	60.80	153.20	845.00	934.20	596.40	253.20	217.80	532.80	670.80	572.40		
11	160.00	54.30	42.60	132.80	1048.00	855.00	472.60	255.00	178.70	598.80	705.00	574.80		
12	251.40	60.80	30.10	112.50	897.80	852.50	350.00	238.80	342.00	579.60	692.50	637.20		
13	177.00	42.60	42.60	238.80	910.80	952.40	368.00	233.40	398.00	584.40	730.00	565.20		
14	182.10	36.40	70.50	222.90	862.50	895.20	358.00	278.40	394.00	550.80	782.50	443.20		
15	168.50	28.30	102.00	247.80	850.00	857.50	374.00	212.70	414.00	513.00	651.60	334.20		
16	153.20	54.30	111.00	194.00	847.50	872.50	354.00	211.00	441.10	441.10	625.20	374.00		
17	188.90	60.80	70.50	187.20	968.00	845.00	326.60	217.80	441.10	539.40	692.50	374.00		
18	238.80	84.00	66.00	246.00	910.80	825.00	202.50	195.70	455.80	499.90	661.20	166.80		
19	244.20	59.50	73.50	354.00	890.00	835.00	192.30	165.10	468.40	474.70	658.80	195.70		
20	271.20	84.00	114.00	315.20	882.50	936.80	214.40	123.00	504.20	470.50	730.00	287.40		
21	109.50	90.00	99.00	292.80	955.00	942.00	200.80	197.40	455.80	502.00	717.50	246.00		
22	70.50	37.30	87.00	294.60	890.00	1053.40	178.70	192.30	530.60	406.00	680.40	199.10		
23	47.80	39.10	76.50	280.20	947.20	957.60	131.10	144.70	430.60	491.50	618.00	229.80		
24	46.50	53.00	84.00	180.40	955.00	999.40	127.70	120.00	462.10	555.60	567.60	265.80		
25	25.60	45.20	31.00	298.20	973.20	936.80	258.60	166.80	394.00	513.00	618.00	178.70		
26	58.20	69.00	64.70	258.60	942.00	921.20	240.60	132.80	420.10	697.50	521.80	233.40		
27	59.50	59.50	166.80	328.50	929.00	978.40	280.20	58.20	513.00	656.40	601.20	296.40		
28	22.90	81.00	88.50	328.50	949.80	1075.00	298.20	175.30	453.70	658.80	519.60	237.00		
29	35.50	85.50	40.00	380.00	926.40	1080.40	265.80	222.90	513.00	622.80	506.40	244.20		
30	51.70	132.80	22.90	422.20	957.60	978.40	267.60	216.10	457.90	598.80		285.60		
31		117.00		443.20	952.40		255.00		382.00	668.40		258.60		
Total	4371.50	1938.90	2288.60	6502.10	27170.50	27963.20	14558.90	6434.00	11101.60	17403.70	18863.20	12077.40	150673.60	CMSDAY
Mean	145.70	62.50	76.30	209.70	876.50	932.10	469.60	214.50	358.10	561.40	650.50	389.60	411.70	CMS
Max	273.00	132.80	166.80	443.20	1048.00	1080.40	1171.60	307.60	530.60	705.00	782.50	637.20	1171.60	CMS
Min	22.90	28.30	22.90	32.80	445.30	825.00	127.70	58.20	141.30	394.00	506.40	166.80	22.90	CMS
Runoff	377.70	167.52	197.74	561.78	2347.53	2416.02	1257.89	555.90	959.18	1503.68	1629.78	1043.49	13018.20	MCM

Momentary Peak 1232.50 CMS. at 75.85 m. (MSL.) at 12.00 Hours , on Aug 1 , 2011

Runoff Yield 26.43 Liters/Second/Square KM. Momentary Peak Yield 79.113 Liters/Second/Square KM.

WATER YEAR : 2011

NAN RIVER BASIN

Nan River at Ban Bun Nak , Nan (N.13A)

Lat 18 - 33 - 12 N Long 100 - 46 - 03 E

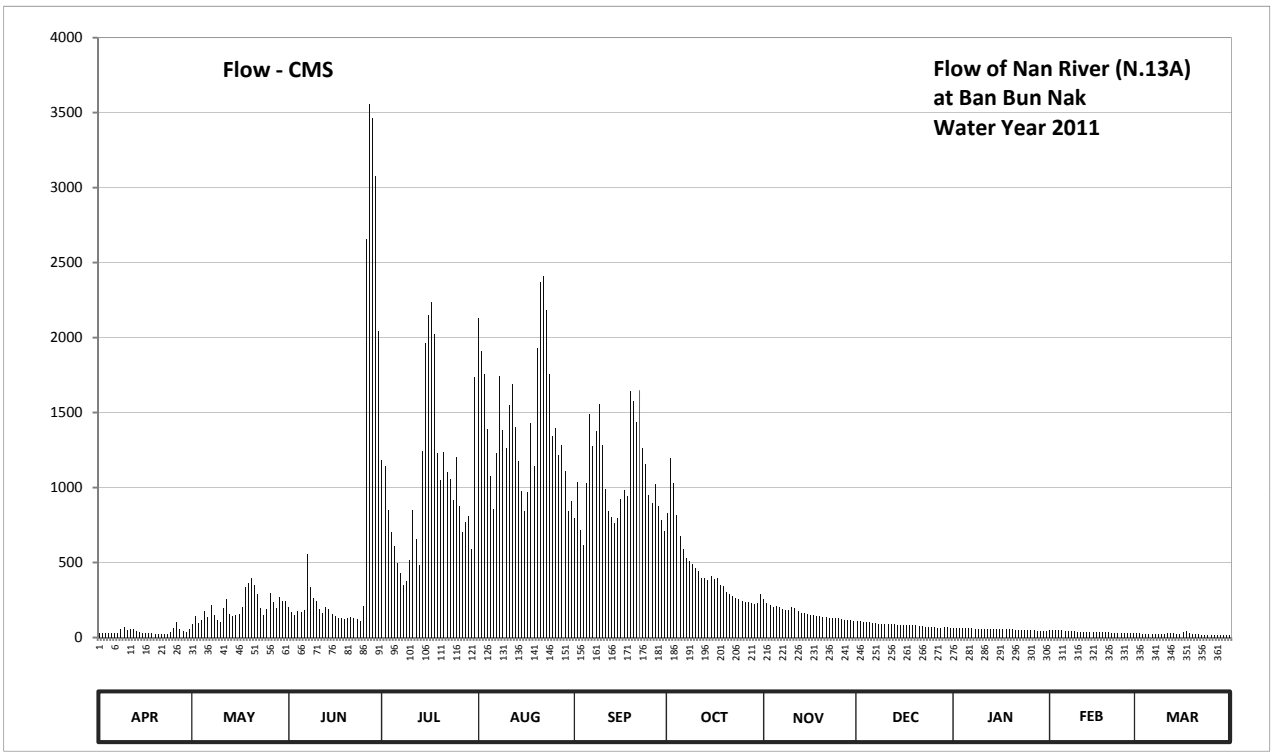
Location : on right bank about 2 kilometers upstream from Station N.13

	Ban Bun Nak	**Amphoe** Wiang Sa	**Changwat** Nan		
Drainge Area	8,706 sq.km.				
Type of Gage	Staff gage.				
Zero Gage at Bottom	+177.400 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On right bank at the abutment of the bridge.		**Elevation** +192.700 m. (MSL.)		
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.				
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings				
Period of Available Gage Records	1987 to date				
Rating Operation					
Period of Rating	1987 to date				
Rated by Flot	-				
Rated by Current Meter	1987 to date				
Stability of Channel Regimes	Fairly Stable because of backwater effect.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records good. Stage-discharge relation defined by 48 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	177.94	178.28	178.87	182.30	184.74	181.18	181.27	179.14	178.39	178.15	178.03	177.90	
2	177.93	178.58	178.72	182.19	184.21	181.89	182.35	179.00	178.38	178.14	178.03	177.90	
3	177.92	178.33	178.61	181.33	183.82	180.93	181.87	178.93	178.37	178.14	178.05	177.89	
4	177.91	178.42	178.73	180.87	182.87	180.60	181.23	178.89	178.37	178.12	178.03	177.89	
5	177.90	178.73	178.72	180.56	182.00	181.87	180.79	178.91	178.36	178.12	178.03	177.88	
6	177.91	178.53	178.76	180.16	181.37	183.15	180.49	178.86	178.33	178.13	178.02	177.88	
7	177.90	178.93	180.37	179.89	182.43	182.57	180.28	178.80	178.31	178.12	178.00	177.88	
8	178.09	178.59	179.49	179.55	183.80	182.84	180.19	178.78	178.30	178.11	177.99	177.87	
9	178.17	178.42	179.16	179.67	182.86	183.33	180.12	178.76	178.30	178.09	177.99	177.87	
10	178.03	178.37	179.06	180.22	182.53	182.59	180.03	178.89	178.30	178.10	177.98	177.87	
11	178.08	178.83	178.81	181.33	183.30	181.76	179.94	178.85	178.30	178.09	177.97	177.91	
12	178.07	179.13	178.66	180.72	183.66	181.32	179.74	178.74	178.30	178.09	177.96	177.92	
13	178.01	178.63	178.87	180.10	182.92	181.19	179.75	178.69	178.29	178.09	177.97	177.90	
14	177.96	178.57	178.80	182.48	182.28	181.07	179.70	178.67	178.27	178.10	177.98	177.88	
15	177.94	178.60	178.65	184.34	181.72	181.17	179.82	178.64	178.26	178.10	177.96	177.89	
16	177.92	178.63	178.57	184.78	181.31	181.56	179.73	178.61	178.25	178.09	177.97	177.96	
17	177.91	178.88	178.51	184.99	181.69	181.74	179.74	178.60	178.24	178.09	177.96	178.01	
18	177.90	179.50	178.48	184.48	182.98	181.62	179.57	178.58	178.24	178.10	177.96	177.94	
19	177.89	179.60	178.47	182.43	182.19	183.54	179.52	178.57	178.23	178.08	177.95	177.89	
20	177.88	179.76	178.51	181.93	184.25	183.37	179.35	178.55	178.23	178.08	177.95	177.88	
21	177.88	179.54	178.53	182.46	185.29	183.00	179.28	178.53	178.22	178.06	177.93	177.85	
22	177.87	179.29	178.51	182.08	185.38	183.56	179.22	178.51	178.20	178.05	177.93	177.84	
23	177.86	178.84	178.46	181.94	184.86	182.53	179.17	178.49	178.19	178.04	177.92	177.84	
24	177.95	178.61	178.39	181.55	183.82	182.23	179.12	178.49	178.19	178.04	177.91	177.83	
25	178.15	178.81	178.90	182.37	182.75	181.65	179.06	178.48	178.18	178.03	177.91	177.82	
26	178.35	179.33	185.93	181.41	182.89	181.49	179.04	178.46	178.17	178.03	177.91	177.81	
27	178.10	179.02	187.80	180.88	182.41	181.85	179.02	178.44	178.15	178.03	177.90	177.81	
28	177.99	178.85	187.61	181.10	182.59	181.41	179.01	178.43	178.15	178.02	177.90	177.81	
29	177.97	179.19	186.84	181.22	182.09	181.14	178.97	178.42	178.16	178.02	177.89	177.81	
30	178.07	179.06	184.53	180.49	181.32	180.89	179.00	178.41	178.16	178.01		177.82	
31		179.05		183.77	181.52		179.29		178.15	178.01		177.84	
Mean	177.98	178.87	180.08	181.73	182.96	181.97	179.86	178.67	178.26	178.08	177.96	177.87	
Max	178.35	179.76	187.80	184.99	185.38	183.56	182.35	179.14	178.39	178.15	178.05	178.01	187.80
Min	177.86	178.28	178.39	179.55	181.31	180.60	178.97	178.41	178.15	178.01	177.89	177.81	177.81

Annual Max Momentary Gage Height	187.87	m. (MSL.) ,	at 03.00 Hours , on Jun 27 , 2011		
Zero Gage at Bottom Elevation	177.40	m. (MSL.) ,	River Bed	174.72	m. (MSL)
Left Bank Elevation	190.28	m. (MSL.) ,			
Right Bank Elevation	192.58	m. (MSL.) ,	Drainage Area	8706	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	32.40	88.40	202.00	1180.00	2129.50	798.50	827.75	258.40	109.10	66.00	46.80	26.00		
2	30.80	145.20	172.00	1141.50	1909.10	1036.50	1197.50	229.00	107.20	64.40	46.80	26.00		
3	29.20	97.70	150.90	847.25	1753.00	719.00	1029.50	214.30	105.30	64.40	50.00	24.70		
4	27.60	114.80	174.00	701.00	1386.90	620.00	814.75	206.00	105.30	61.20	46.80	24.70		
5	26.00	174.00	172.00	608.40	1075.00	1029.50	677.00	210.10	103.40	61.20	46.80	23.40		
6	27.60	135.70	180.00	499.60	860.25	1491.25	588.10	200.00	97.70	62.80	45.20	23.40		
7	26.00	214.30	554.20	430.50	1225.95	1277.05	530.80	188.00	93.90	61.20	42.00	23.40		
8	56.40	147.10	335.25	348.75	1745.00	1375.80	507.40	184.00	92.00	59.60	40.40	22.10		
9	69.20	114.80	262.60	376.80	1383.20	1558.75	489.20	180.00	92.00	56.40	40.40	22.10		
10	46.80	105.30	241.60	515.20	1262.45	1284.35	465.80	206.00	92.00	58.00	38.80	22.10		
11	54.80	194.00	190.00	847.25	1547.50	991.00	443.00	198.00	92.00	56.40	37.20	27.60		
12	53.20	256.30	160.40	656.00	1689.00	844.00	393.60	176.00	92.00	56.40	35.60	29.20		
13	43.60	154.70	202.00	484.00	1405.40	801.75	396.00	166.10	90.20	56.40	37.20	26.00		
14	35.60	143.30	188.00	1244.20	1173.00	762.75	384.00	162.30	86.60	58.00	38.80	23.40		
15	32.40	149.00	158.50	1962.40	977.00	795.25	413.00	156.60	84.80	58.00	35.60	24.70		
16	29.20	154.70	143.30	2146.50	840.75	922.00	391.20	150.90	83.00	56.40	37.20	35.60		
17	27.60	204.00	131.90	2235.75	966.50	984.00	393.60	149.00	81.20	56.40	35.60	43.60		
18	26.00	337.50	126.20	2020.20	1427.60	942.00	353.25	145.20	81.20	58.00	35.60	32.40		
19	24.70	360.00	124.30	1225.95	1141.50	1641.00	342.00	143.30	79.40	54.80	34.00	24.70		
20	23.40	398.40	131.90	1050.50	1925.50	1573.75	304.00	139.50	79.40	54.80	34.00	23.40		
21	23.40	346.50	135.70	1236.90	2370.50	1435.00	288.60	135.70	77.60	51.60	30.80	19.50		
22	22.10	290.80	131.90	1103.00	2411.00	1649.00	275.40	131.90	74.00	50.00	30.80	18.20		
23	20.80	196.00	122.40	1054.00	2180.50	1262.45	264.70	128.10	72.40	48.40	29.20	18.20		
24	34.00	150.90	109.10	918.75	1753.00	1155.50	254.20	128.10	72.40	48.40	27.60	16.90		
25	66.00	190.00	208.00	1204.50	1342.75	952.50	241.60	126.20	70.80	46.80	27.60	15.60		
26	101.50	299.60	2658.50	873.25	1394.30	899.25	237.40	122.40	69.20	46.80	27.60	14.30		
27	58.00	233.20	3558.00	704.00	1218.65	1022.50	233.20	118.60	66.00	46.80	26.00	14.30		
28	40.40	198.00	3463.00	772.50	1284.35	873.25	231.10	116.70	66.00	45.20	26.00	14.30		
29	37.20	268.90	3079.60	811.50	1106.50	785.50	222.70	114.80	67.60	45.20	24.70	14.30		
30	53.20	241.60	2040.95	588.10	844.00	707.00	229.00	112.90	67.60	43.60		15.60		
31		239.50		1733.00	909.00		290.80		66.00	43.60		18.20		
Total	1179.10	6344.20	19508.20	31521.25	44638.65	32190.15	13710.15	4898.10	2617.30	1697.20	1055.10	707.90	160067.31	CMSDAY
Mean	39.30	204.65	650.27	1016.81	1439.96	1073.01	442.26	163.27	84.43	54.75	36.38	22.84	437.34	CMS
Max	101.50	398.40	3558.00	2235.75	2411.00	1649.00	1197.50	258.40	109.10	66.00	50.00	43.60	3558.00	CMS
Min	20.80	88.40	109.10	348.75	840.75	620.00	222.70	112.90	66.00	43.60	24.70	14.30	14.30	CMS
Runoff	101.87	548.14	1685.51	2723.44	3856.78	2781.23	1184.56	423.20	226.14	146.64	91.16	61.16	13829.82	MCM

Momentary Peak 3593.70 CMS. at 187.87 m. (MSL.) at 03.00 Hours , on Jun 27 , 2011

Runoff Yield 50.23 Liters/Second/Square KM. Momentary Peak Yield 412.784 Liters/Second/Square KM.

WATER YEAR : 2011

NAN RIVER BASIN

Nan River at Ban Ngiu Ngam , Nan (N.13B)

Lat 18 - 19 - 49 N Long 100 - 54 - 00 E

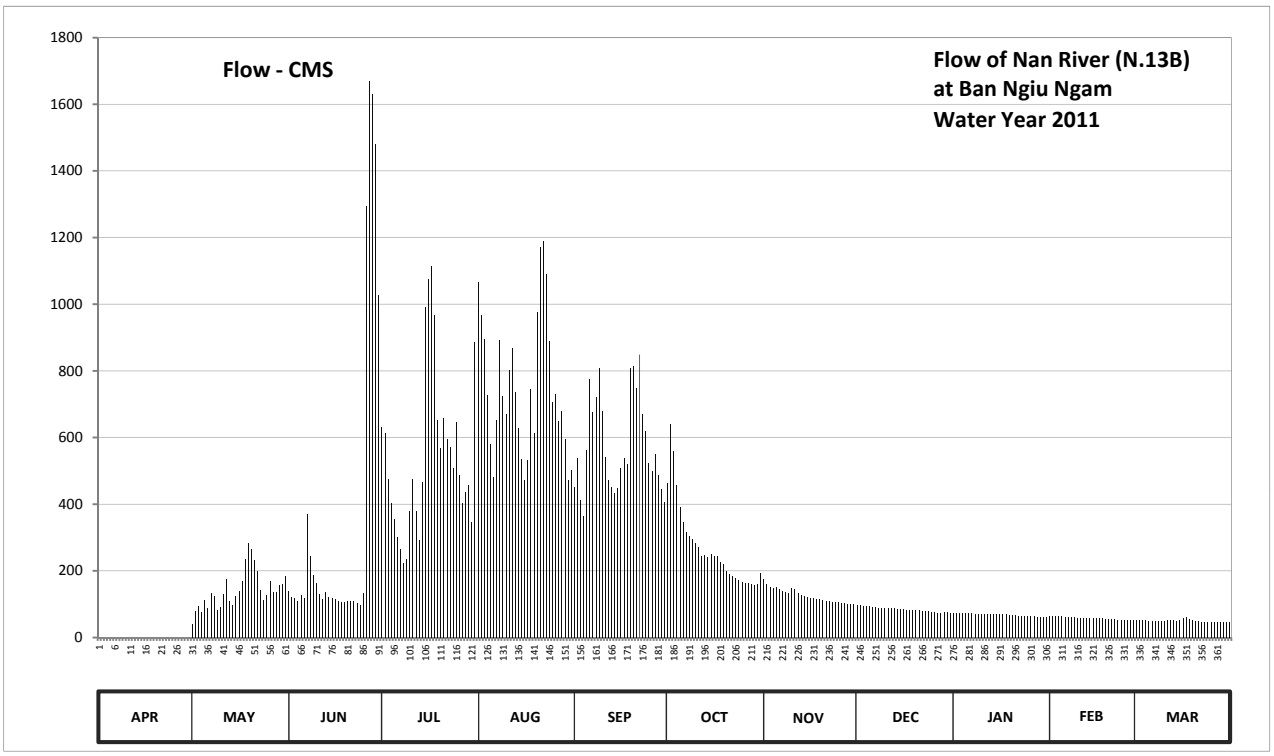
Location : on right bank at Ban Ngiu Ngam.

	Ban Ngiu Ngam	**Amphoe** Wiang Sa	**Changwat** Nan		
Drainge Area	10,174 sq.km.				
Type of Gage	Staff gage.				
Zero Gage at Bottom	+173.852 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On right bank at the abutment of the bridge.		**Elevation** +187.055 m. (MSL.)		
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.				
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings				
Period of Available Gage Records	2011 to date				
Rating Operation					
Period of Rating	2011 to date				
Rated by Flot	-				
Rated by Current Meter	2011 to date				
Stability of Channel Regimes	Stable.				
Overbank Flow Conditions	Overbank flow starts at elevation +183.450 m.(MSL.) and is including overbank flow.				
General Description	Records good. Stage-discharge relation defined by 10 discharge measurements made in 2012.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	3.40	177.47	178.51	182.00	184.44	180.88	180.97	178.84	178.09	177.85	177.73	177.60	
2	3.34	177.90	178.35	181.89	183.91	181.43	182.05	178.70	178.08	177.84	177.73	177.60	
3	3.29	178.06	178.30	181.03	183.52	180.63	181.57	178.63	178.07	177.84	177.75	177.59	
4	3.28	177.88	178.23	180.57	182.57	180.32	180.93	178.59	178.07	177.82	177.73	177.59	
5	3.27	178.25	178.38	180.26	181.70	181.58	180.49	178.61	178.06	177.82	177.73	177.58	
6	3.19	177.99	178.30	179.86	181.07	182.85	180.19	178.56	178.03	177.83	177.72	177.58	
7	3.18	178.46	180.35	179.59	182.13	182.27	179.98	178.50	178.01	177.82	177.70	177.58	
8	3.30	178.36	179.43	179.25	183.50	182.54	179.89	178.48	178.00	177.81	177.69	177.57	
9	3.74	177.92	178.95	179.37	182.56	183.03	179.82	178.46	178.00	177.79	177.69	177.57	
10	3.52	178.04	178.73	180.41	182.23	182.29	179.73	178.59	178.00	177.80	177.68	177.57	
11	3.47	178.42	178.43	181.03	183.00	181.46	179.64	178.55	178.00	177.79	177.67	177.61	
12	3.39	178.85	178.26	180.42	183.36	181.02	179.44	178.44	178.00	177.79	177.66	177.62	
13	3.51	178.22	178.48	179.80	182.62	180.89	179.45	178.39	177.99	177.79	177.67	177.60	
14	3.51	178.08	178.33	180.98	181.98	180.77	179.40	178.37	177.97	177.80	177.68	177.58	
15	3.55	178.37	178.30	184.04	181.42	180.87	179.49	178.34	177.96	177.80	177.66	177.59	
16	3.39	178.51	178.27	184.48	181.01	181.26	179.43	178.31	177.95	177.79	177.67	177.66	
17	3.30	178.79	178.21	184.69	181.39	181.44	179.44	178.30	177.94	177.79	177.66	177.71	
18	3.26	179.36	178.18	183.91	182.68	181.32	179.28	178.28	177.94	177.80	177.66	177.64	
19	3.24	179.72	178.17	182.13	181.89	183.04	179.22	178.27	177.93	177.78	177.65	177.59	
20	3.26	179.59	178.21	181.63	183.95	183.07	179.05	178.25	177.93	177.78	177.65	177.58	
21	3.21	179.33	178.23	182.16	184.99	182.70	178.98	178.23	177.92	177.76	177.63	177.55	
22	3.20	179.05	178.21	181.78	185.08	183.26	178.92	178.21	177.90	177.75	177.63	177.54	
23	3.25	178.53	178.16	181.64	184.56	182.23	178.87	178.19	177.89	177.74	177.62	177.54	
24	3.37	178.24	178.09	181.25	183.49	181.93	178.82	178.19	177.89	177.74	177.61	177.53	
25	3.61	178.40	178.46	182.09	182.45	181.35	178.76	178.18	177.88	177.73	177.61	177.52	
26	3.72	178.80	185.63	181.11	182.59	181.19	178.74	178.16	177.87	177.73	177.61	177.51	
27	3.68	178.49	187.50	180.58	182.11	181.52	178.72	178.14	177.85	177.73	177.60	177.51	
28	3.64	178.47	187.31	180.80	182.29	181.11	178.71	178.13	177.85	177.72	177.60	177.51	
29	3.59	178.69	186.57	180.92	181.79	180.84	178.67	178.12	177.86	177.72	177.59	177.51	
30	3.67	178.71	184.23	180.19	181.02	180.59	178.70	178.11	177.86	177.71		177.52	
31		178.93		183.47	181.22		178.99		177.85	177.71		177.54	
Mean	3.41	178.51	179.76	181.40	182.66	181.66	179.56	178.37	177.96	177.78	177.66	177.57	
Max	3.74	179.72	187.50	184.69	185.08	183.26	182.05	178.84	178.09	177.85	177.75	177.71	187.50
Min	3.18	177.47	178.09	179.25	181.01	180.32	178.67	178.11	177.85	177.71	177.59	177.51	3.18

Annual Max Momentary Gage Height	187.57	m. (MSL.) ,	at 03.00 Hours , on Jun 27 , 2011		
Zero Gage at Bottom Elevation	173.85	m. (MSL.) ,	River Bed	174.20	m. (MSL)
Left Bank Elevation	185.79	m. (MSL.) ,			
Right Bank Elevation	183.44	m. (MSL.) ,	Drainage Area	10174	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	41.60	139.55	630.00	1066.60	450.40	464.35	175.60	97.55	74.75	63.70	52.00		
2	0.00	79.50	123.00	611.85	967.35	536.80	638.50	160.00	96.60	73.80	63.70	52.00		
3	0.00	94.70	118.00	473.65	895.60	411.65	559.20	152.30	95.65	73.80	65.50	51.20		
4	0.00	77.60	111.00	402.50	726.90	365.40	458.15	147.95	95.65	71.90	63.70	51.20		
5	0.00	113.00	126.00	356.70	580.50	560.80	390.50	150.10	94.70	71.90	63.70	50.40		
6	0.00	88.05	118.00	301.10	479.85	775.75	346.60	144.80	91.85	72.85	62.80	50.40		
7	0.00	134.30	369.75	264.70	652.10	675.90	317.30	138.50	89.95	71.90	61.00	50.40		
8	0.00	124.00	243.90	222.75	892.00	721.80	305.15	136.40	89.00	70.95	60.10	49.60		
9	0.00	81.40	188.25	236.55	725.20	807.40	295.70	134.30	89.00	69.10	60.10	49.60		
10	0.00	92.80	163.30	378.50	669.10	679.30	283.55	147.95	89.00	70.00	59.20	49.60		
11	0.00	130.10	131.15	473.65	802.00	541.60	271.40	143.75	89.00	69.10	58.30	52.90		
12	0.00	176.75	114.00	380.00	866.80	472.10	245.20	132.20	89.00	69.10	57.40	53.80		
13	0.00	110.00	136.40	293.00	735.50	451.95	246.50	127.00	88.05	69.10	58.30	52.00		
14	0.00	96.60	121.00	465.90	626.70	433.35	240.00	125.00	86.15	70.00	59.20	50.40		
15	0.00	125.00	118.00	991.40	535.20	448.85	251.70	122.00	85.20	70.00	57.40	51.20		
16	0.00	139.55	115.00	1074.20	470.55	509.60	243.90	119.00	84.25	69.10	58.30	57.40		
17	0.00	169.90	109.00	1114.10	530.40	538.40	245.20	118.00	83.30	69.10	57.40	61.90		
18	0.00	235.40	106.10	967.35	746.00	519.20	226.20	116.00	83.30	70.00	57.40	55.60		
19	0.00	282.20	105.15	652.10	611.85	809.20	219.30	115.00	82.35	68.20	56.50	51.20		
20	0.00	264.70	109.00	568.95	974.75	814.60	199.75	113.00	82.35	68.20	56.50	50.40		
21	0.00	231.95	111.00	657.20	1171.10	749.50	191.70	111.00	81.40	66.40	54.70	48.00		
22	0.00	199.75	109.00	593.70	1188.20	848.80	184.80	109.00	79.50	65.50	54.70	47.20		
23	0.00	141.65	104.20	570.60	1089.40	669.10	179.05	107.05	78.55	64.60	53.80	47.20		
24	0.00	112.00	97.55	508.00	890.20	618.45	173.30	107.05	78.55	64.60	52.90	46.40		
25	0.00	128.00	134.30	645.30	706.50	524.00	166.60	106.10	77.60	63.70	52.90	45.60		
26	0.00	171.00	1293.85	486.05	730.30	498.45	164.40	104.20	76.65	63.70	52.90	44.80		
27	0.00	137.45	1670.50	404.00	648.70	551.20	162.20	102.30	74.75	63.70	52.00	44.80		
28	0.00	135.35	1631.55	438.00	679.30	486.05	161.10	101.35	74.75	62.80	52.00	44.80		
29	0.00	158.90	1481.00	456.60	595.35	444.20	156.70	100.40	75.70	62.80	51.20	44.80		
30	0.00	161.10	1026.70	346.60	472.10	405.50	160.00	99.45	75.70	61.90		45.60		
31		185.95		886.60	503.20		192.85		74.75	61.90		47.20		
Total	0.00	4420.25	10525.20	16851.60	23229.30	17319.30	8340.85	3766.75	2629.80	2114.45	1677.30	1549.60	92424.40	CMSDAY
Mean	0.00	142.59	350.84	543.60	749.33	577.31	269.06	125.56	84.83	68.21	57.84	49.99	252.53	CMS
Max	0.00	282.20	1670.50	1114.10	1188.20	848.80	638.50	175.60	97.55	74.75	65.50	61.90	1670.50	CMS
Min	0.00	41.60	97.55	222.75	470.55	365.40	156.70	99.45	74.75	61.90	51.20	44.80	0.00	CMS
Runoff	0.00	381.91	909.38	1455.98	2007.01	1496.39	720.65	325.45	227.22	182.69	144.92	133.89	7985.47	MCM

Momentary Peak 1684.85 CMS. at 187.57 m. (MSL.) at 03.00 Hours , on Jun 27 , 2011

Runoff Yield 24.82 Liters/Second/Square KM. Momentary Peak Yield 165.604 Liters/Second/Square KM.

WATER YEAR : 2011

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

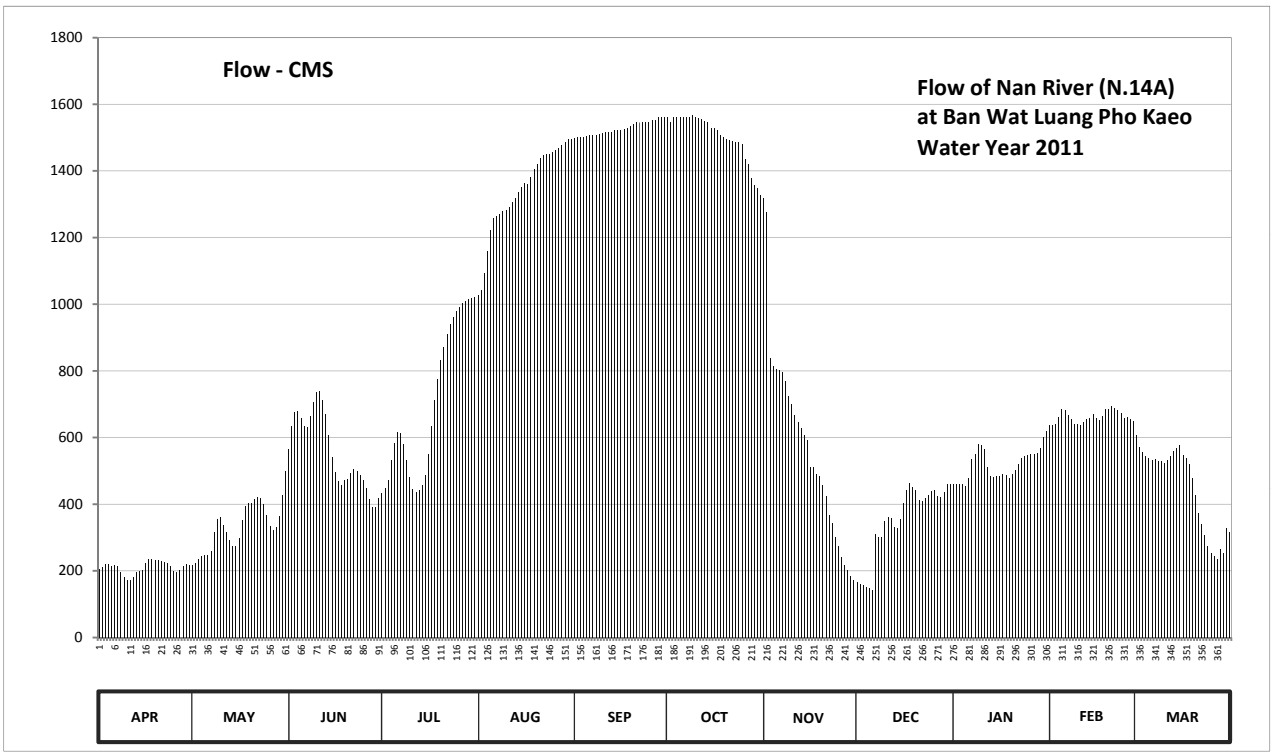
Ban Wat Luang Pho Kaeo **Amphoe** Chum Saeng **Changwat** Nakhon Sawan

Drainge Area	32,826 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+0.000 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank in front of automatic gage building. **Elevation** +32.155 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings
Period of Available Gage Records	1971 to date
Rating Operation	
Period of Rating	1973 - 1979, 1991 to date
Rated by Flot	-
Rated by Current Meter	1972 - 1980, 1991 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow
General Description	Records good. Flow effected by Naresuan Dam.
	Stage-discharge relation defined by 41 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	20.93	21.25	24.80	23.79	27.15	28.89	29.10	28.25	23.01	24.00	25.27	25.08	
2	21.06	21.36	25.25	23.90	27.21	28.90	29.05	28.10	22.75	24.00	25.27	24.84	
3	21.29	21.60	25.51	24.11	27.41	28.90	29.10	27.97	22.61	24.00	25.30	24.74	
4	21.29	21.79	25.53	24.56	27.66	28.90	29.10	27.90	22.47	24.00	25.43	24.66	
5	21.17	21.90	25.41	24.92	27.90	28.91	29.10	27.87	22.27	23.95	25.56	24.60	
6	21.24	21.86	25.25	25.14	28.03	28.92	29.10	27.86	22.09	24.15	25.54	24.56	
7	21.12	22.08	25.24	25.12	28.05	28.92	29.10	27.85	22.63	24.59	25.46	24.58	
8	20.79	22.70	25.44	24.90	28.08	28.92	29.10	27.76	22.53	24.70	25.38	24.55	
9	20.46	23.09	25.68	24.57	28.11	28.93	29.12	27.59	22.53	24.90	25.30	24.54	
10	20.25	23.12	25.84	24.19	28.12	28.94	29.10	27.50	23.02	24.87	25.30	24.50	
11	20.22	22.92	25.86	23.89	28.16	28.95	29.09	27.35	23.14	24.80	25.28	24.57	
12	20.43	22.69	25.72	23.82	28.21	28.95	29.08	27.25	23.11	24.41	25.34	24.65	
13	20.73	22.44	25.47	23.87	28.26	28.95	29.06	27.17	22.85	24.21	25.38	24.76	
14	20.82	22.24	25.09	23.98	28.32	28.97	29.05	27.07	22.83	24.19	25.40	24.83	
15	20.90	22.24	24.62	24.23	28.38	28.98	29.00	27.00	23.07	24.20	25.47	24.87	
16	21.38	22.51	24.31	24.69	28.42	28.98	29.00	26.60	23.51	24.22	25.40	24.68	
17	21.63	23.06	24.09	25.26	28.41	28.99	28.97	26.60	23.85	24.25	25.36	24.60	
18	21.61	23.43	23.97	25.71	28.48	29.00	28.92	26.49	24.04	24.24	25.45	24.49	
19	21.58	23.51	24.11	26.04	28.57	29.01	28.90	26.45	23.93	24.16	25.56	24.16	
20	21.55	23.51	24.13	26.30	28.62	29.03	28.88	26.30	23.85	24.25	25.57	23.73	
21	21.46	23.61	24.27	26.48	28.69	29.05	28.87	26.07	23.59	24.35	25.62	23.24	
22	21.43	23.68	24.36	26.66	28.72	29.05	28.86	25.65	23.57	24.49	25.58	22.95	
23	21.37	23.64	24.32	26.79	28.73	29.05	28.85	25.44	23.64	24.60	25.55	22.59	
24	21.14	23.48	24.24	26.88	28.73	29.05	28.85	25.07	23.73	24.66	25.50	22.25	
25	20.82	23.18	24.11	26.96	28.75	29.05	28.83	24.80	23.83	24.68	25.40	22.00	
26	20.78	22.87	23.91	27.00	28.77	29.07	28.67	24.42	23.85	24.70	25.42	21.80	
27	20.87	22.75	23.63	27.05	28.79	29.07	28.62	24.11	23.71	24.69	25.38	21.61	
28	21.13	22.85	23.41	27.08	28.82	29.10	28.47	23.84	23.67	24.72	25.35	22.15	
29	21.29	23.16	23.41	27.11	28.85	29.10	28.40	23.50	23.81	24.82	25.30	22.00	
30	21.19	23.73	23.65	27.12	28.88	29.10	28.37	23.23	24.00	25.04		22.83	
31		24.32		27.13	28.88		28.29		24.00	25.16		22.71	
Mean	21.06	22.79	24.69	25.46	28.33	28.99	28.90	26.44	23.27	24.45	25.42	23.81	
Max	21.63	24.32	25.86	27.13	28.88	29.10	29.12	28.25	24.04	25.16	25.62	25.08	29.12
Min	20.22	21.25	23.41	23.79	27.15	28.89	28.29	23.23	22.09	23.95	25.27	21.61	20.22

Annual Max Momentary Gage Height	29.12	m. (MSL.) ,	at 06.00 Hours , on Oct 9 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	15.00	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, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	204.30	218.90	565.00	433.90	1026.50	1498.10	1561.00	1317.50	167.00	459.00	636.20	607.00		
2	210.20	223.90	633.00	447.00	1041.50	1501.00	1545.50	1277.00	160.10	459.00	636.20	571.00		
3	220.70	234.80	675.70	472.20	1092.60	1501.00	1561.00	839.50	156.40	459.00	641.00	556.60		
4	220.70	243.40	679.10	531.40	1158.20	1501.00	1561.00	815.00	152.70	459.00	662.10	545.40		
5	215.20	248.40	658.70	583.00	1223.00	1503.90	1561.00	804.50	147.40	453.00	684.20	537.00		
6	218.40	246.60	633.00	616.00	1258.10	1506.80	1561.00	801.00	142.60	477.00	680.80	531.40		
7	213.00	260.20	631.40	613.00	1263.50	1506.80	1561.00	797.50	310.00	535.60	667.20	534.20		
8	197.90	317.00	663.80	580.00	1271.60	1506.80	1561.00	768.00	300.70	551.00	653.80	530.00		
9	182.90	356.90	705.40	532.80	1279.70	1509.70	1567.80	722.50	300.70	580.00	641.00	528.60		
10	173.40	360.20	735.20	481.80	1282.40	1512.60	1561.00	700.00	349.20	575.50	641.00	523.00		
11	172.00	339.00	739.30	445.80	1293.20	1515.50	1557.90	667.90	362.40	565.00	637.80	532.80		
12	181.60	316.00	712.60	437.40	1306.70	1515.50	1554.80	646.40	359.10	510.40	647.40	544.00		
13	195.20	292.60	668.90	443.40	1320.20	1515.50	1548.60	629.30	332.00	484.30	653.80	559.40		
14	199.30	274.60	608.50	456.60	1336.40	1521.30	1545.50	607.90	330.00	481.80	657.00	569.50		
15	202.90	274.60	539.80	486.90	1352.60	1524.20	1530.00	592.90	354.70	483.00	668.90	575.50		
16	224.80	298.90	497.30	549.60	1363.60	1524.20	1530.00	510.00	403.10	485.60	657.00	548.20		
17	236.20	353.60	469.80	634.60	1360.80	1527.10	1521.30	510.00	441.00	489.50	650.60	537.00		
18	235.30	394.30	455.40	710.80	1380.40	1530.00	1506.80	490.20	463.80	488.20	665.50	521.60		
19	233.90	403.10	472.20	776.20	1405.60	1533.10	1501.00	483.00	450.60	478.20	684.20	478.20		
20	232.50	403.10	474.60	831.00	1419.80	1539.30	1495.20	458.00	441.00	489.50	685.90	427.30		
21	228.40	414.10	492.10	870.60	1440.10	1545.50	1492.30	424.80	411.90	502.50	694.60	373.40		
22	227.10	421.80	503.80	910.80	1448.80	1545.50	1489.40	368.50	409.70	521.60	687.60	342.00		
23	224.30	417.40	498.60	940.70	1451.70	1545.50	1486.50	342.80	417.40	537.00	682.50	306.10		
24	213.90	399.80	488.20	961.40	1451.70	1545.50	1486.50	300.70	427.30	545.40	674.00	275.50		
25	199.30	366.80	472.20	980.40	1457.50	1545.50	1480.70	273.00	438.60	548.20	657.00	253.00		
26	197.50	334.00	448.20	990.00	1463.30	1551.70	1434.30	240.60	441.00	551.00	660.40	243.90		
27	201.60	322.00	416.30	1002.00	1469.10	1551.70	1419.80	217.70	425.10	549.60	653.80	235.30		
28	213.40	332.00	392.10	1009.20	1477.80	1561.00	1377.60	201.50	420.70	553.80	649.00	266.50		
29	220.70	364.60	392.10	1016.50	1486.50	1561.00	1358.00	184.70	436.20	568.00	641.00	253.00		
30	216.10	427.30	418.50	1019.00	1495.20	1561.00	1349.90	173.20	459.00	601.00		330.00		
31		498.60		1021.50	1495.20		1328.30		459.00	619.00		318.00		
Total	6312.70	10358.50	1674.80	21785.50	41573.30	45807.30	46595.70	17165.60	10870.40	16060.70	19151.50	13954.40	266376.40	CMSDAY
Mean	210.40	334.10	558.00	702.80	1341.10	1526.90	1503.10	572.20	350.70	518.10	660.40	450.10	727.80	CMS
Max	236.20	498.60	739.30	1021.50	1495.20	1561.00	1567.80	1317.50	463.80	619.00	694.60	607.00	1567.80	CMS
Min	172.00	218.90	392.10	433.90	1026.50	1498.10	1328.30	173.20	142.60	453.00	636.20	235.30	142.60	CMS
Runoff	545.42	894.97	1446.41	1882.27	3591.93	3957.75	4025.87	1483.11	939.20	1387.64	1654.69	1205.66	23014.92	MCM

Momentary Peak 1567.80 CMS. at 29.12 m. (MSL.) at 06.00 Hours , on Oct 9 , 2011

Runoff Yield 22.17 Liters/Second/Square KM. Momentary Peak Yield 47.761 Liters/Second/Square KM.

WATER YEAR : 2011

NAN RIVER BASIN

Nan River at Ban Tha Ngam , Phitsanulok (N.22A)

Lat 16 - 59 - 33 N Long 100 - 19 - 31 E

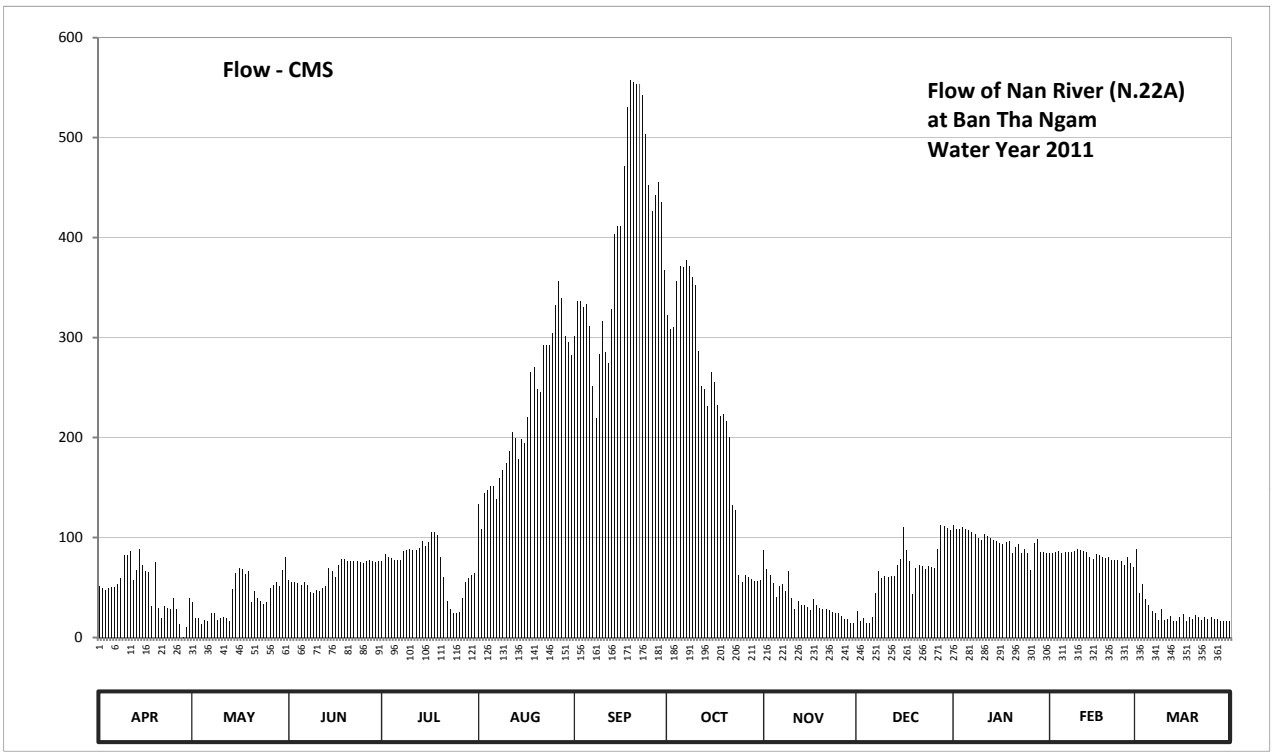
Location : on left bank at Ban Tha Ngam.

	Ban Tha Ngam	**Amphoe** Wat Bot	**Changwat** Phitsanulok
Drainge Area	4,774 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+41.630 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	Near the gage site.	**Elevation**	+52.936 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	2008 to date		
Rating Operation			
Period of Rating	2008 to date		
Rated by Flot	-		
Rated by Current Meter	2008 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	Overbank flow starts at elevation +49.590 m.(MSL.), records are channel flow only.		
General Description	Records good. Stage-discharge relation defined by 20 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	42.80	42.41	42.97	43.42	44.65	47.91	48.18	43.66	42.18	44.20	43.58	43.67	
2	42.77	42.00	42.91	43.57	44.13	48.32	48.00	43.23	41.92	44.13	43.60	42.63	
3	42.72	42.01	42.90	43.50	44.87	48.32	48.03	43.08	42.02	44.13	43.61	42.87	
4	42.76	41.83	42.88	43.48	44.92	48.26	48.52	42.88	41.88	44.17	43.63	42.48	
5	42.78	41.96	42.84	43.44	45.01	48.29	48.67	42.54	41.88	44.12	43.60	42.33	
6	42.78	41.94	42.90	43.43	45.00	48.04	48.66	42.80	42.05	44.09	43.62	42.18	
7	42.86	42.15	42.83	43.43	44.75	47.00	48.72	42.86	42.63	44.06	43.61	42.14	
8	43.02	42.13	42.67	43.63	45.17	46.37	48.67	42.69	43.19	44.02	43.61	41.96	
9	43.55	41.96	42.65	43.66	45.33	47.62	48.56	43.18	43.00	43.93	43.63	42.23	
10	43.55	42.01	42.70	43.67	45.46	48.10	48.48	42.51	43.06	43.88	43.67	41.96	
11	43.63	42.05	42.69	43.66	45.70	47.65	47.67	42.25	43.04	44.00	43.66	41.98	
12	42.96	42.00	42.77	43.65	46.08	47.46	47.01	42.44	43.06	43.96	43.64	42.06	
13	43.21	41.94	42.80	43.71	45.96	48.24	46.94	42.35	43.07	43.93	43.61	41.93	
14	43.69	42.74	43.25	43.86	45.55	48.95	46.61	42.33	43.32	43.87	43.49	41.93	
15	43.32	43.14	43.18	43.74	45.95	49.01	47.28	42.29	43.45	43.85	43.46	42.03	
16	43.18	43.26	43.04	43.83	45.86	49.01	47.08	42.21	44.17	43.82	43.56	42.12	
17	43.16	43.23	43.31	44.05	46.38	49.42	46.63	42.48	43.65	43.78	43.54	41.93	
18	42.30	43.12	43.46	44.06	47.29	49.79	46.40	42.33	43.40	43.84	43.49	42.05	
19	43.38	43.18	43.46	43.99	47.38	49.94	46.44	42.26	42.62	43.85	43.48	41.98	
20	42.26	42.40	43.41	43.50	46.95	49.93	46.30	42.25	43.25	43.60	43.49	42.08	
21	42.01	42.68	43.41	43.05	46.89	49.92	45.99	42.25	43.32	43.72	43.44	42.05	
22	42.30	42.52	43.41	42.43	47.78	49.92	44.64	42.20	43.29	43.80	43.43	41.96	
23	42.26	42.43	43.41	42.23	47.78	49.86	44.53	42.17	43.24	43.60	43.43	42.04	
24	42.23	42.36	43.39	42.15	47.77	49.62	43.08	42.14	43.29	43.69	43.41	41.98	
25	42.50	42.42	43.37	42.15	47.95	49.30	42.91	42.13	43.27	43.59	43.32	42.03	
26	42.25	42.76	43.42	42.17	48.28	49.12	43.08	42.07	43.26	43.20	43.49	41.99	
27	41.83	42.83	43.44	42.52	48.52	49.23	43.03	41.98	43.68	43.82	43.37	41.97	
28	41.11	42.90	43.42	42.92	48.35	49.32	42.98	41.97	44.22	43.91	43.28	41.93	
29	41.76	42.82	43.38	43.01	47.90	49.18	42.93	41.88	44.19	43.62	43.25	41.93	
30	42.50	43.22	43.40	43.08	47.82	48.63	42.94	41.88	44.15	43.62		41.93	
31		43.50		43.13	47.61		42.96		44.11	43.59		41.93	
Mean	42.71	42.51	43.12	43.29	46.42	48.72	46.19	42.44	43.12	43.85	43.52	42.14	
Max	43.69	43.50	43.46	44.06	48.52	49.94	48.72	43.66	44.22	44.20	43.67	43.67	49.94
Min	41.11	41.83	42.65	42.15	44.13	46.37	42.91	41.88	41.88	43.20	43.25	41.93	41.11

Annual Max Momentary Gage Height	49.95	m. (MSL.) ,	at 19.00 Hours , on Sep 19 , 2011		
Zero Gage at Bottom Elevation	41.63	m. (MSL.) ,	River Bed	40.18	m. (MSL)
Left Bank Elevation	50.18	m. (MSL.) ,			
Right Bank Elevation	49.58	m. (MSL.) ,	Drainage Area	4774	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	51.00	35.40	57.80	76.90	133.50	301.70	322.40	87.70	26.20	112.00	84.10	88.10		
2	49.80	19.00	55.40	83.60	108.80	336.00	308.00	68.30	16.20	108.80	85.00	44.20		
3	47.80	19.40	55.00	80.50	144.50	336.00	310.40	62.20	19.80	108.80	85.40	53.80		
4	49.40	13.10	54.20	79.60	147.00	330.00	356.00	54.20	14.80	110.60	86.40	38.20		
5	50.20	17.60	52.60	77.80	151.50	333.00	371.70	40.60	14.80	108.40	85.00	32.20		
6	50.20	16.90	55.00	77.30	151.00	311.20	370.60	51.00	21.00	107.00	85.90	26.20		
7	53.40	25.00	52.20	77.30	138.50	251.00	377.20	53.40	44.20	105.70	85.40	24.60		
8	59.80	24.20	45.80	86.40	159.50	219.50	371.70	46.60	66.60	103.90	85.40	17.60		
9	82.70	17.60	45.00	87.70	167.50	283.20	360.00	66.20	59.00	99.80	86.40	28.20		
10	82.70	19.40	47.00	88.10	174.00	316.00	352.00	39.40	61.40	97.60	88.10	17.60		
11	86.40	21.00	46.60	87.70	186.00	285.00	286.20	29.00	60.60	103.00	87.70	18.30		
12	57.40	19.00	49.80	87.30	205.00	274.30	251.50	36.60	61.40	101.20	86.80	21.40		
13	67.40	16.90	51.00	89.90	199.00	328.00	248.00	33.00	61.80	99.80	85.40	16.60		
14	89.00	48.60	69.20	96.70	178.50	404.00	231.50	32.20	72.40	97.10	80.10	16.60		
15	72.40	64.60	66.20	91.30	198.50	411.40	265.00	30.60	78.20	96.20	78.70	20.20		
16	66.20	69.70	60.60	95.40	194.00	411.40	255.00	27.40	110.60	94.90	83.20	23.80		
17	65.40	68.30	72.00	105.20	220.00	471.20	232.50	38.20	87.30	93.10	82.30	16.60		
18	31.00	63.80	78.70	105.70	265.50	530.40	221.00	32.20	76.00	95.80	80.10	21.00		
19	75.10	66.20	78.70	102.60	270.00	557.20	223.00	29.40	43.80	96.20	79.60	18.30		
20	29.40	35.00	76.40	80.50	248.50	555.40	216.00	29.00	69.20	85.00	80.10	22.20		
21	19.40	46.20	76.40	61.00	245.50	553.60	200.50	29.00	72.40	90.40	77.80	21.00		
22	31.00	39.80	76.40	36.20	292.80	553.60	133.00	27.00	71.10	94.00	77.30	17.60		
23	29.40	36.20	76.40	28.20	292.80	542.80	127.50	25.80	68.80	85.00	77.30	20.60		
24	28.20	33.40	75.50	25.00	292.20	503.20	62.20	24.60	71.10	89.00	76.40	18.30		
25	39.00	35.80	74.60	25.00	304.50	453.00	55.40	24.20	70.10	84.50	72.40	20.20		
26	29.00	49.40	76.90	25.80	332.00	426.80	62.20	21.80	69.70	67.00	80.10	18.70		
27	13.10	52.20	77.80	39.80	356.00	442.50	60.20	18.30	88.60	94.90	74.60	18.00		
28	0.60	55.00	76.90	55.80	339.00	456.00	58.20	18.00	112.90	98.90	70.60	16.60		
29	10.80	51.80	75.10	59.40	301.00	435.20	56.20	14.80	111.50	85.90	69.20	16.60		
30	39.00	67.90	76.00	62.20	295.40	367.30	56.60	14.80	109.80	85.90		16.60		
31		80.50		64.20	282.60		57.40		107.90	84.50		16.60		
Total	1456.20	1228.90	1931.20	2240.10	6974.60	11979.90	6859.10	1105.50	2019.20	2984.90	2356.80	766.50	41902.90	CMSDAY
Mean	48.50	39.60	64.40	72.30	225.00	399.30	221.30	36.90	65.10	96.30	81.30	24.70	114.50	CMS
Max	89.00	80.50	78.70	105.70	356.00	557.20	377.20	87.70	112.90	112.00	88.10	88.10	557.20	CMS
Min	0.60	13.10	45.00	25.00	108.80	219.50	55.40	14.80	14.80	67.00	69.20	16.60	0.60	CMS
Runoff	125.82	106.18	166.86	193.54	602.61	1035.06	592.63	95.52	174.46	257.90	203.63	66.23	3620.41	MCM

Momentary Peak 559.00 CMS. at 49.95 m. (MSL.) at 19.00 Hours , on Sep 19 , 2011

Runoff Yield 23.98 Liters/Second/Square KM. Momentary Peak Yield 117.093 Liters/Second/Square KM.

WATER YEAR : 2011

NAN RIVER BASIN

Khek River at Ban Wang Nok Aen , Phitsanulok (N.24A)

Lat 16 - 50 - 36 N Long 100 - 31 - 20 E

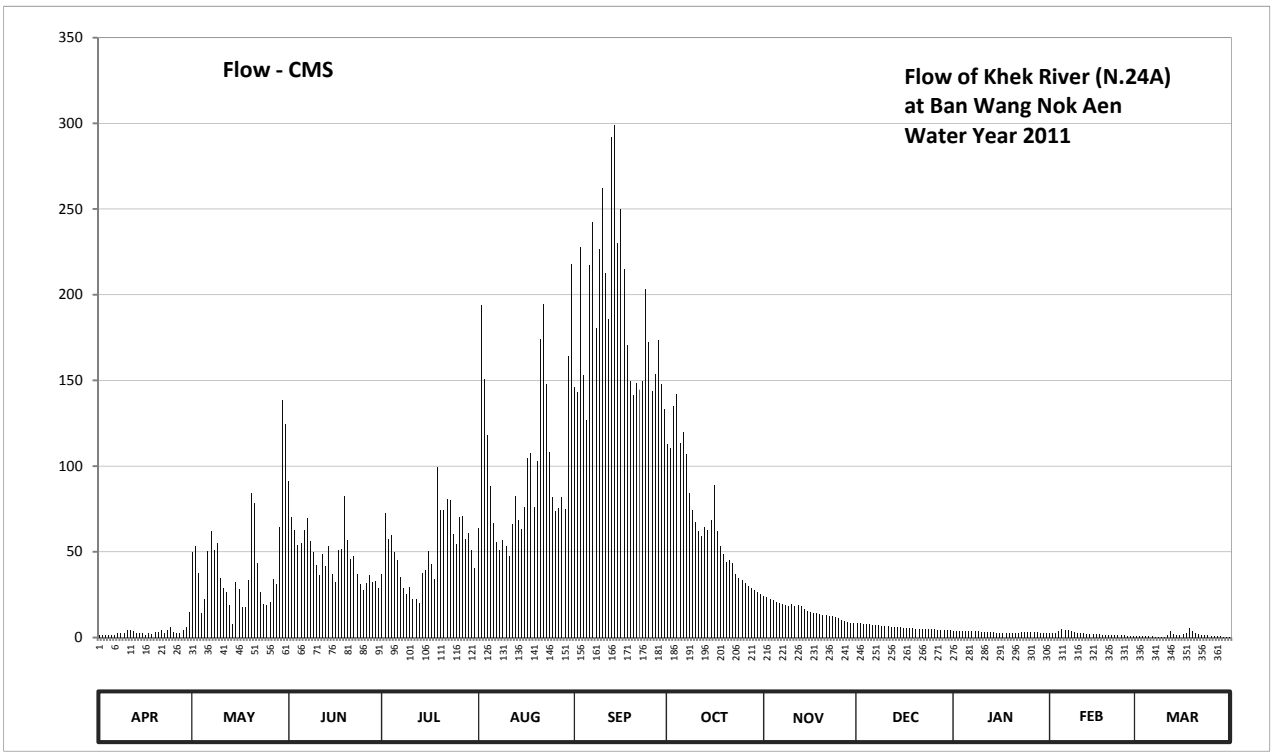
Location : on right bank about 2 kilometers downstream from Sakunothayan Fall.

	Ban Wang Nok Aen	**Amphoe** Wang Thong	**Changwat** Phitsanulok
Drainge Area	1,838 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+40.710 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	Near the gage site.		**Elevation** +54.851 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	1965 to date		
Rating Operation			
Period of Rating	1965 - 1974 , 1980 to date		
Rated by Flot	-		
Rated by Current Meter	1965 - 1974 , 1980 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	Overbank flow starts at elevation + 49.710 m.(MSL.), records are channel flow only.		
General Description	Records good. Stage-discharge relation defined by 24 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	41.76	45.21	47.16	44.51	45.94	48.95	47.95	43.74	42.58	42.11	41.93	41.73	
2	41.77	45.38	46.25	46.37	50.08	48.87	47.87	43.69	42.56	42.10	41.92	41.72	
3	41.81	44.56	45.86	45.60	49.08	50.71	48.64	43.63	42.54	42.09	41.96	41.71	
4	41.83	43.06	45.40	45.73	48.13	49.14	48.84	43.57	42.52	42.08	42.08	41.70	
5	41.82	43.61	45.48	45.20	47.04	48.39	47.96	43.51	42.50	42.08	42.25	41.69	
6	41.80	45.22	45.87	44.96	46.09	50.52	48.18	43.46	42.46	42.07	42.15	41.68	
7	41.98	45.84	46.23	44.41	45.50	50.97	47.75	43.43	42.45	42.07	42.13	41.67	
8	41.97	45.26	45.55	44.03	45.27	49.79	46.86	43.40	42.44	42.06	42.09	41.67	
9	41.96	45.47	45.21	43.81	45.57	50.69	46.44	43.35	42.42	42.06	42.02	41.67	
10	42.14	44.39	44.80	44.07	45.37	51.29	46.11	43.41	42.41	42.05	41.96	41.67	
11	42.17	44.04	44.47	43.63	45.08	50.43	45.85	43.36	42.39	42.04	41.93	41.79	
12	42.10	43.89	45.12	43.61	46.06	49.91	45.68	43.37	42.36	42.02	41.91	42.10	
13	41.90	43.40	44.77	43.47	46.80	51.75	45.96	43.35	42.35	42.01	41.89	41.85	
14	41.92	42.52	45.37	44.56	46.18	51.86	45.86	43.25	42.33	42.00	41.87	41.80	
15	41.90	44.24	44.50	44.63	45.92	50.76	46.17	43.16	42.32	41.99	41.86	41.80	
16	41.81	44.01	44.24	45.22	46.52	51.09	47.06	43.11	42.31	41.99	41.85	41.84	
17	41.90	43.31	45.27	44.84	47.67	50.48	45.84	43.07	42.30	41.98	41.84	41.91	
18	41.88	43.32	45.28	44.35	47.77	49.56	45.38	43.04	42.28	41.97	41.83	42.29	
19	42.05	44.31	46.78	47.48	46.52	49.05	45.12	43.02	42.27	41.96	41.82	42.09	
20	42.00	46.86	45.57	46.44	47.61	48.81	44.89	42.99	42.25	41.95	41.81	41.96	
21	42.14	46.60	44.97	46.42	49.64	49.02	44.94	42.96	42.24	41.95	41.80	41.87	
22	41.98	44.85	45.08	46.71	50.09	48.91	44.87	42.91	42.23	41.96	41.80	41.82	
23	42.15	43.91	44.50	46.70	48.99	49.04	44.51	42.92	42.22	42.02	41.79	41.79	
24	42.37	43.42	44.18	45.75	47.79	50.26	44.37	42.87	42.21	42.04	41.78	41.76	
25	42.03	43.37	43.95	45.46	46.76	49.61	44.30	42.83	42.19	42.01	41.76	41.74	
26	41.99	43.51	44.21	46.26	46.41	48.89	44.21	42.74	42.18	42.00	41.75	41.73	
27	41.98	44.36	44.47	46.28	46.48	49.15	44.12	42.66	42.17	42.03	41.75	41.70	
28	42.14	44.19	44.25	45.61	46.77	49.63	44.04	42.62	42.15	42.02	41.74	41.68	
29	42.33	45.97	44.27	45.79	46.45	48.99	43.97	42.61	42.14	41.98	41.74	41.67	
30	43.09	48.74	44.04	45.25	49.42	48.59	43.89	42.60	42.13	41.96		41.66	
31		48.33		44.71	50.53		43.81		42.12	41.94		41.65	
Mean	42.02	44.68	45.10	45.22	47.21	49.84	45.85	43.15	42.32	42.02	41.90	41.79	
Max	43.09	48.74	47.16	47.48	50.53	51.86	48.84	43.74	42.58	42.11	42.25	42.29	51.86
Min	41.76	42.52	43.95	43.47	45.08	48.39	43.81	42.60	42.12	41.94	41.74	41.65	41.65

Annual Max Momentary Gage Height	52.17	m. (MSL.) ,	at 09.00 Hours , on Sep 13 , 2011		
Zero Gage at Bottom Elevation	40.71	m. (MSL.) ,	River Bed	41.29	m. (MSL)
Left Bank Elevation	52.47	m. (MSL.) ,			
Right Bank Elevation	49.70	m. (MSL.) ,	Drainage Area	1838	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.20	50.10	91.20	37.00	63.90	146.10	112.90	24.30	8.40	4.00	2.50	1.00		
2	1.30	53.30	70.30	72.90	194.10	143.20	110.50	23.50	8.20	3.90	2.40	0.90		
3	1.60	37.90	62.40	57.50	150.80	227.50	135.20	22.70	8.00	3.80	2.70	0.80		
4	1.70	14.20	53.70	59.90	118.30	153.10	142.20	21.70	7.80	3.70	3.70	0.80		
5	1.70	22.40	55.20	49.90	88.40	126.50	113.20	20.80	7.60	3.70	5.20	0.70		
6	1.50	50.30	62.50	45.40	66.90	217.20	119.80	20.10	7.20	3.60	4.40	0.60		
7	2.80	62.00	69.90	35.20	55.60	242.60	107.00	19.60	7.10	3.60	4.20	0.50		
8	2.80	51.00	56.50	28.70	51.20	180.60	84.20	19.20	7.00	3.50	3.80	0.50		
9	2.70	55.00	50.10	25.40	56.90	226.30	74.50	18.40	6.80	3.50	3.20	0.50		
10	4.30	34.80	42.40	29.40	53.10	262.40	67.30	19.30	6.70	3.40	2.70	0.50		
11	4.50	28.90	36.30	22.70	47.70	212.40	62.20	18.60	6.50	3.40	2.50	1.40		
12	3.90	26.50	48.40	22.40	66.30	186.00	59.00	18.70	6.20	3.20	2.30	3.90		
13	2.30	19.20	41.80	20.30	82.80	291.80	64.20	18.40	6.10	3.10	2.20	1.90		
14	2.40	7.80	53.10	37.90	68.80	298.90	62.40	16.90	6.00	3.00	2.00	1.50		
15	2.30	32.30	36.80	39.20	63.50	230.20	68.60	15.60	5.90	2.90	2.00	1.50		
16	1.60	28.40	32.30	50.30	76.40	250.00	88.80	14.90	5.80	2.90	1.90	1.80		
17	2.30	17.90	51.20	43.10	104.80	215.00	62.00	14.40	5.70	2.80	1.80	2.30		
18	2.10	18.00	51.40	34.10	107.60	170.30	53.30	14.00	5.50	2.80	1.70	5.60		
19	3.40	33.50	82.30	99.60	76.40	149.70	48.40	13.70	5.40	2.70	1.70	3.80		
20	3.00	84.20	56.90	74.50	103.10	141.20	44.10	13.30	5.20	2.60	1.60	2.70		
21	4.30	78.20	45.60	74.10	173.80	148.60	45.00	12.90	5.20	2.60	1.50	2.00		
22	2.80	43.30	47.70	80.70	194.60	144.60	43.70	12.30	5.10	2.70	1.50	1.70		
23	4.40	26.80	36.80	80.50	147.50	149.30	37.00	12.40	5.00	3.20	1.40	1.40		
24	6.30	19.50	31.30	60.30	108.10	203.40	34.50	11.80	4.90	3.40	1.30	1.20		
25	3.30	18.70	27.50	54.80	81.90	172.50	33.30	11.40	4.70	3.10	1.20	1.10		
26	2.90	20.80	31.80	70.50	73.80	143.90	31.80	10.30	4.60	3.00	1.10	1.00		
27	2.80	34.30	36.30	71.00	75.40	153.50	30.20	9.30	4.50	3.30	1.10	0.80		
28	4.30	31.40	32.40	57.60	82.10	173.40	28.90	8.80	4.40	3.20	1.10	0.60		
29	6.00	64.40	32.80	61.00	74.70	147.50	27.80	8.70	4.30	2.80	1.10	0.50		
30	14.70	138.70	28.90	50.90	164.30	133.40	26.50	8.60	4.20	2.70		0.50		
31		124.60		40.70	217.70		25.40		4.10	2.50		0.40		
Total	101.20	1328.40	1455.80	1587.50	3090.50	5641.10	2043.90	474.60	184.10	98.60	65.80	44.40	16115.90	CMSDAY
Mean	3.40	42.90	48.50	51.20	99.70	188.00	65.90	15.80	5.90	3.20	2.30	1.40	44.00	CMS
Max	14.70	138.70	91.20	99.60	217.70	298.90	142.20	24.30	8.40	4.00	5.20	5.60	298.90	CMS
Min	1.20	7.80	27.50	20.30	47.70	126.50	25.40	8.60	4.10	2.50	1.10	0.40	0.40	CMS
Runoff	8.74	114.77	125.78	137.16	267.02	487.39	176.59	41.01	15.91	8.52	5.69	3.84	1392.41	MCM

Momentary Peak 319.05 CMS. at 52.17 m. (MSL.) at 09.00 Hours , on Sep 13 , 2011

Runoff Yield 23.96 Liters/Second/Square KM. Momentary Peak Yield 173.585 Liters/Second/Square KM.

WATER YEAR : 2011

NAN RIVER BASIN

Nan River at Ban Nong Kham , Phitsanulok (N.27A)

Lat 17 - 01 - 46 N Long 100 - 11 - 00 E

Location : on right bank about 1.8 kilometers downstream from Phrom Phiram Dam.

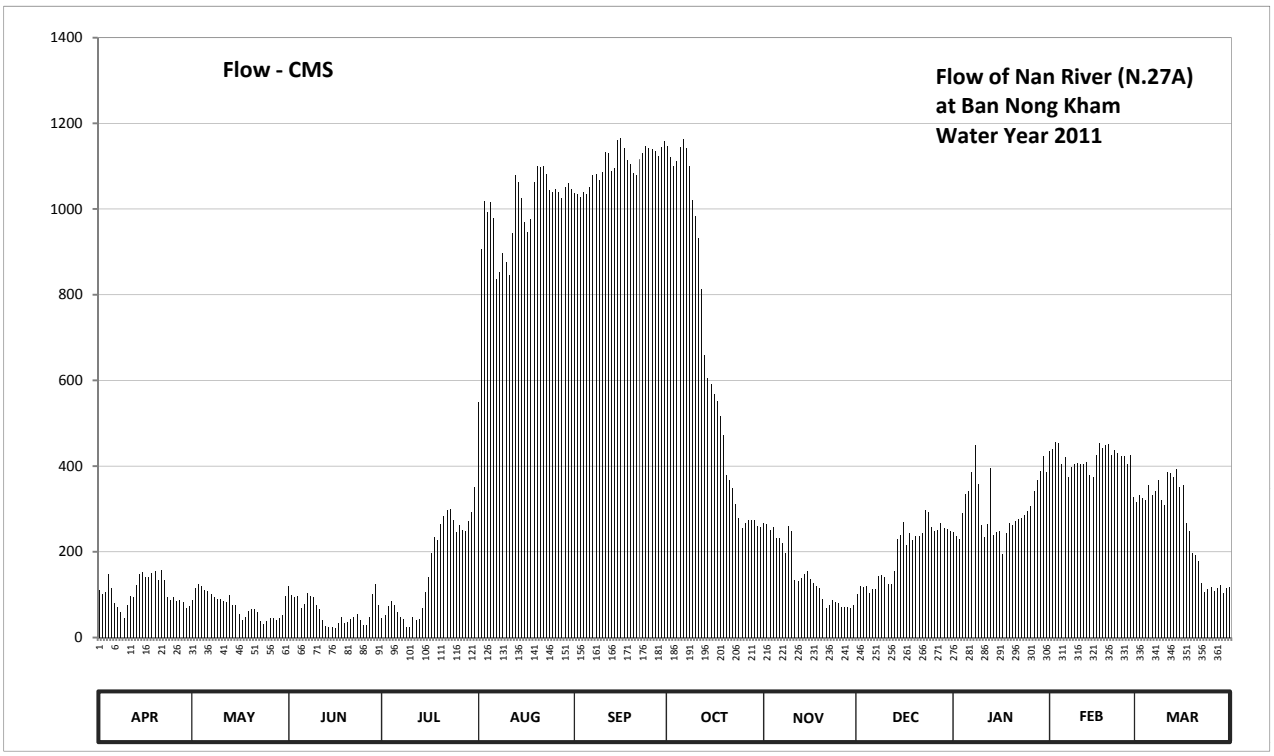
Ban Nong Kham **Amphoe** Phrom Phiram **Changwat** Phitsanulok

Drainge Area	19,363 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+38.430 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	About 10 meters from the top staff gage. **Elevation** +48.572 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings
Period of Available Gage Records	1980 to date
Rating Operation	
Period of Rating	1980 to date
Rated by Flot	-
Rated by Current Meter	1980 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records very good. Flow regulated by Naresuan Dam about 2 kilometers above gage site. Stage-discharge relation defined by 19 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	39.97	39.64	40.11	38.83	44.47	47.94	48.68	41.94	39.86	41.74	43.53	42.46	
2	39.86	40.05	39.81	38.99	47.07	47.93	48.50	41.93	40.12	41.62	43.57	42.61	
3	39.93	40.18	39.72	39.37	47.82	47.88	48.36	41.77	40.08	41.56	43.71	42.54	
4	40.51	40.11	39.77	39.58	47.65	47.96	48.44	41.84	40.10	42.20	43.68	42.49	
5	40.06	39.97	39.31	39.45	47.80	47.93	48.65	41.57	39.87	42.63	43.27	42.83	
6	39.50	39.94	39.46	39.13	47.55	48.03	48.78	41.57	40.02	42.70	43.42	42.61	
7	39.35	39.85	39.88	38.89	46.58	48.22	48.64	41.44	40.00	43.11	43.00	42.70	
8	39.13	39.75	39.79	38.78	46.70	48.24	48.37	41.18	40.46	43.65	43.21	42.93	
9	38.84	39.67	39.74	38.34	47.01	48.14	47.84	41.87	40.49	42.86	43.27	42.50	
10	39.44	39.66	39.44	38.32	46.86	48.27	47.59	41.76	40.42	41.90	43.29	42.39	
11	39.77	39.57	39.25	38.89	46.66	48.58	47.24	40.33	40.18	41.60	43.28	43.11	
12	39.75	39.56	38.75	38.71	47.32	48.57	46.42	40.30	40.17	41.93	43.27	43.09	
13	40.15	39.82	38.39	38.76	48.22	48.29	45.32	40.39	40.60	43.19	43.32	43.01	
14	40.51	39.45	38.32	39.31	48.12	48.33	44.91	40.50	41.55	41.66	43.04	43.16	
15	40.58	39.44	38.30	39.91	47.87	48.77	44.80	40.62	41.66	41.72	43.00	42.78	
16	40.43	39.01	38.29	40.41	47.49	48.80	44.62	40.35	41.97	41.75	43.46	42.83	
17	40.43	38.74	38.57	41.16	47.34	48.64	44.49	40.20	41.40	41.12	43.68	41.96	
18	40.55	38.90	38.85	41.61	47.53	48.46	44.22	40.13	41.71	41.70	43.60	41.76	
19	40.61	39.14	38.57	41.52	48.12	48.39	43.85	40.06	41.52	41.96	43.64	41.15	
20	40.32	39.25	38.63	41.93	48.36	48.25	43.05	39.65	41.63	41.91	43.66	41.11	
21	40.66	39.25	38.80	42.12	48.34	48.22	42.94	39.28	41.63	42.01	43.46	40.92	
22	40.31	39.10	38.87	42.27	48.36	48.47	42.76	39.41	41.70	42.05	43.55	40.21	
23	39.72	38.68	39.00	42.30	48.24	48.56	42.40	39.64	42.27	42.08	43.49	39.92	
24	39.61	38.52	38.73	42.03	47.99	48.68	42.06	39.54	42.22	42.15	43.44	40.02	
25	39.76	38.69	38.45	41.72	47.96	48.64	41.83	39.50	41.86	42.25	43.44	40.08	
26	39.59	38.83	38.42	41.91	48.01	48.62	41.96	39.34	41.76	42.36	43.28	39.94	
27	39.62	38.84	38.90	41.77	47.96	48.59	42.03	39.33	41.78	42.70	43.45	40.04	
28	39.54	38.73	39.85	41.75	47.87	48.52	42.03	39.33	41.94	42.93	42.57	40.14	
29	39.30	38.82	40.18	42.00	48.03	48.65	42.03	39.31	41.82	43.12	42.50	39.87	
30	39.40	38.97	39.43	42.21	48.09	48.75	41.87	39.41	41.79	43.43		40.04	
31		39.79		42.78	48.01		41.84		41.75	43.10		40.08	
Mean	39.91	39.35	39.12	40.48	47.59	48.38	45.05	40.45	41.11	42.28	43.35	41.65	
Max	40.66	40.18	40.18	42.78	48.36	48.80	48.78	41.94	42.27	43.65	43.71	43.16	48.80
Min	38.84	38.52	38.29	38.32	44.47	47.88	41.83	39.28	39.86	41.12	42.50	39.87	38.29

Annual Max Momentary Gage Height	48.89	m. (MSL.) ,	at 21.00 Hours , on Sep 15 , 2011		
Zero Gage at Bottom Elevation	38.43	m. (MSL.) ,	River Bed	36.84	m. (MSL)
Left Bank Elevation	49.09	m. (MSL.) ,			
Right Bank Elevation	49.04	m. (MSL.) ,	Drainage Area	19363	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	109.90	88.40	119.70	45.50	549.10	1037.00	1148.00	266.30	102.20	247.30	434.60	317.00		
2	102.20	115.50	98.70	53.50	906.50	1035.50	1121.00	265.40	120.40	235.90	439.40	332.10		
3	107.10	124.60	93.20	72.50	1019.00	1028.00	1100.00	250.20	117.60	230.60	456.20	325.00		
4	147.70	119.70	96.20	84.80	993.50	1040.00	1112.00	256.80	119.00	291.00	452.60	320.00		
5	116.20	109.90	69.50	77.00	1016.00	1035.50	1143.50	231.50	102.90	334.20	404.00	355.30		
6	80.00	107.80	77.60	60.50	978.50	1050.50	1163.00	231.50	113.40	341.50	421.40	332.10		
7	71.50	101.50	103.60	48.50	835.20	1079.00	1142.00	220.40	112.00	386.10	374.00	341.50		
8	60.50	95.00	97.40	43.10	852.50	1082.00	1101.50	198.40	144.20	449.00	397.10	366.30		
9	46.00	90.20	94.40	24.90	897.50	1067.00	1022.00	259.60	146.30	358.60	404.00	321.00		
10	76.40	89.60	76.40	24.20	875.70	1086.50	984.50	249.20	141.40	262.50	406.30	310.00		
11	96.20	84.20	66.50	48.50	846.70	1133.00	932.00	135.10	124.60	234.00	405.20	386.10		
12	95.00	83.60	41.80	40.00	944.00	1131.50	812.80	133.00	123.90	265.40	404.00	383.90		
13	122.50	99.40	26.60	42.20	1079.00	1089.50	659.60	139.30	154.00	394.90	409.80	375.10		
14	147.70	77.00	24.20	69.50	1064.00	1095.50	606.30	147.00	229.80	239.70	378.40	391.60		
15	152.60	76.40	23.50	105.70	1026.50	1161.50	592.00	155.40	239.70	245.40	374.00	349.90		
16	142.10	54.50	23.10	140.70	969.50	1166.00	568.60	136.50	269.20	248.30	426.20	355.30		
17	142.10	41.30	33.80	196.80	947.00	1142.00	551.70	126.00	217.00	193.60	452.60	268.20		
18	150.50	49.00	46.50	235.00	975.50	1115.00	517.50	121.10	244.50	243.50	443.00	249.20		
19	154.70	61.00	33.80	227.20	1064.00	1104.50	473.00	116.20	227.20	268.20	447.80	196.00		
20	134.40	66.50	36.40	265.40	1100.00	1083.50	379.50	89.00	236.90	263.50	450.20	192.80		
21	158.20	66.50	44.00	283.40	1097.00	1079.00	367.40	68.00	236.90	272.90	426.20	177.60		
22	133.70	59.00	47.50	298.00	1100.00	1116.50	347.80	74.60	243.50	276.70	437.00	126.70		
23	93.20	38.60	54.00	301.00	1082.00	1130.00	311.00	88.40	298.00	279.60	429.80	106.40		
24	86.60	31.80	40.90	274.80	1044.50	1148.00	277.70	82.40	293.00	286.30	423.80	113.40		
25	95.60	39.00	29.00	245.40	1040.00	1142.00	255.90	80.00	258.70	296.00	423.80	117.60		
26	85.40	45.50	27.80	263.50	1047.50	1139.00	268.20	71.00	249.20	307.00	405.20	107.80		
27	87.20	46.00	49.00	250.20	1040.00	1134.50	274.80	70.50	251.10	341.50	425.00	114.80		
28	82.40	40.90	101.50	248.30	1026.50	1124.00	274.80	70.50	266.30	366.30	328.00	121.80		
29	69.00	45.00	124.60	272.00	1050.50	1143.50	274.80	69.50	254.90	387.20	321.00	102.90		
30	74.00	52.50	75.80	292.00	1059.50	1158.50	259.60	74.60	252.10	422.60		114.80		
31		97.40		349.90	1047.50		256.80		248.30	385.00		117.60		
Total	3220.60	2297.30	1877.00	4984.00	30574.70	33078.00	20299.30	4477.40	6138.20	9354.30	12000.60	7789.80	136091.20	CMSDAY
Mean	107.40	74.10	62.60	160.80	986.30	1102.60	654.80	149.20	198.00	301.80	413.80	251.30	371.80	CMS
Max	158.20	124.60	124.60	349.90	1100.00	1166.00	1163.00	266.30	298.00	449.00	456.20	391.60	1166.00	CMS
Min	46.00	31.80	23.10	24.20	549.10	1028.00	255.90	68.00	102.20	193.60	321.00	102.90	23.10	CMS
Runoff	278.26	198.49	162.17	430.62	2641.65	2857.94	1753.86	386.85	530.34	808.21	1036.85	673.04	11758.28	MCM

Momentary Peak 1179.50 CMS. at 48.89 m. (MSL.) at 21.00 Hours , on Sep 15 , 2011

Runoff Yield 19.20 Liters/Second/Square KM. Momentary Peak Yield 60.915 Liters/Second/Square KM.

WATER YEAR : 2011

NAN RIVER BASIN

Nan River at Ban Na Klam , Uttaradit (N.28A)

Lat 17 - 35 - 00 N Long 100 - 29 - 30 E

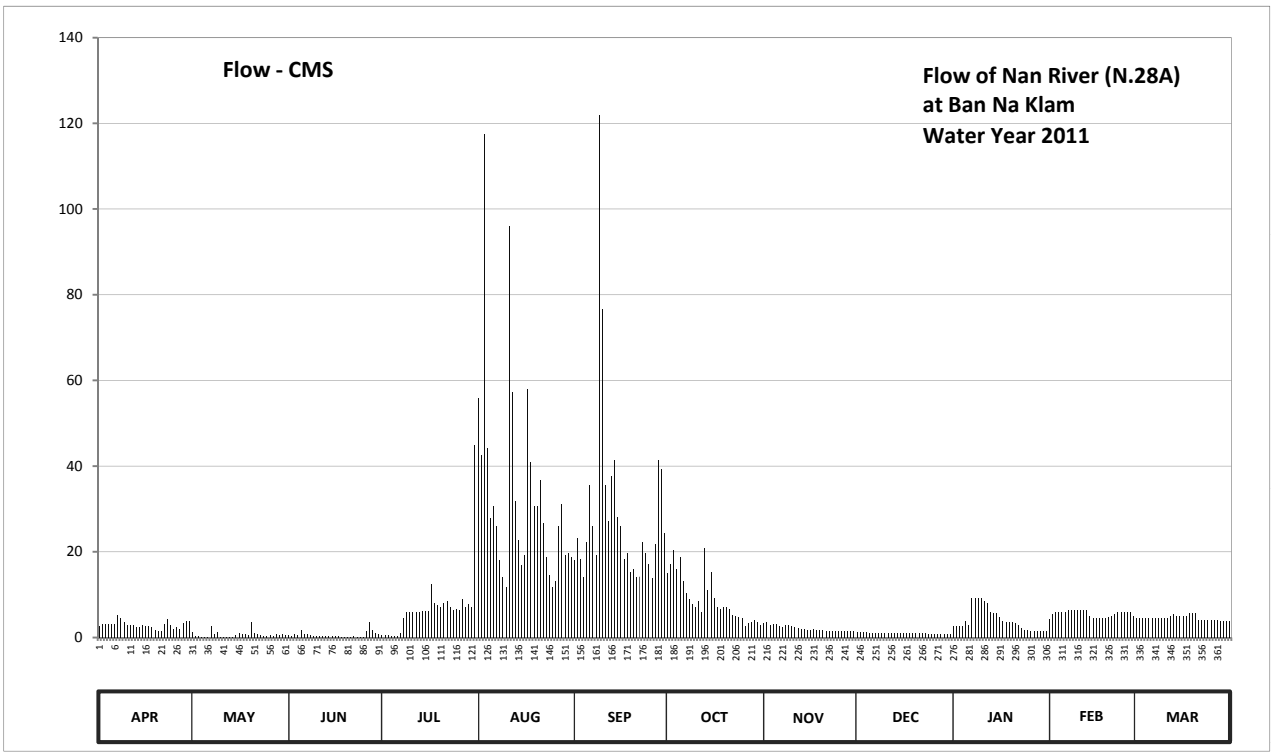
Location : on right bank at Ban Na Klam.

	Ban Na Klam		**Amphoe** Nam Pat	**Changwat** Uttaradit	
Drainge Area	368 sq.km.				
Type of Gage	Staff gage				
Zero Gage at Bottom	+120.274 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On right bank near the gage site.			**Elevation**	+126.015 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.				
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings				
Period of Available Gage Records	2008 to date				
Rating Operation					
Period of Rating	2008 to date				
Rated by Flot	-				
Rated by Current Meter	2008 to date				
Stability of Channel Regimes	Stable.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records good. Stage-discharge relation defined by 31 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	122.06	121.89	121.76	121.75	123.34	122.64	122.56	122.11	121.89	122.05	122.16	122.19	
2	122.10	121.68	121.70	121.75	123.14	122.76	122.62	122.12	121.89	122.05	122.24	122.19	
3	122.10	121.64	121.77	121.75	124.06	122.65	122.70	122.07	121.89	122.05	122.27	122.19	
4	122.10	121.61	121.76	121.71	123.17	122.54	122.59	122.10	121.89	122.05	122.27	122.19	
5	122.09	121.60	121.96	121.67	122.86	122.74	122.66	122.09	121.88	122.14	122.27	122.19	
6	122.10	121.61	121.82	121.65	122.92	123.01	122.51	122.05	121.88	122.08	122.27	122.19	
7	122.23	122.05	121.77	121.87	122.82	122.82	122.43	122.04	121.87	122.40	122.30	122.19	
8	122.18	121.77	121.72	122.18	122.64	122.67	122.39	122.07	121.87	122.40	122.30	122.19	
9	122.13	121.91	121.67	122.27	122.54	124.10	122.35	122.07	121.87	122.40	122.30	122.19	
10	122.07	121.61	121.65	122.27	122.47	123.62	122.32	122.06	121.87	122.40	122.30	122.19	
11	122.07	121.59	121.64	122.27	123.85	123.01	122.37	122.03	121.87	122.38	122.30	122.19	
12	122.07	121.59	121.64	122.27	123.36	122.85	122.27	122.02	121.87	122.36	122.30	122.21	
13	122.03	121.57	121.69	122.27	122.94	123.05	122.71	122.01	121.87	122.27	122.30	122.24	
14	122.04	121.56	121.66	122.29	122.75	123.12	122.45	121.99	121.86	122.25	122.21	122.21	
15	122.07	121.73	121.63	122.29	122.61	122.87	122.57	121.97	121.86	122.25	122.18	122.21	
16	122.05	121.85	121.67	122.29	122.67	122.82	122.40	121.97	121.85	122.20	122.18	122.22	
17	122.05	121.81	121.65	122.49	123.37	122.65	122.32	121.99	121.85	122.14	122.18	122.21	
18	122.03	121.78	121.62	122.36	123.11	122.68	122.31	121.98	121.85	122.13	122.18	122.25	
19	121.97	121.73	121.61	122.34	122.92	122.57	122.32	121.96	121.85	122.12	122.18	122.25	
20	121.92	122.13	121.61	122.33	122.92	122.59	122.33	121.96	121.85	122.13	122.20	122.25	
21	121.94	121.84	121.61	122.36	123.03	122.54	122.31	121.95	121.84	122.11	122.21	122.15	
22	122.09	121.77	121.63	122.37	122.84	122.54	122.23	121.94	121.84	122.07	122.24	122.15	
23	122.17	121.72	121.61	122.33	122.66	122.74	122.21	121.94	121.84	122.02	122.27	122.15	
24	122.07	121.67	121.61	122.30	122.55	122.68	122.20	121.94	121.83	121.97	122.27	122.15	
25	122.00	121.69	121.62	122.31	122.47	122.62	122.18	121.94	121.82	121.96	122.27	122.15	
26	122.03	121.72	121.92	122.30	122.51	122.53	122.06	121.94	121.82	121.95	122.27	122.15	
27	121.99	121.69	122.13	122.39	122.82	122.73	122.11	121.94	121.82	121.95	122.27	122.15	
28	122.11	121.77	121.97	122.32	122.93	123.12	122.13	121.93	121.82	121.94	122.22	122.14	
29	122.14	121.75	121.86	122.35	122.67	123.08	122.15	121.93	121.82	121.93	122.22	122.14	
30	122.14	121.78	121.78	122.32	122.68	122.79	122.12	121.92	121.82	121.93		122.14	
31		121.75		123.18	122.66		122.07		121.82	121.93		122.14	
Mean	122.07	121.74	121.72	122.21	122.91	122.84	122.35	122.00	121.85	122.13	122.25	122.19	
Max	122.23	122.13	122.13	123.18	124.06	124.10	122.71	122.12	121.89	122.40	122.30	122.25	124.10
Min	121.92	121.56	121.61	121.65	122.47	122.53	122.06	121.92	121.82	121.93	122.16	122.14	121.56

Annual Max Momentary Gage Height	125.17	m. (MSL.) ,	at 12.00 Hours , on Sep 9 , 2011		
Zero Gage at Bottom Elevation	120.27	m. (MSL.) ,	River Bed	120.49	m. (MSL)
Left Bank Elevation	126.35	m. (MSL.) ,			
Right Bank Elevation	126.61	m. (MSL.) ,	Drainage Area	368	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.70	1.20	0.60	0.60	55.80	18.00	15.00	3.40	1.20	2.60	4.20	4.60		
2	3.20	0.40	0.40	0.60	42.60	23.20	17.20	3.50	1.20	2.60	5.40	4.60		
3	3.20	0.30	0.70	0.60	117.60	18.40	20.40	2.80	1.20	2.60	5.90	4.60		
4	3.20	0.20	0.60	0.40	44.30	14.20	16.00	3.20	1.20	2.60	5.90	4.60		
5	3.10	0.20	1.70	0.30	27.80	22.20	18.80	3.10	1.10	3.80	5.90	4.60		
6	3.20	0.20	0.90	0.30	30.70	35.50	13.20	2.60	1.10	3.00	5.90	4.60		
7	5.30	2.60	0.70	1.10	25.90	25.90	10.30	2.50	1.10	9.20	6.40	4.60		
8	4.50	0.70	0.50	4.50	18.00	19.20	8.90	2.80	1.10	9.20	6.40	4.60		
9	3.70	1.30	0.30	5.90	14.20	122.00	7.80	2.80	1.10	9.20	6.40	4.60		
10	2.80	0.20	0.30	5.90	11.70	76.60	7.00	2.70	1.10	9.20	6.40	4.60		
11	2.80	0.20	0.30	5.90	96.00	35.50	8.40	2.40	1.10	8.60	6.40	4.60		
12	2.80	0.20	0.30	5.90	57.20	27.30	5.90	2.20	1.10	8.10	6.40	5.00		
13	2.40	0.20	0.40	5.90	31.80	37.70	20.90	2.10	1.10	5.90	6.40	5.40		
14	2.50	0.20	0.30	6.20	22.70	41.50	11.00	1.90	1.00	5.60	5.00	5.00		
15	2.80	0.50	0.30	6.20	16.80	28.20	15.30	1.80	1.00	5.60	4.50	5.00		
16	2.60	1.00	0.30	6.20	19.20	25.90	9.20	1.80	1.00	4.80	4.50	5.10		
17	2.60	0.80	0.30	12.40	57.90	18.40	7.00	1.90	1.00	3.80	4.50	5.00		
18	2.40	0.70	0.20	8.10	41.00	19.60	6.70	1.80	1.00	3.70	4.50	5.60		
19	1.80	0.50	0.20	7.50	30.70	15.30	7.00	1.70	1.00	3.50	4.50	5.60		
20	1.40	3.70	0.20	7.20	30.70	16.00	7.20	1.70	1.00	3.70	4.80	5.60		
21	1.50	1.00	0.20	8.10	36.60	14.20	6.70	1.60	1.00	3.40	5.00	4.00		
22	3.10	0.70	0.30	8.40	26.80	14.20	5.30	1.50	1.00	2.80	5.40	4.00		
23	4.30	0.50	0.20	7.20	18.80	22.20	5.00	1.50	1.00	2.20	5.90	4.00		
24	2.80	0.30	0.20	6.40	14.60	19.60	4.80	1.50	0.90	1.80	5.90	4.00		
25	2.00	0.40	0.20	6.70	11.70	17.20	4.50	1.50	0.90	1.70	5.90	4.00		
26	2.40	0.50	1.40	6.40	13.20	13.90	2.70	1.50	0.90	1.60	5.90	4.00		
27	1.90	0.40	3.70	8.90	25.90	21.80	3.40	1.50	0.90	1.60	5.90	4.00		
28	3.40	0.70	1.80	7.00	31.20	41.50	3.70	1.40	0.90	1.50	5.10	3.80		
29	3.80	0.60	1.00	7.80	19.20	39.30	4.00	1.40	0.90	1.40	5.10	3.80		
30	3.80	0.70	0.70	7.00	19.60	24.50	3.50	1.40	0.90	1.40		3.80		
31		0.60		44.90	18.80		2.80		0.90	1.40		3.80		
Total	88.00	21.70	19.20	210.50	1029.00	869.00	279.60	63.50	31.90	128.10	160.40	141.10	3042.00	CMSDAY
Mean	2.90	0.70	0.60	6.80	33.20	29.00	9.00	2.10	1.00	4.10	5.50	4.60	8.30	CMS
Max	5.30	3.70	3.70	44.90	117.60	122.00	20.90	3.50	1.20	9.20	6.40	5.60	122.00	CMS
Min	1.40	0.20	0.20	0.30	11.70	13.90	2.70	1.40	0.90	1.40	4.20	3.80	0.20	CMS
Runoff	7.60	1.87	1.66	18.19	88.91	75.08	24.16	5.49	2.76	11.07	13.86	12.19	262.83	MCM

Momentary Peak 263.15 CMS. at 125.17 m. (MSL.) at 12.00 Hours , on Sep 9 , 2011

Runoff Yield 22.59 Liters/Second/Square KM. Momentary Peak Yield 715.082 Liters/Second/Square KM.

WATER YEAR : 2011

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.

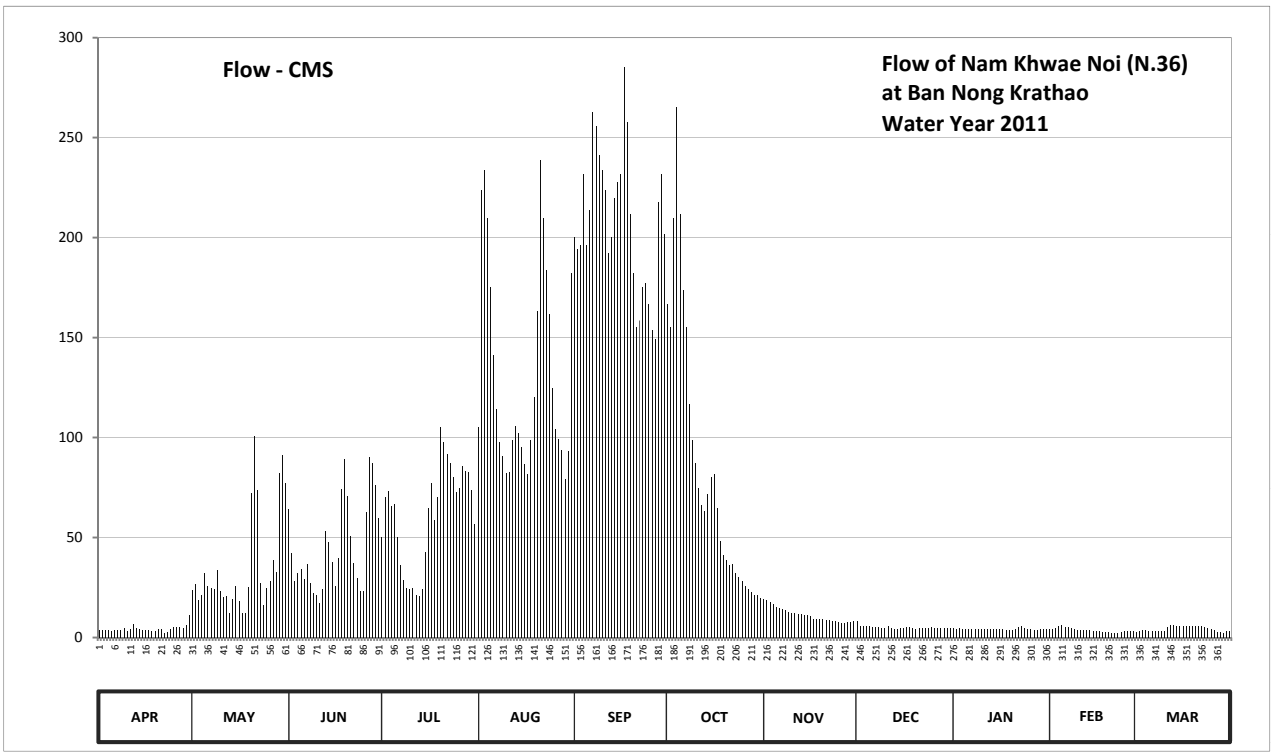
Ban Nong Krathao **Amphoe** Nakhon Thai **Changwat** Phitsanulok

Drainge Area	1,710 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+191.880 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank along the measuring line. **Elevation** +200.293 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings
Period of Available Gage Records	1967 to date
Rating Operation	
Period of Rating	1971 - 1979 , 1993 to date
Rated by Flot	-
Rated by Current Meter	1971 - 1979 , 1993 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records very good. Stage-discharge relation defined by 16 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	193.34	194.97	196.99	196.38	198.48	199.23	199.04	194.68	193.83	193.44	193.37	193.20	
2	193.34	195.14	196.00	197.24	199.35	199.20	198.97	194.65	193.58	193.41	193.40	193.22	
3	193.29	194.64	195.25	197.37	199.40	199.21	199.28	194.56	193.55	193.44	193.48	193.30	
4	193.30	194.79	195.46	197.06	199.28	199.39	199.53	194.50	193.58	193.42	193.57	193.29	
5	193.25	195.48	195.57	197.11	199.09	199.21	199.29	194.39	193.55	193.43	193.62	193.26	
6	193.35	195.09	195.28	196.38	198.88	199.30	199.08	194.37	193.52	193.43	193.50	193.26	
7	193.31	195.04	195.70	195.69	198.63	199.52	198.97	194.34	193.50	193.43	193.51	193.25	
8	193.34	195.01	195.17	195.26	198.29	199.49	198.66	194.29	193.49	193.43	193.46	193.23	
9	193.46	195.55	194.86	195.04	198.04	199.43	198.33	194.22	193.48	193.42	193.39	193.22	
10	193.23	194.92	194.79	194.99	197.73	199.40	197.92	194.19	193.48	193.39	193.36	193.23	
11	193.43	194.72	194.52	195.04	197.75	199.35	197.43	194.17	193.55	193.39	193.31	193.50	
12	193.66	194.77	195.01	194.81	198.32	199.19	197.08	194.13	193.44	193.38	193.30	193.60	
13	193.45	194.17	196.52	194.77	198.49	199.23	196.95	194.16	193.43	193.40	193.29	193.61	
14	193.42	194.68	196.25	195.02	198.42	199.33	197.31	194.11	193.43	193.40	193.29	193.59	
15	193.35	195.10	195.74	196.02	198.21	199.37	197.65	194.09	193.48	193.40	193.28	193.58	
16	193.34	194.59	195.09	197.02	197.91	199.39	197.72	194.07	193.46	193.42	193.24	193.58	
17	193.34	194.20	195.87	197.54	197.71	199.61	197.02	193.94	193.49	193.40	193.23	193.58	
18	193.21	194.19	197.42	196.76	198.32	199.50	196.28	193.92	193.50	193.36	193.19	193.58	
19	193.26	195.05	198.00	197.24	198.70	199.29	195.95	193.92	193.46	193.32	193.18	193.57	
20	193.38	197.34	197.27	198.48	199.02	199.13	195.81	193.92	193.43	193.32	193.19	193.56	
21	193.41	198.39	196.39	198.29	199.42	198.97	195.68	193.87	193.45	193.43	193.10	193.56	
22	193.11	197.39	195.72	198.09	199.28	198.99	195.70	193.86	193.44	193.49	193.08	193.55	
23	193.16	195.18	195.32	197.93	199.14	199.09	195.45	193.85	193.44	193.55	193.10	193.52	
24	193.39	194.47	194.95	197.65	199.01	199.10	195.36	193.83	193.46	193.46	193.16	193.46	
25	193.53	195.04	194.94	197.35	198.75	199.04	195.23	193.78	193.49	193.43	193.25	193.41	
26	193.51	195.24	196.92	197.43	198.46	198.96	195.09	193.73	193.46	193.41	193.21	193.30	
27	193.50	195.80	198.02	197.86	198.34	198.93	195.02	193.71	193.44	193.33	193.22	193.18	
28	193.48	195.49	197.92	197.77	198.15	199.32	194.90	193.75	193.44	193.32	193.25	193.19	
29	193.61	197.74	197.50	197.75	197.62	199.39	194.81	193.75	193.45	193.37	193.26	193.09	
30	194.12	198.06	196.80	197.39	198.13	199.24	194.81	193.84	193.44	193.37		193.21	
31		197.54		196.67	199.13		194.71		193.44	193.37		193.22	
Mean	193.40	195.48	196.04	196.75	198.56	199.26	196.94	194.09	193.49	193.41	193.30	193.38	
Max	194.12	198.39	198.02	198.48	199.42	199.61	199.53	194.68	193.83	193.55	193.62	193.61	199.61
Min	193.11	194.17	194.52	194.77	197.62	198.93	194.71	193.71	193.43	193.32	193.08	193.09	193.08

Annual Max Momentary Gage Height	199.63	m. (MSL.) ,	at 12.00 Hours , on Sep 17 , 2011		
Zero Gage at Bottom Elevation	191.88	m. (MSL.) ,	River Bed	191.07	m. (MSL)
Left Bank Elevation	203.14	m. (MSL.) ,			
Right Bank Elevation	203.17	m. (MSL.) ,	Drainage Area	1710	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.80	23.80	64.20	50.40	105.20	200.00	166.80	19.40	8.30	4.60	4.00	2.90		
2	3.80	26.60	42.40	70.00	224.00	194.00	155.40	18.90	5.80	4.30	4.20	3.00		
3	3.50	18.80	28.50	73.10	234.00	196.00	210.00	17.60	5.60	4.60	4.90	3.60		
4	3.60	21.00	32.10	65.80	210.00	232.00	265.20	16.70	5.80	4.40	5.70	3.50		
5	3.20	32.50	34.20	66.90	175.30	196.00	212.00	15.10	5.60	4.50	6.20	3.30		
6	3.90	25.70	29.00	50.40	141.40	214.00	173.60	14.80	5.30	4.50	5.10	3.30		
7	3.60	24.90	36.70	36.50	114.00	262.80	155.40	14.40	5.10	4.50	5.20	3.20		
8	3.80	24.40	27.10	28.60	97.70	255.60	116.70	13.70	5.00	4.50	4.70	3.10		
9	4.70	33.90	22.10	24.90	90.50	241.20	98.90	12.70	4.90	4.40	4.10	3.00		
10	3.10	23.00	21.00	24.10	82.00	234.00	87.20	12.30	4.90	4.10	3.90	3.10		
11	4.50	20.00	17.00	24.90	82.50	224.00	74.50	12.00	5.60	4.10	3.60	5.10		
12	6.60	20.80	24.40	21.30	98.60	192.30	66.20	11.60	4.60	4.10	3.60	6.00		
13	4.70	12.00	53.40	20.80	105.70	200.00	63.20	11.90	4.50	4.20	3.50	6.10		
14	4.40	19.40	47.50	24.50	102.00	220.00	71.60	11.30	4.50	4.20	3.50	5.90		
15	3.90	25.90	37.50	42.80	95.30	228.00	80.00	11.10	4.90	4.20	3.40	5.80		
16	3.80	18.10	25.70	64.90	86.90	232.00	81.80	10.80	4.70	4.40	3.20	5.80		
17	3.80	12.40	39.90	77.30	81.60	285.10	64.90	9.40	5.00	4.20	3.10	5.80		
18	3.00	12.30	74.30	58.90	98.60	258.00	48.20	9.20	5.10	3.90	2.80	5.80		
19	3.30	25.10	89.40	70.00	120.20	212.00	41.40	9.20	4.70	3.70	2.80	5.70		
20	4.10	72.40	70.70	105.20	163.40	182.10	38.80	9.20	4.50	3.70	2.80	5.60		
21	4.30	100.70	50.60	97.70	238.80	155.40	36.30	8.70	4.70	4.50	2.40	5.60		
22	2.40	73.60	37.10	91.90	210.00	158.50	36.70	8.60	4.60	5.00	2.20	5.60		
23	2.70	27.30	29.60	87.40	183.80	175.30	32.00	8.50	4.60	5.60	2.40	5.30		
24	4.10	16.30	23.40	80.00	161.70	177.00	30.30	8.30	4.70	4.70	2.70	4.70		
25	5.40	24.90	23.30	72.60	124.60	166.80	28.10	7.80	5.00	4.50	3.20	4.30		
26	5.20	28.30	62.60	74.50	104.10	153.80	25.70	7.30	4.70	4.30	3.00	3.60		
27	5.10	38.60	90.00	85.50	99.20	149.10	24.50	7.10	4.60	3.70	3.00	2.80		
28	4.90	32.70	87.20	83.10	93.60	218.00	22.70	7.50	4.60	3.70	3.20	2.80		
29	6.10	82.30	76.30	82.50	79.30	232.00	21.30	7.50	4.70	4.00	3.30	2.30		
30	11.40	91.10	59.80	73.60	93.00	202.00	21.30	8.40	4.60	4.00		3.00		
31		77.30		56.80	182.10		19.90		4.60	4.00		3.00		
Total	130.70	1086.10	1357.00	1886.90	4079.10	6247.00	2570.60	341.00	155.80	133.10	105.70	132.60	18225.60	CMSDAY
Mean	4.40	35.00	45.20	60.90	131.60	208.20	82.90	11.40	5.00	4.30	3.60	4.30	49.80	CMS
Max	11.40	100.70	90.00	105.20	238.80	285.10	265.20	19.40	8.30	5.60	6.20	6.10	285.10	CMS
Min	2.40	12.00	17.00	20.80	79.30	149.10	19.90	7.10	4.50	3.70	2.20	2.30	2.20	CMS
Runoff	11.29	93.84	117.24	163.03	352.43	539.74	222.10	29.46	13.46	11.50	9.13	11.46	1574.69	MCM

Momentary Peak 291.45 CMS. at 199.63 m. (MSL.) at 12.00 Hours , on Sep 17 , 2011

Runoff Yield 29.12 Liters/Second/Square KM. Momentary Peak Yield 170.439 Liters/Second/Square KM.

WATER YEAR : 2011

NAN RIVER BASIN

Khlong Chom Phu at Ban Chom Phu , Phitsanulok (N.43A)

Lat 16 - 41 - 40 N Long 100 - 39 - 28 E

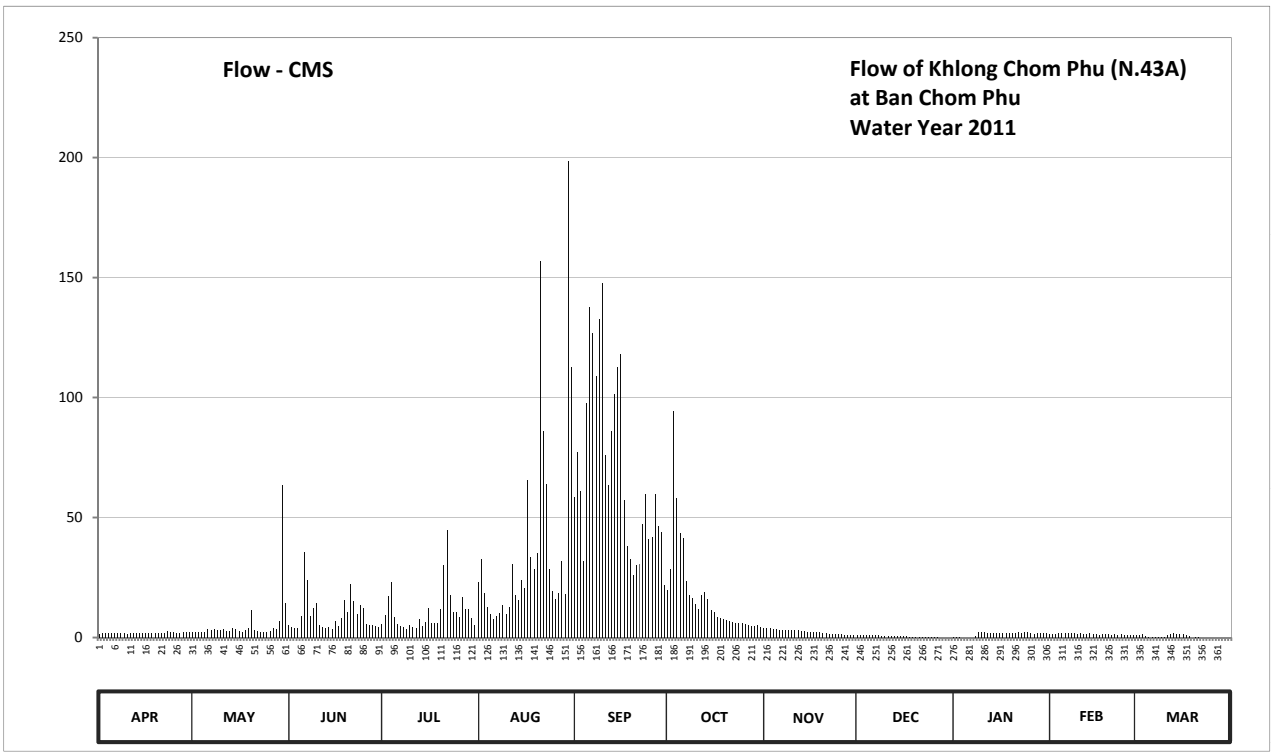
Location : on right bank at Ban Chom Phu.

	Ban Chom Phu	**Amphoe** Noen Maprang	**Changwat** Phitsanulok
Drainge Area	- sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+50.056 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	Near the gage site.	**Elevation**	+59.558 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	2010 to date		
Rating Operation			
Period of Rating	2010 to date		
Rated by Flot	-		
Rated by Current Meter	2010 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	Overbank flow starts at elevation +58.610 m.(MSL.), records are channel flow only.		
General Description	Records good. Stage-discharge relation defined by 22 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	51.83	52.04	52.58	52.63	54.73	56.11	54.43	52.36	51.76	51.51	51.88	51.73	
2	51.94	52.06	52.40	53.16	55.26	56.54	55.07	52.35	51.75	51.51	51.88	51.79	
3	51.96	52.05	52.37	54.19	54.32	56.18	56.84	52.32	51.75	51.51	51.89	51.85	
4	51.95	52.04	52.38	54.72	53.66	55.23	56.10	52.28	51.74	51.49	51.91	51.68	
5	51.93	52.03	53.12	53.04	53.21	56.89	55.67	52.26	51.74	51.48	52.01	51.56	
6	51.94	52.30	55.39	52.61	52.91	57.45	55.60	52.24	51.73	51.48	51.97	51.56	
7	51.93	52.23	54.81	52.49	53.12	57.32	54.75	52.23	51.71	51.42	51.91	51.60	
8	51.95	52.26	53.09	52.41	53.27	57.07	54.24	52.23	51.71	51.68	51.91	51.60	
9	51.95	52.21	53.62	52.28	53.75	57.39	54.11	52.22	51.70	52.06	51.91	51.58	
10	51.90	52.22	53.86	52.58	53.25	57.56	53.80	52.20	51.69	52.06	51.90	51.57	
11	51.95	52.26	52.58	52.40	53.65	56.52	53.54	52.19	51.69	52.06	51.92	51.73	
12	51.94	52.13	52.43	52.33	55.19	56.23	54.24	52.18	51.68	52.01	51.88	51.81	
13	51.95	52.16	52.35	52.94	54.27	56.70	54.36	52.15	51.67	52.01	51.83	51.95	
14	51.95	52.34	52.41	52.46	54.03	56.95	54.08	52.11	51.66	52.01	51.91	51.84	
15	51.95	52.25	52.28	52.77	54.80	57.13	53.46	52.09	51.66	51.99	51.88	51.81	
16	51.95	52.13	52.79	53.62	54.53	57.21	53.34	52.06	51.65	51.96	51.82	51.81	
17	51.96	52.08	52.45	52.69	56.29	56.08	53.05	52.06	51.63	51.96	51.76	51.75	
18	51.94	52.21	52.97	52.68	55.30	55.48	52.99	52.05	51.60	51.96	51.83	51.63	
19	51.96	52.34	54.04	52.66	55.08	55.26	52.95	52.03	51.58	51.96	51.82	51.46	
20	51.99	53.48	53.39	53.56	55.36	54.94	52.86	52.00	51.56	51.96	51.83	51.60	
21	52.01	52.20	54.67	55.17	57.66	55.16	52.80	51.96	51.55	52.01	51.77	51.56	
22	52.01	52.14	53.97	55.70	56.70	55.18	52.75	51.90	51.54	52.03	51.82	51.43	
23	52.11	52.08	53.21	54.26	56.25	55.78	52.70	51.88	51.54	52.01	51.79	51.46	
24	52.04	52.06	53.77	53.38	55.08	56.14	52.67	51.86	51.53	52.06	51.83	51.49	
25	52.03	52.06	53.61	53.39	54.41	55.58	52.66	51.85	51.52	52.03	51.73	51.45	
26	52.01	52.11	52.64	53.06	54.09	55.61	52.59	51.82	51.51	51.99	51.78	51.43	
27	52.01	52.36	52.56	54.14	54.32	56.14	52.55	51.78	51.51	51.89	51.73	51.44	
28	52.02	52.26	52.58	53.58	55.23	55.76	52.49	51.76	51.50	51.97	51.71	51.36	
29	52.06	52.83	52.47	53.56	54.31	55.68	52.45	51.76	51.49	52.00	51.81	51.34	
30	52.06	56.23	52.43	53.01	58.07	54.61	52.52	51.75	51.48	52.01		51.28	
31		53.88		52.58	57.13		52.40		51.48	51.96		51.29	
Mean	51.97	52.42	53.11	53.23	54.81	56.20	53.68	52.06	51.62	51.87	51.85	51.59	
Max	52.11	56.23	55.39	55.70	58.07	57.56	56.84	52.36	51.76	52.06	52.01	51.95	58.07
Min	51.83	52.03	52.28	52.28	52.91	54.61	52.40	51.75	51.48	51.42	51.71	51.28	51.28

Annual Max Momentary Gage Height	58.96	m. (MSL.) ,	at 18.00 Hours , on Aug 30 , 2011		
Zero Gage at Bottom Elevation	50.06	m. (MSL.) ,	River Bed	49.73	m. (MSL)
Left Bank Elevation	58.72	m. (MSL.) ,			
Right Bank Elevation	58.60	m. (MSL.) ,	Drainage Area		Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.32	2.20	5.41	5.72	23.16	58.58	19.62	4.01	1.04	0.04	1.52	0.92		
2	1.76	2.30	4.27	9.23	32.50	77.12	28.40	3.95	1.00	0.04	1.52	1.16		
3	1.84	2.25	4.08	17.11	18.33	61.24	94.48	3.76	1.00	0.04	1.56	1.40		
4	1.80	2.20	4.14	23.04	12.68	31.75	58.20	3.51	0.96	0.00	1.64	0.72		
5	1.72	2.15	8.96	8.42	9.57	97.58	43.64	3.38	0.96	0.00	2.05	0.24		
6	1.76	3.63	35.75	5.60	7.54	137.80	41.40	3.25	0.92	0.00	1.88	0.24		
7	1.72	3.19	24.15	4.84	8.96	127.00	23.40	3.19	0.84	0.00	1.64	0.40		
8	1.80	3.38	8.76	4.33	9.97	108.95	17.56	3.19	0.84	0.72	1.64	0.40		
9	1.80	3.06	12.36	3.51	13.40	132.60	16.39	3.13	0.80	2.30	1.64	0.32		
10	1.60	3.13	14.28	5.41	9.84	147.48	13.80	3.00	0.76	2.30	1.60	0.28		
11	1.80	3.38	5.41	4.27	12.60	76.16	11.80	2.95	0.76	2.30	1.68	0.92		
12	1.76	2.65	4.46	3.82	30.80	63.26	17.56	2.90	0.72	2.05	1.52	1.24		
13	1.80	2.80	3.95	7.74	17.83	86.00	18.80	2.75	0.68	2.05	1.32	1.80		
14	1.80	3.89	4.33	4.65	15.67	101.30	16.12	2.55	0.64	2.05	1.64	1.36		
15	1.80	3.32	3.51	6.61	24.00	112.85	11.26	2.45	0.64	1.96	1.52	1.24		
16	1.80	2.65	6.74	12.36	20.78	118.20	10.45	2.30	0.60	1.84	1.28	1.24		
17	1.84	2.40	4.58	6.10	65.78	57.44	8.49	2.30	0.52	1.84	1.04	1.00		
18	1.76	3.06	7.95	6.04	33.50	38.16	8.08	2.25	0.40	1.84	1.32	0.52		
19	1.84	3.89	15.76	5.91	28.60	32.50	7.81	2.15	0.32	1.84	1.28	0.00		
20	1.96	11.39	10.78	11.93	35.00	26.10	7.21	2.00	0.24	1.84	1.32	0.40		
21	2.05	3.00	22.44	30.40	157.00	30.20	6.80	1.84	0.20	2.05	1.08	0.24		
22	2.05	2.70	15.16	44.60	86.00	30.60	6.48	1.60	0.16	2.15	1.28	0.00		
23	2.55	2.40	9.57	17.74	64.10	47.16	6.17	1.52	0.16	2.05	1.16	0.00		
24	2.20	2.30	13.56	10.72	28.60	59.72	5.98	1.44	0.12	2.30	1.32	0.00		
25	2.15	2.30	12.28	10.78	19.38	40.86	5.91	1.40	0.08	2.15	0.92	0.00		
26	2.05	2.55	5.79	8.56	16.21	41.72	5.47	1.28	0.04	1.96	1.12	0.00		
27	2.05	4.01	5.28	16.66	18.33	59.72	5.22	1.12	0.04	1.56	0.92	0.00		
28	2.10	3.38	5.41	12.07	31.75	46.52	4.84	1.04	0.00	1.88	0.84	0.00		
29	2.30	7.00	4.71	11.93	18.22	43.96	4.58	1.04	0.00	2.00	1.24	0.00		
30	2.30	63.26	4.46	8.22	198.70	21.72	5.03	1.00	0.00	2.05		0.00		
31		14.44		5.41	112.85		4.27		0.00	1.84		0.00		
Total	57.08	174.26	288.29	333.73	1181.65	2114.25	535.22	72.25	15.44	47.04	40.49	16.04	4875.74	CMSDAY
Mean	1.90	5.62	9.61	10.77	38.12	70.47	17.27	2.41	0.50	1.52	1.40	0.52	13.32	CMS
Max	2.55	63.26	35.75	44.60	198.70	147.48	94.48	4.01	1.04	2.30	2.05	1.80	198.70	CMS
Min	1.32	2.15	3.51	3.51	7.54	21.72	4.27	1.00	0.00	0.00	0.84	0.00	0.00	CMS
Runoff	4.93	15.06	24.91	28.83	102.10	182.67	46.24	6.24	1.33	4.06	3.50	1.39	421.26	MCM

Momentary Peak 307.40 CMS. at 58.96 m. (MSL.) at 18.00 Hours , on Aug 30 , 2011

Runoff Yield ***** Liters/Second/Square KM. Momentary Peak Yield ***** Liters/Second/Square KM.

WATER YEAR : 2011

NAN RIVER BASIN

Nam Yao at Ban Nam Yao , Nan (N.49)

Lat 18 - 59 - 33 N Long 100 - 56 - 36 E

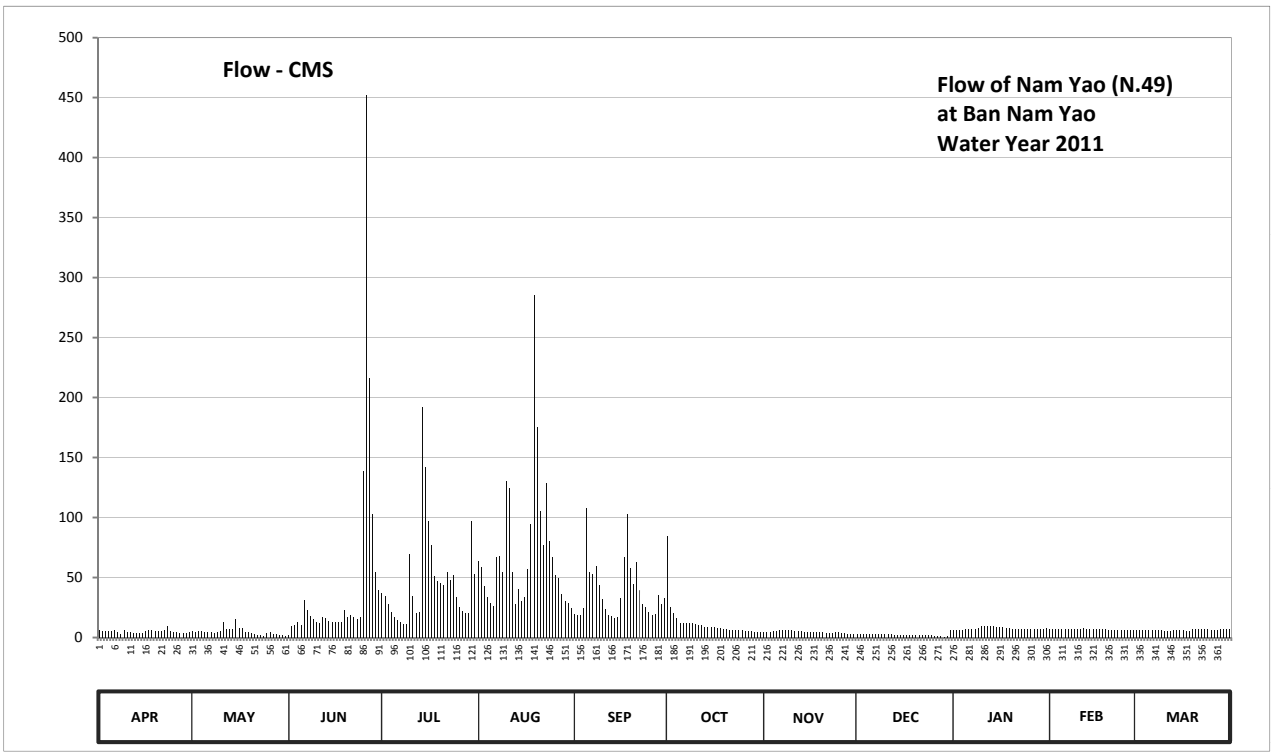
Location : on right bank downstream of the bridge of Nam Yao, along Pua - Sila Phet Road.

	Ban Nam Yao	**Amphoe** Pua	**Changwat** Nan		
Drainge Area	153 sq.km.				
Type of Gage	Water - stage recorder				
Zero Gage at Bottom	+263.983 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On right bank about 15 meters from the top staff gage.	**Elevation** +270.035 m. (MSL.)			
Gage Reading Frequency	Recording				
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings				
Period of Available Gage Records	1979 to date				
Rating Operation					
Period of Rating	1979 to date				
Rated by Flot	-				
Rated by Current Meter	1979 to date				
Stability of Channel Regimes	Stable.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records fair. Stage-discharge relation defined by 47 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	265.73	265.72	265.47	265.81	266.10	265.59	266.30	265.32	265.26	265.74	265.78	265.74	
2	265.72	265.69	265.43	265.78	266.05	265.58	265.67	265.32	265.26	265.74	265.76	265.74	
3	265.72	265.71	265.45	265.70	265.88	265.58	265.61	265.32	265.26	265.74	265.76	265.74	
4	265.72	265.71	265.50	265.62	265.77	265.66	265.54	265.34	265.26	265.74	265.76	265.74	
5	265.72	265.67	265.45	265.56	265.71	266.49	265.48	265.34	265.26	265.78	265.76	265.74	
6	265.73	265.66	265.74	265.52	265.68	266.01	265.48	265.35	265.25	265.77	265.76	265.74	
7	265.66	265.65	265.64	265.49	266.13	265.99	265.48	265.35	265.25	265.77	265.76	265.74	
8	265.55	265.64	265.57	265.47	266.14	266.06	265.48	265.35	265.25	265.77	265.76	265.74	
9	265.75	265.69	265.53	265.46	266.01	265.89	265.48	265.35	265.25	265.80	265.76	265.74	
10	265.69	265.72	265.49	266.16	266.66	265.75	265.46	265.35	265.25	265.82	265.76	265.72	
11	265.65	265.86	265.48	265.78	266.62	265.65	265.44	265.34	265.25	265.82	265.78	265.72	
12	265.63	265.76	265.56	265.61	266.01	265.58	265.44	265.33	265.25	265.82	265.80	265.72	
13	265.62	265.78	265.54	265.62	265.70	265.57	265.42	265.33	265.24	265.82	265.76	265.74	
14	265.60	265.78	265.51	267.07	265.85	265.55	265.42	265.32	265.23	265.82	265.76	265.74	
15	265.62	265.89	265.49	266.74	265.73	265.56	265.42	265.32	265.23	265.81	265.76	265.75	
16	265.72	265.79	265.50	266.40	265.77	265.76	265.42	265.31	265.23	265.81	265.76	265.75	
17	265.73	265.80	265.49	266.23	266.03	266.13	265.40	265.31	265.23	265.81	265.76	265.70	
18	265.73	265.66	265.49	265.97	266.38	266.45	265.39	265.31	265.23	265.80	265.76	265.71	
19	265.72	265.69	265.64	265.93	267.57	266.04	265.38	265.31	265.23	265.79	265.76	265.76	
20	265.71	265.61	265.56	265.91	266.97	265.90	265.38	265.31	265.23	265.78	265.75	265.76	
21	265.70	265.56	265.58	265.89	266.47	266.09	265.36	265.30	265.23	265.78	265.75	265.76	
22	265.73	265.52	265.56	266.01	266.23	265.84	265.36	265.30	265.23	265.78	265.75	265.76	
23	265.82	265.48	265.53	265.94	266.65	265.70	265.36	265.30	265.23	265.78	265.75	265.76	
24	265.72	265.46	265.56	265.98	266.26	265.67	265.35	265.31	265.23	265.78	265.75	265.76	
25	265.68	265.59	266.72	265.77	266.13	265.62	265.35	265.31	265.23	265.78	265.75	265.75	
26	265.66	265.67	268.32	265.67	265.98	265.58	265.34	265.29	265.22	265.78	265.75	265.75	
27	265.64	265.54	267.21	265.63	265.95	265.59	265.33	265.28	265.22	265.78	265.74	265.75	
28	265.63	265.53	266.45	265.61	265.80	265.79	265.33	265.27	265.22	265.77	265.74	265.78	
29	265.62	265.52	266.01	265.60	265.73	265.70	265.32	265.27	265.22	265.77	265.74	265.78	
30	265.68	265.48	265.84	266.40	265.71	265.76	265.32	265.27	265.41	265.77		265.78	
31		265.46		265.99	265.66		265.32		265.74	265.79		265.78	
Mean	265.69	265.65	265.78	265.88	266.11	265.80	265.45	265.32	265.26	265.78	265.76	265.75	
Max	265.82	265.89	268.32	267.07	267.57	266.49	266.30	265.35	265.74	265.82	265.80	265.78	268.32
Min	265.55	265.46	265.43	265.46	265.66	265.55	265.32	265.27	265.22	265.74	265.74	265.70	265.22

Annual Max Momentary Gage Height	269.58	m. (MSL.) ,	at 05.00 Hours , on Jun 26 , 2011		
Zero Gage at Bottom Elevation	263.98	m. (MSL.) ,	River Bed	264.16	m. (MSL)
Left Bank Elevation	273.19	m. (MSL.) ,			
Right Bank Elevation	275.27	m. (MSL.) ,	Drainage Area	153	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	5.90	5.60	1.70	36.85	63.50	19.30	85.00	4.80	2.80	6.20	7.40	6.20		
2	5.60	4.85	9.50	34.40	58.75	18.60	25.60	4.80	2.80	6.20	6.80	6.20		
3	5.60	5.30	10.50	28.00	42.80	18.60	20.80	4.80	2.80	6.20	6.80	6.20		
4	5.60	5.30	13.00	21.60	33.60	24.80	15.80	5.60	2.80	6.20	6.80	6.20		
5	5.60	4.55	10.50	17.20	28.80	108.25	12.00	5.60	2.80	7.40	6.80	6.20		
6	5.90	4.40	31.20	14.40	26.40	54.95	12.00	6.00	2.50	7.10	6.80	6.20		
7	4.40	4.25	23.20	12.50	66.65	53.05	12.00	6.00	2.50	7.10	6.80	6.20		
8	2.75	4.10	17.90	11.50	67.70	59.70	12.00	6.00	2.50	7.10	6.80	6.20		
9	6.50	4.85	15.10	11.00	54.95	43.65	12.00	6.00	2.50	8.00	6.80	6.20		
10	4.85	5.60	12.50	69.80	130.40	32.00	11.00	6.00	2.50	9.60	6.80	5.60		
11	4.25	12.80	12.00	34.40	124.80	24.00	10.00	5.60	2.50	9.60	7.40	5.60		
12	3.95	6.80	17.20	20.80	54.95	18.60	10.00	5.20	2.50	9.60	8.00	5.60		
13	3.80	7.40	15.80	21.60	28.00	17.90	9.00	5.20	2.20	9.60	6.80	6.20		
14	3.50	7.40	13.70	191.90	40.25	16.50	9.00	4.80	1.90	9.60	6.80	6.20		
15	3.80	15.20	12.50	141.60	30.40	17.20	9.00	4.80	1.90	8.80	6.80	6.50		
16	5.60	7.70	13.00	97.00	33.60	32.80	9.00	4.40	1.90	8.80	6.80	6.50		
17	5.90	8.00	12.50	77.30	56.85	66.65	8.00	4.40	1.90	8.80	6.80	5.00		
18	5.90	4.40	12.50	51.15	94.60	103.25	7.60	4.40	1.90	8.00	6.80	5.30		
19	5.60	4.85	23.20	47.35	285.15	57.80	7.20	4.40	1.90	7.70	6.80	6.80		
20	5.30	3.65	17.20	45.45	175.50	44.50	7.20	4.40	1.90	7.40	6.50	6.80		
21	5.00	2.90	18.60	43.65	105.75	62.55	6.40	4.00	1.90	7.40	6.50	6.80		
22	5.90	2.30	17.20	54.95	77.30	39.40	6.40	4.00	1.90	7.40	6.50	6.80		
23	9.60	1.80	15.10	48.30	129.00	28.00	6.40	4.00	1.90	7.40	6.50	6.80		
24	5.60	1.60	17.20	52.10	80.60	25.60	6.00	4.40	1.90	7.40	6.50	6.80		
25	4.70	3.35	138.80	33.60	66.65	21.60	6.00	4.40	1.90	7.40	6.50	6.50		
26	4.40	4.55	451.80	25.60	52.10	18.60	5.60	3.70	1.60	7.40	6.50	6.50		
27	4.10	2.60	215.90	22.40	49.25	19.30	5.20	3.40	1.60	7.40	6.20	6.50		
28	3.95	2.45	103.25	20.80	36.00	35.20	5.20	3.10	1.60	7.10	6.20	7.40		
29	3.80	2.30	54.95	20.00	30.40	28.00	4.80	3.10	0.26	7.10	6.20	7.40		
30	4.70	1.80	39.40	97.00	28.80	32.80	4.80	3.10	1.10	7.10		7.40		
31		1.60		53.05	24.80		4.80		6.20	7.70		7.40		
Total	152.05	154.25	1366.90	1457.25	2178.30	1143.15	365.80	140.40	68.86	239.80	195.70	198.20	7660.66	CMSDAY
Mean	5.07	4.98	45.56	47.01	70.27	38.10	11.80	4.68	2.22	7.74	6.75	6.39	20.93	CMS
Max	9.60	15.20	451.80	191.90	285.15	108.25	85.00	6.00	6.20	9.60	8.00	7.40	451.80	CMS
Min	2.75	1.60	1.70	11.00	24.80	16.50	4.80	3.10	0.26	6.20	6.20	5.00	0.26	CMS
Runoff	13.14	13.33	118.10	125.91	188.21	98.77	31.61	12.13	5.95	20.72	16.91	17.12	661.88	MCM

Momentary Peak 782.40 CMS. at 269.58 m. (MSL.) at 05.00 Hours , on Jun 26 , 2011

Runoff Yield 136.80 Liters/Second/Square KM. Momentary Peak Yield 5113.726 Liters/Second/Square KM.

WATER YEAR : 2011

NAN RIVER BASIN

Khlong Wang Pong at Ban Wang Pong , Phetchabun (N.54)

Lat 16 - 19 - 34 N Long 100 - 48 - 17 E

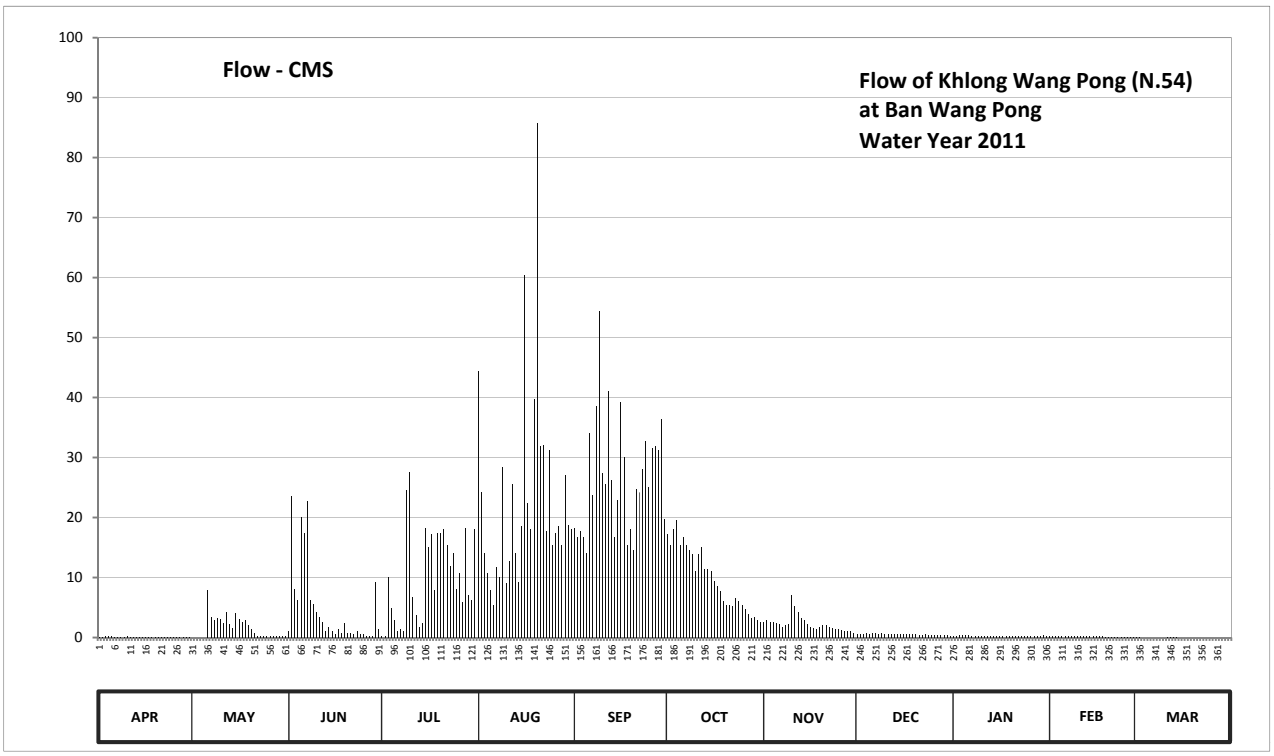
Location : on left bank at the bridge on road.

	Ban Wang Pong		**Amphoe** Chon Dan	**Changwat** Phetchabun	
Drainge Area	174 sq.km.				
Type of Gage	Staff gage				
Zero Gage at Bottom	+104.350 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On left bank at the abutment of the bridge.			**Elevation**	+107.656 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.				
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings				
Period of Available Gage Records	1999 to date				
Rating Operation					
Period of Rating	1999 to date				
Rated by Flot	-				
Rated by Current Meter	1999 to date				
Stability of Channel Regimes	Fairly Stable.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records Fair. Stage-discharge relation defined by 29 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	104.14	103.92	104.49	104.28	106.24	105.26	105.22	104.59	104.41	104.32	104.25	104.06	
2	104.14	103.90	105.46	104.26	105.49	105.20	105.15	104.61	104.40	104.31	104.25	104.05	
3	104.15	103.94	104.85	104.93	105.10	105.24	105.25	104.59	104.42	104.33	104.23	104.04	
4	104.15	103.98	104.77	104.71	104.96	105.20	105.31	104.59	104.43	104.37	104.23	104.04	
5	104.15	104.04	105.33	104.61	104.84	105.10	105.15	104.58	104.42	104.36	104.21	104.03	
6	104.14	104.84	105.23	104.48	104.73	105.86	105.20	104.57	104.44	104.34	104.25	104.02	
7	104.14	104.64	105.43	104.52	105.00	105.47	105.15	104.54	104.43	104.32	104.23	104.01	
8	104.14	104.61	104.77	104.47	104.93	106.03	105.12	104.56	104.42	104.31	104.23	104.00	
9	104.13	104.63	104.74	105.50	105.65	106.59	105.09	104.57	104.43	104.30	104.21	103.99	
10	104.15	104.62	104.68	105.62	104.89	105.61	104.97	104.80	104.41	104.29	104.21	103.98	
11	104.13	104.58	104.64	104.79	105.04	105.54	105.09	104.72	104.40	104.32	104.19	104.10	
12	104.13	104.68	104.59	104.65	105.54	106.12	105.14	104.68	104.39	104.30	104.18	104.07	
13	104.13	104.57	104.47	104.54	105.10	105.57	104.99	104.63	104.38	104.29	104.18	104.06	
14	104.12	104.53	104.54	104.58	104.90	105.20	104.99	104.61	104.40	104.31	104.19	104.05	
15	104.12	104.67	104.47	105.26	105.27	105.44	104.97	104.57	104.39	104.30	104.18	104.04	
16	104.12	104.62	104.41	105.14	106.79	106.05	104.91	104.54	104.38	104.29	104.17	104.03	
17	104.12	104.59	104.51	105.22	105.42	105.71	104.87	104.53	104.39	104.27	104.16	104.02	
18	104.11	104.61	104.44	104.84	105.25	105.15	104.83	104.52	104.40	104.26	104.15	104.01	
19	104.11	104.55	104.58	105.23	106.07	105.25	104.76	104.54	104.39	104.26	104.14	104.00	
20	104.11	104.52	104.45	105.23	107.55	105.12	104.73	104.56	104.38	104.24	104.13	104.03	
21	104.10	104.45	104.43	105.25	105.78	105.51	104.73	104.55	104.37	104.27	104.12	104.02	
22	104.10	104.24	104.39	105.15	105.79	105.49	104.72	104.54	104.37	104.26	104.11	104.01	
23	104.10	104.21	104.48	105.01	105.24	105.64	104.78	104.53	104.38	104.25	104.09	104.00	
24	104.10	104.18	104.40	105.10	105.76	105.81	104.76	104.52	104.37	104.26	104.08	103.99	
25	104.10	104.16	104.40	104.85	105.15	105.52	104.73	104.51	104.37	104.27	104.10	103.98	
26	104.10	104.26	104.32	104.96	105.23	105.77	104.70	104.50	104.36	104.28	104.09	103.97	
27	104.10	104.26	104.30	104.75	105.27	105.78	104.66	104.49	104.34	104.32	104.09	103.97	
28	104.11	104.24	104.31	105.26	105.15	105.76	104.63	104.48	104.34	104.32	104.09	103.96	
29	104.11	104.21	104.90	104.80	105.60	105.95	104.64	104.47	104.34	104.32	104.09	103.96	
30	104.11	104.31	104.52	104.77	105.28	105.32	104.61	104.44	104.33	104.33		103.96	
31		104.32		105.25	105.25		104.59		104.32	104.31		103.96	
Mean	104.12	104.38	104.64	104.90	105.43	105.58	104.92	104.56	104.39	104.30	104.17	104.01	
Max	104.15	104.84	105.46	105.62	107.55	106.59	105.31	104.80	104.44	104.37	104.25	104.10	107.55
Min	104.10	103.90	104.30	104.26	104.73	105.10	104.59	104.44	104.32	104.24	104.08	103.96	103.90

Annual Max Momentary Gage Height	107.95	m. (MSL.) ,	at 09.00 Hours , on Aug 20 , 2011		
Zero Gage at Bottom Elevation	104.35	m. (MSL.) ,	River Bed	104.01	m. (MSL)
Left Bank Elevation	109.55	m. (MSL.) ,			
Right Bank Elevation	110.51	m. (MSL.) ,	Drainage Area	174	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.10	0.00	1.10	0.30	44.40	18.30	17.20	2.50	0.60	0.30	0.20	0.10		
2	0.10	0.00	23.50	0.30	24.20	16.70	15.40	2.90	0.50	0.30	0.20	0.10		
3	0.20	0.00	8.10	10.00	14.10	17.70	18.00	2.50	0.60	0.40	0.20	0.00		
4	0.20	0.00	6.30	4.90	10.70	16.70	19.60	2.50	0.70	0.40	0.20	0.00		
5	0.20	0.00	20.10	2.90	7.90	14.10	15.40	2.40	0.60	0.40	0.20	0.00		
6	0.10	7.90	17.50	1.10	5.40	34.00	16.70	2.30	0.80	0.40	0.20	0.00		
7	0.10	3.50	22.70	1.50	11.70	23.70	15.40	1.80	0.70	0.30	0.20	0.00		
8	0.10	2.90	6.30	1.00	10.00	38.60	14.60	2.10	0.60	0.30	0.20	0.00		
9	0.10	3.30	5.60	24.50	28.40	54.30	13.90	2.30	0.70	0.30	0.20	0.00		
10	0.20	3.10	4.30	27.60	9.10	27.40	11.00	7.00	0.60	0.30	0.20	0.00		
11	0.10	2.40	3.50	6.80	12.70	25.50	13.90	5.20	0.50	0.30	0.20	0.10		
12	0.10	4.30	2.50	3.70	25.50	41.10	15.10	4.30	0.50	0.30	0.20	0.10		
13	0.10	2.30	1.00	1.80	14.10	26.30	11.50	3.30	0.50	0.30	0.20	0.10		
14	0.10	1.60	1.80	2.40	9.30	16.70	11.50	2.90	0.50	0.30	0.20	0.10		
15	0.10	4.10	1.00	18.30	18.50	22.90	11.00	2.30	0.50	0.30	0.20	0.00		
16	0.10	3.10	0.60	15.10	60.40	39.20	9.50	1.80	0.50	0.30	0.20	0.00		
17	0.10	2.50	1.40	17.20	22.40	30.00	8.60	1.60	0.50	0.30	0.20	0.00		
18	0.10	2.90	0.80	7.90	18.00	15.40	7.70	1.50	0.50	0.30	0.20	0.00		
19	0.10	2.00	2.40	17.50	39.70	18.00	6.10	1.80	0.50	0.30	0.10	0.00		
20	0.10	1.50	0.80	17.50	85.80	14.60	5.40	2.10	0.50	0.20	0.10	0.00		
21	0.10	0.80	0.70	18.00	31.90	24.80	5.40	2.00	0.40	0.30	0.10	0.00		
22	0.10	0.20	0.50	15.40	32.10	24.20	5.20	1.80	0.40	0.30	0.10	0.00		
23	0.10	0.20	1.10	11.90	17.70	28.10	6.50	1.60	0.50	0.20	0.10	0.00		
24	0.10	0.20	0.50	14.10	31.30	32.70	6.10	1.50	0.40	0.30	0.10	0.00		
25	0.10	0.20	0.50	8.10	15.40	25.00	5.40	1.40	0.40	0.30	0.10	0.00		
26	0.10	0.30	0.30	10.70	17.50	31.60	4.70	1.20	0.40	0.30	0.10	0.00		
27	0.10	0.30	0.30	5.90	18.50	31.90	3.90	1.10	0.40	0.30	0.10	0.00		
28	0.10	0.20	0.30	18.30	15.40	31.30	3.30	1.10	0.40	0.30	0.10	0.00		
29	0.10	0.20	9.30	7.00	27.10	36.40	3.50	1.00	0.40	0.30	0.10	0.00		
30	0.10	0.30	1.50	6.30	18.80	19.80	2.90	0.80	0.40	0.40		0.00		
31		0.30		18.00	18.00		2.50		0.30	0.30		0.00		
Total	3.40	50.60	146.30	316.00	716.00	797.00	306.90	68.60	15.80	9.60	4.70	0.60	2435.50	CMSDAY
Mean	0.10	1.60	4.90	10.20	23.10	26.60	9.90	2.30	0.50	0.30	0.20	0.00	6.70	CMS
Max	0.20	7.90	23.50	27.60	85.80	54.30	19.60	7.00	0.80	0.40	0.20	0.10	85.80	CMS
Min	0.10	0.00	0.30	0.30	5.40	14.10	2.50	0.80	0.30	0.20	0.10	0.00	0.00	CMS
Runoff	0.29	4.37	12.64	27.30	61.86	68.86	26.52	5.93	1.37	0.83	0.41	0.05	210.43	MCM

Momentary Peak 99.90 CMS. at 107.95 m. (MSL.) at 09.00 Hours , on Aug 20 , 2011

Runoff Yield 38.24 Liters/Second/Square KM. Momentary Peak Yield 574.138 Liters/Second/Square KM.

WATER YEAR : 2011

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.

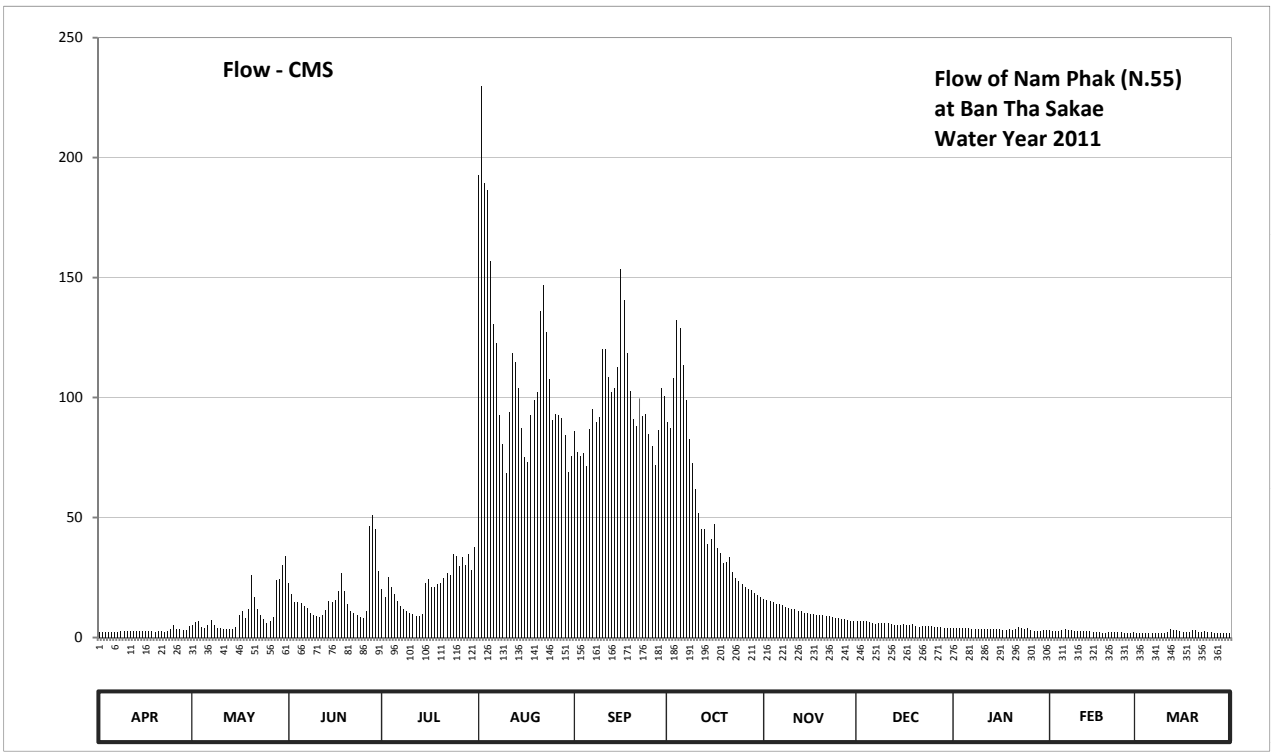
Ban Tha Sakae **Amphoe** Chat Trakan **Changwat** Phitsanulok

Drainge Area	971 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+182.830 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank about 13 meters from the top staff gage. **Elevation** +191.446 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings
Period of Available Gage Records	1983 to date
Rating Operation	
Period of Rating	1994 to date
Rated by Flot	-
Rated by Current Meter	1994 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 23 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	183.41	183.71	185.29	185.12	190.51	188.51	188.62	184.79	183.92	183.61	183.48	183.36	
2	183.40	183.87	184.93	184.86	190.87	188.24	188.55	184.74	183.90	183.61	183.47	183.36	
3	183.40	183.92	184.68	185.48	190.47	188.18	189.10	184.70	183.89	183.60	183.46	183.35	
4	183.40	183.64	184.67	185.17	190.44	188.22	189.60	184.66	183.89	183.60	183.46	183.34	
5	183.39	183.59	184.62	184.94	190.05	188.04	189.54	184.61	183.88	183.59	183.49	183.35	
6	183.38	183.76	184.53	184.71	189.57	188.53	189.23	184.59	183.84	183.58	183.54	183.35	
7	183.42	183.96	184.43	184.52	189.43	188.77	188.87	184.54	183.77	183.57	183.51	183.35	
8	183.45	183.74	184.24	184.39	188.70	188.62	188.41	184.48	183.82	183.55	183.50	183.36	
9	183.43	183.61	184.15	184.31	188.34	188.68	188.08	184.45	183.84	183.55	183.46	183.36	
10	183.45	183.59	184.12	184.24	187.93	189.38	187.66	184.42	183.83	183.55	183.43	183.35	
11	183.45	183.57	184.06	184.19	188.74	189.38	187.19	184.40	183.81	183.55	183.43	183.42	
12	183.44	183.53	184.17	184.12	189.34	189.11	186.82	184.34	183.77	183.55	183.43	183.52	
13	183.45	183.53	184.37	184.11	189.26	188.95	186.81	184.34	183.74	183.53	183.45	183.51	
14	183.45	183.54	184.72	184.21	189.00	189.00	186.41	184.23	183.75	183.54	183.43	183.49	
15	183.44	183.64	184.68	185.29	188.54	189.21	186.56	184.22	183.76	183.55	183.41	183.45	
16	183.43	184.14	184.75	185.41	188.17	190.00	186.95	184.19	183.77	183.54	183.40	183.42	
17	183.43	184.33	185.03	185.17	188.09	189.78	186.31	184.20	183.74	183.51	183.38	183.42	
18	183.43	184.03	185.58	185.18	188.70	189.34	186.17	184.17	183.73	183.51	183.36	183.41	
19	183.39	184.41	185.05	185.27	188.87	188.97	185.88	184.16	183.77	183.52	183.33	183.51	
20	183.46	185.53	184.59	185.29	188.96	188.66	185.92	184.14	183.69	183.51	183.39	183.49	
21	183.44	184.85	184.34	185.43	189.68	188.57	186.06	184.12	183.66	183.56	183.40	183.39	
22	183.41	184.42	184.26	185.58	189.89	188.89	185.63	184.11	183.68	183.62	183.39	183.41	
23	183.43	184.15	184.15	185.52	189.51	188.69	185.45	184.09	183.69	183.60	183.38	183.43	
24	183.53	183.97	184.06	186.14	189.09	188.71	185.35	184.04	183.68	183.57	183.38	183.42	
25	183.71	183.84	184.01	186.10	188.64	188.47	185.25	184.03	183.67	183.60	183.37	183.41	
26	183.56	183.92	184.34	185.80	188.72	188.32	185.16	183.99	183.65	183.49	183.37	183.34	
27	183.52	184.09	186.88	186.05	188.70	188.05	185.12	183.97	183.63	183.47	183.37	183.34	
28	183.48	185.37	187.14	185.84	188.67	188.52	185.07	183.95	183.62	183.46	183.39	183.35	
29	183.49	185.42	186.82	186.13	188.46	189.00	184.99	183.92	183.60	183.46	183.36	183.35	
30	183.67	185.84	185.64	185.67	187.95	188.91	184.90	183.89	183.59	183.48		183.34	
31		186.09		186.35	188.18		184.85		183.59	183.48		183.34	
Mean	183.46	184.18	184.81	185.18	189.08	188.79	186.79	184.28	183.75	183.55	183.42	183.40	
Max	183.71	186.09	187.14	186.35	190.87	190.00	189.60	184.79	183.92	183.62	183.54	183.52	190.87
Min	183.38	183.53	184.01	184.11	187.93	188.04	184.85	183.89	183.59	183.46	183.33	183.34	183.33

Annual Max Momentary Gage Height	190.95	m. (MSL.) ,	at 06.00 Hours , on Aug 2 , 2011		
Zero Gage at Bottom Elevation	182.83	m. (MSL.) ,	River Bed	182.92	m. (MSL)
Left Bank Elevation	191.24	m. (MSL.) ,			
Right Bank Elevation	191.17	m. (MSL.) ,	Drainage Area	971	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.30	5.00	22.70	20.40	192.90	86.00	89.70	16.10	7.00	4.10	2.90	2.00		
2	2.20	6.50	17.90	17.00	230.00	77.30	87.40	15.50	6.80	4.10	2.80	2.00		
3	2.20	7.00	14.90	25.30	189.30	75.40	108.00	15.10	6.70	4.00	2.70	1.90		
4	2.20	4.40	14.80	21.00	186.60	76.60	132.40	14.70	6.70	4.00	2.70	1.80		
5	2.10	3.90	14.20	18.00	156.80	71.50	129.00	14.10	6.60	3.90	3.00	1.90		
6	2.10	5.40	13.20	15.20	130.70	86.70	113.30	13.90	6.20	3.80	3.50	1.90		
7	2.40	7.40	12.10	13.10	122.70	95.00	98.80	13.30	5.50	3.70	3.20	1.90		
8	2.70	5.30	10.20	11.70	92.50	89.70	82.70	12.70	6.00	3.60	3.10	2.00		
9	2.50	4.10	9.30	10.90	80.50	91.80	72.60	12.40	6.20	3.60	2.70	2.00		
10	2.70	3.90	9.00	10.20	68.60	120.10	61.80	12.00	6.10	3.60	2.50	1.90		
11	2.70	3.70	8.40	9.70	93.90	120.10	51.80	11.80	5.90	3.60	2.50	2.40		
12	2.60	3.40	9.50	9.00	118.30	108.40	45.30	11.20	5.50	3.60	2.50	3.30		
13	2.70	3.40	11.50	8.90	114.70	102.00	45.20	11.20	5.30	3.40	2.70	3.20		
14	2.70	3.50	15.30	9.90	104.00	104.00	38.80	10.10	5.30	3.50	2.50	3.00		
15	2.60	4.40	14.90	22.70	87.00	112.50	41.20	10.00	5.40	3.60	2.30	2.70		
16	2.50	9.20	15.60	24.30	75.20	153.40	47.50	9.70	5.50	3.50	2.20	2.40		
17	2.50	11.10	19.20	21.00	72.90	140.50	37.30	9.80	5.30	3.20	2.10	2.40		
18	2.50	8.10	26.70	21.10	92.50	118.30	35.20	9.50	5.20	3.20	2.00	2.30		
19	2.10	11.90	19.50	22.40	98.80	102.80	30.90	9.40	5.50	3.30	1.80	3.20		
20	2.70	26.00	13.90	22.70	102.40	91.10	31.50	9.20	4.80	3.20	2.10	3.00		
21	2.60	16.90	11.20	24.60	136.00	88.00	33.50	9.00	4.50	3.60	2.20	2.10		
22	2.30	12.00	10.40	26.70	146.80	99.60	27.40	8.90	4.70	4.20	2.10	2.30		
23	2.50	9.30	9.30	25.90	127.30	92.10	24.90	8.70	4.80	4.00	2.10	2.50		
24	3.40	7.50	8.40	34.70	107.60	92.90	23.50	8.20	4.70	3.70	2.10	2.40		
25	5.00	6.20	7.90	34.10	90.40	84.70	22.10	8.10	4.60	4.00	2.00	2.30		
26	3.60	7.00	11.20	29.80	93.20	79.80	20.90	7.70	4.40	3.00	2.00	1.80		
27	3.30	8.70	46.40	33.40	92.50	71.80	20.40	7.50	4.30	2.80	2.00	1.80		
28	2.90	23.80	50.90	30.40	91.40	86.40	19.70	7.30	4.20	2.70	2.10	1.90		
29	3.00	24.50	45.30	34.60	84.40	104.00	18.70	7.00	4.00	2.70	2.00	1.90		
30	4.60	30.40	27.60	28.00	69.10	100.40	17.50	6.70	3.90	2.90		1.80		
31		33.90		37.90	75.40		16.90		3.90	2.90		1.80		
Total	82.20	317.80	521.40	674.60	3524.40	2922.90	1625.90	320.80	165.50	109.00	70.40	69.80	10404.70	CMSDAY
Mean	2.70	10.30	17.40	21.80	113.70	97.40	52.40	10.70	5.30	3.50	2.40	2.30	28.40	CMS
Max	5.00	33.90	50.90	37.90	230.00	153.40	132.40	16.10	7.00	4.20	3.50	3.30	230.00	CMS
Min	2.10	3.40	7.90	8.90	68.60	71.50	16.90	6.70	3.90	2.70	1.80	1.80	1.80	CMS
Runoff	7.10	27.46	45.05	58.29	304.51	252.54	140.48	27.72	14.30	9.42	6.08	6.03	898.97	MCM

Momentary Peak 239.25 CMS. at 190.95 m. (MSL.) at 06.00 Hours , on Aug 2 , 2011

Runoff Yield 29.28 Liters/Second/Square KM. Momentary Peak Yield 246.395 Liters/Second/Square KM.

WATER YEAR : 2011

NAN RIVER BASIN

Nam Fua at Ban Nam Fua , Phitsanulok (N.58)

Lat 17 - 08 - 45 N Long 100 - 56 - 04 E

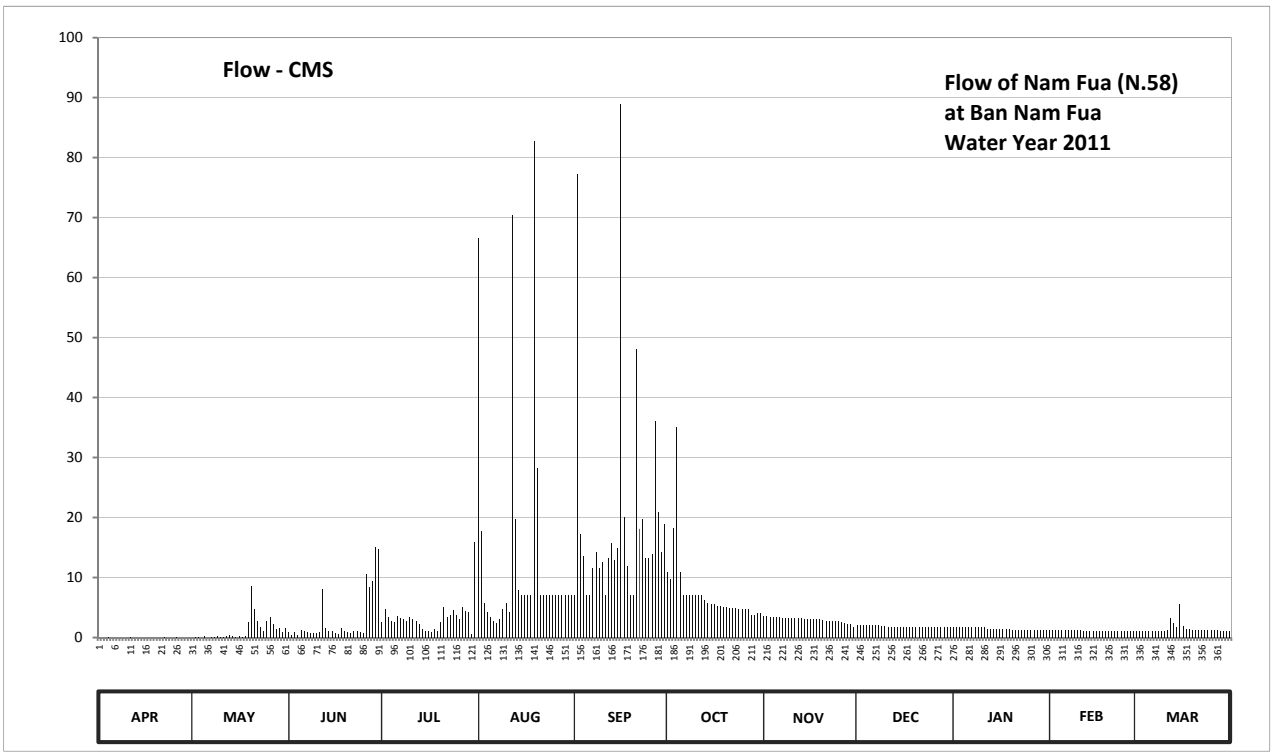
Location : on left bank at the bridge of Nakhon Thai - Dan Sai Road from the guidpost 11.5

	Ban Nam Fua	**Amphoe** Nakhon Thai	**Changwat** Phitsanulok		
Drainge Area	317 sq.km.				
Type of Gage	Staff gage				
Zero Gage at Bottom	+208.360 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On left bank about 16 meters from the top staff gage.		**Elevation** +214.931 m. (MSL.)		
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.				
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings				
Period of Available Gage Records	1984 to date				
Rating Operation					
Period of Rating	1996 to date				
Rated by Flot	-				
Rated by Current Meter	1996 to date				
Stability of Channel Regimes	Fairly Stable.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records fair. Stage-discharge relation defined by 20 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	209.40	209.42	209.69	209.93	212.82	210.36	210.64	210.05	209.86	209.83	209.75	209.74	
2	209.40	209.46	209.58	210.16	211.02	213.10	210.56	210.05	209.86	209.83	209.75	209.74	
3	209.40	209.44	209.70	210.04	210.25	211.00	211.05	210.04	209.86	209.83	209.75	209.74	
4	209.43	209.42	209.56	209.96	210.13	210.80	211.80	210.04	209.86	209.83	209.75	209.74	
5	209.41	209.51	209.76	209.93	210.03	210.36	210.64	210.03	209.86	209.83	209.75	209.74	
6	209.41	209.42	209.72	210.05	209.95	210.36	210.36	210.03	209.86	209.83	209.75	209.74	
7	209.41	209.47	209.70	210.00	209.91	210.68	210.36	210.02	209.86	209.83	209.75	209.74	
8	209.41	209.43	209.68	209.98	209.98	210.84	210.36	210.02	209.86	209.83	209.75	209.74	
9	209.41	209.52	209.66	209.96	210.16	210.68	210.36	210.02	209.85	209.83	209.75	209.73	
10	209.41	209.46	209.64	210.03	210.26	210.74	210.36	210.01	209.85	209.83	209.75	209.74	
11	209.43	209.46	209.69	209.99	210.13	210.36	210.36	210.00	209.84	209.82	209.75	209.77	
12	209.40	209.52	210.43	209.96	212.92	210.78	210.35	210.00	209.84	209.80	209.74	210.00	
13	209.36	209.55	209.81	209.88	211.12	210.92	210.29	210.00	209.84	209.80	209.74	209.91	
14	209.33	209.52	209.71	209.80	210.42	210.76	210.26	209.99	209.84	209.80	209.74	209.83	
15	209.30	209.45	209.71	209.74	210.36	210.88	210.24	209.99	209.84	209.80	209.74	210.24	
16	209.30	209.49	209.65	209.72	210.36	213.40	210.24	209.99	209.84	209.79	209.74	209.85	
17	209.38	209.46	209.59	209.70	210.36	211.14	210.22	209.98	209.84	209.78	209.74	209.78	
18	209.22	209.49	209.81	209.79	210.36	210.70	210.22	209.98	209.84	209.78	209.74	209.78	
19	209.16	209.92	209.71	209.73	213.24	210.36	210.20	209.98	209.84	209.78	209.74	209.77	
20	209.16	210.48	209.70	209.93	211.52	210.36	210.20	209.97	209.83	209.76	209.74	209.77	
21	209.41	210.16	209.68	210.19	210.36	212.26	210.18	209.96	209.83	209.76	209.74	209.76	
22	209.45	209.96	209.72	210.04	210.36	211.04	210.18	209.96	209.83	209.76	209.74	209.76	
23	209.40	209.84	209.71	210.08	210.36	211.12	210.18	209.96	209.83	209.76	209.74	209.76	
24	209.36	209.73	209.70	210.15	210.36	210.78	210.16	209.94	209.83	209.76	209.74	209.75	
25	209.33	209.94	209.67	210.07	210.36	210.78	210.16	209.94	209.83	209.75	209.74	209.75	
26	209.43	210.04	210.62	209.98	210.36	210.82	210.16	209.92	209.83	209.75	209.74	209.75	
27	209.36	209.88	210.46	210.19	210.36	211.84	210.16	209.91	209.83	209.75	209.74	209.75	
28	209.37	209.79	210.54	210.14	210.36	211.18	210.07	209.90	209.83	209.75	209.74	209.74	
29	209.37	209.81	210.89	210.13	210.36	210.84	210.07	209.88	209.83	209.75	209.74	209.72	
30	209.37	209.69	210.87	209.62	210.36	211.08	210.11	209.84	209.83	209.75		209.71	
31		209.81		210.93	210.36		210.11		209.83	209.75		209.71	
Mean	209.37	209.66	209.88	209.99	210.62	211.01	210.34	209.98	209.84	209.79	209.74	209.78	
Max	209.45	210.48	210.89	210.93	213.24	213.40	211.80	210.05	209.86	209.83	209.75	210.24	213.40
Min	209.16	209.42	209.56	209.62	209.91	210.36	210.07	209.84	209.83	209.75	209.74	209.71	209.16

Annual Max Momentary Gage Height	214.56	m. (MSL.) ,	at 06.00 Hours , on Sep 16 , 2011		
Zero Gage at Bottom Elevation	208.36	m. (MSL.) ,	River Bed	209.06	m. (MSL)
Left Bank Elevation	214.94	m. (MSL.) ,			
Right Bank Elevation	214.92	m. (MSL.) ,	Drainage Area	317	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	0.90	2.60	66.60	7.10	10.90	3.60	2.00	1.70	1.20	1.10		
2	0.00	0.10	0.40	4.70	17.70	77.20	9.70	3.60	2.00	1.70	1.20	1.10		
3	0.00	0.10	0.90	3.50	5.70	17.30	18.30	3.50	2.00	1.70	1.20	1.10		
4	0.10	0.00	0.40	2.80	4.30	13.60	35.00	3.50	2.00	1.70	1.20	1.10		
5	0.00	0.20	1.30	2.60	3.40	7.10	10.90	3.40	2.00	1.70	1.20	1.10		
6	0.00	0.00	1.00	3.60	2.70	7.10	7.10	3.40	2.00	1.70	1.20	1.10		
7	0.00	0.10	0.90	3.20	2.40	11.60	7.10	3.30	2.00	1.70	1.20	1.10		
8	0.00	0.10	0.80	3.00	3.00	14.30	7.10	3.30	2.00	1.70	1.20	1.10		
9	0.00	0.30	0.70	2.80	4.70	11.60	7.10	3.30	1.90	1.70	1.20	1.10		
10	0.00	0.10	0.70	3.40	5.80	12.60	7.10	3.20	1.90	1.70	1.20	1.10		
11	0.10	0.10	0.90	3.10	4.30	7.10	7.10	3.20	1.80	1.70	1.20	1.30		
12	0.00	0.30	8.00	2.80	70.40	13.30	7.00	3.20	1.80	1.50	1.10	3.20		
13	0.00	0.40	1.60	2.20	19.70	15.70	6.20	3.20	1.80	1.50	1.10	2.40		
14	0.00	0.30	1.00	1.50	7.90	12.90	5.80	3.10	1.80	1.50	1.10	1.70		
15	0.00	0.10	1.00	1.10	7.10	15.00	5.60	3.10	1.80	1.50	1.10	5.60		
16	0.00	0.20	0.70	1.00	7.10	89.00	5.60	3.10	1.80	1.40	1.10	1.90		
17	0.00	0.10	0.50	0.90	7.10	20.10	5.30	3.00	1.80	1.40	1.10	1.40		
18	0.00	0.20	1.60	1.40	7.10	11.90	5.30	3.00	1.80	1.40	1.10	1.40		
19	0.00	2.50	1.00	1.10	82.70	7.10	5.10	3.00	1.80	1.40	1.10	1.30		
20	0.00	8.60	0.90	2.60	28.20	7.10	5.10	2.90	1.70	1.30	1.10	1.30		
21	0.00	4.70	0.80	5.00	7.10	48.00	4.90	2.80	1.70	1.30	1.10	1.30		
22	0.10	2.80	1.00	3.50	7.10	18.10	4.90	2.80	1.70	1.30	1.10	1.30		
23	0.00	1.80	1.00	3.80	7.10	19.70	4.90	2.80	1.70	1.30	1.10	1.30		
24	0.00	1.10	0.90	4.50	7.10	13.30	4.70	2.70	1.70	1.30	1.10	1.20		
25	0.00	2.70	0.80	3.80	7.10	13.30	4.70	2.70	1.70	1.20	1.10	1.20		
26	0.10	3.50	10.60	3.00	7.10	13.90	4.70	2.50	1.70	1.20	1.10	1.20		
27	0.00	2.20	8.40	5.00	7.10	36.00	4.70	2.40	1.70	1.20	1.10	1.20		
28	0.00	1.40	9.50	4.40	7.10	20.90	3.80	2.30	1.70	1.20	1.10	1.10		
29	0.00	1.60	15.10	4.30	7.10	14.30	3.80	2.20	1.70	1.20	1.10	1.00		
30	0.00	0.90	14.80	0.60	7.10	18.90	4.10	1.80	1.70	1.20		1.00		
31		1.60		15.90	7.10		4.10		1.70	1.20		1.00		
Total	0.40	38.10	88.10	103.70	436.00	595.10	227.70	89.90	56.40	45.20	33.00	45.30	1758.90	CMSDAY
Mean	0.00	1.20	2.90	3.30	14.10	19.80	7.30	3.00	1.80	1.50	1.10	1.50	4.80	CMS
Max	0.10	8.60	15.10	15.90	82.70	89.00	35.00	3.60	2.00	1.70	1.20	5.60	89.00	CMS
Min	0.00	0.00	0.40	0.60	2.40	7.10	3.80	1.80	1.70	1.20	1.10	1.00	0.00	CMS
Runoff	0.03	3.29	7.61	8.96	37.67	51.42	19.67	7.77	4.87	3.91	2.85	3.91	151.97	MCM

Momentary Peak 139.72 CMS. at 214.56 m. (MSL.) at 06.00 Hours , on Sep 16 , 2011

Runoff Yield 15.16 Liters/Second/Square KM. Momentary Peak Yield 440.757 Liters/Second/Square KM.

WATER YEAR : 2011

NAN RIVER BASIN

Lam Nam Khan at Ban Na Chan , Phitsanulok (N.59)

Lat 17 - 01 - 49 N Long 100 - 50 - 35 E

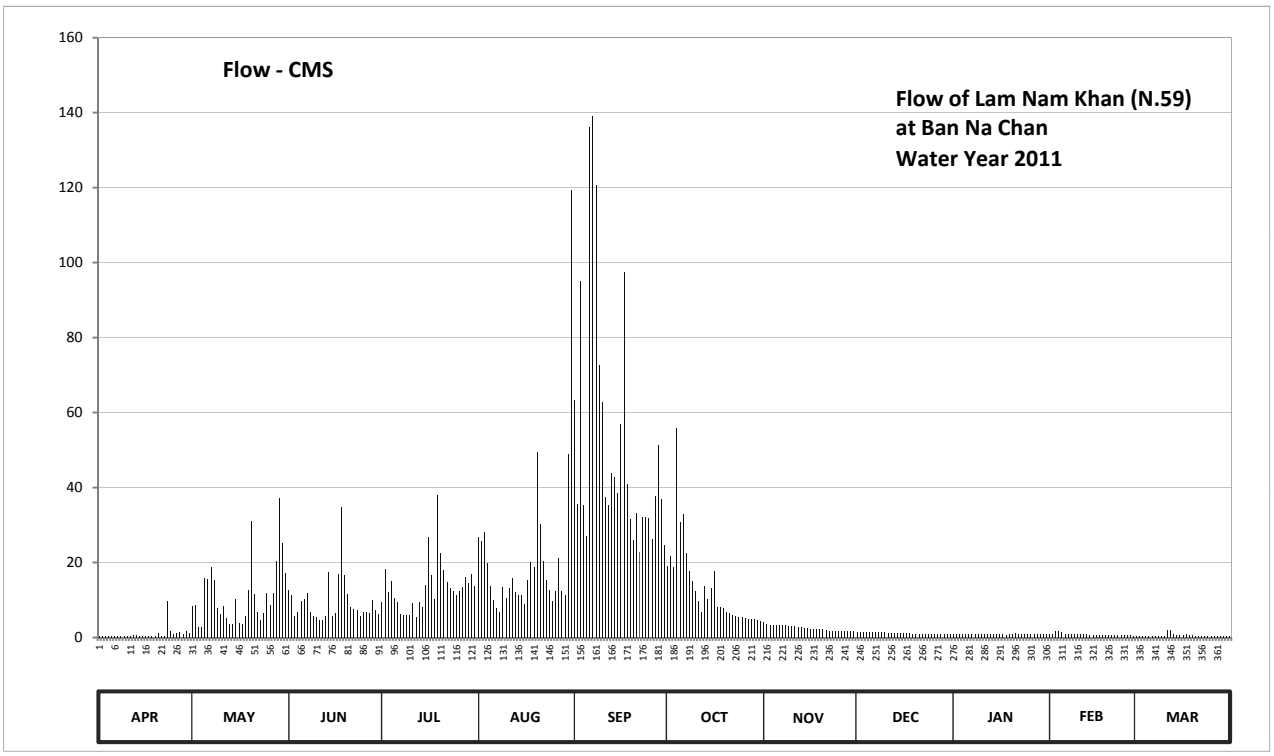
Location : on left bank at Ban Na Chan.

	Ban Na Chan	**Amphoe** Nakhon Thai	**Changwat** Phitsanulok
Drainge Area	415 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+197.680 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank about 25 meters from the top staff gage.	**Elevation**	+206.935 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	1984 to date		
Rating Operation			
Period of Rating	1996 to date		
Rated by Flot	-		
Rated by Current Meter	1996 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	Overbank flow startsat elevation +205.930 m.(MSL.), records are channel flow only.		
General Description	Records good. Stage-discharge relation defined by 23 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	200.46	202.34	202.92	202.49	204.45	205.80	203.73	201.54	200.90	200.69	200.61	200.42	
2	200.43	202.38	202.71	203.63	204.37	204.97	204.02	201.46	200.89	200.69	200.61	200.42	
3	200.45	201.22	201.88	202.86	204.54	206.20	203.70	201.40	200.89	200.69	200.94	200.44	
4	200.44	201.27	202.11	203.25	203.82	204.95	205.67	201.39	200.88	200.67	201.00	200.41	
5	200.43	203.34	202.53	202.61	203.07	204.48	204.71	201.38	200.87	200.67	200.86	200.39	
6	200.43	203.31	202.59	202.48	202.56	206.53	204.83	201.38	200.87	200.66	200.72	200.41	
7	200.32	203.69	202.83	202.01	202.28	206.55	204.08	201.37	200.87	200.65	200.66	200.39	
8	200.34	203.27	202.12	201.93	202.12	206.42	203.58	201.35	200.88	200.64	200.64	200.38	
9	200.44	202.28	201.88	201.91	203.04	205.92	203.22	201.33	200.86	200.63	200.61	200.37	
10	200.42	201.98	201.80	201.92	202.61	205.79	202.88	201.32	200.85	200.62	200.60	200.43	
11	200.41	202.35	201.66	202.46	203.00	205.06	202.51	201.31	200.84	200.58	200.58	201.05	
12	200.56	201.78	201.64	201.83	203.32	204.95	202.12	201.27	200.83	200.61	200.58	201.06	
13	200.50	201.42	201.87	202.47	202.86	205.34	203.05	201.23	200.82	200.62	200.58	200.64	
14	200.47	201.42	203.52	202.33	202.74	205.30	202.59	201.20	200.80	200.62	200.57	200.53	
15	200.42	202.57	201.88	203.10	202.75	205.11	203.01	201.18	200.79	200.63	200.57	200.51	
16	200.37	201.48	202.05	204.46	202.42	205.69	203.56	201.16	200.77	200.63	200.57	200.55	
17	200.41	201.41	203.48	203.42	203.27	206.22	202.30	201.15	200.76	200.59	200.56	200.65	
18	200.35	201.88	204.92	202.59	203.84	205.23	202.31	201.14	200.73	200.56	200.55	200.54	
19	200.33	202.92	203.44	205.09	203.70	204.75	202.27	201.13	200.71	200.59	200.55	200.48	
20	200.73	204.73	202.78	204.09	205.53	204.40	202.08	201.12	200.68	200.66	200.54	200.46	
21	200.46	202.79	202.32	203.60	204.67	204.84	202.02	201.05	200.65	200.77	200.53	200.44	
22	200.42	202.10	202.24	203.21	203.87	204.12	201.92	201.01	200.64	200.72	200.51	200.43	
23	202.53	201.63	202.23	203.01	203.26	204.78	201.88	201.00	200.63	200.67	200.49	200.41	
24	200.99	202.04	201.89	202.90	202.91	204.79	201.83	200.99	200.63	200.61	200.49	200.41	
25	200.72	202.82	202.08	202.74	202.51	204.77	201.81	200.98	200.62	200.62	200.50	200.38	
26	200.80	202.38	202.08	202.90	202.90	204.41	201.75	200.97	200.62	200.61	200.51	200.42	
27	200.87	202.81	202.04	203.02	203.95	205.08	201.71	200.96	200.61	200.61	200.50	200.38	
28	200.62	203.87	202.54	203.36	202.89	205.59	201.69	200.95	200.60	200.60	200.45	200.37	
29	200.97	205.05	202.22	203.17	202.72	205.04	201.70	200.94	200.60	200.59	200.43	200.40	
30	200.76	204.33	202.00	203.45	205.52	204.28	201.63	200.94	200.59	200.61		200.39	
31		203.50		203.06	206.41		201.58		200.58	200.61		200.38	
Mean	200.60	202.59	202.41	202.95	203.48	205.25	202.77	201.19	200.75	200.64	200.60	200.48	
Max	202.53	205.05	204.92	205.09	206.41	206.55	205.67	201.54	200.90	200.77	201.00	201.06	206.55
Min	200.32	201.22	201.64	201.83	202.12	204.12	201.58	200.94	200.58	200.56	200.43	200.37	200.32

Annual Max Momentary Gage Height	206.75	m. (MSL.) ,	at 06.00 Hours , on Aug 31 , 2011		
Zero Gage at Bottom Elevation	197.68	m. (MSL.) ,	River Bed	198.28	m. (MSL)
Left Bank Elevation	206.39	m. (MSL.) ,			
Right Bank Elevation	205.92	m. (MSL.) ,	Drainage Area	415	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.50	8.30	12.60	9.50	26.70	63.40	19.00	4.10	1.50	1.00	0.80	0.40		
2	0.50	8.60	11.20	18.20	25.60	35.60	21.80	3.70	1.50	1.00	0.80	0.40		
3	0.50	2.70	5.80	12.20	28.10	95.00	18.80	3.40	1.50	1.00	1.60	0.50		
4	0.50	2.90	6.80	15.20	19.80	35.20	55.70	3.40	1.40	0.90	1.80	0.40		
5	0.50	15.90	9.80	10.50	13.80	27.20	30.90	3.30	1.40	0.90	1.40	0.40		
6	0.50	15.70	10.30	9.40	10.10	136.20	33.00	3.30	1.40	0.90	1.00	0.40		
7	0.30	18.70	12.00	6.30	7.80	139.00	22.40	3.30	1.40	0.90	0.90	0.40		
8	0.30	15.40	6.80	6.00	6.80	120.80	17.80	3.20	1.40	0.90	0.90	0.40		
9	0.50	7.80	5.80	5.90	13.50	72.50	15.00	3.10	1.40	0.90	0.80	0.40		
10	0.40	6.20	5.40	5.90	10.50	62.80	12.40	3.10	1.40	0.80	0.80	0.50		
11	0.40	8.40	4.70	9.30	13.20	37.40	9.70	3.00	1.30	0.80	0.80	2.00		
12	0.70	5.30	4.60	5.50	15.80	35.20	6.80	2.90	1.30	0.80	0.80	2.00		
13	0.60	3.50	5.70	9.40	12.20	43.70	13.60	2.70	1.30	0.80	0.80	0.90		
14	0.50	3.50	17.40	8.20	11.40	42.70	10.30	2.60	1.20	0.80	0.70	0.70		
15	0.40	10.20	5.80	14.00	11.40	38.40	13.30	2.50	1.20	0.90	0.70	0.60		
16	0.40	3.80	6.50	26.90	9.00	56.90	17.70	2.40	1.10	0.90	0.70	0.70		
17	0.40	3.50	17.00	16.60	15.40	97.30	8.00	2.40	1.10	0.80	0.70	0.90		
18	0.30	5.80	34.70	10.30	20.00	40.90	8.10	2.40	1.10	0.70	0.70	0.70		
19	0.30	12.60	16.70	38.00	18.80	31.50	7.80	2.30	1.00	0.80	0.70	0.60		
20	1.10	31.20	11.70	22.50	49.40	26.00	6.70	2.30	1.00	0.90	0.70	0.50		
21	0.50	11.70	8.20	18.00	30.20	33.20	6.40	2.00	0.90	1.10	0.70	0.50		
22	0.40	6.80	7.50	14.90	20.30	22.80	5.90	1.80	0.90	1.00	0.60	0.50		
23	9.80	4.60	7.40	13.30	15.30	32.10	5.80	1.80	0.90	0.90	0.60	0.40		
24	1.80	6.50	5.80	12.50	12.60	32.20	5.50	1.80	0.90	0.80	0.60	0.40		
25	1.00	11.90	6.70	11.40	9.70	31.90	5.40	1.70	0.80	0.80	0.60	0.40		
26	1.20	8.60	6.70	12.50	12.50	26.20	5.10	1.70	0.80	0.80	0.60	0.40		
27	1.40	11.90	6.50	13.40	21.10	37.80	5.00	1.70	0.80	0.80	0.60	0.40		
28	0.80	20.30	9.90	16.10	12.40	51.30	4.90	1.60	0.80	0.80	0.50	0.40		
29	1.70	37.20	7.40	14.60	11.20	37.00	4.90	1.60	0.80	0.80	0.50	0.40		
30	1.10	25.20	6.30	16.80	49.00	24.60	4.60	1.60	0.80	0.80		0.40		
31		17.20		13.70	119.40		4.30		0.80	0.80		0.40		
Total	29.30	351.90	283.70	417.00	653.00	1566.80	406.60	76.70	35.10	26.80	23.40	18.40	3888.70	CMSDAY
Mean	1.00	11.40	9.50	13.50	21.10	52.20	13.10	2.60	1.10	0.90	0.80	0.60	10.60	CMS
Max	9.80	37.20	34.70	38.00	119.40	139.00	55.70	4.10	1.50	1.10	1.80	2.00	139.00	CMS
Min	0.30	2.70	4.60	5.50	6.80	22.80	4.30	1.60	0.80	0.70	0.50	0.40	0.30	CMS
Runoff	2.53	30.40	24.51	36.03	56.42	135.37	35.13	6.63	3.03	2.32	2.02	1.59	335.98	MCM

Momentary Peak 179.75 CMS. at 206.75 m. (MSL.) at 06.00 Hours , on Aug 31 , 2011

Runoff Yield 25.60 Liters/Second/Square KM. Momentary Peak Yield 433.133 Liters/Second/Square KM.

WATER YEAR : 2011

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.

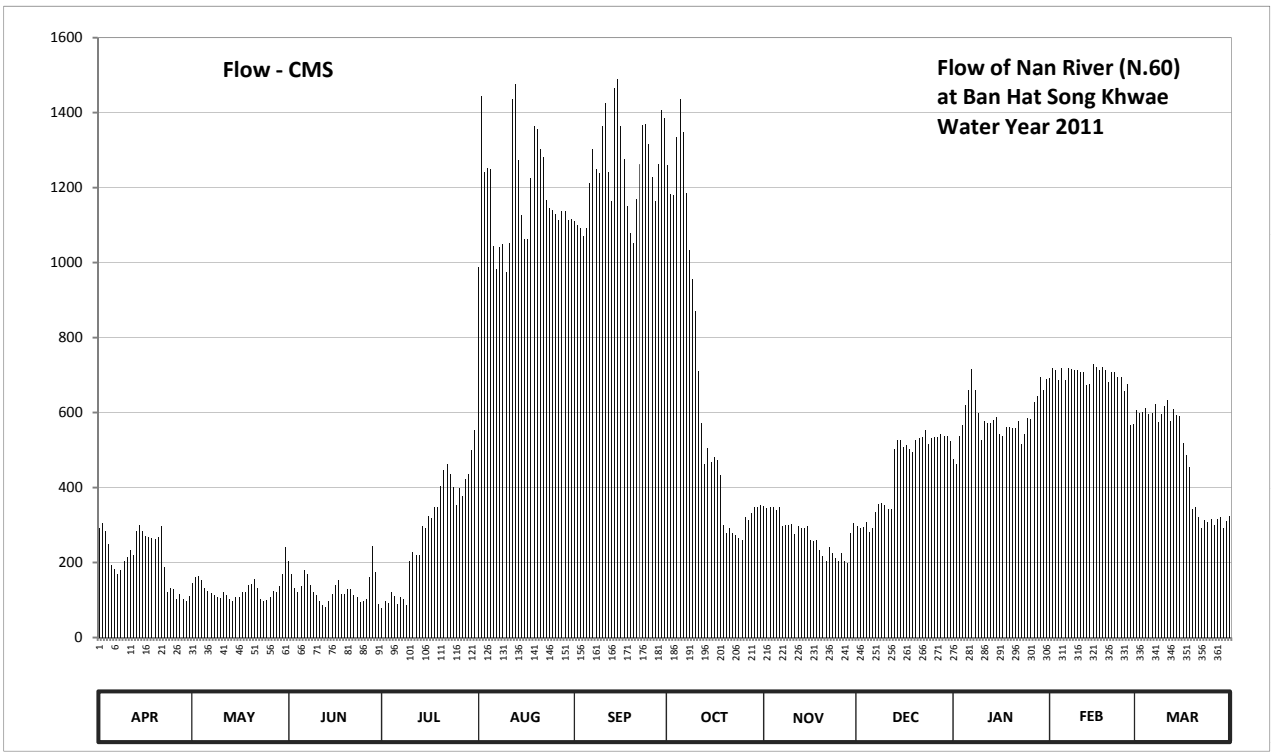
Ban Hat Song Khwae **Amphoe** Tron **Changwat** Uttaradit

Drainge Area	18,447 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+48.500 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank near the Meteorological Station. **Elevation** +57.592 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings
Period of Available Gage Records	1986 to date
Rating Operation	
Period of Rating	1986 to date
Rated by Flot	-
Rated by Current Meter	1986 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records very good. Flow effected by Sirikit Dam reservior.
	Stage-discharge relation defined by 32 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	50.67	49.77	50.14	49.34	54.47	54.96	55.47	51.01	50.69	51.73	52.96	52.48	
2	50.75	49.88	49.93	49.46	55.97	54.92	55.22	50.98	50.67	51.66	53.12	52.44	
3	50.62	49.89	49.69	49.44	55.42	54.89	55.21	51.00	50.68	52.09	53.09	52.45	
4	50.41	49.83	49.63	49.62	55.45	54.81	55.69	51.00	50.76	52.25	52.94	52.51	
5	50.07	49.70	49.72	49.56	55.44	54.89	55.95	50.94	50.60	52.56	53.11	52.42	
6	50.01	49.65	50.00	49.42	54.70	55.32	55.73	50.99	50.66	52.79	52.93	52.44	
7	49.93	49.61	49.92	49.53	54.45	55.60	55.23	50.69	50.91	53.10	53.11	52.58	
8	49.99	49.58	49.75	49.50	54.69	55.44	54.66	50.72	51.04	52.78	53.10	52.30	
9	50.13	49.53	49.62	49.40	54.72	55.41	54.33	50.72	51.06	52.44	53.08	52.42	
10	50.21	49.52	49.57	50.13	54.41	55.77	53.92	50.73	51.03	52.02	53.08	52.54	
11	50.32	49.62	49.46	50.28	54.74	55.92	53.07	50.57	50.97	52.32	53.06	52.64	
12	50.23	49.57	49.39	50.23	55.95	55.42	52.29	50.70	50.97	52.29	53.06	52.32	
13	50.62	49.51	49.36	50.24	56.04	55.16	51.66	50.66	51.88	52.28	52.86	52.49	
14	50.72	49.47	49.47	50.69	55.51	56.02	51.90	50.67	52.02	52.33	52.88	52.41	
15	50.62	49.54	49.60	50.66	55.02	56.07	51.69	50.70	52.02	52.37	53.17	52.39	
16	50.54	49.53	49.74	50.86	54.78	55.77	51.76	50.48	51.92	52.11	53.13	51.98	
17	50.53	49.63	49.83	50.82	54.78	55.52	51.72	50.46	51.95	52.08	53.09	51.79	
18	50.51	49.62	49.60	50.99	55.36	55.11	51.49	50.47	51.88	52.23	53.13	51.61	
19	50.49	49.74	49.60	51.00	55.77	54.84	50.71	50.31	51.84	52.22	53.09	50.96	
20	50.53	49.76	49.68	51.32	55.75	54.73	50.58	50.22	52.02	52.20	52.91	50.99	
21	50.69	49.84	49.67	51.57	55.60	55.18	50.67	50.13	52.06	52.21	53.06	50.84	
22	50.04	49.69	49.58	51.66	55.54	55.48	50.59	50.36	52.07	52.31	53.06	50.67	
23	49.62	49.51	49.54	51.50	55.17	55.78	50.56	50.27	52.17	51.96	52.98	50.79	
24	49.70	49.46	49.45	51.31	55.09	55.79	50.50	50.18	51.96	52.11	52.98	50.76	
25	49.67	49.49	49.46	51.03	55.07	55.64	50.47	50.13	52.05	52.36	52.77	50.80	
26	49.50	49.53	49.50	51.29	55.03	55.37	50.83	50.27	52.07	52.34	52.87	50.72	
27	49.60	49.65	49.88	51.16	54.97	55.16	50.79	50.14	52.07	52.60	52.25	50.81	
28	49.50	49.63	50.38	51.43	55.06	55.48	50.90	50.10	52.11	52.69	52.27	50.83	
29	49.46	49.73	49.96	51.50	55.06	55.88	50.99	50.58	52.09	52.98	52.43	50.66	
30	49.55	49.93	49.42	51.87	54.97	55.83	51.00	50.74	52.09	52.78		50.78	
31		50.37		52.18	54.98		51.02		52.01	52.95		50.85	
Mean	50.17	49.67	49.68	50.61	55.16	55.41	52.47	50.56	51.56	52.36	52.95	51.70	
Max	50.75	50.37	50.38	52.18	56.04	56.07	55.95	51.01	52.17	53.10	53.17	52.64	56.07
Min	49.46	49.46	49.36	49.34	54.41	54.73	50.47	50.10	50.60	51.66	52.25	50.66	49.34

Annual Max Momentary Gage Height	56.18	m. (MSL.) ,	at 22.00 Hours , on Aug 12 , 2011		
Zero Gage at Bottom Elevation	48.50	m. (MSL.) ,	River Bed	44.83	m. (MSL)
Left Bank Elevation	58.72	m. (MSL.) ,			
Right Bank Elevation	58.72	m. (MSL.) ,	Drainage Area	18447	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	292.90	144.20	204.10	78.00	988.10	1109.60	1259.10	350.70	296.30	474.70	690.80	606.00		
2	306.50	161.80	169.80	96.00	1445.40	1099.20	1182.00	345.60	292.90	462.50	719.60	599.00		
3	284.40	163.40	131.40	93.00	1242.60	1091.40	1179.00	349.00	294.60	537.70	714.20	600.80		
4	248.70	153.80	121.80	120.20	1252.50	1070.60	1334.40	349.00	308.20	565.70	687.20	611.20		
5	192.50	133.00	136.20	111.00	1249.20	1091.40	1437.00	338.80	281.00	620.00	717.80	595.50		
6	182.60	125.00	181.00	90.00	1043.00	1212.00	1348.80	347.30	291.20	660.30	685.40	599.00		
7	169.80	118.60	168.20	106.50	983.50	1302.00	1185.00	296.30	333.70	716.00	717.80	623.50		
8	179.40	114.00	141.00	102.00	1040.50	1249.20	1033.00	301.40	355.80	658.50	716.00	574.50		
9	202.50	106.50	120.20	87.00	1048.00	1239.30	956.60	301.40	359.20	599.00	712.40	595.50		
10	215.60	105.00	112.50	202.50	974.30	1363.20	870.00	303.10	354.10	525.50	712.40	616.50		
11	233.80	120.20	96.00	227.20	1053.00	1424.40	710.60	275.90	343.90	578.00	708.80	634.00		
12	218.90	112.50	85.50	218.90	1437.00	1242.60	572.80	298.00	343.90	572.80	708.80	578.00		
13	284.40	103.50	81.00	220.60	1475.60	1164.80	462.50	291.20	501.00	571.00	672.80	607.80		
14	301.40	97.50	97.50	296.30	1272.30	1466.80	504.50	292.90	525.50	579.80	676.40	593.70		
15	284.40	108.00	117.00	291.20	1125.60	1488.80	467.70	298.00	525.50	586.70	728.60	590.20		
16	270.80	106.50	139.40	325.20	1063.00	1363.20	480.00	260.60	508.00	541.30	721.40	518.50		
17	269.10	121.80	153.80	318.40	1063.00	1275.60	473.00	257.20	513.20	536.00	714.20	485.20		
18	265.70	120.20	117.00	347.30	1224.00	1150.80	432.80	258.90	501.00	562.20	721.40	453.70		
19	262.30	139.40	117.00	349.00	1363.20	1078.40	299.70	232.20	494.00	560.50	714.20	342.20		
20	269.10	142.60	129.80	403.40	1356.00	1050.50	277.60	217.30	525.50	557.00	681.80	347.30		
21	296.30	155.40	128.20	446.70	1302.00	1170.40	292.90	202.50	532.50	558.70	708.80	321.80		
22	187.60	131.40	114.00	462.50	1282.20	1262.40	279.30	240.40	534.20	576.30	708.80	292.90		
23	120.20	103.50	108.00	434.50	1167.60	1366.80	274.20	225.50	551.70	515.00	694.40	313.30		
24	133.00	96.00	94.50	401.70	1145.20	1370.40	264.00	210.70	515.00	541.30	694.40	308.20		
25	128.20	100.50	96.00	354.10	1139.60	1316.40	258.90	202.50	530.70	585.00	656.80	315.00		
26	102.00	106.50	102.00	398.30	1128.40	1227.00	320.10	225.50	534.20	581.50	674.60	301.40		
27	117.00	125.00	161.80	376.20	1112.20	1164.80	313.30	204.10	534.20	627.00	565.70	316.70		
28	102.00	121.80	243.70	422.20	1136.80	1262.40	332.00	197.50	541.30	642.70	569.30	320.10		
29	96.00	137.80	174.60	434.50	1136.80	1407.60	347.30	277.60	537.70	694.40	597.30	291.20		
30	109.50	169.80	90.00	499.20	1112.20	1386.60	349.00	304.80	537.70	658.50		311.60		
31		242.00		553.50	1114.80		352.40		523.70	689.00		323.50		
Total	6326.60	3987.20	3933.00	8867.10	36477.60	37468.60	19849.50	8255.90	13821.40	18134.60	19992.10	14587.80	191701.40	CMSDAY
Mean	210.90	128.60	131.10	286.00	1176.70	1249.00	640.30	275.20	445.90	585.00	689.40	470.60	523.80	CMS
Max	306.50	242.00	243.70	553.50	1475.60	1488.80	1437.00	350.70	551.70	716.00	728.60	634.00	1488.80	CMS
Min	96.00	96.00	81.00	78.00	974.30	1050.50	258.90	197.50	281.00	462.50	565.70	291.20	78.00	CMS
Runoff	546.62	344.49	339.81	766.12	3151.66	3237.29	1715.00	713.31	1194.17	1566.83	1727.32	1260.39	16563.00	MCM

Momentary Peak 1537.20 CMS. at 56.18 m. (MSL.) at 22.00 Hours , on Aug 12 , 2011

Runoff Yield 28.39 Liters/Second/Square KM. Momentary Peak Yield 83.331 Liters/Second/Square KM.

WATER YEAR : 2011

NAN RIVER BASIN

Huai Nam Khlung at Ban Huai Tha Nua , Phitsanulok (N.62)

Lat 17 - 14 - 24 N Long 100 - 33 - 18 E

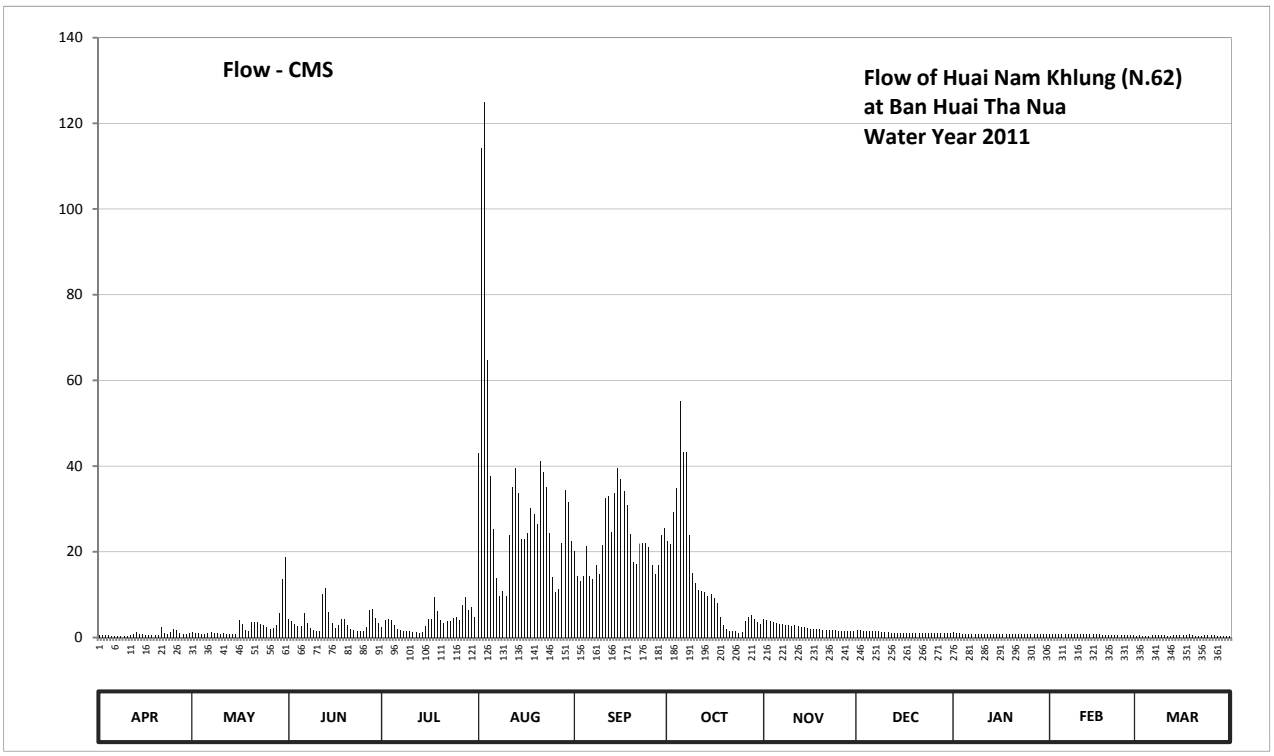
Location : on left bank at Ban Huai Tha Nua.

	Ban Huai Tha Nua	**Amphoe** Chat Trakan	**Changwat** Phitsanulok		
Drainge Area	353 sq.km.				
Type of Gage	Staff gage				
Zero Gage at Bottom	+190.310 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On left bank about 60 meters from the top staff gage.	**Elevation** +200.077 m. (MSL.)			
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.				
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings				
Period of Available Gage Records	1986 to date				
Rating Operation					
Period of Rating	1996 to date				
Rated by Flot	-				
Rated by Current Meter	1996 to date				
Stability of Channel Regimes	Stable.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records good. Stage-discharge relation defined by 23 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	191.02	191.19	191.73	191.47	194.66	193.18	193.35	191.72	191.35	191.20	191.07	190.96	
2	191.01	191.15	191.67	191.70	196.51	192.74	193.31	191.70	191.33	191.16	191.07	191.00	
3	190.99	191.15	191.57	191.75	196.64	192.64	193.83	191.66	191.31	191.15	191.07	190.98	
4	190.99	191.09	191.48	191.69	195.54	192.74	194.19	191.63	191.30	191.11	191.08	190.97	
5	190.98	191.06	191.48	191.52	194.35	193.27	195.23	191.60	191.28	191.09	191.08	190.96	
6	190.97	191.15	191.90	191.42	193.55	192.73	194.67	191.57	191.26	191.09	191.08	191.00	
7	190.97	191.19	191.58	191.34	192.69	192.68	194.67	191.55	191.25	191.09	191.08	190.99	
8	190.95	191.18	191.43	191.28	192.31	192.93	193.45	191.53	191.24	191.10	191.08	190.99	
9	190.95	191.15	191.33	191.24	192.43	192.76	192.79	191.52	191.22	191.10	191.08	191.01	
10	190.97	191.09	191.28	191.24	192.31	193.28	192.60	191.50	191.21	191.10	191.07	191.01	
11	191.01	191.13	191.25	191.21	193.45	194.04	192.45	191.51	191.19	191.10	191.07	190.91	
12	191.07	191.09	192.36	191.19	194.20	194.06	192.43	191.50	191.18	191.11	191.06	190.96	
13	191.21	191.09	192.50	191.17	194.46	193.50	192.41	191.47	191.18	191.09	191.06	190.99	
14	191.10	191.05	191.92	191.22	194.12	194.11	192.31	191.45	191.17	191.11	191.06	191.01	
15	191.07	191.11	191.58	191.49	193.38	194.46	192.36	191.43	191.17	191.10	191.05	191.00	
16	191.04	191.68	191.44	191.73	193.38	194.31	192.27	191.41	191.17	191.09	191.05	191.00	
17	191.02	191.57	191.53	191.75	193.49	194.15	192.15	191.41	191.17	191.09	191.05	191.02	
18	190.99	191.32	191.71	192.29	193.89	193.92	191.79	191.40	191.16	191.08	191.04	191.05	
19	190.99	191.30	191.71	191.95	193.78	193.47	191.51	191.38	191.16	191.08	191.04	190.99	
20	191.04	191.61	191.51	191.69	193.64	192.99	191.41	191.36	191.16	191.09	191.04	190.96	
21	191.45	191.65	191.42	191.58	194.55	192.95	191.31	191.35	191.16	191.10	191.04	190.93	
22	191.18	191.61	191.36	191.67	194.41	193.31	191.29	191.34	191.16	191.10	191.03	190.96	
23	191.10	191.55	191.30	191.66	194.20	193.32	191.26	191.33	191.16	191.09	191.03	190.99	
24	191.19	191.51	191.26	191.76	193.48	193.32	191.16	191.33	191.16	191.09	191.03	190.99	
25	191.39	191.46	191.25	191.80	192.72	193.25	191.23	191.31	191.15	191.08	191.02	191.00	
26	191.33	191.41	191.46	191.70	192.41	192.93	191.66	191.31	191.15	191.08	191.02	191.00	
27	191.17	191.43	191.97	192.10	192.46	192.76	191.81	191.30	191.15	191.08	191.02	190.96	
28	191.07	191.52	192.01	192.28	193.32	192.94	191.84	191.30	191.15	191.07	191.01	190.94	
29	191.06	191.89	191.77	191.97	194.16	193.46	191.75	191.29	191.15	191.07	191.01	190.92	
30	191.15	192.68	191.58	192.04	193.98	193.57	191.65	191.29	191.14	191.07		190.91	
31		193.07		191.81	193.36		191.55		191.14	191.07		190.91	
Mean	191.08	191.42	191.61	191.64	193.80	193.33	192.44	191.45	191.20	191.10	191.05	190.98	
Max	191.45	193.07	192.50	192.29	196.64	194.46	195.23	191.72	191.35	191.20	191.08	191.05	196.64
Min	190.95	191.05	191.25	191.17	192.31	192.64	191.16	191.29	191.14	191.07	191.01	190.91	190.91

Annual Max Momentary Gage Height	196.80	m. (MSL.) ,	at 18.00 Hours , on Aug 2 , 2011		
Zero Gage at Bottom Elevation	190.31	m. (MSL.) ,	River Bed	190.58	m. (MSL)
Left Bank Elevation	196.91	m. (MSL.) ,			
Right Bank Elevation	196.88	m. (MSL.) ,	Drainage Area	353	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.60	1.20	4.30	2.50	43.10	20.10	22.50	4.20	1.80	1.20	0.70	0.40		
2	0.50	1.00	3.90	4.10	114.20	14.40	21.90	4.10	1.70	1.10	0.70	0.50		
3	0.50	1.00	3.20	4.40	125.00	13.10	29.40	3.80	1.60	1.00	0.70	0.40		
4	0.50	0.80	2.60	4.00	64.60	14.40	34.90	3.60	1.60	0.90	0.80	0.40		
5	0.40	0.70	2.60	2.80	37.60	21.40	55.20	3.40	1.50	0.80	0.80	0.40		
6	0.40	1.00	5.70	2.10	25.30	14.30	43.30	3.20	1.40	0.80	0.80	0.50		
7	0.40	1.20	3.30	1.80	13.80	13.60	43.30	3.10	1.40	0.80	0.80	0.50		
8	0.40	1.10	2.20	1.50	9.70	16.90	23.90	2.90	1.40	0.90	0.80	0.50		
9	0.40	1.00	1.70	1.40	10.90	14.70	15.10	2.80	1.30	0.90	0.80	0.50		
10	0.40	0.80	1.50	1.40	9.70	21.50	12.60	2.70	1.20	0.90	0.70	0.50		
11	0.50	1.00	1.40	1.20	23.90	32.60	11.10	2.80	1.20	0.90	0.70	0.30		
12	0.70	0.80	10.20	1.20	35.00	32.90	10.90	2.70	1.10	0.90	0.70	0.40		
13	1.20	0.80	11.60	1.10	39.50	24.60	10.70	2.50	1.10	0.80	0.70	0.50		
14	0.90	0.70	5.90	1.30	33.80	33.70	9.70	2.40	1.10	0.90	0.70	0.50		
15	0.70	0.90	3.30	2.60	22.90	39.50	10.20	2.20	1.10	0.90	0.70	0.50		
16	0.60	4.00	2.30	4.30	22.90	36.90	9.30	2.10	1.10	0.80	0.70	0.50		
17	0.60	3.20	2.90	4.40	24.50	34.20	8.10	2.10	1.10	0.80	0.70	0.60		
18	0.50	1.70	4.20	9.50	30.30	30.80	4.70	2.00	1.10	0.80	0.60	0.70		
19	0.50	1.60	4.20	6.10	28.70	24.20	2.80	1.90	1.10	0.80	0.60	0.50		
20	0.60	3.50	2.80	4.00	26.60	17.70	2.10	1.80	1.10	0.80	0.60	0.40		
21	2.40	3.70	2.10	3.30	41.10	17.10	1.60	1.80	1.10	0.90	0.60	0.30		
22	1.10	3.50	1.80	3.90	38.60	21.90	1.60	1.80	1.10	0.90	0.60	0.40		
23	0.90	3.10	1.60	3.80	35.00	22.10	1.40	1.70	1.10	0.80	0.60	0.50		
24	1.20	2.80	1.40	4.50	24.30	22.10	1.10	1.70	1.10	0.80	0.60	0.50		
25	2.00	2.40	1.40	4.80	14.20	21.10	1.30	1.60	1.00	0.80	0.60	0.50		
26	1.70	2.10	2.40	4.10	10.70	16.90	3.80	1.60	1.00	0.80	0.60	0.50		
27	1.10	2.20	6.30	7.60	11.20	14.70	4.90	1.60	1.00	0.80	0.60	0.40		
28	0.70	2.80	6.70	9.40	22.10	17.00	5.20	1.60	1.00	0.70	0.50	0.40		
29	0.70	5.60	4.60	6.30	34.40	24.00	4.40	1.60	1.00	0.70	0.50	0.30		
30	1.00	13.60	3.30	7.00	31.70	25.60	3.70	1.60	1.00	0.70		0.30		
31		18.70		4.90	22.60		3.10		1.00	0.70		0.30		
Total	24.10	88.50	111.40	121.30	1027.90	674.00	413.80	72.90	37.40	26.30	19.50	13.90	2631.00	CMSDAY
Mean	0.80	2.90	3.70	3.90	33.20	22.50	13.30	2.40	1.20	0.80	0.70	0.40	7.20	CMS
Max	2.40	18.70	11.60	9.50	125.00	39.50	55.20	4.20	1.80	1.20	0.80	0.70	125.00	CMS
Min	0.40	0.70	1.40	1.10	9.70	13.10	1.10	1.60	1.00	0.70	0.50	0.30	0.30	CMS
Runoff	2.08	7.65	9.62	10.48	88.81	58.23	35.75	6.30	3.23	2.27	1.68	1.20	227.32	MCM

Momentary Peak 141.00 CMS. at 196.80 m. (MSL.) at 18.00 Hours , on Aug 2 , 2011

Runoff Yield 20.36 Liters/Second/Square KM. Momentary Peak Yield 399.433 Liters/Second/Square KM.

WATER YEAR : 2011

NAN RIVER BASIN

Nan River at Ban Pha Khwang , Nan (N.64)

Lat 19 - 00 - 32 N Long 100 - 47 - 19 E

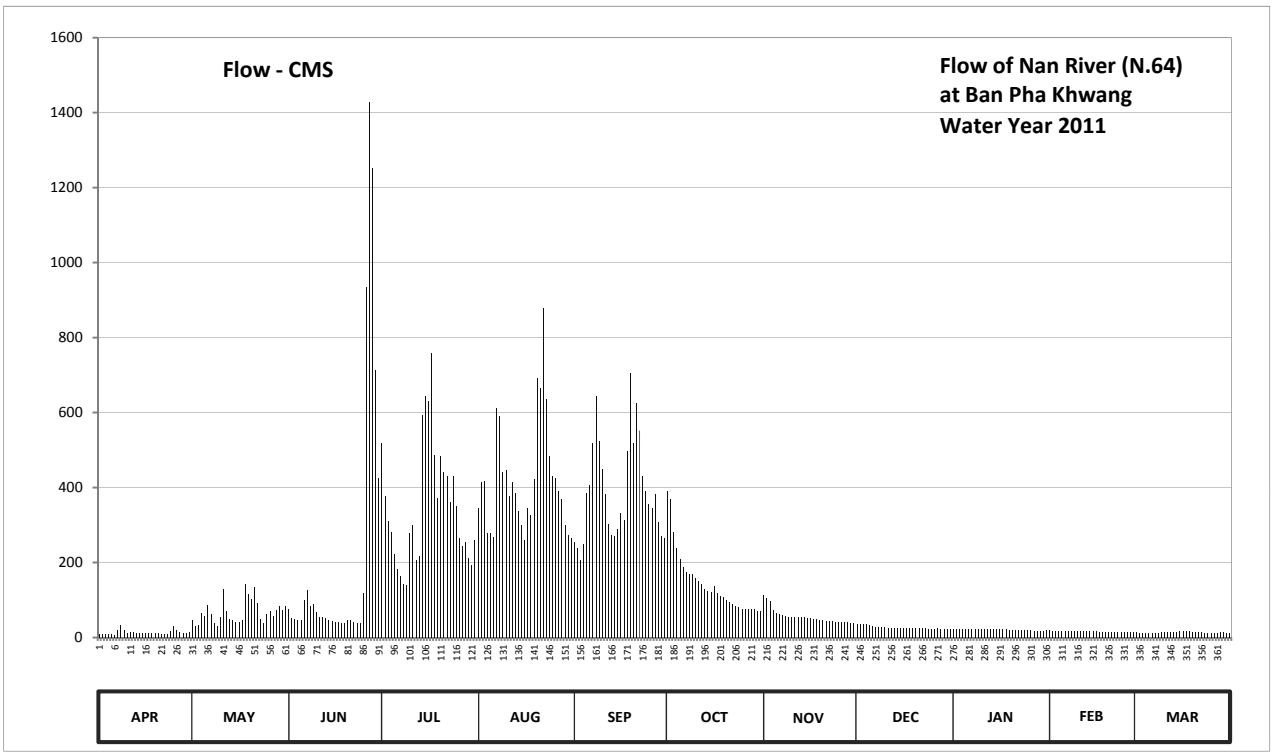
Location : on right bank at the bridge on highway from Tambon Bo.

	Ban Pha Khwang	**Amphoe** Mueang		**Changwat** Nan	
Drainge Area	3,476 sq.km.				
Type of Gage	Water - stage recorder				
Zero Gage at Bottom	+210.900 m. (MSL.)				
Bench Mark	B.M.- Temporary.				
Location BM	On right bank at the approach of the bridge.			**Elevation**	+223.555 m. (MSL.)
Gage Reading Frequency	Recording				
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings				
Period of Available Gage Records	1994 to date				
Rating Operation					
Period of Rating	1994 to date				
Rated by Flot	-				
Rated by Current Meter	1994 to date				
Stability of Channel Regimes	Stable.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records good. Stage-discharge relation defined by 51 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	211.62	212.01	212.30	215.94	214.61	213.88	214.97	212.63	211.92	211.78	211.73	211.67	
2	211.62	211.86	212.07	214.85	215.16	213.75	214.80	212.56	211.92	211.78	211.72	211.66	
3	211.60	211.87	212.03	214.32	215.17	213.47	214.09	212.48	211.92	211.77	211.72	211.66	
4	211.60	212.19	212.01	214.09	214.07	213.83	213.74	212.27	211.91	211.77	211.72	211.66	
5	211.60	212.11	212.02	213.61	214.07	214.93	213.50	212.19	211.89	211.77	211.72	211.66	
6	211.59	212.39	212.50	213.27	213.99	215.09	213.30	212.15	211.86	211.77	211.72	211.66	
7	211.74	212.17	212.76	213.08	216.63	215.94	213.18	212.14	211.84	211.77	211.71	211.66	
8	211.88	211.93	212.35	212.89	216.47	216.87	213.14	212.12	211.84	211.77	211.71	211.66	
9	211.73	211.86	212.41	212.86	215.37	215.98	213.13	212.10	211.83	211.77	211.71	211.67	
10	211.65	212.09	212.22	214.07	215.40	215.42	213.05	212.09	211.82	211.76	211.71	211.67	
11	211.67	212.78	212.10	214.25	214.86	214.90	212.97	212.08	211.80	211.76	211.71	211.67	
12	211.67	212.25	212.08	213.47	215.16	214.27	212.89	212.08	211.80	211.76	211.70	211.68	
13	211.64	212.03	212.07	213.57	214.92	214.02	212.78	212.08	211.80	211.77	211.70	211.68	
14	211.65	212.01	212.01	216.49	214.54	214.01	212.72	212.08	211.80	211.76	211.70	211.67	
15	211.63	211.97	211.99	216.87	214.23	214.15	212.70	212.07	211.80	211.76	211.70	211.70	
16	211.63	211.97	211.97	216.78	213.92	214.49	212.84	212.05	211.80	211.77	211.70	211.71	
17	211.64	212.02	211.96	217.71	214.61	214.34	212.68	212.04	211.80	211.77	211.69	211.70	
18	211.65	212.89	211.94	215.71	214.46	215.78	212.60	212.03	211.80	211.76	211.69	211.70	
19	211.65	212.65	211.93	214.82	215.22	217.33	212.57	212.02	211.80	211.75	211.69	211.68	
20	211.63	212.54	212.01	215.68	217.22	215.95	212.50	212.00	211.80	211.75	211.69	211.68	
21	211.62	212.82	212.00	215.36	217.02	216.74	212.46	211.99	211.80	211.75	211.68	211.67	
22	211.61	212.43	211.97	215.27	218.57	216.19	212.42	211.98	211.79	211.74	211.68	211.67	
23	211.61	212.04	211.93	214.73	216.81	215.27	212.37	211.98	211.79	211.74	211.67	211.65	
24	211.71	211.94	211.94	215.27	215.69	214.96	212.34	211.97	211.78	211.74	211.67	211.65	
25	211.85	212.16	212.68	214.64	215.29	214.68	212.30	211.97	211.78	211.73	211.67	211.64	
26	211.75	212.24	218.97	213.96	215.23	214.60	212.30	211.96	211.78	211.73	211.67	211.64	
27	211.67	212.12	222.39	213.78	214.97	214.91	212.30	211.96	211.79	211.72	211.67	211.64	
28	211.65	212.26	221.17	213.88	214.80	214.31	212.30	211.95	211.78	211.72	211.67	211.69	
29	211.66	212.37	217.39	213.52	214.25	214.01	212.28	211.94	211.78	211.72	211.67	211.68	
30	211.69	212.27	215.24	213.36	214.03	213.96	212.25	211.94	211.78	211.72		211.65	
31		212.36		213.92	213.95		212.25		211.78	211.73		211.64	
Mean	211.66	212.21	213.28	214.58	215.18	214.93	212.89	212.10	211.82	211.75	211.70	211.67	
Max	211.88	212.89	222.39	217.71	218.57	217.33	214.97	212.63	211.92	211.78	211.73	211.71	222.39
Min	211.59	211.86	211.93	212.86	213.92	213.47	212.25	211.94	211.78	211.72	211.67	211.64	211.59

Annual Max Momentary Gage Height	222.60	m. (MSL.) ,	at 10.00 Hours , on Jun 27 , 2011		
Zero Gage at Bottom Elevation	210.90	m. (MSL.) ,	River Bed	210.55	m. (MSL)
Left Bank Elevation	226.43	m. (MSL.) ,			
Right Bank Elevation	224.10	m. (MSL.) ,	Drainage Area	3476	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	9.70	46.55	77.00	517.90	346.25	255.60	391.25	113.30	37.10	23.30	19.05	13.95		
2	9.70	31.00	52.85	376.25	415.00	240.00	370.00	105.60	37.10	23.30	18.20	13.10		
3	8.00	32.00	48.65	310.00	416.25	207.05	281.25	96.80	37.10	22.45	18.20	13.10		
4	8.00	65.45	46.55	281.25	278.75	249.60	238.80	73.85	36.05	22.45	18.20	13.10		
5	8.00	57.05	47.60	223.20	278.75	386.25	210.50	65.45	34.00	22.45	18.20	13.10		
6	7.45	86.90	99.00	184.05	268.80	406.25	187.50	61.25	31.00	22.45	18.20	13.10		
7	19.90	63.35	127.60	162.80	611.05	517.90	173.80	60.20	29.00	22.45	17.35	13.10		
8	33.00	38.15	82.50	141.90	589.45	643.45	169.40	58.10	29.00	22.45	17.35	13.10		
9	19.05	31.00	89.10	138.60	441.25	523.30	168.30	56.00	28.00	22.45	17.35	13.95		
10	12.25	54.95	68.60	278.75	445.00	447.70	159.50	54.95	27.00	21.60	17.35	13.95		
11	13.95	129.80	56.00	301.25	377.50	382.50	150.70	53.90	25.00	21.60	17.35	13.95		
12	13.95	71.75	53.90	207.05	415.00	303.75	141.90	53.90	25.00	21.60	16.50	14.80		
13	11.40	48.65	52.85	218.55	385.00	272.50	129.80	53.90	25.00	22.45	16.50	14.80		
14	12.25	46.55	46.55	592.15	337.50	271.25	123.20	53.90	25.00	21.60	16.50	13.95		
15	10.55	42.35	44.45	643.45	298.75	288.75	121.00	52.85	25.00	21.60	16.50	16.50		
16	10.55	42.35	42.35	631.30	260.40	331.25	136.40	50.75	25.00	22.45	16.50	17.35		
17	11.40	47.60	41.30	758.40	346.25	312.50	118.80	49.70	25.00	22.45	15.65	16.50		
18	12.25	141.90	39.20	486.85	327.50	496.30	110.00	48.65	25.00	21.60	15.65	16.50		
19	12.25	115.50	38.15	372.50	422.50	705.55	106.70	47.60	25.00	20.75	15.65	14.80		
20	10.55	103.40	46.55	482.80	690.70	519.25	99.00	45.50	25.00	20.75	15.65	14.80		
21	9.70	134.20	45.50	440.00	663.70	625.90	94.60	44.45	25.00	20.75	14.80	13.95		
22	8.85	91.30	42.35	428.75	878.80	551.65	90.20	43.40	24.15	19.90	14.80	13.95		
23	8.85	49.70	38.15	361.25	635.35	428.75	84.70	43.40	24.15	19.90	13.95	12.25		
24	17.35	39.20	39.20	428.75	484.15	390.00	81.40	42.35	23.30	19.90	13.95	12.25		
25	30.00	62.30	118.80	350.00	431.25	355.00	77.00	42.35	23.30	19.05	13.95	11.40		
26	20.75	70.70	934.80	265.20	423.75	345.00	77.00	41.30	23.30	19.05	13.95	11.40		
27	13.95	58.10	1429.55	243.60	391.25	383.75	77.00	41.30	24.15	18.20	13.95	11.40		
28	12.25	72.80	1252.65	255.60	370.00	308.75	77.00	40.25	23.30	18.20	13.95	15.65		
29	13.10	84.70	713.65	212.80	301.25	271.25	74.90	39.20	23.30	18.20	13.95	14.80		
30	15.65	73.85	425.00	194.40	273.75	265.20	71.75	39.20	23.30	18.20		12.25		
31		83.60		260.40	264.00		71.75		23.30	19.05		11.40		
Total	404.60	2116.70	6240.40	10749.75	13068.90	11685.95	4465.10	1673.35	835.90	652.60	469.15	428.20	52790.60	CMSDAY
Mean	13.49	68.28	208.01	346.77	421.58	389.53	144.04	55.78	26.96	21.05	16.18	13.81	144.24	CMS
Max	33.00	141.90	1429.55	758.40	878.80	705.55	391.25	113.30	37.10	23.30	19.05	17.35	1429.55	CMS
Min	7.45	31.00	38.15	138.60	260.40	207.05	71.75	39.20	23.30	18.20	13.95	11.40	7.45	CMS
Runoff	34.96	182.88	539.17	928.78	1129.15	1009.67	385.79	144.58	72.22	56.39	40.54	37.00	4561.11	MCM

Momentary Peak 1460.00 CMS. at 222.60 m. (MSL.) at 10.00 Hours , on Jun 27 , 2011

Runoff Yield 41.49 Liters/Second/Square KM. Momentary Peak Yield 420.023 Liters/Second/Square KM.

WATER YEAR : 2011

NAN RIVER BASIN

Nam Yao at Ban Pang Sa , Nan (N.65)

Lat 19 - 13 - 47 N Long 100 - 45 - 27 E

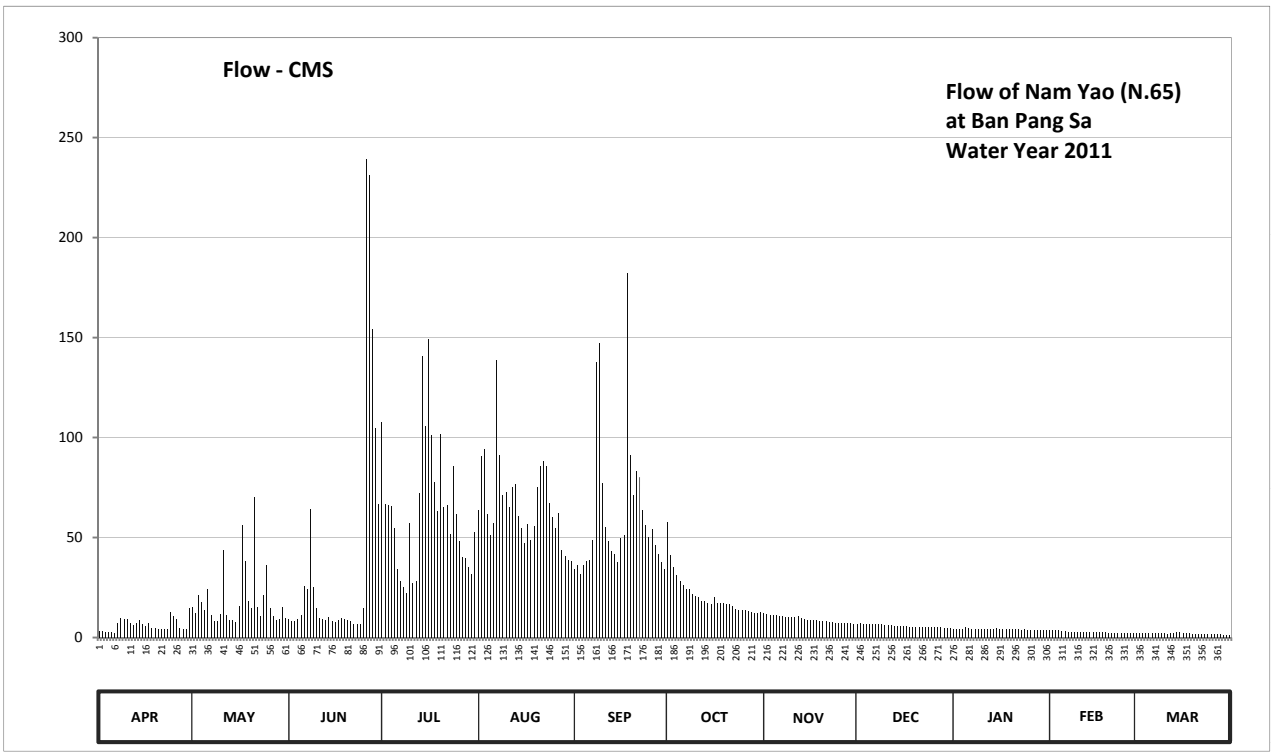
Location : on right bank at the bridge on highway.

	Ban Pang Sa		**Amphoe** Tha Wang Pha	**Changwat** Nan	
Drainge Area	621 sq.km.				
Type of Gage	Staff gage				
Zero Gage at Bottom	+248.891 m. (MSL.)				
Bench Mark	B.M.- H.D.				
Location BM	On right bank about 20 meters from the top staff gage.			**Elevation**	+257.381 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00, and 18.00 hours.				
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings				
Period of Available Gage Records	1996 to date				
Rating Operation					
Period of Rating	1996 to date				
Rated by Flot	-				
Rated by Current Meter	1996 to date				
Stability of Channel Regimes	Stable.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records good. Stage-discharge relation defined by 43 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	249.61	249.95	249.80	251.61	250.89	250.35	250.78	249.88	249.74	249.66	249.62	249.55	
2	249.60	249.88	249.78	250.94	251.34	250.38	250.48	249.87	249.75	249.66	249.62	249.55	
3	249.59	250.08	249.77	250.93	251.40	250.29	250.36	249.86	249.74	249.66	249.62	249.55	
4	249.57	250.00	249.81	250.92	250.85	250.39	250.28	249.85	249.74	249.65	249.62	249.55	
5	249.57	249.92	249.86	250.72	250.66	250.42	250.23	249.85	249.74	249.68	249.61	249.55	
6	249.56	250.14	250.17	250.34	250.77	250.43	250.18	249.84	249.74	249.67	249.60	249.54	
7	249.75	249.86	250.14	250.23	252.08	250.61	250.14	249.84	249.73	249.66	249.59	249.54	
8	249.82	249.77	250.90	250.16	251.35	252.07	250.14	249.83	249.73	249.66	249.58	249.53	
9	249.81	249.77	250.16	250.10	251.02	252.20	250.09	249.83	249.73	249.65	249.58	249.53	
10	249.81	249.87	249.94	250.77	251.05	251.12	250.07	249.83	249.72	249.65	249.58	249.53	
11	249.75	250.52	249.82	250.20	250.91	250.73	250.06	249.83	249.72	249.65	249.58	249.52	
12	249.72	249.86	249.81	250.23	251.09	250.60	250.02	249.84	249.72	249.65	249.58	249.54	
13	249.75	249.79	249.79	251.04	251.11	250.51	250.01	249.82	249.71	249.65	249.58	249.54	
14	249.79	249.79	249.83	252.11	250.83	250.49	249.99	249.80	249.71	249.65	249.57	249.57	
15	249.74	249.76	249.78	251.58	250.72	250.41	249.98	249.79	249.71	249.67	249.57	249.58	
16	249.71	249.96	249.76	252.23	250.59	250.63	250.06	249.79	249.71	249.65	249.57	249.55	
17	249.75	250.75	249.79	251.51	250.76	250.66	249.99	249.79	249.70	249.65	249.57	249.54	
18	249.67	250.42	249.82	251.13	250.61	252.69	249.99	249.79	249.69	249.64	249.57	249.53	
19	249.67	250.01	249.80	250.88	250.74	251.35	249.99	249.78	249.69	249.64	249.57	249.52	
20	249.66	249.94	249.79	251.52	251.09	251.02	249.98	249.78	249.69	249.64	249.56	249.52	
21	249.66	251.00	249.77	250.91	251.26	251.22	249.98	249.77	249.68	249.64	249.56	249.52	
22	249.64	249.95	249.73	250.93	251.30	251.17	249.96	249.76	249.68	249.64	249.56	249.52	
23	249.65	249.84	249.74	250.67	251.26	250.89	249.93	249.76	249.68	249.63	249.56	249.51	
24	249.89	250.08	249.73	251.26	250.95	250.75	249.92	249.75	249.68	249.64	249.55	249.51	
25	249.84	250.38	249.94	250.85	250.82	250.64	249.92	249.75	249.68	249.63	249.55	249.51	
26	249.81	249.94	253.44	250.60	250.72	250.71	249.92	249.75	249.68	249.62	249.55	249.50	
27	249.67	249.84	253.34	250.46	250.86	250.57	249.90	249.75	249.68	249.62	249.55	249.52	
28	249.65	249.79	252.30	250.45	250.52	250.49	249.89	249.75	249.68	249.62	249.55	249.50	
29	249.65	249.80	251.56	250.36	250.47	250.41	249.88	249.75	249.67	249.62	249.55	249.49	
30	249.94	249.95	250.94	250.29	250.43	250.34	249.88	249.74	249.67	249.62		249.49	
31		249.82		250.69	250.42		249.89		249.67	249.62		249.49	
Mean	249.71	250.01	250.29	250.86	250.93	250.82	250.06	249.80	249.71	249.64	249.58	249.53	
Max	249.94	251.00	253.44	252.23	252.08	252.69	250.78	249.88	249.75	249.68	249.62	249.58	253.44
Min	249.56	249.76	249.73	250.10	250.42	250.29	249.88	249.74	249.67	249.62	249.55	249.49	249.49

Annual Max Momentary Gage Height	254.08	m. (MSL.) ,	at 19.00 Hours , on Jun 26 , 2011		
Zero Gage at Bottom Elevation	248.89	m. (MSL.) ,	River Bed	249.08	m. (MSL.) ,
Left Bank Elevation	256.71	m. (MSL.) ,			
Right Bank Elevation	256.70	m. (MSL.) ,	Drainage Area	621	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.25	15.25	9.00	107.65	63.95	34.50	57.90	12.20	6.90	4.50	3.50	2.25		
2	3.00	12.20	8.30	66.70	90.40	36.00	41.40	11.80	7.25	4.50	3.50	2.25		
3	2.85	21.10	7.95	66.15	94.00	31.50	35.00	11.40	6.90	4.50	3.50	2.25		
4	2.55	17.50	9.40	65.60	61.75	36.50	31.00	11.00	6.90	4.25	3.50	2.25		
5	2.55	13.90	11.40	54.60	51.30	38.10	28.50	11.00	6.90	5.00	3.25	2.25		
6	2.40	24.00	25.50	34.00	57.35	38.65	26.00	10.60	6.90	4.75	3.00	2.10		
7	7.25	11.40	24.00	28.50	138.60	48.55	24.00	10.60	6.55	4.50	2.85	2.10		
8	9.80	7.95	64.50	25.00	91.00	137.90	24.00	10.20	6.55	4.50	2.70	1.95		
9	9.40	7.95	25.00	22.00	71.20	147.00	21.55	10.20	6.55	4.25	2.70	1.95		
10	9.40	11.80	14.80	57.35	73.00	77.20	20.65	10.20	6.20	4.25	2.70	1.95		
11	7.25	43.60	9.80	27.00	65.05	55.15	20.20	10.20	6.20	4.25	2.70	1.80		
12	6.20	11.40	9.40	28.50	75.40	48.00	18.40	10.60	6.20	4.25	2.70	2.10		
13	7.25	8.65	8.65	72.40	76.60	43.05	17.95	9.80	5.85	4.25	2.70	2.10		
14	8.65	8.65	10.20	140.70	60.65	41.95	17.05	9.00	5.85	4.25	2.55	2.55		
15	6.90	7.60	8.30	105.70	54.60	37.55	16.60	8.65	5.85	4.75	2.55	2.70		
16	5.85	15.70	7.60	149.10	47.45	49.65	20.20	8.65	5.85	4.25	2.55	2.25		
17	7.25	56.25	8.65	101.15	56.80	51.30	17.05	8.65	5.50	4.25	2.55	2.10		
18	4.75	38.10	9.80	77.80	48.55	182.03	17.05	8.65	5.25	4.00	2.55	1.95		
19	4.75	17.95	9.00	63.40	55.70	91.00	17.05	8.30	5.25	4.00	2.55	1.80		
20	4.50	14.80	8.65	101.80	75.40	71.20	16.60	8.30	5.25	4.00	2.40	1.80		
21	4.50	70.00	7.95	65.05	85.60	83.20	16.60	7.95	5.00	4.00	2.40	1.80		
22	4.00	15.25	6.55	66.15	88.00	80.20	15.70	7.60	5.00	4.00	2.40	1.80		
23	4.25	10.60	6.90	51.85	85.60	63.95	14.35	7.60	5.00	3.75	2.40	1.65		
24	12.60	21.10	6.55	85.60	67.25	56.25	13.90	7.25	5.00	4.00	2.25	1.65		
25	10.60	36.00	14.80	61.75	60.10	50.20	13.90	7.25	5.00	3.75	2.25	1.65		
26	9.40	14.80	239.20	48.00	54.60	54.05	13.90	7.25	5.00	3.50	2.25	1.50		
27	4.75	10.60	231.35	40.30	62.30	46.35	13.00	7.25	5.00	3.50	2.25	1.80		
28	4.25	8.65	154.00	39.75	43.60	41.95	12.60	7.25	5.00	3.50	2.25	1.50		
29	4.25	9.00	104.40	35.00	40.85	37.55	12.20	7.25	4.75	3.50	2.25	1.35		
30	14.80	15.25	66.70	31.50	38.65	34.00	12.20	6.90	4.75	3.50		1.35		
31		9.80		52.95	38.10		12.60		4.75	3.50		1.35		
Total	189.20	586.80	1128.30	1973.00	2073.40	1844.48	639.10	273.55	178.90	127.75	77.70	59.85	9152.03	CMSDAY
Mean	6.31	18.93	37.61	63.65	66.88	61.48	20.62	9.12	5.77	4.12	2.68	1.93	25.01	CMS
Max	14.80	70.00	239.20	149.10	138.60	182.03	57.90	12.20	7.25	5.00	3.50	2.70	239.20	CMS
Min	2.40	7.60	6.55	22.00	38.10	31.50	12.20	6.90	4.75	3.50	2.25	1.35	1.35	CMS
Runoff	16.35	50.70	97.49	170.47	179.14	159.36	55.22	23.64	15.46	11.04	6.71	5.17	790.74	MCM

Momentary Peak 290.40 CMS. at 254.08 m. (MSL.) at 19.00 Hours , on Jun 26 , 2011

Runoff Yield 40.27 Liters/Second/Square KM. Momentary Peak Yield 467.633 Liters/Second/Square KM.

WATER YEAR : 2011

NAN RIVER BASIN

Huai Om Sing at Ban Noen Phoem , Phitsanulok (N.66)

Lat 17 - 07 - 22 N Long 100 - 53 - 58 E

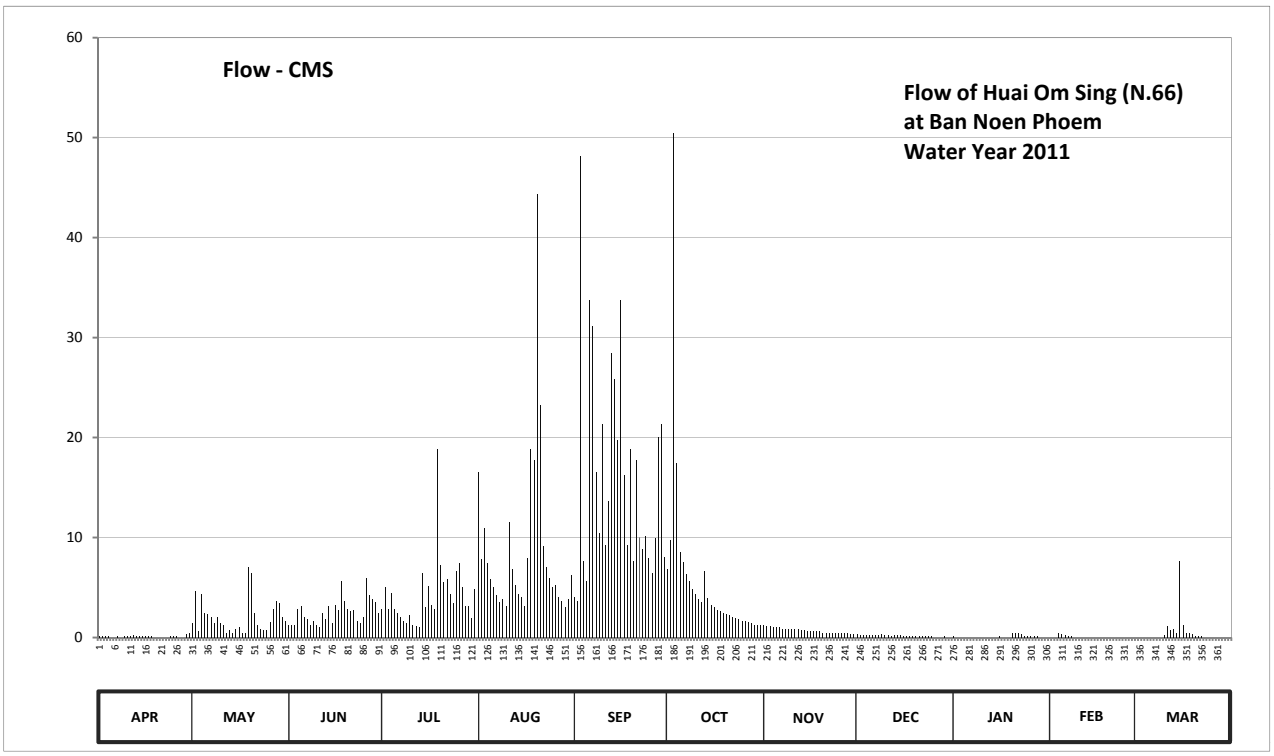
Location : on right bank at Ban Om Sing.

	Ban Noen Phoem		**Amphoe** Nakhon Thai	**Changwat** Phitsanulok	
Drainge Area	152 sq.km.				
Type of Gage	Staff gage				
Zero Gage at Bottom	+201.220 m. (MSL.)				
Bench Mark	B.M.- H.D.				
Location BM	On right bank about 8 meters from the top staff gage.			**Elevation**	+208.617 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.				
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings				
Period of Available Gage Records	1995 to date				
Rating Operation					
Period of Rating	1996 to date				
Rated by Flot	-				
Rated by Current Meter	1996 to date				
Stability of Channel Regimes	Stable.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records good. Stage-discharge relation defined by 16 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	202.41	203.04	202.96	203.54	205.70	203.93	204.79	202.95	202.54	202.40	202.37	202.22	
2	202.45	204.14	202.97	204.27	205.00	203.81	205.29	202.94	202.52	202.39	202.37	202.22	
3	202.43	202.71	202.97	203.57	205.41	206.63	206.69	202.94	202.51	202.37	202.37	202.22	
4	202.43	204.02	203.53	204.09	204.91	204.96	205.73	202.90	202.50	202.35	202.60	202.22	
5	202.38	203.41	203.64	203.54	204.51	204.48	205.15	202.89	202.50	202.35	202.55	202.22	
6	202.36	203.34	203.29	203.40	204.25	206.24	204.94	202.87	202.48	202.36	202.48	202.22	
7	202.40	203.29	203.20	203.26	204.00	206.16	204.64	202.86	202.49	202.35	202.45	202.22	
8	202.38	203.04	203.00	203.13	203.75	205.70	204.44	202.84	202.52	202.34	202.40	202.22	
9	202.45	203.27	203.16	203.05	203.87	205.36	204.23	202.82	202.54	202.33	202.39	202.22	
10	202.42	203.03	202.98	203.32	203.62	205.86	204.02	202.80	202.52	202.33	202.36	202.47	
11	202.41	202.98	202.89	203.02	205.45	205.23	203.86	202.79	202.49	202.33	202.30	202.93	
12	202.47	202.67	203.38	202.94	204.78	205.59	203.76	202.78	202.46	202.29	202.27	202.73	
13	202.44	202.77	203.19	202.90	204.32	206.08	204.72	202.76	202.49	202.28	202.27	202.79	
14	202.46	202.58	203.61	204.68	204.02	206.00	203.89	202.74	202.47	202.30	202.27	202.62	
15	202.46	202.78	203.03	203.59	203.97	205.81	203.69	202.72	202.47	202.35	202.26	204.95	
16	202.45	202.90	203.69	204.31	203.62	206.24	203.59	202.71	202.44	202.42	202.26	202.95	
17	202.44	202.58	203.50	203.67	205.03	205.69	203.49	202.71	202.45	202.36	202.25	202.66	
18	202.41	202.59	204.43	203.54	205.78	205.23	203.46	202.69	202.45	202.36	202.24	202.64	
19	202.37	204.83	203.83	205.78	205.74	205.78	203.39	202.68	202.45	202.39	202.24	202.54	
20	202.38	204.70	203.54	204.90	206.53	204.95	203.34	202.66	202.44	202.58	202.23	202.46	
21	202.38	203.40	203.46	204.41	205.92	205.74	203.31	202.65	202.43	202.58	202.23	202.42	
22	202.36	203.01	203.49	204.50	205.21	205.31	203.25	202.65	202.45	202.59	202.23	202.40	
23	202.32	202.84	203.14	204.04	204.82	205.19	203.22	202.64	202.44	202.54	202.22	202.39	
24	202.46	202.73	203.04	203.73	204.53	205.33	203.17	202.63	202.43	202.45	202.22	202.36	
25	202.44	202.74	203.30	204.72	204.26	205.03	203.12	202.62	202.41	202.44	202.22	202.33	
26	202.40	203.08	204.52	204.92	204.33	204.71	203.12	202.59	202.39	202.42	202.22	202.32	
27	202.38	203.55	203.98	204.25	203.93	205.30	203.07	202.59	202.38	202.41	202.22	202.31	
28	202.37	203.83	203.87	203.64	203.78	205.82	203.05	202.60	202.38	202.41	202.22	202.30	
29	202.56	203.72	203.75	203.62	203.59	205.86	203.02	202.56	202.40	202.39	202.22	202.27	
30	202.64	203.29	203.39	203.22	203.87	205.06	203.00	202.56	202.39	202.39		202.25	
31		203.16		204.23	204.61		202.97		202.39	202.37		202.24	
Mean	202.42	203.23	203.42	203.86	204.62	205.44	203.92	202.74	202.46	202.39	202.31	202.49	
Max	202.64	204.83	204.52	205.78	206.53	206.63	206.69	202.95	202.54	202.59	202.60	204.95	206.69
Min	202.32	202.58	202.89	202.90	203.59	203.81	202.97	202.56	202.38	202.28	202.22	202.22	202.22

Annual Max Momentary Gage Height	206.89	m. (MSL.) ,	at 15.00 Hours , on Oct 3 , 2011		
Zero Gage at Bottom Elevation	201.22	m. (MSL.) ,	River Bed	201.99	m. (MSL)
Left Bank Elevation	208.66	m. (MSL.) ,			
Right Bank Elevation	208.63	m. (MSL.) ,	Drainage Area	152	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.10	1.40	1.20	2.90	16.50	4.00	6.90	1.20	0.30	0.10	0.00	0.00		
2	0.10	4.60	1.20	5.00	7.80	3.70	9.80	1.10	0.20	0.00	0.00	0.00		
3	0.10	0.60	1.20	2.90	11.00	48.20	50.50	1.10	0.20	0.00	0.00	0.00		
4	0.10	4.30	2.80	4.50	7.40	7.60	17.40	1.00	0.20	0.00	0.40	0.00		
5	0.00	2.50	3.10	2.90	5.80	5.70	8.60	1.00	0.20	0.00	0.30	0.00		
6	0.00	2.30	2.10	2.40	5.00	33.70	7.50	1.00	0.20	0.00	0.20	0.00		
7	0.10	2.10	1.80	2.00	4.20	31.10	6.30	0.90	0.20	0.00	0.10	0.00		
8	0.00	1.40	1.30	1.60	3.50	16.50	5.60	0.90	0.20	0.00	0.10	0.00		
9	0.10	2.10	1.70	1.40	3.80	10.50	4.90	0.90	0.30	0.00	0.00	0.00		
10	0.10	1.40	1.20	2.20	3.10	21.30	4.30	0.80	0.20	0.00	0.00	0.20		
11	0.10	1.20	1.00	1.30	11.50	9.30	3.80	0.80	0.20	0.00	0.00	1.10		
12	0.20	0.50	2.40	1.10	6.80	13.60	3.50	0.80	0.10	0.00	0.00	0.70		
13	0.10	0.70	1.80	1.00	5.20	28.40	6.60	0.70	0.20	0.00	0.00	0.80		
14	0.10	0.40	3.10	6.40	4.30	25.80	3.90	0.70	0.20	0.00	0.00	0.40		
15	0.10	0.80	1.40	3.00	4.10	19.70	3.30	0.60	0.20	0.00	0.00	7.60		
16	0.10	1.00	3.30	5.10	3.10	33.70	3.00	0.60	0.10	0.10	0.00	1.20		
17	0.10	0.40	2.70	3.20	7.90	16.20	2.70	0.60	0.10	0.00	0.00	0.50		
18	0.10	0.40	5.60	2.90	18.80	9.30	2.60	0.60	0.10	0.00	0.00	0.50		
19	0.00	7.00	3.70	18.80	17.70	18.80	2.40	0.60	0.10	0.00	0.00	0.30		
20	0.00	6.50	2.90	7.30	44.30	7.60	2.30	0.50	0.10	0.40	0.00	0.10		
21	0.00	2.40	2.60	5.50	23.20	17.70	2.20	0.50	0.10	0.40	0.00	0.10		
22	0.00	1.30	2.70	5.80	9.10	10.00	2.00	0.50	0.10	0.40	0.00	0.10		
23	0.00	0.90	1.70	4.30	7.00	8.90	1.90	0.50	0.10	0.30	0.00	0.00		
24	0.10	0.70	1.40	3.40	5.90	10.20	1.80	0.50	0.10	0.10	0.00	0.00		
25	0.10	0.70	2.10	6.60	5.00	7.90	1.60	0.40	0.10	0.10	0.00	0.00		
26	0.10	1.50	5.90	7.40	5.20	6.50	1.60	0.40	0.00	0.10	0.00	0.00		
27	0.00	2.90	4.20	5.00	4.00	9.90	1.50	0.40	0.00	0.10	0.00	0.00		
28	0.00	3.70	3.80	3.10	3.60	20.00	1.40	0.40	0.00	0.10	0.00	0.00		
29	0.30	3.40	3.50	3.10	3.00	21.30	1.30	0.30	0.10	0.00	0.00	0.00		
30	0.50	2.10	2.40	1.90	3.80	8.10	1.30	0.30	0.00	0.00		0.00		
31		1.70		4.90	6.20		1.20		0.00	0.00		0.00		
Total	2.70	62.90	75.80	128.90	267.80	485.20	173.70	20.60	4.20	2.20	1.10	13.60	1238.70	CMSDAY
Mean	0.10	2.00	2.50	4.20	8.60	16.20	5.60	0.70	0.10	0.10	0.00	0.40	3.40	CMS
Max	0.50	7.00	5.90	18.80	44.30	48.20	50.50	1.20	0.30	0.40	0.40	7.60	50.50	CMS
Min	0.00	0.40	1.00	1.00	3.00	3.70	1.20	0.30	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	0.23	5.43	6.55	11.14	23.14	41.92	15.01	1.78	0.36	0.19	0.10	1.18	107.02	MCM

Momentary Peak 58.31 CMS. at 206.89 m. (MSL.) at 15.00 Hours , on Oct 3 , 2011

Runoff Yield 22.27 Liters/Second/Square KM. Momentary Peak Yield 383.618 Liters/Second/Square KM.

WATER YEAR : 2011

NAN RIVER BASIN

Nan River at Ban Koei Chai, Nakhon Sawan (N.67)

Lat 15 - 52 - 05 N Long 100 - 16 - 07 E

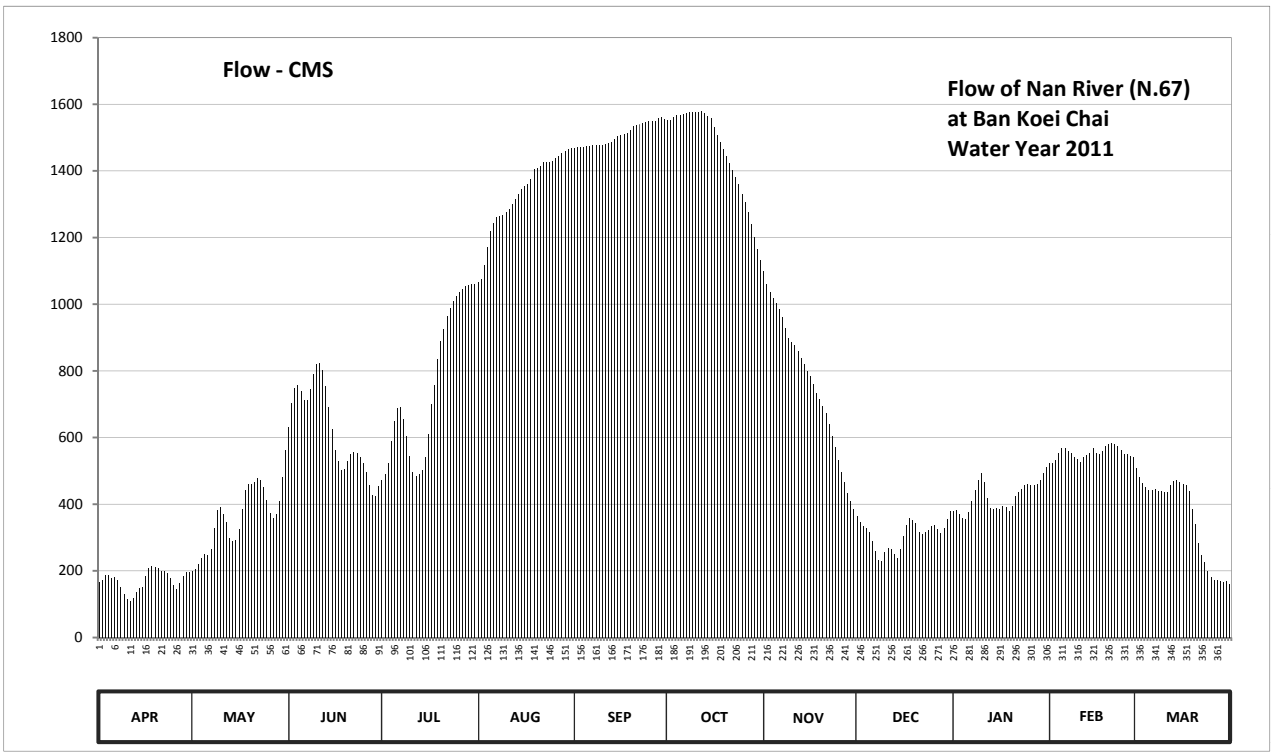
Location : on right bank at the bridge near Wat Koei Chai Nua

	Ban Koei Chai	**Amphoe** Chum Saeng		**Changwat** Nakhon Sawan	
Drainge Area	57,384 sq.km.				
Type of Gage	Water - stage recorder				
Zero Gage at Bottom	+0.000 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On right bank near the gage observe's house			**Elevation**	+27.470 m. (MSL.)
Gage Reading Frequency	Recording				
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings				
Period of Available Gage Records	1997 to date				
Rating Operation					
Period of Rating	1997 to date				
Rated by Flot	-				
Rated by Current Meter	1997 to date				
Stability of Channel Regimes	Fairly stable.				
Overbank Flow Conditions	Overbank flow starts at elevation +28.340 m.(MSL.), records are channel flow only.				
General Description	Records good. Flow effected by Mae Yom side flow.				
	Stage-discharge relation defined by 65 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	20.41	20.83	24.21	23.22	26.44	28.10	28.40	27.71	22.82	22.56	23.55	23.45	
2	20.46	20.91	24.63	23.33	26.49	28.11	28.40	27.62	22.56	22.58	23.56	23.27	
3	20.70	21.11	24.88	23.55	26.66	28.11	28.43	27.55	22.40	22.49	23.62	23.15	
4	20.71	21.28	24.92	23.96	26.89	28.11	28.45	27.49	22.29	22.37	23.74	23.06	
5	20.56	21.40	24.83	24.32	27.08	28.12	28.45	27.44	22.07	22.35	23.83	23.01	
6	20.59	21.38	24.68	24.55	27.19	28.12	28.46	27.39	21.80	22.52	23.83	23.01	
7	20.48	21.55	24.68	24.56	27.26	28.13	28.47	27.33	21.50	22.76	23.78	23.03	
8	20.19	22.14	24.87	24.36	27.27	28.13	28.48	27.25	21.23	23.00	23.74	22.99	
9	19.86	22.58	25.10	24.06	27.29	28.13	28.48	27.15	21.20	23.22	23.67	22.99	
10	19.64	22.64	25.25	23.68	27.32	28.13	28.48	27.09	21.47	23.36	23.64	22.95	
11	19.57	22.48	25.27	23.38	27.36	28.14	28.48	27.04	21.59	23.17	23.58	22.97	
12	19.72	22.27	25.16	23.29	27.42	28.15	28.49	26.94	21.54	22.83	23.66	23.10	
13	19.97	21.87	24.91	23.33	27.48	28.16	28.49	26.81	21.39	22.62	23.71	23.19	
14	20.12	21.81	24.57	23.42	27.54	28.19	28.48	26.70	21.27	22.59	23.75	23.21	
15	20.18	21.83	24.18	23.67	27.60	28.22	28.47	26.58	21.54	22.61	23.83	23.17	
16	20.64	22.10	23.80	24.08	27.64	28.23	28.44	26.47	21.93	22.60	23.75	23.14	
17	20.97	22.60	23.60	24.61	27.66	28.25	28.41	26.32	22.21	22.66	23.72	23.10	
18	21.02	23.01	23.41	24.93	27.72	28.26	28.38	26.14	22.38	22.64	23.78	22.99	
19	20.98	23.12	23.43	25.33	27.84	28.29	28.35	26.01	22.34	22.56	23.87	22.59	
20	20.94	23.12	23.60	25.60	27.85	28.33	28.32	25.87	22.26	22.66	23.92	22.22	
21	20.86	23.17	23.73	25.78	27.88	28.34	28.29	25.71	22.04	22.87	23.93	21.74	
22	20.86	23.25	23.77	25.96	27.93	28.35	28.26	25.47	21.97	22.97	23.91	21.36	
23	20.78	23.22	23.74	26.08	27.93	28.36	28.23	25.18	22.03	23.03	23.88	21.15	
24	20.56	23.07	23.66	26.18	27.93	28.37	28.20	24.92	22.08	23.11	23.80	20.83	
25	20.24	22.79	23.55	26.25	27.94	28.38	28.15	24.60	22.17	23.13	23.73	20.59	
26	20.10	22.50	23.37	26.30	27.97	28.38	28.11	24.25	22.20	23.10	23.72	20.48	
27	20.34	22.37	23.11	26.35	28.00	28.39	28.06	23.95	22.10	23.11	23.68	20.47	
28	20.63	22.47	22.90	26.39	28.03	28.42	28.00	23.64	22.01	23.13	23.67	20.43	
29	20.81	22.77	22.87	26.41	28.06	28.43	27.92	23.35	22.14	23.22	23.62	20.38	
30	20.80	23.27	23.08	26.42	28.08	28.41	27.85	23.09	22.35	23.36		20.43	
31		23.80		26.42	28.09		27.78		22.56	23.47		20.31	
Mean	20.46	22.35	24.13	24.83	27.54	28.24	28.31	26.10	21.98	22.86	23.74	22.22	
Max	21.02	23.80	25.27	26.42	28.09	28.43	28.49	27.71	22.82	23.47	23.93	23.45	28.49
Min	19.57	20.83	22.87	23.22	26.44	28.10	27.78	23.09	21.20	22.35	23.55	20.31	19.57

Annual Max Momentary Gage Height	28.49	m. (MSL.) ,	at 11.00 Hours , on Oct 12 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	12.80	m. (MSL)
Left Bank Elevation	28.55	m. (MSL.) ,			
Right Bank Elevation	28.33	m. (MSL.) ,	Drainage Area	57384	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	167.70	198.40	630.70	473.00	1065.20	1470.00	1554.00	1099.50	364.50	380.80	522.50	507.50		
2	171.20	204.80	702.40	489.50	1076.70	1472.80	1554.00	1059.00	345.20	383.40	524.00	480.50		
3	188.00	221.00	748.20	522.50	1117.40	1472.80	1562.40	1035.00	334.00	371.80	533.20	463.00		
4	188.80	238.00	755.80	588.20	1172.60	1472.80	1568.00	1017.00	328.00	357.40	552.40	450.40		
5	178.20	250.00	738.70	649.40	1218.20	1475.60	1568.00	1002.00	316.50	355.00	566.80	443.40		
6	180.30	248.00	711.40	688.50	1244.60	1475.60	1570.80	985.80	290.00	375.60	566.80	443.40		
7	172.60	265.00	711.40	690.20	1261.40	1478.40	1573.60	960.60	260.00	408.40	558.80	446.20		
8	152.30	329.80	746.30	656.20	1263.80	1478.40	1576.40	927.00	233.00	442.00	552.40	440.60		
9	129.20	383.40	790.00	605.20	1268.60	1478.40	1576.40	897.00	230.00	473.00	541.20	440.60		
10	114.40	391.60	820.00	542.80	1275.80	1478.40	1576.40	886.20	257.00	494.00	536.40	435.00		
11	110.20	370.60	824.00	497.00	1285.40	1481.20	1576.40	877.20	269.00	465.80	527.00	437.80		
12	119.40	345.40	802.00	483.50	1300.00	1484.00	1579.20	859.50	264.00	418.20	539.60	456.00		
13	136.90	297.70	753.90	489.50	1315.00	1486.80	1573.80	836.80	249.00	388.80	547.60	468.60		
14	147.40	291.10	691.90	503.00	1330.00	1495.20	1565.60	818.50	237.00	384.70	554.00	471.50		
15	151.60	293.30	625.60	541.20	1345.00	1503.60	1557.40	799.10	264.00	387.40	566.80	465.80		
16	183.80	325.00	562.00	608.60	1355.00	1506.40	1532.80	783.10	304.60	386.00	554.00	461.60		
17	209.60	386.00	530.00	698.80	1360.00	1512.00	1508.20	759.80	338.20	394.40	549.20	456.00		
18	213.60	443.40	501.50	757.70	1375.00	1514.80	1486.00	732.20	358.60	391.60	558.80	440.60		
19	210.40	458.80	504.50	836.00	1405.00	1523.20	1465.00	715.30	353.80	380.80	573.20	384.70		
20	207.20	458.80	530.00	890.00	1407.50	1534.40	1444.00	695.20	344.20	394.40	581.40	339.40		
21	200.80	465.80	550.80	926.00	1415.00	1537.20	1423.00	672.40	317.80	423.80	583.10	284.00		
22	200.80	477.50	557.20	963.60	1427.50	1540.00	1402.00	639.40	309.40	437.80	579.70	246.00		
23	194.40	473.00	552.40	988.80	1427.50	1542.80	1381.00	602.50	316.60	446.20	574.80	225.00		
24	178.20	451.80	539.60	1009.80	1427.50	1545.60	1360.00	570.80	322.60	457.40	562.00	198.40		
25	155.80	412.60	522.50	1024.50	1430.00	1548.40	1330.00	533.00	333.40	460.20	550.80	180.30		
26	146.00	373.00	495.50	1035.00	1437.50	1548.40	1306.00	495.50	337.00	456.00	549.20	172.60		
27	162.80	357.40	457.40	1045.50	1445.00	1551.20	1276.00	465.00	325.00	457.40	542.80	171.90		
28	183.10	369.40	428.00	1053.90	1452.50	1559.60	1240.00	434.00	314.20	460.20	541.20	169.10		
29	196.80	409.80	423.80	1058.30	1460.00	1562.40	1200.00	408.50	329.80	473.00	533.20	165.60		
30	196.00	480.50	453.20	1060.60	1465.00	1556.80	1165.00	385.60	355.00	494.00		169.10		
31		562.00		1060.60	1467.50		1131.00		380.80	510.50		160.70		
Total	5147.50	11232.90	18660.70	23437.40	41297.20	45287.20	45182.40	22952.50	9582.20	13110.00	16022.90	11075.30	262988.30	CMSDAY
Mean	171.60	362.40	622.00	756.00	1332.20	1509.60	1457.50	765.10	309.10	422.90	552.50	357.30	718.50	CMS
Max	213.60	562.00	824.00	1060.60	1467.50	1562.40	1579.20	1099.50	380.80	510.50	583.10	507.50	1579.20	CMS
Min	110.20	198.40	423.80	473.00	1065.20	1470.00	1131.00	385.60	230.00	355.00	522.50	160.70	110.20	CMS
Runoff	444.74	970.52	1612.28	2024.99	3568.08	3912.81	3903.76	1983.10	827.90	1132.70	1384.38	956.91	22722.19	MCM

Momentary Peak 1579.20 CMS. at 28.49 m. (MSL.) at 11.00 Hours , on Oct 12 , 2011

Runoff Yield 12.52 Liters/Second/Square KM. Momentary Peak Yield 27.520 Liters/Second/Square KM.

WATER YEAR : 2011

NAN RIVER BASIN

Nan River at Ban Tha Takhian , Phitsanulok (N.68)

Lat 16 - 52 - 15 N Long 100 - 14 - 36 E

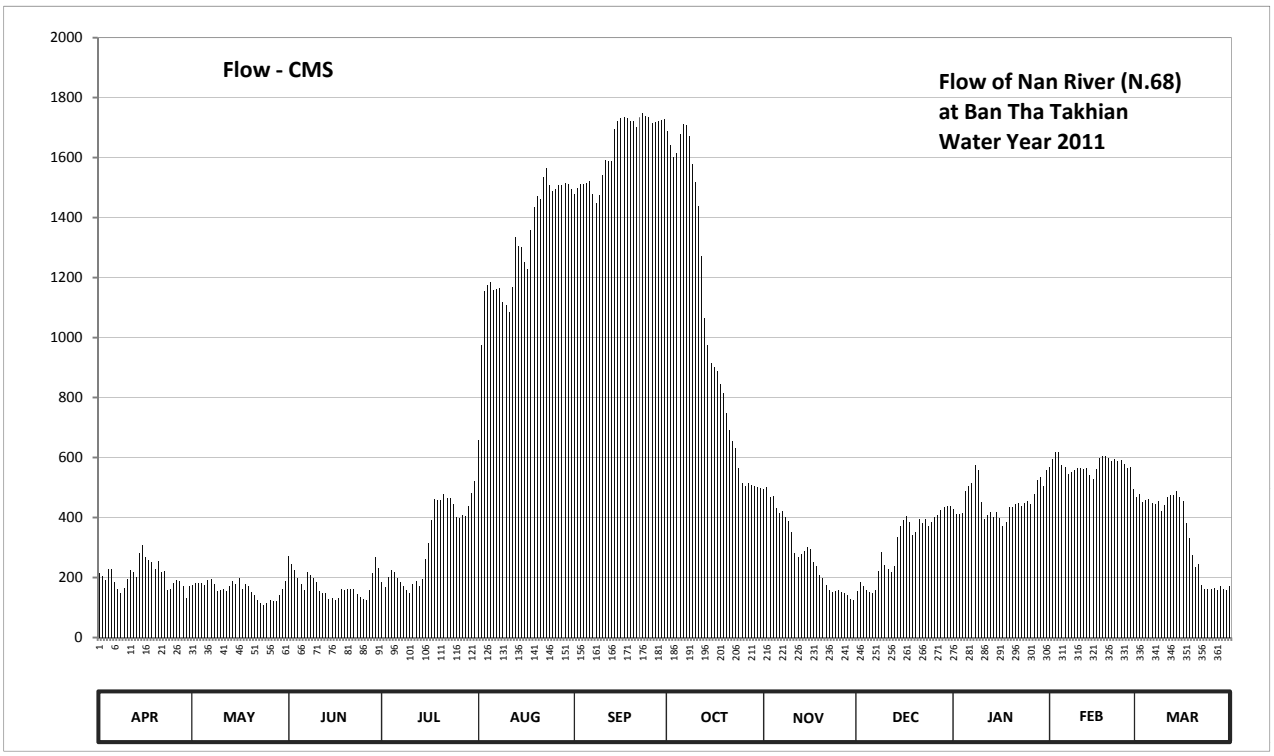
Location : on right bank at Ban Tha Takhian.

	Ban Tha Takhian	**Amphoe** Mueang	**Changwat** Phitsanulok		
Drainge Area	25,018 sq.km.				
Type of Gage	Staff gage				
Zero Gage at Bottom	+35.000 m. (MSL.)				
Bench Mark	B.M.- H.D.				
Location BM	On right bank near the gage site.		**Elevation** +48.620 m. (MSL.)		
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.				
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings				
Period of Available Gage Records	1999 to date				
Rating Operation					
Period of Rating	1999 to date				
Rated by Flot	-				
Rated by Current Meter	2004 to date				
Stability of Channel Regimes	Stable.				
Overbank Flow Conditions	Overbank flow starts at elevation +45.050 m. (MSL.), records are channel flow only.				
General Description	Records good. Flow effected by Mae Yom side flow.				
	Stage-discharge relation defined by 22 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	37.93	37.54	38.44	37.63	41.52	45.67	46.35	40.26	37.31	39.75	40.84	40.06	
2	37.84	37.61	38.20	37.47	43.63	45.74	46.20	40.32	37.62	39.59	41.03	40.14	
3	37.69	37.61	38.01	37.78	44.52	45.79	46.07	40.07	37.51	39.60	41.22	39.92	
4	38.05	37.58	37.77	38.00	44.60	45.79	46.12	40.08	37.34	39.62	41.20	39.97	
5	38.05	37.52	37.56	37.96	44.64	45.80	46.32	39.77	37.28	40.21	40.87	40.02	
6	37.62	37.70	37.36	37.77	44.53	45.82	46.42	39.64	37.24	40.35	40.83	39.91	
7	37.38	37.72	37.94	37.63	44.55	45.68	46.41	39.68	37.35	40.43	40.66	39.88	
8	37.25	37.56	37.87	37.50	44.56	45.57	46.29	39.50	37.97	40.87	40.71	39.95	
9	37.44	37.33	37.77	37.37	44.36	45.66	46.00	39.40	38.53	40.74	40.75	39.68	
10	37.73	37.34	37.63	37.23	44.30	45.88	45.81	39.10	38.16	39.92	40.79	39.86	
11	38.01	37.38	37.31	37.56	44.19	46.04	45.54	38.52	38.05	39.47	40.79	40.06	
12	37.94	37.33	37.23	37.66	44.58	46.03	44.98	38.40	37.96	39.56	40.78	40.12	
13	37.81	37.49	37.23	37.51	45.20	46.03	44.10	38.48	38.13	39.66	40.81	40.11	
14	38.52	37.65	36.99	37.72	45.10	46.37	43.63	38.57	38.97	39.52	40.62	40.22	
15	38.74	37.55	37.03	38.34	45.08	46.45	43.31	38.67	39.25	39.65	40.51	40.06	
16	38.40	37.77	36.95	38.78	44.90	46.48	43.23	38.63	39.44	39.48	40.77	39.96	
17	38.32	37.41	37.03	39.44	44.82	46.49	43.15	38.24	39.55	39.26	41.06	39.35	
18	38.24	37.57	37.40	40.01	45.28	46.48	42.88	38.13	39.37	39.38	41.12	38.94	
19	38.04	37.50	37.34	39.97	45.53	46.45	42.67	37.87	39.02	39.78	41.10	38.46	
20	38.28	37.29	37.41	40.00	45.65	46.45	42.21	37.77	39.10	39.78	41.06	38.09	
21	37.96	37.18	37.41	40.13	45.62	46.39	41.78	37.53	39.47	39.87	40.97	38.20	
22	37.98	36.98	37.40	40.03	45.86	46.49	41.49	37.35	39.35	39.90	41.04	37.53	
23	37.36	36.85	37.22	40.03	45.96	46.53	41.31	37.29	39.46	39.82	40.98	37.39	
24	37.41	36.73	37.08	39.88	45.78	46.50	40.80	37.32	39.25	39.91	41.01	37.38	
25	37.58	36.85	36.99	39.52	45.71	46.49	40.43	37.37	39.38	39.95	40.90	37.38	
26	37.70	36.97	36.97	39.48	45.73	46.43	40.33	37.29	39.50	39.88	40.79	37.43	
27	37.66	36.94	37.35	39.58	45.77	46.44	40.41	37.24	39.58	40.15	40.82	37.37	
28	37.49	36.92	37.93	39.54	45.78	46.45	40.36	37.15	39.70	40.50	40.27	37.51	
29	37.03	37.18	38.39	39.81	45.80	46.46	40.34	37.00	39.80	40.58	40.07	37.41	
30	37.51	37.38	38.08	40.17	45.79	46.47	40.31	36.96	39.83	40.34		37.36	
31		37.68		40.48	45.73		40.30		39.83	40.75		37.51	
Mean	37.83	37.36	37.51	38.77	45.00	46.18	43.40	38.45	38.72	39.94	40.84	38.94	
Max	38.74	37.77	38.44	40.48	45.96	46.53	46.42	40.32	39.83	40.87	41.22	40.22	46.53
Min	37.03	36.73	36.95	37.23	41.52	45.57	40.30	36.96	37.24	39.26	40.07	37.36	36.73

Annual Max Momentary Gage Height	46.54	m. (MSL.) ,	at 15.00 Hours , on Sep 23 , 2011		
Zero Gage at Bottom Elevation	35.00	m. (MSL.) ,	River Bed	32.99	m. (MSL)
Left Bank Elevation	45.04	m. (MSL.) ,			
Right Bank Elevation	45.10	m. (MSL.) ,	Drainage Area	25018	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	216.30	176.00	272.80	185.00	657.60	1477.00	1690.00	493.80	153.90	430.00	569.20	467.80		
2	206.40	183.00	246.00	169.00	973.70	1498.00	1642.00	501.60	184.00	410.80	593.90	478.20		
3	191.00	183.00	225.10	200.00	1155.60	1513.00	1600.40	469.10	173.00	412.00	618.60	450.40		
4	229.50	180.00	199.00	224.00	1174.00	1513.00	1616.40	470.40	156.60	414.40	616.00	456.40		
5	229.50	174.00	178.00	219.60	1184.00	1516.00	1680.40	432.40	151.20	487.30	573.10	462.60		
6	184.00	192.00	158.40	199.00	1157.90	1522.20	1712.40	416.80	147.60	505.50	567.90	449.20		
7	160.20	194.00	217.40	185.00	1162.50	1480.00	1709.20	421.60	157.50	515.90	545.80	445.60		
8	148.50	178.00	209.70	172.00	1164.80	1447.00	1670.80	400.00	220.70	573.10	552.30	454.00		
9	166.00	155.70	199.00	159.30	1119.60	1474.00	1578.00	388.00	283.60	556.20	557.50	421.60		
10	195.00	156.60	185.00	146.70	1107.00	1540.80	1519.10	352.00	241.60	450.40	562.70	443.20		
11	225.10	160.20	153.90	178.00	1084.00	1590.80	1438.00	282.40	229.50	396.40	562.70	467.80		
12	217.40	155.70	146.70	188.00	1169.40	1587.60	1270.80	268.00	219.60	407.20	561.40	475.60		
13	203.10	171.00	146.70	173.00	1336.00	1587.60	1066.00	277.60	238.30	419.20	565.30	474.30		
14	282.40	187.00	127.20	194.00	1306.00	1696.40	973.70	288.40	336.40	402.40	540.60	488.60		
15	308.80	177.00	130.40	261.40	1300.00	1722.00	915.80	300.40	370.00	418.00	526.30	467.80		
16	268.00	199.00	124.00	313.60	1250.00	1731.60	901.40	295.60	392.80	397.60	560.10	455.20		
17	259.20	163.00	130.40	392.80	1229.20	1734.80	888.00	250.40	406.00	371.20	597.80	382.00		
18	250.40	179.00	162.00	461.30	1360.00	1731.60	846.00	238.30	384.40	385.60	605.60	332.80		
19	228.40	172.00	156.60	456.40	1435.00	1722.00	814.50	209.70	342.40	433.60	603.00	275.20		
20	254.80	152.10	163.00	460.00	1471.00	1722.00	747.40	199.00	352.00	433.60	597.80	233.90		
21	219.60	142.40	163.00	476.90	1462.00	1702.80	691.40	175.00	396.40	444.40	586.10	246.00		
22	221.80	126.40	162.00	463.90	1534.60	1734.80	653.70	157.50	382.00	448.00	595.20	175.00		
23	158.40	116.00	145.80	463.90	1565.60	1747.60	630.30	152.10	395.20	438.40	587.40	161.10		
24	163.00	106.40	134.40	445.60	1510.00	1738.00	564.00	154.80	370.00	449.20	591.30	160.20		
25	180.00	116.00	127.20	402.40	1489.00	1734.80	515.90	159.30	385.60	454.00	577.00	160.20		
26	192.00	125.60	125.60	397.60	1495.00	1715.60	502.90	152.10	400.00	445.60	562.70	165.00		
27	188.00	123.20	157.50	409.60	1507.00	1718.80	513.30	147.60	409.60	479.50	566.60	159.30		
28	171.00	121.60	216.30	404.80	1510.00	1722.00	506.80	140.00	424.00	525.00	495.10	173.00		
29	130.40	142.40	266.90	437.20	1516.00	1725.20	504.20	128.00	436.00	535.40	469.10	163.00		
30	173.00	160.20	232.80	482.10	1513.00	1728.40	500.30	124.80	439.60	504.20		158.40		
31		190.00		522.40	1495.00		499.00		439.60	557.50		173.00		
Total	6221.20	4958.50	5262.80	9844.50	40394.50	49075.40	32362.10	8446.70	9619.10	14101.60	16508.10	10476.40	207270.90	CMSDAY
Mean	207.40	160.00	175.40	317.60	1303.00	1635.80	1043.90	281.60	310.30	454.90	569.20	337.90	566.30	CMS
Max	308.80	199.00	272.80	522.40	1565.60	1747.60	1712.40	501.60	439.60	573.10	618.60	488.60	1747.60	CMS
Min	130.40	106.40	124.00	146.70	657.60	1447.00	499.00	124.80	147.60	371.20	469.10	158.40	106.40	CMS
Runoff	537.51	428.41	454.71	850.56	3490.08	4240.11	2796.09	729.79	831.09	1218.38	1426.30	905.16	17908.21	MCM

Momentary Peak 1750.80 CMS. at 46.54 m. (MSL.) at 15.00 Hours , on Sep 23 , 2011

Runoff Yield 22.64 Liters/Second/Square KM. Momentary Peak Yield 69.982 Liters/Second/Square KM.

WATER YEAR : 2011

NAN RIVER BASIN

Khlong Tron at Ban Wang Pla Kod , Uttaradit (N.72)

Lat 17 - 27 - 24 N Long 100 - 16 - 39 E

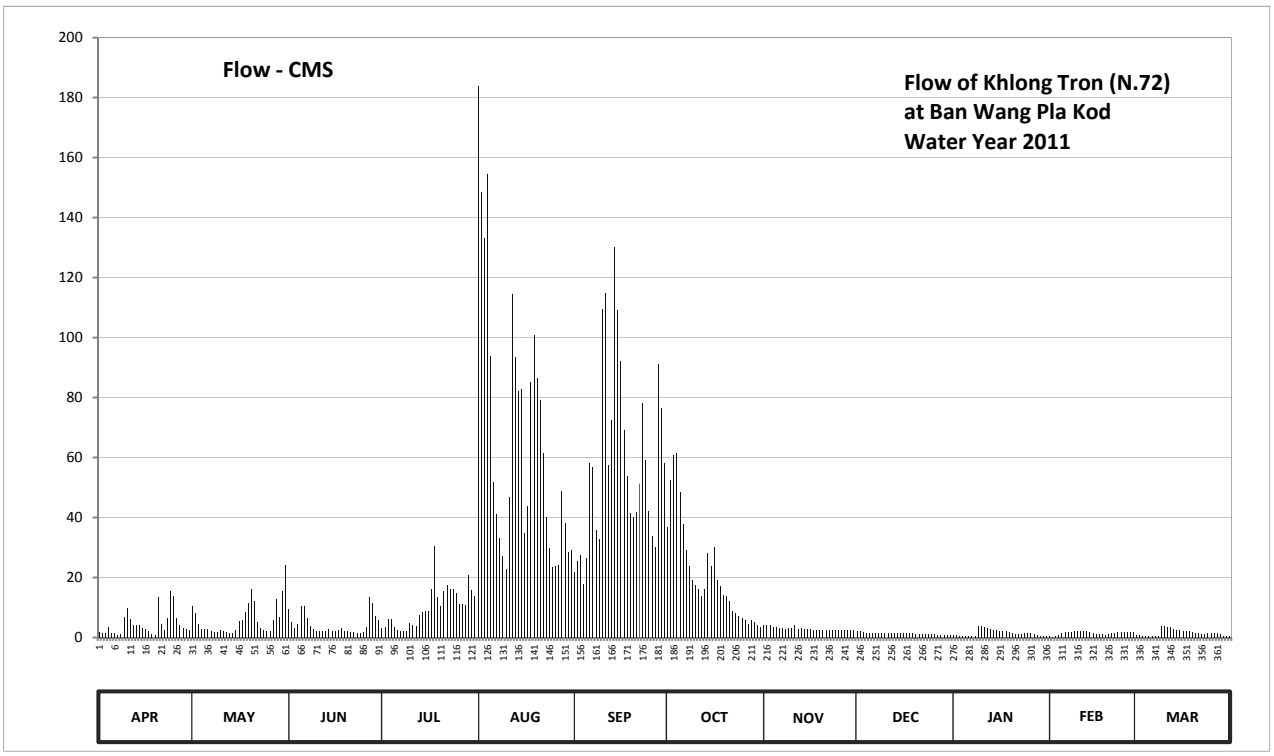
Location : on right bank at Ban Wang Pla Kod.

	Ban Wang Pla Kod		**Amphoe** Thong Saen Khan	**Changwat** Uttaradit	
Drainge Area	225 sq.km.				
Type of Gage	Staff gage				
Zero Gage at Bottom	+60.891 m. (MSL.)				
Bench Mark	B.M.- H.D.				
Location BM	On right bank near the gage site.			**Elevation**	+69.454 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.				
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings				
Period of Available Gage Records	2005 to date				
Rating Operation					
Period of Rating	2005 to date				
Rated by Flot	-				
Rated by Current Meter	2005 to date				
Stability of Channel Regimes	Stable.				
Overbank Flow Conditions	Overbank flow starts at elevation +67.490 m. (MSL.), records are channel flow only.				
General Description	Records good. Stage-discharge relation defined by 33 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	61.45	62.61	62.48	61.69	69.58	63.53	64.39	61.83	61.50	61.24	61.15	61.24	
2	61.40	62.35	61.94	61.74	68.50	63.76	65.15	61.82	61.50	61.24	61.14	61.24	
3	61.41	61.88	61.70	62.07	68.04	63.88	65.53	61.82	61.45	61.23	61.16	61.23	
4	61.74	61.63	61.87	62.11	68.69	63.24	65.56	61.72	61.40	61.23	61.28	61.23	
5	61.37	61.66	62.60	61.73	66.76	63.83	64.97	61.73	61.39	61.23	61.42	61.23	
6	61.42	61.63	62.59	61.57	65.13	65.42	64.44	61.69	61.39	61.22	61.46	61.22	
7	61.28	61.53	62.12	61.52	64.60	65.36	63.98	61.69	61.39	61.22	61.46	61.22	
8	61.33	61.48	61.77	61.49	64.19	64.34	63.65	61.67	61.39	61.22	61.48	61.22	
9	62.16	61.43	61.62	61.49	63.86	64.18	63.34	61.68	61.39	61.79	61.49	61.79	
10	62.54	61.57	61.56	61.89	63.58	67.28	63.21	61.70	61.39	61.76	61.50	61.77	
11	62.06	61.49	61.52	61.80	64.89	67.46	63.12	61.82	61.39	61.73	61.51	61.73	
12	61.82	61.45	61.52	61.79	67.45	65.38	62.91	61.65	61.38	61.71	61.51	61.72	
13	61.84	61.41	61.52	62.26	66.75	65.99	63.09	61.68	61.38	61.62	61.49	61.64	
14	61.83	61.40	61.62	62.39	66.36	67.95	63.92	61.67	61.38	61.59	61.45	61.59	
15	61.68	61.59	61.53	62.42	66.39	67.27	63.66	61.64	61.37	61.57	61.39	61.57	
16	61.62	62.01	61.50	62.44	64.29	66.70	64.04	61.62	61.37	61.55	61.35	61.55	
17	61.52	62.03	61.57	63.12	64.74	65.86	63.34	61.61	61.36	61.54	61.33	61.54	
18	61.34	62.39	61.71	64.06	66.47	65.21	63.20	61.61	61.36	61.53	61.30	61.53	
19	61.24	62.69	61.56	62.89	66.99	64.63	62.93	61.59	61.36	61.45	61.28	61.47	
20	62.89	63.12	61.49	62.61	66.51	64.55	62.91	61.59	61.35	61.39	61.30	61.41	
21	61.85	62.75	61.43	63.05	66.24	64.64	62.75	61.59	61.35	61.34	61.36	61.36	
22	61.61	61.96	61.44	63.22	65.56	65.10	62.42	61.59	61.35	61.32	61.41	61.32	
23	62.15	61.69	61.42	63.09	64.56	66.21	62.35	61.59	61.33	61.34	61.44	61.34	
24	63.05	61.58	61.41	63.09	64.01	65.46	62.22	61.59	61.32	61.36	61.46	61.36	
25	62.90	61.51	61.44	63.00	63.63	64.66	62.15	61.58	61.30	61.37	61.48	61.37	
26	62.12	61.53	61.73	62.68	63.65	64.23	62.04	61.58	61.29	61.37	61.48	61.37	
27	61.81	62.03	62.87	62.67	63.69	64.03	61.86	61.58	61.28	61.35	61.47	61.37	
28	61.68	62.82	62.69	62.62	64.98	66.67	62.02	61.58	61.28	61.27	61.47	61.29	
29	61.63	62.17	62.22	63.46	64.46	66.15	61.96	61.58	61.28	61.23	61.46	61.23	
30	61.59	63.05	62.03	63.07	63.95	65.41	61.83	61.58	61.27	61.19		61.19	
31		63.68		62.90	63.98		61.73		61.27	61.17		61.17	
Mean	61.81	62.00	61.82	62.45	65.56	65.28	63.25	61.66	61.36	61.40	61.40	61.40	
Max	63.05	63.68	62.87	64.06	69.58	67.95	65.56	61.83	61.50	61.79	61.51	61.79	69.58
Min	61.24	61.40	61.41	61.49	63.58	63.24	61.73	61.58	61.27	61.17	61.14	61.17	61.14

Annual Max Momentary Gage Height	69.89	m. (MSL.) ,	at 09.00 Hours , on Aug 1 , 2011		
Zero Gage at Bottom Elevation	60.89	m. (MSL.) ,	River Bed	60.56	m. (MSL)
Left Bank Elevation	67.48	m. (MSL.) ,			
Right Bank Elevation	68.67	m. (MSL.) ,	Drainage Area	225	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.80	10.60	9.30	3.20	183.90	21.90	36.80	4.20	2.00	0.70	0.40	0.70		
2	1.50	8.10	5.00	3.60	148.40	25.40	52.40	4.20	2.00	0.70	0.30	0.70		
3	1.60	4.60	3.30	6.00	133.30	27.40	60.70	4.20	1.80	0.60	0.40	0.60		
4	3.60	2.70	4.50	6.30	154.70	17.80	61.30	3.40	1.50	0.60	0.90	0.60		
5	1.30	3.00	10.50	3.50	93.80	26.50	48.60	3.50	1.40	0.60	1.60	0.60		
6	1.60	2.70	10.40	2.40	51.90	58.20	37.80	3.20	1.40	0.60	1.80	0.60		
7	0.90	2.10	6.40	2.10	41.00	56.90	29.10	3.20	1.40	0.60	1.80	0.60		
8	1.20	1.90	3.80	2.00	33.00	35.90	23.80	3.00	1.40	0.60	1.90	0.60		
9	6.70	1.70	2.70	2.00	27.10	32.80	19.20	3.10	1.40	3.90	2.00	3.90		
10	9.90	2.40	2.30	4.70	22.70	109.40	17.40	3.30	1.40	3.70	2.00	3.80		
11	6.00	2.00	2.10	4.00	46.90	114.90	16.30	4.20	1.40	3.50	2.00	3.50		
12	4.20	1.80	2.10	3.90	114.50	57.40	13.80	2.90	1.40	3.30	2.00	3.40		
13	4.30	1.60	2.10	7.40	93.50	72.40	16.00	3.10	1.40	2.70	2.00	2.80		
14	4.20	1.50	2.70	8.40	82.10	130.30	28.10	3.00	1.40	2.50	1.80	2.50		
15	3.10	2.50	2.10	8.70	82.90	109.10	23.90	2.80	1.30	2.40	1.40	2.40		
16	2.70	5.60	2.00	8.90	34.90	92.00	30.20	2.70	1.30	2.30	1.20	2.30		
17	2.10	5.70	2.40	16.30	43.80	69.00	19.20	2.60	1.30	2.20	1.20	2.20		
18	1.20	8.40	3.30	30.60	85.20	53.60	17.30	2.60	1.30	2.10	1.00	2.10		
19	0.70	11.40	2.30	13.60	100.70	41.60	14.10	2.50	1.30	1.80	0.90	1.90		
20	13.60	16.30	2.00	10.60	86.40	40.00	13.80	2.50	1.20	1.40	1.00	1.60		
21	4.40	12.00	1.70	15.50	79.00	41.80	12.00	2.50	1.20	1.20	1.30	1.30		
22	2.60	5.20	1.70	17.60	61.30	51.30	8.70	2.50	1.20	1.10	1.60	1.10		
23	6.60	3.20	1.60	16.00	40.20	78.20	8.10	2.50	1.20	1.20	1.70	1.20		
24	15.50	2.40	1.60	16.00	29.70	59.10	7.20	2.50	1.10	1.30	1.80	1.30		
25	13.70	2.00	1.70	14.90	23.50	42.20	6.60	2.40	1.00	1.30	1.90	1.30		
26	6.40	2.10	3.50	11.30	23.80	33.80	5.80	2.40	1.00	1.30	1.90	1.30		
27	4.10	5.70	13.30	11.20	24.30	30.10	4.50	2.40	0.90	1.20	1.90	1.30		
28	3.10	12.70	11.40	10.70	48.80	91.10	5.70	2.40	0.90	0.90	1.90	1.00		
29	2.70	6.80	7.20	20.90	38.20	76.60	5.20	2.40	0.90	0.60	1.80	0.60		
30	2.50	15.50	5.70	15.70	28.60	58.00	4.20	2.40	0.90	0.50		0.50		
31		24.20		13.70	29.10		3.50		0.90	0.40		0.40		
Total	133.80	188.40	130.70	311.70	2087.20	1754.70	651.30	88.60	40.20	47.80	43.40	48.70	5526.50	CMSDAY
Mean	4.50	6.10	4.40	10.10	67.30	58.50	21.00	3.00	1.30	1.50	1.50	1.60	15.10	CMS
Max	15.50	24.20	13.30	30.60	183.90	130.30	61.30	4.20	2.00	3.90	2.00	3.90	183.90	CMS
Min	0.70	1.50	1.60	2.00	22.70	17.80	3.50	2.40	0.90	0.40	0.30	0.40	0.30	CMS
Runoff	11.56	16.28	11.29	26.93	180.33	151.61	56.27	7.66	3.47	4.13	3.75	4.21	477.49	MCM

Momentary Peak 194.46 CMS. at 69.89 m. (MSL.) at 09.00 Hours , on Aug 1 , 2011

Runoff Yield 67.11 Liters/Second/Square KM. Momentary Peak Yield 864.267 Liters/Second/Square KM.

WATER YEAR : 2011

NAN RIVER BASIN

Khek River at Ban Tan Tawan , Phetchabun (N.73)

Lat 16 - 33 - 24 N Long 100 - 53 - 44 E

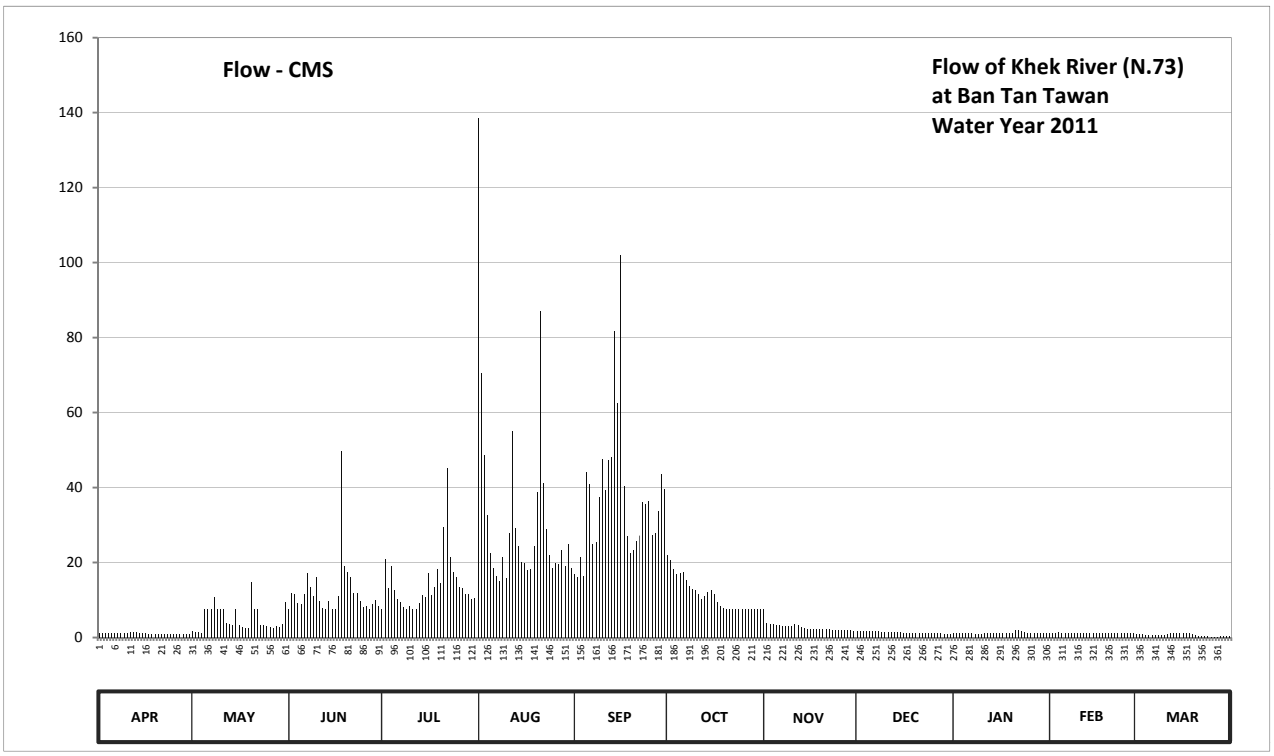
Location : on right bank at Ban Tan Tawan.

	Ban Tan Tawan	**Amphoe** Khao Kho	**Changwat** Phetchabun		
Drainge Area	213 sq.km.				
Type of Gage	Staff gage				
Zero Gage at Bottom	+684.529 m. (MSL.)				
Bench Mark	B.M.- H.D.				
Location BM	On right bank near the gage site.		**Elevation** +694.038 m. (MSL.)		
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.				
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings				
Period of Available Gage Records	2002 to date				
Rating Operation					
Period of Rating	2002 to date				
Rated by Flot	-				
Rated by Current Meter	2002 to date				
Stability of Channel Regimes	Stable.				
Overbank Flow Conditions	Overbank flow starts at elevation +691.510 m.(MSL.), records are channel flow only.				
General Description	Records good. Stage-discharge relation defined by 23 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	685.76	685.87	686.51	686.59	691.79	687.32	687.65	686.22	685.87	685.73	685.76	685.68	
2	685.78	685.82	686.95	687.58	689.59	687.27	687.56	686.20	685.86	685.73	685.77	685.68	
3	685.77	685.79	686.93	687.06	688.79	687.61	687.41	686.18	685.86	685.73	685.78	685.68	
4	685.78	685.74	686.75	687.46	688.11	687.29	687.32	686.16	685.85	685.73	685.80	685.65	
5	685.77	686.50	686.72	687.02	687.68	688.62	687.34	686.14	685.85	685.73	685.78	685.65	
6	685.77	686.51	686.94	686.84	687.43	688.46	687.37	686.12	685.85	685.73	685.77	685.64	
7	685.76	686.39	687.35	686.76	687.29	687.81	687.21	686.09	685.84	685.73	685.76	685.64	
8	685.76	686.88	687.08	686.65	687.19	687.83	687.09	686.10	685.84	685.72	685.75	685.64	
9	685.76	686.28	686.90	686.55	687.62	688.28	687.04	686.09	685.83	685.72	685.74	685.64	
10	685.77	686.55	687.27	686.67	687.25	688.75	687.01	686.10	685.82	685.72	685.74	685.63	
11	685.79	686.35	686.78	686.56	687.96	688.38	686.93	686.17	685.80	685.73	685.74	685.69	
12	685.80	686.19	686.62	686.51	689.03	688.74	686.84	686.13	685.79	685.73	685.74	685.73	
13	685.79	686.16	686.52	686.74	688.01	688.77	686.89	686.07	685.79	685.73	685.76	685.78	
14	685.78	686.13	686.78	686.91	687.77	689.99	686.97	686.03	685.79	685.73	685.76	685.78	
15	685.77	686.21	686.52	686.87	687.53	689.30	687.02	686.00	685.79	685.73	685.76	685.76	
16	685.75	686.15	686.49	687.35	687.51	690.65	686.93	685.99	685.78	685.73	685.76	685.74	
17	685.71	686.05	686.89	686.92	687.40	688.44	686.76	685.99	685.78	685.73	685.76	685.74	
18	685.69	686.02	688.83	687.08	687.41	687.91	686.68	685.98	685.78	685.73	685.76	685.73	
19	685.70	686.01	687.46	687.41	687.78	687.68	686.63	685.97	685.77	685.73	685.76	685.69	
20	685.69	687.17	687.36	687.15	688.35	687.72	686.59	685.99	685.77	685.76	685.76	685.64	
21	685.69	686.41	687.26	688.02	690.17	687.84	686.56	685.97	685.77	685.91	685.76	685.59	
22	685.68	686.21	686.95	688.67	688.48	687.92	686.52	685.96	685.76	685.89	685.75	685.58	
23	685.68	686.12	686.95	687.62	688.00	688.21	686.49	685.93	685.76	685.87	685.75	685.58	
24	685.68	686.12	686.78	687.37	687.64	688.19	686.46	685.92	685.75	685.81	685.74	685.57	
25	685.69	686.10	686.64	687.27	687.44	688.22	686.41	685.91	685.74	685.78	685.74	685.56	
26	685.70	686.04	686.67	687.08	687.51	687.93	686.37	685.90	685.74	685.76	685.73	685.54	
27	685.69	686.02	686.61	687.06	687.50	687.95	686.35	685.90	685.73	685.74	685.73	685.56	
28	685.68	686.08	686.71	686.94	687.72	688.14	686.31	685.89	685.73	685.74	685.73	685.58	
29	685.69	686.07	686.81	686.94	687.47	688.61	686.29	685.89	685.72	685.74	685.73	685.58	
30	685.69	686.18	686.68	686.83	687.81	688.39	686.27	685.88	685.71	685.74		685.59	
31		686.77		686.85	687.43		686.24		685.71	685.74		685.60	
Mean	685.73	686.22	686.92	687.08	688.02	688.27	686.82	686.03	685.79	685.75	685.75	685.65	
Max	685.80	687.17	688.83	688.67	691.79	690.65	687.65	686.22	685.87	685.91	685.80	685.78	691.79
Min	685.68	685.74	686.49	686.51	687.19	687.27	686.24	685.88	685.71	685.72	685.73	685.54	685.54

Annual Max Momentary Gage Height	692.76	m. (MSL.) ,	at 15.00 Hours , on Aug 1 , 2011		
Zero Gage at Bottom Elevation	684.53	m. (MSL.) ,	River Bed	685.49	m. (MSL)
Left Bank Elevation	694.03	m. (MSL.) ,			
Right Bank Elevation	691.50	m. (MSL.) ,	Drainage Area	213	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.20	1.75	7.60	7.60	138.48	16.88	22.10	7.60	1.75	1.05	1.20	0.80		
2	1.30	1.50	11.75	20.88	70.52	16.18	20.56	3.80	1.70	1.05	1.25	0.80		
3	1.25	1.35	11.49	13.24	48.53	21.38	18.16	3.66	1.70	1.05	1.30	0.80		
4	1.30	1.10	9.25	18.96	32.70	16.46	16.88	3.52	1.65	1.05	1.40	0.65		
5	1.25	7.60	8.92	12.68	22.64	43.94	17.16	3.38	1.65	1.05	1.30	0.65		
6	1.25	7.60	11.62	10.32	18.48	40.78	17.58	3.24	1.65	1.05	1.25	0.60		
7	1.20	7.60	17.30	9.36	16.46	25.00	15.34	3.03	1.60	1.05	1.20	0.60		
8	1.20	10.84	13.52	8.15	15.06	25.40	13.66	3.10	1.60	1.00	1.15	0.60		
9	1.20	7.60	11.10	7.60	21.56	37.40	12.96	3.03	1.55	1.00	1.10	0.60		
10	1.25	7.60	16.18	8.37	15.90	47.45	12.54	3.10	1.50	1.00	1.10	0.55		
11	1.35	7.60	9.58	7.60	28.00	39.28	11.49	3.59	1.40	1.05	1.10	0.85		
12	1.40	3.73	7.82	7.60	55.01	47.18	10.32	3.31	1.35	1.05	1.10	1.05		
13	1.35	3.52	7.60	9.14	29.16	47.99	10.97	2.89	1.35	1.05	1.20	1.30		
14	1.30	3.31	9.58	11.23	24.26	81.72	12.01	2.61	1.35	1.05	1.20	1.30		
15	1.25	7.60	7.60	10.71	20.08	62.40	12.68	2.40	1.35	1.05	1.20	1.20		
16	1.15	3.45	7.60	17.30	19.76	102.00	11.49	2.35	1.30	1.05	1.20	1.10		
17	0.95	2.75	10.97	11.36	18.00	40.40	9.36	2.35	1.30	1.05	1.20	1.10		
18	0.85	2.54	49.61	13.52	18.16	27.00	8.48	2.30	1.30	1.05	1.20	1.05		
19	0.90	2.47	18.96	18.16	24.44	22.64	7.93	2.25	1.25	1.05	1.20	0.85		
20	0.85	14.78	17.44	14.50	38.71	23.36	7.60	2.35	1.25	1.20	1.20	0.60		
21	0.85	7.60	16.04	29.51	87.10	25.60	7.60	2.25	1.25	1.95	1.20	0.36		
22	0.80	7.60	11.75	45.29	41.15	27.20	7.60	2.20	1.20	1.85	1.15	0.32		
23	0.80	3.24	11.75	21.56	28.80	36.09	7.60	2.05	1.20	1.75	1.15	0.32		
24	0.80	3.24	9.58	17.58	21.92	35.54	7.60	2.00	1.15	1.45	1.10	0.28		
25	0.85	3.10	8.04	16.18	18.64	36.27	7.60	1.95	1.10	1.30	1.10	0.24		
26	0.90	2.68	8.37	13.52	19.76	27.40	7.60	1.90	1.10	1.20	1.05	0.16		
27	0.85	2.54	7.71	13.24	19.60	27.80	7.60	1.90	1.05	1.10	1.05	0.24		
28	0.80	2.96	8.81	11.62	23.36	33.77	7.60	1.85	1.05	1.10	1.05	0.32		
29	0.85	2.89	9.93	11.62	19.12	43.67	7.60	1.85	1.00	1.10	1.05	0.32		
30	0.85	3.66	8.48	10.19	25.00	39.46	7.60	1.80	0.95	1.10		0.36		
31		9.47		10.45	18.48		7.60		0.95	1.10		0.40		
Total	32.10	155.27	365.95	439.04	998.84	1117.64	352.87	83.61	41.55	36.00	33.95	20.37	3677.19	CMSDAY
Mean	1.07	5.01	12.20	14.16	32.22	37.25	11.38	2.79	1.34	1.16	1.17	0.66	10.05	CMS
Max	1.40	14.78	49.61	45.29	138.48	102.00	22.10	7.60	1.75	1.95	1.40	1.30	138.48	CMS
Min	0.80	1.10	7.60	7.60	15.06	16.18	7.60	1.80	0.95	1.00	1.05	0.16	0.16	CMS
Runoff	2.77	13.42	31.62	37.93	86.30	96.56	30.49	7.22	3.59	3.11	2.93	1.76	317.71	MCM

Momentary Peak 169.88 CMS. at 692.76 m. (MSL.) at 15.00 Hours , on Aug 1 , 2011

Runoff Yield 47.17 Liters/Second/Square KM. Momentary Peak Yield 797.559 Liters/Second/Square KM.

WATER YEAR : 2011

NAN RIVER BASIN

Nan River at Bang Krathum , Phitsanulok (N.74)

Lat 16 - 34 - 38 N Long 100 - 14 - 33 E

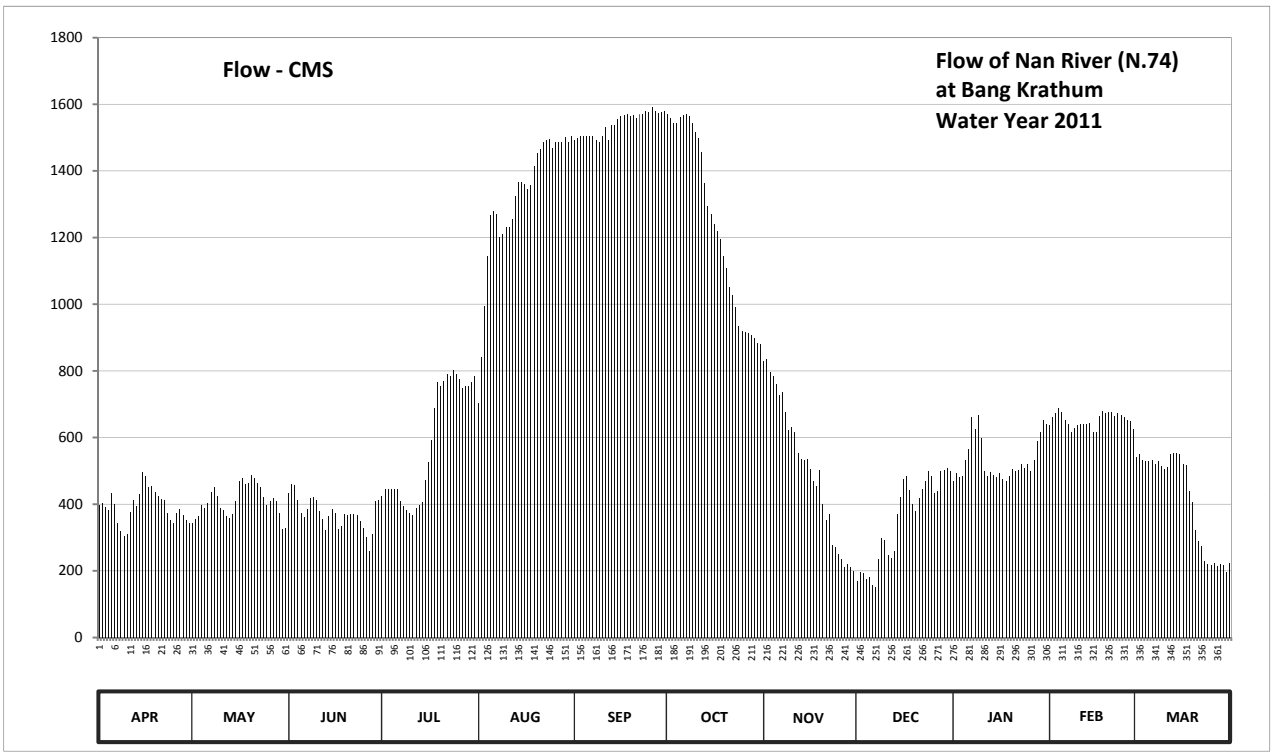
Location : on left bank at Bang Krathum.

	Ban -	**Amphoe**	Bang Krathum	**Changwat**	Phitsanulok
Drainge Area	25,489 sq.km.				
Type of Gage	Staff gage				
Zero Gage at Bottom	+29.360 m. (MSL.)				
Bench Mark	B.M.- H.D.				
Location BM	On left bank near the gage site.			**Elevation**	+44.315 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.				
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings				
Period of Available Gage Records	2001 to date				
Rating Operation					
Period of Rating	2001 to date				
Rated by Flot	-				
Rated by Current Meter	2001 to date				
Stability of Channel Regimes	Stable.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records good. Stage-discharge relation defined by 18 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	33.11	32.73	33.37	33.30	35.22	39.65	40.02	36.01	31.29	33.62	34.78	34.13	
2	33.15	32.82	33.56	33.46	36.09	39.67	39.96	36.05	31.54	33.79	34.94	34.20	
3	33.06	32.88	33.53	33.46	36.98	39.70	39.90	35.82	31.53	33.70	35.02	34.07	
4	33.00	33.11	33.22	33.46	37.81	39.70	39.90	35.76	31.37	33.74	35.11	34.05	
5	33.36	33.05	32.95	33.46	38.49	39.71	39.98	35.59	31.41	34.07	35.04	34.04	
6	33.13	33.16	32.86	33.46	38.56	39.71	40.01	35.39	31.18	34.30	34.87	34.07	
7	32.73	33.40	33.02	33.20	38.51	39.71	40.02	35.43	31.14	34.93	34.81	33.99	
8	32.54	33.49	33.26	33.08	38.13	39.65	40.00	35.05	31.89	34.70	34.65	34.04	
9	32.43	33.31	33.29	33.00	38.18	39.61	39.90	34.68	32.39	34.99	34.73	33.95	
10	32.48	33.05	33.21	32.93	38.29	39.71	39.77	34.74	32.34	34.52	34.77	33.88	
11	32.96	33.01	32.99	32.89	38.29	39.84	39.68	34.65	31.97	33.83	34.81	33.93	
12	33.22	32.88	32.82	33.05	38.43	39.65	39.46	34.21	31.90	33.72	34.79	34.19	
13	33.08	32.84	32.58	33.11	38.80	39.87	39.00	34.10	32.09	33.82	34.81	34.22	
14	33.34	32.92	32.87	33.17	39.02	39.87	38.65	34.06	32.92	33.75	34.82	34.21	
15	33.82	33.20	33.02	33.65	39.01	39.95	38.51	34.09	33.28	33.71	34.65	34.20	
16	33.73	33.62	32.93	34.03	38.98	39.99	38.34	33.88	33.66	33.80	34.65	33.99	
17	33.50	33.68	32.59	34.47	38.91	40.01	38.24	33.63	33.72	33.67	34.96	33.96	
18	33.51	33.55	32.67	35.12	38.97	40.02	38.10	33.52	33.43	33.63	35.07	33.42	
19	33.38	33.57	32.91	35.64	39.26	40.00	37.81	33.86	33.14	33.74	35.02	33.17	
20	33.30	33.76	32.90	35.56	39.45	40.01	37.61	33.14	32.99	33.88	35.05	32.58	
21	33.24	33.69	32.92	35.66	39.51	39.97	37.29	32.80	33.26	33.84	35.04	32.31	
22	33.22	33.57	32.92	35.79	39.61	40.02	37.16	32.92	33.45	33.86	34.97	32.20	
23	32.94	33.49	32.89	35.76	39.64	40.03	36.96	32.23	33.63	33.99	35.01	31.83	
24	32.78	33.29	32.77	35.86	39.66	40.07	36.63	32.19	33.83	33.91	34.99	31.76	
25	32.73	33.12	32.61	35.78	39.52	40.05	36.54	32.00	33.73	33.99	34.93	31.72	
26	32.95	33.20	32.40	35.70	39.61	40.12	36.53	31.89	33.36	33.83	34.88	31.79	
27	33.02	33.27	32.07	35.51	39.61	40.07	36.51	31.67	33.41	34.08	34.85	31.70	
28	32.90	33.19	32.47	35.57	39.61	40.04	36.47	31.75	33.83	34.46	34.70	31.75	
29	32.80	32.94	33.19	35.56	39.69	40.05	36.42	31.68	33.86	34.64	34.24	31.72	
30	32.72	32.59	33.22	35.64	39.62	40.07	36.34	31.57	33.91	34.87		31.56	
31		32.62		35.76	39.70		36.31		33.84	34.79		31.77	
Mean	33.07	33.19	32.93	34.39	38.75	39.88	38.32	33.81	32.75	34.07	34.86	33.17	
Max	33.82	33.76	33.56	35.86	39.70	40.12	40.02	36.05	33.91	34.99	35.11	34.22	40.12
Min	32.43	32.59	32.07	35.89	35.22	39.61	36.31	31.57	31.14	33.62	34.24	31.56	31.14

Annual Max Momentary Gage Height	40.12	m. (MSL.) ,	at 06.00 Hours , on Sep 26 , 2011		
Zero Gage at Bottom Elevation	29.36	m. (MSL.) ,	River Bed	27.84	m. (MSL)
Left Bank Elevation	41.78	m. (MSL.) ,			
Right Bank Elevation	42.77	m. (MSL.) ,	Drainage Area	25489	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	397.40	344.20	433.80	424.00	703.00	1494.00	1570.20	827.70	167.90	468.80	637.00	540.20		
2	403.00	356.80	460.40	446.40	841.30	1498.00	1557.60	834.50	195.40	492.60	661.00	550.00		
3	390.40	365.20	456.20	446.40	994.40	1504.00	1545.00	795.40	194.30	480.00	673.00	531.80		
4	382.00	397.40	412.80	446.40	1143.80	1504.00	1545.00	785.60	176.70	485.60	686.50	529.00		
5	432.40	389.00	375.00	446.40	1266.20	1506.00	1561.80	758.50	181.10	531.80	676.00	527.60		
6	400.20	404.40	362.40	446.40	1278.80	1506.00	1568.10	728.50	155.80	565.00	650.50	531.80		
7	344.20	438.00	384.80	410.00	1269.80	1506.00	1570.20	734.50	151.40	659.50	641.50	520.60		
8	318.20	450.60	418.40	393.20	1201.40	1494.00	1566.00	677.50	236.80	625.00	617.50	527.60		
9	303.90	425.40	422.60	382.00	1210.40	1486.00	1545.00	622.00	298.70	668.50	629.50	515.00		
10	310.40	389.00	411.40	372.20	1230.20	1506.00	1518.00	631.00	292.20	598.00	635.50	505.20		
11	376.40	383.40	380.60	366.60	1230.20	1532.40	1500.00	617.50	246.40	498.20	641.50	512.20		
12	412.80	365.20	356.80	389.00	1255.40	1494.00	1456.00	551.50	238.00	482.80	638.50	548.60		
13	393.20	359.60	323.40	397.40	1324.00	1538.70	1364.00	536.00	260.80	496.80	641.50	553.00		
14	429.60	370.80	363.80	405.80	1368.00	1538.70	1295.50	530.40	370.80	487.00	643.00	551.50		
15	496.80	410.00	384.80	473.00	1366.00	1555.50	1269.80	534.60	421.20	481.40	617.50	550.00		
16	484.20	468.80	372.20	526.20	1360.00	1563.90	1239.20	505.20	474.40	494.00	617.50	520.60		
17	452.00	477.20	324.70	590.50	1346.00	1568.10	1221.20	470.20	482.80	475.80	664.00	516.40		
18	453.40	459.00	335.80	688.00	1358.00	1570.20	1196.00	454.80	442.20	470.20	680.50	440.80		
19	435.20	461.80	369.40	766.40	1416.00	1566.00	1143.80	502.40	401.60	485.60	673.00	405.80		
20	424.00	488.40	368.00	754.00	1454.00	1568.10	1107.80	401.60	380.60	505.20	677.50	323.40		
21	415.60	478.60	370.80	769.60	1466.00	1559.70	1050.20	354.00	418.40	499.60	676.00	288.30		
22	412.80	461.80	370.80	790.40	1486.00	1570.20	1026.80	370.80	445.00	502.40	665.50	274.00		
23	373.60	450.60	366.60	785.60	1492.00	1572.30	990.80	277.90	470.20	520.60	671.50	229.60		
24	351.20	422.60	349.80	802.20	1496.00	1580.70	933.10	272.80	498.20	509.40	668.50	221.20		
25	344.20	398.80	327.40	788.80	1468.00	1576.50	917.80	250.00	484.20	520.60	659.50	216.40		
26	375.00	410.00	300.00	776.00	1486.00	1591.20	916.10	236.80	432.40	498.20	652.00	224.80		
27	384.80	419.80	258.40	746.50	1486.00	1580.70	912.70	210.40	439.40	533.20	647.50	214.00		
28	368.00	408.60	309.10	755.50	1486.00	1574.40	905.90	220.00	498.20	589.00	625.00	220.00		
29	354.00	373.60	408.60	754.00	1502.00	1576.50	897.40	211.60	502.40	616.00	556.00	216.40		
30	342.80	324.70	412.80	766.40	1488.00	1580.70	883.80	198.70	509.40	650.50		197.60		
31		328.80		785.60	1504.00		878.70		499.60	638.50		222.40		
Total	11761.70	12682.10	11191.60	18090.90	40976.90	46262.50	38653.50	15102.40	10966.50	16529.80	18824.00	12725.80	253767.70	CMSDAY
Mean	392.10	409.10	373.10	583.60	1321.80	1542.10	1246.90	503.40	353.80	533.20	649.10	410.50	693.40	CMS
Max	496.80	488.40	460.40	802.20	1504.00	1591.20	1570.20	834.50	509.40	668.50	686.50	553.00	1591.20	CMS
Min	303.90	324.70	258.40	366.60	703.00	1486.00	878.70	198.70	151.40	468.80	556.00	197.60	151.40	CMS
Runoff	1016.21	1095.73	966.95	1563.05	3540.40	3997.08	3339.66	1304.85	947.51	1428.17	1626.39	1099.51	21925.53	MCM

Momentary Peak 1591.20 CMS. at 40.12 m. (MSL.) at 06.00 Hours , on Sep 26 , 2011

Runoff Yield 27.20 Liters/Second/Square KM. Momentary Peak Yield 62.427 Liters/Second/Square KM.

WATER YEAR : 2011

NAN RIVER BASIN

Nam Wa at Tha Li Bridge , Nan (N.75)

Lat 18 - 33 - 00 N Long 100 - 48 - 41 E

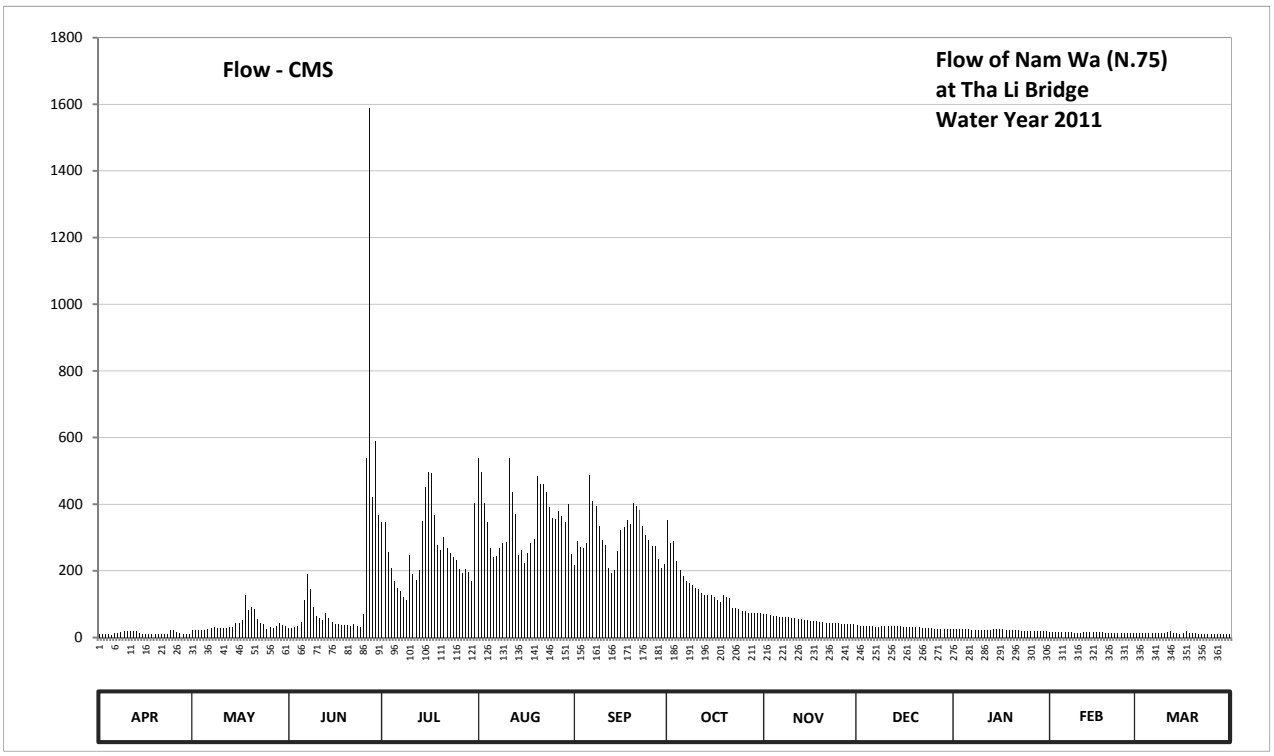
Location : on left bank at the bridge.

	Ban Tha Li Bridge	**Amphoe** Wiang Sa	**Changwat** Nan
Drainge Area	2,170 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+182.805 m. (MSL.)		
Bench Mark	B.M.- H.D.		
Location BM	On left bank at the approach of the bridge.	**Elevation**	+196.616 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings		
Period of Available Gage Records	2006 to date		
Rating Operation			
Period of Rating	2006 to date		
Rated by Flot	-		
Rated by Current Meter	2006 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 46 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	184.15	184.39	184.53	188.07	189.32	186.99	188.10	185.24	184.67	184.46	184.31	184.22	
2	184.14	184.43	184.51	188.06	189.08	187.61	187.57	185.22	184.66	184.45	184.31	184.21	
3	184.14	184.40	184.56	187.33	188.47	187.45	187.61	185.18	184.65	184.44	184.31	184.20	
4	184.13	184.39	184.66	186.89	188.06	187.43	187.08	185.13	184.65	184.44	184.31	184.20	
5	184.02	184.40	184.84	186.48	187.42	187.55	186.83	185.14	184.64	184.44	184.31	184.19	
6	184.19	184.46	185.84	186.26	187.19	189.02	186.64	185.08	184.63	184.44	184.31	184.19	
7	184.19	184.52	186.69	186.13	187.23	188.52	186.47	185.07	184.60	184.43	184.31	184.19	
8	184.27	184.56	186.20	185.93	187.43	188.40	186.43	185.07	184.61	184.42	184.28	184.19	
9	184.34	184.53	185.53	185.84	187.55	187.97	186.35	185.07	184.62	184.42	184.25	184.20	
10	184.37	184.52	185.13	187.25	187.58	187.63	186.24	185.05	184.63	184.42	184.24	184.23	
11	184.37	184.52	185.03	186.69	189.33	187.50	186.20	185.02	184.64	184.41	184.23	184.31	
12	184.36	184.52	184.92	186.51	188.69	186.89	186.06	185.01	184.64	184.41	184.27	184.34	
13	184.35	184.57	185.28	186.83	188.24	186.72	186.02	184.97	184.64	184.42	184.30	184.25	
14	184.23	184.60	185.05	188.08	187.24	186.82	186.00	184.95	184.63	184.44	184.31	184.19	
15	184.18	184.78	184.84	188.79	187.38	187.36	186.00	184.93	184.62	184.45	184.31	184.18	
16	184.15	184.79	184.72	189.07	187.03	187.88	185.92	184.91	184.61	184.46	184.29	184.26	
17	184.14	184.92	184.72	189.06	187.29	187.94	185.82	184.91	184.60	184.46	184.28	184.37	
18	184.13	185.99	184.70	188.21	187.57	188.11	185.73	184.89	184.58	184.43	184.27	184.25	
19	184.12	185.42	184.69	187.50	187.67	188.02	185.99	184.84	184.57	184.41	184.26	184.21	
20	184.12	185.53	184.67	187.38	188.99	188.48	185.95	184.82	184.56	184.40	184.25	184.20	
21	184.11	185.43	184.65	187.72	188.86	188.40	185.89	184.81	184.56	184.40	184.24	184.18	
22	184.11	185.00	184.74	187.43	188.86	188.33	185.51	184.81	184.55	184.38	184.24	184.17	
23	184.12	184.79	184.64	187.30	188.70	187.97	185.50	184.79	184.53	184.35	184.24	184.17	
24	184.43	184.74	184.59	187.18	188.39	187.75	185.45	184.78	184.52	184.35	184.24	184.17	
25	184.42	184.50	185.22	187.12	188.16	187.64	185.37	184.77	184.51	184.34	184.23	184.16	
26	184.31	184.58	189.32	186.86	188.14	187.49	185.35	184.76	184.50	184.34	184.23	184.16	
27	184.19	184.55	193.35	186.72	188.30	187.48	185.30	184.74	184.49	184.34	184.23	184.16	
28	184.14	184.63	188.60	186.86	188.20	187.13	185.28	184.74	184.49	184.34	184.23	184.16	
29	184.14	184.78	189.61	186.77	188.06	186.88	185.27	184.73	184.48	184.33	184.23	184.16	
30	184.14	184.69	188.22	186.47	188.45	187.00	185.27	184.73	184.48	184.32		184.16	
31		184.62		188.48	187.28		185.26		184.47	184.32		184.16	
Mean	184.21	184.73	185.80	187.27	188.07	187.68	186.08	184.94	184.58	184.40	184.27	184.21	
Max	184.43	185.99	193.35	189.07	189.33	189.02	188.10	185.24	184.67	184.46	184.31	184.37	193.35
Min	184.02	184.39	184.51	185.84	187.03	186.72	185.26	184.73	184.47	184.32	184.23	184.16	184.02

Annual Max Momentary Gage Height	195.01	m. (MSL.) ,	at 10.00 Hours , on Jun 27 , 2011		
Zero Gage at Bottom Elevation	182.80	m. (MSL.) ,	River Bed	180.93	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, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	10.50	21.50	28.50	347.45	536.80	219.00	351.50	70.80	36.20	25.00	17.50	13.00		
2	10.20	23.50	27.50	346.10	497.20	289.25	284.55	69.40	35.60	24.50	17.50	12.50		
3	10.20	22.00	30.00	256.95	403.15	270.75	289.25	66.80	35.00	24.00	17.50	12.00		
4	9.90	21.50	35.60	209.00	346.10	268.45	228.80	63.80	35.00	24.00	17.50	12.00		
5	6.60	22.00	46.40	169.20	267.30	282.25	203.00	64.40	34.40	24.00	17.50	11.70		
6	11.70	25.00	113.40	149.40	240.90	487.30	184.00	60.80	33.80	24.00	17.50	11.70		
7	11.70	28.00	189.00	138.05	245.45	410.40	168.30	60.20	32.00	23.50	17.50	11.70		
8	15.50	30.00	144.00	121.05	268.45	393.00	164.70	60.20	32.60	23.00	16.00	11.70		
9	19.00	28.50	91.10	113.40	282.25	334.25	157.50	60.20	33.20	23.00	14.50	12.00		
10	20.50	28.00	63.80	247.75	285.70	291.75	147.60	59.00	33.80	23.00	14.00	13.50		
11	20.50	28.00	57.80	189.00	538.45	276.50	144.00	57.20	34.40	22.50	13.50	17.50		
12	20.00	28.00	51.20	171.90	435.50	209.00	132.10	56.60	34.40	22.50	15.50	19.00		
13	19.50	30.50	73.60	203.00	370.60	192.00	128.70	54.20	34.40	23.00	17.00	14.50		
14	13.50	32.00	59.00	348.80	246.60	202.00	127.00	53.00	33.80	24.00	17.50	11.70		
15	11.40	42.80	46.40	450.50	262.70	260.40	127.00	51.80	33.20	24.50	17.50	11.40		
16	10.50	43.40	39.20	495.55	223.30	323.00	120.20	50.60	32.60	25.00	16.50	15.00		
17	10.20	51.20	39.20	493.90	252.35	330.50	111.70	50.60	32.00	25.00	16.00	20.50		
18	9.90	126.15	38.00	366.40	284.55	352.85	105.10	49.40	31.00	23.50	15.50	14.50		
19	9.60	83.40	37.40	276.50	296.75	340.70	126.15	46.40	30.50	22.50	15.00	12.50		
20	9.60	91.10	36.20	262.70	482.40	404.60	122.75	45.20	30.00	22.00	14.50	12.00		
21	9.30	84.10	35.00	303.00	461.60	393.00	117.65	44.60	30.00	22.00	14.00	11.40		
22	9.30	56.00	40.40	268.45	461.60	383.20	89.70	44.60	29.50	21.00	14.00	11.10		
23	9.60	43.40	34.40	253.50	437.00	334.25	89.00	43.40	28.50	19.50	14.00	11.10		
24	23.50	40.40	31.50	239.80	391.60	306.75	85.50	42.80	28.00	19.50	14.00	11.10		
25	23.00	27.00	69.40	233.20	359.60	293.00	79.90	42.20	27.50	19.00	13.50	10.80		
26	17.50	31.00	536.80	206.00	356.90	275.35	78.50	41.60	27.00	19.00	13.50	10.80		
27	11.70	29.50	1587.75	192.00	379.00	274.20	75.00	40.40	26.50	19.00	13.50	10.80		
28	10.20	33.80	422.00	206.00	365.00	234.30	73.60	40.40	26.50	19.00	13.50	10.80		
29	10.20	42.80	588.85	197.00	346.10	208.00	72.90	39.80	26.00	18.50	13.50	10.80		
30	10.20	37.40	367.80	168.30	400.25	220.00	72.90	39.80	26.00	18.00		10.80		
31		33.20		404.60	251.20		72.20		25.50	18.00		10.80		
Total	395.00	1265.15	4961.20	8028.45	10976.35	9060.00	4330.75	1570.20	968.90	685.00	449.00	390.70	43080.70	CMSDAY
Mean	13.17	40.81	165.37	258.98	354.08	302.00	139.70	52.34	31.25	22.10	15.48	12.60	117.71	CMS
Max	23.50	126.15	1587.75	495.55	538.45	487.30	351.50	70.80	36.20	25.00	17.50	20.50	1587.75	CMS
Min	6.60	21.50	27.50	113.40	223.30	192.00	72.20	39.80	25.50	18.00	13.50	10.80	6.60	CMS
Runoff	34.13	109.31	428.65	693.66	948.36	782.78	374.18	135.67	83.71	59.18	38.79	33.76	3722.17	MCM

Momentary Peak 2168.75 CMS. at 195.01 m. (MSL.) at 10.00 Hours , on Jun 27 , 2011

Runoff Yield 54.24 Liters/Second/Square KM. Momentary Peak Yield 999.424 Liters/Second/Square KM.

WATER YEAR : 2011

NAN RIVER BASIN

Khlong Huai Chan at Ban Nong Khon, Nakhon Sawan (N.76)

Lat 15 - 55 - 38 N Long 100 - 13 - 44 E

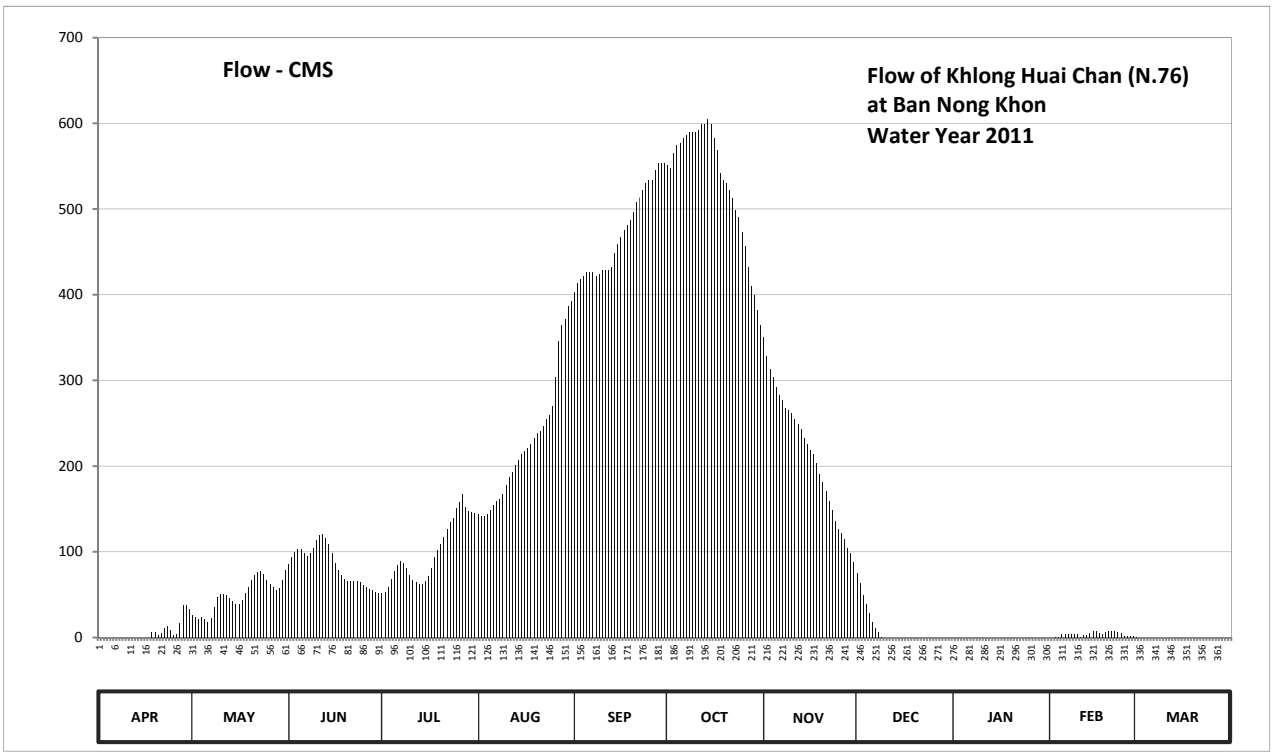
Location : on right bank at Ban Nong Khon

	Ban	Nong Khon	**Amphoe** Chum Saeng	**Changwat**	Nakhon Sawan
Drainge Area	-	sq.km.			
Type of Gage	Water - stage recorder				
Zero Gage at Bottom	+0.000	m. (MSL.)			
Bench Mark	B.M.-H.D.				
Location BM	On right bank at the abutment of the bridge			**Elevation**	+27.770 m. (MSL.)
Gage Reading Frequency	Recording				
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings				
Period of Available Gage Records	2009 to date				
Rating Operation					
Period of Rating	2009 to date				
Rated by Flot	-				
Rated by Current Meter	2009 to date				
Stability of Channel Regimes	Fairly stable.				
Overbank Flow Conditions	Overbank flow starts at elevation +27.720 m.(MSL.), records are channel flow only.				
General Description	Records good. Stage-discharge relation defined by 18 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	22.46	24.11	25.71	24.96	26.44	27.76	28.29	27.55	25.53	22.70	22.99	23.02	
2	22.37	24.04	25.84	25.00	26.42	27.80	28.28	27.46	25.27	22.66	23.00	22.87	
3	22.92	23.96	25.93	25.15	26.42	27.82	28.34	27.39	24.89	22.65	23.02	22.78	
4	22.88	24.04	25.98	25.38	26.44	27.83	28.37	27.35	24.52	22.54	23.05	22.68	
5	22.33	23.95	25.98	25.56	26.48	27.85	28.38	27.30	24.17	22.46	23.18	22.61	
6	22.05	23.84	25.91	25.69	26.53	27.85	28.40	27.26	23.84	22.57	23.20	22.56	
7	21.89	23.99	25.86	25.76	26.57	27.85	28.41	27.23	23.56	22.73	23.21	22.58	
8	21.74	24.42	25.91	25.73	26.59	27.83	28.42	27.19	23.32	22.64	23.18	22.65	
9	21.80	24.79	26.00	25.63	26.63	27.84	28.42	27.18	23.02	22.64	23.18	22.64	
10	21.91	24.92	26.11	25.48	26.70	27.86	28.42	27.16	22.94	22.60	23.19	22.59	
11	21.97	24.92	26.18	25.36	26.76	27.86	28.43	27.13	22.77	22.56	23.05	22.62	
12	21.96	24.89	26.19	25.29	26.80	27.86	28.45	27.10	22.65	22.42	23.12	22.80	
13	21.97	24.78	26.14	25.23	26.85	27.87	28.45	27.07	22.49	22.19	23.16	22.81	
14	22.03	24.63	26.05	25.23	26.88	27.93	28.47	27.02	22.29	22.07	23.24	22.80	
15	22.06	24.53	25.90	25.32	26.92	27.97	28.45	26.99	22.25	22.08	23.39	22.76	
16	22.28	24.55	25.74	25.46	26.94	28.00	28.40	26.95	22.19	22.10	23.37	22.81	
17	22.92	24.68	25.60	25.64	26.96	28.03	28.35	26.92	22.16	22.17	23.28	22.88	
18	23.32	24.95	25.48	25.84	26.99	28.05	28.26	26.86	22.47	22.27	23.22	22.90	
19	23.33	25.16	25.38	25.95	27.02	28.07	28.23	26.78	22.58	22.24	23.30	22.53	
20	23.16	25.34	25.32	26.05	27.05	28.10	28.22	26.72	22.65	22.29	23.39	22.19	
21	23.26	25.48	25.31	26.15	27.06	28.14	28.19	26.65	22.45	22.45	23.38	22.03	
22	23.58	25.55	25.33	26.26	27.09	28.16	28.16	26.57	22.34	22.64	23.36	21.73	
23	23.68	25.56	25.33	26.35	27.13	28.19	28.11	26.48	22.36	22.76	23.33	21.41	
24	23.43	25.50	25.28	26.40	27.15	28.22	28.08	26.36	22.39	22.84	23.23	21.30	
25	23.17	25.36	25.22	26.50	27.20	28.23	28.02	26.26	22.40	22.88	23.10	21.24	
26	23.20	25.24	25.15	26.56	27.35	28.23	27.96	26.21	22.42	22.79	23.09	21.19	
27	23.79	25.15	25.10	26.63	27.53	28.27	27.87	26.13	22.39	22.81	23.08	21.14	
28	24.49	25.07	25.05	26.51	27.61	28.30	27.79	25.99	22.37	22.84	23.06	21.17	
29	24.51	25.13	25.00	26.47	27.64	28.30	27.75	25.91	22.39	22.80	23.04	21.13	
30	24.35	25.36	24.97	26.46	27.70	28.30	27.68	25.75	22.48	22.86		21.12	
31		25.59		26.45	27.72		27.61		22.61	22.92		21.11	
Mean	22.83	24.82	25.63	25.82	26.95	28.01	28.21	26.83	22.97	22.55	23.19	22.21	
Max	24.51	25.59	26.19	26.63	27.72	28.30	28.47	27.55	25.53	22.92	23.39	23.02	28.47
Min	21.74	23.84	24.97	24.96	26.42	27.76	27.61	25.75	22.16	22.07	22.99	21.11	21.11

Annual Max Momentary Gage Height	28.48	m. (MSL.) ,	at 12.00 Hours , on Oct 14, 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	19.93	m. (MSL)
Left Bank Elevation	27.71	m. (MSL.) ,			
Right Bank Elevation	27.73	m. (MSL.) ,	Drainage Area	Square Kilometers	



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	26.30	85.60	51.80	143.80	402.60	551.10	350.00	75.50	0.00	0.00	0.40		
2	0.00	24.20	93.80	53.00	141.40	413.00	548.20	328.80	63.80	0.00	0.00	0.00		
3	0.00	21.80	100.10	59.00	141.40	418.40	565.60	312.70	49.70	0.00	0.40	0.00		
4	0.00	24.20	103.60	68.20	143.80	421.10	574.30	303.50	38.60	0.00	1.00	0.00		
5	0.00	21.50	103.60	77.00	148.60	426.50	577.20	292.00	28.10	0.00	3.60	0.00		
6	0.00	18.20	98.70	84.40	154.60	426.50	583.00	283.20	18.20	0.00	4.00	0.00		
7	0.00	22.70	95.20	88.60	159.40	426.50	586.20	276.60	11.20	0.00	4.20	0.00		
8	0.00	35.60	98.70	86.80	161.80	421.10	589.40	267.90	6.40	0.00	3.60	0.00		
9	0.00	46.70	105.00	80.80	167.50	423.80	589.40	265.80	0.40	0.00	3.60	0.00		
10	0.00	50.60	113.80	73.00	178.00	429.20	589.40	261.60	0.00	0.00	3.80	0.00		
11	0.00	50.60	119.40	67.40	187.00	429.20	592.60	255.30	0.00	0.00	1.00	0.00		
12	0.00	49.70	120.20	64.60	193.00	429.20	599.00	249.00	0.00	0.00	2.40	0.00		
13	0.00	46.40	116.20	62.20	201.50	431.90	599.00	242.70	0.00	0.00	3.20	0.00		
14	0.00	41.90	109.00	62.20	206.60	448.10	605.40	232.20	0.00	0.00	4.80	0.00		
15	0.00	38.90	98.00	65.80	213.60	458.90	599.00	226.20	0.00	0.00	7.80	0.00		
16	0.00	39.50	87.40	72.00	217.20	467.00	583.00	219.00	0.00	0.00	7.40	0.00		
17	0.00	43.40	79.00	81.40	220.80	475.70	568.50	213.60	0.00	0.00	5.60	0.00		
18	6.40	51.50	73.00	93.80	226.20	481.50	542.40	203.20	0.00	0.00	4.40	0.00		
19	6.60	59.40	68.20	101.50	232.20	487.30	533.70	190.00	0.00	0.00	6.00	0.00		
20	3.20	66.60	65.80	109.00	238.50	496.00	530.80	181.00	0.00	0.00	7.80	0.00		
21	5.20	73.00	65.40	117.00	240.60	507.60	522.10	170.50	0.00	0.00	7.60	0.00		
22	11.60	76.50	66.20	126.40	246.90	513.40	513.40	159.40	0.00	0.00	7.20	0.00		
23	13.60	77.00	66.20	134.50	255.30	522.10	498.90	148.60	0.00	0.00	6.60	0.00		
24	8.60	74.00	64.20	139.00	259.50	530.80	490.20	135.40	0.00	0.00	4.60	0.00		
25	3.40	67.40	61.80	151.00	270.00	533.70	472.80	126.40	0.00	0.00	2.00	0.00		
26	4.00	62.60	59.00	158.20	303.50	533.70	456.20	121.90	0.00	0.00	1.80	0.00		
27	16.70	59.00	57.00	167.50	345.20	545.30	431.90	115.40	0.00	0.00	1.60	0.00		
28	37.70	55.80	55.00	152.20	364.50	554.00	410.40	104.30	0.00	0.00	1.20	0.00		
29	38.30	58.20	53.00	147.40	372.00	554.00	400.00	98.70	0.00	0.00	0.80	0.00		
30	33.50	67.40	52.10	146.20	387.00	554.00	382.00	88.00	0.00	0.00		0.00		
31		78.50		145.00	392.20		364.50		0.00	0.00		0.00		
Total	188.80	1529.10	2534.20	3086.90	7113.60	14162.10	16449.60	6422.90	291.90	0.00	108.00	0.40	51887.50	CMSDAY
Mean	6.29	49.33	84.47	99.58	229.47	472.07	530.63	214.10	9.42	0.00	3.72	0.01	141.77	CMS
Max	38.30	78.50	120.20	167.50	392.20	554.00	605.40	350.00	75.50	0.00	7.80	0.40	605.40	CMS
Min	0.00	18.20	52.10	51.80	141.40	402.60	364.50	88.00	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	16.31	132.11	218.96	266.71	614.62	1223.61	1421.25	554.94	25.22	0.00	9.33	0.04	4483.08	MCM

Momentary Peak 608.60 CMS. at 28.48 m. (MSL.) at 12.00 Hours , on Oct 14 , 2011

Runoff Yield ***** Liters/Second/Square KM. Momentary Peak Yield ***** Liters/Second/Square KM.

WATER YEAR : 2011

CHAO PHRAYA RIVER BASIN

Chao Phraya River at Ban Phai Lom, Nakhon Sawan (C.2)

Lat 15 - 40 - 15 N Long 100 - 06 - 49 E

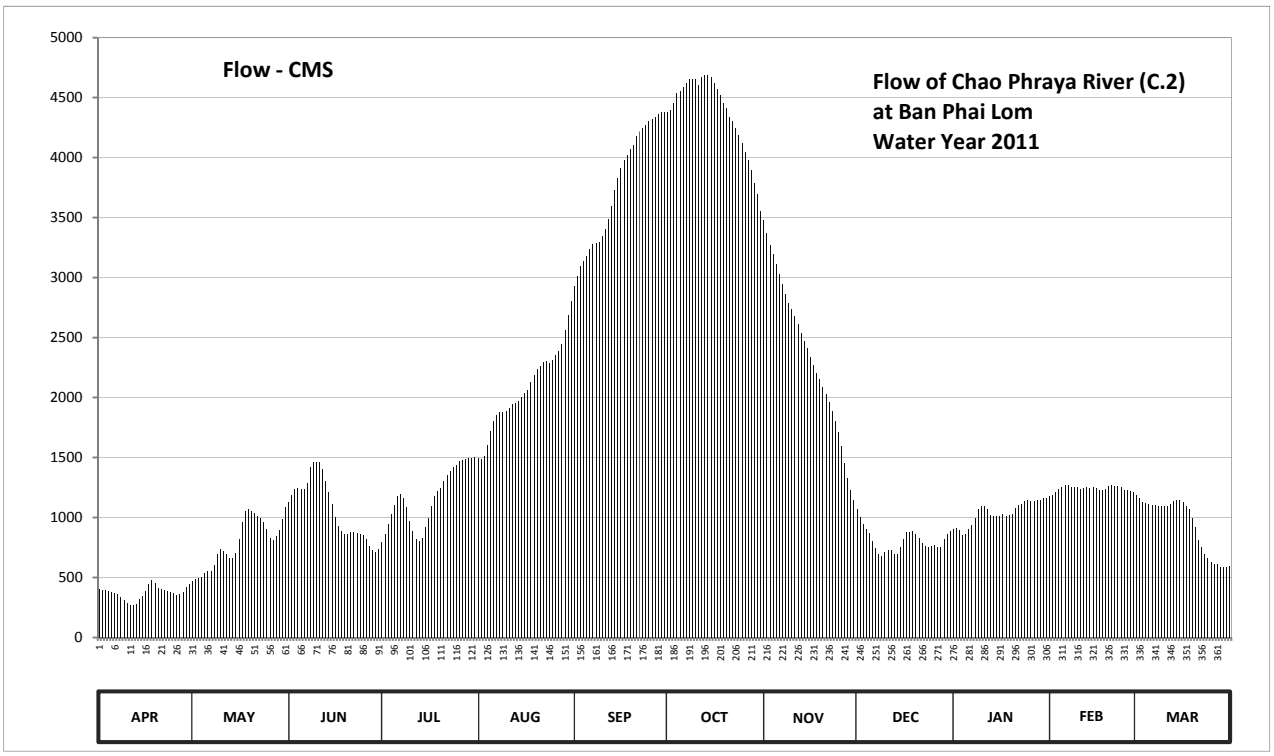
Location : on left bank at Ban Phai Lom

	Ban Phai Lom	**Amphoe** Mueang		**Changwat** Nakhon Sawan	
Drainge Area	109,973 sq.km.				
Type of Gage	Water - stage recorder				
Zero Gage at Bottom	+0.000 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	About 20.00 meters west of the gage site			**Elevation**	+25.628 m. (MSL.)
Gage Reading Frequency	Recording				
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings				
Period of Available Gage Records	1914 to date				
Rating Operation					
Period of Rating	1956 to date				
Rated by Flot	-				
Rated by Current Meter	1956 to date				
Stability of Channel Regimes	Fairly stable				
Overbank Flow Conditions	Overbank flow starts at elevation +25.610 m.(MSL.), records are channel flow only.				
General Description	Records good. Flow effected by Phumiphol Dam, Sirikit Dam and Phrom Phiram Dam. Stage-discharge relation defined by 45 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	18.87	19.15	21.52	20.49	22.49	25.25	26.68	25.93	21.37	20.86	21.68	21.70	
2	18.86	19.22	21.69	20.70	22.47	25.36	26.69	25.81	21.16	20.88	21.70	21.61	
3	18.86	19.25	21.84	21.00	22.52	25.47	26.73	25.69	20.99	20.81	21.76	21.53	
4	18.80	19.30	21.86	21.23	22.76	25.53	26.78	25.60	20.85	20.69	21.84	21.50	
5	18.74	19.45	21.84	21.45	23.03	25.58	26.79	25.50	20.74	20.71	21.88	21.49	
6	18.67	19.50	21.83	21.68	23.21	25.65	26.81	25.38	20.52	20.84	21.92	21.46	
7	18.59	19.49	21.97	21.72	23.32	25.70	26.83	25.27	20.32	20.97	21.93	21.45	
8	18.46	19.71	22.29	21.63	23.37	25.71	26.85	25.16	20.12	21.15	21.89	21.44	
9	18.28	20.13	22.41	21.41	23.38	25.72	26.85	25.05	20.05	21.37	21.87	21.43	
10	18.14	20.29	22.41	21.06	23.40	25.78	26.85	24.97	20.18	21.42	21.87	21.43	
11	18.08	20.21	22.40	20.78	23.45	25.85	26.82	24.88	20.25	21.42	21.84	21.44	
12	18.08	20.13	22.25	20.58	23.50	25.94	26.86	24.77	20.24	21.35	21.85	21.49	
13	18.12	19.98	22.01	20.50	23.52	26.05	26.87	24.64	20.12	21.22	21.88	21.55	
14	18.36	19.97	21.76	20.59	23.56	26.17	26.87	24.52	20.13	21.19	21.86	21.56	
15	18.48	20.16	21.47	20.89	23.62	26.26	26.86	24.41	20.35	21.20	21.88	21.56	
16	18.77	20.57	21.18	21.14	23.69	26.33	26.83	24.28	20.56	21.20	21.85	21.52	
17	19.02	21.05	20.94	21.43	23.74	26.38	26.80	24.15	20.76	21.23	21.81	21.44	
18	19.16	21.31	20.79	21.67	23.87	26.42	26.77	24.02	20.76	21.20	21.81	21.35	
19	19.05	21.37	20.72	21.78	24.00	26.46	26.73	23.92	20.80	21.22	21.84	21.15	
20	18.93	21.31	20.71	21.86	24.09	26.49	26.70	23.80	20.70	21.23	21.90	20.90	
21	18.89	21.27	20.76	22.01	24.14	26.54	26.65	23.68	20.60	21.38	21.93	20.55	
22	18.81	21.19	20.77	22.14	24.20	26.57	26.63	23.55	20.47	21.46	21.91	20.33	
23	18.77	21.15	20.74	22.22	24.21	26.59	26.59	23.40	20.37	21.49	21.90	20.14	
24	18.71	21.05	20.72	22.29	24.18	26.61	26.55	23.20	20.35	21.54	21.87	19.98	
25	18.63	20.84	20.67	22.33	24.23	26.63	26.50	23.00	20.37	21.56	21.81	19.84	
26	18.52	20.59	20.57	22.43	24.30	26.64	26.44	22.74	20.39	21.54	21.80	19.76	
27	18.57	20.54	20.38	22.44	24.37	26.65	26.38	22.38	20.34	21.54	21.79	19.76	
28	18.72	20.66	20.24	22.46	24.47	26.67	26.31	22.06	20.35	21.56	21.76	19.65	
29	18.95	20.83	20.19	22.49	24.68	26.68	26.22	21.81	20.56	21.58	21.75	19.67	
30	19.01	21.12	20.30	22.49	24.90	26.68	26.14	21.58	20.72	21.62		19.67	
31		21.41		22.50	25.08		26.01		20.80	21.62		19.68	
Mean	18.66	20.39	21.31	21.59	23.73	26.15	26.66	24.17	20.53	21.26	21.84	20.90	
Max	19.16	21.41	22.41	22.50	25.08	26.68	26.87	25.93	21.37	21.62	21.93	21.70	26.87
Min	18.08	19.15	20.19	20.49	22.47	25.25	26.01	21.58	20.05	20.69	21.68	19.65	18.08

Annual Max Momentary Gage Height	26.87	m. (MSL.) ,	at 06.00 Hours , on Oct 13 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	13.81	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, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	399.20	474.50	1127.00	797.00	1496.00	2927.50	4380.00	3478.50	1074.50	908.00	1183.00	1190.00		
2	397.90	489.50	1186.50	860.00	1488.00	3010.00	4395.00	3369.00	1001.00	914.00	1190.00	1158.50		
3	397.90	496.20	1239.00	950.00	1508.00	3092.50	4458.00	3267.00	947.00	893.00	1211.00	1130.50		
4	390.30	507.50	1246.00	1025.50	1604.00	3139.00	4538.00	3195.00	905.00	857.00	1239.00	1120.00		
5	382.70	541.30	1239.00	1102.50	1723.50	3179.00	4554.00	3115.00	872.00	863.00	1253.00	1116.50		
6	373.90	552.50	1235.50	1183.00	1804.50	3235.00	4587.00	3025.00	806.00	902.00	1268.00	1106.00		
7	363.20	550.20	1288.00	1197.00	1854.00	3275.00	4621.00	2942.50	747.60	941.00	1272.00	1102.50		
8	340.50	599.70	1416.00	1165.50	1876.50	3283.50	4655.00	2862.00	693.20	997.50	1256.50	1099.00		
9	309.00	695.80	1464.00	1088.50	1881.00	3292.00	4655.00	2787.50	676.50	1074.50	1249.50	1095.50		
10	284.50	739.20	1464.00	968.00	1890.00	3343.00	4655.00	2735.50	708.80	1092.00	1249.50	1095.50		
11	274.00	716.80	1460.00	884.00	1915.00	3405.00	4604.00	2678.00	728.00	1092.00	1239.00	1099.00		
12	274.00	695.80	1400.00	824.00	1940.00	3488.00	4672.00	2612.00	725.20	1067.50	1242.50	1116.50		
13	281.00	660.50	1304.00	800.00	1950.00	3597.50	4689.00	2537.00	693.20	1022.00	1253.00	1137.50		
14	323.00	658.20	1211.00	827.00	1970.00	3727.00	4689.00	2471.00	695.80	1011.50	1246.00	1141.00		
15	344.00	703.60	1109.50	917.00	2000.00	3832.00	4672.00	2410.50	756.00	1015.00	1253.00	1141.00		
16	386.50	821.00	1008.00	994.00	2035.00	3916.00	4621.00	2339.00	818.00	1015.00	1242.50	1127.00		
17	447.20	965.00	932.00	1095.50	2060.00	3976.00	4570.00	2267.50	878.00	1025.50	1228.50	1099.00		
18	476.60	1053.50	887.00	1179.50	2125.00	4024.00	4522.00	2200.00	878.00	1015.00	1228.50	1067.50		
19	453.50	1074.50	866.00	1218.00	2190.00	4072.00	4458.00	2150.00	890.00	1022.00	1239.00	997.50		
20	415.00	1053.50	863.00	1246.00	2235.00	4108.00	4410.00	2090.00	860.00	1025.50	1260.00	920.00		
21	401.70	1039.50	878.00	1304.00	2262.00	4176.00	4335.00	2030.00	830.00	1078.00	1272.00	815.00		
22	391.60	1011.50	881.00	1356.00	2295.00	4218.00	4305.00	1965.00	791.00	1106.00	1264.00	750.40		
23	386.50	997.50	872.00	1388.00	2300.50	4246.00	4246.00	1890.00	761.60	1116.50	1260.00	698.40		
24	378.90	965.00	866.00	1416.00	2284.00	4275.00	4190.00	1800.00	756.00	1134.00	1249.50	660.50		
25	368.80	902.00	851.00	1432.00	2311.50	4305.00	4120.00	1710.00	761.60	1141.00	1228.50	629.00		
26	351.00	827.00	821.00	1472.00	2350.00	4320.00	4048.00	1596.00	767.20	1134.00	1225.00	611.00		
27	359.70	812.00	764.40	1476.00	2388.50	4335.00	3976.00	1452.00	753.20	1134.00	1221.50	611.00		
28	380.20	848.00	725.20	1484.00	2443.50	4365.00	3892.00	1324.00	756.00	1141.00	1211.00	586.20		
29	423.00	899.00	711.40	1496.00	2559.00	4380.00	3784.00	1228.50	818.00	1148.00	1207.50	590.70		
30	445.10	987.00	742.00	1496.00	2690.00	4380.00	3694.00	1148.00	866.00	1162.00		590.70		
31		1088.50		1500.00	2807.00		3555.50		890.00	1162.00		593.00		
Total	11200.40	24425.80	32057.50	36142.00	64236.50	112922.00	135550.50	70675.50	25104.40	32209.50	35942.50	29195.90	609662.50	CMSDAY
Mean	373.30	787.90	1068.60	1165.90	2072.10	3764.10	4372.60	2355.90	809.80	1039.00	1239.40	941.80	1665.70	CMS
Max	476.60	1088.50	1464.00	1500.00	2807.00	4380.00	4689.00	3478.50	1074.50	1162.00	1272.00	1190.00	4689.00	CMS
Min	274.00	474.50	711.40	797.00	1488.00	2927.50	3555.50	1148.00	676.50	857.00	1183.00	586.20	274.00	CMS
Runoff	967.71	2110.39	2769.77	3122.67	5550.03	9756.46	11711.56	6106.36	2169.02	2782.9	3105.43	2522.53	52674.84	MCM

Momentary Peak 4689.00 CMS. at 26.87 m. (MSL.) at 06.00 Hours , on Oct 13 , 2011

Runoff Yield 15.15 Liters/Second/Square KM. Momentary Peak Yield 42.638 Liters/Second/Square KM.

WATER YEAR : 2011

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

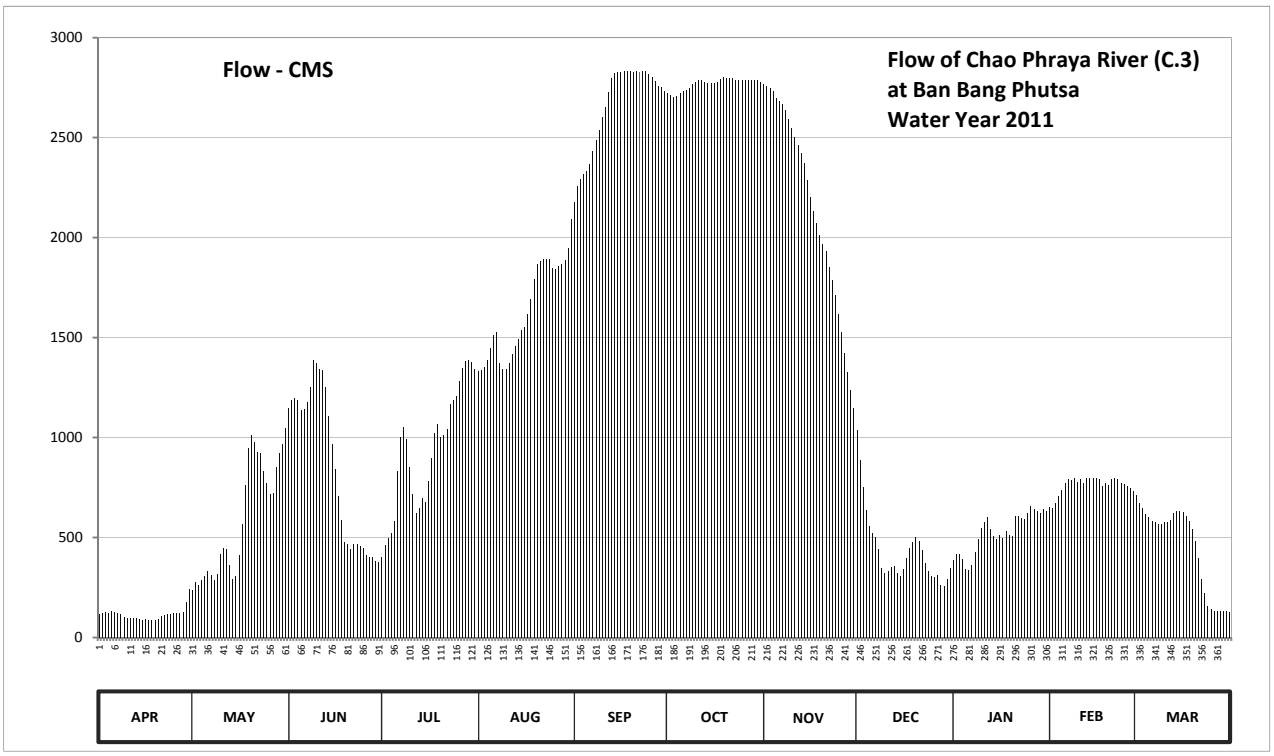
Location : on right bank at Ban Bang Phutsa

	Ban Bang Phutsa	**Amphoe** Mueang		**Changwat** Sing Buri	
Drainge Area	118,752 sq.km.				
Type of Gage	Water - stage recorder				
Zero Gage at Bottom	+0.000 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On right bank at the bridge			**Elevation**	+11.880 m. (MSL.)
Gage Reading Frequency	Recording				
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings				
Period of Available Gage Records	1950 to date				
Rating Operation					
Period of Rating	1950 to date				
Rated by Flot	-				
Rated by Current Meter	1950 to date				
Stability of Channel Regimes	Fairly stable				
Overbank Flow Conditions	No overbank flow.				
General Description	Records good. Stage-discharge relation defined by 38 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	2.63	3.70	8.10	4.84	8.74	11.30	12.75	12.87	7.71	4.73	6.19	6.45	
2	2.67	4.01	8.26	5.18	8.76	11.52	12.73	12.85	7.15	4.90	6.16	6.29	
3	2.74	3.89	8.28	5.38	8.80	11.61	12.70	12.82	6.63	4.91	6.27	6.17	
4	2.71	4.08	8.26	5.50	8.92	11.67	12.72	12.78	6.11	4.76	6.44	6.01	
5	2.79	4.21	8.08	5.85	9.12	11.71	12.75	12.69	5.71	4.45	6.57	5.93	
6	2.73	4.38	8.09	6.95	9.32	11.81	12.78	12.65	5.51	4.41	6.70	5.85	
7	2.70	4.26	8.22	7.59	9.37	11.98	12.80	12.61	5.40	4.56	6.78	5.82	
8	2.62	4.08	8.48	7.77	8.87	12.13	12.82	12.53	5.07	4.97	6.77	5.75	
9	2.43	4.30	8.92	7.55	8.78	12.27	12.87	12.41	4.49	5.34	6.80	5.77	
10	2.35	4.91	8.88	7.02	8.77	12.44	12.90	12.30	4.34	5.65	6.73	5.81	
11	2.39	5.10	8.77	6.47	8.87	12.57	12.93	12.18	4.39	5.81	6.79	5.82	
12	2.39	5.05	8.75	6.03	9.02	12.77	12.92	12.07	4.52	5.94	6.71	5.87	
13	2.36	4.59	8.47	6.17	9.14	12.95	12.90	11.96	4.54	5.63	6.80	6.03	
14	2.28	4.13	7.96	6.38	9.26	13.02	12.89	11.82	4.32	5.43	6.81	6.10	
15	2.24	4.23	7.45	6.30	9.39	13.03	12.88	11.60	4.21	5.36	6.81	6.10	
16	2.29	4.89	6.97	6.75	9.45	13.03	12.88	11.37	4.46	5.46	6.81	6.06	
17	2.22	5.77	6.42	7.20	9.65	13.04	12.90	11.17	4.78	5.38	6.78	5.97	
18	2.23	6.67	5.86	7.66	9.87	13.05	12.94	11.00	5.09	5.58	6.65	5.85	
19	2.26	7.39	5.25	7.83	10.18	13.04	12.96	10.81	5.26	5.45	6.70	5.61	
20	2.30	7.62	5.20	7.59	10.40	13.03	12.95	10.67	5.41	5.42	6.67	5.28	
21	2.48	7.49	5.06	7.62	10.45	13.04	12.95	10.58	5.28	5.97	6.78	4.80	
22	2.54	7.31	5.21	7.73	10.47	13.03	12.95	10.36	5.03	5.96	6.81	4.11	
23	2.61	7.28	5.22	8.19	10.48	13.05	12.93	10.16	4.64	5.91	6.78	3.58	
24	2.63	6.95	5.15	8.26	10.47	13.04	12.92	9.93	4.38	5.88	6.71	3.05	
25	2.67	6.70	5.10	8.32	10.34	13.00	12.92	9.65	4.23	6.04	6.69	2.91	
26	2.68	6.47	4.88	8.57	10.33	12.97	12.92	9.37	4.19	6.20	6.65	2.82	
27	2.68	6.50	4.83	8.79	10.38	12.91	12.92	9.04	4.27	6.15	6.60	2.81	
28	2.74	7.01	4.82	8.90	10.41	12.85	12.92	8.73	3.91	6.10	6.55	2.80	
29	3.22	7.29	4.71	8.92	10.46	12.83	12.92	8.43	3.88	6.05	6.45	2.78	
30	3.76	7.45	4.66	8.89	10.62	12.78	12.92	8.11	4.11	6.14		2.78	
31		7.75		8.78	11.06		12.90		4.49	6.09		2.77	
Mean	2.58	5.66	6.81	7.26	9.68	12.58	12.88	11.18	4.95	5.50	6.65	4.96	
Max	3.76	7.75	8.92	8.92	11.06	13.05	12.96	12.87	7.71	6.20	6.81	6.45	13.05
Min	2.22	3.70	4.66	4.84	8.74	11.30	12.70	8.11	3.88	4.41	6.16	2.77	2.22

Annual Max Momentary Gage Height	13.05	m. (MSL.) ,	at 12.00 Hours , on Sep 24 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	-1.79	m. (MSL)
Left Bank Elevation	11.97	m. (MSL.) ,			
Right Bank Elevation	11.91	m. (MSL.) ,	Drainage Area	118752	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	118.40	236.00	1144.00	404.80	1332.00	2180.00	2721.00	2766.60	1034.80	386.80	652.90	711.50		
2	121.60	276.40	1188.80	462.60	1338.00	2260.40	2713.40	2759.00	886.00	415.00	646.60	674.80		
3	127.20	260.70	1194.40	498.40	1350.00	2293.70	2702.00	2747.60	753.20	416.70	670.40	648.70		
4	124.80	286.20	1188.80	520.00	1386.00	2315.90	2709.60	2732.40	636.10	391.60	709.20	616.00		
5	131.20	305.50	1138.40	584.50	1448.40	2330.70	2721.00	2698.20	557.90	342.00	739.10	600.00		
6	126.40	331.00	1141.20	834.00	1512.40	2367.70	2732.40	2683.00	521.80	335.60	770.00	584.50		
7	124.00	313.00	1177.60	1002.30	1528.40	2430.60	2740.00	2667.80	502.00	359.60	790.00	578.80		
8	117.60	286.20	1254.00	1051.60	1371.00	2486.10	2747.60	2637.40	443.90	426.90	787.50	565.50		
9	102.40	319.00	1386.00	991.50	1344.00	2538.60	2766.60	2591.80	348.40	491.20	795.00	569.30		
10	96.00	416.70	1374.00	852.20	1341.00	2603.20	2778.00	2550.00	325.00	547.00	777.50	576.90		
11	99.20	449.00	1341.00	716.10	1371.00	2652.60	2789.40	2504.60	332.50	576.90	792.50	578.80		
12	99.20	440.50	1335.00	620.00	1416.40	2728.60	2785.60	2463.90	353.20	602.00	772.50	588.30		
13	96.80	364.40	1251.00	648.70	1454.80	2797.00	2778.00	2423.20	356.40	543.40	795.00	620.00		
14	90.60	293.50	1104.80	695.40	1493.20	2823.60	2774.20	2371.40	322.00	507.40	797.60	634.00		
15	87.80	308.50	964.50	677.00	1534.80	2827.40	2770.40	2290.00	305.50	494.80	797.60	634.00		
16	91.30	413.30	839.20	782.50	1554.00	2827.40	2770.40	2205.20	343.60	512.80	797.60	626.00		
17	86.40	569.30	704.60	899.00	1618.00	2831.20	2778.00	2133.20	394.80	498.40	790.00	608.00		
18	87.10	762.80	586.40	1021.20	1690.10	2835.00	2793.20	2072.00	447.30	534.40	758.00	584.50		
19	89.20	948.40	475.00	1068.40	1792.40	2831.20	2800.80	2011.20	476.80	511.00	770.00	539.80		
20	92.00	1010.40	466.00	1002.30	1865.00	2827.40	2797.00	1964.90	503.80	505.60	762.80	480.40		
21	106.40	975.30	442.20	1010.40	1883.50	2831.20	2797.00	1931.60	480.40	608.00	790.00	398.00		
22	111.20	927.60	467.80	1040.40	1890.90	2827.40	2797.00	1851.80	437.10	606.00	797.60	290.50		
23	116.80	919.80	469.60	1169.20	1894.60	2835.00	2789.40	1785.80	372.40	596.00	790.00	220.40		
24	118.40	834.00	457.50	1188.80	1890.90	2831.20	2785.60	1709.90	331.00	590.20	772.50	155.50		
25	121.60	770.00	449.00	1206.00	1845.20	2816.00	2785.60	1618.00	308.50	622.00	767.60	141.90		
26	122.40	716.10	411.60	1281.00	1841.90	2804.60	2785.60	1528.40	302.50	655.00	758.00	133.80		
27	122.40	723.00	403.10	1347.00	1858.40	2781.80	2785.60	1422.80	314.50	644.50	746.00	132.90		
28	127.20	849.60	401.40	1380.00	1868.70	2759.00	2785.60	1329.00	263.30	634.00	734.50	132.00		
29	175.40	922.40	383.60	1386.00	1887.20	2751.40	2785.60	1239.00	259.40	624.00	711.50	130.40		
30	243.80	964.50	375.60	1377.00	1946.40	2732.40	2785.60	1146.80	290.50	642.40		130.40		
31		1046.00		1344.00	2093.60		2778.00		348.40	632.00		129.60		
Total	3474.80	18239.10	25516.10	29062.30	50642.20	79758.30	85829.20	64836.50	13553.00	16253.20	22039.50	14015.20	423219.40	CMSDAY
Mean	115.80	588.40	850.50	937.50	1633.60	2658.60	2768.70	2161.20	437.20	524.30	760.00	452.10	1156.30	CMS
Max	243.80	1046.00	1386.00	1386.00	2093.60	2835.00	2800.80	2766.60	1034.80	655.00	797.60	711.50	2835.00	CMS
Min	86.40	236.00	375.60	404.80	1332.00	2180.00	2702.00	1146.80	259.40	335.60	646.60	129.60	86.40	CMS
Runoff	300.22	1575.86	2204.59	2510.98	4375.49	6891.12	7415.64	5601.87	1170.98	1404.28	1904.21	1210.91	36566.16	MCM

Momentary Peak 2835.00 CMS. at 13.05 m. (MSL.) at 12.00 Hours , on Sep 24 , 2011

Runoff Yield 9.74 Liters/Second/Square KM. Momentary Peak Yield 23.873 Liters/Second/Square KM.

WATER YEAR : 2011

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

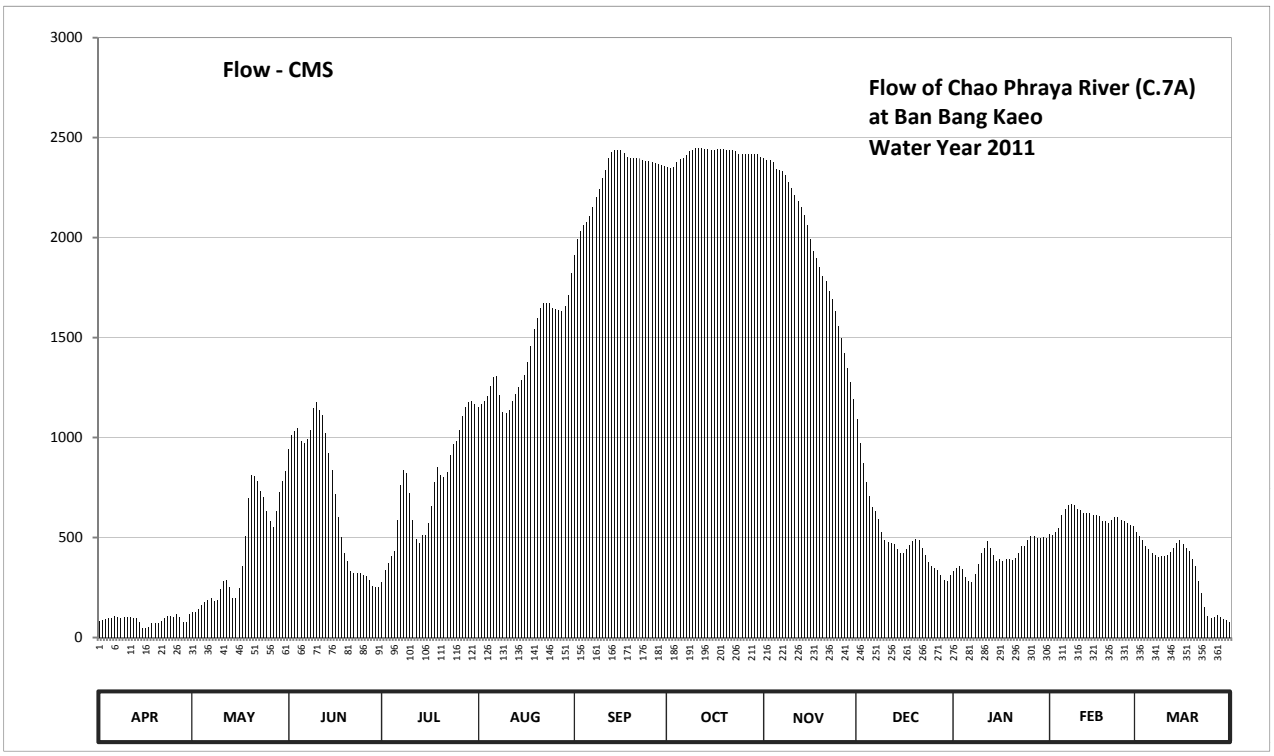
Location : on left bank at Ban Bang Kaco

	Ban	Bang Keao	**Amphoe** Mueang	**Changwat**	Ang Thong
Drainge Area	Flood Plain				
Type of Gage	Water - stage recorder				
Zero Gage at Bottom	+0.000 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On left bank near the gage site			**Elevation**	+8.633 m. (MSL.)
Gage Reading Frequency	Recording				
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings				
Period of Available Gage Records	2006 to date				
Rating Operation					
Period of Rating	2006 to date				
Rated by Flot	-				
Rated by Current Meter	2006 to date				
Stability of Channel Regimes	Fairly stable.				
Overbank Flow Conditions	Overbank flow starts at elevation +8.260 m.(MSL.), records are channel flow only.				
General Description	Records good. Stage-discharge relation defined by 34 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.83	1.20	4.87	2.08	5.58	7.87	9.02	9.13	5.39	2.36	3.23	3.28	
2	0.89	1.20	5.12	2.39	5.63	8.09	9.01	9.11	4.99	2.44	3.21	3.19	
3	0.93	1.30	5.19	2.57	5.68	8.20	9.02	9.11	4.62	2.48	3.29	3.12	
4	0.98	1.43	5.23	2.73	5.76	8.28	9.08	9.08	4.29	2.40	3.37	2.99	
5	0.98	1.50	5.02	2.87	5.92	8.31	9.12	9.00	4.02	2.21	3.64	2.91	
6	1.05	1.56	4.98	3.53	6.06	8.39	9.14	8.98	3.81	2.10	3.75	2.80	
7	1.03	1.64	5.06	4.24	6.09	8.51	9.17	8.97	3.71	2.09	3.85	2.77	
8	0.96	1.55	5.21	4.50	5.78	8.64	9.22	8.92	3.56	2.28	3.86	2.70	
9	1.00	1.56	5.57	4.45	5.51	8.75	9.24	8.84	3.29	2.53	3.85	2.73	
10	1.02	1.89	5.67	4.08	5.49	8.89	9.26	8.76	3.11	2.80	3.76	2.73	
11	1.00	2.12	5.54	3.54	5.54	8.98	9.26	8.67	3.07	2.93	3.74	2.77	
12	0.96	2.14	5.46	3.14	5.68	9.13	9.26	8.59	3.06	3.10	3.67	2.83	
13	0.98	1.95	5.15	3.05	5.79	9.21	9.25	8.51	3.04	2.94	3.68	2.95	
14	0.79	1.64	4.80	3.22	5.91	9.24	9.25	8.41	2.92	2.76	3.68	3.05	
15	0.56	1.64	4.51	3.22	6.02	9.23	9.24	8.27	2.80	2.62	3.64	3.12	
16	0.58	1.93	4.07	3.46	6.10	9.23	9.24	8.09	2.81	2.66	3.64	3.03	
17	0.60	2.49	3.59	3.83	6.30	9.20	9.25	7.93	2.90	2.60	3.62	2.95	
18	0.75	3.19	3.17	4.28	6.55	9.15	9.25	7.83	3.02	2.65	3.50	2.86	
19	0.78	3.98	2.81	4.56	6.80	9.14	9.25	7.70	3.09	2.67	3.52	2.66	
20	0.75	4.41	2.60	4.42	6.97	9.14	9.23	7.57	3.13	2.64	3.46	2.48	
21	0.87	4.40	2.36	4.38	7.12	9.14	9.23	7.51	3.11	2.68	3.54	2.12	
22	0.97	4.30	2.32	4.46	7.18	9.13	9.23	7.36	2.94	2.80	3.59	1.77	
23	1.04	4.13	2.32	4.77	7.18	9.11	9.22	7.24	2.77	2.99	3.59	1.36	
24	1.07	4.01	2.31	4.96	7.18	9.10	9.19	7.07	2.59	2.99	3.54	1.05	
25	1.02	3.71	2.26	5.02	7.12	9.10	9.19	6.85	2.49	3.11	3.50	0.99	
26	1.11	3.52	2.23	5.21	7.10	9.08	9.19	6.67	2.43	3.19	3.46	1.02	
27	1.02	3.38	2.13	5.43	7.09	9.07	9.19	6.44	2.39	3.19	3.42	1.09	
28	0.80	3.72	1.99	5.58	7.07	9.06	9.19	6.21	2.25	3.16	3.40	1.00	
29	0.81	4.10	1.95	5.67	7.14	9.05	9.19	5.98	2.13	3.16	3.33	0.95	
30	1.13	4.31	1.95	5.68	7.31	9.04	9.18	5.71	2.12	3.17		0.88	
31		4.48		5.64	7.62		9.15		2.25	3.15		0.82	
Mean	0.91	2.72	3.85	4.10	6.40	8.88	9.19	7.95	3.16	2.74	3.56	2.29	
Max	1.13	4.48	5.67	5.68	7.62	9.24	9.26	9.13	5.39	3.19	3.86	3.28	9.26
Min	0.56	1.20	1.95	2.08	5.49	7.87	9.01	5.71	2.12	2.09	3.21	0.82	0.56

Annual Max Momentary Gage Height	9.30	m. (MSL.) ,	at 05.00 Hours , on Sep 14 , 2011	
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed -7.26	m. (MSL)
Left Bank Elevation	8.63	m. (MSL.) ,		
Right Bank Elevation	8.25	m. (MSL.) ,	Drainage Area	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	79.60	128.00	939.60	276.00	1150.80	1910.90	2352.00	2396.00	1092.00	332.00	515.20	527.20		
2	86.80	128.00	1011.00	338.00	1166.30	1992.30	2348.00	2388.00	973.20	348.00	510.40	505.60		
3	91.60	144.00	1032.00	374.00	1181.80	2034.00	2352.00	2388.00	869.60	356.00	529.60	488.80		
4	97.60	164.80	1044.00	406.00	1206.60	2064.40	2376.00	2376.00	777.20	340.00	548.80	458.00		
5	97.60	176.00	981.80	434.00	1256.20	2075.80	2392.00	2344.00	705.20	302.00	613.60	442.00		
6	107.00	185.60	970.40	587.20	1299.60	2106.20	2400.00	2336.00	654.40	280.00	640.00	420.00		
7	104.20	198.40	993.40	763.20	1308.90	2151.80	2412.00	2332.00	630.40	278.00	664.00	414.00		
8	95.20	184.00	1038.00	836.00	1212.80	2201.20	2432.00	2312.00	594.40	316.00	666.40	400.00		
9	100.00	185.60	1147.70	822.00	1129.10	2244.00	2440.00	2280.00	529.60	366.00	664.00	406.00		
10	102.80	240.30	1178.70	720.80	1122.90	2300.00	2448.00	2248.00	486.40	420.00	642.40	406.00		
11	100.00	284.00	1138.40	589.60	1138.40	2336.00	2448.00	2212.60	476.80	446.00	637.60	414.00		
12	95.20	288.00	1113.60	493.60	1181.80	2396.00	2448.00	2182.20	474.40	484.00	620.80	426.00		
13	97.60	251.00	1020.00	472.00	1215.90	2428.00	2444.00	2151.80	469.60	448.00	623.20	450.00		
14	74.80	198.40	920.00	512.80	1253.10	2440.00	2444.00	2113.80	444.00	412.00	623.20	472.00		
15	47.20	198.40	838.80	512.80	1287.20	2436.00	2440.00	2060.60	420.00	384.00	613.60	488.80		
16	49.60	247.40	718.20	570.40	1312.00	2436.00	2440.00	1992.30	422.00	392.00	613.60	467.20		
17	52.00	358.00	601.60	659.20	1376.00	2424.00	2444.00	1933.10	440.00	380.00	608.80	450.00		
18	70.00	505.60	500.80	774.40	1457.50	2404.00	2444.00	1896.10	464.80	390.00	580.00	432.00		
19	73.60	695.20	422.00	852.80	1540.00	2400.00	2444.00	1850.00	481.60	394.00	584.80	392.00		
20	70.00	810.80	380.00	813.60	1597.80	2400.00	2436.00	1804.50	491.20	388.00	570.40	356.00		
21	84.40	808.00	332.00	802.40	1648.80	2400.00	2436.00	1783.50	486.40	396.00	589.60	284.00		
22	96.40	780.00	324.00	824.80	1669.20	2396.00	2436.00	1731.00	448.00	420.00	601.60	219.90		
23	105.60	733.80	324.00	911.60	1669.20	2388.00	2432.00	1689.60	414.00	458.00	601.60	153.60		
24	109.80	702.60	322.00	964.80	1669.20	2384.00	2420.00	1631.80	378.00	458.00	589.60	107.00		
25	102.80	630.40	312.00	981.80	1648.80	2384.00	2420.00	1557.00	358.00	486.40	580.00	98.80		
26	115.40	584.80	306.00	1038.00	1642.00	2376.00	2420.00	1497.10	346.00	505.60	570.40	102.80		
27	102.80	551.20	286.00	1104.30	1638.60	2372.00	2420.00	1421.20	338.00	505.60	560.80	112.60		
28	76.00	632.80	258.20	1150.80	1631.80	2368.00	2420.00	1347.20	310.00	498.40	556.00	100.00		
29	77.20	726.00	251.00	1178.70	1655.60	2364.00	2420.00	1274.80	286.00	498.40	539.20	94.00		
30	118.20	782.80	251.00	1181.80	1713.50	2360.00	2416.00	1191.10	284.00	500.80		85.60		
31		830.40		1169.40	1822.00		2404.00		310.00	496.00		78.40		
Total	2681.00	13334.30	20956.20	23116.80	43803.40	68972.60	75028.00	58721.30	15855.20	12679.20	17259.20	10252.30	362659.50	CMSDAY
Mean	89.40	430.10	698.50	745.70	1413.00	2299.10	2420.30	1957.40	511.50	409.00	595.10	330.70	990.90	CMS
Max	118.20	830.40	1178.70	1181.80	1822.00	2440.00	2448.00	2396.00	1092.00	505.60	666.40	527.20	2448.00	CMS
Min	47.20	128.00	251.00	276.00	1122.90	1910.90	2348.00	1191.10	284.00	278.00	510.40	78.40	47.20	CMS
Runoff	231.64	1152.08	1810.62	1997.29	3784.61	5959.23	6482.42	5073.52	1369.89	1095.48	1491.19	885.8	31333.78	MCM

Momentary Peak 2464.00 CMS. at 9.30 m. (MSL.) at 05.00 Hours , on Sep 14 , 2011

Runoff Yield ***** Liters/Second/Square KM. Momentary Peak Yield ***** Liters/Second/Square KM.

WATER YEAR : 2011

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

Ban Bang Luang **Amphoe** Sanphaya **Changwat** Chai Nat

Drainge Area	117,187 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+0.000 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	B.M.2 - on right bank about 400 meters from the B.M.1 **Elevation** +16.310 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings
Period of Available Gage Records	1947 to date
Rating Operation	
Period of Rating	1953 - 1962, 1965 - 1968, 1972 - 1975 to date
Rated by Flot	-
Rated by Current Meter	1953 - 1962, 1965 - 1968, 1972 - 1975 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	Overbank flow starts at elevation +16.440 m.(MSL.), records are channel flow only.
General Description	Records good. Flow regulated by Chao Phraya Dam above gage site. Stage-discharge relation defined by 42 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

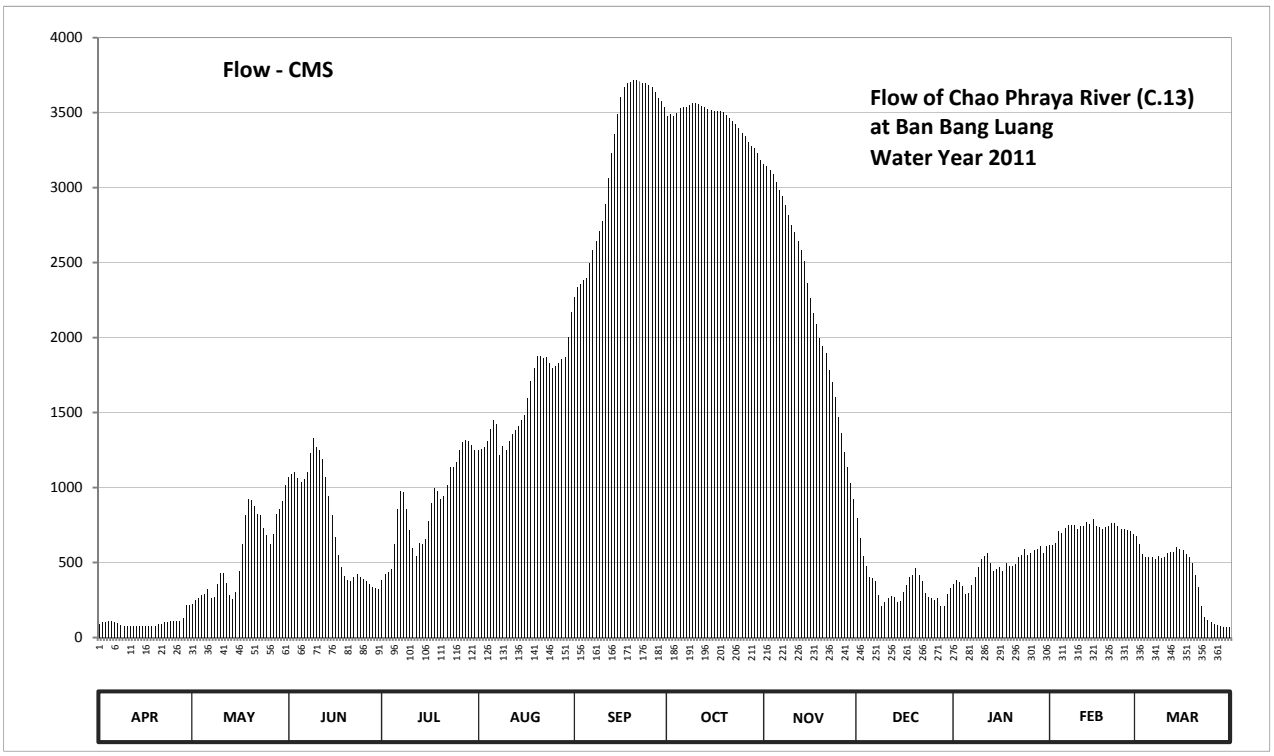
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	6.22	7.61	11.82	8.69	12.42	15.11	17.49	16.93	10.75	8.51	9.94	10.23	
2	6.41	7.82	11.89	8.93	12.45	15.26	17.51	16.90	10.16	8.71	9.94	9.97	
3	6.42	7.89	11.93	9.03	12.49	15.31	17.49	16.86	9.57	8.61	10.02	9.64	
4	6.51	8.02	11.79	9.12	12.63	15.37	17.53	16.81	9.22	8.46	10.38	9.55	
5	6.48	8.10	11.68	9.99	12.88	15.39	17.58	16.70	8.83	8.09	10.32	9.54	
6	6.42	8.31	11.77	11.00	13.06	15.62	17.59	16.61	8.76	8.13	10.47	9.55	
7	6.35	7.91	11.93	11.48	12.98	15.81	17.59	16.53	8.65	8.49	10.56	9.49	
8	6.19	7.96	12.36	11.44	12.32	15.94	17.62	16.42	8.04	8.84	10.55	9.57	
9	6.03	8.52	12.69	11.01	12.52	16.07	17.64	16.28	7.52	9.21	10.56	9.50	
10	6.00	8.99	12.50	10.41	12.44	16.21	17.64	16.16	7.72	9.46	10.43	9.56	
11	6.00	8.96	12.44	9.86	12.63	16.43	17.63	16.06	7.87	9.57	10.53	9.68	
12	6.00	8.57	12.22	9.57	12.77	16.76	17.61	15.94	7.99	9.67	10.54	9.70	
13	6.00	8.04	11.81	10.02	12.86	17.07	17.59	15.81	7.93	9.35	10.66	9.72	
14	6.00	7.86	11.34	9.99	12.94	17.29	17.57	15.66	7.69	9.04	10.60	9.87	
15	6.00	8.20	10.84	10.14	13.06	17.51	17.56	15.32	7.77	9.14	10.72	9.82	
16	6.00	9.05	10.20	10.67	13.17	17.71	17.55	15.09	8.18	9.20	10.54	9.78	
17	6.00	9.98	9.62	11.17	13.47	17.83	17.55	14.87	8.47	9.06	10.49	9.65	
18	6.00	10.84	9.19	11.56	13.76	17.87	17.55	14.69	8.80	9.34	10.44	9.55	
19	6.01	11.28	8.88	11.49	13.97	17.88	17.54	14.47	8.89	9.23	10.49	9.35	
20	6.23	11.25	8.70	11.27	14.17	17.91	17.50	14.33	9.17	9.24	10.53	8.92	
21	6.29	11.10	8.65	11.36	14.17	17.91	17.47	14.22	8.90	9.31	10.61	8.39	
22	6.38	10.87	8.84	11.61	14.14	17.89	17.44	13.94	8.67	9.55	10.61	7.50	
23	6.41	10.85	8.93	12.06	14.16	17.87	17.40	13.74	8.15	9.62	10.52	6.79	
24	6.48	10.48	8.84	12.04	14.06	17.87	17.35	13.48	7.96	9.80	10.44	6.57	
25	6.48	10.25	8.72	12.17	13.97	17.85	17.30	13.13	7.87	9.61	10.45	6.45	
26	6.46	9.98	8.67	12.43	14.01	17.82	17.26	12.79	7.82	9.66	10.41	6.26	
27	6.47	10.30	8.53	12.61	14.06	17.77	17.19	12.39	7.88	9.78	10.38	6.17	
28	6.75	10.87	8.42	12.66	14.12	17.70	17.15	12.05	7.51	9.80	10.30	5.96	
29	7.57	11.01	8.36	12.63	14.15	17.66	17.12	11.67	7.51	9.92	10.20	5.86	
30	7.57	11.22	8.34	12.55	14.49	17.60	17.07	11.27	8.06	9.67		5.85	
31		11.61		12.42	14.88		16.98		8.36	9.91		5.85	
Mean	6.34	9.47	10.40	11.01	13.39	16.94	17.45	14.90	8.41	9.23	10.44	8.53	
Max	7.57	11.61	12.69	12.66	14.88	17.91	17.64	16.93	10.75	9.92	10.72	10.23	17.91
Min	6.00	7.61	8.34	8.69	12.32	15.11	16.98	11.27	7.51	8.09	9.94	5.85	5.85

Annual Max Momentary Gage Height 17.92 m. (MSL.) , at 24.00 Hours , on Sep 21 , 2011

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed 1.56 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, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	87.40	223.40	1071.60	382.40	1246.00	2270.40	3476.20	3158.20	794.00	353.60	616.00	676.60		
2	102.00	252.80	1091.20	421.40	1255.00	2336.40	3487.80	3142.00	661.20	385.60	616.00	622.00		
3	102.80	262.60	1102.40	439.40	1267.00	2358.40	3476.20	3120.40	542.00	369.60	632.00	556.00		
4	110.20	280.80	1063.20	455.60	1309.60	2384.80	3499.40	3093.40	473.60	345.60	709.60	538.00		
5	107.80	292.00	1032.40	626.00	1389.60	2393.60	3528.40	3034.00	404.80	290.60	696.40	536.00		
6	102.80	321.60	1057.60	854.00	1447.20	2494.80	3534.20	2985.40	393.60	296.20	729.40	538.00		
7	97.10	265.40	1102.40	976.80	1421.60	2580.80	3534.20	2943.60	376.00	350.40	749.20	526.00		
8	85.40	272.40	1228.00	966.40	1216.00	2643.20	3551.60	2886.40	283.60	406.40	747.00	542.00		
9	76.50	355.20	1328.80	856.40	1276.00	2707.00	3563.20	2813.60	212.40	471.80	749.20	528.00		
10	75.00	432.20	1270.00	716.20	1252.00	2777.20	3563.20	2752.00	238.80	520.00	720.60	540.00		
11	75.00	426.80	1252.00	600.00	1309.60	2891.60	3557.40	2702.00	259.80	542.00	742.60	564.00		
12	75.00	363.20	1186.00	542.00	1354.40	3066.40	3545.80	2643.20	276.60	562.00	744.80	568.00		
13	75.00	283.60	1068.80	632.00	1383.20	3233.80	3534.20	2580.80	268.20	498.00	772.40	572.00		
14	75.00	258.40	940.40	626.00	1408.80	3360.20	3522.60	2512.40	234.60	441.20	758.00	602.00		
15	75.00	306.00	815.60	656.80	1447.20	3487.80	3516.80	2362.80	245.80	459.20	786.80	592.00		
16	75.00	443.00	670.00	774.80	1483.80	3603.80	3511.00	2261.60	303.20	470.00	744.80	584.00		
17	75.00	624.00	552.00	896.20	1596.60	3673.40	3511.00	2164.80	347.20	444.80	733.80	558.00		
18	75.00	815.60	468.20	998.80	1712.00	3696.60	3511.00	2087.80	400.00	496.00	722.80	538.00		
19	75.50	924.80	412.80	979.40	1796.00	3702.40	3505.20	1996.00	414.40	475.40	733.80	498.00		
20	88.10	917.00	384.00	922.20	1876.00	3720.00	3482.00	1940.00	464.60	477.20	742.60	419.60		
21	92.30	878.00	376.00	945.60	1876.00	3720.00	3464.60	1896.00	416.00	490.00	760.40	334.40		
22	99.60	822.80	406.40	1012.80	1864.00	3708.20	3447.20	1784.00	379.20	538.00	760.40	210.00		
23	102.00	818.00	421.40	1138.80	1872.00	3696.60	3424.00	1704.00	299.00	552.00	740.40	133.20		
24	107.80	731.60	406.40	1133.20	1832.00	3696.60	3395.00	1600.40	272.40	588.00	722.80	115.10		
25	107.80	681.00	387.20	1171.00	1796.00	3685.00	3366.00	1470.20	259.80	550.00	725.00	105.30		
26	106.10	624.00	379.20	1249.00	1812.00	3667.60	3342.80	1360.80	252.80	560.00	716.20	90.20		
27	106.90	692.00	356.80	1303.20	1832.00	3638.60	3302.20	1237.00	261.20	584.00	709.60	84.20		
28	129.90	822.80	339.20	1319.20	1856.00	3598.00	3279.00	1136.00	211.20	588.00	692.00	73.00		
29	218.40	856.40	329.60	1309.60	1868.00	3574.80	3261.60	1029.60	211.20	612.00	670.00	68.00		
30	218.40	909.20	326.40	1285.00	2004.00	3540.00	3233.80	922.20	286.40	562.00		67.50		
31		1012.80		1246.00	2169.20		3185.20		329.60	610.00		67.50		
Total	2999.80	17169.40	22826.00	27436.20	49228.80	95908.00	107112.80	67320.60	10773.20	14889.60	20944.60	12446.60	449055.60	CMSDAY
Mean	100.00	553.90	760.90	885.00	1588.00	3196.90	3455.30	2244.00	347.50	480.30	722.20	401.50	1226.90	CMS
Max	218.40	1012.80	1328.80	1319.20	2169.20	3720.00	3563.20	3158.20	794.00	612.00	786.80	676.60	3720.00	CMS
Min	75.00	223.40	326.40	382.40	1216.00	2270.40	3185.20	922.20	211.20	290.60	616.00	67.50	67.50	CMS
Runoff	259.18	1483.44	1972.17	2370.49	4253.37	8286.45	9254.55	5816.50	930.80	1286.46	1809.61	1075.39	38798.40	MCM

Momentary Peak 3726.00 CMS. at 17.92 m. (MSL.) at 24.00 Hours , on Sep 21 , 2011

Runoff Yield 10.47 Liters/Second/Square KM. Momentary Peak Yield 31.795 Liters/Second/Square KM.

WATER YEAR : 2011

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

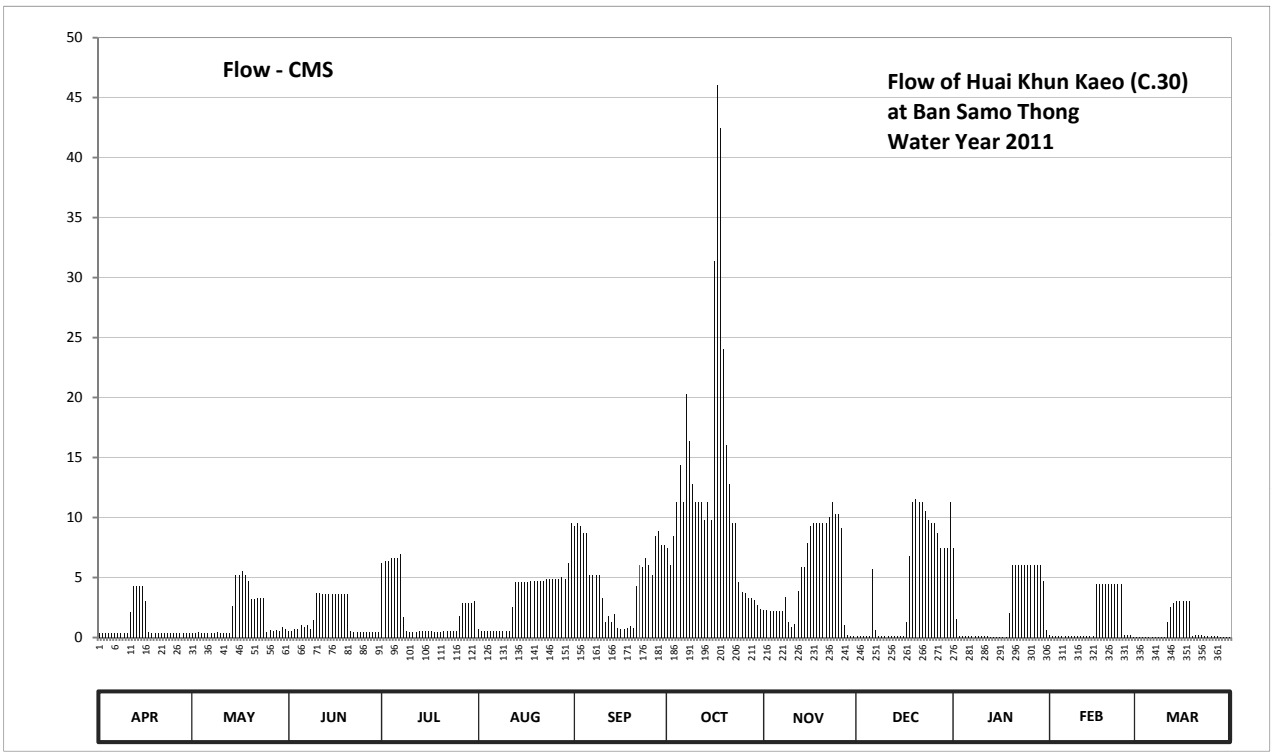
Location : on right bank in front of Wat Samo Thong School

	Ban Samo Thong	**Amphoe** Huai Khot	**Changwat** Uthai Thani		
Drainge Area	227 sq.km.				
Type of Gage	Staff gage				
Zero Gage at Bottom	+101.530 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On right bank about 60 meters from the top staff gage	**Elevation** +111.590 m. (MSL.)			
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours				
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings				
Period of Available Gage Records	1982 to date				
Rating Operation					
Period of Rating	1983 to date				
Rated by Flot	-				
Rated by Current Meter	1983 to date				
Stability of Channel Regimes	Fairly stable.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records good. Stage-discharge relation defined by 13 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	101.69	101.69	101.74	102.34	101.78	102.50	102.41	102.03	101.60	102.41	101.63	101.58	
2	101.69	101.70	101.73	102.35	101.74	102.51	102.33	102.03	101.60	101.93	101.61	101.58	
3	101.69	101.71	101.77	102.35	101.74	102.50	102.46	102.02	101.60	101.60	101.61	101.58	
4	101.69	101.70	101.78	102.36	101.74	102.47	102.58	102.02	101.60	101.60	101.60	101.58	
5	101.69	101.70	101.85	102.36	101.74	102.47	102.68	102.02	101.60	101.60	101.60	101.58	
6	101.69	101.70	101.81	102.36	101.73	102.28	102.58	102.02	102.31	101.60	101.60	101.58	
7	101.69	101.69	101.84	102.38	101.73	102.28	102.85	102.02	101.75	101.60	101.60	101.58	
8	101.69	101.70	101.77	101.96	101.73	102.28	102.74	102.14	101.61	101.60	101.60	101.58	
9	101.69	101.71	101.92	101.73	101.73	102.28	102.63	101.89	101.60	101.60	101.60	101.58	
10	101.69	101.70	102.17	101.72	101.73	102.13	102.58	101.81	101.60	101.60	101.60	101.58	
11	102.01	101.69	102.17	101.71	101.73	101.89	102.58	101.86	101.60	101.60	101.60	101.89	
12	102.22	101.69	102.16	101.71	102.05	101.97	102.58	102.19	101.59	101.60	101.60	102.05	
13	102.22	101.69	102.16	101.74	102.24	101.89	102.52	102.32	101.59	101.58	101.60	102.09	
14	102.22	102.06	102.16	101.74	102.24	101.99	102.58	102.32	101.59	101.58	101.60	102.10	
15	102.22	102.28	102.16	101.74	102.24	101.80	102.52	102.43	101.59	101.58	101.60	102.10	
16	102.10	102.28	102.16	101.74	102.24	101.78	103.12	102.50	101.59	101.58	102.23	102.10	
17	101.72	102.30	102.16	101.73	102.24	101.77	103.42	102.51	101.90	101.58	102.23	102.10	
18	101.70	102.28	102.16	101.72	102.25	101.80	103.35	102.51	102.37	101.58	102.23	102.10	
19	101.70	102.25	102.16	101.72	102.25	101.83	102.95	102.51	102.58	102.00	102.23	101.61	
20	101.70	102.12	102.16	101.72	102.25	101.80	102.73	102.51	102.59	102.33	102.23	101.63	
21	101.70	102.12	101.73	101.73	102.25	102.22	102.63	102.51	102.58	102.33	102.23	101.63	
22	101.70	102.13	101.72	101.73	102.25	102.33	102.51	102.53	102.58	102.33	102.23	101.63	
23	101.70	102.13	101.71	101.73	102.26	102.32	102.51	102.58	102.55	102.33	102.23	101.61	
24	101.70	102.13	101.71	101.73	102.26	102.36	102.24	102.54	102.52	102.33	102.23	101.60	
25	101.69	101.72	101.71	101.73	102.26	102.33	102.18	102.54	102.51	102.33	101.63	101.60	
26	101.69	101.76	101.71	101.97	102.26	102.28	102.17	102.49	102.51	102.33	101.63	101.60	
27	101.69	101.73	101.71	102.09	102.26	102.46	102.13	101.85	102.47	102.33	101.63	101.60	
28	101.69	101.75	101.71	102.09	102.27	102.48	102.13	101.63	102.41	102.33	101.58	101.58	
29	101.69	101.73	101.71	102.09	102.26	102.42	102.11	101.62	102.41	102.33	101.58	101.57	
30	101.69	101.82	101.71	102.09	102.34	102.42	102.07	101.61	102.41	102.25		101.57	
31		101.77		102.10	102.51		102.04		102.58	101.75		101.57	
Mean	101.79	101.88	101.90	101.94	102.07	102.19	102.55	102.19	102.04	101.91	101.80	101.71	
Max	102.22	102.30	102.17	102.38	102.51	102.51	103.42	102.58	102.59	102.41	102.23	102.10	103.42
Min	101.69	101.69	101.71	101.71	101.73	101.77	102.04	101.61	101.59	101.58	101.58	101.57	101.57

Annual Max Momentary Gage Height	103.43	m. (MSL.) ,	at 06.00 Hours , on Oct 17 , 2011		
Zero Gage at Bottom Elevation	101.53	m. (MSL.) ,	River Bed	101.56	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, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.37	0.37	0.56	6.22	0.72	9.30	7.50	2.30	0.10	7.50	0.19	0.08		
2	0.37	0.40	0.52	6.40	0.56	9.55	6.04	2.30	0.10	1.51	0.13	0.08		
3	0.37	0.44	0.68	6.40	0.56	9.30	8.50	2.20	0.10	0.10	0.13	0.08		
4	0.37	0.40	0.72	6.58	0.56	8.70	11.30	2.20	0.10	0.10	0.10	0.08		
5	0.37	0.40	1.05	6.58	0.56	8.70	14.36	2.20	0.10	0.10	0.10	0.08		
6	0.37	0.40	0.85	6.58	0.52	5.20	11.30	2.20	5.68	0.10	0.10	0.08		
7	0.37	0.37	1.00	6.94	0.52	5.20	20.25	2.20	0.60	0.10	0.10	0.08		
8	0.37	0.40	0.68	1.72	0.52	5.20	16.36	3.40	0.13	0.10	0.10	0.08		
9	0.37	0.44	1.44	0.52	0.52	5.20	12.76	1.25	0.10	0.10	0.10	0.08		
10	0.37	0.40	3.70	0.48	0.52	3.30	11.30	0.85	0.10	0.10	0.10	0.08		
11	2.10	0.37	3.70	0.44	0.52	1.25	11.30	1.10	0.10	0.10	0.10	1.25		
12	4.30	0.37	3.60	0.44	2.50	1.79	11.30	3.90	0.09	0.10	0.10	2.50		
13	4.30	0.37	3.60	0.56	4.60	1.25	9.80	5.86	0.09	0.08	0.10	2.90		
14	4.30	2.60	3.60	0.56	4.60	1.93	11.30	5.86	0.09	0.08	0.10	3.00		
15	4.30	5.20	3.60	0.56	4.60	0.80	9.80	7.90	0.09	0.08	0.10	3.00		
16	3.00	5.20	3.60	0.56	4.60	0.72	31.40	9.30	0.09	0.08	4.45	3.00		
17	0.48	5.50	3.60	0.52	4.60	0.68	46.08	9.55	1.30	0.08	4.45	3.00		
18	0.40	5.20	3.60	0.48	4.75	0.80	42.50	9.55	6.76	0.08	4.45	3.00		
19	0.40	4.75	3.60	0.48	4.75	0.95	24.05	9.55	11.30	2.00	4.45	0.13		
20	0.40	3.20	3.60	0.48	4.75	0.80	16.02	9.55	11.55	6.04	4.45	0.19		
21	0.40	3.20	0.52	0.52	4.75	4.30	12.76	9.55	11.30	6.04	4.45	0.19		
22	0.40	3.30	0.48	0.52	4.75	6.04	9.55	10.05	11.30	6.04	4.45	0.19		
23	0.40	3.30	0.44	0.52	4.90	5.86	9.55	11.30	10.55	6.04	4.45	0.13		
24	0.40	3.30	0.44	0.52	4.90	6.58	4.60	10.30	9.80	6.04	4.45	0.10		
25	0.37	0.48	0.44	0.52	4.90	6.04	3.80	10.30	9.55	6.04	0.19	0.10		
26	0.37	0.64	0.44	1.79	4.90	5.20	3.70	9.10	9.55	6.04	0.19	0.10		
27	0.37	0.52	0.44	2.90	4.90	8.50	3.30	1.05	8.70	6.04	0.19	0.10		
28	0.37	0.60	0.44	2.90	5.05	8.90	3.30	0.19	7.50	6.04	0.08	0.08		
29	0.37	0.52	0.44	2.90	4.90	7.70	3.10	0.16	7.50	6.04	0.08	0.07		
30	0.37	0.90	0.44	2.90	6.22	7.70	2.70	0.13	7.50	4.75		0.07		
31		0.68		3.00	9.55		2.40		11.30	0.60		0.07		
Total	31.50	54.22	51.82	72.49	105.55	147.44	391.98	155.35	143.12	78.24	42.43	23.97	1298.11	CMSDAY
Mean	1.05	1.75	1.73	2.34	3.40	4.91	12.64	5.18	4.62	2.52	1.46	0.77	3.55	CMS
Max	4.30	5.50	3.70	6.94	9.55	9.55	46.08	11.30	11.55	7.50	4.45	3.00	46.08	CMS
Min	0.37	0.37	0.44	0.44	0.52	0.68	2.40	0.13	0.09	0.08	0.08	0.07	0.07	CMS
Runoff	2.72	4.69	4.48	6.26	9.12	12.74	33.87	13.42	12.37	6.76	3.67	2.07	112.16	MCM

Momentary Peak 46.62 CMS. at 103.43 m. (MSL.) at 06.00 Hours , on Oct 17 , 2011

Runoff Yield 15.59 Liters/Second/Square KM. Momentary Peak Yield 204.959 Liters/Second/Square KM.

WATER YEAR : 2011

CHAO PHRAYA RIVER BASIN

Chao Phraya River 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.

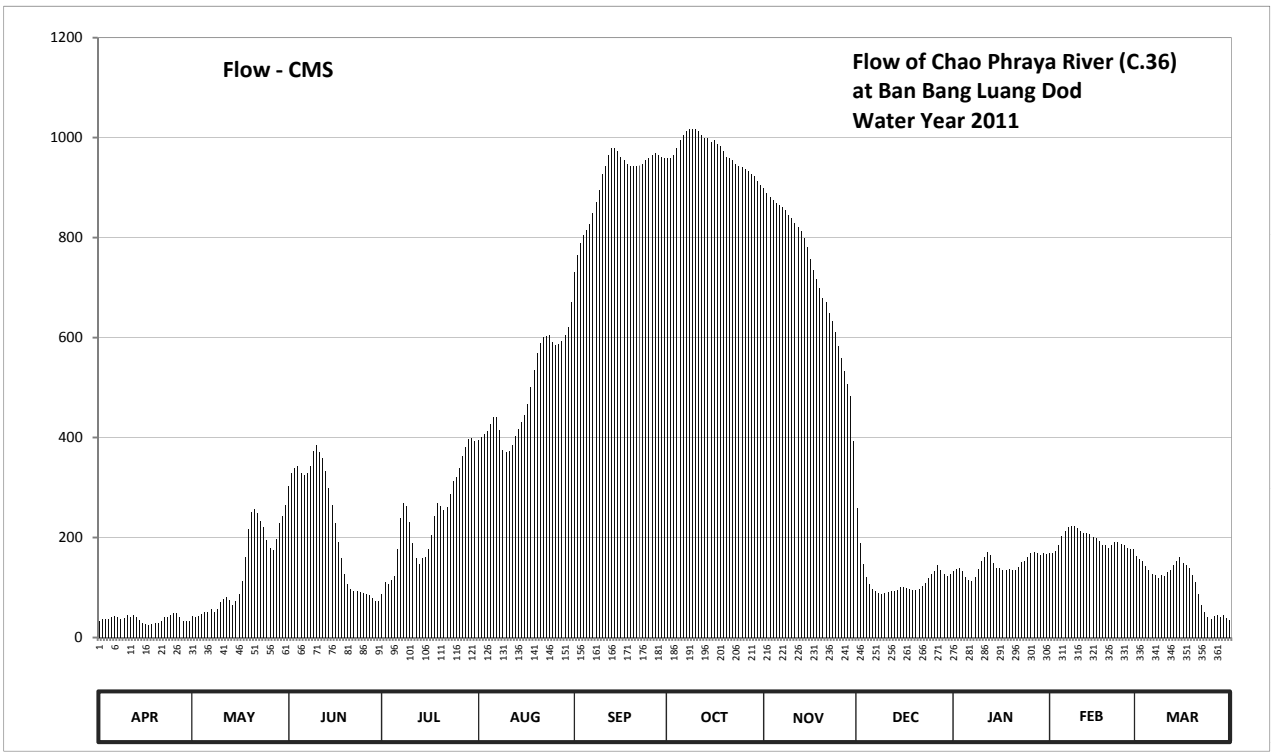
Ban Bang Luang Dod **Amphoe** Bang Ban **Changwat** Phra Nakhon Si Ayutthaya

Drainge Area	Flood Plain
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+0.000 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank near the top staff gage **Elevation** +7.500 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings
Period of Available Gage Records	1982 to date
Rating Operation	
Period of Rating	1983 to date
Rated by Flot	-
Rated by Current Meter	1983 to date
Stability of Channel Regimes	Fairly stable because of backwater effect.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 31 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.30	0.48	3.23	1.13	3.91	5.64	6.38	6.21	4.15	1.69	2.06	2.00	
2	0.38	0.46	3.43	1.43	3.95	5.77	6.38	6.18	3.91	1.73	2.05	1.94	
3	0.37	0.49	3.51	1.38	3.99	5.86	6.40	6.16	3.67	1.76	2.10	1.90	
4	0.38	0.54	3.54	1.49	4.03	5.91	6.44	6.14	3.45	1.69	2.22	1.80	
5	0.43	0.61	3.44	1.57	4.13	5.95	6.48	6.12	3.25	1.56	2.40	1.71	
6	0.48	0.63	3.40	2.15	4.22	5.99	6.51	6.11	3.10	1.49	2.49	1.62	
7	0.44	0.70	3.44	2.72	4.22	6.06	6.53	6.10	3.01	1.45	2.56	1.59	
8	0.36	0.62	3.54	2.97	4.04	6.13	6.54	6.08	2.90	1.56	2.58	1.54	
9	0.40	0.72	3.76	2.93	3.78	6.20	6.54	6.05	2.72	1.73	2.58	1.59	
10	0.51	0.92	3.85	2.64	3.74	6.29	6.54	6.03	2.58	1.89	2.53	1.58	
11	0.45	1.01	3.75	2.26	3.76	6.34	6.53	6.00	2.52	1.98	2.49	1.66	
12	0.50	1.05	3.66	1.96	3.85	6.40	6.51	5.97	2.50	2.09	2.45	1.72	
13	0.46	0.98	3.47	1.84	3.97	6.44	6.49	5.94	2.46	2.01	2.45	1.82	
14	0.35	0.84	3.21	1.95	4.06	6.44	6.49	5.89	2.36	1.86	2.43	1.90	
15	0.19	0.93	2.95	1.98	4.15	6.42	6.47	5.83	2.27	1.76	2.38	1.97	
16	0.14	1.13	2.63	2.13	4.24	6.39	6.48	5.74	2.25	1.76	2.35	1.86	
17	0.12	1.45	2.27	2.41	4.38	6.37	6.46	5.66	2.29	1.70	2.30	1.82	
18	0.17	1.97	1.95	2.76	4.59	6.35	6.45	5.59	2.34	1.71	2.22	1.75	
19	0.21	2.51	1.63	2.98	4.77	6.34	6.42	5.52	2.36	1.74	2.22	1.59	
20	0.21	2.83	1.39	2.92	4.94	6.34	6.39	5.44	2.36	1.70	2.17	1.43	
21	0.30	2.87	1.26	2.85	5.04	6.34	6.38	5.40	2.33	1.71	2.23	1.14	
22	0.43	2.80	1.20	2.91	5.09	6.34	6.37	5.31	2.23	1.77	2.27	0.84	
23	0.46	2.66	1.22	3.12	5.10	6.35	6.35	5.24	2.13	1.88	2.27	0.62	
24	0.52	2.55	1.19	3.31	5.11	6.37	6.34	5.14	2.01	1.91	2.25	0.43	
25	0.59	2.32	1.15	3.38	5.05	6.38	6.33	5.01	1.93	1.99	2.21	0.39	
26	0.59	2.16	1.13	3.51	5.02	6.40	6.32	4.89	1.88	2.06	2.16	0.49	
27	0.46	2.11	1.10	3.69	5.03	6.41	6.31	4.76	1.82	2.08	2.15	0.53	
28	0.29	2.34	1.03	3.82	5.06	6.40	6.29	4.63	1.71	2.05	2.13	0.46	
29	0.27	2.62	0.93	3.92	5.11	6.39	6.28	4.49	1.61	2.02	2.03	0.53	
30	0.27	2.75	0.95	3.94	5.19	6.38	6.25	4.33	1.58	2.05		0.40	
31		2.95		3.90	5.40		6.23		1.63	2.03		0.35	
Mean	0.37	1.58	2.44	2.64	4.48	6.25	6.42	5.60	2.49	1.82	2.30	1.32	
Max	0.59	2.95	3.85	3.94	5.40	6.44	6.54	6.21	4.15	2.09	2.58	2.00	6.54
Min	0.12	0.46	0.93	1.13	3.74	5.64	6.23	4.33	1.58	1.45	2.03	0.35	0.12

Annual Max Momentary Gage Height	6.56	m. (MSL.) ,	at 05.00 Hours , on Oct 10 , 2011	
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed -5.09	m. (MSL)
Left Bank Elevation	7.05	m. (MSL.) ,		
Right Bank Elevation	7.68	m. (MSL.) ,	Drainage Area	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	33.00	42.80	301.90	86.40	394.50	730.40	958.00	898.50	260.00	133.10	169.00	163.00		
2	37.00	41.60	327.90	110.40	400.50	764.90	958.00	888.40	189.30	136.70	168.00	157.00		
3	36.50	43.40	338.30	106.40	406.50	789.80	965.00	881.80	147.10	139.40	173.00	153.00		
4	37.00	46.40	342.20	115.20	412.50	803.90	979.80	875.20	122.00	133.10	185.00	143.00		
5	39.80	50.60	329.20	122.30	427.50	815.50	994.60	868.60	106.50	121.40	204.00	134.90		
6	42.80	51.80	324.00	178.00	441.00	827.10	1005.80	865.30	96.00	115.20	213.90	126.80		
7	40.40	56.00	329.20	239.20	441.00	849.20	1013.40	862.00	93.30	112.00	221.60	124.10		
8	36.00	51.20	342.20	268.40	414.00	871.90	1017.20	855.60	90.00	121.40	223.80	119.60		
9	38.00	57.40	372.40	263.60	375.20	895.00	1017.20	846.00	87.20	136.70	223.80	124.10		
10	44.60	71.40	385.50	230.40	369.60	926.50	1017.20	839.60	88.80	152.00	218.30	123.20		
11	41.00	77.70	371.00	189.00	372.40	944.00	1013.40	830.00	91.20	161.00	213.90	130.40		
12	44.00	80.50	358.40	159.00	385.50	965.00	1005.80	821.30	92.00	172.00	209.50	135.80		
13	41.60	75.60	333.10	147.00	403.50	979.80	998.30	812.60	92.80	164.00	209.50	145.00		
14	35.50	65.80	299.30	158.00	417.00	979.80	998.30	798.20	95.60	149.00	207.30	153.00		
15	28.60	72.10	266.00	161.00	430.50	972.40	990.90	781.40	100.10	139.40	201.80	160.00		
16	26.60	86.40	229.30	176.00	444.00	961.50	994.60	756.80	101.50	139.40	198.50	149.00		
17	25.80	112.00	190.00	205.10	465.80	954.50	987.20	735.60	98.70	134.00	193.00	145.00		
18	27.80	160.00	158.00	243.60	500.30	947.50	983.50	717.40	96.40	134.90	185.00	138.50		
19	29.40	216.10	127.70	269.60	534.00	944.00	972.40	699.20	95.60	137.60	185.00	124.10		
20	29.40	251.60	107.20	262.40	568.00	944.00	961.50	679.60	95.60	134.00	180.00	110.40		
21	33.00	256.40	96.80	254.00	588.80	944.00	958.00	670.00	96.80	134.90	186.00	87.20		
22	39.80	248.00	92.00	261.20	599.80	944.00	954.50	648.40	102.90	140.30	190.00	65.80		
23	41.60	232.60	93.60	287.60	602.00	947.50	947.50	632.80	108.50	151.00	190.00	51.20		
24	45.20	220.50	91.20	312.30	604.20	954.50	944.00	610.80	119.00	154.00	188.00	39.80		
25	49.40	195.20	88.00	321.40	591.00	958.00	940.50	582.20	127.00	162.00	184.00	37.50		
26	49.40	179.00	86.40	338.30	584.40	965.00	937.00	558.00	132.60	169.00	179.00	43.40		
27	41.60	174.00	84.00	362.60	586.60	968.70	933.50	532.00	145.00	171.00	178.00	45.80		
28	32.60	197.40	79.10	381.00	593.20	965.00	926.50	507.40	134.90	168.00	176.00	41.60		
29	31.80	228.20	72.10	396.00	604.20	961.50	923.00	483.40	125.90	165.00	166.00	45.80		
30	31.80	242.50	73.50	399.00	621.80	958.00	912.50	392.70	123.20	168.00		38.00		
31		266.00		393.00	670.00		905.50		127.70	166.00		35.50		
Total	1111.00	4150.20	6689.50	7397.40	15249.30	27432.90	30114.60	21930.80	3583.20	4515.50	5620.90	3291.50	131086.80	CMSDAY
Mean	37.00	133.90	223.00	238.60	491.90	914.40	971.40	731.00	115.60	145.70	193.80	106.20	358.20	CMS
Max	49.40	266.00	385.50	399.00	670.00	979.80	1017.20	898.50	260.00	172.00	223.80	163.00	1017.20	CMS
Min	25.80	41.60	72.10	86.40	369.60	730.40	905.50	392.70	87.20	112.00	166.00	35.50	25.80	CMS
Runoff	95.99	358.58	577.97	639.14	1317.54	2370.20	2601.90	1894.82	309.59	390.14	485.65	284.39	11325.90	MCM

Momentary Peak 1024.80 CMS. at 6.56 m. (MSL.) at 05.00 Hours , on Oct 10 , 2011

Runoff Yield ***** Liters/Second/Square KM. Momentary Peak Yield ***** Liters/Second/Square KM.

WATER YEAR : 2011

CHAO PHRAYA RIVER BASIN

Chao Phraya River at Ban Bang Ban, Phra Nakhon Si Ayutthaya (C.37)

Lat 14 - 21 - 28 N Long 100 - 29 - 03 E

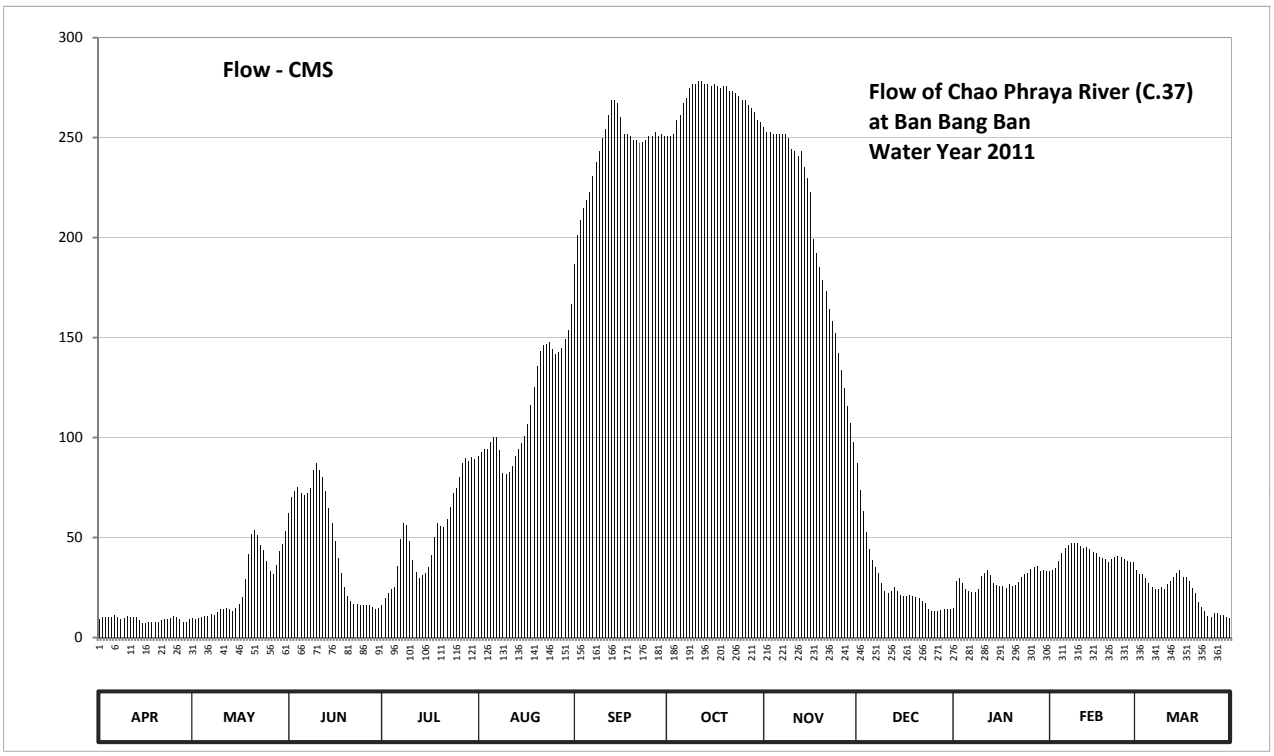
Location : on left bank at the bridge.

	Ban Bang Ban	**Amphoe** Bang Ban		**Changwat** Phra Nakhon Si Ayutthaya	
Drainge Area	Flood Plain				
Type of Gage	Water - stage recorder				
Zero Gage at Bottom	+0.000 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On left bank near the top staff gage			**Elevation**	+7.703 m. (MSL.)
Gage Reading Frequency	Recording				
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings				
Period of Available Gage Records	1982 to date				
Rating Operation					
Period of Rating	1983 to date				
Rated by Flot	-				
Rated by Current Meter	1983 to date				
Stability of Channel Regimes	Fairly stable because of backwater effect.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records good. Stage-discharge relation defined by 34 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.32	0.36	2.51	0.82	3.17	4.64	5.28	5.32	3.72	1.34	1.60	1.62	
2	0.42	0.33	2.71	1.04	3.22	4.80	5.28	5.30	3.52	1.42	1.62	1.56	
3	0.41	0.36	2.78	1.17	3.25	4.88	5.29	5.30	3.33	1.49	1.66	1.55	
4	0.41	0.41	2.83	1.26	3.25	4.94	5.35	5.29	3.14	1.38	1.77	1.48	
5	0.42	0.45	2.76	1.31	3.33	4.98	5.37	5.29	2.96	1.26	1.91	1.38	
6	0.48	0.44	2.73	1.69	3.38	5.02	5.42	5.29	2.82	1.22	1.99	1.31	
7	0.43	0.51	2.75	2.14	3.38	5.10	5.44	5.29	2.73	1.18	2.05	1.27	
8	0.34	0.47	2.82	2.37	3.24	5.16	5.48	5.29	2.65	1.19	2.07	1.25	
9	0.36	0.59	3.01	2.34	2.98	5.21	5.50	5.27	2.50	1.27	2.08	1.30	
10	0.45	0.70	3.09	2.11	2.97	5.27	5.50	5.22	2.37	1.52	2.08	1.27	
11	0.41	0.69	3.01	1.79	2.99	5.31	5.51	5.21	2.30	1.57	2.02	1.37	
12	0.43	0.71	2.94	1.59	3.06	5.37	5.51	5.19	2.37	1.63	2.00	1.43	
13	0.43	0.67	2.78	1.49	3.17	5.43	5.50	5.21	2.44	1.54	2.01	1.51	
14	0.28	0.62	2.57	1.54	3.25	5.43	5.50	5.14	2.35	1.39	1.98	1.57	
15	0.12	0.73	2.36	1.57	3.32	5.42	5.49	5.09	2.27	1.35	1.92	1.63	
16	0.14	0.84	2.10	1.67	3.39	5.36	5.50	5.02	2.23	1.33	1.90	1.51	
17	0.17	1.05	1.82	1.88	3.51	5.29	5.49	4.91	2.23	1.33	1.85	1.50	
18	0.19	1.46	1.58	2.17	3.67	5.29	5.48	4.86	2.25	1.29	1.82	1.43	
19	0.19	1.89	1.31	2.37	3.82	5.28	5.49	4.81	2.24	1.37	1.81	1.29	
20	0.15	2.20	1.09	2.32	3.98	5.26	5.49	4.75	2.22	1.33	1.76	1.16	
21	0.27	2.26	0.96	2.31	4.09	5.26	5.47	4.70	2.19	1.34	1.81	0.92	
22	0.31	2.19	0.86	2.42	4.13	5.25	5.47	4.62	2.10	1.40	1.84	0.76	
23	0.33	2.05	0.85	2.58	4.14	5.25	5.46	4.56	2.05	1.51	1.86	0.60	
24	0.37	1.96	0.82	2.76	4.15	5.26	5.45	4.50	1.83	1.55	1.85	0.45	
25	0.44	1.77	0.81	2.82	4.10	5.28	5.43	4.41	1.60	1.58	1.80	0.43	
26	0.43	1.61	0.81	2.94	4.07	5.28	5.43	4.32	1.68	1.64	1.77	0.54	
27	0.31	1.55	0.82	3.09	4.08	5.30	5.41	4.22	1.60	1.68	1.76	0.56	
28	0.17	1.70	0.75	3.15	4.11	5.28	5.40	4.11	1.49	1.69	1.75	0.48	
29	0.18	1.94	0.68	3.11	4.17	5.29	5.38	4.00	1.39	1.61	1.65	0.47	
30	0.31	2.06	0.72	3.16	4.24	5.28	5.35	3.87	1.36	1.62		0.40	
31		2.25		3.14	4.41		5.34		1.35	1.60		0.35	
Mean	0.32	1.19	1.92	2.13	3.61	5.21	5.43	4.88	2.30	1.44	1.86	1.11	
Max	0.48	2.26	3.09	3.16	4.41	5.43	5.51	5.32	3.72	1.69	2.08	1.63	5.51
Min	0.12	0.33	0.68	0.82	2.97	4.64	5.28	3.87	1.35	1.18	1.60	0.35	0.12

Annual Max Momentary Gage Height	5.54	m. (MSL.) ,	at 21.00 Hours , on Oct 12 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	-3.13	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, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	9.20	9.60	62.40	16.30	90.65	186.60	250.80	255.40	87.40	14.60	33.00	33.60		
2	10.30	9.30	70.40	19.80	92.90	201.00	250.80	253.00	73.80	28.00	33.60	31.80		
3	10.15	9.60	73.20	22.40	94.25	209.00	251.90	253.00	63.15	29.75	34.80	31.50		
4	10.15	10.15	75.35	24.20	94.25	215.00	259.00	251.90	53.00	27.00	38.10	29.50		
5	10.30	10.75	72.40	25.25	97.85	219.00	261.40	251.90	44.40	24.20	42.30	27.00		
6	11.20	10.60	71.20	35.70	100.10	223.00	267.40	251.90	38.80	23.40	44.70	25.25		
7	10.45	11.65	72.00	49.40	100.10	231.00	269.80	251.90	35.20	22.60	46.50	24.40		
8	9.40	11.05	74.90	57.45	93.80	237.60	274.60	251.90	32.00	22.80	47.10	24.00		
9	9.60	12.85	83.45	56.40	82.10	243.10	277.00	249.70	27.00	24.40	47.40	25.00		
10	10.75	14.50	87.05	48.35	81.65	249.70	277.00	244.20	23.40	30.60	47.40	24.40		
11	10.15	14.35	83.45	38.70	82.55	254.20	278.20	243.10	22.00	32.10	45.60	26.75		
12	10.45	14.65	80.30	32.70	85.70	261.40	278.20	240.90	23.40	33.90	45.00	28.25		
13	10.45	14.05	73.20	29.75	90.65	268.60	277.00	243.10	25.20	31.20	45.30	30.30		
14	8.80	13.30	64.80	31.20	94.25	268.60	277.00	235.40	23.00	27.25	44.40	32.10		
15	7.20	14.95	57.10	32.10	97.40	267.40	275.80	230.00	21.40	26.25	42.60	33.90		
16	7.40	16.60	48.00	35.10	100.55	260.20	277.00	223.00	20.60	25.75	42.00	30.30		
17	7.70	20.00	39.60	41.40	106.60	251.90	275.80	199.20	20.60	25.75	40.50	30.00		
18	7.90	29.00	32.40	50.45	116.20	251.90	274.60	192.40	21.00	24.80	39.60	28.25		
19	7.90	41.70	25.25	57.45	125.20	250.80	275.80	185.40	20.80	26.75	39.30	24.80		
20	7.50	51.50	20.80	55.70	135.60	248.60	275.80	178.50	20.40	25.75	37.80	22.20		
21	8.70	53.60	18.40	55.35	143.30	248.60	273.40	173.00	19.80	26.00	39.30	17.80		
22	9.10	51.15	16.90	59.20	146.10	247.50	273.40	164.20	18.00	27.50	40.20	15.40		
23	9.30	46.50	16.75	65.20	146.80	247.50	272.20	158.00	17.00	30.30	40.80	13.00		
24	9.70	43.80	16.30	72.40	147.50	248.60	271.00	152.00	14.30	31.50	40.50	10.75		
25	10.60	38.10	16.15	74.90	144.00	250.80	268.60	142.10	13.00	32.40	39.00	10.45		
26	10.45	33.30	16.15	80.30	141.90	250.80	268.60	133.80	13.40	34.20	38.10	12.10		
27	9.10	31.50	16.30	87.05	142.60	253.00	266.20	124.80	13.00	35.40	37.80	12.40		
28	7.70	36.00	15.25	89.75	144.70	250.80	265.00	115.80	13.55	35.70	37.50	11.20		
29	7.80	43.20	14.20	87.95	148.90	251.90	262.60	107.00	14.10	33.30	34.50	11.05		
30	9.10	46.80	14.80	90.20	153.80	250.80	259.00	97.90	14.40	33.60		10.00		
31		53.25		89.30	166.80		257.80		14.50	33.00		9.50		
Total	278.50	817.35	1428.45	1611.40	3588.75	7298.90	8342.70	6054.40	861.60	879.75	1184.70	696.95	33043.45	CMSDAY
Mean	9.28	26.37	47.62	51.98	115.77	243.30	269.12	201.81	27.79	28.38	40.85	22.48	90.28	CMS
Max	11.20	53.60	87.05	90.20	166.80	268.60	278.20	255.40	87.40	35.70	47.40	33.90	278.20	CMS
Min	7.20	9.30	14.20	16.30	81.65	186.60	250.80	97.90	13.00	14.60	33.00	9.50	7.20	CMS
Runoff	24.06	70.62	123.42	139.23	310.07	630.63	720.81	523.10	74.44	76.01	102.36	60.22	2854.95	MCM

Momentary Peak 281.80 CMS. at 5.54 m. (MSL.) at 21.00 Hours , on Oct 12 , 2011

Runoff Yield ***** Liters/Second/Square KM. Momentary Peak Yield ***** Liters/Second/Square KM.

WATER YEAR : 2011

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

	Ban In Buri	**Amphoe** In Buri	**Changwat** Sing Buri		
Drainge Area	118,510 sq.km.				
Type of Gage	Water - stage recorder				
Zero Gage at Bottom	+0.000 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On right bank near the gage site		**Elevation** +13.856 m. (MSL.)		
Gage Reading Frequency	Recording				
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings				
Period of Available Gage Records	2005 to date				
Rating Operation					
Period of Rating	2005 to date				
Rated by Flot	-				
Rated by Current Meter	2005 to date				
Stability of Channel Regimes	Fairly stable				
Overbank Flow Conditions	Overbank flow starts at elevation +12.180 m.(MSL.), records are channel flow only.				
General Description	Records good. Stage-discharge relation defined by 16 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

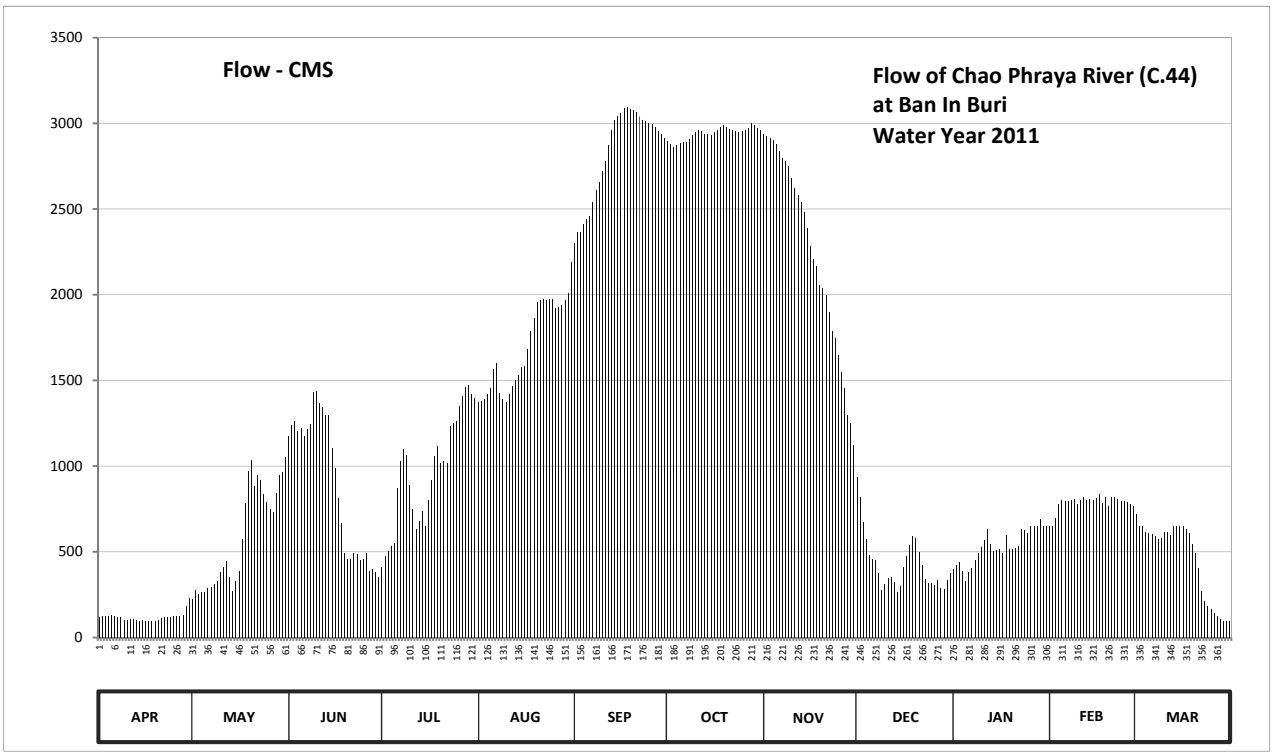
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	4.39	5.48	10.10	6.74	10.75	13.39	14.89	15.00	9.23	6.65	8.00	8.34	
2	4.43	5.87	10.32	7.09	10.77	13.56	14.85	14.97	8.78	6.78	8.00	8.00	
3	4.48	5.70	10.38	7.25	10.80	13.56	14.80	14.93	8.12	6.90	8.22	8.00	
4	4.43	5.79	10.20	7.40	10.90	13.68	14.84	14.90	7.64	6.60	8.59	7.83	
5	4.54	5.80	10.25	7.50	11.00	13.75	14.86	14.85	7.13	6.25	8.70	7.80	
6	4.48	5.96	10.10	8.98	11.35	13.80	14.88	14.75	6.99	6.55	8.68	7.78	
7	4.42	5.99	10.23	9.60	11.45	14.00	14.88	14.65	6.95	6.70	8.68	7.73	
8	4.35	6.12	10.34	9.85	10.92	14.18	14.92	14.60	6.53	6.97	8.70	7.63	
9	4.14	6.25	10.93	9.72	10.80	14.30	14.98	14.52	5.89	7.20	8.73	7.65	
10	4.13	6.57	10.95	9.05	10.75	14.45	15.02	14.35	6.10	7.38	8.60	7.84	
11	4.18	6.72	10.74	8.45	10.90	14.60	15.05	14.20	6.36	7.60	8.69	7.85	
12	4.15	6.94	10.67	7.92	11.05	14.83	15.03	14.10	6.40	7.93	8.78	7.75	
13	4.10	6.38	10.50	8.15	11.15	15.05	15.00	14.00	6.18	7.46	8.71	8.00	
14	4.04	5.85	10.50	8.40	11.25	15.20	15.00	13.86	5.80	7.25	8.72	8.00	
15	4.08	6.23	9.86	8.00	11.38	15.25	14.98	13.62	6.02	7.28	8.71	8.00	
16	4.02	6.60	9.45	8.69	11.40	15.30	15.02	13.35	6.73	7.31	8.74	8.00	
17	3.98	7.64	8.75	9.18	11.69	15.37	15.05	13.15	7.08	7.19	8.84	7.93	
18	4.03	8.61	8.10	9.70	12.00	15.38	15.09	13.05	7.43	7.75	8.61	7.80	
19	4.05	9.38	7.18	9.90	12.21	15.36	15.12	12.75	7.73	7.30	8.76	7.48	
20	4.13	9.62	7.00	9.57	12.48	15.35	15.09	12.70	7.66	7.32	8.54	7.19	
21	4.28	9.04	6.98	9.60	12.50	15.31	15.07	12.60	7.21	7.35	8.78	6.70	
22	4.35	9.28	7.20	9.57	12.52	15.25	15.06	12.30	6.78	7.42	8.77	5.85	
23	4.36	9.17	7.15	10.30	12.50	15.20	15.04	12.00	6.32	7.93	8.73	5.40	
24	4.40	8.85	6.95	10.35	12.53	15.18	15.02	11.87	6.14	7.90	8.66	5.16	
25	4.43	8.65	7.00	10.38	12.53	15.15	15.04	11.60	6.16	7.80	8.68	4.93	
26	4.43	8.45	7.20	10.68	12.37	15.14	15.06	11.30	6.06	8.00	8.65	4.69	
27	4.43	8.39	6.60	10.86	12.40	15.09	15.08	11.00	6.28	8.00	8.60	4.43	
28	4.52	8.86	6.67	11.03	12.42	15.04	15.15	10.50	5.96	8.00	8.53	4.15	
29	5.16	9.29	6.55	11.07	12.50	15.00	15.12	10.35	5.93	8.20	8.39	4.05	
30	5.55	9.36	6.40	10.90	12.62	14.94	15.08	9.92	6.28	8.00		4.02	
31		9.68		10.82	13.10		15.06		6.52	8.00		3.98	
Mean	4.35	7.50	8.84	9.25	11.71	14.72	15.00	13.19	6.79	7.39	8.61	6.77	
Max	5.55	9.68	10.95	11.07	13.10	15.38	15.15	15.00	9.23	8.20	8.84	8.34	15.38
Min	3.98	5.48	6.40	6.74	10.75	13.39	14.80	9.92	5.80	6.25	8.00	3.98	3.98

Annual Max Momentary Gage Height 15.38 m. (MSL.) , at 06.00 Hours , on Sep 18 , 2011

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed 2.00 m. (MSL)

Left Bank Elevation 12.18 m. (MSL.) ,

Right Bank Elevation 13.65 m. (MSL.) , Drainage Area 118510 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	120.30	221.60	1175.00	413.20	1372.00	2298.20	2896.00	2940.00	932.50	397.50	648.00	722.80		
2	123.10	275.80	1241.00	476.20	1378.40	2364.00	2880.00	2928.00	821.20	420.40	648.00	648.00		
3	126.60	252.00	1259.00	505.00	1388.00	2364.00	2860.00	2912.00	674.40	442.00	696.40	648.00		
4	123.10	264.60	1205.00	532.00	1420.00	2412.00	2876.00	2900.00	576.00	389.00	777.80	614.00		
5	130.80	266.00	1220.00	550.00	1452.00	2440.00	2884.00	2880.00	483.40	332.50	802.00	608.00		
6	126.60	289.00	1175.00	870.00	1566.50	2460.00	2892.00	2840.00	458.20	380.50	797.60	604.00		
7	122.40	293.50	1214.00	1028.00	1599.50	2540.00	2892.00	2800.00	451.00	406.00	797.60	594.00		
8	117.50	313.00	1247.00	1100.50	1426.40	2612.00	2908.00	2780.00	377.10	454.60	802.00	574.00		
9	104.40	332.50	1429.60	1062.80	1388.00	2660.00	2932.00	2748.00	278.60	496.00	809.20	578.00		
10	103.80	383.90	1436.00	887.50	1372.00	2720.00	2948.00	2680.00	310.00	528.40	780.00	616.00		
11	106.80	409.60	1368.80	747.00	1420.00	2780.00	2960.00	2620.00	349.00	568.00	799.80	618.00		
12	105.00	449.20	1346.70	632.00	1468.00	2872.00	2952.00	2580.00	355.00	634.00	821.20	598.00		
13	102.00	352.00	1295.00	681.00	1500.50	2960.00	2940.00	2540.00	322.00	542.80	804.40	648.00		
14	98.40	273.00	1295.00	736.00	1533.50	3020.00	2940.00	2484.00	266.00	505.00	806.80	648.00		
15	100.80	329.50	1103.40	648.00	1576.40	3040.00	2932.00	2388.00	298.00	510.40	804.40	648.00		
16	97.20	389.00	987.50	799.80	1583.00	3060.00	2948.00	2283.00	411.40	515.80	811.60	648.00		
17	94.80	576.00	814.00	920.00	1681.50	3088.00	2960.00	2207.00	474.40	494.20	835.60	634.00		
18	97.80	782.20	670.00	1057.00	1790.00	3092.00	2976.00	2169.00	537.40	598.00	782.20	608.00		
19	99.00	970.00	492.40	1115.00	1863.50	3084.00	2988.00	2055.00	594.00	514.00	816.40	546.40		
20	103.80	1033.80	460.00	1019.60	1958.00	3080.00	2976.00	2036.00	580.00	517.60	766.80	494.20		
21	112.80	885.00	456.40	1028.00	1965.00	3064.00	2968.00	2000.00	497.80	523.00	821.20	406.00		
22	117.50	945.00	496.00	1019.60	1972.00	3040.00	2964.00	1895.00	420.40	535.60	818.80	273.00		
23	118.20	917.50	487.00	1235.00	1965.00	3020.00	2956.00	1790.00	343.00	634.00	809.20	212.00		
24	121.00	838.00	451.00	1250.00	1975.50	3012.00	2948.00	1744.50	316.00	628.00	793.20	186.00		
25	123.10	791.00	460.00	1259.00	1975.50	3000.00	2956.00	1650.00	319.00	608.00	797.60	163.00		
26	123.10	747.00	496.00	1349.80	1919.50	2996.00	2964.00	1550.00	304.00	648.00	791.00	142.20		
27	123.10	733.80	389.00	1407.20	1930.00	2976.00	2972.00	1452.00	337.00	648.00	780.00	123.10		
28	129.40	840.40	400.90	1461.60	1937.00	2956.00	3000.00	1295.00	289.00	648.00	764.60	105.00		
29	186.00	947.50	380.50	1474.40	1965.00	2940.00	2988.00	1250.00	284.50	692.00	733.80	99.00		
30	231.00	965.00	355.00	1420.00	2007.20	2916.00	2972.00	1121.00	337.00	648.00		97.20		
31		1051.20		1394.40	2188.00		2964.00		375.40	648.00		94.80		
Total	3589.40	18117.60	26806.20	30079.60	52536.90	84866.20	91192.00	67517.50	13372.70	16507.30	22717.20	14198.70	441501.30	CMSDAY
Mean	119.60	584.40	893.50	970.30	1694.70	2828.90	2941.70	2250.60	431.40	532.50	783.40	458.00	1206.30	CMS
Max	231.00	1051.20	1436.00	1474.40	2188.00	3092.00	3000.00	2940.00	932.50	692.00	835.60	722.80	3092.00	CMS
Min	94.80	221.60	355.00	413.20	1372.00	2298.20	2860.00	1121.00	266.00	332.50	648.00	94.80	94.80	CMS
Runoff	310.12	1565.36	2316.06	2598.88	4539.19	7332.44	7878.99	5833.51	1155.4	1426.23	1962.77	1226.77	38145.71	MCM

Momentary Peak 3092.00 CMS. at 15.38 m. (MSL.) at 06.00 Hours , on Sep 18 , 2011

Runoff Yield 10.18 Liters/Second/Square KM. Momentary Peak Yield 26.091 Liters/Second/Square KM.

WATER YEAR : 2011

CHAO PHRAYA RIVER BASIN

Huai Khun Kaeo at Ban Ngiu Ngam, Uthai Thani (C.50)

Lat 15 - 18 - 23 N Long 99 - 51 - 15 E

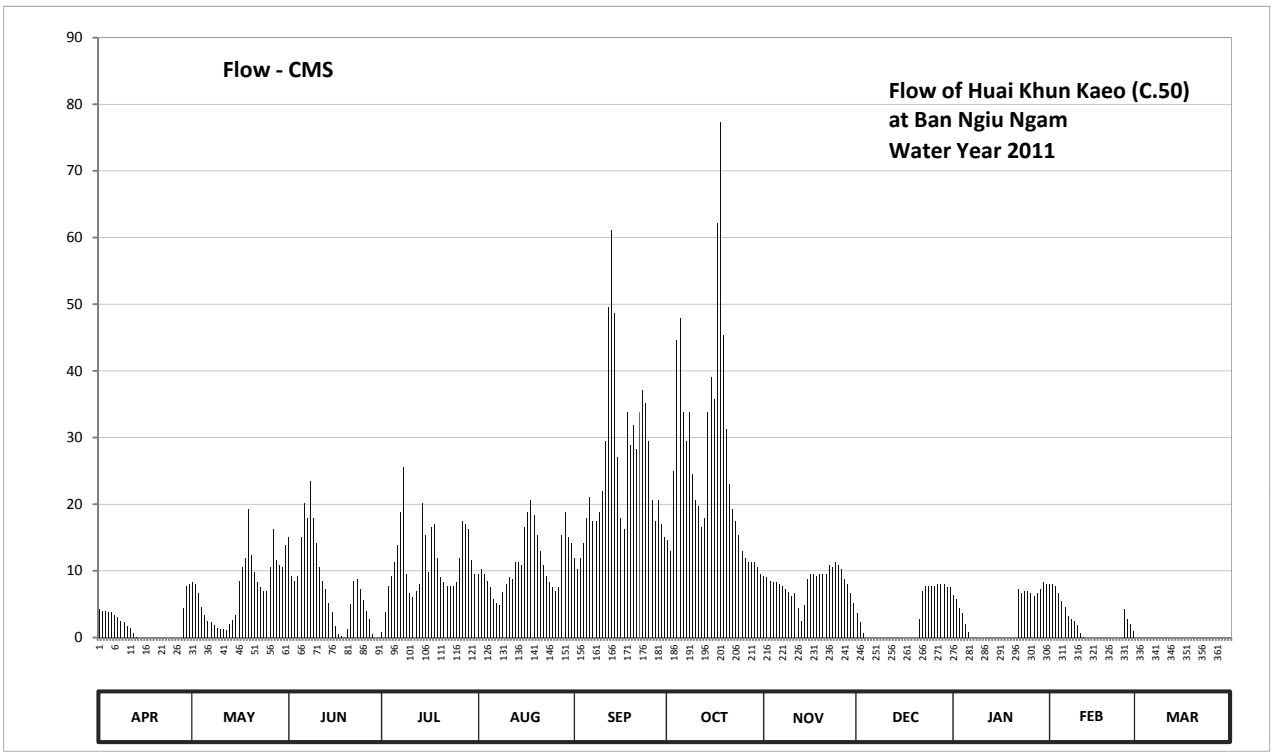
Location : on right bank at the bridge

	Ban Ngiu Ngam	**Amphoe** Nong Chang	**Changwat** Uthai Thani
Drainge Area	- sq.km.		
Type of Gage	Staff gage.		
Zero Gage at Bottom	+45.100 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank near the gage site	**Elevation**	+50.716 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	1996 to date		
Rating Operation			
Period of Rating	1996 to date		
Rated by Flot	-		
Rated by Current Meter	1996 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 3 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	47.76	47.95	48.15	47.52	48.00	48.07	48.14	47.99	47.73	47.87	47.94	47.29	
2	47.75	47.94	47.99	47.74	48.02	48.02	48.10	47.98	47.64	47.84	47.94	47.08	
3	47.75	47.88	47.96	47.93	48.00	48.07	48.37	47.96	47.50	47.77	47.93	46.90	
4	47.74	47.78	47.99	47.99	47.96	48.13	48.67	47.95	47.36	47.73	47.88	46.65	
5	47.74	47.72	48.15	48.05	47.92	48.22	48.71	47.95	47.26	47.62	47.82	46.40	
6	47.72	47.66	48.27	48.12	47.84	48.29	48.52	47.94	47.24	47.52	47.78	46.25	
7	47.70	47.64	48.22	48.24	47.81	48.21	48.45	47.93	47.22	47.39	47.71	46.17	
8	47.66	47.60	48.34	48.38	47.79	48.21	48.52	47.91	47.22	47.27	47.68	46.12	
9	47.64	47.57	48.22	48.00	47.89	48.24	48.36	47.89	47.22	47.18	47.65	46.10	
10	47.59	47.55	48.13	47.88	47.94	48.31	48.28	47.86	47.23	47.17	47.60	46.09	
11	47.57	47.55	48.03	47.85	47.98	48.45	48.26	47.88	47.24	47.16	47.50	46.09	
12	47.50	47.54	47.96	47.90	47.97	48.73	48.19	47.77	47.24	47.16	47.42	46.09	
13	47.41	47.62	47.91	47.94	48.05	48.86	48.22	47.65	47.24	47.16	47.27	46.09	
14	47.34	47.67	47.81	48.27	48.05	48.72	48.52	47.79	47.22	47.16	47.20	46.08	
15	47.28	47.72	47.74	48.16	48.04	48.41	48.60	47.97	47.18	47.16	47.18	46.08	
16	47.20	47.96	47.59	48.01	48.19	48.22	48.55	48.00	47.16	47.15	47.16	46.08	
17	47.14	48.03	47.48	48.19	48.24	48.18	48.87	48.00	47.16	47.15	47.10	46.08	
18	47.11	48.07	47.43	48.20	48.28	48.52	49.02	47.99	47.15	47.15	46.85	46.08	
19	47.10	48.25	47.37	48.07	48.23	48.44	48.68	48.00	47.15	47.15	46.63	46.08	
20	47.10	48.08	47.55	47.98	48.16	48.49	48.48	48.00	47.20	47.14	46.45	46.07	
21	47.10	48.01	47.80	47.95	48.10	48.43	48.33	48.00	47.68	47.19	46.35	46.07	
22	47.08	47.95	47.96	47.93	48.04	48.52	48.25	48.04	47.90	47.91	46.45	46.06	
23	47.08	47.92	47.97	47.93	47.99	48.57	48.21	48.03	47.93	47.88	46.66	46.06	
24	47.07	47.90	47.91	47.93	47.95	48.54	48.16	48.05	47.93	47.90	47.13	46.05	
25	47.06	47.90	47.83	47.95	47.92	48.45	48.10	48.04	47.93	47.90	47.76	46.01	
26	47.07	48.03	47.75	48.07	47.90	48.28	48.07	48.02	47.93	47.88	47.68	45.96	
27	47.10	48.18	47.68	48.21	47.92	48.21	48.05	47.97	47.94	47.86	47.62	45.90	
28	47.77	48.06	47.48	48.20	48.16	48.28	48.05	47.94	47.94	47.88	47.53	45.85	
29	47.93	48.04	47.39	48.18	48.24	48.20	48.05	47.88	47.94	47.91	47.45	45.84	
30	47.94	48.03	47.36	48.06	48.15	48.15	48.03	47.81	47.92	47.95		45.84	
31		48.12		48.00	48.13		48.00		47.92	47.94		45.77	
Mean	47.43	47.87	47.85	48.03	48.03	48.35	48.35	47.94	47.50	47.52	47.36	46.17	
Max	47.94	48.25	48.34	48.38	48.28	48.86	49.02	48.05	47.94	47.95	47.94	47.29	49.02
Min	47.06	47.54	47.36	47.52	47.79	48.02	48.00	47.65	47.15	47.14	46.35	45.77	45.77

Annual Max Momentary Gage Height	49.04	m. (MSL.) ,	at 06.00 Hours , on Oct 18 , 2011		
Zero Gage at Bottom Elevation	45.10	m. (MSL.) ,	River Bed	43.96	m. (MSL)
Left Bank Elevation	50.73	m. (MSL.) ,			
Right Bank Elevation	50.72	m. (MSL.) ,	Drainage Area	Square Kilometers	



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	4.20	8.25	15.00	0.84	9.50	11.95	14.60	9.25	3.60	6.40	8.00	0.00		
2	4.00	8.00	9.25	3.80	10.20	10.20	13.00	9.00	2.28	5.80	8.00	0.00		
3	4.00	6.60	8.50	7.75	9.50	11.95	25.00	8.50	0.60	4.40	7.75	0.00		
4	3.80	4.60	9.25	9.25	8.50	14.20	44.60	8.25	0.00	3.60	6.60	0.00		
5	3.80	3.40	15.00	11.25	7.50	17.90	47.85	8.25	0.00	2.04	5.40	0.00		
6	3.40	2.52	20.15	13.80	5.80	21.05	33.80	8.00	0.00	0.84	4.60	0.00		
7	3.00	2.28	17.90	18.80	5.20	17.45	29.50	7.75	0.00	0.00	3.20	0.00		
8	2.52	1.80	23.50	25.50	4.80	17.45	33.80	7.25	0.00	0.00	2.76	0.00		
9	2.28	1.44	17.90	9.50	6.80	18.80	24.50	6.80	0.00	0.00	2.40	0.00		
10	1.68	1.20	14.20	6.60	8.00	22.00	20.60	6.20	0.00	0.00	1.80	0.00		
11	1.44	1.20	10.55	6.00	9.00	29.50	19.70	6.60	0.00	0.00	0.60	0.00		
12	0.60	1.08	8.50	7.00	8.75	49.55	16.60	4.40	0.00	0.00	0.12	0.00		
13	0.06	2.04	7.25	8.00	11.25	61.20	17.90	2.40	0.00	0.00	0.00	0.00		
14	0.00	2.64	5.20	20.15	11.25	48.70	33.80	4.80	0.00	0.00	0.00	0.00		
15	0.00	3.40	3.80	15.40	10.90	27.10	39.00	8.75	0.00	0.00	0.00	0.00		
16	0.00	8.50	1.68	9.85	16.60	17.90	35.75	9.50	0.00	0.00	0.00	0.00		
17	0.00	10.55	0.48	16.60	18.80	16.20	62.15	9.50	0.00	0.00	0.00	0.00		
18	0.00	11.95	0.18	17.00	20.60	33.80	77.30	9.25	0.00	0.00	0.00	0.00		
19	0.00	19.25	0.00	11.95	18.35	28.90	45.40	9.50	0.00	0.00	0.00	0.00		
20	0.00	12.30	1.20	9.00	15.40	31.90	31.30	9.50	0.00	0.00	0.00	0.00		
21	0.00	9.85	5.00	8.25	13.00	28.30	23.00	9.50	2.76	0.00	0.00	0.00		
22	0.00	8.25	8.50	7.75	10.90	33.80	19.25	10.90	7.00	7.25	0.00	0.00		
23	0.00	7.50	8.75	7.75	9.25	37.05	17.45	10.55	7.75	6.60	0.00	0.00		
24	0.00	7.00	7.25	7.75	8.25	35.10	15.40	11.25	7.75	7.00	0.00	0.00		
25	0.00	7.00	5.60	8.25	7.50	29.50	13.00	10.90	7.75	7.00	4.20	0.00		
26	0.00	10.55	4.00	11.95	7.00	20.60	11.95	10.20	7.75	6.60	2.76	0.00		
27	0.00	16.20	2.76	17.45	7.50	17.45	11.25	8.75	8.00	6.20	2.04	0.00		
28	4.40	11.60	0.48	17.00	15.40	20.60	11.25	8.00	8.00	6.60	0.96	0.00		
29	7.75	10.90	0.00	16.20	18.80	17.00	11.25	6.60	8.00	7.25	0.30	0.00		
30	8.00	10.55	0.00	11.60	15.00	15.00	10.55	5.20	7.50	8.25		0.00		
31		13.80		9.50	14.20		9.50		7.50	8.00		0.00		
Total	54.93	226.20	231.83	351.49	343.50	762.10	820.00	245.30	86.24	93.83	61.49	0.00	3276.91	CMSDAY
Mean	1.83	7.30	7.73	11.34	11.08	25.40	26.45	8.18	2.78	3.03	2.12	0.00	8.95	CMS
Max	8.00	19.25	23.50	25.50	20.60	61.20	77.30	11.25	8.00	8.25	8.00	0.00	77.30	CMS
Min	0.00	1.08	0.00	0.84	4.80	10.20	9.50	2.40	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	4.75	19.54	20.03	30.37	29.68	65.85	70.85	21.19	7.45	8.11	5.31	0.00	283.13	MCM

Momentary Peak 79.60 CMS. at 49.04 m. (MSL.) at 06.00 Hours , on Oct 18 , 2011

Runoff Yield ***** Liters/Second/Square KM. Momentary Peak Yield ***** Liters/Second/Square KM.

WATER YEAR : 2011

CHAO PHRAYA RIVER BASIN

Huai Khun Kaeo at Ban Kud Jok, Chai Nat (C.51)

Lat 15 - 17 - 22 N Long 99 - 54 - 07 E

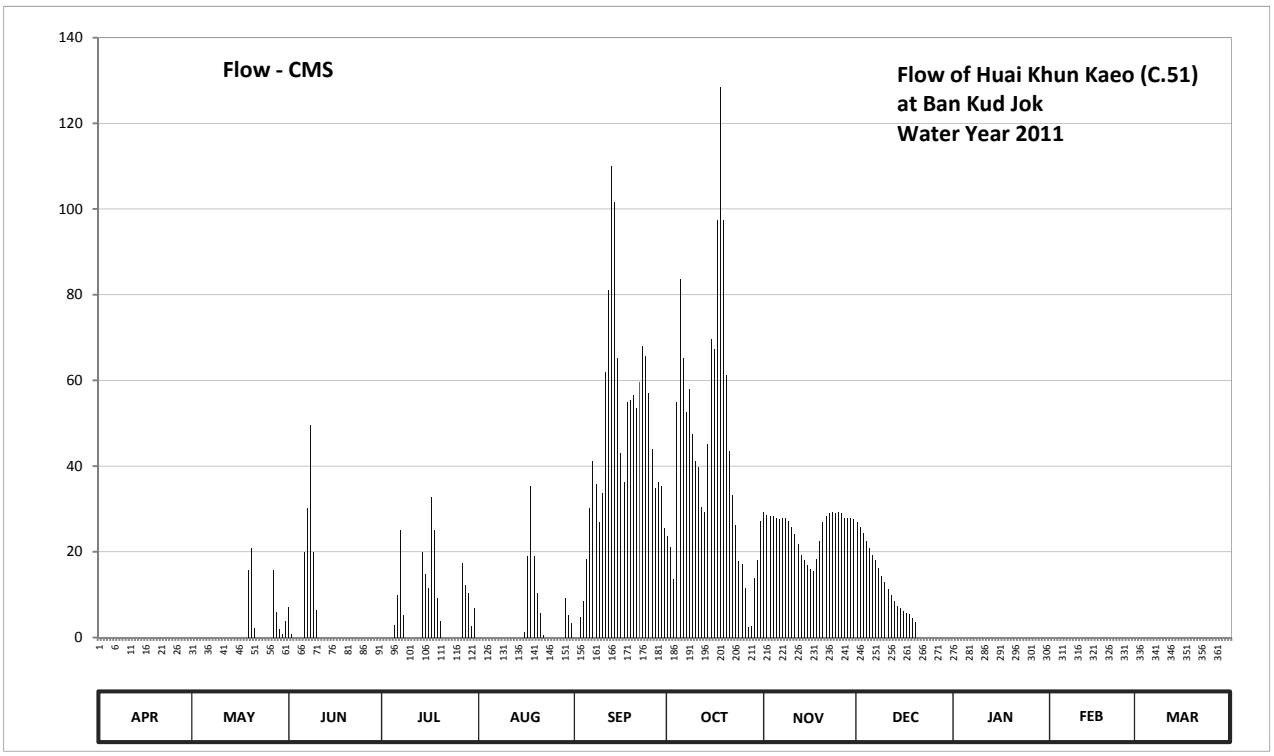
Location : on left bank at the bridge

	Ban	Kud Jok	**Amphoe** Wat Sing	**Changwat**	Chai Nat
Drainge Area	1,059	sq.km.			
Type of Gage	Water - stage recorder				
Zero Gage at Bottom	+0.000	m. (MSL.)			
Bench Mark	B.M.-H.D.				
Location BM	On left bank at the bridge			**Elevation**	+37.426 m. (MSL.)
Gage Reading Frequency	Recording				
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings				
Period of Available Gage Records	2008 to date				
Rating Operation					
Period of Rating	2008 to date				
Rated by Flot	-				
Rated by Current Meter	2008 to date				
Stability of Channel Regimes	Fairly stable.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records good. Stage-discharge relation defined by 6 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	31.55	30.79	31.88	30.97	31.15	31.60	31.62	31.78	31.71	29.47	29.47	29.47	
2	31.53	30.85	31.64	31.15	31.51	31.49	31.54	31.76	31.68	29.47	29.47	29.47	
3	31.52	30.97	31.12	31.26	31.45	31.82	31.23	31.75	31.64	29.47	29.47	29.47	
4	31.52	30.94	31.08	31.45	31.22	31.91	32.34	31.75	31.58	29.47	29.47	29.47	
5	31.52	30.86	31.23	31.75	30.89	32.05	32.84	31.74	31.53	29.47	29.47	29.47	
6	31.50	30.89	32.07	31.93	30.64	32.13	32.53	31.73	31.47	29.47	29.47	29.47	
7	31.45	30.93	32.13	32.11	30.58	32.06	32.29	31.74	31.42	29.47	29.47	29.47	
8	31.28	30.95	32.23	31.83	30.66	31.94	32.40	31.74	31.35	29.47	29.47	29.47	
9	31.16	30.98	32.07	31.53	30.74	31.71	32.19	31.72	31.27	29.47	29.47	29.47	
10	31.08	30.86	31.86	31.16	30.76	31.89	32.06	31.68	31.20	29.47	29.47	29.47	
11	31.03	30.77	31.56	31.07	30.76	32.47	32.03	31.63	31.11	29.47	29.47	29.47	
12	30.98	30.74	31.13	31.12	30.78	32.80	31.81	31.56	31.04	29.47	29.47	29.47	
13	30.88	30.75	31.00	31.29	31.02	33.23	31.78	31.47	30.98	29.47	29.47	29.47	
14	30.81	30.91	30.91	32.07	31.53	33.11	32.14	31.42	30.92	29.47	29.47	29.47	
15	30.75	31.04	30.84	32.01	31.19	32.53	32.61	31.38	30.89	29.47	29.47	29.47	
16	30.69	31.15	30.78	31.96	31.67	32.10	32.57	31.34	30.84	29.47	29.47	29.47	
17	30.65	31.19	30.76	32.14	32.06	31.95	33.05	31.32	30.81	29.47	29.47	29.47	
18	30.61	31.50	30.71	32.11	32.15	32.34	33.48	31.43	30.80	29.47	29.47	29.47	
19	30.56	32.02	30.66	31.92	32.06	32.35	33.05	31.58	30.73	29.47	29.47	29.47	
20	30.53	32.08	30.65	31.79	31.94	32.37	32.46	31.71	30.67	29.47	29.47	29.47	
21	30.49	31.72	30.74	31.42	31.84	32.31	32.11	31.75	29.47	29.47	29.47	29.47	
22	30.46	31.28	30.90	31.15	31.63	32.43	31.88	31.77	29.47	29.47	29.47	29.47	
23	30.45	31.14	31.04	30.95	31.26	32.58	31.69	31.78	29.47	29.47	29.47	29.47	
24	30.45	31.05	31.10	30.94	31.01	32.54	31.41	31.77	29.47	29.47	29.47	29.47	
25	30.45	30.96	31.07	30.90	30.92	32.38	31.39	31.78	29.47	29.47	29.47	29.47	
26	30.45	31.31	31.06	31.11	30.79	32.12	31.13	31.77	29.47	29.47	29.47	29.47	
27	30.45	32.02	31.07	32.04	30.64	31.92	30.60	31.74	29.47	29.47	29.47	29.47	
28	30.45	31.85	31.07	31.97	30.75	31.95	30.61	31.74	29.47	29.47	29.47	29.47	
29	30.45	31.71	31.03	31.94	31.92	31.93	31.24	31.74	29.47	29.47	29.47	29.47	
30	30.45	31.64	30.98	31.74	31.83	31.67	31.42	31.73	29.47	29.47		29.47	
31		31.79		31.87	31.77		31.72		29.47	29.47		29.47	
Mean	30.87	31.21	31.21	31.57	31.26	32.19	31.97	31.66	30.57	29.47	29.47	29.47	
Max	31.55	32.08	32.23	32.14	32.15	33.23	33.48	31.78	31.71	29.47	29.47	29.47	33.48
Min	30.45	30.74	30.65	30.90	30.58	31.49	30.60	31.32	29.47	29.47	29.47	29.47	29.47

Annual Max Momentary Gage Height	33.53	m. (MSL.) ,	at 17.00 Hours , on Oct 18 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	29.74	m. (MSL)
Left Bank Elevation	37.41	m. (MSL.) ,			
Right Bank Elevation	37.35	m. (MSL.) ,	Drainage Area	1059	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	7.20	0.00	0.00	0.00	23.70	29.30	26.85	0.00	0.00	0.00		
2	0.00	0.00	0.72	0.00	0.00	0.00	21.20	28.60	25.80	0.00	0.00	0.00		
3	0.00	0.00	0.00	0.00	0.00	4.80	13.60	28.25	24.40	0.00	0.00	0.00		
4	0.00	0.00	0.00	0.00	0.00	8.60	55.00	28.25	22.40	0.00	0.00	0.00		
5	0.00	0.00	0.00	2.90	0.00	18.25	83.60	27.90	20.90	0.00	0.00	0.00		
6	0.00	0.00	19.95	9.80	0.00	30.15	65.15	27.55	19.25	0.00	0.00	0.00		
7	0.00	0.00	30.15	25.05	0.00	41.20	52.50	27.90	18.00	0.00	0.00	0.00		
8	0.00	0.00	49.50	5.20	0.00	35.80	58.00	27.90	16.25	0.00	0.00	0.00		
9	0.00	0.00	19.95	0.00	0.00	26.85	47.50	27.20	14.40	0.00	0.00	0.00		
10	0.00	0.00	6.40	0.00	0.00	33.60	41.20	25.80	13.00	0.00	0.00	0.00		
11	0.00	0.00	0.00	0.00	0.00	61.85	39.85	24.05	11.20	0.00	0.00	0.00		
12	0.00	0.00	0.00	0.00	0.00	81.00	30.40	21.80	9.80	0.00	0.00	0.00		
13	0.00	0.00	0.00	0.00	0.00	110.10	29.30	19.25	8.60	0.00	0.00	0.00		
14	0.00	0.00	0.00	19.95	0.00	101.70	45.00	18.00	7.40	0.00	0.00	0.00		
15	0.00	0.00	0.00	14.85	0.00	65.15	69.60	17.00	6.85	0.00	0.00	0.00		
16	0.00	0.00	0.00	11.60	1.26	43.00	67.35	16.00	6.10	0.00	0.00	0.00		
17	0.00	0.00	0.00	32.70	19.10	36.25	97.50	15.50	5.65	0.00	0.00	0.00		
18	0.00	0.00	0.00	25.05	35.25	55.00	128.50	18.25	5.50	0.00	0.00	0.00		
19	0.00	15.70	0.00	9.20	19.10	55.50	97.50	22.40	4.45	0.00	0.00	0.00		
20	0.00	20.80	0.00	3.78	10.40	56.50	61.30	26.85	3.55	0.00	0.00	0.00		
21	0.00	2.24	0.00	0.00	5.60	53.50	43.50	28.25	0.00	0.00	0.00	0.00		
22	0.00	0.00	0.00	0.00	0.54	59.65	33.20	28.95	0.00	0.00	0.00	0.00		
23	0.00	0.00	0.00	0.00	0.00	67.90	26.15	29.30	0.00	0.00	0.00	0.00		
24	0.00	0.00	0.00	0.00	0.00	65.70	17.75	28.95	0.00	0.00	0.00	0.00		
25	0.00	0.00	0.00	0.00	0.00	57.00	17.25	29.30	0.00	0.00	0.00	0.00		
26	0.00	0.00	0.00	0.00	0.00	44.00	11.60	28.95	0.00	0.00	0.00	0.00		
27	0.00	15.70	0.00	17.40	0.00	34.90	2.50	27.90	0.00	0.00	0.00	0.00		
28	0.00	6.00	0.00	12.20	0.00	36.25	2.65	27.90	0.00	0.00	0.00	0.00		
29	0.00	2.02	0.00	10.40	9.20	35.35	13.80	27.90	0.00	0.00	0.00	0.00		
30	0.00	0.72	0.00	2.68	5.20	25.45	18.00	27.55	0.00	0.00		0.00		
31		3.78		6.80	3.34		27.20		0.00	0.00		0.00		
Total	0.00	66.96	133.87	209.56	108.99	1345.00	1341.35	762.70	270.35	0.00	0.00	0.00	4238.78	CMSDAY
Mean	0.00	2.16	4.46	6.76	3.52	44.83	43.27	25.42	8.72	0.00	0.00	0.00	11.58	CMS
Max	0.00	20.80	49.50	32.70	35.25	110.10	128.50	29.30	26.85	0.00	0.00	0.00	128.50	CMS
Min	0.00	0.00	0.00	0.00	0.00	0.00	2.50	15.50	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	0.00	5.79	11.57	18.11	9.42	116.21	115.89	65.90	23.36	0.00	0.00	0.00	366.23	MCM

Momentary Peak 132.25 CMS. at 33.53 m. (MSL.) at 17.00 Hours , on Oct 18 , 2011

Runoff Yield 10.93 Liters/Second/Square KM. Momentary Peak Yield 124.868 Liters/Second/Square KM.

WATER YEAR : 2011

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

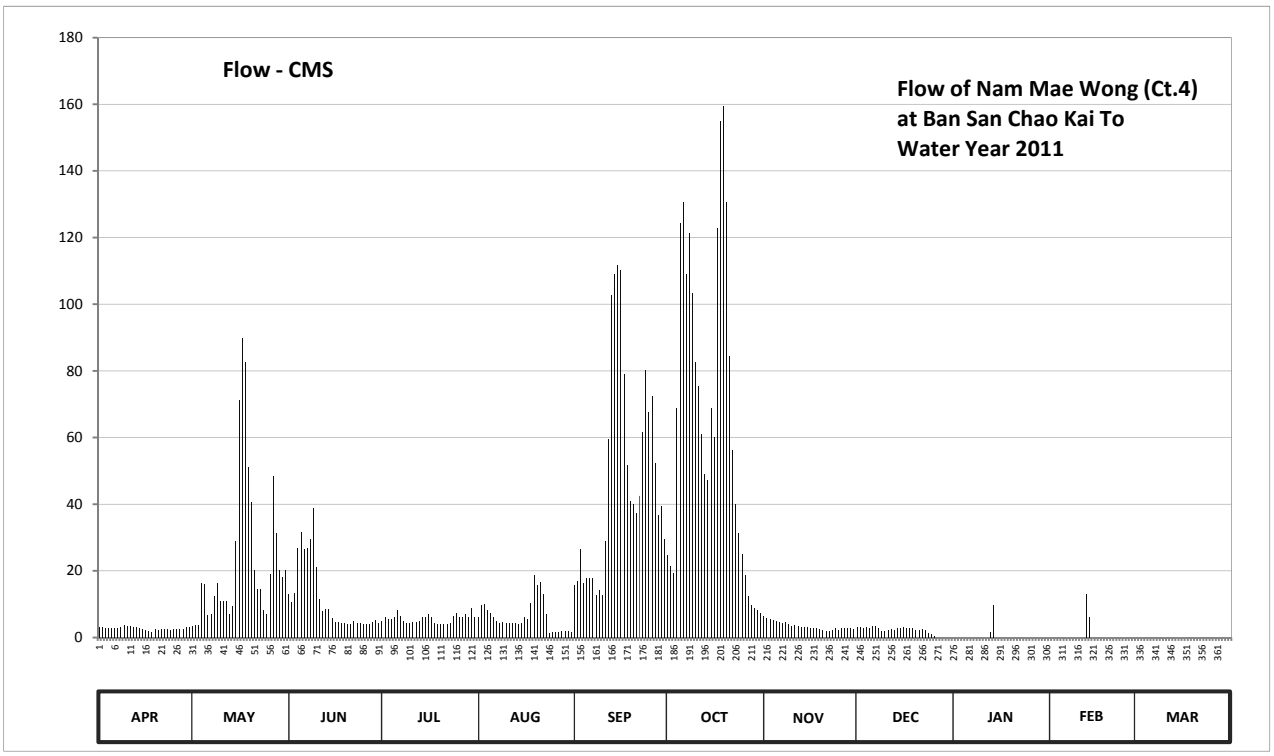
Location : on left bank at Ban San Chao Kai To.

	Ban San Chao Kai To	**Amphoe** Lat Yao		**Changwat** Nakhon Sawan	
Drainge Area	1,386 sq.km.				
Type of Gage	Staff gage.				
Zero Gage at Bottom	+65.880 m. (MSL.)				
Bench Mark	B.M.- Highways Dept.				
Location BM	On left bank at the bridge			**Elevation**	+72.250 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.				
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings				
Period of Available Gage Records	1987 to date				
Rating Operation					
Period of Rating	1987 to date				
Rated by Flot	-				
Rated by Current Meter	1987 to date				
Stability of Channel Regimes	Fairly stable				
Overbank Flow Conditions	No overbank flow.				
General Description	Records good. Stage-discharge relation defined by 15 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	68.18	68.20	68.59	68.30	68.35	68.66	68.88	68.36	68.17	67.32	66.68	66.58	
2	68.18	68.22	68.52	68.35	68.49	68.70	68.81	68.33	68.18	67.26	66.68	66.56	
3	68.16	68.22	68.60	68.32	68.50	68.92	68.76	68.32	68.16	67.19	66.68	66.55	
4	68.16	68.68	68.93	68.32	68.43	68.68	69.74	68.31	68.17	67.07	66.67	66.53	
5	68.16	68.67	69.04	68.35	68.39	68.72	70.59	68.29	68.16	67.00	66.66	66.51	
6	68.16	68.37	68.92	68.43	68.34	68.72	70.68	68.27	68.19	66.91	66.64	66.48	
7	68.16	68.38	68.93	68.36	68.29	68.72	70.37	68.25	68.20	66.83	66.64	66.43	
8	68.18	68.57	68.99	68.29	68.26	68.58	70.55	68.27	68.16	66.81	66.63	66.43	
9	68.22	68.68	69.20	68.25	68.27	68.62	70.29	68.23	68.10	66.84	66.63	66.38	
10	68.20	68.53	68.80	68.25	68.26	68.58	69.97	68.20	68.10	67.05	66.63	66.38	
11	68.19	68.53	68.54	68.28	68.26	68.98	69.85	68.21	68.12	67.34	66.79	66.38	
12	68.18	68.53	68.42	68.28	68.25	69.58	69.61	68.20	68.14	67.67	67.66	66.33	
13	68.18	68.38	68.44	68.29	68.25	70.28	69.39	68.18	68.12	68.06	68.59	66.33	
14	68.16	68.48	68.44	68.34	68.24	70.37	69.36	68.17	68.15	68.49	68.35	66.33	
15	68.14	68.98	68.33	68.35	68.25	70.41	69.74	68.17	68.16	67.88	67.41	66.38	
16	68.11	69.78	68.28	68.38	68.34	70.39	69.59	68.16	68.18	66.98	67.33	66.48	
17	68.08	70.08	68.28	68.34	68.32	69.91	70.57	68.15	68.16	66.93	67.27	66.73	
18	68.07	69.97	68.26	68.25	68.51	69.44	71.02	68.15	68.15	66.93	67.23	66.78	
19	68.13	69.43	68.26	68.23	68.74	69.24	71.08	68.13	68.15	66.92	67.16	66.93	
20	68.12	69.23	68.24	68.23	68.66	69.22	70.68	68.11	68.12	66.85	67.06	66.93	
21	68.13	68.78	68.24	68.24	68.69	69.16	70.00	68.10	68.11	67.34	66.86	66.93	
22	68.13	68.63	68.29	68.24	68.59	69.27	69.52	68.10	68.13	66.92	66.67	66.93	
23	68.13	68.63	68.26	68.26	68.38	69.62	69.22	68.12	68.11	66.81	66.63	66.93	
24	68.12	68.43	68.25	68.36	68.05	69.93	69.03	68.15	68.03	66.77	66.63	66.93	
25	68.13	68.38	68.23	68.40	68.06	69.72	68.89	68.12	67.99	66.76	66.62	66.78	
26	68.13	68.75	68.23	68.34	68.06	69.80	68.74	68.16	67.94	66.75	66.62	66.63	
27	68.13	69.38	68.24	68.35	68.06	69.45	68.57	68.16	67.26	66.73	66.61	66.58	
28	68.13	69.03	68.28	68.38	68.08	69.15	68.49	68.15	67.15	66.72	66.61	66.58	
29	68.17	68.78	68.31	68.35	68.08	69.21	68.45	68.16	67.15	66.70	66.60	66.58	
30	68.18	68.73	68.26	68.45	68.08	68.99	68.43	68.14	67.16	66.69		66.53	
31		68.78		68.35	68.07		68.39		67.23	66.69		66.43	
Mean	68.15	68.78	68.49	68.32	68.31	69.30	69.59	68.19	67.98	67.07	66.94	66.59	
Max	68.22	70.08	69.20	68.45	68.74	70.41	71.08	68.36	68.20	68.49	68.59	66.93	71.08
Min	68.07	68.20	68.23	68.23	68.05	68.58	68.39	68.10	67.15	66.69	66.60	66.33	66.33

Annual Max Momentary Gage Height	71.13	m. (MSL.) ,	at 08.00 Hours , on Oct 19 , 2011		
Zero Gage at Bottom Elevation	65.88	m. (MSL.) ,	River Bed	65.89	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, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.20	3.50	13.15	5.00	6.25	15.60	24.60	6.50	3.05	0.00	0.00	0.00		
2	3.20	3.80	10.70	6.25	9.75	17.00	21.45	5.75	3.20	0.00	0.00	0.00		
3	2.90	3.80	13.50	5.50	10.00	26.40	19.40	5.50	2.90	0.00	0.00	0.00		
4	2.90	16.30	26.85	5.50	8.25	16.30	68.90	5.25	3.05	0.00	0.00	0.00		
5	2.90	15.95	31.80	6.25	7.25	17.80	124.30	4.85	2.90	0.00	0.00	0.00		
6	2.90	6.75	26.40	8.25	6.00	17.80	130.60	4.55	3.35	0.00	0.00	0.00		
7	2.90	7.00	26.85	6.50	4.85	17.80	108.90	4.25	3.50	0.00	0.00	0.00		
8	3.20	12.45	29.55	4.85	4.40	12.80	121.50	4.55	2.90	0.00	0.00	0.00		
9	3.80	16.30	39.00	4.25	4.55	14.20	103.35	3.95	2.00	0.00	0.00	0.00		
10	3.50	11.05	21.00	4.25	4.40	12.80	82.70	3.50	2.00	0.00	0.00	0.00		
11	3.35	11.05	11.40	4.70	4.40	29.10	75.50	3.65	2.30	0.00	0.00	0.00		
12	3.20	11.05	8.00	4.70	4.25	59.40	61.10	3.50	2.60	0.00	0.00	0.00		
13	3.20	7.00	8.50	4.85	4.25	102.70	48.95	3.20	2.30	1.60	13.15	0.00		
14	2.90	9.50	8.50	6.00	4.10	108.90	47.30	3.05	2.75	9.75	6.25	0.00		
15	2.60	29.10	5.75	6.25	4.25	111.70	68.90	3.05	2.90	0.00	0.00	0.00		
16	2.15	71.30	4.70	7.00	6.00	110.30	59.95	2.90	3.20	0.00	0.00	0.00		
17	1.80	89.70	4.70	6.00	5.50	79.10	122.90	2.75	2.90	0.00	0.00	0.00		
18	1.70	82.70	4.40	4.25	10.35	51.70	155.00	2.75	2.75	0.00	0.00	0.00		
19	2.45	51.15	4.40	3.95	18.60	41.00	159.50	2.45	2.75	0.00	0.00	0.00		
20	2.30	40.50	4.10	3.95	15.60	40.00	130.60	2.15	2.30	0.00	0.00	0.00		
21	2.45	20.20	4.10	4.10	16.65	37.20	84.50	2.00	2.15	0.00	0.00	0.00		
22	2.45	14.55	4.85	4.10	13.15	42.50	56.10	2.00	2.45	0.00	0.00	0.00		
23	2.45	14.55	4.40	4.40	7.00	61.70	40.00	2.30	2.15	0.00	0.00	0.00		
24	2.30	8.25	4.25	6.50	1.50	80.30	31.35	2.75	1.30	0.00	0.00	0.00		
25	2.45	7.00	3.95	7.50	1.60	67.70	25.05	2.30	0.90	0.00	0.00	0.00		
26	2.45	19.00	3.95	6.00	1.60	72.50	18.60	2.90	0.40	0.00	0.00	0.00		
27	2.45	48.40	4.10	6.25	1.60	52.25	12.45	2.90	0.00	0.00	0.00	0.00		
28	2.45	31.35	4.70	7.00	1.80	36.75	9.75	2.75	0.00	0.00	0.00	0.00		
29	3.05	20.20	5.25	6.25	1.80	39.50	8.75	2.90	0.00	0.00	0.00	0.00		
30	3.20	18.20	4.40	8.75	1.80	29.55	8.25	2.60	0.00	0.00		0.00		
31		20.20		6.25	1.70		7.25		0.00	0.00		0.00		
Total	82.75	721.85	347.20	175.35	193.20	1422.35	2037.45	103.50	64.95	11.35	19.40	0.00	5179.35	CMSDAY
Mean	2.76	23.29	11.57	5.66	6.23	47.41	65.72	3.45	2.10	0.37	0.67	0.00	14.15	CMS
Max	3.80	89.70	39.00	8.75	18.60	111.70	159.50	6.50	3.50	9.75	13.15	0.00	159.50	CMS
Min	1.70	3.50	3.95	3.95	1.50	12.80	7.25	2.00	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	7.15	62.37	30.00	15.15	16.69	122.89	176.04	8.94	5.61	0.98	1.68	0.00	447.50	MCM

Momentary Peak 163.25 CMS. at 71.13 m. (MSL.) at 08.00 Hours , on Oct 19 , 2011

Runoff Yield 10.21 Liters/Second/Square KM. Momentary Peak Yield 117.785 Liters/Second/Square KM.

WATER YEAR : 2011

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

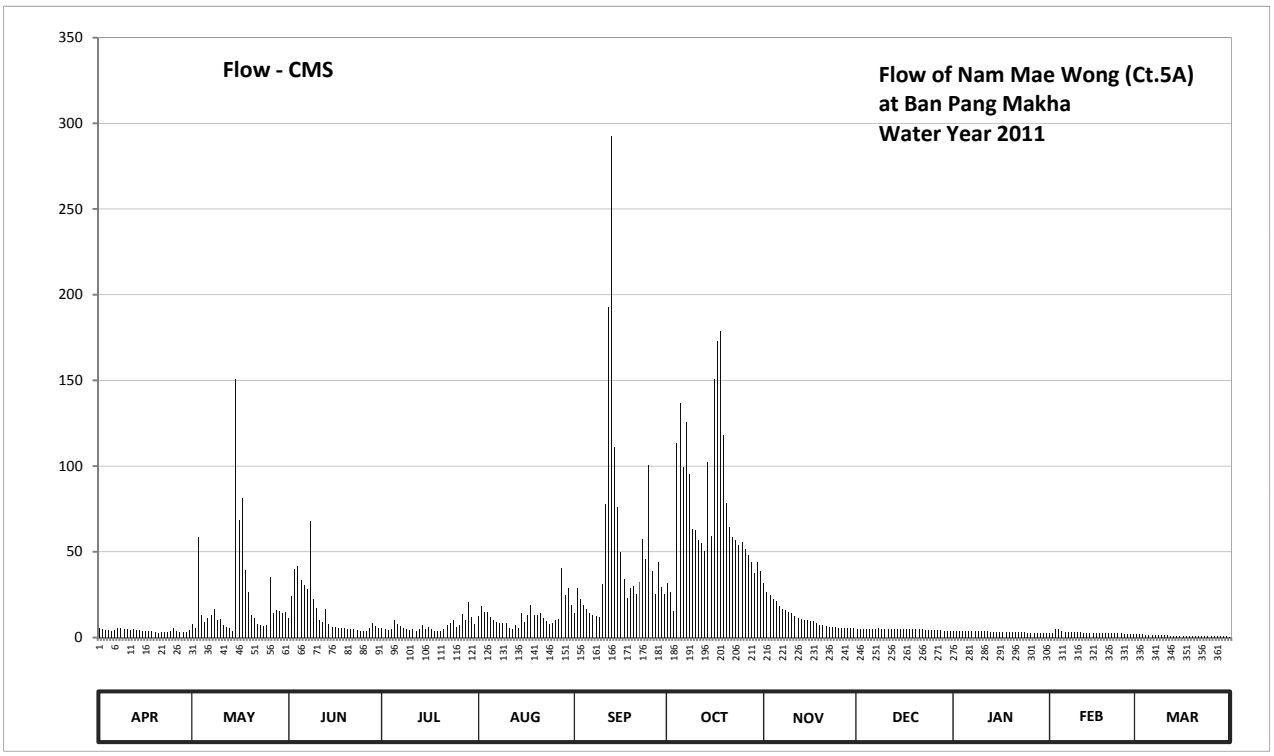
Location : on left bank behind Wat Pang Makha.

	Ban Pang Makha	**Amphoe**	Khanu Woralaksaburi	**Changwat**	Kamphaeng Phet
Drainge Area	977 sq.km.				
Type of Gage	Staff gage				
Zero Gage at Bottom	+0.000 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	In front of the station office			**Elevation**	+108.090 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.				
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings				
Period of Available Gage Records	1969 to date				
Rating Operation					
Period of Rating	1969 to date				
Rated by Flot	-				
Rated by Current Meter	1969 to date				
Stability of Channel Regimes	Fairly stable				
Overbank Flow Conditions	Overbank flow starts at elevation +107.660 m.(MSL.), records are channel flow only.				
General Description	Records good. Flow effected by the local weir above gage site estimated by recession equation. Stage-discharge relation defined by 34 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	103.27	103.36	103.46	103.29	103.50	103.55	103.94	103.93	103.26	103.18	103.05	103.00	
2	103.24	103.28	103.78	103.24	103.64	103.88	103.83	103.83	103.26	103.18	103.05	102.99	
3	103.22	104.42	104.09	103.21	103.56	103.74	103.58	103.80	103.25	103.18	103.25	102.98	
4	103.21	103.52	104.12	103.25	103.56	103.66	105.20	103.74	103.25	103.17	103.25	102.97	
5	103.20	103.40	103.97	103.44	103.48	103.61	105.49	103.71	103.24	103.17	103.18	102.96	
6	103.22	103.46	103.91	103.37	103.44	103.54	105.01	103.65	103.24	103.17	103.14	102.95	
7	103.27	103.51	103.86	103.32	103.40	103.51	105.35	103.61	103.24	103.17	103.13	102.94	
8	103.29	103.60	104.56	103.27	103.39	103.50	104.96	103.59	103.27	103.16	103.12	102.93	
9	103.26	103.44	103.74	103.25	103.39	103.49	104.49	103.56	103.26	103.16	103.12	102.93	
10	103.23	103.45	103.62	103.22	103.39	103.92	104.48	103.54	103.26	103.15	103.10	102.92	
11	103.22	103.35	103.44	103.25	103.28	104.71	104.39	103.50	103.25	103.15	103.11	102.92	
12	103.23	103.30	103.40	103.19	103.26	106.15	104.36	103.47	103.25	103.15	103.09	102.90	
13	103.21	103.27	103.60	103.23	103.35	107.25	104.28	103.45	103.25	103.14	103.08	102.90	
14	103.21	103.20	103.36	103.35	103.28	105.17	105.05	103.44	103.25	103.14	103.08	102.89	
15	103.20	105.66	103.30	103.26	103.55	104.69	104.43	103.43	103.25	103.13	103.07	102.89	
16	103.20	104.57	103.30	103.30	103.40	104.27	105.66	103.42	103.25	103.13	103.07	102.88	
17	103.18	104.76	103.28	103.24	103.51	103.98	105.92	103.41	103.24	103.12	103.06	102.88	
18	103.15	104.08	103.28	103.20	103.66	103.76	105.99	103.38	103.24	103.12	103.06	102.87	
19	103.11	103.83	103.28	103.17	103.52	103.88	105.26	103.35	103.24	103.11	103.05	102.87	
20	103.08	103.51	103.25	103.15	103.52	103.90	104.72	103.34	103.23	103.11	103.05	102.86	
21	103.11	103.46	103.24	103.25	103.54	103.81	104.51	103.33	103.23	103.11	103.04	102.86	
22	103.13	103.37	103.24	103.34	103.47	103.95	104.42	103.31	103.23	103.11	103.04	102.85	
23	103.12	103.35	103.21	103.39	103.41	104.40	104.39	103.30	103.22	103.11	103.03	102.85	
24	103.16	103.32	103.20	103.43	103.36	104.20	104.34	103.30	103.22	103.10	103.03	102.85	
25	103.27	103.35	103.19	103.31	103.38	105.03	104.37	103.29	103.22	103.09	103.02	102.84	
26	103.19	104.01	103.17	103.35	103.43	104.07	104.30	103.28	103.21	103.08	103.02	102.84	
27	103.12	103.54	103.28	103.53	103.45	103.81	104.24	103.28	103.21	103.07	103.01	102.83	
28	103.11	103.59	103.39	103.44	104.10	104.16	104.16	103.27	103.21	103.06	103.01	102.83	
29	103.12	103.57	103.33	103.70	103.79	103.89	104.05	103.27	103.20	103.06	103.00	102.83	
30	103.22	103.54	103.28	103.48	103.88	103.81	104.16	103.27	103.20	103.06		102.82	
31		103.56		103.37	103.66		104.07		103.19	103.06		102.81	
Mean	103.19	103.67	103.50	103.32	103.50	104.18	104.63	103.47	103.24	103.13	103.08	102.89	
Max	103.29	105.66	104.56	103.70	104.10	107.25	105.99	103.93	103.27	103.18	103.25	103.00	107.25
Min	103.08	103.20	103.17	103.15	103.26	103.49	103.58	103.27	103.19	103.06	103.00	102.81	102.81

Annual Max Momentary Gage Height	107.84	m. (MSL.) ,	at 06.00 Hours , on Sep 13 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	102.26	m. (MSL)
Left Bank Elevation	107.70	m. (MSL.) ,			
Right Bank Elevation	107.65	m. (MSL.) ,	Drainage Area	977	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	5.40	7.80	11.10	5.80	12.50	14.50	32.00	31.50	5.20	3.80	2.50	2.00		
2	4.80	5.60	24.10	4.80	18.10	29.00	26.50	26.50	5.20	3.80	2.50	1.90		
3	4.40	58.80	39.95	4.20	14.90	22.30	15.70	25.00	5.00	3.80	5.00	1.80		
4	4.20	13.30	41.60	5.00	14.90	18.90	113.50	22.30	5.00	3.70	5.00	1.70		
5	4.00	9.00	33.50	10.40	11.80	16.90	136.70	20.95	4.80	3.70	3.80	1.60		
6	4.40	11.10	30.50	8.10	10.40	14.10	99.25	18.50	4.80	3.70	3.40	1.50		
7	5.40	12.90	28.00	6.60	9.00	12.90	125.50	16.90	4.80	3.70	3.30	1.40		
8	5.80	16.50	67.90	5.40	8.70	12.50	95.50	16.10	5.40	3.60	3.20	1.30		
9	5.20	10.40	22.30	5.00	8.70	12.15	63.35	14.90	5.20	3.60	3.20	1.30		
10	4.60	10.75	17.30	4.40	8.70	31.00	62.70	14.10	5.20	3.50	3.00	1.20		
11	4.40	7.50	10.40	5.00	5.60	77.70	56.90	12.50	5.00	3.50	3.10	1.20		
12	4.60	6.00	9.00	3.90	5.20	192.50	55.10	11.45	5.00	3.50	2.90	1.00		
13	4.20	5.40	16.50	4.60	7.50	292.75	50.40	10.75	5.00	3.40	2.80	1.00		
14	4.20	4.00	7.80	7.50	5.60	111.25	102.25	10.40	5.00	3.40	2.80	0.95		
15	4.00	150.60	6.00	5.20	14.50	76.35	59.45	10.05	5.00	3.30	2.70	0.95		
16	4.00	68.55	6.00	6.00	9.00	49.85	150.60	9.70	5.00	3.30	2.70	0.90		
17	3.80	81.20	5.60	4.80	12.90	34.00	172.70	9.35	4.80	3.20	2.60	0.90		
18	3.50	39.40	5.60	4.00	18.90	23.20	178.65	8.40	4.80	3.20	2.60	0.85		
19	3.10	26.50	5.60	3.70	13.30	29.00	118.30	7.50	4.80	3.10	2.50	0.85		
20	2.80	12.90	5.00	3.50	13.30	30.00	78.40	7.20	4.60	3.10	2.50	0.80		
21	3.10	11.10	4.80	5.00	14.10	25.50	64.65	6.90	4.60	3.10	2.40	0.80		
22	3.30	8.10	4.80	7.20	11.45	32.50	58.80	6.30	4.60	3.10	2.40	0.75		
23	3.20	7.50	4.20	8.70	9.35	57.50	56.90	6.00	4.40	3.10	2.30	0.75		
24	3.60	6.60	4.00	10.05	7.80	46.00	53.90	6.00	4.40	3.00	2.30	0.75		
25	5.40	7.50	3.90	6.30	8.40	100.75	55.70	5.80	4.40	2.90	2.20	0.70		
26	3.90	35.55	3.70	7.50	10.05	38.85	51.50	5.60	4.20	2.80	2.20	0.70		
27	3.20	14.10	5.60	13.70	10.75	25.50	48.20	5.60	4.20	2.70	2.10	0.65		
28	3.10	16.10	8.70	10.40	40.50	43.80	43.80	5.40	4.20	2.60	2.10	0.65		
29	3.20	15.30	6.90	20.50	24.55	29.50	37.75	5.40	4.00	2.60	2.00	0.65		
30	4.40	14.10	5.60	11.80	29.00	25.50	43.80	5.40	4.00	2.60		0.60		
31		14.90		8.10	18.90		38.85		3.90	2.60		0.55		
Total	123.20	709.05	445.95	217.15	408.35	1526.25	2347.30	362.45	146.50	101.00	82.10	32.65	6501.95	CMSDAY
Mean	4.11	22.87	14.86	7.00	13.17	50.88	75.72	12.08	4.73	3.26	2.83	1.05	17.76	CMS
Max	5.80	150.60	67.90	20.50	40.50	292.75	178.65	31.50	5.40	3.80	5.00	2.00	292.75	CMS
Min	2.80	4.00	3.70	3.50	5.20	12.15	15.70	5.40	3.90	2.60	2.00	0.55	0.55	CMS
Runoff	10.64	61.26	38.53	18.76	35.28	131.87	202.81	31.32	12.66	8.73	7.09	2.82	561.77	MCM

Momentary Peak 348.80 CMS. at 107.84 m. (MSL.) at 06.00 Hours , on Sep 13 , 2011

Runoff Yield 18.18 Liters/Second/Square KM. Momentary Peak Yield 357.011 Liters/Second/Square KM.

WATER YEAR : 2011

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

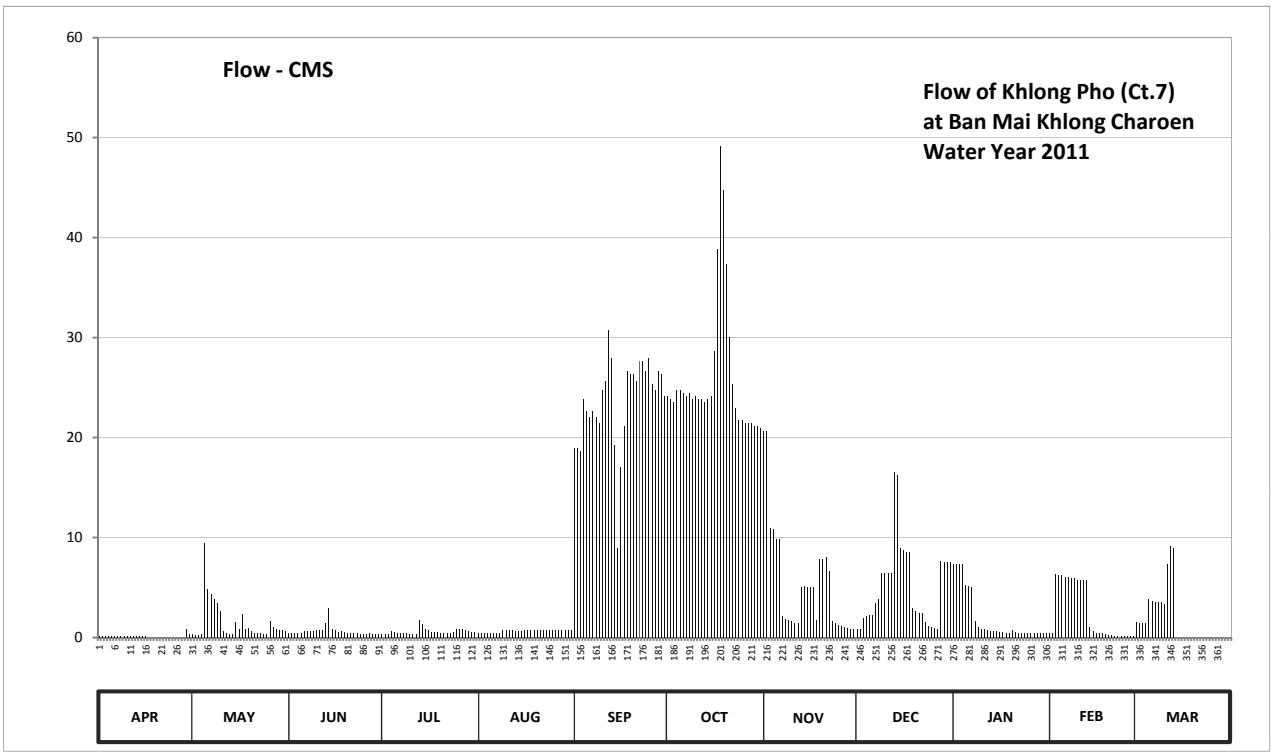
Location : on right bank at Ban Mai Khlong Charoen.

	Ban	Mai Khlong Charoen	**Amphoe** Mae Poen	**Changwat**	Nakhon Sawan
Drainge Area	453	sq.km.			
Type of Gage	Staff gage				
Zero Gage at Bottom	+0.000	m. (MSL.)			
Bench Mark	B.M.-H.D.				
Location BM	Near the sling pole.			**Elevation**	+107.519 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours				
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings				
Period of Available Gage Records	1975 - 1978, 2008 to date				
Rating Operation					
Period of Rating	1975 - 1978, 2008 to date				
Rated by Flot	-				
Rated by Current Meter	1975 - 1978, 2008 to date				
Stability of Channel Regimes	Fairly stable.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records good. Stage-discharge relation defined by 18 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	101.57	101.64	101.69	101.64	101.69	102.89	103.07	102.95	101.77	102.35	101.68	101.88	
2	101.56	101.63	101.68	101.65	101.69	102.89	103.06	102.95	101.76	102.35	101.67	101.86	
3	101.56	101.62	101.69	101.64	101.69	102.88	103.05	102.55	101.93	102.35	102.29	101.86	
4	101.56	101.65	101.69	101.72	101.69	103.06	103.09	102.54	101.96	102.35	102.28	101.86	
5	101.56	102.47	101.69	101.71	101.69	103.02	103.09	102.49	101.97	102.22	102.28	102.11	
6	101.55	102.19	101.72	101.69	101.69	103.00	103.08	102.49	101.97	102.21	102.27	102.10	
7	101.55	102.15	101.72	101.68	101.69	103.02	103.07	101.96	102.08	102.20	102.27	102.09	
8	101.55	102.11	101.72	101.68	101.69	103.00	103.08	101.92	102.11	101.89	102.26	102.09	
9	101.55	102.08	101.72	101.68	101.74	102.98	103.06	101.91	102.30	101.81	102.26	102.09	
10	101.55	102.01	101.74	101.66	101.74	103.09	103.07	101.89	102.30	101.78	102.25	102.07	
11	101.55	101.72	101.74	101.65	101.74	103.12	103.06	101.87	102.30	101.76	102.25	102.35	
12	101.55	101.67	101.75	101.65	101.74	103.27	103.06	101.86	102.30	101.75	102.25	102.45	
13	101.55	101.65	101.87	101.91	101.73	103.19	103.05	102.20	102.80	101.72	102.25	102.44	
14	101.55	101.64	102.04	101.85	101.73	102.90	103.06	102.21	102.79	101.73	101.80	101.39	
15	101.55	101.88	101.78	101.77	101.73	102.44	103.07	102.20	102.44	101.72	101.73	101.39	
16	101.55	101.78	101.74	101.75	101.74	102.82	103.21	102.20	102.43	101.71	101.69	101.35	
17	100.49	101.98	101.71	101.71	101.74	102.97	103.49	102.20	102.42	101.71	101.67	101.31	
18	100.49	101.78	101.72	101.71	101.74	103.15	103.73	101.91	102.42	101.70	101.67	101.29	
19	100.49	101.79	101.71	101.71	101.74	103.14	103.63	102.38	102.04	101.70	101.64	101.29	
20	100.49	101.72	101.69	101.70	101.74	103.14	103.45	102.38	102.01	101.75	101.62	101.28	
21	100.49	101.70	101.68	101.70	101.74	103.12	103.25	102.39	102.00	101.71	101.63	101.27	
22	100.49	101.68	101.68	101.69	101.74	103.18	103.11	102.31	102.00	101.70	101.59	101.26	
23	100.49	101.68	101.68	101.69	101.74	103.18	103.03	101.90	101.88	101.70	101.58	101.26	
24	100.49	101.66	101.66	101.71	101.74	103.15	102.99	101.86	101.82	101.70	101.57	101.26	
25	100.49	101.66	101.66	101.77	101.74	103.19	102.99	101.83	101.80	101.69	101.57	101.26	
26	100.49	101.90	101.66	101.78	101.74	103.11	102.98	101.82	101.79	101.69	101.57	101.26	
27	100.49	101.81	101.67	101.77	101.74	103.09	102.98	101.80	101.77	101.69	101.56	101.26	
28	100.49	101.76	101.66	101.75	101.74	103.15	102.98	101.79	102.37	101.69	101.56	101.26	
29	101.77	101.75	101.66	101.72	101.74	103.14	102.97	101.78	102.36	101.69	101.89	101.25	
30	101.66	101.74	101.65	101.71	101.74	103.07	102.97	101.78	102.36	101.69		101.25	
31		101.73		101.71	101.74		102.96		102.36	101.68		101.25	
Mean	101.14	101.81	101.72	101.71	101.73	103.04	103.12	102.14	102.15	101.85	101.88	101.63	
Max	101.77	102.47	102.04	101.91	101.74	103.27	103.73	102.95	102.80	102.35	102.29	102.45	103.73
Min	100.49	101.62	101.65	101.64	101.69	102.44	102.96	101.78	101.76	101.68	101.56	101.25	100.49

Annual Max Momentary Gage Height	103.73	m. (MSL.) ,	at 06.00 Hours , on Oct 18 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	101.48	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, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.14	0.32	0.47	0.32	0.47	18.93	24.10	20.60	0.85	7.35	0.44	1.56		
2	0.12	0.29	0.44	0.35	0.47	18.93	23.80	20.60	0.80	7.35	0.41	1.42		
3	0.12	0.26	0.47	0.32	0.47	18.66	23.50	11.00	1.94	7.35	6.35	1.42		
4	0.12	0.35	0.47	0.60	0.47	23.80	24.70	10.80	2.18	7.35	6.20	1.42		
5	0.12	9.46	0.47	0.55	0.47	22.60	24.70	9.82	2.26	5.30	6.20	3.83		
6	0.10	4.87	0.60	0.47	0.47	22.00	24.40	9.82	2.26	5.15	6.05	3.70		
7	0.10	4.35	0.60	0.44	0.47	22.60	24.10	2.18	3.46	5.00	6.05	3.58		
8	0.10	3.83	0.60	0.44	0.47	22.00	24.40	1.86	3.83	1.63	5.90	3.58		
9	0.10	3.46	0.60	0.44	0.70	21.44	23.80	1.78	6.50	1.07	5.90	3.58		
10	0.10	2.62	0.70	0.38	0.70	24.70	24.10	1.63	6.50	0.90	5.75	3.34		
11	0.10	0.60	0.70	0.35	0.70	25.66	23.80	1.49	6.50	0.80	5.75	7.35		
12	0.10	0.41	0.75	0.35	0.70	30.75	23.80	1.42	6.50	0.75	5.75	9.10		
13	0.10	0.35	1.49	1.78	0.65	27.97	23.50	5.00	16.50	0.60	5.75	8.92		
14	0.10	0.32	2.98	1.35	0.65	19.20	23.80	5.15	16.27	0.65	1.00	0.00		
15	0.10	1.56	0.90	0.85	0.65	8.92	24.10	5.00	8.92	0.60	0.65	0.00		
16	0.10	0.90	0.70	0.75	0.70	17.04	28.65	5.00	8.74	0.55	0.47	0.00		
17	0.00	2.34	0.55	0.55	0.70	21.16	38.83	5.00	8.56	0.55	0.41	0.00		
18	0.00	0.90	0.60	0.55	0.70	26.65	49.21	1.78	8.56	0.50	0.41	0.00		
19	0.00	0.95	0.55	0.55	0.70	26.32	44.79	7.86	2.98	0.50	0.32	0.00		
20	0.00	0.60	0.47	0.50	0.70	26.32	37.35	7.86	2.62	0.75	0.26	0.00		
21	0.00	0.50	0.44	0.50	0.70	25.66	30.05	8.03	2.50	0.55	0.29	0.00		
22	0.00	0.44	0.44	0.47	0.70	27.64	25.33	6.67	2.50	0.50	0.18	0.00		
23	0.00	0.44	0.44	0.47	0.70	27.64	22.90	1.70	1.56	0.50	0.16	0.00		
24	0.00	0.38	0.38	0.55	0.70	26.65	21.72	1.42	1.14	0.50	0.14	0.00		
25	0.00	0.38	0.38	0.85	0.70	27.97	21.72	1.21	1.00	0.47	0.14	0.00		
26	0.00	1.70	0.38	0.90	0.70	25.33	21.44	1.14	0.95	0.47	0.14	0.00		
27	0.00	1.07	0.41	0.85	0.70	24.70	21.44	1.00	0.85	0.47	0.12	0.00		
28	0.00	0.80	0.38	0.75	0.70	26.65	21.44	0.95	7.69	0.47	0.12	0.00		
29	0.85	0.75	0.38	0.60	0.70	26.32	21.16	0.90	7.52	0.47	1.63	0.00		
30	0.38	0.70	0.35	0.55	0.70	24.10	21.16	0.90	7.52	0.47		0.00		
31		0.65		0.55	0.70		20.88		7.52	0.44		0.00		
Total	2.95	46.55	19.09	18.93	19.71	708.31	808.67	159.57	157.48	60.01	72.94	52.80	2127.01	CMSDAY
Mean	0.10	1.50	0.64	0.61	0.64	23.61	26.09	5.32	5.08	1.94	2.52	1.70	5.81	CMS
Max	0.85	9.46	2.98	1.78	0.70	30.75	49.21	20.60	16.50	7.35	6.35	9.10	49.21	CMS
Min	0.00	0.26	0.35	0.32	0.47	8.92	20.88	0.90	0.80	0.44	0.12	0.00	0.00	CMS
Runoff	0.26	4.02	1.65	1.64	1.70	61.20	69.87	13.79	13.61	5.19	6.30	4.56	183.77	MCM

Momentary Peak 49.21 CMS. at 103.73 m. (MSL.) at 06.00 Hours , on Oct 18 , 2011

Runoff Yield 12.83 Liters/Second/Square KM. Momentary Peak Yield 108.607 Liters/Second/Square KM.

WATER YEAR : 2011

SAKAE KRANG RIVER BASIN

Huai Tak Dad at Ban Khok Mo, Uthai Thani (Ct.8)

Lat 15 - 29 - 50 N Long 99 - 56 - 28 E

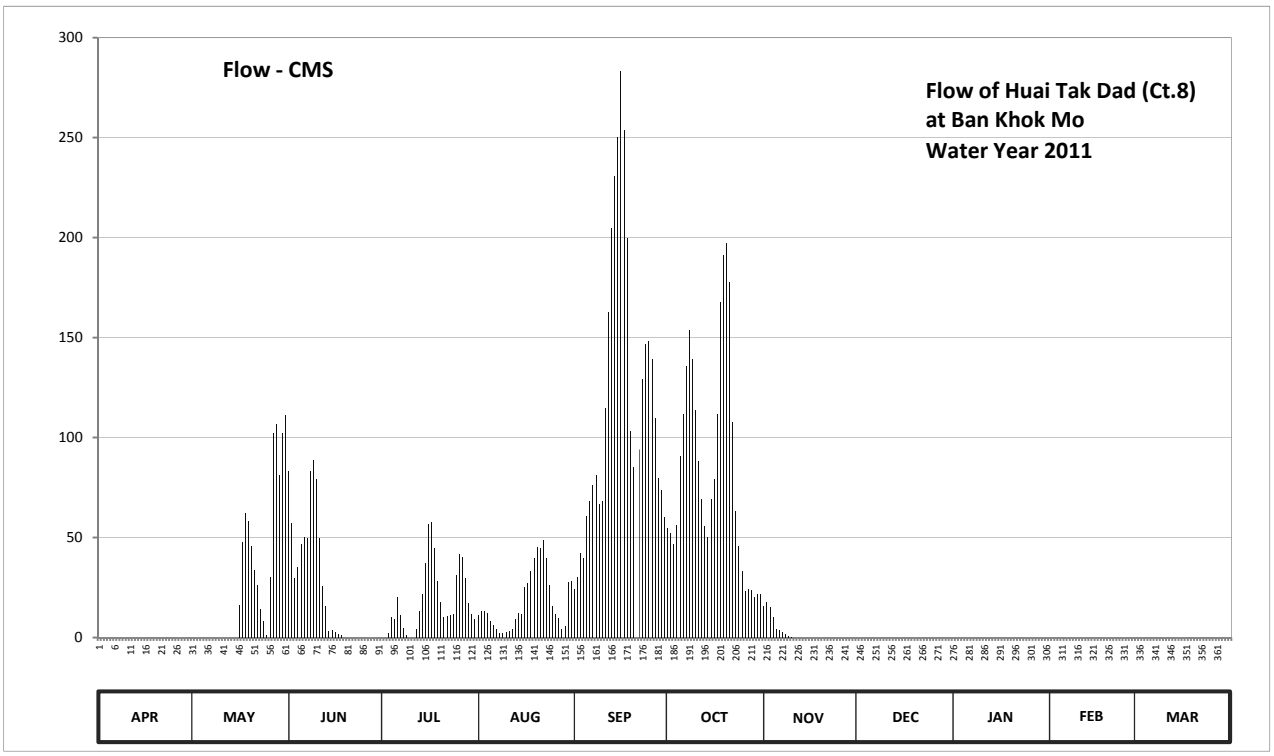
Location : on left bank at Ban Khok Mo.

	Ban Khok Mo	**Amphoe** Thap Than	**Changwat** Uthai Thani
Drainge Area	3,207 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	Near the sling pole		**Elevation** +34.250 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	1975 - 1978, 2008 to date		
Rating Operation			
Period of Rating	1975 - 1978, 2008 to date		
Rated by Flot	-		
Rated by Current Meter	1975 - 1978, 2008 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	Overbank flow starts at elevation +34.290 m.(MSL.), records are channel flow only.		
General Description	Records good. Stage-discharge relation defined by 14 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	29.65	28.60	31.82	30.10	30.47	30.74	31.33	30.57	28.33	26.47	26.23	25.85	
2	29.62	28.59	31.38	30.18	30.52	30.87	31.29	30.61	28.25	26.47	26.23	25.85	
3	29.60	28.56	30.85	30.26	30.52	31.10	31.19	30.56	28.13	26.47	26.23	25.85	
4	29.59	28.55	30.96	30.45	30.49	31.05	31.36	30.45	28.06	26.47	26.23	25.85	
5	29.57	28.53	31.19	30.43	30.41	31.44	31.94	30.31	27.97	26.47	26.23	25.85	
6	29.53	28.51	31.25	30.67	30.36	31.57	32.28	30.29	27.87	26.47	26.23	25.85	
7	29.45	28.50	31.24	30.47	30.30	31.70	32.62	30.27	27.78	26.47	26.23	25.85	
8	29.37	28.49	31.82	30.32	30.26	31.79	32.86	30.24	27.68	26.47	26.23	25.85	
9	29.30	28.48	31.91	30.23	30.25	31.55	32.67	30.22	27.57	26.47	26.23	25.85	
10	29.23	28.47	31.75	30.19	30.27	31.57	32.31	30.21	27.47	26.47	26.23	25.85	
11	29.16	28.43	31.24	30.19	30.28	32.32	31.90	30.15	27.36	26.47	26.23	25.85	
12	29.11	28.37	30.77	30.31	30.30	32.98	31.59	30.09	27.29	26.47	26.23	25.85	
13	29.05	28.33	30.57	30.52	30.43	33.52	31.35	30.02	27.24	26.47	26.23	25.85	
14	28.96	28.29	30.28	30.69	30.49	33.85	31.25	29.90	27.20	26.47	26.23	25.85	
15	28.87	28.44	30.29	31.00	30.48	34.08	31.59	29.75	27.12	26.47	26.23	25.85	
16	28.79	30.58	30.27	31.37	30.76	34.47	31.75	29.58	27.02	26.47	26.23	25.85	
17	28.74	31.20	30.24	31.39	30.80	34.12	32.28	29.38	26.93	26.47	26.23	25.85	
18	28.68	31.47	30.23	31.15	30.92	33.46	33.05	29.12	26.85	26.47	26.23	25.85	
19	28.61	31.40	30.18	30.82	31.05	32.15	33.35	28.85	26.74	26.47	26.23	25.85	
20	28.59	31.17	30.18	30.61	31.16	31.85	33.43	28.64	26.68	26.47	26.23	25.85	
21	28.53	30.93	30.18	30.45	31.15	30.16	33.18	28.57	26.66	26.47	26.23	25.85	
22	28.47	30.79	30.17	30.46	31.22	32.00	32.22	28.54	26.62	26.47	26.23	25.85	
23	28.53	30.54	30.17	30.47	31.05	32.53	31.49	28.50	26.51	26.47	26.23	25.85	
24	28.63	30.40	30.14	30.48	30.79	32.77	31.17	28.50	26.47	26.47	26.23	25.85	
25	28.63	30.23	30.14	30.88	30.57	32.79	30.92	28.52	26.47	26.47	26.23	25.85	
26	28.60	30.86	30.09	31.09	30.48	32.67	30.72	28.46	26.47	26.47	26.23	25.85	
27	28.57	32.13	30.02	31.07	30.44	32.25	30.75	28.40	26.47	26.47	26.23	25.85	
28	28.55	32.20	30.01	30.85	30.30	31.76	30.73	28.38	26.47	26.47	26.23	25.85	
29	28.54	31.79	30.03	30.60	30.34	31.66	30.66	28.35	26.47	26.47	26.23	25.85	
30	28.60	32.13	30.06	30.48	30.81	31.43	30.69	28.36	26.47	26.47		25.85	
31		32.27		30.43	30.83		30.69		26.47	26.47		25.85	
Mean	28.97	29.91	30.65	30.60	30.60	32.21	31.76	29.46	27.13	26.47	26.23	25.85	
Max	29.65	32.27	31.91	31.39	31.22	34.47	33.43	30.61	28.33	26.47	26.23	25.85	34.47
Min	28.47	28.29	30.01	30.10	30.25	30.16	30.66	28.35	26.47	26.47	26.23	25.85	25.85

Annual Max Momentary Gage Height	34.53	m. (MSL.) ,	at 16.00 Hours , on Sep 16 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	25.50	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, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	83.20	0.00	11.15	24.00	54.65	15.65	0.00	0.00	0.00	0.00		
2	0.00	0.00	57.40	0.00	13.40	30.50	52.45	17.50	0.00	0.00	0.00	0.00		
3	0.00	0.00	29.50	2.40	13.40	42.00	46.95	15.20	0.00	0.00	0.00	0.00		
4	0.00	0.00	35.00	10.25	12.05	39.50	56.30	10.25	0.00	0.00	0.00	0.00		
5	0.00	0.00	46.95	9.35	8.45	60.70	90.40	4.40	0.00	0.00	0.00	0.00		
6	0.00	0.00	50.25	20.50	6.40	68.20	111.70	3.60	0.00	0.00	0.00	0.00		
7	0.00	0.00	49.70	11.15	4.00	76.00	135.50	2.80	0.00	0.00	0.00	0.00		
8	0.00	0.00	83.20	4.80	2.40	81.40	153.50	1.60	0.00	0.00	0.00	0.00		
9	0.00	0.00	88.60	1.20	2.00	67.00	139.25	0.80	0.00	0.00	0.00	0.00		
10	0.00	0.00	79.00	0.00	2.80	68.20	113.70	0.40	0.00	0.00	0.00	0.00		
11	0.00	0.00	49.70	0.00	3.20	114.40	88.00	0.00	0.00	0.00	0.00	0.00		
12	0.00	0.00	25.50	4.40	4.00	162.50	69.40	0.00	0.00	0.00	0.00	0.00		
13	0.00	0.00	15.65	13.40	9.35	204.60	55.75	0.00	0.00	0.00	0.00	0.00		
14	0.00	0.00	3.20	21.50	12.05	231.00	50.25	0.00	0.00	0.00	0.00	0.00		
15	0.00	0.00	3.60	37.00	11.60	250.30	69.40	0.00	0.00	0.00	0.00	0.00		
16	0.00	16.10	2.80	56.85	25.00	283.45	79.00	0.00	0.00	0.00	0.00	0.00		
17	0.00	47.50	1.60	57.95	27.00	253.70	111.70	0.00	0.00	0.00	0.00	0.00		
18	0.00	62.35	1.20	44.75	33.00	199.80	167.75	0.00	0.00	0.00	0.00	0.00		
19	0.00	58.50	0.00	28.00	39.50	103.25	191.00	0.00	0.00	0.00	0.00	0.00		
20	0.00	45.85	0.00	17.50	45.30	85.00	197.40	0.00	0.00	0.00	0.00	0.00		
21	0.00	33.50	0.00	10.25	44.75	0.00	177.50	0.00	0.00	0.00	0.00	0.00		
22	0.00	26.50	0.00	10.70	48.60	94.00	107.80	0.00	0.00	0.00	0.00	0.00		
23	0.00	14.30	0.00	11.15	39.50	129.10	63.45	0.00	0.00	0.00	0.00	0.00		
24	0.00	8.00	0.00	11.60	26.50	146.75	45.85	0.00	0.00	0.00	0.00	0.00		
25	0.00	1.20	0.00	31.00	15.65	148.25	33.00	0.00	0.00	0.00	0.00	0.00		
26	0.00	30.00	0.00	41.50	11.60	139.25	23.00	0.00	0.00	0.00	0.00	0.00		
27	0.00	101.95	0.00	40.50	9.80	109.75	24.50	0.00	0.00	0.00	0.00	0.00		
28	0.00	106.50	0.00	29.50	4.00	79.60	23.50	0.00	0.00	0.00	0.00	0.00		
29	0.00	81.40	0.00	17.00	5.60	73.60	20.00	0.00	0.00	0.00	0.00	0.00		
30	0.00	101.95	0.00	11.60	27.50	60.15	21.50	0.00	0.00	0.00		0.00		
31		111.05		9.35	28.50		21.50		0.00	0.00		0.00		
Total	0.00	846.65	706.05	565.15	548.05	3425.95	2595.65	72.20	0.00	0.00	0.00	0.00	8759.70	CMSDAY
Mean	0.00	27.31	23.54	18.23	17.68	114.20	83.73	2.41	0.00	0.00	0.00	0.00	23.93	CMS
Max	0.00	111.05	88.60	57.95	48.60	283.45	197.40	17.50	0.00	0.00	0.00	0.00	283.45	CMS
Min	0.00	0.00	0.00	0.00	2.00	0.00	20.00	0.00	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	0.00	73.15	61.00	48.83	47.35	296.00	224.26	6.24	0.00	0.00	0.00	0.00	756.84	MCM

Momentary Peak 288.70 CMS. at 34.53 m. (MSL.) at 16.00 Hours , on Sep 16 , 2011

Runoff Yield 7.46 Liters/Second/Square KM. Momentary Peak Yield 90.022 Liters/Second/Square KM.

WATER YEAR : 2011

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

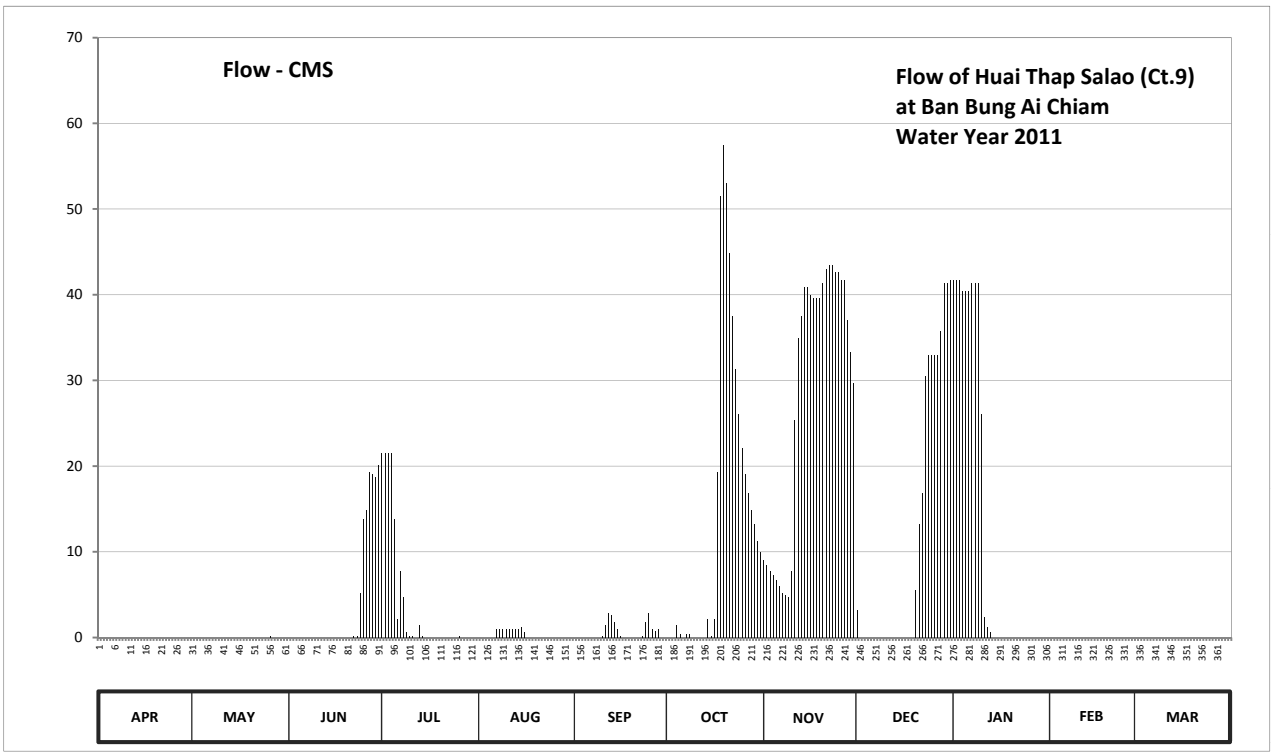
Location : on left bank about 9 kilometers upstream from Ct.6.

	Ban	Bung Ai Chiam	**Amphoe** Lan Sak	**Changwat**	Uthai Thani
Drainge Area	528	sq.km.			
Type of Gage	Staff gage.				
Zero Gage at Bottom	+0.000	m. (MSL.)			
Bench Mark	B.M.-H.D.				
Location BM	On left bank about 100 meters from the gage observer's house			**Elevation**	+129.000 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.				
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings				
Period of Available Gage Records	1977 to date				
Rating Operation					
Period of Rating	1977 to date				
Rated by Flot	-				
Rated by Current Meter	1977 to date				
Stability of Channel Regimes	Fairly stable				
Overbank Flow Conditions	No overbank flow.				
General Description	Records good. Flow regulated by Rabum Dam above gage site.				
	Stage-discharge relation defined by 12 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	123.37	123.50	123.38	124.27	123.46	123.46	123.49	123.90	123.66	124.77	123.46	123.43	
2	123.36	123.50	123.37	124.27	123.46	123.46	123.49	123.88	123.48	124.77	123.46	123.43	
3	123.36	123.50	123.37	124.27	123.46	123.46	123.50	123.85	123.42	124.77	123.46	123.43	
4	123.36	123.50	123.37	124.27	123.46	123.48	123.57	123.83	123.41	124.74	123.46	123.43	
5	123.35	123.48	123.42	124.05	123.46	123.47	123.52	123.81	123.41	124.74	123.46	123.43	
6	123.40	123.39	123.42	123.61	123.50	123.50	123.50	123.78	123.40	124.74	123.46	123.43	
7	123.48	123.35	123.40	123.85	123.55	123.49	123.52	123.75	123.40	124.76	123.46	123.43	
8	123.48	123.35	123.50	123.73	123.55	123.49	123.52	123.74	123.40	124.76	123.46	123.43	
9	123.48	123.35	123.42	123.53	123.55	123.47	123.49	123.73	123.40	124.76	123.46	123.43	
10	123.47	123.34	123.38	123.51	123.55	123.51	123.49	123.85	123.40	124.39	123.46	123.43	
11	123.38	123.34	123.35	123.51	123.55	123.57	123.48	124.37	123.40	123.62	123.46	123.43	
12	123.37	123.34	123.35	123.50	123.55	123.64	123.50	124.61	123.40	123.56	123.46	123.43	
13	123.37	123.33	123.34	123.57	123.55	123.63	123.49	124.67	123.40	123.53	123.46	123.43	
14	123.36	123.33	123.33	123.51	123.55	123.59	123.61	124.75	123.40	123.46	123.42	123.43	
15	123.35	123.33	123.33	123.49	123.56	123.55	123.51	124.75	123.42	123.46	123.35	123.43	
16	123.35	123.33	123.33	123.49	123.53	123.51	123.61	124.73	123.48	123.46	123.35	123.43	
17	123.35	123.33	123.32	123.48	123.49	123.48	124.21	124.72	123.48	123.46	123.33	123.39	
18	123.35	123.32	123.31	123.47	123.50	123.48	124.98	124.72	123.48	123.46	123.33	123.33	
19	123.35	123.32	123.31	123.47	123.48	123.48	125.10	124.72	123.49	123.46	123.32	123.32	
20	123.39	123.32	123.31	123.47	123.46	123.48	125.01	124.76	123.76	123.46	123.32	123.32	
21	123.40	123.32	123.37	123.47	123.46	123.48	124.84	124.80	124.03	123.46	123.40	123.32	
22	123.40	123.32	123.51	123.47	123.44	123.50	124.67	124.81	124.14	123.43	123.43	123.32	
23	123.40	123.31	123.51	123.47	123.44	123.51	124.52	124.81	124.50	123.42	123.43	123.32	
24	123.44	123.34	123.75	123.47	123.44	123.59	124.39	124.79	124.56	123.40	123.43	123.36	
25	123.47	123.46	124.05	123.47	123.44	123.64	124.29	124.79	124.56	123.39	123.43	123.43	
26	123.47	123.51	124.08	123.51	123.44	123.55	124.20	124.77	124.56	123.35	123.43	123.43	
27	123.40	123.40	124.21	123.49	123.50	123.54	124.14	124.77	124.56	123.35	123.43	123.43	
28	123.46	123.39	124.20	123.48	123.47	123.55	124.08	124.66	124.63	123.42	123.43	123.43	
29	123.49	123.39	124.19	123.49	123.47	123.49	124.03	124.57	124.76	123.44	123.43	123.43	
30	123.50	123.39	124.23	123.47	123.46	123.49	123.97	124.48	124.76	123.44		123.43	
31		123.38		123.47	123.46		123.93		124.77	123.44		123.43	
Mean	123.41	123.38	123.55	123.63	123.49	123.52	123.96	124.41	123.84	123.86	123.42	123.41	
Max	123.50	123.51	124.23	124.27	123.56	123.64	125.10	124.81	124.77	124.77	123.46	123.43	125.10
Min	123.35	123.31	123.31	123.47	123.44	123.46	123.48	123.73	123.40	123.35	123.32	123.32	123.31

Annual Max Momentary Gage Height	125.12	m. (MSL.) ,	at 09.00 Hours , on Oct 19 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	123.18	m. (MSL)
Left Bank Elevation	127.70	m. (MSL.) ,			
Right Bank Elevation	127.57	m. (MSL.) ,	Drainage Area	528	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	0.00	21.45	0.00	0.00	0.00	9.00	3.20	41.71	0.00	0.00		
2	0.00	0.00	0.00	21.45	0.00	0.00	0.00	8.50	0.00	41.71	0.00	0.00		
3	0.00	0.00	0.00	21.45	0.00	0.00	0.00	7.75	0.00	41.71	0.00	0.00		
4	0.00	0.00	0.00	21.45	0.00	0.00	1.40	7.25	0.00	40.42	0.00	0.00		
5	0.00	0.00	0.00	13.85	0.00	0.00	0.40	6.75	0.00	40.42	0.00	0.00		
6	0.00	0.00	0.00	2.20	0.00	0.00	0.00	6.00	0.00	40.42	0.00	0.00		
7	0.00	0.00	0.00	7.75	1.00	0.00	0.40	5.25	0.00	41.28	0.00	0.00		
8	0.00	0.00	0.00	4.75	1.00	0.00	0.40	5.00	0.00	41.28	0.00	0.00		
9	0.00	0.00	0.00	0.60	1.00	0.00	0.00	4.75	0.00	41.28	0.00	0.00		
10	0.00	0.00	0.00	0.20	1.00	0.20	0.00	7.75	0.00	26.10	0.00	0.00		
11	0.00	0.00	0.00	0.20	1.00	1.40	0.00	25.30	0.00	2.40	0.00	0.00		
12	0.00	0.00	0.00	0.00	1.00	2.80	0.00	34.92	0.00	1.20	0.00	0.00		
13	0.00	0.00	0.00	1.40	1.00	2.60	0.00	37.44	0.00	0.60	0.00	0.00		
14	0.00	0.00	0.00	0.20	1.00	1.80	2.20	40.85	0.00	0.00	0.00	0.00		
15	0.00	0.00	0.00	0.00	1.20	1.00	0.20	40.85	0.00	0.00	0.00	0.00		
16	0.00	0.00	0.00	0.00	0.60	0.20	2.20	39.99	0.00	0.00	0.00	0.00		
17	0.00	0.00	0.00	0.00	0.00	0.00	19.35	39.56	0.00	0.00	0.00	0.00		
18	0.00	0.00	0.00	0.00	0.00	0.00	51.50	39.56	0.00	0.00	0.00	0.00		
19	0.00	0.00	0.00	0.00	0.00	0.00	57.50	39.56	0.00	0.00	0.00	0.00		
20	0.00	0.00	0.00	0.00	0.00	0.00	53.00	41.28	5.50	0.00	0.00	0.00		
21	0.00	0.00	0.00	0.00	0.00	0.00	44.80	43.00	13.19	0.00	0.00	0.00		
22	0.00	0.00	0.20	0.00	0.00	0.00	37.44	43.45	16.90	0.00	0.00	0.00		
23	0.00	0.00	0.20	0.00	0.00	0.20	31.30	43.45	30.50	0.00	0.00	0.00		
24	0.00	0.00	5.25	0.00	0.00	1.80	26.10	42.57	32.90	0.00	0.00	0.00		
25	0.00	0.00	13.85	0.00	0.00	2.80	22.15	42.57	32.90	0.00	0.00	0.00		
26	0.00	0.20	14.84	0.20	0.00	1.00	19.00	41.71	32.90	0.00	0.00	0.00		
27	0.00	0.00	19.35	0.00	0.00	0.80	16.90	41.71	32.90	0.00	0.00	0.00		
28	0.00	0.00	19.00	0.00	0.00	1.00	14.84	37.02	35.76	0.00	0.00	0.00		
29	0.00	0.00	18.65	0.00	0.00	0.00	13.19	33.30	41.28	0.00	0.00	0.00		
30	0.00	0.00	20.05	0.00	0.00	0.00	11.24	29.70	41.28	0.00		0.00		
31		0.00		0.00	0.00		9.96		41.71	0.00		0.00		
Total	0.00	0.20	111.39	117.15	9.80	17.60	435.47	845.79	360.92	400.53	0.00	0.00	2298.85	CMSDAY
Mean	0.00	0.01	3.71	3.78	0.32	0.59	14.05	28.19	11.64	12.92	0.00	0.00	6.28	CMS
Max	0.00	0.20	20.05	21.45	1.20	2.80	57.50	43.45	41.71	41.71	0.00	0.00	57.50	CMS
Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.75	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	0.00	0.02	9.62	10.12	0.85	1.52	37.63	73.08	31.18	34.61	0.00	0.00	198.62	MCM

Momentary Peak 58.50 CMS. at 125.12 m. (MSL.) at 09.00 Hours , on Oct 19 , 2011

Runoff Yield 11.89 Liters/Second/Square KM. Momentary Peak Yield 110.739 Liters/Second/Square KM.

WATER YEAR : 2011

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

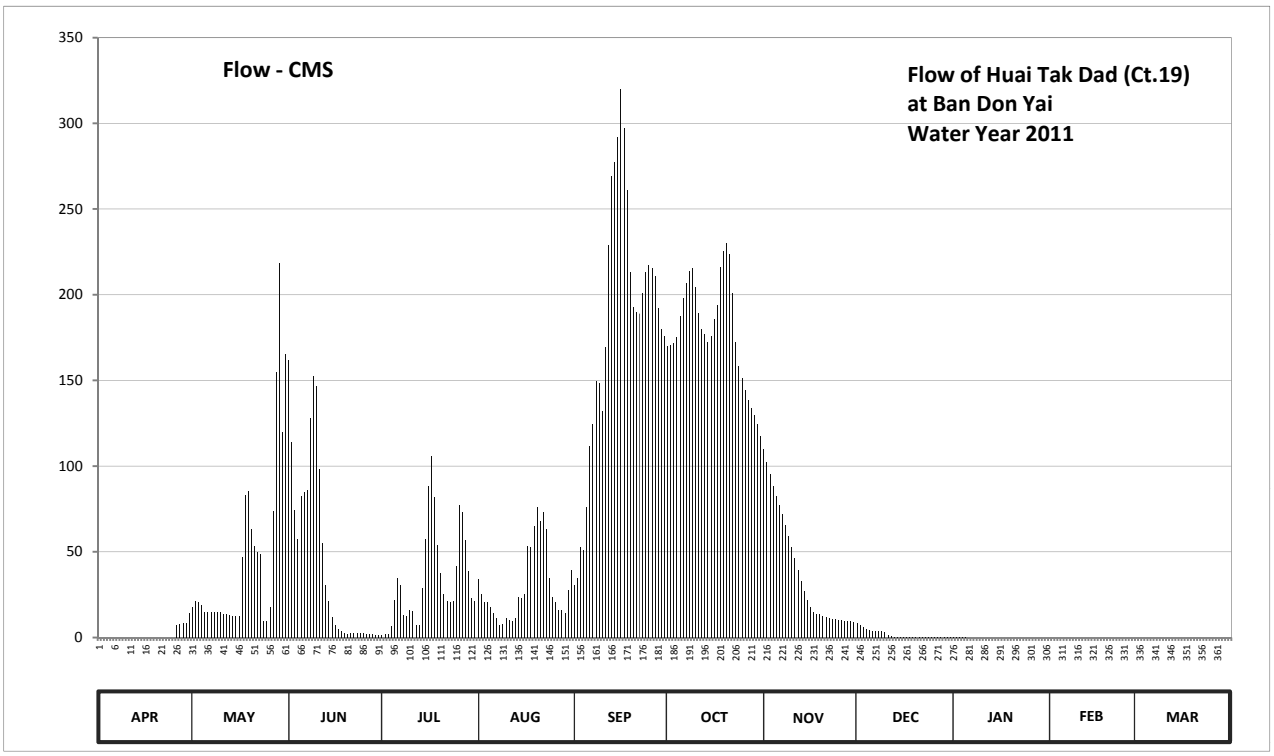
Location : on right bank at Ban Don Yai

	Ban Don Yai	**Amphoe** Mueang	**Changwat** Uthai Thani
Drainge Area	3,454 sq.km.		
Type of Gage	Staff gage.		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank about 5.00 meters from the top staff gage.	**Elevation**	+24.379 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings		
Period of Available Gage Records	1998 to date		
Rating Operation			
Period of Rating	1998 to date		
Rated by Flot	-		
Rated by Current Meter	1998 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 17 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	17.21	18.75	21.91	17.75	19.33	19.22	22.03	21.09	18.28	17.48	16.67	16.67	
2	17.21	18.89	21.16	17.78	19.04	19.36	22.04	20.94	18.22	17.42	16.67	16.67	
3	17.21	18.87	20.39	17.79	18.86	19.88	22.05	20.81	18.15	17.37	16.67	16.67	
4	17.20	18.79	20.01	18.16	18.87	19.83	22.10	20.67	18.07	17.32	16.67	16.67	
5	17.20	18.63	20.55	18.91	18.74	20.42	22.28	20.55	18.03	17.26	16.67	16.67	
6	17.18	18.64	20.60	19.35	18.62	21.12	22.41	20.45	17.98	17.19	16.67	16.67	
7	17.16	18.64	20.62	19.23	18.46	21.34	22.52	20.34	17.97	17.13	16.67	16.67	
8	17.16	18.64	21.40	18.55	18.22	21.74	22.61	20.20	17.96	17.08	16.67	16.67	
9	17.14	18.64	21.78	18.54	18.25	21.72	22.63	20.05	17.96	17.03	16.67	16.67	
10	17.11	18.63	21.69	18.67	18.46	21.47	22.49	19.88	17.91	17.00	16.67	16.67	
11	17.08	18.59	20.86	18.66	18.40	22.02	22.30	19.70	17.76	16.95	16.67	16.67	
12	17.16	18.58	19.94	18.21	18.39	22.79	22.17	19.50	17.63	16.91	16.67	16.67	
13	17.15	18.56	19.23	18.21	18.47	23.19	22.13	19.30	17.34	16.87	16.67	16.67	
14	17.15	18.54	18.88	19.17	18.99	23.27	22.06	19.10	17.30	16.84	16.67	16.67	
15	17.15	18.52	18.49	20.01	18.96	23.40	22.11	18.91	17.36	16.80	16.67	16.67	
16	17.14	18.52	18.20	20.66	19.05	23.64	22.25	18.74	17.54	16.77	16.67	16.67	
17	17.13	19.72	18.08	21.02	19.89	23.45	22.36	18.63	17.61	16.74	16.67	16.67	
18	17.12	20.56	17.96	20.54	19.88	23.11	22.64	18.58	17.61	16.73	16.67	16.67	
19	17.12	20.61	17.84	19.92	20.19	22.60	22.75	18.58	17.54	16.67	16.67	16.67	
20	17.12	20.15	17.82	19.45	20.42	22.35	22.80	18.53	17.54	16.67	16.67	16.67	
21	17.12	19.89	17.83	19.04	20.25	22.31	22.73	18.49	17.54	16.67	16.67	16.67	
22	17.10	19.79	17.86	18.89	20.37	22.30	22.45	18.47	17.54	16.67	16.67	16.67	
23	17.08	19.76	17.86	18.87	20.14	22.45	22.06	18.45	17.54	16.67	16.67	16.67	
24	17.08	18.39	17.85	18.89	19.35	22.60	21.86	18.43	17.54	16.67	16.67	16.67	
25	17.06	18.37	17.83	19.56	18.98	22.65	21.76	18.41	17.55	16.67	16.67	16.67	
26	18.20	18.75	17.80	20.44	18.87	22.63	21.66	18.40	17.56	16.67	16.67	16.67	
27	18.24	20.38	17.80	20.37	18.69	22.57	21.57	18.38	17.56	16.67	16.67	16.67	
28	18.28	21.81	17.78	19.99	18.69	22.34	21.50	18.37	17.56	16.67	16.67	16.67	
29	18.30	22.67	17.76	19.48	18.60	22.17	21.43	18.36	17.56	16.67	16.67	16.67	
30	18.60	21.26	17.75	18.97	19.12	22.11	21.34	18.33	17.56	16.67		16.67	
31		21.96		18.90	19.50		21.22		17.56	16.67		16.67	
Mean	17.34	19.44	19.18	19.16	19.10	22.00	22.14	19.29	17.70	16.89	16.67	16.67	
Max	18.60	22.67	21.91	21.02	20.42	23.64	22.80	21.09	18.28	17.48	16.67	16.67	23.64
Min	17.06	18.37	17.75	17.75	18.22	19.22	21.22	18.33	17.30	16.67	16.67	16.67	16.67

Annual Max Momentary Gage Height	23.78	m. (MSL.) ,	at 19.00 Hours , on Sep 16 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	15.68	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, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.01	17.75	161.70	1.50	33.90	30.60	170.10	109.95	8.20	0.28	0.00	0.00		
2	0.01	21.25	113.80	1.80	25.20	34.80	170.80	102.00	7.30	0.22	0.00	0.00		
3	0.01	20.75	74.50	1.90	20.50	52.80	171.50	95.50	6.25	0.17	0.00	0.00		
4	0.00	18.75	57.70	6.40	20.75	51.05	175.00	88.50	5.05	0.12	0.00	0.00		
5	0.00	14.75	82.50	21.75	17.50	76.00	187.60	82.50	4.45	0.06	0.00	0.00		
6	0.00	15.00	85.00	34.50	14.50	111.60	197.80	77.50	3.80	0.00	0.00	0.00		
7	0.00	15.00	86.00	30.90	11.20	124.40	206.60	72.00	3.70	0.00	0.00	0.00		
8	0.00	15.00	128.00	13.00	7.30	149.80	213.80	65.50	3.60	0.00	0.00	0.00		
9	0.00	15.00	152.60	12.80	7.75	148.40	215.40	59.30	3.60	0.00	0.00	0.00		
10	0.00	14.75	146.35	15.75	11.20	132.20	204.20	52.80	3.10	0.00	0.00	0.00		
11	0.00	13.80	98.00	15.50	10.00	169.40	189.00	46.50	1.60	0.00	0.00	0.00		
12	0.00	13.60	55.02	7.15	9.85	229.10	179.90	39.50	0.65	0.00	0.00	0.00		
13	0.00	13.20	30.90	7.15	11.40	269.00	177.10	33.00	0.14	0.00	0.00	0.00		
14	0.00	12.80	21.00	29.10	23.75	277.70	172.20	27.00	0.10	0.00	0.00	0.00		
15	0.00	12.40	11.80	57.70	23.00	292.00	175.70	21.75	0.16	0.00	0.00	0.00		
16	0.00	12.40	7.00	88.00	25.50	319.80	185.50	17.50	0.38	0.00	0.00	0.00		
17	0.00	47.20	5.20	106.10	53.15	297.50	193.80	14.75	0.55	0.00	0.00	0.00		
18	0.00	83.00	3.60	82.00	52.80	261.00	216.20	13.60	0.55	0.00	0.00	0.00		
19	0.00	85.50	2.40	54.26	65.08	213.00	225.50	13.60	0.38	0.00	0.00	0.00		
20	0.00	63.40	2.20	37.75	76.00	193.00	230.00	12.60	0.38	0.00	0.00	0.00		
21	0.00	53.15	2.30	25.20	67.75	189.80	223.70	11.80	0.38	0.00	0.00	0.00		
22	0.00	49.65	2.60	21.25	73.50	189.00	201.00	11.40	0.38	0.00	0.00	0.00		
23	0.00	48.60	2.60	20.75	62.98	201.00	172.20	11.00	0.38	0.00	0.00	0.00		
24	0.00	9.85	2.50	21.25	34.50	213.00	158.20	10.60	0.38	0.00	0.00	0.00		
25	0.00	9.55	2.30	41.60	23.50	217.00	151.20	10.20	0.40	0.00	0.00	0.00		
26	7.00	17.75	2.00	77.00	20.75	215.40	144.40	10.00	0.42	0.00	0.00	0.00		
27	7.60	74.00	2.00	73.50	16.25	210.60	138.55	9.70	0.42	0.00	0.00	0.00		
28	8.20	154.70	1.80	56.92	16.25	192.20	134.00	9.55	0.42	0.00	0.00	0.00		
29	8.50	218.60	1.60	38.80	14.00	179.90	129.80	9.40	0.42	0.00	0.00	0.00		
30	14.00	119.60	1.50	23.25	27.60	175.70	124.40	8.95	0.42	0.00		0.00		
31		165.20		21.50	39.50		117.20		0.42	0.00		0.00		
Total	45.33	1445.95	1346.47	1046.03	916.91	5416.75	5552.35	1147.95	58.38	0.85	0.00	0.00	16976.97	CMSDAY
Mean	1.51	46.64	44.88	33.74	29.58	180.56	179.11	38.26	1.88	0.03	0.00	0.00	46.39	CMS
Max	14.00	218.60	161.70	106.10	76.00	319.80	230.00	109.95	8.20	0.28	0.00	0.00	319.80	CMS
Min	0.00	9.55	1.50	1.50	7.30	30.60	117.20	8.95	0.10	0.00	0.00	0.00	0.00	CMS
Runoff	3.92	124.93	116.34	90.38	79.22	468.01	479.72	99.18	5.04	0.07	0.00	0.00	1466.81	MCM

Momentary Peak 336.60 CMS. at 23.78 m. (MSL.) at 19.00 Hours , on Sep 16 , 2011

Runoff Yield 13.43 Liters/Second/Square KM. Momentary Peak Yield 97.452 Liters/Second/Square KM.

WATER YEAR : 2011

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

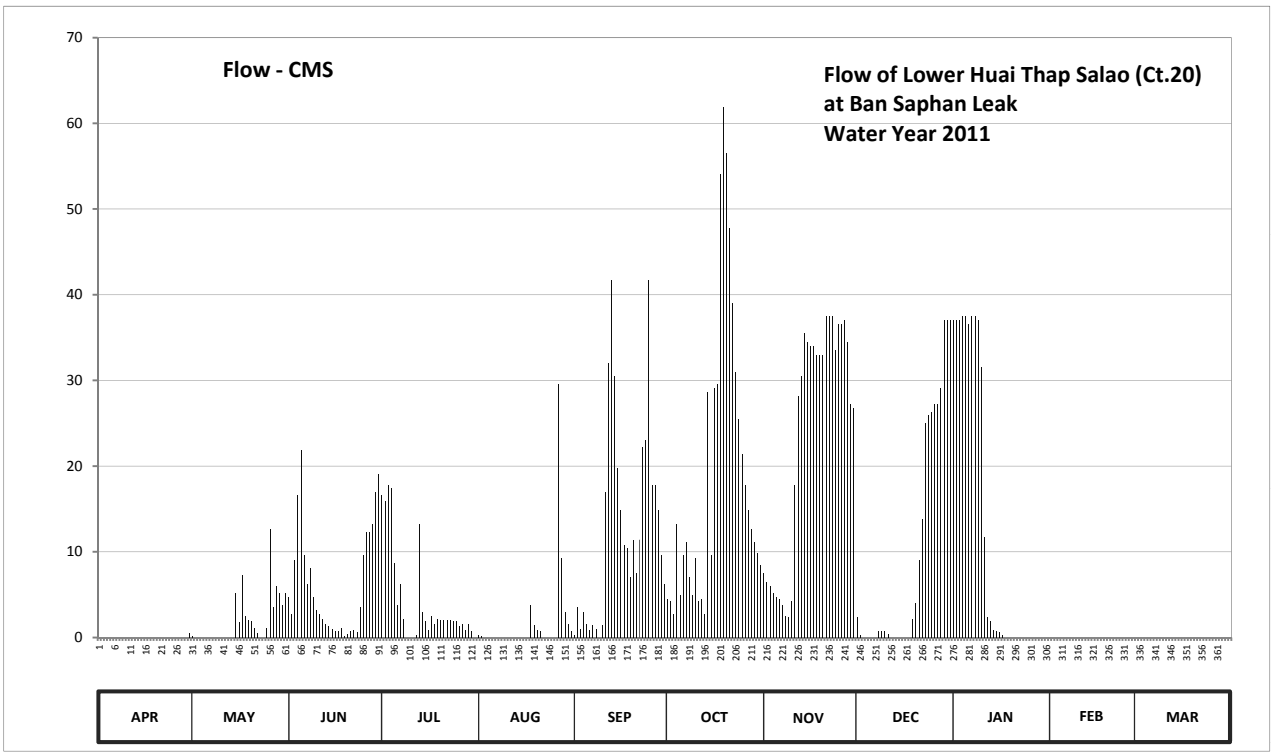
Location : on right bank at Ban Saphan Leak

	Ban	Saphan Leak	**Amphoe** Lan Sak	**Changwat**	Uthai Thani
Drainge Area	691	sq.km.			
Type of Gage	Water - stage recorder				
Zero Gage at Bottom	+0.000	m. (MSL.)			
Bench Mark	B.M.-H.D.				
Location BM	On right bank near the automatic gage buiding			**Elevation**	+101.800 m. (MSL.)
Gage Reading Frequency	Recording				
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings				
Period of Available Gage Records	1999 to date				
Rating Operation					
Period of Rating	2007 to date				
Rated by Flot	-				
Rated by Current Meter	2007 to date				
Stability of Channel Regimes	Fairly stable.				
Overbank Flow Conditions	No overbank flow				
General Description	Records good. Stage-discharge relation defined by 14 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	98.65	98.92	99.19	99.59	98.93	98.93	99.18	99.30	99.09	100.05	98.59	98.52	
2	98.63	98.74	99.11	99.57	98.92	99.14	99.17	99.26	98.93	100.05	98.57	98.54	
3	98.63	98.73	99.35	99.62	98.87	99.00	99.11	99.24	98.83	100.05	98.57	98.55	
4	98.64	98.71	99.59	99.61	98.86	99.12	99.49	99.21	98.88	100.06	98.58	98.56	
5	98.64	98.71	99.72	99.34	98.80	99.04	99.20	99.19	98.78	100.06	98.60	98.53	
6	98.65	98.73	99.37	99.15	98.73	98.99	99.37	99.18	98.77	100.04	98.62	98.52	
7	98.69	98.67	99.25	99.25	98.77	99.03	99.42	99.15	98.76	100.06	98.61	98.52	
8	98.70	98.65	99.32	99.08	98.78	99.00	99.28	99.10	98.98	100.06	98.61	98.52	
9	98.70	98.73	99.19	98.78	98.86	98.90	99.20	99.09	98.97	100.05	98.63	98.52	
10	98.66	98.73	99.13	98.85	98.79	99.03	99.36	99.17	98.97	99.94	98.64	98.53	
11	98.65	98.71	99.11	98.87	98.80	99.60	99.17	99.62	98.94	99.44	98.63	98.56	
12	98.65	98.68	99.08	98.93	98.87	99.95	99.18	99.87	98.90	99.09	98.62	98.56	
13	98.66	98.67	99.04	99.49	98.87	100.14	99.11	99.92	98.87	99.06	98.62	98.55	
14	98.67	98.73	99.02	99.12	98.87	99.92	99.88	100.02	98.84	98.99	98.62	98.55	
15	98.65	99.21	99.00	99.06	98.88	99.67	99.37	100.00	98.81	98.98	98.56	98.61	
16	98.63	99.05	98.98	98.99	98.76	99.54	99.89	99.99	98.78	98.96	98.54	98.69	
17	98.63	99.29	98.97	99.10	98.76	99.41	99.90	99.99	98.78	98.93	98.56	98.61	
18	98.58	99.10	99.01	99.04	99.15	99.40	100.36	99.97	98.79	98.90	98.56	98.56	
19	98.90	99.07	98.92	99.08	99.03	99.28	100.49	99.97	99.08	98.88	98.55	98.56	
20	98.83	99.06	98.94	99.07	98.99	99.43	100.40	99.97	99.16	98.87	98.53	98.55	
21	98.73	99.01	98.98	99.07	98.98	99.30	100.25	100.06	99.35	98.86	98.52	98.54	
22	98.65	98.95	98.99	99.07	98.88	99.43	100.09	100.06	99.51	98.86	98.53	98.53	
23	98.69	98.89	98.96	99.07	98.77	99.73	99.93	100.06	99.80	98.84	98.54	98.51	
24	98.60	98.82	99.14	99.06	98.74	99.75	99.81	99.98	99.82	98.80	98.54	98.53	
25	98.62	99.01	99.37	99.06	98.82	100.14	99.71	100.04	99.83	98.79	98.52	98.54	
26	98.62	99.47	99.46	99.02	98.71	99.62	99.62	100.04	99.85	98.76	98.53	98.54	
27	98.59	99.14	99.46	99.04	99.90	99.62	99.54	100.05	99.85	98.72	98.53	98.54	
28	98.57	99.24	99.49	98.99	99.36	99.54	99.47	100.00	99.89	98.67	98.53	98.55	
29	98.67	99.21	99.60	99.04	99.12	99.37	99.42	99.85	100.05	98.65	98.51	98.55	
30	98.95	99.15	99.65	98.98	99.04	99.25	99.38	99.84	100.05	98.63		98.56	
31		99.21		98.86	98.98		99.33		100.05	98.61		98.57	
Mean	98.67	98.94	99.21	99.12	98.92	99.41	99.58	99.71	99.22	99.25	98.57	98.55	
Max	98.95	99.47	99.72	99.62	99.90	100.14	100.49	100.06	100.05	100.06	98.64	98.69	100.49
Min	98.57	98.65	98.92	98.78	98.71	98.90	99.11	99.09	98.76	98.61	98.51	98.51	98.51

Annual Max Momentary Gage Height	100.49	m. (MSL.) ,	at 06.00 Hours , on Oct 19 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	97.68	m. (MSL)
Left Bank Elevation	104.36	m. (MSL.) ,			
Right Bank Elevation	104.34	m. (MSL.) ,	Drainage Area	691	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.20	4.75	16.65	0.30	0.30	4.50	7.50	2.35	37.00	0.00	0.00		
2	0.00	0.00	2.75	15.95	0.20	3.50	4.25	6.50	0.30	37.00	0.00	0.00		
3	0.00	0.00	9.00	17.80	0.00	1.00	2.75	6.00	0.00	37.00	0.00	0.00		
4	0.00	0.00	16.65	17.40	0.00	3.00	13.20	5.25	0.00	37.50	0.00	0.00		
5	0.00	0.00	21.80	8.70	0.00	1.60	5.00	4.75	0.00	37.50	0.00	0.00		
6	0.00	0.00	9.60	3.75	0.00	0.90	9.60	4.50	0.00	36.50	0.00	0.00		
7	0.00	0.00	6.25	6.25	0.00	1.45	11.10	3.75	0.00	37.50	0.00	0.00		
8	0.00	0.00	8.10	2.20	0.00	1.00	7.00	2.50	0.80	37.50	0.00	0.00		
9	0.00	0.00	4.75	0.00	0.00	0.00	5.00	2.35	0.70	37.00	0.00	0.00		
10	0.00	0.00	3.25	0.00	0.00	1.45	9.30	4.25	0.70	31.50	0.00	0.00		
11	0.00	0.00	2.75	0.00	0.00	17.00	4.25	17.80	0.40	11.70	0.00	0.00		
12	0.00	0.00	2.20	0.30	0.00	32.00	4.50	28.15	0.00	2.35	0.00	0.00		
13	0.00	0.00	1.60	13.20	0.00	41.70	2.75	30.50	0.00	1.90	0.00	0.00		
14	0.00	0.00	1.30	3.00	0.00	30.50	28.60	35.50	0.00	0.90	0.00	0.00		
15	0.00	5.25	1.00	1.90	0.00	19.80	9.60	34.50	0.00	0.80	0.00	0.00		
16	0.00	1.75	0.80	0.90	0.00	14.90	29.05	34.00	0.00	0.60	0.00	0.00		
17	0.00	7.25	0.70	2.50	0.00	10.80	29.50	34.00	0.00	0.30	0.00	0.00		
18	0.00	2.50	1.15	1.60	3.75	10.50	54.10	33.00	0.00	0.00	0.00	0.00		
19	0.00	2.05	0.20	2.20	1.45	7.00	61.90	33.00	2.20	0.00	0.00	0.00		
20	0.00	1.90	0.40	2.05	0.90	11.40	56.50	33.00	4.00	0.00	0.00	0.00		
21	0.00	1.15	0.80	2.05	0.80	7.50	47.75	37.50	9.00	0.00	0.00	0.00		
22	0.00	0.50	0.90	2.05	0.00	11.40	39.00	37.50	13.85	0.00	0.00	0.00		
23	0.00	0.00	0.60	2.05	0.00	22.20	31.00	37.50	25.00	0.00	0.00	0.00		
24	0.00	0.00	3.50	1.90	0.00	23.00	25.45	33.50	25.90	0.00	0.00	0.00		
25	0.00	1.15	9.60	1.90	0.00	41.70	21.40	36.50	26.35	0.00	0.00	0.00		
26	0.00	12.60	12.30	1.30	0.00	17.80	17.80	36.50	27.25	0.00	0.00	0.00		
27	0.00	3.50	12.30	1.60	29.50	17.80	14.90	37.00	27.25	0.00	0.00	0.00		
28	0.00	6.00	13.20	0.90	9.30	14.90	12.60	34.50	29.05	0.00	0.00	0.00		
29	0.00	5.25	17.00	1.60	3.00	9.60	11.10	27.25	37.00	0.00	0.00	0.00		
30	0.50	3.75	19.00	0.80	1.60	6.25	9.90	26.80	37.00	0.00		0.00		
31		5.25		0.00	0.80		8.40		37.00	0.00		0.00		
Total	0.50	60.05	188.20	132.50	51.60	381.95	591.75	705.35	306.10	384.55	0.00	0.00	2802.55	CMSDAY
Mean	0.02	1.94	6.27	4.27	1.66	12.73	19.09	23.51	9.87	12.40	0.00	0.00	7.66	CMS
Max	0.50	12.60	21.80	17.80	29.50	41.70	61.90	37.50	37.00	37.50	0.00	0.00	61.90	CMS
Min	0.00	0.00	0.20	0.00	0.00	0.00	2.75	2.35	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	0.04	5.19	16.26	11.45	4.46	33.00	51.13	60.94	26.45	33.23	0.00	0.00	242.14	MCM

Momentary Peak 61.90 CMS. at 100.49 m. (MSL.) at 06.00 Hours , on Oct 19 , 2011

Runoff Yield 11.08 Liters/Second/Square KM. Momentary Peak Yield 89.562 Liters/Second/Square KM.

WATER YEAR : 2011

SAKAE KRANG RIVER BASIN

Huai Kan Yao at Ban Phai Khieo, Uthai Thani (Ct.21)

Lat 15 - 37 - 55 N Long 99 - 42 - 35 E

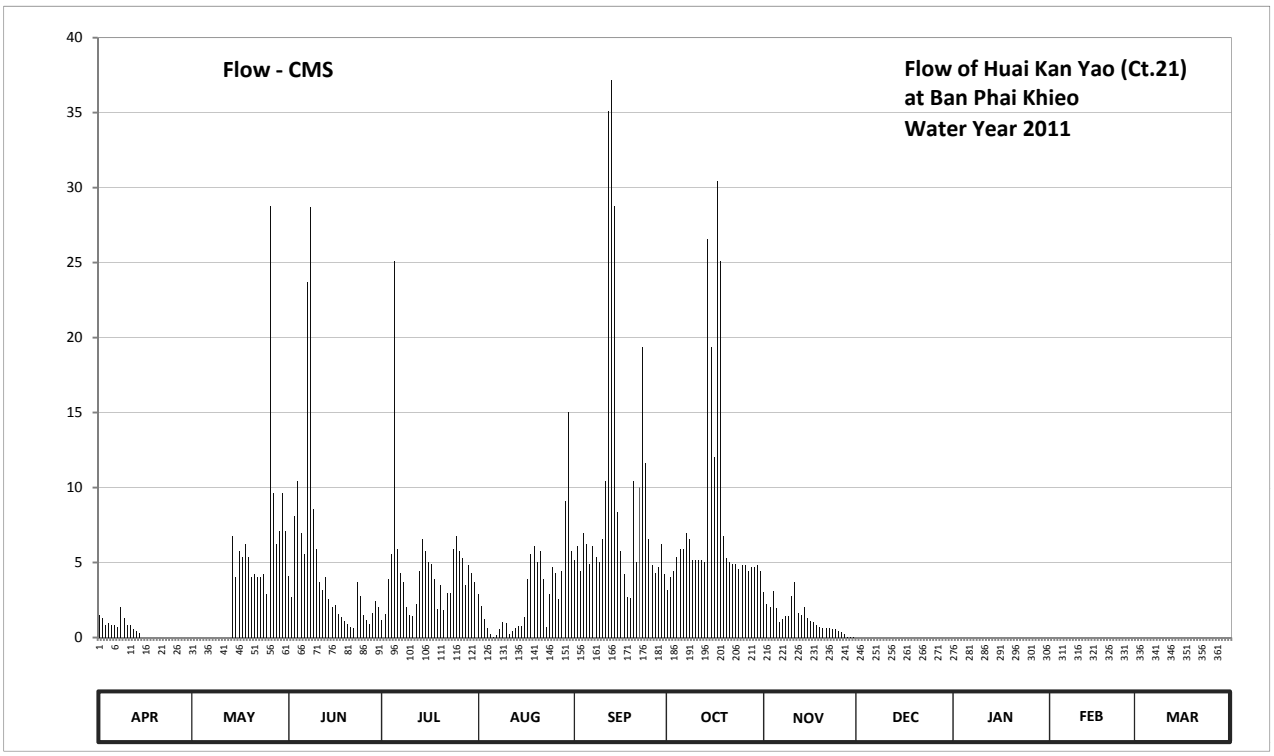
Location : on left bank at Ban Phai Khieo

	Ban Phai Khieo	**Amphoe** Sawang Arom	**Changwat** Uthai Thani
Drainge Area	201 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank at the abutment of the bridge	**Elevation**	+68.700 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	2008 to date		
Rating Operation			
Period of Rating	2008 to date		
Rated by Flot	-		
Rated by Current Meter	2008 to date		
Stability of Channel Regimes	Fairly stable		
Overbank Flow Conditions	No overbank flow		
General Description	Record good. Stage-discharge relation defined by 8 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	65.30	64.40	65.69	65.22	65.55	65.78	65.59	65.57	64.17	64.17	64.17	64.17	
2	65.25	64.40	65.51	65.31	65.42	65.84	65.68	65.44	64.17	64.17	64.17	64.17	
3	65.10	64.40	65.94	65.67	65.23	65.72	65.72	65.41	64.17	64.17	64.17	64.17	
4	65.15	64.40	66.02	65.81	65.02	65.89	65.80	65.58	64.17	64.17	64.17	64.17	
5	65.10	64.40	65.89	66.18	64.81	65.85	65.83	65.39	64.17	64.17	64.17	64.17	
6	65.10	64.40	65.81	65.83	64.73	65.76	65.83	65.17	64.17	64.17	64.17	64.17	
7	65.05	64.40	66.17	65.71	64.78	65.84	65.89	65.23	64.17	64.17	64.17	64.17	
8	65.40	64.40	66.29	65.65	64.97	65.80	65.87	65.28	64.17	64.17	64.17	64.17	
9	65.25	64.40	65.96	65.41	65.17	65.77	65.78	65.29	64.17	64.17	64.17	64.17	
10	65.10	64.40	65.83	65.30	65.16	65.87	65.78	65.53	64.17	64.17	64.17	64.17	
11	65.10	64.40	65.65	65.29	64.82	66.02	65.78	65.65	64.17	64.17	64.17	64.17	
12	65.00	64.40	65.59	65.44	64.91	66.75	65.78	65.33	64.17	64.17	64.17	64.17	
13	64.90	64.40	65.68	65.72	65.02	66.86	65.77	65.30	64.17	64.17	64.17	64.17	
14	64.85	65.88	65.49	65.87	65.09	66.30	66.19	65.41	64.17	64.17	64.17	64.17	
15	64.70	65.68	65.40	65.82	65.07	65.95	66.14	65.25	64.17	64.17	64.17	64.17	
16	64.60	65.82	65.43	65.77	65.27	65.82	66.06	65.20	64.17	64.17	64.17	64.17	
17	64.60	65.80	65.31	65.76	65.67	65.70	66.45	65.17	64.17	64.17	64.17	64.17	
18	64.60	65.85	65.26	65.67	65.81	65.52	66.18	65.11	64.17	64.17	64.17	64.17	
19	64.40	65.80	65.20	65.38	65.84	65.50	65.88	65.05	64.17	64.17	64.17	64.17	
20	64.40	65.68	65.14	65.63	65.77	66.02	65.79	65.03	64.17	64.17	64.17	64.17	
21	64.40	65.70	65.04	65.36	65.82	65.77	65.77	65.02	64.17	64.17	64.17	64.17	
22	64.40	65.68	65.03	65.56	65.67	66.01	65.76	65.01	64.17	64.17	64.17	64.17	
23	64.40	65.68	65.65	65.56	65.06	66.14	65.76	65.00	64.17	64.17	64.17	64.17	
24	64.40	65.70	65.53	65.83	65.55	66.05	65.73	64.97	64.17	64.17	64.17	64.17	
25	64.40	65.55	65.30	65.88	65.74	65.87	65.75	64.92	64.17	64.17	64.17	64.17	
26	64.40	66.30	65.21	65.82	65.71	65.75	65.75	64.88	64.17	64.17	64.17	64.17	
27	64.40	66.00	65.14	65.79	65.49	65.71	65.72	64.82	64.17	64.17	64.17	64.17	
28	64.40	65.85	65.33	65.63	65.72	65.74	65.74	64.73	64.17	64.17	64.17	64.17	
29	64.40	65.90	65.47	65.75	65.98	65.85	65.74	64.73	64.17	64.17	64.17	64.17	
30	64.40	66.00	65.41	65.71	66.11	65.70	65.75	64.73	64.17	64.17		64.17	
31		65.90		65.65	65.82		65.72		64.17	64.17		64.17	
Mean	64.77	65.22	65.55	65.64	65.38	65.90	65.84	65.17	64.17	64.17	64.17	64.17	
Max	65.40	66.30	66.29	66.18	66.11	66.86	66.45	65.65	64.17	64.17	64.17	64.17	66.86
Min	64.40	64.40	65.03	65.22	64.73	65.50	65.59	64.73	64.17	64.17	64.17	64.17	64.17

Annual Max Momentary Gage Height	67.10	m. (MSL.) ,	at 18.00 Hours , on Sep 12 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	64.21	m. (MSL)
Left Bank Elevation	68.51	m. (MSL.) ,			
Right Bank Elevation	68.50	m. (MSL.) ,	Drainage Area	201	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.50	0.00	4.10	1.18	2.90	5.16	3.14	3.02	0.00	0.00	0.00	0.00		
2	1.30	0.00	2.66	1.55	2.12	6.08	4.00	2.24	0.00	0.00	0.00	0.00		
3	0.80	0.00	8.10	3.90	1.22	4.44	4.44	2.06	0.00	0.00	0.00	0.00		
4	0.95	0.00	10.40	5.57	0.64	6.93	5.40	3.08	0.00	0.00	0.00	0.00		
5	0.80	0.00	6.93	25.12	0.22	6.25	5.91	1.95	0.00	0.00	0.00	0.00		
6	0.80	0.00	5.57	5.91	0.06	4.92	5.91	1.01	0.00	0.00	0.00	0.00		
7	0.70	0.00	23.68	4.32	0.16	6.08	6.93	1.22	0.00	0.00	0.00	0.00		
8	2.00	0.00	28.72	3.70	0.54	5.40	6.59	1.42	0.00	0.00	0.00	0.00		
9	1.30	0.00	8.60	2.06	1.01	5.04	5.16	1.46	0.00	0.00	0.00	0.00		
10	0.80	0.00	5.91	1.50	0.98	6.59	5.16	2.78	0.00	0.00	0.00	0.00		
11	0.80	0.00	3.70	1.46	0.24	10.40	5.16	3.70	0.00	0.00	0.00	0.00		
12	0.60	0.00	3.14	2.24	0.42	35.10	5.16	1.65	0.00	0.00	0.00	0.00		
13	0.40	0.00	4.00	4.44	0.64	37.20	5.04	1.50	0.00	0.00	0.00	0.00		
14	0.30	6.76	2.54	6.59	0.78	28.80	26.56	2.06	0.00	0.00	0.00	0.00		
15	0.00	4.00	2.00	5.74	0.74	8.35	19.36	1.30	0.00	0.00	0.00	0.00		
16	0.00	5.74	2.18	5.04	1.38	5.74	12.00	1.10	0.00	0.00	0.00	0.00		
17	0.00	5.40	1.55	4.92	3.90	4.20	30.45	1.01	0.00	0.00	0.00	0.00		
18	0.00	6.25	1.34	3.90	5.57	2.72	25.12	0.83	0.00	0.00	0.00	0.00		
19	0.00	5.40	1.10	1.90	6.08	2.60	6.76	0.70	0.00	0.00	0.00	0.00		
20	0.00	4.00	0.92	3.50	5.04	10.40	5.28	0.66	0.00	0.00	0.00	0.00		
21	0.00	4.20	0.68	1.80	5.74	5.04	5.04	0.64	0.00	0.00	0.00	0.00		
22	0.00	4.00	0.66	2.96	3.90	10.00	4.92	0.62	0.00	0.00	0.00	0.00		
23	0.00	4.00	3.70	2.96	0.72	19.36	4.92	0.60	0.00	0.00	0.00	0.00		
24	0.00	4.20	2.78	5.91	2.90	11.60	4.56	0.54	0.00	0.00	0.00	0.00		
25	0.00	2.90	1.50	6.76	4.68	6.59	4.80	0.44	0.00	0.00	0.00	0.00		
26	0.00	28.80	1.14	5.74	4.32	4.80	4.80	0.36	0.00	0.00	0.00	0.00		
27	0.00	9.60	0.92	5.28	2.54	4.32	4.44	0.24	0.00	0.00	0.00	0.00		
28	0.00	6.25	1.65	3.50	4.44	4.68	4.68	0.06	0.00	0.00	0.00	0.00		
29	0.00	7.10	2.42	4.80	9.10	6.25	4.68	0.06	0.00	0.00	0.00	0.00		
30	0.00	9.60	2.06	4.32	15.04	4.20	4.80	0.06	0.00	0.00		0.00		
31		7.10		3.70	5.74		4.44		0.00	0.00		0.00		
Total	13.05	125.30	144.65	142.27	93.76	279.24	245.61	38.37	0.00	0.00	0.00	0.00	1082.25	CMSDAY
Mean	0.44	4.04	4.82	4.59	3.02	9.31	7.92	1.28	0.00	0.00	0.00	0.00	2.96	CMS
Max	2.00	28.80	28.72	25.12	15.04	37.20	30.45	3.70	0.00	0.00	0.00	0.00	37.20	CMS
Min	0.00	0.00	0.66	1.18	0.06	2.60	3.14	0.06	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	1.13	10.83	12.50	12.29	8.10	24.13	21.22	3.32	0.00	0.00	0.00	0.00	93.51	MCM

Momentary Peak 42.70 CMS. at 67.10 m. (MSL.) at 18.00 Hours , on Sep 12 , 2011

Runoff Yield 14.71 Liters/Second/Square KM. Momentary Peak Yield 212.438 Liters/Second/Square KM.

WATER YEAR : 2011

SAKAE KRANG RIVER BASIN

Huai Khwee at Ban Mok Taew, Uthai Thani (Ct.22)

Lat 15 - 20 - 30 N Long 99 - 59 - 09 E

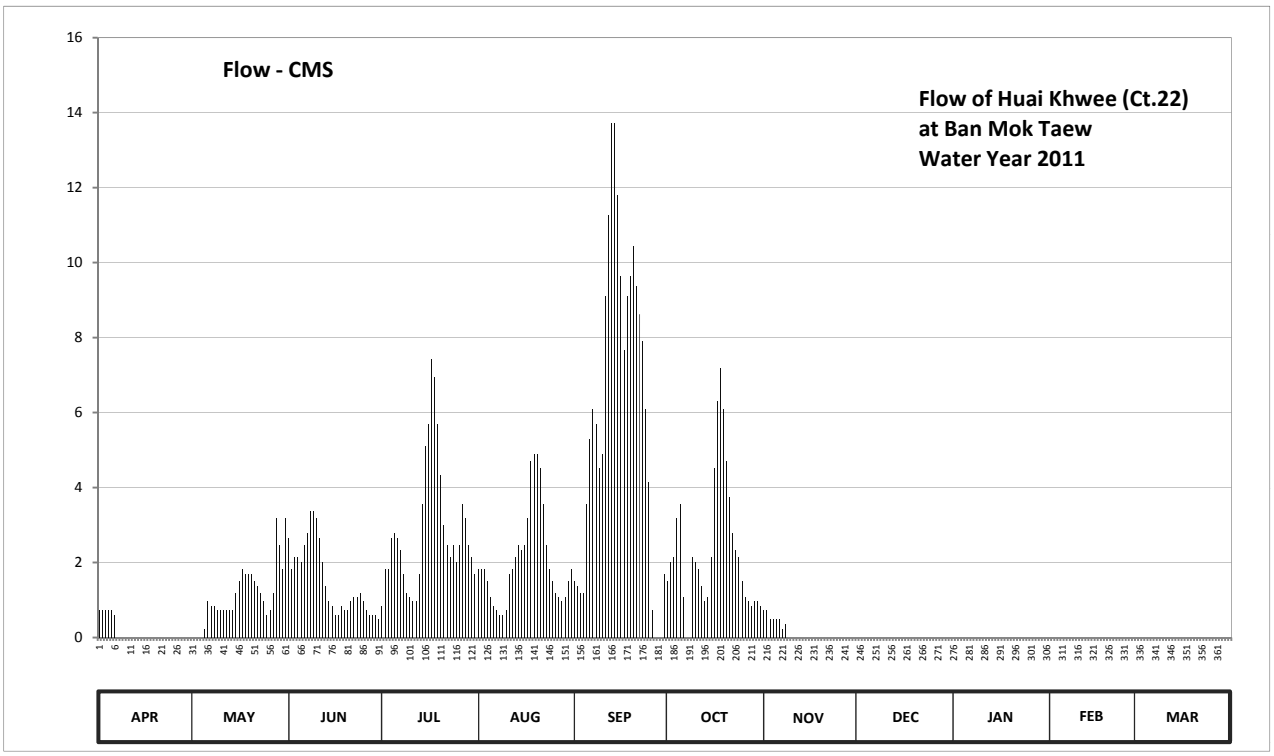
Location : on left bank at Ban Mok Taew.

	Ban Mok Taew	**Amphoe** Nong Kha Yang	**Changwat** Uthai Thani
Drainge Area	- sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank at the abutment of the bridge	**Elevation**	+35.110 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	2008 to date		
Rating Operation			
Period of Rating	2008 to date		
Rated by Flot	-		
Rated by Current Meter	2008 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow		
General Description	Records good. Stage-discharge relation defined by 5 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	31.46	30.95	31.59	31.47	31.54	31.52	31.52	31.46	31.40	30.11	30.74	30.74	
2	31.46	30.92	31.54	31.54	31.54	31.51	31.55	31.46	31.39	30.11	30.74	30.74	
3	31.46	30.92	31.56	31.54	31.54	31.50	31.56	31.44	31.34	30.11	30.74	30.74	
4	31.46	31.28	31.56	31.59	31.52	31.50	31.62	31.44	31.26	30.11	30.74	30.74	
5	31.46	31.42	31.55	31.60	31.49	31.64	31.64	31.44	31.18	30.11	30.74	30.74	
6	31.45	31.48	31.58	31.59	31.47	31.73	31.49	31.44	31.10	30.11	30.74	30.74	
7	31.40	31.47	31.60	31.57	31.46	31.77	30.98	31.42	31.05	30.11	30.74	30.74	
8	31.30	31.47	31.63	31.53	31.45	31.75	31.30	31.43	31.02	30.25	30.74	30.74	
9	31.24	31.46	31.63	31.50	31.45	31.69	31.56	31.37	30.95	30.67	30.74	30.74	
10	31.23	31.46	31.62	31.49	31.46	31.71	31.55	31.30	30.85	31.25	30.74	30.74	
11	31.25	31.46	31.59	31.48	31.53	31.90	31.54	31.25	30.71	31.04	30.74	30.74	
12	31.20	31.46	31.55	31.48	31.54	31.98	31.51	31.15	30.56	30.81	30.74	30.74	
13	31.16	31.46	31.51	31.53	31.56	32.06	31.48	31.06	30.44	30.70	30.74	30.74	
14	31.15	31.46	31.48	31.64	31.58	32.06	31.49	31.02	30.35	30.70	30.74	30.74	
15	31.12	31.50	31.47	31.72	31.57	32.00	31.56	30.98	30.24	30.63	30.74	30.74	
16	31.08	31.52	31.45	31.75	31.58	31.92	31.69	30.88	30.19	30.58	30.74	30.74	
17	31.06	31.54	31.45	31.83	31.62	31.84	31.78	30.79	30.19	30.52	30.74	30.74	
18	31.04	31.53	31.47	31.81	31.70	31.90	31.82	30.61	30.17	30.47	30.74	30.74	
19	31.05	31.53	31.46	31.75	31.71	31.92	31.77	30.42	30.12	30.43	30.74	30.74	
20	31.07	31.53	31.46	31.68	31.71	31.95	31.70	30.34	30.10	30.36	30.74	30.74	
21	31.05	31.52	31.48	31.61	31.69	31.91	31.65	30.27	30.05	30.32	30.74	30.74	
22	31.03	31.51	31.49	31.58	31.64	31.88	31.60	30.17	30.07	30.30	30.74	30.74	
23	31.01	31.50	31.49	31.56	31.58	31.85	31.57	30.20	30.11	30.19	30.74	30.74	
24	31.00	31.48	31.50	31.58	31.54	31.77	31.56	31.12	30.11	30.09	30.74	30.74	
25	30.98	31.45	31.48	31.55	31.52	31.67	31.52	31.36	30.11	30.09	30.74	30.74	
26	30.93	31.46	31.46	31.58	31.50	31.46	31.49	31.11	30.11	30.09	30.74	30.74	
27	30.92	31.50	31.45	31.64	31.49	30.94	31.48	30.74	30.11	30.09	30.74	30.74	
28	30.91	31.62	31.45	31.62	31.48	31.34	31.47	30.75	30.11	30.09	30.74	30.74	
29	30.93	31.58	31.45	31.58	31.49	31.31	31.48	31.36	30.11	30.09	30.74	30.74	
30	30.97	31.54	31.44	31.56	31.52	31.53	31.48	31.39	30.11	30.09		30.74	
31		31.62		31.53	31.54		31.47		30.11	30.09		30.74	
Mean	31.16	31.44	31.51	31.60	31.55	31.72	31.54	31.04	30.51	30.35	30.74	30.74	
Max	31.46	31.62	31.63	31.83	31.71	32.06	31.82	31.46	31.40	31.25	30.74	30.74	32.06
Min	30.91	30.92	31.44	31.47	31.45	30.94	30.98	30.17	30.05	30.09	30.74	30.74	30.05

Annual Max Momentary Gage Height	32.11	m. (MSL.) ,	at 03.00 Hours , on Sep 14 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	30.93	m. (MSL)
Left Bank Elevation	34.96	m. (MSL.) ,			
Right Bank Elevation	34.98	m. (MSL.) ,	Drainage Area		Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.72	0.00	2.64	0.84	1.84	1.52	1.52	0.72	0.00	0.00	0.00	0.00		
2	0.72	0.00	1.84	1.84	1.84	1.36	2.00	0.72	0.00	0.00	0.00	0.00		
3	0.72	0.00	2.16	1.84	1.84	1.20	2.16	0.48	0.00	0.00	0.00	0.00		
4	0.72	0.00	2.16	2.64	1.52	1.20	3.18	0.48	0.00	0.00	0.00	0.00		
5	0.72	0.24	2.00	2.80	1.08	3.56	3.56	0.48	0.00	0.00	0.00	0.00		
6	0.60	0.96	2.48	2.64	0.84	5.30	1.08	0.48	0.00	0.00	0.00	0.00		
7	0.00	0.84	2.80	2.32	0.72	6.10	0.00	0.24	0.00	0.00	0.00	0.00		
8	0.00	0.84	3.37	1.68	0.60	5.70	0.00	0.36	0.00	0.00	0.00	0.00		
9	0.00	0.72	3.37	1.20	0.60	4.51	2.16	0.00	0.00	0.00	0.00	0.00		
10	0.00	0.72	3.18	1.08	0.72	4.90	2.00	0.00	0.00	0.00	0.00	0.00		
11	0.00	0.72	2.64	0.96	1.68	9.10	1.84	0.00	0.00	0.00	0.00	0.00		
12	0.00	0.72	2.00	0.96	1.84	11.26	1.36	0.00	0.00	0.00	0.00	0.00		
13	0.00	0.72	1.36	1.68	2.16	13.72	0.96	0.00	0.00	0.00	0.00	0.00		
14	0.00	0.72	0.96	3.56	2.48	13.72	1.08	0.00	0.00	0.00	0.00	0.00		
15	0.00	1.20	0.84	5.10	2.32	11.80	2.16	0.00	0.00	0.00	0.00	0.00		
16	0.00	1.52	0.60	5.70	2.48	9.64	4.51	0.00	0.00	0.00	0.00	0.00		
17	0.00	1.84	0.60	7.42	3.18	7.66	6.30	0.00	0.00	0.00	0.00	0.00		
18	0.00	1.68	0.84	6.94	4.70	9.10	7.18	0.00	0.00	0.00	0.00	0.00		
19	0.00	1.68	0.72	5.70	4.90	9.64	6.10	0.00	0.00	0.00	0.00	0.00		
20	0.00	1.68	0.72	4.32	4.90	10.45	4.70	0.00	0.00	0.00	0.00	0.00		
21	0.00	1.52	0.96	2.99	4.51	9.37	3.75	0.00	0.00	0.00	0.00	0.00		
22	0.00	1.36	1.08	2.48	3.56	8.62	2.80	0.00	0.00	0.00	0.00	0.00		
23	0.00	1.20	1.08	2.16	2.48	7.90	2.32	0.00	0.00	0.00	0.00	0.00		
24	0.00	0.96	1.20	2.48	1.84	6.10	2.16	0.00	0.00	0.00	0.00	0.00		
25	0.00	0.60	0.96	2.00	1.52	4.13	1.52	0.00	0.00	0.00	0.00	0.00		
26	0.00	0.72	0.72	2.48	1.20	0.72	1.08	0.00	0.00	0.00	0.00	0.00		
27	0.00	1.20	0.60	3.56	1.08	0.00	0.96	0.00	0.00	0.00	0.00	0.00		
28	0.00	3.18	0.60	3.18	0.96	0.00	0.84	0.00	0.00	0.00	0.00	0.00		
29	0.00	2.48	0.60	2.48	1.08	0.00	0.96	0.00	0.00	0.00	0.00	0.00		
30	0.00	1.84	0.48	2.16	1.52	1.68	0.96	0.00	0.00	0.00		0.00		
31		3.18		1.68	1.84		0.84		0.00	0.00		0.00		
Total	4.20	35.04	45.56	88.87	63.83	179.96	72.04	3.96	0.00	0.00	0.00	0.00	493.46	CMSDAY
Mean	0.14	1.13	1.52	2.87	2.06	6.00	2.32	0.13	0.00	0.00	0.00	0.00	1.35	CMS
Max	0.72	3.18	3.37	7.42	4.90	13.72	7.18	0.72	0.00	0.00	0.00	0.00	13.72	CMS
Min	0.00	0.00	0.48	0.84	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	0.36	3.03	3.94	7.68	5.52	15.55	6.22	0.34	0.00	0.00	0.00	0.00	42.64	MCM

Momentary Peak 15.34 CMS. at 32.11 m. (MSL.) at 03.00 Hours , on Sep 14 , 2011

Runoff Yield ***** Liters/Second/Square KM. Momentary Peak Yield ***** Liters/Second/Square KM.

WATER YEAR : 2011

SAKAE KRANG RIVER BASIN

Huai Rang at Ban Huai Rang, Uthai Thani (Ct.23)

Lat 15 - 28 - 58 N Long 99 - 29 - 27 E

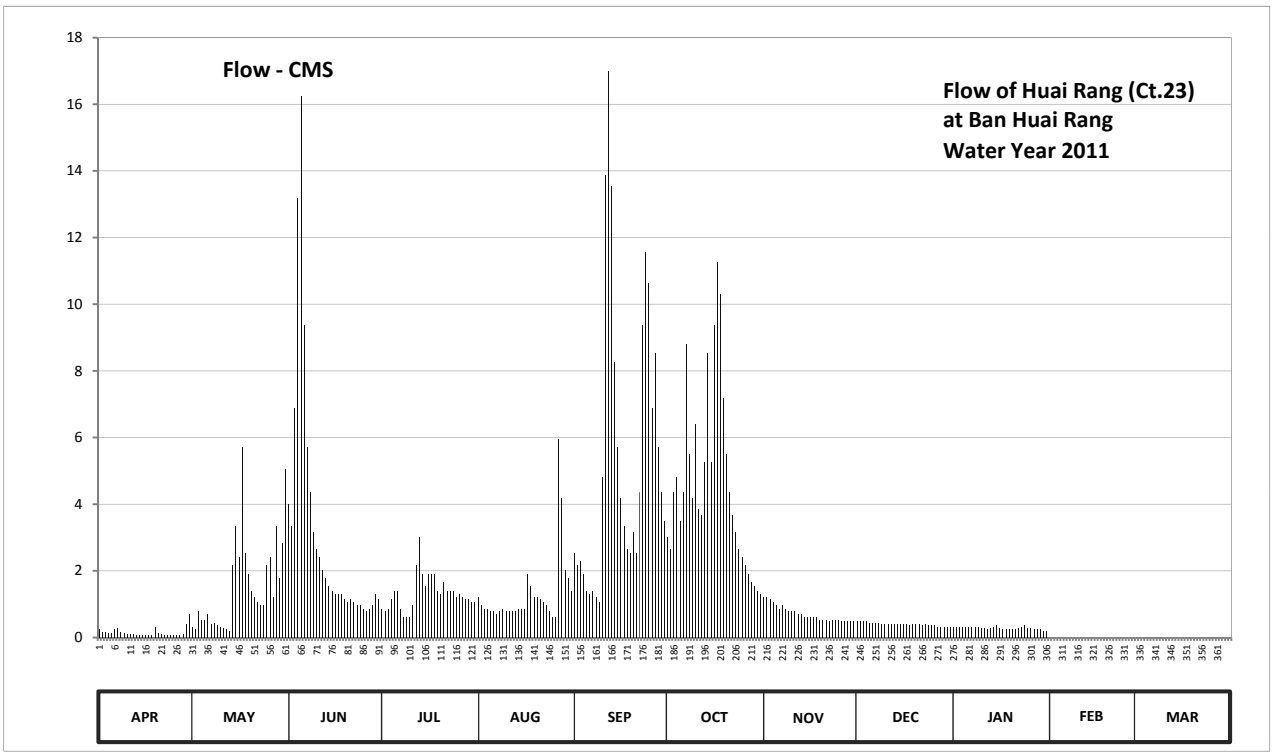
Location : on left bank at Ban Huai Rang.

	Ban Huai Rang	**Amphoe** Lan Sak	**Changwat** Uthai Thani
Drainge Area	- sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank at the abutment of the bridge	**Elevation**	+125.799 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	2008 to date		
Rating Operation			
Period of Rating	2008 to date		
Rated by Flot	-		
Rated by Current Meter	2008 to date		
Stability of Channel Regimes	Fairly stable		
Overbank Flow Conditions	No overbank flow		
General Description	Records good. Stage-discharge relation defined by 14 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	121.13	121.15	121.48	121.24	121.28	121.39	121.42	121.28	121.19	121.15	120.96	120.96	
2	121.11	121.13	121.44	121.23	121.25	121.36	121.40	121.28	121.19	121.15	120.96	120.96	
3	121.11	121.23	121.61	121.24	121.24	121.37	121.50	121.27	121.19	121.15	120.96	120.96	
4	121.10	121.20	121.82	121.27	121.24	121.34	121.52	121.26	121.19	121.15	120.96	120.96	
5	121.10	121.20	121.91	121.30	121.23	121.30	121.45	121.25	121.18	121.15	120.96	120.96	
6	121.13	121.22	121.70	121.30	121.23	121.29	121.50	121.24	121.18	121.15	120.96	120.96	
7	121.14	121.17	121.56	121.24	121.22	121.30	121.68	121.25	121.18	121.15	120.96	120.96	
8	121.11	121.18	121.50	121.21	121.23	121.28	121.55	121.24	121.18	121.15	120.96	120.96	
9	121.10	121.16	121.43	121.21	121.24	121.26	121.49	121.23	121.17	121.15	120.96	120.96	
10	121.09	121.15	121.40	121.21	121.23	121.52	121.59	121.23	121.17	121.14	120.96	120.96	
11	121.09	121.14	121.38	121.25	121.23	121.84	121.47	121.23	121.17	121.14	120.96	120.96	
12	121.08	121.13	121.35	121.36	121.23	121.93	121.46	121.22	121.17	121.13	120.96	120.96	
13	121.07	121.12	121.33	121.42	121.23	121.83	121.54	121.22	121.17	121.14	120.96	120.96	
14	121.07	121.36	121.31	121.34	121.24	121.66	121.67	121.21	121.17	121.15	120.96	120.96	
15	121.07	121.44	121.30	121.31	121.24	121.56	121.54	121.21	121.17	121.16	120.96	120.96	
16	121.06	121.38	121.29	121.34	121.24	121.49	121.70	121.21	121.17	121.14	120.96	120.96	
17	121.06	121.56	121.29	121.34	121.34	121.44	121.76	121.21	121.17	121.13	120.96	120.96	
18	121.07	121.39	121.29	121.34	121.31	121.40	121.73	121.21	121.16	121.13	120.96	120.96	
19	121.15	121.34	121.27	121.30	121.28	121.39	121.62	121.20	121.17	121.13	120.96	120.96	
20	121.10	121.30	121.26	121.29	121.28	121.43	121.55	121.20	121.17	121.13	120.96	120.96	
21	121.08	121.28	121.27	121.32	121.27	121.39	121.50	121.20	121.17	121.13	120.96	120.96	
22	121.07	121.26	121.26	121.30	121.26	121.50	121.46	121.19	121.16	121.14	120.96	120.96	
23	121.07	121.25	121.25	121.30	121.25	121.70	121.43	121.20	121.17	121.15	120.96	120.96	
24	121.07	121.25	121.25	121.30	121.23	121.77	121.40	121.20	121.16	121.16	120.96	120.96	
25	121.07	121.36	121.24	121.28	121.21	121.74	121.38	121.20	121.16	121.14	120.96	120.96	
26	121.07	121.38	121.23	121.29	121.21	121.61	121.36	121.19	121.16	121.14	120.96	120.96	
27	121.07	121.28	121.24	121.28	121.57	121.67	121.34	121.19	121.15	121.13	120.96	120.96	
28	121.08	121.44	121.25	121.27	121.49	121.56	121.32	121.19	121.15	121.13	120.96	120.96	
29	121.17	121.33	121.29	121.27	121.35	121.50	121.31	121.19	121.15	121.13	120.96	120.96	
30	121.22	121.41	121.27	121.26	121.33	121.45	121.30	121.19	121.15	121.12		120.96	
31		121.53		121.26	121.30		121.29		121.15	121.12		120.96	
Mean	121.10	121.28	121.38	121.29	121.27	121.51	121.49	121.22	121.17	121.14	120.96	120.96	
Max	121.22	121.56	121.91	121.42	121.57	121.93	121.76	121.28	121.19	121.16	120.96	120.96	121.93
Min	121.06	121.12	121.23	121.21	121.21	121.26	121.29	121.19	121.15	121.12	120.96	120.96	120.96

Annual Max Momentary Gage Height	122.40	m. (MSL.) ,	at 18.00 Hours , on Jun 4 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	121.03	m. (MSL)
Left Bank Elevation	125.80	m. (MSL.) ,			
Right Bank Elevation	125.79	m. (MSL.) ,	Drainage Area	Square Kilometers	



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.24	0.32	4.02	0.87	1.22	2.54	3.01	1.22	0.48	0.32	0.00	0.00		
2	0.16	0.24	3.35	0.78	0.96	2.16	2.67	1.22	0.48	0.32	0.00	0.00		
3	0.16	0.78	6.89	0.87	0.87	2.29	4.36	1.14	0.48	0.32	0.00	0.00		
4	0.12	0.52	13.19	1.14	0.87	1.91	4.81	1.05	0.48	0.32	0.00	0.00		
5	0.12	0.52	16.26	1.40	0.78	1.40	3.51	0.96	0.44	0.32	0.00	0.00		
6	0.24	0.70	9.36	1.40	0.78	1.31	4.36	0.87	0.44	0.32	0.00	0.00		
7	0.28	0.40	5.72	0.87	0.70	1.40	8.81	0.96	0.44	0.32	0.00	0.00		
8	0.16	0.44	4.36	0.61	0.78	1.22	5.49	0.87	0.44	0.32	0.00	0.00		
9	0.12	0.36	3.18	0.61	0.87	1.05	4.19	0.78	0.40	0.32	0.00	0.00		
10	0.11	0.32	2.67	0.61	0.78	4.81	6.39	0.78	0.40	0.28	0.00	0.00		
11	0.11	0.28	2.42	0.96	0.78	13.87	3.85	0.78	0.40	0.28	0.00	0.00		
12	0.10	0.24	2.03	2.16	0.78	17.00	3.68	0.70	0.40	0.24	0.00	0.00		
13	0.08	0.20	1.78	3.01	0.78	13.53	5.26	0.70	0.40	0.28	0.00	0.00		
14	0.08	2.16	1.53	1.91	0.87	8.26	8.54	0.61	0.40	0.32	0.00	0.00		
15	0.08	3.35	1.40	1.53	0.87	5.72	5.26	0.61	0.40	0.36	0.00	0.00		
16	0.07	2.42	1.31	1.91	0.87	4.19	9.36	0.61	0.40	0.28	0.00	0.00		
17	0.07	5.72	1.31	1.91	1.91	3.35	11.26	0.61	0.40	0.24	0.00	0.00		
18	0.08	2.54	1.31	1.91	1.53	2.67	10.31	0.61	0.36	0.24	0.00	0.00		
19	0.32	1.91	1.14	1.40	1.22	2.54	7.17	0.52	0.40	0.24	0.00	0.00		
20	0.12	1.40	1.05	1.31	1.22	3.18	5.49	0.52	0.40	0.24	0.00	0.00		
21	0.10	1.22	1.14	1.65	1.14	2.54	4.36	0.52	0.40	0.24	0.00	0.00		
22	0.08	1.05	1.05	1.40	1.05	4.36	3.68	0.48	0.36	0.28	0.00	0.00		
23	0.08	0.96	0.96	1.40	0.96	9.36	3.18	0.52	0.40	0.32	0.00	0.00		
24	0.08	0.96	0.96	1.40	0.78	11.57	2.67	0.52	0.36	0.36	0.00	0.00		
25	0.08	2.16	0.87	1.22	0.61	10.62	2.42	0.52	0.36	0.28	0.00	0.00		
26	0.08	2.42	0.78	1.31	0.61	6.89	2.16	0.48	0.36	0.28	0.00	0.00		
27	0.08	1.22	0.87	1.22	5.94	8.54	1.91	0.48	0.32	0.24	0.00	0.00		
28	0.10	3.35	0.96	1.14	4.19	5.72	1.65	0.48	0.32	0.24	0.00	0.00		
29	0.40	1.78	1.31	1.14	2.03	4.36	1.53	0.48	0.32	0.24	0.00	0.00		
30	0.70	2.84	1.14	1.05	1.78	3.51	1.40	0.48	0.32	0.20		0.00		
31		5.04		1.05	1.40		1.31		0.32	0.20		0.00		
Total	4.60	47.82	94.32	41.15	39.93	161.87	144.05	21.08	12.28	8.76	0.00	0.00	575.86	CMSDAY
Mean	0.15	1.54	3.14	1.33	1.29	5.40	4.65	0.70	0.40	0.28	0.00	0.00	1.57	CMS
Max	0.70	5.72	16.26	3.01	5.94	17.00	11.26	1.22	0.48	0.36	0.00	0.00	17.00	CMS
Min	0.07	0.20	0.78	0.61	0.61	1.05	1.31	0.48	0.32	0.20	0.00	0.00	0.00	CMS
Runoff	0.40	4.13	8.15	3.56	3.45	13.99	12.45	1.82	1.06	0.76	0.00	0.00	49.75	MCM

Momentary Peak 37.40 CMS. at 122.40 m. (MSL.) at 18.00 Hours , on Jun 4 , 2011

Runoff Yield ***** Liters/Second/Square KM. Momentary Peak Yield ***** Liters/Second/Square KM.

WATER YEAR : 2011

PASAK RIVER BASIN

Pasak River at Mueang , Phetchabun (S.4B)

Lat 16 - 25 - 16 N Long 101 - 10 - 08 E

Location : on left bank about 300 meters downstream, Phatthana Phak Nua 2 bridge.

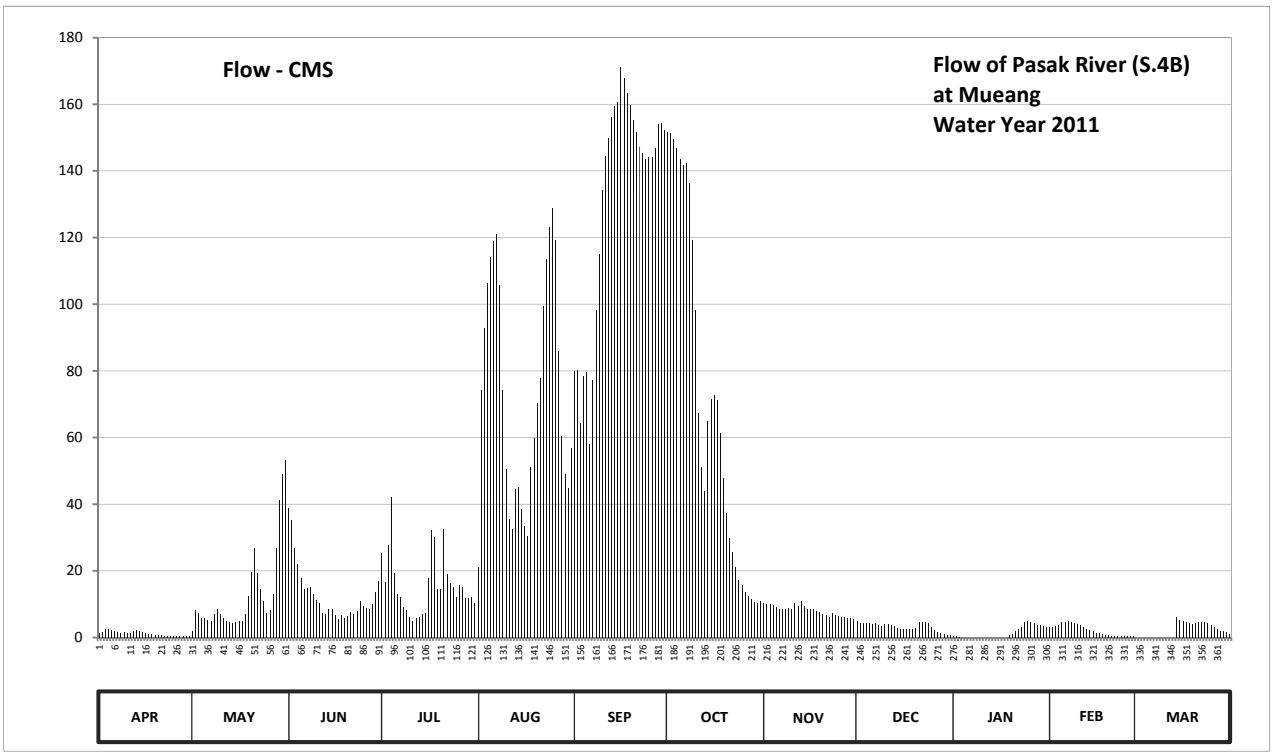
Ban Nai Mueang **Amphoe** Mueang **Changwat** Phetchabun

Drainge Area	3,459 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+106.500 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank in front of town - hall Changwat Phetchabun. **Elevation** +116.106 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings
Period of Available Gage Records	1996 to date
Rating Operation	
Period of Rating	1996 to date
Rated by Flot	-
Rated by Current Meter	1996 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	Overbank flow starts at elevation +115.460 m.(MSL.), records are channel flow only.
General Description	Records good. Flow effected by the local weir about 400 meters downstream from the gage site. Stage-discharge relation defined by 24 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	109.66	109.78	112.56	111.92	111.68	113.97	115.75	110.89	110.24	109.50	109.98	109.24	
2	109.75	110.66	112.40	111.40	113.80	113.98	115.74	110.86	110.14	109.47	109.99	109.27	
3	109.92	110.55	111.99	112.03	114.34	113.47	115.70	110.85	110.12	109.43	110.01	109.30	
4	109.89	110.34	111.73	112.68	114.68	113.93	115.64	110.84	110.12	109.40	110.07	109.28	
5	109.85	110.33	111.48	111.58	114.88	113.96	115.57	110.77	110.15	109.40	110.16	109.29	
6	109.79	110.28	111.27	111.15	114.99	113.26	115.53	110.71	110.10	109.38	110.19	109.29	
7	109.73	110.25	111.29	111.06	115.04	113.89	115.54	110.70	110.13	109.38	110.22	109.28	
8	109.71	110.52	111.30	110.75	114.67	114.48	115.40	110.69	110.05	109.36	110.20	109.27	
9	109.73	110.68	111.15	110.66	113.80	114.90	115.00	110.74	110.03	109.35	110.15	109.27	
10	109.70	110.50	110.97	110.36	113.01	115.35	114.48	110.72	110.10	109.34	110.10	109.28	
11	109.71	110.32	110.88	110.25	112.41	115.59	113.57	110.89	110.10	109.30	110.04	109.29	
12	109.78	110.23	110.54	110.32	112.28	115.71	113.03	110.80	110.06	109.25	109.98	109.32	
13	109.82	110.17	110.51	110.38	112.78	115.85	112.76	110.93	110.01	109.26	109.89	109.39	
14	109.77	110.15	110.70	110.48	112.80	115.92	113.49	110.80	109.95	109.26	109.84	110.38	
15	109.72	110.18	110.71	110.56	112.54	115.95	113.71	110.71	109.93	109.26	109.76	110.26	
16	109.68	110.23	110.47	111.48	112.32	116.18	113.75	110.70	109.90	109.26	109.69	110.23	
17	109.63	110.24	110.29	112.26	112.18	116.11	113.70	110.69	109.90	109.26	109.64	110.17	
18	109.59	110.50	110.47	112.15	113.03	116.01	113.37	110.60	109.89	109.26	109.59	110.14	
19	109.57	111.10	110.34	111.26	113.32	115.93	112.91	110.59	109.89	109.55	109.55	110.11	
20	109.55	111.60	110.42	111.28	113.67	115.83	112.49	110.51	109.95	109.61	109.52	110.13	
21	109.52	112.00	110.59	112.27	113.91	115.75	112.14	110.45	110.18	109.78	109.50	110.16	
22	109.50	111.57	110.49	111.56	114.51	115.65	111.93	110.41	110.19	109.92	109.50	110.16	
23	109.49	111.25	110.61	111.39	114.86	115.61	111.68	110.53	110.20	109.99	109.50	110.16	
24	109.49	110.94	110.93	111.30	115.09	115.57	111.45	110.44	110.15	110.20	109.50	110.13	
25	109.48	110.56	110.80	111.08	115.23	115.58	111.34	110.42	109.97	110.25	109.50	110.05	
26	109.48	110.65	110.74	111.35	115.00	115.58	111.19	110.40	109.86	110.20	109.50	109.99	
27	109.47	111.15	110.72	111.31	114.14	115.64	111.09	110.37	109.75	110.13	109.49	109.90	
28	109.48	112.00	110.85	111.04	113.34	115.80	111.00	110.33	109.70	110.08	109.49	109.80	
29	109.50	112.65	111.20	111.03	112.95	115.81	110.90	110.33	109.60	110.06	109.49	109.79	
30	109.50	112.95	111.44	111.05	112.79	115.76	110.88	110.31	109.55	110.03		109.72	
31		113.10		110.88	113.22		110.93		109.54	109.98		109.60	
Mean	109.65	110.88	110.99	111.23	113.65	115.23	113.28	110.63	109.98	109.61	109.79	109.73	
Max	109.92	113.10	112.56	112.68	115.23	116.18	115.75	110.93	110.24	110.25	110.22	110.38	116.18
Min	109.47	109.78	110.29	110.25	111.68	113.26	110.88	110.31	109.54	109.25	109.49	109.24	109.24

Annual Max Momentary Gage Height	116.19	m. (MSL.) ,	at 12.00 Hours , on Sep 16 , 2011		
Zero Gage at Bottom Elevation	106.50	m. (MSL.) ,	River Bed	109.35	m. (MSL)
Left Bank Elevation	116.69	m. (MSL.) ,			
Right Bank Elevation	115.45	m. (MSL.) ,	Drainage Area	3459	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.30	1.90	39.00	25.40	21.10	79.90	151.80	10.40	5.00	0.50	3.10	0.00		
2	1.70	8.20	35.20	16.50	74.30	80.30	151.30	10.10	4.30	0.30	3.20	0.00		
3	2.60	7.40	26.80	27.60	92.90	64.30	149.50	10.00	4.20	0.10	3.30	0.00		
4	2.40	5.80	22.00	42.00	106.20	78.50	146.80	9.90	4.20	0.00	3.80	0.00		
5	2.20	5.70	17.70	19.40	114.20	79.60	143.60	9.20	4.40	0.00	4.50	0.00		
6	1.90	5.30	14.60	13.10	118.80	58.10	141.80	8.60	4.00	0.00	4.70	0.00		
7	1.70	5.10	14.90	12.10	120.90	77.20	142.30	8.50	4.20	0.00	4.90	0.00		
8	1.50	7.10	15.00	9.00	105.80	98.20	136.30	8.40	3.60	0.00	4.70	0.00		
9	1.70	8.40	13.10	8.20	74.30	115.00	119.20	8.90	3.50	0.00	4.40	0.00		
10	1.50	7.00	11.20	6.00	50.60	134.10	98.20	8.70	4.00	0.00	4.00	0.00		
11	1.50	5.70	10.30	5.10	35.50	144.50	67.30	10.40	4.00	0.00	3.60	0.00		
12	1.90	5.00	7.30	5.70	32.60	149.90	51.10	9.50	3.70	0.00	3.10	0.00		
13	2.10	4.50	7.10	6.10	44.50	156.20	44.00	10.80	3.30	0.00	2.40	0.00		
14	1.80	4.40	8.50	6.90	45.00	159.40	64.90	9.50	2.90	0.00	2.20	6.10		
15	1.60	4.60	8.60	7.40	38.50	160.70	71.50	8.60	2.70	0.00	1.80	5.20		
16	1.40	5.00	6.80	17.70	33.40	171.30	72.70	8.50	2.50	0.00	1.50	5.00		
17	1.10	5.00	5.40	32.20	30.60	168.00	71.20	8.40	2.50	0.00	1.20	4.50		
18	0.90	7.00	6.80	30.00	51.10	163.50	61.40	7.80	2.40	0.00	0.90	4.30		
19	0.80	12.50	5.80	14.50	59.80	159.90	47.80	7.70	2.40	0.80	0.80	4.10		
20	0.80	19.70	6.40	14.70	70.30	155.40	37.30	7.10	2.90	1.00	0.60	4.20		
21	0.60	27.00	7.70	32.40	77.90	151.80	29.80	6.60	4.60	1.90	0.50	4.50		
22	0.50	19.20	6.90	19.00	99.40	147.30	25.60	6.30	4.70	2.60	0.50	4.50		
23	0.40	14.40	7.80	16.30	113.40	145.50	21.10	7.20	4.70	3.20	0.50	4.50		
24	0.40	10.90	10.80	15.00	123.10	143.60	17.20	6.60	4.40	4.70	0.50	4.20		
25	0.40	7.40	9.50	12.30	129.00	144.10	15.60	6.40	3.00	5.10	0.50	3.60		
26	0.40	8.10	8.90	15.70	119.20	144.10	13.60	6.30	2.30	4.70	0.50	3.20		
27	0.30	13.10	8.70	15.10	85.90	146.80	12.40	6.00	1.70	4.20	0.40	2.50		
28	0.40	27.00	10.00	11.90	60.40	154.00	11.50	5.70	1.50	3.90	0.40	2.00		
29	0.50	41.30	13.70	11.80	48.90	154.40	10.50	5.70	1.00	3.70	0.40	1.90		
30	0.50	48.90	17.10	12.00	44.70	152.20	10.30	5.60	0.80	3.50		1.60		
31		53.20		10.30	56.90		10.80		0.70	3.10		1.00		
Total	36.80	405.80	383.60	491.40	2279.20	3937.80	2148.40	243.40	100.10	43.30	62.90	66.90	10199.60	CMSDAY
Mean	1.20	13.10	12.80	15.90	73.50	131.30	69.30	8.10	3.20	1.40	2.20	2.20	27.90	CMS
Max	2.60	53.20	39.00	42.00	129.00	171.30	151.80	10.80	5.00	5.10	4.90	6.10	171.30	CMS
Min	0.30	1.90	5.40	5.10	21.10	58.10	10.30	5.60	0.70	0.00	0.40	0.00	0.00	CMS
Runoff	3.18	35.06	33.14	42.46	196.92	340.23	185.62	21.03	8.65	3.74	5.43	5.78	881.25	MCM

Momentary Peak 171.78 CMS. at 116.19 m. (MSL.) at 12.00 Hours , on Sep 16 , 2011

Runoff Yield 8.06 Liters/Second/Square KM. Momentary Peak Yield 49.662 Liters/Second/Square KM.

WATER YEAR : 2011

PASAK RIVER BASIN

Pasak River at Panchamathirat Uthit Hospital , Phra Nakhon Si Ayutthaya (S.5)

Lat 14 - 21 - 32 N Long 100 - 35 - 02 E

Location : on right bank at the bridge.

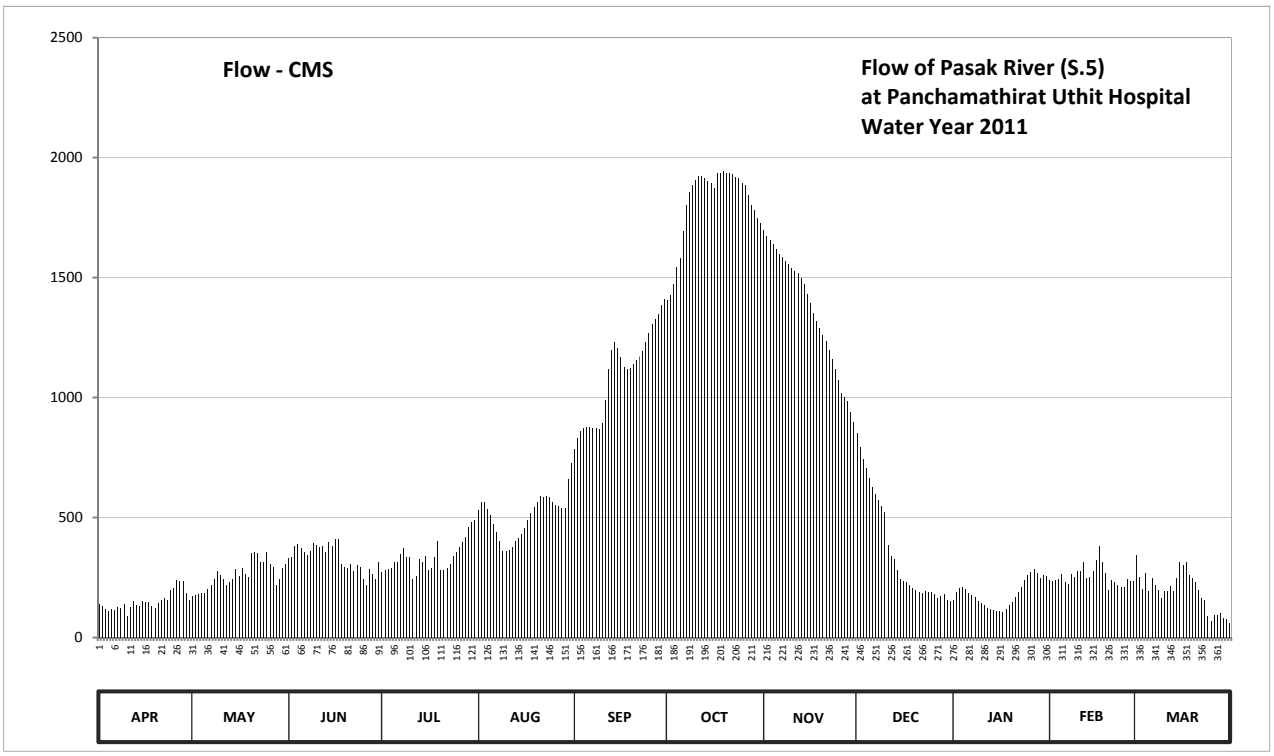
Ban Panchamathirat **Amphoe** Phra Nakhon Si Ayutthaya **Changwat** Phra Nakhon Si Ayutthaya

Drainge Area	15,830 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+0.000 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank near the gage site. **Elevation** +7.220 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings
Period of Available Gage Records	2008 to date
Rating Operation	
Period of Rating	2008 to date
Rated by Flot	-
Rated by Current Meter	2008 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	Overbank flow starts at elevation +5.620 m.(MSL.), records are channal flow only.
General Description	Records good. Stage-discharge relation defined by 22 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.68	0.90	1.76	1.46	2.56	3.39	4.91	5.47	3.59	0.80	1.28	1.82	
2	0.62	0.92	1.78	1.50	2.69	3.53	4.95	5.42	3.41	1.00	1.26	1.36	
3	0.52	0.94	1.98	1.54	2.69	3.61	5.04	5.39	3.27	1.10	1.28	1.08	
4	0.46	0.96	2.02	1.56	2.58	3.64	5.18	5.36	3.14	1.12	1.32	1.44	
5	0.52	0.98	1.94	1.68	2.49	3.66	5.25	5.32	3.01	1.08	1.42	1.02	
6	0.48	1.08	1.88	1.68	2.35	3.66	5.46	5.28	2.89	0.97	1.24	1.34	
7	0.58	1.16	1.82	1.84	2.23	3.64	5.66	5.26	2.79	0.92	1.20	1.18	
8	0.56	1.32	1.90	1.94	2.08	3.64	5.75	5.23	2.72	0.86	1.42	1.04	
9	0.68	1.48	2.04	1.78	1.89	3.63	5.80	5.20	2.62	0.75	1.36	0.84	
10	0.28	1.40	2.00	1.78	1.90	3.71	5.84	5.17	2.54	0.70	1.48	1.02	
11	0.58	1.32	1.96	1.30	1.91	3.97	5.87	5.15	2.00	0.64	1.48	1.02	
12	0.74	1.18	1.98	1.39	1.96	4.30	5.87	5.13	1.80	0.54	1.68	1.14	
13	0.64	1.24	1.88	1.75	2.07	4.48	5.85	5.09	1.75	0.51	1.34	1.02	
14	0.60	1.32	2.06	1.68	2.13	4.55	5.83	5.04	1.50	0.48	1.36	1.34	
15	0.74	1.54	1.98	1.80	2.19	4.50	5.82	4.96	1.31	0.45	1.48	1.68	
16	0.72	1.38	2.10	1.52	2.29	4.41	5.78	4.89	1.25	0.44	1.72	1.62	
17	0.72	1.56	2.10	1.56	2.42	4.32	5.89	4.81	1.23	0.42	1.98	1.68	
18	0.60	1.42	1.64	1.78	2.52	4.30	5.89	4.74	1.18	0.52	1.68	1.40	
19	0.55	1.36	1.58	2.08	2.61	4.31	5.90	4.68	1.10	0.64	1.44	1.34	
20	0.70	1.86	1.56	1.50	2.69	4.35	5.89	4.62	1.04	0.72	1.04	1.24	
21	0.80	1.88	1.64	1.51	2.77	4.39	5.89	4.56	0.99	0.88	1.28	1.04	
22	0.84	1.86	1.48	1.56	2.76	4.42	5.88	4.48	0.96	1.00	1.24	0.84	
23	0.78	1.68	1.62	1.65	2.77	4.47	5.86	4.40	1.01	1.12	1.18	0.78	
24	1.04	1.68	1.58	1.80	2.75	4.55	5.85	4.30	0.99	1.28	1.12	0.28	
25	1.10	1.88	1.30	1.87	2.69	4.63	5.82	4.18	0.99	1.40	1.12	0.08	
26	1.28	1.64	1.18	1.96	2.64	4.71	5.80	4.05	0.95	1.46	1.32	0.32	
27	1.25	1.58	1.54	2.06	2.63	4.76	5.73	4.00	0.84	1.54	1.26	0.32	
28	1.26	1.16	1.42	2.14	2.59	4.80	5.66	3.96	0.90	1.44	1.27	0.38	
29	0.98	1.32	1.32	2.30	2.59	4.87	5.62	3.84	0.95	1.33	1.28	0.20	
30	0.80	1.56	1.68	2.38	3.00	4.92	5.56	3.72	0.80	1.41		0.18	
31		1.64		2.41	3.21		5.52		0.75	1.37		0.02	
Mean	0.74	1.39	1.76	1.77	2.47	4.20	5.67	4.79	1.75	0.93	1.36	0.97	
Max	1.28	1.88	2.10	2.41	3.21	4.92	5.90	5.47	3.59	1.54	1.98	1.82	5.90
Min	0.28	0.90	1.18	1.30	1.89	3.39	4.91	3.72	0.75	0.42	1.04	0.02	0.02

Annual Max Momentary Gage Height	5.91	m. (MSL.) ,	at 15.00 Hours , on Oct 17 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	-8.93	m. (MSL)
Left Bank Elevation	5.61	m. (MSL.) ,			
Right Bank Elevation	7.22	m. (MSL.) ,	Drainage Area	15830	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	141.20	174.00	330.60	271.40	529.80	784.70	1404.10	1698.50	852.60	158.00	238.40	343.60		
2	132.80	177.20	334.80	279.00	566.20	832.20	1424.50	1671.00	791.40	190.00	234.80	252.80		
3	119.60	180.40	380.40	286.60	566.20	859.50	1470.80	1654.70	745.10	207.00	238.40	203.60		
4	111.80	183.60	389.80	290.40	535.40	870.00	1543.60	1638.80	703.40	210.40	245.60	267.60		
5	119.60	186.80	371.20	314.00	510.20	877.00	1580.50	1617.60	663.10	203.60	263.80	193.40		
6	114.40	203.60	357.40	314.00	472.00	877.00	1693.00	1596.40	626.00	185.20	231.20	249.20		
7	127.40	217.20	343.60	348.20	440.80	870.00	1804.20	1585.80	596.00	177.20	224.00	220.60		
8	124.80	245.60	362.00	371.20	404.20	870.00	1855.50	1569.90	575.00	167.60	263.80	196.80		
9	141.20	275.20	394.60	334.80	359.70	866.50	1884.00	1554.00	546.60	151.00	252.80	164.40		
10	89.60	260.00	385.00	334.80	362.00	894.50	1907.20	1538.40	524.20	144.00	275.20	193.40		
11	127.40	245.60	375.80	242.00	364.30	988.90	1924.60	1528.00	385.00	135.60	275.20	193.40		
12	149.60	220.60	380.40	258.20	375.80	1120.00	1924.60	1517.60	339.00	122.20	314.00	213.80		
13	135.60	231.20	357.40	328.50	401.80	1198.00	1913.00	1496.80	328.50	118.30	249.20	193.40		
14	130.00	245.60	399.40	314.00	416.20	1229.50	1901.40	1470.80	279.00	114.40	252.80	249.20		
15	149.60	286.60	380.40	339.00	430.60	1207.00	1895.60	1429.60	243.80	110.50	275.20	314.00		
16	146.80	256.40	409.00	282.80	456.40	1166.50	1872.60	1393.90	233.00	109.20	322.20	302.00		
17	146.80	290.40	409.00	290.40	490.60	1128.40	1936.20	1353.10	229.40	106.60	380.40	314.00		
18	130.00	263.80	306.00	334.80	518.60	1120.00	1936.20	1319.20	220.60	119.60	314.00	260.00		
19	123.50	252.80	294.20	404.20	543.80	1124.20	1942.00	1290.40	207.00	135.60	267.60	249.20		
20	144.00	352.80	290.40	279.00	566.20	1141.00	1936.20	1261.60	196.80	146.80	196.80	231.20		
21	158.00	357.40	306.00	280.90	590.00	1157.80	1936.20	1234.00	188.40	170.80	238.40	196.80		
22	164.40	352.80	275.20	290.40	587.00	1171.00	1930.40	1198.00	183.60	190.00	231.20	164.40		
23	155.20	314.00	302.00	308.00	590.00	1193.50	1918.80	1162.00	191.70	210.40	220.60	155.20		
24	196.80	314.00	294.20	339.00	584.00	1229.50	1913.00	1120.00	188.40	238.40	210.40	89.60		
25	207.00	357.40	242.00	355.10	566.20	1266.40	1895.60	1070.20	188.40	260.00	210.40	68.00		
26	238.40	306.00	220.60	375.80	552.20	1304.80	1884.00	1019.50	182.00	271.40	245.60	94.40		
27	233.00	294.20	286.60	399.40	549.40	1328.80	1844.10	1000.00	164.40	286.60	234.80	94.40		
28	234.80	217.20	263.80	418.60	538.20	1348.00	1804.20	985.20	174.00	267.60	236.60	101.60		
29	186.80	245.60	245.60	459.00	538.20	1383.70	1781.40	940.80	182.00	247.40	238.40	80.00		
30	158.00	290.40	314.00	479.80	660.00	1409.20	1748.00	898.00	158.00	261.90		78.00		
31		306.00		487.80	725.30		1726.00		151.00	254.60		62.00		
Total	4538.10	8104.40	10001.40	10411.10	15791.30	32817.60	56131.50	40813.80	11237.40	5671.90	7381.80	5990.00	208890.30	CMSDAY
Mean	151.30	261.40	333.40	335.80	509.40	1093.90	1810.70	1360.50	362.50	183.00	254.50	193.20	570.70	CMS
Max	238.40	357.40	409.00	487.80	725.30	1409.20	1942.00	1698.50	852.60	286.60	380.40	343.60	1942.00	CMS
Min	89.60	174.00	220.60	242.00	359.70	784.70	1404.10	898.00	151.00	106.60	196.80	62.00	62.00	CMS
Runoff	392.09	700.22	864.12	899.52	1364.37	2835.44	4849.76	3526.31	970.91	490.05	637.79	517.54	18048.12	MCM

Momentary Peak 1947.80 CMS. at 5.91 m. (MSL.) at 15.00 Hours , on Oct 17 , 2011

Runoff Yield 36.05 Liters/Second/Square KM. Momentary Peak Yield 123.042 Liters/Second/Square KM.

WATER YEAR : 2011

PASAK RIVER BASIN

Lam Muak Lek at Ban Tharahad , Saraburi (S.7A)

Lat 14 - 47 - 17 N Long 101 - 07 - 18 E

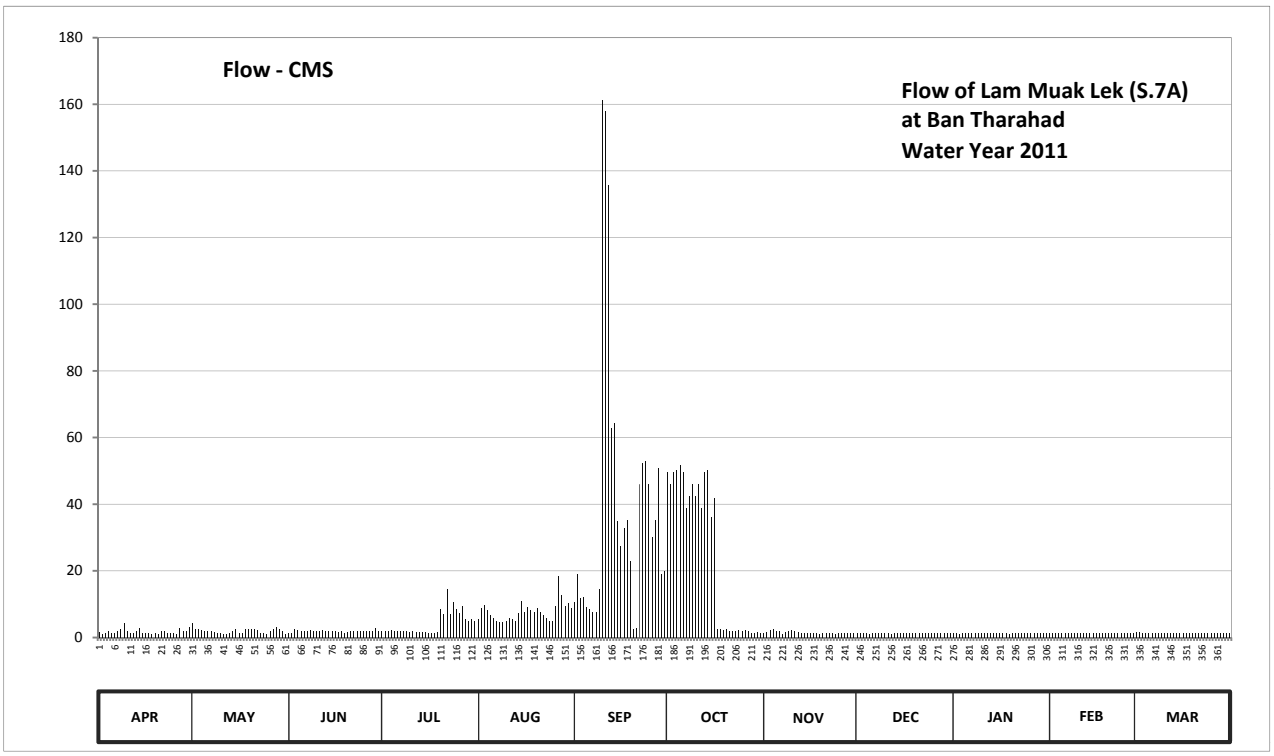
Location : on right bank at Ban Tharahad.

	Ban Tharahad	**Amphoe** Wang Muang	**Changwat** Saraburi		
Drainge Area	580 sq.km.				
Type of Gage	Water - stage recorder				
Zero Gage at Bottom	+0.000 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On right bank near the bridge.		**Elevation** +52.984 m. (MSL.)		
Gage Reading Frequency	Recording				
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings				
Period of Available Gage Records	2003 to date				
Rating Operation					
Period of Rating	2003 to date				
Rated by Flot	-				
Rated by Current Meter	2003 to date				
Stability of Channel Regimes	Fairly stable.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records good. Stage-discharge relation defined by 37 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	42.13	42.24	42.11	42.15	42.28	42.43	43.15	42.12	42.12	42.11	42.12	42.13	
2	42.10	42.18	42.11	42.15	42.38	42.63	43.10	42.13	42.12	42.11	42.12	42.13	
3	42.11	42.17	42.17	42.15	42.41	42.46	43.15	42.16	42.11	42.10	42.12	42.12	
4	42.15	42.16	42.16	42.16	42.36	42.47	43.16	42.17	42.11	42.12	42.11	42.11	
5	42.11	42.15	42.15	42.15	42.32	42.39	43.18	42.15	42.10	42.12	42.12	42.12	
6	42.11	42.15	42.15	42.15	42.29	42.37	43.15	42.14	42.11	42.11	42.12	42.12	
7	42.15	42.14	42.15	42.14	42.27	42.35	43.00	42.10	42.12	42.12	42.12	42.11	
8	42.18	42.13	42.16	42.15	42.25	42.35	43.05	42.13	42.11	42.12	42.12	42.11	
9	42.24	42.12	42.15	42.14	42.25	42.53	43.10	42.14	42.11	42.11	42.12	42.11	
10	42.14	42.11	42.14	42.13	42.26	44.39	43.05	42.16	42.12	42.12	42.12	42.11	
11	42.12	42.10	42.15	42.14	42.29	44.36	43.10	42.14	42.11	42.12	42.11	42.11	
12	42.11	42.10	42.16	42.13	42.28	44.15	43.00	42.13	42.10	42.11	42.11	42.12	
13	42.15	42.11	42.14	42.13	42.26	43.33	43.15	42.12	42.11	42.11	42.12	42.11	
14	42.19	42.14	42.15	42.13	42.34	43.35	43.16	42.12	42.12	42.12	42.12	42.12	
15	42.11	42.17	42.14	42.13	42.44	42.93	42.95	42.12	42.11	42.11	42.12	42.12	
16	42.11	42.11	42.14	42.12	42.35	42.80	43.04	42.11	42.11	42.12	42.12	42.12	
17	42.11	42.11	42.13	42.11	42.39	42.90	42.18	42.11	42.11	42.12	42.12	42.12	
18	42.09	42.18	42.14	42.11	42.36	42.94	42.18	42.11	42.11	42.11	42.12	42.11	
19	42.11	42.18	42.12	42.13	42.35	42.72	42.16	42.10	42.12	42.10	42.11	42.11	
20	42.10	42.18	42.13	42.37	42.38	42.17	42.18	42.11	42.12	42.11	42.11	42.11	
21	42.14	42.18	42.14	42.33	42.35	42.19	42.15	42.12	42.11	42.11	42.11	42.12	
22	42.15	42.16	42.15	42.53	42.32	43.10	42.14	42.12	42.12	42.12	42.11	42.12	
23	42.12	42.11	42.15	42.33	42.29	43.19	42.14	42.11	42.12	42.12	42.12	42.12	
24	42.11	42.11	42.15	42.43	42.27	43.20	42.16	42.10	42.11	42.12	42.12	42.12	
25	42.11	42.10	42.15	42.37	42.26	43.10	42.14	42.11	42.11	42.11	42.12	42.11	
26	42.10	42.14	42.15	42.34	42.40	42.85	42.16	42.12	42.12	42.11	42.11	42.12	
27	42.19	42.18	42.15	42.40	42.62	42.94	42.15	42.11	42.12	42.12	42.12	42.12	
28	42.14	42.20	42.15	42.28	42.48	43.17	42.12	42.11	42.11	42.12	42.12	42.12	
29	42.15	42.17	42.19	42.26	42.40	42.63	42.12	42.11	42.12	42.11	42.12	42.12	
30	42.20	42.15	42.15	42.28	42.42	42.65	42.13	42.11	42.12	42.12		42.11	
31		42.10		42.26	42.38		42.11		42.11	42.11		42.11	
Mean	42.13	42.15	42.15	42.22	42.35	42.90	42.64	42.12	42.11	42.11	42.12	42.12	
Max	42.24	42.24	42.19	42.53	42.62	44.39	43.18	42.17	42.12	42.12	42.12	42.13	44.39
Min	42.09	42.10	42.11	42.11	42.25	42.17	42.11	42.10	42.10	42.10	42.11	42.11	42.09

Annual Max Momentary Gage Height	45.32	m. (MSL.) ,	at 21.00 Hours , on Sep 10 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	41.41	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, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.60	4.20	1.20	2.00	5.40	10.70	49.50	1.40	1.40	1.20	1.40	1.60		
2	1.00	2.60	1.20	2.00	8.80	18.90	46.00	1.60	1.40	1.20	1.40	1.60		
3	1.20	2.40	2.40	2.00	9.90	11.90	49.50	2.20	1.20	1.00	1.40	1.40		
4	2.00	2.20	2.20	2.20	8.10	12.30	50.20	2.40	1.20	1.40	1.20	1.20		
5	1.20	2.00	2.00	2.00	6.70	9.10	51.60	2.00	1.00	1.40	1.40	1.40		
6	1.20	2.00	2.00	2.00	5.70	8.40	49.50	1.80	1.20	1.20	1.40	1.40		
7	2.00	1.80	2.00	1.80	5.10	7.70	39.00	1.00	1.40	1.40	1.40	1.20		
8	2.60	1.60	2.20	2.00	4.50	7.70	42.50	1.60	1.20	1.40	1.40	1.20		
9	4.20	1.40	2.00	1.80	4.50	14.70	46.00	1.80	1.20	1.20	1.40	1.20		
10	1.80	1.20	1.80	1.60	4.80	161.40	42.50	2.20	1.40	1.40	1.40	1.20		
11	1.40	1.00	2.00	1.80	5.70	158.10	46.00	1.80	1.20	1.40	1.20	1.20		
12	1.20	1.00	2.20	1.60	5.40	135.80	39.00	1.60	1.00	1.20	1.20	1.40		
13	2.00	1.20	1.80	1.60	4.80	62.80	49.50	1.40	1.20	1.20	1.40	1.20		
14	2.80	1.80	2.00	1.60	7.40	64.20	50.20	1.40	1.40	1.40	1.40	1.40		
15	1.20	2.40	1.80	1.60	11.10	34.80	36.00	1.40	1.20	1.20	1.40	1.40		
16	1.20	1.20	1.80	1.40	7.70	27.50	41.80	1.20	1.20	1.40	1.40	1.40		
17	1.20	1.20	1.60	1.20	9.10	33.00	2.60	1.20	1.20	1.40	1.40	1.40		
18	0.90	2.60	1.80	1.20	8.10	35.40	2.60	1.20	1.20	1.20	1.40	1.20		
19	1.20	2.60	1.40	1.60	7.70	23.10	2.20	1.00	1.40	1.00	1.20	1.20		
20	1.00	2.60	1.60	8.40	8.80	2.40	2.60	1.20	1.40	1.20	1.20	1.20		
21	1.80	2.60	1.80	7.10	7.70	2.80	2.00	1.40	1.20	1.20	1.20	1.40		
22	2.00	2.20	2.00	14.70	6.70	46.00	1.80	1.40	1.40	1.40	1.20	1.40		
23	1.40	1.20	2.00	7.10	5.70	52.30	1.80	1.20	1.40	1.40	1.40	1.40		
24	1.20	1.20	2.00	10.70	5.10	53.00	2.20	1.00	1.20	1.40	1.40	1.40		
25	1.20	1.00	2.00	8.40	4.80	46.00	1.80	1.20	1.20	1.20	1.40	1.20		
26	1.00	1.80	2.00	7.40	9.50	30.20	2.20	1.40	1.40	1.20	1.20	1.40		
27	2.80	2.60	2.00	9.50	18.40	35.40	2.00	1.20	1.40	1.40	1.40	1.40		
28	1.80	3.00	2.00	5.40	12.70	50.90	1.40	1.20	1.20	1.40	1.40	1.40		
29	2.00	2.40	2.80	4.80	9.50	18.90	1.40	1.20	1.40	1.20	1.40	1.40		
30	3.00	2.00	2.00	5.40	10.30	19.80	1.60	1.20	1.40	1.40		1.20		
31		1.00		4.80	8.80		1.20		1.20	1.20		1.20		
Total	51.10	60.00	57.60	126.70	238.50	1195.20	758.20	43.80	39.40	39.80	39.00	41.20	2690.50	CMSDAY
Mean	1.70	1.90	1.90	4.10	7.70	39.80	24.50	1.50	1.30	1.30	1.30	1.30	7.40	CMS
Max	4.20	4.20	2.80	14.70	18.40	161.40	51.60	2.40	1.40	1.40	1.40	1.60	161.40	CMS
Min	0.90	1.00	1.20	1.20	4.50	2.40	1.20	1.00	1.00	1.00	1.20	1.20	0.90	CMS
Runoff	4.42	5.18	4.98	10.95	20.61	103.27	65.51	3.78	3.40	3.44	3.37	3.56	232.46	MCM

Momentary Peak 275.20 CMS. at 45.32 m. (MSL.) at 21.00 Hours , on Sep 10 , 2011

Runoff Yield 12.67 Liters/Second/Square KM. Momentary Peak Yield 474.368 Liters/Second/Square KM.

WATER YEAR : 2011

PASAK RIVER BASIN

Pasak River at Ban Pa , Saraburi (S.9)

Lat 14 - 37 - 39 N Long 101 - 01 - 02 E

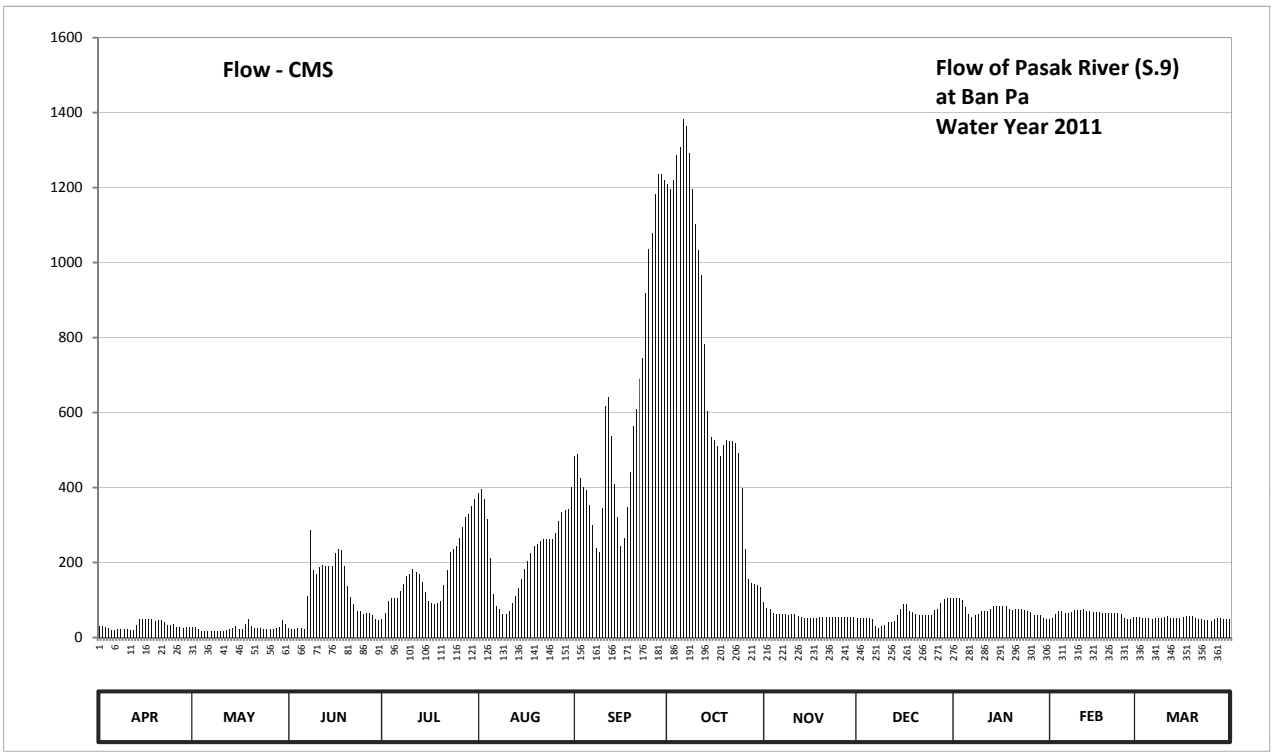
Location : on left bank at Ban Mueang Nua railway bridge.

	Ban Pa	**Amphoe** Kaeng Khoi	**Changwat** Saraburi
Drainge Area	14,233 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank under tamarind tree along the measuring line.	**Elevation**	+23.099 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	1973 to date		
Rating Operation			
Period of Rating	1973 to date		
Rated by Flot	-		
Rated by Current Meter	1973 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Flow regulated by Pasak Dam above gage site.		
	Stage-discharge relation defined by 57 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	9.09	9.05	8.99	9.40	13.36	14.23	19.36	10.13	9.46	10.26	9.41	9.51	
2	9.08	9.05	8.97	9.65	13.46	14.29	19.27	9.88	9.46	10.26	9.44	9.50	
3	9.04	8.91	8.96	10.18	13.22	13.72	19.43	9.84	9.45	10.26	9.63	9.44	
4	9.02	8.83	8.99	10.25	12.72	13.51	19.84	9.66	9.45	10.21	9.74	9.44	
5	8.87	8.80	8.98	10.25	11.58	13.45	19.97	9.62	9.46	9.94	9.74	9.45	
6	8.90	8.84	8.97	10.25	10.41	13.08	20.44	9.63	9.41	9.61	9.65	9.41	
7	8.95	8.82	10.32	10.50	9.95	12.54	20.33	9.64	9.10	9.48	9.65	9.44	
8	8.92	8.80	12.41	10.72	9.85	11.87	19.88	9.61	9.02	9.58	9.70	9.44	
9	8.93	8.81	11.20	11.01	9.61	11.77	19.28	9.59	9.09	9.64	9.82	9.46	
10	8.92	8.82	11.07	11.06	9.62	13.00	18.69	9.61	9.12	9.76	9.82	9.47	
11	8.88	8.84	11.31	11.25	9.77	15.30	17.95	9.61	9.26	9.78	9.81	9.52	
12	8.85	8.90	11.36	11.12	10.08	15.45	17.00	9.53	9.27	9.78	9.83	9.46	
13	9.13	8.95	11.34	11.08	10.34	14.69	16.00	9.49	9.29	9.83	9.74	9.45	
14	9.40	9.01	11.34	10.79	10.59	13.57	15.20	9.44	9.56	9.95	9.74	9.44	
15	9.42	9.07	11.33	10.47	10.89	12.76	14.66	9.45	9.85	9.96	9.71	9.46	
16	9.42	8.96	11.74	10.16	11.23	11.92	14.60	9.44	10.04	9.97	9.71	9.48	
17	9.41	8.95	11.83	10.09	11.50	12.17	14.46	9.44	10.03	9.95	9.71	9.54	
18	9.41	9.19	11.81	10.05	11.72	13.03	14.23	9.44	9.77	9.96	9.67	9.54	
19	9.33	9.39	11.32	10.08	11.93	13.87	14.48	9.49	9.71	9.84	9.69	9.54	
20	9.36	9.10	10.67	10.14	11.98	14.89	14.59	9.50	9.64	9.82	9.69	9.43	
21	9.37	9.02	10.28	10.70	12.09	15.25	14.56	9.50	9.59	9.84	9.68	9.42	
22	9.25	9.02	10.03	11.21	12.13	15.64	14.56	9.50	9.59	9.85	9.68	9.39	
23	9.14	9.01	9.78	11.77	12.14	15.85	14.53	9.51	9.59	9.83	9.67	9.35	
24	9.16	8.94	9.76	11.86	12.14	16.53	14.31	9.50	9.59	9.80	9.61	9.36	
25	9.17	8.93	9.63	11.92	12.15	17.98	13.49	9.50	9.58	9.77	9.44	9.33	
26	9.03	8.93	9.66	12.16	12.31	18.55	11.85	9.48	9.81	9.70	9.42	9.41	
27	9.03	8.97	9.66	12.50	12.66	19.20	10.89	9.48	9.87	9.58	9.41	9.45	
28	9.02	8.99	9.56	12.76	12.89	19.52	10.78	9.47	10.07	9.57	9.50	9.45	
29	9.03	9.04	9.41	12.83	12.95	19.52	10.73	9.47	10.23	9.56	9.52	9.42	
30	9.05	9.38	9.38	13.05	12.97	19.42	10.69	9.47	10.27	9.44		9.41	
31		9.17		13.22	13.52		10.64		10.26	9.40		9.39	
Mean	9.12	8.98	10.34	11.05	11.67	14.89	15.70	9.56	9.61	9.81	9.65	9.45	
Max	9.42	9.39	12.41	13.22	13.52	19.52	20.44	10.13	10.27	10.26	9.83	9.54	20.44
Min	8.85	8.80	8.96	9.40	9.61	11.77	10.64	9.44	9.02	9.40	9.41	9.33	8.80

Annual Max Momentary Gage Height	20.56	m. (MSL.) ,	at 12.00 Hours , on Oct 6 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	5.49	m. (MSL)
Left Bank Elevation	23.10	m. (MSL.) ,			
Right Bank Elevation	22.57	m. (MSL.) ,	Drainage Area	14233	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	30.40	28.00	24.60	49.00	384.60	482.60	1209.60	95.10	52.60	104.80	49.60	55.60		
2	29.80	28.00	23.80	64.00	395.60	489.80	1195.20	77.80	52.60	104.80	51.40	55.00		
3	27.40	21.20	23.30	98.60	369.20	424.20	1220.80	75.40	52.00	104.80	62.80	51.40		
4	26.20	17.90	24.60	104.00	317.00	401.10	1286.40	64.60	52.00	100.80	69.40	51.40		
5	19.60	16.70	24.20	104.00	212.20	394.50	1307.20	62.20	52.60	81.80	69.40	52.00		
6	20.80	18.30	23.80	104.00	116.80	353.80	1382.80	62.80	49.60	61.60	64.00	49.60		
7	22.90	17.50	109.60	124.00	82.50	299.00	1364.80	63.40	31.00	53.80	64.00	51.40		
8	21.70	16.70	286.90	141.60	76.00	238.30	1292.80	61.60	26.20	59.80	67.00	51.40		
9	22.10	17.10	180.00	164.80	61.60	229.30	1196.80	60.40	30.40	63.40	74.20	52.60		
10	21.70	17.50	169.60	168.80	62.20	345.00	1102.40	61.60	32.20	70.60	74.20	53.20		
11	20.00	18.30	188.80	184.00	71.20	616.00	1032.90	61.60	40.60	71.80	73.60	56.20		
12	18.80	20.80	192.80	173.60	91.60	641.80	965.40	56.80	41.20	71.80	74.80	52.60		
13	32.80	22.90	191.20	170.40	111.20	537.80	783.00	54.40	42.40	74.80	69.40	52.00		
14	49.00	25.60	191.20	147.20	131.20	407.70	603.00	51.40	58.60	82.50	69.40	51.40		
15	50.20	29.20	190.40	121.60	155.20	321.00	534.20	52.00	76.00	83.20	67.60	52.60		
16	50.20	23.30	226.60	97.20	182.40	242.80	527.00	51.40	88.80	83.90	67.60	53.80		
17	49.60	22.90	234.70	92.30	205.00	265.30	510.20	51.40	88.10	82.50	67.60	57.40		
18	49.60	36.40	232.90	89.50	224.80	348.30	482.60	51.40	71.20	83.20	65.20	57.40		
19	44.80	48.40	189.60	91.60	243.70	440.70	512.60	54.40	67.60	75.40	66.40	57.40		
20	46.60	31.00	137.60	95.80	248.20	562.70	525.80	55.00	63.40	74.20	66.40	50.80		
21	47.20	26.20	106.40	140.00	258.10	609.50	522.20	55.00	60.40	75.40	65.80	50.20		
22	40.00	26.20	88.10	180.80	261.70	690.60	522.20	55.00	60.40	76.00	65.80	48.40		
23	33.40	25.60	71.80	229.30	262.60	744.50	518.60	55.60	60.40	74.80	65.20	46.00		
24	34.60	22.50	70.60	237.40	262.60	919.00	492.20	55.00	60.40	73.00	61.60	46.60		
25	35.20	22.10	62.80	242.80	263.50	1035.10	398.90	55.00	59.80	71.20	51.40	44.80		
26	26.80	22.10	64.60	264.40	277.90	1080.00	236.50	53.80	73.60	67.00	50.20	49.60		
27	26.80	23.80	64.60	295.00	311.00	1184.00	155.20	53.80	77.20	59.80	49.60	52.00		
28	26.20	24.60	58.60	321.00	334.00	1235.20	146.40	53.20	90.90	59.20	55.00	52.00		
29	26.80	27.40	49.60	328.00	340.00	1235.20	142.40	53.20	102.40	58.60	56.20	50.20		
30	28.00	47.80	47.80	350.50	342.00	1219.20	139.20	53.20	105.60	51.40		49.60		
31		35.20		369.20	402.20		135.20		104.80	49.00		48.40		
Total	979.20	781.20	3551.10	5344.40	7057.80	17994.00	22444.50	1767.50	1925.00	2304.90	1854.80	1603.00	67607.40	CMSDAY
Mean	32.60	25.20	118.40	172.40	227.70	599.80	724.00	58.90	62.10	74.40	64.00	51.70	184.70	CMS
Max	50.20	48.40	286.90	369.20	402.20	1235.20	1382.80	95.10	105.60	104.80	74.80	57.40	1382.80	CMS
Min	18.80	16.70	23.30	49.00	61.60	229.30	135.20	51.40	26.20	49.00	49.60	44.80	16.70	CMS
Runoff	84.60	67.50	306.82	461.76	609.79	1554.68	1939.20	152.71	166.32	199.14	160.25	138.50	5841.28	MCM

Momentary Peak 1403.20 CMS. at 20.56 m. (MSL.) at 12.00 Hours , on Oct 6 , 2011

Runoff Yield 12.98 Liters/Second/Square KM. Momentary Peak Yield 98.588 Liters/Second/Square KM.

WATER YEAR : 2011

PASAK RIVER BASIN

Lam Sonthi at Ban Tha Yiam , Lop Buri (S.13)

Lat 15 - 20 - 23 N Long 101 - 22 - 30 E

Location : on left bank near Wat Tha Yiam.

Ban Tha Yiam **Amphoe** Lam Sonthi **Changwat** Lop Buri

Drainge Area	357 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+0.000 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	About 15 meters from the top staff gage. **Elevation** +89.650 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings
Period of Available Gage Records	1978 to date
Rating Operation	
Period of Rating	1978 to date
Rated by Flot	-
Rated by Current Meter	1978 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Flow effected by the local weir about 200 meters downstream from the gage site. Stage-discharge relation defined by 33 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

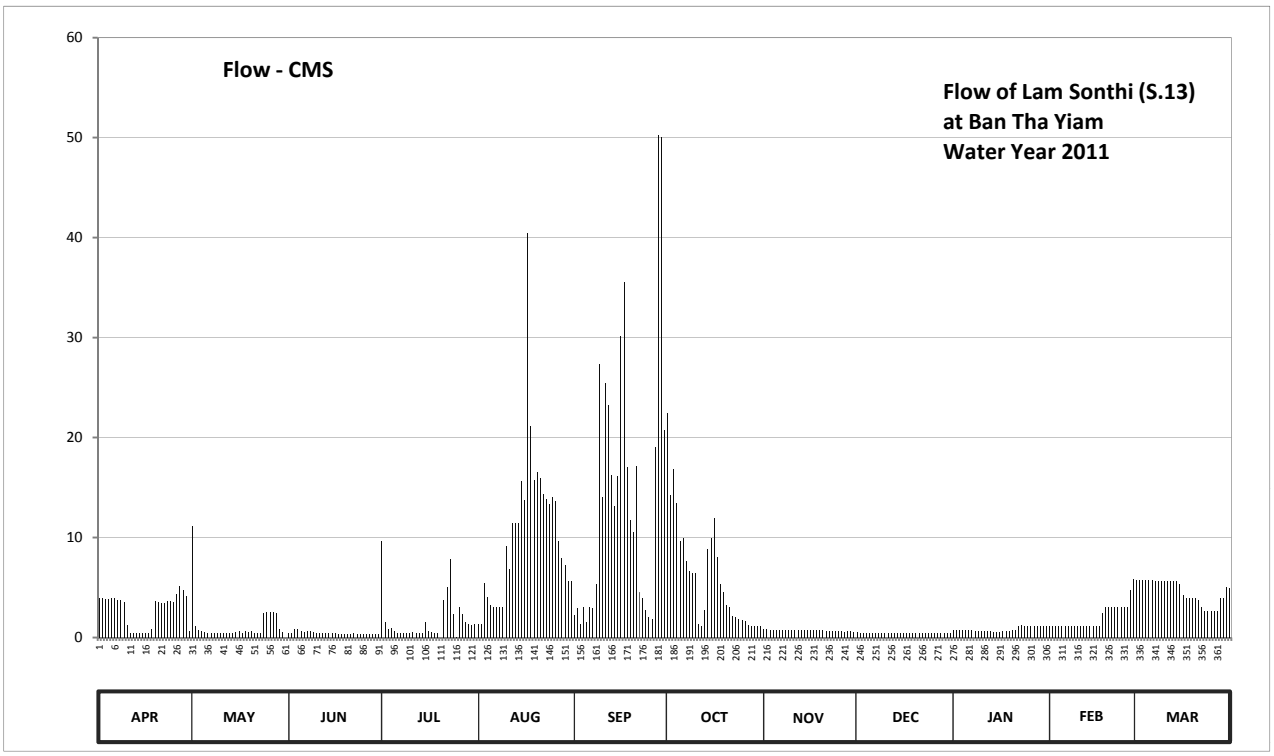
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	82.15	83.07	81.42	82.91	81.67	81.84	84.24	81.53	81.44	81.51	81.62	82.42	
2	82.15	81.61	81.42	81.71	81.67	81.99	83.42	81.53	81.43	81.51	81.62	82.42	
3	82.14	81.52	81.53	81.54	82.38	81.67	83.69	81.52	81.43	81.52	81.62	82.42	
4	82.14	81.48	81.53	81.57	82.17	82.00	83.33	81.52	81.43	81.52	81.62	82.42	
5	82.15	81.44	81.49	81.47	82.04	81.71	82.91	81.51	81.43	81.51	81.62	82.42	
6	82.15	81.42	81.45	81.43	82.01	82.01	82.94	81.51	81.42	81.51	81.62	82.42	
7	82.12	81.41	81.48	81.41	82.01	81.99	82.66	81.51	81.42	81.51	81.62	82.41	
8	82.12	81.41	81.47	81.41	82.01	82.36	82.53	81.51	81.42	81.48	81.62	82.41	
9	82.09	81.41	81.45	81.40	82.01	84.68	82.51	81.52	81.42	81.48	81.62	82.41	
10	81.65	81.41	81.42	81.41	82.84	83.39	82.51	81.52	81.42	81.47	81.62	82.41	
11	81.43	81.41	81.41	81.46	82.56	84.51	81.66	81.51	81.42	81.47	81.62	82.41	
12	81.42	81.41	81.41	81.42	83.11	84.31	81.61	81.51	81.42	81.47	81.62	82.41	
13	81.41	81.41	81.40	81.41	83.11	83.63	81.95	81.51	81.42	81.47	81.62	82.40	
14	81.41	81.40	81.40	81.41	83.11	83.29	82.81	81.50	81.41	81.46	81.61	82.40	
15	81.41	81.44	81.40	81.70	83.57	83.62	82.94	81.50	81.41	81.46	81.61	82.37	
16	81.41	81.48	81.40	81.47	83.36	84.91	83.16	81.50	81.41	81.46	81.61	82.21	
17	81.40	81.41	81.39	81.44	85.76	85.36	82.71	81.50	81.41	81.48	81.61	82.16	
18	81.54	81.49	81.39	81.42	84.12	83.71	82.36	81.50	81.41	81.49	81.88	82.16	
19	82.10	81.46	81.38	81.42	83.58	83.14	82.25	81.50	81.41	81.49	82.01	82.16	
20	82.09	81.49	81.38	81.08	83.66	83.01	82.04	81.50	81.41	81.51	82.01	82.16	
21	82.08	81.43	81.38	82.12	83.60	83.72	82.01	81.48	81.41	81.51	82.01	82.13	
22	82.08	81.42	81.41	82.32	83.43	82.25	81.83	81.47	81.41	81.61	82.01	82.00	
23	82.11	81.43	81.39	82.68	83.37	82.15	81.80	81.47	81.41	81.63	82.01	81.92	
24	82.10	81.90	81.39	81.87	83.32	81.95	81.76	81.47	81.41	81.62	82.01	81.92	
25	82.09	81.91	81.39	81.26	83.39	81.82	81.75	81.47	81.40	81.62	82.01	81.92	
26	82.22	81.91	81.38	82.01	83.35	81.76	81.73	81.47	81.40	81.62	82.01	81.92	
27	82.33	81.91	81.38	81.86	82.91	83.91	81.64	81.46	81.40	81.62	82.28	81.92	
28	82.28	81.90	81.38	81.71	82.69	86.51	81.61	81.47	81.40	81.62	82.43	82.16	
29	82.19	81.55	81.39	81.67	82.61	86.50	81.61	81.47	81.40	81.62	82.43	82.16	
30	81.47	81.46	81.38	81.65	82.41	84.08	81.61	81.46	81.40	81.62		82.32	
31		71.44		81.66	82.41		81.60		81.40	81.62		82.31	
Mean	81.91	81.25	81.42	81.65	82.91	83.26	82.36	81.50	81.41	81.53	81.81	82.25	
Max	82.33	83.07	81.53	82.91	85.76	86.51	84.24	81.53	81.44	81.63	82.43	82.42	86.51
Min	81.40	71.44	81.38	81.08	81.67	81.67	81.60	81.46	81.40	81.46	81.61	81.92	71.44

Annual Max Momentary Gage Height 87.01 m. (MSL.) , at 18.00 Hours , on Sep 28 , 2011

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed 80.95 m. (MSL)

Left Bank Elevation 89.70 m. (MSL.) ,

Right Bank Elevation 89.68 m. (MSL.) , Drainage Area 357 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.90	11.13	0.46	9.69	1.38	2.20	22.44	0.82	0.52	0.74	1.18	5.76		
2	3.90	1.14	0.46	1.55	1.38	2.95	14.28	0.82	0.49	0.74	1.18	5.76		
3	3.84	0.78	0.82	0.86	5.46	1.38	16.80	0.78	0.49	0.78	1.18	5.76		
4	3.84	0.64	0.82	0.98	4.02	3.00	13.47	0.78	0.49	0.78	1.18	5.76		
5	3.90	0.52	0.67	0.61	3.24	1.55	9.69	0.74	0.49	0.74	1.18	5.76		
6	3.90	0.46	0.55	0.49	3.06	3.06	9.96	0.74	0.46	0.74	1.18	5.76		
7	3.72	0.43	0.64	0.43	3.06	2.95	7.68	0.74	0.46	0.74	1.18	5.68		
8	3.72	0.43	0.61	0.43	3.06	5.32	6.64	0.74	0.46	0.64	1.18	5.68		
9	3.54	0.43	0.55	0.40	3.06	27.36	6.48	0.78	0.46	0.64	1.18	5.68		
10	1.30	0.43	0.46	0.43	9.12	14.01	6.48	0.78	0.46	0.61	1.18	5.68		
11	0.49	0.43	0.43	0.58	6.88	25.41	1.34	0.74	0.46	0.61	1.18	5.68		
12	0.46	0.43	0.43	0.46	11.49	23.21	1.14	0.74	0.46	0.61	1.18	5.68		
13	0.43	0.43	0.40	0.43	11.49	16.20	2.75	0.74	0.46	0.61	1.18	5.60		
14	0.43	0.40	0.40	0.43	11.49	13.11	8.88	0.70	0.43	0.58	1.14	5.60		
15	0.43	0.52	0.40	1.50	15.63	16.10	9.96	0.70	0.43	0.58	1.14	5.39		
16	0.43	0.64	0.40	0.61	13.74	30.12	11.94	0.70	0.43	0.58	1.14	4.27		
17	0.40	0.43	0.37	0.52	40.48	35.52	8.08	0.70	0.43	0.64	1.14	3.96		
18	0.86	0.67	0.37	0.46	21.12	17.00	5.32	0.70	0.43	0.67	2.40	3.96		
19	3.60	0.58	0.34	0.46	15.72	11.76	4.55	0.70	0.43	0.67	3.06	3.96		
20	3.54	0.67	0.34	0.00	16.50	10.59	3.24	0.70	0.43	0.74	3.06	3.96		
21	3.48	0.49	0.34	3.72	15.90	17.10	3.06	0.64	0.43	0.74	3.06	3.78		
22	3.48	0.46	0.43	5.04	14.37	4.55	2.15	0.61	0.43	1.14	3.06	3.00		
23	3.66	0.49	0.37	7.84	13.83	3.90	2.00	0.61	0.43	1.22	3.06	2.60		
24	3.60	2.50	0.37	2.35	13.38	2.75	1.80	0.61	0.43	1.18	3.06	2.60		
25	3.54	2.55	0.37	0.06	14.01	2.10	1.75	0.61	0.40	1.18	3.06	2.60		
26	4.34	2.55	0.34	3.06	13.65	1.80	1.65	0.61	0.40	1.18	3.06	2.60		
27	5.11	2.55	0.34	2.30	9.69	19.00	1.26	0.58	0.40	1.18	4.76	2.60		
28	4.76	2.50	0.34	1.55	7.92	50.23	1.14	0.61	0.40	1.18	5.84	3.96		
29	4.14	0.90	0.37	1.38	7.28	50.10	1.14	0.61	0.40	1.18	5.84	3.96		
30	0.61	0.58	0.34	1.30	5.68	20.70	1.14	0.58	0.40	1.18		5.04		
31		0.00		1.34	5.68		1.10		0.40	1.18		4.97		
Total	83.35	37.16	13.53	51.26	322.77	435.03	189.31	20.91	13.69	25.98	63.22	143.05	1399.26	CMSDAY
Mean	2.78	1.20	0.45	1.65	10.41	14.50	6.11	0.70	0.44	0.84	2.18	4.61	3.82	CMS
Max	5.11	11.13	0.82	9.69	40.48	50.23	22.44	0.82	0.52	1.22	5.84	5.76	50.23	CMS
Min	0.40	0.00	0.34	0.00	1.38	1.38	1.10	0.58	0.40	0.58	1.14	2.60	0.00	CMS
Runoff	7.20	3.21	1.17	4.43	27.89	37.59	16.36	1.81	1.18	2.25	5.46	12.36	120.90	MCM

Momentary Peak 57.14 CMS. at 87.01 m. (MSL.) at 18.00 Hours , on Sep 28 , 2011

Runoff Yield 10.70 Liters/Second/Square KM. Momentary Peak Yield 159.953 Liters/Second/Square KM.

WATER YEAR : 2011

PASAK RIVER BASIN

Lam Sonthi at Ban Tha Ruak , Lop Buri (S.14)

Lat 15 - 13 - 24 N Long 101 - 16 - 52 E

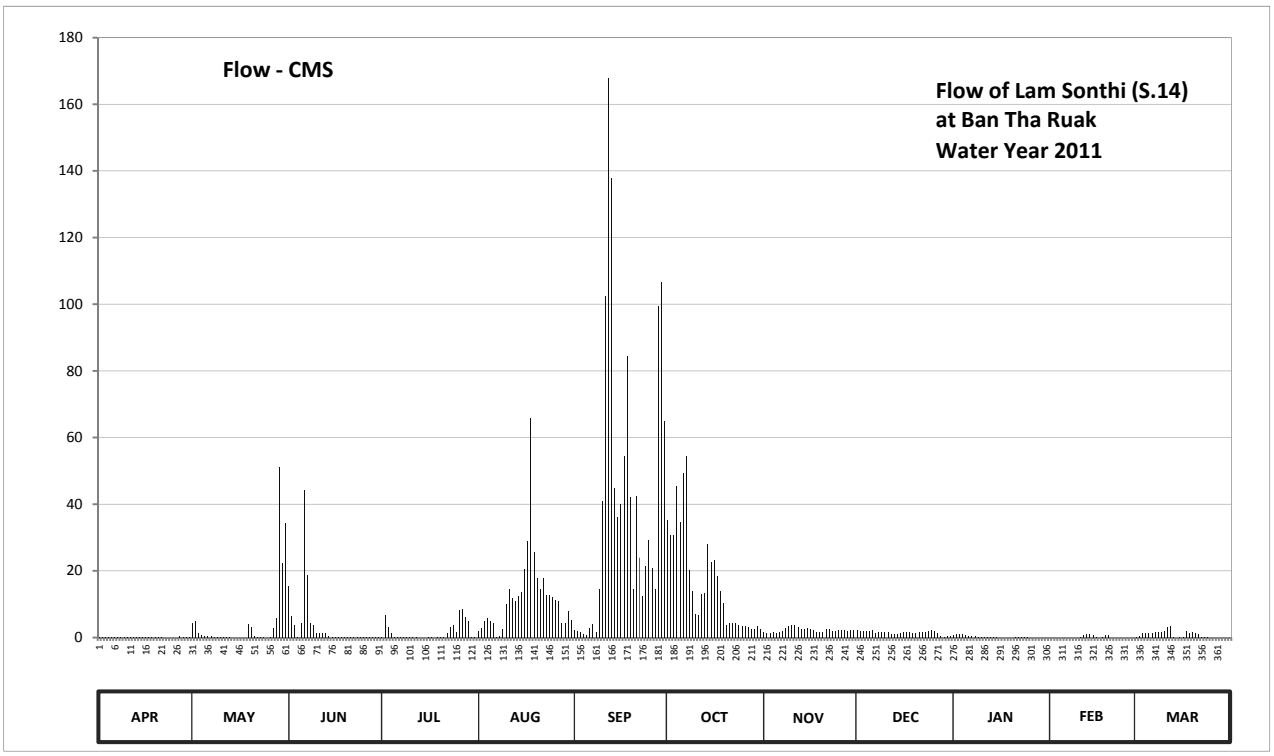
Location : on right bank at the bridge.

	Ban Tha Ruak	**Amphoe** Chai Badan	**Changwat** Lop Buri
Drainge Area	1,263 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank at the abutment of the bridge.	**Elevation**	+63.824 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	2005 to date		
Rating Operation			
Period of Rating	2005 to date		
Rated by Flot	-		
Rated by Current Meter	2005 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 34 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	54.08	55.28	56.78	54.08	54.65	54.70	58.03	54.62	54.71	54.39	53.97	54.10	
2	54.08	55.38	55.68	55.70	54.86	54.63	57.79	54.47	54.68	54.41	53.97	54.27	
3	54.08	54.55	55.08	54.98	55.42	54.59	57.79	54.50	54.67	54.41	53.97	54.49	
4	54.08	54.38	54.18	54.54	55.58	54.40	58.51	54.59	54.67	54.40	53.97	54.50	
5	54.08	54.28	55.28	54.04	55.38	54.37	57.99	54.50	54.65	54.35	53.97	54.47	
6	54.08	54.28	58.45	54.04	55.28	54.86	58.67	54.61	54.70	54.30	53.97	54.53	
7	54.08	54.28	57.05	54.04	54.07	55.17	58.88	54.68	54.54	54.27	53.96	54.60	
8	54.08	54.18	55.28	54.03	54.28	54.56	57.16	54.91	54.62	54.24	53.96	54.59	
9	54.08	54.18	55.08	54.03	54.77	56.70	56.63	55.01	54.62	54.23	53.98	54.60	
10	54.08	54.18	54.48	54.05	56.22	58.29	55.75	55.09	54.61	54.21	53.99	54.69	
11	54.08	54.08	54.48	54.09	56.72	60.37	55.73	55.10	54.57	54.18	54.02	54.94	
12	54.08	54.08	54.48	54.02	56.44	61.70	56.55	54.97	54.46	54.03	54.34	55.01	
13	54.08	54.08	54.48	54.01	56.32	61.16	56.57	54.83	54.40	54.02	54.42	54.06	
14	54.08	53.98	54.28	54.01	56.50	58.48	57.65	54.80	54.45	54.02	54.42	53.90	
15	54.08	53.98	54.08	54.01	56.61	58.07	57.33	54.86	54.53	54.02	54.35	54.03	
16	54.08	53.98	54.08	54.02	57.17	58.25	57.36	54.81	54.57	54.01	54.11	54.08	
17	54.08	53.98	54.08	54.02	57.71	58.88	57.04	54.76	54.58	54.01	53.97	54.69	
18	54.03	54.01	54.08	54.01	59.29	59.88	56.63	54.60	54.58	54.01	54.11	54.51	
19	54.03	55.18	54.08	54.02	57.51	58.35	56.28	54.57	54.53	54.00	54.33	54.58	
20	54.03	54.98	54.08	54.02	56.99	56.72	55.12	54.61	54.53	54.01	54.34	54.52	
21	54.03	54.28	54.08	54.12	56.72	58.37	55.27	54.80	54.57	54.02	53.96	54.44	
22	53.98	54.18	54.08	54.55	56.98	57.41	55.23	54.78	54.57	54.02	53.96	54.16	
23	53.98	54.08	54.08	54.95	56.53	56.50	55.23	54.65	54.58	54.03	53.96	54.09	
24	53.98	54.08	54.08	55.13	56.53	57.25	55.09	54.65	54.69	54.04	53.96	54.17	
25	53.98	53.98	54.08	54.59	56.45	57.72	55.02	54.70	54.72	54.02	53.97	53.99	
26	53.98	54.11	54.08	55.97	56.36	57.20	55.01	54.70	54.63	53.99	53.97	53.98	
27	54.25	54.91	54.08	56.00	56.34	56.71	54.95	54.75	54.52	53.99	53.97	53.97	
28	54.13	55.55	54.08	55.60	55.29	60.30	54.82	54.66	54.30	53.99	53.98	53.97	
29	54.08	58.75	54.08	55.40	55.26	60.48	54.82	54.71	54.21	53.99	53.98	53.97	
30	54.08	57.31	54.08	54.10	55.92	59.26	55.01	54.71	54.25	53.97		53.97	
31		57.98		54.11	55.47		54.79		54.24	53.96		53.90	
Mean	54.06	54.73	54.68	54.46	56.12	57.51	56.41	54.73	54.55	54.11	54.06	54.32	
Max	54.25	58.75	58.45	56.00	59.29	61.70	58.88	55.10	54.72	54.41	54.42	55.01	61.70
Min	53.98	53.98	54.08	54.01	54.07	54.37	54.79	54.47	54.21	53.96	53.96	53.90	53.90

Annual Max Momentary Gage Height	61.84	m. (MSL.) ,	at 19.00 Hours , on Sep 12 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	53.80	m. (MSL)
Left Bank Elevation	63.82	m. (MSL.) ,			
Right Bank Elevation	63.84	m. (MSL.) ,	Drainage Area	1263	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.08	4.42	15.30	0.08	1.90	2.10	35.40	1.78	2.14	0.86	0.00	0.10		
2	0.08	4.90	6.48	6.60	2.74	1.82	30.61	1.18	2.02	0.94	0.00	0.41		
3	0.08	1.50	3.62	3.22	5.10	1.66	30.61	1.30	1.98	0.94	0.00	1.26		
4	0.08	0.82	0.18	1.46	5.90	0.90	45.53	1.66	1.98	0.90	0.00	1.30		
5	0.08	0.44	4.42	0.04	4.90	0.78	34.60	1.30	1.90	0.70	0.00	1.18		
6	0.08	0.44	44.20	0.04	4.42	2.74	49.28	1.74	2.10	0.50	0.00	1.42		
7	0.08	0.44	18.70	0.04	0.07	3.98	54.50	2.02	1.46	0.41	0.00	1.70		
8	0.08	0.18	4.42	0.03	0.44	1.54	20.24	2.94	1.78	0.32	0.00	1.66		
9	0.08	0.18	3.62	0.03	2.38	14.50	13.80	3.34	1.78	0.29	0.00	1.70		
10	0.08	0.18	1.22	0.05	9.96	40.79	6.90	3.66	1.74	0.23	0.00	2.06		
11	0.08	0.08	1.22	0.09	14.70	102.30	6.78	3.70	1.58	0.18	0.02	3.06		
12	0.08	0.08	1.22	0.02	11.90	167.80	13.00	3.18	1.14	0.03	0.66	3.34		
13	0.08	0.08	1.22	0.01	10.78	138.00	13.20	2.62	0.90	0.02	0.98	0.06		
14	0.08	0.00	0.44	0.01	12.50	44.86	28.00	2.50	1.10	0.02	0.98	0.00		
15	0.08	0.00	0.08	0.01	13.60	36.20	22.75	2.74	1.42	0.02	0.70	0.03		
16	0.08	0.00	0.08	0.02	20.38	39.95	23.20	2.54	1.58	0.01	0.11	0.08		
17	0.08	0.00	0.08	0.02	29.09	54.50	18.56	2.34	1.62	0.01	0.00	2.06		
18	0.03	0.01	0.08	0.01	65.70	84.32	13.80	1.70	1.62	0.01	0.11	1.34		
19	0.03	4.02	0.08	0.02	25.57	42.05	10.44	1.58	1.42	0.00	0.62	1.62		
20	0.03	3.22	0.08	0.02	17.87	14.70	3.78	1.74	1.42	0.01	0.66	1.38		
21	0.03	0.44	0.08	0.12	14.70	42.47	4.38	2.50	1.58	0.02	0.00	1.06		
22	0.00	0.18	0.08	1.50	17.74	23.96	4.22	2.42	1.58	0.02	0.00	0.16		
23	0.00	0.08	0.08	3.10	12.80	12.50	4.22	1.90	1.62	0.03	0.00	0.09		
24	0.00	0.08	0.08	3.82	12.80	21.55	3.66	1.90	2.06	0.04	0.00	0.17		
25	0.00	0.00	0.08	1.66	12.00	29.28	3.38	2.10	2.18	0.02	0.00	0.00		
26	0.00	0.11	0.08	8.22	11.14	20.80	3.34	2.10	1.82	0.00	0.00	0.00		
27	0.35	2.94	0.08	8.40	10.96	14.60	3.10	2.30	1.38	0.00	0.00	0.00		
28	0.13	5.75	0.08	6.00	4.46	99.50	2.58	1.94	0.50	0.00	0.00	0.00		
29	0.08	51.25	0.08	5.00	4.34	106.70	2.58	2.14	0.23	0.00	0.00	0.00		
30	0.08	22.45	0.08	0.10	7.92	64.80	3.34	2.14	0.35	0.00		0.00		
31		34.40		0.11	5.35		2.46		0.32	0.00		0.00		
Total	2.12	138.67	107.54	49.85	374.11	1231.65	512.24	67.00	46.30	6.53	4.84	27.24	2568.09	CMSDAY
Mean	0.07	4.47	3.58	1.61	12.07	41.06	16.52	2.23	1.49	0.21	0.17	0.88	7.02	CMS
Max	0.35	51.25	44.20	8.40	65.70	167.80	54.50	3.70	2.18	0.94	0.98	3.34	167.80	CMS
Min	0.00	0.00	0.08	0.01	0.07	0.78	2.46	1.18	0.23	0.00	0.00	0.00	0.00	CMS
Runoff	0.18	11.98	9.29	4.31	32.32	106.42	44.26	5.79	4.00	0.56	0.42	2.35	221.88	MCM

Momentary Peak 175.96 CMS. at 61.84 m. (MSL.) at 19.00 Hours , on Sep 12 , 2011

Runoff Yield 5.55 Liters/Second/Square KM. Momentary Peak Yield 139.304 Liters/Second/Square KM.

WATER YEAR : 2011

PASAK RIVER BASIN

Pasak River at Ban Tha Rua , Phra Nakhon Si Ayutthaya (S.26)

Lat 14 - 33 - 22 N Long 100 - 43 - 38 E

Location : on right bank at Ban Tha Rua

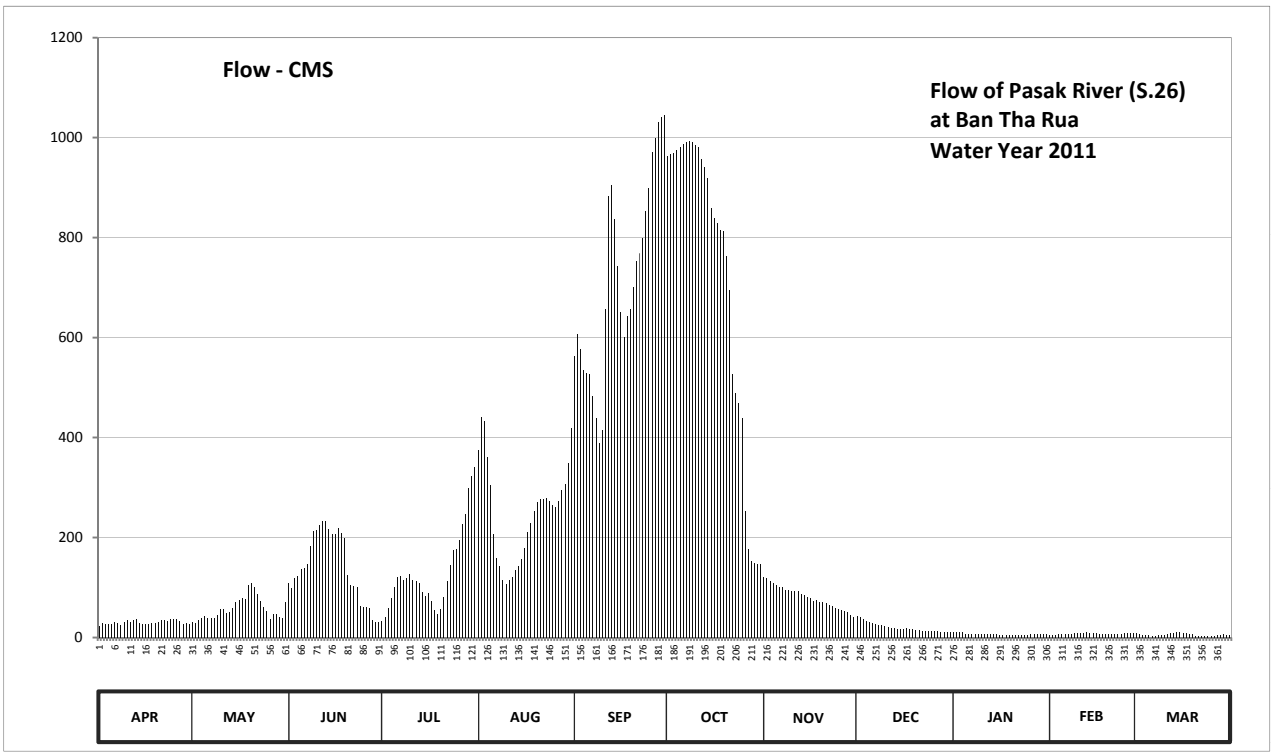
Ban Tha Rua **Amphoe** Tha Rua **Changwat** Phra Nakhon Si Ayutthaya

Drainge Area	15,425 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+0.000 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank near the automatic gage buiding **Elevation** +7.860 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings
Period of Available Gage Records	1984 to date
Rating Operation	
Period of Rating	1998 , 2009 to date
Rated by Flot	-
Rated by Current Meter	1998, 2009 to date
Stability of Channel Regimes	Fairly stable because of backwater effect.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Flow effected by Pasak Cholasit Dam.
	Stage-discharge relation defined by 20 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.67	0.79	2.02	0.84	5.14	6.95	10.42	6.75	4.08	1.72	0.94	1.42	
2	0.76	0.77	1.88	0.98	5.81	7.36	10.46	6.70	4.00	1.68	0.92	1.11	
3	0.73	0.88	2.16	1.29	5.73	7.08	10.47	6.62	3.80	1.70	0.90	0.99	
4	0.74	0.96	2.22	1.59	5.01	6.69	10.52	6.52	3.60	1.68	1.12	0.90	
5	0.75	1.03	2.43	1.90	4.41	6.65	10.58	6.44	3.40	1.16	1.10	0.80	
6	0.81	0.96	2.45	2.20	3.33	6.63	10.62	6.32	3.24	1.14	1.20	0.70	
7	0.78	0.96	2.56	2.22	2.74	6.22	10.65	6.30	3.14	1.10	1.24	0.68	
8	0.71	0.94	3.04	2.12	2.51	5.78	10.67	6.16	3.04	1.06	1.28	0.78	
9	0.79	1.06	3.39	2.18	2.12	5.28	10.65	6.14	2.93	1.04	1.34	0.98	
10	0.89	1.26	3.43	2.28	2.01	5.55	10.61	6.12	2.81	1.08	1.44	0.96	
11	0.82	1.23	3.53	2.12	2.11	7.80	10.57	6.10	2.64	1.10	1.43	1.05	
12	0.89	1.13	3.63	2.07	2.21	9.76	10.38	6.10	2.62	1.12	1.42	1.32	
13	0.90	1.14	3.62	2.02	2.39	9.95	10.24	5.96	2.58	1.11	1.62	1.44	
14	0.77	1.27	3.44	1.76	2.51	9.36	10.05	5.86	2.42	1.08	1.52	1.68	
15	0.72	1.49	3.34	1.67	2.71	8.55	9.56	5.72	2.40	1.04	1.50	1.64	
16	0.73	1.54	3.34	1.75	2.98	7.75	9.38	5.65	2.40	1.02	1.42	1.38	
17	0.75	1.60	3.47	1.50	3.37	7.30	9.30	5.44	2.49	0.98	1.16	1.34	
18	0.76	1.58	3.35	1.20	3.57	7.67	9.18	5.54	2.32	0.96	1.12	1.18	
19	0.77	1.96	3.24	1.07	3.85	7.79	9.16	5.38	2.30	0.96	1.04	1.20	
20	0.79	2.04	2.25	1.24	4.05	8.18	9.12	5.34	2.16	0.98	1.04	0.70	
21	0.87	1.90	1.98	1.63	4.11	8.63	9.08	5.28	2.14	0.97	1.10	0.68	
22	0.88	1.72	1.94	2.09	4.12	8.77	8.93	5.14	2.00	0.96	1.20	0.66	
23	0.85	1.51	1.90	2.55	4.14	9.04	8.84	5.04	1.94	0.97	1.24	0.68	
24	0.91	1.33	1.34	2.94	4.06	9.50	8.79	4.90	1.94	0.96	1.14	0.70	
25	0.92	1.19	1.30	2.97	3.98	9.90	8.70	4.81	1.92	0.94	1.30	0.74	
26	0.91	0.91	1.31	3.19	3.94	10.49	8.00	4.70	1.88	1.06	1.40	0.76	
27	0.86	1.09	1.28	3.56	4.07	10.73	7.40	4.60	1.86	1.16	1.42	0.96	
28	0.75	1.08	0.88	3.77	4.30	10.97	7.15	4.52	1.82	1.18	1.44	0.88	
29	0.77	0.99	0.80	4.36	4.43	11.05	7.11	4.20	1.80	1.15	1.34	1.04	
30	0.75	0.94	0.82	4.62	4.88	11.08	7.08	4.05	1.74	1.12		1.02	
31		1.48		4.81	5.58		7.08		1.70	1.04		0.90	
Mean	0.80	1.25	2.41	2.27	3.75	8.28	9.38	5.61	2.55	1.14	1.25	1.01	
Max	0.92	2.04	3.63	4.81	5.81	11.08	10.67	6.75	4.08	1.72	1.62	1.68	11.08
Min	0.67	0.77	0.80	0.84	2.01	5.28	7.08	4.05	1.70	0.94	0.90	0.66	0.66

Annual Max Momentary Gage Height	11.08	m. (MSL.) ,	at 06.00 Hours , on Sep 30 , 2011	
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed -3.97	m. (MSL)
Left Bank Elevation	11.75	m. (MSL.) ,		
Right Bank Elevation	11.65	m. (MSL.) ,	Drainage Area 15425	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	23.50	30.00	108.40	32.70	374.00	562.50	962.40	121.00	42.50	10.90	5.20	8.70		
2	28.30	28.80	98.60	40.80	441.00	607.60	967.20	118.00	41.00	10.60	5.00	6.40		
3	26.70	34.90	118.20	59.40	433.00	576.80	968.40	114.00	37.40	10.80	4.90	5.50		
4	27.20	39.60	122.40	78.30	361.00	533.90	974.40	109.40	34.00	10.60	6.50	4.90		
5	27.80	43.80	137.10	100.00	303.90	529.50	981.60	105.80	30.80	6.80	6.30	4.20		
6	31.10	39.60	138.50	121.00	206.70	527.30	986.40	100.80	28.40	6.60	7.10	3.50		
7	29.40	39.60	146.20	122.40	159.20	482.20	990.00	100.00	27.00	6.30	7.40	3.40		
8	25.50	38.40	183.20	115.40	142.70	438.00	992.40	94.60	25.60	6.00	7.70	4.10		
9	30.00	45.60	212.10	119.60	115.40	388.00	990.00	93.90	24.00	5.90	8.10	5.50		
10	35.50	57.60	215.70	126.60	107.70	415.00	985.20	93.20	22.30	6.20	8.90	5.30		
11	31.60	55.80	224.70	115.40	114.70	657.00	980.40	92.50	20.10	6.30	8.80	6.00		
12	35.50	49.80	233.70	111.90	121.70	883.20	957.60	92.50	19.90	6.50	8.70	8.00		
13	36.00	50.40	232.80	108.40	134.30	906.00	940.80	87.70	19.40	6.40	10.20	8.90		
14	28.80	58.20	216.60	90.20	142.70	836.40	918.00	84.50	17.40	6.20	9.40	10.60		
15	26.10	71.40	207.60	83.90	156.80	743.20	859.40	80.30	17.20	5.90	9.30	10.30		
16	26.70	74.80	207.60	89.50	178.40	651.20	838.70	78.40	17.20	5.70	8.70	8.40		
17	27.80	79.00	219.30	72.00	210.30	601.00	829.50	72.80	18.30	5.50	6.80	8.10		
18	28.30	77.60	208.50	54.00	228.30	642.00	815.70	75.40	16.30	5.30	6.50	6.90		
19	28.80	104.20	199.20	46.20	253.50	655.80	813.40	71.30	16.10	5.30	5.90	7.10		
20	30.00	109.80	124.50	56.40	271.50	700.70	761.80	70.30	14.60	5.50	5.90	3.50		
21	34.40	100.00	105.60	81.10	276.90	752.50	694.50	68.80	14.40	5.40	6.30	3.40		
22	34.90	87.40	102.80	113.30	277.80	768.60	527.10	65.40	13.00	5.30	7.10	3.20		
23	33.30	72.70	100.00	145.50	279.60	799.60	489.00	63.00	12.60	5.40	7.40	3.40		
24	36.60	61.80	62.40	175.20	272.40	852.50	469.50	59.70	12.60	5.30	6.60	3.50		
25	37.20	53.40	60.00	177.60	265.20	900.00	438.00	57.60	12.40	5.20	7.80	3.80		
26	36.60	36.60	60.60	195.20	261.60	970.80	253.00	55.20	12.10	6.00	8.60	3.90		
27	33.80	47.40	58.80	227.40	273.30	999.90	178.00	53.00	12.00	6.80	8.70	5.30		
28	27.80	46.80	34.90	246.30	294.00	1031.10	153.50	51.30	11.70	6.90	8.90	4.80		
29	28.80	41.40	30.50	299.40	305.70	1041.50	149.90	44.80	11.50	6.70	8.10	5.90		
30	27.80	38.40	31.60	322.80	348.00	1045.40	147.20	42.00	11.10	6.50		5.70		
31		70.80		341.00	418.00		147.20		10.80	5.90		4.90		
Total	915.80	1785.60	4202.10	4068.90	7729.30	21499.20	22160.20	2417.20	623.70	204.70	216.80	177.10	66000.60	CMSDAY
Mean	30.50	57.60	140.10	131.30	249.30	716.60	714.80	80.60	20.10	6.60	7.50	5.70	180.30	CMS
Max	37.20	109.80	233.70	341.00	441.00	1045.40	992.40	121.00	42.50	10.90	10.20	10.60	1045.40	CMS
Min	23.50	28.80	30.50	32.70	107.70	388.00	147.20	42.00	10.80	5.20	4.90	3.20	3.20	CMS
Runoff	79.13	154.28	363.06	351.55	667.81	1857.53	1914.64	208.85	53.89	17.69	18.73	15.30	5702.45	MCM

Momentary Peak 1045.40 CMS. at 11.08 m. (MSL.) at 06.00 Hours , on Sep 30 , 2011

Runoff Yield 11.69 Liters/Second/Square KM. Momentary Peak Yield 67.772 Liters/Second/Square KM.

WATER YEAR : 2011

PASAK RIVER BASIN

Pasak River at Ban Kaeng Sua Taen , Lop Buri (S.28)

Lat 14 - 50 - 21 N Long 101 - 04 - 08 E

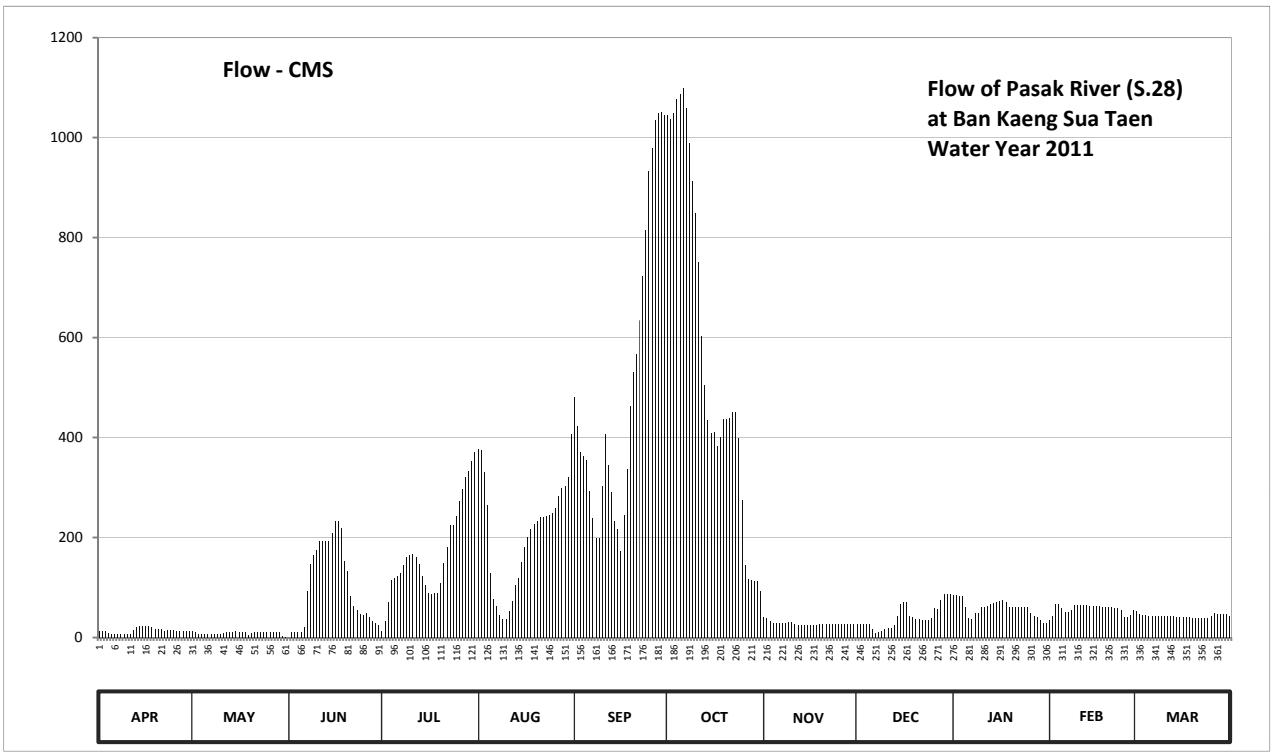
Location : on left bank at Ban Kaeng Sua Taen.

	Ban Kaeng Sua Taen	**Amphoe**	Phatthana Nikhom	**Changwat**	Lop Buri
Drainge Area	8,778 sq.km.				
Type of Gage	Water - stage recorder				
Zero Gage at Bottom	+0.000 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On left bank near the automatic gage buiding			**Elevation**	+32.571 m. (MSL.)
Gage Reading Frequency	Recording				
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings				
Period of Available Gage Records	1986 to date				
Rating Operation					
Period of Rating	1998 to date				
Rated by Flot	-				
Rated by Current Meter	1998 to date				
Stability of Channel Regimes	Fairly stable.				
Overbank Flow Conditions	Overbank flow starts at elevation +28.720 m.(MSL.), records are channel flow only.				
General Description	Records good. Flow effected by Pasak Cholasit Dam.				
	Stage-discharge relation defined by 66 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	17.47	17.49	16.60	17.48	24.78	26.07	30.78	18.51	18.04	19.36	18.32	18.73	
2	17.47	17.38	17.37	18.25	24.74	25.39	30.73	18.47	18.05	19.34	18.55	18.64	
3	17.47	17.13	17.38	19.08	24.12	24.68	30.82	18.28	18.05	19.32	18.98	18.59	
4	17.25	17.14	17.39	20.00	23.07	24.58	31.02	18.14	18.05	19.31	18.99	18.59	
5	17.15	17.14	17.39	20.05	20.29	24.46	31.08	18.12	18.04	18.89	18.86	18.57	
6	17.15	17.14	17.82	20.15	19.17	23.54	31.17	18.11	17.68	18.47	18.71	18.57	
7	17.15	17.13	19.52	20.26	18.91	22.63	30.89	18.10	17.29	18.41	18.70	18.56	
8	17.14	17.12	20.67	20.63	18.59	21.76	30.39	18.15	17.35	18.65	18.79	18.55	
9	17.14	17.12	21.05	20.94	18.40	21.78	29.82	18.18	17.47	18.68	18.96	18.55	
10	17.14	17.15	21.27	21.06	18.42	23.68	29.32	18.18	17.63	18.88	18.96	18.55	
11	17.15	17.19	21.63	21.10	18.75	25.18	28.55	18.08	17.78	18.89	18.96	18.55	
12	17.54	17.36	21.65	20.95	19.10	24.31	27.27	17.98	17.77	18.92	18.95	18.54	
13	17.82	17.37	21.65	20.68	19.75	23.50	26.31	17.97	18.01	18.99	18.94	18.54	
14	17.93	17.39	21.62	20.15	20.05	22.50	25.53	17.97	18.57	19.03	18.93	18.53	
15	17.95	17.40	21.96	19.77	20.76	22.16	25.20	17.96	18.99	19.08	18.92	18.53	
16	17.94	17.37	22.50	19.44	21.37	21.20	25.24	17.96	19.08	19.12	18.92	18.52	
17	17.94	17.39	22.48	19.40	21.82	22.74	24.88	17.96	19.07	19.13	18.91	18.51	
18	17.87	17.32	22.18	19.42	22.16	24.20	25.10	18.02	18.56	19.06	18.90	18.50	
19	17.69	17.05	20.77	19.45	22.37	25.86	25.55	18.07	18.52	18.89	18.89	18.49	
20	17.69	17.19	20.35	19.85	22.49	26.58	25.57	18.07	18.38	18.89	18.87	18.49	
21	17.60	17.34	19.30	20.69	22.66	26.93	25.58	18.07	18.37	18.89	18.87	18.49	
22	17.49	17.34	18.91	21.38	22.68	27.56	25.72	18.07	18.36	18.89	18.86	18.49	
23	17.52	17.36	18.76	22.32	22.70	28.32	25.73	18.07	18.35	18.89	18.85	18.49	
24	17.52	17.38	18.63	22.32	22.73	29.06	25.09	18.06	18.35	18.87	18.78	18.49	
25	17.50	17.37	18.60	22.70	22.79	29.97	23.22	18.06	18.43	18.88	18.51	18.55	
26	17.47	17.37	18.66	23.21	22.97	30.31	20.62	18.06	18.84	18.68	18.51	18.65	
27	17.47	17.38	18.53	23.60	23.35	30.72	20.04	18.05	18.83	18.55	18.59	18.64	
28	17.47	17.37	18.25	23.97	23.64	30.82	19.99	18.06	19.13	18.53	18.76	18.63	
29	17.48	17.38	18.13	24.15	23.68	30.83	19.96	18.05	19.39	18.33	18.75	18.62	
30	17.48	16.99	18.00	24.44	23.99	30.79	19.92	18.05	19.39	18.11		18.61	
31		16.62		24.68	25.19		19.52		19.39	18.11		18.55	
Mean	17.50	17.25	19.63	21.02	21.79	25.74	26.15	18.10	18.36	18.84	18.81	18.56	
Max	17.95	17.49	22.50	24.68	25.19	30.83	31.17	18.51	19.39	19.36	18.99	18.73	31.17
Min	17.14	16.62	16.60	17.48	18.40	21.20	19.52	17.96	17.29	18.11	18.32	18.49	16.60

Annual Max Momentary Gage Height	31.21	m. (MSL.) ,	at 12.00 Hours , on Oct 6 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	15.52	m. (MSL)
Left Bank Elevation	28.71	m. (MSL.) ,			
Right Bank Elevation	31.78	m. (MSL.) ,	Drainage Area	8778	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	13.40	13.80	0.00	13.60	376.60	481.30	1044.20	40.50	26.20	85.50	34.60	52.50		
2	13.40	11.60	11.40	32.50	373.80	423.20	1037.20	39.10	26.50	84.60	42.70	47.60		
3	13.40	6.60	11.60	71.50	330.40	369.60	1049.80	33.40	26.50	83.70	66.10	44.90		
4	9.00	6.80	11.80	115.70	265.20	362.60	1077.80	29.20	26.50	83.20	66.60	44.90		
5	7.00	6.80	11.80	118.10	129.40	354.20	1086.20	28.60	26.20	61.20	59.50	43.80		
6	7.00	6.80	20.40	122.80	76.40	293.40	1098.80	28.30	17.60	39.10	51.40	43.80		
7	7.00	6.60	93.10	128.00	62.30	239.70	1059.60	28.00	9.80	37.30	50.90	43.30		
8	6.80	6.40	147.30	145.40	44.90	198.70	989.60	29.50	11.00	48.10	55.70	42.70		
9	6.80	6.40	165.20	160.00	37.00	199.60	913.60	30.40	13.40	49.80	65.00	42.70		
10	6.80	7.00	175.60	165.70	37.60	301.80	848.60	30.40	16.60	60.60	65.00	42.70		
11	7.00	7.80	192.60	167.60	53.60	406.40	750.00	27.40	19.60	61.20	65.00	42.70		
12	14.80	11.20	193.50	160.50	72.60	343.70	602.70	24.40	19.40	62.80	64.40	42.20		
13	20.40	11.40	193.50	147.80	103.90	291.00	504.00	24.10	25.30	66.60	63.90	42.20		
14	22.90	11.80	192.10	122.80	118.10	233.60	434.40	24.10	43.80	68.80	63.30	41.60		
15	23.50	12.00	208.10	104.90	151.50	217.50	408.00	23.80	66.60	71.50	62.80	41.60		
16	23.20	11.40	233.60	89.30	180.30	172.30	411.20	23.80	71.50	73.70	62.80	41.10		
17	23.20	11.80	232.60	87.40	201.50	245.40	383.60	23.80	70.90	74.20	62.30	40.50		
18	21.40	10.40	218.50	88.40	217.50	336.00	400.00	25.60	43.30	70.40	61.70	40.00		
19	17.80	5.00	152.00	89.80	227.40	462.40	436.00	27.10	41.10	61.20	61.20	39.70		
20	17.80	7.80	132.20	108.60	233.10	531.00	437.60	27.10	36.40	61.20	60.10	39.70		
21	16.00	10.80	82.70	148.20	241.10	566.00	438.40	27.10	36.10	61.20	60.10	39.70		
22	13.80	10.80	62.30	180.80	242.10	634.60	449.80	27.10	35.80	61.20	59.50	39.70		
23	14.40	11.20	54.10	225.10	243.00	722.40	450.70	27.10	35.50	61.20	59.00	39.70		
24	14.40	11.60	47.10	225.10	244.80	814.80	399.20	26.80	35.50	60.10	55.20	39.70		
25	14.00	11.40	45.40	243.00	248.40	933.10	274.20	26.80	37.90	60.60	40.50	42.70		
26	13.40	11.40	48.70	273.60	259.20	978.40	144.90	26.80	58.50	49.80	40.50	48.10		
27	13.40	11.60	41.60	297.00	282.00	1035.80	117.60	26.50	57.90	42.70	44.90	47.60		
28	13.40	11.40	32.50	319.90	299.40	1049.80	115.20	26.80	74.20	41.60	54.10	47.10		
29	13.60	11.60	28.90	332.50	301.80	1051.20	113.80	26.50	87.00	34.90	53.60	46.50		
30	13.60	3.90	25.00	352.80	321.30	1045.60	111.90	26.50	87.00	28.30		46.00		
31		0.20		369.60	407.20		93.10		87.00	28.30		42.70		
Total	422.60	285.30	3065.20	5208.00	6383.40	15295.10	17681.70	836.60	1270.60	1834.60	1652.40	1339.70	55275.20	CMSDAY
Mean	14.10	9.20	102.20	168.00	205.90	509.80	570.40	27.90	41.00	59.20	57.00	43.20	151.00	CMS
Max	23.50	13.80	233.60	369.60	407.20	1051.20	1098.80	40.50	87.00	85.50	66.60	52.50	1098.80	CMS
Min	6.80	0.20	0.00	13.60	37.00	172.30	93.10	23.80	9.80	28.30	34.60	39.70	0.00	CMS
Runoff	36.51	24.65	264.83	449.97	551.53	1321.50	1527.70	72.28	109.78	158.51	142.77	115.75	4775.78	MCM

Momentary Peak 1104.40 CMS. at 31.21 m. (MSL.) at 12.00 Hours , on Oct 6 , 2011

Runoff Yield 17.20 Liters/Second/Square KM. Momentary Peak Yield 125.815 Liters/Second/Square KM.

WATER YEAR : 2011

PASAK RIVER BASIN

Pasak River at Ban Tha Hi Yong , Phetchabun (S.33)

Lat 17 - 00 - 10 N Long 101 - 21 - 23 E

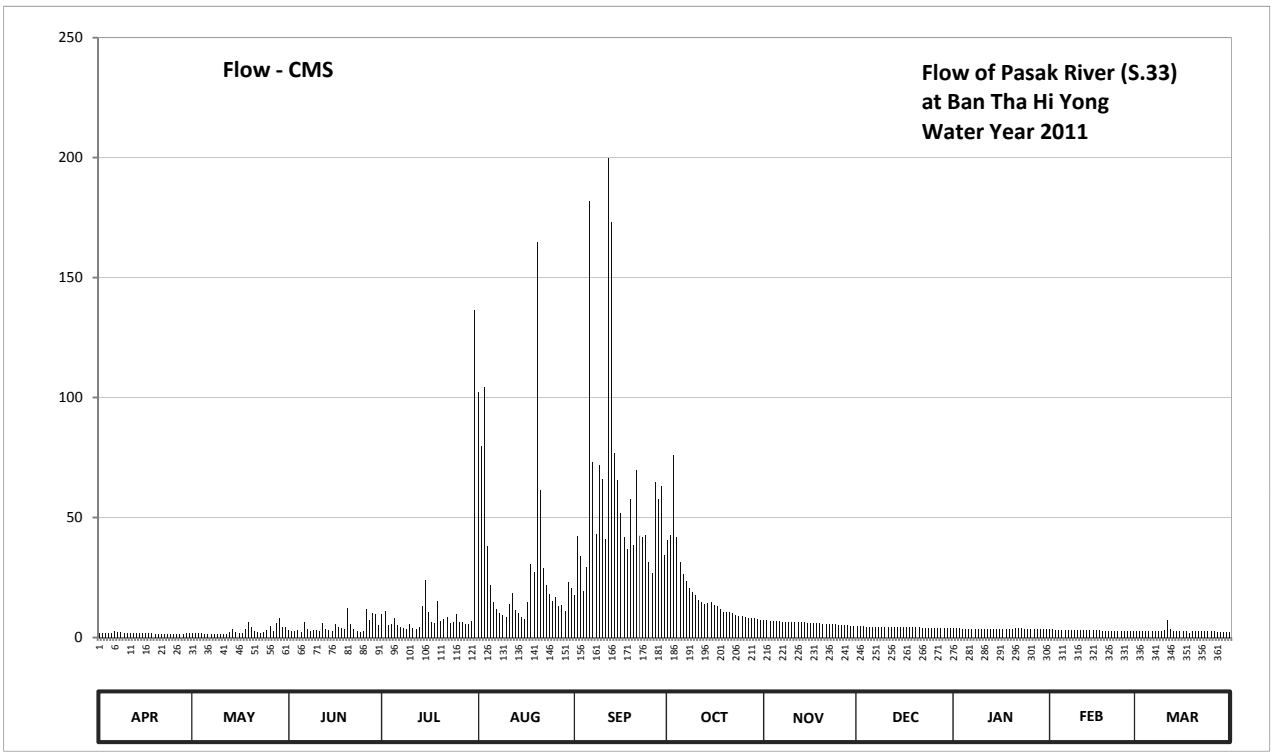
Location : on left bank at Ban Tha Hai Yong

	Ban Tha Hai Yong	**Amphoe** Lom Kao	**Changwat** Phetchabun
Drainge Area	521 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+190.090 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the gage site.	**Elevation**	+198.009 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	1999 to date		
Rating Operation			
Period of Rating	1999 to date		
Rated by Flot	-		
Rated by Current Meter	1999 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	Overbank flow starts at elevation +197.890 m. (MSL.), records are channel flow only.		
General Description	Records good. Stage-discharge relation defined by 27 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	190.64	190.63	190.77	191.43	194.85	192.03	193.16	191.20	190.95	190.85	190.80	190.74	
2	190.64	190.63	190.74	191.55	194.32	193.23	193.24	191.19	190.94	190.85	190.80	190.74	
3	190.64	190.63	190.73	191.01	194.90	192.90	194.22	191.18	190.94	190.85	190.79	190.74	
4	190.63	190.63	190.77	191.05	193.06	192.16	193.22	191.17	190.93	190.84	190.79	190.74	
5	190.67	190.62	190.68	191.29	192.30	192.71	192.80	191.16	190.93	190.84	190.79	190.73	
6	190.75	190.62	191.11	190.98	191.84	196.35	192.58	191.14	190.93	190.83	190.78	190.73	
7	190.68	190.62	190.81	190.90	191.60	194.15	192.39	191.13	190.92	190.83	190.78	190.73	
8	190.69	190.62	190.72	190.85	191.46	193.26	192.23	191.13	190.92	190.83	190.78	190.73	
9	190.67	190.62	190.78	190.82	191.39	194.12	192.13	191.12	190.92	190.83	190.78	190.73	
10	190.67	190.61	190.78	191.04	191.32	193.96	192.04	191.13	190.91	190.82	190.78	190.79	
11	190.67	190.61	190.75	190.88	191.77	193.18	191.92	191.12	190.91	190.82	190.77	191.20	
12	190.66	190.62	191.06	190.84	192.09	196.65	191.83	191.12	190.91	190.82	190.77	190.81	
13	190.66	190.70	190.83	190.91	191.58	196.20	191.79	191.11	190.91	190.82	190.77	190.76	
14	190.66	190.80	190.78	191.71	191.48	194.24	191.81	191.10	190.90	190.81	190.77	190.74	
15	190.65	190.69	190.76	192.43	191.31	193.94	191.85	191.09	190.90	190.81	190.77	190.74	
16	190.65	190.66	191.05	191.52	191.24	193.55	191.74	191.08	190.90	190.81	190.77	190.74	
17	190.64	190.65	190.90	191.10	191.85	193.22	191.70	191.08	190.90	190.81	190.77	190.73	
18	190.63	190.83	190.87	191.07	192.76	193.01	191.61	191.06	190.90	190.81	190.76	190.64	
19	190.62	191.11	190.83	191.86	192.61	193.72	191.52	191.06	190.89	190.81	190.76	190.75	
20	190.62	190.90	191.63	191.15	196.06	193.09	191.51	191.05	190.89	190.83	190.76	190.73	
21	190.62	190.76	191.02	191.23	193.83	194.06	191.50	191.04	190.89	190.87	190.75	190.72	
22	190.62	190.68	190.81	191.32	192.70	193.23	191.48	191.03	190.88	190.86	190.75	190.72	
23	190.61	190.66	190.74	191.07	192.30	193.21	191.42	191.02	190.88	190.86	190.75	190.72	
24	190.61	190.71	190.71	191.11	192.08	193.24	191.38	191.02	190.88	190.84	190.74	190.72	
25	190.61	190.77	190.76	191.43	191.88	192.80	191.35	191.00	190.88	190.83	190.74	190.72	
26	190.62	190.95	191.60	191.11	192.00	192.60	191.31	190.99	190.87	190.83	190.74	190.72	
27	190.62	190.76	191.20	191.13	191.70	193.92	191.28	190.98	190.87	190.82	190.74	190.71	
28	190.62	191.08	191.47	191.05	191.72	193.72	191.27	190.97	190.87	190.81	190.74	190.71	
29	190.64	191.27	191.45	191.04	191.55	193.87	191.29	190.95	190.86	190.81	190.74	190.71	
30	190.64	190.90	191.00	191.14	192.37	192.91	191.25	190.95	190.86	190.81		190.71	
31		190.90		195.55	192.24		191.21		190.86	190.81		190.71	
Mean	190.65	190.75	190.94	191.34	192.39	193.64	191.94	191.08	190.90	190.83	190.77	190.75	
Max	190.75	191.27	191.63	195.55	196.06	196.65	194.22	191.20	190.95	190.87	190.80	191.20	196.65
Min	190.61	190.61	190.68	190.82	191.24	192.03	191.21	190.95	190.86	190.81	190.74	190.64	190.61

Annual Max Momentary Gage Height	198.16	m. (MSL.) ,	at 03.00 Hours , on Aug 20 , 2011		
Zero Gage at Bottom Elevation	190.09	m. (MSL.) ,	River Bed	190.28	m. (MSL)
Left Bank Elevation	197.88	m. (MSL.) ,			
Right Bank Elevation	197.93	m. (MSL.) ,	Drainage Area	521	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.80	1.70	3.00	9.60	102.30	17.50	40.50	7.30	4.80	3.80	3.30	2.70		
2	1.80	1.70	2.70	11.10	79.80	42.40	42.70	7.20	4.70	3.80	3.30	2.70		
3	1.80	1.70	2.50	5.30	104.50	34.00	75.80	7.00	4.70	3.80	3.10	2.70		
4	1.70	1.70	3.00	5.80	38.00	19.40	42.10	7.00	4.50	3.70	3.10	2.70		
5	2.00	1.60	2.10	8.10	21.80	29.30	31.50	6.90	4.50	3.70	3.10	2.50		
6	2.80	1.60	6.40	5.10	14.80	182.00	26.60	6.70	4.50	3.60	3.10	2.50		
7	2.10	1.60	3.40	4.20	11.80	73.00	23.30	6.60	4.50	3.60	3.10	2.50		
8	2.20	1.60	2.50	3.80	10.00	43.30	20.50	6.60	4.50	3.60	3.10	2.50		
9	2.00	1.60	3.10	3.50	9.20	71.80	19.00	6.50	4.50	3.60	3.10	2.50		
10	2.00	1.60	3.10	5.60	8.50	66.10	17.60	6.60	4.40	3.50	3.10	3.10		
11	2.00	1.60	2.80	4.10	13.90	41.00	15.80	6.50	4.40	3.50	3.00	7.30		
12	2.00	1.60	5.90	3.70	18.40	200.00	14.60	6.50	4.40	3.50	3.00	3.40		
13	2.00	2.20	3.60	4.40	11.50	173.00	14.10	6.40	4.40	3.50	3.00	2.80		
14	2.00	3.30	3.10	13.10	10.30	76.60	14.40	6.30	4.20	3.40	3.00	2.70		
15	1.90	2.20	2.80	24.00	8.40	65.40	14.90	6.20	4.20	3.40	3.00	2.70		
16	1.90	2.00	5.80	10.80	7.70	52.00	13.50	6.10	4.20	3.40	3.00	2.70		
17	1.80	1.90	4.20	6.30	14.90	42.10	13.00	6.10	4.20	3.40	3.00	2.50		
18	1.70	3.60	3.90	6.00	30.50	36.70	11.90	5.90	4.20	3.40	2.80	1.80		
19	1.60	6.40	3.60	15.00	27.20	57.70	10.80	5.90	4.20	3.40	2.80	2.80		
20	1.60	4.20	12.10	6.70	164.70	38.70	10.60	5.80	4.20	3.60	2.80	2.50		
21	1.60	2.80	5.50	7.60	61.50	69.60	10.50	5.60	4.20	3.90	2.80	2.50		
22	1.60	2.10	3.40	8.50	29.00	42.40	10.30	5.60	4.10	3.90	2.80	2.50		
23	1.60	2.00	2.70	6.00	21.80	41.80	9.50	5.50	4.10	3.90	2.80	2.50		
24	1.60	2.40	2.40	6.40	18.20	42.70	9.10	5.50	4.10	3.70	2.70	2.50		
25	1.60	3.00	2.80	9.60	15.30	31.50	8.80	5.30	4.10	3.60	2.70	2.50		
26	1.60	4.80	11.80	6.40	17.00	27.00	8.40	5.20	3.90	3.60	2.70	2.50		
27	1.60	2.80	7.30	6.60	13.00	64.70	8.10	5.10	3.90	3.50	2.70	2.40		
28	1.60	6.10	10.10	5.80	13.30	57.70	8.00	5.00	3.90	3.40	2.70	2.40		
29	1.80	8.00	9.90	5.60	11.10	62.90	8.10	4.80	3.90	3.40	2.70	2.40		
30	1.80	4.20	5.30	6.70	23.00	34.30	7.80	4.80	3.90	3.40		2.40		
31		4.20		136.50	20.70		7.40		3.90	3.40		2.40		
Total	55.10	87.80	140.80	361.90	952.10	1836.60	569.20	182.50	132.20	110.90	85.40	84.60	4599.10	CMSDAY
Mean	1.80	2.80	4.70	11.70	30.70	61.20	18.40	6.10	4.30	3.60	2.90	2.70	12.60	CMS
Max	2.80	8.00	12.10	136.50	164.70	200.00	75.80	7.30	4.80	3.90	3.30	7.30	200.00	CMS
Min	1.60	1.60	2.10	3.50	7.70	17.50	7.40	4.80	3.90	3.40	2.70	1.80	1.60	CMS
Runoff	4.76	7.59	12.17	31.27	82.26	158.68	49.18	15.77	11.42	9.58	7.38	7.31	397.36	MCM

Momentary Peak 136.11 CMS. at 198.16 m. (MSL.) at 03.00 Hours , on Aug 20 , 2011

Runoff Yield 24.12 Liters/Second/Square KM. Momentary Peak Yield 261.248 Liters/Second/Square KM.

WATER YEAR : 2011

PASAK RIVER BASIN

Pasak River at Ban Non Thong , Phetchabun (S.36)

Lat 16 - 43 - 42 N Long 101 - 14 - 32 E

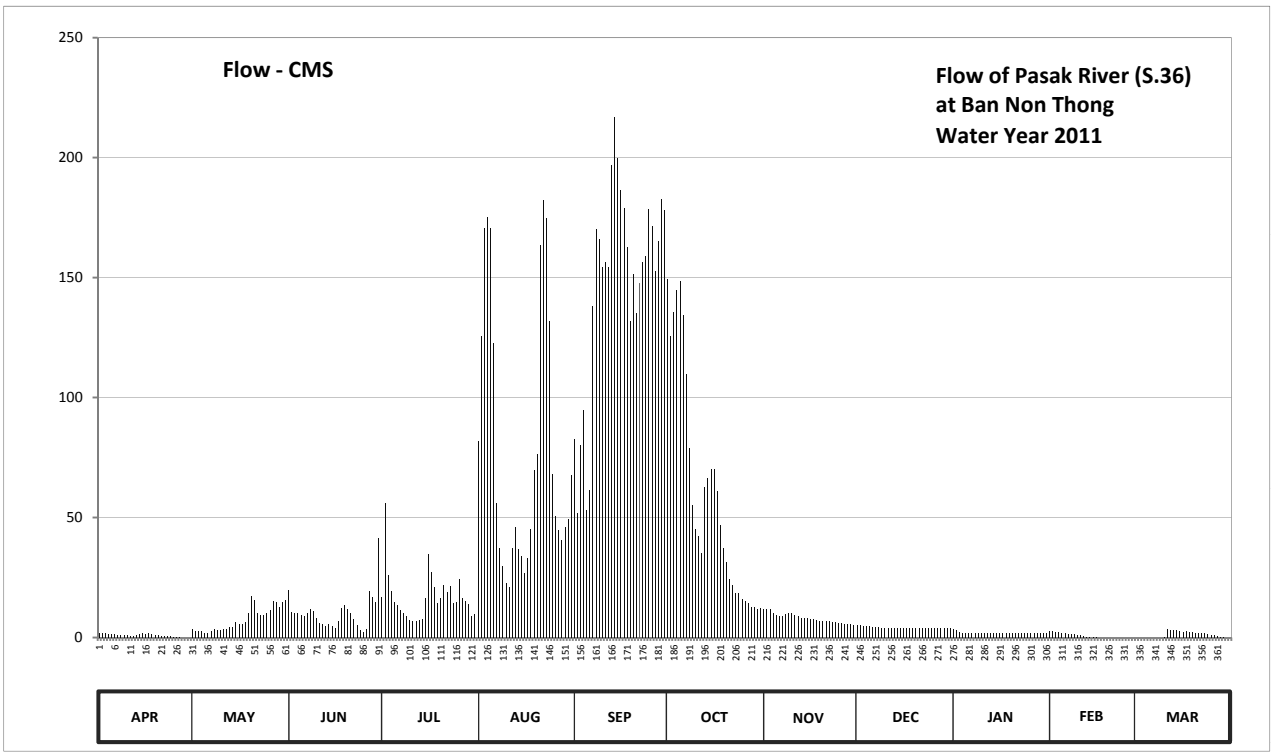
Location : on right bank at Ban Non Thong.

	Ban Non Thong	**Amphoe** Lom Sak	**Changwat** Phetchabun
Drainge Area	1,775 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+130.950 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank near the gage site.	**Elevation**	+143.140 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	1999 to date		
Rating Operation			
Period of Rating	1999 to date		
Rated by Flot	-		
Rated by Current Meter	1999 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 22 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	134.60	134.70	135.55	135.41	137.59	137.61	139.37	135.20	134.80	134.70	134.65	134.27	
2	134.60	134.65	135.14	136.83	138.78	136.70	138.78	135.19	134.80	134.68	134.63	134.27	
3	134.58	134.65	135.12	135.81	139.87	137.54	139.03	135.19	134.79	134.61	134.62	134.27	
4	134.55	134.63	135.10	135.53	139.98	137.96	139.26	135.12	134.78	134.60	134.61	134.28	
5	134.55	134.60	135.07	135.33	139.87	136.74	139.35	135.06	134.77	134.60	134.60	134.29	
6	134.55	134.60	135.05	135.26	138.70	137.00	138.99	135.05	134.76	134.60	134.58	134.30	
7	134.52	134.65	135.11	135.18	136.83	139.09	138.36	135.05	134.75	134.60	134.56	134.31	
8	134.52	134.70	135.20	135.11	136.23	139.86	137.50	135.08	134.75	134.60	134.55	134.32	
9	134.50	134.68	135.15	135.03	135.95	139.76	136.81	135.11	134.74	134.60	134.53	134.36	
10	134.50	134.68	134.99	134.95	135.66	139.49	136.49	135.11	134.73	134.60	134.51	134.42	
11	134.45	134.70	134.86	134.93	135.61	139.54	136.40	135.07	134.73	134.60	134.49	134.69	
12	134.45	134.70	134.83	134.91	136.23	139.49	136.15	135.05	134.73	134.60	134.46	134.68	
13	134.50	134.75	134.79	134.95	136.52	140.48	137.03	134.99	134.73	134.60	134.44	134.67	
14	134.53	134.75	134.83	134.97	136.21	140.93	137.15	134.98	134.73	134.60	134.43	134.66	
15	134.58	134.89	134.79	135.40	136.11	140.55	137.25	134.98	134.73	134.60	134.42	134.65	
16	134.55	134.85	134.74	136.13	135.84	140.25	137.25	134.97	134.73	134.60	134.41	134.62	
17	134.60	134.85	134.92	135.85	136.07	140.07	136.99	134.96	134.73	134.60	134.40	134.63	
18	134.56	134.89	135.21	135.60	136.49	139.69	136.55	134.95	134.73	134.60	134.39	134.62	
19	134.50	135.10	135.26	135.31	137.24	138.93	136.23	134.93	134.73	134.60	134.38	134.61	
20	134.50	135.43	135.20	135.40	137.43	139.42	136.01	134.92	134.73	134.60	134.37	134.60	
21	134.48	135.37	135.10	135.63	139.70	139.02	135.73	134.92	134.73	134.60	134.35	134.59	
22	134.45	135.12	134.97	135.51	140.15	139.33	135.64	134.91	134.73	134.60	134.34	134.58	
23	134.45	135.06	134.81	135.62	139.97	139.54	135.50	134.90	134.73	134.60	134.32	134.58	
24	134.45	135.07	134.67	135.31	138.93	139.60	135.50	134.89	134.73	134.60	134.30	134.55	
25	134.42	135.11	134.62	135.33	137.19	140.06	135.38	134.88	134.73	134.60	134.30	134.52	
26	134.42	135.17	134.71	135.73	136.67	139.89	135.35	134.87	134.73	134.60	134.30	134.49	
27	134.41	135.35	135.52	135.39	136.48	139.45	135.30	134.85	134.73	134.60	134.30	134.46	
28	134.36	135.32	135.41	135.35	136.34	139.74	135.23	134.84	134.73	134.60	134.30	134.44	
29	134.34	135.23	135.32	135.28	136.52	140.16	135.22	134.83	134.73	134.60	134.30	134.42	
30	134.33	135.33	136.36	135.04	136.63	140.05	135.19	134.82	134.73	134.60		134.40	
31		135.36		135.09	137.18		135.21		134.73	134.60		134.40	
Mean	134.49	134.93	135.08	135.39	137.39	139.26	136.78	134.99	134.74	134.61	134.44	134.48	
Max	134.60	135.43	136.36	136.83	140.15	140.93	139.37	135.20	134.80	134.70	134.65	134.69	140.93
Min	134.33	134.60	134.62	134.91	135.61	136.70	135.19	134.82	134.73	134.60	134.30	134.27	134.27

Annual Max Momentary Gage Height	141.03	m. (MSL.) ,	at 06.00 Hours , on Sep 14 , 2011		
Zero Gage at Bottom Elevation	130.95	m. (MSL.) ,	River Bed	131.99	m. (MSL)
Left Bank Elevation	141.96	m. (MSL.) ,			
Right Bank Elevation	141.91	m. (MSL.) ,	Drainage Area	1775	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.00	3.50	19.90	16.70	81.90	82.60	149.30	12.00	5.00	3.50	2.70	0.00		
2	2.00	2.70	10.80	56.00	125.70	51.70	125.70	11.80	5.00	3.20	2.50	0.00		
3	1.80	2.70	10.40	26.20	170.50	80.10	135.70	11.80	4.80	2.10	2.30	0.00		
4	1.50	2.50	10.00	19.40	175.10	94.90	144.90	10.40	4.70	2.00	2.10	0.00		
5	1.50	2.00	9.50	14.90	170.50	53.00	148.50	9.30	4.60	2.00	2.00	0.00		
6	1.50	2.00	9.10	13.30	122.50	61.50	134.10	9.10	4.40	2.00	1.80	0.00		
7	1.20	2.70	10.20	11.60	56.00	138.10	109.80	9.10	4.30	2.00	1.60	0.00		
8	1.20	3.50	12.00	10.20	37.40	170.10	78.70	9.60	4.30	2.00	1.50	0.00		
9	1.00	3.20	11.00	8.80	29.70	165.80	55.30	10.20	4.10	2.00	1.30	0.00		
10	1.00	3.20	8.10	7.40	22.50	154.30	45.20	10.20	3.90	2.00	1.10	0.20		
11	0.50	3.50	5.90	7.00	21.20	156.40	42.50	9.50	3.90	2.00	0.90	3.40		
12	0.50	3.50	5.50	6.70	37.40	154.30	35.10	9.10	3.90	2.00	0.60	3.20		
13	1.00	4.30	4.80	7.40	46.10	196.80	62.50	8.10	3.90	2.00	0.40	3.00		
14	1.30	4.30	5.50	7.70	36.80	217.10	66.50	7.90	3.90	2.00	0.30	2.90		
15	1.80	6.40	4.80	16.50	34.00	200.00	70.00	7.90	3.90	2.00	0.20	2.70		
16	1.50	5.80	4.10	34.60	27.00	186.60	70.00	7.70	3.90	2.00	0.10	2.30		
17	2.00	5.80	6.90	27.30	32.90	179.00	61.20	7.60	3.90	2.00	0.00	2.50		
18	1.60	6.40	12.20	21.00	45.20	162.80	47.00	7.40	3.90	2.00	0.00	2.30		
19	1.00	10.00	13.30	14.50	69.70	131.70	37.40	7.00	3.90	2.00	0.00	2.10		
20	1.00	17.20	12.00	16.50	76.30	151.40	31.30	6.90	3.90	2.00	0.00	2.00		
21	0.80	15.80	10.00	21.70	163.30	135.30	24.20	6.90	3.90	2.00	0.00	1.90		
22	0.50	10.40	7.70	19.00	182.40	147.70	22.00	6.70	3.90	2.00	0.00	1.80		
23	0.50	9.30	5.20	21.50	174.70	156.40	18.70	6.50	3.90	2.00	0.00	1.80		
24	0.50	9.50	3.00	14.50	131.70	159.00	18.70	6.40	3.90	2.00	0.00	1.50		
25	0.20	10.20	2.30	14.90	67.90	178.50	16.10	6.20	3.90	2.00	0.00	1.20		
26	0.20	11.40	3.70	24.20	50.80	171.30	15.40	6.10	3.90	2.00	0.00	0.90		
27	0.10	15.40	19.20	16.30	44.90	152.60	14.30	5.80	3.90	2.00	0.00	0.60		
28	0.00	14.70	16.70	15.40	40.70	165.00	12.70	5.60	3.90	2.00	0.00	0.40		
29	0.00	12.70	14.70	13.80	46.10	182.80	12.50	5.50	3.90	2.00	0.00	0.20		
30	0.00	14.90	41.30	8.90	49.50	178.10	11.80	5.30	3.90	2.00		0.00		
31		15.60		9.80	67.50		12.20		3.90	2.00		0.00		
Total	29.70	235.10	309.80	523.70	2437.90	4414.90	1829.30	243.60	127.00	64.80	21.40	36.90	10274.10	CMSDAY
Mean	1.00	7.60	10.30	16.90	78.60	147.20	59.00	8.10	4.10	2.10	0.70	1.20	28.10	CMS
Max	2.00	17.20	41.30	56.00	182.40	217.10	149.30	12.00	5.00	3.50	2.70	3.40	217.10	CMS
Min	0.00	2.00	2.30	6.70	21.20	51.70	11.80	5.30	3.90	2.00	0.00	0.00	0.00	CMS
Runoff	2.57	20.31	26.77	45.25	210.63	381.45	158.05	21.05	10.97	5.60	1.85	3.19	887.68	MCM

Momentary Peak 221.60 CMS. at 141.03 m. (MSL.) at 06.00 Hours , on Sep 14 , 2011

Runoff Yield 15.81 Liters/Second/Square KM. Momentary Peak Yield 124.845 Liters/Second/Square KM.

WATER YEAR : 2011

PASAK RIVER BASIN

Pasak River at Ban Bo Rang , Phetchabun (S.42)

Lat 15 - 34 - 35 N Long 101 - 05 - 28 E

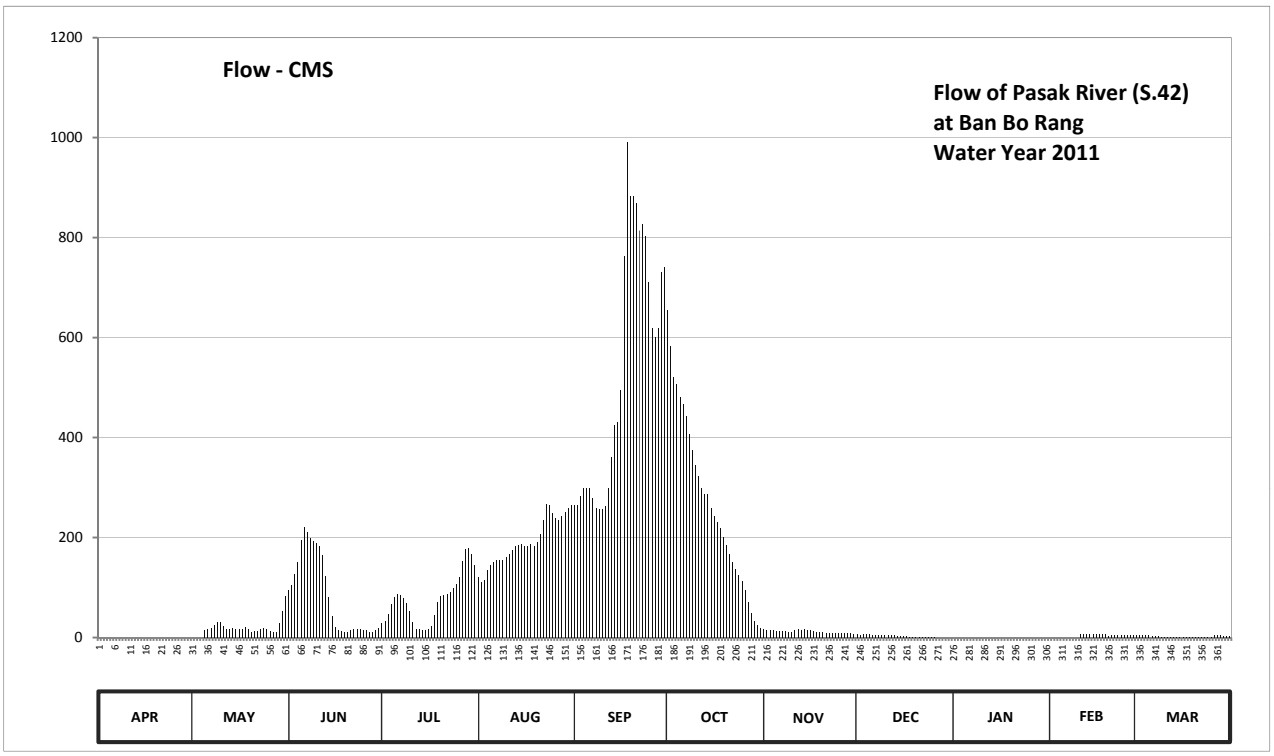
Location : on left bank at the bridge.

	Ban Bo Rang	**Amphoe** Wichian Buri	**Changwat** Phetchabun
Drainge Area	7,233 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+51.796 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the gage site.		**Elevation** +63.900 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	2005 to date		
Rating Operation			
Period of Rating	2005 to date		
Rated by Flot	-		
Rated by Current Meter	2005 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	Overbank flow starts at elevation +62.910 m.(MSL.) and is including overbank flow.		
General Description	Records good. Stage-discharge relation defined by 22 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	51.18	52.31	60.28	57.77	60.99	63.00	63.64	57.02	56.08	54.28	52.75	55.76	
2	50.95	52.33	60.56	58.04	60.72	63.00	63.56	56.91	55.84	54.26	52.79	55.73	
3	51.13	52.34	61.13	58.74	60.82	63.05	63.49	56.85	56.06	54.26	52.82	55.68	
4	50.96	52.35	61.63	59.44	61.32	63.09	63.47	56.78	56.01	54.25	52.77	55.61	
5	50.91	56.89	62.37	59.90	61.52	63.09	63.43	56.74	55.88	54.21	52.82	55.50	
6	51.00	57.00	62.72	60.04	61.64	63.09	63.41	56.68	55.85	54.14	52.85	55.39	
7	51.02	57.11	62.62	60.00	61.71	63.04	63.37	56.63	55.87	54.08	52.70	55.29	
8	51.06	57.55	62.44	59.83	61.73	62.98	63.31	56.60	55.86	54.03	52.68	55.17	
9	51.05	57.95	62.35	59.50	61.73	62.96	63.25	56.58	55.85	54.00	52.69	55.07	
10	51.04	57.86	62.27	58.95	61.83	62.97	63.19	56.58	55.83	53.98	53.69	55.01	
11	51.02	57.36	62.18	57.96	61.94	62.99	63.14	56.82	55.74	53.95	56.02	54.93	
12	51.13	56.99	61.90	57.06	62.08	63.09	63.09	56.98	55.64	53.90	56.00	54.86	
13	51.46	56.96	61.04	56.95	62.20	63.22	63.06	56.90	55.52	53.80	55.99	54.82	
14	51.76	57.08	59.84	56.78	62.23	63.34	63.06	57.01	55.41	53.72	55.98	54.80	
15	51.94	56.98	58.57	56.83	62.24	63.35	62.98	56.85	55.29	53.63	55.97	54.80	
16	52.06	56.98	57.25	57.04	62.20	63.45	62.90	56.77	55.26	53.63	55.97	54.80	
17	52.05	56.99	56.86	57.40	62.19	63.75	62.81	56.64	55.16	53.59	55.97	54.80	
18	52.05	57.20	56.62	58.66	62.24	63.92	62.70	56.54	55.00	53.53	55.96	54.80	
19	52.05	56.97	56.51	59.57	62.20	63.85	62.48	56.47	54.95	53.44	55.94	54.80	
20	52.09	56.57	56.53	59.93	62.30	63.85	62.23	56.44	54.91	53.40	55.33	54.76	
21	51.80	56.64	56.84	60.00	62.55	63.84	61.94	56.38	54.86	53.40	55.85	54.94	
22	51.81	56.74	57.05	60.07	62.84	63.80	61.64	56.34	54.81	53.39	55.76	54.90	
23	51.82	56.99	57.07	60.15	63.01	63.81	61.37	56.26	54.80	53.07	55.75	54.62	
24	51.87	57.09	56.94	60.39	63.00	63.79	61.08	56.27	54.77	53.00	55.83	54.75	
25	52.00	56.93	56.90	60.62	62.93	63.70	60.75	56.25	54.66	53.05	55.81	54.74	
26	52.13	56.61	56.83	61.00	62.86	63.60	60.27	56.26	54.58	53.06	55.80	55.72	
27	52.18	56.47	56.57	61.66	62.84	63.58	59.53	56.22	54.49	53.04	55.79	55.65	
28	52.12	56.58	56.59	62.09	62.89	63.60	58.81	56.19	54.44	53.02	55.78	55.56	
29	52.15	57.82	56.79	62.13	62.94	63.72	58.01	56.20	54.36	53.00	55.77	55.47	
30	52.15	58.91	57.12	61.95	62.98	63.73	57.48	56.16	54.32	52.93		55.36	
31		59.91		61.53	63.00		57.15		54.29	52.83		55.29	
Mean	51.60	56.60	59.15	59.42	62.18	63.41	61.95	56.58	55.24	53.61	54.82	55.14	
Max	52.18	59.91	62.72	62.13	63.01	63.92	63.64	57.02	56.08	54.28	56.02	55.76	63.92
Min	50.91	52.31	56.51	62.78	60.72	62.96	57.15	56.16	54.29	52.83	52.68	54.62	50.91

Annual Max Momentary Gage Height	63.94	m. (MSL.) ,	at 06.00 Hours , on Sep 18 , 2011		
Zero Gage at Bottom Elevation	51.80	m. (MSL.) ,	River Bed	52.50	m. (MSL)
Left Bank Elevation	63.03	m. (MSL.) ,			
Right Bank Elevation	62.90	m. (MSL.) ,	Drainage Area	7233	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	94.80	28.60	121.40	264.00	654.80	17.30	6.90	0.00	0.00	5.30		
2	0.00	0.00	104.80	32.80	110.80	264.00	582.00	15.60	5.70	0.00	0.00	5.20		
3	0.00	0.00	127.10	47.50	114.60	283.50	521.20	14.90	6.80	0.00	0.00	4.90		
4	0.00	0.00	150.30	67.20	135.60	299.10	507.60	14.00	6.50	0.00	0.00	4.60		
5	0.00	15.40	194.50	81.80	145.00	299.10	480.40	13.50	5.90	0.00	0.00	4.00		
6	0.00	17.00	221.20	86.40	150.90	299.10	466.80	12.80	5.70	0.00	0.00	3.40		
7	0.00	18.60	211.80	85.00	154.50	279.60	442.00	12.30	5.80	0.00	0.00	3.00		
8	0.00	25.20	199.10	79.50	155.60	260.00	406.00	12.00	5.80	0.00	0.00	2.30		
9	0.00	31.30	193.20	69.00	155.60	256.00	375.00	11.80	5.70	0.00	0.00	1.80		
10	0.00	29.90	188.10	53.10	161.20	258.00	345.30	11.80	5.70	0.00	0.00	1.50		
11	0.00	22.40	182.20	31.40	167.20	262.00	321.80	14.50	5.20	0.00	6.60	1.10		
12	0.00	16.90	165.00	17.90	175.70	299.10	299.10	16.70	4.70	0.00	6.50	0.90		
13	0.00	16.40	123.40	16.20	183.50	360.00	287.40	15.50	4.10	0.00	6.50	0.80		
14	0.00	18.20	79.80	14.00	185.40	424.00	287.40	17.10	3.50	0.00	6.40	0.70		
15	0.00	16.70	43.40	14.60	186.10	430.00	260.00	14.90	3.00	0.00	6.40	0.70		
16	0.00	16.70	20.70	17.60	183.50	494.00	244.00	13.90	2.80	0.00	6.40	0.70		
17	0.00	16.90	15.00	23.00	182.80	762.00	231.40	12.40	2.30	0.00	6.40	0.70		
18	0.00	20.00	12.20	45.50	186.10	990.80	219.00	11.40	1.50	0.00	6.30	0.70		
19	0.00	16.50	11.10	71.10	183.50	883.00	201.70	10.70	1.20	0.00	6.20	0.70		
20	0.00	11.70	11.30	82.70	190.00	883.00	185.40	10.40	1.00	0.00	3.20	0.60		
21	0.00	12.40	14.70	85.00	206.50	869.20	167.20	9.80	0.90	0.00	5.70	1.20		
22	0.00	13.50	17.70	87.40	235.60	814.00	150.90	9.40	0.80	0.00	5.30	1.00		
23	0.00	16.90	18.00	90.30	267.90	827.80	137.90	8.60	0.70	0.00	5.30	0.30		
24	0.00	18.30	16.10	98.60	264.00	803.60	125.00	8.70	0.70	0.00	5.70	0.60		
25	0.00	15.90	15.50	107.00	250.00	710.00	111.90	8.50	0.40	0.00	5.60	0.60		
26	0.00	12.10	14.60	121.80	238.40	618.00	94.50	8.60	0.20	0.00	5.50	5.10		
27	0.00	10.70	11.70	151.90	235.60	600.00	69.90	8.20	0.00	0.00	5.50	4.80		
28	0.00	11.80	11.90	176.40	242.60	618.00	49.30	7.90	0.00	0.00	5.40	4.30		
29	0.00	29.30	14.10	179.00	252.00	730.80	32.20	8.00	0.00	0.00	5.40	3.90		
30	0.00	52.00	18.80	167.80	260.00	741.20	24.20	7.60	0.00	0.00		3.30		
31		82.10		145.40	264.00		19.30		0.00	0.00		3.00		
Total	0.00	584.80	2502.10	2375.50	5945.60	15882.90	8300.60	358.80	93.50	0.00	110.30	71.70	36225.80	CMSDAY
Mean	0.00	18.90	83.40	76.60	191.80	529.40	267.80	12.00	3.00	0.00	3.80	2.30	99.00	CMS
Max	0.00	82.10	221.20	179.00	267.90	990.80	654.80	17.30	6.90	0.00	6.60	5.30	990.80	CMS
Min	0.00	0.00	11.10	14.00	110.80	256.00	19.30	7.60	0.00	0.00	0.00	0.30	0.00	CMS
Runoff	0.00	50.53	216.18	205.24	513.70	1372.28	717.17	31.00	8.08	0.00	9.53	6.19	3129.91	MCM

Momentary Peak 1029.60 CMS. at 63.94 m. (MSL.) at 06.00 Hours , on Sep 18 , 2011

Runoff Yield 13.68 Liters/Second/Square KM. Momentary Peak Yield 142.348 Liters/Second/Square KM.

WATER YEAR : 2011

PASAK RIVER BASIN

Pasak River at Ban Phun Sap , Lop Buri (S.43)

Lat 15 - 19 - 39 N Long 101 - 12 - 45 E

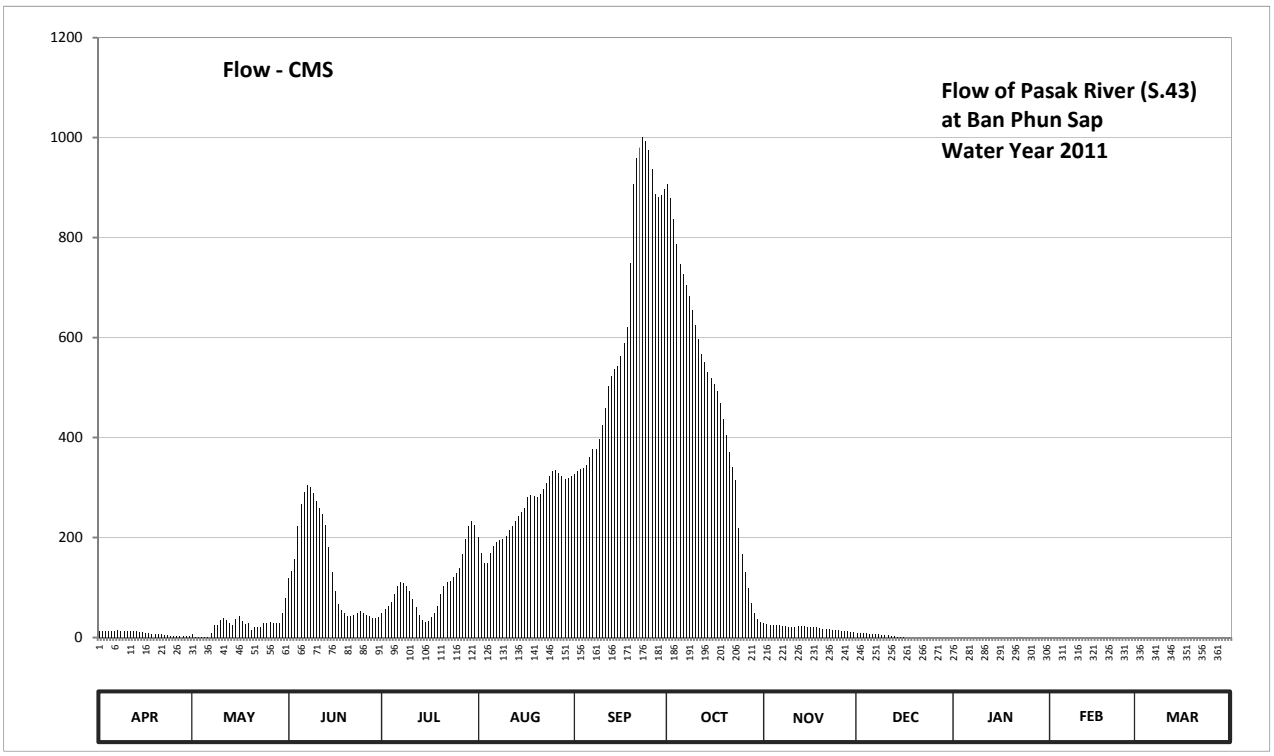
Location : on right bank at the bridge.

	Ban Phun Sap	**Amphoe** Chai Badan	**Changwat** Lop Buri
Drainge Area	- sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank at the abutment of the bridge.	**Elevation**	+51.908 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	2011 to date		
Rating Operation			
Period of Rating	2011 to date		
Rated by Flot	-		
Rated by Current Meter	2011 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 34 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	39.30	39.00	42.74	40.78	44.42	46.55	51.61	44.12	43.70	42.71	41.38	40.19	
2	39.33	38.78	43.05	41.10	43.80	46.63	51.52	44.10	43.68	42.66	41.36	40.15	
3	39.35	38.79	43.54	41.25	43.38	46.68	51.37	44.08	43.65	42.62	41.32	40.14	
4	39.36	38.78	44.80	41.50	43.41	46.74	51.18	44.06	43.63	42.56	41.28	40.13	
5	39.37	38.76	45.55	41.94	43.82	46.82	51.00	44.05	43.61	42.51	41.24	40.10	
6	39.39	38.70	45.94	42.34	44.08	47.06	50.90	44.04	43.59	42.49	41.21	39.98	
7	39.40	39.14	46.19	42.50	44.22	47.30	50.79	44.03	43.58	42.45	41.17	39.95	
8	39.37	39.90	46.10	42.48	44.31	47.32	50.67	44.01	43.57	42.41	41.13	39.90	
9	39.34	39.95	45.92	42.33	44.36	47.61	50.50	43.99	43.55	42.37	41.09	39.81	
10	39.33	40.35	45.66	42.06	44.47	48.02	50.31	43.96	43.52	42.32	41.06	39.78	
11	39.33	40.47	45.42	41.69	44.66	48.50	50.08	43.96	43.50	42.27	41.03	39.74	
12	39.33	40.36	45.20	41.22	44.83	49.10	49.83	44.00	43.48	42.23	40.97	39.71	
13	39.30	40.12	44.86	40.66	44.98	49.37	49.66	44.01	43.46	42.19	40.93	39.70	
14	39.25	39.89	44.04	40.36	45.15	49.51	49.46	44.01	43.43	42.14	40.89	39.68	
15	39.21	40.40	42.98	40.19	45.28	49.59	49.31	43.99	43.39	42.09	40.85	39.60	
16	39.16	40.57	42.05	40.24	45.41	49.79	49.17	43.97	43.35	42.04	40.81	39.58	
17	39.11	40.23	41.41	40.50	45.78	50.02	48.98	43.96	43.30	41.99	40.75	39.55	
18	39.08	40.06	40.98	40.78	45.84	50.28	48.65	43.95	43.27	41.95	40.70	39.49	
19	39.05	40.16	40.76	41.29	45.82	51.01	48.21	43.92	43.24	41.90	40.65	39.37	
20	39.01	39.42	40.61	41.92	45.78	51.61	47.73	43.90	43.21	41.86	40.60	39.45	
21	39.00	39.78	40.58	42.30	45.87	51.75	47.22	43.88	43.18	41.82	40.56	39.43	
22	38.99	39.77	40.68	42.51	46.05	51.80	46.76	43.86	43.15	41.78	40.52	39.39	
23	38.95	39.70	40.81	42.60	46.25	51.85	46.33	43.84	43.12	41.73	40.48	39.31	
24	38.82	40.11	40.91	42.75	46.49	51.83	45.92	43.82	43.08	41.68	40.43	39.28	
25	38.83	40.11	40.80	42.93	46.64	51.79	45.57	43.80	43.04	41.63	40.40	39.24	
26	38.81	40.19	40.68	43.18	46.66	51.69	45.29	43.79	43.01	41.59	40.37	38.96	
27	38.80	40.11	40.62	43.74	46.58	51.55	45.01	43.77	42.97	41.55	40.33	38.90	
28	38.82	40.10	40.47	44.34	46.46	51.53	44.70	43.76	42.93	41.51	40.29	38.86	
29	38.81	40.10	40.43	44.82	46.37	51.54	44.44	43.74	42.88	41.48	40.24	38.84	
30	38.81	40.80	40.52	44.98	46.40	51.58	44.28	43.72	42.82	41.45		38.80	
31		41.73		44.85	46.48		44.18		42.77	41.41		38.78	
Mean	39.13	39.88	42.81	42.13	45.29	49.55	48.41	43.94	43.31	42.04	40.83	39.54	
Max	39.40	41.73	46.19	44.98	46.66	51.85	51.61	44.12	43.70	42.71	41.38	40.19	51.85
Min	38.80	38.70	40.43	40.19	43.38	46.55	44.18	43.72	42.77	41.41	40.24	38.78	38.70

Annual Max Momentary Gage Height	51.86	m. (MSL.) ,	at 12.00 Hours , on Sep 23 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	36.57	m. (MSL)
Left Bank Elevation	51.91	m. (MSL.) ,			
Right Bank Elevation	51.95	m. (MSL.) ,	Drainage Area		Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	12.00	6.00	119.60	48.40	201.10	327.20	907.60	28.00	10.00	0.00	0.00	0.00		
2	12.60	1.80	133.20	58.00	169.00	332.50	878.40	27.00	9.40	0.00	0.00	0.00		
3	13.00	1.90	156.00	62.50	148.10	335.70	836.20	26.00	8.50	0.00	0.00	0.00		
4	13.20	1.80	222.00	71.00	149.50	339.60	787.20	25.00	7.90	0.00	0.00	0.00		
5	13.40	1.60	267.00	87.60	170.00	344.80	746.00	24.50	7.30	0.00	0.00	0.00		
6	13.80	1.00	290.40	103.60	183.00	360.40	726.00	24.00	6.70	0.00	0.00	0.00		
7	14.00	8.80	305.40	110.00	190.10	376.00	705.10	23.50	6.40	0.00	0.00	0.00		
8	13.40	24.00	300.00	109.20	195.10	377.30	682.60	22.50	6.10	0.00	0.00	0.00		
9	12.80	25.00	289.20	103.20	197.80	396.10	654.00	21.60	5.50	0.00	0.00	0.00		
10	12.60	35.50	273.60	92.40	203.90	424.40	625.50	20.40	4.60	0.00	0.00	0.00		
11	12.60	39.10	259.20	77.60	214.30	458.00	595.60	20.40	4.00	0.00	0.00	0.00		
12	12.60	35.80	246.00	61.60	223.80	502.00	567.30	22.00	3.40	0.00	0.00	0.00		
13	12.00	28.60	225.60	44.80	232.80	523.60	550.00	22.50	2.80	0.00	0.00	0.00		
14	11.00	23.80	181.00	35.80	243.00	535.90	531.40	22.50	1.90	0.00	0.00	0.00		
15	10.20	37.00	130.10	30.70	250.80	543.10	518.80	21.60	0.90	0.00	0.00	0.00		
16	9.20	42.10	92.00	32.20	258.60	563.00	507.60	20.80	0.50	0.00	0.00	0.00		
17	8.20	31.90	67.90	40.00	280.80	588.40	492.40	20.40	0.00	0.00	0.00	0.00		
18	7.60	27.20	54.40	48.40	284.40	621.40	468.50	20.00	0.00	0.00	0.00	0.00		
19	7.00	29.80	47.80	63.70	283.20	748.20	437.70	18.80	0.00	0.00	0.00	0.00		
20	6.20	14.40	43.30	86.80	280.80	907.60	404.10	18.00	0.00	0.00	0.00	0.00		
21	6.00	21.60	42.40	102.00	286.20	960.00	370.80	17.20	0.00	0.00	0.00	0.00		
22	5.80	21.40	45.40	110.40	297.00	980.00	340.90	16.40	0.00	0.00	0.00	0.00		
23	5.00	20.00	49.30	114.00	309.00	1001.00	313.80	15.60	0.00	0.00	0.00	0.00		
24	2.40	28.30	52.30	120.00	323.40	992.60	219.20	14.80	0.00	0.00	0.00	0.00		
25	2.60	28.30	49.00	127.90	333.10	976.00	167.80	14.00	0.00	0.00	0.00	0.00		
26	2.20	30.70	45.40	139.10	334.40	936.40	130.80	13.60	0.00	0.00	0.00	0.00		
27	2.00	28.30	43.60	166.00	329.20	888.00	99.00	12.80	0.00	0.00	0.00	0.00		
28	2.40	28.00	39.10	196.70	321.60	881.60	69.00	12.40	0.00	0.00	0.00	0.00		
29	2.20	28.00	37.90	223.20	316.20	884.80	47.80	11.60	0.00	0.00	0.00	0.00		
30	2.20	49.00	40.60	232.80	318.00	897.60	36.80	10.80	0.00	0.00		0.00		
31		79.20		225.00	322.80		31.00		0.00	0.00		0.00		
Total	260.20	779.90	4148.70	3124.60	7851.00	19003.20	14448.90	588.70	85.90	0.00	0.00	0.00	50291.10	CMSDAY
Mean	8.70	25.20	138.30	100.80	253.30	633.40	466.10	19.60	2.80	0.00	0.00	0.00	137.40	CMS
Max	14.00	79.20	305.40	232.80	334.40	1001.00	907.60	28.00	10.00	0.00	0.00	0.00	1001.00	CMS
Min	2.00	1.00	37.90	30.70	148.10	327.20	31.00	10.80	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	22.48	67.38	358.45	269.97	678.33	1641.88	1248.38	50.86	7.42	0.00	0.00	0.00	4345.15	MCM

Momentary Peak 1005.20 CMS. at 51.86 m. (MSL.) at 12.00 Hours , on Sep 23 , 2011

Runoff Yield ***** Liters/Second/Square KM. Momentary Peak Yield ***** Liters/Second/Square KM.

WATER YEAR : 2011

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

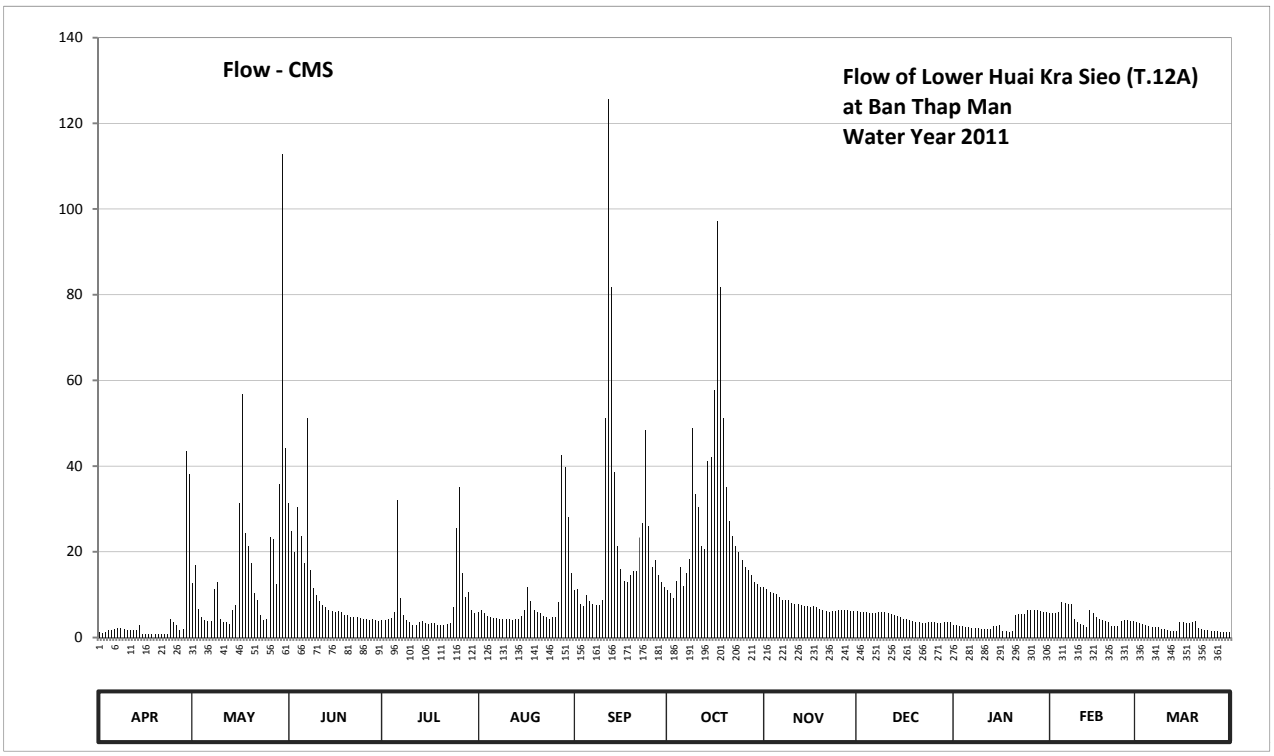
Location : on left bank at Ban Thap Man.

	Ban	Thap Man	**Amphoe**	Dan Chang	**Changwat** Suphan Buri
Drainge Area	686	sq.km.			
Type of Gage	Water - stage recorder				
Zero Gage at Bottom	+0.000	m. (MSL.)			
Bench Mark	B.M.-H.D.				
Location BM	On left bank near the bridge				**Elevation** +103.545 m. (MSL.)
Gage Reading Frequency	Recording				
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings				
Period of Available Gage Records	2006 to date				
Rating Operation					
Period of Rating	2006 to date				
Rated by Flot	-				
Rated by Current Meter	2006 to date				
Stability of Channel Regimes	Fairly stable.				
Overbank Flow Conditions	No overbank flow				
General Description	Records good. Stage-discharge relation defined by 30 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	98.28	98.83	99.34	98.47	98.57	98.77	98.77	98.80	98.58	98.39	98.56	98.44	
2	98.26	98.97	99.18	98.47	98.60	98.78	98.75	98.78	98.57	98.39	98.56	98.42	
3	98.27	98.61	99.05	98.48	98.56	98.65	98.71	98.76	98.57	98.38	98.56	98.41	
4	98.31	98.52	99.32	98.50	98.53	98.63	98.85	98.75	98.57	98.37	98.57	98.39	
5	98.31	98.47	99.15	98.57	98.51	98.73	98.95	98.74	98.56	98.36	98.67	98.38	
6	98.34	98.45	98.98	99.36	98.50	98.68	98.81	98.72	98.56	98.36	98.66	98.36	
7	98.35	98.45	99.79	98.71	98.50	98.65	98.91	98.69	98.56	98.35	98.65	98.36	
8	98.35	98.78	98.93	98.54	98.49	98.64	99.01	98.69	98.57	98.35	98.65	98.36	
9	98.34	98.84	98.79	98.47	98.49	98.64	99.74	98.69	98.57	98.35	98.48	98.34	
10	98.31	98.49	98.73	98.44	98.49	98.69	99.39	98.66	98.57	98.34	98.44	98.33	
11	98.31	98.44	98.68	98.40	98.48	99.79	99.32	98.65	98.56	98.34	98.41	98.32	
12	98.31	98.44	98.64	98.39	98.47	101.17	99.09	98.65	98.55	98.33	98.39	98.30	
13	98.32	98.41	98.62	98.44	98.48	100.39	99.07	98.64	98.54	98.33	98.36	98.30	
14	98.39	98.59	98.60	98.46	98.48	99.51	99.57	98.63	98.53	98.38	98.59	98.29	
15	98.24	98.64	98.58	98.42	98.53	99.09	99.59	98.63	98.51	98.38	98.56	98.44	
16	98.24	99.34	98.57	98.41	98.60	98.94	99.92	98.62	98.49	98.40	98.51	98.44	
17	98.24	99.90	98.58	98.42	98.80	98.85	100.67	98.63	98.48	98.30	98.49	98.43	
18	98.23	99.17	98.57	98.42	98.68	98.84	100.39	98.62	98.47	98.30	98.47	98.42	
19	98.22	99.09	98.54	98.40	98.60	98.89	99.79	98.61	98.45	98.28	98.45	98.44	
20	98.24	98.98	98.54	98.40	98.57	98.92	99.43	98.59	98.44	98.29	98.44	98.45	
21	98.24	98.75	98.52	98.40	98.56	98.92	99.24	98.58	98.44	98.54	98.38	98.35	
22	98.23	98.69	98.52	98.41	98.53	99.14	99.15	98.57	98.43	98.55	98.38	98.34	
23	98.23	98.54	98.51	98.43	98.51	99.23	99.09	98.58	98.43	98.55	98.38	98.32	
24	98.49	98.47	98.50	98.62	98.49	99.73	99.05	98.58	98.44	98.55	98.46	98.31	
25	98.44	98.48	98.49	99.20	98.51	99.21	99.00	98.59	98.44	98.59	98.47	98.30	
26	98.39	99.14	98.48	99.43	98.51	98.95	98.95	98.59	98.44	98.59	98.47	98.29	
27	98.31	99.13	98.47	98.91	98.67	99.00	98.93	98.59	98.43	98.60	98.46	98.29	
28	98.34	98.82	98.48	98.72	99.60	98.89	98.89	98.59	98.42	98.59	98.45	98.28	
29	99.62	99.45	98.47	98.76	99.54	98.84	98.84	98.58	98.44	98.58	98.45	98.28	
30	99.50	100.95	98.46	98.60	99.26	98.80	98.82	98.58	98.44	98.57		98.27	
31		99.64		98.56	98.91		98.80		98.44	98.57		98.27	
Mean	98.39	98.89	98.74	98.59	98.65	99.07	99.21	98.65	98.50	98.43	98.50	98.35	
Max	99.62	100.95	99.79	99.43	99.60	101.17	100.67	98.80	98.58	98.60	98.67	98.45	101.17
Min	98.22	98.41	98.46	98.39	98.47	98.63	98.71	98.57	98.42	98.28	98.36	98.27	98.22

Annual Max Momentary Gage Height	101.17	m. (MSL.) ,	at 06.00 Hours , on Sep 12 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	97.84	m. (MSL)
Left Bank Elevation	103.28	m. (MSL.) ,			
Right Bank Elevation	103.26	m. (MSL.) ,	Drainage Area	686	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.30	12.70	31.28	4.05	5.90	10.96	10.96	11.80	6.10	2.85	5.70	3.60		
2	1.10	17.04	24.84	4.05	6.50	11.24	10.40	11.24	5.90	2.85	5.70	3.30		
3	1.20	6.75	19.90	4.20	5.70	7.75	9.28	10.68	5.90	2.70	5.70	3.15		
4	1.65	4.90	30.44	4.50	5.10	7.25	13.30	10.40	5.90	2.55	5.90	2.85		
5	1.65	4.05	23.70	5.90	4.70	9.84	16.40	10.12	5.70	2.40	8.25	2.70		
6	2.10	3.75	17.36	32.12	4.50	8.50	12.10	9.56	5.70	2.40	8.00	2.40		
7	2.25	3.75	51.23	9.28	4.50	7.75	15.12	8.75	5.70	2.25	7.75	2.40		
8	2.25	11.24	15.76	5.30	4.35	7.50	18.38	8.75	5.90	2.25	7.75	2.40		
9	2.10	13.00	11.52	4.05	4.35	7.50	48.88	8.75	5.90	2.25	4.20	2.10		
10	1.65	4.35	9.84	3.60	4.35	8.75	33.38	8.00	5.90	2.10	3.60	1.95		
11	1.65	3.60	8.50	3.00	4.20	51.23	30.44	7.75	5.70	2.10	3.15	1.80		
12	1.65	3.60	7.50	2.85	4.05	125.56	21.42	7.75	5.50	1.95	2.85	1.50		
13	1.80	3.15	7.00	3.60	4.20	81.86	20.66	7.50	5.30	1.95	2.40	1.50		
14	2.85	6.30	6.50	3.90	4.20	38.45	41.15	7.25	5.10	2.70	6.30	1.40		
15	0.90	7.50	6.10	3.30	5.10	21.42	42.05	7.25	4.70	2.70	5.70	3.60		
16	0.90	31.28	5.90	3.15	6.50	16.08	57.70	7.00	4.35	3.00	4.70	3.60		
17	0.90	56.70	6.10	3.30	11.80	13.30	97.12	7.25	4.20	1.50	4.35	3.45		
18	0.80	24.46	5.90	3.30	8.50	13.00	81.86	7.00	4.05	1.50	4.05	3.30		
19	0.70	21.42	5.30	3.00	6.50	14.50	51.23	6.75	3.75	1.30	3.75	3.60		
20	0.90	17.36	5.30	3.00	5.90	15.44	35.06	6.30	3.60	1.40	3.60	3.75		
21	0.90	10.40	4.90	3.00	5.70	15.44	27.20	6.10	3.60	5.30	2.70	2.25		
22	0.80	8.75	4.90	3.15	5.10	23.32	23.70	5.90	3.45	5.50	2.70	2.10		
23	0.80	5.30	4.70	3.45	4.70	26.80	21.42	6.10	3.45	5.50	2.70	1.80		
24	4.35	4.05	4.50	7.00	4.35	48.41	19.90	6.10	3.60	5.50	3.90	1.65		
25	3.60	4.20	4.35	25.60	4.70	26.00	18.00	6.30	3.60	6.30	4.05	1.50		
26	2.85	23.32	4.20	35.06	4.70	16.40	16.40	6.30	3.60	6.30	4.05	1.40		
27	1.65	22.94	4.05	15.12	8.25	18.00	15.76	6.30	3.45	6.50	3.90	1.40		
28	2.10	12.40	4.20	9.56	42.50	14.50	14.50	6.30	3.30	6.30	3.75	1.30		
29	43.40	35.90	4.05	10.68	39.80	13.00	13.00	6.10	3.60	6.10	3.75	1.30		
30	38.00	112.85	3.90	6.50	28.00	11.80	12.40	6.10	3.60	5.90		1.20		
31		44.30		5.70	15.12		11.80		3.60	5.90		1.20		
Total	128.75	541.31	343.72	234.27	273.82	691.55	860.97	231.45	143.70	109.80	134.90	71.45	3765.69	CMSDAY
Mean	4.29	17.46	11.46	7.56	8.83	23.05	27.77	7.72	4.64	3.54	4.65	2.30	10.29	CMS
Max	43.40	112.85	51.23	35.06	42.50	125.56	97.12	11.80	6.10	6.50	8.25	3.75	125.56	CMS
Min	0.70	3.15	3.90	2.85	4.05	7.25	9.28	5.90	3.30	1.30	2.40	1.20	0.70	CMS
Runoff	11.12	46.77	29.70	20.24	23.66	59.75	74.39	20.00	12.42	9.49	11.66	6.17	325.36	MCM

Momentary Peak 125.56 CMS. at 101.17 m. (MSL.) at 06.00 Hours , on Sep 12 , 2011

Runoff Yield 14.99 Liters/Second/Square KM. Momentary Peak Yield 182.901 Liters/Second/Square KM.

WATER YEAR : 2011

MAE KLONG RIVER BASIN

Khwae Noi River at Ban Lum Sum , Kanchanaburi (K.10)

Lat 14 - 05 - 38 N Long 99 - 10 - 40 E

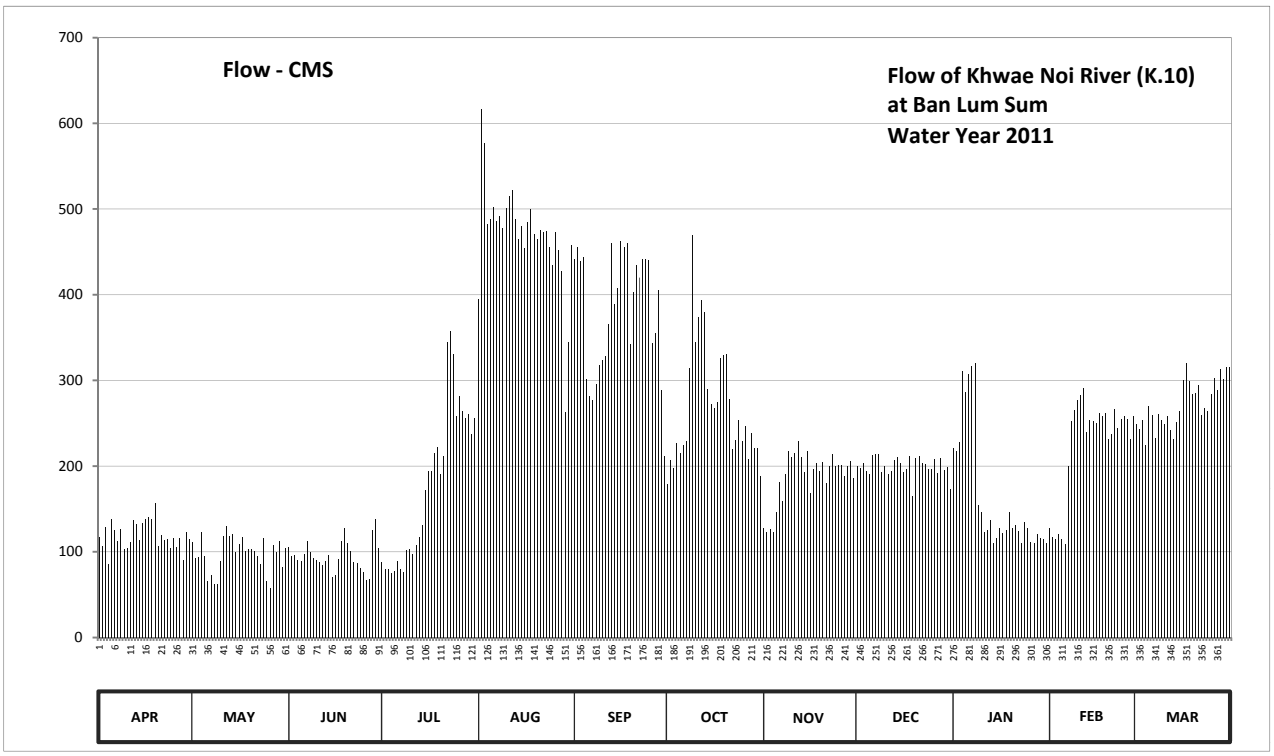
Location : on left bank about 100 meters upstream from Ban Lum Sum railway station

	Ban Lum Sum	**Amphoe** Sai Yok	**Changwat** Kanchanaburi
Drainge Area	7,008 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+30.400 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the gage site.		**Elevation** +52.057 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	1965 to date		
Rating Operation			
Period of Rating	1965 to date		
Rated by Flot	-		
Rated by Current Meter	1965 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Flow regulated by Khao Laem Dam.		
	Stage-discharge relation defined by 20 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	32.26	32.18	32.11	31.88	35.30	35.76	32.99	32.39	33.23	33.48	32.38	33.77	
2	32.12	31.95	31.97	31.78	37.37	35.90	33.32	32.32	33.21	33.44	32.26	33.71	
3	32.40	31.96	31.99	31.77	37.02	35.74	33.21	32.37	33.27	33.55	32.22	33.82	
4	31.86	32.33	31.92	31.71	36.15	35.79	33.54	32.33	33.17	34.44	32.29	33.51	
5	32.51	31.98	31.89	31.74	36.20	34.34	33.41	32.62	33.13	34.17	32.22	34.00	
6	32.35	31.60	32.00	31.90	36.33	34.12	33.51	33.02	33.38	34.40	32.15	33.89	
7	32.20	31.69	32.20	31.78	36.18	34.07	33.57	32.76	33.39	34.50	33.24	33.60	
8	32.37	31.55	32.03	31.73	36.24	34.28	34.47	33.13	33.39	34.53	33.81	33.90	
9	32.07	31.55	31.95	32.06	36.11	34.51	36.03	33.44	33.16	32.71	33.95	33.83	
10	32.09	31.89	31.91	32.08	36.32	34.57	34.79	33.36	33.24	32.61	34.07	33.78	
11	32.18	32.27	31.88	32.01	36.45	34.62	35.09	33.41	33.13	32.33	34.14	33.87	
12	32.50	32.41	31.84	32.14	36.52	35.01	35.29	33.56	33.17	32.35	34.23	33.70	
13	32.45	32.27	31.90	32.26	36.21	35.94	35.15	33.35	33.31	32.50	33.67	33.59	
14	32.21	32.30	31.99	32.42	35.99	35.24	34.21	33.15	33.36	32.16	33.83	33.80	
15	32.46	32.04	31.66	32.91	36.13	35.42	34.02	33.44	33.27	32.24	33.81	33.94	
16	32.51	32.15	31.69	33.17	35.89	35.96	33.97	32.87	33.16	32.38	33.79	34.32	
17	32.55	32.25	31.93	33.17	36.17	35.90	34.05	33.20	33.20	32.31	33.91	34.53	
18	32.52	32.05	32.19	33.41	36.31	35.94	34.60	33.27	33.37	32.35	33.87	34.31	
19	32.74	32.07	32.38	33.49	36.04	34.77	34.64	33.17	32.84	32.61	33.91	34.15	
20	32.12	32.07	32.17	33.13	35.99	35.38	34.65	33.29	33.34	32.39	33.59	34.16	
21	32.28	32.05	32.05	33.37	36.08	35.69	34.09	33.01	33.37	32.43	33.65	34.26	
22	32.21	31.98	31.88	34.79	36.06	35.55	33.46	33.23	33.27	32.34	33.96	33.89	
23	32.23	31.85	31.87	34.93	36.07	35.77	33.58	33.39	33.26	32.17	33.73	33.98	
24	32.09	32.24	31.79	34.65	35.90	35.76	33.83	33.23	33.20	32.47	33.84	33.94	
25	32.24	31.60	31.73	33.88	35.69	35.75	33.56	33.25	33.19	32.38	33.88	34.15	
26	32.11	31.49	31.61	34.13	36.06	34.78	33.75	33.25	33.33	32.18	33.84	34.35	
27	32.24	32.14	31.63	33.94	35.87	34.90	33.33	33.10	33.14	32.17	33.59	34.20	
28	31.92	32.03	32.35	33.85	35.62	35.40	33.66	33.23	33.34	32.30	33.87	34.46	
29	32.32	32.19	32.52	33.90	33.93	34.20	33.48	33.30	33.18	32.24	33.67	34.34	
30	32.22	31.80	32.09	33.65	34.79	33.37	33.47	33.08	33.22	32.22		34.48	
31		32.10		33.85	35.92		33.10		32.93	32.16		34.49	
Mean	32.28	32.00	31.97	32.95	36.03	35.15	33.99	33.08	33.23	32.79	33.50	34.02	
Max	32.74	32.41	32.52	34.93	37.37	35.96	36.03	33.56	33.39	34.53	34.23	34.53	37.37
Min	31.86	31.49	31.61	31.71	33.93	33.37	32.99	32.32	32.84	32.16	32.15	33.51	31.49

Annual Max Momentary Gage Height	37.61	m. (MSL.) ,	at 20.00 Hours , on Aug 2 , 2011		
Zero Gage at Bottom Elevation	30.40	m. (MSL.) ,	River Bed	30.14	m. (MSL)
Left Bank Elevation	50.12	m. (MSL.) ,			
Right Bank Elevation	46.35	m. (MSL.) ,	Drainage Area	7008	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	117.80	111.40	105.80	87.80	395.00	441.00	178.56	128.20	199.47	221.26	127.40	248.34		
2	106.60	93.17	94.70	80.13	617.18	455.71	207.31	122.60	197.73	217.77	117.80	242.71		
3	129.00	93.93	96.23	79.37	577.28	439.00	197.73	126.60	202.96	227.69	114.60	253.03		
4	86.27	123.40	90.87	74.77	482.50	444.00	226.75	123.40	194.24	311.22	120.20	223.94		
5	137.83	95.47	88.57	77.07	487.86	301.83	215.16	147.00	190.76	285.88	114.60	269.92		
6	125.00	66.33	97.00	89.33	501.79	281.18	223.94	181.17	212.54	307.46	109.00	259.60		
7	113.00	73.23	113.00	80.13	485.71	276.49	229.57	158.67	213.41	316.85	200.34	232.38		
8	126.60	62.50	99.40	76.30	492.14	296.20	314.03	190.76	213.41	319.66	252.09	260.54		
9	102.60	62.50	93.17	101.80	478.21	317.78	469.64	217.77	193.37	154.50	265.23	253.97		
10	104.20	88.57	90.10	103.40	500.71	323.42	344.06	210.80	200.34	146.17	276.49	249.28		
11	111.40	118.60	87.80	97.80	514.64	328.11	374.00	215.16	190.76	123.40	283.06	257.72		
12	137.00	129.80	84.73	108.20	522.20	366.00	394.00	228.63	194.24	125.00	291.51	241.77		
13	133.00	118.60	89.33	117.80	488.93	460.00	380.00	209.93	206.44	137.00	238.95	231.45		
14	113.80	121.00	96.23	130.60	465.36	389.00	289.63	192.50	210.80	109.80	253.97	251.15		
15	133.80	100.20	70.93	171.59	480.36	407.00	271.80	217.77	202.96	116.20	252.09	264.29		
16	137.83	109.00	73.23	194.24	454.64	462.14	267.11	168.10	193.37	127.40	250.22	299.95		
17	141.17	117.00	91.63	194.24	484.64	455.71	274.62	196.86	196.86	121.80	261.48	319.66		
18	138.67	101.00	112.20	215.16	499.64	460.00	326.23	202.96	211.67	125.00	257.72	299.02		
19	157.00	102.60	127.40	222.13	470.71	342.18	329.98	194.24	165.49	146.17	261.48	284.00		
20	106.60	102.60	110.60	190.76	465.36	403.00	330.92	204.70	209.06	128.20	231.45	284.94		
21	119.40	101.00	101.00	211.67	475.00	434.00	278.37	180.30	211.67	131.40	237.08	294.32		
22	113.80	95.47	87.80	344.06	472.86	420.00	219.51	199.47	202.96	124.20	266.17	259.60		
23	115.40	85.50	87.03	358.00	473.93	442.00	230.51	213.41	202.09	110.60	244.58	268.05		
24	104.20	116.20	80.90	330.92	455.71	441.00	253.97	199.47	196.86	134.60	254.91	264.29		
25	116.20	66.33	76.30	258.66	434.00	440.00	228.63	201.21	195.99	127.40	258.66	284.00		
26	105.80	57.90	67.10	282.12	472.86	343.12	246.46	201.21	208.19	111.40	254.91	302.77		
27	116.20	108.20	68.63	264.29	452.50	355.00	208.19	188.14	191.63	110.60	231.45	288.69		
28	90.87	99.40	125.00	255.85	427.00	405.00	238.02	199.47	209.06	121.00	257.72	313.09		
29	122.60	112.20	138.67	260.54	263.35	288.69	221.26	205.57	195.11	116.20	238.95	301.83		
30	114.60	81.67	104.20	237.08	344.06	211.67	220.39	186.40	198.60	114.60		314.97		
31		105.00		255.85	457.86		188.14		173.33	109.80		315.91		
Total	3578.24	3019.77	2849.55	5551.66	14593.99	11430.23	8378.49	5612.47	6185.31	5080.23	6524.11	8435.18	81239.29	CMSDAY
Mean	119.27	97.41	94.98	179.09	470.77	381.01	270.27	187.08	199.53	163.88	224.97	272.10	221.97	CMS
Max	157.00	129.80	138.67	358.00	617.18	462.14	469.64	228.63	213.41	319.66	291.51	319.66	617.18	CMS
Min	86.27	57.90	67.10	74.77	263.35	211.67	178.56	122.60	165.49	109.80	109.00	223.94	57.90	CMS
Runoff	309.16	260.91	246.20	479.66	1260.92	987.57	723.90	484.92	534.42	438.93	563.68	728.80	7019.08	MCM

Momentary Peak 644.98 CMS. at 37.61 m. (MSL.) at 20.00 Hours , on Aug 2 , 2011

Runoff Yield 31.67 Liters/Second/Square KM. Momentary Peak Yield 92.035 Liters/Second/Square KM.

WATER YEAR : 2011

MAE KLONG RIVER BASIN

Mae Klong River at Ban Wang Khanai , Kanchanaburi (K.11A)

Lat 13 - 56 - 55 N Long 99 - 38 - 42 E

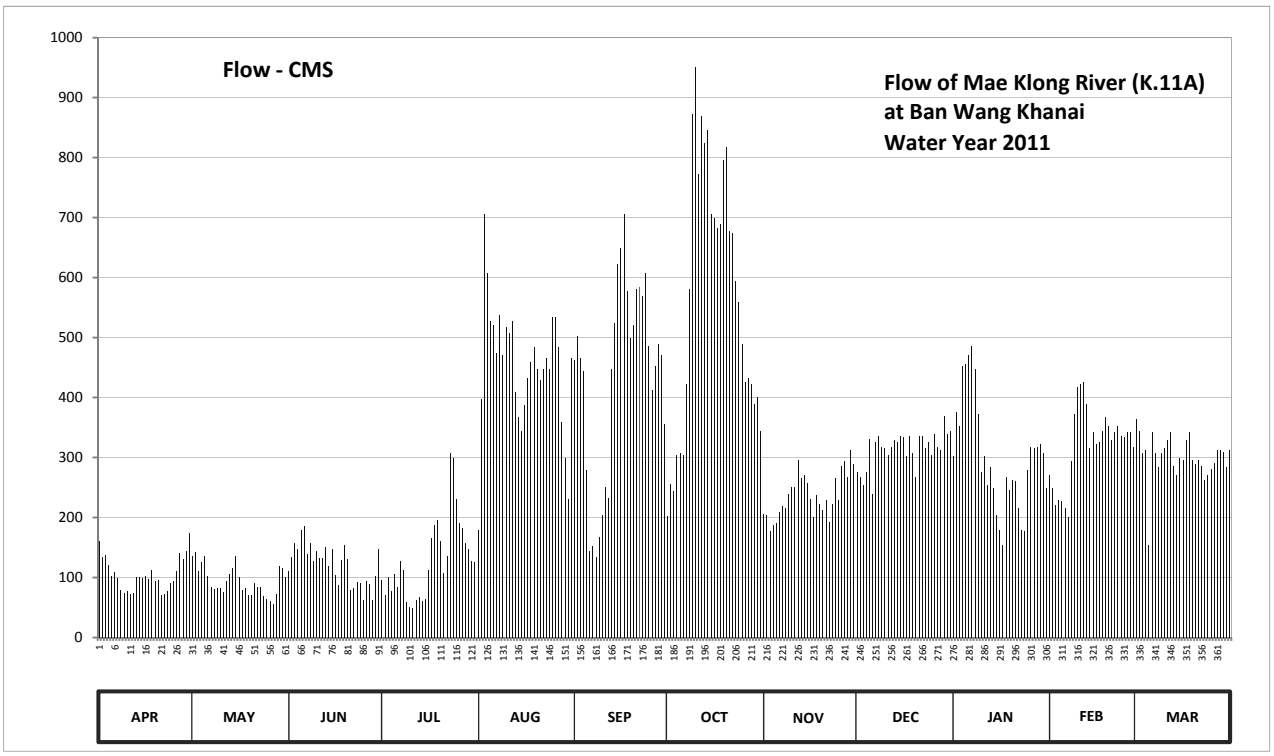
Location : on left bank at Ban Wang Khanai.

	Ban Wang Khanai	**Amphoe** Tha Muang	**Changwat** Kanchanaburi
Drainge Area	26,449 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+9.810 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the gage site.		**Elevation** +24.805 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	1993 to date		
Rating Operation			
Period of Rating	1993 - 1999 , 2005 to date		
Rated by Flot	-		
Rated by Current Meter	1993 - 1999 , 2005 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 23 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	11.54	11.41	11.27	11.17	11.63	12.73	11.72	11.74	12.06	12.16	12.04	12.39	
2	11.40	11.45	11.40	11.02	12.51	12.86	11.98	11.73	12.03	12.43	11.95	12.32	
3	11.42	11.27	11.53	11.21	13.49	12.74	11.93	11.62	11.97	12.35	11.82	12.18	
4	11.33	11.35	11.47	11.06	13.19	12.67	12.17	11.66	12.06	12.70	11.86	12.20	
5	11.22	11.41	11.63	11.24	12.94	12.07	12.18	11.67	12.27	12.71	11.85	11.51	
6	11.26	11.22	11.65	11.10	12.92	11.46	12.17	11.76	11.91	12.76	11.79	12.31	
7	11.19	11.10	11.43	11.36	12.77	11.50	12.60	11.81	12.25	12.81	11.71	12.18	
8	11.07	11.08	11.53	11.28	12.97	11.40	13.11	11.79	12.29	12.68	12.13	12.09	
9	11.04	11.09	11.36	10.94	12.76	11.58	13.97	11.91	12.22	12.42	12.42	12.18	
10	11.06	11.09	11.46	10.89	12.91	11.73	14.19	11.96	12.21	12.06	12.58	12.21	
11	11.03	11.05	11.39	10.88	12.88	11.96	13.68	11.96	12.17	12.16	12.60	12.26	
12	11.04	11.16	11.39	10.97	12.94	11.88	13.96	12.14	12.22	11.97	12.61	12.31	
13	11.20	11.24	11.49	11.00	12.55	12.68	13.83	12.02	12.26	12.09	12.48	12.10	
14	11.20	11.30	11.32	10.95	12.40	12.93	13.89	12.04	12.25	11.95	12.21	12.04	
15	11.19	11.41	11.47	10.98	12.32	13.24	13.49	11.99	12.29	11.73	12.31	12.15	
16	11.22	11.20	11.23	11.28	12.47	13.32	13.47	11.87	12.28	11.63	12.24	12.14	
17	11.18	11.07	11.12	11.57	12.63	13.49	13.42	11.71	12.16	11.51	12.25	12.26	
18	11.28	11.09	11.37	11.66	12.72	13.10	13.44	11.90	12.29	12.03	12.32	12.31	
19	11.16	11.02	11.51	11.69	12.80	12.85	13.75	11.83	12.18	11.94	12.40	12.14	
20	11.17	11.02	11.38	11.54	12.68	12.92	13.81	11.77	12.03	12.01	12.35	12.11	
21	11.02	11.14	11.07	11.25	12.62	13.11	13.41	11.86	12.29	12.00	12.26	12.14	
22	11.03	11.10	11.09	11.41	12.68	13.12	13.40	11.68	12.29	11.79	12.31	12.10	
23	11.06	11.10	11.15	12.18	12.74	13.07	13.15	11.83	12.21	11.63	12.35	12.01	
24	11.14	11.01	11.14	12.15	12.68	13.19	13.04	12.02	12.25	11.62	12.29	12.04	
25	11.16	10.98	10.97	11.87	12.96	12.81	12.82	11.86	12.17	12.07	12.28	12.08	
26	11.27	10.95	11.16	11.67	12.96	12.56	12.61	12.10	12.30	12.22	12.31	12.12	
27	11.44	10.92	11.13	11.64	12.80	12.70	12.63	12.13	12.22	12.21	12.31	12.20	
28	11.38	11.03	10.97	11.53	12.37	12.82	12.60	12.03	12.20	12.22	12.22	12.20	
29	11.46	11.32	11.22	11.47	12.15	12.76	12.48	12.20	12.41	12.24	12.39	12.19	
30	11.61	11.30	11.48	11.36	11.87	12.36	12.52	12.11	12.30	12.18		12.09	
31		11.21		11.35	12.74		12.32		12.32	11.95		12.20	
Mean	11.23	11.16	11.33	11.34	12.68	12.59	13.02	11.89	12.21	12.14	12.23	12.15	
Max	11.61	11.45	11.65	12.18	13.49	13.49	14.19	12.20	12.41	12.81	12.61	12.39	14.19
Min	11.02	10.92	10.97	10.88	11.63	11.40	11.72	11.62	11.91	11.51	11.71	11.51	10.88

Annual Max Momentary Gage Height	14.29	m. (MSL.) ,	at 08.00 Hours , on Oct 10 , 2011		
Zero Gage at Bottom Elevation	9.81	m. (MSL.) ,	River Bed	10.58	m. (MSL)
Left Bank Elevation	19.32	m. (MSL.) ,			
Right Bank Elevation	16.73	m. (MSL.) ,	Drainage Area	26449	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	160.00	135.80	111.20	95.20	179.80	462.00	201.90	205.80	275.60	301.60	270.40	364.20		
2	134.00	143.00	134.00	71.20	397.80	501.60	255.40	203.85	267.80	375.40	248.50	344.60		
3	137.60	111.20	158.00	101.60	705.60	465.00	243.90	177.20	253.10	353.00	221.40	306.80		
4	121.40	125.00	146.60	77.60	606.80	444.00	304.20	187.60	275.60	453.00	229.20	312.00		
5	103.20	135.80	179.80	106.40	526.80	278.20	306.80	190.20	330.90	456.00	227.25	154.00		
6	109.60	103.20	185.00	84.00	520.40	144.80	304.20	209.70	239.30	471.00	215.55	341.80		
7	98.40	84.00	139.40	126.80	474.00	152.00	423.00	219.45	325.50	486.10	199.95	306.80		
8	79.20	80.80	158.00	112.80	536.40	134.00	581.20	215.55	336.30	447.00	293.80	283.40		
9	74.40	82.40	126.80	58.40	471.00	168.00	873.50	239.30	317.40	372.60	372.60	306.80		
10	77.60	82.40	144.80	50.60	517.20	203.85	950.50	250.80	314.70	275.60	417.40	314.70		
11	72.80	76.00	132.20	49.20	507.80	250.80	772.00	250.80	304.20	301.60	423.00	328.20		
12	74.40	93.60	132.20	63.20	526.80	233.10	870.00	296.40	317.40	253.10	426.00	341.80		
13	100.00	106.40	150.20	68.00	409.00	447.00	824.50	265.20	328.20	283.40	389.40	286.00		
14	100.00	116.00	119.60	60.00	367.00	523.60	845.50	270.40	325.50	248.50	314.70	270.40		
15	98.40	135.80	146.60	64.80	344.60	622.80	705.60	257.70	336.30	203.85	341.80	299.00		
16	103.20	100.00	104.80	112.80	386.60	648.60	698.80	231.15	333.60	179.80	322.80	296.40		
17	96.80	79.20	87.20	166.00	432.00	705.60	681.80	199.95	301.60	154.00	325.50	328.20		
18	112.80	82.40	128.60	187.60	459.00	578.00	688.60	237.00	336.30	267.80	344.60	341.80		
19	93.60	71.20	154.00	195.40	483.00	498.50	796.50	223.35	306.80	246.20	367.00	296.40		
20	95.20	71.20	130.40	160.00	447.00	520.40	817.50	211.65	267.80	262.60	353.00	288.60		
21	71.20	90.40	79.20	108.00	429.00	581.20	678.40	229.20	336.30	260.00	328.20	296.40		
22	72.80	84.00	82.40	135.80	447.00	584.40	675.00	192.80	336.30	215.55	341.80	286.00		
23	77.60	84.00	92.00	306.80	465.00	568.40	594.00	223.35	314.70	179.80	353.00	262.60		
24	90.40	69.60	90.40	299.00	447.00	606.80	558.80	265.20	325.50	177.20	336.30	270.40		
25	93.60	64.80	63.20	231.15	533.20	486.10	489.20	229.20	304.20	278.20	333.60	280.80		
26	111.20	60.00	93.60	190.20	533.20	411.80	426.00	286.00	339.00	317.40	341.80	291.20		
27	141.20	55.20	88.80	182.40	483.00	453.00	432.00	293.80	317.40	314.70	341.80	312.00		
28	130.40	72.80	63.20	158.00	358.60	489.20	423.00	267.80	312.00	317.40	317.40	312.00		
29	144.80	119.60	103.20	146.60	299.00	471.00	389.40	312.00	369.80	322.80	364.20	309.40		
30	174.60	116.00	148.40	126.80	231.15	355.80	400.60	288.60	339.00	306.80		283.40		
31		101.60		125.00	465.00		344.60		344.60	248.50		312.00		
Total	3150.40	2933.40	3673.80	4021.35	13989.75	12989.55	17556.40	7131.00	9732.70	9330.50	9361.95	9328.10	103198.91	CMSDAY
Mean	105.01	94.63	122.46	129.72	451.28	432.98	566.34	237.70	313.96	300.98	322.83	300.91	281.96	CMS
Max	174.60	143.00	185.00	306.80	705.60	705.60	950.50	312.00	369.80	486.10	426.00	364.20	950.50	CMS
Min	71.20	55.20	63.20	49.20	179.80	134.00	201.90	177.20	239.30	154.00	199.95	154.00	49.20	CMS
Runoff	272.20	253.45	317.42	347.45	1208.71	1122.30	1516.87	616.12	840.91	806.16	808.87	805.95	8916.39	MCM

Momentary Peak 986.40 CMS. at 14.29 m. (MSL.) at 08.00 Hours , on Oct 10 , 2011

Runoff Yield 10.66 Liters/Second/Square KM. Momentary Peak Yield 37.294 Liters/Second/Square KM.

WATER YEAR : 2011

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

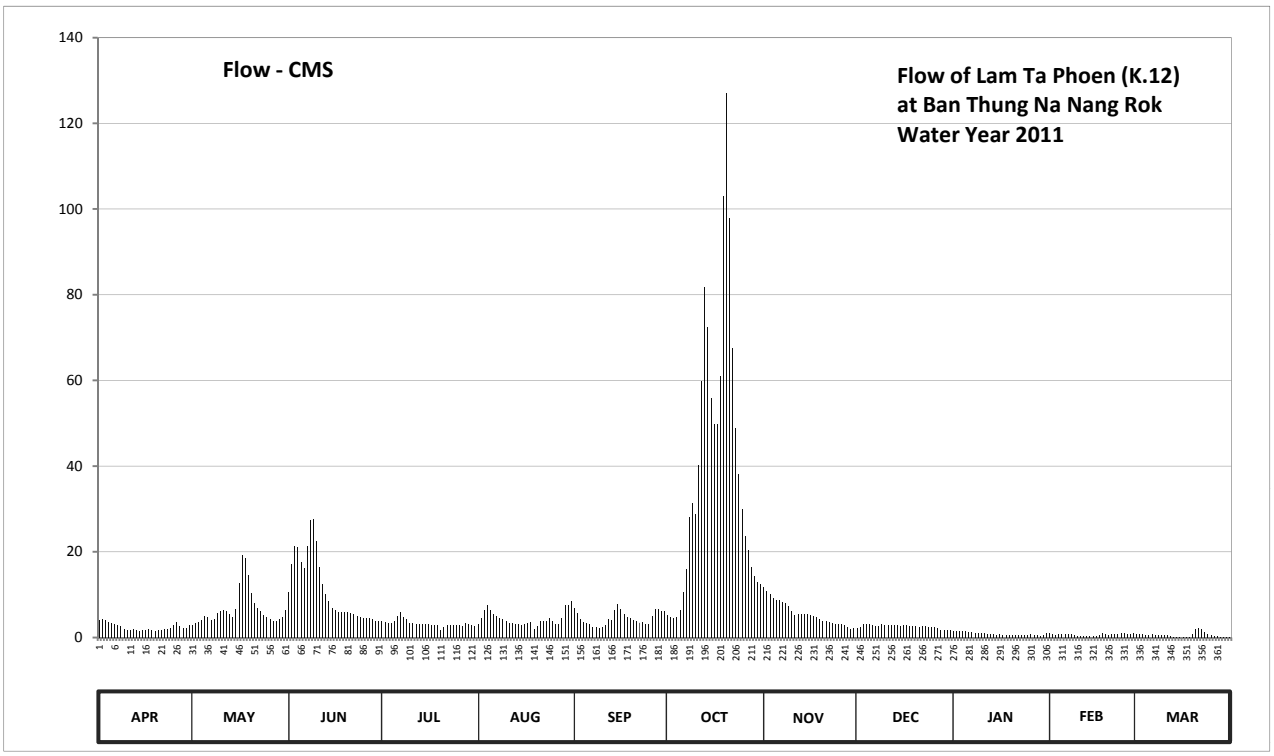
Location : on left bank about 50 meters downstream from Wat Thung Na Nang Rok.

	Ban Thung Na Nang Rok	**Amphoe** Mueang		**Changwat** Kanchanaburi	
Drainge Area	2,375 sq.km.				
Type of Gage	Water - stage recorder				
Zero Gage at Bottom	+40.437 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On left bank about 6 meters from the top staff gage.			**Elevation**	+49.887 m. (MSL.)
Gage Reading Frequency	Recording				
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings				
Period of Available Gage Records	1965 to date				
Rating Operation					
Period of Rating	1965 - 1968 , 1995 to date				
Rated by Flot	-				
Rated by Current Meter	1965 - 1968 , 1995 to date				
Stability of Channel Regimes	Stable.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records good. Stage-discharge relation defined by 45 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	41.31	41.16	41.81	41.27	41.19	41.56	41.42	41.88	41.07	40.97	40.89	40.87	
2	41.32	41.21	42.18	41.25	41.36	41.45	41.38	41.82	41.11	40.98	40.85	40.87	
3	41.30	41.24	42.38	41.23	41.51	41.33	41.36	41.77	41.19	40.98	40.81	40.86	
4	41.25	41.30	42.37	41.23	41.60	41.25	41.39	41.72	41.19	40.98	40.85	40.82	
5	41.23	41.40	42.20	41.28	41.51	41.23	41.52	41.69	41.18	40.97	40.84	40.80	
6	41.19	41.38	42.14	41.41	41.43	41.20	41.81	41.68	41.15	40.95	40.86	40.84	
7	41.15	41.31	42.38	41.47	41.40	41.11	42.12	41.65	41.14	40.94	40.84	40.82	
8	41.13	41.34	42.65	41.38	41.36	41.10	42.68	41.63	41.13	40.90	40.84	40.80	
9	41.05	41.46	42.66	41.32	41.34	41.08	42.81	41.58	41.19	40.90	40.80	40.80	
10	40.99	41.49	42.43	41.23	41.28	41.09	42.71	41.49	41.17	40.91	40.75	40.80	
11	41.01	41.52	42.15	41.21	41.23	41.17	43.13	41.42	41.16	40.91	40.78	40.79	
12	41.02	41.49	41.93	41.19	41.22	41.34	43.75	41.43	41.15	40.87	40.77	40.72	
13	41.00	41.43	41.77	41.19	41.20	41.30	44.33	41.43	41.15	40.86	40.77	40.70	
14	40.98	41.38	41.66	41.20	41.19	41.51	44.09	41.44	41.16	40.84	40.78	40.71	
15	40.99	41.54	41.56	41.19	41.17	41.62	43.63	41.44	41.14	40.83	40.75	40.70	
16	41.01	41.94	41.51	41.18	41.18	41.53	43.45	41.42	41.16	40.84	40.75	40.71	
17	41.02	42.28	41.48	41.17	41.23	41.44	43.45	41.41	41.16	40.83	40.81	40.70	
18	40.99	42.25	41.47	41.17	41.25	41.38	43.78	41.39	41.14	40.83	40.90	40.70	
19	40.98	42.05	41.47	41.16	41.03	41.35	44.80	41.33	41.12	40.80	40.86	40.87	
20	41.00	41.80	41.47	41.01	41.14	41.31	45.28	41.29	41.12	40.79	40.83	41.04	
21	40.99	41.64	41.46	41.10	41.29	41.29	44.70	41.27	41.10	40.81	40.85	41.07	
22	41.03	41.55	41.43	41.16	41.29	41.23	43.96	41.24	41.12	40.82	40.86	41.03	
23	41.03	41.49	41.41	41.17	41.28	41.24	43.42	41.21	41.13	40.83	40.87	40.95	
24	41.08	41.42	41.38	41.17	41.36	41.18	43.05	41.20	41.11	40.83	40.91	40.85	
25	41.15	41.37	41.36	41.17	41.27	41.19	42.75	41.18	41.09	40.83	40.89	40.79	
26	41.24	41.34	41.36	41.15	41.20	41.41	42.49	41.18	41.09	40.84	40.88	40.77	
27	41.13	41.29	41.36	41.12	41.20	41.53	42.34	41.17	41.07	40.79	40.85	40.75	
28	41.08	41.29	41.34	41.22	41.35	41.54	42.15	41.11	41.00	40.80	40.91	40.69	
29	41.07	41.32	41.28	41.19	41.61	41.49	42.04	41.05	41.01	40.78	40.89	40.67	
30	41.16	41.38	41.27	41.17	41.60	41.50	41.96	41.07	41.01	40.82		40.63	
31		41.52		41.13	41.67		41.93		40.99	40.91		40.62	
Mean	41.10	41.50	41.78	41.21	41.32	41.33	42.89	41.42	41.12	40.87	40.84	40.80	
Max	41.32	42.28	42.66	41.47	41.67	41.62	45.28	41.88	41.19	40.98	40.91	41.07	45.28
Min	40.98	41.16	41.27	41.01	41.03	41.08	41.36	41.05	40.99	40.78	40.75	40.62	40.62

Annual Max Momentary Gage Height	45.37	m. (MSL.) ,	at 05.00 Hours , on Oct 20 , 2011		
Zero Gage at Bottom Elevation	40.44	m. (MSL.) ,	River Bed	40.63	m. (MSL)
Left Bank Elevation	49.55	m. (MSL.) ,			
Right Bank Elevation	46.50	m. (MSL.) ,	Drainage Area	2375	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	4.10	2.88	10.65	3.76	3.12	6.98	5.24	11.70	2.19	1.49	0.95	0.85		
2	4.20	3.28	17.10	3.60	4.60	5.60	4.80	10.80	2.48	1.56	0.75	0.85		
3	4.00	3.52	21.36	3.44	6.33	4.30	4.60	10.05	3.12	1.56	0.55	0.80		
4	3.60	4.00	21.14	3.44	7.50	3.60	4.90	9.30	3.12	1.56	0.75	0.60		
5	3.44	5.00	17.50	3.84	6.33	3.44	6.46	8.85	3.04	1.49	0.70	0.50		
6	3.12	4.80	16.30	5.12	5.36	3.20	10.65	8.70	2.80	1.35	0.80	0.70		
7	2.80	4.10	21.36	5.84	5.00	2.48	15.90	8.25	2.72	1.28	0.70	0.60		
8	2.64	4.40	27.45	4.80	4.60	2.40	28.14	7.95	2.64	1.00	0.70	0.50		
9	2.05	5.72	27.68	4.20	4.40	2.26	31.46	7.24	3.12	1.00	0.50	0.50		
10	1.63	6.08	22.46	3.44	3.84	2.33	28.86	6.08	2.96	1.07	0.35	0.50		
11	1.77	6.46	16.50	3.28	3.44	2.96	40.24	5.24	2.88	1.07	0.44	0.47		
12	1.84	6.08	12.48	3.12	3.36	4.40	59.90	5.36	2.80	0.85	0.41	0.26		
13	1.70	5.36	10.05	3.12	3.20	4.00	81.86	5.36	2.80	0.80	0.41	0.20		
14	1.56	4.80	8.40	3.20	3.12	6.33	72.42	5.48	2.88	0.70	0.44	0.23		
15	1.63	6.72	6.98	3.12	2.96	7.80	55.82	5.48	2.72	0.65	0.35	0.20		
16	1.77	12.64	6.33	3.04	3.04	6.59	49.80	5.24	2.88	0.70	0.35	0.23		
17	1.84	19.18	5.96	2.96	3.44	5.48	49.80	5.12	2.88	0.65	0.55	0.20		
18	1.63	18.55	5.84	2.96	3.60	4.80	60.92	4.90	2.72	0.65	1.00	0.20		
19	1.56	14.55	5.84	2.88	1.91	4.50	103.00	4.30	2.56	0.50	0.80	0.85		
20	1.70	10.50	5.84	1.77	2.72	4.10	127.00	3.92	2.56	0.47	0.65	1.98		
21	1.63	8.10	5.72	2.40	3.92	3.92	98.00	3.76	2.40	0.55	0.75	2.19		
22	1.91	6.85	5.36	2.88	3.92	3.44	67.48	3.52	2.56	0.60	0.80	1.91		
23	1.91	6.08	5.12	2.96	3.84	3.52	48.84	3.28	2.64	0.65	0.85	1.35		
24	2.26	5.24	4.80	2.96	4.60	3.04	38.00	3.20	2.48	0.65	1.07	0.75		
25	2.80	4.70	4.60	2.96	3.76	3.12	29.90	3.04	2.33	0.65	0.95	0.47		
26	3.52	4.40	4.60	2.80	3.20	5.12	23.78	3.04	2.33	0.70	0.90	0.41		
27	2.64	3.92	4.60	2.56	3.20	6.59	20.48	2.96	2.19	0.47	0.75	0.35		
28	2.26	3.92	4.40	3.36	4.50	6.72	16.50	2.48	1.70	0.50	1.07	0.18		
29	2.19	4.20	3.84	3.12	7.65	6.08	14.36	2.05	1.77	0.44	0.95	0.14		
30	2.88	4.80	3.76	2.96	7.50	6.20	12.96	2.19	1.77	0.60		0.06		
31		6.46		2.64	8.55		12.48		1.63	1.07		0.04		
Total	72.58	207.29	334.02	102.53	136.51	135.30	1224.55	168.84	79.67	27.28	20.24	19.07	2527.88	CMSDAY
Mean	2.42	6.69	11.13	3.31	4.40	4.51	39.50	5.63	2.57	0.88	0.70	0.62	6.91	CMS
Max	4.20	19.18	27.68	5.84	8.55	7.80	127.00	11.70	3.12	1.56	1.07	2.19	127.00	CMS
Min	1.56	2.88	3.76	1.77	1.91	2.26	4.60	2.05	1.63	0.44	0.35	0.04	0.04	CMS
Runoff	6.27	17.91	28.86	8.86	11.79	11.69	105.80	14.59	6.88	2.36	1.75	1.65	218.41	MCM

Momentary Peak 131.50 CMS. at 45.37 m. (MSL.) at 05.00 Hours , on Oct 20 , 2011

Runoff Yield 2.91 Liters/Second/Square KM. Momentary Peak Yield 55.368 Liters/Second/Square KM.

WATER YEAR : 2011

MAE KLONG RIVER BASIN

Lam Phachi at Ban Bo , Ratchaburi (K.17)

Lat 13 - 32 - 31 N Long 99 - 21 - 24 E

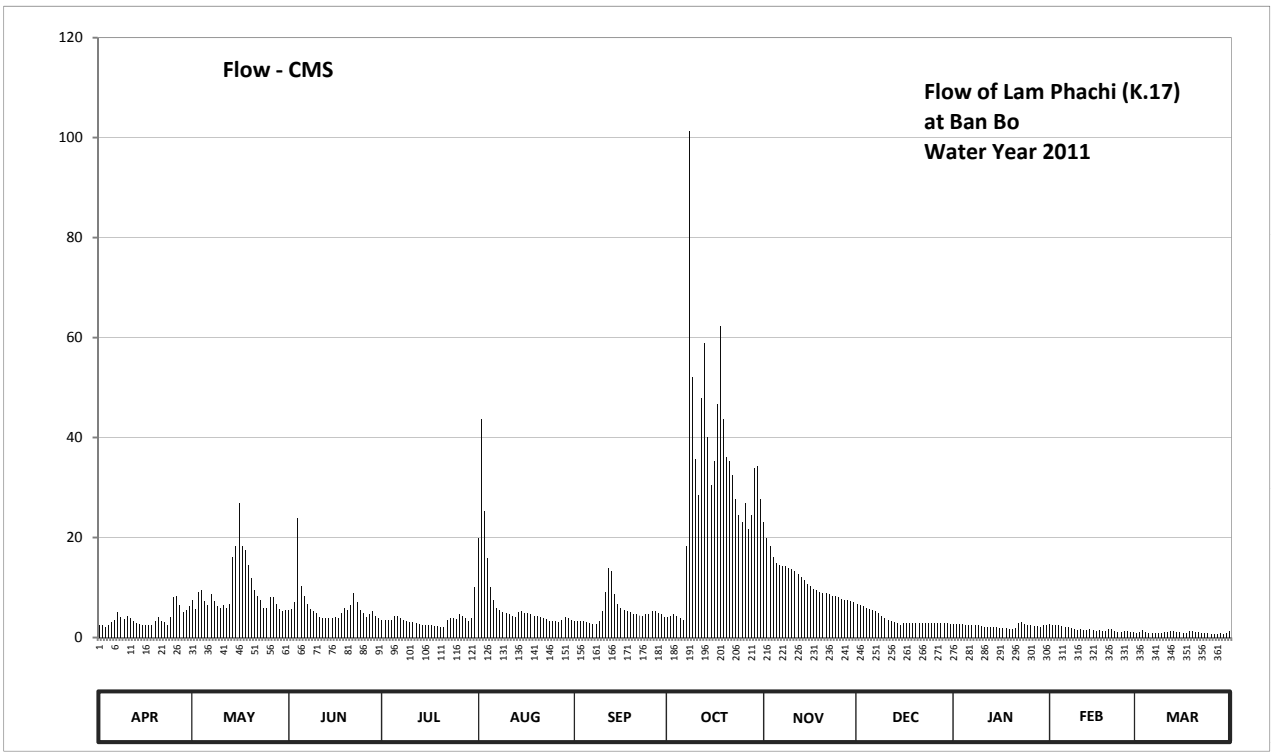
Location : on left bank oppositeto the 'Sai Ngam' fronter police station.

	Ban Bo	**Amphoe** Suan Phung	**Changwat** Ratchaburi
Drainge Area	1,344 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+97.460 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	Along the measuring line.		**Elevation** +109.256 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	1966 to date		
Rating Operation			
Period of Rating	1966 - 1988 , 1993 to date		
Rated by Flot	-		
Rated by Current Meter	1966 - 1988 , 1993 to date		
Stability of Channel Regimes	Stable		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 44 discharge measurements made in 2011		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	97.83	98.07	97.99	97.90	98.47	97.88	97.93	98.56	98.04	97.85	97.85	97.71	
2	97.83	98.00	98.00	97.90	99.04	97.88	97.94	98.47	98.03	97.85	97.83	97.72	
3	97.81	98.13	98.05	97.90	98.62	97.88	97.95	98.42	98.02	97.85	97.84	97.77	
4	97.83	98.14	98.58	97.90	98.35	97.88	97.94	98.36	98.01	97.85	97.83	97.73	
5	97.87	98.06	98.17	97.94	98.16	97.87	97.92	98.32	98.00	97.84	97.82	97.70	
6	97.90	98.03	98.10	97.94	98.07	97.86	97.90	98.31	97.99	97.84	97.81	97.71	
7	97.97	98.11	98.04	97.92	98.01	97.85	98.42	98.30	97.98	97.84	97.81	97.70	
8	97.93	98.06	98.00	97.90	97.99	97.85	100.02	98.30	97.96	97.83	97.80	97.70	
9	97.91	98.02	97.98	97.89	97.97	97.88	99.20	98.29	97.94	97.83	97.78	97.71	
10	97.94	98.01	97.96	97.87	97.96	97.98	98.87	98.28	97.92	97.82	97.77	97.73	
11	97.92	98.03	97.93	97.87	97.95	98.13	98.70	98.27	97.90	97.81	97.79	97.73	
12	97.88	98.01	97.92	97.86	97.94	98.29	99.12	98.25	97.88	97.81	97.77	97.75	
13	97.86	98.04	97.92	97.85	97.93	98.27	99.33	98.23	97.87	97.81	97.76	97.75	
14	97.85	98.36	97.92	97.84	97.97	98.11	98.97	98.21	97.86	97.81	97.79	97.73	
15	97.84	98.42	97.92	97.83	97.98	98.04	98.75	98.18	97.84	97.81	97.77	97.73	
16	97.83	98.66	97.93	97.83	97.96	98.01	98.86	98.17	97.86	97.80	97.74	97.70	
17	97.83	98.42	97.92	97.83	97.96	97.99	99.10	98.15	97.86	97.80	97.77	97.71	
18	97.84	98.40	97.96	97.82	97.95	97.98	99.39	98.14	97.86	97.80	97.75	97.75	
19	97.88	98.31	98.01	97.82	97.94	97.97	99.04	98.13	97.86	97.79	97.74	97.75	
20	97.93	98.22	97.99	97.81	97.94	97.95	98.88	98.12	97.86	97.79	97.78	97.73	
21	97.89	98.14	98.03	97.81	97.93	97.95	98.86	98.12	97.86	97.80	97.78	97.72	
22	97.87	98.10	98.12	97.90	97.92	97.94	98.80	98.11	97.86	97.86	97.75	97.71	
23	97.84	98.07	98.05	97.92	97.91	97.94	98.68	98.10	97.86	97.87	97.72	97.70	
24	97.93	98.01	97.99	97.92	97.89	97.95	98.60	98.10	97.86	97.85	97.72	97.70	
25	98.09	98.01	97.96	97.91	97.88	97.95	98.56	98.09	97.86	97.84	97.75	97.69	
26	98.10	98.09	97.93	97.95	97.88	97.98	98.66	98.08	97.86	97.83	97.74	97.69	
27	98.03	98.09	97.95	97.94	97.87	97.98	98.52	98.07	97.86	97.82	97.73	97.69	
28	97.97	98.04	97.98	97.92	97.90	97.96	98.60	98.07	97.86	97.82	97.72	97.70	
29	97.99	98.00	97.94	97.89	97.93	97.95	98.83	98.06	97.86	97.81	97.71	97.69	
30	98.02	97.98	97.92	97.92	97.92	97.93	98.84	98.05	97.86	97.83		97.70	
31		97.99		98.16	97.90		98.68		97.85	97.84		97.75	
Mean	97.91	98.13	98.01	97.89	98.04	97.97	98.71	98.21	97.90	97.83	97.77	97.72	
Max	98.10	98.66	98.58	98.16	99.04	98.29	100.02	98.56	98.04	97.87	97.85	97.77	100.02
Min	97.81	97.98	97.92	97.81	97.87	97.85	97.90	98.05	97.84	97.79	97.71	97.69	97.69

Annual Max Momentary Gage Height	100.35	m. (MSL.) ,	at 08.00 Hours , on Oct 8 , 2011		
Zero Gage at Bottom Elevation	97.46	m. (MSL.) ,	River Bed	97.09	m. (MSL)
Left Bank Elevation	107.87	m. (MSL.) ,			
Right Bank Elevation	103.32	m. (MSL.) ,	Drainage Area	1344	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.38	7.52	5.48	3.50	19.95	3.18	4.16	23.10	6.74	2.70	2.70	0.91		
2	2.38	5.70	5.70	3.50	43.60	3.18	4.38	19.95	6.48	2.70	2.38	1.02		
3	2.06	9.17	7.00	3.50	25.30	3.18	4.60	18.20	6.22	2.70	2.54	1.57		
4	2.38	9.46	23.80	3.50	15.85	3.18	4.38	16.18	5.96	2.70	2.38	1.13		
5	3.02	7.26	10.33	4.38	10.04	3.02	3.94	14.86	5.70	2.54	2.22	0.80		
6	3.50	6.48	8.30	4.38	7.52	2.86	3.50	14.53	5.48	2.54	2.06	0.91		
7	5.04	8.59	6.74	3.94	5.96	2.70	18.20	14.20	5.26	2.54	2.06	0.80		
8	4.16	7.26	5.70	3.50	5.48	2.70	101.40	14.20	4.82	2.38	1.90	0.80		
9	3.72	6.22	5.26	3.34	5.04	3.18	52.00	13.90	4.38	2.38	1.68	0.91		
10	4.38	5.96	4.82	3.02	4.82	5.26	35.65	13.60	3.94	2.22	1.57	1.13		
11	3.94	6.48	4.16	3.02	4.60	9.17	28.50	13.30	3.50	2.06	1.79	1.13		
12	3.18	5.96	3.94	2.86	4.38	13.90	47.80	12.70	3.18	2.06	1.57	1.35		
13	2.86	6.74	3.94	2.70	4.16	13.30	58.95	12.10	3.02	2.06	1.46	1.35		
14	2.70	16.18	3.94	2.54	5.04	8.59	40.15	11.50	2.86	2.06	1.79	1.13		
15	2.54	18.20	3.94	2.38	5.26	6.74	30.50	10.62	2.54	2.06	1.57	1.13		
16	2.38	26.90	4.16	2.38	4.82	5.96	35.20	10.33	2.86	1.90	1.24	0.80		
17	2.38	18.20	3.94	2.38	4.82	5.48	46.75	9.75	2.86	1.90	1.57	0.91		
18	2.54	17.50	4.82	2.22	4.60	5.26	62.25	9.46	2.86	1.90	1.35	1.35		
19	3.18	14.53	5.96	2.22	4.38	5.04	43.60	9.17	2.86	1.79	1.24	1.35		
20	4.16	11.80	5.48	2.06	4.38	4.60	36.10	8.88	2.86	1.79	1.68	1.13		
21	3.34	9.46	6.48	2.06	4.16	4.60	35.20	8.88	2.86	1.90	1.68	1.02		
22	3.02	8.30	8.88	3.50	3.94	4.38	32.50	8.59	2.86	2.86	1.35	0.91		
23	2.54	7.52	7.00	3.94	3.72	4.38	27.70	8.30	2.86	3.02	1.02	0.80		
24	4.16	5.96	5.48	3.94	3.34	4.60	24.50	8.30	2.86	2.70	1.02	0.80		
25	8.04	5.96	4.82	3.72	3.18	4.60	23.10	8.04	2.86	2.54	1.35	0.72		
26	8.30	8.04	4.16	4.60	3.18	5.26	26.90	7.78	2.86	2.38	1.24	0.72		
27	6.48	8.04	4.60	4.38	3.02	5.26	21.70	7.52	2.86	2.22	1.13	0.72		
28	5.04	6.74	5.26	3.94	3.50	4.82	24.50	7.52	2.86	2.22	1.02	0.80		
29	5.48	5.70	4.38	3.34	4.16	4.60	33.85	7.26	2.86	2.06	0.91	0.72		
30	6.22	5.26	3.94	3.94	3.94	4.16	34.30	7.00	2.86	2.38		0.80		
31		5.48		10.04	3.50		27.70		2.70	2.54		1.35		
Total	115.50	292.57	182.41	108.72	229.64	157.14	973.96	349.72	115.68	71.80	47.47	30.97	2675.58	CMSDAY
Mean	3.85	9.44	6.08	3.51	7.41	5.24	31.42	11.66	3.73	2.32	1.64	1.00	7.31	CMS
Max	8.30	26.90	23.80	10.04	43.60	13.90	101.40	23.10	6.74	3.02	2.70	1.57	101.40	CMS
Min	2.06	5.26	3.94	2.06	3.02	2.70	3.50	7.00	2.54	1.79	0.91	0.72	0.72	CMS
Runoff	9.98	25.28	15.76	9.39	19.84	13.58	84.15	30.22	10.00	6.20	4.10	2.68	231.17	MCM

Momentary Peak 124.60 CMS. at 100.35 m. (MSL.) at 08.00 Hours , on Oct 8 , 2011

Runoff Yield 5.44 Liters/Second/Square KM. Momentary Peak Yield 92.699 Liters/Second/Square KM.

WATER YEAR : 2011

MAE KLONG RIVER BASIN

Huai Mae Nam Noi at Ban Sai Yok , Kanchanaburi (K.22B)

Lat 14 - 26 - 59 N Long 98 - 48 - 08 E

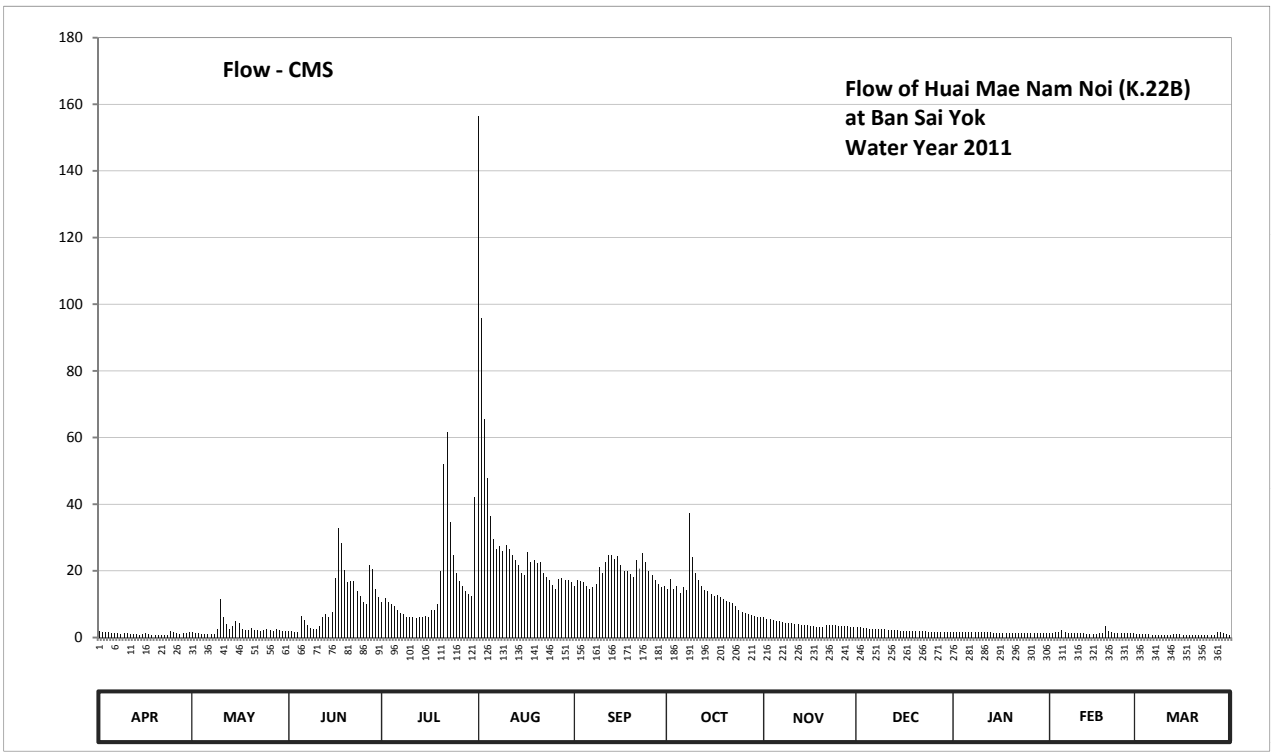
Location : on right bank about 640 meters upstream from station K.22A

	Ban Sai Yok	**Amphoe** Sai Yok	**Changwat** Kanchanaburi
Drainge Area	311 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+67.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank about 10 meters from the top staff gage.	**Elevation**	+72.434 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	1989 to date		
Rating Operation			
Period of Rating	1989 to date		
Rated by Flot	-		
Rated by Current Meter	1989 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 50 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	68.14	68.13	68.16	68.57	70.79	68.72	68.70	68.39	68.23	68.11	68.08	68.07	
2	68.13	68.10	68.14	68.61	70.12	68.77	68.78	68.37	68.23	68.11	68.08	68.06	
3	68.13	68.08	68.13	68.57	69.71	68.76	68.70	68.36	68.22	68.11	68.12	68.06	
4	68.13	68.06	68.12	68.55	69.42	68.75	68.72	68.35	68.22	68.11	68.11	68.05	
5	68.10	68.05	68.41	68.53	69.21	68.72	68.66	68.34	68.21	68.11	68.17	68.05	
6	68.09	68.05	68.35	68.48	69.07	68.70	68.71	68.33	68.21	68.11	68.12	68.04	
7	68.08	68.07	68.28	68.45	69.00	68.71	68.69	68.32	68.20	68.11	68.09	68.04	
8	68.07	68.07	68.22	68.43	69.02	68.74	69.23	68.31	68.20	68.11	68.09	68.04	
9	68.08	68.20	68.19	68.40	68.99	68.87	68.94	68.31	68.19	68.11	68.09	68.04	
10	68.08	68.60	68.20	68.40	69.03	68.83	68.83	68.30	68.19	68.11	68.08	68.04	
11	68.06	68.39	68.25	68.39	69.00	68.91	68.77	68.29	68.18	68.11	68.08	68.04	
12	68.05	68.29	68.39	68.38	68.96	68.96	68.72	68.29	68.18	68.11	68.08	68.04	
13	68.05	68.21	68.43	68.39	68.92	68.96	68.69	68.28	68.17	68.11	68.07	68.06	
14	68.04	68.25	68.39	68.40	68.89	68.93	68.68	68.28	68.17	68.10	68.07	68.05	
15	68.05	68.34	68.46	68.41	68.83	68.95	68.65	68.27	68.16	68.10	68.07	68.05	
16	68.08	68.30	68.79	68.40	68.81	68.89	68.63	68.26	68.16	68.10	68.07	68.04	
17	68.05	68.21	69.14	68.48	68.98	68.84	68.64	68.25	68.16	68.10	68.10	68.04	
18	68.04	68.18	69.04	68.49	68.91	68.84	68.62	68.24	68.15	68.09	68.10	68.03	
19	68.03	68.17	68.85	68.55	68.92	68.82	68.60	68.24	68.15	68.09	68.26	68.03	
20	68.03	68.22	68.75	68.84	68.90	68.80	68.58	68.23	68.15	68.09	68.16	68.03	
21	68.02	68.18	68.76	69.49	68.91	68.92	68.57	68.28	68.14	68.10	68.11	68.02	
22	68.03	68.17	68.76	69.65	68.83	68.86	68.56	68.28	68.14	68.09	68.10	68.02	
23	68.03	68.16	68.68	69.17	68.80	68.97	68.53	68.27	68.14	68.09	68.09	68.02	
24	68.14	68.17	68.63	68.96	68.77	68.91	68.49	68.27	68.13	68.09	68.08	68.01	
25	68.12	68.19	68.57	68.83	68.73	68.84	68.46	68.26	68.13	68.08	68.08	68.01	
26	68.09	68.18	68.55	68.76	68.70	68.81	68.45	68.26	68.12	68.08	68.08	68.04	
27	68.07	68.16	68.89	68.72	68.78	68.77	68.43	68.25	68.12	68.08	68.08	68.13	
28	68.10	68.20	68.86	68.68	68.79	68.74	68.42	68.25	68.11	68.08	68.08	68.12	
29	68.08	68.17	68.70	68.65	68.77	68.71	68.41	68.24	68.11	68.08	68.07	68.08	
30	68.13	68.16	68.62	68.63	68.77	68.72	68.40	68.24	68.11	68.08		68.05	
31		68.16		69.32	68.75		68.40		68.11	68.09		68.04	
Mean	68.08	68.19	68.52	68.66	69.03	68.82	68.63	68.29	68.16	68.10	68.10	68.05	
Max	68.14	68.60	69.14	69.65	70.79	68.97	69.23	68.39	68.23	68.11	68.26	68.13	70.79
Min	68.02	68.05	68.12	68.38	68.70	68.70	68.40	68.23	68.11	68.08	68.07	68.01	68.01

Annual Max Momentary Gage Height	71.08	m. (MSL.) ,	at 06.00 Hours , on Aug 1 , 2011		
Zero Gage at Bottom Elevation	67.00	m. (MSL.) ,	River Bed	66.94	m. (MSL)
Left Bank Elevation	72.16	m. (MSL.) ,			
Right Bank Elevation	73.63	m. (MSL.) ,	Drainage Area	311	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.84	1.73	2.06	10.56	156.55	15.42	14.70	6.00	3.01	1.51	1.22	1.13		
2	1.73	1.40	1.84	11.73	95.94	17.22	17.58	5.60	3.01	1.51	1.22	1.04		
3	1.73	1.22	1.73	10.56	65.65	16.86	14.70	5.40	2.84	1.51	1.62	1.04		
4	1.73	1.04	1.62	10.00	47.70	16.50	15.42	5.20	2.84	1.51	1.51	0.95		
5	1.40	0.95	6.44	9.44	36.50	15.42	13.38	5.00	2.67	1.51	2.17	0.95		
6	1.31	0.95	5.20	8.12	29.65	14.70	15.06	4.80	2.67	1.51	1.62	0.86		
7	1.22	1.13	3.86	7.40	26.50	15.06	14.37	4.60	2.50	1.51	1.31	0.86		
8	1.13	1.13	2.84	6.92	27.40	16.14	37.50	4.40	2.50	1.51	1.31	0.86		
9	1.22	2.50	2.39	6.20	26.08	21.10	23.98	4.40	2.39	1.51	1.31	0.86		
10	1.22	11.40	2.50	6.20	27.85	19.50	19.50	4.20	2.39	1.51	1.22	0.86		
11	1.04	6.00	3.35	6.00	26.50	22.72	17.22	4.03	2.28	1.51	1.22	0.86		
12	0.95	4.03	6.00	5.80	24.82	24.82	15.42	4.03	2.28	1.51	1.22	0.86		
13	0.95	2.67	6.92	6.00	23.14	24.82	14.37	3.86	2.17	1.51	1.13	1.04		
14	0.86	3.35	6.00	6.20	21.90	23.56	14.04	3.86	2.17	1.40	1.13	0.95		
15	0.95	5.00	7.64	6.44	19.50	24.40	13.05	3.69	2.06	1.40	1.13	0.95		
16	1.22	4.20	17.94	6.20	18.70	21.90	12.39	3.52	2.06	1.40	1.13	0.86		
17	0.95	2.67	33.00	8.12	25.66	19.90	12.72	3.35	2.06	1.40	1.40	0.86		
18	0.86	2.28	28.30	8.36	22.72	19.90	12.06	3.18	1.95	1.31	1.40	0.77		
19	0.77	2.17	20.30	10.00	23.14	19.10	11.40	3.18	1.95	1.31	3.52	0.77		
20	0.77	2.84	16.50	19.90	22.30	18.30	10.84	3.01	1.95	1.31	2.06	0.77		
21	0.68	2.28	16.86	51.90	22.72	23.14	10.56	3.86	1.84	1.40	1.51	0.68		
22	0.77	2.17	16.86	61.75	19.50	20.70	10.28	3.86	1.84	1.31	1.40	0.68		
23	0.77	2.06	14.04	34.50	18.30	25.24	9.44	3.69	1.84	1.31	1.31	0.68		
24	1.84	2.17	12.39	24.82	17.22	22.72	8.36	3.69	1.73	1.31	1.22	0.59		
25	1.62	2.39	10.56	19.50	15.78	19.90	7.64	3.52	1.73	1.22	1.22	0.59		
26	1.31	2.28	10.00	16.86	14.70	18.70	7.40	3.52	1.62	1.22	1.22	0.86		
27	1.13	2.06	21.90	15.42	17.58	17.22	6.92	3.35	1.62	1.22	1.22	1.73		
28	1.40	2.50	20.70	14.04	17.94	16.14	6.68	3.35	1.51	1.22	1.22	1.62		
29	1.22	2.17	14.70	13.05	17.22	15.06	6.44	3.18	1.51	1.22	1.13	1.22		
30	1.73	2.06	12.06	12.39	17.22	15.42	6.20	3.18	1.51	1.22		0.95		
31		2.06		42.10	16.50		6.20		1.51	1.31		0.86		
Total	36.32	82.86	326.50	476.48	962.88	581.58	405.82	120.51	66.01	43.12	41.30	28.56	3171.94	CMSDAY
Mean	1.21	2.67	10.88	15.37	31.06	19.39	13.09	4.02	2.13	1.39	1.42	0.92	8.67	CMS
Max	1.84	11.40	33.00	61.75	156.55	25.24	37.50	6.00	3.01	1.51	3.52	1.73	156.55	CMS
Min	0.68	0.95	1.62	5.80	14.70	14.70	6.20	3.01	1.51	1.22	1.13	0.59	0.59	CMS
Runoff	3.14	7.16	28.21	41.17	83.19	50.25	35.06	10.41	5.70	3.73	3.57	2.47	274.06	MCM

Momentary Peak 1248.82 CMS. at 71.08 m. (MSL.) at 06.00 Hours , on Aug 1 , 2011

Runoff Yield 27.87 Liters/Second/Square KM. Momentary Peak Yield 4015.498 Liters/Second/Square KM.

WATER YEAR : 2011

MAE KLONG RIVER BASIN

Huai Tha Khoei at Ban Kha , Ratchaburi (K.25A)

Lat 13 - 24 - 07 N Long 99 - 25 - 14 E

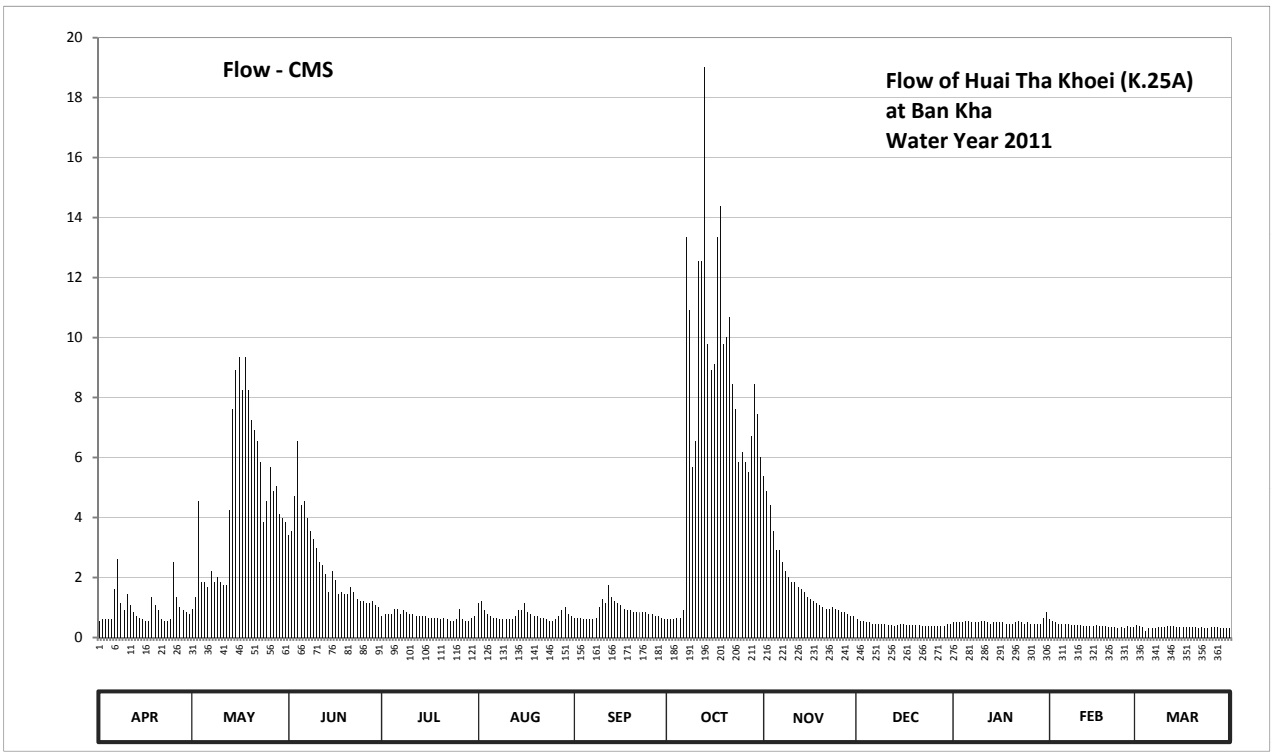
Location : on right bank about 8 kilometers upstream from station K.25

	Ban Kha		**Amphoe** Ban Kha	**Changwat** Ratchaburi	
Drainge Area	367 sq.km.				
Type of Gage	Water - stage recorder				
Zero Gage at Bottom	+152.071 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On right bank about 1 meter from the top staff gage.			**Elevation**	+160.094 m. (MSL.)
Gage Reading Frequency	Recording				
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings				
Period of Available Gage Records	1994 to date				
Rating Operation					
Period of Rating	1994 to date				
Rated by Flot	-				
Rated by Current Meter	1994 to date				
Stability of Channel Regimes	Stable.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records good. Stage-discharge relation defined by 41 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	152.29	152.36	152.63	152.32	152.39	152.31	152.30	152.76	152.30	152.27	152.30	152.25	
2	152.30	152.42	152.64	152.33	152.40	152.31	152.30	152.73	152.28	152.27	152.28	152.24	
3	152.30	152.71	152.72	152.33	152.35	152.31	152.30	152.70	152.28	152.27	152.27	152.23	
4	152.30	152.48	152.83	152.33	152.33	152.30	152.31	152.64	152.27	152.27	152.26	152.17	
5	152.30	152.48	152.70	152.36	152.32	152.30	152.31	152.59	152.27	152.28	152.26	152.22	
6	152.45	152.46	152.71	152.36	152.31	152.30	152.35	152.59	152.26	152.28	152.26	152.22	
7	152.56	152.52	152.67	152.33	152.31	152.30	153.14	152.55	152.26	152.27	152.26	152.22	
8	152.39	152.48	152.64	152.35	152.30	152.31	153.04	152.52	152.26	152.27	152.25	152.23	
9	152.35	152.50	152.62	152.34	152.30	152.37	152.78	152.50	152.26	152.27	152.25	152.23	
10	152.43	152.48	152.60	152.33	152.30	152.41	152.83	152.48	152.26	152.29	152.25	152.23	
11	152.38	152.47	152.55	152.33	152.30	152.39	153.11	152.48	152.25	152.28	152.25	152.24	
12	152.34	152.47	152.54	152.32	152.30	152.47	153.11	152.46	152.25	152.27	152.24	152.24	
13	152.32	152.69	152.51	152.32	152.32	152.42	153.34	152.45	152.24	152.26	152.24	152.24	
14	152.31	152.89	152.44	152.32	152.35	152.40	152.99	152.44	152.25	152.27	152.24	152.23	
15	152.30	152.95	152.52	152.32	152.35	152.39	152.95	152.42	152.26	152.27	152.24	152.23	
16	152.29	152.97	152.49	152.31	152.39	152.38	152.96	152.41	152.26	152.27	152.25	152.23	
17	152.28	152.92	152.43	152.31	152.34	152.36	153.14	152.40	152.25	152.27	152.24	152.23	
18	152.42	152.97	152.44	152.31	152.33	152.35	153.18	152.39	152.25	152.26	152.24	152.23	
19	152.38	152.92	152.43	152.31	152.32	152.35	152.99	152.38	152.25	152.26	152.24	152.23	
20	152.35	152.87	152.43	152.30	152.32	152.34	153.00	152.37	152.25	152.26	152.23	152.23	
21	152.30	152.85	152.46	152.31	152.31	152.34	153.03	152.36	152.25	152.27	152.23	152.22	
22	152.29	152.83	152.44	152.30	152.31	152.34	152.93	152.36	152.24	152.28	152.23	152.23	
23	152.28	152.79	152.41	152.29	152.30	152.34	152.89	152.37	152.24	152.27	152.22	152.22	
24	152.30	152.66	152.40	152.28	152.29	152.34	152.79	152.36	152.24	152.26	152.23	152.22	
25	152.55	152.71	152.40	152.30	152.29	152.33	152.81	152.35	152.24	152.27	152.22	152.23	
26	152.42	152.78	152.39	152.36	152.30	152.33	152.79	152.34	152.24	152.26	152.24	152.23	
27	152.37	152.73	152.39	152.30	152.32	152.32	152.77	152.34	152.24	152.26	152.23	152.23	
28	152.35	152.74	152.40	152.29	152.35	152.32	152.84	152.33	152.24	152.26	152.23	152.22	
29	152.34	152.68	152.38	152.28	152.37	152.31	152.93	152.32	152.24	152.26	152.19	152.22	
30	152.33	152.67	152.37	152.31	152.33	152.30	152.88	152.32	152.26	152.31		152.22	
31		152.66		152.32	152.32		152.80		152.26	152.34		152.22	
Mean	152.35	152.68	152.52	152.32	152.33	152.34	152.84	152.46	152.25	152.27	152.24	152.23	
Max	152.56	152.97	152.83	152.36	152.40	152.47	153.34	152.76	152.30	152.34	152.30	152.25	153.34
Min	152.28	152.36	152.37	152.28	152.29	152.30	152.30	152.32	152.24	152.26	152.19	152.17	152.17

Annual Max Momentary Gage Height	153.99	m. (MSL.) ,	at 17.00 Hours , on Oct 11 , 2011		
Zero Gage at Bottom Elevation	152.07	m. (MSL.) ,	River Bed	151.90	m. (MSL.)
Left Bank Elevation	159.07	m. (MSL.) ,			
Right Bank Elevation	159.00	m. (MSL.) ,	Drainage Area	367	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.56	0.96	3.42	0.72	1.14	0.66	0.60	5.36	0.60	0.50	0.60	0.43		
2	0.60	1.36	3.56	0.78	1.20	0.66	0.60	4.88	0.53	0.50	0.53	0.39		
3	0.60	4.56	4.72	0.78	0.90	0.66	0.60	4.40	0.53	0.50	0.50	0.35		
4	0.60	1.84	6.54	0.78	0.78	0.60	0.66	3.56	0.50	0.50	0.46	0.21		
5	0.60	1.84	4.40	0.96	0.72	0.60	0.66	2.90	0.50	0.53	0.46	0.32		
6	1.60	1.68	4.56	0.96	0.66	0.60	0.90	2.90	0.46	0.53	0.46	0.32		
7	2.60	2.20	3.98	0.78	0.66	0.60	13.34	2.50	0.46	0.50	0.46	0.32		
8	1.14	1.84	3.56	0.90	0.60	0.66	10.92	2.20	0.46	0.50	0.43	0.35		
9	0.90	2.00	3.28	0.84	0.60	1.02	5.68	2.00	0.46	0.50	0.43	0.35		
10	1.44	1.84	3.00	0.78	0.60	1.28	6.54	1.84	0.46	0.56	0.43	0.35		
11	1.08	1.76	2.50	0.78	0.60	1.14	12.56	1.84	0.43	0.53	0.43	0.39		
12	0.84	1.76	2.40	0.72	0.60	1.76	12.56	1.68	0.43	0.50	0.39	0.39		
13	0.72	4.26	2.10	0.72	0.72	1.36	19.02	1.60	0.39	0.46	0.39	0.39		
14	0.66	7.62	1.52	0.72	0.90	1.20	9.78	1.52	0.43	0.50	0.39	0.35		
15	0.60	8.90	2.20	0.72	0.90	1.14	8.90	1.36	0.46	0.50	0.39	0.35		
16	0.56	9.34	1.92	0.66	1.14	1.08	9.12	1.28	0.46	0.50	0.43	0.35		
17	0.53	8.24	1.44	0.66	0.84	0.96	13.34	1.20	0.43	0.50	0.39	0.35		
18	1.36	9.34	1.52	0.66	0.78	0.90	14.38	1.14	0.43	0.46	0.39	0.35		
19	1.08	8.24	1.44	0.66	0.72	0.90	9.78	1.08	0.43	0.46	0.39	0.35		
20	0.90	7.26	1.44	0.60	0.72	0.84	10.00	1.02	0.43	0.46	0.35	0.35		
21	0.60	6.90	1.68	0.66	0.66	0.84	10.69	0.96	0.43	0.50	0.35	0.32		
22	0.56	6.54	1.52	0.60	0.66	0.84	8.46	0.96	0.39	0.53	0.35	0.35		
23	0.53	5.84	1.28	0.56	0.60	0.84	7.62	1.02	0.39	0.50	0.32	0.32		
24	0.60	3.84	1.20	0.53	0.56	0.84	5.84	0.96	0.39	0.46	0.35	0.32		
25	2.50	4.56	1.20	0.60	0.56	0.78	6.18	0.90	0.39	0.50	0.32	0.35		
26	1.36	5.68	1.14	0.96	0.60	0.78	5.84	0.84	0.39	0.46	0.39	0.35		
27	1.02	4.88	1.14	0.60	0.72	0.72	5.52	0.84	0.39	0.46	0.35	0.35		
28	0.90	5.04	1.20	0.56	0.90	0.72	6.72	0.78	0.39	0.46	0.35	0.32		
29	0.84	4.12	1.08	0.53	1.02	0.66	8.46	0.72	0.39	0.46	0.24	0.32		
30	0.78	3.98	1.02	0.66	0.78	0.60	7.44	0.72	0.46	0.66		0.32		
31		3.84		0.72	0.72		6.00		0.46	0.84		0.32		
Total	28.66	142.06	71.96	22.16	23.56	26.24	238.71	54.96	13.75	15.82	11.72	10.65	660.25	CMSDAY
Mean	0.96	4.58	2.40	0.71	0.76	0.87	7.70	1.83	0.44	0.51	0.40	0.34	1.80	CMS
Max	2.60	9.34	6.54	0.96	1.20	1.76	19.02	5.36	0.60	0.84	0.60	0.43	19.02	CMS
Min	0.53	0.96	1.02	0.53	0.56	0.60	0.60	0.72	0.39	0.46	0.24	0.21	0.21	CMS
Runoff	2.48	12.27	6.22	1.92	2.04	2.27	20.63	4.75	1.19	1.37	1.01	0.92	57.05	MCM

Momentary Peak 45.00 CMS. at 153.99 m. (MSL.) at 17.00 Hours , on Oct 11 , 2011

Runoff Yield 4.91 Liters/Second/Square KM. Momentary Peak Yield 122.479 Liters/Second/Square KM.

WATER YEAR : 2011

MAE KLONG RIVER BASIN

Huai Mae Nam Lo at Ban Sai Yok , Kanchanaburi (K.30)

Lat 14 - 26 - 27 N Long 98 - 47 - 48 E

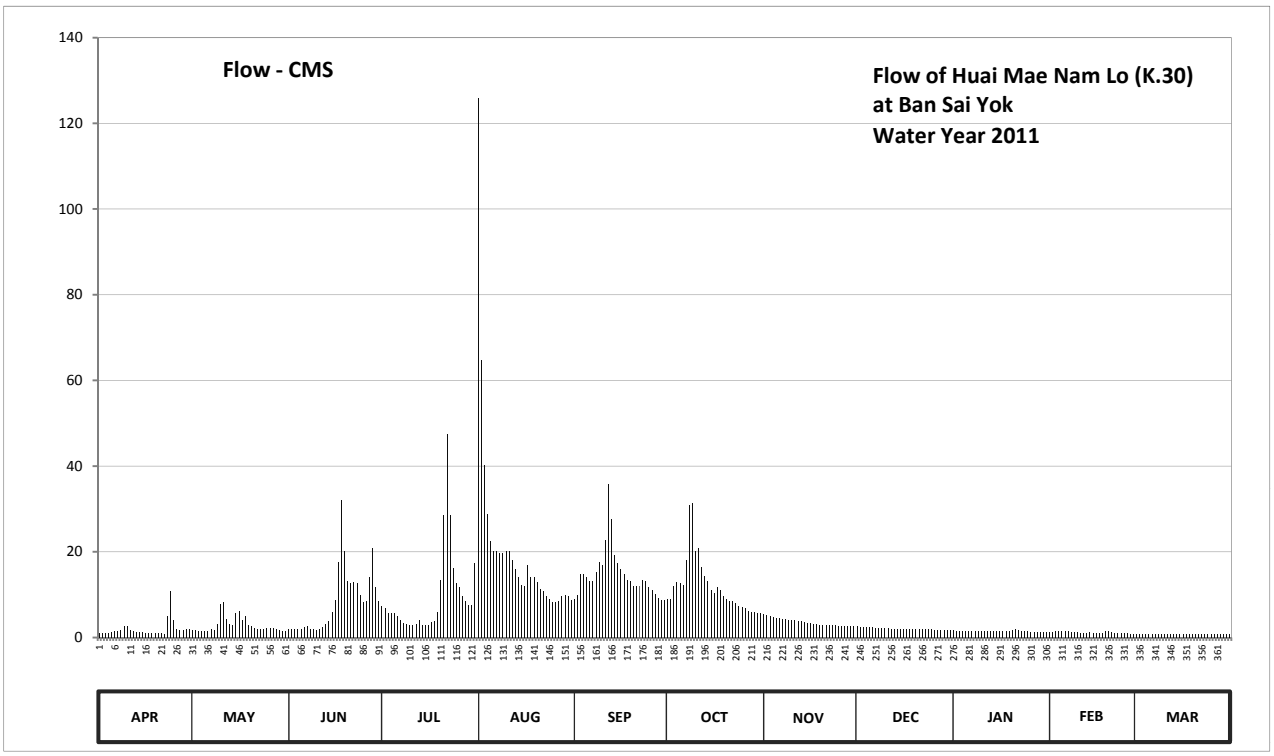
Location : on left bank about 1 kilometer downstream from station K.22A

	Ban Sai Yok	**Amphoe** Sai Yok	**Changwat** Kanchanaburi
Drainge Area	466 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+68.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank about 30 meters from the top staff gage.	**Elevation**	+77.305 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	1983 to date		
Rating Operation			
Period of Rating	1994 to date		
Rated by Flot	-		
Rated by Current Meter	1994 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 50 discharge measurements made in 2011		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	67.99	68.08	68.09	68.42	70.80	68.50	68.50	68.32	68.16	68.07	68.02	67.98	
2	67.99	68.07	68.09	68.39	69.86	68.53	68.50	68.31	68.15	68.06	68.02	67.98	
3	67.99	68.06	68.10	68.34	69.37	68.69	68.60	68.30	68.15	68.06	68.04	67.98	
4	68.01	68.05	68.10	68.33	69.11	68.69	68.63	68.29	68.15	68.06	68.04	67.97	
5	68.03	68.05	68.11	68.33	68.94	68.67	68.62	68.28	68.14	68.06	68.05	67.97	
6	68.04	68.06	68.14	68.30	68.87	68.64	68.61	68.28	68.14	68.06	68.05	67.97	
7	68.05	68.10	68.16	68.25	68.87	68.64	68.80	68.27	68.13	68.06	68.04	67.97	
8	68.07	68.07	68.10	68.22	68.86	68.71	69.16	68.26	68.12	68.05	68.03	67.96	
9	68.17	68.21	68.09	68.21	68.86	68.79	69.17	68.25	68.13	68.05	68.02	67.96	
10	68.16	68.44	68.07	68.20	68.87	68.76	68.87	68.25	68.12	68.05	68.02	67.96	
11	68.08	68.46	68.10	68.18	68.87	68.95	68.90	68.25	68.12	68.05	68.01	67.96	
12	68.04	68.26	68.15	68.21	68.80	69.27	68.75	68.24	68.11	68.05	68.01	67.96	
13	68.03	68.21	68.21	68.25	68.73	69.08	68.68	68.24	68.11	68.04	68.01	67.96	
14	68.02	68.20	68.24	68.20	68.67	68.84	68.64	68.23	68.11	68.04	68.02	67.96	
15	68.02	68.33	68.35	68.20	68.61	68.78	68.57	68.22	68.11	68.04	68.01	67.97	
16	68.01	68.36	68.49	68.20	68.60	68.73	68.55	68.22	68.11	68.04	68.01	67.97	
17	68.01	68.25	68.79	68.23	68.76	68.69	68.59	68.21	68.11	68.04	68.01	67.96	
18	68.01	68.30	69.19	68.24	68.67	68.65	68.57	68.21	68.11	68.04	68.01	67.96	
19	68.01	68.19	68.87	68.35	68.67	68.64	68.52	68.20	68.11	68.04	68.05	67.96	
20	68.01	68.16	68.64	68.65	68.63	68.60	68.50	68.20	68.10	68.08	68.04	67.96	
21	67.99	68.12	68.62	69.10	68.58	68.60	68.48	68.19	68.10	68.09	68.03	67.95	
22	67.98	68.10	68.63	69.53	68.56	68.60	68.47	68.19	68.10	68.08	68.01	67.95	
23	68.30	68.10	68.62	69.10	68.52	68.65	68.45	68.18	68.10	68.05	68.01	67.95	
24	68.56	68.11	68.53	68.74	68.50	68.64	68.42	68.18	68.09	68.05	68.00	67.95	
25	68.25	68.13	68.46	68.62	68.46	68.59	68.41	68.17	68.09	68.04	68.00	67.95	
26	68.11	68.12	68.48	68.59	68.46	68.57	68.39	68.17	68.08	68.03	67.99	67.95	
27	68.08	68.12	68.67	68.52	68.47	68.54	68.36	68.17	68.08	68.03	67.98	67.97	
28	68.08	68.11	68.90	68.47	68.52	68.51	68.35	68.17	68.08	68.02	67.98	67.98	
29	68.10	68.08	68.59	68.43	68.53	68.49	68.35	68.17	68.07	68.02	67.98	67.97	
30	68.09	68.06	68.47	68.43	68.52	68.49	68.34	68.17	68.07	68.02		67.97	
31		68.05		68.78	68.49		68.33		68.07	68.02		67.97	
Mean	68.08	68.16	68.40	68.45	68.81	68.68	68.58	68.23	68.11	68.05	68.02	67.96	
Max	68.56	68.46	69.19	69.53	70.80	69.27	69.17	68.32	68.16	68.09	68.05	67.98	70.80
Min	67.98	68.05	68.07	68.18	68.46	68.49	68.33	68.17	68.07	68.02	67.98	67.95	67.95

Annual Max Momentary Gage Height	71.39	m. (MSL.) ,	at 06.00 Hours , on Aug 1 , 2011		
Zero Gage at Bottom Elevation	68.00	m. (MSL.) ,	River Bed	67.10	m. (MSL)
Left Bank Elevation	76.26	m. (MSL.) ,			
Right Bank Elevation	77.40	m. (MSL.) ,	Drainage Area	466	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.95	1.80	1.90	7.40	126.00	9.00	9.00	5.40	2.60	1.70	1.20	0.90		
2	0.95	1.70	1.90	6.80	64.60	9.90	9.00	5.20	2.50	1.60	1.20	0.90		
3	0.95	1.60	2.00	5.80	40.15	14.70	12.00	5.00	2.50	1.60	1.40	0.90		
4	1.10	1.50	2.00	5.60	28.90	14.70	12.90	4.80	2.50	1.60	1.40	0.85		
5	1.30	1.50	2.10	5.60	22.40	14.10	12.60	4.60	2.40	1.60	1.50	0.85		
6	1.40	1.60	2.40	5.00	20.10	13.20	12.30	4.60	2.40	1.60	1.50	0.85		
7	1.50	2.00	2.60	4.00	20.10	13.20	18.00	4.40	2.30	1.60	1.40	0.85		
8	1.70	1.70	2.00	3.40	19.80	15.30	30.90	4.20	2.20	1.50	1.30	0.80		
9	2.70	3.20	1.90	3.20	19.80	17.70	31.30	4.00	2.30	1.50	1.20	0.80		
10	2.60	7.80	1.70	3.00	20.10	16.80	20.10	4.00	2.20	1.50	1.20	0.80		
11	1.80	8.20	2.00	2.80	20.10	22.75	21.00	4.00	2.20	1.50	1.10	0.80		
12	1.40	4.20	2.50	3.20	18.00	35.65	16.50	3.80	2.10	1.50	1.10	0.80		
13	1.30	3.20	3.20	4.00	15.90	27.70	14.40	3.80	2.10	1.40	1.10	0.80		
14	1.20	3.00	3.80	3.00	14.10	19.20	13.20	3.60	2.10	1.40	1.20	0.80		
15	1.20	5.60	6.00	3.00	12.30	17.40	11.10	3.40	2.10	1.40	1.10	0.85		
16	1.10	6.20	8.80	3.00	12.00	15.90	10.50	3.40	2.10	1.40	1.10	0.85		
17	1.10	4.00	17.70	3.60	16.80	14.70	11.70	3.20	2.10	1.40	1.10	0.80		
18	1.10	5.00	32.10	3.80	14.10	13.50	11.10	3.20	2.10	1.40	1.10	0.80		
19	1.10	2.90	20.10	6.00	14.10	13.20	9.60	3.00	2.10	1.40	1.50	0.80		
20	1.10	2.60	13.20	13.50	12.90	12.00	9.00	3.00	2.00	1.80	1.40	0.80		
21	0.95	2.20	12.60	28.50	11.40	12.00	8.60	2.90	2.00	1.90	1.30	0.75		
22	0.90	2.00	12.90	47.50	10.80	12.00	8.40	2.90	2.00	1.80	1.10	0.75		
23	5.00	2.00	12.60	28.50	9.60	13.50	8.00	2.80	2.00	1.50	1.10	0.75		
24	10.80	2.10	9.90	16.20	9.00	13.20	7.40	2.80	1.90	1.50	1.00	0.75		
25	4.00	2.30	8.20	12.60	8.20	11.70	7.20	2.70	1.90	1.40	1.00	0.75		
26	2.10	2.20	8.60	11.70	8.20	11.10	6.80	2.70	1.80	1.30	0.95	0.75		
27	1.80	2.20	14.10	9.60	8.40	10.20	6.20	2.70	1.80	1.30	0.90	0.85		
28	1.80	2.10	21.00	8.40	9.60	9.30	6.00	2.70	1.80	1.20	0.90	0.90		
29	2.00	1.80	11.70	7.60	9.90	8.80	6.00	2.70	1.70	1.20	0.90	0.85		
30	1.90	1.60	8.40	7.60	9.60	8.80	5.80	2.70	1.70	1.20		0.85		
31		1.50		17.40	8.80		5.60		1.70	1.20		0.85		
Total	58.80	91.30	249.90	291.30	635.75	441.20	372.20	108.20	65.20	45.90	34.25	25.40	2419.40	CMSDAY
Mean	1.96	2.95	8.33	9.40	20.51	14.71	12.01	3.61	2.10	1.48	1.18	0.82	6.61	CMS
Max	10.80	8.20	32.10	47.50	126.00	35.65	31.30	5.40	2.60	1.90	1.50	0.90	126.00	CMS
Min	0.90	1.50	1.70	2.80	8.20	8.80	5.60	2.70	1.70	1.20	0.90	0.75	0.75	CMS
Runoff	5.08	7.89	21.59	25.17	54.93	38.12	32.16	9.35	5.63	3.97	2.96	2.20	209.04	MCM

Momentary Peak 170.20 CMS. at 71.39 m. (MSL.) at 06.00 Hours , on Aug 1 , 2011

Runoff Yield 14.18 Liters/Second/Square KM. Momentary Peak Yield 365.213 Liters/Second/Square KM.

WATER YEAR : 2011

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

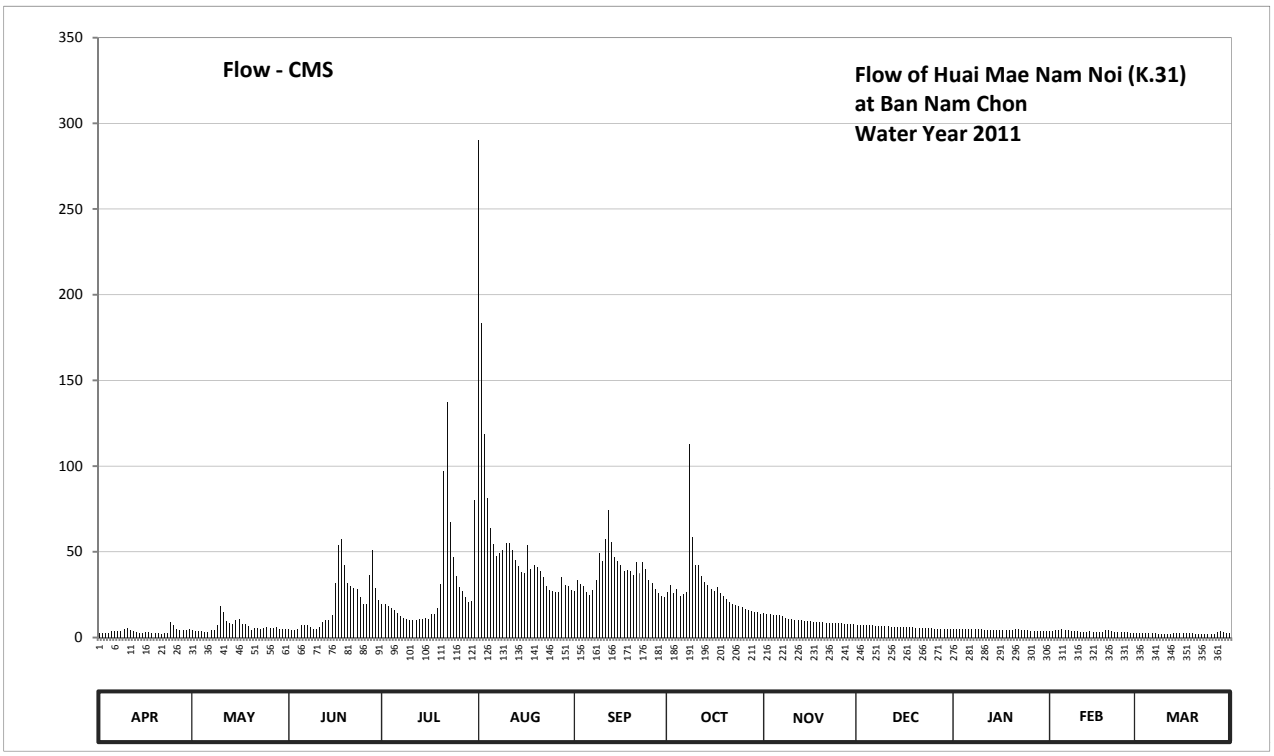
Location : on right bank about 2 kilometers downstream from station K.22A

	Ban Nam Chon	**Amphoe** Sai Yok	**Changwat** Kanchanaburi
Drainge Area	799 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+54.200 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank about 5 meters from the top staff gage.	**Elevation**	+70.630 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	1983 to date		
Rating Operation			
Period of Rating	1989 to date		
Rated by Flot	-		
Rated by Current Meter	1989 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 55 discharge measurements made in 2011		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	57.17	57.28	57.30	57.80	60.74	57.97	57.96	57.65	57.42	57.31	57.24	57.18	
2	57.17	57.25	57.28	57.80	59.92	58.11	58.04	57.64	57.42	57.30	57.24	57.18	
3	57.16	57.24	57.28	57.77	59.32	58.06	57.95	57.63	57.42	57.30	57.27	57.18	
4	57.18	57.23	57.31	57.73	58.89	58.03	57.99	57.62	57.41	57.30	57.27	57.17	
5	57.23	57.21	57.41	57.70	58.64	57.96	57.91	57.61	57.40	57.31	57.30	57.17	
6	57.23	57.22	57.42	57.65	58.49	57.92	57.93	57.61	57.40	57.30	57.27	57.16	
7	57.24	57.27	57.42	57.60	58.38	57.98	57.96	57.60	57.39	57.30	57.27	57.16	
8	57.23	57.27	57.35	57.56	58.40	58.11	59.26	57.57	57.39	57.30	57.24	57.15	
9	57.30	57.42	57.32	57.54	58.43	58.41	58.56	57.55	57.39	57.29	57.23	57.15	
10	57.33	57.77	57.31	57.53	58.50	58.33	58.29	57.54	57.39	57.29	57.23	57.15	
11	57.26	57.66	57.35	57.53	58.50	58.54	58.28	57.53	57.38	57.28	57.22	57.15	
12	57.23	57.51	57.47	57.53	58.43	58.79	58.16	57.52	57.37	57.28	57.22	57.15	
13	57.22	57.46	57.53	57.55	58.34	58.51	58.08	57.52	57.36	57.27	57.22	57.18	
14	57.19	57.44	57.52	57.55	58.27	58.37	58.04	57.51	57.36	57.27	57.23	57.17	
15	57.19	57.52	57.61	57.56	58.20	58.33	57.99	57.51	57.36	57.27	57.22	57.18	
16	57.20	57.54	58.07	57.55	58.19	58.28	57.97	57.50	57.36	57.27	57.21	57.19	
17	57.22	57.44	58.48	57.63	58.48	58.21	58.02	57.49	57.35	57.27	57.21	57.19	
18	57.19	57.44	58.54	57.64	58.24	58.23	57.94	57.48	57.35	57.27	57.20	57.17	
19	57.17	57.38	58.29	57.73	58.28	58.21	57.90	57.48	57.35	57.26	57.27	57.16	
20	57.16	57.26	58.07	58.06	58.26	58.17	57.87	57.47	57.34	57.27	57.27	57.15	
21	57.15	57.34	58.03	59.08	58.22	58.32	57.83	57.46	57.34	57.29	57.24	57.15	
22	57.16	57.33	58.01	59.51	58.15	58.19	57.80	57.46	57.34	57.29	57.21	57.15	
23	57.18	57.32	58.00	58.69	58.03	58.32	57.78	57.45	57.34	57.27	57.21	57.14	
24	57.47	57.33	57.89	58.37	57.98	58.24	57.77	57.45	57.33	57.27	57.20	57.14	
25	57.42	57.36	57.80	58.16	57.97	58.11	57.75	57.45	57.33	57.26	57.20	57.14	
26	57.30	57.34	57.80	58.02	57.96	58.07	57.72	57.45	57.32	57.25	57.20	57.14	
27	57.28	57.34	58.17	57.97	57.96	57.99	57.70	57.44	57.32	57.25	57.19	57.21	
28	57.27	57.35	58.43	57.89	58.15	57.94	57.69	57.44	57.31	57.24	57.19	57.24	
29	57.28	57.32	58.01	57.83	58.05	57.90	57.67	57.43	57.31	57.24	57.18	57.21	
30	57.30	57.30	57.85	57.84	58.03	57.89	57.66	57.43	57.31	57.24		57.18	
31		57.32		58.87	57.98		57.64		57.31	57.25		57.16	
Mean	57.24	57.37	57.74	57.91	58.43	58.18	57.97	57.52	57.36	57.28	57.23	57.17	
Max	57.47	57.77	58.54	59.51	60.74	58.79	59.26	57.65	57.42	57.31	57.30	57.24	60.74
Min	57.15	57.21	57.28	57.53	57.96	57.89	57.64	57.43	57.31	57.24	57.18	57.14	57.14

Annual Max Momentary Gage Height	61.40	m. (MSL.) ,	at 06.00 Hours , on Aug 1 , 2011		
Zero Gage at Bottom Elevation	54.20	m. (MSL.) ,	River Bed	56.42	m. (MSL)
Left Bank Elevation	69.10	m. (MSL.) ,			
Right Bank Elevation	66.56	m. (MSL.) ,	Drainage Area	799	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.55	4.44	4.80	19.50	290.10	27.15	26.70	14.25	7.50	5.02	3.72	2.70		
2	2.55	3.90	4.44	19.50	183.40	33.50	30.30	13.90	7.50	4.80	3.72	2.70		
3	2.40	3.72	4.44	18.45	118.50	31.20	26.25	13.55	7.50	4.80	4.26	2.70		
4	2.70	3.54	5.02	17.05	81.30	29.85	28.05	13.20	7.25	4.80	4.26	2.55		
5	3.54	3.18	7.25	16.00	64.10	26.70	24.45	12.85	7.00	5.02	4.80	2.55		
6	3.54	3.36	7.50	14.25	54.40	24.90	25.35	12.85	7.00	4.80	4.26	2.40		
7	3.72	4.26	7.50	12.50	47.80	27.60	26.70	12.50	6.78	4.80	4.26	2.40		
8	3.54	4.26	5.90	11.30	49.00	33.50	112.70	11.60	6.78	4.80	3.72	2.25		
9	4.80	7.50	5.24	10.70	50.80	49.60	58.90	11.00	6.78	4.62	3.54	2.25		
10	5.46	18.45	5.02	10.40	55.00	44.80	42.50	10.70	6.78	4.62	3.54	2.25		
11	4.08	14.60	5.90	10.40	55.00	57.60	42.00	10.40	6.56	4.44	3.36	2.25		
12	3.54	9.80	8.75	10.40	50.80	74.30	36.00	10.10	6.34	4.44	3.36	2.25		
13	3.36	8.50	10.40	11.00	45.40	55.65	32.10	10.10	6.12	4.26	3.36	2.70		
14	2.85	8.00	10.10	11.00	41.50	47.20	30.30	9.80	6.12	4.26	3.54	2.55		
15	2.85	10.10	12.85	11.30	38.00	44.80	28.05	9.80	6.12	4.26	3.36	2.70		
16	3.00	10.70	31.65	11.00	37.50	42.00	27.15	9.50	6.12	4.26	3.18	2.85		
17	3.36	8.00	53.80	13.55	53.80	38.50	29.40	9.25	5.90	4.26	3.18	2.85		
18	2.85	8.00	57.60	13.90	40.00	39.50	25.80	9.00	5.90	4.26	3.00	2.55		
19	2.55	6.56	42.50	17.05	42.00	38.50	24.00	9.00	5.90	4.08	4.26	2.40		
20	2.40	4.08	31.65	31.20	41.00	36.50	22.65	8.75	5.68	4.26	4.26	2.25		
21	2.25	5.68	29.85	96.80	39.00	44.20	20.85	8.50	5.68	4.62	3.72	2.25		
22	2.40	5.46	28.95	137.55	35.50	37.50	19.50	8.50	5.68	4.62	3.18	2.25		
23	2.70	5.24	28.50	67.35	29.85	44.20	18.80	8.25	5.68	4.26	3.18	2.10		
24	8.75	5.46	23.55	47.20	27.60	40.00	18.45	8.25	5.46	4.26	3.00	2.10		
25	7.50	6.12	19.50	36.00	27.15	33.50	17.75	8.25	5.46	4.08	3.00	2.10		
26	4.80	5.68	19.50	29.40	26.70	31.65	16.70	8.25	5.24	3.90	3.00	2.10		
27	4.44	5.68	36.50	27.15	26.70	28.05	16.00	8.00	5.24	3.90	2.85	3.18		
28	4.26	5.90	50.80	23.55	35.50	25.80	15.65	8.00	5.02	3.72	2.85	3.72		
29	4.44	5.24	28.95	20.85	30.75	24.00	14.95	7.75	5.02	3.72	2.70	3.18		
30	4.80	4.80	21.75	21.30	29.85	23.55	14.60	7.75	5.02	3.72		2.70		
31		5.24		79.90	27.60		13.90		5.02	3.90		2.40		
Total	111.98	205.45	610.16	877.50	1775.60	1135.80	886.50	303.60	190.15	135.56	102.42	78.18	6412.90	CMSDAY
Mean	3.73	6.63	20.34	28.31	57.28	37.86	28.60	10.12	6.13	4.37	3.53	2.52	17.52	CMS
Max	8.75	18.45	57.60	137.55	290.10	74.30	112.70	14.25	7.50	5.02	4.80	3.72	290.10	CMS
Min	2.25	3.18	4.44	10.40	26.70	23.55	13.90	7.75	5.02	3.72	2.70	2.10	2.10	CMS
Runoff	9.68	17.75	52.72	75.82	153.41	98.13	76.59	26.23	16.43	11.71	8.85	6.76	554.08	MCM

Momentary Peak 385.50 CMS. at 61.40 m. (MSL.) at 06.00 Hours , on Aug 1 , 2011

Runoff Yield 21.93 Liters/Second/Square KM. Momentary Peak Yield 482.478 Liters/Second/Square KM.

WATER YEAR : 2011

MAE KLONG RIVER BASIN

Huai Bong Ti at Ban Bong Ti , Kanchanaburi (K.32A)

Lat 14 - 16 - 27 N Long 98 - 56 - 04 E

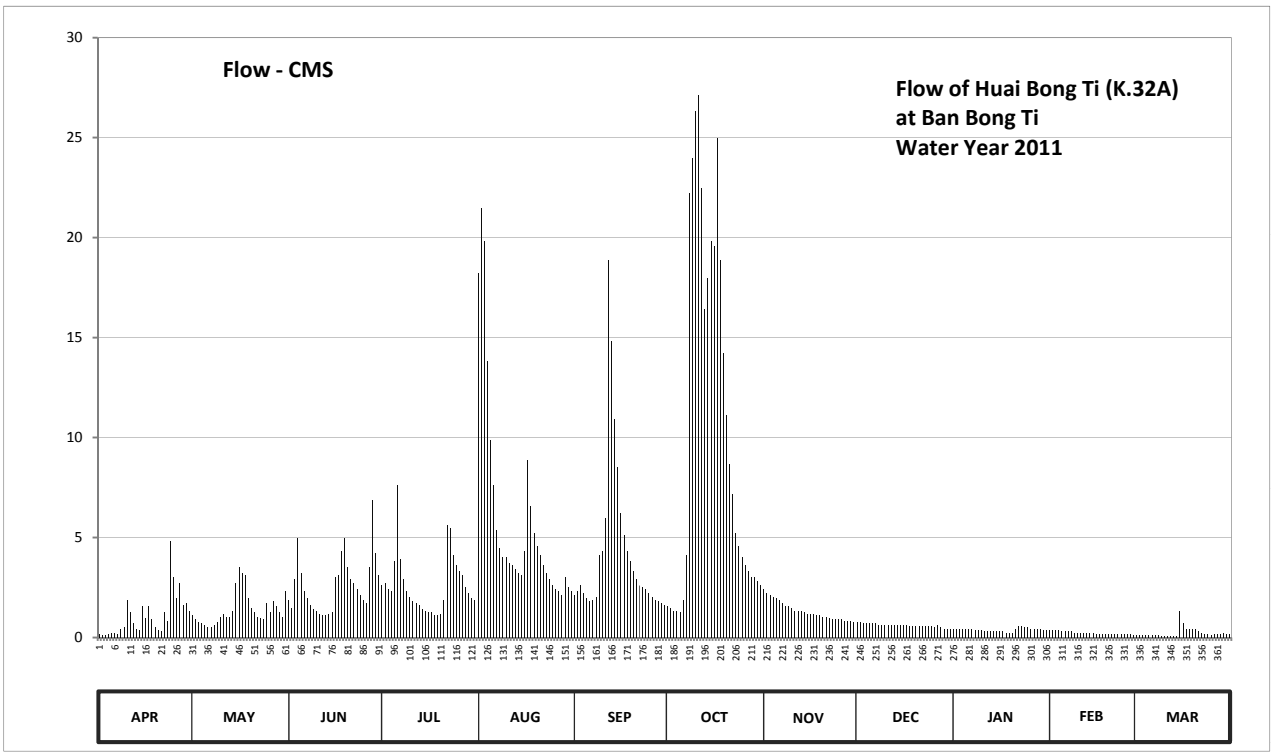
Location : on right bank at Ban Bong Ti.

	Ban Bong Ti	**Amphoe** Sai Yok	**Changwat** Kanchanaburi
Drainge Area	518 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+84.191 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank about 6.50 meters from the top staff gage.	**Elevation**	+90.239 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	1984 to date		
Rating Operation			
Period of Rating	1984 to date		
Rated by Flot	-		
Rated by Current Meter	1984 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 86 discharge measurements made in 2011		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	84.48	84.66	84.76	84.84	85.80	84.79	84.72	84.82	84.61	84.55	84.53	84.46	
2	84.47	84.63	84.71	84.85	85.94	84.81	84.71	84.80	84.61	84.55	84.53	84.46	
3	84.47	84.61	84.87	84.82	85.87	84.84	84.69	84.79	84.60	84.55	84.53	84.46	
4	84.49	84.60	85.06	84.81	85.59	84.80	84.69	84.78	84.60	84.54	84.53	84.46	
5	84.50	84.58	84.90	84.96	85.38	84.77	84.68	84.77	84.60	84.54	84.52	84.45	
6	84.51	84.56	84.81	85.24	85.24	84.75	84.76	84.76	84.60	84.54	84.52	84.45	
7	84.49	84.56	84.77	84.97	85.09	84.76	84.99	84.74	84.60	84.54	84.52	84.45	
8	84.54	84.58	84.73	84.87	85.02	84.78	85.97	84.72	84.59	84.53	84.52	84.45	
9	84.56	84.61	84.70	84.81	84.98	84.99	86.04	84.72	84.59	84.53	84.51	84.44	
10	84.76	84.65	84.69	84.78	84.98	85.01	86.13	84.71	84.59	84.53	84.51	84.44	
11	84.68	84.67	84.67	84.75	84.95	85.13	86.16	84.69	84.59	84.52	84.51	84.44	
12	84.60	84.65	84.66	84.74	84.94	85.83	85.98	84.69	84.59	84.52	84.50	84.44	
13	84.55	84.65	84.66	84.73	84.92	85.64	85.72	84.69	84.59	84.52	84.50	84.43	
14	84.53	84.69	84.67	84.70	84.90	85.44	85.79	84.68	84.58	84.52	84.50	84.43	
15	84.72	84.85	84.68	84.69	84.89	85.30	85.87	84.67	84.58	84.52	84.50	84.69	
16	84.64	84.93	84.88	84.68	85.01	85.15	85.86	84.67	84.58	84.52	84.49	84.60	
17	84.72	84.90	84.89	84.68	85.32	85.07	86.08	84.67	84.58	84.52	84.49	84.55	
18	84.63	84.89	85.01	84.66	85.17	85.01	85.83	84.66	84.57	84.51	84.48	84.55	
19	84.56	84.77	85.06	84.66	85.08	84.96	85.61	84.66	84.57	84.51	84.48	84.55	
20	84.53	84.71	84.93	84.67	85.03	84.91	85.45	84.65	84.57	84.51	84.49	84.54	
21	84.52	84.68	84.87	84.76	84.99	84.87	85.31	84.65	84.57	84.55	84.49	84.52	
22	84.68	84.65	84.85	85.11	84.94	84.84	85.21	84.64	84.57	84.57	84.49	84.50	
23	84.62	84.64	84.82	85.10	84.90	84.83	85.08	84.63	84.57	84.57	84.49	84.49	
24	85.05	84.63	84.79	84.99	84.87	84.82	85.03	84.63	84.57	84.56	84.49	84.48	
25	84.88	84.74	84.76	84.94	84.84	84.80	84.98	84.63	84.57	84.56	84.48	84.47	
26	84.77	84.68	84.74	84.91	84.82	84.78	84.94	84.63	84.56	84.55	84.48	84.48	
27	84.85	84.75	84.93	84.89	84.81	84.76	84.91	84.62	84.58	84.54	84.48	84.49	
28	84.73	84.72	85.19	84.83	84.79	84.75	84.88	84.62	84.56	84.54	84.47	84.48	
29	84.74	84.68	85.00	84.80	84.88	84.74	84.88	84.62	84.55	84.54	84.47	84.51	
30	84.69	84.65	84.89	84.77	84.83	84.73	84.86	84.61	84.55	84.53		84.49	
31		84.81		84.76	84.81		84.84		84.55	84.53		84.48	
Mean	84.63	84.69	84.83	84.83	85.08	84.96	85.31	84.69	84.58	84.54	84.50	84.49	
Max	85.05	84.93	85.19	85.24	85.94	85.83	86.16	84.82	84.61	84.57	84.53	84.69	86.16
Min	84.47	84.56	84.66	84.66	84.79	84.73	84.68	84.61	84.55	84.51	84.47	84.43	84.43

Annual Max Momentary Gage Height	86.55	m. (MSL.) ,	at 16.00 Hours , on Oct 8 , 2011		
Zero Gage at Bottom Elevation	84.19	m. (MSL.) ,	River Bed	84.56	m. (MSL)
Left Bank Elevation	90.38	m. (MSL.) ,			
Right Bank Elevation	90.71	m. (MSL.) ,	Drainage Area	518	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.16	1.12	1.88	2.60	18.20	2.12	1.56	2.40	0.77	0.45	0.35	0.12		
2	0.14	0.91	1.48	2.70	21.50	2.30	1.48	2.20	0.77	0.45	0.35	0.12		
3	0.14	0.77	2.90	2.40	19.81	2.60	1.33	2.12	0.70	0.45	0.35	0.12		
4	0.18	0.70	4.98	2.30	13.80	2.20	1.33	2.04	0.70	0.40	0.35	0.12		
5	0.20	0.60	3.20	3.80	9.86	1.96	1.26	1.96	0.70	0.40	0.30	0.10		
6	0.25	0.50	2.30	7.60	7.60	1.80	1.88	1.88	0.70	0.40	0.30	0.10		
7	0.18	0.50	1.96	3.90	5.37	1.88	4.10	1.72	0.70	0.40	0.30	0.10		
8	0.40	0.60	1.64	2.90	4.46	2.04	22.25	1.56	0.65	0.35	0.30	0.10		
9	0.50	0.77	1.40	2.30	4.00	4.10	24.00	1.56	0.65	0.35	0.25	0.08		
10	1.88	1.05	1.33	2.04	4.00	4.33	26.31	1.48	0.65	0.35	0.25	0.08		
11	1.26	1.19	1.19	1.80	3.70	5.95	27.12	1.33	0.65	0.30	0.25	0.08		
12	0.70	1.05	1.12	1.72	3.60	18.89	22.50	1.33	0.65	0.30	0.20	0.08		
13	0.45	1.05	1.12	1.64	3.40	14.80	16.44	1.33	0.65	0.30	0.20	0.06		
14	0.35	1.33	1.19	1.40	3.20	10.92	17.98	1.26	0.60	0.30	0.20	0.06		
15	1.56	2.70	1.26	1.33	3.10	8.50	19.81	1.19	0.60	0.30	0.20	1.33		
16	0.98	3.50	3.00	1.26	4.33	6.25	19.58	1.19	0.60	0.30	0.18	0.70		
17	1.56	3.20	3.10	1.26	8.84	5.11	25.00	1.19	0.60	0.30	0.18	0.45		
18	0.91	3.10	4.33	1.12	6.55	4.33	18.89	1.12	0.55	0.25	0.16	0.45		
19	0.50	1.96	4.98	1.12	5.24	3.80	14.20	1.12	0.55	0.25	0.16	0.45		
20	0.35	1.48	3.50	1.19	4.59	3.30	11.10	1.05	0.55	0.25	0.18	0.40		
21	0.30	1.26	2.90	1.88	4.10	2.90	8.67	1.05	0.55	0.45	0.18	0.30		
22	1.26	1.05	2.70	5.65	3.60	2.60	7.15	0.98	0.55	0.55	0.18	0.20		
23	0.84	0.98	2.40	5.50	3.20	2.50	5.24	0.91	0.55	0.55	0.18	0.18		
24	4.85	0.91	2.12	4.10	2.90	2.40	4.59	0.91	0.55	0.50	0.18	0.16		
25	3.00	1.72	1.88	3.60	2.60	2.20	4.00	0.91	0.55	0.50	0.16	0.14		
26	1.96	1.26	1.72	3.30	2.40	2.04	3.60	0.91	0.50	0.45	0.16	0.16		
27	2.70	1.80	3.50	3.10	2.30	1.88	3.30	0.84	0.60	0.40	0.16	0.18		
28	1.64	1.56	6.85	2.50	2.12	1.80	3.00	0.84	0.50	0.40	0.14	0.16		
29	1.72	1.26	4.20	2.20	3.00	1.72	3.00	0.84	0.45	0.40	0.14	0.25		
30	1.33	1.05	3.10	1.96	2.50	1.64	2.80	0.77	0.45	0.35		0.18		
31		2.30		1.88	2.30		2.60		0.45	0.35		0.16		
Total	32.25	43.23	79.23	82.05	186.17	128.86	326.07	39.99	18.69	11.75	6.49	7.17	961.95	CMSDAY
Mean	1.08	1.39	2.64	2.65	6.01	4.30	10.52	1.33	0.60	0.38	0.22	0.23	2.63	CMS
Max	4.85	3.50	6.85	7.60	21.50	18.89	27.12	2.40	0.77	0.55	0.35	1.33	27.12	CMS
Min	0.14	0.50	1.12	1.12	2.12	1.64	1.26	0.77	0.45	0.25	0.14	0.06	0.06	CMS
Runoff	2.79	3.74	6.85	7.09	16.09	11.13	28.17	3.46	1.62	1.02	0.56	0.62	83.11	MCM

Momentary Peak 38.80 CMS. at 86.55 m. (MSL.) at 16.00 Hours , on Oct 8 , 2011

Runoff Yield 5.07 Liters/Second/Square KM. Momentary Peak Yield 74.903 Liters/Second/Square KM.

WATER YEAR : 2011

MAE KLONG RIVER BASIN

Khwae Yai River at Ban Nong Bua , Kanchanaburi (K.35A)

Lat 14 - 03 - 22 N Long 99 - 27 - 32 E

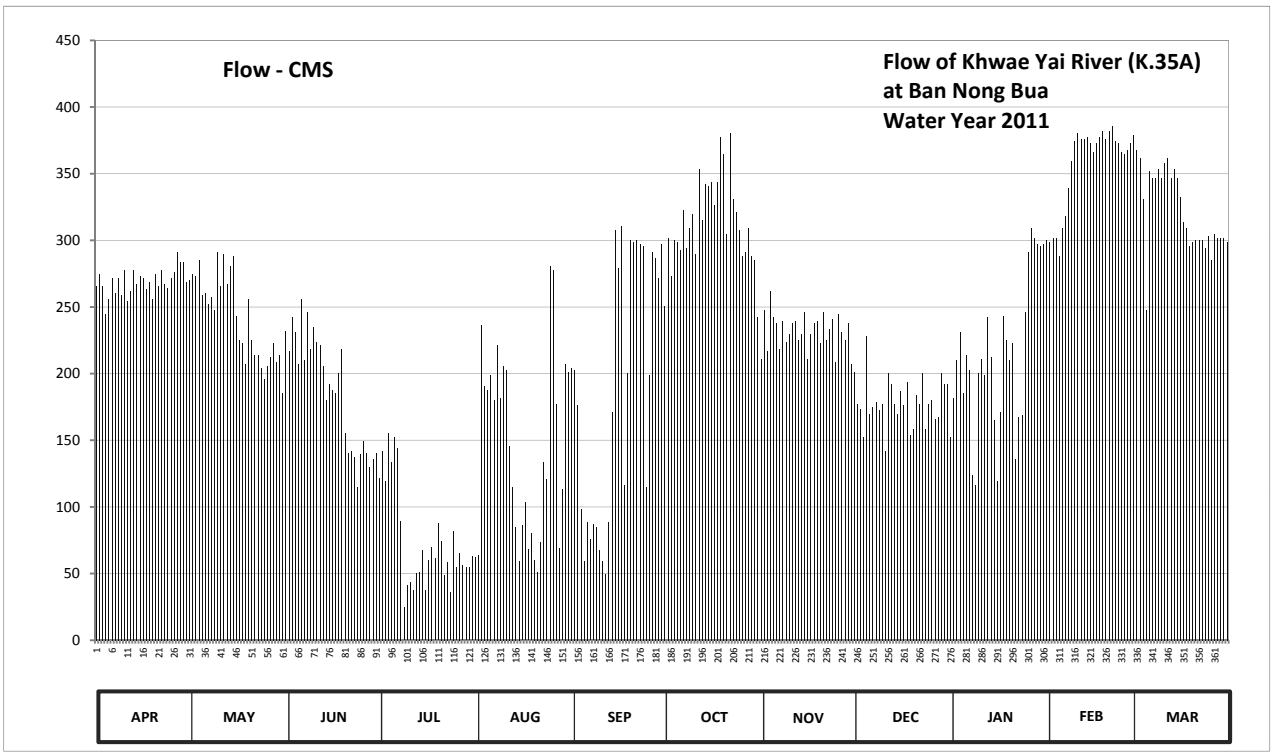
Location : on left bank at Ban Nong Bua.

	Ban Nong Bua	**Amphoe** Mueang	**Changwat** Kanchanaburi
Drainge Area	14,444 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+21.498 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank about 3 meters from the third staff gage.	**Elevation**	+26.975 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	1984 to date		
Rating Operation			
Period of Rating	1984 - 1985 , 1987 to date		
Rated by Flot	-		
Rated by Current Meter	1984 - 1985 , 1987 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Flow regulated by Sri Nakarindra Dam.		
	Stage-discharge relation defined by 35 discharge measurements made in 2011		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	25.77	25.80	25.53	24.67	24.06	25.33	25.66	25.38	25.31	24.93	26.00	26.50	
2	25.83	25.83	25.42	24.84	24.08	25.32	26.01	25.64	25.13	25.16	25.99	26.43	
3	25.77	25.82	25.60	24.65	25.56	25.12	25.82	25.42	25.10	25.37	26.01	26.39	
4	25.62	25.90	25.52	24.95	25.23	24.45	26.00	25.74	24.93	25.52	26.01	26.20	
5	25.70	25.72	25.35	24.77	25.21	24.03	25.99	25.60	25.50	25.19	25.92	25.64	
6	25.81	25.73	25.70	24.93	25.29	24.35	25.95	25.57	25.07	25.40	26.06	26.33	
7	25.73	25.67	25.37	24.86	25.15	24.21	26.15	25.43	25.11	25.32	26.12	26.30	
8	25.81	25.71	25.63	24.36	25.45	24.33	25.96	25.58	25.14	24.69	26.25	26.30	
9	25.72	25.64	25.43	23.57	25.16	24.31	26.06	25.47	25.09	24.62	26.38	26.34	
10	25.85	25.94	25.55	23.80	25.34	24.12	26.13	25.51	25.13	25.30	26.47	26.30	
11	25.69	25.77	25.47	23.83	25.32	24.03	25.93	25.57	24.84	25.38	26.51	26.37	
12	25.74	25.93	25.45	23.75	24.87	23.91	26.34	25.58	25.30	25.29	26.48	26.39	
13	25.85	25.78	25.34	23.92	24.61	24.35	26.10	25.48	25.24	25.60	26.48	26.30	
14	25.78	25.87	25.15	23.93	24.31	25.08	26.27	25.51	25.13	25.39	26.49	26.34	
15	25.82	25.92	25.24	24.12	24.03	26.05	26.26	25.63	25.07	25.03	26.46	26.30	
16	25.81	25.61	25.21	23.75	24.32	25.86	26.28	25.38	25.20	24.65	26.42	26.21	
17	25.75	25.48	25.19	24.04	24.50	26.07	26.17	25.51	25.12	25.08	26.46	26.09	
18	25.79	25.46	25.30	24.15	24.13	24.62	26.28	25.57	25.25	25.61	26.49	26.06	
19	25.70	25.35	25.43	24.05	24.26	25.30	26.49	25.58	24.94	25.48	26.52	25.97	
20	25.83	25.70	24.95	24.34	24.04	26.00	26.41	25.46	24.98	25.37	26.48	25.99	
21	25.77	25.48	24.83	24.20	23.93	25.99	26.03	25.63	25.18	25.46	26.52	26.00	
22	25.85	25.40	24.84	23.90	24.19	26.00	26.51	25.48	25.13	24.79	26.54	26.00	
23	25.78	25.40	24.80	24.02	24.77	25.98	26.20	25.54	25.30	25.05	26.47	26.00	
24	25.76	25.33	24.61	23.73	24.66	25.97	26.14	25.59	24.98	25.06	26.46	25.96	
25	25.81	25.27	24.82	24.28	25.87	24.61	26.05	25.36	25.13	25.63	26.42	26.02	
26	25.84	25.34	24.90	23.97	25.85	25.29	25.92	25.62	25.15	25.94	26.41	25.90	
27	25.94	25.39	24.83	24.10	25.13	25.94	25.94	25.52	25.04	26.06	26.43	26.03	
28	25.89	25.46	24.74	23.99	24.14	25.91	26.06	25.48	25.05	26.01	26.46	26.01	
29	25.89	25.36	24.79	23.97	24.59	25.81	25.92	25.57	25.30	25.98	26.45	26.01	
30	25.79	25.40	24.83	23.97	25.35	25.98	25.90	25.35	25.24	25.97		26.01	
31		25.19		24.07	25.31		25.60		25.24	25.98		25.99	
Mean	25.79	25.60	25.19	24.18	24.80	25.14	26.08	25.52	25.14	25.36	26.35	26.15	
Max	25.94	25.94	25.70	24.95	25.87	26.07	26.51	25.74	25.50	26.06	26.54	26.50	26.54
Min	25.62	25.19	24.61	23.57	23.93	23.91	25.60	25.35	24.84	24.62	25.92	25.64	23.57

Annual Max Momentary Gage Height	26.83	m. (MSL.) ,	at 02.00 Hours , on Oct 21 , 2011		
Zero Gage at Bottom Elevation	21.50	m. (MSL.) ,	River Bed	22.61	m. (MSL)
Left Bank Elevation	26.95	m. (MSL.) ,			
Right Bank Elevation	27.10	m. (MSL.) ,	Drainage Area	14444	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	265.80	270.00	232.20	121.70	62.10	204.20	250.40	211.20	201.40	152.60	300.00	379.00		
2	274.50	274.50	216.80	141.80	63.80	202.80	301.50	247.60	177.40	181.30	298.50	367.80		
3	265.80	273.00	242.00	119.50	236.40	176.10	273.00	216.80	173.50	209.80	301.50	361.40		
4	244.80	285.00	230.80	155.00	190.55	98.50	300.00	261.60	152.60	230.80	301.50	331.00		
5	256.00	258.80	207.00	133.40	187.85	59.55	298.50	242.00	228.00	185.20	288.00	247.60		
6	271.50	260.20	256.00	152.60	198.65	88.75	292.50	237.80	169.75	214.00	309.00	351.80		
7	260.20	251.80	209.80	144.20	180.00	75.45	323.00	218.20	174.80	202.80	318.20	347.00		
8	271.50	257.40	246.20	89.70	221.00	86.85	294.00	239.20	178.70	123.90	339.00	347.00		
9	258.80	247.60	218.20	24.70	181.30	84.95	309.00	223.80	172.25	116.20	359.80	353.40		
10	277.50	291.00	235.00	41.00	205.60	67.30	319.80	229.40	177.40	200.00	374.20	347.00		
11	254.60	265.80	223.80	43.40	202.80	59.55	289.50	237.80	141.80	211.20	380.60	358.20		
12	261.60	289.50	221.00	37.25	145.40	49.80	353.40	239.20	200.00	198.65	375.80	361.40		
13	277.50	267.20	205.60	50.60	115.10	88.75	315.00	225.20	191.90	242.00	375.80	347.00		
14	267.20	280.50	180.00	51.40	84.95	171.00	342.20	229.40	177.40	212.60	377.40	353.40		
15	273.00	288.00	191.90	67.30	59.55	307.50	340.60	246.20	169.75	164.75	372.60	347.00		
16	271.50	243.40	187.85	37.25	85.90	279.00	343.80	211.20	186.50	119.50	366.20	332.60		
17	263.00	225.20	185.20	60.40	103.50	310.50	326.20	229.40	176.10	171.00	372.60	313.50		
18	268.60	222.40	200.00	70.00	68.20	116.20	343.80	237.80	193.25	243.40	377.40	309.00		
19	256.00	207.00	218.20	61.25	80.20	200.00	377.40	239.20	153.80	225.20	382.20	295.50		
20	274.50	256.00	155.00	87.80	60.40	300.00	364.60	222.40	158.60	209.80	375.80	298.50		
21	265.80	225.20	140.60	74.50	51.40	298.50	304.50	246.20	183.90	222.40	382.20	300.00		
22	277.50	214.00	141.80	49.00	73.60	300.00	380.60	225.20	177.40	135.80	385.40	300.00		
23	267.20	214.00	137.00	58.70	133.40	297.00	331.00	233.60	200.00	167.25	374.20	300.00		
24	264.40	204.20	115.10	35.75	120.60	295.50	321.40	240.60	158.60	168.50	372.60	294.00		
25	271.50	195.95	139.40	82.10	280.50	115.10	307.50	208.40	177.40	246.20	366.20	303.00		
26	276.00	205.60	149.00	54.60	277.50	198.65	288.00	244.80	180.00	291.00	364.60	285.00		
27	291.00	212.60	140.60	65.50	177.40	291.00	291.00	230.80	166.00	309.00	367.80	304.50		
28	283.50	222.40	129.80	56.20	69.10	286.50	309.00	225.20	167.25	301.50	372.60	301.50		
29	283.50	208.40	135.80	54.60	112.95	271.50	288.00	237.80	200.00	297.00	371.00	301.50		
30	268.60	214.00	140.60	54.60	207.00	297.00	285.00	207.00	191.90	295.50		301.50		
31		185.2		62.95	201.40		242.00		191.90	297.00		298.50		
Total	8062.90	7515.85	5632.25	2338.75	4438.10	5677.50	9706.20	6945.00	5549.25	6545.85	10302.70	10038.60	82752.95	CMSDAY
Mean	268.76	242.45	187.74	75.44	143.16	189.25	313.10	231.50	179.01	211.16	355.27	323.83	226.10	CMS
Max	291.00	291.00	256.00	155.00	280.50	310.50	380.60	261.60	228.00	309.00	385.40	379.00	385.40	CMS
Min	244.80	185.20	115.10	24.70	51.40	49.80	242.00	207.00	141.80	116.20	288.00	247.60	24.70	CMS
Runoff	696.64	649.37	486.63	202.07	383.45	490.54	838.62	600.05	479.46	565.56	890.15	867.34	7149.86	MCM

Momentary Peak 431.80 CMS. at 26.83 m. (MSL.) at 02.00 Hours , on Oct 21 , 2011

Runoff Yield 15.65 Liters/Second/Square KM. Momentary Peak Yield 29.894 Liters/Second/Square KM.

WATER YEAR : 2011

MAE KLONG RIVER BASIN

Khwae Noi River at Ban Wang Yen , Kanchanaburi (K.37)

Lat 13 - 55 - 54 N Long 99 - 25 - 38 E

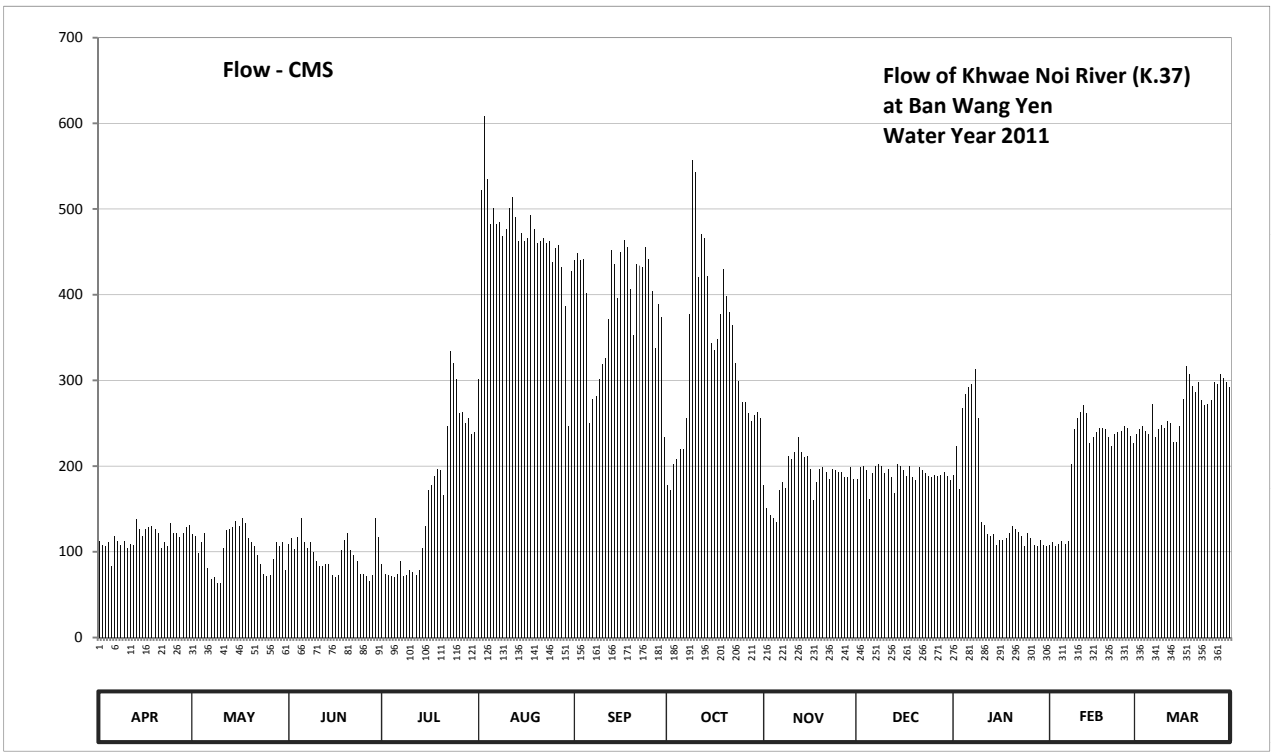
Location : on left bank at Ban Wang Yen.

	Ban Wang Yen	**Amphoe** Mueang	**Changwat** Kanchanaburi
Drainge Area	10,557 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+19.840 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank about 5 meters from the automatic gage building.	**Elevation**	+33.266 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	1984 to date		
Rating Operation			
Period of Rating	1984 to date		
Rated by Flot	-		
Rated by Current Meter	1984 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Flow regulated by Khao Laem Dam.		
	Stage-discharge relation defined by 40 discharge measurements made in 2011		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	23.39	23.44	23.37	23.25	24.48	25.20	23.80	23.80	23.84	23.87	23.36	24.14	
2	23.36	23.43	23.41	23.20	25.60	25.24	23.76	23.63	23.92	24.06	23.38	24.17	
3	23.35	23.30	23.33	23.16	26.01	25.20	23.94	23.58	23.93	23.77	23.35	24.19	
4	23.38	23.38	23.42	23.14	25.66	25.21	23.98	23.56	23.90	24.30	23.37	24.16	
5	23.24	23.45	23.56	23.12	25.41	25.01	24.04	23.53	23.70	24.39	23.39	24.14	
6	23.43	23.23	23.38	23.19	25.50	24.21	24.04	23.76	23.88	24.43	23.37	24.33	
7	23.39	23.09	23.34	23.26	25.41	24.36	24.24	23.82	23.93	24.45	23.39	24.12	
8	23.36	23.13	23.38	23.15	25.42	24.38	24.88	23.78	23.94	24.54	23.94	24.17	
9	23.39	23.05	23.31	23.16	25.34	24.48	25.77	24.00	23.93	24.24	24.17	24.20	
10	23.34	23.05	23.26	23.22	25.38	24.57	25.70	23.98	23.88	23.53	24.24	24.18	
11	23.37	23.34	23.24	23.21	25.50	24.61	25.10	24.02	23.91	23.51	24.28	24.22	
12	23.36	23.47	23.24	23.18	25.56	24.85	25.35	24.12	23.85	23.44	24.32	24.21	
13	23.55	23.48	23.25	23.22	25.45	25.26	25.33	24.02	23.74	23.43	24.27	24.09	
14	23.48	23.49	23.25	23.34	25.31	25.18	25.11	23.99	23.94	23.44	24.08	24.09	
15	23.43	23.54	23.17	23.50	25.36	24.98	24.70	24.00	23.93	23.36	24.12	24.19	
16	23.48	23.50	23.11	23.76	25.31	25.25	24.66	23.91	23.90	23.40	24.15	24.36	
17	23.49	23.56	23.17	23.80	25.33	25.32	24.73	23.69	23.86	23.40	24.18	24.56	
18	23.50	23.52	23.32	23.86	25.46	25.28	24.88	23.82	23.93	23.41	24.18	24.51	
19	23.48	23.41	23.40	23.91	25.38	25.03	25.15	23.91	23.85	23.45	24.17	24.44	
20	23.45	23.38	23.45	23.90	25.30	24.75	24.99	23.92	23.83	23.50	24.12	24.40	
21	23.34	23.35	23.32	23.73	25.31	25.18	24.89	23.89	23.92	23.48	24.06	24.46	
22	23.38	23.29	23.29	24.19	25.33	25.17	24.81	23.84	23.90	23.46	24.14	24.35	
23	23.35	23.25	23.26	24.65	25.30	25.16	24.58	23.91	23.88	23.43	24.15	24.32	
24	23.52	23.20	23.20	24.58	25.31	25.28	24.47	23.90	23.86	23.35	24.16	24.33	
25	23.45	23.15	23.19	24.48	25.19	25.21	24.34	23.89	23.85	23.45	24.19	24.35	
26	23.45	23.17	23.14	24.27	25.27	25.02	24.34	23.89	23.87	23.41	24.18	24.46	
27	23.42	23.27	23.07	24.28	25.29	24.67	24.27	23.85	23.86	23.36	24.13	24.45	
28	23.45	23.38	23.17	24.21	25.16	24.94	24.22	23.85	23.87	23.35	24.08	24.51	
29	23.49	23.35	23.56	24.24	24.93	24.86	24.26	23.92	23.89	23.40	24.11	24.49	
30	23.51	23.38	23.42	24.14	24.19	24.12	24.28	23.84	23.86	23.36		24.46	
31		23.22		24.15	25.14		24.24		23.83	23.35		24.43	
Mean	23.42	23.33	23.30	23.69	25.31	24.93	24.61	23.85	23.88	23.66	23.97	24.31	
Max	23.55	23.56	23.56	24.65	26.01	25.32	25.77	24.12	23.94	24.54	24.32	24.56	26.01
Min	23.24	23.05	23.07	23.12	24.19	24.12	23.76	23.53	23.70	23.35	23.35	24.09	23.05

Annual Max Momentary Gage Height	26.08	m. (MSL.) ,	at 06.00 Hours , on Aug 3 , 2011		
Zero Gage at Bottom Elevation	19.84	m. (MSL.) ,	River Bed	19.76	m. (MSL)
Left Bank Elevation	32.12	m. (MSL.) ,			
Right Bank Elevation	32.65	m. (MSL.) ,	Drainage Area	10557	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	112.45	120.40	109.35	86.25	301.20	440.00	178.00	178.00	184.80	189.90	107.80	237.20		
2	107.80	118.80	115.60	74.00	522.00	448.00	171.60	150.80	198.40	222.80	110.90	242.60		
3	106.25	98.50	103.15	72.40	608.65	440.00	201.80	142.80	200.10	173.20	106.25	246.20		
4	110.90	110.90	117.20	71.60	534.60	442.00	208.60	139.60	195.00	267.00	109.35	240.80		
5	83.80	122.00	139.60	70.80	482.55	402.00	219.20	134.80	162.00	284.10	112.45	237.20		
6	118.80	81.35	110.90	73.60	501.00	249.90	219.20	171.60	191.60	291.70	109.35	272.70		
7	112.45	68.70	104.70	88.70	482.55	278.40	255.60	181.40	200.10	295.50	112.45	233.60		
8	107.80	71.20	110.90	72.00	484.60	282.20	377.20	174.80	201.80	312.60	201.80	242.60		
9	112.45	63.50	100.05	72.40	468.20	301.20	557.70	212.00	200.10	255.60	242.60	248.00		
10	104.70	63.50	88.70	78.90	476.40	318.30	543.00	208.60	191.60	134.80	255.60	244.40		
11	109.35	104.70	83.80	76.45	501.00	325.90	420.00	215.60	196.70	131.60	263.20	251.80		
12	107.80	125.20	83.80	73.20	513.60	371.50	470.25	233.60	186.50	120.40	270.80	249.90		
13	138.00	126.80	86.25	78.90	490.75	452.00	466.15	215.60	168.40	118.80	261.30	228.20		
14	126.80	128.40	86.25	104.70	462.05	436.00	422.00	210.30	201.80	120.40	226.40	228.20		
15	118.80	136.40	72.80	130.00	472.30	396.20	343.00	212.00	200.10	107.80	233.60	246.20		
16	126.80	130.00	70.40	171.60	462.05	450.00	335.40	196.70	195.00	114.00	239.00	278.40		
17	128.40	139.60	72.80	178.00	466.15	464.10	348.70	160.40	188.20	114.00	244.40	316.40		
18	130.00	133.20	101.60	188.20	492.80	456.00	377.20	181.40	200.10	115.60	244.40	306.90		
19	126.80	115.60	114.00	196.70	476.40	406.00	430.00	196.70	186.50	122.00	242.60	293.60		
20	122.00	110.90	122.00	195.00	460.00	352.50	398.10	198.40	183.10	130.00	233.60	286.00		
21	104.70	106.25	101.60	166.80	462.05	436.00	379.10	193.30	198.40	126.80	222.80	297.40		
22	110.90	96.05	96.05	246.20	466.15	434.00	363.90	184.80	195.00	123.60	237.20	276.50		
23	106.25	86.25	88.70	333.50	460.00	432.00	320.20	196.70	191.60	118.80	239.00	270.80		
24	133.20	74.00	74.00	320.20	462.05	456.00	299.30	195.00	188.20	106.25	240.80	272.70		
25	122.00	72.00	73.60	301.20	438.00	442.00	274.60	193.30	186.50	122.00	246.20	276.50		
26	122.00	72.80	71.60	261.30	454.00	404.00	274.60	193.30	189.90	115.60	244.40	297.40		
27	117.20	91.15	66.10	263.20	458.00	337.30	261.30	186.50	188.20	107.80	235.40	295.50		
28	122.00	110.90	72.80	249.90	432.00	388.60	251.80	186.50	189.90	106.25	226.40	306.90		
29	128.40	106.25	139.60	255.60	386.70	373.40	259.40	198.40	193.30	114.00	231.80	303.10		
30	131.60	110.90	117.20	237.20	246.20	233.60	263.20	184.80	188.20	107.80		297.40		
31		78.90		239.00	428.00		255.60		183.10	106.25		291.70		
Total	3510.40	3175.10	2895.10	5027.50	14352.00	11649.10	10145.70	5627.70	5924.20	4876.95	6051.85	8316.80	81552.40	CMSDAY
Mean	117.01	102.42	96.50	162.18	462.97	388.30	327.28	187.59	191.10	157.32	208.68	268.28	222.82	CMS
Max	138.00	139.60	139.60	333.50	608.65	464.10	557.70	233.60	201.80	312.60	270.80	316.40	608.65	CMS
Min	83.80	63.50	66.10	70.80	246.20	233.60	171.60	134.80	162.00	106.25	106.25	228.20	63.50	CMS
Runoff	303.30	274.33	250.14	434.38	1240.01	1006.48	876.59	486.23	511.85	421.37	522.88	718.57	7046.13	MCM

Momentary Peak 623.70 CMS. at 26.08 m. (MSL.) at 06.00 Hours , on Aug 3 , 2011

Runoff Yield 21.11 Liters/Second/Square KM. Momentary Peak Yield 59.079 Liters/Second/Square KM.

WATER YEAR : 2011

MAE KLONG RIVER BASIN

Huai Lin Thin at Ban Nong Bang , Kanchanaburi (K.38A)

Lat 14 - 34 - 28 N Long 98 - 49 - 07 E

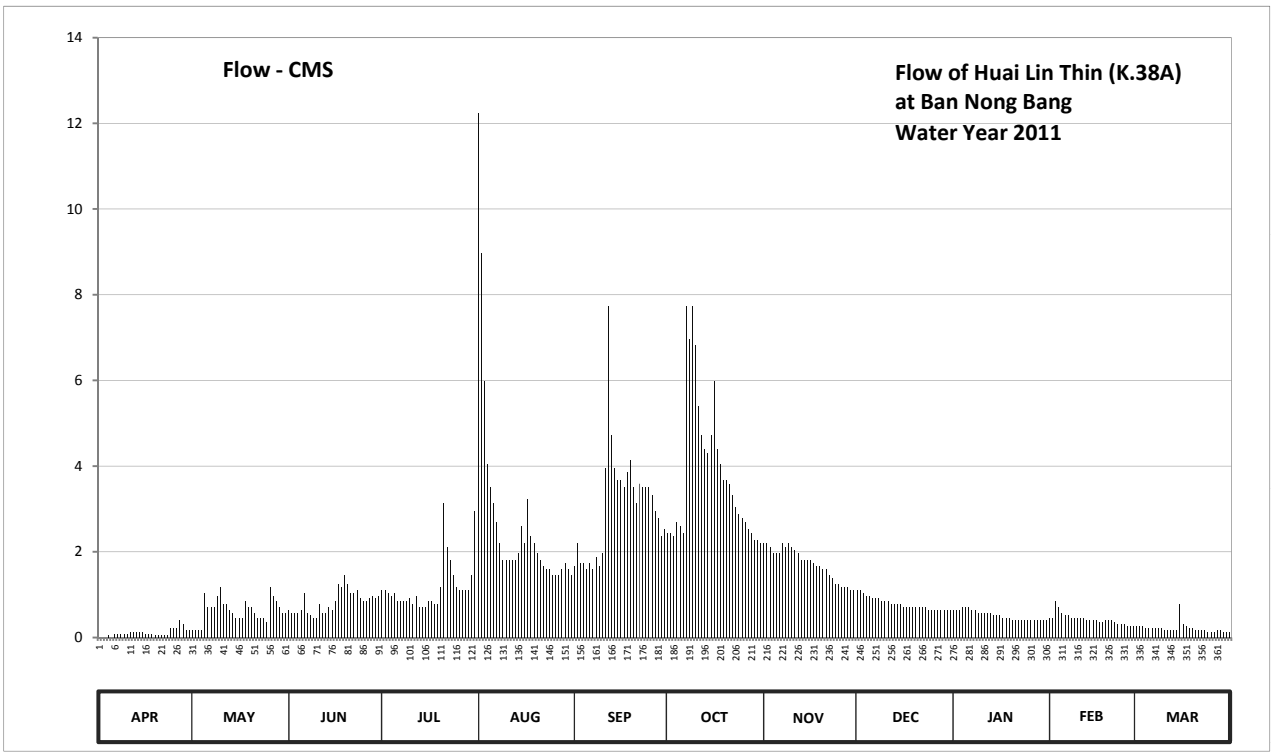
Location : on left bank at KM. 95+700 on Kanchanaburi - Thong Pha Phum Highway.

	Ban Nong Bang	**Amphoe** Thong Pha Phum	**Changwat** Kanchanaburi
Drainge Area	122 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+90.019 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank at the abutment of the bridge.	**Elevation**	+95.463 m. (MSL.)
Gage Reading Frequency	5-time daily reading at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	2001 to date		
Rating Operation			
Period of Rating	2001 to date		
Rated by Flot	-		
Rated by Current Meter	2001 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 44 discharge measurements made in 2011		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	90.50	90.54	90.63	90.70	91.69	90.78	90.88	90.85	90.70	90.63	90.60	90.56	
2	90.50	90.54	90.62	90.70	91.47	90.85	90.88	90.85	90.70	90.63	90.60	90.56	
3	90.50	90.54	90.62	90.69	91.24	90.79	90.87	90.84	90.69	90.63	90.66	90.56	
4	90.51	90.54	90.62	90.68	91.06	90.79	90.91	90.82	90.68	90.64	90.64	90.55	
5	90.50	90.69	90.63	90.69	91.00	90.77	90.90	90.82	90.68	90.64	90.62	90.55	
6	90.52	90.64	90.69	90.66	90.96	90.79	90.88	90.82	90.67	90.64	90.61	90.55	
7	90.52	90.64	90.62	90.66	90.91	90.77	91.38	90.85	90.67	90.63	90.61	90.55	
8	90.52	90.64	90.61	90.66	90.85	90.81	91.32	90.84	90.67	90.63	90.60	90.55	
9	90.52	90.68	90.60	90.66	90.80	90.78	91.38	90.85	90.66	90.62	90.60	90.55	
10	90.52	90.71	90.60	90.67	90.80	90.82	91.31	90.84	90.66	90.62	90.60	90.54	
11	90.53	90.65	90.65	90.65	90.80	91.05	91.19	90.83	90.66	90.62	90.60	90.54	
12	90.53	90.65	90.62	90.68	90.80	91.38	91.13	90.82	90.65	90.62	90.60	90.54	
13	90.53	90.63	90.62	90.64	90.80	91.13	91.10	90.80	90.65	90.62	90.59	90.54	
14	90.53	90.62	90.64	90.64	90.82	91.05	91.09	90.80	90.65	90.61	90.59	90.54	
15	90.53	90.60	90.63	90.64	90.90	91.02	91.13	90.80	90.65	90.61	90.59	90.65	
16	90.52	90.60	90.66	90.66	90.85	91.02	91.24	90.80	90.64	90.61	90.59	90.57	
17	90.52	90.60	90.72	90.66	90.97	91.00	91.10	90.79	90.64	90.60	90.58	90.56	
18	90.52	90.66	90.71	90.65	90.87	91.04	91.06	90.78	90.64	90.60	90.58	90.55	
19	90.51	90.64	90.75	90.65	90.85	91.07	91.02	90.78	90.64	90.60	90.59	90.55	
20	90.51	90.64	90.72	90.71	90.82	91.00	91.02	90.77	90.64	90.59	90.59	90.54	
21	90.51	90.62	90.69	90.96	90.80	90.96	91.01	90.77	90.64	90.59	90.59	90.54	
22	90.51	90.60	90.69	90.84	90.78	91.01	90.98	90.75	90.64	90.59	90.58	90.54	
23	90.51	90.60	90.70	90.80	90.77	91.00	90.95	90.74	90.64	90.59	90.57	90.54	
24	90.55	90.60	90.67	90.75	90.77	91.00	90.93	90.72	90.63	90.59	90.57	90.53	
25	90.55	90.58	90.66	90.71	90.75	91.00	90.92	90.72	90.63	90.59	90.57	90.53	
26	90.55	90.71	90.66	90.70	90.75	90.98	90.91	90.71	90.63	90.59	90.56	90.53	
27	90.59	90.68	90.67	90.70	90.75	90.94	90.89	90.71	90.63	90.59	90.56	90.54	
28	90.57	90.66	90.68	90.70	90.77	90.92	90.88	90.71	90.63	90.59	90.56	90.54	
29	90.54	90.64	90.67	90.70	90.79	90.87	90.86	90.70	90.63	90.59	90.56	90.53	
30	90.54	90.62	90.68	90.75	90.77	90.89	90.86	90.70	90.63	90.59		90.53	
31		90.62		90.94	90.75		90.85		90.63	90.59		90.53	
Mean	90.53	90.63	90.66	90.71	90.89	90.94	91.03	90.79	90.65	90.61	90.59	90.55	
Max	90.59	90.71	90.75	90.96	91.69	91.38	91.38	90.85	90.70	90.64	90.66	90.65	91.69
Min	90.50	90.54	90.60	90.64	90.75	90.77	90.85	90.70	90.63	90.59	90.56	90.53	90.50

Annual Max Momentary Gage Height	92.02	m. (MSL.) ,	at 06.00 Hours , on Aug 1 , 2011		
Zero Gage at Bottom Elevation	90.02	m. (MSL.) ,	River Bed	90.41	m. (MSL)
Left Bank Elevation	95.42	m. (MSL.) ,			
Right Bank Elevation	94.87	m. (MSL.) ,	Drainage Area	122	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.18	0.64	1.10	12.25	1.66	2.44	2.20	1.10	0.64	0.45	0.27		
2	0.00	0.18	0.58	1.10	8.98	2.20	2.44	2.20	1.10	0.64	0.45	0.27		
3	0.00	0.18	0.58	1.04	5.98	1.73	2.36	2.12	1.04	0.64	0.84	0.27		
4	0.05	0.18	0.58	0.97	4.04	1.73	2.69	1.96	0.97	0.71	0.71	0.23		
5	0.00	1.04	0.64	1.04	3.50	1.59	2.60	1.96	0.97	0.71	0.58	0.23		
6	0.09	0.71	1.04	0.84	3.14	1.73	2.44	1.96	0.91	0.71	0.52	0.23		
7	0.09	0.71	0.58	0.84	2.69	1.59	7.74	2.20	0.91	0.64	0.52	0.23		
8	0.09	0.71	0.52	0.84	2.20	1.88	6.96	2.12	0.91	0.64	0.45	0.23		
9	0.09	0.97	0.45	0.84	1.80	1.66	7.74	2.20	0.84	0.58	0.45	0.23		
10	0.09	1.17	0.45	0.91	1.80	1.96	6.83	2.12	0.84	0.58	0.45	0.18		
11	0.13	0.78	0.78	0.78	1.80	3.95	5.39	2.04	0.84	0.58	0.45	0.18		
12	0.13	0.78	0.58	0.97	1.80	7.74	4.73	1.96	0.78	0.58	0.45	0.18		
13	0.13	0.64	0.58	0.71	1.80	4.73	4.40	1.80	0.78	0.58	0.40	0.18		
14	0.13	0.58	0.71	0.71	1.96	3.95	4.31	1.80	0.78	0.52	0.40	0.18		
15	0.13	0.45	0.64	0.71	2.60	3.68	4.73	1.80	0.78	0.52	0.40	0.78		
16	0.09	0.45	0.84	0.84	2.20	3.68	5.98	1.80	0.71	0.52	0.40	0.32		
17	0.09	0.45	1.24	0.84	3.23	3.50	4.40	1.73	0.71	0.45	0.36	0.27		
18	0.09	0.84	1.17	0.78	2.36	3.86	4.04	1.66	0.71	0.45	0.36	0.23		
19	0.05	0.71	1.45	0.78	2.20	4.13	3.68	1.66	0.71	0.45	0.40	0.23		
20	0.05	0.71	1.24	1.17	1.96	3.50	3.68	1.59	0.71	0.40	0.40	0.18		
21	0.05	0.58	1.04	3.14	1.80	3.14	3.59	1.59	0.71	0.40	0.40	0.18		
22	0.05	0.45	1.04	2.12	1.66	3.59	3.32	1.45	0.71	0.40	0.36	0.18		
23	0.05	0.45	1.10	1.80	1.59	3.50	3.05	1.38	0.71	0.40	0.32	0.18		
24	0.23	0.45	0.91	1.45	1.59	3.50	2.87	1.24	0.64	0.40	0.32	0.13		
25	0.23	0.36	0.84	1.17	1.45	3.50	2.78	1.24	0.64	0.40	0.32	0.13		
26	0.23	1.17	0.84	1.10	1.45	3.32	2.69	1.17	0.64	0.40	0.27	0.13		
27	0.40	0.97	0.91	1.10	1.45	2.96	2.52	1.17	0.64	0.40	0.27	0.18		
28	0.32	0.84	0.97	1.10	1.59	2.78	2.44	1.17	0.64	0.40	0.27	0.18		
29	0.18	0.71	0.91	1.10	1.73	2.36	2.28	1.10	0.64	0.40	0.27	0.13		
30	0.18	0.58	0.97	1.45	1.59	2.52	2.28	1.10	0.64	0.40		0.13		
31		0.58		2.96	1.45		2.20		0.64	0.40		0.13		
Total	3.44	19.56	24.82	36.30	85.64	91.62	119.60	51.49	24.35	15.94	12.24	6.78	491.78	CMSDAY
Mean	0.11	0.63	0.83	1.17	2.76	3.05	3.86	1.72	0.79	0.51	0.42	0.22	1.34	CMS
Max	0.40	1.17	1.45	3.14	12.25	7.74	7.74	2.20	1.10	0.71	0.84	0.78	12.25	CMS
Min	0.00	0.18	0.45	0.71	1.45	1.59	2.20	1.10	0.64	0.40	0.27	0.13	0.00	CMS
Runoff	0.30	1.69	2.14	3.14	7.40	7.92	10.33	4.45	2.10	1.38	1.06	0.59	42.49	MCM

Momentary Peak 18.40 CMS. at 92.02 m. (MSL.) at 06.00 Hours , on Aug 1 , 2011

Runoff Yield 10.98 Liters/Second/Square KM. Momentary Peak Yield 150.425 Liters/Second/Square KM.

WATER YEAR : 2011

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.

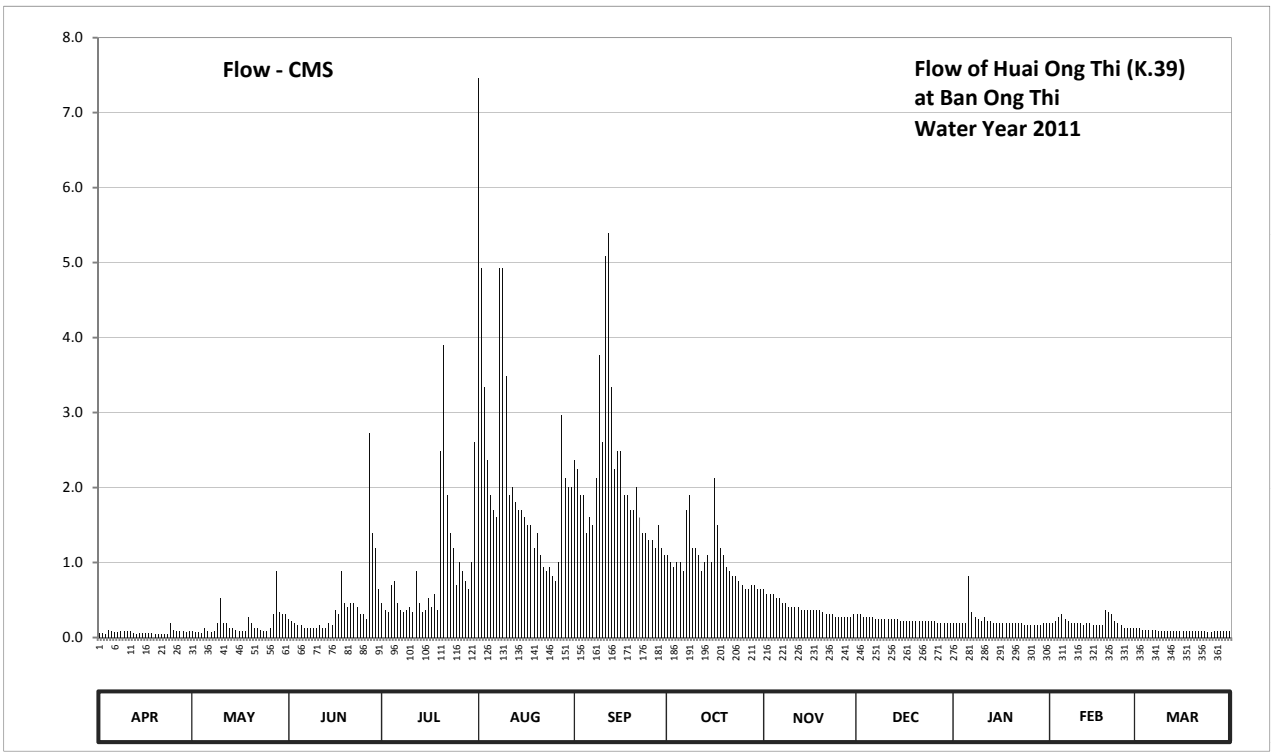
Ban Ong Thi **Amphoe** Thong Pha Phum **Changwat** Kanchanaburi

Drainge Area	51 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+81.783 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank about 16 meters from the third staff gage. **Elevation** +91.299 m. (MSL.)
Gage Reading Frequency	5-time daily reading at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings
Period of Available Gage Records	1984 to date
Rating Operation	
Period of Rating	1985 - 1990 , 1996 to date
Rated by Flot	-
Rated by Current Meter	1985 - 1990 , 1996 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 44 discharge measurements made in 2011

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	81.96	81.98	82.05	82.11	82.67	82.33	82.21	82.14	82.07	82.03	82.03	82.01	
2	81.96	81.97	82.04	82.09	82.52	82.32	82.20	82.13	82.07	82.03	82.03	82.01	
3	81.95	81.97	82.03	82.08	82.41	82.29	82.19	82.13	82.06	82.03	82.04	82.00	
4	82.00	81.96	82.02	82.15	82.33	82.29	82.20	82.13	82.06	82.03	82.06	82.00	
5	81.98	82.01	82.02	82.16	82.29	82.24	82.20	82.12	82.06	82.03	82.07	82.00	
6	81.97	81.98	82.01	82.11	82.27	82.26	82.18	82.12	82.06	82.17	82.05	82.00	
7	81.97	81.97	82.01	82.09	82.26	82.25	82.27	82.11	82.05	82.08	82.04	82.00	
8	81.98	81.98	82.01	82.08	82.52	82.31	82.29	82.11	82.05	82.06	82.03	81.99	
9	81.98	82.03	82.01	82.09	82.52	82.44	82.22	82.10	82.05	82.05	82.03	81.99	
10	81.98	82.12	82.01	82.10	82.42	82.35	82.22	82.10	82.05	82.04	82.03	81.99	
11	81.98	82.03	82.02	82.08	82.29	82.53	82.21	82.10	82.05	82.06	82.03	81.98	
12	81.96	82.03	82.01	82.18	82.30	82.55	82.18	82.10	82.05	82.04	82.02	81.99	
13	81.95	82.01	82.01	82.11	82.28	82.41	82.20	82.09	82.05	82.04	82.03	81.99	
14	81.96	82.01	82.03	82.08	82.27	82.32	82.21	82.09	82.05	82.03	82.03	81.98	
15	81.96	82.00	82.02	82.09	82.27	82.34	82.20	82.09	82.04	82.03	82.02	81.99	
16	81.96	81.99	82.09	82.12	82.26	82.34	82.31	82.09	82.04	82.03	82.02	81.99	
17	81.96	81.99	82.07	82.10	82.25	82.29	82.25	82.09	82.04	82.03	82.02	81.99	
18	81.96	81.99	82.18	82.13	82.25	82.29	82.22	82.09	82.04	82.03	82.02	81.99	
19	81.95	82.06	82.11	82.09	82.22	82.27	82.21	82.09	82.04	82.03	82.09	81.98	
20	81.95	82.03	82.10	82.34	82.24	82.27	82.19	82.08	82.04	82.03	82.08	81.98	
21	81.95	82.01	82.11	82.45	82.21	82.30	82.18	82.07	82.04	82.03	82.07	81.98	
22	81.95	82.01	82.11	82.29	82.19	82.26	82.17	82.07	82.04	82.03	82.04	81.98	
23	81.95	82.00	82.10	82.24	82.18	82.24	82.17	82.07	82.04	82.03	82.03	81.98	
24	82.03	81.99	82.07	82.22	82.19	82.24	82.16	82.06	82.04	82.02	82.02	81.97	
25	82.00	81.99	82.07	82.15	82.17	82.23	82.15	82.06	82.04	82.02	82.01	81.97	
26	81.98	82.01	82.05	82.20	82.16	82.23	82.14	82.06	82.04	82.02	82.01	81.99	
27	81.98	82.07	82.36	82.18	82.20	82.22	82.14	82.06	82.03	82.02	82.01	81.99	
28	81.98	82.18	82.24	82.16	82.38	82.25	82.15	82.06	82.03	82.02	82.01	81.99	
29	81.97	82.08	82.22	82.14	82.31	82.22	82.15	82.06	82.03	82.02	82.01	81.99	
30	81.99	82.07	82.14	82.20	82.30	82.21	82.14	82.07	82.03	82.03		81.99	
31		82.07		82.35	82.30		82.14		82.03	82.03		81.98	
Mean	81.97	82.02	82.08	82.16	82.30	82.30	82.20	82.09	82.05	82.04	82.03	81.99	
Max	82.03	82.18	82.36	82.45	82.67	82.55	82.31	82.14	82.07	82.17	82.09	82.01	82.67
Min	81.95	81.96	82.01	82.08	82.16	82.21	82.14	82.06	82.03	82.02	82.01	81.97	81.95

Annual Max Momentary Gage Height	82.98	m. (MSL.) ,	at 18.00 Hours , on Sep 11 , 2011		
Zero Gage at Bottom Elevation	81.78	m. (MSL.) ,	River Bed	81.47	m. (MSL)
Left Bank Elevation	88.99	m. (MSL.) ,			
Right Bank Elevation	90.28	m. (MSL.) ,	Drainage Area	51	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.06	0.08	0.25	0.46	7.46	2.36	1.10	0.64	0.31	0.19	0.19	0.13		
2	0.06	0.07	0.22	0.37	4.92	2.24	1.00	0.58	0.31	0.19	0.19	0.13		
3	0.05	0.07	0.19	0.34	3.34	1.90	0.94	0.58	0.28	0.19	0.22	0.10		
4	0.10	0.06	0.16	0.70	2.36	1.90	1.00	0.58	0.28	0.19	0.28	0.10		
5	0.08	0.13	0.16	0.76	1.90	1.40	1.00	0.52	0.28	0.19	0.31	0.10		
6	0.07	0.08	0.13	0.46	1.70	1.60	0.88	0.52	0.28	0.82	0.25	0.10		
7	0.07	0.07	0.13	0.37	1.60	1.50	1.70	0.46	0.25	0.34	0.22	0.10		
8	0.08	0.08	0.13	0.34	4.92	2.12	1.90	0.46	0.25	0.28	0.19	0.09		
9	0.08	0.19	0.13	0.37	4.92	3.76	1.20	0.40	0.25	0.25	0.19	0.09		
10	0.08	0.52	0.13	0.40	3.48	2.60	1.20	0.40	0.25	0.22	0.19	0.09		
11	0.08	0.19	0.16	0.34	1.90	5.08	1.10	0.40	0.25	0.28	0.19	0.08		
12	0.06	0.19	0.13	0.88	2.00	5.40	0.88	0.40	0.25	0.22	0.16	0.09		
13	0.05	0.13	0.13	0.46	1.80	3.34	1.00	0.37	0.25	0.22	0.19	0.09		
14	0.06	0.13	0.19	0.34	1.70	2.24	1.10	0.37	0.25	0.19	0.19	0.08		
15	0.06	0.10	0.16	0.37	1.70	2.48	1.00	0.37	0.22	0.19	0.16	0.09		
16	0.06	0.09	0.37	0.52	1.60	2.48	2.12	0.37	0.22	0.19	0.16	0.09		
17	0.06	0.09	0.31	0.40	1.50	1.90	1.50	0.37	0.22	0.19	0.16	0.09		
18	0.06	0.09	0.88	0.58	1.50	1.90	1.20	0.37	0.22	0.19	0.16	0.09		
19	0.05	0.28	0.46	0.37	1.20	1.70	1.10	0.37	0.22	0.19	0.37	0.08		
20	0.05	0.19	0.40	2.48	1.40	1.70	0.94	0.34	0.22	0.19	0.34	0.08		
21	0.05	0.13	0.46	3.90	1.10	2.00	0.88	0.31	0.22	0.19	0.31	0.08		
22	0.05	0.13	0.46	1.90	0.94	1.60	0.82	0.31	0.22	0.19	0.22	0.08		
23	0.05	0.10	0.40	1.40	0.88	1.40	0.82	0.31	0.22	0.19	0.19	0.08		
24	0.19	0.09	0.31	1.20	0.94	1.40	0.76	0.28	0.22	0.16	0.16	0.07		
25	0.10	0.09	0.31	0.70	0.82	1.30	0.70	0.28	0.22	0.16	0.13	0.07		
26	0.08	0.13	0.25	1.00	0.76	1.30	0.64	0.28	0.22	0.16	0.13	0.09		
27	0.08	0.31	2.72	0.88	1.00	1.20	0.64	0.28	0.19	0.16	0.13	0.09		
28	0.08	0.88	1.40	0.76	2.96	1.50	0.70	0.28	0.19	0.16	0.13	0.09		
29	0.07	0.34	1.20	0.64	2.12	1.20	0.70	0.28	0.19	0.16	0.13	0.09		
30	0.09	0.31	0.64	1.00	2.00	1.10	0.64	0.31	0.19	0.19		0.09		
31		0.31		2.60	2.00		0.64		0.19	0.19		0.08		
Total	2.16	5.65	12.97	27.29	68.42	63.60	31.80	11.79	7.33	6.82	5.84	2.80	246.47	CMSDAY
Mean	0.07	0.18	0.43	0.88	2.21	2.12	1.03	0.39	0.24	0.22	0.20	0.09	0.67	CMS
Max	0.19	0.88	2.72	3.90	7.46	5.40	2.12	0.64	0.31	0.82	0.37	0.13	7.46	CMS
Min	0.05	0.06	0.13	0.34	0.76	1.10	0.64	0.28	0.19	0.16	0.13	0.07	0.05	CMS
Runoff	0.19	0.49	1.12	2.36	5.91	5.50	2.75	1.02	0.63	0.59	0.51	0.24	21.30	MCM

Momentary Peak 14.03 CMS. at 82.98 m. (MSL.) at 18.00 Hours , on Sep 11 , 2011

Runoff Yield 13.18 Liters/Second/Square KM. Momentary Peak Yield 274.560 Liters/Second/Square KM.

WATER YEAR : 2011

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.

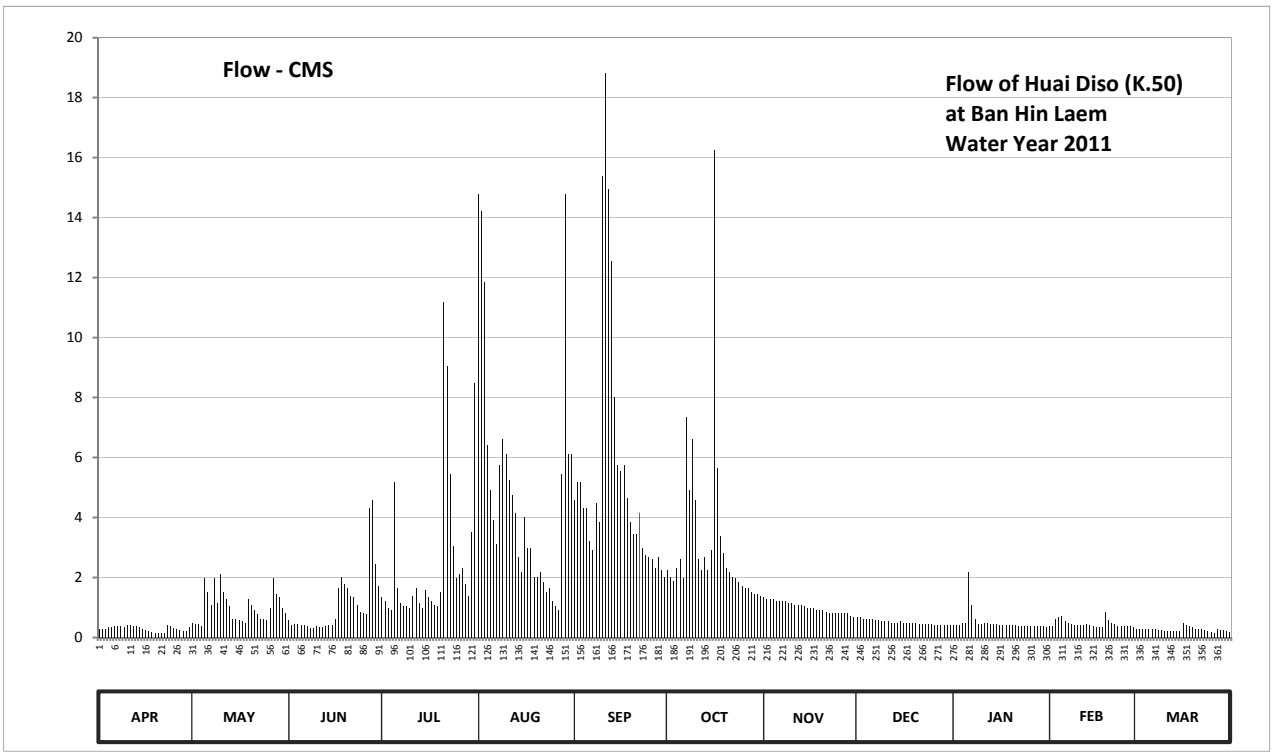
Ban Hin Laem **Amphoe** Thong Pha Phum **Changwat** Kanchanaburi

Drainge Area	123 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+79.811 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank at the abutment of the bridge. **Elevation** +85.827 m. (MSL.)
Gage Reading Frequency	5-time daily reading at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings
Period of Available Gage Records	1986 to date
Rating Operation	
Period of Rating	1987 , 1996 to date
Rated by Flot	-
Rated by Current Meter	1987, 1996 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 43 discharge measurements made in 2011

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	80.46	80.52	80.54	80.68	81.99	81.12	80.82	80.68	80.56	80.50	80.49	80.46	
2	80.46	80.51	80.50	80.66	81.95	81.19	80.79	80.67	80.56	80.50	80.49	80.46	
3	80.46	80.51	80.51	80.62	81.78	81.19	80.77	80.67	80.55	80.50	80.55	80.46	
4	80.48	80.49	80.51	80.61	81.32	81.09	80.83	80.67	80.55	80.52	80.56	80.46	
5	80.48	80.78	80.50	81.19	81.16	81.09	80.87	80.66	80.55	80.52	80.57	80.46	
6	80.49	80.71	80.50	80.73	81.04	80.95	80.78	80.66	80.55	80.81	80.53	80.46	
7	80.49	80.64	80.49	80.65	80.94	80.91	81.41	80.66	80.54	80.64	80.52	80.46	
8	80.49	80.78	80.47	80.63	81.25	81.11	81.16	80.66	80.54	80.55	80.51	80.45	
9	80.48	80.65	80.47	80.63	81.34	81.03	81.34	80.65	80.53	80.51	80.50	80.45	
10	80.50	80.80	80.49	80.62	81.29	82.03	81.12	80.65	80.53	80.51	80.50	80.44	
11	80.50	80.71	80.48	80.69	81.20	82.26	80.87	80.64	80.53	80.52	80.50	80.44	
12	80.49	80.67	80.48	80.73	81.14	82.00	80.82	80.64	80.52	80.52	80.50	80.44	
13	80.49	80.63	80.49	80.65	81.07	81.83	80.88	80.64	80.52	80.51	80.51	80.44	
14	80.48	80.55	80.50	80.62	80.88	81.47	80.82	80.63	80.52	80.51	80.50	80.44	
15	80.46	80.55	80.50	80.72	80.81	81.25	80.91	80.62	80.53	80.51	80.49	80.44	
16	80.45	80.54	80.55	80.68	81.05	81.23	82.09	80.62	80.52	80.50	80.48	80.52	
17	80.44	80.53	80.73	80.66	80.92	81.25	81.24	80.62	80.52	80.50	80.48	80.50	
18	80.43	80.52	80.79	80.64	80.92	81.13	80.97	80.61	80.52	80.50	80.48	80.49	
19	80.42	80.67	80.75	80.63	80.79	81.03	80.90	80.61	80.52	80.50	80.60	80.48	
20	80.42	80.64	80.73	80.71	80.79	80.98	80.83	80.61	80.52	80.50	80.54	80.46	
21	80.42	80.61	80.69	81.73	80.81	80.98	80.81	80.60	80.51	80.50	80.52	80.46	
22	80.41	80.58	80.68	81.56	80.76	81.07	80.79	80.59	80.51	80.49	80.51	80.46	
23	80.50	80.55	80.64	81.22	80.71	80.92	80.78	80.59	80.51	80.49	80.49	80.45	
24	80.49	80.55	80.60	80.93	80.73	80.89	80.76	80.59	80.51	80.49	80.49	80.44	
25	80.47	80.54	80.59	80.78	80.66	80.88	80.74	80.59	80.51	80.49	80.49	80.43	
26	80.46	80.62	80.58	80.80	80.63	80.87	80.73	80.59	80.50	80.49	80.49	80.42	
27	80.45	80.78	81.09	80.83	80.61	80.83	80.73	80.59	80.50	80.49	80.49	80.46	
28	80.44	80.70	81.12	80.75	81.22	80.88	80.71	80.59	80.50	80.49	80.48	80.45	
29	80.44	80.68	80.85	80.69	81.99	80.82	80.70	80.57	80.50	80.49	80.46	80.45	
30	80.48	80.62	80.74	80.99	81.29	80.79	80.70	80.56	80.50	80.49		80.44	
31		80.59		81.51	81.29		80.69		80.50	80.48		80.43	
Mean	80.46	80.62	80.62	80.82	81.11	81.17	80.91	80.62	80.52	80.52	80.51	80.45	
Max	80.50	80.80	81.12	81.73	81.99	82.26	82.09	80.68	80.56	80.81	80.60	80.52	82.26
Min	80.41	80.49	80.47	80.61	80.61	80.79	80.69	80.56	80.50	80.48	80.46	80.42	80.41

Annual Max Momentary Gage Height	82.32	m. (MSL.) ,	at 06.00 Hours , on Sep 12 , 2011		
Zero Gage at Bottom Elevation	79.81	m. (MSL.) ,	River Bed	80.06	m. (MSL)
Left Bank Elevation	84.85	m. (MSL.) ,			
Right Bank Elevation	84.96	m. (MSL.) ,	Drainage Area	123	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.28	0.49	0.58	1.33	14.80	4.57	2.24	1.33	0.68	0.40	0.37	0.28		
2	0.28	0.45	0.40	1.21	14.22	5.17	2.03	1.27	0.68	0.40	0.37	0.28		
3	0.28	0.45	0.45	0.98	11.86	5.17	1.90	1.27	0.63	0.40	0.63	0.28		
4	0.34	0.37	0.45	0.92	6.41	4.32	2.32	1.27	0.63	0.49	0.68	0.28		
5	0.34	1.97	0.40	5.17	4.92	4.32	2.60	1.21	0.63	0.49	0.72	0.28		
6	0.37	1.52	0.40	1.65	3.92	3.21	1.97	1.21	0.63	2.17	0.54	0.28		
7	0.37	1.10	0.37	1.16	3.13	2.90	7.34	1.21	0.58	1.10	0.49	0.28		
8	0.37	1.97	0.31	1.04	5.73	4.49	4.92	1.21	0.58	0.63	0.45	0.25		
9	0.34	1.16	0.31	1.04	6.61	3.84	6.61	1.16	0.54	0.45	0.40	0.25		
10	0.40	2.10	0.37	0.98	6.11	15.38	4.57	1.16	0.54	0.45	0.40	0.22		
11	0.40	1.52	0.34	1.39	5.26	18.83	2.60	1.10	0.54	0.49	0.40	0.22		
12	0.37	1.27	0.34	1.65	4.74	14.95	2.24	1.10	0.49	0.49	0.40	0.22		
13	0.37	1.04	0.37	1.16	4.16	12.54	2.68	1.10	0.49	0.45	0.45	0.22		
14	0.34	0.63	0.40	0.98	2.68	8.01	2.24	1.04	0.49	0.45	0.40	0.22		
15	0.28	0.63	0.40	1.58	2.17	5.73	2.90	0.98	0.54	0.45	0.37	0.22		
16	0.25	0.58	0.63	1.33	4.00	5.54	16.25	0.98	0.49	0.40	0.34	0.49		
17	0.22	0.54	1.65	1.21	2.98	5.73	5.64	0.98	0.49	0.40	0.34	0.40		
18	0.19	0.49	2.03	1.10	2.98	4.66	3.37	0.92	0.49	0.40	0.34	0.37		
19	0.16	1.27	1.78	1.04	2.03	3.84	2.82	0.92	0.49	0.40	0.86	0.34		
20	0.16	1.10	1.65	1.52	2.03	3.44	2.32	0.92	0.49	0.40	0.58	0.28		
21	0.16	0.92	1.39	11.19	2.17	3.44	2.17	0.86	0.45	0.40	0.49	0.28		
22	0.13	0.77	1.33	9.04	1.84	4.16	2.03	0.81	0.45	0.37	0.45	0.28		
23	0.40	0.63	1.10	5.45	1.52	2.98	1.97	0.81	0.45	0.37	0.37	0.25		
24	0.37	0.63	0.86	3.05	1.65	2.75	1.84	0.81	0.45	0.37	0.37	0.22		
25	0.31	0.58	0.81	1.97	1.21	2.68	1.71	0.81	0.45	0.37	0.37	0.19		
26	0.28	0.98	0.77	2.10	1.04	2.60	1.65	0.81	0.40	0.37	0.37	0.16		
27	0.25	1.97	4.32	2.32	0.92	2.32	1.65	0.81	0.40	0.37	0.37	0.28		
28	0.22	1.45	4.57	1.78	5.45	2.68	1.52	0.81	0.40	0.37	0.34	0.25		
29	0.22	1.33	2.46	1.39	14.80	2.24	1.45	0.72	0.40	0.37	0.28	0.25		
30	0.34	0.98	1.71	3.52	6.11	2.03	1.45	0.68	0.40	0.37		0.22		
31		0.81		8.47	6.11		1.39		0.40	0.34		0.19		
Total	8.79	31.70	32.95	78.72	153.56	164.52	98.39	30.27	15.77	15.38	12.94	8.23	651.22	CMSDAY
Mean	0.29	1.02	1.10	2.54	4.95	5.48	3.17	1.01	0.51	0.50	0.45	0.27	1.78	CMS
Max	0.40	2.10	4.57	11.19	14.80	18.83	16.25	1.33	0.68	2.17	0.86	0.49	18.83	CMS
Min	0.13	0.37	0.31	0.92	0.92	2.03	1.39	0.68	0.40	0.34	0.28	0.16	0.13	CMS
Runoff	0.76	2.74	2.85	6.80	13.27	14.22	8.50	2.62	1.36	1.33	1.12	0.71	56.27	MCM

Momentary Peak 19.77 CMS. at 82.32 m. (MSL.) at 06.00 Hours , on Sep 12 , 2011

Runoff Yield 14.47 Liters/Second/Square KM. Momentary Peak Yield 160.732 Liters/Second/Square KM.

WATER YEAR : 2011

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

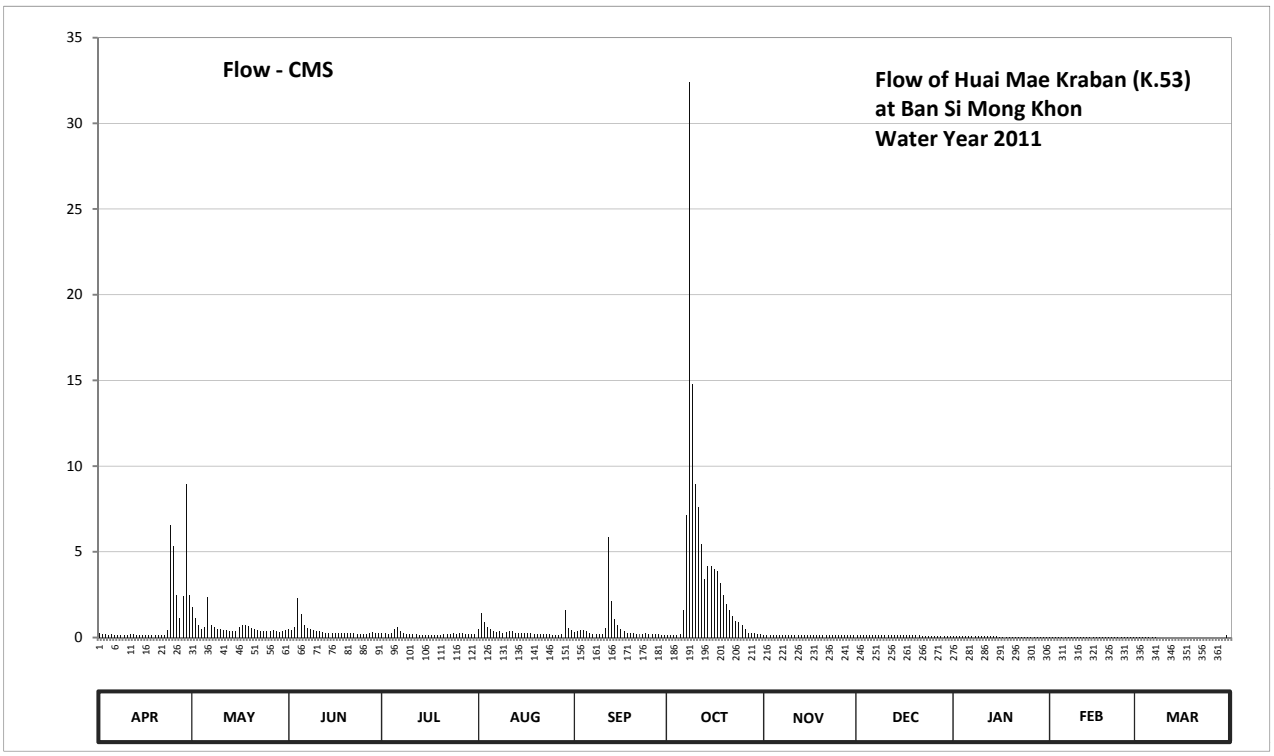
Location : on right bank at the bridge on road.

	Ban Si Mong Khon	**Amphoe** Sai Yok	**Changwat** Kanchanaburi		
Drainge Area	308 sq.km.				
Type of Gage	Staff gage				
Zero Gage at Bottom	+34.625 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On right bank about 20 meters from the top staff gage.	**Elevation** +40.952 m. (MSL.)			
Gage Reading Frequency	5-time daily reading at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.				
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings				
Period of Available Gage Records	1992 to date				
Rating Operation					
Period of Rating	1992 to date				
Rated by Flot	-				
Rated by Current Meter	1992 to date				
Stability of Channel Regimes	Stable.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records good. Stage-discharge relation defined by 30 discharge measurements made in 2011				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	36.12	36.40	36.19	36.11	36.20	36.14	36.06	36.06	36.02	36.00	35.94	35.91	
2	36.10	36.32	36.17	36.11	36.36	36.16	36.06	36.04	36.02	36.00	35.94	35.91	
3	36.09	36.24	36.22	36.10	36.28	36.18	36.05	36.03	36.02	36.00	35.94	35.91	
4	36.07	36.20	36.47	36.12	36.22	36.18	36.05	36.03	36.02	36.00	35.94	35.91	
5	36.08	36.22	36.35	36.20	36.19	36.16	36.09	36.02	36.02	36.00	35.94	35.91	
6	36.07	36.48	36.24	36.22	36.16	36.11	36.38	36.02	36.02	36.00	35.94	35.91	
7	36.06	36.25	36.21	36.16	36.14	36.10	36.87	36.02	36.02	35.99	35.94	35.91	
8	36.06	36.22	36.19	36.12	36.15	36.10	37.99	36.02	36.02	35.99	35.94	35.90	
9	36.05	36.20	36.18	36.10	36.13	36.10	37.28	36.02	36.02	35.99	35.94	35.88	
10	36.07	36.19	36.16	36.09	36.14	36.10	36.98	36.02	36.02	35.98	35.94	35.86	
11	36.10	36.18	36.15	36.08	36.15	36.21	36.90	36.02	36.02	35.98	35.94	35.86	
12	36.08	36.17	36.14	36.08	36.15	36.78	36.75	36.02	36.02	35.97	35.94	35.85	
13	36.06	36.16	36.13	36.07	36.13	36.45	36.59	36.02	36.02	35.97	35.94	35.85	
14	36.05	36.16	36.13	36.07	36.13	36.31	36.65	36.02	36.02	35.96	35.94	35.85	
15	36.04	36.16	36.12	36.07	36.11	36.24	36.65	36.02	36.02	35.96	35.94	35.86	
16	36.04	36.22	36.13	36.06	36.11	36.19	36.64	36.02	36.02	35.95	35.94	35.86	
17	36.04	36.25	36.12	36.06	36.11	36.16	36.63	36.02	36.02	35.95	35.94	35.86	
18	36.03	36.24	36.13	36.06	36.11	36.13	36.57	36.02	36.02	35.95	35.94	35.86	
19	36.03	36.23	36.12	36.06	36.10	36.11	36.50	36.02	36.02	35.95	35.92	35.86	
20	36.03	36.21	36.11	36.07	36.10	36.11	36.43	36.02	36.02	35.95	35.91	35.86	
21	36.03	36.19	36.11	36.09	36.09	36.10	36.38	36.02	36.02	35.95	35.91	35.86	
22	36.03	36.18	36.11	36.10	36.09	36.10	36.33	36.02	36.01	35.95	35.91	35.86	
23	36.17	36.16	36.10	36.10	36.08	36.10	36.29	36.02	36.00	35.95	35.91	35.86	
24	36.83	36.16	36.10	36.11	36.08	36.11	36.28	36.02	36.00	35.95	35.91	35.86	
25	36.74	36.15	36.09	36.10	36.07	36.10	36.24	36.02	36.00	35.95	35.91	35.86	
26	36.50	36.16	36.08	36.11	36.07	36.10	36.19	36.02	36.00	35.95	35.91	35.86	
27	36.32	36.17	36.12	36.11	36.07	36.09	36.13	36.02	36.00	35.95	35.91	35.86	
28	36.49	36.16	36.14	36.10	36.08	36.08	36.12	36.02	36.00	35.95	35.91	35.86	
29	36.98	36.14	36.12	36.09	36.38	36.07	36.11	36.02	36.00	35.94	35.91	35.86	
30	36.50	36.15	36.11	36.08	36.21	36.07	36.10	36.02	36.00	35.94		36.04	
31		36.17		36.09	36.17		36.08		36.00	35.94		35.89	
Mean	36.20	36.21	36.16	36.10	36.15	36.16	36.46	36.02	36.01	35.97	35.93	35.88	
Max	36.98	36.48	36.47	36.22	36.38	36.78	37.99	36.06	36.02	36.00	35.94	36.04	37.99
Min	36.03	36.14	36.08	36.06	36.07	36.07	36.05	36.02	36.00	35.94	35.91	35.85	35.85

Annual Max Momentary Gage Height	39.10	m. (MSL.) ,	at 11.00 Hours , on Oct 8 , 2011		
Zero Gage at Bottom Elevation	34.63	m. (MSL.) ,	River Bed	35.86	m. (MSL)
Left Bank Elevation	39.99	m. (MSL.) ,			
Right Bank Elevation	40.04	m. (MSL.) ,	Drainage Area	308	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.26	1.75	0.47	0.23	0.50	0.32	0.16	0.16	0.12	0.10	0.04	0.01		
2	0.20	1.15	0.41	0.23	1.45	0.38	0.16	0.14	0.12	0.10	0.04	0.01		
3	0.19	0.70	0.60	0.20	0.90	0.44	0.15	0.13	0.12	0.10	0.04	0.01		
4	0.17	0.50	2.28	0.26	0.60	0.44	0.15	0.13	0.12	0.10	0.04	0.01		
5	0.18	0.60	1.37	0.50	0.47	0.38	0.19	0.12	0.12	0.10	0.04	0.01		
6	0.17	2.35	0.70	0.60	0.38	0.23	1.60	0.12	0.12	0.10	0.04	0.01		
7	0.16	0.75	0.55	0.38	0.32	0.20	7.15	0.12	0.12	0.09	0.04	0.01		
8	0.16	0.60	0.47	0.26	0.35	0.20	32.41	0.12	0.12	0.09	0.04	0.00		
9	0.15	0.50	0.44	0.20	0.29	0.20	14.78	0.12	0.12	0.09	0.04	0.00		
10	0.17	0.47	0.38	0.19	0.32	0.20	8.96	0.12	0.12	0.08	0.04	0.00		
11	0.20	0.44	0.35	0.18	0.35	0.55	7.60	0.12	0.12	0.08	0.04	0.00		
12	0.18	0.41	0.32	0.18	0.35	5.84	5.45	0.12	0.12	0.07	0.04	0.00		
13	0.16	0.38	0.29	0.17	0.29	2.13	3.40	0.12	0.12	0.07	0.04	0.00		
14	0.15	0.38	0.29	0.17	0.29	1.08	4.15	0.12	0.12	0.06	0.04	0.00		
15	0.14	0.38	0.26	0.17	0.23	0.70	4.15	0.12	0.12	0.06	0.04	0.00		
16	0.14	0.60	0.29	0.16	0.23	0.47	4.02	0.12	0.12	0.05	0.04	0.00		
17	0.14	0.75	0.26	0.16	0.23	0.38	3.89	0.12	0.12	0.05	0.04	0.00		
18	0.13	0.70	0.29	0.16	0.23	0.29	3.20	0.12	0.12	0.05	0.04	0.00		
19	0.13	0.65	0.26	0.16	0.20	0.23	2.50	0.12	0.12	0.05	0.02	0.00		
20	0.13	0.55	0.23	0.17	0.20	0.23	1.98	0.12	0.12	0.05	0.01	0.00		
21	0.13	0.47	0.23	0.19	0.19	0.20	1.60	0.12	0.12	0.05	0.01	0.00		
22	0.13	0.44	0.23	0.20	0.19	0.20	1.23	0.12	0.11	0.05	0.01	0.00		
23	0.41	0.38	0.20	0.20	0.18	0.20	0.95	0.12	0.10	0.05	0.01	0.00		
24	6.55	0.38	0.20	0.23	0.18	0.23	0.90	0.12	0.10	0.05	0.01	0.00		
25	5.32	0.35	0.19	0.20	0.17	0.20	0.70	0.12	0.10	0.05	0.01	0.00		
26	2.50	0.38	0.18	0.23	0.17	0.20	0.47	0.12	0.10	0.05	0.01	0.00		
27	1.15	0.41	0.26	0.23	0.17	0.19	0.29	0.12	0.10	0.05	0.01	0.00		
28	2.43	0.38	0.32	0.20	0.18	0.18	0.26	0.12	0.10	0.05	0.01	0.00		
29	8.96	0.32	0.26	0.19	1.60	0.17	0.23	0.12	0.10	0.04	0.01	0.00		
30	2.50	0.35	0.23	0.18	0.55	0.17	0.20	0.12	0.10	0.04		0.14		
31		0.41		0.19	0.41		0.18		0.10	0.04		0.00		
Total	33.39	18.88	12.81	6.97	12.17	16.83	113.06	3.68	3.53	2.06	0.84	0.21	224.43	CMSDAY
Mean	1.11	0.61	0.43	0.22	0.39	0.56	3.65	0.12	0.11	0.07	0.03	0.01	0.61	CMS
Max	8.96	2.35	2.28	0.60	1.60	5.84	32.41	0.16	0.12	0.10	0.04	0.14	32.41	CMS
Min	0.13	0.32	0.18	0.16	0.17	0.17	0.15	0.12	0.10	0.04	0.01	0.00	0.00	CMS
Runoff	2.89	1.63	1.11	0.60	1.05	1.45	9.77	0.32	0.31	0.18	0.07	0.02	19.39	MCM

Momentary Peak 72.00 CMS. at 39.10 m. (MSL.) at 11.00 Hours , on Oct 8 , 2011

Runoff Yield 1.99 Liters/Second/Square KM. Momentary Peak Yield 233.690 Liters/Second/Square KM.

WATER YEAR : 2011

MAE KLONG RIVER BASIN

Khwae Noi River at Ban Lin Thin , Kanchanaburi (K.54)

Lat 14 - 32 - 04 N Long 98 - 47 - 30 E

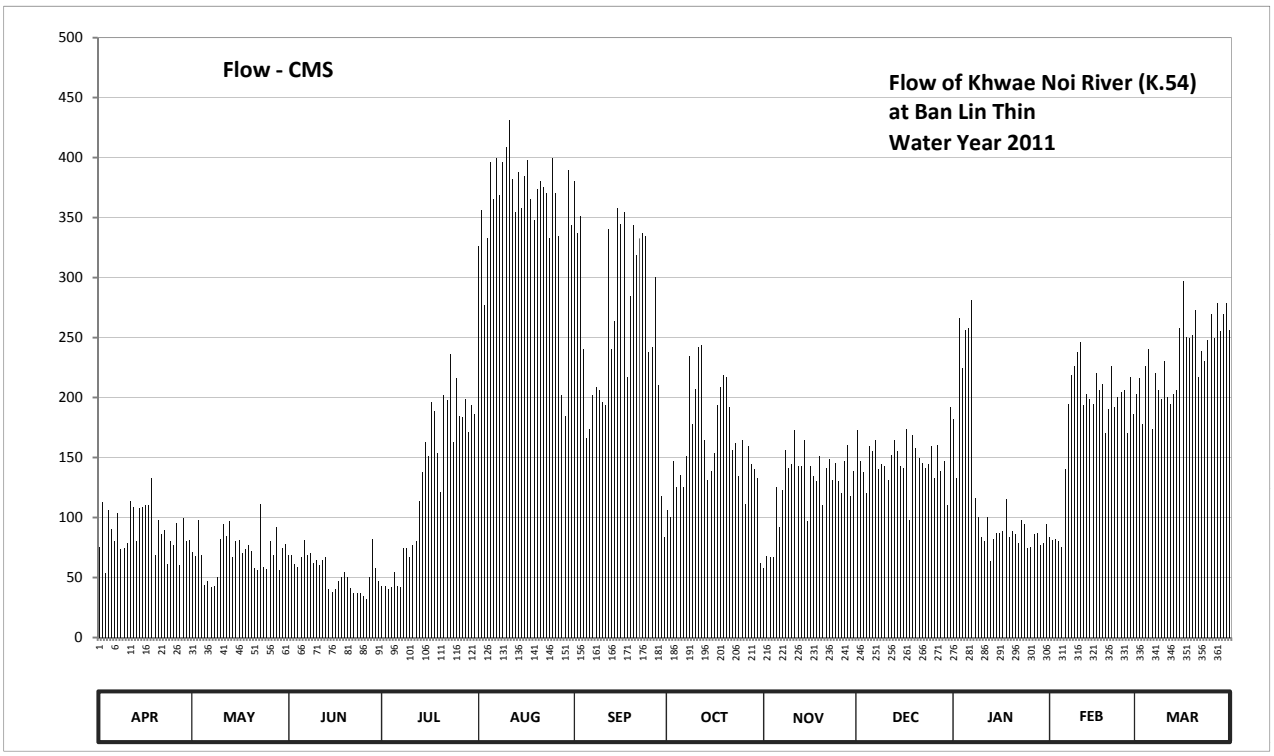
Location : on right bank at the bridge on road.

	Ban Lin Thin	**Amphoe** Thong Pha Phum	**Changwat** Kanchanaburi		
Drainge Area	4,774 sq.km.				
Type of Gage	Water - stage recorder				
Zero Gage at Bottom	+60.540 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On right bank about 40 meters from the gage observer's house.		**Elevation** +75.155 m. (MSL.)		
Gage Reading Frequency	Recording				
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings				
Period of Available Gage Records	1996 to date				
Rating Operation					
Period of Rating	1996 to date				
Rated by Flot	-				
Rated by Current Meter	1996 to date				
Stability of Channel Regimes	Stable.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records good. Flow regulated by Khao Laem Dam.				
	Stage-discharge relation defined by 38 discharge measurements made in 2011				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	62.56	62.52	62.50	62.26	64.38	64.72	62.82	62.40	63.33	63.40	62.63	63.55	
2	62.87	62.49	62.50	62.26	64.57	64.45	62.77	62.49	63.14	63.03	62.61	63.64	
3	62.36	62.75	62.43	62.23	64.06	64.54	63.14	62.48	63.07	63.99	62.62	63.37	
4	62.82	62.50	62.41	62.25	64.42	63.81	62.97	62.48	62.93	63.70	62.60	63.71	
5	62.69	62.27	62.48	62.37	64.82	63.28	63.05	62.97	63.23	63.92	62.56	63.81	
6	62.60	62.30	62.61	62.26	64.63	63.34	62.97	62.70	63.20	63.93	63.09	63.34	
7	62.80	62.25	62.50	62.25	64.84	63.54	63.17	62.95	63.27	64.09	63.49	63.67	
8	62.54	62.26	62.51	62.55	64.65	63.59	63.77	63.21	63.09	62.90	63.66	63.57	
9	62.55	62.33	62.44	62.55	64.82	63.57	63.37	63.10	63.12	62.77	63.71	63.52	
10	62.59	62.62	62.46	62.48	64.90	63.50	63.58	63.12	63.11	62.63	63.79	63.74	
11	62.88	62.72	62.42	62.57	65.04	63.48	63.82	63.33	63.02	62.60	63.85	63.53	
12	62.84	62.64	62.46	62.60	64.73	64.47	63.83	63.11	63.18	62.77	63.48	63.49	
13	62.60	62.74	62.48	62.88	64.56	63.81	63.27	63.11	63.27	62.45	63.55	63.55	
14	62.83	62.48	62.23	63.07	64.77	63.97	63.02	63.27	63.20	62.62	63.52	63.57	
15	62.84	62.60	62.21	63.26	64.58	64.58	63.08	62.74	63.11	62.66	63.49	63.93	
16	62.85	62.61	62.23	63.17	64.75	64.50	63.19	63.11	63.10	62.66	63.67	64.19	
17	62.85	62.51	62.30	63.50	64.83	64.56	63.48	63.04	63.34	62.67	63.57	63.88	
18	63.03	62.54	62.33	63.45	64.63	63.65	63.59	63.01	62.75	62.89	63.61	63.87	
19	62.50	62.57	62.37	63.19	64.52	64.11	63.66	63.17	63.30	62.63	63.31	63.89	
20	62.75	62.53	62.33	62.94	64.68	64.49	63.65	62.85	63.22	62.67	63.46	64.03	
21	62.65	62.40	62.24	63.54	64.72	64.33	63.47	63.10	63.16	62.65	63.71	63.65	
22	62.68	62.38	62.20	63.51	64.69	64.42	63.21	63.15	63.13	62.59	63.47	63.80	
23	62.43	62.86	62.20	63.78	64.66	64.45	63.25	63.02	63.10	62.75	63.53	63.74	
24	62.60	62.41	62.20	63.26	64.42	64.43	63.04	63.13	63.12	62.72	63.56	63.86	
25	62.57	62.39	62.17	63.64	64.84	63.79	63.27	63.01	63.23	62.55	63.57	64.01	
26	62.73	62.60	62.14	63.42	64.66	63.82	62.86	62.93	63.03	62.56	63.31	63.87	
27	62.42	62.50	62.33	63.41	64.43	64.21	63.23	63.14	63.24	62.65	63.65	64.07	
28	62.76	62.70	62.62	63.52	63.54	63.60	63.12	63.24	63.08	62.66	63.43	63.91	
29	62.60	62.38	62.40	63.32	63.42	62.91	63.09	62.91	63.14	62.57	63.54	64.01	
30	62.61	62.55	62.30	63.48	64.78	62.63	63.03	63.08	62.85	62.59		64.07	
31		62.58		63.43	64.49		62.44		63.47	62.72		63.92	
Mean	62.68	62.52	62.37	62.98	64.58	63.95	63.23	62.98	63.15	62.90	63.38	63.77	
Max	63.03	62.86	62.62	63.78	65.04	64.72	63.83	63.33	63.47	64.09	63.85	64.19	65.04
Min	62.36	62.25	62.14	62.23	63.42	62.63	62.44	62.40	62.75	62.45	62.56	63.34	62.14

Annual Max Momentary Gage Height	65.88	m. (MSL.) ,	at 03.00 Hours , on Aug 11 , 2011		
Zero Gage at Bottom Elevation	60.54	m. (MSL.) ,	River Bed	60.32	m. (MSL)
Left Bank Elevation	68.50	m. (MSL.) ,			
Right Bank Elevation	71.05	m. (MSL.) ,	Drainage Area	4774	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	75.60	71.20	69.00	43.00	326.40	380.20	106.50	58.00	172.55	182.00	83.60	203.00		
2	112.75	67.90	69.00	43.00	356.20	337.25	100.40	67.90	146.90	132.75	81.20	215.80		
3	53.60	98.00	61.30	40.00	277.00	351.40	146.90	66.80	137.75	266.55	82.40	177.95		
4	106.50	69.00	59.10	42.00	332.60	240.45	125.25	66.80	120.25	224.50	80.00	225.95		
5	90.80	44.00	66.80	54.70	396.20	165.80	135.25	125.25	159.05	256.40	75.60	240.45		
6	80.00	47.00	81.20	43.00	365.80	173.90	125.25	92.00	155.00	257.85	140.25	173.90		
7	104.00	42.00	69.00	42.00	399.40	201.60	150.95	122.75	164.45	281.50	194.60	220.15		
8	73.40	43.00	70.10	74.50	369.00	208.60	234.65	156.35	140.25	116.50	218.70	205.80		
9	74.50	50.30	62.40	74.50	396.20	205.80	177.95	141.50	144.20	100.40	225.95	198.80		
10	78.90	82.40	64.60	66.80	409.00	196.00	207.20	144.20	142.85	83.60	237.55	230.30		
11	114.00	94.40	60.20	76.70	431.40	193.20	241.90	172.55	131.50	80.00	246.25	200.20		
12	109.00	84.80	64.60	80.00	381.80	340.35	243.35	142.85	152.30	100.40	193.20	194.60		
13	80.00	96.80	66.80	114.00	354.60	240.45	164.45	142.85	164.45	63.50	203.00	203.00		
14	107.75	66.80	40.00	137.75	388.20	263.65	131.50	164.45	155.00	82.40	198.80	205.80		
15	109.00	80.00	38.00	163.10	357.80	357.80	139.00	96.80	142.85	87.20	194.60	257.85		
16	110.25	81.20	40.00	150.95	385.00	345.00	153.65	142.85	141.50	87.20	220.15	296.95		
17	110.25	70.10	47.00	196.00	397.80	354.60	193.20	134.00	173.90	88.40	205.80	250.60		
18	132.75	73.40	50.30	189.00	365.80	217.25	208.60	130.25	98.00	115.25	211.45	249.15		
19	69.00	76.70	54.70	153.65	348.20	284.55	218.70	150.95	168.50	83.60	169.85	252.05		
20	98.00	72.30	50.30	121.50	373.80	343.45	217.25	110.25	157.70	88.40	190.40	272.50		
21	86.00	58.00	41.00	201.60	380.20	318.65	191.80	141.50	149.60	86.00	225.95	217.25		
22	89.60	55.80	37.00	197.40	375.40	332.60	156.35	148.25	145.55	78.90	191.80	239.00		
23	61.30	111.50	37.00	236.10	370.60	337.25	161.75	131.50	141.50	98.00	200.20	230.30		
24	80.00	59.10	37.00	163.10	332.60	334.15	134.00	145.55	144.20	94.40	204.40	247.70		
25	76.70	56.90	34.45	215.80	399.40	237.55	164.45	130.25	159.05	74.50	205.80	269.50		
26	95.60	80.00	31.90	184.80	370.60	241.90	111.50	120.25	132.75	75.60	169.85	249.15		
27	60.20	69.00	50.30	183.40	334.15	300.05	159.05	146.90	160.40	86.00	217.25	278.50		
28	99.20	92.00	82.40	198.80	201.60	210.00	144.20	160.40	139.00	87.20	186.20	254.95		
29	80.00	55.80	58.00	171.20	184.80	117.75	140.25	117.75	146.90	76.70	201.60	269.50		
30	81.20	74.50	47.00	193.20	389.80	83.60	132.75	139.00	110.25	78.90		278.50		
31		77.80		186.20	343.45		62.40		191.80	94.40		256.40		
Total	2699.85	2201.70	1640.45	4037.75	11094.80	7914.80	4980.40	3810.70	4589.95	3709.00	5256.40	7265.55	59201.35	CMSDAY
Mean	90.00	71.02	54.68	130.25	357.90	263.83	160.66	127.02	148.06	119.65	181.26	234.37	161.75	CMS
Max	132.75	111.50	82.40	236.10	431.40	380.20	243.35	172.55	191.80	281.50	246.25	296.95	431.40	CMS
Min	53.60	42.00	31.90	40.00	184.80	83.60	62.40	58.00	98.00	63.50	75.60	173.90	31.90	CMS
Runoff	233.27	190.23	141.74	348.86	958.59	683.84	430.31	329.24	396.57	320.46	454.15	627.74	5115.00	MCM

Momentary Peak 570.60 CMS. at 65.88 m. (MSL.) at 03.00 Hours , on Aug 11 , 2011

Runoff Yield 33.88 Liters/Second/Square KM. Momentary Peak Yield 119.522 Liters/Second/Square KM.

WATER YEAR : 2011

MAE KLONG RIVER BASIN

Khwae Noi River at Ban Pak Saeng , Kanchanaburi (K.58)

Lat 14 - 12 - 46 N Long 99 - 03 - 39 E

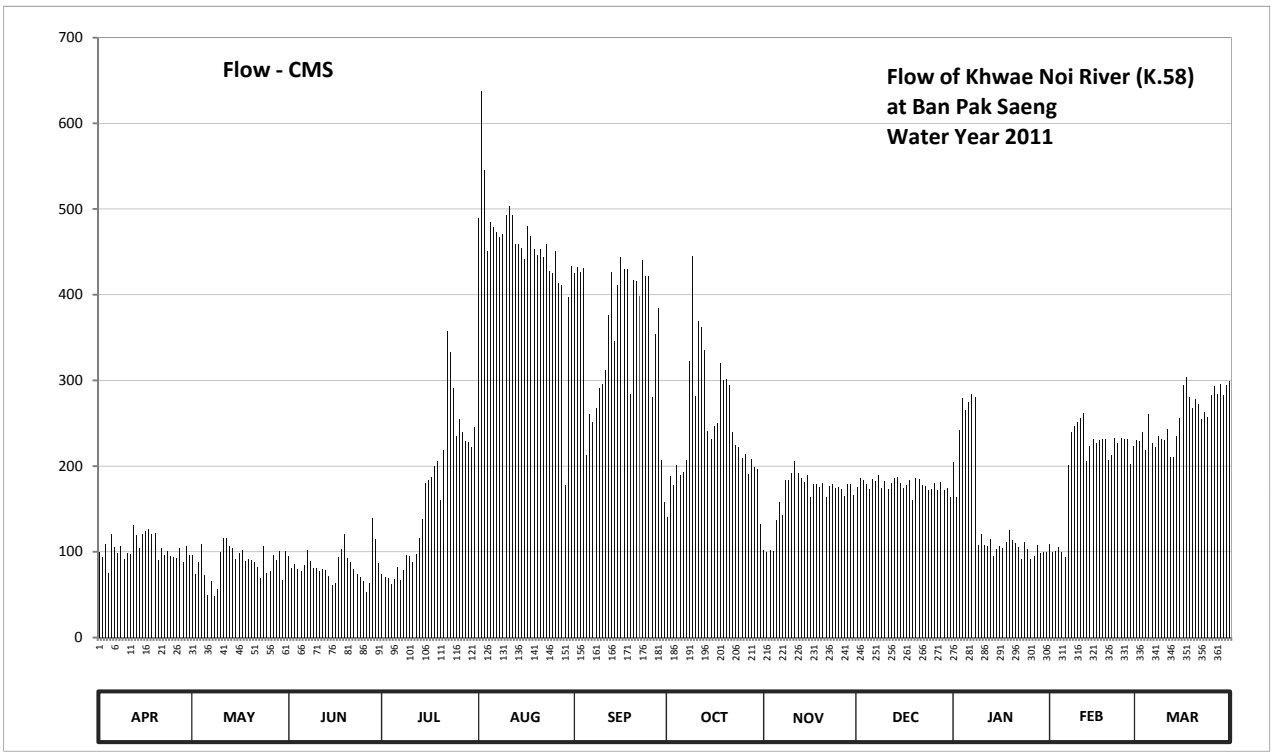
Location : on left bank at Ban Pak Saeng.

	Ban Pak Saeng	**Amphoe** Sai Yok	**Changwat** Kanchanaburi
Drainge Area	6,725 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+39.567 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank about 40 meters from the gage observer's house.	**Elevation**	+49.053 m. (MSL.)
Gage Reading Frequency	5-time daily reading at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	1998 to date		
Rating Operation			
Period of Rating	2006 to date		
Rated by Flot	-		
Rated by Current Meter	2006 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 41 discharge measurements made in 2011		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	41.52	41.48	41.47	41.26	44.54	44.08	41.88	41.54	42.17	42.41	41.60	42.62	
2	41.46	41.26	41.33	41.23	45.56	44.13	42.28	41.52	42.26	42.07	41.52	42.61	
3	41.60	41.40	41.38	41.21	44.93	44.09	42.19	41.54	42.24	42.71	41.53	42.69	
4	41.27	41.60	41.32	41.14	44.26	44.12	42.38	41.53	42.20	43.00	41.57	42.52	
5	41.71	41.25	41.30	41.20	44.51	42.48	42.29	41.85	42.15	42.89	41.52	42.86	
6	41.57	41.00	41.36	41.34	44.46	42.86	42.32	42.03	42.25	42.97	41.46	42.59	
7	41.51	41.18	41.54	41.19	44.42	42.79	42.43	41.90	42.23	43.04	42.38	42.55	
8	41.58	40.98	41.41	41.31	44.38	42.91	43.33	42.24	42.29	43.01	42.69	42.66	
9	41.43	41.07	41.33	41.48	44.41	43.09	44.22	42.24	42.16	41.59	42.75	42.63	
10	41.51	41.52	41.33	41.47	44.56	43.13	43.02	42.31	42.23	41.71	42.79	42.62	
11	41.49	41.66	41.30	41.40	44.64	43.25	43.68	42.42	42.15	41.59	42.82	42.72	
12	41.80	41.66	41.32	41.49	44.56	43.73	43.63	42.31	42.21	41.58	42.87	42.46	
13	41.70	41.58	41.31	41.66	44.32	44.09	43.43	42.26	42.26	41.65	42.42	42.46	
14	41.56	41.56	41.24	41.86	44.32	43.51	42.70	42.22	42.27	41.47	42.56	42.66	
15	41.71	41.44	41.13	42.21	44.29	43.98	42.63	42.29	42.21	41.55	42.63	42.82	
16	41.74	41.51	41.15	42.24	44.20	44.21	42.75	42.07	42.16	41.58	42.59	43.12	
17	41.76	41.54	41.46	42.27	44.47	44.11	42.78	42.20	42.19	41.56	42.62	43.19	
18	41.71	41.41	41.55	42.37	44.39	44.11	43.32	42.20	42.24	41.62	42.63	43.01	
19	41.72	41.44	41.71	42.42	44.28	43.04	43.16	42.17	42.05	41.75	42.63	42.91	
20	41.42	41.42	41.45	42.05	44.23	44.02	43.17	42.21	42.26	41.64	42.43	42.99	
21	41.56	41.40	41.40	42.52	44.28	44.01	43.12	42.07	42.25	41.61	42.48	42.95	
22	41.48	41.34	41.32	43.60	44.21	43.89	42.69	42.18	42.19	41.57	42.64	42.81	
23	41.53	41.21	41.26	43.41	44.32	44.19	42.57	42.20	42.18	41.44	42.59	42.88	
24	41.47	41.58	41.23	43.09	44.10	44.05	42.55	42.16	42.14	41.62	42.64	42.83	
25	41.46	41.27	41.18	42.66	44.08	44.05	42.45	42.17	42.15	41.55	42.63	43.03	
26	41.45	41.29	41.04	42.81	44.26	43.01	42.49	42.15	42.21	41.44	42.63	43.11	
27	41.56	41.48	41.15	42.69	44.00	43.57	42.30	42.08	42.14	41.47	42.39	43.04	
28	41.40	41.42	41.87	42.61	43.98	43.79	42.44	42.20	42.22	41.59	42.56	43.13	
29	41.58	41.53	41.65	42.60	42.19	42.43	42.36	42.20	42.14	41.51	42.54	43.03	
30	41.48	41.19	41.39	42.55	43.88	42.03	42.34	42.09	42.16	41.52		43.12	
31		41.53		42.74	44.14		41.81		42.07	41.52		43.15	
Mean	41.56	41.39	41.36	42.07	44.30	43.56	42.73	42.08	42.19	41.88	42.38	42.83	
Max	41.80	41.66	41.87	43.60	45.56	44.21	44.22	42.42	42.29	43.04	42.87	43.19	45.56
Min	41.27	40.98	41.04	41.14	42.19	42.03	41.81	41.52	42.05	41.44	41.46	42.46	40.98

Annual Max Momentary Gage Height	45.86	m. (MSL.) ,	at 15.00 Hours , on Aug 2 , 2011		
Zero Gage at Bottom Elevation	39.57	m. (MSL.) ,	River Bed	40.29	m. (MSL)
Left Bank Elevation	48.95	m. (MSL.) ,			
Right Bank Elevation	50.28	m. (MSL.) ,	Drainage Area	6725	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	100.20	96.00	95.00	74.00	489.60	425.20	140.60	102.40	175.40	204.25	109.00	230.50		
2	94.00	74.00	81.00	71.00	637.20	432.20	188.60	100.20	186.20	163.40	100.20	229.25		
3	109.00	88.00	86.00	69.00	545.85	426.60	177.80	102.40	183.80	241.75	101.30	239.25		
4	75.00	109.00	80.00	62.60	450.40	430.80	200.60	101.30	179.00	279.00	105.70	218.00		
5	121.10	73.00	78.00	68.00	485.40	213.00	189.80	137.00	173.00	264.70	100.20	260.80		
6	105.70	50.00	84.00	82.00	478.40	260.80	193.40	158.60	185.00	275.10	94.00	226.75		
7	99.10	66.20	102.40	67.10	472.80	251.75	206.75	143.00	182.60	284.20	200.60	221.75		
8	106.80	48.20	89.00	79.00	467.20	267.30	321.90	183.80	189.80	280.30	239.25	235.50		
9	91.00	56.30	81.00	96.00	471.40	290.70	444.80	183.80	174.20	107.90	246.75	231.75		
10	99.10	100.20	81.00	95.00	492.40	295.90	281.60	192.20	182.60	121.10	251.75	230.50		
11	97.00	115.60	78.00	88.00	503.80	311.50	369.20	205.50	173.00	107.90	255.60	243.00		
12	131.00	115.60	80.00	97.00	492.40	376.20	362.20	192.20	180.20	106.80	262.10	210.50		
13	120.00	106.80	79.00	115.60	458.80	426.60	335.05	186.20	186.20	114.50	205.50	210.50		
14	104.60	104.60	72.00	138.20	458.80	345.85	240.50	181.40	187.40	95.00	223.00	235.50		
15	121.10	92.00	61.70	180.20	454.60	411.20	231.75	189.80	180.20	103.50	231.75	255.60		
16	124.40	99.10	63.50	183.80	442.00	443.40	246.75	163.40	174.20	106.80	226.75	294.60		
17	126.60	102.40	94.00	187.40	479.80	429.40	250.50	179.00	177.80	104.60	230.50	303.70		
18	121.10	89.00	103.50	199.40	468.60	429.40	320.60	179.00	183.80	111.20	231.75	280.30		
19	122.20	92.00	121.10	205.50	453.20	284.20	299.80	175.40	161.00	125.50	231.75	267.30		
20	90.00	90.00	93.00	161.00	446.20	416.80	301.10	180.20	186.20	113.40	206.75	277.70		
21	104.60	88.00	88.00	218.00	453.20	415.40	294.60	163.40	185.00	110.10	213.00	272.50		
22	96.00	82.00	80.00	358.00	443.40	398.60	239.25	176.60	177.80	105.70	233.00	254.30		
23	101.30	69.00	74.00	332.35	458.80	440.60	224.25	179.00	176.60	92.00	226.75	263.40		
24	95.00	106.80	71.00	290.70	428.00	421.00	221.75	174.20	171.80	111.20	233.00	256.90		
25	94.00	75.00	66.20	235.50	425.20	421.00	209.25	175.40	173.00	103.50	231.75	282.90		
26	93.00	77.00	53.60	254.30	450.40	280.30	214.25	173.00	180.20	92.00	231.75	293.30		
27	104.60	96.00	63.50	239.25	414.00	353.95	191.00	164.60	171.80	95.00	201.80	284.20		
28	88.00	90.00	139.40	229.25	411.20	384.60	208.00	179.00	181.40	107.90	223.00	295.90		
29	106.80	101.30	114.50	228.00	177.80	206.75	198.20	179.00	171.80	99.10	220.50	282.90		
30	96.00	67.10	87.00	221.75	397.20	158.60	195.80	165.80	174.20	100.20		294.60		
31		101.30		245.50	433.60		132.20		163.40	100.20		298.50		
Total	3138.30	2721.50	2540.40	5172.40	14141.65	10649.60	7631.85	4966.80	5528.60	4427.80	5868.75	7982.15	74769.80	CMSDAY
Mean	104.61	87.79	84.68	166.85	456.18	354.99	246.19	165.56	178.34	142.83	202.37	257.49	204.29	CMS
Max	131.00	115.60	139.40	358.00	637.20	443.40	444.80	205.50	189.80	284.20	262.10	303.70	637.20	CMS
Min	75.00	48.20	53.60	62.60	177.80	158.60	132.20	100.20	161.00	92.00	94.00	210.50	48.20	CMS
Runoff	271.15	235.14	219.49	446.90	1221.84	920.13	659.39	429.13	477.67	382.56	507.06	689.66	6460.11	MCM

Momentary Peak 680.70 CMS. at 45.86 m. (MSL.) at 15.00 Hours , on Aug 2 , 2011

Runoff Yield 30.38 Liters/Second/Square KM. Momentary Peak Yield 101.219 Liters/Second/Square KM.

WATER YEAR : 2011

MAE KLONG RIVER BASIN

Huai Kui Mang at Ban Kui Mang , Kanchanaburi (K.60)

Lat 14 - 37 - 32 N Long 98 - 43 - 50 E

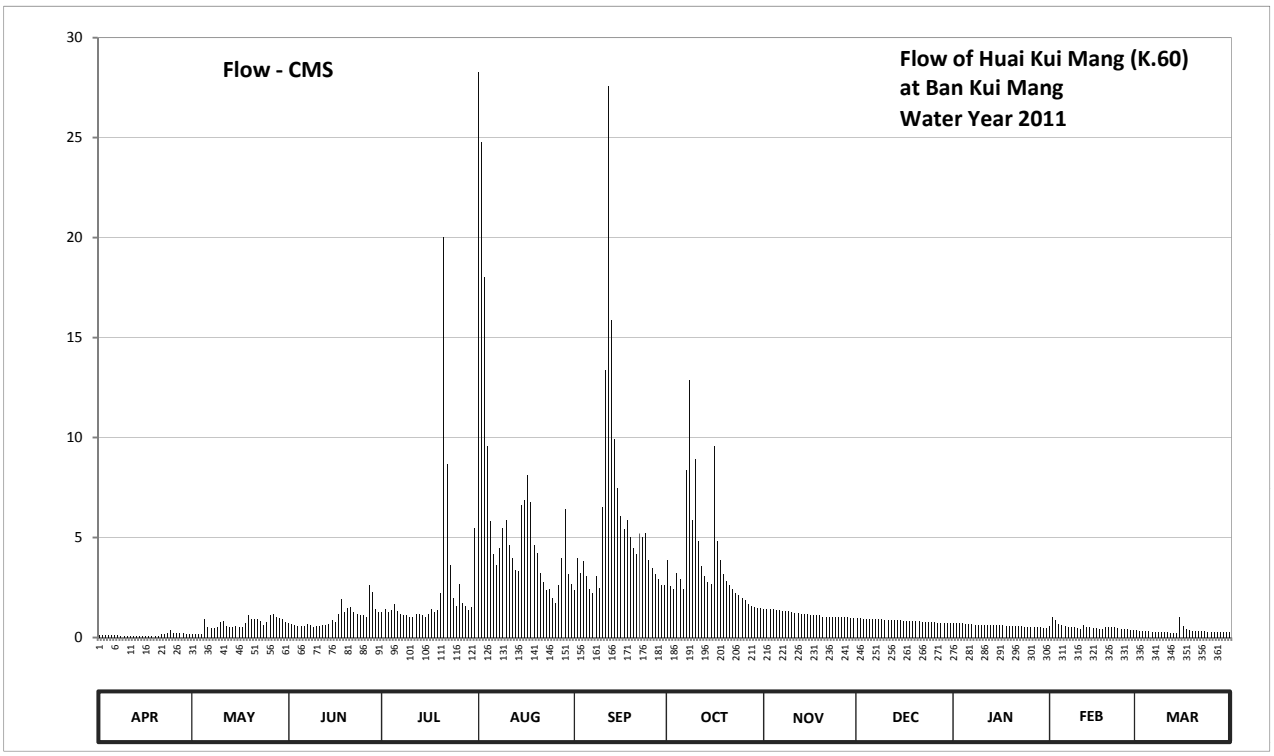
Location : on right bank at the bridge on road.

	Ban Kui Mang	**Amphoe** Thong Pha Phum	**Changwat** Kanchanaburi
Drainge Area	128 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+73.675 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank about 15 meters from the top staff gage.	**Elevation**	+82.022 m. (MSL.)
Gage Reading Frequency	5-time daily reading at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	2000 to date		
Rating Operation			
Period of Rating	2000 to date		
Rated by Flot	-		
Rated by Current Meter	2000 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 45 discharge measurements made in 2011		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	74.30	74.34	74.53	74.65	76.55	74.84	75.04	74.68	74.58	74.53	74.49	74.42	
2	74.30	74.34	74.52	74.68	76.40	75.05	74.87	74.68	74.58	74.53	74.60	74.41	
3	74.30	74.34	74.50	74.65	76.08	74.96	74.85	74.68	74.57	74.53	74.56	74.41	
4	74.30	74.33	74.49	74.67	75.55	75.03	74.96	74.68	74.57	74.53	74.52	74.40	
5	74.32	74.57	74.49	74.73	75.24	74.94	74.92	74.67	74.57	74.52	74.51	74.40	
6	74.31	74.47	74.49	74.66	75.07	74.85	74.85	74.67	74.57	74.52	74.49	74.39	
7	74.30	74.46	74.52	74.63	75.01	74.82	75.46	74.66	74.57	74.52	74.48	74.39	
8	74.29	74.46	74.50	74.61	75.11	74.94	75.78	74.66	74.57	74.51	74.47	74.38	
9	74.29	74.47	74.48	74.61	75.21	74.86	75.25	74.66	74.57	74.51	74.47	74.38	
10	74.29	74.54	74.49	74.60	75.25	75.31	75.50	74.65	74.56	74.51	74.46	74.38	
11	74.28	74.55	74.49	74.60	75.12	75.81	75.14	74.64	74.56	74.51	74.45	74.38	
12	74.28	74.49	74.50	74.63	75.05	76.52	75.00	74.64	74.56	74.51	74.50	74.37	
13	74.28	74.48	74.50	74.63	74.98	75.96	74.94	74.63	74.56	74.50	74.47	74.37	
14	74.27	74.47	74.52	74.61	74.97	75.58	74.90	74.63	74.56	74.50	74.47	74.36	
15	74.27	74.49	74.56	74.60	75.32	75.39	74.89	74.63	74.56	74.50	74.46	74.59	
16	74.27	74.48	74.54	74.63	75.34	75.27	75.55	74.62	74.55	74.50	74.46	74.49	
17	74.27	74.48	74.63	74.68	75.44	75.20	75.14	74.62	74.55	74.50	74.45	74.44	
18	74.27	74.53	74.77	74.65	75.33	75.25	75.04	74.61	74.55	74.49	74.45	74.42	
19	74.26	74.62	74.65	74.67	75.12	75.16	74.95	74.61	74.55	74.49	74.48	74.41	
20	74.26	74.57	74.69	74.82	75.08	75.11	74.91	74.60	74.55	74.49	74.48	74.40	
21	74.34	74.57	74.70	76.18	74.96	75.07	74.88	74.60	74.55	74.49	74.47	74.40	
22	74.34	74.57	74.65	75.48	74.90	75.18	74.85	74.60	74.54	74.49	74.47	74.40	
23	74.37	74.55	74.63	75.01	74.84	75.16	74.82	74.60	74.54	74.49	74.46	74.40	
24	74.43	74.51	74.62	74.78	74.85	75.18	74.80	74.59	74.54	74.48	74.45	74.39	
25	74.37	74.54	74.61	74.71	74.78	75.04	74.78	74.59	74.54	74.48	74.45	74.39	
26	74.36	74.62	74.60	74.89	74.74	74.99	74.76	74.59	74.54	74.48	74.44	74.39	
27	74.35	74.63	74.88	74.74	74.88	74.95	74.73	74.59	74.53	74.47	74.43	74.39	
28	74.35	74.60	74.83	74.71	75.05	74.92	74.71	74.59	74.53	74.47	74.43	74.39	
29	74.34	74.58	74.68	74.67	75.30	74.88	74.70	74.58	74.53	74.47	74.42	74.39	
30	74.34	74.57	74.65	74.70	74.95	74.88	74.69	74.58	74.53	74.46		74.38	
31		74.54		75.21	74.89		74.69		74.53	74.46		74.38	
Mean	74.31	74.51	74.59	74.78	75.21	75.17	74.98	74.63	74.55	74.50	74.47	74.40	
Max	74.43	74.63	74.88	76.18	76.55	76.52	75.78	74.68	74.58	74.53	74.60	74.59	76.55
Min	74.26	74.33	74.48	74.60	74.74	74.82	74.69	74.58	74.53	74.46	74.42	74.36	74.26

Annual Max Momentary Gage Height	76.78	m. (MSL.) ,	at 18.00 Hours , on Aug 1 , 2011		
Zero Gage at Bottom Elevation	73.68	m. (MSL.) ,	River Bed	73.26	m. (MSL)
Left Bank Elevation	82.01	m. (MSL.) ,			
Right Bank Elevation	82.11	m. (MSL.) ,	Drainage Area	128	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.10	0.18	0.73	1.28	28.30	2.36	3.89	1.41	0.96	0.73	0.57	0.36		
2	0.10	0.18	0.69	1.41	24.80	3.98	2.56	1.41	0.96	0.73	1.05	0.33		
3	0.10	0.18	0.60	1.28	18.04	3.23	2.42	1.41	0.92	0.73	0.87	0.33		
4	0.10	0.16	0.57	1.37	9.55	3.80	3.23	1.41	0.92	0.73	0.69	0.30		
5	0.14	0.92	0.57	1.68	5.80	3.07	2.91	1.37	0.92	0.69	0.65	0.30		
6	0.12	0.51	0.57	1.32	4.15	2.42	2.42	1.37	0.92	0.69	0.57	0.28		
7	0.10	0.48	0.69	1.18	3.64	2.23	8.38	1.32	0.92	0.69	0.54	0.28		
8	0.09	0.48	0.60	1.10	4.50	3.07	12.88	1.32	0.92	0.65	0.51	0.26		
9	0.09	0.51	0.54	1.10	5.50	2.49	5.90	1.32	0.92	0.65	0.51	0.26		
10	0.09	0.78	0.57	1.05	5.90	6.52	8.90	1.28	0.87	0.65	0.48	0.26		
11	0.08	0.83	0.57	1.05	4.60	13.36	4.80	1.23	0.87	0.65	0.45	0.26		
12	0.08	0.57	0.60	1.18	3.98	27.58	3.55	1.23	0.87	0.65	0.60	0.24		
13	0.08	0.54	0.60	1.18	3.39	15.88	3.07	1.18	0.87	0.60	0.51	0.24		
14	0.07	0.51	0.69	1.10	3.31	9.94	2.75	1.18	0.87	0.60	0.51	0.22		
15	0.07	0.57	0.87	1.05	6.64	7.48	2.68	1.18	0.87	0.60	0.48	1.00		
16	0.07	0.54	0.78	1.18	6.88	6.10	9.55	1.14	0.83	0.60	0.48	0.57		
17	0.07	0.54	1.18	1.41	8.12	5.40	4.80	1.14	0.83	0.60	0.45	0.42		
18	0.07	0.73	1.92	1.28	6.76	5.90	3.89	1.10	0.83	0.57	0.45	0.36		
19	0.06	1.14	1.28	1.37	4.60	5.00	3.15	1.10	0.83	0.57	0.54	0.33		
20	0.06	0.92	1.46	2.23	4.23	4.50	2.83	1.05	0.83	0.57	0.54	0.30		
21	0.18	0.92	1.50	20.00	3.23	4.15	2.62	1.05	0.83	0.57	0.51	0.30		
22	0.18	0.92	1.28	8.64	2.75	5.20	2.42	1.05	0.78	0.57	0.51	0.30		
23	0.24	0.83	1.18	3.64	2.36	5.00	2.23	1.05	0.78	0.57	0.48	0.30		
24	0.39	0.65	1.14	1.98	2.42	5.20	2.10	1.00	0.78	0.54	0.45	0.28		
25	0.24	0.78	1.10	1.56	1.98	3.89	1.98	1.00	0.78	0.54	0.45	0.28		
26	0.22	1.14	1.05	2.68	1.74	3.47	1.86	1.00	0.78	0.54	0.42	0.28		
27	0.20	1.18	2.62	1.74	2.62	3.15	1.68	1.00	0.73	0.51	0.39	0.28		
28	0.20	1.05	2.29	1.56	3.98	2.91	1.56	1.00	0.73	0.51	0.39	0.28		
29	0.18	0.96	1.41	1.37	6.40	2.62	1.50	0.96	0.73	0.51	0.36	0.28		
30	0.18	0.92	1.28	1.50	3.15	2.62	1.46	0.96	0.73	0.48		0.26		
31		0.78		5.50	2.68		1.46		0.73	0.48		0.26		
Total	3.95	21.40	30.93	75.97	196.00	172.52	115.43	35.22	26.11	18.77	15.41	10.00	721.71	CMSDAY
Mean	0.13	0.69	1.03	2.45	6.32	5.75	3.72	1.17	0.84	0.61	0.53	0.32	1.97	CMS
Max	0.39	1.18	2.62	20.00	28.30	27.58	12.88	1.41	0.96	0.73	1.05	1.00	28.30	CMS
Min	0.06	0.16	0.54	1.05	1.74	2.23	1.46	0.96	0.73	0.48	0.36	0.22	0.06	CMS
Runoff	0.34	1.85	2.67	6.56	16.93	14.91	9.97	3.04	2.26	1.62	1.33	0.86	62.36	MCM

Momentary Peak 34.08 CMS. at 76.78 m. (MSL.) at 18.00 Hours , on Aug 1 , 2011

Runoff Yield 15.36 Liters/Second/Square KM. Momentary Peak Yield 265.503 Liters/Second/Square KM.

WATER YEAR : 2011

MAE KLONG RIVER BASIN

Lam Phachi at Ban Dan Thaptako , Ratchaburi (K.61)

Lat 13 - 41 - 28 N Long 99 - 27 - 08 E

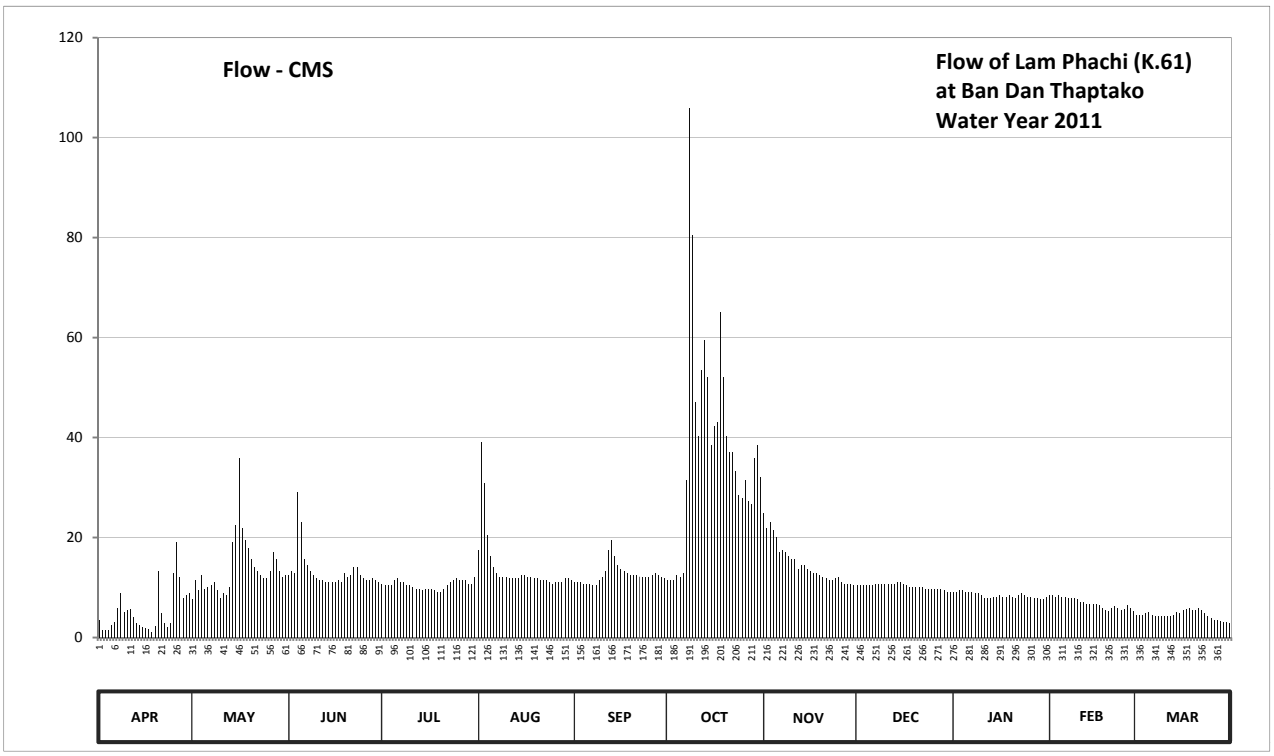
Location : on right bank at the bridge on highway.

	Ban Dan Thaptako	**Amphoe** Chom Bung	**Changwat** Ratchaburi
Drainge Area	1,844 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+64.630 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	Near the automatic gage building.		**Elevation** +71.913 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	2004 to date		
Rating Operation			
Period of Rating	2004 to date		
Rated by Flot	-		
Rated by Current Meter	2004 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 43 discharge measurements made in 2011		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	65.16	65.33	65.48	65.43	65.60	65.44	65.45	65.74	65.42	65.38	65.36	65.21	
2	65.04	65.45	65.50	65.42	65.97	65.44	65.45	65.69	65.42	65.38	65.36	65.21	
3	65.04	65.39	65.49	65.42	65.84	65.44	65.45	65.71	65.42	65.39	65.35	65.21	
4	65.04	65.48	65.81	65.42	65.66	65.43	65.48	65.68	65.42	65.39	65.36	65.22	
5	65.11	65.40	65.71	65.45	65.57	65.43	65.47	65.65	65.42	65.38	65.35	65.23	
6	65.14	65.41	65.56	65.46	65.52	65.43	65.49	65.59	65.42	65.38	65.35	65.21	
7	65.27	65.42	65.53	65.44	65.49	65.42	65.85	65.60	65.43	65.38	65.34	65.20	
8	65.37	65.44	65.50	65.44	65.47	65.42	66.78	65.59	65.43	65.37	65.34	65.20	
9	65.23	65.39	65.48	65.42	65.47	65.45	66.51	65.57	65.43	65.37	65.34	65.20	
10	65.25	65.34	65.46	65.42	65.47	65.47	66.09	65.56	65.43	65.36	65.33	65.20	
11	65.26	65.37	65.45	65.41	65.46	65.50	65.99	65.56	65.43	65.34	65.31	65.20	
12	65.19	65.36	65.45	65.40	65.46	65.60	66.18	65.51	65.43	65.34	65.31	65.20	
13	65.13	65.41	65.44	65.40	65.46	65.64	66.26	65.53	65.43	65.34	65.30	65.21	
14	65.11	65.63	65.44	65.39	65.46	65.57	66.16	65.53	65.44	65.35	65.30	65.23	
15	65.09	65.70	65.44	65.40	65.48	65.53	65.96	65.51	65.44	65.35	65.30	65.22	
16	65.07	65.92	65.44	65.40	65.48	65.51	66.02	65.50	65.43	65.36	65.30	65.25	
17	65.06	65.69	65.45	65.40	65.47	65.50	66.03	65.49	65.42	65.35	65.29	65.26	
18	65.02	65.64	65.44	65.39	65.47	65.49	66.33	65.49	65.41	65.35	65.27	65.27	
19	65.10	65.61	65.49	65.38	65.46	65.48	66.16	65.48	65.41	65.36	65.25	65.25	
20	65.50	65.56	65.47	65.38	65.46	65.48	65.99	65.47	65.41	65.35	65.24	65.25	
21	65.22	65.52	65.48	65.40	65.45	65.48	65.94	65.46	65.41	65.34	65.27	65.27	
22	65.13	65.50	65.52	65.42	65.45	65.47	65.94	65.45	65.41	65.36	65.28	65.25	
23	65.09	65.48	65.52	65.44	65.45	65.47	65.88	65.45	65.40	65.37	65.27	65.22	
24	65.13	65.46	65.48	65.45	65.44	65.47	65.80	65.46	65.40	65.36	65.25	65.20	
25	65.49	65.46	65.46	65.46	65.43	65.47	65.79	65.47	65.40	65.35	65.26	65.18	
26	65.63	65.50	65.45	65.45	65.44	65.48	65.85	65.44	65.40	65.35	65.29	65.16	
27	65.47	65.59	65.45	65.45	65.44	65.49	65.78	65.43	65.40	65.34	65.27	65.16	
28	65.34	65.56	65.46	65.45	65.44	65.48	65.77	65.43	65.40	65.34	65.24	65.15	
29	65.36	65.50	65.45	65.43	65.46	65.47	65.92	65.43	65.39	65.33	65.22	65.14	
30	65.37	65.47	65.44	65.43	65.46	65.46	65.96	65.42	65.38	65.33		65.14	
31		65.48		65.47	65.45		65.86		65.38	65.35		65.13	
Mean	65.21	65.50	65.49	65.42	65.50	65.48	65.92	65.53	65.41	65.36	65.30	65.21	
Max	65.63	65.92	65.81	65.47	65.97	65.64	66.78	65.74	65.44	65.39	65.36	65.27	66.78
Min	65.02	65.33	65.44	65.38	65.43	65.42	65.45	65.42	65.38	65.33	65.22	65.13	65.02

Annual Max Momentary Gage Height	67.25	m. (MSL.) ,	at 17.00 Hours , on Oct 8 , 2011		
Zero Gage at Bottom Elevation	64.63	m. (MSL.) ,	River Bed	64.28	m. (MSL)
Left Bank Elevation	71.51	m. (MSL.) ,			
Right Bank Elevation	72.08	m. (MSL.) ,	Drainage Area	1844	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.50	7.60	12.50	10.75	17.50	11.10	11.45	24.90	10.40	9.10	8.50	4.54		
2	1.40	11.45	13.20	10.40	39.05	11.10	11.45	22.00	10.40	9.10	8.50	4.54		
3	1.40	9.40	12.85	10.40	30.90	11.10	11.45	23.10	10.40	9.40	8.20	4.54		
4	1.40	12.50	29.10	10.40	20.50	10.75	12.50	21.50	10.40	9.40	8.50	4.78		
5	2.50	9.70	23.10	11.45	16.21	10.75	12.15	20.00	10.40	9.10	8.20	5.02		
6	3.10	10.05	15.78	11.80	14.06	10.75	12.85	17.07	10.40	9.10	8.20	4.54		
7	5.98	10.40	14.49	11.10	12.85	10.40	31.50	17.50	10.75	9.10	7.90	4.30		
8	8.80	11.10	13.20	11.10	12.15	10.40	106.00	17.07	10.75	8.80	7.90	4.30		
9	5.02	9.40	12.50	10.40	12.15	11.45	80.40	16.21	10.75	8.80	7.90	4.30		
10	5.50	7.90	11.80	10.40	12.15	12.15	47.12	15.78	10.75	8.50	7.60	4.30		
11	5.74	8.80	11.45	10.05	11.80	13.20	40.35	15.78	10.75	7.90	7.00	4.30		
12	4.10	8.50	11.45	9.70	11.80	17.50	53.56	13.63	10.75	7.90	7.00	4.30		
13	2.90	10.05	11.10	9.70	11.80	19.50	59.50	14.49	10.75	7.90	6.70	4.54		
14	2.50	19.00	11.10	9.40	11.80	16.21	52.12	14.49	11.10	8.20	6.70	5.02		
15	2.15	22.50	11.10	9.70	12.50	14.49	38.40	13.63	11.10	8.20	6.70	4.78		
16	1.85	35.80	11.10	9.70	12.50	13.63	42.36	13.20	10.75	8.50	6.70	5.50		
17	1.70	22.00	11.45	9.70	12.15	13.20	43.04	12.85	10.40	8.20	6.46	5.74		
18	1.10	19.50	11.10	9.40	12.15	12.85	65.05	12.85	10.05	8.20	5.98	5.98		
19	2.30	18.00	12.85	9.10	11.80	12.50	52.12	12.50	10.05	8.50	5.50	5.50		
20	13.20	15.78	12.15	9.10	11.80	12.50	40.35	12.15	10.05	8.20	5.26	5.50		
21	4.78	14.06	12.50	9.70	11.45	12.50	37.10	11.80	10.05	7.90	5.98	5.98		
22	2.90	13.20	14.06	10.40	11.45	12.15	37.10	11.45	10.05	8.50	6.22	5.50		
23	2.15	12.50	14.06	11.10	11.45	12.15	33.30	11.45	9.70	8.80	5.98	4.78		
24	2.90	11.80	12.50	11.45	11.10	12.15	28.50	11.80	9.70	8.50	5.50	4.30		
25	12.85	11.80	11.80	11.80	10.75	12.15	27.90	12.15	9.70	8.20	5.74	3.90		
26	19.00	13.20	11.45	11.45	11.10	12.50	31.50	11.10	9.70	8.20	6.46	3.50		
27	12.15	17.07	11.45	11.45	11.10	12.85	27.30	10.75	9.70	7.90	5.98	3.50		
28	7.90	15.78	11.80	11.45	11.10	12.50	26.70	10.75	9.70	7.90	5.26	3.30		
29	8.50	13.20	11.45	10.75	11.80	12.15	35.80	10.75	9.40	7.60	4.78	3.10		
30	8.80	12.15	11.10	10.75	11.80	11.80	38.40	10.40	9.10	7.60		3.10		
31		12.50		12.15	11.45		32.10		9.10	8.20		2.90		
Total	158.07	426.69	395.54	326.20	432.17	378.43	1179.42	443.10	317.05	261.40	197.30	140.18	4655.55	CMSDAY
Mean	5.27	13.76	13.18	10.52	13.94	12.61	38.05	14.77	10.23	8.43	6.80	4.52	12.72	CMS
Max	19.00	35.80	29.10	12.15	39.05	19.50	106.00	24.90	11.10	9.40	8.50	5.98	106.00	CMS
Min	1.10	7.60	11.10	9.10	10.75	10.40	11.45	10.40	9.10	7.60	4.78	2.90	1.10	CMS
Runoff	13.66	36.87	34.18	28.18	37.34	32.70	101.90	38.28	27.39	22.59	17.05	12.11	402.24	MCM

Momentary Peak 155.50 CMS. at 67.25 m. (MSL.) at 17.00 Hours , on Oct 8 , 2011

Runoff Yield 6.90 Liters/Second/Square KM. Momentary Peak Yield 84.328 Liters/Second/Square KM.

WATER YEAR : 2011

MAE KLONG RIVER BASIN

Lam Phachi at Ban Nong Phai , Kanchanaburi (K.62)

Lat 13 - 46 - 52 N Long 99 - 25 - 15 E

Location : on left bank at Ban Nong Phai.

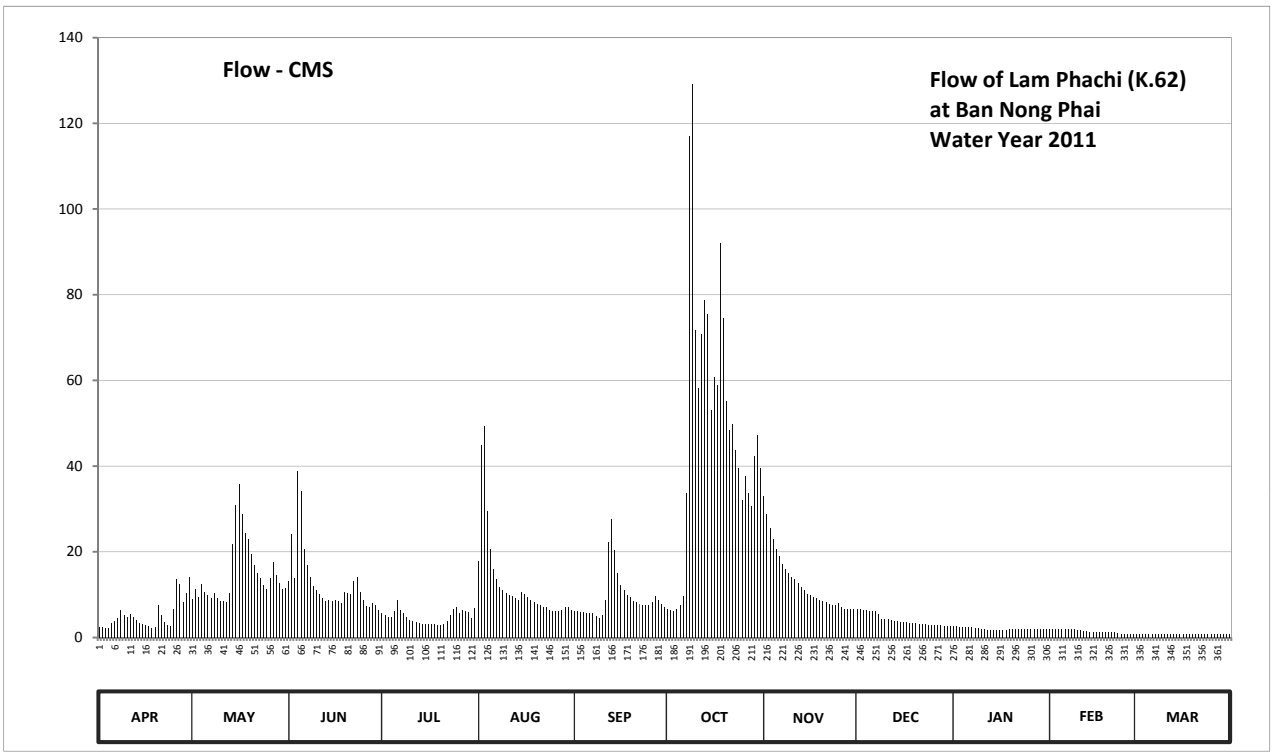
Ban Nong Phai **Amphoe** Dan Makham Tia **Changwat** Kanchanaburi

Drainge Area	1,725 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+49.000 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank near the gage site. **Elevation** +56.000 m. (MSL.)
Gage Reading Frequency	5-time daily reading at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings
Period of Available Gage Records	2006 to date
Rating Operation	
Period of Rating	2006 to date
Rated by Flot	-
Rated by Current Meter	2006 to date
Stability of Channel Regimes	Fairly stable with variable water surface slope.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 43 discharge measurements made in 2011

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	49.50	49.96	50.15	49.76	50.34	49.79	49.83	50.83	49.82	49.51	49.41	49.26	
2	49.48	50.08	50.56	49.74	51.14	49.79	49.81	50.71	49.82	49.51	49.41	49.26	
3	49.47	49.98	50.18	49.71	51.25	49.78	49.80	50.61	49.81	49.50	49.41	49.26	
4	49.47	50.13	50.99	49.70	50.73	49.78	49.82	50.52	49.81	49.50	49.41	49.26	
5	49.58	50.04	50.86	49.79	50.44	49.77	49.89	50.44	49.80	49.49	49.41	49.26	
6	49.62	50.01	50.44	49.95	50.27	49.77	49.99	50.38	49.80	49.48	49.41	49.26	
7	49.69	49.97	50.30	49.81	50.17	49.76	50.85	50.31	49.79	49.48	49.41	49.25	
8	49.81	50.03	50.19	49.76	50.10	49.72	52.66	50.27	49.75	49.47	49.41	49.25	
9	49.74	49.97	50.11	49.70	50.06	49.69	52.88	50.23	49.67	49.46	49.41	49.25	
10	49.71	49.93	50.06	49.65	50.03	49.74	51.76	50.19	49.66	49.43	49.40	49.25	
11	49.75	49.93	50.02	49.63	50.00	49.95	51.46	50.17	49.66	49.41	49.38	49.26	
12	49.70	49.92	49.97	49.60	49.99	50.50	51.74	50.14	49.65	49.39	49.36	49.25	
13	49.64	50.03	49.94	49.58	49.97	50.67	51.91	50.10	49.63	49.39	49.35	49.25	
14	49.59	50.48	49.95	49.57	49.95	50.43	51.84	50.06	49.62	49.39	49.34	49.25	
15	49.57	50.77	49.94	49.56	50.04	50.23	51.34	50.02	49.61	49.39	49.33	49.25	
16	49.55	50.91	49.95	49.56	50.02	50.12	51.52	50.00	49.60	49.39	49.33	49.25	
17	49.52	50.71	49.93	49.56	49.98	50.06	51.48	49.98	49.60	49.39	49.33	49.25	
18	49.47	50.57	49.91	49.56	49.95	50.01	52.18	49.97	49.59	49.40	49.33	49.25	
19	49.49	50.52	50.04	49.55	49.92	49.98	51.82	49.95	49.59	49.42	49.33	49.25	
20	49.88	50.40	50.03	49.54	49.90	49.94	51.39	49.94	49.58	49.41	49.33	49.25	
21	49.73	50.30	50.02	49.56	49.88	49.92	51.23	49.92	49.57	49.41	49.33	49.25	
22	49.60	50.23	50.15	49.63	49.86	49.90	51.26	49.90	49.56	49.41	49.33	49.25	
23	49.55	50.18	50.19	49.74	49.85	49.89	51.11	49.88	49.56	49.41	49.28	49.25	
24	49.52	50.12	50.04	49.83	49.81	49.88	51.01	49.89	49.55	49.41	49.26	49.25	
25	49.82	50.08	49.95	49.85	49.79	49.88	50.80	49.91	49.55	49.41	49.26	49.25	
26	50.17	50.18	49.87	49.77	49.79	49.92	50.96	49.86	49.54	49.41	49.26	49.25	
27	50.13	50.33	49.85	49.81	49.79	49.99	50.85	49.83	49.53	49.41	49.26	49.25	
28	49.92	50.21	49.91	49.79	49.81	49.95	50.76	49.83	49.53	49.41	49.26	49.25	
29	50.03	50.14	49.89	49.78	49.85	49.90	51.08	49.82	49.52	49.41	49.26	49.25	
30	50.19	50.07	49.81	49.68	49.85	49.86	51.20	49.82	49.51	49.41		49.25	
31		50.09		49.84	49.81		51.01		49.51	49.41		49.25	
Mean	49.70	50.20	50.11	49.70	50.08	49.95	51.14	50.12	49.64	49.43	49.34	49.25	
Max	50.19	50.91	50.99	49.95	51.25	50.67	52.88	50.83	49.82	49.51	49.41	49.26	52.88
Min	49.47	49.92	49.81	49.54	49.79	49.69	49.80	49.82	49.51	49.39	49.26	49.25	49.25

Annual Max Momentary Gage Height	53.42	m. (MSL.) ,	at 21.00 Hours , on Oct 8 , 2011		
Zero Gage at Bottom Elevation	49.00	m. (MSL.) ,	River Bed	48.31	m. (MSL)
Left Bank Elevation	54.96	m. (MSL.) ,			
Right Bank Elevation	54.57	m. (MSL.) ,	Drainage Area	1725	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.50	9.00	13.05	5.63	17.88	6.09	6.72	33.05	6.56	2.60	1.87	0.86		
2	2.36	11.40	24.10	5.32	44.80	6.09	6.41	28.85	6.56	2.60	1.87	0.86		
3	2.29	9.40	13.80	4.85	49.25	5.94	6.25	25.62	6.41	2.50	1.87	0.86		
4	2.29	12.55	38.83	4.70	29.55	5.94	6.56	22.90	6.41	2.50	1.87	0.86		
5	3.30	10.60	34.10	6.09	20.62	5.78	7.64	20.62	6.25	2.43	1.87	0.86		
6	3.74	10.00	20.62	8.80	16.05	5.78	9.60	18.96	6.25	2.36	1.87	0.86		
7	4.58	9.20	16.80	6.41	13.55	5.63	33.75	17.07	6.09	2.36	1.87	0.80		
8	6.41	10.40	14.05	5.63	11.80	5.01	117.10	16.05	5.47	2.29	1.87	0.80		
9	5.32	9.20	12.05	4.70	11.00	4.58	129.20	15.05	4.34	2.22	1.87	0.80		
10	4.85	8.40	11.00	4.10	10.40	5.32	71.62	14.05	4.22	2.01	1.80	0.80		
11	5.47	8.40	10.20	3.86	9.80	8.80	58.08	13.55	4.22	1.87	1.66	0.86		
12	4.70	8.20	9.20	3.50	9.60	22.30	70.68	12.80	4.10	1.73	1.52	0.80		
13	3.98	10.40	8.60	3.30	9.20	27.54	78.78	11.80	3.86	1.73	1.45	0.80		
14	3.40	21.74	8.80	3.20	8.80	20.34	75.42	11.00	3.74	1.73	1.38	0.80		
15	3.20	30.95	8.60	3.10	10.60	15.05	52.98	10.20	3.62	1.73	1.31	0.80		
16	3.00	35.87	8.80	3.10	10.20	12.30	60.70	9.80	3.50	1.73	1.31	0.80		
17	2.70	28.85	8.40	3.10	9.40	11.00	58.94	9.40	3.50	1.73	1.31	0.80		
18	2.29	24.40	8.00	3.10	8.80	10.00	92.00	9.20	3.40	1.80	1.31	0.80		
19	2.43	22.90	10.60	3.00	8.20	9.40	74.46	8.80	3.40	1.94	1.31	0.80		
20	7.49	19.50	10.40	2.90	7.80	8.60	55.08	8.60	3.30	1.87	1.31	0.80		
21	5.16	16.80	10.20	3.10	7.49	8.20	48.43	8.20	3.20	1.87	1.31	0.80		
22	3.50	15.05	13.05	3.86	7.18	7.80	49.66	7.80	3.10	1.87	1.31	0.80		
23	3.00	13.80	14.05	5.32	7.02	7.64	43.60	7.49	3.10	1.87	0.98	0.80		
24	2.70	12.30	10.60	6.72	6.41	7.49	39.60	7.64	3.00	1.87	0.86	0.80		
25	6.56	11.40	8.80	7.02	6.09	7.49	32.00	8.00	3.00	1.87	0.86	0.80		
26	13.55	13.80	7.33	5.78	6.09	8.20	37.72	7.18	2.90	1.87	0.86	0.80		
27	12.55	17.61	7.02	6.41	6.09	9.60	33.75	6.72	2.80	1.87	0.86	0.80		
28	8.20	14.55	8.00	6.09	6.41	8.80	30.60	6.72	2.80	1.87	0.86	0.80		
29	10.40	12.80	7.64	5.94	7.02	7.80	42.40	6.56	2.70	1.87	0.86	0.80		
30	14.05	11.20	6.41	4.46	7.02	7.18	47.20	6.56	2.60	1.87		0.80		
31		11.60		6.87	6.41		39.60		2.60	1.87		0.80		
Total	155.97	462.27	383.10	149.96	390.53	281.69	1516.53	390.24	127.00	62.30	41.26	25.22	3986.07	CMSDAY
Mean	5.20	14.91	12.77	4.84	12.60	9.39	48.92	13.01	4.10	2.01	1.42	0.81	10.89	CMS
Max	14.05	35.87	38.83	8.80	49.25	27.54	129.20	33.05	6.56	2.60	1.87	0.86	129.20	CMS
Min	2.29	8.20	6.41	2.90	6.09	4.58	6.25	6.56	2.60	1.73	0.86	0.80	0.80	CMS
Runoff	13.48	39.94	33.10	12.96	33.74	24.34	131.03	33.72	10.97	5.38	3.57	2.18	344.40	MCM

Momentary Peak 159.14 CMS. at 53.42 m. (MSL.) at 21.00 Hours , on Oct 8 , 2011

Runoff Yield 6.31 Liters/Second/Square KM. Momentary Peak Yield 92.255 Liters/Second/Square KM.

WATER YEAR : 2011

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.

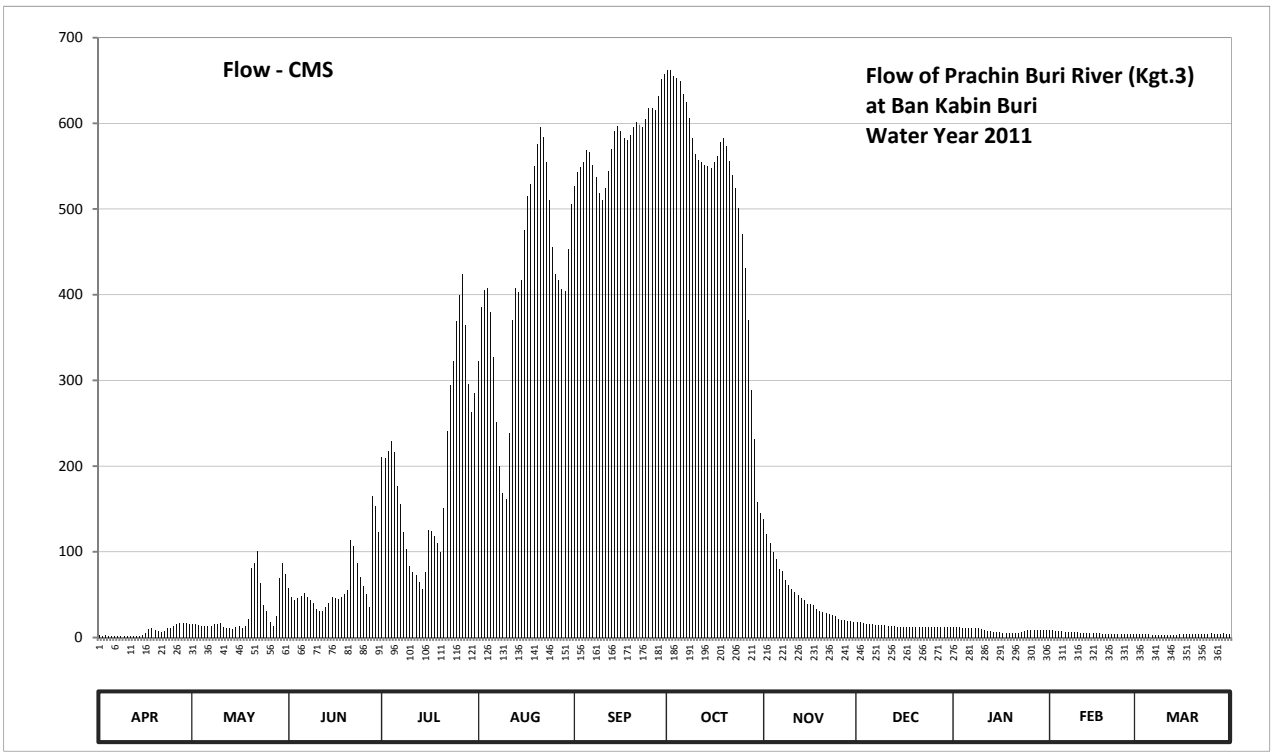
Ban Kabin Buri **Amphoe** Kabin Buri **Changwat** Prachin Buri

Drainge Area	7,425 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+0.000 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank about 5 meters from the top staff gage. **Elevation** +11.410 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings
Period of Available Gage Records	1941 to date
Rating Operation	
Period of Rating	1941 - 1943 , 1945, 1964 to date
Rated by Flot	-
Rated by Current Meter	1941 - 1943 , 1945, 1964 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Stage-discharge relation defined by 23 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.18	0.81	2.33	5.53	7.18	9.47	10.71	4.24	0.94	0.65	0.47	0.24	
2	0.16	0.82	1.97	5.51	7.96	9.63	10.71	3.89	0.93	0.65	0.46	0.23	
3	0.17	0.77	1.87	5.64	8.20	9.68	10.65	3.62	0.90	0.64	0.44	0.23	
4	0.15	0.73	1.95	5.84	8.23	9.74	10.63	3.36	0.86	0.63	0.43	0.23	
5	0.14	0.74	2.03	5.63	7.90	9.86	10.59	3.15	0.86	0.63	0.40	0.23	
6	0.15	0.69	2.13	4.96	7.24	9.84	10.46	2.88	0.83	0.62	0.38	0.22	
7	0.13	0.73	1.96	4.60	6.18	9.70	10.37	2.82	0.80	0.62	0.37	0.22	
8	0.12	0.84	1.87	3.94	5.34	9.57	10.20	2.54	0.77	0.62	0.36	0.22	
9	0.12	0.85	1.73	3.46	4.82	9.39	9.99	2.42	0.76	0.61	0.36	0.21	
10	0.12	0.87	1.49	2.95	4.71	9.30	9.82	2.29	0.75	0.55	0.36	0.21	
11	0.11	0.66	1.43	2.79	5.98	9.44	9.76	2.17	0.74	0.49	0.34	0.21	
12	0.12	0.62	1.44	2.69	7.78	9.64	9.73	2.05	0.71	0.43	0.32	0.20	
13	0.12	0.58	1.60	2.50	8.23	9.87	9.70	1.95	0.70	0.41	0.31	0.22	
14	0.12	0.56	1.75	2.30	8.18	10.06	9.69	1.86	0.68	0.39	0.30	0.22	
15	0.22	0.65	1.97	2.78	8.33	10.12	9.67	1.71	0.68	0.37	0.29	0.23	
16	0.31	0.69	1.94	3.98	8.96	10.06	9.74	1.70	0.68	0.35	0.29	0.26	
17	0.52	0.62	1.88	3.96	9.35	9.99	9.80	1.65	0.68	0.34	0.28	0.26	
18	0.62	0.74	1.96	3.83	9.49	9.97	9.95	1.50	0.67	0.34	0.27	0.26	
19	0.49	1.11	2.07	3.64	9.69	10.02	9.99	1.43	0.67	0.33	0.27	0.26	
20	0.42	2.91	2.25	3.38	9.93	10.11	9.90	1.38	0.67	0.33	0.27	0.25	
21	0.38	3.04	3.73	4.51	10.11	10.16	9.75	1.33	0.66	0.33	0.26	0.25	
22	0.42	3.41	3.53	6.03	10.00	10.13	9.60	1.30	0.66	0.33	0.26	0.27	
23	0.58	2.45	3.06	6.79	9.73	10.11	9.44	1.27	0.66	0.35	0.25	0.27	
24	0.61	1.67	2.65	7.18	9.31	10.19	9.21	1.23	0.67	0.42	0.25	0.27	
25	0.70	1.43	2.37	7.77	8.75	10.31	8.91	1.12	0.66	0.47	0.25	0.28	
26	0.83	0.93	2.09	8.14	8.41	10.31	8.49	1.09	0.66	0.48	0.24	0.27	
27	0.89	0.71	1.60	8.41	8.33	10.29	7.78	1.06	0.66	0.47	0.24	0.27	
28	0.90	1.25	4.76	7.71	8.22	10.43	6.71	1.02	0.66	0.47	0.25	0.27	
29	0.91	2.62	4.55	6.80	8.19	10.62	5.88	0.99	0.66	0.47	0.24	0.28	
30	0.86	3.06	3.95	6.35	8.73	10.67	4.63	0.96	0.65	0.48		0.27	
31		2.72		6.66	9.26		4.39		0.65	0.50		0.26	
Mean	0.39	1.30	2.33	5.04	8.15	9.96	9.25	2.00	0.73	0.48	0.32	0.24	
Max	0.91	3.41	4.76	8.41	10.11	10.67	10.71	4.24	0.94	0.65	0.47	0.28	10.71
Min	0.11	0.56	1.43	2.30	4.71	9.30	4.39	0.96	0.65	0.33	0.24	0.20	0.11

Annual Max Momentary Gage Height	10.72	m. (MSL.) ,	at 18.00 Hours, on Oct 1, 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	0.01	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, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.60	15.20	58.20	210.80	322.40	527.00	662.10	138.00	17.80	12.00	8.40	3.80		
2	2.20	15.40	47.10	209.60	384.80	543.30	662.10	120.60	17.60	12.00	8.20	3.60		
3	2.40	14.40	44.10	217.40	405.00	548.80	655.50	109.80	17.00	11.80	7.80	3.60		
4	2.00	13.60	46.50	229.40	407.70	555.40	653.30	99.40	16.20	11.60	7.60	3.60		
5	1.80	13.80	48.90	216.80	380.00	568.60	648.90	91.00	16.20	11.60	7.00	3.60		
6	2.00	12.80	51.90	176.60	327.20	566.40	634.60	80.20	15.60	11.40	6.60	3.40		
7	1.60	13.60	46.80	156.00	251.60	551.00	624.70	77.80	15.00	11.40	6.40	3.40		
8	1.40	15.80	44.10	123.00	199.40	537.00	606.00	66.60	14.40	11.40	6.20	3.40		
9	1.40	16.00	39.90	103.40	168.20	519.00	582.90	61.80	14.20	11.20	6.20	3.20		
10	1.40	16.40	32.70	83.00	161.60	510.00	564.20	56.70	14.00	10.00	6.20	3.20		
11	1.20	12.20	30.90	76.60	237.80	524.00	557.60	53.10	13.80	8.80	5.80	3.20		
12	1.40	11.40	31.20	72.60	370.40	544.40	554.30	49.50	13.20	7.60	5.40	3.00		
13	1.40	10.60	36.00	65.00	407.70	569.70	551.00	46.50	13.00	7.20	5.20	3.40		
14	1.40	10.20	40.50	57.00	403.20	590.60	549.90	43.80	12.60	6.80	5.00	3.40		
15	3.40	12.00	47.10	76.20	416.70	597.20	547.70	39.30	12.60	6.40	4.80	3.60		
16	5.20	12.80	46.20	125.00	476.00	590.60	555.40	39.00	12.60	6.00	4.80	4.20		
17	9.40	11.40	44.40	124.00	515.00	582.90	562.00	37.50	12.60	5.80	4.60	4.20		
18	11.40	13.80	46.80	118.20	529.00	580.70	578.50	33.00	12.40	5.80	4.40	4.20		
19	8.80	21.30	50.10	110.60	549.90	586.20	582.90	30.90	12.40	5.60	4.40	4.20		
20	7.40	81.40	55.50	100.20	576.30	596.10	573.00	29.40	12.40	5.60	4.40	4.00		
21	6.60	86.60	114.20	151.50	596.10	601.60	556.50	27.90	12.20	5.60	4.20	4.00		
22	7.40	101.40	106.20	241.10	584.00	598.30	540.00	27.00	12.20	5.60	4.20	4.40		
23	10.60	63.00	87.40	294.30	554.30	596.10	524.00	26.10	12.20	6.00	4.00	4.40		
24	11.20	38.10	71.00	322.40	511.00	604.90	501.00	24.90	12.40	7.40	4.00	4.40		
25	13.00	30.90	59.80	369.60	455.00	618.10	471.00	21.60	12.20	8.40	4.00	4.60		
26	15.60	17.60	50.70	399.60	423.90	618.10	431.10	20.80	12.20	8.60	3.80	4.40		
27	16.80	13.20	36.00	423.90	416.70	615.90	370.40	20.20	12.20	8.40	3.80	4.40		
28	17.00	25.50	164.60	364.80	406.80	631.30	288.70	19.40	12.20	8.40	4.00	4.40		
29	17.20	69.80	153.50	295.00	404.10	652.20	231.80	18.80	12.20	8.40	3.80	4.60		
30	16.20	87.40	123.50	263.50	453.00	657.70	157.50	18.20	12.00	8.60		4.40		
31		73.80		285.20	506.00		145.50		12.00	9.00		4.20		
Total	201.40	951.40	1855.80	6062.30	12800.80	17383.10	16124.10	1528.80	419.60	264.40	155.20	120.40	57867.30	CMSDAY
Mean	6.71	30.69	61.86	195.56	412.93	579.44	520.13	50.96	13.54	8.53	5.35	3.88	158.11	CMS
Max	17.20	101.40	164.60	423.90	596.10	657.70	662.10	138.00	17.80	12.00	8.40	4.60	662.10	CMS
Min	1.20	10.20	30.90	57.00	161.60	510.00	145.50	18.20	12.00	5.60	3.80	3.00	1.20	CMS
Runoff	17.40	82.20	160.34	523.78	1105.99	1501.90	1393.12	132.09	36.25	22.84	13.41	10.40	4999.74	MCM

Momentary Peak 663.20 CMS, at 10.72 m. (MSL), at 18.00 Hours, on Oct 1, 2011

Runoff Yield 21.29 Liters/Second/Square KM. Momentary Peak Yield 89.320 Liters/Second/Square KM.

WATER YEAR : 2011

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.

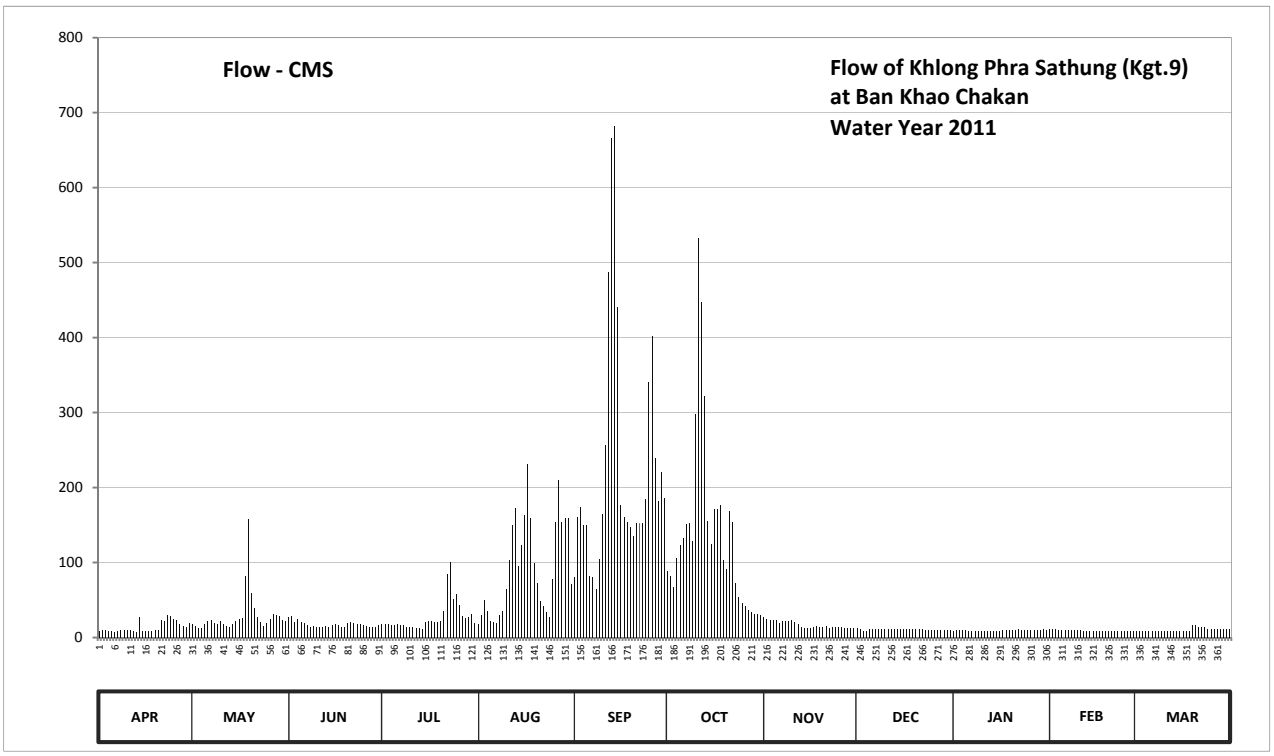
Ban Khao Chakan **Amphoe** Khao Chakan **Changwat** Sa Kaeo

Drainge Area	2,264 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+39.570 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank about 10 meters from the automatic gage building. **Elevation** +50.745 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings
Period of Available Gage Records	1972 to date
Rating Operation	
Period of Rating	1972 - 1987 , 1989 to date
Rated by Flot	-
Rated by Current Meter	1972 - 1987 , 1989 to date
Stability of Channel Regimes	Fairly stable with variable water surface slope.
Overbank Flow Conditions	Overbank flow starts at elevation +49.200 m.(MSL.) and is including overbank flow.
General Description	Records fair. Stage-discharge relation defined by 19 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	43.18	43.34	43.48	43.36	43.36	44.17	44.25	43.49	43.25	43.18	43.22	43.17	
2	43.19	43.30	43.51	43.35	43.53	45.56	44.19	43.45	43.22	43.20	43.22	43.17	
3	43.19	43.26	43.39	43.35	43.81	46.00	44.02	43.44	43.18	43.20	43.22	43.17	
4	43.18	43.25	43.45	43.32	43.60	44.86	44.43	43.43	43.18	43.21	43.21	43.17	
5	43.18	43.36	43.40	43.32	43.42	44.84	44.60	43.43	43.23	43.20	43.21	43.17	
6	43.15	43.42	43.37	43.36	43.39	44.19	44.67	43.38	43.24	43.18	43.21	43.17	
7	43.17	43.44	43.32	43.32	43.37	44.18	44.92	43.41	43.24	43.17	43.21	43.17	
8	43.20	43.37	43.28	43.32	43.52	44.00	45.01	43.41	43.24	43.18	43.20	43.17	
9	43.19	43.36	43.31	43.27	43.60	44.41	44.64	43.41	43.24	43.17	43.20	43.17	
10	43.19	43.41	43.27	43.27	43.99	45.71	47.72	43.43	43.24	43.17	43.20	43.17	
11	43.19	43.34	43.27	43.27	44.40	47.31	49.65	43.40	43.23	43.18	43.20	43.17	
12	43.16	43.31	43.29	43.25	44.87	49.31	49.00	43.34	43.23	43.18	43.17	43.17	
13	43.14	43.29	43.31	43.25	45.96	50.54	47.94	43.28	43.23	43.17	43.17	43.17	
14	43.50	43.36	43.28	43.24	44.32	50.65	45.28	43.26	43.23	43.17	43.17	43.17	
15	43.18	43.42	43.32	43.40	44.60	48.94	44.61	43.26	43.23	43.17	43.17	43.17	
16	43.17	43.45	43.36	43.42	45.67	46.08	45.95	43.26	43.24	43.16	43.17	43.17	
17	43.18	43.47	43.32	43.42	47.00	45.61	45.95	43.27	43.23	43.19	43.17	43.17	
18	43.17	44.19	43.27	43.40	45.50	45.14	46.07	43.30	43.22	43.21	43.17	43.17	
19	43.19	45.42	43.29	43.39	44.36	44.78	44.40	43.28	43.23	43.21	43.17	43.32	
20	43.21	43.93	43.37	43.42	44.08	44.69	44.28	43.29	43.22	43.19	43.17	43.32	
21	43.43	43.66	43.39	43.60	43.79	45.12	45.85	43.31	43.22	43.19	43.17	43.27	
22	43.42	43.50	43.37	44.22	43.70	45.03	45.17	43.26	43.22	43.22	43.17	43.27	
23	43.52	43.39	43.36	44.37	43.59	45.11	44.08	43.28	43.21	43.21	43.17	43.27	
24	43.51	43.31	43.35	43.83	43.49	46.26	43.87	43.27	43.21	43.20	43.17	43.22	
25	43.45	43.38	43.32	43.91	44.14	48.11	43.76	43.28	43.21	43.21	43.17	43.22	
26	43.43	43.45	43.30	43.72	45.16	48.62	43.70	43.27	43.20	43.20	43.17	43.22	
27	43.36	43.54	43.28	43.51	46.69	47.10	43.62	43.26	43.20	43.21	43.17	43.22	
28	43.30	43.52	43.28	43.47	45.24	46.20	43.58	43.26	43.21	43.20	43.17	43.22	
29	43.29	43.51	43.29	43.49	45.51	46.85	43.54	43.25	43.20	43.20	43.17	43.22	
30	43.37	43.44	43.33	43.55	45.54	46.31	43.54	43.25	43.20	43.22		43.22	
31		43.41		43.37	44.07		43.52		43.21	43.19		43.22	
Mean	43.27	43.51	43.34	43.48	44.43	46.19	45.03	43.33	43.22	43.19	43.18	43.20	
Max	43.52	45.42	43.51	44.37	47.00	50.65	49.65	43.49	43.25	43.22	43.22	43.32	50.65
Min	43.14	43.25	43.27	43.24	43.36	44.00	43.52	43.25	43.18	43.16	43.17	43.17	43.14

Annual Max Momentary Gage Height	50.84	m. (MSL.) ,	at 02.00 Hours, on Sep 14, 2011		
Zero Gage at Bottom Elevation	39.57	m. (MSL.) ,	River Bed	39.42	m. (MSL)
Left Bank Elevation	49.19	m. (MSL.) ,			
Right Bank Elevation	50.58	m. (MSL.) ,	Drainage Area	2264	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	9.00	17.40	26.60	18.60	18.60	80.30	88.00	27.30	12.50	9.00	11.00	8.50		
2	9.50	15.00	28.70	18.00	30.10	160.20	82.10	24.50	11.00	10.00	11.00	8.50		
3	9.50	13.00	20.40	18.00	49.80	174.00	66.80	23.80	9.00	10.00	11.00	8.50		
4	9.00	12.50	24.50	16.20	35.00	150.60	106.00	23.10	9.00	10.50	10.50	8.50		
5	9.00	18.60	21.00	16.20	22.40	150.40	124.00	23.10	11.50	10.00	10.50	8.50		
6	7.50	22.40	19.20	18.60	20.40	82.10	132.40	19.80	12.00	9.00	10.50	8.50		
7	8.50	23.80	16.20	16.20	19.20	81.20	151.20	21.70	12.00	8.50	10.50	8.50		
8	10.00	19.20	14.00	16.20	29.40	65.00	152.10	21.70	12.00	9.00	10.00	8.50		
9	9.50	18.60	15.60	13.50	35.00	104.00	128.80	21.70	12.00	8.50	10.00	8.50		
10	9.50	21.70	13.50	13.50	64.20	164.30	298.20	23.10	12.00	8.50	10.00	8.50		
11	9.50	17.40	13.50	13.50	103.00	256.90	533.00	21.00	11.50	9.00	10.00	8.50		
12	8.00	15.60	14.50	12.50	150.70	487.30	447.00	17.40	11.50	9.00	8.50	8.50		
13	7.00	14.50	15.60	12.50	172.40	666.00	322.40	14.00	11.50	8.50	8.50	8.50		
14	28.00	18.60	14.00	12.00	95.00	682.50	154.80	13.00	11.50	8.50	8.50	8.50		
15	9.00	22.40	16.20	21.00	124.00	439.80	125.20	13.00	11.50	8.50	8.50	8.50		
16	8.50	24.50	18.60	22.40	163.10	177.20	172.00	13.00	12.00	8.00	8.50	8.50		
17	9.00	25.90	16.20	22.40	231.00	161.30	172.00	13.50	11.50	9.50	8.50	8.50		
18	8.50	82.10	13.50	21.00	159.00	153.40	176.80	15.00	11.00	10.50	8.50	8.50		
19	9.50	157.40	14.50	20.40	99.00	147.20	103.00	14.00	11.50	10.50	8.50	16.20		
20	10.50	59.40	19.20	22.40	72.20	134.80	91.00	14.50	11.00	9.50	8.50	16.20		
21	23.10	39.20	20.40	35.00	48.30	153.20	168.50	15.60	11.00	9.50	8.50	13.50		
22	22.40	28.00	19.20	85.00	42.00	152.30	153.70	13.00	11.00	11.00	8.50	13.50		
23	29.40	20.40	18.60	100.00	34.30	153.10	72.20	14.00	10.50	10.50	8.50	13.50		
24	28.70	15.60	18.00	51.40	27.30	184.40	54.60	13.50	10.50	10.00	8.50	11.00		
25	24.50	19.80	16.20	57.80	77.60	341.10	46.20	14.00	10.50	10.50	8.50	11.00		
26	23.10	24.50	15.00	43.40	153.60	401.40	42.00	13.50	10.00	10.00	8.50	11.00		
27	18.60	30.80	14.00	28.70	209.30	239.00	36.40	13.00	10.00	10.50	8.50	11.00		
28	15.00	29.40	14.00	25.90	154.40	182.00	33.60	13.00	10.50	10.00	8.50	11.00		
29	14.50	28.70	14.50	27.30	159.20	220.50	30.80	12.50	10.00	10.00	8.50	11.00		
30	19.20	23.80	16.80	31.50	159.80	186.50	30.80	12.50	10.00	11.00		11.00		
31		21.70		19.20	71.30		29.40		10.50	9.50		11.00		
Total	417.00	901.90	522.20	850.30	2830.60	6732.00	4325.00	512.80	342.00	297.00	268.00	313.90	18312.70	CMSDAY
Mean	13.90	29.09	17.41	27.43	91.31	224.40	139.52	17.09	11.03	9.58	9.24	10.13	50.03	CMS
Max	29.40	157.40	28.70	100.00	231.00	682.50	533.00	27.30	12.50	11.00	11.00	16.20	682.50	CMS
Min	7.00	12.50	13.50	12.00	18.60	65.00	29.40	12.50	9.00	8.00	8.50	8.50	7.00	CMS
Runoff	36.03	77.92	45.12	73.47	244.56	581.65	373.68	44.31	29.55	25.66	23.16	27.12	1582.22	MCM

Momentary Peak 711.00 CMS, at 50.84 m. (MSL), at 02.00 Hours, on Sep 14, 2011

Runoff Yield 22.10 Liters/Second/Square KM. Momentary Peak Yield 314.046 Liters/Second/Square KM.

WATER YEAR : 2011

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.

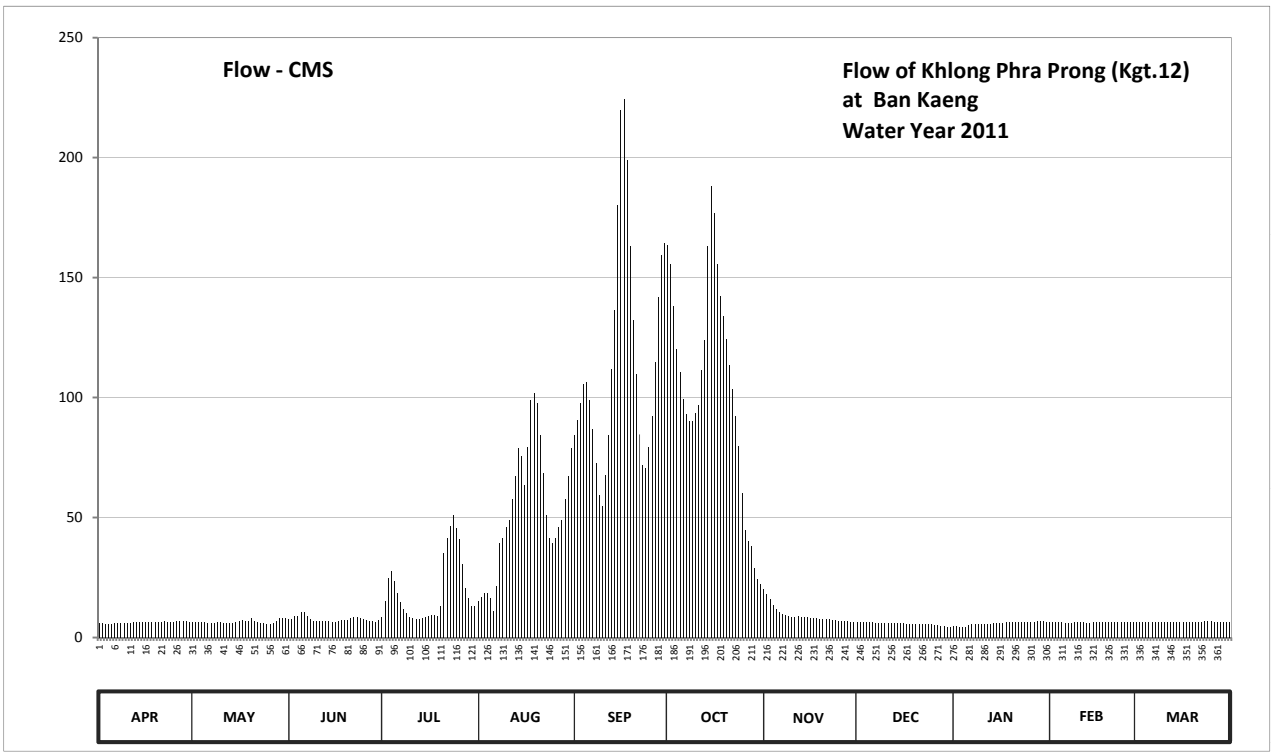
Ban Kaeng **Amphoe** Mueang **Changwat** Sa Kaeo

Drainge Area	1,478 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+13.835 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank in front of the gage observer's house. **Elevation** +23.522 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings
Period of Available Gage Records	1966 to date
Rating Operation	
Period of Rating	1966 to date
Rated by Flot	-
Rated by Current Meter	1966 to date
Stability of Channel Regimes	Fairly stable because of backwater effect.
Overbank Flow Conditions	Overbank flow starts at elevation +22.240 m.(MSL.), records are channel flow only.
General Description	Records fair. The concrete weir situated about 7 kilometers downstream from the gage site. Stage-discharge relation defined by 27 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	16.17	16.22	16.33	16.40	16.70	20.41	22.08	16.91	16.23	16.06	16.20	16.22	
2	16.17	16.21	16.31	16.71	16.77	20.61	21.96	16.82	16.22	16.05	16.20	16.22	
3	16.16	16.21	16.43	17.06	16.85	20.81	21.67	16.74	16.22	16.04	16.20	16.22	
4	16.16	16.21	16.43	17.13	16.84	20.94	21.34	16.65	16.21	16.03	16.20	16.22	
5	16.16	16.20	16.50	17.03	16.75	20.96	21.05	16.57	16.20	16.04	16.20	16.23	
6	16.17	16.18	16.50	16.84	16.52	20.83	20.84	16.50	16.20	16.09	16.19	16.23	
7	16.19	16.17	16.42	16.69	16.95	20.49	20.69	16.46	16.19	16.14	16.19	16.23	
8	16.19	16.17	16.33	16.57	17.39	19.96	20.60	16.44	16.18	16.15	16.19	16.23	
9	16.18	16.21	16.27	16.48	17.86	19.35	20.60	16.42	16.18	16.14	16.20	16.23	
10	16.19	16.20	16.27	16.41	18.49	19.13	20.70	16.41	16.19	16.14	16.20	16.23	
11	16.19	16.19	16.25	16.37	18.77	19.73	20.79	16.40	16.19	16.16	16.20	16.23	
12	16.20	16.17	16.24	16.34	19.27	20.41	21.08	16.43	16.19	16.16	16.20	16.23	
13	16.20	16.17	16.27	16.32	19.71	21.09	21.42	16.41	16.18	16.15	16.19	16.23	
14	16.20	16.19	16.25	16.36	20.22	21.64	22.07	16.40	16.18	16.18	16.19	16.23	
15	16.20	16.23	16.23	16.39	20.09	22.29	22.38	16.39	16.17	16.19	16.20	16.23	
16	16.21	16.24	16.22	16.42	19.54	22.68	22.25	16.38	16.17	16.19	16.20	16.22	
17	16.21	16.29	16.24	16.45	20.23	22.72	21.96	16.37	16.16	16.19	16.20	16.22	
18	16.21	16.27	16.30	16.44	20.83	22.49	21.74	16.36	16.16	16.20	16.20	16.22	
19	16.20	16.27	16.29	16.42	20.88	22.07	21.60	16.34	16.16	16.21	16.21	16.22	
20	16.20	16.36	16.29	16.63	20.81	21.57	21.43	16.33	16.15	16.21	16.21	16.21	
21	16.23	16.25	16.36	17.30	20.41	21.02	21.15	16.32	16.15	16.21	16.21	16.22	
22	16.24	16.20	16.40	17.87	19.76	20.42	20.91	16.31	16.14	16.22	16.21	16.23	
23	16.22	16.18	16.39	18.53	18.88	19.92	20.67	16.29	16.14	16.22	16.21	16.24	
24	16.22	16.17	16.37	18.90	17.87	19.87	20.25	16.28	16.13	16.22	16.21	16.24	
25	16.23	16.16	16.33	18.48	17.39	20.23	19.40	16.27	16.13	16.22	16.21	16.24	
26	16.25	16.16	16.29	17.78	17.86	20.66	18.36	16.26	16.12	16.21	16.21	16.23	
27	16.25	16.17	16.26	17.20	18.49	21.19	17.49	16.25	16.10	16.21	16.22	16.23	
28	16.25	16.25	16.24	16.93	18.77	21.73	17.36	16.24	16.07	16.24	16.22	16.22	
29	16.24	16.36	16.23	16.75	19.27	22.02	17.16	16.23	16.05	16.25	16.22	16.22	
30	16.23	16.37	16.28	16.62	19.71	22.09	17.05	16.23	16.04	16.24		16.21	
31		16.36		16.63	20.22		16.99		16.04	16.22		16.20	
Mean	16.20	16.23	16.32	16.92	18.71	20.98	20.49	16.41	16.16	16.17	16.20	16.23	
Max	16.25	16.37	16.50	18.90	20.88	22.72	22.38	16.91	16.23	16.25	16.22	16.24	22.72
Min	16.16	16.16	16.22	16.32	16.52	19.13	16.99	16.23	16.04	16.03	16.19	16.20	16.03

Annual Max Momentary Gage Height	22.76	m. (MSL.) ,	at 02.00 Hours, on Sep 17, 2011		
Zero Gage at Bottom Elevation	13.84	m. (MSL.) ,	River Bed	12.78	m. (MSL)
Left Bank Elevation	23.48	m. (MSL.) ,			
Right Bank Elevation	22.23	m. (MSL.) ,	Drainage Area	1478	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	5.91	6.47	7.71	8.50	15.00	84.30	163.60	20.25	6.59	4.67	6.25	6.47		
2	5.91	6.36	7.49	15.25	16.75	90.35	155.60	18.00	6.47	4.56	6.25	6.47		
3	5.80	6.36	9.10	24.90	18.75	97.60	138.20	16.00	6.47	4.45	6.25	6.47		
4	5.80	6.36	9.10	27.70	18.50	105.40	120.00	13.75	6.36	4.34	6.25	6.47		
5	5.80	6.25	10.50	23.70	16.25	106.60	110.50	11.90	6.25	4.45	6.25	6.59		
6	5.91	6.03	10.50	18.50	10.90	98.80	99.40	10.50	6.25	5.01	6.14	6.59		
7	6.14	5.91	8.90	14.75	21.25	86.70	93.15	9.70	6.14	5.57	6.14	6.59		
8	6.14	5.91	7.71	11.90	39.52	72.62	90.00	9.30	6.03	5.69	6.14	6.59		
9	6.03	6.36	7.04	10.10	41.30	59.28	90.00	8.90	6.03	5.57	6.25	6.59		
10	6.14	6.25	7.04	8.70	45.90	54.88	93.50	8.70	6.14	5.57	6.25	6.59		
11	6.14	6.14	6.81	8.16	49.12	67.59	96.65	8.50	6.14	5.80	6.25	6.59		
12	6.25	5.91	6.70	7.83	57.53	84.30	111.40	9.10	6.14	5.80	6.25	6.59		
13	6.25	5.91	7.04	7.60	67.16	111.70	124.00	8.70	6.03	5.69	6.14	6.59		
14	6.25	6.14	6.81	8.05	79.00	136.40	162.90	8.50	6.03	6.03	6.14	6.59		
15	6.25	6.59	6.59	8.39	75.75	180.20	188.20	8.39	5.91	6.14	6.25	6.59		
16	6.36	6.70	6.47	8.90	63.44	219.60	177.00	8.27	5.91	6.14	6.25	6.47		
17	6.36	7.26	6.70	9.50	79.25	224.40	155.60	8.16	5.80	6.14	6.25	6.47		
18	6.36	7.04	7.37	9.30	98.80	199.00	142.40	8.05	5.80	6.25	6.25	6.47		
19	6.25	7.04	7.26	8.90	101.80	162.90	134.00	7.83	5.80	6.36	6.36	6.47		
20	6.25	8.05	7.26	13.25	97.60	132.20	124.50	7.71	5.69	6.36	6.36	6.36		
21	6.59	6.81	8.05	35.25	84.30	109.60	113.50	7.60	5.69	6.36	6.36	6.47		
22	6.70	6.25	8.50	41.35	68.25	84.60	103.60	7.49	5.57	6.47	6.36	6.59		
23	6.47	6.03	8.39	46.30	50.88	71.75	92.45	7.26	5.57	6.47	6.36	6.70		
24	6.47	5.91	8.16	51.20	41.35	70.66	79.75	7.15	5.46	6.47	6.36	6.70		
25	6.59	5.80	7.71	45.80	39.52	79.25	60.37	7.04	5.46	6.47	6.36	6.70		
26	6.81	5.80	7.26	40.95	41.30	92.10	44.60	6.93	5.35	6.36	6.36	6.59		
27	6.81	5.91	6.93	30.50	45.90	114.70	40.23	6.81	5.13	6.36	6.47	6.59		
28	6.81	6.81	6.70	20.75	49.12	141.80	38.10	6.70	4.79	6.70	6.47	6.47		
29	6.70	8.05	6.59	16.25	57.53	159.40	28.90	6.59	4.56	6.81	6.47	6.47		
30	6.59	8.16	7.15	13.00	67.16	164.30	24.50	6.59	4.45	6.70		6.36		
31		8.05		13.25	79.00		22.25		4.45	6.47		6.25		
Total	188.84	202.62	229.54	608.48	1637.88	3462.98	3218.85	280.37	178.46	182.23	182.24	202.50	10574.99	CMSDAY
Mean	6.29	6.54	7.65	19.63	52.83	115.43	103.83	9.35	5.76	5.88	6.28	6.53	28.89	CMS
Max	6.81	8.16	10.50	51.20	101.80	224.40	188.20	20.25	6.59	6.81	6.47	6.70	224.40	CMS
Min	5.80	5.80	6.47	7.60	10.90	54.88	22.25	6.59	4.45	4.34	6.14	6.25	4.34	CMS
Runoff	16.32	17.51	19.83	52.57	141.51	299.20	278.11	24.22	15.42	15.75	15.75	17.50	913.68	MCM

Momentary Peak 229.20 CMS, at 22.76 m. (MSL), at 02.00 Hours, on Sep 17, 2011

Runoff Yield 19.55 Liters/Second/Square KM. Momentary Peak Yield 155.074 Liters/Second/Square KM.

WATER YEAR : 2011

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

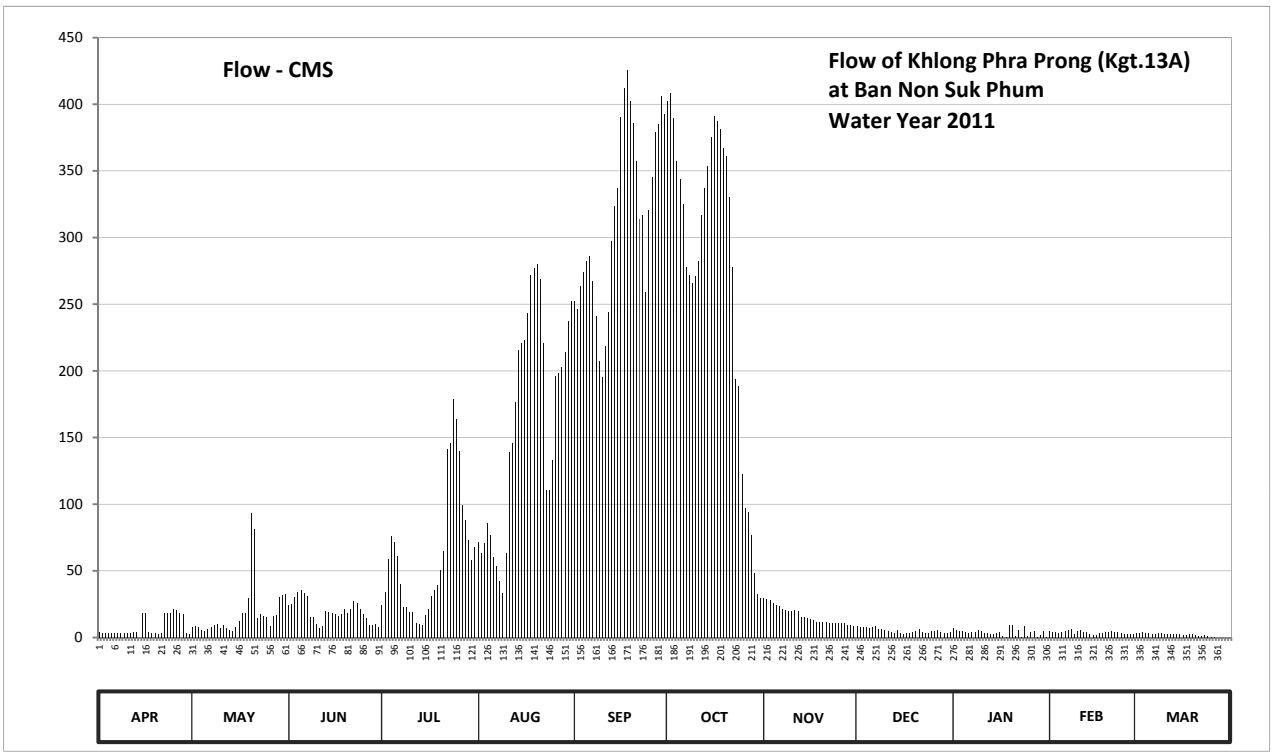
Location : on left bank about 21 kilometers upstream from station Kgt.13

	Ban Non Suk Phum	**Amphoe** Kabin Buri	**Changwat** Prachin Buri
Drainge Area	4,906 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank at the top staff gage.	**Elevation**	+17.571 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	1997 to date		
Rating Operation			
Period of Rating	1999 to date		
Rated by Flot	-		
Rated by Current Meter	1999 to date		
Stability of Channel Regimes	Fairly stable with variable water surface slope.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 23 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	5.48	5.79	6.92	6.93	9.93	14.65	16.12	7.26	5.82	5.72	5.56	5.41	
2	5.47	5.83	6.95	7.58	9.53	14.58	16.18	7.20	5.80	5.64	5.52	5.47	
3	5.46	5.78	7.33	9.27	9.88	14.77	15.98	7.15	5.78	5.60	5.50	5.49	
4	5.47	5.66	7.57	10.17	10.63	14.88	15.67	7.02	5.77	5.56	5.47	5.40	
5	5.47	5.58	7.67	9.92	10.19	14.96	15.56	6.91	5.75	5.51	5.53	5.40	
6	5.47	5.70	7.53	9.40	9.37	15.00	15.39	6.87	5.80	5.42	5.55	5.37	
7	5.47	5.81	7.37	7.96	8.89	14.81	14.92	6.73	5.82	5.48	5.66	5.33	
8	5.46	5.90	6.29	6.82	8.14	14.51	14.86	6.65	5.70	5.50	5.70	5.40	
9	5.46	5.96	6.29	6.82	7.55	14.03	14.80	6.62	5.68	5.63	5.38	5.42	
10	5.46	5.73	5.94	6.58	9.52	13.86	14.85	6.60	5.65	5.58	5.57	5.39	
11	5.47	5.89	5.74	6.55	12.63	14.19	14.96	6.66	5.60	5.42	5.62	5.38	
12	5.48	5.74	5.85	5.98	12.82	14.55	15.31	6.62	5.52	5.40	5.54	5.36	
13	5.49	5.65	6.63	5.93	13.53	15.11	15.50	6.32	5.44	5.38	5.48	5.36	
14	4.88	5.60	6.57	5.90	14.15	15.38	15.64	6.30	5.65	5.32	5.32	5.35	
15	6.51	5.80	6.49	6.40	14.22	15.50	15.83	6.26	5.40	5.47	5.30	5.34	
16	6.50	6.10	6.45	6.71	14.26	15.99	16.00	6.22	5.38	5.50	5.26	5.30	
17	5.48	6.52	6.37	7.36	14.54	16.22	15.96	6.14	5.40	5.16	5.42	5.29	
18	5.45	6.53	6.47	7.65	14.86	16.37	15.89	6.06	5.46	5.10	5.46	5.36	
19	5.44	7.27	6.70	7.92	14.91	16.12	15.75	6.05	5.53	5.88	5.50	5.38	
20	5.37	11.01	6.49	8.71	14.94	15.94	15.70	6.04	5.60	5.92	5.52	5.29	
21	5.44	10.43	6.70	9.60	14.83	15.67	15.44	6.03	5.68	5.20	5.55	5.22	
22	6.50	6.23	7.10	12.69	14.23	15.28	14.92	6.02	5.52	5.63	5.50	5.20	
23	6.52	6.44	7.00	12.81	11.70	15.31	13.83	6.00	5.44	5.10	5.48	5.25	
24	6.52	6.35	6.73	13.58	11.70	14.72	13.74	6.00	5.40	5.82	5.40	5.18	
25	6.72	6.29	6.43	13.27	12.45	15.35	12.15	6.00	5.58	5.20	5.36	5.12	
26	6.67	5.84	6.25	12.65	13.87	15.57	11.17	6.00	5.58	5.54	5.36	5.05	
27	6.50	6.33	5.90	11.26	13.90	15.87	11.04	6.00	5.62	5.55	5.34	4.92	
28	6.43	6.42	5.88	10.74	13.97	15.93	10.20	5.92	5.52	5.02	5.36	4.78	
29	5.42	7.30	5.96	9.99	14.13	16.16	8.57	5.88	5.46	5.31	5.30	4.61	
30	5.39	7.40	5.81	9.22	14.46	16.01	7.49	5.85	5.43	5.58		4.57	
31		7.45		9.73	14.65		7.28		5.50	5.12		4.55	
Mean	5.76	6.46	6.58	8.91	12.40	15.24	14.09	6.38	5.59	5.46	5.47	5.22	
Max	6.72	11.01	7.67	13.58	14.94	16.37	16.18	7.26	5.82	5.92	5.70	5.49	16.37
Min	4.88	5.58	5.74	5.90	7.55	13.86	7.28	5.85	5.38	5.02	5.26	4.55	4.55

Annual Max Momentary Gage Height	16.55	m. (MSL.) ,	at 06.00 Hours, on Oct 2, 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	3.84	m. (MSL)
Left Bank Elevation	17.25	m. (MSL.) ,			
Right Bank Elevation	17.93	m. (MSL.) ,	Drainage Area	4906	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.80	7.80	24.45	24.60	71.60	252.50	402.60	29.46	8.24	6.77	4.60	3.10		
2	3.70	8.39	24.89	34.18	63.60	246.40	408.15	28.58	7.95	5.59	4.20	3.70		
3	3.60	7.65	30.49	59.08	70.60	263.30	389.65	27.84	7.65	5.00	4.00	3.90		
4	3.70	5.88	34.03	76.40	85.60	274.00	357.40	25.93	7.51	4.60	3.70	3.00		
5	3.70	4.80	35.51	71.40	76.80	282.00	344.20	24.31	7.21	4.10	4.30	3.00		
6	3.70	6.47	33.44	61.00	60.56	286.00	325.00	23.72	7.95	3.20	4.50	2.70		
7	3.70	8.09	31.08	39.78	53.48	267.00	278.00	21.65	8.24	3.80	5.88	2.30		
8	3.60	9.42	15.17	22.98	42.43	240.80	272.00	20.47	6.47	4.00	6.47	3.00		
9	3.60	10.31	15.17	22.98	33.74	207.10	266.00	20.03	6.18	5.44	2.80	3.20		
10	3.60	6.92	10.01	19.44	63.40	195.60	271.00	19.74	5.74	4.80	4.70	2.90		
11	3.70	9.27	7.06	19.00	139.29	218.30	282.00	20.62	5.00	3.20	5.29	2.80		
12	3.80	7.06	8.68	10.60	146.04	244.00	317.00	20.03	4.20	3.00	4.40	2.60		
13	3.90	5.74	20.18	9.86	176.50	297.00	337.00	15.61	3.40	2.80	3.80	2.60		
14	0.00	5.00	19.29	9.42	215.50	324.00	353.80	15.32	5.74	2.20	2.20	2.50		
15	18.41	7.95	18.12	16.79	220.40	337.00	375.77	14.73	3.00	3.70	2.00	2.40		
16	18.26	12.37	17.53	21.36	223.20	390.57	391.50	14.14	2.80	4.00	1.60	2.00		
17	3.80	18.56	16.35	30.94	243.20	411.85	387.80	12.96	3.00	0.80	3.20	1.90		
18	3.50	18.71	17.82	35.21	272.00	425.73	381.33	11.78	3.60	0.50	3.60	2.60		
19	3.40	29.61	21.21	39.19	277.00	402.60	367.00	11.63	4.30	9.13	4.00	2.80		
20	2.70	93.25	18.12	50.83	280.00	385.95	361.00	11.48	5.00	9.72	4.20	1.90		
21	3.40	81.60	21.21	65.00	269.00	357.40	330.40	11.34	6.18	1.00	4.50	1.20		
22	18.26	14.28	27.11	141.42	221.10	314.00	278.00	11.19	4.20	5.44	4.00	1.00		
23	18.56	17.38	25.63	145.69	110.50	317.00	193.80	10.89	3.40	0.50	3.80	1.50		
24	18.56	16.05	21.65	179.00	110.50	258.80	188.40	10.89	3.00	8.24	3.00	0.90		
25	21.51	15.17	17.23	163.50	132.89	321.00	122.62	10.89	4.80	1.00	2.60	0.60		
26	20.77	8.54	14.58	140.00	196.20	345.40	97.25	10.89	4.80	4.40	2.60	0.25		
27	18.26	15.76	9.42	99.50	198.00	379.47	94.00	10.89	5.29	4.50	2.40	0.00		
28	17.23	17.08	9.13	87.80	202.90	385.02	77.00	9.72	4.20	0.10	2.60	0.00		
29	3.20	30.05	10.31	72.80	214.10	406.30	48.77	9.13	3.60	2.10	2.00	0.00		
30	2.90	31.53	8.09	58.35	237.20	392.42	32.85	8.68	3.30	4.80		0.00		
31		32.26		67.60	252.50		29.76		4.00	0.60		0.00		
Total	240.82	562.95	582.96	1895.70	4959.83	9428.51	8361.05	494.54	159.95	119.03	106.94	60.35	26972.63	CMSDAY
Mean	8.03	18.16	19.43	61.15	159.99	314.28	269.71	16.48	5.16	3.84	3.69	1.95	73.70	CMS
Max	21.51	93.25	35.51	179.00	280.00	425.73	408.15	29.46	8.24	9.72	6.47	3.90	425.73	CMS
Min	0.00	4.80	7.06	9.42	33.74	195.60	29.76	8.68	2.80	0.10	1.60	0.00	0.00	CMS
Runoff	20.81	48.64	50.37	163.79	428.53	814.62	722.40	42.73	13.82	10.28	9.24	5.21	2330.44	MCM

Momentary Peak 442.37 CMS, at 16.55 m. (MSL), at 06.00 Hours, on Oct 2, 2011

Runoff Yield 15.02 Liters/Second/Square KM. Momentary Peak Yield 90.169 Liters/Second/Square KM.

WATER YEAR : 2011

PRACHIN BURI RIVER BASIN

Huai Yang at Ban Thung Faek , Prachin Buri (Kgt.14)

Lat 14 - 09 - 29 N Long 101 - 52 - 50 E

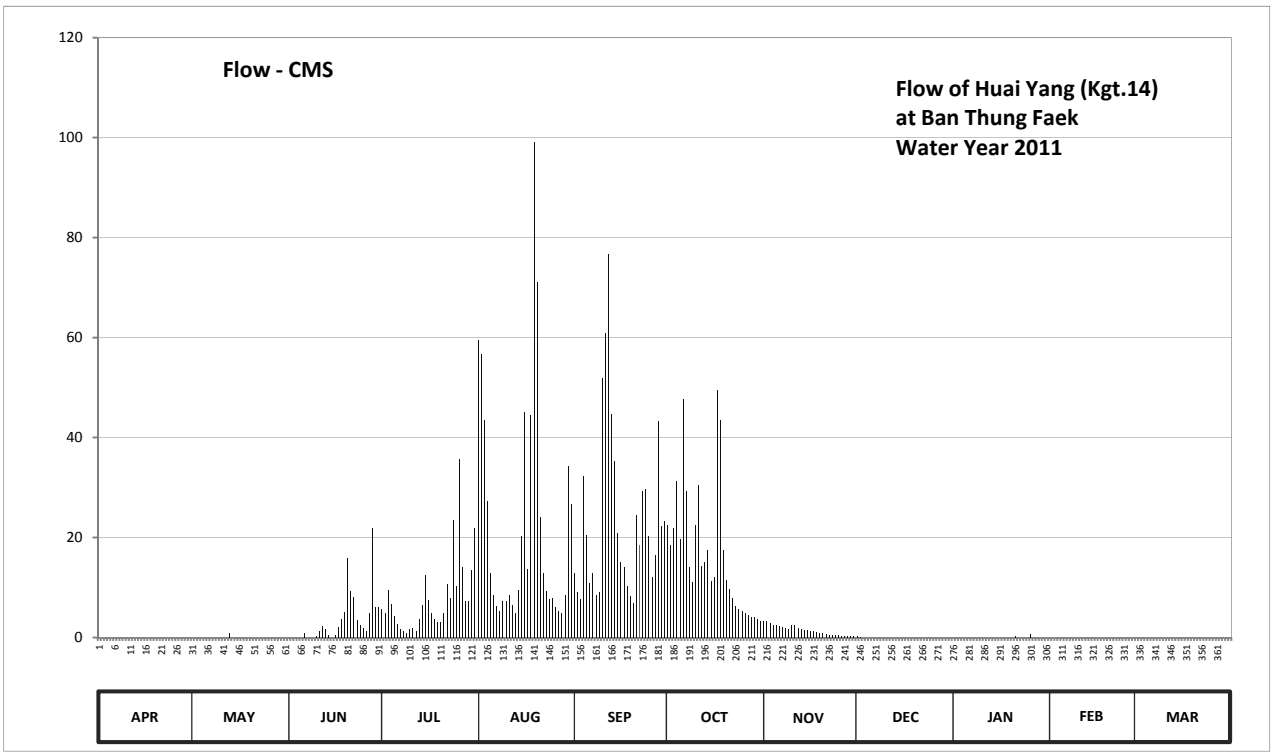
Location : on left bank about 2 kilometers from Kabin Buri - Nakhon Ratchasima Highway.

	Ban Thung Faek	**Amphoe** Na Di	**Changwat** Prachin Buri
Drainge Area	354 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+34.600 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	Near the automatic gage building.		**Elevation** +42.429 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	1966 to date		
Rating Operation			
Period of Rating	1966 - 1981 , 1986 to date		
Rated by Flot	-		
Rated by Current Meter	1966 - 1981 , 1986 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 17 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	34.91	35.20	35.16	35.96	38.13	36.45	36.86	35.72	35.42	35.24	35.25	35.00	
2	34.90	35.17	35.23	35.89	38.05	36.21	36.70	35.72	35.41	35.24	35.24	34.99	
3	34.89	35.11	35.27	36.23	37.65	36.11	36.84	35.69	35.40	35.24	35.22	34.97	
4	34.88	35.06	35.31	36.05	37.05	37.25	37.21	35.66	35.40	35.24	35.22	34.96	
5	34.88	35.03	35.26	35.83	36.45	36.78	36.75	35.64	35.39	35.24	35.22	34.95	
6	34.87	35.02	35.48	35.67	36.16	36.32	37.79	35.62	35.39	35.24	35.21	34.95	
7	34.87	35.01	35.38	35.58	36.02	36.45	37.13	35.60	35.39	35.23	35.20	34.94	
8	34.87	35.02	35.28	35.52	35.93	36.16	36.50	35.59	35.39	35.22	35.18	34.94	
9	34.88	35.19	35.38	35.49	36.09	36.21	36.34	35.58	35.39	35.20	35.17	34.94	
10	34.88	35.18	35.43	35.56	36.09	37.91	36.86	35.64	35.39	35.19	35.16	34.94	
11	34.87	35.17	35.52	35.59	36.16	38.17	37.18	35.65	35.39	35.19	35.15	35.35	
12	34.87	35.38	35.62	35.53	36.03	38.58	36.51	35.59	35.38	35.19	35.14	35.22	
13	34.86	35.48	35.57	35.77	35.90	37.69	36.55	35.56	35.37	35.19	35.12	35.20	
14	34.85	35.33	35.44	36.04	36.23	37.37	36.66	35.55	35.36	35.18	35.11	35.16	
15	34.85	35.13	35.35	36.42	36.77	36.80	36.35	35.54	35.34	35.18	35.11	35.13	
16	34.84	35.11	35.45	36.10	37.70	36.55	36.41	35.52	35.34	35.21	35.10	35.10	
17	34.85	35.11	35.60	35.88	36.49	36.50	37.84	35.52	35.33	35.22	35.09	35.08	
18	34.87	35.10	35.77	35.76	37.68	36.29	37.65	35.51	35.32	35.24	35.07	35.07	
19	34.89	35.10	35.91	35.71	39.06	36.15	36.66	35.49	35.31	35.24	35.07	35.10	
20	34.89	35.10	36.59	35.71	38.44	36.06	36.37	35.49	35.30	35.36	35.06	35.08	
21	34.89	35.09	36.22	35.89	36.92	36.94	36.24	35.46	35.30	35.42	35.05	35.05	
22	34.87	35.08	36.14	36.31	36.45	36.70	36.13	35.45	35.29	35.33	35.05	35.03	
23	34.86	35.07	35.75	36.13	36.22	37.13	36.02	35.45	35.29	35.29	35.05	35.01	
24	34.85	35.07	35.64	36.90	36.11	37.15	35.96	35.44	35.28	35.29	35.04	35.00	
25	34.84	35.06	35.59	36.29	36.12	36.77	35.93	35.44	35.27	35.30	35.04	34.98	
26	34.83	35.05	35.53	37.39	36.01	36.40	35.89	35.43	35.26	35.46	35.05	34.96	
27	34.87	35.03	35.88	36.50	35.92	36.62	35.85	35.43	35.25	35.40	35.04	34.95	
28	34.96	35.03	36.84	36.09	35.88	37.64	35.82	35.42	35.25	35.32	35.03	34.94	
29	34.97	35.03	36.00	36.08	36.16	36.85	35.80	35.42	35.24	35.29	35.01	34.93	
30	34.95	35.02	36.00	36.47	37.33	36.89	35.77	35.42	35.24	35.26		34.92	
31		35.15		36.84	37.03		35.74		35.24	35.26		34.91	
Mean	34.88	35.12	35.65	36.04	36.72	36.84	36.53	35.54	35.33	35.26	35.12	35.02	
Max	34.97	35.48	36.84	37.39	39.06	38.58	37.84	35.72	35.42	35.46	35.25	35.35	39.06
Min	34.83	35.01	35.16	35.49	35.88	36.06	35.74	35.42	35.24	35.18	35.01	34.91	34.83

Annual Max Momentary Gage Height	40.34	m. (MSL.) ,	at 18.00 Hours, on Aug 19, 2011		
Zero Gage at Bottom Elevation	34.60	m. (MSL.) ,	River Bed	32.83	m. (MSL)
Left Bank Elevation	41.12	m. (MSL.) ,			
Right Bank Elevation	42.03	m. (MSL.) ,	Drainage Area	354	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	0.00	5.60	59.55	13.00	22.50	3.20	0.20	0.00	0.00	0.00		
2	0.00	0.00	0.00	4.90	56.75	9.15	18.50	3.20	0.10	0.00	0.00	0.00		
3	0.00	0.00	0.00	9.45	43.50	7.65	22.00	2.90	0.00	0.00	0.00	0.00		
4	0.00	0.00	0.00	6.75	27.25	32.25	31.25	2.60	0.00	0.00	0.00	0.00		
5	0.00	0.00	0.00	4.30	13.00	20.50	19.75	2.40	0.00	0.00	0.00	0.00		
6	0.00	0.00	0.80	2.70	8.40	10.80	47.70	2.20	0.00	0.00	0.00	0.00		
7	0.00	0.00	0.00	1.80	6.30	13.00	29.25	2.00	0.00	0.00	0.00	0.00		
8	0.00	0.00	0.00	1.20	5.30	8.40	14.00	1.90	0.00	0.00	0.00	0.00		
9	0.00	0.00	0.00	0.90	7.35	9.15	11.10	1.80	0.00	0.00	0.00	0.00		
10	0.00	0.00	0.30	1.60	7.35	51.85	22.50	2.40	0.00	0.00	0.00	0.00		
11	0.00	0.00	1.20	1.90	8.40	60.95	30.50	2.50	0.00	0.00	0.00	0.00		
12	0.00	0.00	2.20	1.30	6.45	76.70	14.20	1.90	0.00	0.00	0.00	0.00		
13	0.00	0.80	1.70	3.70	5.00	44.70	15.00	1.60	0.00	0.00	0.00	0.00		
14	0.00	0.00	0.40	6.60	9.45	35.25	17.50	1.50	0.00	0.00	0.00	0.00		
15	0.00	0.00	0.00	12.40	20.25	21.00	11.25	1.40	0.00	0.00	0.00	0.00		
16	0.00	0.00	0.50	7.50	45.00	15.00	12.20	1.20	0.00	0.00	0.00	0.00		
17	0.00	0.00	2.00	4.80	13.80	14.00	49.40	1.20	0.00	0.00	0.00	0.00		
18	0.00	0.00	3.70	3.60	44.40	10.35	43.50	1.10	0.00	0.00	0.00	0.00		
19	0.00	0.00	5.10	3.10	99.00	8.25	17.50	0.90	0.00	0.00	0.00	0.00		
20	0.00	0.00	15.80	3.10	71.10	6.90	11.55	0.90	0.00	0.00	0.00	0.00		
21	0.00	0.00	9.30	4.90	24.00	24.50	9.60	0.60	0.00	0.20	0.00	0.00		
22	0.00	0.00	8.10	10.65	13.00	18.50	7.95	0.50	0.00	0.00	0.00	0.00		
23	0.00	0.00	3.50	7.95	9.30	29.25	6.30	0.50	0.00	0.00	0.00	0.00		
24	0.00	0.00	2.40	23.50	7.65	29.75	5.60	0.40	0.00	0.00	0.00	0.00		
25	0.00	0.00	1.90	10.35	7.80	20.25	5.30	0.40	0.00	0.00	0.00	0.00		
26	0.00	0.00	1.30	35.75	6.15	12.00	4.90	0.30	0.00	0.60	0.00	0.00		
27	0.00	0.00	4.80	14.00	5.20	16.50	4.50	0.30	0.00	0.00	0.00	0.00		
28	0.00	0.00	22.00	7.35	4.80	43.20	4.20	0.20	0.00	0.00	0.00	0.00		
29	0.00	0.00	6.00	7.20	8.40	22.25	4.00	0.20	0.00	0.00	0.00	0.00		
30	0.00	0.00	6.00	13.40	34.25	23.25	3.70	0.20	0.00	0.00		0.00		
31		0.00		22.00	26.75		3.40		0.00	0.00		0.00		
Total	0.00	0.80	99.00	244.25	704.90	708.30	520.60	42.40	0.30	0.80	0.00	0.00	2321.35	CMSDAY
Mean	0.00	0.03	3.30	7.88	22.74	23.61	16.79	1.41	0.01	0.03	0.00	0.00	6.34	CMS
Max	0.00	0.80	22.00	35.75	99.00	76.70	49.40	3.20	0.20	0.60	0.00	0.00	99.00	CMS
Min	0.00	0.00	0.00	0.90	4.80	6.90	3.40	0.20	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	0.00	0.07	8.55	21.10	60.90	61.20	44.98	3.66	0.03	0.07	0.00	0.00	200.57	MCM

Momentary Peak 167.40 CMS, at 40.34 m. (MSL), at 18.00 Hours, on Aug 19, 2011

Runoff Yield 17.92 Liters/Second/Square KM. Momentary Peak Yield 472.881 Liters/Second/Square KM.

WATER YEAR : 2011

PRACHIN BURI RIVER BASIN

Huai Samong at Ban Kaeng Din So , Prachin Buri (Kgt.15A)

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.

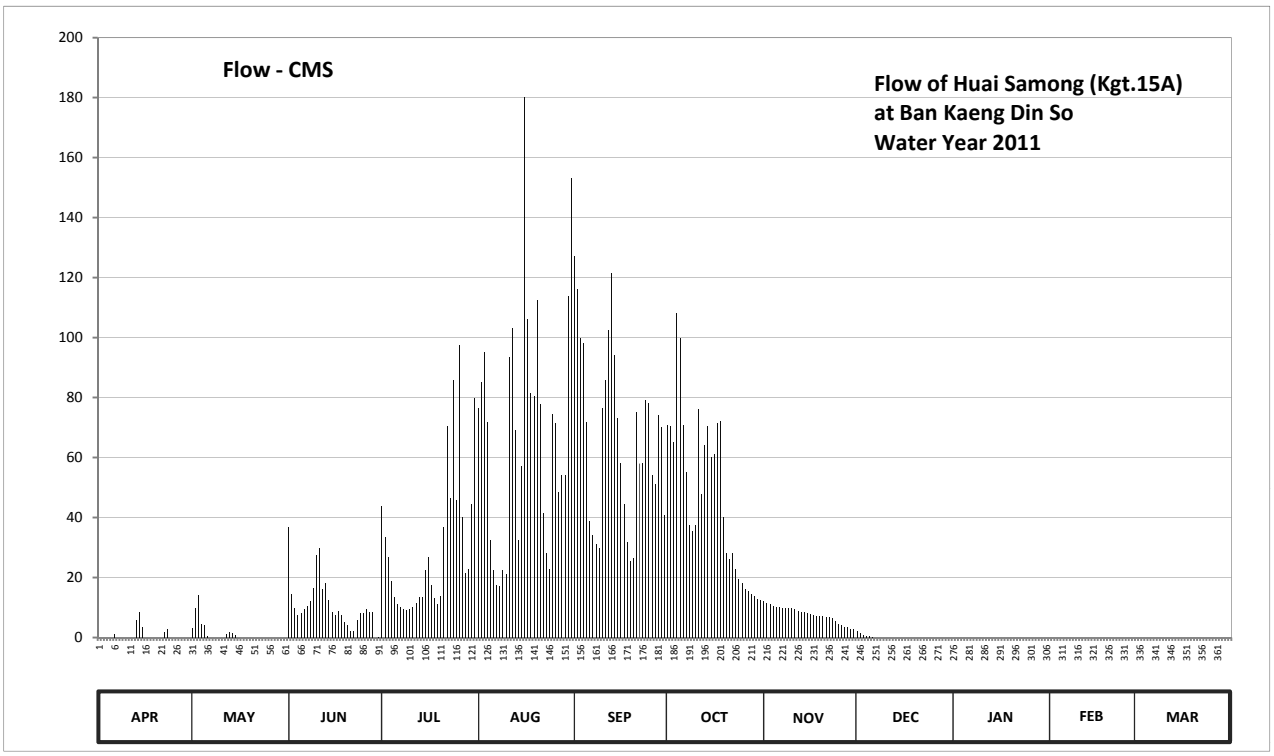
Ban Kaeng Din So **Amphoe** Na Di **Changwat** Prachin Buri

Drainge Area	548 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+12.800 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	In front of the station office and near the rain gage. **Elevation** +22.396 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings
Period of Available Gage Records	1968 to date
Rating Operation	
Period of Rating	1968 to date
Rated by Flot	-
Rated by Current Meter	1968 to date
Stability of Channel Regimes	Fairly stable because of backwater effect.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Flow effected by the local weir.
	Stage-discharge relation defined by 26 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	14.87	15.36	16.21	16.31	16.81	18.04	16.63	15.67	15.31	14.97	14.94	14.63	
2	14.87	15.59	15.75	16.16	17.05	17.82	16.61	15.65	15.28	14.96	14.91	14.62	
3	14.87	15.74	15.59	16.04	17.30	17.42	16.55	15.64	15.24	14.96	14.87	14.62	
4	14.86	15.42	15.52	15.87	16.66	17.38	17.63	15.62	15.23	14.95	14.84	14.63	
5	14.87	15.40	15.54	15.71	16.14	16.66	17.42	15.61	15.22	14.95	14.78	14.65	
6	15.26	15.23	15.58	15.64	15.95	16.24	16.63	15.60	15.21	14.95	14.75	14.66	
7	15.20	14.76	15.62	15.60	15.84	16.17	16.45	15.59	15.19	14.94	14.75	14.66	
8	15.02	14.82	15.67	15.58	15.83	16.12	16.22	15.59	15.15	14.94	14.73	14.70	
9	15.00	14.91	15.81	15.57	15.95	16.10	16.19	15.59	15.17	14.93	14.71	14.70	
10	15.00	14.97	16.05	15.58	15.92	16.81	16.22	15.59	15.16	14.92	14.69	14.79	
11	14.99	15.09	16.10	15.60	17.26	17.07	16.80	15.58	15.15	14.91	14.67	14.85	
12	15.20	15.26	15.80	15.65	17.50	17.49	16.37	15.56	15.13	14.90	14.65	14.86	
13	15.46	15.29	15.85	15.72	16.59	17.93	16.54	15.55	15.12	14.91	14.63	14.88	
14	15.55	15.27	15.68	15.71	16.14	17.28	16.62	15.55	15.11	14.91	14.62	14.88	
15	15.38	15.24	15.55	15.95	16.47	16.70	16.50	15.54	15.11	14.90	14.61	14.87	
16	15.13	15.02	15.52	16.04	18.93	16.48	16.51	15.53	15.10	14.90	14.59	14.91	
17	14.96	15.06	15.56	15.84	17.58	16.32	16.65	15.52	15.08	14.89	14.58	14.92	
18	14.90	15.12	15.52	15.70	16.96	16.13	16.67	15.51	15.07	14.96	14.56	14.91	
19	14.86	15.06	15.44	15.64	16.94	16.01	16.26	15.51	15.06	15.02	14.55	14.90	
20	14.87	15.16	15.40	15.73	17.74	16.03	16.06	15.51	15.04	15.13	14.55	14.89	
21	14.88	15.18	15.30	16.21	16.86	16.77	16.02	15.50	15.03	15.08	14.56	14.88	
22	15.29	14.86	15.30	16.61	16.28	16.48	16.06	15.49	15.01	15.07	14.59	14.87	
23	15.35	14.82	15.46	16.35	16.06	16.48	15.96	15.48	15.00	15.15	14.60	14.86	
24	15.14	14.88	15.54	17.07	15.96	16.90	15.89	15.45	14.99	15.14	14.60	14.86	
25	15.06	14.88	15.54	16.34	16.75	16.87	15.85	15.42	15.00	15.11	14.62	14.87	
26	15.02	14.89	15.58	17.36	16.65	16.44	15.80	15.40	14.99	15.06	14.63	14.87	
27	14.97	14.90	15.55	16.26	16.38	16.41	15.78	15.38	14.98	15.05	14.64	14.87	
28	14.91	14.92	15.55	15.93	16.44	16.74	15.75	15.37	14.97	15.04	14.64	14.87	
29	14.95	14.95	15.15	15.96	16.44	16.60	15.73	15.35	14.96	15.04	14.64	14.87	
30	14.96	14.98	15.21	16.32	17.77	16.27	15.69	15.34	14.97	15.00		14.87	
31		14.98		16.92	18.50		15.68		14.96	14.98		14.87	
Mean	15.06	15.10	15.60	16.03	16.76	16.74	16.31	15.52	15.10	14.99	14.67	14.81	
Max	15.55	15.74	16.21	17.36	18.93	18.04	17.63	15.67	15.31	15.15	14.94	14.92	18.93
Min	14.86	14.76	15.15	15.57	15.83	16.01	15.68	15.34	14.96	14.89	14.55	14.62	14.55

Annual Max Momentary Gage Height	19.07	m. (MSL.) ,	at 09.00 Hours, on Aug 16, 2011		
Zero Gage at Bottom Elevation	12.80	m. (MSL.) ,	River Bed	12.64	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, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	3.20	36.70	43.70	76.30	127.00	70.90	12.10	2.20	0.00	0.00	0.00		
2	0.00	9.70	14.50	33.60	85.00	116.00	70.30	11.50	1.60	0.00	0.00	0.00		
3	0.00	14.20	9.70	27.00	95.00	99.80	65.00	11.20	0.80	0.00	0.00	0.00		
4	0.00	4.60	7.60	18.80	71.80	98.20	108.20	10.60	0.60	0.00	0.00	0.00		
5	0.00	4.00	8.20	13.30	32.40	71.80	99.80	10.30	0.40	0.00	0.00	0.00		
6	1.20	0.60	9.40	11.20	22.50	38.80	70.90	10.00	0.20	0.00	0.00	0.00		
7	0.00	0.00	10.60	10.00	17.60	34.20	55.00	9.70	0.00	0.00	0.00	0.00		
8	0.00	0.00	12.10	9.40	17.20	31.20	37.40	9.70	0.00	0.00	0.00	0.00		
9	0.00	0.00	16.40	9.10	22.50	30.00	35.40	9.70	0.00	0.00	0.00	0.00		
10	0.00	0.00	27.50	9.40	21.00	76.30	37.40	9.70	0.00	0.00	0.00	0.00		
11	0.00	0.00	30.00	10.00	93.40	85.80	76.00	9.40	0.00	0.00	0.00	0.00		
12	0.00	1.20	16.00	11.50	103.00	102.60	47.90	8.80	0.00	0.00	0.00	0.00		
13	5.80	1.80	18.00	13.60	69.00	121.50	64.00	8.50	0.00	0.00	0.00	0.00		
14	8.50	1.40	12.40	13.30	32.40	94.20	70.60	8.50	0.00	0.00	0.00	0.00		
15	3.60	0.80	8.50	22.50	57.00	73.00	60.00	8.20	0.00	0.00	0.00	0.00		
16	0.00	0.00	7.60	27.00	180.10	58.00	61.00	7.90	0.00	0.00	0.00	0.00		
17	0.00	0.00	8.80	17.60	106.20	44.40	71.50	7.60	0.00	0.00	0.00	0.00		
18	0.00	0.00	7.60	13.00	81.40	31.80	72.10	7.30	0.00	0.00	0.00	0.00		
19	0.00	0.00	5.20	11.20	80.60	25.50	40.20	7.30	0.00	0.00	0.00	0.00		
20	0.00	0.00	4.00	13.90	112.60	26.50	28.00	7.30	0.00	0.00	0.00	0.00		
21	0.00	0.00	2.00	36.70	77.80	75.10	26.00	7.00	0.00	0.00	0.00	0.00		
22	1.80	0.00	2.00	70.30	41.60	58.00	28.00	6.70	0.00	0.00	0.00	0.00		
23	3.00	0.00	5.80	46.50	28.00	58.00	23.00	6.40	0.00	0.00	0.00	0.00		
24	0.00	0.00	8.20	85.80	23.00	79.00	19.60	5.50	0.00	0.00	0.00	0.00		
25	0.00	0.00	8.20	45.80	74.50	78.10	18.00	4.60	0.00	0.00	0.00	0.00		
26	0.00	0.00	9.40	97.40	71.50	54.00	16.00	4.00	0.00	0.00	0.00	0.00		
27	0.00	0.00	8.50	40.20	48.60	51.00	15.40	3.60	0.00	0.00	0.00	0.00		
28	0.00	0.00	8.50	21.50	54.00	74.20	14.50	3.40	0.00	0.00	0.00	0.00		
29	0.00	0.00	0.00	23.00	54.00	70.00	13.90	3.00	0.00	0.00	0.00	0.00		
30	0.00	0.00	0.20	44.40	113.80	40.90	12.70	2.80	0.00	0.00		0.00		
31		0.00		79.80	153.00		12.40		0.00	0.00		0.00		
Total	23.90	41.50	323.60	930.50	2116.80	2024.90	1441.10	232.30	5.80	0.00	0.00	0.00	7140.40	CMSDAY
Mean	0.80	1.34	10.79	30.02	68.28	67.50	46.49	7.74	0.19	0.00	0.00	0.00	19.51	CMS
Max	8.50	14.20	36.70	97.40	180.10	127.00	108.20	12.10	2.20	0.00	0.00	0.00	180.10	CMS
Min	0.00	0.00	0.00	9.10	17.20	25.50	12.40	2.80	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	2.07	3.59	27.96	80.40	182.89	174.95	124.51	20.07	0.50	0.00	0.00	0.00	616.93	MCM

Momentary Peak 189.90 CMS, at 19.07 m. (MSL), at 09.00 Hours, on Aug 16, 2011

Runoff Yield 35.60 Liters/Second/Square KM. Momentary Peak Yield 346.533 Liters/Second/Square KM.

WATER YEAR : 2011

PRACHIN BURI RIVER BASIN

Khwae Nam Sai at Ban Saphan Hin , Prachin Buri (Kgt.33)

Lat 14 - 07 - 55 N Long 101 - 43 - 52 E

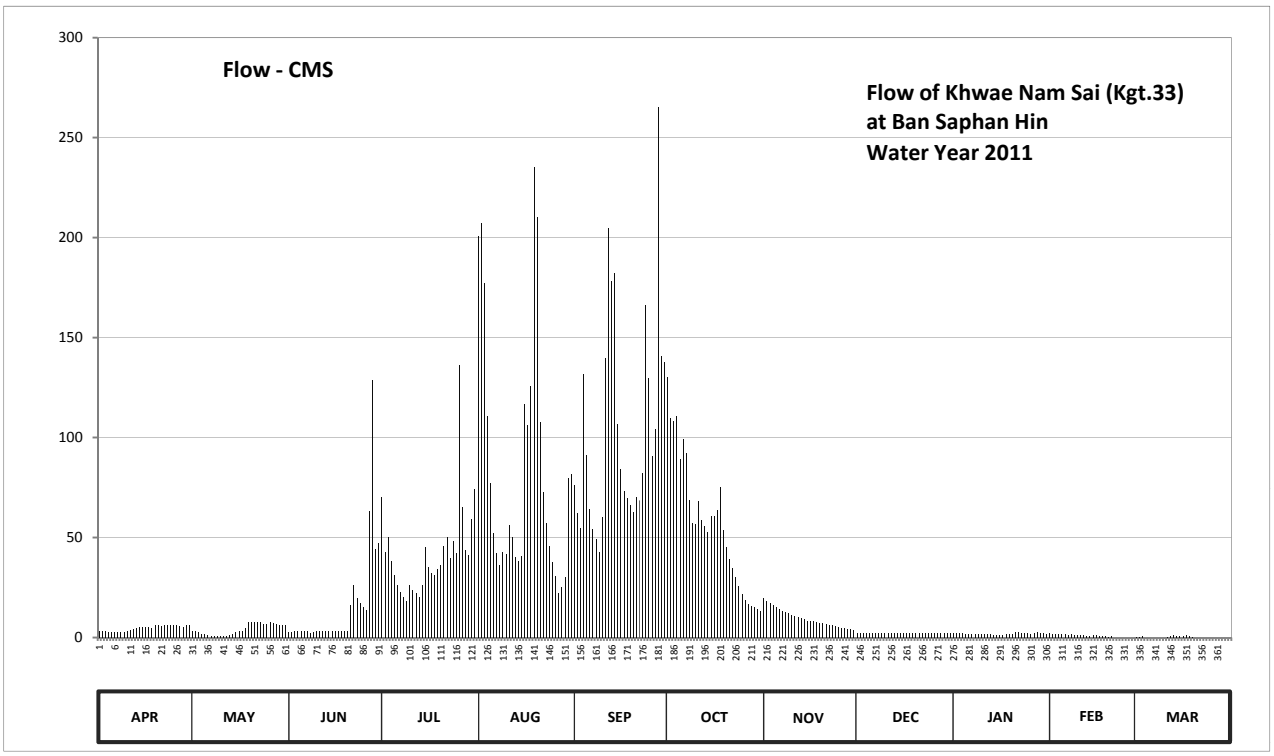
Location : on left bank at Ban Saphan Hin.

	Ban Saphan Hin	**Amphoe** Na Di	**Changwat** Prachin Buri
Drainge Area	617 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (A.D.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the top staff gage.		**Elevation** +10.598 m. (A.D.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	1997 to date		
Rating Operation			
Period of Rating	2001 to date		
Rated by Flot	-		
Rated by Current Meter	2001 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 22 discharge measurements made in 2011.		

Gage Height in Meter (A.D.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	1.48	1.47	1.45	4.68	6.85	4.84	5.99	2.57	1.43	1.41	1.40	1.21	
2	1.47	1.47	1.44	3.70	6.91	4.44	5.63	2.48	1.43	1.41	1.39	1.22	
3	1.47	1.44	1.47	4.00	6.62	4.17	5.60	2.40	1.43	1.41	1.38	1.25	
4	1.46	1.38	1.47	3.51	5.65	6.01	5.65	2.32	1.43	1.40	1.36	1.20	
5	1.46	1.35	1.47	3.19	4.87	5.24	5.19	2.26	1.42	1.39	1.35	1.18	
6	1.46	1.32	1.47	2.92	4.07	4.51	5.41	2.21	1.42	1.38	1.35	1.11	
7	1.46	1.27	1.47	2.75	3.66	4.16	5.26	2.15	1.42	1.37	1.34	1.08	
8	1.46	1.27	1.43	2.59	3.42	3.95	4.63	2.12	1.42	1.35	1.35	1.05	
9	1.46	1.29	1.46	2.47	3.70	3.70	4.27	2.07	1.42	1.38	1.34	1.05	
10	1.48	1.29	1.47	2.93	3.65	4.38	4.25	2.02	1.42	1.38	1.33	1.15	
11	1.51	1.27	1.47	2.81	4.22	6.14	4.62	1.97	1.42	1.37	1.31	1.22	
12	1.53	1.26	1.47	2.72	4.00	6.89	4.33	1.94	1.42	1.36	1.30	1.28	
13	1.57	1.30	1.47	2.61	3.60	6.63	4.21	1.90	1.42	1.35	1.29	1.30	
14	1.60	1.35	1.47	2.92	3.50	6.67	4.09	1.86	1.41	1.34	1.29	1.29	
15	1.60	1.46	1.47	3.79	3.61	5.57	4.40	1.82	1.41	1.33	1.30	1.27	
16	1.61	1.49	1.47	3.38	5.76	5.07	4.39	1.82	1.41	1.33	1.31	1.28	
17	1.60	1.48	1.47	3.22	5.56	4.76	4.49	1.82	1.41	1.34	1.28	1.31	
18	1.58	1.58	1.47	3.18	5.91	4.67	4.82	1.79	1.41	1.35	1.26	1.28	
19	1.66	1.79	1.47	3.33	7.14	4.56	4.12	1.75	1.41	1.35	1.25	1.23	
20	1.67	1.78	1.47	3.44	6.94	4.46	3.79	1.73	1.41	1.35	1.23	1.20	
21	1.65	1.77	2.34	3.80	5.59	4.68	3.55	1.70	1.41	1.46	1.25	1.19	
22	1.68	1.79	2.92	3.98	4.75	4.63	3.35	1.68	1.41	1.45	1.18	1.18	
23	1.68	1.79	2.56	3.57	4.27	5.01	3.13	1.66	1.41	1.43	1.15	1.15	
24	1.68	1.72	2.39	3.90	3.80	6.49	2.91	1.63	1.41	1.41	1.13	1.15	
25	1.66	1.72	2.26	3.66	3.49	5.98	2.69	1.60	1.41	1.40	1.14	1.15	
26	1.66	1.76	2.16	6.09	3.16	5.22	2.50	1.58	1.42	1.38	1.14	1.04	
27	1.63	1.74	4.48	4.53	2.72	5.52	2.38	1.57	1.42	1.43	1.13	0.99	
28	1.62	1.72	5.96	3.73	2.87	7.37	2.31	1.54	1.42	1.45	1.12	0.96	
29	1.68	1.69	3.76	3.63	3.14	6.15	2.28	1.53	1.42	1.43	1.15	0.94	
30	1.68	1.68	3.87	4.34	4.95	6.11	2.21	1.50	1.42	1.40		0.89	
31		1.68		4.79	5.00		2.14		1.42	1.38		0.83	
Mean	1.57	1.53	2.07	3.55	4.63	5.27	4.02	1.90	1.42	1.39	1.27	1.15	
Max	1.68	1.79	5.96	6.09	7.14	7.37	5.99	2.57	1.43	1.46	1.40	1.31	7.37
Min	1.46	1.26	1.43	2.47	2.72	3.70	2.14	1.50	1.41	1.33	1.12	0.83	0.83

Annual Max Momentary Gage Height	7.65	m. (A.D),	at 12.00 Hours, on Sep 28, 2011		
Zero Gage at Bottom Elevation	0.00	m. (A.D),	River Bed	0.85	m. (A.D)
Left Bank Elevation	10.56	m. (A.D),			
Right Bank Elevation	10.57	m. (A.D),	Drainage Area	617	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.22	3.07	2.76	70.30	200.50	75.90	130.40	19.82	2.46	2.15	2.00	0.10		
2	3.07	3.07	2.61	43.00	207.10	62.20	109.50	18.45	2.46	2.15	1.90	0.20		
3	3.07	2.61	3.07	50.50	177.00	54.75	108.00	17.23	2.46	2.15	1.80	0.50		
4	2.91	1.80	3.07	38.25	110.50	131.60	110.50	16.01	2.46	2.00	1.60	0.00		
5	2.91	1.50	3.07	31.39	76.95	91.30	89.10	15.10	2.30	1.90	1.50	0.00		
6	2.91	1.20	3.07	26.11	52.25	64.35	98.95	14.34	2.30	1.80	1.50	0.00		
7	2.91	0.70	3.07	22.78	42.00	54.50	92.20	13.42	2.30	1.70	1.40	0.00		
8	2.91	0.70	2.46	20.12	36.00	49.25	68.55	12.97	2.30	1.50	1.50	0.00		
9	2.91	0.90	2.91	18.30	43.00	43.00	57.25	12.20	2.30	1.80	1.40	0.00		
10	3.22	0.90	3.07	26.30	41.75	60.40	56.75	11.44	2.30	1.80	1.30	0.00		
11	3.68	0.70	3.07	23.95	56.00	139.80	68.20	10.68	2.30	1.70	1.10	0.20		
12	3.98	0.60	3.07	22.19	50.50	204.90	58.90	10.22	2.30	1.60	1.00	0.80		
13	4.59	1.00	3.07	20.43	40.50	178.00	55.75	9.62	2.30	1.50	0.90	1.00		
14	5.05	1.50	3.07	26.11	38.00	182.00	52.75	9.01	2.15	1.40	0.90	0.90		
15	5.05	2.91	3.07	45.25	40.75	106.50	61.00	8.40	2.15	1.30	1.00	0.70		
16	5.20	3.37	3.07	35.11	116.60	84.30	60.70	8.40	2.15	1.30	1.10	0.80		
17	5.05	3.22	3.07	31.98	106.00	73.10	63.70	8.40	2.15	1.40	0.80	1.10		
18	4.74	4.74	3.07	31.19	125.60	69.95	75.20	7.94	2.15	1.50	0.60	0.80		
19	5.96	7.94	3.07	34.13	235.20	66.10	53.50	7.33	2.15	1.50	0.50	0.30		
20	6.11	7.79	3.07	36.50	210.40	62.80	45.25	7.03	2.15	1.50	0.30	0.00		
21	5.81	7.64	16.32	45.50	107.50	70.30	39.25	6.57	2.15	2.91	0.50	0.00		
22	6.26	7.94	26.11	50.00	72.75	68.55	34.52	6.26	2.15	2.76	0.00	0.00		
23	6.26	7.94	19.67	39.75	57.25	81.90	30.22	5.96	2.15	2.46	0.00	0.00		
24	6.26	6.87	17.08	48.00	45.50	166.20	25.91	5.50	2.15	2.15	0.00	0.00		
25	5.96	6.87	15.10	42.00	37.75	129.80	21.65	5.05	2.15	2.00	0.00	0.00		
26	5.96	7.48	13.58	136.40	30.80	90.40	18.75	4.74	2.30	1.80	0.00	0.00		
27	5.50	7.18	63.40	65.05	22.19	104.00	16.93	4.59	2.30	2.46	0.00	0.00		
28	5.35	6.87	128.60	43.75	25.13	265.10	15.86	4.13	2.30	2.76	0.00	0.00		
29	6.26	6.42	44.50	41.25	30.41	140.50	15.40	3.98	2.30	2.46	0.00	0.00		
30	6.26	6.26	47.25	59.20	79.75	137.70	14.34	3.52	2.30	2.00		0.00		
31		6.26		74.15	81.50		13.27		2.30	1.80		0.00		
Total	139.33	127.95	451.47	1298.94	2597.13	3109.15	1762.25	288.31	70.14	59.21	24.60	7.40	9935.88	CMSDAY
Mean	4.64	4.13	15.05	41.90	83.78	103.64	56.85	9.61	2.26	1.91	0.85	0.24	27.15	CMS
Max	6.26	7.94	128.60	136.40	235.20	265.10	130.40	19.82	2.46	2.91	2.00	1.10	265.10	CMS
Min	2.91	0.60	2.46	18.30	22.19	43.00	13.27	3.52	2.15	1.30	0.00	0.00	0.00	CMS
Runoff	12.04	11.06	39.01	112.23	224.39	268.63	152.26	24.91	6.06	5.12	2.13	0.64	858.46	MCM

Momentary Peak 307.50 CMS, at 7.65 m. (A.D), at 12.00 Hours, on Sep 28, 2011

Runoff Yield 44.00 Liters/Second/Square KM. Momentary Peak Yield 498.379 Liters/Second/Square KM.

WATER YEAR : 2011

PRACHIN BURI RIVER BASIN

Khwae Hanuman at Ban Cha Om , Prachin Buri (Kgt.34)

Lat 13 - 28 - 29 N Long 101 - 44 - 55 E

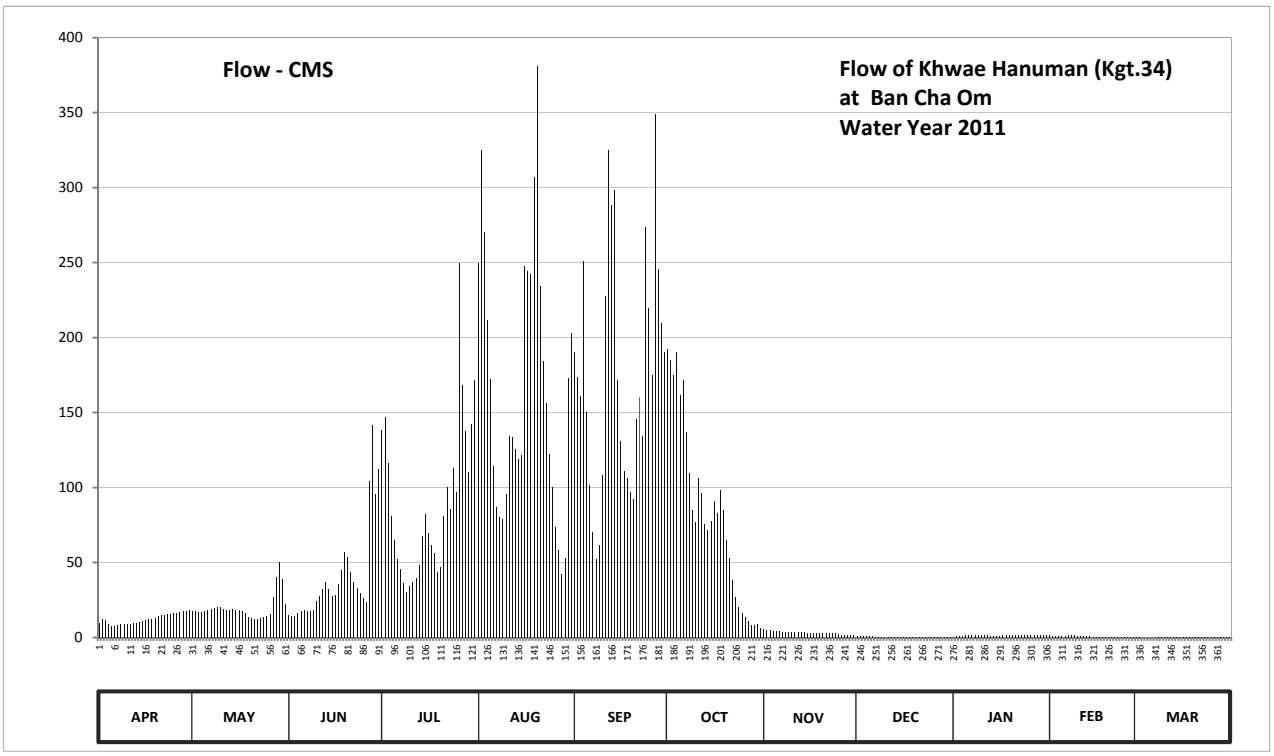
Location : on left bank at the bridge.

	Ban Cha Om	**Amphoe** Na Di	**Changwat** Prachin Buri
Drainge Area	1,210 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+3.560 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank at the abutment of the bridge.		**Elevation** +12.474 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	2006 to date		
Rating Operation			
Period of Rating	2006 to date		
Rated by Flot	-		
Rated by Current Meter	2006 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 19 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	5.42	5.69	5.60	7.54	9.16	8.37	9.03	5.73	5.25	5.13	5.27	4.85	
2	5.52	5.68	5.58	7.68	9.94	8.13	8.96	5.70	5.23	5.19	5.25	4.83	
3	5.48	5.66	5.58	7.13	9.39	7.91	8.86	5.67	5.22	5.21	5.23	4.81	
4	5.40	5.67	5.64	6.73	8.68	9.18	9.01	5.64	5.20	5.24	5.21	4.80	
5	5.32	5.69	5.69	6.55	8.10	8.62	8.73	5.62	5.18	5.27	5.22	4.79	
6	5.33	5.71	5.70	6.39	7.09	8.04	8.83	5.60	5.16	5.31	5.25	4.79	
7	5.35	5.73	5.68	6.30	6.79	7.59	8.48	5.58	5.13	5.35	5.28	4.81	
8	5.39	5.74	5.69	6.12	6.72	7.24	8.14	5.57	5.12	5.35	5.29	4.84	
9	5.41	5.76	5.71	6.01	6.71	7.44	7.81	5.57	5.10	5.33	5.27	4.87	
10	5.41	5.75	5.85	6.08	6.87	8.13	7.70	5.58	5.08	5.32	5.25	4.90	
11	5.40	5.73	5.94	6.14	7.47	9.32	8.10	5.57	5.06	5.30	5.23	4.93	
12	5.42	5.71	6.04	6.19	7.46	9.97	7.98	5.57	5.04	5.28	5.21	4.95	
13	5.43	5.70	6.14	6.33	7.31	9.74	7.68	5.55	5.02	5.26	5.18	4.99	
14	5.45	5.72	6.04	6.58	7.18	9.80	7.61	5.54	5.00	5.24	5.15	5.01	
15	5.47	5.71	5.94	6.74	7.23	8.83	7.71	5.53	4.99	5.24	5.12	5.03	
16	5.48	5.70	5.96	6.61	9.14	8.41	7.90	5.52	4.97	5.25	5.10	5.04	
17	5.50	5.69	6.11	6.51	9.10	8.16	7.79	5.51	4.96	5.27	5.08	5.07	
18	5.52	5.64	6.28	6.44	9.08	8.10	8.00	5.50	4.95	5.29	5.06	5.10	
19	5.54	5.55	6.45	6.26	9.76	7.99	7.81	5.49	4.94	5.30	5.04	5.10	
20	5.57	5.53	6.41	6.31	10.44	7.92	7.50	5.48	4.93	5.31	5.02	5.08	
21	5.59	5.52	6.26	6.73	8.98	8.57	7.26	5.52	4.92	5.33	5.00	5.05	
22	5.60	5.52	6.14	6.91	8.29	8.72	6.96	5.52	4.91	5.32	4.98	5.03	
23	5.61	5.54	6.06	6.78	7.84	8.45	6.68	5.49	4.90	5.31	4.96	5.01	
24	5.62	5.55	5.99	7.06	7.25	9.65	6.51	5.47	4.89	5.29	4.93	4.99	
25	5.64	5.57	5.91	6.88	6.91	9.26	6.36	5.45	4.88	5.27	4.91	4.97	
26	5.65	5.62	5.84	9.16	6.65	8.86	6.23	5.33	4.86	5.27	4.90	4.95	
27	5.67	5.93	6.95	8.04	6.47	10.16	6.11	5.31	4.85	5.29	4.89	4.93	
28	5.68	6.21	7.59	7.53	6.24	9.46	5.95	5.29	4.84	5.31	4.87	4.91	
29	5.69	6.36	6.87	7.01	6.40	9.18	5.96	5.28	4.86	5.30	4.86	4.89	
30	5.70	6.18	7.04	7.60	8.11	9.01	6.01	5.27	4.89	5.29		4.87	
31		5.81		8.09	8.56		5.81		4.95	5.28		4.85	
Mean	5.51	5.73	6.09	6.85	7.91	8.67	7.53	5.51	5.01	5.28	5.10	4.94	
Max	5.70	6.36	7.59	9.16	10.44	10.16	9.03	5.73	5.25	5.35	5.29	5.10	10.44
Min	5.32	5.52	5.58	6.01	6.24	7.24	5.81	5.27	4.84	5.13	4.86	4.79	4.79

Annual Max Momentary Gage Height	10.56	m. (MSL.) ,	at 12.00 Hours, on Aug 20, 2011		
Zero Gage at Bottom Elevation	3.56	m. (MSL.) ,	River Bed	1.47	m. (MSL)
Left Bank Elevation	12.44	m. (MSL.) ,			
Right Bank Elevation	12.44	m. (MSL.) ,	Drainage Area	1210	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	9.60	17.70	15.00	138.40	249.40	189.90	192.30	5.30	1.25	0.65	1.35	0.05		
2	12.60	17.40	14.40	146.80	325.40	173.80	184.90	5.00	1.15	0.95	1.25	0.03		
3	11.40	16.80	14.40	116.50	270.10	160.60	174.65	4.70	1.10	1.05	1.15	0.01		
4	9.00	17.10	16.20	81.00	211.60	251.20	190.10	4.40	1.00	1.20	1.05	0.00		
5	7.40	17.70	17.70	65.00	172.00	150.05	161.32	4.20	0.90	1.35	1.10	0.00		
6	7.60	18.40	18.00	52.30	114.50	101.20	171.57	4.00	0.80	1.55	1.25	0.00		
7	8.00	19.20	17.40	46.00	87.00	70.40	137.20	3.80	0.65	1.75	1.40	0.01		
8	8.80	19.60	17.70	36.00	80.00	52.00	109.20	3.70	0.60	1.75	1.45	0.04		
9	9.30	20.40	18.40	30.50	79.00	62.00	84.70	3.70	0.50	1.65	1.35	0.07		
10	9.30	20.00	24.00	34.00	95.70	108.40	77.00	3.80	0.46	1.60	1.25	0.10		
11	9.00	19.20	27.60	37.00	134.20	227.60	106.00	3.70	0.42	1.50	1.15	0.16		
12	9.60	18.40	32.00	39.50	133.60	325.20	96.60	3.70	0.38	1.40	1.05	0.20		
13	9.90	18.00	37.00	48.10	125.50	288.40	75.80	3.50	0.34	1.30	0.90	0.28		
14	10.50	18.80	32.00	67.40	119.00	298.00	71.60	3.40	0.30	1.20	0.75	0.32		
15	11.10	18.40	27.60	82.00	121.50	171.57	77.70	3.30	0.28	1.20	0.60	0.36		
16	11.40	18.00	28.40	69.90	247.60	130.90	91.00	3.20	0.24	1.25	0.50	0.38		
17	12.00	17.70	35.50	61.80	244.00	110.80	83.30	3.10	0.22	1.35	0.46	0.44		
18	12.60	16.20	44.80	56.20	242.40	106.00	98.00	3.00	0.20	1.45	0.42	0.50		
19	13.20	13.50	57.00	43.60	307.00	97.30	84.70	2.90	0.18	1.50	0.38	0.50		
20	14.10	12.90	53.80	46.70	380.80	92.40	65.00	2.80	0.16	1.55	0.34	0.46		
21	14.70	12.60	43.60	81.00	234.40	145.30	53.00	3.20	0.14	1.65	0.30	0.40		
22	15.00	12.60	37.00	100.10	184.30	160.30	38.40	3.20	0.12	1.60	0.26	0.36		
23	15.30	13.20	33.00	86.00	156.40	134.50	27.20	2.90	0.10	1.55	0.22	0.32		
24	15.60	13.50	29.60	113.00	122.50	274.00	20.40	2.70	0.09	1.45	0.16	0.28		
25	16.20	14.10	26.40	96.80	100.10	219.80	16.20	2.50	0.08	1.35	0.12	0.24		
26	16.50	15.60	23.60	249.40	73.50	174.65	13.60	1.65	0.06	1.35	0.10	0.20		
27	17.10	27.20	104.50	168.40	58.60	349.20	11.20	1.55	0.05	1.45	0.09	0.16		
28	17.40	40.60	141.40	137.80	42.40	245.80	8.25	1.45	0.04	1.55	0.07	0.12		
29	17.70	50.20	95.70	110.50	53.00	209.60	8.40	1.40	0.06	1.50	0.06	0.09		
30	18.00	39.00	112.00	142.00	172.60	190.10	9.20	1.35	0.09	1.45		0.07		
31		22.40		171.40	203.20		6.15		0.20	1.40		0.05		
Total	369.90	616.40	1195.70	2755.10	5141.30	5270.97	2544.64	97.10	12.16	43.50	20.53	6.20	18073.50	CMSDAY
Mean	12.33	19.88	39.86	88.87	165.85	175.70	82.09	3.24	0.39	1.40	0.71	0.20	49.38	CMS
Max	18.00	50.20	141.40	249.40	380.80	349.20	192.30	5.30	1.25	1.75	1.45	0.50	380.80	CMS
Min	7.40	12.60	14.40	30.50	42.40	52.00	6.15	1.35	0.04	0.65	0.06	0.00	0.00	CMS
Runoff	31.96	53.26	103.31	238.04	444.21	455.41	219.86	8.39	1.05	3.76	1.77	0.54	1561.55	MCM

Momentary Peak 395.20 CMS, at 10.56 m. (MSL), at 12.00 Hours, on Aug 20, 2011

Runoff Yield 40.81 Liters/Second/Square KM. Momentary Peak Yield 326.612 Liters/Second/Square KM.

WATER YEAR : 2011

PRACHIN BURI RIVER BASIN

Khlong Phra Phloeng Yai at Ban Phu Ngoen , Sa Kaeo (Kgt.38)

Lat 13 - 36 - 03 N Long 102 - 02 - 07 E

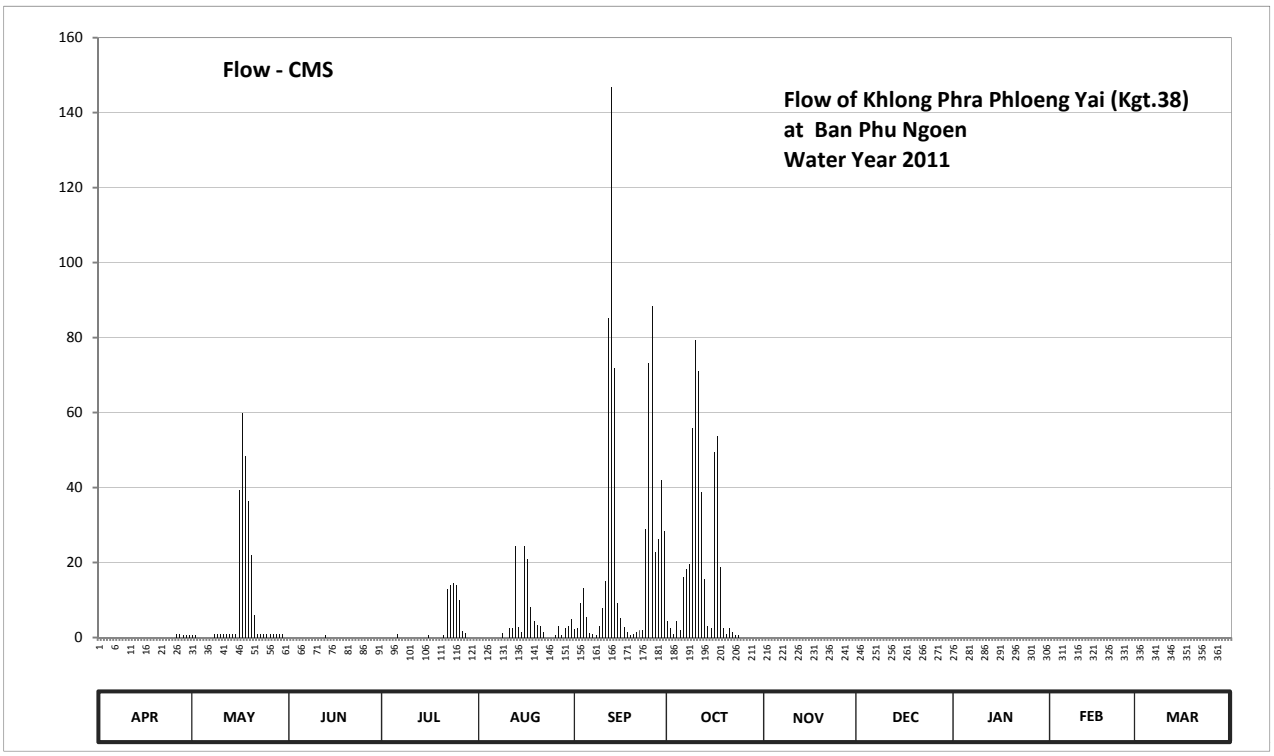
Location : on left bank at the bridge.

	Ban Phu Ngoen	**Amphoe** Khao Chakan	**Changwat** Sa Kaeo
Drainge Area	289 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+0.000 m. (A.D.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank at the abutment of the bridge.	**Elevation**	+9.483 m. (A.D.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	2008 to date		
Rating Operation			
Period of Rating	2008 to date		
Rated by Flot	-		
Rated by Current Meter	2008 to date		
Stability of Channel Regimes	Fairly stable because of backwater effect.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 10 discharge measurements made in 2011.		

Gage Height in Meter (A.D.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	1.65	2.00	1.90	1.80	1.92	2.37	2.65	1.75	1.60	1.65	1.60	1.20	
2	1.65	2.00	1.90	1.80	1.80	2.43	2.39	1.75	1.60	1.65	1.60	1.20	
3	1.65	1.97	1.94	1.80	1.80	3.03	2.07	1.70	1.60	1.65	1.60	1.15	
4	1.65	1.95	1.95	1.80	1.80	3.23	2.63	1.70	1.60	1.64	1.60	1.15	
5	1.65	1.92	1.93	1.80	1.80	2.75	2.27	1.70	1.60	1.64	1.60	1.15	
6	1.62	1.92	1.93	2.10	1.80	2.15	3.38	1.70	1.60	1.63	1.58	1.15	
7	1.62	1.95	1.93	1.96	1.80	2.07	3.49	1.70	1.60	1.63	1.58	1.15	
8	1.62	2.05	1.93	1.92	1.80	2.00	3.53	1.70	1.60	1.62	1.58	1.15	
9	1.62	2.05	1.93	1.92	2.12	2.50	4.39	1.70	1.60	1.62	1.58	1.15	
10	1.62	2.05	1.93	1.91	1.86	2.95	4.73	1.70	1.60	1.61	1.58	1.10	
11	1.60	2.10	1.95	1.90	2.41	3.33	4.62	1.70	1.60	1.61	1.50	0.95	
12	1.60	2.10	1.98	1.90	2.42	4.81	4.05	1.70	1.60	1.61	1.50	0.95	
13	1.60	2.10	2.00	1.90	3.67	5.57	3.36	1.70	1.60	1.61	1.50	0.95	
14	1.60	2.10	1.95	1.90	2.47	4.63	2.51	1.69	1.60	1.60	1.45	0.95	
15	1.60	2.10	1.95	1.92	2.20	3.03	2.40	1.69	1.60	1.60	1.45	0.80	
16	1.60	4.06	1.95	2.00	3.67	2.72	4.27	1.69	1.60	1.60	1.45	0.80	
17	1.58	4.45	1.94	1.97	3.57	2.47	4.35	1.68	1.60	1.60	1.35	0.80	
18	1.58	4.25	1.94	1.78	2.97	2.18	3.51	1.67	1.60	1.60	1.35	0.80	
19	1.58	4.00	1.94	1.74	2.64	2.00	2.40	1.66	1.60	1.60	1.35	0.80	
20	1.58	3.60	1.94	1.80	2.53	2.10	2.02	1.65	1.60	1.60	1.35	0.80	
21	1.85	2.80	1.95	2.00	2.50	2.20	2.43	1.65	1.63	1.60	1.35	0.80	
22	1.85	2.10	1.95	3.22	2.20	2.29	2.20	1.63	1.65	1.60	1.35	0.80	
23	1.85	2.10	1.95	3.27	1.88	2.31	2.00	1.60	1.65	1.60	1.35	0.80	
24	1.85	2.10	1.94	3.30	1.80	3.80	2.00	1.60	1.65	1.60	1.35	0.70	
25	1.85	2.10	1.94	3.28	1.86	4.65	1.93	1.60	1.65	1.60	1.30	0.60	
26	2.05	2.10	1.94	3.07	2.00	4.85	1.85	1.60	1.65	1.60	1.30	0.60	
27	2.05	2.10	1.94	2.24	2.50	3.62	1.85	1.60	1.65	1.60	1.30	0.60	
28	2.00	2.10	1.95	2.16	2.00	3.72	1.80	1.60	1.65	1.60	1.30	0.60	
29	2.00	2.10	1.94	1.95	2.40	4.12	1.80	1.60	1.65	1.60	1.30	0.60	
30	2.00	2.10	1.94	1.84	2.50	3.78	1.80	1.60	1.65	1.60		0.60	
31		1.90		1.80	2.70		1.80		1.65	1.61		0.60	
Mean	1.72	2.40	1.94	2.12	2.30	3.12	2.79	1.67	1.62	1.61	1.45	0.89	
Max	2.05	4.45	2.00	3.30	3.67	5.57	4.73	1.75	1.65	1.65	1.60	1.20	5.57
Min	1.58	1.90	1.90	1.74	1.80	2.00	1.80	1.60	1.60	1.60	1.30	0.60	0.60

Annual Max Momentary Gage Height	5.80	m. (A.D.) ,	at 18.00 Hours, on Sep 13, 2011		
Zero Gage at Bottom Elevation	0.00	m. (A.D.) ,	River Bed	0.05	m. (A.D.)
Left Bank Elevation	9.69	m. (A.D.) ,			
Right Bank Elevation	9.37	m. (A.D.) ,	Drainage Area	289	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.75	0.00	0.00	0.00	2.35	4.50	0.00	0.00	0.00	0.00	0.00		
2	0.00	0.75	0.00	0.00	0.00	2.65	2.45	0.00	0.00	0.00	0.00	0.00		
3	0.00	0.00	0.00	0.00	0.00	9.10	0.93	0.00	0.00	0.00	0.00	0.00		
4	0.00	0.00	0.00	0.00	0.00	13.10	4.30	0.00	0.00	0.00	0.00	0.00		
5	0.00	0.00	0.00	0.00	0.00	5.50	1.85	0.00	0.00	0.00	0.00	0.00		
6	0.00	0.00	0.00	1.00	0.00	1.25	16.10	0.00	0.00	0.00	0.00	0.00		
7	0.00	0.00	0.00	0.00	0.00	0.93	18.30	0.00	0.00	0.00	0.00	0.00		
8	0.00	0.88	0.00	0.00	0.00	0.75	19.55	0.00	0.00	0.00	0.00	0.00		
9	0.00	0.88	0.00	0.00	1.10	3.00	55.95	0.00	0.00	0.00	0.00	0.00		
10	0.00	0.88	0.00	0.00	0.00	7.75	79.25	0.00	0.00	0.00	0.00	0.00		
11	0.00	1.00	0.00	0.00	2.55	15.10	71.00	0.00	0.00	0.00	0.00	0.00		
12	0.00	1.00	0.00	0.00	2.60	85.25	38.75	0.00	0.00	0.00	0.00	0.00		
13	0.00	1.00	0.75	0.00	24.45	146.80	15.70	0.00	0.00	0.00	0.00	0.00		
14	0.00	1.00	0.00	0.00	2.85	71.75	3.10	0.00	0.00	0.00	0.00	0.00		
15	0.00	1.00	0.00	0.00	1.50	9.10	2.50	0.00	0.00	0.00	0.00	0.00		
16	0.00	39.20	0.00	0.75	24.45	5.20	49.35	0.00	0.00	0.00	0.00	0.00		
17	0.00	59.75	0.00	0.00	20.95	2.85	53.75	0.00	0.00	0.00	0.00	0.00		
18	0.00	48.25	0.00	0.00	8.05	1.40	18.85	0.00	0.00	0.00	0.00	0.00		
19	0.00	36.50	0.00	0.00	4.40	0.75	2.50	0.00	0.00	0.00	0.00	0.00		
20	0.00	22.00	0.00	0.00	3.30	1.00	0.80	0.00	0.00	0.00	0.00	0.00		
21	0.00	6.00	0.00	0.75	3.00	1.50	2.65	0.00	0.00	0.00	0.00	0.00		
22	0.00	1.00	0.00	12.90	1.50	1.95	1.50	0.00	0.00	0.00	0.00	0.00		
23	0.00	1.00	0.00	13.90	0.00	2.05	0.75	0.00	0.00	0.00	0.00	0.00		
24	0.00	1.00	0.00	14.50	0.00	29.00	0.75	0.00	0.00	0.00	0.00	0.00		
25	0.00	1.00	0.00	14.10	0.00	73.25	0.00	0.00	0.00	0.00	0.00	0.00		
26	0.88	1.00	0.00	9.90	0.75	88.25	0.00	0.00	0.00	0.00	0.00	0.00		
27	0.88	1.00	0.00	1.70	3.00	22.70	0.00	0.00	0.00	0.00	0.00	0.00		
28	0.75	1.00	0.00	1.30	0.75	26.20	0.00	0.00	0.00	0.00	0.00	0.00		
29	0.75	1.00	0.00	0.00	2.50	41.90	0.00	0.00	0.00	0.00	0.00	0.00		
30	0.75	1.00	0.00	0.00	3.00	28.30	0.00	0.00	0.00	0.00		0.00		
31		0.00		0.00	5.00		0.00		0.00	0.00		0.00		
Total	4.01	229.84	0.75	70.80	115.70	700.68	465.13	0.00	0.00	0.00	0.00	0.00	1586.91	CMSDAY
Mean	0.13	7.41	0.03	2.28	3.73	23.36	15.00	0.00	0.00	0.00	0.00	0.00	4.34	CMS
Max	0.88	59.75	0.75	14.50	24.45	146.80	79.25	0.00	0.00	0.00	0.00	0.00	146.80	CMS
Min	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	0.35	19.86	0.07	6.12	10.00	60.54	40.19	0.00	0.00	0.00	0.00	0.00	137.11	MCM

Momentary Peak 167.50 CMS, at 5.80 m. (A.D.), at 18.00 Hours, on Sep 13, 2011

Runoff Yield 15.00 Liters/Second/Square KM. Momentary Peak Yield 579.585 Liters/Second/Square KM.

WATER YEAR : 2011

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

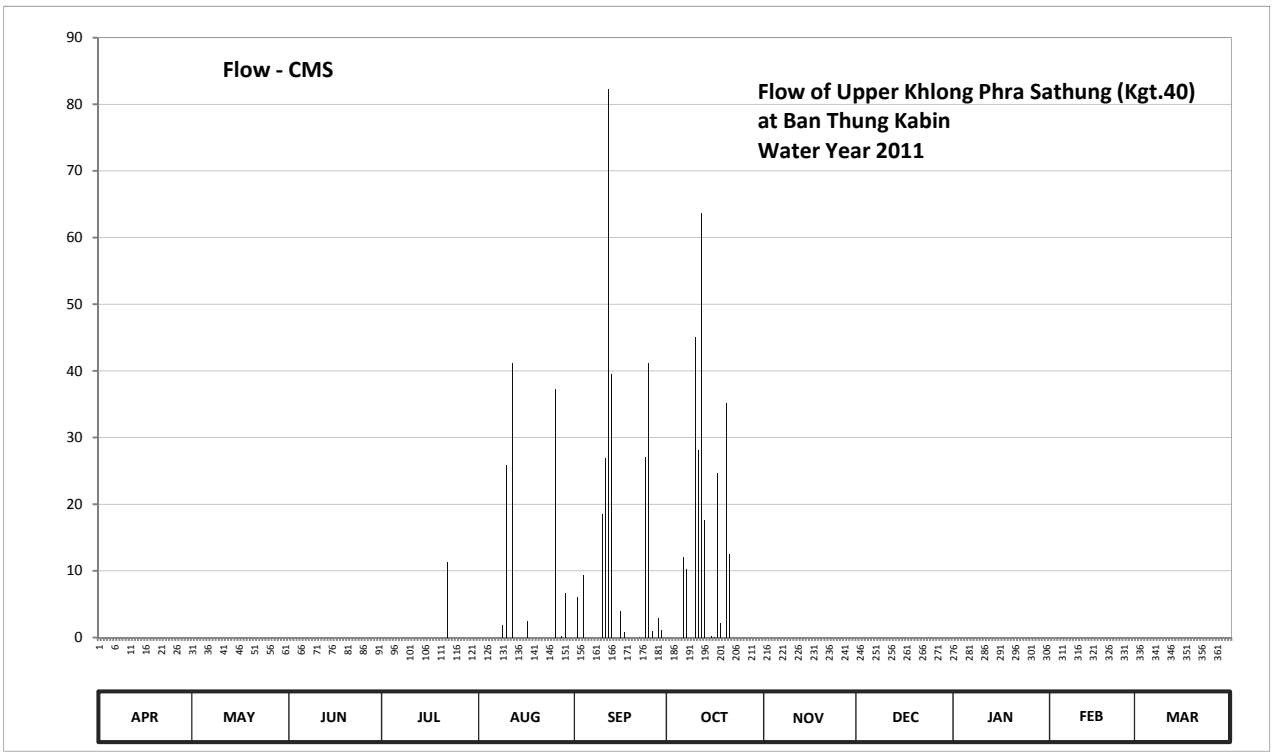
Location : on left bank at the bridge on highway.

	Ban Thung Kabin	**Amphoe** Wang Sombun	**Changwat** Sa Kaeo
Drainge Area	574 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+77.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the top staff gage.	**Elevation**	+85.585 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	2007 to date		
Rating Operation			
Period of Rating	2007 to date		
Rated by Flot	-		
Rated by Current Meter	2007 to date		
Stability of Channel Regimes	Fairly stable with variable water surface slope.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 18 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	77.29	77.64	77.58	77.57	77.76	79.22	78.45	77.94	77.55	77.40	77.37	77.37	
2	77.23	77.57	77.56	77.54	78.60	79.81	78.73	77.86	77.55	77.40	77.44	77.35	
3	77.46	77.54	77.68	77.65	78.17	78.80	78.45	77.85	77.55	77.40	77.42	77.31	
4	77.70	77.62	77.62	77.64	77.83	80.02	78.73	77.83	77.55	77.40	77.40	77.30	
5	77.49	77.73	77.62	77.59	77.73	79.12	78.70	77.80	77.54	77.40	77.40	77.26	
6	77.47	77.62	77.60	77.93	77.67	78.42	80.20	77.79	77.54	77.40	77.40	77.25	
7	77.73	77.61	77.53	77.51	77.72	79.23	80.09	77.78	77.55	77.40	77.38	77.32	
8	77.50	77.75	77.54	77.41	78.25	78.51	78.62	77.78	77.55	77.39	77.38	77.32	
9	77.51	78.08	77.45	77.34	79.53	79.07	79.22	77.77	77.55	77.39	77.35	77.44	
10	77.47	77.79	77.46	77.37	81.02	80.63	81.98	77.76	77.54	77.39	77.35	77.40	
11	77.50	77.68	78.02	77.28	78.73	81.07	81.13	77.75	77.53	77.38	77.34	77.40	
12	77.77	77.62	77.64	77.26	81.78	83.53	82.79	77.72	77.52	77.38	77.33	77.36	
13	77.73	77.61	77.55	77.24	78.68	81.70	80.58	77.69	77.50	77.38	77.31	77.30	
14	77.58	77.61	77.86	77.35	78.22	79.12	78.78	77.69	77.49	77.40	77.30	77.29	
15	77.49	77.72	77.69	77.89	78.92	78.82	79.34	77.65	77.48	77.41	77.30	77.30	
16	77.45	77.65	77.55	77.81	78.84	79.66	79.32	77.64	77.48	77.45	77.30	77.30	
17	77.44	77.57	77.54	77.71	79.57	79.43	80.96	77.64	77.46	77.48	77.36	77.75	
18	77.40	78.76	77.52	77.70	78.74	78.73	79.54	77.64	77.44	77.50	77.47	77.73	
19	77.43	77.98	77.58	77.66	78.37	78.45	78.71	77.64	77.45	77.49	77.54	77.68	
20	77.78	77.68	77.62	77.73	78.08	78.83	81.48	77.63	77.43	77.47	77.50	77.59	
21	77.67	77.59	77.70	77.87	78.01	79.21	80.23	77.62	77.40	77.45	77.47	77.46	
22	78.22	77.54	77.61	80.15	77.95	79.32	79.09	77.61	77.40	77.45	77.43	77.45	
23	78.20	77.53	77.62	78.37	77.82	79.22	78.75	77.63	77.40	77.45	77.42	77.44	
24	78.18	77.51	77.62	77.99	77.79	81.08	78.41	77.63	77.42	77.45	77.39	77.44	
25	77.71	77.46	77.51	77.90	79.26	81.78	78.26	77.60	77.43	77.45	77.35	77.42	
26	77.92	77.59	77.46	77.70	81.59	79.45	78.10	77.60	77.42	77.45	77.36	77.37	
27	77.66	78.13	77.43	77.64	78.67	79.07	78.08	77.60	77.40	77.45	77.40	77.35	
28	77.54	77.93	77.41	77.65	79.35	79.59	78.04	77.58	77.40	77.45	77.40	77.30	
29	77.59	77.85	77.48	78.03	79.84	79.46	78.00	77.57	77.42	77.45	77.40	77.27	
30	78.00	77.83	77.52	78.17	78.67	78.75	78.00	77.56	77.42	77.45		77.25	
31		77.75		77.73	78.25		77.98		77.43	77.46		77.24	
Mean	77.64	77.73	77.59	77.75	78.76	79.64	79.31	77.70	77.48	77.43	77.39	77.39	
Max	78.22	78.76	78.02	80.15	81.78	83.53	82.79	77.94	77.55	77.50	77.54	77.75	83.53
Min	77.23	77.46	77.41	77.24	77.67	78.42	77.98	77.56	77.40	77.38	77.30	77.24	77.23

Annual Max Momentary Gage Height	86.80	m. (MSL.) ,	at 18.00 Hours, on Sep 12, 2011		
Zero Gage at Bottom Elevation	77.00	m. (MSL.) ,	River Bed	77.08	m. (MSL)
Left Bank Elevation	87.07	m. (MSL.) ,			
Right Bank Elevation	87.05	m. (MSL.) ,	Drainage Area	574	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

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	0.00	0.00	0.00	0.00	0.00	0.00		
2	0.00	0.00	0.00	0.00	0.00	6.15	0.00	0.00	0.00	0.00	0.00	0.00		
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4	0.00	0.00	0.00	0.00	0.00	9.30	0.00	0.00	0.00	0.00	0.00	0.00		
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
6	0.00	0.00	0.00	0.00	0.00	0.00	12.00	0.00	0.00	0.00	0.00	0.00		
7	0.00	0.00	0.00	0.00	0.00	0.00	10.35	0.00	0.00	0.00	0.00	0.00		
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
9	0.00	0.00	0.00	0.00	1.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
10	0.00	0.00	0.00	0.00	25.90	18.45	45.10	0.00	0.00	0.00	0.00	0.00		
11	0.00	0.00	0.00	0.00	0.00	26.90	28.10	0.00	0.00	0.00	0.00	0.00		
12	0.00	0.00	0.00	0.00	41.10	82.25	63.75	0.00	0.00	0.00	0.00	0.00		
13	0.00	0.00	0.00	0.00	0.00	39.50	17.70	0.00	0.00	0.00	0.00	0.00		
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
15	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00		
16	0.00	0.00	0.00	0.00	0.00	3.90	0.10	0.00	0.00	0.00	0.00	0.00		
17	0.00	0.00	0.00	0.00	2.55	0.80	24.70	0.00	0.00	0.00	0.00	0.00		
18	0.00	0.00	0.00	0.00	0.00	0.00	2.10	0.00	0.00	0.00	0.00	0.00		
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
20	0.00	0.00	0.00	0.00	0.00	0.00	35.10	0.00	0.00	0.00	0.00	0.00		
21	0.00	0.00	0.00	0.00	0.00	0.00	12.45	0.00	0.00	0.00	0.00	0.00		
22	0.00	0.00	0.00	11.25	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00		
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
24	0.00	0.00	0.00	0.00	0.00	27.10	0.00	0.00	0.00	0.00	0.00	0.00		
25	0.00	0.00	0.00	0.00	0.00	41.10	0.00	0.00	0.00	0.00	0.00	0.00		
26	0.00	0.00	0.00	0.00	37.30	1.00	0.00	0.00	0.00	0.00	0.00	0.00		
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
28	0.00	0.00	0.00	0.00	0.25	2.85	0.00	0.00	0.00	0.00	0.00	0.00		
29	0.00	0.00	0.00	0.00	6.60	1.10	0.00	0.00	0.00	0.00	0.00	0.00		
30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		
31		0.00		0.00	0.00		0.00		0.00	0.00		0.00		
Total	0.00	0.00	0.00	11.25	115.65	260.50	251.65	0.00	0.00	0.00	0.00	0.00	639.05	CMSDAY
Mean	0.00	0.00	0.00	0.36	3.73	8.68	8.12	0.00	0.00	0.00	0.00	0.00	1.75	CMS
Max	0.00	0.00	0.00	11.25	41.10	82.25	63.75	0.00	0.00	0.00	0.00	0.00	82.25	CMS
Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	0.00	0.00	0.00	0.97	9.99	22.51	21.74	0.00	0.00	0.00	0.00	0.00	55.21	MCM

Momentary Peak 174.00 CMS, at 86.80 m. (MSL), at 18.00 Hours, on Sep 12, 2011

Runoff Yield 3.04 Liters/Second/Square KM. Momentary Peak Yield 303.136 Liters/Second/Square KM.

WATER YEAR : 2011

PRACHIN BURI RIVER BASIN

Khlong Kuad Kong at Ban Khok Noi , Sa Kaeo (Kgt.41)

Lat 13 - 22 - 40 N Long 102 - 05 - 30 E

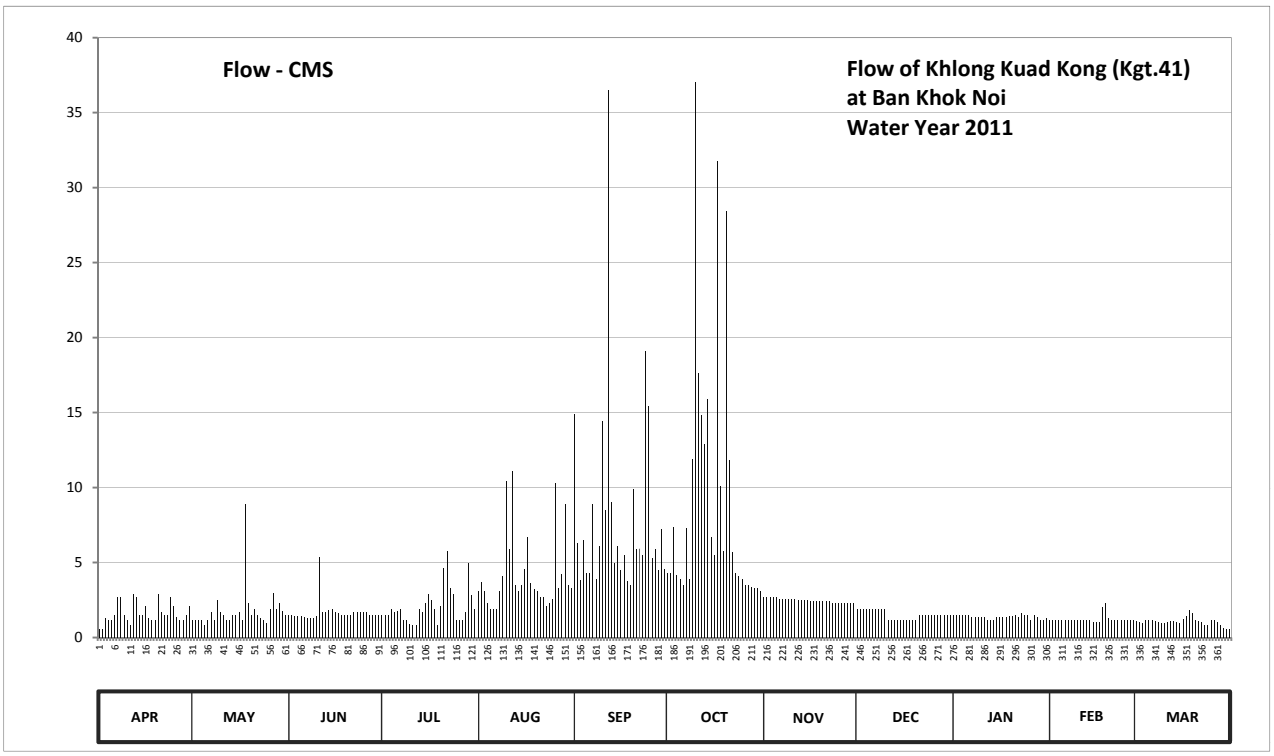
Location : on right bank at the bridge on highway.

	Ban Khok Noi	**Amphoe** Wang Sombun	**Changwat** Sa Kaeo
Drainge Area	123 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+91.890 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank near the top staff gage.	**Elevation**	+99.163 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	2007 to date		
Rating Operation			
Period of Rating	2007 to date		
Rated by Flot	-		
Rated by Current Meter	2007 to date		
Stability of Channel Regimes	Fairly stable with variable water surface slope.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 16 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	92.49	92.59	92.64	92.64	92.84	94.17	92.99	92.79	92.69	92.64	92.59	92.58	
2	92.49	92.59	92.64	92.64	92.91	93.24	92.99	92.79	92.69	92.64	92.59	92.57	
3	92.61	92.59	92.63	92.64	92.84	92.93	93.37	92.79	92.69	92.64	92.59	92.56	
4	92.59	92.59	92.63	92.69	92.74	93.26	92.97	92.79	92.69	92.64	92.59	92.59	
5	92.59	92.54	92.63	92.66	92.69	92.99	92.94	92.79	92.69	92.64	92.59	92.59	
6	92.64	92.59	92.62	92.67	92.69	92.99	92.89	92.77	92.69	92.64	92.59	92.59	
7	92.79	92.66	92.61	92.69	92.69	93.56	93.36	92.77	92.69	92.62	92.59	92.58	
8	92.79	92.59	92.61	92.59	92.84	92.94	92.94	92.77	92.69	92.62	92.59	92.57	
9	92.64	92.76	92.61	92.59	92.96	93.21	93.87	92.77	92.69	92.62	92.59	92.56	
10	92.59	92.66	92.63	92.55	93.72	94.12	96.16	92.77	92.69	92.62	92.59	92.56	
11	92.54	92.64	93.12	92.54	93.19	93.51	94.44	92.77	92.59	92.62	92.59	92.57	
12	92.81	92.59	92.66	92.54	93.79	96.12	94.16	92.76	92.59	92.59	92.59	92.58	
13	92.79	92.59	92.66	92.69	92.89	93.58	93.97	92.76	92.59	92.59	92.59	92.58	
14	92.64	92.64	92.68	92.66	92.84	93.07	94.27	92.76	92.59	92.59	92.59	92.57	
15	92.64	92.64	92.69	92.74	92.89	93.21	93.29	92.76	92.59	92.62	92.57	92.56	
16	92.71	92.66	92.66	92.81	93.02	93.01	93.14	92.75	92.59	92.62	92.57	92.60	
17	92.61	92.59	92.65	92.76	93.29	93.14	95.71	92.75	92.59	92.62	92.57	92.63	
18	92.59	93.56	92.64	92.69	92.90	92.92	93.69	92.75	92.59	92.62	92.70	92.68	
19	92.59	92.74	92.64	92.54	92.85	92.89	93.17	92.75	92.59	92.63	92.74	92.65	
20	92.81	92.64	92.64	92.71	92.84	93.67	95.42	92.75	92.59	92.63	92.61	92.59	
21	92.66	92.69	92.64	93.03	92.79	93.19	93.86	92.75	92.64	92.64	92.59	92.58	
22	92.64	92.64	92.66	93.17	92.79	93.19	93.16	92.75	92.64	92.62	92.59	92.57	
23	92.64	92.61	92.66	92.86	92.71	93.14	92.99	92.74	92.64	92.65	92.59	92.54	
24	92.79	92.59	92.66	92.81	92.74	94.59	92.96	92.74	92.64	92.64	92.59	92.54	
25	92.71	92.56	92.66	92.59	92.77	94.22	92.94	92.74	92.64	92.64	92.59	92.59	
26	92.62	92.69	92.66	92.59	93.71	93.11	92.89	92.74	92.64	92.59	92.59	92.59	
27	92.59	92.82	92.64	92.59	92.86	93.19	92.89	92.74	92.64	92.64	92.59	92.57	
28	92.59	92.69	92.64	92.66	92.98	93.01	92.87	92.74	92.64	92.62	92.59	92.54	
29	92.64	92.74	92.64	93.07	93.56	93.35	92.86	92.74	92.64	92.59	92.59	92.51	
30	92.71	92.67	92.64	92.80	92.89	93.02	92.86	92.74	92.64	92.59		92.49	
31		92.64		92.69	92.86		92.84		92.64	92.61		92.49	
Mean	92.65	92.67	92.66	92.71	92.97	93.42	93.51	92.76	92.64	92.62	92.60	92.57	
Max	92.81	93.56	93.12	93.17	93.79	96.12	96.16	92.79	92.69	92.65	92.74	92.68	96.16
Min	92.49	92.54	92.61	92.54	92.69	92.89	92.84	92.74	92.59	92.59	92.57	92.49	92.49

Annual Max Momentary Gage Height	97.09	m. (MSL.) ,	at 06.00 Hours, on Oct 10, 2011		
Zero Gage at Bottom Elevation	91.89	m. (MSL.) ,	River Bed	92.99	m. (MSL)
Left Bank Elevation	101.49	m. (MSL.) ,			
Right Bank Elevation	101.65	m. (MSL.) ,	Drainage Area	123	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.54	1.14	1.52	1.52	3.12	14.90	4.32	2.72	1.92	1.52	1.14	1.08		
2	0.54	1.14	1.52	1.52	3.68	6.32	4.32	2.72	1.92	1.52	1.14	1.02		
3	1.28	1.14	1.44	1.52	3.12	3.84	7.36	2.72	1.92	1.52	1.14	0.96		
4	1.14	1.14	1.44	1.92	2.32	6.48	4.16	2.72	1.92	1.52	1.14	1.14		
5	1.14	0.84	1.44	1.68	1.92	4.32	3.92	2.72	1.92	1.52	1.14	1.14		
6	1.52	1.14	1.36	1.76	1.92	4.32	3.52	2.56	1.92	1.52	1.14	1.14		
7	2.72	1.68	1.28	1.92	1.92	8.88	7.28	2.56	1.92	1.36	1.14	1.08		
8	2.72	1.14	1.28	1.14	3.12	3.92	3.92	2.56	1.92	1.36	1.14	1.02		
9	1.52	2.48	1.28	1.14	4.08	6.08	11.90	2.56	1.92	1.36	1.14	0.96		
10	1.14	1.68	1.44	0.90	10.40	14.40	37.02	2.56	1.92	1.36	1.14	0.96		
11	0.84	1.52	5.36	0.84	5.92	8.48	17.60	2.56	1.14	1.36	1.14	1.02		
12	2.88	1.14	1.68	0.84	11.10	36.54	14.80	2.48	1.14	1.14	1.14	1.08		
13	2.72	1.14	1.68	1.92	3.52	9.04	12.90	2.48	1.14	1.14	1.14	1.08		
14	1.52	1.52	1.84	1.68	3.12	4.96	15.90	2.48	1.14	1.14	1.14	1.02		
15	1.52	1.52	1.92	2.32	3.52	6.08	6.72	2.48	1.14	1.36	1.02	0.96		
16	2.08	1.68	1.68	2.88	4.56	4.48	5.52	2.40	1.14	1.36	1.02	1.20		
17	1.28	1.14	1.60	2.48	6.72	5.52	31.78	2.40	1.14	1.36	1.02	1.44		
18	1.14	8.88	1.52	1.92	3.60	3.76	10.10	2.40	1.14	1.36	2.00	1.84		
19	1.14	2.32	1.52	0.84	3.20	3.52	5.76	2.40	1.14	1.44	2.32	1.60		
20	2.88	1.52	1.52	2.08	3.12	9.90	28.45	2.40	1.14	1.44	1.28	1.14		
21	1.68	1.92	1.52	4.64	2.72	5.92	11.80	2.40	1.52	1.52	1.14	1.08		
22	1.52	1.52	1.68	5.76	2.72	5.92	5.68	2.40	1.52	1.36	1.14	1.02		
23	1.52	1.28	1.68	3.28	2.08	5.52	4.32	2.32	1.52	1.60	1.14	0.84		
24	2.72	1.14	1.68	2.88	2.32	19.10	4.08	2.32	1.52	1.52	1.14	0.84		
25	2.08	0.96	1.68	1.14	2.56	15.40	3.92	2.32	1.52	1.52	1.14	1.14		
26	1.36	1.92	1.68	1.14	10.30	5.28	3.52	2.32	1.52	1.14	1.14	1.14		
27	1.14	2.96	1.52	1.14	3.28	5.92	3.52	2.32	1.52	1.52	1.14	1.02		
28	1.14	1.92	1.52	1.68	4.24	4.48	3.36	2.32	1.52	1.36	1.14	0.84		
29	1.52	2.32	1.52	4.96	8.88	7.20	3.28	2.32	1.52	1.14	1.14	0.66		
30	2.08	1.76	1.52	2.80	3.52	4.56	3.28	2.32	1.52	1.14		0.54		
31		1.52		1.92	3.28		3.12		1.52	1.28		0.54		
Total	49.02	55.12	50.32	64.16	129.88	245.04	287.13	74.24	47.32	42.76	34.88	32.54	1112.41	CMSDAY
Mean	1.63	1.78	1.68	2.07	4.19	8.17	9.26	2.47	1.53	1.38	1.20	1.05	3.04	CMS
Max	2.88	8.88	5.36	5.76	11.10	36.54	37.02	2.72	1.92	1.60	2.32	1.84	37.02	CMS
Min	0.54	0.84	1.28	0.84	1.92	3.52	3.12	2.32	1.14	1.14	1.02	0.54	0.54	CMS
Runoff	4.24	4.76	4.35	5.54	11.22	21.17	24.81	6.41	4.09	3.69	3.01	2.81	96.11	MCM

Momentary Peak 48.77 CMS, at 97.09 m. (MSL), at 06.00 Hours, on Oct 10, 2011

Runoff Yield 24.71 Liters/Second/Square KM. Momentary Peak Yield 396.504 Liters/Second/Square KM.

WATER YEAR : 2011

PRACHIN BURI RIVER BASIN

Khlong Phra Sathung at Ban Tharapha , Sa Kaeo (Kgt.42)

Lat 13 - 59 - 21 N Long 101 - 57 - 30 E

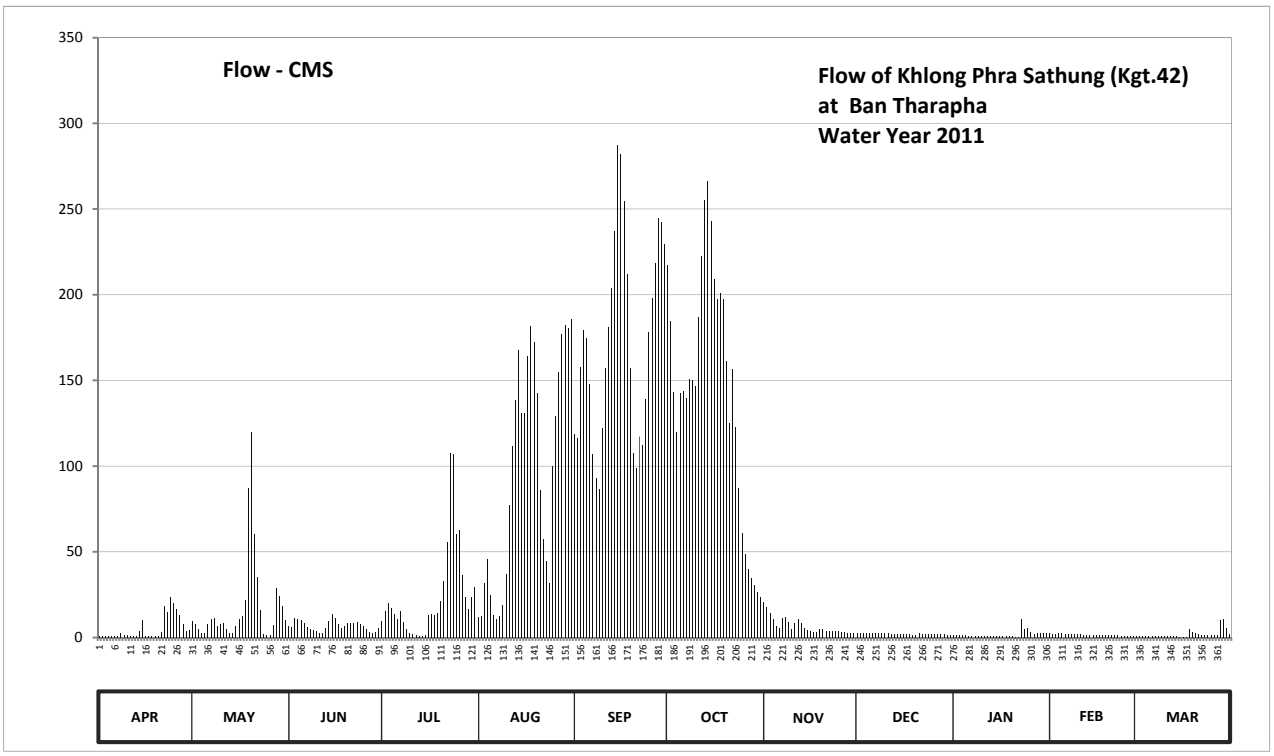
Location : on left bank at the bridge.

	Ban Tharapha	**Amphoe** Mueang	**Changwat** Sa Kaeo
Drainge Area	2,558 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+13.860 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the top staff gage.		**Elevation** +24.312 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	2005 to date		
Rating Operation			
Period of Rating	2005 to date		
Rated by Flot	-		
Rated by Current Meter	2005 to date		
Stability of Channel Regimes	Fairly stable with variable water surface slope.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 25 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	14.33	15.47	15.16	15.43	15.71	20.81	23.15	16.31	14.78	14.50	14.66	14.36	
2	14.33	15.26	15.12	15.98	15.75	20.72	22.48	16.10	14.76	14.47	14.65	14.36	
3	14.33	14.98	15.64	16.29	17.05	21.88	21.51	15.89	14.74	14.45	14.65	14.36	
4	14.33	14.70	15.56	16.07	17.85	22.36	20.85	15.57	14.72	14.44	14.69	14.36	
5	14.33	14.77	15.52	15.83	16.57	22.26	21.50	15.15	14.71	14.43	14.73	14.36	
6	14.33	15.27	15.36	15.59	15.80	21.65	21.53	15.05	14.70	14.42	14.60	14.36	
7	14.33	15.56	15.11	15.95	15.55	20.41	21.42	15.63	14.69	14.41	14.59	14.35	
8	14.77	15.66	15.02	15.42	15.73	19.94	21.72	15.72	14.68	14.40	14.58	14.35	
9	14.44	15.19	14.94	14.96	16.21	19.72	21.70	15.42	14.67	14.39	14.58	14.35	
10	14.45	15.26	14.88	14.75	17.41	20.92	21.62	15.02	14.66	14.39	14.56	14.34	
11	14.36	15.34	14.75	14.58	19.34	21.87	22.53	15.32	14.66	14.38	14.55	14.34	
12	14.34	14.98	14.76	14.54	20.57	22.40	23.23	15.60	14.65	14.38	14.54	14.34	
13	14.34	14.77	15.03	14.38	21.39	22.89	23.69	15.32	14.64	14.37	14.53	14.33	
14	14.90	14.76	15.46	14.42	22.10	23.45	23.84	15.03	14.63	14.36	14.52	14.32	
15	15.50	15.19	15.83	14.52	21.16	24.11	23.53	14.95	14.62	14.35	14.51	14.31	
16	14.38	15.58	15.62	15.82	21.17	24.04	23.00	14.89	14.60	14.35	14.50	14.31	
17	14.35	15.77	15.30	15.85	22.03	23.68	22.76	14.79	14.58	14.35	14.49	14.31	
18	14.35	16.41	15.03	15.79	22.41	23.06	22.84	14.84	14.55	14.34	14.48	14.96	
19	14.35	19.75	15.19	15.88	22.21	21.87	22.76	15.02	14.54	14.34	14.47	14.79	
20	14.35	20.84	15.32	16.35	21.50	20.44	21.96	14.96	14.53	14.32	14.46	14.75	
21	14.80	18.59	15.35	17.15	19.69	20.15	21.00	14.90	14.66	14.30	14.45	14.61	
22	16.15	17.30	15.32	18.36	18.44	20.76	21.85	14.87	14.64	14.30	14.44	14.54	
23	15.92	16.01	15.39	20.43	17.82	20.58	20.94	14.86	14.61	15.59	14.43	14.53	
24	16.51	14.61	15.28	20.42	17.07	21.40	19.75	14.86	14.60	14.97	14.42	14.53	
25	16.29	14.45	15.14	18.59	20.19	22.33	18.62	14.85	14.59	15.03	14.41	14.52	
26	16.04	14.48	15.01	18.72	21.12	22.78	18.00	14.83	14.58	14.81	14.40	14.52	
27	15.82	15.23	14.81	17.37	21.82	23.17	17.57	14.80	14.57	14.60	14.39	14.51	
28	15.27	16.85	14.70	16.52	22.31	23.55	17.24	14.76	14.56	14.67	14.37	15.51	
29	14.87	16.56	14.81	16.03	22.43	23.52	16.97	14.71	14.55	14.70	14.36	15.56	
30	14.92	16.16	15.04	16.49	22.39	23.34	16.69	14.71	14.54	14.73		15.08	
31		15.54		16.89	22.51		16.52		14.53	14.76		14.65	
Mean	14.86	15.85	15.18	16.30	19.46	22.00	21.06	15.16	14.63	14.53	14.52	14.54	
Max	16.51	20.84	15.83	20.43	22.51	24.11	23.84	16.31	14.78	15.59	14.73	15.56	24.11
Min	14.33	14.45	14.70	14.38	15.55	19.72	16.52	14.71	14.53	14.30	14.36	14.31	14.30

Annual Max Momentary Gage Height	24.12	m. (MSL.) ,	at 12.00 Hours, on Sep 15, 2011		
Zero Gage at Bottom Elevation	13.86	m. (MSL.) ,	River Bed	14.25	m. (MSL)
Left Bank Elevation	26.93	m. (MSL.) ,			
Right Bank Elevation	26.92	m. (MSL.) ,	Drainage Area	2558	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.65	9.70	6.60	9.30	12.10	118.80	217.25	20.65	2.90	1.50	2.30	0.80		
2	0.65	7.60	6.20	15.70	12.50	116.10	184.60	17.50	2.80	1.35	2.25	0.80		
3	0.65	4.80	11.40	20.35	31.75	157.60	142.85	14.35	2.70	1.25	2.25	0.80		
4	0.65	2.50	10.60	17.05	45.50	179.20	120.00	10.70	2.60	1.20	2.45	0.80		
5	0.65	2.85	10.20	13.45	24.55	174.70	142.50	6.50	2.55	1.15	2.65	0.80		
6	0.65	7.70	8.60	10.90	13.00	148.00	143.55	5.50	2.50	1.10	2.00	0.80		
7	0.65	10.60	6.10	15.25	10.50	106.80	139.70	11.30	2.45	1.05	1.95	0.75		
8	2.85	11.60	5.20	9.20	12.30	92.70	150.80	12.20	2.40	1.00	1.90	0.75		
9	1.20	6.90	4.40	4.60	19.15	86.50	150.00	9.20	2.35	0.95	1.90	0.75		
10	1.25	7.60	3.80	2.75	37.15	122.20	146.80	5.20	2.30	0.95	1.80	0.70		
11	0.80	8.40	2.75	1.90	77.00	157.15	186.85	8.20	2.30	0.90	1.75	0.70		
12	0.70	4.80	2.80	1.70	111.60	181.00	222.45	11.00	2.25	0.90	1.70	0.70		
13	0.70	2.85	5.30	0.90	138.65	203.50	255.25	8.20	2.20	0.85	1.65	0.65		
14	4.00	2.80	9.60	1.10	167.50	237.25	266.50	5.30	2.15	0.80	1.60	0.60		
15	10.00	6.90	13.45	1.60	130.60	287.58	243.25	4.50	2.10	0.75	1.55	0.55		
16	0.90	10.80	11.20	13.30	130.95	281.80	209.00	3.90	2.00	0.75	1.50	0.55		
17	0.75	12.70	8.00	13.75	164.35	254.50	197.20	2.95	1.90	0.75	1.45	0.55		
18	0.75	22.15	5.30	12.90	181.45	212.00	201.00	3.40	1.75	0.70	1.40	4.60		
19	0.75	87.25	6.90	14.20	172.45	157.15	197.20	5.20	1.70	0.70	1.35	2.95		
20	0.75	119.70	8.20	21.25	142.50	107.70	161.20	4.60	1.65	0.60	1.30	2.75		
21	3.00	60.30	8.50	33.25	85.75	99.00	125.00	4.00	2.30	0.50	1.25	2.05		
22	18.25	35.50	8.20	55.70	57.30	117.30	156.25	3.70	2.20	0.50	1.20	1.70		
23	14.80	16.15	8.90	107.40	44.90	111.90	122.90	3.60	2.05	10.90	1.15	1.65		
24	23.65	2.05	7.80	107.10	32.05	139.00	87.25	3.60	2.00	4.70	1.10	1.65		
25	20.35	1.25	6.40	60.30	100.20	177.85	60.90	3.50	1.95	5.30	1.05	1.60		
26	16.60	1.40	5.10	62.90	129.20	198.10	48.50	3.30	1.90	3.10	1.00	1.60		
27	13.30	7.30	3.10	36.55	154.90	218.55	39.90	3.00	1.85	2.00	0.95	1.55		
28	7.70	28.75	2.50	23.80	176.95	244.75	34.60	2.80	1.80	2.35	0.85	10.10		
29	3.70	24.40	3.10	16.45	182.35	242.50	30.55	2.55	1.75	2.50	0.80	10.60		
30	4.20	18.40	5.40	23.35	180.55	229.60	26.35	2.55	1.70	2.65		5.80		
31		10.40		29.35	185.95		23.80		1.65	2.80		2.25		
Total	155.50	556.10	205.60	757.30	2965.65	5160.78	4433.95	202.95	66.70	56.50	46.05	62.90	14669.98	CMSDAY
Mean	5.18	17.94	6.85	24.43	95.67	172.03	143.03	6.77	2.15	1.82	1.59	2.03	40.08	CMS
Max	23.65	119.70	13.45	107.40	185.95	287.58	266.50	20.65	2.90	10.90	2.65	10.60	287.58	CMS
Min	0.65	1.25	2.50	0.90	10.50	86.50	23.80	2.55	1.65	0.50	0.80	0.55	0.50	CMS
Runoff	13.44	48.05	17.76	65.43	256.23	445.89	383.09	17.54	5.76	4.88	3.98	5.44	1267.49	MCM

Momentary Peak 288.40 CMS, at 24.12 m. (MSL), at 12.00 Hours, on Sep 15, 2011

Runoff Yield 15.67 Liters/Second/Square KM. Momentary Peak Yield 112.744 Liters/Second/Square KM.

WATER YEAR : 2011

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

Ban Khao Nang Buat **Amphoe** Mueang **Changwat** Nakhon Nayok

Drainge Area	521 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+0.000 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank about 200 meters from the staff gage. **Elevation** +8.758 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings
Period of Available Gage Records	1973 to date
Rating Operation	
Period of Rating	1973 - 1980 , 1991 to date
Rated by Flot	-
Rated by Current Meter	1973 - 1980 , 1991 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 24 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

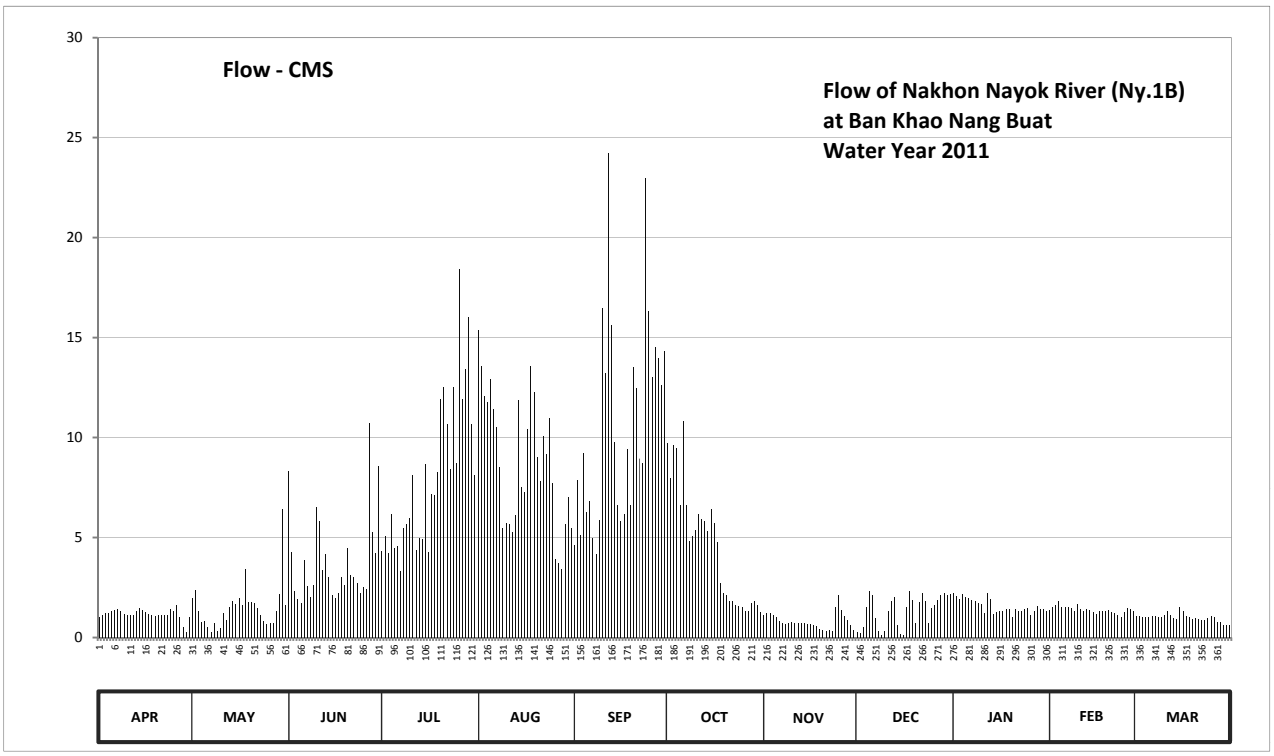
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	4.27	4.72	6.38	5.41	7.66	5.48	6.66	4.32	3.87	4.80	4.43	4.28	
2	4.32	4.85	5.39	5.60	7.36	6.29	6.31	4.35	3.84	4.76	4.50	4.28	
3	4.35	4.42	4.84	5.38	7.11	5.61	6.64	4.35	4.02	4.70	4.55	4.26	
4	4.37	4.13	4.70	5.87	7.06	6.56	6.61	4.32	4.51	4.79	4.66	4.25	
5	4.41	4.15	4.61	5.44	7.25	5.90	5.98	4.26	4.84	4.74	4.52	4.25	
6	4.43	4.02	5.29	5.47	7.00	6.03	6.88	4.16	4.78	4.73	4.52	4.29	
7	4.45	3.89	4.92	5.15	6.82	5.57	5.98	4.10	4.23	4.69	4.52	4.29	
8	4.40	4.10	4.74	5.69	6.42	5.37	5.53	4.09	3.90	4.65	4.48	4.26	
9	4.34	3.92	4.95	5.74	5.70	5.80	5.59	4.11	3.74	4.62	4.41	4.26	
10	4.32	3.99	5.96	5.82	5.76	7.84	5.67	4.14	3.92	4.58	4.59	4.30	
11	4.30	4.35	5.78	6.34	5.74	7.30	5.87	4.12	4.40	4.36	4.47	4.41	
12	4.31	4.18	5.17	5.42	5.65	8.95	5.81	4.11	4.66	4.80	4.40	4.30	
13	4.41	4.51	5.37	5.57	5.86	7.70	5.78	4.10	4.74	4.70	4.47	4.23	
14	4.48	4.66	5.08	5.56	7.08	6.67	5.66	4.10	4.07	4.34	4.44	4.20	
15	4.44	4.58	4.78	6.45	6.20	5.98	5.93	4.09	3.78	4.38	4.39	4.51	
16	4.38	4.73	4.72	5.40	6.14	5.78	5.76	4.09	3.70	4.40	4.34	4.40	
17	4.33	4.56	4.80	6.12	6.80	5.87	5.52	4.07	4.51	4.42	4.41	4.28	
18	4.30	5.18	5.08	6.11	7.36	6.60	4.97	4.04	4.84	4.47	4.42	4.25	
19	4.28	4.63	4.94	6.37	7.14	5.98	4.81	3.96	4.69	4.46	4.40	4.21	
20	4.30	4.64	5.44	7.09	6.52	7.35	4.77	3.94	4.11	4.27	4.43	4.24	
21	4.32	4.61	5.10	7.19	6.28	7.18	4.65	3.91	4.63	4.46	4.39	4.21	
22	4.32	4.49	5.08	6.85	6.73	6.51	4.66	3.93	4.81	4.40	4.36	4.18	
23	4.30	4.31	4.98	6.40	6.55	6.46	4.56	3.92	4.67	4.41	4.32	4.18	
24	4.46	4.16	4.81	7.19	6.91	8.77	4.54	4.51	4.10	4.45	4.27	4.23	
25	4.40	4.08	4.90	6.46	6.26	7.82	4.52	4.78	4.48	4.49	4.38	4.28	
26	4.55	4.11	4.88	8.12	5.31	7.27	4.40	4.44	4.57	4.30	4.48	4.25	
27	4.27	4.11	6.86	7.09	5.25	7.52	4.42	4.29	4.68	4.41	4.45	4.14	
28	4.00	4.41	5.65	7.34	5.18	7.43	4.60	4.18	4.78	4.54	4.40	4.13	
29	3.88	4.79	5.38	7.77	5.74	7.20	4.65	4.06	4.80	4.45	4.28	4.06	
30	4.27	5.93	6.43	6.85	6.08	7.49	4.56	3.93	4.78	4.46		4.06	
31		4.56		6.34	5.70		4.38		4.79	4.42		4.05	
Mean	4.33	4.44	5.23	6.25	6.41	6.74	5.38	4.16	4.39	4.53	4.44	4.24	
Max	4.55	5.93	6.86	8.12	7.66	8.95	6.88	4.78	4.84	4.80	4.66	4.51	8.95
Min	3.88	3.89	4.61	5.15	5.18	5.37	4.38	3.91	3.70	4.27	4.27	4.05	3.70

Annual Max Momentary Gage Height 9.32 m. (MSL.) , at 06.00 Hours , on Sep 24 , 2011

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed 2.88 m. (MSL)

Left Bank Elevation 11.52 m. (MSL.) ,

Right Bank Elevation 11.55 m. (MSL.) , Drainage Area 521 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.04	1.96	8.30	4.34	15.36	4.62	9.70	1.14	0.27	2.20	1.36	1.06		
2	1.14	2.35	4.26	5.10	13.56	7.86	7.95	1.20	0.24	2.08	1.50	1.06		
3	1.20	1.34	2.32	4.22	12.06	5.14	9.60	1.20	0.54	1.90	1.60	1.02		
4	1.24	0.76	1.90	6.18	11.76	9.20	9.45	1.14	1.52	2.17	1.82	1.00		
5	1.32	0.80	1.72	4.46	12.90	6.30	6.62	1.02	2.32	2.02	1.54	1.00		
6	1.36	0.54	3.86	4.58	11.40	6.82	10.80	0.82	2.14	1.99	1.54	1.08		
7	1.40	0.29	2.56	3.30	10.50	4.98	6.62	0.70	0.96	1.88	1.54	1.08		
8	1.30	0.70	2.02	5.46	8.50	4.18	4.82	0.68	0.30	1.80	1.46	1.02		
9	1.18	0.34	2.65	5.66	5.50	5.90	5.06	0.72	0.14	1.74	1.32	1.02		
10	1.14	0.48	6.54	5.98	5.74	16.48	5.38	0.78	0.34	1.66	1.68	1.10		
11	1.10	1.20	5.82	8.10	5.66	13.20	6.18	0.74	1.30	1.22	1.44	1.32		
12	1.12	0.86	3.38	4.38	5.30	24.25	5.94	0.72	1.82	2.20	1.30	1.10		
13	1.32	1.52	4.18	4.98	6.14	15.60	5.82	0.70	2.02	1.90	1.44	0.96		
14	1.46	1.82	3.04	4.94	11.88	9.75	5.34	0.70	0.64	1.18	1.38	0.90		
15	1.38	1.66	2.14	8.65	7.50	6.62	6.42	0.68	0.18	1.26	1.28	1.52		
16	1.26	1.99	1.96	4.30	7.26	5.82	5.74	0.68	0.10	1.30	1.18	1.30		
17	1.16	1.62	2.20	7.18	10.40	6.18	4.78	0.64	1.52	1.34	1.32	1.06		
18	1.10	3.42	3.04	7.14	13.56	9.40	2.71	0.58	2.32	1.44	1.34	1.00		
19	1.06	1.76	2.62	8.25	12.24	6.62	2.23	0.42	1.88	1.42	1.30	0.92		
20	1.10	1.78	4.46	11.94	9.00	13.50	2.11	0.38	0.72	1.04	1.36	0.98		
21	1.14	1.72	3.10	12.54	7.82	12.48	1.80	0.32	1.76	1.42	1.28	0.92		
22	1.14	1.48	3.04	10.65	10.05	8.95	1.82	0.36	2.23	1.30	1.22	0.86		
23	1.10	1.12	2.74	8.40	9.15	8.70	1.62	0.34	1.84	1.32	1.14	0.86		
24	1.42	0.82	2.23	12.54	10.95	22.99	1.58	1.52	0.70	1.40	1.04	0.96		
25	1.30	0.66	2.50	8.70	7.74	16.34	1.54	2.14	1.46	1.48	1.26	1.06		
26	1.60	0.72	2.44	18.44	3.94	13.02	1.30	1.38	1.64	1.10	1.46	1.00		
27	1.04	0.72	10.70	11.94	3.70	14.52	1.34	1.08	1.86	1.32	1.40	0.78		
28	0.50	1.32	5.30	13.44	3.42	13.98	1.70	0.86	2.14	1.58	1.30	0.76		
29	0.28	2.17	4.22	16.02	5.66	12.60	1.80	0.62	2.20	1.40	1.06	0.62		
30	1.04	6.42	8.55	10.65	7.02	14.34	1.62	0.36	2.14	1.42		0.62		
31		1.62		8.10	5.50		1.26		2.17	1.34		0.60		
Total	34.94	45.96	113.79	250.56	271.17	320.34	140.65	24.62	41.41	48.82	39.86	30.54	1362.66	CMSDAY
Mean	1.17	1.48	3.79	8.08	8.75	10.68	4.54	0.82	1.34	1.58	1.37	0.99	3.72	CMS
Max	1.60	6.42	10.70	18.44	15.36	24.25	10.80	2.14	2.32	2.20	1.82	1.52	24.25	CMS
Min	0.28	0.29	1.72	3.30	3.42	4.18	1.26	0.32	0.10	1.04	1.04	0.60	0.10	CMS
Runoff	3.02	3.97	9.83	21.65	23.43	27.68	12.15	2.13	3.58	4.22	3.44	2.64	117.73	MCM

Momentary Peak 26.84 CMS. at 9.32 m. (MSL.) at 06.00 Hours , on Sep 24 , 2011

Runoff Yield 7.14 Liters/Second/Square KM. Momentary Peak Yield 51.470 Liters/Second/Square KM.

WATER YEAR : 2011

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.

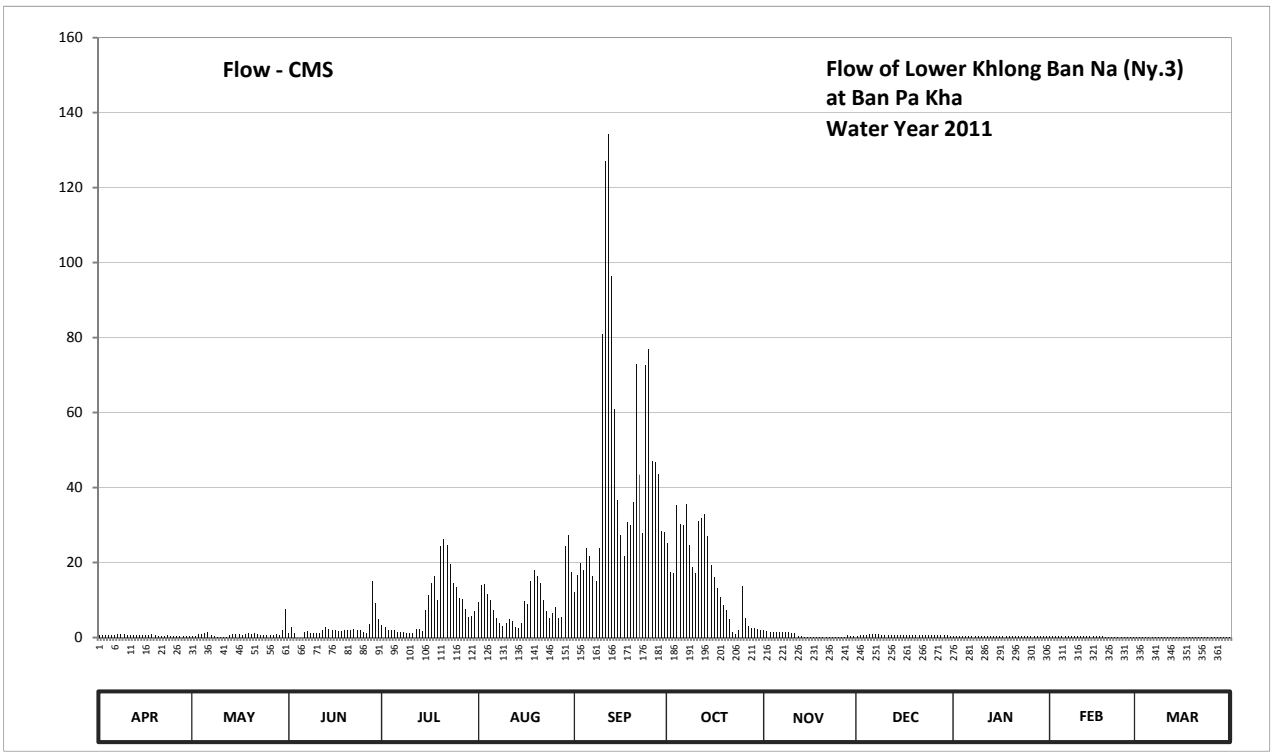
Ban Pa Kha **Amphoe** Ban Na **Changwat** Nakhon Nayok

Drainge Area	203 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+6.330 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	About 10 meters from the top staff gage. **Elevation** +12.695 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings
Period of Available Gage Records	1977 to date
Rating Operation	
Period of Rating	1977 - 1978 , 1980, 1988 to date
Rated by Flot	-
Rated by Current Meter	1977 - 1978 , 1980, 1988 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Flow effected by the local weir.
	Stage-discharge relation defined by 23 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	7.29	7.19	7.46	7.93	8.54	8.82	9.78	7.68	7.16	7.20	7.14	7.03	
2	7.29	7.19	7.88	7.87	9.01	9.22	9.29	7.62	7.24	7.19	7.15	7.03	
3	7.29	7.38	7.52	7.72	9.02	9.47	9.27	7.55	7.22	7.18	7.15	7.03	
4	7.24	7.37	6.99	7.69	8.76	9.32	10.33	7.59	7.29	7.17	7.15	7.03	
5	7.24	7.50	6.97	7.67	8.59	9.70	10.08	7.56	7.34	7.18	7.15	7.03	
6	7.25	7.55	7.59	7.61	8.33	9.58	10.05	7.60	7.33	7.18	7.15	7.03	
7	7.31	7.28	7.62	7.56	8.13	9.20	10.34	7.58	7.31	7.18	7.14	7.03	
8	7.37	7.12	7.50	7.57	7.99	9.11	9.76	7.54	7.31	7.18	7.14	7.03	
9	7.33	7.10	7.48	7.52	7.90	9.71	9.39	7.54	7.30	7.18	7.14	7.03	
10	7.24	7.07	7.48	7.47	7.98	11.80	9.27	7.49	7.29	7.18	7.14	7.03	
11	7.23	7.09	7.48	7.50	8.08	12.52	10.11	7.45	7.28	7.18	7.14	7.03	
12	7.24	7.10	7.68	7.74	8.04	12.61	10.16	7.18	7.27	7.17	7.14	7.03	
13	7.26	7.27	7.84	7.73	7.88	12.08	10.22	7.11	7.26	7.17	7.14	7.03	
14	7.26	7.37	7.78	7.64	7.79	11.27	9.89	7.08	7.26	7.16	7.14	7.03	
15	7.26	7.36	7.70	8.33	7.99	10.38	9.42	7.06	7.25	7.16	7.13	7.03	
16	7.26	7.32	7.69	8.72	8.56	9.91	9.19	7.05	7.25	7.16	7.13	7.03	
17	7.30	7.27	7.64	9.06	8.50	9.58	8.92	7.04	7.24	7.17	7.13	7.03	
18	7.35	7.34	7.64	9.21	9.10	10.10	8.67	7.04	7.23	7.17	7.11	7.03	
19	7.27	7.43	7.68	8.60	9.33	10.05	8.46	7.05	7.23	7.16	7.04	7.03	
20	7.20	7.41	7.67	9.74	9.21	10.36	8.34	7.06	7.22	7.17	7.04	7.03	
21	7.18	7.43	7.71	9.85	9.04	11.61	8.08	7.10	7.22	7.17	7.03	7.03	
22	7.15	7.36	7.78	9.76	8.61	10.59	7.56	7.04	7.22	7.17	7.02	7.03	
23	7.23	7.28	7.70	9.46	8.31	9.94	7.40	7.04	7.22	7.16	7.02	7.03	
24	7.20	7.29	7.69	9.06	8.11	11.60	7.69	7.04	7.23	7.16	7.02	7.03	
25	7.20	7.28	7.58	8.94	8.26	11.71	8.97	7.04	7.23	7.15	7.02	7.03	
26	7.20	7.28	7.51	8.64	8.40	10.76	8.13	7.05	7.22	7.15	7.04	7.03	
27	7.20	7.26	7.95	8.63	8.13	10.75	7.89	7.08	7.21	7.15	7.04	7.03	
28	7.20	7.32	9.11	8.35	8.14	10.59	7.82	7.22	7.21	7.14	7.04	7.03	
29	7.20	7.30	8.53	8.14	9.74	9.96	7.80	7.17	7.21	7.14	7.03	7.03	
30	7.20	7.71	8.09	8.17	9.90	9.95	7.76	7.12	7.21	7.14		7.03	
31		8.36		8.31	9.29		7.72		7.20	7.13		7.03	
Mean	7.25	7.34	7.70	8.33	8.54	10.41	8.96	7.26	7.25	7.17	7.10	7.03	
Max	7.37	8.36	9.11	9.85	9.90	12.61	10.34	7.68	7.34	7.20	7.15	7.03	12.61
Min	7.15	7.07	6.97	7.47	7.79	8.82	7.40	7.04	7.16	7.13	7.02	7.03	6.97

Annual Max Momentary Gage Height	12.71	m. (MSL.) ,	at 13.00 Hours , on Sep 10 , 2011		
Zero Gage at Bottom Elevation	6.33	m. (MSL.) ,	River Bed	6.59	m. (MSL)
Left Bank Elevation	13.61	m. (MSL.) ,			
Right Bank Elevation	13.69	m. (MSL.) ,	Drainage Area	203	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.73	0.48	1.15	3.30	9.40	12.20	25.15	1.90	0.40	0.50	0.35	0.08		
2	0.73	0.48	2.90	2.85	14.10	16.57	17.49	1.60	0.60	0.48	0.38	0.08		
3	0.73	0.95	1.30	2.10	14.20	19.86	17.23	1.38	0.55	0.45	0.38	0.08		
4	0.60	0.92	0.00	1.95	11.60	17.89	35.20	1.48	0.73	0.43	0.38	0.08		
5	0.60	1.25	0.00	1.85	9.90	23.75	30.40	1.40	0.85	0.45	0.38	0.08		
6	0.63	1.38	1.48	1.55	7.30	21.65	29.88	1.50	0.83	0.45	0.38	0.08		
7	0.78	0.70	1.60	1.40	5.30	16.31	35.52	1.45	0.78	0.45	0.35	0.08		
8	0.92	0.30	1.25	1.43	3.90	15.13	24.80	1.35	0.78	0.45	0.35	0.08		
9	0.83	0.25	1.20	1.30	3.00	23.92	18.81	1.35	0.75	0.45	0.35	0.08		
10	0.60	0.18	1.20	1.17	3.80	81.00	17.23	1.22	0.73	0.45	0.35	0.08		
11	0.58	0.23	1.20	1.25	4.80	127.10	30.92	1.12	0.70	0.45	0.35	0.08		
12	0.60	0.25	1.90	2.20	4.40	134.40	31.80	0.45	0.68	0.43	0.35	0.08		
13	0.65	0.68	2.70	2.15	2.90	96.40	32.85	0.28	0.65	0.43	0.35	0.08		
14	0.65	0.92	2.40	1.70	2.45	60.95	27.08	0.20	0.65	0.40	0.35	0.08		
15	0.65	0.90	2.00	7.30	3.90	36.78	19.20	0.15	0.63	0.40	0.33	0.08		
16	0.65	0.80	1.95	11.20	9.60	27.42	16.18	0.13	0.63	0.40	0.33	0.08		
17	0.75	0.68	1.70	14.60	9.00	21.65	13.20	0.10	0.60	0.43	0.33	0.08		
18	0.87	0.85	1.70	16.44	15.00	30.75	10.70	0.10	0.58	0.43	0.28	0.08		
19	0.68	1.07	1.90	10.00	18.02	29.88	8.60	0.13	0.58	0.40	0.10	0.08		
20	0.50	1.02	1.85	24.45	16.44	36.15	7.40	0.15	0.55	0.43	0.10	0.08		
21	0.45	1.07	2.05	26.38	14.40	72.90	4.80	0.25	0.55	0.43	0.08	0.08		
22	0.38	0.90	2.40	24.80	10.10	43.43	1.40	0.10	0.55	0.43	0.05	0.08		
23	0.58	0.70	2.00	19.72	7.10	27.95	1.00	0.10	0.55	0.40	0.05	0.08		
24	0.50	0.73	1.95	14.60	5.10	72.50	1.95	0.10	0.58	0.40	0.05	0.08		
25	0.50	0.70	1.45	13.40	6.60	76.95	13.70	0.10	0.58	0.38	0.05	0.08		
26	0.50	0.70	1.28	10.40	8.00	47.05	5.30	0.13	0.55	0.38	0.10	0.08		
27	0.50	0.65	3.50	10.30	5.30	46.84	2.95	0.20	0.53	0.38	0.10	0.08		
28	0.50	0.80	15.13	7.50	5.40	43.43	2.60	0.55	0.53	0.35	0.10	0.08		
29	0.50	0.75	9.30	5.40	24.45	28.30	2.50	0.43	0.53	0.35	0.08	0.08		
30	0.50	2.05	4.90	5.70	27.25	28.12	2.30	0.30	0.53	0.35		0.08		
31		7.60		7.10	17.49		2.10		0.50	0.33		0.08		
Total	18.64	30.94	75.34	255.49	300.20	1337.23	490.24	19.70	19.23	12.94	7.18	2.48	2569.61	CMSDAY
Mean	0.62	1.00	2.51	8.24	9.68	44.57	15.81	0.66	0.62	0.42	0.25	0.08	7.02	CMS
Max	0.92	7.60	15.13	26.38	27.25	134.40	35.52	1.90	0.85	0.50	0.38	0.08	134.40	CMS
Min	0.38	0.18	0.00	1.17	2.45	12.20	1.00	0.10	0.40	0.33	0.05	0.08	0.00	CMS
Runoff	1.61	2.67	6.51	22.07	25.94	115.54	42.36	1.70	1.66	1.12	0.62	0.21	222.01	MCM

Momentary Peak 143.45 CMS. at 12.71 m. (MSL.) at 13.00 Hours , on Sep 10 , 2011

Runoff Yield 34.55 Liters/Second/Square KM. Momentary Peak Yield 705.955 Liters/Second/Square KM.

WATER YEAR : 2011

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

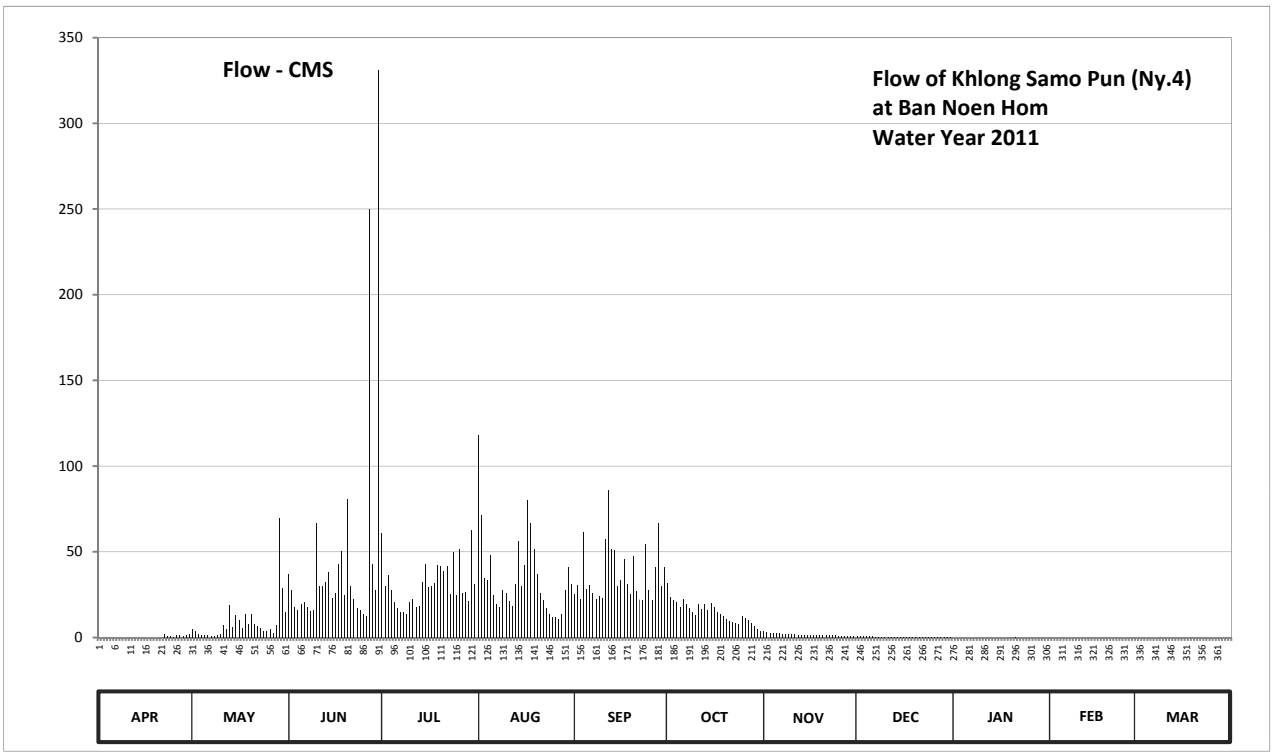
Location : on left bank at the bridge of Prachin Buri - Khao Yai Highway.

	Ban Noen Hom	**Amphoe** Mueang	**Changwat** Prachin Buri
Drainge Area	128 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+376.100 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank at the abutment of the bridge.	**Elevation**	+382.580 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	1986 to date		
Rating Operation			
Period of Rating	1986 to date		
Rated by Flot	-		
Rated by Current Meter	1986 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 24 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	376.37	376.75	377.72	378.13	378.80	377.46	377.62	376.68	376.48	376.39	376.37	376.36	
2	376.37	376.69	377.52	377.57	378.28	377.59	377.41	376.65	376.48	376.39	376.37	376.36	
3	376.37	376.60	377.23	377.71	377.67	377.38	377.37	376.64	376.47	376.39	376.37	376.36	
4	376.36	376.57	377.17	377.52	377.65	378.14	377.32	376.63	376.47	376.38	376.38	376.29	
5	376.38	376.55	377.29	377.33	377.92	377.53	377.22	376.63	376.47	376.38	376.38	376.36	
6	376.37	376.52	377.33	377.21	377.44	377.59	377.38	376.62	376.46	376.38	376.38	376.36	
7	376.36	376.50	377.22	377.12	377.28	377.47	377.29	376.61	376.45	376.38	376.38	376.36	
8	376.36	376.48	377.14	377.13	377.22	377.38	377.20	376.60	376.45	376.37	376.37	376.36	
9	376.39	376.56	377.16	377.09	377.52	377.43	377.12	376.59	376.45	376.37	376.37	376.36	
10	376.39	376.61	378.21	377.33	377.47	377.40	377.07	376.59	376.44	376.37	376.39	376.35	
11	376.39	376.85	377.57	377.38	377.35	378.07	377.29	376.58	376.44	376.37	376.40	376.35	
12	376.39	376.74	377.58	377.22	377.25	378.46	377.19	376.57	376.44	376.36	376.39	376.35	
13	376.38	377.27	377.63	377.24	377.60	377.98	377.29	376.57	376.44	376.36	376.39	376.35	
14	376.38	376.81	377.74	377.63	378.05	377.97	377.17	376.56	376.44	376.36	376.39	376.35	
15	376.38	377.07	377.40	377.83	377.57	377.58	377.30	376.56	376.44	376.36	376.38	376.36	
16	376.38	376.97	377.47	377.56	377.82	377.65	377.22	376.55	376.43	376.36	376.38	376.35	
17	376.38	376.79	377.83	377.58	378.39	377.88	377.13	376.55	376.43	376.36	376.38	376.35	
18	376.38	377.09	377.96	377.62	378.21	377.60	377.09	376.54	376.43	376.36	376.38	376.35	
19	376.38	376.89	377.44	377.82	377.98	377.46	377.05	376.54	376.43	376.35	376.37	376.35	
20	376.38	377.08	378.40	377.81	377.72	377.91	376.99	376.53	376.43	376.40	376.37	376.35	
21	376.38	376.88	377.57	377.76	377.47	377.50	376.95	376.53	376.42	376.42	376.37	376.35	
22	376.60	376.82	377.38	377.81	377.36	377.37	376.93	376.53	376.42	376.40	376.37	376.35	
23	376.51	376.77	377.20	377.46	377.21	377.36	376.92	376.52	376.42	376.39	376.37	376.35	
24	376.47	376.69	377.17	377.95	377.08	378.03	376.90	376.52	376.41	376.38	376.37	376.35	
25	376.44	376.69	377.08	377.45	377.04	377.51	377.05	376.51	376.41	376.38	376.36	376.35	
26	376.56	376.73	377.06	377.98	377.04	377.37	377.02	376.51	376.41	376.38	376.36	376.35	
27	376.53	376.64	379.84	377.48	376.99	377.80	376.97	376.50	376.41	376.38	376.36	376.34	
28	376.47	376.86	377.83	377.49	377.09	378.21	376.92	376.49	376.41	376.38	376.36	376.34	
29	376.57	378.25	377.51	377.34	377.51	377.58	376.83	376.49	376.41	376.38	376.36	376.34	
30	376.58	377.54	380.35	378.15	377.80	377.80	376.75	376.49	376.41	376.38		376.34	
31		377.13		377.60	377.60		376.69		376.41	376.38		376.34	
Mean	376.42	376.85	377.67	377.56	377.59	377.68	377.12	376.56	376.44	376.38	376.37	376.35	
Max	376.60	378.25	380.35	378.15	378.80	378.46	377.62	376.68	376.48	376.42	376.40	376.36	380.35
Min	376.36	376.48	377.06	377.09	376.99	377.36	376.69	376.49	376.41	376.35	376.36	376.29	376.29

Annual Max Momentary Gage Height	380.70	m. (MSL.) ,	at 12.00 Hours , on Jun 30 , 2011		
Zero Gage at Bottom Elevation	376.10	m. (MSL.) ,	River Bed	375.01	m. (MSL)
Left Bank Elevation	382.59	m. (MSL.) ,			
Right Bank Elevation	383.59	m. (MSL.) ,	Drainage Area	128	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	5.00	37.00	61.10	118.00	25.40	32.00	3.60	0.80	0.00	0.00	0.00		
2	0.00	3.80	27.80	29.80	71.60	30.60	23.40	3.00	0.80	0.00	0.00	0.00		
3	0.00	2.00	17.90	36.50	34.50	22.40	22.10	2.80	0.70	0.00	0.00	0.00		
4	0.00	1.70	16.10	27.80	33.50	61.80	20.60	2.60	0.70	0.00	0.00	0.00		
5	0.00	1.50	19.70	20.90	48.20	28.20	17.60	2.60	0.70	0.00	0.00	0.00		
6	0.00	1.20	20.90	17.30	24.60	30.60	22.40	2.40	0.60	0.00	0.00	0.00		
7	0.00	1.00	17.60	14.60	19.40	25.80	19.70	2.20	0.50	0.00	0.00	0.00		
8	0.00	0.80	15.20	14.90	17.60	22.40	17.00	2.00	0.50	0.00	0.00	0.00		
9	0.00	1.60	15.80	13.70	27.80	24.20	14.60	1.90	0.50	0.00	0.00	0.00		
10	0.00	2.20	66.70	20.90	25.80	23.00	13.10	1.90	0.40	0.00	0.00	0.00		
11	0.00	7.00	29.80	22.40	21.50	57.20	19.70	1.80	0.40	0.00	0.00	0.00		
12	0.00	4.80	30.20	17.60	18.50	85.80	16.70	1.70	0.40	0.00	0.00	0.00		
13	0.00	19.10	32.50	18.20	31.00	51.80	19.70	1.70	0.40	0.00	0.00	0.00		
14	0.00	6.20	38.00	32.50	56.00	51.20	16.10	1.60	0.40	0.00	0.00	0.00		
15	0.00	13.10	23.00	42.80	29.80	30.20	20.00	1.60	0.40	0.00	0.00	0.00		
16	0.00	10.10	25.80	29.40	42.20	33.50	17.60	1.50	0.30	0.00	0.00	0.00		
17	0.00	5.80	42.80	30.20	80.20	45.80	14.90	1.50	0.30	0.00	0.00	0.00		
18	0.00	13.70	50.60	32.00	66.70	31.00	13.70	1.40	0.30	0.00	0.00	0.00		
19	0.00	7.80	24.60	42.20	51.80	25.40	12.50	1.40	0.30	0.00	0.00	0.00		
20	0.00	13.40	81.00	41.60	37.00	47.60	10.70	1.30	0.30	0.00	0.00	0.00		
21	0.00	7.60	29.80	39.00	25.80	27.00	9.50	1.30	0.20	0.20	0.00	0.00		
22	2.00	6.40	22.40	41.60	21.80	22.10	8.90	1.30	0.20	0.00	0.00	0.00		
23	1.10	5.40	17.00	25.40	17.30	21.80	8.60	1.20	0.20	0.00	0.00	0.00		
24	0.70	3.80	16.10	50.00	13.40	54.80	8.00	1.20	0.10	0.00	0.00	0.00		
25	0.40	3.80	13.40	25.00	12.20	27.40	12.50	1.10	0.10	0.00	0.00	0.00		
26	1.60	4.60	12.80	51.80	12.20	22.10	11.60	1.10	0.10	0.00	0.00	0.00		
27	1.30	2.80	250.00	26.20	10.70	41.00	10.10	1.00	0.10	0.00	0.00	0.00		
28	0.70	7.20	42.80	26.60	13.70	66.70	8.60	0.90	0.10	0.00	0.00	0.00		
29	1.70	69.50	27.40	21.20	27.40	30.20	6.60	0.90	0.10	0.00	0.00	0.00		
30	1.80	28.60	331.00	62.50	41.00	41.00	5.00	0.90	0.10	0.00		0.00		
31		14.90		31.00	31.00		3.80		0.10	0.00		0.00		
Total	11.30	276.40	1395.70	966.70	1082.20	1108.00	457.30	51.40	11.10	0.20	0.00	0.00	5360.30	CMSDAY
Mean	0.38	8.92	46.52	31.18	34.91	36.93	14.75	1.71	0.36	0.01	0.00	0.00	14.65	CMS
Max	2.00	69.50	331.00	62.50	118.00	85.80	32.00	3.60	0.80	0.20	0.00	0.00	331.00	CMS
Min	0.00	0.80	12.80	13.70	10.70	21.80	3.80	0.90	0.10	0.00	0.00	0.00	0.00	CMS
Runoff	0.98	23.88	120.59	83.52	93.50	95.73	39.51	4.44	0.96	0.02	0.00	0.00	463.13	MCM

Momentary Peak 390.00 CMS. at 380.70 m. (MSL.) at 12.00 Hours , on Jun 30, 2011

Runoff Yield 114.25 Liters/Second/Square KM. Momentary Peak Yield 3042.359 Liters/Second/Square KM.

WATER YEAR : 2011

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

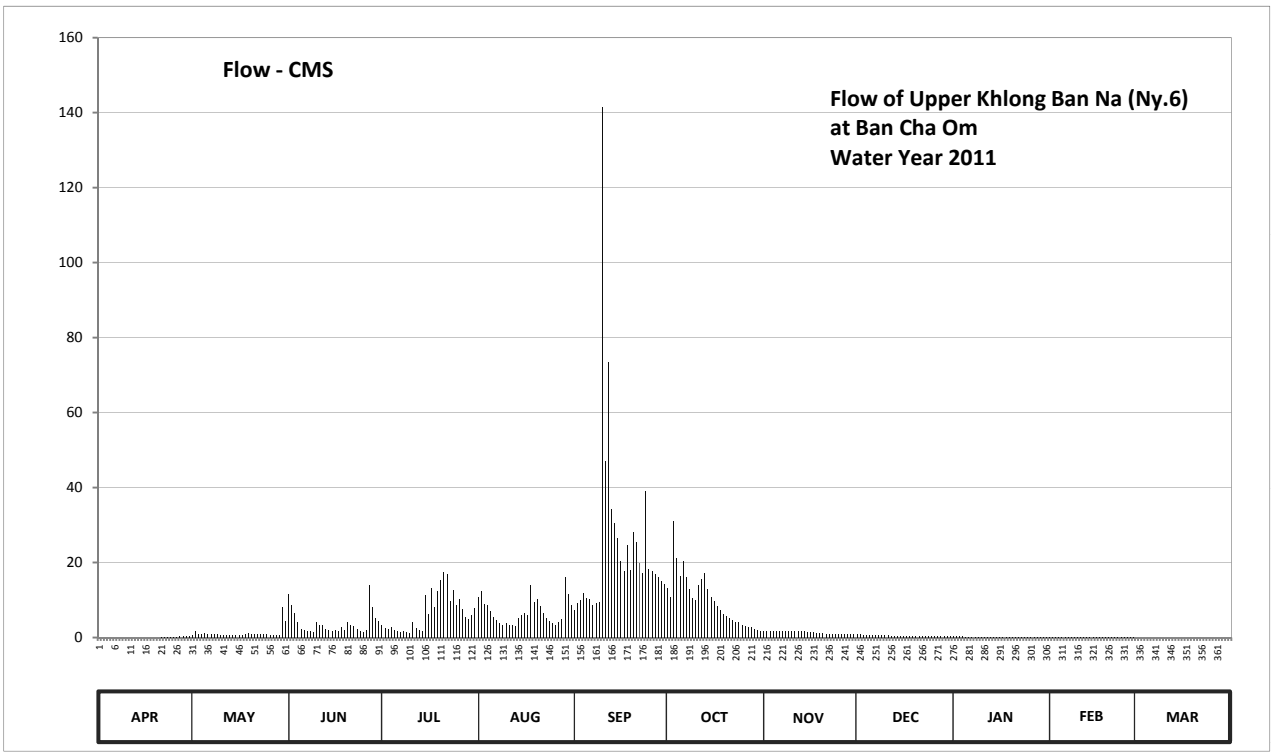
Location : on left bank about 50 meters from the top staff gage.

	Ban Cha Om		**Amphoe** Kaeng Khoi	**Changwat** Saraburi	
Drainge Area	126	sq.km.			
Type of Gage	Staff gage				
Zero Gage at Bottom	+29.600	m. (MSL.)			
Bench Mark	B.M.-H.D.				
Location BM	On left bank about 50 meters from the top staff gage.			**Elevation**	+34.960 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.				
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings				
Period of Available Gage Records	1988 to date				
Rating Operation					
Period of Rating	1988 to date				
Rated by Flot	-				
Rated by Current Meter	1988 to date				
Stability of Channel Regimes	Fairly stable.				
Overbank Flow Conditions	Overbank flow starts at elevation +34.820 m.(MSL.), records are channel flow only.				
General Description	Records fair. Stage-discharge relation defined by 21 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	30.70	30.92	31.55	31.17	31.53	31.36	31.61	31.08	31.00	30.88	30.81	30.80	
2	30.70	31.07	31.43	31.13	31.58	31.46	31.53	31.08	31.00	30.88	30.81	30.80	
3	30.70	30.98	31.32	31.12	31.45	31.50	32.15	31.06	30.95	30.88	30.81	30.80	
4	30.70	30.96	31.20	31.14	31.43	31.56	31.87	31.06	30.95	30.88	30.81	30.80	
5	30.70	31.03	31.11	31.09	31.35	31.52	31.71	31.06	30.95	30.85	30.81	30.80	
6	30.70	30.98	31.10	31.06	31.28	31.51	31.85	31.06	30.92	30.85	30.81	30.80	
7	30.70	30.98	31.08	31.04	31.23	31.44	31.70	31.08	30.92	30.85	30.81	30.80	
8	30.71	30.96	31.07	31.07	31.19	31.46	31.60	31.08	30.92	30.85	30.81	30.80	
9	30.71	30.96	31.04	31.04	31.17	31.47	31.52	31.08	30.92	30.85	30.81	30.80	
10	30.71	30.94	31.20	31.02	31.19	34.24	31.50	31.08	30.92	30.85	30.81	30.80	
11	30.72	30.94	31.16	31.21	31.17	32.54	31.63	31.06	30.92	30.85	30.81	30.80	
12	30.73	30.94	31.16	31.13	31.17	33.07	31.69	31.06	30.90	30.85	30.81	30.80	
13	30.73	30.94	31.11	31.09	31.15	32.23	31.74	31.06	30.90	30.84	30.81	30.80	
14	30.73	30.94	31.10	31.07	31.26	32.14	31.60	31.06	30.90	30.84	30.81	30.80	
15	30.73	30.94	31.08	31.54	31.30	32.04	31.53	31.04	30.90	30.84	30.81	30.80	
16	30.74	30.94	31.10	31.31	31.32	31.85	31.48	31.04	30.90	30.84	30.81	30.80	
17	30.75	30.94	31.08	31.61	31.30	31.76	31.42	31.04	30.90	30.84	30.81	30.80	
18	30.76	30.98	31.14	31.41	31.63	31.99	31.37	31.02	30.90	30.83	30.81	30.80	
19	30.78	31.01	31.09	31.58	31.47	31.77	31.31	31.02	30.90	30.83	30.81	30.80	
20	30.80	31.00	31.20	31.68	31.51	32.08	31.29	31.02	30.88	30.83	30.81	30.79	
21	30.81	31.00	31.17	31.75	31.42	32.01	31.26	31.00	30.88	30.83	30.81	30.79	
22	30.81	31.00	31.15	31.73	31.32	31.83	31.23	31.00	30.88	30.83	30.81	30.79	
23	30.84	30.96	31.11	31.49	31.26	31.74	31.20	31.00	30.88	30.83	30.81	30.79	
24	30.84	30.96	31.08	31.59	31.22	32.35	31.20	31.00	30.88	30.83	30.81	30.79	
25	30.85	30.96	31.05	31.43	31.19	31.78	31.17	31.00	30.88	30.82	30.81	30.79	
26	30.85	30.94	31.09	31.51	31.17	31.76	31.15	31.00	30.88	30.82	30.81	30.79	
27	30.88	30.94	31.63	31.38	31.21	31.73	31.14	31.00	30.88	30.82	30.81	30.79	
28	30.88	30.92	31.40	31.27	31.24	31.70	31.14	31.00	30.88	30.82	30.81	30.79	
29	30.90	30.92	31.26	31.25	31.70	31.67	31.11	31.00	30.88	30.82	30.81	30.79	
30	30.90	31.41	31.22	31.30	31.55	31.64	31.10	31.00	30.88	30.82		30.79	
31		31.22		31.39	31.44		31.08		30.88	30.82		30.79	
Mean	30.77	30.99	31.18	31.31	31.34	31.91	31.45	31.04	30.91	30.84	30.81	30.80	
Max	30.90	31.41	31.63	31.75	31.70	34.24	32.15	31.08	31.00	30.88	30.81	30.80	34.24
Min	30.70	30.92	31.04	31.02	31.15	31.36	31.08	31.00	30.88	30.82	30.81	30.79	30.70

Annual Max Momentary Gage Height	35.50	m. (MSL.) ,	at 06.00 Hours , on Sep 10 , 2011		
Zero Gage at Bottom Elevation	29.60	m. (MSL.) ,	River Bed	29.90	m. (MSL)
Left Bank Elevation	34.82	m. (MSL.) ,			
Right Bank Elevation	34.81	m. (MSL.) ,	Drainage Area	126	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.60	11.50	3.40	10.90	7.20	13.30	1.80	1.00	0.40	0.05	0.00		
2	0.00	1.70	8.60	2.60	12.40	9.20	10.90	1.80	1.00	0.40	0.05	0.00		
3	0.00	0.90	6.40	2.40	9.00	10.00	31.00	1.60	0.75	0.40	0.05	0.00		
4	0.00	0.80	4.00	2.80	8.60	11.80	21.10	1.60	0.75	0.40	0.05	0.00		
5	0.00	1.30	2.20	1.90	7.00	10.60	16.30	1.60	0.75	0.25	0.05	0.00		
6	0.00	0.90	2.00	1.60	5.60	10.30	20.50	1.60	0.60	0.25	0.05	0.00		
7	0.00	0.90	1.80	1.40	4.60	8.80	16.00	1.80	0.60	0.25	0.05	0.00		
8	0.00	0.80	1.70	1.70	3.80	9.20	13.00	1.80	0.60	0.25	0.05	0.00		
9	0.00	0.80	1.40	1.40	3.40	9.40	10.60	1.80	0.60	0.25	0.05	0.00		
10	0.00	0.70	4.00	1.20	3.80	141.40	10.00	1.80	0.60	0.25	0.05	0.00		
11	0.00	0.70	3.20	4.20	3.40	47.00	13.90	1.60	0.60	0.25	0.05	0.00		
12	0.00	0.70	3.20	2.60	3.40	73.50	15.70	1.60	0.50	0.25	0.05	0.00		
13	0.00	0.70	2.20	1.90	3.00	34.20	17.20	1.60	0.50	0.20	0.05	0.00		
14	0.00	0.70	2.00	1.70	5.20	30.60	13.00	1.60	0.50	0.20	0.05	0.00		
15	0.00	0.70	1.80	11.20	6.00	26.60	10.90	1.40	0.50	0.20	0.05	0.00		
16	0.00	0.70	2.00	6.20	6.40	20.50	9.60	1.40	0.50	0.20	0.05	0.00		
17	0.00	0.70	1.80	13.30	6.00	17.80	8.40	1.40	0.50	0.20	0.05	0.00		
18	0.00	0.90	2.80	8.20	13.90	24.70	7.40	1.20	0.50	0.15	0.05	0.00		
19	0.00	1.10	1.90	12.40	9.40	18.10	6.20	1.20	0.50	0.15	0.05	0.00		
20	0.00	1.00	4.00	15.40	10.30	28.20	5.80	1.20	0.40	0.15	0.05	0.00		
21	0.05	1.00	3.40	17.50	8.40	25.40	5.20	1.00	0.40	0.15	0.05	0.00		
22	0.05	1.00	3.00	16.90	6.40	19.90	4.60	1.00	0.40	0.15	0.05	0.00		
23	0.20	0.80	2.20	9.80	5.20	17.20	4.00	1.00	0.40	0.15	0.05	0.00		
24	0.20	0.80	1.80	12.70	4.40	39.00	4.00	1.00	0.40	0.15	0.05	0.00		
25	0.25	0.80	1.50	8.60	3.80	18.40	3.40	1.00	0.40	0.10	0.05	0.00		
26	0.25	0.70	1.90	10.30	3.40	17.80	3.00	1.00	0.40	0.10	0.05	0.00		
27	0.40	0.70	13.90	7.60	4.20	16.90	2.80	1.00	0.40	0.10	0.05	0.00		
28	0.40	0.60	8.00	5.40	4.80	16.00	2.80	1.00	0.40	0.10	0.05	0.00		
29	0.50	0.60	5.20	5.00	16.00	15.10	2.20	1.00	0.40	0.10	0.05	0.00		
30	0.50	8.20	4.40	6.00	11.50	14.20	2.00	1.00	0.40	0.10		0.00		
31		4.40		7.80	8.80		1.80		0.40	0.10		0.00		
Total	2.80	36.90	113.80	205.10	213.00	749.00	306.60	41.40	16.65	6.35	1.45	0.00	1693.05	CMSDAY
Mean	0.09	1.19	3.79	6.62	6.87	24.97	9.89	1.38	0.54	0.20	0.05	0.00	4.63	CMS
Max	0.50	8.20	13.90	17.50	16.00	141.40	31.00	1.80	1.00	0.40	0.05	0.00	141.40	CMS
Min	0.00	0.60	1.40	1.20	3.00	7.20	1.80	1.00	0.40	0.10	0.05	0.00	0.00	CMS
Runoff	0.24	3.19	9.83	17.72	18.40	64.71	26.49	3.58	1.44	0.55	0.13	0.00	146.28	MCM

Momentary Peak 227.00 CMS. at 35.50 m. (MSL.) at 06.00 Hours , on Sep 10 , 2011

Runoff Yield 36.65 Liters/Second/Square KM. Momentary Peak Yield 1798.305 Liters/Second/Square KM.

WATER YEAR : 2011

TONLE SAP BASIN

Khlong Phra Phut at Ban Pang Ngon , Chanthaburi (Tl.3)

Lat 12 - 58 - 12 N Long 102 - 17 - 20 E

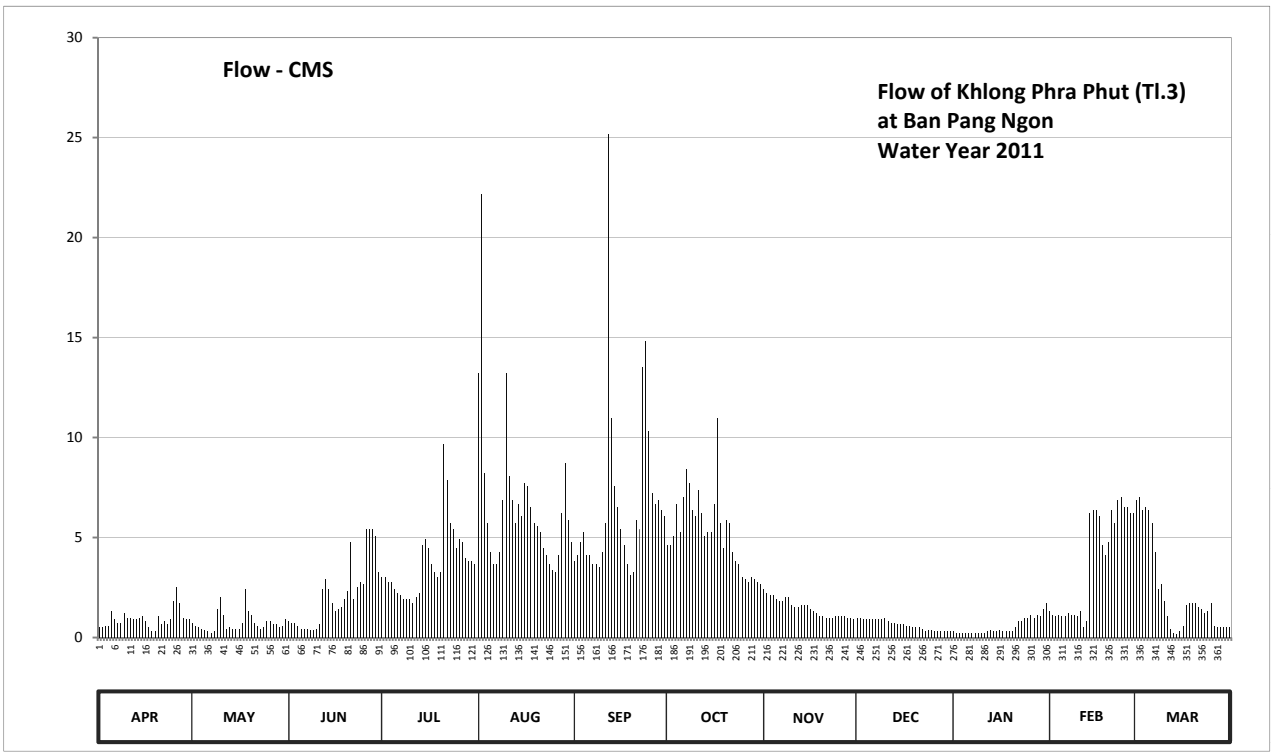
Location : on left bank downstream from the bridge of Pong Nam Ron -Wang Nam Yen Highway.

	Ban Pang Ngon	**Amphoe** Pong Nam Ron		**Changwat** Chanthaburi	
Drainge Area	71 sq.km.				
Type of Gage	Water - stage recorder				
Zero Gage at Bottom	+190.680 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On left bank about 6 meters from the top staff gage.			**Elevation**	+195.973 m. (MSL.)
Gage Reading Frequency	Recording				
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings				
Period of Available Gage Records	1983 to date				
Rating Operation					
Period of Rating	1986 to date				
Rated by Flot	-				
Rated by Current Meter	1986 to date				
Stability of Channel Regimes	Fairly stable.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records good. Flow effected by the local weir.				
	Stage-discharge relation defined by 13 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	191.00	191.03	191.04	191.26	191.75	191.32	191.37	191.21	191.06	190.96	191.10	191.51	
2	191.00	191.01	191.03	191.26	192.03	191.34	191.37	191.19	191.06	190.95	191.08	191.52	
3	191.01	191.00	191.03	191.24	191.59	191.38	191.40	191.18	191.05	190.94	191.07	191.48	
4	191.01	190.98	191.01	191.24	191.44	191.41	191.50	191.18	191.05	190.94	191.08	191.49	
5	191.10	190.97	190.99	191.21	191.35	191.34	191.41	191.16	191.05	190.94	191.07	191.48	
6	191.05	190.96	190.98	191.19	191.31	191.34	191.52	191.15	191.05	190.94	191.07	191.44	
7	191.03	190.95	190.98	191.18	191.31	191.31	191.60	191.15	191.05	190.94	191.09	191.35	
8	191.03	190.96	190.97	191.16	191.35	191.31	191.56	191.17	191.05	190.94	191.08	191.21	
9	191.09	191.11	190.97	191.16	191.51	191.30	191.48	191.17	191.05	190.95	191.08	191.23	
10	191.06	191.17	190.99	191.16	191.75	191.35	191.46	191.13	191.06	190.95	191.07	191.15	
11	191.06	191.08	191.02	191.14	191.58	191.44	191.54	191.12	191.04	190.95	191.10	191.07	
12	191.05	190.99	191.21	191.17	191.51	192.12	191.47	191.12	191.03	190.96	191.00	190.98	
13	191.05	191.00	191.25	191.19	191.44	191.68	191.40	191.13	191.03	190.97	191.04	190.94	
14	191.06	190.99	191.21	191.37	191.50	191.55	191.41	191.13	191.02	190.96	191.47	190.93	
15	191.07	190.99	191.14	191.39	191.46	191.49	191.41	191.13	191.02	190.96	191.48	190.96	
16	191.04	190.98	191.10	191.36	191.56	191.42	191.50	191.11	191.02	190.97	191.48	191.01	
17	191.00	191.03	191.11	191.31	191.55	191.37	191.68	191.10	191.01	190.96	191.46	191.13	
18	190.96	191.21	191.12	191.28	191.49	191.31	191.44	191.09	191.01	190.96	191.37	191.14	
19	190.96	191.10	191.16	191.26	191.44	191.27	191.36	191.07	191.00	190.96	191.34	191.14	
20	191.07	191.08	191.20	191.28	191.43	191.28	191.45	191.07	191.00	190.96	191.38	191.14	
21	191.02	191.03	191.38	191.64	191.41	191.45	191.44	191.06	191.00	191.00	191.48	191.12	
22	191.04	191.01	191.16	191.57	191.36	191.42	191.35	191.06	190.98	191.04	191.44	191.11	
23	191.02	190.99	191.22	191.44	191.34	191.76	191.32	191.06	190.96	191.04	191.51	191.09	
24	191.05	191.00	191.24	191.42	191.31	191.80	191.31	191.07	190.97	191.06	191.52	191.10	
25	191.15	191.04	191.23	191.36	191.29	191.66	191.26	191.07	190.97	191.06	191.49	191.14	
26	191.22	191.04	191.42	191.39	191.28	191.53	191.25	191.07	190.96	191.08	191.49	191.01	
27	191.14	191.02	191.42	191.38	191.34	191.50	191.24	191.07	190.96	191.06	191.47	191.00	
28	191.06	191.02	191.42	191.33	191.47	191.51	191.26	191.06	190.96	191.08	191.47	191.00	
29	191.05	191.00	191.40	191.32	191.61	191.48	191.25	191.06	190.96	191.07	191.47	191.00	
30	191.05	191.01	191.28	191.32	191.45	191.46	191.24	191.05	190.96	191.11		191.00	
31		191.05		191.31	191.38		191.23		190.96	191.14		191.00	
Mean	191.05	191.03	191.16	191.30	191.47	191.46	191.40	191.11	191.01	190.99	191.28	191.16	
Max	191.22	191.21	191.42	191.64	192.03	192.12	191.68	191.21	191.06	191.14	191.52	191.52	192.12
Min	190.96	190.95	190.97	191.14	191.28	191.27	191.23	191.05	190.96	190.94	191.00	190.93	190.93

Annual Max Momentary Gage Height	193.16	m. (MSL.) ,	at 06.00 Hours , on Aug 2 , 2011		
Zero Gage at Bottom Elevation	190.68	m. (MSL.) ,	River Bed	190.65	m. (MSL)
Left Bank Elevation	196.61	m. (MSL.) ,			
Right Bank Elevation	196.69	m. (MSL.) ,	Drainage Area	71	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.50	0.74	0.82	3.02	13.20	3.82	4.62	2.42	0.98	0.30	1.30	6.87		
2	0.50	0.58	0.74	3.02	22.16	4.14	4.62	2.20	0.98	0.25	1.14	7.04		
3	0.58	0.50	0.74	2.78	8.23	4.78	5.10	2.10	0.90	0.20	1.06	6.38		
4	0.58	0.40	0.58	2.78	5.74	5.26	6.70	2.10	0.90	0.20	1.14	6.54		
5	1.30	0.35	0.45	2.42	4.30	4.14	5.26	1.90	0.90	0.20	1.06	6.38		
6	0.90	0.30	0.40	2.20	3.66	4.14	7.04	1.80	0.90	0.20	1.06	5.74		
7	0.74	0.25	0.40	2.10	3.66	3.66	8.40	1.80	0.90	0.20	1.22	4.30		
8	0.74	0.30	0.35	1.90	4.30	3.66	7.72	2.00	0.90	0.20	1.14	2.42		
9	1.22	1.40	0.35	1.90	6.87	3.50	6.38	2.00	0.90	0.25	1.14	2.66		
10	0.98	2.00	0.45	1.90	13.20	4.30	6.06	1.60	0.98	0.25	1.06	1.80		
11	0.98	1.14	0.66	1.70	8.06	5.74	7.38	1.50	0.82	0.25	1.30	1.06		
12	0.90	0.45	2.42	2.00	6.87	25.18	6.22	1.50	0.74	0.30	0.50	0.40		
13	0.90	0.50	2.90	2.20	5.74	10.96	5.10	1.60	0.74	0.35	0.82	0.20		
14	0.98	0.45	2.42	4.62	6.70	7.55	5.26	1.60	0.66	0.30	6.22	0.15		
15	1.06	0.45	1.70	4.94	6.06	6.54	5.26	1.60	0.66	0.30	6.38	0.30		
16	0.82	0.40	1.30	4.46	7.72	5.42	6.70	1.40	0.66	0.35	6.38	0.58		
17	0.50	0.74	1.40	3.66	7.55	4.62	10.96	1.30	0.58	0.30	6.06	1.60		
18	0.30	2.42	1.50	3.26	6.54	3.66	5.74	1.22	0.58	0.30	4.62	1.70		
19	0.30	1.30	1.90	3.02	5.74	3.14	4.46	1.06	0.50	0.30	4.14	1.70		
20	1.06	1.14	2.30	3.26	5.58	3.26	5.90	1.06	0.50	0.30	4.78	1.70		
21	0.66	0.74	4.78	9.68	5.26	5.90	5.74	0.98	0.50	0.50	6.38	1.50		
22	0.82	0.58	1.90	7.89	4.46	5.42	4.30	0.98	0.40	0.82	5.74	1.40		
23	0.66	0.45	2.54	5.74	4.14	13.52	3.82	0.98	0.30	0.82	6.87	1.22		
24	0.90	0.50	2.78	5.42	3.66	14.80	3.66	1.06	0.35	0.98	7.04	1.30		
25	1.80	0.82	2.66	4.46	3.38	10.32	3.02	1.06	0.35	0.98	6.54	1.70		
26	2.54	0.82	5.42	4.94	3.26	7.21	2.90	1.06	0.30	1.14	6.54	0.58		
27	1.70	0.66	5.42	4.78	4.14	6.70	2.78	1.06	0.30	0.98	6.22	0.50		
28	0.98	0.66	5.42	3.98	6.22	6.87	3.02	0.98	0.30	1.14	6.22	0.50		
29	0.90	0.50	5.10	3.82	8.72	6.38	2.90	0.98	0.30	1.06	6.22	0.50		
30	0.90	0.58	3.26	3.82	5.90	6.06	2.78	0.90	0.30	1.40		0.50		
31		0.90		3.66	4.78		2.66		0.30	1.70		0.50		
Total	27.70	23.02	63.06	115.33	205.80	200.65	162.46	43.80	19.38	16.82	110.29	69.72	1058.03	CMSDAY
Mean	0.92	0.74	2.10	3.72	6.64	6.69	5.24	1.46	0.63	0.54	3.80	2.25	2.89	CMS
Max	2.54	2.42	5.42	9.68	22.16	25.18	10.96	2.42	0.98	1.70	7.04	7.04	25.18	CMS
Min	0.30	0.25	0.35	1.70	3.26	3.14	2.66	0.90	0.30	0.20	0.50	0.15	0.15	CMS
Runoff	2.39	1.99	5.45	9.97	17.78	17.34	14.04	3.78	1.67	1.45	9.53	6.02	91.41	MCM

Momentary Peak 82.50 CMS. at 193.16 m. (MSL.) at 06.00 Hours, on Aug 2 , 2011

Runoff Yield 40.72 Liters/Second/Square KM. Momentary Peak Yield 1161.972 Liters/Second/Square KM.

WATER YEAR : 2011

TONLE SAP BASIN

Khlong Ta Kong at Ban Khlong Ta Kong , Chanthaburi (Tl.4)

Lat 12 - 55 - 02 N Long 102 - 19 - 30 E

Location : on left bank downstream from the bridge of Amphoe Pong Nam Ron - Ban Pong Nam Ron.

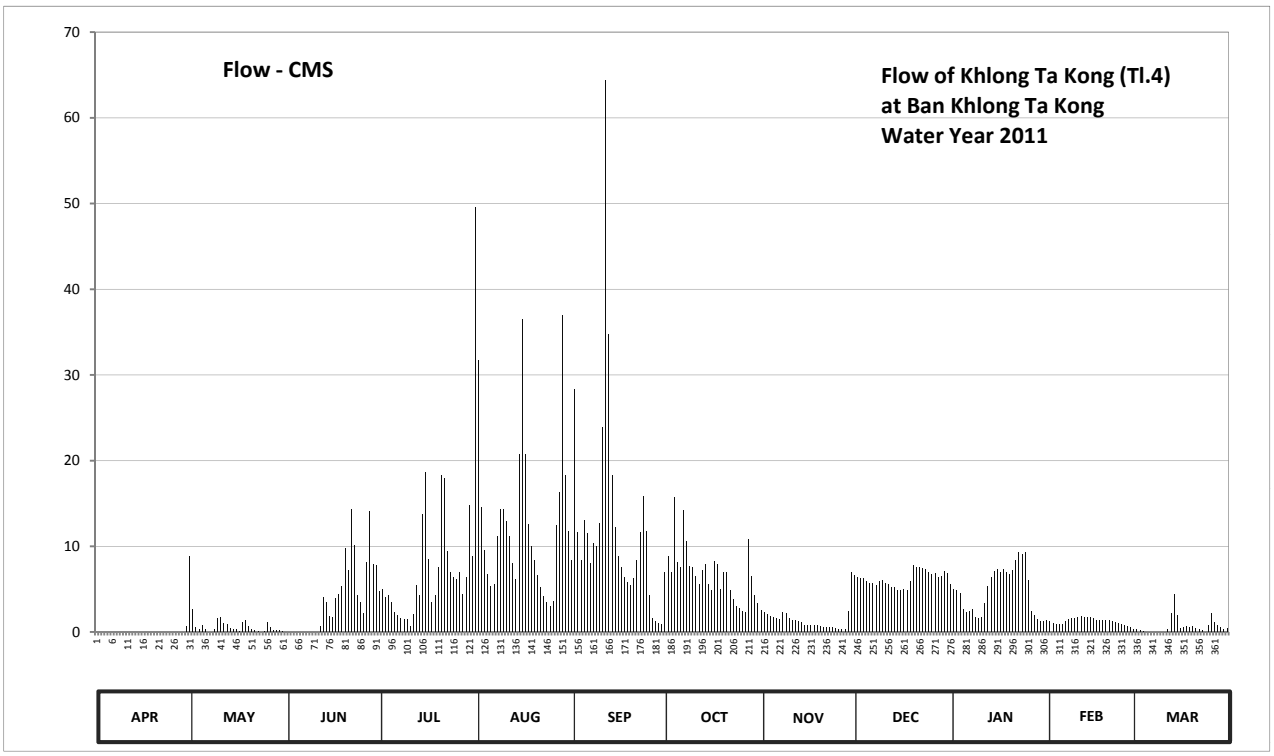
Ban Khlong Ta Kong **Amphoe** Pong Nam Ron **Changwat** Chanthaburi

Drainge Area	86 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+176.800 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank about 30 meters from the top staff gage. **Elevation** +186.762 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings
Period of Available Gage Records	1984 to date
Rating Operation	
Period of Rating	1986 to date
Rated by Flot	-
Rated by Current Meter	1986 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow
General Description	Records good. Flow effected by the local weir.
	Stage-discharge relation defined by 18 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	177.39	178.72	177.58	178.32	180.67	178.69	178.55	178.10	178.51	178.41	177.86	177.66	
2	177.39	178.11	177.58	178.35	180.01	179.84	178.72	178.05	178.49	178.35	177.85	177.65	
3	177.38	177.70	177.58	178.25	179.10	178.91	178.55	178.01	178.48	178.34	177.80	177.63	
4	177.41	177.67	177.58	178.28	178.77	178.68	179.18	177.97	178.48	178.30	177.77	177.61	
5	177.45	177.75	177.58	178.19	178.52	179.00	178.66	177.95	178.44	178.11	177.77	177.59	
6	177.46	177.67	177.58	178.05	178.38	178.90	178.61	177.92	178.42	178.05	177.77	177.58	
7	177.47	177.60	177.58	177.98	178.40	178.65	179.08	177.89	178.42	178.08	177.85	177.57	
8	177.48	177.59	177.56	177.92	178.88	178.82	178.84	178.05	178.39	178.11	177.90	177.56	
9	177.49	177.65	177.54	177.90	179.09	178.80	178.62	178.04	178.44	177.94	177.91	177.56	
10	177.50	177.91	177.54	177.90	179.09	178.98	178.60	177.92	178.45	177.92	177.92	177.57	
11	177.50	177.95	177.56	177.74	178.99	179.62	178.50	177.88	178.42	177.94	177.94	177.60	
12	177.49	177.80	177.74	178.01	178.88	181.14	178.41	177.86	178.41	178.18	177.96	177.65	
13	177.48	177.77	178.25	178.39	178.65	180.13	178.57	177.84	178.37	178.38	177.95	178.04	
14	177.49	177.68	178.20	178.28	178.47	179.34	178.64	177.82	178.37	178.49	177.95	178.29	
15	177.50	177.66	177.97	179.05	179.46	178.95	178.41	177.75	178.33	178.56	177.93	177.98	
16	177.51	177.66	177.95	179.36	180.20	178.72	178.34	177.76	178.34	178.58	177.91	177.69	
17	177.51	177.61	178.24	178.70	179.46	178.61	178.67	177.76	178.35	178.55	177.88	177.70	
18	177.51	177.83	178.29	178.20	178.97	178.49	178.64	177.76	178.33	178.58	177.87	177.73	
19	177.50	177.88	178.38	178.28	178.80	178.43	178.35	177.75	178.44	178.54	177.88	177.71	
20	177.49	177.74	178.78	178.60	178.69	178.39	178.55	177.73	178.63	178.52	177.87	177.72	
21	177.49	177.67	178.57	179.34	178.51	178.48	178.54	177.71	178.61	178.57	177.86	177.69	
22	177.50	177.63	179.09	179.32	178.37	178.69	178.34	177.71	178.60	178.68	177.85	177.65	
23	177.51	177.61	178.81	178.76	178.27	178.91	178.23	177.71	178.59	178.75	177.82	177.63	
24	177.51	177.60	178.28	178.54	178.20	179.19	178.15	177.70	178.58	178.74	177.80	177.59	
25	177.53	177.61	178.19	178.49	178.15	178.92	178.12	177.68	178.55	178.75	177.77	177.76	
26	177.56	177.83	178.03	178.47	178.21	178.28	178.09	177.67	178.52	178.45	177.75	178.04	
27	177.56	177.71	178.66	178.54	178.96	177.92	178.06	177.66	178.53	178.07	177.73	177.83	
28	177.57	177.64	179.07	178.29	179.22	177.84	178.85	177.66	178.49	177.98	177.71	177.75	
29	177.60	177.64	178.64	178.49	180.22	177.80	178.50	178.08	178.50	177.89	177.68	177.71	
30	177.74	177.63	178.63	179.12	179.34	177.78	178.28	178.54	178.56	177.85		177.66	
31		177.62		178.72	178.92		178.18		178.53	177.85		177.68	
Mean	177.50	177.75	178.10	178.45	178.96	178.83	178.51	177.86	178.47	178.31	177.85	177.71	
Max	177.74	178.72	179.09	179.36	180.67	181.14	179.18	178.54	178.63	178.75	177.96	178.29	181.14
Min	177.38	177.59	177.54	177.74	178.15	177.78	178.06	177.66	178.33	177.85	177.68	177.56	177.38

Annual Max Momentary Gage Height	182.50	m. (MSL.) ,	at 06.00 Hours , on Oct 15 , 2011		
Zero Gage at Bottom Elevation	176.80	m. (MSL.) ,	River Bed	176.47	m. (MSL)
Left Bank Elevation	186.11	m. (MSL.) ,			
Right Bank Elevation	185.77	m. (MSL.) ,	Drainage Area	86	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	8.80	0.00	4.70	49.60	8.40	7.00	2.50	6.60	5.60	1.30	0.30		
2	0.00	2.60	0.00	5.00	31.75	28.30	8.80	2.25	6.40	5.00	1.25	0.25		
3	0.00	0.50	0.00	4.00	14.50	11.65	7.00	2.05	6.30	4.90	1.00	0.15		
4	0.00	0.35	0.00	4.30	9.55	8.30	15.70	1.85	6.30	4.50	0.85	0.05		
5	0.00	0.75	0.00	3.40	6.70	13.00	8.10	1.75	5.90	2.60	0.85	0.00		
6	0.00	0.35	0.00	2.25	5.30	11.50	7.60	1.60	5.70	2.25	0.85	0.00		
7	0.00	0.00	0.00	1.90	5.50	8.00	14.20	1.45	5.70	2.40	1.25	0.00		
8	0.00	0.00	0.00	1.60	11.20	10.30	10.60	2.25	5.40	2.60	1.50	0.00		
9	0.00	0.25	0.00	1.50	14.35	10.00	7.70	2.20	5.90	1.70	1.55	0.00		
10	0.00	1.55	0.00	1.50	14.35	12.70	7.50	1.60	6.00	1.60	1.60	0.00		
11	0.00	1.75	0.00	0.70	12.85	23.90	6.50	1.40	5.70	1.70	1.70	0.00		
12	0.00	1.00	0.70	2.05	11.20	64.40	5.60	1.30	5.60	3.30	1.80	0.25		
13	0.00	0.85	4.00	5.40	8.00	34.75	7.20	1.20	5.20	5.30	1.75	2.20		
14	0.00	0.40	3.50	4.30	6.20	18.30	7.90	1.10	5.20	6.40	1.75	4.40		
15	0.00	0.30	1.85	13.75	20.70	12.25	5.60	0.75	4.80	7.10	1.65	1.90		
16	0.00	0.30	1.75	18.70	36.50	8.80	4.90	0.80	4.90	7.30	1.55	0.45		
17	0.00	0.05	3.90	8.50	20.70	7.60	8.20	0.80	5.00	7.00	1.40	0.50		
18	0.00	1.15	4.40	3.50	12.55	6.40	7.90	0.80	4.80	7.30	1.35	0.65		
19	0.00	1.40	5.30	4.30	10.00	5.80	5.00	0.75	5.90	6.90	1.40	0.55		
20	0.00	0.70	9.70	7.50	8.40	5.40	7.00	0.65	7.80	6.70	1.35	0.60		
21	0.00	0.35	7.20	18.30	6.60	6.30	6.90	0.55	7.60	7.20	1.30	0.45		
22	0.00	0.15	14.35	17.90	5.20	8.40	4.90	0.55	7.50	8.30	1.25	0.25		
23	0.00	0.05	10.15	9.40	4.20	11.65	3.80	0.55	7.40	9.25	1.10	0.15		
24	0.00	0.00	4.30	6.90	3.50	15.85	3.00	0.50	7.30	9.10	1.00	0.00		
25	0.00	0.05	3.40	6.40	3.00	11.80	2.70	0.40	7.00	9.25	0.85	0.80		
26	0.00	1.15	2.15	6.20	3.60	4.30	2.45	0.35	6.70	6.00	0.75	2.20		
27	0.00	0.55	8.10	6.90	12.40	1.60	2.30	0.30	6.80	2.35	0.65	1.15		
28	0.00	0.20	14.05	4.40	16.30	1.20	10.75	0.30	6.40	1.90	0.55	0.75		
29	0.00	0.20	7.90	6.40	37.00	1.00	6.50	2.40	6.50	1.45	0.40	0.55		
30	0.70	0.15	7.80	14.80	18.30	0.90	4.30	6.90	7.10	1.25		0.30		
31		0.10		8.80	11.80		3.30		6.80	1.25		0.40		
Total	0.70	26.00	114.50	205.25	431.80	372.75	210.90	41.85	192.20	149.45	35.55	19.25	1800.20	CMSDAY
Mean	0.02	0.84	3.82	6.62	13.93	12.42	6.80	1.39	6.20	4.82	1.23	0.62	4.92	CMS
Max	0.70	8.80	14.35	18.70	49.60	64.40	15.70	6.90	7.80	9.25	1.80	4.40	64.40	CMS
Min	0.00	0.00	0.00	0.70	3.00	0.90	2.30	0.30	4.80	1.25	0.40	0.00	0.00	CMS
Runoff	0.06	2.25	9.89	17.73	37.31	32.21	18.22	3.62	16.61	12.91	3.07	1.66	155.54	MCM

Momentary Peak 120.00 CMS. at 182.50 m. (MSL.) at 24.00 Hours , on Aug 15 , 2011

Runoff Yield 57.19 Liters/Second/Square KM. Momentary Peak Yield 1395.349 Liters/Second/Square KM.

WATER YEAR : 2011

TONLE SAP BASIN

Khlong Thung Krang at Ban Thung Krang , Chanthaburi (Tl.6)

Lat 13 - 01 - 36 N Long 102 - 16 - 21 E

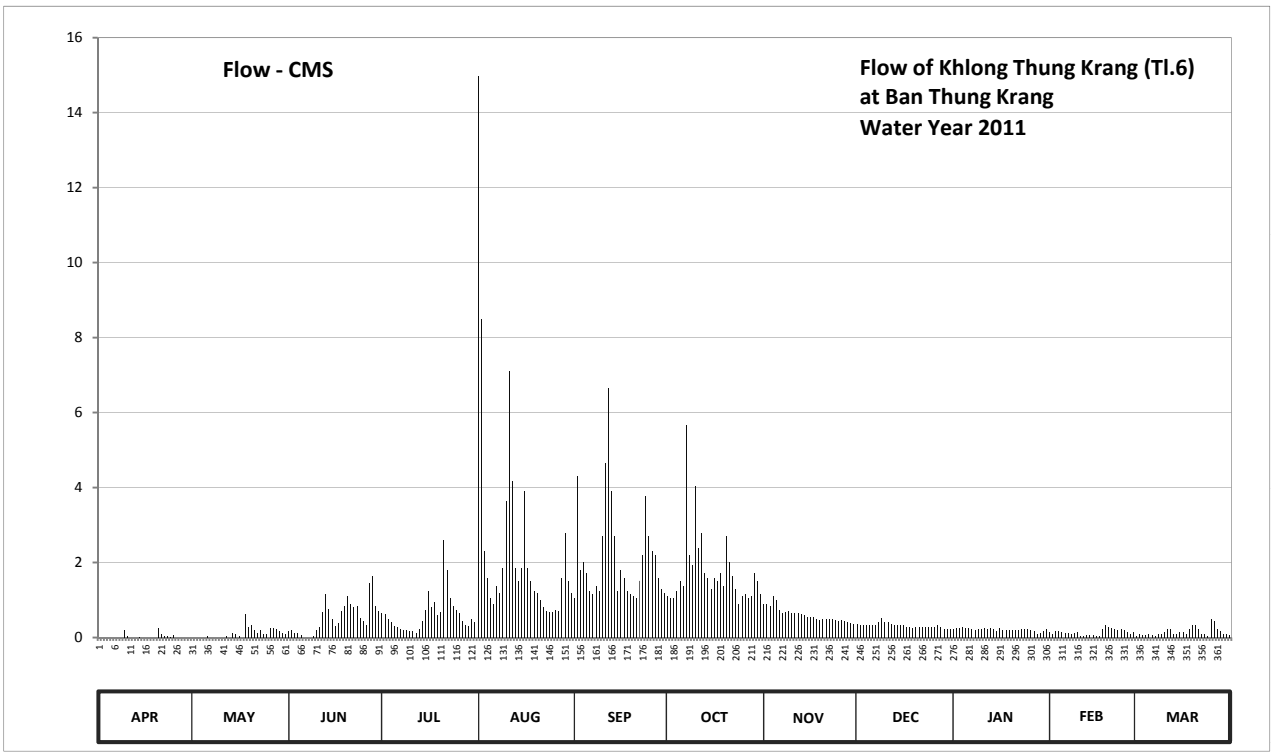
Location : on right bank at the bridge of Chanthaburi - Sa Kaeo Highway.

	Ban Thung Krang	**Amphoe** Pong Nam Ron	**Changwat** Chanthaburi
Drainge Area	42 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+183.100 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank about 20 meters from the top staff gage.	**Elevation**	+187.655 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	1987 to date		
Rating Operation			
Period of Rating	1987 to date		
Rated by Flot	-		
Rated by Current Meter	1987 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow		
General Description	Records good. Stage-discharge relation defined by 18 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	183.39	183.43	183.67	183.95	184.79	184.05	184.06	184.02	183.83	183.74	183.64	183.55	
2	183.39	183.38	183.70	183.94	184.61	184.40	184.05	184.02	183.81	183.75	183.59	183.59	
3	183.38	183.37	183.61	183.89	184.23	184.17	184.05	184.01	183.82	183.75	183.66	183.56	
4	183.38	183.37	183.61	183.85	184.14	184.20	184.09	184.06	183.82	183.79	183.68	183.56	
5	183.47	183.37	183.57	183.80	184.05	184.16	184.13	184.04	183.81	183.76	183.65	183.59	
6	183.46	183.54	183.49	183.77	184.02	184.09	184.11	183.98	183.82	183.75	183.62	183.57	
7	183.38	183.49	183.42	183.72	184.11	184.07	184.48	183.95	183.81	183.74	183.63	183.55	
8	183.41	183.47	183.44	183.69	184.08	184.11	184.22	183.96	183.85	183.69	183.60	183.58	
9	183.71	183.44	183.54	183.71	184.18	184.09	184.19	183.97	183.91	183.74	183.62	183.59	
10	183.53	183.42	183.69	183.67	184.35	184.27	184.38	183.95	183.86	183.74	183.64	183.65	
11	183.46	183.40	183.78	183.66	184.55	184.42	184.24	183.95	183.85	183.75	183.54	183.74	
12	183.43	183.55	183.96	183.61	184.39	184.53	184.28	183.95	183.83	183.73	183.55	183.72	
13	183.35	183.46	184.07	183.74	184.18	184.37	184.16	183.94	183.82	183.75	183.57	183.59	
14	183.52	183.62	183.99	183.87	184.13	184.27	184.14	183.93	183.82	183.73	183.56	183.60	
15	183.32	183.59	183.90	183.98	184.18	184.09	184.10	183.92	183.82	183.68	183.57	183.64	
16	183.37	183.54	183.80	184.09	184.37	184.17	184.14	183.92	183.81	183.75	183.54	183.65	
17	183.39	183.47	183.84	184.00	184.18	184.14	184.13	183.92	183.79	183.70	183.54	183.59	
18	183.42	183.94	183.97	184.03	184.13	184.09	184.16	183.90	183.78	183.70	183.72	183.73	
19	183.39	183.78	184.01	183.93	184.09	184.07	184.11	183.88	183.76	183.70	183.81	183.81	
20	183.76	183.81	184.06	183.96	184.08	184.06	184.27	183.90	183.79	183.71	183.77	183.82	
21	183.59	183.69	184.02	184.26	184.04	184.05	184.20	183.90	183.78	183.70	183.75	183.72	
22	183.55	183.61	184.00	184.17	184.00	184.13	184.15	183.90	183.79	183.71	183.73	183.60	
23	183.54	183.71	184.01	184.05	183.97	184.22	184.10	183.89	183.78	183.72	183.69	183.59	
24	183.51	183.60	183.91	184.01	183.96	184.36	184.02	183.88	183.79	183.72	183.73	183.54	
25	183.56	183.58	183.87	183.98	183.96	184.27	184.06	183.87	183.78	183.72	183.71	183.90	
26	183.49	183.75	183.82	183.95	183.98	184.23	184.07	183.88	183.78	183.71	183.64	183.87	
27	183.50	183.76	184.12	183.87	183.97	184.22	184.05	183.87	183.81	183.68	183.59	183.74	
28	183.50	183.72	184.15	183.81	184.14	184.14	184.06	183.85	183.78	183.59	183.64	183.68	
29	183.48	183.68	184.01	183.80	184.28	184.10	184.16	183.84	183.74	183.62	183.65	183.60	
30	183.44	183.63	183.97	183.89	184.13	184.08	184.13	183.83	183.73	183.67		183.59	
31		183.58		183.86	184.08		184.07		183.73	183.74		183.57	
Mean	183.47	183.57	183.83	183.89	184.17	184.19	184.15	183.93	183.80	183.72	183.64	183.65	
Max	183.76	183.94	184.15	184.26	184.79	184.53	184.48	184.06	183.91	183.79	183.81	183.90	184.79
Min	183.32	183.37	183.42	183.61	183.96	184.05	184.02	183.83	183.73	183.59	183.54	183.54	183.32

Annual Max Momentary Gage Height	185.15	m. (MSL.) ,	at 18.00 Hours , on Aug 11 , 2011		
Zero Gage at Bottom Elevation	183.10	m. (MSL.) ,	River Bed	182.68	m. (MSL)
Left Bank Elevation	187.43	m. (MSL.) ,			
Right Bank Elevation	187.41	m. (MSL.) ,	Drainage Area	42	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	0.17	0.65	14.98	1.05	1.10	0.90	0.36	0.24	0.14	0.05		
2	0.00	0.00	0.20	0.62	8.50	4.30	1.05	0.90	0.32	0.25	0.09	0.09		
3	0.00	0.00	0.11	0.48	2.30	1.79	1.05	0.85	0.34	0.25	0.16	0.06		
4	0.00	0.00	0.11	0.40	1.58	2.00	1.25	1.10	0.34	0.29	0.18	0.06		
5	0.00	0.00	0.07	0.30	1.05	1.72	1.51	1.00	0.32	0.26	0.15	0.09		
6	0.00	0.04	0.00	0.27	0.90	1.25	1.37	0.74	0.34	0.25	0.12	0.07		
7	0.00	0.00	0.00	0.22	1.37	1.15	5.66	0.65	0.32	0.24	0.13	0.05		
8	0.00	0.00	0.00	0.19	1.20	1.37	2.20	0.68	0.40	0.19	0.10	0.08		
9	0.21	0.00	0.04	0.21	1.86	1.25	1.93	0.71	0.53	0.24	0.12	0.09		
10	0.03	0.00	0.19	0.17	3.65	2.70	4.04	0.65	0.42	0.24	0.14	0.15		
11	0.00	0.00	0.28	0.16	7.10	4.64	2.40	0.65	0.40	0.25	0.04	0.24		
12	0.00	0.05	0.68	0.11	4.17	6.66	2.80	0.65	0.36	0.23	0.05	0.22		
13	0.00	0.00	1.15	0.24	1.86	3.91	1.72	0.62	0.34	0.25	0.07	0.09		
14	0.02	0.12	0.77	0.44	1.51	2.70	1.58	0.59	0.34	0.23	0.06	0.10		
15	0.00	0.09	0.50	0.74	1.86	1.25	1.30	0.56	0.34	0.18	0.07	0.14		
16	0.00	0.04	0.30	1.25	3.91	1.79	1.58	0.56	0.32	0.25	0.04	0.15		
17	0.00	0.00	0.38	0.80	1.86	1.58	1.51	0.56	0.29	0.20	0.04	0.09		
18	0.00	0.62	0.71	0.95	1.51	1.25	1.72	0.50	0.28	0.20	0.22	0.23		
19	0.00	0.28	0.85	0.59	1.25	1.15	1.37	0.46	0.26	0.20	0.32	0.32		
20	0.26	0.32	1.10	0.68	1.20	1.10	2.70	0.50	0.29	0.21	0.27	0.34		
21	0.09	0.19	0.90	2.60	1.00	1.05	2.00	0.50	0.28	0.20	0.25	0.22		
22	0.05	0.11	0.80	1.79	0.80	1.51	1.65	0.50	0.29	0.21	0.23	0.10		
23	0.04	0.21	0.85	1.05	0.71	2.20	1.30	0.48	0.28	0.22	0.19	0.09		
24	0.01	0.10	0.53	0.85	0.68	3.78	0.90	0.46	0.29	0.22	0.23	0.04		
25	0.06	0.08	0.44	0.74	0.68	2.70	1.10	0.44	0.28	0.22	0.21	0.50		
26	0.00	0.25	0.34	0.65	0.74	2.30	1.15	0.46	0.28	0.21	0.14	0.44		
27	0.00	0.26	1.44	0.44	0.71	2.20	1.05	0.44	0.32	0.18	0.09	0.24		
28	0.00	0.22	1.65	0.32	1.58	1.58	1.10	0.40	0.28	0.09	0.14	0.18		
29	0.00	0.18	0.85	0.30	2.80	1.30	1.72	0.38	0.24	0.12	0.15	0.10		
30	0.00	0.13	0.71	0.48	1.51	1.20	1.51	0.36	0.23	0.17		0.09		
31		0.08		0.42	1.20		1.15		0.23	0.24		0.07		
Total	0.77	3.37	16.12	19.11	76.03	64.43	54.47	18.25	9.91	6.73	4.14	4.78	278.11	CMSDAY
Mean	0.03	0.11	0.54	0.62	2.45	2.15	1.76	0.61	0.32	0.22	0.14	0.15	0.76	CMS
Max	0.26	0.62	1.65	2.60	14.98	6.66	5.66	1.10	0.53	0.29	0.32	0.50	14.98	CMS
Min	0.00	0.00	0.00	0.11	0.68	1.05	0.90	0.36	0.23	0.09	0.04	0.04	0.00	CMS
Runoff	0.07	0.29	1.39	1.65	6.57	5.57	4.71	1.58	0.86	0.58	0.36	0.41	24.03	MCM

Momentary Peak 39.80 CMS. at 185.15 m. (MSL.) at 18.00 Hours , on Aug 11 , 2011

Runoff Yield 18.09 Liters/Second/Square KM. Momentary Peak Yield 947.619 Liters/Second/Square KM.

WATER YEAR : 2011

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

	Ban Si Bua Thong	**Amphoe** Khao Saming	**Changwat** Trat
Drainge Area	779 sq.km.		
Type of Gage	Water - stage recorder.		
Zero Gage at Bottom	+1.900 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	Near automatic gage building.		**Elevation** +13.181 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	1970 to date		
Rating Operation			
Period of Rating	1973 - 1978 , 1999 to date		
Rated by Flot	-		
Rated by Current Meter	1973 - 1978 , 1999 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow		
General Description	Records good. Stage-discharge relation defined by 63 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

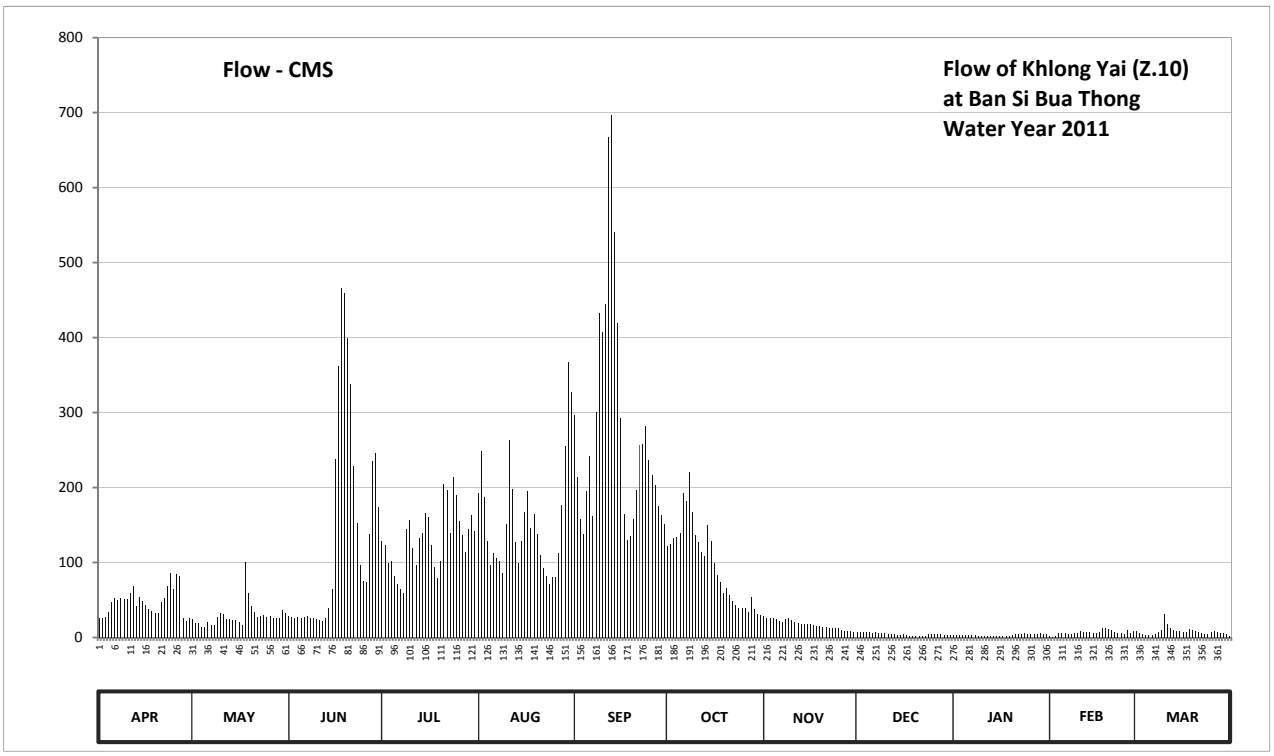
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	4.45	4.40	4.53	7.44	8.97	10.98	7.27	4.55	3.70	3.53	3.41	3.76	
2	4.43	4.18	4.49	7.32	10.19	9.44	7.35	4.45	3.69	3.52	3.38	3.63	
3	4.49	4.16	4.43	6.72	8.83	8.18	7.55	4.42	3.68	3.50	3.43	3.57	
4	4.74	3.97	4.52	6.77	7.47	7.70	7.60	4.41	3.68	3.51	3.62	3.54	
5	5.22	3.97	4.46	6.25	6.65	9.03	7.71	4.37	3.68	3.50	3.66	3.53	
6	5.42	4.21	4.47	5.94	7.06	10.06	8.95	4.28	3.65	3.49	3.62	3.51	
7	5.32	4.08	4.54	5.74	6.89	8.28	8.73	4.22	3.71	3.48	3.56	3.58	
8	5.42	4.06	4.45	5.59	6.78	11.06	9.56	4.37	3.64	3.48	3.57	3.70	
9	5.36	4.48	4.43	7.86	6.35	13.08	8.39	4.43	3.63	3.47	3.63	3.82	
10	5.37	4.72	4.38	8.15	8.02	12.76	7.64	4.32	3.62	3.46	3.65	4.63	
11	5.61	4.64	4.34	7.23	10.42	13.23	7.43	4.23	3.59	3.46	3.72	4.10	
12	5.87	4.37	4.28	6.66	9.07	14.91	7.08	4.18	3.58	3.46	3.70	3.91	
13	5.04	4.38	4.46	7.54	7.43	15.04	6.97	4.12	3.57	3.45	3.69	3.81	
14	5.44	4.35	4.95	7.71	6.73	14.15	7.97	4.11	3.53	3.44	3.67	3.74	
15	5.29	4.34	5.75	8.38	7.45	12.91	7.47	4.11	3.49	3.43	3.64	3.72	
16	5.09	4.20	9.96	8.26	8.40	10.91	6.71	4.11	3.55	3.42	3.62	3.71	
17	4.90	4.08	12.08	7.33	9.02	8.33	6.30	4.04	3.48	3.40	3.67	3.70	
18	4.81	6.74	13.47	6.59	7.89	7.50	6.01	3.99	3.46	3.43	3.92	3.88	
19	4.71	5.61	13.40	6.19	8.33	7.61	5.61	3.99	3.41	3.47	3.93	3.82	
20	4.71	5.04	12.64	6.77	7.70	8.20	5.79	3.98	3.40	3.51	3.84	3.74	
21	5.22	4.75	11.67	9.23	6.99	9.06	5.52	3.97	3.43	3.59	3.77	3.68	
22	5.41	4.52	9.74	9.06	6.56	10.32	5.25	3.92	3.41	3.57	3.69	3.62	
23	5.88	4.53	8.04	7.73	6.26	10.34	5.09	3.91	3.46	3.55	3.65	3.57	
24	6.39	4.61	6.67	9.43	5.97	10.74	4.97	3.90	3.55	3.64	3.65	3.59	
25	5.75	4.47	6.08	8.90	6.21	9.92	4.94	3.89	3.55	3.60	3.57	3.71	
26	6.33	4.57	6.03	8.11	6.20	9.50	4.94	3.79	3.55	3.57	3.81	3.72	
27	6.24	4.44	7.67	7.66	7.04	9.20	4.78	3.74	3.55	3.55	3.66	3.67	
28	4.45	4.43	9.90	7.10	8.61	8.58	5.44	3.73	3.55	3.58	3.73	3.63	
29	4.30	4.44	10.12	7.86	10.29	8.31	4.92	3.72	3.50	3.61	3.63	3.63	
30	4.46	4.87	8.54	8.30	12.17	8.02	4.63	3.71	3.49	3.55		3.60	
31		4.70		7.79	11.49		4.59		3.49	3.55		3.44	
Mean	5.20	4.53	7.15	7.47	7.98	10.24	6.55	4.10	3.56	3.51	3.66	3.72	
Max	6.39	6.74	13.47	9.43	12.17	15.04	9.56	4.55	3.71	3.64	3.93	4.63	15.04
Min	4.30	3.97	4.28	5.59	5.97	7.50	4.59	3.71	3.40	3.40	3.38	3.44	3.38

Annual Max Momentary Gage Height 15.31 m. (MSL.) , at 01.00 Hours, on Sep 13, 2011

Zero Gage at Bottom Elevation 1.90 m. (MSL.) , River Bed 2.10 m. (MSL)

Left Bank Elevation 15.93 m. (MSL.) ,

Right Bank Elevation 15.93 m. (MSL.) , Drainage Area 779 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	26.25	25.00	28.25	128.10	193.15	296.30	121.30	28.75	7.50	3.60	1.65	9.00		
2	25.75	19.50	27.25	123.30	249.00	214.30	124.50	26.25	7.25	3.40	1.20	5.75		
3	27.25	19.00	25.75	99.30	186.85	157.70	132.50	25.50	7.00	3.00	1.95	4.40		
4	33.50	14.25	28.00	101.30	129.30	138.50	134.50	25.25	7.00	3.20	5.50	3.80		
5	47.10	14.25	26.50	81.75	96.50	195.85	138.90	24.25	7.00	3.00	6.50	3.60		
6	53.10	20.25	26.75	70.90	112.90	242.50	192.25	22.00	6.25	2.85	5.50	3.20		
7	50.10	17.00	28.50	63.90	106.10	162.10	182.35	20.50	7.75	2.70	4.20	4.60		
8	53.10	16.50	26.25	58.65	101.70	301.10	219.70	24.25	6.00	2.70	4.40	7.50		
9	51.30	27.00	25.75	144.90	85.25	432.40	167.05	25.75	5.75	2.55	5.75	10.50		
10	51.60	33.00	24.50	156.50	151.30	407.20	136.10	23.00	5.50	2.40	6.25	30.75		
11	59.35	31.00	23.50	119.70	262.70	444.40	127.70	20.75	4.80	2.40	8.00	17.50		
12	68.45	24.25	22.00	96.90	197.65	667.00	113.70	19.50	4.60	2.40	7.50	12.75		
13	41.70	24.50	26.50	132.10	127.70	697.00	109.30	18.00	4.40	2.25	7.25	10.25		
14	53.70	23.75	39.00	138.90	99.70	541.00	149.30	17.75	3.60	2.10	6.75	8.50		
15	49.20	23.50	64.25	166.60	128.50	418.80	129.30	17.75	2.85	1.95	6.00	8.00		
16	43.20	20.00	237.70	161.20	167.50	292.10	98.90	17.75	4.00	1.80	5.50	7.75		
17	37.50	17.00	362.30	123.70	195.40	164.35	83.50	16.00	2.70	1.50	6.75	7.50		
18	35.25	100.10	465.30	94.10	146.10	130.50	73.35	14.75	2.40	1.95	13.00	12.00		
19	32.75	59.35	459.00	79.65	164.35	134.90	59.35	14.75	1.65	2.55	13.25	10.50		
20	32.75	41.70	398.80	101.30	138.50	158.50	65.65	14.50	1.50	3.20	11.00	8.50		
21	47.10	33.75	337.70	204.85	110.10	197.20	56.20	14.25	1.95	4.80	9.25	7.00		
22	52.80	28.00	227.80	197.20	92.90	256.70	48.00	13.00	1.65	4.40	7.25	5.50		
23	68.80	28.25	152.10	139.70	82.10	257.90	43.20	12.75	2.40	4.00	6.25	4.40		
24	86.65	30.25	97.30	213.85	71.95	281.90	39.60	12.50	4.00	6.00	6.25	4.80		
25	64.25	26.75	75.80	190.00	80.35	235.90	38.70	12.25	4.00	5.00	4.40	7.75		
26	84.55	29.25	74.05	154.90	80.00	217.00	38.70	9.75	4.00	4.40	10.25	8.00		
27	81.40	26.00	137.30	136.90	112.10	203.50	34.50	8.50	4.00	4.00	6.50	6.75		
28	26.25	25.75	235.00	114.50	176.95	175.60	53.70	8.25	4.00	4.60	8.25	5.75		
29	22.50	26.00	245.50	144.90	254.90	163.45	38.10	8.00	3.00	5.25	5.75	5.75		
30	26.50	36.75	173.80	163.00	367.70	151.30	30.75	7.75	2.85	4.00		5.00		
31		32.50		142.10	326.90		29.75		2.85	4.00		2.10		
Total	1433.70	894.15	4122.20	4044.65	4796.10	8336.95	3010.40	524.00	134.20	101.95	192.05	249.15	27839.50	CMSDAY
Mean	47.79	28.84	137.41	130.47	154.71	277.90	97.11	17.47	4.33	3.29	6.62	8.04	76.06	CMS
Max	86.65	100.10	465.30	213.85	367.70	697.00	219.70	28.75	7.75	6.00	13.25	30.75	697.00	CMS
Min	22.50	14.25	22.00	58.65	71.95	130.50	29.75	7.75	1.50	1.50	1.20	2.10	1.20	CMS
Runoff	123.87	77.26	356.16	349.46	414.38	720.31	260.10	45.27	11.60	8.81	16.59	21.53	2405.33	MCM

Momentary Peak 789.00 CMS, at 15.31 m. (MSL), at 01.00 Hours, on Sep 13, 2011

Runoff Yield 97.64 Liters/Second/Square KM. Momentary Peak Yield 112.837 Liters/Second/Square KM.

WATER YEAR : 2011

EAST COAST - GULF BASIN

Khlong Prasae at Ban Chak Khrok , Rayong (Z.11)

Lat 12 - 51 - 20 N Long 101 - 37 - 09 E

Location : on left bank near the Meteorological Station.

	Ban Chak Khrok	**Amphoe** Klaeng	**Changwat** Rayong
Drainge Area	1,236 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+2.630 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the Meteorological Station.	**Elevation**	+13.420 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	1965 - 1974 , 1989 to date		
Rating Operation			
Period of Rating	1989 to date		
Rated by Flot	-		
Rated by Current Meter	1989 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow		
General Description	Records fair. Flow effectedn by the concrete weir about 7 kilometers downstream and 5 kilometers above gage site. Stage-discharge relation defined by 36 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

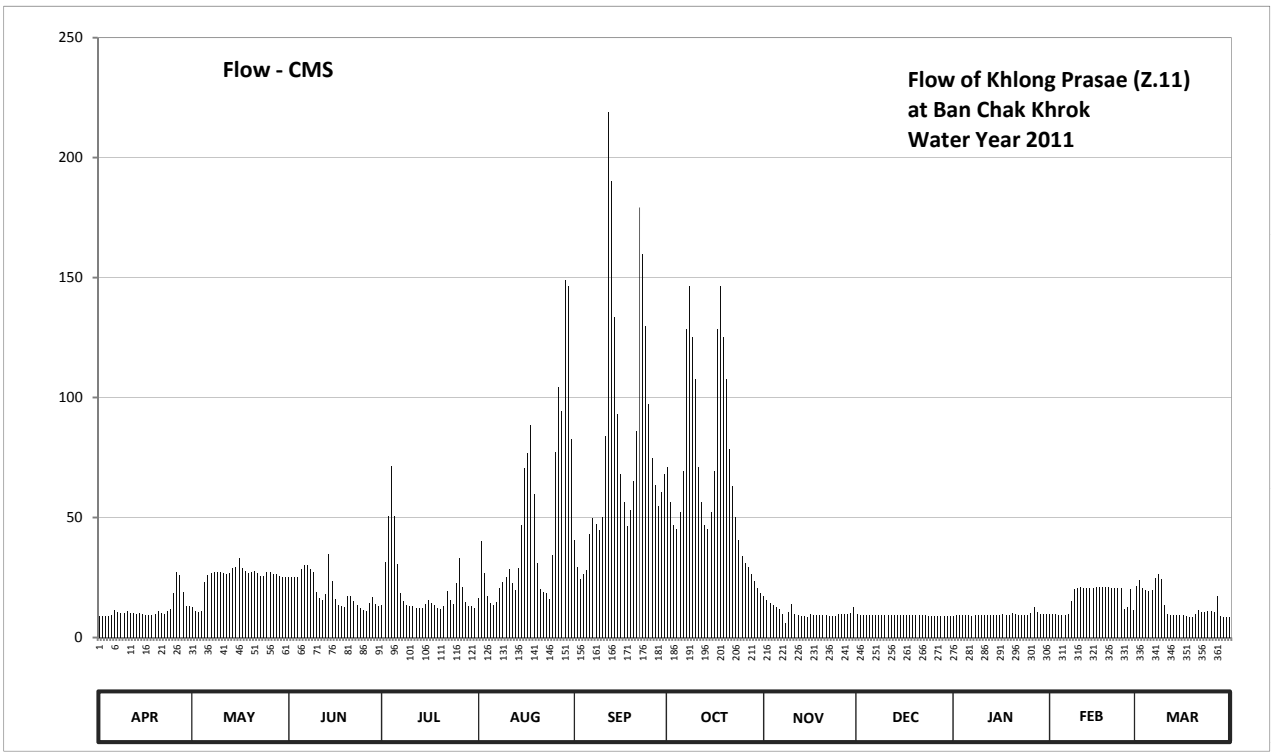
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	4.67	4.91	5.59	4.96	5.14	6.31	7.27	5.19	4.71	4.67	4.71	5.39	
2	4.67	4.81	5.58	5.90	6.29	5.79	6.87	5.10	4.70	4.68	4.71	5.52	
3	4.67	4.77	5.59	6.68	5.67	5.54	6.55	5.03	4.70	4.68	4.71	5.36	
4	4.67	4.81	5.59	7.28	5.19	5.65	6.49	4.96	4.70	4.68	4.70	5.31	
5	4.70	5.47	5.74	6.68	5.03	5.73	6.74	4.90	4.70	4.68	4.70	5.30	
6	4.83	5.62	5.84	5.85	4.96	6.41	7.23	4.85	4.70	4.68	4.70	5.31	
7	4.78	5.67	5.83	5.24	5.06	6.66	8.35	4.72	4.69	4.67	4.71	5.57	
8	4.76	5.68	5.75	5.07	5.36	6.58	8.60	4.48	4.69	4.68	5.08	5.64	
9	4.75	5.68	5.69	4.98	5.47	6.47	8.30	4.78	4.70	4.68	5.33	5.55	
10	4.79	5.68	5.28	4.94	5.59	6.67	8.02	5.00	4.69	4.68	5.35	4.96	
11	4.75	5.67	5.14	4.93	5.75	7.58	7.27	4.73	4.68	4.68	5.37	4.71	
12	4.74	5.65	5.11	4.89	5.46	9.13	6.87	4.69	4.68	4.68	5.36	4.70	
13	4.73	5.67	5.23	4.89	5.31	8.96	6.55	4.66	4.68	4.68	5.35	4.69	
14	4.74	5.78	6.07	4.88	5.78	8.42	6.49	4.67	4.68	4.68	5.35	4.69	
15	4.72	5.80	5.50	5.01	6.55	7.76	6.74	4.65	4.68	4.68	5.36	4.69	
16	4.69	5.97	5.12	5.11	7.26	7.20	7.23	4.71	4.68	4.68	5.37	4.68	
17	4.70	5.78	4.97	5.02	7.42	6.86	8.35	4.70	4.68	4.71	5.37	4.67	
18	4.70	5.71	4.94	4.96	7.67	6.53	8.60	4.70	4.68	4.69	5.37	4.64	
19	4.73	5.66	4.92	4.89	6.97	6.76	8.30	4.70	4.68	4.70	5.38	4.65	
20	4.80	5.69	5.19	4.85	5.87	7.13	8.02	4.70	4.68	4.76	5.37	4.73	
21	4.74	5.71	5.19	4.95	5.33	7.62	7.46	4.68	4.68	4.71	5.36	4.84	
22	4.71	5.66	5.09	5.30	5.28	8.89	7.07	4.67	4.68	4.70	5.36	4.77	
23	4.79	5.61	4.98	5.10	5.25	8.74	6.67	4.66	4.68	4.70	5.35	4.77	
24	4.87	5.61	4.89	4.99	5.12	8.37	6.31	4.67	4.67	4.70	5.35	4.80	
25	5.24	5.68	4.84	5.45	6.04	7.84	6.03	4.72	4.67	4.70	4.85	4.79	
26	5.68	5.69	4.81	5.98	7.43	7.37	5.88	4.73	4.67	4.76	4.92	4.77	
27	5.62	5.65	5.03	5.38	7.96	7.08	5.80	4.72	4.67	4.91	5.33	5.19	
28	5.28	5.65	5.17	5.05	7.79	6.81	5.64	4.72	4.67	4.77	4.83	4.66	
29	4.93	5.61	5.01	4.95	8.63	6.99	5.50	4.74	4.67	4.72	5.32	4.65	
30	4.93	5.59	4.95	4.93	8.60	7.20	5.35	4.91	4.67	4.72		4.64	
31		5.58		4.89	7.55		5.24		4.67	4.71		4.64	
Mean	4.85	5.57	5.29	5.29	6.22	7.17	6.96	4.77	4.68	4.70	5.14	4.94	
Max	5.68	5.97	6.07	7.28	8.63	9.13	8.60	5.19	4.71	4.91	5.38	5.64	9.13
Min	4.67	4.77	4.81	4.85	4.96	5.54	5.24	4.48	4.67	4.67	4.70	4.64	4.48

Annual Max Momentary Gage Height 9.24 m. (MSL.) , at 12.00 Hours, on Sep 12, 2011

Zero Gage at Bottom Elevation 2.63 m. (MSL.) , River Bed 3.65 m. (MSL)

Left Bank Elevation 10.80 m. (MSL.) ,

Right Bank Elevation 10.67 m. (MSL.) , Drainage Area 1236 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	9.05	12.65	25.30	13.40	16.30	40.75	70.80	17.30	9.65	9.05	9.65	21.30		
2	9.05	11.15	25.10	31.50	40.25	29.30	56.64	15.50	9.50	9.20	9.65	23.90		
3	9.05	10.55	25.30	50.56	26.90	24.30	46.75	14.45	9.50	9.20	9.65	20.70		
4	9.05	11.15	25.30	71.20	17.30	26.50	45.25	13.40	9.50	9.20	9.50	19.70		
5	9.50	22.90	28.30	50.56	14.45	28.10	52.48	12.50	9.50	9.20	9.50	19.50		
6	11.45	25.90	30.30	30.50	13.40	43.25	69.20	11.75	9.50	9.20	9.50	19.70		
7	10.70	26.90	30.10	18.30	14.90	49.92	128.50	9.80	9.35	9.05	9.65	24.90		
8	10.40	27.10	28.50	15.05	20.70	47.50	146.50	6.20	9.35	9.20	15.20	26.30		
9	10.25	27.10	27.30	13.70	22.90	44.75	125.00	10.70	9.50	9.20	20.10	24.50		
10	10.85	27.10	19.10	13.10	25.30	50.24	107.70	14.00	9.35	9.20	20.50	13.40		
11	10.25	26.90	16.30	12.95	28.50	84.00	70.80	9.95	9.20	9.20	20.90	9.65		
12	10.10	26.50	15.70	12.35	22.70	219.10	56.64	9.35	9.20	9.20	20.70	9.50		
13	9.95	26.90	18.10	12.35	19.70	190.10	46.75	8.90	9.20	9.20	20.50	9.35		
14	10.10	29.10	34.90	12.20	29.10	133.40	45.25	9.05	9.20	9.20	20.50	9.35		
15	9.80	29.50	23.50	14.15	46.75	93.00	52.48	8.75	9.20	9.20	20.70	9.35		
16	9.35	32.90	15.90	15.70	70.40	68.00	69.20	9.65	9.20	9.20	20.90	9.20		
17	9.50	29.10	13.55	14.30	76.80	56.32	128.50	9.50	9.20	9.65	20.90	9.05		
18	9.50	27.70	13.10	13.40	88.50	46.25	146.50	9.50	9.20	9.35	20.90	8.60		
19	9.95	26.70	12.80	12.35	59.84	53.12	125.00	9.50	9.20	9.50	21.10	8.75		
20	11.00	27.30	17.30	11.75	30.90	65.20	107.70	9.50	9.20	10.40	20.90	9.95		
21	10.10	27.70	17.30	13.25	20.10	86.00	78.40	9.20	9.20	9.65	20.70	11.60		
22	9.65	26.70	15.35	19.50	19.10	179.20	63.04	9.05	9.20	9.50	20.70	10.55		
23	10.85	25.70	13.70	15.50	18.50	159.70	50.24	8.90	9.20	9.50	20.50	10.55		
24	12.05	25.70	12.35	13.85	15.90	129.90	40.75	9.05	9.05	9.50	20.50	11.00		
25	18.30	27.10	11.60	22.50	34.30	97.30	34.10	9.80	9.05	9.50	11.75	10.85		
26	27.10	27.30	11.15	33.10	77.20	74.80	31.10	9.95	9.05	10.40	12.80	10.55		
27	25.90	26.50	14.45	21.10	104.20	63.36	29.50	9.80	9.05	12.65	20.10	17.30		
28	19.10	26.50	16.90	14.75	94.50	54.72	26.30	9.80	9.05	10.55	11.45	8.90		
29	12.95	25.70	14.15	13.25	148.90	60.48	23.50	10.10	9.05	9.80	19.90	8.75		
30	12.95	25.30	13.25	12.95	146.50	68.00	20.50	12.65	9.05	9.80		8.60		
31		25.10		12.35	82.50		18.30		9.05	9.65		8.60		
Total	357.80	774.40	585.95	631.47	1447.29	2366.56	2113.37	317.55	286.70	296.30	489.30	423.90	10090.59	CMSDAY
Mean	11.93	24.98	19.53	20.37	46.69	78.89	68.17	10.59	9.25	9.56	16.87	13.67	27.57	CMS
Max	27.10	32.90	34.90	71.20	148.90	219.10	146.50	17.30	9.65	12.65	21.10	26.30	219.10	CMS
Min	9.05	10.55	11.15	11.75	13.40	24.30	18.30	6.20	9.05	9.05	9.50	8.60	6.20	CMS
Runoff	30.91	66.91	50.63	54.56	125.05	24.47	182.60	27.44	24.77	25.60	42.28	36.63	871.83	MCM

Momentary Peak 243.30 CMS, at 9.24 m. (MSL), at 12.00 Hours, on Sep 12, 2011

Runoff Yield 22.31 Liters/Second/Square KM. Momentary Peak Yield 196.845 Liters/Second/Square KM.

WATER YEAR : 2011

EAST COAST - GULF BASIN

Chanthaburi River at Ban Puk , Chanthaburi (Z.13)

Lat 12 - 45 - 38 N Long 102 - 08 - 33 E

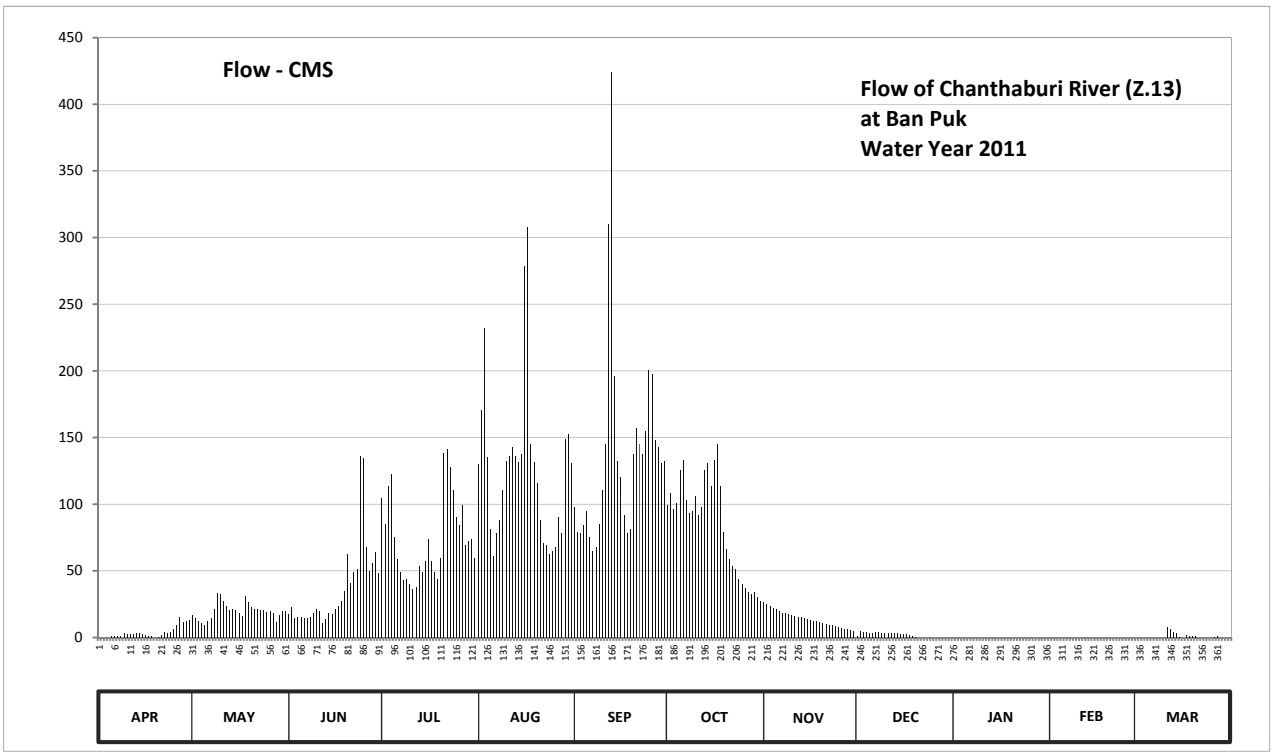
Location : on left bank at Ban Puk

	Ban Puk	**Amphoe** Makham	**Changwat** Chanthaburi
Drainge Area	647 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+6.300 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the gage site.		**Elevation** +14.374 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	1968 to date		
Rating Operation			
Period of Rating	1969 to date		
Rated by Flot	-		
Rated by Current Meter	1969 to date		
Stability of Channel Regimes	Fairly stable because of backwater effect.		
Overbank Flow Conditions	No overbank flow		
General Description	Records fair. Stage-discharge relation defined by 16 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	8.53	8.88	8.89	9.69	9.80	9.65	9.66	9.03	8.62	8.47	8.55	8.52	
2	8.53	8.84	8.98	9.57	10.94	9.53	9.71	9.01	8.68	8.55	8.55	8.43	
3	8.53	8.80	8.84	9.73	11.70	9.52	9.64	8.99	8.67	8.52	8.56	8.43	
4	8.59	8.78	8.85	9.77	10.05	9.56	9.67	8.97	8.67	8.52	8.56	8.43	
5	8.62	8.75	8.85	9.50	9.54	9.63	9.78	8.95	8.66	8.53	8.57	8.42	
6	8.62	8.80	8.84	9.38	9.40	9.50	9.97	8.93	8.66	8.52	8.57	8.42	
7	8.62	8.84	8.84	9.29	9.52	9.43	9.68	8.91	8.67	8.51	8.57	8.43	
8	8.62	8.96	8.85	9.23	9.59	9.45	9.62	8.90	8.67	8.50	8.55	8.53	
9	8.65	9.12	8.91	9.24	9.72	9.57	9.63	8.89	8.66	8.50	8.54	8.53	
10	8.64	9.11	8.95	9.20	9.91	9.72	9.70	8.88	8.65	8.52	8.52	8.55	
11	8.64	9.04	8.93	9.15	10.06	10.37	9.61	8.87	8.66	8.52	8.54	8.73	
12	8.64	8.99	8.78	9.17	10.30	12.26	9.65	8.86	8.65	8.52	8.46	8.71	
13	8.65	8.94	8.83	9.33	10.08	12.71	9.78	8.85	8.65	8.52	8.54	8.67	
14	8.66	8.95	8.91	9.29	9.87	11.31	9.83	8.84	8.65	8.51	8.52	8.65	
15	8.64	8.94	8.89	9.37	10.11	9.92	9.73	8.83	8.64	8.51	8.52	8.61	
16	8.63	8.91	8.95	9.49	12.07	9.76	9.97	8.82	8.64	8.51	8.53	8.60	
17	8.62	8.87	8.99	9.37	12.25	9.61	10.37	8.81	8.64	8.52	8.53	8.63	
18	8.62	9.09	9.04	9.29	10.38	9.52	9.73	8.80	8.63	8.52	8.55	8.62	
19	8.60	9.03	9.14	9.24	9.87	9.54	9.53	8.79	8.62	8.51	8.57	8.62	
20	8.61	8.98	9.41	9.39	9.74	10.12	9.44	8.78	8.61	8.55	8.58	8.62	
21	8.63	8.96	9.21	10.13	9.59	10.67	9.38	8.77	8.59	8.55	8.56	8.60	
22	8.67	8.95	9.29	10.25	9.47	10.37	9.33	8.76	8.59	8.55	8.56	8.58	
23	8.66	8.94	9.31	9.79	9.46	10.11	9.31	8.75	8.59	8.55	8.54	8.56	
24	8.67	8.94	10.06	9.72	9.41	10.62	9.24	8.74	8.59	8.55	8.54	8.56	
25	8.70	8.92	10.01	9.60	9.43	11.37	9.20	8.73	8.59	8.55	8.53	8.60	
26	8.75	8.93	9.45	9.56	9.45	11.33	9.16	8.72	8.58	8.55	8.53	8.61	
27	8.85	8.90	9.30	9.66	9.60	10.44	9.13	8.71	8.58	8.55	8.53	8.62	
28	8.79	8.79	9.35	9.46	9.52	10.30	9.11	8.70	8.58	8.55	8.52	8.60	
29	8.80	8.88	9.42	9.48	10.47	9.84	9.13	8.69	8.57	8.55	8.52	8.59	
30	8.82	8.93	9.28	9.49	10.57	9.90	9.08	8.68	8.57	8.55		8.56	
31		8.93		9.39	9.85		9.04		8.57	8.55		8.55	
Mean	8.65	8.93	9.11	9.49	10.06	10.19	9.54	8.83	8.63	8.53	8.54	8.57	
Max	8.85	9.12	10.06	10.25	12.25	12.71	10.37	9.03	8.68	8.55	8.58	8.73	12.71
Min	8.53	8.75	8.78	9.15	9.40	9.43	9.04	8.68	8.57	8.47	8.46	8.42	8.42

Annual Max Momentary Gage Height	12.82	m. (MSL.) ,	at 09.00 Hours, on Sep 13, 2011		
Zero Gage at Bottom Elevation	6.30	m. (MSL.) ,	River Bed	4.11	m. (MSL)
Left Bank Elevation	14.82	m. (MSL.) ,			
Right Bank Elevation	14.83	m. (MSL.) ,	Drainage Area	647	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	16.80	17.40	104.40	130.00	98.00	99.60	26.40	1.20	0.00	0.00	0.00		
2	0.00	14.40	22.80	85.50	170.40	79.50	108.40	24.80	4.80	0.00	0.00	0.00		
3	0.00	12.00	14.40	113.20	232.00	78.00	96.40	23.40	4.20	0.00	0.00	0.00		
4	0.00	10.80	15.00	122.80	135.50	84.00	101.20	22.20	4.20	0.00	0.00	0.00		
5	1.20	9.00	15.00	75.00	81.00	94.80	125.20	21.00	3.60	0.00	0.00	0.00		
6	1.20	12.00	14.40	58.80	61.00	75.00	133.40	19.80	3.60	0.00	0.00	0.00		
7	1.20	14.40	14.40	49.00	78.00	65.20	102.80	18.60	4.20	0.00	0.00	0.00		
8	1.20	21.60	15.00	43.00	88.50	68.00	93.20	18.00	4.20	0.00	0.00	0.00		
9	3.00	33.60	18.60	44.00	110.80	85.50	94.80	17.40	3.60	0.00	0.00	0.00		
10	2.40	32.80	21.00	40.00	132.20	110.80	106.00	16.80	3.00	0.00	0.00	0.00		
11	2.40	27.20	19.80	36.00	135.80	145.10	91.60	16.20	3.60	0.00	0.00	7.80		
12	2.40	23.40	10.80	37.60	143.00	309.80	98.00	15.60	3.00	0.00	0.00	6.60		
13	3.00	20.40	13.80	53.30	136.40	424.00	125.20	15.00	3.00	0.00	0.00	4.20		
14	3.60	21.00	18.60	49.00	131.40	195.80	130.60	14.40	3.00	0.00	0.00	3.00		
15	2.40	20.40	17.40	57.70	137.30	132.40	113.20	13.80	2.40	0.00	0.00	0.60		
16	1.80	18.60	21.00	73.60	278.80	120.40	133.40	13.20	2.40	0.00	0.00	0.00		
17	1.20	16.20	23.40	57.70	308.00	91.60	145.10	12.60	2.40	0.00	0.00	1.80		
18	1.20	31.20	27.20	49.00	145.40	78.00	113.20	12.00	1.80	0.00	0.00	1.20		
19	0.00	26.40	35.20	44.00	131.40	81.00	79.50	11.40	1.20	0.00	0.00	1.20		
20	0.60	22.80	62.40	59.90	115.60	137.60	66.60	10.80	0.60	0.00	0.00	1.20		
21	1.80	21.60	41.00	137.90	88.50	156.80	58.80	10.20	0.00	0.00	0.00	0.00		
22	4.20	21.00	49.00	141.50	70.80	145.10	53.30	9.60	0.00	0.00	0.00	0.00		
23	3.60	20.40	51.10	127.60	69.40	137.30	51.10	9.00	0.00	0.00	0.00	0.00		
24	4.20	20.40	135.80	110.80	62.40	154.80	44.00	8.40	0.00	0.00	0.00	0.00		
25	6.00	19.20	134.30	90.00	65.20	200.60	40.00	7.80	0.00	0.00	0.00	0.00		
26	9.00	19.80	68.00	84.00	68.00	197.40	36.80	7.20	0.00	0.00	0.00	0.60		
27	15.00	18.00	50.00	99.60	90.00	147.60	34.40	6.60	0.00	0.00	0.00	1.20		
28	11.40	11.40	55.50	69.40	78.00	143.00	32.80	6.00	0.00	0.00	0.00	0.00		
29	12.00	16.80	63.80	72.20	148.80	130.80	34.40	5.40	0.00	0.00	0.00	0.00		
30	13.20	19.80	48.00	73.60	152.80	132.00	30.40	4.80	0.00	0.00		0.00		
31		19.80		59.90	131.00		27.20		0.00	0.00		0.00		
Total	109.20	613.20	1114.10	2320.00	3907.40	4099.90	2600.60	418.40	60.00	0.00	0.00	29.40	15272.20	CMSDAY
Mean	3.64	19.78	37.14	74.84	126.05	136.66	83.89	13.95	1.94	0.00	0.00	0.95	41.73	CMS
Max	15.00	33.60	135.80	141.50	308.00	424.00	145.10	26.40	4.80	0.00	0.00	7.80	424.00	CMS
Min	0.00	9.00	10.80	36.00	61.00	65.20	27.20	4.80	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	9.44	52.98	96.26	200.45	337.60	354.23	224.69	36.15	5.18	0.00	0.00	2.54	1319.52	MCM

Momentary Peak 471.60 CMS, at 12.82 m. (MSL), at 09.00 Hours, on Sep 13, 2011

Runoff Yield 64.49 Liters/Second/Square KM. Momentary Peak Yield 728.903 Liters/Second/Square KM.

WATER YEAR : 2011

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.

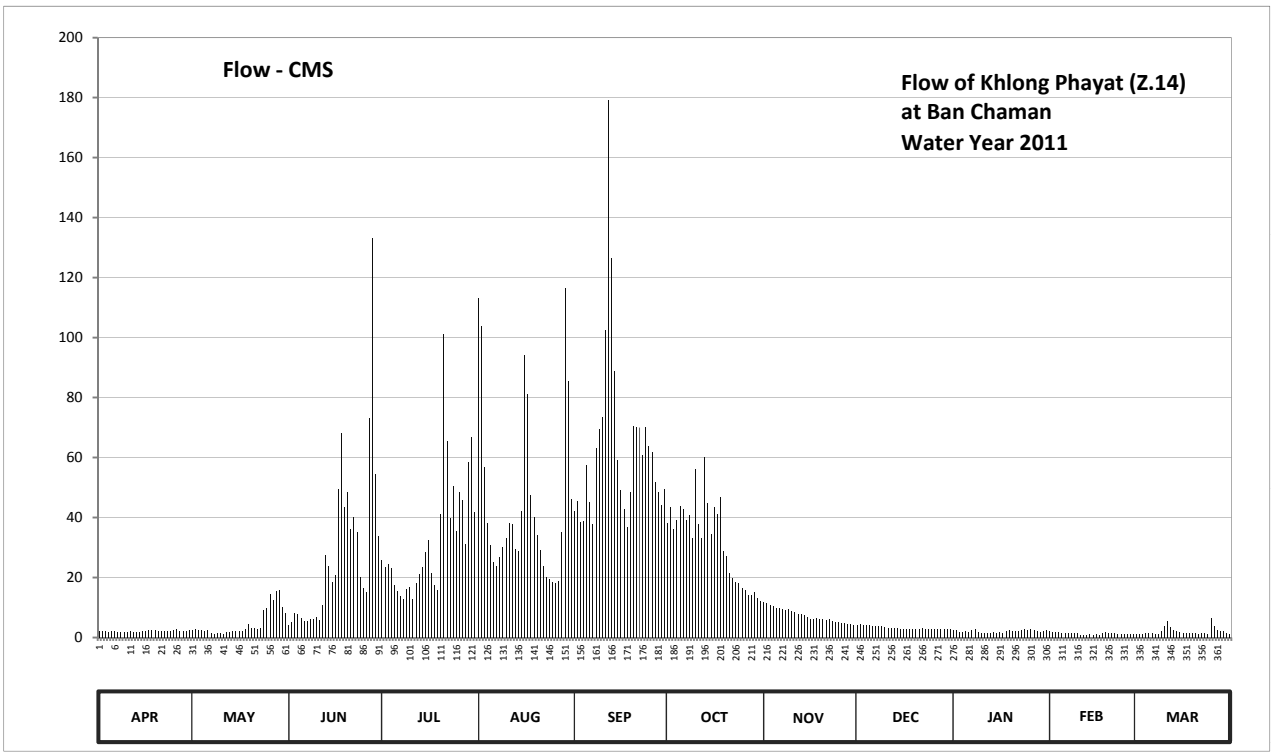
Ban Chaman **Amphoe** Makham **Changwat** Chanthaburi

Drainge Area	229 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+5.400 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank about 30 meters from the top staff gage. **Elevation** +13.690 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings
Period of Available Gage Records	1968 to date
Rating Operation	
Period of Rating	1986 to date
Rated by Flot	-
Rated by Current Meter	1986 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 15 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	6.42	6.44	6.57	7.97	11.25	8.78	8.58	7.09	6.57	6.44	6.41	6.30	
2	6.43	6.49	6.65	7.85	10.94	8.95	8.85	7.06	6.59	6.45	6.38	6.32	
3	6.42	6.45	6.84	7.90	9.43	8.60	8.49	7.03	6.58	6.39	6.38	6.30	
4	6.39	6.46	6.83	7.83	8.58	8.61	8.64	7.00	6.58	6.38	6.37	6.35	
5	6.42	6.43	6.73	7.47	8.21	9.46	8.87	6.96	6.57	6.40	6.35	6.33	
6	6.41	6.45	6.67	7.33	7.94	8.93	8.81	6.96	6.56	6.39	6.35	6.33	
7	6.38	6.34	6.67	7.22	7.86	8.57	8.64	6.93	6.55	6.44	6.34	6.31	
8	6.39	6.31	6.70	7.15	8.02	9.68	8.72	6.91	6.55	6.49	6.34	6.32	
9	6.38	6.33	6.72	7.37	8.19	9.94	8.34	6.94	6.55	6.39	6.35	6.41	
10	6.39	6.33	6.76	7.43	8.34	10.10	9.40	6.89	6.54	6.36	6.35	6.56	
11	6.40	6.32	6.68	7.16	8.58	10.91	8.57	6.87	6.52	6.36	6.28	6.67	
12	6.38	6.38	7.01	7.52	8.56	13.14	8.34	6.83	6.51	6.36	6.28	6.53	
13	6.39	6.39	8.05	7.71	8.15	11.72	9.57	6.82	6.51	6.36	6.29	6.45	
14	6.39	6.42	7.86	7.85	8.11	10.54	8.91	6.80	6.51	6.37	6.30	6.41	
15	6.42	6.40	7.53	8.10	8.78	9.53	8.40	6.75	6.50	6.35	6.29	6.37	
16	6.41	6.42	7.68	8.30	10.68	9.12	8.85	6.72	6.50	6.37	6.30	6.34	
17	6.44	6.42	9.14	7.73	10.34	8.81	8.73	6.71	6.50	6.33	6.28	6.36	
18	6.44	6.50	9.89	7.47	9.05	8.51	9.02	6.73	6.49	6.42	6.35	6.34	
19	6.45	6.60	8.85	7.36	8.68	9.10	8.11	6.72	6.49	6.45	6.38	6.36	
20	6.42	6.51	9.10	8.74	8.39	9.98	8.03	6.71	6.49	6.43	6.35	6.35	
21	6.40	6.51	8.48	10.87	8.13	9.96	7.74	6.69	6.50	6.42	6.34	6.32	
22	6.40	6.50	8.68	9.78	7.86	9.96	7.61	6.70	6.51	6.43	6.34	6.34	
23	6.41	6.51	8.43	8.67	7.65	9.59	7.54	6.67	6.50	6.44	6.31	6.33	
24	6.42	6.91	7.65	9.18	7.59	9.97	7.50	6.65	6.50	6.47	6.31	6.31	
25	6.45	6.95	7.39	8.45	7.54	9.71	7.41	6.64	6.49	6.45	6.31	6.74	
26	6.47	7.26	7.31	9.10	7.51	9.63	7.36	6.63	6.48	6.48	6.31	6.55	
27	6.42	7.14	10.08	8.96	7.56	9.23	7.24	6.62	6.47	6.44	6.31	6.44	
28	6.42	7.33	11.95	8.23	8.43	9.10	7.25	6.60	6.47	6.43	6.31	6.41	
29	6.42	7.36	9.34	9.50	11.37	8.89	7.32	6.60	6.48	6.39	6.29	6.41	
30	6.44	6.98	8.37	9.83	10.45	9.14	7.18	6.58	6.47	6.42		6.34	
31		6.85		8.77	8.98		7.11		6.47	6.44		6.30	
Mean	6.41	6.60	7.89	8.22	8.75	9.61	8.23	6.79	6.52	6.41	6.33	6.39	
Max	6.47	7.36	11.95	10.87	11.37	13.14	9.57	7.09	6.59	6.49	6.41	6.74	13.14
Min	6.38	6.31	6.57	7.15	7.51	8.51	7.11	6.58	6.47	6.33	6.28	6.30	6.28

Annual Max Momentary Gage Height	13.63	m. (MSL.) ,	at 06.00 Hours, on Sep 12, 2011		
Zero Gage at Bottom Elevation	5.40	m. (MSL.) ,	River Bed	5.62	m. (MSL)
Left Bank Elevation	13.45	m. (MSL.) ,			
Right Bank Elevation	13.38	m. (MSL.) ,	Drainage Area	229	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.20	2.40	4.05	25.90	113.16	42.10	38.10	11.85	4.05	2.40	2.10	1.00		
2	2.30	2.90	5.25	23.50	103.75	45.50	43.50	11.40	4.35	2.50	1.80	1.20		
3	2.20	2.50	8.10	24.50	56.75	38.50	36.30	10.95	4.20	1.90	1.80	1.00		
4	1.90	2.60	7.95	23.10	38.10	38.70	39.30	10.50	4.20	1.80	1.70	1.50		
5	2.20	2.30	6.45	17.55	30.70	57.50	43.90	9.90	4.05	2.00	1.50	1.30		
6	2.10	2.50	5.55	15.45	25.30	45.10	42.70	9.90	3.90	1.90	1.50	1.30		
7	1.80	1.40	5.55	13.80	23.70	37.90	39.30	9.45	3.75	2.40	1.40	1.10		
8	1.90	1.10	6.00	12.75	26.90	63.00	40.90	9.15	3.75	2.90	1.40	1.20		
9	1.80	1.30	6.30	16.05	30.30	69.50	33.30	9.60	3.75	1.90	1.50	2.10		
10	1.90	1.30	6.90	16.95	33.30	73.50	56.00	8.85	3.60	1.60	1.50	3.90		
11	2.00	1.20	5.70	12.90	38.10	102.62	37.90	8.55	3.30	1.60	0.80	5.55		
12	1.80	1.80	10.65	18.30	37.70	179.10	33.30	7.95	3.15	1.60	0.80	3.45		
13	1.90	1.90	27.50	21.15	29.50	126.62	60.25	7.80	3.15	1.60	0.90	2.50		
14	1.90	2.20	23.70	23.50	28.70	88.75	44.70	7.50	3.15	1.70	1.00	2.10		
15	2.20	2.00	18.45	28.50	42.10	59.25	34.50	6.75	3.00	1.50	0.90	1.70		
16	2.10	2.20	20.70	32.50	94.00	49.00	43.50	6.30	3.00	1.70	1.00	1.40		
17	2.40	2.20	49.50	21.45	81.25	42.70	41.10	6.15	3.00	1.30	0.80	1.60		
18	2.40	3.00	68.25	17.55	47.50	36.70	46.90	6.45	2.90	2.20	1.50	1.40		
19	2.50	4.50	43.50	15.90	40.10	48.50	28.70	6.30	2.90	2.50	1.80	1.60		
20	2.20	3.15	48.50	41.30	34.30	70.50	27.10	6.15	2.90	2.30	1.50	1.50		
21	2.00	3.15	36.10	101.12	29.10	70.00	21.60	5.85	3.00	2.20	1.40	1.20		
22	2.00	3.00	40.10	65.50	23.70	70.00	19.65	6.00	3.15	2.30	1.40	1.40		
23	2.10	3.15	35.10	39.90	20.25	60.75	18.60	5.55	3.00	2.40	1.10	1.30		
24	2.20	9.15	20.25	50.50	19.35	70.25	18.00	5.25	3.00	2.70	1.10	1.10		
25	2.50	9.75	16.35	35.50	18.60	63.75	16.65	5.10	2.90	2.50	1.10	6.60		
26	2.70	14.40	15.15	48.50	18.15	61.75	15.90	4.95	2.80	2.80	1.10	3.75		
27	2.20	12.60	73.00	45.70	18.90	51.75	14.10	4.80	2.70	2.40	1.10	2.40		
28	2.20	15.45	133.20	31.10	35.10	48.50	14.25	4.50	2.70	2.30	1.10	2.10		
29	2.20	15.90	54.50	58.50	116.60	44.30	15.30	4.50	2.80	1.90	0.90	2.10		
30	2.40	10.20	33.90	66.75	85.37	49.50	13.20	4.20	2.70	2.20		1.40		
31		8.25		41.90	46.10		12.15		2.70	2.40		1.00		
Total	64.20	149.45	836.20	1007.57	1386.43	1905.59	990.65	222.15	101.50	65.40	37.50	62.75	6829.39	CMSDAY
Mean	2.14	4.82	27.87	32.50	44.72	63.52	31.96	7.41	3.27	2.11	1.29	2.02	18.66	CMS
Max	2.70	15.90	133.20	101.12	116.60	179.10	60.25	11.85	4.35	2.90	2.10	6.60	179.10	CMS
Min	1.80	1.10	4.05	12.75	18.15	36.70	12.15	4.20	2.70	1.30	0.80	1.00	0.80	CMS
Runoff	5.55	12.91	72.25	87.05	119.79	164.64	85.59	19.19	8.77	5.65	3.24	5.42	590.06	MCM

Momentary Peak 198.70 CMS, at 13.63 m. (MSL), at 06.00 Hours, on Sep 12, 2011

Runoff Yield 81.48 Liters/Second/Square KM. Momentary Peak Yield 867.686 Liters/Second/Square KM.

WATER YEAR : 2011

EAST COAST - GULF BASIN

Khlong Phlo at Ban Chamkho , Rayong (Z.18)

Lat 12 - 57 - 18 N Long 101 - 40 - 32 E

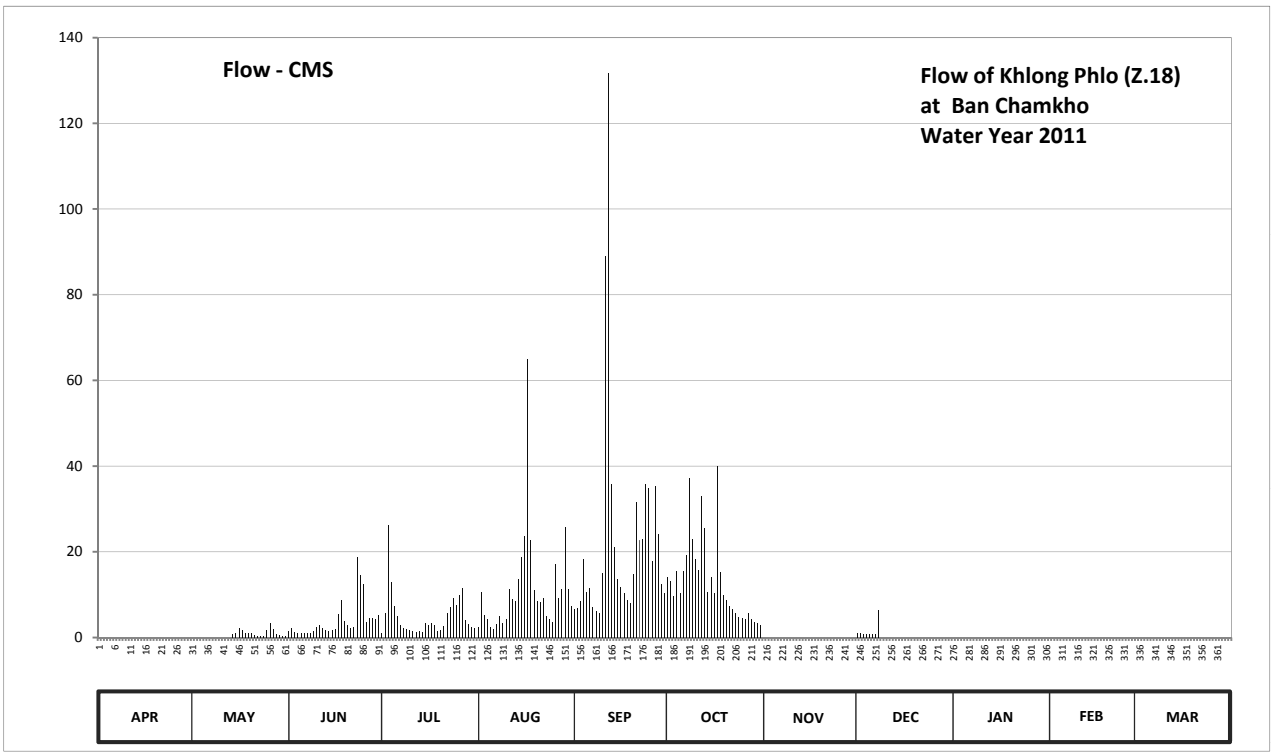
Location : on right bank at the bridge on road.

	Ban Chamkho	**Amphoe** Klaeng	**Changwat** Rayong
Drainge Area	201 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+28.146 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank near the top staff gage.		**Elevation** +35.314 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	1982 to date		
Rating Operation			
Period of Rating	1983 to date		
Rated by Flot	-		
Rated by Current Meter	1983 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	Overbank flow starts at elevation +33.290 m.(MSL.), records are including overbank flow.		
General Description	Records good. Flow regulated by the concrete weir about 1.5 kilometers downstream from the gage site. Stage-discharge relation defined by 37 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	31.00	30.57	29.52	29.42	29.67	30.12	30.77	29.16	29.40	31.34	31.00	30.92	
2	30.99	30.49	29.64	30.03	30.52	30.13	30.72	29.13	29.39	31.34	31.00	30.92	
3	30.99	30.46	29.47	31.58	29.98	30.30	30.41	29.11	29.38	31.33	31.01	30.92	
4	30.98	30.33	29.42	30.70	29.89	31.05	30.87	29.09	29.37	31.36	31.00	30.91	
5	30.98	30.10	29.40	30.19	29.68	30.51	30.50	29.07	29.36	31.33	29.00	30.91	
6	30.98	30.04	29.40	29.95	29.60	30.60	30.86	29.05	29.35	31.25	30.99	30.91	
7	30.98	30.01	29.39	29.75	29.76	30.16	31.11	29.04	29.34	31.07	31.01	30.91	
8	31.27	30.31	29.43	29.63	29.96	30.07	32.13	29.05	30.08	31.05	31.00	30.94	
9	30.74	30.29	29.52	29.57	29.78	30.03	31.36	29.06	30.48	31.03	31.00	30.94	
10	30.67	30.25	29.67	29.54	29.87	30.84	31.06	29.05	30.74	31.01	31.01	30.95	
11	30.67	30.09	29.73	29.49	30.58	34.07	30.88	29.04	31.00	31.00	31.01	30.95	
12	30.54	29.56	29.64	29.46	30.35	35.17	31.92	29.02	31.08	30.99	31.00	30.95	
13	30.59	29.35	29.53	29.50	30.29	32.06	31.54	29.01	31.39	30.99	31.01	30.94	
14	30.58	29.38	29.51	29.47	30.74	31.24	30.52	29.01	31.35	30.98	31.05	30.94	
15	30.64	29.42	29.53	29.79	31.09	30.74	30.78	28.99	31.36	30.98	30.99	30.95	
16	30.64	29.66	29.58	29.75	31.42	30.62	30.49	28.99	31.36	30.96	30.97	30.95	
17	30.62	29.55	30.00	29.79	33.30	30.48	32.27	28.95	31.36	30.95	30.95	30.94	
18	30.56	29.43	30.32	29.75	31.35	30.32	30.85	28.97	31.36	30.95	31.04	30.94	
19	30.55	29.39	29.84	29.51	30.55	30.26	30.44	28.96	31.35	31.01	31.01	31.05	
20	30.55	29.39	29.75	29.54	30.29	30.82	30.33	28.95	31.35	31.02	30.99	31.05	
21	30.52	29.33	29.65	29.71	30.28	31.85	30.18	28.94	31.35	31.02	30.97	31.14	
22	30.51	29.29	29.69	30.01	30.37	31.35	30.11	28.94	31.34	31.02	30.96	31.11	
23	30.51	29.25	31.09	30.16	29.96	31.36	30.02	28.94	31.34	31.03	30.95	30.53	
24	31.13	29.28	30.81	30.37	29.87	32.07	29.94	28.94	31.34	31.02	30.95	30.53	
25	31.07	29.55	30.67	30.20	29.80	32.02	29.90	28.93	31.34	31.01	30.94	30.50	
26	30.86	29.79	29.81	30.44	30.97	31.02	29.89	28.93	31.34	31.01	30.94	30.49	
27	30.72	29.58	29.91	30.60	30.38	32.04	30.02	28.92	31.34	31.20	30.93	30.49	
28	30.63	29.34	29.91	29.86	30.58	31.44	29.87	28.93	31.33	31.04	30.93	30.48	
29	30.43	29.32	29.89	29.77	31.55	30.66	29.82	28.92	31.32	31.02	30.93	30.47	
30	30.39	29.29	29.97	29.68	30.57	30.49	29.78	28.84	31.31	31.02		30.46	
31		29.27		29.65	30.18		29.75		30.30	31.01		30.46	
Mean	30.74	29.72	29.79	29.90	30.43	31.13	30.62	29.00	30.79	31.08	30.92	30.82	
Max	31.27	30.57	31.09	31.58	33.30	35.17	32.27	29.16	31.39	31.36	31.05	31.14	35.17
Min	30.39	29.25	29.39	29.42	29.60	30.03	29.75	28.84	29.34	30.95	29.00	30.46	28.84

Annual Max Momentary Gage Height	35.34	m. (MSL.) ,	at 12.00 Hours, on Sep 12, 2011		
Zero Gage at Bottom Elevation	28.15	m. (MSL.) ,	River Bed	27.78	m. (MSL)
Left Bank Elevation	34.37	m. (MSL.) ,			
Right Bank Elevation	33.28	m. (MSL.) ,	Drainage Area	201	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	1.60	1.10	2.35	6.70	14.05	0.00	1.00	0.00	0.00	0.00		
2	0.00	0.00	2.20	5.80	10.70	6.80	13.30	0.00	0.95	0.00	0.00	0.00		
3	0.00	0.00	1.35	26.20	5.30	8.50	9.60	0.00	0.90	0.00	0.00	0.00		
4	0.00	0.00	1.10	13.00	4.40	18.25	15.55	0.00	0.85	0.00	0.00	0.00		
5	0.00	0.00	1.00	7.40	2.40	10.60	10.50	0.00	0.80	0.00	0.00	0.00		
6	0.00	0.00	1.00	5.00	2.00	11.50	15.40	0.00	0.75	0.00	0.00	0.00		
7	0.00	0.00	0.95	3.00	3.10	7.10	19.15	0.00	0.70	0.00	0.00	0.00		
8	0.00	0.00	1.15	2.15	5.10	6.20	37.10	0.00	6.30	0.00	0.00	0.00		
9	0.00	0.00	1.60	1.85	3.30	5.80	22.90	0.00	0.00	0.00	0.00	0.00		
10	0.00	0.00	2.35	1.70	4.20	15.10	18.40	0.00	0.00	0.00	0.00	0.00		
11	0.00	0.00	2.80	1.45	11.30	88.95	15.70	0.00	0.00	0.00	0.00	0.00		
12	0.00	0.00	2.20	1.30	9.00	131.80	32.90	0.00	0.00	0.00	0.00	0.00		
13	0.00	0.00	1.65	1.50	8.40	35.70	25.60	0.00	0.00	0.00	0.00	0.00		
14	0.00	0.90	1.55	1.35	13.60	21.10	10.70	0.00	0.00	0.00	0.00	0.00		
15	0.00	1.10	1.65	3.40	18.85	13.60	14.20	0.00	0.00	0.00	0.00	0.00		
16	0.00	2.30	1.90	3.00	23.80	11.80	10.40	0.00	0.00	0.00	0.00	0.00		
17	0.00	1.75	5.50	3.40	65.00	10.30	39.90	0.00	0.00	0.00	0.00	0.00		
18	0.00	1.15	8.70	3.00	22.75	8.70	15.25	0.00	0.00	0.00	0.00	0.00		
19	0.00	0.95	3.90	1.55	11.00	8.10	9.90	0.00	0.00	0.00	0.00	0.00		
20	0.00	0.95	3.00	1.70	8.40	14.80	8.80	0.00	0.00	0.00	0.00	0.00		
21	0.00	0.65	2.25	2.60	8.30	31.50	7.30	0.00	0.00	0.00	0.00	0.00		
22	0.00	0.45	2.45	5.60	9.20	22.75	6.60	0.00	0.00	0.00	0.00	0.00		
23	0.00	0.25	18.85	7.10	5.10	22.90	5.70	0.00	0.00	0.00	0.00	0.00		
24	0.00	0.40	14.65	9.20	4.20	35.90	4.90	0.00	0.00	0.00	0.00	0.00		
25	0.00	1.75	12.55	7.50	3.50	34.90	4.50	0.00	0.00	0.00	0.00	0.00		
26	0.00	3.40	3.60	9.90	17.05	17.80	4.40	0.00	0.00	0.00	0.00	0.00		
27	0.00	1.90	4.60	11.50	9.30	35.30	5.70	0.00	0.00	0.00	0.00	0.00		
28	0.00	0.70	4.60	4.10	11.30	24.10	4.20	0.00	0.00	0.00	0.00	0.00		
29	0.00	0.60	4.40	3.20	25.75	12.40	3.70	0.00	0.00	0.00	0.00	0.00		
30	0.00	0.45	5.20	2.40	11.20	10.40	3.30	0.00	0.00	0.00		0.00		
31		0.35		2.25	7.30		3.00		0.00	0.00		0.00		
Total	0.00	20.00	120.30	154.20	347.15	689.35	412.60	0.00	12.25	0.00	0.00	0.00	1755.85	CMSDAY
Mean	0.00	0.65	4.01	4.97	11.20	22.98	13.31	0.00	0.40	0.00	0.00	0.00	4.80	CMS
Max	0.00	3.40	18.85	26.20	65.00	131.80	39.90	0.00	6.30	0.00	0.00	0.00	131.80	CMS
Min	0.00	0.00	0.95	1.10	2.00	5.80	3.00	0.00	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	0.00	1.73	10.39	13.32	29.99	59.56	35.65	0.00	1.06	0.00	0.00	0.00	151.71	MCM

Momentary Peak 139.00 CMS, at 35.34 m. (MSL), at 12.00 Hours, on Sep 12, 2011

Runoff Yield 23.87 Liters/Second/Square KM. Momentary Peak Yield 691.542 Liters/Second/Square KM.

WATER YEAR : 2011

EAST COAST - GULF BASIN

Khlong Hin Dat at Ban Pong Rong Sen , Chanthaburi (Z.21)

Lat 12 - 47 - 15 N Long 102 - 15 - 33 E

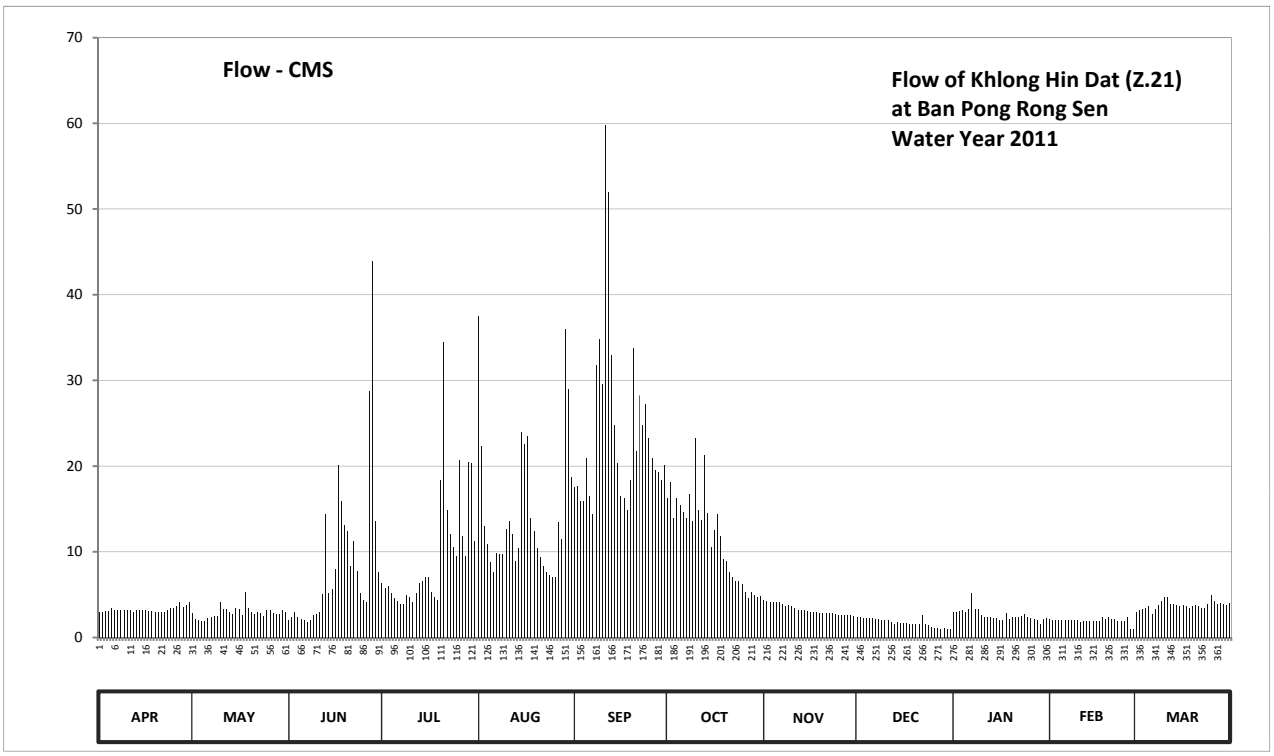
Location : on left bank at the bridge on highway.

	Ban Pong Rong Sen	**Amphoe** Makham	**Changwat** Chanthaburi
Drainge Area	78 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+21.200 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank about 40 meters from the top staff gage.	**Elevation**	+27.671 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	1983 to date		
Rating Operation			
Period of Rating	1984 to date		
Rated by Flot	-		
Rated by Current Meter	1984 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 30 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	21.97	21.94	21.84	22.36	23.90	23.05	22.99	22.15	21.88	21.97	21.86	21.97	
2	21.97	21.86	21.88	22.32	23.29	23.06	23.08	22.14	21.88	21.96	21.85	22.00	
3	21.98	21.84	21.96	22.33	22.80	22.97	22.86	22.12	21.87	21.98	21.85	22.01	
4	21.98	21.83	21.88	22.26	22.66	22.97	22.99	22.12	21.87	21.99	21.85	22.03	
5	22.02	21.83	21.86	22.18	22.52	23.22	22.95	22.11	21.87	21.97	21.85	22.05	
6	22.00	21.87	21.84	22.13	22.44	23.00	22.91	22.11	21.87	22.01	21.85	21.93	
7	22.00	21.89	21.82	22.09	22.59	22.89	22.86	22.09	21.86	22.26	21.84	22.01	
8	22.00	21.90	21.84	22.09	22.58	23.67	23.01	22.05	21.86	22.01	21.84	22.08	
9	22.00	21.90	21.91	22.22	22.58	23.79	22.84	22.08	21.85	22.01	21.84	22.14	
10	22.00	22.12	21.93	22.19	22.78	23.58	23.33	22.05	21.84	21.92	21.84	22.19	
11	21.99	22.01	21.97	22.11	22.84	24.66	22.92	22.03	21.84	21.89	21.81	22.19	
12	21.97	22.01	22.24	22.26	22.74	24.40	22.85	22.00	21.82	21.89	21.83	22.09	
13	21.99	21.97	22.89	22.36	22.53	23.72	23.24	22.00	21.79	21.89	21.83	22.09	
14	22.00	21.93	22.26	22.37	22.63	23.39	22.90	21.99	21.81	21.87	21.83	22.08	
15	22.00	22.03	22.31	22.40	23.36	23.19	22.64	21.98	21.80	21.87	21.83	22.06	
16	21.99	22.01	22.47	22.40	23.30	23.00	22.77	21.97	21.80	21.84	21.83	22.07	
17	21.98	21.91	23.18	22.28	23.34	22.99	22.89	21.97	21.80	21.85	21.83	22.06	
18	21.98	22.28	22.97	22.19	22.86	22.92	22.72	21.96	21.79	21.94	21.89	22.03	
19	21.97	22.03	22.81	22.15	22.76	23.09	22.54	21.95	21.79	21.86	21.86	22.05	
20	21.97	21.97	22.76	23.09	22.63	23.75	22.53	21.95	21.79	21.89	21.88	22.07	
21	21.96	21.93	22.49	23.78	22.56	23.26	22.44	21.95	21.79	21.89	21.86	22.06	
22	21.97	21.96	22.68	22.92	22.49	23.53	22.40	21.95	21.91	21.88	21.86	22.02	
23	21.99	21.95	22.45	22.74	22.44	23.39	22.37	21.94	21.79	21.90	21.83	22.03	
24	22.02	21.90	22.25	22.64	22.42	23.49	22.37	21.93	21.77	21.93	21.83	22.09	
25	22.02	21.99	22.15	22.57	22.40	23.33	22.35	21.91	21.75	21.88	21.83	22.23	
26	22.05	21.99	22.12	23.21	22.40	23.22	22.27	21.91	21.73	21.87	21.88	22.13	
27	22.12	21.94	23.55	22.72	22.83	23.15	22.18	21.91	21.73	21.86	21.72	22.09	
28	22.04	21.93	24.13	22.57	22.70	23.14	22.28	21.91	21.72	21.85	21.71	22.10	
29	22.07	21.93	22.84	23.20	23.84	23.09	22.22	21.91	21.73	21.79	21.71	22.09	
30	22.11	21.99	22.44	23.19	23.56	23.18	22.19	21.90	21.72	21.86		22.08	
31		21.96		22.68	23.11		22.21		21.71	21.87		22.10	
Mean	22.00	21.95	22.39	22.52	22.83	23.34	22.68	22.00	21.81	21.92	21.83	22.07	
Max	22.12	22.28	24.13	23.78	23.90	24.66	23.33	22.15	21.91	22.26	21.89	22.23	24.66
Min	21.96	21.83	21.82	22.09	22.40	22.89	22.18	21.90	21.71	21.79	21.71	21.93	21.71

Annual Max Momentary Gage Height	25.87	m. (MSL.) ,	at 20.00 Hours, on Sep 11, 2011		
Zero Gage at Bottom Elevation	21.20	m. (MSL.) ,	River Bed	20.70	m. (MSL)
Left Bank Elevation	29.69	m. (MSL.) ,			
Right Bank Elevation	29.67	m. (MSL.) ,	Drainage Area	78	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.02	2.80	2.00	6.40	37.50	17.50	16.30	4.38	2.33	3.02	2.17	3.02		
2	3.02	2.17	2.33	5.80	22.30	17.70	18.10	4.30	2.33	2.95	2.08	3.25		
3	3.10	2.00	2.95	5.95	13.00	15.90	13.90	4.15	2.25	3.10	2.08	3.33		
4	3.10	1.92	2.33	5.20	10.90	15.90	16.30	4.15	2.25	3.18	2.08	3.48		
5	3.40	1.92	2.17	4.60	8.80	20.90	15.50	4.08	2.25	3.02	2.08	3.62		
6	3.25	2.25	2.00	4.22	7.60	16.50	14.70	4.08	2.25	3.33	2.08	2.73		
7	3.25	2.42	1.83	3.93	9.85	14.35	13.90	3.93	2.17	5.20	2.00	3.33		
8	3.25	2.50	2.00	3.93	9.70	31.75	16.70	3.62	2.17	3.33	2.00	3.85		
9	3.25	2.50	2.58	4.90	9.70	34.75	13.60	3.85	2.08	3.33	2.00	4.30		
10	3.25	4.15	2.73	4.68	12.70	29.50	23.25	3.62	2.00	2.65	2.00	4.68		
11	3.18	3.33	3.02	4.08	13.60	59.80	14.90	3.48	2.00	2.42	1.75	4.68		
12	3.02	3.33	5.05	5.20	12.10	52.00	13.75	3.25	1.83	2.42	1.92	3.93		
13	3.18	3.02	14.35	6.40	8.95	33.00	21.30	3.25	1.58	2.42	1.92	3.93		
14	3.25	2.73	5.20	6.55	10.45	24.75	14.50	3.18	1.75	2.25	1.92	3.85		
15	3.25	3.48	5.65	7.00	24.00	20.30	10.60	3.10	1.67	2.25	1.92	3.70		
16	3.18	3.33	8.05	7.00	22.50	16.50	12.55	3.02	1.67	2.00	1.92	3.78		
17	3.10	2.58	20.10	5.35	23.50	16.30	14.35	3.02	1.67	2.08	1.92	3.70		
18	3.10	5.35	15.90	4.68	13.90	14.90	11.80	2.95	1.58	2.80	2.42	3.48		
19	3.02	3.48	13.15	4.38	12.40	18.30	9.10	2.88	1.58	2.17	2.17	3.62		
20	3.02	3.02	12.40	18.30	10.45	33.75	8.95	2.88	1.58	2.42	2.33	3.78		
21	2.95	2.73	8.35	34.50	9.40	21.70	7.60	2.88	1.58	2.42	2.17	3.70		
22	3.02	2.95	11.20	14.90	8.35	28.25	7.00	2.88	2.58	2.33	2.17	3.40		
23	3.18	2.88	7.75	12.10	7.60	24.75	6.55	2.80	1.58	2.50	1.92	3.48		
24	3.40	2.50	5.13	10.60	7.30	27.25	6.55	2.73	1.42	2.73	1.92	3.93		
25	3.40	3.18	4.38	9.55	7.00	23.25	6.25	2.58	1.25	2.33	1.92	4.98		
26	3.62	3.18	4.15	20.70	7.00	20.90	5.28	2.58	1.08	2.25	2.33	4.22		
27	4.15	2.80	28.75	11.80	13.45	19.50	4.60	2.58	1.08	2.17	1.00	3.93		
28	3.55	2.73	43.90	9.55	11.50	19.30	5.35	2.58	1.00	2.08	0.92	4.00		
29	3.78	2.73	13.60	20.50	36.00	18.30	4.90	2.58	1.08	1.58	0.92	3.93		
30	4.08	3.18	7.60	20.30	29.00	20.10	4.68	2.50	1.00	2.17		3.85		
31		2.95		11.20	18.70		4.82		0.92	2.25		4.00		
Total	98.32	90.09	260.60	294.25	449.20	727.65	357.63	97.86	53.56	81.15	56.03	117.46	2683.80	CMSDAY
Mean	3.28	2.91	8.69	9.49	14.49	24.25	11.54	3.26	1.73	2.62	1.93	3.79	7.33	CMS
Max	4.15	5.35	43.90	34.50	37.50	59.80	23.25	4.38	2.58	5.20	2.42	4.98	59.80	CMS
Min	2.95	1.92	1.83	3.93	7.00	14.35	4.60	2.50	0.92	1.58	0.92	2.73	0.92	CMS
Runoff	8.50	7.78	22.52	25.42	38.81	62.87	30.90	8.46	4.63	7.01	4.84	10.15	231.88	MCM

Momentary Peak 106.15 CMS, at 25.87 m. (MSL), at 20.00 Hours, on Sep 11, 2011

Runoff Yield 94.01 Liters/Second/Square KM. Momentary Peak Yield 1360.897 Liters/Second/Square KM.

WATER YEAR : 2011

EAST COAST - GULF BASIN

Upper Khlong Tanot at Ban Khun Song , Chanthaburi (Z.28)

Lat 13 - 04 - 31 N Long 101 - 56 - 55 E

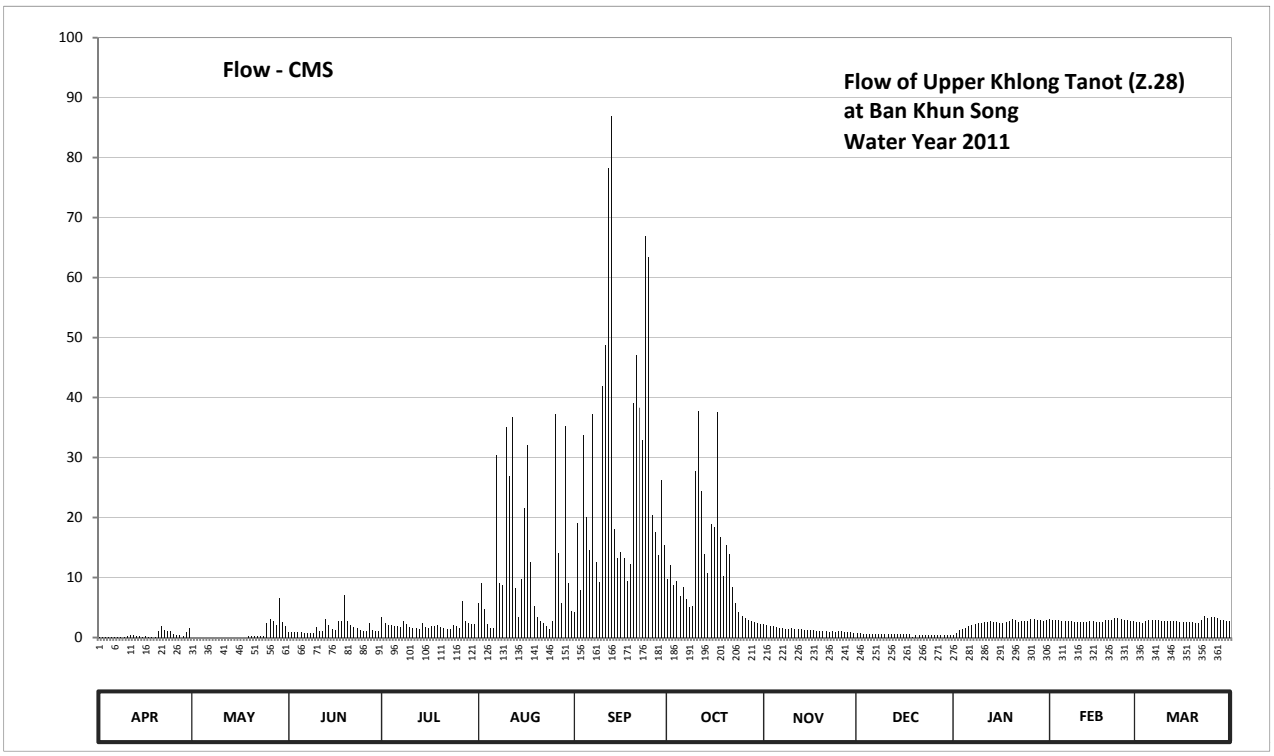
Location : on right bank near Wat Khun Song.

	Ban Khun Song	**Amphoe** Kaeng Hang Maeo	**Changwat** Chanthaburi		
Drainge Area	280 sq.km.				
Type of Gage	Water - stage recorder				
Zero Gage at Bottom	+32.600 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On right bank about 10 meters from the top staff gage.		**Elevation** +40.318 m. (MSL.)		
Gage Reading Frequency	Recording				
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings				
Period of Available Gage Records	1986 to date				
Rating Operation					
Period of Rating	1986 to date				
Rated by Flot	-				
Rated by Current Meter	1986 to date				
Stability of Channel Regimes	Fairly stable.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records fair. Stage-discharge relation defined by 22 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	33.23	33.11	33.39	33.87	34.18	34.02	34.57	33.64	33.36	33.28	33.81	33.72	
2	33.23	33.17	33.38	33.67	34.50	35.44	34.81	33.61	33.35	33.33	33.79	33.70	
3	33.22	33.17	33.37	33.62	34.08	34.39	34.48	33.59	33.32	33.44	33.78	33.69	
4	33.21	33.17	33.37	33.60	33.64	36.41	34.54	33.57	33.30	33.47	33.77	33.75	
5	33.21	33.16	33.37	33.59	33.52	35.51	34.29	33.55	33.31	33.51	33.76	33.79	
6	33.22	33.16	33.35	33.57	33.52	35.05	34.44	33.53	33.30	33.58	33.76	33.78	
7	33.21	33.15	33.36	33.56	36.19	36.65	34.24	33.51	33.30	33.63	33.75	33.79	
8	33.21	33.15	33.36	33.74	34.50	34.85	34.11	33.50	33.30	33.65	33.73	33.78	
9	33.21	33.15	33.36	33.64	34.48	34.52	34.12	33.50	33.30	33.67	33.72	33.75	
10	33.25	33.13	33.54	33.56	36.50	36.96	36.02	33.51	33.32	33.69	33.72	33.74	
11	33.27	33.13	33.43	33.53	35.96	37.42	36.68	33.50	33.32	33.70	33.72	33.74	
12	33.27	33.12	33.41	33.52	36.61	39.38	35.79	33.49	33.32	33.71	33.72	33.74	
13	33.26	33.12	33.82	33.50	34.42	39.96	34.99	33.48	33.32	33.73	33.72	33.73	
14	33.25	33.12	33.63	33.69	33.87	35.37	34.68	33.46	33.31	33.72	33.73	33.73	
15	33.23	33.11	33.48	33.56	34.58	34.92	35.43	33.46	33.31	33.70	33.73	33.72	
16	33.24	33.11	33.46	33.52	35.61	35.03	35.39	33.45	33.31	33.69	33.72	33.72	
17	33.22	33.11	33.73	33.57	36.30	34.93	36.67	33.45	33.31	33.69	33.72	33.71	
18	33.22	33.11	33.76	33.57	34.86	34.54	35.27	33.41	33.31	33.70	33.72	33.70	
19	33.22	33.25	34.30	33.60	34.12	34.82	34.62	33.42	33.21	33.75	33.77	33.70	
20	33.40	33.25	33.75	33.55	33.87	36.77	35.14	33.41	33.29	33.80	33.77	33.69	
21	33.57	33.24	33.61	33.52	33.75	37.30	34.99	33.40	33.29	33.77	33.78	33.68	
22	33.44	33.24	33.54	33.49	33.69	36.72	34.44	33.39	33.28	33.71	33.84	33.77	
23	33.41	33.24	33.51	33.48	33.57	36.36	34.18	33.40	33.29	33.75	33.84	33.91	
24	33.41	33.24	33.46	33.63	33.50	38.63	34.02	33.39	33.29	33.74	33.83	33.85	
25	33.32	33.67	33.43	33.58	33.73	38.39	33.92	33.40	33.28	33.76	33.79	33.87	
26	33.29	33.81	33.42	33.53	36.65	35.53	33.84	33.40	33.28	33.82	33.77	33.88	
27	33.28	33.75	33.67	34.21	35.01	35.34	33.78	33.39	33.28	33.81	33.76	33.85	
28	33.26	33.60	33.45	33.73	34.17	34.98	33.74	33.38	33.28	33.79	33.75	33.79	
29	33.38	34.25	33.43	33.67	36.52	35.92	33.70	33.38	33.28	33.77	33.73	33.78	
30	33.51	33.72	33.41	33.66	34.50	35.14	33.68	33.35	33.29	33.76		33.76	
31		33.58		33.66	34.04		33.64		33.29	33.79		33.75	
Mean	33.29	33.30	33.52	33.62	34.66	36.04	34.65	33.46	33.30	33.67	33.76	33.76	
Max	33.57	34.25	34.30	34.21	36.65	39.96	36.68	33.64	33.36	33.82	33.84	33.91	39.96
Min	33.21	33.11	33.35	33.48	33.50	34.02	33.64	33.35	33.21	33.28	33.72	33.68	33.11

Annual Max Momentary Gage Height	40.82	m. (MSL.) ,	at 03.00 Hours, on Sep 13, 2011		
Zero Gage at Bottom Elevation	32.60	m. (MSL.) ,	River Bed	32.43	m. (MSL)
Left Bank Elevation	41.03	m. (MSL.) ,			
Right Bank Elevation	41.07	m. (MSL.) ,	Drainage Area	280	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.15	0.00	0.95	3.35	5.80	4.20	9.70	2.20	0.80	0.40	3.05	2.60		
2	0.15	0.00	0.90	2.35	9.00	19.10	12.10	2.05	0.75	0.65	2.95	2.50		
3	0.10	0.00	0.85	2.10	4.80	7.90	8.80	1.95	0.60	1.20	2.90	2.45		
4	0.05	0.00	0.85	2.00	2.20	33.65	9.40	1.85	0.50	1.35	2.85	2.75		
5	0.05	0.00	0.85	1.95	1.60	20.15	6.90	1.75	0.55	1.55	2.80	2.95		
6	0.10	0.00	0.75	1.85	1.60	14.50	8.40	1.65	0.50	1.90	2.80	2.90		
7	0.05	0.00	0.80	1.80	30.35	37.25	6.40	1.55	0.50	2.15	2.75	2.95		
8	0.05	0.00	0.80	2.70	9.00	12.50	5.10	1.50	0.50	2.25	2.65	2.90		
9	0.05	0.00	0.80	2.20	8.80	9.20	5.20	1.50	0.50	2.35	2.60	2.75		
10	0.25	0.00	1.70	1.80	35.00	41.90	27.80	1.55	0.60	2.45	2.60	2.70		
11	0.35	0.00	1.15	1.65	26.90	48.80	37.70	1.50	0.60	2.50	2.60	2.70		
12	0.35	0.00	1.05	1.60	36.65	78.20	24.35	1.45	0.60	2.55	2.60	2.70		
13	0.30	0.00	3.10	1.50	8.20	86.90	13.90	1.40	0.60	2.65	2.60	2.65		
14	0.25	0.00	2.15	2.45	3.35	18.05	10.80	1.30	0.55	2.60	2.65	2.65		
15	0.15	0.00	1.40	1.80	9.80	13.20	18.95	1.30	0.55	2.50	2.65	2.60		
16	0.20	0.00	1.30	1.60	21.65	14.30	18.35	1.25	0.55	2.45	2.60	2.60		
17	0.10	0.00	2.65	1.85	32.00	13.30	37.55	1.25	0.55	2.45	2.60	2.55		
18	0.10	0.00	2.80	1.85	12.60	9.40	16.70	1.05	0.55	2.50	2.60	2.50		
19	0.10	0.25	7.00	2.00	5.20	12.20	10.20	1.10	0.05	2.75	2.85	2.50		
20	1.00	0.25	2.75	1.75	3.35	39.05	15.40	1.05	0.45	3.00	2.85	2.45		
21	1.85	0.20	2.05	1.60	2.75	47.00	13.90	1.00	0.45	2.85	2.90	2.40		
22	1.20	0.20	1.70	1.45	2.45	38.30	8.40	0.95	0.40	2.55	3.20	2.85		
23	1.05	0.20	1.55	1.40	1.85	32.90	5.80	1.00	0.45	2.75	3.20	3.55		
24	1.05	0.20	1.30	2.15	1.50	66.95	4.20	0.95	0.45	2.70	3.15	3.25		
25	0.60	2.35	1.15	1.90	2.65	63.35	3.60	1.00	0.40	2.80	2.95	3.35		
26	0.45	3.05	1.10	1.65	37.25	20.45	3.20	1.00	0.40	3.10	2.85	3.40		
27	0.40	2.75	2.35	6.10	14.10	17.60	2.90	0.95	0.40	3.05	2.80	3.25		
28	0.30	2.00	1.25	2.65	5.70	13.80	2.70	0.90	0.40	2.95	2.75	2.95		
29	0.90	6.50	1.15	2.35	35.30	26.30	2.50	0.90	0.40	2.85	2.65	2.90		
30	1.55	2.60	1.05	2.30	9.00	15.40	2.40	0.75	0.45	2.80		2.80		
31		1.90		2.30	4.40		2.20		0.45	2.95		2.75		
Total	13.25	22.45	49.25	66.00	384.80	875.80	355.50	39.60	15.50	73.55	81.00	86.80	2063.50	CMSDAY
Mean	0.44	0.72	1.64	2.13	12.41	29.19	11.47	1.32	0.50	2.37	2.79	2.80	5.64	CMS
Max	1.85	6.50	7.00	6.10	37.25	86.90	37.70	2.20	0.80	3.10	3.20	3.55	86.90	CMS
Min	0.05	0.00	0.75	1.40	1.50	4.20	2.20	0.75	0.05	0.40	2.60	2.40	0.00	CMS
Runoff	1.15	1.94	4.26	5.70	3.25	75.67	30.72	3.42	1.34	6.36	7.00	7.50	178.29	MCM

Momentary Peak 105.60 CMS, at 40.82 m. (MSL), at 03.00 Hours, on Sep 13, 2011

Runoff Yield 20.14 Liters/Second/Square KM. Momentary Peak Yield 377.143 Liters/Second/Square KM.

WATER YEAR : 2011

EAST COAST - GULF BASIN

Khlong Sato at Ban Nong Bua , Trat (Z.30)

Lat 12 - 32 - 22 N Long 102 - 26 - 58 E

Location : on right bank at Ban Nong Bua.

	Ban Nong Bua	**Amphoe** Khao Saming	**Changwat** Trat
Drainge Area	316 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+9.200 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank next tall pole for eletric cable near dwelling.	**Elevation**	+18.683 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	1987 to date		
Rating Operation			
Period of Rating	1999 to date		
Rated by Flot	-		
Rated by Current Meter	1999 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 25 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

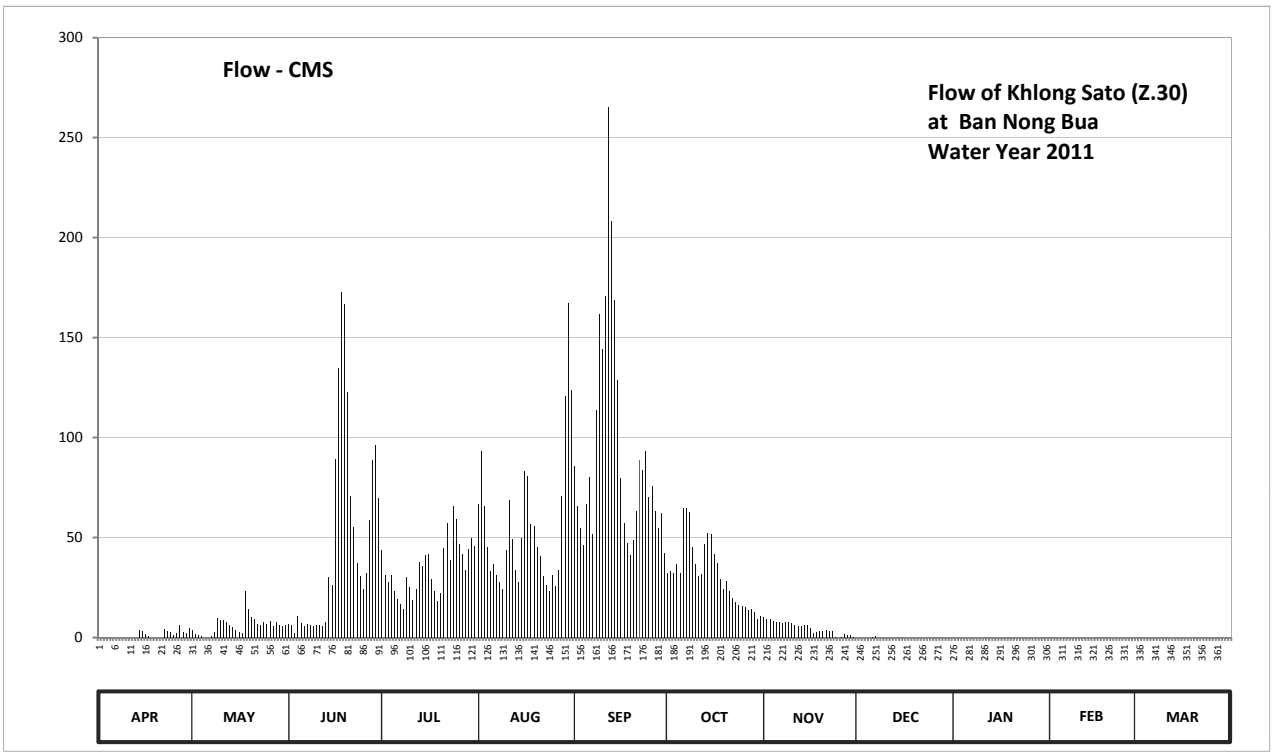
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	12.64	10.95	11.28	13.79	14.93	15.86	13.21	11.64	10.58	12.84	12.62	12.80	
2	12.60	10.78	11.20	13.14	16.10	14.88	13.26	11.52	10.56	12.83	12.67	12.78	
3	12.57	10.73	10.84	12.91	14.89	14.33	13.21	11.50	10.57	12.82	12.90	12.78	
4	12.80	10.69	11.67	13.16	13.86	13.90	13.43	11.43	10.48	12.82	13.21	12.77	
5	13.15	10.58	11.33	12.63	13.27	14.95	13.21	11.39	10.44	12.82	13.23	12.75	
6	13.17	10.58	11.17	12.35	13.44	15.60	14.84	11.37	10.63	12.81	13.03	12.74	
7	13.17	10.65	11.28	12.17	13.16	14.19	14.83	11.31	10.69	12.80	12.87	12.68	
8	13.33	10.88	11.23	12.03	12.91	16.79	14.73	11.37	10.56	12.79	12.83	13.09	
9	13.80	11.55	11.19	13.07	12.70	18.21	13.86	11.37	10.47	12.75	12.87	13.34	
10	13.87	11.47	11.23	12.76	13.79	17.81	13.44	11.33	10.43	12.73	12.93	13.42	
11	13.30	11.48	11.22	12.32	15.05	18.39	13.12	11.22	10.44	12.71	12.93	13.51	
12	10.95	11.35	11.18	12.69	14.07	19.53	13.17	11.19	10.44	12.69	12.85	13.43	
13	10.73	11.22	11.37	13.48	13.28	18.99	13.94	11.15	10.13	12.68	12.80	13.23	
14	10.96	11.13	13.10	13.38	12.90	18.35	14.20	11.20	10.02	12.67	12.77	13.02	
15	10.91	10.97	12.81	13.67	14.08	17.29	14.19	11.22	10.31	12.66	12.70	13.01	
16	10.75	10.88	15.98	13.68	15.76	15.59	13.68	11.07	10.43	12.66	12.66	13.10	
17	10.66	10.85	17.49	13.03	15.64	14.47	13.45	10.85	10.54	12.68	12.78	13.06	
18	10.56	12.62	18.43	12.60	14.43	13.97	13.03	10.86	11.39	12.74	13.16	13.41	
19	10.44	12.02	18.31	12.30	14.38	13.66	12.70	10.93	12.24	12.81	13.63	13.45	
20	10.40	11.60	17.09	12.54	13.87	14.03	12.95	10.91	12.64	13.00	13.56	13.29	
21	10.44	11.51	15.14	13.85	13.64	14.76	12.63	10.95	12.86	13.11	13.30	13.11	
22	11.02	11.29	14.37	14.47	13.13	15.96	12.39	10.93	12.90	13.08	13.08	12.97	
23	10.93	11.20	13.46	13.53	12.80	15.78	12.25	10.92	12.90	13.02	12.95	12.88	
24	10.86	11.36	13.11	14.88	12.63	16.11	12.14	10.63	12.96	13.10	12.99	12.83	
25	10.72	11.27	12.67	14.57	13.16	15.12	12.12	10.54	12.93	13.19	12.98	13.16	
26	10.82	11.41	13.20	13.94	12.79	15.39	12.07	10.63	12.90	13.18	12.98	13.37	
27	11.23	11.15	14.53	13.69	13.29	14.76	11.95	10.76	12.89	13.18	12.95	13.28	
28	10.86	11.36	15.96	13.29	15.15	14.35	12.00	10.74	12.87	13.43	12.92	13.15	
29	10.82	11.25	16.20	13.80	17.03	14.71	11.88	10.71	12.87	13.44	12.86	13.00	
30	11.07	11.17	15.08	14.09	18.32	13.70	11.52	10.62	12.86	12.92		12.77	
31		11.24		13.88	17.12		11.68		12.84	12.69		12.69	
Mean	11.65	11.20	13.44	13.28	14.24	15.71	13.07	11.08	11.48	12.89	12.97	13.06	
Max	13.87	12.62	18.43	14.88	18.32	19.53	14.84	11.64	12.96	13.44	13.63	13.51	19.53
Min	10.40	10.58	10.84	12.03	12.63	13.66	11.52	10.54	10.02	12.66	12.62	12.68	10.02

Annual Max Momentary Gage Height 19.64 m. (MSL.) , at 12.00 Hours, on Sep 12, 2011

Zero Gage at Bottom Elevation 9.20 m. (MSL.) , River Bed 9.06 m. (MSL)

Left Bank Elevation 20.49 m. (MSL.) ,

Right Bank Elevation 20.53 m. (MSL.) , Drainage Area 316 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	3.50	6.80	43.80	66.60	85.80	32.20	10.40	0.00	0.00	0.00	0.00		
2	0.00	1.80	6.00	31.10	93.00	65.60	33.20	9.20	0.00	0.00	0.00	0.00		
3	0.00	1.30	2.40	27.65	65.80	54.60	32.20	9.00	0.00	0.00	0.00	0.00		
4	0.00	0.90	10.70	31.40	45.20	46.00	36.60	8.30	0.00	0.00	0.00	0.00		
5	0.00	0.00	7.30	23.45	33.40	67.00	32.20	7.90	0.00	0.00	0.00	0.00		
6	0.00	0.00	5.70	19.25	36.80	80.00	64.80	7.70	0.30	0.00	0.00	0.00		
7	0.00	0.50	6.80	16.55	31.40	51.80	64.60	7.10	0.90	0.00	0.00	0.00		
8	0.00	2.80	6.30	14.45	27.65	113.70	62.60	7.70	0.00	0.00	0.00	0.00		
9	0.00	9.50	5.90	30.05	24.50	161.50	45.20	7.70	0.00	0.00	0.00	0.00		
10	0.00	8.70	6.30	25.40	43.80	144.40	36.80	7.30	0.00	0.00	0.00	0.00		
11	0.00	8.80	6.20	18.80	69.00	170.50	30.80	6.20	0.00	0.00	0.00	0.00		
12	0.00	7.50	5.80	24.35	49.40	265.20	31.55	5.90	0.00	0.00	0.00	0.00		
13	0.00	6.20	7.70	37.60	33.60	208.20	46.80	5.50	0.00	0.00	0.00	0.00		
14	3.60	5.30	30.50	35.60	27.50	168.50	52.00	6.00	0.00	0.00	0.00	0.00		
15	3.10	3.70	26.15	41.40	49.60	128.70	51.80	6.20	0.00	0.00	0.00	0.00		
16	1.50	2.80	89.40	41.60	83.20	79.80	41.60	4.70	0.00	0.00	0.00	0.00		
17	0.60	2.50	134.70	29.45	80.80	57.40	37.00	2.50	0.00	0.00	0.00	0.00		
18	0.00	23.30	172.50	23.00	56.60	47.40	29.45	2.60	0.00	0.00	0.00	0.00		
19	0.00	14.30	166.50	18.50	55.60	41.20	24.50	3.30	0.00	0.00	0.00	0.00		
20	0.00	10.00	122.70	22.10	45.40	48.60	28.25	3.10	0.00	0.00	0.00	0.00		
21	0.00	9.10	70.80	45.00	40.80	63.20	23.45	3.50	0.00	0.00	0.00	0.00		
22	4.20	6.90	55.40	57.40	30.95	88.80	19.85	3.30	0.00	0.00	0.00	0.00		
23	3.30	6.00	37.20	38.60	26.00	83.60	17.75	3.20	0.00	0.00	0.00	0.00		
24	2.60	7.60	30.65	65.60	23.45	93.30	16.10	0.30	0.00	0.00	0.00	0.00		
25	1.20	6.70	24.05	59.40	31.40	70.40	15.80	0.00	0.00	0.00	0.00	0.00		
26	2.20	8.10	32.00	46.80	25.85	75.80	15.05	0.30	0.00	0.00	0.00	0.00		
27	6.30	5.50	58.60	41.80	33.80	63.20	13.50	1.60	0.00	0.00	0.00	0.00		
28	2.60	7.60	88.80	33.80	71.00	55.00	14.00	1.40	0.00	0.00	0.00	0.00		
29	2.20	6.50	96.00	44.00	120.90	62.20	12.80	1.10	0.00	0.00	0.00	0.00		
30	4.70	5.70	69.60	49.80	167.00	42.00	9.20	0.20	0.00	0.00		0.00		
31		6.40		45.60	123.60		10.80		0.00	0.00		0.00		
Total	38.10	189.50	1389.45	1083.30	1713.60	2783.40	982.45	143.20	1.20	0.00	0.00	0.00	8324.20	CMSDAY
Mean	1.27	6.11	46.32	34.95	55.28	92.78	31.69	4.77	0.04	0.00	0.00	0.00	22.74	CMS
Max	6.30	23.30	172.50	65.60	167.00	265.20	64.80	10.40	0.90	0.00	0.00	0.00	265.20	CMS
Min	0.00	0.00	2.40	14.45	23.45	41.20	9.20	0.00	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	3.29	16.37	120.05	93.60	148.06	240.49	84.88	12.37	0.10	0.00	0.00	0.00	719.21	MCM

Momentary Peak 281.40 CMS, at 19.64 m. (MSL), at 12.00 Hours, on Sep 12, 2011

Runoff Yield 71.97 Liters/Second/Square KM. Momentary Peak Yield 890.506 Liters/Second/Square KM.

WATER YEAR : 2011

EAST COAST - GULF BASIN

Khlong Thapma at Ban Thapma , Rayong (Z.38)

Lat 12 - 44 - 09 N Long 101 - 13 - 54 E

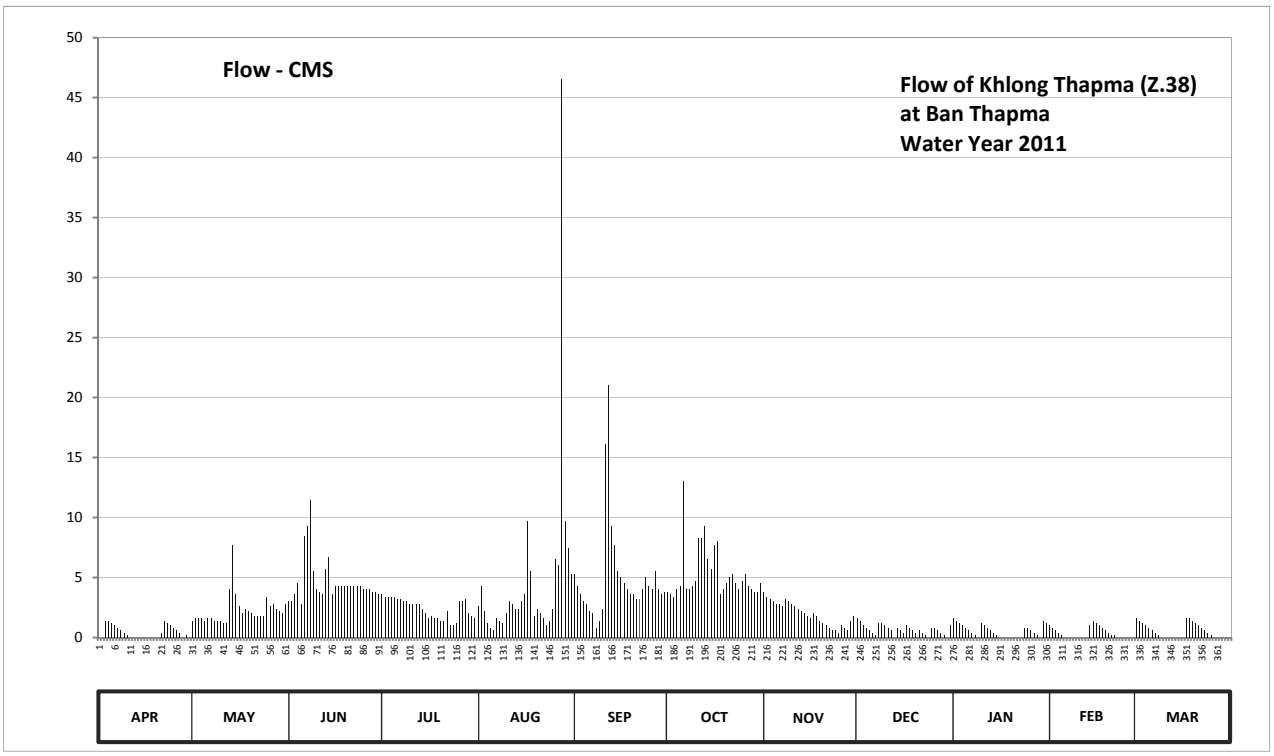
Location : on left bank at Ban Thapma.

	Ban Thapma	**Amphoe** Mueang	**Changwat** Rayong
Drainge Area	150 sq.km.		
Type of Gage	Water - stage recorder.		
Zero Gage at Bottom	+8.100 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank next tall pole for eletric cable near dwelling.	**Elevation**	+12.749 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	2008 to date		
Rating Operation			
Period of Rating	2008 to date		
Rated by Flot	-		
Rated by Current Meter	2008 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 11 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	8.64	8.77	8.85	8.88	8.83	8.95	8.89	8.89	8.78	8.78	8.75	8.78	
2	8.64	8.78	8.85	8.87	8.91	8.91	8.88	8.87	8.77	8.77	8.74	8.77	
3	8.77	8.78	8.88	8.87	8.81	8.88	8.87	8.86	8.75	8.76	8.73	8.76	
4	8.77	8.78	8.92	8.87	8.76	8.85	8.90	8.85	8.74	8.75	8.72	8.75	
5	8.76	8.77	8.84	8.87	8.74	8.84	8.91	8.84	8.73	8.74	8.71	8.74	
6	8.75	8.78	9.08	8.86	8.73	8.81	9.26	8.84	8.72	8.73	8.70	8.73	
7	8.74	8.78	9.11	8.86	8.78	8.80	8.90	8.83	8.71	8.72	8.69	8.72	
8	8.73	8.77	9.20	8.85	8.77	8.74	8.90	8.86	8.76	8.71	8.68	8.71	
9	8.72	8.77	8.96	8.85	8.76	8.77	8.91	8.85	8.76	8.70	8.67	8.70	
10	8.71	8.77	8.90	8.84	8.80	8.82	8.93	8.84	8.75	8.76	8.66	8.69	
11	8.70	8.76	8.89	8.84	8.85	9.37	9.07	8.83	8.74	8.75	8.65	8.68	
12	8.69	8.76	8.88	8.84	8.84	9.53	9.07	8.82	8.73	8.74	8.64	8.67	
13	8.68	8.90	8.97	8.84	8.82	9.11	9.11	8.81	8.69	8.73	8.64	8.65	
14	8.67	9.05	9.01	8.82	8.82	9.05	9.00	8.80	8.74	8.72	8.75	8.64	
15	8.66	8.88	8.88	8.80	8.85	8.96	8.97	8.79	8.73	8.71	8.77	8.63	
16	8.64	8.83	8.91	8.78	8.88	8.94	9.05	8.78	8.72	8.70	8.76	8.63	
17	8.63	8.80	8.91	8.79	9.13	8.92	9.06	8.80	8.75	8.69	8.75	8.78	
18	8.62	8.82	8.91	8.78	8.96	8.90	8.88	8.79	8.74	8.68	8.74	8.78	
19	8.61	8.81	8.91	8.78	8.79	8.88	8.90	8.77	8.73	8.67	8.73	8.77	
20	8.62	8.80	8.91	8.77	8.82	8.88	8.92	8.76	8.72	8.66	8.72	8.76	
21	8.72	8.79	8.91	8.77	8.80	8.86	8.94	8.75	8.73	8.65	8.71	8.75	
22	8.77	8.79	8.91	8.81	8.78	8.86	8.95	8.74	8.72	8.64	8.71	8.74	
23	8.76	8.79	8.91	8.75	8.75	8.90	8.92	8.73	8.71	8.64	8.69	8.73	
24	8.75	8.79	8.91	8.75	8.77	8.94	8.90	8.73	8.70	8.74	8.68	8.72	
25	8.74	8.87	8.90	8.76	8.82	8.91	8.93	8.72	8.74	8.74	8.66	8.71	
26	8.73	8.83	8.90	8.85	9.00	8.90	8.95	8.75	8.74	8.73	8.65	8.70	
27	8.72	8.84	8.90	8.85	8.98	8.96	8.91	8.74	8.73	8.72	8.65	8.69	
28	8.70	8.82	8.89	8.86	10.19	8.90	8.90	8.73	8.72	8.71	8.64	8.68	
29	8.71	8.81	8.89	8.80	9.13	8.88	8.89	8.77	8.71	8.70	8.63	8.67	
30	8.69	8.80	8.88	8.79	9.04	8.89	8.89	8.79	8.70	8.77		8.66	
31		8.84		8.78	8.95		8.92		8.75	8.76		8.65	
Mean	8.70	8.81	8.93	8.82	8.90	8.93	8.95	8.80	8.73	8.72	8.70	8.71	
Max	8.77	9.05	9.20	8.88	10.19	9.53	9.26	8.89	8.78	8.78	8.77	8.78	10.19
Min	8.61	8.76	8.84	8.75	8.73	8.74	8.87	8.72	8.69	8.64	8.63	8.63	8.61

Annual Max Momentary Gage Height	10.65	m. (MSL.) ,	at 09.00 Hours, on Aug 28, 2011		
Zero Gage at Bottom Elevation	8.10	m. (MSL.) ,	River Bed	7.76	m. (MSL.)
Left Bank Elevation	12.75	m. (MSL.) ,			
Right Bank Elevation	12.74	m. (MSL.) ,	Drainage Area	150	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	1.40	3.00	3.60	2.60	5.25	3.80	3.80	1.60	1.60	1.00	1.60		
2	0.00	1.60	3.00	3.40	4.25	4.25	3.60	3.40	1.40	1.40	0.80	1.40		
3	1.40	1.60	3.60	3.40	2.20	3.60	3.40	3.20	1.00	1.20	0.60	1.20		
4	1.40	1.60	4.50	3.40	1.20	3.00	4.00	3.00	0.80	1.00	0.40	1.00		
5	1.20	1.40	2.80	3.40	0.80	2.80	4.25	2.80	0.60	0.80	0.20	0.80		
6	1.00	1.60	8.50	3.20	0.60	2.20	13.00	2.80	0.40	0.60	0.00	0.60		
7	0.80	1.60	9.25	3.20	1.60	2.00	4.00	2.60	0.20	0.40	0.00	0.40		
8	0.60	1.40	11.50	3.00	1.40	0.80	4.00	3.20	1.20	0.20	0.00	0.20		
9	0.40	1.40	5.50	3.00	1.20	1.40	4.25	3.00	1.20	0.00	0.00	0.00		
10	0.20	1.40	4.00	2.80	2.00	2.40	4.75	2.80	1.00	1.20	0.00	0.00		
11	0.00	1.20	3.80	2.80	3.00	16.10	8.25	2.60	0.80	1.00	0.00	0.00		
12	0.00	1.20	3.60	2.80	2.80	21.05	8.25	2.40	0.60	0.80	0.00	0.00		
13	0.00	4.00	5.75	2.80	2.40	9.25	9.25	2.20	0.00	0.60	0.00	0.00		
14	0.00	7.75	6.75	2.40	2.40	7.75	6.50	2.00	0.80	0.40	1.00	0.00		
15	0.00	3.60	3.60	2.00	3.00	5.50	5.75	1.80	0.60	0.20	1.40	0.00		
16	0.00	2.60	4.25	1.60	3.60	5.00	7.75	1.60	0.40	0.00	1.20	0.00		
17	0.00	2.00	4.25	1.80	9.75	4.50	8.00	2.00	1.00	0.00	1.00	1.60		
18	0.00	2.40	4.25	1.60	5.50	4.00	3.60	1.80	0.80	0.00	0.80	1.60		
19	0.00	2.20	4.25	1.60	1.80	3.60	4.00	1.40	0.60	0.00	0.60	1.40		
20	0.00	2.00	4.25	1.40	2.40	3.60	4.50	1.20	0.40	0.00	0.40	1.20		
21	0.40	1.80	4.25	1.40	2.00	3.20	5.00	1.00	0.60	0.00	0.20	1.00		
22	1.40	1.80	4.25	2.20	1.60	3.20	5.25	0.80	0.40	0.00	0.20	0.80		
23	1.20	1.80	4.25	1.00	1.00	4.00	4.50	0.60	0.20	0.00	0.00	0.60		
24	1.00	1.80	4.25	1.00	1.40	5.00	4.00	0.60	0.00	0.80	0.00	0.40		
25	0.80	3.40	4.00	1.20	2.40	4.25	4.75	0.40	0.80	0.80	0.00	0.20		
26	0.60	2.60	4.00	3.00	6.50	4.00	5.25	1.00	0.80	0.60	0.00	0.00		
27	0.40	2.80	4.00	3.00	6.00	5.50	4.25	0.80	0.60	0.40	0.00	0.00		
28	0.00	2.40	3.80	3.20	46.55	4.00	4.00	0.60	0.40	0.20	0.00	0.00		
29	0.20	2.20	3.80	2.00	9.75	3.60	3.80	1.40	0.20	0.00	0.00	0.00		
30	0.00	2.00	3.60	1.80	7.50	3.80	3.80	1.80	0.00	1.40		0.00		
31		2.80		1.60	5.25		4.50		1.00	1.20		0.00		
Total	13.00	69.35	140.60	74.60	144.45	148.60	164.00	58.60	20.40	16.80	9.80	16.00	876.20	CMSDAY
Mean	0.43	2.24	4.69	2.41	4.66	4.95	5.29	1.95	0.66	0.54	0.34	0.52	2.39	CMS
Max	1.40	7.75	11.50	3.60	46.55	21.05	13.00	3.80	1.60	1.60	1.40	1.60	46.55	CMS
Min	0.00	1.20	2.80	1.00	0.60	0.80	3.40	0.40	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	1.12	5.99	12.15	6.45	12.48	12.84	14.17	5.06	1.76	1.45	0.85	1.38	75.70	MCM

Momentary Peak 69.50 CMS, at 10.65 m. (MSL), at 09.00 Hours, on Aug 28, 2011

Runoff Yield 15.91 Liters/Second/Square KM. Momentary Peak Yield 462.009 Liters/Second/Square KM.

WATER YEAR : 2011

EAST COAST - GULF BASIN

Khlong Hin Phloeng at Ban Hin Phloeng , Chanthaburi (Z.43)

Lat 12 - 57 - 04 N Long 101 - 47 - 59 E

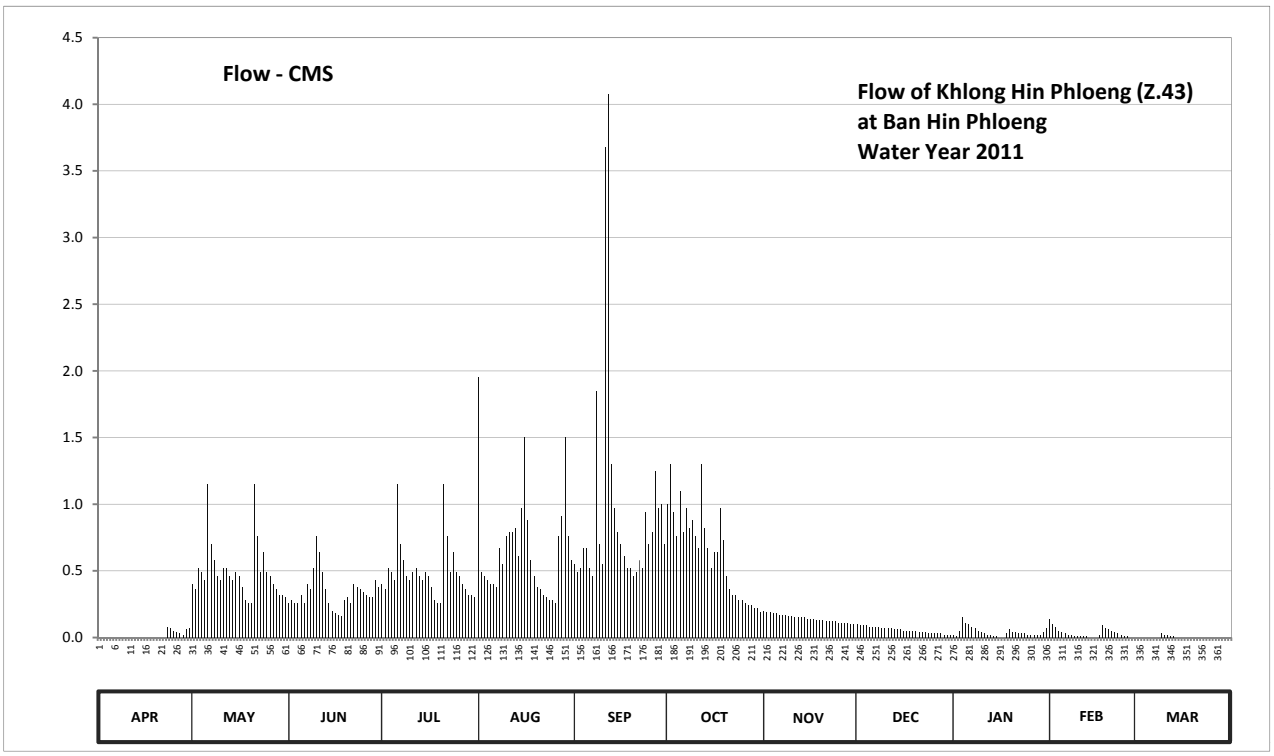
Location : on right bank at the bridge on highway.

	Ban Hin Phloeng	**Amphoe** Kaeng Hang Maeo	**Changwat** Chanthaburi
Drainge Area	4 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+45.094 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank about 20 meters from the top staff gage.	**Elevation**	+48.611 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	1996 to date		
Rating Operation			
Period of Rating	1996 to date		
Rated by Flot	-		
Rated by Current Meter	1996 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 16 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	45.46	45.80	45.73	45.80	46.19	45.85	46.00	45.70	45.60	45.52	45.64	45.49	
2	45.45	45.78	45.74	45.78	45.83	45.83	46.06	45.69	45.59	45.51	45.60	45.49	
3	45.45	45.84	45.73	45.84	45.82	45.84	45.98	45.69	45.59	45.55	45.58	45.49	
4	45.45	45.83	45.73	45.83	45.81	45.89	45.92	45.68	45.59	45.65	45.55	45.48	
5	45.45	45.81	45.76	45.81	45.80	45.89	46.02	45.68	45.58	45.61	45.54	45.48	
6	45.45	46.03	45.73	46.03	45.80	45.84	45.93	45.67	45.58	45.60	45.53	45.48	
7	45.46	45.90	45.80	45.90	45.79	45.82	45.99	45.67	45.58	45.58	45.52	45.47	
8	45.47	45.86	45.78	45.86	45.89	46.17	45.94	45.67	45.58	45.57	45.52	45.49	
9	45.47	45.82	45.84	45.82	45.85	45.90	45.96	45.66	45.57	45.55	45.51	45.53	
10	45.46	45.81	45.92	45.81	45.92	45.85	45.92	45.66	45.57	45.54	45.51	45.52	
11	45.47	45.84	45.88	45.83	45.93	46.46	45.89	45.65	45.57	45.53	45.51	45.52	
12	45.48	45.84	45.83	45.84	45.93	46.51	46.06	45.65	45.57	45.52	45.51	45.51	
13	45.47	45.82	45.78	45.82	45.94	46.06	45.94	45.65	45.56	45.52	45.51	45.51	
14	45.47	45.81	45.73	45.81	45.87	45.99	45.89	45.65	45.56	45.51	45.50	45.50	
15	45.47	45.83	45.70	45.83	45.99	45.93	45.84	45.64	45.56	45.51	45.50	45.49	
16	45.47	45.82	45.68	45.82	46.10	45.90	45.88	45.64	45.55	45.50	45.49	45.49	
17	45.46	45.79	45.67	45.79	45.96	45.87	45.88	45.64	45.55	45.49	45.52	45.49	
18	45.46	45.74	45.66	45.74	45.86	45.84	45.99	45.63	45.55	45.53	45.59	45.48	
19	45.46	45.73	45.74	45.73	45.82	45.84	45.91	45.63	45.55	45.56	45.57	45.48	
20	45.45	45.73	45.75	45.73	45.79	45.82	45.82	45.63	45.55	45.54	45.56	45.47	
21	45.38	46.03	45.73	46.03	45.78	45.83	45.78	45.62	45.54	45.54	45.55	45.47	
22	45.45	45.92	45.80	45.92	45.76	45.86	45.76	45.62	45.54	45.53	45.54	45.47	
23	45.58	45.83	45.79	45.83	45.75	45.84	45.76	45.62	45.54	45.53	45.53	45.46	
24	45.57	45.88	45.78	45.88	45.74	45.98	45.74	45.62	45.53	45.53	45.52	45.46	
25	45.55	45.83	45.77	45.83	45.74	45.90	45.74	45.61	45.53	45.52	45.51	45.46	
26	45.54	45.82	45.76	45.82	45.73	45.93	45.73	45.61	45.53	45.52	45.51	45.46	
27	45.53	45.80	45.75	45.80	45.92	46.05	45.72	45.61	45.53	45.52	45.50	45.46	
28	45.52	45.78	45.75	45.78	45.97	45.99	45.72	45.61	45.53	45.52	45.50	45.46	
29	45.56	45.76	45.81	45.76	46.10	46.00	45.71	45.60	45.52	45.52	45.50	45.46	
30	45.57	45.76	45.79	45.76	45.92	45.90	45.71	45.60	45.52	45.54		45.46	
31		45.75		45.75	45.86		45.69		45.52	45.57		45.46	
Mean	45.48	45.83	45.76	45.83	45.88	45.95	45.87	45.64	45.56	45.54	45.53	45.48	
Max	45.58	46.03	45.92	46.03	46.19	46.51	46.06	45.70	45.60	45.65	45.64	45.53	46.51
Min	45.38	45.73	45.66	45.73	45.73	45.82	45.69	45.60	45.52	45.49	45.49	45.46	45.38

Annual Max Momentary Gage Height	47.11	m. (MSL.) ,	at 15.00 Hours, on Sep 8, 2011		
Zero Gage at Bottom Elevation	45.09	m. (MSL.) ,	River Bed	45.27	m. (MSL)
Left Bank Elevation	49.87	m. (MSL.) ,			
Right Bank Elevation	49.90	m. (MSL.) ,	Drainage Area	4	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.40	0.26	0.40	1.95	0.55	1.00	0.20	0.10	0.02	0.14	0.00		
2	0.00	0.36	0.28	0.36	0.49	0.49	1.30	0.19	0.09	0.01	0.10	0.00		
3	0.00	0.52	0.26	0.52	0.46	0.52	0.94	0.19	0.09	0.05	0.08	0.00		
4	0.00	0.49	0.26	0.49	0.43	0.67	0.76	0.18	0.09	0.15	0.05	0.00		
5	0.00	0.43	0.32	0.43	0.40	0.67	1.10	0.18	0.08	0.11	0.04	0.00		
6	0.00	1.15	0.26	1.15	0.40	0.52	0.79	0.17	0.08	0.10	0.03	0.00		
7	0.00	0.70	0.40	0.70	0.38	0.46	0.97	0.17	0.08	0.08	0.02	0.00		
8	0.00	0.58	0.36	0.58	0.67	1.85	0.82	0.17	0.08	0.07	0.02	0.00		
9	0.00	0.46	0.52	0.46	0.55	0.70	0.88	0.16	0.07	0.05	0.01	0.03		
10	0.00	0.43	0.76	0.43	0.76	0.55	0.76	0.16	0.07	0.04	0.01	0.02		
11	0.00	0.52	0.64	0.49	0.79	3.68	0.67	0.15	0.07	0.03	0.01	0.02		
12	0.00	0.52	0.49	0.52	0.79	4.08	1.30	0.15	0.07	0.02	0.01	0.01		
13	0.00	0.46	0.36	0.46	0.82	1.30	0.82	0.15	0.06	0.02	0.01	0.01		
14	0.00	0.43	0.26	0.43	0.61	0.97	0.67	0.15	0.06	0.01	0.00	0.00		
15	0.00	0.49	0.20	0.49	0.97	0.79	0.52	0.14	0.06	0.01	0.00	0.00		
16	0.00	0.46	0.18	0.46	1.50	0.70	0.64	0.14	0.05	0.00	0.00	0.00		
17	0.00	0.38	0.17	0.38	0.88	0.61	0.64	0.14	0.05	0.00	0.02	0.00		
18	0.00	0.28	0.16	0.28	0.58	0.52	0.97	0.13	0.05	0.03	0.09	0.00		
19	0.00	0.26	0.28	0.26	0.46	0.52	0.73	0.13	0.05	0.06	0.07	0.00		
20	0.00	0.26	0.30	0.26	0.38	0.46	0.46	0.13	0.05	0.04	0.06	0.00		
21	0.00	1.15	0.26	1.15	0.36	0.49	0.36	0.12	0.04	0.04	0.05	0.00		
22	0.00	0.76	0.40	0.76	0.32	0.58	0.32	0.12	0.04	0.03	0.04	0.00		
23	0.08	0.49	0.38	0.49	0.30	0.52	0.32	0.12	0.04	0.03	0.03	0.00		
24	0.07	0.64	0.36	0.64	0.28	0.94	0.28	0.12	0.03	0.03	0.02	0.00		
25	0.05	0.49	0.34	0.49	0.28	0.70	0.28	0.11	0.03	0.02	0.01	0.00		
26	0.04	0.46	0.32	0.46	0.26	0.79	0.26	0.11	0.03	0.02	0.01	0.00		
27	0.03	0.40	0.30	0.40	0.76	1.25	0.24	0.11	0.03	0.02	0.00	0.00		
28	0.02	0.36	0.30	0.36	0.91	0.97	0.24	0.11	0.03	0.02	0.00	0.00		
29	0.06	0.32	0.43	0.32	1.50	1.00	0.22	0.10	0.02	0.02	0.00	0.00		
30	0.07	0.32	0.38	0.32	0.76	0.70	0.22	0.10	0.02	0.04		0.00		
31		0.30		0.30	0.58		0.19		0.02	0.07		0.00		
Total	0.42	15.27	10.19	15.24	20.58	28.55	19.67	4.30	1.73	1.24	0.93	0.09	118.21	CMSDAY
Mean	0.01	0.49	0.34	0.49	0.66	0.95	0.63	0.14	0.06	0.04	0.03	0.00	0.32	CMS
Max	0.08	1.15	0.76	1.15	1.95	4.08	1.30	0.20	0.10	0.15	0.14	0.03	4.08	CMS
Min	0.00	0.26	0.16	0.26	0.26	0.46	0.19	0.10	0.02	0.00	0.00	0.00	0.00	CMS
Runoff	0.04	1.32	0.88	1.32	1.78	2.47	1.70	0.37	0.15	0.11	0.08	0.01	10.21	MCM

Momentary Peak 9.51 CMS, at 47.11 m. (MSL), at 15.00 Hours, on Sep 8, 2011

Runoff Yield 80.74 Liters/Second/Square KM. Momentary Peak Yield 2377.500 Liters/Second/Square KM.

WATER YEAR : 2011

EAST COAST - GULF BASIN

Khlong Aeng at Ban Nong Bon , Trat (Z.45)

Lat 12 - 36 - 58 N Long 102 - 28 - 42 E

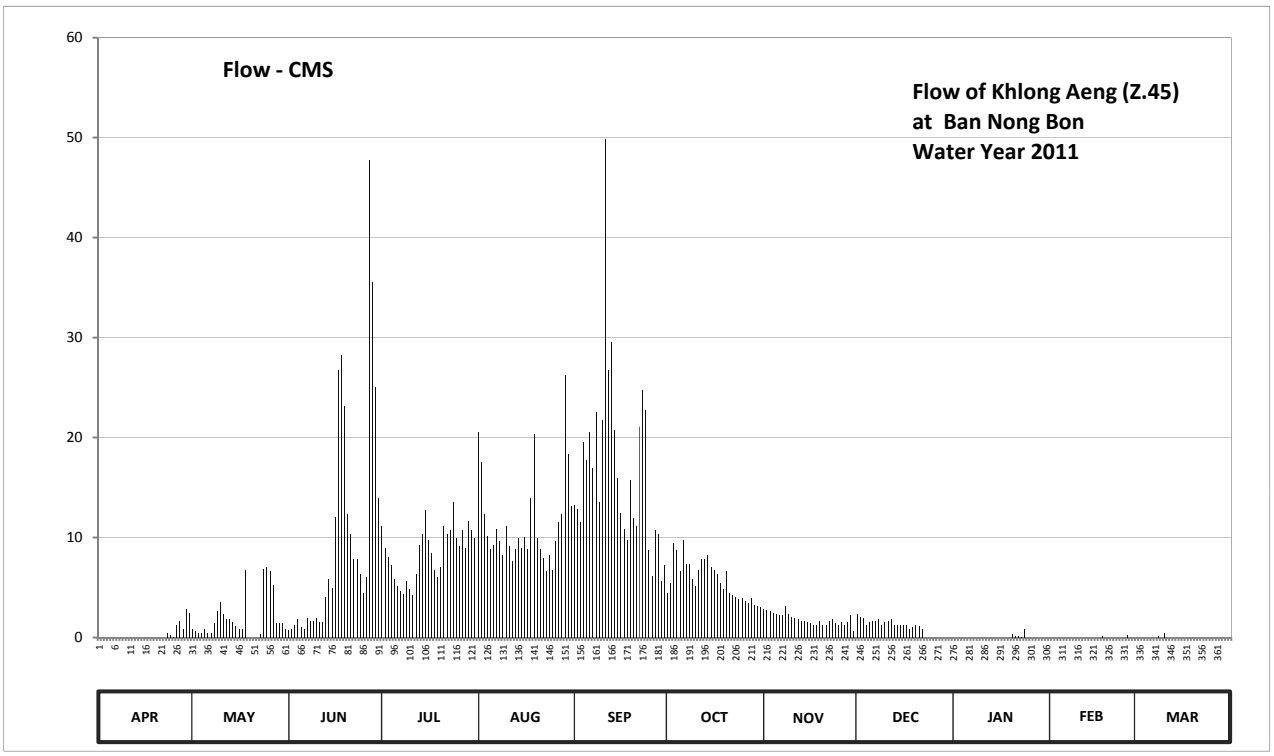
Location : on right bank near the highway bridge, Tambon Nong Bon.

	Ban Nong Bon	**Amphoe** Bo Rai	**Changwat** Trat
Drainge Area	58 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+30.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank about 15 meters from the top staff gage.	**Elevation**	+36.550 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	1999 to date		
Rating Operation			
Period of Rating	1999 to date		
Rated by Flot	-		
Rated by Current Meter	1999 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 30 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	30.78	31.04	31.02	31.83	32.30	31.94	31.39	31.23	31.18	30.86	30.84	30.87	
2	30.79	31.01	31.03	31.70	32.15	31.92	31.46	31.22	31.16	30.86	30.83	30.85	
3	30.82	30.98	31.08	31.64	31.89	31.85	31.73	31.21	31.14	30.85	30.85	30.83	
4	30.84	30.98	31.13	31.58	31.78	32.25	31.68	31.20	31.08	30.86	30.86	30.82	
5	30.78	31.03	31.05	31.49	31.69	32.16	31.54	31.18	31.10	30.85	30.83	30.85	
6	30.71	31.00	31.04	31.44	31.72	32.30	31.75	31.17	31.11	30.85	30.83	30.81	
7	30.78	31.00	31.14	31.41	31.82	32.12	31.59	31.17	31.12	30.84	30.82	30.86	
8	30.84	31.09	31.11	31.38	31.74	32.40	31.59	31.26	31.13	30.84	30.82	30.93	
9	30.84	31.21	31.12	31.48	31.65	31.95	31.49	31.18	31.07	30.83	30.82	30.88	
10	30.82	31.30	31.14	31.42	31.83	32.36	31.44	31.15	31.10	30.83	30.85	30.98	
11	30.84	31.18	31.10	31.37	31.71	33.34	31.55	31.14	31.11	30.83	30.83	30.88	
12	30.83	31.13	31.10	31.52	31.61	32.59	31.62	31.13	31.13	30.82	30.82	30.83	
13	30.71	31.13	31.35	31.72	31.69	32.70	31.62	31.12	31.08	30.82	30.81	30.86	
14	30.71	31.10	31.49	31.79	31.76	32.31	31.65	31.11	31.07	30.81	30.81	30.83	
15	30.77	31.06	31.43	31.91	31.70	32.07	31.57	31.10	31.07	30.81	30.80	30.85	
16	30.72	31.04	31.88	31.75	31.77	31.90	31.55	31.09	31.08	30.81	30.81	30.87	
17	30.63	31.03	32.59	31.66	31.69	31.82	31.52	31.08	31.08	30.83	30.82	30.85	
18	30.70	31.55	32.65	31.55	31.97	31.75	31.46	31.07	31.04	30.87	30.93	30.82	
19	30.66	30.82	32.43	31.50	32.29	32.06	31.42	31.11	31.05	30.84	30.87	30.76	
20	30.72	30.88	31.89	31.57	31.76	31.87	31.54	31.07	31.08	30.97	30.83	30.75	
21	30.69	30.84	31.79	31.83	31.69	31.83	31.40	31.08	31.06	30.93	30.82	30.82	
22	30.90	30.81	31.62	31.79	31.63	32.33	31.37	31.12	31.04	30.93	30.81	30.82	
23	30.98	30.97	31.62	31.81	31.54	32.51	31.35	31.13	30.89	30.91	30.83	30.83	
24	30.94	31.56	31.52	31.95	31.65	32.41	31.33	31.09	30.76	31.03	30.88	30.83	
25	30.91	31.57	31.40	31.76	31.55	31.68	31.34	31.08	30.87	30.90	30.89	30.84	
26	31.07	31.54	31.50	31.71	31.74	31.51	31.31	31.10	30.85	30.90	30.95	30.76	
27	31.12	31.45	33.28	31.81	31.85	31.81	31.29	31.08	30.76	30.88	30.87	30.75	
28	31.04	31.09	32.90	31.70	31.89	31.79	31.34	31.10	30.76	30.86	30.88	30.83	
29	31.23	31.09	32.52	31.86	32.57	31.48	31.28	31.17	30.80	30.85	30.85	30.82	
30	31.19	31.09	31.97	31.81	32.19	31.58	31.26	31.01	30.85	30.85		30.83	
31		31.04		31.76	31.93		31.25		30.88	30.85		30.84	
Mean	30.85	31.12	31.63	31.66	31.83	32.09	31.47	31.13	31.02	30.86	30.84	30.84	
Max	31.23	31.57	33.28	31.95	32.57	33.34	31.75	31.26	31.18	31.03	30.95	30.98	33.34
Min	30.63	30.81	31.02	31.37	31.54	31.48	31.25	31.01	30.76	30.81	30.80	30.75	30.63

Annual Max Momentary Gage Height	34.49	m. (MSL.) ,	at 06.00 Hours, on Jun 27, 2011		
Zero Gage at Bottom Elevation	30.00	m. (MSL.) ,	River Bed	30.01	m. (MSL)
Left Bank Elevation	35.30	m. (MSL.) ,			
Right Bank Elevation	35.32	m. (MSL.) ,	Drainage Area	58	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.90	0.70	11.10	20.50	13.30	4.40	2.80	2.30	0.00	0.00	0.00		
2	0.00	0.60	0.80	9.00	17.50	12.90	5.40	2.70	2.10	0.00	0.00	0.00		
3	0.00	0.40	1.30	8.10	12.30	11.50	9.45	2.60	1.90	0.00	0.00	0.00		
4	0.00	0.40	1.80	7.20	10.20	19.50	8.70	2.50	1.30	0.00	0.00	0.00		
5	0.00	0.80	1.00	5.85	8.85	17.70	6.60	2.30	1.50	0.00	0.00	0.00		
6	0.00	0.50	0.90	5.10	9.30	20.50	9.75	2.20	1.60	0.00	0.00	0.00		
7	0.00	0.50	1.90	4.65	10.90	16.90	7.35	2.20	1.70	0.00	0.00	0.00		
8	0.00	1.40	1.60	4.30	9.60	22.50	7.35	3.10	1.80	0.00	0.00	0.15		
9	0.00	2.60	1.70	5.70	8.25	13.50	5.85	2.30	1.20	0.00	0.00	0.00		
10	0.00	3.50	1.90	4.80	11.10	21.70	5.10	2.00	1.50	0.00	0.00	0.40		
11	0.00	2.30	1.50	4.20	9.15	49.90	6.75	1.90	1.60	0.00	0.00	0.00		
12	0.00	1.80	1.50	6.30	7.65	26.75	7.80	1.80	1.80	0.00	0.00	0.00		
13	0.00	1.80	4.00	9.30	8.85	29.50	7.80	1.70	1.30	0.00	0.00	0.00		
14	0.00	1.50	5.85	10.35	9.90	20.70	8.25	1.60	1.20	0.00	0.00	0.00		
15	0.00	1.10	4.95	12.70	9.00	15.90	7.05	1.50	1.20	0.00	0.00	0.00		
16	0.00	0.90	12.10	9.75	10.05	12.50	6.75	1.40	1.30	0.00	0.00	0.00		
17	0.00	0.80	26.75	8.40	8.85	10.90	6.30	1.30	1.30	0.00	0.00	0.00		
18	0.00	6.75	28.25	6.75	13.90	9.75	5.40	1.20	0.90	0.00	0.15	0.00		
19	0.00	0.00	23.10	6.00	20.30	15.70	4.80	1.60	1.00	0.00	0.00	0.00		
20	0.00	0.00	12.30	7.05	9.90	11.90	6.60	1.20	1.30	0.35	0.00	0.00		
21	0.00	0.00	10.35	11.10	8.85	11.10	4.50	1.30	1.10	0.15	0.00	0.00		
22	0.00	0.00	7.80	10.35	7.95	21.10	4.20	1.70	0.90	0.15	0.00	0.00		
23	0.40	0.35	7.80	10.70	6.60	24.75	4.00	1.80	0.00	0.05	0.00	0.00		
24	0.20	6.90	6.30	13.50	8.25	22.70	3.80	1.40	0.00	0.80	0.00	0.00		
25	0.05	7.05	4.50	9.90	6.75	8.70	3.90	1.30	0.00	0.00	0.00	0.00		
26	1.20	6.60	6.00	9.15	9.60	6.15	3.60	1.50	0.00	0.00	0.25	0.00		
27	1.70	5.25	47.80	10.70	11.50	10.70	3.40	1.30	0.00	0.00	0.00	0.00		
28	0.90	1.40	35.50	9.00	12.30	10.35	3.90	1.50	0.00	0.00	0.00	0.00		
29	2.80	1.40	25.00	11.70	26.25	5.70	3.30	2.20	0.00	0.00	0.00	0.00		
30	2.40	1.40	13.90	10.70	18.30	7.20	3.10	0.60	0.00	0.00		0.00		
31		0.90		9.90	13.10		3.00		0.00	0.00		0.00		
Total	9.65	59.80	298.85	263.30	355.50	501.95	178.15	54.50	31.80	1.50	0.40	0.55	1755.95	CMSDAY
Mean	0.32	1.93	9.96	8.49	11.47	16.73	5.75	1.82	1.03	0.05	0.01	0.02	4.80	CMS
Max	2.80	7.05	47.80	13.50	26.25	49.90	9.75	3.10	2.30	0.80	0.25	0.40	49.90	CMS
Min	0.00	0.00	0.70	4.20	6.60	5.70	3.00	0.60	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	0.83	5.17	25.82	22.75	30.72	43.37	15.39	4.71	2.75	0.13	0.04	0.05	151.71	MCM

Momentary Peak 104.45 CMS, at 34.49 m. (MSL), at 06.00 Hours, on Jun 27, 2011

Runoff Yield 82.72 Liters/Second/Square KM. Momentary Peak Yield 1800.862 Liters/Second/Square KM.

WATER YEAR : 2011

EAST COAST - GULF BASIN

Khlong Sano at Ban Nonthee , Trat (Z.46)

Lat 12 - 31 - 05 N Long 102 - 35 - 00 E

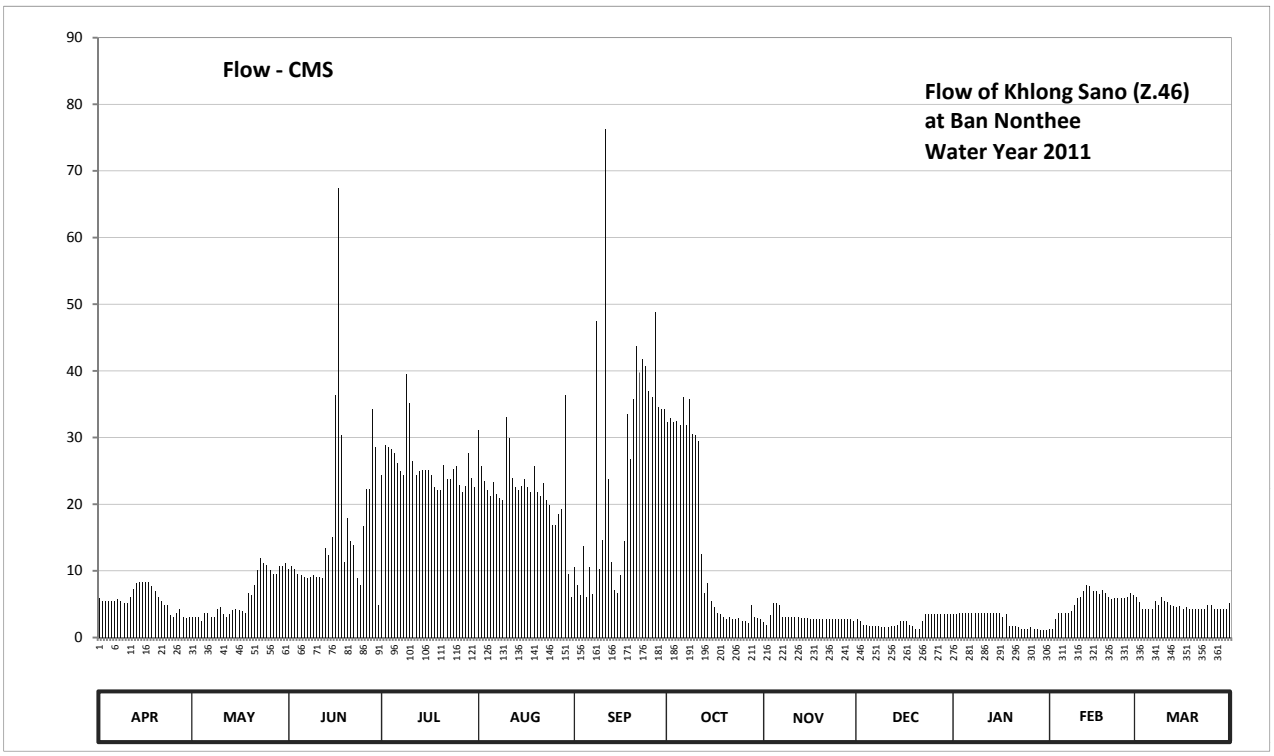
Location : on right bank at Ban Nonthee.

	Ban Nonthee	**Amphoe** Bo Rai	**Changwat** Trat
Drainge Area	92 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+20.130 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank about 50 meters from the top staff gage.	**Elevation**	+27.928 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	1997 to date		
Rating Operation			
Period of Rating	2000 to date		
Rated by Flot	-		
Rated by Current Meter	2000 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 22 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	20.29	20.11	20.59	21.29	21.63	20.60	21.69	20.05	20.08	20.13	19.99	20.30	
2	20.27	20.11	20.61	21.52	21.36	20.42	21.72	20.03	20.07	20.13	19.99	20.25	
3	20.26	20.10	20.58	21.50	21.25	20.32	21.69	20.12	20.03	20.15	20.08	20.19	
4	20.27	20.07	20.53	21.49	21.18	20.76	21.70	20.24	20.02	20.15	20.15	20.19	
5	20.26	20.15	20.52	21.46	21.14	20.30	21.67	20.24	20.01	20.15	20.15	20.19	
6	20.26	20.15	20.51	21.38	21.24	20.60	21.88	20.22	20.01	20.15	20.15	20.19	
7	20.28	20.11	20.49	21.32	21.15	20.33	21.67	20.11	20.01	20.15	20.15	20.27	
8	20.27	20.11	20.50	21.29	21.12	22.36	21.86	20.11	20.01	20.15	20.16	20.23	
9	20.24	20.18	20.52	22.04	21.11	20.58	21.60	20.11	20.00	20.15	20.23	20.30	
10	20.24	20.20	20.51	21.83	21.73	20.81	21.59	20.11	20.00	20.15	20.29	20.26	
11	20.31	20.13	20.50	21.40	21.57	23.51	21.55	20.11	20.00	20.15	20.31	20.25	
12	20.39	20.11	20.49	21.29	21.27	21.26	20.70	20.10	20.01	20.15	20.36	20.23	
13	20.44	20.13	20.75	21.32	21.20	20.64	20.34	20.09	20.01	20.15	20.43	20.21	
14	20.45	20.17	20.69	21.33	21.18	20.37	20.44	20.09	20.03	20.15	20.41	20.20	
15	20.45	20.18	20.83	21.33	21.21	20.34	20.27	20.09	20.07	20.15	20.36	20.21	
16	20.45	20.17	21.89	21.33	21.26	20.52	20.20	20.08	20.07	20.15	20.36	20.19	
17	20.45	20.16	23.16	21.29	21.20	20.80	20.15	20.08	20.06	20.11	20.33	20.20	
18	20.41	20.15	21.59	21.20	21.17	21.75	20.13	20.08	20.03	20.13	20.37	20.19	
19	20.36	20.34	20.64	21.18	21.36	21.41	20.10	20.08	20.01	20.01	20.35	20.19	
20	20.31	20.32	20.97	21.18	21.17	21.86	20.08	20.08	19.99	20.01	20.30	20.19	
21	20.26	20.43	20.80	21.37	21.14	22.21	20.10	20.08	19.99	20.01	20.28	20.19	
22	20.23	20.57	20.77	21.26	21.23	22.05	20.08	20.08	20.07	20.00	20.29	20.19	
23	20.22	20.67	20.49	21.26	21.11	22.13	20.08	20.08	20.13	19.99	20.29	20.19	
24	20.12	20.63	20.43	21.34	21.07	22.09	20.09	20.08	20.13	19.98	20.29	20.22	
25	20.10	20.62	20.91	21.36	20.92	21.92	20.07	20.08	20.13	19.98	20.29	20.23	
26	20.14	20.57	21.19	21.22	20.92	21.88	20.07	20.08	20.13	20.00	20.31	20.19	
27	20.18	20.53	21.19	21.17	21.00	22.41	20.04	20.08	20.13	19.99	20.34	20.19	
28	20.10	20.53	21.79	21.21	21.04	21.80	20.23	20.08	20.13	19.98	20.32	20.19	
29	20.09	20.61	21.50	21.46	21.89	21.79	20.10	20.08	20.13	19.97	20.24	20.19	
30	20.10	20.61	20.22	21.27	20.53	21.79	20.09	20.06	20.13	19.97		20.19	
31		20.63		21.20	20.31		20.08		20.13	19.97		20.24	
Mean	20.27	20.31	20.87	21.36	21.18	21.32	20.71	20.10	20.06	20.08	20.26	20.21	
Max	20.45	20.67	23.16	22.04	21.89	23.51	21.88	20.24	20.13	20.15	20.43	20.30	23.51
Min	20.09	20.07	20.22	21.17	20.31	20.30	20.04	20.03	19.99	19.97	19.99	20.19	19.97

Annual Max Momentary Gage Height	24.91	m. (MSL.) ,	at 12.00 Hours, on Jun 17, 2011		
Zero Gage at Bottom Elevation	20.13	m. (MSL.) ,	River Bed	19.03	m. (MSL)
Left Bank Elevation	29.00	m. (MSL.) ,			
Right Bank Elevation	27.84	m. (MSL.) ,	Drainage Area	92	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	5.85	3.15	10.35	24.30	31.10	10.50	32.30	2.25	2.70	3.45	1.35	6.00		
2	5.55	3.15	10.70	28.90	25.70	7.80	32.90	1.95	2.55	3.45	1.35	5.25		
3	5.40	3.00	10.20	28.50	23.50	6.30	32.30	3.30	1.95	3.75	2.70	4.35		
4	5.55	2.55	9.45	28.30	22.10	13.70	32.50	5.10	1.80	3.75	3.75	4.35		
5	5.40	3.75	9.30	27.70	21.30	6.00	31.90	5.10	1.65	3.75	3.75	4.35		
6	5.40	3.75	9.15	26.10	23.30	10.50	36.10	4.80	1.65	3.75	3.75	4.35		
7	5.70	3.15	8.85	24.90	21.50	6.45	31.90	3.15	1.65	3.75	3.75	5.55		
8	5.55	3.15	9.00	24.30	20.90	47.50	35.70	3.15	1.65	3.75	3.90	4.95		
9	5.10	4.20	9.30	39.50	20.70	10.20	30.50	3.15	1.50	3.75	4.95	6.00		
10	5.10	4.50	9.15	35.10	33.10	14.70	30.30	3.15	1.50	3.75	5.85	5.40		
11	6.15	3.45	9.00	26.50	29.90	76.25	29.50	3.15	1.50	3.75	6.15	5.25		
12	7.35	3.15	8.85	24.30	23.90	23.70	12.50	3.00	1.65	3.75	6.90	4.95		
13	8.10	3.45	13.50	24.90	22.50	11.30	6.60	2.85	1.65	3.75	7.95	4.65		
14	8.25	4.05	12.30	25.10	22.10	7.05	8.10	2.85	1.95	3.75	7.65	4.50		
15	8.25	4.20	15.10	25.10	22.70	6.60	5.55	2.85	2.55	3.75	6.90	4.65		
16	8.25	4.05	36.30	25.10	23.70	9.30	4.50	2.70	2.55	3.75	6.90	4.35		
17	8.25	3.90	67.50	24.30	22.50	14.50	3.75	2.70	2.40	3.15	6.45	4.50		
18	7.65	3.75	30.30	22.50	21.90	33.50	3.45	2.70	1.95	3.45	7.05	4.35		
19	6.90	6.60	11.30	22.10	25.70	26.70	3.00	2.70	1.65	1.65	6.75	4.35		
20	6.15	6.30	17.90	22.10	21.90	35.70	2.70	2.70	1.35	1.65	6.00	4.35		
21	5.40	7.95	14.50	25.90	21.30	43.75	3.00	2.70	1.35	1.65	5.70	4.35		
22	4.95	10.05	13.90	23.70	23.10	39.75	2.70	2.70	2.55	1.50	5.85	4.35		
23	4.80	11.90	8.85	23.70	20.70	41.75	2.70	2.70	3.45	1.35	5.85	4.35		
24	3.30	11.10	7.95	25.30	19.90	40.75	2.85	2.70	3.45	1.20	5.85	4.80		
25	3.00	10.90	16.70	25.70	16.90	36.90	2.55	2.70	3.45	1.20	5.85	4.95		
26	3.60	10.05	22.30	22.90	16.90	36.10	2.55	2.70	3.45	1.50	6.15	4.35		
27	4.20	9.45	22.30	21.90	18.50	48.75	2.10	2.70	3.45	1.35	6.60	4.35		
28	3.00	9.45	34.30	22.70	19.30	34.50	4.95	2.70	3.45	1.20	6.30	4.35		
29	2.85	10.70	28.50	27.70	36.30	34.30	3.00	2.70	3.45	1.05	5.10	4.35		
30	3.00	10.70	4.80	23.90	9.45	34.30	2.85	2.40	3.45	1.05		4.35		
31		11.10		22.50	6.15		2.70		3.45	1.05		5.10		
Total	168.00	190.60	491.60	795.50	688.50	769.10	438.00	90.00	72.75	83.40	157.05	146.10	4090.60	CMSDAY
Mean	5.60	6.15	16.39	25.66	22.21	25.64	14.13	3.00	2.35	2.69	5.42	4.71	11.18	CMS
Max	8.25	11.90	67.50	39.50	36.30	76.25	36.10	5.10	3.45	3.75	7.95	6.00	76.25	CMS
Min	2.85	2.55	4.80	21.90	6.15	6.00	2.10	1.95	1.35	1.05	1.35	4.35	1.05	CMS
Runoff	14.52	16.47	42.47	68.73	59.49	66.45	37.84	7.78	6.29	7.21	13.57	12.62	353.43	MCM

Momentary Peak 113.30 CMS, at 24.91 m. (MSL), at 12.00 Hours, on Jun 17, 2011

Runoff Yield 121.48 Liters/Second/Square KM. Momentary Peak Yield 1231.522 Liters/Second/Square KM.

WATER YEAR : 2011

EAST COAST - GULF BASIN

Khlong Chanthi at Ban Khlong Khwang , Trat (Z.47A)

Lat 12 - 20 - 00 N Long 102 - 38 - 37 E

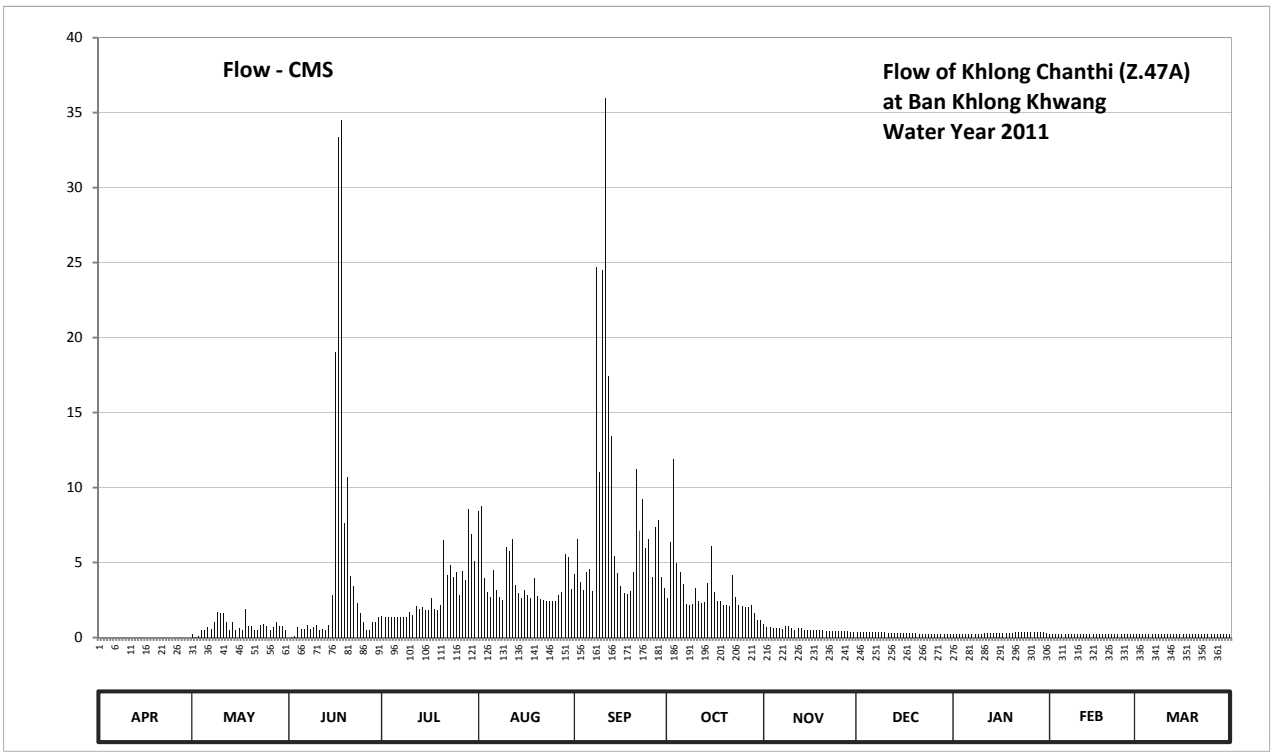
Location : on left bank at Ban Khlong Khwang, Tambon Tha Kum.

	Ban Khlong Khwang	**Amphoe** Mueang	**Changwat** Trat
Drainge Area	27 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+18.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank about 20 meters from the top staff gage.	**Elevation**	+23.608 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	2011 to date		
Rating Operation			
Period of Rating	2011 to date		
Rated by Flot	-		
Rated by Current Meter	2011 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 24 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	18.00	18.54	18.48	18.77	19.79	19.24	18.97	18.68	18.57	18.55	18.55	18.55	
2	18.00	18.51	18.51	18.76	19.83	19.56	19.53	18.64	18.57	18.55	18.55	18.55	
3	18.00	18.52	18.52	18.76	19.19	19.15	20.18	18.64	18.57	18.55	18.55	18.55	
4	18.00	18.60	18.64	18.76	19.04	19.06	19.35	18.63	18.57	18.55	18.55	18.55	
5	18.00	18.60	18.61	18.76	18.98	19.26	19.26	18.63	18.57	18.55	18.55	18.55	
6	18.00	18.64	18.61	18.76	19.28	19.30	19.13	18.63	18.57	18.55	18.55	18.55	
7	18.00	18.62	18.66	18.76	19.06	19.05	18.91	18.62	18.57	18.55	18.55	18.55	
8	18.00	18.70	18.61	18.76	18.98	21.10	18.90	18.65	18.57	18.55	18.55	18.55	
9	18.00	18.82	18.64	18.76	18.95	20.09	18.91	18.65	18.57	18.55	18.55	18.55	
10	18.00	18.80	18.66	18.82	19.49	21.09	19.08	18.63	18.57	18.55	18.55	18.55	
11	18.00	18.80	18.60	18.78	19.46	21.58	18.94	18.60	18.56	18.56	18.55	18.55	
12	18.00	18.70	18.62	18.88	19.56	20.64	18.92	18.63	18.56	18.56	18.55	18.55	
13	18.00	18.60	18.60	18.85	19.12	20.33	18.93	18.63	18.56	18.56	18.55	18.55	
14	18.00	18.70	18.67	18.87	19.03	19.42	19.14	18.60	18.56	18.56	18.55	18.55	
15	18.00	18.60	19.00	18.84	18.97	19.25	19.50	18.60	18.56	18.56	18.55	18.55	
16	18.00	18.63	20.75	18.84	19.06	19.10	19.04	18.60	18.56	18.56	18.55	18.55	
17	18.00	18.60	21.49	18.97	19.00	19.03	18.94	18.60	18.56	18.56	18.55	18.55	
18	18.00	18.85	21.53	18.85	18.97	19.02	18.94	18.60	18.56	18.56	18.55	18.55	
19	18.00	18.65	19.69	18.84	19.19	19.05	18.90	18.60	18.56	18.56	18.55	18.55	
20	18.00	18.65	20.06	18.90	18.99	19.26	18.90	18.60	18.56	18.56	18.55	18.55	
21	18.00	18.60	19.22	19.55	18.96	20.11	18.88	18.59	18.55	18.57	18.55	18.55	
22	18.00	18.60	19.10	19.23	18.95	19.63	19.23	18.59	18.55	18.57	18.55	18.55	
23	18.00	18.67	18.92	19.33	18.94	19.89	18.98	18.59	18.55	18.57	18.55	18.55	
24	18.00	18.68	18.80	19.21	18.94	19.48	18.89	18.59	18.55	18.57	18.55	18.55	
25	18.00	18.65	18.70	19.26	18.94	19.56	18.88	18.59	18.55	18.57	18.55	18.55	
26	18.00	18.60	18.60	19.00	18.94	19.20	18.87	18.58	18.55	18.57	18.55	18.55	
27	18.00	18.64	18.60	19.27	19.01	19.66	18.87	18.58	18.55	18.57	18.55	18.55	
28	18.00	18.70	18.70	19.17	19.04	19.72	18.89	18.58	18.55	18.57	18.55	18.55	
29	18.00	18.65	18.70	19.81	19.43	19.20	18.81	18.57	18.55	18.57	18.55	18.54	
30	18.00	18.65	18.76	19.60	19.41	19.08	18.73	18.57	18.55	18.57		18.54	
31		18.60		19.37	19.07		18.73		18.55	18.56		18.54	
Mean	18.00	18.65	19.04	19.00	19.15	19.64	19.04	18.61	18.56	18.56	18.55	18.55	
Max	18.00	18.85	21.53	19.81	19.83	21.58	20.18	18.68	18.57	18.57	18.55	18.55	21.58
Min	18.00	18.51	18.48	18.76	18.94	19.02	18.73	18.57	18.55	18.55	18.55	18.54	18.00

Annual Max Momentary Gage Height	22.56	m. (MSL.) ,	at 03.00 Hours, on Sep 10, 2011		
Zero Gage at Bottom Elevation	18.00	m. (MSL.) ,	River Bed	18.60	m. (MSL)
Left Bank Elevation	23.67	m. (MSL.) ,			
Right Bank Elevation	23.62	m. (MSL.) ,	Drainage Area	27	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.20	0.00	1.42	8.42	4.24	2.62	0.90	0.35	0.25	0.25	0.25		
2	0.00	0.05	0.05	1.36	8.74	6.58	6.34	0.70	0.35	0.25	0.25	0.25		
3	0.00	0.10	0.10	1.36	3.94	3.70	11.90	0.70	0.35	0.25	0.25	0.25		
4	0.00	0.50	0.70	1.36	3.04	3.16	4.95	0.65	0.35	0.25	0.25	0.25		
5	0.00	0.50	0.55	1.36	2.68	4.36	4.36	0.65	0.35	0.25	0.25	0.25		
6	0.00	0.70	0.55	1.36	4.48	4.60	3.58	0.65	0.35	0.25	0.25	0.25		
7	0.00	0.60	0.80	1.36	3.16	3.10	2.26	0.60	0.35	0.25	0.25	0.25		
8	0.00	1.00	0.55	1.36	2.68	24.70	2.20	0.75	0.35	0.25	0.25	0.25		
9	0.00	1.72	0.70	1.36	2.50	11.00	2.26	0.75	0.35	0.25	0.25	0.25		
10	0.00	1.60	0.80	1.72	6.02	24.51	3.28	0.65	0.35	0.25	0.25	0.25		
11	0.00	1.60	0.50	1.48	5.78	36.00	2.44	0.50	0.30	0.30	0.25	0.25		
12	0.00	1.00	0.60	2.08	6.58	17.40	2.32	0.65	0.30	0.30	0.25	0.25		
13	0.00	0.50	0.50	1.90	3.52	13.43	2.38	0.65	0.30	0.30	0.25	0.25		
14	0.00	1.00	0.85	2.02	2.98	5.46	3.64	0.50	0.30	0.30	0.25	0.25		
15	0.00	0.50	2.80	1.84	2.62	4.30	6.10	0.50	0.30	0.30	0.25	0.25		
16	0.00	0.65	19.05	1.84	3.16	3.40	3.04	0.50	0.30	0.30	0.25	0.25		
17	0.00	0.50	33.35	2.62	2.80	2.98	2.44	0.50	0.30	0.30	0.25	0.25		
18	0.00	1.90	34.50	1.90	2.62	2.92	2.44	0.50	0.30	0.30	0.25	0.25		
19	0.00	0.75	7.62	1.84	3.94	3.10	2.20	0.50	0.30	0.30	0.25	0.25		
20	0.00	0.75	10.70	2.20	2.74	4.36	2.20	0.50	0.30	0.30	0.25	0.25		
21	0.00	0.50	4.12	6.50	2.56	11.20	2.08	0.45	0.25	0.35	0.25	0.25		
22	0.00	0.50	3.40	4.18	2.50	7.14	4.18	0.45	0.25	0.35	0.25	0.25		
23	0.00	0.85	2.32	4.81	2.44	9.22	2.68	0.45	0.25	0.35	0.25	0.25		
24	0.00	0.90	1.60	4.06	2.44	5.94	2.14	0.45	0.25	0.35	0.25	0.25		
25	0.00	0.75	1.00	4.36	2.44	6.58	2.08	0.45	0.25	0.35	0.25	0.25		
26	0.00	0.50	0.50	2.80	2.44	4.00	2.02	0.40	0.25	0.35	0.25	0.25		
27	0.00	0.70	0.50	4.42	2.86	7.38	2.02	0.40	0.25	0.35	0.25	0.25		
28	0.00	1.00	1.00	3.82	3.04	7.86	2.14	0.40	0.25	0.35	0.25	0.25		
29	0.00	0.75	1.00	8.58	5.54	4.00	1.66	0.35	0.25	0.35	0.25	0.20		
30	0.00	0.75	1.36	6.90	5.38	3.28	1.18	0.35	0.25	0.35		0.20		
31		0.50		5.09	3.22		1.18		0.25	0.30		0.20		
Total	0.00	23.82	132.07	89.26	117.26	249.90	96.31	16.45	9.25	9.30	7.25	7.60	758.47	CMSDAY
Mean	0.00	0.77	4.40	2.88	3.78	8.33	3.11	0.55	0.30	0.30	0.25	0.25	2.07	CMS
Max	0.00	1.90	34.50	8.58	8.74	36.00	11.90	0.90	0.35	0.35	0.25	0.25	36.00	CMS
Min	0.00	0.05	0.00	1.36	2.44	2.92	1.18	0.35	0.25	0.25	0.25	0.20	0.00	CMS
Runoff	0.00	2.06	11.41	7.71	10.13	21.59	8.32	1.42	0.80	0.80	0.63	0.66	65.53	MCM

Momentary Peak 78.16 CMS, at 22.56 m. (MSL), at 03.00 Hours, on Sep 10, 2011

Runoff Yield 76.75 Liters/Second/Square KM. Momentary Peak Yield 2894.815 Liters/Second/Square KM.

WATER YEAR : 2011

EAST COAST - GULF BASIN

Khlong Thung Ta In at Ban Thung Ta In , Chanthaburi (Z.53)

Lat 12 - 50 - 23 N Long 102 - 05 - 04 E

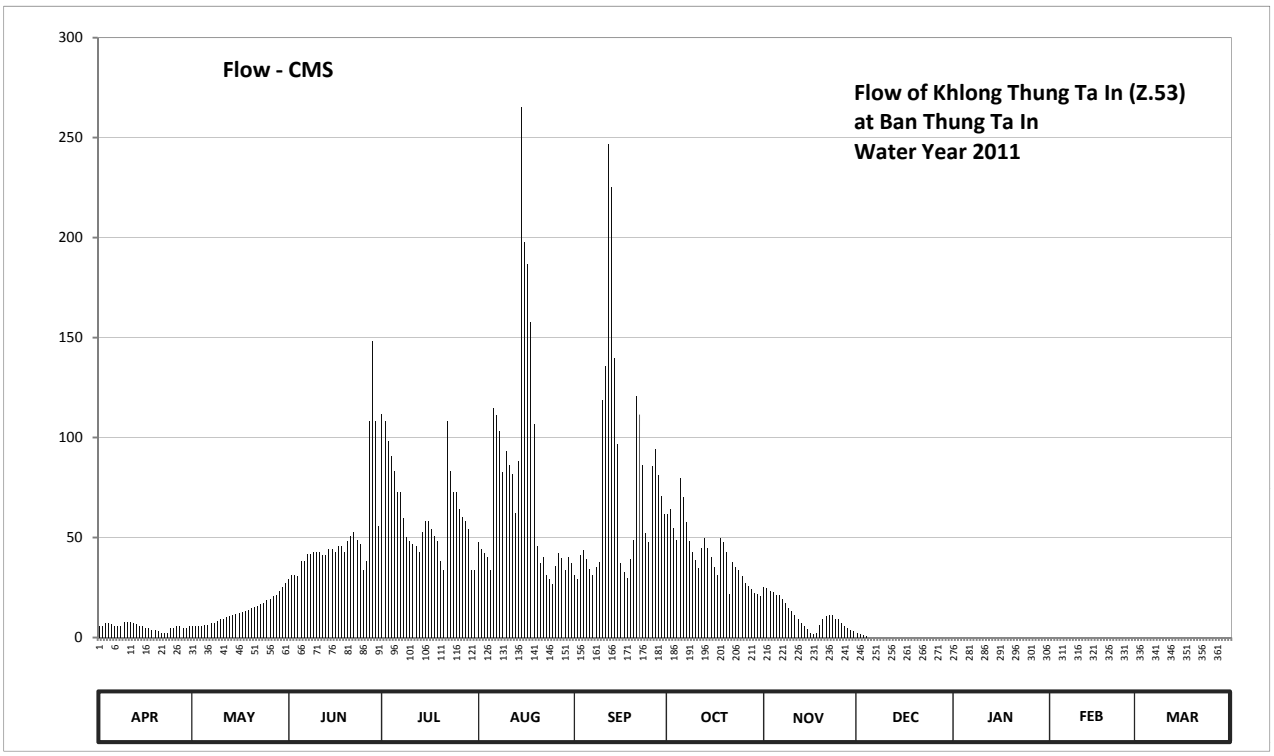
Location : on left bank at the bridge on highway.

	Ban Thung Ta In	**Amphoe** Khao Kitchakut	**Changwat** Chanthaburi
Drainge Area	- sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+14.260 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the gage site.	**Elevation**	+21.404 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	2007 to date		
Rating Operation			
Period of Rating	2007 to date		
Rated by Flot	-		
Rated by Current Meter	2007 to date		
Stability of Channel Regimes	Fairly stable because of backwater effect.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 18 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	15.56	15.56	16.16	17.83	16.55	16.20	16.83	16.06	15.46	15.16	15.06	14.94	
2	15.56	15.56	16.21	17.76	16.48	16.16	16.88	16.04	15.45	15.16	15.06	14.93	
3	15.61	15.56	16.21	17.56	16.44	16.42	16.70	16.01	15.44	15.14	15.06	14.92	
4	15.61	15.56	16.19	17.41	16.40	16.47	16.58	15.99	15.42	15.13	15.04	14.91	
5	15.59	15.57	16.36	17.26	16.26	16.38	17.19	15.96	15.40	15.13	15.04	14.90	
6	15.56	15.58	16.36	17.06	17.89	16.27	17.00	15.96	15.40	15.13	15.04	14.89	
7	15.56	15.60	16.43	17.06	17.82	16.21	16.75	15.91	15.36	15.12	15.04	14.88	
8	15.56	15.61	16.43	16.79	17.66	16.29	16.57	15.86	15.36	15.12	15.02	14.87	
9	15.62	15.63	16.46	16.61	17.25	16.35	16.46	15.79	15.34	15.12	15.02	14.86	
10	15.62	15.65	16.46	16.56	17.46	17.97	16.37	15.75	15.34	15.11	15.02	14.85	
11	15.62	15.66	16.46	16.54	17.32	18.30	16.28	15.71	15.33	14.83	15.02	14.84	
12	15.61	15.68	16.42	16.51	17.23	20.28	16.50	15.66	15.33	14.83	15.01	14.83	
13	15.59	15.69	16.42	16.46	16.85	19.92	16.59	15.61	15.31	14.83	15.01	14.82	
14	15.56	15.71	16.49	16.66	17.36	18.38	16.50	15.56	15.31	14.82	15.01	14.81	
15	15.56	15.72	16.49	16.76	20.59	17.53	16.41	15.52	15.26	14.82	15.01	14.80	
16	15.53	15.73	16.46	16.76	19.43	16.34	16.29	15.46	15.26	14.82	14.99	14.66	
17	15.53	15.74	16.51	16.69	19.23	16.24	16.20	15.45	15.26	15.09	14.99	14.78	
18	15.51	15.76	16.51	16.62	18.70	16.17	16.59	15.47	15.21	15.09	14.99	14.77	
19	15.51	15.77	16.46	16.56	17.73	16.38	16.55	15.57	15.21	15.09	14.98	14.76	
20	15.49	15.79	16.56	16.36	16.51	16.58	16.46	15.66	15.20	15.09	14.98	14.75	
21	15.47	15.81	16.62	16.26	16.34	18.01	15.97	15.69	15.19	15.08	14.97	14.74	
22	15.47	15.82	16.66	17.76	16.40	17.83	16.35	15.71	15.19	15.08	14.97	14.73	
23	15.46	15.84	16.58	17.26	16.21	17.32	16.29	15.71	15.16	15.08	14.97	14.72	
24	15.54	15.86	16.54	17.06	16.16	16.64	16.26	15.66	15.16	15.08	14.96	14.71	
25	15.54	15.89	16.26	17.06	16.09	16.55	16.19	15.66	15.16	14.88	14.96	14.70	
26	15.56	15.91	16.36	16.89	16.30	17.31	16.10	15.61	15.14	15.07	14.96	14.69	
27	15.56	15.94	17.76	16.81	16.44	17.48	16.07	15.56	15.14	15.07	14.96	14.68	
28	15.53	15.96	18.53	16.76	16.39	17.22	16.03	15.54	15.14	15.07	14.95	14.67	
29	15.53	16.01	17.76	16.69	16.26	17.01	15.98	15.51	15.14	15.07	14.95	14.66	
30	15.56	16.06	16.71	16.26	16.41	16.83	15.97	15.49	15.14	15.07		14.65	
31		16.11		16.26	16.34		15.94		15.14	15.07		14.64	
Mean	15.55	15.75	16.59	16.87	17.11	17.10	16.41	15.70	15.27	15.04	15.00	14.79	
Max	15.62	16.11	18.53	17.83	20.59	20.28	17.19	16.06	15.46	15.16	15.06	14.94	20.59
Min	15.46	15.56	16.16	16.26	16.09	16.16	15.94	15.45	15.14	14.82	14.95	14.64	14.64

Annual Max Momentary Gage Height	20.83	m. (MSL.) ,	at 12.00 Hours, on Aug 15, 2011		
Zero Gage at Bottom Elevation	14.26	m. (MSL.) ,	River Bed	14.30	m. (MSL)
Left Bank Elevation	21.60	m. (MSL.) ,			
Right Bank Elevation	21.69	m. (MSL.) ,	Drainage Area		Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	5.60	5.60	29.40	111.50	47.50	31.00	61.50	25.40	2.10	0.00	0.00	0.00		
2	5.60	5.60	31.45	108.00	44.00	29.40	64.00	24.60	1.75	0.00	0.00	0.00		
3	7.40	5.60	31.45	98.00	42.00	41.00	55.00	23.40	1.40	0.00	0.00	0.00		
4	7.40	5.60	30.60	90.50	40.00	43.50	49.00	22.60	0.70	0.00	0.00	0.00		
5	6.65	5.95	38.20	83.00	33.70	39.10	79.50	21.40	0.00	0.00	0.00	0.00		
6	5.60	6.30	38.20	73.00	114.50	34.15	70.00	21.40	0.00	0.00	0.00	0.00		
7	5.60	7.00	41.50	73.00	111.00	31.45	57.50	19.40	0.00	0.00	0.00	0.00		
8	5.60	7.40	41.50	59.50	103.00	35.05	48.50	17.40	0.00	0.00	0.00	0.00		
9	7.80	8.20	43.00	50.50	82.50	37.75	43.00	14.60	0.00	0.00	0.00	0.00		
10	7.80	9.00	43.00	48.00	93.00	118.50	38.65	13.00	0.00	0.00	0.00	0.00		
11	7.80	9.40	43.00	47.00	86.00	135.50	34.60	11.40	0.00	0.00	0.00	0.00		
12	7.40	10.20	41.00	45.50	81.50	246.80	45.00	9.40	0.00	0.00	0.00	0.00		
13	6.65	10.60	41.00	43.00	62.50	225.20	49.50	7.40	0.00	0.00	0.00	0.00		
14	5.60	11.40	44.50	53.00	88.00	139.90	45.00	5.60	0.00	0.00	0.00	0.00		
15	5.60	11.80	44.50	58.00	265.40	96.50	40.50	4.20	0.00	0.00	0.00	0.00		
16	4.55	12.20	43.00	58.00	197.65	37.30	35.05	2.10	0.00	0.00	0.00	0.00		
17	4.55	12.60	45.50	54.50	186.65	32.80	31.00	1.75	0.00	0.00	0.00	0.00		
18	3.85	13.40	45.50	51.00	157.50	29.80	49.50	2.45	0.00	0.00	0.00	0.00		
19	3.85	13.80	43.00	48.00	106.50	39.10	47.50	5.95	0.00	0.00	0.00	0.00		
20	3.15	14.60	48.00	38.20	45.50	49.00	43.00	9.40	0.00	0.00	0.00	0.00		
21	2.45	15.40	51.00	33.70	37.30	120.50	21.80	10.60	0.00	0.00	0.00	0.00		
22	2.45	15.80	53.00	108.00	40.00	111.50	37.75	11.40	0.00	0.00	0.00	0.00		
23	2.10	16.60	49.00	83.00	31.45	86.00	35.05	11.40	0.00	0.00	0.00	0.00		
24	4.90	17.40	47.00	73.00	29.40	52.00	33.70	9.40	0.00	0.00	0.00	0.00		
25	4.90	18.60	33.70	73.00	26.60	47.50	30.60	9.40	0.00	0.00	0.00	0.00		
26	5.60	19.40	38.20	64.50	35.50	85.50	27.00	7.40	0.00	0.00	0.00	0.00		
27	5.60	20.60	108.00	60.50	42.00	94.00	25.80	5.60	0.00	0.00	0.00	0.00		
28	4.55	21.40	148.15	58.00	39.55	81.00	24.20	4.90	0.00	0.00	0.00	0.00		
29	4.55	23.40	108.00	54.50	33.70	70.50	22.20	3.85	0.00	0.00	0.00	0.00		
30	5.60	25.40	55.50	33.70	40.50	61.50	21.80	3.15	0.00	0.00		0.00		
31		27.40		33.70	37.30		20.60		0.00	0.00		0.00		
Total	160.75	407.65	1498.85	1966.80	2381.70	2282.80	1287.80	339.95	5.95	0.00	0.00	0.00	10332.25	CMSDAY
Mean	5.36	13.15	49.96	63.45	76.83	76.09	41.54	11.33	0.19	0.00	0.00	0.00	28.23	CMS
Max	7.80	27.40	148.15	111.50	265.40	246.80	79.50	25.40	2.10	0.00	0.00	0.00	265.40	CMS
Min	2.10	5.60	29.40	33.70	26.60	29.40	20.60	1.75	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	13.89	35.22	129.50	169.93	205.78	197.23	111.27	29.37	0.51	0.00	0.00	0.00	892.71	MCM

Momentary Peak 279.80 CMS, at 20.83 m. (MSL), at 12.00 Hours, on Aug 15, 2011

Runoff Yield ***** Liters/Second/Square KM. Momentary Peak Yield ***** Liters/Second/Square KM.

WATER YEAR : 2011

EAST COAST - GULF BASIN

Chanthaburi River at Ban Bang Cha Ai , Chanthaburi (Z.55)

Lat 12 - 42 - 26 N Long 102 - 10 - 53 E

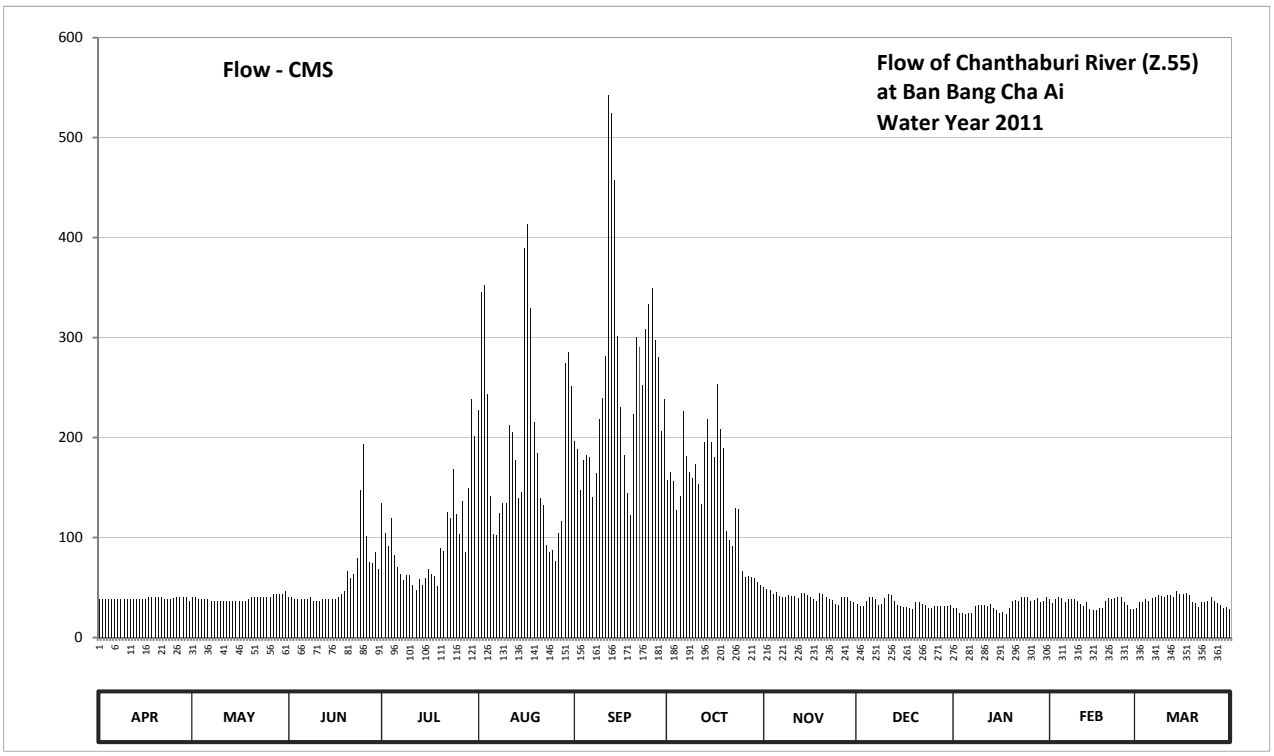
Location : on left bank at the bridge on highway.

	Ban Bang Cha Ai	**Amphoe** Makham	**Changwat** Chanthaburi
Drainge Area	1,100 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+1.739 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the gage site.		**Elevation** +8.680 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	2008 to date		
Rating Operation			
Period of Rating	2008 to date		
Rated by Flot	-		
Rated by Current Meter	2008 to date		
Stability of Channel Regimes	Fairly stable because of backwater effect.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 19 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	2.99	3.04	3.04	4.63	5.82	5.44	4.95	3.22	2.88	2.79	2.99	2.78	
2	2.99	3.04	3.04	4.20	7.10	5.34	5.05	3.19	2.84	2.78	2.91	2.93	
3	2.99	2.99	2.99	3.98	7.17	4.82	4.94	3.16	2.84	2.65	2.98	2.93	
4	2.99	2.99	2.99	4.42	5.99	5.21	4.54	3.09	2.94	2.65	3.04	2.98	
5	2.99	2.99	2.99	3.83	4.74	5.27	4.74	3.13	3.04	2.64	3.01	2.95	
6	2.99	2.99	2.99	3.62	4.18	5.24	5.80	3.05	3.03	2.66	2.92	3.00	
7	2.99	2.94	2.99	3.49	4.16	4.72	5.26	3.04	2.99	2.65	2.99	3.04	
8	2.99	2.94	3.03	3.37	4.50	5.04	5.06	3.04	2.86	2.84	2.99	3.06	
9	2.99	2.94	2.94	3.47	4.64	5.72	4.98	3.06	2.88	2.86	2.98	3.05	
10	2.99	2.94	2.94	3.47	4.64	5.95	5.15	3.05	3.00	2.85	2.95	3.04	
11	2.99	2.94	2.95	3.26	5.64	6.42	4.90	3.05	3.08	2.85	2.89	3.06	
12	2.99	2.94	2.98	3.17	5.56	8.99	4.62	3.00	3.06	2.83	2.84	3.07	
13	2.99	2.94	2.99	3.39	5.20	8.82	5.43	3.10	2.96	2.88	2.93	3.02	
14	2.99	2.94	2.99	3.26	4.71	8.21	5.72	3.11	2.85	2.78	2.75	3.14	
15	2.99	2.94	2.99	3.41	4.79	6.64	5.43	3.06	2.84	2.74	2.74	3.09	
16	2.99	2.94	2.99	3.60	7.54	5.85	5.24	3.02	2.81	2.66	2.74	3.09	
17	3.04	2.94	3.04	3.48	7.79	5.27	6.11	2.98	2.80	2.68	2.78	3.11	
18	3.04	2.94	3.09	3.45	6.94	4.78	5.59	2.94	2.79	2.64	2.79	3.07	
19	3.04	2.99	3.14	3.25	5.68	4.47	5.35	3.10	2.77	2.79	2.95	2.93	
20	3.04	3.04	3.54	3.95	5.29	5.77	4.23	3.08	2.93	2.94	3.00	2.90	
21	3.02	3.04	3.41	3.89	4.71	6.63	4.07	3.03	2.93	2.97	2.99	2.82	
22	2.99	3.04	3.48	4.51	4.60	6.52	3.98	2.98	2.89	2.94	3.00	2.93	
23	2.99	3.04	3.77	4.42	3.99	6.09	4.57	2.97	2.85	3.02	3.03	2.93	
24	2.98	3.04	4.82	5.09	3.87	6.71	4.55	2.89	2.79	3.04	3.02	2.94	
25	3.01	3.04	5.41	4.48	3.90	6.98	3.54	2.85	2.78	3.03	2.92	3.03	
26	3.04	3.04	4.15	4.17	3.72	7.14	3.42	3.04	2.83	2.95	2.86	2.96	
27	3.04	3.09	3.71	4.66	4.19	6.59	3.45	3.04	2.84	2.97	2.77	2.90	
28	3.04	3.09	3.69	3.87	4.38	6.40	3.44	3.02	2.84	3.01	2.77	2.87	
29	3.04	3.09	3.88	4.85	6.34	5.57	3.40	2.95	2.84	2.92	2.79	2.79	
30	2.96	3.09	3.58	5.94	6.46	5.94	3.33	2.93	2.84	2.94		2.81	
31		3.14		5.51	6.08		3.28		2.86	3.04		2.77	
Mean	3.00	3.00	3.35	4.00	5.30	6.08	4.65	3.04	2.89	2.84	2.91	2.97	
Max	3.04	3.14	5.41	5.94	7.79	8.99	6.11	3.22	3.08	3.04	3.04	3.14	8.99
Min	2.96	2.94	2.94	3.17	3.72	4.47	3.28	2.85	2.77	2.64	2.74	2.77	2.64

Annual Max Momentary Gage Height	9.04	m. (MSL.) ,	at 18.00 Hours, on Sep 12, 2011		
Zero Gage at Bottom Elevation	1.74	m. (MSL.) ,	River Bed	-1.61	m. (MSL)
Left Bank Elevation	9.44	m. (MSL.) ,			
Right Bank Elevation	9.87	m. (MSL.) ,	Drainage Area	1100	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	38.50	41.00	41.00	134.10	227.80	196.20	157.00	50.00	33.20	29.60	38.50	29.20		
2	38.50	41.00	41.00	105.00	345.00	188.20	165.00	48.50	31.60	29.20	34.50	35.50		
3	38.50	38.50	38.50	91.80	352.00	147.40	156.20	47.00	31.60	24.00	38.00	35.50		
4	38.50	38.50	38.50	119.40	243.10	177.80	127.80	43.50	36.00	24.00	41.00	38.00		
5	38.50	38.50	38.50	82.80	141.80	182.60	141.80	45.50	41.00	23.60	39.50	36.50		
6	38.50	38.50	38.50	70.20	103.80	180.20	226.00	41.50	40.50	24.40	35.00	39.00		
7	38.50	36.00	38.50	63.50	102.60	140.40	181.80	41.00	38.50	24.00	38.50	41.00		
8	38.50	36.00	40.50	57.50	125.00	164.20	165.80	41.00	32.40	31.60	38.50	42.00		
9	38.50	36.00	36.00	62.50	134.80	218.80	159.40	42.00	33.20	32.40	38.00	41.50		
10	38.50	36.00	36.00	62.50	134.80	239.50	173.00	41.50	39.00	32.00	36.50	41.00		
11	38.50	36.00	36.50	52.00	212.20	281.80	153.00	41.50	43.00	32.00	33.60	42.00		
12	38.50	36.00	38.00	47.50	205.80	542.90	133.40	39.00	42.00	31.20	31.60	42.50		
13	38.50	36.00	38.50	58.50	177.00	524.20	195.40	44.00	37.00	33.20	35.50	40.00		
14	38.50	36.00	38.50	52.00	139.70	457.10	218.80	44.50	32.00	29.20	28.00	46.00		
15	38.50	36.00	38.50	59.50	145.30	301.60	195.40	42.00	31.60	27.60	27.60	43.50		
16	38.50	36.00	38.50	69.00	389.00	230.50	180.20	40.00	30.40	24.40	27.60	43.50		
17	41.00	36.00	41.00	63.00	414.00	182.60	253.90	38.00	30.00	25.20	29.20	44.50		
18	41.00	36.00	43.50	61.50	329.00	144.60	208.20	36.00	29.60	23.60	29.60	42.50		
19	41.00	38.50	46.00	51.50	215.40	122.90	189.00	44.00	28.80	29.60	36.50	35.50		
20	41.00	41.00	66.00	90.00	184.20	223.30	106.80	43.00	35.50	36.00	39.00	34.00		
21	40.00	41.00	59.50	86.40	139.70	300.70	97.20	40.50	35.50	37.50	38.50	30.80		
22	38.50	41.00	63.00	125.70	132.00	290.80	91.80	38.00	33.60	36.00	39.00	35.50		
23	38.50	41.00	79.20	119.40	92.40	252.10	129.90	37.50	32.00	40.00	40.50	35.50		
24	38.00	41.00	147.40	168.20	85.20	307.90	128.50	33.60	29.60	41.00	40.00	36.00		
25	39.50	41.00	193.80	123.60	87.00	333.00	66.00	32.00	29.20	40.50	35.00	40.50		
26	41.00	41.00	102.00	103.20	76.20	349.00	60.00	41.00	31.20	36.50	32.40	37.00		
27	41.00	43.50	75.60	136.20	104.40	297.10	61.50	41.00	31.60	37.50	28.80	34.00		
28	41.00	43.50	74.40	85.20	116.60	280.00	61.00	40.00	31.60	39.50	28.80	32.80		
29	41.00	43.50	85.80	149.50	274.60	206.60	59.00	36.50	31.60	35.00	29.60	29.60		
30	37.00	43.50	68.00	238.60	285.40	238.60	55.50	35.50	31.60	36.00		30.40		
31		46.00		201.80	251.20		53.00		32.40	41.00		28.80		
Total	1175.50	1213.50	1760.70	2991.60	5967.00	7702.60	4351.30	1229.10	1046.80	987.30	1008.80	1164.10	30598.30	CMSDAY
Mean	39.18	39.15	58.69	96.50	192.48	256.75	140.36	40.97	33.77	31.85	34.79	37.55	83.60	CMS
Max	41.00	46.00	193.80	238.60	414.00	542.90	253.90	50.00	43.00	41.00	41.00	46.00	542.90	CMS
Min	37.00	36.00	36.00	47.50	76.20	122.90	53.00	32.00	28.80	23.60	27.60	28.80	23.60	CMS
Runoff	101.56	104.85	152.12	258.47	515.55	665.51	375.95	106.19	90.44	85.30	87.16	100.58	2643.69	MCM

Momentary Peak 548.29 CMS, at 9.04 m. (MSL), at 18.00 Hours, on Sep 12, 2011

Runoff Yield 76.00 Liters/Second/Square KM. Momentary Peak Yield 498.445 Liters/Second/Square KM.

WATER YEAR : 2011

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

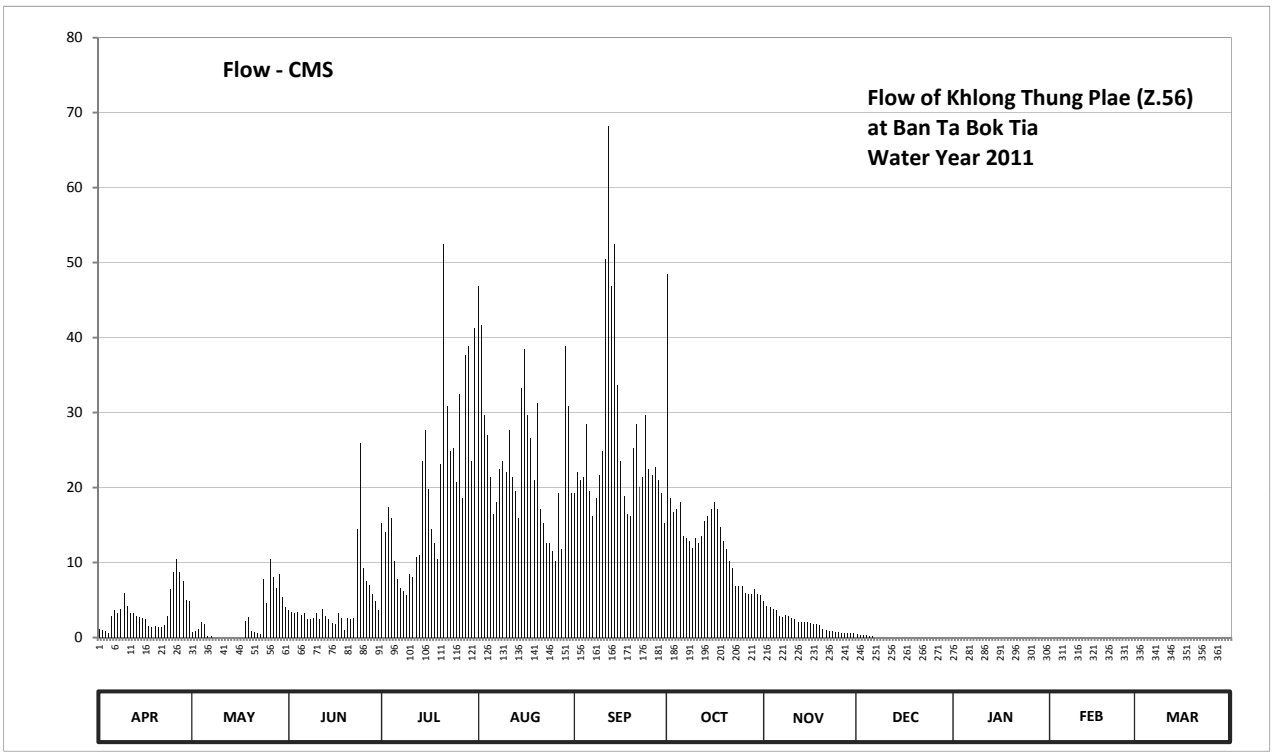
Location : on left bank at the bridge on highway.

	Ban Ta Bok Tia	**Amphoe** Makham	**Changwat** Chanthaburi
Drainge Area	- sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+24.743 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the gage site.	**Elevation**	+31.739 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	2007 to date		
Rating Operation			
Period of Rating	2007 to date		
Rated by Flot	-		
Rated by Current Meter	2007 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 18 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	25.18	25.15	25.33	25.81	26.67	25.94	26.71	25.39	25.13	25.74	25.64	25.14	
2	25.17	25.16	25.32	25.77	26.54	26.03	25.92	25.36	25.12	25.74	25.63	25.13	
3	25.16	25.18	25.31	25.88	26.24	26.00	25.86	25.35	25.12	25.74	25.62	25.11	
4	25.14	25.24	25.32	25.83	26.17	26.01	25.87	25.34	25.12	25.74	25.60	25.07	
5	25.29	25.22	25.30	25.63	26.01	26.21	25.90	25.33	25.11	25.74	25.58	25.04	
6	25.33	25.11	25.31	25.53	25.85	25.95	25.75	25.29	25.11	25.74	25.59	25.04	
7	25.31	25.11	25.26	25.48	25.90	25.84	25.74	25.28	25.09	25.73	25.58	25.15	
8	25.34	25.08	25.26	25.46	26.04	25.92	25.73	25.30	25.08	25.73	25.57	25.24	
9	25.45	25.06	25.27	25.43	26.07	26.02	25.70	25.29	25.07	25.73	25.55	25.29	
10	25.36	25.04	25.31	25.56	26.03	26.11	25.74	25.27	25.06	25.72	25.54	25.38	
11	25.31	25.00	25.26	25.54	26.19	26.76	25.72	25.26	25.04	25.72	25.53	25.58	
12	25.31	25.04	25.34	25.65	26.01	27.16	25.75	25.24	25.04	25.72	25.52	25.45	
13	25.29	25.08	25.29	25.66	25.95	26.67	25.82	25.24	25.04	25.71	25.51	25.34	
14	25.28	25.10	25.26	26.07	25.83	26.81	25.84	25.24	25.04	25.71	25.49	25.33	
15	25.27	25.06	25.23	26.19	26.33	26.34	25.87	25.24	25.04	25.71	25.49	25.24	
16	25.26	25.03	25.22	25.96	26.46	26.07	25.90	25.23	25.04	25.71	25.44	25.19	
17	25.20	25.05	25.31	25.78	26.24	25.93	25.87	25.22	25.04	25.70	25.30	25.14	
18	25.19	25.25	25.27	25.72	26.16	25.85	25.79	25.22	25.04	24.89	25.27	25.11	
19	25.20	25.28	25.17	25.64	26.00	25.84	25.73	25.21	25.03	25.74	25.29	25.08	
20	25.19	25.16	25.27	26.06	26.28	26.12	25.69	25.18	25.00	25.74	25.33	25.05	
21	25.19	25.15	25.26	26.81	25.87	26.21	25.63	25.17	24.98	25.74	25.34	25.04	
22	25.21	25.14	25.27	26.27	25.81	25.97	25.59	25.16	24.96	25.74	25.34	25.04	
23	25.29	25.13	25.78	26.11	25.72	26.01	25.49	25.16	24.94	25.44	25.34	25.04	
24	25.47	25.53	26.14	26.12	25.72	26.24	25.49	25.15	24.94	24.89	25.34	25.01	
25	25.57	25.38	25.59	25.99	25.68	26.04	25.49	25.15	24.94	24.85	25.25	25.49	
26	25.64	25.64	25.52	26.31	25.63	26.02	25.45	25.14	24.94	24.81	25.22	25.14	
27	25.57	25.54	25.50	25.92	25.94	26.05	25.44	25.14	24.94	25.12	25.17	25.04	
28	25.52	25.48	25.44	26.44	25.69	26.00	25.44	25.14	25.56	25.67	25.16	25.04	
29	25.40	25.56	25.39	26.47	26.47	25.94	25.47	25.14	25.67	25.64	25.14	24.96	
30	25.39	25.42	25.33	26.07	26.27	25.81	25.44	25.14	25.77	25.65		24.86	
31		25.35		26.53	25.94		25.43		25.74	25.65		24.84	
Mean	25.32	25.22	25.36	25.93	26.06	26.13	25.72	25.23	25.12	25.58	25.43	25.15	
Max	25.64	25.64	26.14	26.81	26.67	27.16	26.71	25.39	25.77	25.74	25.64	25.58	27.16
Min	25.14	25.00	25.17	25.43	25.63	25.81	25.43	25.14	24.94	24.81	25.14	24.84	24.81

Annual Max Momentary Gage Height	27.74	m. (MSL.) ,	at 18.00 Hours, on Sep 11, 2011		
Zero Gage at Bottom Elevation	24.74	m. (MSL.) ,	River Bed	24.96	m. (MSL)
Left Bank Elevation	32.41	m. (MSL.) ,			
Right Bank Elevation	32.53	m. (MSL.) ,	Drainage Area		Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.20	0.75	3.60	15.30	46.80	19.20	48.40	4.80	0.45	0.00	0.00	0.00		
2	1.05	0.90	3.40	14.10	41.60	22.05	18.60	4.20	0.30	0.00	0.00	0.00		
3	0.90	1.20	3.20	17.40	29.60	21.00	16.80	4.00	0.30	0.00	0.00	0.00		
4	0.60	2.10	3.40	15.90	26.95	21.35	17.10	3.80	0.30	0.00	0.00	0.00		
5	2.85	1.80	3.00	10.25	21.35	28.40	18.00	3.60	0.15	0.00	0.00	0.00		
6	3.60	0.15	3.20	7.75	16.50	19.50	13.50	2.85	0.15	0.00	0.00	0.00		
7	3.20	0.15	2.40	6.60	18.00	16.20	13.20	2.70	0.00	0.00	0.00	0.00		
8	3.80	0.00	2.40	6.20	22.40	18.60	12.90	3.00	0.00	0.00	0.00	0.00		
9	6.00	0.00	2.55	5.60	23.45	21.70	12.00	2.85	0.00	0.00	0.00	0.00		
10	4.20	0.00	3.20	8.50	22.05	24.85	13.20	2.55	0.00	0.00	0.00	0.00		
11	3.20	0.00	2.40	8.00	27.65	50.40	12.60	2.40	0.00	0.00	0.00	0.00		
12	3.20	0.00	3.80	10.75	21.35	68.20	13.50	2.10	0.00	0.00	0.00	0.00		
13	2.85	0.00	2.85	11.00	19.50	46.80	15.60	2.10	0.00	0.00	0.00	0.00		
14	2.70	0.00	2.40	23.45	15.90	52.45	16.20	2.10	0.00	0.00	0.00	0.00		
15	2.55	0.00	1.95	27.65	33.20	33.60	17.10	2.10	0.00	0.00	0.00	0.00		
16	2.40	0.00	1.80	19.80	38.40	23.45	18.00	1.95	0.00	0.00	0.00	0.00		
17	1.50	0.00	3.20	14.40	29.60	18.90	17.10	1.80	0.00	0.00	0.00	0.00		
18	1.35	2.25	2.55	12.60	26.60	16.50	14.70	1.80	0.00	0.00	0.00	0.00		
19	1.50	2.70	1.05	10.50	21.00	16.20	12.90	1.65	0.00	0.00	0.00	0.00		
20	1.35	0.90	2.55	23.10	31.20	25.20	11.75	1.20	0.00	0.00	0.00	0.00		
21	1.35	0.75	2.40	52.45	17.10	28.40	10.25	1.05	0.00	0.00	0.00	0.00		
22	1.65	0.60	2.55	30.80	15.30	20.10	9.25	0.90	0.00	0.00	0.00	0.00		
23	2.85	0.45	14.40	24.85	12.60	21.35	6.80	0.90	0.00	0.00	0.00	0.00		
24	6.40	7.75	25.90	25.20	12.60	29.60	6.80	0.75	0.00	0.00	0.00	0.00		
25	8.75	4.60	9.25	20.70	11.50	22.40	6.80	0.75	0.00	0.00	0.00	0.00		
26	10.50	10.50	7.50	32.40	10.25	21.70	6.00	0.60	0.00	0.00	0.00	0.00		
27	8.75	8.00	7.00	18.60	19.20	22.75	5.80	0.60	0.00	0.00	0.00	0.00		
28	7.50	6.60	5.80	37.60	11.75	21.00	5.80	0.60	0.00	0.00	0.00	0.00		
29	5.00	8.50	4.80	38.80	38.80	19.20	6.40	0.60	0.00	0.00	0.00	0.00		
30	4.80	5.40	3.60	23.45	30.80	15.30	5.80	0.60	0.00	0.00		0.00		
31		4.00		41.20	19.20		5.60		0.00	0.00		0.00		
Total	107.55	70.05	138.10	614.90	732.20	786.35	408.45	60.90	1.65	0.00	0.00	0.00	2920.15	CMSDAY
Mean	3.59	2.26	4.60	19.84	23.62	26.21	13.18	2.03	0.05	0.00	0.00	0.00	7.98	CMS
Max	10.50	10.50	25.90	52.45	46.80	68.20	48.40	4.80	0.45	0.00	0.00	0.00	68.20	CMS
Min	0.60	0.00	1.05	5.60	10.25	15.30	5.60	0.60	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	9.29	6.05	11.93	53.13	63.26	67.94	35.29	5.26	0.14	0.00	0.00	0.00	252.30	MCM

Momentary Peak 96.15 CMS, at 27.74 m. (MSL), at 18.00 Hours, on Sep 11, 2011

Runoff Yield ***** Liters/Second/Square KM. Momentary Peak Yield ***** Liters/Second/Square KM.

WATER YEAR : 2011

EAST COAST - GULF BASIN

Khlong Bo Rai at Ban Bo Rai , Trat (Z.59)

Lat 12 - 21 - 45 N Long 102 - 32 - 38 E

Location : on left bank at the bridge on highway.

	Ban Ta Bok Tia	**Amphoe** Makham	**Changwat** Chanthaburi
Drainge Area	200 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+16.570 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the gage site.		**Elevation** +24.570 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	2010 to date		
Rating Operation			
Period of Rating	2010 to date		
Rated by Flot	-		
Rated by Current Meter	2010 to date		
Stability of Channel Regimes	Fairly stable because of back water effect		
Overbank Flow Conditions	Overbank flow starts at elevation +25.260 m. (MSL.), records are including overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 19 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

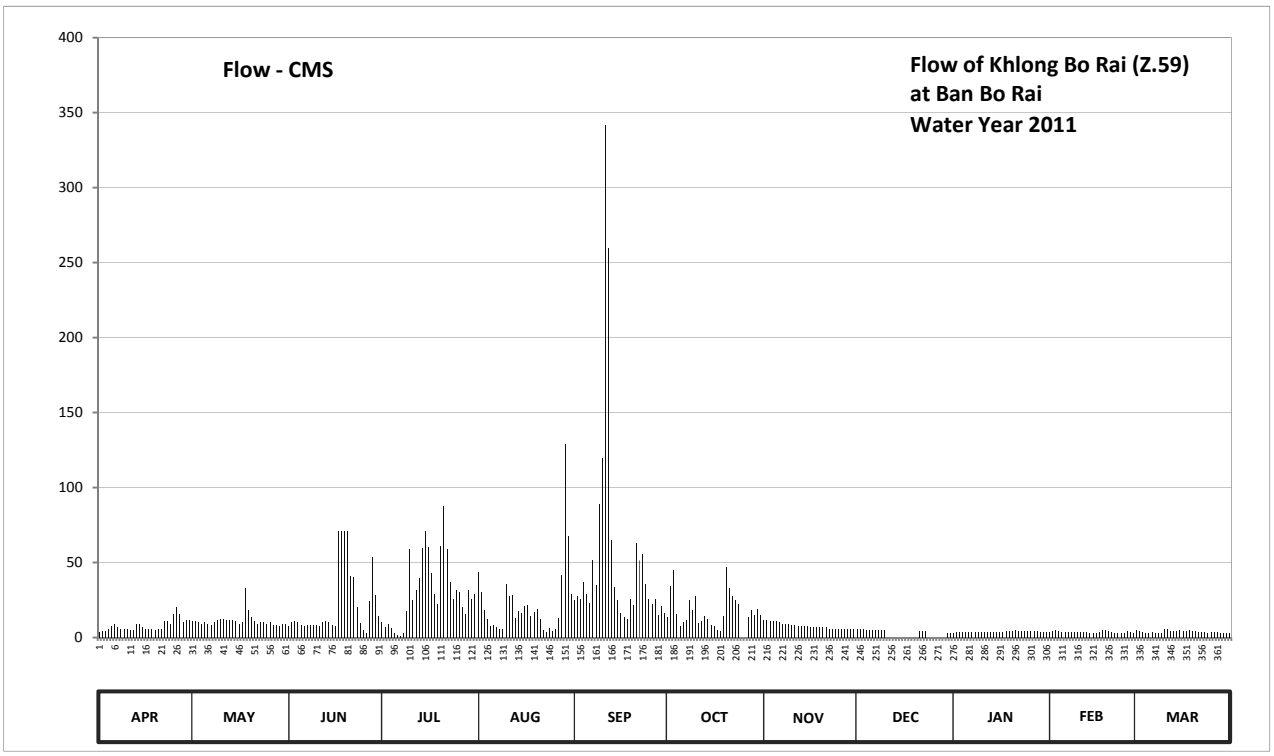
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	21.86	21.96	21.92	20.31	21.27	20.80	20.41	21.97	21.89	21.85	21.86	21.88	
2	21.87	21.96	21.95	20.19	20.96	20.89	21.05	21.97	21.89	21.86	21.87	21.87	
3	21.87	21.95	21.96	20.27	20.58	20.83	21.31	21.96	21.89	21.86	21.88	21.86	
4	21.89	21.94	21.95	20.16	20.37	21.11	20.49	21.96	21.88	21.86	21.87	21.85	
5	21.92	21.95	21.93	20.00	20.23	20.93	20.23	21.96	21.88	21.86	21.86	21.85	
6	21.94	21.94	21.92	19.92	20.24	20.74	20.30	21.95	21.88	21.86	21.86	21.86	
7	21.91	21.93	21.93	19.87	20.20	21.46	20.35	21.94	21.88	21.86	21.86	21.85	
8	21.90	21.95	21.93	20.01	20.15	21.06	20.79	21.94	21.88	21.86	21.86	21.85	
9	21.90	21.97	21.93	20.56	20.15	22.30	20.57	21.94	21.88	21.86	21.86	21.85	
10	21.89	21.98	21.93	21.65	21.09	22.81	20.89	21.93	21.88	21.86	21.86	21.90	
11	21.88	21.98	21.92	20.81	20.88	25.12	20.29	21.93	21.66	21.86	21.86	21.89	
12	21.88	21.97	21.95	20.99	20.90	24.46	20.32	21.92	21.66	21.86	21.86	21.87	
13	21.94	21.97	21.96	21.18	20.39	21.79	20.44	21.92	21.66	21.86	21.86	21.87	
14	21.94	21.97	21.95	21.66	20.55	21.03	20.38	21.92	21.66	21.86	21.85	21.87	
15	21.91	21.96	21.93	21.93	20.50	20.79	20.24	21.92	21.66	21.86	21.85	21.88	
16	21.89	21.94	21.92	21.68	20.67	20.52	20.23	21.91	21.66	21.86	21.85	21.87	
17	21.89	21.95	21.93	21.26	20.68	20.43	20.11	21.91	21.66	21.86	21.86	21.87	
18	21.89	22.19	21.93	20.93	20.45	20.38	20.05	21.91	21.66	21.87	21.88	21.88	
19	21.88	22.05	21.93	20.72	20.54	20.83	20.45	21.91	21.66	21.87	21.88	21.87	
20	21.90	22.00	21.93	21.69	20.59	20.69	21.36	21.91	21.66	21.87	21.87	21.87	
21	21.90	21.96	21.21	22.27	20.38	21.73	21.02	21.91	21.87	21.88	21.86	21.86	
22	21.96	21.94	21.19	21.64	20.10	21.46	20.89	21.90	21.87	21.87	21.85	21.86	
23	21.96	21.95	20.65	21.12	20.04	21.56	20.80	21.90	21.87	21.87	21.85	21.86	
24	21.94	21.95	20.28	20.82	20.16	21.09	20.71	21.90	21.64	21.87	21.85	21.85	
25	22.02	21.94	20.10	20.98	20.08	20.82	20.88	21.90	21.64	21.87	21.85	21.86	
26	22.08	21.95	19.99	20.95	20.12	20.71	21.07	21.90	21.64	21.87	21.87	21.86	
27	22.02	21.93	20.78	20.64	20.39	20.83	22.00	21.90	21.64	21.87	21.86	21.86	
28	21.95	21.93	21.51	20.49	21.23	20.46	22.05	21.90	21.64	21.87	21.85	21.85	
29	21.97	21.92	20.91	20.99	22.96	20.67	22.01	21.90	21.64	21.86	21.87	21.85	
30	21.97	21.94	20.45	20.83	21.85	20.52	22.06	21.90	21.85	21.86		21.85	
31		21.94		20.93	20.93		22.01		21.85	21.86		21.85	
Mean	21.92	21.96	21.53	20.89	20.63	21.29	20.83	21.92	21.76	21.86	21.86	21.86	
Max	22.08	22.19	21.96	22.27	22.96	25.12	22.06	21.97	21.89	21.88	21.88	21.90	25.12
Min	21.86	21.92	19.99	19.87	20.04	20.38	20.05	21.90	21.64	21.85	21.85	21.85	19.87

Annual Max Momentary Gage Height 26.25 m. (MSL.) , at 01.00 Hours, on Sep 12, 2011

Zero Gage at Bottom Elevation 16.57 m. (MSL.) , River Bed 16.72 m. (MSL)

Left Bank Elevation 25.25 m. (MSL.) ,

Right Bank Elevation 25.29 m. (MSL.) , Drainage Area 200 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.60	10.80	7.60	10.30	43.47	25.00	13.30	11.60	5.40	3.00	3.60	4.80		
2	4.20	10.80	10.00	6.80	30.51	27.70	34.27	11.60	5.40	3.60	4.20	4.20		
3	4.20	10.00	10.80	9.10	18.40	25.90	45.15	10.80	5.40	3.60	4.80	3.60		
4	5.40	9.20	10.00	6.20	12.10	36.78	15.70	10.80	4.80	3.60	4.20	3.00		
5	7.60	10.00	8.40	3.00	7.90	29.25	7.90	10.80	4.80	3.60	3.60	3.00		
6	9.20	9.20	7.60	1.80	8.20	23.20	10.00	10.00	4.80	3.60	3.60	3.60		
7	6.80	8.40	8.40	1.05	7.00	51.42	11.50	9.20	4.80	3.60	3.60	3.00		
8	6.00	10.00	8.40	3.20	6.00	34.69	24.70	9.20	4.80	3.60	3.60	3.00		
9	6.00	11.60	8.40	17.80	6.00	89.00	18.10	9.20	4.80	3.60	3.60	3.00		
10	5.40	12.40	8.40	59.36	35.95	119.60	27.70	8.40	4.80	3.60	3.60	6.00		
11	4.80	12.40	7.60	25.30	27.40	341.80	9.70	8.40	0.00	3.60	3.60	5.40		
12	4.80	11.60	10.00	31.76	28.00	259.60	10.60	7.60	0.00	3.60	3.60	4.20		
13	9.20	11.60	10.80	39.71	12.70	65.22	14.20	7.60	0.00	3.60	3.60	4.20		
14	9.20	11.60	10.00	59.78	17.50	33.44	12.40	7.60	0.00	3.60	3.00	4.20		
15	6.80	10.80	8.40	71.07	16.00	24.70	8.20	7.60	0.00	3.60	3.00	4.80		
16	5.40	9.20	7.60	60.62	21.10	16.60	7.90	6.80	0.00	3.60	3.00	4.20		
17	5.40	10.00	71.07	43.05	21.40	13.90	5.20	6.80	0.00	3.60	3.60	4.20		
18	5.40	32.80	71.07	29.25	14.50	12.40	4.00	6.80	0.00	4.20	4.80	4.80		
19	4.80	18.00	71.07	22.60	17.20	25.90	14.50	6.80	0.00	4.20	4.80	4.20		
20	6.00	14.00	71.07	61.04	18.70	21.70	47.24	6.80	0.00	4.20	4.20	4.20		
21	6.00	10.80	40.96	87.50	12.40	62.71	33.02	6.80	4.20	4.80	3.60	3.60		
22	10.80	9.20	40.13	58.95	5.00	51.42	27.70	6.00	4.20	4.20	3.00	3.60		
23	10.80	10.00	20.50	37.20	3.80	55.60	25.00	6.00	4.20	4.20	3.00	3.60		
24	9.20	10.00	9.40	25.60	6.20	35.95	22.30	6.00	0.00	4.20	3.00	3.00		
25	15.60	9.20	5.00	31.35	4.60	25.60	0.00	6.00	0.00	4.20	3.00	3.60		
26	20.40	10.00	2.85	30.09	5.40	22.30	0.00	6.00	0.00	4.20	4.20	3.60		
27	15.60	8.40	24.40	20.20	12.70	25.90	14.00	6.00	0.00	4.20	3.60	3.60		
28	10.00	8.40	53.51	15.70	41.80	14.80	18.00	6.00	0.00	4.20	3.00	3.00		
29	11.60	7.60	28.42	31.76	129.20	21.10	14.80	6.00	0.00	3.60	4.20	3.00		
30	11.60	9.20	14.50	25.90	67.73	16.60	18.80	6.00	3.00	3.60		3.00		
31		9.20		29.25	29.25		14.80		3.00	3.60		3.00		
Total	241.80	346.40	666.35	956.29	688.11	1609.78	530.68	235.20	68.40	118.20	106.20	118.20	5685.61	CMSDAY
Mean	8.06	11.17	22.21	30.85	22.20	53.66	17.12	7.84	2.21	3.81	3.66	3.81	15.53	CMS
Max	20.40	32.80	71.07	87.50	129.20	341.80	47.24	11.60	5.40	4.80	4.80	6.00	341.80	CMS
Min	3.60	7.60	2.85	1.05	3.80	12.40	0.00	6.00	0.00	3.00	3.00	3.00	0.00	CMS
Runoff	20.89	29.93	57.57	82.62	59.45	139.09	45.85	20.32	5.91	10.21	9.18	10.21	491.24	MCM

Momentary Peak 520.50 CMS, at 26.25 m. (MSL), at 01.00 Hours, on Sep 12, 2011

Runoff Yield 77.67 Liters/Second/Square KM. Momentary Peak Yield 2602.500 Liters/Second/Square KM.

WATER YEAR : 2011

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.

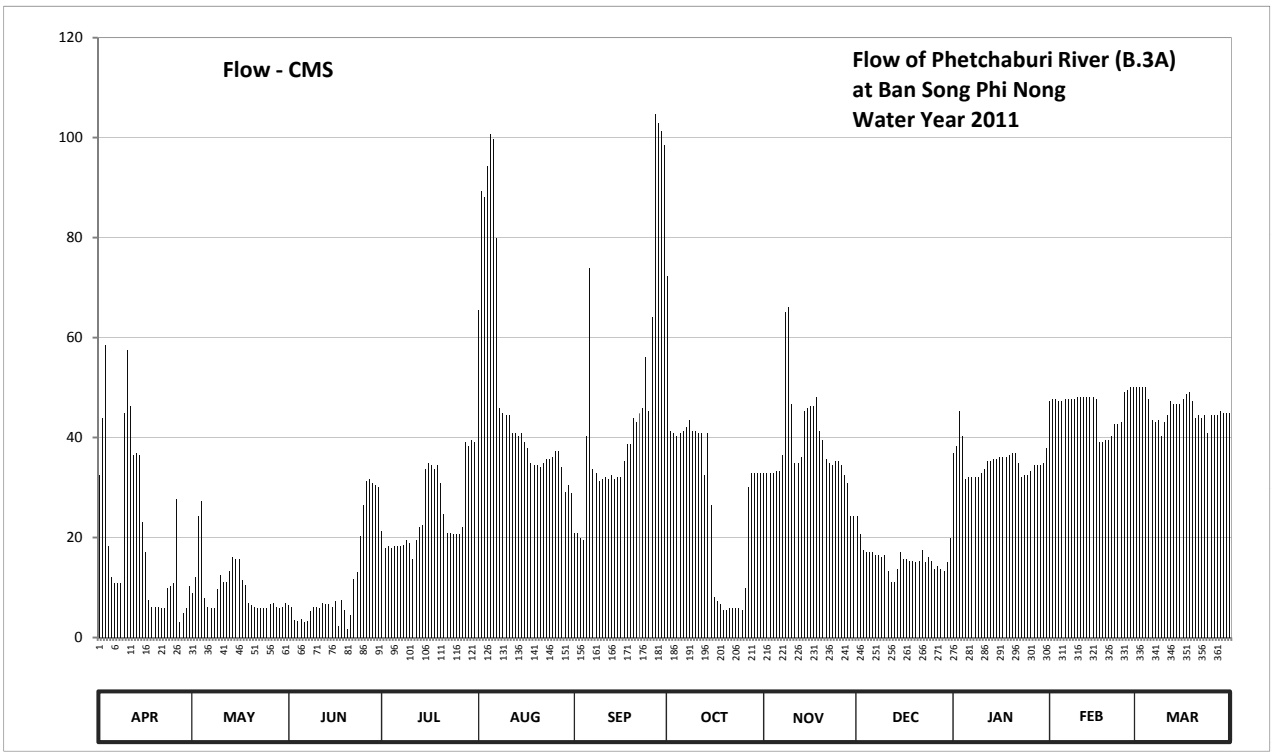
Ban Song Phi Nong **Amphoe** Kaeng Krachan **Changwat** Phetchaburi

Drainge Area	2,220 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+40.998 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank about 24 meters from the top staff gage. **Elevation** +50.534 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings
Period of Available Gage Records	1930 - 1942 , 1954 to date
Rating Operation	
Period of Rating	1954 - 1959 , 1968 to date
Rated by Flot	-
Rated by Current Meter	1954 - 1959 , 1968 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Flow regulated by Kaeng Krachan Reservoir. Stage-discharge relation defined by 35 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	42.50	41.84	41.75	42.21	43.21	42.20	43.34	42.51	42.29	42.61	42.84	42.90	
2	42.77	41.94	41.74	42.11	43.65	42.20	42.71	42.51	42.19	42.64	42.85	42.90	
3	43.07	42.29	41.64	42.12	43.63	42.17	42.70	42.51	42.10	42.80	42.85	42.90	
4	42.12	42.37	41.63	42.11	43.74	42.16	42.69	42.51	42.09	42.69	42.84	42.90	
5	41.94	41.80	41.65	42.12	43.86	42.69	42.70	42.52	42.09	42.48	42.84	42.85	
6	41.90	41.74	41.62	42.12	43.84	43.37	42.71	42.52	42.09	42.49	42.85	42.76	
7	41.90	41.73	41.63	42.12	43.48	42.53	42.73	42.60	42.07	42.49	42.85	42.75	
8	41.90	41.73	41.71	42.13	42.81	42.51	42.76	43.20	42.07	42.49	42.85	42.76	
9	42.79	41.86	41.74	42.16	42.79	42.47	42.71	43.22	42.06	42.49	42.85	42.69	
10	43.05	41.95	41.74	42.14	42.78	42.48	42.71	42.83	42.07	42.51	42.86	42.75	
11	42.82	41.91	41.73	42.05	42.78	42.49	42.70	42.56	41.98	42.53	42.86	42.78	
12	42.60	41.91	41.77	42.16	42.70	42.48	42.70	42.56	41.91	42.57	42.86	42.84	
13	42.61	41.98	41.76	42.23	42.70	42.50	42.50	42.59	41.91	42.57	42.86	42.83	
14	42.60	42.06	41.76	42.24	42.69	42.48	42.70	42.80	41.99	42.58	42.86	42.83	
15	42.26	42.05	41.74	42.53	42.70	42.49	42.35	42.81	42.09	42.58	42.86	42.83	
16	42.09	42.05	41.78	42.56	42.66	42.49	41.81	42.82	42.05	42.59	42.85	42.85	
17	41.79	41.92	41.58	42.55	42.63	42.57	41.78	42.82	42.05	42.59	42.66	42.87	
18	41.74	41.89	41.79	42.53	42.56	42.65	41.76	42.86	42.04	42.59	42.66	42.88	
19	41.74	41.77	41.72	42.55	42.55	42.65	41.72	42.71	42.04	42.60	42.67	42.84	
20	41.74	41.75	41.55	42.46	42.55	42.77	41.72	42.67	42.03	42.61	42.67	42.77	
21	41.73	41.74	41.68	42.30	42.54	42.75	41.73	42.58	42.04	42.61	42.69	42.78	
22	41.73	41.73	41.93	42.20	42.56	42.79	41.73	42.56	42.10	42.56	42.74	42.77	
23	41.87	41.73	41.97	42.20	42.58	42.81	41.73	42.55	42.03	42.49	42.74	42.78	
24	41.88	41.73	42.18	42.19	42.58	43.02	41.73	42.57	42.06	42.50	42.75	42.70	
25	41.90	41.73	42.35	42.19	42.59	42.80	41.72	42.57	42.04	42.50	42.88	42.78	
26	42.38	41.76	42.47	42.19	42.62	43.18	41.87	42.55	41.99	42.52	42.89	42.78	
27	41.62	41.77	42.48	42.23	42.62	43.93	42.44	42.50	42.01	42.55	42.90	42.78	
28	41.70	41.74	42.46	42.66	42.54	43.90	42.51	42.46	41.99	42.55	42.90	42.80	
29	41.73	41.73	42.45	42.64	42.42	43.87	42.51	42.29	41.98	42.55	42.90	42.79	
30	41.88	41.74	42.44	42.67	42.45	43.82	42.51	42.29	42.03	42.56		42.79	
31		41.77		42.66	42.41		42.51		42.17	42.63		42.79	
Mean	42.14	41.86	41.88	42.30	42.85	42.77	42.34	42.64	42.05	42.57	42.82	42.81	
Max	43.07	42.37	42.48	42.67	43.86	43.93	43.34	43.22	42.29	42.80	42.90	42.90	43.93
Min	41.62	41.73	41.55	42.05	42.41	42.16	41.72	42.29	41.91	42.48	42.66	42.69	41.55

Annual Max Momentary Gage Height	44.09	m. (MSL.) ,	at 23.00 Hours , on Apr 9 , 2011		
Zero Gage at Bottom Elevation	41.00	m. (MSL.) ,	River Bed	40.59	m. (MSL)
Left Bank Elevation	48.88	m. (MSL.) ,			
Right Bank Elevation	48.81	m. (MSL.) ,	Drainage Area	2220	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	32.40	9.00	6.40	21.36	65.50	21.00	72.20	32.81	24.24	36.93	47.18	50.00		
2	43.95	12.08	6.12	17.85	89.25	21.00	41.25	32.81	20.65	38.22	47.65	50.00		
3	58.50	24.24	3.50	18.20	88.15	19.95	40.80	32.81	17.50	45.30	47.65	50.00		
4	18.20	27.26	3.25	17.85	94.20	19.60	40.37	32.81	17.15	40.37	47.18	50.00		
5	12.08	7.80	3.75	18.20	100.80	40.37	40.80	33.22	17.15	31.60	47.18	47.65		
6	10.80	6.12	3.00	18.20	99.70	73.85	41.25	33.22	17.15	32.00	47.65	43.50		
7	10.80	5.84	3.25	18.20	79.90	33.63	42.15	36.50	16.45	32.00	47.65	43.05		
8	10.80	5.84	5.28	18.55	45.77	32.81	43.50	65.00	16.45	32.00	47.65	43.50		
9	44.85	9.60	6.12	19.60	44.85	31.20	41.25	66.00	16.10	32.00	47.65	40.37		
10	57.50	12.40	6.12	18.90	44.40	31.60	41.25	46.71	16.45	32.81	48.12	43.05		
11	46.24	11.12	5.84	15.75	44.40	32.00	40.80	34.86	13.36	33.63	48.12	44.40		
12	36.50	11.12	6.96	19.60	40.80	31.60	40.80	34.86	11.12	35.27	48.12	47.18		
13	36.93	13.36	6.68	22.08	40.80	32.40	32.40	36.09	11.12	35.27	48.12	46.71		
14	36.50	16.10	6.68	22.44	40.37	31.60	40.80	45.30	13.68	35.68	48.12	46.71		
15	23.16	15.75	6.12	33.63	40.80	32.00	26.50	45.77	17.15	35.68	48.12	46.71		
16	17.15	15.75	7.24	34.86	39.08	32.00	8.10	46.24	15.75	36.09	47.65	47.65		
17	7.52	11.44	2.20	34.45	37.79	35.27	7.24	46.24	15.75	36.09	39.08	48.59		
18	6.12	10.50	7.52	33.63	34.86	38.65	6.68	48.12	15.40	36.09	39.08	49.06		
19	6.12	6.96	5.56	34.45	34.45	38.65	5.56	41.25	15.40	36.50	39.51	47.18		
20	6.12	6.40	1.75	30.80	34.45	43.95	5.56	39.51	15.05	36.93	39.51	43.95		
21	5.84	6.12	4.50	24.60	34.04	43.05	5.84	35.68	15.40	36.93	40.37	44.40		
22	5.84	5.84	11.76	21.00	34.86	44.85	5.84	34.86	17.50	34.86	42.60	43.95		
23	9.90	5.84	13.04	21.00	35.68	45.77	5.84	34.45	15.05	32.00	42.60	44.40		
24	10.20	5.84	20.30	20.65	35.68	56.00	5.84	35.27	16.10	32.40	43.05	40.80		
25	10.80	5.84	26.50	20.65	36.09	45.30	5.56	35.27	15.40	32.40	49.06	44.40		
26	27.64	6.68	31.20	20.65	37.36	64.00	9.90	34.45	13.68	33.22	49.53	44.40		
27	3.00	6.96	31.60	22.08	37.36	104.80	30.00	32.40	14.35	34.45	50.00	44.40		
28	5.00	6.12	30.80	39.08	34.04	103.00	32.81	30.80	13.68	34.45	50.00	45.30		
29	5.84	5.84	30.40	38.22	29.20	101.35	32.81	24.24	13.36	34.45	50.00	44.85		
30	10.20	6.12	30.00	39.51	30.40	98.60	32.81	24.24	15.05	34.86		44.85		
31		6.96		39.08	28.80		32.81		19.95	37.79		44.85		
Total	616.50	306.84	333.44	775.12	1513.83	1379.85	859.32	1151.79	492.59	1088.27	1338.20	1415.86	11271.61	CMSDAY
Mean	20.55	9.90	11.11	25.00	48.83	46.00	27.72	38.39	15.89	35.11	46.14	45.67	30.80	CMS
Max	58.50	27.26	31.60	39.51	100.80	104.80	72.20	66.00	24.24	45.30	50.00	50.00	104.80	CMS
Min	3.00	5.84	1.75	15.75	28.80	19.60	5.56	24.24	11.12	31.60	39.08	40.37	1.75	CMS
Runoff	53.27	26.51	28.81	66.97	130.80	119.22	74.25	99.52	42.56	94.03	115.62	122.33	973.87	MCM

Momentary Peak 114.40 CMS. at 44.09 m. (MSL.) at 23.00 Hours , on Apr 9 , 2011

Runoff Yield 13.87 Liters/Second/Square KM. Momentary Peak Yield 51.532 Liters/Second/Square KM.

WATER YEAR : 2011

PHETCHABURI RIVER BASIN

Huai Phak at Ban Prong Khae , Phetchaburi (B.8A)

Lat 12 - 48 - 50 N Long 99 - 42 - 16 E

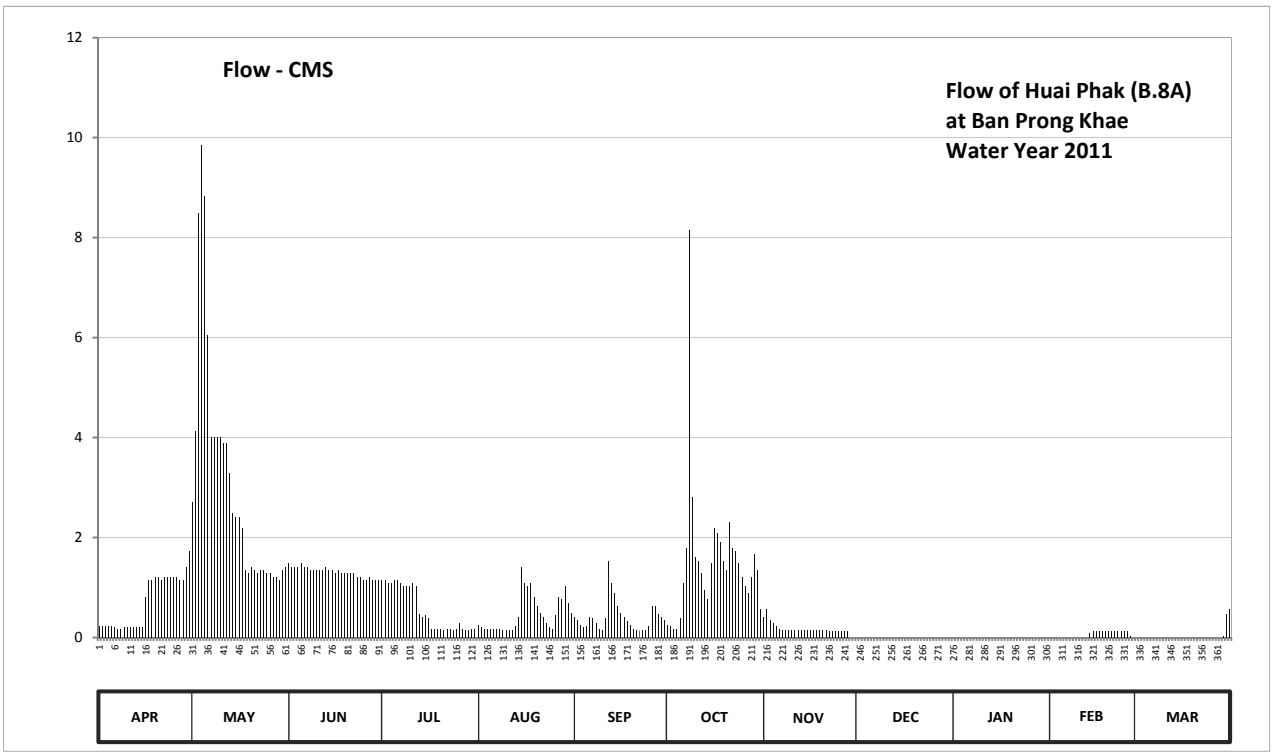
Location : on left bank at Ban Kariang.

	Ban Prong Khae	**Amphoe** Tha Yang	**Changwat** Phetchaburi
Drainge Area	301 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+39.177 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	In front of gage observer's house.		**Elevation** +47.485 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	1973 to date		
Rating Operation			
Period of Rating	1973 to date		
Rated by Flot	-		
Rated by Current Meter	1973 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 22 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	39.91	40.29	40.15	40.10	39.92	39.97	39.92	39.97	39.76	39.76	39.76	39.76	
2	39.91	40.41	40.14	40.10	39.90	39.95	39.91	40.01	39.76	39.76	39.76	39.76	
3	39.91	40.70	40.14	40.09	39.88	39.92	39.88	39.95	39.76	39.76	39.76	39.76	
4	39.91	40.78	40.14	40.09	39.88	39.90	39.88	39.93	39.76	39.76	39.76	39.76	
5	39.91	40.72	40.15	40.10	39.88	39.91	39.96	39.91	39.76	39.76	39.76	39.76	
6	39.90	40.55	40.14	40.10	39.88	39.97	40.09	39.89	39.76	39.76	39.76	39.76	
7	39.89	40.40	40.14	40.09	39.88	39.96	40.20	39.87	39.76	39.76	39.76	39.76	
8	39.89	40.40	40.13	40.08	39.88	39.93	40.68	39.87	39.76	39.76	39.76	39.76	
9	39.90	40.40	40.13	40.08	39.87	39.89	40.30	39.87	39.76	39.76	39.76	39.76	
10	39.90	40.40	40.13	40.08	39.87	39.87	40.17	39.87	39.76	39.76	39.76	39.76	
11	39.90	40.39	40.13	40.09	39.87	39.96	40.16	39.87	39.76	39.76	39.76	39.76	
12	39.90	40.39	40.13	40.08	39.87	40.16	40.12	39.87	39.76	39.76	39.76	39.76	
13	39.90	40.34	40.14	39.99	39.91	40.09	40.07	39.87	39.76	39.76	39.76	39.76	
14	39.90	40.27	40.13	39.97	39.97	40.06	40.04	39.87	39.76	39.76	39.84	39.76	
15	39.90	40.26	40.13	39.98	40.14	40.02	40.15	39.87	39.76	39.76	39.86	39.76	
16	40.05	40.26	40.12	39.96	40.09	40.00	40.24	39.87	39.76	39.76	39.86	39.76	
17	40.10	40.24	40.13	39.89	40.08	39.97	40.23	39.87	39.76	39.76	39.86	39.76	
18	40.10	40.13	40.12	39.89	40.09	39.94	40.21	39.87	39.76	39.76	39.86	39.76	
19	40.11	40.12	40.12	39.88	40.05	39.92	40.16	39.87	39.76	39.76	39.86	39.76	
20	40.11	40.14	40.12	39.88	40.02	39.89	40.13	39.87	39.76	39.76	39.86	39.76	
21	40.10	40.13	40.12	39.87	40.00	39.87	40.25	39.87	39.76	39.76	39.86	39.76	
22	40.11	40.12	40.12	39.88	39.97	39.87	40.20	39.86	39.76	39.76	39.86	39.76	
23	40.11	40.13	40.11	39.88	39.93	39.87	40.19	39.86	39.76	39.76	39.86	39.76	
24	40.11	40.13	40.11	39.87	39.90	39.87	40.15	39.86	39.76	39.76	39.86	39.76	
25	40.11	40.12	40.10	39.89	39.88	39.91	40.11	39.86	39.76	39.76	39.86	39.76	
26	40.11	40.12	40.10	39.93	39.98	40.02	40.08	39.86	39.76	39.76	39.86	39.76	
27	40.10	40.11	40.11	39.89	40.05	40.02	40.06	39.86	39.76	39.76	39.81	39.76	
28	40.10	40.11	40.10	39.87	40.04	39.99	40.11	39.86	39.76	39.76	39.76	39.76	
29	40.14	40.10	40.10	39.87	40.08	39.97	40.18	39.79	39.76	39.76	39.76	39.81	
30	40.19	40.13	40.10	39.88	40.03	39.95	40.13	39.76	39.76	39.76		39.99	
31		40.14		39.88	40.00		40.01		39.76	39.76		40.01	
Mean	40.01	40.29	40.12	39.98	39.96	39.95	40.13	39.88	39.76	39.76	39.81	39.78	
Max	40.19	40.78	40.15	40.10	40.14	40.16	40.68	40.01	39.76	39.76	39.86	40.01	40.78
Min	39.89	40.10	40.10	39.87	39.87	39.87	39.88	39.76	39.76	39.76	39.76	39.76	39.76

Annual Max Momentary Gage Height	40.80	m. (MSL.) ,	at 08.00 Hours , on Oct 8 , 2011		
Zero Gage at Bottom Elevation	39.18	m. (MSL.) ,	River Bed	39.79	m. (MSL)
Left Bank Elevation	45.14	m. (MSL.) ,			
Right Bank Elevation	45.26	m. (MSL.) ,	Drainage Area	301	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.23	2.70	1.48	1.15	0.26	0.41	0.26	0.41	0.00	0.00	0.00	0.00		
2	0.23	4.13	1.41	1.15	0.20	0.35	0.23	0.56	0.00	0.00	0.00	0.00		
3	0.23	8.50	1.41	1.08	0.16	0.26	0.16	0.35	0.00	0.00	0.00	0.00		
4	0.23	9.86	1.41	1.08	0.16	0.20	0.16	0.29	0.00	0.00	0.00	0.00		
5	0.23	8.84	1.48	1.15	0.16	0.23	0.38	0.23	0.00	0.00	0.00	0.00		
6	0.20	6.05	1.41	1.15	0.16	0.41	1.08	0.18	0.00	0.00	0.00	0.00		
7	0.18	4.00	1.41	1.08	0.16	0.38	1.80	0.14	0.00	0.00	0.00	0.00		
8	0.18	4.00	1.35	1.02	0.16	0.29	8.16	0.14	0.00	0.00	0.00	0.00		
9	0.20	4.00	1.35	1.02	0.14	0.18	2.80	0.14	0.00	0.00	0.00	0.00		
10	0.20	4.00	1.35	1.02	0.14	0.14	1.60	0.14	0.00	0.00	0.00	0.00		
11	0.20	3.88	1.35	1.08	0.14	0.38	1.54	0.14	0.00	0.00	0.00	0.00		
12	0.20	3.88	1.35	1.02	0.14	1.54	1.28	0.14	0.00	0.00	0.00	0.00		
13	0.20	3.28	1.41	0.47	0.23	1.08	0.95	0.14	0.00	0.00	0.00	0.00		
14	0.20	2.50	1.35	0.41	0.41	0.89	0.76	0.14	0.00	0.00	0.08	0.00		
15	0.20	2.40	1.35	0.44	1.41	0.63	1.48	0.14	0.00	0.00	0.12	0.00		
16	0.82	2.40	1.28	0.38	1.08	0.50	2.20	0.14	0.00	0.00	0.12	0.00		
17	1.15	2.20	1.35	0.18	1.02	0.41	2.10	0.14	0.00	0.00	0.12	0.00		
18	1.15	1.35	1.28	0.18	1.08	0.32	1.90	0.14	0.00	0.00	0.12	0.00		
19	1.22	1.28	1.28	0.16	0.82	0.26	1.54	0.14	0.00	0.00	0.12	0.00		
20	1.22	1.41	1.28	0.16	0.63	0.18	1.35	0.14	0.00	0.00	0.12	0.00		
21	1.15	1.35	1.28	0.14	0.50	0.14	2.30	0.14	0.00	0.00	0.12	0.00		
22	1.22	1.28	1.28	0.16	0.41	0.14	1.80	0.12	0.00	0.00	0.12	0.00		
23	1.22	1.35	1.22	0.16	0.29	0.14	1.73	0.12	0.00	0.00	0.12	0.00		
24	1.22	1.35	1.22	0.14	0.20	0.14	1.48	0.12	0.00	0.00	0.12	0.00		
25	1.22	1.28	1.15	0.18	0.16	0.23	1.22	0.12	0.00	0.00	0.12	0.00		
26	1.22	1.28	1.15	0.29	0.44	0.63	1.02	0.12	0.00	0.00	0.12	0.00		
27	1.15	1.22	1.22	0.18	0.82	0.63	0.89	0.12	0.00	0.00	0.02	0.00		
28	1.15	1.22	1.15	0.14	0.76	0.47	1.22	0.12	0.00	0.00	0.00	0.00		
29	1.41	1.15	1.15	0.14	1.02	0.41	1.67	0.00	0.00	0.00	0.00	0.02		
30	1.73	1.35	1.15	0.16	0.69	0.35	1.35	0.00	0.00	0.00		0.47		
31		1.41		0.16	0.50		0.56		0.00	0.00		0.56		
Total	21.36	94.90	39.31	17.23	14.45	12.32	46.97	4.96	0.00	0.00	1.54	1.05	254.09	CMSDAY
Mean	0.71	3.06	1.31	0.56	0.47	0.41	1.52	0.17	0.00	0.00	0.05	0.03	0.69	CMS
Max	1.73	9.86	1.48	1.15	1.41	1.54	8.16	0.56	0.00	0.00	0.12	0.56	9.86	CMS
Min	0.18	1.15	1.15	0.14	0.14	0.14	0.16	0.00	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	1.85	8.20	3.40	1.49	1.25	1.06	4.06	0.43	0.00	0.00	0.13	0.09	21.95	MCM

Momentary Peak 10.20 CMS. at 40.80 m. (MSL.) at 08.00 Hours , on Oct 8 , 2011

Runoff Yield 2.31 Liters/Second/Square KM. Momentary Peak Yield 33.887 Liters/Second/Square KM.

WATER YEAR : 2011

PHETCHABURI RIVER BASIN

Phetchaburi River at Ban Sarahed , Phetchaburi (B.9)

Lat 12 - 48 - 18 N Long 99 - 46 - 27 E

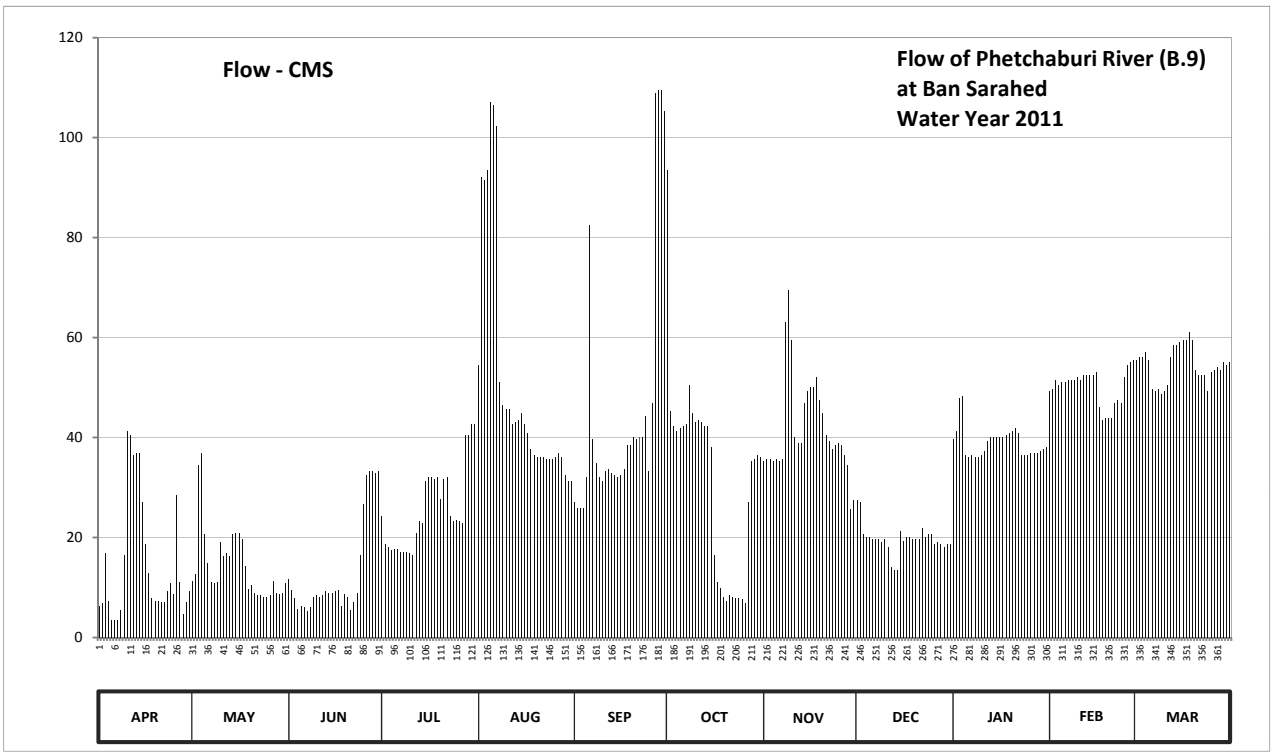
Location : on left bank at Ban Sarahed.

	Ban Sarahed	**Amphoe** Tha Yang	**Changwat** Phetchaburi
Drainge Area	2,617 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+25.317 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	Near the automatic gage building.		**Elevation** +32.512 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	2003 to date		
Rating Operation			
Period of Rating	2003 to date		
Rated by Flot	-		
Rated by Current Meter	2003 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 35 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	26.76	27.00	27.01	27.43	28.17	27.51	28.89	27.73	27.52	27.84	28.06	28.19	
2	26.79	27.05	26.92	27.26	28.87	27.48	27.97	27.74	27.51	27.88	28.07	28.20	
3	27.20	27.71	26.84	27.24	28.86	27.48	27.90	27.74	27.32	28.03	28.11	28.20	
4	26.81	27.77	26.74	27.22	28.89	27.48	27.88	27.73	27.30	28.04	28.09	28.22	
5	26.62	27.32	26.76	27.23	29.12	27.65	27.89	27.74	27.30	27.76	28.10	28.19	
6	26.62	27.13	26.75	27.23	29.11	28.71	27.90	27.73	27.29	27.75	28.10	28.07	
7	26.62	26.99	26.71	27.21	29.04	27.84	27.91	27.74	27.29	27.76	28.11	28.06	
8	26.72	26.98	26.75	27.21	28.10	27.72	28.09	28.34	27.29	27.75	28.11	28.07	
9	27.19	26.99	26.86	27.21	28.00	27.65	27.96	28.47	27.27	27.75	28.11	28.05	
10	27.88	27.27	26.87	27.20	27.98	27.63	27.92	28.27	27.29	27.76	28.12	28.06	
11	27.86	27.18	26.86	27.19	27.98	27.68	27.93	27.85	27.24	27.78	28.11	28.09	
12	27.76	27.20	26.87	27.33	27.91	27.69	27.92	27.82	27.10	27.83	28.13	28.20	
13	27.77	27.18	26.91	27.40	27.92	27.67	27.90	27.82	27.08	27.85	28.13	28.25	
14	27.77	27.32	26.89	27.39	27.93	27.66	27.90	28.01	27.08	27.85	28.13	28.25	
15	27.51	27.33	26.89	27.63	27.96	27.65	27.80	28.06	27.34	27.85	28.13	28.26	
16	27.26	27.33	26.91	27.65	27.91	27.66	27.19	28.08	27.28	27.85	28.14	28.27	
17	27.06	27.29	26.92	27.65	27.87	27.69	26.99	28.08	27.30	27.85	27.99	28.27	
18	26.84	27.11	26.76	27.64	27.79	27.81	26.94	28.12	27.30	27.86	27.93	28.30	
19	26.81	26.93	26.88	27.65	27.76	27.81	26.86	28.02	27.29	27.87	27.94	28.27	
20	26.81	26.96	26.86	27.53	27.75	27.85	26.81	27.96	27.29	27.88	27.94	28.15	
21	26.80	26.89	26.72	27.64	27.75	27.84	26.87	27.86	27.29	27.89	27.94	28.13	
22	26.80	26.87	26.80	27.65	27.75	27.85	26.86	27.83	27.36	27.87	28.01	28.13	
23	26.91	26.87	26.89	27.43	27.74	27.85	26.84	27.79	27.30	27.76	28.02	28.13	
24	26.98	26.86	27.19	27.40	27.74	27.95	26.84	27.81	27.32	27.76	28.01	28.06	
25	26.88	26.86	27.50	27.41	27.74	27.68	26.83	27.82	27.32	27.76	28.12	28.14	
26	27.55	26.87	27.66	27.40	27.75	28.01	26.79	27.81	27.26	27.77	28.17	28.15	
27	26.99	27.00	27.68	27.39	27.77	29.15	27.51	27.76	27.27	27.77	28.18	28.16	
28	26.68	26.89	27.68	27.86	27.75	29.16	27.73	27.71	27.26	27.77	28.19	28.15	
29	26.80	26.88	27.67	27.86	27.66	29.16	27.74	27.47	27.24	27.78	28.19	28.18	
30	26.91	26.90	27.68	27.91	27.63	29.09	27.76	27.52	27.26	27.79		28.17	
31		26.98		27.91	27.63		27.75		27.26	27.80		28.18	
Mean	27.07	27.09	27.01	27.46	28.06	27.94	27.55	27.88	27.28	27.82	28.08	28.17	
Max	27.88	27.77	27.68	27.91	29.12	29.16	28.89	28.47	27.52	28.04	28.19	28.30	29.16
Min	26.62	26.86	26.71	27.19	27.63	27.48	26.79	27.47	27.08	27.75	27.93	28.05	26.62

Annual Max Momentary Gage Height	29.17	m. (MSL.) ,	at 18.00 Hours , on Sep 28 , 2011		
Zero Gage at Bottom Elevation	25.32	m. (MSL.) ,	River Bed	25.19	m. (MSL)
Left Bank Elevation	31.87	m. (MSL.) ,			
Right Bank Elevation	32.10	m. (MSL.) ,	Drainage Area	2617	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	6.20	11.40	11.66	24.25	54.50	27.05	93.40	35.20	27.40	39.68	49.20	55.50		
2	6.80	12.70	9.48	18.72	92.20	26.00	45.21	35.60	27.05	41.36	49.65	56.00		
3	16.80	34.40	7.80	18.08	91.60	26.00	42.20	35.60	20.64	47.85	51.50	56.00		
4	7.20	36.80	5.80	17.44	93.40	26.00	41.36	35.20	20.00	48.30	50.55	57.00		
5	3.56	20.64	6.20	17.76	107.20	32.10	41.78	35.60	20.00	36.40	51.00	55.50		
6	3.56	14.84	6.00	17.76	106.60	82.60	42.20	35.20	19.68	36.00	51.00	49.65		
7	3.56	11.16	5.20	17.12	102.40	39.68	42.63	35.60	19.68	36.40	51.50	49.20		
8	5.40	10.92	6.00	17.12	51.00	34.80	50.55	63.00	19.68	36.00	51.50	49.65		
9	16.52	11.16	8.20	17.12	46.50	32.10	44.78	69.50	19.04	36.00	51.50	48.75		
10	41.36	19.04	8.40	16.80	45.64	31.34	43.06	59.50	19.68	36.40	52.00	49.20		
11	40.52	16.24	8.20	16.52	45.64	33.24	43.49	40.10	18.08	37.20	51.50	50.55		
12	36.40	16.80	8.40	20.96	42.63	33.62	43.06	38.84	14.00	39.26	52.50	56.00		
13	36.80	16.24	9.24	23.20	43.06	32.86	42.20	38.84	13.48	40.10	52.50	58.50		
14	36.80	20.64	8.80	22.88	43.49	32.48	42.20	46.95	13.48	40.10	52.50	58.50		
15	27.05	20.96	8.80	31.34	44.78	32.10	38.00	49.20	21.28	40.10	52.50	59.00		
16	18.72	20.96	9.24	32.10	42.63	32.48	16.52	50.10	19.36	40.10	53.00	59.50		
17	12.96	19.68	9.48	32.10	40.94	33.62	11.16	50.10	20.00	40.10	46.07	59.50		
18	7.80	14.28	6.20	31.72	37.60	38.42	9.96	52.00	20.00	40.52	43.49	61.00		
19	7.20	9.72	8.60	32.10	36.40	38.42	8.20	47.40	19.68	40.94	43.92	59.50		
20	7.20	10.44	8.20	27.75	36.00	40.10	7.20	44.78	19.68	41.36	43.92	53.50		
21	7.00	8.80	5.40	31.72	36.00	39.68	8.40	40.52	19.68	41.78	43.92	52.50		
22	7.00	8.40	7.00	32.10	36.00	40.10	8.20	39.26	21.92	40.94	46.95	52.50		
23	9.24	8.40	8.80	24.25	35.60	40.10	7.80	37.60	20.00	36.40	47.40	52.50		
24	10.92	8.20	16.52	23.20	35.60	44.35	7.80	38.42	20.64	36.40	46.95	49.20		
25	8.60	8.20	26.70	23.55	35.60	33.24	7.60	38.84	20.64	36.40	52.00	53.00		
26	28.45	8.40	32.48	23.20	36.00	46.95	6.80	38.42	18.72	36.80	54.50	53.50		
27	11.16	11.40	33.24	22.88	36.80	109.00	27.05	36.40	19.04	36.80	55.00	54.00		
28	4.64	8.80	33.24	40.52	36.00	109.60	35.20	34.40	18.72	36.80	55.50	53.50		
29	7.00	8.60	32.86	40.52	32.48	109.60	35.60	25.65	18.08	37.20	55.50	55.00		
30	9.24	9.00	33.24	42.63	31.34	105.40	36.40	27.40	18.72	37.60		54.50		
31		10.92		42.63	31.34		36.00		18.72	38.00		55.00		
Total	445.66	448.14	389.38	800.04	1586.97	1383.03	966.01	1255.22	606.77	1209.29	1459.02	1687.20	12236.73	CMSDAY
Mean	14.86	14.46	12.98	25.81	51.19	46.10	31.16	41.84	19.57	39.01	50.31	54.43	33.43	CMS
Max	41.36	36.80	33.24	42.63	107.20	109.60	93.40	69.50	27.40	48.30	55.50	61.00	109.60	CMS
Min	3.56	8.20	5.20	16.52	31.34	26.00	6.80	25.65	13.48	36.00	43.49	48.75	3.56	CMS
Runoff	38.51	38.72	33.64	69.12	137.11	119.49	83.46	108.45	52.43	104.48	126.06	145.77	1057.25	MCM

Momentary Peak 110.02 CMS. at 29.17 m. (MSL.) at 18.00 Hours , on Sep 28 , 2011

Runoff Yield 12.78 Liters/Second/Square KM. Momentary Peak Yield 42.041 Liters/Second/Square KM.

WATER YEAR : 2011

PHETCHABURI RIVER BASIN

Phetchaburi River at Ban Tha Yang , Phetchaburi (B.10)

Lat 12 - 58 - 21 N Long 99 - 53 - 07 E

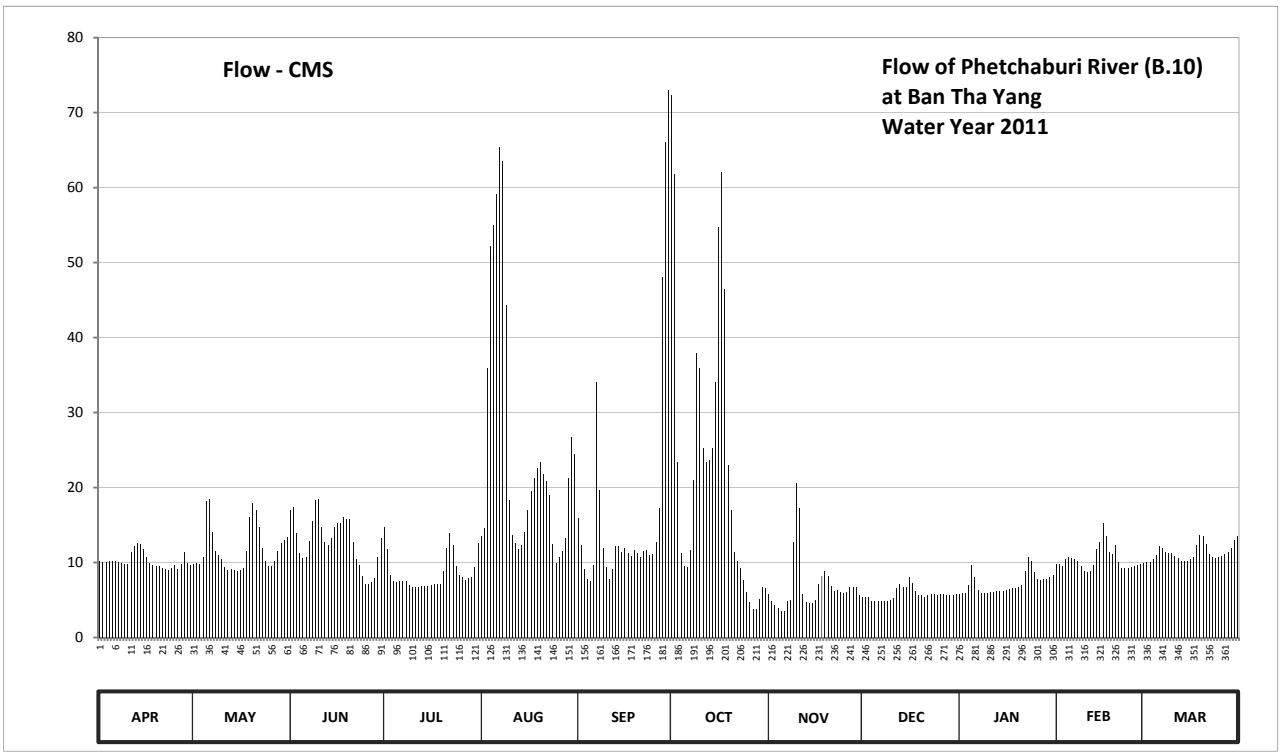
Location : on left bank at the bridge of Ban Tha Yang.

	Ban Tha Yang	**Amphoe** Tha Yang	**Changwat** Phetchaburi
Drainge Area	4,076 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+5.625 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank about 2 meters from the top staff gage.	**Elevation**	+15.068 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	1983 to date		
Rating Operation			
Period of Rating	1985 to date		
Rated by Flot	-		
Rated by Current Meter	1985 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Flow regulated by Phet Dam.		
	Stage-discharge relation defined by 33 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	6.58	6.55	7.02	6.89	6.82	6.96	9.25	6.25	6.22	6.25	6.55	6.56	
2	6.57	6.56	7.05	6.71	6.88	6.74	8.91	6.16	6.21	6.26	6.55	6.57	
3	6.57	6.55	6.84	6.44	7.94	6.50	7.37	6.11	6.21	6.26	6.53	6.57	
4	6.58	6.63	6.67	6.38	8.58	6.40	6.67	6.06	6.17	6.34	6.60	6.60	
5	6.59	7.09	6.61	6.37	8.68	6.38	6.53	6.01	6.17	6.54	6.63	6.65	
6	6.58	7.11	6.62	6.38	8.82	6.54	6.52	6.01	6.17	6.42	6.61	6.73	
7	6.57	6.85	6.78	6.38	9.03	7.86	6.70	6.17	6.17	6.29	6.60	6.72	
8	6.56	6.69	6.94	6.38	8.97	7.18	7.25	6.18	6.16	6.26	6.59	6.68	
9	6.55	6.65	7.10	6.34	8.29	6.72	8.02	6.77	6.17	6.26	6.53	6.67	
10	6.55	6.60	7.11	6.32	7.10	6.52	7.94	7.23	6.18	6.26	6.48	6.67	
11	6.68	6.52	6.89	6.32	6.83	6.40	7.46	7.04	6.20	6.27	6.47	6.64	
12	6.73	6.49	6.77	6.32	6.76	6.50	7.37	6.25	6.31	6.27	6.48	6.61	
13	6.76	6.50	6.74	6.33	6.71	6.73	7.38	6.15	6.35	6.28	6.54	6.59	
14	6.75	6.49	6.80	6.33	6.74	6.73	7.46	6.14	6.32	6.28	6.71	6.58	
15	6.71	6.48	6.89	6.33	6.85	6.68	7.86	6.14	6.32	6.28	6.77	6.59	
16	6.63	6.49	6.92	6.34	7.02	6.72	8.67	6.18	6.42	6.29	6.92	6.60	
17	6.56	6.51	6.92	6.35	7.17	6.67	8.92	6.35	6.36	6.30	6.82	6.63	
18	6.54	6.69	6.97	6.35	7.26	6.64	8.37	6.43	6.28	6.31	6.68	6.74	
19	6.53	6.97	6.95	6.35	7.33	6.70	7.35	6.48	6.24	6.31	6.66	6.83	
20	6.53	7.08	6.95	6.48	7.37	6.67	7.02	6.43	6.24	6.32	6.74	6.82	
21	6.51	7.02	6.77	6.72	7.29	6.63	6.68	6.33	6.21	6.34	6.57	6.75	
22	6.50	6.89	6.60	6.84	7.24	6.69	6.59	6.28	6.24	6.48	6.51	6.66	
23	6.49	6.72	6.54	6.74	7.14	6.70	6.51	6.29	6.25	6.63	6.51	6.62	
24	6.51	6.58	6.43	6.53	6.75	6.65	6.39	6.27	6.25	6.59	6.51	6.61	
25	6.54	6.53	6.35	6.44	6.56	6.66	6.27	6.26	6.24	6.47	6.52	6.63	
26	6.50	6.53	6.35	6.42	6.62	6.77	6.15	6.27	6.25	6.40	6.53	6.64	
27	6.55	6.58	6.37	6.39	6.69	7.04	6.04	6.32	6.25	6.39	6.54	6.66	
28	6.68	6.69	6.41	6.41	6.80	8.43	6.05	6.32	6.24	6.40	6.55	6.68	
29	6.56	6.76	6.62	6.42	7.26	9.05	6.19	6.32	6.24	6.40	6.55	6.72	
30	6.54	6.79	6.80	6.52	7.53	9.27	6.32	6.24	6.24	6.42		6.79	
31		6.81		6.76	7.42		6.31		6.25	6.44		6.82	
Mean	6.58	6.69	6.76	6.46	7.37	6.94	7.18	6.31	6.24	6.36	6.59	6.67	
Max	6.76	7.11	7.11	6.89	9.03	9.27	9.25	7.23	6.42	6.63	6.92	6.83	9.27
Min	6.49	6.48	6.35	6.32	6.56	6.38	6.04	6.01	6.16	6.25	6.47	6.56	6.01

Annual Max Momentary Gage Height	9.32	m. (MSL.) ,	at 20.00 Hours , on Sep 30 , 2011		
Zero Gage at Bottom Elevation	5.63	m. (MSL.) ,	River Bed	4.85	m. (MSL)
Left Bank Elevation	13.30	m. (MSL.) ,			
Right Bank Elevation	13.42	m. (MSL.) ,	Drainage Area	4076	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	10.14	9.75	16.94	14.73	13.54	15.92	72.35	5.85	5.46	5.85	9.75	9.88		
2	10.01	9.88	17.45	11.85	14.56	12.30	61.80	4.80	5.33	5.98	9.75	10.01		
3	10.01	9.75	13.88	8.32	35.96	9.10	23.40	4.30	5.33	5.98	9.49	10.01		
4	10.14	10.79	11.31	7.54	52.24	7.80	11.31	3.88	4.90	7.02	10.40	10.40		
5	10.27	18.13	10.53	7.41	55.04	7.54	9.49	3.48	4.90	9.62	10.79	11.05		
6	10.14	18.47	10.66	7.54	59.10	9.62	9.36	3.48	4.90	8.06	10.53	12.15		
7	10.01	14.05	12.90	7.54	65.40	34.04	11.70	4.90	4.90	6.37	10.40	12.00		
8	9.88	11.57	15.58	7.54	63.60	19.66	21.00	5.00	4.80	5.98	10.27	11.44		
9	9.75	11.05	18.30	7.02	44.36	12.00	37.88	12.75	4.90	5.98	9.49	11.31		
10	9.75	10.40	18.47	6.76	18.30	9.36	35.96	20.60	5.00	5.98	8.84	11.31		
11	11.44	9.36	14.73	6.76	13.71	7.80	25.20	17.28	5.20	6.11	8.71	10.92		
12	12.15	8.97	12.75	6.76	12.60	9.10	23.40	5.85	6.63	6.11	8.84	10.53		
13	12.60	9.10	12.30	6.89	11.85	12.15	23.60	4.70	7.15	6.24	9.62	10.27		
14	12.45	8.97	13.20	6.89	12.30	12.15	25.20	4.60	6.76	6.24	11.85	10.14		
15	11.85	8.84	14.73	6.89	14.05	11.44	34.04	4.60	6.76	6.24	12.75	10.27		
16	10.79	8.97	15.24	7.02	16.94	12.00	54.76	5.00	8.06	6.37	15.24	10.40		
17	9.88	9.23	15.24	7.15	19.49	11.31	62.10	7.15	7.28	6.50	13.54	10.79		
18	9.62	11.57	16.09	7.15	21.20	10.92	46.42	8.19	6.24	6.63	11.44	12.30		
19	9.49	16.09	15.75	7.15	22.60	11.70	23.00	8.84	5.72	6.63	11.18	13.71		
20	9.49	17.96	15.75	8.84	23.40	11.31	16.94	8.19	5.72	6.76	12.30	13.54		
21	9.23	16.94	12.75	12.00	21.80	10.79	11.44	6.89	5.33	7.02	10.01	12.45		
22	9.10	14.73	10.40	13.88	20.80	11.57	10.27	6.24	5.72	8.84	9.23	11.18		
23	8.97	12.00	9.62	12.30	18.98	11.70	9.23	6.37	5.85	10.79	9.23	10.66		
24	9.23	10.14	8.19	9.49	12.45	11.05	7.67	6.11	5.85	10.27	9.23	10.53		
25	9.62	9.49	7.15	8.32	9.88	11.18	6.11	5.98	5.72	8.71	9.36	10.79		
26	9.10	9.49	7.15	8.06	10.66	12.75	4.70	6.11	5.85	7.80	9.49	10.92		
27	9.75	10.14	7.41	7.67	11.57	17.28	3.72	6.76	5.85	7.67	9.62	11.18		
28	11.44	11.57	7.93	7.93	13.20	48.04	3.80	6.76	5.72	7.80	9.75	11.44		
29	9.88	12.60	10.66	8.06	21.20	66.00	5.10	6.76	5.72	7.80	9.75	12.00		
30	9.62	13.05	13.20	9.36	26.66	73.01	6.76	5.72	5.72	8.06		13.05		
31		13.37		12.60	24.40		6.63		5.85	8.32		13.54		
Total	305.80	366.42	386.26	267.42	781.84	520.59	704.34	207.14	179.12	223.73	300.85	350.17	4593.68	CMSDAY
Mean	10.19	11.82	12.88	8.63	25.22	17.35	22.72	6.90	5.78	7.22	10.37	11.30	12.55	CMS
Max	12.60	18.47	18.47	14.73	65.40	73.01	72.35	20.60	8.06	10.79	15.24	13.71	73.01	CMS
Min	8.97	8.84	7.15	6.76	9.88	7.54	3.72	3.48	4.80	5.85	8.71	9.88	3.48	CMS
Runoff	26.42	31.66	33.37	23.11	67.55	44.98	60.86	17.90	15.48	19.33	25.99	30.26	396.89	MCM

Momentary Peak 74.66 CMS. at 9.32 m. (MSL.) at 20.00 Hours , on Sep 30 , 2011

Runoff Yield 3.08 Liters/Second/Square KM. Momentary Peak Yield 18.317 Liters/Second/Square KM.

WATER YEAR : 2011

PHETCHABURI RIVER BASIN

Huai Mae Prachan at Ban Cha Prong , Phetchaburi (B.11)

Lat 13 - 10 - 23 N Long 99 - 41 - 00 E

Location : on right bank at the bridge of Ban Cha Prong.

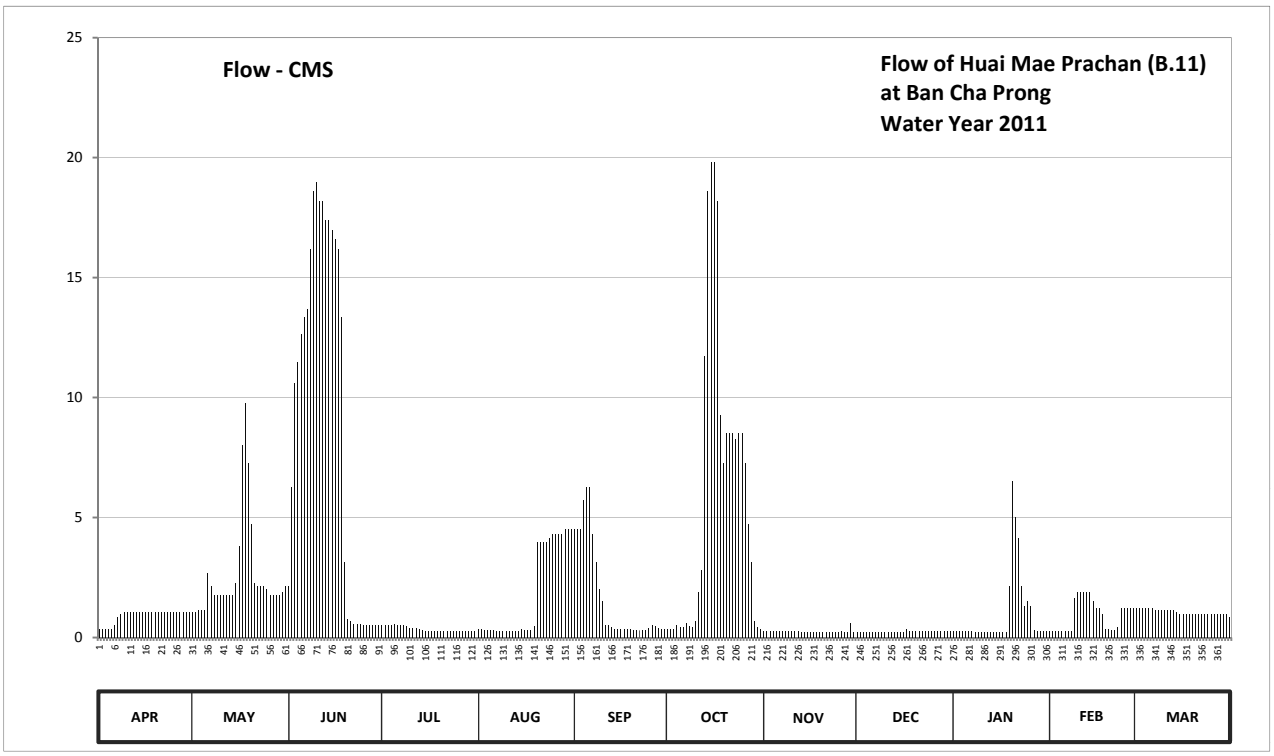
Ban Cha Prong **Amphoe** Nong Ya Plong **Changwat** Phetchaburi

Drainge Area	460 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+72.272 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank about 45 meters from the top staff gage. **Elevation** +78.722 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings
Period of Available Gage Records	2000 to date
Rating Operation	
Period of Rating	2000 to date
Rated by Flot	-
Rated by Current Meter	2000 to date
Stability of Channel Regimes	Rather unstable.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Stage-discharge relation defined by 21 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	71.91	72.05	72.15	71.97	71.91	72.30	71.91	71.89	71.86	71.87	71.88	72.07	
2	71.92	72.05	72.37	71.97	71.91	72.30	71.91	71.89	71.86	71.87	71.88	72.07	
3	71.92	72.06	72.54	71.97	71.90	72.30	71.92	71.88	71.86	71.87	71.88	72.07	
4	71.92	72.06	72.57	71.98	71.90	72.35	71.98	71.88	71.86	71.87	71.88	72.07	
5	71.91	72.06	72.61	71.99	71.90	72.37	71.94	71.88	71.86	71.87	71.88	72.07	
6	71.98	72.19	72.63	71.98	71.90	72.37	71.94	71.87	71.86	71.87	71.88	72.07	
7	72.03	72.15	72.64	71.97	71.89	72.29	72.00	71.87	71.85	71.87	71.88	72.06	
8	72.04	72.12	72.71	71.97	71.89	72.22	71.96	71.87	71.84	71.86	71.89	72.06	
9	72.05	72.12	72.77	71.96	71.89	72.14	71.94	71.87	71.84	71.86	72.11	72.06	
10	72.05	72.12	72.78	71.93	71.89	72.10	72.01	71.87	71.84	71.86	72.13	72.06	
11	72.05	72.12	72.76	71.93	71.89	71.97	72.13	71.87	71.84	71.86	72.13	72.06	
12	72.05	72.12	72.76	71.93	71.89	71.97	72.20	71.87	71.84	71.86	72.13	72.06	
13	72.05	72.12	72.74	71.91	71.89	71.94	72.58	71.86	71.84	71.86	72.13	72.06	
14	72.05	72.12	72.74	71.90	71.89	71.92	72.77	71.86	71.84	71.86	72.13	72.05	
15	72.05	72.16	72.73	71.89	71.91	71.92	72.80	71.85	71.84	71.86	72.10	72.04	
16	72.05	72.26	72.72	71.89	71.90	71.91	72.80	71.84	71.84	71.86	72.07	72.04	
17	72.05	72.44	72.71	71.89	71.90	71.91	72.76	71.84	71.91	71.85	72.07	72.04	
18	72.05	72.51	72.63	71.89	71.90	71.91	72.49	71.84	71.87	71.85	72.04	72.04	
19	72.05	72.41	72.22	71.89	71.96	71.91	72.41	71.84	71.89	72.15	71.91	72.04	
20	72.05	72.31	72.02	71.89	72.27	71.90	72.46	71.84	71.87	72.38	71.91	72.04	
21	72.05	72.16	72.01	71.89	72.27	71.90	72.46	71.84	71.87	72.32	71.90	72.04	
22	72.05	72.15	71.99	71.89	72.27	71.90	72.46	71.84	71.87	72.28	71.90	72.04	
23	72.05	72.15	71.99	71.89	72.27	71.90	72.45	71.84	71.87	72.15	71.95	72.04	
24	72.05	72.15	71.99	71.89	72.28	71.90	72.46	71.84	71.87	72.08	72.07	72.04	
25	72.05	72.14	71.98	71.89	72.29	71.93	72.46	71.85	71.87	72.10	72.07	72.04	
26	72.05	72.12	71.98	71.89	72.29	71.98	72.41	71.87	71.87	72.08	72.07	72.04	
27	72.05	72.12	71.98	71.89	72.29	71.96	72.31	71.86	71.87	71.90	72.07	72.04	
28	72.05	72.12	71.98	71.89	72.29	71.93	72.22	71.86	71.87	71.89	72.07	72.04	
29	72.05	72.12	71.97	71.89	72.30	71.92	72.01	72.00	71.87	71.88	72.07	72.04	
30	72.05	72.13	71.97	71.89	72.30	71.92	71.95	71.86	71.87	71.88		72.04	
31		72.15		71.89	72.30		71.91		71.87	71.88		72.03	
Mean	72.02	72.16	72.39	71.92	72.05	72.04	72.26	71.86	71.86	71.95	72.00	72.05	
Max	72.05	72.51	72.78	71.99	72.30	72.37	72.80	72.00	71.91	72.38	72.13	72.07	72.80
Min	71.91	72.05	71.97	71.89	71.89	71.90	71.91	71.84	71.84	71.85	71.88	72.03	71.84

Annual Max Momentary Gage Height	72.81	m. (MSL.) ,	at 11.00 Hours , on Oct 14 , 2011		
Zero Gage at Bottom Elevation	72.27	m. (MSL.) ,	River Bed	70.39	m. (MSL)
Left Bank Elevation	79.37	m. (MSL.) ,			
Right Bank Elevation	79.11	m. (MSL.) ,	Drainage Area	460	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.33	1.05	2.15	0.51	0.33	4.50	0.33	0.28	0.24	0.26	0.27	1.23		
2	0.36	1.05	6.25	0.51	0.33	4.50	0.33	0.28	0.24	0.26	0.27	1.23		
3	0.36	1.14	10.62	0.51	0.30	4.50	0.36	0.27	0.24	0.26	0.27	1.23		
4	0.36	1.14	11.46	0.54	0.30	5.75	0.54	0.27	0.24	0.26	0.27	1.23		
5	0.33	1.14	12.65	0.57	0.30	6.25	0.42	0.27	0.24	0.26	0.27	1.23		
6	0.54	2.67	13.35	0.54	0.30	6.25	0.42	0.26	0.24	0.26	0.27	1.23		
7	0.87	2.15	13.70	0.51	0.28	4.33	0.60	0.26	0.22	0.26	0.27	1.14		
8	0.96	1.76	16.20	0.51	0.28	3.14	0.48	0.26	0.21	0.24	0.28	1.14		
9	1.05	1.76	18.60	0.48	0.28	2.02	0.42	0.26	0.21	0.24	1.63	1.14		
10	1.05	1.76	19.00	0.39	0.28	1.50	0.69	0.26	0.21	0.24	1.89	1.14		
11	1.05	1.76	18.20	0.39	0.28	0.51	1.89	0.26	0.21	0.24	1.89	1.14		
12	1.05	1.76	18.20	0.39	0.28	0.51	2.80	0.26	0.21	0.24	1.89	1.14		
13	1.05	1.76	17.40	0.33	0.28	0.42	11.74	0.24	0.21	0.24	1.89	1.14		
14	1.05	1.76	17.40	0.30	0.28	0.36	18.60	0.24	0.21	0.24	1.89	1.05		
15	1.05	2.28	17.00	0.28	0.33	0.36	19.80	0.22	0.21	0.24	1.50	0.96		
16	1.05	3.82	16.60	0.28	0.30	0.33	19.80	0.21	0.21	0.24	1.23	0.96		
17	1.05	8.00	16.20	0.28	0.30	0.33	18.20	0.21	0.33	0.22	1.23	0.96		
18	1.05	9.78	13.35	0.28	0.30	0.33	9.25	0.21	0.26	0.22	0.96	0.96		
19	1.05	7.25	3.14	0.28	0.48	0.33	7.25	0.21	0.28	2.15	0.33	0.96		
20	1.05	4.75	0.78	0.28	3.99	0.30	8.50	0.21	0.26	6.50	0.33	0.96		
21	1.05	2.28	0.69	0.28	3.99	0.30	8.50	0.21	0.26	5.00	0.30	0.96		
22	1.05	2.15	0.57	0.28	3.99	0.30	8.50	0.21	0.26	4.16	0.30	0.96		
23	1.05	2.15	0.57	0.28	3.99	0.30	8.25	0.21	0.26	2.15	0.45	0.96		
24	1.05	2.15	0.57	0.28	4.16	0.30	8.50	0.21	0.26	1.32	1.23	0.96		
25	1.05	2.02	0.54	0.28	4.33	0.39	8.50	0.22	0.26	1.50	1.23	0.96		
26	1.05	1.76	0.54	0.28	4.33	0.54	7.25	0.26	0.26	1.32	1.23	0.96		
27	1.05	1.76	0.54	0.28	4.33	0.48	4.75	0.24	0.26	0.30	1.23	0.96		
28	1.05	1.76	0.54	0.28	4.33	0.39	3.14	0.24	0.26	0.28	1.23	0.96		
29	1.05	1.76	0.51	0.28	4.50	0.36	0.69	0.60	0.26	0.27	1.23	0.96		
30	1.05	1.89	0.51	0.28	4.50	0.36	0.45	0.24	0.26	0.27		0.96		
31		2.15		0.28	4.50		0.33		0.26	0.27		0.87		
Total	27.21	80.37	267.83	11.24	56.75	50.24	181.28	7.58	7.54	29.91	27.26	32.64	779.85	CMSDAY
Mean	0.91	2.59	8.93	0.36	1.83	1.67	5.85	0.25	0.24	0.96	0.94	1.05	2.13	CMS
Max	1.05	9.78	19.00	0.57	4.50	6.25	19.80	0.60	0.33	6.50	1.89	1.23	19.80	CMS
Min	0.33	1.05	0.51	0.28	0.28	0.30	0.33	0.21	0.21	0.22	0.27	0.87	0.21	CMS
Runoff	2.35	6.94	23.14	0.97	4.90	4.34	15.66	0.66	0.65	2.58	2.36	2.82	67.38	MCM

Momentary Peak 20.20 CMS. at 72.81 m. (MSL.) at 11.00 Hours , on Oct 14 , 2011

Runoff Yield 4.63 Liters/Second/Square KM. Momentary Peak Yield 43.913 Liters/Second/Square KM.

WATER YEAR : 2011

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

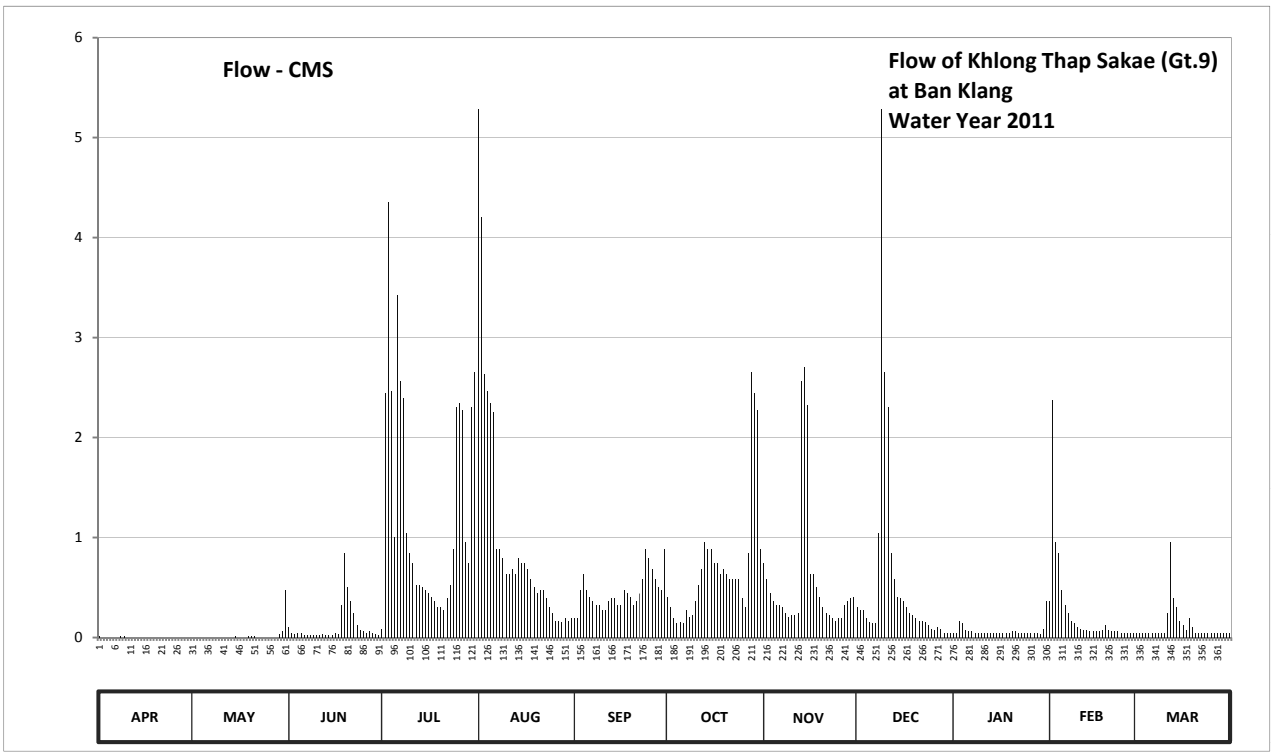
Location : on right bank at Ban Klang.

	Ban Klang	**Amphoe** Thap Sakae	**Changwat** Prachuap Khiri Khan
Drainge Area	125 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+6.843 m. (MSL.)		
Bench Mark	B.M.-Highways Dept.		
Location BM	On right bank at the abutment of the bridge.	**Elevation**	+12.220 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	1979 to date		
Rating Operation			
Period of Rating	1980 to date		
Rated by Flot	-		
Rated by Current Meter	1980 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 21 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	7.22	7.19	7.42	7.41	8.09	7.47	7.56	7.64	7.52	7.34	7.54	7.36	
2	7.21	7.18	7.34	7.79	8.02	7.47	7.52	7.61	7.51	7.36	7.76	7.35	
3	7.21	7.16	7.30	8.03	7.87	7.58	7.47	7.57	7.51	7.46	7.68	7.36	
4	7.21	7.15	7.35	7.80	7.80	7.62	7.44	7.54	7.47	7.44	7.66	7.36	
5	7.21	7.14	7.34	7.69	7.75	7.58	7.45	7.53	7.45	7.39	7.58	7.36	
6	7.21	7.13	7.28	7.96	7.71	7.56	7.44	7.53	7.44	7.38	7.53	7.35	
7	7.21	7.12	7.27	7.84	7.67	7.54	7.51	7.52	7.44	7.37	7.50	7.35	
8	7.22	7.12	7.27	7.77	7.67	7.53	7.48	7.50	7.70	7.36	7.46	7.35	
9	7.22	7.13	7.27	7.70	7.65	7.53	7.49	7.48	8.09	7.34	7.44	7.35	
10	7.21	7.15	7.28	7.66	7.62	7.51	7.54	7.49	7.88	7.34	7.42	7.35	
11	7.21	7.20	7.28	7.64	7.62	7.51	7.60	7.49	7.73	7.34	7.41	7.50	
12	7.21	7.19	7.29	7.60	7.63	7.54	7.63	7.50	7.66	7.35	7.40	7.68	
13	7.21	7.19	7.28	7.60	7.62	7.55	7.68	7.84	7.61	7.35	7.40	7.55	
14	7.21	7.18	7.28	7.59	7.65	7.55	7.67	7.90	7.56	7.34	7.38	7.52	
15	7.21	7.22	7.28	7.58	7.64	7.53	7.67	7.74	7.55	7.33	7.38	7.46	
16	7.21	7.21	7.33	7.57	7.64	7.53	7.64	7.62	7.54	7.33	7.38	7.43	
17	7.20	7.20	7.30	7.56	7.63	7.58	7.64	7.62	7.52	7.33	7.37	7.39	
18	7.20	7.20	7.53	7.54	7.61	7.57	7.62	7.59	7.50	7.33	7.40	7.47	
19	7.21	7.22	7.66	7.52	7.59	7.56	7.63	7.56	7.49	7.35	7.43	7.42	
20	7.20	7.24	7.59	7.52	7.57	7.53	7.62	7.52	7.47	7.38	7.40	7.36	
21	7.20	7.22	7.54	7.51	7.58	7.54	7.61	7.50	7.46	7.37	7.38	7.35	
22	7.20	7.21	7.50	7.55	7.58	7.57	7.61	7.49	7.46	7.35	7.37	7.36	
23	7.20	7.21	7.43	7.60	7.55	7.61	7.61	7.47	7.45	7.34	7.37	7.35	
24	7.19	7.21	7.39	7.67	7.52	7.67	7.61	7.46	7.43	7.34	7.36	7.35	
25	7.19	7.21	7.37	7.73	7.50	7.65	7.55	7.47	7.41	7.34	7.36	7.34	
26	7.18	7.20	7.35	7.75	7.46	7.63	7.52	7.47	7.40	7.32	7.36	7.34	
27	7.18	7.20	7.37	7.72	7.46	7.61	7.66	7.53	7.42	7.32	7.36	7.34	
28	7.17	7.20	7.34	7.68	7.45	7.59	7.88	7.54	7.41	7.32	7.36	7.34	
29	7.17	7.29	7.29	7.64	7.47	7.58	7.79	7.55	7.35	7.31	7.36	7.34	
30	7.16	7.38	7.28	7.73	7.46	7.67	7.72	7.56	7.34	7.41		7.34	
31		7.58		7.88	7.47		7.67		7.34	7.54		7.33	
Mean	7.20	7.21	7.36	7.67	7.63	7.57	7.60	7.56	7.52	7.36	7.44	7.39	
Max	7.22	7.58	7.66	8.03	8.09	7.67	7.88	7.90	8.09	7.54	7.76	7.68	8.09
Min	7.16	7.12	7.27	7.41	7.45	7.47	7.44	7.46	7.34	7.31	7.36	7.33	7.12

Annual Max Momentary Gage Height	8.29	m. (MSL.) ,	at 10.00 Hours , on Dec 9 , 2011		
Zero Gage at Bottom Elevation	6.84	m. (MSL.) ,	River Bed	6.85	m. (MSL)
Left Bank Elevation	11.34	m. (MSL.) ,			
Right Bank Elevation	11.35	m. (MSL.) ,	Drainage Area	125	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.01	0.00	0.10	0.09	5.29	0.19	0.41	0.74	0.30	0.05	0.36	0.05		
2	0.00	0.00	0.05	2.44	4.21	0.19	0.30	0.58	0.27	0.05	2.37	0.05		
3	0.00	0.00	0.03	4.36	2.63	0.47	0.19	0.44	0.27	0.17	0.95	0.05		
4	0.00	0.00	0.05	2.46	2.46	0.63	0.14	0.36	0.19	0.14	0.84	0.05		
5	0.00	0.00	0.05	1.00	2.34	0.47	0.15	0.33	0.15	0.07	0.47	0.05		
6	0.00	0.00	0.02	3.42	2.25	0.41	0.14	0.33	0.14	0.06	0.33	0.05		
7	0.00	0.00	0.02	2.56	0.89	0.36	0.27	0.30	0.14	0.06	0.24	0.05		
8	0.01	0.00	0.02	2.39	0.89	0.33	0.21	0.24	1.05	0.05	0.17	0.05		
9	0.01	0.00	0.02	1.05	0.79	0.33	0.22	0.21	5.29	0.05	0.14	0.05		
10	0.00	0.00	0.02	0.84	0.63	0.27	0.36	0.22	2.65	0.05	0.10	0.05		
11	0.00	0.00	0.02	0.74	0.63	0.27	0.53	0.22	2.30	0.05	0.09	0.24		
12	0.00	0.00	0.03	0.53	0.69	0.36	0.69	0.24	0.84	0.05	0.07	0.95		
13	0.00	0.00	0.02	0.53	0.63	0.39	0.95	2.56	0.58	0.05	0.07	0.39		
14	0.00	0.00	0.02	0.50	0.79	0.39	0.89	2.70	0.41	0.05	0.06	0.30		
15	0.00	0.01	0.02	0.47	0.74	0.33	0.89	2.32	0.39	0.04	0.06	0.17		
16	0.00	0.00	0.04	0.44	0.74	0.33	0.74	0.63	0.36	0.04	0.06	0.12		
17	0.00	0.00	0.03	0.41	0.69	0.47	0.74	0.63	0.30	0.04	0.06	0.07		
18	0.00	0.00	0.33	0.36	0.58	0.44	0.63	0.50	0.24	0.04	0.07	0.19		
19	0.00	0.01	0.84	0.30	0.50	0.41	0.69	0.41	0.22	0.05	0.12	0.10		
20	0.00	0.01	0.50	0.30	0.44	0.33	0.63	0.30	0.19	0.06	0.07	0.05		
21	0.00	0.01	0.36	0.27	0.47	0.36	0.58	0.24	0.17	0.06	0.06	0.05		
22	0.00	0.00	0.24	0.39	0.47	0.44	0.58	0.22	0.17	0.05	0.06	0.05		
23	0.00	0.00	0.12	0.53	0.39	0.58	0.58	0.19	0.15	0.05	0.06	0.05		
24	0.00	0.00	0.07	0.89	0.30	0.89	0.58	0.17	0.12	0.05	0.05	0.05		
25	0.00	0.00	0.06	2.30	0.24	0.79	0.39	0.19	0.09	0.05	0.05	0.05		
26	0.00	0.00	0.05	2.34	0.17	0.69	0.30	0.19	0.07	0.04	0.05	0.05		
27	0.00	0.00	0.06	2.27	0.17	0.58	0.84	0.33	0.10	0.04	0.05	0.05		
28	0.00	0.00	0.05	0.95	0.15	0.50	2.65	0.36	0.09	0.04	0.05	0.05		
29	0.00	0.03	0.03	0.74	0.19	0.47	2.44	0.39	0.05	0.03	0.05	0.05		
30	0.00	0.06	0.02	2.30	0.17	0.89	2.27	0.41	0.05	0.09		0.05		
31		0.47		2.65	0.19		0.89		0.05	0.36		0.04		
Total	0.03	0.60	3.29	40.82	31.72	13.56	21.87	16.95	17.39	2.08	7.18	3.62	159.11	CMSDAY
Mean	0.00	0.02	0.11	1.32	1.02	0.45	0.71	0.56	0.56	0.07	0.25	0.12	0.43	CMS
Max	0.01	0.47	0.84	4.36	5.29	0.89	2.65	2.70	5.29	0.36	2.37	0.95	5.29	CMS
Min	0.00	0.00	0.02	0.09	0.15	0.19	0.14	0.17	0.05	0.03	0.05	0.04	0.00	CMS
Runoff	0.00	0.05	0.28	3.53	2.74	1.17	1.89	1.46	1.50	0.18	0.62	0.31	13.75	MCM

Momentary Peak 10.67 CMS. at 8.29 m. (MSL.) at 10.00 Hours , on Dec 9 , 2011

Runoff Yield 3.48 Liters/Second/Square KM. Momentary Peak Yield 85.360 Liters/Second/Square KM.

WATER YEAR : 2011

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.

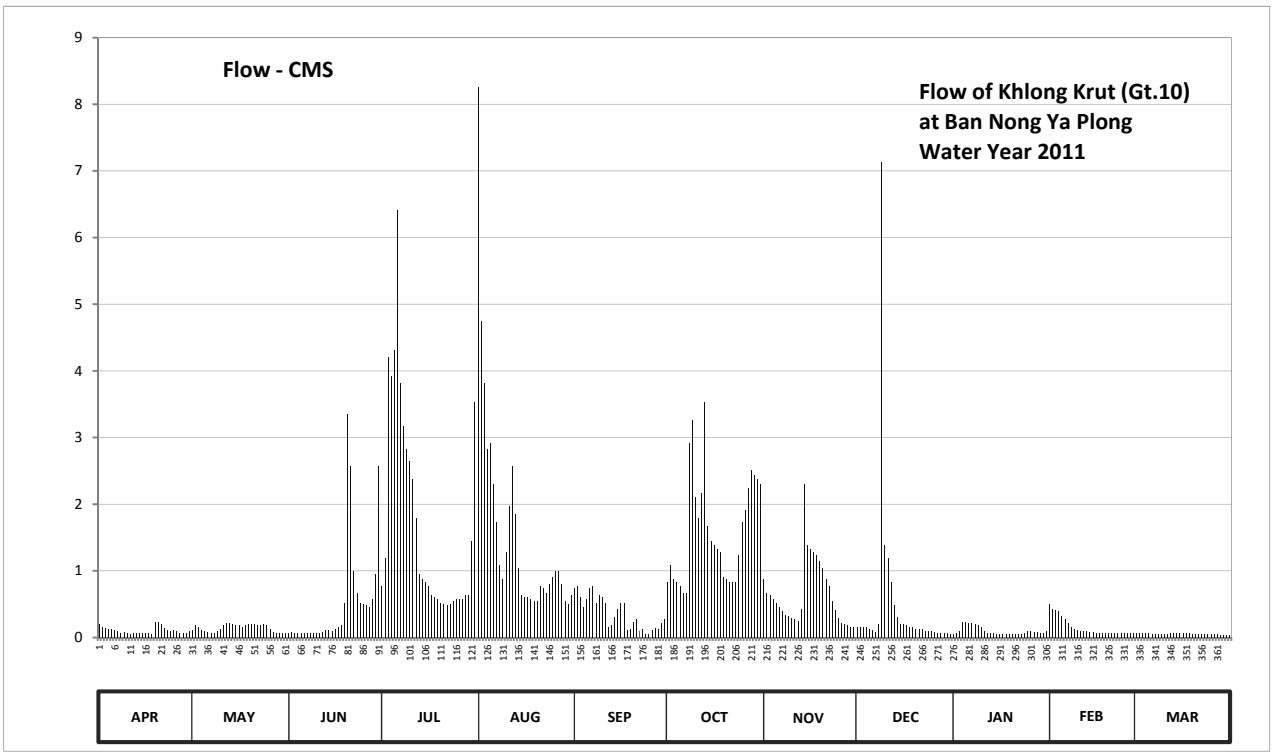
Ban Nong Ya Plong **Amphoe** Bang Saphan **Changwat** Prachuap Khiri Khan

Drainge Area	113 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+25.364 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank at the abutment of the bridge. **Elevation** +30.364 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings
Period of Available Gage Records	1979 to date
Rating Operation	
Period of Rating	1980 to date
Rated by Flot	-
Rated by Current Meter	1980 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Stage-discharge relation defined by 48 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	24.12	24.05	24.00	24.36	25.17	24.35	24.38	24.39	24.09	23.98	24.27	23.99	
2	24.09	24.11	24.02	24.46	24.92	24.36	24.44	24.33	24.09	23.99	24.24	23.99	
3	24.08	24.09	24.01	24.87	24.83	24.31	24.39	24.32	24.09	24.04	24.23	23.99	
4	24.07	24.05	24.01	24.84	24.72	24.25	24.38	24.30	24.09	24.14	24.22	23.99	
5	24.07	24.03	24.00	24.88	24.73	24.30	24.36	24.28	24.06	24.14	24.19	23.99	
6	24.05	24.02	24.00	25.05	24.65	24.35	24.33	24.25	24.05	24.13	24.16	23.98	
7	24.03	24.01	23.99	24.83	24.56	24.36	24.33	24.22	24.02	24.13	24.13	23.98	
8	24.01	24.01	23.99	24.76	24.44	24.28	24.73	24.20	24.12	24.12	24.09	23.98	
9	24.02	24.04	24.00	24.72	24.39	24.32	24.77	24.19	25.10	24.11	24.06	23.97	
10	24.01	24.07	24.01	24.70	24.48	24.31	24.62	24.17	24.50	24.10	24.05	23.96	
11	23.98	24.11	24.01	24.66	24.60	24.28	24.57	24.16	24.46	24.03	24.04	23.96	
12	23.99	24.13	24.02	24.57	24.69	24.10	24.63	24.15	24.38	24.00	24.04	24.01	
13	24.01	24.13	24.05	24.41	24.58	24.11	24.80	24.24	24.26	23.99	24.03	24.01	
14	24.01	24.12	24.05	24.39	24.43	24.18	24.55	24.65	24.18	23.99	24.02	24.00	
15	24.00	24.11	24.04	24.38	24.32	24.24	24.51	24.50	24.12	23.98	24.02	24.00	
16	23.99	24.11	24.07	24.36	24.31	24.28	24.50	24.49	24.12	23.98	24.01	24.00	
17	23.99	24.10	24.10	24.32	24.31	24.28	24.49	24.48	24.11	23.97	24.01	23.99	
18	23.98	24.11	24.11	24.31	24.30	24.05	24.48	24.47	24.10	23.97	24.01	23.99	
19	24.14	24.12	24.28	24.30	24.29	24.07	24.40	24.45	24.09	23.97	24.00	23.98	
20	24.14	24.12	24.78	24.28	24.29	24.14	24.39	24.43	24.07	23.96	24.00	23.98	
21	24.12	24.12	24.69	24.27	24.36	24.16	24.38	24.39	24.06	23.96	24.00	23.97	
22	24.08	24.11	24.42	24.26	24.35	24.04	24.38	24.36	24.06	23.96	24.01	23.96	
23	24.05	24.11	24.33	24.27	24.33	24.06	24.38	24.29	24.04	23.97	24.01	23.96	
24	24.03	24.12	24.28	24.29	24.37	23.98	24.47	24.23	24.04	24.01	24.00	23.96	
25	24.05	24.11	24.27	24.30	24.40	23.96	24.56	24.17	24.03	24.03	24.00	23.96	
26	24.04	24.07	24.26	24.30	24.42	24.05	24.59	24.13	24.02	24.03	24.00	23.96	
27	24.01	24.02	24.25	24.30	24.42	24.08	24.64	24.12	24.01	24.02	24.00	23.95	
28	24.00	23.99	24.30	24.32	24.37	24.07	24.68	24.11	24.01	24.02	24.00	23.94	
29	24.00	24.00	24.41	24.32	24.29	24.13	24.67	24.09	24.01	24.00	24.00	23.94	
30	24.03	24.01	24.69	24.51	24.27	24.16	24.66	24.09	23.99	23.99		23.93	
31		24.01		24.80	24.32		24.65		23.98	24.03		23.93	
Mean	24.04	24.07	24.18	24.50	24.48	24.19	24.52	24.29	24.14	24.02	24.06	23.97	
Max	24.14	24.13	24.78	25.05	25.17	24.36	24.80	24.65	25.10	24.14	24.27	24.01	25.17
Min	23.98	23.99	23.99	24.26	24.27	23.96	24.33	24.09	23.98	23.96	24.00	23.93	23.93

Annual Max Momentary Gage Height	25.37	m. (MSL.) ,	at 11.00 Hours , on Dec 9 , 2011		
Zero Gage at Bottom Elevation	25.36	m. (MSL.) ,	River Bed	23.63	m. (MSL)
Left Bank Elevation	29.30	m. (MSL.) ,			
Right Bank Elevation	30.65	m. (MSL.) ,	Drainage Area	113	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.20	0.11	0.06	0.77	8.26	0.74	0.83	0.87	0.15	0.05	0.50	0.06		
2	0.15	0.18	0.08	1.19	4.74	0.77	1.09	0.67	0.15	0.06	0.43	0.06		
3	0.14	0.15	0.07	4.21	3.82	0.60	0.87	0.64	0.15	0.10	0.41	0.06		
4	0.13	0.11	0.07	3.92	2.82	0.46	0.83	0.57	0.15	0.23	0.39	0.06		
5	0.13	0.09	0.06	4.31	2.91	0.57	0.77	0.52	0.12	0.23	0.32	0.06		
6	0.11	0.08	0.06	6.41	2.30	0.74	0.67	0.46	0.11	0.21	0.27	0.05		
7	0.09	0.07	0.06	3.82	1.73	0.77	0.67	0.39	0.08	0.21	0.21	0.05		
8	0.07	0.07	0.06	3.17	1.09	0.52	2.91	0.34	0.20	0.20	0.15	0.05		
9	0.08	0.10	0.06	2.82	0.87	0.64	3.26	0.32	7.13	0.18	0.12	0.05		
10	0.07	0.13	0.07	2.64	1.28	0.60	2.10	0.29	1.38	0.16	0.11	0.05		
11	0.05	0.18	0.07	2.37	1.97	0.52	1.79	0.27	1.19	0.09	0.10	0.05		
12	0.06	0.21	0.08	1.79	2.57	0.16	2.17	0.25	0.83	0.06	0.10	0.07		
13	0.07	0.21	0.11	0.95	1.85	0.18	3.53	0.43	0.48	0.06	0.09	0.07		
14	0.07	0.20	0.11	0.87	1.04	0.30	1.67	2.30	0.30	0.06	0.08	0.06		
15	0.06	0.18	0.10	0.83	0.64	0.43	1.44	1.38	0.20	0.05	0.08	0.06		
16	0.06	0.18	0.13	0.77	0.60	0.52	1.38	1.33	0.20	0.05	0.07	0.06		
17	0.06	0.16	0.16	0.64	0.60	0.52	1.33	1.28	0.18	0.05	0.07	0.06		
18	0.05	0.18	0.18	0.60	0.57	0.11	1.28	1.24	0.16	0.05	0.07	0.06		
19	0.23	0.20	0.52	0.57	0.55	0.13	0.90	1.14	0.15	0.05	0.06	0.05		
20	0.23	0.20	3.35	0.52	0.55	0.23	0.87	1.04	0.13	0.05	0.06	0.05		
21	0.20	0.20	2.57	0.50	0.77	0.27	0.83	0.87	0.12	0.05	0.06	0.05		
22	0.14	0.18	1.00	0.48	0.74	0.10	0.83	0.77	0.12	0.05	0.07	0.05		
23	0.11	0.18	0.67	0.50	0.67	0.12	0.83	0.55	0.10	0.05	0.07	0.05		
24	0.09	0.20	0.52	0.55	0.80	0.05	1.24	0.41	0.10	0.07	0.06	0.05		
25	0.11	0.18	0.50	0.57	0.90	0.05	1.73	0.29	0.09	0.09	0.06	0.05		
26	0.10	0.13	0.48	0.57	1.00	0.11	1.91	0.21	0.08	0.09	0.06	0.05		
27	0.07	0.08	0.46	0.57	1.00	0.14	2.24	0.20	0.07	0.08	0.06	0.05		
28	0.06	0.06	0.57	0.64	0.80	0.13	2.51	0.18	0.07	0.08	0.06	0.04		
29	0.06	0.06	0.95	0.64	0.55	0.21	2.44	0.15	0.07	0.06	0.06	0.04		
30	0.09	0.07	2.57	1.44	0.50	0.27	2.37	0.15	0.06	0.06		0.04		
31		0.07		3.53	0.64		2.30		0.05	0.09		0.04		
Total	3.14	4.40	15.75	53.16	49.13	10.96	49.59	19.51	14.37	2.97	4.25	1.65	228.88	CMSDAY
Mean	0.10	0.14	0.52	1.71	1.58	0.37	1.60	0.65	0.46	0.10	0.15	0.05	0.63	CMS
Max	0.23	0.21	3.35	6.41	8.26	0.77	3.53	2.30	7.13	0.23	0.50	0.07	8.26	CMS
Min	0.05	0.06	0.06	0.48	0.50	0.05	0.67	0.15	0.05	0.05	0.06	0.04	0.04	CMS
Runoff	0.27	0.38	1.36	4.59	4.25	0.95	4.29	1.69	1.24	0.26	0.37	0.14	19.78	MCM

Momentary Peak 12.07 CMS. at 25.37 m. (MSL.) at 11.00 Hours , on Dec 9 , 2011

Runoff Yield 5.53 Liters/Second/Square KM. Momentary Peak Yield 106.814 Liters/Second/Square KM.

WATER YEAR : 2011

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.

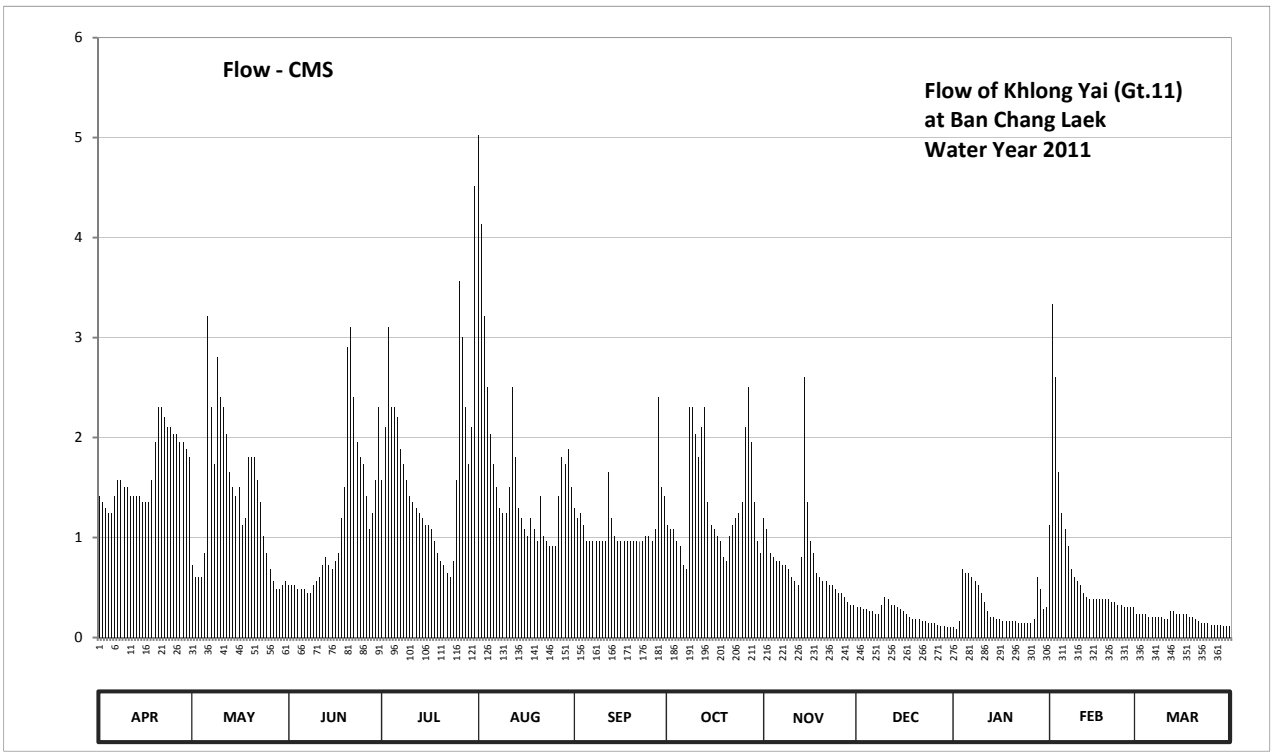
Ban Chang Laek **Amphoe** Bang Saphan Noi **Changwat** Prachuap Khiri Khan

Drainge Area	61 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+36.375 m. (MSL.)
Bench Mark	B.M.- Highways Dept.
Location BM	On right bank at the abutment of the bridge. **Elevation** +45.340 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings
Period of Available Gage Records	1979 to date
Rating Operation	
Period of Rating	1980 to date
Rated by Flot	-
Rated by Current Meter	1980 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 52 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	37.51	37.38	37.33	37.53	37.86	37.49	37.46	37.47	37.26	37.16	37.46	37.23	
2	37.50	37.35	37.33	37.60	37.79	37.47	37.45	37.45	37.26	37.15	37.72	37.23	
3	37.49	37.35	37.33	37.70	37.71	37.48	37.45	37.41	37.25	37.20	37.65	37.23	
4	37.48	37.35	37.32	37.62	37.64	37.46	37.43	37.40	37.25	37.37	37.54	37.23	
5	37.48	37.41	37.32	37.62	37.59	37.43	37.42	37.39	37.24	37.36	37.48	37.22	
6	37.51	37.71	37.32	37.61	37.55	37.43	37.38	37.39	37.24	37.36	37.45	37.22	
7	37.53	37.62	37.31	37.57	37.52	37.43	37.37	37.38	37.23	37.35	37.42	37.22	
8	37.53	37.55	37.31	37.55	37.49	37.43	37.62	37.38	37.23	37.34	37.37	37.22	
9	37.52	37.67	37.33	37.53	37.48	37.43	37.62	37.37	37.27	37.33	37.35	37.22	
10	37.52	37.63	37.34	37.51	37.48	37.43	37.59	37.35	37.30	37.31	37.34	37.21	
11	37.51	37.62	37.35	37.50	37.52	37.43	37.56	37.34	37.29	37.28	37.33	37.21	
12	37.51	37.59	37.38	37.49	37.64	37.54	37.60	37.33	37.27	37.24	37.31	37.24	
13	37.51	37.54	37.40	37.48	37.56	37.47	37.62	37.40	37.27	37.22	37.30	37.24	
14	37.51	37.52	37.38	37.47	37.49	37.44	37.50	37.65	37.26	37.22	37.29	37.23	
15	37.50	37.51	37.37	37.46	37.47	37.43	37.46	37.50	37.25	37.21	37.29	37.23	
16	37.50	37.52	37.39	37.46	37.45	37.43	37.45	37.43	37.24	37.21	37.29	37.23	
17	37.50	37.46	37.41	37.45	37.44	37.43	37.44	37.41	37.23	37.20	37.29	37.23	
18	37.53	37.47	37.47	37.43	37.47	37.43	37.43	37.36	37.22	37.20	37.29	37.22	
19	37.58	37.56	37.52	37.41	37.45	37.43	37.40	37.35	37.21	37.20	37.29	37.22	
20	37.62	37.56	37.68	37.39	37.43	37.43	37.39	37.34	37.21	37.20	37.29	37.21	
21	37.62	37.56	37.70	37.38	37.51	37.43	37.44	37.34	37.21	37.20	37.28	37.20	
22	37.61	37.53	37.63	37.36	37.44	37.43	37.46	37.33	37.20	37.19	37.28	37.19	
23	37.60	37.50	37.58	37.35	37.43	37.43	37.47	37.33	37.20	37.19	37.27	37.19	
24	37.60	37.44	37.56	37.39	37.42	37.44	37.48	37.32	37.19	37.19	37.27	37.19	
25	37.59	37.41	37.55	37.53	37.42	37.44	37.50	37.31	37.19	37.19	37.26	37.18	
26	37.59	37.37	37.51	37.74	37.42	37.43	37.60	37.31	37.19	37.19	37.26	37.18	
27	37.58	37.34	37.45	37.69	37.51	37.45	37.64	37.30	37.18	37.21	37.26	37.18	
28	37.58	37.32	37.48	37.62	37.56	37.63	37.58	37.28	37.17	37.35	37.26	37.18	
29	37.57	37.32	37.53	37.55	37.55	37.52	37.50	37.27	37.17	37.32	37.26	37.17	
30	37.56	37.33	37.62	37.60	37.57	37.51	37.43	37.27	37.16	37.25		37.17	
31		37.34		37.82	37.52		37.41		37.16	37.26		37.17	
Mean	37.54	37.48	37.44	37.53	37.53	37.45	37.49	37.37	37.23	37.25	37.35	37.21	
Max	37.62	37.71	37.70	37.82	37.86	37.63	37.64	37.65	37.30	37.37	37.72	37.24	37.86
Min	37.48	37.32	37.31	37.35	37.42	37.43	37.37	37.27	37.16	37.15	37.26	37.17	37.15

Annual Max Momentary Gage Height	38.07	m. (MSL.) ,	at 23.00 Hours , on May 6 , 2011		
Zero Gage at Bottom Elevation	36.38	m. (MSL.) ,	River Bed	36.70	m. (MSL)
Left Bank Elevation	44.68	m. (MSL.) ,			
Right Bank Elevation	45.62	m. (MSL.) ,	Drainage Area	61	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.42	0.72	0.52	1.57	5.03	1.30	1.13	1.19	0.30	0.10	1.13	0.23		
2	1.35	0.60	0.52	2.10	4.14	1.19	1.08	1.08	0.30	0.08	3.33	0.23		
3	1.30	0.60	0.52	3.10	3.21	1.24	1.08	0.85	0.28	0.16	2.60	0.23		
4	1.24	0.60	0.48	2.30	2.50	1.13	0.96	0.80	0.28	0.68	1.65	0.23		
5	1.24	0.85	0.48	2.30	2.03	0.96	0.91	0.76	0.26	0.64	1.24	0.21		
6	1.42	3.21	0.48	2.20	1.73	0.96	0.72	0.76	0.26	0.64	1.08	0.21		
7	1.57	2.30	0.44	1.88	1.50	0.96	0.68	0.72	0.23	0.60	0.91	0.21		
8	1.57	1.73	0.44	1.73	1.30	0.96	2.30	0.72	0.23	0.56	0.68	0.21		
9	1.50	2.80	0.52	1.57	1.24	0.96	2.30	0.68	0.33	0.52	0.60	0.21		
10	1.50	2.40	0.56	1.42	1.24	0.96	2.03	0.60	0.40	0.44	0.56	0.18		
11	1.42	2.30	0.60	1.35	1.50	0.96	1.80	0.56	0.38	0.35	0.52	0.18		
12	1.42	2.03	0.72	1.30	2.50	1.65	2.10	0.52	0.33	0.26	0.44	0.26		
13	1.42	1.65	0.80	1.24	1.80	1.19	2.30	0.80	0.33	0.21	0.40	0.26		
14	1.42	1.50	0.72	1.19	1.30	1.02	1.35	2.60	0.30	0.21	0.38	0.23		
15	1.35	1.42	0.68	1.13	1.19	0.96	1.13	1.35	0.28	0.18	0.38	0.23		
16	1.35	1.50	0.76	1.13	1.08	0.96	1.08	0.96	0.26	0.18	0.38	0.23		
17	1.35	1.13	0.85	1.08	1.02	0.96	1.02	0.85	0.23	0.16	0.38	0.23		
18	1.57	1.19	1.19	0.96	1.19	0.96	0.96	0.64	0.21	0.16	0.38	0.21		
19	1.95	1.80	1.50	0.85	1.08	0.96	0.80	0.60	0.18	0.16	0.38	0.21		
20	2.30	1.80	2.90	0.76	0.96	0.96	0.76	0.56	0.18	0.16	0.38	0.18		
21	2.30	1.80	3.10	0.72	1.42	0.96	1.02	0.56	0.18	0.16	0.35	0.16		
22	2.20	1.57	2.40	0.64	1.02	0.96	1.13	0.52	0.16	0.14	0.35	0.14		
23	2.10	1.35	1.95	0.60	0.96	0.96	1.19	0.52	0.16	0.14	0.33	0.14		
24	2.10	1.02	1.80	0.76	0.91	1.02	1.24	0.48	0.14	0.14	0.33	0.14		
25	2.03	0.85	1.73	1.57	0.91	1.02	1.35	0.44	0.14	0.14	0.30	0.13		
26	2.03	0.68	1.42	3.56	0.91	0.96	2.10	0.44	0.14	0.14	0.30	0.13		
27	1.95	0.56	1.08	3.00	1.42	1.08	2.50	0.40	0.13	0.18	0.30	0.13		
28	1.95	0.48	1.24	2.30	1.80	2.40	1.95	0.35	0.11	0.60	0.30	0.13		
29	1.88	0.48	1.57	1.73	1.73	1.50	1.35	0.33	0.11	0.48	0.30	0.11		
30	1.80	0.52	2.30	2.10	1.88	1.42	0.96	0.33	0.10	0.28		0.11		
31		0.56		4.51	1.50		0.85		0.10	0.30		0.11		
Total	50.00	42.00	34.27	52.65	52.00	33.48	42.13	21.97	7.02	9.15	20.66	5.80	371.13	CMSDAY
Mean	1.67	1.35	1.14	1.70	1.68	1.12	1.36	0.73	0.23	0.30	0.71	0.19	1.01	CMS
Max	2.30	3.21	3.10	4.51	5.03	2.40	2.50	2.60	0.40	0.68	3.33	0.26	5.03	CMS
Min	1.24	0.48	0.44	0.60	0.91	0.96	0.68	0.33	0.10	0.08	0.30	0.11	0.08	CMS
Runoff	4.32	3.63	2.96	4.55	4.49	2.89	3.64	1.90	0.61	0.79	1.79	0.50	32.07	MCM

Momentary Peak 8.26 CMS. at 38.07 m. (MSL.) at 23.00 Hours , on May 6 , 2011

Runoff Yield 16.62 Liters/Second/Square KM. Momentary Peak Yield 135.41 Liters/Second/Square KM.

WATER YEAR : 2011

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

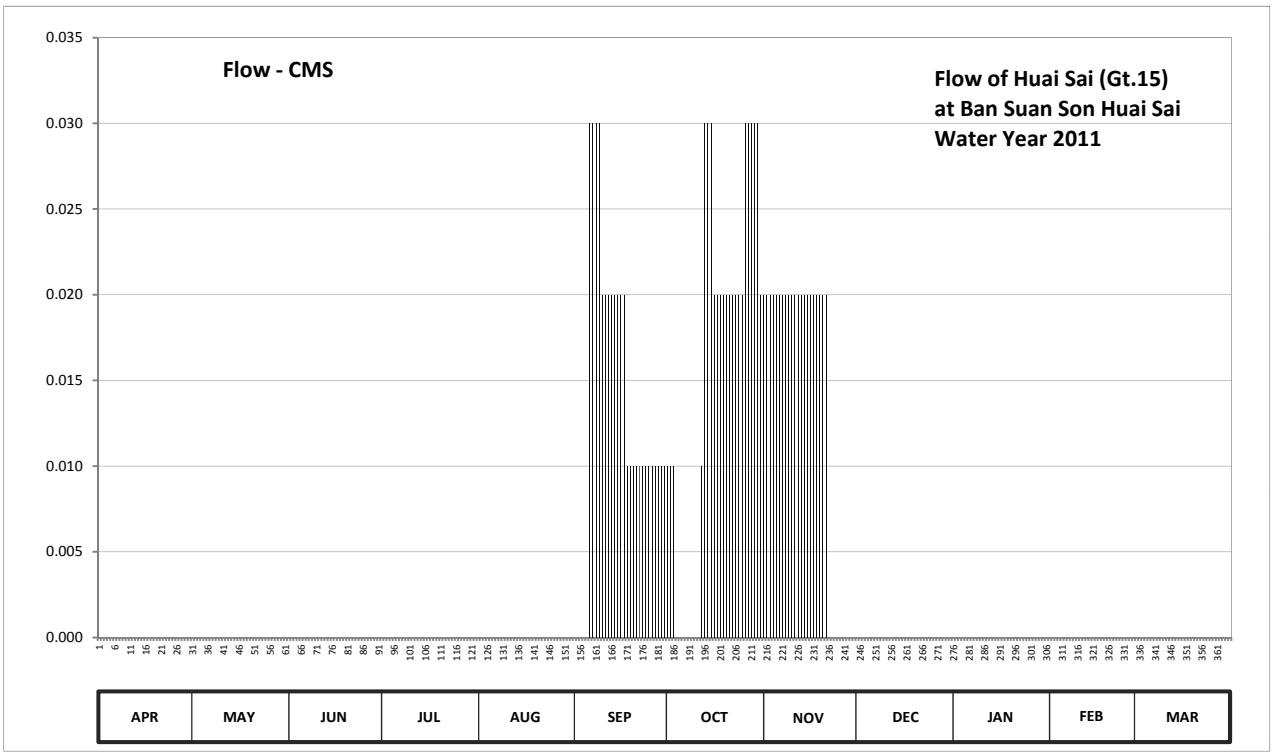
Location : on right bank at the bridge of Phet Kasem Highway near the guidepost 342, Huai Sai.

	Ban Suan Son Huai Sai	**Amphoe** Mueang	**Changwat** Prachuap Khiri Khan
Drainge Area	25 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+15.860 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank at the footpath of the bridge.	**Elevation**	+22.383 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	1987 to date		
Rating Operation			
Period of Rating	1987 to date		
Rated by Flot	-		
Rated by Current Meter	1987 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 9 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	15.62	15.62	15.62	15.62	15.62	15.62	15.73	15.81	15.61	15.61	15.61	15.61	
2	15.62	15.62	15.62	15.62	15.62	15.68	15.73	15.81	15.61	15.61	15.61	15.61	
3	15.62	15.62	15.62	15.62	15.62	15.68	15.73	15.81	15.61	15.61	15.61	15.61	
4	15.62	15.62	15.62	15.62	15.62	15.69	15.72	15.81	15.61	15.61	15.61	15.61	
5	15.62	15.62	15.62	15.62	15.62	15.70	15.72	15.81	15.61	15.61	15.61	15.61	
6	15.62	15.62	15.62	15.62	15.62	15.84	15.72	15.80	15.61	15.61	15.61	15.61	
7	15.62	15.62	15.62	15.62	15.62	15.83	15.72	15.80	15.61	15.61	15.61	15.61	
8	15.62	15.62	15.62	15.62	15.62	15.82	15.71	15.80	15.61	15.61	15.61	15.61	
9	15.62	15.62	15.62	15.62	15.62	15.82	15.71	15.80	15.61	15.61	15.61	15.61	
10	15.62	15.62	15.62	15.62	15.62	15.81	15.72	15.79	15.61	15.61	15.61	15.61	
11	15.62	15.62	15.62	15.62	15.62	15.80	15.72	15.79	15.61	15.61	15.61	15.61	
12	15.62	15.62	15.62	15.62	15.62	15.80	15.73	15.79	15.61	15.61	15.61	15.61	
13	15.62	15.62	15.62	15.62	15.62	15.79	15.83	15.79	15.61	15.61	15.61	15.61	
14	15.62	15.62	15.62	15.62	15.62	15.79	15.82	15.81	15.61	15.61	15.61	15.61	
15	15.62	15.62	15.62	15.62	15.62	15.78	15.82	15.80	15.61	15.61	15.61	15.61	
16	15.62	15.62	15.62	15.62	15.62	15.78	15.81	15.80	15.61	15.61	15.61	15.61	
17	15.62	15.62	15.62	15.62	15.62	15.78	15.81	15.80	15.61	15.61	15.61	15.61	
18	15.62	15.62	15.62	15.62	15.62	15.77	15.81	15.80	15.61	15.61	15.61	15.61	
19	15.62	15.62	15.62	15.62	15.62	15.77	15.80	15.80	15.61	15.61	15.61	15.61	
20	15.62	15.62	15.62	15.62	15.62	15.76	15.80	15.80	15.61	15.61	15.61	15.61	
21	15.62	15.62	15.62	15.62	15.62	15.76	15.80	15.80	15.61	15.61	15.61	15.61	
22	15.62	15.62	15.62	15.62	15.62	15.76	15.80	15.71	15.61	15.61	15.61	15.61	
23	15.62	15.62	15.62	15.62	15.62	15.75	15.80	15.61	15.61	15.61	15.61	15.61	
24	15.62	15.62	15.62	15.62	15.62	15.75	15.80	15.61	15.61	15.61	15.61	15.61	
25	15.62	15.62	15.62	15.62	15.62	15.75	15.80	15.61	15.61	15.61	15.61	15.61	
26	15.62	15.62	15.62	15.62	15.62	15.74	15.83	15.61	15.61	15.61	15.61	15.61	
27	15.62	15.62	15.62	15.62	15.62	15.74	15.83	15.61	15.61	15.61	15.61	15.61	
28	15.62	15.62	15.62	15.62	15.62	15.74	15.82	15.61	15.61	15.61	15.61	15.61	
29	15.62	15.62	15.62	15.62	15.62	15.73	15.82	15.61	15.61	15.61	15.61	15.61	
30	15.62	15.62	15.62	15.62	15.62	15.73	15.82	15.61	15.61	15.61		15.61	
31		15.62		15.62	15.62		15.81		15.61	15.61		15.61	
Mean	15.62	15.62	15.62	15.62	15.62	15.76	15.78	15.75	15.61	15.61	15.61	15.61	
Max	15.62	15.62	15.62	15.62	15.62	15.84	15.83	15.81	15.61	15.61	15.61	15.61	15.84
Min	15.62	15.62	15.62	15.62	15.62	15.62	15.71	15.61	15.61	15.61	15.61	15.61	15.61

Annual Max Momentary Gage Height	15.85	m. (MSL.) ,	at 12.00 Hours , on Sep 6 , 2011		
Zero Gage at Bottom Elevation	15.86	m. (MSL.) ,	River Bed	15.22	m. (MSL)
Left Bank Elevation	21.16	m. (MSL.) ,			
Right Bank Elevation	22.38	m. (MSL.) ,	Drainage Area	25	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

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	0.01	0.02	0.00	0.00	0.00	0.00		
2	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.00	0.00	0.00	0.00		
3	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.00	0.00	0.00	0.00		
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00		
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00		
6	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.02	0.00	0.00	0.00	0.00		
7	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.02	0.00	0.00	0.00	0.00		
8	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.02	0.00	0.00	0.00	0.00		
9	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.02	0.00	0.00	0.00	0.00		
10	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00		
11	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00		
12	0.00	0.00	0.00	0.00	0.00	0.02	0.01	0.02	0.00	0.00	0.00	0.00		
13	0.00	0.00	0.00	0.00	0.00	0.02	0.03	0.02	0.00	0.00	0.00	0.00		
14	0.00	0.00	0.00	0.00	0.00	0.02	0.03	0.02	0.00	0.00	0.00	0.00		
15	0.00	0.00	0.00	0.00	0.00	0.02	0.03	0.02	0.00	0.00	0.00	0.00		
16	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.00	0.00	0.00	0.00		
17	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.00	0.00	0.00	0.00		
18	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.02	0.00	0.00	0.00	0.00		
19	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.02	0.00	0.00	0.00	0.00		
20	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.02	0.00	0.00	0.00	0.00		
21	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.02	0.00	0.00	0.00	0.00		
22	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.00	0.00	0.00	0.00	0.00		
23	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.00	0.00	0.00	0.00	0.00		
24	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.00	0.00	0.00	0.00	0.00		
25	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.00	0.00	0.00	0.00	0.00		
26	0.00	0.00	0.00	0.00	0.00	0.01	0.03	0.00	0.00	0.00	0.00	0.00		
27	0.00	0.00	0.00	0.00	0.00	0.01	0.03	0.00	0.00	0.00	0.00	0.00		
28	0.00	0.00	0.00	0.00	0.00	0.01	0.03	0.00	0.00	0.00	0.00	0.00		
29	0.00	0.00	0.00	0.00	0.00	0.01	0.03	0.00	0.00	0.00	0.00	0.00		
30	0.00	0.00	0.00	0.00	0.00	0.01	0.03	0.00	0.00	0.00		0.00		
31		0.00		0.00	0.00		0.02		0.00	0.00		0.00		
Total	0.00	0.00	0.00	0.00	0.00	0.41	0.50	0.42	0.00	0.00	0.00	0.00	1.33	CMSDAY
Mean	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.01	0.00	0.00	0.00	0.00	0.00	CMS
Max	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.02	0.00	0.00	0.00	0.00	0.03	CMS
Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	0.00	0.00	0.00	0.00	0.00	0.04	0.04	0.04	0.00	0.00	0.00	0.00	0.12	MCM

Momentary Peak 0.04 CMS. at 15.85 m. (MSL.) at 12.00 Hours , on Sep 6 , 2011

Runoff Yield 0.15 Liters/Second/Square KM. Momentary Peak Yield 1.600 Liters/Second/Square KM.

WATER YEAR : 2011

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

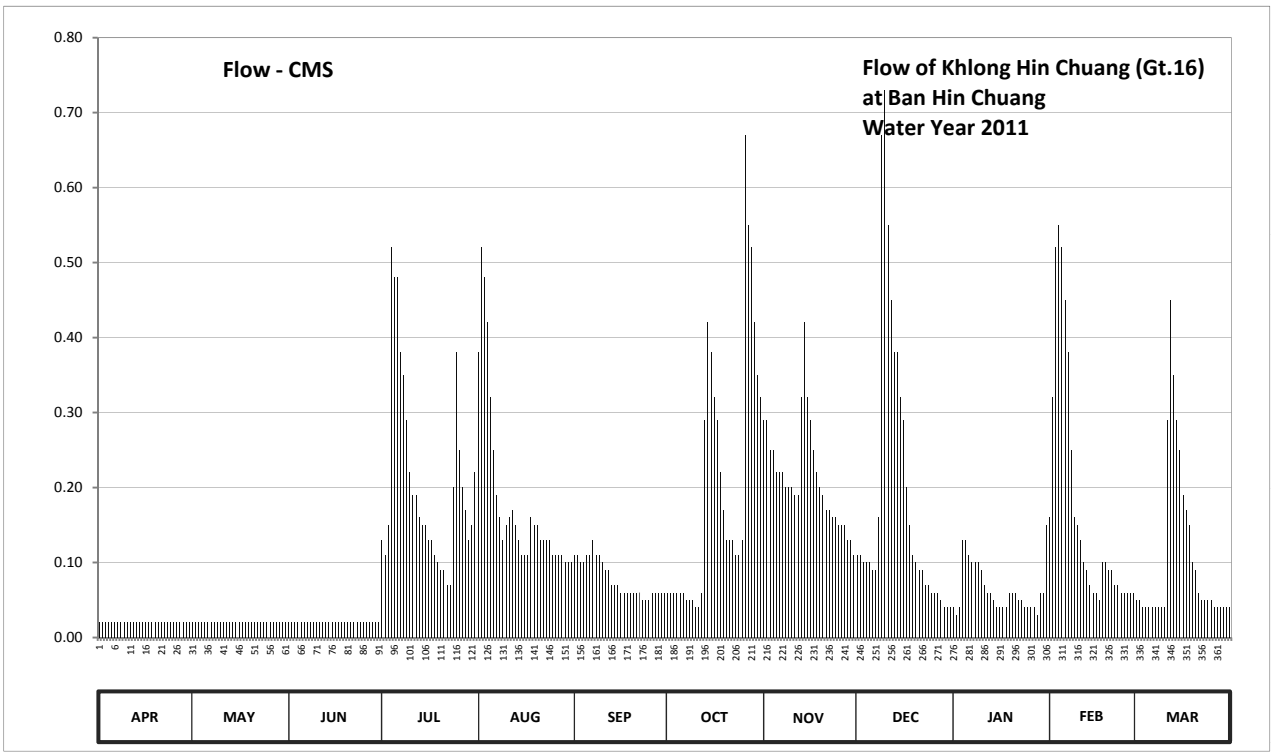
Location : on right bank at the abutment of the bridge.

	Ban Hin Chuang	**Amphoe** Mueang	**Changwat** Prachuap Khiri Khan
Drainge Area	48 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+10.873 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank at the abutment of the bridge.	**Elevation**	+17.808 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	1987 to date		
Rating Operation			
Period of Rating	1987 to date		
Rated by Flot	-		
Rated by Current Meter	1987 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 38 discharge measurements made in 2011		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	11.43	11.43	11.43	11.54	11.65	11.53	11.49	11.62	11.53	11.45	11.56	11.47	
2	11.43	11.43	11.43	11.53	11.69	11.53	11.49	11.62	11.53	11.44	11.63	11.47	
3	11.43	11.43	11.43	11.55	11.68	11.52	11.49	11.61	11.52	11.45	11.69	11.46	
4	11.43	11.43	11.43	11.69	11.66	11.52	11.48	11.61	11.52	11.54	11.70	11.46	
5	11.43	11.43	11.43	11.68	11.63	11.53	11.48	11.60	11.52	11.54	11.69	11.46	
6	11.43	11.43	11.43	11.68	11.61	11.53	11.48	11.60	11.51	11.53	11.67	11.46	
7	11.43	11.43	11.43	11.65	11.58	11.54	11.47	11.60	11.51	11.52	11.65	11.45	
8	11.43	11.43	11.43	11.64	11.56	11.53	11.47	11.59	11.56	11.52	11.61	11.45	
9	11.43	11.43	11.43	11.62	11.54	11.53	11.47	11.59	11.72	11.52	11.56	11.45	
10	11.43	11.43	11.43	11.60	11.55	11.52	11.46	11.59	11.73	11.51	11.55	11.46	
11	11.43	11.43	11.43	11.58	11.56	11.51	11.46	11.58	11.70	11.50	11.54	11.62	
12	11.43	11.43	11.43	11.58	11.57	11.51	11.48	11.58	11.67	11.49	11.52	11.67	
13	11.43	11.43	11.43	11.56	11.55	11.50	11.62	11.63	11.65	11.48	11.51	11.64	
14	11.43	11.43	11.43	11.55	11.54	11.50	11.66	11.66	11.65	11.47	11.50	11.62	
15	11.43	11.43	11.43	11.55	11.53	11.50	11.65	11.63	11.63	11.46	11.49	11.61	
16	11.43	11.43	11.43	11.54	11.53	11.49	11.63	11.62	11.62	11.46	11.48	11.58	
17	11.43	11.43	11.43	11.54	11.53	11.49	11.62	11.61	11.59	11.45	11.47	11.57	
18	11.43	11.43	11.43	11.53	11.56	11.48	11.60	11.60	11.55	11.45	11.52	11.55	
19	11.43	11.43	11.43	11.52	11.55	11.49	11.57	11.59	11.53	11.48	11.52	11.52	
20	11.43	11.43	11.43	11.51	11.55	11.49	11.54	11.58	11.52	11.48	11.51	11.51	
21	11.43	11.43	11.43	11.51	11.54	11.48	11.54	11.57	11.51	11.48	11.51	11.49	
22	11.43	11.43	11.43	11.50	11.54	11.48	11.54	11.57	11.51	11.47	11.50	11.47	
23	11.43	11.43	11.43	11.50	11.54	11.47	11.53	11.56	11.50	11.47	11.50	11.47	
24	11.43	11.43	11.43	11.59	11.54	11.47	11.53	11.56	11.50	11.46	11.49	11.47	
25	11.43	11.43	11.43	11.65	11.53	11.47	11.54	11.55	11.49	11.45	11.49	11.47	
26	11.43	11.43	11.43	11.61	11.53	11.48	11.72	11.55	11.48	11.45	11.48	11.46	
27	11.43	11.43	11.43	11.59	11.53	11.48	11.70	11.55	11.48	11.45	11.48	11.46	
28	11.43	11.43	11.43	11.57	11.53	11.48	11.69	11.54	11.47	11.44	11.48	11.46	
29	11.43	11.43	11.43	11.54	11.52	11.49	11.66	11.54	11.46	11.48	11.47	11.45	
30	11.43	11.43	11.43	11.55	11.52	11.49	11.64	11.53	11.45	11.49		11.45	
31		11.43		11.60	11.52		11.63		11.45	11.55		11.45	
Mean	11.43	11.43	11.43	11.58	11.56	11.50	11.56	11.59	11.55	11.48	11.54	11.50	
Max	11.43	11.43	11.43	11.69	11.69	11.54	11.72	11.66	11.73	11.55	11.70	11.67	11.73
Min	11.43	11.43	11.43	11.50	11.52	11.47	11.46	11.53	11.45	11.44	11.47	11.45	11.43

Annual Max Momentary Gage Height	11.74	m. (MSL.) ,	at 18.00 Hours , on Dec 9 , 2011		
Zero Gage at Bottom Elevation	10.87	m. (MSL.) ,	River Bed	11.35	m. (MSL)
Left Bank Elevation	16.60	m. (MSL.) ,			
Right Bank Elevation	17.80	m. (MSL.) ,	Drainage Area	48	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.02	0.02	0.02	0.13	0.38	0.11	0.06	0.29	0.11	0.04	0.16	0.05		
2	0.02	0.02	0.02	0.11	0.52	0.11	0.06	0.29	0.11	0.03	0.32	0.05		
3	0.02	0.02	0.02	0.15	0.48	0.10	0.06	0.25	0.10	0.04	0.52	0.04		
4	0.02	0.02	0.02	0.52	0.42	0.10	0.06	0.25	0.10	0.13	0.55	0.04		
5	0.02	0.02	0.02	0.48	0.32	0.11	0.06	0.22	0.10	0.13	0.52	0.04		
6	0.02	0.02	0.02	0.48	0.25	0.11	0.06	0.22	0.09	0.11	0.45	0.04		
7	0.02	0.02	0.02	0.38	0.19	0.13	0.05	0.22	0.09	0.10	0.38	0.04		
8	0.02	0.02	0.02	0.35	0.16	0.11	0.05	0.20	0.16	0.10	0.25	0.04		
9	0.02	0.02	0.02	0.29	0.13	0.11	0.05	0.20	0.67	0.10	0.16	0.04		
10	0.02	0.02	0.02	0.22	0.15	0.10	0.04	0.20	0.73	0.09	0.15	0.04		
11	0.02	0.02	0.02	0.19	0.16	0.09	0.04	0.19	0.55	0.07	0.13	0.29		
12	0.02	0.02	0.02	0.19	0.17	0.09	0.06	0.19	0.45	0.06	0.10	0.45		
13	0.02	0.02	0.02	0.16	0.15	0.07	0.29	0.32	0.38	0.06	0.09	0.35		
14	0.02	0.02	0.02	0.15	0.13	0.07	0.42	0.42	0.38	0.05	0.07	0.29		
15	0.02	0.02	0.02	0.15	0.11	0.07	0.38	0.32	0.32	0.04	0.06	0.25		
16	0.02	0.02	0.02	0.13	0.11	0.06	0.32	0.29	0.29	0.04	0.06	0.19		
17	0.02	0.02	0.02	0.13	0.11	0.06	0.29	0.25	0.20	0.04	0.05	0.17		
18	0.02	0.02	0.02	0.11	0.16	0.06	0.22	0.22	0.15	0.04	0.10	0.15		
19	0.02	0.02	0.02	0.10	0.15	0.06	0.17	0.20	0.11	0.06	0.10	0.10		
20	0.02	0.02	0.02	0.09	0.15	0.06	0.13	0.19	0.10	0.06	0.09	0.09		
21	0.02	0.02	0.02	0.09	0.13	0.06	0.13	0.17	0.09	0.06	0.09	0.06		
22	0.02	0.02	0.02	0.07	0.13	0.06	0.13	0.17	0.09	0.05	0.07	0.05		
23	0.02	0.02	0.02	0.07	0.13	0.05	0.11	0.16	0.07	0.05	0.07	0.05		
24	0.02	0.02	0.02	0.20	0.13	0.05	0.11	0.16	0.07	0.04	0.06	0.05		
25	0.02	0.02	0.02	0.38	0.11	0.05	0.13	0.15	0.06	0.04	0.06	0.05		
26	0.02	0.02	0.02	0.25	0.11	0.06	0.67	0.15	0.06	0.04	0.06	0.04		
27	0.02	0.02	0.02	0.20	0.11	0.06	0.55	0.15	0.06	0.04	0.06	0.04		
28	0.02	0.02	0.02	0.17	0.11	0.06	0.52	0.13	0.05	0.03	0.06	0.04		
29	0.02	0.02	0.02	0.13	0.10	0.06	0.42	0.13	0.04	0.06	0.05	0.04		
30	0.02	0.02	0.02	0.15	0.10	0.06	0.35	0.11	0.04	0.06		0.04		
31		0.02		0.22	0.10		0.32		0.04	0.15		0.04		
Total	0.60	0.62	0.60	6.44	5.66	2.35	6.31	6.41	5.86	2.01	4.89	3.25	45.00	CMSDAY
Mean	0.02	0.02	0.02	0.21	0.18	0.08	0.20	0.21	0.19	0.06	0.17	0.10	0.12	CMS
Max	0.02	0.02	0.02	0.52	0.52	0.13	0.67	0.42	0.73	0.15	0.55	0.45	0.73	CMS
Min	0.02	0.02	0.02	0.07	0.10	0.05	0.04	0.11	0.04	0.03	0.05	0.04	0.02	CMS
Runoff	0.05	0.05	0.05	0.56	0.49	0.20	0.55	0.55	0.51	0.17	0.42	0.28	3.89	MCM

Momentary Peak 0.81 CMS. at 11.74 m. (MSL.) at 08.00 Hours , on Dec 9 , 2011

Runoff Yield 2.56 Liters/Second/Square KM. Momentary Peak Yield 16.875 Liters/Second/Square KM.

WATER YEAR : 2011

WEST COAST - GULF BASIN

Huai Yang at Ban Huai Yang , Prachuap Khiri Khan (Gt.17)

Lat 11 - 36 - 48 N Long 99 - 40 - 09 E

Location : on right bank at the bridge of Phet Kasem Highway near the guidepost 349.

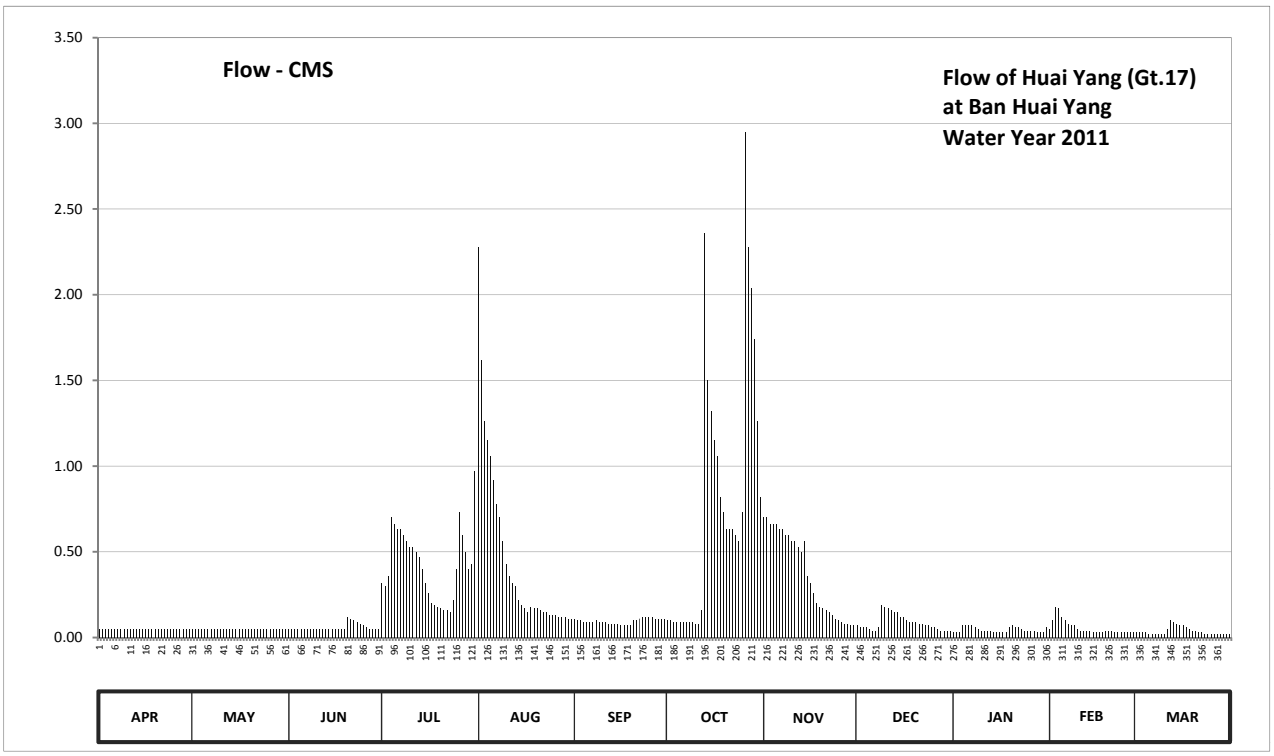
Ban Huai Yang **Amphoe** Thap Sakae **Changwat** Prachuap Khiri Khan

Drainge Area	48 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+0.619 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank at the abutment of the bridge. **Elevation** +6.367 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings
Period of Available Gage Records	1987 to date
Rating Operation	
Period of Rating	1987 to date
Rated by Flot	-
Rated by Current Meter	1987 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Flow effected by the local weir about 200 meters downstream from the gage site. Stage-discharge relation defined by 41 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	1.32	1.32	1.32	1.56	1.96	1.42	1.41	1.69	1.35	1.27	1.32	1.24	
2	1.32	1.32	1.32	1.55	1.87	1.41	1.41	1.69	1.34	1.26	1.41	1.24	
3	1.32	1.32	1.32	1.58	1.81	1.41	1.40	1.68	1.33	1.26	1.48	1.23	
4	1.32	1.32	1.32	1.69	1.79	1.40	1.40	1.68	1.33	1.35	1.47	1.23	
5	1.32	1.32	1.32	1.68	1.77	1.40	1.40	1.68	1.32	1.36	1.43	1.22	
6	1.32	1.32	1.32	1.67	1.74	1.39	1.39	1.67	1.31	1.35	1.41	1.22	
7	1.32	1.32	1.32	1.67	1.71	1.40	1.39	1.67	1.31	1.35	1.37	1.22	
8	1.32	1.32	1.32	1.66	1.69	1.41	1.39	1.66	1.34	1.33	1.36	1.21	
9	1.32	1.32	1.32	1.65	1.65	1.40	1.39	1.66	1.49	1.32	1.35	1.21	
10	1.32	1.32	1.32	1.64	1.61	1.40	1.38	1.65	1.48	1.31	1.32	1.21	
11	1.32	1.32	1.32	1.64	1.58	1.39	1.38	1.65	1.47	1.30	1.31	1.32	
12	1.32	1.32	1.32	1.63	1.56	1.38	1.46	1.64	1.46	1.29	1.30	1.41	
13	1.32	1.32	1.32	1.62	1.55	1.38	1.97	1.63	1.45	1.28	1.29	1.39	
14	1.32	1.32	1.32	1.60	1.51	1.38	1.85	1.65	1.45	1.27	1.28	1.38	
15	1.32	1.32	1.32	1.56	1.49	1.37	1.82	1.58	1.43	1.26	1.27	1.36	
16	1.32	1.32	1.32	1.53	1.47	1.36	1.79	1.56	1.43	1.26	1.26	1.35	
17	1.32	1.32	1.32	1.50	1.45	1.36	1.77	1.53	1.41	1.26	1.25	1.33	
18	1.32	1.32	1.32	1.49	1.48	1.35	1.72	1.50	1.40	1.25	1.26	1.32	
19	1.32	1.32	1.32	1.48	1.47	1.36	1.70	1.48	1.40	1.34	1.30	1.29	
20	1.32	1.32	1.43	1.47	1.47	1.41	1.67	1.47	1.39	1.35	1.29	1.28	
21	1.32	1.32	1.42	1.46	1.46	1.41	1.67	1.46	1.38	1.34	1.28	1.26	
22	1.32	1.32	1.41	1.46	1.45	1.42	1.67	1.45	1.37	1.33	1.27	1.23	
23	1.32	1.32	1.40	1.45	1.45	1.43	1.66	1.44	1.36	1.32	1.26	1.22	
24	1.32	1.32	1.38	1.51	1.44	1.43	1.65	1.42	1.35	1.31	1.26	1.22	
25	1.32	1.32	1.36	1.60	1.44	1.43	1.70	1.41	1.34	1.30	1.25	1.22	
26	1.32	1.32	1.34	1.70	1.44	1.43	2.04	1.39	1.33	1.29	1.25	1.21	
27	1.32	1.32	1.32	1.66	1.43	1.42	1.96	1.38	1.32	1.28	1.25	1.21	
28	1.32	1.32	1.32	1.63	1.43	1.42	1.93	1.37	1.31	1.27	1.24	1.20	
29	1.32	1.32	1.32	1.60	1.43	1.42	1.89	1.36	1.30	1.27	1.24	1.20	
30	1.32	1.32	1.32	1.61	1.42	1.42	1.81	1.35	1.29	1.27		1.19	
31		1.32		1.75	1.42		1.72		1.28	1.33		1.19	
Mean	1.32	1.32	1.34	1.59	1.56	1.40	1.64	1.55	1.37	1.30	1.31	1.26	
Max	1.32	1.32	1.43	1.75	1.96	1.43	2.04	1.69	1.49	1.36	1.48	1.41	2.04
Min	1.32	1.32	1.32	1.45	1.42	1.35	1.38	1.35	1.28	1.25	1.24	1.19	1.19

Annual Max Momentary Gage Height	2.04	m. (MSL.) ,	at 06.00 Hours , on Oct 26 , 2011		
Zero Gage at Bottom Elevation	0.62	m. (MSL.) ,	River Bed	1.09	m. (MSL)
Left Bank Elevation	5.24	m. (MSL.) ,			
Right Bank Elevation	6.37	m. (MSL.) ,	Drainage Area	48	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.05	0.05	0.05	0.32	2.28	0.11	0.10	0.70	0.07	0.03	0.05	0.03		
2	0.05	0.05	0.05	0.30	1.62	0.10	0.10	0.70	0.06	0.03	0.10	0.03		
3	0.05	0.05	0.05	0.36	1.26	0.10	0.09	0.66	0.06	0.03	0.18	0.03		
4	0.05	0.05	0.05	0.70	1.15	0.09	0.09	0.66	0.06	0.07	0.17	0.03		
5	0.05	0.05	0.05	0.66	1.06	0.09	0.09	0.66	0.05	0.07	0.12	0.02		
6	0.05	0.05	0.05	0.63	0.92	0.09	0.09	0.63	0.04	0.07	0.10	0.02		
7	0.05	0.05	0.05	0.63	0.78	0.09	0.09	0.63	0.04	0.07	0.08	0.02		
8	0.05	0.05	0.05	0.60	0.70	0.10	0.09	0.60	0.06	0.06	0.07	0.02		
9	0.05	0.05	0.05	0.56	0.56	0.09	0.09	0.60	0.19	0.05	0.07	0.02		
10	0.05	0.05	0.05	0.53	0.43	0.09	0.08	0.56	0.18	0.04	0.05	0.02		
11	0.05	0.05	0.05	0.53	0.36	0.09	0.08	0.56	0.17	0.04	0.04	0.05		
12	0.05	0.05	0.05	0.50	0.32	0.08	0.16	0.53	0.16	0.04	0.04	0.10		
13	0.05	0.05	0.05	0.47	0.30	0.08	2.36	0.50	0.15	0.04	0.04	0.09		
14	0.05	0.05	0.05	0.40	0.22	0.08	1.50	0.56	0.15	0.03	0.04	0.08		
15	0.05	0.05	0.05	0.32	0.19	0.08	1.32	0.36	0.12	0.03	0.03	0.07		
16	0.05	0.05	0.05	0.26	0.17	0.07	1.15	0.32	0.12	0.03	0.03	0.07		
17	0.05	0.05	0.05	0.20	0.15	0.07	1.06	0.26	0.10	0.03	0.03	0.06		
18	0.05	0.05	0.05	0.19	0.18	0.07	0.82	0.20	0.09	0.03	0.03	0.05		
19	0.05	0.05	0.05	0.18	0.17	0.07	0.73	0.18	0.09	0.06	0.04	0.04		
20	0.05	0.05	0.12	0.17	0.17	0.10	0.63	0.17	0.09	0.07	0.04	0.04		
21	0.05	0.05	0.11	0.16	0.16	0.10	0.63	0.16	0.08	0.06	0.04	0.03		
22	0.05	0.05	0.10	0.16	0.15	0.11	0.63	0.15	0.08	0.06	0.03	0.03		
23	0.05	0.05	0.09	0.15	0.15	0.12	0.60	0.13	0.07	0.05	0.03	0.02		
24	0.05	0.05	0.08	0.22	0.13	0.12	0.56	0.11	0.07	0.04	0.03	0.02		
25	0.05	0.05	0.07	0.40	0.13	0.12	0.73	0.10	0.06	0.04	0.03	0.02		
26	0.05	0.05	0.06	0.73	0.13	0.12	2.95	0.09	0.06	0.04	0.03	0.02		
27	0.05	0.05	0.05	0.60	0.12	0.11	2.28	0.08	0.05	0.04	0.03	0.02		
28	0.05	0.05	0.05	0.50	0.12	0.11	2.04	0.08	0.04	0.03	0.03	0.02		
29	0.05	0.05	0.05	0.40	0.12	0.11	1.74	0.07	0.04	0.03	0.03	0.02		
30	0.05	0.05	0.05	0.43	0.11	0.11	1.26	0.07	0.04	0.03		0.02		
31		0.05		0.97	0.11		0.82		0.04	0.06		0.02		
Total	1.50	1.55	1.78	13.23	14.42	2.87	24.96	11.08	2.68	1.40	1.63	1.13	78.23	CMSDAY
Mean	0.05	0.05	0.06	0.43	0.47	0.10	0.81	0.37	0.09	0.05	0.06	0.04	0.21	CMS
Max	0.05	0.05	0.12	0.97	2.28	0.12	2.95	0.70	0.19	0.07	0.18	0.10	2.95	CMS
Min	0.05	0.05	0.05	0.15	0.11	0.07	0.08	0.07	0.04	0.03	0.03	0.02	0.02	CMS
Runoff	0.13	0.13	0.15	1.14	1.25	0.25	2.16	0.96	0.23	0.12	0.14	0.10	6.76	MCM

Momentary Peak 2.94 CMS. at 2.04 m. (MSL.) at 06.00 Hours , on Oct 26 , 2011

Runoff Yield 4.45 Liters/Second/Square KM. Momentary Peak Yield 61.250 Liters/Second/Square KM.

WATER YEAR : 2011

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 E

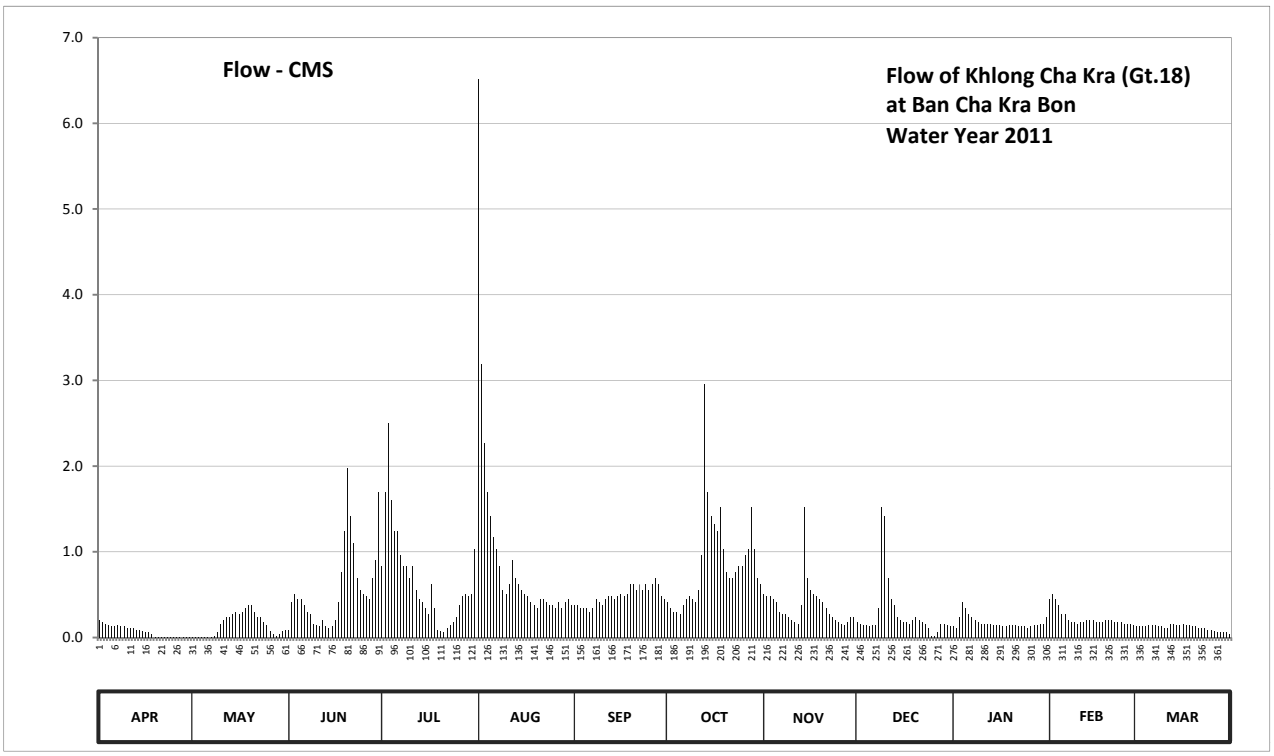
Location : on left bank at the bridge of Phet Kasem Highway.

	Ban Cha Kra Bon	**Amphoe** Thap Sakae	**Changwat** Prachuap Khiri Khan
Drainge Area	88 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+11.715 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank at the abutment of the bridge.	**Elevation**	+17.228 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	1987 to date		
Rating Operation			
Period of Rating	1987 to date		
Rated by Flot	-		
Rated by Current Meter	1987 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 49 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	12.70	12.57	12.64	12.84	13.31	12.75	12.76	12.79	12.69	12.66	12.77	12.66	
2	12.69	12.57	12.76	12.95	13.09	12.75	12.74	12.78	12.68	12.65	12.79	12.66	
3	12.68	12.57	12.79	13.03	13.01	12.74	12.73	12.78	12.67	12.71	12.77	12.66	
4	12.67	12.57	12.77	12.94	12.95	12.74	12.73	12.77	12.67	12.76	12.75	12.66	
5	12.66	12.57	12.77	12.90	12.92	12.74	12.72	12.76	12.66	12.74	12.72	12.67	
6	12.66	12.57	12.75	12.90	12.89	12.73	12.75	12.73	12.67	12.72	12.72	12.67	
7	12.67	12.57	12.73	12.86	12.87	12.74	12.77	12.72	12.67	12.71	12.70	12.67	
8	12.66	12.59	12.72	12.84	12.84	12.77	12.78	12.72	12.74	12.70	12.69	12.66	
9	12.66	12.62	12.68	12.84	12.80	12.76	12.77	12.71	12.93	12.69	12.69	12.66	
10	12.65	12.68	12.67	12.82	12.79	12.75	12.76	12.70	12.92	12.68	12.68	12.65	
11	12.65	12.70	12.66	12.84	12.81	12.77	12.80	12.69	12.82	12.68	12.69	12.65	
12	12.65	12.71	12.70	12.80	12.85	12.78	12.86	12.68	12.77	12.68	12.69	12.68	
13	12.64	12.71	12.66	12.77	12.82	12.78	13.07	12.75	12.75	12.68	12.70	12.68	
14	12.64	12.72	12.65	12.76	12.81	12.77	12.95	12.93	12.71	12.67	12.70	12.67	
15	12.63	12.73	12.66	12.74	12.80	12.78	12.92	12.82	12.70	12.67	12.70	12.67	
16	12.62	12.72	12.70	12.72	12.79	12.79	12.91	12.80	12.69	12.67	12.69	12.68	
17	12.62	12.73	12.76	12.81	12.78	12.78	12.90	12.79	12.69	12.66	12.69	12.67	
18	12.61	12.74	12.83	12.74	12.76	12.79	12.93	12.78	12.68	12.66	12.69	12.67	
19	12.57	12.75	12.90	12.64	12.75	12.81	12.87	12.77	12.70	12.67	12.70	12.66	
20	12.57	12.75	12.98	12.63	12.74	12.81	12.83	12.76	12.71	12.67	12.70	12.66	
21	12.57	12.73	12.92	12.62	12.77	12.80	12.82	12.74	12.70	12.67	12.70	12.65	
22	12.57	12.71	12.88	12.65	12.77	12.81	12.82	12.72	12.69	12.66	12.69	12.65	
23	12.57	12.71	12.82	12.67	12.76	12.80	12.83	12.71	12.68	12.66	12.69	12.65	
24	12.57	12.69	12.80	12.69	12.75	12.81	12.84	12.70	12.65	12.66	12.69	12.64	
25	12.57	12.67	12.79	12.71	12.75	12.80	12.84	12.69	12.59	12.65	12.68	12.64	
26	12.57	12.63	12.78	12.75	12.74	12.81	12.86	12.68	12.60	12.66	12.68	12.63	
27	12.57	12.61	12.77	12.78	12.76	12.82	12.87	12.67	12.62	12.67	12.68	12.62	
28	12.57	12.60	12.82	12.79	12.74	12.81	12.93	12.69	12.68	12.67	12.67	12.62	
29	12.57	12.61	12.85	12.78	12.76	12.78	12.87	12.71	12.68	12.68	12.66	12.62	
30	12.57	12.63	12.95	12.79	12.77	12.77	12.82	12.71	12.67	12.68		12.62	
31		12.64		12.87	12.75		12.81		12.66	12.71		12.61	
Mean	12.62	12.66	12.77	12.79	12.83	12.78	12.83	12.74	12.70	12.68	12.70	12.65	
Max	12.70	12.75	12.98	13.03	13.31	12.82	13.07	12.93	12.93	12.76	12.79	12.68	13.31
Min	12.57	12.57	12.64	12.62	12.74	12.73	12.72	12.67	12.59	12.65	12.66	12.61	12.57

Annual Max Momentary Gage Height	13.40	m. (MSL.) ,	at 18.00 Hours , on Aug 1 , 2011		
Zero Gage at Bottom Elevation	11.72	m. (MSL.) ,	River Bed	12.21	m. (MSL)
Left Bank Elevation	16.18	m. (MSL.) ,			
Right Bank Elevation	17.22	m. (MSL.) ,	Drainage Area	88	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.20	0.01	0.09	0.83	6.52	0.38	0.41	0.51	0.18	0.13	0.45	0.13		
2	0.18	0.01	0.41	1.70	3.19	0.38	0.34	0.48	0.16	0.11	0.51	0.13		
3	0.16	0.01	0.51	2.50	2.27	0.34	0.30	0.48	0.15	0.24	0.45	0.13		
4	0.15	0.01	0.45	1.61	1.70	0.34	0.30	0.45	0.15	0.41	0.38	0.13		
5	0.13	0.01	0.45	1.24	1.42	0.34	0.27	0.41	0.13	0.34	0.27	0.15		
6	0.13	0.01	0.38	1.24	1.17	0.30	0.38	0.30	0.15	0.27	0.27	0.15		
7	0.15	0.01	0.30	0.96	1.03	0.34	0.45	0.27	0.15	0.24	0.20	0.15		
8	0.13	0.02	0.27	0.83	0.83	0.45	0.48	0.27	0.34	0.20	0.18	0.13		
9	0.13	0.06	0.16	0.83	0.55	0.41	0.45	0.24	1.52	0.18	0.18	0.13		
10	0.11	0.16	0.15	0.69	0.51	0.38	0.41	0.20	1.42	0.16	0.16	0.11		
11	0.11	0.20	0.13	0.83	0.62	0.45	0.55	0.18	0.69	0.16	0.18	0.11		
12	0.11	0.24	0.20	0.55	0.90	0.48	0.96	0.16	0.45	0.16	0.18	0.16		
13	0.09	0.24	0.13	0.45	0.69	0.48	2.96	0.38	0.38	0.16	0.20	0.16		
14	0.09	0.27	0.11	0.41	0.62	0.45	1.70	1.52	0.24	0.15	0.20	0.15		
15	0.07	0.30	0.13	0.34	0.55	0.48	1.42	0.69	0.20	0.15	0.20	0.15		
16	0.06	0.27	0.20	0.27	0.51	0.51	1.33	0.55	0.18	0.15	0.18	0.16		
17	0.06	0.30	0.41	0.62	0.48	0.48	1.24	0.51	0.18	0.13	0.18	0.15		
18	0.04	0.34	0.76	0.34	0.41	0.51	1.52	0.48	0.16	0.13	0.18	0.15		
19	0.01	0.38	1.24	0.09	0.38	0.62	1.03	0.45	0.20	0.15	0.20	0.13		
20	0.01	0.38	1.98	0.07	0.34	0.62	0.76	0.41	0.24	0.15	0.20	0.13		
21	0.01	0.30	1.42	0.06	0.45	0.55	0.69	0.34	0.20	0.15	0.20	0.11		
22	0.01	0.24	1.10	0.11	0.45	0.62	0.69	0.27	0.18	0.13	0.18	0.11		
23	0.01	0.24	0.69	0.15	0.41	0.55	0.76	0.24	0.16	0.13	0.18	0.11		
24	0.01	0.18	0.55	0.18	0.38	0.62	0.83	0.20	0.11	0.13	0.18	0.09		
25	0.01	0.15	0.51	0.24	0.38	0.55	0.83	0.18	0.02	0.11	0.16	0.09		
26	0.01	0.07	0.48	0.38	0.34	0.62	0.96	0.16	0.02	0.13	0.16	0.07		
27	0.01	0.04	0.45	0.48	0.41	0.69	1.03	0.15	0.06	0.15	0.16	0.06		
28	0.01	0.02	0.69	0.51	0.34	0.62	1.52	0.18	0.16	0.15	0.15	0.06		
29	0.01	0.04	0.90	0.48	0.41	0.48	1.03	0.24	0.16	0.16	0.13	0.06		
30	0.01	0.07	1.70	0.51	0.45	0.45	0.69	0.24	0.15	0.16		0.06		
31		0.09		1.03	0.38		0.62		0.13	0.24		0.04		
Total	2.22	4.67	16.95	20.53	29.09	14.49	26.91	11.14	8.62	5.41	6.45	3.65	150.13	CMSDAY
Mean	0.07	0.15	0.56	0.66	0.94	0.48	0.87	0.37	0.28	0.17	0.22	0.12	0.41	CMS
Max	0.20	0.38	1.98	2.50	6.52	0.69	2.96	1.52	1.52	0.41	0.51	0.16	6.52	CMS
Min	0.01	0.01	0.09	0.06	0.34	0.30	0.27	0.15	0.02	0.11	0.13	0.04	0.01	CMS
Runoff	0.19	0.40	1.46	1.77	2.51	1.25	2.33	0.96	0.75	0.47	0.56	0.32	12.97	MCM

Momentary Peak 8.11 CMS. at 13.40 m. (MSL.) at 18.00 Hours , on Aug 1 , 2011

Runoff Yield 4.66 Liters/Second/Square KM. Momentary Peak Yield 92.159 Liters/Second/Square KM.

WATER YEAR : 2011

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.

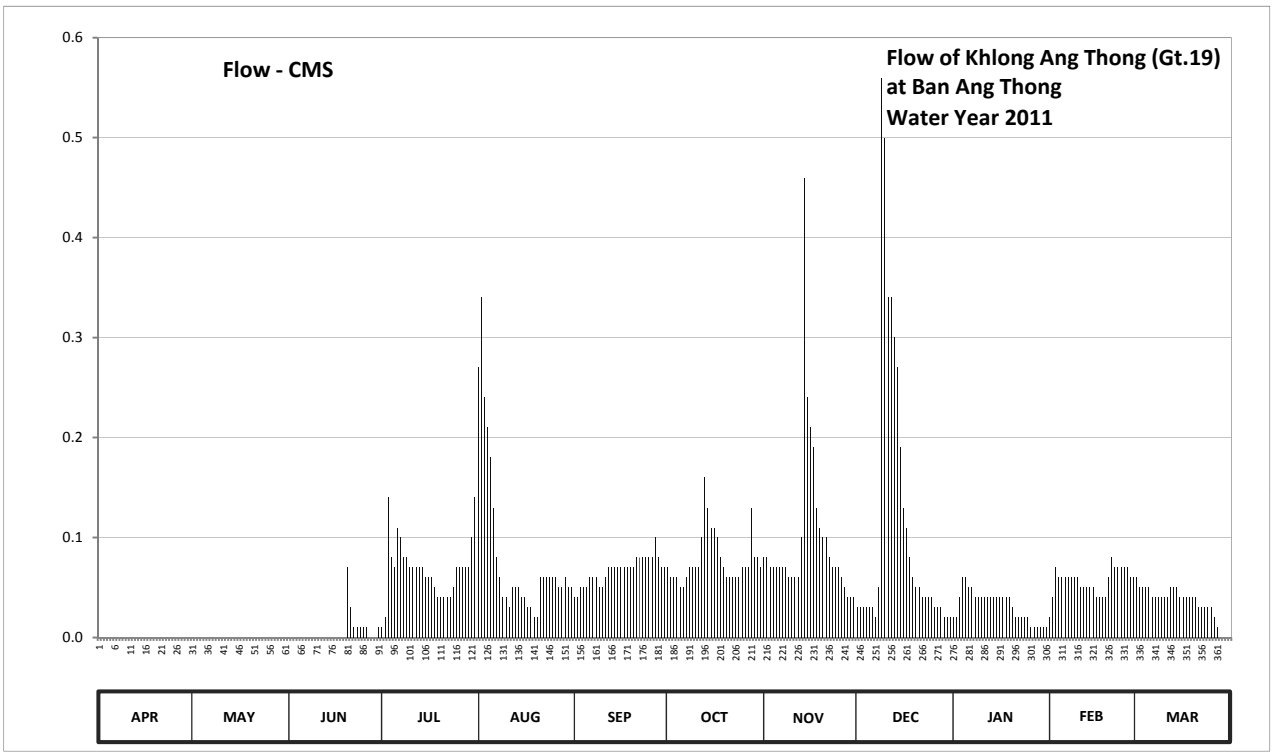
Ban Ang Thong **Amphoe** Thap Sakae **Changwat** Prachuap Khiri Khan

Drainge Area	61 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+12.447 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank at the abutment of the bridge. **Elevation** +17.784 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings
Period of Available Gage Records	1987 to date
Rating Operation	
Period of Rating	1987 - 1988, 1993 to date
Rated by Flot	-
Rated by Current Meter	1987 - 1988, 1993 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 39 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	13.10	12.99	12.75	13.13	13.41	13.24	13.28	13.30	13.22	13.19	13.20	13.26	
2	13.10	12.97	12.78	13.20	13.43	13.24	13.27	13.30	13.22	13.20	13.24	13.25	
3	13.10	12.96	12.78	13.34	13.40	13.25	13.26	13.29	13.21	13.24	13.28	13.25	
4	13.10	12.95	12.77	13.30	13.38	13.25	13.26	13.29	13.21	13.27	13.27	13.25	
5	13.10	12.93	12.76	13.29	13.36	13.25	13.25	13.29	13.21	13.27	13.27	13.25	
6	13.10	12.92	12.76	13.32	13.33	13.26	13.25	13.28	13.21	13.25	13.27	13.24	
7	13.10	12.92	12.75	13.31	13.30	13.26	13.26	13.28	13.20	13.25	13.27	13.24	
8	13.10	12.91	12.75	13.30	13.26	13.26	13.29	13.28	13.25	13.24	13.27	13.24	
9	13.10	12.93	12.75	13.30	13.23	13.25	13.29	13.27	13.50	13.23	13.26	13.23	
10	13.10	12.95	12.76	13.29	13.23	13.25	13.28	13.27	13.48	13.23	13.26	13.23	
11	13.10	12.94	12.76	13.28	13.22	13.27	13.29	13.27	13.43	13.23	13.25	13.23	
12	13.10	12.92	12.76	13.28	13.25	13.29	13.31	13.27	13.43	13.23	13.25	13.25	
13	13.10	12.92	12.81	13.28	13.25	13.29	13.35	13.31	13.42	13.23	13.25	13.25	
14	13.10	12.92	12.81	13.28	13.25	13.29	13.33	13.47	13.41	13.23	13.25	13.25	
15	13.10	12.93	12.81	13.27	13.24	13.28	13.32	13.40	13.37	13.23	13.25	13.24	
16	13.10	12.93	12.83	13.27	13.23	13.28	13.32	13.38	13.33	13.23	13.24	13.24	
17	13.10	12.93	12.87	13.26	13.21	13.28	13.31	13.37	13.32	13.23	13.24	13.24	
18	13.10	12.94	12.90	13.25	13.21	13.29	13.30	13.33	13.30	13.23	13.24	13.24	
19	13.10	12.94	12.95	13.24	13.20	13.29	13.29	13.32	13.27	13.23	13.24	13.23	
20	13.10	12.93	13.28	13.24	13.20	13.29	13.27	13.31	13.25	13.22	13.27	13.23	
21	13.10	12.92	13.22	13.24	13.27	13.30	13.27	13.31	13.25	13.20	13.30	13.22	
22	13.10	12.92	13.17	13.24	13.27	13.30	13.27	13.30	13.24	13.20	13.29	13.22	
23	13.10	12.91	13.16	13.24	13.27	13.30	13.26	13.29	13.24	13.19	13.29	13.22	
24	13.10	12.90	13.15	13.25	13.26	13.30	13.27	13.29	13.23	13.18	13.29	13.22	
25	13.10	12.89	13.14	13.28	13.26	13.30	13.28	13.29	13.23	13.18	13.29	13.22	
26	13.10	12.88	13.13	13.28	13.26	13.30	13.28	13.26	13.22	13.17	13.28	13.19	
27	13.10	12.81	13.11	13.28	13.25	13.31	13.29	13.25	13.21	13.17	13.27	13.16	
28	13.10	12.75	13.11	13.29	13.25	13.30	13.33	13.24	13.21	13.17	13.27	13.12	
29	13.10	12.75	13.12	13.29	13.26	13.29	13.30	13.23	13.20	13.16	13.26	13.10	
30	13.10	12.75	13.16	13.31	13.25	13.29	13.30	13.23	13.20	13.15		13.10	
31		12.76		13.34	13.25		13.29		13.19	13.16		13.10	
Mean	13.10	12.90	12.93	13.27	13.27	13.28	13.29	13.30	13.28	13.21	13.26	13.22	
Max	13.10	12.99	13.28	13.34	13.43	13.31	13.35	13.47	13.50	13.27	13.30	13.26	13.50
Min	13.10	12.75	12.75	13.13	13.20	13.24	13.25	13.23	13.19	13.15	13.20	13.10	12.75

Annual Max Momentary Gage Height	13.53	m. (MSL.) ,	at 12.00 Hours , on Dec 9 , 2011		
Zero Gage at Bottom Elevation	12.45	m. (MSL.) ,	River Bed	12.89	m. (MSL)
Left Bank Elevation	16.87	m. (MSL.) ,			
Right Bank Elevation	16.58	m. (MSL.) ,	Drainage Area	61	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	0.00	0.01	0.27	0.04	0.07	0.08	0.03	0.02	0.02	0.06		
2	0.00	0.00	0.00	0.02	0.34	0.04	0.06	0.08	0.03	0.02	0.04	0.05		
3	0.00	0.00	0.00	0.14	0.24	0.05	0.06	0.07	0.03	0.04	0.07	0.05		
4	0.00	0.00	0.00	0.08	0.21	0.05	0.06	0.07	0.03	0.06	0.06	0.05		
5	0.00	0.00	0.00	0.07	0.18	0.05	0.05	0.07	0.03	0.06	0.06	0.05		
6	0.00	0.00	0.00	0.11	0.13	0.06	0.05	0.07	0.03	0.05	0.06	0.04		
7	0.00	0.00	0.00	0.10	0.08	0.06	0.06	0.07	0.02	0.05	0.06	0.04		
8	0.00	0.00	0.00	0.08	0.06	0.06	0.07	0.07	0.05	0.04	0.06	0.04		
9	0.00	0.00	0.00	0.08	0.04	0.05	0.07	0.06	0.56	0.04	0.06	0.04		
10	0.00	0.00	0.00	0.07	0.04	0.05	0.07	0.06	0.50	0.04	0.06	0.04		
11	0.00	0.00	0.00	0.07	0.03	0.06	0.07	0.06	0.34	0.04	0.05	0.04		
12	0.00	0.00	0.00	0.07	0.05	0.07	0.10	0.06	0.34	0.04	0.05	0.05		
13	0.00	0.00	0.00	0.07	0.05	0.07	0.16	0.10	0.30	0.04	0.05	0.05		
14	0.00	0.00	0.00	0.07	0.05	0.07	0.13	0.46	0.27	0.04	0.05	0.05		
15	0.00	0.00	0.00	0.06	0.04	0.07	0.11	0.24	0.19	0.04	0.05	0.04		
16	0.00	0.00	0.00	0.06	0.04	0.07	0.11	0.21	0.13	0.04	0.04	0.04		
17	0.00	0.00	0.00	0.06	0.03	0.07	0.10	0.19	0.11	0.04	0.04	0.04		
18	0.00	0.00	0.00	0.05	0.03	0.07	0.08	0.13	0.08	0.04	0.04	0.04		
19	0.00	0.00	0.00	0.04	0.02	0.07	0.07	0.11	0.06	0.04	0.04	0.04		
20	0.00	0.00	0.07	0.04	0.02	0.07	0.06	0.10	0.05	0.03	0.06	0.04		
21	0.00	0.00	0.03	0.04	0.06	0.08	0.06	0.10	0.05	0.02	0.08	0.03		
22	0.00	0.00	0.01	0.04	0.06	0.08	0.06	0.08	0.04	0.02	0.07	0.03		
23	0.00	0.00	0.01	0.04	0.06	0.08	0.06	0.07	0.04	0.02	0.07	0.03		
24	0.00	0.00	0.01	0.05	0.06	0.08	0.06	0.07	0.04	0.02	0.07	0.03		
25	0.00	0.00	0.01	0.07	0.06	0.08	0.07	0.07	0.04	0.02	0.07	0.03		
26	0.00	0.00	0.01	0.07	0.06	0.08	0.07	0.06	0.03	0.01	0.07	0.02		
27	0.00	0.00	0.00	0.07	0.05	0.10	0.07	0.05	0.03	0.01	0.06	0.01		
28	0.00	0.00	0.00	0.07	0.05	0.08	0.13	0.04	0.03	0.01	0.06	0.00		
29	0.00	0.00	0.00	0.07	0.06	0.07	0.08	0.04	0.02	0.01	0.06	0.00		
30	0.00	0.00	0.01	0.10	0.05	0.07	0.08	0.04	0.02	0.01		0.00		
31		0.00		0.14	0.05		0.07		0.02	0.01		0.00		
Total	0.00	0.00	0.16	2.11	2.57	2.00	2.42	2.98	3.54	0.97	1.63	1.07	19.45	CMSDAY
Mean	0.00	0.00	0.01	0.07	0.08	0.07	0.08	0.10	0.11	0.03	0.06	0.03	0.05	CMS
Max	0.00	0.00	0.07	0.14	0.34	0.10	0.16	0.46	0.56	0.06	0.08	0.06	0.56	CMS
Min	0.00	0.00	0.00	0.01	0.02	0.04	0.05	0.04	0.02	0.01	0.02	0.00	0.00	CMS
Runoff	0.00	0.00	0.01	0.18	0.22	0.17	0.21	0.26	0.31	0.08	0.14	0.09	1.68	MCM

Momentary Peak 0.71 CMS. at 13.53 m. (MSL.) at 12.00 Hours , on Dec 9 , 2011

Runoff Yield 0.87 Liters/Second/Square KM. Momentary Peak Yield 11.639 Liters/Second/Square KM.

WATER YEAR : 2011

KUI BURI RIVER BASIN

Kui Buri River at Ban Thung Faek , Prachuap Khiri Khan (Ky.3)

Lat 12 - 05 - 46 N Long 99 - 47 - 26 E

Location : on left bank at Bunchuai Bamrungrat Bridge near Wat Udom Wararam.

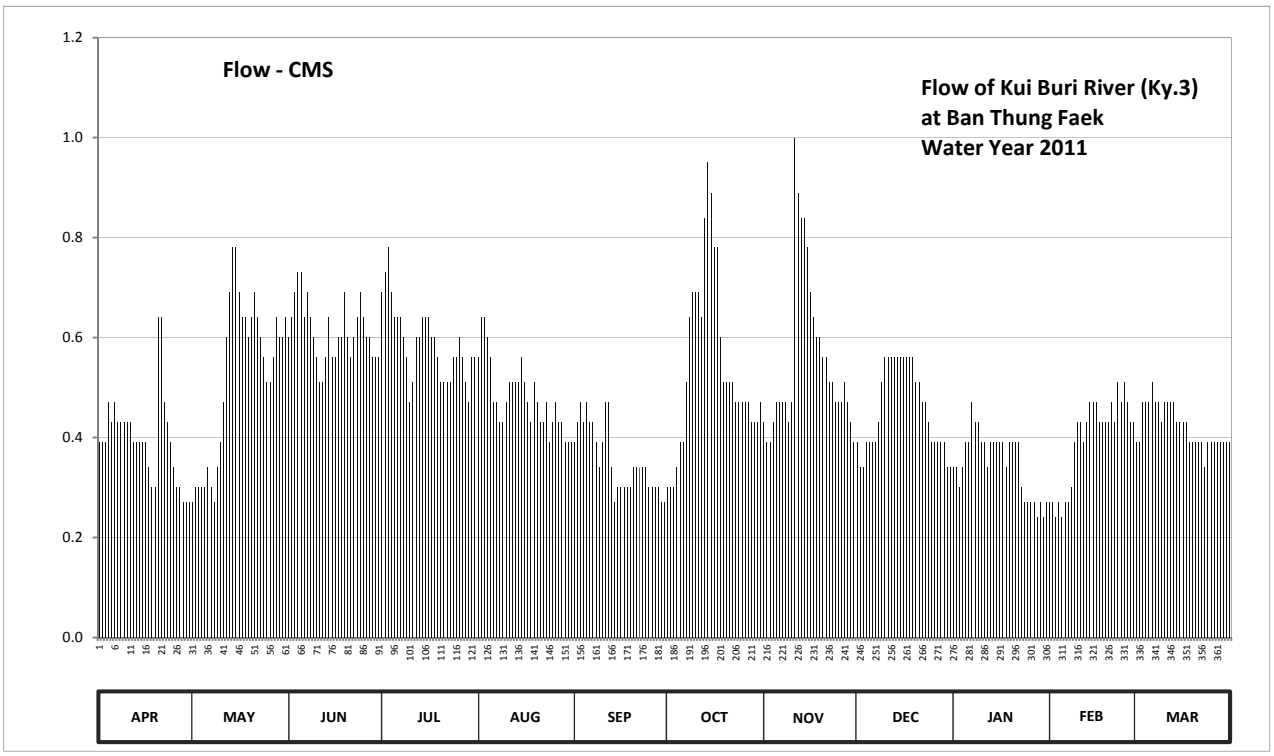
Ban Thung Faek **Amphoe** Kui Buri **Changwat** Prachuap Khiri Khan

Drainge Area	537 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+19.789 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank about 1 meter from the top staff gage. **Elevation** +25.925 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings
Period of Available Gage Records	1997 to date
Rating Operation	
Period of Rating	1997 to date
Rated by Flot	-
Rated by Current Meter	1997 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records gool. Stage-discharge relation defined by 43 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	21.62	21.59	21.67	21.69	21.66	21.62	21.60	21.63	21.62	21.61	21.59	21.62	
2	21.62	21.60	21.68	21.70	21.68	21.63	21.60	21.62	21.61	21.61	21.59	21.62	
3	21.62	21.60	21.69	21.71	21.68	21.64	21.60	21.62	21.61	21.60	21.58	21.64	
4	21.64	21.60	21.70	21.69	21.67	21.63	21.61	21.63	21.62	21.61	21.59	21.64	
5	21.63	21.60	21.70	21.68	21.66	21.64	21.62	21.64	21.62	21.62	21.58	21.64	
6	21.64	21.61	21.68	21.68	21.64	21.63	21.62	21.64	21.62	21.62	21.59	21.65	
7	21.63	21.60	21.69	21.68	21.64	21.63	21.65	21.64	21.62	21.64	21.59	21.64	
8	21.63	21.59	21.68	21.67	21.63	21.62	21.68	21.64	21.63	21.63	21.60	21.64	
9	21.63	21.61	21.67	21.66	21.63	21.61	21.69	21.63	21.65	21.63	21.62	21.63	
10	21.63	21.62	21.66	21.64	21.64	21.62	21.69	21.64	21.66	21.62	21.63	21.64	
11	21.63	21.64	21.65	21.65	21.65	21.64	21.69	21.75	21.66	21.62	21.63	21.64	
12	21.62	21.67	21.65	21.67	21.65	21.64	21.68	21.73	21.66	21.61	21.62	21.64	
13	21.62	21.69	21.66	21.67	21.65	21.61	21.72	21.72	21.66	21.62	21.63	21.64	
14	21.62	21.71	21.68	21.68	21.65	21.59	21.74	21.72	21.66	21.62	21.64	21.63	
15	21.62	21.71	21.66	21.68	21.66	21.60	21.73	21.71	21.66	21.62	21.64	21.63	
16	21.62	21.69	21.66	21.68	21.65	21.60	21.71	21.69	21.66	21.62	21.64	21.63	
17	21.61	21.68	21.67	21.67	21.64	21.60	21.71	21.68	21.66	21.62	21.63	21.63	
18	21.60	21.68	21.67	21.67	21.63	21.60	21.67	21.67	21.66	21.61	21.63	21.62	
19	21.60	21.67	21.69	21.66	21.65	21.60	21.65	21.67	21.66	21.62	21.63	21.62	
20	21.68	21.68	21.67	21.65	21.64	21.61	21.65	21.66	21.65	21.62	21.63	21.62	
21	21.68	21.69	21.66	21.65	21.63	21.61	21.65	21.66	21.65	21.62	21.64	21.62	
22	21.64	21.68	21.67	21.65	21.63	21.61	21.65	21.65	21.64	21.62	21.63	21.62	
23	21.63	21.67	21.68	21.65	21.64	21.61	21.64	21.65	21.64	21.60	21.65	21.61	
24	21.62	21.66	21.69	21.66	21.62	21.61	21.64	21.64	21.63	21.59	21.64	21.62	
25	21.61	21.65	21.68	21.66	21.63	21.60	21.64	21.64	21.62	21.59	21.65	21.62	
26	21.60	21.65	21.67	21.67	21.64	21.60	21.64	21.64	21.62	21.59	21.64	21.62	
27	21.60	21.66	21.67	21.66	21.63	21.60	21.64	21.65	21.62	21.59	21.63	21.62	
28	21.59	21.68	21.66	21.65	21.63	21.60	21.63	21.64	21.62	21.58	21.63	21.62	
29	21.59	21.67	21.66	21.64	21.62	21.59	21.63	21.63	21.62	21.59	21.62	21.62	
30	21.59	21.67	21.66	21.66	21.62	21.59	21.63	21.62	21.61	21.58		21.62	
31		21.68		21.66	21.62		21.64		21.61	21.59		21.62	
Mean	21.62	21.65	21.67	21.67	21.64	21.61	21.66	21.66	21.64	21.61	21.62	21.63	
Max	21.68	21.71	21.70	21.71	21.68	21.64	21.74	21.75	21.66	21.64	21.65	21.65	21.75
Min	21.59	21.59	21.65	21.64	21.62	21.59	21.60	21.62	21.61	21.58	21.58	21.61	21.58

Annual Max Momentary Gage Height	21.78	m. (MSL.) ,	at 14.00 Hours , on May 15 , 2011		
Zero Gage at Bottom Elevation	19.79	m. (MSL.) ,	River Bed	19.87	m. (MSL)
Left Bank Elevation	25.86	m. (MSL.) ,			
Right Bank Elevation	25.92	m. (MSL.) ,	Drainage Area	537	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.39	0.27	0.60	0.69	0.56	0.39	0.30	0.43	0.39	0.34	0.27	0.39		
2	0.39	0.30	0.64	0.73	0.64	0.43	0.30	0.39	0.34	0.34	0.27	0.39		
3	0.39	0.30	0.69	0.78	0.64	0.47	0.30	0.39	0.34	0.30	0.24	0.47		
4	0.47	0.30	0.73	0.69	0.60	0.43	0.34	0.43	0.39	0.34	0.27	0.47		
5	0.43	0.30	0.73	0.64	0.56	0.47	0.39	0.47	0.39	0.39	0.24	0.47		
6	0.47	0.34	0.64	0.64	0.47	0.43	0.39	0.47	0.39	0.39	0.27	0.51		
7	0.43	0.30	0.69	0.64	0.47	0.43	0.51	0.47	0.39	0.47	0.27	0.47		
8	0.43	0.27	0.64	0.60	0.43	0.39	0.64	0.47	0.43	0.43	0.30	0.47		
9	0.43	0.34	0.60	0.56	0.43	0.34	0.69	0.43	0.51	0.43	0.39	0.43		
10	0.43	0.39	0.56	0.47	0.47	0.39	0.69	0.47	0.56	0.39	0.43	0.47		
11	0.43	0.47	0.51	0.51	0.51	0.47	0.69	1.00	0.56	0.39	0.43	0.47		
12	0.39	0.60	0.51	0.60	0.51	0.47	0.64	0.89	0.56	0.34	0.39	0.47		
13	0.39	0.69	0.56	0.60	0.51	0.34	0.84	0.84	0.56	0.39	0.43	0.47		
14	0.39	0.78	0.64	0.64	0.51	0.27	0.95	0.84	0.56	0.39	0.47	0.43		
15	0.39	0.78	0.56	0.64	0.56	0.30	0.89	0.78	0.56	0.39	0.47	0.43		
16	0.39	0.69	0.56	0.64	0.51	0.30	0.78	0.69	0.56	0.39	0.47	0.43		
17	0.34	0.64	0.60	0.60	0.47	0.30	0.78	0.64	0.56	0.39	0.43	0.43		
18	0.30	0.64	0.60	0.60	0.43	0.30	0.60	0.60	0.56	0.34	0.43	0.39		
19	0.30	0.60	0.69	0.56	0.51	0.30	0.51	0.60	0.56	0.39	0.43	0.39		
20	0.64	0.64	0.60	0.51	0.47	0.34	0.51	0.56	0.51	0.39	0.43	0.39		
21	0.64	0.69	0.56	0.51	0.43	0.34	0.51	0.56	0.51	0.39	0.47	0.39		
22	0.47	0.64	0.60	0.51	0.43	0.34	0.51	0.51	0.47	0.39	0.43	0.39		
23	0.43	0.60	0.64	0.51	0.47	0.34	0.47	0.51	0.47	0.30	0.51	0.34		
24	0.39	0.56	0.69	0.56	0.39	0.34	0.47	0.47	0.43	0.27	0.47	0.39		
25	0.34	0.51	0.64	0.56	0.43	0.30	0.47	0.47	0.39	0.27	0.51	0.39		
26	0.30	0.51	0.60	0.60	0.47	0.30	0.47	0.47	0.39	0.27	0.47	0.39		
27	0.30	0.56	0.60	0.56	0.43	0.30	0.47	0.51	0.39	0.27	0.43	0.39		
28	0.27	0.64	0.56	0.51	0.43	0.30	0.43	0.47	0.39	0.24	0.43	0.39		
29	0.27	0.60	0.56	0.47	0.39	0.27	0.43	0.43	0.39	0.27	0.39	0.39		
30	0.27	0.60	0.56	0.56	0.39	0.27	0.43	0.39	0.34	0.24		0.39		
31		0.64		0.56	0.39		0.47		0.34	0.27		0.39		
Total	11.90	16.19	18.36	18.25	14.91	10.66	16.87	16.65	14.19	10.80	11.44	13.08	173.30	CMSDAY
Mean	0.40	0.52	0.61	0.59	0.48	0.36	0.54	0.56	0.46	0.35	0.39	0.42	0.47	CMS
Max	0.64	0.78	0.73	0.78	0.64	0.47	0.95	1.00	0.56	0.47	0.51	0.51	1.00	CMS
Min	0.27	0.27	0.51	0.47	0.39	0.27	0.30	0.39	0.34	0.24	0.24	0.34	0.24	CMS
Runoff	1.03	1.40	1.59	1.58	1.29	0.92	1.46	1.44	1.23	0.93	0.99	1.13	14.97	MCM

Momentary Peak 1.16 CMS. at 21.78 m. (MSL.) at 14.00 Hours , on May 15 , 2011

Runoff Yield 0.88 Liters/Second/Square KM. Momentary Peak Yield 2.160 Liters/Second/Square KM.

WATER YEAR : 2011

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
Drainge Area	296 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank about 3.30 meters from the top staff gage.		**Elevation** +10.271 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	1991 to date		
Rating Operation			
Period of Rating	1991 to date		
Rated by Flot	-		
Rated by Current Meter	1991 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 34 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

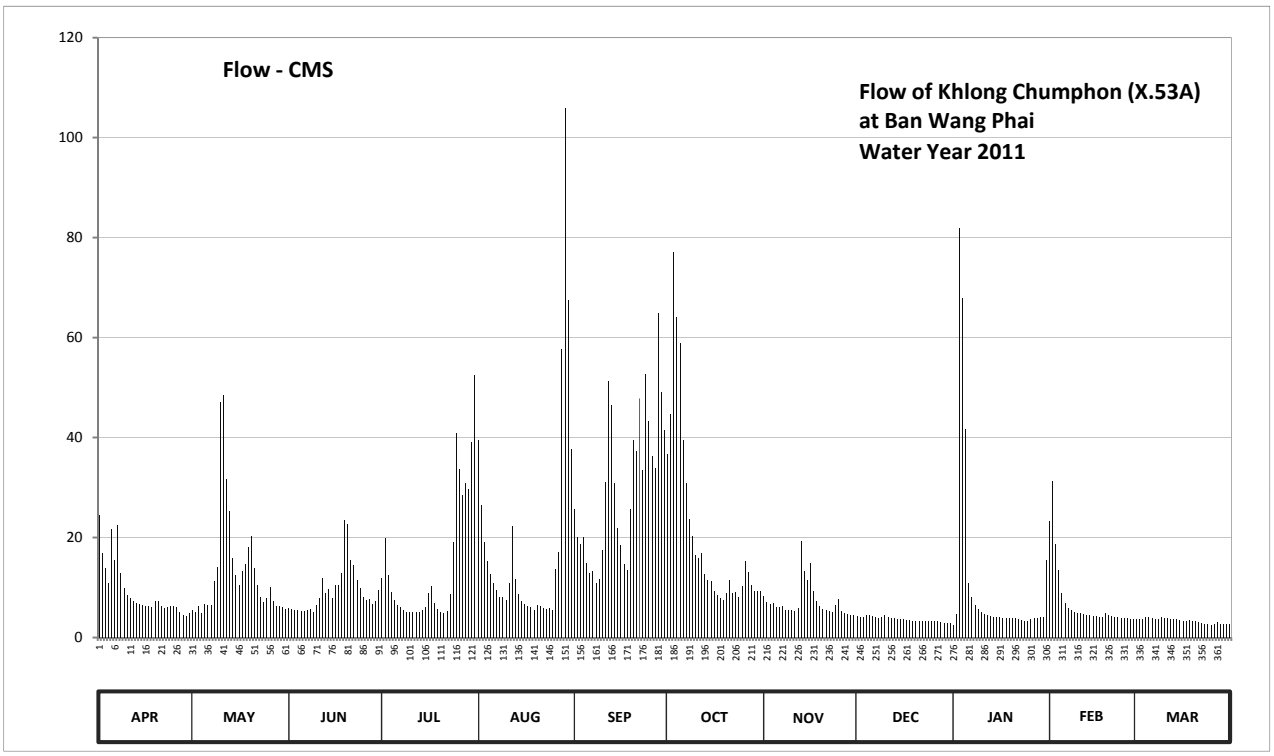
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	3.92	2.46	2.49	2.97	4.96	4.01	4.78	2.69	2.36	2.20	3.84	2.30	
2	3.37	2.42	2.48	3.59	4.06	3.60	5.30	2.59	2.35	2.39	4.41	2.30	
3	3.14	2.53	2.46	3.03	3.54	3.51	6.94	2.56	2.35	7.13	3.51	2.30	
4	2.89	2.40	2.45	2.75	3.25	3.61	6.35	2.58	2.37	6.53	3.11	2.34	
5	3.72	2.56	2.44	2.63	3.04	3.22	6.09	2.50	2.37	5.11	2.73	2.35	
6	3.26	2.55	2.44	2.55	2.90	3.06	4.96	2.50	2.36	2.90	2.57	2.32	
7	3.78	2.55	2.45	2.50	2.79	3.08	4.38	2.52	2.34	2.68	2.49	2.31	
8	3.05	2.92	2.48	2.45	2.68	2.89	3.87	2.46	2.33	2.54	2.45	2.31	
9	2.82	3.15	2.43	2.42	2.67	2.96	3.62	2.45	2.35	2.47	2.43	2.35	
10	2.71	5.44	2.54	2.42	2.63	3.42	3.35	2.46	2.37	2.42	2.41	2.33	
11	2.66	5.53	2.66	2.43	2.90	4.39	3.30	2.44	2.34	2.39	2.40	2.32	
12	2.61	4.43	2.98	2.42	3.77	5.69	3.38	2.49	2.33	2.37	2.39	2.31	
13	2.58	3.98	2.74	2.42	2.96	5.41	3.04	3.55	2.32	2.36	2.38	2.31	
14	2.56	3.30	2.80	2.46	2.72	4.38	2.95	3.08	2.31	2.34	2.37	2.30	
15	2.54	3.03	2.65	2.50	2.61	3.74	2.92	2.95	2.30	2.34	2.36	2.29	
16	2.53	2.86	2.87	2.73	2.56	3.50	2.77	3.21	2.30	2.34	2.36	2.28	
17	2.52	3.09	2.86	2.84	2.53	3.20	2.71	2.76	2.29	2.33	2.35	2.28	
18	2.50	3.20	3.05	2.57	2.50	3.10	2.65	2.60	2.29	2.32	2.35	2.29	
19	2.61	3.47	3.85	2.48	2.46	4.00	2.63	2.52	2.28	2.32	2.40	2.28	
20	2.60	3.62	3.80	2.43	2.54	4.97	2.74	2.48	2.28	2.32	2.38	2.27	
21	2.52	3.14	3.27	2.41	2.53	4.82	2.95	2.45	2.28	2.32	2.36	2.26	
22	2.49	2.86	3.18	2.44	2.49	5.49	2.74	2.44	2.28	2.31	2.35	2.24	
23	2.50	2.68	2.94	2.72	2.47	4.56	2.75	2.42	2.27	2.29	2.34	2.23	
24	2.52	2.59	2.81	3.54	2.49	5.76	2.68	2.54	2.27	2.28	2.33	2.22	
25	2.52	2.65	2.68	5.05	2.46	5.21	2.84	2.64	2.27	2.28	2.32	2.21	
26	2.51	2.83	2.63	4.57	3.12	4.75	3.25	2.44	2.27	2.31	2.32	2.23	
27	2.42	2.61	2.64	4.21	3.39	4.59	3.07	2.41	2.27	2.33	2.31	2.26	
28	2.37	2.53	2.56	4.38	6.03	6.39	2.86	2.39	2.25	2.32	2.31	2.23	
29	2.36	2.52	2.60	4.29	7.91	5.56	2.76	2.38	2.24	2.34	2.31	2.22	
30	2.40	2.51	2.79	4.94	6.51	5.09	2.77	2.37	2.24	2.35		2.22	
31		2.48		5.75	4.84		2.76		2.24	3.27		2.22	
Mean	2.77	3.06	2.77	3.13	3.36	4.27	3.55	2.60	2.31	2.78	2.57	2.28	
Max	3.92	5.53	3.85	5.75	7.91	6.39	6.94	3.55	2.37	7.13	4.41	2.35	7.91
Min	2.36	2.40	2.43	2.41	2.46	2.89	2.63	2.37	2.24	2.20	2.31	2.21	2.20

Annual Max Momentary Gage Height 9.25 m. (MSL.) , at 18.00 Hours , on Jan 3 , 2011

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed 1.69 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, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	24.48	5.52	5.88	11.83	39.40	25.74	36.71	8.33	4.32	2.40	23.36	3.60		
2	16.82	5.04	5.76	19.86	26.44	20.00	44.70	7.08	4.20	4.68	31.34	3.60		
3	13.95	6.36	5.52	12.57	19.16	18.74	77.06	6.72	4.20	81.88	18.74	3.60		
4	10.83	4.80	5.40	9.08	15.32	20.14	64.07	6.96	4.44	67.83	13.57	4.08		
5	21.68	6.72	5.28	7.58	12.70	14.95	58.86	6.00	4.44	41.71	8.83	4.20		
6	15.45	6.60	5.28	6.60	10.95	12.95	39.40	6.00	4.32	10.95	6.84	3.84		
7	22.52	6.60	5.40	6.00	9.57	13.20	30.92	6.24	4.08	8.20	5.88	3.72		
8	12.82	11.20	5.76	5.40	8.20	10.83	23.78	5.52	3.96	6.48	5.40	3.72		
9	9.95	14.08	5.16	5.04	8.08	11.70	20.28	5.40	4.20	5.64	5.16	4.20		
10	8.58	46.98	6.48	5.04	7.58	17.48	16.57	5.52	4.44	5.04	4.92	3.96		
11	7.95	48.51	7.95	5.16	10.95	31.06	15.95	5.28	4.08	4.68	4.80	3.84		
12	7.32	31.63	11.95	5.04	22.38	51.32	16.95	5.88	3.96	4.44	4.68	3.72		
13	6.96	25.32	8.95	5.04	11.70	46.47	12.70	19.30	3.84	4.32	4.56	3.72		
14	6.72	15.95	9.70	5.52	8.70	30.92	11.58	13.20	3.72	4.08	4.44	3.60		
15	6.48	12.57	7.83	6.00	7.32	21.96	11.20	11.58	3.60	4.08	4.32	3.48		
16	6.36	10.45	10.57	8.83	6.72	18.60	9.33	14.82	3.60	4.08	4.32	3.36		
17	6.24	13.32	10.45	10.20	6.36	14.70	8.58	9.20	3.48	3.96	4.20	3.36		
18	6.00	14.70	12.82	6.84	6.00	13.45	7.83	7.20	3.48	3.84	4.20	3.48		
19	7.32	18.18	23.50	5.76	5.52	25.60	7.58	6.24	3.36	3.84	4.80	3.36		
20	7.20	20.28	22.80	5.16	6.48	39.55	8.95	5.76	3.36	3.84	4.56	3.24		
21	6.24	13.95	15.57	4.92	6.36	37.30	11.58	5.40	3.36	3.84	4.32	3.12		
22	5.88	10.45	14.45	5.28	5.88	47.83	8.95	5.28	3.36	3.72	4.20	2.88		
23	6.00	8.20	11.45	8.70	5.64	33.52	9.08	5.04	3.24	3.48	4.08	2.76		
24	6.24	7.08	9.82	19.16	5.88	52.58	8.20	6.48	3.24	3.36	3.96	2.64		
25	6.24	7.83	8.20	40.78	5.52	43.26	10.20	7.70	3.24	3.36	3.84	2.52		
26	6.12	10.07	7.58	33.67	13.70	36.27	15.32	5.28	3.24	3.72	3.84	2.76		
27	5.04	7.32	7.70	28.54	17.07	33.96	13.07	4.92	3.24	3.96	3.72	3.12		
28	4.44	6.36	6.72	30.92	57.69	64.89	10.45	4.68	3.00	3.84	3.72	2.76		
29	4.32	6.24	7.20	29.66	105.85	49.02	9.20	4.56	2.88	4.08	3.72	2.64		
30	4.80	6.12	9.57	39.10	67.41	41.40	9.33	4.44	2.88	4.20		2.64		
31		5.76		52.40	37.60		9.20		2.88	15.57		2.64		
Total	280.95	414.19	280.70	445.68	578.13	899.39	637.58	216.01	113.64	329.10	204.32	104.16	4503.85	CMSDAY
Mean	9.37	13.36	9.36	14.38	18.65	29.98	20.57	7.20	3.67	10.62	7.05	3.36	12.31	CMS
Max	24.48	48.51	23.50	52.40	105.85	64.89	77.06	19.30	4.44	81.88	31.34	4.20	105.85	CMS
Min	4.32	4.80	5.16	4.92	5.52	10.83	7.58	4.44	2.88	2.40	3.72	2.52	2.40	CMS
Runoff	24.27	35.79	24.25	38.51	49.95	77.71	55.09	18.66	9.82	28.43	17.65	9.00	389.13	MCM

Momentary Peak 161.80 CMS. at 9.25 m. (MSL.) at 18.00 Hours , on Jan 3 , 2011

Runoff Yield 41.54 Liters/Second/Square KM. Momentary Peak Yield 546.253 Liters/Second/Square KM.

WATER YEAR : 2011

SOUTHERN PENINSULA EAST COAST

Khlong Tha Sae at Ban Tha Sae , Chumphon (X.64)

Lat 10 - 39 - 51 N Long 99 - 10 - 26 E

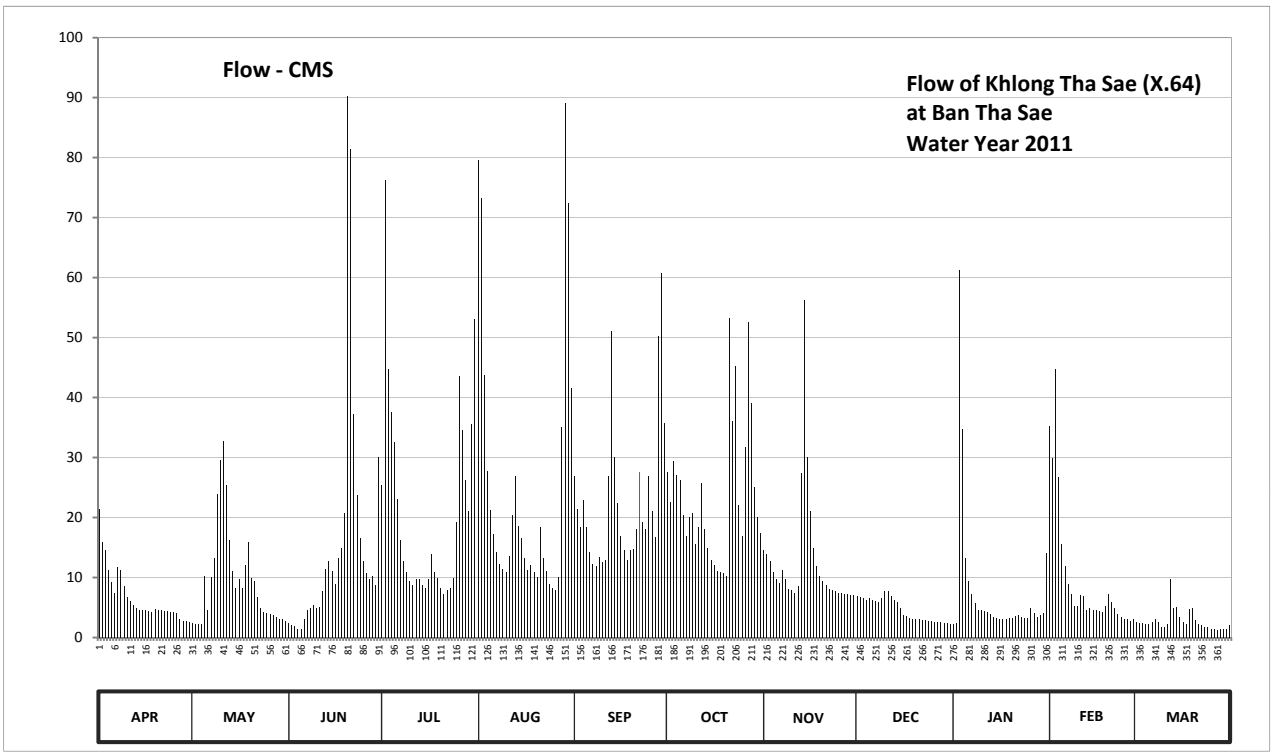
Location : on left bank near the Land Cooperation Office.

	Ban Tha Sae	**Amphoe** Tha Sae	**Changwat** Chumphon
Drainge Area	946 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank about 6 meters from the top staff gage.	**Elevation**	+19.207 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	1973 to date		
Rating Operation			
Period of Rating	1974 - 1975 , 1982 to date		
Rated by Flot	-		
Rated by Current Meter	1974 - 1975 , 1982 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 33 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	8.80	7.86	7.86	8.97	11.11	9.04	9.07	8.49	8.12	7.85	9.39	7.87	
2	8.55	7.85	7.84	10.99	10.88	8.80	8.85	8.46	8.11	7.86	9.17	7.86	
3	8.49	7.85	7.83	9.77	9.73	8.66	9.15	8.41	8.10	10.43	9.77	7.86	
4	8.34	7.85	7.80	9.48	9.08	8.86	9.05	8.32	8.09	9.37	9.03	7.85	
5	8.24	8.29	7.80	9.28	8.79	8.66	9.01	8.26	8.10	8.43	8.54	7.85	
6	8.15	8.00	7.91	8.87	8.61	8.48	8.75	8.23	8.09	8.25	8.37	7.87	
7	8.36	8.28	8.00	8.57	8.48	8.39	8.60	8.34	8.08	8.14	8.22	7.90	
8	8.34	8.43	8.02	8.41	8.39	8.37	8.74	8.26	8.07	8.06	8.14	7.87	
9	8.20	8.91	8.05	8.32	8.35	8.44	8.77	8.18	8.10	8.00	8.04	7.82	
10	8.11	9.16	8.02	8.25	8.32	8.40	8.54	8.17	8.16	8.00	8.04	7.82	
11	8.08	9.29	8.03	8.21	8.45	8.42	8.66	8.15	8.16	7.99	8.13	7.85	
12	8.05	8.97	8.16	8.26	8.75	9.04	8.99	8.20	8.12	7.98	8.12	8.26	
13	8.02	8.57	8.35	8.26	9.04	10.02	8.65	9.06	8.09	7.96	8.00	8.02	
14	8.00	8.33	8.41	8.21	8.67	9.18	8.51	10.23	8.07	7.93	8.02	8.03	
15	8.00	8.19	8.33	8.19	8.58	8.84	8.42	9.18	8.02	7.92	8.00	7.93	
16	8.00	8.26	8.22	8.26	8.43	8.60	8.38	8.78	7.95	7.91	8.00	7.87	
17	7.99	8.19	8.43	8.46	8.34	8.49	8.33	8.51	7.94	7.90	7.99	7.85	
18	7.98	8.38	8.51	8.32	8.38	8.42	8.32	8.37	7.92	7.90	7.98	8.01	
19	8.01	8.55	8.77	8.27	8.32	8.49	8.31	8.29	7.90	7.92	8.04	8.02	
20	8.00	8.27	11.50	8.19	8.28	8.50	8.29	8.25	7.90	7.92	8.14	7.89	
21	8.00	8.25	11.18	8.14	8.66	8.65	10.11	8.21	7.90	7.94	8.07	7.85	
22	7.99	8.11	9.47	8.17	8.43	9.07	9.42	8.18	7.89	7.95	8.02	7.84	
23	7.99	8.02	8.90	8.19	8.33	8.70	9.79	8.17	7.89	7.93	7.96	7.82	
24	7.98	7.98	8.58	8.27	8.22	8.65	8.83	8.16	7.88	7.92	7.93	7.82	
25	7.98	7.97	8.41	8.70	8.19	9.04	8.60	8.15	7.88	7.92	7.90	7.80	
26	7.97	7.96	8.31	9.72	8.17	8.78	9.25	8.15	7.87	8.02	7.90	7.80	
27	7.90	7.95	8.26	9.36	8.28	8.59	10.08	8.14	7.87	7.97	7.88	7.78	
28	7.88	7.93	8.29	9.01	9.38	9.99	9.54	8.14	7.87	7.93	7.90	7.80	
29	7.88	7.91	8.21	8.78	11.46	10.41	8.96	8.13	7.86	7.95	7.90	7.80	
30	7.87	7.90	9.18	9.40	10.85	9.41	8.74	8.13	7.86	7.97		7.79	
31		7.88		10.10	9.64		8.62		7.85	8.47		7.84	
Mean	8.11	8.24	8.49	8.75	8.92	8.85	8.88	8.39	7.99	8.12	8.23	7.88	
Max	8.80	9.29	11.50	10.99	11.46	10.41	10.11	10.23	8.16	10.43	9.77	8.26	11.50
Min	7.87	7.85	7.80	8.14	8.17	8.37	8.29	8.13	7.85	7.85	7.88	7.78	7.78

Annual Max Momentary Gage Height	12.70	m. (MSL.) ,	at 18.00 Hours , on Jun 20 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	6.52	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, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	21.50	2.40	2.40	25.33	79.52	26.90	27.57	14.52	6.90	2.25	35.25	2.55		
2	15.88	2.25	2.10	76.22	73.20	21.50	22.63	13.85	6.70	2.40	29.83	2.40		
3	14.52	2.25	1.95	44.75	43.75	18.35	29.37	12.73	6.50	61.25	44.75	2.40		
4	11.30	2.25	1.50	37.50	27.80	22.85	27.13	10.90	6.30	34.75	26.67	2.25		
5	9.30	10.30	1.50	32.50	21.27	18.35	26.23	9.70	6.50	13.18	15.65	2.25		
6	7.50	4.50	3.15	23.07	17.22	14.30	20.37	9.10	6.30	9.50	11.90	2.55		
7	11.70	10.10	4.50	16.32	14.30	12.30	17.00	11.30	6.10	7.30	8.90	3.00		
8	11.30	13.18	4.90	12.73	12.30	11.90	20.15	9.70	5.90	5.70	7.30	2.55		
9	8.50	23.97	5.50	10.90	11.50	13.40	20.83	8.10	6.50	4.50	5.30	1.80		
10	6.70	29.60	4.90	9.50	10.90	12.50	15.65	7.90	7.70	4.50	5.30	1.80		
11	6.10	32.75	5.10	8.70	13.63	12.95	18.35	7.50	7.70	4.35	7.10	2.25		
12	5.50	25.33	7.70	9.70	20.37	26.90	25.77	8.50	6.90	4.20	6.90	9.70		
13	4.90	16.32	11.50	9.70	26.90	51.00	18.12	27.35	6.30	3.90	4.50	4.90		
14	4.50	11.10	12.73	8.70	18.57	30.05	14.98	56.25	5.90	3.45	4.90	5.10		
15	4.50	8.30	11.10	8.30	16.55	22.40	12.95	30.05	4.90	3.30	4.50	3.45		
16	4.50	9.70	8.90	9.70	13.18	17.00	12.10	21.05	3.75	3.15	4.50	2.55		
17	4.35	8.30	13.18	13.85	11.30	14.52	11.10	14.98	3.60	3.00	4.35	2.25		
18	4.20	12.10	14.98	10.90	12.10	12.95	10.90	11.90	3.30	3.00	4.20	4.70		
19	4.70	15.88	20.83	9.90	10.90	14.52	10.70	10.30	3.00	3.30	5.30	4.90		
20	4.50	9.90	90.25	8.30	10.10	14.75	10.30	9.50	3.00	3.30	7.30	2.85		
21	4.50	9.50	81.45	7.30	18.35	18.12	53.25	8.70	3.00	3.60	5.90	2.25		
22	4.35	6.70	37.25	7.90	13.18	27.57	36.00	8.10	2.85	3.75	4.90	2.10		
23	4.35	4.90	23.75	8.30	11.10	19.25	45.25	7.90	2.85	3.45	3.90	1.80		
24	4.20	4.20	16.55	9.90	8.90	18.12	22.17	7.70	2.70	3.30	3.45	1.80		
25	4.20	4.05	12.73	19.25	8.30	26.90	17.00	7.50	2.70	3.30	3.00	1.50		
26	4.05	3.90	10.70	43.50	7.90	21.05	31.75	7.50	2.55	4.90	3.00	1.50		
27	3.00	3.75	9.70	34.50	10.10	16.77	52.50	7.30	2.55	4.05	2.70	1.20		
28	2.70	3.45	10.30	26.23	35.00	50.25	39.00	7.30	2.55	3.45	3.00	1.50		
29	2.70	3.15	8.70	21.05	89.15	60.75	25.10	7.10	2.40	3.75	3.00	1.50		
30	2.55	3.00	30.05	35.50	72.38	35.75	20.15	7.10	2.40	4.05		1.35		
31		2.70		53.00	41.50		17.45		2.25	14.08		2.10		
Total	202.55	299.78	469.85	653.00	781.22	683.92	731.82	381.38	142.55	231.96	277.25	84.80	4940.08	CMSDAY
Mean	6.75	9.67	15.66	21.06	25.20	22.80	23.61	12.71	4.60	7.48	9.56	2.74	13.50	CMS
Max	21.50	32.75	90.25	76.22	89.15	60.75	53.25	56.25	7.70	61.25	44.75	9.70	90.25	CMS
Min	2.55	2.25	1.50	7.30	7.90	11.90	10.30	7.10	2.25	2.25	2.70	1.20	1.20	CMS
Runoff	17.50	25.90	40.60	56.42	67.50	59.09	63.23	32.95	12.32	20.04	23.95	7.33	426.82	MCM

Momentary Peak 124.00 CMS. at 12.70 m. (MSL.) at 18.00 Hours , on Jun 20 , 2011

Runoff Yield 14.27 Liters/Second/Square KM. Momentary Peak Yield 131.078 Liters/Second/Square KM.

WATER YEAR : 2011

SOUTHERN PENINSULA EAST COAST

Kolok River at Lantu Bridge , Narathiwat (X.119A)

Lat 06 - 01 - 13 N Long 101 - 58 - 40 E

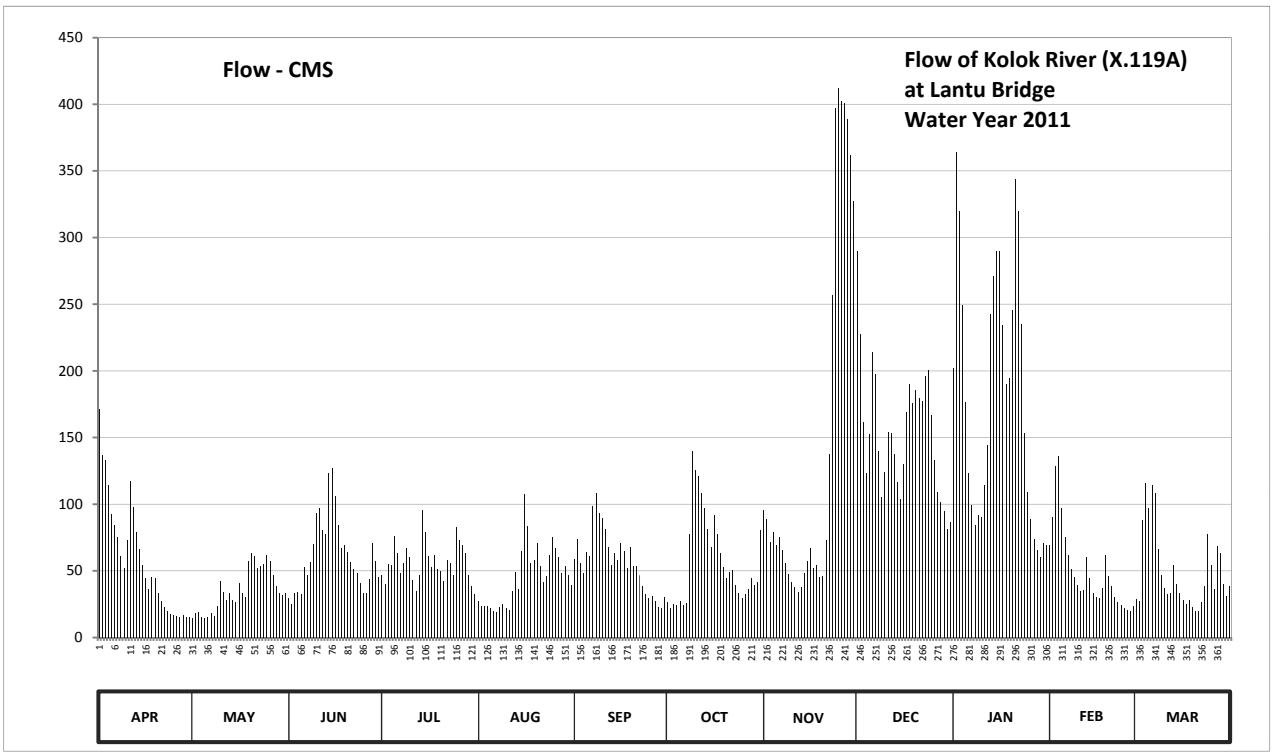
Location : on left bank at the bridge.

	Ban -		**Amphoe** Sungai Kolok	**Changwat** Narathiwat	
Drainge Area	1358 sq.km.				
Type of Gage	Water - stage recorder				
Zero Gage at Bottom	+0.000 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On left bank in front of gage observer's house.			**Elevation**	+10.000 m. (MSL.)
Gage Reading Frequency	Recording				
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings				
Period of Available Gage Records	1988 to date				
Rating Operation					
Period of Rating	1988 to date				
Rated by Flot	-				
Rated by Current Meter	2004 to date				
Stability of Channel Regimes	Stable.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records good. Stage-discharge relation defined by 59 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	7.46	3.77	4.33	4.83	4.25	5.14	4.21	6.01	8.89	7.91	5.41	4.29	
2	6.85	3.92	4.18	4.64	4.12	5.53	4.06	5.87	8.23	9.55	5.89	4.25	
3	6.78	3.97	4.44	5.05	4.12	5.07	4.18	5.46	7.30	9.17	6.70	5.85	
4	6.43	3.81	4.47	5.03	4.12	4.86	4.14	5.64	6.61	8.48	6.84	6.46	
5	5.94	3.77	4.41	5.57	4.06	5.28	4.24	5.40	7.13	7.55	6.04	6.04	
6	5.77	3.81	4.99	5.25	4.00	5.21	4.14	5.55	8.06	6.61	5.55	6.43	
7	5.56	3.93	4.83	4.87	3.97	6.08	4.20	5.32	7.85	6.10	5.22	6.30	
8	5.21	3.85	5.09	5.08	4.09	6.29	5.62	5.07	6.90	5.76	4.96	5.33	
9	4.97	4.13	5.43	5.35	4.18	5.97	6.91	4.84	6.23	5.93	4.77	4.83	
10	5.50	4.70	5.97	5.18	4.07	5.88	6.64	4.68	6.62	5.89	4.61	4.54	
11	6.48	4.46	6.04	4.72	4.03	5.69	6.56	4.56	7.16	6.42	4.48	4.41	
12	6.06	4.28	5.68	4.48	4.49	5.37	6.30	4.47	7.15	6.98	4.51	4.43	
13	5.64	4.45	5.61	4.83	4.89	5.04	6.04	4.56	6.87	8.41	5.19	5.03	
14	5.33	4.28	6.61	6.01	4.52	5.26	5.70	4.87	6.47	8.71	4.76	4.64	
15	5.03	4.21	6.67	5.65	5.29	5.12	5.38	5.10	6.20	8.89	4.45	4.45	
16	4.76	4.65	6.24	5.21	6.28	5.45	5.93	5.35	6.73	8.89	4.34	4.28	
17	4.53	4.43	5.77	4.99	5.74	5.29	5.62	4.98	7.43	8.31	4.33	4.18	
18	4.78	4.35	5.36	5.22	5.07	4.97	5.25	5.03	7.74	7.74	4.54	4.26	
19	4.75	5.10	5.41	4.95	5.12	5.38	5.00	4.77	7.54	7.81	5.22	4.10	
20	4.45	5.25	5.27	4.92	5.44	5.02	4.75	4.81	7.68	8.44	4.81	3.99	
21	4.24	5.20	5.09	4.69	5.02	5.01	4.88	5.50	7.59	9.38	4.58	3.99	
22	4.10	4.98	4.96	5.12	4.68	4.82	4.93	6.86	7.56	9.17	4.34	4.22	
23	3.99	5.01	4.87	5.08	4.81	4.58	4.60	8.56	7.83	8.32	4.21	4.58	
24	3.91	5.05	4.65	4.82	5.22	4.42	4.44	9.82	7.89	7.15	4.14	5.61	
25	3.88	5.22	4.45	5.73	5.56	4.32	4.33	9.94	7.40	6.31	4.08	5.04	
26	3.84	5.10	4.44	5.50	5.35	4.38	4.42	9.86	6.78	5.86	4.03	4.53	
27	3.82	4.82	4.74	5.41	5.18	4.25	4.52	9.85	6.32	5.53	3.98	5.39	
28	3.88	4.59	5.45	5.25	4.86	4.10	4.76	9.75	6.15	5.32	4.11	5.25	
29	3.81	4.43	5.10	4.83	5.02	4.07	4.61	9.53	5.99	5.18	4.17	4.63	
30	3.80	4.39	4.78	4.59	4.83	4.34	4.67	9.24	5.70	5.44		4.38	
31		4.43		4.41	4.60		5.68		5.82	5.40		4.59	
Mean	5.05	4.46	5.18	5.07	4.74	5.07	5.06	6.38	7.09	7.31	4.84	4.85	
Max	7.46	5.25	6.67	6.01	6.28	6.29	6.91	9.94	8.89	9.55	6.84	6.46	9.94
Min	3.80	3.77	4.18	4.41	3.97	4.07	4.06	4.47	5.70	5.18	3.98	3.99	3.77

Annual Max Momentary Gage Height	9.97	m. (MSL.) ,	at 19.00 Hours , on Nov 24 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	1.31	m. (MSL)
Left Bank Elevation	11.76	m. (MSL.) ,			
Right Bank Elevation	11.49	m. (MSL.) ,	Drainage Area	1358	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	170.90	14.25	29.90	47.05	27.50	58.60	26.30	95.45	289.45	202.25	69.40	28.70		
2	136.75	18.00	25.40	40.40	23.60	74.20	21.80	89.15	227.55	364.00	90.05	27.50		
3	132.90	19.25	33.40	55.00	23.60	55.80	25.40	71.40	161.50	319.70	128.50	88.25		
4	114.50	15.25	34.45	54.20	23.60	48.10	24.20	78.80	123.55	249.20	136.20	116.00		
5	92.30	14.25	32.35	75.80	21.80	64.20	27.20	69.00	152.15	176.75	96.80	96.80		
6	84.65	15.25	52.65	63.00	20.00	61.40	24.20	75.00	213.80	123.55	75.00	114.50		
7	75.40	18.25	47.05	48.45	19.25	98.60	26.00	65.80	197.75	99.50	61.80	108.50		
8	61.40	16.25	56.60	56.20	22.70	108.05	77.90	55.80	139.50	84.20	51.60	66.20		
9	51.95	23.90	70.20	67.00	25.40	93.65	140.05	47.40	105.35	91.85	44.95	47.05		
10	73.00	42.50	93.65	60.20	22.10	89.60	125.20	41.80	124.10	90.05	39.35	36.90		
11	117.00	34.10	96.80	43.20	20.90	81.05	121.00	37.60	153.80	114.00	34.80	32.35		
12	97.70	28.40	80.60	34.80	35.15	67.80	108.50	34.45	153.25	143.90	35.85	33.05		
13	78.80	33.75	77.45	47.05	49.15	54.60	96.80	37.60	137.85	242.90	60.60	54.20		
14	66.20	28.40	123.55	95.45	36.20	63.40	81.50	48.45	116.50	271.00	44.60	40.40		
15	54.20	26.30	126.85	79.25	64.60	57.80	68.20	57.00	104.00	289.45	33.75	33.75		
16	44.60	40.75	105.80	61.40	107.60	71.00	91.85	67.00	130.15	289.45	30.20	28.40		
17	36.55	33.05	84.65	52.65	83.30	64.60	77.90	52.30	168.95	234.35	29.90	25.40		
18	45.30	30.50	67.40	61.80	55.80	51.95	63.00	54.20	189.80	189.80	36.90	27.80		
19	44.25	57.00	69.40	51.25	57.80	68.20	53.00	44.95	176.10	194.75	61.80	23.00		
20	33.75	63.00	63.80	50.20	70.60	53.80	44.25	46.35	185.60	245.60	46.35	19.75		
21	27.20	61.00	56.60	42.15	53.80	53.40	48.80	73.00	179.35	343.70	38.30	19.75		
22	23.00	52.30	51.60	57.80	41.80	46.70	50.55	137.30	177.40	319.70	30.20	26.60		
23	19.75	53.40	48.45	56.20	46.35	38.30	39.00	256.40	196.25	235.20	26.30	38.30		
24	17.75	55.00	40.75	46.70	61.80	32.70	33.40	397.50	200.75	153.25	24.20	77.45		
25	17.00	61.80	33.75	82.85	75.40	29.60	29.90	412.50	167.00	108.95	22.40	54.60		
26	16.00	57.00	33.40	73.00	67.00	31.40	32.70	402.50	132.90	88.70	20.90	36.55		
27	15.50	46.70	43.90	69.40	60.20	27.50	36.20	401.25	109.40	74.20	19.50	68.60		
28	17.00	38.65	71.00	63.00	48.10	23.00	44.60	388.75	101.75	65.80	23.30	63.00		
29	15.25	33.05	57.00	47.05	53.80	22.10	39.35	361.60	94.55	60.20	25.10	40.05		
30	15.00	31.70	45.30	38.65	47.05	30.20	41.45	327.60	81.50	70.60		31.40		
31		33.05		32.35	39.00		80.60		86.90	69.00		38.65		
Total	1795.55	1096.05	1853.70	1753.50	1404.95	1721.30	1800.80	4327.90	4778.45	5605.55	1438.60	1543.45	29119.80	CMSDAY
Mean	59.85	35.36	61.79	56.56	45.32	57.38	58.09	144.26	154.14	180.82	49.61	49.79	79.56	CMS
Max	170.90	63.00	126.85	95.45	107.60	108.05	140.05	412.50	289.45	364.00	136.20	116.00	412.50	CMS
Min	15.00	14.25	25.40	32.35	19.25	22.10	21.80	34.45	81.50	60.20	19.50	19.75	14.25	CMS
Runoff	155.14	94.70	160.16	151.50	121.39	148.72	155.59	373.93	412.86	484.32	124.30	133.35	2515.95	MCM

Momentary Peak 416.25 CMS. at 9.97 m. (MSL.) at 19.00 Hours , on Nov 24 , 2011

Runoff Yield 58.59 Liters/Second/Square KM. Momentary Peak Yield 306.517 Liters/Second/Square KM.

WATER YEAR : 2011

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.

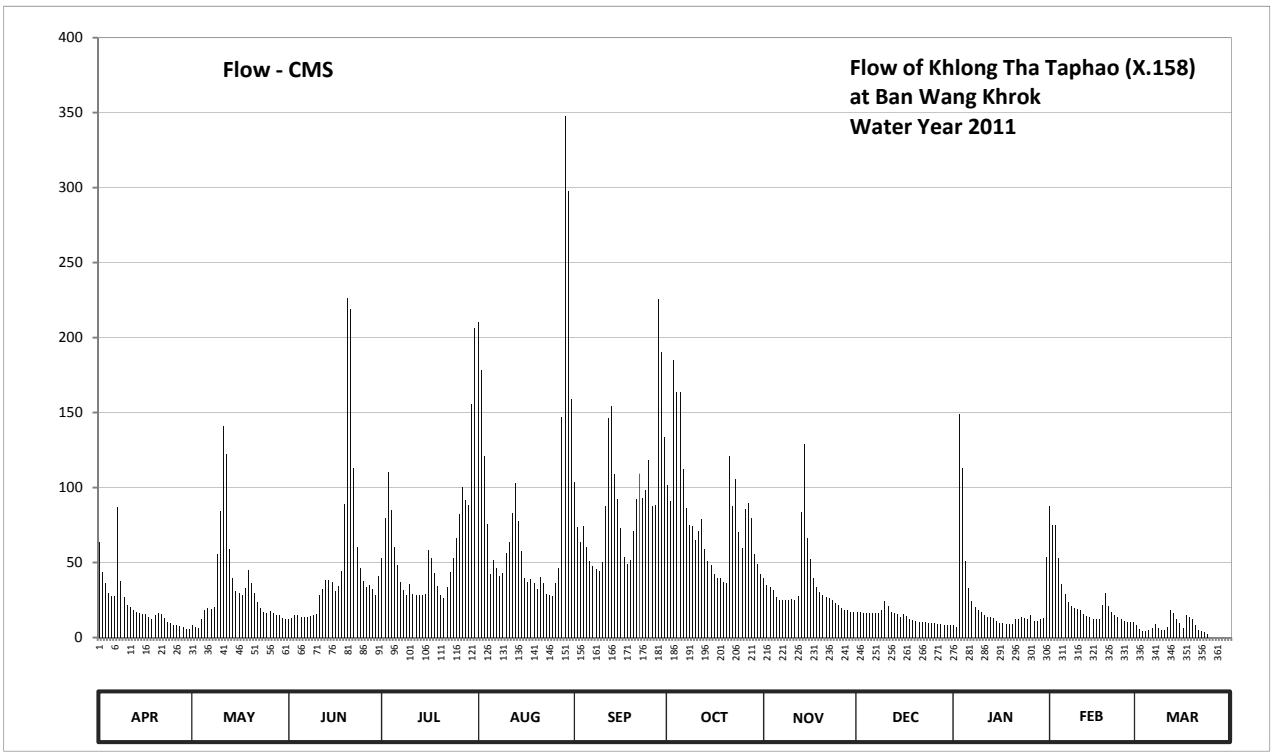
Ban Wang Khrok **Amphoe** Tha Sae **Changwat** Chumphon

Drainge Area	1,814 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+0.000 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank about 1 meters from the top staff gage. **Elevation** +11.796 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings
Period of Available Gage Records	1984 to date
Rating Operation	
Period of Rating	1990 to date
Rated by Flot	-
Rated by Current Meter	1990 to date
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 32 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	4.41	3.37	3.44	4.22	6.49	5.01	4.98	3.97	3.54	3.36	4.78	3.37	
2	4.05	3.34	3.46	4.66	6.07	4.56	4.83	3.89	3.54	3.34	4.59	3.32	
3	3.92	3.33	3.50	5.10	5.26	4.41	6.16	3.87	3.53	5.66	4.58	3.29	
4	3.80	3.45	3.50	4.74	4.60	4.57	5.87	3.83	3.53	5.14	4.22	3.28	
5	3.75	3.57	3.47	4.35	4.02	4.35	5.86	3.74	3.52	4.18	3.90	3.30	
6	3.75	3.59	3.47	4.13	4.19	4.18	5.13	3.70	3.53	3.85	3.78	3.33	
7	4.77	3.58	3.47	3.93	4.10	4.12	4.76	3.70	3.53	3.68	3.67	3.38	
8	3.94	3.61	3.49	3.83	4.00	4.09	4.58	3.70	3.53	3.60	3.62	3.33	
9	3.74	4.27	3.50	3.76	4.04	4.06	4.57	3.70	3.56	3.56	3.59	3.30	
10	3.64	4.73	3.51	3.90	4.28	4.17	4.43	3.71	3.69	3.54	3.58	3.30	
11	3.61	5.54	3.77	3.78	4.41	4.78	4.52	3.70	3.62	3.50	3.56	3.34	
12	3.57	5.27	3.84	3.77	4.71	5.62	4.65	3.75	3.54	3.48	3.51	3.56	
13	3.54	4.33	3.95	3.77	5.00	5.73	4.33	4.72	3.52	3.47	3.49	3.53	
14	3.52	3.97	3.95	3.76	4.63	5.08	4.18	5.37	3.51	3.46	3.48	3.45	
15	3.51	3.82	3.93	3.78	4.30	4.85	4.13	4.45	3.48	3.42	3.45	3.39	
16	3.51	3.80	3.82	4.32	3.97	4.55	4.02	4.21	3.51	3.39	3.45	3.33	
17	3.47	3.76	3.88	4.22	3.93	4.23	3.98	3.97	3.49	3.39	3.44	3.50	
18	3.45	3.86	4.06	4.03	3.96	4.14	3.97	3.87	3.45	3.38	3.64	3.48	
19	3.50	4.07	4.80	3.88	3.91	4.19	3.93	3.81	3.43	3.38	3.80	3.44	
20	3.52	3.92	6.69	3.76	3.84	4.52	3.92	3.77	3.42	3.38	3.62	3.36	
21	3.51	3.80	6.60	3.73	3.99	4.85	5.26	3.74	3.40	3.45	3.54	3.30	
22	3.46	3.67	5.14	3.87	3.91	5.09	4.78	3.72	3.40	3.45	3.50	3.29	
23	3.40	3.59	4.35	4.05	3.78	4.86	5.04	3.70	3.40	3.48	3.47	3.27	
24	3.39	3.54	4.10	4.22	3.76	4.93	4.51	3.66	3.39	3.46	3.45	3.24	
25	3.37	3.52	3.94	4.45	3.75	5.22	4.34	3.63	3.39	3.44	3.42	3.20	
26	3.36	3.55	3.87	4.70	3.92	4.78	4.75	3.59	3.39	3.50	3.40	3.18	
27	3.35	3.53	3.89	4.96	4.10	4.79	4.81	3.57	3.38	3.42	3.40	3.17	
28	3.34	3.50	3.84	4.84	5.63	6.68	4.66	3.57	3.38	3.42	3.40	3.16	
29	3.32	3.50	3.77	4.79	8.16	6.23	4.27	3.54	3.37	3.45	3.38	3.15	
30	3.32	3.46	4.00	5.75	7.57	5.44	4.15	3.54	3.37	3.46		3.15	
31		3.45		6.44	5.80		4.02		3.36	4.23		3.14	
Mean	3.63	3.82	4.03	4.31	4.65	4.80	4.63	3.86	3.47	3.64	3.68	3.32	
Max	4.77	5.54	6.69	6.44	8.16	6.68	6.16	5.37	3.69	5.66	4.78	3.56	8.16
Min	3.32	3.33	3.44	3.73	3.75	4.06	3.92	3.54	3.36	3.34	3.38	3.14	3.14

Annual Max Momentary Gage Height	8.90	m. (MSL.) ,	at 18.00 Hours , on Aug 29 , 2011	
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed 0.14	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, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	63.65	8.50	12.00	53.10	210.20	103.70	101.60	39.35	17.00	8.00	87.70	8.50		
2	43.75	7.00	13.00	79.90	178.25	73.40	91.10	34.95	17.00	7.00	75.35	6.00		
3	36.60	6.50	15.00	110.00	121.20	63.65	185.00	33.85	16.50	149.20	74.70	4.50		
4	30.00	12.50	15.00	85.10	76.00	74.05	163.90	31.65	16.50	112.80	53.10	4.00		
5	27.50	18.50	13.50	60.25	42.10	60.25	163.20	27.00	16.00	50.90	35.50	5.00		
6	27.50	19.50	13.50	48.15	51.45	50.90	112.10	25.00	16.50	32.75	29.00	6.50		
7	87.05	19.00	13.50	37.15	46.50	47.60	86.40	25.00	16.50	24.00	23.50	9.00		
8	37.70	20.50	14.50	31.65	41.00	45.95	74.70	25.00	16.50	20.00	21.00	6.50		
9	27.00	55.85	15.00	28.00	43.20	44.30	74.05	25.00	18.00	18.00	19.50	5.00		
10	22.00	84.45	15.50	35.50	56.40	50.35	64.95	25.50	24.50	17.00	19.00	5.00		
11	20.50	140.80	28.50	29.00	63.65	87.70	70.80	25.00	21.00	15.00	18.00	7.00		
12	18.50	121.90	32.20	28.50	83.15	146.40	79.25	27.50	17.00	14.00	15.50	18.00		
13	17.00	59.15	38.25	28.50	103.00	154.10	59.15	83.80	16.00	13.50	14.50	16.50		
14	16.00	39.35	38.25	28.00	77.95	108.60	50.90	128.90	15.50	13.00	14.00	12.50		
15	15.50	31.10	37.15	29.00	57.50	92.50	48.15	66.25	14.00	11.00	12.50	9.50		
16	15.50	30.00	31.10	58.60	39.35	72.75	42.10	52.55	15.50	9.50	12.50	6.50		
17	13.50	28.00	34.40	53.10	37.15	53.65	39.90	39.35	14.50	9.50	12.00	15.00		
18	12.50	33.30	44.30	42.65	38.80	48.70	39.35	33.85	12.50	9.00	22.00	14.00		
19	15.00	44.85	89.00	34.40	36.05	51.45	37.15	30.55	11.50	9.00	30.00	12.00		
20	16.00	36.60	226.20	28.00	32.20	70.80	36.60	28.50	11.00	9.00	21.00	8.00		
21	15.50	30.00	219.00	26.50	40.45	92.50	121.20	27.00	10.00	12.50	17.00	5.00		
22	13.00	23.50	112.80	33.85	36.05	109.30	87.70	26.00	10.00	12.50	15.00	4.50		
23	10.00	19.50	60.25	43.75	29.00	93.20	105.80	25.00	10.00	14.00	13.50	3.50		
24	9.50	17.00	46.50	53.10	28.00	98.10	70.15	23.00	9.50	13.00	12.50	2.00		
25	8.50	16.00	37.70	66.25	27.50	118.40	59.70	21.50	9.50	12.00	11.00	0.00		
26	8.00	17.50	33.85	82.50	36.60	87.70	85.75	19.50	9.50	15.00	10.00	0.00		
27	7.50	16.50	34.95	100.20	46.50	88.35	89.70	18.50	9.00	11.00	10.00	0.00		
28	7.00	15.00	32.20	91.80	147.10	225.40	79.90	18.50	9.00	11.00	10.00	0.00		
29	6.00	15.00	28.50	88.35	347.60	190.25	55.85	17.00	8.50	12.50	9.00	0.00		
30	6.00	13.00	41.00	155.50	297.45	133.80	49.25	17.00	8.50	13.00		0.00		
31		12.50		206.20	159.00		42.10		8.00	53.65		0.00		
Total	653.75	1012.85	1386.60	1876.55	2630.35	2737.80	2467.45	1021.55	425.00	732.30	718.35	194.00	15856.55	CMSDAY
Mean	21.79	32.67	46.22	60.53	84.85	91.26	79.60	34.05	13.71	23.62	24.77	6.26	43.32	CMS
Max	87.05	140.80	226.20	206.20	347.60	225.40	185.00	128.90	24.50	149.20	87.70	18.00	347.60	CMS
Min	6.00	6.50	12.00	26.50	27.50	44.30	36.60	17.00	8.00	7.00	9.00	0.00	0.00	CMS
Runoff	56.48	87.51	119.80	162.13	227.26	236.55	213.19	88.26	36.72	63.27	62.07	16.76	1370.01	MCM

Momentary Peak 413.00 CMS. at 8.90 m. (MSL.) at 18.00 Hours , on Aug 29 , 2011

Runoff Yield 23.88 Liters/Second/Square KM. Momentary Peak Yield 227.657 Liters/Second/Square KM.

WATER YEAR : 2011

SOUTHERN PENINSULA EAST COAST

Upper Khlong Chumphon at Ban Tha Mai Lai , Chumphon (X.201A)

Lat 10 - 30 - 12 N Long 98 - 57 - 52 E

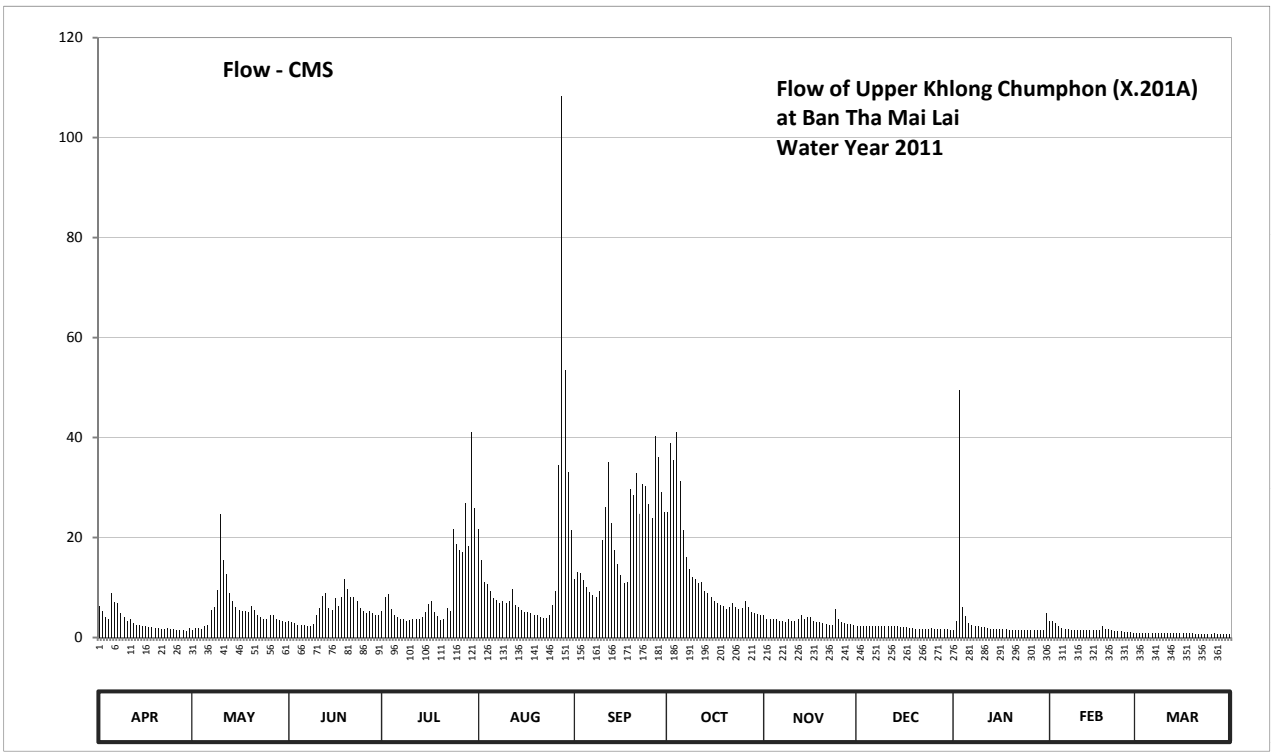
Location : on right bank at the bridge.

	Ban Tha Mai Lai	**Amphoe** Mueang	**Changwat** Chumphon
Drainge Area	122 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank at the abutment of the bridge.		**Elevation** +42.444 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	2009 to date		
Rating Operation			
Period of Rating	2009 to date		
Rated by Flot	-		
Rated by Current Meter	2009 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 33 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	37.46	37.07	37.25	37.40	38.19	37.77	38.31	37.34	37.17	37.05	37.26	36.99	
2	37.40	37.12	37.24	37.58	37.95	37.84	38.75	37.29	37.17	37.25	37.25	36.99	
3	37.32	37.12	37.22	37.61	37.74	37.83	38.65	37.29	37.16	39.02	37.22	36.99	
4	37.28	37.08	37.20	37.43	37.72	37.76	38.81	37.29	37.17	37.45	37.17	36.99	
5	37.62	37.17	37.19	37.34	37.64	37.69	38.52	37.28	37.16	37.33	37.12	37.00	
6	37.51	37.20	37.18	37.31	37.56	37.63	38.18	37.26	37.16	37.22	37.09	36.99	
7	37.50	37.42	37.17	37.29	37.54	37.60	37.98	37.25	37.15	37.18	37.08	36.98	
8	37.38	37.45	37.15	37.28	37.50	37.58	37.87	37.24	37.15	37.16	37.07	36.99	
9	37.31	37.65	37.21	37.26	37.53	37.64	37.80	37.29	37.16	37.15	37.06	36.99	
10	37.26	38.30	37.34	37.27	37.50	38.11	37.77	37.26	37.16	37.14	37.06	37.00	
11	37.28	37.95	37.44	37.29	37.52	38.35	37.73	37.25	37.16	37.14	37.05	37.00	
12	37.22	37.82	37.59	37.29	37.66	38.64	37.74	37.29	37.15	37.12	37.05	36.98	
13	37.19	37.62	37.62	37.28	37.48	38.23	37.64	37.35	37.15	37.10	37.05	36.98	
14	37.18	37.53	37.44	37.32	37.45	38.03	37.62	37.29	37.15	37.09	37.05	36.98	
15	37.16	37.45	37.42	37.39	37.42	37.91	37.57	37.31	37.13	37.09	37.05	36.98	
16	37.16	37.42	37.56	37.49	37.39	37.81	37.53	37.31	37.14	37.09	37.06	36.98	
17	37.14	37.41	37.47	37.52	37.39	37.73	37.50	37.26	37.13	37.08	37.06	36.97	
18	37.14	37.41	37.57	37.39	37.37	37.74	37.48	37.24	37.12	37.08	37.17	36.98	
19	37.12	37.39	37.77	37.33	37.35	38.47	37.46	37.23	37.11	37.07	37.09	36.98	
20	37.11	37.47	37.66	37.27	37.35	38.43	37.43	37.22	37.10	37.07	37.08	36.95	
21	37.10	37.42	37.58	37.28	37.32	38.57	37.45	37.21	37.10	37.07	37.06	36.94	
22	37.10	37.35	37.58	37.44	37.30	38.30	37.50	37.20	37.10	37.07	37.04	36.94	
23	37.11	37.31	37.52	37.41	37.30	38.50	37.45	37.20	37.10	37.06	37.03	36.94	
24	37.10	37.29	37.44	38.19	37.35	38.49	37.43	37.43	37.10	37.06	37.03	36.94	
25	37.09	37.28	37.40	38.08	37.48	38.37	37.44	37.29	37.11	37.06	37.02	36.93	
26	37.07	37.35	37.38	38.03	37.64	38.27	37.53	37.24	37.09	37.05	37.02	36.98	
27	37.05	37.34	37.40	38.02	38.62	38.79	37.45	37.22	37.09	37.06	37.01	36.95	
28	37.05	37.29	37.37	38.38	40.16	38.67	37.39	37.21	37.08	37.06	37.00	36.94	
29	37.04	37.27	37.34	38.06	39.11	38.45	37.37	37.21	37.08	37.07	37.00	36.94	
30	37.11	37.26	37.34	38.81	38.58	38.31	37.36	37.19	37.08	37.06		36.93	
31		37.24		38.34	38.18		37.34		37.07	37.38		36.94	
Mean	37.22	37.40	37.40	37.59	37.75	38.12	37.74	37.26	37.13	37.19	37.08	36.97	
Max	37.62	38.30	37.77	38.81	40.16	38.79	38.81	37.43	37.17	39.02	37.26	37.00	40.16
Min	37.04	37.07	37.15	37.26	37.30	37.58	37.34	37.19	37.07	37.05	37.00	36.93	36.93

Annual Max Momentary Gage Height	40.47	m. (MSL.) ,	at 18.00 Hours , on Sep 27 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	36.35	m. (MSL)
Left Bank Elevation	42.50	m. (MSL.) ,			
Right Bank Elevation	42.54	m. (MSL.) ,	Drainage Area	122	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	6.19	1.56	3.25	5.20	21.73	11.65	25.03	4.42	2.36	1.40	3.38	0.95		
2	5.20	1.96	3.12	8.17	15.50	13.08	38.95	3.77	2.36	3.25	3.25	0.95		
3	4.16	1.96	2.86	8.69	11.09	12.86	35.45	3.77	2.28	49.49	2.86	0.95		
4	3.64	1.64	2.60	5.69	10.72	11.46	41.10	3.77	2.36	6.03	2.36	0.95		
5	8.87	2.36	2.52	4.42	9.24	10.16	31.22	3.64	2.28	4.29	1.96	1.00		
6	7.01	2.60	2.44	4.03	7.84	9.06	21.46	3.38	2.28	2.86	1.72	0.95		
7	6.85	5.53	2.36	3.77	7.51	8.50	16.16	3.25	2.20	2.44	1.64	0.90		
8	4.94	6.03	2.20	3.64	6.85	8.17	13.74	3.12	2.20	2.28	1.56	0.95		
9	4.03	9.43	2.73	3.38	7.34	9.24	12.20	3.77	2.28	2.20	1.48	0.95		
10	3.38	24.75	4.42	3.51	6.85	19.57	11.65	3.38	2.28	2.12	1.48	1.00		
11	3.64	15.50	5.86	3.77	7.18	26.12	10.91	3.25	2.28	2.12	1.40	1.00		
12	2.86	12.64	8.34	3.77	9.61	35.10	11.09	3.77	2.20	1.96	1.40	0.90		
13	2.52	8.87	8.87	3.64	6.52	22.82	9.24	4.55	2.20	1.80	1.40	0.90		
14	2.44	7.34	5.86	4.16	6.03	17.41	8.87	3.77	2.20	1.72	1.40	0.90		
15	2.28	6.03	5.53	5.07	5.53	14.62	8.01	4.03	2.04	1.72	1.40	0.90		
16	2.28	5.53	7.84	6.69	5.07	12.42	7.34	4.03	2.12	1.72	1.48	0.90		
17	2.12	5.36	6.36	7.18	5.07	10.91	6.85	3.38	2.04	1.64	1.48	0.85		
18	2.12	5.36	8.01	5.07	4.81	11.09	6.52	3.12	1.96	1.64	2.36	0.90		
19	1.96	5.07	11.65	4.29	4.55	29.67	6.19	2.99	1.88	1.56	1.72	0.90		
20	1.88	6.36	9.61	3.51	4.55	28.43	5.69	2.86	1.80	1.56	1.64	0.75		
21	1.80	5.53	8.17	3.64	4.16	32.77	6.03	2.73	1.80	1.56	1.48	0.70		
22	1.80	4.55	8.17	5.86	3.90	24.75	6.85	2.60	1.80	1.56	1.32	0.70		
23	1.88	4.03	7.18	5.36	3.90	30.60	6.03	2.60	1.80	1.48	1.24	0.70		
24	1.80	3.77	5.86	21.73	4.55	30.29	5.69	5.69	1.80	1.48	1.24	0.70		
25	1.72	3.64	5.20	18.76	6.52	26.67	5.86	3.77	1.88	1.48	1.16	0.65		
26	1.56	4.55	4.94	17.41	9.24	23.92	7.34	3.12	1.72	1.40	1.16	0.90		
27	1.40	4.42	5.20	17.14	34.40	40.35	6.03	2.86	1.72	1.48	1.08	0.75		
28	1.40	3.77	4.81	26.95	108.36	36.15	5.07	2.73	1.64	1.48	1.00	0.70		
29	1.32	3.51	4.42	18.22	53.50	29.05	4.81	2.73	1.64	1.56	1.00	0.70		
30	1.88	3.38	4.42	41.10	33.08	25.03	4.68	2.52	1.64	1.48		0.65		
31		3.12		25.85	21.46		4.42		1.56	4.94		0.70		
Total	94.93	180.15	164.80	299.67	446.66	621.92	390.48	103.37	62.60	113.70	48.05	26.30	2552.63	CMSDAY
Mean	3.16	5.81	5.49	9.67	14.41	20.73	12.60	3.45	2.02	3.67	1.66	0.85	6.97	CMS
Max	8.87	24.75	11.65	41.10	108.36	40.35	41.10	5.69	2.36	49.49	3.38	1.00	108.36	CMS
Min	1.32	1.56	2.20	3.38	3.90	8.17	4.42	2.52	1.56	1.40	1.00	0.65	0.65	CMS
Runoff	8.20	15.57	14.24	25.89	38.59	53.73	33.74	8.93	5.41	9.82	4.15	2.27	220.55	MCM

Momentary Peak 127.58 CMS. at 40.47 m. (MSL.) at 18.00 Hours , on Sep 27 , 2011

Runoff Yield 57.17 Liters/Second/Square KM. Momentary Peak Yield 1045.738 Liters/Second/Square KM.

WATER YEAR : 2011

SOUTHERN PENINSULA EAST COAST

Khlong Tha Sae at Ban Wang Maprang , Chumphon (X.247)

Lat 10 - 43 - 58 N Long 99 - 10 - 42 E

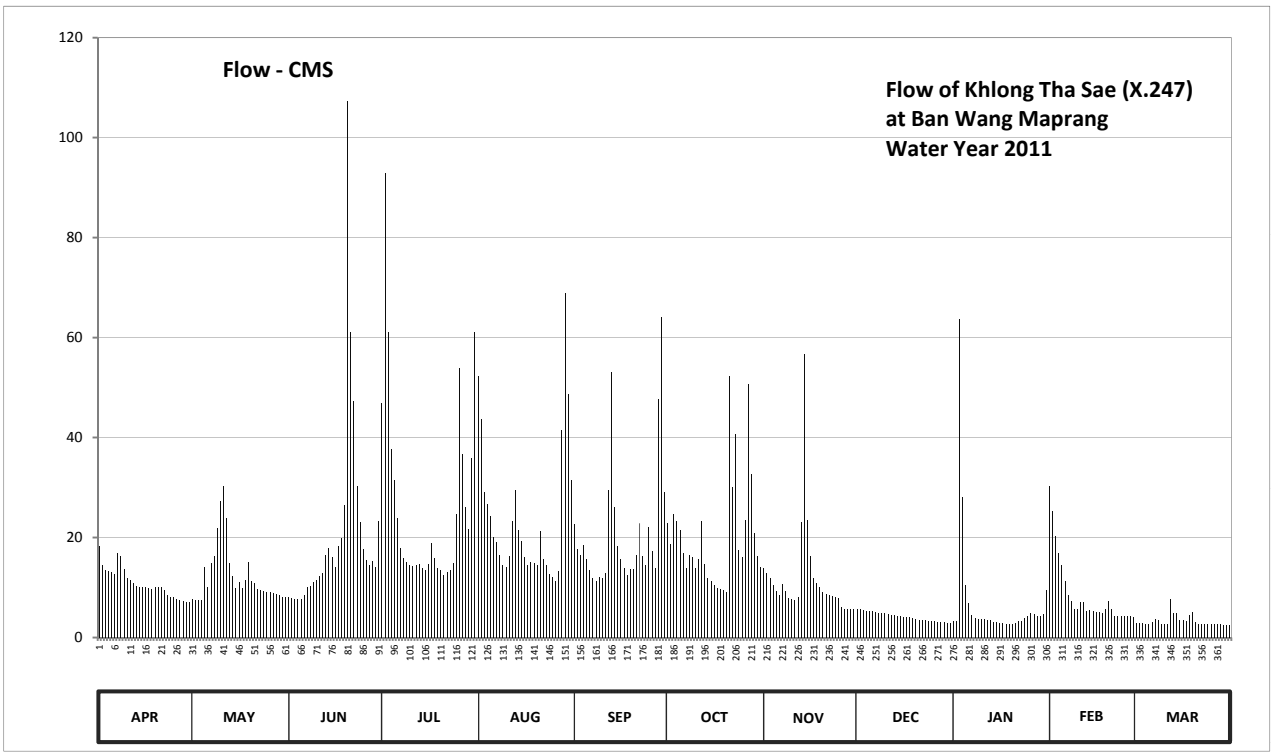
Location : on left bank at Ban Wang Maprang.

	Ban Wang Maprang		**Amphoe** Tha Sae	**Changwat** Chumphon	
Drainge Area	656 sq.km.				
Type of Gage	Staff gage				
Zero Gage at Bottom	+12.000 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On left bank near the top staff gage.			**Elevation**	+23.427 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.				
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings				
Period of Available Gage Records	2007 to date				
Rating Operation					
Period of Rating	2007 to date				
Rated by Flot	-				
Rated by Current Meter	2007 to date				
Stability of Channel Regimes	Fairly stable.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records fair. Stage-discharge relation defined by 33 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	12.93	12.36	12.39	13.94	14.08	13.12	13.13	12.71	12.23	12.05	13.41	12.03	
2	12.75	12.35	12.38	15.01	13.85	12.90	12.95	12.66	12.23	12.06	13.23	12.03	
3	12.69	12.35	12.37	14.30	13.37	12.85	13.21	12.61	12.22	14.36	13.02	12.03	
4	12.68	12.35	12.36	13.66	13.28	12.94	13.15	12.53	12.21	13.33	12.87	12.02	
5	12.67	12.72	12.36	13.45	13.19	12.81	13.07	12.46	12.20	12.53	12.74	12.02	
6	12.65	12.50	12.42	13.17	13.01	12.69	12.86	12.42	12.20	12.31	12.57	12.04	
7	12.86	12.77	12.50	12.91	12.97	12.61	12.71	12.54	12.19	12.15	12.42	12.09	
8	12.84	12.84	12.52	12.82	12.85	12.57	12.85	12.46	12.18	12.10	12.34	12.07	
9	12.70	13.09	12.56	12.78	12.75	12.62	12.83	12.38	12.17	12.09	12.24	12.01	
10	12.61	13.30	12.58	12.75	12.72	12.60	12.71	12.36	12.17	12.09	12.24	12.01	
11	12.58	13.41	12.63	12.73	12.84	12.66	12.81	12.35	12.16	12.09	12.33	12.01	
12	12.55	13.17	12.66	12.75	13.15	13.38	13.15	12.40	12.15	12.08	12.32	12.37	
13	12.52	12.77	12.85	12.76	13.38	14.10	12.76	13.14	12.15	12.07	12.20	12.17	
14	12.50	12.63	12.91	12.71	13.07	13.26	12.61	14.19	12.14	12.04	12.22	12.17	
15	12.50	12.49	12.83	12.69	12.98	12.93	12.57	13.16	12.13	12.04	12.20	12.08	
16	12.50	12.56	12.72	12.76	12.83	12.81	12.53	12.84	12.12	12.03	12.19	12.07	
17	12.49	12.49	12.93	12.96	12.74	12.71	12.49	12.61	12.12	12.03	12.19	12.05	
18	12.48	12.58	13.00	12.82	12.78	12.64	12.48	12.55	12.11	12.02	12.18	12.15	
19	12.51	12.78	13.27	12.71	12.77	12.70	12.47	12.50	12.10	12.02	12.23	12.19	
20	12.50	12.57	15.29	12.69	12.74	12.70	12.45	12.45	12.09	12.02	12.34	12.04	
21	12.50	12.55	14.30	12.64	13.06	12.85	14.08	12.43	12.08	12.03	12.24	12.01	
22	12.47	12.48	13.95	12.67	12.81	13.13	13.40	12.42	12.08	12.05	12.14	12.01	
23	12.42	12.47	13.41	12.69	12.75	12.84	13.76	12.41	12.07	12.06	12.13	12.01	
24	12.40	12.46	13.14	12.77	12.65	12.74	12.89	12.40	12.06	12.10	12.14	12.01	
25	12.39	12.45	12.90	13.21	12.62	13.10	12.83	12.38	12.05	12.14	12.13	12.01	
26	12.37	12.45	12.80	14.12	12.57	12.88	13.16	12.26	12.05	12.18	12.13	12.01	
27	12.35	12.44	12.74	13.63	12.68	12.71	14.04	12.24	12.04	12.16	12.13	12.01	
28	12.34	12.43	12.79	13.26	13.78	13.96	13.49	12.24	12.04	12.14	12.12	12.01	
29	12.33	12.42	12.72	13.08	14.48	14.37	13.05	12.23	12.04	12.14	12.12	12.00	
30	12.33	12.40	13.15	13.60	13.99	13.37	12.84	12.23	12.03	12.16		12.00	
31		12.39		14.30	13.45		12.72		12.03	12.47		12.00	
Mean	12.55	12.61	12.91	13.17	13.10	12.99	12.97	12.55	12.12	12.23	12.37	12.06	
Max	12.93	13.41	15.29	15.01	14.48	14.37	14.08	14.19	12.23	14.36	13.41	12.37	15.29
Min	12.33	12.35	12.36	12.64	12.57	12.57	12.45	12.23	12.03	12.02	12.12	12.00	12.00

Annual Max Momentary Gage Height	15.48	m. (MSL.) ,	at 06.00 Hours , on Jun 20 , 2011		
Zero Gage at Bottom Elevation	12.00	m. (MSL.) ,	River Bed	11.08	m. (MSL)
Left Bank Elevation	25.21	m. (MSL.) ,			
Right Bank Elevation	25.16	m. (MSL.) ,	Drainage Area	656	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	18.30	7.60	8.05	46.90	52.20	22.62	22.86	13.83	5.65	3.18	30.29	2.90		
2	14.57	7.45	7.90	93.00	43.75	17.65	18.72	12.91	5.65	3.31	25.32	2.90		
3	13.46	7.45	7.75	61.15	29.18	16.58	24.78	11.98	5.50	63.64	20.27	2.90		
4	13.28	7.45	7.60	37.66	26.70	18.51	23.32	10.54	5.35	28.08	17.00	2.77		
5	13.09	14.02	7.60	31.45	24.26	15.72	21.44	9.28	5.20	10.54	14.39	2.77		
6	12.72	10.00	8.56	23.80	20.04	13.46	16.79	8.56	5.20	6.85	11.26	3.04		
7	16.79	14.95	10.00	17.86	19.16	11.98	13.83	10.72	5.06	4.52	8.56	3.72		
8	16.36	16.36	10.36	15.93	16.58	11.26	16.58	9.28	4.93	3.85	7.30	3.44		
9	13.65	21.92	11.08	15.13	14.57	12.17	16.14	7.90	4.80	3.72	5.80	2.64		
10	11.98	27.25	11.44	14.57	14.02	11.80	13.83	7.60	4.80	3.72	5.80	2.64		
11	11.44	30.29	12.35	14.20	16.36	12.91	15.72	7.45	4.66	3.72	7.15	2.64		
12	10.90	23.80	12.91	14.57	23.32	29.45	23.32	8.20	4.52	3.58	7.00	7.75		
13	10.36	14.95	16.58	14.76	29.45	53.00	14.76	23.09	4.52	3.44	5.20	4.80		
14	10.00	12.35	17.86	13.83	21.44	26.15	11.98	56.60	4.39	3.04	5.50	4.80		
15	10.00	9.82	16.14	13.46	19.37	18.30	11.26	23.56	4.26	3.04	5.20	3.58		
16	10.00	11.08	14.02	14.76	16.14	15.72	10.54	16.36	4.12	2.90	5.06	3.44		
17	9.82	9.82	18.30	18.94	14.39	13.83	9.82	11.98	4.12	2.90	5.06	3.18		
18	9.64	11.44	19.80	15.93	15.13	12.54	9.64	10.90	3.98	2.77	4.93	4.52		
19	10.18	15.13	26.43	13.83	14.95	13.65	9.46	10.00	3.85	2.77	5.65	5.06		
20	10.00	11.26	107.23	13.46	14.39	13.65	9.10	9.10	3.72	2.77	7.30	3.04		
21	10.00	10.90	61.15	12.54	21.21	16.58	52.20	8.74	3.58	2.90	5.80	2.64		
22	9.46	9.64	47.25	13.09	15.72	22.86	30.00	8.56	3.58	3.18	4.39	2.64		
23	8.56	9.46	30.29	13.46	14.57	16.36	40.76	8.38	3.44	3.31	4.26	2.64		
24	8.20	9.28	23.09	14.95	12.72	14.39	17.44	8.20	3.31	3.85	4.39	2.64		
25	8.05	9.10	17.65	24.78	12.17	22.15	16.14	7.90	3.18	4.39	4.26	2.64		
26	7.75	9.10	15.50	53.80	11.26	17.22	23.56	6.10	3.18	4.93	4.26	2.64		
27	7.45	8.92	14.39	36.73	13.28	13.83	50.60	5.80	3.04	4.66	4.26	2.64		
28	7.30	8.74	15.31	26.15	41.38	47.60	32.61	5.80	3.04	4.39	4.12	2.64		
29	7.15	8.56	14.02	21.68	68.78	64.06	20.98	5.65	3.04	4.39	4.12	2.50		
30	7.15	8.20	23.32	35.80	48.65	29.18	16.36	5.65	2.90	4.66		2.50		
31		8.05		61.15	31.45		14.02		2.90	9.46		2.50		
Total	327.61	384.34	613.93	819.32	736.59	625.18	628.56	350.62	129.47	212.46	243.90	101.15	5173.13	CMSDAY
Mean	10.92	12.40	20.46	26.43	23.76	20.84	20.28	11.69	4.18	6.85	8.41	3.26	14.13	CMS
Max	18.30	30.29	107.23	93.00	68.78	64.06	52.20	56.60	5.65	63.64	30.29	7.75	107.23	CMS
Min	7.15	7.45	7.60	12.54	11.26	11.26	9.10	5.65	2.90	2.77	4.12	2.50	2.50	CMS
Runoff	28.31	33.21	53.04	70.79	63.64	54.02	54.31	30.29	11.19	18.36	21.07	8.74	446.96	MCM

Momentary Peak 117.20 CMS. at 15.48 m. (MSL.) at 06.00 Hours , on Jun 20 , 2011

Runoff Yield 21.52 Liters/Second/Square KM. Momentary Peak Yield 178.460 Liters/Second/Square KM.

WATER YEAR : 2011

SOUTHERN PENINSULA EAST COAST

Khlong Rap Ro at Ban Hat Nai , Chumphon (X.248)

Lat 10 - 38 - 16 N Long 99 - 03 - 01 E

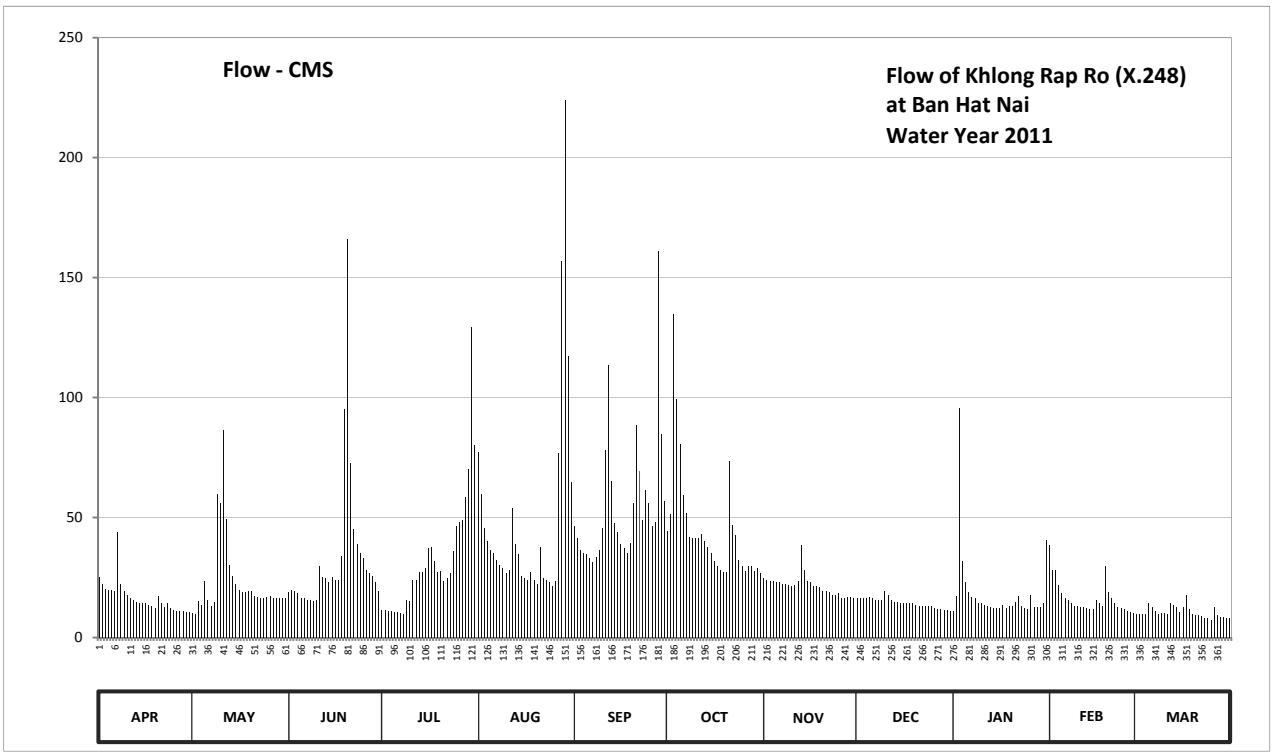
Location : on left bank at Ban Hat Nai.

	Ban Hat Nai	**Amphoe** Tha Sae	**Changwat** Chumphon
Drainge Area	691 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+16.734 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	Near the automatic gage building.		**Elevation** +27.734 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	2006 to date		
Rating Operation			
Period of Rating	2006 to date		
Rated by Flot	-		
Rated by Current Meter	2006 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 33 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	18.44	18.14	18.32	18.17	19.28	18.81	18.78	18.43	18.27	18.16	18.68	18.13	
2	18.39	18.13	18.34	18.17	19.02	18.73	18.89	18.42	18.27	18.29	18.50	18.12	
3	18.35	18.25	18.33	18.16	18.80	18.65	20.06	18.41	18.27	19.54	18.50	18.12	
4	18.34	18.22	18.31	18.16	18.71	18.63	19.59	18.41	18.27	18.57	18.38	18.13	
5	18.34	18.41	18.27	18.15	18.65	18.62	19.33	18.40	18.28	18.40	18.31	18.23	
6	18.33	18.26	18.27	18.15	18.63	18.59	19.01	18.40	18.27	18.32	18.27	18.20	
7	18.77	18.21	18.26	18.14	18.58	18.56	18.90	18.39	18.26	18.28	18.26	18.16	
8	18.39	18.24	18.26	18.13	18.54	18.60	18.74	18.39	18.26	18.27	18.23	18.13	
9	18.33	19.02	18.25	18.26	18.51	18.65	18.73	18.38	18.26	18.23	18.21	18.14	
10	18.30	18.96	18.26	18.25	18.47	18.80	18.73	18.37	18.33	18.23	18.21	18.14	
11	18.27	19.41	18.53	18.42	18.50	19.29	18.73	18.38	18.30	18.22	18.20	18.13	
12	18.26	18.86	18.44	18.42	18.93	19.78	18.76	18.41	18.26	18.21	18.20	18.23	
13	18.24	18.54	18.43	18.48	18.69	19.10	18.71	18.68	18.24	18.20	18.19	18.22	
14	18.23	18.45	18.40	18.48	18.62	18.83	18.67	18.50	18.24	18.19	18.18	18.20	
15	18.23	18.39	18.44	18.51	18.45	18.77	18.63	18.41	18.23	18.19	18.18	18.15	
16	18.23	18.34	18.42	18.66	18.43	18.69	18.57	18.40	18.23	18.19	18.26	18.20	
17	18.22	18.32	18.42	18.67	18.42	18.66	18.53	18.37	18.23	18.22	18.23	18.30	
18	18.21	18.32	18.61	18.57	18.48	18.63	18.50	18.37	18.23	18.19	18.21	18.18	
19	18.19	18.33	19.53	18.48	18.42	18.70	18.48	18.36	18.23	18.21	18.53	18.13	
20	18.29	18.33	20.44	18.49	18.39	18.96	18.48	18.33	18.22	18.21	18.32	18.11	
21	18.23	18.29	19.21	18.41	18.67	19.44	19.22	18.33	18.21	18.24	18.27	18.11	
22	18.20	18.28	18.79	18.43	18.43	19.16	18.82	18.32	18.21	18.29	18.23	18.10	
23	18.23	18.27	18.69	18.47	18.42	18.85	18.75	18.30	18.21	18.21	18.20	18.08	
24	18.19	18.27	18.63	18.64	18.40	19.04	18.58	18.30	18.21	18.19	18.19	18.08	
25	18.17	18.28	18.59	18.81	18.37	18.96	18.53	18.31	18.21	18.18	18.18	18.06	
26	18.16	18.29	18.50	18.84	18.41	18.81	18.49	18.27	18.19	18.30	18.16	18.20	
27	18.16	18.27	18.47	18.85	19.27	18.84	18.53	18.27	18.18	18.20	18.15	18.11	
28	18.16	18.27	18.45	19.00	20.33	20.38	18.53	18.28	18.18	18.20	18.14	18.09	
29	18.15	18.27	18.40	19.17	21.12	19.39	18.49	18.28	18.17	18.20	18.13	18.09	
30	18.15	18.27	18.33	19.99	19.83	18.97	18.51	18.27	18.17	18.23		18.08	
31		18.27		19.32	19.09		18.47		18.16	18.72		18.08	
Mean	18.27	18.39	18.55	18.54	18.80	18.93	18.77	18.37	18.23	18.30	18.27	18.14	
Max	18.77	19.41	20.44	19.99	21.12	20.38	20.06	18.68	18.33	19.54	18.68	18.30	21.12
Min	18.15	18.13	18.25	18.13	18.37	18.56	18.47	18.27	18.16	18.16	18.13	18.06	18.06

Annual Max Momentary Gage Height	21.30	m. (MSL.) ,	at 06.00 Hours , on Aug 29 , 2011		
Zero Gage at Bottom Elevation	16.73	m. (MSL.) ,	River Bed	16.53	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, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	25.10	10.32	18.84	11.46	77.40	46.25	44.39	24.58	16.24	11.08	38.34	9.94		
2	22.48	9.94	19.88	11.46	59.94	41.36	51.45	24.05	16.24	17.28	28.25	9.56		
3	20.40	15.20	19.36	11.08	45.60	36.52	134.80	23.53	16.24	95.65	28.25	9.56		
4	19.88	13.64	18.32	11.08	40.15	35.31	99.27	23.53	16.24	31.92	21.96	9.94		
5	19.88	23.53	16.24	10.70	36.52	34.71	80.77	23.00	16.76	23.00	18.32	14.16		
6	19.36	15.72	16.24	10.70	35.31	32.97	59.27	23.00	16.24	18.84	16.24	12.60		
7	43.79	13.12	15.72	10.32	32.45	31.40	52.10	22.48	15.72	16.76	15.72	11.08		
8	22.48	14.68	15.72	9.94	30.35	33.50	41.97	22.48	15.72	16.24	14.16	9.94		
9	19.36	59.94	15.20	15.72	28.78	36.52	41.36	21.96	15.72	14.16	13.12	10.32		
10	17.80	56.00	15.72	15.20	26.67	45.60	41.36	21.44	19.36	14.16	13.12	10.32		
11	16.24	86.23	29.83	24.05	28.25	78.08	41.36	21.96	17.80	13.64	12.60	9.94		
12	15.72	49.50	25.10	24.05	54.05	113.50	43.18	23.53	15.72	13.12	12.60	14.16		
13	14.68	30.35	24.58	27.20	38.95	65.30	40.15	38.34	14.68	12.60	12.22	13.64		
14	14.16	25.63	23.00	27.20	34.71	47.55	37.74	28.25	14.68	12.22	11.84	12.60		
15	14.16	22.48	25.10	28.78	25.63	43.79	35.31	23.53	14.16	12.22	11.84	10.70		
16	14.16	19.88	24.05	37.13	24.58	38.95	31.92	23.00	14.16	12.22	15.72	12.60		
17	13.64	18.84	24.05	37.74	24.05	37.13	29.83	21.44	14.16	13.64	14.16	17.80		
18	13.12	18.84	34.11	31.92	27.20	35.31	28.25	21.44	14.16	12.22	13.12	11.84		
19	12.22	19.36	94.93	27.20	24.05	39.55	27.20	20.92	14.16	13.12	29.83	9.94		
20	17.28	19.36	165.80	27.72	22.48	56.00	27.20	19.36	13.64	13.12	18.84	9.18		
21	14.16	17.28	72.67	23.53	37.74	88.40	73.35	19.36	13.12	14.68	16.24	9.18		
22	12.60	16.76	45.00	24.58	24.58	69.32	46.90	18.84	13.12	17.28	14.16	8.80		
23	14.16	16.24	38.95	26.67	24.05	48.85	42.58	17.80	13.12	13.12	12.60	8.04		
24	12.22	16.24	35.31	35.92	23.00	61.28	32.45	17.80	13.12	12.22	12.22	8.04		
25	11.46	16.76	32.97	46.25	21.44	56.00	29.83	18.32	13.12	11.84	11.84	7.28		
26	11.08	17.28	28.25	48.20	23.53	46.25	27.72	16.24	12.22	17.80	11.08	12.60		
27	11.08	16.24	26.67	48.85	76.73	48.20	29.83	16.24	11.84	12.60	10.70	9.18		
28	11.08	16.24	25.63	58.60	156.72	160.85	29.83	16.76	11.84	12.60	10.32	8.42		
29	10.70	16.24	23.00	69.99	224.00	84.82	27.72	16.76	11.46	12.60	9.94	8.42		
30	10.70	16.24	19.36	129.25	117.25	56.65	28.78	16.24	11.46	14.16		8.04		
31		16.24		80.10	64.63		26.67		11.08	40.76		8.04		
Total	495.15	724.32	989.60	1002.59	1510.79	1649.92	1384.54	646.18	447.30	566.87	469.35	325.86	10212.47	CMSDAY
Mean	16.50	23.37	32.99	32.34	48.74	55.00	44.66	21.54	14.43	18.29	16.18	10.51	27.90	CMS
Max	43.79	86.23	165.80	129.25	224.00	160.85	134.80	38.34	19.36	95.65	38.34	17.80	224.00	CMS
Min	10.70	9.94	15.20	9.94	21.44	31.40	26.67	16.24	11.08	11.08	9.94	7.28	7.28	CMS
Runoff	42.78	62.58	85.50	86.62	130.53	142.55	119.62	55.83	38.65	48.98	40.55	28.15	882.36	MCM

Momentary Peak 239.50 CMS. at 21.30 m. (MSL.) at 06.00 Hours , on Aug 29 , 2011

Runoff Yield 40.37 Liters/Second/Square KM. Momentary Peak Yield 346.499 Liters/Second/Square KM.

WATER YEAR : 2011

SOUTHERN PENINSULA EAST COAST

Lower Khlong Tako at Ban Nong Chik , Chumphon (X.270)

Lat 09 - 57 - 15 N Long 99 - 04 - 47 E

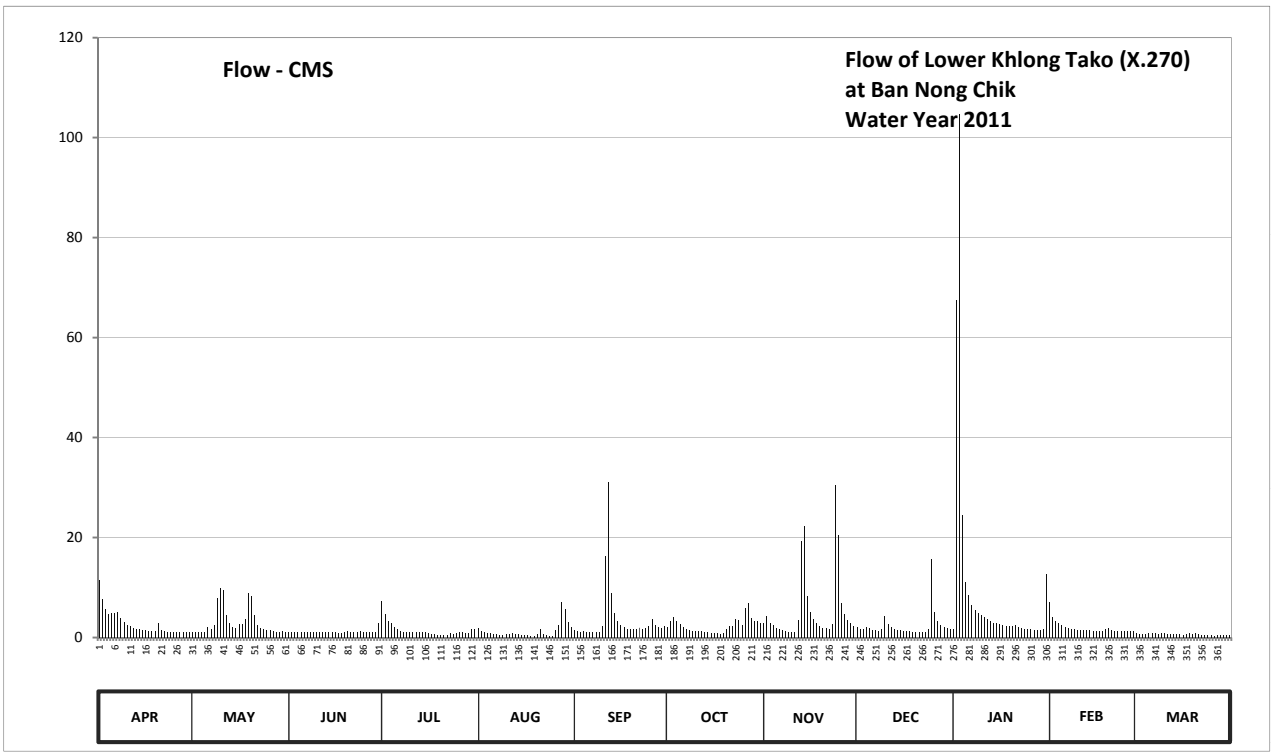
Location : on left bank at Ban Nong Chik.

	Ban Nong Chik	**Amphoe** Thung Tako	**Changwat** Chumphon
Drainge Area	68 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank downstream at the footpath.	**Elevation**	+9.930 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	2009 to date		
Rating Operation			
Period of Rating	2009 to date		
Rated by Flot	-		
Rated by Current Meter	2009 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 33 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	3.77	2.37	2.36	3.32	2.56	2.49	2.63	2.78	2.61	2.50	3.29	2.28	
2	3.37	2.35	2.36	3.03	2.44	2.43	2.83	2.97	2.55	6.97	2.96	2.27	
3	3.14	2.36	2.36	2.85	2.37	2.39	2.94	2.78	2.52	7.83	2.84	2.27	
4	3.02	2.37	2.36	2.76	2.34	2.42	2.85	2.68	2.61	4.83	2.79	2.27	
5	3.04	2.36	2.36	2.60	2.29	2.38	2.73	2.58	2.58	3.73	2.68	2.29	
6	3.05	2.60	2.36	2.50	2.27	2.36	2.61	2.51	2.49	3.46	2.61	2.29	
7	3.08	2.53	2.35	2.43	2.24	2.35	2.52	2.48	2.45	3.23	2.57	2.28	
8	2.91	2.69	2.35	2.38	2.21	2.35	2.47	2.42	2.42	3.12	2.53	2.25	
9	2.80	3.38	2.35	2.36	2.20	2.35	2.43	2.39	2.54	3.05	2.51	2.31	
10	2.71	3.62	2.35	2.36	2.23	2.64	2.40	2.37	2.97	3.00	2.48	2.29	
11	2.64	3.56	2.38	2.36	2.25	4.23	2.40	2.38	2.73	2.95	2.46	2.27	
12	2.59	3.00	2.36	2.35	2.30	5.27	2.43	2.86	2.60	2.90	2.46	2.25	
13	2.55	2.78	2.35	2.36	2.27	3.51	2.37	4.46	2.53	2.84	2.45	2.27	
14	2.52	2.62	2.35	2.35	2.23	3.04	2.35	4.68	2.48	2.79	2.45	2.26	
15	2.49	2.56	2.35	2.35	2.20	2.85	2.34	3.43	2.45	2.77	2.44	2.23	
16	2.46	2.73	2.35	2.33	2.18	2.70	2.33	3.06	2.42	2.74	2.44	2.22	
17	2.42	2.73	2.34	2.27	2.16	2.60	2.31	2.89	2.41	2.69	2.43	2.23	
18	2.41	2.89	2.34	2.27	2.15	2.54	2.24	2.76	2.40	2.66	2.43	2.31	
19	2.42	3.49	2.36	2.21	2.15	2.50	2.32	2.66	2.39	2.67	2.51	2.27	
20	2.76	3.43	2.41	2.20	2.25	2.53	2.51	2.59	2.38	2.64	2.57	2.33	
21	2.47	2.99	2.35	2.17	2.54	2.52	2.64	2.59	2.37	2.69	2.45	2.26	
22	2.41	2.69	2.35	2.21	2.25	2.59	2.67	2.53	2.37	2.61	2.44	2.22	
23	2.39	2.58	2.37	2.28	2.20	2.52	2.89	2.74	2.37	2.57	2.43	2.20	
24	2.38	2.55	2.44	2.25	2.15	2.59	2.86	5.23	2.52	2.55	2.42	2.19	
25	2.38	2.49	2.37	2.34	2.15	2.65	2.69	4.55	4.17	2.53	2.42	2.17	
26	2.37	2.45	2.37	2.37	2.49	2.88	3.17	3.27	3.07	2.51	2.41	2.15	
27	2.36	2.41	2.35	2.35	2.70	2.72	3.28	3.01	2.83	2.49	2.41	2.22	
28	2.36	2.39	2.35	2.34	3.30	2.63	2.92	2.87	2.72	2.48	2.41	2.20	
29	2.35	2.38	2.35	2.34	3.14	2.59	2.83	2.77	2.62	2.46	2.41	2.18	
30	2.38	2.40	2.77	2.51	2.82	2.66	2.84	2.67	2.56	2.54		2.17	
31		2.39		2.53	2.61		2.78		2.51	3.89		2.17	
Mean	2.67	2.71	2.37	2.43	2.38	2.74	2.63	3.00	2.60	3.18	2.54	2.24	
Max	3.77	3.62	2.77	3.32	3.30	5.27	3.28	5.23	4.17	7.83	3.29	2.33	7.83
Min	2.35	2.35	2.34	2.17	2.15	2.35	2.24	2.37	2.37	2.46	2.41	2.15	2.15

Annual Max Momentary Gage Height	8.55	m. (MSL.) ,	at 18.00 Hours , on Jan 2 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	1.75	m. (MSL)
Left Bank Elevation	9.91	m. (MSL.) ,			
Right Bank Elevation	9.92	m. (MSL.) ,	Drainage Area	68	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	11.42	1.09	1.06	7.28	1.84	1.56	2.15	2.90	2.05	1.60	7.01	0.78		
2	7.73	1.02	1.06	4.75	1.36	1.32	3.22	4.28	1.80	67.52	4.20	0.74		
3	5.69	1.06	1.06	3.37	1.09	1.17	4.05	2.90	1.68	104.65	3.30	0.74		
4	4.67	1.09	1.06	2.80	0.99	1.28	3.37	2.40	2.05	24.42	2.95	0.74		
5	4.84	1.06	1.06	2.00	0.81	1.13	2.65	1.92	1.92	11.04	2.40	0.81		
6	4.92	2.00	1.06	1.60	0.74	1.06	2.05	1.64	1.56	8.54	2.05	0.81		
7	5.18	1.72	1.02	1.32	0.64	1.02	1.68	1.52	1.40	6.47	1.88	0.78		
8	3.83	2.45	1.02	1.13	0.53	1.02	1.48	1.28	1.28	5.52	1.72	0.67		
9	3.00	7.82	1.02	1.06	0.50	1.02	1.32	1.17	1.76	4.92	1.64	0.88		
10	2.55	9.99	1.02	1.06	0.60	2.20	1.20	1.09	4.28	4.50	1.52	0.81		
11	2.20	9.44	1.13	1.06	0.67	16.38	1.20	1.13	2.65	4.13	1.44	0.74		
12	1.96	4.50	1.06	1.02	0.85	31.12	1.32	3.45	2.00	3.75	1.44	0.67		
13	1.80	2.90	1.02	1.06	0.74	8.99	1.09	19.31	1.72	3.30	1.40	0.74		
14	1.68	2.10	1.02	1.02	0.60	4.84	1.02	22.32	1.52	2.95	1.40	0.71		
15	1.56	1.84	1.02	1.02	0.50	3.37	0.99	8.27	1.40	2.85	1.36	0.60		
16	1.44	2.65	1.02	0.95	0.45	2.50	0.95	5.01	1.28	2.70	1.36	0.57		
17	1.28	2.65	0.99	0.74	0.40	2.00	0.88	3.68	1.24	2.45	1.32	0.60		
18	1.24	3.68	0.99	0.74	0.38	1.76	0.64	2.80	1.20	2.30	1.32	0.88		
19	1.28	8.81	1.06	0.53	0.38	1.60	0.92	2.30	1.17	2.35	1.64	0.74		
20	2.80	8.27	1.24	0.50	0.67	1.72	1.64	1.96	1.13	2.20	1.88	0.95		
21	1.48	4.43	1.02	0.43	1.76	1.68	2.20	1.96	1.09	2.45	1.40	0.71		
22	1.24	2.45	1.02	0.53	0.67	1.96	2.35	1.72	1.09	2.05	1.36	0.57		
23	1.17	1.92	1.09	0.78	0.50	1.68	3.68	2.70	1.09	1.88	1.32	0.50		
24	1.13	1.80	1.36	0.67	0.38	1.96	3.45	30.48	1.68	1.80	1.28	0.48		
25	1.13	1.56	1.09	0.99	0.38	2.25	2.45	20.53	15.67	1.72	1.28	0.43		
26	1.09	1.40	1.09	1.09	1.56	3.60	5.95	6.83	5.09	1.64	1.24	0.38		
27	1.06	1.24	1.02	1.02	2.50	2.60	6.92	4.59	3.22	1.56	1.24	0.57		
28	1.06	1.17	1.02	0.99	7.10	2.15	3.90	3.52	2.60	1.52	1.24	0.50		
29	1.02	1.13	1.02	0.99	5.69	1.96	3.22	2.85	2.10	1.44	1.24	0.45		
30	1.13	1.20	2.85	1.64	3.15	2.30	3.30	2.35	1.84	1.76		0.43		
31		1.17		1.72	2.05		2.90		1.64	12.65		0.43		
Total	82.58	95.61	33.57	45.86	40.48	109.20	74.14	168.86	72.20	298.63	54.83	20.41	1096.37	CMSDAY
Mean	2.75	3.08	1.12	1.48	1.31	3.64	2.39	5.63	2.33	9.63	1.89	0.66	3.00	CMS
Max	11.42	9.99	2.85	7.28	7.10	31.12	6.92	30.48	15.67	104.65	7.01	0.95	104.65	CMS
Min	1.02	1.02	0.99	0.43	0.38	1.02	0.64	1.09	1.09	1.44	1.24	0.38	0.38	CMS
Runoff	7.14	8.26	2.90	3.96	3.50	9.44	6.41	14.59	6.24	25.80	4.74	1.76	94.73	MCM

Momentary Peak 150.30 CMS. at 8.55 m. (MSL.) at 18.00 Hours , on Jan 2 , 2011

Runoff Yield 43.99 Liters/Second/Square KM. Momentary Peak Yield 2207.049 Liters/Second/Square KM.

WATER YEAR : 2011

TAPI RIVER BASIN

Khlong Phum Duang at Ban Tha Khanon , Surat Thani (X.36)

Lat 09 - 01 - 44 N Long 98 - 58 - 00 E

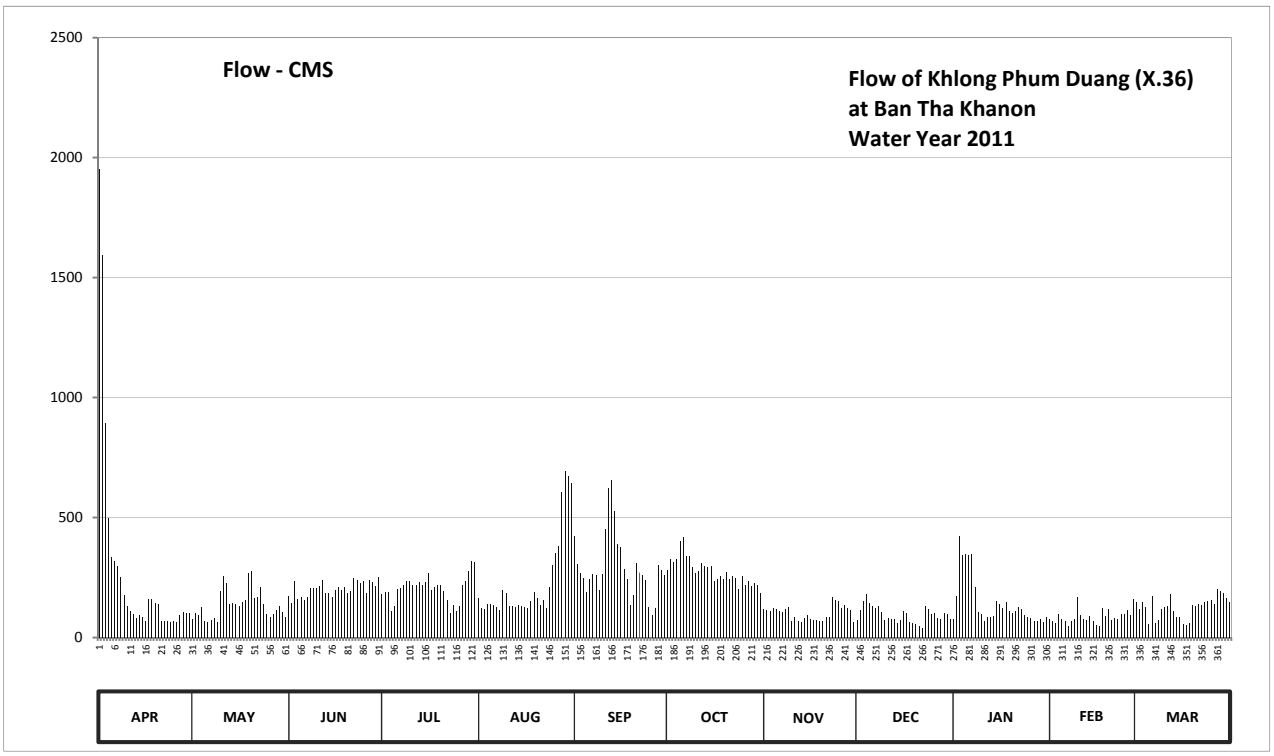
Location : on left bank at Ban Tha Khanon.

	Ban Tha Khanon	**Amphoe** Khiri Ratnikhom	**Changwat** Surat Thani
Drainge Area	2,968 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the sixth staff gage.	**Elevation**	+10.520 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	1963 to date		
Rating Operation			
Period of Rating	1989 to date		
Rated by Flot	-		
Rated by Current Meter	1989 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	Overbank flow starts at elevation +12.110 m.(MSL.),records are channel flow only.		
General Description	Records good. Flow regulated by Ratcha Prapha Dam.		
	Stage-discharge relation defined by 25 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	13.06	2.05	3.39	3.48	3.25	6.05	4.56	2.65	2.04	2.06	2.09	3.08	
2	11.98	2.43	3.01	3.55	2.75	4.86	5.06	2.61	2.62	3.37	1.92	2.65	
3	9.37	2.30	4.06	3.55	2.68	4.42	4.96	2.54	3.12	6.05	1.84	3.08	
4	6.75	2.79	3.23	2.54	2.98	4.19	5.07	2.74	3.46	5.23	2.36	2.81	
5	5.14	1.93	3.31	2.83	2.98	3.56	5.80	2.69	3.03	5.28	2.07	1.76	
6	5.00	1.89	3.19	3.68	2.90	4.18	5.97	2.56	2.83	5.25	1.92	3.35	
7	4.77	2.02	3.32	3.76	2.80	4.38	5.21	2.49	2.73	5.27	1.63	1.82	
8	4.26	2.12	3.73	3.90	2.62	4.36	5.18	2.66	2.84	3.80	1.97	2.02	
9	3.41	1.91	3.75	4.06	3.63	3.66	4.74	2.80	2.48	2.47	2.06	2.66	
10	2.83	3.59	3.75	4.05	3.50	4.40	4.45	1.92	2.03	2.37	3.33	2.79	
11	2.57	4.29	3.84	3.87	2.84	6.33	4.55	2.16	2.12	1.98	2.29	2.83	
12	2.38	3.98	4.13	3.91	2.82	7.74	4.91	1.97	2.05	2.16	2.09	3.47	
13	2.10	2.94	3.49	4.03	2.79	7.99	4.76	1.88	2.06	2.16	2.02	2.52	
14	2.31	2.99	3.50	3.90	2.91	6.99	4.71	2.12	1.81	2.23	2.27	2.20	
15	2.20	2.95	3.32	4.02	2.86	5.70	4.76	2.28	2.04	3.09	1.95	2.17	
16	1.92	2.85	3.64	4.43	2.77	5.58	4.05	2.06	2.54	2.94	1.71	1.74	
17	3.22	3.08	3.80	3.64	2.75	4.62	4.17	2.00	2.43	2.71	1.65	1.70	
18	3.23	3.20	3.66	3.77	3.10	4.16	4.30	2.01	1.88	3.08	2.72	1.85	
19	3.00	4.46	3.80	3.90	3.55	2.90	4.17	1.94	1.83	2.56	2.26	2.88	
20	2.96	4.55	3.51	3.90	3.27	3.42	4.49	1.98	1.79	2.40	2.67	2.84	
21	1.95	3.26	3.58	3.60	2.91	4.90	4.15	2.17	1.65	2.53	1.99	2.95	
22	1.92	3.32	4.20	3.16	3.15	4.46	4.29	2.21	1.48	2.78	2.12	2.90	
23	1.94	3.81	4.12	2.46	2.72	4.36	4.20	3.34	2.86	2.67	2.08	3.04	
24	1.86	2.94	3.98	2.89	3.81	4.14	3.72	3.20	2.69	2.31	2.39	3.09	
25	1.92	2.35	4.05	2.56	4.83	2.78	4.29	3.14	2.39	2.17	2.39	3.19	
26	1.90	2.19	3.49	2.84	5.31	2.31	3.86	2.71	2.41	2.10	2.60	2.94	
27	2.33	2.37	4.11	3.87	5.61	2.75	4.05	2.91	2.15	1.95	2.28	3.70	
28	2.49	2.60	4.02	4.07	7.60	4.79	3.85	2.72	2.07	1.97	3.22	3.60	
29	2.46	2.85	3.83	4.55	8.23	4.58	3.96	2.62	2.44	2.08	4.39	3.53	
30	2.42	2.47	4.25	5.00	8.09	4.36	3.88	1.88	2.38	1.89		3.26	
31		2.20		4.96	7.89		3.50		2.07	2.17		3.05	
Mean	3.79	2.86	3.70	3.70	3.87	4.63	4.50	2.43	2.33	2.94	2.29	2.76	
Max	13.06	4.55	4.25	5.00	8.23	7.99	5.97	3.34	3.46	6.05	4.39	3.70	13.06
Min	1.86	1.89	3.01	2.46	2.62	2.31	3.50	1.88	1.48	1.89	1.63	1.70	1.48

Annual Max Momentary Gage Height	13.14	m. (MSL.) ,	at 03.00 Hours , on Apr 1 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	-0.95	m. (MSL)
Left Bank Elevation	12.10	m. (MSL.) ,			
Right Bank Elevation	12.11	m. (MSL.) ,	Drainage Area	2968	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1951.00	75.50	174.80	182.70	162.40	425.00	279.40	117.50	74.80	76.20	78.30	149.00		
2	1594.00	102.10	143.80	188.90	124.50	306.70	326.00	114.70	115.40	173.00	66.40	117.50		
3	894.00	93.00	234.40	188.90	119.60	266.80	316.20	109.80	152.00	425.00	60.80	149.00		
4	499.20	127.30	160.60	109.80	141.50	246.10	327.00	123.80	181.00	343.00	97.20	128.80		
5	334.00	67.10	167.70	130.30	141.50	189.80	400.00	120.30	145.30	348.00	76.90	55.60		
6	320.00	64.30	157.30	200.40	135.50	245.20	417.00	111.20	130.30	345.00	66.40	171.20		
7	298.30	73.40	168.60	207.50	128.00	263.20	341.00	106.30	123.10	347.00	47.80	59.40		
8	252.40	80.40	204.80	220.00	115.40	261.40	338.00	118.20	131.00	211.00	69.90	73.40		
9	176.60	65.70	206.60	234.40	196.00	198.60	295.60	128.00	105.60	104.90	76.20	118.20		
10	130.30	192.50	206.60	233.50	184.50	265.00	269.50	66.40	74.10	97.90	169.50	127.30		
11	111.90	255.10	214.60	217.30	131.00	453.00	278.50	83.20	80.40	70.60	92.30	130.30		
12	98.60	227.20	240.70	220.90	129.50	622.20	311.40	69.90	75.50	83.20	78.30	181.90		
13	79.00	138.50	183.60	231.70	127.30	656.60	297.40	63.60	76.20	83.20	73.40	108.40		
14	93.70	142.30	184.50	220.00	136.30	526.80	292.90	80.40	58.70	88.10	90.90	86.00		
15	86.00	139.30	168.60	230.80	132.50	390.00	297.40	91.60	74.80	149.80	68.50	83.90		
16	66.40	131.80	196.90	267.70	125.90	378.00	233.50	76.20	109.80	138.50	52.60	54.40		
17	159.80	149.00	211.00	196.90	124.50	284.80	244.30	72.00	102.10	121.70	49.00	52.00		
18	160.60	158.00	198.60	208.40	150.50	243.40	256.00	72.70	63.60	149.00	122.40	61.50		
19	143.00	270.40	211.00	220.00	188.90	135.50	244.30	67.80	60.10	111.20	90.20	134.00		
20	140.00	278.50	185.40	220.00	164.20	177.40	273.10	70.60	57.40	100.00	118.90	131.00		
21	68.50	163.30	191.60	193.30	136.30	310.50	242.50	83.90	49.00	109.10	71.30	139.30		
22	66.40	168.60	247.00	155.00	154.30	270.40	255.10	86.70	39.40	126.60	80.40	135.50		
23	67.80	211.90	239.80	104.20	122.40	261.40	247.00	170.40	132.50	118.90	77.60	146.00		
24	62.20	138.50	227.20	134.80	211.90	241.60	203.90	158.00	120.30	93.70	99.30	149.80		
25	66.40	96.50	233.50	111.20	303.80	126.60	255.10	153.50	99.30	83.90	99.30	157.30		
26	65.00	85.30	183.60	131.00	351.00	93.70	216.40	121.70	100.70	79.00	114.00	138.50		
27	95.10	97.90	238.90	217.30	381.00	124.50	233.50	136.30	82.50	68.50	91.60	202.20		
28	106.30	114.00	230.80	235.30	604.00	300.10	215.50	122.40	76.90	69.90	159.80	193.30		
29	104.20	131.80	213.70	278.50	692.80	281.20	225.40	115.40	102.80	77.60	264.10	187.10		
30	101.40	104.90	251.50	320.00	671.50	261.40	218.20	63.60	98.60	64.30		163.30		
31		86.00		316.20	642.60		184.50		76.90	83.90		146.80		
Total	8392.10	4230.10	6077.70	6326.90	7131.10	8806.90	8535.60	3076.10	2970.10	4541.70	2703.30	3931.90	66723.50	CMSDAY
Mean	279.70	136.50	202.60	204.10	230.00	293.60	275.30	102.50	95.80	146.50	93.20	126.80	182.30	CMS
Max	1951.00	278.50	251.50	320.00	692.80	656.60	417.00	170.40	181.00	425.00	264.10	202.20	1951.00	CMS
Min	62.20	64.30	143.80	104.20	115.40	93.70	184.50	63.60	39.40	64.30	47.80	52.00	39.40	CMS
Runoff	725.08	365.48	525.11	546.64	616.13	760.92	737.48	265.78	256.62	392.40	233.57	339.72	5764.91	MCM

Momentary Peak 1979.00 CMS. at 13.14 m. (MSL.) at 03.00 Hours , on Apr 1 , 2011

Runoff Yield 61.42 Liters/Second/Square KM. Momentary Peak Yield 666.721 Liters/Second/Square KM.

WATER YEAR : 2011

TAPI RIVER BASIN

Tapi River at Ban Yan Din Daeng , Surat Thani (X.37A)

Lat 08 - 34 - 03 N Long 99 - 15 - 15 E

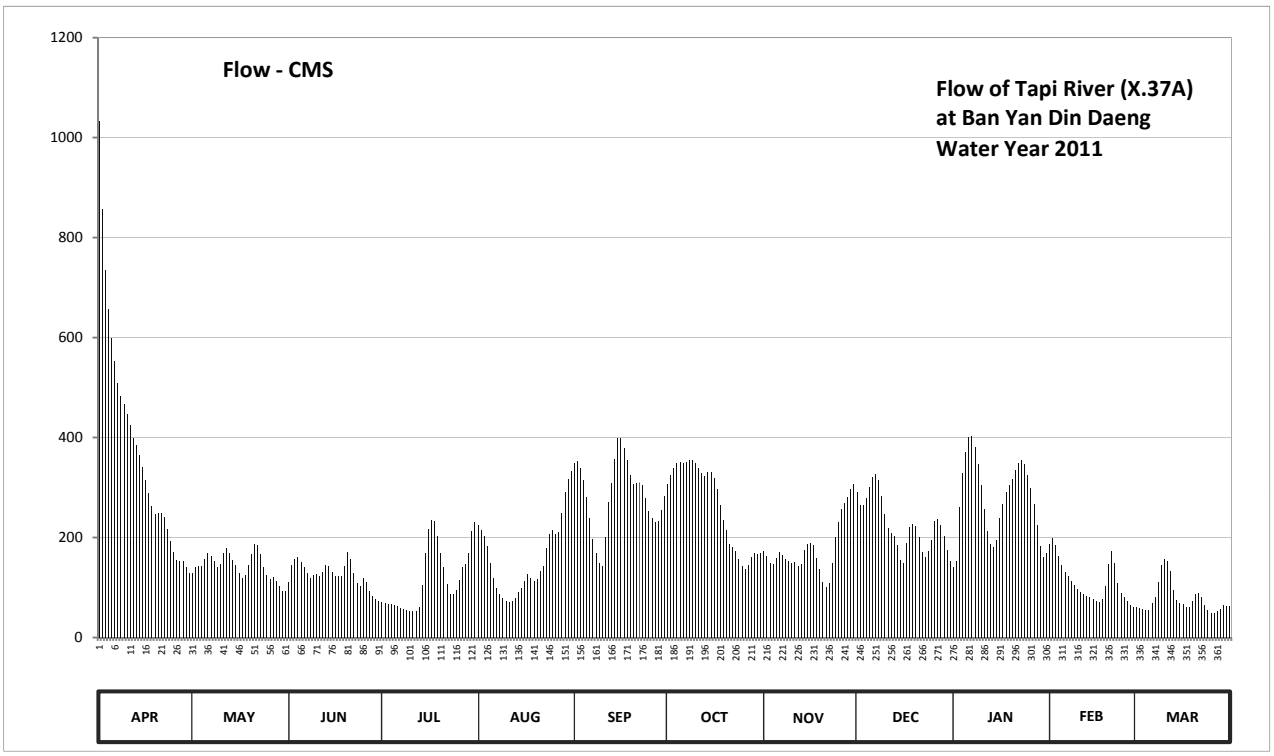
Location : on left bank at Tambon Yan Din Daeng.

	Ban Yan Din Daeng	**Amphoe** Phrasaeng	**Changwat** Surat Thani
Drainge Area	5,383 sq.km.		
Type of Gage	Water - stage recorder.		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	Near the automatic gage building.		**Elevation** +10.240 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	1969 to date		
Rating Operation			
Period of Rating	1969 to date		
Rated by Flot	-		
Rated by Current Meter	1969 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	Overbank flow starts at elevation +12.440 m.(MSL.), records are channel flow only.		
General Description	Records good. Stage-discharge relation defined by 26 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	13.38	7.40	7.07	6.35	8.71	9.86	9.50	8.06	9.36	7.58	8.24	6.11	
2	12.84	7.59	7.64	6.30	8.59	9.89	9.66	7.94	9.12	7.78	8.38	6.07	
3	12.32	7.62	7.85	6.26	8.44	9.77	9.78	7.72	9.11	9.07	8.22	6.02	
4	11.93	7.63	7.90	6.26	8.19	9.56	9.86	7.69	9.25	9.69	7.94	5.99	
5	11.60	7.83	7.74	6.21	7.70	9.26	9.88	7.86	9.44	10.04	7.64	5.97	
6	11.32	8.00	7.57	6.14	7.21	8.85	9.86	8.03	9.62	10.28	7.41	6.27	
7	11.05	7.92	7.38	6.07	6.87	8.37	9.87	7.97	9.67	10.29	7.28	6.52	
8	10.88	7.78	7.23	6.01	6.65	8.00	9.91	7.84	9.57	10.12	7.11	7.09	
9	10.77	7.59	7.32	5.96	6.49	7.72	9.91	7.78	9.29	9.84	6.97	7.64	
10	10.64	7.67	7.35	5.92	6.37	7.63	9.86	7.73	8.92	9.47	6.85	7.85	
11	10.46	8.00	7.28	5.91	6.32	8.41	9.78	7.74	8.64	9.02	6.75	7.80	
12	10.27	8.13	7.43	5.92	6.38	9.16	9.68	7.60	8.52	8.57	6.66	7.46	
13	10.15	8.02	7.65	6.13	6.51	9.52	9.63	7.69	8.44	8.24	6.58	6.82	
14	9.99	7.82	7.61	6.99	6.73	9.93	9.71	8.08	8.21	8.17	6.53	6.42	
15	9.79	7.65	7.43	8.02	6.87	10.27	9.71	8.24	7.81	8.34	6.46	6.28	
16	9.57	7.40	7.29	8.60	7.10	10.26	9.60	8.26	7.70	8.85	6.40	6.24	
17	9.34	7.22	7.29	8.82	7.35	10.11	9.40	8.20	8.26	9.13	6.35	6.09	
18	9.09	7.32	7.28	8.79	7.22	9.91	9.12	7.88	8.65	9.36	6.46	6.12	
19	8.93	7.65	7.63	8.43	7.13	9.66	8.82	7.51	8.72	9.47	6.95	6.37	
20	8.94	7.98	8.04	8.01	7.19	9.50	8.58	7.09	8.67	9.58	7.69	6.67	
21	8.94	8.23	7.84	7.57	7.45	9.51	8.25	6.91	8.41	9.74	8.06	6.68	
22	8.86	8.22	7.40	7.02	7.63	9.53	8.17	7.05	8.04	9.86	7.70	6.56	
23	8.62	7.99	7.06	6.67	8.14	9.47	8.07	7.73	7.89	9.90	7.06	6.22	
24	8.31	7.58	6.94	6.65	8.48	9.25	7.84	8.41	8.07	9.84	6.68	5.95	
25	8.04	7.32	7.23	6.81	8.59	8.99	7.60	8.76	8.34	9.66	6.52	5.82	
26	7.82	7.19	7.08	7.15	8.49	8.85	7.50	9.04	8.79	9.43	6.37	5.80	
27	7.77	7.24	6.76	7.58	8.53	8.77	7.64	9.15	8.83	9.14	6.19	5.93	
28	7.77	7.10	6.57	7.68	8.96	8.79	7.90	9.27	8.69	8.71	6.10	6.03	
29	7.59	6.94	6.45	8.02	9.35	9.01	8.02	9.40	8.44	8.19	6.09	6.20	
30	7.39	6.79	6.38	8.57	9.59	9.29	7.98	9.49	8.09	7.90		6.17	
31		6.79		8.77	9.72		8.01		7.77	8.00		6.17	
Mean	9.81	7.60	7.32	7.08	7.71	9.24	9.00	8.07	8.66	9.14	7.02	6.43	
Max	13.38	8.23	8.04	8.82	9.72	10.27	9.91	9.49	9.67	10.29	8.38	7.85	13.38
Min	7.39	6.79	6.38	5.91	6.32	7.63	7.50	6.91	7.70	7.58	6.09	5.80	5.80

Annual Max Momentary Gage Height	13.59	m. (MSL.) ,	at 01.00 Hours , on Apr 1 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	2.94	m. (MSL)
Left Bank Elevation	12.43	m. (MSL.) ,			
Right Bank Elevation	12.59	m. (MSL.) ,	Drainage Area	5383	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1032.80	130.00	110.20	71.75	225.90	349.20	307.00	172.80	291.60	140.80	187.20	60.95		
2	857.60	141.40	144.40	69.50	215.20	352.80	325.20	163.80	266.00	152.80	198.40	59.15		
3	735.20	143.20	157.50	67.70	203.20	338.40	339.60	149.20	265.00	261.00	185.60	56.90		
4	656.70	143.80	161.00	67.70	183.20	313.60	349.20	147.40	279.50	328.80	163.80	55.65		
5	598.00	156.10	150.40	65.45	148.00	280.60	351.60	158.20	300.40	370.80	144.40	54.95		
6	551.80	168.00	140.20	62.30	118.60	239.00	349.20	170.40	320.40	400.40	130.60	68.15		
7	508.00	162.40	128.80	59.15	98.20	197.60	350.40	165.90	326.40	401.70	122.80	80.00		
8	482.00	152.80	119.80	56.45	86.50	168.00	355.20	156.80	314.70	380.40	112.60	111.40		
9	465.80	141.40	125.20	54.60	78.50	149.20	355.20	152.80	283.90	346.80	104.20	144.40		
10	447.60	146.20	127.00	53.20	72.65	143.80	349.20	149.80	246.00	303.70	97.00	157.50		
11	423.80	168.00	122.80	52.85	70.40	200.80	339.60	150.40	219.60	256.00	91.50	154.00		
12	399.10	178.40	131.80	53.20	73.10	270.00	327.60	142.00	209.60	213.60	87.00	133.60		
13	384.00	169.60	145.00	61.85	79.50	309.20	321.60	147.40	203.20	187.20	83.00	95.20		
14	364.80	155.40	142.60	105.40	90.50	357.60	331.20	174.40	184.80	181.60	80.50	75.00		
15	340.80	145.00	131.80	169.60	98.20	399.10	331.20	187.20	154.70	195.20	77.00	68.60		
16	314.70	130.00	123.40	216.00	112.00	397.80	318.00	188.80	148.00	239.00	74.00	66.80		
17	289.40	119.20	123.40	236.00	127.00	379.20	296.00	184.00	188.80	267.00	71.75	60.05		
18	263.00	125.20	122.80	233.10	119.20	355.20	266.00	159.60	220.50	291.60	77.00	61.40		
19	247.00	145.00	143.80	202.40	113.80	325.20	236.00	136.60	226.80	303.70	103.00	72.65		
20	248.00	166.60	171.20	168.80	117.40	307.00	214.40	111.40	222.30	315.80	147.40	87.50		
21	248.00	186.40	156.80	140.20	133.00	308.10	188.00	100.60	200.80	334.80	172.80	88.00		
22	240.00	185.60	130.00	107.20	143.80	310.30	181.60	109.00	171.20	349.20	148.00	82.00		
23	217.80	167.30	109.60	87.50	179.20	303.70	173.60	149.80	160.30	354.00	109.60	65.90		
24	192.80	140.80	102.40	86.50	206.40	279.50	156.80	200.80	173.60	346.80	88.00	54.25		
25	171.20	125.20	119.80	94.60	215.20	253.00	142.00	230.40	195.20	325.20	80.00	49.70		
26	155.40	117.40	110.80	115.00	207.20	239.00	136.00	258.00	233.10	299.30	72.65	49.00		
27	152.20	120.40	92.00	140.80	210.40	231.30	144.40	269.00	237.00	268.00	64.55	53.55		
28	152.20	112.00	82.50	146.80	250.00	233.10	161.00	281.70	224.10	225.90	60.50	57.35		
29	141.40	102.40	76.50	169.60	290.50	255.00	169.60	296.00	203.20	183.20	60.05	65.00		
30	129.40	93.50	73.10	213.60	316.90	283.90	166.60	305.90	175.20	161.00		63.65		
31		93.50		231.30	332.40		168.80		152.20	168.00		63.65		
Total	11,410.50	4,432.20	3,776.60	3660.10	4916.05	8530.20	8201.80	5370.10	6998.10	8553.30	3194.90	2415.90	71459.75	CMSDAY
Mean	380.35	142.97	125.89	118.07	158.58	284.34	264.57	179.00	225.75	275.91	110.17	77.93	195.25	CMS
Max	1,032.80	186.40	171.20	236.00	332.40	399.10	355.20	305.90	326.40	401.70	198.40	157.50	1,032.80	CMS
Min	129.40	93.50	73.10	52.85	70.40	143.80	136.00	100.60	148.00	140.80	60.05	49.00	49.00	CMS
Runoff	985.87	382.94	326.30	316.23	424.75	737.01	708.64	463.98	604.64	739.01	276.04	208.73	6174.12	MCM

Momentary Peak 1112.20 CMS, at 13.59 m. (MSL), at 01.00 Hours, on Apr 1, 2011

Runoff Yield 36.27 Liters/Second/Square KM. Momentary Peak Yield 206.604 Liters/Second/Square KM.

WATER YEAR : 2011

TAPI RIVER BASIN

Tapi River at Ban Tha Pho , Nakhon Si Thammarat (X.195)

Lat 08 - 30 - 24 N Long 99 - 30 - 39 E

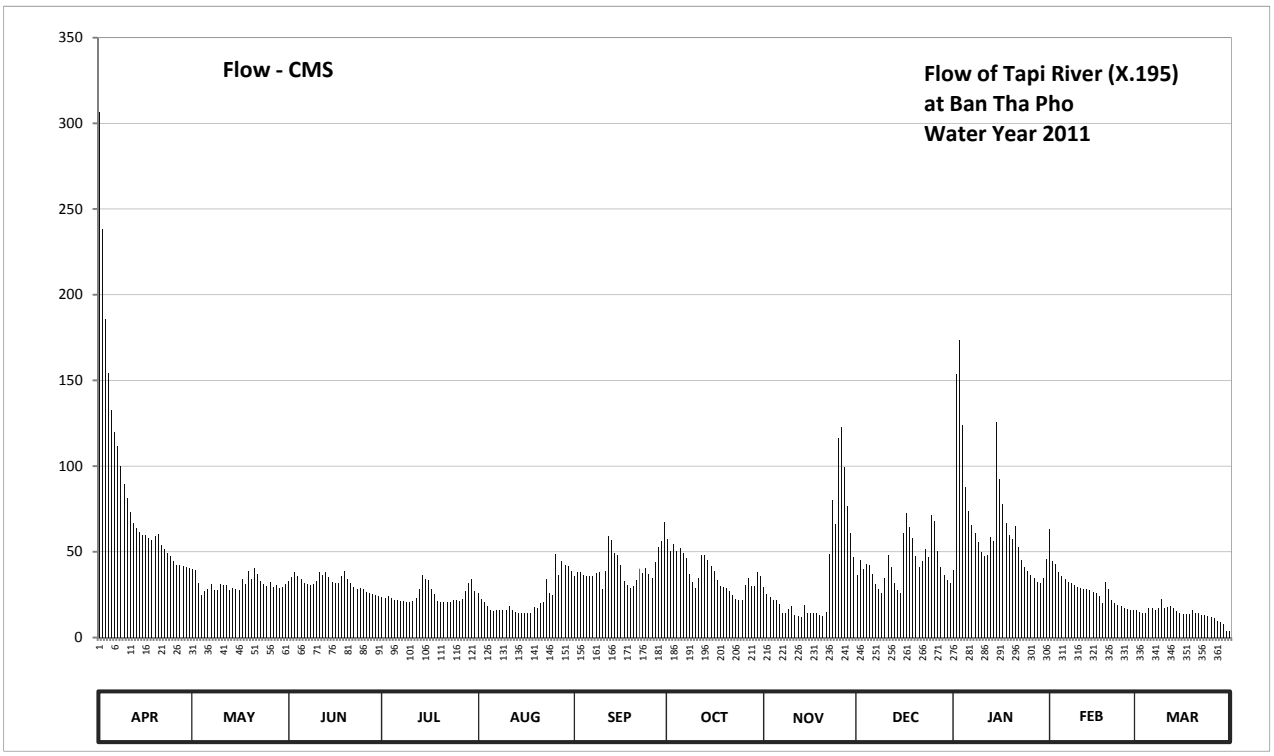
Location : on left bank at Ban Tha Pho.

	Ban Tha Pho	**Amphoe** Chawang	**Changwat** Nakhon Si Thammarat
Drainge Area	488 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	Near the top staff gage.		**Elevation** +40.509 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	1998 - 2006, 2011 to date		
Rating Operation			
Period of Rating	1998 - 2006, 2011 to date		
Rated by Flot	-		
Rated by Current Meter	1998 - 2006, 2011 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 26 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	38.16	34.33	34.20	34.01	34.06	34.25	34.63	34.13	34.26	34.32	34.73	33.84	
2	37.27	34.32	34.24	34.00	33.99	34.29	34.51	34.05	34.42	36.11	34.41	33.82	
3	36.56	34.18	34.29	34.02	33.95	34.29	34.58	34.01	34.33	36.39	34.38	33.81	
4	36.12	34.03	34.25	34.00	33.90	34.26	34.51	33.98	34.38	35.68	34.29	33.80	
5	35.81	34.08	34.22	33.98	33.85	34.25	34.54	33.98	34.37	35.13	34.25	33.87	
6	35.63	34.11	34.18	33.98	33.83	34.25	34.49	33.92	34.27	34.91	34.22	33.87	
7	35.50	34.16	34.16	33.96	33.85	34.25	34.44	33.80	34.16	34.78	34.19	33.85	
8	35.32	34.09	34.15	33.96	33.85	34.28	34.27	33.80	34.10	34.70	34.17	33.87	
9	35.16	34.09	34.16	33.95	33.85	34.29	34.19	33.86	34.06	34.60	34.15	33.99	
10	35.04	34.16	34.20	33.95	33.85	34.11	34.12	33.90	34.23	34.50	34.13	33.87	
11	34.90	34.15	34.29	33.96	33.90	34.31	34.23	33.77	34.47	34.46	34.12	33.88	
12	34.80	34.15	34.26	34.00	33.85	34.66	34.47	33.75	34.35	34.47	34.10	33.90	
13	34.75	34.09	34.29	34.10	33.82	34.62	34.47	33.73	34.18	34.65	34.11	33.87	
14	34.71	34.12	34.24	34.26	33.80	34.49	34.42	33.91	34.09	34.61	34.09	33.83	
15	34.67	34.10	34.19	34.22	33.80	34.47	34.36	33.80	34.06	35.71	34.07	33.81	
16	34.67	34.09	34.18	34.21	33.80	34.37	34.30	33.80	34.69	35.21	34.06	33.79	
17	34.64	34.22	34.18	34.11	33.80	34.20	34.21	33.80	34.89	34.98	34.02	33.78	
18	34.62	34.16	34.25	34.05	33.80	34.15	34.14	33.80	34.76	34.80	33.93	33.78	
19	34.66	34.30	34.31	33.96	33.88	34.12	34.13	33.77	34.64	34.67	34.19	33.84	
20	34.68	34.22	34.22	33.95	33.87	34.14	34.12	33.75	34.46	34.63	34.11	33.81	
21	34.57	34.34	34.17	33.95	33.93	34.21	34.08	33.82	34.35	34.77	33.98	33.81	
22	34.53	34.27	34.13	33.95	33.95	34.33	34.04	34.48	34.41	34.55	33.93	33.77	
23	34.49	34.20	34.11	33.95	34.22	34.28	33.99	35.02	34.53	34.42	33.91	33.77	
24	34.46	34.16	34.12	33.97	34.06	34.34	33.98	34.79	34.45	34.35	33.89	33.75	
25	34.41	34.14	34.10	33.97	34.04	34.27	33.98	35.57	34.87	34.30	33.87	33.74	
26	34.37	34.19	34.07	33.96	34.48	34.23	34.15	35.67	34.82	34.26	33.86	33.72	
27	34.37	34.13	34.06	33.99	34.26	34.40	34.23	35.31	34.51	34.23	33.85	33.65	
28	34.36	34.15	34.05	34.08	34.41	34.55	34.14	34.96	34.35	34.19	33.84	33.63	
29	34.35	34.12	34.03	34.17	34.37	34.61	34.14	34.70	34.26	34.17	33.84	33.60	
30	34.34	34.13	34.02	34.22	34.36	34.81	34.29	34.45	34.21	34.23		33.45	
31		34.16		34.08	34.31		34.25		34.17	34.43		33.45	
Mean	35.06	34.17	34.18	34.03	33.99	34.34	34.27	34.20	34.39	34.75	34.09	33.78	
Max	38.16	34.34	34.31	34.26	34.48	34.81	34.63	35.67	34.89	36.39	34.73	33.99	38.16
Min	34.34	34.03	34.02	33.95	33.80	34.11	33.98	33.73	34.06	34.17	33.84	33.45	33.45

Annual Max Momentary Gage Height	38.50	m. (MSL.) ,	at 01.00 Hours , on Apr 1 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	32.35	m. (MSL)
Left Bank Elevation	40.75	m. (MSL.) ,			
Right Bank Elevation	40.78	m. (MSL.) ,	Drainage Area	488	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	306.40	40.15	33.00	23.50	26.00	35.75	57.23	29.50	36.30	39.60	62.98	15.80		
2	238.25	39.60	35.20	23.00	22.55	37.95	50.32	25.50	45.15	153.70	44.57	14.90		
3	185.60	32.00	37.95	24.00	20.75	37.95	54.35	23.50	40.15	173.30	42.90	14.45		
4	154.40	24.50	35.75	23.00	18.50	36.30	50.32	22.10	42.90	123.60	37.95	14.00		
5	132.70	27.00	34.10	22.10	16.25	35.75	52.05	22.10	42.35	87.45	35.75	17.15		
6	120.10	28.50	32.00	22.10	15.35	35.75	49.18	19.40	36.85	73.60	34.10	17.15		
7	111.50	31.00	31.00	21.20	16.25	35.75	46.30	14.00	31.00	65.85	32.50	16.25		
8	99.80	27.50	30.50	21.20	16.25	37.40	36.85	14.00	28.00	61.25	31.50	17.15		
9	89.40	27.50	31.00	20.75	16.25	37.95	32.50	16.70	26.00	55.50	30.50	22.55		
10	81.60	31.00	33.00	20.75	16.25	28.50	29.00	18.50	34.65	49.75	29.50	17.15		
11	73.00	30.50	37.95	21.20	18.50	39.05	34.65	13.10	48.03	47.45	29.00	17.60		
12	67.00	30.50	36.30	23.00	16.25	58.95	48.03	12.50	41.25	48.03	28.00	18.50		
13	64.13	27.50	37.95	28.00	14.90	56.65	48.03	11.90	32.00	58.38	28.50	17.15		
14	61.83	29.00	35.20	36.30	14.00	49.18	45.15	18.95	27.50	56.08	27.50	15.35		
15	59.52	28.00	32.50	34.10	14.00	48.03	41.80	14.00	26.00	125.70	26.50	14.45		
16	59.52	27.50	32.00	33.55	14.00	42.35	38.50	14.00	60.67	92.65	26.00	13.70		
17	57.80	34.10	32.00	28.50	14.00	33.00	33.55	14.00	72.40	77.80	24.00	13.40		
18	56.65	31.00	35.75	25.50	14.00	30.50	30.00	14.00	64.70	67.00	19.85	13.40		
19	58.95	38.50	39.05	21.20	17.60	29.00	29.50	13.10	57.80	59.52	32.50	15.80		
20	60.10	34.10	34.10	20.75	17.15	30.00	29.00	12.50	47.45	57.23	28.50	14.45		
21	53.78	40.70	31.50	20.75	19.85	33.55	27.00	14.90	41.25	65.28	22.10	14.45		
22	51.47	36.85	29.50	20.75	20.75	40.15	25.00	48.60	44.57	52.63	19.85	13.10		
23	49.18	33.00	28.50	20.75	34.10	37.40	22.55	80.30	51.47	45.15	18.95	13.10		
24	47.45	31.00	29.00	21.65	26.00	40.70	22.10	66.43	46.88	41.25	18.05	12.50		
25	44.57	30.00	28.00	21.65	25.00	36.85	22.10	116.05	71.20	38.50	17.15	12.20		
26	42.35	32.50	26.50	21.20	48.60	34.65	30.50	122.90	68.20	36.30	16.70	11.60		
27	42.35	29.50	26.00	22.55	36.30	44.00	34.65	99.15	50.32	34.65	16.25	9.50		
28	41.80	30.50	25.50	27.00	44.57	52.63	30.00	76.60	41.25	32.50	15.80	8.90		
29	41.25	29.00	24.50	31.50	42.35	56.08	30.00	61.25	36.30	31.50	15.80	8.00		
30	40.70	29.50	24.00	34.10	41.80	67.60	37.95	46.88	33.55	34.65		3.50		
31		31.00		27.00	39.05		35.75		31.50	45.72		3.50		
Total	2593.15	973.00	959.30	762.60	717.17	1219.37	1153.91	1076.41	1357.64	2031.57	813.25	430.70	14088.07	CMSDAY
Mean	86.44	31.39	31.98	24.60	23.13	40.65	37.22	35.88	43.79	65.53	28.04	13.89	38.49	CMS
Max	306.40	40.70	39.05	36.30	48.60	67.60	57.23	122.90	72.40	173.30	62.98	22.55	306.40	CMS
Min	40.70	24.50	24.00	20.75	14.00	28.50	22.10	11.90	26.00	31.50	15.80	3.50	3.50	CMS
Runoff	224.05	84.07	82.88	65.89	61.96	105.35	99.70	93.00	117.30	175.53	70.27	37.21	1217.21	MCM

Momentary Peak 332.75 CMS, at 38.50 m. (MSL), at 01.00 Hours, on Apr 1, 2011

Runoff Yield 78.88 Liters/Second/Square KM. Momentary Peak Yield 681.865 Liters/Second/Square KM.

WATER YEAR : 2011

TAPI RIVER BASIN

Khlong Sin Pun at Ban Bang Rup , Surat Thani (X.198)

Lat 08 - 24 - 24 N Long 99 - 15 - 05 E

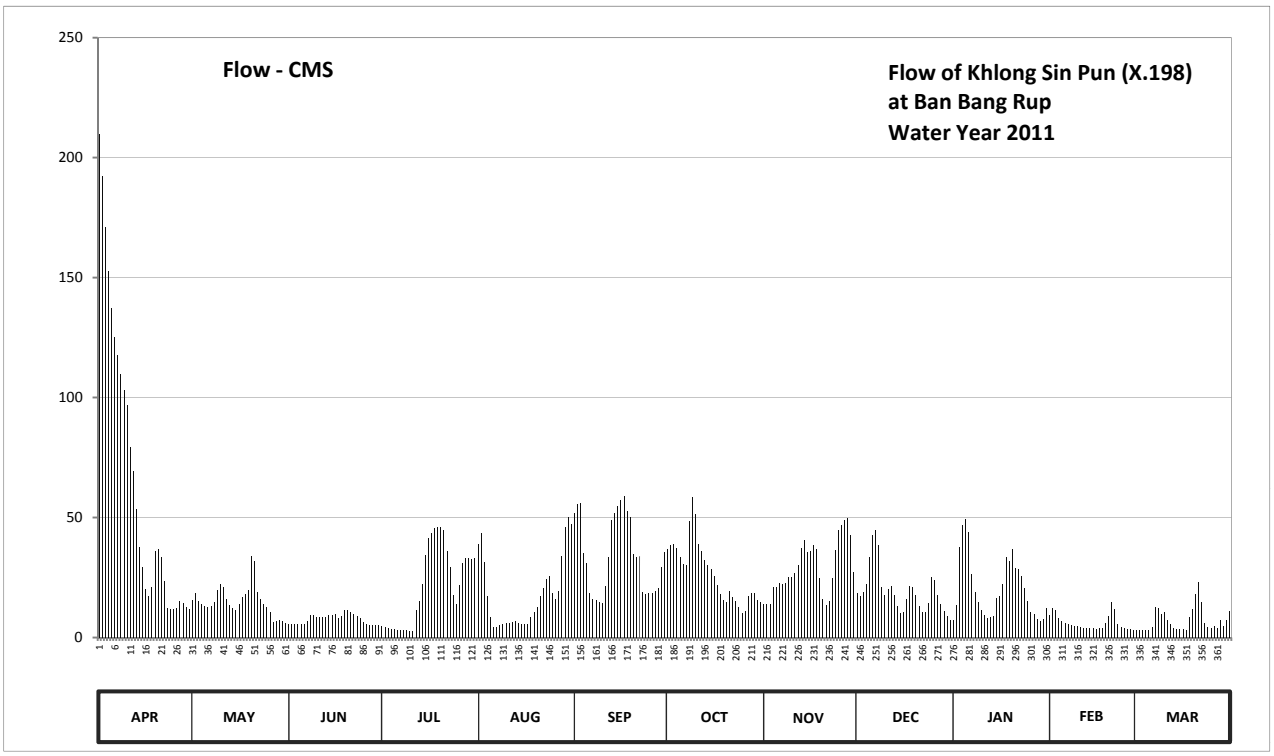
Location : on right bank at Ban Bang Rup.

	Ban Bang Rup	**Amphoe** Phrasaeng	**Changwat** Surat Thani
Drainge Area	866 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank at the footpath of the bridge.	**Elevation**	+19.259 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	2007 to date		
Rating Operation			
Period of Rating	2007 to date		
Rated by Flot	-		
Rated by Current Meter	2007 to date		
Stability of Channel Regimes	Fairly stable because of backwater effect.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 26 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	18.36	12.36	11.20	11.05	13.95	14.57	13.84	12.20	12.63	11.45	11.69	10.75	
2	18.07	12.64	11.20	11.00	14.18	14.73	13.92	12.20	12.52	12.17	12.02	10.74	
3	17.71	12.32	11.20	10.86	13.55	14.75	13.95	12.18	12.65	13.88	11.90	10.74	
4	17.37	12.19	11.20	10.80	12.52	13.76	13.87	12.83	12.92	14.35	11.56	10.73	
5	17.06	12.12	11.20	10.80	11.60	13.51	13.67	12.83	13.67	14.47	11.35	10.71	
6	16.80	12.06	11.20	10.75	11.00	12.64	13.50	12.95	14.14	14.19	11.25	10.99	
7	16.63	12.08	11.39	10.70	11.00	12.42	13.47	12.94	14.23	13.24	11.17	12.07	
8	16.44	12.26	11.70	10.70	11.15	12.35	14.42	12.96	13.93	12.66	11.10	11.99	
9	16.27	12.74	11.68	10.69	11.23	12.28	14.85	13.13	12.83	12.27	11.06	11.74	
10	16.11	12.94	11.60	10.65	11.25	12.25	14.55	13.15	12.54	11.93	11.02	11.81	
11	15.58	12.84	11.60	10.63	11.28	12.85	13.95	13.27	12.75	11.69	10.97	11.44	
12	15.24	12.41	11.60	11.91	11.30	13.67	13.81	13.46	12.86	11.54	10.93	11.18	
13	14.64	12.15	11.60	12.30	11.35	14.45	13.60	13.86	12.55	11.57	10.91	10.92	
14	13.88	11.99	11.70	12.94	11.25	14.58	13.47	14.03	12.10	11.65	10.90	10.80	
15	13.42	11.93	11.70	13.70	11.22	14.70	13.37	13.78	11.78	12.44	10.86	10.77	
16	12.75	12.19	11.73	14.08	11.20	14.80	13.18	13.81	11.83	12.52	10.83	10.76	
17	12.51	12.47	11.53	14.18	11.20	14.86	12.90	13.92	12.40	12.93	10.88	10.74	
18	12.82	12.59	11.65	14.28	11.61	14.62	12.60	13.85	12.85	13.67	10.93	11.61	
19	13.81	12.73	11.90	14.30	11.82	14.50	12.36	13.10	12.84	13.58	11.24	11.97	
20	13.85	13.68	11.90	14.30	12.05	13.74	12.26	12.39	12.55	13.85	11.66	12.59	
21	13.66	13.56	11.82	14.23	12.50	13.66	12.69	12.17	12.08	13.39	12.28	12.99	
22	13.01	12.67	11.73	13.81	12.80	13.68	12.47	12.30	11.82	13.37	11.96	12.27	
23	12.03	12.40	11.64	13.42	13.09	12.66	12.31	13.10	11.83	13.18	11.23	11.25	
24	11.95	12.19	11.56	12.56	13.16	12.60	12.07	13.83	12.24	12.81	10.97	10.94	
25	11.95	12.05	11.33	12.20	12.62	12.62	11.76	14.23	13.13	12.30	10.88	10.91	
26	12.02	11.83	11.23	12.90	12.40	12.64	11.87	14.35	13.05	11.82	10.83	11.04	
27	12.30	11.31	11.13	13.53	12.68	12.68	12.52	14.44	12.56	11.74	10.78	10.93	
28	12.24	11.36	11.12	13.63	13.69	12.81	12.64	14.48	12.19	11.49	10.75	11.42	
29	12.06	11.42	11.11	13.64	14.30	13.41	12.62	14.14	11.88	11.35	10.91	11.08	
30	11.95	11.35	11.10	13.61	14.51	13.77	12.37	13.28	11.64	11.47		11.43	
31		11.27		13.63	14.37		12.29		11.46	12.00		11.88	
Mean	14.42	12.26	11.47	12.51	12.32	13.55	13.13	13.31	12.60	12.61	11.20	11.33	
Max	18.36	13.68	11.90	14.30	14.51	14.86	14.85	14.48	14.23	14.47	12.28	12.99	18.36
Min	11.95	11.27	11.10	10.63	11.00	12.25	11.76	12.17	11.46	11.35	10.75	10.71	10.63

Annual Max Momentary Gage Height	18.51	m. (MSL.) ,	at 01.00 Hours , on Apr 1 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	9.44	m. (MSL)
Left Bank Elevation	18.90	m. (MSL.) ,			
Right Bank Elevation	18.89	m. (MSL.) ,	Drainage Area	866	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	209.60	15.60	5.60	4.78	39.00	51.74	36.80	14.00	18.56	7.40	9.41	3.25		
2	192.20	18.68	5.60	4.50	43.60	55.52	38.40	14.00	17.32	13.73	12.38	3.20		
3	171.16	15.20	5.60	3.80	31.55	56.00	39.00	13.82	18.80	37.60	11.30	3.20		
4	152.84	13.91	5.60	3.50	17.32	35.28	37.40	20.99	22.16	47.00	8.28	3.15		
5	137.14	13.28	5.60	3.50	8.60	30.87	33.66	20.99	33.66	49.54	6.65	3.05		
6	125.00	12.74	5.60	3.25	4.50	18.68	30.70	22.55	42.80	43.80	5.95	4.45		
7	117.52	12.92	6.93	3.00	4.50	16.22	30.19	22.42	44.60	26.60	5.44	12.83		
8	109.64	14.60	9.50	3.00	5.32	15.50	48.44	22.68	38.60	18.92	5.05	12.11		
9	102.93	19.88	9.32	2.95	5.81	14.80	58.50	25.02	20.99	14.70	4.83	9.86		
10	96.96	22.42	8.60	2.75	5.95	14.50	51.30	25.30	17.54	11.57	4.61	10.49		
11	79.38	21.12	8.60	2.65	6.16	21.25	39.00	27.05	20.00	9.41	4.35	7.32		
12	69.16	16.11	8.60	11.39	6.30	33.66	36.20	30.02	21.38	8.12	4.15	5.49		
13	53.36	13.55	8.60	15.00	6.65	49.10	32.40	37.20	17.65	8.36	4.05	4.10		
14	37.60	12.11	9.50	22.42	5.95	51.96	30.19	40.60	13.10	9.05	4.00	3.50		
15	29.34	11.57	9.50	34.20	5.74	54.80	28.55	35.64	10.22	16.44	3.80	3.35		
16	20.00	13.91	9.77	41.60	5.60	57.20	25.72	36.20	10.67	17.32	3.65	3.30		
17	17.21	16.77	8.04	43.60	5.60	58.76	21.90	38.40	16.00	22.29	3.90	3.20		
18	20.86	18.09	9.05	45.60	8.69	52.88	18.20	37.00	21.25	33.66	4.15	8.69		
19	36.20	19.76	11.30	46.00	10.58	50.20	15.60	24.60	21.12	32.06	5.88	11.93		
20	37.00	33.84	11.30	46.00	12.65	34.92	14.60	15.90	17.65	37.00	9.14	18.09		
21	33.48	31.72	10.58	44.60	17.10	33.48	19.28	13.73	12.92	28.85	14.80	23.07		
22	23.34	19.04	9.77	36.20	20.60	33.84	16.77	15.00	10.58	28.55	11.84	14.70		
23	12.47	16.00	8.96	29.34	24.46	18.92	15.10	24.60	10.67	25.72	5.81	5.95		
24	11.75	13.91	8.28	17.76	25.44	18.20	12.83	36.60	14.40	20.73	4.35	4.20		
25	11.75	12.65	6.51	14.00	18.44	18.44	10.04	44.60	25.02	15.00	3.90	4.05		
26	12.38	10.67	5.81	21.90	16.00	18.68	11.03	47.00	23.90	10.58	3.65	4.72		
27	15.00	6.37	5.22	31.21	19.16	19.16	17.32	48.88	17.76	9.86	3.40	4.15		
28	14.40	6.72	5.16	32.94	34.02	20.73	18.68	49.76	13.91	7.72	3.25	7.16		
29	12.74	7.16	5.10	33.12	46.00	29.17	18.44	42.80	11.12	6.65	4.05	4.94		
30	11.75	6.65	5.05	32.58	50.42	35.46	15.70	27.20	8.96	7.56		7.24		
31		6.09		32.94	47.40		14.90		7.48	12.20		11.12		
Total	1974.16	473.04	232.65	670.08	559.11	1019.92	836.84	874.55	600.79	637.99	176.02	225.86	8281.01	CMSDAY
Mean	65.81	15.26	7.76	21.62	18.04	34.00	26.99	29.15	19.38	20.58	6.07	7.29	22.63	CMS
Max	209.60	33.84	11.30	46.00	50.42	58.76	58.50	49.76	44.60	49.54	14.80	23.07	209.60	CMS
Min	11.75	6.09	5.05	2.65	4.50	14.50	10.04	13.73	7.48	6.65	3.25	3.05	2.65	CMS
Runoff	170.57	40.87	20.10	57.90	48.31	88.12	72.30	75.56	51.91	55.12	15.21	19.51	715.48	MCM

Momentary Peak 218.60 CMS, at 18.51 m. (MSL), at 01.00 Hours, on Apr 1, 2011

Runoff Yield 26.13 Liters/Second/Square KM. Momentary Peak Yield 252.425 Liters/Second/Square KM.

WATER YEAR : 2011

TAPI RIVER BASIN

Khlong Chandee at Ban Pak Min , Nakhon Si Thammarat (X.257)

Lat 08 - 33 - 34 N Long 99 - 32 - 11 E

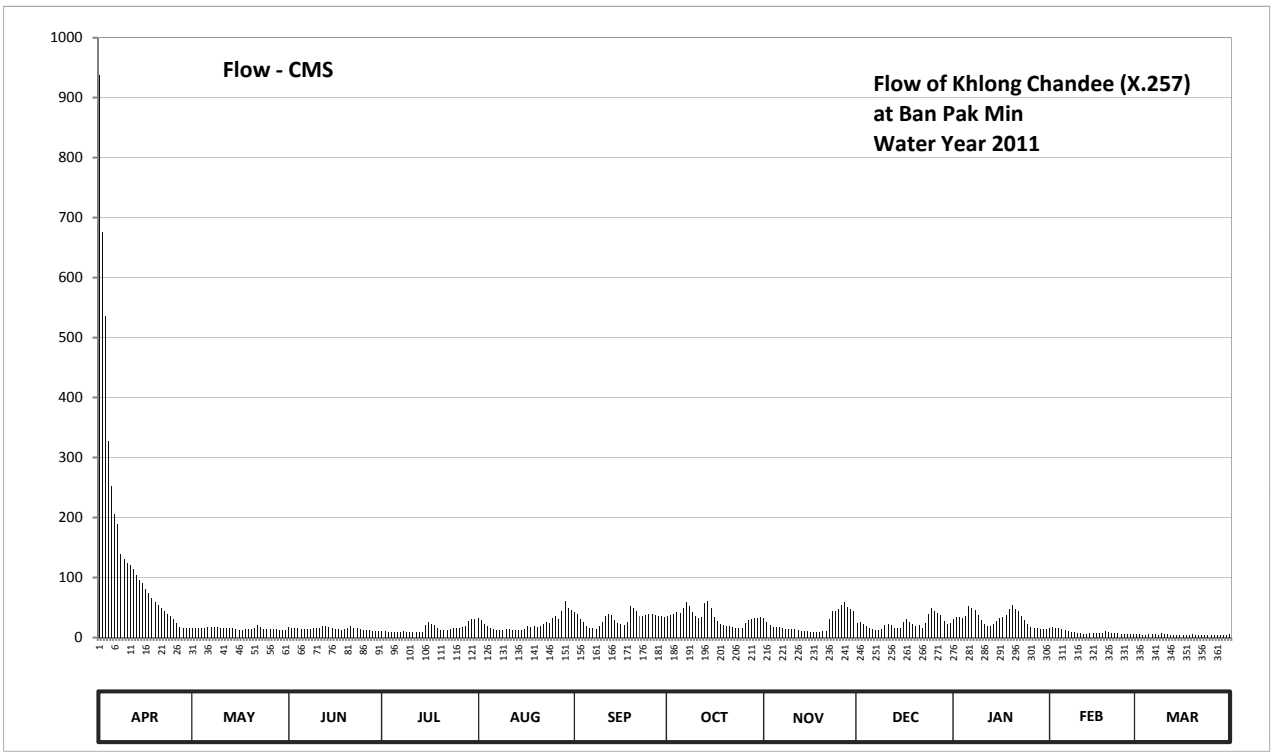
Location : on left bank at Ban Pak Min.

	Ban Pak Min	**Amphoe** Chawang	**Changwat** Nakhon Si Thammarat
Drainge Area	510 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank at the footpath of the bridge.		**Elevation** +29.438 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	2007 to date		
Rating Operation			
Period of Rating	2007 to date		
Rated by Flot	-		
Rated by Current Meter	2007 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 27 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	28.72	23.88	23.98	23.55	24.75	25.09	24.84	24.73	24.37	24.66	23.93	23.10	
2	28.36	23.88	23.96	23.54	24.60	24.98	24.89	24.40	24.42	24.83	23.98	23.09	
3	28.12	23.90	23.90	23.52	24.30	24.70	24.96	24.18	24.26	24.83	23.92	23.07	
4	27.72	23.92	23.88	23.50	24.07	24.40	25.08	24.02	24.12	24.72	23.87	23.06	
5	27.53	23.97	23.86	23.48	23.92	24.09	25.00	24.00	23.92	24.86	23.77	23.10	
6	27.36	24.00	23.84	23.46	23.82	23.96	25.32	24.05	23.77	25.41	23.71	23.14	
7	27.27	24.06	23.82	23.44	23.73	23.90	25.56	23.94	23.67	25.30	23.63	23.09	
8	26.92	24.02	23.80	23.54	23.70	23.81	25.39	23.85	23.74	25.20	23.52	23.08	
9	26.84	23.98	23.88	23.50	23.68	24.07	25.10	23.80	23.83	24.91	23.45	23.30	
10	26.78	23.93	23.89	23.44	23.79	24.47	24.86	23.80	24.20	24.62	23.36	23.21	
11	26.74	23.90	23.96	23.46	23.76	24.84	24.74	23.78	24.26	24.26	23.26	23.13	
12	26.66	23.88	24.14	23.48	23.74	24.96	24.82	23.69	24.17	24.08	23.15	23.08	
13	26.51	23.90	24.12	23.46	23.72	24.90	25.54	23.62	23.97	24.08	23.10	23.05	
14	26.39	23.91	24.02	23.45	23.70	24.60	25.62	23.60	23.87	24.24	23.40	23.02	
15	26.30	23.84	23.94	24.16	23.70	24.36	25.32	23.56	23.94	24.52	23.39	23.01	
16	26.12	23.70	23.86	24.40	23.84	24.26	24.81	23.52	24.44	24.73	23.37	22.99	
17	25.94	23.74	23.76	24.24	24.08	24.17	24.56	23.52	24.66	24.83	23.35	22.97	
18	25.73	23.79	23.70	24.16	24.06	24.41	24.26	23.52	24.40	24.93	23.32	23.01	
19	25.58	23.77	23.77	23.96	24.07	25.39	24.16	23.52	24.26	25.27	23.58	23.10	
20	25.45	23.76	23.90	23.74	24.06	25.28	24.14	23.54	24.14	25.44	23.48	23.04	
21	25.30	23.89	24.07	23.70	24.10	25.16	24.07	23.60	24.15	25.26	23.35	23.06	
22	25.14	24.22	23.95	23.68	24.24	24.86	23.98	24.68	23.96	25.12	23.29	23.01	
23	24.95	24.03	23.88	23.76	24.40	24.85	23.92	25.16	24.32	24.88	23.26	22.97	
24	24.84	23.84	23.82	23.91	24.35	24.92	23.90	25.16	24.98	24.60	23.23	22.94	
25	24.66	23.80	23.74	23.90	24.74	24.95	23.92	25.22	25.30	24.30	23.21	22.94	
26	24.39	23.78	23.70	23.94	24.87	24.98	24.37	25.44	25.16	24.04	23.18	22.99	
27	24.01	23.76	23.65	24.00	24.70	24.89	24.57	25.58	25.01	23.91	23.15	23.01	
28	23.92	23.75	23.59	24.14	25.13	24.84	24.65	25.38	24.93	23.89	23.14	22.99	
29	23.91	23.74	23.57	24.49	25.62	24.85	24.73	25.25	24.48	23.80	23.13	22.96	
30	23.90	23.72	23.56	24.66	25.31	24.77	24.75	25.12	24.25	23.84		22.99	
31		23.71		24.64	25.18		24.81		24.33	23.83		23.23	
Mean	26.07	23.87	23.85	23.82	24.25	24.66	24.73	24.24	24.30	24.62	23.43	23.06	
Max	28.72	24.22	24.14	24.66	25.62	25.39	25.62	25.58	25.30	25.44	23.98	23.30	28.72
Min	23.90	23.70	23.56	23.44	23.68	23.81	23.90	23.52	23.67	23.80	23.10	22.94	22.94

Annual Max Momentary Gage Height	28.86	m. (MSL.) ,	at 06.00 Hours , on Apr 1 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	21.38	m. (MSL)
Left Bank Elevation	29.32	m. (MSL.) ,			
Right Bank Elevation	29.33	m. (MSL.) ,	Drainage Area	510	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	937.60	15.20	16.70	10.25	32.75	42.70	35.20	32.25	24.40	30.50	15.95	5.00		
2	676.00	15.20	16.40	10.10	29.00	39.40	36.70	25.00	25.40	34.90	16.70	4.90		
3	535.20	15.50	15.50	9.80	23.00	31.50	38.80	20.60	22.20	34.90	15.80	4.70		
4	327.20	15.80	15.20	9.50	18.40	25.00	42.40	17.40	19.40	32.00	15.05	4.60		
5	251.70	16.55	14.90	9.20	15.80	18.80	40.00	17.00	15.80	35.80	13.55	5.00		
6	206.40	17.00	14.60	8.90	14.30	16.40	49.60	18.00	13.55	52.40	12.65	5.40		
7	189.30	18.20	14.30	8.60	12.95	15.50	58.40	16.10	12.05	49.00	11.45	4.90		
8	139.20	17.40	14.00	10.10	12.50	14.15	51.70	14.75	13.10	46.00	9.80	4.80		
9	130.40	16.70	15.20	9.50	12.20	18.40	43.00	14.00	14.45	37.30	8.75	7.00		
10	124.40	15.95	15.35	8.60	13.85	26.40	35.80	14.00	21.00	29.50	7.60	6.10		
11	121.20	15.50	16.40	8.90	13.40	35.20	32.50	13.70	22.20	22.20	6.60	5.30		
12	114.80	15.20	19.80	9.20	13.10	38.80	34.60	12.35	20.40	18.60	5.50	4.80		
13	103.70	15.50	19.40	8.90	12.80	37.00	57.60	11.30	16.55	18.60	5.00	4.50		
14	95.40	15.65	17.40	8.75	12.50	29.00	60.80	11.00	15.05	21.80	8.00	4.20		
15	90.00	14.60	16.10	20.20	12.50	24.20	49.60	10.40	16.10	27.40	7.90	4.10		
16	80.80	12.50	14.90	25.00	14.60	22.20	34.30	9.80	25.80	32.25	7.70	3.90		
17	73.60	13.10	13.40	21.80	18.60	20.40	28.20	9.80	30.50	34.90	7.50	3.70		
18	65.20	13.85	12.50	20.20	18.20	25.20	22.20	9.80	25.00	37.90	7.20	4.10		
19	59.20	13.55	13.55	16.40	18.40	51.70	20.20	9.80	22.20	48.10	10.70	5.00		
20	54.00	13.40	15.50	13.10	18.20	48.40	19.80	10.10	19.80	53.60	9.20	4.40		
21	49.00	15.35	18.40	12.50	19.00	44.80	18.40	11.00	20.00	47.80	7.50	4.60		
22	44.20	21.40	16.25	12.20	21.80	35.80	16.70	31.00	16.40	43.60	6.90	4.10		
23	38.50	17.60	15.20	13.40	25.00	35.50	15.80	44.80	23.40	36.40	6.60	3.70		
24	35.20	14.60	14.30	15.65	24.00	37.60	15.50	44.80	39.40	29.00	6.30	3.40		
25	30.50	14.00	13.10	15.50	32.50	38.50	15.80	46.60	49.00	23.00	6.10	3.40		
26	24.80	13.70	12.50	16.10	36.10	39.40	24.40	53.60	44.80	17.80	5.80	3.90		
27	17.20	13.40	11.75	17.00	31.50	36.70	28.40	59.20	40.30	15.65	5.50	4.10		
28	15.80	13.25	10.85	19.80	43.90	35.20	30.25	51.40	37.90	15.35	5.40	3.90		
29	15.65	13.10	10.55	26.80	60.80	35.50	32.25	47.50	26.60	14.00	5.30	3.60		
30	15.50	12.80	10.40	30.50	49.30	33.25	32.75	43.60	22.00	14.60		3.90		
31		12.65		30.00	45.40		34.30		23.60	14.45		6.30		
Total	4661.65	468.20	444.40	456.45	726.35	952.60	1055.95	730.65	738.35	969.30	258.00	141.30	11603.20	CMSDAY
Mean	155.39	15.10	14.81	14.72	23.43	31.75	34.06	24.35	23.82	31.27	8.90	4.56	31.70	CMS
Max	937.60	21.40	19.80	30.50	60.80	51.70	60.80	59.20	49.00	53.60	16.70	7.00	937.60	CMS
Min	15.50	12.50	10.40	8.60	12.20	14.15	15.50	9.80	12.05	14.00	5.00	3.40	3.40	CMS
Runoff	402.77	40.45	38.40	39.44	62.76	82.31	91.23	63.13	63.79	83.75	22.29	12.21	1002.52	MCM

Momentary Peak 1048.00 CMS. at 28.86 m. (MSL.) at 06.00 Hours , on Apr 1 , 2011

Runoff Yield 62.16 Liters/Second/Square KM. Momentary Peak Yield 2054.902 Liters/Second/Square KM.

WATER YEAR : 2011

TAPI RIVER BASIN

Khlong Trom at Ban Trom , Surat Thani (X.259)

Lat 08 - 32 - 24 N Long 99 - 05 - 58 E

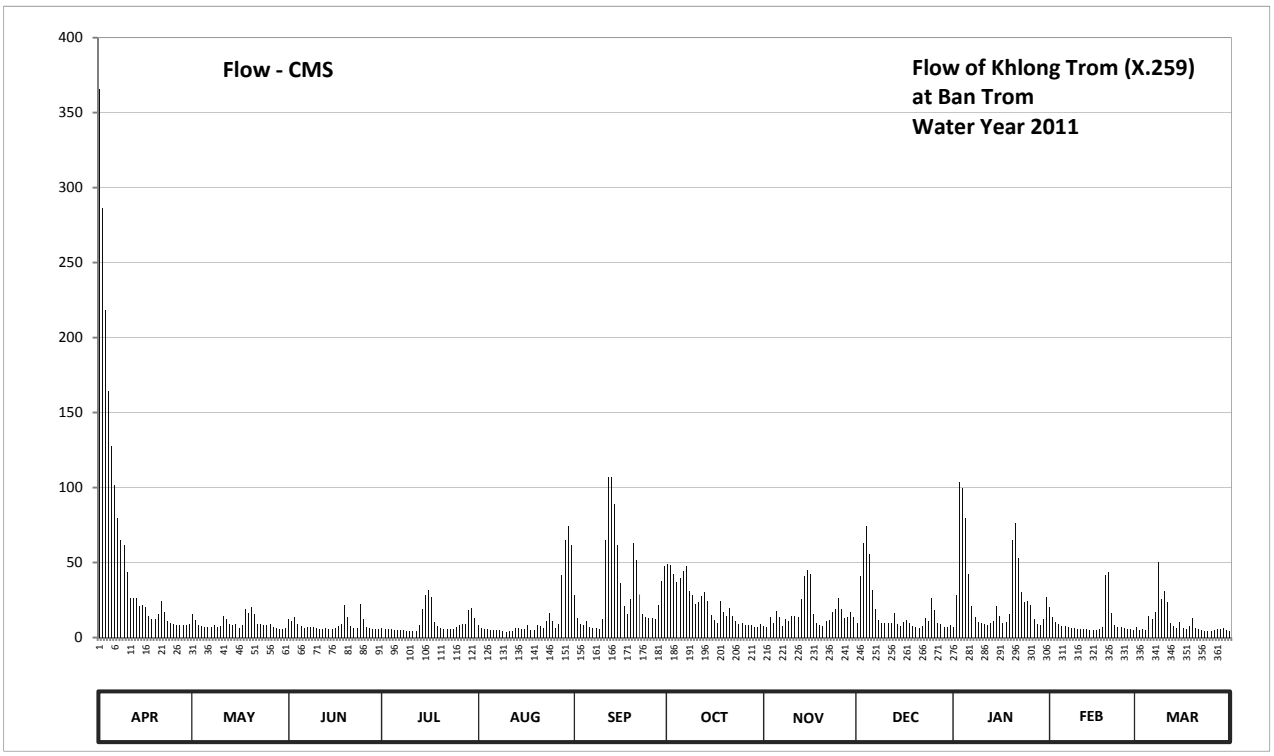
Location : on right bank at Ban Trom.

	Ban Trom	**Amphoe** Chai Buri	**Changwat** Surat Thani
Drainge Area	818 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank downstream at the footpath	**Elevation**	+62.353 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	2007 to date		
Rating Operation			
Period of Rating	2007 to date		
Rated by Flot	-		
Rated by Current Meter	2007 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	Overbank flow starts at elevation +62.040 m.(MSL.), records are channel flow only.		
General Description	Records fair. Stage-discharge relation defined by 25 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	62.62	54.98	54.74	54.14	54.35	55.95	57.05	54.29	54.53	54.23	55.34	54.25	
2	61.77	54.72	54.66	54.02	54.14	54.78	57.01	54.23	56.66	55.97	54.84	54.00	
3	60.93	54.40	54.82	54.05	54.08	54.42	56.72	54.87	57.66	58.91	54.56	54.09	
4	60.14	54.28	54.47	54.04	54.04	54.40	56.46	54.50	58.08	58.82	54.41	53.96	
5	59.46	54.25	54.30	54.00	54.00	54.64	56.58	55.14	57.35	58.24	54.31	54.90	
6	58.87	54.22	54.17	53.99	53.98	54.24	56.81	54.87	56.17	56.72	54.27	54.74	
7	58.24	54.21	54.22	53.96	53.95	54.14	56.97	54.31	55.28	55.43	54.20	55.09	
8	57.74	54.35	54.21	53.94	53.95	54.13	56.14	54.77	54.72	54.84	54.16	57.12	
9	57.61	54.24	54.21	53.92	53.88	54.03	55.97	54.67	54.53	54.61	54.13	55.75	
10	56.79	54.32	54.12	53.91	53.81	54.76	55.50	54.88	54.48	54.49	54.08	56.12	
11	55.83	54.89	54.09	53.90	53.87	57.75	55.63	54.91	54.53	54.42	54.05	55.60	
12	55.82	54.76	54.10	53.92	53.90	59.00	55.89	54.82	54.53	54.40	54.02	54.54	
13	55.81	54.43	54.12	54.35	54.16	59.00	56.11	55.78	55.07	54.48	54.01	54.29	
14	55.41	54.40	54.05	55.24	54.12	58.51	55.67	56.64	54.46	54.63	53.99	54.14	
15	55.45	54.44	54.01	55.96	54.01	57.62	54.97	56.86	54.30	55.42	53.97	54.57	
16	55.35	54.17	54.11	56.16	54.06	56.41	54.68	56.73	54.56	54.92	53.96	54.13	
17	54.92	54.35	54.27	55.88	54.36	55.40	54.54	54.99	54.68	54.53	54.05	54.05	
18	54.74	55.28	54.46	54.61	53.94	55.00	55.65	54.55	54.49	54.60	54.25	54.28	
19	54.74	55.05	55.44	54.27	53.99	55.77	55.10	54.35	54.27	54.99	56.69	54.79	
20	54.98	55.37	54.82	54.14	54.39	57.65	54.88	54.31	54.20	57.73	56.79	54.17	
21	55.65	55.02	54.27	54.08	54.28	57.18	55.32	54.63	54.15	58.15	55.08	54.05	
22	55.10	54.41	54.11	54.04	54.16	55.98	54.90	54.71	54.32	57.25	54.40	53.96	
23	54.64	54.47	54.12	54.01	54.62	55.01	54.63	55.12	54.78	56.10	54.21	53.92	
24	54.54	54.36	55.50	54.10	55.06	54.84	54.44	55.25	54.64	55.64	54.20	53.89	
25	54.45	54.33	54.76	54.20	54.66	54.79	54.51	55.81	55.80	55.67	54.16	53.87	
26	54.36	54.44	54.24	54.33	54.11	54.78	54.37	55.27	55.22	55.45	54.06	53.98	
27	54.36	54.20	54.11	54.46	54.45	54.76	54.34	54.78	54.53	54.77	54.01	54.06	
28	54.38	54.11	54.06	54.47	56.68	55.49	54.33	54.85	54.47	54.46	53.98	54.04	
29	54.39	54.06	54.05	55.19	57.75	56.49	54.24	55.09	54.24	54.35	54.21	54.13	
30	54.44	54.04	54.07	55.33	58.07	56.98	54.21	54.87	54.25	54.74		53.94	
31		54.17		54.80	57.61		54.42		54.35	55.87		53.88	
Mean	56.45	54.47	54.36	54.43	54.59	55.80	55.42	55.03	55.01	55.64	54.43	54.46	
Max	62.62	55.37	55.50	56.16	58.07	59.00	57.05	56.86	58.08	58.91	56.79	57.12	62.62
Min	54.36	54.04	54.01	56.90	53.81	54.03	54.21	54.23	54.15	54.23	53.96	53.87	53.81

Annual Max Momentary Gage Height	62.95	m. (MSL.) ,	at 01.00 Hours , on Apr 1 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	53.06	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, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	365.95	15.34	12.22	6.32	8.15	28.25	49.00	7.61	9.77	7.07	20.02	7.25		
2	286.38	11.96	11.18	5.36	6.32	12.74	48.20	7.07	41.20	28.55	13.52	5.20		
3	218.25	8.60	13.26	5.60	5.84	8.78	42.40	13.91	63.00	103.40	10.04	5.92		
4	164.40	7.52	9.23	5.52	5.52	8.60	37.20	9.50	74.40	99.80	8.69	4.88		
5	127.35	7.25	7.70	5.20	5.20	10.92	39.60	17.42	55.37	79.40	7.79	14.30		
6	101.80	6.98	6.56	5.12	5.04	7.16	44.20	13.91	31.55	42.40	7.43	12.22		
7	79.40	6.89	6.98	4.88	4.80	6.32	47.40	7.79	19.24	21.17	6.80	16.77		
8	65.00	8.15	6.89	4.72	4.80	6.24	31.10	12.61	11.96	13.52	6.48	50.40		
9	61.75	7.16	6.89	4.56	4.24	5.44	28.55	11.31	9.77	10.53	6.24	25.33		
10	43.80	7.88	6.16	4.48	3.68	12.48	22.05	14.04	9.32	9.41	5.84	30.80		
11	26.45	14.17	5.92	4.40	4.16	65.25	23.71	14.43	9.77	8.78	5.60	23.30		
12	26.30	12.48	6.00	4.56	4.40	107.00	27.35	13.26	9.77	8.60	5.36	9.86		
13	26.15	8.87	6.16	8.15	6.48	107.00	30.65	25.73	16.51	9.32	5.28	7.61		
14	20.92	8.60	5.60	18.72	6.16	88.85	24.24	40.80	9.14	10.79	5.12	6.32		
15	21.42	8.96	5.28	28.40	5.28	62.00	15.21	45.20	7.70	21.05	4.96	10.13		
16	20.15	6.56	6.08	31.40	5.68	36.20	11.44	42.60	10.04	14.56	4.88	6.24		
17	14.56	8.15	7.43	27.20	8.24	20.80	9.86	15.47	11.44	9.77	5.60	5.60		
18	12.22	19.24	9.14	10.53	4.72	15.60	23.98	9.95	9.41	10.40	7.25	7.52		
19	12.22	16.25	21.30	7.43	5.12	25.60	16.90	8.15	7.43	15.47	41.80	12.87		
20	15.34	20.41	13.26	6.32	8.51	62.75	14.04	7.79	6.80	64.75	43.80	6.56		
21	23.98	15.86	7.43	5.84	7.52	51.60	19.76	10.79	6.40	76.50	16.64	5.60		
22	16.90	8.69	6.08	5.52	6.48	28.70	14.30	11.83	7.88	53.12	8.60	4.88		
23	10.92	9.23	6.16	5.28	10.66	15.73	10.79	17.16	12.74	30.50	6.89	4.56		
24	9.86	8.24	22.05	6.00	16.38	13.52	8.96	18.85	10.92	23.84	6.80	4.32		
25	9.05	7.97	12.48	6.80	11.18	12.87	9.59	26.15	26.00	24.24	6.48	4.16		
26	8.24	8.96	7.16	7.97	6.08	12.74	8.33	19.11	18.46	21.42	5.68	5.04		
27	8.24	6.80	6.08	9.14	9.05	12.48	8.06	12.74	9.77	12.61	5.28	5.68		
28	8.42	6.08	5.68	9.23	41.60	21.93	7.97	13.65	9.23	9.14	5.04	5.52		
29	8.51	5.68	5.60	18.07	65.25	37.80	7.16	16.77	7.16	8.15	6.89	6.24		
30	8.96	5.52	5.76	19.89	74.10	47.60	6.89	13.91	7.25	12.22		4.72		
31		6.56		13.00	61.75		8.78		8.15	27.05		4.24		
Total	1822.89	301.01	257.72	305.61	422.39	952.95	697.67	499.51	547.55	887.53	290.80	324.04	7309.67	CMSDAY
Mean	60.76	9.71	8.59	9.86	13.63	31.76	22.51	16.65	17.66	28.63	10.03	10.45	19.97	CMS
Max	365.95	20.41	22.05	31.40	74.10	107.00	49.00	45.20	74.40	103.40	43.80	50.40	365.95	CMS
Min	8.24	5.52	5.28	4.40	3.68	5.44	6.89	7.07	6.40	7.07	4.88	4.16	3.68	CMS
Runoff	157.50	26.01	22.27	26.41	36.49	82.34	60.28	43.16	47.31	76.68	25.13	28.00	631.56	MCM

Momentary Peak 398.88 CMS. at 62.95 m. (MSL.) at 01.00 Hours , on Apr 1 , 2011

Runoff Yield 24.42 Liters/Second/Square KM. Momentary Peak Yield 487.628 Liters/Second/Square KM.

WATER YEAR : 2011

TAPI RIVER BASIN

Lower Khlong I - Pan at Ban Arpart , Surat Thani (X.260)

Lat 08 - 32 - 28 N Long 99 - 13 - 25 E

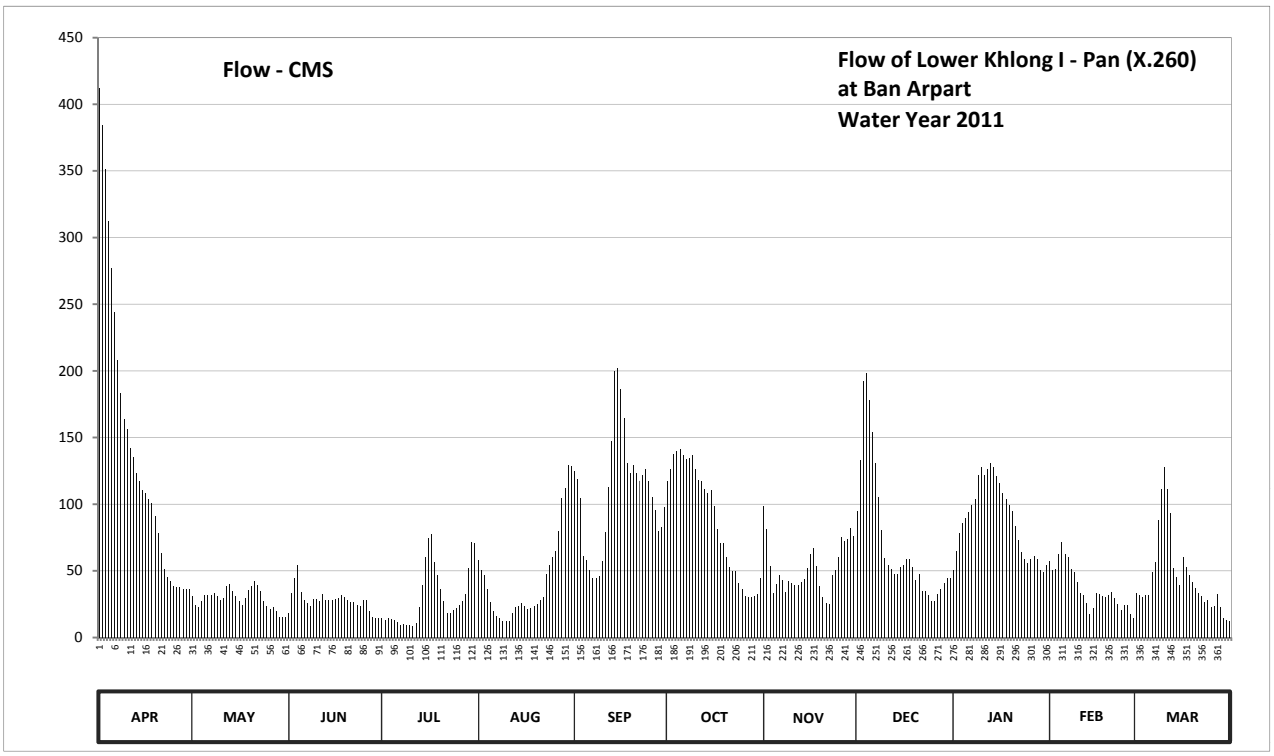
Location : on left bank at Ban Arpart.

	Ban Arpart	**Amphoe** Phrasaeng	**Changwat** Surat Thani
Drainge Area	2,076 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the top staff gage.		**Elevation** +13.658 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	2007 to date		
Rating Operation			
Period of Rating	2007 to date		
Rated by Flot	-		
Rated by Current Meter	2007 to date		
Stability of Channel Regimes	Fairly stable because of backwater effect.		
Overbank Flow Conditions	Overbank flow starts at elevation +13.600 m.(MSL.), records are channel flow only.		
General Description	Records fair. Stage-discharge relation defined by 26 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	14.68	7.75	7.00	6.65	8.74	10.29	10.15	9.74	9.67	8.53	8.73	7.85	
2	14.31	7.36	7.86	6.56	8.52	10.17	10.33	9.35	10.46	8.94	8.53	7.78	
3	13.87	7.30	8.29	6.65	8.40	9.88	10.55	8.61	11.52	9.28	8.55	7.73	
4	13.35	7.57	8.63	6.62	7.97	8.83	10.60	7.87	11.62	9.46	8.87	7.80	
5	12.85	7.80	7.88	6.50	7.52	8.75	10.62	8.13	11.28	9.54	9.12	7.80	
6	12.34	7.80	7.60	6.39	7.11	8.51	10.54	8.40	10.87	9.64	8.87	8.47	
7	11.79	7.79	7.45	6.16	6.85	8.30	10.48	8.24	10.41	9.76	8.80	8.70	
8	11.37	7.84	7.33	6.22	6.65	8.30	10.49	7.88	9.90	9.87	8.55	9.52	
9	11.05	7.77	7.63	6.12	6.46	8.36	10.53	8.20	9.34	10.23	8.46	10.02	
10	10.91	7.59	7.64	6.15	6.46	8.73	10.33	8.14	8.79	10.36	8.17	10.35	
11	10.64	7.68	7.58	6.11	6.44	9.31	10.16	8.10	8.63	10.23	7.86	10.02	
12	10.50	8.07	7.82	6.30	7.00	10.06	10.15	8.08	8.55	10.32	7.78	9.63	
13	10.27	8.12	7.62	7.27	7.28	10.75	10.02	8.17	8.41	10.42	7.48	8.57	
14	10.15	7.91	7.59	8.10	7.32	11.65	9.97	8.28	8.42	10.36	6.93	8.34	
15	10.01	7.74	7.62	8.80	7.45	11.68	10.01	8.57	8.60	10.22	7.24	8.10	
16	9.96	7.54	7.66	9.19	7.32	11.42	9.74	8.87	8.64	10.12	7.85	8.82	
17	9.86	7.37	7.67	9.27	7.19	11.06	9.35	9.01	8.77	9.97	7.83	8.59	
18	9.79	7.67	7.79	8.71	7.25	10.41	9.10	8.62	8.77	9.87	7.75	8.38	
19	9.58	7.95	7.73	8.40	7.32	10.27	9.10	8.06	8.60	9.76	7.73	8.17	
20	9.28	8.06	7.59	7.97	7.41	10.38	8.80	7.70	8.25	9.66	7.79	8.00	
21	8.89	8.21	7.52	7.54	7.60	10.27	8.60	7.46	8.43	9.42	7.89	7.86	
22	8.54	8.11	7.50	7.00	7.72	10.15	8.50	7.40	7.91	9.15	7.68	7.77	
23	8.33	7.92	7.37	6.98	8.42	10.24	8.50	8.39	7.92	8.92	7.42	7.52	
24	8.20	7.57	7.34	7.14	8.65	10.33	8.15	8.53	7.79	8.77	7.12	7.62	
25	8.06	7.33	7.62	7.24	8.81	10.14	7.97	8.80	7.57	8.68	7.37	7.30	
26	8.04	7.18	7.60	7.38	8.94	9.90	7.77	9.20	7.56	8.76	7.39	7.31	
27	8.04	7.26	7.07	7.56	9.33	9.68	7.70	9.14	7.83	8.84	6.92	7.83	
28	7.99	7.10	6.73	7.82	9.88	9.32	7.72	9.17	7.98	8.76	6.66	7.26	
29	7.99	6.79	6.68	8.58	10.04	9.39	7.76	9.37	8.15	8.51	6.59	6.68	
30	7.98	6.77	6.68	9.12	10.38	9.73	7.83	9.23	8.29	8.48		6.50	
31		6.76		9.10	10.37		8.30		8.31	8.65		6.46	
Mean	10.29	7.60	7.54	7.41	7.96	9.88	9.35	8.49	8.94	9.47	7.86	8.15	
Max	14.68	8.21	8.63	9.27	10.38	11.68	10.62	9.74	11.62	10.42	9.12	10.35	14.68
Min	7.98	6.76	6.68	6.11	6.44	8.30	7.70	7.40	7.56	8.48	6.59	6.46	6.11

Annual Max Momentary Gage Height	14.83	m. (MSL.) ,	at 01.00 Hours , on Apr 1 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	3.91	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, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	412.40	31.00	18.40	14.30	57.90	124.50	117.50	98.30	95.15	50.90	57.55	33.25		
2	384.25	24.16	33.50	13.40	50.60	118.50	126.50	81.00	133.00	64.90	50.90	31.60		
3	351.25	23.20	44.25	14.30	47.00	104.60	137.50	53.35	192.20	78.20	51.50	30.60		
4	312.25	27.52	54.05	14.00	36.25	61.05	140.00	33.75	198.20	85.70	62.45	32.00		
5	277.25	32.00	34.00	12.80	26.72	58.25	141.00	40.25	177.80	89.30	71.80	32.00		
6	244.10	32.00	28.00	11.70	20.16	50.30	137.00	47.00	153.85	93.80	62.45	49.10		
7	208.40	31.80	25.60	9.40	16.45	44.50	134.00	43.00	130.50	99.20	60.00	56.50		
8	183.20	33.00	23.68	10.00	14.30	44.50	134.50	34.00	105.50	104.15	51.50	88.40		
9	164.00	31.40	28.60	9.00	12.40	46.00	136.50	42.00	80.60	121.50	48.80	111.00		
10	156.05	27.84	28.80	9.30	12.40	57.55	126.50	40.50	59.65	128.00	41.25	127.50		
11	142.00	29.60	27.68	8.90	12.20	79.40	118.00	39.50	54.05	121.50	33.50	111.00		
12	135.00	38.75	32.50	10.80	18.40	113.00	117.50	39.00	51.50	126.00	31.60	93.35		
13	123.50	40.00	28.40	22.72	22.88	147.50	111.00	41.25	47.30	131.00	26.08	52.10		
14	117.50	34.75	27.84	39.50	23.52	200.00	108.65	44.00	47.60	128.00	17.49	45.50		
15	110.50	30.80	28.40	60.00	25.60	201.80	110.50	52.10	53.00	121.00	22.24	39.50		
16	108.20	27.04	29.20	74.60	23.52	186.20	98.30	62.45	54.40	116.00	33.25	60.70		
17	103.70	24.32	29.40	77.80	21.44	164.60	81.00	67.40	58.95	108.65	32.75	52.70		
18	100.55	29.40	31.80	56.85	22.40	130.50	71.00	53.70	58.95	104.15	31.00	46.50		
19	91.10	35.75	30.60	47.00	23.52	123.50	71.00	38.50	53.00	99.20	30.60	41.25		
20	78.20	38.50	27.84	36.25	24.96	129.00	60.00	30.00	43.25	94.70	31.80	37.00		
21	63.15	42.25	26.72	27.04	28.00	123.50	53.00	25.76	47.90	83.90	34.25	33.50		
22	51.20	39.75	26.40	18.40	30.40	117.50	50.00	24.80	34.75	73.00	29.60	31.40		
23	45.25	35.00	24.32	18.14	47.60	122.00	50.00	46.75	35.00	64.20	25.12	26.72		
24	42.00	27.52	23.84	20.64	54.75	126.50	40.75	50.90	31.80	58.95	20.32	28.40		
25	38.50	23.68	28.40	22.24	60.35	117.00	36.25	60.00	27.52	55.80	24.32	23.20		
26	38.00	21.28	28.00	24.48	64.90	105.50	31.40	75.00	27.36	58.60	24.64	23.36		
27	38.00	22.56	19.52	27.36	80.20	95.60	30.00	72.60	32.75	61.40	17.36	32.75		
28	36.75	20.00	15.10	32.50	104.60	79.80	30.40	73.80	36.50	58.60	14.40	22.56		
29	36.75	15.70	14.60	52.40	112.00	82.60	31.20	81.80	40.75	50.30	13.70	14.60		
30	36.50	15.50	14.60	71.80	129.00	97.85	32.75	76.20	44.25	49.40		12.80		
31		15.40		71.00	128.50		44.50		44.75	54.75		12.40		
Total	4229.50	901.47	834.04	938.62	1352.92	3253.10	2708.20	1568.66	2251.78	2734.75	1052.22	1433.24	23258.50	CMSDAY
Mean	140.98	29.08	27.80	30.28	43.64	108.44	87.36	52.29	72.64	88.22	36.28	46.23	63.55	CMS
Max	412.40	42.25	54.05	77.80	129.00	201.80	141.00	98.30	198.20	131.00	71.80	127.50	412.40	CMS
Min	36.50	15.40	14.60	8.90	12.20	44.50	30.00	24.80	27.36	49.40	13.70	12.40	8.90	CMS
Runoff	365.43	77.89	72.06	81.10	116.89	281.07	233.99	135.53	194.55	236.28	90.91	123.83	2009.54	MCM

Momentary Peak 424.40 CMS. at 14.83 m. (MSL.) at 01.00 Hours , on Apr 1 , 2011

Runoff Yield 30.61 Liters/Second/Square KM. Momentary Peak Yield 204.432 Liters/Second/Square KM.

WATER YEAR : 2011

THALE SAP SONGKHLA

Khlong U - Taphao at Ban Hat Yai Nai , Songkhla (X.44)

Lat 07 - 00 - 02 N Long 100 - 27 - 32 E

Location : on left bank at the bridge of Hat Yai - Rattaphum Highway.

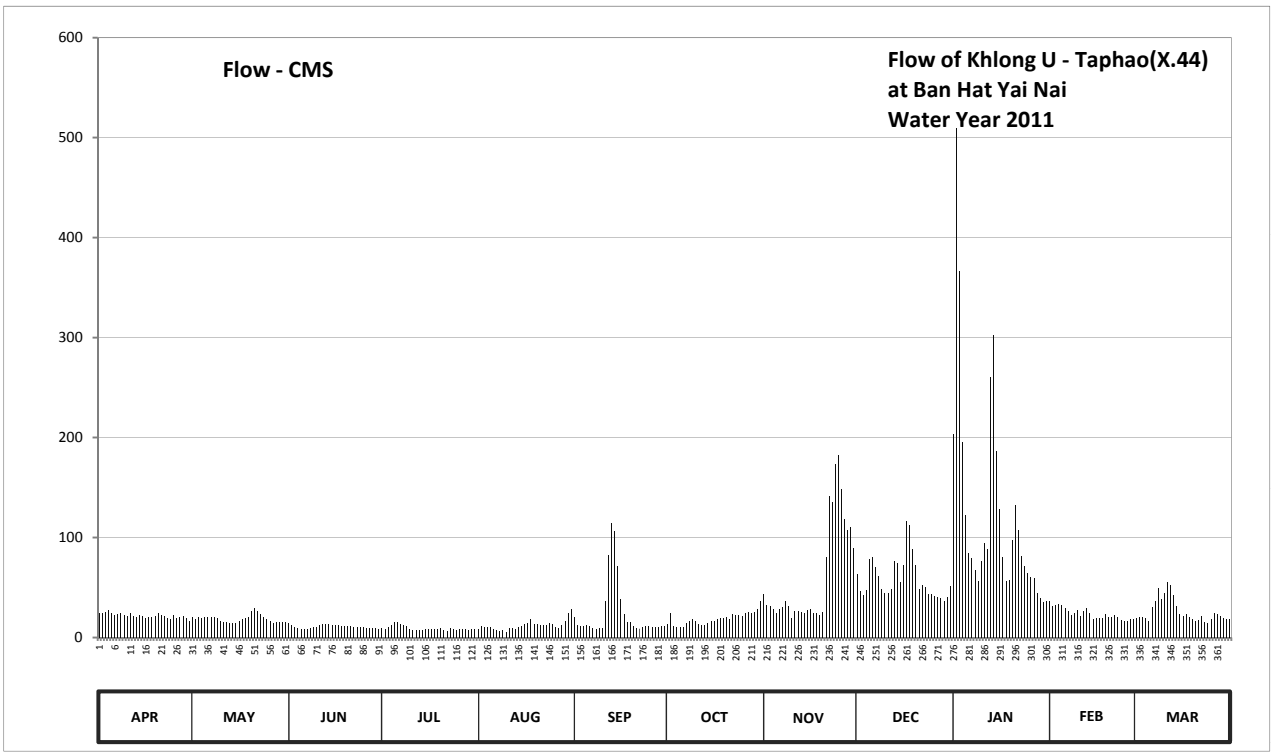
Ban Hat Yai Nai **Amphoe** Hat Yai **Changwat** Songkhla

Drainge Area	1,720 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+0.000 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank about 200 meters from the top staff gage. **Elevation** +7.439 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings
Period of Available Gage Records	1967 to date
Rating Operation	
Period of Rating	1967 - 1972 , 1983 - 1988 , 1999 to date
Rated by Flot	-
Rated by Current Meter	1967 - 1972 , 1983 - 1988 , 1999 to date
Stability of Channel Regimes	Rather unstable because of backwater effect.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Stage-discharge relation defined by 36 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.60	0.50	0.28	0.10	0.07	0.50	0.27	1.11	1.58	4.04	0.93	0.46	
2	0.62	0.44	0.23	0.08	0.18	0.23	0.60	0.83	1.19	6.90	0.80	0.49	
3	0.64	0.51	0.14	0.13	0.12	0.19	0.17	0.80	1.08	5.80	0.85	0.51	
4	0.70	0.46	0.09	0.23	0.12	0.18	0.15	0.72	1.22	3.94	0.87	0.47	
5	0.62	0.51	0.07	0.34	0.14	0.22	0.14	0.62	1.88	2.72	0.85	0.38	
6	0.56	0.51	0.07	0.32	0.07	0.18	0.14	0.72	1.93	2.02	0.77	0.79	
7	0.58	0.50	0.06	0.26	0.00	0.10	0.30	0.78	1.72	1.90	0.66	0.95	
8	0.60	0.49	0.09	0.20	-0.04	0.08	0.37	0.93	1.54	1.66	0.55	1.27	
9	0.55	0.47	0.12	0.16	0.02	0.10	0.44	0.81	1.25	1.43	0.60	0.99	
10	0.52	0.39	0.15	0.06	-0.08	0.10	0.37	0.46	1.14	1.86	0.69	1.13	
11	0.60	0.35	0.21	0.03	0.10	0.95	0.25	0.66	1.14	2.21	0.54	1.42	
12	0.54	0.32	0.25	0.03	0.10	1.97	0.21	0.68	1.24	2.10	0.67	1.34	
13	0.50	0.31	0.25	0.03	0.08	2.58	0.20	0.65	1.86	4.77	0.75	1.09	
14	0.55	0.29	0.25	0.02	0.15	2.43	0.28	0.62	1.81	5.20	0.60	0.82	
15	0.52	0.31	0.23	0.04	0.18	1.74	0.38	0.69	1.40	3.80	0.44	0.58	
16	0.48	0.38	0.22	0.07	0.25	0.99	0.36	0.73	1.77	2.82	0.46	0.52	
17	0.50	0.43	0.21	0.06	0.29	0.59	0.45	0.60	2.61	1.92	0.47	0.58	
18	0.49	0.47	0.19	0.06	0.45	0.35	0.48	0.60	2.54	1.43	0.48	0.51	
19	0.54	0.51	0.18	0.07	0.25	0.32	0.46	0.55	2.08	1.45	0.57	0.44	
20	0.60	0.67	0.17	0.10	0.25	0.18	0.50	0.64	1.76	2.27	0.50	0.38	
21	0.55	0.76	0.16	0.00	0.23	0.10	0.45	1.93	1.23	2.91	0.51	0.41	
22	0.54	0.68	0.15	-0.03	0.24	0.07	0.57	3.05	1.33	2.44	0.55	0.53	
23	0.48	0.57	0.14	0.09	0.20	0.14	0.55	2.96	1.29	1.95	0.49	0.35	
24	0.45	0.49	0.13	0.04	0.28	0.18	0.55	3.59	1.11	1.74	0.42	0.31	
25	0.56	0.45	0.12	0.03	0.25	0.19	0.54	3.74	1.11	1.60	0.36	0.45	
26	0.48	0.38	0.11	0.06	0.12	0.12	0.61	3.18	1.06	1.53	0.38	0.60	
27	0.50	0.31	0.11	0.04	0.11	0.15	0.64	2.65	1.05	1.50	0.43	0.58	
28	0.52	0.33	0.10	0.04	0.23	0.12	0.61	2.44	1.02	1.15	0.45	0.52	
29	0.46	0.34	0.09	0.02	0.36	0.16	0.64	2.50	0.95	1.00	0.41	0.48	
30	0.39	0.33	0.08	0.05	0.62	0.19	0.72	2.12	1.03	0.92		0.45	
31		0.32		0.04	0.72		0.94		1.31	0.93		0.43	
Mean	0.54	0.44	0.16	0.09	0.20	0.51	0.43	1.41	1.46	2.51	0.59	0.65	
Max	0.70	0.76	0.28	0.34	0.72	2.58	0.94	3.74	2.61	6.90	0.93	1.42	6.90
Min	0.39	0.29	0.06	-0.03	-0.08	0.07	0.14	0.46	0.95	0.92	0.36	0.31	-0.08

Annual Max Momentary Gage Height	7.05	m. (MSL.) ,	at 10.00 Hours , on Jan 2 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	-2.59	m. (MSL)
Left Bank Elevation	8.93	m. (MSL.) ,			
Right Bank Elevation	8.94	m. (MSL.) ,	Drainage Area	1720	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	24.00	20.50	14.00	9.50	8.75	20.50	13.75	43.40	63.10	203.00	36.20	19.10		
2	24.70	18.40	12.75	9.00	11.50	12.75	24.00	32.20	46.60	510.00	31.00	20.15		
3	25.40	20.85	10.50	10.25	10.00	11.75	11.25	31.00	42.20	366.00	33.00	20.85		
4	27.50	19.10	9.25	12.75	10.00	11.50	10.75	28.20	47.80	195.80	33.80	19.45		
5	24.70	20.85	8.75	15.50	10.50	12.50	10.50	24.70	78.00	122.60	33.00	16.50		
6	22.60	20.85	8.75	15.00	8.75	11.50	10.50	28.20	80.50	85.00	29.95	30.65		
7	23.30	20.50	8.50	13.50	7.00	9.50	14.50	30.30	70.00	79.00	26.10	37.00		
8	24.00	20.15	9.25	12.00	6.20	9.00	16.25	36.20	61.30	67.00	22.25	49.80		
9	22.25	19.45	10.00	11.00	7.50	9.50	18.40	31.40	49.00	56.35	24.00	38.60		
10	21.20	16.75	10.75	8.50	5.40	9.50	16.25	19.10	44.60	77.00	27.15	44.20		
11	24.00	15.75	12.25	7.75	9.50	37.00	13.25	26.10	44.60	94.55	21.90	55.90		
12	21.90	15.00	13.25	7.75	9.50	82.50	12.25	26.80	48.60	89.00	26.45	52.60		
13	20.50	14.75	13.25	7.75	9.00	114.90	12.00	25.75	77.00	260.45	29.25	42.60		
14	22.25	14.25	13.25	7.50	10.75	106.65	14.00	24.70	74.50	302.00	24.00	31.80		
15	21.20	14.75	12.75	8.00	11.50	71.00	16.50	27.15	55.00	186.00	18.40	23.30		
16	19.80	16.50	12.50	8.75	13.25	38.60	16.00	28.55	72.50	128.10	19.10	21.20		
17	20.50	18.05	12.25	8.50	14.25	23.65	18.75	24.00	116.55	80.00	19.45	23.30		
18	20.15	19.45	11.75	8.50	18.75	15.75	19.80	24.00	112.70	56.35	19.80	20.85		
19	21.90	20.85	11.50	8.75	13.25	15.00	19.10	22.25	88.00	57.25	22.95	18.40		
20	24.00	26.45	11.25	9.50	13.25	11.50	20.50	25.40	72.00	97.85	20.50	16.50		
21	22.25	29.60	11.00	7.00	12.75	9.50	18.75	80.50	48.20	133.05	20.85	17.35		
22	21.90	26.80	10.75	6.40	13.00	8.75	22.95	141.00	52.20	107.20	22.25	21.55		
23	19.80	22.95	10.50	9.25	12.00	10.50	22.25	135.80	50.60	81.50	20.15	15.75		
24	18.75	20.15	10.25	8.00	14.00	11.50	22.25	173.40	43.40	71.00	17.70	14.75		
25	22.60	18.75	10.00	7.75	13.25	11.75	21.90	182.40	43.40	64.00	16.00	18.75		
26	19.80	16.50	9.75	8.50	10.00	10.00	24.35	148.80	41.40	60.85	16.50	24.00		
27	20.50	14.75	9.75	8.00	9.75	10.75	25.40	118.75	41.00	59.50	18.05	23.30		
28	21.20	15.25	9.50	8.00	12.75	10.00	24.35	107.20	39.80	45.00	18.75	21.20		
29	19.10	15.50	9.25	7.50	16.00	11.00	25.40	110.50	37.00	39.00	17.35	19.80		
30	16.75	15.25	9.00	8.25	24.70	11.75	28.20	90.00	40.20	35.80		18.75		
31		15.00		8.00	28.20		36.60		51.40	36.20		18.05		
Total	658.50	583.70	326.25	286.40	375.00	740.05	580.70	1847.75	1833.15	3846.40	685.85	816.00	12579.75	CMSDAY
Mean	21.95	18.83	10.88	9.24	12.10	24.67	18.73	61.59	59.13	124.08	23.65	26.32	34.37	CMS
Max	27.50	29.60	14.00	15.50	28.20	114.90	36.60	182.40	116.55	510.00	36.20	55.90	510.00	CMS
Min	16.75	14.25	8.50	6.40	5.40	8.75	10.50	19.10	37.00	35.80	16.00	14.75	5.40	CMS
Runoff	56.89	50.43	28.19	24.75	32.40	63.94	50.17	159.65	158.38	332.33	59.26	70.50	1086.89	MCM

Momentary Peak 532.75 CMS. at 7.05 m. (MSL.) at 10.00 Hours , on Jan 2, 2011

Runoff Yield 19.98 Liters/Second/Square KM. Momentary Peak Yield 309.738 Liters/Second/Square KM.

WATER YEAR : 2011

THALE SAP SONGKHLA

Khlong Ratthaphum at Ban Nasithong , Songkhla (X.67A)

Lat 07 - 06 - 50 N Long 100 - 12 - 15 E

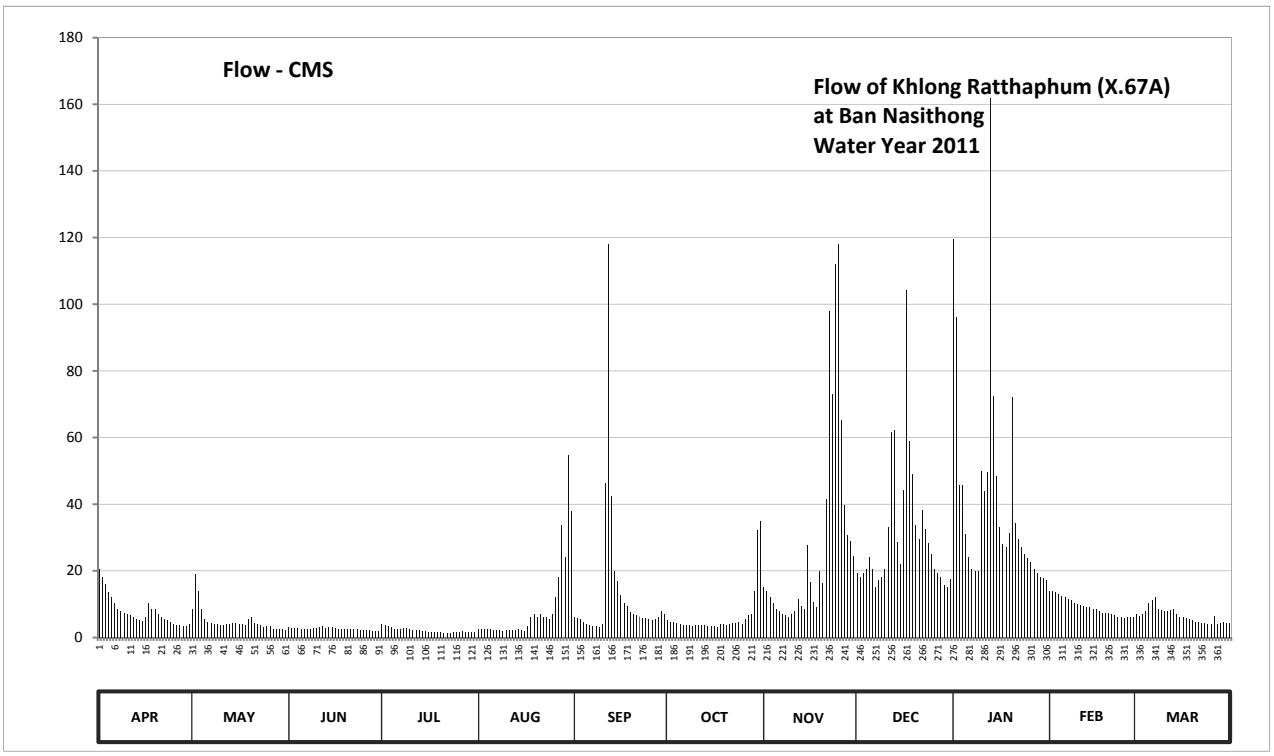
Location : on right bank at Ban Kampheang Phet.

	Ban Nasithong	**Amphoe** Ratthaphum	**Changwat** Songkhla
Drainge Area	248 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+0.000 m. (A.D.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank near the gage site.	**Elevation**	+5.845 m. (A.D.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	2006 to date		
Rating Operation			
Period of Rating	2006 to date		
Rated by Flot	-		
Rated by Current Meter	2006 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 30 discharge measurements made in 2011.		

Gage Height in Meter (A.D.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	1.00	0.40	0.04	0.10	0.00	0.25	0.18	0.75	0.95	3.79	0.70	0.29	
2	0.90	0.94	0.03	0.08	0.01	0.22	0.15	0.70	0.90	3.30	0.69	0.26	
3	0.80	0.70	0.03	0.06	0.00	0.20	0.14	0.60	0.95	1.96	0.68	0.30	
4	0.68	0.40	0.02	0.05	0.00	0.15	0.12	0.50	1.00	1.96	0.65	0.35	
5	0.60	0.20	0.01	0.00	-0.01	0.10	0.10	0.40	1.16	1.46	0.62	0.50	
6	0.50	0.15	0.00	0.00	-0.02	0.08	0.09	0.35	1.00	1.16	0.60	0.55	
7	0.40	0.12	0.00	0.01	-0.03	0.07	0.09	0.30	0.75	1.00	0.58	0.60	
8	0.35	0.11	0.01	0.02	-0.05	0.06	0.08	0.28	0.85	0.98	0.55	0.40	
9	0.32	0.10	0.02	0.03	-0.06	0.05	0.07	0.25	0.90	0.97	0.50	0.37	
10	0.30	0.08	0.03	-0.01	-0.05	0.10	0.08	0.30	1.00	2.10	0.48	0.35	
11	0.27	0.09	0.05	-0.02	-0.05	1.98	0.08	0.35	1.53	1.90	0.46	0.36	
12	0.25	0.10	0.06	-0.03	-0.04	3.76	0.09	0.57	2.44	2.09	0.45	0.37	
13	0.20	0.11	0.03	-0.04	-0.03	1.85	0.08	0.44	2.46	4.59	0.43	0.38	
14	0.19	0.12	0.05	-0.07	-0.01	0.98	0.07	0.38	1.36	2.73	0.42	0.30	
15	0.17	0.13	0.04	-0.09	-0.05	0.84	0.07	1.32	1.07	2.05	0.40	0.25	
16	0.25	0.11	0.03	-0.10	-0.07	0.63	0.06	0.83	1.91	1.53	0.38	0.23	
17	0.50	0.10	0.01	-0.10	0.07	0.50	0.05	0.51	3.48	1.34	0.35	0.22	
18	0.40	0.09	-0.01	-0.11	0.24	0.45	0.10	0.42	2.37	1.30	0.32	0.20	
19	0.40	0.20	0.00	-0.12	0.30	0.34	0.10	0.98	2.07	1.47	0.32	0.18	
20	0.30	0.25	0.00	-0.13	0.25	0.30	0.09	0.82	1.55	2.72	0.31	0.15	
21	0.25	0.13	0.00	-0.14	0.30	0.28	0.10	1.82	1.40	1.58	0.30	0.14	
22	0.20	0.10	0.00	-0.14	0.25	0.25	0.12	3.34	1.71	1.40	0.28	0.13	
23	0.18	0.08	-0.01	-0.15	0.25	0.22	0.13	2.75	1.51	1.30	0.25	0.12	
24	0.15	0.05	-0.02	-0.13	0.20	0.22	0.15	3.64	1.35	1.20	0.23	0.11	
25	0.10	0.06	-0.03	-0.13	0.30	0.20	0.10	3.76	1.20	1.15	0.22	0.10	
26	0.09	0.07	-0.04	-0.12	0.60	0.19	0.21	2.54	1.00	1.10	0.23	0.26	
27	0.08	0.01	-0.05	-0.09	0.90	0.21	0.27	1.76	0.95	1.00	0.23	0.11	
28	0.07	0.00	-0.06	-0.10	1.55	0.23	0.30	1.45	0.90	0.95	0.25	0.12	
29	0.07	-0.01	-0.07	-0.11	1.16	0.35	0.70	1.38	0.79	0.90	0.26	0.14	
30	0.10	-0.01	-0.07	-0.11	2.25	0.30	1.50	1.18	0.75	0.88		0.13	
31		-0.02		-0.10	1.70		1.60		0.87	0.85		0.12	
Mean	0.34	0.16	0.00	-0.06	0.32	0.51	0.23	1.16	1.36	1.70	0.42	0.26	
Max	1.00	0.94	0.06	0.10	2.25	3.76	1.60	3.76	3.48	4.59	0.70	0.60	4.59
Min	0.07	-0.02	-0.07	-0.15	-0.07	0.05	0.05	0.25	0.75	0.85	0.22	0.10	-0.15

Annual Max Momentary Gage Height	5.60	m. (A.D.) ,	at 05.00 Hours , on Jan 13 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (A.D.) ,	River Bed	-1.39	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, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	20.50	8.70	3.10	4.00	2.50	6.30	5.20	15.00	19.37	119.50	14.00	6.94		
2	18.25	19.15	2.95	3.70	2.65	5.82	4.75	14.00	18.25	96.00	13.80	6.46		
3	16.00	14.00	2.95	3.40	2.50	5.50	4.60	12.00	19.37	45.80	13.60	7.10		
4	13.60	8.70	2.80	3.25	2.50	4.75	4.30	10.35	20.50	45.80	13.00	7.90		
5	12.00	5.50	2.65	2.50	2.43	4.00	4.00	8.70	24.10	31.15	12.40	10.35		
6	10.35	4.75	2.50	2.50	2.35	3.70	3.85	7.90	20.50	24.10	12.00	11.18		
7	8.70	4.30	2.50	2.65	2.28	3.55	3.85	7.10	15.00	20.50	11.67	12.00		
8	7.90	4.15	2.65	2.80	2.13	3.40	3.70	6.78	17.12	20.05	11.18	8.70		
9	7.42	4.00	2.80	2.95	2.05	3.25	3.55	6.30	18.25	19.82	10.35	8.22		
10	7.10	3.70	2.95	2.43	2.13	4.00	3.70	7.10	20.50	50.00	10.02	7.90		
11	6.62	3.85	3.25	2.35	2.13	46.40	3.70	7.90	33.08	44.00	9.69	8.06		
12	6.30	4.00	3.40	2.28	2.20	118.00	3.85	11.51	61.50	49.70	9.52	8.22		
13	5.50	4.15	2.95	2.20	2.28	42.50	3.70	9.36	62.25	161.95	9.19	8.38		
14	5.35	4.30	3.25	1.98	2.43	20.05	3.55	8.38	28.60	72.37	9.03	7.10		
15	5.05	4.45	3.10	1.83	2.13	16.90	3.55	27.70	22.07	48.50	8.70	6.30		
16	6.30	4.15	2.95	1.75	1.98	12.60	3.40	16.67	44.30	33.08	8.38	5.98		
17	10.35	4.00	2.65	1.75	3.55	10.35	3.25	10.51	104.30	28.15	7.90	5.82		
18	8.70	3.85	2.43	1.68	6.14	9.52	4.00	9.03	58.95	27.25	7.42	5.50		
19	8.70	5.50	2.50	1.60	7.10	7.74	4.00	20.05	49.10	31.43	7.42	5.20		
20	7.10	6.30	2.50	1.53	6.30	7.10	3.85	16.45	33.63	72.00	7.26	4.75		
21	6.30	4.45	2.50	1.45	7.10	6.78	4.00	41.60	29.50	34.45	7.10	4.60		
22	5.50	4.00	2.50	1.45	6.30	6.30	4.30	97.80	38.30	29.50	6.78	4.45		
23	5.20	3.70	2.43	1.38	6.30	5.82	4.45	73.12	32.53	27.25	6.30	4.30		
24	4.75	3.25	2.35	1.53	5.50	5.82	4.75	112.00	28.37	25.00	5.98	4.15		
25	4.00	3.40	2.28	1.53	7.10	5.50	4.00	118.00	25.00	23.87	5.82	4.00		
26	3.85	3.55	2.20	1.60	12.00	5.35	5.66	65.25	20.50	22.75	5.98	6.46		
27	3.70	2.65	2.13	1.83	18.25	5.66	6.62	39.80	19.37	20.50	5.98	4.15		
28	3.55	2.50	2.05	1.75	33.63	5.98	7.10	30.88	18.25	19.37	6.30	4.30		
29	3.55	2.43	1.98	1.68	24.10	7.90	14.00	29.05	15.80	18.25	6.46	4.60		
30	4.00	2.43	1.98	1.68	54.75	7.10	32.25	24.55	15.00	17.80		4.45		
31		2.35		1.75	38.00		35.00		17.57	17.12		4.30		
Total	236.19	156.21	79.23	66.76	272.79	397.64	200.48	864.84	950.93	1297.01	263.23	201.82	4987.13	CMSDAY
Mean	7.87	5.04	2.64	2.15	8.80	13.25	6.47	28.83	30.68	41.84	9.08	6.51	13.63	CMS
Max	20.50	19.15	3.40	4.00	54.75	118.00	35.00	118.00	104.30	161.95	14.00	12.00	161.95	CMS
Min	3.55	2.35	1.98	1.38	1.98	3.25	3.25	6.30	15.00	17.12	5.82	4.00	1.38	CMS
Runoff	20.41	13.50	6.85	5.77	23.57	34.36	17.32	74.72	82.16	112.06	22.74	17.44	430.89	MCM

Momentary Peak 223.70 CMS. at 5.60 m. (A.D.) at 05.00 Hours , on Jan 13 , 2011

Runoff Yield 54.78 Liters/Second/Square KM. Momentary Peak Yield 899.297 Liters/Second/Square KM.

WATER YEAR : 2011

THALE SAP SONGKHLA

Khlong Tha Khae at Ban Tha Khae , Phatthalung (X.68)

Lat 07 - 34 - 01 N Long 100 - 03 - 05 E

Location : on left bank downstream side of the bridge of Phatthalung - Hat Yai Highway.

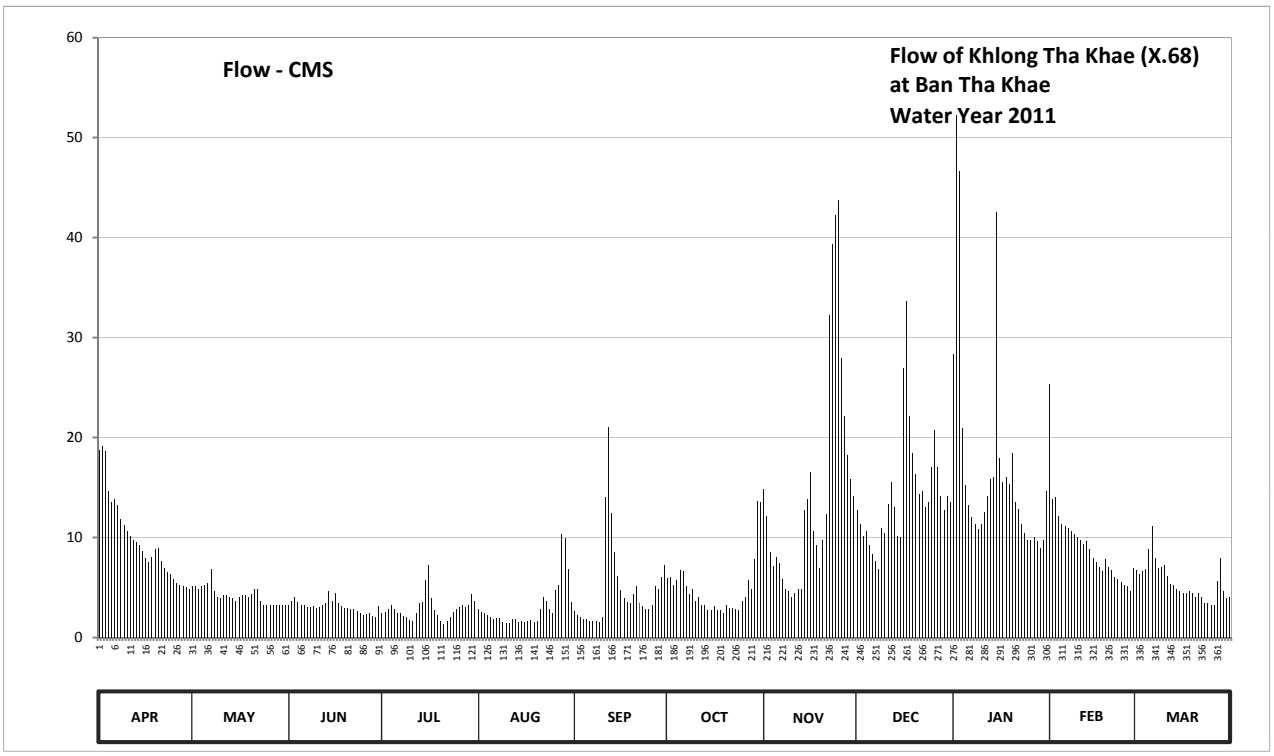
Ban Tha Khae **Amphoe** Mueang **Changwat** Phatthalung

Drainge Area	302 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+0.000 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank near the gage observer's house. **Elevation** +15.966 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings
Period of Available Gage Records	1967 to date
Rating Operation	
Period of Rating	1967 - 1972 , 1983 to date
Rated by Flot	-
Rated by Current Meter	1967 - 1972 , 1983 to date
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Flow regulated by Tha Khae Weir.
	Stage-discharge relation defined by 32 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	14.13	13.19	13.00	12.90	12.95	12.93	13.27	13.90	13.77	14.64	14.49	13.34	
2	14.15	13.19	13.04	12.92	12.92	12.88	13.28	13.73	13.68	15.56	13.84	13.30	
3	14.12	13.17	13.08	12.95	12.91	12.85	13.20	13.48	13.60	15.37	13.85	13.33	
4	13.89	13.19	13.03	13.00	12.88	12.83	13.25	13.38	13.63	14.25	13.73	13.35	
5	13.82	13.20	13.01	12.95	12.85	12.83	13.34	13.45	13.53	13.92	13.68	13.50	
6	13.84	13.22	13.00	12.90	12.83	12.81	13.33	13.40	13.47	13.80	13.66	13.66	
7	13.80	13.35	12.98	12.90	12.84	12.80	13.19	13.26	13.42	13.72	13.65	13.44	
8	13.71	13.14	12.98	12.87	12.84	12.80	13.11	13.16	13.35	13.68	13.63	13.36	
9	13.67	13.09	12.99	12.85	12.79	12.78	13.17	13.14	13.65	13.64	13.61	13.37	
10	13.63	13.07	12.97	12.82	12.76	12.86	13.05	13.09	13.62	13.68	13.59	13.39	
11	13.60	13.10	12.98	12.80	12.77	13.85	13.09	13.13	13.81	13.76	13.57	13.29	
12	13.57	13.10	13.00	12.91	12.83	14.26	13.01	13.16	13.94	13.86	13.54	13.21	
13	13.55	13.09	13.02	13.02	12.83	13.75	13.00	13.16	13.79	13.96	13.56	13.20	
14	13.53	13.07	13.14	13.03	12.79	13.48	12.94	13.77	13.60	13.97	13.50	13.17	
15	13.49	13.05	13.05	13.25	12.81	13.29	12.94	13.84	13.59	15.23	13.44	13.14	
16	13.44	13.09	13.13	13.39	12.79	13.15	12.99	14.00	14.57	14.08	13.41	13.13	
17	13.41	13.10	13.02	13.07	12.81	13.07	12.94	13.63	14.88	13.94	13.37	13.12	
18	13.45	13.10	12.99	12.94	12.82	13.03	12.94	13.53	14.32	13.97	13.33	13.14	
19	13.50	13.09	12.97	12.88	12.79	13.02	12.90	13.36	14.11	13.93	13.43	13.13	
20	13.51	13.11	12.97	12.80	12.81	13.11	13.00	13.57	13.99	14.11	13.37	13.08	
21	13.42	13.17	12.96	12.75	12.96	13.19	12.97	13.74	13.87	13.82	13.34	13.12	
22	13.36	13.16	12.95	12.80	13.08	13.03	12.97	14.82	13.89	13.78	13.28	13.08	
23	13.32	13.04	12.93	12.85	13.04	12.99	12.96	15.11	13.79	13.68	13.26	13.02	
24	13.30	13.00	12.90	12.92	12.95	12.96	12.94	15.22	13.82	13.62	13.23	13.02	
25	13.26	13.00	12.88	12.96	12.90	12.95	13.04	15.27	14.03	13.57	13.20	13.01	
26	13.22	13.00	12.89	12.98	13.15	13.00	13.09	14.62	14.24	13.57	13.19	13.00	
27	13.20	13.01	12.90	13.00	13.20	13.19	13.25	14.32	14.03	13.59	13.14	13.24	
28	13.19	13.00	12.87	12.98	13.61	13.16	13.16	14.10	13.86	13.56	13.36	13.44	
29	13.18	13.01	12.86	13.01	13.58	13.28	13.43	13.96	13.77	13.51	13.59	13.14	
30	13.17	13.00	12.99	13.11	13.35	13.39	13.83	13.86	13.86	13.57		13.07	
31		13.00		13.04	13.03		13.82		13.82	13.89		13.08	
Mean	13.55	13.10	12.98	12.95	12.95	13.12	13.14	13.81	13.85	13.98	13.51	13.22	
Max	14.15	13.35	13.14	13.39	13.61	14.26	13.83	15.27	14.88	15.56	14.49	13.66	15.56
Min	13.17	13.00	12.86	12.75	12.76	12.78	12.90	13.09	13.35	13.51	13.14	13.00	12.75

Annual Max Momentary Gage Height	16.19	m. (MSL.) ,	at 03.00 Hours , on Jan 3 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	11.43	m. (MSL)
Left Bank Elevation	18.34	m. (MSL.) ,			
Right Bank Elevation	18.58	m. (MSL.) ,	Drainage Area	302	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	18.78	5.10	3.20	2.40	2.80	2.64	5.97	14.85	12.75	28.34	25.30	6.74		
2	19.12	5.10	3.60	2.56	2.56	2.24	6.08	12.15	11.40	52.30	13.86	6.30		
3	18.60	4.90	4.00	2.80	2.48	2.00	5.20	8.52	10.20	46.63	14.03	6.63		
4	14.69	5.10	3.50	3.20	2.24	1.84	5.75	7.18	10.65	20.88	12.15	6.85		
5	13.53	5.20	3.30	2.80	2.00	1.84	6.74	8.10	9.22	15.18	11.40	8.80		
6	13.86	5.42	3.20	2.40	1.84	1.68	6.63	7.40	8.38	13.20	11.10	11.10		
7	13.20	6.85	3.04	2.40	1.92	1.60	5.10	5.86	7.68	12.00	10.95	7.96		
8	11.85	4.60	3.04	2.16	1.92	1.60	4.30	4.80	6.85	11.40	10.65	6.96		
9	11.25	4.10	3.12	2.00	1.55	1.51	4.90	4.60	10.95	10.80	10.35	7.07		
10	10.65	3.90	2.96	1.76	1.42	2.08	3.70	4.10	10.50	11.40	10.06	7.29		
11	10.20	4.20	3.04	1.60	1.47	14.03	4.10	4.50	13.37	12.60	9.78	6.19		
12	9.78	4.20	3.20	2.48	1.84	21.05	3.30	4.80	15.51	14.19	9.36	5.31		
13	9.50	4.10	3.40	3.40	1.84	12.45	3.20	4.80	13.05	15.84	9.64	5.20		
14	9.22	3.90	4.60	3.50	1.55	8.52	2.72	12.75	10.20	16.01	8.80	4.90		
15	8.66	3.70	3.70	5.75	1.68	6.19	2.72	13.86	10.06	42.57	7.96	4.60		
16	7.96	4.10	4.50	7.29	1.55	4.70	3.12	16.50	26.90	17.90	7.54	4.50		
17	7.54	4.20	3.40	3.90	1.68	3.90	2.72	10.65	33.62	15.51	7.07	4.40		
18	8.10	4.20	3.12	2.72	1.76	3.50	2.72	9.22	22.10	16.01	6.63	4.60		
19	8.80	4.10	2.96	2.24	1.55	3.40	2.40	6.96	18.42	15.35	7.82	4.50		
20	8.94	4.30	2.96	1.60	1.68	4.30	3.20	9.78	16.33	18.42	7.07	4.00		
21	7.68	4.90	2.88	1.37	2.88	5.10	2.96	12.30	14.35	13.53	6.74	4.40		
22	6.96	4.80	2.80	1.60	4.00	3.50	2.96	32.18	14.69	12.90	6.08	4.00		
23	6.52	3.60	2.64	2.00	3.60	3.12	2.88	39.36	13.05	11.40	5.86	3.40		
24	6.30	3.20	2.40	2.56	2.80	2.88	2.72	42.28	13.53	10.50	5.53	3.40		
25	5.86	3.20	2.24	2.88	2.40	2.80	3.60	43.73	17.02	9.78	5.20	3.30		
26	5.42	3.20	2.32	3.04	4.70	3.20	4.10	27.92	20.70	9.78	5.10	3.20		
27	5.20	3.30	2.40	3.20	5.20	5.10	5.75	22.10	17.02	10.06	4.60	5.64		
28	5.10	3.20	2.16	3.04	10.35	4.80	4.80	18.25	14.19	9.64	6.96	7.96		
29	5.00	3.30	2.08	3.30	9.92	6.08	7.82	15.84	12.75	8.94	10.06	4.60		
30	4.90	3.20	3.12	4.30	6.85	7.29	13.69	14.19	14.19	9.78		3.90		
31		3.20		3.60	3.50		13.53		13.53	14.69		4.00		
Total	293.17	130.37	92.88	89.85	93.53	144.94	149.38	439.53	443.16	527.53	267.65	171.70	2843.69	CMSDAY
Mean	9.77	4.21	3.10	2.90	3.02	4.83	4.82	14.65	14.30	17.02	9.23	5.54	7.77	CMS
Max	19.12	6.85	4.60	7.29	10.35	21.05	13.69	43.73	33.62	52.30	25.30	11.10	52.30	CMS
Min	4.90	3.20	2.08	1.37	1.42	1.51	2.40	4.10	6.85	8.94	4.60	3.20	1.37	CMS
Runoff	25.33	11.26	8.03	7.76	8.08	12.52	12.91	37.98	38.29	45.58	23.13	14.84	245.70	MCM

Momentary Peak 73.15 CMS. at 16.19 m. (MSL.) at 03.00 Hours , on Jan 3 , 2011

Runoff Yield 25.70 Liters/Second/Square KM. Momentary Peak Yield 242.002 Liters/Second/Square KM.

WATER YEAR : 2011

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.

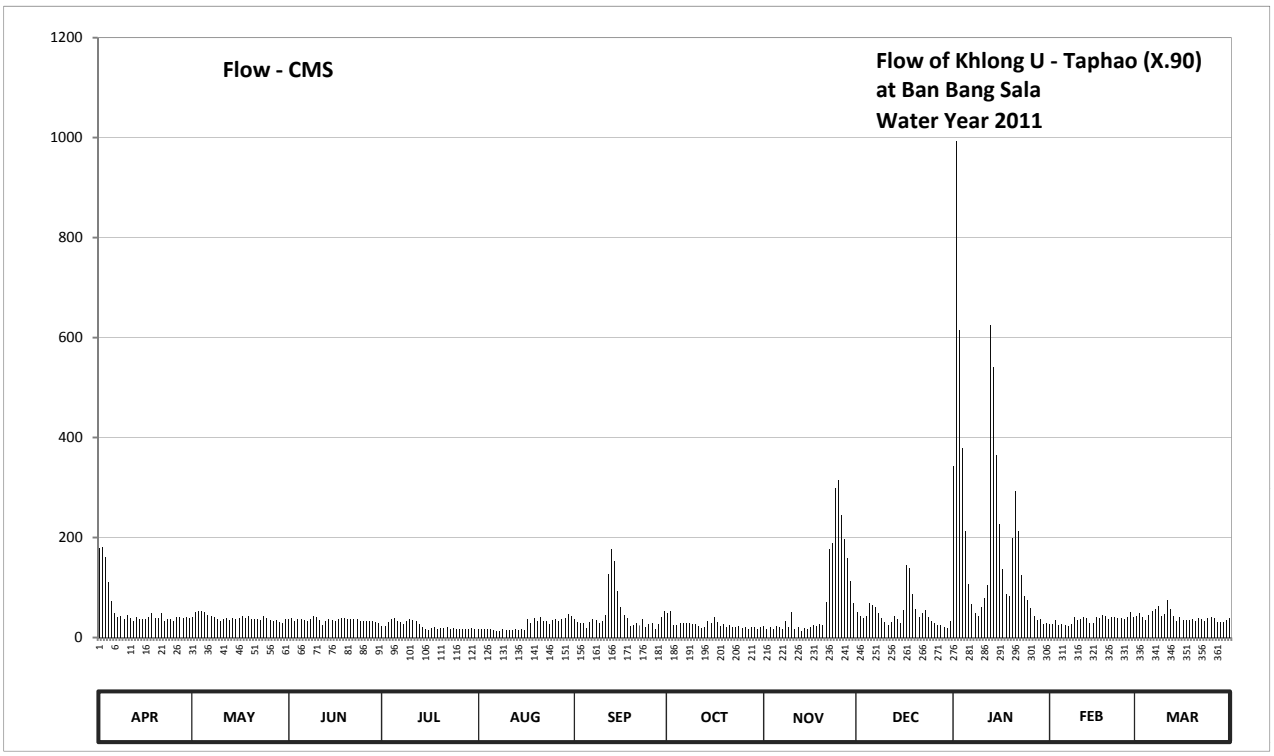
Ban Bang Sala **Amphoe** Khlong Hoi Khong **Changwat** Songkhla

Drainge Area	1,547 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+0.000 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank about 20 meters from the top staff gage. **Elevation** +11.254 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings
Period of Available Gage Records	1971 to date
Rating Operation	
Period of Rating	1971 - 1972 , 1979 to date
Rated by Flot	-
Rated by Current Meter	1971 - 1972 , 1979 to date
Stability of Channel Regimes	Fairly stable because of backwater effect.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Stage-discharge relation defined by 39 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	5.34	3.18	3.05	2.74	2.57	3.08	3.37	2.72	3.38	6.96	2.83	3.22	
2	5.36	3.41	3.12	2.74	2.56	2.93	3.42	2.59	3.22	9.74	2.82	3.36	
3	5.11	3.43	2.96	2.91	2.53	2.87	2.80	2.68	3.12	8.50	3.04	3.16	
4	4.42	3.43	3.09	3.09	2.53	2.85	2.77	2.55	3.21	7.22	2.80	3.04	
5	3.82	3.41	3.06	3.11	2.55	2.64	2.88	2.70	3.73	5.73	2.83	3.25	
6	3.35	3.25	3.03	2.95	2.49	2.92	2.87	2.69	3.69	4.38	2.79	3.44	
7	3.19	3.22	2.96	2.92	2.42	3.07	2.87	2.60	3.61	3.71	2.74	3.50	
8	3.24	3.18	3.09	2.81	2.41	3.01	2.88	2.99	3.34	3.36	2.82	3.64	
9	3.07	3.05	3.21	2.98	2.56	2.86	2.82	2.69	3.12	3.21	3.17	3.22	
10	3.25	2.99	3.20	3.05	2.47	2.95	2.81	3.39	2.94	3.58	3.03	3.31	
11	3.11	3.09	3.02	3.04	2.50	3.26	2.72	2.59	2.76	3.92	3.09	3.85	
12	2.99	3.13	2.80	2.97	2.48	4.66	2.62	2.67	2.92	4.34	3.17	3.50	
13	3.18	3.01	2.97	2.84	2.53	5.32	2.65	2.46	3.23	8.54	3.10	3.21	
14	3.05	3.10	3.05	2.66	2.49	5.02	2.95	2.63	3.09	8.17	2.85	2.99	
15	3.05	3.08	3.03	2.58	2.57	4.17	2.85	2.59	2.86	7.13	2.88	3.15	
16	3.05	3.14	2.95	2.51	2.52	3.60	3.16	2.65	3.47	5.90	3.17	3.03	
17	3.15	3.22	3.06	2.62	3.06	3.28	2.90	2.77	4.91	4.80	3.10	3.02	
18	3.35	3.13	3.11	2.66	2.88	3.11	2.73	2.72	4.82	4.08	3.26	3.03	
19	3.10	3.22	3.11	2.57	3.12	2.73	2.82	2.84	4.08	4.00	3.24	3.09	
20	3.11	3.05	3.05	2.61	2.99	2.77	2.66	2.76	3.53	5.58	3.07	3.00	
21	3.33	3.07	3.06	2.61	3.19	2.89	2.76	3.77	3.19	6.55	3.18	3.12	
22	3.00	3.08	3.07	2.67	2.96	2.76	2.69	5.31	3.33	5.74	3.20	3.08	
23	3.05	3.02	3.06	2.56	2.99	3.06	2.69	5.45	3.46	4.63	3.13	2.96	
24	3.09	3.21	3.00	2.62	2.83	2.68	2.70	6.60	3.19	4.01	3.10	3.10	
25	3.00	3.12	2.95	2.60	3.03	2.84	2.63	6.74	2.96	3.86	3.07	3.15	
26	3.17	3.04	2.98	2.59	3.07	2.85	2.67	6.08	2.87	3.57	3.20	3.10	
27	3.20	2.97	2.99	2.60	3.00	2.58	2.59	5.55	2.79	3.24	3.38	2.94	
28	3.13	3.03	2.96	2.54	3.06	2.82	2.65	5.09	2.76	3.04	3.18	2.93	
29	3.19	2.92	2.90	2.54	3.14	3.18	2.68	4.46	2.65	3.05	3.06	2.94	
30	3.10	2.89	2.86	2.61	3.29	3.44	2.59	3.75	2.64	2.83		3.04	
31		3.05		2.58	3.24		2.67		2.97	2.86		3.12	
Mean	3.42	3.13	3.03	2.74	2.78	3.21	2.80	3.57	3.29	5.04	3.04	3.18	
Max	5.36	3.43	3.21	3.11	3.29	5.32	3.42	6.74	4.91	9.74	3.38	3.85	9.74
Min	2.99	2.89	2.80	2.51	2.41	2.58	2.59	2.46	2.64	2.83	2.74	2.93	2.41

Annual Max Momentary Gage Height	10.00	m. (MSL.) ,	at 02.00 Hours , on Jan 2 , 2011	
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed -0.80	m. (MSL)
Left Bank Elevation	11.28	m. (MSL.) ,		
Right Bank Elevation	11.28	m. (MSL.) ,	Drainage Area 1547	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	178.90	41.20	36.00	23.60	17.10	37.20	49.65	22.80	50.10	342.00	27.20	42.90		
2	180.60	51.50	38.80	23.60	16.80	31.20	52.00	17.70	42.90	992.40	26.80	49.20		
3	160.25	52.50	32.40	30.40	15.90	28.80	26.00	21.20	38.80	614.50	35.60	40.40		
4	110.40	52.50	37.60	37.60	15.90	28.00	24.80	16.50	42.45	378.00	26.00	35.60		
5	73.10	51.50	36.40	38.40	16.50	19.60	29.20	22.00	68.15	212.05	27.20	44.25		
6	48.75	44.25	35.20	32.00	14.70	30.80	28.80	21.60	65.95	107.60	25.60	53.00		
7	41.60	42.90	32.40	30.80	12.60	36.80	28.80	18.00	61.55	67.05	23.60	56.00		
8	43.80	41.20	37.60	26.40	12.30	34.40	29.20	33.60	48.30	49.20	26.80	63.20		
9	36.80	36.00	42.45	33.20	16.80	28.40	26.80	21.60	38.80	42.45	40.80	42.90		
10	44.25	33.60	42.00	36.00	14.10	32.00	26.40	50.55	31.60	60.00	35.20	46.95		
11	38.40	37.60	34.80	35.60	15.00	44.70	22.80	17.70	24.40	78.60	37.60	74.75		
12	33.60	39.20	26.00	32.80	14.40	127.20	18.80	20.80	30.80	104.80	40.80	56.00		
13	41.20	34.40	32.80	27.60	15.90	177.20	20.00	13.80	43.35	623.90	38.00	42.45		
14	36.00	38.00	36.00	20.40	14.70	153.50	32.00	19.20	37.60	541.00	28.00	33.60		
15	36.00	37.20	35.20	17.40	17.10	93.20	28.00	17.70	28.40	365.20	29.20	40.00		
16	36.00	39.60	32.00	15.30	15.60	61.00	40.40	20.00	54.50	227.50	40.80	35.20		
17	40.00	42.90	36.40	18.80	36.40	45.60	30.00	24.80	145.25	137.00	38.00	34.80		
18	48.75	39.20	38.40	20.40	29.20	38.40	23.20	22.80	138.50	87.80	44.70	35.20		
19	38.00	42.90	38.40	17.10	38.80	23.20	26.80	27.60	87.80	83.00	43.80	37.60		
20	38.40	36.00	36.00	18.40	33.60	24.80	20.40	24.40	57.50	199.30	36.80	34.00		
21	47.85	36.80	36.40	18.40	41.60	29.60	24.40	70.35	41.60	292.50	41.20	38.80		
22	34.00	37.20	36.80	20.80	32.40	24.40	21.60	176.35	47.85	212.90	42.00	37.20		
23	36.00	34.80	36.40	16.80	33.60	36.40	21.60	188.25	54.00	125.10	39.20	32.40		
24	37.60	42.45	34.00	18.80	27.20	21.20	22.00	298.00	41.60	83.60	38.00	38.00		
25	34.00	38.80	32.00	18.00	35.20	27.60	19.20	314.80	32.40	75.30	36.80	40.00		
26	40.80	35.60	33.20	17.70	36.80	28.00	20.80	244.20	28.80	59.50	42.00	38.00		
27	42.00	32.80	33.60	18.00	34.00	17.40	17.70	196.75	25.60	43.80	50.10	31.60		
28	39.20	35.20	32.40	16.20	36.40	26.80	20.00	158.75	24.40	35.60	41.20	31.20		
29	41.60	30.80	30.00	16.20	39.60	41.20	21.20	113.20	20.00	36.00	36.40	31.60		
30	38.00	29.60	28.40	18.40	46.05	53.00	17.70	69.25	19.60	27.20		35.60		
31		36.00		17.40	43.80		20.80		32.80	28.40		38.80		
Total	1695.85	1224.20	1050.05	732.50	790.05	1401.60	811.05	2284.25	1505.35	6333.25	1039.40	1291.20	20158.75	CMSDAY
Mean	56.53	39.49	35.00	23.63	25.49	46.72	26.16	76.14	48.56	204.30	35.84	41.65	55.08	CMS
Max	180.60	52.50	42.45	38.40	46.05	177.20	52.00	314.80	145.25	992.40	50.10	74.75	992.40	CMS
Min	33.60	29.60	26.00	15.30	12.30	17.40	17.70	13.80	19.60	27.20	23.60	31.20	12.30	CMS
Runoff	146.52	105.77	90.72	63.29	68.26	121.10	70.08	197.36	130.06	547.19	89.80	111.56	1741.72	MCM

Momentary Peak 1090.00 CMS. at 10.00 m. (MSL.) at 02.00 Hours , on Jan 2 , 2011

Runoff Yield 35.60 Liters/Second/Square KM. Momentary Peak Yield 704.590 Liters/Second/Square KM.

WATER YEAR : 2011

THALE SAP SONGKHLA

Khlong Sadao at Ban Takian Pao , Songkhla (X.112)

Lat 06 - 42 - 11 N Long 100 - 26 - 10 E

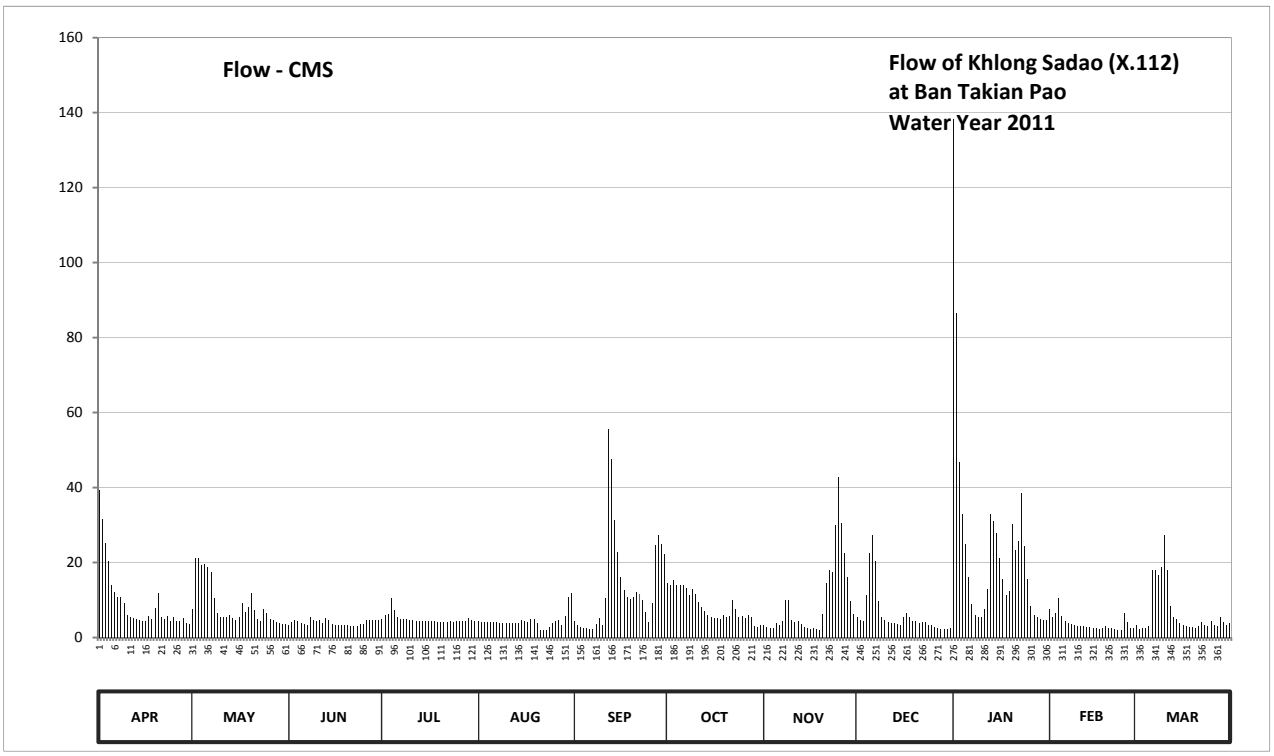
Location : on right bank at Ban Takian Pao.

	Ban Takian Pao	**Amphoe** Sadao	**Changwat** Songkhla
Drainge Area	493 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	Near the top staff gage.		**Elevation** +24.840 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	1979 - 1996 , 2006 to date		
Rating Operation			
Period of Rating	1979 - 1996 , 2006 to date		
Rated by Flot	-		
Rated by Current Meter	1979 - 1996 , 2006 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	Overbank flow starts at elevation +26.130 m.(MSL.), records are channel flow only.		
General Description	Records fair. Stage-discharge relation defined by 37 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	24.72	22.04	21.14	21.50	21.38	21.43	23.08	21.14	21.63	26.16	22.05	21.10	
2	24.44	23.76	21.30	21.80	21.35	21.10	23.01	20.99	21.47	25.60	21.64	20.89	
3	24.09	23.78	21.45	21.83	21.35	21.00	23.18	20.95	21.39	24.91	21.90	20.91	
4	23.70	23.60	21.36	22.54	21.33	20.94	23.00	20.91	22.63	24.50	22.53	20.92	
5	23.00	23.61	21.25	22.03	21.33	20.93	23.00	21.27	23.88	24.08	21.72	21.03	
6	22.74	23.55	21.19	21.64	21.32	20.87	22.99	21.16	24.24	23.25	21.39	23.45	
7	22.56	23.39	21.11	21.55	21.30	20.83	22.89	21.42	23.70	22.30	21.26	23.46	
8	22.56	22.52	21.70	21.51	21.28	21.18	22.64	22.46	22.40	21.78	21.18	23.31	
9	22.32	21.87	21.45	21.56	21.27	21.57	22.87	22.46	21.64	21.65	21.12	23.55	
10	21.81	21.70	21.38	21.47	21.26	21.11	22.68	21.48	21.48	21.64	21.09	24.24	
11	21.69	21.63	21.45	21.44	21.25	22.54	22.36	21.34	21.34	22.07	21.06	23.44	
12	21.62	21.70	21.24	21.42	21.27	25.09	22.15	21.39	21.28	22.86	21.04	22.21	
13	21.54	21.81	21.60	21.43	21.26	24.93	21.96	21.22	21.24	24.50	21.02	21.63	
14	21.48	21.61	21.44	21.42	21.25	24.43	21.78	20.99	21.19	24.42	21.00	21.53	
15	21.40	21.46	21.18	21.41	21.47	23.91	21.66	20.91	21.12	24.26	20.95	21.25	
16	21.37	21.66	21.14	21.38	21.38	23.26	21.60	20.90	21.64	23.78	20.92	21.14	
17	21.74	22.34	21.13	21.37	21.30	22.82	21.57	20.94	21.89	23.20	20.90	21.05	
18	21.50	21.93	21.13	21.36	21.56	22.58	21.56	20.89	21.67	22.66	20.95	21.00	
19	22.11	22.16	21.14	21.34	21.55	22.50	21.77	20.80	21.42	22.78	21.08	21.02	
20	22.73	22.72	21.15	21.35	21.29	22.57	21.68	21.86	21.37	24.39	20.96	20.96	
21	21.66	22.00	21.08	21.35	20.81	22.76	21.71	23.08	21.26	23.94	20.91	21.08	
22	21.52	21.52	21.04	21.33	20.80	22.68	22.46	23.46	21.34	24.13	20.85	21.31	
23	21.72	21.40	21.04	21.36	20.77	22.47	22.08	23.40	21.32	24.69	20.82	21.16	
24	21.36	22.04	21.20	21.35	21.02	21.93	21.63	24.38	21.13	24.03	20.81	21.04	
25	21.69	21.87	21.19	21.36	21.27	21.35	21.74	24.82	21.10	23.20	21.88	21.36	
26	21.36	21.56	21.48	21.42	21.42	22.33	21.60	24.40	21.00	22.20	21.32	21.12	
27	21.42	21.44	21.45	21.39	21.48	24.04	21.79	23.87	20.95	21.80	20.94	21.04	
28	21.60	21.33	21.46	21.39	21.15	24.24	21.68	23.26	20.85	21.64	20.96	21.68	
29	21.29	21.26	21.46	21.60	21.75	24.08	21.05	22.42	20.84	21.52	21.44	21.32	
30	21.19	21.21	21.45	21.47	22.58	23.86	21.00	21.86	20.87	21.47		21.15	
31		21.18		21.42	22.73		21.12		20.92	21.47		21.25	
Mean	22.13	22.12	21.29	21.51	21.37	22.51	22.11	22.01	21.62	23.25	21.23	21.66	
Max	24.72	23.78	21.70	22.54	22.73	25.09	23.18	24.82	24.24	26.16	22.53	24.24	26.16
Min	21.19	21.18	21.04	21.33	20.77	20.83	21.00	20.80	20.84	21.47	20.81	20.89	20.77

Annual Max Momentary Gage Height	26.20	m. (MSL.) ,	at 12.00 Hours , on Jan 1 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	19.69	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, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	39.40	7.44	3.36	4.80	4.32	4.52	14.64	3.36	5.32	138.20	7.50	3.20		
2	31.50	21.08	4.00	6.00	4.20	3.20	14.08	2.76	4.68	86.50	5.36	2.36		
3	25.17	21.29	4.60	6.18	4.20	2.80	15.44	2.60	4.36	46.68	6.60	2.44		
4	20.45	19.40	4.24	10.58	4.12	2.56	14.00	2.44	11.22	33.00	10.51	2.48		
5	14.00	19.51	3.80	7.38	4.12	2.52	14.00	3.88	22.50	25.04	5.68	2.92		
6	12.05	18.92	3.56	5.36	4.08	2.28	13.92	3.44	27.38	16.07	4.36	17.98		
7	10.72	17.40	3.24	5.00	4.00	2.12	13.17	4.48	20.45	9.00	3.84	18.07		
8	10.72	10.44	5.60	4.84	3.92	3.52	11.30	10.02	9.60	5.92	3.52	16.64		
9	9.12	6.42	4.60	5.04	3.88	5.08	13.03	10.02	5.36	5.40	3.28	18.92		
10	6.06	5.60	4.32	4.68	3.84	3.24	11.60	4.72	4.72	5.36	3.16	27.38		
11	5.56	5.32	4.60	4.56	3.80	10.58	9.36	4.16	4.16	7.62	3.04	17.88		
12	5.28	5.60	3.76	4.48	3.88	55.45	8.10	4.36	3.92	12.95	2.96	8.46		
13	4.96	6.06	5.20	4.52	3.84	47.53	6.96	3.68	3.76	33.00	2.88	5.32		
14	4.72	5.24	4.56	4.48	3.80	31.25	5.92	2.76	3.56	31.00	2.80	4.92		
15	4.40	4.64	3.52	4.44	4.68	22.88	5.44	2.44	3.28	27.77	2.60	3.80		
16	4.28	5.44	3.36	4.32	4.32	16.17	5.20	2.40	5.36	21.29	2.48	3.36		
17	5.76	9.24	3.32	4.28	4.00	12.65	5.08	2.56	6.54	15.60	2.40	3.00		
18	4.80	6.78	3.32	4.24	5.04	10.86	5.04	2.36	5.48	11.45	2.60	2.80		
19	7.86	8.16	3.36	4.16	5.00	10.30	5.88	2.00	4.48	12.35	3.12	2.88		
20	11.97	11.90	3.40	4.20	3.96	10.79	5.52	6.36	4.28	30.30	2.64	2.64		
21	5.44	7.20	3.12	4.20	2.04	12.20	5.64	14.64	3.84	23.25	2.44	3.12		
22	4.88	4.88	2.96	4.12	2.00	11.60	10.02	18.07	4.16	25.69	2.20	4.04		
23	5.68	4.40	2.96	4.24	1.93	10.09	7.68	17.50	4.08	38.43	2.08	3.44		
24	4.24	7.44	3.60	4.20	2.88	6.78	5.32	30.11	3.32	24.39	2.04	2.96		
25	5.56	6.42	3.56	4.24	3.88	4.20	5.76	42.85	3.20	15.60	6.48	4.24		
26	4.24	5.04	4.72	4.48	4.48	9.18	5.20	30.50	2.80	8.40	4.08	3.28		
27	4.48	4.56	4.60	4.36	4.72	24.52	5.96	22.38	2.60	6.00	2.56	2.96		
28	5.20	4.12	4.64	4.36	3.40	27.38	5.52	16.17	2.20	5.36	2.64	5.52		
29	3.96	3.84	4.64	5.20	5.80	25.04	3.00	9.74	2.16	4.88	4.56	4.08		
30	3.56	3.64	4.60	4.68	10.86	22.25	2.80	6.36	2.28	4.68		3.40		
31		3.52		4.48	11.97		3.28		2.48	4.68		3.80		
Total	286.02	270.94	119.12	152.10	136.96	413.54	257.86	289.12	193.53	735.86	110.41	208.29	3173.75	CMSDAY
Mean	9.53	8.74	3.97	4.91	4.42	13.78	8.32	9.64	6.24	23.74	3.81	6.72	8.67	CMS
Max	39.40	21.29	5.60	10.58	11.97	55.45	15.44	42.85	27.38	138.20	10.51	27.38	138.20	CMS
Min	3.56	3.52	2.96	4.12	1.93	2.12	2.80	2.00	2.16	4.68	2.04	2.36	1.93	CMS
Runoff	24.71	23.41	10.29	13.14	11.83	35.73	22.28	24.98	16.72	63.58	9.54	18.00	274.21	MCM

Momentary Peak 142.50 CMS. at 26.20 m. (MSL.) at 12.00 Hours , on Jan 1 , 2011

Runoff Yield 17.59 Liters/Second/Square KM. Momentary Peak Yield 289.047 Liters/Second/Square KM.

WATER YEAR : 2011

THALE SAP SONGKHLA

Khlong La Pang at Ban Thung Prap , Songkhla (X.113)

Lat 06 - 37 - 59 N Long 100 - 23 - 46 E

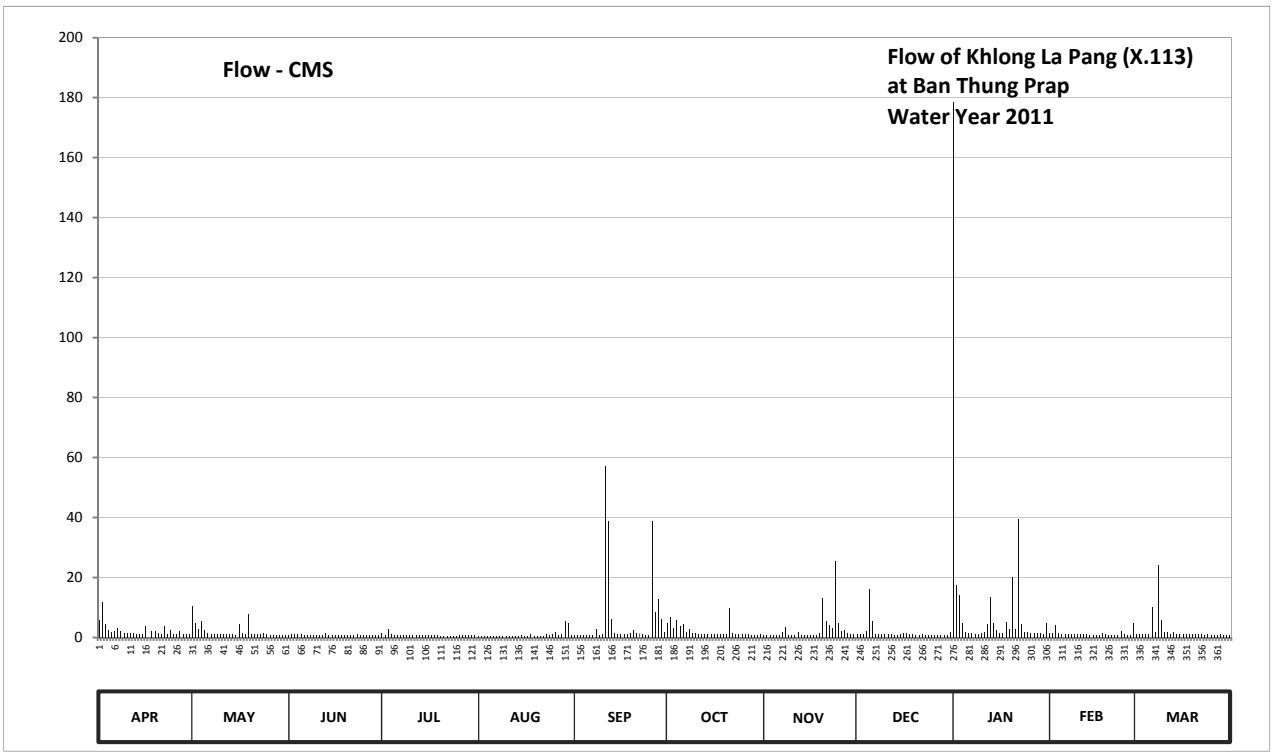
Location : on right bank at Ban Thung Prap.

	Ban Thung Prap	**Amphoe** Sadao	**Changwat** Songkhla
Drainge Area	118 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	About 15 meters from the gage observer's house.	**Elevation**	+37.552 m. (MSL.)
Gage Reading Frequency	13-time daily readings at 06.00 - 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 13 readings		
Period of Available Gage Records	1979 to date		
Rating Operation			
Period of Rating	1979 to date		
Rated by Flot	-		
Rated by Current Meter	1979 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 35 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	33.66	34.20	32.07	32.35	31.92	32.02	33.37	32.06	32.14	36.83	32.39	32.16	
2	34.29	33.39	32.14	32.05	31.91	31.98	33.78	32.03	32.12	34.59	32.25	32.10	
3	33.31	32.81	32.20	32.82	31.91	31.97	32.93	32.03	32.15	34.43	33.21	32.18	
4	32.73	33.60	32.10	32.17	31.91	31.96	33.63	32.01	32.62	33.36	32.28	32.09	
5	32.55	32.74	32.14	32.02	31.90	31.95	33.15	32.04	34.53	32.48	32.20	32.23	
6	32.68	32.33	32.04	31.98	31.89	31.93	33.35	32.07	33.55	32.34	32.17	34.14	
7	32.89	32.21	32.02	31.97	31.89	31.96	32.44	32.46	32.24	32.28	32.15	32.52	
8	32.67	32.16	32.03	31.97	31.89	32.82	32.88	33.00	32.17	32.24	32.13	34.83	
9	32.40	32.13	32.03	31.97	31.88	31.99	32.43	32.08	32.19	32.23	32.13	33.64	
10	32.33	32.12	32.05	31.96	31.88	32.14	32.29	32.07	32.13	32.29	32.12	32.59	
11	32.30	32.24	32.03	31.95	31.88	35.50	32.22	32.06	32.12	32.45	32.10	32.48	
12	32.25	32.22	32.03	31.93	31.88	35.15	32.21	32.49	32.09	33.29	32.09	32.24	
13	32.22	32.22	32.34	31.93	31.88	33.67	32.18	32.04	32.07	34.40	32.09	32.45	
14	32.20	32.11	32.03	31.94	31.87	32.42	32.15	32.01	32.06	33.41	32.07	32.19	
15	32.15	32.08	32.02	31.94	31.93	32.24	32.12	32.02	32.10	32.71	32.07	32.15	
16	33.12	33.34	32.04	31.93	31.88	32.15	32.11	32.01	32.31	32.39	32.07	32.12	
17	30.03	32.38	32.05	31.93	31.88	32.21	32.10	32.01	32.25	32.32	32.06	32.10	
18	32.61	32.23	32.04	31.93	32.14	32.17	32.10	32.00	32.10	33.54	32.43	32.09	
19	32.66	33.89	32.04	31.93	31.92	32.40	32.13	32.43	32.11	32.82	32.09	32.09	
20	32.33	32.24	32.02	31.92	31.90	32.72	32.09	34.36	32.06	34.69	32.07	32.18	
21	32.17	32.15	32.00	31.91	31.90	32.42	34.13	33.58	32.06	32.88	32.06	32.10	
22	33.09	32.11	31.99	31.91	31.89	32.28	32.26	33.22	32.12	35.17	32.05	32.22	
23	32.17	32.16	32.14	31.91	32.12	32.13	32.13	32.97	32.05	33.27	32.04	32.08	
24	32.75	32.42	32.02	31.91	32.08	32.07	32.10	34.86	32.03	32.57	32.65	32.09	
25	32.18	32.12	32.01	31.91	32.16	32.04	32.11	33.43	32.02	32.44	32.13	32.06	
26	32.11	32.08	32.00	31.96	32.54	35.15	32.09	32.62	32.01	32.36	32.07	32.05	
27	32.65	32.08	32.01	31.93	32.04	34.00	32.13	32.70	32.00	32.31	32.05	32.06	
28	32.15	32.07	31.99	31.97	32.14	34.35	32.06	32.34	31.99	32.27	33.39	32.10	
29	32.10	32.05	31.99	32.00	33.56	33.70	32.04	32.24	31.98	32.25	32.48	32.07	
30	32.17	32.04	31.98	31.93	33.44	32.51	32.05	32.19	32.01	32.24		32.04	
31		32.03		31.93	32.07		32.18		32.46	33.44		32.02	
Mean	32.50	32.45	32.05	32.00	32.07	32.73	32.48	32.51	32.25	33.11	32.24	32.37	
Max	34.29	34.20	32.34	32.82	33.56	35.50	34.13	34.86	34.53	36.83	33.39	34.83	36.83
Min	30.03	32.03	31.98	31.91	31.87	31.93	32.04	32.00	31.98	32.23	32.04	32.02	30.03

Annual Max Momentary Gage Height	37.26	m. (MSL.) ,	at 11.00 Hours , on Jan 1 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	31.35	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, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	5.95	10.60	0.94	1.50	0.64	0.84	4.69	0.92	1.08	178.35	1.58	1.12		
2	11.95	4.76	1.08	0.90	0.62	0.76	6.85	0.86	1.04	17.40	1.30	1.00		
3	4.49	2.74	1.20	2.77	0.62	0.74	3.16	0.86	1.10	14.20	4.13	1.16		
4	2.46	5.50	1.00	1.14	0.62	0.72	5.73	0.82	2.07	4.66	1.36	0.98		
5	1.90	2.49	1.08	0.84	0.60	0.70	3.93	0.88	16.20	1.76	1.20	1.26		
6	2.28	1.46	0.88	0.76	0.58	0.66	4.62	0.94	5.33	1.48	1.14	10.00		
7	3.01	1.22	0.84	0.74	0.58	0.72	1.68	1.72	1.28	1.36	1.10	1.84		
8	2.24	1.12	0.86	0.74	0.58	2.77	2.98	3.40	1.14	1.28	1.06	24.29		
9	1.60	1.06	0.86	0.74	0.56	0.78	1.66	0.96	1.18	1.26	1.06	5.80		
10	1.46	1.04	0.90	0.72	0.56	1.08	1.38	0.94	1.06	1.38	1.04	1.98		
11	1.40	1.28	0.86	0.70	0.56	57.00	1.24	0.92	1.04	1.70	1.00	1.76		
12	1.30	1.24	0.86	0.66	0.56	38.65	1.22	1.78	0.98	4.41	0.98	1.28		
13	1.24	1.24	1.48	0.66	0.56	6.02	1.16	0.88	0.94	13.60	0.98	1.70		
14	1.20	1.02	0.86	0.68	0.54	1.64	1.10	0.82	0.92	4.83	0.94	1.18		
15	1.10	0.96	0.84	0.68	0.66	1.28	1.04	0.84	1.00	2.39	0.94	1.10		
16	3.82	4.59	0.88	0.66	0.56	1.10	1.02	0.82	1.42	1.58	0.94	1.04		
17	0.00	1.56	0.90	0.66	0.56	1.22	1.00	0.82	1.30	1.44	0.92	1.00		
18	2.04	1.26	0.88	0.66	1.08	1.14	1.00	0.80	1.00	5.29	1.66	0.98		
19	2.21	7.72	0.88	0.66	0.64	1.60	1.06	1.66	1.02	2.77	0.98	0.98		
20	1.46	1.28	0.84	0.64	0.60	2.42	0.98	13.00	0.92	20.03	0.94	1.16		
21	1.14	1.10	0.80	0.62	0.60	1.64	9.90	5.43	0.92	2.98	0.92	1.00		
22	3.71	1.02	0.78	0.62	0.58	1.36	1.32	4.17	1.04	39.59	0.90	1.24		
23	1.14	1.12	1.08	0.62	1.04	1.06	1.06	3.30	0.90	4.34	0.88	0.96		
24	2.53	1.64	0.84	0.62	0.96	0.94	1.00	25.58	0.86	1.94	2.18	0.98		
25	1.16	1.04	0.82	0.62	1.12	0.88	1.02	4.90	0.84	1.68	1.06	0.92		
26	1.02	0.96	0.80	0.72	1.88	38.65	0.98	2.07	0.82	1.52	0.94	0.90		
27	2.18	0.96	0.82	0.66	0.88	8.60	1.06	2.35	0.80	1.42	0.90	0.92		
28	1.10	0.94	0.78	0.74	1.08	12.85	0.92	1.48	0.78	1.34	4.76	1.00		
29	1.00	0.90	0.78	0.80	5.36	6.25	0.88	1.28	0.76	1.30	1.76	0.94		
30	1.14	0.88	0.76	0.66	4.94	1.82	0.90	1.18	0.82	1.28		0.88		
31		0.86		0.66	0.94		1.16		1.72	4.94		0.84		
Total	69.23	65.56	27.18	24.85	31.66	195.89	67.70	86.38	52.28	343.50	39.55	72.19	1075.97	CMSDAY
Mean	2.31	2.11	0.91	0.80	1.02	6.53	2.18	2.88	1.69	11.08	1.36	2.33	2.94	CMS
Max	11.95	10.60	1.48	2.77	5.36	57.00	9.90	25.58	16.20	178.35	4.76	24.29	178.35	CMS
Min	0.00	0.86	0.76	0.62	0.54	0.66	0.88	0.80	0.76	1.26	0.88	0.84	0.00	CMS
Runoff	5.98	5.66	2.35	2.15	2.74	16.93	5.85	7.46	4.52	29.68	3.42	6.24	92.96	MCM

Momentary Peak 247.70 CMS. at 37.26 m. (MSL.) at 11.00 Hours , on Jan 1 , 2011

Runoff Yield 24.82 Liters/Second/Square KM. Momentary Peak Yield 2091.178 Liters/Second/Square KM.

WATER YEAR : 2011

THALE SAP SONGKHLA

Khlong Lam at Ban Khlong Lam , Phatthalung (X.170)

Lat 07 - 33 - 22 N Long 99 - 59 - 31 E

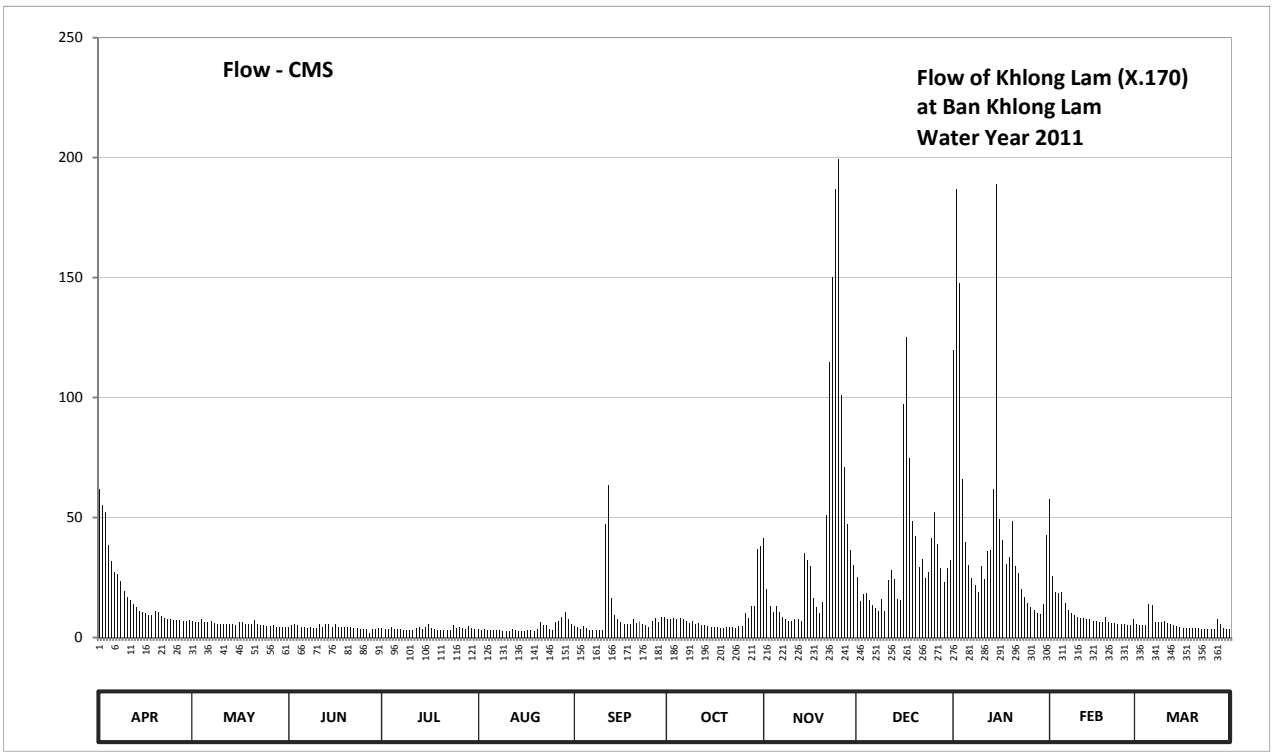
Location : on left bank at the bridge.

	Ban Khlong Lam	**Amphoe** Srinagarindra	**Changwat** Phatthalung
Drainge Area	258 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank about 21 meters from the top staff gage.	**Elevation**	+27.274 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	1987 to date		
Rating Operation			
Period of Rating	1989 to date		
Rated by Flot	-		
Rated by Current Meter	1989 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 32 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	21.66	20.47	20.37	20.36	20.34	20.39	20.51	21.31	20.96	22.43	21.59	20.42	
2	21.55	20.46	20.41	20.34	20.33	20.37	20.51	20.85	20.73	23.14	20.97	20.40	
3	21.50	20.45	20.43	20.35	20.35	20.35	20.53	20.68	20.80	22.74	20.82	20.40	
4	21.25	20.51	20.40	20.38	20.33	20.39	20.50	20.62	20.81	21.72	20.81	20.40	
5	21.11	20.46	20.38	20.35	20.33	20.36	20.52	20.68	20.74	21.27	20.82	20.70	
6	21.01	20.46	20.37	20.34	20.33	20.33	20.51	20.62	20.69	21.07	20.71	20.69	
7	20.99	20.47	20.36	20.34	20.32	20.33	20.47	20.54	20.66	20.95	20.64	20.46	
8	20.92	20.44	20.37	20.33	20.32	20.33	20.44	20.50	20.63	20.89	20.60	20.46	
9	20.83	20.43	20.36	20.33	20.31	20.33	20.47	20.48	20.75	20.82	20.57	20.45	
10	20.77	20.43	20.36	20.33	20.30	20.33	20.42	20.47	20.63	21.06	20.54	20.47	
11	20.74	20.43	20.43	20.32	20.30	21.42	20.44	20.51	20.93	20.94	20.53	20.44	
12	20.70	20.43	20.37	20.36	20.35	21.68	20.41	20.51	21.02	21.20	20.52	20.42	
13	20.67	20.43	20.42	20.38	20.33	20.76	20.40	20.48	20.94	21.21	20.51	20.40	
14	20.63	20.42	20.42	20.35	20.31	20.57	20.39	21.18	20.75	21.66	20.50	20.39	
15	20.62	20.41	20.38	20.37	20.31	20.50	20.37	21.12	20.74	23.16	20.48	20.37	
16	20.61	20.45	20.42	20.42	20.30	20.46	20.37	21.06	22.15	21.45	20.47	20.36	
17	20.58	20.45	20.38	20.36	20.32	20.43	20.37	20.76	22.49	21.29	20.45	20.36	
18	20.57	20.42	20.37	20.35	20.32	20.43	20.36	20.67	21.85	21.08	20.45	20.36	
19	20.63	20.42	20.37	20.33	20.31	20.43	20.36	20.61	21.44	21.14	20.54	20.36	
20	20.62	20.43	20.37	20.33	20.35	20.50	20.38	20.72	21.32	21.44	20.45	20.36	
21	20.56	20.49	20.37	20.33	20.46	20.44	20.37	21.48	21.05	21.06	20.44	20.36	
22	20.53	20.43	20.36	20.33	20.40	20.47	20.38	22.37	21.13	21.00	20.44	20.35	
23	20.51	20.40	20.36	20.33	20.40	20.42	20.36	22.77	20.95	20.85	20.43	20.35	
24	20.51	20.40	20.35	20.41	20.35	20.40	20.39	23.14	21.01	20.77	20.43	20.35	
25	20.49	20.39	20.35	20.36	20.33	20.38	20.39	23.26	21.31	20.71	20.42	20.34	
26	20.49	20.39	20.35	20.37	20.46	20.47	20.60	22.20	21.50	20.67	20.41	20.34	
27	20.49	20.40	20.28	20.36	20.48	20.53	20.53	21.80	21.26	20.64	20.40	20.50	
28	20.48	20.38	20.34	20.35	20.55	20.45	20.68	21.42	21.04	20.60	20.51	20.43	
29	20.48	20.38	20.35	20.39	20.62	20.54	20.68	21.21	20.91	20.59	20.65	20.36	
30	20.49	20.37	20.36	20.36	20.51	20.55	21.22	21.07	21.04	20.70		20.35	
31		20.37		20.34	20.42		21.24		21.12	21.33		20.35	
Mean	20.77	20.43	20.37	20.35	20.37	20.51	20.50	21.17	21.08	21.28	20.59	20.41	
Max	21.66	20.51	20.43	20.42	20.62	21.68	21.24	23.26	22.49	23.16	21.59	20.70	23.26
Min	20.48	20.37	20.28	20.32	20.30	20.33	20.36	20.47	20.63	20.59	20.40	20.34	20.28

Annual Max Momentary Gage Height	24.56	m. (MSL.) ,	at 04.00 Hours , on Jan 15 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	18.58	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, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	62.04	6.75	4.25	4.00	3.50	4.75	7.75	41.61	25.20	119.70	57.60	5.50		
2	55.20	6.50	5.25	3.50	3.25	4.25	7.75	20.25	15.20	187.00	25.65	5.00		
3	52.20	6.25	5.75	3.75	3.75	3.75	8.25	13.20	18.00	147.60	18.90	5.00		
4	38.55	7.75	5.00	4.50	3.25	4.75	7.50	10.80	18.45	65.88	18.45	5.00		
5	31.95	6.50	4.50	3.75	3.25	4.00	8.00	13.20	15.60	39.57	18.90	14.00		
6	27.45	6.50	4.25	3.50	3.25	3.25	7.75	10.80	13.60	30.15	14.40	13.60		
7	26.55	6.75	4.00	3.50	3.00	3.25	6.75	8.50	12.40	24.75	11.60	6.50		
8	23.40	6.00	4.25	3.25	3.00	3.25	6.00	7.50	11.20	22.05	10.00	6.50		
9	19.35	5.75	4.00	3.25	2.75	3.25	6.75	7.00	16.00	18.90	9.25	6.25		
10	16.80	5.75	4.00	3.25	2.50	3.25	5.50	6.75	11.20	29.70	8.50	6.75		
11	15.60	5.75	5.75	3.00	2.50	47.40	6.00	7.75	23.85	24.30	8.25	6.00		
12	14.00	5.75	4.25	4.00	3.75	63.32	5.25	7.75	27.90	36.00	8.00	5.50		
13	12.80	5.75	5.50	4.50	3.25	16.40	5.00	7.00	24.30	36.51	7.75	5.00		
14	11.20	5.50	5.50	3.75	2.75	9.25	4.75	35.10	16.00	62.04	7.50	4.75		
15	10.80	5.25	4.50	4.25	2.75	7.50	4.25	32.40	15.60	189.00	7.00	4.25		
16	10.40	6.25	5.50	5.50	2.50	6.50	4.25	29.70	97.20	49.20	6.75	4.00		
17	9.50	6.25	4.50	4.00	3.00	5.75	4.25	16.40	125.10	40.59	6.25	4.00		
18	9.25	5.50	4.25	3.75	3.00	5.75	4.00	12.80	74.70	30.60	6.25	4.00		
19	11.20	5.50	4.25	3.25	2.75	5.75	4.00	10.40	48.60	33.30	8.50	4.00		
20	10.80	5.75	4.25	3.25	3.75	7.50	4.50	14.80	42.12	48.60	6.25	4.00		
21	9.00	7.25	4.25	3.25	6.50	6.00	4.25	51.00	29.25	29.70	6.00	4.00		
22	8.25	5.75	4.00	3.25	5.00	6.75	4.50	114.60	32.85	27.00	6.00	3.75		
23	7.75	5.00	4.00	3.25	5.00	5.50	4.00	150.30	24.75	20.25	5.75	3.75		
24	7.75	5.00	3.75	5.25	3.75	5.00	4.75	187.00	27.45	16.80	5.75	3.75		
25	7.25	4.75	3.75	4.00	3.25	4.50	4.75	199.30	41.61	14.40	5.50	3.50		
26	7.25	4.75	3.75	4.25	6.50	6.75	10.00	101.00	52.20	12.80	5.25	3.50		
27	7.25	5.00	2.00	4.00	7.00	8.25	8.25	71.00	39.06	11.60	5.00	7.50		
28	7.00	4.50	3.50	3.75	8.75	6.25	13.20	47.40	28.80	10.00	7.75	5.75		
29	7.00	4.50	3.75	4.75	10.80	8.50	13.20	36.51	22.95	9.75	12.00	4.00		
30	7.25	4.25	4.00	4.00	7.75	8.75	37.02	30.15	28.80	14.00		3.75		
31		4.25		3.50	5.50		38.04		32.40	42.63		3.75		
Total	544.79	176.75	130.25	118.75	131.30	279.12	260.21	1301.97	1012.34	1444.37	324.75	166.60	5891.20	CMSDAY
Mean	18.16	5.70	4.34	3.83	4.24	9.30	8.39	43.40	32.66	46.59	11.20	5.37	16.10	CMS
Max	62.04	7.75	5.75	5.50	10.80	63.32	38.04	199.30	125.10	189.00	57.60	14.00	199.30	CMS
Min	7.00	4.25	2.00	3.00	2.50	3.25	4.00	6.75	11.20	9.75	5.00	3.50	2.00	CMS
Runoff	47.07	15.27	11.25	10.26	11.34	24.12	22.48	112.49	87.47	124.79	28.06	14.39	509.00	MCM

Momentary Peak 381.80 CMS. at 24.56 m. (MSL.) at 04.00 Hours , on Jan 15 , 2011

Runoff Yield 62.39 Liters/Second/Square KM. Momentary Peak Yield 1479.845 Liters/Second/Square KM.

WATER YEAR : 2011

THALE SAP SONGKHLA

Khlong U - Taphao at Ban Muang Kong , Songkhla (X.173A)

Lat 06 - 49 - 26 N Long 100 - 26 - 17 E

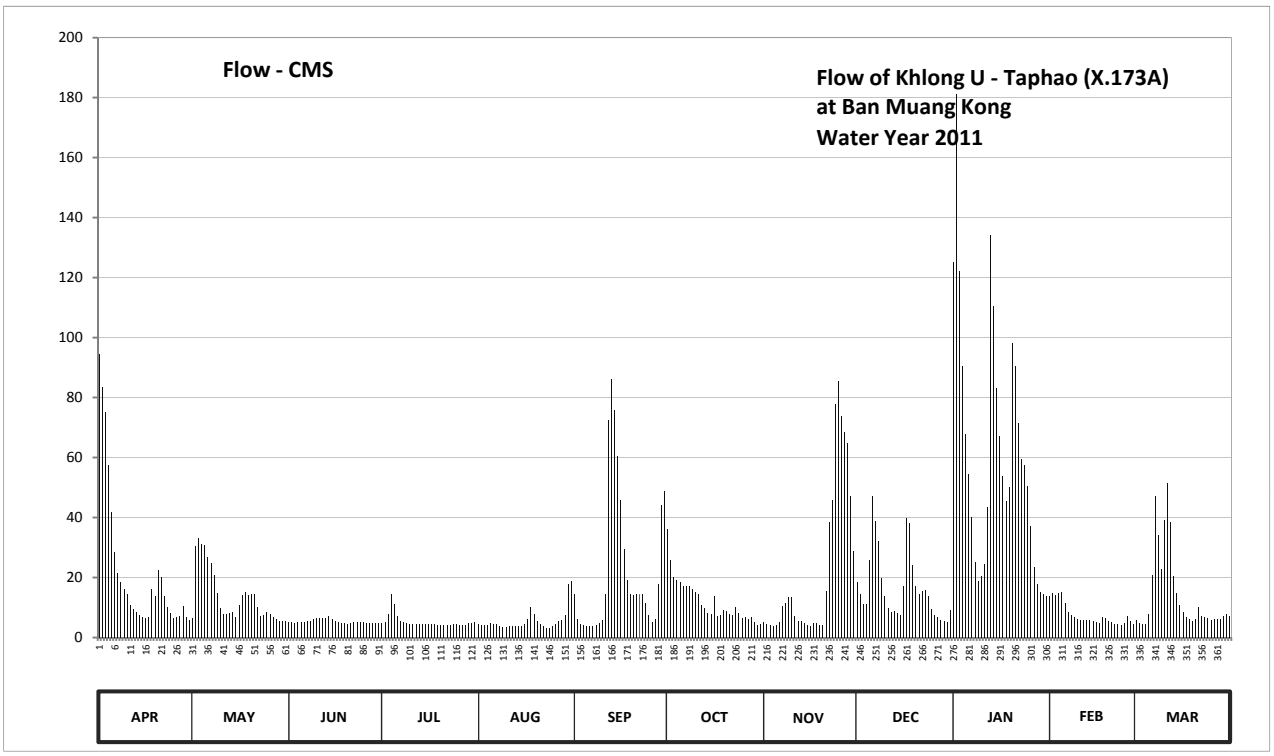
Location : on right bank at the bridge on Hat Yai - Sadao Highway.

	Ban Muang Kong	**Amphoe** Sadao	**Changwat** Songkhla
Drainge Area	1,063 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank about 1.13 meters from the top staff gage.	**Elevation**	+16.125 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	2006 to date		
Rating Operation			
Period of Rating	2006 to date		
Rated by Flot	-		
Rated by Current Meter	2006 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 34 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	14.83	10.67	10.45	10.35	10.28	11.37	13.05	10.41	11.90	15.46	11.25	10.55	
2	14.59	12.77	10.40	10.40	10.26	10.60	12.51	10.32	11.42	16.31	11.45	10.37	
3	14.40	12.90	10.39	10.83	10.23	10.30	12.05	10.22	11.16	15.40	11.35	10.28	
4	13.91	12.81	10.45	11.42	10.25	10.20	11.97	10.18	11.17	14.74	11.47	10.29	
5	13.31	12.78	10.40	11.17	10.34	10.15	11.89	10.23	12.50	14.22	11.52	10.83	
6	12.66	12.56	10.40	10.76	10.30	10.15	11.78	10.44	13.53	13.81	11.19	12.14	
7	12.21	12.45	10.46	10.52	10.27	10.17	11.75	11.11	13.20	13.24	10.89	13.53	
8	11.91	12.13	10.52	10.45	10.18	10.21	11.76	11.19	12.85	12.46	10.77	12.96	
9	11.65	11.46	10.62	10.39	10.12	10.36	11.67	11.21	12.04	11.94	10.69	12.30	
10	11.38	11.03	10.65	10.30	10.10	10.55	11.55	11.22	11.26	12.09	10.63	13.21	
11	11.13	10.83	10.65	10.31	10.14	11.41	11.37	10.73	11.02	12.43	10.58	13.70	
12	11.00	10.82	10.67	10.30	10.18	14.34	11.15	10.50	10.89	13.38	10.58	13.18	
13	10.89	10.85	10.65	10.30	10.19	14.65	11.03	10.47	10.93	15.63	10.55	12.11	
14	10.80	10.89	10.74	10.30	10.18	14.42	10.86	10.34	10.87	15.17	10.54	11.43	
15	10.72	10.69	10.63	10.29	10.17	14.01	10.81	10.23	10.78	14.58	10.48	11.12	
16	10.65	11.15	10.48	10.27	10.31	13.48	11.25	10.18	11.77	14.20	10.43	10.89	
17	10.69	11.34	10.40	10.27	10.62	12.71	10.75	10.34	13.23	13.79	10.39	10.72	
18	11.68	11.54	10.37	10.27	11.08	11.96	10.79	10.35	13.16	13.46	10.68	10.61	
19	11.26	11.33	10.35	10.26	10.82	11.41	10.96	10.20	12.40	13.64	10.65	10.52	
20	12.28	11.37	10.33	10.22	10.50	11.35	10.94	10.20	11.76	14.91	10.51	10.61	
21	12.08	11.42	10.36	10.21	10.29	11.38	10.82	11.60	11.38	14.74	10.40	11.05	
22	11.24	11.05	10.42	10.21	10.14	11.39	10.78	13.18	11.57	14.31	10.33	10.76	
23	11.06	10.73	10.44	10.25	10.01	11.38	11.07	13.48	11.63	13.98	10.29	10.70	
24	10.85	10.79	10.45	10.28	10.03	11.20	10.84	14.46	11.25	13.91	10.24	10.65	
25	10.66	10.88	10.42	10.27	10.14	10.80	10.67	14.63	10.98	13.66	10.34	10.59	
26	10.70	10.82	10.36	10.25	10.30	10.40	10.68	14.37	10.80	13.11	10.73	10.60	
27	10.73	10.72	10.35	10.25	10.50	10.60	10.61	14.24	10.68	12.36	10.47	10.63	
28	11.11	10.63	10.34	10.25	10.54	11.83	10.70	14.14	10.57	11.82	10.30	10.62	
29	10.72	10.52	10.34	10.34	10.77	13.40	10.44	13.53	10.49	11.56	10.37	10.76	
30	10.55	10.49	10.35	10.36	11.82	13.59	10.23	12.67	10.43	11.37		10.83	
31		10.46		10.43	11.94		10.29		10.96	11.29		10.75	
Mean	11.72	11.32	10.46	10.40	10.42	11.66	11.19	11.55	11.57	13.64	10.69	11.27	
Max	14.83	12.90	10.74	11.42	11.94	14.65	13.05	14.63	13.53	16.31	11.52	13.70	16.31
Min	10.55	10.46	10.33	10.21	10.01	10.15	10.23	10.18	10.43	11.29	10.24	10.28	10.01

Annual Max Momentary Gage Height	17.03	m. (MSL.) ,	at 20.00 Hours , on Jan 1 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	8.59	m. (MSL.)
Left Bank Elevation	17.30	m. (MSL.) ,			
Right Bank Elevation	17.31	m. (MSL.) ,	Drainage Area	1063	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	94.35	6.56	5.25	4.75	4.40	14.35	36.00	5.05	18.50	125.00	13.75	5.75		
2	83.55	30.48	5.00	5.00	4.30	6.00	25.93	4.60	14.60	181.25	14.75	4.85		
3	75.00	33.00	4.95	7.88	4.15	4.50	20.00	4.10	11.10	122.00	14.25	4.40		
4	57.30	31.20	5.25	14.60	4.25	4.00	19.20	3.90	11.20	90.30	14.85	4.45		
5	41.75	30.65	5.00	11.20	4.70	3.75	18.40	4.15	25.75	67.80	15.10	7.88		
6	28.55	26.80	5.00	7.28	4.50	3.75	17.30	5.20	47.25	54.30	11.40	20.90		
7	21.63	24.87	5.30	5.60	4.35	3.85	17.00	10.60	39.00	40.00	8.46	47.25		
8	18.60	20.80	5.60	5.25	3.90	4.05	17.10	11.40	32.00	25.05	7.36	34.20		
9	16.00	14.80	6.16	4.95	3.60	4.80	16.20	13.55	19.90	18.90	6.72	22.75		
10	14.40	9.80	6.40	4.50	3.50	5.75	15.25	13.60	13.80	20.40	6.24	39.25		
11	10.80	7.88	6.40	4.55	3.70	14.55	14.35	7.04	9.70	24.53	5.90	51.50		
12	9.50	7.79	6.56	4.50	3.90	72.60	11.00	5.50	8.46	43.50	5.90	38.60		
13	8.46	8.08	6.40	4.50	3.95	86.25	9.80	5.35	8.84	133.95	5.75	20.60		
14	7.60	8.46	7.12	4.50	3.90	75.90	8.17	4.70	8.26	110.50	5.70	14.65		
15	6.96	6.72	6.24	4.45	3.85	60.35	7.70	4.15	7.44	83.10	5.40	10.70		
16	6.40	11.00	5.40	4.35	4.55	46.00	13.75	3.90	17.20	67.00	5.15	8.46		
17	6.72	14.20	5.00	4.35	6.16	29.42	7.20	4.70	39.75	53.75	4.95	6.96		
18	16.30	15.20	4.85	4.35	10.30	19.10	7.52	4.75	38.20	45.50	6.64	6.08		
19	13.80	14.15	4.75	4.30	7.79	14.55	9.12	4.00	24.00	50.00	6.40	5.60		
20	22.50	14.35	4.65	4.10	5.50	14.25	8.93	4.00	17.10	97.95	5.55	6.08		
21	20.30	14.60	4.80	4.05	4.45	14.40	7.79	15.50	14.40	90.30	5.00	10.00		
22	13.70	10.00	5.10	4.05	3.70	14.45	7.44	38.60	15.35	71.40	4.65	7.28		
23	10.10	7.04	5.20	4.25	3.05	14.40	10.20	46.00	15.80	59.40	4.45	6.80		
24	8.08	7.52	5.25	4.40	3.15	11.50	7.98	77.70	13.75	57.30	4.20	6.40		
25	6.48	8.36	5.10	4.35	3.70	7.60	6.56	85.35	9.31	50.50	4.70	5.95		
26	6.80	7.79	4.80	4.25	4.50	5.00	6.64	73.80	7.60	37.20	7.04	6.00		
27	7.04	6.96	4.75	4.25	5.50	6.00	6.08	68.60	6.64	23.50	5.35	6.24		
28	10.60	6.24	4.70	4.25	5.70	17.80	6.80	64.90	5.85	17.70	4.50	6.16		
29	6.96	5.60	4.70	4.70	7.36	44.00	5.20	47.25	5.45	15.30	4.85	7.28		
30	5.75	5.45	4.75	4.80	17.70	48.75	4.15	28.72	5.15	14.35		7.88		
31		5.30		5.15	18.90		4.45		9.12	13.95		7.20		
Total	655.98	421.65	160.43	163.46	172.96	671.67	373.21	670.66	520.47	1905.68	214.96	438.10	6369.23	CMSDAY
Mean	21.87	13.60	5.35	5.27	5.58	22.39	12.04	22.36	16.79	61.47	7.41	14.13	17.40	CMS
Max	94.35	33.00	7.12	14.60	18.90	86.25	36.00	85.35	47.25	181.25	15.10	51.50	181.25	CMS
Min	5.75	5.30	4.65	4.05	3.05	3.75	4.15	3.90	5.15	13.95	4.20	4.40	3.05	CMS
Runoff	56.68	36.43	13.86	14.12	14.94	58.03	32.25	57.95	44.97	164.65	18.57	37.85	550.30	MCM

Momentary Peak 243.00 CMS. at 17.03 m. (MSL.) at 20.00 Hours , on Jan 1 , 2011

Runoff Yield 16.36 Liters/Second/Square KM. Momentary Peak Yield 228.405 Liters/Second/Square KM.

WATER YEAR : 2011

THALE SAP SONGKHLA

Khlong Wa at Ban Khlong Wa , Songkhla (X.174)

Lat 06 - 59 - 42 N Long 100 - 29 - 05 E

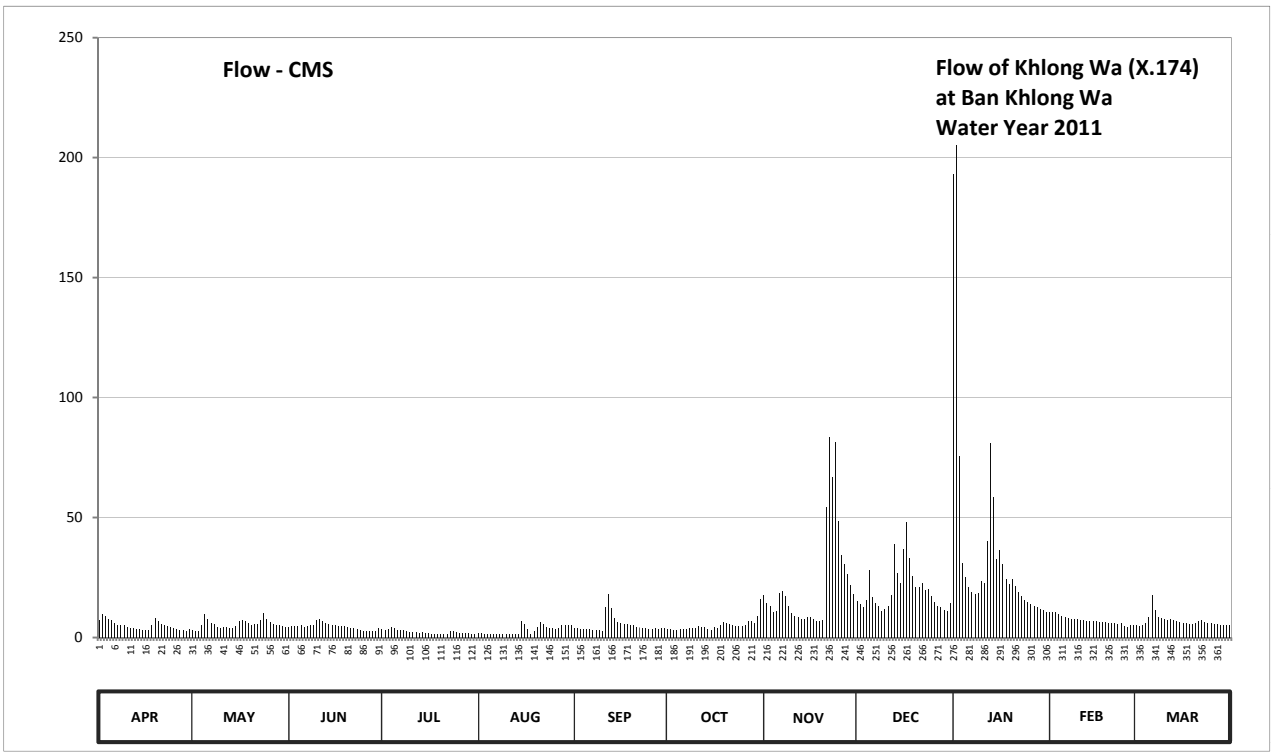
Location : on right bank at the bridge.

	Ban Khlong Wa	**Amphoe** Hat Yai	**Changwat** Songkhla
Drainge Area	116 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank at the abutment of the bridge.		**Elevation** +10.954 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	1989 to date		
Rating Operation			
Period of Rating	1989 to date		
Rated by Flot	-		
Rated by Current Meter	1989 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 32 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	5.36	5.16	5.22	5.17	5.09	5.20	5.18	5.67	5.61	8.21	5.48	5.25	
2	5.45	5.14	5.24	5.16	5.09	5.20	5.17	5.58	5.57	8.34	5.48	5.24	
3	5.43	5.13	5.24	5.17	5.08	5.18	5.16	5.54	5.53	6.76	5.47	5.25	
4	5.39	5.26	5.23	5.22	5.08	5.18	5.16	5.47	5.62	5.98	5.45	5.30	
5	5.36	5.45	5.26	5.19	5.08	5.18	5.17	5.49	5.91	5.85	5.43	5.41	
6	5.30	5.38	5.22	5.16	5.08	5.17	5.17	5.69	5.65	5.75	5.42	5.67	
7	5.27	5.31	5.23	5.15	5.08	5.16	5.18	5.71	5.58	5.70	5.40	5.50	
8	5.25	5.28	5.26	5.15	5.08	5.16	5.20	5.66	5.54	5.68	5.39	5.42	
9	5.25	5.21	5.26	5.14	5.08	5.15	5.20	5.54	5.49	5.69	5.39	5.40	
10	5.22	5.20	5.36	5.12	5.07	5.14	5.20	5.46	5.51	5.81	5.38	5.38	
11	5.20	5.21	5.38	5.12	5.07	5.53	5.24	5.43	5.54	5.79	5.37	5.36	
12	5.19	5.21	5.34	5.11	5.08	5.68	5.22	5.42	5.67	6.16	5.36	5.39	
13	5.18	5.20	5.31	5.10	5.08	5.52	5.22	5.39	6.14	6.84	5.35	5.36	
14	5.17	5.20	5.29	5.11	5.08	5.40	5.18	5.39	5.89	6.49	5.35	5.34	
15	5.16	5.24	5.27	5.09	5.34	5.33	5.15	5.42	5.79	6.01	5.34	5.33	
16	5.16	5.34	5.26	5.09	5.29	5.31	5.21	5.42	6.10	6.09	5.34	5.31	
17	5.15	5.37	5.24	5.08	5.17	5.29	5.19	5.39	6.31	5.97	5.33	5.30	
18	5.25	5.35	5.24	5.08	5.08	5.28	5.25	5.34	6.02	5.83	5.32	5.29	
19	5.40	5.30	5.23	5.08	5.13	5.27	5.32	5.35	5.86	5.78	5.32	5.28	
20	5.35	5.27	5.21	5.07	5.21	5.26	5.30	5.37	5.75	5.83	5.31	5.30	
21	5.29	5.28	5.20	5.07	5.33	5.22	5.29	6.42	5.75	5.76	5.31	5.34	
22	5.26	5.28	5.19	5.08	5.28	5.21	5.27	6.88	5.79	5.70	5.30	5.36	
23	5.24	5.37	5.17	5.14	5.22	5.20	5.23	6.63	5.72	5.66	5.29	5.33	
24	5.22	5.46	5.15	5.13	5.20	5.19	5.24	6.85	5.73	5.62	5.30	5.31	
25	5.20	5.39	5.14	5.11	5.20	5.18	5.24	6.32	5.66	5.59	5.23	5.30	
26	5.18	5.32	5.13	5.10	5.18	5.18	5.26	6.05	5.59	5.57	5.21	5.29	
27	5.16	5.29	5.13	5.09	5.20	5.20	5.34	5.97	5.54	5.54	5.25	5.28	
28	5.15	5.27	5.13	5.09	5.25	5.18	5.35	5.88	5.53	5.53	5.26	5.27	
29	5.14	5.25	5.13	5.09	5.25	5.20	5.31	5.77	5.50	5.51	5.26	5.27	
30	5.18	5.23	5.20	5.08	5.25	5.20	5.43	5.68	5.49	5.50		5.26	
31		5.22		5.08	5.25		5.63		5.58	5.48		5.26	
Mean	5.25	5.28	5.23	5.12	5.16	5.25	5.25	5.74	5.71	6.00	5.35	5.33	
Max	5.45	5.46	5.38	5.22	5.34	5.68	5.63	6.88	6.31	8.34	5.48	5.67	8.34
Min	5.14	5.13	5.13	5.07	5.07	5.14	5.15	5.34	5.49	5.48	5.21	5.24	5.07

Annual Max Momentary Gage Height	9.97	m. (MSL.) ,	at 13.00 Hours , on Jan 1 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	3.44	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, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	7.20	3.20	4.40	3.40	1.80	4.00	3.60	17.80	15.40	192.95	10.80	5.00		
2	9.75	2.80	4.80	3.20	1.80	4.00	3.40	14.30	13.95	205.30	10.80	4.80		
3	9.05	2.60	4.80	3.40	1.60	3.60	3.20	12.90	12.55	75.40	10.45	5.00		
4	7.80	5.20	4.60	4.40	1.60	3.60	3.20	10.45	15.80	31.10	9.75	6.00		
5	7.20	9.75	5.20	3.80	1.60	3.60	3.40	11.15	27.95	25.25	9.05	8.35		
6	6.00	7.60	4.40	3.20	1.60	3.40	3.40	18.60	17.00	21.00	8.70	17.80		
7	5.40	6.20	4.60	3.00	1.60	3.20	3.60	19.40	14.30	19.00	8.00	11.50		
8	5.00	5.60	5.20	3.00	1.60	3.20	4.00	17.40	12.90	18.20	7.80	8.70		
9	5.00	4.20	5.20	2.80	1.60	3.00	4.00	12.90	11.15	18.60	7.80	8.00		
10	4.40	4.00	7.20	2.40	1.40	2.80	4.00	10.10	11.85	23.45	7.60	7.60		
11	4.00	4.20	7.60	2.40	1.40	12.55	4.80	9.05	12.90	22.60	7.40	7.20		
12	3.80	4.20	6.80	2.20	1.60	18.20	4.40	8.70	17.80	40.00	7.20	7.80		
13	3.60	4.00	6.20	2.00	1.60	12.20	4.40	7.80	39.00	80.80	7.00	7.20		
14	3.40	4.00	5.80	2.20	1.60	8.00	3.60	7.80	27.05	58.40	7.00	6.80		
15	3.20	4.80	5.40	1.80	6.80	6.60	3.00	8.70	22.60	32.50	6.80	6.60		
16	3.20	6.80	5.20	1.80	5.80	6.20	4.20	8.70	37.00	36.50	6.80	6.20		
17	3.00	7.40	4.80	1.60	3.40	5.80	3.80	7.80	48.05	30.65	6.60	6.00		
18	5.00	7.00	4.80	1.60	1.60	5.60	5.00	6.80	33.00	24.35	6.40	5.80		
19	8.00	6.00	4.60	1.60	2.60	5.40	6.40	7.00	25.70	22.20	6.40	5.60		
20	7.00	5.40	4.20	1.40	4.20	5.20	6.00	7.40	21.00	24.35	6.20	6.00		
21	5.80	5.60	4.00	1.40	6.60	4.40	5.80	54.20	21.00	21.40	6.20	6.80		
22	5.20	5.60	3.80	1.60	5.60	4.20	5.40	83.60	22.60	19.00	6.00	7.20		
23	4.80	7.40	3.40	2.80	4.40	4.00	4.60	66.95	19.80	17.40	5.80	6.60		
24	4.40	10.10	3.00	2.60	4.00	3.80	4.80	81.50	20.20	15.80	6.00	6.20		
25	4.00	7.80	2.80	2.20	4.00	3.60	4.80	48.60	17.40	14.65	4.60	6.00		
26	3.60	6.40	2.60	2.00	3.60	3.60	5.20	34.50	14.65	13.95	4.20	5.80		
27	3.20	5.80	2.60	1.80	4.00	4.00	6.80	30.65	12.90	12.90	5.00	5.60		
28	3.00	5.40	2.60	1.80	5.00	3.60	7.00	26.60	12.55	12.55	5.20	5.40		
29	2.80	5.00	2.60	1.80	5.00	4.00	6.20	21.80	11.50	11.85	5.20	5.40		
30	3.60	4.60	4.00	1.60	5.00	4.00	9.05	18.20	11.15	11.50		5.20		
31		4.40		1.60	5.00		16.20		14.30	10.80		5.20		
Total	151.40	173.05	137.20	72.40	99.00	159.35	157.25	691.35	615.00	1164.40	206.75	213.35	3840.50	CMSDAY
Mean	5.05	5.58	4.57	2.34	3.19	5.31	5.07	23.05	19.84	37.56	7.13	6.88	10.49	CMS
Max	9.75	10.10	7.60	4.40	6.80	18.20	16.20	83.60	48.05	205.30	10.80	17.80	205.30	CMS
Min	2.80	2.60	2.60	1.40	1.40	2.80	3.00	6.80	11.15	10.80	4.20	4.80	1.40	CMS
Runoff	13.08	14.95	11.85	6.26	8.55	13.77	13.59	59.73	53.14	100.60	17.86	18.43	331.82	MCM

Momentary Peak 369.70 CMS. at 9.97 m. (MSL.) at 13.00 Hours , on Jan 1 , 2011

Runoff Yield 90.46 Liters/Second/Square KM. Momentary Peak Yield 3187.069 Liters/Second/Square KM.

WATER YEAR : 2011

THALE SAP SONGKHLA

Upper Khlong Wat at Ban Hu Rae , Songkhla (X.240)

Lat 06 - 59 - 03 N Long 100 - 19 - 44 E

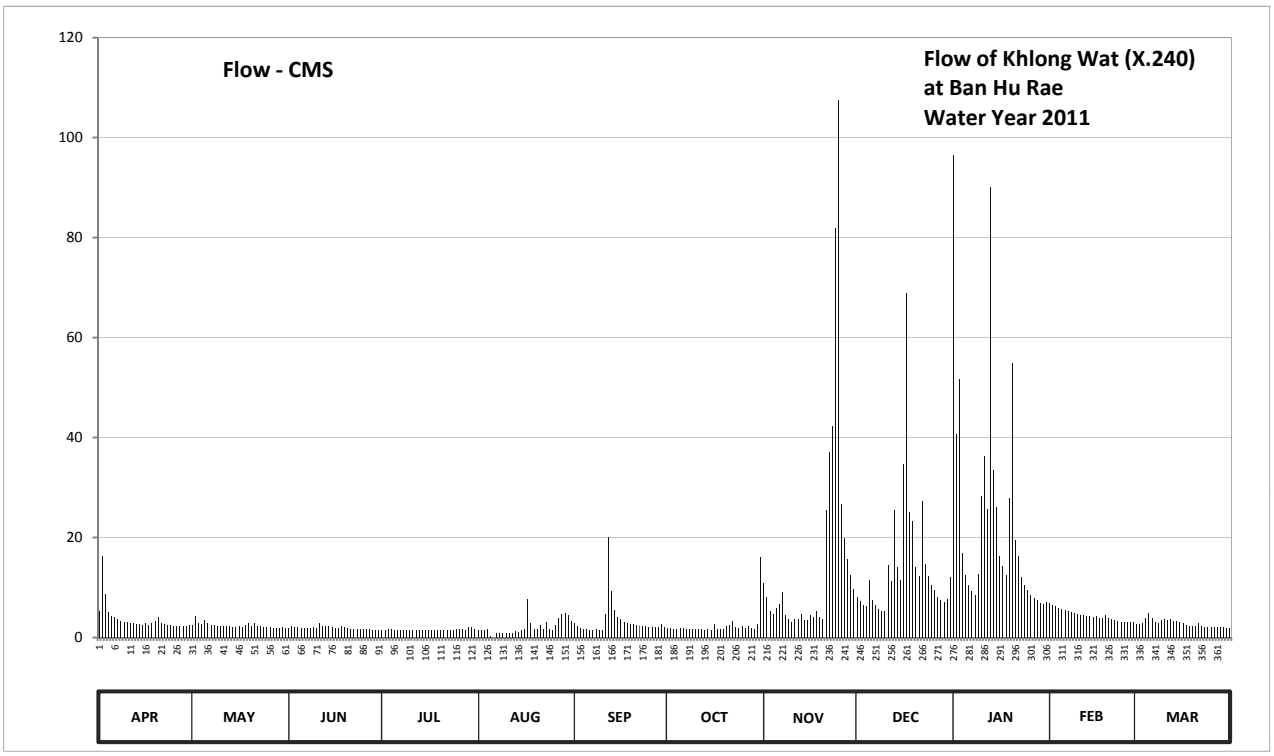
Location : on right bank at the bridge.

	Ban Hu Rae	**Amphoe** Hat Yai	**Changwat** Songkhla
Drainge Area	127 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank near the top staff gage.	**Elevation**	+25.224 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	2004 to date		
Rating Operation			
Period of Rating	2004 to date		
Rated by Flot	-		
Rated by Current Meter	2004 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 32 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	18.75	18.19	18.07	18.01	18.01	17.84	17.67	19.25	18.79	23.13	18.59	17.82	
2	20.33	18.57	18.15	18.01	18.00	17.72	17.66	18.80	18.66	21.93	18.50	17.82	
3	19.31	18.27	18.13	18.05	18.00	17.66	17.64	18.31	18.53	22.25	18.48	17.85	
4	18.73	18.25	18.10	18.03	18.03	17.63	17.63	18.22	18.49	20.12	18.43	18.06	
5	18.55	18.41	18.09	18.01	17.74	17.62	17.65	18.42	19.34	19.51	18.38	18.23	
6	18.54	18.26	18.09	18.01	17.42	17.59	17.65	18.55	18.69	19.19	18.34	18.06	
7	18.44	18.21	18.07	18.00	17.45	17.57	17.64	18.94	18.51	18.99	18.30	17.90	
8	18.36	18.18	18.09	18.00	17.45	17.60	17.62	18.17	18.39	18.84	18.27	17.87	
9	18.33	18.16	18.13	18.00	17.44	17.56	17.64	18.00	18.32	19.55	18.24	17.99	
10	18.30	18.15	18.08	17.99	17.44	17.55	17.62	17.89	18.30	21.26	18.20	18.01	
11	18.27	18.16	18.29	18.01	17.43	18.21	17.60	18.02	19.81	21.76	18.19	17.97	
12	18.26	18.14	18.15	18.01	17.44	20.49	17.60	18.01	19.33	21.05	18.16	18.00	
13	18.24	18.16	18.15	18.01	17.51	18.98	17.57	18.22	21.02	23.03	18.15	17.96	
14	18.23	18.12	18.16	18.00	17.46	18.34	17.60	17.97	19.74	21.61	18.13	17.92	
15	18.21	18.11	18.11	17.99	17.55	18.11	17.57	17.97	19.35	21.07	18.12	17.91	
16	18.28	18.17	18.09	18.01	17.63	18.00	17.82	18.18	21.68	20.04	18.13	17.84	
17	18.20	18.13	18.07	18.01	18.70	17.90	17.64	18.10	22.64	19.77	18.07	17.77	
18	18.27	18.20	18.15	18.00	17.85	17.84	17.61	18.32	20.99	19.51	18.04	17.75	
19	18.38	18.27	18.10	17.99	17.63	17.82	17.64	18.12	20.81	21.22	18.18	17.73	
20	18.54	18.17	18.07	17.99	17.61	17.83	17.72	18.00	19.74	22.34	18.07	17.72	
21	18.29	18.29	18.06	17.99	17.79	17.80	17.80	21.02	19.48	20.44	18.03	17.84	
22	18.23	18.16	18.05	17.99	17.61	17.76	17.94	21.80	21.18	20.03	17.98	17.75	
23	18.21	18.15	18.05	18.01	17.89	17.73	17.71	21.99	19.83	19.45	17.93	17.71	
24	18.19	18.13	18.04	18.00	17.60	17.72	17.65	22.89	19.49	19.19	17.89	17.69	
25	18.17	18.11	18.06	18.02	17.56	17.69	17.74	23.29	19.19	19.01	17.88	17.69	
26	18.16	18.11	18.04	18.03	17.80	17.70	17.67	21.12	19.00	18.85	17.88	17.68	
27	18.15	18.09	18.02	18.02	18.05	17.70	17.72	20.47	18.79	18.76	17.90	17.68	
28	18.15	18.08	18.01	18.01	18.20	17.71	17.66	19.97	18.69	18.67	17.90	17.70	
29	18.14	18.07	18.01	18.10	18.25	17.81	17.64	19.51	18.62	18.58	17.89	17.68	
30	18.18	18.12	18.00	18.10	18.17	17.71	17.81	19.04	18.70	18.55		17.66	
31		18.07		18.02	17.96		20.02		19.44	18.61		17.66	
Mean	18.41	18.18	18.09	18.01	17.76	17.91	17.75	19.22	19.47	20.20	18.15	17.84	
Max	20.33	18.57	18.29	18.10	18.70	20.49	20.02	23.29	22.64	23.13	18.59	18.23	23.29
Min	18.14	18.07	18.00	17.99	17.42	17.55	17.57	17.89	18.30	18.55	17.88	17.66	17.42

Annual Max Momentary Gage Height	23.90	m. (MSL.) ,	at 12.00 Hours , on Jan 1 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	17.18	m. (MSL)
Left Bank Elevation	25.11	m. (MSL.) ,			
Right Bank Elevation	25.10	m. (MSL.) ,	Drainage Area	127	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	5.25	2.45	1.85	1.55	1.55	2.80	1.95	10.90	8.14	96.48	6.94	2.70		
2	16.30	4.35	2.25	1.55	1.50	2.20	1.90	8.20	7.36	40.58	6.40	2.70		
3	8.71	2.85	2.15	1.75	1.50	1.90	1.80	5.26	6.58	51.75	6.28	2.85		
4	5.15	2.75	2.00	1.65	1.65	1.75	1.75	4.72	6.34	16.90	5.98	3.90		
5	4.25	3.55	1.95	1.55	0.20	1.70	1.85	5.92	11.44	12.52	5.68	4.78		
6	4.20	2.80	1.95	1.55	0.00	1.56	1.85	6.70	7.54	10.54	5.44	3.90		
7	3.70	2.55	1.85	1.50	1.00	1.48	1.80	9.04	6.46	9.34	5.20	3.10		
8	3.30	2.40	1.95	1.50	1.00	1.60	1.70	4.45	5.74	8.44	5.02	2.95		
9	3.15	2.30	2.15	1.50	0.96	1.44	1.80	3.60	5.32	12.77	4.84	3.55		
10	3.00	2.25	1.90	1.45	0.96	1.40	1.70	3.05	5.20	28.38	4.60	3.65		
11	2.85	2.30	2.95	1.55	0.92	4.66	1.60	3.70	14.58	36.24	4.55	3.45		
12	2.80	2.20	2.25	1.55	0.96	20.10	1.60	3.65	11.38	25.80	4.40	3.60		
13	2.70	2.30	2.25	1.55	1.24	9.28	1.48	4.72	25.44	90.04	4.35	3.40		
14	2.65	2.10	2.30	1.50	1.04	5.44	1.60	3.45	14.08	33.39	4.25	3.20		
15	2.55	2.05	2.05	1.45	1.40	4.15	1.48	3.45	11.50	26.04	4.20	3.15		
16	2.90	2.35	1.95	1.55	1.75	3.60	2.70	4.50	34.72	16.30	4.25	2.80		
17	2.50	2.15	1.85	1.55	7.60	3.10	1.80	4.10	68.84	14.29	3.95	2.45		
18	2.85	2.50	2.25	1.50	2.85	2.80	1.65	5.32	25.10	12.52	3.80	2.35		
19	3.40	2.85	2.00	1.45	1.75	2.70	1.80	4.20	23.30	27.86	4.50	2.25		
20	4.20	2.35	1.85	1.45	1.65	2.75	2.20	3.60	14.08	54.90	3.95	2.20		
21	2.95	2.95	1.80	1.45	2.55	2.60	2.60	25.44	12.32	19.60	3.75	2.80		
22	2.65	2.30	1.75	1.45	1.65	2.40	3.30	37.00	27.36	16.23	3.50	2.35		
23	2.55	2.25	1.75	1.55	3.05	2.25	2.15	42.22	14.73	12.13	3.25	2.15		
24	2.45	2.15	1.70	1.50	1.60	2.20	1.85	81.99	12.38	10.54	3.05	2.05		
25	2.35	2.05	1.80	1.60	1.44	2.05	2.30	107.53	10.54	9.46	3.00	2.05		
26	2.30	2.05	1.70	1.65	2.60	2.10	1.95	26.64	9.40	8.50	3.00	2.00		
27	2.25	1.95	1.60	1.60	3.85	2.10	2.20	19.90	8.14	7.96	3.10	2.00		
28	2.25	1.90	1.55	1.55	4.60	2.15	1.90	15.77	7.54	7.42	3.10	2.10		
29	2.20	1.85	1.55	2.00	4.90	2.65	1.80	12.52	7.12	6.88	3.05	2.00		
30	2.40	2.10	1.50	2.00	4.45	2.15	2.65	9.64	7.60	6.70		1.90		
31		1.85		1.60	3.40		16.15		12.06	7.06		1.90		
Total	110.76	74.80	58.40	48.60	65.57	99.06	74.86	481.18	442.33	737.56	127.38	86.23	2406.73	CMSDAY
Mean	3.69	2.41	1.95	1.57	2.12	3.30	2.41	16.04	14.27	23.79	4.39	2.78	6.58	CMS
Max	16.30	4.35	2.95	2.00	7.60	20.10	16.15	107.53	68.84	96.48	6.94	4.78	107.53	CMS
Min	2.20	1.85	1.50	1.45	0.00	1.40	1.48	3.05	5.20	6.70	3.00	1.90	0.00	CMS
Runoff	9.57	6.46	5.05	4.20	5.67	8.56	6.47	41.57	38.22	63.73	11.01	7.45	207.94	MCM

Momentary Peak 157.10 CMS. at 23.90 m. (MSL.) at 12.00 Hours , on Jan 1 , 2011

Runoff Yield 51.61 Liters/Second/Square KM. Momentary Peak Yield 1232.931 Liters/Second/Square KM.

WATER YEAR : 2011

THALE SAP SONGKHLA

Khlong Pa Bon at Ban Lo Han , Phatthalung (X.266)

Lat 07 - 01 - 35 N Long 100 - 05 - 51 E

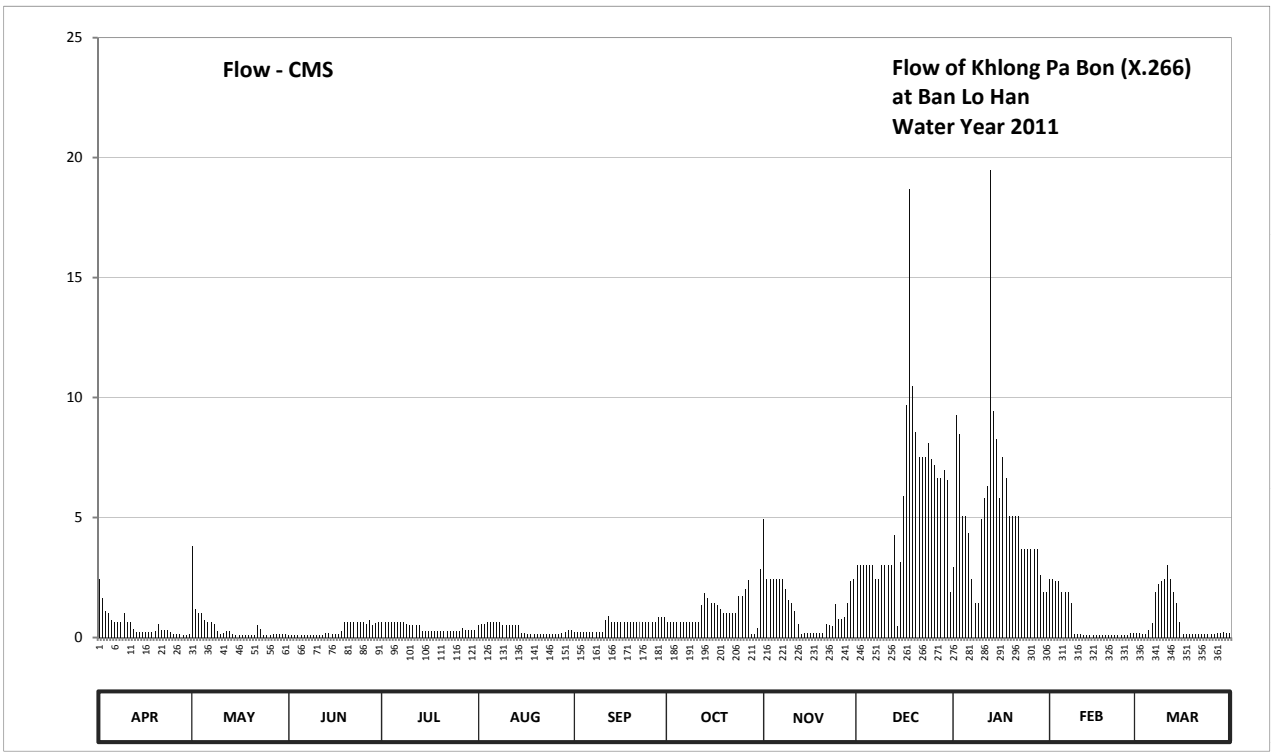
Location : on left bank at Ban Lo Han.

	Ban Lo Han	**Amphoe** Pa Bon	**Changwat** Phatthalung
Drainge Area	38 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+0.000 m. (A.D.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the top staff gage.		**Elevation** +7.165 m. (A.D.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	2007 to date		
Rating Operation			
Period of Rating	2007 to date		
Rated by Flot	-		
Rated by Current Meter	2007 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 30 discharge measurements made in 2011.		

Gage Height in Meter (A.D.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.70	0.92	0.08	0.30	0.26	0.15	0.30	1.08	0.80	0.79	0.70	0.12	
2	0.54	0.44	0.08	0.30	0.28	0.14	0.30	0.70	0.80	1.58	0.70	0.12	
3	0.42	0.40	0.08	0.30	0.28	0.14	0.30	0.70	0.80	1.50	0.68	0.10	
4	0.40	0.40	0.08	0.30	0.30	0.14	0.30	0.70	0.80	1.10	0.68	0.10	
5	0.32	0.32	0.08	0.30	0.30	0.14	0.30	0.70	0.80	1.10	0.60	0.20	
6	0.30	0.30	0.08	0.30	0.30	0.14	0.30	0.70	0.80	1.00	0.60	0.29	
7	0.30	0.30	0.08	0.30	0.30	0.14	0.30	0.70	0.70	0.70	0.60	0.60	
8	0.30	0.28	0.08	0.30	0.30	0.14	0.30	0.62	0.70	0.50	0.50	0.66	
9	0.40	0.18	0.08	0.27	0.26	0.14	0.30	0.53	0.80	0.50	0.10	0.68	
10	0.30	0.10	0.08	0.26	0.26	0.16	0.30	0.50	0.80	1.08	0.10	0.70	
11	0.30	0.11	0.08	0.26	0.26	0.32	0.30	0.42	0.80	1.20	0.10	0.80	
12	0.22	0.18	0.08	0.26	0.26	0.37	0.48	0.28	0.80	1.26	0.08	0.70	
13	0.14	0.18	0.13	0.26	0.26	0.30	0.59	0.10	0.99	2.28	0.08	0.60	
14	0.14	0.10	0.13	0.18	0.26	0.30	0.54	0.11	0.25	1.60	0.08	0.50	
15	0.14	0.08	0.10	0.18	0.12	0.30	0.50	0.12	0.82	1.48	0.08	0.30	
16	0.14	0.08	0.10	0.18	0.11	0.30	0.50	0.12	1.21	1.20	0.08	0.10	
17	0.14	0.08	0.10	0.18	0.10	0.30	0.48	0.12	1.62	1.40	0.08	0.10	
18	0.14	0.08	0.18	0.18	0.10	0.30	0.44	0.12	2.24	1.30	0.08	0.10	
19	0.17	0.08	0.30	0.18	0.10	0.30	0.40	0.12	1.69	1.10	0.08	0.10	
20	0.28	0.08	0.30	0.18	0.10	0.30	0.40	0.12	1.51	1.10	0.08	0.10	
21	0.20	0.08	0.30	0.18	0.10	0.30	0.40	0.27	1.40	1.10	0.08	0.10	
22	0.20	0.26	0.30	0.18	0.10	0.30	0.40	0.26	1.40	1.10	0.08	0.10	
23	0.20	0.21	0.30	0.18	0.10	0.30	0.40	0.25	1.40	0.90	0.08	0.10	
24	0.16	0.08	0.30	0.18	0.10	0.30	0.56	0.49	1.46	0.90	0.08	0.10	
25	0.10	0.08	0.30	0.18	0.10	0.30	0.56	0.33	1.39	0.90	0.08	0.10	
26	0.10	0.08	0.27	0.18	0.10	0.30	0.62	0.33	1.36	0.90	0.08	0.10	
27	0.10	0.10	0.32	0.23	0.10	0.30	0.69	0.36	1.30	0.90	0.11	0.12	
28	0.08	0.10	0.26	0.20	0.13	0.35	0.10	0.50	1.30	0.90	0.12	0.12	
29	0.08	0.10	0.29	0.20	0.15	0.35	0.10	0.68	1.34	0.73	0.12	0.14	
30	0.10	0.10	0.30	0.20	0.20	0.35	0.23	0.70	1.29	0.60		0.13	
31		0.10		0.20	0.20		0.77		0.60	0.60		0.12	
Mean	0.24	0.19	0.17	0.23	0.19	0.26	0.40	0.42	1.10	1.07	0.24	0.26	
Max	0.70	0.92	0.32	0.30	0.30	0.37	0.77	1.08	2.24	2.28	0.70	0.80	2.28
Min	0.08	0.08	0.08	0.18	0.10	0.14	0.10	0.10	0.25	0.50	0.08	0.10	0.08

Annual Max Momentary Gage Height	2.54	m. (A.D.) ,	at 06.00 Hours , on Jan 13 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (A.D.) ,	River Bed	-0.05	m. (A.D.)
Left Bank Elevation	7.11	m. (A.D.) ,			
Right Bank Elevation	7.01	m. (A.D.) ,	Drainage Area	38	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.45	3.80	0.12	0.65	0.51	0.23	0.65	4.92	3.00	2.95	2.45	0.18		
2	1.63	1.18	0.12	0.65	0.58	0.21	0.65	2.45	3.00	9.25	2.45	0.18		
3	1.09	1.00	0.12	0.65	0.58	0.21	0.65	2.45	3.00	8.47	2.34	0.15		
4	1.00	1.00	0.12	0.65	0.65	0.21	0.65	2.45	3.00	5.07	2.34	0.15		
5	0.72	0.72	0.12	0.65	0.65	0.21	0.65	2.45	3.00	5.07	1.90	0.30		
6	0.65	0.65	0.12	0.65	0.65	0.21	0.65	2.45	3.00	4.34	1.90	0.62		
7	0.65	0.65	0.12	0.65	0.65	0.21	0.65	2.45	2.45	2.45	1.90	1.90		
8	0.65	0.58	0.12	0.65	0.65	0.21	0.65	2.01	2.45	1.45	1.45	2.23		
9	1.00	0.27	0.12	0.55	0.51	0.21	0.65	1.58	3.00	1.45	0.15	2.34		
10	0.65	0.15	0.12	0.51	0.51	0.24	0.65	1.45	3.00	4.92	0.15	2.45		
11	0.65	0.17	0.12	0.51	0.51	0.72	0.65	1.09	3.00	5.80	0.15	3.00		
12	0.37	0.27	0.12	0.51	0.51	0.90	1.36	0.58	3.00	6.31	0.12	2.45		
13	0.21	0.27	0.19	0.51	0.51	0.65	1.85	0.15	4.27	19.46	0.12	1.90		
14	0.21	0.15	0.19	0.27	0.51	0.65	1.63	0.17	0.48	9.44	0.12	1.45		
15	0.21	0.12	0.15	0.27	0.18	0.65	1.45	0.18	3.13	8.28	0.12	0.65		
16	0.21	0.12	0.15	0.27	0.17	0.65	1.45	0.18	5.89	5.80	0.12	0.15		
17	0.21	0.12	0.15	0.27	0.15	0.65	1.36	0.18	9.67	7.50	0.12	0.15		
18	0.21	0.12	0.27	0.27	0.15	0.65	1.18	0.18	18.68	6.65	0.12	0.15		
19	0.26	0.12	0.65	0.27	0.15	0.65	1.00	0.18	10.48	5.07	0.12	0.15		
20	0.58	0.12	0.65	0.27	0.15	0.65	1.00	0.18	8.57	5.07	0.12	0.15		
21	0.30	0.12	0.65	0.27	0.15	0.65	1.00	0.55	7.50	5.07	0.12	0.15		
22	0.30	0.51	0.65	0.27	0.15	0.65	1.00	0.51	7.50	5.07	0.12	0.15		
23	0.30	0.33	0.65	0.27	0.15	0.65	1.00	0.48	7.50	3.67	0.12	0.15		
24	0.24	0.12	0.65	0.27	0.15	0.65	1.72	1.40	8.08	3.67	0.12	0.15		
25	0.15	0.12	0.65	0.27	0.15	0.65	1.72	0.76	7.42	3.67	0.12	0.15		
26	0.15	0.12	0.55	0.27	0.15	0.65	2.01	0.76	7.16	3.67	0.12	0.15		
27	0.15	0.15	0.72	0.41	0.15	0.65	2.40	0.86	6.65	3.67	0.17	0.18		
28	0.12	0.15	0.51	0.30	0.19	0.83	0.15	1.45	6.65	3.67	0.18	0.18		
29	0.12	0.15	0.62	0.30	0.23	0.83	0.15	2.34	6.99	2.62	0.18	0.21		
30	0.15	0.15	0.65	0.30	0.30	0.83	0.41	2.45	6.56	1.90		0.19		
31		0.15		0.30	0.30		2.83		1.90	1.90		0.18		
Total	15.59	13.65	10.14	12.91	11.00	16.01	33.82	39.29	169.98	163.38	19.51	22.54	527.82	CMSDAY
Mean	0.52	0.44	0.34	0.42	0.35	0.53	1.09	1.31	5.48	5.27	0.67	0.73	1.44	CMS
Max	2.45	3.80	0.72	0.65	0.65	0.90	2.83	4.92	18.68	19.46	2.45	3.00	19.46	CMS
Min	0.12	0.12	0.12	0.27	0.15	0.21	0.15	0.15	0.48	1.45	0.12	0.15	0.12	CMS
Runoff	1.35	1.18	0.88	1.12	0.95	1.38	2.92	3.40	14.69	14.12	1.69	1.95	45.60	MCM

Momentary Peak 24.88 CMS. at 2.54 m. (A.D.) at 06.00 Hours , on Jan 13 , 2011

Runoff Yield 37.95 Liters/Second/Square KM. Momentary Peak Yield 654.737 Liters/Second/Square KM.

WATER YEAR : 2011

THALE SAP SONGKHLA

Khlong Tamot at Ban Mae Khree , Phatthalung (X.267)

Lat 07 - 20 - 18 N Long 100 - 06 - 36 E

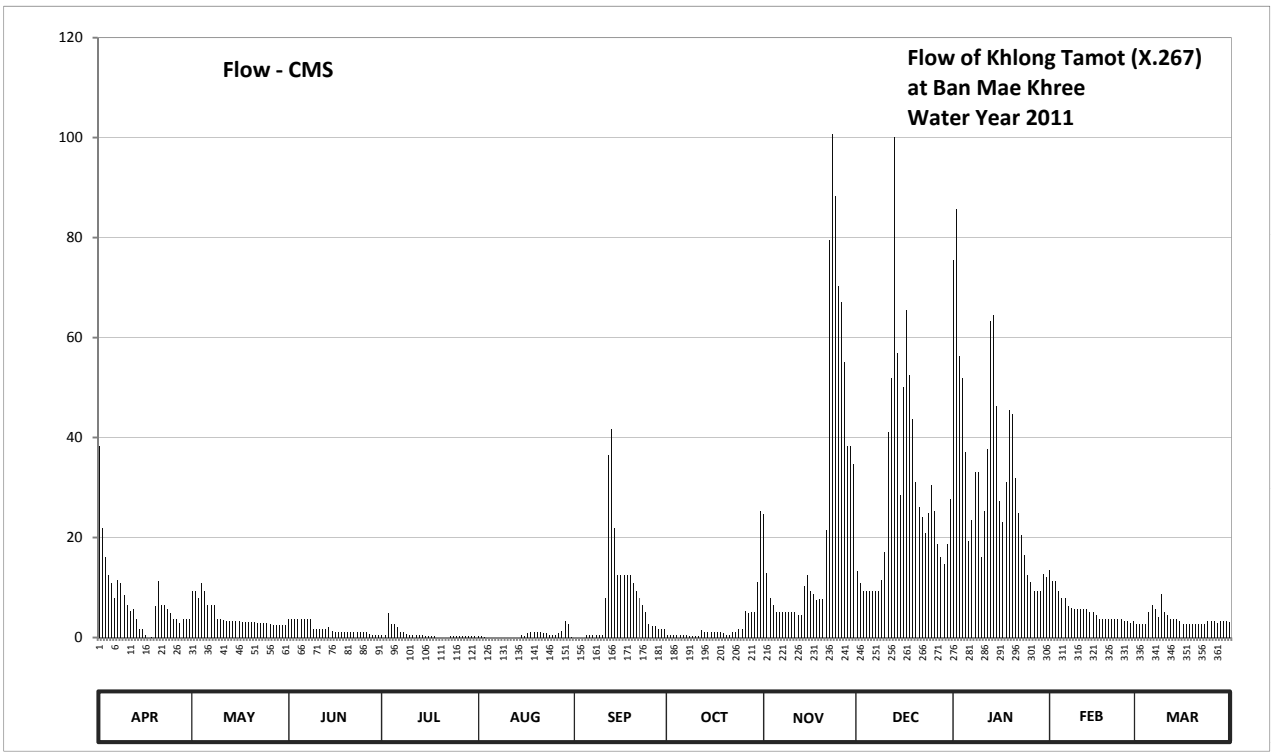
Location : on left bank at Ban Mae Khree.

	Ban Mae Khree	**Amphoe** Tamot	**Changwat** Phatthalung
Drainge Area	295 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the top staff gage.		**Elevation** +27.868 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	2007 to date		
Rating Operation			
Period of Rating	2007 to date		
Rated by Flot	-		
Rated by Current Meter	2007 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 31 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	24.00	22.60	22.20	21.80	21.70	21.50	21.80	23.43	22.85	25.21	22.86	22.10	
2	23.30	22.60	22.20	21.80	21.70	21.50	21.80	22.82	22.70	25.43	22.73	22.10	
3	23.00	22.50	22.20	22.28	21.62	21.50	21.80	22.50	22.60	24.65	22.73	22.10	
4	22.80	22.70	22.20	22.10	21.50	21.50	21.80	22.40	22.60	24.50	22.60	22.10	
5	22.70	22.60	22.20	22.10	21.50	21.80	21.80	22.30	22.60	23.96	22.50	22.30	
6	22.50	22.40	22.20	22.04	21.50	21.80	21.80	22.30	22.60	23.18	22.50	22.40	
7	22.74	22.40	22.20	21.90	21.50	21.80	21.80	22.30	22.60	23.38	22.38	22.35	
8	22.70	22.40	22.20	21.90	21.50	21.80	21.70	22.30	22.60	23.80	22.36	22.23	
9	22.54	22.20	22.00	21.82	21.50	21.80	21.70	22.30	22.74	23.80	22.35	22.55	
10	22.40	22.20	22.00	21.80	21.42	21.80	21.70	22.30	23.06	23.00	22.35	22.30	
11	22.31	22.18	22.00	21.80	21.40	22.50	21.70	22.30	24.11	23.46	22.35	22.25	
12	22.35	22.17	22.00	21.79	21.40	23.93	21.96	22.25	24.50	23.98	22.35	22.20	
13	22.20	22.17	22.00	21.79	21.40	24.13	21.90	22.25	25.67	24.88	22.35	22.20	
14	22.00	22.15	22.04	21.78	21.48	23.30	21.90	22.66	24.67	24.92	22.30	22.20	
15	22.00	22.15	21.92	21.70	21.80	22.80	21.90	22.80	23.61	24.30	22.30	22.15	
16	21.80	22.15	21.90	21.70	21.75	22.80	21.90	22.60	24.44	23.55	22.25	22.10	
17	21.60	22.14	21.90	21.70	21.85	22.80	21.90	22.55	24.95	23.36	22.20	22.10	
18	21.67	22.14	21.90	21.70	21.90	22.80	21.90	22.47	24.52	23.72	22.20	22.10	
19	22.38	22.14	21.90	21.60	21.90	22.80	21.85	22.48	24.21	24.27	22.20	22.10	
20	22.72	22.13	21.90	21.60	21.90	22.70	21.80	22.48	23.72	24.24	22.20	22.10	
21	22.40	22.13	21.90	21.60	21.90	22.60	21.80	23.28	23.50	23.75	22.20	22.10	
22	22.40	22.12	21.90	21.60	21.85	22.50	21.90	25.30	23.40	23.44	22.20	22.10	
23	22.35	22.12	21.90	21.70	21.85	22.40	21.90	25.68	23.26	23.24	22.20	22.10	
24	22.28	22.11	21.90	21.70	21.81	22.30	22.00	25.48	23.44	23.03	22.20	22.15	
25	22.20	22.11	21.90	21.75	21.80	22.10	22.00	25.08	23.69	22.80	22.15	22.15	
26	22.20	22.10	21.90	21.75	21.80	22.05	22.32	25.00	23.46	22.71	22.15	22.17	
27	22.12	22.08	21.84	21.74	21.87	22.05	22.28	24.61	23.15	22.60	22.12	22.11	
28	22.20	22.08	21.80	21.74	21.94	22.01	22.30	24.00	23.00	22.60	22.15	22.16	
29	22.20	22.08	21.80	21.74	22.15	22.00	22.30	24.00	22.93	22.60	22.18	22.16	
30	22.20	22.08	21.80	21.74	22.10	22.00	22.71	23.86	23.15	22.81		22.15	
31		22.08		21.74	21.63		23.46		23.57	22.78		22.14	
Mean	22.41	22.23	21.99	21.79	21.71	22.31	21.98	23.20	23.48	23.68	22.33	22.18	
Max	24.00	22.70	22.20	22.28	22.15	24.13	23.46	25.68	25.67	25.43	22.86	22.55	25.68
Min	21.60	22.08	21.80	21.60	21.40	21.50	21.70	22.25	22.60	22.60	22.12	22.10	21.40

Annual Max Momentary Gage Height	26.14	m. (MSL.) ,	at 14.00 Hours , on Dec 13 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	21.04	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, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	38.20	9.30	3.70	0.50	0.25	0.00	0.50	24.65	13.38	75.45	13.55	2.70		
2	21.85	9.30	3.70	0.50	0.25	0.00	0.50	12.85	10.90	85.65	11.38	2.70		
3	16.00	7.90	3.70	4.82	0.05	0.00	0.50	7.90	9.30	56.20	11.38	2.70		
4	12.50	10.90	3.70	2.70	0.00	0.00	0.50	6.50	9.30	51.85	9.30	2.70		
5	10.90	9.30	3.70	2.70	0.00	0.50	0.50	5.10	9.30	37.16	7.90	5.10		
6	7.90	6.50	3.70	2.10	0.00	0.50	0.50	5.10	9.30	19.33	7.90	6.50		
7	11.54	6.50	3.70	1.10	0.00	0.50	0.50	5.10	9.30	23.57	6.22	5.80		
8	10.90	6.50	3.70	1.10	0.00	0.50	0.25	5.10	9.30	33.00	5.94	4.12		
9	8.46	3.70	1.70	0.62	0.00	0.50	0.25	5.10	11.54	33.00	5.80	8.60		
10	6.50	3.70	1.70	0.50	0.00	0.50	0.25	5.10	17.11	16.00	5.80	5.10		
11	5.24	3.50	1.70	0.50	0.00	7.90	0.25	5.10	41.12	25.29	5.80	4.40		
12	5.80	3.40	1.70	0.48	0.00	36.38	1.46	4.40	51.85	37.68	5.80	3.70		
13	3.70	3.40	1.70	0.48	0.00	41.64	1.10	4.40	100.08	63.22	5.80	3.70		
14	1.70	3.20	2.10	0.45	0.00	21.85	1.10	10.26	56.80	64.48	5.10	3.70		
15	1.70	3.20	1.22	0.25	0.50	12.50	1.10	12.50	28.54	46.25	5.10	3.20		
16	0.50	3.20	1.10	0.25	0.38	12.50	1.10	9.30	50.14	27.22	4.40	2.70		
17	0.00	3.10	1.10	0.25	0.80	12.50	1.10	8.60	65.43	23.14	3.70	2.70		
18	0.18	3.10	1.10	0.25	1.10	12.50	1.10	7.48	52.42	31.12	3.70	2.70		
19	6.22	3.10	1.10	0.00	1.10	12.50	0.80	7.62	43.77	45.43	3.70	2.70		
20	11.22	3.00	1.10	0.00	1.10	10.90	0.50	7.62	31.12	44.60	3.70	2.70		
21	6.50	3.00	1.10	0.00	1.10	9.30	0.50	21.42	26.15	31.83	3.70	2.70		
22	6.50	2.90	1.10	0.00	0.80	7.90	1.10	79.50	24.00	24.86	3.70	2.70		
23	5.80	2.90	1.10	0.25	0.80	6.50	1.10	100.80	20.99	20.56	3.70	2.70		
24	4.82	2.80	1.10	0.25	0.56	5.10	1.70	88.40	24.86	16.56	3.70	3.20		
25	3.70	2.80	1.10	0.38	0.50	2.70	1.70	70.20	30.42	12.50	3.20	3.20		
26	3.70	2.70	1.10	0.38	0.50	2.20	5.38	67.00	25.29	11.06	3.20	3.40		
27	2.90	2.50	0.74	0.35	0.92	2.20	4.82	55.00	18.77	9.30	2.90	2.80		
28	3.70	2.50	0.50	0.35	1.34	1.80	5.10	38.20	16.00	9.30	3.20	3.30		
29	3.70	2.50	0.50	0.35	3.20	1.70	5.10	38.20	14.78	9.30	3.50	3.30		
30	3.70	2.50	0.50	0.35	2.70	1.70	11.06	34.56	18.77	12.68		3.20		
31		2.50		0.35	0.07		25.29		27.65	12.18		3.10		
Total	226.03	135.40	55.76	22.56	18.02	225.27	76.71	753.06	877.68	1009.77	162.77	111.82	3674.85	CMSDAY
Mean	7.53	4.37	1.86	0.73	0.58	7.51	2.47	25.10	28.31	32.57	5.61	3.61	10.04	CMS
Max	38.20	10.90	3.70	4.82	3.20	41.64	25.29	100.80	100.08	85.65	13.55	8.60	100.80	CMS
Min	0.00	2.50	0.50	0.00	0.00	0.00	0.25	4.40	9.30	9.30	2.90	2.70	0.00	CMS
Runoff	19.53	11.70	4.82	1.95	1.56	19.46	6.63	65.06	75.83	87.24	14.06	9.66	317.51	MCM

Momentary Peak 145.15 CMS. at 26.14 m. (MSL.) at 14.00 Hours , on Dec 13 , 2011

Runoff Yield 34.04 Liters/Second/Square KM. Momentary Peak Yield 492.034 Liters/Second/Square KM.

WATER YEAR : 2011

THALE SAP SONGKHLA

Upper Khlong Tha Nae at Ban Khao Pu , Phatthalung (X.276)

Lat 07 - 42 - 25 N Long 99 - 50 - 29 E

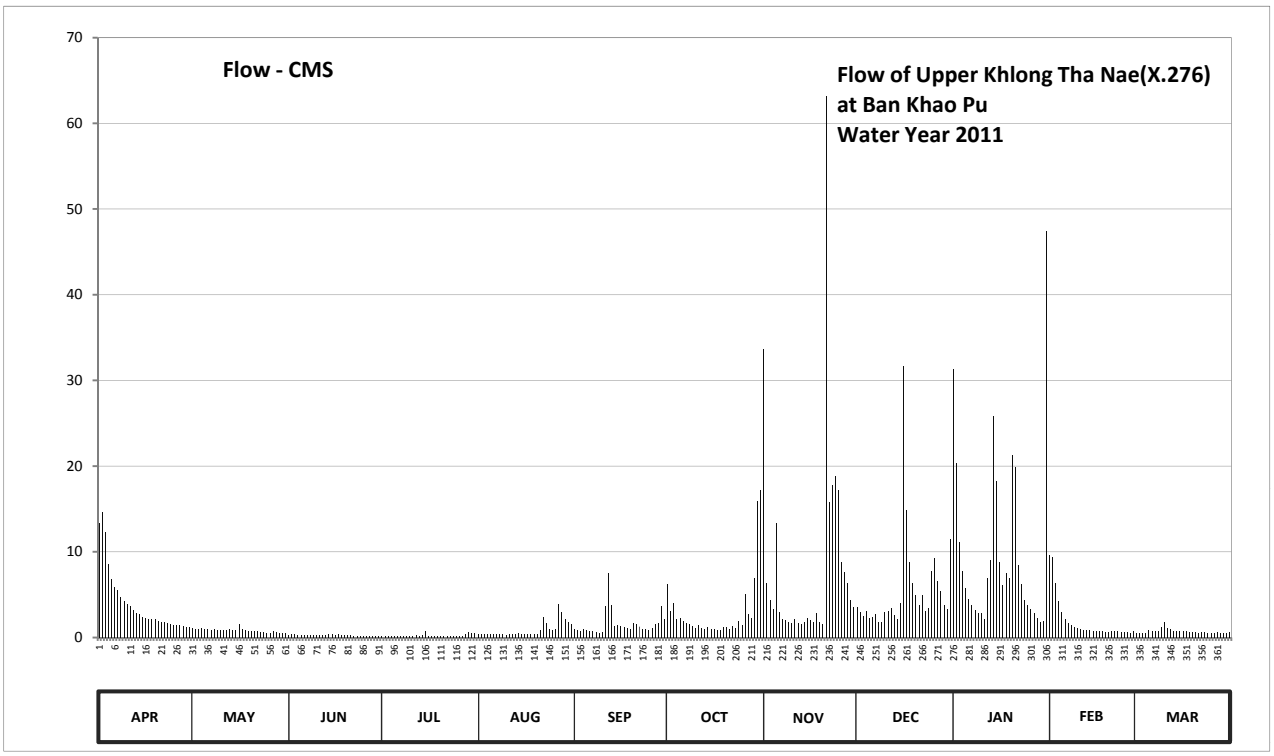
Location : on right bank at the bridge.

	Ban Khao Pu	**Amphoe** Si Banphot	**Changwat** Phatthalung
Drainge Area	47 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank at the abutment of the bridge.	**Elevation**	+57.060 m. (MSL.)
Gage Reading Frequency	3-time daily readings at 06.00, 12.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 3 readings		
Period of Available Gage Records	2009 to date		
Rating Operation			
Period of Rating	2009 to date		
Rated by Flot	-		
Rated by Current Meter	2009 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 33 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	51.68	50.61	50.27	50.18	50.36	50.59	51.15	52.84	50.91	52.73	51.41	50.40	
2	51.76	50.59	50.33	50.16	50.37	50.56	50.87	51.16	50.86	52.13	51.39	50.38	
3	51.61	50.58	50.34	50.19	50.36	50.50	50.96	50.99	50.82	51.52	51.16	50.40	
4	51.33	50.61	50.29	50.17	50.34	50.57	50.77	50.89	50.87	51.27	50.98	50.39	
5	51.20	50.59	50.28	50.17	50.33	50.55	50.80	51.68	50.80	51.11	50.86	50.53	
6	51.12	50.57	50.26	50.16	50.31	50.50	50.75	50.86	50.81	51.00	50.77	50.52	
7	51.09	50.55	50.24	50.16	50.30	50.51	50.70	50.78	50.84	50.93	50.71	50.48	
8	51.02	50.57	50.24	50.15	50.30	50.46	50.68	50.76	50.73	50.88	50.67	50.52	
9	50.98	50.55	50.27	50.14	50.30	50.43	50.65	50.73	50.73	50.85	50.63	50.64	
10	50.95	50.55	50.22	50.14	50.29	50.46	50.62	50.70	50.86	50.85	50.61	50.72	
11	50.92	50.54	50.25	50.13	50.30	50.92	50.67	50.77	50.87	50.77	50.58	50.62	
12	50.88	50.56	50.25	50.28	50.33	51.25	50.61	50.71	50.90	51.21	50.56	50.57	
13	50.85	50.57	50.26	50.20	50.30	50.93	50.60	50.69	50.83	51.37	50.54	50.52	
14	50.84	50.55	50.36	50.25	50.39	50.65	50.64	50.72	50.78	52.45	50.53	50.50	
15	50.81	50.53	50.34	50.48	50.33	50.67	50.59	50.80	50.96	52.00	50.52	50.50	
16	50.79	50.68	50.26	50.21	50.32	50.65	50.57	50.76	52.75	51.35	50.51	50.49	
17	50.77	50.60	50.32	50.21	50.35	50.64	50.56	50.72	51.78	51.14	50.50	50.48	
18	50.77	50.55	50.27	50.17	50.33	50.61	50.55	50.85	51.35	51.25	50.48	50.47	
19	50.78	50.52	50.24	50.15	50.31	50.58	50.64	50.73	51.16	51.21	50.47	50.46	
20	50.75	50.49	50.23	50.14	50.32	50.70	50.64	50.68	51.04	52.19	50.46	50.45	
21	50.73	50.49	50.23	50.14	50.54	50.69	50.58	53.85	50.93	52.10	50.50	50.43	
22	50.72	50.48	50.21	50.14	50.81	50.64	50.65	51.84	51.04	51.32	50.49	50.45	
23	50.70	50.46	50.20	50.15	50.70	50.59	50.61	51.97	50.87	51.15	50.48	50.44	
24	50.68	50.44	50.19	50.16	50.60	50.57	50.75	52.04	50.90	50.99	50.47	50.43	
25	50.67	50.43	50.19	50.16	50.53	50.54	50.66	51.93	51.27	50.93	50.46	50.42	
26	50.66	50.42	50.19	50.16	50.60	50.62	51.05	51.35	51.38	50.89	50.45	50.41	
27	50.66	50.52	50.19	50.15	50.95	50.69	50.84	51.26	51.18	50.85	50.43	50.44	
28	50.65	50.46	50.18	50.36	50.86	50.70	50.80	51.16	51.08	50.79	50.51	50.40	
29	50.64	50.43	50.18	50.45	50.78	50.92	51.21	50.99	50.93	50.73	50.51	50.40	
30	50.64	50.43	50.17	50.42	50.72	50.78	51.85	50.91	50.89	50.75		50.39	
31		50.42		50.40	50.69		51.93		51.55	53.38		50.47	
Mean	50.92	50.53	50.25	50.21	50.46	50.65	50.80	51.20	51.05	51.36	50.64	50.47	
Max	51.76	50.68	50.36	50.48	50.95	51.25	51.93	53.85	52.75	53.38	51.41	50.72	53.85
Min	50.64	50.42	50.17	50.13	50.29	50.43	50.55	50.68	50.73	50.73	50.43	50.38	50.13

Annual Max Momentary Gage Height	54.93	m. (MSL.) ,	at 14.00 Hours , on Nov 21 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	49.73	m. (MSL)
Left Bank Elevation	57.02	m. (MSL.) ,			
Right Bank Elevation	57.02	m. (MSL.) ,	Drainage Area	47	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	13.40	1.07	0.30	0.18	0.44	0.98	6.23	33.60	3.51	31.30	9.63	0.50		
2	14.60	0.98	0.40	0.16	0.45	0.90	3.07	6.34	2.96	20.35	9.36	0.47		
3	12.35	0.95	0.41	0.19	0.44	0.75	4.06	4.39	2.52	11.12	6.34	0.50		
4	8.56	1.07	0.33	0.17	0.41	0.93	2.11	3.29	3.07	7.74	4.28	0.48		
5	6.80	0.98	0.32	0.17	0.40	0.88	2.30	13.40	2.30	5.77	2.96	0.82		
6	5.88	0.93	0.29	0.16	0.37	0.75	1.98	2.96	2.41	4.50	2.11	0.80		
7	5.53	0.88	0.26	0.16	0.35	0.77	1.65	2.17	2.74	3.73	1.72	0.70		
8	4.73	0.93	0.26	0.15	0.35	0.65	1.52	2.04	1.85	3.18	1.45	0.80		
9	4.28	0.88	0.30	0.14	0.35	0.57	1.33	1.85	1.85	2.85	1.20	1.26		
10	3.95	0.88	0.23	0.14	0.33	0.65	1.13	1.65	2.96	2.85	1.07	1.78		
11	3.62	0.85	0.27	0.13	0.35	3.62	1.45	2.11	3.07	2.11	0.95	1.13		
12	3.18	0.90	0.27	0.32	0.40	7.47	1.07	1.72	3.40	6.93	0.90	0.93		
13	2.85	0.93	0.29	0.20	0.35	3.73	1.00	1.58	2.63	9.09	0.85	0.80		
14	2.74	0.88	0.44	0.27	0.48	1.33	1.26	1.78	2.17	25.77	0.82	0.75		
15	2.41	0.82	0.41	0.70	0.40	1.45	0.98	2.30	4.06	18.20	0.80	0.75		
16	2.24	1.52	0.29	0.21	0.38	1.33	0.93	2.04	31.70	8.82	0.77	0.73		
17	2.11	1.00	0.38	0.21	0.42	1.26	0.90	1.78	14.90	6.11	0.75	0.70		
18	2.11	0.88	0.30	0.17	0.40	1.07	0.88	2.85	8.82	7.47	0.70	0.68		
19	2.17	0.80	0.26	0.15	0.37	0.95	1.26	1.85	6.34	6.93	0.68	0.65		
20	1.98	0.73	0.24	0.14	0.38	1.65	1.26	1.52	4.96	21.33	0.65	0.63		
21	1.85	0.73	0.24	0.14	0.85	1.58	0.95	63.15	3.73	19.85	0.75	0.57		
22	1.78	0.70	0.21	0.14	2.41	1.26	1.33	15.80	4.96	8.42	0.73	0.63		
23	1.65	0.65	0.20	0.15	1.65	0.98	1.07	17.75	3.07	6.23	0.70	0.60		
24	1.52	0.60	0.19	0.16	1.00	0.93	1.98	18.86	3.40	4.39	0.68	0.57		
25	1.45	0.57	0.19	0.16	0.82	0.85	1.39	17.15	7.74	3.73	0.65	0.55		
26	1.39	0.55	0.19	0.16	1.00	1.13	5.07	8.82	9.23	3.29	0.63	0.52		
27	1.39	0.80	0.19	0.15	3.95	1.58	2.74	7.61	6.57	2.85	0.57	0.60		
28	1.33	0.65	0.18	0.44	2.96	1.65	2.30	6.34	5.42	2.24	0.77	0.50		
29	1.26	0.57	0.18	0.63	2.17	3.62	6.93	4.39	3.73	1.85	0.77	0.50		
30	1.26	0.57	0.17	0.55	1.78	2.17	15.95	3.51	3.29	1.98		0.48		
31		0.55		0.50	1.58		17.15		11.52	47.42		0.68		
Total	120.37	25.80	8.19	7.30	27.99	47.44	93.23	254.60	170.88	308.40	54.24	22.06	1140.50	CMSDAY
Mean	4.01	0.83	0.27	0.24	0.90	1.58	3.01	8.49	5.51	9.95	1.87	0.71	3.12	CMS
Max	14.60	1.52	0.44	0.70	3.95	7.47	17.15	63.15	31.70	47.42	9.63	1.78	63.15	CMS
Min	1.26	0.55	0.17	0.13	0.33	0.57	0.88	1.52	1.85	1.85	0.57	0.47	0.13	CMS
Runoff	10.40	2.23	0.71	0.63	2.42	4.10	8.06	22.00	14.76	26.65	4.69	1.91	98.54	MCM

Momentary Peak 141.25 CMS. at 54.93 m. (MSL.) at 14.00 Hours , on Nov 21 , 2011

Runoff Yield 65.60 Liters/Second/Square KM. Momentary Peak Yield 2973.684 Liters/Second/Square KM.

WATER YEAR : 2011

THALE SAP SONGKHLA

Lower Khlong Tha Nae at Ban Phikul Thong , Phatthalung (X.277)

Lat 07 - 44 - 25 N Long 99 - 58 - 48 E

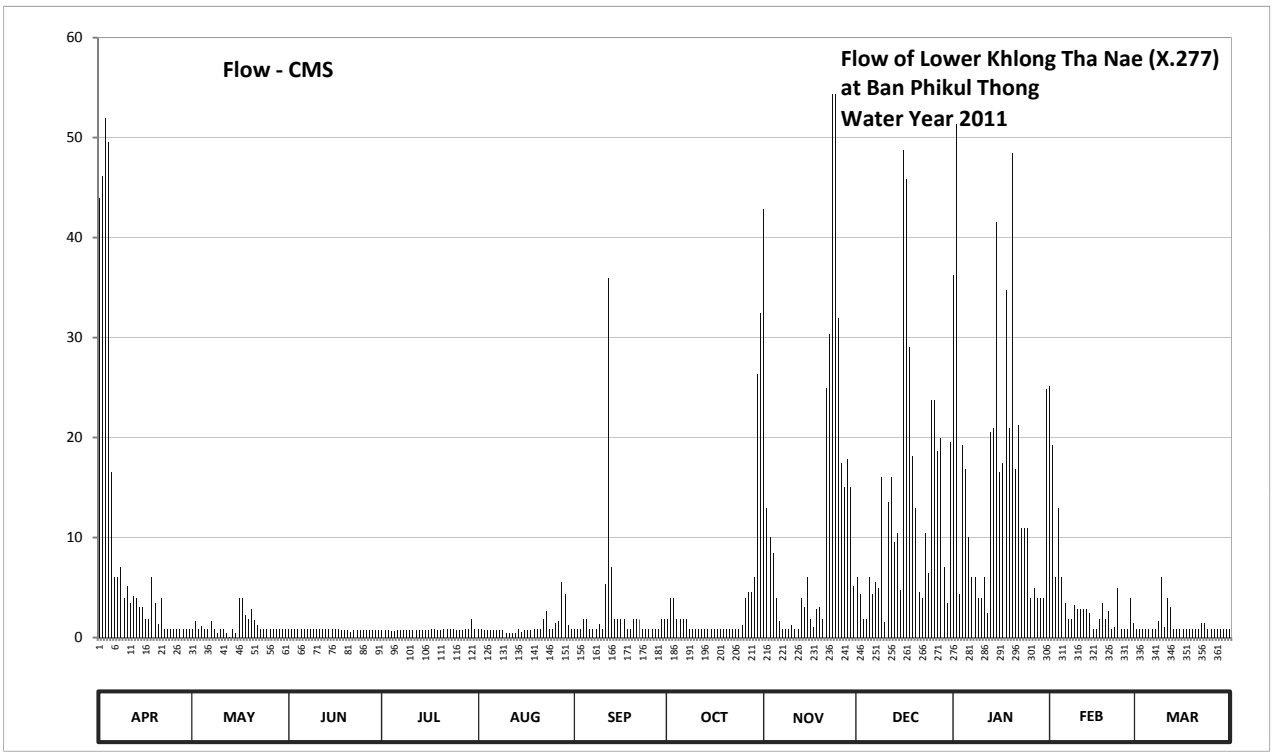
Location : on right bank at the bridge.

	Ban Phikul Thong	**Amphoe** Khuan Khanun	**Changwat** Phatthalung
Drainge Area	91 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+0.000 m. (A.D.)		
Bench Mark	B.M.-H.D.		
Location BM	Near the gage site.	**Elevation**	+3.644 m. (A.D.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	2009 to date		
Rating Operation			
Period of Rating	2009 to date		
Rated by Flot	-		
Rated by Current Meter	2009 to date		
Stability of Channel Regimes	Fairly stable because of backwater effect.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 30 discharge measurements made in 2011.		

Gage Height in Meter (A.D.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	2.76	0.90	0.90	0.88	0.90	0.90	1.00	2.72	1.20	2.46	1.96	0.90	
2	2.84	0.98	0.90	0.88	0.90	0.90	1.10	1.34	1.12	3.02	1.62	0.90	
3	3.04	0.90	0.90	0.88	0.88	0.90	1.10	1.28	1.00	1.12	1.20	0.90	
4	2.96	0.93	0.90	0.87	0.88	1.00	1.00	1.25	1.00	1.62	1.34	0.90	
5	1.44	0.90	0.90	0.87	0.88	1.00	1.00	1.10	1.20	1.46	1.20	0.90	
6	1.20	0.90	0.90	0.88	0.88	0.90	1.00	0.98	1.12	1.28	1.08	0.90	
7	1.20	0.98	0.90	0.88	0.88	0.90	1.00	0.90	1.18	1.20	1.00	0.90	
8	1.22	0.89	0.90	0.88	0.88	0.90	0.90	0.90	1.15	1.20	1.00	0.98	
9	1.10	0.85	0.90	0.88	0.88	0.95	0.90	0.90	1.40	1.10	1.07	1.20	
10	1.16	0.90	0.90	0.88	0.85	0.90	0.90	0.94	0.97	1.10	1.05	0.92	
11	1.08	0.89	0.90	0.88	0.85	1.17	0.90	0.90	1.35	1.20	1.05	1.10	
12	1.11	0.85	0.90	0.88	0.85	2.45	0.90	0.90	1.40	1.03	1.05	1.06	
13	1.10	0.81	0.90	0.88	0.85	1.22	0.90	1.10	1.27	1.70	1.05	0.90	
14	1.06	0.90	0.89	0.88	0.90	1.00	0.90	1.06	1.29	1.72	1.03	0.90	
15	1.06	0.85	0.89	0.88	0.86	1.00	0.90	1.20	1.14	2.67	0.90	0.90	
16	1.00	1.10	0.89	0.88	0.88	1.00	0.90	1.00	2.93	1.44	0.90	0.90	
17	1.00	1.10	0.90	0.90	0.88	1.00	0.90	0.92	2.83	1.50	1.00	0.90	
18	1.20	1.02	0.88	0.89	0.88	0.90	0.90	1.05	2.15	2.40	1.08	0.90	
19	1.08	1.00	0.88	0.88	0.90	0.90	0.90	1.06	1.55	1.72	1.00	0.90	
20	0.95	1.05	0.88	0.88	0.90	1.00	0.90	1.00	1.34	2.92	1.04	0.90	
21	1.10	0.99	0.86	0.90	0.90	1.00	0.90	1.95	1.13	1.46	0.90	0.90	
22	0.90	0.94	0.88	0.90	1.00	1.00	0.90	2.21	1.10	1.74	0.92	0.96	
23	0.90	0.90	0.88	0.90	1.04	0.90	0.90	3.12	1.29	1.30	1.15	0.96	
24	0.90	0.90	0.88	0.89	0.90	0.90	0.90	3.12	1.21	1.30	0.90	0.90	
25	0.90	0.90	0.88	0.88	0.90	0.90	0.94	2.28	1.88	1.30	0.90	0.90	
26	0.90	0.90	0.88	0.88	0.96	0.90	1.10	1.50	1.88	1.10	0.90	0.90	
27	0.90	0.90	0.88	0.88	0.98	0.90	1.13	1.38	1.58	1.15	1.10	0.90	
28	0.90	0.90	0.88	0.90	1.18	0.90	1.13	1.53	1.66	1.10	0.96	0.90	
29	0.90	0.90	0.88	0.90	1.12	1.00	1.20	1.38	1.22	1.10	0.90	0.90	
30	0.90	0.90	0.88	1.00	0.94	1.00	2.02	1.16	1.08	1.10		0.90	
31		0.90		0.90	0.90		2.30		1.64	1.94		0.90	
Mean	1.29	0.93	0.89	0.89	0.92	1.01	1.04	1.40	1.43	1.56	1.08	0.93	
Max	3.04	1.10	0.90	1.00	1.18	2.45	2.30	3.12	2.93	3.02	1.96	1.20	3.12
Min	0.90	0.81	0.86	0.87	0.85	0.90	0.90	0.90	0.97	1.03	0.90	0.90	0.81

Annual Max Momentary Gage Height	3.18	m. (A.D.) ,	at 18.00 Hours , on Dec 16 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (A.D.) ,	River Bed	0.08	m. (A.D.)
Left Bank Elevation	3.69	m. (A.D.) ,			
Right Bank Elevation	3.70	m. (A.D.) ,	Drainage Area	91	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	43.94	0.90	0.90	0.72	0.90	0.90	1.80	42.88	6.00	36.20	25.16	0.90		
2	46.14	1.62	0.90	0.72	0.90	0.90	3.90	13.00	4.32	51.31	19.23	0.90		
3	51.92	0.90	0.90	0.72	0.72	0.90	3.90	10.00	1.80	4.32	6.00	0.90		
4	49.56	1.17	0.90	0.63	0.72	1.80	1.80	8.50	1.80	19.23	13.00	0.90		
5	16.58	0.90	0.90	0.63	0.72	1.80	1.80	3.90	6.00	16.87	6.00	0.90		
6	6.00	0.90	0.90	0.72	0.72	0.90	1.80	1.62	4.32	10.00	3.48	0.90		
7	6.00	1.62	0.90	0.72	0.72	0.90	1.80	0.90	5.58	6.00	1.80	0.90		
8	7.00	0.81	0.90	0.72	0.72	0.90	0.90	0.90	4.95	6.00	1.80	1.62		
9	3.90	0.45	0.90	0.72	0.72	1.35	0.90	0.90	16.00	3.90	3.27	6.00		
10	5.16	0.90	0.90	0.72	0.45	0.90	0.90	1.26	1.53	3.90	2.85	1.08		
11	3.48	0.81	0.90	0.72	0.45	5.37	0.90	0.90	13.50	6.00	2.85	3.90		
12	4.11	0.45	0.90	0.72	0.45	35.95	0.90	0.90	16.00	2.43	2.85	3.06		
13	3.90	0.09	0.90	0.72	0.45	7.00	0.90	3.90	9.50	20.55	2.85	0.90		
14	3.06	0.90	0.81	0.72	0.90	1.80	0.90	3.06	10.50	20.88	2.43	0.90		
15	3.06	0.45	0.81	0.72	0.54	1.80	0.90	6.00	4.74	41.56	0.90	0.90		
16	1.80	3.90	0.81	0.72	0.72	1.80	0.90	1.80	48.71	16.58	0.90	0.90		
17	1.80	3.90	0.90	0.90	0.72	1.80	0.90	1.08	45.86	17.45	1.80	0.90		
18	6.00	2.22	0.72	0.81	0.72	0.90	0.90	2.85	29.05	34.70	3.48	0.90		
19	3.48	1.80	0.72	0.72	0.90	0.90	0.90	3.06	18.17	20.88	1.80	0.90		
20	1.35	2.85	0.72	0.72	0.90	1.80	0.90	1.80	13.00	48.42	2.64	0.90		
21	3.90	1.71	0.54	0.90	0.90	1.80	0.90	24.97	4.53	16.87	0.90	0.90		
22	0.90	1.26	0.72	0.90	1.80	1.80	0.90	30.33	3.90	21.21	1.08	1.44		
23	0.90	0.90	0.72	0.90	2.64	0.90	0.90	54.36	10.50	11.00	4.95	1.44		
24	0.90	0.90	0.72	0.81	0.90	0.90	0.90	54.36	6.50	11.00	0.90	0.90		
25	0.90	0.90	0.72	0.72	0.90	0.90	1.26	31.94	23.68	11.00	0.90	0.90		
26	0.90	0.90	0.72	0.72	1.44	0.90	3.90	17.45	23.68	3.90	0.90	0.90		
27	0.90	0.90	0.72	0.72	1.62	0.90	4.53	15.00	18.61	4.95	3.90	0.90		
28	0.90	0.90	0.72	0.90	5.58	0.90	4.53	17.88	19.89	3.90	1.44	0.90		
29	0.90	0.90	0.72	0.90	4.32	1.80	6.00	15.00	7.00	3.90	0.90	0.90		
30	0.90	0.90	0.72	1.80	1.26	1.80	26.32	5.16	3.48	3.90		0.90		
31		0.90		0.90	0.90		32.40		19.56	24.79		0.90		
Total	280.24	38.61	24.21	24.66	36.30	82.97	111.04	375.66	402.66	503.60	120.96	40.14	2041.05	CMSDAY
Mean	9.34	1.25	0.81	0.80	1.17	2.77	3.58	12.52	12.99	16.25	4.17	1.29	5.58	CMS
Max	51.92	3.90	0.90	1.80	5.58	35.95	32.40	54.36	48.71	51.31	25.16	6.00	54.36	CMS
Min	0.90	0.09	0.54	0.63	0.45	0.90	0.90	0.90	1.53	2.43	0.90	0.90	0.09	CMS
Runoff	24.21	3.34	2.09	2.13	3.14	7.17	9.59	32.46	34.79	43.51	10.45	3.47	176.35	MCM

Momentary Peak 56.19 CMS. at 3.18 m. (A.D.) at 18.00 Hours , on Dec 16 , 2011

Runoff Yield 60.88 Liters/Second/Square KM. Momentary Peak Yield 613.428 Liters/Second/Square KM.

WATER YEAR : 2011

SOUTHERN PENINSULA WEST COAST

Trang River at Ban Tha Pradu , Trang (X.56)

Lat 07 - 46 - 01 N Long 99 - 32 - 25 E

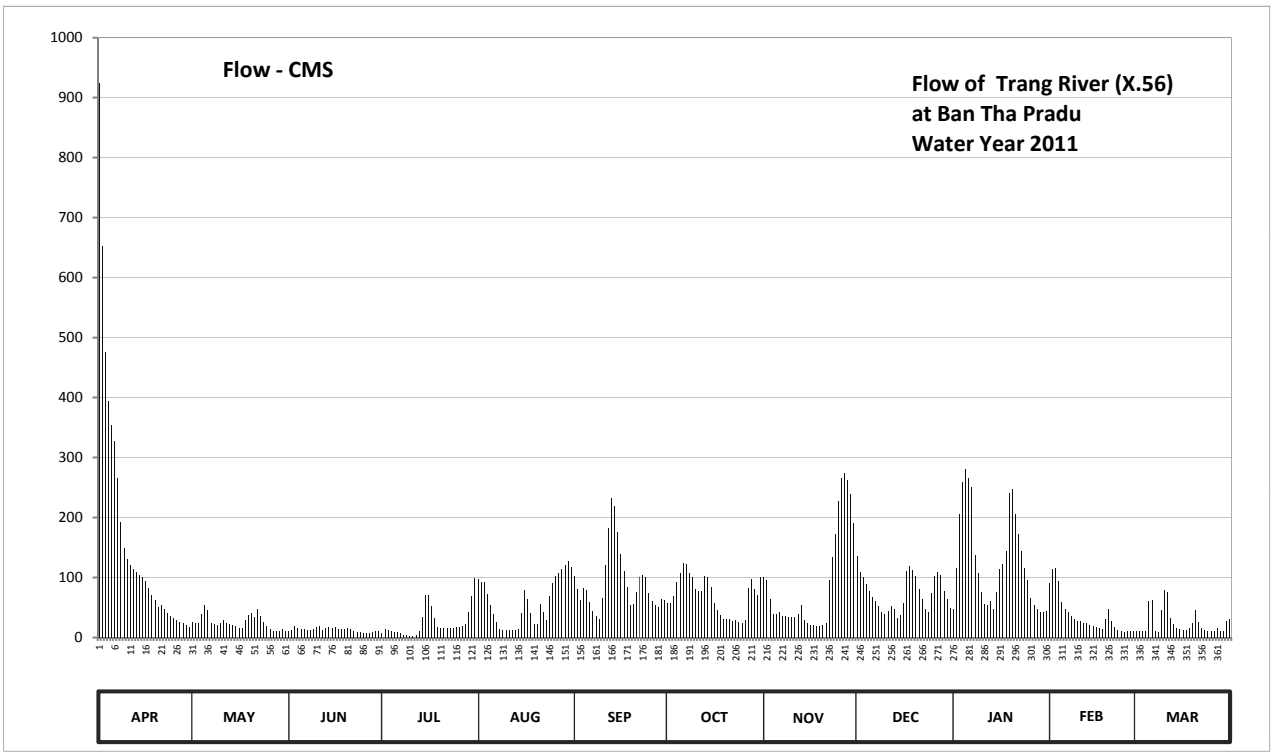
Location : on left bank at Ban Tha Pradu.

	Ban Tha Pradu	**Amphoe** Huai Yot	**Changwat** Trang
Drainge Area	1,801 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the top staff gage.		**Elevation** +19.353 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	2004 to date		
Rating Operation			
Period of Rating	2004 to date		
Rated by Flot	-		
Rated by Current Meter	2004 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 41 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	15.92	8.32	7.72	7.50	10.15	10.52	9.33	10.30	12.15	9.04	10.05	7.70	
2	15.37	8.30	7.74	7.83	10.08	9.87	9.33	10.14	10.99	11.31	11.30	7.67	
3	14.84	8.29	8.10	7.75	10.08	9.46	9.62	9.51	10.26	13.36	11.32	7.65	
4	14.51	8.78	7.97	7.67	9.69	9.89	10.08	8.82	10.01	13.78	10.10	7.68	
5	14.32	9.23	7.83	7.58	9.24	9.83	10.81	8.82	9.80	13.92	9.35	9.40	
6	14.18	8.97	7.86	7.51	8.78	9.35	11.74	8.92	9.60	13.82	9.02	9.48	
7	13.82	8.29	7.80	7.46	8.33	8.96	11.65	8.68	9.44	13.72	8.90	7.72	
8	13.22	8.21	7.75	7.17	7.89	8.70	10.86	8.67	9.17	12.16	8.70	7.51	
9	12.53	8.17	7.85	7.07	7.81	8.50	10.24	8.63	8.90	10.89	8.52	8.99	
10	11.97	8.29	8.02	7.01	7.75	9.53	9.87	8.62	8.81	9.75	8.43	9.82	
11	11.56	8.49	8.08	6.97	7.79	11.60	9.78	8.63	8.95	9.28	8.40	9.77	
12	11.24	8.30	7.82	7.05	7.76	13.09	9.80	8.79	9.18	9.21	8.29	8.58	
13	10.90	8.24	7.96	7.65	7.75	13.59	10.49	9.21	9.02	9.40	8.28	8.20	
14	10.60	8.15	8.00	8.61	7.89	13.47	10.35	8.47	8.59	9.02	8.14	7.97	
15	10.33	8.06	7.96	9.67	8.85	12.99	9.92	8.29	8.74	9.75	8.09	7.85	
16	10.09	7.92	8.02	9.67	9.81	12.23	9.31	8.18	9.32	11.23	8.04	7.78	
17	9.88	7.92	7.85	9.16	9.51	11.01	8.99	8.15	11.08	11.64	7.98	7.75	
18	9.67	8.49	7.91	8.59	8.87	9.91	8.76	8.11	11.54	12.41	7.88	7.98	
19	9.48	8.76	7.87	8.03	8.25	9.22	8.52	8.06	11.18	13.65	8.51	8.28	
20	9.12	8.85	7.92	7.97	8.21	9.30	8.54	8.14	10.40	13.70	9.03	9.00	
21	9.22	8.66	7.88	7.93	9.27	9.75	8.50	8.30	9.86	13.35	8.42	8.35	
22	9.03	9.03	7.73	7.93	8.92	10.33	8.41	10.14	9.52	12.93	8.03	7.97	
23	8.86	8.70	7.62	7.96	8.46	10.60	8.48	12.07	9.06	12.42	7.82	7.77	
24	8.70	8.34	7.55	7.98	9.63	10.21	8.36	12.95	8.89	11.35	7.68	7.67	
25	8.58	8.11	7.38	8.01	10.05	9.74	8.26	13.55	9.74	10.12	7.62	7.63	
26	8.48	7.89	7.46	8.04	10.40	9.40	8.45	13.82	10.47	9.53	7.64	7.66	
27	8.37	7.72	7.50	8.06	10.83	9.21	9.89	13.87	10.98	9.22	7.64	7.92	
28	8.28	7.63	7.56	8.22	11.25	9.14	10.17	13.80	10.56	9.04	7.64	7.72	
29	8.16	7.72	7.64	8.89	11.61	9.49	9.84	13.64	9.79	8.92	7.71	7.65	
30	8.04	7.85	7.69	9.61	11.83	9.48	9.65	13.21	9.51	8.88		8.40	
31		7.65		10.18	11.42		10.22		9.08	8.96		8.50	
Mean	10.98	8.30	7.80	8.09	9.30	10.28	9.62	10.02	9.83	11.15	8.57	8.19	
Max	15.92	9.23	8.10	10.18	11.83	13.59	11.74	13.87	12.15	13.92	11.32	9.82	15.92
Min	8.04	7.63	7.38	6.97	7.75	8.50	8.26	8.06	8.59	8.88	7.62	7.51	6.97

Annual Max Momentary Gage Height	16.05	m. (MSL.) ,	at 06.00 Hours , on Apr 1 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	5.28	m. (MSL)
Left Bank Elevation	19.66	m. (MSL.) ,			
Right Bank Elevation	19.71	m. (MSL.) ,	Drainage Area	1801	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	924.00	25.00	11.30	8.25	97.00	103.20	57.55	101.00	136.50	47.40	91.00	11.00		
2	652.00	24.50	11.60	13.17	92.80	81.50	57.55	96.40	109.85	115.20	115.00	10.55		
3	475.20	24.25	19.50	11.75	92.80	62.40	69.00	64.40	100.60	206.00	115.40	10.25		
4	394.20	38.40	16.32	10.55	72.50	82.50	92.80	39.70	88.60	259.20	94.00	10.70		
5	354.00	54.05	13.17	9.25	54.40	79.50	107.15	39.70	78.00	281.20	58.25	60.00		
6	326.40	44.95	13.85	8.38	38.40	58.25	124.50	43.20	68.00	265.20	46.70	63.20		
7	265.20	24.25	12.50	7.75	25.25	44.60	122.25	35.40	61.60	250.80	42.50	11.30		
8	192.00	22.25	11.75	4.28	14.52	36.00	107.90	35.10	51.95	136.80	36.00	8.38		
9	149.20	21.25	13.62	3.53	12.72	30.00	100.40	33.90	42.50	108.35	30.60	45.65		
10	131.10	24.25	17.50	3.08	11.75	65.20	81.50	33.60	39.35	75.50	27.90	79.00		
11	120.20	29.70	19.00	2.77	12.35	121.00	77.00	33.90	44.25	55.80	27.00	76.50		
12	113.80	24.50	12.95	3.38	11.90	182.30	78.00	38.70	52.30	53.35	24.25	32.40		
13	108.50	23.00	16.10	10.25	11.75	232.80	102.90	53.35	46.70	60.00	24.00	22.00		
14	104.00	20.75	17.00	33.30	14.52	218.40	101.50	29.10	32.70	46.70	20.50	16.32		
15	101.30	18.50	16.10	71.50	40.75	175.40	84.00	24.25	37.20	75.50	19.25	13.62		
16	93.40	15.20	17.50	71.50	78.50	138.90	56.85	21.50	57.20	113.60	18.00	12.20		
17	82.00	15.20	13.62	51.60	64.40	110.15	45.65	20.75	111.20	122.00	16.55	11.75		
18	71.50	29.70	14.97	32.70	41.45	83.50	37.80	19.75	119.80	144.40	14.30	16.55		
19	63.20	37.80	14.07	17.75	23.25	53.70	30.60	18.50	112.70	241.00	30.30	24.00		
20	50.20	40.75	15.20	16.32	22.25	56.50	31.20	20.50	102.00	248.00	47.05	46.00		
21	53.70	34.80	14.30	15.42	55.45	75.50	30.00	24.50	81.00	205.00	27.60	25.75		
22	47.05	47.05	11.45	15.42	43.20	101.30	27.30	96.40	64.80	171.80	17.75	16.32		
23	41.10	36.00	9.80	16.10	28.80	104.00	29.40	134.10	48.10	144.80	12.95	12.05		
24	36.00	25.50	8.88	16.55	69.50	100.10	26.00	173.00	42.15	116.00	10.70	10.55		
25	32.40	19.75	6.75	17.25	91.00	75.00	23.50	228.00	75.00	95.20	9.80	9.95		
26	29.40	14.52	7.75	18.00	102.00	60.00	28.50	265.20	102.70	65.20	10.10	10.40		
27	26.25	11.30	8.25	18.50	107.45	53.35	82.50	273.20	109.70	53.70	10.10	15.20		
28	24.00	9.95	9.00	22.50	114.00	50.90	98.20	262.00	103.60	47.40	10.10	11.30		
29	21.00	11.30	10.10	42.15	121.25	63.60	80.00	239.60	77.50	43.20	11.15	10.25		
30	18.00	13.62	10.85	68.50	126.90	63.20	70.50	191.00	64.40	41.80		27.00		
31		10.25		98.80	117.40		100.20		48.80	44.60		30.00		
Total	5100.30	792.29	394.75	740.25	1810.21	2762.75	2162.20	2689.70	2310.75	3934.70	1018.80	760.14	24476.84	CMSDAY
Mean	170.01	25.56	13.16	23.88	58.39	92.09	69.75	89.66	74.54	126.93	35.13	24.52	66.88	CMS
Max	924.00	54.05	19.50	98.80	126.90	232.80	124.50	273.20	136.50	281.20	115.40	79.00	924.00	CMS
Min	18.00	9.95	6.75	2.77	11.75	30.00	23.50	18.50	32.70	41.80	9.80	8.38	2.77	CMS
Runoff	440.67	68.45	34.11	63.96	156.40	238.70	186.81	232.39	199.65	339.96	88.02	65.68	2114.80	MCM

Momentary Peak 1004.00 CMS. at 16.05 m. (MSL.) at 06.00 Hours , on Apr 1 , 2011

Runoff Yield 37.13 Liters/Second/Square KM. Momentary Peak Yield 557.468 Liters/Second/Square KM.

WATER YEAR : 2011

SOUTHERN PENINSULA WEST COAST

Khlong Nang Noi at Ban Thung Kling , Trang (X.128A)

Lat 07 - 35 - 28 N Long 99 - 44 - 13 E

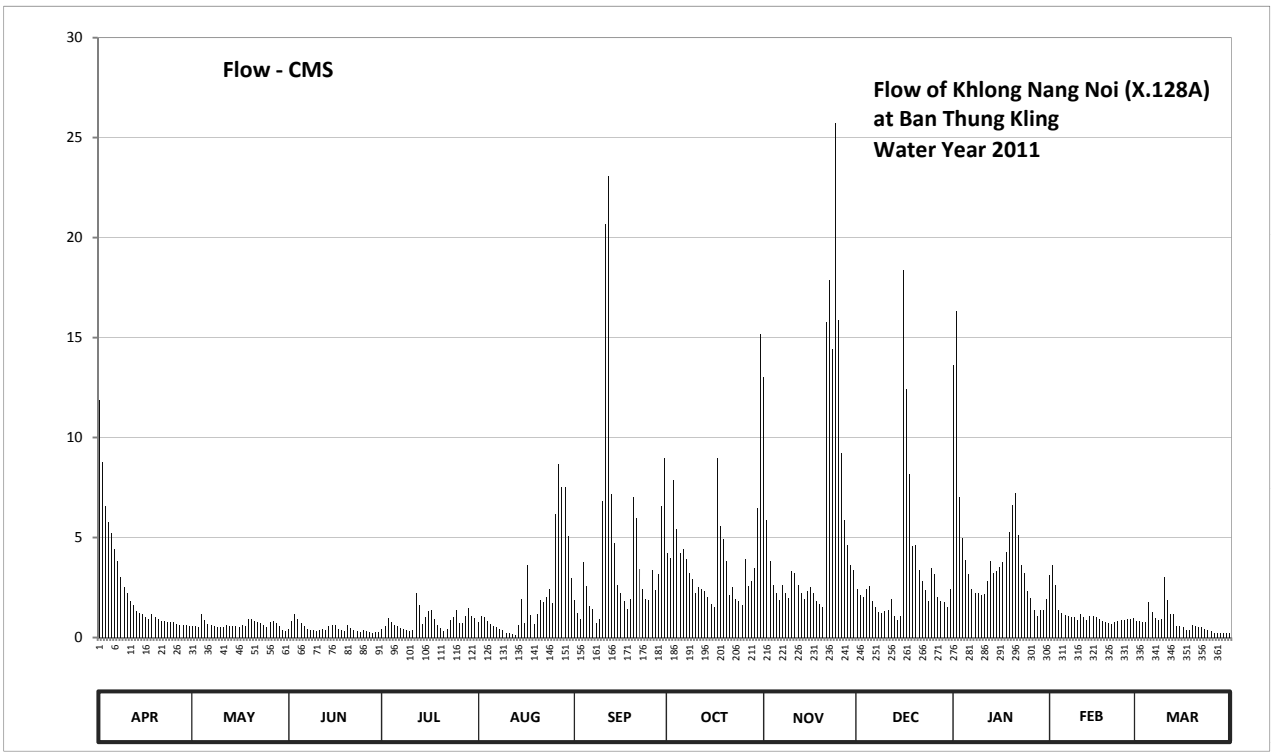
Location : on right bank at Ban Thung Kling.

	Ban Thung Kling	**Amphoe** Na Yong	**Changwat** Trang
Drainge Area	75 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	Near the top staff gage.		**Elevation** +40.999 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	1984 to date		
Rating Operation			
Period of Rating	1984 to date		
Rated by Flot	-		
Rated by Current Meter	1984 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 36 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	37.87	35.75	35.70	35.70	35.82	36.13	36.59	38.04	36.24	38.12	36.38	35.84	
2	37.38	35.74	35.85	35.75	35.93	35.97	36.54	36.89	36.18	38.47	36.48	35.84	
3	37.01	35.73	35.96	35.89	35.91	35.87	37.23	36.51	36.16	37.09	36.28	35.83	
4	36.87	35.95	35.87	35.82	35.84	36.50	36.80	36.28	36.25	36.72	36.02	35.83	
5	36.77	35.86	35.81	35.77	35.79	36.27	36.59	36.20	36.27	36.52	35.97	36.10	
6	36.62	35.79	35.74	35.74	35.74	36.06	36.62	36.13	36.11	36.39	35.94	35.99	
7	36.51	35.77	35.70	35.71	35.73	36.03	36.53	36.29	36.05	36.25	35.92	35.89	
8	36.36	35.75	35.66	35.69	35.70	35.81	36.41	36.21	35.99	36.21	35.91	35.86	
9	36.26	35.73	35.66	35.67	35.66	35.87	36.34	36.15	35.98	36.20	35.90	35.87	
10	36.20	35.73	35.64	35.65	35.62	37.05	36.21	36.42	36.00	36.18	35.86	36.36	
11	36.12	35.73	35.66	35.67	35.60	38.95	36.26	36.41	36.02	36.19	35.95	36.13	
12	36.07	35.77	35.68	36.21	35.59	39.18	36.25	36.29	36.14	36.33	35.90	35.95	
13	36.01	35.75	35.66	36.07	35.57	37.11	36.22	36.20	35.93	36.51	35.86	35.96	
14	35.97	35.74	35.74	35.79	35.78	36.68	36.16	36.14	35.86	36.40	35.93	35.75	
15	35.95	35.74	35.78	35.90	36.14	36.29	36.08	36.22	35.93	36.42	35.92	35.74	
16	35.90	35.72	35.76	36.01	35.81	36.20	36.05	36.26	38.71	36.46	35.91	35.72	
17	35.87	35.78	35.69	36.02	36.48	36.11	37.41	36.21	37.96	36.50	35.87	35.67	
18	35.95	35.75	35.66	35.88	35.94	36.03	36.83	36.12	37.28	36.60	35.84	35.66	
19	35.91	35.87	35.65	35.78	35.79	36.14	36.71	36.08	36.65	36.78	35.82	35.77	
20	35.87	35.88	35.76	35.71	35.95	37.09	36.51	36.05	36.66	37.02	35.80	35.74	
21	35.85	35.85	35.71	35.64	36.13	36.90	36.18	38.41	36.43	37.12	35.79	35.73	
22	35.84	35.82	35.67	35.68	36.10	36.44	36.26	38.65	36.32	36.75	35.82	35.72	
23	35.83	35.80	35.65	35.86	36.16	36.25	36.14	38.23	36.23	36.48	35.84	35.70	
24	35.83	35.76	35.63	35.91	36.24	36.14	36.11	39.38	36.11	36.40	35.86	35.66	
25	35.82	35.72	35.66	36.02	36.09	36.13	36.07	38.42	36.45	36.22	35.86	35.64	
26	35.79	35.82	35.64	35.80	36.94	36.43	36.53	37.45	36.39	36.15	35.87	35.62	
27	35.76	35.84	35.63	35.80	37.36	36.23	36.27	36.89	36.16	36.02	35.88	35.61	
28	35.76	35.80	35.61	35.93	37.17	36.39	36.33	36.66	36.11	35.93	35.89	35.61	
29	35.76	35.74	35.63	36.04	37.17	37.01	36.45	36.48	36.10	36.02	35.89	35.61	
30	35.75	35.67	35.63	35.93	36.74	37.41	37.00	36.43	36.05	36.02		35.61	
31		35.65		35.89	36.35		38.33		36.24	36.14		35.61	
Mean	36.18	35.77	35.70	35.84	36.09	36.56	36.52	36.80	36.35	36.54	35.94	35.79	
Max	37.87	35.95	35.96	36.21	37.36	39.18	38.33	39.38	38.71	38.47	36.48	36.36	39.38
Min	35.75	35.65	35.61	35.64	35.57	35.81	36.05	36.05	35.86	35.93	35.79	35.61	35.57

Annual Max Momentary Gage Height	40.03	m. (MSL.) ,	at 16.00 Hours , on Nov 21 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	35.04	m. (MSL)
Left Bank Elevation	43.35	m. (MSL.) ,			
Right Bank Elevation	43.37	m. (MSL.) ,	Drainage Area	75	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	11.85	0.58	0.45	0.45	0.76	1.89	4.25	13.00	2.40	13.60	3.10	0.82		
2	8.78	0.55	0.85	0.58	1.09	1.21	3.97	5.89	2.11	16.30	3.64	0.82		
3	6.56	0.53	1.18	0.97	1.03	0.91	7.88	3.80	2.02	7.04	2.60	0.79		
4	5.78	1.15	0.91	0.76	0.82	3.75	5.40	2.60	2.45	4.96	1.39	0.79		
5	5.24	0.88	0.73	0.63	0.68	2.55	4.25	2.20	2.55	3.86	1.21	1.75		
6	4.41	0.68	0.55	0.55	0.55	1.57	4.41	1.89	1.80	3.15	1.12	1.27		
7	3.80	0.63	0.45	0.48	0.53	1.43	3.91	2.65	1.52	2.45	1.06	0.97		
8	3.00	0.58	0.35	0.42	0.45	0.73	3.25	2.25	1.27	2.25	1.03	0.88		
9	2.50	0.53	0.35	0.37	0.35	0.91	2.90	1.98	1.24	2.20	1.00	0.91		
10	2.20	0.53	0.30	0.33	0.25	6.80	2.25	3.31	1.30	2.11	0.88	3.00		
11	1.84	0.53	0.35	0.37	0.20	20.70	2.50	3.25	1.39	2.15	1.15	1.89		
12	1.61	0.63	0.40	2.25	0.18	23.09	2.45	2.65	1.93	2.85	1.00	1.15		
13	1.34	0.58	0.35	1.61	0.14	7.16	2.30	2.20	1.09	3.80	0.88	1.18		
14	1.21	0.55	0.55	0.68	0.65	4.74	2.02	1.93	0.88	3.20	1.09	0.58		
15	1.15	0.55	0.65	1.00	1.93	2.65	1.66	2.30	1.09	3.31	1.06	0.55		
16	1.00	0.50	0.60	1.34	0.73	2.20	1.52	2.50	18.39	3.53	1.03	0.50		
17	0.91	0.65	0.42	1.39	3.64	1.80	8.96	2.25	12.44	3.75	0.91	0.37		
18	1.15	0.58	0.35	0.94	1.12	1.43	5.57	1.84	8.18	4.30	0.82	0.35		
19	1.03	0.91	0.33	0.65	0.68	1.93	4.91	1.66	4.58	5.29	0.76	0.63		
20	0.91	0.94	0.60	0.48	1.15	7.04	3.80	1.52	4.63	6.62	0.70	0.55		
21	0.85	0.85	0.48	0.30	1.89	5.95	2.11	15.78	3.36	7.22	0.68	0.53		
22	0.82	0.76	0.37	0.40	1.75	3.42	2.50	17.85	2.80	5.13	0.76	0.50		
23	0.79	0.70	0.33	0.88	2.02	2.45	1.93	14.42	2.35	3.64	0.82	0.45		
24	0.79	0.60	0.28	1.03	2.40	1.93	1.80	25.73	1.80	3.20	0.88	0.35		
25	0.76	0.50	0.35	1.39	1.70	1.89	1.61	15.87	3.48	2.30	0.88	0.30		
26	0.68	0.76	0.30	0.70	6.17	3.36	3.91	9.20	3.15	1.98	0.91	0.25		
27	0.60	0.82	0.28	0.70	8.66	2.35	2.55	5.89	2.02	1.39	0.94	0.23		
28	0.60	0.70	0.23	1.09	7.52	3.15	2.85	4.63	1.80	1.09	0.97	0.23		
29	0.60	0.55	0.28	1.48	7.52	6.56	3.48	3.64	1.75	1.39	0.97	0.23		
30	0.58	0.37	0.28	1.09	5.07	8.96	6.50	3.36	1.52	1.39		0.23		
31		0.33		0.97	2.95		15.18		2.40	1.93		0.23		
Total	73.34	20.00	13.90	26.28	64.58	134.51	122.58	178.04	99.69	127.38	34.24	23.28	917.82	CMSDAY
Mean	2.44	0.65	0.46	0.85	2.08	4.48	3.95	5.93	3.22	4.11	1.18	0.75	2.51	CMS
Max	11.85	1.15	1.18	2.25	8.66	23.09	15.18	25.73	18.39	16.30	3.64	3.00	25.73	CMS
Min	0.58	0.33	0.23	0.30	0.14	0.73	1.52	1.52	0.88	1.09	0.68	0.23	0.14	CMS
Runoff	6.34	1.73	1.20	2.27	5.58	11.62	10.59	15.38	8.61	11.01	2.96	2.01	79.30	MCM

Momentary Peak 40.20 CMS. at 40.03 m. (MSL.) at 16.00 Hours , on Nov 21 , 2011

Runoff Yield 33.44 Liters/Second/Square KM. Momentary Peak Yield 536.000 Liters/Second/Square KM.

WATER YEAR : 2011

SOUTHERN PENINSULA WEST COAST

Khlong Palian at Ban Palian Nai , Trang (X.139A)

Lat 07 - 18 - 55 N Long 99 - 49 - 32 E

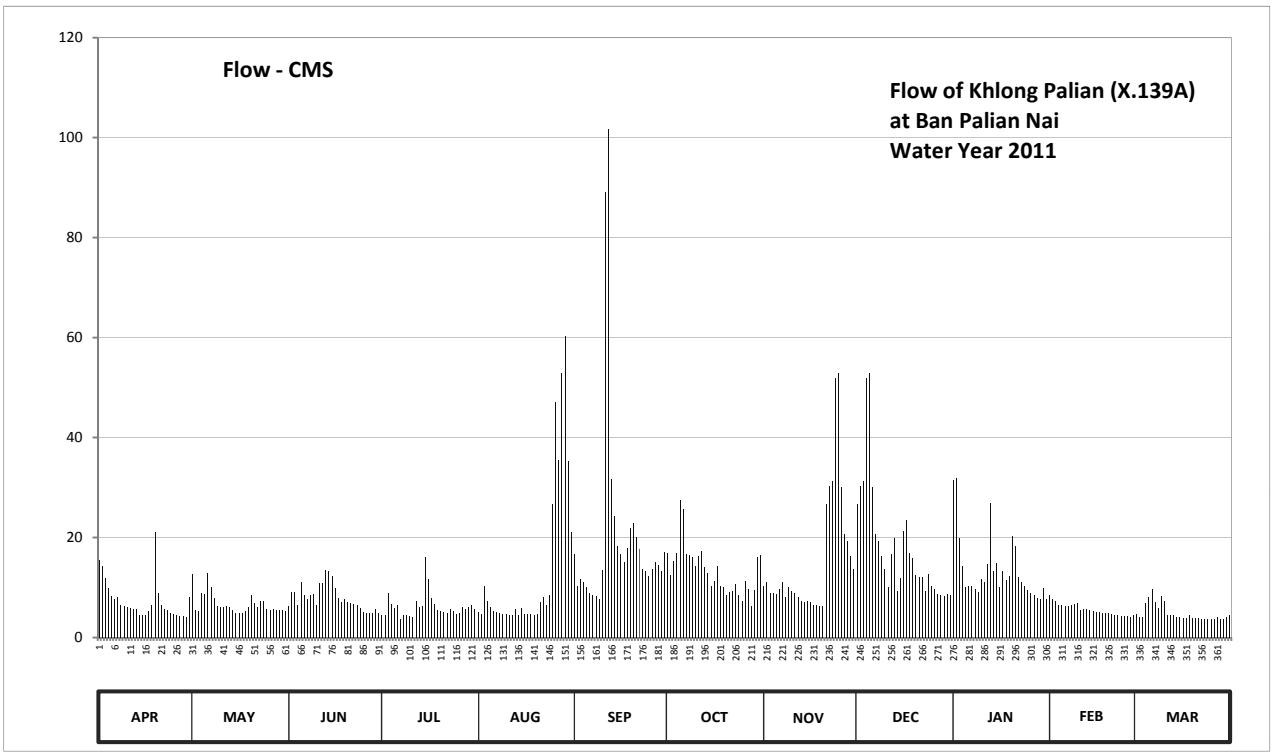
Location : on left bank at the bridge.

	Ban Palian Nai	**Amphoe** Palian	**Changwat** Trang
Drainge Area	160 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (A.D.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank at the abutment of the bridge.	**Elevation**	+6.999 m. (A.D.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	2009 to date		
Rating Operation			
Period of Rating	2009 to date		
Rated by Flot	-		
Rated by Current Meter	2009 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 36 discharge measurements made in 2011.		

Gage Height in Meter (A.D.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	1.89	1.69	1.16	0.98	1.04	1.99	2.00	1.51	2.61	2.88	1.35	1.00	
2	1.80	1.08	1.41	0.98	1.00	1.51	1.68	1.56	2.82	2.91	1.29	0.93	
3	1.63	1.06	1.41	1.39	1.50	1.62	1.88	1.40	2.87	2.21	1.26	0.93	
4	1.47	1.40	1.19	1.20	1.25	1.56	2.00	1.39	3.73	1.80	1.19	1.22	
5	1.34	1.38	1.56	1.12	1.13	1.49	2.66	1.37	3.76	1.49	1.17	1.33	
6	1.29	1.71	1.35	1.19	1.06	1.40	2.56	1.46	2.80	1.50	1.16	1.46	
7	1.33	1.48	1.28	0.88	1.04	1.35	1.98	1.56	2.26	1.51	1.16	1.23	
8	1.19	1.31	1.35	0.98	1.01	1.34	1.97	1.32	2.17	1.46	1.18	1.12	
9	1.15	1.16	1.38	0.97	0.99	1.29	1.94	1.49	1.96	1.41	1.20	1.34	
10	1.13	1.13	1.17	0.95	0.99	1.75	1.81	1.43	1.77	1.61	1.21	1.26	
11	1.12	1.14	1.55	0.92	0.98	4.36	1.96	1.40	1.49	1.56	1.07	0.98	
12	1.11	1.15	1.55	1.26	0.97	4.51	2.03	1.33	1.98	1.84	1.10	0.97	
13	1.09	1.13	1.75	1.13	1.11	2.90	1.79	1.25	2.21	2.62	1.10	0.98	
14	0.97	1.07	1.73	1.16	0.97	2.47	1.71	1.24	1.43	1.74	1.07	0.94	
15	0.98	1.03	1.66	1.94	1.12	2.10	1.51	1.25	1.63	1.85	1.06	0.93	
16	0.97	1.02	1.47	1.61	0.99	1.99	1.59	1.23	2.30	1.49	1.04	0.91	
17	1.05	1.02	1.31	1.30	0.99	1.87	1.80	1.18	2.43	1.73	1.04	0.91	
18	1.17	1.05	1.23	1.20	0.99	2.07	1.51	1.18	2.00	1.60	1.03	0.98	
19	2.28	1.14	1.28	1.07	0.97	2.33	1.48	1.16	1.93	1.66	1.03	0.91	
20	1.40	1.35	1.24	1.06	1.00	2.39	1.35	1.15	1.68	2.24	1.01	0.90	
21	1.18	1.22	1.21	1.04	1.23	2.23	1.41	2.61	1.64	2.10	1.00	0.90	
22	1.11	1.13	1.20	1.02	1.32	2.06	1.43	2.82	1.65	1.65	0.97	0.89	
23	1.07	1.25	1.18	1.11	1.18	1.76	1.53	2.87	1.42	1.57	0.97	0.88	
24	1.03	1.26	1.12	1.05	1.35	1.73	1.35	3.73	1.69	1.50	0.96	0.87	
25	1.00	1.10	1.04	1.00	2.61	1.66	1.25	3.76	1.51	1.44	0.96	0.87	
26	0.98	1.08	1.03	1.02	3.58	1.76	1.59	2.80	1.46	1.40	0.95	0.87	
27	0.96	1.11	1.03	1.13	3.10	1.87	1.45	2.26	1.37	1.36	0.93	0.93	
28	0.95	1.08	1.01	1.10	3.76	1.82	1.16	2.17	1.35	1.31	0.97	0.88	
29	0.94	1.07	1.09	1.13	3.92	1.74	1.44	1.96	1.34	1.28	1.26	0.87	
30	1.32	1.07	1.01	1.18	3.09	2.02	1.94	1.77	1.37	1.47		0.92	
31		1.05		1.09	2.28		1.97		1.35	1.29		0.97	
Mean	1.23	1.19	1.30	1.13	1.57	2.03	1.73	1.79	2.00	1.73	1.09	1.00	
Max	2.28	1.71	1.75	1.94	3.92	4.51	2.66	3.76	3.76	2.91	1.35	1.46	4.51
Min	0.94	1.02	1.01	0.88	0.97	1.29	1.16	1.15	1.34	1.28	0.93	0.87	0.87

Annual Max Momentary Gage Height	5.25	m. (A.D.) ,	at 18.00 Hours , on Sep 11, 2011		
Zero Gage at Bottom Elevation	0.00	m. (A.D.) ,	River Bed	-0.14	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, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	15.42	12.72	6.30	4.53	5.10	16.76	16.90	10.38	26.67	31.40	8.43	4.70		
2	14.20	5.50	9.13	4.53	4.70	10.38	12.58	11.00	30.35	31.93	7.73	4.11		
3	11.90	5.30	9.13	8.89	10.25	11.77	15.28	9.00	31.22	19.86	7.39	4.11		
4	9.88	9.00	6.60	6.70	7.27	11.00	16.90	8.89	51.93	14.20	6.60	6.93		
5	8.31	8.77	11.00	5.90	6.00	10.13	27.55	8.65	52.90	10.13	6.40	8.20		
6	7.73	12.99	8.43	6.60	5.30	9.00	25.80	9.75	30.00	10.25	6.30	9.75		
7	8.20	10.00	7.62	3.68	5.10	8.43	16.63	11.00	20.69	10.38	6.30	7.04		
8	6.60	7.96	8.43	4.53	4.80	8.31	16.50	8.08	19.28	9.75	6.50	5.90		
9	6.20	6.30	8.77	4.45	4.62	7.73	16.09	10.13	16.36	9.13	6.70	8.31		
10	6.00	6.00	6.40	4.28	4.62	13.53	14.34	9.38	13.80	11.64	6.81	7.39		
11	5.90	6.10	10.87	4.02	4.53	89.04	16.36	9.00	10.13	11.00	5.40	4.53		
12	5.80	6.20	10.87	7.39	4.45	101.63	17.32	8.20	16.63	14.74	5.70	4.45		
13	5.60	6.00	13.53	6.00	5.80	31.75	14.06	7.27	19.86	26.85	5.70	4.53		
14	4.45	5.40	13.26	6.30	4.45	24.22	12.99	7.16	9.38	13.39	5.40	4.19		
15	4.53	5.00	12.31	16.09	5.90	18.30	10.38	7.27	11.90	14.88	5.30	4.11		
16	4.45	4.90	9.88	11.64	4.62	16.76	11.38	7.04	21.35	10.13	5.10	3.94		
17	5.20	4.90	7.96	7.85	4.62	15.15	14.20	6.50	23.52	13.26	5.10	3.94		
18	6.40	5.20	7.04	6.70	4.62	17.88	10.38	6.50	16.90	11.50	5.00	4.53		
19	21.02	6.10	7.62	5.40	4.45	21.84	10.00	6.30	15.95	12.31	5.00	3.94		
20	9.00	8.43	7.16	5.30	4.70	22.84	8.43	6.20	12.58	20.36	4.80	3.85		
21	6.50	6.93	6.81	5.10	7.04	20.19	9.13	26.67	12.04	18.30	4.70	3.85		
22	5.80	6.00	6.70	4.90	8.08	17.74	9.38	30.35	12.17	12.17	4.45	3.77		
23	5.40	7.27	6.50	5.80	6.50	13.66	10.63	31.22	9.25	11.13	4.45	3.68		
24	5.00	7.39	5.90	5.20	8.43	13.26	8.43	51.93	12.72	10.25	4.36	3.60		
25	4.70	5.70	5.10	4.70	26.67	12.31	7.27	52.90	10.38	9.50	4.36	3.60		
26	4.53	5.50	5.00	4.90	47.15	13.66	11.38	30.00	9.75	9.00	4.28	3.60		
27	4.36	5.80	5.00	6.00	35.50	15.15	9.63	20.69	8.65	8.54	4.11	4.11		
28	4.28	5.50	4.80	5.70	52.90	14.47	6.30	19.28	8.43	7.96	4.45	3.68		
29	4.19	5.40	5.60	6.00	60.20	13.39	9.50	16.36	8.31	7.62	7.39	3.60		
30	8.08	5.40	4.80	6.50	35.30	17.18	16.09	13.80	8.65	9.88		4.02		
31		5.20		5.60	21.02		16.50		8.43	7.73		4.45		
Total	219.63	208.86	238.52	191.18	414.69	617.46	418.31	460.90	560.18	419.17	164.21	150.41	4063.52	CMSDAY
Mean	7.32	6.74	7.95	6.17	13.38	20.58	13.49	15.36	18.07	13.52	5.66	4.85	11.10	CMS
Max	21.02	12.99	13.53	16.09	60.20	101.63	27.55	52.90	52.90	31.93	8.43	9.75	101.63	CMS
Min	4.19	4.90	4.80	3.68	4.45	7.73	6.30	6.20	8.31	7.62	4.11	3.60	3.60	CMS
Runoff	18.98	18.05	20.61	16.52	35.83	53.35	36.14	39.82	48.40	36.22	14.19	13.00	351.09	MCM

Momentary Peak 180.25 CMS. at 5.25 m. (A.D.) at 18.00 Hours , on Sep 11 , 2011

Runoff Yield 69.07 Liters/Second/Square KM. Momentary Peak Yield 1121.306 Liters/Second/Square KM.

WATER YEAR : 2011

SOUTHERN PENINSULA WEST COAST

Khlong Langu at Ban Tha Khian , Satun (X.150)

Lat 06 - 56 - 30 N Long 99 - 52 - 33 E

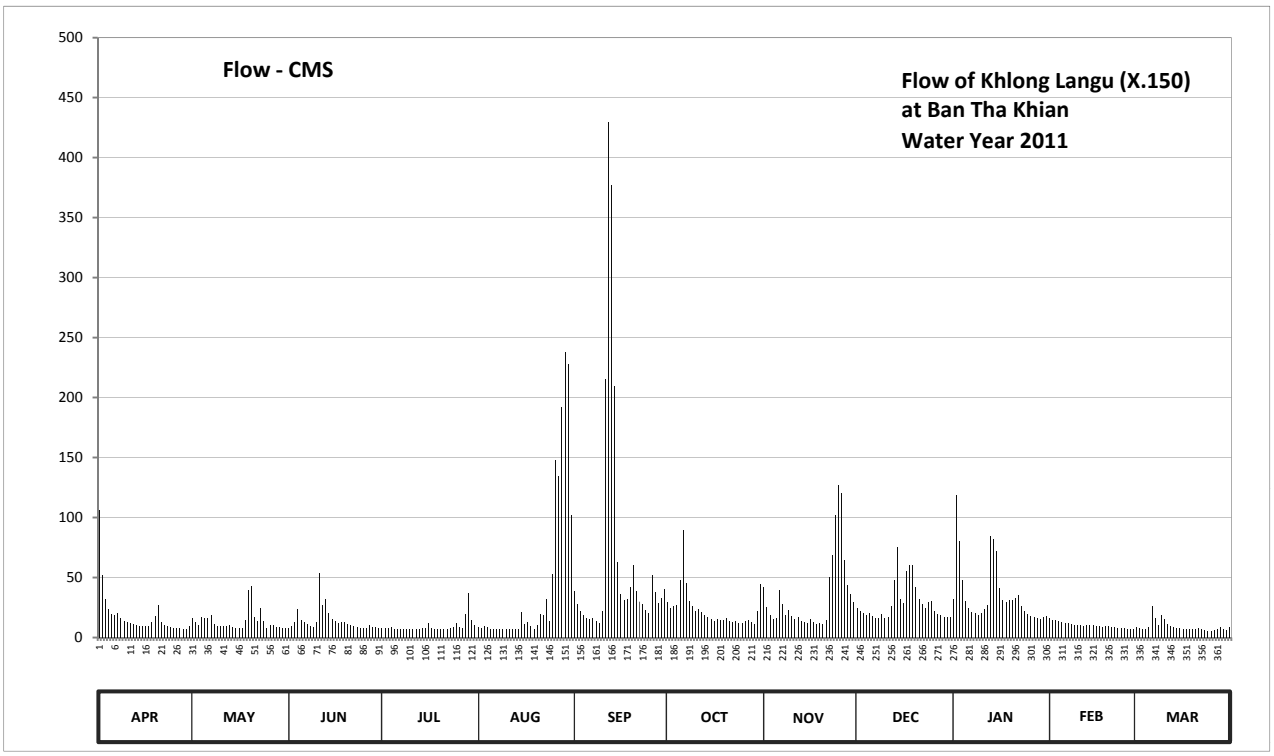
Location : on right bank at Ban Tha Khian.

	Ban Tha Khian	**Amphoe** Langu	**Changwat** Satun
Drainge Area	480 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank about 5 meters from the top staff gage.	**Elevation**	+12.997 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	1984 to date		
Rating Operation			
Period of Rating	1984 to date		
Rated by Flot	-		
Rated by Current Meter	1984 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 37 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	9.47	6.12	5.57	5.61	5.64	7.15	6.72	7.28	6.52	6.83	6.11	5.66	
2	7.70	5.91	5.70	5.61	5.57	6.68	6.50	6.54	6.40	9.76	6.03	5.57	
3	6.83	5.73	5.94	5.59	5.72	6.41	6.60	6.22	6.31	8.69	6.04	5.55	
4	6.48	6.14	6.49	5.63	5.67	6.24	6.61	6.08	6.24	7.53	5.95	5.55	
5	6.28	6.11	6.04	5.56	5.56	6.12	7.53	6.10	6.30	6.76	5.90	5.67	
6	6.22	6.09	5.93	5.55	5.54	6.07	9.01	7.18	6.19	6.52	5.87	6.59	
7	6.32	6.22	5.80	5.55	5.54	6.11	7.43	6.68	6.09	6.38	5.85	6.11	
8	6.09	5.82	5.71	5.54	5.54	5.95	6.77	6.24	6.09	6.31	5.84	5.74	
9	5.97	5.72	5.67	5.54	5.53	5.86	6.57	6.45	6.29	6.25	5.78	6.23	
10	5.90	5.71	5.94	5.54	5.53	6.39	6.41	6.18	6.09	6.31	5.74	6.08	
11	5.85	5.68	7.78	5.54	5.52	11.35	6.48	6.06	6.13	6.49	5.73	5.83	
12	5.80	5.71	6.64	5.53	5.53	13.43	6.37	6.15	6.58	6.64	5.72	5.72	
13	5.76	5.73	6.84	5.53	5.53	12.99	6.23	5.96	7.55	8.83	5.73	5.65	
14	5.72	5.65	6.31	5.57	5.54	11.27	6.15	5.90	8.53	8.74	5.74	5.61	
15	5.69	5.60	6.05	5.58	6.38	8.10	6.07	5.88	6.86	8.43	5.73	5.57	
16	5.68	5.57	5.95	5.88	5.82	7.02	6.00	6.08	6.69	7.25	5.71	5.54	
17	5.72	5.60	5.85	5.60	5.92	6.82	6.07	5.90	7.82	6.80	5.69	5.52	
18	5.92	6.02	5.91	5.54	5.68	6.85	6.01	5.84	8.02	6.74	5.67	5.56	
19	6.18	7.18	5.94	5.53	5.56	7.30	6.02	5.89	8.00	6.80	5.68	5.51	
20	6.64	7.34	5.84	5.54	5.73	8.00	6.12	5.83	7.30	6.81	5.68	5.56	
21	5.91	6.13	5.78	5.53	6.26	7.16	5.97	6.01	6.85	6.89	5.65	5.61	
22	5.76	6.00	5.69	5.53	6.23	6.75	5.94	7.65	6.66	6.99	5.64	5.51	
23	5.71	6.51	5.65	5.58	6.86	6.65	5.98	8.30	6.53	6.58	5.62	5.47	
24	5.67	5.97	5.62	5.64	6.00	6.42	5.88	9.36	6.73	6.39	5.58	5.45	
25	5.62	5.60	5.59	5.86	7.72	6.30	5.89	9.94	6.79	6.29	5.57	5.45	
26	5.58	5.77	5.57	5.64	10.36	7.70	5.99	9.80	6.41	6.21	5.55	5.48	
27	5.57	5.76	5.74	5.59	10.08	7.09	6.04	8.17	6.29	6.15	5.54	5.52	
28	5.56	5.67	5.65	6.26	11.04	6.69	5.90	7.38	6.24	6.10	5.56	5.66	
29	5.55	5.63	5.64	7.06	11.63	6.87	5.84	7.04	6.17	6.06	5.63	5.52	
30	5.72	5.60	5.61	6.01	11.51	7.21	6.41	6.72	6.13	6.15		5.48	
31		5.58		5.77	9.36		7.39		6.14	6.19		5.65	
Mean	6.10	5.93	5.95	5.68	6.78	7.50	6.42	6.83	6.68	6.93	5.74	5.67	
Max	9.47	7.34	7.78	7.06	11.63	13.43	9.01	9.94	8.53	9.76	6.11	6.59	13.43
Min	5.55	5.57	5.57	5.53	5.52	5.86	5.84	5.83	6.09	6.06	5.54	5.45	5.45

Annual Max Momentary Gage Height	13.53	m. (MSL.) ,	at 16.00 Hours , on Sep 12 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	4.64	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, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	106.48	16.40	7.55	8.15	8.60	38.88	29.20	41.80	24.70	31.67	16.20	8.90		
2	52.00	12.65	9.50	8.15	7.55	28.30	24.25	25.15	22.00	118.80	14.60	7.55		
3	31.67	9.95	13.10	7.85	9.80	22.22	26.50	18.40	20.20	80.20	14.80	7.25		
4	23.80	16.80	24.02	8.45	9.05	18.80	26.73	15.60	18.80	47.75	13.25	7.25		
5	19.60	16.20	14.80	7.40	7.40	16.40	47.75	16.00	20.00	30.10	12.50	9.05		
6	18.40	15.80	12.95	7.25	7.10	15.40	89.85	39.55	17.80	24.70	12.05	26.28		
7	20.40	18.40	11.00	7.25	7.10	16.20	45.25	28.30	15.80	21.60	11.75	16.20		
8	15.80	11.30	9.65	7.10	7.10	13.25	30.32	18.80	15.80	20.20	11.60	10.10		
9	13.55	9.80	9.05	7.10	6.95	11.90	25.83	23.12	19.80	19.00	10.70	18.60		
10	12.50	9.65	13.10	7.10	6.95	21.80	22.22	17.60	15.80	20.20	10.10	15.60		
11	11.75	9.20	54.00	7.10	6.80	215.25	23.80	15.20	16.60	24.02	9.95	11.45		
12	11.00	9.65	27.40	6.95	6.95	429.90	21.40	17.00	26.05	27.40	9.80	9.80		
13	10.40	9.95	31.90	6.95	6.95	376.85	18.60	13.40	48.25	84.40	9.95	8.75		
14	9.80	8.75	20.20	7.55	7.10	209.25	17.00	12.50	75.40	81.70	10.10	8.15		
15	9.35	8.00	15.00	7.70	21.60	62.75	15.40	12.20	32.35	72.40	9.95	7.55		
16	9.20	7.55	13.25	12.20	11.30	35.95	14.00	15.60	28.53	41.13	9.65	7.10		
17	9.80	8.00	11.75	8.00	12.80	31.45	15.40	12.50	55.05	31.00	9.35	6.80		
18	12.80	14.40	12.65	7.10	9.20	32.12	14.20	11.60	60.55	29.65	9.05	7.40		
19	17.60	39.55	13.10	6.95	7.40	42.25	14.40	12.35	60.00	31.00	9.20	6.65		
20	27.40	43.15	11.60	7.10	9.95	60.00	16.40	11.45	42.25	31.22	9.20	7.40		
21	12.65	16.60	10.70	6.95	19.20	39.10	13.55	14.20	32.12	33.02	8.75	8.15		
22	10.40	14.00	9.35	6.95	18.60	29.87	13.10	50.75	27.85	35.27	8.60	6.65		
23	9.65	24.48	8.75	7.70	32.35	27.63	13.70	68.50	24.93	26.05	8.30	6.05		
24	9.05	13.55	8.30	8.60	14.00	22.45	12.20	102.10	29.42	21.80	7.70	5.75		
25	8.30	8.00	7.85	11.90	52.50	20.00	12.35	127.15	30.77	19.80	7.55	5.75		
26	7.70	10.55	7.55	8.60	148.00	52.00	13.85	120.50	22.22	18.20	7.25	6.20		
27	7.55	10.40	10.10	7.85	134.00	37.53	14.80	64.68	19.80	17.00	7.10	6.80		
28	7.40	9.05	8.75	19.20	192.00	28.53	12.50	44.05	18.80	16.00	7.40	8.90		
29	7.25	8.45	8.60	36.85	237.55	32.57	11.60	36.40	17.40	15.20	8.45	6.80		
30	9.80	8.00	8.15	14.20	227.80	40.23	22.22	29.20	16.60	17.00		6.20		
31		7.70		10.55	102.10		44.27		16.80	17.80		8.75		
Total	533.05	425.93	423.67	292.75	1355.75	2028.83	722.64	1035.65	892.44	1105.28	294.85	283.83	9394.67	CMSDAY
Mean	17.77	13.74	14.12	9.44	43.73	67.63	23.31	34.52	28.79	35.65	10.17	9.16	25.67	CMS
Max	106.48	43.15	54.00	36.85	237.55	429.90	89.85	127.15	75.40	118.80	16.20	26.28	429.90	CMS
Min	7.25	7.55	7.55	6.95	6.80	11.90	11.60	11.45	15.80	15.20	7.10	5.75	5.75	CMS
Runoff	46.06	36.80	36.61	25.29	117.14	175.29	62.44	89.48	77.11	95.50	25.48	24.52	811.70	MCM

Momentary Peak 442.90 CMS. at 13.53 m. (MSL.) at 16.00 Hours , on Sep 12 , 2011

Runoff Yield 53.45 Liters/Second/Square KM. Momentary Peak Yield 922.228 Liters/Second/Square KM.

WATER YEAR : 2011

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

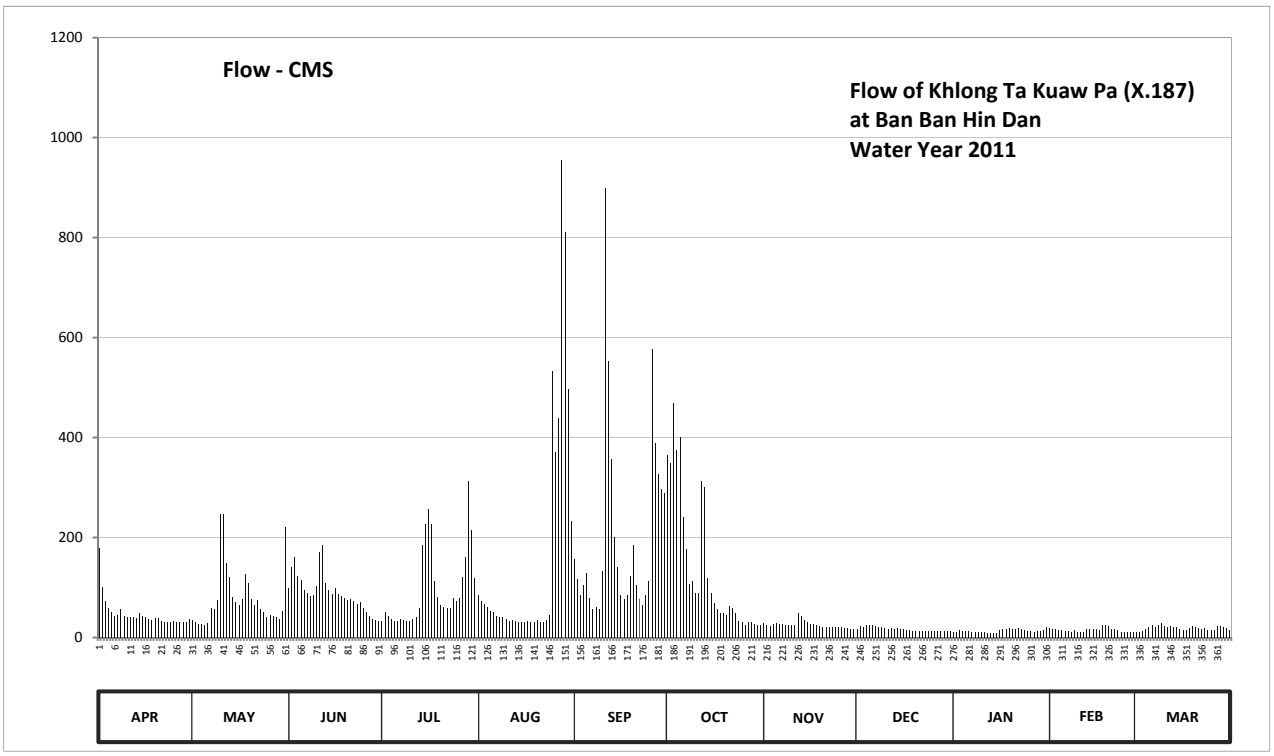
Location : on left bank at the bridge on Surat Thanu - Phang Nga Highway.

	Ban Hin Dan	**Amphoe** Ta Kuaw Pa	**Changwat** Phang Nga
Drainge Area	546 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank about 4 meters from the top staff gage.	**Elevation**	+9.230 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	1996 to date		
Rating Operation			
Period of Rating	1996 to date		
Rated by Flot	-		
Rated by Current Meter	1996 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 32 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	6.93	5.87	6.47	5.85	6.37	6.81	7.66	5.77	5.54	5.41	5.58	5.41	
2	6.48	5.81	6.73	6.08	6.29	6.59	7.60	5.70	5.67	5.42	5.51	5.41	
3	6.28	5.75	6.84	5.98	6.24	6.37	7.97	5.67	5.60	5.48	5.52	5.46	
4	6.17	5.73	6.63	5.89	6.18	6.51	7.69	5.73	5.69	5.45	5.50	5.52	
5	6.08	5.71	6.58	5.85	6.10	6.66	7.78	5.79	5.68	5.44	5.47	5.60	
6	5.99	5.77	6.44	5.84	6.08	6.33	7.22	5.75	5.68	5.43	5.44	5.69	
7	6.00	6.17	6.41	5.91	5.99	6.15	6.91	5.73	5.65	5.40	5.44	5.62	
8	6.14	6.15	6.36	5.88	5.95	6.18	6.53	5.70	5.61	5.40	5.41	5.72	
9	5.99	6.30	6.38	5.84	5.94	6.15	6.56	5.71	5.60	5.40	5.47	5.78	
10	5.95	7.24	6.50	5.84	5.90	6.68	6.40	5.72	5.58	5.38	5.41	5.66	
11	5.97	7.24	6.89	5.89	5.85	8.96	6.40	5.68	5.55	5.38	5.40	5.62	
12	5.95	6.77	6.95	5.95	5.88	8.18	7.48	6.05	5.59	5.36	5.40	5.65	
13	5.93	6.62	6.54	6.17	5.84	7.63	7.44	5.99	5.55	5.36	5.52	5.61	
14	6.05	6.35	6.44	6.95	5.82	7.03	6.61	5.86	5.56	5.35	5.54	5.60	
15	5.98	6.27	6.39	7.16	5.80	6.73	6.40	5.80	5.55	5.36	5.51	5.52	
16	5.96	6.22	6.47	7.28	5.81	6.38	6.26	5.75	5.53	5.48	5.53	5.48	
17	5.91	6.32	6.39	7.16	5.85	6.32	6.15	5.74	5.50	5.53	5.49	5.50	
18	5.86	6.65	6.36	6.57	5.82	6.37	6.06	5.70	5.47	5.51	5.69	5.58	
19	5.92	6.54	6.33	6.34	5.81	6.63	6.06	5.65	5.45	5.56	5.69	5.64	
20	5.93	6.32	6.30	6.23	5.87	6.95	6.00	5.63	5.45	5.54	5.66	5.60	
21	5.84	6.23	6.31	6.18	5.80	6.51	6.20	5.61	5.44	5.51	5.52	5.58	
22	5.82	6.30	6.28	6.17	5.80	6.32	6.16	5.60	5.44	5.59	5.53	5.55	
23	5.80	6.15	6.24	6.16	5.87	6.23	6.05	5.61	5.46	5.55	5.48	5.57	
24	5.81	6.07	6.27	6.33	6.01	6.38	5.85	5.60	5.45	5.49	5.42	5.49	
25	5.85	5.97	6.17	6.28	8.13	6.56	5.80	5.62	5.44	5.45	5.40	5.48	
26	5.82	6.02	6.07	6.33	7.68	8.24	5.72	5.63	5.45	5.43	5.40	5.49	
27	5.80	5.99	5.98	6.62	7.89	7.74	5.80	5.59	5.45	5.41	5.42	5.66	
28	5.81	5.95	5.91	6.83	9.07	7.53	5.80	5.58	5.46	5.45	5.40	5.67	
29	5.81	5.91	5.86	7.48	8.78	7.43	5.75	5.55	5.45	5.45	5.38	5.61	
30	5.89	6.09	5.84	7.10	8.04	7.40	5.70	5.55	5.44	5.47		5.56	
31		7.13		6.60	7.19		5.70		5.44	5.60		5.50	
Mean	5.99	6.25	6.38	6.35	6.44	6.86	6.51	5.70	5.53	5.45	5.49	5.58	
Max	6.93	7.24	6.95	7.48	9.07	8.96	7.97	6.05	5.69	5.60	5.69	5.78	9.07
Min	5.80	5.71	5.84	5.84	5.80	6.15	5.70	5.55	5.44	5.35	5.38	5.41	5.35

Annual Max Momentary Gage Height	9.20	m. (MSL.) ,	at 09.00 Hours , on Aug 28 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	4.53	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, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	180.00	34.90	98.50	33.50	84.10	156.00	365.40	28.50	17.30	11.45	19.10	11.45		
2	100.00	30.70	141.40	51.20	73.70	116.50	348.00	25.00	23.50	11.90	15.95	11.45		
3	72.40	27.50	162.00	42.60	67.20	84.10	468.90	23.50	20.00	14.60	16.40	13.70		
4	59.30	26.50	123.40	36.30	60.20	104.50	374.10	26.50	24.50	13.25	15.50	16.40		
5	51.20	25.50	115.00	33.50	53.00	128.80	400.20	29.50	24.00	12.80	14.15	20.00		
6	43.30	28.50	94.00	32.80	51.20	78.90	241.20	27.50	24.00	12.35	12.80	24.50		
7	44.00	59.30	89.50	37.70	43.30	57.50	176.00	26.50	22.50	11.00	12.80	21.00		
8	56.60	57.50	82.80	35.60	40.50	60.20	107.50	25.00	20.50	11.00	11.45	26.00		
9	43.30	75.00	85.40	32.80	39.80	57.50	112.00	25.50	20.00	11.00	14.15	29.00		
10	40.50	246.40	103.00	32.80	37.00	132.40	88.00	26.00	19.10	10.30	11.45	23.00		
11	41.90	246.40	172.00	36.30	33.50	900.00	88.00	24.00	17.75	10.30	11.00	21.00		
12	40.50	148.60	184.00	40.50	35.60	552.00	312.00	48.50	19.55	9.60	11.00	22.50		
13	39.10	121.60	109.00	59.30	32.80	356.70	300.00	43.30	17.75	9.60	16.40	20.50		
14	48.50	81.50	94.00	184.00	31.40	200.30	119.80	34.20	18.20	9.25	17.30	20.00		
15	42.60	71.10	86.70	227.60	30.00	141.40	88.00	30.00	17.75	9.60	15.95	16.40		
16	41.20	64.60	98.50	256.80	30.70	85.40	69.80	27.50	16.85	14.60	16.85	14.60		
17	37.70	77.60	86.70	227.60	33.50	77.60	57.50	27.00	15.50	16.85	15.05	15.50		
18	34.20	127.00	82.80	113.50	31.40	84.10	49.40	25.00	14.15	15.95	24.50	19.10		
19	38.40	109.00	78.90	80.20	30.70	123.40	49.40	22.50	13.25	18.20	24.50	22.00		
20	39.10	77.60	75.00	65.90	34.90	184.00	44.00	21.50	13.25	17.30	23.00	20.00		
21	32.80	65.90	76.30	60.20	30.00	104.50	62.00	20.50	12.80	15.95	16.40	19.10		
22	31.40	75.00	72.40	59.30	30.00	77.60	58.40	20.00	12.80	19.55	16.85	17.75		
23	30.00	57.50	67.20	58.40	34.90	65.90	48.50	20.50	13.70	17.75	14.60	18.65		
24	30.70	50.30	71.10	78.90	44.90	85.40	33.50	20.00	13.25	15.05	11.90	15.05		
25	33.50	41.90	59.30	72.40	532.00	112.00	30.00	21.00	12.80	13.25	11.00	14.60		
26	31.40	45.80	50.30	78.90	371.20	576.00	26.00	21.50	13.25	12.35	11.00	15.05		
27	30.00	43.30	42.60	121.60	439.30	388.60	30.00	19.55	13.25	11.45	11.90	23.00		
28	30.70	40.50	37.70	160.00	955.70	327.00	30.00	19.10	13.70	13.25	11.00	23.50		
29	30.70	37.70	34.20	312.00	810.80	297.00	27.50	17.75	13.25	13.25	10.30	20.50		
30	36.30	52.10	32.80	215.00	496.00	288.00	25.00	17.75	12.80	14.15		18.20		
31		221.30		118.00	233.90		25.00		12.80	20.00		15.50		
Total	1411.30	2468.10	2706.50	2995.20	4853.20	6003.30	4255.10	764.65	523.80	416.90	434.25	589.00	27421.30	CMSDAY
Mean	47.04	79.62	90.22	96.62	156.55	200.11	137.26	25.49	16.90	13.45	14.97	19.00	74.92	CMS
Max	180.00	246.40	184.00	312.00	955.70	900.00	468.90	48.50	24.50	20.00	24.50	29.00	955.70	CMS
Min	30.00	25.50	32.80	32.80	30.00	57.50	25.00	17.75	12.80	9.25	10.30	11.45	9.25	CMS
Runoff	121.94	213.24	233.84	258.79	419.32	518.69	367.64	66.07	45.26	36.02	37.52	50.89	2369.20	MCM

Momentary Peak 1022.00 CMS. at 9.20 m. (MSL.) at 09.00 Hours , on Aug 28 , 2011

Runoff Yield 137.22 Liters/Second/Square KM. Momentary Peak Yield 1871.795 Liters/Second/Square KM.

WATER YEAR : 2011

SOUTHERN PENINSULA WEST COAST

Khlong Rommanee at Ban Rommanee , Phang Nga (X.188A)

Lat 08 - 45 - 50 N Long 98 - 27 - 35 E

Location : on left bank at the bridge.

	Ban Rommanee	**Amphoe** Kapong	**Changwat** Phang Nga
Drainge Area	232 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank at the abutmentof the bridge.		**Elevation** +18.740 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	2009 to date		
Rating Operation			
Period of Rating	2009 to date		
Rated by Flot	-		
Rated by Current Meter	2009 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	Overbank flow starts at elevation +18.640 m.(MSL.), records are channel flow only.		
General Description	Records fair. Stage-discharge relation defined by 29 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

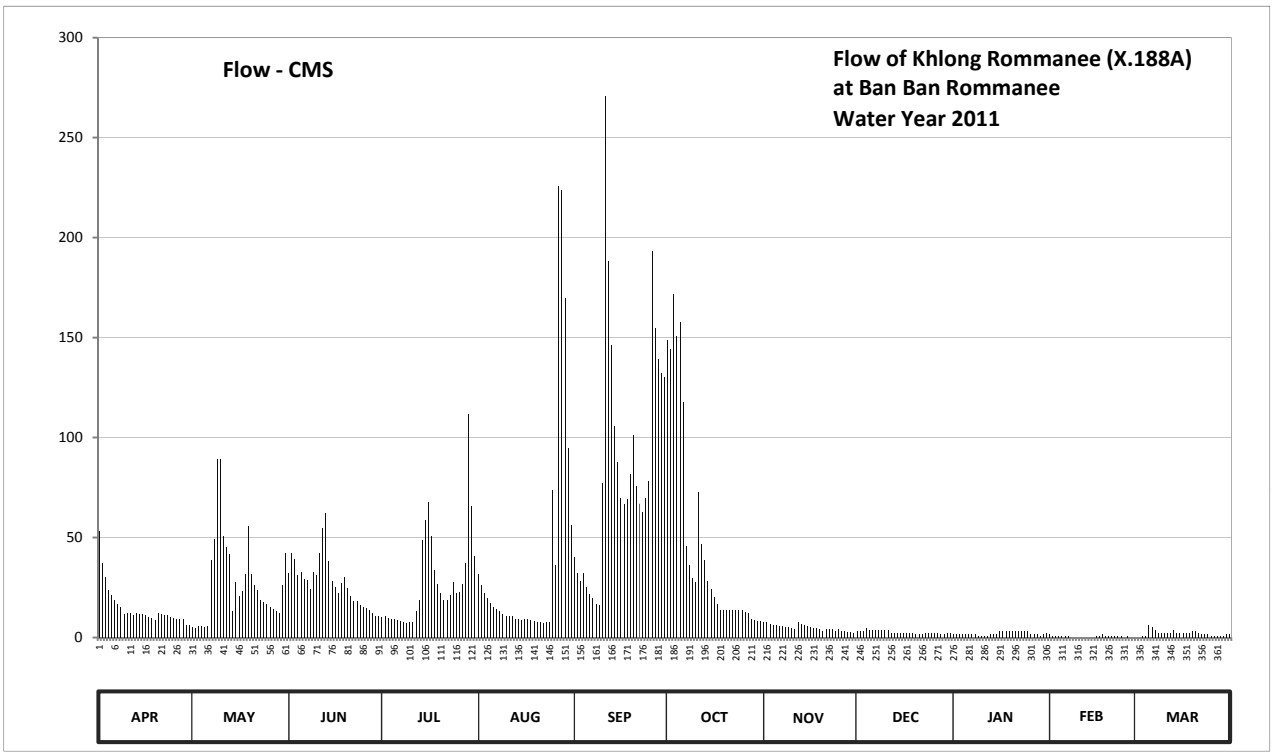
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	15.41	13.74	14.83	14.00	14.82	15.08	17.06	13.89	13.60	13.50	13.50	13.40	
2	15.00	13.71	15.13	14.04	14.65	14.84	17.00	13.87	13.60	13.50	13.45	13.40	
3	14.77	13.76	15.05	13.99	14.51	14.71	17.37	13.82	13.60	13.50	13.45	13.45	
4	14.56	13.78	14.81	13.95	14.41	14.83	17.09	13.80	13.70	13.50	13.45	13.45	
5	14.47	13.75	14.85	13.96	14.32	14.62	17.18	13.79	13.65	13.50	13.45	13.80	
6	14.39	13.78	14.74	13.94	14.24	14.49	16.62	13.77	13.65	13.50	13.45	13.75	
7	14.29	15.04	14.72	13.92	14.19	14.41	15.22	13.76	13.65	13.50	13.45	13.65	
8	14.24	15.31	14.57	13.88	14.14	14.30	14.97	13.75	13.65	13.50	13.40	13.55	
9	14.08	16.15	14.86	13.86	14.08	14.28	14.76	13.73	13.65	13.45	13.40	13.55	
10	14.10	16.15	14.80	13.88	14.04	15.94	14.70	13.72	13.65	13.45	13.40	13.55	
11	14.10	15.35	15.12	13.88	14.03	18.56	15.84	13.67	13.65	13.45	13.40	13.55	
12	14.06	15.21	15.44	14.14	14.04	17.58	15.25	13.87	13.55	13.45	13.40	13.55	
13	14.11	15.11	15.62	14.39	13.96	17.03	15.03	13.82	13.55	13.50	13.40	13.65	
14	14.08	14.15	15.02	15.29	13.97	16.43	14.71	13.80	13.55	13.50	13.40	13.55	
15	14.07	14.70	14.71	15.54	13.93	16.13	14.58	13.77	13.55	13.50	13.40	13.55	
16	14.06	14.45	14.62	15.74	13.96	15.78	14.44	13.74	13.55	13.60	13.45	13.55	
17	14.01	14.55	14.51	15.35	13.97	15.72	14.30	13.72	13.55	13.60	13.45	13.55	
18	13.99	14.82	14.68	14.89	13.93	15.77	14.17	13.72	13.55	13.60	13.50	13.55	
19	13.94	15.47	14.77	14.66	13.90	16.03	14.17	13.67	13.53	13.60	13.45	13.60	
20	14.09	14.82	14.59	14.50	13.87	16.35	14.17	13.62	13.50	13.60	13.45	13.60	
21	14.07	14.65	14.46	14.39	13.87	15.91	14.17	13.67	13.50	13.60	13.45	13.55	
22	14.05	14.56	14.37	14.39	13.86	15.72	14.17	13.67	13.50	13.60	13.45	13.50	
23	14.05	14.39	14.37	14.48	13.89	15.63	14.17	13.67	13.55	13.60	13.45	13.50	
24	14.02	14.34	14.28	14.70	13.88	15.78	14.17	13.62	13.55	13.60	13.45	13.50	
25	13.99	14.29	14.24	14.50	15.87	15.96	14.16	13.67	13.55	13.60	13.40	13.45	
26	13.97	14.24	14.21	14.53	14.97	17.64	14.12	13.62	13.55	13.50	13.45	13.45	
27	13.95	14.19	14.16	14.67	18.03	17.14	14.09	13.62	13.53	13.50	13.40	13.45	
28	13.95	14.14	14.09	15.00	18.01	16.93	13.96	13.57	13.50	13.50	13.40	13.45	
29	13.79	14.10	14.04	16.52	17.34	16.83	13.94	13.57	13.50	13.45	13.40	13.45	
30	13.81	14.65	14.03	15.69	16.24	16.80	13.92	13.56	13.53	13.50		13.51	
31		15.13		15.09	15.48		13.90		13.53	13.53		13.50	
Mean	14.18	14.60	14.66	14.57	14.66	15.91	14.95	13.72	13.57	13.53	13.43	13.53	
Max	15.41	16.15	15.62	16.52	18.03	18.56	17.37	13.89	13.70	13.60	13.50	13.80	18.56
Min	13.79	13.71	14.03	13.86	13.86	14.28	13.90	13.56	13.50	13.45	13.40	13.40	13.40

Annual Max Momentary Gage Height 18.74 m. (MSL.) , at 02.00 Hours , on Sep 11 , 2011

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed 12.84 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, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	53.42	5.24	31.96	10.00	31.64	40.44	148.50	7.91	3.00	1.50	1.50	0.00		
2	37.40	4.76	42.34	10.88	26.35	32.28	144.00	7.53	3.00	1.50	0.75	0.00		
3	30.07	5.56	39.30	9.81	22.28	28.21	171.75	6.58	3.00	1.50	0.75	0.75		
4	23.68	5.88	31.32	9.05	19.48	31.96	150.75	6.20	4.60	1.50	0.75	0.75		
5	21.16	5.40	32.60	9.24	17.28	25.42	157.50	6.04	3.80	1.50	0.75	6.20		
6	18.96	5.88	29.14	8.86	15.36	21.72	117.76	5.72	3.80	1.50	0.75	5.40		
7	16.56	38.92	28.52	8.48	14.18	19.48	45.80	5.56	3.80	1.50	0.75	3.80		
8	15.36	49.40	23.96	7.72	13.08	16.80	36.44	5.40	3.80	1.50	0.00	2.25		
9	11.76	89.00	32.92	7.34	11.76	16.32	29.76	5.08	3.80	0.75	0.00	2.25		
10	12.20	89.00	31.00	7.72	10.88	77.18	27.90	4.92	3.80	0.75	0.00	2.25		
11	12.20	51.00	41.96	7.72	10.66	270.60	72.48	4.12	3.80	0.75	0.00	2.25		
12	11.32	45.40	54.68	13.08	10.88	188.40	47.00	7.53	2.25	0.75	0.00	2.25		
13	12.42	41.58	62.32	18.96	9.24	146.25	38.54	6.58	2.25	1.50	0.00	3.80		
14	11.76	13.30	38.16	48.60	9.43	105.86	28.21	6.20	2.25	1.50	0.00	2.25		
15	11.54	27.90	28.21	58.88	8.67	87.80	24.24	5.72	2.25	1.50	0.00	2.25		
16	11.32	20.60	25.42	67.84	9.24	69.68	20.32	5.24	2.25	3.00	0.75	2.25		
17	10.22	23.40	22.28	51.00	9.43	66.92	16.80	4.92	2.25	3.00	0.75	2.25		
18	9.81	31.64	27.28	33.88	8.67	69.22	13.74	4.92	2.25	3.00	1.50	2.25		
19	8.86	55.94	30.07	26.66	8.10	81.80	13.74	4.12	1.95	3.00	0.75	3.00		
20	11.98	31.64	24.52	22.00	7.53	101.00	13.74	3.32	1.50	3.00	0.75	3.00		
21	11.54	26.35	20.88	18.96	7.53	75.77	13.74	4.12	1.50	3.00	0.75	2.25		
22	11.10	23.68	18.48	18.96	7.34	66.92	13.74	4.12	1.50	3.00	0.75	1.50		
23	11.10	18.96	18.48	21.44	7.91	62.78	13.74	4.12	2.25	3.00	0.75	1.50		
24	10.44	17.76	16.32	27.90	7.72	69.68	13.74	3.32	2.25	3.00	0.75	1.50		
25	9.81	16.56	15.36	22.00	73.89	78.12	13.52	4.12	2.25	3.00	0.00	0.75		
26	9.43	15.36	14.64	22.84	36.44	193.20	12.64	3.32	2.25	1.50	0.75	0.75		
27	9.05	14.18	13.52	26.97	225.55	154.50	11.98	3.32	1.95	1.50	0.00	0.75		
28	9.05	13.08	11.98	37.40	223.85	139.10	9.24	2.55	1.50	1.50	0.00	0.75		
29	6.04	12.20	10.88	111.44	169.50	132.10	8.86	2.55	1.50	0.75	0.00	0.75		
30	6.39	26.35	10.66	65.54	94.40	130.00	8.48	2.40	1.95	1.50		1.65		
31		42.34		40.82	56.36		8.10		1.95	1.95		1.50		
Total	445.95	868.26	829.16	851.99	1184.63	2599.51	1446.75	147.55	80.25	58.20	14.25	62.85	8589.35	CMSDAY
Mean	14.87	28.01	27.64	27.48	38.21	86.65	46.67	4.92	2.59	1.88	0.49	2.03	23.47	CMS
Max	53.42	89.00	62.32	111.44	225.55	270.60	171.75	7.91	4.60	3.00	1.50	6.20	270.60	CMS
Min	6.04	4.76	10.66	7.34	7.34	16.32	8.10	2.40	1.50	0.75	0.00	0.00	0.00	CMS
Runoff	38.53	75.02	71.64	73.61	102.35	224.60	125.00	12.75	6.93	5.03	1.23	5.43	742.12	MCM

Momentary Peak 286.60 CMS. at 18.74 m. (MSL.) at 02.00 Hours , on Sep 11 , 2011

Runoff Yield 101.03 Liters/Second/Square KM. Momentary Peak Yield 1233.749 Liters/Second/Square KM.

WATER YEAR : 2011

SOUTHERN PENINSULA WEST COAST

Khlong Bang Yai at Ban Ket Ho , Phuket (X.190A)

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

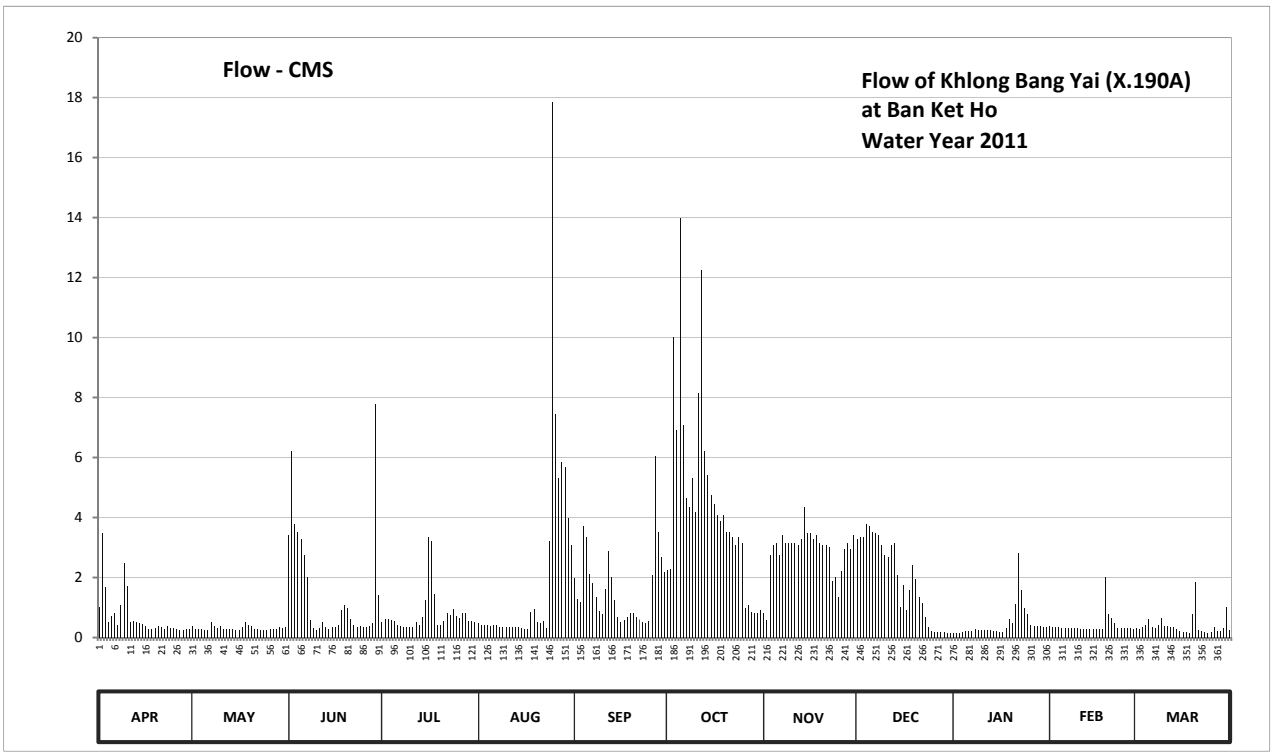
Location : on left bank at Ban Ket Ho.

	Ban Ket Ho	**Amphoe** Kathu	**Changwat** Phuket
Drainge Area	28 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	Near the gage site.		**Elevation** +17.360 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	2006 to date		
Rating Operation			
Period of Rating	2006 to date		
Rated by Flot	-		
Rated by Current Meter	2006 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 33 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	14.65	14.39	15.17	14.44	14.43	14.93	14.99	14.56	15.15	14.23	14.38	14.34	
2	15.18	14.33	15.44	14.49	14.40	14.75	15.00	14.47	15.16	14.24	14.37	14.33	
3	14.86	14.31	15.22	14.48	14.40	14.71	15.64	15.07	15.16	14.24	14.37	14.37	
4	14.44	14.31	15.19	14.47	14.40	15.21	15.48	15.12	15.22	14.25	14.36	14.41	
5	14.53	14.30	15.15	14.46	14.39	15.16	15.80	15.13	15.21	14.28	14.35	14.48	
6	14.57	14.30	15.07	14.41	14.41	14.96	15.49	15.07	15.19	14.27	14.34	14.37	
7	14.41	14.45	14.94	14.39	14.40	14.89	15.31	15.17	15.18	14.27	14.34	14.34	
8	14.68	14.38	14.47	14.36	14.37	14.77	15.28	15.13	15.17	14.31	14.35	14.41	
9	15.03	14.34	14.34	14.36	14.37	14.59	15.38	15.13	15.12	14.29	14.34	14.50	
10	14.87	14.39	14.30	14.36	14.36	14.55	15.26	15.13	15.07	14.30	14.34	14.39	
11	14.45	14.32	14.34	14.36	14.36	14.85	15.55	15.13	15.06	14.29	14.33	14.38	
12	14.46	14.32	14.45	14.45	14.36	15.09	15.73	15.12	15.12	14.30	14.32	14.37	
13	14.45	14.31	14.37	14.41	14.36	14.94	15.44	15.15	15.13	14.29	14.32	14.36	
14	14.43	14.31	14.32	14.51	14.36	14.74	15.39	15.28	14.95	14.28	14.33	14.32	
15	14.42	14.30	14.36	14.74	14.34	14.52	15.32	15.18	14.64	14.27	14.33	14.27	
16	14.39	14.30	14.36	15.16	14.33	14.45	15.29	15.18	14.88	14.26	14.32	14.25	
17	14.31	14.36	14.41	15.14	14.32	14.47	15.25	15.15	14.61	14.25	14.32	14.25	
18	14.33	14.45	14.60	14.81	14.58	14.51	15.23	15.17	14.84	14.35	14.32	14.24	
19	14.34	14.41	14.67	14.41	14.62	14.57	15.25	15.13	15.02	14.48	14.94	14.55	
20	14.38	14.38	14.63	14.40	14.45	14.57	15.19	15.12	14.92	14.43	14.55	14.90	
21	14.36	14.32	14.49	14.46	14.43	14.52	15.19	15.12	14.77	14.69	14.50	14.30	
22	14.33	14.31	14.40	14.56	14.46	14.48	15.16	15.11	14.70	15.08	14.43	14.28	
23	14.39	14.30	14.37	14.54	14.35	14.45	15.12	14.91	14.51	14.84	14.34	14.25	
24	14.34	14.30	14.38	14.62	15.14	14.43	15.16	14.94	14.36	14.63	14.35	14.24	
25	14.34	14.30	14.37	14.53	15.92	14.46	15.13	14.78	14.28	14.55	14.35	14.25	
26	14.32	14.32	14.37	14.50	15.51	14.95	14.63	14.98	14.26	14.40	14.34	14.37	
27	14.30	14.31	14.38	14.57	15.38	15.43	14.68	15.10	14.25	14.38	14.34	14.28	
28	14.30	14.31	14.43	14.56	15.42	15.19	14.58	15.13	14.25	14.38	14.33	14.27	
29	14.33	14.36	15.53	14.46	15.41	15.06	14.57	15.10	14.25	14.38	14.34	14.34	
30	14.33	14.34	14.80	14.46	15.24	14.97	14.56	15.17	14.24	14.36		14.64	
31		14.37		14.45	15.12		14.60		14.24	14.37		14.29	
Mean	14.48	14.34	14.64	14.53	14.66	14.77	15.18	15.06	14.80	14.39	14.38	14.37	
Max	15.18	14.45	15.53	15.16	15.92	15.43	15.80	15.28	15.22	15.08	14.94	14.90	15.92
Min	14.30	14.30	14.30	14.36	14.32	14.43	14.56	14.47	14.24	14.23	14.32	14.24	14.23

Annual Max Momentary Gage Height	16.73	m. (MSL.) ,	at 12.00 Hours , on Aug 25 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	13.93	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, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.02	0.39	3.41	0.50	0.48	1.99	2.25	0.80	3.27	0.14	0.37	0.31		
2	3.47	0.30	6.20	0.62	0.40	1.27	2.30	0.58	3.34	0.16	0.36	0.30		
3	1.67	0.27	3.79	0.60	0.40	1.17	10.00	2.75	3.34	0.16	0.36	0.36		
4	0.50	0.27	3.53	0.58	0.40	3.70	6.90	3.08	3.79	0.18	0.34	0.43		
5	0.72	0.25	3.27	0.55	0.39	3.34	14.00	3.15	3.70	0.22	0.33	0.60		
6	0.82	0.25	2.75	0.43	0.43	2.12	7.07	2.75	3.53	0.21	0.31	0.36		
7	0.43	0.52	2.03	0.39	0.40	1.81	4.65	3.41	3.47	0.21	0.31	0.31		
8	1.10	0.37	0.58	0.34	0.36	1.33	4.36	3.15	3.41	0.27	0.33	0.43		
9	2.49	0.31	0.31	0.34	0.36	0.87	5.31	3.15	3.08	0.24	0.31	0.65		
10	1.71	0.39	0.25	0.34	0.34	0.78	4.17	3.15	2.75	0.25	0.31	0.39		
11	0.52	0.28	0.31	0.34	0.34	1.63	8.13	3.15	2.69	0.24	0.30	0.37		
12	0.55	0.28	0.52	0.52	0.34	2.89	12.25	3.08	3.08	0.25	0.28	0.36		
13	0.52	0.27	0.36	0.43	0.34	2.03	6.20	3.27	3.15	0.24	0.28	0.34		
14	0.48	0.27	0.28	0.68	0.34	1.25	5.41	4.36	2.07	0.22	0.30	0.28		
15	0.45	0.25	0.34	1.25	0.31	0.70	4.74	3.47	1.00	0.21	0.30	0.21		
16	0.39	0.25	0.34	3.34	0.30	0.52	4.46	3.47	1.76	0.19	0.28	0.18		
17	0.27	0.34	0.43	3.21	0.28	0.58	4.08	3.27	0.92	0.18	0.28	0.18		
18	0.30	0.52	0.90	1.45	0.85	0.68	3.88	3.41	1.58	0.33	0.28	0.16		
19	0.31	0.43	1.07	0.43	0.95	0.82	4.08	3.15	2.43	0.60	2.03	0.78		
20	0.37	0.37	0.97	0.40	0.52	0.82	3.53	3.08	1.94	0.48	0.78	1.85		
21	0.34	0.28	0.62	0.55	0.48	0.70	3.53	3.08	1.33	1.12	0.65	0.25		
22	0.30	0.27	0.40	0.80	0.55	0.60	3.34	3.01	1.15	2.82	0.48	0.22		
23	0.39	0.25	0.36	0.75	0.33	0.52	3.08	1.89	0.68	1.58	0.31	0.18		
24	0.31	0.25	0.37	0.95	3.21	0.48	3.34	2.03	0.34	0.97	0.33	0.16		
25	0.31	0.25	0.36	0.72	17.84	0.55	3.15	1.35	0.22	0.78	0.33	0.18		
26	0.28	0.28	0.36	0.65	7.43	2.07	0.97	2.21	0.19	0.40	0.31	0.36		
27	0.25	0.27	0.37	0.82	5.31	6.03	1.10	2.95	0.18	0.37	0.31	0.22		
28	0.25	0.27	0.48	0.80	5.85	3.53	0.85	3.15	0.18	0.37	0.30	0.21		
29	0.30	0.34	7.77	0.55	5.68	2.69	0.82	2.95	0.18	0.37	0.31	0.31		
30	0.30	0.31	1.40	0.55	3.98	2.17	0.80	3.41	0.16	0.34		1.00		
31		0.36		0.52	3.08		0.90		0.16	0.36		0.24		
Total	21.12	9.71	44.13	24.40	62.27	49.64	139.65	85.71	59.07	14.46	11.77	12.18	534.11	CMSDAY
Mean	0.70	0.31	1.47	0.79	2.01	1.65	4.50	2.86	1.91	0.47	0.41	0.39	1.46	CMS
Max	3.47	0.52	7.77	3.34	17.84	6.03	14.00	4.36	3.79	2.82	2.03	1.85	17.84	CMS
Min	0.25	0.25	0.25	0.34	0.28	0.48	0.80	0.58	0.16	0.14	0.28	0.16	0.14	CMS
Runoff	1.83	0.84	3.81	2.11	5.38	4.29	12.07	7.41	5.10	1.25	1.02	1.05	46.15	MCM

Momentary Peak 64.54 CMS. at 16.73 m. (MSL.) at 12.00 Hours , on Aug 25 , 2011

Runoff Yield 50.46 Liters/Second/Square KM. Momentary Peak Yield 2231.674 Liters/Second/Square KM.

WATER YEAR : 2011

SOUTHERN PENINSULA WEST COAST

Khlong Bang Yai at Satree Phuket School , Phuket (X.191)

Lat 07 - 53 - 20 N Long 98 - 23 - 40 E

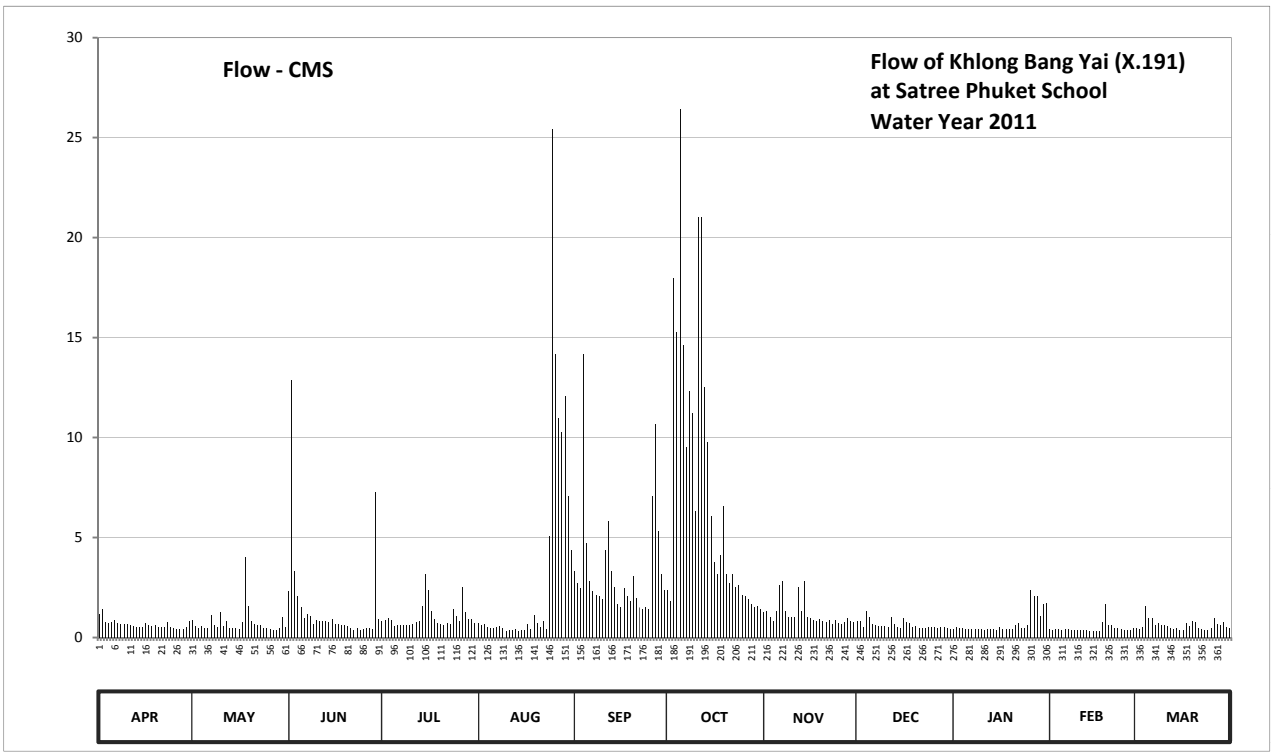
Location : on left bank at Satree Phuket School.

	Ban -		**Amphoe** Mueang	**Changwat** Phuket	
Drainge Area	54	sq.km.			
Type of Gage	Staff gage				
Zero Gage at Bottom	+0.000	m. (MSL.)			
Bench Mark	B.M.-H.D.				
Location BM	On left bank about 8 meters from the top staff gage.			**Elevation**	+4.964 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.				
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings				
Period of Available Gage Records	1996 to date				
Rating Operation					
Period of Rating	1996 to date				
Rated by Flot	-				
Rated by Current Meter	1996 to date				
Stability of Channel Regimes	Stable.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records good. Stage-discharge relation defined by 33 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	1.61	1.55	1.75	1.54	1.52	1.85	1.76	1.62	1.54	1.45	1.45	1.46	
2	1.64	1.48	2.54	1.55	1.50	1.80	1.69	1.63	1.54	1.47	1.44	1.45	
3	1.53	1.46	1.85	1.57	1.51	1.77	2.99	1.58	1.47	1.46	1.45	1.47	
4	1.52	1.48	1.72	1.55	1.47	2.67	2.77	1.54	1.63	1.46	1.45	1.66	
5	1.53	1.46	1.65	1.48	1.46	1.97	3.55	1.63	1.58	1.45	1.44	1.57	
6	1.55	1.46	1.57	1.49	1.46	1.81	2.71	1.79	1.51	1.45	1.45	1.57	
7	1.52	1.60	1.61	1.50	1.47	1.75	2.18	1.81	1.49	1.45	1.45	1.49	
8	1.51	1.49	1.59	1.49	1.48	1.73	2.48	1.63	1.48	1.45	1.44	1.52	
9	1.51	1.47	1.51	1.49	1.46	1.72	2.35	1.58	1.48	1.45	1.44	1.49	
10	1.51	1.62	1.55	1.49	1.43	1.70	2.05	1.58	1.48	1.45	1.44	1.50	
11	1.49	1.48	1.54	1.51	1.44	1.94	3.21	1.58	1.47	1.44	1.44	1.48	
12	1.48	1.54	1.54	1.53	1.44	2.03	3.21	1.78	1.58	1.45	1.44	1.46	
13	1.47	1.46	1.54	1.54	1.45	1.85	2.50	1.63	1.51	1.45	1.44	1.45	
14	1.47	1.46	1.53	1.66	1.43	1.78	2.19	1.81	1.47	1.45	1.43	1.46	
15	1.47	1.46	1.56	1.84	1.44	1.67	2.04	1.58	1.46	1.44	1.43	1.44	
16	1.52	1.45	1.51	1.76	1.44	1.65	1.89	1.57	1.57	1.47	1.43	1.44	
17	1.50	1.53	1.51	1.63	1.51	1.77	1.84	1.55	1.53	1.45	1.43	1.52	
18	1.48	1.91	1.50	1.56	1.45	1.72	1.92	1.54	1.52	1.45	1.53	1.48	
19	1.49	1.66	1.50	1.52	1.60	1.69	2.06	1.56	1.47	1.45	1.67	1.54	
20	1.47	1.54	1.48	1.51	1.52	1.83	1.84	1.54	1.48	1.45	1.50	1.53	
21	1.47	1.51	1.46	1.49	1.47	1.71	1.80	1.53	1.46	1.49	1.50	1.46	
22	1.47	1.50	1.44	1.52	1.54	1.65	1.84	1.55	1.46	1.52	1.46	1.45	
23	1.53	1.49	1.46	1.51	1.45	1.64	1.78	1.51	1.46	1.46	1.46	1.44	
24	1.47	1.46	1.44	1.64	2.00	1.65	1.79	1.55	1.47	1.46	1.45	1.44	
25	1.46	1.46	1.45	1.59	3.49	1.64	1.73	1.52	1.47	1.50	1.44	1.46	
26	1.45	1.45	1.46	1.54	2.67	2.08	1.72	1.51	1.47	1.76	1.44	1.57	
27	1.45	1.44	1.46	1.78	2.32	2.28	1.70	1.53	1.46	1.72	1.44	1.51	
28	1.45	1.44	1.45	1.62	2.23	2.01	1.67	1.57	1.47	1.72	1.46	1.50	
29	1.47	1.46	2.09	1.56	2.45	1.84	1.65	1.54	1.47	1.59	1.47	1.53	
30	1.54	1.58	1.56	1.56	2.08	1.76	1.66	1.53	1.46	1.67		1.47	
31		1.47		1.52	1.94		1.64		1.45	1.68		1.46	
Mean	1.50	1.51	1.59	1.57	1.71	1.83	2.14	1.60	1.50	1.50	1.46	1.49	
Max	1.64	1.91	2.54	1.84	3.49	2.67	3.55	1.81	1.63	1.76	1.67	1.66	3.55
Min	1.45	1.44	1.44	1.48	1.43	1.64	1.64	1.51	1.45	1.44	1.43	1.44	1.43

Annual Max Momentary Gage Height	4.18	m. (MSL.) ,	at 14.00 Hours , on Aug 25 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	1.15	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, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.18	0.87	2.30	0.83	0.74	3.30	2.38	1.26	0.83	0.43	0.43	0.47		
2	1.42	0.56	12.86	0.87	0.65	2.70	1.82	1.34	0.83	0.52	0.38	0.43		
3	0.78	0.47	3.30	0.97	0.69	2.46	17.97	1.01	0.52	0.47	0.43	0.52		
4	0.74	0.56	2.06	0.87	0.52	14.17	15.27	0.83	1.34	0.47	0.43	1.58		
5	0.78	0.47	1.50	0.56	0.47	4.74	26.45	1.34	1.01	0.43	0.38	0.97		
6	0.87	0.47	0.97	0.61	0.47	2.82	14.61	2.62	0.69	0.43	0.43	0.97		
7	0.74	1.10	1.18	0.65	0.52	2.30	9.51	2.82	0.61	0.43	0.43	0.61		
8	0.69	0.61	1.06	0.61	0.56	2.14	12.32	1.34	0.56	0.43	0.38	0.74		
9	0.69	0.52	0.69	0.61	0.47	2.06	11.20	1.01	0.56	0.43	0.38	0.61		
10	0.69	1.26	0.87	0.61	0.33	1.90	6.32	1.01	0.56	0.43	0.38	0.65		
11	0.61	0.56	0.83	0.69	0.38	4.38	21.05	1.01	0.52	0.38	0.38	0.56		
12	0.56	0.83	0.83	0.78	0.38	5.83	21.05	2.54	1.01	0.43	0.38	0.47		
13	0.52	0.47	0.83	0.83	0.43	3.30	12.50	1.34	0.69	0.43	0.38	0.43		
14	0.52	0.47	0.78	1.58	0.33	2.54	9.76	2.82	0.52	0.43	0.33	0.47		
15	0.52	0.47	0.92	3.18	0.38	1.66	6.08	1.01	0.47	0.38	0.33	0.38		
16	0.74	0.43	0.69	2.38	0.38	1.50	3.78	0.97	0.97	0.52	0.33	0.38		
17	0.65	0.78	0.69	1.34	0.69	2.46	3.18	0.87	0.78	0.43	0.33	0.74		
18	0.56	4.02	0.65	0.92	0.43	2.06	4.14	0.83	0.74	0.43	0.78	0.56		
19	0.61	1.58	0.65	0.74	1.10	1.82	6.57	0.92	0.52	0.43	1.66	0.83		
20	0.52	0.83	0.56	0.69	0.74	3.06	3.18	0.83	0.56	0.43	0.65	0.78		
21	0.52	0.69	0.47	0.61	0.52	1.98	2.70	0.78	0.47	0.61	0.65	0.47		
22	0.52	0.65	0.38	0.74	0.83	1.50	3.18	0.87	0.47	0.74	0.47	0.43		
23	0.78	0.61	0.47	0.69	0.43	1.42	2.54	0.69	0.47	0.47	0.47	0.38		
24	0.52	0.47	0.38	1.42	5.10	1.50	2.62	0.87	0.52	0.47	0.43	0.38		
25	0.47	0.47	0.43	1.06	25.43	1.42	2.14	0.74	0.52	0.65	0.38	0.47		
26	0.43	0.43	0.47	0.83	14.17	7.06	2.06	0.69	0.52	2.38	0.38	0.97		
27	0.43	0.38	0.47	2.54	10.96	10.64	1.90	0.78	0.47	2.06	0.38	0.69		
28	0.43	0.38	0.43	1.26	10.24	5.34	1.66	0.97	0.52	2.06	0.47	0.65		
29	0.52	0.47	7.30	0.92	12.05	3.18	1.50	0.83	0.52	1.06	0.52	0.78		
30	0.83	1.01	0.92	0.92	7.06	2.38	1.58	0.78	0.47	1.66		0.52		
31		0.52		0.74	4.38		1.42		0.43	1.74		0.47		
Total	19.84	23.41	45.94	32.05	101.83	103.62	232.44	35.72	19.67	22.66	13.75	19.36	670.29	CMSDAY
Mean	0.66	0.76	1.53	1.03	3.28	3.45	7.50	1.19	0.63	0.73	0.47	0.62	1.83	CMS
Max	1.42	4.02	12.86	3.18	25.43	14.17	26.45	2.82	1.34	2.38	1.66	1.58	26.45	CMS
Min	0.43	0.38	0.38	0.56	0.33	1.42	1.42	0.69	0.43	0.38	0.33	0.38	0.33	CMS
Runoff	1.71	2.02	3.97	2.77	8.80	8.95	20.08	3.09	1.70	1.96	1.19	1.67	57.91	MCM

Momentary Peak 38.88 CMS. at 4.18 m. (MSL.) at 14.00 Hours , on Aug 25 , 2011

Runoff Yield 33.88 Liters/Second/Square KM. Momentary Peak Yield 719.201 Liters/Second/Square KM.

WATER YEAR : 2011

SOUTHERN PENINSULA WEST COAST

Khlong Bang Tha at Mueang , Phuket (X.192)

Lat 07 - 50 - 16 N Long 98 - 21 - 05 E

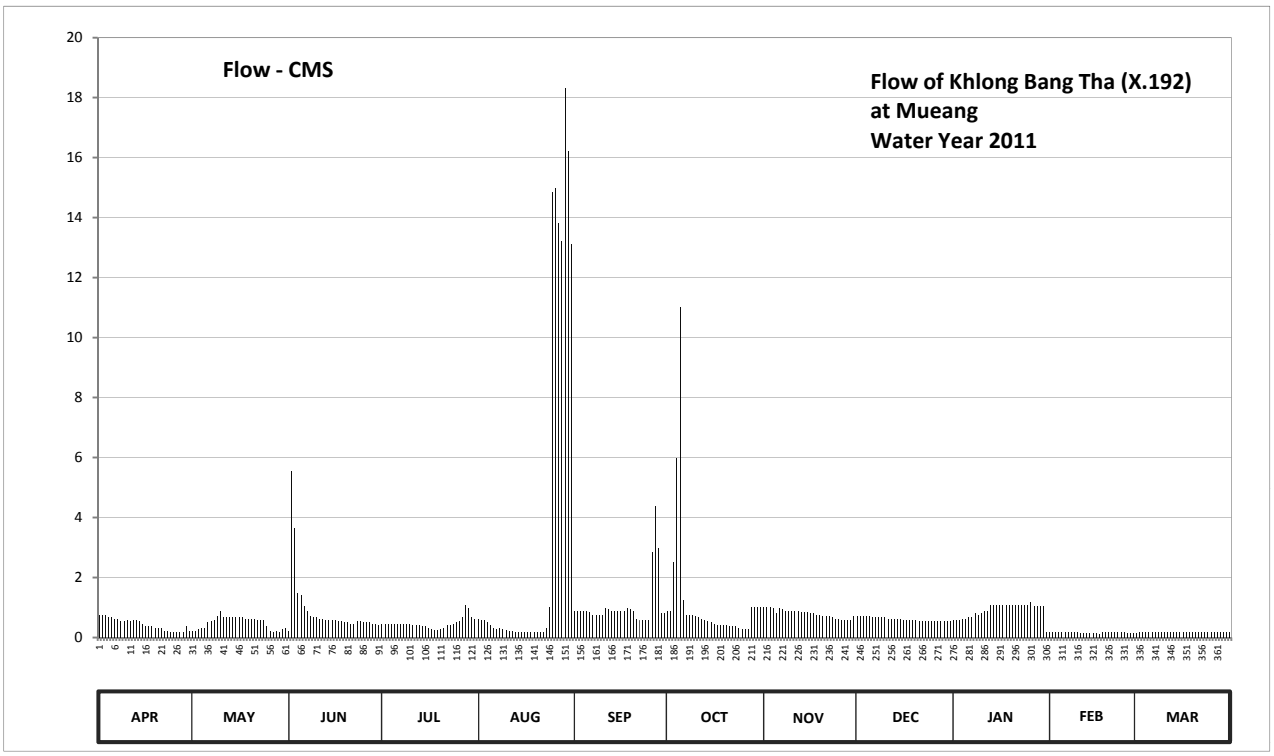
Location : on left bank at the bridge.

	Ban -	**Amphoe** Mueang	**Changwat** Phuket
Drainge Area	6 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank about 8 meters from the top staff gage.	**Elevation**	+6.000 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	1996 to date		
Rating Operation			
Period of Rating	1996 to date		
Rated by Flot	-		
Rated by Current Meter	1996 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 32 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	3.32	3.19	3.19	3.25	3.29	3.35	3.35	3.38	3.31	3.28	3.18	3.16	
2	3.32	3.19	3.96	3.25	3.28	3.35	3.35	3.38	3.31	3.28	3.18	3.17	
3	3.32	3.21	3.73	3.25	3.28	3.35	3.59	3.38	3.31	3.28	3.18	3.17	
4	3.30	3.22	3.45	3.25	3.26	3.35	4.01	3.37	3.31	3.29	3.18	3.17	
5	3.30	3.22	3.44	3.25	3.24	3.35	4.55	3.33	3.31	3.29	3.18	3.17	
6	3.29	3.26	3.39	3.25	3.22	3.34	3.42	3.37	3.30	3.30	3.17	3.17	
7	3.29	3.27	3.35	3.25	3.21	3.32	3.32	3.36	3.30	3.30	3.17	3.17	
8	3.27	3.28	3.31	3.25	3.22	3.32	3.32	3.35	3.30	3.33	3.17	3.17	
9	3.27	3.31	3.30	3.25	3.21	3.32	3.32	3.35	3.30	3.32	3.17	3.17	
10	3.28	3.35	3.30	3.25	3.20	3.32	3.31	3.35	3.30	3.33	3.17	3.17	
11	3.27	3.30	3.29	3.24	3.19	3.37	3.30	3.35	3.29	3.35	3.16	3.18	
12	3.28	3.30	3.29	3.24	3.19	3.36	3.29	3.35	3.29	3.35	3.16	3.18	
13	3.28	3.30	3.28	3.24	3.18	3.35	3.28	3.34	3.29	3.40	3.16	3.18	
14	3.27	3.30	3.28	3.23	3.18	3.35	3.27	3.34	3.29	3.40	3.16	3.18	
15	3.25	3.30	3.28	3.23	3.18	3.35	3.26	3.34	3.29	3.40	3.16	3.18	
16	3.23	3.30	3.28	3.22	3.17	3.35	3.25	3.33	3.28	3.40	3.16	3.18	
17	3.23	3.30	3.27	3.21	3.17	3.35	3.24	3.33	3.28	3.40	3.15	3.18	
18	3.23	3.29	3.27	3.20	3.17	3.37	3.24	3.32	3.28	3.40	3.18	3.18	
19	3.22	3.29	3.26	3.20	3.17	3.36	3.24	3.32	3.28	3.40	3.18	3.18	
20	3.22	3.29	3.26	3.21	3.17	3.35	3.24	3.31	3.28	3.40	3.18	3.18	
21	3.22	3.29	3.25	3.22	3.17	3.29	3.23	3.31	3.27	3.40	3.18	3.18	
22	3.19	3.28	3.25	3.24	3.17	3.28	3.23	3.31	3.27	3.40	3.18	3.18	
23	3.19	3.28	3.27	3.24	3.22	3.28	3.23	3.30	3.27	3.40	3.17	3.18	
24	3.18	3.28	3.27	3.25	3.38	3.28	3.22	3.29	3.27	3.40	3.17	3.18	
25	3.18	3.23	3.26	3.26	4.93	3.28	3.21	3.29	3.27	3.40	3.17	3.18	
26	3.17	3.19	3.26	3.27	4.94	3.63	3.21	3.28	3.27	3.41	3.16	3.18	
27	3.17	3.18	3.26	3.30	4.83	3.82	3.21	3.28	3.27	3.39	3.16	3.18	
28	3.17	3.19	3.25	3.40	4.77	3.65	3.38	3.28	3.27	3.39	3.16	3.18	
29	3.23	3.18	3.25	3.37	5.26	3.33	3.38	3.28	3.27	3.39	3.16	3.18	
30	3.19	3.21	3.24	3.30	5.06	3.33	3.38	3.31	3.27	3.39		3.18	
31		3.22		3.29	4.76		3.38		3.27	3.18		3.18	
Mean	3.24	3.26	3.32	3.25	3.60	3.37	3.36	3.33	3.29	3.36	3.17	3.18	
Max	3.32	3.35	3.96	3.40	5.26	3.82	4.55	3.38	3.31	3.41	3.18	3.18	5.26
Min	3.17	3.18	3.19	3.20	3.17	3.28	3.21	3.28	3.27	3.18	3.15	3.16	3.15

Annual Max Momentary Gage Height	5.35	m. (MSL.) ,	at 18.00 Hours , on Aug 29 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	2.62	m. (MSL)
Left Bank Elevation	6.05	m. (MSL.) ,			
Right Bank Elevation	6.02	m. (MSL.) ,	Drainage Area	6	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.76	0.22	0.22	0.45	0.63	0.88	0.88	1.01	0.71	0.58	0.19	0.14		
2	0.76	0.22	5.56	0.45	0.58	0.88	0.88	1.01	0.71	0.58	0.19	0.17		
3	0.76	0.28	3.64	0.45	0.58	0.88	2.53	1.01	0.71	0.58	0.19	0.17		
4	0.67	0.33	1.48	0.45	0.50	0.88	5.99	0.97	0.71	0.63	0.19	0.17		
5	0.67	0.33	1.40	0.45	0.41	0.88	11.03	0.80	0.71	0.63	0.19	0.17		
6	0.63	0.50	1.06	0.45	0.33	0.84	1.25	0.97	0.67	0.67	0.17	0.17		
7	0.63	0.54	0.88	0.45	0.28	0.76	0.76	0.93	0.67	0.67	0.17	0.17		
8	0.54	0.58	0.71	0.45	0.33	0.76	0.76	0.88	0.67	0.80	0.17	0.17		
9	0.54	0.71	0.67	0.45	0.28	0.76	0.76	0.88	0.67	0.76	0.17	0.17		
10	0.58	0.88	0.67	0.45	0.24	0.76	0.71	0.88	0.67	0.80	0.17	0.17		
11	0.54	0.67	0.63	0.41	0.22	0.97	0.67	0.88	0.63	0.88	0.14	0.19		
12	0.58	0.67	0.63	0.41	0.22	0.93	0.63	0.88	0.63	0.88	0.14	0.19		
13	0.58	0.67	0.58	0.41	0.19	0.88	0.58	0.84	0.63	1.10	0.14	0.19		
14	0.54	0.67	0.58	0.37	0.19	0.88	0.54	0.84	0.63	1.10	0.14	0.19		
15	0.45	0.67	0.58	0.37	0.19	0.88	0.50	0.84	0.63	1.10	0.14	0.19		
16	0.37	0.67	0.58	0.33	0.17	0.88	0.45	0.80	0.58	1.10	0.14	0.19		
17	0.37	0.67	0.54	0.28	0.17	0.88	0.41	0.80	0.58	1.10	0.12	0.19		
18	0.37	0.63	0.54	0.24	0.17	0.97	0.41	0.76	0.58	1.10	0.19	0.19		
19	0.33	0.63	0.50	0.24	0.17	0.93	0.41	0.76	0.58	1.10	0.19	0.19		
20	0.33	0.63	0.50	0.28	0.17	0.88	0.41	0.71	0.58	1.10	0.19	0.19		
21	0.33	0.63	0.45	0.33	0.17	0.63	0.37	0.71	0.54	1.10	0.19	0.19		
22	0.22	0.58	0.45	0.41	0.17	0.58	0.37	0.71	0.54	1.10	0.19	0.19		
23	0.22	0.58	0.54	0.41	0.33	0.58	0.37	0.67	0.54	1.10	0.17	0.19		
24	0.19	0.58	0.54	0.45	1.01	0.58	0.33	0.63	0.54	1.10	0.17	0.19		
25	0.19	0.37	0.50	0.50	14.86	0.58	0.28	0.63	0.54	1.10	0.17	0.19		
26	0.17	0.22	0.50	0.54	14.97	2.84	0.28	0.58	0.54	1.18	0.14	0.19		
27	0.17	0.19	0.50	0.67	13.81	4.37	0.28	0.58	0.54	1.06	0.14	0.19		
28	0.17	0.22	0.45	1.10	13.20	3.00	1.01	0.58	0.54	1.06	0.14	0.19		
29	0.37	0.19	0.45	0.97	18.33	0.80	1.01	0.58	0.54	1.06	0.14	0.19		
30	0.22	0.28	0.41	0.67	16.23	0.80	1.01	0.71	0.54	1.06		0.19		
31		0.33		0.63	13.10		1.01		0.54	0.19		0.19		
Total	13.25	15.34	26.74	14.52	112.20	32.12	36.88	23.83	18.89	28.37	4.78	5.66	332.58	CMSDAY
Mean	0.44	0.49	0.89	0.47	3.62	1.07	1.19	0.79	0.61	0.92	0.16	0.18	0.91	CMS
Max	0.76	0.88	5.56	1.10	18.33	4.37	11.03	1.01	0.71	1.18	0.19	0.19	18.33	CMS
Min	0.17	0.19	0.22	0.24	0.17	0.58	0.28	0.58	0.54	0.19	0.12	0.14	0.12	CMS
Runoff	1.15	1.33	2.31	1.26	9.69	2.78	3.19	2.06	1.63	2.45	0.41	0.49	28.74	MCM

Momentary Peak 19.27 CMS. at 5.35 m. (MSL.) at 18.00 Hours , on Aug 29 , 2011

Runoff Yield 151.45 Liters/Second/Square KM. Momentary Peak Yield 3211.667 Liters/Second/Square KM.

WATER YEAR : 2011

SOUTHERN PENINSULA WEST COAST

Khlong Kapong at Ban Tha Na , Phang Nga (X.196)

Lat 08 - 42 - 02 N Long 98 - 24 - 42 E

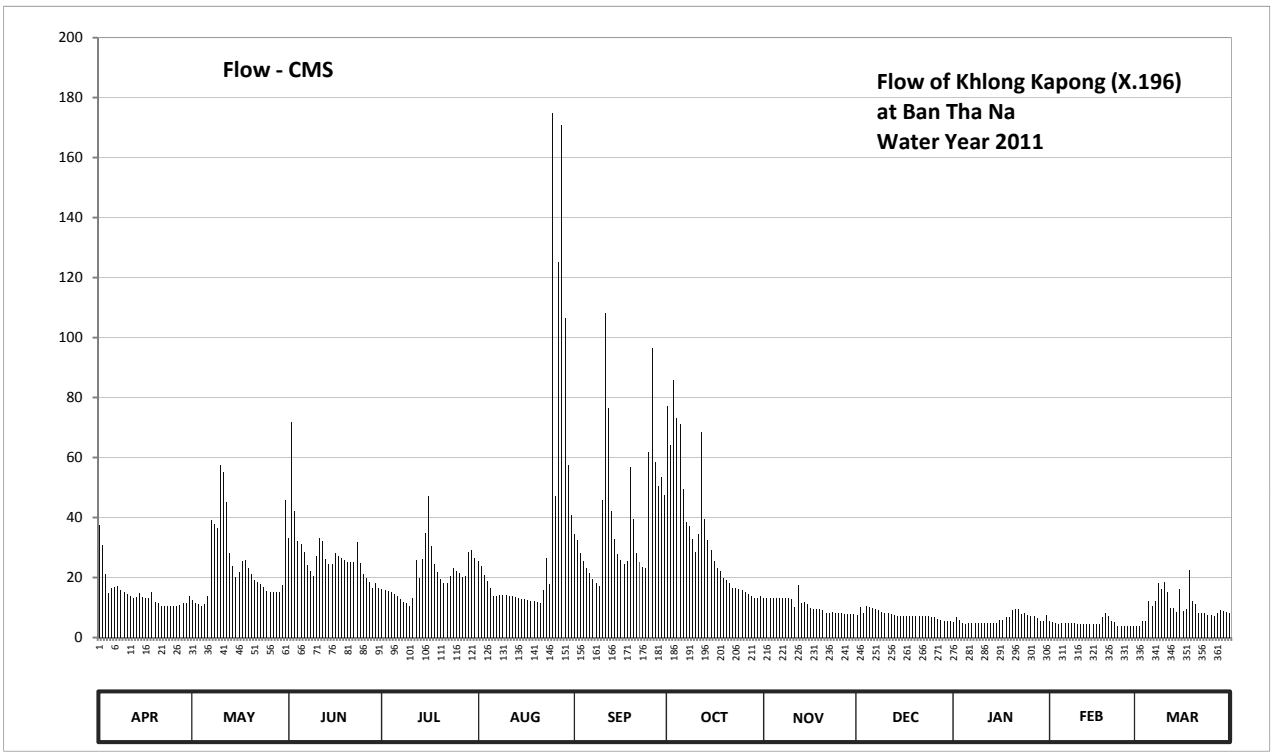
Location : on left bank at the bridge.

	Ban Tha Na	**Amphoe** Kapong	**Changwat** Phang Nga
Drainge Area	139 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	Near the top staff gage.		**Elevation** +20.010 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	1999 to date		
Rating Operation			
Period of Rating	2003 to date		
Rated by Flot	-		
Rated by Current Meter	2003 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 32 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	16.67	15.97	16.57	16.09	16.37	16.60	17.40	16.00	15.78	15.67	15.68	15.62	
2	16.51	15.94	17.32	16.08	16.32	16.55	17.20	16.00	15.88	15.74	15.67	15.62	
3	16.24	15.92	16.78	16.07	16.23	16.44	17.52	16.00	15.80	15.70	15.66	15.69	
4	16.05	15.90	16.54	16.06	16.17	16.37	17.34	16.00	15.89	15.66	15.65	15.69	
5	16.10	15.92	16.52	16.04	16.10	16.30	17.31	16.00	15.88	15.64	15.66	15.96	
6	16.11	16.02	16.45	16.02	16.02	16.25	16.93	16.00	15.87	15.66	15.66	15.90	
7	16.12	16.71	16.33	15.99	16.02	16.19	16.69	16.00	15.86	15.66	15.66	15.96	
8	16.08	16.68	16.27	15.95	16.03	16.15	16.66	16.00	15.84	15.66	15.66	16.15	
9	16.06	16.65	16.22	15.93	16.03	16.12	16.56	16.00	15.82	15.66	15.66	16.09	
10	16.04	17.08	16.42	15.90	16.03	16.86	16.45	15.98	15.80	15.66	15.65	16.16	
11	16.02	17.04	16.57	16.00	16.02	17.80	16.60	15.88	15.80	15.66	15.65	16.06	
12	16.00	16.84	16.54	16.38	16.02	17.39	17.27	16.13	15.79	15.66	15.64	15.87	
13	16.01	16.44	16.39	16.20	16.01	16.78	16.72	15.93	15.78	15.66	15.64	15.87	
14	16.05	16.32	16.34	16.39	16.00	16.56	16.55	15.95	15.76	15.66	15.64	15.82	
15	16.01	16.21	16.34	16.61	15.99	16.43	16.47	15.92	15.76	15.66	15.64	16.09	
16	16.00	16.26	16.44	16.88	15.98	16.38	16.37	15.87	15.76	15.70	15.64	15.83	
17	16.00	16.37	16.42	16.50	15.97	16.34	16.30	15.86	15.76	15.70	15.64	15.85	
18	16.06	16.38	16.40	16.34	15.96	16.37	16.27	15.85	15.76	15.75	15.75	16.28	
19	15.95	16.30	16.38	16.26	15.96	17.07	16.20	15.85	15.76	15.75	15.80	15.96	
20	15.94	16.24	16.36	16.19	15.95	16.72	16.18	15.84	15.76	15.84	15.76	15.92	
21	15.90	16.18	16.36	16.15	15.94	16.44	16.15	15.81	15.76	15.86	15.69	15.80	
22	15.90	16.16	16.36	16.15	16.08	16.36	16.10	15.80	15.76	15.86	15.67	15.80	
23	15.90	16.14	16.53	16.22	16.40	16.31	16.10	15.82	15.76	15.79	15.62	15.80	
24	15.90	16.11	16.35	16.30	16.14	16.30	16.09	15.80	15.76	15.80	15.62	15.78	
25	15.90	16.07	16.24	16.27	18.43	17.16	16.08	15.80	15.75	15.78	15.62	15.77	
26	15.89	16.06	16.20	16.25	16.88	17.66	16.06	15.80	15.74	15.76	15.62	15.76	
27	15.91	16.06	16.16	16.21	17.99	17.10	16.04	15.79	15.72	15.76	15.62	15.80	
28	15.94	16.06	16.10	16.22	18.40	16.95	16.02	15.79	15.70	15.73	15.62	15.84	
29	15.94	16.06	16.15	16.45	17.78	17.01	16.00	15.79	15.68	15.69	15.62	15.83	
30	16.02	16.13	16.10	16.47	17.08	16.89	16.00	15.79	15.68	15.69		15.82	
31		16.86		16.40	16.75		16.02		15.68	15.78		15.80	
Mean	16.04	16.29	16.41	16.22	16.42	16.66	16.50	15.90	15.78	15.72	15.66	15.88	
Max	16.67	17.08	17.32	16.88	18.43	17.80	17.52	16.13	15.89	15.86	15.80	16.28	18.43
Min	15.89	15.90	16.10	15.90	15.94	16.12	16.00	15.79	15.68	15.64	15.62	15.62	15.62

Annual Max Momentary Gage Height	18.90	m. (MSL.) ,	at 18.00 Hours , on Aug 27 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	14.69	m. (MSL)
Left Bank Elevation	19.93	m. (MSL.) ,			
Right Bank Elevation	19.91	m. (MSL.) ,	Drainage Area	139	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	37.48	12.42	33.30	16.17	25.50	34.50	77.00	13.20	7.55	5.07	5.30	3.95		
2	30.90	11.64	71.80	15.84	23.82	32.50	64.00	13.20	10.08	6.65	5.07	3.95		
3	21.14	11.12	42.15	15.51	20.80	28.10	85.70	13.20	8.00	5.75	4.85	5.52		
4	14.85	10.60	32.10	15.18	18.81	25.50	73.10	13.20	10.34	4.85	4.62	5.52		
5	16.50	11.12	31.30	14.52	16.50	23.15	71.15	13.20	10.08	4.40	4.85	12.16		
6	16.83	13.86	28.50	13.86	13.86	21.47	49.50	13.20	9.82	4.85	4.85	10.60		
7	17.16	39.17	24.15	12.94	13.86	19.47	38.33	13.20	9.56	4.85	4.85	12.16		
8	15.84	37.90	22.15	11.90	14.19	18.15	37.05	13.20	9.04	4.85	4.85	18.15		
9	15.18	36.62	20.47	11.38	14.19	17.16	32.90	13.20	8.52	4.85	4.85	16.17		
10	14.52	57.40	27.30	10.60	14.19	46.00	28.50	12.68	8.00	4.85	4.62	18.48		
11	13.86	55.20	33.30	13.20	13.86	108.00	34.50	10.08	8.00	4.85	4.62	15.18		
12	13.20	45.00	32.10	25.83	13.86	76.35	68.55	17.49	7.77	4.85	4.40	9.82		
13	13.53	28.10	26.16	19.80	13.53	42.15	39.60	11.38	7.55	4.85	4.40	9.82		
14	14.85	23.82	24.49	26.16	13.20	32.90	32.50	11.90	7.10	4.85	4.40	8.52		
15	13.53	20.13	24.49	34.93	12.94	27.70	29.30	11.12	7.10	4.85	4.40	16.17		
16	13.20	21.81	28.10	47.00	12.68	25.83	25.50	9.82	7.10	5.75	4.40	8.78		
17	13.20	25.50	27.30	30.50	12.42	24.49	23.15	9.56	7.10	5.75	4.40	9.30		
18	15.18	25.83	26.50	24.49	12.16	25.50	22.15	9.30	7.10	6.87	6.87	22.48		
19	11.90	23.15	25.83	21.81	12.16	56.85	19.80	9.30	7.10	6.87	8.00	12.16		
20	11.64	21.14	25.16	19.47	11.90	39.60	19.14	9.04	7.10	9.04	7.10	11.12		
21	10.60	19.14	25.16	18.15	11.64	28.10	18.15	8.26	7.10	9.56	5.52	8.00		
22	10.60	18.48	25.16	18.15	15.84	25.16	16.50	8.00	7.10	9.56	5.07	8.00		
23	10.60	17.82	31.70	20.47	26.50	23.48	16.50	8.52	7.10	7.77	3.95	8.00		
24	10.60	16.83	24.83	23.15	17.82	23.15	16.17	8.00	7.10	8.00	3.95	7.55		
25	10.60	15.51	21.14	22.15	174.75	61.80	15.84	8.00	6.87	7.55	3.95	7.33		
26	10.34	15.18	19.80	21.47	47.00	96.45	15.18	8.00	6.65	7.10	3.95	7.10		
27	10.86	15.18	18.48	20.13	125.10	58.50	14.52	7.77	6.20	7.10	3.95	8.00		
28	11.64	15.18	16.50	20.47	171.00	50.50	13.86	7.77	5.75	6.42	3.95	9.04		
29	11.64	15.18	18.15	28.50	106.35	53.55	13.20	7.77	5.30	5.52	3.95	8.78		
30	13.86	17.49	16.50	29.30	57.40	47.50	13.20	7.77	5.30	5.52		8.52		
31		46.00		26.50	40.88		13.86		5.30	7.55		8.00		
Total	445.83	743.52	824.07	649.53	1098.71	1193.56	1038.40	320.33	233.78	191.15	139.94	318.33	7197.15	CMSDAY
Mean	14.86	23.98	27.47	20.95	35.44	39.79	33.50	10.68	7.54	6.17	4.83	10.27	19.66	CMS
Max	37.48	57.40	71.80	47.00	174.75	108.00	85.70	17.49	10.34	9.56	8.00	22.48	174.75	CMS
Min	10.34	10.60	16.50	10.60	11.64	17.16	13.20	7.77	5.30	4.40	3.95	3.95	3.95	CMS
Runoff	38.52	64.24	71.20	56.12	94.93	103.12	89.72	27.68	20.20	16.52	12.09	27.50	621.83	MCM

Momentary Peak 240.00 CMS. at 18.90 m. (MSL.) at 18.00 Hours , on Aug 27 , 2011

Runoff Yield 141.47 Liters/Second/Square KM. Momentary Peak Yield 1726.619 Liters/Second/Square KM.

WATER YEAR : 2011

SOUTHERN PENINSULA WEST COAST

Trang River at Ban Klang , Trang (X.228)

Lat 07 - 38 - 45 N Long 99 - 31 - 59 E

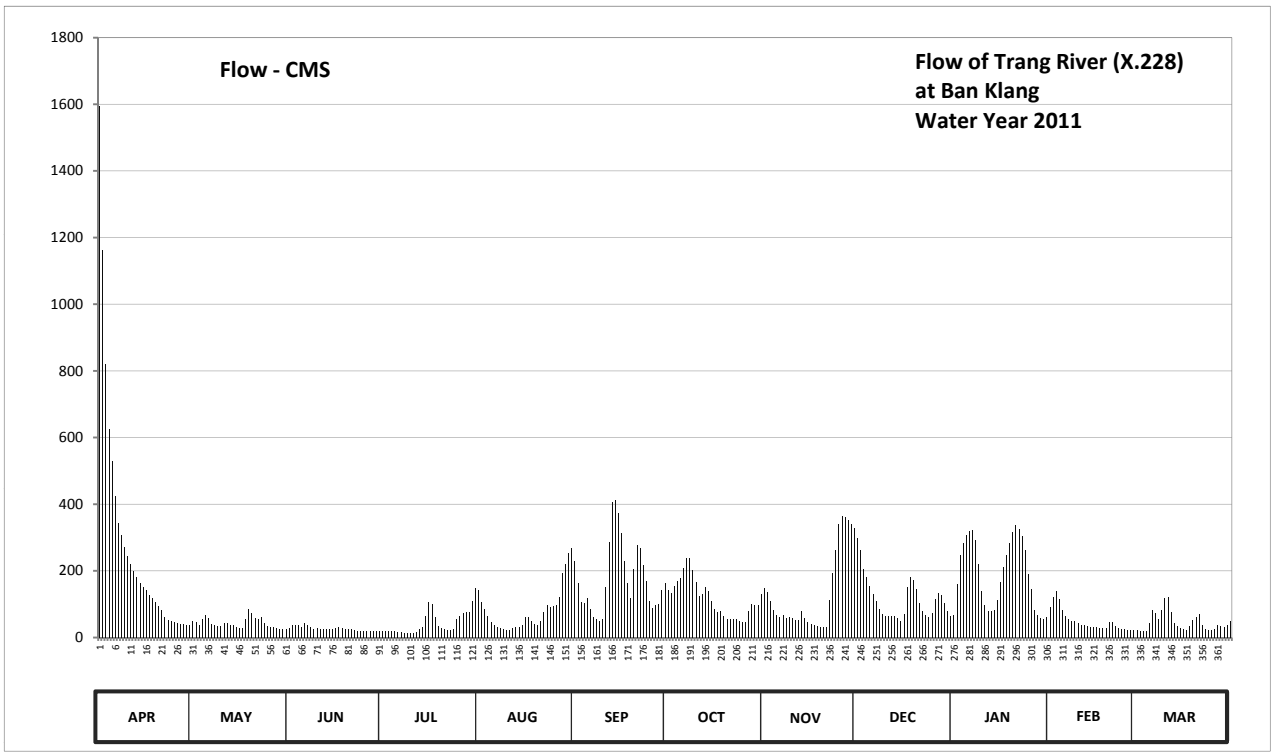
Location : on left bank at Ban Klang.

	Ban Klang	**Amphoe** Mueang	**Changwat** Trang
Drainge Area	1,374 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	Near the gage site.		**Elevation** +11.741 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	2003 to date		
Rating Operation			
Period of Rating	2003 to date		
Rated by Flot	-		
Rated by Current Meter	2003 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 39 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	10.97	4.11	3.50	3.19	6.10	7.36	6.09	6.21	8.03	4.52	5.09	3.27	
2	10.41	4.02	3.76	3.15	5.39	6.48	5.96	6.03	7.71	6.40	5.69	3.21	
3	9.82	3.84	3.82	3.13	4.95	5.43	6.29	5.45	7.06	7.55	6.08	3.17	
4	9.38	4.24	3.79	3.22	4.50	5.37	6.56	4.86	6.73	7.91	5.59	3.22	
5	9.10	4.51	3.65	3.13	4.04	5.62	6.69	4.57	6.29	8.11	4.88	3.94	
6	8.72	4.35	3.93	3.07	3.77	4.93	7.09	4.44	5.86	8.21	4.46	4.90	
7	8.36	3.90	3.82	3.04	3.62	4.43	7.47	4.51	5.47	8.22	4.27	4.68	
8	8.10	3.81	3.57	2.97	3.50	4.24	7.46	4.34	4.96	7.98	4.14	4.23	
9	7.79	3.73	3.45	2.94	3.40	4.13	7.03	4.38	4.61	7.26	4.08	4.87	
10	7.52	3.71	3.47	2.92	3.34	4.23	6.51	4.32	4.47	6.07	3.93	5.63	
11	7.24	3.97	3.43	2.92	3.32	6.26	5.79	4.17	4.50	5.19	3.83	5.69	
12	6.96	3.96	3.42	3.09	3.48	7.93	5.88	4.16	4.47	4.81	3.78	4.75	
13	6.73	3.85	3.44	3.37	3.62	8.66	6.28	4.79	4.46	4.81	3.70	3.95	
14	6.48	3.77	3.45	3.63	3.59	8.68	6.06	4.31	4.32	4.84	3.65	3.66	
15	6.27	3.63	3.45	4.47	3.85	8.51	5.46	4.05	4.13	5.52	3.60	3.50	
16	6.09	3.55	3.52	5.43	4.37	8.15	4.97	3.89	4.61	6.52	3.59	3.41	
17	5.83	3.53	3.58	5.29	4.38	7.37	4.73	3.79	6.28	7.13	3.54	3.34	
18	5.64	4.28	3.53	4.41	4.14	6.44	4.81	3.70	6.74	7.54	3.52	3.68	
19	5.39	4.97	3.42	3.74	3.90	5.67	4.47	3.64	6.61	7.91	3.52	4.17	
20	5.15	4.68	3.39	3.54	3.79	7.04	4.28	3.61	6.13	8.18	4.06	4.37	
21	4.89	4.31	3.36	3.38	4.08	7.85	4.25	3.63	5.33	8.32	4.02	4.59	
22	4.43	4.27	3.26	3.27	4.74	7.78	4.23	5.52	4.81	8.25	3.66	3.76	
23	4.20	4.38	3.20	3.29	5.19	7.20	4.23	6.92	4.52	8.08	3.49	3.45	
24	4.10	3.99	3.15	3.45	5.06	6.53	4.11	7.70	4.44	7.69	3.41	3.32	
25	4.00	3.75	3.21	4.23	5.14	5.48	4.02	8.34	4.71	6.87	3.39	3.27	
26	3.96	3.61	3.23	4.48	5.18	5.03	4.01	8.48	5.60	6.18	3.33	3.37	
27	3.92	3.59	3.14	4.65	5.70	5.20	4.79	8.45	5.96	4.90	3.29	3.81	
28	3.89	3.52	3.13	4.72	6.88	5.29	5.26	8.41	5.84	4.56	3.27	3.70	
29	3.83	3.44	3.15	4.75	7.26	6.09	5.19	8.35	5.33	4.36	3.23	3.57	
30	3.80	3.40	3.17	5.50	7.63	6.48	5.21	8.26	4.80	4.28		3.85	
31		3.39		6.21	7.76		5.89		4.48	4.37		4.08	
Mean	6.43	3.94	3.45	3.83	4.70	6.33	5.52	5.44	5.46	6.53	4.00	3.95	
Max	10.97	4.97	3.93	6.21	7.76	8.68	7.47	8.48	8.03	8.32	6.08	5.69	10.97
Min	3.80	3.39	3.13	2.92	3.32	4.13	4.01	3.61	4.13	4.28	3.23	3.17	2.92

Annual Max Momentary Gage Height	11.18	m. (MSL.) ,	at 01.00 Hours , on Apr 1 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	1.23	m. (MSL)
Left Bank Elevation	12.16	m. (MSL.) ,			
Right Bank Elevation	12.21	m. (MSL.) ,	Drainage Area	1374	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1594.50	49.40	28.00	19.70	142.00	229.80	141.40	148.60	298.40	66.40	92.10	21.70		
2	1162.20	45.80	35.80	18.80	105.50	164.80	134.00	137.80	263.00	160.00	120.50	20.20		
3	820.50	38.60	37.80	18.30	85.70	107.50	153.40	108.50	205.80	247.30	140.80	19.30		
4	624.80	54.60	36.70	20.50	65.50	104.60	169.60	81.70	181.10	284.60	115.50	20.50		
5	529.00	66.00	32.50	18.30	46.60	117.00	178.30	68.70	153.40	307.60	82.60	42.60		
6	424.80	59.00	42.20	16.70	36.10	84.80	208.20	62.80	129.00	319.60	63.70	83.50		
7	343.60	41.00	37.80	16.00	31.60	62.30	239.60	66.00	109.50	321.20	55.80	73.60		
8	306.50	37.40	30.10	14.30	28.00	54.60	238.70	58.60	86.20	292.70	50.60	54.20		
9	271.00	34.90	26.50	13.50	25.00	50.20	203.40	60.20	70.50	221.80	48.20	82.10		
10	244.40	34.30	27.10	13.00	23.50	54.20	166.60	57.80	64.10	140.20	42.20	117.50		
11	220.20	43.80	25.90	13.00	23.00	151.60	125.50	51.80	65.50	96.60	38.20	120.50		
12	198.00	43.40	25.60	17.20	27.40	286.90	130.00	51.40	64.10	79.40	36.40	76.70		
13	181.10	39.00	26.20	24.20	31.60	407.40	152.80	78.50	63.70	79.40	34.00	43.00		
14	164.80	36.10	26.50	31.90	30.70	413.20	139.60	57.40	57.80	80.80	32.50	32.80		
15	152.20	31.90	26.50	64.10	39.00	372.00	109.00	47.00	50.20	112.00	31.00	28.00		
16	141.40	29.50	28.60	107.50	59.80	312.20	86.60	40.60	70.50	167.20	30.70	25.30		
17	127.50	28.90	30.40	101.10	60.20	230.60	75.90	36.70	152.80	211.40	29.20	23.50		
18	118.00	56.20	28.90	61.40	50.60	162.40	79.40	34.00	181.80	246.30	28.60	33.40		
19	105.50	86.60	25.60	35.20	41.00	119.50	64.10	32.20	172.70	284.60	28.60	51.80		
20	94.80	73.60	24.70	29.20	36.70	204.20	56.20	31.30	143.80	315.70	47.40	59.80		
21	83.00	57.40	24.00	24.50	48.20	277.70	55.00	31.90	102.90	337.20	45.80	69.60		
22	62.30	55.80	21.50	21.70	76.30	270.00	54.20	112.00	79.40	326.00	32.80	35.80		
23	53.00	60.20	20.00	22.20	96.60	217.00	54.20	195.00	66.40	304.20	27.70	26.50		
24	49.00	44.60	18.80	26.50	90.70	167.80	49.40	262.00	62.80	261.00	25.30	23.00		
25	45.00	35.50	20.20	54.20	94.30	110.00	45.80	340.40	75.00	191.20	24.70	21.70		
26	43.40	31.30	20.70	64.60	96.10	89.40	45.40	366.00	116.00	146.80	23.20	24.20		
27	41.80	30.70	18.50	72.30	121.00	97.00	78.50	360.00	134.00	83.50	22.20	37.40		
28	40.60	28.60	18.30	75.40	192.00	101.10	99.70	352.00	128.00	68.20	21.70	34.00		
29	38.20	26.20	18.80	76.70	221.80	141.40	96.60	342.00	102.90	59.40	20.70	30.10		
30	37.00	25.00	19.30	111.00	255.00	164.80	97.50	327.60	79.00	56.20		39.00		
31		24.70		148.60	268.00		130.50		64.60	59.80		48.20		
Total	8318.10	1350.00	803.50	1351.60	2549.50	5326.00	3659.10	4000.50	3594.90	5928.30	1392.70	1419.50	39693.70	CMSDAY
Mean	277.30	43.50	26.80	43.60	82.20	177.50	118.00	133.40	116.00	191.20	48.00	45.80	108.50	CMS
Max	1594.50	86.60	42.20	148.60	268.00	413.20	239.60	366.00	298.40	337.20	140.80	120.50	1594.50	CMS
Min	37.00	24.70	18.30	13.00	23.00	50.20	45.40	31.30	50.20	56.20	20.70	19.30	13.00	CMS
Runoff	718.68	116.64	69.42	116.78	220.28	460.17	316.15	345.64	310.60	512.21	120.33	122.64	3429.54	MCM

Momentary Peak 1782.00 CMS. at 11.18 m. (MSL.) at 01.00 Hours , on Apr 1 , 2011

Runoff Yield 78.93 Liters/Second/Square KM. Momentary Peak Yield 1296.943 Liters/Second/Square KM.

WATER YEAR : 2011

SOUTHERN PENINSULA WEST COAST

Khlong Nang Noi at Ban Khaow Saae (2) , Trang (X.229)

Lat 07 - 32 - 53 N Long 99 - 44 - 40 E

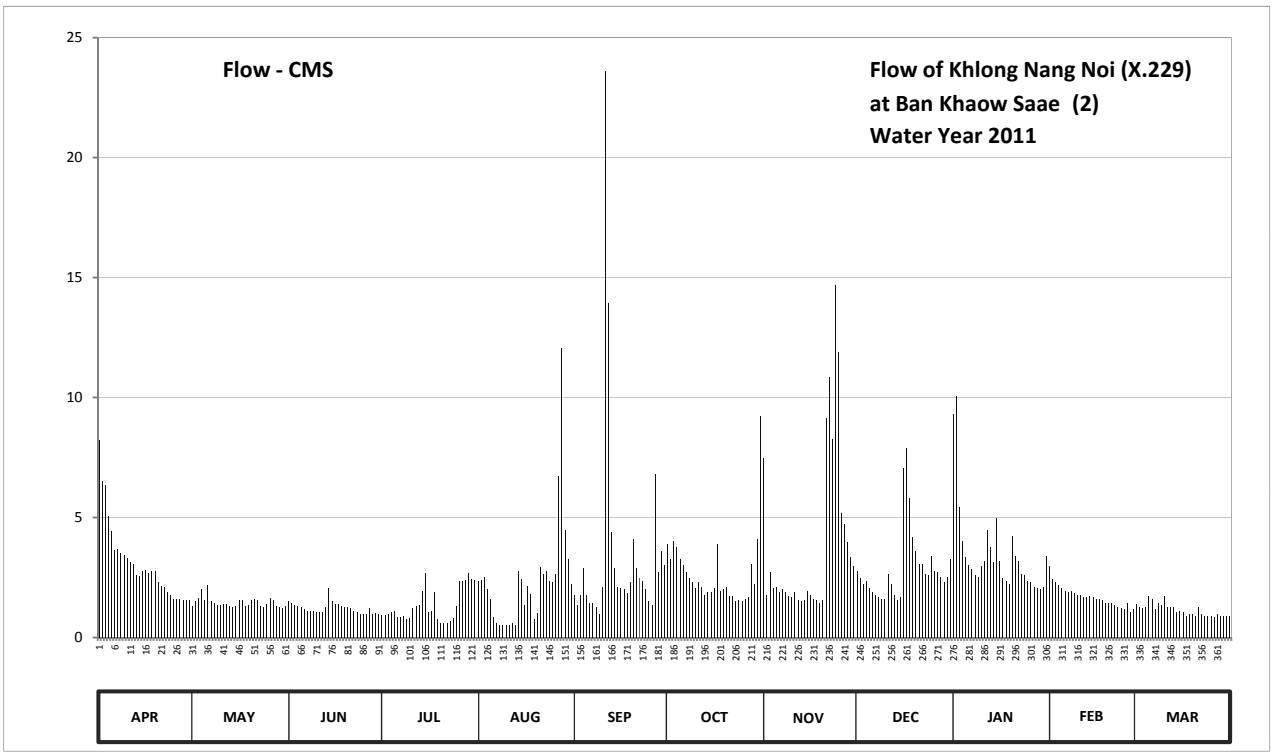
Location : on left bank at Ban Khaow Saae 2.

	Ban Khaow Saae 2	**Amphoe** Na Yong	**Changwat** Trang
Drainge Area	158 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the gage site.		**Elevation** +32.452 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	2003 to date		
Rating Operation			
Period of Rating	2003 to date		
Rated by Flot	-		
Rated by Current Meter	2003 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 36 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	30.03	28.80	28.84	28.72	29.01	29.16	29.50	29.97	29.33	30.17	29.36	29.09	
2	29.77	28.84	28.83	28.72	29.02	29.08	29.41	29.16	29.28	30.24	29.27	29.07	
3	29.74	28.87	28.81	28.73	29.04	29.16	29.52	29.32	29.24	29.71	29.25	29.06	
4	29.53	28.94	28.80	28.75	28.94	29.35	29.48	29.21	29.26	29.52	29.23	29.07	
5	29.42	28.85	28.79	28.76	28.86	29.16	29.41	29.22	29.21	29.42	29.21	29.15	
6	29.27	28.98	28.77	28.70	28.70	29.10	29.37	29.18	29.18	29.37	29.19	29.13	
7	29.28	28.84	28.76	28.70	28.65	29.10	29.32	29.20	29.16	29.34	29.18	29.05	
8	29.24	28.83	28.76	28.71	28.63	29.07	29.28	29.18	29.14	29.30	29.19	29.10	
9	29.23	28.81	28.76	28.68	28.63	29.01	29.25	29.15	29.13	29.29	29.17	29.08	
10	29.20	28.81	28.75	28.69	28.63	29.22	29.21	29.14	29.13	29.36	29.16	29.15	
11	29.17	28.82	28.75	28.78	28.63	31.06	29.25	29.18	29.31	29.40	29.16	29.07	
12	29.15	28.82	28.75	28.80	28.65	30.53	29.22	29.12	29.24	29.58	29.14	29.07	
13	29.06	28.80	28.79	28.81	28.63	29.57	29.16	29.11	29.16	29.48	29.14	29.07	
14	29.05	28.79	28.95	28.93	29.09	29.35	29.18	29.12	29.12	29.39	29.15	29.03	
15	29.09	28.80	28.84	29.08	29.03	29.22	29.18	29.19	29.14	29.65	29.14	29.04	
16	29.10	28.85	28.82	28.75	28.81	29.21	29.21	29.16	29.92	29.40	29.13	29.03	
17	29.08	28.85	28.82	28.76	28.97	29.20	29.50	29.13	30.02	29.28	29.13	29.00	
18	29.09	28.80	28.80	28.92	28.90	29.17	29.19	29.12	29.76	29.26	29.12	29.01	
19	29.09	28.81	28.79	28.68	28.68	29.25	29.20	29.10	29.54	29.24	29.10	29.01	
20	29.00	28.85	28.79	28.65	28.74	29.53	29.22	29.12	29.46	29.55	29.10	29.00	
21	28.97	28.86	28.78	28.65	29.13	29.35	29.15	30.15	29.38	29.43	29.10	29.07	
22	28.96	28.85	28.76	28.65	29.07	29.28	29.15	30.31	29.38	29.40	29.08	29.01	
23	28.92	28.80	28.75	28.66	29.09	29.26	29.11	30.06	29.31	29.31	29.07	29.00	
24	28.89	28.79	28.73	28.69	29.01	29.20	29.12	30.58	29.30	29.30	29.06	29.00	
25	28.86	28.82	28.73	28.80	29.00	29.11	29.11	30.40	29.43	29.26	29.05	29.00	
26	28.86	28.87	28.73	29.01	29.07	29.08	29.13	29.68	29.33	29.25	29.10	28.99	
27	28.86	28.85	28.78	29.01	29.80	29.89	29.14	29.62	29.32	29.22	29.03	29.01	
28	28.85	28.80	28.73	29.02	30.41	29.32	29.38	29.51	29.29	29.21	29.05	29.00	
29	28.85	28.79	28.74	29.08	29.58	29.46	29.24	29.42	29.25	29.20	29.08	29.00	
30	28.85	28.78	28.73	29.03	29.41	29.37	29.53	29.36	29.29	29.22		29.00	
31		28.80		29.02	29.24		30.16		29.41	29.43		29.00	
Mean	29.15	28.83	28.78	28.80	29.00	29.36	29.30	29.44	29.34	29.43	29.14	29.04	
Max	30.03	28.98	28.95	29.08	30.41	31.06	30.16	30.58	30.02	30.24	29.36	29.15	31.06
Min	28.85	28.78	28.73	28.65	28.63	29.01	29.11	29.10	29.12	29.20	29.03	28.99	28.63

Annual Max Momentary Gage Height	31.24	m. (MSL.) ,	at 18.00 Hours , on Sep 11 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	28.47	m. (MSL)
Left Bank Elevation	34.06	m. (MSL.) ,			
Right Bank Elevation	33.95	m. (MSL.) ,	Drainage Area	158	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	8.24	1.30	1.50	0.94	2.35	1.78	3.90	7.46	2.78	9.31	2.96	1.39		
2	6.52	1.50	1.45	0.94	2.40	1.34	3.27	1.78	2.48	10.06	2.42	1.28		
3	6.34	1.65	1.35	0.98	2.50	1.78	4.04	2.72	2.24	5.42	2.30	1.23		
4	5.08	2.00	1.30	1.08	2.00	2.90	3.76	2.06	2.36	4.04	2.18	1.28		
5	4.42	1.55	1.26	1.12	1.60	1.78	3.27	2.12	2.06	3.34	2.06	1.72		
6	3.65	2.20	1.17	0.85	0.85	1.45	3.02	1.89	1.89	3.02	1.94	1.61		
7	3.70	1.50	1.12	0.85	0.62	1.45	2.72	2.00	1.78	2.84	1.89	1.17		
8	3.50	1.45	1.12	0.89	0.53	1.28	2.48	1.89	1.67	2.60	1.94	1.45		
9	3.45	1.35	1.12	0.76	0.53	0.96	2.30	1.72	1.61	2.54	1.83	1.34		
10	3.30	1.35	1.08	0.81	0.53	2.12	2.06	1.67	1.61	2.96	1.78	1.72		
11	3.15	1.40	1.08	1.21	0.53	23.60	2.30	1.89	2.66	3.20	1.78	1.28		
12	3.05	1.40	1.08	1.30	0.62	13.92	2.12	1.56	2.24	4.46	1.67	1.28		
13	2.60	1.30	1.26	1.35	0.53	4.39	1.78	1.51	1.78	3.76	1.67	1.28		
14	2.55	1.26	2.05	1.95	2.75	2.90	1.89	1.56	1.56	3.14	1.72	1.07		
15	2.75	1.30	1.50	2.70	2.45	2.12	1.89	1.94	1.67	4.97	1.67	1.12		
16	2.80	1.55	1.40	1.08	1.35	2.06	2.06	1.78	7.06	3.20	1.61	1.07		
17	2.70	1.55	1.40	1.12	2.15	2.00	3.90	1.61	7.89	2.48	1.61	0.90		
18	2.75	1.30	1.30	1.90	1.80	1.83	1.94	1.56	5.80	2.36	1.56	0.96		
19	2.75	1.35	1.26	0.76	0.76	2.30	2.00	1.45	4.18	2.24	1.45	0.96		
20	2.30	1.55	1.26	0.62	1.03	4.11	2.12	1.56	3.62	4.25	1.45	0.90		
21	2.15	1.60	1.21	0.62	2.95	2.90	1.72	9.12	3.08	3.41	1.45	1.28		
22	2.10	1.55	1.12	0.62	2.65	2.48	1.72	10.86	3.08	3.20	1.34	0.96		
23	1.90	1.30	1.08	0.67	2.75	2.36	1.51	8.27	2.66	2.66	1.28	0.90		
24	1.75	1.26	0.98	0.81	2.35	2.00	1.56	14.69	2.60	2.60	1.23	0.90		
25	1.60	1.40	0.98	1.30	2.30	1.51	1.51	11.90	3.41	2.36	1.17	0.90		
26	1.60	1.65	0.98	2.35	2.65	1.34	1.61	5.20	2.78	2.30	1.45	0.85		
27	1.60	1.55	1.21	2.35	6.70	6.82	1.67	4.75	2.72	2.12	1.07	0.96		
28	1.55	1.30	0.98	2.40	12.06	2.72	3.08	3.97	2.54	2.06	1.17	0.90		
29	1.55	1.26	1.03	2.70	4.46	3.62	2.24	3.34	2.30	2.00	1.34	0.90		
30	1.55	1.21	0.98	2.45	3.27	3.02	4.11	2.96	2.54	2.12		0.90		
31		1.30		2.40	2.24		9.22		3.27	3.41		0.90		
Total	92.95	45.19	36.61	41.88	72.26	104.84	82.77	116.79	89.92	108.43	48.99	35.36	875.99	CMSDAY
Mean	3.10	1.46	1.22	1.35	2.33	3.49	2.67	3.89	2.90	3.50	1.69	1.14	2.39	CMS
Max	8.24	2.20	2.05	2.70	12.06	23.60	9.22	14.69	7.89	10.06	2.96	1.72	23.60	CMS
Min	1.55	1.21	0.98	0.62	0.53	0.96	1.51	1.45	1.56	2.00	1.07	0.85	0.53	CMS
Runoff	8.03	3.90	3.16	3.62	6.24	9.06	7.15	10.09	7.77	9.37	4.23	3.06	75.69	MCM

Momentary Peak 27.24 CMS. at 31.24 m. (MSL.) at 18.00 Hours , on Sep 11 , 2011

Runoff Yield 15.15 Liters/Second/Square KM. Momentary Peak Yield 172.405 Liters/Second/Square KM.

WATER YEAR : 2011

SOUTHERN PENINSULA WEST COAST

Trang River at Ban Pa Mak , Trang (X.234)

Lat 07 - 35 - 21 N Long 99 - 34 - 39 E

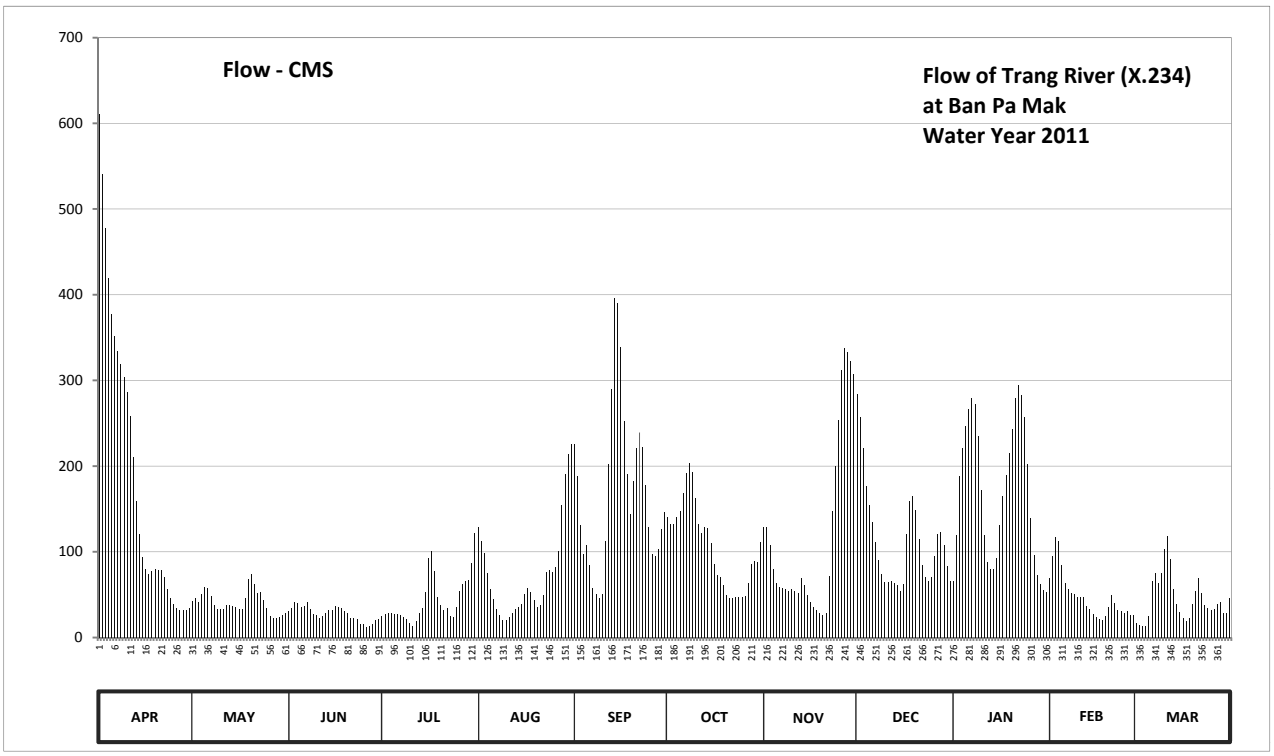
Location : on left bank at Ban Pa Mak.

	Ban Pa Mak	**Amphoe** Mueang	**Changwat** Trang
Drainge Area	2,808 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the top staff gage.		**Elevation** +6.388 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	2004 to date		
Rating Operation			
Period of Rating	2004 to date		
Rated by Flot	-		
Rated by Current Meter	2004 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	Overbank flow starts at elevation +6.660 m.(MSL.), records are channel flow only.		
General Description	Records good. Stage-discharge relation defined by 52 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	7.02	1.35	1.05	0.89	2.99	4.21	3.16	2.98	4.78	1.85	1.93	0.65	
2	6.63	1.41	1.16	0.94	2.71	3.78	3.03	2.98	4.52	2.82	2.41	0.59	
3	6.25	1.32	1.31	0.99	2.47	3.01	3.04	2.63	4.15	3.78	2.78	0.53	
4	5.87	1.52	1.29	0.98	2.05	2.45	3.16	2.13	3.63	4.16	2.72	0.56	
5	5.56	1.72	1.20	0.94	1.66	2.64	3.25	1.80	3.36	4.42	2.22	0.88	
6	5.36	1.69	1.22	0.96	1.39	2.23	3.53	1.70	3.07	4.61	1.81	1.86	
7	5.22	1.48	1.32	0.93	1.12	1.69	3.82	1.69	2.68	4.74	1.67	2.05	
8	5.09	1.25	1.11	0.87	0.93	1.52	3.97	1.66	2.34	4.67	1.54	1.82	
9	4.96	1.13	0.96	0.78	0.76	1.43	3.84	1.61	2.02	4.31	1.52	2.05	
10	4.80	1.11	0.91	0.64	0.77	1.52	3.46	1.66	1.84	3.58	1.46	2.56	
11	4.53	1.13	0.83	0.56	0.85	2.70	3.04	1.61	1.84	2.82	1.46	2.81	
12	4.05	1.24	0.90	0.72	0.97	3.95	2.87	1.56	1.86	2.29	1.45	2.36	
13	3.42	1.23	0.99	0.97	1.13	4.83	2.99	1.92	1.82	2.15	1.22	1.67	
14	2.84	1.22	1.07	1.15	1.19	5.70	2.97	1.77	1.75	2.14	1.13	1.28	
15	2.40	1.19	1.08	1.59	1.28	5.66	2.67	1.49	1.61	2.37	0.95	1.01	
16	2.15	1.12	1.22	2.38	1.53	5.25	2.25	1.32	1.79	3.01	0.86	0.83	
17	2.01	1.12	1.18	2.52	1.69	4.48	2.00	1.19	2.85	3.48	0.79	0.73	
18	2.09	1.41	1.15	2.08	1.57	3.80	1.96	1.08	3.41	3.79	0.77	0.83	
19	2.15	1.91	1.06	1.46	1.37	3.20	1.76	0.97	3.48	4.09	0.90	1.28	
20	2.11	2.03	0.99	1.24	1.18	3.70	1.51	0.93	3.26	4.39	1.19	1.60	
21	2.12	1.78	0.83	1.09	1.23	4.16	1.43	0.98	2.75	4.74	1.49	1.92	
22	1.96	1.54	0.82	1.17	1.49	4.35	1.41	1.97	2.23	4.88	1.30	1.55	
23	1.65	1.57	0.78	0.88	2.07	4.17	1.46	3.25	1.95	4.77	1.10	1.25	
24	1.43	1.37	0.63	0.86	2.11	3.64	1.44	3.93	1.86	4.52	1.05	1.14	
25	1.28	1.16	0.61	1.20	2.06	2.98	1.46	4.49	1.94	3.95	0.99	1.10	
26	1.16	0.88	0.52	1.61	2.18	2.46	1.47	5.03	2.42	3.14	1.04	1.13	
27	1.09	0.83	0.56	1.78	2.51	2.41	1.81	5.24	2.84	2.43	0.92	1.27	
28	1.08	0.82	0.62	1.86	3.35	2.56	2.25	5.21	2.89	2.00	0.92	1.33	
29	1.08	0.85	0.77	1.89	3.80	2.95	2.32	5.12	2.63	1.78	0.72	1.00	
30	1.14	0.92	0.80	2.28	4.08	3.24	2.29	4.99	2.20	1.62		0.98	
31		1.00		2.87	4.21		2.69		1.87	1.57		1.43	
Mean	3.28	1.30	0.96	1.33	1.89	3.36	2.53	2.50	2.63	3.38	1.39	1.36	
Max	7.02	2.03	1.32	2.87	4.21	5.70	3.97	5.24	4.78	4.88	2.78	2.81	7.02
Min	1.08	0.82	0.52	0.56	0.76	1.43	1.41	0.93	1.61	1.57	0.72	0.53	0.52

Annual Max Momentary Gage Height	7.14	m. (MSL.) ,	at 08.00 Hours , on Apr 1 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	-2.11	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, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	610.70	42.75	30.75	25.15	129.40	225.95	141.20	128.80	283.90	65.50	69.50	16.75		
2	540.25	45.45	34.60	26.90	112.60	188.40	132.10	128.80	256.60	119.20	94.60	14.70		
3	477.25	41.40	40.95	28.65	98.20	130.70	132.80	107.80	220.25	188.40	116.80	12.90		
4	419.80	50.40	40.05	28.30	75.50	97.00	141.20	79.50	176.40	221.20	113.20	13.80		
5	377.00	59.40	36.00	26.90	56.70	108.40	147.50	63.00	155.20	246.10	84.10	24.80		
6	352.00	58.05	36.90	27.60	44.55	84.65	168.40	58.50	134.90	266.05	63.50	66.00		
7	334.50	48.60	41.40	26.55	33.20	58.05	191.60	58.05	110.80	279.70	57.15	75.50		
8	318.80	38.25	32.85	24.45	26.55	50.40	203.60	56.70	90.70	272.35	51.30	64.00		
9	303.60	33.55	27.60	21.30	20.60	46.35	193.20	54.45	74.00	235.45	50.40	75.50		
10	286.00	32.85	25.85	16.40	20.95	50.40	162.80	56.70	65.00	172.40	47.70	103.60		
11	257.65	33.55	23.05	13.80	23.75	112.00	132.80	54.45	65.00	119.20	47.70	118.60		
12	210.75	37.80	25.50	19.20	27.95	202.00	122.20	52.20	66.00	87.95	47.25	91.80		
13	159.60	37.35	28.65	27.95	33.55	289.30	129.40	69.00	64.00	80.50	36.90	57.15		
14	120.40	36.90	31.45	34.25	35.65	396.00	128.20	61.65	60.75	80.00	33.55	39.60		
15	94.00	35.65	31.80	53.55	39.60	390.40	110.20	49.05	54.45	92.35	27.25	29.35		
16	80.50	33.20	36.90	92.90	50.85	338.25	85.75	41.40	62.55	130.70	24.10	23.05		
17	73.50	33.20	35.30	101.20	58.05	252.40	73.00	35.65	121.00	164.40	21.65	19.55		
18	77.50	45.45	34.25	77.00	52.65	190.00	71.00	31.80	158.80	189.20	20.95	23.05		
19	80.50	68.50	31.10	47.70	43.65	144.00	61.20	27.95	164.40	214.55	25.50	39.60		
20	78.50	74.50	28.65	37.80	35.30	182.00	49.95	26.55	148.20	243.05	35.65	54.00		
21	79.00	62.10	23.05	32.15	37.35	221.20	46.35	28.30	115.00	279.70	49.05	69.00		
22	71.00	51.30	22.70	34.95	49.05	239.25	45.45	71.50	84.65	294.80	40.50	51.75		
23	56.25	52.65	21.30	24.80	76.50	222.15	47.70	147.50	70.50	282.85	32.50	38.25		
24	46.35	43.65	16.05	24.10	78.50	177.20	46.80	200.40	66.00	256.60	30.75	33.90		
25	39.60	34.60	15.35	36.00	76.00	128.80	47.70	253.45	70.00	202.00	28.65	32.50		
26	34.60	24.80	12.60	54.45	82.00	97.60	48.15	311.60	95.20	139.80	30.40	33.55		
27	32.15	23.05	13.80	62.10	100.60	94.60	63.50	337.00	120.40	95.80	26.20	39.15		
28	31.80	22.70	15.70	66.00	154.50	103.60	85.75	333.25	123.40	73.00	26.20	41.85		
29	31.80	23.75	20.95	67.50	190.00	127.00	89.60	322.40	107.80	62.10	19.20	29.00		
30	33.90	26.20	22.00	87.40	213.60	146.80	87.95	306.90	83.00	54.90		28.30		
31		29.00		122.20	225.95		111.40		66.50	52.65		46.35		
Total	5709.25	1280.60	837.10	1369.20	2303.30	5094.85	3298.45	3554.30	3535.35	5262.45	1352.20	1406.90	35003.95	CMSDAY
Mean	190.31	41.31	27.90	44.17	74.30	169.83	106.40	118.48	114.04	169.76	46.63	45.38	95.64	CMS
Max	610.70	74.50	41.40	122.20	225.95	396.00	203.60	337.00	283.90	294.80	116.80	118.60	610.70	CMS
Min	31.80	22.70	12.60	13.80	20.60	46.35	45.45	26.55	54.45	52.65	19.20	12.90	12.60	CMS
Runoff	493.28	110.64	72.33	118.30	199.01	440.20	284.99	307.09	305.45	454.68	116.83	121.56	3024.34	MCM

Momentary Peak 632.90 CMS. at 7.14 m. (MSL.) at 08.00 Hours , on Apr 1 , 2011

Runoff Yield 34.05 Liters/Second/Square KM. Momentary Peak Yield 225.354 Liters/Second/Square KM.

WATER YEAR : 2011

SOUTHERN PENINSULA WEST COAST

Khlong Lam Phikul at Ban Pak Khlong , Trang (X.235)

Lat 07 - 24 - 37 N Long 99 - 46 - 00 E

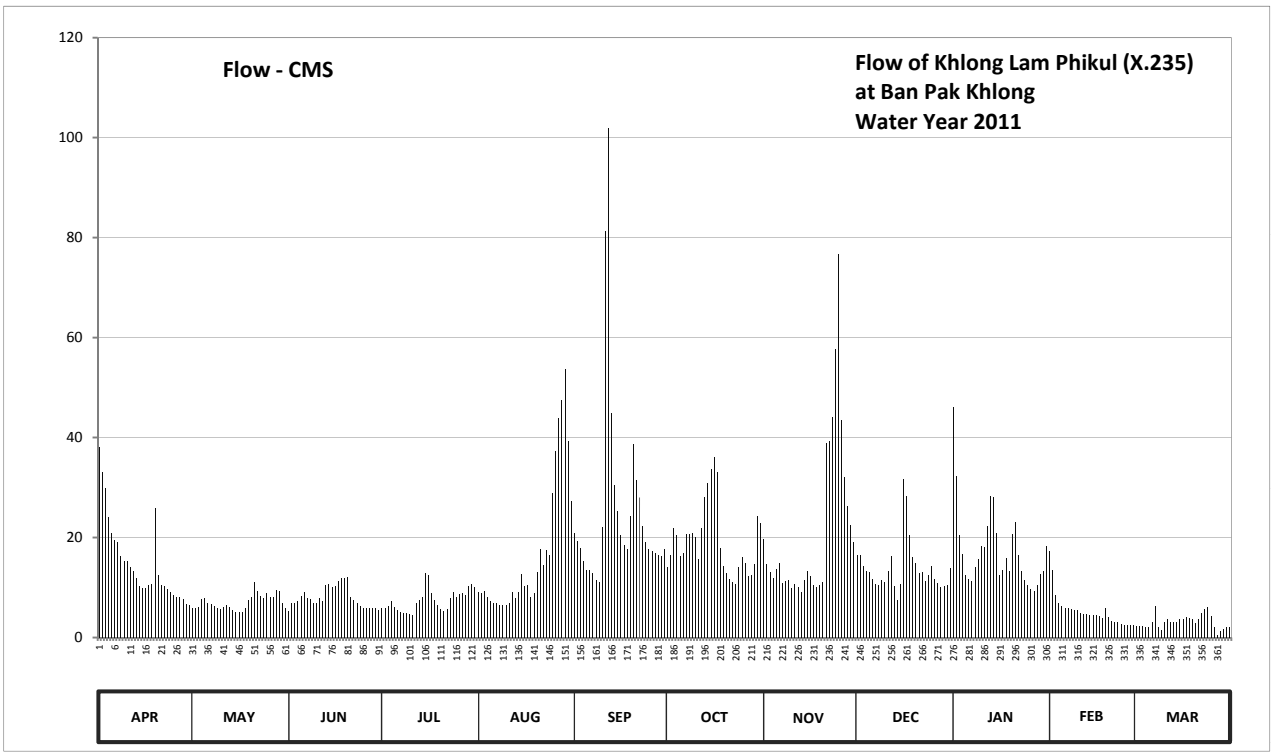
Location : on right bank at Ban Pak Khlong.

	Ban Pak Khlong	**Amphoe** Yan Ta Khaow	**Changwat** Trang		
Drainge Area	116 sq.km.				
Type of Gage	Water - stage recorder				
Zero Gage at Bottom	+0.000 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On right bank at the abutment of the bridge.		**Elevation** +16.603 m. (MSL.)		
Gage Reading Frequency	Recording				
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings				
Period of Available Gage Records	2004 to date				
Rating Operation					
Period of Rating	2004 to date				
Rated by Flot	-				
Rated by Current Meter	2004 to date				
Stability of Channel Regimes	Fairly stable.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records fair. Stage-discharge relation defined by 36 discharge measurements made in 2011.				

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	10.45	9.09	9.05	9.09	9.27	9.83	9.53	9.78	9.64	10.70	9.67	8.83	
2	10.29	9.08	9.14	9.08	9.26	9.76	9.64	9.56	9.64	10.26	9.50	8.83	
3	10.18	9.10	9.15	9.11	9.28	9.70	9.87	9.48	9.54	9.81	9.24	8.82	
4	9.96	9.19	9.17	9.17	9.22	9.58	9.81	9.42	9.49	9.65	9.15	8.81	
5	9.83	9.20	9.23	9.10	9.17	9.50	9.63	9.51	9.48	9.45	9.11	8.81	
6	9.77	9.15	9.27	9.06	9.14	9.50	9.66	9.57	9.41	9.41	9.09	8.89	
7	9.75	9.13	9.20	9.04	9.14	9.47	9.82	9.37	9.36	9.39	9.08	9.11	
8	9.63	9.11	9.19	9.03	9.12	9.40	9.82	9.39	9.34	9.53	9.07	8.81	
9	9.58	9.09	9.15	9.02	9.12	9.38	9.83	9.40	9.40	9.60	9.06	8.75	
10	9.58	9.07	9.15	9.01	9.12	9.88	9.80	9.31	9.38	9.72	9.06	8.89	
11	9.53	9.10	9.20	9.00	9.14	11.67	9.60	9.36	9.49	9.71	9.02	8.94	
12	9.49	9.12	9.17	9.14	9.27	12.19	9.87	9.32	9.63	9.89	9.01	8.88	
13	9.42	9.10	9.34	9.18	9.20	10.66	10.11	9.27	9.33	10.12	9.01	8.88	
14	9.33	9.06	9.36	9.22	9.27	10.20	10.21	9.40	9.18	10.11	9.00	8.89	
15	9.31	9.04	9.32	9.47	9.46	10.01	10.31	9.49	9.36	9.83	9.00	8.93	
16	9.31	9.04	9.33	9.45	9.33	9.81	10.39	9.44	10.24	9.45	9.00	8.94	
17	9.34	9.04	9.39	9.26	9.34	9.73	10.29	9.34	10.12	9.50	8.98	8.96	
18	9.36	9.08	9.42	9.18	9.22	9.69	9.70	9.32	9.81	9.61	8.95	8.95	
19	10.03	9.18	9.42	9.12	9.26	9.97	9.54	9.34	9.62	9.49	9.09	8.94	
20	9.45	9.22	9.43	9.07	9.48	10.47	9.47	9.38	9.57	9.82	8.96	8.87	
21	9.35	9.38	9.22	9.05	9.69	10.23	9.41	10.48	9.47	9.92	8.90	8.94	
22	9.33	9.28	9.18	9.07	9.55	10.11	9.38	10.49	9.48	9.64	8.88	9.03	
23	9.30	9.23	9.14	9.20	9.68	9.89	9.36	10.64	9.39	9.49	8.88	9.07	
24	9.27	9.20	9.11	9.27	9.64	9.75	9.53	11.03	9.45	9.40	8.86	9.10	
25	9.24	9.26	9.09	9.21	10.14	9.69	9.62	11.55	9.54	9.34	8.84	8.99	
26	9.21	9.22	9.09	9.25	10.43	9.67	9.57	10.62	9.41	9.30	8.84	8.80	
27	9.22	9.22	9.08	9.26	10.63	9.66	9.44	10.25	9.37	9.28	8.84	8.64	
28	9.19	9.29	9.08	9.24	10.74	9.64	9.45	10.05	9.32	9.34	8.84	8.72	
29	9.13	9.28	9.08	9.33	10.92	9.63	9.56	9.90	9.33	9.46	8.83	8.78	
30	9.12	9.15	9.06	9.36	10.49	9.69	9.97	9.75	9.34	9.49		8.80	
31		9.09		9.32	10.08		9.91		9.52	9.72		8.80	
Mean	9.53	9.15	9.21	9.17	9.57	9.95	9.75	9.77	9.50	9.66	9.03	8.88	
Max	10.45	9.38	9.43	9.47	10.92	12.19	10.39	11.55	10.24	10.70	9.67	9.11	12.19
Min	9.12	9.04	9.05	9.00	9.12	9.38	9.36	9.27	9.18	9.28	8.83	8.64	8.64

Annual Max Momentary Gage Height	13.28	m. (MSL.) ,	at 01.00 Hours , on Sep 12 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	8.29	m. (MSL)
Left Bank Elevation	16.61	m. (MSL.) ,			
Right Bank Elevation	16.59	m. (MSL.) ,	Drainage Area	116	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	38.00	5.99	5.33	5.99	9.10	20.92	14.16	19.74	16.52	46.15	17.21	2.37		
2	33.16	5.82	6.81	5.82	8.91	19.28	16.52	14.78	16.52	32.27	13.55	2.37		
3	29.95	6.15	6.97	6.31	9.28	17.90	21.88	13.14	14.37	20.44	8.54	2.25		
4	24.04	7.63	7.31	7.31	8.17	15.19	20.44	11.91	13.34	16.75	6.97	2.13		
5	20.92	7.80	8.35	6.15	7.31	13.55	16.29	13.76	13.14	12.53	6.31	2.13		
6	19.51	6.97	9.10	5.49	6.81	13.55	16.98	14.98	11.71	11.71	5.99	3.13		
7	19.05	6.65	7.80	5.16	6.81	12.94	20.68	10.95	10.76	11.32	5.82	6.31		
8	16.29	6.31	7.63	4.99	6.48	11.50	20.68	11.32	10.39	14.16	5.65	2.13		
9	15.19	5.99	6.97	4.83	6.48	11.13	20.92	11.50	11.50	15.60	5.49	1.50		
10	15.19	5.65	6.97	4.67	6.48	22.12	20.20	9.84	11.13	18.36	5.49	3.13		
11	14.16	6.15	7.80	4.50	6.81	81.33	15.60	10.76	13.34	18.13	4.83	3.75		
12	13.34	6.48	7.31	6.81	9.10	101.99	21.88	10.02	16.29	22.36	4.67	3.00		
13	11.91	6.15	10.39	7.47	7.80	44.81	28.02	9.10	10.21	28.30	4.67	3.00		
14	10.21	5.49	10.76	8.17	9.10	30.50	30.80	11.50	7.47	28.02	4.50	3.13		
15	9.84	5.16	10.02	12.94	12.73	25.28	33.75	13.34	10.76	20.92	4.50	3.63		
16	9.84	5.16	10.21	12.53	10.21	20.44	36.11	12.32	31.68	12.53	4.50	3.75		
17	10.39	5.16	11.32	8.91	10.39	18.59	33.16	10.39	28.30	13.55	4.25	4.00		
18	10.76	5.82	11.91	7.47	8.17	17.67	17.90	10.02	20.44	15.83	3.87	3.87		
19	25.82	7.47	11.91	6.48	8.91	24.28	14.37	10.39	16.06	13.34	5.99	3.75		
20	12.53	8.17	12.12	5.65	13.14	38.64	12.94	11.13	14.98	20.68	4.00	2.87		
21	10.58	11.13	8.17	5.33	17.67	31.38	11.71	38.96	12.94	23.08	3.25	3.75		
22	10.21	9.28	7.47	5.65	14.58	28.02	11.13	39.28	13.14	16.52	3.00	4.99		
23	9.65	8.35	6.81	7.80	17.44	22.36	10.76	44.14	11.32	13.34	3.00	5.65		
24	9.10	7.80	6.31	9.10	16.52	19.05	14.16	57.59	12.53	11.50	2.75	6.15		
25	8.54	8.91	5.99	7.99	28.85	17.67	16.06	76.75	14.37	10.39	2.50	4.37		
26	7.99	8.17	5.99	8.73	37.36	17.21	14.98	43.47	11.71	9.65	2.50	2.00		
27	8.17	8.17	5.82	8.91	43.80	16.98	12.32	31.98	10.95	9.28	2.50	0.40		
28	7.63	9.47	5.82	8.54	47.49	16.52	12.53	26.38	10.02	10.39	2.50	1.20		
29	6.65	9.28	5.82	10.21	53.70	16.29	14.78	22.60	10.21	12.73	2.37	1.80		
30	6.48	6.97	5.49	10.76	39.28	17.67	24.28	19.05	10.39	13.34		2.00		
31		5.99		10.02	27.20		22.84		13.96	18.36		2.00		
Total	445.10	219.69	240.68	230.69	516.08	764.76	598.83	641.09	430.45	541.53	151.17	96.51	4876.58	CMSDAY
Mean	14.84	7.09	8.02	7.44	16.65	25.49	19.32	21.37	13.89	17.47	5.21	3.11	13.32	CMS
Max	38.00	11.13	12.12	12.94	53.70	101.99	36.11	76.75	31.68	46.15	17.21	6.31	101.99	CMS
Min	6.48	5.16	5.33	4.50	6.48	11.13	10.76	9.10	7.47	9.28	2.37	0.40	0.40	CMS
Runoff	38.46	18.98	20.80	19.93	44.59	66.08	51.74	55.39	37.19	46.79	13.06	8.34	421.34	MCM

Momentary Peak 152.44 CMS. at 13.28 m. (MSL.) at 01.00 Hours , on Sep 12 , 2011

Runoff Yield 114.36 Liters/Second/Square KM. Momentary Peak Yield 1308.385 Liters/Second/Square KM.

WATER YEAR : 2011

SOUTHERN PENINSULA WEST COAST

Khlong Ton at Ban Ton , Satun (X.237)

Lat 06 - 51 - 20 N Long 100 - 09 - 13 E

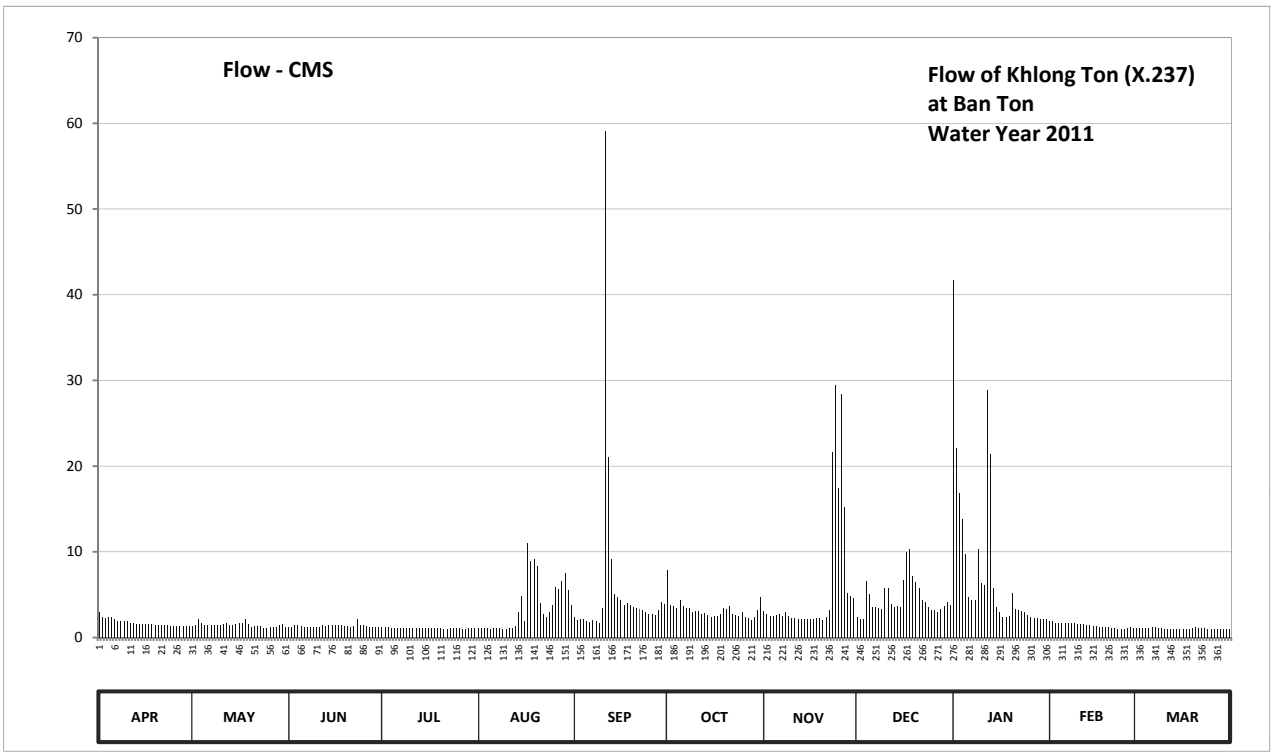
Location : on right bank at Ban Ton.

	Ban Ton	**Amphoe** Khuan Kalong	**Changwat** Satun
Drainge Area	89 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank at the abutment of the bridge.	**Elevation**	+50.316 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	2004 to date		
Rating Operation			
Period of Rating	2004 to date		
Rated by Flot	-		
Rated by Current Meter	2004 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 37 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	45.39	45.17	45.14	45.15	45.13	45.31	45.79	45.41	45.31	47.38	45.26	45.12	
2	45.32	45.19	45.15	45.14	45.13	45.27	45.47	45.37	45.29	46.58	45.25	45.13	
3	45.30	45.28	45.19	45.14	45.12	45.28	45.46	45.33	45.29	46.33	45.23	45.13	
4	45.31	45.23	45.20	45.13	45.12	45.29	45.44	45.33	45.70	46.18	45.23	45.13	
5	45.31	45.20	45.16	45.12	45.09	45.26	45.53	45.35	45.59	45.92	45.23	45.13	
6	45.28	45.20	45.15	45.12	45.13	45.24	45.46	45.37	45.45	45.56	45.23	45.14	
7	45.26	45.19	45.15	45.12	45.12	45.27	45.44	45.34	45.45	45.52	45.23	45.14	
8	45.25	45.19	45.15	45.12	45.12	45.25	45.44	45.40	45.44	45.53	45.22	45.13	
9	45.25	45.19	45.15	45.12	45.11	45.22	45.40	45.33	45.43	45.97	45.22	45.12	
10	45.25	45.19	45.15	45.12	45.11	45.44	45.41	45.30	45.64	45.68	45.21	45.11	
11	45.23	45.21	45.15	45.12	45.12	47.91	45.41	45.30	45.64	45.67	45.21	45.10	
12	45.22	45.23	45.19	45.12	45.12	46.53	45.37	45.29	45.48	46.89	45.21	45.09	
13	45.21	45.19	45.16	45.13	45.17	45.88	45.38	45.29	45.45	46.55	45.19	45.11	
14	45.21	45.20	45.20	45.13	45.39	45.59	45.35	45.28	45.46	45.64	45.19	45.10	
15	45.21	45.21	45.19	45.13	45.57	45.56	45.32	45.28	45.45	45.45	45.16	45.11	
16	45.21	45.23	45.18	45.13	45.25	45.52	45.33	45.28	45.71	45.39	45.16	45.10	
17	45.21	45.22	45.19	45.12	46.01	45.47	45.34	45.28	45.94	45.32	45.15	45.11	
18	45.21	45.28	45.18	45.12	45.87	45.49	45.36	45.30	45.97	45.32	45.15	45.11	
19	45.20	45.21	45.17	45.12	45.88	45.47	45.44	45.30	45.74	45.33	45.14	45.13	
20	45.19	45.14	45.16	45.12	45.82	45.45	45.43	45.27	45.69	45.60	45.14	45.14	
21	45.19	45.17	45.15	45.11	45.49	45.44	45.46	45.31	45.64	45.43	45.13	45.13	
22	45.18	45.16	45.17	45.11	45.37	45.43	45.37	45.42	45.52	45.42	45.12	45.12	
23	45.18	45.16	45.29	45.13	45.31	45.42	45.35	46.56	45.50	45.41	45.11	45.12	
24	45.17	45.13	45.20	45.13	45.40	45.40	45.34	46.91	45.45	45.40	45.10	45.11	
25	45.17	45.12	45.19	45.12	45.47	45.37	45.39	46.36	45.42	45.35	45.10	45.10	
26	45.17	45.15	45.16	45.12	45.65	45.36	45.31	46.87	45.42	45.32	45.12	45.11	
27	45.17	45.15	45.15	45.11	45.63	45.35	45.30	46.25	45.40	45.30	45.14	45.11	
28	45.17	45.15	45.14	45.11	45.70	45.42	45.27	45.60	45.43	45.30	45.13	45.10	
29	45.17	45.19	45.14	45.12	45.77	45.50	45.32	45.57	45.46	45.29	45.13	45.10	
30	45.17	45.21	45.15	45.12	45.62	45.48	45.42	45.55	45.50	45.28		45.10	
31		45.14		45.13	45.47		45.56		45.47	45.28		45.10	
Mean	45.23	45.19	45.17	45.12	45.40	45.53	45.41	45.56	45.53	45.70	45.18	45.12	
Max	45.39	45.28	45.29	45.15	46.01	47.91	45.79	46.91	45.97	47.38	45.26	45.14	47.91
Min	45.17	45.12	45.14	45.11	45.09	45.22	45.27	45.27	45.29	45.28	45.10	45.09	45.09

Annual Max Momentary Gage Height	48.90	m. (MSL.) ,	at 10.00 Hours , on Sep 11 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	44.88	m. (MSL)
Left Bank Elevation	50.24	m. (MSL.) ,			
Right Bank Elevation	50.24	m. (MSL.) ,	Drainage Area	89	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.92	1.35	1.20	1.25	1.15	2.33	7.86	3.11	2.33	41.64	1.95	1.10		
2	2.40	1.45	1.25	1.20	1.15	2.02	3.77	2.77	2.17	22.07	1.87	1.15		
3	2.25	2.10	1.45	1.20	1.10	2.10	3.66	2.48	2.17	16.80	1.72	1.15		
4	2.33	1.72	1.50	1.15	1.10	2.17	3.44	2.48	6.60	13.86	1.72	1.15		
5	2.33	1.50	1.30	1.10	0.95	1.95	4.43	2.62	5.09	9.68	1.72	1.15		
6	2.10	1.50	1.25	1.10	1.15	1.80	3.66	2.77	3.55	4.76	1.72	1.20		
7	1.95	1.45	1.25	1.10	1.10	2.02	3.44	2.55	3.55	4.32	1.72	1.20		
8	1.87	1.45	1.25	1.10	1.10	1.87	3.44	3.00	3.44	4.43	1.65	1.15		
9	1.87	1.45	1.25	1.10	1.05	1.65	3.00	2.48	3.33	10.38	1.65	1.10		
10	1.87	1.45	1.25	1.10	1.05	3.44	3.11	2.25	5.76	6.32	1.57	1.05		
11	1.72	1.57	1.25	1.10	1.10	59.13	3.11	2.25	5.76	6.18	1.57	1.00		
12	1.65	1.72	1.45	1.10	1.10	20.99	2.77	2.17	3.88	28.91	1.57	0.95		
13	1.57	1.45	1.30	1.15	1.35	9.12	2.85	2.17	3.55	21.43	1.45	1.05		
14	1.57	1.50	1.50	1.15	2.92	5.09	2.62	2.10	3.66	5.76	1.45	1.00		
15	1.57	1.57	1.45	1.15	4.87	4.76	2.40	2.10	3.55	3.55	1.30	1.05		
16	1.57	1.72	1.40	1.15	1.87	4.32	2.48	2.10	6.74	2.92	1.30	1.00		
17	1.57	1.65	1.45	1.10	10.97	3.77	2.55	2.10	9.96	2.40	1.25	1.05		
18	1.57	2.10	1.40	1.10	8.98	3.99	2.70	2.25	10.38	2.40	1.25	1.05		
19	1.50	1.57	1.35	1.10	9.12	3.77	3.44	2.25	7.16	2.48	1.20	1.15		
20	1.45	1.20	1.30	1.10	8.28	3.55	3.33	2.02	6.46	5.20	1.20	1.20		
21	1.45	1.35	1.25	1.05	3.99	3.44	3.66	2.33	5.76	3.33	1.15	1.15		
22	1.40	1.30	1.35	1.05	2.77	3.33	2.77	3.22	4.32	3.22	1.10	1.10		
23	1.40	1.30	2.17	1.15	2.33	3.22	2.62	21.64	4.10	3.11	1.05	1.10		
24	1.35	1.15	1.50	1.15	3.00	3.00	2.55	29.39	3.55	3.00	1.00	1.05		
25	1.35	1.10	1.45	1.10	3.77	2.77	2.92	17.40	3.22	2.62	1.00	1.00		
26	1.35	1.25	1.30	1.10	5.90	2.70	2.33	28.44	3.22	2.40	1.10	1.05		
27	1.35	1.25	1.25	1.05	5.62	2.62	2.25	15.20	3.00	2.25	1.20	1.05		
28	1.35	1.25	1.20	1.05	6.60	3.22	2.02	5.20	3.33	2.25	1.15	1.00		
29	1.35	1.45	1.20	1.10	7.58	4.10	2.40	4.87	3.66	2.17	1.15	1.00		
30	1.35	1.57	1.25	1.10	5.48	3.88	3.22	4.65	4.10	2.10		1.00		
31		1.20		1.15	3.77		4.76		3.77	2.10		1.00		
Total	51.33	45.64	40.72	34.65	112.27	172.12	99.56	180.36	141.12	244.04	40.73	33.40	1195.94	CMSDAY
Mean	1.71	1.47	1.36	1.12	3.62	5.74	3.21	6.01	4.55	7.87	1.40	1.08	3.27	CMS
Max	2.92	2.10	2.17	1.25	10.97	59.13	7.86	29.39	10.38	41.64	1.95	1.20	59.13	CMS
Min	1.35	1.10	1.20	1.05	0.95	1.65	2.02	2.02	2.17	2.10	1.00	0.95	0.95	CMS
Runoff	4.44	3.94	3.52	2.99	9.70	14.87	8.60	15.58	12.19	21.09	3.52	2.89	103.33	MCM

Momentary Peak 107.50 CMS. at 48.90 m. (MSL.) at 10.00 Hours , on Sep 11 , 2011

Runoff Yield 36.41 Liters/Second/Square KM. Momentary Peak Yield 1197.905 Liters/Second/Square KM.

WATER YEAR : 2011

SOUTHERN PENINSULA WEST COAST

Khlong Cheang at Ban Khlong Hak , Satun (X.238)

Lat 06 - 48 - 19 N Long 100 - 07 - 50 E

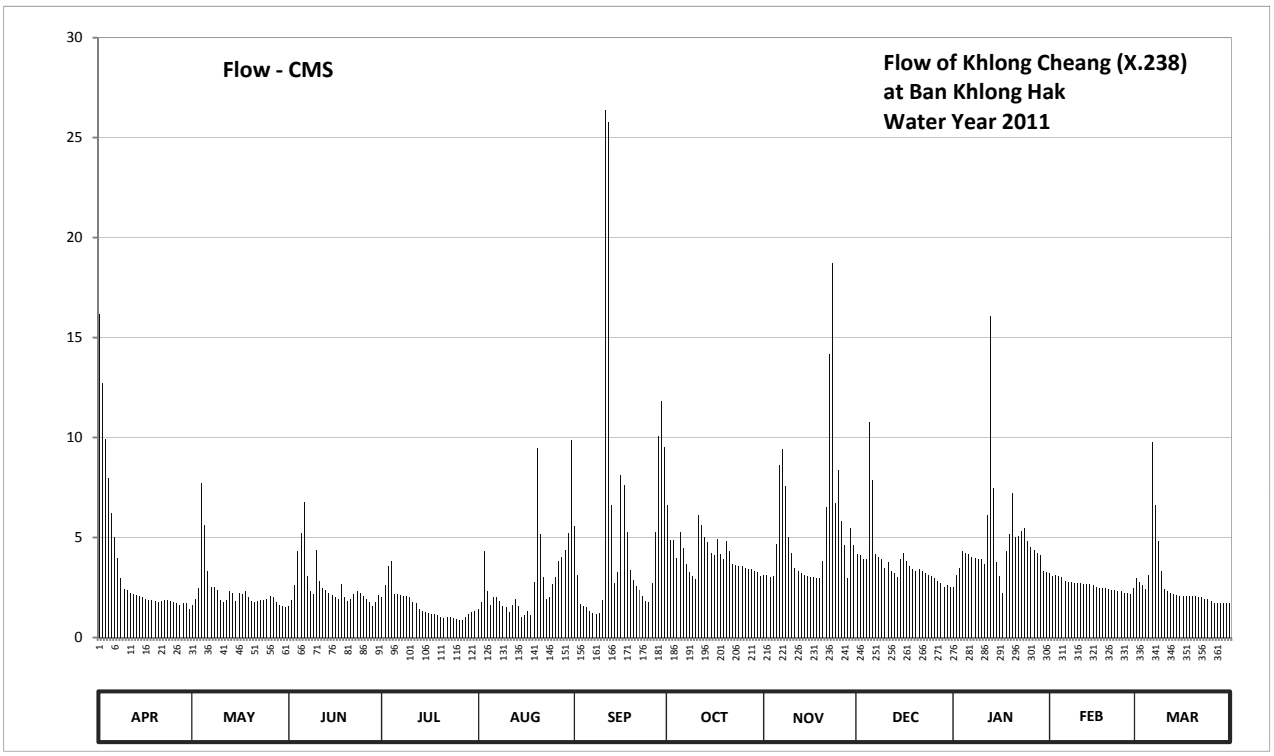
Location : on left bank at Ban Khlong Hak.

	Ban Khlong Hak	**Amphoe** Khuan Don	**Changwat** Satun
Drainge Area	77 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank at the abutment of the bridge.	**Elevation**	+37.552 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	2004 to date		
Rating Operation			
Period of Rating	2004 to date		
Rated by Flot	-		
Rated by Current Meter	2004 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 28 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	34.06	32.34	32.33	32.40	32.30	33.53	33.66	32.59	32.74	32.49	32.60	32.56	
2	33.75	32.39	32.38	32.50	32.36	33.10	33.44	32.59	32.73	32.59	32.58	32.53	
3	33.46	32.48	32.50	32.65	32.76	32.72	33.44	32.57	32.70	32.64	32.59	32.50	
4	33.22	33.19	32.76	32.69	32.45	32.69	33.29	32.58	32.70	32.76	32.58	32.47	
5	33.00	32.93	32.88	32.43	32.34	32.67	33.49	32.81	33.55	32.75	32.57	32.59	
6	32.85	32.62	33.07	32.43	32.40	32.61	33.38	33.30	33.21	32.74	32.54	33.44	
7	32.71	32.49	32.58	32.42	32.40	32.57	33.23	33.40	32.74	32.72	32.53	33.05	
8	32.56	32.49	32.45	32.41	32.37	32.55	33.14	33.17	32.72	32.71	32.53	32.83	
9	32.47	32.46	32.43	32.41	32.33	32.58	33.09	32.85	32.70	32.70	32.52	32.62	
10	32.46	32.38	32.77	32.40	32.32	32.79	33.05	32.75	32.64	32.70	32.52	32.47	
11	32.44	32.36	32.54	32.36	32.28	34.99	32.99	32.64	32.68	32.67	32.52	32.45	
12	32.43	32.38	32.48	32.35	32.34	34.96	32.93	32.62	32.62	32.99	32.51	32.44	
13	32.42	32.45	32.46	32.30	32.39	33.66	32.85	32.60	32.60	34.05	32.51	32.43	
14	32.41	32.44	32.44	32.29	32.33	33.01	32.82	32.59	32.57	33.16	32.51	32.42	
15	32.40	32.37	32.42	32.28	32.24	33.14	32.75	32.58	32.70	32.68	32.50	32.41	
16	32.39	32.44	32.40	32.27	32.25	33.82	32.73	32.57	32.75	32.58	32.49	32.41	
17	32.38	32.43	32.39	32.26	32.29	33.77	32.84	32.57	32.69	32.44	32.48	32.41	
18	32.38	32.45	32.51	32.26	32.25	33.49	32.74	32.56	32.65	32.76	32.48	32.41	
19	32.37	32.40	32.40	32.25	32.53	33.17	32.70	32.56	32.63	32.87	32.48	32.41	
20	32.36	32.37	32.37	32.24	33.41	33.04	32.83	32.69	32.62	33.13	32.47	32.41	
21	32.37	32.36	32.39	32.23	32.87	32.97	32.76	33.04	32.63	32.85	32.46	32.40	
22	32.38	32.37	32.43	32.24	32.57	32.92	32.67	33.89	32.62	32.86	32.46	32.40	
23	32.38	32.38	32.45	32.24	32.39	32.84	32.66	34.25	32.60	32.89	32.45	32.39	
24	32.37	32.38	32.44	32.23	32.40	32.78	32.65	33.67	32.59	32.91	32.45	32.39	
25	32.36	32.39	32.41	32.22	32.51	32.76	32.65	33.84	32.58	32.83	32.44	32.37	
26	32.35	32.41	32.39	32.21	32.57	33.01	32.64	33.56	32.56	32.79	32.44	32.35	
27	32.34	32.40	32.36	32.21	32.69	33.49	32.63	33.40	32.54	32.77	32.43	32.35	
28	32.35	32.36	32.33	32.24	32.72	33.99	32.63	33.07	32.52	32.75	32.48	32.35	
29	32.35	32.34	32.36	32.26	32.77	34.13	32.62	32.91	32.49	32.73	32.58	32.35	
30	32.30	32.33	32.42	32.28	32.88	33.94	32.61	32.80	32.50	32.62		32.35	
31		32.32		32.29	33.97		32.58		32.49	32.61		32.35	
Mean	32.60	32.45	32.48	32.33	32.54	33.26	32.92	32.97	32.68	32.80	32.51	32.49	
Max	34.06	33.19	33.07	32.69	33.97	34.99	33.66	34.25	33.55	34.05	32.60	33.44	34.99
Min	32.30	32.32	32.33	32.21	32.24	32.55	32.58	32.56	32.49	32.44	32.43	32.35	32.21

Annual Max Momentary Gage Height	35.92	m. (MSL.) ,	at 20.00 Hours , on Sep 11 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	31.64	m. (MSL)
Left Bank Elevation	37.81	m. (MSL.) ,			
Right Bank Elevation	37.77	m. (MSL.) ,	Drainage Area	77	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	16.18	1.64	1.58	2.00	1.40	5.57	6.64	3.14	4.18	2.54	3.20	2.96		
2	12.70	1.94	1.88	2.60	1.76	3.10	4.90	3.14	4.11	3.14	3.08	2.78		
3	9.94	2.48	2.60	3.55	4.32	1.66	4.90	3.02	3.90	3.48	3.14	2.60		
4	7.96	7.72	4.32	3.83	2.30	1.57	3.99	3.08	3.90	4.32	3.08	2.42		
5	6.20	5.64	5.24	2.18	1.64	1.51	5.28	4.68	10.75	4.25	3.02	3.14		
6	5.00	3.34	6.76	2.18	2.00	1.33	4.49	8.60	7.88	4.18	2.84	9.76		
7	3.97	2.54	3.08	2.12	2.00	1.23	3.66	9.40	4.18	4.04	2.78	6.60		
8	2.96	2.54	2.30	2.06	1.82	1.17	3.26	7.56	4.04	3.97	2.78	4.84		
9	2.42	2.36	2.18	2.06	1.58	1.25	3.06	5.00	3.90	3.90	2.72	3.34		
10	2.36	1.88	4.39	2.00	1.52	1.87	2.90	4.25	3.48	3.90	2.72	2.42		
11	2.24	1.76	2.84	1.76	1.28	26.39	6.12	3.48	3.76	3.69	2.72	2.30		
12	2.18	1.88	2.48	1.70	1.64	25.76	5.64	3.34	3.34	6.12	2.66	2.24		
13	2.12	2.30	2.36	1.40	1.94	6.64	5.00	3.20	3.20	16.05	2.66	2.18		
14	2.06	2.24	2.24	1.34	1.58	2.74	4.76	3.14	3.02	7.48	2.66	2.12		
15	2.00	1.82	2.12	1.28	1.04	3.26	4.25	3.08	3.90	3.76	2.60	2.06		
16	1.94	2.24	2.00	1.22	1.10	8.13	4.11	3.02	4.25	3.08	2.54	2.06		
17	1.88	2.18	1.94	1.16	1.34	7.63	4.92	3.02	3.83	2.24	2.48	2.06		
18	1.88	2.30	2.66	1.16	1.10	5.28	4.18	2.96	3.55	4.32	2.48	2.06		
19	1.82	2.00	2.00	1.10	2.78	3.38	3.90	2.96	3.41	5.16	2.48	2.06		
20	1.76	1.82	1.82	1.04	9.49	2.86	4.84	3.83	3.34	7.24	2.42	2.06		
21	1.82	1.76	1.94	0.98	5.16	2.58	4.32	6.52	3.41	5.00	2.36	2.00		
22	1.88	1.82	2.18	1.04	3.02	2.38	3.69	14.19	3.34	5.08	2.36	2.00		
23	1.88	1.88	2.30	1.04	1.94	2.06	3.62	18.70	3.20	5.32	2.30	1.94		
24	1.82	1.88	2.24	0.98	2.00	1.84	3.55	6.73	3.14	5.48	2.30	1.94		
25	1.76	1.94	2.06	0.92	2.66	1.78	3.55	8.36	3.08	4.84	2.24	1.82		
26	1.70	2.06	1.94	0.86	3.02	2.74	3.48	5.80	2.96	4.53	2.24	1.70		
27	1.64	2.00	1.76	0.86	3.83	5.28	3.41	4.60	2.84	4.39	2.18	1.70		
28	1.70	1.76	1.58	1.04	4.04	10.09	3.41	2.98	2.72	4.25	2.48	1.70		
29	1.70	1.64	1.76	1.16	4.39	11.83	3.34	5.48	2.54	4.11	3.08	1.70		
30	1.40	1.58	2.12	1.28	5.24	9.51	3.27	4.60	2.60	3.34		1.70		
31		1.52		1.34	9.86		3.08		2.54	3.27		1.70		
Total	106.87	72.46	76.67	49.24	88.79	162.42	129.52	161.86	118.29	146.47	76.60	81.96	1271.15	CMSDAY
Mean	3.56	2.34	2.56	1.59	2.86	5.41	4.18	5.40	3.82	4.72	2.64	2.64	3.47	CMS
Max	16.18	7.72	6.76	3.83	9.86	26.39	6.64	18.70	10.75	16.05	3.20	9.76	26.39	CMS
Min	1.40	1.52	1.58	0.86	1.04	1.17	2.90	2.96	2.54	2.24	2.18	1.70	0.86	CMS
Runoff	9.23	6.26	6.62	4.25	7.67	14.03	11.19	13.99	10.22	12.66	6.62	7.08	109.83	MCM

Momentary Peak 49.08 CMS. at 35.92 m. (MSL.) at 20.00 Hours , on Sep 11 , 2011

Runoff Yield 44.74 Liters/Second/Square KM. Momentary Peak Yield 632.230 Liters/Second/Square KM.

WATER YEAR : 2011

SOUTHERN PENINSULA WEST COAST

Khlong Duson at Ban Cha Lung Nua , Satun (X.239)

Lat 06 - 43 - 38 N Long 100 - 03 - 50 E

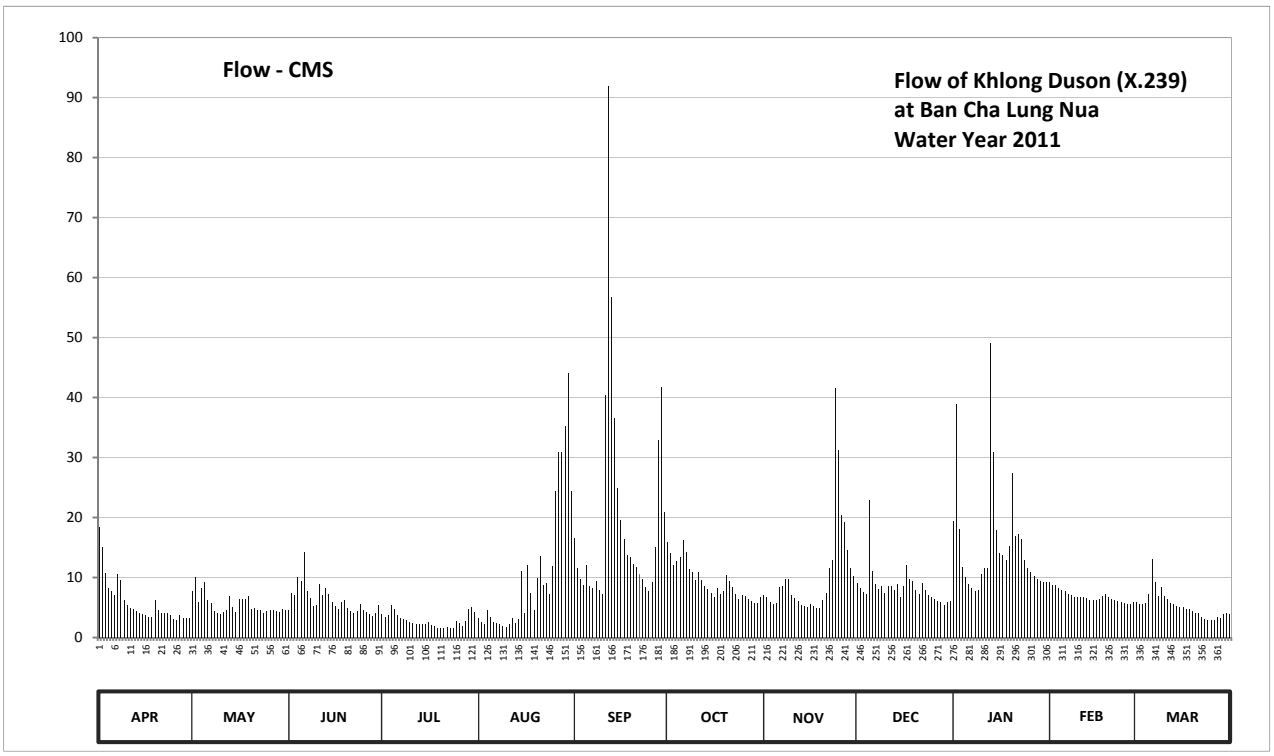
Location : on right bank at Ban Cha Lung Nua.

	Ban Cha Lung Nua	**Amphoe** Mueang	**Changwat** Satun
Drainge Area	267 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank near the top staff gage.		**Elevation** +17.044 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings		
Period of Available Gage Records	2004 to date		
Rating Operation			
Period of Rating	2004 to date		
Rated by Flot	-		
Rated by Current Meter	2004 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 38 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	14.50	13.88	13.69	13.64	13.60	14.40	14.36	13.84	13.96	14.56	13.97	13.77	
2	14.31	14.02	13.86	13.61	13.56	14.11	14.26	13.82	13.91	15.57	13.94	13.75	
3	14.06	13.77	13.84	13.63	13.54	14.00	14.14	13.77	13.87	14.49	13.94	13.75	
4	13.91	13.91	14.02	13.74	13.69	13.94	14.18	13.75	13.85	14.12	13.91	13.76	
5	13.88	13.97	13.98	13.70	13.61	14.14	14.22	13.76	14.76	14.02	13.89	13.85	
6	13.84	13.79	14.27	13.63	13.56	13.93	14.38	13.92	14.08	13.95	13.88	14.20	
7	14.05	13.76	13.88	13.60	13.55	13.91	14.27	13.93	13.95	13.91	13.85	13.97	
8	13.99	13.68	13.81	13.59	13.54	13.98	14.10	14.00	13.90	13.88	13.84	13.83	
9	13.79	13.66	13.73	13.58	13.52	13.89	14.07	14.00	13.93	13.89	13.82	13.92	
10	13.74	13.64	13.74	13.56	13.51	13.85	13.99	13.84	13.86	14.05	13.82	13.83	
11	13.71	13.67	13.95	13.55	13.54	15.64	14.07	13.81	13.93	14.11	13.82	13.80	
12	13.70	13.69	13.84	13.54	13.60	16.67	13.99	13.78	13.93	14.11	13.82	13.76	
13	13.68	13.83	13.91	13.54	13.55	16.22	13.93	13.74	13.89	16.01	13.81	13.75	
14	13.65	13.72	13.85	13.54	13.59	15.46	13.90	13.73	13.95	15.18	13.79	13.73	
15	13.64	13.67	13.77	13.54	14.08	14.87	13.86	13.72	13.82	14.47	13.79	13.72	
16	13.63	13.80	13.73	13.56	13.65	14.57	13.82	13.75	13.93	14.26	13.79	13.72	
17	13.61	13.80	13.70	13.53	14.14	14.39	13.91	13.73	14.14	14.24	13.80	13.70	
18	13.61	13.80	13.77	13.52	13.86	14.24	13.85	13.71	14.00	14.19	13.83	13.70	
19	13.79	13.83	13.79	13.50	13.69	14.22	13.88	13.71	13.98	14.32	13.85	13.68	
20	13.69	13.70	13.71	13.50	14.01	14.15	14.04	13.79	13.89	15.00	13.82	13.65	
21	13.65	13.71	13.68	13.50	14.23	14.12	13.98	13.86	13.85	14.42	13.80	13.66	
22	13.66	13.69	13.65	13.51	13.94	14.05	13.92	14.11	13.96	14.44	13.79	13.61	
23	13.66	13.69	13.68	13.50	13.96	14.00	13.85	14.19	13.89	14.39	13.78	13.59	
24	13.63	13.66	13.75	13.50	13.85	13.92	13.80	15.69	13.84	14.19	13.77	13.58	
25	13.59	13.68	13.69	13.57	14.13	13.88	13.84	15.20	13.82	14.11	13.76	13.58	
26	13.58	13.69	13.67	13.55	14.84	13.97	13.83	14.62	13.80	14.07	13.75	13.58	
27	13.63	13.69	13.64	13.52	15.18	14.31	13.80	14.55	13.78	14.03	13.75	13.61	
28	13.60	13.68	13.62	13.57	15.18	15.28	13.78	14.28	13.77	14.00	13.77	13.60	
29	13.60	13.67	13.66	13.70	15.40	15.70	13.76	14.11	13.74	13.98	13.83	13.64	
30	13.60	13.70	13.74	13.72	15.80	14.65	13.76	14.03	13.77	13.97		13.65	
31		13.69		13.67	14.84		13.82		13.78	13.97		13.64	
Mean	13.77	13.75	13.79	13.58	14.02	14.48	13.98	14.02	13.92	14.32	13.83	13.73	
Max	14.50	14.02	14.27	13.74	15.80	16.67	14.38	15.69	14.76	16.01	13.97	14.20	16.67
Min	13.58	13.64	13.62	13.50	13.51	13.85	13.76	13.71	13.74	13.88	13.75	13.58	13.50

Annual Max Momentary Gage Height	16.93	m. (MSL.) ,	at 24.00 Hours , on Sep 11, 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	13.03	m. (MSL)
Left Bank Elevation	17.02	m. (MSL.) ,			
Right Bank Elevation	17.01	m. (MSL.) ,	Drainage Area	267	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	18.35	7.72	4.64	3.84	3.20	16.60	15.90	7.06	9.04	19.40	9.21	5.92		
2	15.03	10.04	7.39	3.36	2.56	11.57	14.15	6.73	8.21	38.85	8.71	5.60		
3	10.72	5.92	7.06	3.68	2.24	9.70	12.08	5.92	7.55	18.17	8.71	5.60		
4	8.21	8.21	10.04	5.44	4.64	8.71	12.76	5.60	7.23	11.74	8.21	5.76		
5	7.72	9.21	9.37	4.80	3.36	12.08	13.45	5.76	22.98	10.04	7.89	7.23		
6	7.06	6.24	14.33	3.68	2.56	8.55	16.25	8.38	11.06	8.87	7.72	13.10		
7	10.55	5.76	7.72	3.20	2.40	8.21	14.33	8.55	8.87	8.21	7.23	9.21		
8	9.53	4.48	6.57	3.04	2.24	9.37	11.40	9.70	8.05	7.72	7.06	6.89		
9	6.24	4.16	5.28	2.88	1.92	7.89	10.89	9.70	8.55	7.89	6.73	8.38		
10	5.44	3.84	5.44	2.56	1.76	7.23	9.53	7.06	7.39	10.55	6.73	6.89		
11	4.96	4.32	8.87	2.40	2.24	40.40	10.89	6.57	8.55	11.57	6.73	6.40		
12	4.80	4.64	7.06	2.24	3.20	91.90	9.53	6.08	8.55	11.57	6.73	5.76		
13	4.48	6.89	8.21	2.24	2.40	56.78	8.55	5.44	7.89	49.14	6.57	5.60		
14	4.00	5.12	7.23	2.24	3.04	36.49	8.05	5.28	8.87	30.81	6.24	5.28		
15	3.84	4.32	5.92	2.24	11.06	24.96	7.39	5.12	6.73	17.83	6.24	5.12		
16	3.68	6.40	5.28	2.56	4.00	19.57	6.73	5.60	8.55	14.15	6.24	5.12		
17	3.36	6.40	4.80	2.08	12.08	16.43	8.21	5.28	12.08	13.80	6.40	4.80		
18	3.36	6.40	5.92	1.92	7.39	13.80	7.23	4.96	9.70	12.93	6.89	4.80		
19	6.24	6.89	6.24	1.60	4.64	13.45	7.72	4.96	9.37	15.20	7.23	4.48		
20	4.64	4.80	4.96	1.60	9.87	12.25	10.38	6.24	7.89	27.30	6.73	4.00		
21	4.00	4.96	4.48	1.60	13.62	11.74	9.37	7.39	7.23	16.95	6.40	4.16		
22	4.16	4.64	4.00	1.76	8.71	10.55	8.38	11.57	9.04	17.30	6.24	3.36		
23	4.16	4.64	4.48	1.60	9.04	9.70	7.23	12.93	7.89	16.43	6.08	3.04		
24	3.68	4.16	5.60	1.60	7.23	8.38	6.40	41.52	7.06	12.93	5.92	2.88		
25	3.04	4.48	4.64	2.72	11.91	7.72	7.06	31.20	6.73	11.57	5.76	2.88		
26	2.88	4.64	4.32	2.40	24.42	9.21	6.89	20.46	6.40	10.89	5.60	2.88		
27	3.68	4.64	3.84	1.92	30.81	15.03	6.40	19.22	6.08	10.21	5.60	3.36		
28	3.20	4.48	3.52	2.72	30.81	32.80	6.08	14.50	5.92	9.70	5.92	3.20		
29	3.20	4.32	4.16	4.80	35.20	41.75	5.76	11.57	5.44	9.37	6.89	3.84		
30	3.20	4.80	5.44	5.12	44.00	21.00	5.76	10.21	5.92	9.21		4.00		
31		4.64		4.32	24.42		6.73		6.08	9.21		3.84		
Total	177.41	172.16	186.81	88.16	326.97	593.82	291.48	310.56	260.90	479.51	198.61	163.38	3249.77	CMSDAY
Mean	5.91	5.55	6.23	2.84	10.55	19.79	9.40	10.35	8.42	15.47	6.85	5.27	8.88	CMS
Max	18.35	10.04	14.33	5.44	44.00	91.90	16.25	41.52	22.98	49.14	9.21	13.10	91.90	CMS
Min	2.88	3.84	3.52	1.60	1.76	7.23	5.76	4.96	5.44	7.72	5.60	2.88	1.60	CMS
Runoff	15.33	14.88	16.14	7.62	28.25	51.31	25.18	26.83	22.54	41.43	17.16	14.12	280.78	MCM

Momentary Peak 125.50 CMS. at 16.93 m. (MSL.) at 24.00 Hours , on Sep 11 , 2011

Runoff Yield 33.18 Liters/Second/Square KM. Momentary Peak Yield 468.984 Liters/Second/Square KM.

WATER YEAR : 2011

SOUTHERN PENINSULA WEST COAST

Khlong Phangnga at Ban Bang Tong , Phangnga (X.245)

Lat 08 - 30 - 49 N Long 98 - 30 - 15 E

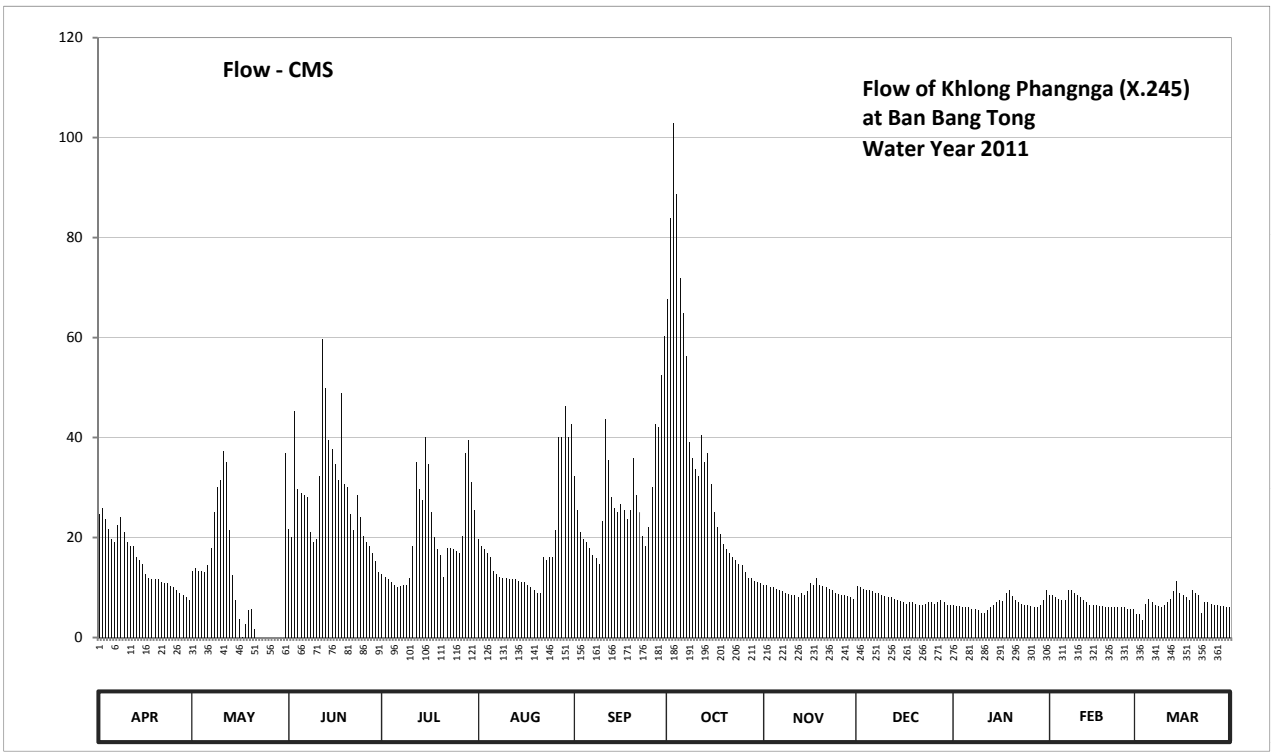
Location : on right bank at Ban Bang Tong.

	Ban Bang Tong	**Amphoe** Mueang	**Changwat** Phangnga
Drainge Area	242 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	Near the gage site.	**Elevation**	+18.532 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	2006 to date		
Rating Operation			
Period of Rating	2006 to date		
Rated by Flot	-		
Rated by Current Meter	2006 to date		
Stability of Channel Regimes	Rather unstable by some scouring.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 21 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	9.25	8.92	9.18	8.90	9.12	9.43	10.06	8.82	8.81	8.66	8.74	8.58	
2	9.28	8.94	9.13	8.88	9.08	9.27	10.28	8.82	8.80	8.65	8.74	8.58	
3	9.23	8.92	9.70	8.86	9.06	9.16	10.51	8.80	8.79	8.65	8.72	8.52	
4	9.18	8.92	9.37	8.84	9.04	9.12	10.34	8.80	8.78	8.64	8.71	8.67	
5	9.12	8.91	9.35	8.82	9.02	9.10	10.12	8.79	8.78	8.64	8.70	8.71	
6	9.10	8.96	9.34	8.80	8.92	9.07	10.02	8.78	8.77	8.64	8.70	8.68	
7	9.20	9.07	9.33	8.81	8.90	9.03	9.89	8.77	8.76	8.63	8.78	8.66	
8	9.24	9.26	9.16	8.82	8.88	9.01	9.58	8.76	8.76	8.63	8.78	8.65	
9	9.16	9.38	9.10	8.82	8.87	8.97	9.51	8.75	8.74	8.62	8.76	8.64	
10	9.10	9.41	9.12	8.87	8.87	9.22	9.46	8.74	8.73	8.60	8.74	8.66	
11	9.08	9.54	9.43	9.08	8.86	9.67	9.43	8.74	8.72	8.60	8.72	8.68	
12	9.08	9.49	9.94	9.49	8.86	9.50	9.61	8.72	8.72	8.62	8.70	8.71	
13	9.02	9.17	9.79	9.37	8.86	9.33	9.49	8.76	8.71	8.64	8.68	8.77	
14	9.00	8.89	9.59	9.32	8.85	9.28	9.53	8.74	8.70	8.66	8.66	8.85	
15	8.97	8.70	9.55	9.60	8.84	9.26	9.39	8.77	8.69	8.68	8.66	8.76	
16	8.90	8.53	9.48	9.48	8.84	9.30	9.26	8.83	8.68	8.70	8.66	8.74	
17	8.87	8.31	9.41	9.26	8.82	9.27	9.19	8.82	8.67	8.69	8.65	8.72	
18	8.86	8.48	9.77	9.13	8.80	9.23	9.15	8.87	8.68	8.76	8.65	8.70	
19	8.86	8.62	9.39	9.06	8.78	9.27	9.09	8.82	8.68	8.78	8.64	8.78	
20	8.86	8.63	9.38	9.03	8.76	9.51	9.06	8.81	8.67	8.73	8.64	8.76	
21	8.84	8.42	9.25	8.88	8.76	9.34	9.04	8.80	8.66	8.70	8.64	8.74	
22	8.83	8.26	9.17	9.07	9.02	9.26	9.02	8.79	8.66	8.68	8.64	8.60	
23	8.83	8.22	9.34	9.07	9.00	9.14	9.00	8.78	8.67	8.67	8.64	8.68	
24	8.81	8.14	9.24	9.06	9.02	9.08	8.97	8.76	8.68	8.66	8.64	8.68	
25	8.80	8.22	9.14	9.05	9.02	9.19	8.96	8.75	8.68	8.66	8.64	8.67	
26	8.78	8.23	9.10	9.04	9.17	9.38	8.91	8.74	8.67	8.65	8.63	8.66	
27	8.76	8.13	9.08	9.14	9.60	9.65	8.87	8.74	8.68	8.64	8.63	8.66	
28	8.74	8.07	9.04	9.53	9.60	9.64	8.87	8.73	8.70	8.64	8.63	8.65	
29	8.72	8.04	8.99	9.59	9.72	9.83	8.85	8.72	8.68	8.66	8.50	8.65	
30	8.70	8.09	8.91	9.40	9.60	9.95	8.84	8.71	8.66	8.70		8.64	
31		9.53		9.27	9.65		8.83		8.66	8.78		8.64	
Mean	8.97	8.72	9.33	9.11	9.04	9.32	9.39	8.77	8.71	8.67	8.68	8.68	
Max	9.28	9.54	9.94	9.60	9.72	9.95	10.51	8.87	8.81	8.78	8.78	8.85	10.51
Min	8.70	8.04	8.91	8.80	8.76	8.97	8.83	8.71	8.66	8.60	8.50	8.52	8.04

Annual Max Momentary Gage Height	10.64	m. (MSL.) ,	at 08.00 Hours , on Oct 3 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	7.19	m. (MSL)
Left Bank Elevation	18.38	m. (MSL.) ,			
Right Bank Elevation	18.38	m. (MSL.) ,	Drainage Area	242	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	24.63	13.30	21.80	12.75	19.70	32.35	67.70	10.55	10.28	6.50	8.50	4.62		
2	25.90	13.85	20.05	12.20	18.30	25.48	83.90	10.55	10.00	6.25	8.50	4.62		
3	23.77	13.30	45.25	11.65	17.60	21.10	102.85	10.00	9.75	6.25	8.00	3.48		
4	21.80	13.30	29.73	11.10	16.90	19.70	88.70	10.00	9.50	6.00	7.75	6.75		
5	19.70	13.02	28.88	10.55	16.20	19.00	71.90	9.75	9.50	6.00	7.50	7.75		
6	19.00	14.40	28.45	10.00	13.30	17.95	64.90	9.50	9.25	6.00	7.50	7.00		
7	22.50	17.95	28.03	10.28	12.75	16.55	56.35	9.25	9.00	5.75	9.50	6.50		
8	24.20	25.05	21.10	10.55	12.20	15.85	39.10	9.00	9.00	5.75	9.50	6.25		
9	21.10	30.15	19.00	10.55	11.92	14.68	35.95	8.75	8.50	5.50	9.00	6.00		
10	19.00	31.45	19.70	11.92	11.92	23.35	33.70	8.50	8.25	5.00	8.50	6.50		
11	18.30	37.30	32.35	18.30	11.65	43.67	32.35	8.50	8.00	5.00	8.00	7.00		
12	18.30	35.05	59.60	35.05	11.65	35.50	40.52	8.00	8.00	5.50	7.50	7.75		
13	16.20	21.45	49.97	29.73	11.65	28.03	35.05	9.00	7.75	6.00	7.00	9.25		
14	15.50	12.48	39.55	27.60	11.38	25.90	36.85	8.50	7.50	6.50	6.50	11.38		
15	14.68	7.50	37.75	40.00	11.10	25.05	30.58	9.25	7.25	7.00	6.50	9.00		
16	12.75	3.67	34.60	34.60	11.10	26.75	25.05	10.82	7.00	7.50	6.50	8.50		
17	11.92	0.12	31.45	25.05	10.55	25.48	22.15	10.55	6.75	7.25	6.25	8.00		
18	11.65	2.72	48.93	20.05	10.00	23.77	20.75	11.92	7.00	9.00	6.25	7.50		
19	11.65	5.50	30.58	17.60	9.50	25.48	18.65	10.55	7.00	9.50	6.00	9.50		
20	11.65	5.75	30.15	16.55	9.00	35.95	17.60	10.28	6.75	8.25	6.00	9.00		
21	11.10	1.58	24.63	12.20	9.00	28.45	16.90	10.00	6.50	7.50	6.00	8.50		
22	10.82	0.00	21.45	17.95	16.20	25.05	16.20	9.75	6.50	7.00	6.00	5.00		
23	10.82	0.00	28.45	17.95	15.50	20.40	15.50	9.50	6.75	6.75	6.00	7.00		
24	10.28	0.00	24.20	17.60	16.20	18.30	14.68	9.00	7.00	6.50	6.00	7.00		
25	10.00	0.00	20.40	17.25	16.20	22.15	14.40	8.75	7.00	6.50	6.00	6.75		
26	9.50	0.00	19.00	16.90	21.45	30.15	13.02	8.50	6.75	6.25	5.75	6.50		
27	9.00	0.00	18.30	20.40	40.00	42.62	11.92	8.50	7.00	6.00	5.75	6.50		
28	8.50	0.00	16.90	36.85	40.00	42.10	11.92	8.25	7.50	6.00	5.75	6.25		
29	8.00	0.00	15.22	39.55	46.30	52.45	11.38	8.00	7.00	6.50	3.10	6.25		
30	7.50	0.00	13.02	31.00	40.00	60.25	11.10	7.75	6.50	7.50		6.00		
31		36.85		25.48	42.62		10.82		6.50	9.50		6.00		
Total	459.72	355.74	858.49	629.21	561.84	843.51	1072.44	281.22	241.03	206.50	201.10	218.10	5928.90	CMSDAY
Mean	15.32	11.48	28.62	20.30	18.12	28.12	34.59	9.37	7.78	6.66	6.93	7.04	16.20	CMS
Max	25.90	37.30	59.60	40.00	46.30	60.25	102.85	11.92	10.28	9.50	9.50	11.38	102.85	CMS
Min	7.50	0.00	13.02	10.00	9.00	14.68	10.82	7.75	6.50	5.00	3.10	3.48	0.00	CMS
Runoff	39.72	30.74	74.17	54.36	48.54	72.88	92.66	24.30	20.83	17.84	17.38	18.84	512.26	MCM

Momentary Peak 114.40 CMS. at 10.64 m. (MSL.) at 08.00 Hours , on Oct 3 , 2011

Runoff Yield 66.84 Liters/Second/Square KM. Momentary Peak Yield 472.045 Liters/Second/Square KM.

WATER YEAR : 2011

SOUTHERN PENINSULA WEST COAST

Upper Khlong Tha Prae at Ban Karakat , Satun (X.261)

Lat 06 - 50 - 19 N Long 100 - 04 - 10 E

Location : on right bank at Ban Karakat.

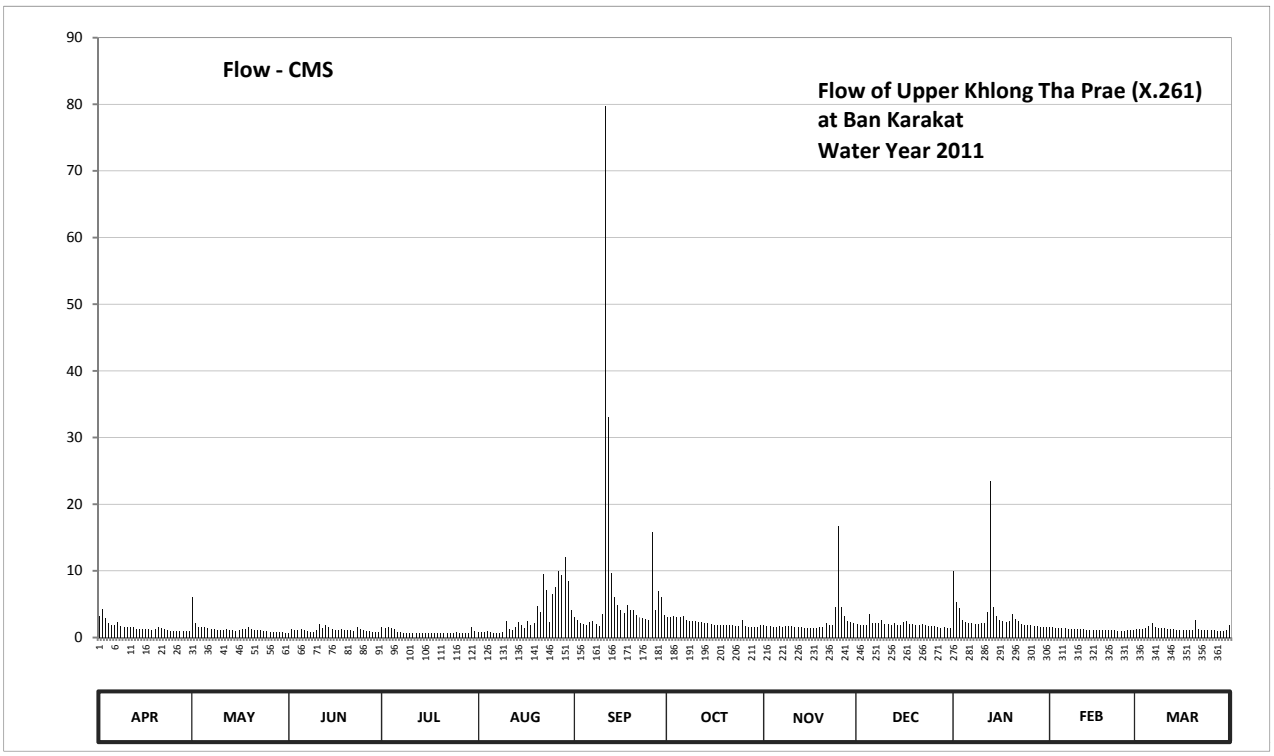
Ban Karakat **Amphoe** Khuan Kalong **Changwat** Satun

Drainge Area	99 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+0.000 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank near the top staff gage. **Elevation** +30.451 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic means of 24 readings
Period of Available Gage Records	2007 to date
Rating Operation	
Period of Rating	2007 to date
Rated by Flot	-
Rated by Current Meter	2007 to date
Stability of Channel Regimes	Fairly stable because of backwater effect.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Stage-discharge relation defined by 37 discharge measurements made in 2011.

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	27.40	27.83	26.81	27.02	26.84	27.38	27.38	27.11	27.12	28.33	27.01	26.94	
2	27.56	27.15	26.94	26.98	26.84	27.26	27.36	27.06	27.10	27.72	27.00	26.93	
3	27.35	27.00	26.92	27.00	26.83	27.18	27.40	27.04	27.08	27.59	26.99	26.95	
4	27.16	27.02	26.92	26.98	26.87	27.14	27.36	27.02	27.10	27.28	26.98	26.97	
5	27.10	27.02	26.94	26.94	26.83	27.11	27.38	27.02	27.45	27.20	26.97	27.04	
6	27.08	26.98	26.91	26.84	26.81	27.19	27.40	27.06	27.15	27.16	26.97	27.18	
7	27.21	26.96	26.88	26.82	26.80	27.25	27.28	27.03	27.15	27.16	26.96	27.03	
8	27.07	26.94	26.84	26.80	26.81	27.13	27.25	27.04	27.16	27.14	26.95	26.97	
9	27.03	26.92	26.82	26.80	26.84	27.05	27.24	27.04	27.27	27.13	26.95	26.99	
10	27.01	26.92	26.90	26.80	27.23	27.45	27.22	27.04	27.14	27.16	26.94	26.97	
11	27.00	26.91	27.12	26.78	26.94	31.04	27.20	27.02	27.13	27.18	26.94	26.96	
12	27.00	26.96	26.99	26.78	26.89	29.75	27.20	27.00	27.09	27.50	26.93	26.94	
13	26.96	26.90	27.08	26.79	27.03	28.29	27.18	27.00	27.15	29.32	26.92	26.93	
14	26.94	26.90	27.03	26.78	27.19	27.85	27.16	26.98	27.11	27.60	26.92	26.92	
15	26.94	26.88	26.93	26.78	27.11	27.65	27.12	26.98	27.08	27.40	26.91	26.91	
16	26.94	26.90	26.92	26.80	26.98	27.54	27.10	26.98	27.19	27.27	26.90	26.91	
17	26.94	26.94	26.91	26.80	27.22	27.48	27.09	26.98	27.25	27.22	26.90	26.90	
18	26.92	26.94	26.94	26.78	27.11	27.66	27.09	26.98	27.14	27.21	26.92	26.91	
19	26.94	27.02	26.92	26.78	27.17	27.54	27.08	27.01	27.14	27.23	26.92	26.91	
20	27.00	26.94	26.90	26.78	27.64	27.55	27.11	27.00	27.09	27.44	26.90	27.26	
21	26.97	26.91	26.90	26.78	27.50	27.42	27.10	27.15	27.08	27.29	26.90	26.95	
22	26.93	26.90	26.87	26.78	28.27	27.36	27.09	27.08	27.12	27.22	26.89	26.92	
23	26.90	26.90	27.03	26.78	27.98	27.32	27.07	27.10	27.08	27.14	26.88	26.91	
24	26.88	26.86	26.94	26.80	27.21	27.30	27.06	27.62	27.07	27.11	26.88	26.90	
25	26.88	26.86	26.90	26.83	27.90	27.26	27.27	28.92	27.06	27.09	26.88	26.89	
26	26.88	26.84	26.88	26.81	28.05	28.86	27.06	27.61	27.06	27.08	26.89	26.89	
27	26.86	26.84	26.88	26.80	28.33	27.53	27.02	27.41	27.02	27.06	26.90	26.87	
28	26.86	26.84	26.84	26.80	28.26	27.97	27.00	27.23	26.99	27.04	26.91	26.86	
29	26.86	26.84	26.84	26.80	28.55	27.84	27.02	27.19	27.01	27.03	26.93	26.86	
30	26.86	26.82	26.84	27.02	28.14	27.43	27.02	27.15	26.99	27.03		26.91	
31		26.81		26.87	27.53		27.10		26.98	27.02		27.08	
Mean	27.01	26.95	26.92	26.84	27.35	27.69	27.17	27.16	27.11	27.33	26.93	26.95	
Max	27.56	27.83	27.12	27.02	28.55	31.04	27.40	28.92	27.45	29.32	27.01	27.26	31.04
Min	26.86	26.81	26.81	26.78	26.80	27.05	27.00	26.98	26.98	27.02	26.88	26.86	26.78

Annual Max Momentary Gage Height	31.85	m. (MSL.) ,	at 16.00 Hours , on Sep 11 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	26.58	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, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.20	6.01	0.74	1.58	0.86	3.11	3.11	1.94	1.98	10.00	1.54	1.26		
2	4.24	2.10	1.26	1.42	0.86	2.57	3.02	1.74	1.90	5.28	1.50	1.22		
3	2.98	1.50	1.18	1.50	0.82	2.22	3.20	1.66	1.82	4.43	1.46	1.30		
4	2.14	1.58	1.18	1.42	0.98	2.06	3.02	1.58	1.90	2.66	1.42	1.38		
5	1.90	1.58	1.26	1.26	0.82	1.94	3.11	1.58	3.53	2.30	1.38	1.66		
6	1.82	1.42	1.14	0.86	0.74	2.26	3.20	1.74	2.10	2.14	1.38	2.22		
7	2.34	1.34	1.02	0.78	0.70	2.52	2.66	1.62	2.10	2.14	1.34	1.62		
8	1.78	1.26	0.86	0.70	0.74	2.02	2.52	1.66	2.14	2.06	1.30	1.38		
9	1.62	1.18	0.78	0.70	0.86	1.70	2.48	1.66	2.62	2.02	1.30	1.46		
10	1.54	1.18	1.10	0.70	2.43	3.53	2.39	1.66	2.06	2.14	1.26	1.38		
11	1.50	1.14	1.98	0.63	1.26	79.80	2.30	1.58	2.02	2.22	1.26	1.34		
12	1.50	1.34	1.46	0.63	1.06	33.00	2.30	1.50	1.86	3.85	1.22	1.26		
13	1.34	1.10	1.82	0.67	1.62	9.67	2.22	1.50	2.10	23.48	1.18	1.22		
14	1.26	1.10	1.62	0.63	2.26	6.15	2.14	1.42	1.94	4.50	1.18	1.18		
15	1.26	1.02	1.22	0.63	1.94	4.82	1.98	1.42	1.82	3.20	1.14	1.14		
16	1.26	1.10	1.18	0.70	1.42	4.11	1.90	1.42	2.26	2.62	1.10	1.14		
17	1.26	1.26	1.14	0.70	2.39	3.72	1.86	1.42	2.52	2.39	1.10	1.10		
18	1.18	1.26	1.26	0.63	1.94	4.89	1.86	1.42	2.06	2.34	1.18	1.14		
19	1.26	1.58	1.18	0.63	2.18	4.11	1.82	1.54	2.06	2.43	1.18	1.14		
20	1.50	1.26	1.10	0.63	4.76	4.17	1.94	1.50	1.86	3.46	1.10	2.57		
21	1.38	1.14	1.10	0.63	3.85	3.33	1.90	2.10	1.82	2.71	1.10	1.30		
22	1.22	1.10	0.98	0.63	9.50	3.02	1.86	1.82	1.98	2.39	1.06	1.18		
23	1.10	1.10	1.62	0.63	7.06	2.84	1.78	1.90	1.82	2.06	1.02	1.14		
24	1.02	0.94	1.26	0.70	2.34	2.75	1.74	4.63	1.78	1.94	1.02	1.10		
25	1.02	0.94	1.10	0.82	6.50	2.57	2.62	16.68	1.74	1.86	1.02	1.06		
26	1.02	0.86	1.02	0.74	7.62	15.84	1.74	4.57	1.74	1.82	1.06	1.06		
27	0.94	0.86	1.02	0.70	10.00	4.05	1.58	3.27	1.58	1.74	1.10	0.98		
28	0.94	0.86	0.86	0.70	9.41	6.99	1.50	2.43	1.46	1.66	1.14	0.94		
29	0.94	0.86	0.86	0.70	12.10	6.08	1.58	2.26	1.54	1.62	1.22	0.94		
30	0.94	0.78	0.86	1.58	8.39	3.40	1.58	2.10	1.46	1.62		1.14		
31		0.74		0.98	4.05		1.90		1.42	1.58		1.82		
Total	47.40	41.49	35.16	26.21	111.46	229.24	68.81	73.32	60.99	106.66	35.26	40.77	876.77	CMSDAY
Mean	1.58	1.34	1.17	0.85	3.60	7.64	2.22	2.44	1.97	3.44	1.22	1.32	2.40	CMS
Max	4.24	6.01	1.98	1.58	12.10	79.80	3.20	16.68	3.53	23.48	1.54	2.57	79.80	CMS
Min	0.94	0.74	0.74	0.63	0.70	1.70	1.50	1.42	1.42	1.58	1.02	0.94	0.63	CMS
Runoff	4.10	3.59	3.04	2.27	9.63	19.81	5.95	6.34	5.27	9.22	3.05	3.52	75.75	MCM

Momentary Peak 124.00 CMS. at 31.85 m. (MSL.) at 16.00 Hours , on Sep 11 , 2011

Runoff Yield 24.20 Liters/Second/Square KM. Momentary Peak Yield 1252.525 Liters/Second/Square KM.

WATER YEAR : 2011

SOUTHERN PENINSULA WEST COAST

Khlong Tha Prae at Ban Na Kaeo , Satun (X.262)

Lat 06 - 49 - 15 N Long 99 - 59 - 45 E

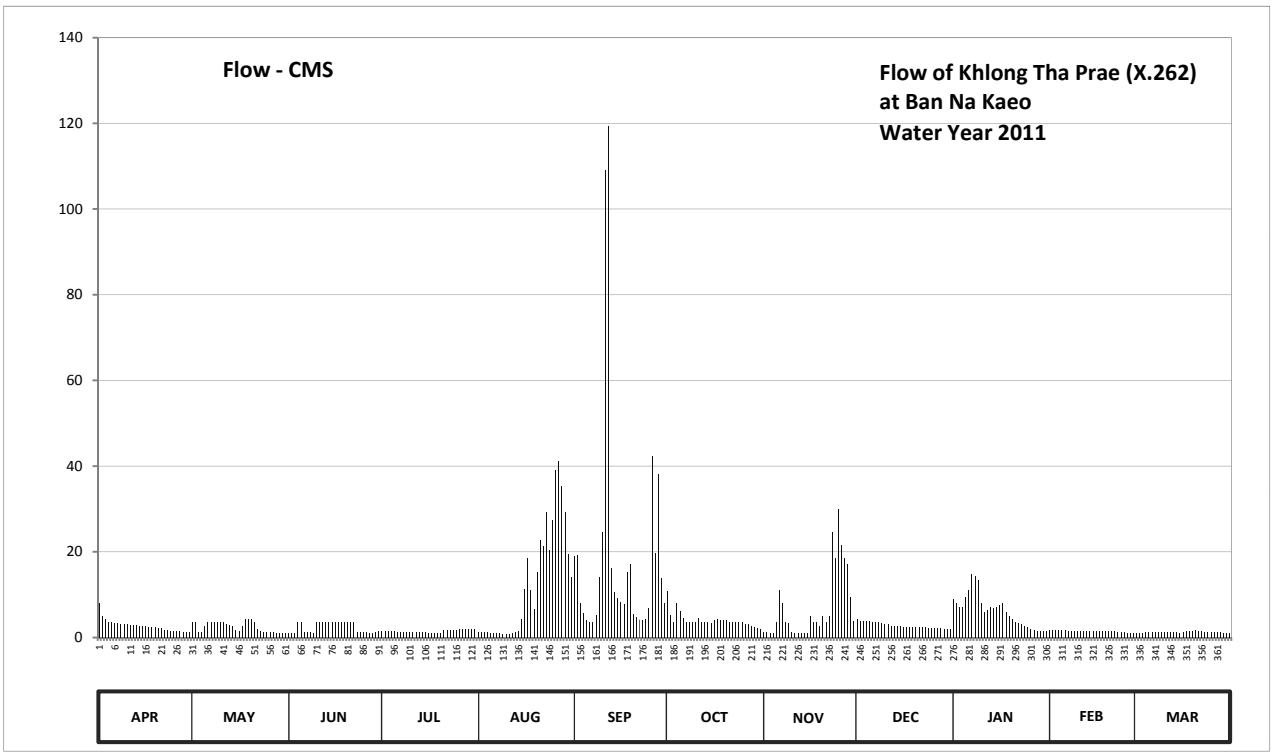
Location : on left bank at Ban Na Kaeo.

	Ban Na Kaeo	**Amphoe** Khuan Kalong	**Changwat** Satun
Drainge Area	208 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the top staff gage.		**Elevation** +14.092 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	2007 to date		
Rating Operation			
Period of Rating	2007 to date		
Rated by Flot	-		
Rated by Current Meter	2007 to date		
Stability of Channel Regimes	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 52 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	7.50	7.00	6.60	6.70	6.65	8.44	7.78	6.65	7.10	7.60	6.74	6.60	
2	7.20	7.00	6.60	6.70	6.65	8.45	7.22	6.65	7.05	7.50	6.74	6.60	
3	7.10	6.65	6.60	6.70	6.65	7.51	7.01	6.60	7.05	7.40	6.74	6.62	
4	7.00	6.65	7.00	6.70	6.65	7.28	7.51	6.60	7.05	7.40	6.73	6.64	
5	7.00	6.88	7.00	6.70	6.60	7.09	7.31	7.00	7.05	7.65	6.73	6.66	
6	6.98	7.00	6.65	6.65	6.60	7.00	7.15	7.80	7.00	7.80	6.73	6.66	
7	6.97	7.00	6.64	6.65	6.60	7.00	7.00	7.50	7.00	8.10	6.72	6.65	
8	6.96	7.00	6.64	6.65	6.60	7.22	7.00	7.00	7.00	8.06	6.72	6.65	
9	6.95	7.00	6.60	6.65	6.58	8.04	7.00	6.98	6.98	8.00	6.72	6.64	
10	6.94	7.00	7.00	6.65	6.58	8.80	7.00	6.64	6.95	7.50	6.71	6.64	
11	6.93	7.00	7.00	6.65	6.56	12.22	7.13	6.60	6.95	7.30	6.71	6.67	
12	6.92	6.95	7.00	6.65	6.60	12.51	7.00	6.60	6.90	7.35	6.71	6.66	
13	6.91	6.92	7.00	6.65	6.65	8.22	7.00	6.60	6.90	7.40	6.70	6.65	
14	6.90	6.89	7.00	6.65	6.70	7.76	7.00	6.60	6.88	7.38	6.70	6.64	
15	6.89	6.75	7.00	6.65	7.12	7.61	6.97	6.60	6.88	7.40	6.70	6.63	
16	6.88	6.70	7.00	6.60	7.82	7.52	7.08	7.20	6.87	7.45	6.69	6.65	
17	6.87	6.90	7.00	6.60	8.40	7.49	7.10	7.00	6.87	7.50	6.69	6.69	
18	6.86	7.10	7.00	6.60	7.81	8.14	7.07	7.00	6.87	7.30	6.69	6.72	
19	6.85	7.10	7.00	6.60	7.37	8.30	7.07	6.90	6.86	7.20	6.69	6.72	
20	6.84	7.10	7.00	6.60	8.14	7.25	7.07	7.20	6.86	7.10	6.68	6.73	
21	6.82	7.00	7.00	6.75	8.67	7.17	7.00	7.00	6.85	7.00	6.68	6.70	
22	6.76	6.80	7.00	6.75	8.59	7.09	7.00	7.20	6.85	6.98	6.68	6.68	
23	6.74	6.68	6.65	6.75	9.02	7.09	7.00	8.80	6.85	6.94	6.66	6.66	
24	6.72	6.67	6.65	6.75	8.53	7.11	7.00	8.40	6.84	6.90	6.65	6.65	
25	6.70	6.66	6.65	6.75	8.93	7.39	7.00	9.08	6.84	6.85	6.64	6.65	
26	6.69	6.65	6.65	6.80	9.60	9.76	6.96	8.60	6.83	6.80	6.63	6.64	
27	6.68	6.64	6.60	6.80	9.71	8.47	6.94	8.40	6.83	6.76	6.62	6.64	
28	6.67	6.63	6.60	6.80	9.42	9.55	6.90	8.30	6.82	6.72	6.61	6.64	
29	6.66	6.62	6.65	6.80	9.03	8.03	6.86	7.65	6.81	6.70	6.60	6.63	
30	6.65	6.61	6.69	6.80	8.46	7.50	6.83	7.05	6.80	6.70		6.63	
31		6.59		6.80	8.05		6.80		6.80	6.69		6.63	
Mean	6.88	6.84	6.82	6.70	7.66	8.10	7.06	7.27	6.91	7.27	6.69	6.65	
Max	7.50	7.10	7.00	6.80	9.71	12.51	7.78	9.08	7.10	8.10	6.74	6.73	12.51
Min	6.65	6.59	6.60	6.60	6.56	7.00	6.80	6.60	6.80	6.69	6.60	6.60	6.56

Annual Max Momentary Gage Height	13.69	m. (MSL.) ,	at 03.00 Hours , on Sep 12 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	6.18	m. (MSL)
Left Bank Elevation	13.99	m. (MSL.) ,			
Right Bank Elevation	13.97	m. (MSL.) ,	Drainage Area	208	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	8.00	3.50	1.00	1.50	1.25	19.12	10.80	1.25	4.25	9.00	1.70	1.00		
2	5.00	3.50	1.00	1.50	1.25	19.27	5.20	1.25	3.88	8.00	1.70	1.00		
3	4.25	1.25	1.00	1.50	1.25	8.10	3.58	1.00	3.88	7.00	1.70	1.10		
4	3.50	1.25	3.50	1.50	1.25	5.80	8.10	1.00	3.88	7.00	1.65	1.20		
5	3.50	2.60	3.50	1.50	1.00	4.18	6.10	3.50	3.88	9.50	1.65	1.30		
6	3.35	3.50	1.25	1.25	1.00	3.50	4.63	11.00	3.50	11.00	1.65	1.30		
7	3.27	3.50	1.20	1.25	1.00	3.50	3.50	8.00	3.50	14.75	1.60	1.25		
8	3.20	3.50	1.20	1.25	1.00	5.20	3.50	3.50	3.50	14.25	1.60	1.25		
9	3.12	3.50	1.00	1.25	0.90	14.00	3.50	3.35	3.35	13.50	1.60	1.20		
10	3.05	3.50	3.50	1.25	0.90	24.70	3.50	1.20	3.12	8.00	1.55	1.20		
11	2.97	3.50	3.50	1.25	0.80	109.20	4.48	1.00	3.12	6.00	1.55	1.35		
12	2.90	3.12	3.50	1.25	1.00	119.35	3.50	1.00	2.75	6.50	1.55	1.30		
13	2.82	2.90	3.50	1.25	1.25	16.25	3.50	1.00	2.75	7.00	1.50	1.25		
14	2.75	2.67	3.50	1.25	1.50	10.60	3.50	1.00	2.60	6.80	1.50	1.20		
15	2.67	1.75	3.50	1.25	4.40	9.10	3.27	1.00	2.60	7.00	1.50	1.15		
16	2.60	1.50	3.50	1.00	11.25	8.20	4.10	5.00	2.52	7.50	1.45	1.25		
17	2.52	2.75	3.50	1.00	18.50	7.90	4.25	3.50	2.52	8.00	1.45	1.45		
18	2.45	4.25	3.50	1.00	11.12	15.25	4.03	3.50	2.52	6.00	1.45	1.60		
19	2.37	4.25	3.50	1.00	6.70	17.25	4.03	2.75	2.45	5.00	1.45	1.60		
20	2.30	4.25	3.50	1.00	15.25	5.50	4.03	5.00	2.45	4.25	1.40	1.65		
21	2.15	3.50	3.50	1.75	22.68	4.78	3.50	3.50	2.37	3.50	1.40	1.50		
22	1.80	2.00	3.50	1.75	21.44	4.18	3.50	5.00	2.37	3.35	1.40	1.40		
23	1.70	1.40	1.25	1.75	29.25	4.18	3.50	24.70	2.37	3.05	1.30	1.30		
24	1.60	1.35	1.25	1.75	20.51	4.33	3.50	18.50	2.30	2.75	1.25	1.25		
25	1.50	1.30	1.25	1.75	27.50	6.90	3.50	30.00	2.30	2.37	1.20	1.25		
26	1.45	1.25	1.25	2.00	39.00	42.20	3.20	21.60	2.22	2.00	1.15	1.20		
27	1.40	1.20	1.00	2.00	41.20	19.59	3.05	18.50	2.22	1.80	1.10	1.20		
28	1.35	1.15	1.00	2.00	35.40	38.00	2.75	17.25	2.15	1.60	1.05	1.20		
29	1.30	1.10	1.25	2.00	29.37	13.87	2.45	9.50	2.07	1.50	1.00	1.15		
30	1.25	1.05	1.45	2.00	19.43	8.00	2.22	3.88	2.00	1.50		1.15		
31		0.95		2.00	14.13		2.00		2.00	1.45		1.15		
Total	82.09	76.79	69.85	45.75	382.48	572.00	124.27	212.23	87.39	190.92	42.05	39.35	1925.17	CMSDAY
Mean	2.74	2.48	2.33	1.48	12.34	19.07	4.01	7.07	2.82	6.16	1.45	1.27	5.26	CMS
Max	8.00	4.25	3.50	2.00	41.20	119.35	10.80	30.00	4.25	14.75	1.70	1.65	119.35	CMS
Min	1.25	0.95	1.00	1.00	0.80	3.50	2.00	1.00	2.00	1.45	1.00	1.00	0.80	CMS
Runoff	7.09	6.64	6.04	3.95	33.05	49.42	10.74	18.34	7.55	16.50	3.63	3.40	166.34	MCM

Momentary Peak 162.60 CMS. at 13.69 m. (MSL.) at 03.00 Hours , on Sep 12 , 2011

Runoff Yield 25.29 Liters/Second/Square KM. Momentary Peak Yield 781.731 Liters/Second/Square KM.

WATER YEAR : 2011

SOUTHERN PENINSULA WEST COAST

Lower Khlong Tha Prae at Ban Ta Lam , Satun (X.264)

Lat 06 - 47 - 46 N Long 99 - 57 - 17 E

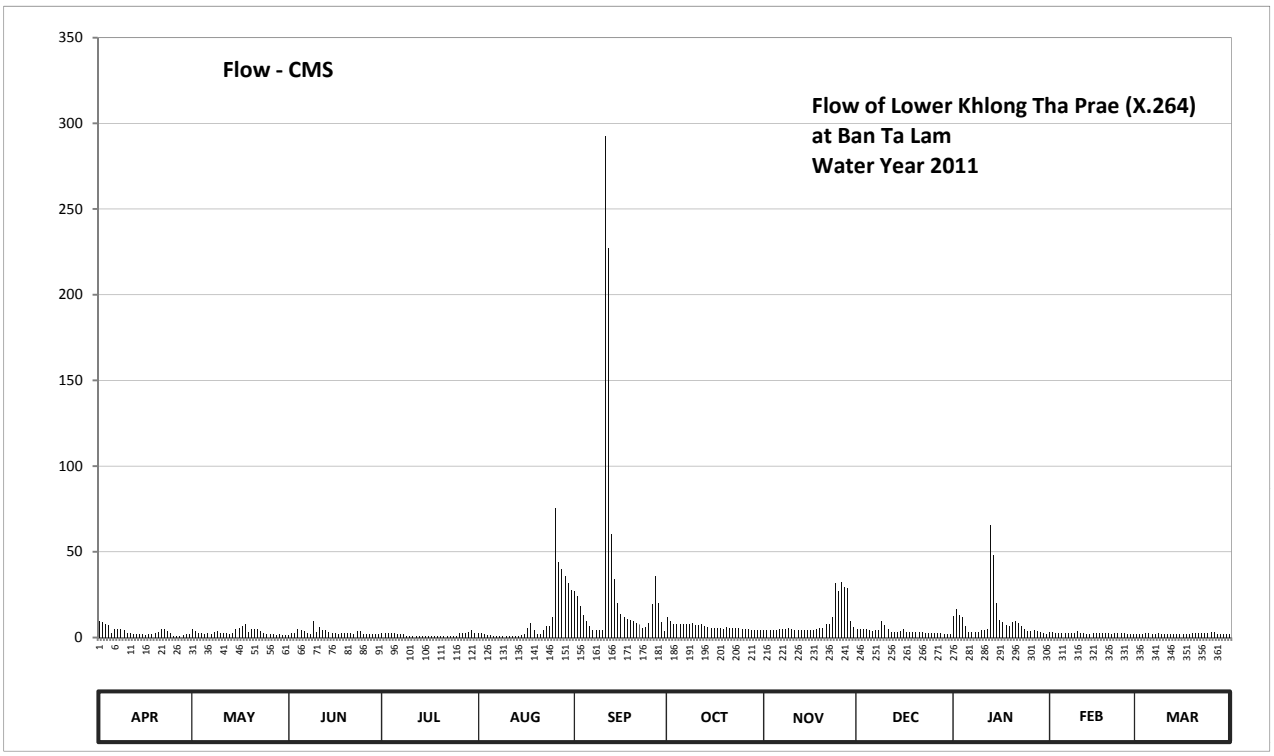
Location : on right bank at Ban Ta Lam.

	Ban Ta Lam	**Amphoe** Tha Pae	**Changwat** Satun
Drainge Area	223 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank near the top staff gage.	**Elevation**	+6.425 m. (MSL.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic means of 5 readings		
Period of Available Gage Records	2007 to date		
Rating Operation			
Period of Rating	2007 to date		
Rated by Flot	-		
Rated by Current Meter	2007 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 52 discharge measurements made in 2011.		

Gage Height in Meter (MSL.) Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	1.79	1.40	0.83	1.09	1.12	2.80	2.01	1.32	1.40	2.03	1.15	1.02	
2	1.77	1.22	1.10	1.09	1.10	2.66	1.80	1.34	1.40	2.28	1.14	1.00	
3	1.68	1.10	1.04	1.08	0.96	2.39	1.66	1.33	1.39	2.08	1.10	1.00	
4	1.63	1.08	1.36	1.08	0.90	2.08	1.67	1.30	1.38	1.97	1.09	1.04	
5	1.11	1.00	1.30	1.12	0.85	1.83	1.68	1.30	1.30	1.56	1.06	1.04	
6	1.37	1.04	1.25	1.00	0.80	1.54	1.66	1.36	1.26	1.20	1.06	1.02	
7	1.36	1.00	1.10	1.00	0.79	1.30	1.65	1.39	1.28	1.19	1.04	1.02	
8	1.40	1.18	0.96	0.98	0.78	1.30	1.69	1.40	1.28	1.18	1.04	1.04	
9	1.28	1.21	1.80	0.80	0.76	1.30	1.70	1.47	1.79	1.16	1.07	1.02	
10	1.10	1.10	1.20	0.80	0.76	1.30	1.64	1.36	1.60	1.28	1.22	1.00	
11	1.08	1.10	1.50	0.80	0.81	4.97	1.60	1.34	1.42	1.28	1.09	1.02	
12	1.00	1.08	1.30	0.80	0.80	4.69	1.65	1.32	1.20	1.40	1.04	1.02	
13	0.99	1.00	1.30	0.80	0.79	3.67	1.54	1.32	1.20	3.74	1.02	1.02	
14	0.96	1.04	1.16	0.80	0.78	3.05	1.50	1.30	1.18	3.46	1.02	1.02	
15	0.95	1.36	1.10	0.80	0.86	2.48	1.47	1.30	1.26	2.47	1.04	1.00	
16	0.90	1.43	1.09	0.80	1.00	2.10	1.46	1.30	1.37	1.87	1.04	1.02	
17	1.02	1.58	1.00	0.80	1.45	1.98	1.46	1.28	1.20	1.76	1.08	1.02	
18	1.00	1.66	1.06	0.80	1.73	1.90	1.43	1.38	1.19	1.61	1.08	1.02	
19	1.07	1.20	1.08	0.79	1.33	1.88	1.42	1.48	1.20	1.59	1.04	1.04	
20	1.20	1.40	1.08	0.80	1.00	1.80	1.50	1.46	1.20	1.77	1.04	1.04	
21	1.40	1.42	1.07	0.76	0.98	1.74	1.47	1.66	1.18	1.83	1.03	1.07	
22	1.40	1.38	1.00	0.80	1.31	1.65	1.46	1.69	1.16	1.72	1.08	1.06	
23	1.22	1.26	1.26	0.80	1.59	1.46	1.44	2.00	1.12	1.59	1.07	1.04	
24	1.06	1.09	1.21	0.80	1.56	1.50	1.44	2.96	1.10	1.42	1.06	1.04	
25	0.82	1.00	1.00	0.75	1.98	1.73	1.35	2.79	1.10	1.24	1.04	1.20	
26	0.82	1.00	1.00	1.09	3.84	2.45	1.36	2.98	1.08	1.24	1.03	1.18	
27	0.80	0.96	1.00	1.10	3.36	3.10	1.36	2.87	1.06	1.28	1.02	1.02	
28	0.90	0.93	0.97	1.10	3.23	2.48	1.34	2.85	1.04	1.23	1.01	1.00	
29	0.95	1.00	0.96	1.17	3.10	1.75	1.32	1.84	0.99	1.14	1.00	1.00	
30	1.00	0.94	0.95	1.30	2.97	1.27	1.31	1.49	0.97	1.05		1.00	
31		0.88		1.08	2.82		1.30		0.97	1.03		1.00	
Mean	1.17	1.16	1.13	0.93	1.49	2.21	1.53	1.67	1.23	1.67	1.06	1.03	
Max	1.79	1.66	1.80	1.30	3.84	4.97	2.01	2.98	1.79	3.74	1.22	1.20	4.97
Min	0.80	0.88	0.83	0.75	0.76	1.27	1.30	1.28	0.97	1.03	1.00	1.00	0.75

Annual Max Momentary Gage Height	5.58	m. (MSL.) ,	at 18.00 Hours , on Sep 11 , 2011		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	0.05	m. (MSL)
Left Bank Elevation	6.47	m. (MSL.) ,			
Right Bank Elevation	6.42	m. (MSL.) ,	Drainage Area	223	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2011 to March 31, 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	9.28	5.00	1.15	2.63	2.84	27.20	12.16	4.36	5.00	12.48	3.05	2.14		
2	9.04	3.56	2.70	2.63	2.70	23.98	9.40	4.52	5.00	16.56	2.98	2.00		
3	7.96	2.70	2.28	2.56	1.80	18.43	7.72	4.44	4.92	13.28	2.70	2.00		
4	7.36	2.56	4.68	2.56	1.50	13.28	7.84	4.20	4.84	11.61	2.63	2.28		
5	2.77	2.00	4.20	2.84	1.25	9.79	7.96	4.20	4.20	6.60	2.42	2.28		
6	4.76	2.28	3.80	2.00	1.00	6.40	7.72	4.68	3.88	3.40	2.42	2.14		
7	4.68	2.00	2.70	2.00	0.95	4.20	7.60	4.92	4.04	3.33	2.28	2.14		
8	5.00	3.26	1.80	1.90	0.90	4.20	8.08	5.00	4.04	3.26	2.28	2.28		
9	4.04	3.48	9.40	1.00	0.80	4.20	8.20	5.70	9.28	3.12	2.49	2.14		
10	2.70	2.70	3.40	1.00	0.80	4.20	7.48	4.68	7.00	4.04	3.56	2.00		
11	2.56	2.70	6.00	1.00	1.05	292.80	7.00	4.52	5.20	4.04	2.63	2.14		
12	2.00	2.56	4.20	1.00	1.00	226.92	7.60	4.36	3.40	5.00	2.28	2.14		
13	1.95	2.00	4.20	1.00	0.95	60.26	6.40	4.36	3.40	65.72	2.14	2.14		
14	1.80	2.28	3.12	1.00	0.90	34.30	6.00	4.20	3.26	47.94	2.14	2.14		
15	1.75	4.68	2.70	1.00	1.30	20.20	5.70	4.20	3.88	20.00	2.28	2.00		
16	1.50	5.30	2.63	1.00	2.00	13.60	5.60	4.20	4.76	10.31	2.28	2.14		
17	2.14	6.80	2.00	1.00	5.50	11.74	5.60	4.04	3.40	8.92	2.56	2.14		
18	2.00	7.72	2.42	1.00	8.56	10.70	5.30	4.84	3.33	7.12	2.56	2.14		
19	2.49	3.40	2.56	0.95	4.44	10.44	5.20	5.80	3.40	6.90	2.28	2.28		
20	3.40	5.00	2.56	1.00	2.00	9.40	6.00	5.60	3.40	9.04	2.28	2.28		
21	5.00	5.20	2.49	0.80	1.90	8.68	5.70	7.72	3.26	9.79	2.21	2.49		
22	5.00	4.84	2.00	1.00	4.28	7.60	5.60	8.08	3.12	8.44	2.56	2.42		
23	3.56	3.88	3.88	1.00	6.90	5.60	5.40	12.00	2.84	6.90	2.49	2.28		
24	2.42	2.63	3.48	1.00	6.60	6.00	5.40	31.68	2.70	5.20	2.42	2.28		
25	1.10	2.00	2.00	0.75	11.74	8.56	4.60	26.97	2.70	3.72	2.28	3.40		
26	1.10	2.00	2.00	2.63	75.60	19.60	4.68	32.24	2.56	3.72	2.21	3.26		
27	1.00	1.80	2.00	2.70	43.76	35.80	4.68	29.16	2.42	4.04	2.14	2.14		
28	1.50	1.65	1.85	2.70	39.73	20.20	4.52	28.60	2.28	3.64	2.07	2.00		
29	1.75	2.00	1.80	3.19	35.80	8.80	4.36	9.92	1.95	2.98	2.00	2.00		
30	2.00	1.70	1.75	4.20	31.96	3.96	4.28	5.90	1.85	2.35		2.00		
31		1.40		2.56	27.76		4.20		1.85	2.21		2.00		
Total	103.61	101.08	91.75	53.60	328.27	931.04	197.98	285.09	117.16	315.66	70.62	69.21	2665.07	CMSDAY
Mean	3.45	3.26	3.06	1.73	10.59	31.03	6.39	9.50	3.78	10.18	2.44	2.23	7.28	CMS
Max	9.28	7.72	9.40	4.20	75.60	292.80	12.16	32.24	9.28	65.72	3.56	3.40	292.80	CMS
Min	1.00	1.40	1.15	0.75	0.80	3.96	4.20	4.04	1.85	2.21	2.00	2.00	0.75	CMS
Runoff	8.95	8.73	7.93	4.63	28.36	80.44	17.11	24.63	10.12	27.27	6.10	5.98	230.26	MCM

Momentary Peak 454.60 CMS. at 5.58 m. (MSL.) at 18.00 Hours , on Sep 11 , 2011

Runoff Yield 32.65 Liters/Second/Square KM. Momentary Peak Yield 2038.565 Liters/Second/Square KM.

Suspended Sediment Station

Water Year 2011

WATER YEAR : 2011

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

Drainge Area	1,309 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1999-Cont'd
Actual Measurement	1999-Cont'd
Using Rating Curve Water Year	2011
Number of observation	19
R-Square	0.7324
Remarks	Continued Sediment Station

$$QS = 4.0443\ QW^{1.07930}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	2.80	44.40	18.70	1415.60	191.50	462.90	23.70	15.70	12.50	12.20	0.00		
2	0.00	3.30	18.70	19.10	1706.30	178.00	413.70	23.70	15.40	12.50	12.20	0.00		
3	0.00	3.90	5.00	25.80	1178.20	127.80	502.10	23.70	14.70	12.00	12.00	0.00		
4	0.00	5.00	13.90	33.40	1010.20	78.90	653.40	22.90	14.40	11.70	12.00	0.00		
5	0.00	6.30	103.50	26.60	852.10	81.20	614.50	22.00	14.10	11.20	12.20	0.00		
6	0.00	7.00	245.90	7.80	614.50	164.50	458.00	20.80	13.90	11.20	12.20	0.00		
7	0.00	7.50	523.10	1.80	423.50	354.60	333.30	20.40	13.60	11.20	12.00	0.00		
8	0.00	8.30	625.10	0.80	243.10	413.70	234.60	19.50	12.80	10.90	11.40	0.00		
9	0.00	9.40	425.90	0.20	124.20	389.20	201.90	20.00	12.00	10.90	10.90	0.00		
10	0.00	10.40	287.20	15.20	48.10	379.40	152.30	23.70	11.40	11.20	10.10	0.00		
11	0.00	11.70	233.20	189.40	25.40	358.50	86.50	31.30	11.20	11.40	9.10	0.00		
12	0.00	13.30	216.30	197.70	25.40	386.70	57.60	28.70	10.70	11.20	8.10	0.00		
13	0.00	15.20	207.90	138.60	58.90	582.70	72.80	22.40	9.90	11.40	6.80	0.00		
14	0.00	16.80	186.30	109.00	77.40	1257.80	133.20	20.00	9.40	11.70	5.50	0.00		
15	0.00	13.90	100.40	149.50	80.40	1878.40	111.70	20.00	9.10	11.40	3.40	0.00		
16	0.00	13.60	37.30	152.30	139.50	1469.40	117.90	18.70	9.60	11.20	3.40	0.00		
17	0.00	15.40	11.70	101.90	198.80	1102.90	102.70	18.30	10.40	11.20	3.30	0.00		
18	0.00	19.10	11.70	72.10	440.70	792.70	71.30	17.50	11.20	11.20	2.20	0.00		
19	0.00	26.20	12.00	45.60	544.10	657.00	45.00	16.80	11.40	11.20	1.80	0.00		
20	0.20	40.60	12.20	17.90	572.10	610.90	34.30	16.60	11.70	11.20	1.50	0.00		
21	0.40	46.90	18.30	22.00	561.60	540.60	31.30	16.60	11.70	11.40	1.10	0.00		
22	0.50	26.20	13.30	60.80	554.60	482.70	17.90	16.60	11.70	12.00	0.80	0.00		
23	0.70	19.50	4.00	115.30	495.20	490.20	14.40	16.60	11.70	11.70	0.30	0.00		
24	0.90	14.10	2.00	80.40	374.50	435.80	22.40	16.30	11.70	11.40	0.10	0.00		
25	1.20	16.80	6.80	133.20	240.20	289.10	30.40	16.60	11.70	11.20	0.00	0.00		
26	1.40	122.40	81.90	331.40	170.70	192.50	27.50	16.30	11.70	11.20	0.00	0.00		
27	1.60	621.50	133.20	356.60	156.30	279.60	27.50	16.30	11.70	11.70	0.00	0.00		
28	1.80	898.70	93.40	128.70	210.70	635.70	27.50	16.00	11.40	12.00	0.00	0.00		
29	2.00	586.20	50.00	33.40	221.90	859.80	28.30	16.00	11.70	12.20	0.00	0.00		
30	2.30	331.40	28.30	30.40	201.90	691.60	27.90	16.00	12.00	12.50		0.00		
31		161.40		227.50	196.70		27.10		12.20	12.20		0.00		
Total	13.00	3094.80	3752.90	2843.10	13162.80	16353.40	5141.90	594.00	371.80	357.90	164.60	0.00	45850.20	**Ton**
Mean	0.40	99.80	125.10	91.70	424.60	545.10	165.90	19.80	12.00	11.50	5.70	0.00		
Max	2.30	898.70	625.10	356.60	1706.30	1878.40	653.40	31.30	15.70	12.50	12.20	0.00	1878.40	
Min	0.00	2.80	2.00	0.20	25.40	78.90	14.40	16.00	9.10	10.90	0.00	0.00	0.00	

WATER YEAR : 2011

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.

Ban Na Lak **Amphoe** Wang Saphung **Changwat** Loei

Drainge Area	1,271 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1998-Cont'd
Actual Measurement	1998-Cont'd
Using Rating Curve Water Year	1998-2011
Number of observation	247
R-Square	0.8304
Remarks	Continued Sediment Station

$$QS = 5.5656\ QW^{1.32040}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	64.60	0.50	2.80	14.80	7340.60	1965.10	1779.40	229.40	229.40	212.20	178.80	150.70		
2	67.20	0.80	2.20	26.90	4328.10	1832.00	2495.80	225.10	229.40	212.20	178.80	150.70		
3	59.30	0.50	101.30	51.60	4524.20	2238.00	11384.50	220.80	229.40	212.20	182.90	146.80		
4	59.30	0.20	432.00	13.40	4847.50	1670.60	23883.50	216.50	229.40	208.00	187.00	142.90		
5	54.10	0.10	132.00	4.10	1647.20	2265.70	4376.90	212.20	229.40	208.00	191.10	139.00		
6	54.10	0.20	1023.30	1.90	657.20	3704.00	3784.00	208.00	229.40	203.70	195.30	135.20		
7	54.10	0.30	1451.40	1.30	912.30	5760.30	2005.50	203.70	229.40	203.70	199.50	131.40		
8	61.90	0.20	144.80	1.10	47.80	4303.70	1394.90	199.50	229.40	203.70	199.50	131.40		
9	56.70	0.20	20.70	1.60	25.30	2668.00	1070.40	195.30	229.40	199.50	195.30	135.20		
10	56.70	0.10	3.50	23.70	16.20	4747.40	1156.50	191.10	229.40	199.50	195.30	150.70		
11	51.60	0.10	1.90	37.00	26.90	4847.50	704.90	187.00	229.40	199.50	187.00	170.60		
12	44.20	0.10	1.20	17.70	610.40	16717.50	195.30	182.90	225.10	195.30	187.00	166.60		
13	41.70	0.10	0.80	28.60	753.30	41893.00	125.70	178.80	225.10	195.30	187.00	182.90		
14	39.40	0.40	0.80	44.20	138.40	18285.90	151.30	178.80	225.10	191.10	182.90	203.70		
15	39.40	0.20	0.70	205.80	184.90	6291.20	92.50	174.70	225.10	187.00	182.90	195.30		
16	37.00	0.20	1.10	432.00	75.40	5791.20	174.70	174.70	225.10	182.90	182.90	203.70		
17	34.70	0.20	3.50	151.30	995.30	3216.90	164.60	170.60	225.10	178.80	178.80	212.20		
18	32.40	0.20	1.70	38.80	3844.20	1965.10	382.00	170.60	225.10	178.80	178.80	191.10		
19	23.70	0.30	1.50	249.20	3134.70	3291.40	657.70	162.60	225.10	178.80	174.70	174.70		
20	21.70	1.60	1.30	1146.90	3604.70	2810.80	479.10	158.60	225.10	174.70	174.70	166.60		
21	21.70	2.10	1.30	125.70	4548.90	3291.40	395.20	154.60	225.10	187.00	170.60	158.60		
22	21.70	0.90	1.40	271.60	1647.20	4128.20	329.60	150.70	220.80	203.70	166.60	150.70		
23	21.70	0.30	0.80	164.60	753.30	4128.20	301.50	146.80	220.80	203.70	166.60	150.70		
24	19.70	0.30	0.60	59.30	125.70	3824.10	269.40	142.90	220.80	203.70	162.60	146.80		
25	21.70	2.10	0.90	157.90	249.20	2747.10	255.90	142.90	220.80	208.00	162.60	139.00		
26	41.70	802.60	63.20	205.80	3134.70	2321.50	242.60	139.00	220.80	199.50	158.60	135.20		
27	41.70	1166.20	1250.80	44.20	1372.50	2636.50	238.20	139.00	220.80	182.90	158.60	135.20		
28	72.70	398.50	271.60	16.20	1951.70	5822.10	233.80	135.20	220.80	182.90	154.60	131.40		
29	69.90	432.00	184.90	4.80	1070.40	5458.00	233.80	135.20	216.50	178.80	154.60	127.60		
30	131.40	33.60	59.30	2.00	2073.20	5637.00	229.40	131.40	216.50	178.80		123.80		
31		35.30		382.00	2114.10		229.40		216.50	174.70		123.80		
Total	1417.70	2880.40	5163.30	3926.00	56755.50	176259.40	59418.00	5258.60	6969.50	6028.60	5175.60	4804.20	334056.80	**Ton**
Mean	47.30	92.90	172.10	126.60	1830.80	5875.30	1916.70	175.30	224.80	194.50	178.50	155.00		
Max	131.40	1166.20	1451.40	1146.90	7340.60	41893.00	23883.50	229.40	229.40	212.20	199.50	212.20	41893.00	
Min	19.70	0.10	0.60	1.10	16.20	1670.60	92.50	131.40	216.50	174.70	154.60	123.80	0.10	

WATER YEAR : 2011

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.

Ban Fak Loei **Amphoe** Mueang **Changwat** Loei

Drainge Area	3,093 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1998-Cont'd
Actual Measurement	1998-Cont'd
Using Rating Curve Water Year	1998-2011
Number of observation	299
R-Square	0.8345
Remarks	Continued Sediment Station

$$QS = 7.0552\ QW^{1.23600}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	39.10	200.50	603.90	628.50	10461.80	4745.00	4681.60	399.50	135.10	54.10	51.60	27.40		
2	36.70	240.90	579.50	515.50	11928.90	4432.60	6077.10	407.10	130.60	62.00	49.00	29.70		
3	36.70	187.40	678.20	720.10	12004.60	3942.60	14183.80	399.50	118.50	64.60	49.00	29.70		
4	44.00	126.00	1044.20	595.80	11319.10	2906.70	30494.20	392.00	112.50	62.00	51.60	25.20		
5	46.50	109.60	1181.70	499.70	5350.60	3506.80	18754.30	340.10	106.60	62.00	54.10	27.40		
6	36.70	153.80	1555.70	407.10	2187.80	5900.10	8018.90	318.30	103.70	59.30	62.00	29.70		
7	39.10	200.50	3042.20	282.60	1334.10	10024.10	4766.10	282.60	95.10	59.30	67.30	29.70		
8	44.00	130.60	2923.30	240.90	999.10	10335.40	2906.70	303.90	89.40	59.30	64.60	27.40		
9	56.70	130.60	1453.80	311.10	720.10	6077.10	2526.30	384.50	89.40	56.70	62.00	27.40		
10	51.60	92.20	779.60	1032.90	669.80	6485.30	2282.10	414.60	83.70	56.70	59.30	27.40		
11	46.50	72.70	484.00	1965.80	645.00	8648.30	1919.90	429.90	75.40	56.70	51.60	34.40		
12	41.60	72.70	460.70	1263.30	1981.10	11583.80	1541.10	507.60	70.00	54.10	44.00	49.00		
13	41.60	97.90	476.20	1393.70	3745.20	31142.40	1228.20	460.70	70.00	54.10	36.70	62.00		
14	39.10	289.70	476.20	1541.10	3963.10	40306.20	1263.30	377.00	70.00	51.60	29.70	64.60		
15	34.40	234.10	414.60	1721.00	2824.40	25489.50	1357.90	325.50	67.30	51.60	32.00	59.30		
16	29.70	422.20	399.50	1541.10	1889.40	14587.30	1796.10	234.10	67.30	49.00	34.40	54.10		
17	29.70	445.20	437.50	1228.20	2060.80	8767.10	1721.00	247.80	67.30	46.50	34.40	49.00		
18	29.70	437.50	407.10	728.60	8859.00	4972.70	1599.80	261.60	64.60	46.50	32.00	49.00		
19	32.00	407.10	531.40	661.50	9469.10	4972.70	1429.70	227.30	64.60	44.00	32.00	51.60		
20	25.20	678.20	620.30	1135.50	5649.10	8978.40	1078.20	220.50	64.60	46.50	29.70	54.10		
21	18.70	571.40	452.90	694.90	8048.90	8018.90	954.40	213.80	62.00	59.30	29.70	49.00		
22	32.00	384.50	282.60	910.10	4576.20	9531.30	943.20	187.40	62.00	70.00	29.70	41.60		
23	130.60	207.10	187.40	888.00	2494.20	8828.40	866.10	174.40	59.30	80.90	27.40	36.70		
24	20.80	180.90	118.50	1066.90	1441.70	7185.40	653.20	163.20	59.30	95.10	27.40	34.40		
25	29.70	261.60	97.90	2187.80	1322.30	5251.70	563.40	158.50	56.70	95.10	27.40	29.70		
26	115.50	910.10	468.40	3173.30	4269.00	3212.50	499.70	153.80	56.70	89.40	25.20	29.70		
27	70.00	2824.40	1541.10	1965.80	2690.80	4106.70	468.40	144.40	54.10	80.90	25.20	27.40		
28	64.60	2060.80	1089.60	1089.60	3564.00	10553.30	460.70	139.70	54.10	80.90	27.40	25.20		
29	64.60	1429.70	1158.50	745.50	2690.80	10585.00	445.20	139.70	51.60	72.70	29.70	18.70		
30	89.40	1066.90	1055.50	515.50	2526.30	8166.10	429.90	135.10	51.60	54.10		20.80		
31		745.50		1298.60	4766.10		414.60		49.00	49.00		20.80		
Total	1416.50	15372.30	25002.00	32950.00	136452.40	293243.40	116325.10	8544.10	2362.10	1924.00	1176.1 1	142.10	635910.30	**Ton**
Mean	47.20	495.90	833.40	1062.90	4401.70	9774.80	3752.40	284.80	76.20	62.10	40.60	36.80		
Max	130.60	2824.40	3042.20	3173.30	12004.60	40306.20	30494.20	507.60	135.10	95.10	67.30	64.60	40306.20	
Min	18.70	72.70	97.90	240.90	645.00	2906.70	414.60	135.10	49.00	44.00	25.20	18.70	18.70	

WATER YEAR : 2011

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.

Ban Keng Bong **Amphoe** Phu Luang **Changwat** Loei

Drainge Area	549 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1998-Cont'd
Actual Measurement	1998-Cont'd
Using Rating Curve Water Year	1998-2011
Number of observation	234
R-Square	0.7190
Remarks	Continued Sediment Station

$$QS = 6.8976\ QW^{1.38230}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.70	23.90	142.00	174.70	8735.80	765.10	1650.50	99.20	118.80	35.90	23.00	16.80		
2	2.60	23.90	136.80	152.70	5180.20	841.90	1782.00	94.40	106.40	40.20	23.90	17.60		
3	2.60	24.90	142.00	131.60	8963.60	1139.80	10981.00	92.10	92.10	41.30	24.90	18.50		
4	2.60	24.90	144.70	123.90	4640.80	1056.10	8584.90	92.10	78.30	41.30	25.80	18.50		
5	2.40	24.90	163.60	116.30	894.10	1446.00	2053.20	87.40	65.20	40.20	26.80	19.40		
6	2.40	24.90	273.20	106.40	362.20	2296.60	1702.80	85.10	54.80	40.20	27.80	19.40		
7	2.40	24.90	174.70	106.40	240.60	2464.60	1547.30	82.90	45.70	41.30	28.80	18.50		
8	4.30	24.90	155.40	118.80	170.50	2635.80	1421.00	85.10	42.40	41.30	28.80	17.60		
9	3.70	24.90	147.30	139.40	147.30	1650.50	1371.30	92.10	39.10	40.20	27.80	17.60		
10	3.20	24.90	136.80	116.30	606.00	5567.40	1327.00	99.20	38.10	40.20	27.80	18.50		
11	3.20	24.90	113.80	106.40	678.20	9116.30	1239.60	89.80	37.00	39.10	26.80	22.10		
12	3.20	24.90	89.80	99.20	920.60	32001.10	1196.50	85.10	37.00	38.10	26.80	28.80		
13	2.20	24.90	61.00	82.90	629.80	22023.40	1042.30	80.60	35.90	37.00	25.80	28.80		
14	1.60	24.90	33.80	78.30	377.70	2197.40	446.90	76.10	35.90	35.90	25.80	28.80		
15	1.60	24.90	42.40	78.30	282.80	1835.40	48.80	71.70	35.90	34.90	24.90	40.20		
16	1.60	24.90	42.40	78.30	187.40	1729.10	32.80	67.40	34.90	34.90	23.90	52.80		
17	1.60	24.90	42.40	76.10	666.00	1598.70	71.70	63.10	34.90	34.90	23.00	29.80		
18	1.60	24.90	42.40	85.10	5290.10	1446.00	108.90	58.90	34.90	34.90	22.10	22.10		
19	1.60	29.80	42.40	178.90	947.30	1446.00	136.80	54.80	34.90	34.90	21.20	20.30		
20	1.60	38.10	41.30	362.20	9269.70	1471.20	150.00	50.80	34.90	33.80	20.30	19.40		
21	1.60	32.80	40.20	254.40	3542.50	1572.90	150.00	46.90	33.80	33.80	19.40	18.50		
22	1.80	30.80	38.10	297.30	947.30	1729.10	147.30	45.70	33.80	33.80	18.50	17.60		
23	9.60	28.80	34.90	204.70	457.80	1139.80	142.00	42.40	33.80	33.80	18.50	17.60		
24	11.10	31.80	30.80	147.30	307.00	357.10	139.40	40.20	33.80	32.80	18.50	17.60		
25	12.60	34.90	43.50	155.40	1396.10	321.80	136.80	39.10	33.80	31.80	17.60	16.80		
26	12.60	34.90	249.80	196.00	1371.30	321.80	136.80	38.10	33.80	29.80	17.60	16.80		
27	2.40	34.90	1943.50	183.10	326.80	841.90	134.20	37.00	32.80	27.80	17.60	15.90		
28	0.00	39.10	155.40	160.80	209.10	3246.10	131.60	35.90	32.80	25.80	17.60	15.10		
29	0.00	129.00	907.40	101.60	245.20	1650.50	129.00	34.90	32.80	24.90	16.80	15.10		
30	0.00	136.80	170.50	80.60	1283.10	1547.30	126.40	33.80	32.80	23.90		14.20		
31		131.60		594.20	1782.00		126.40		32.80	23.00		14.20		
Total	101.40	1179.50	5782.30	4887.60	61058.90	107456.70	38395.20	2001.90	1403.90	1081.70	668.10	654.90	224672.10	**Ton**
Mean	3.40	38.00	192.70	157.70	1969.60	3581.90	1238.60	66.70	45.30	34.90	23.00	21.10		
Max	12.60	136.80	1943.50	594.20	9269.70	32001.10	10981.00	99.20	118.80	41.30	28.80	52.80	32001.10	
Min	0.00	23.90	30.80	76.10	147.30	321.80	32.80	33.80	32.80	23.00	16.80	14.20	0.00	

WATER YEAR : 2011

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.

Ban Tong Khop **Amphoe** Khok Si Suphan **Changwat** Sakon Nakhon

Drainge Area	861 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1998-Cont'd
Actual Measurement	1998-Cont'd
Using Rating Curve Water Year	2011
Number of observation	20
R-Square	0.8616
Remarks	Continued Sediment Station

$$QS = 3.6181\ QW^{1.24490}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	29.50	28.50	50.00	245.50	1137.70	320.70	170.10	82.80	33.70	40.10	41.20	39.00		
2	29.50	29.50	51.20	1301.20	1735.30	491.40	298.60	74.90	26.50	40.10	40.10	40.10		
3	30.60	40.10	76.20	400.80	1031.40	626.30	1093.20	65.80	25.50	40.10	40.10	37.90		
4	30.60	60.80	107.40	214.30	739.40	790.00	671.80	67.10	43.30	40.10	41.20	39.00		
5	30.60	81.40	95.00	142.90	409.00	900.60	371.00	67.10	43.30	40.10	40.10	37.90		
6	35.80	88.20	124.70	110.30	287.10	721.50	275.60	65.80	34.70	39.00	40.10	37.90		
7	35.80	59.50	153.00	95.00	400.80	488.30	228.90	65.80	30.60	41.20	39.00	37.90		
8	35.80	96.30	101.90	84.10	572.60	497.50	194.60	64.50	28.50	43.30	40.10	37.90		
9	36.80	63.30	99.10	81.40	357.60	566.30	175.30	62.00	28.50	42.20	41.20	37.90		
10	39.00	57.00	110.30	81.40	269.90	509.90	171.80	60.80	26.50	40.10	41.20	39.00		
11	41.20	55.80	86.80	80.10	296.70	352.30	151.30	58.30	23.50	40.10	40.10	37.90		
12	46.70	55.80	73.50	73.50	283.20	357.60	139.50	57.00	23.50	39.00	41.20	36.80		
13	46.70	55.80	67.10	76.20	194.60	384.50	124.70	57.00	29.50	40.10	41.20	36.80		
14	46.70	62.00	68.40	84.10	247.40	365.60	664.70	53.50	27.50	40.10	40.10	37.90		
15	46.70	236.30	65.80	114.50	657.70	339.00	949.40	47.80	28.50	41.20	40.10	39.00		
16	46.70	210.70	92.20	331.10	790.00	273.70	428.30	32.60	28.50	42.20	41.20	39.00		
17	46.70	207.10	234.40	283.20	661.20	277.50	298.60	30.60	31.60	42.20	41.20	39.00		
18	46.70	175.30	121.70	170.10	661.20	279.40	227.10	29.50	30.60	42.20	40.10	39.00		
19	46.70	173.50	108.80	117.40	1247.00	328.50	173.50	28.50	30.60	42.20	40.10	40.10		
20	46.70	163.20	139.50	107.40	2898.20	227.10	141.20	28.50	29.50	43.30	41.20	40.10		
21	46.70	117.40	194.60	171.80	1996.90	210.70	126.40	23.50	28.50	44.40	40.10	39.00		
22	47.80	104.60	151.30	241.80	908.10	287.10	118.80	18.80	28.50	48.90	39.00	40.10		
23	50.00	77.50	103.20	171.80	503.70	247.40	108.80	11.60	28.50	45.60	39.00	41.20		
24	50.00	60.80	84.10	194.60	428.30	216.10	106.00	8.30	29.50	44.40	37.90	41.20		
25	50.00	35.80	99.10	194.60	491.40	198.20	95.00	8.30	27.50	43.30	39.00	40.10		
26	50.00	20.60	96.30	241.80	298.60	177.00	92.20	7.50	26.50	40.10	39.00	40.10		
27	50.00	18.80	82.80	166.60	266.10	171.80	85.50	8.30	32.60	40.10	40.10	40.10		
28	50.00	18.80	72.20	124.70	312.80	177.00	84.10	30.60	41.20	41.20	40.10	40.10		
29	57.00	18.80	68.40	113.10	264.20	182.30	84.10	46.70	41.20	41.20	40.10	40.10		
30	25.50	12.50	69.70	201.70	310.20	178.80	84.10	47.80	41.20	42.20		40.10		
31		3.20		1142.10	283.20		82.80		41.20	42.20		40.10		
Total	1272.50	2488.90	3048.70	7159.10	20941.50	11144.10	8017.00	1311.30	970.80	1292.50	1165.10	1212.30	60023.80	**Ton**
Mean	42.40	80.30	101.60	230.90	675.50	371.50	258.60	43.70	31.30	41.70	40.20	39.10		
Max	57.00	236.30	234.40	1301.20	2898.20	900.60	1093.20	82.80	43.30	48.90	41.20	41.20	2898.20	
Min	25.50	3.20	50.00	73.50	194.60	171.80	82.80	7.50	23.50	39.00	37.90	36.80	3.20	

WATER YEAR : 2011

KHONG RIVER BASIN

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

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

Location : on left bank at the bridge on highway.

Ban Don Sawan **Amphoe** That Phanom **Changwat** Nakhon Phanom

Drainge Area	172 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1998-Cont'd
Actual Measurement	1998-Cont'd
Using Rating Curve Water Year	2011
Number of observation	20
R-Square	0.9404
Remarks	Continued Sediment Station

$$QS = 5.6762\ QW^{0.97320}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.70	0.20	0.50	75.80	91.50	32.80	25.60	7.50	2.50	2.20	2.50	1.10		
2	0.60	0.20	3.00	185.40	102.70	64.90	24.50	7.20	2.30	2.10	3.20	1.00		
3	0.50	0.20	2.20	102.70	108.30	86.50	23.70	7.20	2.30	2.10	3.00	0.90		
4	0.50	0.20	1.90	51.20	99.70	128.40	22.90	7.00	2.30	2.10	2.50	0.90		
5	0.50	0.20	3.70	20.80	84.60	140.60	21.90	6.80	2.30	2.20	2.10	1.20		
6	0.40	0.20	6.20	9.90	73.10	145.20	21.10	6.70	2.30	2.70	1.60	1.20		
7	0.40	0.20	8.10	8.00	104.80	129.00	18.70	5.80	2.50	3.00	1.20	0.90		
8	0.60	0.20	4.80	7.30	149.80	97.10	17.90	6.20	2.80	2.70	1.10	0.90		
9	0.90	0.60	3.30	7.30	170.40	109.40	16.80	6.00	3.00	2.10	1.10	0.90		
10	0.90	0.40	2.00	10.60	235.10	116.50	13.60	5.70	2.50	1.80	2.00	0.90		
11	0.80	0.30	1.90	11.30	162.80	100.20	11.90	5.50	2.30	1.80	2.20	1.00		
12	0.50	0.20	1.00	12.30	109.90	131.90	11.70	5.30	2.20	2.00	2.20	1.20		
13	0.40	0.20	0.60	26.80	82.30	136.20	16.30	5.00	2.10	2.00	1.90	0.80		
14	0.40	0.50	0.60	40.60	57.80	121.70	33.70	4.80	2.50	2.10	1.40	0.60		
15	0.30	10.80	0.60	57.80	50.80	117.00	101.70	5.70	3.30	2.80	1.10	0.60		
16	0.20	7.30	0.70	77.70	45.40	113.90	97.10	5.70	4.00	5.20	1.20	0.60		
17	0.20	7.30	2.30	61.10	46.90	116.50	66.50	5.00	3.20	4.30	1.20	0.70		
18	0.20	4.70	5.00	31.80	52.00	137.10	45.80	4.50	2.50	2.80	1.20	1.80		
19	0.20	4.80	6.50	16.00	108.30	114.40	31.50	3.80	2.80	2.30	1.10	2.20		
20	0.30	6.30	7.30	9.90	242.60	86.00	22.40	3.80	2.50	2.70	1.10	2.00		
21	0.20	4.70	4.30	29.60	184.20	66.90	18.70	3.20	2.50	5.20	1.10	1.60		
22	0.20	2.70	8.10	58.20	117.50	51.60	11.70	3.50	2.30	9.10	1.10	1.20		
23	0.20	1.40	8.10	54.90	86.00	42.80	9.30	3.70	2.30	21.90	1.00	0.70		
24	0.30	0.80	4.50	43.50	62.80	35.90	11.90	4.80	2.10	10.60	0.90	0.60		
25	0.30	0.60	3.80	30.60	48.70	29.30	11.00	4.70	2.10	6.70	0.90	0.60		
26	0.20	0.40	3.70	20.00	41.00	26.80	9.90	3.80	2.20	4.50	0.90	0.60		
27	0.20	0.40	2.70	10.40	31.80	26.80	9.50	3.20	2.50	3.20	1.10	0.60		
28	0.20	0.30	3.00	14.90	22.90	30.60	9.30	2.50	3.20	2.80	1.10	0.50		
29	0.20	0.30	9.00	14.90	20.80	28.30	9.00	2.50	2.70	2.50	1.10	0.50		
30	0.20	0.20	22.10	37.80	18.70	27.10	9.00	2.50	2.50	2.10		0.50		
31		0.20		69.40	22.10		8.50		2.50	2.00		0.50		
Total	11.70	57.00	131.50	1208.50	2835.30	2591.40	763.10	149.60	79.10	121.60	44.10	29.30	8022.20	**Ton**
Mean	0.40	1.80	4.40	39.00	91.50	86.40	24.60	5.00	2.60	3.90	1.50	0.90		
Max	0.90	10.80	22.10	185.40	242.60	145.20	101.70	7.50	4.00	21.90	3.20	2.20	242.60	
Min	0.20	0.20	0.50	7.30	18.70	26.80	8.50	2.50	2.10	1.80	0.90	0.50	0.20	

WATER YEAR : 2011

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.

Ban Kan Luang Dong **Amphoe** Dong Luang **Changwat** Muk Dahan

Drainge Area	1,119 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1998-Cont'd
Actual Measurement	1998-Cont'd
Using Rating Curve Water Year	2011
Number of observation	20
R-Square	0.8623
Remarks	Continued Sediment Station

$$QS = 2.5208\ QW^{1.22980}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.10	1.10	1.10	362.70	1426.30	658.00	109.80	47.00	3.80	0.00	0.00	0.00		
2	1.10	1.10	2.20	2667.50	2577.50	506.40	115.10	49.20	3.80	0.00	0.00	0.00		
3	1.10	1.10	2.50	2602.00	2269.00	653.80	662.20	44.90	3.20	0.00	0.00	0.00		
4	1.10	1.60	5.90	237.40	747.50	1886.70	389.30	41.70	3.50	0.00	0.00	0.00		
5	1.10	1.60	28.60	94.20	343.10	1527.40	208.20	40.70	2.50	0.00	0.00	0.00		
6	1.10	2.20	44.90	47.00	314.00	1192.00	163.50	36.60	3.20	0.00	0.00	0.00		
7	1.10	4.20	17.40	38.60	1527.40	1076.30	79.10	31.50	2.20	0.00	0.00	0.00		
8	1.10	13.00	8.90	33.50	2284.50	679.10	72.50	26.60	2.20	0.00	0.00	0.00		
9	1.10	19.10	5.90	29.50	1604.10	1251.00	82.40	24.70	2.20	0.00	0.00	0.00		
10	1.10	21.90	14.70	191.50	1879.40	1031.80	72.50	24.70	2.20	0.00	0.00	0.00		
11	1.10	17.40	24.70	170.40	1388.90	895.30	69.30	26.60	1.60	0.80	0.30	0.00		
12	1.10	18.20	17.40	165.80	927.80	1186.10	92.50	22.80	1.60	0.80	0.30	0.00		
13	1.10	40.70	14.70	282.20	392.60	884.60	138.60	21.00	1.60	0.30	0.30	0.00		
14	1.10	77.40	13.00	556.80	533.40	580.30	416.20	18.20	1.60	0.30	0.00	0.30		
15	1.10	152.10	13.00	632.80	1070.70	713.10	423.30	17.40	0.80	0.00	0.00	0.80		
16	1.10	179.70	16.50	525.70	1489.30	1031.80	196.20	16.50	0.80	0.00	0.00	1.60		
17	1.10	170.40	32.50	215.40	1540.20	1728.30	145.30	15.60	0.80	0.00	0.00	1.60		
18	1.10	165.80	64.50	154.30	1174.40	2207.30	156.60	15.60	0.30	0.00	0.00	0.80		
19	1.10	145.30	61.30	124.00	2791.00	1227.40	133.10	13.00	0.30	0.00	0.00	0.80		
20	1.10	108.10	66.10	85.80	5258.70	764.80	106.30	11.40	0.30	0.30	0.00	0.80		
21	1.10	62.90	69.30	541.20	3157.80	641.20	99.40	8.90	0.00	0.80	0.00	1.60		
22	1.10	48.10	38.60	1413.70	1432.50	385.90	89.10	8.90	0.30	0.80	0.00	1.60		
23	1.30	11.40	17.40	944.00	976.80	346.30	82.40	8.20	1.10	0.80	0.00	1.60		
24	1.30	3.80	9.70	730.30	662.20	266.60	79.10	5.60	0.00	0.80	0.00	0.80		
25	1.30	2.50	7.40	456.90	564.60	196.20	79.10	5.60	0.00	0.30	0.00	0.80		
26	1.30	1.60	7.40	275.90	464.50	186.80	69.30	4.80	0.00	0.30	0.00	0.80		
27	1.30	1.60	5.60	220.30	479.60	191.50	52.40	4.80	0.00	0.00	0.00	0.80		
28	1.30	1.60	6.60	449.40	406.00	205.80	47.00	4.80	0.00	0.00	0.00	0.80		
29	1.30	0.80	19.10	215.40	468.30	124.00	47.00	3.80	0.00	0.00	0.00	0.80		
30	1.30	0.80	49.20	369.30	560.70	124.00	47.00	3.80	0.00	0.00		0.80		
31		0.80		1174.40	1054.00		44.90		0.00	0.00		0.80		
Total	34.60	1277.90	686.10	16007.90	41766.80	24349.80	4568.70	604.90	39.90	6.30	0.90	17.90	89361.70	**Ton**
Mean	1.20	41.20	22.90	516.40	1347.30	811.70	147.40	20.20	1.30	0.20	0.00	0.60		
Max	1.30	179.70	69.30	2667.50	5258.70	2207.30	662.20	49.20	3.80	0.80	0.30	1.60	5258.70	
Min	1.10	0.80	1.10	29.50	314.00	124.00	44.90	3.80	0.00	0.00	0.00	0.00	0.00	

WATER YEAR : 2011

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

Drainge Area	1,235 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2004-Cont'd
Actual Measurement	2004-Cont'd
Using Rating Curve Water Year	2007-2011
Number of observation	100
R-Square	0.8384
Remarks	Continued Sediment Station

$$QS = 6.3777\ QW^{1.00840}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	15.60	3.40	6.10	16.70	292.30	358.10	312.30	22.00	4.10	5.20	3.00	8.30		
2	14.90	10.40	5.20	17.20	405.40	358.10	304.30	25.60	4.10	4.30	3.00	7.70		
3	13.80	20.80	4.30	18.80	464.00	362.80	320.90	15.60	3.40	3.00	3.00	7.50		
4	12.80	19.60	12.60	23.50	489.30	362.80	339.50	8.60	2.60	2.20	3.00	7.70		
5	12.60	14.30	19.40	27.90	489.30	358.10	348.80	7.70	2.40	2.40	2.60	7.70		
6	12.20	7.70	23.80	22.00	464.00	368.10	344.20	7.90	2.20	2.40	2.20	7.90		
7	12.20	6.50	51.40	15.80	437.30	384.10	339.50	7.50	2.20	2.20	2.20	8.60		
8	11.70	5.00	118.90	11.10	384.10	405.40	316.20	6.50	2.00	2.20	2.20	9.30		
9	11.10	4.10	158.30	7.00	296.30	458.70	292.30	5.00	2.20	2.00	2.20	9.50		
10	11.10	3.40	147.20	5.70	239.90	522.70	245.90	7.70	2.20	2.00	2.20	11.10		
11	9.30	3.00	105.10	7.70	202.20	557.10	208.80	17.80	2.20	2.00	2.40	16.10		
12	8.80	2.80	49.30	5.40	174.90	522.70	182.90	60.80	2.00	1.80	2.80	24.60		
13	8.10	3.00	26.30	5.40	147.20	509.30	170.90	35.20	1.30	1.80	3.00	56.60		
14	7.00	2.80	22.60	5.20	113.00	516.00	140.00	11.30	1.30	1.80	3.20	23.80		
15	6.80	3.20	19.60	5.40	99.20	652.10	117.60	8.30	2.00	1.80	4.30	18.30		
16	5.90	2.80	16.10	7.90	120.90	1011.90	111.00	7.50	3.80	1.60	4.80	18.10		
17	5.70	2.40	13.50	9.90	150.30	1080.30	127.50	7.00	4.10	1.80	4.10	16.30		
18	7.00	4.80	11.30	11.10	192.90	958.90	136.70	6.50	3.60	1.80	3.40	14.40		
19	6.80	7.50	10.10	12.20	241.90	789.50	132.80	6.10	3.40	1.80	4.30	12.40		
20	6.80	18.10	8.60	11.30	330.20	683.80	108.40	5.70	4.30	1.80	5.00	10.60		
21	7.00	22.80	6.50	12.20	378.70	588.80	73.40	5.20	5.40	1.30	4.50	8.30		
22	6.30	17.00	5.20	18.10	421.40	546.60	61.40	5.00	7.00	1.30	5.00	6.80		
23	5.40	16.70	4.80	18.50	426.70	502.70	53.50	4.80	6.50	1.30	5.20	6.30		
24	5.40	15.80	7.90	28.90	405.40	458.70	48.30	4.30	5.70	1.40	5.20	6.30		
25	5.40	16.30	15.40	15.60	368.10	426.70	47.70	5.00	6.30	1.40	5.90	6.30		
26	3.80	25.80	14.00	35.20	304.30	400.00	40.40	4.50	6.10	1.30	6.80	5.40		
27	3.20	21.00	15.80	40.90	280.40	344.20	24.60	4.50	5.90	1.40	7.70	5.20		
28	2.80	15.80	15.40	44.10	292.30	312.30	20.80	4.50	6.10	1.40	8.30	5.40		
29	2.40	11.90	15.80	122.90	320.90	308.30	16.30	4.10	5.40	1.40	8.80	6.30		
30	2.40	8.10	16.50	109.10	348.80	308.30	13.30	4.10	5.40	1.40		7.20		
31		6.80		166.20	358.10		11.90		5.40	2.20		6.10		
Total	244.30	323.60	947.00	858.90	9639.70	15417.10	5012.10	326.30	120.60	61.70	120.30	366.10	33437.70	**Ton**
Mean	8.10	10.40	31.60	27.70	311.00	513.90	161.70	10.90	3.90	2.00	4.10	11.80		
Max	15.60	25.80	158.30	166.20	489.30	1080.30	348.80	60.80	7.00	5.20	8.80	56.60	1080.30	
Min	2.40	2.40	4.30	5.20	99.20	308.30	11.90	4.10	1.30	1.30	2.20	5.20	1.30	

WATER YEAR : 2011

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.

Ban Ton Yang **Amphoe** Mae Lao **Changwat** Chiang Rai

Drainge Area	2,909 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1997-Cont'd
Actual Measurement	1997-Cont'd
Using Rating Curve Water Year	2011
Number of observation	30
R-Square	0.9240
Remarks	Continued Sediment Station

$$QS = 3.9963\ QW^{1.55770}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	6.40	241.10	465.30	398.70	1973.20	7041.90	19401.50	3206.30	1357.10	151.10	36.30	34.00		
2	7.50	605.20	225.10	335.90	7328.80	8628.30	15608.90	2884.90	1324.60	117.20	41.30	29.40		
3	7.50	1075.30	194.20	323.80	15765.50	7041.90	11318.30	2728.70	1324.60	117.20	61.00	27.10		
4	7.50	1737.70	186.80	274.30	14224.90	6397.30	8951.40	2677.40	1324.60	117.20	73.80	27.10		
5	7.50	1197.60	186.80	291.40	5507.90	6232.00	7619.80	2575.70	1260.60	107.00	56.90	31.60		
6	9.00	2013.50	438.20	209.40	2626.40	6150.00	6232.00	2389.00	1260.60	144.30	46.30	31.60		
7	11.90	942.30	626.00	87.50	2136.10	6759.10	4891.50	2261.30	1228.90	92.20	38.80	29.40		
8	11.90	479.00	411.70	41.30	3732.50	5987.10	4469.70	2136.10	1228.90	61.00	36.30	29.40		
9	11.90	373.10	257.50	27.10	2575.70	5507.90	5043.10	2136.10	1228.90	52.90	34.00	27.10		
10	9.00	755.90	179.40	25.10	2177.60	4749.40	4820.30	2303.60	1166.60	43.80	31.60	27.10		
11	9.00	1626.70	112.10	17.20	3667.80	4469.70	4332.10	2054.10	1105.40	38.80	29.40	29.40		
12	9.00	2219.30	92.20	52.90	7717.70	3483.40	3797.50	1973.20	1045.40	36.30	27.10	49.00		
13	13.60	1105.40	92.20	78.20	14988.20	8213.80	3261.10	1973.20	1015.90	38.80	25.10	241.10		
14	43.80	506.90	92.20	49.00	11457.90	29822.90	2884.90	1933.20	1015.90	65.10	25.10	225.10		
15	15.30	398.70	87.50	465.30	6852.90	37017.60	2728.70	1893.50	1015.90	179.40	25.10	241.10		
16	11.90	411.70	69.40	2677.40	3928.80	20610.50	3261.10	1854.10	991.10	144.30	22.90	217.20		
17	10.40	521.10	15.30	3862.90	3862.90	11598.10	4332.10	1815.00	991.10	107.00	25.10	172.20		
18	10.40	733.70	31.60	5586.70	4128.70	8735.60	3862.90	1815.00	942.30	92.20	29.40	122.50		
19	17.20	1592.00	31.60	2575.70	4196.10	8843.20	4400.70	1776.20	894.30	73.80	27.10	82.80		
20	56.90	2475.50	13.60	1166.60	5906.20	10903.10	4061.70	1776.20	870.70	56.90	27.10	78.20		
21	41.30	2136.10	52.90	2095.00	9945.80	12308.50	3732.50	1699.50	847.30	46.30	27.10	65.10		
22	27.10	991.10	41.30	1324.60	10765.90	10903.10	3206.30	1626.70	626.00	41.30	27.10	52.90		
23	22.90	521.10	21.00	535.40	8843.20	8843.20	2303.60	1626.70	564.40	38.80	25.10	43.80		
24	25.10	492.90	15.30	668.30	5745.70	8213.80	1973.20	1592.00	506.90	36.30	22.90	56.90		
25	43.80	335.90	17.20	1626.70	5196.40	9278.70	1973.20	1523.50	451.70	36.30	25.10	49.00		
26	241.10	411.70	424.90	1357.10	13773.90	7914.80	1854.10	1592.00	424.90	36.30	34.00	36.30		
27	265.80	1228.90	3862.90	549.80	14074.00	8213.80	1661.60	1592.00	451.70	41.30	34.00	34.00		
28	225.10	465.30	4196.10	506.90	27668.50	11598.10	1815.00	1523.50	438.20	34.00	31.60	41.30		
29	144.30	398.70	2013.50	549.80	18244.30	24335.00	1893.50	1422.80	424.90	31.60	34.00	36.30		
30	122.50	506.90	549.80	300.10	9499.20	21520.80	1933.20	1389.80	373.10	31.60		27.10		
31		521.10		300.10	6947.20		4263.90		249.20	36.30		27.10		
Total	1446.60	29021.40	15003.60	28360.20	255459.90	331322.60	151889.40	59751.30	27951.70	2246.60	980.60	2222.20	905656.30	**Ton**
Mean	48.20	936.20	500.10	914.80	8240.60	11044.10	4899.70	1991.70	901.70	72.50	33.80	71.70		
Max	265.80	2475.50	4196.10	5586.70	27668.50	37017.60	19401.50	3206.30	1357.10	179.40	73.80	241.10	37017.60	
Min	6.40	241.10	13.60	17.20	1973.20	3483.40	1661.60	1389.80	249.20	31.60	22.90	27.10	6.40	

WATER YEAR : 2011

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.

Ban Non Puai **Amphoe** Ban Khwao **Changwat** Chaiyaphum

Drainge Area	4,207 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1998-Cont'd
Actual Measurement	1998-Cont'd
Using Rating Curve Water Year	1998-2011
Number of observation	259
R-Square	0.8735
Remarks	Continued Sediment Station

$$QS = 3.9882\ QW^{1.27070}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	88.80	339.10	84.00	471.90	3826.30	7377.50	238.30	84.00	26.20	24.00	7.20		
2	0.50	98.80	348.30	103.80	1842.10	2619.40	7261.90	226.30	74.40	24.00	19.60	6.10		
3	2.10	98.80	637.00	108.90	3505.50	1921.10	6530.20	220.30	74.40	21.80	19.60	6.10		
4	1.20	88.80	1704.70	108.90	4537.50	1819.70	5832.30	214.40	69.70	24.00	19.60	5.00		
5	1.20	69.70	1131.80	173.80	5156.40	1752.70	5801.20	202.60	65.10	24.00	19.60	5.00		
6	0.50	53.40	543.00	124.50	4986.80	1771.30	5877.80	196.70	56.00	26.20	21.80	5.00		
7	1.20	53.40	300.40	79.10	2855.70	2052.40	5693.80	179.50	50.70	26.20	21.80	4.00		
8	3.00	69.70	191.00	60.50	1001.80	2882.50	5026.20	162.50	56.00	26.20	24.00	4.00		
9	4.00	93.80	119.30	48.10	385.50	3486.10	3791.40	151.50	60.50	24.00	24.00	4.00		
10	7.20	69.70	65.10	43.00	800.90	3309.10	2977.60	146.00	56.00	24.00	24.00	5.00		
11	11.50	45.60	40.50	40.50	1853.40	4857.50	2839.30	151.50	53.40	21.80	21.80	8.40		
12	11.50	43.00	24.00	48.10	930.00	6094.40	2820.80	162.50	50.70	21.80	21.80	15.40		
13	11.50	38.00	19.60	60.50	433.00	7239.30	2696.30	151.50	48.10	19.60	21.80	21.80		
14	9.60	40.50	13.40	56.00	376.10	9327.30	2589.10	140.60	45.60	19.60	19.60	28.50		
15	8.40	50.70	13.40	79.10	376.10	22173.40	2534.90	129.80	43.00	21.80	19.60	24.00		
16	7.20	108.90	11.50	146.00	481.70	27863.30	2627.50	124.50	43.00	21.80	19.60	24.00		
17	5.00	93.80	11.50	250.50	613.20	16762.40	2781.90	124.50	43.00	21.80	19.60	21.80		
18	4.00	74.40	11.50	256.60	1172.50	12706.40	2839.30	124.50	40.50	21.80	17.50	17.50		
19	2.10	65.10	17.50	250.50	1864.60	10273.70	2757.40	119.30	38.00	24.00	17.50	17.50		
20	0.50	53.40	26.20	287.80	2611.30	8248.60	2550.90	114.10	38.00	26.20	17.50	15.40		
21	0.50	53.40	43.00	313.20	4251.30	6712.20	2300.80	108.90	38.00	28.50	15.40	13.40		
22	0.50	84.00	74.40	348.30	5485.00	5634.30	2077.40	108.90	35.60	38.00	15.40	13.40		
23	1.20	79.10	56.00	423.40	6031.70	5313.10	1926.80	98.80	35.60	84.00	15.40	9.60		
24	2.10	65.10	48.10	462.10	6186.40	5378.90	1830.90	93.80	35.60	69.70	13.40	9.60		
25	4.00	48.10	43.00	319.70	4908.20	5456.70	1760.10	93.80	33.20	60.50	13.40	8.40		
26	6.10	40.50	38.00	376.10	3125.60	5364.80	1508.30	93.80	33.20	53.40	11.50	7.20		
27	13.40	40.50	35.60	843.50	2222.50	4639.80	1296.30	88.80	30.80	50.70	11.50	6.10		
28	28.50	48.10	84.00	1131.80	1949.50	5037.80	886.50	88.80	30.80	43.00	9.60	6.10		
29	45.60	53.40	157.00	491.60	2287.00	5985.90	433.00	84.00	30.80	35.60	9.60	7.20		
30	69.70	140.60	74.40	385.50	3300.60	6895.20	269.00	79.10	30.80	33.20		7.20		
31		376.10		326.10	4055.30		250.50		28.50	26.20		6.10		
Total	263.80	2427.20	6222.30	7831.50	80059.10	207405.60	97746.90	4219.60	1453.00	989.60	529.50	340.00	409488.10	**Ton**
Mean	8.80	78.30	207.40	252.60	2582.60	6913.50	3153.10	140.70	46.90	31.90	18.30	11.00		
Max	69.70	376.10	1704.70	1131.80	6186.40	27863.30	7377.50	238.30	84.00	84.00	24.00	28.50	27863.30	
Min	0.00	38.00	11.50	40.50	376.10	1752.70	250.50	79.10	28.50	19.60	9.60	4.00	0.00	

WATER YEAR : 2011

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

Drainge Area	13,638 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2004-Cont'd
Actual Measurement	2004-Cont'd
Using Rating Curve Water Year	2004-2011
Number of observation	163
R-Square	0.7717
Remarks	Continued Sediment Station

$$QS = 3.1322\ QW^{1.06740}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	66.10	36.80	445.50	333.50	526.40	1102.20	2148.30	1314.00	244.10	294.60	316.00	94.00		
2	58.00	41.50	479.20	328.10	569.00	1134.10	2165.00	1256.80	245.50	306.70	318.70	137.20		
3	60.40	60.40	495.30	321.40	593.20	1174.90	2355.40	1224.60	250.70	317.40	316.00	250.70		
4	66.90	75.80	498.50	317.40	619.30	1198.30	2599.00	1189.50	260.00	320.10	317.40	318.70		
5	85.70	66.90	504.90	316.00	634.20	1224.60	2784.40	1166.20	301.30	308.00	318.70	325.50		
6	145.70	40.30	526.40	312.00	593.20	1266.00	2769.00	1145.80	385.30	278.60	316.00	330.80		
7	182.20	39.70	550.50	309.30	559.70	1338.00	2635.80	1134.10	385.30	285.30	316.00	337.60		
8	188.70	38.50	554.20	291.90	522.70	1446.10	2687.00	1131.20	322.80	297.30	318.70	343.10		
9	193.00	39.70	563.40	274.60	508.20	1481.50	2646.00	1113.80	375.20	305.30	328.10	316.00		
10	197.60	72.60	567.10	301.30	515.30	1521.00	2676.70	1125.40	426.30	290.60	316.00	238.90		
11	196.40	183.30	554.20	313.40	546.70	1517.10	2707.50	1142.90	458.30	236.20	279.90	213.90		
12	193.00	185.40	519.00	376.60	570.90	1457.90	2738.20	1151.60	471.10	260.00	296.00	212.60		
13	193.00	160.70	506.50	469.50	574.60	1392.90	2861.50	1154.50	445.50	287.90	302.60	224.40		
14	191.90	138.20	488.80	515.30	589.50	1379.20	3000.50	1140.00	463.10	297.30	304.00	229.60		
15	188.70	181.10	480.80	557.90	664.20	1442.10	3063.50	1044.20	443.90	313.40	302.60	231.00		
16	193.00	184.30	479.20	593.20	715.00	1556.60	3146.20	871.40	432.70	316.00	301.30	237.50		
17	196.40	167.10	472.70	638.00	769.70	1679.60	3146.20	677.30	429.50	313.40	300.00	241.50		
18	197.60	122.40	467.90	574.60	948.00	1783.30	3096.50	561.60	421.50	305.30	305.30	244.10		
19	183.30	118.20	482.40	528.20	1154.50	1855.20	3016.00	509.80	415.10	296.00	317.40	240.20		
20	139.30	139.30	504.90	471.10	1266.00	1913.80	2876.90	482.40	378.00	313.40	322.80	228.30		
21	126.60	191.90	490.40	404.00	1314.00	2046.90	2717.70	469.50	270.60	336.20	330.80	211.30		
22	72.60	207.30	389.90	380.80	1320.80	2301.60	2599.00	400.80	153.20	372.40	333.50	213.90		
23	49.20	236.20	283.90	383.80	1293.40	2482.60	2459.70	330.80	204.90	388.40	317.40	213.90		
24	45.20	244.10	186.50	373.80	1242.10	2580.60	2355.40	285.30	274.60	397.60	301.30	213.90		
25	42.10	249.40	182.20	348.60	1131.20	2646.00	2234.70	336.20	306.70	386.80	328.10	223.10		
26	39.70	258.70	211.30	394.60	1076.00	2553.00	2109.40	306.70	310.70	372.40	344.40	213.90		
27	39.10	281.30	291.90	479.20	1056.20	2391.00	1986.60	276.00	320.10	368.20	341.70	173.50		
28	37.90	309.30	328.10	513.50	1039.30	2289.50	1846.20	261.30	294.60	359.80	253.40	153.20		
29	39.70	383.80	347.20	552.30	1053.80	2216.50	1683.60	254.70	306.70	333.50	98.10	147.80		
30	38.50	389.90	340.30	543.00	1099.30	2176.10	1525.00	246.80	313.40	305.30		126.60		
31		399.20		513.50	1113.80		1403.20		309.30	313.40		100.60		
Total	3647.50	5243.30	13193.10	13030.40	26180.20	52548.20	78040.10	23705.20	10620.00	9876.80	8862.20	6987.30	251934.30	**Ton**
Mean	121.60	169.10	439.80	420.30	844.50	1751.60	2517.40	790.20	342.60	318.60	305.60	225.40		
Max	197.60	399.20	567.10	638.00	1320.80	2646.00	3146.20	1314.00	471.10	397.60	344.40	343.10	3146.20	
Min	37.90	36.80	182.20	274.60	508.20	1102.20	1403.20	246.80	153.20	236.20	98.10	94.00	36.80	

WATER YEAR : 2011

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.

Ban Khai **Amphoe** Mueang **Changwat** Chaiyaphum

Drainge Area	6,282 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1998-Cont'd
Actual Measurement	1998-Cont'd
Using Rating Curve Water Year	1998-2011
Number of observation	236
R-Square	0.8515
Remarks	Continued Sediment Station

$$QS = 5.2076\ QW^{1.17090}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	9.00	20.30	409.70	75.40	496.20	2455.60	4728.60	912.00	103.10	39.10	38.30	4.60		
2	7.10	42.40	446.80	84.50	477.30	2539.70	5126.40	788.90	97.40	39.10	36.70	2.90		
3	5.20	97.40	424.70	97.40	839.90	2539.70	6872.40	651.20	88.10	37.50	33.50	2.30		
4	4.00	59.40	698.30	86.30	1133.30	2455.60	6872.40	499.80	84.50	36.70	29.50	1.30		
5	2.90	27.20	953.60	82.60	1245.10	2360.00	7601.70	428.20	80.80	35.10	26.40	1.30		
6	1.80	31.10	979.80	57.70	1328.30	2241.40	7601.70	376.40	75.40	34.30	25.60	2.90		
7	1.30	28.70	698.30	44.90	1477.30	2158.80	7601.70	307.90	70.00	35.10	23.30	12.40		
8	13.80	37.50	409.70	42.40	1410.80	2123.60	7601.70	282.70	71.80	34.30	18.80	11.70		
9	19.60	47.50	228.90	36.70	1251.90	2170.60	7235.70	270.70	68.20	32.70	18.10	11.00		
10	20.30	40.80	139.70	33.50	1164.10	2229.50	5663.90	277.20	66.50	31.10	17.40	9.70		
11	21.10	36.70	108.70	29.50	1138.70	2324.30	4597.00	279.40	64.70	30.30	17.40	9.70		
12	21.10	35.10	95.60	24.90	1150.70	2455.60	4050.60	258.80	62.90	30.30	17.40	9.70		
13	21.10	35.10	91.80	28.00	1106.60	2563.70	3755.80	164.70	57.70	30.30	17.40	11.00		
14	20.30	33.50	86.30	36.70	1016.50	2782.10	3458.00	156.60	56.00	30.30	17.40	15.90		
15	20.30	35.10	84.50	43.30	886.10	3148.40	3235.50	164.70	55.10	30.30	16.70	16.70		
16	20.30	40.80	77.20	50.00	788.90	3486.30	3040.00	214.10	54.30	29.50	16.70	21.10		
17	18.80	71.80	71.80	84.50	839.90	3999.10	2932.10	182.00	52.50	27.20	16.70	24.10		
18	18.80	91.80	66.50	116.40	870.70	5799.50	2873.80	170.70	51.70	24.90	15.90	20.30		
19	17.40	59.40	61.20	133.80	1006.00	16165.10	2837.00	159.60	50.00	24.90	15.90	15.20		
20	16.70	50.00	57.70	133.80	1144.00	16165.10	2800.40	147.60	44.90	27.20	15.90	11.70		
21	15.90	48.30	55.10	170.70	1328.30	15473.30	2727.20	133.80	43.30	27.20	15.90	12.40		
22	15.20	64.70	53.40	217.20	1654.00	13425.40	2636.20	122.20	41.60	33.50	15.90	14.50		
23	13.80	66.50	50.00	234.20	1867.90	10114.20	2503.60	122.20	41.60	44.90	15.20	13.80		
24	13.10	46.60	44.90	431.70	2053.40	7970.40	2360.00	118.30	40.80	64.70	14.50	13.80		
25	11.70	40.00	40.80	587.50	2229.50	6511.80	2229.50	116.40	40.00	59.40	13.80	12.40		
26	11.00	38.30	37.50	487.90	2383.90	5663.90	2065.10	112.50	40.00	52.50	8.40	11.70		
27	9.00	37.50	32.70	529.60	2491.60	5394.20	1902.50	114.50	40.00	53.40	5.80	11.00		
28	7.10	39.10	34.30	799.00	2491.60	5260.00	1747.60	114.50	38.30	47.50	4.00	10.40		
29	5.20	45.80	49.10	819.40	2419.70	4728.60	1577.90	112.50	37.50	44.10	5.20	9.00		
30	5.80	101.20	80.80	708.30	2371.90	4597.00	1238.30	106.80	38.30	40.80		7.70		
31		301.30		580.20	2383.90		1042.90		38.30	40.00		6.40		
Total	388.70	1750.90	6669.40	6888.00	44448.00	161302.50	122517.20	7866.90	1795.30	1148.20	533.70	338.60	355647.40	**Ton**
Mean	13.00	56.50	222.30	222.20	1433.80	5376.80	3952.20	262.20	57.90	37.00	18.40	10.90		
Max	21.10	301.30	979.80	819.40	2491.60	16165.10	7601.70	912.00	103.10	64.70	38.30	24.10	16165.10	
Min	1.30	20.30	32.70	24.90	477.30	2123.60	1042.90	106.80	37.50	24.90	4.00	1.30	1.30	

WATER YEAR : 2011

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.

Ban Kaeng Yao **Amphoe** Kuchinarai **Changwat** Kalasin

Drainge Area	1,548 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1998-Cont'd
Actual Measurement	1998-Cont'd
Using Rating Curve Water Year	2007-2011
Number of observation	91
R-Square	0.8630
Remarks	Continued Sediment Station

$$QS = 6.3666\ QW^{1.16980}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	113.10	54.40	1211.80	1507.00	372.70	107.50	35.10	35.10	0.00	19.30		
2	0.00	0.00	113.10	59.40	2049.00	1869.40	356.40	107.50	35.10	35.10	0.00	19.30		
3	0.00	0.00	107.50	80.10	2979.30	1857.50	871.20	107.50	35.10	15.60	0.00	19.30		
4	0.00	0.00	107.50	148.00	2402.70	2501.70	945.40	96.30	35.10	12.00	0.00	19.30		
5	0.00	0.00	107.50	223.70	1546.90	4332.10	816.10	96.30	35.10	12.00	0.00	19.30		
6	0.00	0.00	101.90	249.90	825.20	4992.50	540.60	96.30	35.10	0.00	0.00	19.30		
7	0.00	0.00	96.30	185.30	463.90	4377.60	422.10	96.30	35.10	0.00	0.00	19.30		
8	0.00	0.00	90.80	96.30	1001.70	3261.20	340.30	90.80	35.10	0.00	0.00	19.30		
9	0.00	0.00	85.40	64.50	2814.60	3507.50	276.70	85.40	35.10	0.00	12.00	19.30		
10	0.00	0.00	80.10	85.40	6110.70	5586.80	217.20	85.40	35.10	0.00	12.00	19.30		
11	0.00	0.00	80.10	154.10	6367.10	5539.60	204.40	80.10	35.10	0.00	19.30	19.30		
12	0.00	0.00	80.10	166.50	5460.90	4853.20	210.80	74.80	35.10	0.00	23.10	19.30		
13	0.00	0.00	80.10	166.50	3196.80	4271.30	333.10	64.50	35.10	0.00	27.00	19.30		
14	0.00	0.00	85.40	204.40	1762.80	3507.50	779.60	64.50	35.10	0.00	27.00	19.30		
15	0.00	39.80	85.40	297.70	1507.00	3055.80	1134.70	64.50	35.10	0.00	27.00	19.30		
16	0.00	113.10	90.80	333.10	1845.60	2538.90	1125.20	54.40	35.10	0.00	23.10	19.30		
17	0.00	118.80	74.80	405.50	2551.40	1881.30	899.00	54.40	35.10	0.00	23.10	19.30		
18	0.00	118.80	64.50	455.50	3351.60	1567.10	636.40	54.40	35.10	0.00	23.10	19.30		
19	0.00	118.80	54.40	413.80	4791.40	1497.00	438.80	54.40	35.10	0.00	19.30	19.30		
20	0.00	118.80	54.40	290.70	7063.40	1688.40	356.40	54.40	35.10	0.00	19.30	19.30		
21	0.00	118.80	54.40	236.70	7145.10	1833.70	283.70	54.40	35.10	0.00	19.30	19.30		
22	0.00	118.80	49.50	662.90	6447.60	2145.70	217.20	44.60	35.10	0.00	19.30	19.30		
23	0.00	118.80	39.80	438.80	3894.70	2279.80	179.00	44.60	35.10	0.00	19.30	19.30		
24	0.00	118.80	31.00	1546.90	2218.70	1647.80	179.00	44.60	35.10	0.00	19.30	19.30		
25	0.00	118.80	19.30	2133.60	1377.90	1163.50	172.70	44.60	35.10	0.00	19.30	19.30		
26	0.00	118.80	12.00	2941.20	899.00	752.50	166.50	44.60	35.10	0.00	19.30	19.30		
27	0.00	118.80	5.30	2514.10	698.60	531.90	154.10	44.60	35.10	0.00	19.30	19.30		
28	0.00	118.80	5.30	1739.20	645.20	506.20	136.00	44.60	35.10	0.00	19.30	19.30		
29	0.00	118.80	2.40	1507.00	447.20	489.30	118.80	44.60	35.10	0.00	19.30	19.30		
30	0.00	118.80	5.30	1058.40	413.80	438.80	118.80	44.60	35.10	0.00		19.30		
31		113.10		982.90	908.10		118.80		35.10	0.00		19.30		
Total	0.00	1929.20	1977.50	19896.50	84399.70	75982.60	13121.70	2045.50	1088.10	109.80	429.00	598.30	201577.90	**Ton**
Mean	0.00	62.20	65.90	641.80	2722.60	2532.80	423.30	68.20	35.10	3.50	14.80	19.30		
Max	0.00	118.80	113.10	2941.20	7145.10	5586.80	1134.70	107.50	35.10	35.10	27.00	19.30	7145.10	
Min	0.00	0.00	2.40	54.40	413.80	438.80	118.80	44.60	35.10	0.00	0.00	19.30	0.00	

WATER YEAR : 2011

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.

Ban Muang Lat **Amphoe** Chang Han **Changwat** Roi Et

Drainge Area	31,879 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2004-Cont'd
Actual Measurement	2004-Cont'd
Using Rating Curve Water Year	2004-2011
Number of observation	164
R-Square	0.8059
Remarks	Continued Sediment Station

$$QS = 9.5552\ QW^{0.96890}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	418.10	428.80	580.40	888.90	1949.50	3770.00	7708.00	9856.00	2114.00	684.00	562.50	580.40		
2	421.40	421.40	637.10	943.30	1954.90	3821.20	7815.50	9393.20	1832.30	754.10	584.50	377.90		
3	414.00	452.50	1040.60	993.60	1986.90	3898.30	7923.00	9167.60	1487.10	679.10	624.20	261.20		
4	334.20	465.60	1186.80	1023.90	2018.10	3968.50	8030.40	8855.50	1309.60	606.30	650.10	374.60		
5	312.70	492.50	1265.30	951.30	2071.10	4037.10	8143.70	8614.50	1236.00	633.10	654.90	571.50		
6	330.90	457.40	1378.30	951.30	2103.10	4113.40	8260.00	8376.20	1014.30	624.20	633.10	688.80		
7	382.00	370.50	1694.50	951.30	2092.90	4189.50	8534.10	8143.70	908.10	602.30	602.30	758.90		
8	487.60	316.00	1944.00	968.10	2087.50	4273.30	8855.50	7887.10	972.80	571.50	553.60	743.60		
9	558.50	239.50	2082.00	989.60	2087.50	4341.80	9256.70	7672.10	1085.20	562.50	523.50	709.00		
10	553.60	204.40	2066.40	972.00	2108.50	4507.50	9669.20	7456.90	984.80	593.40	562.50	713.80		
11	567.40	268.70	2044.60	959.30	2193.30	4671.50	10045.60	7246.00	913.70	606.30	575.50	734.00		
12	549.50	301.90	2029.00	1109.80	2335.50	4815.60	10479.20	7004.90	949.70	589.30	536.50	624.20		
13	518.60	414.00	2023.60	1300.10	2436.30	4943.00	10921.10	6763.50	1038.20	575.50	536.50	558.50		
14	518.60	668.60	1896.40	1517.80	2440.90	5077.80	11268.10	6583.50	1031.80	518.60	501.50	575.50		
15	536.50	602.30	1801.00	1583.00	2457.20	5260.80	11418.50	6430.30	972.80	509.70	527.60	562.50		
16	531.60	465.60	1568.10	1668.60	2501.30	5475.40	11518.80	6274.00	932.10	580.40	558.50	558.50		
17	505.60	428.80	1416.90	1658.40	2489.70	5627.90	11719.30	6144.60	892.90	637.10	575.50	597.40		
18	461.50	424.70	1289.80	1648.20	2695.50	5718.40	11922.60	5935.40	848.90	628.20	567.40	633.10		
19	424.70	461.50	1338.80	1578.30	2775.70	5813.30	12330.40	5700.30	758.90	743.60	558.50	693.70		
20	388.60	457.40	1338.80	1472.10	2912.20	5915.00	12587.80	5458.80	674.30	1020.70	501.50	688.80		
21	367.20	448.40	1240.70	1309.60	3072.40	6123.60	11871.80	5179.10	718.70	1258.10	479.50	606.30		
22	305.20	439.40	1165.40	1294.50	3230.70	6361.20	11518.80	4868.70	674.30	1621.50	540.60	606.30		
23	294.40	518.60	1118.60	1231.20	3476.10	6660.00	11569.00	4544.00	593.40	1745.40	571.50	611.20		
24	279.50	553.60	1023.90	1201.90	3439.40	7142.70	11669.20	4189.50	483.60	1375.10	584.50	549.50		
25	215.30	514.50	938.50	1289.80	3482.30	7314.80	11619.10	3802.10	597.40	1202.70	584.50	536.50		
26	161.40	523.50	847.30	1378.30	3500.70	7456.90	11418.50	3384.20	356.50	1061.30	540.60	589.30		
27	188.40	558.50	776.60	1507.50	3519.00	7492.80	11168.50	2804.30	509.70	1144.00	558.50	589.30		
28	257.90	743.60	834.40	1648.20	3543.60	7528.70	10921.10	2661.50	650.10	937.70	674.30	432.00		
29	276.20	774.20	938.50	1774.40	3592.50	7564.50	10625.60	2446.30	619.30	799.10	688.80	382.00		
30	291.10	688.80	913.70	1837.80	3660.60	7636.30	10430.40	2208.90	602.30	658.90		392.70		
31		619.30		1960.40	3718.00		10187.70		615.30	518.60		403.30		
Total	11852.20	14724.50	40420.00	40562.50	83932.90	165520.80	321407.20	185052.70	28378.10	25042.30	16613.00	17704.30	951210.60	**Ton**
Mean	395.10	475.00	1347.30	1308.50	2707.50	5517.40	10368.00	6168.40	915.40	807.80	572.90	571.10		
Max	567.40	774.20	2082.00	1960.40	3718.00	7636.30	12587.80	9856.00	2114.00	1745.40	688.80	758.90	12587.80	
Min	161.40	204.40	580.40	888.90	1949.50	3770.00	7708.00	2208.90	356.50	509.70	479.50	261.20	161.40	

WATER YEAR : 2011

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.

Ban Chiang **Amphoe** Phak Di Chumphon **Changwat** Chaiyaphum

Drainge Area	323 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2004-Cont'd
Actual Measurement	2004-Cont'd
Using Rating Curve Water Year	2011
Number of observation	20
R-Square	0.8753
Remarks	Continued Sediment Station

$$QS = 5.4380\ QW^{1.35030}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.10	1.10	21.80	56.80	383.10	122.80	254.60	27.30	7.10	3.80	2.90	1.60		
2	0.10	2.50	70.10	53.50	380.60	68.40	167.70	25.10	7.10	3.80	2.90	1.60		
3	0.10	0.70	94.10	49.60	667.70	76.60	175.80	22.90	7.10	3.80	2.70	1.60		
4	0.80	0.40	77.90	45.70	342.30	57.60	150.20	21.30	6.80	3.60	2.70	1.60		
5	0.70	0.50	25.10	27.30	125.80	52.00	180.70	20.80	6.80	3.60	2.50	1.60		
6	0.50	0.30	15.30	14.30	51.20	63.30	291.10	20.80	6.80	3.60	2.50	1.50		
7	1.10	0.20	12.90	7.40	38.20	422.60	182.30	20.80	6.50	3.60	2.30	1.50		
8	1.00	0.20	9.40	5.30	33.00	226.30	137.90	20.80	6.50	3.40	2.30	1.50		
9	0.70	0.20	6.20	4.40	27.80	583.00	114.00	20.80	6.50	3.40	2.10	1.50		
10	0.40	0.30	5.10	3.80	68.40	2091.10	122.80	18.70	6.50	3.40	2.00	1.80		
11	0.30	0.20	3.20	3.20	44.20	756.10	87.30	18.20	6.20	3.40	2.00	7.70		
12	0.20	0.20	1.10	2.50	30.10	1256.50	76.60	17.70	6.20	3.40	2.00	5.50		
13	0.20	0.20	0.50	2.30	19.80	2243.80	94.10	17.20	6.00	3.40	1.90	1.80		
14	0.20	0.20	0.40	3.00	17.20	1165.40	75.30	16.70	6.00	3.40	1.90	1.60		
15	0.20	1.80	0.30	3.40	36.10	942.40	98.30	16.30	5.70	3.40	1.90	1.50		
16	0.20	1.60	0.30	2.50	36.80	1725.50	87.30	14.80	5.70	3.40	1.90	1.50		
17	0.20	1.40	0.50	2.30	67.50	533.20	63.30	13.40	5.50	3.40	1.90	1.40		
18	0.10	0.50	5.50	18.70	102.50	287.40	56.80	12.50	5.50	3.40	1.90	3.20		
19	0.10	0.50	5.30	106.80	351.80	175.80	50.40	12.00	5.50	3.40	1.80	2.00		
20	0.10	4.00	2.50	52.00	898.00	140.90	44.20	11.60	5.30	3.40	1.80	1.70		
21	0.10	1.70	2.90	111.10	796.00	112.50	42.70	11.10	5.30	7.10	1.80	1.30		
22	0.10	0.90	1.80	122.80	583.00	153.40	41.90	10.70	5.10	6.20	1.70	1.10		
23	0.10	0.50	1.40	88.60	204.00	307.90	39.70	10.30	4.90	4.60	1.70	1.10		
24	0.10	0.20	1.20	68.40	92.70	448.20	36.10	10.30	4.60	3.80	1.70	1.00		
25	0.10	0.20	1.00	410.10	63.30	363.70	34.20	9.80	4.40	3.40	1.70	1.00		
26	0.10	0.20	1.60	276.30	54.30	200.60	32.40	9.40	4.40	3.20	1.70	0.90		
27	0.10	1.70	41.20	83.20	45.70	344.60	31.80	9.40	4.20	3.00	1.70	0.90		
28	0.10	60.00	4.90	45.70	58.40	1099.40	30.70	9.10	4.20	3.00	1.60	0.90		
29	0.10	140.90	17.70	62.50	498.70	1224.90	30.10	8.70	4.00	3.00	1.60	0.90		
30	0.10	56.80	14.80	25.60	671.00	410.10	29.50	8.70	4.00	3.00		0.90		
31		48.00		18.20	229.80		29.50		3.80	3.00		0.80		
Total	8.30	328.10	446.00	1777.30	7019.00	17656.00	2889.30	467.20	174.20	113.30	59.10	54.50	30992.30	**Ton**
Mean	0.30	10.60	14.90	57.30	226.40	588.50	93.20	15.60	5.60	3.70	2.00	1.80		
Max	1.10	140.90	94.10	410.10	898.00	2243.80	291.10	27.30	7.10	7.10	2.90	7.70	2243.80	
Min	0.10	0.20	0.30	2.30	17.20	52.00	29.50	8.70	3.80	3.00	1.60	0.80	0.10	

WATER YEAR : 2011

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.

Ban Na Charoen **Amphoe** Nong Bua Daeng **Changwat** Chaiyaphum

Drainge Area	744 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2005-Cont'd
Actual Measurement	2005-Cont'd
Using Rating Curve Water Year	2011
Number of observation	20
R-Square	0.8352
Remarks	Continued Sediment Station

$$QS = 1.6660\ QW^{1.35030}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.40	0.50	17.10	2.00	314.90	119.70	295.80	46.30	8.70	1.80	1.10	0.30		
2	0.40	0.70	22.40	3.60	455.00	103.60	227.60	45.40	8.30	1.70	1.00	0.20		
3	0.40	1.20	22.20	4.60	492.40	106.20	246.40	35.80	7.90	1.60	1.00	0.20		
4	0.40	1.60	15.60	4.50	397.20	145.40	374.40	34.80	7.70	1.60	1.00	0.20		
5	0.50	1.40	12.80	4.40	339.10	155.70	310.40	34.60	7.50	1.60	1.10	0.20		
6	0.50	1.20	10.20	4.20	266.20	205.70	327.50	33.80	7.10	1.60	1.10	0.10		
7	0.60	1.10	7.90	4.10	200.60	277.30	262.20	32.90	6.80	1.50	1.20	0.10		
8	0.70	1.00	6.30	4.10	138.30	194.60	202.30	32.40	6.60	1.50	1.30	0.10		
9	0.80	1.00	5.80	4.00	97.80	273.20	191.20	29.70	6.30	1.40	1.20	0.60		
10	0.80	0.90	5.20	4.00	79.60	385.10	219.70	27.60	5.90	1.40	1.20	0.60		
11	0.80	1.20	4.60	3.90	65.50	656.50	193.70	26.50	5.60	1.30	1.10	0.50		
12	0.80	1.30	4.00	4.20	57.20	2232.90	154.90	25.30	5.20	1.20	1.00	0.50		
13	0.70	1.40	3.40	5.00	54.20	3743.00	140.60	22.80	5.00	1.20	0.90	0.50		
14	0.70	2.50	2.90	5.70	55.50	2059.30	152.50	20.90	4.70	1.20	0.80	0.90		
15	0.70	14.60	2.40	6.10	99.70	1184.90	196.30	19.60	4.50	1.20	0.70	0.80		
16	0.70	11.10	1.90	6.10	93.70	819.80	230.30	17.90	4.20	1.20	0.70	0.70		
17	0.70	8.40	1.70	6.20	146.90	484.50	244.60	17.30	4.00	1.20	0.70	0.70		
18	0.60	6.60	1.60	6.60	124.50	374.40	232.00	15.00	3.80	1.20	0.70	0.60		
19	0.50	6.20	1.60	12.30	139.90	349.60	157.30	14.50	3.60	1.10	0.60	0.60		
20	0.50	5.70	1.60	15.00	243.70	282.40	133.60	13.40	3.50	1.10	0.60	0.60		
21	0.50	4.80	1.50	19.40	314.90	394.80	111.60	13.10	3.40	1.40	0.50	0.50		
22	0.50	3.70	1.50	33.10	298.90	522.50	96.10	12.80	3.00	1.80	0.50	0.50		
23	0.50	3.10	1.40	31.40	242.80	430.50	87.50	12.30	2.80	2.50	0.50	0.40		
24	0.50	2.80	1.40	29.00	192.00	369.60	76.30	12.20	2.70	2.10	0.40	0.30		
25	0.40	2.60	1.30	29.50	146.90	312.60	72.60	11.90	2.60	1.80	0.40	0.20		
26	0.40	3.60	1.30	34.10	120.40	232.90	61.60	11.60	2.40	1.60	0.40	0.20		
27	0.40	5.00	1.30	35.10	136.00	294.70	54.90	11.10	2.20	1.40	0.40	0.20		
28	0.40	8.60	1.20	35.30	153.30	597.80	50.60	10.20	2.10	1.30	0.40	0.10		
29	0.40	14.30	1.20	34.10	168.70	445.70	49.90	9.80	2.00	1.20	0.40	0.10		
30	0.40	17.10	1.20	33.30	159.70	339.10	49.90	9.70	1.90	1.10		0.10		
31		16.20		32.40	182.80		49.60		1.80	1.10		0.10		
Total	16.60	151.40	164.50	457.30	5978.30	18094.00	5253.90	661.20	143.80	44.90	22.90	11.70	31000.50	**Ton**
Mean	0.60	4.90	5.50	14.80	192.80	603.10	169.50	22.00	4.60	1.40	0.80	0.40		
Max	0.80	17.10	22.40	35.30	492.40	3743.00	374.40	46.30	8.70	2.50	1.30	0.90	3743.00	
Min	0.40	0.50	1.20	2.00	54.20	103.60	49.60	9.70	1.80	1.10	0.40	0.10	0.10	

WATER YEAR : 2011

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.

Ban Nang Dad Khok **Amphoe** Nong Bua Daeng **Changwat** Chaiyaphum

Drainge Area	508 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2004-Cont'd
Actual Measurement	2004-Cont'd
Using Rating Curve Water Year	2011
Number of observation	20
R-Square	0.8971
Remarks	Continued Sediment Station

$$QS = 8.0546\ QW^{1.19220}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	5.80	27.00	67.70	9.20	646.90	157.10	451.30	52.80	23.80	17.50	18.00	11.20		
2	5.40	14.50	29.60	11.20	1319.30	126.90	384.50	50.70	23.80	17.50	17.50	11.20		
3	5.40	7.70	43.60	24.20	1297.50	96.10	439.60	48.10	23.30	17.10	17.10	10.80		
4	5.40	5.80	72.00	20.60	666.40	96.10	504.70	46.60	23.30	17.10	16.70	10.40		
5	5.10	5.40	26.10	14.50	294.70	253.50	330.70	45.80	22.90	16.70	16.20	10.40		
6	7.30	6.50	16.70	11.20	157.10	238.50	325.20	45.10	22.40	16.20	15.80	10.00		
7	19.30	16.20	13.70	9.20	104.70	743.40	268.70	44.30	22.40	16.20	15.40	10.00		
8	10.80	8.80	12.90	8.40	91.80	314.00	218.30	45.10	22.00	15.80	15.00	9.60		
9	7.30	6.20	12.00	7.70	419.20	286.50	196.90	54.90	21.50	15.80	14.50	10.40		
10	6.20	6.20	11.60	9.20	319.60	854.20	266.10	50.70	21.50	15.40	14.10	21.50		
11	5.80	6.90	10.00	20.60	137.40	1053.20	216.30	45.10	21.10	15.00	14.10	23.80		
12	5.40	5.80	9.20	12.40	96.10	1407.20	175.80	41.30	21.10	15.00	14.10	18.80		
13	5.10	5.40	8.10	10.40	76.40	3561.30	164.50	39.10	20.60	14.50	13.70	15.00		
14	4.70	8.10	7.30	9.60	68.70	2026.50	158.90	39.10	20.60	14.50	13.30	15.00		
15	4.70	48.90	6.50	11.60	80.80	1341.20	350.40	37.60	20.60	14.50	13.30	14.50		
16	4.00	19.30	7.30	19.70	236.00	1223.80	370.30	36.80	20.20	14.10	12.90	14.10		
17	3.70	12.40	6.90	28.90	410.50	805.50	241.00	33.90	19.70	14.10	12.90	13.70		
18	3.70	9.60	8.40	26.10	615.80	600.40	189.20	31.00	19.70	14.10	12.40	13.30		
19	3.70	9.60	8.40	39.80	525.80	489.80	175.80	30.30	19.30	14.50	12.00	12.90		
20	3.70	20.20	8.80	31.00	928.00	483.90	116.50	29.60	19.30	16.70	11.60	12.00		
21	3.40	18.00	8.40	109.10	743.40	654.70	104.70	28.90	19.30	19.30	11.60	15.80		
22	3.00	11.20	8.40	140.50	903.30	574.30	94.70	28.20	18.80	18.40	11.60	11.20		
23	5.10	8.40	8.10	84.80	540.90	737.40	86.20	27.50	18.40	18.00	11.60	10.80		
24	18.00	7.70	7.70	54.90	294.70	568.20	79.70	27.00	18.40	17.10	11.60	10.40		
25	6.90	7.70	7.30	91.80	230.10	422.10	74.20	26.60	18.40	16.20	11.60	10.00		
26	5.80	11.20	7.70	172.10	175.80	436.70	68.70	26.10	18.40	16.70	11.60	10.00		
27	5.40	37.60	8.40	107.70	157.10	789.40	64.40	25.60	18.40	15.80	11.60	9.60		
28	5.10	191.10	8.40	101.90	153.40	813.60	62.30	25.20	18.40	15.80	11.60	9.60		
29	4.70	276.30	7.70	158.90	187.30	743.40	62.30	24.70	18.00	18.00	11.60	10.00		
30	4.00	101.90	9.20	131.40	336.30	574.30	61.20	24.20	18.00	17.50		10.00		
31		101.90		68.70	271.20		60.10		18.00	14.10		10.00		
Total	183.90	1023.50	468.10	1557.30	12486.20	22473.20	6363.20	1111.90	631.60	499.20	395.00	386.00	47579.10	**Ton**
Mean	6.10	33.00	15.60	50.20	402.80	749.10	205.30	37.10	20.40	16.10	13.60	12.50		
Max	19.30	276.30	72.00	172.10	1319.30	3561.30	504.70	54.90	23.80	19.30	18.00	23.80	3561.30	
Min	3.00	5.40	6.50	7.70	68.70	96.10	60.10	24.20	18.00	14.10	11.60	9.60	3.00	

WATER YEAR : 2011

CHI RIVER BASIN

Lam Phan Chat at Ban Kham Hai , Udon Thani (E.86)

Lat 17 - 05 - 29 N Long 103 - 34 - 16 E

Location : on left bank at Ban Kham Hai.

Ban Kham Hai **Amphoe** Wang Sam Mo **Changwat** Udon Thani

Drainge Area	93 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2008-Cont'd
Actual Measurement	2008-Cont'd
Using Rating Curve Water Year	2008-2011
Number of observation	73
R-Square	0.8565
Remarks	Continued Sediment Station

$$QS = 5.6869\ QW^{1.22620}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	1.00	3.30	3.00	62.30	254.40	31.10	1.20	0.10	0.00	0.00	0.00		
2	0.00	0.30	11.70	13.30	54.10	204.90	254.40	1.10	0.10	0.00	0.00	0.00		
3	0.00	0.20	15.00	10.10	131.10	19.60	104.50	1.00	0.10	0.00	0.00	0.00		
4	0.00	0.10	11.70	10.90	62.30	218.50	22.80	1.00	0.00	0.00	0.00	0.00		
5	0.00	0.10	6.50	5.40	19.60	142.60	15.00	0.90	0.00	0.00	0.00	0.00		
6	0.00	0.10	5.40	3.30	13.30	172.20	13.30	0.80	0.00	0.00	0.00	0.00		
7	0.00	0.10	24.40	1.80	10.10	527.20	10.10	0.70	0.00	0.00	0.00	0.00		
8	0.00	0.10	21.20	0.90	27.70	54.10	7.10	0.70	0.00	0.00	0.00	0.00		
9	0.00	0.00	11.70	0.80	14.10	488.90	6.20	0.70	0.00	0.00	0.00	0.00		
10	0.00	0.00	6.80	2.30	12.50	62.30	5.10	0.70	0.00	0.00	0.00	0.00		
11	0.00	0.00	3.90	42.30	12.50	34.80	4.30	0.60	0.00	0.00	0.00	0.00		
12	0.00	0.00	2.70	9.30	11.70	66.40	4.10	0.60	0.00	0.00	0.00	0.00		
13	0.00	18.00	2.40	7.80	10.10	27.70	3.90	0.60	0.00	0.00	0.00	0.00		
14	0.00	6.00	2.70	10.10	8.60	29.40	6.00	0.50	0.00	0.00	0.00	0.00		
15	0.00	18.00	1.70	13.30	12.50	38.50	7.80	0.30	0.00	0.00	0.00	0.00		
16	0.00	7.80	2.70	38.50	136.80	21.20	7.80	0.30	0.00	0.00	0.00	0.00		
17	0.00	14.10	14.10	15.00	66.40	16.50	5.10	0.20	0.00	0.00	0.00	0.00		
18	0.00	5.40	114.60	6.50	54.10	26.10	4.10	0.20	0.00	0.00	0.00	0.00		
19	0.00	42.30	4.30	4.10	99.50	26.10	3.40	0.20	0.00	0.00	0.00	0.00		
20	0.00	26.10	3.50	3.40	191.50	46.20	2.90	0.20	0.00	0.00	0.00	0.00		
21	0.00	9.30	3.40	62.30	62.30	160.20	2.70	0.20	0.00	0.00	0.00	0.00		
22	0.00	6.50	29.40	70.60	22.80	109.50	2.30	0.20	0.00	0.00	0.00	0.00		
23	0.20	4.90	7.80	58.20	15.00	58.20	2.00	0.10	0.00	0.00	0.00	0.00		
24	0.50	4.30	4.60	13.30	19.60	31.10	1.70	0.10	0.00	0.00	0.00	0.00		
25	2.40	6.00	3.90	10.10	84.80	24.40	1.60	0.10	0.00	0.00	0.00	0.00		
26	4.30	3.90	10.10	10.10	27.70	18.00	1.50	0.10	0.00	0.00	0.00	0.00		
27	2.90	2.40	6.00	6.00	21.20	15.00	1.50	0.10	0.00	0.00	0.00	0.00		
28	2.30	1.90	4.20	6.20	15.00	15.00	1.50	0.10	0.00	0.00	0.00	0.00		
29	1.50	0.70	3.60	119.70	18.00	14.10	1.40	0.10	0.00	0.00	0.00	0.00		
30	1.40	0.30	3.00	3.80	27.70	13.30	1.40	0.10	0.00	0.00		0.00		
31		0.40		279.50	58.20		1.20		0.00	0.00		0.00		
Total	15.50	180.30	346.30	841.90	1383.10	2936.40	537.80	13.70	0.30	0.00	0.00	0.00	6255.30	**Ton**
Mean	0.50	5.80	11.50	27.20	44.60	97.90	17.30	0.50	0.00	0.00	0.00	0.00		
Max	4.30	42.30	114.60	279.50	191.50	527.20	254.40	1.20	0.10	0.00	0.00	0.00	527.20	
Min	0.00	0.00	1.70	0.80	8.60	13.30	1.20	0.10	0.00	0.00	0.00	0.00	0.00	

WATER YEAR : 2011

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.

Ban Kui Chuak **Amphoe** Kosum Phisai **Changwat** Maha Sarakham

Drainge Area	29,265 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2005-Cont'd
Actual Measurement	2005-Cont'd
Using Rating Curve Water Year	2005-2011
Number of observation	148
R-Square	0.8302
Remarks	Continued Sediment Station

$$QS = 5.0895\ QW^{1.04030}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	333.30	306.00	753.60	668.90	1390.90	3277.20	6129.70	6833.70	661.30	555.50	573.30	292.40	
2	284.30	325.30	823.70	661.30	1485.10	3341.10	6190.40	6652.60	661.30	534.50	555.50	259.00	
3	259.00	349.50	856.60	642.10	1535.30	3431.00	6290.80	6491.80	603.80	528.20	561.80	289.30	
4	273.20	311.60	968.60	649.80	1524.70	3507.40	6592.40	6350.80	715.00	588.50	549.80	458.70	
5	259.00	273.20	1170.50	684.30	1510.20	3559.20	7286.40	6129.70	665.10	549.80	569.50	588.50	
6	302.90	266.40	1358.70	665.10	1520.10	3623.40	8348.70	5929.10	707.30	543.40	573.30	549.80	
7	437.30	235.60	1574.90	657.40	1489.70	3784.00	9038.10	5769.20	798.60	522.50	552.90	584.70	
8	422.20	146.10	1574.90	665.10	1499.60	3951.00	9478.60	5595.40	726.60	509.80	531.40	596.20	
9	464.30	189.10	1574.90	676.60	1549.80	4060.70	9478.60	5409.40	657.40	558.70	569.50	603.80	
10	494.60	189.10	1605.30	734.30	1630.50	4215.20	9415.50	5250.00	734.30	565.60	552.90	580.90	
11	467.50	243.00	1610.60	745.80	1661.00	4387.00	9227.10	5092.20	844.40	531.40	525.00	543.40	
12	434.10	434.10	1535.30	778.00	1716.70	4549.50	9227.10	4882.00	885.70	479.50	522.50	534.50	
13	452.40	396.40	1372.50	1016.00	1783.70	4614.20	9227.10	4663.20	803.10	477.00	519.30	509.80	
14	449.20	352.70	1220.90	1054.40	1800.30	4597.70	9667.20	4419.30	782.50	482.60	528.20	504.10	
15	489.00	316.50	1115.00	1097.40	1845.50	4573.60	9982.30	4157.50	765.80	525.00	546.60	513.00	
16	452.40	330.20	1019.90	1097.40	1968.10	4565.30	10386.00	3841.50	753.60	549.80	565.60	509.80	
17	449.20	316.50	990.00	1153.50	1990.80	4590.10	10478.50	3501.20	749.70	537.70	558.70	525.00	
18	449.20	314.10	943.30	1105.90	2030.20	4646.70	10663.60	3168.40	707.30	537.70	540.20	573.30	
19	428.50	330.20	939.40	1016.00	2175.90	4638.40	10663.60	2823.40	695.80	573.30	522.50	546.60	
20	374.50	319.70	914.80	947.90	2401.30	4541.20	10756.20	2502.90	645.90	684.30	534.50	534.50	
21	366.40	360.80	914.80	889.60	2593.80	4913.80	10478.50	2305.30	603.80	811.50	561.80	494.60	
22	322.10	434.10	827.60	860.50	2735.50	5081.80	10108.80	2052.20	428.50	844.40	565.60	467.50	
23	228.80	398.90	734.30	901.90	2811.20	5239.60	9793.50	1700.10	368.90	827.60	569.50	419.00	
24	223.90	494.60	626.80	906.40	2817.30	5476.00	9290.10	1381.70	434.10	798.60	565.60	431.60	
25	221.50	546.60	543.40	947.90	2805.10	5648.90	9038.10	1140.50	497.80	745.80	549.80	470.70	
26	209.90	626.80	543.40	1062.90	2799.00	5689.20	8536.40	1041.40	569.50	695.80	516.20	467.50	
27	186.70	672.80	630.60	1153.50	2841.60	5728.80	8097.70	981.60	565.60	668.90	540.20	419.00	
28	219.60	703.50	684.30	1308.10	2969.60	5795.60	7847.80	844.40	569.50	665.10	584.70	407.70	
29	256.50	695.80	688.10	1381.70	3067.20	5876.30	7598.20	803.10	565.60	645.90	434.10	363.30	
30	284.30	672.80	661.30	1404.70	3143.30	5969.50	7286.40	761.90	546.60	580.90		341.40	
31		676.60		1381.70	3200.30		6914.90		540.20	537.70		289.30	
Total	10495.80	12228.60	30778.00	28916.10	66293.30	137873.40	273518.30	112475.50	20254.60	18657.00	15840.50	14668.90	742000.10 **Ton**
Mean	349.90	394.50	1025.90	932.80	2138.50	4595.80	8823.20	3749.20	653.40	601.80	546.20	473.20	
Max	494.60	703.50	1610.60	1404.70	3200.30	5969.50	10756.20	6833.70	885.70	844.40	584.70	603.80	10756.20
Min	186.70	146.10	543.40	642.10	1390.90	3277.20	6129.70	761.90	368.90	477.00	434.10	259.00	146.10

WATER YEAR : 2011

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.

Ban Dan Taka **Amphoe** Chaloem Phra Kiat **Changwat** Nakhon Ratchasima

Drainge Area	4,724 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2002-Cont'd
Actual Measurement	2002-Cont'd
Using Rating Curve Water Year	2011
Number of observation	30
R-Square	0.8370
Remarks	Continued Sediment Station

$$QS = 5.0583\ QW^{1.05340}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	59.60	93.80	118.70	0.00	101.30	136.30	783.10	981.80	42.80	5.10	59.60	59.60		
2	55.40	108.70	138.80	0.00	146.40	131.30	817.20	881.80	35.70	0.00	59.60	57.20		
3	51.80	116.20	161.60	0.00	228.30	138.80	906.80	743.60	27.00	0.00	50.00	53.60		
4	41.10	111.20	197.30	0.00	251.60	126.20	965.10	618.90	35.70	7.20	46.40	50.00		
5	46.40	131.30	217.90	4.00	277.00	126.20	1049.40	529.90	21.80	1.90	30.50	51.80		
6	66.90	164.10	236.00	0.90	279.90	133.80	1112.30	466.00	20.60	0.00	28.70	53.60		
7	69.30	154.00	230.80	0.00	259.40	146.40	1176.20	414.20	18.40	0.00	15.00	57.20		
8	74.20	148.90	212.80	0.00	225.70	182.00	1167.00	362.80	12.70	0.00	13.80	57.20		
9	76.60	126.20	179.40	0.00	194.80	202.50	1139.70	342.00	15.00	0.00	9.40	64.50		
10	76.60	116.20	133.80	0.00	164.10	215.30	1121.40	327.10	17.20	0.00	4.00	76.60		
11	62.00	113.70	106.20	0.00	154.00	330.10	1130.60	312.30	16.10	0.00	9.40	91.40		
12	55.40	113.70	81.50	0.00	118.70	472.70	1121.40	309.40	13.80	0.00	16.10	98.80		
13	57.20	111.20	37.50	0.00	98.80	575.50	1121.40	303.50	16.10	0.00	11.60	113.70		
14	57.20	101.30	28.70	0.00	86.40	647.50	1130.60	297.60	20.60	3.00	5.10	121.20		
15	51.80	96.30	32.20	0.00	74.20	734.00	1121.40	282.90	12.70	6.10	6.10	116.20		
16	48.20	76.60	20.60	0.00	64.50	792.40	1112.30	268.20	0.00	7.20	9.40	106.20		
17	42.80	53.60	16.10	0.00	64.50	852.80	1095.50	241.20	0.00	10.50	13.80	103.80		
18	34.00	69.30	17.20	0.00	66.90	959.50	1087.80	217.90	9.40	18.40	19.50	101.30		
19	32.20	96.30	13.80	0.00	84.00	1004.10	1087.80	189.60	6.10	25.20	21.80	98.80		
20	28.70	108.70	8.30	0.00	111.20	998.50	1087.80	164.10	5.10	23.50	25.20	91.40		
21	23.50	106.20	7.20	0.00	141.30	931.70	1121.40	148.90	5.10	39.30	28.70	79.10		
22	25.20	98.80	7.20	0.00	131.30	823.40	1203.60	133.80	5.10	62.00	32.20	69.30		
23	34.00	71.70	3.00	0.00	118.70	690.90	1387.80	118.70	1.90	66.90	37.50	59.60		
24	42.80	59.60	0.00	0.00	93.80	616.90	1490.00	101.30	0.00	41.10	39.30	62.00		
25	79.10	66.90	0.00	0.00	86.40	621.00	1478.60	86.40	0.00	39.30	41.10	51.80		
26	106.20	71.70	0.00	0.00	106.20	649.60	1433.10	79.10	0.00	42.80	48.20	53.60		
27	106.20	71.70	0.00	0.00	118.70	668.00	1365.10	46.40	10.50	88.90	51.80	51.80		
28	101.30	64.50	0.00	7.20	131.30	688.50	1276.80	62.00	0.00	123.70	48.20	50.00		
29	103.80	74.20	0.00	23.50	143.90	719.60	1212.70	51.80	0.00	103.80	57.20	48.20		
30	108.70	91.40	0.00	35.70	161.60	755.30	1130.60	46.40	0.00	81.50		39.30		
31		98.80		79.10	151.40		1057.10		0.90	79.10		42.80		
Total	1818.20	3086.80	2206.60	150.40	4436.30	16070.80	35491.60	9129.60	370.30	876.50	839.20	2231.60	76707.90	**Ton**
Mean	60.60	99.60	73.60	4.90	143.10	535.70	1144.90	304.30	11.90	28.30	28.90	72.00		
Max	108.70	164.10	236.00	79.10	279.90	1004.10	1490.00	981.80	42.80	123.70	59.60	121.20	1490.00	
Min	23.50	53.60	0.00	0.00	64.50	126.20	783.10	46.40	0.00	0.00	4.00	39.30	0.00	

WATER YEAR : 2011

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.

Ban Phong Sawai **Amphoe** Tha Tum **Changwat** Surin

Drainge Area	34,654 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1997-Cont'd
Actual Measurement	1997-Cont'd
Using Rating Curve Water Year	2011
Number of observation	20
R-Square	0.8490
Remarks	Continued Sediment Station

$$QS = 13.4290\ QW^{0.81020}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	82.50	66.50	336.50	231.00	443.80	1580.80	3522.40	4989.00	1495.80	181.70	119.20	52.70		
2	82.50	70.90	318.50	181.70	457.20	1656.20	3694.10	4737.20	1398.40	179.30	119.20	49.50		
3	81.10	69.50	364.90	152.10	470.50	1737.10	3826.30	4545.00	1305.30	176.30	115.20	46.20		
4	81.10	69.50	413.40	137.10	493.50	1800.20	3976.10	4381.60	1206.10	176.30	111.30	41.30		
5	81.10	69.50	371.90	126.90	526.00	1845.00	4143.10	4180.00	1131.20	176.30	111.30	34.50		
6	81.10	66.50	392.80	119.20	535.70	1885.00	4308.60	3994.80	1057.50	170.90	119.20	29.10		
7	81.10	63.50	399.70	111.30	503.30	1902.80	4454.40	3807.50	990.50	170.90	132.10	25.40		
8	79.60	63.50	378.90	101.20	463.90	1898.40	4545.00	3637.00	922.40	168.50	137.10	25.40		
9	79.60	63.50	278.00	90.90	440.50	1898.40	4601.90	3464.70	853.10	168.50	125.00	25.40		
10	78.20	65.00	311.20	85.30	430.40	1885.00	4640.60	3320.30	776.60	160.10	121.10	23.50		
11	76.80	65.00	392.80	86.70	420.20	1853.90	4640.60	3198.60	668.80	157.60	119.20	15.60		
12	76.80	63.50	473.80	86.70	410.00	1871.70	4640.60	3089.50	577.50	155.20	117.20	11.20		
13	75.30	63.50	535.70	86.70	403.10	1926.30	4737.20	2993.30	496.80	147.20	109.30	8.90		
14	75.30	63.50	584.70	85.30	410.00	1997.40	4826.50	2894.80	430.40	147.20	107.30	8.90		
15	75.30	63.50	584.70	86.70	413.40	2072.50	4989.00	2804.80	347.20	147.20	107.30	8.90		
16	75.30	70.90	548.50	90.90	392.80	2133.20	5058.20	2733.00	292.90	147.20	105.30	8.90		
17	73.90	90.90	542.10	105.30	396.20	2179.50	5219.00	2640.60	278.00	147.20	113.30	8.90		
18	73.90	113.30	570.70	119.20	463.90	2225.60	5287.50	2544.20	270.50	147.20	121.10	8.90		
19	73.90	126.90	570.70	132.10	649.10	2258.80	5333.10	2466.80	256.40	142.20	119.20	8.90		
20	73.90	163.10	577.50	160.10	942.50	2305.20	5378.60	2402.50	241.60	139.70	111.30	13.40		
21	73.90	238.20	573.90	200.30	1158.10	2344.20	5378.60	2324.70	223.20	139.70	99.20	11.20		
22	72.40	270.50	535.70	241.60	1274.00	2434.70	5491.90	2247.30	223.20	142.20	86.70	6.40		
23	72.40	223.20	460.50	289.20	1314.30	2518.30	5627.10	2179.50	223.20	142.20	81.10	3.60		
24	69.50	234.40	371.90	336.50	1336.50	2614.00	5761.60	2114.60	218.10	139.70	73.90	0.00		
25	69.50	289.20	314.90	396.20	1341.00	2714.20	5850.90	2035.00	207.80	137.10	69.50	0.00		
26	69.50	361.40	292.90	450.50	1336.50	2815.70	5873.10	1950.00	197.50	137.10	65.00	57.30		
27	70.90	350.80	289.20	490.30	1354.30	2968.70	5806.30	1862.80	192.20	134.60	65.00	115.20		
28	68.00	325.80	289.20	503.30	1394.00	3089.50	5694.50	1773.20	184.60	126.90	63.50	113.30		
29	66.50	311.20	329.40	477.10	1437.90	3225.70	5537.00	1687.10	181.70	126.90	61.90	113.30		
30	66.50	314.90	285.50	453.90	1477.80	3356.20	5378.60	1590.00	181.70	126.90		152.10		
31		340.10		437.10	1522.80		5196.10		184.60	125.00		160.10		
Total	2257.40	4811.70	12690.10	6652.40	24613.20	66994.20	153418.50	88589.40	17214.80	4685.00	3007.00	1188.00	386121.80	**Ton**
Mean	75.20	155.20	423.00	214.60	794.00	2233.10	4949.00	2953.00	555.30	151.10	103.70	38.30		
Max	82.50	361.40	584.70	503.30	1522.80	3356.20	5873.10	4989.00	1495.80	181.70	137.10	160.10	5873.10	
Min	66.50	63.50	278.00	85.30	392.80	1580.80	3522.40	1590.00	181.70	125.00	61.90	0.00	0.00	

WATER YEAR : 2011

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.

Ban Mueang Kong **Amphoe** Rasi Salai **Changwat** Si Sa Ket

Drainge Area	45,295 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1997-Cont'd
Actual Measurement	1997-Cont'd
Using Rating Curve Water Year	2011
Number of observation	32
R-Square	0.8897
Remarks	Continued Sediment Station

$$QS = 6.9642\ QW^{0.89100}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	14.60	24.00	22.90	26.60	669.30	1638.20	4621.90	8610.10	2205.70	28.20	21.30	122.10		
2	14.60	24.00	21.30	25.00	402.70	1831.00	4710.10	8391.60	1822.80	28.20	21.30	221.20		
3	14.60	24.00	53.70	26.60	151.00	1886.70	4810.60	8099.20	1442.70	26.60	21.30	86.00		
4	13.50	24.00	289.60	24.00	151.00	1930.40	4948.40	7810.70	1180.80	25.00	37.40	139.50		
5	13.50	24.00	694.10	24.00	368.60	1974.70	5046.90	7462.80	976.80	25.00	49.30	136.50		
6	12.30	24.00	795.70	22.90	543.50	2044.20	5168.70	7155.50	672.80	25.00	47.90	55.60		
7	12.30	22.90	781.80	22.90	543.50	2134.70	5275.00	6862.50	222.50	24.00	35.90	49.30		
8	12.30	22.90	615.80	24.00	406.50	2220.70	5396.20	6568.00	223.70	24.00	24.00	25.00		
9	12.30	21.30	275.40	24.00	282.50	2336.80	5501.90	6255.70	198.70	24.00	37.40	25.00		
10	11.20	21.30	228.50	22.90	246.70	2471.90	5608.80	6017.50	154.00	24.00	62.30	25.00		
11	11.20	22.90	142.50	22.90	104.50	2613.60	5690.80	5778.20	104.50	22.90	62.30	24.00		
12	22.90	22.90	122.10	21.30	127.80	2697.30	5800.00	5547.20	66.60	22.90	58.00	24.00		
13	26.60	22.90	113.40	49.30	201.20	2785.10	6060.90	5381.10	59.90	22.90	53.70	24.00		
14	26.60	24.00	127.80	113.40	328.20	2878.80	6190.90	5183.90	51.30	22.90	53.70	33.30		
15	25.00	24.00	122.10	89.20	349.40	2972.20	6363.60	4973.40	44.90	22.90	53.70	41.90		
16	25.00	24.00	162.50	83.30	488.60	3069.90	6594.90	4810.60	35.90	22.90	53.70	38.90		
17	24.00	24.00	271.80	76.80	525.30	3164.60	6755.60	4609.30	30.80	22.90	53.70	37.40		
18	26.60	24.00	253.90	66.60	296.60	3245.50	6889.20	4444.10	25.00	21.30	53.70	38.90		
19	29.20	24.00	257.50	62.30	492.20	3360.20	7155.50	4275.60	24.00	21.30	53.70	41.90		
20	29.20	22.90	455.20	62.30	820.00	3454.80	7399.40	4116.80	24.00	21.30	51.30	41.90		
21	30.80	21.30	587.00	62.30	1177.50	3506.40	7652.80	3976.30	22.90	21.30	55.60	40.40		
22	30.80	21.30	579.80	62.30	1278.00	3629.60	7879.00	3832.70	22.90	21.30	76.80	38.90		
23	31.80	21.30	528.90	58.00	1285.20	3756.70	8099.20	3697.10	22.90	25.00	59.90	38.90		
24	30.80	22.90	481.20	64.70	1253.40	3883.40	8355.10	3462.00	24.00	41.90	62.30	35.90		
25	29.20	22.90	462.70	168.00	1267.20	4001.50	8500.90	3299.30	29.20	30.80	64.70	31.80		
26	29.20	21.30	414.10	173.40	1324.80	4116.80	8646.40	3144.30	29.20	24.00	66.60	30.80		
27	29.20	21.30	238.20	173.40	1396.40	4255.80	8791.60	2947.30	29.20	24.00	66.60	29.20		
28	29.20	20.20	148.10	410.30	1449.80	4402.10	8864.10	2741.20	29.20	22.90	68.50	19.10		
29	26.60	20.20	66.60	1135.60	1476.90	4444.10	8900.30	2561.60	28.20	22.90	68.50	18.00		
30	24.00	20.20	51.30	679.90	1519.30	4541.90	8827.90	2387.00	28.20	20.20		16.90		
31		20.20		669.30	1577.00		8791.60		28.20	20.20		15.80		
Total	669.10	701.10	9365.50	4547.50	22504.60	91249.60	209298.20	154402.60	9861.50	752.70	1495.10	1547.10	506394.60	**Ton**
Mean	22.30	22.60	312.20	146.70	726.00	3041.70	6751.60	5146.80	318.10	24.30	51.60	49.90		
Max	31.80	24.00	795.70	1135.60	1577.00	4541.90	8900.30	8610.10	2205.70	41.90	76.80	221.20	8900.30	
Min	11.20	20.20	21.30	21.30	104.50	1638.20	4621.90	2387.00	22.90	20.20	21.30	15.80	11.20	

WATER YEAR : 2011

MUN RIVER BASIN

Mun River at Satuk, Buri Ram (M.6A)

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

Location : on right bank at Satuk.

Ban Satuk **Amphoe** Satuk **Changwat** Buri Ram

Drainge Area	28,458 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2000-Cont'd
Actual Measurement	2000-Cont'd
Using Rating Curve Water Year	2011
Number of observation	46
R-Square	0.9203
Remarks	Continued Sediment Station

$$QS = 17.8350\ QW^{0.72960}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	12.30	12.30	342.90	64.30	284.40	1082.00	2401.40	2854.50	949.30	102.60	43.60	20.40		
2	12.30	12.30	345.00	46.30	325.30	1101.80	2536.40	2796.80	900.50	88.60	42.60	17.80		
3	12.30	12.30	355.80	59.40	364.40	1097.90	2712.40	2726.50	854.40	76.80	66.70	17.80		
4	12.30	12.30	355.80	56.90	377.10	1078.00	2884.20	2659.60	809.00	88.60	138.50	17.80		
5	12.30	12.30	349.40	64.30	349.40	1046.50	3001.90	2610.60	757.10	88.60	164.40	17.80		
6	12.30	12.30	331.90	59.40	296.00	1035.30	3103.50	2561.20	698.90	76.80	140.90	17.80		
7	12.30	12.30	307.40	45.40	289.00	1016.40	3175.30	2511.50	646.70	64.30	110.60	17.80		
8	12.30	12.30	336.30	51.70	314.10	970.70	3203.80	2424.60	585.40	59.40	115.90	17.80		
9	12.30	13.70	372.80	71.40	293.70	970.70	3189.60	2389.70	518.70	51.70	121.00	16.50		
10	12.30	13.70	402.00	64.30	284.40	981.30	3161.00	2331.20	454.40	46.30	102.60	16.50		
11	12.30	15.20	425.90	49.00	291.40	988.40	3132.30	2262.40	385.40	45.40	88.60	16.50		
12	12.30	45.40	445.00	43.60	300.50	1006.00	3103.50	2176.60	302.80	43.60	99.80	16.50		
13	12.30	118.50	452.10	42.60	298.30	1027.80	3132.30	2119.80	270.30	43.60	99.80	16.50		
14	12.30	166.70	466.10	49.00	260.70	1058.00	3117.90	2062.30	251.00	43.60	118.50	16.50		
15	12.30	197.50	473.10	64.30	222.60	1109.70	3117.90	1989.60	251.00	45.40	140.90	16.50		
16	12.30	197.50	473.10	82.80	289.00	1158.30	3132.30	1923.90	270.30	49.00	148.10	16.50		
17	12.30	191.10	468.50	113.30	381.20	1216.50	3161.00	1857.30	236.70	49.00	138.50	16.50		
18	12.30	232.70	470.80	140.90	452.10	1272.90	3189.60	1788.90	230.70	49.00	110.60	16.50		
19	12.30	272.60	447.40	191.10	550.00	1278.00	3246.50	1705.20	199.60	47.20	79.80	16.50		
20	12.30	282.10	395.80	212.30	656.30	1363.20	3395.60	1643.30	193.20	46.30	59.40	16.50		
21	12.30	258.30	309.60	222.60	721.80	1451.60	3576.10	1567.70	208.10	45.40	47.20	16.50		
22	12.30	246.10	255.90	260.70	777.50	1581.50	3747.90	1504.80	177.90	43.60	40.70	17.80		
23	12.30	234.70	241.20	300.50	806.20	1697.50	3841.60	1417.90	148.10	46.30	34.80	102.60		
24	12.30	263.10	232.70	336.30	831.70	1804.00	3841.60	1358.30	136.10	49.00	28.50	214.30		
25	12.30	272.60	220.50	355.80	863.70	1874.00	3747.90	1293.20	131.10	47.20	26.30	238.70		
26	12.30	253.40	206.00	353.70	897.50	1915.60	3627.90	1226.80	121.00	46.30	25.10	197.50		
27	12.30	267.90	195.40	325.30	912.70	1981.40	3493.60	1158.30	110.60	40.70	22.80	193.20		
28	12.30	293.70	175.70	284.40	916.00	2081.50	3365.80	1093.90	105.30	32.70	21.60	251.00		
29	12.30	314.10	128.60	267.90	916.00	2186.00	3232.30	1046.50	99.80	31.70	20.40	267.90		
30	12.30	338.50	88.60	270.30	970.70	2296.70	3103.50	1002.50	94.30	36.80		212.30		
31		353.70		293.70	1024.00		2958.00		110.60	45.40		182.30		
Total	369.00	4941.20	10071.30	4843.50	16517.70	40729.20	99634.60	58065.40	11208.30	1670.90	2398.20	2237.10	252686.40	**Ton**
Mean	12.30	159.40	335.70	156.20	532.80	1357.60	3214.00	1935.50	361.60	53.90	82.70	72.20		
Max	12.30	353.70	473.10	355.80	1024.00	2296.70	3841.60	2854.50	949.30	102.60	164.40	267.90	3841.60	
Min	12.30	12.30	88.60	42.60	222.60	970.70	2401.40	1002.50	94.30	31.70	20.40	16.50	12.30	

WATER YEAR : 2011

MUN RIVER BASIN

Mun River at Seri Prachathipatai Bridge, Ubon Ratchathani (M.7)

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

Location : on left bank at Seri Prachathipatai Bridge.

Ban Chumchondee **Amphoe** Mueang **Changwat** Ubon Ratchathani

Drainge Area	107,345 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2010-Cont'd
Actual Measurement	2010-Cont'd
Using Rating Curve Water Year	2011
Number of observation	26
R-Square	0.7913
Remarks	Continued Sediment Station

$$QS = 18.3510\ QW^{0.79780}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	208.20	448.90	1597.40	986.10	3243.30	9006.80	13841.20	15966.70	7185.50	620.30	850.30	737.60		
2	204.30	590.10	1540.50	945.90	3243.30	9152.60	13770.20	15795.30	6776.20	679.60	822.50	808.50		
3	216.10	751.90	1381.10	905.20	3227.50	9370.30	13912.10	15554.50	6307.40	737.60	794.50	780.30		
4	313.00	986.10	1282.30	1065.30	3164.20	9550.70	13770.20	15312.80	5887.20	808.50	751.90	808.50		
5	334.20	1117.30	1206.80	1091.40	3100.50	9658.60	13556.50	15208.90	5476.60	850.30	664.90	959.30		
6	355.10	1526.20	1206.80	1091.40	3164.20	9766.10	13391.50	14965.80	5163.40	864.10	590.10	932.40		
7	375.70	1723.60	1319.60	1052.20	3415.70	9873.30	13253.70	14651.70	4756.10	822.50	605.30	780.30		
8	385.90	1792.70	1625.60	1012.70	4040.30	9980.30	13115.40	14406.30	4129.60	808.50	635.30	679.60		
9	396.00	1928.90	1625.60	1039.10	4485.60	10181.50	13004.60	14124.40	3585.90	822.50	664.90	808.50		
10	365.40	2229.10	1625.60	1039.10	4738.20	10440.40	12921.30	13699.00	3020.40	822.50	664.90	620.30		
11	334.20	2304.70	1639.70	1025.90	4969.70	10697.70	12837.90	13419.00	2349.80	808.50	679.60	650.10		
12	334.20	2289.70	1681.80	999.40	5058.00	10976.60	12810.00	13004.60	1847.40	850.30	679.60	723.20		
13	375.70	2106.80	1737.40	999.40	5093.20	11230.70	12893.50	12642.70	1751.30	808.50	679.60	708.70		
14	416.00	1996.10	1792.70	999.40	5180.90	11437.50	13060.00	12278.10	1955.80	780.30	679.60	723.20		
15	448.90	1888.30	1806.40	1012.70	5338.00	11780.10	13281.30	11961.80	2091.40	737.60	650.10	708.70		
16	497.10	1861.10	1792.70	1143.10	5717.00	12097.60	13529.00	11643.40	2137.60	766.20	620.30	679.60		
17	497.10	1901.80	1806.40	1611.50	6022.50	12390.60	13734.60	11322.70	2137.60	751.90	620.30	620.30		
18	416.00	1955.80	1820.10	1806.40	6156.90	12726.40	14371.10	11022.90	1996.10	708.70	574.90	574.90		
19	375.70	1778.90	1778.90	1955.80	6539.60	12976.80	14686.70	10627.70	1901.80	679.60	590.10	559.50		
20	355.10	1709.70	1751.30	2036.10	6971.90	13226.00	14896.10	10252.30	1969.30	664.90	620.30	664.90		
21	375.70	1681.80	1681.80	2076.00	7455.00	13474.10	15174.20	9944.70	1888.30	664.90	590.10	679.60		
22	385.90	1639.70	1723.60	2062.70	7760.10	13912.10	15485.50	9658.60	1765.10	780.30	635.30	679.60		
23	465.10	1639.70	1792.70	2009.50	7986.90	14230.30	15760.90	9406.50	1639.70	905.20	708.70	679.60		
24	432.50	1639.70	1806.40	2022.80	8137.20	14441.40	16035.10	9098.00	1395.80	1012.70	723.20	694.20		
25	396.00	1695.70	1833.80	1955.80	8249.50	14511.60	16205.90	8768.50	1344.30	1168.70	694.20	679.60		
26	355.10	1778.90	1806.40	2036.10	8342.80	14511.60	16308.10	8547.00	1194.20	1294.70	664.90	664.90		
27	334.20	1778.90	1723.60	2183.50	8398.60	14371.10	16308.10	8249.50	850.30	1381.10	605.30	694.20		
28	375.70	1792.70	1667.80	2214.00	8417.20	14230.30	16376.20	7968.10	737.60	1356.60	620.30	694.20		
29	406.00	1765.10	1483.00	2628.20	8472.90	14159.80	16308.10	7684.10	679.60	1206.80	664.90	737.60		
30	406.00	1751.30	1078.40	3148.30	8676.40	14018.40	16171.80	7416.70	620.30	1039.10		708.70		
31		1723.60		3243.30	8805.20		16069.30		559.50	905.20		650.10		
Total	11136.10	51774.80	48616.20	49398.30	183572.30	358381.30	446840.10	354602.30	85101.10	27108.20	19345.90	22090.7 1	657967.40	**Ton**
Mean	371.20	1670.20	1620.50	1593.50	5921.70	11946.00	14414.20	11820.10	2745.20	874.50	667.10	712.60		
Max	497.10	2304.70	1833.80	3243.30	8805.20	14511.60	16376.20	15966.70	7185.50	1381.10	850.30	959.30	16376.20	
Min	204.30	448.90	1078.40	905.20	3100.50	9006.80	12810.00	7416.70	559.50	620.30	574.90	559.50	204.30	

WATER YEAR : 2011

MUN RIVER BASIN

Huai Samran at Mueang, Si Sa ket (M.9)

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

Location : on right bank at the bridge on Highway.

Ban - **Amphoe** Mueang **Changwat** Si Sa Ket

Drainge Area	2,988 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1998-Cont'd
Actual Measurement	1998-Cont'd
Using Rating Curve Water Year	2011
Number of observation	36
R-Square	0.9539
Remarks	Continued Sediment Station

$$QS = 4.3889\ QW^{0.90160}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.50	2.50	2.50	3.50	3.50	72.40	497.10	577.70	18.00	2.90	2.50	2.20		
2	2.50	2.50	2.50	3.30	3.40	102.10	496.20	528.90	14.10	2.90	2.60	2.20		
3	2.50	2.50	2.40	3.20	3.00	127.30	503.70	473.00	23.30	2.90	2.60	2.20		
4	2.50	2.50	2.40	2.90	2.90	141.20	511.70	422.80	14.80	2.80	2.60	2.20		
5	2.50	2.50	2.40	2.60	2.90	144.50	515.30	355.90	9.40	2.80	2.60	2.20		
6	2.40	2.50	2.80	2.60	3.00	150.10	517.60	310.70	7.00	2.90	2.60	2.20		
7	2.40	2.40	3.10	2.60	3.30	172.60	523.50	271.40	5.20	3.10	2.50	2.20		
8	2.40	2.40	3.00	2.60	3.80	182.90	524.70	240.40	4.30	3.10	2.50	2.20		
9	2.40	2.40	2.40	2.50	4.00	213.20	523.50	212.60	3.50	2.90	2.50	2.20		
10	2.40	2.40	2.40	2.40	4.00	264.30	524.70	184.50	3.30	3.00	2.50	2.20		
11	2.40	2.40	2.40	2.30	4.30	312.50	529.40	161.10	3.10	2.70	2.50	2.10		
12	2.40	2.40	2.50	2.10	4.50	353.90	550.40	139.60	3.10	2.70	2.50	1.90		
13	2.50	2.50	2.80	2.10	4.60	394.80	556.30	121.00	3.10	2.60	2.40	1.80		
14	2.50	2.60	3.10	2.10	4.60	414.20	573.70	108.30	3.10	2.60	2.40	1.80		
15	2.50	2.50	2.70	2.10	5.40	413.20	592.30	93.70	3.10	2.70	2.30	2.10		
16	2.50	2.50	2.40	2.00	5.40	411.30	615.40	80.20	3.10	2.70	2.30	2.10		
17	2.50	2.50	2.40	2.00	6.00	412.20	646.50	68.10	3.00	2.70	2.30	2.10		
18	2.50	2.50	2.40	2.00	6.20	409.30	674.20	65.30	3.00	2.70	2.30	2.10		
19	2.50	2.50	2.40	2.00	7.30	408.40	699.90	62.20	2.90	2.70	2.30	2.10		
20	2.50	2.50	2.40	2.00	11.30	409.30	716.30	58.10	2.90	2.70	2.30	2.10		
21	2.50	2.50	2.40	2.10	17.50	412.20	726.30	53.90	2.90	2.70	2.20	1.90		
22	2.50	2.40	2.40	2.10	22.00	432.40	744.40	50.30	2.90	2.70	2.20	1.80		
23	2.50	2.40	2.40	2.10	24.20	456.30	763.30	46.60	2.90	2.70	2.20	2.00		
24	2.50	2.50	2.60	2.10	24.20	479.10	789.00	42.80	2.90	2.60	2.20	2.10		
25	2.50	2.50	4.00	2.20	24.90	492.40	810.10	38.80	2.90	2.60	2.20	2.10		
26	2.50	2.40	4.10	2.40	25.50	499.00	825.70	34.40	2.90	2.60	2.20	2.10		
27	2.50	2.40	3.90	2.40	29.30	505.60	822.60	30.20	3.00	2.60	2.20	2.10		
28	2.50	2.40	3.90	2.50	33.40	506.60	774.60	27.00	3.10	2.60	2.10	2.10		
29	2.50	2.40	3.60	3.70	37.20	503.70	726.30	24.30	2.90	2.60	2.10	2.10		
30	2.50	2.40	3.50	4.10	41.60	500.00	685.40	21.40	2.90	2.60		2.20		
31		2.50		3.50	49.80		623.50		3.00	2.60		2.10		
Total	74.30	76.30	84.20	78.10	423.00	10297.00	19583.60	4905.20	165.60	85.00	68.70	64.80	35905.80	**Ton**
Mean	2.50	2.50	2.80	2.50	13.60	343.20	631.70	163.50	5.30	2.70	2.40	2.10		
Max	2.50	2.60	4.10	4.10	49.80	506.60	825.70	577.70	23.30	3.10	2.60	2.20	825.70	
Min	2.40	2.40	2.40	2.00	2.90	72.40	496.20	21.40	2.90	2.60	2.10	1.80	1.80	

WATER YEAR : 2011

MUN RIVER BASIN

Lam Se Bai at Ban Chiang Pheng, Yasothon (M.32)

Lat 15 - 50 - 18 N Long 104 - 27 - 35 E

Location : on right bank at Phawaphutanon bridge.

Ban Chiang Pheng **Amphoe** Pa Tiu **Changwat** Yasothon

Drainge Area	1,646 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1998-Cont'd
Actual Measurement	1998-Cont'd
Using Rating Curve Water Year	2011
Number of observation	27
R-Square	0.7950
Remarks	Continued Sediment Station

$$QS = 1.4678\ QW^{1.21220}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	0.00	11.60	139.00	950.40	303.00	28.30	0.00	0.00	0.00	0.00		
2	0.00	0.00	0.00	15.50	188.90	958.70	707.80	28.30	0.00	0.00	0.00	0.00		
3	0.00	0.00	0.00	28.30	229.60	975.30	884.50	28.30	0.00	0.00	0.00	0.00		
4	0.00	0.00	0.00	22.20	306.60	1000.30	933.80	28.30	0.00	0.00	0.00	0.00		
5	0.00	0.00	0.00	14.20	288.60	1017.10	835.60	28.30	0.00	0.00	0.00	0.00		
6	0.00	0.00	0.00	5.60	324.80	1033.90	673.80	28.30	0.00	0.00	0.00	0.00		
7	0.00	0.00	0.00	10.30	560.60	1067.60	483.00	30.40	0.00	0.00	0.00	0.00		
8	0.00	0.00	0.00	10.30	1042.30	1127.10	246.10	30.40	0.00	0.00	0.00	0.00		
9	0.00	0.00	0.00	9.10	1495.10	1195.80	136.70	30.40	0.00	0.00	0.00	0.00		
10	0.00	0.00	0.00	12.90	1907.30	1247.70	59.80	30.40	0.00	0.00	0.00	0.00		
11	0.00	0.00	0.00	62.90	2350.60	1326.40	10.30	32.60	0.00	0.00	0.00	0.00		
12	0.00	0.00	0.00	117.60	2741.20	1414.70	30.40	32.60	0.00	0.00	0.00	0.00		
13	0.00	0.00	0.00	135.50	2472.20	1361.60	116.90	32.60	0.00	0.00	0.00	0.00		
14	0.00	0.00	0.00	164.30	2046.10	1317.60	154.60	34.70	0.00	0.00	0.00	0.00		
15	0.00	0.00	0.00	197.30	1686.80	1282.60	253.10	36.90	0.00	0.00	0.00	0.00		
16	0.00	0.00	0.00	163.00	1649.00	1230.40	457.60	36.90	0.00	0.00	0.00	0.00		
17	0.00	0.00	0.00	139.00	1759.70	1110.00	528.00	36.90	0.00	0.00	0.00	0.00		
18	0.00	0.00	0.00	120.30	1833.20	1000.30	347.90	36.90	0.00	0.00	0.00	0.00		
19	0.00	0.00	0.00	113.00	2089.10	892.70	242.60	34.70	0.00	0.00	0.00	0.00		
20	0.00	0.00	0.00	66.00	2494.40	783.50	174.50	32.60	0.00	0.00	0.00	0.00		
21	0.00	0.00	0.00	113.80	2164.80	680.60	139.00	32.60	0.00	0.00	0.00	0.00		
22	0.00	0.00	0.00	149.70	2067.60	554.10	119.90	26.30	0.00	0.00	0.00	0.00		
23	0.00	0.00	0.00	220.60	1907.30	426.20	117.60	0.00	0.00	0.00	0.00	0.00		
24	0.00	0.00	1.90	320.30	1576.20	315.70	104.00	0.00	0.00	0.00	0.00	0.00		
25	0.00	0.00	11.60	413.80	1300.10	246.10	53.80	0.00	0.00	0.00	0.00	0.00		
26	0.00	0.00	12.90	567.20	1152.80	193.10	47.80	0.00	0.00	0.00	0.00	0.00		
27	0.00	0.00	11.60	370.70	1033.90	155.80	42.00	0.00	0.00	0.00	0.00	0.00		
28	0.00	0.00	11.60	242.60	983.60	137.80	36.90	0.00	0.00	0.00	0.00	0.00		
29	0.00	0.00	10.30	188.90	933.80	135.50	34.70	0.00	0.00	0.00	0.00	0.00		
30	0.00	0.00	11.60	155.80	942.10	135.50	32.60	0.00	0.00	0.00		0.00		
31		0.00		135.50	950.40		30.40		0.00	0.00		0.00		
Total	0.00	0.00	71.50	4297.80	42617.70	25274.10	8338.70	697.70	0.00	0.00	0.00	0.00	81297.50	**Ton**
Mean	0.00	0.00	2.40	138.60	1374.80	842.50	269.00	23.30	0.00	0.00	0.00	0.00		
Max	0.00	0.00	12.90	567.20	2741.20	1414.70	933.80	36.90	0.00	0.00	0.00	0.00	2741.20	
Min	0.00	0.00	0.00	5.60	139.00	135.50	10.30	0.00	0.00	0.00	0.00	0.00	0.00	

WATER YEAR : 2011

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.

Ban Huai Thap Than **Amphoe** Huai Thap Thun **Changwat** Si Sa Ket

Drainge Area	2,832 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1997-Cont'd
Actual Measurement	1997-Cont'd
Using Rating Curve Water Year	2011
Number of observation	24
R-Square	0.8908
Remarks	Continued Sediment Station

$$QS = 2.6244\ QW^{1.05060}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	0.00	6.00	7.70	120.30	691.70	428.00	5.20	0.00	0.00	0.00		
2	0.00	0.00	0.00	5.20	7.70	146.70	702.50	362.70	4.30	0.00	0.00	0.00		
3	0.00	0.00	0.00	4.30	11.30	178.10	702.50	303.80	2.30	0.00	0.00	0.00		
4	0.00	0.00	0.00	2.60	20.70	204.30	691.70	239.60	1.50	0.00	0.00	0.00		
5	0.00	0.00	0.00	2.60	24.90	221.20	691.70	180.30	1.50	0.00	0.00	0.00		
6	0.00	0.00	0.00	2.30	22.10	230.00	671.10	126.60	1.50	0.00	0.00	0.00		
7	0.00	0.00	0.00	2.10	20.70	237.40	645.20	94.90	1.50	0.00	0.00	0.00		
8	0.00	0.00	0.00	1.80	28.20	239.60	640.90	77.30	1.50	0.00	0.00	0.00		
9	0.00	0.00	0.00	1.80	26.60	249.00	653.90	63.20	1.50	0.00	0.00	0.00		
10	0.00	0.00	0.00	1.50	24.90	262.50	675.50	57.10	1.30	0.00	0.00	0.00		
11	0.00	0.00	0.00	1.50	28.20	280.70	691.70	54.00	1.00	0.00	0.00	0.00		
12	0.00	0.00	0.00	1.30	24.90	308.00	675.50	42.00	1.00	0.00	0.00	0.00		
13	0.00	0.00	0.00	1.30	24.90	344.10	658.20	31.70	0.70	0.00	0.00	0.00		
14	0.00	0.00	1.50	1.50	26.60	384.90	675.50	28.20	0.70	0.00	0.00	0.00		
15	0.00	0.00	1.50	1.30	23.50	436.50	735.40	23.50	0.50	0.00	0.00	0.00		
16	0.00	0.00	1.30	1.30	22.10	497.70	839.90	20.70	0.20	0.00	0.00	0.00		
17	0.00	0.00	1.30	1.30	18.00	553.90	1014.00	19.40	0.00	0.00	0.00	0.00		
18	0.00	0.00	1.80	2.10	16.60	594.60	1279.30	18.00	0.00	0.00	0.00	0.00		
19	0.00	0.00	2.10	1.80	23.50	617.20	1609.50	16.60	0.00	0.00	0.00	0.00		
20	0.00	0.00	6.00	2.30	33.40	624.80	1838.60	15.30	0.00	0.00	0.00	0.00		
21	0.00	0.00	7.70	2.30	38.50	624.80	1911.30	13.90	0.00	0.00	0.00	0.00		
22	0.00	0.00	6.00	5.20	36.80	621.00	1816.00	12.60	0.00	0.00	0.00	0.00		
23	0.00	0.00	5.20	4.30	35.10	617.20	1707.30	10.40	0.00	0.00	0.00	0.00		
24	0.00	0.00	4.30	6.00	38.50	587.10	1580.20	9.50	0.00	0.00	0.00	0.00		
25	0.00	0.00	2.60	6.90	40.30	583.40	1412.20	8.60	0.00	0.00	0.00	0.00		
26	0.00	0.00	2.30	7.70	42.00	590.90	1254.70	7.70	0.00	0.00	0.00	0.00		
27	0.00	0.00	2.30	6.90	51.00	621.00	1120.40	6.90	0.00	0.00	0.00	0.00		
28	0.00	0.00	2.30	8.60	57.10	624.80	921.60	6.90	0.00	0.00	0.00	0.00		
29	0.00	0.00	2.30	8.60	63.20	649.50	752.70	6.90	0.00	0.00	0.00	0.00		
30	0.00	0.00	2.10	7.70	77.90	666.80	613.50	6.90	0.00	0.00		0.00		
31		0.00		6.90	89.00		510.10		0.00	0.00		0.00		
Total	0.00	0.00	52.60	117.00	1005.90	12918.00	30384.30	2293.20	26.20	0.00	0.00	0.00	46797.20	**Ton**
Mean	0.00	0.00	1.80	3.80	32.40	430.60	980.10	76.40	0.80	0.00	0.00	0.00		
Max	0.00	0.00	7.70	8.60	89.00	666.80	1911.30	428.00	5.20	0.00	0.00	0.00	1911.30	
Min	0.00	0.00	0.00	1.30	7.70	120.30	510.10	6.90	0.00	0.00	0.00	0.00	0.00	

WATER YEAR : 2011

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.

Ban - **Amphoe** Pak Chong **Changwat** Nakhon Ratchasima

Drainge Area	713 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1981 - 1988,1991,1997 - Cont'd
Actual Measurement	1981 - 1988,1991,1997 - Cont'd
Using Rating Curve Water Year	2011
Number of observation	23
R-Square	0.7158
Remarks	Continued Sediment Station

$$QS = 3.9101\ QW^{1.34520}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	47.30	58.80	58.50	362.60	230.40	106.90	305.00	69.60	51.20	50.40	49.40	47.60		
2	47.30	65.20	260.80	127.10	466.90	132.20	233.40	65.20	51.20	50.20	49.10	48.10		
3	47.30	55.80	301.80	83.10	526.20	145.40	503.20	60.90	51.20	49.90	49.10	49.70		
4	47.30	55.20	167.00	69.60	345.90	97.20	734.20	58.50	51.20	49.90	49.40	48.10		
5	47.30	54.70	111.90	67.40	212.60	106.90	366.80	58.00	51.20	49.90	49.70	47.60		
6	49.10	53.90	67.40	57.10	153.40	80.80	554.10	57.40	51.20	49.70	49.70	47.60		
7	53.70	54.40	57.40	55.80	114.40	104.50	654.80	57.10	51.20	49.70	49.10	47.60		
8	51.70	52.60	56.60	54.40	90.10	99.60	331.00	58.50	51.20	49.40	48.90	48.10		
9	51.70	51.50	55.20	53.40	74.00	114.40	273.20	80.80	51.20	49.40	48.60	48.10		
10	50.70	51.20	54.20	54.20	69.60	440.20	236.40	74.00	51.20	49.10	49.40	48.40		
11	49.90	51.20	71.80	153.40	78.50	1726.00	640.10	58.50	51.20	49.10	49.10	49.10		
12	49.90	69.60	69.60	153.40	74.00	2012.90	714.20	56.90	51.20	49.10	48.60	48.40		
13	49.90	94.80	58.00	83.10	58.30	1438.90	805.60	56.10	51.20	49.10	48.60	48.10		
14	51.50	85.40	58.00	69.60	74.00	1200.10	471.40	55.50	51.20	49.10	48.60	48.40		
15	51.20	85.40	54.20	167.00	167.00	689.30	334.30	55.20	51.20	49.10	48.40	48.10		
16	51.20	85.40	54.70	186.60	192.30	375.30	418.30	55.00	51.20	49.10	48.40	48.10		
17	51.20	85.40	54.20	142.70	121.90	308.20	458.00	54.70	51.20	49.10	48.40	48.10		
18	49.90	65.20	53.90	148.00	111.90	279.50	392.30	54.20	51.20	49.10	47.80	47.80		
19	49.90	63.00	53.90	137.40	200.90	295.40	295.40	53.90	51.20	49.10	47.80	48.10		
20	48.90	56.90	54.40	251.60	212.60	198.10	236.40	53.70	51.20	49.10	46.50	47.60		
21	49.90	56.60	71.80	341.70	153.40	227.40	198.10	53.90	51.00	49.10	46.80	47.80		
22	53.70	55.20	58.00	279.50	114.40	175.40	169.80	53.90	50.20	49.10	48.10	47.80		
23	50.40	53.90	54.20	224.40	87.70	186.60	148.00	53.90	50.20	49.10	47.80	47.60		
24	48.90	53.40	53.90	145.40	69.60	535.50	132.20	53.90	50.20	49.10	47.60	47.60		
25	48.60	60.90	53.90	127.10	97.20	1311.10	119.40	53.40	50.20	49.10	48.10	47.60		
26	49.40	55.20	53.10	148.00	65.20	568.20	106.90	53.10	50.20	49.10	48.10	47.60		
27	49.90	60.90	54.40	145.40	58.30	2235.20	99.60	53.10	50.20	49.10	47.60	47.30		
28	51.20	58.30	714.20	99.60	71.80	959.90	94.80	52.90	50.20	49.10	47.30	47.30		
29	57.40	83.10	230.40	104.50	76.30	503.20	90.10	52.90	50.20	49.10	47.30	47.10		
30	121.90	85.40	140.10	134.80	85.40	354.20	80.80	52.60	49.90	49.10		47.10		
31		58.80		150.70	83.10		76.30		49.90	49.10		47.10		
Total	1578.20	1977.30	3257.50	4378.60	4537.30	17008.50	10274.10	1727.30	1576.40	1528.70	1403.30	1484.60	50731.80	**Ton**
Mean	52.60	63.80	108.60	141.20	146.40	567.00	331.40	57.60	50.90	49.30	48.40	47.90		
Max	121.90	94.80	714.20	362.60	526.20	2235.20	805.60	80.80	51.20	50.40	49.70	49.70	2235.20	
Min	47.30	51.20	53.10	53.40	58.30	80.80	76.30	52.60	49.90	49.10	46.50	47.10	46.50	

WATER YEAR : 2011

MUN RIVER BASIN

Huai Tunglung at Ban Don Yai, Ubon Ratchathani (M.110)

Lat 15 - 26 - 36 N Long 105 - 18 - 30 E

Location : on left bank at the bridge on trakan Phutphon - Khong Chiam Highway.

Ban Don Yai **Amphoe** Si Mueang Mai **Changwat** Ubon Ratchathani

Drainge Area	570 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2002-Cont'd
Actual Measurement	2002-Cont'd
Using Rating Curve Water Year	2011
Number of observation	18
R-Square	0.7576
Remarks	Continued Sediment Station

$$QS = 2.8928\ QW^{1.16990}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	90.60	211.50	163.10	120.30	299.70	437.70	0.00	0.00	0.00	0.00	0.00		
2	0.00	90.60	268.00	163.10	116.80	201.40	1108.30	0.00	0.00	0.00	0.00	0.00		
3	0.00	90.60	326.40	163.10	130.80	201.40	566.50	0.00	0.00	0.00	0.00	0.00		
4	0.00	90.60	348.00	159.50	96.20	381.50	201.40	0.00	0.00	0.00	0.00	0.00		
5	0.00	99.60	348.00	159.50	68.70	226.70	85.10	0.00	0.00	0.00	0.00	0.00		
6	0.00	106.50	348.00	159.50	58.10	273.30	66.60	0.00	0.00	0.00	0.00	0.00		
7	0.00	109.90	337.20	155.90	3679.30	242.10	54.00	0.00	0.00	0.00	0.00	0.00		
8	0.00	113.30	196.40	152.30	4188.80	805.90	41.80	0.00	0.00	0.00	0.00	0.00		
9	0.00	116.80	201.40	148.70	2221.30	1038.00	49.90	0.00	0.00	0.00	0.00	0.00		
10	0.00	109.90	221.60	145.10	3679.30	692.20	47.80	0.00	0.00	0.00	0.00	0.00		
11	0.00	106.50	191.40	145.10	2011.40	573.80	47.80	0.00	0.00	0.00	0.00	0.00		
12	0.00	103.00	237.00	148.70	418.90	692.20	47.80	0.00	0.00	0.00	0.00	0.00		
13	0.00	120.30	237.00	186.50	191.40	305.00	43.80	0.00	0.00	0.00	0.00	0.00		
14	60.20	134.40	201.40	247.30	137.90	890.90	544.70	0.00	0.00	0.00	0.00	0.00		
15	60.20	141.50	181.50	247.30	93.40	707.20	856.80	0.00	0.00	0.00	0.00	0.00		
16	60.20	145.10	166.80	247.30	387.70	848.30	487.20	0.00	0.00	0.00	0.00	0.00		
17	62.40	148.70	166.80	247.30	1728.20	305.00	211.50	0.00	0.00	0.00	0.00	0.00		
18	66.60	155.90	166.80	206.50	669.70	145.10	201.40	0.00	0.00	0.00	0.00	0.00		
19	68.70	155.90	166.80	237.00	669.70	123.80	353.40	0.00	0.00	0.00	0.00	0.00		
20	74.10	155.90	166.80	387.70	1589.50	1549.00	444.80	0.00	0.00	0.00	0.00	0.00		
21	74.10	159.50	159.50	418.90	310.30	951.10	406.30	0.00	0.00	0.00	0.00	0.00		
22	68.70	159.50	155.90	310.30	82.30	767.70	400.10	0.00	0.00	0.00	0.00	0.00		
23	68.70	159.50	155.90	252.40	71.40	684.70	364.30	0.00	0.00	0.00	0.00	0.00		
24	68.70	163.10	196.40	206.50	68.70	201.40	331.80	0.00	0.00	0.00	0.00	0.00		
25	66.60	163.10	196.40	805.90	66.60	103.00	331.80	0.00	0.00	0.00	0.00	0.00		
26	66.60	166.80	181.50	353.40	58.10	71.40	326.40	0.00	0.00	0.00	0.00	0.00		
27	66.60	166.80	176.60	226.70	51.90	51.90	0.00	0.00	0.00	0.00	0.00	0.00		
28	74.10	171.70	176.60	381.50	62.40	51.90	0.00	0.00	0.00	0.00	0.00	0.00		
29	87.90	171.70	181.50	289.10	87.90	60.20	0.00	0.00	0.00	0.00	0.00	0.00		
30	90.60	171.70	181.50	155.90	148.70	71.40	0.00	0.00	0.00	0.00		0.00		
31		176.60		152.30	451.80		0.00		0.00	0.00		0.00		
Total	1185.00	4215.60	6450.60	7423.40	23717.50	13517.20	8059.00	0.00	0.00	0.00	0.00	0.00	64568.30	**Ton**
Mean	39.50	136.00	215.00	239.50	765.10	450.60	260.00	0.00	0.00	0.00	0.00	0.00		
Max	90.60	176.60	348.00	805.90	4188.80	1549.00	1108.30	0.00	0.00	0.00	0.00	0.00	4188.80	
Min	0.00	90.60	155.90	145.10	51.90	51.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

WATER YEAR : 2011

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.

Ban Na Hai **Amphoe** Trakan Phutphon **Changwat** Ubon Ratchathani

Drainge Area	424 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1997-Cont'd
Actual Measurement	1997-Cont'd
Using Rating Curve Water Year	2011
Number of observation	21
R-Square	0.7744
Remarks	Continued Sediment Station

$$QS = 6.3631\ QW^{1.07830}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.10	2.40	0.00	9.10	64.80	186.70	55.10	6.00	4.70	3.30	1.70	0.00		
2	0.50	2.10	0.00	10.60	64.80	413.60	121.40	5.70	4.30	3.30	1.70	0.00		
3	0.30	2.10	0.00	12.70	72.90	571.60	241.70	5.00	4.30	3.30	1.70	0.00		
4	0.30	2.10	0.00	7.70	53.50	322.20	142.20	4.30	4.30	3.30	1.70	0.00		
5	0.00	2.40	0.00	6.40	53.50	881.60	98.60	4.00	4.30	3.30	1.70	0.00		
6	0.00	2.40	0.80	4.70	51.90	1625.40	61.50	4.00	4.30	3.30	1.40	0.00		
7	0.00	2.70	2.70	4.30	369.20	1428.30	50.30	4.30	4.30	3.00	1.40	0.00		
8	0.00	3.00	2.40	4.00	1992.50	711.10	39.20	4.30	4.30	3.00	1.10	0.00		
9	0.00	2.70	2.10	3.70	2878.70	600.20	48.70	4.30	4.30	2.70	1.10	0.00		
10	0.00	2.40	1.70	3.70	3674.30	830.20	26.10	4.30	4.30	2.40	1.10	0.00		
11	0.00	2.40	1.10	3.70	1964.40	523.20	23.80	6.00	4.30	2.10	0.80	0.00		
12	0.00	2.70	1.40	4.70	748.40	571.60	23.10	5.70	4.00	2.10	0.80	0.00		
13	0.00	2.70	4.00	17.80	182.00	580.20	107.70	5.70	4.00	2.10	0.80	0.00		
14	0.00	3.00	3.70	69.70	149.10	297.60	215.30	5.70	4.00	2.10	0.50	0.00		
15	0.00	2.40	3.00	137.50	137.50	241.70	285.40	5.70	4.00	2.10	0.50	0.00		
16	0.00	2.40	3.00	146.80	319.70	339.50	236.90	5.30	4.00	2.10	0.50	0.00		
17	0.00	2.40	3.30	137.50	394.70	249.00	167.90	5.30	4.00	2.10	0.50	0.00		
18	1.10	2.40	26.80	132.90	433.10	268.40	123.70	5.30	4.00	2.10	0.30	0.00		
19	2.10	2.40	20.10	69.70	611.60	249.00	87.40	5.30	4.00	2.10	0.00	0.00		
20	2.10	1.70	14.90	53.50	1489.30	1789.10	64.80	5.30	4.00	2.10	0.00	0.00		
21	2.10	0.50	11.30	53.50	1023.30	1781.90	48.70	5.00	4.00	2.10	0.00	0.00		
22	2.10	0.50	9.90	137.50	511.90	634.60	37.60	5.00	3.70	2.40	0.00	0.00		
23	2.10	0.50	8.40	119.10	263.50	329.60	31.40	5.00	3.70	2.40	0.00	0.00		
24	1.70	0.50	6.00	94.10	151.50	177.30	34.50	5.00	3.70	2.40	0.00	0.00		
25	1.70	0.50	5.00	160.80	96.30	114.50	31.40	5.00	3.70	2.70	0.00	0.00		
26	1.10	0.80	4.30	146.80	66.40	85.10	26.80	4.70	3.70	2.70	0.00	0.00		
27	0.80	0.80	4.30	85.10	69.70	61.50	23.80	4.70	3.70	2.40	0.00	0.00		
28	0.80	0.50	3.70	174.90	55.10	66.40	21.60	4.70	3.70	2.40	0.00	0.00		
29	2.10	0.30	3.70	160.80	103.10	61.50	20.10	4.70	3.70	2.40	0.00	0.00		
30	2.70	0.30	3.70	137.50	100.90	53.50	18.60	4.70	3.70	2.10		0.00		
31		0.00		87.40	105.40		11.30		3.70	2.10		0.00		
Total	24.70	54.00	151.30	2198.20	18253.00	16046.10	2526.60	150.00	124.70	78.00	19.30	0.00	39625.90	**Ton**
Mean	0.80	1.70	5.00	70.90	588.80	534.90	81.50	5.00	4.00	2.50	0.70	0.00		
Max	2.70	3.00	26.80	174.90	3674.30	1789.10	285.40	6.00	4.70	3.30	1.70	0.00	3674.30	
Min	0.00	0.00	0.00	3.70	51.90	53.50	11.30	4.00	3.70	2.10	0.00	0.00	0.00	

WATER YEAR : 2011

MUN RIVER BASIN

Lam Chi at Ban Lum Din, Surin (M.159)

Lat 15 - 08 - 24 N Long 103 - 25 - 57 E

Location : on right bank at Ban Lum Din.

Ban Lum Din **Amphoe** Chom Phra **Changwat** Surin

Drainge Area	4,806 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2008-Cont'd
Actual Measurement	2008-Cont'd
Using Rating Curve Water Year	2005-2011
Number of observation	190
R-Square	0.8360
Remarks	Continued Sediment Station

$$QS = 9.4968\ QW^{0.80720}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	14.60	46.20	57.00	367.30	1202.70	1299.90	141.10	23.10	5.90	0.00		
2	0.00	0.00	17.30	44.60	57.50	412.80	1213.30	1087.20	125.20	17.90	4.00	0.00		
3	0.00	0.00	18.60	42.00	57.00	434.40	1255.50	981.50	103.60	13.20	2.40	0.00		
4	0.00	0.00	19.90	39.80	63.40	459.60	1344.00	905.30	90.80	9.10	1.70	0.00		
5	0.00	0.00	21.80	35.40	64.30	461.90	1367.20	842.80	81.80	8.70	1.20	0.00		
6	0.00	0.00	22.40	32.60	58.90	445.90	1380.10	783.50	76.70	6.70	0.00	0.00		
7	0.00	0.00	24.30	30.80	60.40	417.10	1385.20	725.20	70.60	5.10	0.00	0.00		
8	0.00	0.00	26.70	29.10	55.50	390.20	1374.90	683.60	62.40	5.40	0.00	0.00		
9	0.00	0.00	30.80	27.30	48.30	373.10	1359.50	657.00	57.50	5.10	1.20	0.00		
10	0.00	0.00	37.00	26.10	47.80	455.10	1328.50	623.90	51.90	4.90	0.00	0.00		
11	0.00	0.00	38.70	23.70	44.10	466.40	1307.70	594.10	45.70	4.70	0.00	0.00		
12	0.00	0.00	39.20	22.40	41.40	628.10	1286.90	570.40	38.70	4.70	0.00	0.00		
13	0.00	0.00	39.20	23.70	35.90	749.10	1284.30	544.30	31.40	3.60	0.00	0.00		
14	0.00	0.00	39.80	26.70	48.80	817.50	1310.30	524.60	26.10	0.00	0.00	0.00		
15	0.00	0.00	39.20	32.00	51.40	851.20	1351.70	504.60	22.40	0.00	0.00	0.00		
16	0.00	0.00	42.00	35.40	53.40	859.60	1431.90	468.70	23.10	0.40	0.00	0.00		
17	0.00	0.00	46.70	38.20	52.40	849.10	1562.60	439.00	23.10	0.40	0.00	0.00		
18	0.00	0.00	50.40	38.20	54.40	838.60	1656.80	409.00	21.80	0.00	0.00	0.00		
19	0.00	0.00	54.40	37.60	58.50	830.20	1749.20	390.20	17.90	0.00	0.00	0.00		
20	0.00	0.00	58.90	37.60	177.40	802.70	1873.90	367.30	15.90	0.00	0.00	0.00		
21	0.00	0.00	61.90	37.60	255.30	759.90	1966.20	342.10	18.60	0.00	0.00	0.00		
22	0.00	0.00	66.30	46.20	279.50	725.20	2044.70	322.40	16.60	0.00	0.00	0.00		
23	0.00	0.00	68.70	52.90	267.40	742.60	2069.10	302.50	19.30	2.40	0.00	0.00		
24	0.00	0.00	67.20	56.00	257.00	789.90	2054.50	277.70	18.60	4.00	0.00	0.00		
25	0.00	0.00	65.30	58.50	243.00	870.00	2034.90	253.50	18.60	26.10	0.00	0.00		
26	0.00	0.00	57.00	60.90	216.80	907.50	1916.70	235.90	18.60	23.10	0.00	0.00		
27	0.00	1.90	54.90	64.80	203.70	931.50	1850.40	213.90	17.90	21.80	0.00	0.00		
28	0.00	4.50	53.40	56.50	212.50	1035.80	1771.60	196.60	21.20	20.50	0.00	0.00		
29	0.00	8.70	49.90	59.40	226.90	1126.10	1686.70	177.40	21.20	18.60	0.00	0.00		
30	0.00	11.70	47.30	60.40	265.70	1184.50	1556.70	158.90	15.90	13.90		0.00		
31		13.20		61.90	304.50		1410.80		32.00	9.10		0.00		
Total	0.00	40.00	1273.80	1284.50	3920.10	20982.90	48388.50	15883.00	1346.20	252.50	16.40	0.00	93387.90	**Ton**
Mean	0.00	1.30	42.50	41.40	126.50	699.40	1560.90	529.40	43.40	8.10	0.60	0.00		
Max	0.00	13.20	68.70	64.80	304.50	1184.50	2069.10	1299.90	141.10	26.10	5.90	0.00	2069.10	
Min	0.00	0.00	14.60	22.40	35.90	367.30	1202.70	158.90	15.90	0.00	0.00	0.00	0.00	

WATER YEAR : 2011

MUN RIVER BASIN

Lam Ta Khong at Mueang, Nakhon Ratchasima (M.164)

Lat 14 - 58 - 57 N Long 102 - 05 - 52 E

Location : on right bank at the bridge on highway.

Ban - **Amphoe** Mueang **Changwat** Nakhon Ratchasima

Drainge Area	3,012 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2008-Cont'd
Actual Measurement	2008-Cont'd
Using Rating Curve Water Year	2011
Number of observation	32
R-Square	0.9345
Remarks	Continued Sediment Station

$$QS = 3.7072\ QW^{1.22420}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.30	23.40	33.90	0.10	33.90	69.80	136.30	20.90	1.10	46.20	4.40	9.70		
2	4.40	11.40	59.50	4.40	49.50	66.30	140.70	20.90	2.10	87.70	5.10	13.60		
3	5.10	33.90	18.40	2.10	52.80	59.50	195.40	18.40	4.40	95.00	5.10	7.40		
4	8.10	49.50	7.40	5.80	31.20	62.90	176.80	13.60	4.40	66.30	5.80	16.00		
5	11.40	23.40	33.90	10.60	5.80	43.00	149.60	9.70	3.70	62.90	5.80	20.90		
6	69.80	33.90	46.20	8.90	7.40	13.60	163.10	8.90	3.30	66.30	5.80	31.20		
7	49.50	20.90	8.10	0.10	18.40	7.40	195.40	8.90	2.90	66.30	10.60	10.60		
8	28.60	8.90	20.90	0.00	3.70	7.40	195.40	7.40	2.90	49.50	5.10	20.90		
9	20.90	5.80	18.40	3.70	0.20	8.10	195.40	23.40	2.50	33.90	13.60	20.90		
10	20.90	16.00	10.60	13.60	16.00	49.50	211.00	49.50	0.20	18.40	20.90	31.20		
11	20.90	13.60	5.10	49.50	59.50	253.60	221.50	69.80	0.00	31.20	8.10	91.30		
12	13.60	8.90	2.90	31.20	33.90	280.90	264.40	69.80	0.00	31.20	8.90	59.50		
13	7.40	5.10	0.50	49.50	28.60	253.60	297.50	46.20	0.00	33.90	8.90	52.80		
14	7.40	8.90	7.40	62.90	49.50	232.10	280.90	28.60	0.00	36.70	8.90	49.50		
15	6.60	3.70	11.40	69.80	56.10	211.00	216.20	18.40	9.70	56.10	8.90	49.50		
16	7.40	9.70	7.40	56.10	69.80	216.20	221.50	13.60	7.40	62.90	9.70	28.60		
17	10.60	25.90	2.10	52.80	98.70	211.00	195.40	13.60	3.70	52.80	28.60	23.40		
18	11.40	16.00	1.80	36.70	102.50	158.60	216.20	9.70	3.70	52.80	6.60	9.70		
19	39.80	5.80	1.80	28.60	69.80	98.70	232.10	20.90	7.40	66.30	25.90	8.10		
20	52.80	13.60	1.80	36.70	49.50	73.30	253.60	59.50	7.40	123.20	20.90	8.10		
21	11.40	13.60	1.80	28.60	33.90	59.50	248.20	33.90	5.80	211.00	10.60	2.10		
22	6.60	5.10	3.70	23.40	18.40	56.10	216.20	6.60	5.80	172.20	16.00	3.30		
23	6.60	5.10	10.60	36.70	33.90	59.50	158.60	6.60	6.60	114.70	25.90	4.40		
24	6.60	6.60	10.60	98.70	6.60	76.90	56.10	13.60	13.60	33.90	20.90	3.70		
25	7.40	23.40	11.40	80.40	36.70	76.90	52.80	13.60	10.60	16.00	16.00	3.70		
26	7.40	52.80	9.70	66.30	4.40	73.30	4.40	10.60	9.70	9.70	18.40	3.30		
27	8.10	49.50	6.60	87.70	8.10	91.30	23.40	11.40	9.70	7.40	23.40	3.30		
28	3.70	43.00	23.40	84.00	69.80	102.50	28.60	16.00	9.70	7.40	5.10	2.90		
29	5.10	33.90	23.40	73.30	110.40	110.40	36.70	6.60	9.70	8.10	5.10	2.90		
30	13.60	56.10	25.90	49.50	98.70	127.60	25.90	3.70	10.60	6.60		3.70		
31		52.80		10.60	80.40		16.00		16.00	5.10		9.70		
Total	476.40	680.20	426.60	1162.30	1338.10	3210.50	5025.30	654.30	174.60	1731.70	359.00	605.90	15844.90	**Ton**
Mean	15.90	21.90	14.20	37.50	43.20	107.00	162.10	21.80	5.60	55.90	12.40	19.50		
Max	69.80	56.10	59.50	98.70	110.40	280.90	297.50	69.80	16.00	211.00	28.60	91.30	297.50	
Min	3.30	3.70	0.50	0.00	0.20	7.40	4.40	3.70	0.00	5.10	4.40	2.10	0.00	

WATER YEAR : 2011

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.

Ban Kham Samran **Amphoe** Det Udom **Changwat** Ubon Ratchathani

Drainge Area	1,745 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2002-Cont'd
Actual Measurement	2002-Cont'd
Using Rating Curve Water Year	2011
Number of observation	25
R-Square	0.7375
Remarks	Continued Sediment Station

$$QS = 14.8300\ QW^{0.76210}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	6.20	10.80	198.10	185.40	256.00	472.90	705.40	289.00	72.30	18.70	11.50	8.20		
2	6.20	12.30	149.60	226.40	315.20	533.00	591.30	260.60	62.10	17.90	11.10	8.20		
3	5.90	11.30	134.20	214.20	324.50	590.00	545.60	239.60	54.40	17.00	10.80	8.50		
4	5.90	23.60	122.70	185.40	264.10	618.30	717.20	217.90	46.30	16.60	10.60	8.70		
5	5.90	18.70	101.60	163.10	244.30	619.70	767.80	198.10	42.70	16.20	10.30	8.50		
6	6.20	16.60	81.80	131.40	216.70	594.10	776.00	177.60	40.20	15.70	10.30	8.50		
7	6.20	16.20	80.50	109.30	220.40	587.30	750.90	165.80	38.50	15.70	10.00	8.50		
8	5.90	13.00	113.80	93.80	281.70	670.80	644.60	160.40	37.70	16.20	11.10	9.00		
9	5.90	12.00	164.40	84.40	299.80	830.60	528.00	155.00	39.40	15.70	11.10	10.00		
10	5.90	11.10	208.10	77.80	311.60	988.30	520.40	150.90	37.70	15.70	10.80	11.10		
11	5.90	10.30	220.40	71.00	343.00	1270.20	574.00	145.40	34.30	15.30	10.80	11.80		
12	5.60	9.30	267.50	68.20	397.40	1273.60	577.70	137.00	31.60	15.30	10.60	12.30		
13	5.60	8.50	317.50	81.80	382.80	1202.60	584.50	132.80	28.00	14.40	10.60	12.00		
14	5.60	9.30	285.30	186.70	349.90	1145.40	545.60	122.70	26.10	13.90	10.00	11.80		
15	5.60	9.00	231.20	273.20	357.80	1104.40	607.60	113.80	28.90	12.50	9.50	11.50		
16	5.60	17.90	201.80	346.40	324.50	1080.80	737.20	106.30	30.70	12.30	9.30	11.10		
17	5.60	27.00	172.40	358.90	312.80	1045.10	771.10	101.60	30.70	13.50	9.30	10.30		
18	6.20	127.00	132.80	309.30	364.50	999.20	755.50	93.80	34.30	13.50	9.80	9.50		
19	6.50	116.80	204.30	246.60	517.90	938.80	749.40	88.40	33.40	13.50	9.80	9.30		
20	6.20	175.00	311.60	199.30	640.30	861.40	737.20	84.40	28.00	13.50	10.30	12.50		
21	5.60	98.50	356.70	199.30	658.80	784.20	749.40	81.80	26.10	12.30	9.80	13.50		
22	5.60	62.10	409.50	180.20	658.80	792.40	712.80	77.80	23.60	12.00	9.50	14.40		
23	6.50	39.40	386.40	168.40	637.40	981.90	579.10	73.70	20.40	12.00	9.50	13.00		
24	6.20	24.40	326.90	189.20	560.50	1292.10	471.60	68.20	22.80	14.80	9.30	12.00		
25	5.90	24.40	252.50	193.00	488.50	1270.20	404.70	64.30	22.00	25.20	9.30	10.80		
26	5.90	34.30	195.60	266.40	503.90	1161.40	361.20	61.00	22.80	18.70	8.70	10.30		
27	5.60	115.30	153.70	265.20	511.60	1087.90	335.00	57.70	22.00	15.30	8.20	9.80		
28	6.20	160.40	137.00	275.60	541.80	1004.10	395.00	55.50	22.00	13.00	7.90	9.30		
29	7.70	125.60	132.80	354.40	579.10	945.30	403.50	53.20	20.40	12.50	7.90	9.00		
30	9.80	103.20	152.30	312.80	545.60	857.50	375.40	50.90	19.60	13.90		8.50		
31		135.60		246.60	491.10		321.00		19.60	13.50		9.50		
Total	183.60	1578.90	6203.00	6263.70	12902.30	27603.50	18295.70	3785.20	1018.60	466.30	287.70	321.40	78909.90	**Ton**
Mean	6.10	50.90	206.80	202.10	416.20	920.10	590.20	126.20	32.90	15.00	9.90	10.40		
Max	9.80	175.00	409.50	358.90	658.80	1292.10	776.00	289.00	72.30	25.20	11.50	14.40	1292.10	
Min	5.60	8.50	80.50	68.20	216.70	472.90	321.00	50.90	19.60	12.00	7.90	8.20	5.60	

WATER YEAR : 2011

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.

Ban Non Sao - E **Amphoe** Wang Nam Khieo **Changwat** Nakhon Ratchasima

Drainge Area	553 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2001-Cont'd
Actual Measurement	2001-Cont'd
Using Rating Curve Water Year	2011
Number of observation	20
R-Square	0.8344
Remarks	Continued Sediment Station

$$QS = 22.9990\ QW^{1.25250}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	7.30	72.50	106.50	122.40	980.10	114.40	421.70	91.10	14.70	0.00	0.00	0.00		
2	5.10	48.00	54.80	91.10	931.20	79.80	380.70	76.10	6.20	0.00	0.00	0.00		
3	3.10	31.90	48.00	65.30	2676.10	58.20	474.10	83.50	5.10	0.00	0.00	0.00		
4	8.50	28.90	48.00	87.30	1079.20	106.50	764.40	79.80	5.10	0.00	0.00	0.00		
5	23.00	25.90	44.70	155.50	370.60	58.20	432.10	72.50	5.10	0.00	0.00	0.00		
6	31.90	44.70	41.40	118.40	181.30	48.00	2676.10	65.30	5.10	0.00	0.00	0.00		
7	31.90	31.90	35.10	44.70	126.50	41.40	882.90	65.30	7.30	0.00	0.00	0.00		
8	23.00	18.80	48.00	38.20	91.10	38.20	432.10	76.10	7.30	0.00	0.00	0.00		
9	31.90	17.40	31.90	44.70	76.10	54.80	432.10	76.10	5.10	0.00	0.00	0.00		
10	17.40	38.20	31.90	31.90	65.30	3337.40	5251.50	98.70	5.10	0.00	0.00	0.00		
11	13.40	44.70	31.90	31.90	61.70	11980.90	4338.90	83.50	5.10	0.00	0.00	0.00		
12	9.70	51.40	25.90	25.90	54.80	5668.00	1933.10	76.10	5.10	0.00	0.00	48.00		
13	12.10	72.50	18.80	25.90	54.80	3251.20	2616.10	54.80	4.10	0.00	0.00	23.00		
14	130.60	172.70	18.80	25.90	87.30	1890.90	2089.10	51.40	3.10	0.00	0.00	20.20		
15	87.30	164.00	18.80	25.90	235.20	882.90	1328.60	51.40	2.10	0.00	0.00	14.70		
16	31.90	83.50	17.40	25.90	432.10	463.50	1296.10	48.00	0.50	0.00	0.00	12.10		
17	23.00	48.00	17.40	23.00	442.50	360.50	3103.40	44.70	0.50	0.00	0.00	7.30		
18	13.40	54.80	16.00	23.00	320.80	432.10	2146.50	44.70	0.50	0.00	0.00	6.20		
19	18.80	35.10	14.70	23.00	226.00	401.10	718.00	41.40	0.50	0.00	0.00	4.10		
20	61.70	23.00	38.20	48.00	244.40	330.70	474.10	38.20	0.50	0.00	0.00	1.30		
21	54.80	23.00	25.90	68.90	226.00	291.70	380.70	31.90	0.50	0.00	0.00	0.00		
22	65.30	23.00	18.80	61.70	147.10	301.30	301.30	28.90	0.50	0.00	0.00	0.00		
23	35.10	23.00	18.80	61.70	106.50	390.80	263.10	23.00	0.00	0.00	0.00	0.00		
24	65.30	18.80	18.80	54.80	83.50	787.80	207.90	21.60	0.00	0.00	0.00	0.00		
25	35.10	20.20	16.00	68.90	126.50	882.90	190.10	18.80	0.00	28.90	0.00	0.00		
26	61.70	68.90	14.70	263.10	87.30	495.40	172.70	17.40	0.00	41.40	0.00	0.00		
27	65.30	226.00	2497.00	263.10	76.10	2980.00	126.50	17.40	0.00	14.70	0.00	0.00		
28	72.50	147.10	4338.90	199.00	58.20	2146.50	122.40	16.00	0.00	1.30	0.00	0.00		
29	54.80	207.90	495.40	340.50	58.20	811.40	118.40	14.70	0.00	0.00	0.00	0.00		
30	98.70	114.40	235.20	130.60	94.90	463.50	114.40	14.70	0.00	0.00		0.00		
31		91.10		199.00	118.40		106.50		0.00	1.30		0.00		
Total	1193.60	2071.30	8387.70	2789.20	9919.80	39150.00	34295.60	1523.10	89.10	87.60	0.00	136.90	99643.90	**Ton**
Mean	39.80	66.80	279.60	90.00	320.00	1305.00	1106.30	50.80	2.90	2.80	0.00	4.40		
Max	130.60	226.00	4338.90	340.50	2676.10	11980.90	5251.50	98.70	14.70	41.40	0.00	48.00	11980.90	
Min	3.10	17.40	14.70	23.00	54.80	38.20	106.50	14.70	0.00	0.00	0.00	0.00	0.00	

WATER YEAR : 2011

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.

Ban Non Si Khlai **Amphoe** Kanthararom **Changwat** Si Sa Ket

Drainge Area	3,131 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2002-Cont'd
Actual Measurement	2002-Cont'd
Using Rating Curve Water Year	2002-2011
Number of observation	280
R-Square	0.8391
Remarks	Continued Sediment Station

$$QS = 6.6601\ QW^{0.97410}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	13.10	37.80	196.00	70.40	129.90	620.50	1142.90	998.60	134.70	13.10	18.00	10.80		
2	10.50	35.00	141.80	132.30	129.90	679.10	1081.30	956.00	99.60	14.40	13.10	10.50		
3	8.60	39.10	127.50	105.10	153.80	736.00	1061.60	888.30	79.10	18.00	11.20	10.50		
4	6.70	37.80	110.60	95.70	175.10	787.80	1088.50	841.20	55.40	18.90	10.20	10.50		
5	5.70	37.10	98.80	86.20	179.30	806.70	1121.20	813.00	38.50	18.00	9.60	10.20		
6	6.70	35.00	89.40	74.40	162.10	809.80	1128.40	775.30	29.40	18.00	8.60	10.20		
7	7.60	31.10	111.80	58.80	134.70	860.00	1099.40	747.00	25.00	17.50	8.00	9.90		
8	5.40	30.70	96.50	43.90	230.70	927.00	1024.10	725.80	21.90	14.90	8.00	10.20		
9	4.00	30.30	87.80	33.70	351.20	993.50	993.50	702.50	19.70	13.50	8.00	8.00		
10	3.70	25.50	98.80	27.60	443.90	1094.00	903.10	679.10	17.50	12.80	7.30	2.70		
11	3.40	20.20	140.60	27.60	512.00	1208.70	908.20	651.30	14.90	12.10	7.00	3.40		
12	1.70	16.60	166.90	21.90	516.30	1443.20	966.20	626.30	13.50	11.20	6.70	4.40		
13	2.70	14.90	134.70	35.70	472.30	2202.20	1054.80	592.60	13.10	10.50	5.70	4.00		
14	3.70	11.80	145.40	64.80	431.10	2604.90	1083.10	575.60	12.10	9.60	5.00	6.00		
15	5.40	14.00	200.20	105.90	396.90	2548.50	1115.70	550.10	11.50	8.30	4.40	8.60		
16	4.00	16.20	189.10	157.40	391.20	2534.30	1240.30	527.60	10.50	7.30	4.00	10.80		
17	6.70	24.10	170.90	176.50	466.60	2381.10	1404.90	493.50	9.90	6.70	3.70	11.80		
18	9.60	34.60	114.20	170.90	469.40	2153.30	1678.80	476.60	10.20	7.00	4.70	12.40		
19	22.40	51.30	97.20	138.20	545.90	1822.10	2381.10	448.10	9.90	7.00	6.70	13.10		
20	28.50	46.60	105.90	94.10	585.50	1461.10	3548.50	424.00	9.90	6.70	6.30	16.20		
21	26.30	47.30	141.80	79.10	643.90	1246.00	3736.20	399.80	10.20	8.30	6.30	17.10		
22	22.40	42.50	179.30	76.00	684.90	1155.60	3443.10	371.20	10.20	10.20	6.30	16.60		
23	17.50	36.40	191.80	73.60	699.50	1208.70	3155.90	351.20	10.80	10.20	6.30	12.40		
24	12.80	36.40	182.10	68.20	668.80	1234.70	2872.80	322.60	10.50	9.60	6.00	10.50		
25	9.90	70.40	157.40	64.20	605.80	1243.20	2604.90	297.20	10.20	9.20	6.30	9.20		
26	8.60	194.60	107.40	70.40	545.90	1248.80	2283.90	275.00	9.90	8.30	7.30	8.30		
27	8.30	293.00	81.50	88.60	578.50	1254.40	1705.70	241.80	9.60	7.30	9.20	9.20		
28	10.80	259.90	68.20	120.30	597.00	1277.00	1365.50	212.70	9.20	8.00	11.20	11.80		
29	17.50	225.20	50.70	159.70	629.30	1262.90	1234.70	190.40	8.90	9.60	11.80	12.40		
30	30.30	172.30	50.70	205.70	643.90	1206.40	1151.90	170.90	12.40	8.60		10.20		
31		186.20		158.60	611.70		1051.40		14.00	8.30		5.70		
Total	324.50	2153.90	3835.00	2885.50	13787.00	41011.50	50631.60	16325.30	752.20	343.10	226.90	307.60	132584.10	**Ton**
Mean	10.80	69.50	127.80	93.10	444.70	1367.00	1633.30	544.20	24.30	11.10	7.80	9.90		
Max	30.30	293.00	200.20	205.70	699.50	2604.90	3736.20	998.60	134.70	18.90	18.00	17.10	3736.20	
Min	1.70	11.80	50.70	21.90	129.90	620.50	903.10	170.90	8.90	6.70	3.70	2.70	1.70	

WATER YEAR : 2011

MUN RIVER BASIN

Huai Hin Lap at Ban 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.

Ban Hin Lap **Amphoe** Pak Chong **Changwat** Nakhon Ratchasima

Drainge Area	250 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2008-Cont'd
Actual Measurement	2008-Cont'd
Using Rating Curve Water Year	2011
Number of observation	18
R-Square	0.8047
Remarks	Continued Sediment Station

$$QS = 15.1610\ QW^{1.46650}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.50	23.50	41.90	4.00	17.20	23.50	41.90	4.90	0.20	0.40	0.50	0.20		
2	0.50	26.90	72.20	4.00	38.00	23.50	95.20	9.00	0.20	0.40	0.50	0.20		
3	1.60	95.20	51.40	4.00	11.50	9.00	160.60	9.00	0.20	0.40	0.50	0.20		
4	4.00	20.30	133.20	4.00	6.80	51.40	652.10	9.00	0.20	0.40	0.50	0.30		
5	4.00	61.60	146.70	4.00	4.90	30.50	220.20	9.00	0.20	0.40	0.40	3.10		
6	23.50	23.50	38.00	4.00	3.10	9.00	896.40	9.00	0.20	0.40	0.40	0.20		
7	23.50	23.50	26.90	4.00	0.50	6.80	146.70	9.00	0.20	0.30	0.40	0.20		
8	9.00	30.50	23.50	4.00	0.50	4.00	107.40	9.00	0.20	4.00	0.40	0.40		
9	9.00	23.50	9.00	4.00	0.50	4.90	95.20	9.00	0.20	0.50	0.40	0.40		
10	3.10	20.30	6.80	0.50	0.50	1226.60	95.20	9.00	0.20	0.30	0.40	0.40		
11	2.30	5.80	4.00	0.50	0.50	4952.10	263.10	9.00	0.20	0.20	0.40	0.50		
12	0.50	4.00	4.00	0.50	0.50	652.10	95.20	9.00	0.20	0.20	0.40	23.50		
13	0.50	4.90	4.00	83.50	0.50	220.20	133.20	9.00	0.20	0.20	0.40	14.30		
14	0.50	41.90	4.00	9.00	0.50	160.60	107.40	9.00	0.20	0.20	0.40	1.60		
15	9.00	220.20	7.90	5.80	0.50	133.20	95.20	7.90	0.20	0.20	0.40	14.30		
16	9.00	220.20	6.80	0.50	160.60	41.90	199.70	6.80	0.20	0.20	0.40	2.30		
17	5.80	23.50	6.80	0.50	26.90	38.00	510.40	6.80	0.20	0.20	0.40	0.50		
18	4.00	331.80	6.80	0.50	9.00	9.00	220.20	6.80	0.20	0.20	0.40	2.30		
19	3.10	61.60	5.80	0.50	17.20	17.20	120.10	6.80	0.20	0.20	0.20	30.50		
20	2.30	23.50	5.80	4.00	9.00	17.20	72.20	6.80	0.20	0.50	0.20	17.20		
21	456.90	20.30	4.00	4.00	4.00	23.50	41.90	6.80	0.20	0.50	0.20	9.00		
22	263.10	5.80	4.00	4.00	0.50	17.20	26.90	6.80	0.40	0.50	0.20	6.80		
23	30.50	4.00	4.00	4.00	0.50	23.50	23.50	6.80	0.40	0.50	0.20	0.50		
24	308.30	6.80	4.00	4.00	0.50	241.30	14.30	6.80	0.40	0.40	0.20	0.50		
25	34.20	14.30	4.00	4.00	6.80	61.60	14.30	6.80	0.40	0.50	0.20	0.50		
26	61.60	61.60	4.00	4.00	120.10	26.90	6.80	6.80	0.40	6.80	0.20	0.50		
27	380.30	83.50	4.00	4.00	23.50	2816.00	6.80	6.80	0.40	5.80	0.40	0.40		
28	61.60	133.20	4.00	4.00	14.30	1137.70	6.80	6.80	0.40	0.50	0.40	0.40		
29	34.20	896.40	4.00	4.00	14.30	220.20	9.00	5.80	0.40	0.50	0.40	0.40		
30	23.50	199.70	4.00	4.00	72.20	456.90	9.00	0.30	0.40	0.50		0.40		
31		17.20		4.00	23.50		6.80		0.40	0.50		0.40		
Total	1769.90	2729.00	645.50	185.80	588.90	12655.50	4493.70	224.30	8.20	26.80	10.40	132.40	23470.40	**Ton**
Mean	59.00	88.00	21.50	6.00	19.00	421.90	145.00	7.50	0.30	0.90	0.40	4.30		
Max	456.90	896.40	146.70	83.50	160.60	4952.10	896.40	9.00	0.40	6.80	0.50	30.50	4952.10	
Min	0.50	4.00	4.00	0.50	0.50	4.00	6.80	0.30	0.20	0.20	0.20	0.20	0.20	

WATER YEAR : 2011

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.

Ban Cum **Amphoe** Phimai **Changwat** Nakhon Ratchasima

Drainge Area	11,489 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2008-Cont'd
Actual Measurement	2008-Cont'd
Using Rating Curve Water Year	2011
Number of observation	23
R-Square	0.8012
Remarks	Continued Sediment Station

$$QS = 3.4223\ QW^{1.02800}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	16.10	34.60	81.30	0.00	95.20	233.40	528.40	590.70	38.40	3.40	67.60	30.90		
2	16.10	30.90	88.20	0.00	120.70	242.90	524.00	577.30	45.90	4.50	60.70	32.80		
3	17.90	25.30	97.50	0.00	151.00	250.00	537.30	564.00	38.40	4.50	30.90	34.60		
4	17.90	25.30	123.00	0.00	162.70	252.40	541.70	550.60	32.80	4.50	16.10	34.60		
5	16.10	29.00	144.00	0.00	172.10	252.40	537.30	532.90	32.80	5.90	30.90	32.80		
6	17.90	34.60	167.40	0.00	186.20	252.40	555.10	519.50	36.50	5.90	29.00	32.80		
7	27.20	47.80	181.50	1.00	202.70	245.30	550.60	498.60	23.40	5.20	23.40	36.50		
8	34.60	76.70	190.90	0.00	205.10	235.80	550.60	485.70	14.20	5.20	13.50	38.40		
9	40.30	95.20	193.30	0.00	219.20	224.00	550.60	469.60	12.80	5.20	10.60	36.50		
10	47.80	99.80	186.20	0.00	219.20	233.40	550.60	453.50	12.80	4.80	6.30	42.10		
11	53.90	92.90	169.80	0.00	212.20	280.90	559.50	437.40	12.80	4.50	6.30	49.70		
12	53.90	83.60	139.30	0.00	198.00	328.60	564.00	421.40	12.00	3.40	6.30	69.80		
13	49.70	60.70	104.40	0.00	172.10	355.00	568.40	408.60	12.00	4.10	7.00	90.50		
14	44.00	47.80	63.00	0.00	137.00	376.50	568.40	398.10	11.30	4.10	6.60	102.10		
15	36.50	49.70	30.90	6.30	113.70	393.30	590.70	388.50	12.00	5.20	4.80	113.70		
16	29.00	56.10	21.60	23.40	104.40	415.00	612.90	381.30	11.30	7.70	3.80	125.30		
17	21.60	49.70	12.00	32.80	109.10	440.60	617.40	371.70	7.70	16.10	4.50	120.70		
18	16.10	51.60	6.60	32.80	111.40	459.90	617.40	362.10	7.00	25.30	5.50	111.40		
19	12.80	51.60	5.50	25.30	130.00	476.00	617.40	350.20	8.40	29.00	8.40	102.10		
20	10.60	56.10	5.90	17.90	155.70	498.60	617.40	335.80	9.10	44.00	9.90	90.50		
21	10.60	65.30	4.50	12.80	169.80	532.90	612.90	314.30	9.10	60.70	10.60	72.10		
22	11.30	69.80	4.50	13.50	181.50	555.10	608.50	283.30	9.10	88.20	12.00	56.10		
23	12.80	65.30	3.10	12.00	186.20	564.00	608.50	245.30	6.60	116.00	12.80	23.40		
24	16.10	53.90	0.00	12.80	179.20	564.00	599.60	193.30	6.30	139.30	17.90	14.20		
25	23.40	44.00	0.00	34.60	169.80	559.50	599.60	139.30	5.20	146.30	19.70	29.00		
26	42.10	53.90	0.00	49.70	167.40	550.60	599.60	113.70	5.90	125.30	19.70	30.90		
27	60.70	67.60	0.00	49.70	162.70	546.20	604.00	97.50	5.90	95.20	23.40	27.20		
28	69.80	76.70	0.00	49.70	160.40	546.20	612.90	85.90	6.30	81.30	27.20	25.30		
29	65.30	72.10	0.00	58.40	169.80	537.30	617.40	74.40	6.30	88.20	29.00	23.40		
30	44.00	72.10	0.00	67.60	186.20	528.40	612.90	40.30	5.20	90.50		19.70		
31		79.00		81.30	209.80		604.00		4.10	81.30		16.10		
Total	936.10	1818.70	2024.40	581.60	5120.50	11930.60	18039.60	10684.80	461.60	1304.80	524.40	1665.20	55092.30	**Ton**
Mean	31.20	58.70	67.50	18.80	165.20	397.70	581.90	356.20	14.90	42.10	18.10	53.70		
Max	69.80	99.80	193.30	81.30	219.20	564.00	617.40	590.70	45.90	146.30	67.60	125.30	617.40	
Min	10.60	25.30	0.00	0.00	95.20	224.00	524.00	40.30	4.10	3.40	3.80	14.20	0.00	

WATER YEAR : 2011

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.

Ban Phai Noi **Amphoe** Lam Plai Mat **Changwat** Nakhon Ratchasima

Drainge Area	4,880 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2010-Cont'd
Actual Measurement	2010-Cont'd
Using Rating Curve Water Year	2011
Number of observation	25
R-Square	0.9234
Remarks	Continued Sediment Station

$$QS = 5.8192\ QW^{0.84190}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	441.40	66.30	28.90	47.80	610.60	569.80	49.10	13.80	0.00	0.00		
2	0.00	0.00	405.50	63.80	31.70	46.30	573.50	536.10	46.80	13.80	0.00	0.00		
3	0.00	0.00	402.40	53.70	31.70	43.80	558.60	502.60	44.50	13.80	0.00	0.00		
4	0.00	0.00	377.50	53.70	31.00	43.80	532.30	483.40	42.10	13.80	0.00	0.00		
5	0.00	0.00	408.60	51.40	31.00	312.40	543.60	434.90	42.10	13.80	0.00	0.00		
6	0.00	0.00	377.50	61.30	29.20	327.40	573.50	393.10	39.80	13.80	0.00	0.00		
7	0.00	0.00	377.50	66.30	27.40	345.20	614.20	359.90	37.30	13.80	0.00	0.00		
8	0.00	0.00	377.50	66.30	24.40	357.00	647.20	327.40	34.90	8.60	0.00	0.00		
9	0.00	0.00	377.50	68.80	21.80	434.90	676.20	297.20	34.90	5.80	0.00	0.00		
10	0.00	0.00	342.20	78.50	20.60	451.10	698.60	266.50	34.90	5.30	0.00	0.00		
11	0.00	0.00	318.40	78.50	20.60	451.10	722.40	235.10	29.90	4.80	0.00	0.00		
12	0.00	0.00	315.40	76.10	20.30	470.50	763.40	215.80	29.90	4.80	0.00	0.00		
13	0.00	0.00	312.40	78.50	19.90	460.90	821.00	189.70	27.80	4.30	0.00	0.00		
14	0.00	0.00	303.30	78.50	18.30	438.10	874.10	176.30	25.60	3.20	0.00	0.00		
15	0.00	0.00	300.20	36.30	16.70	425.00	954.70	159.40	23.30	2.70	0.00	0.00		
16	0.00	0.00	297.20	51.20	16.30	408.60	1029.30	154.10	21.00	2.70	0.00	0.00		
17	0.00	0.00	275.80	48.80	16.30	408.60	1020.00	146.10	18.70	2.70	0.00	0.00		
18	0.00	0.00	250.90	46.30	15.90	396.20	959.40	129.90	18.70	2.10	0.00	0.00		
19	0.00	0.00	231.90	48.80	32.10	377.50	893.20	118.90	16.30	2.10	0.00	0.00		
20	0.00	0.00	225.50	51.20	42.80	386.80	842.30	113.30	16.30	1.50	0.00	0.00		
21	0.00	0.00	219.00	52.70	42.80	434.90	808.50	107.70	13.80	1.50	0.00	0.00		
22	0.00	0.00	209.30	53.70	39.40	467.30	779.80	99.70	13.80	1.50	0.00	0.00		
23	0.00	0.00	189.70	54.60	36.00	480.20	763.40	89.20	13.80	1.50	0.00	0.00		
24	0.00	0.00	166.20	56.10	30.70	509.50	751.00	78.50	13.80	0.80	0.00	0.00		
25	0.00	0.00	148.80	59.00	37.00	536.10	751.00	73.70	13.80	0.00	0.00	0.00		
26	0.00	0.00	129.90	71.60	56.10	547.40	751.00	63.80	13.80	0.00	0.00	0.00		
27	0.00	342.20	118.90	66.50	57.00	558.60	751.00	58.80	13.80	0.00	0.00	0.00		
28	0.00	473.80	104.80	58.50	54.60	569.80	706.50	53.70	13.80	0.00	0.00	0.00		
29	0.00	562.40	78.50	48.80	54.20	543.60	661.70	51.40	13.80	0.00	0.00	0.00		
30	0.00	599.50	73.70	47.30	57.00	547.40	625.30	49.10	13.80	0.00		0.00		
31		509.50		31.70	51.70		595.80		13.80	0.00		0.00		
Total	0.00	2487.40	8157.40	1824.80	1013.40	11827.80	22853.10	6535.10	785.70	152.50	0.00	0.00	55637.20	**Ton**
Mean	0.00	80.20	271.90	58.90	32.70	394.30	737.20	217.80	25.30	4.90	0.00	0.00		
Max	0.00	599.50	441.40	78.50	57.00	569.80	1029.30	569.80	49.10	13.80	0.00	0.00	1029.30	
Min	0.00	0.00	73.70	31.70	15.90	43.80	532.30	49.10	13.80	0.00	0.00	0.00	0.00	

WATER YEAR : 2011

MUN RIVER BASIN

Huai Sanaeng at Mueang, Surin (M.187)

Lat 14 - 51 - 26 N Long 103 - 28 - 37 E

Location : on right at the bridge on highway.

Ban - **Amphoe** Mueang **Changwat** Surin

Drainge Area	614 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2008-Cont'd
Actual Measurement	2008-Cont'd
Using Rating Curve Water Year	2008-2011
Number of observation	32
R-Square	0.9052
Remarks	Continued Sediment Station

$$QS = 3.0553\ QW^{0.95440}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.20	1.10	0.90	1.30	5.10	4.50	142.90	2.20	1.10	1.10	1.10	1.10		
2	2.20	1.10	1.10	1.30	8.40	4.80	147.30	2.00	1.30	1.10	1.10	1.10		
3	2.20	1.30	1.10	1.30	8.40	6.80	173.30	11.20	1.30	1.10	1.10	1.10		
4	2.20	1.30	1.10	1.30	5.10	6.80	178.70	28.30	1.30	1.10	1.10	1.10		
5	1.50	1.30	1.10	1.30	6.80	6.40	189.50	3.60	1.30	1.10	1.10	1.10		
6	1.50	1.50	1.10	1.30	5.10	4.20	186.30	2.20	1.30	1.10	1.10	1.10		
7	1.10	1.50	1.10	1.30	3.60	3.60	174.40	1.30	1.10	0.90	1.10	1.10		
8	1.10	2.20	1.10	1.30	3.60	3.60	154.90	1.10	1.10	0.90	1.10	1.10		
9	1.10	2.20	1.10	1.30	2.80	3.30	133.00	1.10	1.10	0.90	1.10	1.10		
10	1.10	1.10	1.10	1.30	2.80	17.00	103.30	1.10	1.10	0.90	1.10	1.10		
11	1.10	1.10	1.30	1.10	2.20	8.30	103.30	1.10	1.10	0.90	0.90	1.10		
12	1.10	1.10	1.30	1.10	2.20	8.30	21.60	0.90	1.10	0.90	0.90	1.10		
13	1.10	1.10	1.30	1.10	2.50	8.90	67.70	0.90	1.10	0.90	0.90	1.10		
14	1.10	1.10	4.20	1.10	2.20	14.70	147.30	26.60	1.10	0.90	0.90	1.10		
15	1.10	1.10	4.20	1.80	2.20	15.90	199.20	1.30	1.10	0.90	0.90	1.10		
16	1.10	1.10	2.20	1.80	2.00	15.90	213.30	1.10	1.10	0.90	1.10	1.50		
17	1.10	1.10	2.20	1.80	1.50	17.00	230.30	1.10	1.10	0.90	1.10	1.50		
18	1.50	1.10	2.20	1.30	1.50	17.00	281.00	0.90	1.10	0.90	1.10	1.50		
19	2.20	1.10	3.60	1.30	3.60	14.10	285.10	0.90	1.10	0.90	1.10	1.50		
20	1.50	1.10	5.80	1.30	8.40	14.10	249.80	0.90	1.10	0.90	1.10	1.50		
21	0.70	0.90	8.40	2.50	5.40	24.40	244.60	0.90	1.10	0.90	1.10	1.50		
22	0.70	0.90	8.40	2.50	5.10	24.40	227.60	0.90	1.10	1.30	1.10	1.50		
23	0.70	0.90	5.10	2.50	3.60	22.70	218.50	0.90	1.10	1.30	1.10	1.50		
24	0.70	0.90	3.90	4.20	3.90	22.10	196.00	1.10	1.10	1.30	1.10	1.50		
25	1.10	0.90	2.20	5.40	3.60	22.70	121.00	1.10	1.10	1.10	1.10	1.50		
26	1.10	0.90	2.00	4.80	3.60	19.90	116.60	1.10	1.10	1.10	1.10	1.50		
27	1.10	0.90	1.80	4.80	3.30	19.90	108.80	1.10	1.10	1.10	1.10	1.50		
28	1.10	0.90	1.50	3.60	3.60	114.40	103.30	1.10	0.90	1.10	1.10	1.50		
29	1.10	0.90	1.30	5.80	3.60	125.40	59.50	1.10	0.90	1.10	1.10	1.50		
30	1.10	0.90	1.30	3.60	3.60	125.40	13.40	1.10	0.90	1.10		1.50		
31		0.90		5.10	3.60		0.00		0.90	1.10		1.50		
Total	38.50	35.50	75.00	71.50	122.90	716.50	4791.50	100.20	34.30	31.70	30.90	40.50	6089.00	**Ton**
Mean	1.30	1.10	2.50	2.30	4.00	23.90	154.60	3.30	1.10	1.00	1.10	1.30		
Max	2.20	2.20	8.40	5.80	8.40	125.40	285.10	28.30	1.30	1.30	1.10	1.50	285.10	
Min	0.70	0.90	0.90	1.10	1.50	3.30	0.00	0.90	0.90	0.90	0.90	1.10	0.00	

WATER YEAR : 2011

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.

Ban Nawarat Bridge **Amphoe** Mueang **Changwat** Chiang Mai

Drainge Area	6,350 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1993-Cont'd
Actual Measurement	1993-Cont'd
Using Rating Curve Water Year	2011
Number of observation	37
R-Square	0.8637
Remarks	Continued Sediment Station

$$QS = 0.6712\ QW^{1.66750}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	118.40	521.10	798.00	828.10	8826.10	5409.70	17275.80	1097.30	521.10	89.40	80.50	47.70		
2	108.40	1397.60	546.60	798.00	19194.50	5240.70	14697.20	958.20	496.20	150.60	80.50	37.10		
3	118.40	2003.00	626.20	958.20	10467.90	5158.00	12770.00	858.90	496.20	150.60	80.50	19.30		
4	118.40	2391.40	1097.30	1026.80	5846.80	4594.00	12373.60	958.20	546.60	150.60	80.50	16.30		
5	128.80	1819.30	1517.60	891.50	3008.10	3631.20	11596.10	1061.80	521.10	150.60	65.50	19.30		
6	128.80	2097.50	1956.40	626.20	2242.50	7549.60	9386.50	1061.80	496.20	139.60	47.70	23.30		
7	162.00	1686.20	2145.40	546.60	2050.10	15288.90	5158.00	1319.80	447.40	139.60	47.70	16.30		
8	162.00	1133.20	1133.20	496.20	2145.40	9981.40	4283.50	958.20	400.80	139.60	47.70	16.30		
9	188.00	828.10	798.00	471.50	2341.30	6481.50	4131.60	1026.80	356.50	139.60	47.70	19.30		
10	249.10	958.20	681.60	521.10	3313.80	5582.90	3907.80	1097.30	334.90	139.60	53.40	32.30		
11	299.40	992.30	653.60	738.90	4752.40	4437.70	3313.80	858.90	334.90	139.60	217.70	162.00		
12	299.40	738.90	709.90	828.10	5935.90	3129.00	2830.40	738.90	334.90	139.60	334.90	162.00		
13	334.90	572.70	828.10	626.20	6481.50	5158.00	3008.10	681.60	317.00	139.60	334.90	188.00		
14	356.50	496.20	958.20	626.20	5409.70	8716.70	3376.30	626.20	317.00	217.70	356.50	233.20		
15	378.40	471.50	992.30	1358.40	4752.40	10838.80	2948.40	599.10	282.20	496.20	400.80	282.20		
16	299.40	546.60	828.10	1956.40	5158.00	7549.60	2544.00	626.20	233.20	249.10	233.20	188.00		
17	233.20	828.10	709.90	2544.00	4056.40	5075.80	2657.10	599.10	217.70	162.00	80.50	139.60		
18	249.10	1358.40	681.60	2145.40	3696.10	4131.60	2714.40	626.20	233.20	139.60	65.50	71.90		
19	202.60	1910.30	653.60	1558.40	4594.00	4283.50	2492.70	709.90	217.70	139.60	59.30	71.90		
20	265.50	2657.10	599.10	1437.10	5323.90	6115.60	2003.00	891.50	188.00	118.40	47.70	89.40		
21	265.50	2003.00	626.20	1358.40	4752.40	4994.20	1686.20	798.00	173.80	108.40	42.30	59.30		
22	265.50	1206.50	653.60	1358.40	5758.30	6855.80	1558.40	738.90	173.80	108.40	42.30	53.40		
23	233.20	958.20	572.70	1319.80	5240.70	7243.10	1477.10	738.90	173.80	108.40	13.50	80.50		
24	496.20	768.30	546.60	1319.80	4056.40	5758.30	1358.40	738.90	173.80	108.40	13.50	65.50		
25	924.60	681.60	521.10	1956.40	3313.80	7446.90	1206.50	709.90	173.80	98.70	37.10	71.90		
26	1026.80	521.10	924.60	1956.40	6950.70	8284.60	1133.20	709.90	173.80	80.50	32.30	98.70		
27	626.20	572.70	1730.10	1477.10	16963.80	9157.60	1097.30	653.60	162.00	98.70	23.30	150.60		
28	423.90	768.30	1774.50	1061.80	13851.10	28323.10	1061.80	653.60	162.00	89.40	47.70	173.80		
29	334.90	709.90	1397.60	992.30	10223.50	46328.80	1097.30	599.10	162.00	89.40	47.70	188.00		
30	496.20	798.00	1061.80	958.20	6481.50	36378.30	1319.80	546.60	150.60	80.50		162.00		
31		1169.60		1281.60	5670.30		1558.40		150.60	89.40		108.40		
Total	9493.70	35564.90	28723.50	36023.50	192859.30	289124.90	138022.70	24243.30	9122.80	4391.40	3062.40	3047.50	773679.90	**Ton**
Mean	316.50	1147.30	957.40	1162.00	6221.30	9637.50	4452.30	808.10	294.30	141.70	105.60	98.30		
Max	1026.80	2657.10	2145.40	2544.00	19194.50	46328.80	17275.80	1319.80	546.60	496.20	400.80	282.20	46328.80	
Min	108.40	471.50	521.10	471.50	2050.10	3129.00	1061.80	546.60	150.60	80.50	13.50	16.30	13.50	

WATER YEAR : 2011

PING RIVER BASIN

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.

Ban Mae Taeng **Amphoe** Mae Taeng **Changwat** Chiang Mai

Drainge Area	1,930 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1992-Cont'd
Actual Measurement	1992-Cont'd
Using Rating Curve Water Year	2011
Number of observation	35
R-Square	0.9187
Remarks	Continued Sediment Station

$$QS = 1.4301\ QW^{1.68960}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.10	272.30	281.70	91.90	6165.40	1293.40	5412.30	392.60	272.30	1.20	0.80	0.50		
2	0.10	1145.40	182.40	157.00	3424.30	1041.20	6505.20	360.80	254.10	1.20	0.80	0.50		
3	0.10	1022.40	272.30	157.00	3062.20	1059.80	3286.60	350.50	245.10	1.10	0.80	0.40		
4	0.10	826.60	895.80	144.80	1666.60	967.20	3018.10	436.50	245.10	1.10	0.80	0.40		
5	0.10	436.50	743.60	74.20	1243.20	1448.60	2016.70	792.90	245.10	1.00	0.80	0.40		
6	0.10	403.40	2654.00	31.70	985.60	3241.20	2311.60	618.00	230.50	1.00	0.80	0.40		
7	0.10	195.50	826.60	14.20	618.00	5973.20	1751.60	340.30	195.50	1.00	0.80	0.40		
8	0.10	195.50	340.30	3.80	502.10	2654.00	1396.10	330.20	175.80	1.00	0.80	0.30		
9	0.10	230.50	230.50	2.70	502.10	2108.40	1293.40	340.30	175.80	1.00	0.80	0.30		
10	0.10	320.30	216.30	78.50	516.10	1638.70	1243.20	381.90	175.80	1.00	0.70	0.30		
11	0.10	272.30	237.70	23.90	949.30	1059.80	967.20	291.10	175.80	1.00	0.70	0.40		
12	0.10	202.40	360.80	106.20	1556.10	2423.60	760.10	263.10	175.80	1.10	0.70	0.50		
13	0.10	209.20	792.90	18.70	2423.60	2654.00	695.50	245.10	175.80	1.50	0.70	0.50		
14	0.10	188.90	436.50	4.60	1723.10	6715.60	695.50	245.10	175.80	18.70	0.70	0.60		
15	0.10	188.90	263.10	150.80	1169.50	4004.00	603.10	272.30	175.80	22.10	0.70	0.60		
16	0.10	371.30	163.10	633.00	1556.10	2537.70	985.60	291.10	175.80	2.30	0.70	0.60		
17	0.00	1145.40	96.60	679.60	1396.10	2016.70	985.60	281.70	144.80	1.50	0.60	0.60		
18	0.00	985.60	40.20	381.90	3378.10	2499.40	949.30	371.30	87.30	1.20	0.60	0.60		
19	0.10	1638.70	36.90	182.40	4765.10	2170.50	878.50	371.30	78.50	1.20	0.60	0.60		
20	175.80	2238.20	82.80	138.80	2274.80	2386.00	743.60	371.30	70.00	1.10	0.60	0.60		
21	132.90	1556.10	447.80	195.50	2139.40	2108.40	743.60	350.50	65.90	1.00	0.70	0.10		
22	111.10	633.00	202.40	182.40	2386.00	3851.10	711.30	320.30	50.60	0.80	0.70	0.30		
23	223.40	281.70	50.60	169.30	1666.60	2108.40	664.10	320.30	40.20	0.70	0.70	0.30		
24	436.50	182.40	25.80	392.60	1318.70	2108.40	502.10	320.30	27.70	0.70	0.60	0.30		
25	1344.30	163.10	40.20	760.10	1097.70	2077.70	447.80	330.20	14.20	0.70	0.70	0.30		
26	711.30	188.90	150.80	381.90	2772.30	2047.10	447.80	371.30	2.70	0.70	0.70	0.30		
27	263.10	272.30	544.50	169.30	2732.60	3611.40	447.80	371.30	1.50	0.70	0.70	0.30		
28	150.80	425.40	403.40	74.20	2201.80	11821.50	447.80	360.80	1.50	0.70	0.70	0.30		
29	144.80	381.90	310.40	58.00	1926.60	14967.00	447.80	291.10	1.20	0.70	0.60	0.30		
30	163.10	461.30	195.50	65.90	1528.90	9682.30	447.80	281.70	1.20	0.70		0.30		
31		664.10		87.30	1293.40		425.40		1.20	0.70		0.30		
Total	3858.80	17699.50	11525.50	5612.20	60941.40	104276.30	42232.10	10665.20	3858.40	70.40	20.60	12.60	260773.00	**Ton**
Mean	128.60	571.00	384.20	181.00	1965.90	3475.90	1362.30	355.50	124.50	2.30	0.70	0.40		
Max	1344.30	2238.20	2654.00	760.10	6165.40	14967.00	6505.20	792.90	272.30	22.10	0.80	0.60	14967.00	
Min	0.00	163.10	25.80	2.70	502.10	967.20	425.40	245.10	1.20	0.70	0.60	0.10	0.00	

WATER YEAR : 2011

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.

Ban Tha Nang **Amphoe** Mueang **Changwat** Lamphun

Drainge Area	1,569 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1992-Cont'd
Actual Measurement	1992-Cont'd
Using Rating Curve Water Year	2011
Number of observation	36
R-Square	0.8941
Remarks	Continued Sediment Station

$$QS = 0.7568\ QW^{1.46770}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	10.20	70.20	78.80	103.30	767.70	336.40	1648.50	119.70	20.60	1.30	13.90	17.50		
2	10.20	81.80	59.20	78.80	1770.20	293.90	1770.20	95.50	17.10	3.90	16.00	16.80		
3	11.00	111.40	45.10	128.10	2505.10	288.80	1792.60	91.60	16.20	2.70	16.80	18.30		
4	11.00	256.90	49.70	176.20	2838.30	274.10	1736.80	81.80	20.60	10.20	17.50	19.00		
5	5.20	176.20	293.90	132.70	2455.30	325.70	1605.00	70.20	25.60	6.40	18.30	19.90		
6	6.40	123.90	633.10	78.80	1837.70	468.30	1149.40	70.20	29.00	15.30	18.30	19.00		
7	16.20	269.80	492.60	54.40	1131.70	1307.20	619.90	61.90	25.60	9.60	16.80	16.80		
8	22.20	288.80	283.60	47.40	542.40	1594.20	403.50	61.90	18.10	7.00	13.90	15.30		
9	30.80	240.00	137.40	52.00	397.80	1906.00	299.20	59.20	17.10	8.90	13.20	14.60		
10	45.10	248.40	81.80	67.40	358.40	1637.60	269.80	73.00	19.00	3.60	13.20	14.60		
11	42.90	299.20	56.80	67.40	341.90	1061.60	223.50	73.00	17.10	20.60	13.20	13.20		
12	38.50	199.40	56.80	59.20	415.10	790.50	235.80	64.60	14.40	19.00	15.30	11.30		
13	42.90	111.40	29.00	61.90	593.70	926.00	166.20	52.00	16.20	20.60	13.90	10.80		
14	42.90	87.80	56.80	81.80	722.80	1594.20	146.80	52.00	15.30	34.50	14.60	12.50		
15	40.70	87.80	52.00	132.70	715.40	1594.20	132.70	42.90	16.20	59.20	15.30	15.30		
16	36.40	123.90	49.70	269.80	1001.60	1605.00	166.20	34.50	16.20	54.40	15.30	21.70		
17	36.40	265.40	49.70	240.00	876.60	1413.70	223.50	34.50	11.00	49.70	16.00	23.50		
18	30.80	315.00	47.40	142.10	934.30	821.20	252.60	32.70	5.20	49.70	13.90	19.00		
19	25.60	229.60	54.40	78.80	1185.10	438.50	244.20	25.60	9.60	21.70	13.90	17.50		
20	25.60	137.40	67.40	59.20	1594.20	498.80	223.50	17.10	9.60	17.50	14.60	17.50		
21	29.00	91.60	47.40	59.20	2033.30	438.50	171.20	11.90	10.20	16.80	15.30	16.00		
22	23.90	78.80	19.00	56.80	2010.00	474.40	137.40	15.30	9.60	15.30	15.30	16.00		
23	27.30	73.00	34.50	54.40	1659.50	480.40	111.40	14.40	6.40	15.30	15.30	14.60		
24	56.80	73.00	34.50	59.20	951.00	529.80	87.80	12.70	2.90	14.60	16.00	14.60		
25	75.90	64.60	75.90	67.40	462.30	708.00	70.20	22.20	2.00	13.90	16.80	16.00		
26	87.80	40.70	211.30	95.50	700.60	600.20	56.80	38.50	1.50	13.20	17.50	16.00		
27	75.90	19.00	567.90	99.40	1044.40	511.10	54.40	32.70	0.60	13.20	16.80	16.00		
28	64.60	22.20	548.80	73.00	1194.20	876.60	52.00	36.40	0.50	12.50	17.50	19.00		
29	54.40	42.90	358.40	59.20	1278.70	1345.60	56.80	34.50	0.60	11.80	16.80	16.80		
30	45.10	73.00	199.40	27.30	1010.10	1512.80	59.20	25.60	0.50	11.80		15.30		
31		75.90		54.40	567.90		70.20		1.40	13.20		16.00		
Total	1071.70	4379.00	4772.30	2817.80	35897.30	26653.30	14237.30	1458.10	375.90	567.40	451.20	510.40	93191.70	**Ton**
Mean	35.70	141.30	159.10	90.90	1158.00	888.40	459.30	48.60	12.10	18.30	15.60	16.50		
Max	87.80	315.00	633.10	269.80	2838.30	1906.00	1792.60	119.70	29.00	59.20	18.30	23.50	2838.30	
Min	5.20	19.00	19.00	27.30	341.90	274.10	52.00	11.90	0.50	1.30	13.20	10.80	0.50	

WATER YEAR : 2011

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.

Ban Mae Rim Tai **Amphoe** Mae Rim **Changwat** Chiang Mai

Drainge Area	452 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2001-Cont'd
Actual Measurement	2001-Cont'd
Using Rating Curve Water Year	2011
Number of observation	36
R-Square	0.9540
Remarks	Continued Sediment Station

$$QS = 15.8930\ QW^{0.94400}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	13.50	54.10	55.80	113.80	647.60	172.20	355.00	111.80	65.70	65.70	30.00	6.10		
2	13.50	139.70	49.10	107.80	835.70	226.30	333.00	105.80	65.70	62.40	54.10	10.00		
3	20.80	253.30	49.10	145.90	706.40	202.30	304.20	105.80	67.40	60.80	35.00	11.20		
4	21.80	284.00	80.50	147.90	299.10	156.00	244.30	113.80	70.70	64.10	21.80	11.50		
5	11.30	180.30	143.80	103.80	189.10	237.60	219.80	103.80	65.70	62.40	24.20	11.80		
6	11.30	248.70	158.10	80.50	160.10	584.10	180.30	96.30	62.40	62.40	28.80	11.20		
7	15.60	125.80	115.80	80.50	184.70	512.70	178.30	94.50	60.80	57.40	25.40	10.10		
8	14.50	98.00	82.20	67.40	180.30	286.50	178.30	99.80	55.80	54.10	24.20	11.20		
9	15.60	80.50	67.40	67.40	304.20	219.80	172.20	105.80	52.40	52.40	21.80	11.20		
10	17.70	101.80	59.10	133.80	278.90	246.50	160.10	145.90	50.70	52.40	18.70	11.20		
11	23.00	135.70	59.10	103.80	409.70	200.10	151.90	105.80	49.10	52.40	18.70	11.50		
12	15.60	80.50	72.30	111.80	271.30	208.80	145.90	91.00	36.60	49.10	17.70	12.60		
13	33.50	70.70	77.30	149.80	255.40	512.70	139.70	89.20	39.70	55.80	19.80	12.60		
14	52.40	62.40	75.60	131.80	178.30	409.70	133.80	85.70	42.90	80.50	20.80	13.20		
15	25.40	89.20	74.00	248.70	160.10	289.00	121.80	83.90	38.20	133.80	25.40	14.70		
16	17.70	80.50	89.20	217.60	248.70	222.00	141.70	78.90	41.30	91.00	24.20	12.00		
17	13.50	184.70	75.60	204.50	289.00	174.20	224.10	78.90	39.70	67.40	25.40	11.80		
18	10.30	299.10	72.30	145.90	219.80	182.50	259.90	78.90	41.30	59.10	26.50	12.30		
19	8.10	251.00	82.20	133.80	158.10	226.30	191.30	78.90	42.90	44.40	27.70	12.00		
20	13.50	215.40	78.90	145.90	235.30	417.90	153.90	77.30	41.30	41.30	27.70	12.30		
21	15.60	129.80	98.00	129.80	217.60	278.90	135.70	77.30	44.40	36.60	21.80	11.80		
22	15.60	94.50	78.90	96.30	281.40	393.40	127.80	74.00	55.80	38.20	20.80	11.80		
23	14.50	72.30	62.40	92.80	217.60	268.80	123.80	72.30	62.40	39.70	19.80	11.80		
24	19.80	62.40	62.40	96.30	158.10	228.60	117.80	72.30	67.40	39.70	20.80	11.80		
25	26.50	57.40	109.80	83.90	133.80	363.30	107.80	70.70	70.70	35.00	12.00	11.20		
26	23.00	49.10	251.00	83.90	193.50	222.00	103.80	70.70	75.60	27.70	8.60	10.90		
27	17.70	47.50	284.00	69.00	452.40	301.60	105.80	69.00	82.20	30.00	7.20	10.90		
28	19.80	54.10	228.60	59.10	584.10	811.60	107.80	67.40	77.30	35.00	6.50	10.60		
29	18.70	65.70	219.80	52.40	716.40	839.20	113.80	67.40	70.70	33.50	6.70	13.80		
30	21.80	85.70	131.80	49.10	186.90	455.30	133.80	65.70	67.40	32.30		12.40		
31		69.00		83.90	158.10		127.80		65.70	30.00		12.30		
Total	561.60	3822.90	3144.10	3538.90	9511.70	9849.90	5295.20	2638.60	1769.90	1646.60	642.10	359.80	42781.30	**Ton**
Mean	18.70	123.30	104.80	114.20	306.80	328.30	170.80	88.00	57.10	53.10	22.10	11.60		
Max	52.40	299.10	284.00	248.70	835.70	839.20	355.00	145.90	82.20	133.80	54.10	14.70	839.20	
Min	8.10	47.50	49.10	49.10	133.80	156.00	103.80	65.70	36.60	27.70	6.50	6.10	6.10	

WATER YEAR : 2011

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.

Ban Sahakorn Romklao **Amphoe** Phrao **Changwat** Chiang Mai

Drainge Area	546 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1997-Cont'd
Actual Measurement	1997-Cont'd
Using Rating Curve Water Year	2011
Number of observation	34
R-Square	0.9172
Remarks	Continued Sediment Station

$$QS = 3.3526\ QW^{1.50370}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	4.70	74.70	22.10	47.10	1874.20	269.20	631.80	163.10	36.80	8.70	4.90	2.00		
2	4.40	114.70	17.50	62.10	717.60	260.70	717.60	115.10	31.20	8.70	4.90	2.00		
3	4.40	431.50	16.60	82.30	764.70	215.80	431.50	110.60	29.40	8.70	5.70	2.00		
4	4.10	222.90	19.30	104.20	308.50	184.40	322.10	110.60	29.40	8.70	5.70	1.80		
5	4.10	375.10	22.10	60.40	175.10	233.90	277.80	102.00	27.70	9.30	5.70	1.80		
6	4.10	114.70	32.00	36.80	134.40	528.20	256.60	97.70	26.00	8.70	4.10	1.80		
7	3.80	52.00	78.50	19.30	137.10	370.00	291.00	89.40	19.70	8.70	5.30	1.80		
8	3.80	34.40	29.60	16.60	145.60	269.20	870.80	85.40	16.30	8.70	4.90	1.80		
9	3.80	74.70	17.50	20.20	187.90	230.20	345.40	89.40	14.10	7.40	3.40	1.80		
10	3.80	84.20	12.80	19.30	796.60	291.00	237.50	85.40	14.10	7.40	2.90	1.80		
11	3.80	41.90	12.20	17.50	932.90	201.70	208.70	81.40	13.40	7.40	2.60	1.80		
12	3.80	32.00	14.90	13.50	820.70	198.10	187.90	73.60	12.70	7.40	2.60	1.80		
13	3.80	26.30	65.70	13.50	1310.50	390.10	175.10	67.40	12.00	7.40	2.40	1.80		
14	3.80	20.20	52.00	28.50	504.50	360.00	160.10	64.40	11.30	10.60	2.40	4.90		
15	3.50	15.80	26.30	175.10	326.80	426.40	205.30	58.60	12.70	67.40	2.20	38.70		
16	3.50	16.60	18.40	384.90	345.40	552.00	215.80	61.50	13.40	26.00	2.20	19.70		
17	3.20	27.40	14.90	725.30	260.70	304.10	208.70	61.50	9.90	16.30	2.20	13.40		
18	3.20	39.30	13.50	230.20	237.50	241.00	226.60	61.50	8.70	12.70	2.20	7.40		
19	3.20	40.60	11.60	139.90	230.20	252.30	205.30	61.50	8.70	12.70	2.00	7.00		
20	3.20	88.10	8.10	154.30	539.80	277.80	187.90	61.50	8.00	12.70	2.00	4.50		
21	3.20	33.20	10.40	181.20	1394.80	370.00	184.40	61.50	6.50	12.70	2.00	4.50		
22	45.80	19.30	19.30	134.40	1061.60	304.10	178.10	55.70	6.10	11.30	2.00	3.70		
23	313.10	13.50	11.60	78.50	459.00	260.70	160.10	52.90	6.50	7.40	1.80	2.20		
24	308.50	11.60	5.10	154.30	317.70	237.50	145.60	52.90	6.50	7.00	1.40	2.00		
25	331.20	9.80	4.70	172.00	564.60	248.70	139.90	58.60	7.00	6.10	1.60	2.20		
26	212.30	9.80	137.10	88.10	1071.30	273.60	137.10	61.50	7.40	5.30	1.80	5.30		
27	237.50	10.40	447.50	47.10	837.00	421.00	134.40	61.50	7.40	5.70	1.80	3.10		
28	375.10	10.40	157.20	36.80	475.90	1310.50	131.60	55.70	7.40	5.70	2.00	2.90		
29	252.30	21.10	92.00	30.80	431.50	1848.20	157.20	40.70	8.70	5.30	2.00	2.90		
30	194.80	123.40	58.70	28.50	453.20	611.30	405.40	38.70	8.70	4.90		2.90		
31		38.00		74.70	308.50		219.20		8.70	4.50		2.60		
Total	2349.80	2227.60	1449.20	3377.40	18125.80	11941.70	8356.50	2241.30	436.40	341.50	86.70	153.90	51087.80	**Ton**
Mean	78.30	71.90	48.30	108.90	584.70	398.10	269.60	74.70	14.10	11.00	3.00	5.00		
Max	375.10	431.50	447.50	725.30	1874.20	1848.20	870.80	163.10	36.80	67.40	5.70	38.70	1874.20	
Min	3.20	9.80	4.70	13.50	134.40	184.40	131.60	38.70	6.10	4.50	1.40	1.80	1.40	

WATER YEAR : 2011

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

Drainge Area	5,323 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1997-Cont'd
Actual Measurement	1997-Cont'd
Using Rating Curve Water Year	2011
Number of observation	36
R-Square	0.8737
Remarks	Continued Sediment Station

$$QS = 1.6654\ QW^{1.56440}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	178.50	1036.60	926.00	848.20	10217.90	8133.40	15095.90	1319.80	399.20	112.20	70.90	6.00		
2	178.50	2193.20	636.80	904.40	16406.20	7514.40	15197.20	1295.20	462.00	112.20	78.60	2.80		
3	178.50	2567.40	687.60	1295.20	10817.90	7245.00	14493.50	1128.20	474.90	107.80	70.90	1.70		
4	178.50	2678.70	1511.20	1198.80	6913.20	6532.90	14894.10	1198.80	501.20	99.20	64.40	2.80		
5	178.50	2127.50	1344.40	848.20	4299.80	5110.10	13801.90	1569.40	449.20	99.20	43.30	31.10		
6	184.90	2293.20	1658.10	636.80	2887.10	9171.70	11525.00	1511.20	423.90	99.20	55.00	2.20		
7	172.20	1934.70	2428.90	541.60	2160.30	16406.20	7111.60	1840.80	399.20	107.80	38.10	1.20		
8	172.20	1270.90	1175.10	462.00	2293.20	9713.50	6226.20	1540.20	399.20	112.20	46.20	1.20		
9	211.20	1246.70	926.00	449.20	2719.90	8063.70	6348.20	1453.90	488.00	112.20	38.10	1.70		
10	264.20	1151.60	848.20	474.90	3869.00	7045.30	5924.80	1453.90	399.20	107.80	116.60	15.50		
11	411.50	1014.10	829.80	555.30	5110.10	5338.40	4941.20	1198.80	317.00	103.40	140.10	184.90		
12	375.00	829.80	991.80	904.40	7379.20	4299.80	4348.70	969.70	305.80	107.80	399.20	191.40		
13	399.20	488.00	1246.70	704.90	8721.20	5924.80	4941.20	926.00	288.90	121.20	603.70	197.90		
14	462.00	449.20	1425.50	653.60	7312.00	11078.80	4609.70	687.60	288.90	159.90	555.30	191.40		
15	449.20	488.00	1246.70	1198.80	6044.70	10645.20	3869.00	775.40	248.20	288.90	587.40	159.90		
16	297.30	587.40	947.80	2360.70	5687.60	8572.90	4251.20	793.40	197.90	140.10	528.00	140.10		
17	224.80	926.00	757.50	3822.20	5512.00	7245.00	3500.00	793.40	184.90	112.20	351.40	112.20		
18	197.90	1482.40	687.60	2929.50	6348.20	6044.70	3636.80	885.60	178.50	103.40	144.90	94.90		
19	211.20	3320.60	687.60	2193.20	6913.20	6719.50	3188.30	775.40	184.90	90.60	116.60	94.90		
20	224.80	4397.80	587.40	1840.80	7379.20	7178.20	2678.70	687.60	178.50	74.70	107.80	90.60		
21	375.00	2094.90	636.80	1840.80	6913.20	6287.10	2463.20	722.30	191.40	74.70	103.40	74.70		
22	351.40	1295.20	757.50	2062.50	7925.10	8646.90	2293.20	670.50	140.10	74.70	90.60	144.90		
23	288.90	1246.70	528.00	1453.90	7111.60	8572.90	2127.50	620.20	149.90	64.40	78.60	78.60		
24	904.40	991.80	399.20	1748.60	5687.60	7582.30	1934.70	636.80	144.90	99.20	74.70	107.80		
25	1809.90	904.40	423.90	2972.10	4774.40	8721.20	1840.80	603.70	140.10	94.90	55.00	103.40		
26	1598.80	620.20	793.40	2394.70	11709.00	8646.90	1809.90	603.70	135.40	103.40	8.40	116.60		
27	848.20	793.40	2127.50	1569.40	18971.80	12644.90	1511.20	687.60	116.60	99.20	26.80	256.10		
28	423.90	1082.00	1903.20	1198.80	12267.40	34423.10	1369.30	603.70	107.80	94.90	52.00	204.50		
29	387.00	1059.20	1425.50	1059.20	10731.40	40460.70	1748.60	555.30	103.40	103.40	24.70	240.30		
30	1014.10	1369.30	1222.60	969.70	8572.90	26661.80	2428.90	501.20	103.40	107.80		184.90		
31		1998.20		1425.50	8279.00		1934.70		112.20	103.40		82.60		
Total	13151.70	45939.10	31768.30	43517.90	231935.30	320631.30	172045.20	29009.30	8214.70	3392.00	4670.70	3118.80	907394.40	**Ton**
Mean	438.40	1481.90	1058.90	1403.80	7481.80	10687.70	5549.80	967.00	265.00	109.40	161.10	100.60		
Max	1809.90	4397.80	2428.90	3822.20	18971.80	40460.70	15197.20	1840.80	501.20	288.90	603.70	256.10	40460.70	
Min	172.20	449.20	399.20	449.20	2160.30	4299.80	1369.30	501.20	103.40	64.40	8.40	1.20	1.20	

WATER YEAR : 2011

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.

Ban Cho Lae **Amphoe** Mae Teang **Changwat** Chiang Mai

Drainge Area	3,088 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2001-Cont'd
Actual Measurement	2001-Cont'd
Using Rating Curve Water Year	2011
Number of observation	36
R-Square	0.8396
Remarks	Continued Sediment Station

$$QS = 0.1504\ QW^{1.97540}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	59.50	51.80	86.80	139.70	2139.90	2279.00	2519.10	150.30	61.50	42.90	51.80	8.10		
2	59.50	95.30	71.10	162.70	2964.10	2279.00	3183.60	143.20	132.80	42.90	57.60	51.80		
3	61.50	454.70	71.10	193.50	1626.90	2249.80	4288.60	136.20	55.60	42.90	55.60	30.40		
4	61.50	561.30	101.10	166.90	990.10	1688.80	4752.10	129.50	50.00	41.20	51.80	22.40		
5	59.50	446.70	146.70	143.20	522.30	860.60	4517.40	129.50	48.20	44.60	36.40	29.00		
6	57.60	571.20	150.30	129.50	362.00	2034.40	2803.50	158.50	46.40	44.60	12.30	33.30		
7	61.50	391.80	162.70	113.30	349.00	3457.30	1335.00	323.50	44.60	44.60	38.00	33.30		
8	61.50	399.50	136.20	107.10	242.00	1647.40	1226.20	329.90	42.90	42.90	48.20	30.40		
9	61.50	207.50	122.90	110.20	414.90	1448.30	1190.90	236.90	42.90	42.90	48.20	33.30		
10	86.80	522.30	104.10	132.80	1022.30	1316.50	1105.00	132.80	42.90	42.90	89.60	50.00		
11	146.70	107.10	95.30	84.10	1173.50	910.20	1038.50	86.80	38.00	42.90	252.90	132.80		
12	143.20	171.20	101.10	42.90	1410.00	611.90	1647.40	44.60	36.40	42.90	264.10	139.70		
13	158.50	71.10	129.50	46.40	2113.30	872.80	1586.40	95.30	34.90	46.40	264.10	139.70		
14	188.90	61.50	198.10	61.50	1881.00	1487.10	1280.00	107.10	51.80	66.30	252.90	136.20		
15	188.90	317.30	158.50	107.10	1071.50	1757.80	824.10	95.30	34.90	101.10	221.90	101.10		
16	179.90	31.90	143.20	269.70	812.10	1566.30	765.20	84.10	31.90	71.10	136.20	89.60		
17	122.90	57.60	132.80	531.90	571.20	1335.00	422.70	81.40	30.40	68.70	16.70	81.40		
18	71.10	89.60	129.50	505.00	1055.00	1173.50	414.90	81.40	30.40	59.50	39.60	78.80		
19	68.70	479.50	132.80	269.70	1190.90	1121.90	376.80	78.80	29.00	48.20	38.00	76.20		
20	68.70	675.50	129.50	202.70	1226.20	1190.90	342.40	73.70	27.60	44.60	34.90	81.40		
21	63.90	362.00	113.30	399.50	1280.00	1022.30	323.50	68.70	27.60	42.90	30.40	36.40		
22	39.60	287.20	81.40	541.60	1757.80	2397.60	269.70	66.30	27.60	41.20	30.40	81.40		
23	50.00	221.90	50.00	369.40	1506.70	2249.80	252.90	59.50	27.60	34.90	29.00	81.40		
24	136.20	231.90	25.00	430.50	1055.00	1806.60	247.40	136.20	29.00	33.30	6.30	81.40		
25	76.20	129.50	26.30	765.20	1208.50	3848.50	212.20	66.30	27.60	36.40	17.80	78.80		
26	132.80	55.60	57.60	531.90	9672.70	1410.00	193.50	61.50	29.00	48.20	6.30	76.20		
27	139.70	57.60	158.50	376.80	5673.80	3228.50	175.50	63.90	31.90	48.20	26.30	76.20		
28	53.70	76.20	92.40	329.90	3007.30	5449.00	158.50	63.90	42.90	46.40	30.40	71.10		
29	53.70	92.40	73.70	299.00	2612.30	10225.30	162.70	61.50	42.90	46.40	26.30	76.20		
30	66.30	146.70	184.40	258.50	2427.70	3742.20	175.50	59.50	42.90	50.00		76.20		
31		226.90		342.40	2337.90		175.50		42.90	51.80		73.70		
Total	2780.00	7652.30	3365.90	8164.60	55677.90	66668.30	37966.70	3406.10	1285.00	1503.80	2214.00	2187.90	192872.50	**Ton**
Mean	92.70	246.80	112.20	263.40	1796.10	2222.30	1224.70	113.50	41.50	48.50	76.30	70.60		
Max	188.90	675.50	198.10	765.20	9672.70	10225.30	4752.10	329.90	132.80	101.10	264.10	139.70	10225.30	
Min	39.60	31.90	25.00	42.90	242.00	611.90	158.50	44.60	27.60	33.30	6.30	8.10	6.30	

WATER YEAR : 2011

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.

Ban Mae E - Hai **Amphoe** Li **Changwat** Lamphun

Drainge Area	1,544 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2001-Cont'd
Actual Measurement	2001-Cont'd
Using Rating Curve Water Year	2011
Number of observation	36
R-Square	0.9530
Remarks	Continued Sediment Station

$$QS = 6.6050\ QW^{1.09680}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	14.10	177.50	204.50	123.60	185.20	364.40	636.40	268.90	41.30	12.10	8.80	7.00		
2	11.80	123.60	158.70	113.80	251.30	296.10	1177.20	208.30	39.40	11.30	12.10	6.50		
3	9.60	84.20	110.50	104.70	558.20	382.20	4394.80	128.80	35.70	8.20	13.00	6.50		
4	7.00	79.50	170.00	91.80	649.90	282.50	4290.80	128.80	51.50	7.60	11.30	5.90		
5	7.00	388.30	204.50	97.00	454.30	247.40	3431.70	128.80	39.40	8.20	10.50	6.50		
6	7.00	235.60	223.90	140.10	251.30	784.40	2220.70	119.40	30.20	13.80	8.80	5.30		
7	7.00	155.00	277.90	104.70	185.20	582.90	1315.20	119.40	26.30	13.00	8.20	5.30		
8	6.50	123.60	181.40	91.80	173.70	358.50	1007.80	103.00	33.90	13.80	8.20	4.20		
9	5.00	117.00	147.50	81.60	170.00	319.00	799.30	114.70	26.30	13.00	7.60	4.70		
10	7.00	1333.70	133.50	70.80	162.50	305.30	670.30	119.40	33.90	14.70	7.00	4.70		
11	11.80	2951.70	126.90	75.10	147.50	352.60	576.70	110.10	37.60	15.50	7.60	4.20		
12	9.60	670.30	117.00	66.60	200.60	545.90	430.20	106.50	30.20	15.50	7.60	5.30		
13	11.80	370.30	120.30	81.60	208.30	921.20	364.40	103.00	26.30	15.50	8.20	7.00		
14	18.00	337.40	113.80	62.30	155.00	1361.50	346.60	99.50	23.70	15.50	6.50	7.00		
15	18.00	352.60	104.70	113.80	147.50	1040.60	309.80	92.60	22.40	16.40	7.00	6.50		
16	19.20	200.60	86.70	259.80	170.00	533.60	376.30	85.60	27.60	14.70	7.00	7.00		
17	14.90	147.50	81.60	277.90	177.50	364.40	595.80	75.30	22.40	16.40	7.00	7.00		
18	13.40	576.70	51.00	239.60	166.20	342.00	769.50	64.60	22.40	14.70	5.90	9.60		
19	14.90	754.60	60.20	259.80	231.70	314.40	643.10	67.30	14.70	14.70	6.50	8.80		
20	33.40	697.60	123.60	216.10	251.30	319.00	478.60	64.60	41.30	14.70	7.00	8.20		
21	110.50	490.80	212.20	151.20	259.80	300.70	412.20	67.30	43.20	13.80	15.50	8.20		
22	40.50	319.00	170.00	155.00	173.70	382.20	364.40	62.00	35.70	13.00	14.70	7.00		
23	25.30	243.60	133.50	133.50	117.00	460.40	332.80	59.30	28.90	13.00	13.80	6.50		
24	27.70	223.90	89.30	107.30	113.80	418.10	287.00	64.60	22.40	12.10	11.30	6.50		
25	30.50	166.20	110.50	99.50	110.50	533.60	273.40	67.30	15.50	11.30	10.50	5.90		
26	29.10	208.30	126.90	91.80	762.00	436.10	268.90	64.60	13.00	10.50	8.20	4.70		
27	36.20	259.80	200.60	84.20	1856.70	1241.40	247.40	64.60	11.30	10.50	7.00	5.30		
28	30.50	264.40	200.60	81.60	968.30	992.00	204.50	59.30	28.90	10.50	7.60	5.30		
29	39.10	192.90	155.00	84.20	472.50	851.70	189.00	54.10	33.90	10.50	7.00	5.30		
30	147.50	212.20	133.50	77.30	358.50	1352.30	177.50	43.20	26.30	10.50		4.70		
31		287.00		73.00	533.60		192.90		23.70	10.50		4.70		
Total	763.90	12745.40	4330.30	3811.10	10623.60	16986.40	27785.20	2914.90	909.30	395.50	261.40	191.30	81718.30	**Ton**
Mean	25.50	411.10	144.30	122.90	342.70	566.20	896.30	97.20	29.30	12.80	9.00	6.20		
Max	147.50	2951.70	277.90	277.90	1856.70	1361.50	4394.80	268.90	51.50	16.40	15.50	9.60	4394.80	
Min	5.00	79.50	51.00	62.30	110.50	247.40	177.50	43.20	11.30	7.60	5.90	4.20	4.20	

WATER YEAR : 2011

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.

Ban Sop Mae Sapuad **Amphoe** Mae Tha **Changwat** Lamphun

Drainge Area	550 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2001-Cont'd
Actual Measurement	2001-Cont'd
Using Rating Curve Water Year	2011
Number of observation	37
R-Square	0.9325
Remarks	Continued Sediment Station

$$QS = 2.0059\ QW^{1.60410}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	6.70	60.70	9.30	48.70	6666.00	88.50	282.40	32.50	5.60	1.80	0.40	0.50		
2	6.70	60.70	10.00	46.20	1267.20	231.50	1631.30	39.40	5.60	1.80	0.30	0.30		
3	6.70	32.60	11.40	544.00	1021.60	162.00	741.40	26.20	4.80	1.80	0.50	0.50		
4	6.10	77.20	8.60	301.30	615.20	100.90	489.10	32.50	4.00	1.80	0.60	0.50		
5	6.70	39.20	3.10	122.80	187.10	73.70	374.50	46.70	4.00	1.80	0.80	0.50		
6	6.10	12.20	173.90	73.70	67.10	516.40	301.30	32.50	4.80	1.70	1.40	0.50		
7	7.30	20.70	80.60	54.60	67.10	1370.90	223.80	20.40	4.00	1.70	1.30	0.60		
8	6.70	16.60	32.60	37.00	100.90	722.70	150.40	20.40	4.00	1.70	1.10	0.50		
9	6.70	14.10	23.50	39.20	84.50	2033.50	122.80	20.40	4.00	1.70	0.70	0.50		
10	6.70	1663.60	23.50	48.70	77.20	1318.60	113.80	15.10	4.00	1.50	0.70	0.50		
11	6.70	489.10	20.70	57.60	96.70	936.50	118.30	15.10	2.60	1.40	0.70	0.50		
12	6.70	139.10	20.70	51.60	187.10	704.50	113.80	15.10	3.30	1.30	0.70	0.60		
13	10.70	51.60	19.30	46.20	180.00	2139.10	92.60	10.50	2.60	1.30	0.40	0.60		
14	80.60	60.70	30.50	48.70	133.60	1423.90	88.50	9.40	2.60	1.40	0.70	0.70		
15	30.50	264.00	19.30	876.00	133.60	1794.80	84.50	8.40	2.60	1.70	0.70	0.90		
16	19.30	96.70	30.50	475.90	109.40	586.30	88.50	8.40	2.60	1.80	0.70	4.00		
17	11.40	109.40	46.20	264.00	247.00	340.50	92.60	20.40	2.00	1.80	0.60	0.60		
18	6.70	301.30	32.60	109.40	449.70	187.10	92.60	6.50	2.00	1.80	0.60	0.90		
19	6.10	208.80	23.50	70.40	571.90	156.10	88.50	5.60	1.80	1.80	0.60	1.50		
20	5.60	374.50	37.00	63.90	571.90	156.10	80.60	5.60	2.00	1.80	0.60	1.30		
21	5.60	156.10	173.90	54.60	320.70	156.10	80.60	5.60	2.00	1.50	0.40	1.40		
22	5.60	63.90	46.20	46.20	180.00	264.00	70.40	5.60	2.00	1.40	0.70	1.50		
23	4.70	25.00	30.50	34.80	113.80	386.80	67.10	5.60	2.00	1.40	0.70	1.40		
24	6.70	23.50	23.50	37.00	73.70	386.80	67.10	5.60	2.00	1.30	0.70	1.40		
25	12.20	15.40	16.60	46.20	84.50	411.30	63.90	5.60	2.00	1.00	0.60	1.30		
26	9.30	15.40	80.60	54.60	208.80	273.20	60.70	4.80	2.00	0.40	0.60	1.10		
27	8.00	15.40	704.50	41.50	330.50	255.00	60.70	4.80	1.80	0.40	0.60	1.30		
28	6.70	16.60	167.90	39.20	264.00	1397.30	60.70	4.80	2.00	0.40	0.60	1.00		
29	5.10	10.70	92.60	34.80	118.30	1370.90	57.60	4.80	2.00	0.40	0.60	1.00		
30	5.10	10.70	60.70	28.50	133.60	362.30	32.50	4.80	2.00	0.40		0.90		
31		10.70		73.70	100.90		39.40		1.80	0.40		0.80		
Total	319.70	4456.20	2053.80	3871.00	14763.60	20307.30	6032.00	443.10	90.50	42.40	19.60	29.60	52428.80	**Ton**
Mean	10.70	143.70	68.50	124.90	476.20	676.90	194.60	14.80	2.90	1.40	0.70	1.00		
Max	80.60	1663.60	704.50	876.00	6666.00	2139.10	1631.30	46.70	5.60	1.80	1.40	4.00	6666.00	
Min	4.70	10.70	3.10	28.50	67.10	73.70	32.50	4.80	1.80	0.40	0.30	0.30	0.30	

WATER YEAR : 2011

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.

Ban Sam Ruean **Amphoe** Khlong Khlung **Changwat** Kamphaeng Phet

Drainge Area	1,119 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2002-Cont'd
Actual Measurement	2002-Cont'd
Using Rating Curve Water Year	2011
Number of observation	20
R-Square	0.9663
Remarks	Continued Sediment Station

$$QS = 9.8696\ QW^{1.13490}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.00	8.20	314.60	245.90	156.20	364.50	391.80	242.60	14.50	1.80	1.70	1.50		
2	0.80	7.70	694.70	206.90	194.10	275.60	639.60	210.10	21.70	1.80	1.70	1.50		
3	0.70	34.30	756.30	121.40	146.90	262.40	784.50	187.70	20.40	1.80	1.70	1.50		
4	0.60	25.40	644.70	326.10	121.40	262.40	1648.40	175.00	19.20	1.80	1.70	1.50		
5	0.60	15.60	807.10	387.80	86.20	495.10	1967.80	137.70	18.00	1.80	1.70	1.50		
6	0.50	11.00	901.00	219.80	57.80	387.80	3794.50	140.80	16.80	1.80	1.70	1.50		
7	0.40	46.20	1609.40	118.70	43.60	333.70	4013.40	126.60	14.50	1.80	1.70	1.50		
8	0.30	94.90	1435.10	380.00	42.20	242.60	2970.30	124.00	8.20	1.80	1.70	1.50		
9	0.30	75.40	522.00	289.00	15.60	150.00	1894.40	113.50	5.00	1.80	1.70	1.50		
10	0.20	49.40	252.50	252.50	66.90	203.70	1894.40	129.30	4.00	1.80	1.70	1.50		
11	0.10	35.60	110.90	30.50	29.20	442.00	2170.80	110.90	4.00	1.80	1.70	1.50		
12	0.10	27.90	56.10	64.80	22.90	1142.40	1190.80	118.70	3.80	1.80	1.70	1.50		
13	0.00	26.70	46.20	39.60	57.80	3885.60	950.70	103.80	3.50	1.80	1.70	1.50		
14	0.00	22.90	126.60	84.00	121.40	3940.30	666.90	79.70	3.20	1.80	1.70	1.50		
15	0.00	1273.30	47.60	349.10	81.90	2986.40	544.50	99.30	3.00	1.80	1.70	1.50		
16	0.00	2795.00	9.30	383.90	101.60	1544.90	2182.10	79.70	3.00	1.80	1.70	1.50		
17	0.00	1978.30	7.70	360.70	43.60	1121.70	4123.40	25.40	2.70	1.80	1.70	1.50		
18	0.00	1535.70	6.60	181.30	44.90	925.70	3740.00	31.80	2.50	1.80	1.70	1.50		
19	0.00	1435.10	31.80	156.20	236.10	672.40	2858.70	34.30	2.50	1.80	1.50	1.50		
20	1.70	446.40	66.90	99.30	175.00	468.50	1769.40	25.40	2.30	1.80	1.50	1.50		
21	0.00	314.60	14.50	110.90	178.20	387.80	1142.40	20.40	2.30	1.80	1.50	1.50		
22	0.00	203.70	129.30	73.30	121.40	411.30	876.10	9.90	2.00	1.80	1.50	1.50		
23	0.60	219.80	88.40	63.00	92.70	1250.30	678.00	19.20	1.90	1.80	1.50	1.50		
24	0.70	322.30	54.40	329.80	64.80	807.10	569.30	34.30	1.90	1.80	1.50	1.50		
25	0.30	310.80	4.50	197.30	64.80	1228.00	513.00	39.60	1.80	1.80	1.50	1.50		
26	0.10	345.10	2.50	197.30	134.60	1401.70	446.40	43.60	1.80	1.80	1.50	1.50		
27	0.10	282.30	1.70	265.70	59.60	1149.30	364.50	44.90	1.80	1.80	1.50	1.50		
28	2.50	242.60	18.00	337.60	75.40	584.30	341.40	39.60	1.80	1.80	1.50	1.50		
29	1.70	239.30	9.90	341.40	223.00	540.00	310.80	40.90	1.80	1.80	1.50	1.50		
30	6.60	299.40	4.00	407.30	229.50	569.30	322.30	24.10	1.80	1.80		1.50		
31		289.00		200.50	564.40		292.30		1.80	1.80		1.50		
Total	19.90	13013.90	8774.30	6821.60	3653.70	28436.80	46052.90	2612.80	193.50	55.80	47.10	46.50	109728.80	**Ton**
Mean	0.70	419.80	292.50	220.10	117.90	947.90	1485.60	87.10	6.20	1.80	1.60	1.50		
Max	6.60	2795.00	1609.40	407.30	564.40	3940.30	4123.40	242.60	21.70	1.80	1.70	1.50	4123.40	
Min	0.00	7.70	1.70	30.50	15.60	150.00	292.30	9.90	1.80	1.80	1.50	1.50	0.00	

WATER YEAR : 2011

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.

Ban Mae Wan **Amphoe** Doi Saket **Changwat** Chiang Mai

Drainge Area	136 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2001-Cont'd
Actual Measurement	2001-Cont'd
Using Rating Curve Water Year	2011
Number of observation	36
R-Square	0.9530
Remarks	Continued Sediment Station

$$QS = 6.6050\ QW^{1.09680}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.40	26.90	13.50	26.90	253.00	39.90	37.90	12.40	10.30	10.30	10.30	10.30		
2	0.90	6.20	11.40	23.70	70.30	23.70	31.90	12.40	9.30	10.30	10.30	10.30		
3	0.90	11.40	12.40	22.00	48.20	22.00	28.60	12.40	10.30	10.30	10.30	10.30		
4	1.40	15.70	14.60	18.80	33.90	20.40	25.30	12.40	10.30	10.30	10.30	10.30		
5	0.90	14.60	37.90	15.70	25.30	37.90	20.40	11.40	10.30	10.30	10.30	10.30		
6	0.90	12.40	42.00	15.70	20.40	30.20	22.00	11.40	10.30	10.30	10.30	10.30		
7	1.40	9.30	22.00	14.60	20.40	68.10	22.00	10.30	10.30	10.30	10.30	10.30		
8	4.00	9.30	17.30	11.40	23.70	22.00	20.40	10.30	10.30	10.30	10.30	10.30		
9	3.00	15.70	14.60	10.30	37.90	22.00	20.40	10.30	10.30	10.30	10.30	10.30		
10	5.20	46.10	13.50	12.40	46.10	20.40	20.40	10.30	10.30	10.30	10.30	10.30		
11	5.20	39.90	15.70	17.30	128.80	20.40	18.80	10.30	10.30	10.30	10.30	10.30		
12	5.20	20.40	17.30	18.80	86.40	23.70	17.30	9.30	10.30	10.30	10.30	10.30		
13	4.60	14.60	30.20	13.50	137.30	23.70	17.30	9.30	10.30	10.30	10.30	10.30		
14	4.00	13.50	15.70	17.30	44.00	26.90	17.30	10.30	10.30	10.30	10.30	10.30		
15	3.00	17.30	14.60	37.90	28.60	56.80	17.30	7.20	10.30	10.30	10.30	10.30		
16	2.40	22.00	15.70	44.00	18.80	22.00	18.80	9.30	9.30	10.30	10.30	10.30		
17	2.40	23.70	14.60	37.90	15.70	18.80	20.40	9.30	8.20	10.30	10.30	10.30		
18	1.90	42.00	12.40	23.70	23.70	17.30	18.80	9.30	10.30	10.30	10.30	10.30		
19	1.40	33.90	11.40	18.80	37.90	20.40	18.80	9.30	10.30	10.30	10.30	10.30		
20	1.90	42.00	13.50	17.30	26.90	25.30	15.70	9.30	10.30	10.30	10.30	10.30		
21	8.20	25.30	31.90	17.30	30.20	23.70	15.70	9.30	10.30	10.30	10.30	10.30		
22	6.20	18.80	15.70	14.60	18.80	23.70	14.60	9.30	10.30	10.30	10.30	10.30		
23	42.00	15.70	13.50	15.70	15.70	25.30	14.60	10.30	10.30	10.30	10.30	10.30		
24	68.10	12.40	13.50	22.00	30.20	22.00	14.60	10.30	10.30	10.30	10.30	10.30		
25	61.30	10.30	26.90	22.00	111.90	23.70	13.50	10.30	10.30	10.30	10.30	10.30		
26	12.40	11.40	167.10	18.80	30.20	20.40	12.40	9.30	10.30	10.30	10.30	10.30		
27	9.30	14.60	59.00	15.70	25.30	22.00	13.50	9.30	10.30	10.30	10.30	10.30		
28	10.30	18.80	48.20	13.50	22.00	103.60	14.60	9.30	10.30	10.30	10.30	10.30		
29	8.20	20.40	33.90	12.40	17.30	52.30	13.50	10.30	10.30	10.30	10.30	10.30		
30	17.30	33.90	30.20	11.40	31.90	33.90	14.60	10.30	10.30	10.30		10.30		
31		17.30		56.80	35.90		14.60		10.30	10.30		10.30		
Total	295.30	635.80	800.20	638.20	1496.70	912.50	586.00	304.50	315.20	319.30	298.70	319.30	6921.70	**Ton**
Mean	9.80	20.50	26.70	20.60	48.30	30.40	18.90	10.10	10.20	10.30	10.30	10.30		
Max	68.10	46.10	167.10	56.80	253.00	103.60	37.90	12.40	10.30	10.30	10.30	10.30	253.00	
Min	0.90	6.20	11.40	10.30	15.70	17.30	12.40	7.20	8.20	10.30	10.30	10.30	0.90	

WATER YEAR : 2011

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.

Ban Pong Din **Amphoe** Doi Saket **Changwat** Chiang Mai

Drainge Area	129 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2007-Cont'd
Actual Measurement	2007-Cont'd
Using Rating Curve Water Year	2011
Number of observation	36
R-Square	0.7784
Remarks	Continued Sediment Station

$$QS = 1.2596\ QW^{1.84080}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.60	27.30	3.70	10.30	1661.40	42.60	126.30	18.50	6.90	5.20	3.10	2.20		
2	0.60	23.30	3.70	14.60	197.20	45.90	206.40	16.50	6.90	5.20	3.10	2.20		
3	0.60	17.40	4.20	12.80	103.40	37.60	126.30	15.50	6.90	5.20	3.10	2.20		
4	0.60	9.50	3.10	8.80	60.90	47.70	166.50	13.70	6.90	5.20	3.10	2.20		
5	0.70	3.40	10.30	6.30	49.80	72.90	100.20	13.70	6.90	5.20	3.10	2.20		
6	2.80	1.90	33.00	6.30	44.20	407.40	75.50	13.70	6.30	5.20	3.10	1.90		
7	2.20	2.80	8.80	5.20	47.70	356.60	83.30	12.80	6.90	5.20	3.10	2.20		
8	2.20	3.10	5.20	6.30	60.90	122.90	83.30	11.90	6.90	5.20	3.10	2.20		
9	2.20	11.90	3.70	10.30	70.40	151.30	75.50	11.10	6.90	5.20	3.10	2.20		
10	1.90	78.10	4.20	10.30	170.60	278.20	70.40	11.10	6.90	4.20	3.10	2.20		
11	1.90	18.50	5.20	28.70	674.30	136.70	56.30	11.10	6.90	3.70	2.80	1.50		
12	2.20	8.20	5.20	8.20	329.60	126.30	56.30	9.50	6.90	3.70	2.80	2.20		
13	2.20	2.80	3.70	11.10	508.00	126.30	51.90	9.50	6.90	3.70	2.80	2.20		
14	2.20	2.80	3.70	36.00	106.50	106.50	51.90	8.80	6.30	3.70	2.80	2.50		
15	1.90	3.10	3.70	17.40	94.30	83.30	54.10	9.50	6.30	3.70	2.80	2.80		
16	1.90	3.10	3.70	9.50	78.10	80.70	60.90	9.50	6.30	3.70	2.80	2.80		
17	1.70	3.40	3.40	6.30	58.60	75.50	63.20	8.20	6.30	3.70	2.80	2.50		
18	0.70	4.20	4.20	6.30	109.70	75.50	51.90	8.20	6.30	3.70	2.80	2.50		
19	0.70	8.80	2.20	6.30	230.10	83.30	47.70	8.20	6.30	3.40	2.80	2.20		
20	0.70	5.70	2.50	6.30	109.70	78.10	44.20	8.20	6.30	3.40	2.80	2.20		
21	0.70	3.40	7.50	6.30	116.20	83.30	40.90	8.20	6.30	3.10	2.50	2.20		
22	0.70	1.70	3.10	5.70	183.70	140.30	39.20	8.20	5.20	3.10	2.50	2.20		
23	0.80	2.20	2.20	6.90	44.20	147.60	34.50	8.20	6.30	3.40	2.50	2.20		
24	4.20	2.20	2.80	17.40	45.90	499.00	31.50	8.20	6.30	3.10	2.50	1.90		
25	94.30	1.90	19.70	10.30	162.60	143.90	30.00	8.20	6.30	3.10	2.50	1.90		
26	3.70	1.70	303.60	7.50	1130.60	103.40	28.70	8.20	6.30	3.40	2.20	1.90		
27	1.90	2.80	58.60	6.30	126.30	166.50	31.50	8.20	5.70	3.40	2.20	1.90		
28	1.50	5.20	39.20	6.30	60.90	473.30	28.70	8.20	5.70	3.40	2.20	1.90		
29	2.20	6.30	17.40	6.30	54.10	240.00	19.70	7.50	5.70	3.40	2.20	2.20		
30	45.90	40.90	12.80	6.30	94.30	88.80	25.90	6.90	5.70	3.40		2.20		
31		5.70		78.10	49.80		28.70		5.70	3.10		2.20		
Total	186.40	313.30	584.30	384.70	6834.00	4621.40	1991.40	309.20	198.40	123.30	80.30	67.80	15694.50	**Ton**
Mean	6.20	10.10	19.50	12.40	220.50	154.00	64.20	10.30	6.40	4.00	2.80	2.20		
Max	94.30	78.10	303.60	78.10	1661.40	499.00	206.40	18.50	6.90	5.20	3.10	2.80	1661.40	
Min	0.60	1.70	2.20	5.20	44.20	37.60	19.70	6.90	5.20	3.10	2.20	1.50	0.60	

WATER YEAR : 2011

PING RIVER BASIN

Nam Mae Wang at Ban Sop Win , Chiang Mai (P.82)

Lat 18 - 39 - 08 N Long 98 - 41 - 26 E

Location : on left bank at Ban Mae Win.

Ban Sop Win **Amphoe** Mae Wang **Changwat** Chiang Mai

Drainge Area	389 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2003-Cont'd
Actual Measurement	2003-Cont'd
Using Rating Curve Water Year	2011
Number of observation	36
R-Square	0.7742
Remarks	Continued Sediment Station

$$QS = 0.4920\ QW^{1.86640}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.80	1.60	4.40	7.70	71.70	66.10	343.50	68.90	35.80	20.60	11.90	6.80		
2	1.30	3.50	6.80	6.40	100.00	49.40	1076.60	66.10	34.20	20.60	14.10	6.80		
3	0.80	5.50	14.80	8.70	66.10	83.60	1632.70	63.30	34.20	19.60	13.30	6.40		
4	0.80	8.10	68.90	14.80	51.60	66.10	2090.40	63.30	34.20	19.60	13.30	5.90		
5	0.80	5.50	71.70	13.30	23.90	83.60	639.50	63.30	32.50	19.60	11.90	5.90		
6	0.80	4.80	291.70	10.60	18.60	351.20	320.80	60.90	32.50	18.60	11.30	5.90		
7	0.80	10.00	56.20	7.20	17.60	384.30	250.40	58.50	31.00	18.60	10.00	5.90		
8	0.80	14.80	22.70	5.50	14.80	107.00	225.00	58.50	29.40	17.60	8.70	5.20		
9	1.00	5.90	16.70	5.90	12.60	107.00	185.90	56.20	22.70	17.60	9.30	5.90		
10	2.60	22.70	13.30	6.40	14.80	138.10	156.20	56.20	21.70	18.60	9.30	5.90		
11	2.80	39.30	14.80	8.70	15.70	125.60	138.10	56.20	26.40	18.60	8.10	5.90		
12	3.30	7.70	23.90	10.00	21.70	795.20	121.70	56.20	27.90	17.60	8.70	5.90		
13	5.20	6.80	23.90	8.70	37.50	1197.00	114.30	51.60	27.90	19.60	8.10	6.40		
14	4.10	12.60	14.10	11.30	22.70	475.30	107.00	51.60	27.90	20.60	8.10	6.80		
15	3.80	17.60	11.90	23.90	16.70	207.90	100.00	49.40	26.40	18.60	8.10	5.90		
16	2.40	20.60	11.90	31.00	19.60	138.10	107.00	47.30	25.00	17.60	8.10	5.90		
17	1.60	96.50	10.60	15.70	58.50	100.00	207.90	47.30	25.00	17.60	8.10	5.90		
18	1.60	114.30	10.60	10.00	56.20	89.90	313.40	45.10	25.00	15.70	8.10	5.90		
19	2.40	83.60	10.60	9.30	86.80	366.90	147.00	45.10	25.00	14.80	8.10	5.20		
20	4.10	45.10	11.30	8.70	207.90	142.50	118.00	43.10	25.00	14.80	8.10	5.20		
21	2.20	12.60	9.30	11.90	96.50	138.10	110.60	43.10	23.90	14.10	8.10	5.20		
22	1.80	7.20	7.70	11.30	58.50	133.70	100.00	41.00	23.90	14.10	8.10	5.20		
23	2.00	4.10	5.90	7.70	37.50	129.40	89.90	41.00	23.90	13.30	8.10	5.20		
24	5.50	3.10	5.90	6.80	27.90	103.50	83.60	39.30	23.90	13.30	7.70	5.20		
25	7.20	2.60	7.70	8.70	32.50	138.10	83.60	39.30	22.70	13.30	7.70	4.80		
26	2.60	2.80	15.70	11.90	151.60	125.60	77.60	39.30	22.70	13.30	7.20	4.80		
27	2.60	3.10	25.00	7.20	47.30	118.00	77.60	39.30	22.70	12.60	7.20	5.20		
28	1.80	5.20	14.80	5.50	32.50	291.70	74.60	37.50	22.70	12.60	7.20	5.20		
29	1.60	5.50	11.30	4.40	32.50	118.00	74.60	37.50	22.70	11.90	7.20	5.20		
30	1.50	13.30	8.70	4.40	74.60	86.80	74.60	35.80	21.70	11.90		4.80		
31		5.20		6.40	56.20		71.70		21.70	11.30		4.40		
Total	71.60	591.20	822.80	310.00	1582.60	6457.70	9313.80	1501.20	822.20	508.20	263.20	174.80	22419.30	**Ton**
Mean	2.40	19.10	27.40	10.00	51.10	215.30	300.40	50.00	26.50	16.40	9.10	5.60		
Max	7.20	114.30	291.70	31.00	207.90	1197.00	2090.40	68.90	35.80	20.60	14.10	6.80	2090.40	
Min	0.80	1.60	4.40	4.40	12.60	49.40	71.70	35.80	21.70	11.30	7.20	4.40	0.80	

WATER YEAR : 2011

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.

Ban Phan Ton **Amphoe** Mae Wang **Changwat** Chiang Mai

Drainge Area	491 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2003-Cont'd
Actual Measurement	2003-Cont'd
Using Rating Curve Water Year	2011
Number of observation	36
R-Square	0.7464
Remarks	Continued Sediment Station

$$QS = 2.4898\ QW^{1.60360}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.20	0.30	1.00	11.50	51.00	158.10	269.20	197.70	99.80	64.80	8.70	7.20		
2	0.20	1.00	4.00	11.50	147.70	121.20	2182.00	197.70	99.80	62.60	9.10	5.80		
3	0.20	1.20	11.50	13.30	111.90	236.30	2819.20	206.00	111.90	58.60	8.30	6.20		
4	0.20	2.00	37.80	16.40	118.20	181.40	2726.90	193.50	131.00	52.60	8.30	6.50		
5	0.20	2.40	43.50	15.40	48.00	245.20	1678.20	201.80	111.90	42.00	8.70	6.50		
6	0.40	4.00	412.30	13.30	22.60	1327.00	619.70	206.00	96.80	19.20	7.60	6.50		
7	0.50	1.70	105.60	5.90	28.50	1644.50	534.50	197.70	94.40	18.50	6.50	5.80		
8	2.00	2.90	58.60	2.70	12.10	309.40	512.10	193.50	96.80	18.50	6.50	3.10		
9	10.40	3.40	32.40	2.40	9.90	365.60	504.70	189.40	96.80	19.20	5.80	4.00		
10	0.40	24.90	13.30	2.20	8.80	461.20	454.10	189.40	96.80	14.50	6.90	3.60		
11	0.20	84.90	5.90	1.00	9.30	284.00	405.50	181.40	91.90	13.30	6.50	4.00		
12	0.40	18.40	12.10	2.00	48.00	405.50	372.10	185.40	87.10	12.70	6.50	5.50		
13	0.30	8.30	21.50	7.80	62.60	2657.70	359.10	177.40	91.90	13.90	6.90	5.80		
14	3.70	4.30	10.40	14.50	37.80	1627.90	340.80	169.50	89.40	11.50	6.50	6.90		
15	0.60	51.00	9.90	17.40	19.40	572.60	335.50	165.60	84.90	12.10	5.50	7.20		
16	0.20	26.10	9.90	19.40	33.70	468.30	335.50	165.60	87.10	13.30	5.50	5.50		
17	0.90	264.30	8.30	18.40	140.90	304.20	862.80	158.10	87.10	13.90	6.50	4.60		
18	1.20	189.40	19.40	4.70	137.50	335.50	778.50	158.10	82.50	12.70	6.50	2.50		
19	0.40	140.90	13.90	2.40	105.60	461.20	482.70	158.10	77.90	11.10	6.90	0.80		
20	0.50	69.00	23.70	7.30	314.50	504.70	346.20	154.70	71.30	10.30	6.50	3.80		
21	1.20	42.00	15.40	6.90	154.70	454.10	289.00	147.70	73.40	10.70	6.50	4.00		
22	0.40	19.40	11.50	5.50	108.70	512.10	294.10	134.20	71.30	12.70	6.50	3.80		
23	0.20	5.50	8.30	1.70	77.90	527.00	264.30	121.20	69.00	12.10	6.20	3.30		
24	1.50	0.90	7.80	1.00	66.80	335.50	279.00	121.20	71.30	11.10	6.20	2.30		
25	0.50	1.20	12.10	1.50	71.30	475.50	264.30	118.20	73.40	9.90	6.50	2.50		
26	1.20	5.50	33.70	1.40	173.40	335.50	264.30	114.90	77.90	9.10	6.50	2.30		
27	0.40	0.30	62.60	0.20	140.90	461.20	259.50	111.90	73.40	8.70	7.20	2.90		
28	0.30	2.40	32.40	0.20	77.90	808.60	227.50	108.70	73.40	9.10	6.50	4.60		
29	0.20	8.30	22.60	0.50	108.70	412.30	240.70	108.70	69.00	8.70	6.90	3.60		
30	0.30	33.70	15.40	0.20	365.60	330.20	245.20	105.60	66.80	9.10		2.90		
31		3.70		1.00	121.20		218.80		66.80	8.30		3.30		
Total	29.30	1023.30	1076.80	209.60	2935.10	17323.50	19766.00	4838.90	2672.80	604.80	199.20	137.30	50816.60	**Ton**
Mean	1.00	33.00	35.90	6.80	94.70	577.50	637.60	161.30	86.20	19.50	6.90	4.40		
Max	10.40	264.30	412.30	19.40	365.60	2657.70	2819.20	206.00	131.00	64.80	9.10	7.20	2819.20	
Min	0.20	0.30	1.00	0.20	8.80	121.20	218.80	105.60	66.80	8.30	5.50	0.80	0.20	

WATER YEAR : 2011

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.

Ban Setuwaree Bridge **Amphoe** Mueang **Changwat** Lampang

Drainge Area	3,478 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1996-Cont'd
Actual Measurement	1996-Cont'd
Using Rating Curve Water Year	2011
Number of observation	36
R-Square	0.8572
Remarks	Continued Sediment Station

$$QS = 0.8824\ QW^{1.61940}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	157.30	52.00	235.50	472.20	3207.50	3273.50	3508.60	293.70	76.30	9.40	130.20	8.30		
2	189.00	130.20	223.50	434.80	19854.10	3576.90	6218.70	167.30	73.90	11.60	148.10	21.00		
3	109.20	217.60	223.50	788.90	19986.30	3109.50	7765.00	67.00	73.90	9.40	162.00	31.50		
4	293.70	667.80	235.50	839.50	8797.10	2861.60	2302.50	31.50	73.90	5.10	152.70	35.40		
5	751.70	409.90	229.50	346.10	4279.80	1082.70	3975.70	24.30	62.60	5.10	125.90	38.50		
6	764.00	434.80	279.30	97.30	2861.60	434.80	826.70	30.30	67.00	9.90	14.00	44.10		
7	776.40	401.70	217.60	54.10	2229.10	1347.80	260.20	178.00	82.20	8.30	7.30	54.10		
8	852.30	401.70	189.00	35.40	2180.60	2253.40	172.60	444.10	73.90	7.80	6.00	54.10		
9	878.20	167.30	167.30	25.50	1967.80	2982.20	279.30	308.30	67.00	9.40	7.30	50.00		
10	852.30	2454.90	162.00	36.70	1052.50	3975.70	109.20	481.70	69.30	9.40	6.40	56.20		
11	852.30	3975.70	194.60	330.80	1295.10	2037.80	353.80	500.90	69.30	7.80	9.40	25.50		
12	703.30	3938.30	189.00	97.30	2713.60	1609.20	301.00	632.90	69.30	8.80	18.90	22.10		
13	500.90	3508.60	178.00	36.70	2982.20	1923.00	229.50	644.50	34.10	10.40	9.90	50.00		
14	462.70	3012.60	67.00	31.50	2253.40	2253.40	223.50	656.10	12.70	9.90	60.40	26.60		
15	434.80	1670.30	30.30	139.00	1923.00	3863.90	194.60	125.90	13.30	10.40	211.80	17.80		
16	434.80	353.80	36.70	143.50	1732.20	4126.70	260.20	109.20	6.00	10.40	260.20	12.10		
17	434.80	167.30	139.00	418.10	839.50	3474.60	286.50	76.30	3.70	11.00	266.50	10.40		
18	361.60	235.50	29.00	591.10	1732.20	1690.80	279.30	148.10	3.70	9.90	279.30	10.40		
19	50.00	172.60	15.80	481.70	1690.80	703.30	194.60	157.30	3.40	9.90	71.60	13.30		
20	279.30	434.80	12.10	130.20	2156.60	580.80	143.50	148.10	3.10	9.40	46.10	11.60		
21	434.80	727.40	11.00	121.70	2426.80	1113.30	121.70	85.90	3.00	9.90	29.00	9.90		
22	444.10	691.40	11.00	121.70	1879.90	2684.40	121.70	71.60	3.10	8.30	17.80	5.50		
23	361.60	679.50	11.00	40.40	1098.00	1649.80	121.70	35.40	4.70	3.90	12.70	3.90		
24	346.10	632.90	11.60	50.00	1037.50	2061.40	109.20	30.30	4.70	3.60	6.90	4.70		
25	353.80	611.90	17.80	93.50	1037.50	3109.50	101.20	18.90	3.90	3.60	4.70	6.40		
26	82.20	656.10	247.70	622.40	1128.70	3826.90	152.70	18.90	4.30	3.40	3.90	11.60		
27	62.60	550.30	481.70	560.40	3542.70	3901.00	40.40	18.90	3.90	3.10	3.70	16.80		
28	97.30	426.50	1037.50	134.60	1312.60	4203.00	22.10	19.90	5.10	2.80	5.50	15.80		
29	97.30	401.70	656.10	93.50	1037.50	6016.70	18.90	36.70	4.30	2.80	8.30	12.70		
30	105.20	418.10	540.30	82.20	814.00	3863.90	46.10	76.30	5.50	3.60		11.00		
31		286.50		211.80	491.30		315.70		7.30	73.90		11.00		
Total	12523.60	28889.70	6079.90	7662.60	101541.50	79591.50	29056.40	5638.30	988.40	302.20	2086.50	702.30	275062.90	**Ton**
Mean	417.50	931.90	202.70	247.20	3275.50	2653.10	937.30	187.90	31.90	9.70	71.90	22.70		
Max	878.20	3975.70	1037.50	839.50	19986.30	6016.70	7765.00	656.10	82.20	73.90	279.30	56.20	19986.30	
Min	50.00	52.00	11.00	25.50	491.30	434.80	18.90	18.90	3.00	2.80	3.70	3.90	2.80	

WATER YEAR : 2011

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.

Ban Don Chai **Amphoe** Thoen **Changwat** Lampang

Drainge Area	8,924 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1997-Cont'd
Actual Measurement	1997-Cont'd
Using Rating Curve Water Year	2011
Number of observation	36
R-Square	0.9569
Remarks	Continued Sediment Station

$$QS = 0.1407\ QW^{1.85850}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	16.30	169.00	473.20	1090.50	742.90	4028.90	7887.50	773.30	174.60	57.90	42.50	42.50		
2	36.50	60.00	311.60	758.00	15686.30	4330.30	11550.90	727.90	180.30	57.90	40.70	42.50		
3	50.90	50.90	271.60	900.70	43517.50	5183.00	39431.30	602.90	180.30	60.00	97.70	46.60		
4	33.20	241.40	248.80	2177.30	60097.50	4280.90	75240.10	484.40	174.60	60.00	209.80	65.70		
5	26.10	390.10	311.60	2622.30	38026.20	3242.00	87781.80	380.90	174.60	63.00	203.70	87.20		
6	27.80	542.10	554.10	1237.20	13944.10	2445.90	49263.50	319.90	169.00	63.00	174.60	94.50		
7	22.90	758.00	1325.30	554.10	9038.40	2696.40	14184.10	311.60	152.80	60.00	116.10	94.50		
8	26.10	495.70	1130.10	311.60	7246.70	4280.90	5072.50	328.40	163.50	65.70	84.20	94.50		
9	29.70	390.10	628.00	203.70	6189.60	4747.80	3323.70	419.00	169.00	84.20	60.00	108.70		
10	40.70	8397.10	363.00	180.30	5019.40	5352.40	3002.50	380.90	163.50	74.90	55.40	108.70		
11	44.70	28713.50	256.30	287.30	4590.80	10197.00	2143.60	311.60	152.80	77.80	50.90	119.70		
12	46.60	19199.50	263.90	530.40	9805.20	9323.10	1985.40	303.40	147.50	74.90	50.90	116.10		
13	33.20	8397.10	287.30	354.20	10605.30	9900.20	1691.80	311.60	142.40	74.90	50.90	97.70		
14	14.70	5183.00	234.90	147.50	8672.30	11983.20	1474.10	319.90	127.40	71.60	57.90	127.40		
15	13.20	4747.80	112.10	137.30	6440.10	11444.00	1090.50	319.90	127.40	74.90	65.70	142.40		
16	11.70	3981.10	55.40	354.20	5882.90	12655.40	1303.90	319.90	116.10	90.80	147.50	123.80		
17	7.20	2177.30	33.20	2015.70	5129.30	9805.20	2112.40	311.60	101.50	90.80	186.00	104.80		
18	5.50	3456.30	31.20	2377.40	4330.30	6631.00	3833.60	287.30	90.80	87.20	209.80	90.80		
19	5.50	6189.60	127.40	1554.10	7325.40	4854.90	3161.20	311.60	74.90	87.20	203.70	87.20		
20	7.80	4536.90	152.80	1237.20	5294.50	4590.80	2048.50	295.30	60.00	84.20	174.60	87.20		
21	15.40	3549.00	142.40	655.00	8397.10	3930.70	1474.10	256.30	57.90	81.20	127.40	94.50		
22	108.70	2177.30	123.80	451.20	10000.20	3456.30	1173.70	228.50	55.40	81.20	112.10	90.80		
23	174.60	1396.10	65.70	328.40	6567.10	4910.60	1049.90	197.70	53.30	77.80	94.50	74.90		
24	147.50	1049.90	38.60	209.80	3201.50	3691.40	884.30	147.50	53.30	71.60	84.20	63.00		
25	169.00	727.90	29.70	169.00	2309.80	3981.10	773.30	127.40	53.30	60.00	71.60	50.90		
26	328.40	820.10	46.60	263.90	3930.70	5019.40	727.90	119.70	57.90	53.30	57.90	44.70		
27	174.60	1194.10	507.10	566.10	8397.10	6858.90	640.80	119.70	60.00	48.50	50.90	46.60		
28	55.40	1069.30	3161.20	640.80	6858.90	10708.50	578.20	116.10	55.40	48.50	48.50	57.90		
29	60.00	820.10	3161.20	295.30	5129.30	14061.20	484.40	112.10	57.90	46.60	46.60	74.90		
30	77.80	683.70	1953.10	203.70	3833.60	14545.00	399.30	123.80	60.00	44.70		87.20		
31		590.50		209.80	4590.80		507.10		57.90	42.50		87.20		
Total	1811.70	112154.50	16401.20	23024.00	330800.80	203136.40	326275.90	9370.10	3465.30	2116.80	2976.30	2655.1 1	34188.30	**Ton**
Mean	60.40	3617.90	546.70	742.70	10671.00	6771.20	10525.00	312.30	111.80	68.30	102.60	85.60		
Max	328.40	28713.50	3161.20	2622.30	60097.50	14545.00	87781.80	773.30	180.30	90.80	209.80	142.40	87781.80	
Min	5.50	50.90	29.70	137.30	742.90	2445.90	399.30	112.10	53.30	42.50	40.70	42.50	5.50	

WATER YEAR : 2011

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

Drainge Area	10,439 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1989-Cont'd
Actual Measurement	1989-Cont'd
Using Rating Curve Water Year	1989-2011
Number of observation	394
R-Square	0.9149
Remarks	Continued Sediment Station

$$QS = 1.7411\ QW^{1.44810}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	19.00	239.80	1315.70	2485.20	561.70	7745.10	16075.40	967.40	249.10	32.80	13.00	22.20		
2	25.60	287.40	1098.30	1929.10	1412.80	7414.80	14985.80	1731.60	253.80	31.60	13.90	17.90		
3	53.90	194.90	893.40	1357.10	11871.30	7701.00	14865.30	1701.80	277.70	30.40	19.00	17.90		
4	96.50	149.00	720.00	1188.30	15106.60	8324.90	22111.10	1357.10	297.30	31.60	157.10	17.90		
5	100.00	272.90	774.30	2220.10	16889.70	7701.00	27681.40	1222.70	282.60	32.80	203.70	17.90		
6	67.50	488.00	1010.40	3547.20	24762.80	6393.70	21858.10	1098.30	277.70	45.40	249.10	24.50		
7	56.10	782.60	1441.00	2658.90	30175.30	5442.10	19378.50	801.10	268.10	43.30	230.60	43.30		
8	65.20	1109.40	2238.60	1109.40	27681.40	5610.20	13326.20	710.30	268.10	39.30	226.00	49.60		
9	69.90	1098.30	1975.60	754.40	13326.20	7214.90	12732.50	630.70	253.80	45.40	212.50	60.60		
10	79.50	956.70	1302.00	531.80	10896.80	7616.50	9882.70	1054.10	244.40	60.60	62.90	67.50		
11	93.00	5745.80	872.60	524.40	9475.60	8825.60	8190.00	914.30	235.20	53.90	53.90	69.90		
12	100.00	12891.10	622.90	700.60	9009.80	11716.80	6702.90	728.20	226.00	43.30	43.30	86.20		
13	96.50	13130.00	584.40	903.90	10503.20	12970.60	5745.80	561.70	221.50	45.40	26.80	96.50		
14	72.20	9678.50	622.90	801.10	10615.20	15106.60	4870.90	509.80	217.00	45.40	23.30	86.20		
15	47.40	7095.70	524.40	473.60	10727.60	16725.80	3643.50	509.80	203.70	45.40	23.30	82.80		
16	37.30	6470.60	403.90	397.10	9428.70	17550.00	3357.00	569.20	173.60	47.40	23.30	153.00		
17	31.60	5711.80	282.60	821.30	9831.50	17550.00	4608.60	554.20	133.30	58.30	47.40	114.40		
18	26.80	4783.00	208.10	2359.70	8688.10	16562.50	5197.50	615.20	103.60	60.60	194.90	89.60		
19	22.20	5408.70	177.80	3571.20	8190.00	12891.10	6355.40	509.80	93.00	58.30	173.60	60.60		
20	16.90	7701.00	317.30	2698.00	9475.60	9627.70	6126.90	524.40	89.60	56.10	173.60	34.10		
21	21.10	6202.80	377.00	2271.00	8234.90	8324.90	5077.90	495.20	67.50	56.10	212.50	49.60		
22	30.40	5378.30	363.70	1426.90	9526.20	7414.80	4322.50	561.70	49.60	56.10	173.60	67.50		
23	100.00	4162.00	337.70	1010.40	10191.50	6432.10	3057.50	488.00	29.10	53.90	110.80	58.30		
24	244.40	2678.40	268.10	841.70	9882.70	8460.60	2562.00	445.30	17.90	53.90	86.20	45.40		
25	287.40	2101.30	217.00	622.90	6586.40	6702.90	2151.30	397.10	35.40	49.60	65.20	35.40		
26	302.30	1791.70	203.70	509.80	5442.10	8145.10	2006.80	332.50	34.10	43.30	56.10	25.60		
27	417.50	1761.50	337.70	903.90	7833.40	8145.10	1441.00	302.30	39.30	43.30	41.30	20.00		
28	438.30	2038.20	554.20	1199.80	9288.40	9934.00	1343.20	272.90	41.30	43.30	27.90	19.00		
29	212.50	2006.80	3016.80	1329.50	9381.90	11180.80	1247.70	244.40	39.30	17.90	25.60	17.90		
30	169.40	1852.40	3765.00	1021.30	8505.90	12891.10	1188.30	226.00	32.80	19.00		17.90		
31		1412.80		546.70	7657.00		1109.40		32.80	14.90		19.00		
Total	3400.40	115581.40	26827.10	42716.30	341160.30	298322.30	253203.10	21037.10	4788.20	1358.60	2970.40	1588.20	1112953.60	**Ton**
Mean	113.30	3728.40	894.20	1377.90	11005.20	9944.10	8167.80	701.20	154.50	43.80	102.40	51.20		
Max	438.30	13130.00	3765.00	3571.20	30175.30	17550.00	27681.40	1731.60	297.30	60.60	249.10	153.00	30175.30	
Min	16.90	149.00	177.80	397.10	561.70	5442.10	1109.40	226.00	17.90	14.90	13.00	17.90	13.00	

WATER YEAR : 2011

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.

Ban Nong Nao **Amphoe** Chae Hom **Changwat** Lampang

Drainge Area	726 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1996-Cont'd
Actual Measurement	1996-Cont'd
Using Rating Curve Water Year	2011
Number of observation	36
R-Square	0.9421
Remarks	Continued Sediment Station

$$QS = 0.3881\ QW^{2.11760}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.30	24.20	11.70	35.10	45474.10	810.10	1816.20	297.90	36.40	12.70	8.00	2.40		
2	0.30	26.20	28.30	26.20	12308.60	835.80	3858.30	311.20	33.20	14.10	8.70	1.50		
3	0.30	28.30	20.40	61.70	5655.20	471.60	1557.90	247.80	39.80	14.10	8.70	1.30		
4	0.10	32.70	18.80	37.50	1304.30	353.00	2743.10	283.40	36.40	14.10	8.70	1.20		
5	0.10	22.30	24.20	24.20	595.40	595.40	1985.80	166.40	36.40	10.20	8.00	1.00		
6	0.10	18.80	202.50	20.40	415.20	2411.50	1186.70	146.90	30.10	11.00	5.50	0.90		
7	0.80	14.30	61.70	13.00	397.50	10918.10	1074.90	146.90	28.00	10.20	3.60	0.90		
8	1.00	14.30	30.50	6.60	367.50	1928.10	1074.90	137.70	28.00	10.20	2.80	0.80		
9	2.50	18.80	18.80	14.30	367.50	1074.90	900.80	120.10	33.20	9.50	3.20	0.80		
10	22.30	4828.70	15.80	79.60	297.90	710.50	868.20	120.10	30.10	10.20	3.60	0.80		
11	8.30	734.50	11.70	397.50	1471.40	573.90	784.30	111.80	30.10	9.50	3.60	0.70		
12	5.80	122.80	11.70	49.80	1003.40	759.00	810.10	111.80	28.00	10.20	3.60	1.20		
13	13.00	65.90	11.70	24.20	710.50	1761.90	734.50	111.80	26.00	9.50	5.50	2.40		
14	18.80	53.60	9.40	32.70	353.00	2411.50	662.80	137.70	26.00	10.20	5.00	2.80		
15	4.00	42.60	5.80	662.80	285.00	1471.40	617.30	103.70	28.00	11.00	5.00	7.30		
16	1.40	35.10	7.30	285.00	224.60	900.80	784.30	74.90	17.10	8.00	5.00	3.20		
17	0.50	49.80	5.80	137.30	259.90	784.30	900.80	59.40	15.60	8.00	4.00	1.80		
18	0.40	65.90	6.60	57.60	311.20	595.40	1003.40	59.40	18.70	7.30	5.00	1.50		
19	10.50	102.70	10.50	42.60	2162.70	759.00	868.20	55.20	18.70	7.30	4.00	1.00		
20	11.70	382.30	13.00	102.70	1038.60	868.20	734.50	55.20	15.60	6.70	3.20	0.90		
21	2.50	70.30	11.70	61.70	734.50	784.30	617.30	55.20	11.90	7.30	4.00	0.90		
22	1.20	35.10	11.70	37.50	452.60	1038.60	595.40	51.10	12.70	8.70	3.20	0.70		
23	7.30	15.80	11.70	24.20	311.20	1264.60	552.40	55.20	14.10	8.00	2.80	0.60		
24	28.30	14.30	9.40	144.90	272.30	6684.40	367.50	47.20	14.10	6.70	2.80	0.50		
25	35.10	14.30	5.80	968.40	259.90	2886.40	324.80	43.40	15.60	5.00	2.80	0.40		
26	49.80	37.50	7.30	162.00	1386.20	1264.60	311.20	43.40	15.60	5.50	3.20	0.40		
27	14.30	22.30	5.80	46.20	5778.90	1386.20	338.80	39.80	12.70	5.50	3.20	0.50		
28	8.30	17.20	6.60	30.50	1304.30	3435.40	324.80	33.20	10.20	5.50	2.80	0.50		
29	5.20	15.80	10.50	26.20	471.60	4036.10	338.80	36.40	12.70	5.50	2.80	0.50		
30	4.00	18.80	13.00	24.20	2162.70	2162.70	531.40	36.40	14.10	6.10		0.30		
31		15.80		224.60	835.80		367.50		14.10	8.00		0.50		
Total	258.20	6961.00	619.70	3861.20	88973.50	55937.70	29636.90	3300.60	703.20	275.80	132.30	40.20	190700.30	**Ton**
Mean	8.60	224.50	20.70	124.60	2870.10	1864.60	956.00	110.00	22.70	8.90	4.60	1.30		
Max	49.80	4828.70	202.50	968.40	45474.10	10918.10	3858.30	311.20	39.80	14.10	8.70	7.30	45474.10	
Min	0.10	14.30	5.80	6.60	224.60	353.00	311.20	33.20	10.20	5.00	2.80	0.30	0.10	

WATER YEAR : 2011

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

Drainge Area	3,367 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1999-Cont'd
Actual Measurement	1999-Cont'd
Using Rating Curve Water Year	2011
Number of observation	36
R-Square	0.8409
Remarks	Continued Sediment Station

$$QS = 1.2715\ QW^{1.48280}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	169.90	15.90	307.50	506.40	6613.90	2434.90	2468.50	338.40	135.50	5.90	189.30	6.20		
2	163.50	86.70	302.50	493.60	6354.20	2639.70	3807.00	214.30	123.60	7.30	193.40	32.50		
3	106.80	173.20	297.40	750.90	5871.50	2284.70	3916.00	96.60	114.90	4.10	210.00	50.00		
4	104.30	579.00	312.60	766.80	4723.30	2137.90	1649.50	46.30	117.80	3.00	205.90	53.80		
5	106.80	348.90	302.50	359.50	3135.70	994.00	2170.40	34.20	94.10	5.90	160.30	59.60		
6	109.50	343.60	302.50	106.80	3720.50	468.10	650.40	57.70	106.80	7.30	9.00	70.30		
7	117.80	328.00	244.80	63.60	2889.60	1387.80	267.90	59.60	132.50	5.50	2.80	81.90		
8	138.50	302.50	222.90	34.20	2154.20	1866.80	222.90	244.80	117.80	4.70	3.00	79.60		
9	144.60	193.40	210.00	19.30	1610.20	2367.80	365.30	144.60	112.00	5.90	4.70	74.90		
10	144.60	1509.00	214.30	59.60	1662.60	2468.50	169.90	41.00	112.00	8.10	3.00	77.20		
11	150.80	2743.90	249.20	365.30	3256.40	1496.70	443.30	39.20	109.50	5.20	6.50	20.40		
12	144.60	3002.40	244.80	120.70	3154.90	1340.20	328.00	104.30	109.50	4.90	21.60	22.80		
13	114.90	2743.90	231.60	50.00	3078.30	1546.00	138.50	109.50	79.60	6.20	5.50	70.30		
14	14.90	2519.50	89.20	46.30	2536.50	1809.30	218.70	160.30	34.20	6.20	112.00	29.30		
15	7.30	1214.10	30.90	144.60	2605.10	2726.50	249.20	166.70	6.20	6.50	282.50	19.30		
16	5.90	376.90	21.60	210.00	2434.90	2691.80	302.50	157.10	2.30	5.50	328.00	8.10		
17	5.50	244.80	22.80	519.30	2536.50	2384.50	292.40	117.80	1.70	5.90	328.00	5.20		
18	5.90	263.00	21.60	642.90	2570.80	1143.80	297.40	197.50	1.30	5.20	312.60	8.10		
19	37.50	177.10	6.50	525.90	1571.40	665.70	214.30	210.00	0.90	5.20	86.70	11.80		
20	253.70	487.20	4.40	163.50	2605.10	565.70	166.70	201.70	0.70	5.20	65.90	5.90		
21	317.70	782.70	4.10	157.10	3422.80	1153.80	147.70	132.50	0.90	5.50	41.00	4.70		
22	322.80	758.70	3.30	147.70	2709.10	2076.20	160.30	112.00	1.20	4.40	14.90	1.30		
23	267.90	727.20	4.10	50.00	1610.20	1423.80	163.50	55.70	1.10	3.30	5.90	1.00		
24	258.20	711.60	3.60	74.90	1203.90	1702.10	150.80	46.30	0.90	2.80	2.60	1.30		
25	263.00	704.00	9.00	144.60	1295.90	2401.20	144.60	21.60	1.10	1.70	1.10	2.10		
26	41.00	719.50	201.70	758.70	975.90	2674.20	91.60	19.30	1.30	1.70	1.10	6.20		
27	35.80	613.10	412.70	558.90	1911.10	2691.80	53.80	20.40	1.90	1.00	1.10	10.90		
28	57.70	487.20	975.90	163.50	1823.00	2815.20	15.90	21.60	2.60	0.80	1.90	9.90		
29	61.60	487.20	658.00	132.50	1675.90	3677.40	11.80	68.10	2.80	0.70	4.70	8.10		
30	63.60	468.10	539.10	112.00	2317.90	2639.70	57.70	123.60	2.80	2.10		6.20		
31		348.90		437.10	2691.80		338.40		4.40	205.90		7.30		
Total	3736.60	24461.20	6451.10	8686.20	86723.10	58675.80	19674.90	3362.70	1533.90	343.60	2605.00	846.20	217100.30	**Ton**
Mean	124.60	789.10	215.00	280.20	2797.50	1955.90	634.70	112.10	49.50	11.10	89.80	27.30		
Max	322.80	3002.40	975.90	766.80	6613.90	3677.40	3916.00	338.40	135.50	205.90	328.00	81.90	6613.90	
Min	5.50	15.90	3.30	19.30	975.90	468.10	11.80	19.30	0.70	0.70	1.10	1.00	0.70	

WATER YEAR : 2011

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.

Ban Chiang Rai **Amphoe** Sam Ngao **Changwat** Tak

Drainge Area	9,930 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2001-Cont'd
Actual Measurement	2001-Cont'd
Using Rating Curve Water Year	2001-2011
Number of observation	172
R-Square	0.9438
Remarks	Continued Sediment Station

$$QS = 0.8819\ QW^{1.59090}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	49.00	212.30	751.30	1435.40	463.50	6359.50	17778.90	868.00	178.90	50.90	20.40	34.40		
2	72.60	208.00	621.70	1206.50	3138.20	5732.80	12075.90	985.10	242.00	50.90	21.80	38.30		
3	108.60	170.90	472.10	796.50	18962.80	7967.20	20391.30	842.70	237.50	50.90	148.60	34.40		
4	128.50	170.90	482.30	906.40	26693.80	7541.60	36000.00	761.70	226.40	60.10	208.00	36.60		
5	93.90	399.10	705.40	2237.40	39147.30	5652.50	51029.00	695.40	216.60	62.80	246.60	52.80		
6	83.70	610.50	673.80	1955.60	39671.40	3765.00	83457.20	631.40	222.00	62.80	305.80	72.60		
7	80.00	705.40	1149.60	998.40	24124.90	3324.50	58123.10	499.90	212.30	60.10	212.30	83.70		
8	93.90	739.30	1435.40	631.40	15086.60	4137.70	26312.60	472.10	193.20	77.70	105.20	89.90		
9	89.90	558.80	945.40	443.50	10208.70	6782.80	11483.20	399.10	198.50	93.90	74.80	101.10		
10	101.10	1235.30	685.40	347.40	8204.20	7404.40	6825.70	673.80	202.70	77.70	55.40	116.20		
11	108.60	12562.00	491.10	499.90	7586.20	8986.40	4232.00	453.50	193.20	72.60	49.00	124.00		
12	116.20	18803.40	399.10	520.80	8741.30	14882.70	3405.50	399.10	193.20	72.60	44.70	132.10		
13	116.20	14815.00	417.00	673.80	14077.60	16852.40	2752.70	372.30	188.10	72.60	36.60	132.10		
14	86.80	6825.70	381.60	425.30	13369.30	18565.10	2034.70	425.30	184.00	72.60	36.60	101.10		
15	58.10	4630.90	305.80	267.30	10721.00	18406.80	1417.90	408.70	170.90	72.60	58.10	184.00		
16	46.60	4264.80	212.30	291.20	8350.90	17623.20	1858.30	499.90	144.90	67.60	49.00	162.10		
17	42.30	3351.40	157.20	1052.50	8204.20	17468.00	2278.90	463.50	112.80	72.60	188.10	136.60		
18	36.60	3164.60	128.50	2196.30	6527.60	13812.90	4079.50	417.00	89.90	74.80	237.50	108.60		
19	33.30	5887.20	170.90	2135.20	7493.10	9612.50	5887.20	417.00	101.10	69.80	298.40	86.80		
20	33.30	6317.70	252.30	1688.00	9190.50	7128.70	3514.70	453.50	64.80	64.80	291.20	83.70		
21	42.30	4297.60	259.20	1206.50	8986.40	6955.00	2362.50	443.50	62.80	67.60	184.00	108.60		
22	93.90	3138.20	252.30	751.30	11365.00	5289.40	1763.00	435.10	40.00	62.80	132.10	101.10		
23	184.00	2054.60	232.00	685.40	12018.10	6401.40	1488.20	347.40	49.00	60.10	112.80	80.00		
24	246.60	1470.50	166.00	540.40	7493.10	6825.70	1093.70	322.00	50.90	58.10	93.90	60.10		
25	232.00	1163.70	124.00	372.30	3033.60	4664.80	1135.50	282.70	44.70	50.90	74.80	49.00		
26	291.20	1038.90	119.70	364.40	3138.20	8062.50	998.40	237.50	60.10	34.40	62.80	36.60		
27	399.10	1206.50	237.50	610.50	9453.40	8690.00	855.30	222.00	50.90	26.50	50.90	34.40		
28	216.60	1338.20	1293.70	868.00	9559.30	11421.70	761.70	193.20	46.60	64.80	40.00	33.30		
29	148.60	1264.40	2603.80	739.30	8741.30	15635.20	673.80	178.90	50.90	26.50	34.40	38.30		
30	193.20	1025.30	2341.50	453.50	6697.30	18249.10	652.40	174.90	49.00	24.10		60.10		
31		685.40		364.40	6782.80		631.40		60.10	20.40		74.80		
Total	3626.70	104316.50	18467.90	27664.80	367231.60	294201.50	367354.20	13976.20	4138.00	1856.60	3473.80	2587.40	1208895.30	**Ton**
Mean	120.90	3365.00	615.60	892.40	11846.20	9806.70	11850.10	465.90	133.50	59.90	119.80	83.50		
Max	399.10	18803.40	2603.80	2237.40	39671.40	18565.10	83457.20	985.10	242.00	93.90	305.80	184.00	83457.20	
Min	33.30	170.90	119.70	267.30	463.50	3324.50	631.40	174.90	40.00	20.40	20.40	33.30	20.40	

WATER YEAR : 2011

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.

Ban Huai Kod **Amphoe** Wang Nua **Changwat** Lampang

Drainge Area	762 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2009-Cont'd
Actual Measurement	2009-Cont'd
Using Rating Curve Water Year	2011
Number of observation	36
R-Square	0.9386
Remarks	Continued Sediment Station

$$QS = 91.0300\ QW^{1.28520}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	7.30	971.40	611.20	1161.20	68626.00	3870.40	12217.60	900.70	1714.90	16.90	0.60	0.60		
2	7.30	1110.00	1069.40	1265.10	24092.80	3611.50	12433.20	689.00	1498.20	16.90	0.60	0.60		
3	7.30	1533.10	1403.00	1424.50	13800.80	2774.90	5436.90	525.10	1288.20	13.00	1.00	0.60		
4	6.00	2007.40	910.50	1009.10	5436.90	1665.70	3870.40	656.10	1085.60	4.10	9.30	0.60		
5	7.30	4086.80	621.90	589.80	3437.70	3354.20	2692.70	757.50	1085.60	3.00	3.00	0.60		
6	9.30	10932.00	1059.30	757.50	2855.00	4086.80	2077.40	656.10	705.50	9.30	0.60	0.60		
7	7.30	2692.70	1059.30	1714.90	2692.70	3781.90	1732.90	724.00	219.00	4.10	0.60	0.60		
8	9.30	1265.10	525.10	705.50	6897.00	2774.90	1599.10	589.80	367.20	4.10	0.60	0.60		
9	7.30	1009.10	472.20	91.00	7050.20	12653.00	1869.00	793.30	82.90	13.00	0.60	0.20		
10	7.30	17088.90	1403.00	757.50	7358.80	4638.90	1599.10	793.30	52.30	7.30	0.60	0.20		
11	7.30	9679.20	1755.40	793.30	9269.20	2855.00	1265.10	656.10	38.30	3.00	0.60	0.20		
12	7.30	3019.40	705.50	656.10	16809.00	18218.40	1161.20	621.90	52.30	3.00	0.60	0.20		
13	9.30	1937.90	38.30	372.00	14879.40	20388.20	935.90	558.10	38.30	9.30	0.60	0.20		
14	75.00	1599.10	16.90	910.50	5553.20	14337.80	900.70	525.10	15.30	15.30	0.60	0.20		
15	891.00	1009.10	45.20	900.70	3611.50	13310.70	827.50	492.50	13.00	31.70	0.60	0.20		
16	67.20	935.90	45.20	4416.20	2692.70	6023.50	1009.10	462.10	16.90	59.70	0.60	0.20		
17	38.30	1370.90	45.20	5321.20	2613.60	4416.20	3870.40	430.50	15.30	38.30	0.60	0.20		
18	11.50	1265.10	82.90	2219.00	3524.40	3611.50	4751.20	341.90	9.30	25.40	0.60	0.20		
19	9.30	1265.10	45.20	1665.70	10722.60	6023.50	2935.70	341.90	16.90	9.30	0.60	0.20		
20	9.30	1424.50	45.20	2007.40	5670.00	13091.90	1533.10	341.90	15.30	1.50	0.60	0.20		
21	11.50	971.40	16.90	1424.50	6441.90	5206.10	1161.20	611.20	16.90	1.50	0.60	0.20		
22	13.00	863.90	15.30	1161.20	6592.80	8621.60	935.90	611.20	15.30	1.50	0.60	0.20		
23	19.40	558.10	9.30	689.00	4527.30	4864.00	900.70	611.20	13.00	1.50	0.60	0.20		
24	1069.40	1233.70	13.00	621.90	5091.50	5321.20	757.50	910.50	11.50	1.00	0.60	0.20		
25	656.10	462.10	31.70	4751.20	3185.80	3978.30	724.00	1403.00	11.50	1.00	0.60	0.20		
26	558.10	621.90	17934.50	2077.40	13800.80	2613.60	462.10	1577.00	13.00	1.00	0.60	0.20		
27	525.10	656.10	14337.80	1265.10	18218.40	3019.40	372.00	1937.90	19.40	1.00	0.60	0.60		
28	910.50	656.10	4751.20	757.50	7050.20	11142.40	462.10	1937.90	38.30	0.60	0.60	0.60		
29	1069.40	525.10	2452.10	757.50	5321.20	10299.70	401.00	1937.90	38.30	0.60	0.60	0.60		
30	1937.90	793.30	1265.10	525.10	7514.20	6291.80	2007.40	1714.90	16.90	0.60		0.20		
31		558.10		6441.90	4864.00		1478.60		16.90	0.60		0.20		
Total	7971.60	74102.50	52786.80	49210.50	300201.60	206847.00	74380.70	25109.60	8541.30	299.10	28.90	10.60	799490.30	**Ton**
Mean	265.70	2390.40	1759.60	1587.40	9683.90	6894.90	2399.40	837.00	275.50	9.60	1.00	0.30		
Max	1937.90	17088.90	17934.50	6441.90	68626.00	20388.20	12433.20	1937.90	1714.90	59.70	9.30	0.60	68626.00	
Min	6.00	462.10	9.30	91.00	2613.60	1665.70	372.00	341.90	9.30	0.60	0.60	0.20	0.20	

WATER YEAR : 2011

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.

Ban Nam Khong **Amphoe** Mueang **Changwat** Phrae

Drainge Area	7,749 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1997-Cont'd
Actual Measurement	1997-Cont'd
Using Rating Curve Water Year	2011
Number of observation	35
R-Square	0.9085
Remarks	Continued Sediment Station

$$QS = 0.5083\ QW^{1.71450}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	7.50	283.70	4285.50	11764.70	109161.80	7082.10	7673.00	688.70	189.40	30.30	35.00	4.60		
2	11.00	1074.00	1657.70	5701.00	162860.20	10986.10	25430.30	566.90	189.40	27.20	35.00	3.70		
3	7.50	1348.60	1094.20	3986.50	156349.10	10502.30	45050.70	552.40	189.40	18.90	38.10	3.70		
4	6.40	3221.00	598.10	3819.70	82027.30	6288.30	31079.50	523.80	189.40	16.50	38.10	3.70		
5	5.50	3495.10	833.50	3655.90	29947.60	6178.20	19981.20	482.10	173.20	18.90	38.10	6.40		
6	5.50	2312.50	1218.60	2028.60	14966.80	15684.90	10094.90	468.60	157.70	18.90	38.10	6.40		
7	8.60	2460.10	10570.90	1304.70	10502.30	20081.60	6455.10	428.80	135.50	18.90	41.30	5.50		
8	6.40	2371.10	11126.00	943.00	16509.40	19881.10	4910.20	415.90	121.60	27.20	38.10	5.50		
9	18.00	1261.40	3022.80	854.60	15957.70	21302.20	4416.40	441.90	108.20	36.80	35.00	5.50		
10	29.10	1282.90	1532.80	1053.90	12347.70	20485.10	4028.70	382.30	121.60	30.30	32.00	1.70		
11	12.30	17540.90	833.50	1304.70	30070.60	18989.20	3861.20	468.60	121.60	24.30	32.00	5.50		
12	6.40	33174.00	396.10	2957.90	94790.30	11764.70	3221.00	404.60	108.20	27.20	35.00	7.50		
13	4.60	6399.30	259.80	2168.60	127251.70	12423.90	2925.70	349.80	101.80	27.20	32.00	41.30		
14	3.70	2400.60	183.30	1304.70	59358.30	21508.50	2798.30	328.90	101.80	30.30	29.10	44.60		
15	3.00	2001.10	101.80	2028.60	23732.50	20892.00	2400.60	318.60	89.40	33.50	22.80	41.30		
16	3.00	1508.40	74.90	25201.10	14789.50	19981.20	2611.60	328.90	59.30	33.50	26.30	41.30		
17	8.60	1865.80	66.70	42283.60	12963.30	13916.20	4329.00	371.30	40.20	24.30	29.10	38.10		
18	22.80	4372.60	59.00	21508.50	20892.00	9430.90	4416.40	371.30	36.80	27.20	24.60	74.90		
19	18.00	6794.10	79.20	10639.60	20892.00	6288.30	3022.80	318.60	33.50	24.30	48.10	83.50		
20	8.60	9430.90	55.20	6288.30	41382.40	8407.80	2225.70	288.60	27.20	18.90	26.30	70.80		
21	5.50	10434.00	26.30	5054.70	41382.40	14701.20	1683.20	278.80	24.30	18.90	26.30	32.00		
22	1.60	3221.00	22.80	4329.00	53186.40	12808.20	1415.70	278.80	24.30	24.30	24.60	24.60		
23	1.40	1683.20	15.00	4199.20	32250.60	10777.70	1239.90	288.60	18.90	67.70	19.50	21.20		
24	83.50	1074.00	8.60	3696.60	18114.50	10027.70	1035.10	259.80	18.90	7.50	12.30	11.00		
25	365.90	183.30	214.70	4113.60	12963.30	7914.80	907.20	250.50	21.60	9.70	7.50	9.70		
26	527.00	1508.40	12053.20	7257.30	10777.70	5599.50	786.40	250.50	24.30	19.50	12.30	6.40		
27	635.10	2028.60	61356.10	3415.90	17731.20	8036.90	720.70	241.30	21.60	29.10	9.70	5.50		
28	183.30	1218.60	92982.20	2225.70	25315.60	9430.90	704.60	223.40	18.90	24.60	9.70	4.60		
29	163.50	919.10	108690.00	2460.10	21302.20	19284.60	611.40	223.40	14.10	32.00	4.60	2.30		
30	135.50	2611.60	46619.50	2225.70	11056.00	13512.20	611.40	223.40	16.50	32.00		2.30		
31		6123.40		19383.50	7613.00		672.90		14.10	35.00		1.70		
Total	2298.80	135603.30	360038.00	209159.50	1308445.50	394168.30	201320.80	11019.10	2512.70	814.90	800.60	616.80	2626798.30	**Ton**
Mean	76.60	4374.30	12001.30	6747.10	42207.90	13138.90	6494.20	367.30	81.10	26.30	27.60	19.90		
Max	635.10	33174.00	108690.00	42283.60	162860.20	21508.50	45050.70	688.70	189.40	67.70	48.10	83.50	162860.20	
Min	1.40	183.30	8.60	854.60	7613.00	5599.50	611.40	223.40	14.10	7.50	4.60	1.70	1.40	

WATER YEAR : 2011

Yom RIVER BASIN

Yom River at Ban Kaeng Luang , Sukhothai (Y.6)

Lat 17 - 26 - 05 N Long 99 - 47 - 30 E

Location : on left bank about 150 meters upstream from Kaeng Luang.

Ban Kaeng Luang **Amphoe** Si Satchanalai **Changwat** Sukhothai

Drainge Area	12,769 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1963 - 1987,1997-Cont'd
Actual Measurement	1963 - 1987,1997-Cont'd
Using Rating Curve Water Year	2011
Number of observation	17
R-Square	0.9762
Remarks	Continued Sediment Station

$$QS = 0.3943\ QW^{1.66600}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.40	592.50	3214.60	65268.70	13870.00	6518.10	10818.80	1572.80	225.60	19.20	1.70	0.00		
2	0.60	1649.40	3421.60	19890.60	108631.70	6318.40	7939.90	1029.00	187.90	16.20	1.00	0.00		
3	1.50	1915.20	2110.60	5880.40	161993.20	7703.10	25503.40	1062.70	191.70	14.80	0.40	0.00		
4	3.00	962.70	882.50	4254.50	166291.30	8099.30	73830.00	914.20	187.90	18.30	0.30	0.00		
5	5.40	1114.20	625.90	4876.80	166909.00	5880.40	51521.20	737.10	225.60	35.90	0.30	0.00		
6	8.70	1887.90	995.60	3022.20	154730.10	8099.30	22853.40	559.80	211.60	47.30	0.30	0.00		
7	9.40	2411.40	3022.20	2054.00	31444.40	11571.20	11571.20	444.30	191.70	50.50	0.30	0.00		
8	8.90	1434.40	3463.60	1998.00	10729.10	13766.60	7062.80	399.50	168.90	61.40	0.30	0.00		
9	8.70	1012.20	7132.10	3895.00	10999.10	15139.10	5280.90	1257.80	143.80	50.50	0.30	0.00		
10	8.70	2411.40	4028.30	1479.90	11959.00	24683.10	4346.30	946.50	158.00	43.80	0.30	0.00		
11	9.40	7271.60	1434.40	1301.10	12950.60	18694.50	3850.90	625.90	172.70	43.80	0.30	0.00		
12	7.60	4485.60	882.50	1344.90	40115.80	13973.70	3296.80	946.50	172.70	28.70	0.30	0.00		
13	14.20	13870.00	637.20	1279.40	64628.90	13254.30	3059.80	1457.10	180.20	34.30	0.30	0.00		
14	429.20	12154.80	485.40	1833.80	83178.50	27856.50	6925.00	603.50	180.20	30.10	0.30	0.00		
15	603.50	2515.10	429.20	1434.40	96285.80	31636.10	3590.90	406.80	191.70	19.20	0.30	0.00		
16	791.20	2026.00	697.40	1807.00	54261.60	28717.00	3807.10	444.30	21.70	3.50	0.20	0.00		
17	660.00	2515.10	550.30	5697.90	14496.80	20295.90	3633.70	414.20	61.40	0.60	0.00	0.30		
18	476.40	1998.00	316.60	21116.20	12154.80	13870.00	3983.70	399.50	495.60	0.40	0.00	1.00		
19	385.00	3548.30	277.60	21397.60	16157.60	10285.10	4596.00	392.20	614.70	0.80	0.00	6.10		
20	251.10	5164.10	322.30	8099.30	24520.40	7341.70	3214.60	356.60	271.30	2.50	0.00	17.70		
21	211.60	5398.80	310.90	4300.30	19355.30	6652.60	2275.70	370.70	61.40	6.70	0.00	26.10		
22	261.60	5164.10	240.70	3059.80	29238.20	9419.80	1753.80	230.60	50.50	15.30	0.00	50.50		
23	158.00	3463.60	199.60	2727.90	39033.30	11764.40	1389.40	256.30	58.00	30.10	0.00	58.00		
24	136.90	1344.90	154.40	2242.30	29064.10	8421.90	1152.30	235.60	61.40	54.20	0.00	43.80		
25	130.20	750.40	123.60	3097.60	12351.80	7553.60	1301.10	161.60	50.50	27.20	0.00	24.80		
26	187.90	494.50	98.60	2656.20	9590.40	5941.80	930.30	215.70	40.80	15.30	0.20	14.20		
27	272.20	299.70	444.30	3338.20	16851.30	6518.10	930.30	288.60	31.60	17.70	0.20	7.60		
28	266.90	697.40	21397.60	2836.80	16503.00	5880.40	820.30	245.90	21.70	19.20	0.20	5.60		
29	392.20	995.60	46477.80	1479.90	16272.40	7341.70	710.60	230.60	18.30	23.40	0.00	3.80		
30	866.70	2480.30	58861.80	1062.70	19355.30	11571.20	603.50	251.10	17.70	23.40		2.50		
31		1194.00		1257.80	9762.30		684.40		17.70	5.40		1.50		
Total	6567.10	93223.20	163239.20	205991.20	1473684.90	374768.90	273238.20	17457.00	4684.50	759.70	7.50	263.50	2613885.00	**Ton**
Mean	218.90	3007.20	5441.30	6644.90	47538.20	12492.30	8814.10	581.90	151.10	24.50	0.30	8.50		
Max	866.70	13870.00	58861.80	65268.70	166909.00	31636.10	73830.00	1572.80	614.70	61.40	1.70	58.00	166909.00	
Min	0.40	299.70	98.60	1062.70	9590.40	5880.40	603.50	161.60	17.70	0.40	0.00	0.00	0.00	

WATER YEAR : 2011

Yom RIVER BASIN

Yom River at Ban Don Rabiang , Sukhothai (Y.14)

Lat 17 - 35 - 42 N Long 99 - 43 - 06 E

Location : on left bank about 50 meters from Si Satchanalai - Den Chai Highway No.101 at guidepost 44 th.

Ban Don Rabiang **Amphoe** Si Satchanalai **Changwat** Sukhothai

Drainge Area	12,100 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1964-Cont'd
Actual Measurement	1964-Cont'd
Using Rating Curve Water Year	2011
Number of observation	18
R-Square	0.9782
Remarks	Continued Sediment Station

$$QS = 0.1743\ QW^{1.81820}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.0	896.0	7685.0	94047.0	46762.0	12484.0	19624.0	1664.0	289.0	51.0	29.0	17.0		
2	3.0	3891.0	7619.0	21823.0	161631.0	13191.0	18417.0	1564.0	280.0	47.0	27.0	16.0		
3	3.0	4021.0	4469.0	8849.0	214249.0	16787.0	51725.0	1515.0	265.0	42.0	27.0	9.0		
4	3.0	2574.0	2219.0	7065.0	220353.0	15609.0	99433.0	1348.0	265.0	44.0	30.0	9.0		
5	3.0	2848.0	1794.0	7553.0	213744.0	12571.0	66513.0	1240.0	249.0	54.0	33.0	9.0		
6	3.0	4469.0	2744.0	6134.0	177392.0	17087.0	35396.0	1139.0	235.0	51.0	30.0	8.0		
7	3.0	5209.0	7553.0	4378.0	33045.0	23517.0	19737.0	967.0	213.0	49.0	32.0	8.0		
8	3.0	3472.0	8849.0	2918.0	17188.0	25621.0	13101.0	930.0	206.0	47.0	35.0	7.0		
9	3.0	3318.0	13824.0	1741.0	20307.0	29605.0	10236.0	948.0	199.0	42.0	30.0	7.0		
10	2.0	8638.0	7553.0	1982.0	23022.0	43578.0	9062.0	880.0	180.0	42.0	27.0	6.0		
11	2.0	15225.0	3393.0	3318.0	26431.0	30971.0	8155.0	880.0	167.0	42.0	27.0	7.0		
12	3.0	11540.0	2127.0	3472.0	71484.0	25353.0	7553.0	770.0	154.0	47.0	25.0	12.0		
13	9.0	29156.0	1690.0	2709.0	95302.0	24955.0	7125.0	848.0	143.0	54.0	24.0	13.0		
14	23.0	15803.0	1371.0	1061.0	112637.0	52574.0	11794.0	755.0	143.0	49.0	24.0	12.0		
15	16.0	5368.0	912.0	1139.0	123009.0	50672.0	7368.0	740.0	137.0	49.0	24.0	9.0		
16	4.0	3513.0	785.0	1219.0	59100.0	44959.0	7685.0	725.0	137.0	49.0	23.0	27.0		
17	7.0	3763.0	469.0	17188.0	24296.0	33876.0	7752.0	652.0	127.0	44.0	21.0	56.0		
18	8.0	4561.0	531.0	39955.0	22780.0	24427.0	8568.0	624.0	113.0	44.0	14.0	56.0		
19	8.0	8361.0	880.0	27681.0	27973.0	18625.0	9277.0	638.0	99.0	44.0	13.0	49.0		
20	9.0	12484.0	864.0	13642.0	39775.0	14284.0	6592.0	610.0	87.0	44.0	12.0	38.0		
21	33.0	12571.0	832.0	9133.0	34379.0	14192.0	5157.0	518.0	78.0	42.0	11.0	35.0		
22	67.0	11039.0	544.0	7005.0	52574.0	20193.0	3891.0	480.0	75.0	42.0	8.0	44.0		
23	27.0	7553.0	335.0	6304.0	61464.0	20193.0	3637.0	480.0	67.0	38.0	7.0	35.0		
24	51.0	3170.0	280.0	5745.0	42411.0	16687.0	3355.0	458.0	60.0	33.0	6.0	24.0		
25	67.0	1928.0	186.0	7005.0	20537.0	15130.0	2813.0	458.0	60.0	32.0	5.0	21.0		
26	335.0	1302.0	199.0	6078.0	19965.0	12137.0	2508.0	436.0	56.0	30.0	5.0	20.0		
27	597.0	666.0	2038.0	8292.0	21823.0	13551.0	2127.0	405.0	54.0	29.0	5.0	16.0		
28	681.0	2443.0	47167.0	6078.0	30665.0	10957.0	1982.0	374.0	51.0	29.0	12.0	14.0		
29	864.0	2883.0	71750.0	3721.0	29755.0	15321.0	1794.0	374.0	51.0	27.0	17.0	10.0		
30	1004.0	4607.0	90942.0	1690.0	29605.0	22659.0	1614.0	335.0	51.0	25.0		9.0		
31		4109.0		3472.0	16588.0		1873.0		51.0	25.0		9.0		
Total	3844.0	201381.0	291604.0	332397.0	2090246.0	691766.0	455864.0	23755.0	4342.0	1287.0	583.0	612.0	4097681.0	**Ton**
Mean	128.0	6496.0	9720.0	10722.0	67427.0	23059.0	14705.0	792.0	140.0	42.0	20.0	20.0		
Max	1004.0	29156.0	90942.0	94047.0	220353.0	52574.0	99433.0	1664.0	289.0	54.0	35.0	56.0	220353.0	
Min	2.0	666.0	186.0	1061.0	16588.0	10957.0	1614.0	335.0	51.0	25.0	5.0	6.0	2.0	

WATER YEAR : 2011

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.

Ban Kong **Amphoe** Kong Krailat **Changwat** Sukhothai

Drainge Area	19,936 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2009-Cont'd
Actual Measurement	2009-Cont'd
Using Rating Curve Water Year	2009-2011
Number of observation	53
R-Square	0.9100
Remarks	Continued Sediment Station

$$QS = 5.7448\ QW^{1.06390}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	451.70	339.80	1322.00	1251.00	1577.60	3937.20	3469.40	1396.70	78.70	0.00	10.10	216.50		
2	406.60	437.50	1317.00	1426.50	1539.10	3783.60	3553.00	1352.60	78.70	0.00	10.70	210.40		
3	379.00	502.70	1332.20	1629.10	1577.60	3668.20	3553.00	1306.80	70.10	0.00	13.90	201.30		
4	390.00	583.90	1347.50	1797.70	1812.40	3553.00	3581.70	1251.00	52.50	0.00	56.00	174.20		
5	401.90	668.90	1352.60	1858.20	2017.70	3417.30	3725.80	1212.20	43.50	0.50	306.40	177.20		
6	383.70	702.30	1347.50	1951.80	2192.00	3365.30	3968.00	1174.30	36.60	0.50	304.00	184.70		
7	372.70	724.40	1332.20	1983.00	2412.70	3235.50	4533.30	1136.50	30.50	0.50	261.60	195.20		
8	357.80	763.70	1322.00	2017.70	2655.90	3157.80	4813.00	1094.50	39.30	2.70	240.90	213.40		
9	347.70	791.60	1327.10	1920.50	2904.90	3157.80	4796.50	1045.20	44.80	5.70	237.00	260.00		
10	339.80	800.60	1337.30	1842.70	3054.30	3157.80	4823.90	1007.60	33.90	8.20	214.90	273.10		
11	321.90	826.10	1357.70	1724.50	3209.60	3235.50	4533.30	966.80	12.00	10.70	210.40	234.70		
12	314.10	872.30	1384.80	1639.40	3391.30	3391.30	4029.50	912.90	16.50	12.00	207.40	216.50		
13	351.60	923.60	1402.70	1577.60	3553.00	3581.70	3783.60	863.20	19.10	11.40	216.50	213.40		
14	447.00	978.50	1414.60	1546.80	3754.70	3725.80	3639.30	840.10	13.90	12.60	213.40	225.60		
15	466.00	1083.60	1408.60	1523.70	3968.00	3814.30	3469.40	826.10	8.80	13.90	211.90	228.60		
16	375.10	1153.30	1378.90	1508.40	4311.90	3937.20	3524.20	797.30	5.10	15.90	210.40	222.50		
17	329.70	1191.10	1357.70	1516.00	4459.40	4091.20	3365.30	748.10	1.60	15.90	195.20	192.20		
18	323.50	1199.50	1327.10	1523.70	4607.20	4385.60	3183.70	696.60	0.50	15.90	168.20	169.70		
19	510.70	1240.90	1296.60	1562.20	4681.20	4681.20	3028.50	638.10	0.00	15.20	156.20	157.70		
20	711.30	1266.20	1271.30	1709.80	4607.20	4755.30	2856.90	591.90	0.00	14.60	141.40	148.80		
21	144.30	1296.60	1251.00	1936.10	4533.30	4823.90	2696.60	515.50	0.00	12.60	128.80	136.90		
22	65.80	1337.30	1230.70	2104.80	4385.60	4533.30	2534.20	430.30	0.00	10.70	118.50	125.90		
23	57.40	1352.60	1212.20	2139.60	4311.90	4091.20	2352.20	375.10	0.00	8.80	108.30	118.50		
24	73.70	1384.80	1178.50	2104.80	4311.90	4029.50	2209.50	323.50	0.00	7.60	122.20	108.30		
25	93.00	1396.70	1140.70	2052.50	4311.90	3937.20	2069.90	289.30	0.00	7.00	134.70	102.50		
26	69.40	1390.80	1115.50	1967.40	4311.90	3783.60	1889.40	231.70	0.00	7.00	148.80	97.40		
27	74.40	1414.60	1087.00	1889.40	4311.90	3697.00	1768.40	167.40	0.00	7.60	174.20	89.40		
28	154.70	1384.80	1076.10	1827.10	4164.70	3814.30	1649.70	124.40	0.00	7.60	208.90	83.00		
29	234.70	1357.70	1098.70	1753.80	4311.90	3697.00	1546.80	108.30	0.00	8.20	216.50	75.10		
30	263.90	1332.20	1153.30	1709.80	4164.70	3581.70	1480.20	90.10	0.00	8.80		67.30		
31		1322.00		1639.40	4029.50		1432.50		0.00	8.80		60.20		
Total	9213.10	32020.60	38481.10	54635.00	109436.90	114021.30	97860.70	22514.10	586.10	250.90	4947.40	5180.20	489147.40	**Ton**
Mean	307.10	1032.90	1282.70	1762.40	3530.20	3800.70	3156.80	750.50	18.90	8.10	170.60	167.10		
Max	711.30	1414.60	1414.60	2139.60	4681.20	4823.90	4823.90	1396.70	78.70	15.90	306.40	273.10	4823.90	
Min	57.40	339.80	1076.10	1251.00	1539.10	3157.80	1432.50	90.10	0.00	0.00	10.10	60.20	0.00	

WATER YEAR : 2011

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

Drainge Area	5,394 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1997-Cont'd
Actual Measurement	1997-Cont'd
Using Rating Curve Water Year	2011
Number of observation	36
R-Square	0.9784
Remarks	Continued Sediment Station

$$QS = 50.1000\ QW^{0.85000}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	136.40	1321.70	2295.20	4045.30	18305.90	4371.60	6818.50	1533.90	747.80	449.10	351.70	184.30		
2	136.40	1568.80	1806.90	3436.40	14241.20	4763.40	11482.40	1404.90	712.00	437.50	351.70	149.90		
3	131.80	3062.40	1498.90	3077.20	10221.20	3995.20	8322.50	1345.50	700.00	414.10	362.20	136.40		
4	127.50	2915.00	1463.80	3333.20	6503.10	3436.40	7801.30	1309.70	700.00	403.80	362.20	131.80		
5	123.10	2585.70	1643.80	2706.20	4847.20	4468.20	5190.90	1285.70	687.90	403.80	362.20	145.30		
6	118.40	2202.30	4352.30	2248.90	3995.20	7037.90	4194.90	1249.60	651.50	472.10	330.40	154.10		
7	114.00	2721.40	6115.80	1942.80	3759.90	6673.30	3641.30	1225.40	639.30	506.30	308.90	145.30		
8	123.10	1643.80	3121.00	1769.50	4294.10	6070.20	3505.00	1201.20	617.50	460.60	253.90	149.90		
9	123.10	1164.60	2016.30	1893.60	4028.60	5864.10	3298.60	1164.60	595.60	437.50	220.00	145.30		
10	136.40	3776.80	1631.20	2217.80	3573.30	6024.50	3333.20	1237.50	595.60	425.80	196.80	208.40		
11	136.40	10133.70	1381.20	3419.30	12979.60	4888.90	3194.20	1201.20	584.50	425.80	196.80	528.90		
12	171.40	3641.30	1237.50	3223.20	17488.70	4244.50	2915.00	1140.10	573.50	403.80	192.40	449.10		
13	196.80	2004.10	1103.20	2403.00	9664.60	5055.40	2585.70	1069.80	573.50	383.10	184.30	393.50		
14	362.20	2077.10	1002.40	2040.70	6624.70	5308.00	2372.40	1036.20	562.40	372.70	179.90	372.70		
15	308.90	1732.00	911.30	5702.90	5331.40	5190.90	2310.80	1013.70	562.40	383.10	179.90	551.30		
16	231.40	1918.20	876.80	11253.50	4622.00	4660.30	2418.40	1002.40	551.30	393.50	175.50	528.90		
17	192.40	2016.30	795.10	7434.60	5564.10	3995.20	2959.20	991.10	528.90	403.80	179.90	483.60		
18	184.30	4011.90	795.10	5167.50	7112.60	3470.70	3033.10	979.80	517.60	372.70	184.30	425.80		
19	162.80	4742.40	771.50	3995.20	5702.90	4045.30	2631.00	968.40	506.30	362.20	184.30	308.90		
20	154.10	5841.10	723.90	3539.20	8533.60	5587.30	2248.90	934.20	494.90	351.70	184.30	308.90		
21	154.10	3266.90	700.00	3470.70	11645.40	5955.90	2065.00	911.30	483.60	351.70	184.30	287.20		
22	140.70	2040.70	700.00	3077.20	8477.70	5237.80	1955.10	888.30	483.60	341.10	179.90	265.10		
23	136.40	1568.80	687.90	3505.00	6649.00	5167.50	1844.10	876.80	494.90	319.70	166.90	253.90		
24	149.90	1297.70	651.50	3018.40	5564.10	4602.80	1744.50	865.20	472.10	298.10	166.90	242.70		
25	506.30	1782.00	1475.50	4721.50	4909.80	4078.60	1656.50	853.60	460.60	276.20	166.90	196.80		
26	1416.70	2676.30	14620.60	3658.30	4972.30	3522.10	1593.10	830.30	460.60	276.20	166.90	188.40		
27	911.30	1942.80	19777.00	2721.40	6206.90	3995.20	1580.30	818.60	460.60	265.10	166.90	192.40		
28	853.60	1605.80	17661.30	2781.20	7564.80	5214.40	1498.90	795.10	460.60	276.20	166.90	184.30		
29	617.50	2616.00	9339.70	3208.70	4993.10	6161.40	1475.50	783.30	460.60	265.10	184.30	184.30		
30	494.90	3945.00	5564.10	2479.50	4228.00	4294.10	1498.90	771.50	449.10	287.20		179.90		
31		4128.50		4429.60	3995.20		1580.30		460.60	330.40		171.40		
Total	8752.30	87951.10	106720.80	111921.50	226600.20	147381.10	102749.50	31688.90	17249.40	11550.00	6491.50	8248.70	867305.00	**Ton**
Mean	291.70	2837.10	3557.40	3610.40	7309.70	4912.70	3314.50	1056.30	556.40	372.60	223.80	266.10		
Max	1416.70	10133.70	19777.00	11253.50	18305.90	7037.90	11482.40	1533.90	747.80	506.30	362.20	551.30	19777.00	
Min	114.00	1164.60	651.50	1769.50	3573.30	3436.40	1475.50	771.50	449.10	265.10	166.90	131.80	114.00	

WATER YEAR : 2011

Yom RIVER BASIN

Nam 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.

Ban Mae Phu **Amphoe** Thoen **Changwat** Lampang

Drainge Area	784 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1997-Cont'd
Actual Measurement	1997-Cont'd
Using Rating Curve Water Year	2011
Number of observation	17
R-Square	0.7523
Remarks	Continued Sediment Station

$$QS = 1.8811\ QW^{1.07180}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.70	1.90	2.70	11.10	15.60	10.00	116.90	16.70	0.80	18.10	18.10	16.00		
2	1.70	1.30	2.50	12.60	14.60	7.50	103.80	16.70	0.80	18.10	18.10	16.00		
3	1.60	1.30	2.50	19.10	13.10	12.80	170.30	7.80	0.80	17.70	18.10	16.00		
4	1.60	1.20	2.50	19.10	12.60	12.60	259.90	7.50	6.40	17.70	18.40	16.00		
5	1.60	1.40	4.20	12.00	12.00	12.60	237.10	7.50	16.70	17.70	18.10	15.60		
6	1.60	1.40	26.90	11.40	11.70	12.80	186.10	7.50	17.00	17.70	17.70	15.60		
7	2.90	2.30	10.30	11.70	11.70	18.80	136.40	7.50	17.00	17.70	17.40	15.60		
8	2.90	3.30	6.90	13.10	11.70	19.10	105.30	1.80	17.40	17.70	17.00	15.60		
9	2.90	4.80	6.70	11.70	11.40	23.00	84.30	1.70	17.40	17.40	17.40	15.60		
10	2.90	4.60	6.10	11.70	11.40	26.00	64.30	1.70	17.40	17.40	17.70	15.60		
11	2.90	1.90	6.10	12.00	12.30	27.30	50.00	1.60	17.70	18.40	17.70	16.70		
12	2.70	1.50	6.10	11.10	12.60	38.10	40.60	1.70	18.10	18.40	17.70	16.30		
13	2.70	1.40	6.40	11.10	11.70	389.00	34.60	1.70	18.40	18.40	17.00	16.70		
14	2.70	1.90	6.10	11.10	10.60	457.00	30.70	1.70	18.40	18.40	17.00	16.70		
15	2.70	1.80	6.40	11.10	10.60	229.80	26.90	1.00	18.80	18.40	17.40	18.10		
16	2.50	4.40	8.30	11.10	11.40	124.60	65.00	1.00	18.80	18.40	17.00	9.40		
17	2.50	4.20	6.90	11.10	11.10	79.80	64.30	1.00	18.80	18.10	17.00	2.50		
18	2.50	6.90	7.80	11.10	12.00	65.60	57.60	1.00	18.80	18.10	17.00	2.90		
19	1.90	5.00	6.90	11.10	11.70	50.50	51.00	5.70	19.10	18.10	17.00	2.90		
20	1.80	4.00	6.90	11.10	9.10	42.50	41.00	5.70	19.10	18.10	16.70	1.70		
21	1.20	3.70	6.70	11.70	7.50	35.10	36.60	5.70	19.10	18.10	16.70	1.60		
22	1.20	3.50	6.90	11.40	7.20	30.70	31.10	5.70	19.10	18.10	16.70	1.50		
23	1.20	2.70	8.00	11.40	6.40	34.20	26.40	5.70	19.10	18.10	16.30	1.50		
24	8.00	2.50	11.40	11.70	6.40	36.60	23.00	1.20	19.10	18.10	16.30	1.50		
25	2.10	2.50	10.90	12.60	6.10	41.00	20.50	1.10	18.80	17.70	16.30	1.50		
26	1.40	3.30	13.70	11.40	9.10	36.10	19.10	1.00	18.80	18.10	16.30	1.50		
27	1.30	2.70	12.80	11.10	9.10	58.70	17.70	1.00	18.80	18.10	16.30	1.50		
28	1.30	10.00	14.30	10.90	7.20	207.00	17.40	1.00	18.40	18.10	16.30	1.50		
29	1.40	3.70	11.40	10.30	6.40	537.20	17.40	0.90	18.40	18.10	16.30	1.50		
30	1.40	3.10	11.10	10.00	7.80	225.50	17.70	0.80	18.80	18.40		1.50		
31		2.90		13.70	7.80		17.70		18.80	18.10		1.40		
Total	66.80	97.10	246.40	371.60	319.90	2901.50	2170.70	122.60	504.90	559.00	497.00	278.00	8135.50	**Ton**
Mean	2.20	3.10	8.20	12.00	10.30	96.70	70.00	4.10	16.30	18.00	17.10	9.00		
Max	8.00	10.00	26.90	19.10	15.60	537.20	259.90	16.70	19.10	18.40	18.40	18.10	537.20	
Min	1.20	1.20	2.50	10.00	6.10	7.50	17.40	0.80	0.80	17.40	16.30	1.40	0.80	

WATER YEAR : 2011

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.

Ban Pong **Amphoe** Ngao **Changwat** Lampang

Drainge Area	325 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1997-Cont'd
Actual Measurement	1997-Cont'd
Using Rating Curve Water Year	2011
Number of observation	36
R-Square	0.8866
Remarks	Continued Sediment Station

$$QS = 3.5301\ QW^{1.59640}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.20	103.90	6.40	24.70	2641.80	146.10	1342.20	24.70	4.70	2.00	1.20	0.70		
2	0.30	16.70	5.80	21.70	754.70	349.30	486.50	23.20	4.70	1.70	1.40	1.20		
3	0.30	9.00	7.00	24.70	355.90	91.10	519.50	23.20	4.70	1.40	1.20	1.00		
4	0.30	9.90	8.20	29.10	158.80	78.90	557.90	23.20	4.10	1.40	1.20	0.90		
5	0.30	7.00	14.60	17.70	110.60	110.60	291.90	23.20	3.60	2.20	0.90	0.70		
6	0.20	6.40	27.60	13.60	84.90	107.30	204.10	21.70	2.70	2.00	1.00	0.90		
7	0.20	3.10	12.70	6.40	81.80	470.20	176.60	21.70	2.20	1.70	1.00	0.70		
8	0.20	1.40	7.00	6.40	67.70	131.50	158.80	20.40	2.00	1.70	0.70	0.90		
9	0.10	1.70	4.10	15.60	59.70	124.30	124.30	20.40	2.40	1.70	0.70	0.70		
10	0.30	678.90	2.70	32.30	52.10	94.10	110.60	19.10	2.40	1.40	0.90	1.00		
11	0.20	511.20	2.20	27.60	597.20	81.80	94.10	20.40	2.40	1.70	0.90	0.70		
12	0.30	41.80	2.00	14.60	384.70	120.90	84.90	19.10	2.40	1.20	0.90	0.50		
13	0.30	23.20	1.70	7.60	233.30	699.90	78.90	17.70	2.40	1.20	0.90	0.70		
14	0.50	26.10	2.00	5.80	84.90	342.70	70.40	15.60	2.40	1.20	0.90	0.70		
15	0.60	50.00	2.70	172.00	91.10	190.20	67.70	16.70	2.70	1.20	0.90	0.50		
16	0.60	19.10	1.40	163.20	88.10	138.70	70.40	14.60	2.20	1.20	0.70	0.50		
17	0.50	45.80	1.40	36.00	84.90	100.70	78.90	10.80	2.20	1.00	0.70	0.50		
18	0.50	23.20	2.00	21.70	78.90	100.70	76.00	8.20	2.00	0.90	0.90	0.90		
19	0.40	81.80	2.20	11.70	190.20	103.90	65.00	9.00	2.40	0.70	0.70	0.70		
20	0.40	233.30	2.20	8.20	422.80	384.70	47.90	8.20	2.00	0.70	0.70	0.90		
21	0.30	52.10	4.10	13.60	699.90	454.20	45.80	9.00	2.00	1.00	0.70	0.70		
22	0.40	29.10	5.80	7.00	336.20	250.00	47.90	6.40	1.70	0.90	0.70	0.50		
23	0.50	17.70	1.70	7.00	154.60	218.70	45.80	5.80	2.00	1.00	0.50	0.50		
24	0.60	13.60	1.70	5.20	113.90	150.40	39.80	7.00	2.20	0.90	0.70	0.50		
25	0.60	8.20	6.40	15.60	100.70	117.40	36.00	5.80	2.20	0.90	0.90	0.40		
26	0.90	7.00	627.40	16.70	185.70	107.30	36.00	5.80	2.20	1.00	0.90	0.50		
27	0.80	7.00	310.60	17.70	285.80	154.60	34.10	5.20	2.00	1.00	1.00	0.70		
28	0.40	5.20	298.10	9.00	120.90	1125.30	30.70	4.10	2.20	0.90	0.90	0.50		
29	0.40	4.70	59.70	7.00	84.90	422.80	27.60	3.60	2.20	1.00	1.00	0.70		
30	0.20	5.80	41.80	7.00	76.00	233.30	26.10	4.10	2.00	1.20		0.50		
31		7.00		36.00	76.00		27.60		2.00	1.00		1.40		
Total	11.80	2050.90	1473.20	802.40	8858.70	7201.60	5104.00	417.90	79.30	39.00	25.70	22.20	26086.70	**Ton**
Mean	0.40	66.20	49.10	25.90	285.80	240.10	164.60	13.90	2.60	1.30	0.90	0.70		
Max	0.90	678.90	627.40	172.00	2641.80	1125.30	1342.20	24.70	4.70	2.20	1.40	1.40	2641.80	
Min	0.10	1.40	1.40	5.20	52.10	78.90	26.10	3.60	1.70	0.70	0.50	0.40	0.10	

WATER YEAR : 2011

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.

Ban Wang Chin **Amphoe** Wang Chin **Changwat** Phrae

Drainge Area	10,305 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2007-Cont'd
Actual Measurement	2007-Cont'd
Using Rating Curve Water Year	2011
Number of observation	36
R-Square	0.9452
Remarks	Continued Sediment Station

$$QS = 0.8170\ QW^{1.57760}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	20.90	2184.00	6227.30	38729.60	58644.00	8197.80	11491.60	1167.90	277.40	22.20	15.30	6.70		
2	19.20	3798.90	4982.00	9775.90	128347.80	9596.00	15897.30	1167.90	259.10	22.20	16.40	6.70		
3	17.60	2369.90	2209.60	5834.10	144827.40	12319.20	43506.20	1041.60	219.90	47.90	19.20	6.20		
4	16.40	2536.70	1492.20	5177.60	143956.60	9540.30	46125.60	1006.50	207.10	34.40	22.60	5.90		
5	15.30	3697.30	1340.00	5139.60	118394.00	9044.20	28975.00	939.30	170.20	27.10	24.30	5.40		
6	13.10	4520.10	2566.10	4074.90	41991.70	12389.10	17811.20	878.80	188.80	25.70	24.30	5.40		
7	11.00	3090.50	5215.80	2593.20	17388.40	18066.70	10445.80	819.70	200.30	22.20	24.30	5.40		
8	11.00	2425.00	10322.80	1790.40	14534.50	17726.40	7648.20	776.50	194.50	22.20	22.60	4.90		
9	10.00	2970.30	8881.00	1470.10	18066.70	24300.10	6271.50	734.10	175.70	6.20	20.90	5.90		
10	13.10	7695.90	3697.30	1790.40	17136.50	27514.10	5920.60	720.10	170.20	9.10	20.90	6.20		
11	33.90	8718.90	2108.10	1814.20	28975.00	21197.40	5298.90	678.90	158.50	28.00	20.90	6.20		
12	45.60	17472.70	1492.20	1959.10	52767.00	16719.60	4863.40	762.20	158.50	31.90	20.90	6.20		
13	39.00	22266.80	1167.90	3798.90	70443.30	15978.80	6183.10	678.90	147.20	31.90	17.60	6.20		
14	28.00	6822.10	924.00	3061.60	82314.50	30002.50	5920.60	628.20	147.20	31.90	15.30	7.30		
15	19.20	3030.20	720.10	3090.50	60470.60	29088.50	4556.40	590.50	136.10	31.90	13.10	29.90		
16	14.20	2941.80	590.50	6183.10	22565.70	26299.60	4709.00	566.30	136.10	31.90	12.00	56.10		
17	9.10	2650.20	485.20	25343.80	16719.60	20069.10	5379.30	577.60	130.30	31.90	11.00	63.60		
18	7.30	4480.80	519.00	29544.20	17136.50	15170.20	6494.60	566.30	114.90	31.90	11.00	49.00		
19	63.60	6539.50	577.60	16060.50	23069.00	11491.60	5580.50	530.00	104.90	31.90	11.00	15.30		
20	130.30	8665.10	566.30	8989.70	22266.80	9098.80	4147.90	485.20	85.70	31.90	9.10	22.60		
21	213.00	9655.80	508.10	6449.70	28184.90	10631.40	3244.40	440.50	55.50	29.90	10.00	31.90		
22	119.70	8504.50	429.00	5662.40	41092.50	14930.70	2680.10	440.50	51.90	26.20	10.00	35.90		
23	158.50	3563.30	365.70	4900.70	40794.30	12811.70	2289.20	429.00	51.90	24.30	8.20	31.90		
24	163.90	1959.10	297.20	5177.60	24199.40	11085.70	2008.30	407.50	44.50	20.90	8.20	5.90		
25	417.50	1382.80	259.10	4745.90	14771.70	9896.50	1743.20	386.40	40.60	19.20	6.70	16.40		
26	706.30	1024.00	734.10	5619.70	14534.50	7995.70	1536.80	365.70	37.50	19.20	6.20	12.00		
27	849.10	1604.50	19539.40	6449.70	17472.70	7159.10	1361.30	354.90	30.90	19.20	6.20	7.30		
28	908.80	2566.10	47857.40	3798.90	21969.30	8935.30	1280.40	336.00	27.10	17.60	6.20	5.40		
29	1024.00	2913.40	61946.60	2650.20	22066.50	13311.20	1205.00	315.30	27.10	17.60	6.20	2.40		
30	893.80	2369.90	70236.80	2620.40	16142.40	18152.10	1149.60	306.20	25.70	15.30		2.10		
31		5964.10		3431.20	9836.10		1167.90		23.90	17.60		9.10		
Total	5992.40	160384.20	258258.40	227727.90	1351079.90	458719.30	266892.90	19098.50	3799.20	781.30	420.60	481.40	2753636.00	**Ton**
Mean	199.70	5173.70	8608.60	7346.10	43583.20	15290.60	8609.40	636.60	122.60	25.20	14.50	15.50		
Max	1024.00	22266.80	70236.80	38729.60	144827.40	30002.50	46125.60	1167.90	277.40	47.90	24.30	63.60	144827.40	
Min	7.30	1024.00	259.10	1470.10	9836.10	7159.10	1149.60	306.20	23.90	6.20	6.20	2.10	2.10	

WATER YEAR : 2011

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.

Ban Forestry Office **Amphoe** Mueang **Changwat** Nan

Drainge Area	4,560 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1979-Cont'd
Actual Measurement	1979-Cont'd
Using Rating Curve Water Year	2011
Number of observation	36
R-Square	0.9760
Remarks	Continued Sediment Station

$$QS = 0.1270\ QW^{1.98160}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	16.70	428.20	998.70	32262.60	43198.70	11278.90	15394.00	1648.40	289.60	120.70	69.60	23.30		
2	13.80	344.10	585.30	23820.50	49077.40	9880.70	25903.50	1350.30	289.60	120.70	69.60	21.50		
3	12.50	200.60	453.90	13088.40	42269.80	7845.00	14834.80	1124.40	279.30	120.70	73.50	21.50		
4	11.20	665.90	616.90	10468.70	27872.10	6418.40	9504.60	1039.80	279.30	114.90	73.50	21.50		
5	10.00	554.50	585.30	7597.40	16252.00	27208.00	7353.70	998.70	269.10	132.70	69.60	21.50		
6	10.00	958.50	1350.30	5257.10	12958.50	35481.10	5883.80	938.60	249.40	132.70	65.80	19.90		
7	23.30	1103.00	4217.20	3843.50	92373.40	39841.80	5136.00	880.40	239.80	126.60	51.60	19.90		
8	355.60	355.60	1622.50	3100.50	91267.90	70103.80	4897.90	824.00	231.60	120.70	36.30	19.90		
9	99.20	223.70	1596.70	2888.40	42578.30	70544.10	4897.90	805.60	223.70	109.40	36.30	18.30		
10	62.10	249.40	1103.00	5136.00	44452.70	36048.10	4551.20	1146.10	223.70	103.80	36.30	18.30		
11	48.30	1545.80	716.80	14973.70	54098.70	20084.20	3791.50	899.60	215.90	99.20	36.30	19.90		
12	39.10	1446.40	539.40	7515.70	41046.90	14696.70	3195.00	751.70	215.90	99.20	42.10	21.50		
13	30.90	699.60	616.90	7762.10	32984.90	11590.50	2816.40	699.60	208.20	94.60	45.20	25.10		
14	23.30	665.90	649.40	58740.30	21646.80	11486.10	2605.80	649.40	208.20	94.60	42.10	25.10		
15	23.30	524.50	509.90	164781.40	15820.10	12192.80	2537.40	601.00	200.60	99.20	39.10	39.10		
16	21.50	585.30	415.70	119411.10	11818.70	13881.00	3100.50	554.50	185.80	114.90	36.30	58.40		
17	18.30	699.60	379.10	165574.50	20598.60	12318.90	2924.80	539.40	178.70	103.80	36.30	45.20		
18	16.70	1571.10	332.90	61997.70	26334.80	33807.00	2370.40	524.50	164.90	90.20	36.30	33.60		
19	12.50	3007.40	379.10	26551.80	29912.20	110604.00	2177.40	509.90	164.90	85.90	36.30	25.10		
20	11.20	2640.40	453.90	31785.50	166369.50	48739.00	1992.50	495.40	158.20	81.70	33.60	19.90		
21	11.20	2675.10	554.50	33257.80	138642.90	72766.10	1844.60	467.10	158.20	77.50	30.90	18.30		
22	12.50	1787.00	441.00	30375.20	169568.30	67922.80	1702.40	441.00	158.20	77.50	28.90	16.70		
23	12.50	842.60	321.80	21824.00	115595.70	31548.20	1571.10	415.70	151.60	73.50	28.90	16.70		
24	18.30	524.50	279.30	36048.10	64926.80	26334.80	1471.00	403.30	151.60	69.60	26.90	15.20		
25	114.90	682.70	1422.10	29912.20	39543.30	18908.90	1350.30	379.10	151.60	65.80	26.90	15.20		
26	171.70	1471.00	181001.80	13614.20	39543.30	16252.00	1326.80	367.20	145.10	65.80	25.10	15.20		
27	85.90	1124.40	324349.50	10074.80	33257.80	21646.80	1303.50	355.60	138.80	65.80	25.10	15.20		
28	58.40	1060.70	312073.40	14422.20	26118.70	14015.30	1303.50	332.90	138.80	62.10	25.10	19.90		
29	65.80	1257.50	178520.60	9596.30	16397.20	10971.60	1190.10	310.90	132.70	62.10	23.30	23.30		
30	65.80	1350.30	42578.30	7845.00	12445.50	9596.30	1326.80	300.20	126.60	65.80		19.90		
31		1422.10		20426.40	11695.20		2924.80		120.70	69.60		18.30		
Total	1476.50	32667.40	1059665.30	993953.10	1550666.80	894013.00	143184.00	20754.30	6050.30	2921.30	1206.80	712.40	4707272.00	**Ton**
Mean	49.20	1053.80	35322.20	32063.00	50021.50	29800.40	4618.80	691.80	195.20	94.20	41.60	23.00		
Max	355.60	3007.40	324349.50	165574.50	169568.30	110604.00	25903.50	1648.40	289.60	132.70	73.50	58.40	324349.50	
Min	10.00	200.60	279.30	2888.40	11695.20	6418.40	1190.10	300.20	120.70	62.10	23.30	15.20	10.00	

WATER YEAR : 2011

NAN RIVER BASIN

Nan River at Ban Rat Chang Khwan , Phichit (N.7A)

Lat 16 - 28 - 03 N Long 100 - 20 - 05 E

Location : on right bank in front of Phichit Phitthaya Khom School

Ban Rat Chang Khwan **Amphoe** Mueang **Changwat** Phichit

Drainge Area	27,897 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2001-Cont'd
Actual Measurement	2001-Cont'd
Using Rating Curve Water Year	2011
Number of observation	28
R-Square	0.8008
Remarks	Continued Sediment Station

$$QS = 1.0101\ QW^{1.35680}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1380.70	1197.40	4085.80	3066.70	9738.40	20071.60	20591.40	7836.90	1153.50	3649.10	5076.10	4018.90		
2	1571.60	1515.00	4557.60	2975.60	11599.00	20071.60	20554.10	7836.90	1334.20	3585.40	5278.20	3979.00		
3	1531.00	1783.40	4383.10	3344.20	13979.00	20108.60	20628.60	7652.50	1522.50	3438.00	5437.70	3912.70		
4	1443.30	1901.90	3912.70	3723.70	15419.20	20108.60	20479.70	7537.90	1531.00	3417.10	5635.50	3798.80		
5	1759.00	1759.00	3532.60	4005.60	15869.70	20145.60	20479.70	7332.70	1404.50	3710.70	5635.50	3748.70		
6	1651.60	1701.70	3344.20	4032.30	16218.50	20182.70	20516.90	6794.40	1342.40	4166.30	5340.80	3849.00		
7	1296.30	2265.80	3480.00	3673.90	16078.70	20219.70	20516.90	6462.60	1205.30	4452.70	5200.30	3735.60		
8	1072.20	2570.10	3899.40	3385.80	15453.70	20145.60	20516.90	6020.40	1183.30	4815.00	4922.10	3710.70		
9	945.00	2372.80	4126.00	3076.80	15453.70	20145.60	20516.90	5602.40	1685.30	5340.80	4891.40	3723.70		
10	951.70	2125.20	4112.60	2885.20	15730.70	20256.80	20331.00	5819.10	1620.00	4845.60	4999.00	3543.10		
11	1250.60	1935.80	3849.00	2825.40	15730.70	20293.90	20145.60	5652.70	1515.00	3810.70	5060.70	3553.70		
12	1547.00	1759.00	3543.10	2955.50	16009.00	20368.20	19849.90	5029.80	1850.30	3406.70	5060.70	3899.40		
13	1563.00	1620.00	3230.30	3046.40	16745.50	20442.50	19225.30	4738.90	1825.60	3490.50	5060.70	4072.40		
14	1499.10	1522.50	2955.50	3158.50	17526.40	20479.70	18533.50	4572.60	2063.90	3469.50	5107.10	3992.30		
15	2107.80	1783.40	2775.80	3490.50	17669.30	20516.90	18136.10	4512.60	2765.90	3375.40	4860.80	4045.60		
16	2211.70	2168.40	2648.00	4287.90	17848.50	20554.10	17848.50	4220.20	3087.00	3438.00	4769.30	3773.70		
17	1977.90	2502.40	2570.10	5138.10	17848.50	20554.10	17562.10	3810.70	3543.10	3406.70	5184.70	3723.70		
18	1926.80	2390.70	2736.30	6133.90	18100.10	20554.10	17134.80	3532.60	3354.60	3036.20	5520.60	3127.80		
19	1892.90	2238.70	3138.00	7332.70	18642.30	20628.60	16569.30	3375.40	3271.60	3220.00	5487.60	2746.20		
20	1751.20	2417.20	3406.70	8068.90	19079.10	20554.10	15869.70	3158.50	2875.30	3564.30	5520.60	2211.70		
21	1801.10	2677.30	3522.10	8609.30	19335.20	20591.40	15044.10	2835.40	2945.40	3532.60	5537.70	1817.80		
22	1620.00	2677.30	3480.00	8986.10	19555.30	20628.60	14492.80	2309.70	3230.30	3553.70	5422.00	1783.40		
23	1491.60	2435.20	3375.40	9164.80	19776.10	20591.40	13915.10	2038.50	3251.00	3687.00	5404.90	1342.40		
24	1109.20	2107.80	3281.90	9219.00	19849.90	20628.60	13060.30	2029.40	3490.50	3710.70	5422.00	1197.40		
25	1101.50	1783.40	3097.20	9062.60	19702.50	20591.40	12033.60	1676.60	3574.80	3723.70	5356.50	1168.40		
26	1334.20	1725.90	2667.50	8656.70	19813.00	20591.40	11225.80	1555.50	3344.20	3798.80	5262.60	1168.40		
27	1404.50	1834.50	2381.20	8732.50	20034.60	20591.40	10827.60	1460.00	3148.20	3735.60	5153.60	1160.50		
28	1428.50	2003.10	2492.80	8732.50	20034.60	20591.40	9793.60	1388.90	3281.90	4126.00	5060.70	1109.20		
29	1228.30	2195.20	2975.60	8757.70	20071.60	20628.60	8935.20	1304.40	3606.60	4512.60	4328.60	1145.70		
30	1079.10	2337.00	3302.60	8960.70	20145.60	20591.40	8443.90	1220.30	3638.50	4754.10		1036.40		
31		2915.30		9113.60	20108.60		8068.90		3723.70	5122.60		1028.80		
Total	44928.40	64222.40	100863.10	178603.10	539167.00	612428.10	511847.80	129318.50	77369.40	119896.10	150998.00	87125.10	2616767.30	**Ton**
Mean	1497.60	2071.70	3362.10	5761.40	17392.50	20414.30	16511.20	4310.60	2495.80	3867.60	5206.80	2810.50		
Max	2211.70	2915.30	4557.60	9219.00	20145.60	20628.60	20628.60	7836.90	3723.70	5340.80	5635.50	4072.40	20628.60	
Min	945.00	1197.40	2381.20	2825.40	9738.40	20071.60	8068.90	1220.30	1153.50	3036.20	4328.60	1028.80	945.00	

WATER YEAR : 2011

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.

Ban Hor Krai **Amphoe** Bang Mun Nak **Changwat** Phichit

Drainge Area	31,472 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2001-Cont'd
Actual Measurement	2001-Cont'd
Using Rating Curve Water Year	2011
Number of observation	27
R-Square	0.8045
Remarks	Continued Sediment Station

$$QS = 2.0064\ QW^{1.25060}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1216.40	1201.00	4180.70	3199.10	10069.20	21959.30	20586.50	10369.00	1894.60	2972.10	3952.20	3510.00		
2	1388.10	1256.40	4821.20	3269.70	10557.20	22156.80	20489.10	9100.60	1867.90	2902.90	3873.20	3216.70		
3	1485.50	1475.10	5097.30	3474.20	11394.90	22354.70	20586.50	9007.10	1813.80	2812.60	3931.60	3137.70		
4	1464.80	1637.90	5025.00	4014.30	12883.00	22453.80	20683.90	8913.80	1776.60	2648.50	4045.40	3076.40		
5	1454.50	1648.50	4809.20	4422.20	14063.80	22564.30	20683.90	8758.80	1760.00	2655.90	4149.40	3015.50		
6	1548.00	1606.20	4528.10	4604.90	14734.30	22675.00	20409.40	8640.50	1749.20	2928.80	4149.40	3032.90		
7	1423.50	1819.70	4538.70	4464.50	15102.60	22675.00	20409.40	8611.00	1413.30	3181.50	4014.30	2989.40		
8	1235.40	2251.40	4833.10	4118.10	14856.80	22785.80	20250.10	8522.60	1296.60	3411.70	3892.70	2902.90		
9	1088.20	2398.90	5206.20	3689.00	14856.80	22896.70	20091.00	7920.70	1266.40	3757.00	3737.70	2928.80		
10	1010.80	2298.70	5489.00	3296.20	15041.10	23118.80	20091.00	7499.70	1246.30	3864.10	3766.10	2972.10		
11	1039.70	2087.60	5409.50	3015.50	15164.10	23230.00	19852.90	7405.90	1226.30	3746.80	3804.80	2998.10		
12	1191.10	1911.50	5145.70	3032.90	15534.50	23007.70	19615.40	7125.90	1246.30	3313.90	3834.40	3015.50		
13	1266.40	1760.00	4729.40	3155.20	15968.90	23007.70	19299.60	6666.70	1611.00	3128.90	3864.10	3164.00		
14	1301.20	1723.00	4264.40	3269.70	16630.40	23118.80	18758.80	6301.80	1659.10	3146.40	3901.80	3190.30		
15	1281.00	1878.80	3718.50	3384.90	17103.00	23118.80	18317.80	5924.90	1835.40	3155.20	3882.40	3164.00		
16	1331.60	1933.30	3376.10	3718.50	17442.20	23230.00	18025.00	5680.80	2104.80	3093.90	3746.80	3085.20		
17	1444.10	1900.60	3137.70	3993.60	17660.30	23230.00	17733.10	5568.80	2398.90	3146.40	3804.80	2972.10		
18	1659.10	2392.70	2885.60	5696.90	18025.00	23230.00	17374.20	5425.40	2567.20	2980.70	4024.60	2775.10		
19	1653.30	2372.00	2920.10	6605.60	18685.10	22896.70	17238.50	5314.40	2486.40	2820.10	4139.00	2385.40		
20	1642.70	2345.10	3456.30	7335.70	19220.80	22354.70	16900.10	5218.40	2392.70	2722.80	4159.80	2145.30		
21	1569.00	2479.10	3699.20	7893.00	19615.40	21959.30	16630.40	4845.10	2211.50	2797.60	4170.30	1846.20		
22	1527.10	2552.50	3746.80	8463.80	20011.60	21762.10	16160.40	4285.40	2258.60	2937.40	4107.70	1691.00		
23	1464.80	2508.40	3669.80	8882.80	20091.00	21270.60	15782.50	3834.40	2345.10	2998.10	4086.90	1637.90		
24	1331.60	2385.40	3593.10	9194.20	20329.70	21270.60	15349.10	3554.80	2501.10	3067.70	4066.10	1429.10		
25	1195.60	2076.50	3429.50	9416.20	20329.70	21172.60	14489.70	3164.00	2685.60	3059.00	4035.00	1372.30		
26	1131.80	1873.90	3181.50	9450.40	20586.50	20879.10	14003.20	2851.20	2859.80	3041.60	4014.30	1246.30		
27	1235.40	1841.30	2885.60	9621.50	20683.90	20976.90	13423.10	2604.10	2790.10	3041.60	3983.20	1226.30		
28	1321.40	1950.20	2508.40	9758.80	20879.10	21172.60	12829.20	2479.10	2365.80	2980.70	3962.60	1166.70		
29	1301.20	2171.70	2545.10	9827.60	20976.90	20976.90	11962.20	2191.10	2501.10	3128.90	3727.50	1122.00		
30	1246.30	2663.30	2937.40	9862.10	21466.90	20781.50	11066.70	1955.20	2678.20	3474.20		1063.50		
31		3411.70		9896.50	21663.60		10708.30		2894.20	3786.60		1039.70		
Total	40449.60	63812.40	119768.20	184027.60	531628.30	668286.80	539801.00	179741.20	63703.90	96703.60	114828.10	74518.40	2677269.30	**Ton**
Mean	1348.30	2058.50	3992.30	5936.40	17149.30	22276.20	17412.90	5991.40	2055.00	3119.50	3959.60	2403.80		
Max	1659.10	3411.70	5489.00	9896.50	21663.60	23230.00	20683.90	10369.00	2894.20	3864.10	4170.30	3510.00	23230.00	
Min	1010.80	1201.00	2508.40	3015.50	10069.20	20781.50	10708.30	1955.20	1226.30	2648.50	3727.50	1039.70	1010.80	

WATER YEAR : 2011

NAN RIVER BASIN

Nan River at Ban Tha Ngam , Phitsanulok (N.22A)

Lat 16 - 59 - 33 N Long 100 - 19 - 31 E

Location : on left bank at Ban Tha Ngam.

	Ban Tha Ngam	**Amphoe** Wat Bot	**Changwat** Phitsanulok
Drainge Area	4,774 sq.km.		
Method of sampling	Depth Integrating		
Instrument Used	US.D-49		
Period of Available Records	2008-Cont'd		
Actual Measurement	2008-Cont'd		
Using Rating Curve Water Year	2011		
Number of observation	20		
R-Square	0.7166		
Remarks	Continued Sediment Station		

$$QS = 2.4365\ QW^{1.21430}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	288.60	185.20	336.00	475.20	928.40	2498.70	2708.40	557.40	128.50	750.10	529.70	560.50		
2	280.40	87.00	319.10	525.90	724.20	2847.70	2562.20	411.40	71.70	724.20	536.60	242.60		
3	266.70	89.20	316.30	502.30	1022.10	2847.70	2586.50	367.30	91.50	724.20	539.70	307.90		
4	277.60	55.40	310.70	495.50	1043.60	2786.10	3054.90	310.70	64.20	738.80	547.40	203.20		
5	283.10	79.30	299.60	481.90	1082.50	2816.90	3219.20	218.80	64.20	720.90	536.60	165.10		
6	283.10	75.50	316.30	478.20	1078.20	2594.60	3207.70	288.60	98.30	709.70	543.50	128.50		
7	305.20	121.40	296.80	478.20	970.80	1998.40	3277.20	305.20	242.60	699.20	539.70	119.10		
8	350.10	116.70	253.30	547.40	1152.30	1698.10	3219.20	258.60	399.00	684.80	539.70	79.30		
9	519.00	79.30	247.90	557.40	1222.90	2313.90	3096.60	396.10	344.40	652.10	547.40	140.50		
10	519.00	89.20	261.30	560.50	1280.80	2643.20	3013.20	210.90	361.50	634.70	560.50	79.30		
11	547.40	98.30	258.60	557.40	1388.80	2331.80	2343.70	145.40	355.80	677.60	557.40	83.10		
12	333.10	87.00	280.40	554.30	1562.90	2225.90	2003.30	192.90	361.50	663.20	550.40	100.50		
13	404.90	75.50	288.60	574.40	1507.50	2765.60	1969.50	170.10	364.40	652.10	539.70	73.80		
14	567.40	272.20	418.00	627.60	1321.10	3562.00	1811.50	165.10	441.60	630.70	499.30	73.80		
15	441.60	384.50	396.10	585.30	1502.90	3641.40	2134.60	155.20	484.90	623.60	488.70	93.70		
16	396.10	421.70	355.80	617.40	1461.70	3641.40	2037.20	135.70	738.80	613.40	522.80	114.40		
17	390.30	411.40	438.70	695.20	1702.80	4293.80	1821.00	203.20	554.30	599.30	516.00	73.80		
18	157.70	378.80	488.70	699.20	2139.50	4957.40	1712.20	165.10	468.40	620.50	499.30	98.30		
19	461.70	396.10	488.70	674.40	2183.60	5263.20	1731.10	147.80	239.90	623.60	495.50	83.10		
20	147.80	182.70	471.40	502.30	1974.30	5242.50	1665.30	145.40	418.00	536.60	499.30	105.10		
21	89.20	255.90	471.40	358.70	1945.40	5221.90	1521.30	145.40	441.60	578.30	481.90	98.30		
22	157.70	213.60	471.40	190.30	2409.50	5221.90	924.20	133.30	432.00	606.40	478.20	79.30		
23	147.80	190.30	471.40	140.50	2409.50	5098.50	878.00	126.20	415.10	536.60	478.20	96.00		
24	140.50	172.60	464.70	121.40	2403.50	4650.40	367.30	119.10	432.00	567.40	471.40	83.10		
25	208.40	187.80	458.00	121.40	2526.90	4093.20	319.10	116.70	424.60	532.80	441.60	93.70		
26	145.40	277.60	475.20	126.20	2806.60	3807.60	367.30	102.80	421.70	401.90	499.30	85.30		
27	55.40	296.80	481.90	213.60	3054.90	3978.30	353.00	83.10	564.30	613.40	458.00	81.50		
28	1.30	316.30	475.20	321.90	2878.60	4126.20	338.80	81.50	757.40	645.00	428.30	73.80		
29	43.80	294.10	461.70	347.30	2491.70	3898.80	324.70	64.20	746.10	543.50	418.00	73.80		
30	208.40	408.50	468.40	367.30	2435.50	3173.00	327.50	64.20	732.30	543.50		73.80		
31		502.30		381.60	2307.90		333.10		716.90	532.80		73.80		
Total	8418.70	6802.20	11541.60	13880.20	54920.90	106240.10	55228.80	5987.40	12377.50	19380.90	14744.10	3838.00	313360.40	**Ton**
Mean	280.60	219.40	384.70	447.70	1771.60	3541.30	1781.60	199.60	399.30	625.20	508.40	123.80		
Max	567.40	502.30	488.70	699.20	3054.90	5263.20	3277.20	557.40	757.40	750.10	560.50	560.50	5263.20	
Min	1.30	55.40	247.90	121.40	724.20	1698.10	319.10	64.20	64.20	401.90	418.00	73.80	1.30	

WATER YEAR : 2011

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.

Ban Wang Nok Aen **Amphoe** Wang Thong **Changwat** Phitsanulok

Drainge Area	1,838 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1996-Cont'd
Actual Measurement	1996-Cont'd
Using Rating Curve Water Year	2011
Number of observation	22
R-Square	0.8843
Remarks	Continued Sediment Station

$$QS = 1.2138\ QW^{1.53890}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.60	501.20	1260.00	314.40	728.80	2602.10	1750.00	164.60	32.10	10.20	5.00	1.20		
2	1.80	551.30	844.20	892.70	4028.90	2523.10	1693.10	156.30	30.90	9.90	4.70	1.00		
3	2.50	326.20	702.70	619.60	2732.10	5144.10	2309.40	148.20	29.80	9.50	5.60	0.90		
4	2.70	72.00	557.70	659.80	1880.50	2796.40	2496.00	138.30	28.60	9.10	9.10	0.90		
5	2.70	145.20	581.90	498.10	1201.00	2084.80	1757.20	129.60	27.50	9.10	15.30	0.70		
6	2.30	504.30	704.40	430.70	782.20	4790.10	1917.30	122.90	25.30	8.70	11.90	0.60		
7	5.90	695.80	836.80	291.20	588.40	5678.80	1611.30	118.20	24.80	8.70	11.00	0.40		
8	5.90	515.10	603.10	212.70	518.30	3605.90	1114.30	114.60	24.20	8.30	9.50	0.40		
9	5.60	578.60	501.20	176.20	609.70	5102.40	923.00	107.30	23.20	8.30	7.30	0.40		
10	11.50	286.10	387.70	220.70	548.10	6407.50	789.40	115.50	22.70	8.00	5.60	0.40		
11	12.30	214.90	305.30	148.20	464.70	4628.10	699.20	109.10	21.60	8.00	5.00	2.00		
12	9.90	188.10	475.30	145.20	771.40	3773.10	644.60	110.00	20.10	7.30	4.40	9.90		
13	4.40	114.60	379.30	124.80	1085.90	7545.10	734.10	107.30	19.60	6.90	4.10	3.30		
14	4.70	28.60	548.10	326.20	816.60	7829.50	702.70	94.10	19.10	6.60	3.50	2.30		
15	4.40	255.10	311.80	343.60	721.80	5238.30	813.00	83.20	18.60	6.20	3.50	2.30		
16	2.50	209.20	255.10	504.30	959.50	5947.50	1209.40	77.50	18.20	6.20	3.30	3.00		
17	4.40	102.80	518.30	397.60	1560.60	4715.60	695.80	73.60	17.70	5.90	3.00	4.40		
18	3.80	103.70	521.40	277.30	1625.20	3294.30	551.30	70.50	16.70	5.90	2.70	17.20		
19	8.00	269.80	1075.90	1443.00	959.50	2701.40	475.30	68.10	16.30	5.60	2.70	9.50		
20	6.60	1114.30	609.70	923.00	1521.80	2469.00	411.90	65.10	15.30	5.30	2.50	5.60		
21	11.50	994.50	433.60	915.40	3399.10	2671.00	424.90	62.10	15.30	5.30	2.30	3.50		
22	5.90	400.40	464.70	1043.80	4044.90	2561.10	406.10	57.70	14.90	5.60	2.30	2.70		
23	11.90	191.40	311.80	1039.90	2640.60	2690.30	314.40	58.50	14.40	7.30	2.00	2.00		
24	20.60	117.30	243.00	666.60	1636.80	4329.80	282.30	54.20	14.00	8.00	1.80	1.60		
25	7.60	110.00	199.10	575.40	1067.80	3360.00	267.30	51.40	13.10	6.90	1.60	1.40		
26	6.20	129.60	249.00	847.90	909.70	2542.10	249.00	43.90	12.70	6.60	1.40	1.20		
27	5.90	279.80	305.30	857.10	940.20	2807.70	230.00	37.50	12.30	7.60	1.40	0.90		
28	11.50	244.20	256.30	621.20	1071.80	3387.00	214.90	34.50	11.90	7.30	1.40	0.60		
29	19.10	737.60	261.20	678.60	926.80	2640.60	202.50	33.90	11.50	5.90	1.40	0.40		
30	76.00	2402.10	214.90	513.60	3117.40	2262.30	188.10	33.30	11.00	5.60		0.40		
31		2036.80		364.00	4807.00		176.20		10.60	5.00		0.30		
Total	279.70	14420.60	14918.80	17072.80	48667.10	118129.00	26254.00	2641.00	594.00	224.80	135.30	81.40	243418.50	**Ton**
Mean	9.30	465.20	497.30	550.70	1569.90	3937.60	846.90	88.00	19.20	7.30	4.70	2.60		
Max	76.00	2402.10	1260.00	1443.00	4807.00	7829.50	2496.00	164.60	32.10	10.20	15.30	17.20	7829.50	
Min	1.60	28.60	199.10	124.80	464.70	2084.80	176.20	33.30	10.60	5.00	1.40	0.30	0.30	

WATER YEAR : 2011

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

Drainge Area	1,710 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2000-Cont'd
Actual Measurement	2000-Cont'd
Using Rating Curve Water Year	2000-2011
Number of observation	168
R-Square	0.7848
Remarks	Continued Sediment Station

$$QS = 4.7680\ QW^{1.36040}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	29.30	355.70	1371.90	987.00	2685.90	6436.60	5028.20	269.30	84.80	38.00	31.40	20.30		
2	29.30	413.80	780.20	1543.10	7509.50	6175.40	4566.50	259.90	52.10	34.70	33.60	21.30		
3	26.20	258.00	454.50	1636.90	7969.20	6262.10	6878.30	235.90	49.70	38.00	41.40	27.20		
4	27.20	300.00	534.30	1418.60	6878.30	7876.70	9448.60	219.60	52.10	35.80	50.90	26.20		
5	23.20	543.40	582.40	1450.90	5379.90	6262.10	6967.60	191.50	49.70	36.90	57.10	24.20		
6	30.40	394.80	465.40	987.00	4016.10	7057.20	5309.10	186.40	46.10	36.90	43.70	24.20		
7	27.20	378.20	641.10	636.30	2996.10	9332.40	4566.50	179.50	43.70	36.90	44.90	23.20		
8	29.30	367.90	424.40	456.60	2428.80	8986.30	3093.00	167.80	42.60	36.90	39.10	22.20		
9	39.10	575.50	321.50	378.20	2188.60	8304.70	2469.50	151.30	41.40	35.80	32.50	21.30		
10	22.20	339.50	300.00	361.80	1913.80	7969.20	2080.70	144.90	41.40	32.50	30.40	22.20		
11	36.90	280.70	225.00	378.20	1929.70	7509.50	1679.60	140.10	49.70	32.50	27.20	43.70		
12	62.10	296.10	367.90	305.80	2459.30	6101.90	1430.30	133.80	38.00	32.50	27.20	54.60		
13	39.10	140.10	1067.80	296.10	2703.30	6436.60	1342.90	138.50	36.90	33.60	26.20	55.80		
14	35.80	269.30	910.60	370.00	2575.30	7327.70	1591.30	129.10	36.90	33.60	26.20	53.30		
15	30.40	399.00	660.20	790.20	2348.00	7692.60	1850.50	126.00	41.40	33.60	25.20	52.10		
16	29.30	245.10	394.80	1392.20	2071.00	7876.70	1907.40	121.40	39.10	35.80	23.20	52.10		
17	29.30	146.50	718.30	1766.10	1901.10	10425.90	1392.20	100.50	42.60	33.60	22.20	52.10		
18	21.30	144.90	1673.50	1220.10	2459.30	9101.30	928.90	97.60	43.70	30.40	19.30	52.10		
19	24.20	382.30	2152.50	1543.10	3219.90	6967.60	755.30	97.60	39.10	28.30	19.30	50.90		
20	32.50	1615.60	1564.20	2685.90	4889.30	5665.80	691.50	97.60	36.90	28.30	19.30	49.70		
21	34.70	2530.80	992.30	2428.80	8192.50	4566.50	631.60	90.50	39.10	36.90	15.70	49.70		
22	15.70	1652.10	650.60	2234.80	6878.30	4690.90	641.10	89.00	38.00	42.60	13.90	49.70		
23	18.40	428.60	478.50	2087.20	5737.90	5379.90	532.00	87.60	38.00	49.70	15.70	46.10		
24	32.50	212.50	347.60	1850.50	4820.20	5451.00	494.00	84.80	39.10	39.10	18.40	39.10		
25	47.30	378.20	345.50	1621.60	3381.30	5028.20	445.80	78.00	42.60	36.90	23.20	34.70		
26	44.90	450.10	1325.50	1679.60	2647.70	4502.70	394.80	71.30	39.10	34.70	21.30	27.20		
27	43.70	686.60	2172.10	2025.70	2479.70	4316.50	370.00	68.60	38.00	28.30	21.30	19.30		
28	41.40	547.90	2080.70	1948.80	2291.20	7237.20	333.50	73.90	38.00	28.30	23.20	19.30		
29	55.80	1923.30	1735.10	1929.70	1828.60	7876.70	305.80	73.90	39.10	31.40	24.20	14.80		
30	130.70	2208.30	1245.50	1652.10	2271.20	6524.30	305.80	86.20	38.00	31.40		21.30		
31		1766.10		1161.30	5665.80		278.80		38.00	31.40		21.30		
Total	1089.40	20630.90	26983.90	41224.20	116716.80	205342.20	68711.10	3992.10	1334.90	1075.30	817.20	1091.20	489009.30	**Ton**
Mean	36.30	665.50	899.50	1329.80	3765.10	6844.70	2216.50	133.10	43.10	34.70	28.20	35.20		
Max	130.70	2530.80	2172.10	2685.90	8192.50	10425.90	9448.60	269.30	84.80	49.70	57.10	55.80	10425.90	
Min	15.70	140.10	225.00	296.10	1828.60	4316.50	278.80	68.60	36.90	28.30	13.90	14.80	13.90	

WATER YEAR : 2011

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.

Ban Wang Pong **Amphoe** Chon Dan **Changwat** Phetchabun

Drainge Area	174 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1999-Cont'd
Actual Measurement	1999-Cont'd
Using Rating Curve Water Year	2011
Number of observation	22
R-Square	0.7024
Remarks	Continued Sediment Station

$$QS = 7.4610\ QW^{1.59440}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.20	0.00	8.70	1.10	3157.80	768.50	696.20	32.20	3.30	1.10	0.60	0.20		
2	0.20	0.00	1145.10	1.10	1199.90	664.20	583.70	40.70	2.50	1.10	0.60	0.20		
3	0.60	0.00	209.50	293.20	507.10	728.70	748.50	32.20	3.30	1.70	0.60	0.00		
4	0.60	0.00	140.40	94.00	326.60	664.20	857.40	32.20	4.20	1.70	0.60	0.00		
5	0.60	0.00	892.50	40.70	201.40	507.10	583.70	30.10	3.30	1.70	0.60	0.00		
6	0.20	201.40	715.60	8.70	109.80	2063.40	664.20	28.20	5.20	1.70	0.60	0.00		
7	0.20	55.00	1083.50	14.20	376.60	1160.60	583.70	19.00	4.20	1.10	0.60	0.00		
8	0.20	40.70	140.40	7.50	293.20	2526.10	536.10	24.40	3.30	1.10	0.60	0.00		
9	0.20	50.10	116.30	1223.70	1548.70	4352.70	495.70	28.20	4.20	1.10	0.60	0.00		
10	0.60	45.30	76.30	1479.70	252.30	1462.70	341.30	166.00	3.30	1.10	0.60	0.00		
11	0.20	30.10	55.00	158.50	429.20	1304.30	495.70	103.40	2.50	1.10	0.60	0.20		
12	0.20	76.30	32.20	60.10	1304.30	2791.90	565.70	76.30	2.50	1.10	0.60	0.20		
13	0.20	28.20	7.50	19.00	507.10	1370.20	366.40	50.10	2.50	1.10	0.60	0.20		
14	0.20	15.80	19.00	30.10	261.20	664.20	366.40	40.70	2.50	1.10	0.60	0.20		
15	0.20	70.80	7.50	768.50	781.90	1098.80	341.30	28.20	2.50	1.10	0.60	0.00		
16	0.20	45.30	3.30	565.70	5158.00	2589.00	270.20	19.00	2.50	1.10	0.60	0.00		
17	0.20	32.20	12.80	696.20	1060.80	1690.10	230.50	15.80	2.50	1.10	0.60	0.00		
18	0.20	40.70	5.20	201.40	748.50	583.70	193.30	14.20	2.50	1.10	0.60	0.00		
19	0.20	22.50	30.10	715.60	2641.90	748.50	133.30	19.00	2.50	1.10	0.20	0.00		
20	0.20	14.20	5.20	715.60	9027.10	536.10	109.80	24.40	2.50	0.60	0.20	0.00		
21	0.20	5.20	4.20	748.50	1864.00	1247.70	109.80	22.50	1.70	1.10	0.20	0.00		
22	0.20	0.60	2.50	583.70	1882.60	1199.90	103.40	19.00	1.70	1.10	0.20	0.00		
23	0.20	0.60	8.70	386.90	728.70	1522.70	147.50	15.80	2.50	0.60	0.20	0.00		
24	0.20	0.60	2.50	507.10	1808.40	1939.10	133.30	14.20	1.70	1.10	0.20	0.00		
25	0.20	0.60	2.50	209.50	583.70	1263.80	109.80	12.80	1.70	1.10	0.20	0.00		
26	0.20	1.10	1.10	326.60	715.60	1836.10	88.00	10.00	1.70	1.10	0.20	0.00		
27	0.20	1.10	1.10	126.40	781.90	1864.00	65.30	8.70	1.70	1.10	0.20	0.00		
28	0.20	0.60	1.10	768.50	583.70	1808.40	50.10	8.70	1.70	1.10	0.20	0.00		
29	0.20	0.60	261.20	166.00	1437.20	2300.50	55.00	7.50	1.70	1.10	0.20	0.00		
30	0.20	1.10	14.20	140.40	802.30	871.40	40.70	5.20	1.70	1.70		0.00		
31		1.10		748.50	748.50		32.20		1.10	1.10		0.00		
Total	7.60	781.80	5005.20	11806.70	41830.00	44128.60	10098.20	948.70	80.70	36.10	13.00	1.20	114737.80	**Ton**
Mean	0.30	25.20	166.80	380.90	1349.40	1471.00	325.70	31.60	2.60	1.20	0.40	0.00		
Max	0.60	201.40	1145.10	1479.70	9027.10	4352.70	857.40	166.00	5.20	1.70	0.60	0.20	9027.10	
Min	0.20	0.00	1.10	1.10	109.80	507.10	32.20	5.20	1.10	0.60	0.20	0.00	0.00	

WATER YEAR : 2011

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

Drainge Area	971 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1994-Cont'd
Actual Measurement	1994-Cont'd
Using Rating Curve Water Year	2011
Number of observation	23
R-Square	0.8980
Remarks	Continued Sediment Station

$$QS = 1.2420\ QW^{1.52090}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	4.40	14.40	143.40	121.90	3714.40	1087.20	1159.10	85.00	24.00	10.60	6.30	3.60		
2	4.10	21.40	99.90	92.40	4853.70	924.40	1114.20	80.30	22.90	10.60	5.90	3.60		
3	4.10	24.00	75.60	169.10	3609.40	890.10	1537.30	77.10	22.40	10.20	5.60	3.30		
4	4.10	11.80	74.80	127.40	3531.40	911.70	2095.60	74.00	22.40	10.20	5.60	3.00		
5	3.80	9.80	70.20	100.80	2710.30	821.00	2014.30	69.50	21.90	9.80	6.60	3.30		
6	3.80	16.10	62.90	77.90	2054.80	1100.70	1653.50	68.00	19.90	9.50	8.30	3.30		
7	4.70	26.10	55.10	62.10	1866.60	1264.90	1342.60	63.60	16.60	9.10	7.30	3.30		
8	5.60	15.70	42.50	52.30	1214.60	1159.10	1024.40	59.30	19.00	8.70	6.90	3.60		
9	5.00	10.60	36.90	47.00	983.20	1200.60	840.30	57.20	19.90	8.70	5.60	3.60		
10	5.60	9.80	35.10	42.50	770.90	1806.80	657.70	54.40	19.40	8.70	5.00	3.30		
11	5.60	9.10	31.60	39.30	1242.60	1806.80	502.90	53.00	18.50	8.70	5.00	4.70		
12	5.30	8.00	38.10	35.10	1765.70	1546.00	410.10	49.00	16.60	8.70	5.00	7.60		
13	5.60	8.00	51.00	34.50	1684.70	1409.30	408.70	49.00	15.70	8.00	5.60	7.30		
14	5.60	8.30	78.70	40.60	1451.50	1451.50	324.00	41.80	15.70	8.30	5.00	6.60		
15	5.30	11.80	75.60	143.40	1106.50	1635.80	355.00	41.20	16.10	8.70	4.40	5.60		
16	5.00	36.30	81.00	159.00	886.50	2621.50	440.80	39.30	16.60	8.30	4.10	4.70		
17	5.00	48.30	111.10	127.40	845.60	2293.60	305.20	40.00	15.70	7.30	3.80	4.70		
18	5.00	29.90	183.50	128.30	1214.60	1765.70	279.40	38.10	15.20	7.30	3.60	4.40		
19	3.80	53.70	113.80	140.50	1342.60	1426.10	229.20	37.50	16.60	7.60	3.00	7.30		
20	5.60	176.30	68.00	143.40	1417.70	1186.70	236.00	36.30	13.50	7.30	3.80	6.60		
21	5.30	91.50	49.00	162.00	2182.80	1125.90	259.20	35.10	12.20	8.70	4.10	3.80		
22	4.40	54.40	43.70	183.50	2451.90	1359.20	190.90	34.50	13.10	11.00	3.80	4.40		
23	5.00	36.90	36.90	175.20	1974.00	1206.60	165.00	33.30	13.50	10.20	3.80	5.00		
24	8.00	26.60	31.60	273.40	1528.60	1222.60	151.10	30.50	13.10	9.10	3.80	4.70		
25	14.40	19.90	28.80	266.20	1172.90	1062.30	137.70	29.90	12.70	10.20	3.60	4.40		
26	8.70	24.00	49.00	216.90	1228.60	970.20	126.50	27.70	11.80	6.60	3.60	3.00		
27	7.60	33.30	425.30	258.00	1214.60	826.20	121.90	26.60	11.40	5.90	3.60	3.00		
28	6.30	154.10	489.60	223.60	1192.70	1094.90	115.60	25.50	11.00	5.60	3.80	3.30		
29	6.60	161.00	410.10	272.20	1056.60	1451.50	106.80	24.00	10.20	5.60	3.60	3.30		
30	12.70	223.60	193.00	197.30	779.40	1375.80	96.50	22.40	9.80	6.30		3.00		
31		263.90		312.70	890.10		91.50		9.80	6.30		3.00		
Total	176.00	1638.60	3285.80	4425.90	53939.50	40004.70	18493.00	1403.10	497.20	261.80	140.10	134.30	124400.00	**Ton**
Mean	5.90	52.90	109.50	142.80	1740.00	1333.50	596.50	46.80	16.00	8.40	4.80	4.30		
Max	14.40	263.90	489.60	312.70	4853.70	2621.50	2095.60	85.00	24.00	11.00	8.30	7.60	4853.70	
Min	3.80	8.00	28.80	34.50	770.90	821.00	91.50	22.40	9.80	5.60	3.00	3.00	3.00	

WATER YEAR : 2011

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

Ban Nam Fua **Amphoe** Nakhon Thai **Changwat** Phitsanulok

Drainge Area	317 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2001-Cont'd
Actual Measurement	2001-Cont'd
Using Rating Curve Water Year	2001-2011
Number of observation	157
R-Square	0.7254
Remarks	Continued Sediment Station

$$QS = 13.2740\ QW^{1.60890}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	11.20	61.80	11397.00	310.90	619.60	104.20	40.50	31.20	17.80	15.50		
2	0.00	0.30	3.00	160.10	1351.70	14454.00	513.60	104.20	40.50	31.20	17.80	15.50		
3	0.00	0.30	11.20	99.60	218.30	1302.80	1426.10	99.60	40.50	31.20	17.80	15.50		
4	0.30	0.00	3.00	69.60	138.70	884.60	4048.10	99.60	40.50	31.20	17.80	15.50		
5	0.00	1.00	20.20	61.80	95.10	310.90	619.60	95.10	40.50	31.20	17.80	15.50		
6	0.00	0.00	13.30	104.20	65.60	310.90	310.90	95.10	40.50	31.20	17.80	15.50		
7	0.00	0.30	11.20	86.20	54.30	684.90	310.90	90.60	40.50	31.20	17.80	15.50		
8	0.00	0.30	9.30	77.70	77.70	959.00	310.90	90.60	40.50	31.20	17.80	15.50		
9	0.00	1.90	7.50	69.60	160.10	684.90	310.90	90.60	37.30	31.20	17.80	15.50		
10	0.00	0.30	7.50	95.10	224.50	782.30	310.90	86.20	37.30	31.20	17.80	15.50		
11	0.30	0.30	11.20	82.00	138.70	310.90	310.90	86.20	34.20	31.20	17.80	20.20		
12	0.00	1.90	376.70	69.60	12461.20	853.40	303.90	86.20	34.20	25.50	15.50	86.20		
13	0.00	3.00	28.30	47.20	1605.70	1114.50	250.00	86.20	34.20	25.50	15.50	54.30		
14	0.00	1.90	13.30	25.50	369.10	812.50	224.50	82.00	34.20	25.50	15.50	31.20		
15	0.00	0.30	13.30	15.50	310.90	1035.70	212.20	82.00	34.20	25.50	15.50	212.20		
16	0.00	1.00	7.50	13.30	310.90	18170.90	212.20	82.00	34.20	22.80	15.50	37.30		
17	0.00	0.30	4.40	11.20	310.90	1658.50	194.20	77.70	34.20	22.80	15.50	22.80		
18	0.00	1.00	28.30	22.80	310.90	713.60	194.20	77.70	34.20	22.80	15.50	22.80		
19	0.00	58.00	13.30	15.50	16146.40	310.90	182.60	77.70	34.20	22.80	15.50	20.20		
20	0.00	423.20	11.20	61.80	2859.60	310.90	182.60	73.60	31.20	20.20	15.50	20.20		
21	0.00	160.10	9.30	176.80	310.90	6729.00	171.20	69.60	31.20	20.20	15.50	20.20		
22	0.30	69.60	13.30	99.60	310.90	1401.10	171.20	69.60	31.20	20.20	15.50	20.20		
23	0.00	34.20	13.30	113.70	310.90	1605.70	171.20	69.60	31.20	20.20	15.50	20.20		
24	0.00	15.50	11.20	149.30	310.90	853.40	160.10	65.60	31.20	20.20	15.50	17.80		
25	0.00	65.60	9.30	113.70	310.90	853.40	160.10	65.60	31.20	17.80	15.50	17.80		
26	0.30	99.60	592.40	77.70	310.90	916.20	160.10	58.00	31.20	17.80	15.50	17.80		
27	0.00	47.20	407.50	176.80	310.90	4235.80	160.10	54.30	31.20	17.80	15.50	17.80		
28	0.00	22.80	496.70	144.00	310.90	1766.00	113.70	50.70	31.20	17.80	15.50	15.50		
29	0.00	28.30	1046.80	138.70	310.90	959.00	113.70	47.20	31.20	17.80	15.50	13.30		
30	0.00	11.20	1013.50	5.80	310.90	1502.10	128.50	34.20	31.20	17.80		13.30		
31		28.30		1137.40	310.90		128.50		31.20	17.80		13.30		
Total	1.20	1077.70	4218.20	3583.60	52027.20	66798.70	12687.20	2351.50	1080.80	762.00	474.80	869.60	145932.50	**Ton**
Mean	0.00	34.80	140.60	115.60	1678.30	2226.60	409.30	78.40	34.90	24.60	16.40	28.10		
Max	0.30	423.20	1046.80	1137.40	16146.40	18170.90	4048.10	104.20	40.50	31.20	17.80	212.20	18170.90	
Min	0.00	0.00	3.00	5.80	54.30	310.90	113.70	34.20	31.20	17.80	15.50	13.30	0.00	

WATER YEAR : 2011

NAN RIVER BASIN

Lam Nam Khan at Ban Na Chan , Phitsanulok (N.59)

Lat 17 - 01 - 49 N Long 100 - 50 - 35 E

Location : on left bank at Ban Na Chan.

Ban Na Chan **Amphoe** Nakhon Thai **Changwat** Phitsanulok

Drainge Area	415 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2001-Cont'd
Actual Measurement	2001-Cont'd
Using Rating Curve Water Year	2011
Number of observation	20
R-Square	0.9092
Remarks	Continued Sediment Station

$$QS = 3.5589\ QW^{1.63020}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.10	112.10	221.40	139.70	753.00	3083.80	432.50	35.50	6.90	3.60	2.50	0.80		
2	1.10	118.80	182.70	403.20	703.10	1203.60	541.10	30.00	6.90	3.60	2.50	0.80		
3	1.10	18.00	62.50	210.00	818.50	5962.10	425.10	26.20	6.90	3.60	7.70	1.10		
4	1.10	20.20	81.00	300.60	462.50	1181.70	2496.90	26.20	6.20	3.00	9.30	0.80		
5	1.10	323.50	147.00	164.50	256.80	776.20	955.50	24.90	6.20	3.00	6.20	0.80		
6	1.10	316.90	159.40	137.30	154.40	10726.30	1063.60	24.90	6.20	3.00	3.60	0.80		
7	0.50	421.40	204.50	71.50	101.30	11088.10	565.60	24.90	6.20	3.00	3.00	0.80		
8	0.50	307.10	81.00	66.00	81.00	8820.70	388.80	23.70	6.20	3.00	3.00	0.80		
9	1.10	101.30	62.50	64.30	247.70	3837.40	294.20	22.50	6.20	3.00	2.50	0.80		
10	0.80	69.70	55.60	64.30	164.50	3036.30	215.70	22.50	6.20	2.50	2.50	1.10		
11	0.80	114.30	44.40	134.90	238.80	1304.40	144.50	21.30	5.50	2.50	2.50	11.00		
12	2.00	54.00	42.80	57.30	320.20	1181.70	81.00	20.20	5.50	2.50	2.50	11.00		
13	1.50	27.40	60.70	137.30	210.00	1681.20	250.70	18.00	5.50	2.50	2.50	3.00		
14	1.10	27.40	374.70	109.90	188.10	1619.00	159.40	16.90	4.80	2.50	2.00	2.00		
15	0.80	156.90	62.50	262.90	188.10	1361.70	241.80	15.90	4.80	3.00	2.00	1.50		
16	0.80	31.40	75.30	762.30	127.90	2585.20	385.30	14.80	4.20	3.00	2.00	2.00		
17	0.80	27.40	360.70	347.00	307.10	6199.20	105.60	14.80	4.20	2.50	2.00	3.00		
18	0.50	62.50	1154.40	159.40	470.20	1509.20	107.70	14.80	4.20	2.00	2.00	2.00		
19	0.50	221.40	350.40	1338.70	425.10	986.00	101.30	13.80	3.60	2.50	2.00	1.50		
20	4.20	970.70	196.20	569.70	2053.20	721.10	79.10	13.80	3.60	3.00	2.00	1.10		
21	1.10	196.20	109.90	396.00	920.50	1074.20	73.40	11.00	3.00	4.20	2.00	1.10		
22	0.80	81.00	95.00	291.00	481.70	582.10	64.30	9.30	3.00	3.60	1.50	1.10		
23	147.00	42.80	93.00	241.80	303.80	1016.80	62.50	9.30	3.00	3.00	1.50	0.80		
24	9.30	75.30	62.50	218.50	221.40	1021.90	57.30	9.30	3.00	2.50	1.50	0.80		
25	3.60	201.70	79.10	188.10	144.50	1006.50	55.60	8.50	2.50	2.50	1.50	0.80		
26	4.80	118.80	79.10	218.50	218.50	730.20	50.70	8.50	2.50	2.50	1.50	0.80		
27	6.20	201.70	75.30	244.70	513.10	1327.20	49.10	8.50	2.50	2.50	1.50	0.80		
28	2.50	481.70	149.40	330.10	215.70	2183.50	47.50	7.70	2.50	2.50	1.10	0.80		
29	8.50	1293.00	93.00	281.50	182.70	1281.70	47.50	7.70	2.50	2.50	1.10	0.80		
30	4.20	685.30	71.50	353.80	2026.20	658.90	42.80	7.70	2.50	2.50		0.80		
31		367.70		253.70	8654.60		38.40		2.50	2.50		0.80		
Total	210.50	7247.60	4887.50	8518.50	22154.20	79747.90	9624.50	513.10	139.50	88.10	77.50	56.10	133265.00	**Ton**
Mean	7.00	233.80	162.90	274.80	714.70	2658.30	310.50	17.10	4.50	2.80	2.70	1.80		
Max	147.00	1293.00	1154.40	1338.70	8654.60	11088.10	2496.90	35.50	6.90	4.20	9.30	11.00	11088.10	
Min	0.50	18.00	42.80	57.30	81.00	582.10	38.40	7.70	2.50	2.00	1.10	0.80	0.50	

WATER YEAR : 2011

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.

Ban Pha Khwang **Amphoe** Mueang **Changwat** Nan

Drainge Area	3,476 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1994-Cont'd
Actual Measurement	1994-Cont'd
Using Rating Curve Water Year	2011
Number of observation	36
R-Square	0.8619
Remarks	Continued Sediment Station

$$QS = 0.01400\ QW^{2.40970}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.30	146.30	492.00	48601.10	18420.20	8863.90	24726.60	1248.00	84.70	27.60	17.00	8.00		
2	3.30	54.90	198.70	22503.70	28499.60	7615.90	21613.40	1053.30	84.70	27.60	15.20	6.90		
3	2.10	59.30	162.70	14111.10	28706.90	5335.50	11161.10	854.10	84.70	25.20	15.20	6.90		
4	2.10	332.60	146.30	11161.10	10923.50	8370.80	7524.50	444.90	79.00	25.20	15.20	6.90		
5	2.10	238.90	154.40	6394.10	10923.50	23972.00	5552.20	332.60	68.60	25.20	15.20	6.90		
6	1.80	658.50	901.60	4017.40	10007.50	27073.10	4201.30	283.50	54.90	25.20	15.20	6.90		
7	18.90	307.50	1661.90	2989.20	72399.70	48601.10	3499.30	271.90	46.80	25.20	13.60	6.90		
8	63.90	90.60	581.00	2146.60	66385.60	81998.50	3289.60	249.60	46.80	25.20	13.60	6.90		
9	17.00	54.90	699.40	2028.30	33038.80	49831.20	3238.30	228.40	43.00	25.20	13.60	8.00		
10	5.90	218.20	372.50	10923.50	33719.50	34214.60	2845.20	218.20	39.40	23.00	13.60	8.00		
11	8.00	1731.80	228.40	13170.40	22684.30	23415.00	2481.60	208.30	32.70	23.00	13.60	8.00		
12	8.00	415.10	208.30	5335.50	28499.60	13435.30	2146.60	208.30	32.70	23.00	12.00	9.20		
13	4.90	162.70	198.70	6077.80	23785.50	10342.60	1731.80	208.30	32.70	25.20	12.00	9.20		
14	5.90	146.30	146.30	67120.70	17318.50	10228.70	1527.10	208.30	32.70	23.00	12.00	8.00		
15	4.10	116.50	130.90	81998.50	12908.50	11891.80	1462.20	198.70	32.70	23.00	12.00	12.00		
16	4.10	116.50	116.50	78317.00	9270.40	16555.70	1951.60	180.20	32.70	25.20	12.00	13.60		
17	4.90	154.40	109.70	121848.10	18420.20	14386.90	1399.00	171.30	32.70	25.20	10.60	12.00		
18	5.90	2146.60	96.70	41874.00	16107.70	43859.40	1162.20	162.70	32.70	23.00	10.60	12.00		
19	5.90	1307.20	90.60	21967.00	29756.50	102382.40	1079.90	154.40	32.70	20.90	10.60	9.20		
20	4.10	1001.20	146.30	41039.50	97266.60	48907.00	901.60	138.50	32.70	20.90	10.60	9.20		
21	3.30	1876.60	138.50	32813.70	88355.40	76712.50	808.00	130.90	32.70	20.90	9.20	8.00		
22	2.70	741.80	116.50	30828.30	173787.90	56586.70	720.40	123.60	30.10	18.90	9.20	8.00		
23	2.70	171.30	90.60	20402.20	79533.20	30828.30	619.10	123.60	30.10	18.90	8.00	5.90		
24	13.60	96.70	96.70	30828.30	41316.50	24536.70	562.50	116.50	27.60	18.90	8.00	5.90		
25	50.80	295.30	1399.00	18904.60	31263.30	19562.00	492.00	116.50	27.60	17.00	8.00	4.90		
26	20.90	400.60	201682.70	9687.50	29969.10	18260.40	492.00	109.70	27.60	17.00	8.00	4.90		
27	8.00	249.60	561321.50	7894.10	24726.60	23599.90	492.00	109.70	30.10	15.20	8.00	4.90		
28	5.90	429.80	408289.50	8863.90	21613.40	13974.40	492.00	103.10	27.60	15.20	8.00	10.60		
29	6.90	619.10	105237.70	5699.60	13170.40	10228.70	460.30	96.70	27.60	15.20	8.00	9.20		
30	10.60	444.90	30182.60	4583.50	10457.30	9687.50	415.10	96.70	27.60	15.20		5.90		
31		599.90		9270.40	9582.20		415.10		27.60	17.00		4.90		
Total	301.60	15385.60	1315398.40	783400.80	1112817.90	875258.40	109463.60	8150.50	1275.80	676.40	337.80	247.80	4222715.50	**Ton**
Mean	10.10	496.30	43846.60	25271.00	35897.40	29175.30	3531.10	271.70	41.20	21.80	11.60	8.00		
Max	63.90	2146.60	561321.50	121848.10	173787.90	102382.40	24726.60	1248.00	84.70	27.60	17.00	13.60	561321.50	
Min	1.80	54.90	90.60	2028.30	9270.40	5335.50	415.10	96.70	27.60	15.20	8.00	4.90	1.80	

WATER YEAR : 2011

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.

Ban Noen Phoem **Amphoe** Nakhon Thai **Changwat** Phitsanulok

Drainge Area	152 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2001-Cont'd
Actual Measurement	2001-Cont'd
Using Rating Curve Water Year	2001-2011
Number of observation	143
R-Square	0.7591
Remarks	Continued Sediment Station

$$QS = 12.2970\ QW^{1.43680}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.40	19.90	16.00	56.80	690.40	90.10	197.30	16.00	2.20	0.40	0.00	0.00		
2	0.40	110.20	16.00	124.20	235.30	80.60	326.60	14.10	1.20	0.00	0.00	0.00		
3	0.40	5.90	16.00	56.80	385.50	3221.10	3444.20	14.10	1.20	0.00	0.00	0.00		
4	0.40	100.00	54.00	106.70	218.10	226.60	745.10	12.30	1.20	0.00	3.30	0.00		
5	0.00	45.90	62.50	56.80	153.70	149.90	270.70	12.30	1.20	0.00	2.20	0.00		
6	0.00	40.70	35.70	43.30	124.20	1926.20	222.40	12.30	1.20	0.00	1.20	0.00		
7	0.40	35.70	28.60	33.30	96.70	1716.30	173.10	10.60	1.20	0.00	0.40	0.00		
8	0.00	19.90	17.90	24.20	74.40	690.40	146.10	10.60	1.20	0.00	0.40	0.00		
9	0.40	35.70	26.40	19.90	83.70	360.60	120.60	10.60	2.20	0.00	0.00	0.00		
10	0.40	19.90	16.00	38.20	62.50	996.40	100.00	8.90	1.20	0.00	0.00	1.20		
11	0.40	16.00	12.30	17.90	411.00	302.90	83.70	8.90	1.20	0.00	0.00	14.10		
12	1.20	4.50	43.30	14.10	193.20	523.00	74.40	8.90	0.40	0.00	0.00	7.40		
13	0.40	7.40	28.60	12.30	131.40	1506.40	185.10	7.40	1.20	0.00	0.00	8.90		
14	0.40	3.30	62.50	177.10	100.00	1312.20	86.90	7.40	1.20	0.00	0.00	3.30		
15	0.40	8.90	19.90	59.60	93.40	890.60	68.40	5.90	1.20	0.00	0.00	226.60		
16	0.40	12.30	68.40	127.80	62.50	1926.20	59.60	5.90	0.40	0.40	0.00	16.00		
17	0.40	3.30	51.20	65.40	239.60	672.40	51.20	5.90	0.40	0.00	0.00	4.50		
18	0.40	3.30	146.10	56.80	832.70	302.90	48.50	5.90	0.40	0.00	0.00	4.50		
19	0.00	201.40	80.60	832.70	763.60	832.70	43.30	5.90	0.40	0.00	0.00	2.20		
20	0.00	181.00	56.80	213.90	2853.30	226.60	40.70	4.50	0.40	3.30	0.00	0.40		
21	0.00	43.30	48.50	142.40	1126.50	763.60	38.20	4.50	0.40	3.30	0.00	0.40		
22	0.00	17.90	51.20	153.70	293.60	336.20	33.30	4.50	0.40	3.30	0.00	0.40		
23	0.00	10.60	26.40	100.00	201.40	284.40	30.90	4.50	0.40	2.20	0.00	0.00		
24	0.40	7.40	19.90	71.40	157.50	345.90	28.60	4.50	0.40	0.40	0.00	0.00		
25	0.40	7.40	35.70	185.10	124.20	239.60	24.20	3.30	0.40	0.40	0.00	0.00		
26	0.40	22.00	157.50	218.10	131.40	181.00	24.20	3.30	0.00	0.40	0.00	0.00		
27	0.00	56.80	96.70	124.20	90.10	331.40	22.00	3.30	0.00	0.40	0.00	0.00		
28	0.00	80.60	83.70	62.50	77.50	910.20	19.90	3.30	0.00	0.40	0.00	0.00		
29	2.20	71.40	74.40	62.50	59.60	996.40	17.90	2.20	0.40	0.00	0.00	0.00		
30	4.50	35.70	43.30	30.90	83.70	248.40	17.90	2.20	0.00	0.00		0.00		
31		26.40		120.60	169.20		16.00		0.00	0.00		0.00		
Total	14.70	1254.70	1496.10	3409.20	10319.90	22591.20	6761.00	224.00	23.60	14.90	7.50	289.90	46406.70	**Ton**
Mean	0.50	40.50	49.90	110.00	332.90	753.00	218.10	7.50	0.80	0.50	0.30	9.40		
Max	4.50	201.40	157.50	832.70	2853.30	3221.10	3444.20	16.00	2.20	3.30	3.30	226.60	3444.20	
Min	0.00	3.30	12.30	12.30	59.60	80.60	16.00	2.20	0.00	0.00	0.00	0.00	0.00	

WATER YEAR : 2011

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.

Ban Wang Pla Kod **Amphoe** Thong Saen Khan **Changwat** Uttaradit

Drainge Area	225 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2005-Cont'd
Actual Measurement	2005-Cont'd
Using Rating Curve Water Year	2011
Number of observation	30
R-Square	0.9573
Remarks	Continued Sediment Station

$$QS = 3.6686\ QW^{1.45530}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	8.60	113.90	94.20	19.90	7246.80	327.50	697.10	29.60	10.10	2.20	1.00	2.20		
2	6.60	77.00	38.20	23.70	5303.80	406.40	1165.90	29.60	10.10	2.20	0.60	2.20		
3	7.30	33.80	20.80	49.80	4537.00	453.80	1444.00	29.60	8.60	1.70	1.00	1.70		
4	23.70	15.60	32.70	53.40	5634.60	242.20	1464.80	21.80	6.60	1.70	3.10	1.70		
5	5.40	18.10	112.40	22.70	2720.50	432.30	1044.90	22.70	6.00	1.70	7.30	1.70		
6	7.30	15.60	110.80	13.10	1149.70	1358.30	724.80	19.90	6.00	1.70	8.60	1.70		
7	3.10	10.80	54.70	10.80	815.80	1314.40	495.30	19.90	6.00	1.70	8.60	1.70		
8	4.80	9.30	25.60	10.10	594.80	672.40	369.70	18.10	6.00	1.70	9.30	1.70		
9	58.40	7.90	15.60	10.10	446.60	589.60	270.50	19.00	6.00	26.60	10.10	26.60		
10	103.10	13.10	12.30	34.90	345.10	3403.20	234.40	20.80	6.00	24.60	10.10	25.60		
11	49.80	10.10	10.80	27.60	992.10	3655.00	213.10	29.60	6.00	22.70	10.10	22.70		
12	29.60	8.60	10.80	26.60	3636.50	1331.20	167.30	17.30	6.00	20.80	10.10	21.80		
13	30.60	7.30	10.80	67.50	2707.80	1866.30	207.40	19.00	6.00	15.60	10.10	16.40		
14	29.60	6.60	15.60	81.20	2241.00	4389.10	470.80	18.10	6.00	13.90	8.60	13.90		
15	19.00	13.90	10.80	85.50	2272.90	3389.60	371.90	16.40	5.40	13.10	6.00	13.10		
16	15.60	45.00	10.10	88.30	645.30	2644.80	522.80	15.60	5.40	12.30	4.80	12.30		
17	10.80	46.20	13.10	213.10	898.10	1740.10	270.50	14.70	5.40	11.60	4.80	11.60		
18	4.80	81.20	20.80	532.90	2365.20	1204.90	232.40	14.70	5.40	10.80	3.70	10.80		
19	2.20	126.70	12.30	163.70	3016.50	833.20	172.60	13.90	5.40	8.60	3.10	9.30		
20	163.70	213.10	10.10	113.90	2413.80	787.00	167.30	13.90	4.80	6.00	3.70	7.30		
21	31.70	136.50	7.90	198.10	2118.90	839.10	136.50	13.90	4.80	4.80	5.40	5.40		
22	14.70	40.40	7.90	238.30	1464.80	1130.40	85.50	13.90	4.80	4.20	7.30	4.20		
23	57.20	19.90	7.30	207.40	792.70	2087.80	77.00	13.90	4.80	4.80	7.90	4.80		
24	198.10	13.10	7.30	207.40	510.30	1389.00	64.90	13.90	4.20	5.40	8.60	5.40		
25	165.50	10.10	7.90	187.00	362.90	850.80	57.20	13.10	3.70	5.40	9.30	5.40		
26	54.70	10.80	22.70	125.00	369.70	615.90	47.40	13.10	3.70	5.40	9.30	5.40		
27	28.60	46.20	158.50	123.40	381.00	520.30	32.70	13.10	3.10	4.80	9.30	5.40		
28	19.00	148.20	126.70	115.50	1051.10	2607.30	46.20	13.10	3.10	3.10	9.30	3.70		
29	15.60	59.70	64.90	306.00	736.00	2025.90	40.40	13.10	3.10	1.70	8.60	1.70		
30	13.90	198.10	46.20	201.80	483.00	1351.50	29.60	13.10	3.10	1.30		1.30		
31		378.80		165.50	495.30		22.70		3.10	1.00		1.00		
Total	1183.00	1935.60	1099.80	3724.20	58749.60	44459.30	11347.60	538.40	168.70	243.10	199.70	249.70	123898.70	**Ton**
Mean	39.40	62.40	36.70	120.10	1895.10	1482.00	366.10	17.90	5.40	7.80	6.90	8.10		
Max	198.10	378.80	158.50	532.90	7246.80	4389.10	1464.80	29.60	10.10	26.60	10.10	26.60	7246.80	
Min	2.20	6.60	7.30	10.10	345.10	242.20	22.70	13.10	3.10	1.00	0.60	1.00	0.60	

WATER YEAR : 2011

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.

Ban Bang Phutsa **Amphoe** Mueang **Changwat** Sing Buri

Drainge Area	118,752 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1950-Cont'd
Actual Measurement	1950-Cont'd
Using Rating Curve Water Year	2011
Number of observation	29
R-Square	0.8544
Remarks	Continued Sediment Station

$$QS = 0.3906\ QW^{1.37620}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	278.70	720.00	6320.30	1512.90	7792.50	15350.30	20826.00	21307.80	5505.30	1421.10	2921.00	3287.70		
2	289.10	894.90	6663.40	1818.00	7840.80	16134.70	20746.00	21227.30	4446.20	1565.60	2882.20	3056.60		
3	307.60	825.70	6706.70	2014.40	7937.70	16462.80	20626.10	21106.70	3555.80	1574.50	3029.20	2895.10		
4	299.60	938.90	6663.40	2135.50	8230.50	16682.40	20706.00	20946.20	2818.00	1445.40	3273.10	2696.20		
5	320.90	1027.10	6277.80	2508.30	8744.70	16829.30	20826.00	20586.20	2352.60	1199.70	3464.50	2600.30		
6	304.90	1146.90	6299.00	4091.10	9280.90	17198.10	20946.20	20426.80	2145.70	1168.90	3665.40	2508.30		
7	297.00	1061.90	6577.20	5268.70	9416.30	17830.00	21026.40	20267.70	2034.40	1285.40	3797.10	2474.70		
8	276.10	938.90	7171.50	5628.60	8108.20	18392.70	21106.70	19950.50	1717.60	1627.70	3780.50	2396.80		
9	228.20	1090.10	8230.50	5190.80	7889.20	18929.30	21307.80	19477.40	1230.70	1974.40	3830.20	2419.00		
10	208.80	1574.50	8132.60	4214.50	7865.00	19595.40	21428.70	19046.40	1118.40	2289.60	3714.60	2463.50		
11	218.40	1744.80	7865.00	3317.00	8108.20	20108.90	21549.80	18581.30	1154.00	2463.50	3813.60	2474.70		
12	218.40	1699.50	7816.60	2720.30	8480.00	20906.10	21509.50	18167.00	1254.10	2612.20	3681.80	2530.80		
13	211.20	1309.10	7147.90	2895.10	8798.00	21630.70	21428.70	17755.30	1269.70	2268.80	3830.20	2720.30		
14	192.80	972.00	6024.20	3185.80	9119.10	21914.30	21388.40	17235.10	1104.20	2064.60	3847.40	2805.20		
15	184.70	1041.00	4997.20	3070.40	9470.60	21954.90	21348.10	16426.20	1027.10	1994.40	3847.40	2805.20		
16	194.90	1556.80	4126.30	3747.50	9634.00	21954.90	21348.10	15595.00	1207.40	2094.90	3847.40	2756.60		
17	180.60	2419.00	3243.90	4536.20	10184.20	21995.50	21428.70	14898.60	1461.70	2014.40	3797.10	2648.10		
18	182.60	3618.30	2519.50	5405.90	10814.00	22036.10	21590.30	14313.60	1735.70	2217.30	3587.00	2508.30		
19	188.70	4882.80	1885.40	5752.80	11724.90	21995.50	21671.10	13738.80	1895.20	2084.80	3665.40	2248.20		
20	196.90	5327.40	1836.40	5268.70	12383.40	21954.90	21630.70	13305.40	2044.50	2054.50	3618.30	1914.90		
21	240.60	5074.40	1708.60	5327.40	12552.80	21995.50	21630.70	12996.00	1914.90	2648.10	3797.10	1478.10		
22	255.60	4736.00	1846.20	5546.30	12620.70	21954.90	21630.70	12263.00	1681.50	2636.20	3847.40	958.30		
23	273.50	4681.30	1855.90	6512.70	12654.70	22036.10	21549.80	11665.50	1348.80	2576.50	3797.10	655.30		
24	278.70	4091.10	1790.50	6663.40	12620.70	21995.50	21509.50	10988.70	1146.90	2542.00	3681.80	405.50		
25	289.10	3665.40	1744.80	6796.50	12202.80	21833.20	21509.50	10184.20	1041.00	2732.40	3649.70	357.50		
26	291.70	3317.00	1548.00	7384.80	12172.80	21711.60	21509.50	9416.30	1013.20	2933.90	3587.00	329.70		
27	291.70	3361.10	1504.20	7913.50	12323.10	21469.10	21509.50	8532.70	1069.00	2869.40	3509.10	326.70		
28	307.60	4196.80	1495.50	8181.50	12417.20	21227.30	21509.50	7768.30	837.10	2805.20	3434.90	323.60		
29	478.60	4699.50	1405.00	8230.50	12586.70	21146.90	21509.50	7053.70	820.00	2744.50	3287.70	318.30		
30	753.00	4997.20	1364.80	8157.00	13133.30	20946.20	21509.50	6341.60	958.30	2856.50		318.30		
31		5587.40		7889.20	14519.30		21428.70		1230.70	2793.10		315.60		
Total	8240.20	83196.80	132768.30	152885.30	321626.30	606173.10	661245.70	461569.30	54139.70	67559.50	104485.20	57997.40	2711887.30	**Ton**
Mean	274.70	2683.80	4425.60	4931.80	10375.00	20205.80	21330.50	15385.60	1746.40	2179.30	3602.90	1870.90		
Max	753.00	5587.40	8230.50	8230.50	14519.30	22036.10	21671.10	21307.80	5505.30	2933.90	3847.40	3287.70	22036.10	
Min	180.60	720.00	1364.80	1512.90	7792.50	15350.30	20626.10	6341.60	820.00	1168.90	2882.20	315.60	180.60	

WATER YEAR : 2011

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 Kaco.

Ban Bang Keao **Amphoe** Mueang **Changwat** Ang Thong

Drainge Area	Flood Plain
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2006-Cont'd
Actual Measurement	2006-Cont'd
Using Rating Curve Water Year	2011
Number of observation	29
R-Square	0.8255
Remarks	Continued Sediment Station

$$QS = 0.2758\ QW^{1.48900}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	186.70	378.60	7367.30	1188.80	9963.80	21201.10	28884.50	29692.70	9215.30	1565.20	3011.10	3116.10		
2	212.30	378.60	8216.20	1607.50	10164.20	22559.70	28811.40	29545.20	7763.00	1678.80	2969.40	2927.90		
3	230.10	451.20	8471.60	1869.00	10366.00	23266.40	28884.50	29545.20	6565.10	1736.60	3137.30	2784.30		
4	252.90	551.60	8618.60	2112.00	10691.60	23786.00	29324.40	29324.40	5553.90	1621.70	3308.10	2527.10		
5	252.90	608.40	7865.30	2332.50	11352.50	23981.90	29618.90	28738.30	4805.40	1359.30	3906.20	2396.80		
6	290.00	658.40	7729.70	3658.60	11941.40	24506.70	29766.60	28592.40	4299.20	1214.50	4159.10	2221.30		
7	278.70	727.20	8004.10	5405.60	12068.90	25300.90	29988.40	28519.50	4066.50	1201.60	4393.40	2174.20		
8	243.70	650.00	8545.00	6191.00	10773.50	26170.60	30359.50	28156.10	3725.60	1454.20	4417.10	2065.70		
9	262.20	658.40	9923.80	6037.20	9685.30	26931.90	30508.30	27577.80	3137.30	1809.70	4393.40	2112.00		
10	273.20	967.20	10325.60	4964.60	9606.20	27938.70	30657.30	27003.40	2763.90	2221.30	4182.30	2112.00		
11	262.20	1240.50	9804.30	3680.90	9804.30	28592.40	30657.30	26372.70	2683.10	2429.10	4135.90	2174.20		
12	243.70	1266.60	9488.00	2825.10	10366.00	29692.70	30657.30	25835.00	2663.00	2743.70	3974.70	2268.70		
13	252.90	1032.10	8325.30	2643.00	10814.50	30285.10	30582.80	25300.90	2623.00	2445.40	3997.60	2461.70		
14	170.20	727.20	7139.60	2990.20	11310.80	30508.30	30582.80	24638.50	2412.90	2158.60	3997.60	2643.00		
15	85.70	727.20	6221.90	2990.20	11772.20	30433.80	30508.30	23720.90	2221.30	1943.90	3906.20	2784.30		
16	92.30	1010.10	4937.90	3503.80	12111.50	30433.80	30508.30	22559.70	2237.10	2004.50	3906.20	2603.10		
17	99.00	1751.20	3793.00	4346.20	13001.60	30210.90	30582.80	21568.80	2380.60	1913.80	3860.80	2461.70		
18	154.20	2927.90	2886.70	5524.10	14164.70	29840.50	30582.80	20957.00	2583.20	1989.30	3592.00	2316.50		
19	166.10	4704.30	2237.10	6377.10	15374.90	29766.60	30582.80	20202.90	2723.40	2019.70	3636.40	2004.50		
20	154.20	5915.20	1913.80	5945.60	16242.00	29766.60	30433.80	19467.50	2804.60	1974.10	3503.80	1736.60		
21	203.70	5884.80	1565.20	5824.10	17019.90	29766.60	30433.80	19131.10	2763.90	2035.00	3680.90	1240.50		
22	248.20	5583.70	1509.40	6067.90	17334.40	29692.70	30433.80	18298.60	2445.40	2221.30	3793.00	847.60		
23	284.30	5098.50	1509.40	7042.80	17334.40	29545.20	30359.50	17650.80	2174.20	2527.10	3793.00	496.70		
24	301.30	4779.10	1495.50	7663.40	17334.40	29471.60	30136.70	16759.30	1898.80	2527.10	3680.90	290.00		
25	273.20	4066.50	1426.90	7865.30	17019.90	29471.60	30136.70	15628.30	1751.20	2763.90	3592.00	257.50		
26	324.50	3636.40	1386.20	8545.00	16915.50	29324.40	30136.70	14741.50	1664.50	2927.90	3503.80	273.20		
27	273.20	3329.70	1253.50	9370.20	16863.40	29250.90	30136.70	13642.60	1607.50	2927.90	3416.40	312.80		
28	174.20	4089.60	1076.50	9963.80	16759.30	29177.50	30136.70	12598.50	1413.30	2866.10	3373.00	262.20		
29	178.30	5018.00	1032.10	10325.60	17124.50	29104.20	30136.70	11603.70	1253.50	2866.10	3222.30	239.10		
30	336.30	5613.60	1032.10	10366.00	18023.90	29030.90	30062.50	10487.70	1240.50	2886.70		208.00		
31		6129.30		10204.50	19749.30		29840.50		1413.30	2845.60		182.50		
Total	6760.40	80561.10	155101.60	169431.60	423054.90	839010.20	934433.20	667861.10	96853.50	66879.70	108443.90	52501.80	3600893.00	**Ton**
Mean	225.30	2598.70	5170.10	5465.50	13646.90	27967.00	30143.00	22262.00	3124.30	2157.40	3739.40	1693.60		
Max	336.30	6129.30	10325.60	10366.00	19749.30	30508.30	30657.30	29692.70	9215.30	2927.90	4417.10	3116.10	30657.30	
Min	85.70	378.60	1032.10	1188.80	9606.20	21201.10	28811.40	10487.70	1240.50	1201.60	2969.40	182.50	85.70	

WATER YEAR : 2011

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

Ban Bang Luang **Amphoe** Sanphaya **Changwat** Chai Nat

Drainge Area	117,187 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1953-Cont'd
Actual Measurement	1953-Cont'd
Using Rating Curve Water Year	2011
Number of observation	26
R-Square	0.8928
Remarks	Continued Sediment Station

$$QS = 0.2628\ QW^{1.47060}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	188.30	748.50	7509.20	1650.00	9373.30	22652.20	42381.30	36804.50	4831.70	1470.50	3326.50	3818.70		
2	236.30	897.70	7712.00	1903.30	9473.10	23627.10	42589.40	36527.20	3691.50	1670.30	3326.50	3374.20		
3	239.00	949.40	7828.70	2024.00	9606.60	23955.00	42381.30	36158.50	2755.80	1569.40	3454.30	2861.10		
4	264.80	1047.70	7422.80	2134.70	10085.30	24350.40	42797.90	35699.40	2259.90	1421.80	4095.70	2725.90		
5	256.30	1109.70	7108.70	3406.20	11004.20	24482.70	43320.50	34695.80	1794.00	1101.90	3984.10	2711.00		
6	239.00	1279.00	7365.30	5378.10	11681.50	26019.90	43425.20	33881.60	1721.50	1133.30	4264.80	2725.90		
7	219.80	964.30	7828.70	6552.90	11378.90	27349.60	43425.20	33186.30	1609.50	1451.00	4436.20	2637.00		
8	182.00	1001.90	9174.90	6450.60	9043.30	28327.60	43740.00	32242.30	1063.10	1804.50	4417.00	2755.80		
9	154.80	1480.30	10303.50	5400.30	9707.10	29338.80	43950.30	31053.50	694.90	2247.30	4436.20	2651.70		
10	150.30	1975.40	9640.00	4151.80	9439.80	30464.50	43950.30	30058.80	825.60	2592.90	4189.40	2740.80		
11	150.30	1939.20	9439.80	3200.20	10085.30	32327.70	43845.10	29259.20	934.50	2755.80	4378.80	2921.80		
12	150.30	1529.60	8717.10	2755.80	10596.70	35242.10	43635.00	28327.60	1024.70	2906.60	4397.90	2952.40		
13	150.30	1063.10	7480.30	3454.30	10929.80	38107.40	43425.20	27349.60	979.30	2433.20	4639.70	2983.00		
14	150.30	927.10	6197.00	3406.20	11228.50	40317.90	43215.80	26290.30	804.30	2036.20	4513.00	3215.90		
15	150.30	1188.90	5026.20	3655.50	11681.50	42589.40	43111.20	24020.80	861.40	2159.60	4767.40	3137.60		
16	150.30	2048.50	3764.00	4660.90	12118.50	44688.70	43006.70	22523.20	1172.90	2234.70	4397.90	3075.50		
17	150.30	3390.20	2830.90	5773.40	13497.30	45963.70	43006.70	21119.80	1431.50	2060.70	4302.70	2876.20		
18	150.30	5026.20	2222.10	6771.10	14956.00	46391.20	43006.70	20024.40	1762.80	2418.80	4208.20	2725.90		
19	151.80	6046.40	1846.40	6578.60	16047.50	46498.30	42902.20	18743.10	1857.00	2272.50	4302.70	2433.20		
20	190.50	5971.50	1660.10	6021.40	17109.70	46823.70	42485.30	17974.90	2197.00	2285.20	4378.80	1891.30		
21	204.00	5601.80	1609.50	6247.40	17109.70	46823.70	42173.50	17378.60	1867.50	2375.90	4534.00	1354.60		
22	228.20	5091.60	1804.50	6911.10	16949.00	46605.40	41862.30	15890.10	1629.70	2725.90	4534.00	683.40		
23	236.30	5048.00	1903.30	8211.80	17056.00	46391.20	41448.70	14853.40	1149.10	2830.90	4359.80	349.90		
24	256.30	4283.80	1804.50	8152.50	16522.80	46391.20	40933.50	13544.50	1001.90	3106.50	4208.20	282.30		
25	256.30	3855.20	1680.50	8555.50	16047.50	46177.30	40420.30	11955.50	934.50	2815.80	4227.10	247.60		
26	250.40	3390.20	1629.70	9406.50	16258.20	45857.00	40011.20	10670.50	897.70	2891.40	4151.80	197.20		
27	253.20	3947.20	1490.10	10012.90	16522.80	45324.70	39298.60	9273.90	941.90	3075.50	4095.70	178.20		
28	337.20	5091.60	1383.30	10194.20	16842.10	44583.00	38893.30	8182.10	689.20	3106.50	3947.20	144.50		
29	724.00	5400.30	1326.10	10085.30	17002.50	44160.80	38590.20	7080.40	689.20	3294.70	3764.00	130.20		
30	724.00	5897.00	1307.20	9808.00	18853.70	43530.10	38107.40	6021.40	1078.60	2906.60		128.80		
31		6911.10		9373.30	21183.00		37268.20		1326.10	3278.90		128.80		
Total	7145.20	95102.40	147016.40	182287.80	419391.20	1135362.30	1302608.60	690791.20	46478.30	72434.80	122039.60	61040.40	4281698.50	**Ton**
Mean	238.20	3067.80	4900.50	5880.30	13528.70	37845.40	42019.60	23026.40	1499.30	2336.60	4208.30	1969.00		
Max	724.00	6911.10	10303.50	10194.20	21183.00	46823.70	43950.30	36804.50	4831.70	3294.70	4767.40	3818.70	46823.70	
Min	150.30	748.50	1307.20	1650.00	9043.30	22652.20	37268.20	6021.40	689.20	1101.90	3326.50	128.80	128.80	

WATER YEAR : 2011

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.

Ban Pang Makha **Amphoe** Khanu Woralaksaburi **Changwat** Kamphaeng Phet

Drainge Area	977 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1969-Cont'd
Actual Measurement	1969-Cont'd
Using Rating Curve Water Year	2011
Number of observation	32
R-Square	0.8912
Remarks	Continued Sediment Station

$$QS = 1.4890\ QW^{1.60060}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	22.10	39.90	70.20	24.80	84.80	107.60	382.00	372.50	20.80	12.60	6.50	4.50		
2	18.30	23.50	242.60	18.30	153.40	326.30	282.50	282.50	20.80	12.60	6.50	4.20		
3	16.00	1011.50	544.90	14.80	112.40	214.30	122.20	257.30	19.60	12.60	19.60	3.80		
4	14.80	93.70	581.30	19.60	112.40	164.40	2898.20	214.30	19.60	12.10	19.60	3.50		
5	13.70	50.10	411.00	63.20	77.40	137.50	3903.10	193.90	18.30	12.10	12.60	3.20		
6	16.00	70.20	353.70	42.40	63.20	102.90	2338.10	158.90	18.30	12.10	10.60	2.80		
7	22.10	89.20	308.50	30.50	50.10	89.20	3404.00	137.50	18.30	12.10	10.10	2.60		
8	24.80	132.30	1273.50	22.10	47.50	84.80	2198.30	127.20	22.10	11.60	9.60	2.30		
9	20.80	63.20	214.30	19.60	47.50	81.10	1139.60	112.40	20.80	11.60	9.60	2.30		
10	17.10	66.60	142.70	16.00	47.50	363.10	1121.00	102.90	20.80	11.10	8.60	2.00		
11	16.00	37.50	63.20	19.60	23.50	1580.20	959.70	84.80	19.60	11.10	9.10	2.00		
12	17.10	26.20	50.10	13.20	20.80	6750.80	911.60	73.70	19.60	11.10	8.20	1.50		
13	14.80	22.10	132.30	17.10	37.50	13205.90	790.30	66.60	19.60	10.60	7.70	1.50		
14	14.80	13.70	39.90	37.50	23.50	2806.70	2452.20	63.20	19.60	10.60	7.70	1.40		
15	13.70	4557.40	26.20	20.80	107.60	1536.50	1029.40	59.80	19.60	10.10	7.30	1.40		
16	13.70	1293.00	26.20	26.20	50.10	776.60	4557.40	56.50	19.60	10.10	7.30	1.30		
17	12.60	1695.60	23.50	18.30	89.20	420.90	5674.20	53.30	18.30	9.60	6.90	1.30		
18	11.10	532.90	23.50	13.70	164.40	228.30	5990.30	44.90	18.30	9.60	6.90	1.10		
19	9.10	282.50	23.50	12.10	93.70	326.30	3096.80	37.50	18.30	9.10	6.50	1.10		
20	7.70	89.20	19.60	11.10	93.70	344.50	1603.00	35.10	17.10	9.10	6.50	1.00		
21	9.10	70.20	18.30	19.60	102.90	265.60	1177.30	32.80	17.10	9.10	6.00	1.00		
22	10.10	42.40	18.30	35.10	73.70	391.60	1011.50	28.30	17.10	9.10	6.00	0.90		
23	9.60	37.50	14.80	47.50	53.30	975.90	959.70	26.20	16.00	9.10	5.60	0.90		
24	11.60	30.50	13.70	59.80	39.90	682.80	880.00	26.20	16.00	8.60	5.60	0.90		
25	22.10	37.50	13.20	28.30	44.90	2394.90	927.50	24.80	16.00	8.20	5.30	0.80		
26	13.20	452.00	12.10	37.50	59.80	521.00	818.10	23.50	14.80	7.70	5.30	0.80		
27	9.60	102.90	23.50	98.20	66.60	265.60	735.80	23.50	14.80	7.30	4.90	0.70		
28	9.10	127.20	47.50	63.20	556.90	631.30	631.30	22.10	14.80	6.90	4.90	0.70		
29	9.60	117.20	32.80	187.30	249.90	335.30	497.60	22.10	13.70	6.90	4.50	0.70		
30	16.00	102.90	23.50	77.40	326.30	265.60	631.30	22.10	13.70	6.90		0.70		
31		112.40		42.40	164.40		521.00		13.20	6.90		0.60		
Total	436.30	11423.00	4788.40	1157.20	3238.80	36377.50	53645.00	2786.40	556.20	308.20	235.50	53.50	115006.00	**Ton**
Mean	14.50	368.50	159.60	37.30	104.50	1212.60	1730.50	92.90	17.90	9.90	8.10	1.70		
Max	24.80	4557.40	1273.50	187.30	556.90	13205.90	5990.30	372.50	22.10	12.60	19.60	4.50	13205.90	
Min	7.70	13.70	12.10	11.10	20.80	81.10	122.20	22.10	13.20	6.90	4.50	0.60	0.60	

WATER YEAR : 2011

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.

Ban Mai Khlong Charoen **Amphoe** Mae Poen **Changwat** Nakhon Sawan

Drainge Area	453 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1998-Cont'd
Actual Measurement	1998-Cont'd
Using Rating Curve Water Year	2011
Number of observation	18
R-Square	0.7734
Remarks	Continued Sediment Station

$$QS = 6.8392\ QW^{0.81440}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.40	2.70	3.70	2.70	3.70	75.00	91.30	80.40	6.00	34.70	3.50	9.80		
2	1.20	2.50	3.50	2.90	3.70	75.00	90.40	80.40	5.70	34.70	3.30	9.10		
3	1.20	2.30	3.70	2.70	3.70	74.10	89.50	48.20	11.70	34.70	30.80	9.10		
4	1.20	2.90	3.70	4.50	3.70	90.40	93.20	47.50	12.90	34.70	30.20	9.10		
5	1.20	42.60	3.70	4.20	3.70	86.70	93.20	44.00	13.30	26.60	30.20	20.40		
6	1.00	24.80	4.50	3.70	3.70	84.80	92.20	44.00	13.30	26.00	29.60	19.80		
7	1.00	22.60	4.50	3.50	3.70	86.70	91.30	12.90	18.80	25.40	29.60	19.30		
8	1.00	20.40	4.50	3.50	3.70	84.80	92.20	11.30	20.40	10.20	29.00	19.30		
9	1.00	18.80	4.50	3.50	5.10	83.00	90.40	10.90	31.40	7.20	29.00	19.30		
10	1.00	15.00	5.10	3.10	5.10	93.20	91.30	10.20	31.40	6.30	28.40	18.30		
11	1.00	4.50	5.10	2.90	5.10	96.10	90.40	9.50	31.40	5.70	28.40	34.70		
12	1.00	3.30	5.40	2.90	5.10	111.40	90.40	9.10	31.40	5.40	28.40	41.30		
13	1.00	2.90	9.50	10.90	4.80	103.10	89.50	25.40	67.10	4.50	28.40	40.60		
14	1.00	2.70	16.60	8.70	4.80	75.90	90.40	26.00	66.30	4.80	6.80	0.00		
15	1.00	9.80	6.30	6.00	4.80	40.60	91.30	25.40	40.60	4.50	4.80	0.00		
16	1.00	6.30	5.10	5.40	5.10	68.90	105.10	25.40	40.00	4.20	3.70	0.00		
17	0.00	13.70	4.20	4.20	5.10	82.10	134.70	25.40	39.30	4.20	3.30	0.00		
18	0.00	6.30	4.50	4.20	5.10	99.10	163.30	10.90	39.30	3.90	3.30	0.00		
19	0.00	6.60	4.20	4.20	5.10	98.10	151.30	36.70	16.60	3.90	2.70	0.00		
20	0.00	4.50	3.70	3.90	5.10	98.10	130.50	36.70	15.00	5.40	2.30	0.00		
21	0.00	3.90	3.50	3.90	5.10	96.10	109.30	37.30	14.40	4.20	2.50	0.00		
22	0.00	3.50	3.50	3.70	5.10	102.10	95.10	32.10	14.40	3.90	1.70	0.00		
23	0.00	3.50	3.50	3.70	5.10	102.10	87.60	10.50	9.80	3.90	1.50	0.00		
24	0.00	3.10	3.10	4.20	5.10	99.10	83.90	9.10	7.60	3.90	1.40	0.00		
25	0.00	3.10	3.10	6.00	5.10	103.10	83.90	8.00	6.80	3.70	1.40	0.00		
26	0.00	10.50	3.10	6.30	5.10	95.10	83.00	7.60	6.60	3.70	1.40	0.00		
27	0.00	7.20	3.30	6.00	5.10	93.20	83.00	6.80	6.00	3.70	1.20	0.00		
28	0.00	5.70	3.10	5.40	5.10	99.10	83.00	6.60	36.00	3.70	1.20	0.00		
29	6.00	5.40	3.10	4.50	5.10	98.10	82.10	6.30	35.40	3.70	10.20	0.00		
30	3.10	5.10	2.90	4.20	5.10	91.30	82.10	6.30	35.40	3.70		0.00		
31		4.80		4.20	5.10		81.20		35.40	3.50		0.00		
Total	26.30	271.00	138.20	139.70	146.00	2686.40	3006.10	750.90	759.70	328.60	378.20	270.10	8901.20	**Ton**
Mean	0.90	8.70	4.60	4.50	4.70	89.50	97.00	25.00	24.50	10.60	13.00	8.70		
Max	6.00	42.60	16.60	10.90	5.10	111.40	163.30	80.40	67.10	34.70	30.80	41.30	163.30	
Min	0.00	2.30	2.90	2.70	3.70	40.60	81.20	6.30	5.70	3.50	1.20	0.00	0.00	

WATER YEAR : 2011

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.

Ban Don Yai **Amphoe** Mueang **Changwat** Uthai Thani

Drainge Area	3,454 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1998-Cont'd
Actual Measurement	1998-Cont'd
Using Rating Curve Water Year	2011
Number of observation	17
R-Square	0.9150
Remarks	Continued Sediment Station

$$QS = 10.8820\ QW^{1.11760}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.10	270.90	3200.10	17.10	558.30	497.90	3386.40	2079.40	114.30	2.60	0.00	0.00		
2	0.10	331.30	2161.00	21.00	400.80	574.90	3402.00	1912.10	100.40	2.00	0.00	0.00		
3	0.10	322.60	1346.00	22.30	318.20	916.10	3417.60	1776.50	84.40	1.50	0.00	0.00		
4	0.00	288.00	1011.60	86.60	322.60	882.20	3495.70	1631.60	66.50	1.00	0.00	0.00		
5	0.00	220.30	1508.50	340.00	266.60	1376.30	3778.10	1508.50	57.70	0.50	0.00	0.00		
6	0.00	224.40	1559.70	569.30	216.10	2114.40	4008.40	1406.70	48.40	0.00	0.00	0.00		
7	0.00	224.40	1580.20	503.40	161.90	2387.20	4208.20	1295.60	47.00	0.00	0.00	0.00		
8	0.00	224.40	2464.50	191.30	100.40	2938.10	4372.50	1165.60	45.50	0.00	0.00	0.00		
9	0.00	224.40	2999.50	188.00	107.30	2907.40	4409.00	1043.00	45.50	0.00	0.00	0.00		
10	0.00	220.30	2862.50	237.00	161.90	2555.00	4153.60	916.10	38.50	0.00	0.00	0.00		
11	0.00	204.50	1828.50	232.80	142.70	3370.90	3809.60	794.80	18.40	0.00	0.00	0.00		
12	0.00	201.20	959.20	98.10	140.30	4723.60	3605.20	662.30	6.70	0.00	0.00	0.00		
13	0.00	194.60	503.40	98.10	165.20	5652.00	3542.60	541.80	1.20	0.00	0.00	0.00		
14	0.00	188.00	326.90	470.70	375.10	5856.60	3433.20	432.90	0.80	0.00	0.00	0.00		
15	0.00	181.40	171.70	1011.60	361.90	6194.70	3511.30	340.00	1.40	0.00	0.00	0.00		
16	0.00	181.40	95.80	1621.30	406.10	6857.40	3730.90	266.60	3.70	0.00	0.00	0.00		
17	0.00	808.20	68.70	1998.20	922.80	6325.20	3917.90	220.30	5.60	0.00	0.00	0.00		
18	0.00	1518.70	45.50	1498.30	916.10	5464.40	4427.30	201.20	5.60	0.00	0.00	0.00		
19	0.00	1569.90	28.90	944.40	1157.20	4354.20	4640.70	201.20	3.70	0.00	0.00	0.00		
20	0.00	1123.90	26.30	629.60	1376.30	3899.80	4744.30	184.70	3.70	0.00	0.00	0.00		
21	0.00	922.80	27.60	400.80	1210.40	3827.70	4599.30	171.70	3.70	0.00	0.00	0.00		
22	0.00	855.20	31.70	331.30	1325.80	3809.60	4080.90	165.20	3.70	0.00	0.00	0.00		
23	0.00	835.00	31.70	322.60	1115.60	4080.90	3433.20	158.70	3.70	0.00	0.00	0.00		
24	0.00	140.30	30.30	331.30	569.30	4354.20	3122.80	152.30	3.70	0.00	0.00	0.00		
25	0.00	135.50	27.60	701.80	370.70	4445.70	2968.80	145.90	3.90	0.00	0.00	0.00		
26	95.80	270.90	23.60	1396.50	322.60	4409.00	2819.90	142.70	4.10	0.00	0.00	0.00		
27	105.00	1335.90	23.60	1325.80	245.40	4299.40	2692.60	137.90	4.10	0.00	0.00	0.00		
28	114.30	3045.70	21.00	996.30	245.40	3881.80	2593.90	135.50	4.10	0.00	0.00	0.00		
29	119.00	4482.30	18.40	649.20	207.80	3605.20	2503.30	133.10	4.10	0.00	0.00	0.00		
30	207.80	2284.40	17.10	366.30	443.70	3511.30	2387.20	126.00	4.10	0.00		0.00		
31		3277.60		335.60	662.30		2233.30		4.10	0.00		0.00		
Total	642.20	26308.40	25001.10	17936.60	15296.80	110073.10	111429.70	20049.90	742.30	7.60	0.00	0.00	327487.70	**Ton**
Mean	21.40	848.70	833.40	578.60	493.40	3669.10	3594.50	668.30	23.90	0.20	0.00	0.00		
Max	207.80	4482.30	3200.10	1998.20	1376.30	6857.40	4744.30	2079.40	114.30	2.60	0.00	0.00	6857.40	
Min	0.00	135.50	17.10	17.10	100.40	497.90	2233.30	126.00	0.80	0.00	0.00	0.00	0.00	

WATER YEAR : 2011

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.

Ban Pa **Amphoe** Kaeng Khoi **Changwat** Saraburi

Drainge Area	14,233 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1978-Cont'd
Actual Measurement	1978-Cont'd
Using Rating Curve Water Year	2011
Number of observation	39
R-Square	0.7639
Remarks	Continued Sediment Station

$$QS = 1.3139\ QW^{1.27170}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	101.00	91.00	77.20	185.30	2546.40	3398.40	10933.50	430.70	202.80	487.40	188.20	217.70		
2	98.50	91.00	74.00	260.30	2639.30	3463.10	10768.20	333.70	202.80	487.40	197.00	214.70		
3	88.50	63.90	72.00	451.00	2417.40	2884.30	11062.40	320.60	199.90	487.40	254.10	197.00		
4	83.60	51.50	77.20	482.60	1991.40	2686.10	11823.80	263.40	199.90	463.80	288.50	197.00		
5	57.80	47.20	75.60	482.60	1195.30	2630.00	12067.40	251.00	202.80	355.60	288.50	199.90		
6	62.30	53.00	74.00	482.60	559.40	2289.90	12961.80	254.10	188.20	248.00	260.30	188.20		
7	70.40	50.00	515.90	603.60	359.50	1848.70	12747.60	257.20	103.50	208.70	260.30	197.00		
8	65.80	47.20	1754.10	714.60	323.90	1385.30	11898.60	248.00	83.60	238.80	275.90	197.00		
9	67.30	48.60	969.60	866.70	248.00	1319.10	10786.50	241.80	101.00	257.20	314.20	202.80		
10	65.80	50.00	898.90	893.50	251.00	2217.70	9716.40	248.00	108.70	294.90	314.20	205.80		
11	59.30	53.00	1030.30	997.10	298.10	4635.20	8944.20	248.00	145.90	301.30	310.90	220.60		
12	54.80	62.30	1058.10	926.00	410.70	4883.50	8207.60	223.60	148.70	301.30	317.40	202.80		
13	111.20	70.40	1047.00	904.30	525.50	3900.30	6288.70	211.70	154.20	317.40	288.50	199.90		
14	185.30	81.20	1047.00	750.70	648.50	2742.40	4511.20	197.00	232.70	359.50	288.50	197.00		
15	191.10	96.00	1041.40	588.80	803.00	2023.40	3867.10	199.90	323.90	363.40	279.10	202.80		
16	191.10	72.00	1299.40	442.90	986.10	1418.70	3800.90	197.00	394.80	367.30	279.10	208.70		
17	188.20	70.40	1358.80	414.70	1144.00	1587.90	3647.50	197.00	390.80	359.50	279.10	226.70		
18	188.20	127.00	1345.50	398.70	1286.30	2244.70	3398.40	197.00	298.10	363.40	266.50	226.70		
19	165.40	182.50	1035.80	410.70	1425.40	3027.70	3669.30	211.70	279.10	320.60	272.80	226.70		
20	173.90	103.50	689.00	434.80	1458.90	4131.30	3789.90	214.70	257.20	314.20	272.80	194.00		
21	176.70	83.60	496.80	704.40	1533.30	4573.10	3757.00	214.70	241.80	320.60	269.60	191.10		
22	143.20	83.60	390.80	975.10	1560.60	5360.50	3757.00	214.70	241.80	323.90	269.60	182.50		
23	113.80	81.20	301.30	1319.10	1567.40	5898.10	3724.00	217.70	241.80	317.40	266.50	171.00		
24	119.10	68.90	294.90	1378.70	1567.40	7709.20	3484.60	214.70	241.80	307.70	248.00	173.90		
25	121.70	67.30	254.10	1418.70	1574.20	8968.40	2667.40	214.70	238.80	298.10	197.00	165.40		
26	86.00	67.30	263.40	1581.10	1684.40	9466.00	1372.00	208.70	310.90	275.90	191.10	188.20		
27	86.00	74.00	263.40	1817.30	1943.60	10640.10	803.00	208.70	330.40	238.80	188.20	199.90		
28	83.60	77.20	232.70	2023.40	2128.20	11228.60	745.60	205.80	406.70	235.70	214.70	199.90		
29	86.00	88.50	188.20	2079.70	2176.90	11228.60	719.70	205.80	473.20	232.70	220.60	191.10		
30	91.00	179.60	179.60	2262.80	2193.20	11043.90	699.20	205.80	492.10	197.00		188.20		
31		121.70		2417.40	2695.50		673.80		487.40	185.30		182.50		
Total	3376.60	2504.60	18406.00	29669.20	42142.80	140834.20	187294.30	7057.40	7925.30	9830.20	7561.20	6156.70	462758.50	**Ton**
Mean	112.60	80.80	613.50	957.10	1359.40	4694.50	6041.80	235.20	255.70	317.10	260.70	198.60		
Max	191.10	182.50	1754.10	2417.40	2695.50	11228.60	12961.80	430.70	492.10	487.40	317.40	226.70	12961.80	
Min	54.80	47.20	72.00	185.30	248.00	1319.10	673.80	197.00	83.60	185.30	188.20	165.40	47.20	

WATER YEAR : 2011

PASAK RIVER BASIN

Lam Sonthi at Ban Tha Yiam , Lop Buri (S.13)

Lat 15 - 20 - 23 N Long 101 - 22 - 30 E

Location : on left bank near Wat Tha Yiam.

Ban Tha Yiam **Amphoe** Lam Sonthi **Changwat** Lop Buri

Drainge Area	357 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1988-Cont'd
Actual Measurement	1988-Cont'd
Using Rating Curve Water Year	2011
Number of observation	20
R-Square	0.8354
Remarks	Continued Sediment Station

$$QS = 7.9791\ QW^{1.30020}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	46.80	183.10	2.90	152.90	12.10	22.20	455.60	6.20	3.40	5.40	9.90	77.70		
2	46.80	9.50	2.90	14.10	12.10	32.60	253.10	6.20	3.20	5.40	9.90	77.70		
3	45.90	5.80	6.20	6.60	72.50	12.10	312.70	5.80	3.20	5.80	9.90	77.70		
4	45.90	4.50	6.20	7.80	48.70	33.30	234.60	5.80	3.20	5.80	9.90	77.70		
5	46.80	3.40	4.70	4.20	36.80	14.10	152.90	5.40	3.20	5.40	9.90	77.70		
6	46.80	2.90	3.70	3.20	34.20	34.20	158.40	5.40	2.90	5.40	9.90	77.70		
7	44.00	2.70	4.50	2.70	34.20	32.60	113.00	5.40	2.90	5.40	9.90	76.30		
8	44.00	2.70	4.20	2.70	34.20	70.10	93.50	5.40	2.90	4.50	9.90	76.30		
9	41.30	2.70	3.70	2.40	34.20	589.50	90.60	5.80	2.90	4.50	9.90	76.30		
10	11.20	2.70	2.90	2.70	141.30	246.90	90.60	5.80	2.90	4.20	9.90	76.30		
11	3.20	2.70	2.70	3.90	97.90	535.50	11.70	5.40	2.90	4.20	9.90	76.30		
12	2.90	2.70	2.70	2.90	190.80	476.00	9.50	5.40	2.90	4.20	9.90	76.30		
13	2.70	2.70	2.40	2.70	190.80	298.20	29.70	5.40	2.90	4.20	9.90	74.90		
14	2.70	2.40	2.40	2.70	190.80	226.50	136.50	5.00	2.70	3.90	9.50	74.90		
15	2.70	3.40	2.40	13.50	284.70	295.80	158.40	5.00	2.70	3.90	9.50	71.30		
16	2.70	4.50	2.40	4.20	240.70	668.00	200.60	5.00	2.70	3.90	9.50	52.70		
17	2.40	2.70	2.20	3.40	981.00	827.70	120.70	5.00	2.70	4.50	9.50	47.80		
18	6.60	4.70	2.20	2.90	421.00	317.50	70.10	5.00	2.70	4.70	24.90	47.80		
19	42.20	3.90	2.00	2.90	286.80	196.70	57.20	5.00	2.70	4.70	34.20	47.80		
20	41.30	4.70	2.00	0.00	305.40	171.60	36.80	5.00	2.70	5.40	34.20	47.80		
21	40.40	3.20	2.00	44.00	291.10	320.00	34.20	4.50	2.70	5.40	34.20	45.00		
22	40.40	2.90	2.70	65.40	255.20	57.20	21.60	4.20	2.70	9.50	34.20	33.30		
23	43.10	3.20	2.20	116.10	242.80	46.80	19.60	4.20	2.70	10.30	34.20	27.60		
24	42.20	26.30	2.20	24.20	232.60	29.70	17.10	4.20	2.70	9.90	34.20	27.60		
25	41.30	26.90	2.20	0.20	246.90	20.90	16.50	4.20	2.40	9.90	34.20	27.60		
26	53.80	26.90	2.00	34.20	238.70	17.10	15.30	4.20	2.40	9.90	34.20	27.60		
27	66.50	26.90	2.00	23.60	152.90	366.90	10.80	3.90	2.40	9.90	60.70	27.60		
28	60.70	26.30	2.00	14.10	117.60	1298.80	9.50	4.20	2.40	9.90	79.10	47.80		
29	50.60	7.00	2.20	12.10	105.40	1294.40	9.50	4.20	2.40	9.90	79.10	47.80		
30	4.20	3.90	2.00	11.20	76.30	410.20	9.50	3.90	2.40	9.90		65.40		
31		0.00		11.70	76.30		9.00		2.40	9.90		64.20		
Total	972.10	407.90	86.80	595.20	5686.00	8963.10	2958.80	150.10	85.90	199.80	684.10	1830.50	22620.30	**Ton**
Mean	32.40	13.20	2.90	19.20	183.40	298.80	95.40	5.00	2.80	6.40	23.60	59.00		
Max	66.50	183.10	6.20	152.90	981.00	1298.80	455.60	6.20	3.40	10.30	79.10	77.70	1298.80	
Min	2.40	0.00	2.00	0.00	12.10	12.10	9.00	3.90	2.40	3.90	9.50	27.60	0.00	

WATER YEAR : 2011

PASAK RIVER BASIN

Pasak River at Ban Kaeng Sua Taen , Lop Buri (S.28)

Lat 14 - 50 - 21 N Long 101 - 04 - 08 E

Location : on left bank at Ban Kaeng Sua Taen.

Ban Kaeng Sua Taen **Amphoe** Phatthana Nikhom **Changwat** Lop Buri

Drainge Area	8,778 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1998-Cont'd
Actual Measurement	1998-Cont'd
Using Rating Curve Water Year	2011
Number of observation	38
R-Square	0.7459
Remarks	Continued Sediment Station

$$QS = 0.3580\ QW^{1.29650}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	10.40	10.80	0.00	10.60	782.50	1075.60	2935.90	43.40	24.70	114.50	35.40	60.80		
2	10.40	8.60	8.40	32.70	775.00	910.30	2910.40	41.50	25.10	112.90	46.50	53.60		
3	10.40	4.10	8.60	90.80	660.40	763.70	2956.30	33.80	25.10	111.40	82.00	49.70		
4	6.20	4.30	8.80	169.40	496.60	745.00	3058.90	28.40	25.10	110.50	82.80	49.70		
5	4.50	4.30	8.80	174.00	195.90	722.70	3089.90	27.70	24.70	74.20	71.50	48.10		
6	4.50	4.30	17.90	183.00	98.90	566.20	3136.40	27.30	14.70	41.50	59.20	48.10		
7	4.50	4.10	127.80	193.10	75.90	435.60	2992.10	26.90	6.90	39.00	58.40	47.40		
8	4.30	4.00	231.70	227.80	49.70	341.60	2738.40	28.80	8.00	54.30	65.70	46.50		
9	4.30	4.00	268.90	257.90	38.60	343.60	2468.90	30.00	10.40	56.80	80.20	46.50		
10	4.30	4.50	291.00	269.90	39.50	587.30	2243.60	30.00	13.70	73.30	80.20	46.50		
11	4.50	5.10	328.00	273.90	62.50	863.80	1911.60	26.20	17.00	74.20	80.20	46.50		
12	11.80	8.20	330.00	259.00	92.60	695.10	1439.70	22.50	16.70	76.70	79.30	45.80		
13	17.90	8.40	330.00	232.70	147.40	560.20	1141.80	22.20	23.60	82.80	78.50	45.80		
14	20.70	8.80	326.90	183.00	174.00	421.30	941.70	22.20	48.10	86.40	77.50	45.00		
15	21.50	9.00	362.70	149.20	240.30	384.10	868.20	21.80	82.80	90.80	76.70	45.00		
16	21.10	8.40	421.30	121.10	301.10	283.90	877.00	21.80	90.80	94.40	76.70	44.30		
17	21.10	8.80	419.00	117.80	347.80	449.10	801.50	21.80	89.80	95.20	75.90	43.40		
18	19.00	7.50	386.40	119.50	384.10	675.00	846.20	24.00	47.40	89.00	75.00	42.80		
19	15.00	2.90	241.30	122.00	406.90	1021.10	946.20	25.80	44.30	74.20	74.20	42.30		
20	15.00	5.10	201.40	156.10	420.10	1221.70	950.70	25.80	37.80	74.20	72.50	42.30		
21	13.00	7.80	109.60	233.60	438.90	1327.10	952.90	25.80	37.40	74.20	72.50	42.30		
22	10.80	7.80	75.90	302.20	441.30	1539.30	985.20	25.80	37.00	74.20	71.50	42.30		
23	11.40	8.20	63.20	401.50	443.40	1820.90	987.80	25.80	36.60	74.20	70.80	42.30		
24	11.40	8.60	52.80	401.50	447.70	2128.40	844.00	25.40	36.60	72.50	64.90	42.30		
25	11.00	8.40	50.40	443.40	456.20	2537.40	518.60	25.40	39.90	73.30	43.40	46.50		
26	10.40	8.40	55.20	517.10	482.10	2698.30	226.80	25.40	70.00	56.80	43.40	54.30		
27	10.40	8.60	45.00	575.20	537.80	2905.30	173.00	25.10	69.10	46.50	49.70	53.60		
28	10.40	8.40	32.70	633.30	581.20	2956.30	168.50	25.40	95.20	45.00	63.20	52.80		
29	10.60	8.60	28.10	665.90	587.30	2961.40	165.80	25.10	117.10	35.80	62.50	52.00		
30	10.60	2.10	23.20	719.00	636.90	2941.00	162.30	25.10	117.10	27.30		51.20		
31		0.00		763.70	866.00		127.80		117.10	27.30		46.50		
Total	341.40	202.10	4855.00	8999.90	11708.60	36882.30	44568.10	806.20	1449.80	2233.40	1970.30	1466.20	115483.30	**Ton**
Mean	11.40	6.50	161.80	290.30	377.70	1229.40	1437.70	26.90	46.80	72.00	67.90	47.30		
Max	21.50	10.80	421.30	763.70	866.00	2961.40	3136.40	43.40	117.10	114.50	82.80	60.80	3136.40	
Min	4.30	0.00	0.00	10.60	38.60	283.90	127.80	21.80	6.90	27.30	35.40	42.30	0.00	

WATER YEAR : 2011

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

Ban Tha Hai Yong **Amphoe** Lom Kao **Changwat** Phetchabun

Drainge Area	521 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2001-Cont'd
Actual Measurement	2001-Cont'd
Using Rating Curve Water Year	2011
Number of observation	26
R-Square	0.7445
Remarks	Continued Sediment Station

$$QS = 9.3642\ QW^{1.59690}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	23.90	21.90	54.10	346.80	15171.90	904.60	3454.70	223.90	114.60	78.90	63.00	45.70		
2	23.90	21.90	45.70	437.30	10204.20	3717.20	3759.20	219.10	110.90	78.90	63.00	45.70		
3	23.90	21.90	40.50	134.30	15696.30	2612.70	9399.70	209.40	110.90	78.90	57.00	45.70		
4	21.90	21.90	54.10	155.10	3120.50	1066.50	3675.20	209.40	103.40	75.70	57.00	45.70		
5	28.30	19.80	30.60	264.40	1284.80	2060.20	2312.70	204.70	103.40	75.70	57.00	40.50		
6	48.50	19.80	181.50	126.30	692.20	38069.60	1765.50	195.30	103.40	72.40	57.00	40.50		
7	30.60	19.80	66.10	92.60	482.10	8851.40	1428.90	190.60	103.40	72.40	57.00	40.50		
8	33.00	19.80	40.50	78.90	370.10	3844.00	1164.70	190.60	103.40	72.40	57.00	40.50		
9	28.30	19.80	57.00	69.20	324.00	8620.20	1031.60	186.00	103.40	72.40	57.00	40.50		
10	28.30	19.80	57.00	146.60	285.50	7553.50	912.90	190.60	99.80	69.20	57.00	57.00		
11	28.30	19.80	48.50	89.10	626.30	3523.10	768.40	186.00	99.80	69.20	54.10	223.90		
12	28.30	19.80	159.40	75.70	980.10	44257.40	677.40	186.00	99.80	69.20	54.10	66.10		
13	28.30	33.00	72.40	99.80	462.70	35108.00	640.70	181.50	99.80	69.20	54.10	48.50		
14	28.30	63.00	57.00	569.70	388.00	9558.60	662.60	177.00	92.60	66.10	54.10	45.70		
15	26.10	33.00	48.50	1498.10	280.20	7426.20	699.70	172.50	92.60	66.10	54.10	45.70		
16	26.10	28.30	155.10	418.50	243.80	5149.40	597.70	168.10	92.60	66.10	54.10	45.70		
17	23.90	26.10	92.60	177.00	699.70	3675.20	562.80	168.10	92.60	66.10	54.10	40.50		
18	21.90	72.40	82.30	163.70	2196.60	2951.80	488.70	159.40	92.60	66.10	48.50	23.90		
19	19.80	181.50	72.40	707.20	1829.50	6079.80	418.50	159.40	92.60	66.10	48.50	48.50		
20	19.80	92.60	501.80	195.30	32457.00	3212.80	406.20	155.10	92.60	72.40	48.50	40.50		
21	19.80	48.50	142.50	238.80	6731.70	8202.30	400.10	146.60	92.60	82.30	48.50	40.50		
22	19.80	30.60	66.10	285.50	2026.60	3717.20	388.00	146.60	89.10	82.30	48.50	40.50		
23	19.80	28.30	45.70	163.70	1284.80	3633.50	341.00	142.50	89.10	82.30	48.50	40.50		
24	19.80	37.90	37.90	181.50	963.10	3759.20	318.40	142.50	89.10	75.70	45.70	40.50		
25	19.80	54.10	48.50	346.80	730.00	2312.70	301.80	134.30	89.10	72.40	45.70	40.50		
26	19.80	114.60	482.10	181.50	863.70	1808.10	280.20	130.30	82.30	72.40	45.70	40.50		
27	19.80	48.50	223.90	190.60	562.80	7299.70	264.40	126.30	82.30	69.20	45.70	37.90		
28	19.80	168.10	376.10	155.10	583.60	6079.80	259.20	122.40	82.30	66.10	45.70	37.90		
29	23.90	259.20	364.30	146.60	437.30	6978.10	264.40	114.60	82.30	66.10	45.70	37.90		
30	23.90	92.60	134.30	195.30	1399.60	2649.60	248.90	114.60	82.30	66.10		37.90		
31		92.60		24047.20	1182.90		228.80		82.30	66.10		37.90		
Total	747.60	1750.90	3838.50	31978.20	104561.60	244682.40	38123.00	5053.40	2947.00	2224.50	1525.90	1503.80	438936.80	**Ton**
Mean	24.90	56.50	128.00	1031.60	3373.00	8156.10	1229.80	168.40	95.10	71.80	52.60	48.50		
Max	48.50	259.20	501.80	24047.20	32457.00	44257.40	9399.70	223.90	114.60	82.30	63.00	223.90	44257.40	
Min	19.80	19.80	30.60	69.20	243.80	904.60	228.80	114.60	82.30	66.10	45.70	23.90	19.80	

WATER YEAR : 2011

PASAK RIVER BASIN

Pasak River at Ban Phun Sap , Lop Buri (S.43)

Lat 15 - 19 - 39 N Long 101 - 12 - 45 E

Location : on right bank at the bridge.

Ban Phun Sap **Amphoe** Chai Badan **Changwat** Lop Buri

Drainge Area	- sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2011-Cont'd
Actual Measurement	2011-Cont'd
Using Rating Curve Water Year	2011
Number of observation	24
R-Square	0.8426
Remarks	Continued Sediment Station

$$QS = 42.3720\ QW^{0.77190}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	288.50	168.90	1701.70	846.50	2541.50	3700.50	8133.50	554.80	250.60	0.00	0.00	0.00		
2	299.50	66.70	1849.20	973.40	2222.20	3746.70	7930.80	539.40	238.90	0.00	0.00	0.00		
3	306.90	69.50	2089.10	1031.10	2006.90	3774.50	7635.00	524.00	221.10	0.00	0.00	0.00		
4	310.50	66.70	2743.00	1137.80	2021.60	3808.30	7287.30	508.30	208.90	0.00	0.00	0.00		
5	314.10	60.90	3163.00	1338.10	2232.40	3853.20	6991.10	500.50	196.60	0.00	0.00	0.00		
6	321.30	42.40	3374.90	1523.10	2363.00	3987.10	6846.00	492.60	184.00	0.00	0.00	0.00		
7	324.90	227.10	3508.70	1595.30	2433.50	4119.70	6693.40	484.60	177.60	0.00	0.00	0.00		
8	314.10	492.60	3460.70	1586.30	2482.70	4130.70	6527.90	468.60	171.10	0.00	0.00	0.00		
9	303.20	508.30	3364.20	1518.60	2509.20	4288.70	6315.70	454.10	158.00	0.00	0.00	0.00		
10	299.50	666.30	3223.20	1394.40	2568.70	4523.30	6102.20	434.50	137.60	0.00	0.00	0.00		
11	299.50	717.90	3091.50	1218.60	2669.30	4797.30	5875.80	434.50	123.50	0.00	0.00	0.00		
12	299.50	670.70	2969.20	1019.70	2760.20	5149.30	5659.10	460.60	109.00	0.00	0.00	0.00		
13	288.50	564.00	2777.30	797.40	2845.50	5319.50	5525.40	468.60	93.80	0.00	0.00	0.00		
14	269.70	489.40	2343.00	670.70	2941.20	5415.80	5380.60	468.60	69.50	0.00	0.00	0.00		
15	254.50	688.00	1815.90	595.70	3013.80	5471.80	5281.90	454.10	39.10	0.00	0.00	0.00		
16	235.00	760.10	1389.70	618.00	3085.90	5626.00	5193.60	441.10	24.80	0.00	0.00	0.00		
17	215.00	613.60	1099.30	730.60	3288.50	5820.90	5073.20	434.50	0.00	0.00	0.00	0.00		
18	202.80	542.50	926.40	846.50	3321.00	6071.30	4882.00	427.90	0.00	0.00	0.00	0.00		
19	190.30	582.10	838.40	1046.40	3310.20	7007.00	4632.40	407.90	0.00	0.00	0.00	0.00		
20	173.30	332.10	776.80	1328.70	3288.50	8133.50	4355.40	394.50	0.00	0.00	0.00	0.00		
21	168.90	454.10	764.30	1504.90	3337.20	8493.60	4075.70	380.90	0.00	0.00	0.00	0.00		
22	164.60	450.80	805.70	1599.70	3434.00	8629.90	3819.60	367.10	0.00	0.00	0.00	0.00		
23	146.80	427.90	858.60	1639.80	3540.60	8772.30	3583.00	353.20	0.00	0.00	0.00	0.00		
24	83.30	559.40	898.60	1706.10	3667.30	8715.40	2716.30	339.20	0.00	0.00	0.00	0.00		
25	88.60	559.40	854.60	1792.10	3751.90	8602.70	2210.00	324.90	0.00	0.00	0.00	0.00		
26	77.90	595.70	805.70	1912.10	3763.20	8332.00	1823.40	317.70	0.00	0.00	0.00	0.00		
27	72.40	559.40	780.90	2191.70	3718.00	7997.60	1470.70	303.20	0.00	0.00	0.00	0.00		
28	83.30	554.80	717.90	2498.40	3651.50	7953.10	1113.00	295.90	0.00	0.00	0.00	0.00		
29	77.90	554.80	700.90	2754.50	3604.10	7975.30	838.40	281.00	0.00	0.00	0.00	0.00		
30	77.90	854.60	739.10	2845.50	3619.90	8064.20	685.10	265.90	0.00	0.00		0.00		
31		1238.00		2771.60	3662.10		600.20		0.00	0.00		0.00		
Total	6552.20	15138.70	54431.50	45033.30	93655.60	182281.20	145257.70	12582.70	2404.10	0.00	0.00	0.00	557337.10	**Ton**
Mean	218.40	488.30	1814.40	1452.70	3021.10	6076.00	4685.70	419.40	77.60	0.00	0.00	0.00		
Max	324.90	1238.00	3508.70	2845.50	3763.20	8772.30	8133.50	554.80	250.60	0.00	0.00	0.00	8772.30	
Min	72.40	42.40	700.90	595.70	2006.90	3700.50	600.20	265.90	0.00	0.00	0.00	0.00	0.00	

WATER YEAR : 2011

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.

Ban Thap Man **Amphoe** Dan Chang **Changwat** Suphan Buri

Drainge Area	686 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2006-Cont'd
Actual Measurement	2006-Cont'd
Using Rating Curve Water Year	2011
Number of observation	27
R-Square	0.8706
Remarks	Continued Sediment Station

$$QS = 4.3854\ QW^{1.61280}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	6.70	264.40	1131.30	41.90	76.80	208.50	208.50	234.80	81.00	23.70	72.60	34.60		
2	5.10	424.70	780.00	41.90	89.80	217.10	191.50	217.10	76.80	23.70	72.60	30.10		
3	5.90	95.40	545.50	44.40	72.60	119.20	159.40	199.90	76.80	21.80	72.60	27.90		
4	9.80	56.90	1082.70	49.60	60.70	107.00	284.80	191.50	76.80	19.80	76.80	23.70		
5	9.80	41.90	723.10	76.80	53.20	175.20	399.30	183.30	72.60	18.00	131.80	21.80		
6	14.50	37.00	437.70	1180.70	49.60	138.30	244.50	167.20	72.60	18.00	125.50	18.00		
7	16.20	37.00	2506.90	159.40	49.60	119.20	350.30	145.00	72.60	16.20	119.20	18.00		
8	16.20	217.10	374.50	64.60	47.00	113.10	479.90	145.00	76.80	16.20	119.20	18.00		
9	14.50	274.50	225.90	41.90	47.00	113.10	2324.00	145.00	76.80	16.20	44.40	14.50		
10	9.80	47.00	175.20	34.60	47.00	145.00	1256.30	125.50	76.80	14.50	34.60	12.90		
11	9.80	34.60	138.30	25.80	44.40	2506.90	1082.70	119.20	72.60	14.50	27.90	11.30		
12	9.80	34.60	113.10	23.70	41.90	10642.30	614.30	119.20	68.60	12.90	23.70	8.40		
13	11.30	27.90	101.20	34.60	44.40	5338.40	579.50	113.10	64.60	12.90	18.00	8.40		
14	23.70	85.30	89.80	39.40	44.40	1578.10	1760.60	107.00	60.70	21.80	85.30	7.50		
15	3.70	113.10	81.00	30.10	60.70	614.30	1823.10	107.00	53.20	21.80	72.60	34.60		
16	3.70	1131.30	76.80	27.90	89.80	386.80	3036.90	101.20	47.00	25.80	53.20	34.60		
17	3.70	2952.50	81.00	30.10	234.80	284.80	7033.00	107.00	44.40	8.40	47.00	32.30		
18	3.10	760.90	76.80	30.10	138.30	274.50	5338.40	101.20	41.90	8.40	41.90	30.10		
19	2.50	614.30	64.60	25.80	89.80	327.40	2506.90	95.40	37.00	6.70	37.00	34.60		
20	3.70	437.70	64.60	25.80	76.80	362.30	1359.80	85.30	34.60	7.50	34.60	37.00		
21	3.70	191.50	56.90	25.80	72.60	362.30	903.00	81.00	34.60	64.60	21.80	16.20		
22	3.10	145.00	56.90	27.90	60.70	704.50	723.10	76.80	32.30	68.60	21.80	14.50		
23	3.10	64.60	53.20	32.30	53.20	881.70	614.30	81.00	32.30	68.60	21.80	11.30		
24	47.00	41.90	49.60	101.20	47.00	2288.10	545.50	81.00	34.60	68.60	39.40	9.80		
25	34.60	44.40	47.00	818.90	53.20	839.60	464.00	85.30	34.60	85.30	41.90	8.40		
26	23.70	704.50	44.40	1359.80	53.20	399.30	399.30	85.30	34.60	85.30	41.90	7.50		
27	9.80	686.10	41.90	350.30	131.80	464.00	374.50	85.30	32.30	89.80	39.40	7.50		
28	14.50	254.40	44.40	167.20	1854.70	327.40	327.40	85.30	30.10	85.30	37.00	6.70		
29	1918.50	1412.80	41.90	199.90	1668.40	274.50	274.50	81.00	34.60	81.00	37.00	6.70		
30	1548.40	8959.50	39.40	89.80	946.20	234.80	254.40	81.00	34.60	76.80		5.90		
31		1983.00		72.60	350.30		234.80		34.60	76.80		5.90		
Total	3789.90	22175.80	9345.60	5274.80	6749.90	30547.70	36148.50	3632.90	1653.40	1179.50	1612.50	558.70	122669.20	**Ton**
Mean	126.30	715.30	311.50	170.20	217.70	1018.30	1166.10	121.10	53.30	38.00	55.60	18.00		
Max	1918.50	8959.50	2506.90	1359.80	1854.70	10642.30	7033.00	234.80	81.00	89.80	131.80	37.00	10642.30	
Min	2.50	27.90	39.40	23.70	41.90	107.00	159.40	76.80	30.10	6.70	18.00	5.90	2.50	

WATER YEAR : 2011

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.

Ban Thung Na Nang Rok **Amphoe** Mueang **Changwat** Kanchanaburi

Drainge Area	2,375 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1999-Cont'd
Actual Measurement	1999-Cont'd
Using Rating Curve Water Year	2011
Number of observation	30
R-Square	0.8790
Remarks	Continued Sediment Station

$$QS = 3.3724\ QW^{1.30940}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	21.40	13.50	74.70	19.10	15.00	42.90	29.50	84.50	9.40	5.70	3.20	2.70		
2	22.10	16.00	138.80	18.00	24.90	32.20	26.30	76.10	11.10	6.00	2.30	2.70		
3	20.70	17.50	185.70	17.00	37.80	22.80	24.90	69.20	15.00	6.00	1.50	2.50		
4	18.00	20.70	183.20	17.00	47.20	18.00	27.00	62.50	15.00	6.00	2.30	1.70		
5	17.00	27.70	143.10	19.60	37.80	17.00	38.80	58.60	14.50	5.70	2.10	1.40		
6	15.00	26.30	130.40	28.60	30.40	15.50	74.70	57.30	13.00	5.00	2.50	2.10		
7	13.00	21.40	185.70	34.00	27.70	11.10	126.20	53.40	12.50	4.70	2.10	1.70		
8	12.00	23.50	258.00	26.30	24.90	10.60	266.50	50.90	12.00	3.40	2.10	1.40		
9	8.60	33.10	260.80	22.10	23.50	9.80	308.40	45.00	15.00	3.40	1.40	1.40		
10	6.40	35.80	198.40	17.00	19.60	10.20	275.50	35.80	14.00	3.70	0.90	1.40		
11	7.10	38.80	132.50	16.00	17.00	14.00	425.70	29.50	13.50	3.70	1.20	1.30		
12	7.50	35.80	91.90	15.00	16.50	23.50	716.60	30.40	13.00	2.70	1.00	0.60		
13	6.80	30.40	69.20	15.00	15.50	20.70	1078.70	30.40	13.00	2.50	1.00	0.40		
14	6.00	26.30	54.70	15.50	15.00	37.80	918.80	31.30	13.50	2.10	1.20	0.50		
15	6.40	40.90	42.90	15.00	14.00	49.70	653.40	31.30	12.50	1.90	0.90	0.40		
16	7.10	93.40	37.80	14.50	14.50	39.80	562.70	29.50	13.50	2.10	0.90	0.50		
17	7.50	161.30	34.90	14.00	17.00	31.30	562.70	28.60	13.50	1.90	1.50	0.40		
18	6.40	154.40	34.00	14.00	18.00	26.30	732.70	27.00	12.50	1.90	3.40	0.40		
19	6.00	112.40	34.00	13.50	7.90	24.20	1457.30	22.80	11.50	1.40	2.50	2.70		
20	6.80	73.30	34.00	7.10	12.50	21.40	1917.20	20.20	11.50	1.30	1.90	8.20		
21	6.40	52.20	33.10	10.60	20.20	20.20	1365.40	19.10	10.60	1.50	2.30	9.40		
22	7.90	41.90	30.40	13.50	20.20	17.00	837.60	17.50	11.50	1.70	2.50	7.90		
23	7.90	35.80	28.60	14.00	19.60	17.50	548.60	16.00	12.00	1.90	2.70	5.00		
24	9.80	29.50	26.30	14.00	24.90	14.50	394.90	15.50	11.10	1.90	3.70	2.30		
25	13.00	25.60	24.90	14.00	19.10	15.00	288.50	14.50	10.20	1.90	3.20	1.30		
26	17.50	23.50	24.90	13.00	15.50	28.60	213.80	14.50	10.20	2.10	2.90	1.00		
27	12.00	20.20	24.90	11.50	15.50	39.80	175.80	14.00	9.40	1.30	2.30	0.90		
28	9.80	20.20	23.50	16.50	24.20	40.90	132.50	11.10	6.80	1.40	3.70	0.40		
29	9.40	22.10	19.60	15.00	48.40	35.80	110.40	8.60	7.10	1.20	3.20	0.30		
30	13.50	26.30	19.10	14.00	47.20	36.80	96.60	9.40	7.10	1.70		0.10		
31		38.80		12.00	56.00		91.90		6.40	3.70		0.00		
Total	329.00	1338.60	2580.00	506.40	747.50	744.90	14479.60	1014.50	361.90	91.40	62.40	63.00	22319.20	**Ton**
Mean	11.00	43.20	86.00	16.30	24.10	24.80	467.10	33.80	11.70	2.90	2.20	2.00		
Max	22.10	161.30	260.80	34.00	56.00	49.70	1917.20	84.50	15.00	6.00	3.70	9.40	1917.20	
Min	6.00	13.50	19.10	7.10	7.90	9.80	24.90	8.60	6.40	1.20	0.90	0.00	0.00	

WATER YEAR : 2011

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

Drainge Area	1,344 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1999-Cont'd
Actual Measurement	1999-Cont'd
Using Rating Curve Water Year	2011
Number of observation	32
R-Square	0.8542
Remarks	Continued Sediment Station

$$QS = 0.7582\ QW^{1.88890}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.90	34.30	18.80	8.10	216.40	6.70	11.20	285.40	27.90	4.90	4.90	0.60		
2	3.90	20.30	20.30	8.10	947.60	6.70	12.30	216.40	25.90	4.90	3.90	0.80		
3	3.00	49.80	29.90	8.10	339.00	6.70	13.50	181.90	23.90	4.90	4.40	1.80		
4	3.90	52.90	302.00	8.10	140.10	6.70	12.30	145.70	22.10	4.90	3.90	1.00		
5	6.10	32.10	62.40	12.30	59.20	6.10	10.10	124.10	20.30	4.40	3.40	0.50		
6	8.10	25.90	41.30	12.30	34.30	5.50	8.10	118.90	18.80	4.40	3.00	0.60		
7	16.10	44.10	27.90	10.10	22.10	4.90	181.90	113.90	17.40	4.40	3.00	0.50		
8	11.20	32.10	20.30	8.10	18.80	4.90	4666.50	113.90	14.80	3.90	2.50	0.50		
9	9.10	23.90	17.40	7.40	16.10	6.70	1321.70	109.40	12.30	3.90	2.00	0.60		
10	12.30	22.10	14.80	6.10	14.80	17.40	647.80	104.90	10.10	3.40	1.80	1.00		
11	10.10	25.90	11.20	6.10	13.50	49.80	424.50	100.60	8.10	3.00	2.30	1.00		
12	6.70	22.10	10.10	5.50	12.30	109.40	1127.30	92.20	6.70	3.00	1.80	1.30		
13	5.50	27.90	10.10	4.90	11.20	100.60	1675.10	84.20	6.10	3.00	1.50	1.30		
14	4.90	145.70	10.10	4.40	16.10	44.10	810.90	76.40	5.50	3.00	2.30	1.00		
15	4.40	181.90	10.10	3.90	17.40	27.90	482.50	65.80	4.40	3.00	1.80	1.00		
16	3.90	380.60	11.20	3.90	14.80	22.10	632.50	62.40	5.50	2.50	1.10	0.50		
17	3.90	181.90	10.10	3.90	14.80	18.80	1081.00	56.00	5.50	2.50	1.80	0.60		
18	4.40	169.00	14.80	3.40	13.50	17.40	1856.70	52.90	5.50	2.50	1.30	1.30		
19	6.70	118.90	22.10	3.40	12.30	16.10	947.60	49.80	5.50	2.30	1.10	1.30		
20	11.20	80.30	18.80	3.00	12.30	13.50	663.40	46.90	5.50	2.30	2.00	1.00		
21	7.40	52.90	25.90	3.00	11.20	13.50	632.50	46.90	5.50	2.50	2.00	0.80		
22	6.10	41.30	46.90	8.10	10.10	12.30	544.00	44.10	5.50	5.50	1.30	0.60		
23	4.40	34.30	29.90	10.10	9.10	12.30	402.20	41.30	5.50	6.10	0.80	0.50		
24	11.20	22.10	18.80	10.10	7.40	13.50	319.00	41.30	5.50	4.90	0.80	0.50		
25	38.90	22.10	14.80	9.10	6.70	13.50	285.40	38.90	5.50	4.40	1.30	0.40		
26	41.30	38.90	11.20	13.50	6.70	17.40	380.60	36.50	5.50	3.90	1.10	0.40		
27	25.90	38.90	13.50	12.30	6.10	17.40	253.60	34.30	5.50	3.40	1.00	0.40		
28	16.10	27.90	17.40	10.10	8.10	14.80	319.00	34.30	5.50	3.40	0.80	0.50		
29	18.80	20.30	12.30	7.40	11.20	13.50	587.40	32.10	5.50	3.00	0.60	0.40		
30	23.90	17.40	10.10	10.10	10.10	11.20	602.30	29.90	5.50	3.90		0.50		
31		18.80		59.20	8.10		402.20		4.90	4.40		1.30		
Total	333.30	2006.60	884.50	284.10	2041.40	631.40	21315.10	2581.30	311.70	116.50	59.50	24.50	30589.90	**Ton**
Mean	11.10	64.70	29.50	9.20	65.90	21.00	687.60	86.00	10.10	3.80	2.10	0.80		
Max	41.30	380.60	302.00	59.20	947.60	109.40	4666.50	285.40	27.90	6.10	4.90	1.80	4666.50	
Min	3.00	17.40	10.10	3.00	6.10	4.90	8.10	29.90	4.40	2.30	0.60	0.40	0.40	

WATER YEAR : 2011

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

Ban Nam Chon **Amphoe** Sai Yok **Changwat** Kanchanaburi

Drainge Area	799 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1997-Cont'd
Actual Measurement	1997-Cont'd
Using Rating Curve Water Year	2011
Number of observation	51
R-Square	0.8384
Remarks	Continued Sediment Station

$$QS = 0.7895\ QW^{1.31570}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.70	5.60	6.20	39.30	1371.90	60.80	59.50	26.00	11.20	6.60	4.40	2.90		
2	2.70	4.70	5.60	39.30	750.40	80.10	70.20	25.20	11.20	6.20	4.40	2.90		
3	2.50	4.40	5.60	36.60	422.40	73.00	58.10	24.40	11.20	6.20	5.30	2.90		
4	2.90	4.20	6.60	33.00	257.30	68.90	63.40	23.50	10.70	6.20	5.30	2.70		
5	4.20	3.60	10.70	30.30	188.20	59.50	53.00	22.70	10.20	6.60	6.20	2.70		
6	4.20	3.90	11.20	26.00	151.70	54.20	55.50	22.70	10.20	6.20	5.30	2.50		
7	4.40	5.30	11.20	21.90	127.90	62.10	59.50	21.90	9.80	6.20	5.30	2.50		
8	4.20	5.30	8.20	19.20	132.20	80.10	395.40	19.90	9.80	6.20	4.40	2.30		
9	6.20	11.20	7.00	17.90	138.60	134.30	168.40	18.50	9.80	5.90	4.20	2.30		
10	7.40	36.60	6.60	17.20	153.90	117.50	109.60	17.90	9.80	5.90	4.20	2.30		
11	5.00	26.90	8.20	17.20	153.90	163.50	107.90	17.20	9.40	5.60	3.90	2.30		
12	4.20	15.90	13.70	17.20	138.60	228.60	88.10	16.50	9.00	5.60	3.90	2.30		
13	3.90	13.20	17.20	18.50	119.50	156.30	75.80	16.50	8.60	5.30	3.90	2.90		
14	3.10	12.20	16.50	18.50	106.20	125.80	70.20	15.90	8.60	5.30	4.20	2.70		
15	3.10	16.50	22.70	19.20	94.60	117.50	63.40	15.90	8.60	5.30	3.90	2.90		
16	3.40	17.90	74.40	18.50	93.00	107.90	60.80	15.30	8.60	5.30	3.60	3.10		
17	3.90	12.20	149.50	24.40	149.50	96.20	67.50	14.70	8.20	5.30	3.60	3.10		
18	3.10	12.20	163.50	25.20	101.20	99.50	56.80	14.20	8.20	5.30	3.40	2.70		
19	2.70	9.40	109.60	33.00	107.90	96.20	51.70	14.20	8.20	5.00	5.30	2.50		
20	2.50	5.00	74.40	73.00	104.50	89.70	47.90	13.70	7.80	5.30	5.30	2.30		
21	2.30	7.80	68.90	323.70	97.90	115.40	42.90	13.20	7.80	5.90	4.40	2.30		
22	2.50	7.40	66.10	514.00	86.50	93.00	39.30	13.20	7.80	5.90	3.60	2.30		
23	2.90	7.00	64.80	200.90	68.90	115.40	37.50	12.70	7.80	5.30	3.60	2.10		
24	13.70	7.40	50.40	125.80	62.10	101.20	36.60	12.70	7.40	5.30	3.40	2.10		
25	11.20	8.60	39.30	88.10	60.80	80.10	34.70	12.70	7.40	5.00	3.40	2.10		
26	6.20	7.80	39.30	67.50	59.50	74.40	32.10	12.70	7.00	4.70	3.40	2.10		
27	5.60	7.80	89.70	60.80	59.50	63.40	30.30	12.20	7.00	4.70	3.10	3.60		
28	5.30	8.20	138.60	50.40	86.50	56.80	29.40	12.20	6.60	4.40	3.10	4.40		
29	5.60	7.00	66.10	42.90	71.60	51.70	27.70	11.70	6.60	4.40	2.90	3.60		
30	6.20	6.20	45.40	44.20	68.90	50.40	26.90	11.70	6.60	4.40		2.90		
31		7.00		251.50	62.10		25.20		6.60	4.70		2.50		
Total	137.80	308.40	1397.20	2315.20	5647.70	2873.50	2145.30	501.80	267.70	170.20	120.90	82.80	15968.50	**Ton**
Mean	4.60	9.90	46.60	74.70	182.20	95.80	69.20	16.70	8.60	5.50	4.20	2.70		
Max	13.70	36.60	163.50	514.00	1371.90	228.60	395.40	26.00	11.20	6.60	6.20	4.40	1371.90	
Min	2.30	3.60	5.60	17.20	59.50	50.40	25.20	11.70	6.60	4.40	2.90	2.10	2.10	

WATER YEAR : 2011

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.

Ban Bong Ti **Amphoe** Sai Yok **Changwat** Kanchanaburi

Drainge Area	518 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1998-Cont'd
Actual Measurement	1998-Cont'd
Using Rating Curve Water Year	2011
Number of observation	19
R-Square	0.7797
Remarks	Continued Sediment Station

$$QS = 1.6057\ QW^{1.77070}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.10	2.00	4.90	8.70	273.40	6.10	3.50	7.60	1.00	0.40	0.30	0.00		
2	0.00	1.40	3.20	9.30	367.30	7.00	3.20	6.50	1.00	0.40	0.30	0.00		
3	0.00	1.00	10.60	7.60	317.70	8.70	2.70	6.10	0.90	0.40	0.30	0.00		
4	0.10	0.90	27.60	7.00	167.50	6.50	2.70	5.70	0.90	0.30	0.30	0.00		
5	0.10	0.60	12.60	17.10	92.40	5.30	2.40	5.30	0.90	0.30	0.20	0.00		
6	0.10	0.50	7.00	58.30	58.30	4.50	4.90	4.90	0.90	0.30	0.20	0.00		
7	0.10	0.50	5.30	17.90	31.50	4.90	19.50	4.20	0.90	0.30	0.20	0.00		
8	0.30	0.60	3.90	10.60	22.70	5.70	390.30	3.50	0.70	0.30	0.20	0.00		
9	0.50	1.00	2.90	7.00	18.70	19.50	446.30	3.50	0.70	0.30	0.10	0.00		
10	4.90	1.80	2.70	5.70	18.70	21.50	525.10	3.20	0.70	0.30	0.10	0.00		
11	2.40	2.20	2.20	4.50	16.30	37.80	554.10	2.70	0.70	0.20	0.10	0.00		
12	0.90	1.80	2.00	4.20	15.50	292.10	398.10	2.70	0.70	0.20	0.10	0.00		
13	0.40	1.80	2.00	3.90	14.00	189.60	228.40	2.70	0.70	0.20	0.10	0.00		
14	0.30	2.70	2.20	2.90	12.60	110.70	267.60	2.40	0.60	0.20	0.10	0.00		
15	3.50	9.30	2.40	2.70	11.90	71.00	317.70	2.20	0.60	0.20	0.10	2.70		
16	1.50	14.80	11.20	2.40	21.50	41.20	311.20	2.20	0.60	0.20	0.10	0.90		
17	3.50	12.60	11.90	2.40	76.10	28.80	479.70	2.20	0.60	0.20	0.10	0.40		
18	1.40	11.90	21.50	2.00	44.80	21.50	292.10	2.00	0.60	0.10	0.10	0.40		
19	0.50	5.30	27.60	2.00	30.20	17.10	176.20	2.00	0.60	0.10	0.10	0.40		
20	0.30	3.20	14.80	2.20	23.90	13.30	113.90	1.80	0.60	0.10	0.10	0.30		
21	0.20	2.40	10.60	4.90	19.50	10.60	73.60	1.80	0.60	0.40	0.10	0.20		
22	2.40	1.80	9.30	34.50	15.50	8.70	52.30	1.50	0.60	0.60	0.10	0.10		
23	1.20	1.50	7.60	32.90	12.60	8.10	30.20	1.40	0.60	0.60	0.10	0.10		
24	26.30	1.40	6.10	19.50	10.60	7.60	23.90	1.40	0.60	0.50	0.10	0.10		
25	11.20	4.20	4.90	15.50	8.70	6.50	18.70	1.40	0.60	0.50	0.10	0.00		
26	5.30	2.40	4.20	13.30	7.60	5.70	15.50	1.40	0.50	0.40	0.10	0.10		
27	9.30	4.50	14.80	11.90	7.00	4.90	13.30	1.20	0.60	0.30	0.10	0.10		
28	3.90	3.50	48.50	8.10	6.10	4.50	11.20	1.20	0.50	0.30	0.00	0.10		
29	4.20	2.40	20.40	6.50	11.20	4.20	11.20	1.20	0.40	0.30	0.00	0.10		
30	2.70	1.80	11.90	5.30	8.10	3.90	9.90	1.00	0.40	0.30		0.10		
31		7.00		4.90	7.00		8.70		0.40	0.30		0.10		
Total	87.60	108.80	316.80	335.70	1748.90	977.50	4808.10	86.90	20.70	9.50	3.90	6.20	8510.60	**Ton**
Mean	2.90	3.50	10.60	10.80	56.40	32.60	155.10	2.90	0.70	0.30	0.10	0.20		
Max	26.30	14.80	48.50	58.30	367.30	292.10	554.10	7.60	1.00	0.60	0.30	2.70	554.10	
Min	0.00	0.50	2.00	2.00	6.10	3.90	2.40	1.00	0.40	0.10	0.00	0.00	0.00	

WATER YEAR : 2011

MAE KLONG RIVER BASIN

Khwae 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.

Ban Wang Yen **Amphoe** Mueang **Changwat** Kanchanaburi

Drainge Area	10,557 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1998-Cont'd
Actual Measurement	1998-Cont'd
Using Rating Curve Water Year	2011
Number of observation	30
R-Square	0.7392
Remarks	Continued Sediment Station

$$QS = 0.3378\ QW^{1.47110}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	351.40	388.60	337.30	237.90	1497.30	2614.80	690.60	690.60	729.80	759.60	330.30	1053.60		
2	330.30	381.00	366.00	189.90	3362.20	2685.10	654.40	541.10	810.20	960.90	344.30	1089.10		
3	323.30	289.20	309.50	183.90	4214.50	2614.80	830.70	499.40	820.40	663.40	323.30	1113.00		
4	344.30	344.30	373.50	180.90	3482.30	2632.30	872.20	483.10	789.80	1254.00	337.30	1077.20		
5	228.00	396.20	483.10	177.90	2995.20	2289.50	938.10	458.80	601.30	1373.90	351.40	1053.60		
6	381.00	218.30	344.30	188.40	3165.10	1137.70	938.10	654.40	769.60	1428.30	337.30	1293.60		
7	351.40	170.20	316.40	247.90	2995.20	1333.60	1176.00	710.10	820.40	1455.80	351.40	1030.20		
8	330.30	179.40	344.30	182.40	3013.90	1360.40	2084.80	672.50	830.70	1581.40	830.70	1089.10		
9	351.40	151.60	295.90	183.90	2865.00	1497.30	3705.90	893.20	820.40	1176.00	1089.10	1125.00		
10	316.40	151.60	247.90	208.70	2939.20	1624.00	3563.10	872.20	769.60	458.80	1176.00	1101.00		
11	337.30	316.40	228.00	199.20	3165.10	1681.30	2441.90	915.60	800.00	442.90	1227.80	1150.40		
12	330.30	411.60	228.00	186.90	3282.90	2038.60	2883.50	1030.20	739.70	388.60	1280.40	1137.70		
13	474.90	419.30	237.90	208.70	3070.30	2720.40	2846.60	915.60	636.50	381.00	1214.80	995.40		
14	419.30	427.10	237.90	316.40	2809.90	2579.90	2459.00	882.60	830.70	388.60	983.80	995.40		
15	381.00	466.90	185.40	435.00	2902.00	2241.10	1812.70	893.20	820.40	330.30	1030.20	1113.00		
16	419.30	435.00	176.50	654.40	2809.90	2702.70	1753.90	800.00	789.80	358.60	1065.40	1333.60		
17	427.10	483.10	185.40	690.60	2846.60	2828.20	1857.20	592.60	749.60	358.60	1101.00	1609.70		
18	435.00	450.80	302.70	749.60	3089.20	2755.90	2084.80	710.10	820.40	366.00	1101.00	1539.10		
19	419.30	366.00	358.60	800.00	2939.20	2323.10	2527.90	800.00	739.70	396.20	1089.10	1442.00		
20	396.20	344.30	396.20	789.80	2791.50	1887.10	2256.90	810.20	719.90	435.00	1030.20	1387.50		
21	316.40	323.30	302.70	627.70	2809.90	2579.90	2100.20	779.70	810.20	419.30	960.90	1469.60		
22	344.30	278.70	278.70	1113.00	2846.60	2562.50	1977.50	729.80	789.80	403.90	1053.60	1320.20		
23	323.30	237.90	247.90	1739.30	2791.50	2545.20	1638.30	800.00	769.60	381.00	1065.40	1280.40		
24	450.80	189.90	189.90	1638.30	2809.90	2755.90	1483.40	789.80	749.60	323.30	1077.20	1293.60		
25	396.20	182.40	188.40	1497.30	2597.40	2632.30	1306.90	779.70	739.70	396.20	1113.00	1320.20		
26	396.20	185.40	180.90	1214.80	2738.10	2306.30	1306.90	779.70	759.60	366.00	1101.00	1469.60		
27	373.50	258.00	160.80	1227.80	2773.70	1768.60	1214.80	739.70	749.60	330.30	1041.90	1455.80		
28	396.20	344.30	185.40	1137.70	2545.20	2178.10	1150.40	739.70	759.60	323.30	983.80	1539.10		
29	427.10	323.30	483.10	1176.00	2162.40	2053.90	1201.90	810.20	779.70	358.60	1018.50	1511.20		
30	442.90	344.30	373.50	1053.60	1113.00	1030.20	1227.80	729.80	749.60	330.30		1469.60		
31		208.70		1065.40	2510.60		1176.00		719.90	323.30		1428.30		
Total	11214.40	9667.10	8546.10	20503.30	87934.80	65960.70	54162.40	22503.60	23785.80	18913.40	26010.10	39286.80	388488.50	**Ton**
Mean	373.80	311.80	284.90	661.40	2836.60	2198.70	1747.20	750.10	767.30	610.10	896.90	1267.30		
Max	474.90	483.10	483.10	1739.30	4214.50	2828.20	3705.90	1030.20	830.70	1581.40	1280.40	1609.70	4214.50	
Min	228.00	151.60	160.80	177.90	1113.00	1030.20	654.40	458.80	601.30	323.30	323.30	995.40	151.60	

WATER YEAR : 2011

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.

Ban Nong Bang **Amphoe** Thong Pha Phum **Changwat** Kanchanaburi

Drainge Area	122 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2001-Cont'd
Actual Measurement	2001-Cont'd
Using Rating Curve Water Year	2011
Number of observation	32
R-Square	0.8653
Remarks	Continued Sediment Station

$$QS = 2.3304\ QW^{1.94810}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.10	1.00	2.80	307.10	6.30	13.20	10.80	2.80	1.00	0.50	0.20		
2	0.00	0.10	0.80	2.80	167.70	10.80	13.20	10.80	2.80	1.00	0.50	0.20		
3	0.00	0.10	0.80	2.50	75.90	6.80	12.40	10.10	2.50	1.00	1.70	0.20		
4	0.00	0.10	0.80	2.20	35.40	6.80	16.00	8.60	2.20	1.20	1.20	0.10		
5	0.00	2.50	1.00	2.50	26.80	5.80	15.00	8.60	2.20	1.20	0.80	0.10		
6	0.00	1.20	2.50	1.70	21.70	6.80	13.20	8.60	1.90	1.20	0.70	0.10		
7	0.00	1.20	0.80	1.70	16.00	5.80	125.50	10.80	1.90	1.00	0.70	0.10		
8	0.00	1.20	0.70	1.70	10.80	8.00	102.10	10.10	1.90	1.00	0.50	0.10		
9	0.00	2.20	0.50	1.70	7.30	6.30	125.50	10.80	1.70	0.80	0.50	0.10		
10	0.00	3.20	0.50	1.90	7.30	8.60	98.40	10.10	1.70	0.80	0.50	0.10		
11	0.00	1.40	1.40	1.40	7.30	33.90	62.00	9.30	1.70	0.80	0.50	0.10		
12	0.00	1.40	0.80	2.20	7.30	125.50	48.10	8.60	1.40	0.80	0.50	0.10		
13	0.00	1.00	0.80	1.20	7.30	48.10	41.80	7.30	1.40	0.80	0.40	0.10		
14	0.00	0.80	1.20	1.20	8.60	33.90	40.10	7.30	1.40	0.70	0.40	0.10		
15	0.00	0.50	1.00	1.20	15.00	29.50	48.10	7.30	1.40	0.70	0.40	1.40		
16	0.00	0.50	1.70	1.70	10.80	29.50	75.90	7.30	1.20	0.70	0.40	0.30		
17	0.00	0.50	3.50	1.70	22.90	26.80	41.80	6.80	1.20	0.50	0.30	0.20		
18	0.00	1.70	3.20	1.40	12.40	32.40	35.40	6.30	1.20	0.50	0.30	0.10		
19	0.00	1.20	4.80	1.40	10.80	36.90	29.50	6.30	1.20	0.50	0.40	0.10		
20	0.00	1.20	3.50	3.20	8.60	26.80	29.50	5.80	1.20	0.40	0.40	0.10		
21	0.00	0.80	2.50	21.70	7.30	21.70	28.10	5.80	1.20	0.40	0.40	0.10		
22	0.00	0.50	2.50	10.10	6.30	28.10	24.10	4.80	1.20	0.40	0.30	0.10		
23	0.00	0.50	2.80	7.30	5.80	26.80	20.50	4.40	1.20	0.40	0.30	0.10		
24	0.10	0.50	1.90	4.80	5.80	26.80	18.20	3.50	1.00	0.40	0.30	0.00		
25	0.10	0.30	1.70	3.20	4.80	26.80	17.10	3.50	1.00	0.40	0.30	0.00		
26	0.10	3.20	1.70	2.80	4.80	24.10	16.00	3.20	1.00	0.40	0.20	0.00		
27	0.40	2.20	1.90	2.80	4.80	19.30	14.10	3.20	1.00	0.40	0.20	0.10		
28	0.30	1.70	2.20	2.80	5.80	17.10	13.20	3.20	1.00	0.40	0.20	0.10		
29	0.10	1.20	1.90	2.80	6.80	12.40	11.60	2.80	1.00	0.40	0.20	0.00		
30	0.10	0.80	2.20	4.80	5.80	14.10	11.60	2.80	1.00	0.40		0.00		
31		0.80		19.30	4.80		10.80		1.00	0.40		0.00		
Total	1.20	34.60	52.60	120.50	849.80	712.50	1172.00	208.80	46.50	21.00	14.00	4.40	3237.90	**Ton**
Mean	0.00	1.10	1.80	3.90	27.40	23.70	37.80	7.00	1.50	0.70	0.50	0.10		
Max	0.40	3.20	4.80	21.70	307.10	125.50	125.50	10.80	2.80	1.20	1.70	1.40	307.10	
Min	0.00	0.10	0.50	1.20	4.80	5.80	10.80	2.80	1.00	0.40	0.20	0.00	0.00	

WATER YEAR : 2011

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.

Ban Ong Thi **Amphoe** Thong Pha Phum **Changwat** Kanchanaburi

Drainge Area	51 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1998-Cont'd
Actual Measurement	1998-Cont'd
Using Rating Curve Water Year	2011
Number of observation	35
R-Square	0.8753
Remarks	Continued Sediment Station

$$QS = 3.2460\ QW^{1.30770}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.10	0.10	0.50	1.20	44.90	10.00	3.70	1.80	0.70	0.40	0.40	0.20		
2	0.10	0.10	0.40	0.90	26.10	9.30	3.20	1.60	0.70	0.40	0.40	0.20		
3	0.10	0.10	0.40	0.80	15.70	7.50	3.00	1.60	0.60	0.40	0.40	0.20		
4	0.20	0.10	0.30	2.00	10.00	7.50	3.20	1.60	0.60	0.40	0.60	0.20		
5	0.10	0.20	0.30	2.30	7.50	5.00	3.20	1.40	0.60	0.40	0.70	0.20		
6	0.10	0.10	0.20	1.20	6.50	6.00	2.70	1.40	0.60	2.50	0.50	0.20		
7	0.10	0.10	0.20	0.90	6.00	5.50	6.50	1.20	0.50	0.80	0.40	0.20		
8	0.10	0.10	0.20	0.80	26.10	8.70	7.50	1.20	0.50	0.60	0.40	0.10		
9	0.10	0.40	0.20	0.90	26.10	18.30	4.10	1.00	0.50	0.50	0.40	0.10		
10	0.10	1.40	0.20	1.00	16.60	11.30	4.10	1.00	0.50	0.40	0.40	0.10		
11	0.10	0.40	0.30	0.80	7.50	27.20	3.70	1.00	0.50	0.60	0.40	0.10		
12	0.10	0.40	0.20	2.70	8.00	29.50	2.70	1.00	0.50	0.40	0.30	0.10		
13	0.10	0.20	0.20	1.20	7.00	15.70	3.20	0.90	0.50	0.40	0.40	0.10		
14	0.10	0.20	0.40	0.80	6.50	9.30	3.70	0.90	0.50	0.40	0.40	0.10		
15	0.10	0.20	0.30	0.90	6.50	10.60	3.20	0.90	0.40	0.40	0.30	0.10		
16	0.10	0.10	0.90	1.40	6.00	10.60	8.70	0.90	0.40	0.40	0.30	0.10		
17	0.10	0.10	0.70	1.00	5.50	7.50	5.50	0.90	0.40	0.40	0.30	0.10		
18	0.10	0.10	2.70	1.60	5.50	7.50	4.10	0.90	0.40	0.40	0.30	0.10		
19	0.10	0.60	1.20	0.90	4.10	6.50	3.70	0.90	0.40	0.40	0.90	0.10		
20	0.10	0.40	1.00	10.60	5.00	6.50	3.00	0.80	0.40	0.40	0.80	0.10		
21	0.10	0.20	1.20	19.20	3.70	8.00	2.70	0.70	0.40	0.40	0.70	0.10		
22	0.10	0.20	1.20	7.50	3.00	6.00	2.50	0.70	0.40	0.40	0.40	0.10		
23	0.10	0.20	1.00	5.00	2.70	5.00	2.50	0.70	0.40	0.40	0.40	0.10		
24	0.40	0.10	0.70	4.10	3.00	5.00	2.30	0.60	0.40	0.30	0.30	0.10		
25	0.20	0.10	0.70	2.00	2.50	4.60	2.00	0.60	0.40	0.30	0.20	0.10		
26	0.10	0.20	0.50	3.20	2.30	4.60	1.80	0.60	0.40	0.30	0.20	0.10		
27	0.10	0.70	12.00	2.70	3.20	4.10	1.80	0.60	0.40	0.30	0.20	0.10		
28	0.10	2.70	5.00	2.30	13.40	5.50	2.00	0.60	0.40	0.30	0.20	0.10		
29	0.10	0.80	4.10	1.80	8.70	4.10	2.00	0.60	0.40	0.30	0.20	0.10		
30	0.10	0.70	1.80	3.20	8.00	3.70	1.80	0.70	0.40	0.40		0.10		
31		0.70		11.30	8.00		1.80		0.40	0.40		0.10		
Total	3.50	12.00	39.00	96.20	305.60	270.60	105.90	29.30	14.60	14.80	11.80	3.80	907.10	**Ton**
Mean	0.10	0.40	1.30	3.10	9.90	9.00	3.40	1.00	0.50	0.50	0.40	0.10		
Max	0.40	2.70	12.00	19.20	44.90	29.50	8.70	1.80	0.70	2.50	0.90	0.20	44.90	
Min	0.10	0.10	0.20	0.80	2.30	3.70	1.80	0.60	0.40	0.30	0.20	0.10	0.10	

WATER YEAR : 2011

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.

Ban Hin Laem **Amphoe** Thong Pha Phum **Changwat** Kanchanaburi

Drainge Area	123 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1998-Cont'd
Actual Measurement	1998-Cont'd
Using Rating Curve Water Year	2011
Number of observation	27
R-Square	0.9737
Remarks	Continued Sediment Station

$$QS = 3.4253\ QW^{1.62970}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.40	1.10	1.40	5.50	276.60	40.80	12.70	5.50	1.80	0.80	0.70	0.40		
2	0.40	0.90	0.80	4.70	259.20	49.80	10.90	5.10	1.80	0.80	0.70	0.40		
3	0.40	0.90	0.90	3.30	192.80	49.80	9.70	5.10	1.60	0.80	1.60	0.40		
4	0.60	0.70	0.90	3.00	70.70	37.20	13.50	5.10	1.60	1.10	1.80	0.40		
5	0.60	10.30	0.80	49.80	46.00	37.20	16.30	4.70	1.60	1.10	2.00	0.40		
6	0.70	6.80	0.80	7.70	31.70	22.90	10.30	4.70	1.60	12.10	1.30	0.40		
7	0.70	4.00	0.70	4.40	22.00	19.40	88.20	4.70	1.40	4.00	1.10	0.40		
8	0.70	10.30	0.50	3.70	58.90	39.60	46.00	4.70	1.40	1.60	0.90	0.40		
9	0.60	4.40	0.50	3.70	74.40	30.70	74.40	4.40	1.30	0.90	0.80	0.40		
10	0.80	11.50	0.70	3.30	65.40	294.50	40.80	4.40	1.30	0.90	0.80	0.30		
11	0.80	6.80	0.60	5.90	51.20	409.60	16.30	4.00	1.30	1.10	0.80	0.30		
12	0.70	5.10	0.60	7.70	43.30	281.20	12.70	4.00	1.10	1.10	0.80	0.30		
13	0.70	3.70	0.70	4.40	35.00	211.20	17.10	4.00	1.10	0.90	0.90	0.30		
14	0.60	1.60	0.80	3.30	17.10	101.70	12.70	3.70	1.10	0.90	0.80	0.30		
15	0.40	1.60	0.80	7.20	12.10	58.90	19.40	3.30	1.30	0.90	0.70	0.30		
16	0.40	1.40	1.60	5.50	32.80	55.80	322.10	3.30	1.10	0.80	0.60	1.10		
17	0.30	1.30	7.70	4.70	20.30	58.90	57.40	3.30	1.10	0.80	0.60	0.80		
18	0.20	1.10	10.90	4.00	20.30	42.10	24.80	3.00	1.10	0.80	0.60	0.70		
19	0.20	5.10	8.80	3.70	10.90	30.70	18.60	3.00	1.10	0.80	2.70	0.60		
20	0.20	4.00	7.70	6.80	10.90	25.70	13.50	3.00	1.10	0.80	1.40	0.40		
21	0.20	3.00	5.90	175.40	12.10	25.70	12.10	2.70	0.90	0.80	1.10	0.40		
22	0.10	2.20	5.50	123.90	9.30	35.00	10.90	2.40	0.90	0.70	0.90	0.40		
23	0.80	1.60	4.00	54.30	6.80	20.30	10.30	2.40	0.90	0.70	0.70	0.40		
24	0.70	1.60	2.70	21.10	7.70	17.80	9.30	2.40	0.90	0.70	0.70	0.30		
25	0.50	1.40	2.40	10.30	4.70	17.10	8.20	2.40	0.90	0.70	0.70	0.20		
26	0.40	3.30	2.20	11.50	3.70	16.30	7.70	2.40	0.80	0.70	0.70	0.20		
27	0.40	10.30	37.20	13.50	3.00	13.50	7.70	2.40	0.80	0.70	0.70	0.40		
28	0.30	6.30	40.80	8.80	54.30	17.10	6.80	2.40	0.80	0.70	0.60	0.40		
29	0.30	5.50	14.90	5.90	276.60	12.70	6.30	2.00	0.80	0.70	0.40	0.40		
30	0.60	3.30	8.20	26.60	65.40	10.90	6.30	1.80	0.80	0.70		0.30		
31		2.40		111.40	65.40		5.90		0.80	0.60		0.20		
Total	14.70	123.50	172.00	705.00	1860.60	2084.10	928.90	106.30	36.10	40.70	28.10	12.60	6112.60	**Ton**
Mean	0.50	4.00	5.70	22.70	60.00	69.50	30.00	3.50	1.20	1.30	1.00	0.40		
Max	0.80	11.50	40.80	175.40	276.60	409.60	322.10	5.50	1.80	12.10	2.70	1.10	409.60	
Min	0.10	0.70	0.50	3.00	3.00	10.90	5.90	1.80	0.80	0.60	0.40	0.20	0.10	

WATER YEAR : 2011

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.

Ban Si Mong Khon **Amphoe** Sai Yok **Changwat** Kanchanaburi

Drainge Area	308 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1998-Cont'd
Actual Measurement	1998-Cont'd
Using Rating Curve Water Year	1998-2011
Number of observation	188
R-Square	0.9171
Remarks	Continued Sediment Station

$$QS = 8.5646\ QW^{1.59030}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.00	20.90	2.60	0.80	2.80	1.40	0.50	0.50	0.30	0.20	0.10	0.00		
2	0.70	10.70	2.10	0.80	15.50	1.80	0.50	0.40	0.30	0.20	0.10	0.00		
3	0.60	4.90	3.80	0.70	7.20	2.30	0.40	0.30	0.30	0.20	0.10	0.00		
4	0.50	2.80	31.80	1.00	3.80	2.30	0.40	0.30	0.30	0.20	0.10	0.00		
5	0.60	3.80	14.10	2.80	2.60	1.80	0.60	0.30	0.30	0.20	0.10	0.00		
6	0.50	33.30	4.90	3.80	1.80	0.80	18.10	0.30	0.30	0.20	0.10	0.00		
7	0.50	5.40	3.30	1.80	1.40	0.70	195.60	0.30	0.30	0.20	0.10	0.00		
8	0.50	3.80	2.60	1.00	1.60	0.70	2163.40	0.30	0.30	0.20	0.10	0.00		
9	0.40	2.80	2.30	0.70	1.20	0.70	620.60	0.30	0.30	0.20	0.10	0.00		
10	0.50	2.60	1.80	0.60	1.40	0.70	280.00	0.30	0.30	0.20	0.10	0.00		
11	0.70	2.30	1.60	0.60	1.60	3.30	215.50	0.30	0.30	0.20	0.10	0.00		
12	0.60	2.10	1.40	0.60	1.60	141.80	127.00	0.30	0.30	0.10	0.10	0.00		
13	0.50	1.80	1.20	0.50	1.20	28.50	60.00	0.30	0.30	0.10	0.10	0.00		
14	0.40	1.80	1.20	0.50	1.20	9.70	82.30	0.30	0.30	0.10	0.10	0.00		
15	0.40	1.80	1.00	0.50	0.80	4.90	82.30	0.30	0.30	0.10	0.10	0.00		
16	0.40	3.80	1.20	0.50	0.80	2.60	78.30	0.30	0.30	0.10	0.10	0.00		
17	0.40	5.40	1.00	0.50	0.80	1.80	74.30	0.30	0.30	0.10	0.10	0.00		
18	0.30	4.90	1.20	0.50	0.80	1.20	54.50	0.30	0.30	0.10	0.10	0.00		
19	0.30	4.30	1.00	0.50	0.70	0.80	36.80	0.30	0.30	0.10	0.00	0.00		
20	0.30	3.30	0.80	0.50	0.70	0.80	25.40	0.30	0.30	0.10	0.00	0.00		
21	0.30	2.60	0.80	0.60	0.60	0.70	18.10	0.30	0.30	0.10	0.00	0.00		
22	0.30	2.30	0.80	0.70	0.60	0.70	11.90	0.30	0.30	0.10	0.00	0.00		
23	2.10	1.80	0.70	0.70	0.60	0.70	7.90	0.30	0.20	0.10	0.00	0.00		
24	170.10	1.80	0.70	0.80	0.60	0.80	7.20	0.30	0.20	0.10	0.00	0.00		
25	122.20	1.60	0.60	0.70	0.50	0.70	4.90	0.30	0.20	0.10	0.00	0.00		
26	36.80	1.80	0.60	0.80	0.50	0.70	2.60	0.30	0.20	0.10	0.00	0.00		
27	10.70	2.10	1.00	0.80	0.50	0.60	1.20	0.30	0.20	0.10	0.00	0.00		
28	35.20	1.80	1.40	0.70	0.60	0.60	1.00	0.30	0.20	0.10	0.00	0.00		
29	280.00	1.40	1.00	0.60	18.10	0.50	0.80	0.30	0.20	0.10	0.00	0.00		
30	36.80	1.60	0.80	0.60	3.30	0.50	0.70	0.30	0.20	0.10		0.40		
31		2.10		0.60	2.10		0.60		0.20	0.10		0.00		
Total	704.60	143.40	89.30	26.80	77.50	215.10	4173.40	9.30	8.40	4.20	1.80	0.40	5454.20	**Ton**
Mean	23.50	4.60	3.00	0.90	2.50	7.20	134.60	0.30	0.30	0.10	0.10	0.00		
Max	280.00	33.30	31.80	3.80	18.10	141.80	2163.40	0.50	0.30	0.20	0.10	0.40	2163.40	
Min	0.30	1.40	0.60	0.50	0.50	0.50	0.40	0.30	0.20	0.10	0.00	0.00	0.00	

WATER YEAR : 2011

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.

Ban Kui Mang **Amphoe** Thong Pha Phum **Changwat** Kanchanaburi

Drainge Area	128 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2002-Cont'd
Actual Measurement	2002-Cont'd
Using Rating Curve Water Year	2011
Number of observation	37
R-Square	0.8517
Remarks	Continued Sediment Station

$$QS = 4.2259\ QW^{1.45170}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.10	0.40	2.70	6.00	541.30	14.70	30.40	7.00	4.00	2.70	1.90	1.00		
2	0.10	0.40	2.50	7.00	446.90	31.40	16.50	7.00	4.00	2.70	4.50	0.80		
3	0.10	0.40	2.00	6.00	281.60	23.20	15.20	7.00	3.70	2.70	3.50	0.80		
4	0.10	0.30	1.90	6.70	111.80	29.30	23.20	7.00	3.70	2.70	2.50	0.70		
5	0.20	3.70	1.90	9.00	54.20	21.50	19.90	6.70	3.70	2.50	2.30	0.70		
6	0.20	1.60	1.90	6.30	33.40	15.20	15.20	6.70	3.70	2.50	1.90	0.70		
7	0.10	1.50	2.50	5.40	27.60	13.50	92.50	6.30	3.70	2.50	1.70	0.70		
8	0.10	1.50	2.00	4.90	37.50	21.50	172.70	6.30	3.70	2.30	1.60	0.60		
9	0.10	1.60	1.70	4.90	50.20	15.90	55.60	6.30	3.70	2.30	1.60	0.60		
10	0.10	2.90	1.90	4.50	55.60	64.30	101.00	6.00	3.50	2.30	1.50	0.60		
11	0.10	3.20	1.90	4.50	38.70	182.10	41.20	5.70	3.50	2.30	1.30	0.60		
12	0.10	1.90	2.00	5.40	31.40	521.50	26.60	5.70	3.50	2.30	2.00	0.50		
13	0.10	1.70	2.00	5.40	24.90	234.00	21.50	5.40	3.50	2.00	1.60	0.50		
14	0.10	1.60	2.50	4.90	24.00	118.50	18.40	5.40	3.50	2.00	1.60	0.50		
15	0.10	1.90	3.50	4.50	66.00	78.40	17.70	5.40	3.50	2.00	1.50	4.20		
16	0.10	1.70	2.90	5.40	69.50	58.30	111.80	5.10	3.20	2.00	1.50	1.90		
17	0.10	1.70	5.40	7.00	88.40	48.90	41.20	5.10	3.20	2.00	1.30	1.20		
18	0.10	2.70	10.90	6.00	67.70	55.60	30.40	4.90	3.20	1.90	1.30	1.00		
19	0.10	5.10	6.00	6.70	38.70	43.70	22.40	4.90	3.20	1.90	1.70	0.80		
20	0.10	3.70	7.30	13.50	34.30	37.50	19.10	4.50	3.20	1.90	1.70	0.70		
21	0.40	3.70	7.60	327.10	23.20	33.40	17.10	4.50	3.20	1.90	1.60	0.70		
22	0.40	3.70	6.00	96.70	18.40	46.30	15.20	4.50	2.90	1.90	1.60	0.70		
23	0.50	3.20	5.40	27.60	14.70	43.70	13.50	4.50	2.90	1.90	1.50	0.70		
24	1.10	2.30	5.10	11.40	15.20	46.30	12.40	4.20	2.90	1.70	1.30	0.70		
25	0.50	2.90	4.90	8.10	11.40	30.40	11.40	4.20	2.90	1.70	1.30	0.70		
26	0.50	5.10	4.50	17.70	9.40	25.70	10.40	4.20	2.90	1.70	1.20	0.70		
27	0.40	5.40	17.10	9.40	17.10	22.40	9.00	4.20	2.70	1.60	1.10	0.70		
28	0.40	4.50	14.10	8.10	31.40	19.90	8.10	4.20	2.70	1.60	1.10	0.70		
29	0.40	4.00	7.00	6.70	62.60	17.10	7.60	4.00	2.70	1.60	1.00	0.70		
30	0.40	3.70	6.00	7.60	22.40	17.10	7.30	4.00	2.70	1.50		0.60		
31		2.90		50.20	17.70		7.30		2.70	1.50		0.60		
Total	7.20	80.90	143.10	694.60	2367.20	1931.30	1011.80	160.90	102.10	64.10	50.20	26.60	6640.00	**Ton**
Mean	0.20	2.60	4.80	22.40	76.40	64.40	32.60	5.40	3.30	2.10	1.70	0.90		
Max	1.10	5.40	17.10	327.10	541.30	521.50	172.70	7.00	4.00	2.70	4.50	4.20	541.30	
Min	0.10	0.30	1.70	4.50	9.40	13.50	7.30	4.00	2.70	1.50	1.00	0.50	0.10	

WATER YEAR : 2011

MAE KLONG RIVER BASIN

Lam Phachi at Chom Bung , Ratchaburi (K.61)

Lat 13 - 41 - 28 N Long 99 - 27 - 08 E

Location : on right bank at the bridge on highway.

Ban - **Amphoe** Chom Bung **Changwat** Ratchaburi

Drainge Area	1,844 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2003-Cont'd
Actual Measurement	2003-Cont'd
Using Rating Curve Water Year	2003-2011
Number of observation	225
R-Square	0.8850
Remarks	Continued Sediment Station

$$QS = 2.1502\ QW^{1.49480}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	14.00	44.60	93.80	74.90	155.10	78.50	82.30	262.70	71.20	58.40	52.70	20.60		
2	3.60	82.30	101.70	71.20	514.80	78.50	82.30	218.30	71.20	58.40	52.70	20.60		
3	3.60	61.30	97.70	71.20	362.80	78.50	82.30	234.90	71.20	61.30	49.90	20.60		
4	3.60	93.80	331.70	71.20	196.50	74.90	93.80	211.00	71.20	61.30	52.70	22.30		
5	8.50	64.20	234.90	82.30	138.30	74.90	89.90	189.30	71.20	58.40	49.90	24.00		
6	11.70	67.70	132.90	86.00	111.80	74.90	97.70	149.40	71.20	58.40	49.90	20.60		
7	31.20	71.20	117.00	78.50	97.70	71.20	373.40	155.10	74.90	58.40	47.20	19.00		
8	55.50	78.50	101.70	78.50	89.90	71.20	2290.40	149.40	74.90	55.50	47.20	19.00		
9	24.00	61.30	93.80	71.20	89.90	82.30	1515.10	138.30	74.90	55.50	47.20	19.00		
10	27.50	47.20	86.00	71.20	89.90	89.90	681.70	132.90	74.90	52.70	44.60	19.00		
11	29.30	55.50	82.30	67.70	86.00	101.70	540.60	132.90	74.90	47.20	39.40	19.00		
12	17.70	52.70	82.30	64.20	86.00	155.10	825.60	106.70	74.90	47.20	39.40	19.00		
13	10.60	67.70	78.50	64.20	86.00	182.30	966.10	117.00	74.90	47.20	36.90	20.60		
14	8.50	175.40	78.50	61.30	86.00	138.30	792.60	117.00	78.50	49.90	36.90	24.00		
15	6.80	225.80	78.50	64.20	93.80	117.00	502.00	106.70	78.50	49.90	36.90	22.30		
16	5.40	452.10	78.50	64.20	93.80	106.70	581.40	101.70	74.90	52.70	36.90	27.50		
17	4.80	218.30	82.30	64.20	89.90	101.70	595.40	97.70	71.20	49.90	35.00	29.30		
18	2.50	182.30	78.50	61.30	89.90	97.70	1103.90	97.70	67.70	49.90	31.20	31.20		
19	7.50	161.80	97.70	58.40	86.00	93.80	792.60	93.80	67.70	52.70	27.50	27.50		
20	101.70	132.90	89.90	58.40	86.00	93.80	540.60	89.90	67.70	49.90	25.70	27.50		
21	22.30	111.80	93.80	64.20	82.30	93.80	476.80	86.00	67.70	47.20	31.20	31.20		
22	10.60	101.70	111.80	71.20	82.30	89.90	476.80	82.30	67.70	52.70	33.00	27.50		
23	6.80	93.80	111.80	78.50	82.30	89.90	405.70	82.30	64.20	55.50	31.20	22.30		
24	10.60	86.00	93.80	82.30	78.50	89.90	321.50	86.00	64.20	52.70	27.50	19.00		
25	97.70	86.00	86.00	86.00	74.90	89.90	311.40	89.90	64.20	49.90	29.30	16.40		
26	175.40	101.70	82.30	82.30	78.50	93.80	373.40	78.50	64.20	49.90	35.00	14.00		
27	89.90	149.40	82.30	82.30	78.50	97.70	301.50	74.90	64.20	47.20	31.20	14.00		
28	47.20	132.90	86.00	82.30	78.50	93.80	291.60	74.90	64.20	47.20	25.70	12.80		
29	52.70	101.70	82.30	74.90	86.00	89.90	452.10	74.90	61.30	44.60	22.30	11.70		
30	55.50	89.90	78.50	74.90	86.00	86.00	502.00	71.20	58.40	44.60		11.70		
31		93.80		89.90	82.30		384.10		58.40	49.90		10.60		
Total	946.70	3545.30	3126.80	2253.10	3620.20	2877.50	16926.60	3703.30	2156.40	1616.20	1106.20	643.80	42522.10	**Ton**
Mean	31.60	114.40	104.20	72.70	116.80	95.90	546.00	123.40	69.60	52.10	38.10	20.80		
Max	175.40	452.10	331.70	89.90	514.80	182.30	2290.40	262.70	78.50	61.30	52.70	31.20	2290.40	
Min	2.50	44.60	78.50	58.40	74.90	71.20	82.30	71.20	58.40	44.60	22.30	10.60	2.50	

WATER YEAR : 2011

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.

Ban Khao Chakan **Amphoe** Khao Chakan **Changwat** Sa Kaeo

Drainge Area	2,264 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1998-Cont'd
Actual Measurement	1998-Cont'd
Using Rating Curve Water Year	1998-2011
Number of observation	178
R-Square	0.8515
Remarks	Continued Sediment Station

$$QS = 5.2210\ QW^{1.29500}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	89.80	211.00	365.60	230.00	230.00	1528.80	1721.30	378.10	137.50	89.80	116.50	83.40		
2	96.40	174.10	403.40	220.50	429.00	3739.30	1573.40	328.60	116.50	103.00	116.50	83.40		
3	96.40	144.60	259.30	220.50	823.50	4161.60	1204.60	316.50	89.80	103.00	116.50	83.40		
4	89.80	137.50	328.60	192.30	521.60	3451.70	2190.40	304.50	89.80	109.70	109.70	83.40		
5	89.80	230.00	269.20	192.30	292.60	3445.80	2683.70	304.50	123.40	103.00	109.70	83.40		
6	71.00	292.60	239.70	230.00	259.30	1573.40	2921.50	249.40	130.40	89.80	109.70	83.40		
7	83.40	316.50	192.30	192.30	239.70	1551.10	3469.60	280.80	130.40	83.40	109.70	83.40		
8	103.00	239.70	159.20	192.30	416.20	1162.70	3496.30	280.80	130.40	89.80	103.00	83.40		
9	96.40	230.00	183.20	151.90	521.60	2137.00	2819.00	280.80	130.40	83.40	103.00	83.40		
10	96.40	280.80	151.90	151.90	1144.20	3863.70	8360.70	304.50	130.40	83.40	103.00	83.40		
11	96.40	211.00	151.90	151.90	2110.50	6892.80	17736.40	269.20	123.40	89.80	103.00	83.40		
12	77.10	183.20	166.60	137.50	3454.70	15792.50	14122.20	211.00	123.40	89.80	83.40	83.40		
13	64.90	166.60	183.20	137.50	4112.20	23667.50	9249.60	159.20	123.40	83.40	83.40	83.40		
14	390.70	230.00	159.20	130.40	1900.70	24429.60	3576.90	144.60	123.40	83.40	83.40	83.40		
15	89.80	292.60	192.30	269.20	2683.70	13828.30	2717.40	144.60	123.40	83.40	83.40	83.40		
16	83.40	328.60	230.00	292.60	3827.20	4261.00	4099.80	144.60	130.40	77.10	83.40	83.40		
17	89.80	353.20	192.30	292.60	6006.60	3772.60	4099.80	151.90	123.40	96.40	83.40	83.40		
18	83.40	1573.40	151.90	269.20	3703.10	3535.10	4248.60	174.10	116.50	109.70	83.40	83.40		
19	96.40	3654.90	166.60	259.30	2004.90	3351.20	2110.50	159.20	123.40	109.70	83.40	192.30		
20	109.70	1034.70	239.70	292.60	1332.20	2990.20	1797.70	166.60	116.50	96.40	83.40	192.30		
21	304.50	604.00	259.30	521.60	791.50	3529.10	3992.10	183.20	116.50	96.40	83.40	151.90		
22	292.60	390.70	239.70	1645.70	660.50	3502.30	3544.00	144.60	116.50	116.50	83.40	151.90		
23	416.20	259.30	230.00	2031.20	508.10	3526.10	1332.20	159.20	109.70	109.70	83.40	151.90		
24	403.40	183.20	220.50	857.90	378.10	4486.60	927.70	151.90	109.70	103.00	83.40	116.50		
25	328.60	249.40	192.30	998.70	1462.60	9950.30	747.20	159.20	109.70	109.70	83.40	116.50		
26	304.50	328.60	174.10	689.10	3541.00	12285.30	660.50	151.90	103.00	103.00	83.40	116.50		
27	230.00	442.00	159.20	403.40	5286.30	6277.40	548.80	144.60	103.00	109.70	83.40	116.50		
28	174.10	416.20	159.20	353.20	3564.90	4411.10	494.70	144.60	109.70	103.00	83.40	116.50		
29	166.60	403.40	166.60	378.10	3709.10	5655.50	442.00	137.50	103.00	103.00	83.40	116.50		
30	239.70	316.50	201.60	455.10	3727.20	4552.80	442.00	137.50	103.00	116.50		116.50		
31		280.80		239.70	1310.70		416.20		109.70	96.40		116.50		
Total	4954.20	14159.10	6388.60	12780.50	60953.50	187312.40	107746.80	6267.70	3629.70	3024.30	2701.50	3273.50	413191.80	**Ton**
Mean	165.10	456.70	213.00	412.30	1966.20	6243.70	3475.70	208.90	117.10	97.60	93.20	105.60		
Max	416.20	3654.90	403.40	2031.20	6006.60	24429.60	17736.40	378.10	137.50	116.50	116.50	192.30	24429.60	
Min	64.90	137.50	151.90	130.40	230.00	1162.70	416.20	137.50	89.80	77.10	83.40	83.40	64.90	

WATER YEAR : 2011

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.

Ban Kaeng **Amphoe** Mueang **Changwat** Sa Kaeo

Drainge Area	1,478 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1998-Cont'd
Actual Measurement	1998-Cont'd
Using Rating Curve Water Year	2005-2011
Number of observation	89
R-Square	0.7690
Remarks	Continued Sediment Station

$$QS = 9.9180\ QW^{1.02160}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	60.60	66.40	79.50	87.90	157.30	922.30	1819.50	213.90	67.70	47.60	64.10	66.40		
2	60.60	65.30	77.20	159.90	176.10	990.20	1728.30	189.60	66.40	46.40	64.10	66.40		
3	59.40	65.30	94.20	264.30	197.70	1071.70	1530.60	168.00	66.40	45.30	64.10	66.40		
4	59.40	65.30	94.20	294.80	195.00	1159.50	1324.40	143.80	65.30	44.10	64.10	66.40		
5	59.40	64.10	109.10	251.30	170.70	1173.10	1217.10	124.00	64.10	45.30	64.10	67.70		
6	60.60	61.80	109.10	195.00	113.40	1085.20	1091.90	109.10	64.10	51.10	63.00	67.70		
7	63.00	60.60	92.10	154.60	224.70	949.20	1021.60	100.60	63.00	57.00	63.00	67.70		
8	63.00	60.60	79.50	124.00	424.40	791.60	986.30	96.40	61.80	58.20	63.00	67.70		
9	61.80	65.30	72.40	104.90	444.00	643.00	986.30	92.10	61.80	57.00	64.10	67.70		
10	63.00	64.10	72.40	90.00	494.70	594.10	1025.60	90.00	63.00	57.00	64.10	67.70		
11	63.00	63.00	70.00	84.30	530.30	735.50	1061.00	87.90	63.00	59.40	64.10	67.70		
12	64.10	60.60	68.90	80.80	623.50	922.30	1227.20	94.20	63.00	59.40	64.10	67.70		
13	64.10	60.60	72.40	78.40	730.70	1230.60	1369.60	90.00	61.80	58.20	63.00	67.70		
14	64.10	63.00	70.00	83.10	862.90	1510.20	1811.50	87.90	61.80	61.80	63.00	67.70		
15	64.10	67.70	67.70	86.70	826.60	2008.90	2100.30	86.70	60.60	63.00	64.10	67.70		
16	65.30	68.90	66.40	92.10	689.20	2460.10	1972.30	85.40	60.60	63.00	64.10	66.40		
17	65.30	74.80	68.90	98.50	865.70	2515.20	1728.30	84.30	59.40	63.00	64.10	66.40		
18	65.30	72.40	75.90	96.40	1085.20	2223.90	1578.30	83.10	59.40	64.10	64.10	66.40		
19	64.10	72.40	74.80	92.10	1119.00	1811.50	1482.90	80.80	59.40	65.30	65.30	66.40		
20	64.10	83.10	74.80	138.50	1071.70	1462.50	1375.30	79.50	58.20	65.30	65.30	65.30		
21	67.70	70.00	83.10	377.40	922.30	1206.90	1250.90	78.40	58.20	65.30	65.30	66.40		
22	68.90	64.10	87.90	444.50	742.80	925.70	1139.20	77.20	57.00	66.40	65.30	67.70		
23	66.40	61.80	86.70	499.10	549.80	781.90	1013.80	74.80	57.00	66.40	65.30	68.90		
24	66.40	60.60	84.30	553.30	444.50	769.70	871.30	73.60	55.80	66.40	65.30	68.90		
25	67.70	59.40	79.50	493.60	424.40	865.70	655.10	72.40	55.80	66.40	65.30	68.90		
26	70.00	59.40	74.80	440.10	444.00	1009.80	480.30	71.30	54.70	65.30	65.30	67.70		
27	70.00	60.60	71.30	325.40	494.70	1264.50	432.20	70.00	52.40	65.30	66.40	67.70		
28	70.00	70.00	68.90	219.30	530.30	1571.50	408.70	68.90	48.80	68.90	66.40	66.40		
29	68.90	83.10	67.70	170.70	623.50	1771.60	307.90	67.70	46.40	70.00	66.40	66.40		
30	67.70	84.30	73.60	135.80	730.70	1827.40	260.00	67.70	45.30	68.90		65.30		
31		83.10		138.50	862.90		235.60		45.30	66.40		64.10		
Total	1938.00	2081.70	2367.30	6455.30	17772.70	38255.30	35493.30	2909.30	1827.50	1867.20	1869.90	2079.60	114917.10	**Ton**
Mean	64.60	67.20	78.90	208.20	573.30	1275.20	1144.90	97.00	59.00	60.20	64.50	67.10		
Max	70.00	84.30	109.10	553.30	1119.00	2515.20	2100.30	213.90	67.70	70.00	66.40	68.90	2515.20	
Min	59.40	59.40	66.40	78.40	113.40	594.10	235.60	67.70	45.30	44.10	63.00	64.10	44.10	

WATER YEAR : 2011

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

Ban Non Suk Phum **Amphoe** Kabin Buri **Changwat** Prachin Buri

Drainge Area	4,906 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1998-Cont'd
Actual Measurement	1998-Cont'd
Using Rating Curve Water Year	1998-2011
Number of observation	230
R-Square	0.8418
Remarks	Continued Sediment Station

$$QS = 7.2002\ QW^{1.12580}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	32.40	72.70	263.20	265.00	882.30	3645.90	6164.70	324.60	77.40	62.00	40.10	25.70		
2	31.40	78.90	268.50	383.80	772.10	3546.90	6260.40	313.70	74.30	50.00	36.20	31.40		
3	30.50	71.10	337.40	710.60	868.40	3822.00	5941.90	304.60	71.10	44.10	34.30	33.30		
4	31.40	52.90	381.90	949.10	1078.80	3997.30	5391.20	281.20	69.70	40.10	31.40	24.80		
5	31.40	42.10	400.60	879.50	954.70	4128.90	5167.60	261.50	66.60	35.30	37.20	24.80		
6	31.40	58.90	374.40	736.70	730.70	4194.90	4844.20	254.40	74.30	26.70	39.10	22.00		
7	31.40	75.80	344.80	455.20	635.20	3882.50	4063.00	229.50	77.40	32.40	52.90	18.40		
8	30.50	89.90	153.80	245.40	489.50	3456.30	3964.40	215.50	58.90	34.30	58.90	24.80		
9	30.50	99.60	153.80	245.40	378.20	2916.80	3866.10	210.30	56.00	48.50	22.90	26.70		
10	30.50	63.60	96.30	203.30	769.40	2735.10	3948.00	206.80	51.50	42.10	41.10	23.90		
11	31.40	88.30	65.00	198.10	1866.20	3094.90	4128.90	217.30	44.10	26.70	47.00	22.90		
12	32.40	65.00	82.00	102.70	1968.40	3508.10	4710.20	210.30	36.20	24.80	38.20	21.10		
13	33.30	51.50	212.00	94.70	2436.30	4377.00	5046.00	158.80	28.60	22.90	32.40	21.10		
14	0.00	44.10	201.50	89.90	3050.30	4827.40	5330.10	155.50	51.50	17.50	17.50	20.20		
15	191.20	74.30	187.80	172.40	3128.50	5046.00	5704.20	148.80	24.80	31.40	15.70	19.30		
16	189.50	122.20	181.00	226.10	3173.30	5957.70	5973.70	142.10	22.90	34.30	12.20	15.70		
17	32.40	193.00	167.30	343.10	3495.10	6324.40	5910.20	128.80	24.80	5.60	26.70	14.80		
18	29.50	194.70	184.30	396.80	3964.40	6564.80	5799.30	115.70	30.50	3.30	30.50	21.10		
19	28.60	326.50	224.30	447.70	4046.60	6164.70	5554.50	114.00	37.20	86.80	34.30	22.90		
20	22.00	1187.90	187.80	599.90	4096.00	5878.40	5452.40	112.40	44.10	93.20	36.20	14.80		
21	28.60	1022.20	224.30	791.30	3915.30	5391.20	4934.90	110.80	56.00	7.20	39.10	8.80		
22	189.50	143.70	295.60	1898.40	3139.70	4660.00	4063.00	109.20	36.20	48.50	34.30	7.20		
23	193.00	179.20	277.50	1963.10	1438.00	4710.20	2706.70	105.90	28.60	3.30	32.40	11.40		
24	193.00	163.90	229.50	2475.20	1438.00	3748.50	2622.00	105.90	24.80	77.40	24.80	6.40		
25	227.80	153.80	177.50	2235.20	1770.00	4777.10	1616.80	105.90	42.10	7.20	21.10	4.10		
26	219.00	80.50	147.10	1877.00	2744.50	5187.90	1245.40	105.90	42.10	38.20	21.10	1.50		
27	189.50	160.50	89.90	1277.90	2772.90	5767.40	1198.60	105.90	47.00	39.10	19.30	0.00		
28	177.50	175.70	86.80	1110.00	2850.20	5862.50	957.50	93.20	36.20	0.50	21.10	0.00		
29	26.70	332.00	99.60	898.90	3028.00	6228.50	572.60	86.80	30.50	16.60	15.70	0.00		
30	23.90	350.40	75.80	700.70	3398.20	5989.50	367.00	82.00	27.60	42.10		0.00		
31		359.60		827.00	3645.90		328.40		34.30	4.10		0.00		
Total	2370.20	6174.50	6171.30	23800.10	68925.10	140392.80	123833.90	5117.30	1427.30	1046.20	913.70	489.10	380661.50	**Ton**
Mean	79.00	199.20	205.70	767.70	2223.40	4679.80	3994.60	170.60	46.00	33.70	31.50	15.80		
Max	227.80	1187.90	400.60	2475.20	4096.00	6564.80	6260.40	324.60	77.40	93.20	58.90	33.30	6564.80	
Min	0.00	42.10	65.00	89.90	378.20	2735.10	328.40	82.00	22.90	0.50	12.20	0.00	0.00	

WATER YEAR : 2011

PRACHIN BURI RIVER BASIN

Huai 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.

Ban Thung Faek **Amphoe** Na Di **Changwat** Prachin Buri

Drainge Area	354 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1998-Cont'd
Actual Measurement	1998-Cont'd
Using Rating Curve Water Year	2008-2011
Number of observation	62
R-Square	0.8034
Remarks	Continued Sediment Station

$$QS = 7.4506\ QW^{1.23220}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	0.00	62.20	1146.00	175.70	345.40	31.20	1.00	0.00	0.00	0.00		
2	0.00	0.00	0.00	52.80	1080.00	114.00	271.40	31.20	0.40	0.00	0.00	0.00		
3	0.00	0.00	0.00	118.60	778.30	91.40	336.00	27.70	0.00	0.00	0.00	0.00		
4	0.00	0.00	0.00	78.40	437.40	538.30	517.80	24.20	0.00	0.00	0.00	0.00		
5	0.00	0.00	0.00	45.00	175.70	308.00	294.20	21.90	0.00	0.00	0.00	0.00		
6	0.00	0.00	5.70	25.30	102.60	139.80	871.90	19.70	0.00	0.00	0.00	0.00		
7	0.00	0.00	0.00	15.40	72.00	175.70	477.30	17.50	0.00	0.00	0.00	0.00		
8	0.00	0.00	0.00	9.30	58.20	102.60	192.50	16.40	0.00	0.00	0.00	0.00		
9	0.00	0.00	0.00	6.50	87.00	114.00	144.60	15.40	0.00	0.00	0.00	0.00		
10	0.00	0.00	1.70	13.30	87.00	966.30	345.40	21.90	0.00	0.00	0.00	0.00		
11	0.00	0.00	9.30	16.40	102.60	1179.30	502.50	23.00	0.00	0.00	0.00	0.00		
12	0.00	0.00	19.70	10.30	74.10	1565.40	195.90	16.40	0.00	0.00	0.00	0.00		
13	0.00	5.70	14.30	37.40	54.10	804.80	209.60	13.30	0.00	0.00	0.00	0.00		
14	0.00	0.00	2.40	76.20	118.60	600.60	253.40	12.30	0.00	0.00	0.00	0.00		
15	0.00	0.00	0.00	165.80	303.40	317.30	147.00	11.30	0.00	0.00	0.00	0.00		
16	0.00	0.00	3.20	89.20	811.50	209.60	162.50	9.30	0.00	0.00	0.00	0.00		
17	0.00	0.00	17.50	51.50	189.10	192.50	910.30	9.30	0.00	0.00	0.00	0.00		
18	0.00	0.00	37.40	36.10	798.20	132.70	778.30	8.40	0.00	0.00	0.00	0.00		
19	0.00	0.00	55.50	30.00	2143.90	100.30	253.40	6.50	0.00	0.00	0.00	0.00		
20	0.00	0.00	223.40	30.00	1425.80	80.50	151.90	6.50	0.00	0.00	0.00	0.00		
21	0.00	0.00	116.30	52.80	374.00	383.60	120.90	4.00	0.00	1.00	0.00	0.00		
22	0.00	0.00	98.10	137.40	175.70	271.40	95.90	3.20	0.00	0.00	0.00	0.00		
23	0.00	0.00	34.90	95.90	116.30	477.30	72.00	3.20	0.00	0.00	0.00	0.00		
24	0.00	0.00	21.90	364.40	91.40	487.30	62.20	2.40	0.00	0.00	0.00	0.00		
25	0.00	0.00	16.40	132.70	93.60	303.40	58.20	2.40	0.00	0.00	0.00	0.00		
26	0.00	0.00	10.30	611.10	69.90	159.20	52.80	1.70	0.00	4.00	0.00	0.00		
27	0.00	0.00	51.50	192.50	56.80	235.70	47.50	1.70	0.00	0.00	0.00	0.00		
28	0.00	0.00	336.00	87.00	51.50	771.70	43.70	1.00	0.00	0.00	0.00	0.00		
29	0.00	0.00	67.80	84.80	102.60	340.70	41.10	1.00	0.00	0.00	0.00	0.00		
30	0.00	0.00	67.80	182.40	579.70	359.70	37.40	1.00	0.00	0.00		0.00		
31		0.00		336.00	427.50		33.70		0.00	0.00		0.00		
Total	0.00	5.70	1211.10	3246.70	12184.50	11698.80	8026.70	365.00	1.40	5.00	0.00	0.00	36744.90	**Ton**
Mean	0.00	0.20	40.40	104.70	393.00	390.00	258.90	12.20	0.00	0.20	0.00	0.00		
Max	0.00	5.70	336.00	611.10	2143.90	1565.40	910.30	31.20	1.00	4.00	0.00	0.00	2143.90	
Min	0.00	0.00	0.00	6.50	51.50	80.50	33.70	1.00	0.00	0.00	0.00	0.00	0.00	

WATER YEAR : 2011

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.

Ban Tharapha **Amphoe** Mueang **Changwat** Sa Kaeo

Drainge Area	2,558 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2005-Cont'd
Actual Measurement	2005-Cont'd
Using Rating Curve Water Year	2011
Number of observation	20
R-Square	0.8377
Remarks	Continued Sediment Station

$$QS = 10.6310\ QW^{1.10630}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	6.60	131.30	85.80	125.30	167.70	2098.70	4092.20	302.90	34.50	16.60	26.70	8.30		
2	6.60	100.20	80.00	223.70	173.80	2046.00	3417.50	252.20	33.20	14.80	26.10	8.30		
3	6.60	60.30	157.00	298.00	487.50	2869.00	2573.50	202.50	31.90	13.60	26.10	8.30		
4	6.60	29.30	144.80	245.00	725.80	3307.10	2122.10	146.30	30.60	13.00	28.60	8.30		
5	6.60	33.90	138.80	188.50	366.80	3215.30	2566.50	84.30	29.90	12.40	31.20	8.30		
6	6.60	101.70	114.90	149.40	181.50	2676.30	2587.40	70.10	29.30	11.80	22.90	8.30		
7	6.60	144.80	78.60	216.60	143.30	1865.40	2510.80	155.50	28.60	11.20	22.30	7.70		
8	33.90	160.00	65.90	123.80	170.70	1595.00	2732.40	169.20	28.00	10.60	21.60	7.70		
9	13.00	90.10	54.80	57.50	278.60	1477.40	2716.30	123.80	27.40	10.00	21.60	7.70		
10	13.60	100.20	46.60	32.60	580.00	2165.20	2652.30	65.90	26.70	10.00	20.40	7.20		
11	8.30	112.00	32.60	21.60	1299.00	2859.90	3463.60	109.00	26.70	9.50	19.70	7.20		
12	7.20	60.30	33.20	19.10	1958.40	3343.80	4200.70	150.90	26.10	9.50	19.10	7.20		
13	7.20	33.90	67.30	9.50	2489.90	3806.60	4891.00	109.00	25.40	8.90	18.50	6.60		
14	49.30	33.20	129.80	11.80	3069.00	4510.90	5130.10	67.30	24.80	8.30	17.90	6.00		
15	135.80	90.10	188.50	17.90	2330.50	5580.80	4637.30	56.10	24.20	7.70	17.30	5.50		
16	9.50	147.90	153.90	186.20	2337.40	5456.90	3920.60	47.90	22.90	7.70	16.60	5.50		
17	7.70	176.90	106.10	193.10	3005.20	4875.10	3676.50	35.20	21.60	7.70	16.00	5.50		
18	7.70	327.30	67.30	180.00	3353.00	3982.90	3754.90	41.20	19.70	7.20	15.40	57.50		
19	7.70	1491.60	90.10	200.10	3169.50	2859.90	3676.50	65.90	19.10	7.20	14.80	35.20		
20	7.70	2116.30	109.00	312.60	2566.50	1882.80	2941.60	57.50	18.50	6.00	14.20	32.60		
21	35.80	991.10	113.40	513.00	1463.20	1715.30	2220.20	49.30	26.70	4.90	13.60	23.50		
22	264.20	551.60	109.00	907.80	936.70	2069.40	2841.80	45.20	25.40	4.90	13.00	19.10		
23	209.50	230.80	119.40	1877.00	715.20	1964.20	2178.90	43.90	23.50	149.40	12.40	18.50		
24	351.90	23.50	103.20	1871.20	492.60	2496.80	1491.60	43.90	22.90	58.90	11.80	18.50		
25	298.00	13.60	82.90	991.10	1738.30	3279.50	1002.10	42.50	22.30	67.30	11.20	17.90		
26	237.90	15.40	64.50	1038.50	2302.80	3695.00	779.00	39.80	21.60	37.20	10.60	17.90		
27	186.20	95.90	37.20	569.60	2814.70	4119.30	627.70	35.80	21.00	22.90	10.00	17.30		
28	101.70	436.80	29.30	354.40	3261.20	4668.90	536.10	33.20	20.40	27.40	8.90	137.30		
29	45.20	364.30	37.20	235.50	3371.40	4621.50	467.10	29.90	19.70	29.30	8.30	144.80		
30	52.00	266.60	68.70	347.00	3334.60	4350.30	396.60	29.90	19.10	31.20		74.30		
31		141.80		446.90	3445.10		354.40		18.50	33.20		26.10		
Total	2137.20	8672.70	2709.80	11964.30	52729.90	95455.20	81159.30	2706.10	770.20	670.30	516.80	764.10	260255.90	**Ton**
Mean	71.20	279.80	90.30	385.90	1701.00	3181.80	2618.00	90.20	24.80	21.60	17.80	24.60		
Max	351.90	2116.30	188.50	1877.00	3445.10	5580.80	5130.10	302.90	34.50	149.40	31.20	144.80	5580.80	
Min	6.60	13.60	29.30	9.50	143.30	1477.40	354.40	29.90	18.50	4.90	8.30	5.50	4.90	

WATER YEAR : 2011

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

Drainge Area	203 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1999-Cont'd
Actual Measurement	1999-Cont'd
Using Rating Curve Water Year	1999-2011
Number of observation	219
R-Square	0.7276
Remarks	Continued Sediment Station

$$QS = 9.4586\ QW^{0.85010}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	7.20	5.10	10.70	26.10	63.50	79.30	146.70	16.30	4.30	5.20	3.90	1.10		
2	7.20	5.10	23.40	23.00	89.70	102.90	107.70	14.10	6.10	5.10	4.20	1.10		
3	7.20	9.10	11.80	17.80	90.20	120.00	106.40	12.40	5.70	4.80	4.20	1.10		
4	6.10	8.80	0.00	16.70	76.00	109.80	195.20	13.20	7.20	4.60	4.20	1.10		
5	6.10	11.40	0.00	16.00	66.40	139.70	172.40	12.60	8.20	4.80	4.20	1.10		
6	6.40	12.40	13.20	13.70	51.30	129.20	169.80	13.40	8.10	4.80	4.20	1.10		
7	7.70	7.00	14.10	12.60	39.00	101.50	196.70	13.00	7.70	4.80	3.90	1.10		
8	8.80	3.40	11.40	12.80	30.10	95.20	145.00	12.20	7.70	4.80	3.90	1.10		
9	8.10	2.90	11.00	11.80	24.10	140.60	114.60	12.20	7.40	4.80	3.90	1.10		
10	6.10	2.20	11.00	10.80	29.40	396.50	106.40	11.20	7.20	4.80	3.90	1.10		
11	6.00	2.70	11.00	11.40	35.90	581.50	174.90	10.40	7.00	4.80	3.90	1.10		
12	6.10	2.90	16.30	18.50	33.30	609.80	179.10	4.80	6.80	4.60	3.90	1.10		
13	6.60	6.80	22.00	18.10	23.40	459.70	184.10	3.20	6.60	4.60	3.90	1.10		
14	6.60	8.80	19.90	14.90	20.30	311.30	156.20	2.40	6.60	4.30	3.90	1.10		
15	6.60	8.60	17.10	51.30	30.10	202.70	116.60	1.90	6.40	4.30	3.70	1.10		
16	6.60	7.80	16.70	73.80	64.70	157.90	100.80	1.70	6.40	4.30	3.70	1.10		
17	7.40	6.80	14.90	92.40	61.20	129.20	84.80	1.30	6.10	4.60	3.70	1.10		
18	8.40	8.20	14.90	102.20	94.50	174.00	70.90	1.30	6.00	4.60	3.20	1.10		
19	6.80	10.00	16.30	67.00	110.50	169.80	58.90	1.70	6.00	4.30	1.30	1.10		
20	5.20	9.60	16.00	143.20	102.20	199.70	51.90	1.90	5.70	4.60	1.30	1.10		
21	4.80	10.00	17.40	152.80	91.30	362.50	35.90	2.90	5.70	4.60	1.10	1.10		
22	4.20	8.60	19.90	145.00	67.50	233.40	12.60	1.30	5.70	4.60	0.70	1.10		
23	6.00	7.00	17.10	119.30	50.10	160.50	9.50	1.30	5.70	4.30	0.70	1.10		
24	5.20	7.20	16.70	92.40	37.80	360.80	16.70	1.30	6.00	4.30	0.70	1.10		
25	5.20	7.00	13.00	85.90	47.00	379.60	87.50	1.30	6.00	4.20	0.70	1.10		
26	5.20	7.00	11.70	69.20	55.40	249.80	39.00	1.70	5.70	4.20	1.30	1.10		
27	5.20	6.60	27.40	68.70	39.00	248.90	23.70	2.40	5.50	4.20	1.30	1.10		
28	5.20	7.80	95.20	52.40	39.70	233.40	21.30	5.70	5.50	3.90	1.30	1.10		
29	5.20	7.40	63.00	39.70	143.20	162.20	20.60	4.60	5.50	3.90	1.10	1.10		
30	5.20	17.40	36.50	41.50	157.00	161.30	19.20	3.40	5.50	3.90		1.10		
31		53.00		50.10	107.70		17.80		5.20	3.70		1.10		
Total	188.60	278.60	589.60	1671.10	1971.50	6962.70	2942.90	187.10	195.20	139.30	81.90	34.10	15242.60	**Ton**
Mean	6.30	9.00	19.70	53.90	63.60	232.10	94.90	6.20	6.30	4.50	2.80	1.10		
Max	8.80	53.00	95.20	152.80	157.00	609.80	196.70	16.30	8.20	5.20	4.20	1.10	609.80	
Min	4.20	2.20	0.00	10.80	20.30	79.30	9.50	1.30	4.30	3.70	0.70	1.10	0.00	

WATER YEAR : 2011

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.

Ban Noen Hom **Amphoe** Mueang **Changwat** Prachin Buri

Drainge Area	128 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1986-Cont'd
Actual Measurement	1986-Cont'd
Using Rating Curve Water Year	1986-2011
Number of observation	354
R-Square	0.7709
Remarks	Continued Sediment Station

$$QS = 1.5760\ QW^{1.36070}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	14.10	214.50	424.40	1039.40	128.60	176.00	9.00	1.20	0.00	0.00	0.00		
2	0.00	9.70	145.40	159.80	526.70	165.60	115.00	7.00	1.20	0.00	0.00	0.00		
3	0.00	4.00	79.90	210.60	195.00	108.40	106.40	6.40	1.00	0.00	0.00	0.00		
4	0.00	3.20	69.10	145.40	187.40	431.10	96.70	5.80	1.00	0.00	0.00	0.00		
5	0.00	2.70	91.00	98.60	307.40	148.20	78.00	5.80	1.00	0.00	0.00	0.00		
6	0.00	2.00	98.60	76.20	123.10	165.60	108.40	5.20	0.80	0.00	0.00	0.00		
7	0.00	1.60	78.00	60.50	89.10	131.30	91.00	4.60	0.60	0.00	0.00	0.00		
8	0.00	1.20	63.90	62.20	78.00	108.40	74.40	4.00	0.60	0.00	0.00	0.00		
9	0.00	3.00	67.40	55.50	145.40	120.40	60.50	3.80	0.60	0.00	0.00	0.00		
10	0.00	4.60	478.20	98.60	131.30	112.30	52.20	3.80	0.50	0.00	0.00	0.00		
11	0.00	22.30	159.80	108.40	102.50	388.00	91.00	3.50	0.50	0.00	0.00	0.00		
12	0.00	13.30	162.70	78.00	83.50	673.70	72.70	3.20	0.50	0.00	0.00	0.00		
13	0.00	87.20	179.80	81.70	168.60	339.00	91.00	3.20	0.50	0.00	0.00	0.00		
14	0.00	18.90	222.40	179.80	377.00	333.70	69.10	3.00	0.50	0.00	0.00	0.00		
15	0.00	52.20	112.30	261.50	159.80	162.70	92.90	3.00	0.50	0.00	0.00	0.00		
16	0.00	36.70	131.30	156.90	256.50	187.40	78.00	2.70	0.30	0.00	0.00	0.00		
17	0.00	17.20	261.50	162.70	614.60	286.70	62.20	2.70	0.30	0.00	0.00	0.00		
18	0.00	55.50	328.40	176.00	478.20	168.60	55.50	2.50	0.30	0.00	0.00	0.00		
19	0.00	25.80	123.10	256.50	339.00	128.60	49.00	2.50	0.30	0.00	0.00	0.00		
20	0.00	53.90	622.90	251.60	214.50	302.20	39.60	2.30	0.30	0.00	0.00	0.00		
21	0.00	24.90	159.80	230.40	131.30	139.70	33.70	2.30	0.20	0.20	0.00	0.00		
22	4.00	19.70	108.40	251.60	104.40	106.40	30.90	2.30	0.20	0.00	0.00	0.00		
23	1.80	15.60	74.40	128.60	76.20	104.40	29.50	2.00	0.20	0.00	0.00	0.00		
24	1.00	9.70	69.10	323.10	53.90	366.00	26.70	2.00	0.10	0.00	0.00	0.00		
25	0.50	9.70	53.90	125.80	47.40	142.50	49.00	1.80	0.10	0.00	0.00	0.00		
26	3.00	12.60	50.60	339.00	47.40	106.40	44.30	1.80	0.10	0.00	0.00	0.00		
27	2.30	6.40	2886.90	134.10	39.60	246.60	36.70	1.60	0.10	0.00	0.00	0.00		
28	1.00	23.10	261.50	136.90	55.50	478.20	29.50	1.40	0.10	0.00	0.00	0.00		
29	3.20	505.80	142.50	100.50	142.50	162.70	20.50	1.40	0.10	0.00	0.00	0.00		
30	3.50	151.10	4229.50	437.70	246.60	246.60	14.10	1.40	0.10	0.00		0.00		
31		62.20		168.60	168.60		9.70		0.10	0.00		0.00		
Total	20.30	1269.90	11726.80	5481.20	6730.40	6690.00	1984.20	102.00	13.90	0.20	0.00	0.00	34018.90	**Ton**
Mean	0.70	41.00	390.90	176.80	217.10	223.00	64.00	3.40	0.40	0.00	0.00	0.00		
Max	4.00	505.80	4229.50	437.70	1039.40	673.70	176.00	9.00	1.20	0.20	0.00	0.00	4229.50	
Min	0.00	1.20	50.60	55.50	39.60	104.40	9.70	1.40	0.10	0.00	0.00	0.00	0.00	

WATER YEAR : 2011

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

Drainge Area	126 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1998-Cont'd
Actual Measurement	1998-Cont'd
Using Rating Curve Water Year	1998-2011
Number of observation	214
R-Square	0.8150
Remarks	Continued Sediment Station

$$QS = 2.4347\ QW^{1.16670}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	1.30	42.10	10.20	39.50	24.40	49.80	4.80	2.40	0.80	0.10	0.00		
2	0.00	4.50	30.00	7.40	45.90	32.40	39.50	4.80	2.40	0.80	0.10	0.00		
3	0.00	2.20	21.20	6.80	31.60	35.70	133.80	4.20	1.70	0.80	0.10	0.00		
4	0.00	1.90	12.30	8.10	30.00	43.40	85.40	4.20	1.70	0.80	0.10	0.00		
5	0.00	3.30	6.10	5.10	23.60	38.30	63.20	4.20	1.70	0.50	0.10	0.00		
6	0.00	2.20	5.50	4.20	18.20	37.00	82.60	4.20	1.30	0.50	0.10	0.00		
7	0.00	2.20	4.80	3.60	14.40	30.80	61.80	4.80	1.30	0.50	0.10	0.00		
8	0.00	1.90	4.50	4.50	11.60	32.40	48.50	4.80	1.30	0.50	0.10	0.00		
9	0.00	1.90	3.60	3.60	10.20	33.30	38.30	4.80	1.30	0.50	0.10	0.00		
10	0.00	1.60	12.30	3.00	11.60	785.90	35.70	4.80	1.30	0.50	0.10	0.00		
11	0.00	1.60	9.50	13.00	10.20	217.40	52.50	4.20	1.30	0.50	0.10	0.00		
12	0.00	1.60	9.50	7.40	10.20	366.30	60.50	4.20	1.10	0.50	0.10	0.00		
13	0.00	1.60	6.10	5.10	8.80	150.00	67.30	4.20	1.10	0.40	0.10	0.00		
14	0.00	1.60	5.50	4.50	16.70	131.80	48.50	4.20	1.10	0.40	0.10	0.00		
15	0.00	1.60	4.80	40.80	19.70	111.90	39.50	3.60	1.10	0.40	0.10	0.00		
16	0.00	1.60	5.50	20.50	21.20	82.60	34.10	3.60	1.10	0.40	0.10	0.00		
17	0.00	1.60	4.80	49.80	19.70	70.00	29.20	3.60	1.10	0.40	0.10	0.00		
18	0.00	2.20	8.10	28.40	52.50	102.60	25.20	3.00	1.10	0.30	0.10	0.00		
19	0.00	2.70	5.10	45.90	33.30	71.40	20.50	3.00	1.10	0.30	0.10	0.00		
20	0.00	2.40	12.30	59.10	37.00	119.80	18.90	3.00	0.80	0.30	0.10	0.00		
21	0.10	2.40	10.20	68.70	29.20	106.00	16.70	2.40	0.80	0.30	0.10	0.00		
22	0.10	2.40	8.80	65.90	21.20	79.80	14.40	2.40	0.80	0.30	0.10	0.00		
23	0.40	1.90	6.10	34.90	16.70	67.30	12.30	2.40	0.80	0.30	0.10	0.00		
24	0.40	1.90	4.80	47.20	13.70	174.90	12.30	2.40	0.80	0.30	0.10	0.00		
25	0.50	1.90	3.90	30.00	11.60	72.80	10.20	2.40	0.80	0.20	0.10	0.00		
26	0.50	1.60	5.10	37.00	10.20	70.00	8.80	2.40	0.80	0.20	0.10	0.00		
27	0.80	1.60	52.50	25.90	13.00	65.90	8.10	2.40	0.80	0.20	0.10	0.00		
28	0.80	1.30	27.50	17.40	15.20	61.80	8.10	2.40	0.80	0.20	0.10	0.00		
29	1.10	1.30	16.70	15.90	61.80	57.80	6.10	2.40	0.80	0.20	0.10	0.00		
30	1.10	28.40	13.70	19.70	42.10	53.80	5.50	2.40	0.80	0.20		0.00		
31		13.70		26.70	30.80		4.80		0.80	0.20		0.00		
Total	5.80	99.90	362.90	720.30	731.40	3327.50	1142.10	106.20	36.10	12.70	2.90	0.00	6547.80	**Ton**
Mean	0.20	3.20	12.10	23.20	23.60	110.90	36.80	3.50	1.20	0.40	0.10	0.00		
Max	1.10	28.40	52.50	68.70	61.80	785.90	133.80	4.80	2.40	0.80	0.10	0.00	785.90	
Min	0.00	1.30	3.60	3.00	8.80	24.40	4.80	2.40	0.80	0.20	0.10	0.00	0.00	

WATER YEAR : 2011

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

Ban Si Bua Thong **Amphoe** Khao Saming **Changwat** Trat

Drainge Area	779 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1978-Cont'd
Actual Measurement	1978-Cont'd
Using Rating Curve Water Year	2011
Number of observation	46
R-Square	0.7048
Remarks	Continued Sediment Station

$$QS = 0.3687\ QW^{1.51370}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	51.90	48.20	58.00	571.30	1063.70	2033.00	526.00	59.50	7.80	2.60	0.80	10.30		
2	50.40	33.10	54.90	539.20	1562.40	1244.90	547.20	51.90	7.40	2.40	0.50	5.20		
3	54.90	31.80	50.40	388.60	1011.70	782.60	601.30	49.60	7.00	1.90	1.00	3.50		
4	75.00	20.60	57.20	400.50	579.40	643.00	615.10	48.90	7.00	2.10	4.90	2.80		
5	125.60	20.60	52.60	289.50	372.10	1086.30	645.80	46.00	7.00	1.90	6.30	2.60		
6	150.60	35.00	53.40	233.30	471.90	1501.10	1056.20	39.70	5.90	1.80	4.90	2.10		
7	137.90	26.90	58.70	199.40	429.50	815.90	975.00	35.70	8.20	1.70	3.20	3.70		
8	150.60	25.70	51.90	175.10	402.90	2083.00	1292.70	46.00	5.60	1.70	3.50	7.80		
9	143.00	54.10	50.40	688.50	308.40	3602.60	853.90	50.40	5.20	1.50	5.20	13.00		
10	144.20	73.30	46.70	773.60	735.00	3289.60	626.20	42.50	4.90	1.40	5.90	65.90		
11	178.30	66.70	43.90	515.60	1694.40	3755.00	568.60	36.30	4.00	1.40	8.60	28.10		
12	221.20	46.00	39.70	374.40	1101.50	6943.10	477.00	33.10	3.70	1.40	7.80	17.40		
13	104.50	46.70	52.60	598.50	568.60	7421.20	449.30	29.30	3.50	1.30	7.40	12.50		
14	153.20	44.60	94.40	645.80	390.90	5057.20	720.40	28.70	2.60	1.10	6.60	9.40		
15	134.20	43.90	201.00	850.40	574.00	3432.50	579.40	28.70	1.80	1.00	5.60	8.60		
16	110.20	34.40	1456.40	809.00	857.40	1989.50	386.20	28.70	3.00	0.90	4.90	8.20		
17	89.00	26.90	2756.40	541.90	1082.50	833.10	298.90	24.50	1.70	0.70	6.60	7.80		
18	81.00	393.30	4025.50	358.20	697.10	587.60	245.70	21.70	1.40	1.00	17.90	15.90		
19	72.50	178.30	3943.30	278.30	833.10	617.80	178.30	21.70	0.80	1.50	18.40	13.00		
20	72.50	104.50	3187.40	400.50	643.00	788.60	207.70	21.10	0.70	2.10	13.90	9.40		
21	125.60	75.90	2478.10	1162.80	454.30	1097.70	164.20	20.60	1.00	4.00	10.70	7.00		
22	149.40	57.20	1365.50	1097.70	351.30	1636.10	129.30	17.90	0.80	3.50	7.40	4.90		
23	223.00	58.00	740.90	651.40	291.30	1647.70	110.20	17.40	1.40	3.00	5.90	3.50		
24	316.10	64.30	376.80	1241.00	238.60	1885.30	96.60	16.90	3.00	5.60	5.90	4.00		
25	201.00	53.40	258.20	1037.60	282.00	1439.70	93.30	16.40	3.00	4.20	3.50	8.20		
26	304.60	61.10	249.20	761.60	280.10	1268.70	93.30	11.60	3.00	3.50	12.50	8.60		
27	287.60	51.10	634.50	631.80	466.80	1151.20	78.40	9.40	3.00	3.00	6.30	6.60		
28	51.90	50.40	1431.40	482.00	931.60	920.90	153.20	9.00	3.00	3.70	9.00	5.20		
29	41.10	51.10	1529.30	688.50	1618.80	826.20	91.10	8.60	1.90	4.50	5.20	5.20		
30	52.60	86.30	906.60	822.70	2818.80	735.00	65.90	8.20	1.80	3.00		4.20		
31		71.60		668.40	2359.10		62.70		1.80	3.00		1.10		
Total	4053.60	2035.00	26305.30	18877.10	25472.20	61116.10	12989.10	880.00	112.90	72.40	200.30	305.70	152419.70	**Ton**
Mean	135.10	65.60	876.80	608.90	821.70	2037.20	419.00	29.30	3.60	2.30	6.90	9.90		
Max	316.10	393.30	4025.50	1241.00	2818.80	7421.20	1292.70	59.50	8.20	5.60	18.40	65.90	7421.20	
Min	41.10	20.60	39.70	175.10	238.60	587.60	62.70	8.20	0.70	0.70	0.50	1.10	0.50	

WATER YEAR : 2011

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

Ban Puk **Amphoe** Makham **Changwat** Chanthaburi

Drainge Area	647 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1978-Cont'd
Actual Measurement	1978-Cont'd
Using Rating Curve Water Year	1978-2011
Number of observation	327
R-Square	0.7096
Remarks	Continued Sediment Station

$$QS = 0.8404\ QW^{1.41940}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	46.10	48.50	616.40	841.40	563.40	576.50	0.00	1.10	0.00	0.00	0.00		
2	0.00	37.00	71.10	464.20	1235.50	418.70	650.10	0.00	7.80	0.00	0.00	0.00		
3	0.00	28.60	37.00	691.40	1914.50	407.50	550.40	0.00	6.40	0.00	0.00	0.00		
4	0.00	24.60	39.20	776.10	892.40	452.70	589.70	0.00	6.40	0.00	0.00	0.00		
5	1.10	19.00	39.20	385.40	429.90	537.50	797.70	0.00	5.20	0.00	0.00	0.00		
6	1.10	28.60	37.00	272.90	287.50	385.40	872.80	0.00	5.20	0.00	0.00	0.00		
7	1.10	37.00	37.00	210.60	407.50	316.00	603.00	0.00	6.40	0.00	0.00	0.00		
8	1.10	65.90	39.20	175.00	487.50	335.40	524.70	0.00	6.40	0.00	0.00	0.00		
9	4.00	123.30	53.30	180.80	670.70	464.20	537.50	0.00	5.20	0.00	0.00	0.00		
10	2.90	119.20	63.30	157.90	861.70	670.70	629.80	0.00	4.00	0.00	0.00	0.00		
11	2.90	91.40	58.20	136.00	895.20	983.50	511.90	0.00	5.20	0.00	0.00	15.50		
12	2.90	73.80	24.60	144.60	963.30	2886.20	563.40	0.00	4.00	0.00	0.00	12.20		
13	4.00	60.70	34.90	237.40	900.80	4505.80	797.70	0.00	4.00	0.00	0.00	6.40		
14	5.20	63.30	53.30	210.60	854.30	1504.80	846.90	0.00	4.00	0.00	0.00	4.00		
15	2.90	60.70	48.50	265.60	909.30	863.60	691.40	0.00	2.90	0.00	0.00	0.40		
16	1.90	53.30	63.30	375.30	2485.00	754.60	872.80	0.00	2.90	0.00	0.00	0.00		
17	1.10	43.80	73.80	265.60	2862.40	511.90	983.50	0.00	2.90	0.00	0.00	1.90		
18	1.10	111.00	91.40	210.60	986.30	407.50	691.40	0.00	1.90	0.00	0.00	1.10		
19	0.00	87.60	131.70	180.80	854.30	429.90	418.70	0.00	1.10	0.00	0.00	1.10		
20	0.40	71.10	296.90	280.10	712.30	912.10	325.60	0.00	0.40	0.00	0.00	1.10		
21	1.90	65.90	163.60	914.90	487.50	1097.90	272.90	0.00	0.00	0.00	0.00	0.00		
22	6.40	63.30	210.60	949.00	355.20	983.50	237.40	0.00	0.00	0.00	0.00	0.00		
23	5.20	60.70	223.60	819.50	345.20	909.30	223.60	0.00	0.00	0.00	0.00	0.00		
24	6.40	60.70	895.20	670.70	296.90	1078.10	180.80	0.00	0.00	0.00	0.00	0.00		
25	10.70	55.70	881.20	499.30	316.00	1557.50	157.90	0.00	0.00	0.00	0.00	0.00		
26	19.00	58.20	335.40	452.70	335.40	1522.30	140.30	0.00	0.00	0.00	0.00	0.40		
27	39.20	50.80	216.80	576.50	499.30	1007.60	127.50	0.00	0.00	0.00	0.00	1.10		
28	26.60	26.60	251.40	345.20	407.50	963.30	119.20	0.00	0.00	0.00	0.00	0.00		
29	28.60	46.10	306.40	365.20	1019.20	848.80	127.50	0.00	0.00	0.00	0.00	0.00		
30	32.70	58.20	204.60	375.30	1058.40	859.90	107.00	0.00	0.00	0.00		0.00		
31		58.20		280.10	850.60		91.40		0.00	0.00		0.00		
Total	210.40	1850.40	5030.20	12485.70	26423.00	29139.60	14821.00	0.00	83.40	0.00	0.00	45.20	90088.90	**Ton**
Mean	7.00	59.70	167.70	402.80	852.40	971.30	478.10	0.00	2.70	0.00	0.00	1.50		
Max	39.20	123.30	895.20	949.00	2862.40	4505.80	983.50	0.00	7.80	0.00	0.00	15.50	4505.80	
Min	0.00	19.00	24.60	136.00	287.50	316.00	91.40	0.00	0.00	0.00	0.00	0.00	0.00	

WATER YEAR : 2011

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.

Ban Chaman **Amphoe** Makham **Changwat** Chanthaburi

Drainge Area	229 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1978-Cont'd
Actual Measurement	1978-Cont'd
Using Rating Curve Water Year	1994-2011
Number of observation	312
R-Square	0.7866
Remarks	Continued Sediment Station

$$QS = 1.0227\ QW^{1.44200}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.20	3.60	7.70	111.60	935.80	224.90	194.70	36.10	7.70	3.60	3.00	1.00		
2	3.40	4.70	11.20	97.00	825.70	251.50	235.70	34.20	8.50	3.80	2.40	1.30		
3	3.20	3.80	20.90	103.00	345.90	197.70	181.60	32.30	8.10	2.60	2.40	1.00		
4	2.60	4.10	20.30	94.60	194.70	199.20	203.60	30.40	8.10	2.40	2.20	1.80		
5	3.20	3.40	15.00	63.70	142.60	352.50	238.90	27.90	7.70	2.80	1.80	1.50		
6	3.00	3.80	12.10	53.00	107.90	248.40	229.50	27.90	7.30	2.60	1.80	1.50		
7	2.40	1.70	12.10	45.00	98.20	193.30	203.60	26.10	6.90	3.60	1.70	1.20		
8	2.60	1.20	13.50	40.20	117.90	402.20	215.70	24.90	6.90	4.70	1.70	1.30		
9	2.40	1.50	14.50	56.00	140.00	463.30	160.40	26.70	6.90	2.60	1.80	3.00		
10	2.60	1.50	16.60	60.60	160.40	502.30	339.30	23.70	6.50	2.00	1.80	7.30		
11	2.80	1.30	12.60	40.90	194.70	812.70	193.30	22.60	5.70	2.00	0.70	12.10		
12	2.40	2.40	31.00	67.60	191.80	1814.30	160.40	20.30	5.30	2.00	0.70	6.10		
13	2.60	2.60	121.70	83.30	134.70	1100.40	377.10	19.80	5.30	2.00	0.90	3.80		
14	2.60	3.20	98.20	97.00	129.40	659.20	245.20	18.70	5.30	2.20	1.00	3.00		
15	3.20	2.80	68.40	128.10	224.90	368.10	168.80	16.10	5.00	1.80	0.90	2.20		
16	3.00	3.20	80.80	154.80	716.10	279.90	235.70	14.50	5.00	2.20	1.00	1.70		
17	3.60	3.20	284.00	85.00	580.40	229.50	217.20	14.00	5.00	1.50	0.70	2.00		
18	3.60	5.00	451.40	63.70	267.60	184.50	262.80	15.00	4.70	3.20	1.80	1.70		
19	3.80	8.90	235.70	55.20	209.60	275.80	129.40	14.50	4.70	3.80	2.40	2.00		
20	3.20	5.30	275.80	218.80	167.40	473.00	119.10	14.00	4.70	3.40	1.80	1.80		
21	2.80	5.30	180.20	795.70	132.00	468.10	85.90	13.10	5.00	3.20	1.70	1.30		
22	2.80	5.00	209.60	425.40	98.20	468.10	75.00	13.50	5.30	3.40	1.70	1.70		
23	3.00	5.30	173.00	208.10	78.30	381.60	69.20	12.10	5.00	3.60	1.20	1.50		
24	3.20	24.90	78.30	292.30	73.30	470.60	66.00	11.20	5.00	4.30	1.20	1.20		
25	3.80	27.30	57.50	175.90	69.20	409.10	59.00	10.70	4.70	3.80	1.20	15.50		
26	4.30	47.90	51.50	275.80	66.80	390.70	55.20	10.30	4.50	4.50	1.20	6.90		
27	3.20	39.50	497.30	253.10	70.90	302.80	46.40	9.80	4.30	3.60	1.20	3.60		
28	3.20	53.00	1183.80	145.30	173.00	275.80	47.20	8.90	4.30	3.40	1.20	3.00		
29	3.20	55.20	326.30	361.40	977.10	242.00	52.20	8.90	4.50	2.60	0.90	3.00		
30	3.60	29.10	164.50	437.10	623.30	284.00	42.20	8.10	4.30	3.20		1.70		
31		21.40		223.30	256.30		37.50		4.30	3.60		1.00		
Total	92.50	381.10	4725.50	5312.50	8504.10	12925.50	4947.80	566.30	176.50	94.00	44.00	97.70	37867.50	**Ton**
Mean	3.10	12.30	157.50	171.40	274.30	430.80	159.60	18.90	5.70	3.00	1.50	3.20		
Max	4.30	55.20	1183.80	795.70	977.10	1814.30	377.10	36.10	8.50	4.70	3.00	15.50	1814.30	
Min	2.40	1.20	7.70	40.20	66.80	184.50	37.50	8.10	4.30	1.50	0.70	1.00	0.70	

WATER YEAR : 2011

EAST COAST - GULF BASIN

Khlong Aeng at Ban Nong Bon , 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 Nong Bon **Amphoe** Bo Rai **Changwat** Trat

Drainge Area	58 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2005-Cont'd
Actual Measurement	2005-Cont'd
Using Rating Curve Water Year	2011
Number of observation	27
R-Square	0.8754
Remarks	Continued Sediment Station

$$QS = 2.7465\ QW^{1.81880}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	2.30	1.40	218.80	667.70	304.00	40.70	17.90	12.50	0.00	0.00	0.00		
2	0.00	1.10	1.80	149.40	500.70	287.60	59.00	16.70	10.60	0.00	0.00	0.00		
3	0.00	0.50	4.40	123.30	263.70	233.30	163.30	15.60	8.80	0.00	0.00	0.00		
4	0.00	0.50	8.00	99.60	187.60	609.70	140.50	14.50	4.40	0.00	0.00	0.00		
5	0.00	1.80	2.70	68.20	144.90	511.20	85.00	12.50	5.70	0.00	0.00	0.00		
6	0.00	0.80	2.30	53.20	158.60	667.70	172.80	11.50	6.50	0.00	0.00	0.00		
7	0.00	0.80	8.80	45.00	211.70	470.00	103.40	11.50	7.20	0.00	0.00	0.00		
8	0.00	5.10	6.50	39.00	168.00	790.90	103.40	21.50	8.00	0.00	0.00	0.10		
9	0.00	15.60	7.20	65.10	127.50	312.30	68.20	12.50	3.80	0.00	0.00	0.00		
10	0.00	26.80	8.80	47.60	218.80	740.50	53.20	9.70	5.70	0.00	0.00	0.50		
11	0.00	12.50	5.70	37.40	154.00	3367.30	88.50	8.80	6.50	0.00	0.00	0.00		
12	0.00	8.00	5.70	78.10	111.20	1083.40	115.20	8.00	8.00	0.00	0.00	0.00		
13	0.00	8.00	34.20	158.60	144.90	1294.50	115.20	7.20	4.40	0.00	0.00	0.00		
14	0.00	5.70	68.20	192.60	177.70	679.60	127.50	6.50	3.80	0.00	0.00	0.00		
15	0.00	3.30	50.40	279.50	149.40	420.60	95.80	5.70	3.80	0.00	0.00	0.00		
16	0.00	2.30	255.90	172.80	182.60	271.50	88.50	5.10	4.40	0.00	0.00	0.00		
17	0.00	1.80	1083.40	131.80	144.90	211.70	78.10	4.40	4.40	0.00	0.00	0.00		
18	0.00	88.50	1196.40	88.50	329.40	172.80	59.00	3.80	2.30	0.00	0.10	0.00		
19	0.00	0.00	829.70	71.50	655.90	411.00	47.60	6.50	2.70	0.00	0.00	0.00		
20	0.00	0.00	263.70	95.80	177.70	248.30	85.00	3.80	4.40	0.40	0.00	0.00		
21	0.00	0.00	192.60	218.80	144.90	218.80	42.30	4.40	3.30	0.10	0.00	0.00		
22	0.00	0.00	115.20	192.60	119.20	703.70	37.40	7.20	2.30	0.10	0.00	0.00		
23	0.50	0.40	115.20	204.70	85.00	940.60	34.20	8.00	0.00	0.00	0.00	0.00		
24	0.10	92.10	78.10	312.30	127.50	803.70	31.10	5.10	0.00	1.80	0.00	0.00		
25	0.00	95.80	42.30	177.70	88.50	140.50	32.60	4.40	0.00	0.00	0.00	0.00		
26	3.80	85.00	71.50	154.00	168.00	74.70	28.20	5.70	0.00	0.00	0.20	0.00		
27	7.20	56.10	3114.00	204.70	233.30	204.70	25.40	4.40	0.00	0.00	0.00	0.00		
28	2.30	5.10	1812.70	149.40	263.70	192.60	32.60	5.70	0.00	0.00	0.00	0.00		
29	17.90	5.10	958.00	240.80	1046.90	65.10	24.10	11.50	0.00	0.00	0.00	0.00		
30	13.50	5.10	329.40	204.70	543.20	99.60	21.50	1.10	0.00	0.00		0.00		
31		2.30		177.70	295.70		20.30		0.00	0.00		0.00		
Total	45.30	532.40	10674.20	4453.20	7992.80	16531.90	2219.60	261.20	123.50	2.40	0.30	0.60	42837.40	**Ton**
Mean	1.50	17.20	355.80	143.70	257.80	551.10	71.60	8.70	4.00	0.10	0.00	0.00		
Max	17.90	95.80	3114.00	312.30	1046.90	3367.30	172.80	21.50	12.50	1.80	0.20	0.50	3367.30	
Min	0.00	0.00	1.40	37.40	85.00	65.10	20.30	1.10	0.00	0.00	0.00	0.00	0.00	

WATER YEAR : 2011

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.

Ban Song Phi Nong **Amphoe** Kaeng Krachan **Changwat** Phetchaburi

Drainge Area	2,220 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1997-Cont'd
Actual Measurement	1997-Cont'd
Using Rating Curve Water Year	2011
Number of observation	24
R-Square	0.9172
Remarks	Continued Sediment Station

$$QS = 0.5123\ QW^{1.33910}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	54.00	9.70	6.20	30.90	138.60	30.20	157.90	54.90	36.60	64.30	89.30	96.50		
2	81.20	14.40	5.80	24.30	209.70	30.20	74.60	54.90	29.50	67.40	90.50	96.50		
3	119.10	36.60	2.70	24.90	206.20	28.20	73.50	54.90	23.70	84.60	90.50	96.50		
4	24.90	42.80	2.50	24.30	225.40	27.50	72.50	54.90	23.00	72.50	89.30	96.50		
5	14.40	8.00	3.00	24.90	246.80	72.50	73.50	55.80	23.00	52.20	89.30	90.50		
6	12.40	5.80	2.20	24.90	243.20	162.70	74.60	55.80	23.00	53.10	90.50	80.10		
7	12.40	5.40	2.50	24.90	180.80	56.70	76.80	63.30	21.80	53.10	90.50	79.00		
8	12.40	5.40	4.80	25.60	85.70	54.90	80.10	137.20	21.80	53.10	90.50	80.10		
9	83.40	10.60	5.80	27.50	83.40	51.30	74.60	140.00	21.20	53.10	90.50	72.50		
10	116.40	14.90	5.80	26.20	82.30	52.20	74.60	88.10	21.80	54.90	91.70	79.00		
11	86.90	12.90	5.40	20.50	82.30	53.10	73.50	59.50	16.50	56.70	91.70	82.30		
12	63.30	12.90	6.90	27.50	73.50	52.20	73.50	59.50	12.90	60.50	91.70	89.30		
13	64.30	16.50	6.50	32.30	73.50	54.00	54.00	62.40	12.90	60.50	91.70	88.10		
14	63.30	21.20	6.50	33.00	72.50	52.20	73.50	84.60	17.00	61.40	91.70	88.10		
15	34.40	20.50	5.80	56.70	73.50	53.10	41.20	85.70	23.00	61.40	91.70	88.10		
16	23.00	20.50	7.30	59.50	69.40	53.10	8.40	86.90	20.50	62.40	90.50	90.50		
17	7.60	13.40	1.50	58.60	66.30	60.50	7.30	86.90	20.50	62.40	69.40	92.90		
18	5.80	11.90	7.60	56.70	59.50	68.40	6.50	91.70	19.90	62.40	69.40	94.10		
19	5.80	6.90	5.10	58.60	58.60	68.40	5.10	74.60	19.90	63.30	70.40	89.30		
20	5.80	6.20	1.10	50.40	58.60	81.20	5.10	70.40	19.30	64.30	70.40	81.20		
21	5.40	5.80	3.80	37.30	57.70	79.00	5.40	61.40	19.90	64.30	72.50	82.30		
22	5.40	5.40	13.90	30.20	59.50	83.40	5.40	59.50	23.70	59.50	77.90	81.20		
23	11.00	5.40	16.00	30.20	61.40	85.70	5.40	58.60	19.30	53.10	77.90	82.30		
24	11.50	5.40	28.90	29.50	61.40	112.30	5.40	60.50	21.20	54.00	79.00	73.50		
25	12.40	5.40	41.20	29.50	62.40	84.60	5.10	60.50	19.90	54.00	94.10	82.30		
26	43.60	6.50	51.30	29.50	65.30	134.30	11.00	58.60	17.00	55.80	95.30	82.30		
27	2.20	6.90	52.20	32.30	65.30	260.00	48.70	54.00	18.10	58.60	96.50	82.30		
28	4.40	5.80	50.40	69.40	57.70	254.00	54.90	50.40	17.00	58.60	96.50	84.60		
29	5.40	5.40	49.60	67.40	47.00	248.60	54.90	36.60	16.50	58.60	96.50	83.40		
30	11.50	5.80	48.70	70.40	49.60	239.60	54.90	36.60	19.30	59.50		83.40		
31		6.90		69.40	46.10		54.90		28.20	66.30		83.40		
Total	1003.60	361.20	451.00	1207.30	3023.20	2744.10	1486.80	2058.70	647.90	1865.90	2517.40	2652.10	20019.20	**Ton**
Mean	33.50	11.70	15.00	38.90	97.50	91.50	48.00	68.60	20.90	60.20	86.80	85.60		
Max	119.10	42.80	52.20	70.40	246.80	260.00	157.90	140.00	36.60	84.60	96.50	96.50	260.00	
Min	2.20	5.40	1.10	20.50	46.10	27.50	5.10	36.60	12.90	52.20	69.40	72.50	1.10	

WATER YEAR : 2011

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

Drainge Area	2,617 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2008-Cont'd
Actual Measurement	2008-Cont'd
Using Rating Curve Water Year	2008-2011
Number of observation	79
R-Square	0.7353
Remarks	Continued Sediment Station

$$QS = 4.1326\ QW^{0.85840}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	19.80	33.40	34.00	63.80	127.90	70.10	203.00	87.90	70.90	97.40	117.10	129.90		
2	21.40	36.60	28.50	51.10	200.80	67.70	108.90	88.70	70.10	100.90	118.00	130.90		
3	46.60	86.10	24.10	49.60	199.70	67.70	102.70	88.70	55.60	114.30	121.80	130.90		
4	22.50	91.30	18.70	48.10	203.00	67.70	100.90	87.90	54.10	115.30	119.90	132.90		
5	12.30	55.60	19.80	48.80	228.50	81.20	101.80	88.70	54.10	90.40	120.80	129.90		
6	12.30	41.90	19.20	48.80	227.40	182.70	102.70	87.90	53.30	89.60	120.80	118.00		
7	12.30	32.80	17.00	47.30	219.70	97.40	103.60	88.70	53.30	90.40	121.80	117.10		
8	17.60	32.20	19.20	47.30	120.80	87.00	119.90	144.80	53.30	89.60	121.80	118.00		
9	45.90	32.80	25.20	47.30	111.60	81.20	108.00	157.50	51.80	89.60	121.80	116.20		
10	100.90	51.80	25.70	46.60	109.80	79.50	104.50	137.90	53.30	90.40	122.80	117.10		
11	99.10	45.20	25.20	45.90	109.80	83.60	105.30	98.30	49.60	92.10	121.80	119.90		
12	90.40	46.60	25.70	56.30	103.60	84.50	104.50	95.60	39.80	96.50	123.80	130.90		
13	91.30	45.20	27.90	61.40	104.50	82.80	102.70	95.60	38.50	98.30	123.80	135.90		
14	91.30	55.60	26.70	60.70	105.30	82.00	102.70	112.50	38.50	98.30	123.80	135.90		
15	70.10	56.30	26.70	79.50	108.00	81.20	93.80	117.10	57.00	98.30	123.80	136.90		
16	51.10	56.30	27.90	81.20	103.60	82.00	45.90	118.90	52.60	98.30	124.80	137.90		
17	37.30	53.30	28.50	81.20	100.00	84.50	32.80	118.90	54.10	98.30	110.70	137.90		
18	24.10	40.50	19.80	80.30	93.00	94.70	29.70	122.80	54.10	99.10	105.30	140.80		
19	22.50	29.10	26.20	81.20	90.40	94.70	25.20	113.40	53.30	100.00	106.20	137.90		
20	22.50	31.00	25.20	71.60	89.60	98.30	22.50	108.00	53.30	100.90	106.20	125.80		
21	22.00	26.70	17.60	80.30	89.60	97.40	25.70	99.10	53.30	101.80	106.20	123.80		
22	22.00	25.70	22.00	81.20	89.60	98.30	25.20	96.50	58.50	100.00	112.50	123.80		
23	27.90	25.70	26.70	63.80	88.70	98.30	24.10	93.00	54.10	90.40	113.40	123.80		
24	32.20	25.20	45.90	61.40	88.70	107.10	24.10	94.70	55.60	90.40	112.50	117.10		
25	26.20	25.20	69.30	62.20	88.70	83.60	23.60	95.60	55.60	90.40	122.80	124.80		
26	73.20	25.70	82.00	61.40	89.60	112.50	21.40	94.70	51.10	91.30	127.90	125.80		
27	32.80	33.40	83.60	60.70	91.30	231.80	70.10	90.40	51.80	91.30	128.90	126.90		
28	15.40	26.70	83.60	99.10	89.60	232.90	87.90	86.10	51.10	91.30	129.90	125.80		
29	22.00	26.20	82.80	99.10	82.00	232.90	88.70	67.00	49.60	92.10	129.90	128.90		
30	27.90	27.20	83.60	103.60	79.50	225.20	90.40	70.90	51.10	93.00		127.90		
31		32.20		103.60	79.50		89.60		51.10	93.80		128.90		
Total	1212.90	1253.50	1088.30	2074.40	3713.80	3270.50	2391.90	3047.80	1643.50	2973.80	3460.80	3958.20	30089.40	**Ton**
Mean	40.40	40.40	36.30	66.90	119.80	109.00	77.20	101.60	53.00	95.90	119.30	127.70		
Max	100.90	91.30	83.60	103.60	228.50	232.90	203.00	157.50	70.90	115.30	129.90	140.80	232.90	
Min	12.30	25.20	17.00	45.90	79.50	67.70	21.40	67.00	38.50	89.60	105.30	116.20	12.30	

WATER YEAR : 2011

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

Drainge Area	4,076 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1997-Cont'd
Actual Measurement	1997-Cont'd
Using Rating Curve Water Year	2011
Number of observation	22
R-Square	0.8129
Remarks	Continued Sediment Station

$$QS = 0.9424\ QW^{1.37600}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	22.80	21.60	46.30	38.20	34.00	42.50	341.10	10.70	9.70	10.70	21.60	22.00		
2	22.40	22.00	48.20	28.30	37.60	29.80	274.60	8.20	9.40	11.00	21.60	22.40		
3	22.40	21.60	35.20	17.40	130.30	19.70	72.20	7.00	9.40	11.00	20.80	22.40		
4	22.80	24.90	26.50	15.20	217.90	15.90	26.50	6.10	8.40	13.80	23.60	23.60		
5	23.20	50.80	24.00	14.80	234.10	15.20	20.80	5.20	8.40	21.20	24.90	25.70		
6	22.80	52.10	24.50	15.20	258.20	21.20	20.50	5.20	8.40	16.60	24.00	29.30		
7	22.40	35.80	31.80	15.20	296.80	120.90	27.80	8.40	8.40	12.00	23.60	28.80		
8	22.00	27.40	41.20	15.20	285.60	56.80	62.20	8.60	8.20	11.00	23.20	27.00		
9	21.60	25.70	51.40	13.80	174.00	28.80	140.00	31.30	8.40	11.00	20.80	26.50		
10	21.60	23.60	52.10	13.10	51.40	20.50	130.30	60.60	8.60	11.00	18.90	26.50		
11	27.00	20.50	38.20	13.10	34.60	15.90	79.90	47.50	9.10	11.40	18.50	25.30		
12	29.30	19.30	31.30	13.10	30.80	19.70	72.20	10.70	12.70	11.40	18.90	24.00		
13	30.80	19.70	29.80	13.40	28.30	29.30	73.00	7.90	14.10	11.70	21.20	23.20		
14	30.30	19.30	32.80	13.40	29.80	29.30	79.90	7.70	13.10	11.70	28.30	22.80		
15	28.30	18.90	38.20	13.40	35.80	27.00	120.90	7.70	13.10	11.70	31.30	23.20		
16	24.90	19.30	40.00	13.80	46.30	28.80	232.50	8.60	16.60	12.00	40.00	23.60		
17	22.00	20.10	40.00	14.10	56.10	26.50	276.40	14.10	14.50	12.40	34.00	24.90		
18	21.20	27.40	43.10	14.10	63.00	25.30	185.20	17.00	11.70	12.70	27.00	29.80		
19	20.80	43.10	41.80	14.10	68.80	27.80	70.50	18.90	10.40	12.70	26.10	34.60		
20	20.80	50.10	41.80	18.90	72.20	26.50	46.30	17.00	10.40	13.10	29.80	34.00		
21	20.10	46.30	31.30	28.80	65.50	24.90	27.00	13.40	9.40	13.80	22.40	30.30		
22	19.70	38.20	23.60	35.20	61.40	27.40	23.20	11.70	10.40	18.90	20.10	26.10		
23	19.30	28.80	21.20	29.80	54.10	27.80	20.10	12.00	10.70	24.90	20.10	24.50		
24	20.10	22.80	17.00	20.80	30.30	25.70	15.50	11.40	10.70	23.20	20.10	24.00		
25	21.20	20.80	14.10	17.40	22.00	26.10	11.40	11.00	10.40	18.50	20.50	24.90		
26	19.70	20.80	14.10	16.60	24.50	31.30	7.90	11.40	10.70	15.90	20.80	25.30		
27	21.60	22.80	14.80	15.50	27.40	47.50	5.70	13.10	10.70	15.50	21.20	26.10		
28	27.00	27.40	16.30	16.30	32.80	194.10	5.90	13.10	10.40	15.90	21.60	27.00		
29	22.00	30.80	24.50	16.60	63.00	300.60	8.90	13.10	10.40	15.90	21.60	28.80		
30	21.20	32.30	32.80	20.50	86.30	345.30	13.10	10.40	10.40	16.60		32.30		
31		33.40		30.80	76.40		12.70		10.70	17.40		34.00		
Total	691.30	887.60	967.90	576.10	2729.30	1678.10	2504.20	429.00	327.90	446.60	686.50	822.90	12747.40	**Ton**
Mean	23.00	28.60	32.30	18.60	88.00	55.90	80.80	14.30	10.60	14.40	23.70	26.50		
Max	30.80	52.10	52.10	38.20	296.80	345.30	341.10	60.60	16.60	24.90	40.00	34.60	345.30	
Min	19.30	18.90	14.10	13.10	22.00	15.20	5.70	5.20	8.20	10.70	18.50	22.00	5.20	

WATER YEAR : 2011

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.

Ban Klang **Amphoe** Thap Sakae **Changwat** Prachuap Khiri Khan

Drainge Area	125 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1998-Cont'd
Actual Measurement	1998-Cont'd
Using Rating Curve Water Year	2011
Number of observation	21
R-Square	0.8756
Remarks	Continued Sediment Station

$$QS = 4.7085\ QW^{1.22010}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	0.30	0.20	35.90	0.60	1.60	3.30	1.10	0.10	1.40	0.10		
2	0.00	0.00	0.10	14.00	27.20	0.60	1.10	2.40	1.00	0.10	13.50	0.10		
3	0.00	0.00	0.10	28.40	15.30	1.90	0.60	1.70	1.00	0.50	4.40	0.10		
4	0.00	0.00	0.10	14.10	14.10	2.70	0.40	1.40	0.60	0.40	3.80	0.10		
5	0.00	0.00	0.10	4.70	13.30	1.90	0.50	1.20	0.50	0.20	1.90	0.10		
6	0.00	0.00	0.00	21.10	12.70	1.60	0.40	1.20	0.40	0.20	1.20	0.10		
7	0.00	0.00	0.00	14.80	4.10	1.40	1.00	1.10	0.40	0.20	0.80	0.10		
8	0.00	0.00	0.00	13.60	4.10	1.20	0.70	0.80	5.00	0.10	0.50	0.10		
9	0.00	0.00	0.00	5.00	3.50	1.20	0.70	0.70	35.90	0.10	0.40	0.10		
10	0.00	0.00	0.00	3.80	2.70	1.00	1.40	0.70	15.50	0.10	0.30	0.10		
11	0.00	0.00	0.00	3.30	2.70	1.00	2.20	0.70	13.00	0.10	0.20	0.80		
12	0.00	0.00	0.10	2.20	3.00	1.40	3.00	0.80	3.80	0.10	0.20	4.40		
13	0.00	0.00	0.00	2.20	2.70	1.50	4.40	14.80	2.40	0.10	0.20	1.50		
14	0.00	0.00	0.00	2.00	3.50	1.50	4.10	15.80	1.60	0.10	0.20	1.10		
15	0.00	0.00	0.00	1.90	3.30	1.20	4.10	13.10	1.50	0.10	0.20	0.50		
16	0.00	0.00	0.10	1.70	3.30	1.20	3.30	2.70	1.40	0.10	0.20	0.40		
17	0.00	0.00	0.10	1.60	3.00	1.90	3.30	2.70	1.10	0.10	0.20	0.20		
18	0.00	0.00	1.20	1.40	2.40	1.70	2.70	2.00	0.80	0.10	0.20	0.60		
19	0.00	0.00	3.80	1.10	2.00	1.60	3.00	1.60	0.70	0.10	0.40	0.30		
20	0.00	0.00	2.00	1.10	1.70	1.20	2.70	1.10	0.60	0.20	0.20	0.10		
21	0.00	0.00	1.40	1.00	1.90	1.40	2.40	0.80	0.50	0.20	0.20	0.10		
22	0.00	0.00	0.80	1.50	1.90	1.70	2.40	0.70	0.50	0.10	0.20	0.10		
23	0.00	0.00	0.40	2.20	1.50	2.40	2.40	0.60	0.50	0.10	0.20	0.10		
24	0.00	0.00	0.20	4.10	1.10	4.10	2.40	0.50	0.40	0.10	0.10	0.10		
25	0.00	0.00	0.20	13.00	0.80	3.50	1.50	0.60	0.20	0.10	0.10	0.10		
26	0.00	0.00	0.10	13.30	0.50	3.00	1.10	0.60	0.20	0.10	0.10	0.10		
27	0.00	0.00	0.20	12.80	0.50	2.40	3.80	1.20	0.30	0.10	0.10	0.10		
28	0.00	0.00	0.10	4.40	0.50	2.00	15.50	1.40	0.20	0.10	0.10	0.10		
29	0.00	0.10	0.10	3.30	0.60	1.90	14.00	1.50	0.10	0.10	0.10	0.10		
30	0.00	0.20	0.00	13.00	0.50	4.10	12.80	1.60	0.10	0.20		0.10		
31		1.90		15.50	0.60		4.10		0.10	1.40		0.10		
Total	0.00	2.20	11.50	222.30	170.90	54.80	103.60	79.30	91.40	5.70	31.60	12.00	785.30	**Ton**
Mean	0.00	0.10	0.40	7.20	5.50	1.80	3.30	2.60	2.90	0.20	1.10	0.40		
Max	0.00	1.90	3.80	28.40	35.90	4.10	15.50	15.80	35.90	1.40	13.50	4.40	35.90	
Min	0.00	0.00	0.00	0.20	0.50	0.60	0.40	0.50	0.10	0.10	0.10	0.10	0.00	

WATER YEAR : 2011

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.

Ban Nong Ya Plong **Amphoe** Bang Saphan **Changwat** Prachuap Khiri Khan

Drainge Area	113 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1998-Cont'd
Actual Measurement	1998-Cont'd
Using Rating Curve Water Year	2011
Number of observation	21
R-Square	0.8257
Remarks	Continued Sediment Station

$$QS = 1.8921\ QW^{1.21260}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.30	0.10	0.10	1.40	24.50	1.30	1.50	1.60	0.20	0.10	0.80	0.10		
2	0.20	0.20	0.10	2.30	12.50	1.40	2.10	1.20	0.20	0.10	0.70	0.10		
3	0.20	0.20	0.10	10.80	9.60	1.00	1.60	1.10	0.20	0.10	0.60	0.10		
4	0.20	0.10	0.10	9.90	6.70	0.70	1.50	1.00	0.20	0.30	0.60	0.10		
5	0.20	0.10	0.10	11.10	6.90	1.00	1.40	0.90	0.10	0.30	0.50	0.10		
6	0.10	0.10	0.10	18.00	5.20	1.30	1.20	0.70	0.10	0.30	0.40	0.10		
7	0.10	0.10	0.10	9.60	3.70	1.40	1.20	0.60	0.10	0.30	0.30	0.10		
8	0.10	0.10	0.10	7.70	2.10	0.90	6.90	0.50	0.30	0.30	0.20	0.10		
9	0.10	0.10	0.10	6.70	1.60	1.10	7.90	0.50	20.50	0.20	0.10	0.10		
10	0.10	0.20	0.10	6.10	2.60	1.00	4.70	0.40	2.80	0.20	0.10	0.10		
11	0.10	0.20	0.10	5.40	4.30	0.90	3.80	0.40	2.30	0.10	0.10	0.10		
12	0.10	0.30	0.10	3.80	5.90	0.20	4.80	0.40	1.50	0.10	0.10	0.10		
13	0.10	0.30	0.10	1.80	4.00	0.20	8.70	0.70	0.80	0.10	0.10	0.10		
14	0.10	0.30	0.10	1.60	2.00	0.40	3.50	5.20	0.40	0.10	0.10	0.10		
15	0.10	0.20	0.10	1.50	1.10	0.70	2.90	2.80	0.30	0.10	0.10	0.10		
16	0.10	0.20	0.20	1.40	1.00	0.90	2.80	2.70	0.30	0.10	0.10	0.10		
17	0.10	0.20	0.20	1.10	1.00	0.90	2.70	2.60	0.20	0.10	0.10	0.10		
18	0.10	0.20	0.20	1.00	1.00	0.10	2.60	2.50	0.20	0.10	0.10	0.10		
19	0.30	0.30	0.90	1.00	0.90	0.20	1.70	2.20	0.20	0.10	0.10	0.10		
20	0.30	0.30	8.20	0.90	0.90	0.30	1.60	2.00	0.20	0.10	0.10	0.10		
21	0.30	0.30	5.90	0.80	1.40	0.40	1.50	1.60	0.10	0.10	0.10	0.10		
22	0.20	0.20	1.90	0.80	1.30	0.10	1.50	1.40	0.10	0.10	0.10	0.10		
23	0.10	0.20	1.20	0.80	1.20	0.10	1.50	0.90	0.10	0.10	0.10	0.10		
24	0.10	0.30	0.90	0.90	1.40	0.10	2.50	0.60	0.10	0.10	0.10	0.10		
25	0.10	0.20	0.80	1.00	1.70	0.10	3.70	0.40	0.10	0.10	0.10	0.10		
26	0.10	0.20	0.80	1.00	1.90	0.10	4.10	0.30	0.10	0.10	0.10	0.10		
27	0.10	0.10	0.70	1.00	1.90	0.20	5.00	0.30	0.10	0.10	0.10	0.10		
28	0.10	0.10	1.00	1.10	1.40	0.20	5.80	0.20	0.10	0.10	0.10	0.00		
29	0.10	0.10	1.80	1.10	0.90	0.30	5.60	0.20	0.10	0.10	0.10	0.00		
30	0.10	0.10	5.90	2.90	0.80	0.40	5.40	0.20	0.10	0.10		0.00		
31		0.10		8.70	1.10		5.20		0.10	0.10		0.00		
Total	4.30	5.70	32.10	123.20	112.50	17.90	106.90	36.10	32.20	4.30	6.20	2.70	484.10	**Ton**
Mean	0.10	0.20	1.10	4.00	3.60	0.60	3.40	1.20	1.00	0.10	0.20	0.10		
Max	0.30	0.30	8.20	18.00	24.50	1.40	8.70	5.20	20.50	0.30	0.80	0.10	24.50	
Min	0.10	0.10	0.10	0.80	0.80	0.10	1.20	0.20	0.10	0.10	0.10	0.00	0.00	

WATER YEAR : 2011

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.

Ban Chang Laek **Amphoe** Bang Saphan Noi **Changwat** Prachuap Khiri Khan

Drainge Area	61 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1998-Cont'd
Actual Measurement	1998-Cont'd
Using Rating Curve Water Year	2011
Number of observation	22
R-Square	0.8686
Remarks	Continued Sediment Station

$$QS = 1.4420\ QW^{1.63090}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.60	0.80	0.50	3.00	20.10	2.20	1.80	1.90	0.20	0.00	1.80	0.10		
2	2.40	0.60	0.50	4.80	14.60	1.90	1.60	1.60	0.20	0.00	10.30	0.10		
3	2.20	0.60	0.50	9.10	9.70	2.00	1.60	1.10	0.20	0.10	6.90	0.10		
4	2.00	0.60	0.40	5.60	6.40	1.80	1.30	1.00	0.20	0.80	3.30	0.10		
5	2.00	1.10	0.40	5.60	4.60	1.30	1.20	0.90	0.20	0.70	2.00	0.10		
6	2.60	9.70	0.40	5.20	3.50	1.30	0.80	0.90	0.20	0.70	1.60	0.10		
7	3.00	5.60	0.40	4.00	2.80	1.30	0.80	0.80	0.10	0.60	1.20	0.10		
8	3.00	3.50	0.40	3.50	2.20	1.30	5.60	0.80	0.10	0.60	0.80	0.10		
9	2.80	7.70	0.50	3.00	2.00	1.30	5.60	0.80	0.20	0.50	0.60	0.10		
10	2.80	6.00	0.60	2.60	2.00	1.30	4.60	0.60	0.30	0.40	0.60	0.10		
11	2.60	5.60	0.60	2.40	2.80	1.30	3.80	0.60	0.30	0.30	0.50	0.10		
12	2.60	4.60	0.80	2.20	6.40	3.30	4.80	0.50	0.20	0.20	0.40	0.20		
13	2.60	3.30	1.00	2.00	3.80	1.90	5.60	1.00	0.20	0.10	0.30	0.20		
14	2.60	2.80	0.80	1.90	2.20	1.50	2.40	6.90	0.20	0.10	0.30	0.10		
15	2.40	2.60	0.80	1.80	1.90	1.30	1.80	2.40	0.20	0.10	0.30	0.10		
16	2.40	2.80	0.90	1.80	1.60	1.30	1.60	1.30	0.20	0.10	0.30	0.10		
17	2.40	1.80	1.10	1.60	1.50	1.30	1.50	1.10	0.10	0.10	0.30	0.10		
18	3.00	1.90	1.90	1.30	1.90	1.30	1.30	0.70	0.10	0.10	0.30	0.10		
19	4.30	3.80	2.80	1.10	1.60	1.30	1.00	0.60	0.10	0.10	0.30	0.10		
20	5.60	3.80	8.20	0.90	1.30	1.30	0.90	0.60	0.10	0.10	0.30	0.10		
21	5.60	3.80	9.10	0.80	2.60	1.30	1.50	0.60	0.10	0.10	0.30	0.10		
22	5.20	3.00	6.00	0.70	1.50	1.30	1.80	0.50	0.10	0.10	0.30	0.10		
23	4.80	2.40	4.30	0.60	1.30	1.30	1.90	0.50	0.10	0.10	0.20	0.10		
24	4.80	1.50	3.80	0.90	1.20	1.50	2.00	0.40	0.10	0.10	0.20	0.10		
25	4.60	1.10	3.50	3.00	1.20	1.50	2.40	0.40	0.10	0.10	0.20	0.10		
26	4.60	0.80	2.60	11.40	1.20	1.30	4.80	0.40	0.10	0.10	0.20	0.10		
27	4.30	0.60	1.60	8.70	2.60	1.60	6.40	0.30	0.10	0.10	0.20	0.10		
28	4.30	0.40	2.00	5.60	3.80	6.00	4.30	0.30	0.00	0.60	0.20	0.10		
29	4.00	0.40	3.00	3.50	3.50	2.80	2.40	0.20	0.00	0.40	0.20	0.00		
30	3.80	0.50	5.60	4.80	4.00	2.60	1.30	0.20	0.00	0.20		0.00		
31		0.60		16.80	2.80		1.10		0.00	0.20		0.00		
Total	101.90	84.30	65.00	120.20	118.60	52.70	79.50	29.90	4.30	7.80	34.40	3.00	701.60	**Ton**
Mean	3.40	2.70	2.20	3.90	3.80	1.80	2.60	1.00	0.10	0.30	1.20	0.10		
Max	5.60	9.70	9.10	16.80	20.10	6.00	6.40	6.90	0.30	0.80	10.30	0.20	20.10	
Min	2.00	0.40	0.40	0.60	1.20	1.30	0.80	0.20	0.00	0.00	0.20	0.00	0.00	

WATER YEAR : 2011

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

Drainge Area	296 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1996-Cont'd
Actual Measurement	1996-Cont'd
Using Rating Curve Water Year	2011
Number of observation	23
R-Square	0.8244
Remarks	Continued Sediment Station

$$QS = 2.3616\ QW^{1.44130}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	237.10	27.70	30.30	83.10	470.80	254.90	425.10	50.10	19.50	8.30	221.60	15.00		
2	138.00	24.30	29.50	175.40	264.90	177.20	564.70	39.70	18.70	21.80	338.50	15.00		
3	105.40	34.00	27.70	90.70	166.50	161.30	1237.90	36.80	18.70	1351.00	161.30	15.00		
4	73.20	22.70	26.80	56.80	120.60	179.00	948.70	38.70	20.20	1030.00	101.30	17.90		
5	199.00	36.80	26.00	43.80	92.10	116.50	839.60	31.20	20.20	511.00	54.50	18.70		
6	122.10	35.80	26.00	35.80	74.40	94.70	470.80	31.20	19.50	74.40	37.70	16.40		
7	210.20	35.80	26.80	31.20	61.20	97.30	332.00	33.10	17.90	49.00	30.30	15.70		
8	93.30	76.80	29.50	26.80	49.00	73.20	227.40	27.70	17.20	34.90	26.80	15.70		
9	64.80	106.80	25.10	24.30	48.00	81.80	180.80	26.80	18.70	28.60	25.10	18.70		
10	52.30	606.60	34.90	24.30	43.80	145.90	135.10	27.70	20.20	24.30	23.50	17.20		
11	46.90	635.30	46.90	25.10	74.40	334.10	127.90	26.00	17.90	21.80	22.70	16.40		
12	41.60	343.00	84.30	24.30	208.30	689.00	139.60	30.30	17.20	20.20	21.80	15.70		
13	38.70	248.90	55.60	24.30	81.80	597.20	92.10	168.30	16.40	19.50	21.00	15.70		
14	36.80	127.90	62.40	27.70	53.40	332.00	80.60	97.30	15.70	17.90	20.20	15.00		
15	34.90	90.70	45.90	31.20	41.60	202.70	76.80	80.60	15.00	17.90	19.50	14.20		
16	34.00	69.50	70.70	54.50	36.80	159.60	59.00	115.00	15.00	17.90	19.50	13.50		
17	33.10	98.60	69.50	67.10	34.00	113.70	52.30	57.90	14.20	17.20	18.70	13.50		
18	31.20	113.70	93.30	37.70	31.20	100.00	45.90	40.60	14.20	16.40	18.70	14.20		
19	41.60	154.40	223.50	29.50	27.70	252.90	43.80	33.10	13.50	16.40	22.70	13.50		
20	40.60	180.80	214.00	25.10	34.90	473.30	55.60	29.50	13.50	16.40	21.00	12.90		
21	33.10	105.40	123.50	23.50	34.00	435.00	80.60	26.80	13.50	16.40	19.50	12.20		
22	30.30	69.50	110.90	26.00	30.30	622.50	55.60	26.00	13.50	15.70	18.70	10.80		
23	31.20	49.00	79.30	53.40	28.60	372.90	56.80	24.30	12.90	14.20	17.90	10.20		
24	33.10	39.70	63.60	166.50	30.30	713.60	49.00	34.90	12.90	13.50	17.20	9.60		
25	33.10	45.90	49.00	494.70	27.70	538.60	67.10	44.80	12.90	13.50	16.40	8.90		
26	32.10	65.90	43.80	375.30	102.70	417.80	120.60	26.00	12.90	15.70	16.40	10.20		
27	24.30	41.60	44.80	295.80	141.00	380.00	96.00	23.50	12.90	17.20	15.70	12.20		
28	20.20	34.00	36.80	332.00	815.60	966.30	69.50	21.80	11.50	16.40	15.70	10.20		
29	19.50	33.10	40.60	312.60	1956.10	645.00	57.90	21.00	10.80	17.90	15.70	9.60		
30	22.70	32.10	61.20	465.60	1020.80	505.60	59.00	20.20	10.80	18.70		9.60		
31		29.50		710.00	440.10		57.90		10.80	123.50		9.60		
Total	1954.40	3615.80	1902.20	4194.10	6642.60	10233.60	6905.70	1290.90	478.80	3597.60	1379.60	423.00	42618.30	**Ton**
Mean	65.10	116.60	63.40	135.30	214.30	341.10	222.80	43.00	15.40	116.10	47.60	13.60		
Max	237.10	635.30	223.50	710.00	1956.10	966.30	1237.90	168.30	20.20	1351.00	338.50	18.70	1956.10	
Min	19.50	22.70	25.10	23.50	27.70	73.20	43.80	20.20	10.80	8.30	15.70	8.90	8.30	

WATER YEAR : 2011

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.

Ban Wang Khrok **Amphoe** Tha Sae **Changwat** Chumphon

Drainge Area	1,814 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.DH-59
Period of Available Records	1996-Cont'd
Actual Measurement	1996-Cont'd
Using Rating Curve Water Year	2011
Number of observation	29
R-Square	0.7438
Remarks	Continued Sediment Station

$$QS = 11.9560\ QW^{1.10560}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1180.00	127.40	186.50	965.70	4420.70	2024.10	1978.80	693.40	274.10	119.10	1681.80	127.40		
2	779.60	102.80	203.80	1517.20	3684.00	1381.30	1754.00	608.20	274.10	102.80	1422.00	86.70		
3	640.00	94.70	238.70	2160.50	2405.00	1180.00	3838.60	587.00	265.20	3026.20	1408.40	63.10		
4	513.70	195.10	238.70	1626.70	1435.50	1394.90	3357.60	545.00	265.20	2221.40	965.70	55.40		
5	466.60	301.00	212.50	1110.50	747.10	1110.50	3341.70	457.20	256.40	921.60	618.80	70.90		
6	466.60	319.00	212.50	866.70	932.60	921.60	2206.10	419.90	265.20	566.00	494.80	94.70		
7	1668.00	310.00	212.50	650.60	833.90	855.80	1654.20	419.90	265.20	401.40	392.10	135.70		
8	661.30	337.20	229.90	545.00	725.60	823.00	1408.40	419.90	265.20	328.10	346.30	94.70		
9	457.20	1021.20	238.70	476.00	768.70	790.40	1394.90	419.90	292.00	292.00	319.00	70.90		
10	364.60	1613.00	247.50	618.80	1032.30	910.60	1206.60	429.20	410.60	274.10	310.00	70.90		
11	337.20	2838.40	485.40	494.80	1180.00	1681.80	1327.30	419.90	346.30	238.70	292.00	102.80		
12	301.00	2420.30	555.50	485.40	1585.60	2963.50	1503.60	466.60	274.10	221.20	247.50	292.00		
13	274.10	1088.10	672.00	485.40	2009.00	3136.30	1088.10	1599.30	256.40	212.50	229.90	265.20		
14	256.40	693.40	672.00	476.00	1476.30	2130.10	921.60	2574.40	247.50	203.80	221.20	195.10		
15	247.50	534.50	650.60	494.80	1054.60	1783.80	866.70	1233.40	221.20	169.40	195.10	144.10		
16	247.50	513.70	534.50	1076.90	693.40	1367.80	747.10	954.70	247.50	144.10	195.10	94.70		
17	212.50	476.00	597.60	965.70	650.60	976.80	704.10	693.40	229.90	144.10	186.50	238.70		
18	195.10	576.50	790.40	757.90	682.70	877.60	693.40	587.00	195.10	135.70	364.60	221.20		
19	238.70	801.30	1709.40	597.60	629.40	932.60	650.60	524.10	177.90	135.70	513.70	186.50		
20	256.40	640.00	4794.20	476.00	555.50	1327.30	640.00	485.40	169.40	135.70	346.30	119.10		
21	247.50	513.70	4625.70	447.80	714.80	1783.80	2405.00	457.20	152.50	195.10	274.10	70.90		
22	203.80	392.10	2221.40	587.00	629.40	2145.30	1681.80	438.50	152.50	195.10	238.70	63.10		
23	152.50	319.00	1110.50	779.60	494.80	1798.80	2069.50	419.90	152.50	221.20	212.50	47.80		
24	144.10	274.10	833.90	965.70	476.00	1903.60	1313.90	382.90	144.10	203.80	195.10	25.70		
25	127.40	256.40	661.30	1233.40	466.60	2343.60	1099.30	355.40	144.10	186.50	169.40	0.00		
26	119.10	283.10	587.00	1571.90	640.00	1681.80	1640.50	319.00	144.10	238.70	152.50	0.00		
27	110.90	265.20	608.20	1948.70	833.90	1695.60	1724.20	301.00	135.70	169.40	152.50	0.00		
28	102.80	238.70	555.50	1768.90	2979.20	4775.40	1517.20	301.00	135.70	169.40	152.50	0.00		
29	86.70	238.70	485.40	1695.60	7709.10	3959.20	1021.20	274.10	127.40	195.10	135.70	0.00		
30	86.70	203.80	725.60	3167.80	6489.20	2682.80	888.60	274.10	127.40	203.80		0.00		
31		195.10		4327.80	3246.80		747.10		119.10	976.80		0.00		
Total	11145.50	18183.50	26097.40	35342.40	52182.30	53339.70	47391.70	18060.90	6733.60	12948.50	12433.80	2937.30	296796.70	**Ton**
Mean	371.50	586.60	869.90	1140.10	1683.30	1778.00	1528.80	602.00	217.20	417.70	428.80	94.80		
Max	1668.00	2838.40	4794.20	4327.80	7709.10	4775.40	3838.60	2574.40	410.60	3026.20	1681.80	292.00	7709.10	
Min	86.70	94.70	186.50	447.80	466.60	790.40	640.00	274.10	119.10	102.80	135.70	0.00	0.00	

WATER YEAR : 2011

SOUTHERN PENINSULA EAST COAST

Lower Khlong Tako at Ban Nong Chik , Chumphon (X.270)

Lat 09 - 57 - 15 N Long 99 - 04 - 47 E

Location : on left bank at Ban Nong Chik.

Ban Nong Chik **Amphoe** Thung Tako **Changwat** Chumphon

Drainge Area	68 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2009-Cont'd
Actual Measurement	2009-Cont'd
Using Rating Curve Water Year	2011
Number of observation	30
R-Square	0.8257
Remarks	Continued Sediment Station

$$QS = 8.4495\ QW^{1.38340}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	245.50	9.50	9.20	131.70	19.60	15.60	24.40	36.90	22.80	16.20	125.00	6.00		
2	143.10	8.70	9.20	72.90	12.90	12.40	42.60	63.10	19.10	2868.60	61.50	5.60		
3	93.60	9.20	9.20	45.40	9.50	10.50	58.50	36.90	17.30	5259.40	44.10	5.60		
4	71.20	9.50	9.20	35.10	8.30	11.90	45.40	28.40	22.80	702.50	37.70	5.60		
5	74.90	9.20	9.20	22.00	6.30	10.00	32.50	20.80	20.80	234.20	28.40	6.30		
6	76.60	22.00	9.20	16.20	5.60	9.20	22.80	16.80	15.60	164.20	22.80	6.30		
7	82.20	17.90	8.70	12.40	4.60	8.70	17.30	15.10	13.50	111.80	20.20	6.00		
8	54.20	29.20	8.70	10.00	3.50	8.70	14.50	11.90	11.90	89.80	17.90	4.90		
9	38.60	145.40	8.70	9.20	3.20	8.70	12.40	10.50	18.50	76.60	16.80	7.10		
10	30.80	204.00	8.70	9.20	4.20	25.20	10.90	9.50	63.10	67.70	15.10	6.30		
11	25.20	188.60	10.00	9.20	4.90	404.30	10.90	10.00	32.50	60.10	14.00	5.60		
12	21.40	67.70	9.20	8.70	6.70	982.40	12.40	46.90	22.00	52.60	14.00	4.90		
13	19.10	36.90	8.70	9.20	5.60	176.30	9.50	507.70	17.90	44.10	13.50	5.60		
14	17.30	23.60	8.70	8.70	4.20	74.90	8.70	620.30	15.10	37.70	13.50	5.30		
15	15.60	19.60	8.70	8.70	3.20	45.40	8.30	157.10	13.50	36.00	12.90	4.20		
16	14.00	32.50	8.70	7.90	2.80	30.00	7.90	78.50	11.90	33.40	12.90	3.90		
17	11.90	32.50	8.30	5.60	2.40	22.00	7.10	51.20	11.40	29.20	12.40	4.20		
18	11.40	51.20	8.30	5.60	2.20	18.50	4.60	35.10	10.90	26.70	12.40	7.10		
19	11.90	171.40	9.20	3.50	2.20	16.20	7.50	26.70	10.50	27.60	16.80	5.60		
20	35.10	157.10	11.40	3.20	4.90	17.90	16.80	21.40	10.00	25.20	20.20	7.90		
21	14.50	66.20	8.70	2.60	18.50	17.30	25.20	21.40	9.50	29.20	13.50	5.30		
22	11.40	29.20	8.70	3.50	4.90	21.40	27.60	17.90	9.50	22.80	12.90	3.90		
23	10.50	20.80	9.50	6.00	3.20	17.30	51.20	33.40	9.50	20.20	12.40	3.20		
24	10.00	19.10	12.90	4.90	2.20	21.40	46.90	954.60	17.30	19.10	11.90	3.10		
25	10.00	15.60	9.50	8.30	2.20	25.90	29.20	552.60	380.30	17.90	11.90	2.60		
26	9.50	13.50	9.50	9.50	15.60	49.70	99.60	120.60	80.30	16.80	11.40	2.20		
27	9.20	11.40	8.70	8.70	30.00	31.70	122.80	69.60	42.60	15.60	11.40	3.90		
28	9.20	10.50	8.70	8.30	127.20	24.40	55.50	48.20	31.70	15.10	11.40	3.20		
29	8.70	10.00	8.70	8.30	93.60	21.40	42.60	36.00	23.60	14.00	11.40	2.80		
30	10.00	10.90	36.00	16.80	41.30	26.70	44.10	27.60	19.60	18.50		2.60		
31		10.50		17.90	22.80		36.90		16.80	282.80		2.60		
Total	1196.60	1463.40	302.10	529.20	478.30	2166.00	956.60	3686.70	1021.80	10435.60	640.30	149.40	23026.00	**Ton**
Mean	39.90	47.20	10.10	17.10	15.40	72.20	30.90	122.90	33.00	336.60	22.10	4.80		
Max	245.50	204.00	36.00	131.70	127.20	982.40	122.80	954.60	380.30	5259.40	125.00	7.90	5259.40	
Min	8.70	8.70	8.30	2.60	2.20	8.70	4.60	9.50	9.50	14.00	11.40	2.20	2.20	

WATER YEAR : 2011

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.

Ban Yan Din Daeng **Amphoe** Phrasaeng **Changwat** Surat Thani

Drainge Area	5,383 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1996-Cont'd
Actual Measurement	1996-Cont'd
Using Rating Curve Water Year	2011
Number of observation	20
R-Square	0.8093
Remarks	Continued Sediment Station

$$QS = 0.3973\ QW^{1.75150}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	75538.50	2003.00	1499.70	707.30	5272.30	11306.10	9022.80	3297.40	8245.10	2303.50	3793.70	531.50		
2	54546.50	2320.80	2407.70	668.90	4842.70	11511.00	9980.50	3002.50	7019.40	2658.30	4200.10	504.30		
3	41651.20	2372.80	2803.20	638.80	4379.70	10700.80	10767.30	2549.60	6973.20	6789.90	3737.10	471.20		
4	34177.20	2390.20	2913.20	638.80	3652.90	9365.30	11306.10	2496.00	7655.20	10174.80	3002.50	453.20		
5	29007.50	2759.70	2585.60	602.10	2513.80	7708.00	11442.60	2825.10	8685.80	12559.30	2407.70	443.30		
6	25197.00	3138.70	2286.40	552.30	1705.60	5819.50	11306.10	3217.60	9723.90	14367.70	2019.30	646.30		
7	21799.10	2957.70	1970.80	504.30	1225.50	4170.50	11374.20	3070.30	10045.00	14449.50	1812.80	855.80		
8	19882.70	2658.30	1735.90	464.70	981.30	3138.70	11648.60	2781.40	9422.90	13134.40	1557.40	1528.40		
9	18727.10	2320.80	1875.30	438.30	827.90	2549.60	11648.60	2658.30	7867.50	11170.40	1359.60	2407.70		
10	17464.40	2460.50	1922.80	418.80	722.90	2390.20	11306.10	2567.60	6121.30	8853.60	1199.40	2803.20		
11	15870.50	3138.70	1812.80	414.00	684.10	4289.50	10767.30	2585.60	5017.50	6563.70	1082.80	2695.00		
12	14286.10	3486.90	2051.90	418.80	730.80	7205.30	10109.80	2338.00	4624.20	4779.90	991.30	2101.20		
13	13352.90	3191.20	2425.20	545.30	846.50	9136.40	9787.70	2496.00	4379.70	3793.70	912.80	1160.60		
14	12205.60	2738.10	2355.40	1387.20	1062.20	11786.80	10305.20	3351.10	3708.90	3597.20	865.20	764.30		
15	10834.10	2425.20	2051.90	3191.20	1225.50	14286.10	10305.20	3793.70	2716.50	4082.20	800.40	653.80		
16	9422.90	2003.00	1828.30	4874.30	1542.90	14204.70	9596.70	3850.70	2513.80	5819.50	746.60	624.00		
17	8136.40	1720.70	1828.30	5692.10	1922.80	13061.90	8464.20	3680.80	3850.70	7065.70	707.30	517.80		
18	6881.30	1875.30	1812.80	5570.20	1720.70	11648.60	7019.40	2869.00	5053.60	8245.10	800.40	538.40		
19	6164.90	2425.20	2390.20	4349.60	1586.50	9980.50	5692.10	2184.50	5309.20	8853.60	1332.30	722.90		
20	6208.70	3093.00	3244.10	3164.90	1675.50	9022.80	4811.30	1528.40	5126.10	9480.70	2496.00	1001.30		
21	6208.70	3765.30	2781.40	2286.40	2084.70	9079.50	3822.10	1278.40	4289.50	10502.20	3297.40	1011.30		
22	5862.20	3737.10	2003.00	1428.90	2390.20	9193.40	3597.20	1471.20	3244.10	11306.10	2513.80	893.60		
23	4945.70	3115.80	1485.40	1001.30	3514.30	8853.60	3324.20	2567.60	2891.10	11579.70	1485.40	609.40		
24	3994.70	2303.50	1318.70	981.30	4501.20	7655.20	2781.40	4289.50	3324.20	11170.40	1011.30	433.40		
25	3244.10	1875.30	1735.90	1147.90	4842.70	6429.60	2338.00	5457.70	4082.20	9980.50	855.80	371.80		
26	2738.10	1675.50	1514.00	1616.00	4531.80	5819.50	2167.80	6653.80	5570.20	8630.20	722.90	362.70		
27	2640.10	1751.20	1093.20	2303.50	4655.10	5495.10	2407.70	7158.60	5734.40	7112.10	587.70	423.70		
28	2640.10	1542.90	903.20	2478.20	6296.70	5570.20	2913.20	7761.00	5199.00	5272.30	524.60	477.70		
29	2320.80	1318.70	791.30	3191.20	8190.70	6518.90	3191.20	8464.20	4379.70	3652.90	517.80	594.90		
30	1986.90	1124.60	730.80	4779.90	9538.60	7867.50	3093.00	8966.30	3378.10	2913.20		573.40		
31		1124.60		5495.10	10370.70		3164.90		2640.10	3138.70		573.40		
Total	477935.90	74814.30	58158.40	61951.60	100038.80	245764.80	229462.50	111211.90	168792.10	244001.00	47341.40	27749.50	1847222.30	**Ton**
Mean	15931.20	2413.40	1938.60	1998.40	3227.10	8192.20	7402.00	3707.10	5444.90	7871.00	1632.50	895.10		
Max	75538.50	3765.30	3244.10	5692.10	10370.70	14286.10	11648.60	8966.30	10045.00	14449.50	4200.10	2803.20	75538.50	
Min	1986.90	1124.60	730.80	414.00	684.10	2390.20	2167.80	1278.40	2513.80	2303.50	517.80	362.70	362.70	

WATER YEAR : 2011

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

Drainge Area	488 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2005-Cont'd
Actual Measurement	2005-Cont'd
Using Rating Curve Water Year	2011
Number of observation	22
R-Square	0.7534
Remarks	Continued Sediment Station

$$QS = 4.6333\ QW^{1.30140}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	7971.60	566.10	438.60	282.00	321.60	486.80	898.00	379.10	496.50	556.10	1017.10	168.20		
2	5745.90	556.10	477.00	274.20	267.20	526.10	759.50	313.60	659.60	3248.10	648.60	155.80		
3	4151.60	421.40	526.10	289.80	239.80	526.10	839.60	282.00	566.10	3797.20	617.10	149.70		
4	3267.40	297.70	486.80	274.20	206.50	496.50	759.50	260.30	617.10	2445.90	526.10	143.70		
5	2682.80	337.80	457.70	260.30	174.50	486.80	793.70	260.30	606.80	1559.20	486.80	187.10		
6	2356.20	362.40	421.40	260.30	162.00	486.80	737.20	219.70	506.40	1245.80	457.70	187.10		
7	2139.00	404.30	404.30	246.60	174.50	486.80	681.50	143.70	404.30	1077.90	430.00	174.50		
8	1851.60	346.00	395.90	246.60	174.50	516.20	506.40	143.70	354.20	980.90	412.80	187.10		
9	1604.60	346.00	404.30	239.80	174.50	526.10	430.00	180.80	321.60	862.80	395.90	267.20		
10	1424.80	404.30	438.60	239.80	174.50	362.40	370.70	206.50	467.40	748.30	379.10	187.10		
11	1232.60	395.90	526.10	246.60	206.50	546.00	467.40	131.80	714.80	703.60	370.70	193.60		
12	1102.40	395.90	496.50	274.20	174.50	933.20	714.80	124.00	586.40	714.80	354.20	206.50		
13	1041.40	346.00	526.10	354.20	155.80	886.10	714.80	116.30	421.40	921.50	362.40	187.10		
14	993.00	370.70	477.00	496.50	143.70	737.20	659.60	213.10	346.00	874.60	346.00	162.00		
15	945.00	354.20	430.00	457.70	143.70	714.80	596.60	143.70	321.60	2500.10	329.70	149.70		
16	945.00	346.00	421.40	448.20	143.70	606.80	536.10	143.70	968.80	1680.90	321.60	139.70		
17	909.60	457.70	421.40	362.40	143.70	438.60	448.20	143.70	1219.40	1339.10	289.80	135.70		
18	886.10	404.30	486.80	313.60	143.70	395.90	387.50	143.70	1053.40	1102.40	226.40	135.70		
19	933.20	536.10	546.00	246.60	193.60	370.70	379.10	131.80	909.60	945.00	430.00	168.20		
20	957.00	457.70	457.70	239.80	187.10	387.50	370.70	124.00	703.60	898.00	362.40	149.70		
21	828.20	576.30	412.80	239.80	226.40	448.20	337.80	155.80	586.40	1065.70	260.30	149.70		
22	782.20	506.40	379.10	239.80	239.80	566.10	305.60	725.90	648.60	805.20	226.40	131.80		
23	737.20	438.60	362.40	239.80	457.70	516.20	267.20	1395.40	782.20	659.60	213.10	131.80		
24	703.60	404.30	370.70	253.40	321.60	576.30	260.30	1090.20	692.60	586.40	200.00	124.00		
25	648.60	387.50	354.20	253.40	305.60	506.40	260.30	2253.30	1193.20	536.10	187.10	120.10		
26	606.80	430.00	329.70	246.60	725.90	467.40	395.90	2427.90	1128.20	496.50	180.80	112.50		
27	606.80	379.10	321.60	267.20	496.50	637.80	467.40	1836.00	759.50	467.40	174.50	86.80		
28	596.60	395.90	313.60	337.80	648.60	805.20	387.50	1312.30	586.40	430.00	168.20	79.70		
29	586.40	370.70	297.70	412.80	606.80	874.60	387.50	980.90	496.50	412.80	168.20	69.40		
30	576.30	379.10	289.80	457.70	596.60	1115.30	526.10	692.60	448.20	467.40		23.70		
31		404.30		337.80	546.00		486.80		412.80	670.40		23.70		
Total	49813.50	12778.80	12671.30	9339.50	8877.10	17430.90	16133.30	16675.80	19979.60	34799.70	10543.00	4488.60	213531.10	**Ton**
Mean	1660.50	412.20	422.40	301.30	286.40	581.00	520.40	555.90	644.50	1122.60	363.60	144.80		
Max	7971.60	576.30	546.00	496.50	725.90	1115.30	898.00	2427.90	1219.40	3797.20	1017.10	267.20	7971.60	
Min	576.30	297.70	289.80	239.80	143.70	362.40	260.30	116.30	321.60	412.80	168.20	23.70	23.70	

WATER YEAR : 2011

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.

	Ban	Bang Rup	**Amphoe** Phrasaeng	**Changwat**	Surat Thani
Drainge Area	866	sq.km.			
Method of sampling	Depth Integrating				
Instrument Used	US.D-49				
Period of Available Records	2007-Cont'd				
Actual Measurement	2007-Cont'd				
Using Rating Curve Water Year	2011				
Number of observation	23				
R-Square	0.7240				
Remarks	Continued Sediment Station				

$$QS = 7.5565\ QW^{1.25690}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	6252.80	238.80	65.90	54.00	755.30	1077.50	702.20	208.40	297.00	93.50	126.50	33.20		
2	5607.50	299.40	65.90	50.00	868.90	1177.40	740.70	208.40	272.30	203.40	178.60	32.60		
3	4847.10	231.10	65.90	40.50	578.60	1190.20	755.30	205.00	301.90	721.40	159.20	32.60		
4	4204.20	206.70	65.90	36.50	272.30	665.90	716.60	346.70	371.20	954.90	107.70	32.00		
5	3668.80	195.00	65.90	36.50	113.00	563.00	627.70	346.70	627.70	1020.30	81.80	30.70		
6	3265.30	185.10	65.90	33.20	50.00	299.40	559.10	379.40	849.00	874.00	71.10	49.30		
7	3021.60	188.40	86.10	30.10	50.00	250.70	547.50	376.60	894.10	466.90	63.50	186.70		
8	2769.20	219.70	128.00	30.10	61.80	236.80	991.90	382.10	745.60	304.30	57.80	173.70		
9	2557.90	323.80	125.00	29.40	69.00	223.50	1257.40	432.30	346.70	221.60	54.70	134.10		
10	2372.80	376.60	113.00	26.90	71.10	217.80	1066.00	438.40	276.70	164.00	51.60	145.00		
11	1845.30	349.40	113.00	25.70	74.30	352.10	755.30	476.90	326.30	126.50	48.00	92.20		
12	1551.80	248.60	113.00	160.80	76.40	627.70	687.80	543.60	354.80	105.10	45.20	64.30		
13	1120.10	200.00	113.00	227.30	81.80	1008.90	598.30	711.80	278.80	109.00	43.80	44.50		
14	721.40	173.70	128.00	376.60	71.10	1083.30	547.50	794.50	191.70	120.40	43.20	36.50		
15	528.20	164.00	128.00	640.40	68.00	1158.20	510.40	674.50	140.30	255.00	40.50	34.50		
16	326.30	206.70	132.60	819.10	65.90	1222.30	447.60	687.80	148.10	272.30	38.50	33.90		
17	270.10	261.50	103.80	868.90	65.90	1264.40	365.70	740.70	246.50	373.90	41.80	32.60		
18	344.00	287.60	120.40	919.30	114.40	1107.50	289.80	707.00	352.10	627.70	45.20	114.40		
19	687.80	321.40	159.20	929.50	146.60	1037.40	238.80	423.20	349.40	590.40	70.00	170.40		
20	707.00	631.90	159.20	929.50	183.50	657.40	219.70	244.50	278.80	707.00	121.90	287.60		
21	623.50	582.60	146.60	894.10	268.00	623.50	311.60	203.40	188.40	517.10	223.50	390.40		
22	396.20	306.70	132.60	687.80	338.60	631.90	261.50	227.30	146.60	510.40	168.80	221.60		
23	180.20	246.50	118.90	528.20	420.20	304.30	229.20	423.20	148.10	447.60	69.00	71.10		
24	167.20	206.70	107.70	281.00	441.50	289.80	186.70	697.40	215.90	341.30	48.00	45.90		
25	167.20	183.50	79.60	208.40	294.60	294.60	137.20	894.10	432.30	227.30	41.80	43.80		
26	178.60	148.10	69.00	365.70	246.50	299.40	154.40	954.90	408.20	146.60	38.50	53.10		
27	227.30	77.50	60.30	570.80	309.10	309.10	272.30	1003.20	281.00	134.10	35.20	45.20		
28	215.90	82.80	59.40	610.90	636.10	341.30	299.40	1026.00	206.70	98.60	33.20	89.70		
29	185.10	89.70	58.60	615.10	929.50	524.30	294.60	849.00	156.00	81.80	43.80	56.30		
30	167.20	81.80	57.80	602.50	1043.10	670.20	240.70	480.20	118.90	96.10		91.00		
31		73.20		610.90	965.20		225.40		94.80	175.30		156.00		
Total	49177.60	7388.50	3008.20	12239.70	9730.30	19709.80	15238.30	16087.20	10045.90	11087.80	2192.40	3024.90	158930.60	**Ton**
Mean	1639.30	238.30	100.30	394.80	313.90	657.00	491.60	536.20	324.10	357.70	75.60	97.60		
Max	6252.80	631.90	159.20	929.50	1043.10	1264.40	1257.40	1026.00	894.10	1020.30	223.50	390.40	6252.80	
Min	167.20	73.20	57.80	25.70	50.00	217.80	137.20	203.40	94.80	81.80	33.20	30.70	25.70	

WATER YEAR : 2011

TAPI RIVER BASIN

Khlong Chandee at Ban Pak Min , Nakhon Si Thammarat (X.257)

Lat 08 - 33 - 34 N Long 99 - 32 - 11 E

Location : on left bank at Ban Pak Min.

Ban Pak Min **Amphoe** Chawang **Changwat** Nakhon Si Thammarat

Drainge Area	2,076 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2007-Cont'd
Actual Measurement	2007-Cont'd
Using Rating Curve Water Year	2011
Number of observation	21
R-Square	0.7495
Remarks	Continued Sediment Station

$$QS = 7.6363\ QW^{1.23670}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	36172.40	221.00	248.30	135.80	571.10	792.90	624.40	560.40	396.90	523.00	234.60	55.90		
2	24136.70	221.00	242.80	133.30	491.40	717.80	657.50	409.00	417.10	617.90	248.30	54.50		
3	18081.70	226.40	226.40	128.40	368.90	544.30	704.40	321.90	353.10	617.90	231.90	51.80		
4	9839.00	231.90	221.00	123.60	280.00	409.00	786.00	261.30	298.90	555.00	218.30	50.40		
5	7113.00	245.60	215.70	118.80	231.90	287.50	731.40	253.90	231.90	637.60	191.80	55.90		
6	5565.20	253.90	210.30	114.00	205.00	242.80	954.30	272.40	191.80	1021.40	176.10	61.50		
7	5000.80	276.20	205.00	109.30	181.30	226.40	1167.90	237.30	165.90	940.00	155.70	54.50		
8	3419.20	261.30	199.70	133.30	173.60	202.30	1004.50	213.00	183.90	869.40	128.40	53.10		
9	3153.90	248.30	221.00	123.60	168.40	280.00	799.80	199.70	207.60	670.80	111.70	84.70		
10	2975.40	234.60	223.70	109.30	197.00	437.50	637.60	199.70	329.70	501.90	93.80	71.50		
11	2881.00	226.40	242.80	114.00	189.10	624.40	565.80	194.40	353.10	353.10	78.80	60.10		
12	2694.10	221.00	306.50	118.80	183.90	704.40	611.30	171.00	318.10	283.70	62.90	53.10		
13	2375.70	226.40	298.90	114.00	178.70	664.20	1148.10	153.20	245.60	283.70	55.90	49.10		
14	2142.80	229.20	261.30	111.70	173.60	491.40	1227.50	148.20	218.30	345.30	99.90	45.00		
15	1993.90	210.30	237.30	314.20	173.60	392.90	954.30	138.20	237.30	458.10	98.40	43.70		
16	1744.90	173.60	215.70	409.00	210.30	353.10	604.80	128.40	425.20	560.40	95.30	41.10		
17	1554.70	183.90	189.10	345.30	283.70	318.10	474.70	128.40	523.00	617.90	92.30	38.50		
18	1338.30	197.00	173.60	314.20	276.20	413.00	353.10	128.40	409.00	684.20	87.70	43.70		
19	1187.70	191.80	191.80	242.80	280.00	1004.50	314.20	128.40	353.10	918.70	143.20	55.90		
20	1060.10	189.10	226.40	183.90	276.20	925.80	306.50	133.30	306.50	1050.40	118.80	47.70		
21	940.00	223.70	280.00	173.60	291.30	841.40	280.00	148.20	310.40	911.70	92.30	50.40		
22	827.50	337.40	240.10	168.40	345.30	637.60	248.30	533.60	242.80	813.60	83.20	43.70		
23	697.60	265.00	221.00	189.10	409.00	631.00	231.90	841.40	376.90	650.90	78.80	38.50		
24	624.40	210.30	205.00	229.20	388.90	677.50	226.40	841.40	717.80	491.40	74.40	34.70		
25	523.00	199.70	183.90	226.40	565.80	697.60	231.90	883.40	940.00	368.90	71.50	34.70		
26	405.00	194.40	173.60	237.30	644.20	717.80	396.90	1050.40	841.40	268.70	67.10	41.10		
27	257.50	189.10	160.80	253.90	544.30	657.50	478.90	1187.70	738.20	229.20	62.90	43.70		
28	231.90	186.50	145.70	306.50	820.60	624.40	517.70	997.30	684.20	223.70	61.50	41.10		
29	229.20	183.90	140.70	445.70	1227.50	631.00	560.40	904.60	441.60	199.70	60.10	37.20		
30	226.40	178.70	138.20	523.00	947.20	581.90	571.10	813.60	349.20	210.30		41.10		
31		176.10		512.40	855.40		604.80		380.90	207.60		74.40		
Total	139393.00	6813.70	6446.30	6762.80	12133.40	16730.00	18976.40	12582.10	12189.40	17086.10	3375.60	1552.30	254041.10	**Ton**
Mean	4646.40	219.80	214.90	218.20	391.40	557.70	612.10	419.40	393.20	551.20	116.40	50.10		
Max	36172.40	337.40	306.50	523.00	1227.50	1004.50	1227.50	1187.70	940.00	1050.40	248.30	84.70	36172.40	
Min	226.40	173.60	138.20	109.30	168.40	202.30	226.40	128.40	165.90	199.70	55.90	34.70	34.70	

WATER YEAR : 2011

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.

Ban Arpart **Amphoe** Phrasaeng **Changwat** Surat Thani

Drainge Area	2,076 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2009-Cont'd
Actual Measurement	2009-Cont'd
Using Rating Curve Water Year	2011
Number of observation	22
R-Square	0.7029
Remarks	Continued Sediment Station

$$QS = 6.1445\ QW^{1.38390}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	25575.60	711.80	345.80	244.00	1689.90	4875.20	4500.00	3515.50	3360.50	1413.90	1675.80	784.30		
2	23191.80	504.10	792.50	223.00	1402.40	4553.10	4983.90	2689.30	5341.80	1979.00	1413.90	731.00		
3	20481.70	476.60	1164.80	244.00	1266.20	3831.00	5593.50	1508.90	8891.50	2561.50	1437.00	699.20		
4	17403.20	603.70	1536.40	236.90	883.90	1818.40	5734.70	800.70	9277.90	2907.60	1876.40	743.80		
5	14763.10	743.80	808.90	209.30	579.50	1704.00	5791.50	1021.70	7983.00	3078.00	2276.00	743.80		
6	12377.70	743.80	618.30	184.80	392.40	1390.90	5565.40	1266.20	6534.50	3294.70	1876.40	1345.20		
7	9945.10	737.40	546.20	136.50	296.20	1174.00	5397.40	1119.60	5203.30	3560.10	1775.30	1633.60		
8	8320.50	776.20	490.30	148.70	244.00	1174.00	5425.30	808.90	3876.70	3808.20	1437.00	3035.20		
9	7138.50	724.60	636.70	128.50	200.30	1229.10	5537.30	1083.70	2670.90	4713.40	1333.80	4159.20		
10	6664.10	613.40	642.90	134.50	200.30	1675.80	4983.90	1030.50	1761.00	5065.90	1057.00	5038.50		
11	5848.40	667.70	608.60	126.60	195.80	2616.10	4526.50	995.40	1536.40	4713.40	792.50	4159.20		
12	5453.30	969.40	759.90	165.40	345.80	4263.30	4500.00	978.00	1437.00	4956.70	731.00	3272.90		
13	4821.10	1012.90	630.60	463.00	467.60	6164.20	4159.20	1057.00	1277.40	5230.90	560.40	1460.20		
14	4500.00	833.70	613.40	995.40	485.80	9394.70	4037.80	1155.70	1288.60	5065.90	322.40	1210.60		
15	4133.30	705.50	630.60	1775.30	546.20	9511.90	4133.30	1460.20	1495.20	4686.60	449.60	995.40		
16	4014.70	589.20	655.30	2399.80	485.80	8509.60	3515.50	1876.40	1550.20	4420.70	784.30	1804.00		
17	3785.50	508.80	661.50	2543.40	427.30	7174.70	2689.30	2085.30	1732.40	4037.80	768.00	1483.50		
18	3627.30	661.50	737.40	1647.60	454.00	5203.30	2241.00	1522.60	1732.40	3808.20	711.80	1247.60		
19	3164.20	867.10	699.20	1266.20	485.80	4821.10	2241.00	960.70	1495.20	3560.10	699.20	1057.00		
20	2561.50	960.70	613.40	883.90	527.40	5120.70	1775.30	680.30	1128.60	3338.50	737.40	909.30		
21	1905.60	1092.60	579.50	589.20	618.30	4821.10	1495.20	550.90	1299.90	2823.50	817.20	792.50		
22	1425.40	1004.20	570.00	345.80	692.80	4500.00	1379.40	522.70	833.70	2328.80	667.70	724.60		
23	1201.40	842.00	508.80	339.10	1288.60	4740.20	1379.40	1256.90	842.00	1949.50	532.10	579.50		
24	1083.70	603.70	494.90	405.40	1564.00	4983.90	1039.30	1413.90	737.40	1732.40	396.80	630.60		
25	960.70	490.30	630.60	449.60	1789.60	4473.50	883.90	1775.30	603.70	1605.70	508.80	476.60		
26	943.50	422.90	618.30	513.40	1979.00	3876.70	724.60	2417.60	598.80	1718.20	518.10	481.20		
27	943.50	458.50	375.30	598.80	2652.60	3382.50	680.30	2311.20	768.00	1832.90	319.10	768.00		
28	900.80	388.10	263.10	759.90	3831.00	2634.30	692.80	2364.20	892.40	1718.20	246.30	458.50		
29	900.80	277.60	251.10	1471.90	4211.10	2763.10	718.20	2726.10	1039.30	1390.90	229.90	251.10		
30	892.40	272.80	251.10	2276.00	5120.70	3493.20	768.00	2471.30	1164.80	1356.50		209.30		
31		270.30		2241.00	5093.30		1174.00		1183.10	1564.00		200.30		
Total	198928.40	20534.90	18735.40	24146.90	40417.60	125873.60	98266.90	45426.70	79537.60	96221.70	26951.20	42085.70	817126.60	**Ton**
Mean	6630.90	662.40	624.50	778.90	1303.80	4195.80	3169.90	1514.20	2565.70	3103.90	929.40	1357.60		
Max	25575.60	1092.60	1536.40	2543.40	5120.70	9511.90	5791.50	3515.50	9277.90	5230.90	2276.00	5038.50	25575.60	
Min	892.40	270.30	251.10	126.60	195.80	1174.00	680.30	522.70	598.80	1356.50	229.90	200.30	126.60	

WATER YEAR : 2011

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 Kampheang Phet.

Ban Kampheang Phet **Amphoe** Ratthaphum **Changwat** Songkhla

Drainge Area	248 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2006-Cont'd
Actual Measurement	2006-Cont'd
Using Rating Curve Water Year	2011
Number of observation	27
R-Square	0.9056
Remarks	Continued Sediment Station

$$QS = 2.6553\ QW^{1.52620}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	266.80	72.10	14.90	22.00	10.80	44.10	32.90	165.60	244.60	3931.80	149.10	51.10		
2	223.40	240.40	13.80	19.60	11.80	39.00	28.60	149.10	223.40	2814.90	145.80	45.80		
3	182.70	149.10	13.80	17.20	10.80	35.80	27.30	117.80	244.60	909.80	142.60	52.90		
4	142.60	72.10	12.80	16.00	10.80	28.60	24.60	94.00	266.80	909.80	133.10	62.20		
5	117.80	35.80	11.80	10.80	10.30	22.00	22.00	72.10	341.50	505.20	123.80	94.00		
6	94.00	28.60	10.80	10.80	9.80	19.60	20.80	62.20	266.80	341.50	117.80	105.70		
7	72.10	24.60	10.80	11.80	9.30	18.40	20.80	52.90	165.60	266.80	112.90	117.80		
8	62.20	23.30	11.80	12.80	8.40	17.20	19.60	49.30	202.60	257.90	105.70	72.10		
9	56.60	22.00	12.80	13.80	7.90	16.00	18.40	44.10	223.40	253.40	94.00	66.10		
10	52.90	19.60	13.80	10.30	8.40	22.00	19.60	52.90	266.80	1040.10	89.50	62.20		
11	47.50	20.80	16.00	9.80	8.40	928.00	19.60	62.20	553.70	855.80	85.00	64.20		
12	44.10	22.00	17.20	9.30	8.80	3856.70	20.80	110.50	1426.60	1030.60	82.70	66.10		
13	35.80	23.30	13.80	8.80	9.30	811.60	19.60	80.60	1453.20	6252.70	78.40	68.10		
14	34.30	24.60	16.00	7.50	10.30	257.90	18.40	68.10	443.40	1828.80	76.30	52.90		
15	31.40	25.90	14.90	6.70	8.40	198.70	18.40	422.30	298.60	992.90	72.10	44.10		
16	44.10	23.30	13.80	6.20	7.50	126.90	17.20	194.60	864.70	553.70	68.10	40.70		
17	94.00	22.00	11.80	6.20	18.40	94.00	16.00	96.20	3194.60	432.80	62.20	39.00		
18	72.10	20.80	10.30	5.90	42.40	82.70	22.00	76.30	1337.30	411.90	56.60	35.80		
19	72.10	35.80	10.80	5.40	52.90	60.30	22.00	257.90	1011.70	512.10	56.60	32.90		
20	52.90	44.10	10.80	5.10	44.10	52.90	20.80	190.60	567.80	1814.60	54.70	28.60		
21	44.10	25.90	10.80	4.70	52.90	49.30	22.00	785.60	464.90	589.10	52.90	27.30		
22	35.80	22.00	10.80	4.70	44.10	44.10	24.60	2895.80	692.50	464.90	49.30	25.90		
23	32.90	19.60	10.30	4.30	44.10	39.00	25.90	1857.80	539.70	411.90	44.10	24.60		
24	28.60	16.00	9.80	5.10	35.80	39.00	28.60	3561.50	438.00	361.10	40.70	23.30		
25	22.00	17.20	9.30	5.10	52.90	35.80	22.00	3856.70	361.10	336.50	39.00	22.00		
26	20.80	18.40	8.80	5.40	117.80	34.30	37.40	1561.40	266.80	312.70	40.70	45.80		
27	19.60	11.80	8.40	6.70	223.40	37.40	47.50	734.30	244.60	266.80	40.70	23.30		
28	18.40	10.80	7.90	6.20	567.80	40.70	52.90	498.50	223.40	244.60	44.10	24.60		
29	18.40	10.30	7.50	5.90	341.50	62.20	149.10	454.10	179.30	223.40	45.80	27.30		
30	22.00	10.30	7.50	5.90	1194.60	52.90	532.60	351.20	165.60	215.00		25.90		
31		9.80		6.20	684.20		603.50		210.80	202.60		24.60		
Total	2062.00	1122.30	353.60	276.20	3667.90	7167.10	1975.50	18976.20	17384.40	29545.70	2304.30	1496.90	86332.10	**Ton**
Mean	68.70	36.20	11.80	8.90	118.30	238.90	63.70	632.50	560.80	953.10	79.50	48.30		
Max	266.80	240.40	17.20	22.00	1194.60	3856.70	603.50	3856.70	3194.60	6252.70	149.10	117.80	6252.70	
Min	18.40	9.80	7.50	4.30	7.50	16.00	16.00	44.10	165.60	202.60	39.00	22.00	4.30	

WATER YEAR : 2011

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.

Ban Bang Sala **Amphoe** Khlong Hoi Khong **Changwat** Songkhla

Drainge Area	1,547 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2005-Cont'd
Actual Measurement	2005-Cont'd
Using Rating Curve Water Year	2011
Number of observation	33
R-Square	0.8710
Remarks	Continued Sediment Station

$$QS = 7.4510\ QW^{1.27550}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	5564.40	855.10	719.90	420.10	278.50	750.70	1084.80	402.00	1097.40	12716.40	503.50	900.40		
2	5631.90	1136.60	792.10	420.10	272.30	599.80	1150.70	291.10	900.40	49486.70	494.10	1072.30		
3	4835.40	1164.90	629.40	580.30	253.90	541.60	475.30	366.40	792.10	26851.90	709.70	834.00		
4	3006.20	1164.90	761.00	761.00	253.90	522.50	447.50	266.10	888.30	14447.90	475.30	709.70		
5	1776.80	1136.60	730.10	781.70	266.10	331.50	551.20	384.10	1624.80	6911.70	503.50	936.60		
6	1059.80	936.60	699.60	619.50	229.70	590.00	541.60	375.20	1558.20	2909.30	466.00	1179.00		
7	865.70	900.40	629.40	590.00	188.70	740.40	541.60	297.40	1426.80	1591.40	420.10	1264.80		
8	924.50	855.10	761.00	484.70	183.00	679.40	551.20	659.30	1047.30	1072.30	494.10	1475.80		
9	740.40	719.90	888.30	649.30	272.30	532.00	494.10	375.20	792.10	888.30	844.50	900.40		
10	936.60	659.30	876.30	719.90	217.80	619.50	484.70	1110.00	609.60	1381.20	699.60	1010.10		
11	781.70	761.00	689.40	709.70	235.70	948.80	402.00	291.10	438.40	1949.10	761.00	1828.10		
12	659.30	802.50	475.30	639.30	223.70	3601.50	314.30	357.60	590.00	2813.10	844.50	1264.80		
13	855.10	679.40	639.30	513.00	253.90	5497.10	340.20	211.90	912.40	27376.90	771.30	888.30		
14	719.90	771.30	719.90	348.90	229.70	4577.20	619.50	322.90	761.00	22824.80	522.50	659.30		
15	719.90	750.70	699.60	284.80	278.50	2422.20	522.50	291.10	532.00	13826.80	551.20	823.50		
16	719.90	813.00	619.50	241.70	247.80	1410.60	834.00	340.20	1221.80	7560.40	844.50	699.60		
17	823.50	900.40	730.10	314.30	730.10	973.20	570.50	447.50	4265.70	3959.10	771.30	689.40		
18	1059.80	802.50	781.70	348.90	551.20	781.70	411.00	402.00	4014.50	2244.60	948.80	699.60		
19	771.30	900.40	781.70	278.50	792.10	411.00	494.10	513.00	2244.60	2089.30	924.50	761.00		
20	781.70	719.90	719.90	305.80	659.30	447.50	348.90	438.40	1308.20	6386.10	740.40	669.30		
21	1034.90	740.40	730.10	305.80	865.70	560.90	438.40	1692.00	865.70	10417.40	855.10	792.10		
22	669.30	750.70	740.40	357.60	629.40	438.40	375.20	5463.40	1034.90	6947.10	876.30	750.70		
23	719.90	689.40	730.10	272.30	659.30	730.10	375.20	5938.00	1207.50	3525.90	802.50	629.40		
24	761.00	888.30	669.30	314.30	503.50	366.40	384.10	10667.90	865.70	2108.60	771.30	771.30		
25	669.30	792.10	619.50	297.40	699.60	513.00	322.90	11440.80	629.40	1845.30	740.40	823.50		
26	844.50	709.70	649.30	291.10	740.40	522.50	357.60	8275.30	541.60	1366.50	876.30	771.30		
27	876.30	639.30	659.30	297.40	669.30	284.80	291.10	6282.10	466.00	924.50	1097.40	609.60		
28	802.50	699.60	629.40	260.00	730.10	494.10	340.20	4777.80	438.40	709.70	855.10	599.80		
29	865.70	590.00	570.50	260.00	813.00	855.10	366.40	3103.80	340.20	719.90	730.10	609.60		
30	771.30	560.90	532.00	305.80	985.50	1179.00	291.10	1658.30	331.50	503.50		709.70		
31		719.90		284.80	924.50		357.60		639.30	532.00		792.10		
Total	41248.50	25210.80	20873.40	13258.00	14838.50	32922.50	15079.50	67441.90	34385.80	238887.70	20894.90	27125.10	552166.60	**Ton**
Mean	1375.00	813.30	695.80	427.70	478.70	1097.40	486.40	2248.10	1109.20	7706.10	720.50	875.00		
Max	5631.90	1164.90	888.30	781.70	985.50	5497.10	1150.70	11440.80	4265.70	49486.70	1097.40	1828.10	49486.70	
Min	659.30	560.90	475.30	241.70	183.00	284.80	291.10	211.90	331.50	503.50	420.10	599.80	183.00	

WATER YEAR : 2011

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.

Ban Thung Prap **Amphoe** Sadao **Changwat** Songkhla

Drainge Area	118 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.DH-59
Period of Available Records	1979-Cont'd
Actual Measurement	1981-Cont'd
Using Rating Curve Water Year	2011
Number of observation	32
R-Square	0.8691
Remarks	Continued Sediment Station

$$QS = 14.9370\ QW^{1.26870}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	143.50	298.60	13.80	25.00	8.50	12.00	106.10	13.40	16.50	10726.40	26.70	17.20		
2	347.60	108.10	16.50	13.10	8.10	10.50	171.60	12.30	15.70	559.90	20.80	14.90		
3	100.40	53.70	18.80	54.40	8.10	10.20	64.30	12.30	16.90	432.70	90.30	18.00		
4	46.80	129.90	14.90	17.60	8.10	9.80	136.80	11.60	37.60	105.30	22.10	14.60		
5	33.70	47.50	16.50	12.00	7.80	9.50	84.80	12.70	511.40	30.60	18.80	20.00		
6	42.50	24.10	12.70	10.50	7.50	8.80	104.10	13.80	124.80	24.60	17.60	277.30		
7	60.50	19.20	12.00	10.20	7.50	9.80	28.80	29.70	20.40	22.10	16.90	32.40		
8	41.60	17.20	12.30	10.20	7.50	54.40	59.70	70.60	17.60	20.40	16.10	855.00		
9	27.10	16.10	12.30	10.20	7.20	10.90	28.40	14.20	18.40	20.00	16.10	138.90		
10	24.10	15.70	13.10	9.80	7.20	16.50	22.50	13.80	16.10	22.50	15.70	35.50		
11	22.90	20.40	12.30	9.50	7.20	2523.10	19.60	13.40	15.70	29.30	14.90	30.60		
12	20.80	19.60	12.30	8.80	7.20	1541.30	19.20	31.00	14.60	98.10	14.60	20.40		
13	19.60	19.60	24.60	8.80	7.20	145.70	18.00	12.70	13.80	409.60	14.60	29.30		
14	18.80	15.30	12.30	9.20	6.80	28.00	16.90	11.60	13.40	110.20	13.80	18.40		
15	16.90	14.20	12.00	9.20	8.80	20.40	15.70	12.00	14.90	45.10	13.80	16.90		
16	81.80	103.30	12.70	8.80	7.20	16.90	15.30	11.60	23.30	26.70	13.80	15.70		
17	0.00	26.30	13.10	8.80	7.20	19.20	14.90	11.60	20.80	23.70	13.40	14.90		
18	36.90	20.00	12.70	8.80	16.50	17.60	14.90	11.30	14.90	123.60	28.40	14.60		
19	40.90	199.70	12.70	8.80	8.50	27.10	16.10	28.40	15.30	54.40	14.60	14.60		
20	24.10	20.40	12.00	8.50	7.80	45.80	14.60	386.80	13.40	669.40	13.80	18.00		
21	17.60	16.90	11.30	8.10	7.80	28.00	273.80	127.80	13.40	59.70	13.40	14.90		
22	78.80	15.30	10.90	8.10	7.50	22.10	21.20	91.40	15.70	1589.00	13.10	19.60		
23	17.60	17.20	16.50	8.10	15.70	16.10	16.10	67.90	13.10	96.20	12.70	14.20		
24	48.50	28.00	12.00	8.10	14.20	13.80	14.90	913.00	12.30	34.60	40.10	14.60		
25	18.00	15.70	11.60	8.10	17.20	12.70	15.30	112.20	12.00	28.80	16.10	13.40		
26	15.30	14.20	11.30	9.80	33.30	1541.30	14.60	37.60	11.60	25.40	13.80	13.10		
27	40.10	14.20	11.60	8.80	12.70	229.00	16.10	44.20	11.30	23.30	13.10	13.40		
28	16.90	13.80	10.90	10.20	16.50	381.20	13.40	24.60	10.90	21.70	108.10	14.90		
29	14.90	13.10	10.90	11.30	125.70	152.80	12.70	20.40	10.50	20.80	30.60	13.80		
30	17.60	12.70	10.50	8.80	113.30	31.90	13.10	18.40	11.60	20.40		12.70		
31		12.30		8.80	13.80		18.00		29.70	113.30		12.00		
Total	1435.80	1362.30	397.10	360.40	539.60	6966.40	1401.50	2192.30	1107.60	15587.80	677.80	1773.80	33802.40	**Ton**
Mean	47.90	43.90	13.20	11.60	17.40	232.20	45.20	73.10	35.70	502.80	23.40	57.20		
Max	347.60	298.60	24.60	54.40	125.70	2523.10	273.80	913.00	511.40	10726.40	108.10	855.00	10726.40	
Min	0.00	12.30	10.50	8.10	6.80	8.80	12.70	11.30	10.50	20.00	12.70	12.00	0.00	

WATER YEAR : 2011

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.

Ban Khlong Lam **Amphoe** Srinagarindra **Changwat** Phatthalung

Drainge Area	258 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2005-Cont'd
Actual Measurement	2005-Cont'd
Using Rating Curve Water Year	2011
Number of observation	27
R-Square	0.8919
Remarks	Continued Sediment Station

$$QS = 1.5881\ QW^{1.55090}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2010 to 31 March 2011

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	957.50	30.70	15.00	13.60	11.10	17.80	38.00	515.30	236.80	2653.30	853.30	22.30		
2	798.80	28.90	20.80	11.10	9.90	15.00	38.00	168.70	108.10	5300.00	243.40	19.30		
3	732.50	27.20	23.90	12.30	12.30	12.30	41.90	86.90	140.50	3672.10	151.50	19.30		
4	457.80	38.00	19.30	16.40	9.90	17.80	36.10	63.60	146.00	1051.00	146.00	19.30		
5	342.10	28.90	16.40	12.30	9.90	13.60	39.90	86.90	112.50	476.70	151.50	95.10		
6	270.30	28.90	15.00	11.10	9.90	9.90	38.00	63.60	91.00	312.70	99.40	91.00		
7	256.70	30.70	13.60	11.10	8.70	9.90	30.70	43.90	78.80	230.20	71.10	28.90		
8	211.10	25.60	15.00	9.90	8.70	9.90	25.60	36.10	67.30	192.50	56.50	28.90		
9	157.20	23.90	13.60	9.90	7.60	9.90	30.70	32.50	117.00	151.50	50.00	27.20		
10	126.20	23.90	13.60	9.90	6.60	9.90	22.30	30.70	67.30	305.50	43.90	30.70		
11	112.50	23.90	23.90	8.70	6.60	630.70	25.60	38.00	217.40	223.80	41.90	25.60		
12	95.10	23.90	15.00	13.60	12.30	988.30	20.80	38.00	277.20	411.70	39.90	22.30		
13	82.80	23.90	22.30	16.40	9.90	121.60	19.30	32.50	223.80	420.70	38.00	19.30		
14	67.30	22.30	22.30	12.30	7.60	50.00	17.80	395.80	117.00	957.50	36.10	17.80		
15	63.60	20.80	16.40	15.00	7.60	36.10	15.00	349.60	112.50	5388.20	32.50	15.00		
16	60.00	27.20	22.30	22.30	6.60	28.90	15.00	305.50	1921.10	668.30	30.70	13.60		
17	52.10	27.20	16.40	13.60	8.70	23.90	15.00	121.60	2841.30	495.90	27.20	13.60		
18	50.00	22.30	15.00	12.30	8.70	23.90	13.60	82.80	1277.10	320.00	27.20	13.60		
19	67.30	22.30	15.00	9.90	7.60	23.90	13.60	60.00	655.70	364.80	43.90	13.60		
20	63.60	23.90	15.00	9.90	12.30	36.10	16.40	103.70	525.20	655.70	27.20	13.60		
21	48.00	34.30	15.00	9.90	28.90	25.60	15.00	706.60	298.30	305.50	25.60	13.60		
22	41.90	23.90	13.60	9.90	19.30	30.70	16.40	2480.10	357.20	263.50	25.60	12.30		
23	38.00	19.30	13.60	9.90	19.30	22.30	13.60	3776.80	230.20	168.70	23.90	12.30		
24	38.00	19.30	12.30	20.80	12.30	19.30	17.80	5300.00	270.30	126.20	23.90	12.30		
25	34.30	17.80	12.30	13.60	9.90	16.40	17.80	5850.40	515.30	99.40	22.30	11.10		
26	34.30	17.80	12.30	15.00	28.90	30.70	56.50	2038.80	732.50	82.80	20.80	11.10		
27	34.30	19.30	4.70	13.60	32.50	41.90	41.90	1180.30	467.20	71.10	19.30	36.10		
28	32.50	16.40	11.10	12.30	45.90	27.20	86.90	630.70	291.20	56.50	38.00	23.90		
29	32.50	16.40	12.30	17.80	63.60	43.90	86.90	420.70	204.80	54.30	74.90	13.60		
30	34.30	15.00	13.60	13.60	38.00	45.90	429.90	312.70	291.20	95.10		12.30		
31		15.00		11.10	22.30		448.40		349.60	535.10		12.30		
Total	5392.60	738.90	470.60	399.10	503.40	2393.30	1744.40	25352.80	13341.40	26110.30	2485.50	720.90	79653.20	**Ton**
Mean	179.80	23.80	15.70	12.90	16.20	79.80	56.30	845.10	430.40	842.30	85.70	23.30		
Max	957.50	38.00	23.90	22.30	63.60	988.30	448.40	5850.40	2841.30	5388.20	853.30	95.10	5850.40	
Min	32.50	15.00	4.70	8.70	6.60	9.90	13.60	30.70	67.30	54.30	19.30	11.10	4.70	

WATER YEAR : 2011

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.

Ban Khlong Wa **Amphoe** Hat Yai **Changwat** Songkhla

Drainge Area	116 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2003-Cont'd
Actual Measurement	2003-Cont'd
Using Rating Curve Water Year	2011
Number of observation	28
R-Square	0.8359
Remarks	Continued Sediment Station

$$QS = 4.6792\ QW^{1.40720}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	75.30	24.00	37.60	26.20	10.70	32.90	28.40	269.00	219.40	7695.70	133.20	45.10		
2	115.30	19.90	42.50	24.00	10.70	32.90	26.20	197.70	190.90	8397.80	133.20	42.50		
3	103.80	18.00	42.50	26.20	9.10	28.40	24.00	171.00	164.50	2051.20	127.10	45.10		
4	84.20	47.60	40.10	37.60	9.10	28.40	24.00	127.10	227.50	589.90	115.30	58.20		
5	75.30	115.30	47.60	30.60	9.10	28.40	26.20	139.30	507.60	440.00	103.80	92.70		
6	58.20	81.20	37.60	24.00	9.10	26.20	26.20	286.20	252.20	339.50	98.20	269.00		
7	50.20	61.00	40.10	22.00	9.10	24.00	28.40	303.60	197.70	294.90	87.30	145.50		
8	45.10	52.80	47.60	22.00	9.10	24.00	32.90	260.50	171.00	277.60	84.20	98.20		
9	45.10	35.30	47.60	19.90	9.10	22.00	32.90	171.00	139.30	286.20	84.20	87.30		
10	37.60	32.90	75.30	16.00	7.50	19.90	32.90	121.20	151.70	396.50	81.20	81.20		
11	32.90	35.30	81.20	16.00	7.50	164.50	42.50	103.80	171.00	376.40	78.20	75.30		
12	30.60	35.30	69.50	14.20	9.10	277.60	37.60	98.20	269.00	840.60	75.30	84.20		
13	28.40	32.90	61.00	12.40	9.10	158.10	37.60	84.20	811.20	2260.90	72.30	75.30		
14	26.20	32.90	55.50	14.20	9.10	87.30	28.40	84.20	484.70	1431.80	72.30	69.50		
15	24.00	42.50	50.20	10.70	69.50	66.60	22.00	98.20	376.40	627.60	69.50	66.60		
16	24.00	69.50	47.60	10.70	55.50	61.00	35.30	98.20	753.30	739.00	69.50	61.00		
17	22.00	78.20	42.50	9.10	26.20	55.50	30.60	84.20	1088.10	577.90	66.60	58.20		
18	45.10	72.30	42.50	9.10	9.10	52.80	45.10	69.50	641.20	418.10	63.80	55.50		
19	87.30	58.20	40.10	9.10	18.00	50.20	63.80	72.30	451.10	367.10	63.80	52.80		
20	72.30	50.20	35.30	7.50	35.30	47.60	58.20	78.20	339.50	418.10	61.00	58.20		
21	55.50	52.80	32.90	7.50	66.60	37.60	55.50	1289.00	339.50	348.60	61.00	69.50		
22	47.60	52.80	30.60	9.10	52.80	35.30	50.20	2371.90	376.40	294.90	58.20	75.30		
23	42.50	78.20	26.20	19.90	37.60	32.90	40.10	1735.30	312.50	260.50	55.50	66.60		
24	37.60	121.20	22.00	18.00	32.90	30.60	42.50	2288.50	321.40	227.50	58.20	61.00		
25	32.90	84.20	19.90	14.20	32.90	28.40	42.50	1105.60	260.50	204.50	40.10	58.20		
26	28.40	63.80	18.00	12.40	28.40	28.40	47.60	682.60	204.50	190.90	35.30	55.50		
27	24.00	55.50	18.00	10.70	32.90	32.90	69.50	577.90	171.00	171.00	45.10	52.80		
28	22.00	50.20	18.00	10.70	45.10	28.40	72.30	473.40	164.50	164.50	47.60	50.20		
29	19.90	45.10	18.00	10.70	45.10	32.90	61.00	357.80	145.50	151.70	47.60	50.20		
30	28.40	40.10	32.90	9.10	45.10	32.90	103.80	277.60	139.30	145.50		47.60		
31		37.60		9.10	45.10		235.60		197.70	133.20		47.60		
Total	1421.70	1676.80	1220.40	492.90	805.50	1608.60	1503.80	14077.20	10240.10	31119.60	2188.60	2255.90	68611.10	**Ton**
Mean	47.40	54.10	40.70	15.90	26.00	53.60	48.50	469.20	330.30	1003.90	75.50	72.80		
Max	115.30	121.20	81.20	37.60	69.50	277.60	235.60	2371.90	1088.10	8397.80	133.20	269.00	8397.80	
Min	19.90	18.00	18.00	7.50	7.50	19.90	22.00	69.50	139.30	133.20	35.30	42.50	7.50	

WATER YEAR : 2011

THALE SAP SONGKHLA

Upper Khlong Wat at Ban Hu Rae , Songkhla (X.240)

Lat 06 - 59 - 03 N Long 100 - 19 - 44 E

Location : on right bank at the bridge.

Ban Hu Rae **Amphoe** Hat Yai **Changwat** Songkhla

Drainge Area	127 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2005-Cont'd
Actual Measurement	2005-Cont'd
Using Rating Curve Water Year	2011
Number of observation	28
R-Square	0.9273
Remarks	Continued Sediment Station

$$QS = 5.6945\ QW^{1.45710}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	63.80	21.00	14.00	10.80	10.80	25.50	15.10	185.00	120.90	4435.90	95.80	24.20		
2	332.50	48.50	18.60	10.80	10.30	18.00	14.50	122.20	104.40	1255.80	85.10	24.20		
3	133.40	26.20	17.40	12.90	10.30	14.50	13.40	64.00	88.70	1789.80	82.80	26.20		
4	62.00	24.90	15.60	11.80	11.80	12.90	12.90	54.60	84.00	350.40	77.10	41.40		
5	46.90	36.10	15.10	10.80	0.50	12.30	14.00	76.00	198.50	226.30	71.60	55.60		
6	46.10	25.50	15.10	10.80	0.00	10.90	14.00	91.00	108.10	176.10	67.20	41.40		
7	38.30	22.30	14.00	10.30	5.70	10.10	13.40	140.80	86.30	147.70	62.90	29.60		
8	32.40	20.40	15.10	10.30	5.70	11.30	12.30	50.10	72.70	127.40	59.80	27.50		
9	30.30	19.20	17.40	10.30	5.40	9.70	13.40	36.80	65.00	233.00	56.70	36.10		
10	28.20	18.60	14.50	9.80	5.40	9.30	12.30	28.90	62.90	745.80	52.60	37.60		
11	26.20	19.20	27.50	10.80	5.00	53.60	11.30	38.30	282.60	1065.00	51.80	34.60		
12	25.50	18.00	18.60	10.80	5.40	451.20	11.30	37.60	197.00	649.10	49.30	36.80		
13	24.20	19.20	18.60	10.80	7.80	146.30	10.10	54.60	636.00	4011.10	48.50	33.90		
14	23.60	16.80	19.20	10.30	6.00	67.20	11.30	34.60	268.60	945.20	46.90	31.00		
15	22.30	16.20	16.20	9.80	9.30	45.30	10.10	34.60	200.00	657.90	46.10	30.30		
16	26.90	19.80	15.10	10.80	12.90	36.80	24.20	51.00	1000.50	332.50	46.90	25.50		
17	21.60	17.40	14.00	10.80	109.40	29.60	13.40	44.50	2712.50	274.40	42.10	21.00		
18	26.20	21.60	18.60	10.30	26.20	25.50	11.80	65.00	623.60	226.30	39.80	19.80		
19	33.90	26.20	15.60	9.80	12.90	24.20	13.40	46.10	559.50	726.00	51.00	18.60		
20	46.10	19.80	14.00	9.80	11.80	24.90	18.00	36.80	268.60	1950.70	42.10	18.00		
21	27.50	27.50	13.40	9.80	22.30	22.90	22.90	636.00	221.10	434.90	39.10	25.50		
22	23.60	19.20	12.90	9.80	11.80	20.40	32.40	1097.70	707.10	330.40	35.30	19.80		
23	22.30	18.60	12.90	10.80	28.90	18.60	17.40	1330.40	286.80	216.10	31.70	17.40		
24	21.00	17.40	12.30	10.30	11.30	18.00	14.00	3499.40	222.70	176.10	28.90	16.20		
25	19.80	16.20	13.40	11.30	9.70	16.20	19.20	5195.10	176.10	150.50	28.20	16.20		
26	19.20	16.20	12.30	11.80	22.90	16.80	15.10	680.10	149.10	128.70	28.20	15.60		
27	18.60	15.10	11.30	11.30	40.60	16.80	18.00	444.60	120.90	117.00	29.60	15.60		
28	18.60	14.50	10.80	10.80	52.60	17.40	14.50	316.80	108.10	105.60	29.60	16.80		
29	18.00	14.00	10.80	15.60	57.70	23.60	13.40	226.30	99.40	94.60	28.90	15.60		
30	20.40	16.80	10.30	15.60	50.10	17.40	23.60	154.70	109.40	91.00		14.50		
31		14.00		11.30	33.90		328.00		214.30	98.20		14.50		
Total	1299.40	646.40	454.60	341.00	614.40	1227.20	788.70	14873.60	10155.40	22269.50	1455.60	801.00	54926.80	**Ton**
Mean	43.30	20.90	15.20	11.00	19.80	40.90	25.40	495.80	327.60	718.40	50.20	25.80		
Max	332.50	48.50	27.50	15.60	109.40	451.20	328.00	5195.10	2712.50	4435.90	95.80	55.60	5195.10	
Min	18.00	14.00	10.30	9.80	0.00	9.30	10.10	28.90	62.90	91.00	28.20	14.50	0.00	

WATER YEAR : 2011

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
Drainge Area	295	sq.km.			
Method of sampling	Depth Integrating				
Instrument Used	US.D-49				
Period of Available Records	2008-Cont'd				
Actual Measurement	2008-Cont'd				
Using Rating Curve Water Year	2011				
Number of observation	27				
R-Square	0.8694				
Remarks	Continued Sediment Station				

$$QS = 5.9929\ QW^{1.20300}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	479.60	87.60	28.90	2.60	1.10	0.00	2.60	283.10	135.80	1087.60	137.80	19.80		
2	244.90	87.60	28.90	2.60	1.10	0.00	2.60	129.30	106.10	1266.80	111.70	19.80		
3	168.30	72.00	28.90	39.80	0.20	0.00	2.60	72.00	87.60	763.10	111.70	19.80		
4	125.10	106.10	28.90	19.80	0.00	0.00	2.60	57.00	87.60	692.60	87.60	19.80		
5	106.10	87.60	28.90	19.80	0.00	2.60	2.60	42.50	87.60	463.90	72.00	42.50		
6	72.00	57.00	28.90	14.60	0.00	2.60	2.60	42.50	87.60	211.30	72.00	57.00		
7	113.60	57.00	28.90	6.70	0.00	2.60	2.60	42.50	87.60	268.30	54.00	49.70		
8	106.10	57.00	28.90	6.70	0.00	2.60	1.10	42.50	87.60	402.20	51.10	32.90		
9	78.20	28.90	11.30	3.40	0.00	2.60	1.10	42.50	113.60	402.20	49.70	79.80		
10	57.00	28.90	11.30	2.60	0.00	2.60	1.10	42.50	182.50	168.30	49.70	42.50		
11	44.00	27.00	11.30	2.60	0.00	72.00	1.10	42.50	524.00	292.00	49.70	35.60		
12	49.70	26.10	11.30	2.50	0.00	452.20	9.40	35.60	692.60	471.70	49.70	28.90		
13	28.90	26.10	11.30	2.50	0.00	532.00	6.70	35.60	1527.80	879.20	49.70	28.90		
14	11.30	24.30	14.60	2.30	0.00	244.90	6.70	98.60	772.90	900.30	42.50	28.90		
15	11.30	24.30	7.60	1.10	2.60	125.10	6.70	125.10	337.70	603.60	42.50	24.30		
16	2.60	24.30	6.70	1.10	1.90	125.10	6.70	87.60	665.20	319.00	35.60	19.80		
17	0.00	23.40	6.70	1.10	4.60	125.10	6.70	79.80	916.30	262.40	28.90	19.80		
18	0.80	23.40	6.70	1.10	6.70	125.10	6.70	67.40	701.80	374.80	28.90	19.80		
19	54.00	23.40	6.70	0.00	6.70	125.10	4.60	69.00	564.90	590.80	28.90	19.80		
20	109.80	22.50	6.70	0.00	6.70	106.10	2.60	69.00	374.80	577.80	28.90	19.80		
21	57.00	22.50	6.70	0.00	6.70	87.60	2.60	239.10	304.00	385.10	28.90	19.80		
22	57.00	21.60	6.70	0.00	4.60	72.00	6.70	1158.20	274.20	286.00	28.90	19.80		
23	49.70	21.60	6.70	1.10	4.60	57.00	6.70	1541.00	233.40	227.60	28.90	19.80		
24	39.80	20.70	6.70	1.10	3.00	42.50	11.30	1315.90	286.00	175.50	28.90	24.30		
25	28.90	20.70	6.70	1.90	2.60	19.80	11.30	997.20	364.70	125.10	24.30	24.30		
26	28.90	19.80	6.70	1.90	2.60	15.50	45.40	942.80	292.00	108.00	24.30	26.10		
27	21.60	18.00	4.20	1.70	5.40	15.50	39.80	743.50	204.00	87.60	21.60	20.70		
28	28.90	18.00	2.60	1.70	8.50	12.20	42.50	479.60	168.30	87.60	24.30	25.20		
29	28.90	18.00	2.60	1.70	24.30	11.30	42.50	479.60	153.00	87.60	27.00	25.20		
30	28.90	18.00	2.60	1.70	19.80	11.30	108.00	425.10	204.00	127.30		24.30		
31		18.00		1.70	0.20		292.00		325.10	121.20		23.40		
Total	2232.90	1131.40	395.60	147.40	113.90	2393.00	688.20	9828.60	10950.30	12816.50	1419.70	882.10	42999.60	**Ton**
Mean	74.40	36.50	13.20	4.80	3.70	79.80	22.20	327.60	353.20	413.40	49.00	28.50		
Max	479.60	106.10	28.90	39.80	24.30	532.00	292.00	1541.00	1527.80	1266.80	137.80	79.80	1541.00	
Min	0.00	18.00	2.60	0.00	0.00	0.00	1.10	35.60	87.60	87.60	21.60	19.80	0.00	

WATER YEAR : 2011

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.

Ban Khao Pu **Amphoe** Si Banphot **Changwat** Phatthalung

Drainge Area	47 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2009-Cont'd
Actual Measurement	2009-Cont'd
Using Rating Curve Water Year	2011
Number of observation	26
R-Square	0.9383
Remarks	Continued Sediment Station

$$QS = 8.9528\ QW^{1.53830}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	485.00	9.90	1.40	0.60	2.50	8.70	149.30	1994.90	61.80	1788.80	291.80	3.10		
2	553.50	8.70	2.20	0.50	2.60	7.60	50.30	153.40	47.50	922.40	279.30	2.80		
3	427.80	8.30	2.30	0.70	2.50	5.80	77.30	87.10	37.10	364.10	153.40	3.10		
4	243.40	9.90	1.60	0.60	2.30	8.00	28.20	55.90	50.30	208.50	83.80	2.90		
5	170.80	8.70	1.60	0.60	2.20	7.40	32.20	485.00	32.20	132.70	47.50	6.60		
6	136.60	8.00	1.30	0.50	1.90	5.80	25.60	47.50	34.60	90.50	28.20	6.40		
7	124.30	7.40	1.10	0.50	1.80	6.00	19.30	29.50	42.20	67.80	20.60	5.20		
8	97.70	8.00	1.10	0.50	1.80	4.60	17.00	26.80	23.10	53.10	15.90	6.40		
9	83.80	7.40	1.40	0.40	1.80	3.80	13.90	23.10	23.10	44.80	11.90	12.80		
10	74.10	7.40	0.90	0.40	1.60	4.60	10.80	19.30	47.50	44.80	9.90	21.70		
11	64.80	7.00	1.20	0.40	1.80	64.80	15.90	28.20	50.30	28.20	8.30	10.80		
12	53.10	7.60	1.20	1.60	2.20	197.40	9.90	20.60	58.80	175.90	7.60	8.00		
13	44.80	8.00	1.30	0.80	1.80	67.80	9.00	18.10	39.60	267.00	7.00	6.40		
14	42.20	7.40	2.50	1.20	2.90	13.90	12.80	21.70	29.50	1326.40	6.60	5.80		
15	34.60	6.60	2.30	5.20	2.20	15.90	8.70	32.20	77.30	776.80	6.40	5.80		
16	31.00	17.00	1.30	0.80	2.00	13.90	8.00	26.80	1824.10	254.90	6.00	5.50		
17	28.20	9.00	2.00	0.80	2.40	12.80	7.60	21.70	571.00	144.90	5.80	5.20		
18	28.20	7.40	1.40	0.60	2.20	9.90	7.40	44.80	254.90	197.40	5.20	4.90		
19	29.50	6.40	1.10	0.50	1.90	8.30	12.80	23.10	153.40	175.90	4.90	4.60		
20	25.60	5.50	1.00	0.40	2.00	19.30	12.80	17.00	105.20	991.60	4.60	4.40		
21	23.10	5.50	1.00	0.40	7.00	18.10	8.30	5265.90	67.80	887.80	5.80	3.80		
22	21.70	5.20	0.80	0.40	34.60	12.80	13.90	625.00	105.20	237.30	5.50	4.40		
23	19.30	4.60	0.80	0.50	19.30	8.70	9.90	747.50	50.30	149.30	5.20	4.10		
24	17.00	4.10	0.70	0.50	9.00	8.00	25.60	820.60	58.80	87.10	4.90	3.80		
25	15.90	3.80	0.70	0.50	6.60	7.00	14.90	709.00	208.50	67.80	4.60	3.60		
26	14.90	3.60	0.70	0.50	9.00	10.80	108.80	254.90	273.40	55.90	4.40	3.30		
27	14.90	6.40	0.70	0.50	74.10	18.10	42.20	203.10	162.00	44.80	3.80	4.10		
28	13.90	4.60	0.60	2.50	47.50	19.30	32.20	153.40	120.50	31.00	6.00	3.10		
29	12.80	3.80	0.60	4.40	29.50	64.80	175.90	87.10	67.80	23.10	6.00	3.10		
30	12.80	3.80	0.60	3.60	21.70	29.50	634.10	61.80	55.90	25.60		2.90		
31		3.60		3.10	18.10		709.00		384.40	3389.10		4.90		
Total	2945.30	214.60	37.40	34.50	318.80	683.40	2303.60	12105.00	5118.10	13055.30	1050.90	173.50	38040.40	**Ton**
Mean	98.20	6.90	1.20	1.10	10.30	22.80	74.30	403.50	165.10	421.10	36.20	5.60		
Max	553.50	17.00	2.50	5.20	74.10	197.40	709.00	5265.90	1824.10	3389.10	291.80	21.70	5265.90	
Min	12.80	3.60	0.60	0.40	1.60	3.80	7.40	17.00	23.10	23.10	3.80	2.80	0.40	

WATER YEAR : 2011

SOUTHERN PENINSULA WEST COAST

Trang River at Ban Tha Pradu , Trang (X.56)

Lat 07 - 46 - 01 N Long 99 - 32 - 25 E

Location : on left bank at Ban Tha Pradu.

Ban Tha Pradu **Amphoe** Huai Yot **Changwat** Trang

Drainge Area	1,801 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2004-Cont'd
Actual Measurement	2004-Cont'd
Using Rating Curve Water Year	2011
Number of observation	30
R-Square	0.7716
Remarks	Continued Sediment Station

$$QS = 13.1940\ QW^{1.07250}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	20001.40	416.50	177.70	126.80	1783.20	1905.70	1018.70	1862.10	2572.20	827.30	1665.10	172.70		
2	13761.20	407.60	182.80	209.50	1700.50	1479.40	1018.70	1771.30	2037.70	2144.30	2140.30	165.10		
3	9802.30	403.20	319.10	185.30	1700.50	1111.00	1237.50	1149.20	1854.20	3999.40	2148.30	160.10		
4	8022.00	660.00	263.60	165.10	1304.90	1498.90	1700.50	684.00	1618.10	5116.80	1724.10	167.60		
5	7148.00	952.40	209.50	143.40	959.00	1440.50	1984.00	684.00	1411.40	5584.00	1031.90	1065.20		
6	6552.00	781.50	221.10	129.00	660.00	1031.90	2330.50	748.90	1218.30	5244.00	814.20	1126.30		
7	5244.00	403.20	198.10	118.60	421.00	775.00	2285.30	604.90	1095.70	4939.20	735.90	177.70		
8	3708.70	367.60	185.30	62.70	232.60	615.90	1998.90	599.40	912.70	2578.30	615.90	129.00		
9	2829.70	349.90	217.20	51.00	201.80	506.50	1850.30	577.50	735.90	2007.80	517.40	794.60		
10	2463.20	403.20	284.10	44.10	185.30	1164.50	1479.40	572.00	677.60	1362.90	468.60	1430.80		
11	2244.30	501.10	310.30	39.30	195.50	2260.30	1392.00	577.50	768.50	985.50	452.40	1382.30		
12	2116.40	407.60	205.70	48.70	187.90	3508.10	1411.40	665.60	919.30	939.10	403.20	550.10		
13	2010.80	380.90	259.80	160.10	185.30	4560.00	1899.70	939.10	814.20	1065.20	398.70	363.20		
14	1921.50	341.10	275.40	566.50	232.60	4258.20	1872.00	490.20	555.60	814.20	336.70	263.60		
15	1868.10	301.60	259.80	1285.60	703.50	3365.90	1528.10	403.20	637.90	1362.90	314.70	217.20		
16	1712.30	244.30	284.10	1285.60	1421.10	2620.70	1005.40	354.30	1012.00	2112.40	292.90	193.00		
17	1489.20	244.30	217.20	906.10	1149.20	2043.60	794.60	341.10	2064.50	2280.30	267.60	185.30		
18	1285.60	501.10	240.30	555.60	716.40	1518.40	649.00	323.50	2236.30	2732.20	228.80	267.60		
19	1126.30	649.00	224.90	288.50	385.40	945.70	517.40	301.60	2094.40	4732.50	511.90	398.70		
20	879.80	703.50	244.30	263.60	367.60	998.70	528.30	336.70	1881.90	4880.10	820.70	801.10		
21	945.70	593.90	228.80	248.10	978.80	1362.90	506.50	407.60	1469.70	3978.60	463.20	430.00		
22	820.70	820.70	180.30	248.10	748.90	1868.10	457.80	1771.30	1156.90	3291.80	288.50	263.60		
23	709.90	615.90	152.60	259.80	484.80	1921.50	495.70	2523.70	840.40	2740.30	205.70	190.40		
24	615.90	425.50	137.30	267.60	1247.10	1844.30	434.40	3316.50	729.40	2160.30	167.60	165.10		
25	550.10	323.50	102.30	279.80	1665.10	1353.30	389.80	4459.20	1353.30	1747.70	152.60	155.10		
26	495.70	232.60	118.60	292.90	1881.90	1065.20	479.40	5244.00	1895.80	1164.50	157.60	162.60		
27	438.90	177.70	126.80	301.60	1990.00	939.10	1498.90	5413.80	2034.70	945.70	157.60	244.30		
28	398.70	155.10	139.30	372.00	2120.30	893.00	1806.80	5176.10	1913.60	827.30	157.60	177.70		
29	345.50	177.70	157.60	729.40	2265.30	1133.90	1450.20	4703.00	1401.70	748.90	175.20	160.10		
30	292.90	217.20	170.20	1227.90	2378.70	1126.30	1266.40	3687.90	1149.20	722.90		452.40		
31		160.10		1818.70	2188.20		1846.30		853.50	775.00		506.50		
Total	101800.80	13319.50	6294.10	12681.00	32642.40	51116.50	39133.90	50689.20	41916.60	74811.40	17814.90	12919.00	455139.30	**Ton**
Mean	3393.40	429.70	209.80	409.10	1053.00	1703.90	1262.40	1689.60	1352.10	2413.30	614.30	416.70		
Max	20001.40	952.40	319.10	1818.70	2378.70	4560.00	2330.50	5413.80	2572.20	5584.00	2148.30	1430.80	20001.40	
Min	292.90	155.10	102.30	39.30	185.30	506.50	389.80	301.60	555.60	722.90	152.60	129.00	39.30	

WATER YEAR : 2011

SOUTHERN PENINSULA WEST COAST

Khlong Nang Noi at Ban Thung Kling , Trang (X.128A)

Lat 07 - 35 - 28 N Long 99 - 44 - 13 E

Location : on right bank at Ban Thung Kling.

Ban Thung Kling **Amphoe** Na Yong **Changwat** Trang

Drainge Area	75 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2008-Cont'd
Actual Measurement	2008-Cont'd
Using Rating Curve Water Year	2011
Number of observation	27
R-Square	0.8947
Remarks	Continued Sediment Station

$$QS = 15.0780\ QW^{1.30410}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	378.90	7.40	5.30	5.30	10.50	34.60	99.50	427.60	47.20	453.50	65.90	11.60		
2	256.30	6.90	12.20	7.40	16.90	19.30	91.00	152.30	39.90	574.30	81.30	11.60		
3	175.30	6.60	18.70	14.50	15.70	13.30	222.60	86.00	37.70	192.20	52.40	11.10		
4	148.60	18.10	13.30	10.50	11.60	84.50	136.00	52.40	48.50	121.70	23.20	11.10		
5	130.70	12.80	10.00	8.30	9.10	51.10	99.50	42.20	51.10	87.80	19.30	31.30		
6	104.40	9.10	6.90	6.90	6.90	27.20	104.40	34.60	32.50	67.30	17.50	20.60		
7	86.00	8.30	5.30	5.80	6.60	24.00	89.20	53.70	26.00	48.50	16.30	14.50		
8	63.20	7.40	3.80	4.90	5.30	10.00	70.10	43.40	20.60	43.40	15.70	12.80		
9	49.80	6.60	3.80	4.10	3.80	13.30	60.40	36.70	20.00	42.20	15.10	13.30		
10	42.20	6.60	3.10	3.60	2.50	183.70	43.40	71.80	21.20	39.90	12.80	63.20		
11	33.40	6.60	3.80	4.10	1.80	784.30	49.80	70.10	23.20	40.90	18.10	34.60		
12	28.10	8.30	4.60	43.40	1.60	904.50	48.50	53.70	35.50	59.10	15.10	18.10		
13	22.10	7.40	3.80	28.10	1.20	196.40	44.70	42.20	16.90	86.00	12.80	18.70		
14	19.30	6.90	6.90	9.10	8.60	114.70	37.70	35.50	12.80	68.70	16.90	7.40		
15	18.10	6.90	8.60	15.10	35.50	53.70	29.20	44.70	16.90	71.80	16.30	6.90		
16	15.10	6.10	7.70	22.10	10.00	42.20	26.00	49.80	672.20	78.10	15.70	6.10		
17	13.30	8.60	4.90	23.20	81.30	32.50	263.20	43.40	403.70	84.50	13.30	4.10		
18	18.10	7.40	3.80	13.90	17.50	24.00	141.60	33.40	233.70	101.00	11.60	3.80		
19	15.70	13.30	3.60	8.60	9.10	35.50	120.10	29.20	109.70	132.40	10.50	8.30		
20	13.30	13.90	7.70	5.80	18.10	192.20	86.00	26.00	111.30	177.30	9.50	6.90		
21	12.20	12.20	5.80	3.10	34.60	154.30	39.90	550.50	73.20	198.60	9.10	6.60		
22	11.60	10.50	4.10	4.60	31.30	74.90	49.80	646.60	57.70	127.20	10.50	6.10		
23	11.10	9.50	3.60	12.80	37.70	48.50	35.50	489.50	45.90	81.30	11.60	5.30		
24	11.10	7.70	2.90	15.70	47.20	35.50	32.50	1041.60	32.50	68.70	12.80	3.80		
25	10.50	6.10	3.80	23.20	30.10	34.60	28.10	554.60	76.70	44.70	12.80	3.10		
26	9.10	10.50	3.10	9.50	161.80	73.20	89.20	272.40	67.30	36.70	13.30	2.50		
27	7.70	11.60	2.90	9.50	251.70	45.90	51.10	152.30	37.70	23.20	13.90	2.20		
28	7.70	9.50	2.20	16.90	209.40	67.30	59.10	111.30	32.50	16.90	14.50	2.20		
29	7.70	6.90	2.90	25.10	209.40	175.30	76.70	81.30	31.30	23.20	14.50	2.20		
30	7.40	4.10	2.90	16.90	125.20	263.20	173.20	73.20	26.00	23.20		2.20		
31		3.60		14.50	61.80		523.40		47.20	35.50		2.20		
Total	1728.00	267.40	172.00	396.50	1473.80	3813.70	3021.40	5402.00	2508.60	3249.80	572.30	354.40	22959.90	**Ton**
Mean	57.60	8.60	5.70	12.80	47.50	127.10	97.50	180.10	80.90	104.80	19.70	11.40		
Max	378.90	18.10	18.70	43.40	251.70	904.50	523.40	1041.60	672.20	574.30	81.30	63.20	1041.60	
Min	7.40	3.60	2.20	3.10	1.20	10.00	26.00	26.00	12.80	16.90	9.10	2.20	1.20	

WATER YEAR : 2011

SOUTHERN PENINSULA WEST COAST

Khlong Langu at Ban Tha Khian , Satun (X.150)

Lat 06 - 56 - 30 N Long 99 - 52 - 33 E

Location : on right bank at Ban Tha Khian.

	Ban Tha Khian	**Amphoe** Langu	**Changwat** Satun
Drainge Area	480 sq.km.		
Method of sampling	Depth Integrating		
Instrument Used	US.D-49		
Period of Available Records	1998-Cont'd		
Actual Measurement	1998-Cont'd		
Using Rating Curve Water Year	2011		
Number of observation	24		
R-Square	0.7087		
Remarks	Continued Sediment Station		

$$QS = 2.7081\ QW^{1.37610}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1668.70	127.20	43.70	48.60	52.30	417.10	281.30	460.90	223.40	314.60	125.00	54.80		
2	622.40	89.00	60.00	48.60	43.70	269.40	217.90	229.10	190.50	1940.10	108.40	43.70		
3	314.60	63.90	93.40	46.10	62.60	193.20	246.10	149.00	169.40	1129.80	110.40	41.40		
4	212.30	131.50	215.00	51.10	56.10	153.50	249.10	118.70	153.50	553.50	94.80	41.40		
5	162.50	125.00	110.40	42.50	42.50	127.20	553.50	122.90	167.10	293.30	87.50	56.10		
6	149.00	120.80	91.90	41.40	40.20	116.60	1321.00	427.10	142.40	223.40	83.20	243.30		
7	171.70	149.00	73.40	41.40	40.20	125.00	514.00	269.40	120.80	185.80	80.40	125.00		
8	120.80	76.20	61.30	40.20	40.20	94.80	296.30	153.50	120.80	169.40	79.00	65.30		
9	97.80	62.60	56.10	40.20	39.00	81.80	237.60	204.00	164.80	155.70	70.70	151.20		
10	87.50	61.30	93.40	40.20	39.00	188.20	193.20	140.20	120.80	169.40	65.30	118.70		
11	80.40	57.40	655.60	40.20	37.90	4395.70	212.30	114.60	129.30	215.00	63.90	77.60		
12	73.40	61.30	257.70	39.00	39.00	11387.80	183.40	133.60	240.40	257.70	62.60	62.60		
13	68.00	63.90	317.70	39.00	39.00	9500.10	151.20	96.30	561.50	1212.00	63.90	53.60		
14	62.60	53.60	169.40	43.70	40.20	4228.00	133.60	87.50	1037.80	1159.00	65.30	48.60		
15	58.70	47.40	112.50	44.90	185.80	806.00	116.60	84.60	323.90	981.40	63.90	43.70		
16	57.40	43.70	94.80	84.60	76.20	374.50	102.30	118.70	272.50	450.70	61.30	40.20		
17	62.60	47.40	80.40	47.40	90.40	311.60	116.60	87.50	673.20	305.40	58.70	37.90		
18	90.40	106.30	89.00	40.20	57.40	320.70	104.30	79.00	767.40	287.30	56.10	42.50		
19	140.20	427.10	93.40	39.00	42.50	467.70	106.30	86.10	757.80	305.40	57.40	36.70		
20	257.70	481.50	79.00	40.20	63.90	757.80	127.20	77.60	467.70	308.40	57.40	42.50		
21	89.00	129.30	70.70	39.00	158.00	420.40	97.80	104.30	320.70	333.20	53.60	48.60		
22	68.00	102.30	58.70	39.00	151.20	290.20	93.40	601.90	263.60	364.80	52.30	36.70		
23	61.30	220.70	53.60	44.90	323.90	260.70	99.30	909.40	226.30	240.40	49.80	32.20		
24	56.10	97.80	49.80	52.30	102.30	195.90	84.60	1575.00	284.20	188.20	44.90	30.10		
25	49.80	47.40	46.10	81.80	630.60	167.10	86.10	2130.20	302.30	164.80	43.70	30.10		
26	44.90	69.30	43.70	52.30	2625.20	622.40	100.80	1978.40	193.20	146.80	41.40	33.30		
27	43.70	68.00	65.30	46.10	2289.70	397.30	110.40	840.40	164.80	133.60	40.20	37.90		
28	42.50	56.10	53.60	158.00	3755.90	272.50	87.50	495.30	153.50	122.90	42.50	54.80		
29	41.40	51.10	52.30	387.50	5034.30	326.90	79.00	381.00	138.00	114.60	51.10	37.90		
30	62.60	47.40	48.60	104.30	4752.20	437.20	193.20	281.30	129.30	133.60		33.30		
31		44.90		69.30	1575.00		498.70		131.50	142.40		53.60		
Total	5118.00	3330.40	3390.50	1973.00	22526.40	37707.30	6994.60	12537.50	9112.40	12702.60	1934.70	1855.30	119182.70	**Ton**
Mean	170.60	107.40	113.00	63.60	726.70	1256.90	225.60	417.90	293.90	409.80	66.70	59.80		
Max	1668.70	481.50	655.60	387.50	5034.30	11387.80	1321.00	2130.20	1037.80	1940.10	125.00	243.30	11387.80	
Min	41.40	43.70	43.70	39.00	37.90	81.80	79.00	77.60	120.80	114.60	40.20	30.10	30.10	

WATER YEAR : 2011

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

Drainge Area	546 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.DH-59
Period of Available Records	2003-Cont'd
Actual Measurement	2003-Cont'd
Using Rating Curve Water Year	2003-2011
Number of observation	180
R-Square	0.7667
Remarks	Continued Sediment Station

$$QS = 2.4705\ QW^{1.27930}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1896.50	232.60	877.00	220.70	716.40	1579.20	4691.70	179.50	94.80	55.90	107.60	55.90		
2	894.10	197.40	1392.70	379.70	605.10	1087.00	4407.90	151.80	140.20	58.70	85.40	55.90		
3	591.50	171.40	1657.40	300.10	537.70	716.40	6455.00	140.20	114.10	76.30	88.50	70.30		
4	458.20	163.50	1170.00	244.60	467.10	945.90	4835.10	163.50	147.90	67.40	82.30	88.50		
5	379.70	155.70	1069.10	220.70	396.90	1235.90	5270.80	187.60	144.00	64.50	73.30	114.10		
6	306.40	179.50	826.10	214.80	379.70	660.30	2757.80	171.40	144.00	61.60	64.50	147.90		
7	312.80	458.20	775.80	256.70	306.40	440.50	1842.80	163.50	132.60	53.10	64.50	121.40		
8	431.70	440.50	702.30	238.50	281.30	467.10	980.80	151.80	117.70	53.10	55.90	159.60		
9	306.40	618.80	730.60	214.80	275.10	440.50	1033.60	155.70	114.10	53.10	73.30	183.50		
10	281.30	2834.10	928.60	214.80	250.60	1280.30	759.20	159.60	107.60	48.80	55.90	136.40		
11	293.80	2834.10	1789.40	244.60	220.70	14864.40	759.20	144.00	97.90	48.80	53.10	121.40		
12	281.30	1484.00	1950.60	281.30	238.50	7953.30	3833.20	354.30	110.80	44.60	53.10	132.60		
13	268.90	1148.30	998.30	458.20	214.80	4549.30	3645.60	306.40	97.90	44.60	88.50	117.70		
14	354.30	688.20	826.10	1950.60	203.10	2174.30	1126.60	226.60	101.10	42.50	94.80	114.10		
15	300.10	577.90	744.90	2560.40	191.60	1392.70	759.20	191.60	97.90	44.60	85.40	88.50		
16	287.60	511.20	877.00	2988.00	197.40	730.60	564.50	171.40	91.60	76.30	91.60	76.30		
17	256.70	646.40	744.90	2560.40	220.70	646.40	440.50	167.50	82.30	91.60	79.30	82.30		
18	226.60	1213.90	702.30	1051.30	203.10	716.40	362.70	151.80	73.30	85.40	147.90	107.60		
19	262.80	998.30	660.30	674.20	197.40	1170.00	362.70	132.60	67.40	101.10	147.90	128.90		
20	268.90	646.40	618.80	524.40	232.60	1950.60	312.80	125.10	67.40	94.80	136.40	114.10		
21	214.80	524.40	632.60	467.10	191.60	945.90	485.10	117.70	64.50	85.40	88.50	107.60		
22	203.10	618.80	591.50	458.20	191.60	646.40	449.30	114.10	64.50	110.80	91.60	97.90		
23	191.60	440.50	537.70	449.30	232.60	524.40	354.30	117.70	70.30	97.90	76.30	104.30		
24	197.40	371.20	577.90	660.30	321.00	730.60	220.70	114.10	67.40	79.30	58.70	79.30		
25	220.70	293.80	458.20	591.50	7586.50	1033.60	191.60	121.40	64.50	67.40	53.10	76.30		
26	203.10	329.30	371.20	660.30	4787.20	8398.30	159.60	125.10	67.40	61.60	53.10	79.30		
27	191.60	306.40	300.10	1148.30	5938.40	5076.20	191.60	110.80	67.40	55.90	58.70	136.40		
28	197.40	281.30	256.70	1631.20	16051.30	4070.50	191.60	107.60	70.30	67.40	53.10	140.20		
29	197.40	256.70	226.60	3833.20	13006.40	3599.00	171.40	97.90	67.40	67.40	48.80	117.70		
30	244.60	388.30	214.80	2380.50	6936.10	3460.10	151.80	97.90	64.50	73.30		101.10		
31		2470.10		1105.00	2651.50		151.80		64.50	114.10		82.30		
Total	10721.30	22481.20	24209.50	29183.70	64230.40	73486.10	47920.50	4720.20	2877.30	2147.30	2311.10	3339.40	287628.10	**Ton**
Mean	357.40	725.20	807.00	941.40	2071.90	2449.50	1545.80	157.30	92.80	69.30	79.70	107.70		
Max	1896.50	2834.10	1950.60	3833.20	16051.30	14864.40	6455.00	354.30	147.90	114.10	147.90	183.50	16051.30	
Min	191.60	155.70	214.80	214.80	191.60	440.50	151.80	97.90	64.50	42.50	48.80	55.90	42.50	

WATER YEAR : 2011

SOUTHERN PENINSULA WEST COAST

Khlong Bang Yai at Ban Ket Ho , Phuket (X.190A)

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

Location : on left bank at Ban Ket Ho.

Ban Ket Ho **Amphoe** Kathu **Changwat** Phuket

Drainge Area	28 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2006-Cont'd
Actual Measurement	2006-Cont'd
Using Rating Curve Water Year	2011
Number of observation	27
R-Square	0.9124
Remarks	Continued Sediment Station

$$QS = 11.8900\ QW^{1.68750}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	12.30	2.40	94.20	3.70	3.40	38.00	46.70	8.20	87.80	0.40	2.20	1.60		
2	97.00	1.60	258.40	5.30	2.50	17.80	48.50	4.70	91.00	0.50	2.10	1.60		
3	28.20	1.30	112.60	5.00	2.50	15.50	579.00	65.50	91.00	0.50	2.10	2.10		
4	3.70	1.30	99.90	4.70	2.50	108.10	309.60	79.40	112.60	0.70	1.90	2.90		
5	6.80	1.10	87.80	4.30	2.40	91.00	1021.60	82.40	108.10	0.90	1.80	5.00		
6	8.50	1.10	65.50	2.90	2.90	42.30	322.50	65.50	99.90	0.90	1.60	2.10		
7	2.90	3.90	39.30	2.40	2.50	32.40	159.00	94.20	97.00	0.90	1.60	1.60		
8	14.00	2.20	4.70	1.90	2.10	19.20	142.70	82.40	94.20	1.30	1.80	2.90		
9	55.40	1.60	1.60	1.90	2.10	9.40	199.00	82.40	79.40	1.10	1.60	5.70		
10	29.40	2.40	1.10	1.90	1.90	7.80	132.30	82.40	65.50	1.10	1.60	2.40		
11	3.90	1.40	1.60	1.90	1.90	27.10	408.30	82.40	63.20	1.10	1.60	2.20		
12	4.30	1.40	3.90	3.90	1.90	71.30	815.50	79.40	79.40	1.10	1.40	2.10		
13	3.90	1.30	2.10	2.90	1.90	39.30	258.40	87.80	82.40	1.10	1.40	1.90		
14	3.40	1.30	1.40	6.20	1.90	17.30	205.30	142.70	40.60	0.90	1.60	1.40		
15	3.10	1.10	1.90	17.30	1.60	6.50	164.30	97.00	11.90	0.90	1.60	0.90		
16	2.40	1.10	1.90	91.00	1.60	3.90	148.20	97.00	30.90	0.70	1.40	0.70		
17	1.30	1.90	2.90	85.10	1.40	4.70	127.50	87.80	10.30	0.70	1.40	0.70		
18	1.60	3.90	10.00	22.30	9.00	6.20	117.20	94.20	25.70	1.80	1.40	0.50		
19	1.60	2.90	13.30	2.90	10.90	8.50	127.50	82.40	53.20	5.00	39.30	7.80		
20	2.20	2.20	11.30	2.50	3.90	8.50	99.90	79.40	36.40	3.40	7.80	33.60		
21	1.90	1.40	5.30	4.30	3.40	6.50	99.90	79.40	19.20	14.40	5.70	1.10		
22	1.60	1.30	2.50	8.20	4.30	5.00	91.00	76.30	15.10	68.40	3.40	0.90		
23	2.40	1.10	2.10	7.30	1.80	3.90	79.40	34.80	6.20	25.70	1.60	0.70		
24	1.60	1.10	2.20	10.90	85.10	3.40	91.00	39.30	1.90	11.30	1.80	0.50		
25	1.60	1.10	2.10	6.80	1537.80	4.30	82.40	19.70	0.90	7.80	1.80	0.70		
26	1.40	1.40	2.10	5.70	350.70	40.60	11.30	45.30	0.70	2.50	1.60	2.10		
27	1.10	1.30	2.20	8.50	199.00	246.60	14.00	73.80	0.70	2.20	1.60	0.90		
28	1.10	1.30	3.40	8.20	234.30	99.90	9.00	82.40	0.70	2.20	1.60	0.90		
29	1.60	1.90	378.20	4.30	222.90	63.20	8.50	73.80	0.70	2.20	1.60	1.60		
30	1.60	1.60	21.00	4.30	122.30	43.90	8.20	94.20	0.50	1.90		11.90		
31		2.10		3.90	79.40		10.00		0.50	2.10		1.10		
Total	301.80	53.00	1236.50	342.40	2901.80	1092.10	5937.70	2196.20	1407.60	165.70	97.90	102.10	15834.80	**Ton**
Mean	10.10	1.70	41.20	11.00	93.60	36.40	191.50	73.20	45.40	5.30	3.40	3.30		
Max	97.00	3.90	378.20	91.00	1537.80	246.60	1021.60	142.70	112.60	68.40	39.30	33.60	1537.80	
Min	1.10	1.10	1.10	1.90	1.40	3.40	8.20	4.70	0.50	0.40	1.40	0.50	0.40	

WATER YEAR : 2011

SOUTHERN PENINSULA WEST COAST

Khlong Nang Noi at Ban Khaow Saae (2) , Trang (X.229)

Lat 07 - 32 - 53 N Long 99 - 44 - 40 E

Location : on left bank at Ban Khaow Sea 2.

Ban Khaow Saae (2) **Amphoe** Na Yong **Changwat** Trang

Drainge Area	158 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2005-Cont'd
Actual Measurement	2005-Cont'd
Using Rating Curve Water Year	2011
Number of observation	24
R-Square	0.7283
Remarks	Continued Sediment Station

$$QS = 4.8481\ QW^{1.83830}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	234.10	7.90	10.20	4.30	23.30	14.00	59.20	195.00	31.80	292.90	35.60	8.90		
2	152.20	10.20	9.60	4.30	24.20	8.30	42.80	14.00	25.70	337.80	24.60	7.60		
3	144.60	12.20	8.40	4.70	26.10	14.00	63.10	30.50	21.40	108.40	22.40	7.10		
4	96.20	17.30	7.90	5.60	17.30	34.30	55.30	18.30	23.50	63.10	20.30	7.60		
5	74.50	10.90	7.40	6.00	11.50	14.00	42.80	19.30	18.30	44.50	18.30	13.10		
6	52.40	20.70	6.50	3.60	3.60	9.60	37.00	15.60	15.60	37.00	16.40	11.60		
7	53.70	10.20	6.00	3.60	2.00	9.60	30.50	17.30	14.00	33.00	15.60	6.50		
8	48.50	9.60	6.00	3.90	1.50	7.60	25.70	15.60	12.40	28.10	16.40	9.60		
9	47.20	8.40	6.00	2.90	1.50	4.50	22.40	13.10	11.60	26.90	14.70	8.30		
10	43.50	8.40	5.60	3.30	1.50	19.30	18.30	12.40	11.60	35.60	14.00	13.10		
11	40.00	9.00	5.60	6.90	1.50	1619.60	22.40	15.60	29.30	41.10	14.00	7.60		
12	37.70	9.00	5.60	7.90	2.00	613.70	19.30	11.00	21.40	75.70	12.40	7.60		
13	28.10	7.90	7.40	8.40	1.50	73.60	14.00	10.30	14.00	55.30	12.40	7.60		
14	27.10	7.40	18.10	16.50	31.10	34.30	15.60	11.00	11.00	39.70	13.10	5.50		
15	31.10	7.90	10.20	30.10	25.20	19.30	15.60	16.40	12.40	92.40	12.40	6.00		
16	32.20	10.90	9.00	5.60	8.40	18.30	18.30	14.00	176.20	41.10	11.60	5.50		
17	30.10	10.90	9.00	6.00	19.80	17.30	59.20	11.60	216.10	25.70	11.60	4.00		
18	31.10	7.90	7.90	15.80	14.30	14.70	16.40	11.00	122.70	23.50	11.00	4.50		
19	31.10	8.40	7.40	2.90	2.90	22.40	17.30	9.60	67.20	21.40	9.60	4.50		
20	22.40	10.90	7.40	2.00	5.10	65.20	19.30	11.00	51.60	69.30	9.60	4.00		
21	19.80	11.50	6.90	2.00	35.40	34.30	13.10	282.10	38.30	46.20	9.60	7.60		
22	19.00	10.90	6.00	2.00	29.10	25.70	13.10	388.80	38.30	41.10	8.30	4.50		
23	15.80	7.90	5.60	2.30	31.10	23.50	10.30	235.60	29.30	29.30	7.60	4.00		
24	13.60	7.40	4.70	3.30	23.30	17.30	11.00	677.50	28.10	28.10	7.10	4.00		
25	11.50	9.00	4.70	7.90	22.40	10.30	10.30	460.00	46.20	23.50	6.50	4.00		
26	11.50	12.20	4.70	23.30	29.10	8.30	11.60	100.40	31.80	22.40	9.60	3.60		
27	11.50	10.90	6.90	23.30	160.00	165.30	12.40	85.00	30.50	19.30	5.50	4.50		
28	10.90	7.90	4.70	24.20	471.40	30.50	38.30	61.10	26.90	18.30	6.50	4.00		
29	10.90	7.40	5.10	30.10	75.70	51.60	21.40	44.50	22.40	17.30	8.30	4.00		
30	10.90	6.90	4.70	25.20	42.80	37.00	65.20	35.60	26.90	19.30		4.00		
31		7.90		24.20	21.40		287.80		42.80	46.20		4.00		
Total	1393.20	305.90	215.20	312.10	1166.00	3037.40	1109.00	2843.20	1269.30	1803.50	385.00	198.40	14038.20	**Ton**
Mean	46.40	9.90	7.20	10.10	37.60	101.20	35.80	94.80	40.90	58.20	13.30	6.40		
Max	234.10	20.70	18.10	30.10	471.40	1619.60	287.80	677.50	216.10	337.80	35.60	13.10	1619.60	
Min	10.90	6.90	4.70	2.00	1.50	4.50	10.30	9.60	11.00	17.30	5.50	3.60	1.50	

WATER YEAR : 2011

SOUTHERN PENINSULA WEST COAST

Khlong Lam Phikul at Ban Pak Khlong , Trang (X.235)

Lat 07 - 24 - 37 N Long 99 - 46 - 00 E

Location : on right bank at Ban Pak Khlong.

Ban Pak Khlong **Amphoe** Yan Ta Khaow **Changwat** Trang

Drainge Area	116 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2005-Cont'd
Actual Measurement	2005-Cont'd
Using Rating Curve Water Year	2011
Number of observation	19
R-Square	0.7609
Remarks	Continued Sediment Station

$$QS = 2.0096\ QW^{1.54490}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	554.30	31.90	26.70	31.90	60.90	220.40	120.60	201.50	153.00	748.30	163.00	7.60		
2	449.10	30.50	38.90	30.50	59.00	194.30	153.00	128.90	153.00	430.60	112.70	7.60		
3	383.70	33.30	40.30	34.60	62.80	173.20	236.20	107.50	123.40	212.70	55.20	7.00		
4	273.20	46.40	43.40	43.40	51.60	134.40	212.70	92.30	110.00	156.30	40.30	6.50		
5	220.40	48.00	53.30	33.30	43.40	112.70	149.80	115.40	107.50	99.80	34.60	6.50		
6	197.90	40.30	60.90	27.90	38.90	112.70	159.70	131.60	89.90	89.90	31.90	11.70		
7	190.70	37.50	48.00	25.40	38.90	104.90	216.50	81.10	78.90	85.30	30.50	34.60		
8	149.80	34.60	46.40	24.10	36.10	87.50	216.50	85.30	74.80	120.60	29.20	6.50		
9	134.40	31.90	40.30	22.90	36.10	83.10	220.40	87.50	87.50	140.10	27.90	3.80		
10	134.40	29.20	40.30	21.70	36.10	240.30	208.80	68.70	83.10	180.20	27.90	11.70		
11	120.60	33.30	48.00	20.50	38.90	1795.80	140.10	78.90	110.00	176.70	22.90	15.50		
12	110.00	36.10	43.40	38.90	60.90	2547.60	236.20	70.70	149.80	244.30	21.70	11.00		
13	92.30	33.30	74.80	44.90	48.00	715.00	346.20	60.90	72.80	351.50	21.70	11.00		
14	72.80	27.90	78.90	51.60	60.90	394.60	400.70	87.50	44.90	346.20	20.50	11.70		
15	68.70	25.40	70.70	104.90	102.30	295.30	461.50	110.00	78.90	220.40	20.50	14.70		
16	68.70	25.40	72.80	99.80	72.80	212.70	512.30	97.30	418.50	99.80	20.50	15.50		
17	74.80	25.40	85.30	59.00	74.80	183.70	449.10	74.80	351.50	112.70	18.80	17.10		
18	78.90	30.50	92.30	44.90	51.60	169.80	173.20	70.70	212.70	143.30	16.30	16.30		
19	305.10	44.90	92.30	36.10	59.00	277.40	123.40	74.80	146.50	110.00	31.90	15.50		
20	99.80	51.60	94.80	29.20	107.50	568.80	104.90	83.10	131.60	216.50	17.10	10.20		
21	76.90	83.10	51.60	26.70	169.80	412.40	89.90	576.00	104.90	256.60	12.40	15.50		
22	72.80	62.80	44.90	29.20	126.20	346.20	83.10	583.40	107.50	153.00	11.00	24.10		
23	66.70	53.30	38.90	48.00	166.40	244.30	78.90	698.60	85.30	110.00	11.00	29.20		
24	60.90	48.00	34.60	60.90	153.00	190.70	120.60	1053.60	99.80	87.50	9.60	33.30		
25	55.20	59.00	31.90	49.80	362.20	169.80	146.50	1642.00	123.40	74.80	8.30	19.60		
26	49.80	51.60	31.90	57.10	539.90	163.00	131.60	682.30	89.90	66.70	8.30	5.90		
27	51.60	51.60	30.50	59.00	690.30	159.70	97.30	424.60	81.10	62.80	8.30	0.50		
28	46.40	64.80	30.50	55.20	782.20	153.00	99.80	315.40	70.70	74.80	8.30	2.70		
29	37.50	62.80	30.50	72.80	945.70	149.80	128.90	248.40	72.80	102.30	7.60	5.00		
30	36.10	40.30	27.90	78.90	583.40	169.80	277.40	190.70	74.80	110.00		5.90		
31		31.90		70.70	330.70		252.40		118.00	180.20		5.90		
Total	4333.50	1306.60	1545.00	1433.80	5990.30	10782.90	6348.20	8323.50	3806.50	5563.90	849.90	389.60	50673.70	**Ton**
Mean	144.40	42.10	51.50	46.30	193.20	359.40	204.80	277.50	122.80	179.50	29.30	12.60		
Max	554.30	83.10	94.80	104.90	945.70	2547.60	512.30	1642.00	418.50	748.30	163.00	34.60	2547.60	
Min	36.10	25.40	26.70	20.50	36.10	83.10	78.90	60.90	44.90	62.80	7.60	0.50	0.50	

WATER YEAR : 2011

SOUTHERN PENINSULA WEST COAST

Khlong Duson at Ban Cha Lung Nua , Satun (X.239)

Lat 06 - 43 - 38 N Long 100 - 03 - 50 E

Location : on right bank at Ban Cha Lung Nua.

Ban Cha Lung Nua **Amphoe** Mueang **Changwat** Satun

Drainge Area	267 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2005-Cont'd
Actual Measurement	2005-Cont'd
Using Rating Curve Water Year	2011
Number of observation	23
R-Square	0.7336
Remarks	Continued Sediment Station

$$QS = 2.5358\ QW^{1.51710}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	209.50	56.30	26.00	19.50	14.80	179.90	168.60	49.20	71.60	227.90	73.60	37.70		
2	154.80	83.90	52.70	15.90	10.60	104.10	141.20	45.70	61.80	653.70	67.60	34.60		
3	92.70	37.70	49.20	18.30	8.60	79.60	111.10	37.70	54.50	206.40	67.60	34.60		
4	61.80	61.80	83.90	33.10	26.00	67.60	120.70	34.60	51.00	106.40	61.80	36.10		
5	56.30	73.60	75.60	27.40	15.90	111.10	130.80	36.10	294.70	83.90	58.20	51.00		
6	49.20	40.80	144.00	18.30	10.60	65.80	174.20	63.80	97.20	69.50	56.30	125.60		
7	90.50	36.10	56.30	14.80	9.60	61.80	144.00	65.80	69.50	61.80	51.00	73.60		
8	77.50	24.70	44.10	13.70	8.60	75.60	101.80	79.60	60.00	56.30	49.20	47.40		
9	40.80	22.00	31.70	12.60	6.80	58.20	94.90	79.60	65.80	58.20	45.70	63.80		
10	33.10	19.50	33.10	10.60	6.00	51.00	77.50	49.20	52.70	90.50	45.70	47.40		
11	28.80	23.30	69.50	9.60	8.60	693.70	94.90	44.10	65.80	104.10	45.70	42.40		
12	27.40	26.00	49.20	8.60	14.80	2413.60	77.50	39.20	65.80	104.10	45.70	36.10		
13	24.70	47.40	61.80	8.60	9.60	1162.50	65.80	33.10	58.20	933.70	44.10	34.60		
14	20.80	30.20	51.00	8.60	13.70	594.40	60.00	31.70	69.50	459.80	40.80	31.70		
15	19.50	23.30	37.70	8.60	97.20	334.10	52.70	30.20	45.70	200.60	40.80	30.20		
16	18.30	42.40	31.70	10.60	20.80	231.00	45.70	34.60	65.80	141.20	40.80	30.20		
17	15.90	42.40	27.40	7.70	111.10	177.20	61.80	31.70	111.10	136.00	42.40	27.40		
18	15.90	42.40	37.70	6.80	52.70	136.00	51.00	28.80	79.60	123.20	47.40	27.40		
19	40.80	47.40	40.80	5.20	26.00	130.80	56.30	28.80	75.60	157.40	51.00	24.70		
20	26.00	27.40	28.80	5.20	81.80	113.50	88.30	40.80	58.20	382.80	45.70	20.80		
21	20.80	28.80	24.70	5.20	133.30	106.40	75.60	52.70	51.00	185.70	42.40	22.00		
22	22.00	26.00	20.80	6.00	67.60	90.50	63.80	104.10	71.60	191.60	40.80	15.90		
23	22.00	26.00	24.70	5.20	71.60	79.60	51.00	123.20	58.20	177.20	39.20	13.70		
24	18.30	22.00	34.60	5.20	51.00	63.80	42.40	723.10	49.20	123.20	37.70	12.60		
25	13.70	24.70	26.00	11.60	108.70	56.30	49.20	468.70	45.70	104.10	36.10	12.60		
26	12.60	26.00	23.30	9.60	323.20	73.60	47.40	247.10	42.40	94.90	34.60	12.60		
27	18.30	26.00	19.50	6.80	459.80	154.80	42.40	224.70	39.20	86.10	34.60	15.90		
28	14.80	24.70	17.10	11.60	459.80	505.60	39.20	146.60	37.70	79.60	37.70	14.80		
29	14.80	23.30	22.00	27.40	562.80	729.10	36.10	104.10	33.10	75.60	47.40	19.50		
30	14.80	27.40	33.10	30.20	789.60	257.10	36.10	86.10	37.70	73.60		20.80		
31		26.00		23.30	323.20		45.70		39.20	73.60		19.50		
Total	1276.40	1089.50	1278.00	405.80	3904.40	8958.30	2447.70	3164.70	2079.10	5622.70	1371.60	1037.20	32635.40	**Ton**
Mean	42.50	35.10	42.60	13.10	125.90	298.60	79.00	105.50	67.10	181.40	47.30	33.50		
Max	209.50	83.90	144.00	33.10	789.60	2413.60	174.20	723.10	294.70	933.70	73.60	125.60	2413.60	
Min	12.60	19.50	17.10	5.20	6.00	51.00	36.10	28.80	33.10	56.30	34.60	12.60	5.20	

WATER YEAR : 2011

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

Drainge Area	242 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2005-Cont'd
Actual Measurement	2005-Cont'd
Using Rating Curve Water Year	2005-2011
Number of observation	179
R-Square	0.731
Remarks	Continued Sediment Station

$$QS = 3.5623\ QW^{1.46410}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	388.10	157.50	324.60	148.00	279.90	578.50	1705.70	112.20	108.00	55.20	81.80	33.50		
2	417.80	167.10	287.20	138.80	251.20	407.90	2335.10	112.20	103.70	52.10	81.80	33.50		
3	368.40	157.50	945.60	129.70	237.30	309.50	3146.30	103.70	99.90	52.10	74.80	22.10		
4	324.60	157.50	511.30	120.80	223.60	279.90	2533.30	103.70	96.20	49.10	71.40	58.30		
5	279.90	152.60	490.00	112.20	210.20	265.40	1862.80	99.90	96.20	49.10	68.10	71.40		
6	265.40	176.90	479.30	103.70	157.50	244.20	1603.40	96.20	92.50	49.10	68.10	61.50		
7	340.00	244.20	469.00	108.00	148.00	216.90	1303.80	92.50	88.90	46.10	96.20	55.20		
8	378.20	397.90	309.50	112.20	138.80	203.60	763.50	88.90	88.90	46.10	96.20	52.10		
9	309.50	521.90	265.40	112.20	134.10	181.90	675.20	85.30	81.80	43.20	88.90	49.10		
10	265.40	555.10	279.90	134.10	134.10	359.00	614.20	81.80	78.30	37.60	81.80	55.20		
11	251.20	712.60	578.50	251.20	129.70	897.70	578.50	81.80	74.80	37.60	74.80	61.50		
12	251.20	650.60	1415.40	650.60	129.70	662.90	804.50	74.80	74.80	43.20	68.10	71.40		
13	210.20	317.00	1093.50	511.30	129.70	469.00	650.60	88.90	71.40	49.10	61.50	92.50		
14	197.00	143.40	776.40	458.50	125.30	417.80	700.10	81.80	68.10	55.20	55.20	125.30		
15	181.90	68.10	725.30	789.40	120.80	397.90	532.80	92.50	64.80	61.50	55.20	88.90		
16	148.00	23.90	638.40	638.40	120.80	438.00	397.90	116.40	61.50	68.10	55.20	81.80		
17	134.10	0.20	555.10	397.90	112.20	407.90	332.30	112.20	58.30	64.80	52.10	74.80		
18	129.70	15.40	1060.30	287.20	103.70	368.40	302.00	134.10	61.50	88.90	52.10	68.10		
19	129.70	43.20	532.80	237.30	96.20	407.90	258.30	112.20	61.50	96.20	49.10	96.20		
20	129.70	46.10	521.90	216.90	88.90	675.20	237.30	108.00	58.30	78.30	49.10	88.90		
21	120.80	7.00	388.10	138.80	88.90	479.30	223.60	103.70	55.20	68.10	49.10	81.80		
22	116.40	0.00	317.00	244.20	210.20	397.90	210.20	99.90	55.20	61.50	49.10	37.60		
23	116.40	0.00	479.30	244.20	197.00	294.60	197.00	96.20	58.30	58.30	49.10	61.50		
24	108.00	0.00	378.20	237.30	210.20	251.20	181.90	88.90	61.50	55.20	49.10	61.50		
25	103.70	0.00	294.60	230.40	210.20	332.30	176.90	85.30	61.50	55.20	49.10	58.30		
26	96.20	0.00	265.40	223.60	317.00	521.90	152.60	81.80	58.30	52.10	46.10	55.20		
27	88.90	0.00	251.20	294.60	789.40	866.30	134.10	81.80	61.50	49.10	46.10	55.20		
28	81.80	0.00	223.60	700.10	789.40	850.80	134.10	78.30	68.10	49.10	46.10	52.10		
29	74.80	0.00	191.80	776.40	977.90	1173.80	125.30	74.80	61.50	55.20	18.70	52.10		
30	68.10	0.00	152.60	543.50	789.40	1438.00	120.80	71.40	55.20	68.10		49.10		
31		700.10		407.90	866.30		116.40		55.20	96.20		49.10		
Total	6075.10	5415.80	15201.20	9699.40	8517.60	14795.60	23110.50	2841.20	2240.90	1790.70	1784.00	1954.80	93426.80	**Ton**
Mean	202.50	174.70	506.70	312.90	274.80	493.20	745.50	94.70	72.30	57.80	61.50	63.10		
Max	417.80	712.60	1415.40	789.40	977.90	1438.00	3146.30	134.10	108.00	96.20	96.20	125.30	3146.30	
Min	68.10	0.00	152.60	103.70	88.90	181.90	116.40	71.40	55.20	37.60	18.70	22.10	0.00	

WATER YEAR : 2011

SOUTHERN PENINSULA WEST COAST

Lower Khlong Tha Prae at Ban Ta Lam , Satun (X.264)

Lat 06 - 47 - 46 N Long 99 - 57 - 17 E

Location : on right bank at Ban Ta Lam.

Ban Ta Lam **Amphoe** Tha Pae **Changwat** Satun

Drainge Area	223 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2009-Cont'd
Actual Measurement	2009-Cont'd
Using Rating Curve Water Year	2011
Number of observation	24
R-Square	0.8356
Remarks	Continued Sediment Station

$$QS = 4.8380\ QW^{1.35330}$$

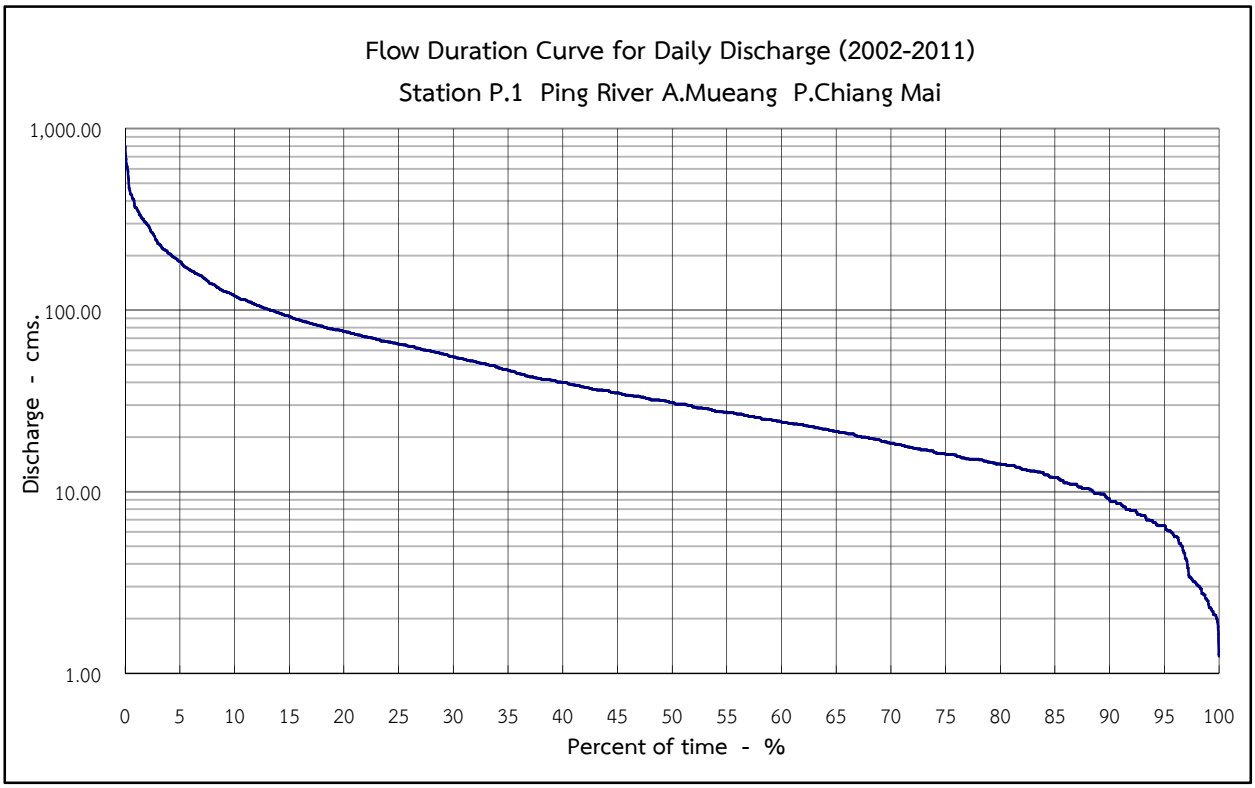
Suspended Sediment , in Tons per Day. Water Year 1 April 2011 to 31 March 2012

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	98.60	42.70	5.80	17.90	19.90	422.70	142.20	35.50	42.70	147.30	21.90	13.50		
2	95.20	27.00	18.60	17.90	18.60	356.50	100.40	37.30	42.70	216.00	21.20	12.40		
3	80.10	18.60	14.80	17.30	10.70	249.60	76.90	36.40	41.80	160.20	18.60	12.40		
4	72.10	17.30	39.10	17.30	8.40	160.20	78.50	33.70	40.90	133.60	17.90	14.80		
5	19.20	12.40	33.70	19.90	6.50	106.00	80.10	33.70	33.70	62.20	16.00	14.80		
6	40.00	14.80	29.50	12.40	4.80	59.70	76.90	39.10	30.30	25.30	16.00	13.50		
7	39.10	12.40	18.60	12.40	4.50	33.70	75.30	41.80	32.00	24.60	14.80	13.50		
8	42.70	23.90	10.70	11.50	4.20	33.70	81.80	42.70	32.00	23.90	14.80	14.80		
9	32.00	26.20	100.40	4.80	3.60	33.70	83.40	51.00	98.60	22.60	16.60	13.50		
10	18.60	18.60	25.30	4.80	3.60	33.70	73.70	39.10	67.30	32.00	27.00	12.40		
11	17.30	18.60	54.70	4.80	5.20	10536.00	67.30	37.30	45.00	32.00	17.90	13.50		
12	12.40	17.30	33.70	4.80	4.80	7462.20	75.30	35.50	25.30	42.70	14.80	13.50		
13	11.90	12.40	33.70	4.80	4.50	1240.40	59.70	35.50	25.30	1394.90	13.50	13.50		
14	10.70	14.80	22.60	4.80	4.20	578.60	54.70	33.70	23.90	910.20	13.50	13.50		
15	10.30	39.10	18.60	4.80	6.90	282.60	51.00	33.70	30.30	278.80	14.80	12.40		
16	8.40	46.20	17.90	4.80	12.40	165.50	49.80	33.70	40.00	113.70	14.80	13.50		
17	13.50	64.80	12.40	4.80	48.60	135.60	49.80	32.00	25.30	93.50	17.30	13.50		
18	12.40	76.90	16.00	4.80	88.40	119.60	46.20	40.90	24.60	68.90	17.30	13.50		
19	16.60	25.30	17.30	4.50	36.40	115.70	45.00	52.20	25.30	66.10	14.80	14.80		
20	25.30	42.70	17.30	4.80	12.40	100.40	54.70	49.80	25.30	95.20	14.80	14.80		
21	42.70	45.00	16.60	3.60	11.50	90.10	51.00	76.90	23.90	106.00	14.10	16.60		
22	42.70	40.90	12.40	4.80	34.60	75.30	49.80	81.80	22.60	86.80	17.30	16.00		
23	27.00	30.30	30.30	4.80	66.10	49.80	47.40	139.70	19.90	66.10	16.60	14.80		
24	16.00	17.90	26.20	4.80	62.20	54.70	47.40	519.60	18.60	45.00	16.00	14.80		
25	5.50	12.40	12.40	3.30	135.60	88.40	38.20	417.90	18.60	28.60	14.80	25.30		
26	5.50	12.40	12.40	17.90	1686.00	271.30	39.10	532.10	17.30	28.60	14.10	23.90		
27	4.80	10.70	12.40	18.60	804.50	613.10	39.10	464.50	16.00	32.00	13.50	13.50		
28	8.40	9.50	11.10	18.60	705.90	282.60	37.30	452.40	14.80	27.80	12.90	12.40		
29	10.30	12.40	10.70	23.30	613.10	91.80	35.50	108.00	11.90	21.20	12.40	12.40		
30	12.40	9.90	10.30	33.70	525.80	31.20	34.60	53.40	11.10	15.40		12.40		
31		7.60		17.30	434.60		33.70		11.10	14.10		12.40		
Total	851.70	781.00	695.50	334.60	5388.50	23874.40	1875.80	3620.90	938.10	4415.30	470.00	446.60	43692.40	**Ton**
Mean	28.40	25.20	23.20	10.80	173.80	795.80	60.50	120.70	30.30	142.40	16.20	14.40		
Max	98.60	76.90	100.40	33.70	1686.00	10536.00	142.20	532.10	98.60	1394.90	27.00	25.30	10536.00	
Min	4.80	7.60	5.80	3.30	3.60	31.20	33.70	32.00	11.10	14.10	12.40	12.40	3.30	

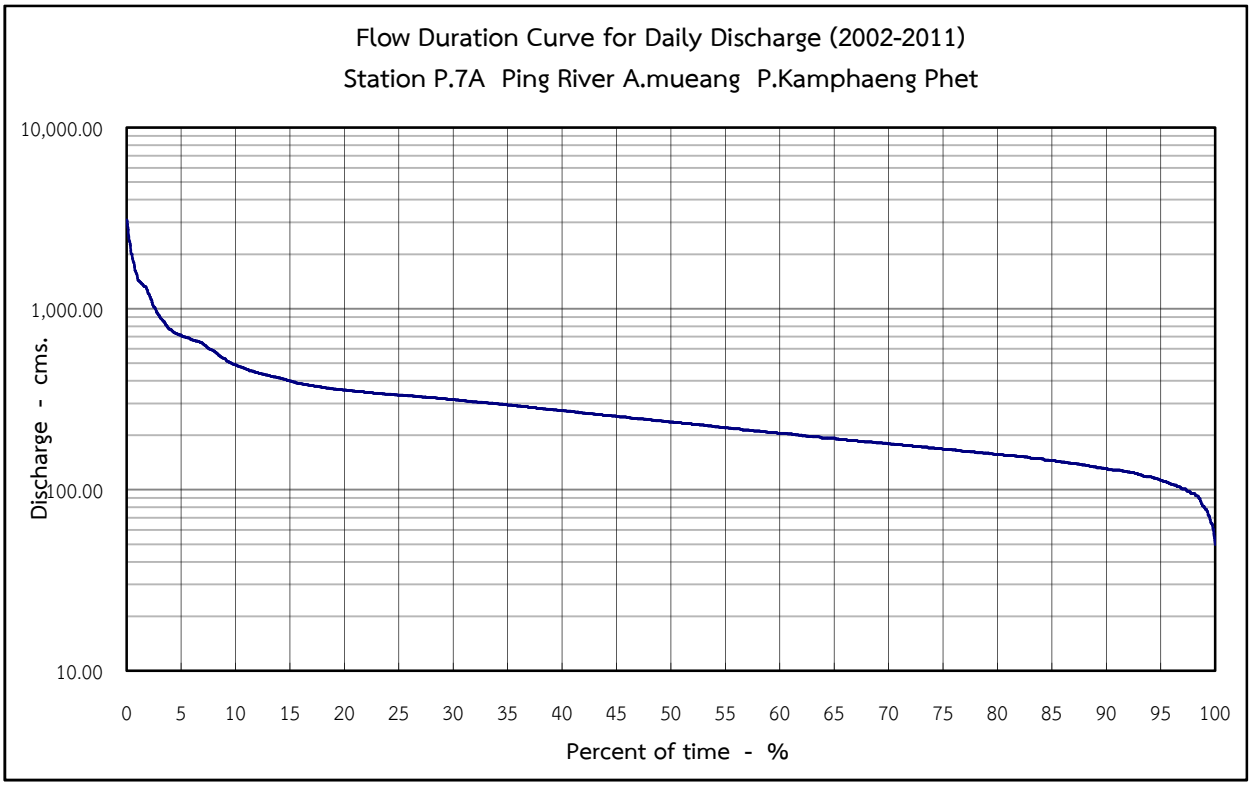
Appendix A

Flow Duration Curve for Daily Discharge

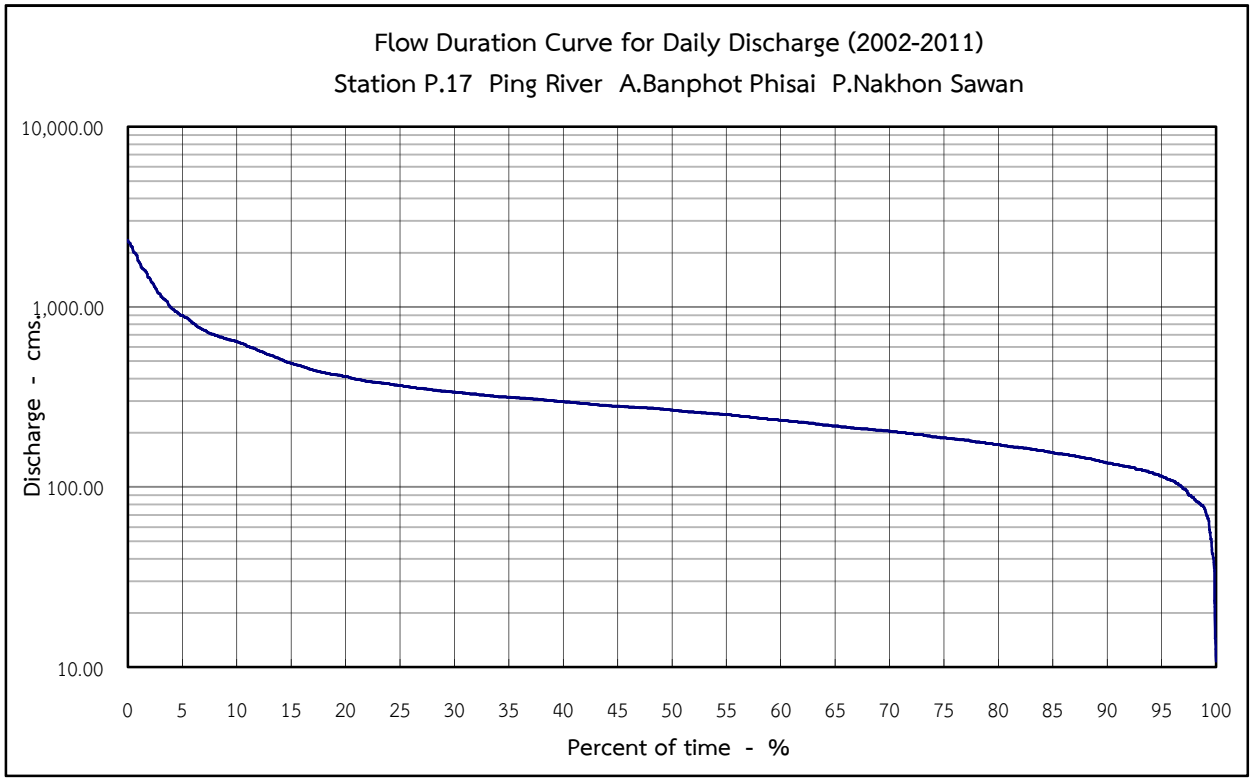
(2002-2011)



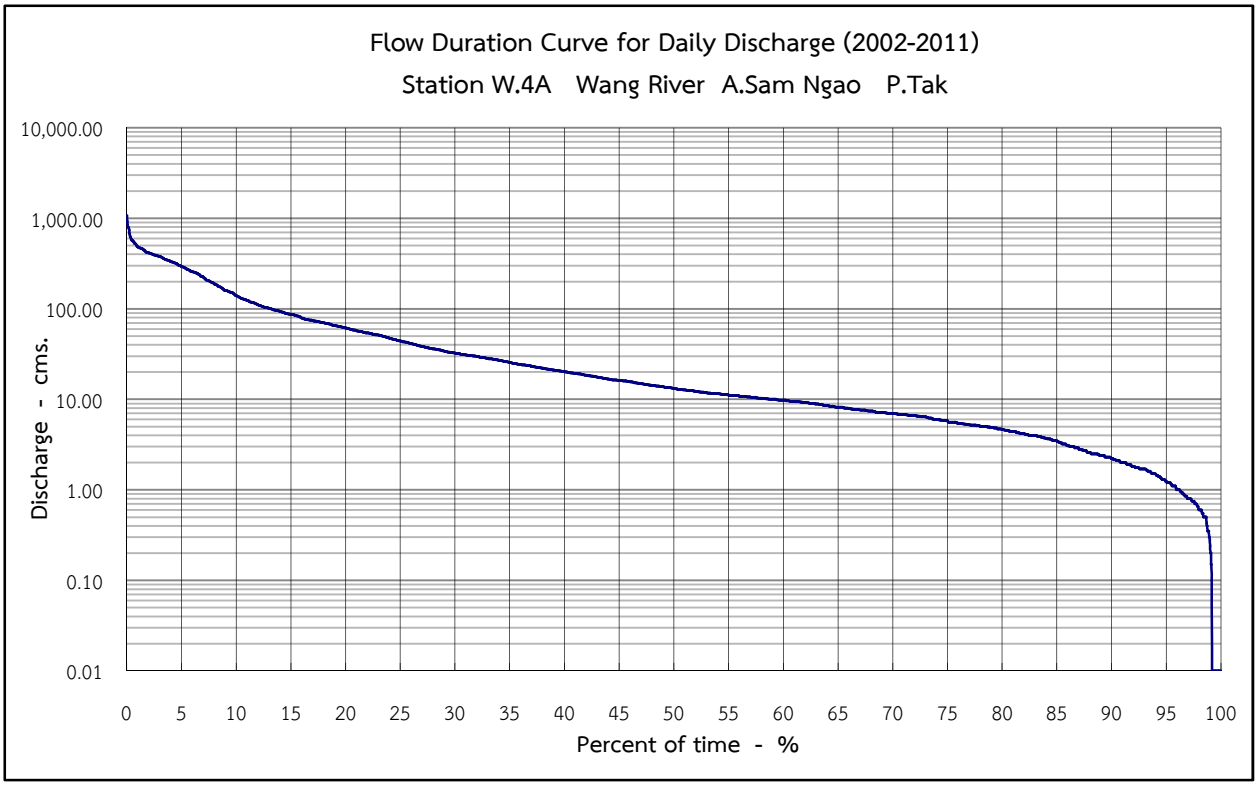
Percent of time - %	1	10	20	30	50	60	80	85	90	95	100
Discharge - cms.	367.5	119.6	76.5	55.5	31.0	24.3	14.2	12.0	9.0	6.5	1.2



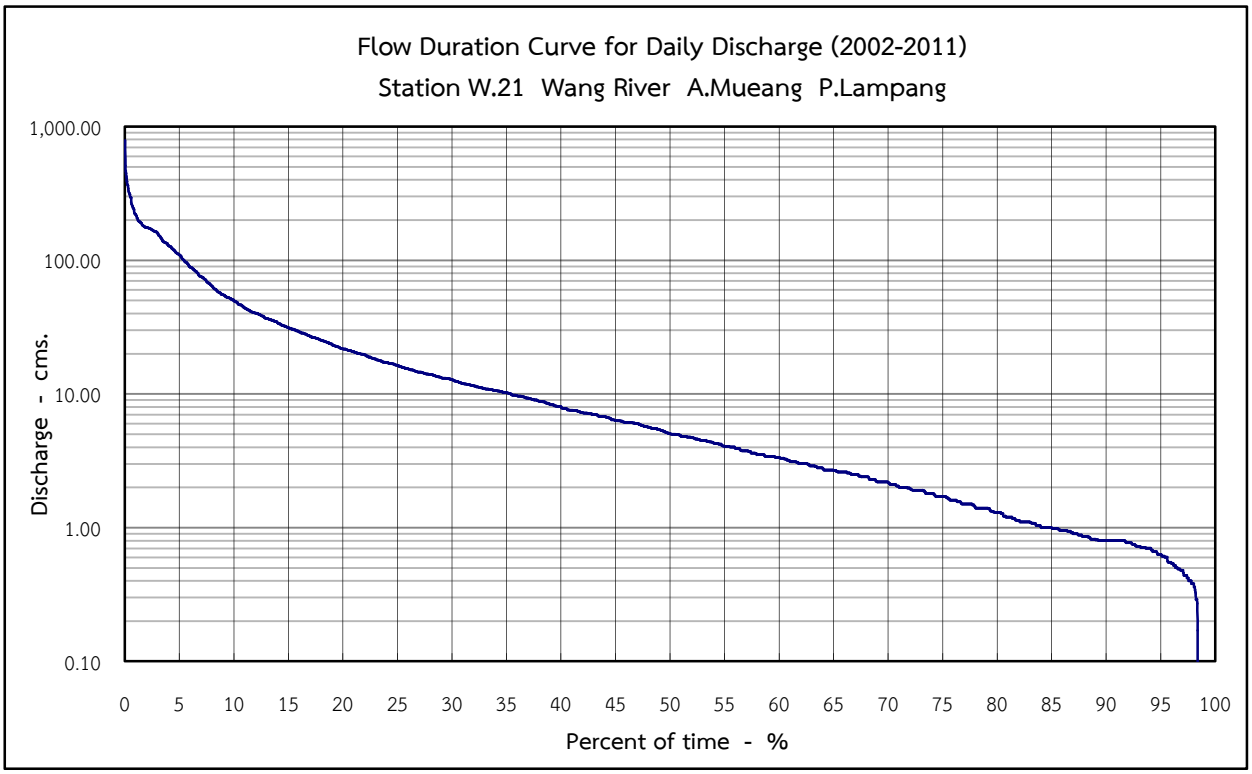
Percent of time - %	1	10	20	30	50	60	80	85	90	95	100
Discharge - cms.	1,460.9	488.5	355.5	315.3	236.5	205.2	156.5	145.5	131.2	113.3	49.8



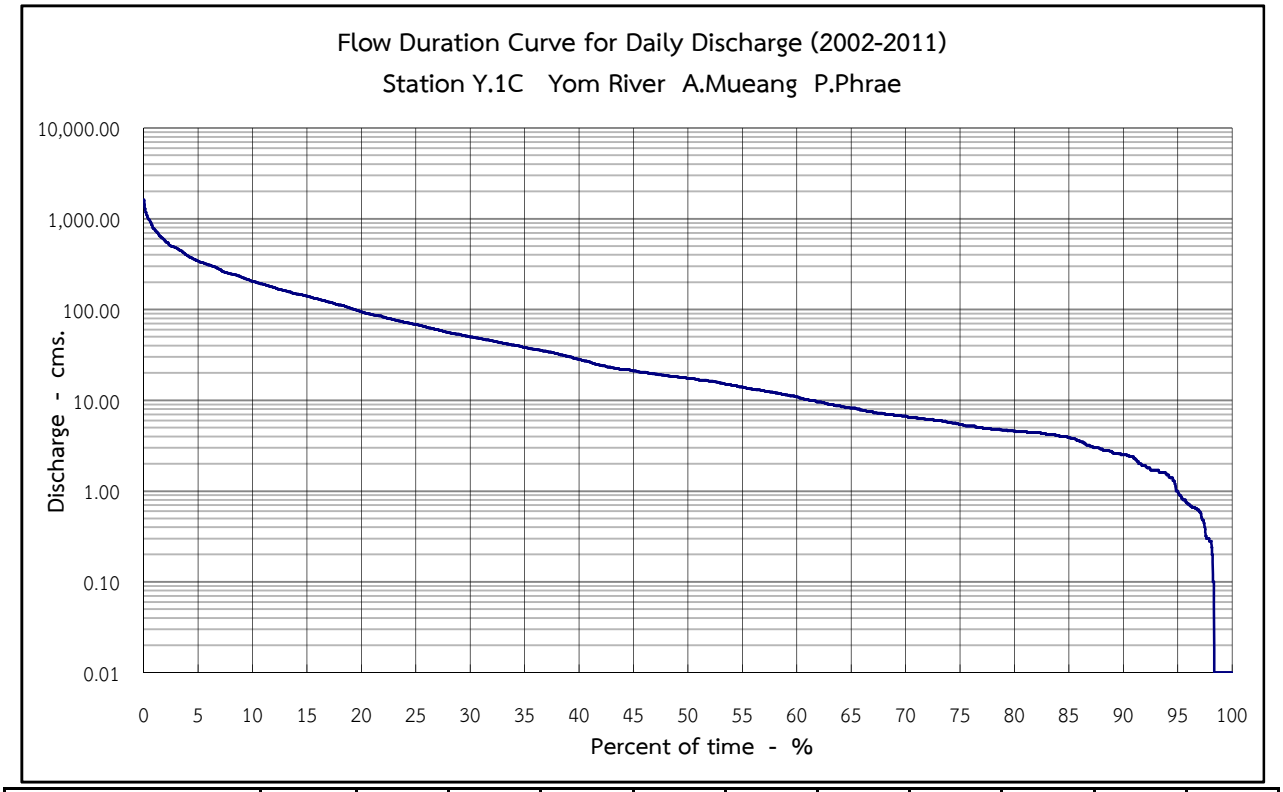
Percent of time - %	1	10	20	30	50	60	80	85	90	95	100
Discharge - cms.	1,790.3	640.0	410.0	337.0	267.5	235.0	171.9	155.2	136.0	114.6	10.8



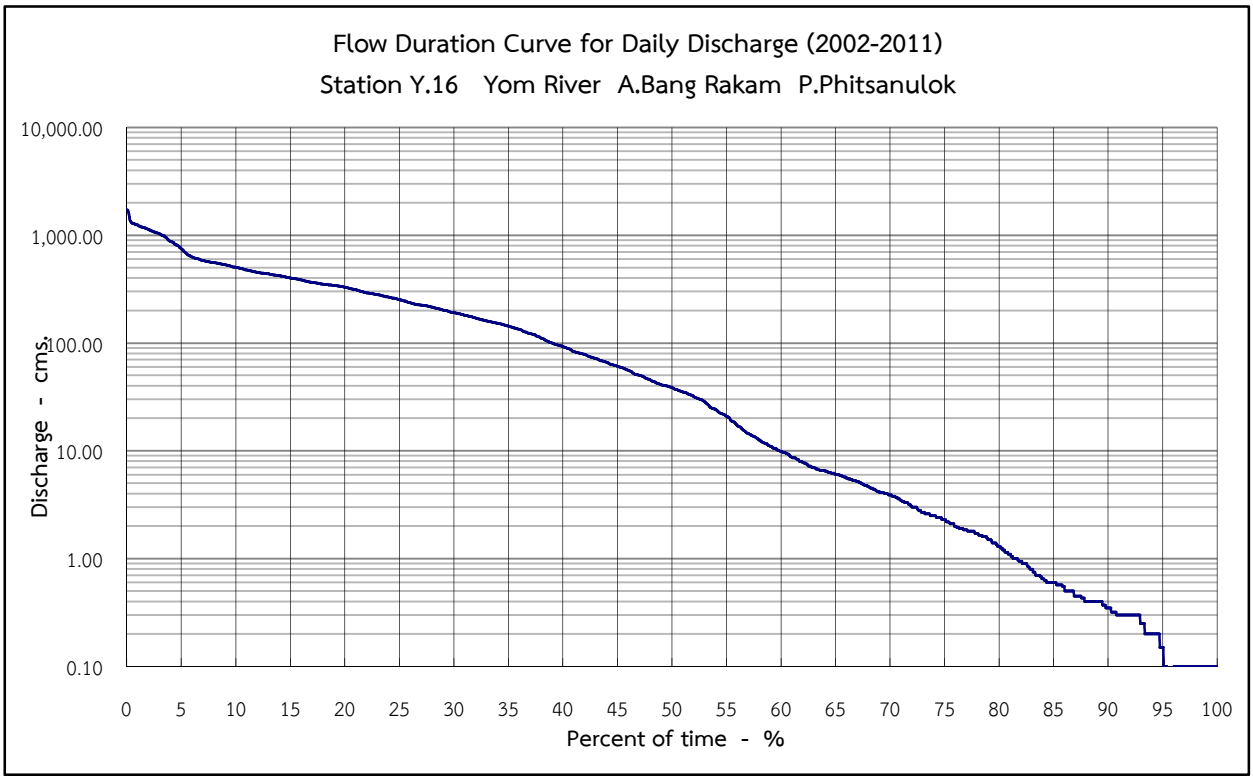
Percent of time - %	1	10	20	30	50	60	80	85	90	95	100
Discharge - cms.	484.3	139.5	61.5	32.4	13.2	9.8	4.7	3.4	2.2	1.2	0.0



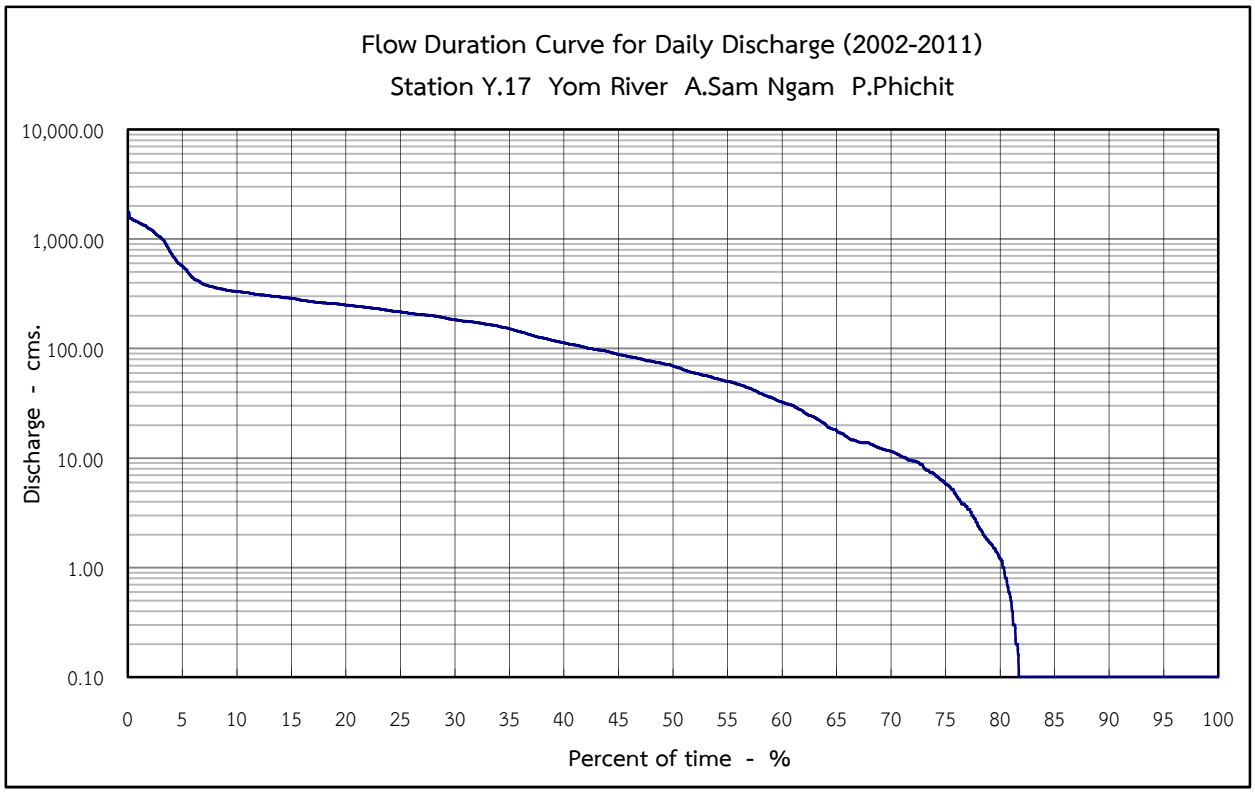
Percent of time - %	1	10	20	30	50	60	80	85	90	95	100
Discharge - cms.	219.5	49.8	21.8	12.8	5.0	3.4	1.3	1.0	0.8	0.6	0.0



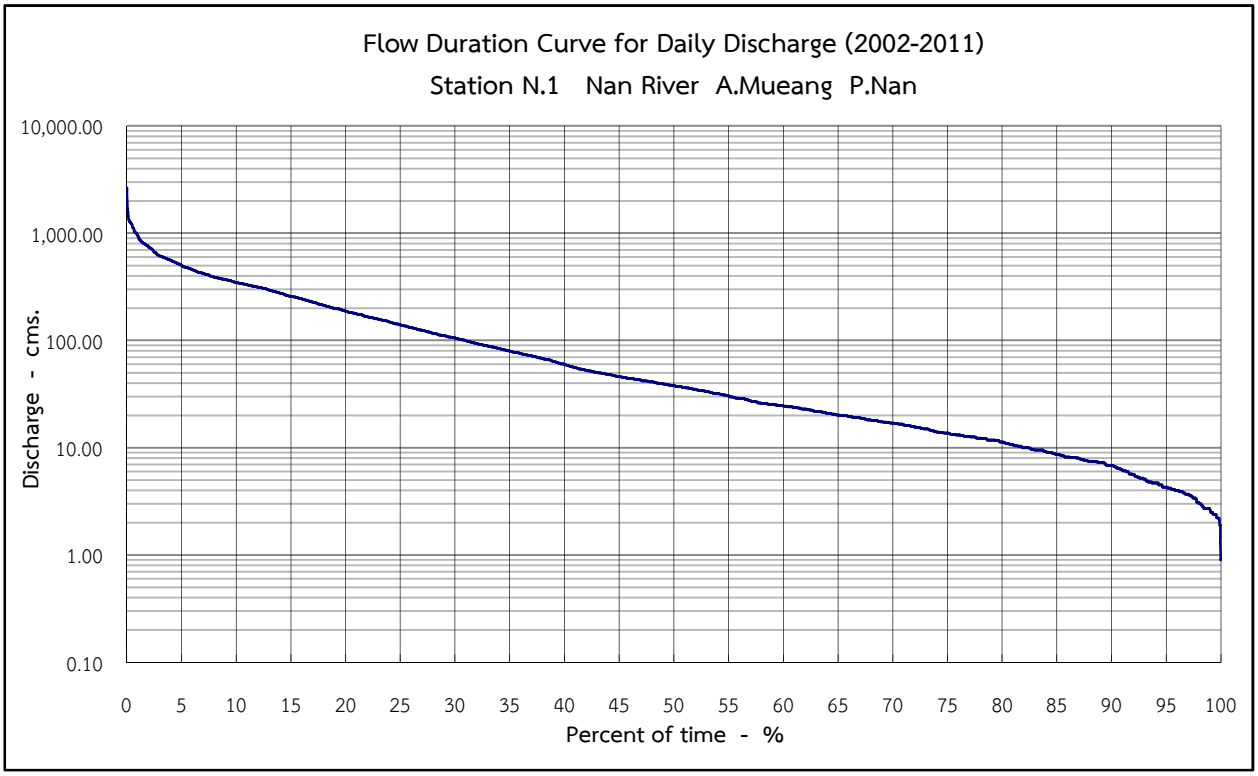
Percent of time - %	1	10	20	30	50	60	80	85	90	95	100
Discharge - cms.	758.7	204.5	94.5	49.9	17.4	10.9	4.6	3.9	2.5	1.0	0.0



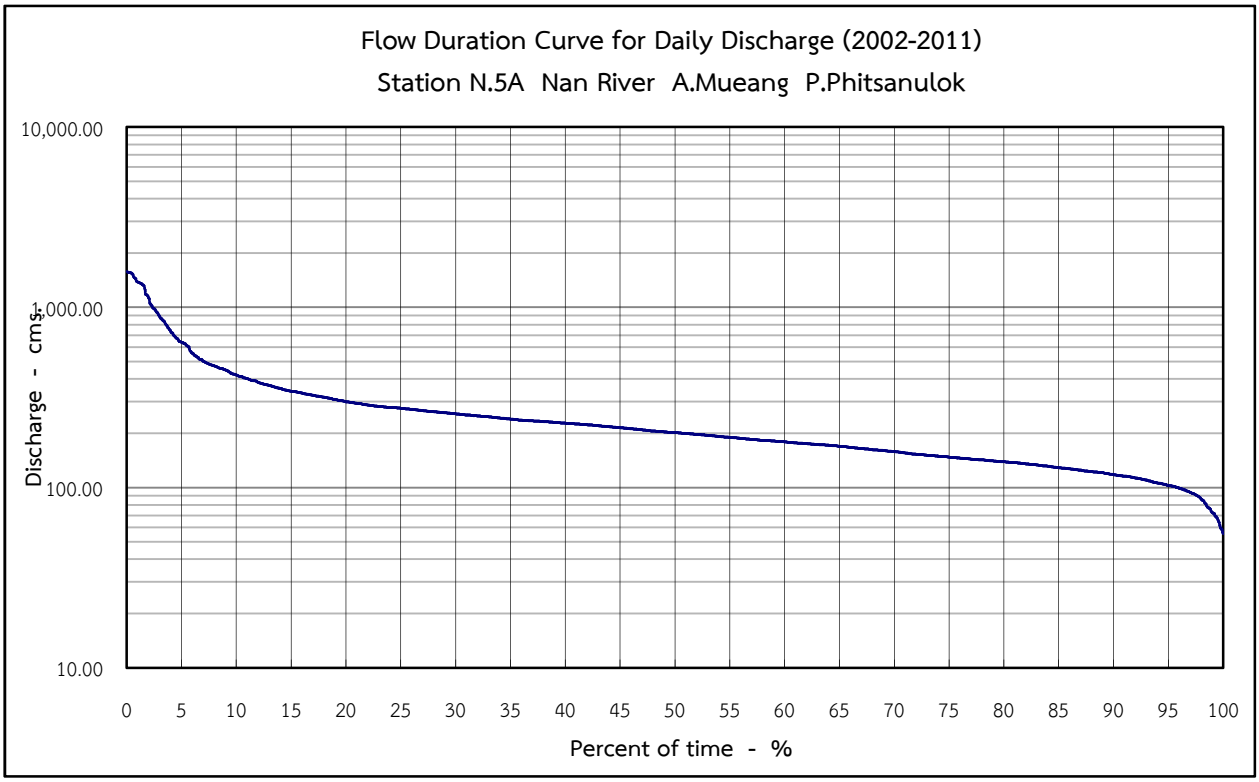
Percent of time - %	1	10	20	30	50	60	80	85	90	95	100
Discharge - cms.	1,243.8	503.0	329.6	191.3	38.6	9.8	1.3	0.6	0.4	0.2	0.0



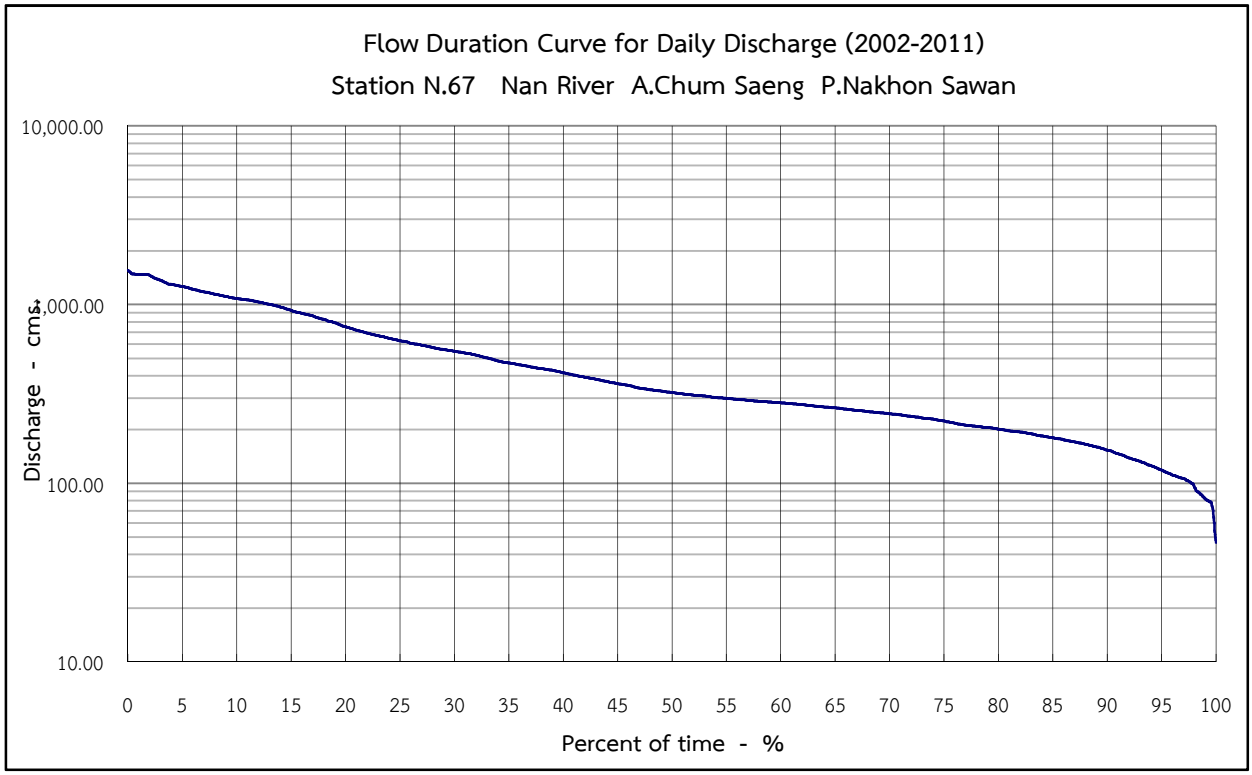
Percent of time - %	1	10	20	30	50	60	80	85	90	95	100
Discharge - cms.	1,411.9	332.0	249.6	183.2	69.5	32.4	1.2	0.0	0.0	0.0	0.0



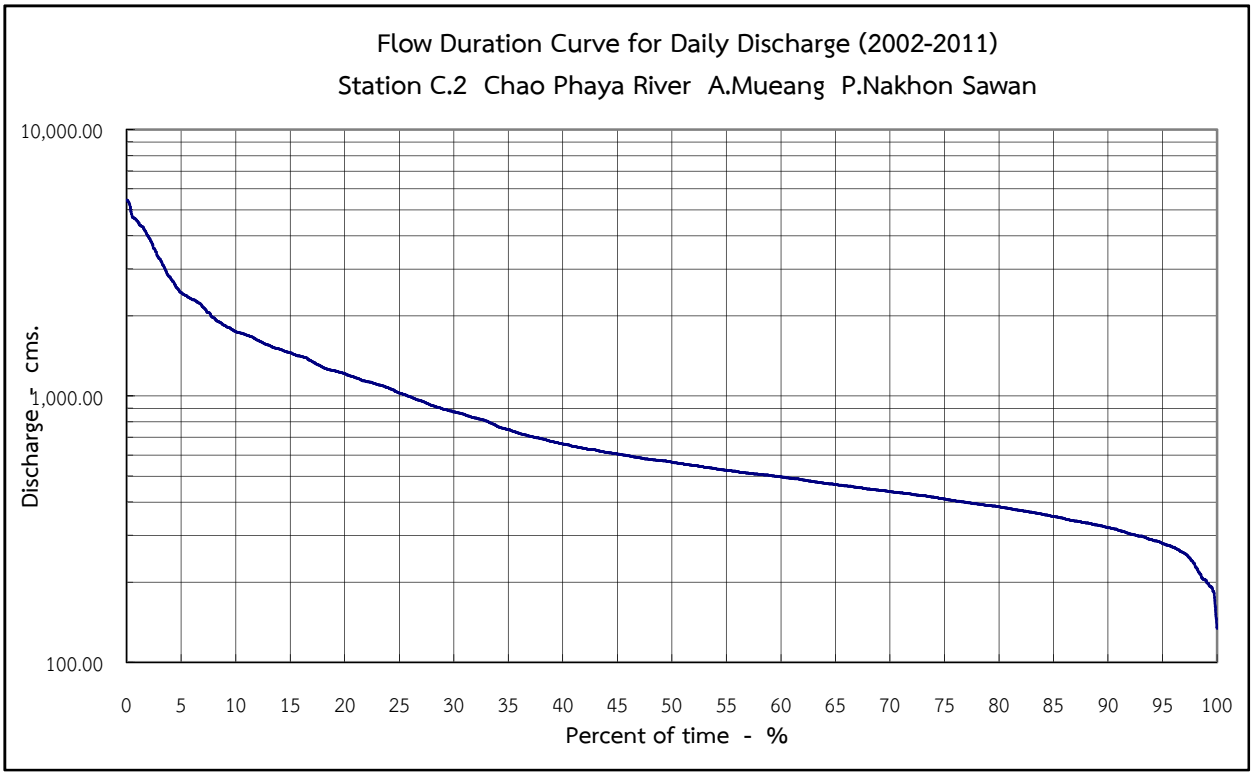
Percent of time - %	1	10	20	30	50	60	80	85	90	95	100
Discharge - cms.	949.5	346.6	187.5	105.6	37.8	24.6	11.3	8.7	6.8	4.3	0.9



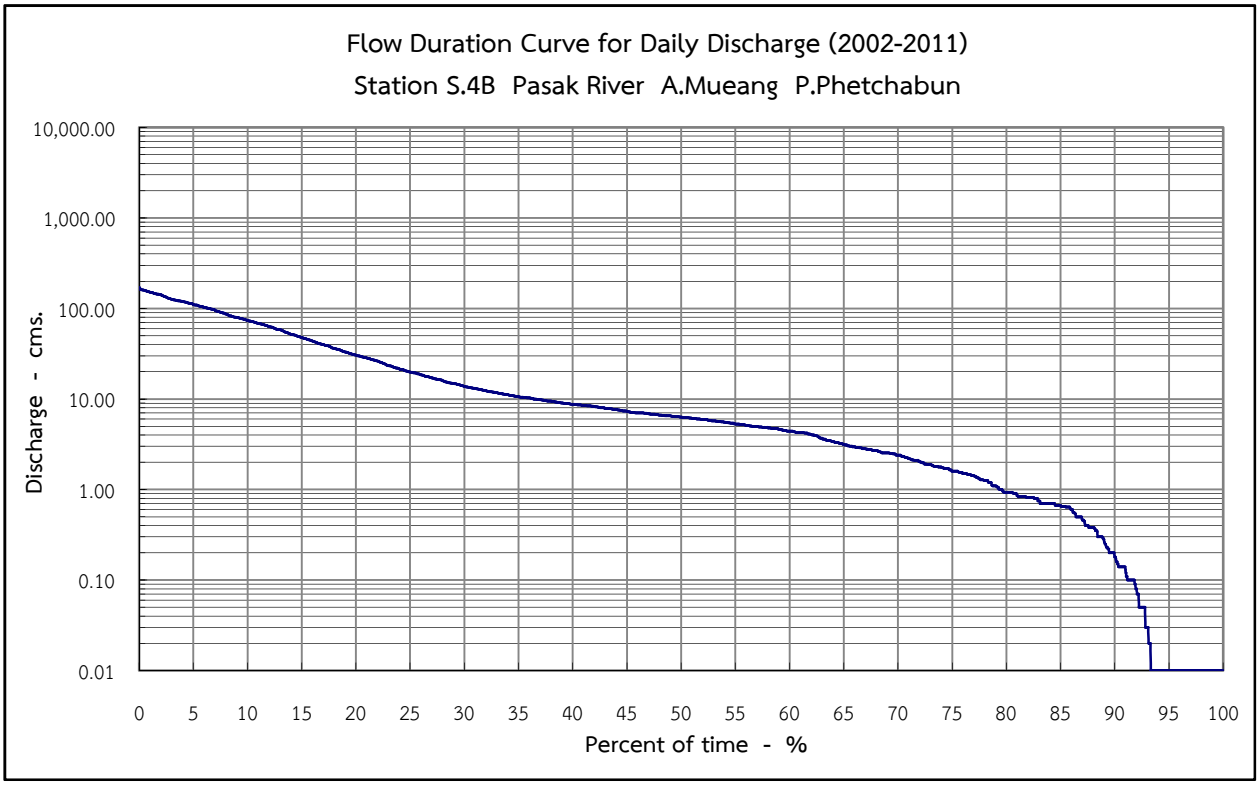
Percent of time - %	1	10	20	30	50	60	80	85	90	95	100
Discharge - cms.	1,380.1	420.9	299.2	256.4	201.6	179.2	138.8	128.8	117.8	102.4	55.3



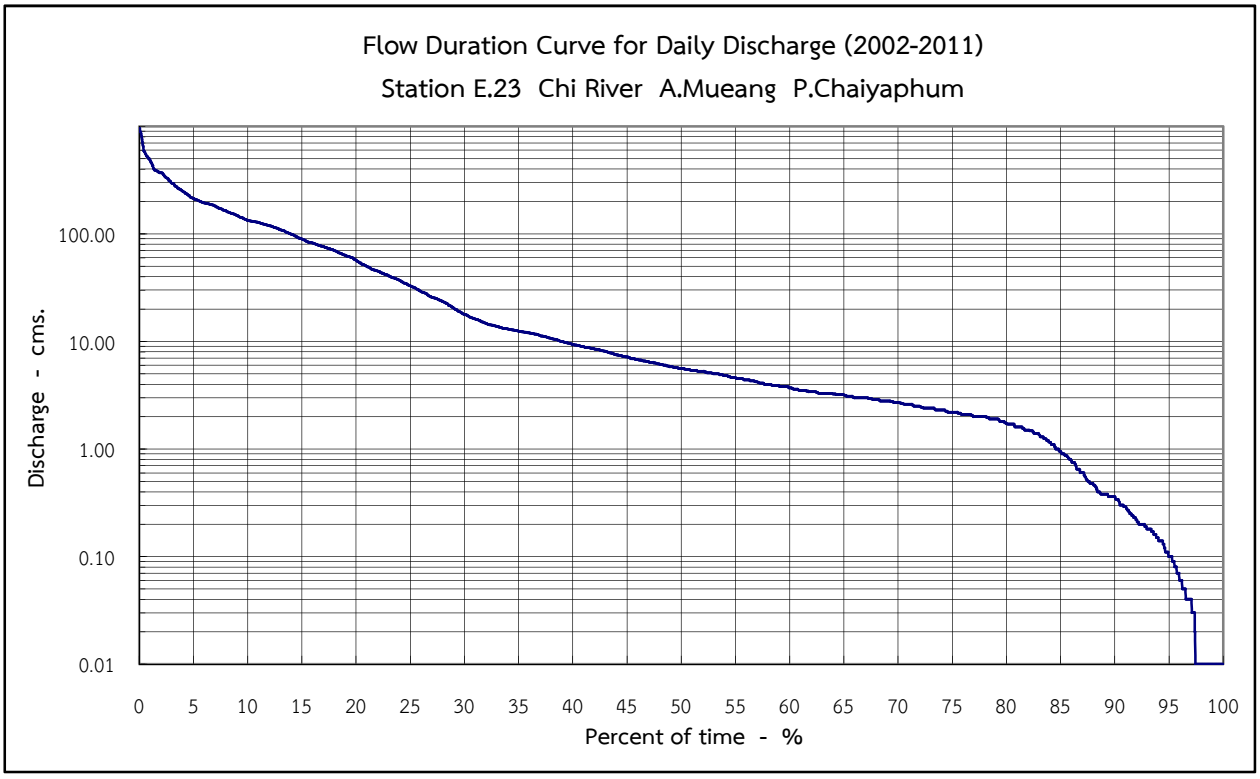
Percent of time - %	1	10	20	30	50	60	80	85	90	95	100
Discharge - cms.	1,476.0	1,082.3	752.1	547.7	322.0	282.1	201.0	179.5	153.6	118.3	46.6



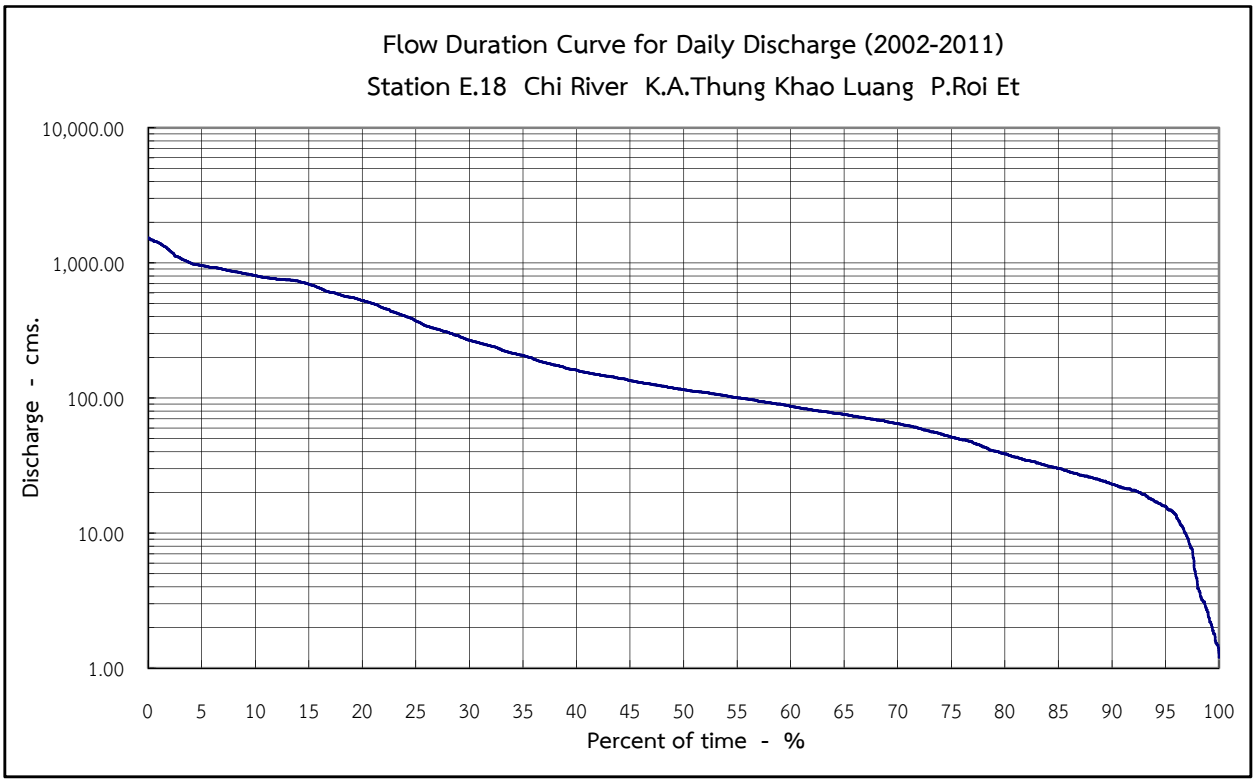
Percent of time - %	1	10	20	30	50	60	80	85	90	95	100
Discharge - cms.	4,530.0	1,745.0	1,211.0	871.8	564.4	497.3	383.9	353.0	320.1	279.5	134.0



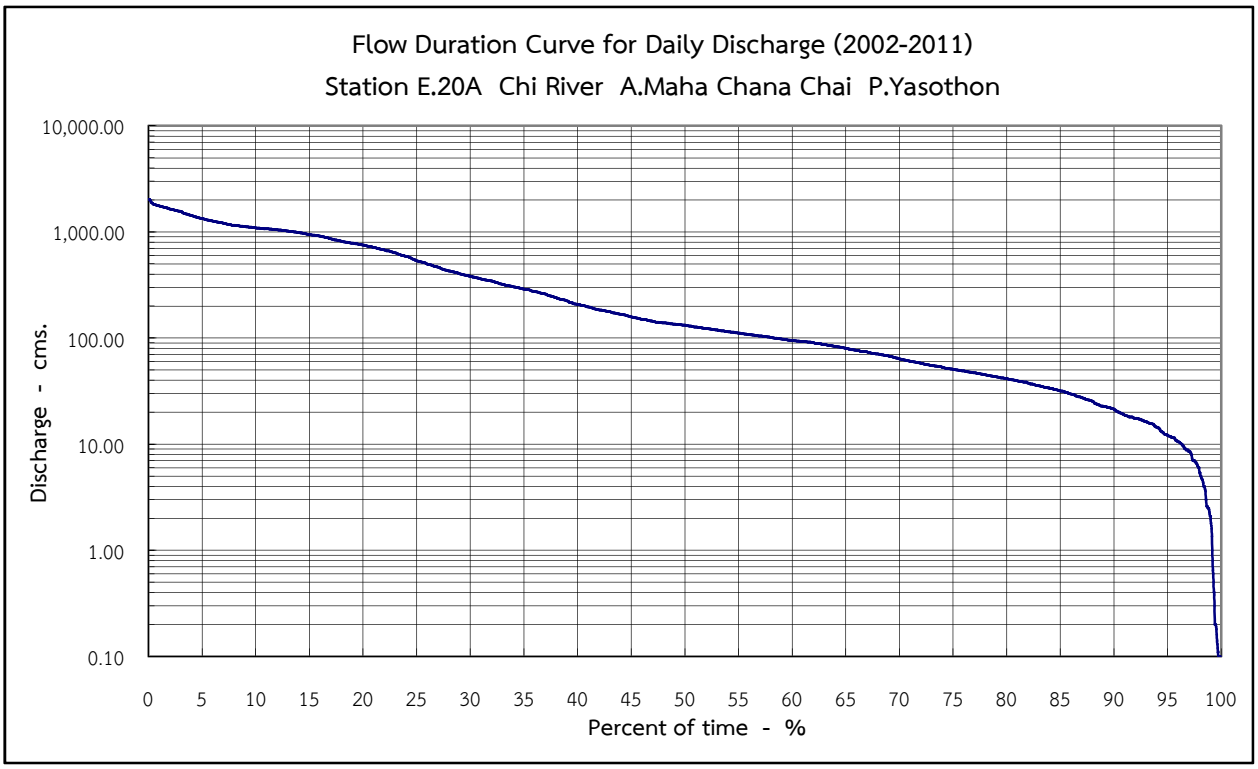
Percent of time - %	1	10	20	30	50	60	80	85	90	95	100
Discharge - cms.	151.2	73.4	30.6	13.8	6.3	4.4	0.9	0.7	0.2	0.0	0.0



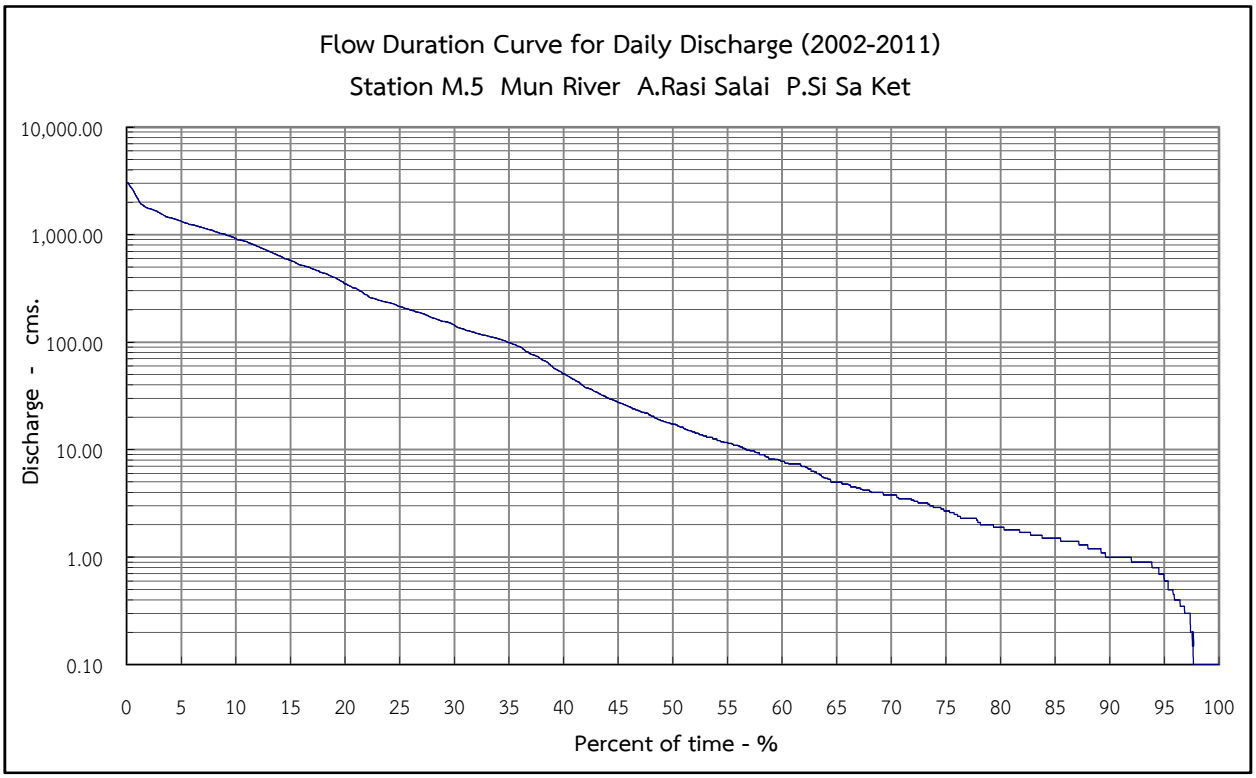
Percent of time - %	1	10	20	30	50	60	80	85	90	95	100
Discharge - cms.	486.6	133.2	57.0	17.9	5.6	3.7	1.7	1.0	0.4	0.1	0.0



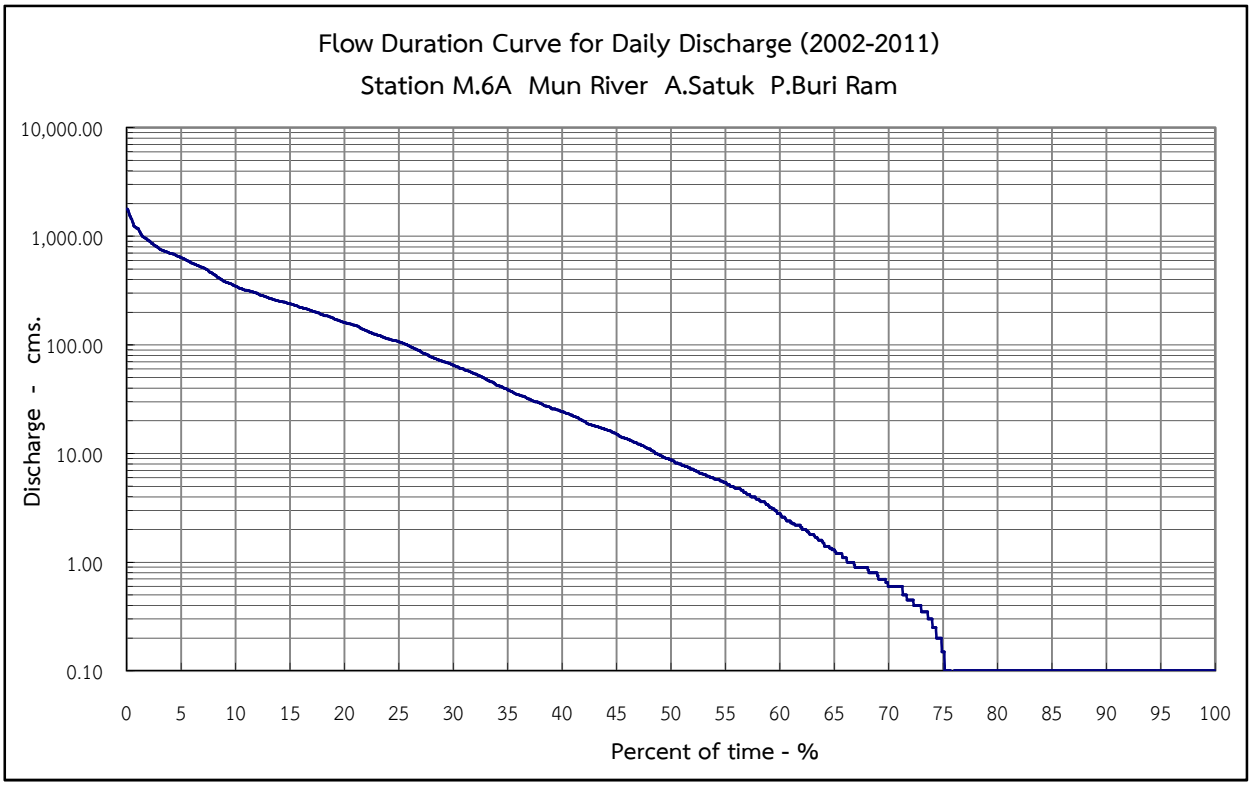
Percent of time - %	1	10	20	30	50	60	80	85	90	95	100
Discharge - cms.	1,407.9	804.4	527.6	267.5	115.4	86.9	38.5	30.1	23.0	15.8	1.2



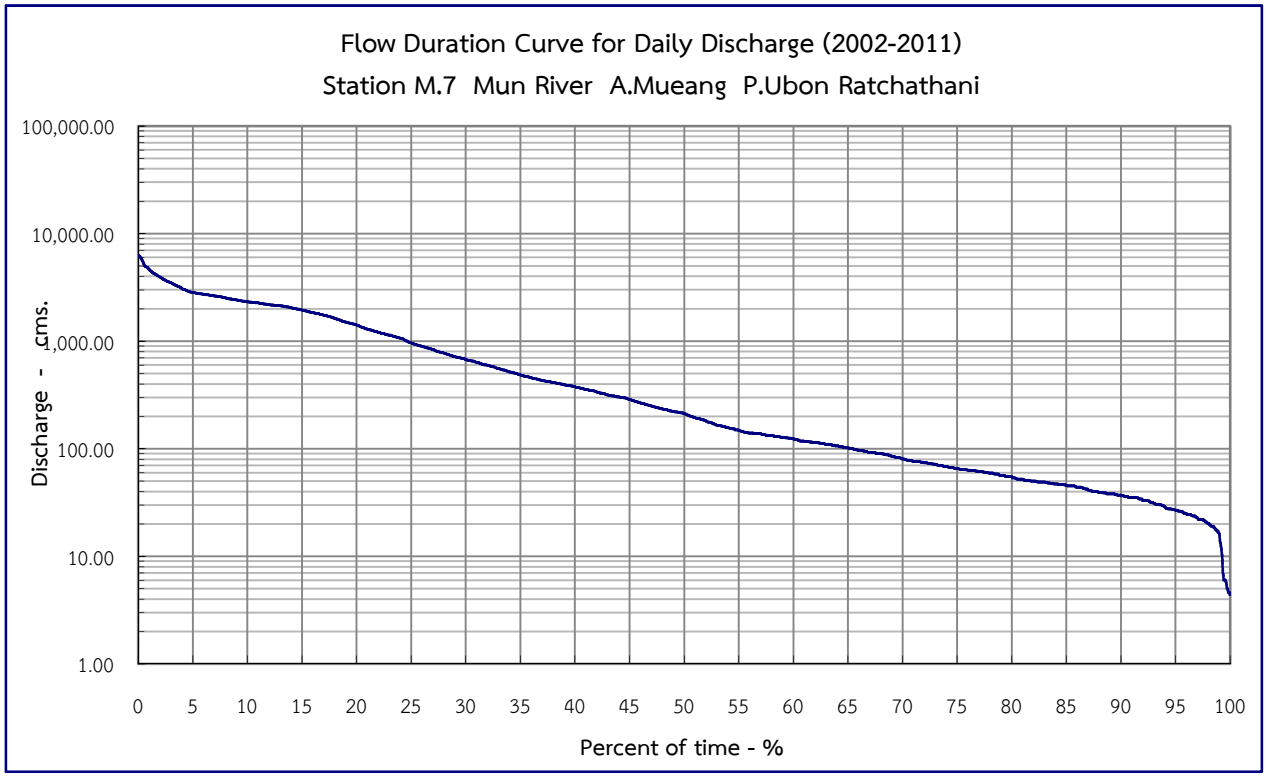
Percent of time - %	1	10	20	30	50	60	80	85	90	95	100
Discharge - cms.	1,758.3	1,093.0	753.2	382.9	132.5	95.0	41.4	31.8	21.5	12.2	0.1



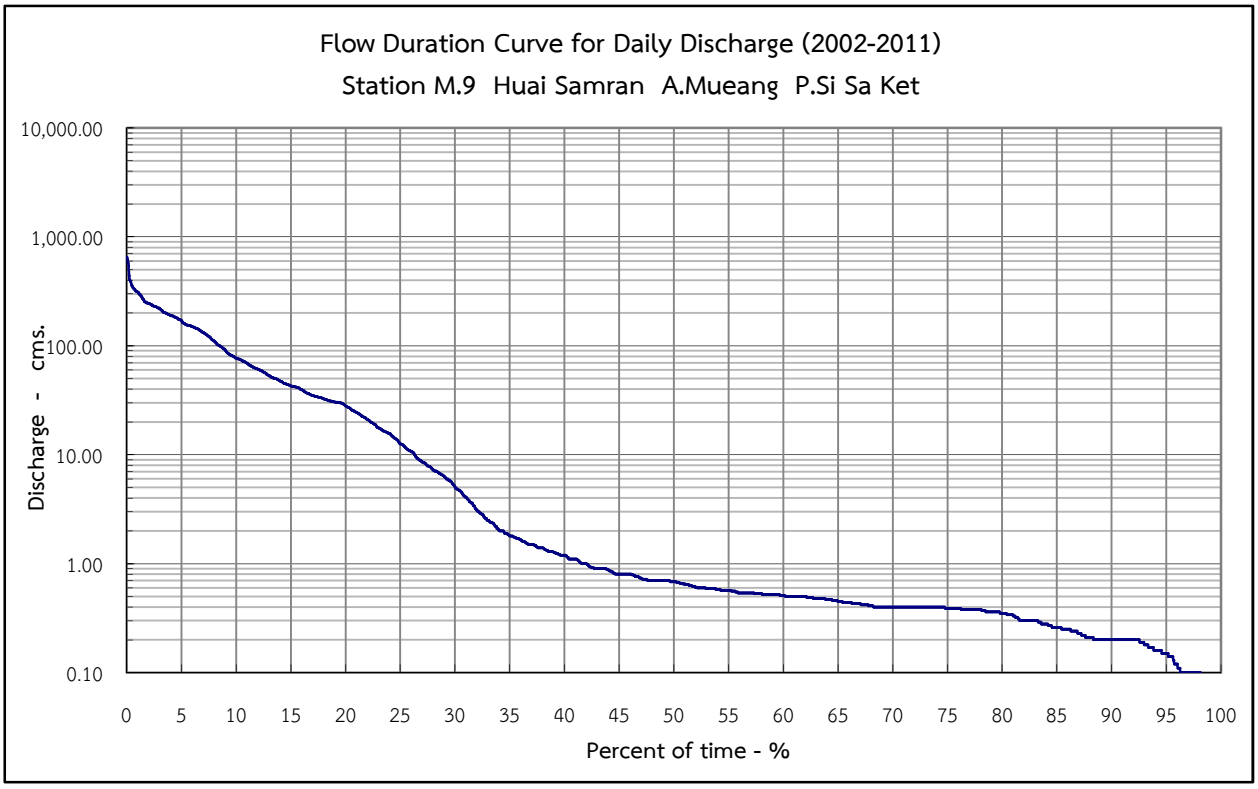
Percent of time - %	1	10	20	40	50	60	80	85	90	95	100
Discharge - cms.	2,172.0	912.4	348.4	143.0	17.2	7.8	1.9	1.5	1.0	0.6	0.0



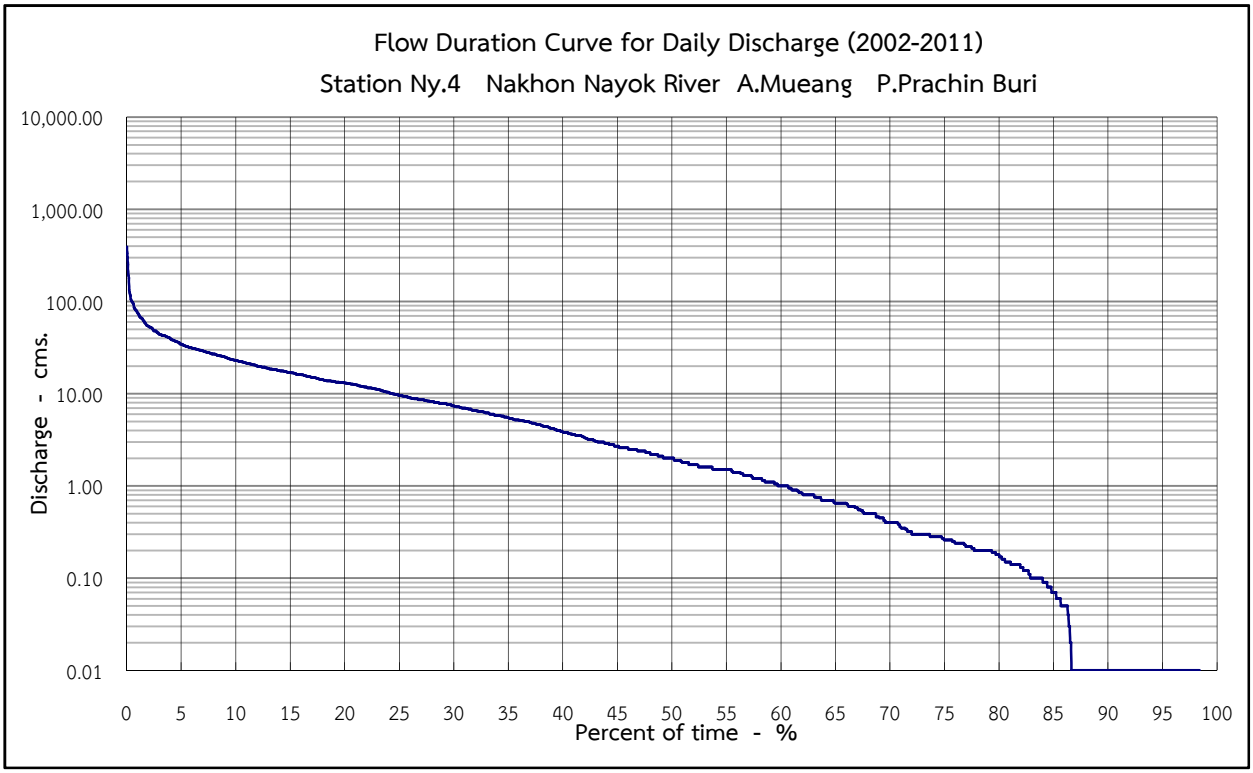
Percent of time - %	1	10	20	40	50	60	80	85	90	95	100
Discharge - cms.	1,185.0	348.8	161.0	65.3	8.8	2.8	0.0	0.0	0.0	0.0	0.0



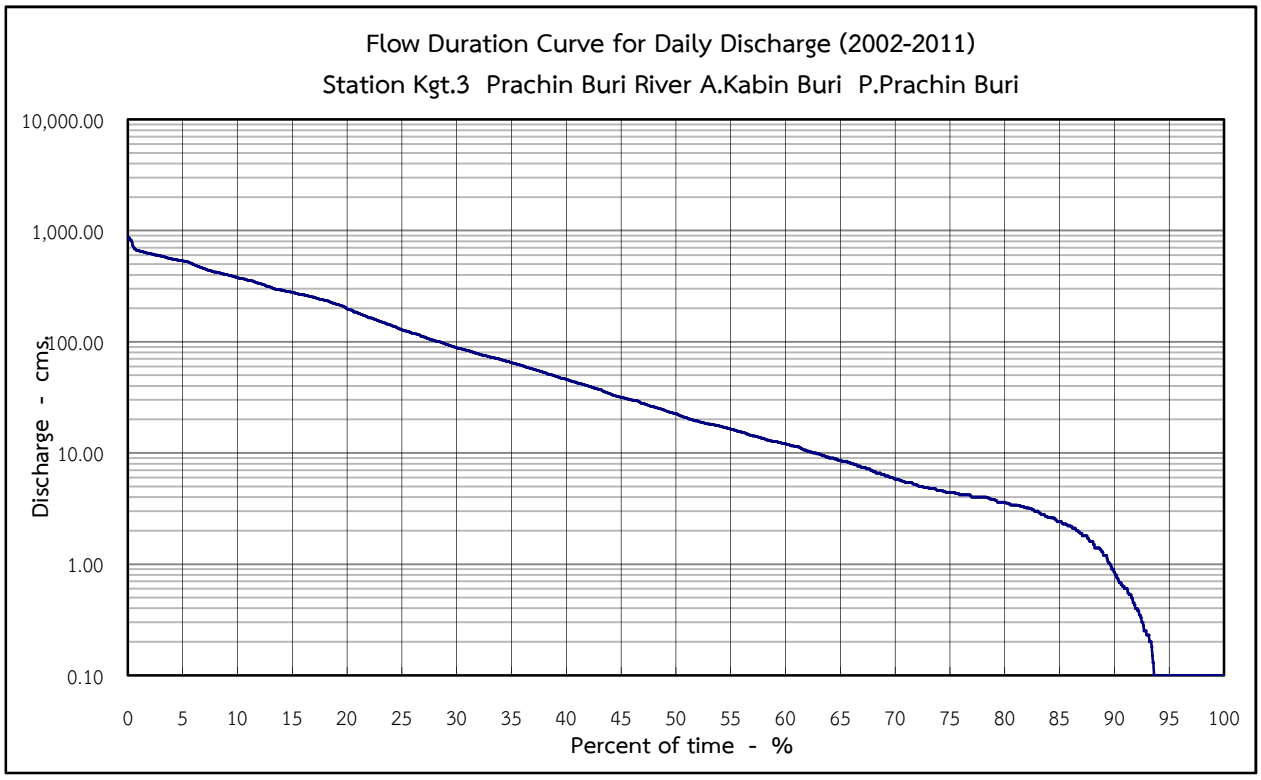
Percent of time - %	1	10	20	40	50	60	80	85	90	95	100
Discharge - cms.	4,661.0	2,322.0	1,414.5	676.0	212.5	124.0	54.7	45.5	37.0	26.8	4.4



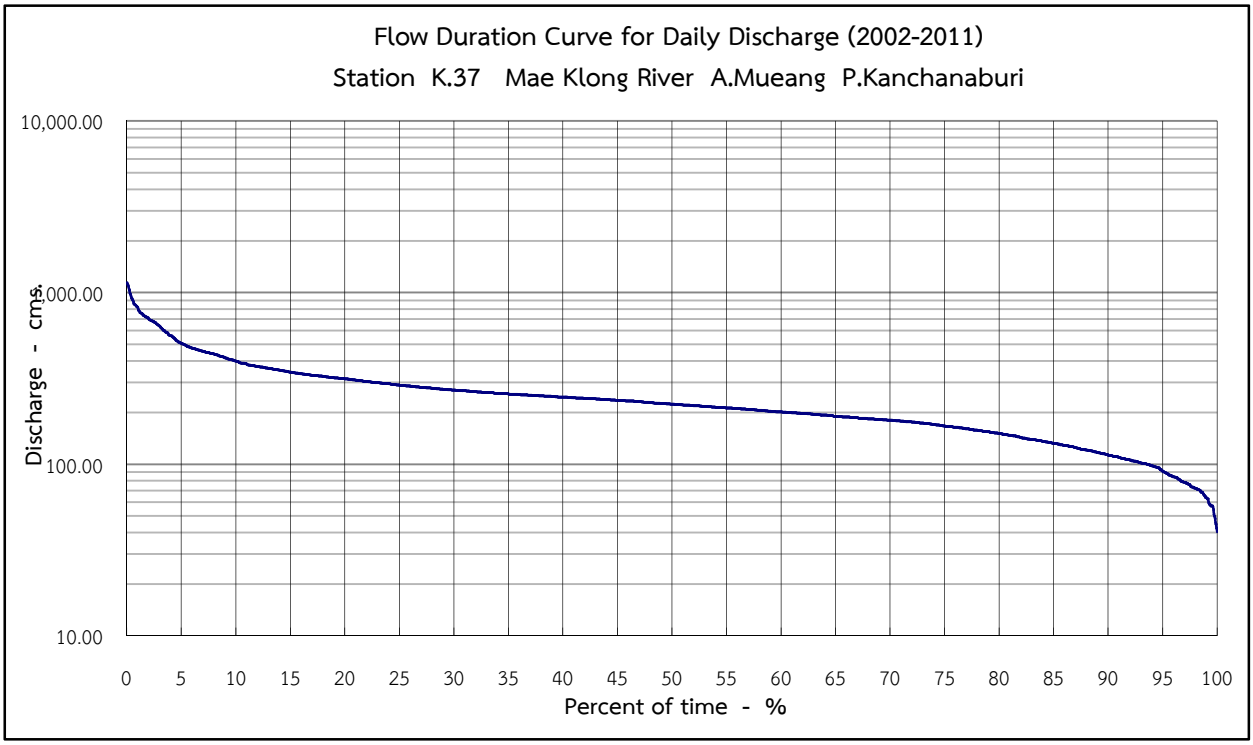
Percent of time - %	1	10	20	40	50	60	80	85	90	95	100
Discharge - cms.	310.4	77.1	28.0	5.1	0.7	0.5	0.4	0.3	0.2	0.2	0.0



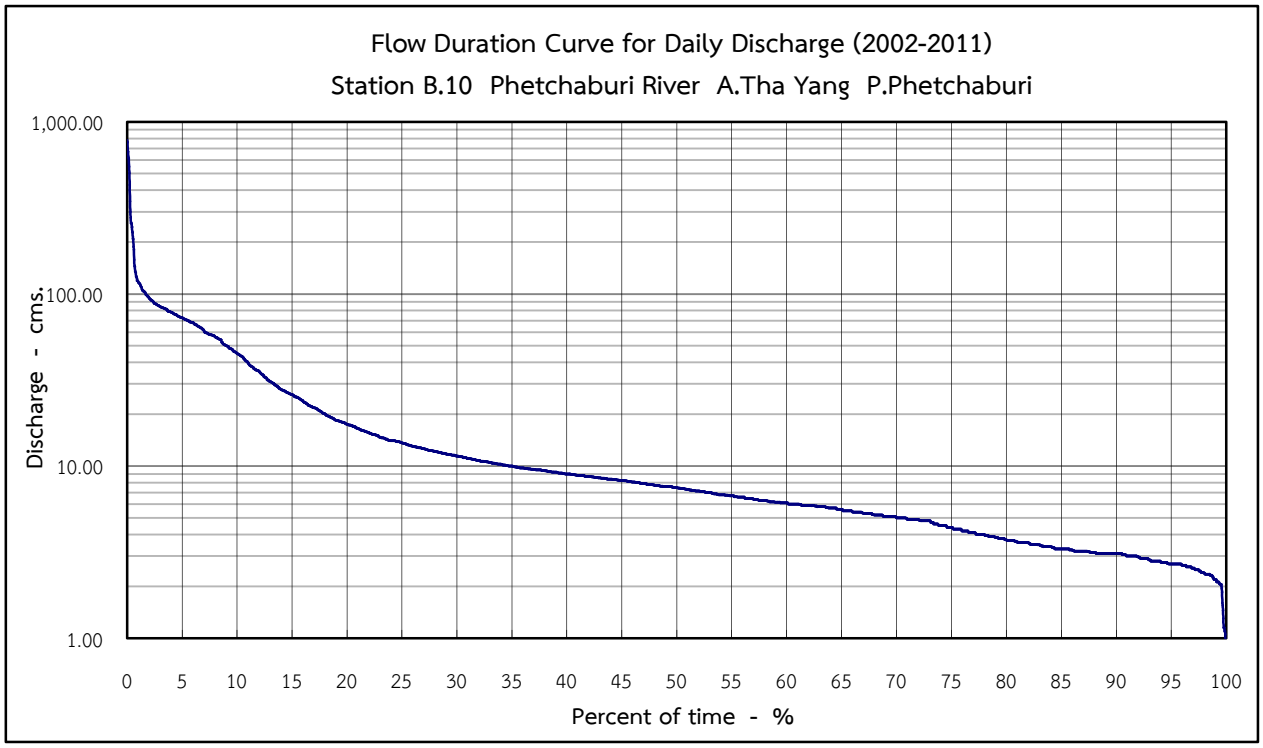
Percent of time - %	1	10	20	30	50	60	80	85	90	95	100
Discharge - cms.	75.3	23.0	13.1	7.4	2.0	1.0	0.2	0.1	0.0	0.0	0.0



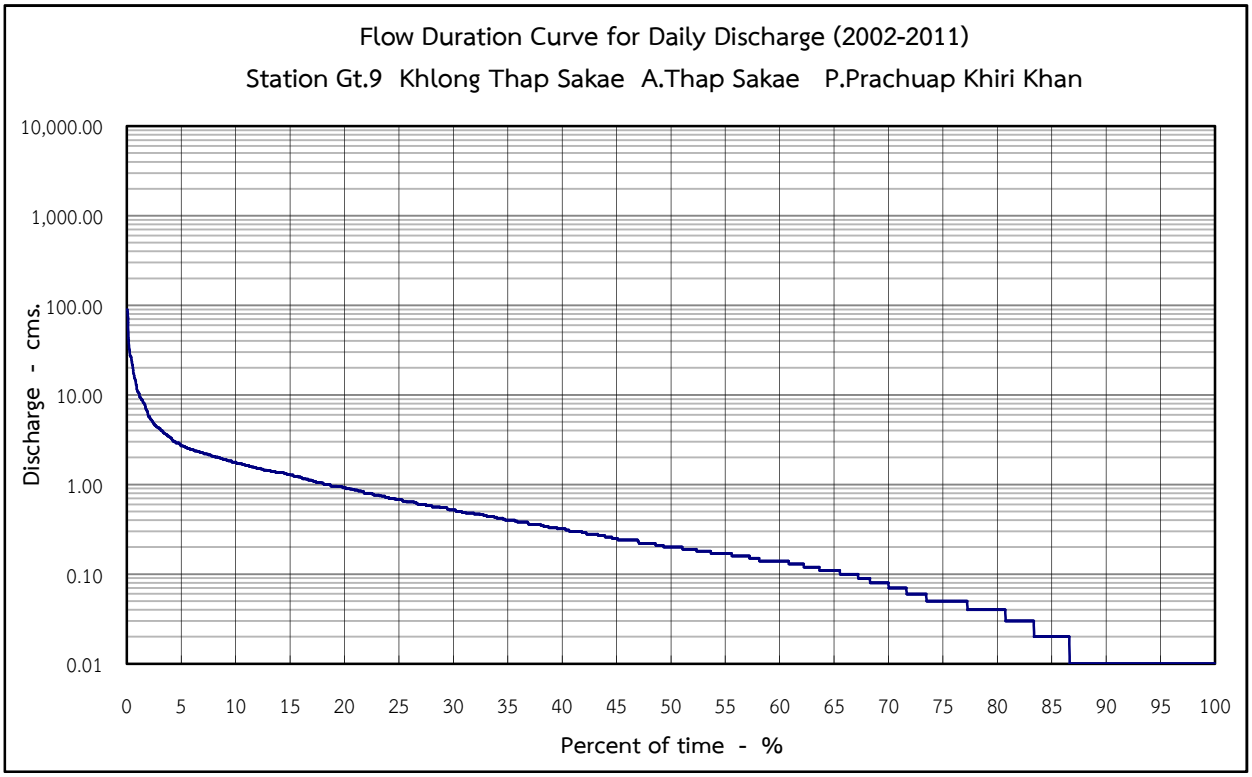
Percent of time - %	1	10	20	30	50	60	80	85	90	95	100
Discharge - cms.	656.7	376.9	197.0	88.0	22.4	12.0	3.6	2.4	0.9	0.0	0.0



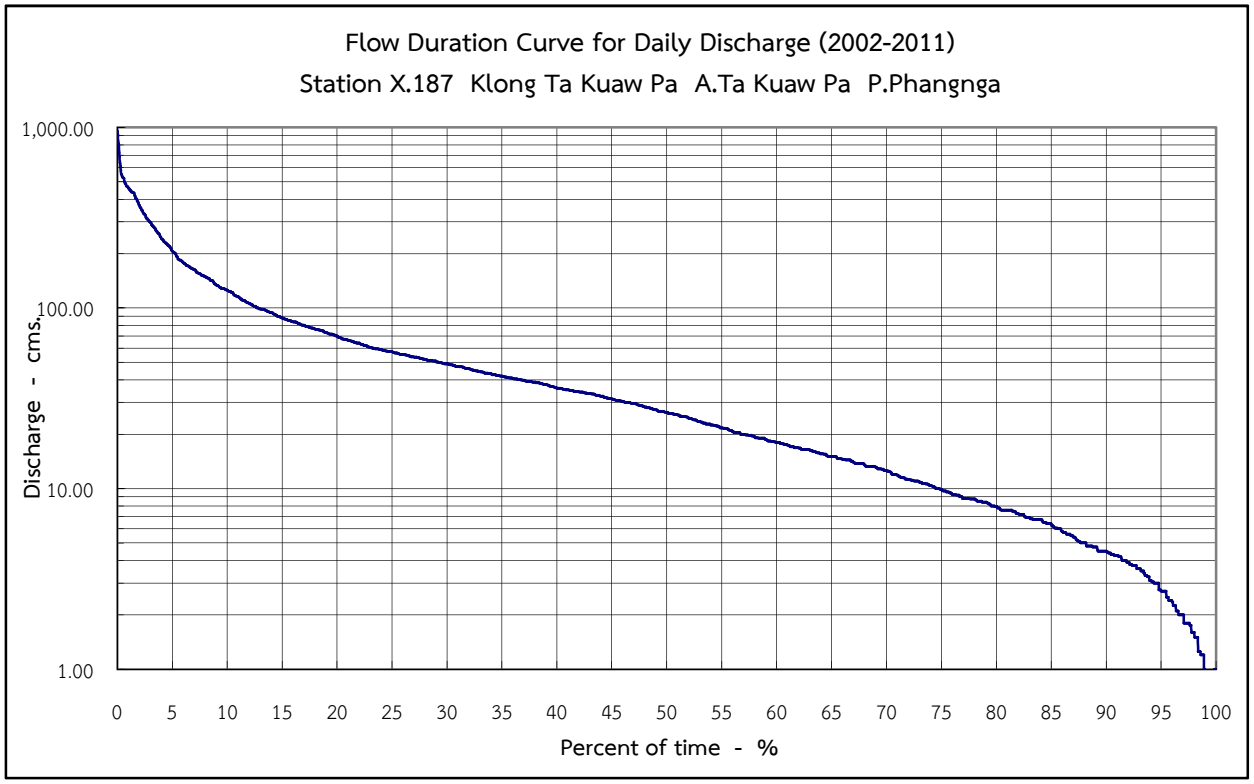
Percent of time - %	1	10	20	30	50	60	80	85	90	95	100
Discharge - cms.	819.8	400.0	314.4	270.8	224.2	201.8	150.5	132.6	113.5	91.4	40.3



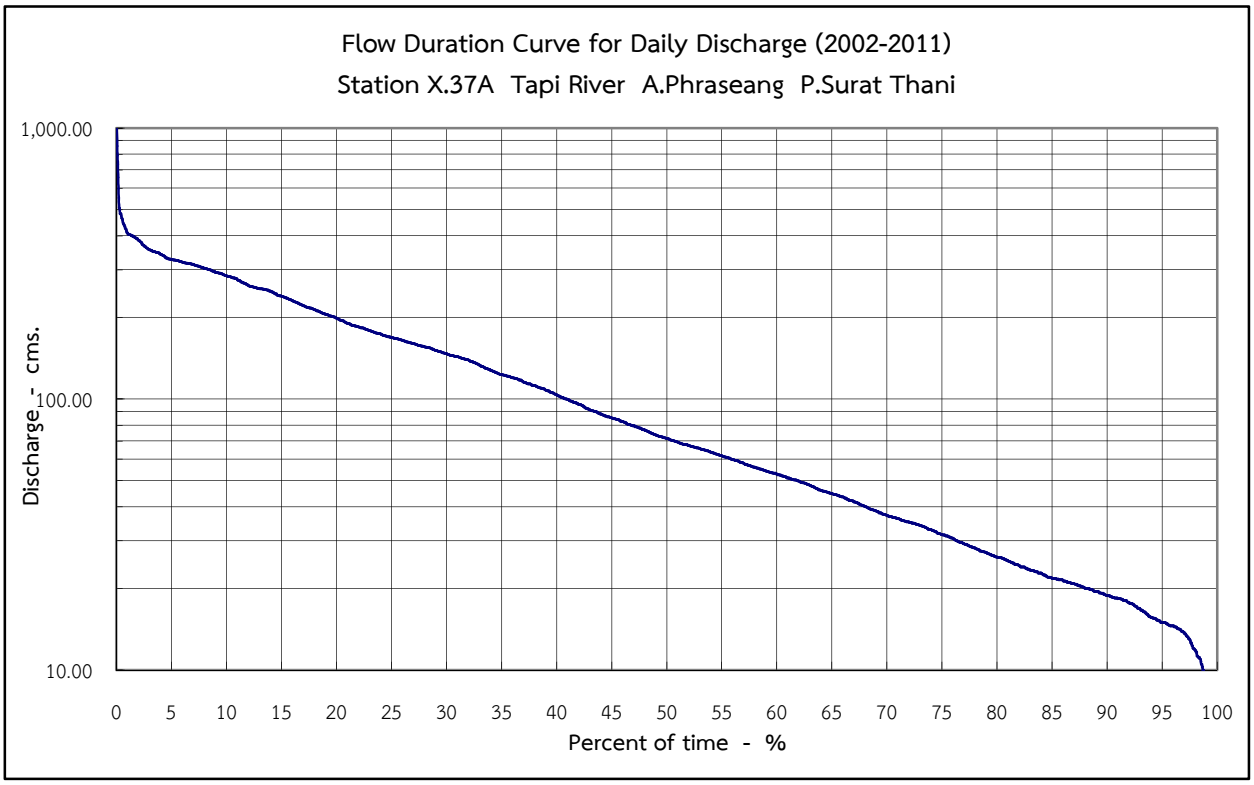
Percent of time - %	1	10	20	30	50	60	80	85	90	95	100
Discharge - cms.	118.5	45.2	17.5	11.4	7.5	6.1	3.7	3.3	3.1	2.7	1.0



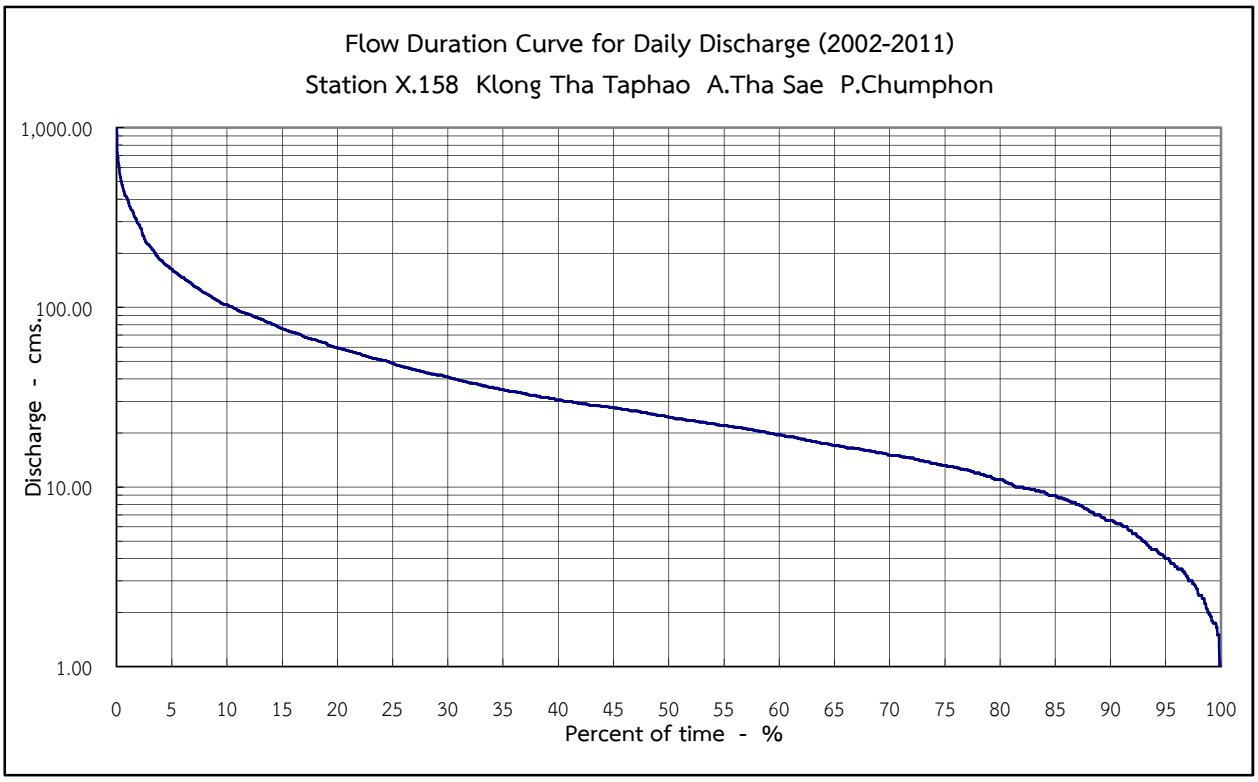
Percent of time - %	1	10	20	30	50	60	80	85	90	95	100
Discharge - cms.	11.0	1.8	0.9	0.5	0.2	0.1	0.0	0.0	0.0	0.0	0.0



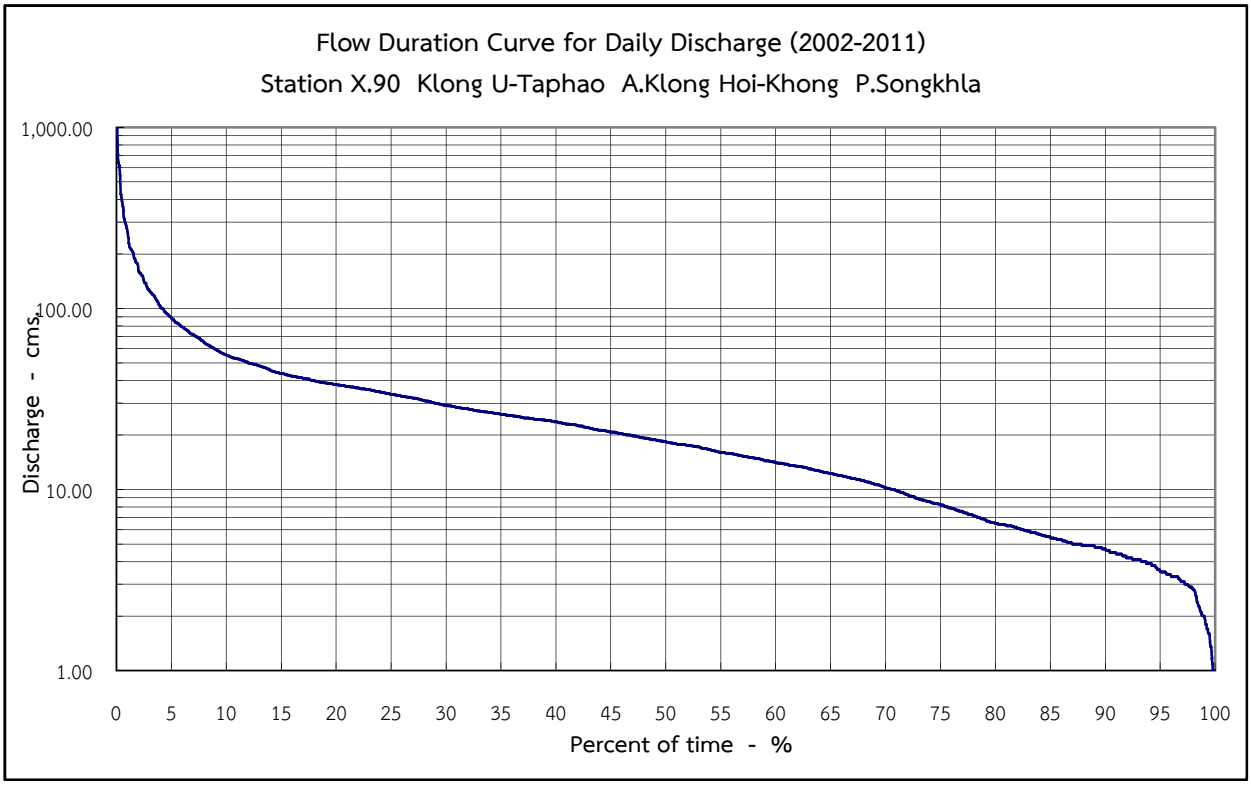
Percent of time - %	1	10	20	30	50	60	80	85	90	95	100
Discharge - cms.	461.2	126.0	69.8	49.1	26.5	18.0	7.9	6.3	4.5	2.7	0.0



Percent of time - %	1	10	20	30	50	60	80	85	90	95	100
Discharge - cms.	410.2	285.0	198.4	147.0	71.5	52.8	26.1	21.8	18.8	14.9	8.0



Percent of time - %	1	10	20	30	50	60	80	85	90	95	100
Discharge - cms.	396.0	103.4	59.4	41.0	24.6	19.5	11.0	8.9	6.5	4.0	0.0

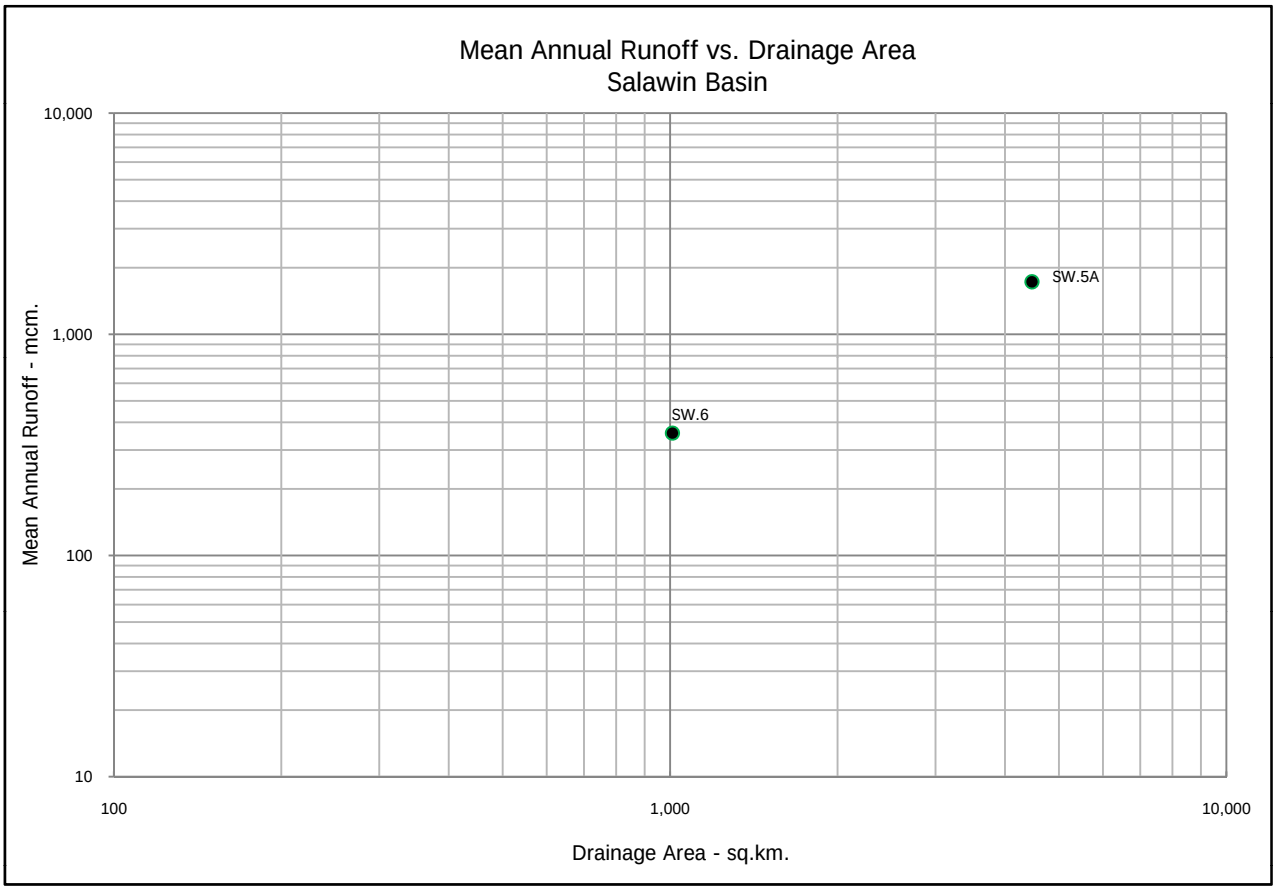


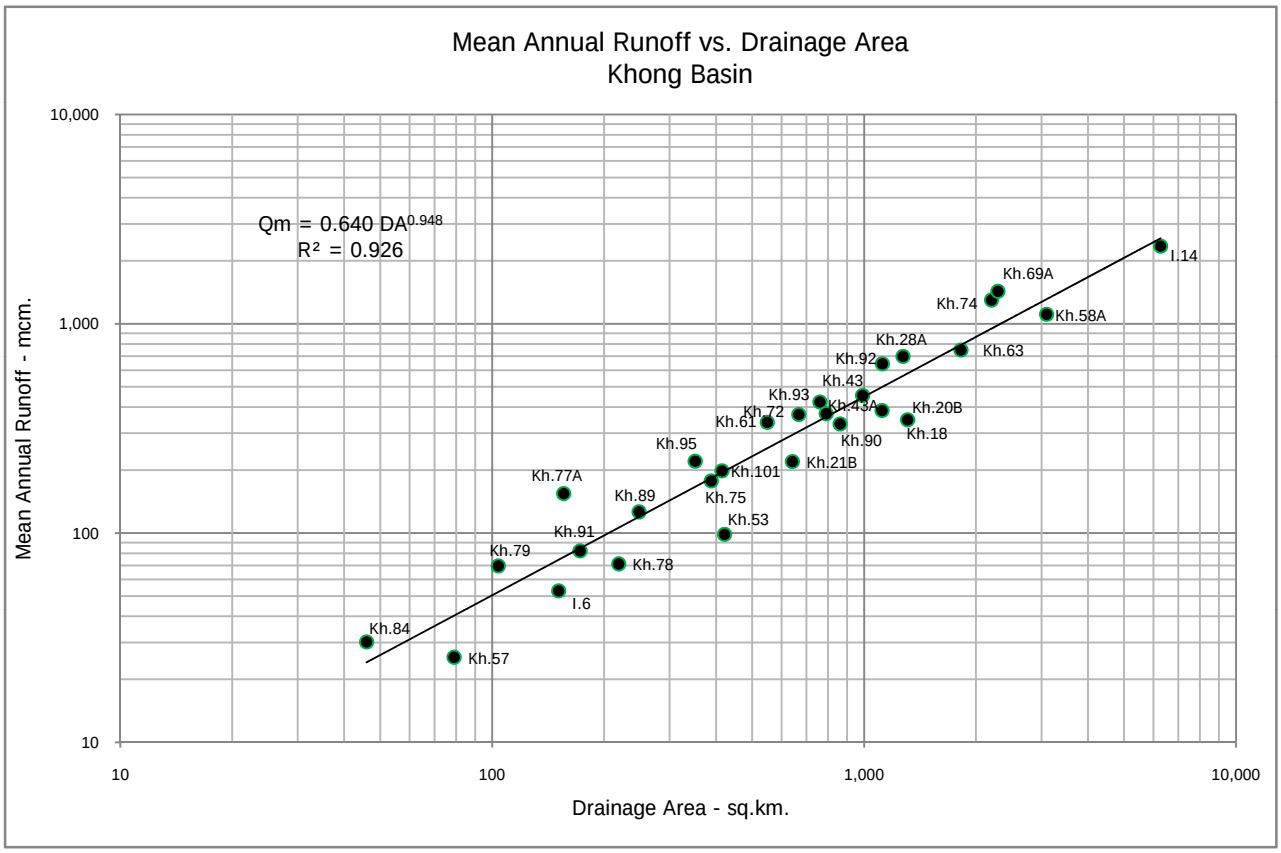
Percent of time - %	1	10	20	30	50	60	80	85	90	95	100
Discharge - cms.	263.6	55.4	38.0	29.2	18.4	14.1	6.5	5.4	4.7	3.5	0.0

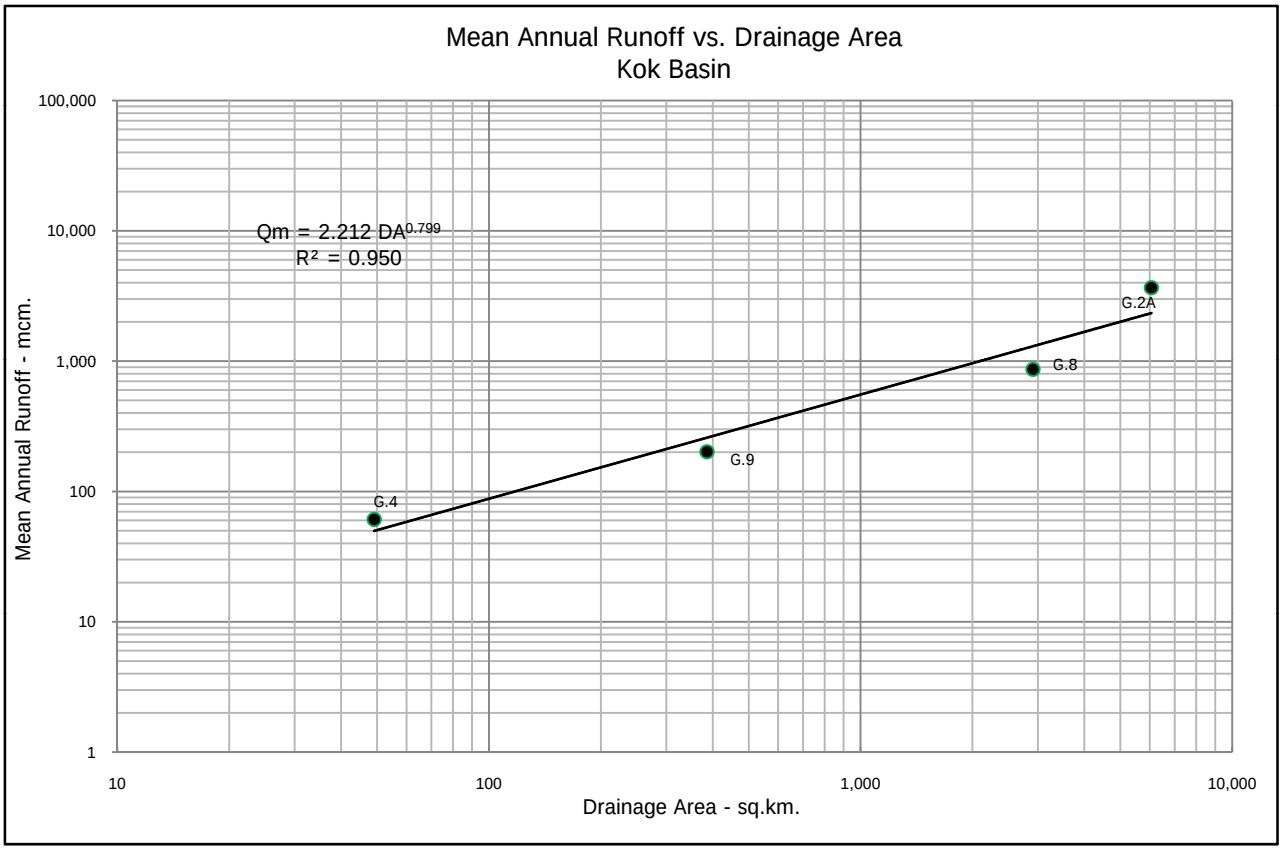
Appendix B

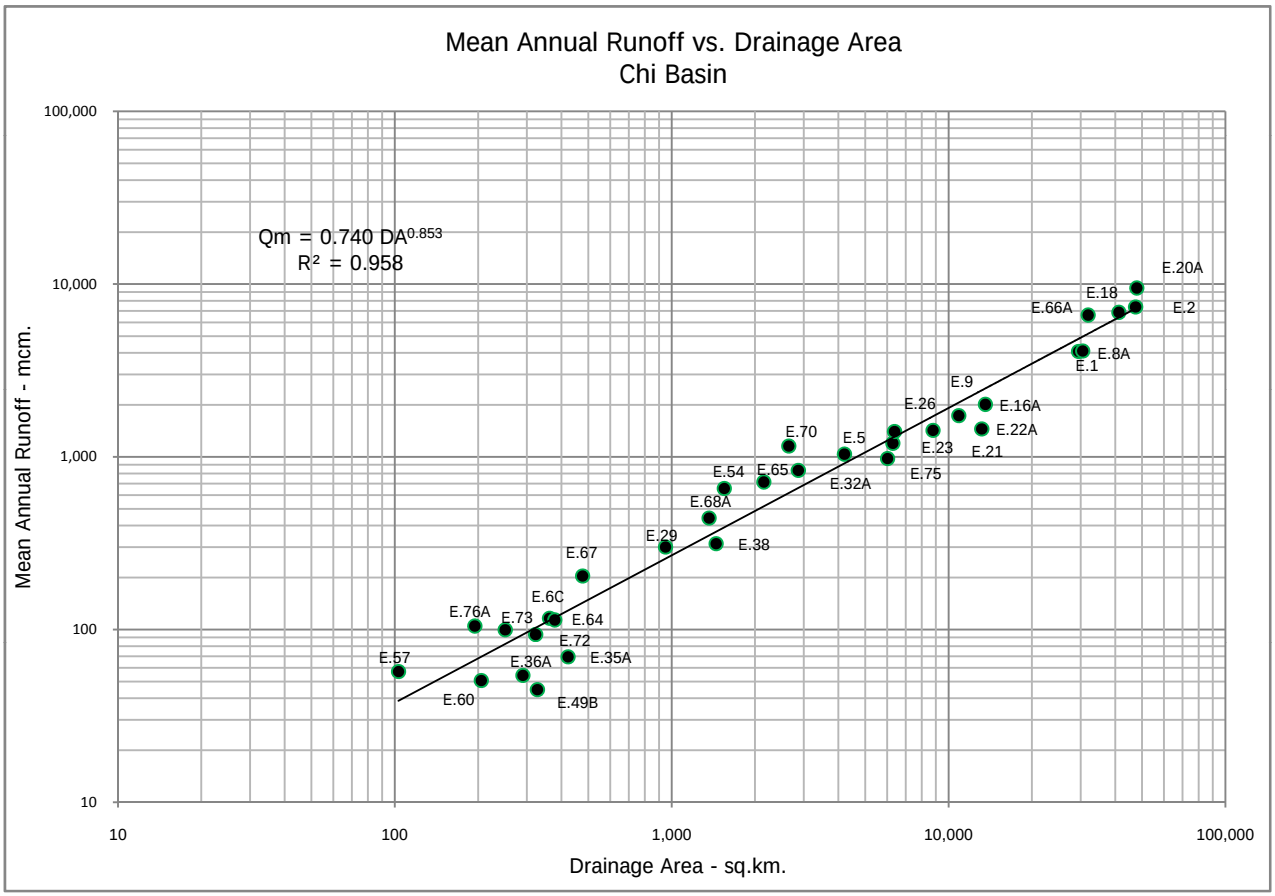
Mean Annual Runoff vs. Drainage Area

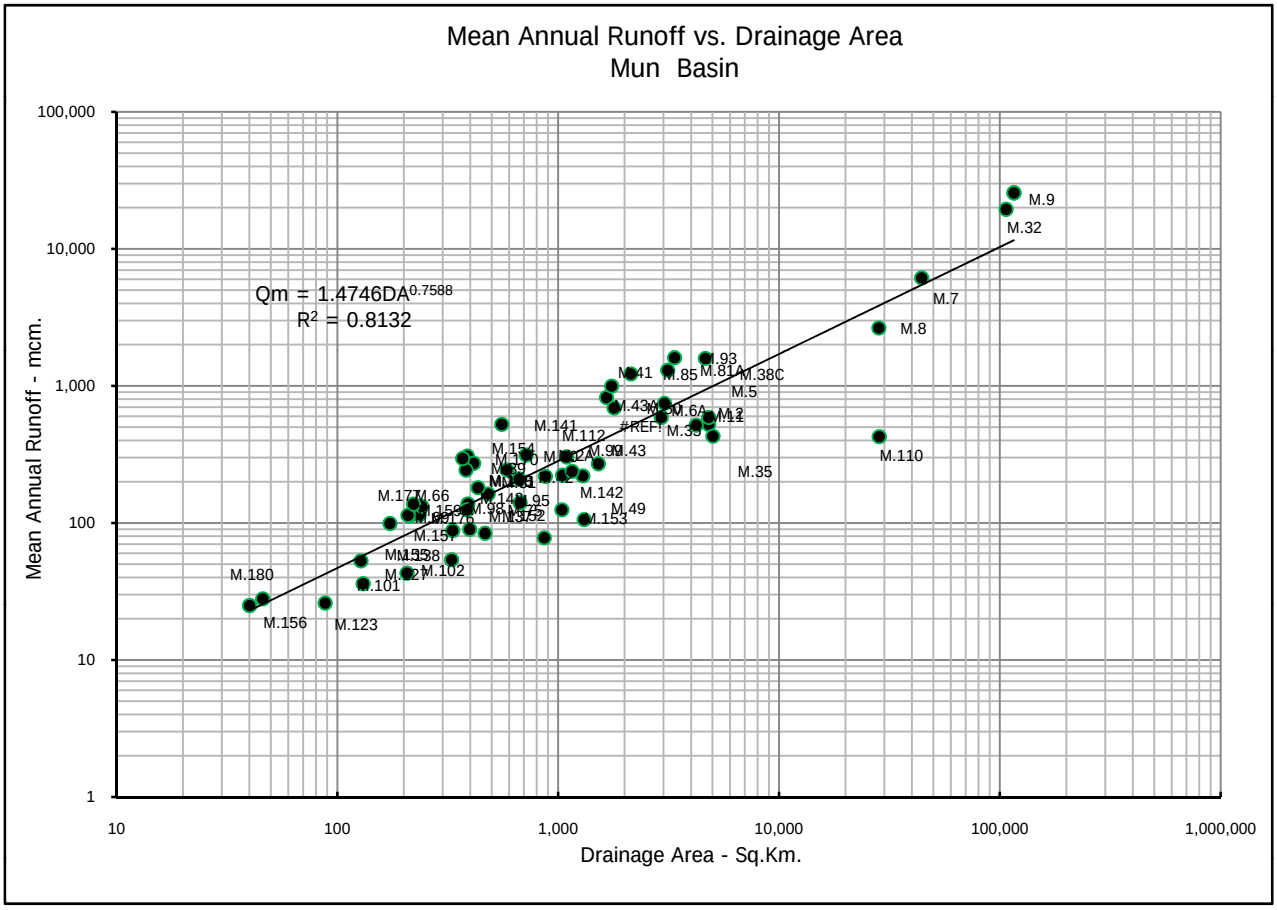
(Up to 2011)

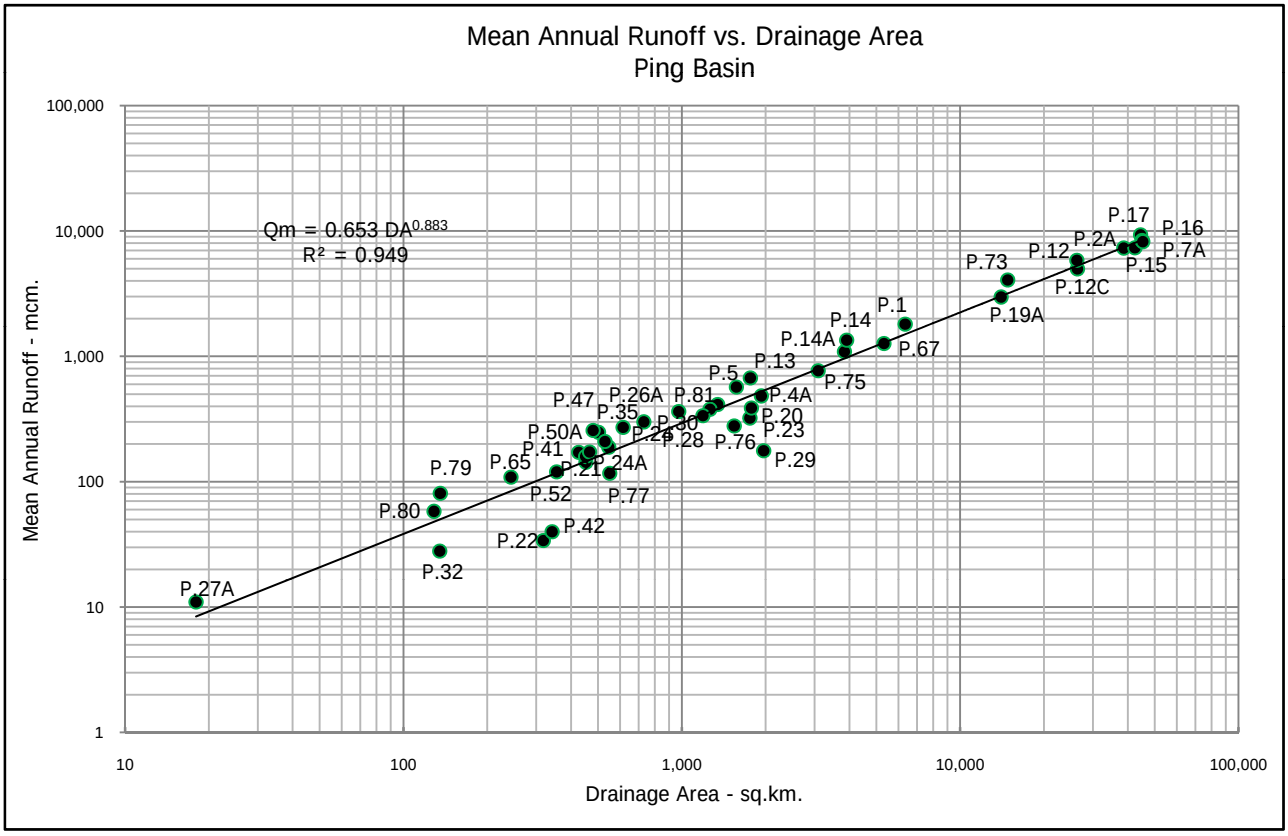

Mean Annual Runoff vs. Drainage Area
Salawin Basin
10,000
1,000
100
10
Mean Annual Runoff - mcm.
SW.5A
SW.6
100
1,000
10,000
Drainage Area - sq.km.

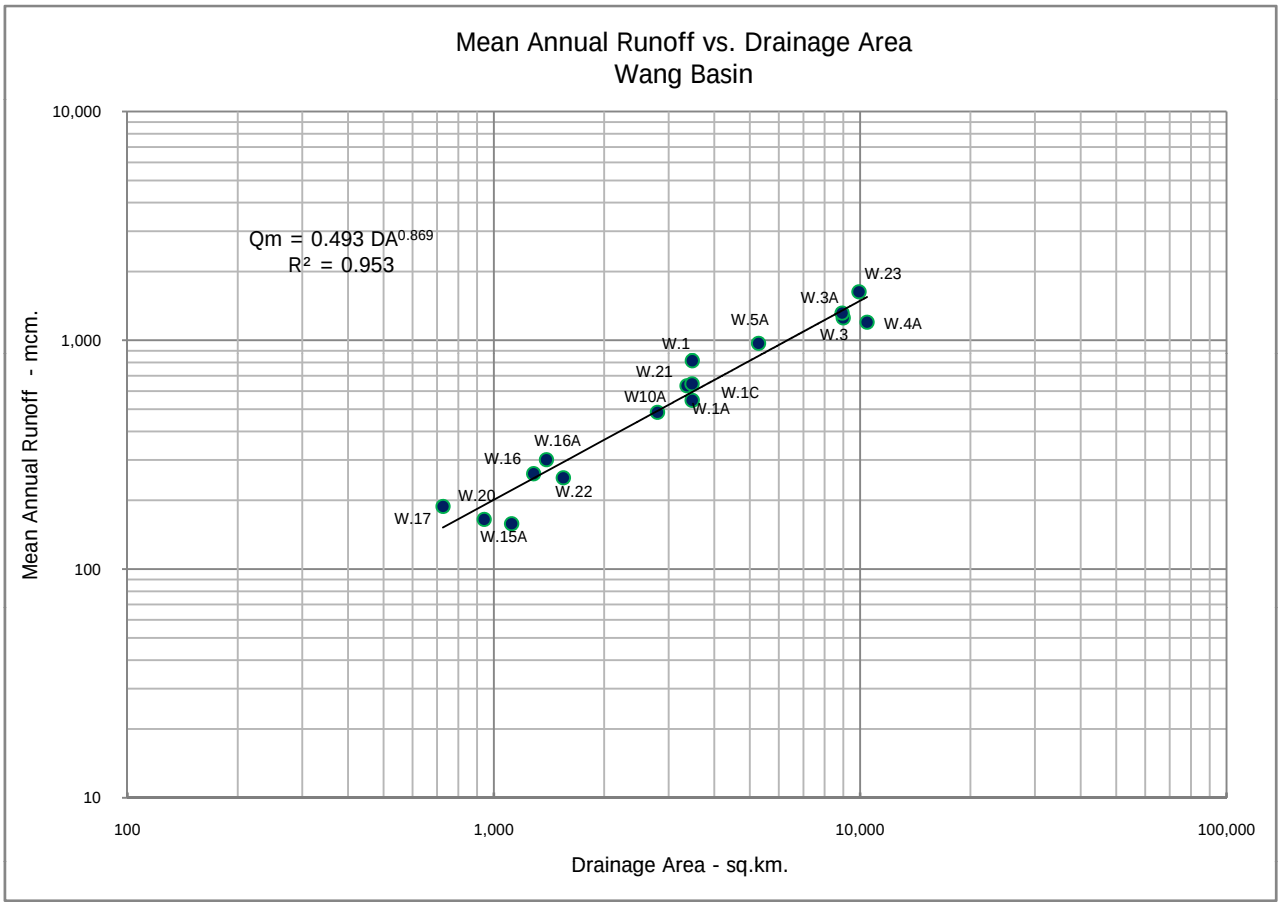

Mean Annual Runoff vs. Drainage Area
Khong Basin
Qm = 0.640 DA^0.948
R² = 0.926
10,000
1,000
100
10
Mean Annual Runoff - mcm.
I.14
Kh.69A
Kh.74
Kh.58A
Kh.28A
Kh.63
Kh.92
Kh.43
Kh.93
Kh.43A
Kh.20B
Kh.72
Kh.61
Kh.18
Kh.90
Kh.95
Kh.21B
Kh.101
Kh.77A
Kh.75
Kh.89
Kh.53
Kh.91
Kh.79
Kh.78
I.6
Kh.84
Kh.57
10
100
1,000
10,000
Drainage Area - sq.km.

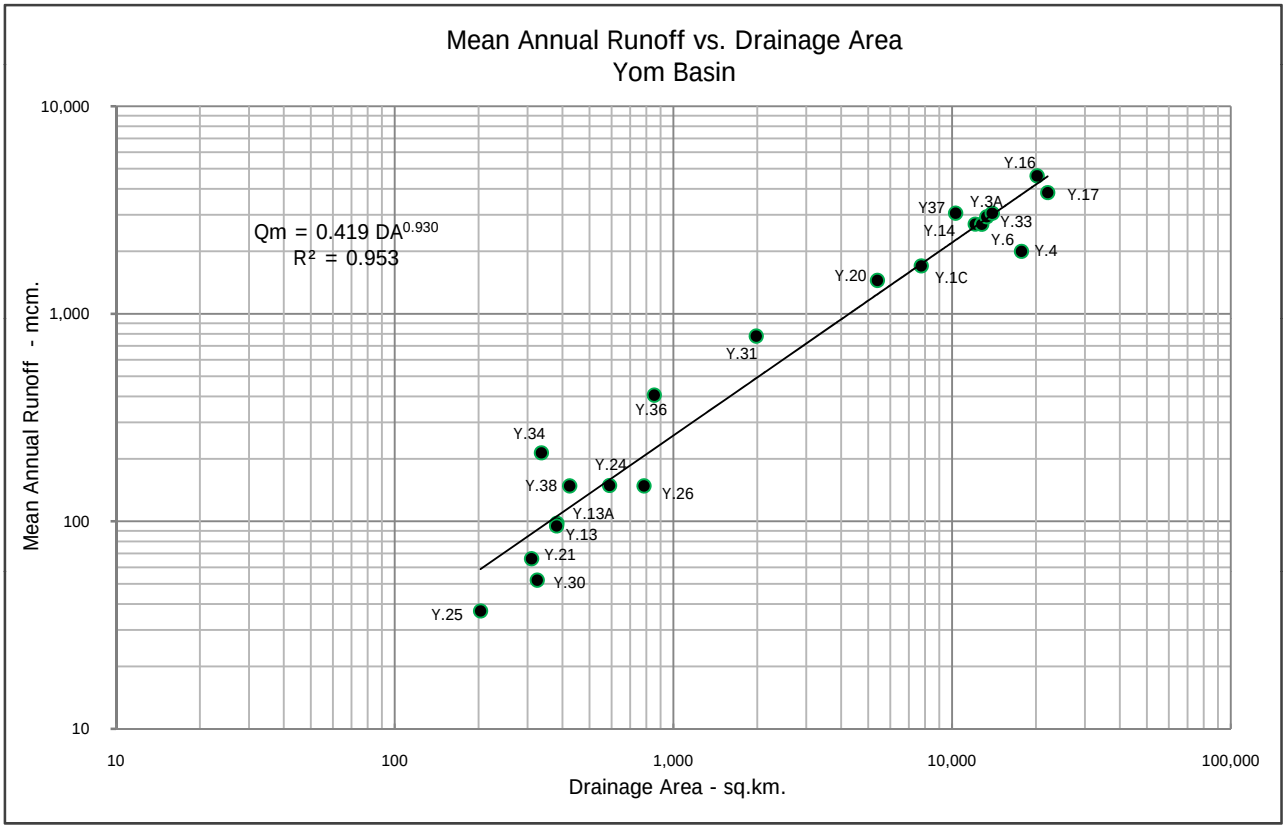

Mean Annual Runoff vs. Drainage Area
Kok Basin
Qm = 2.212 DA^0.799
R² = 0.950
G.2A
G.8
G.9
G.4
Mean Annual Runoff - mcm.
Drainage Area - sq.km.
100,000
10,000
1,000
100
10
1
10
100
1,000
10,000

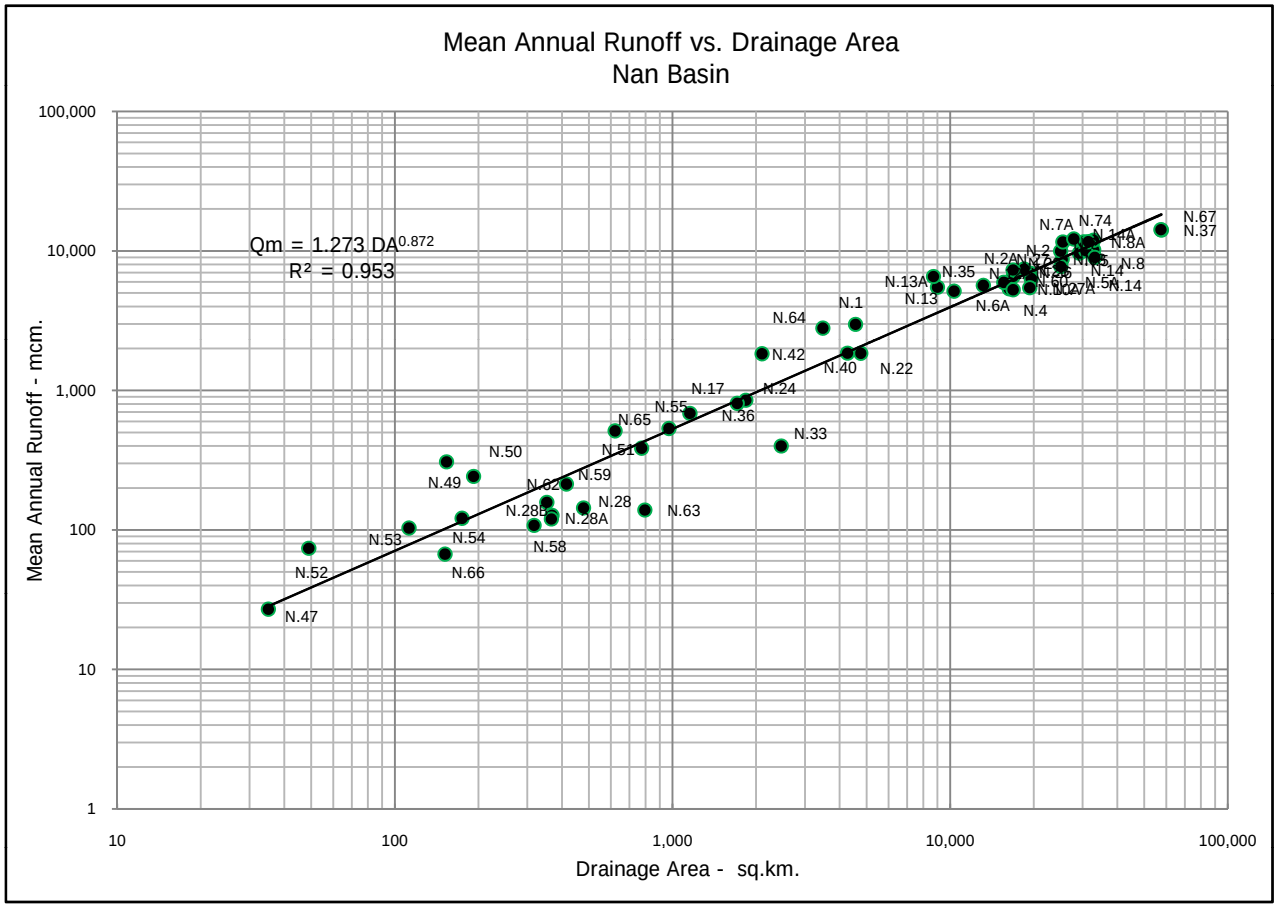

Mean Annual Runoff vs. Drainage Area
Chi Basin
Qm = 0.740 DA^0.853
R² = 0.958
E.20A
E.18
E.66A
E.2
E.8A
E.1
E.9
E.26
E.16A
E.22A
E.23
E.21
E.70
E.5
E.75
E.54
E.65
E.32A
E.68A
E.29
E.38
E.67
E.6C
E.76A
E.73
E.64
E.72
E.57
E.36A
E.35A
E.60
E.49B
Mean Annual Runoff - mcm.
Drainage Area - sq.km.
100,000
10,000
1,000
100
10
10
100
1,000
10,000
100,000

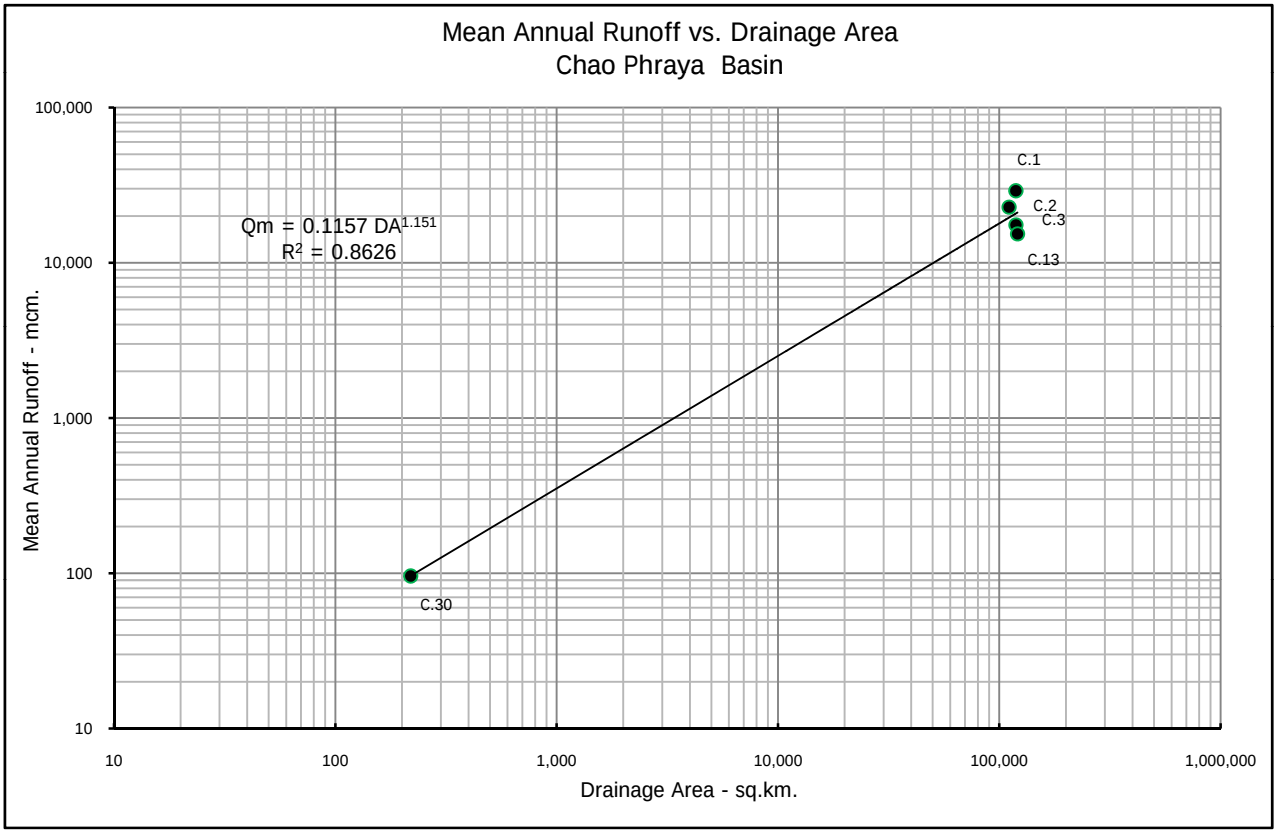

Mean Annual Runoff vs. Drainage Area
Mun Basin
Qm = 1.4746DA^0.7588
R² = 0.8132
Mean Annual Runoff - mcm.
Drainage Area - Sq.Km.
100,000
10,000
1,000
100
10
1
10
100
1,000
10,000
100,000
1,000,000
M.9
M.32
M.7
M.8
M.110
M.35
M.93
M.85
M.38C
M.5
M.141
M.112
M.43
M.142
M.49
M.153
M.177
M.66
M.180
M.156
M.123
M.101
M.102
M.15

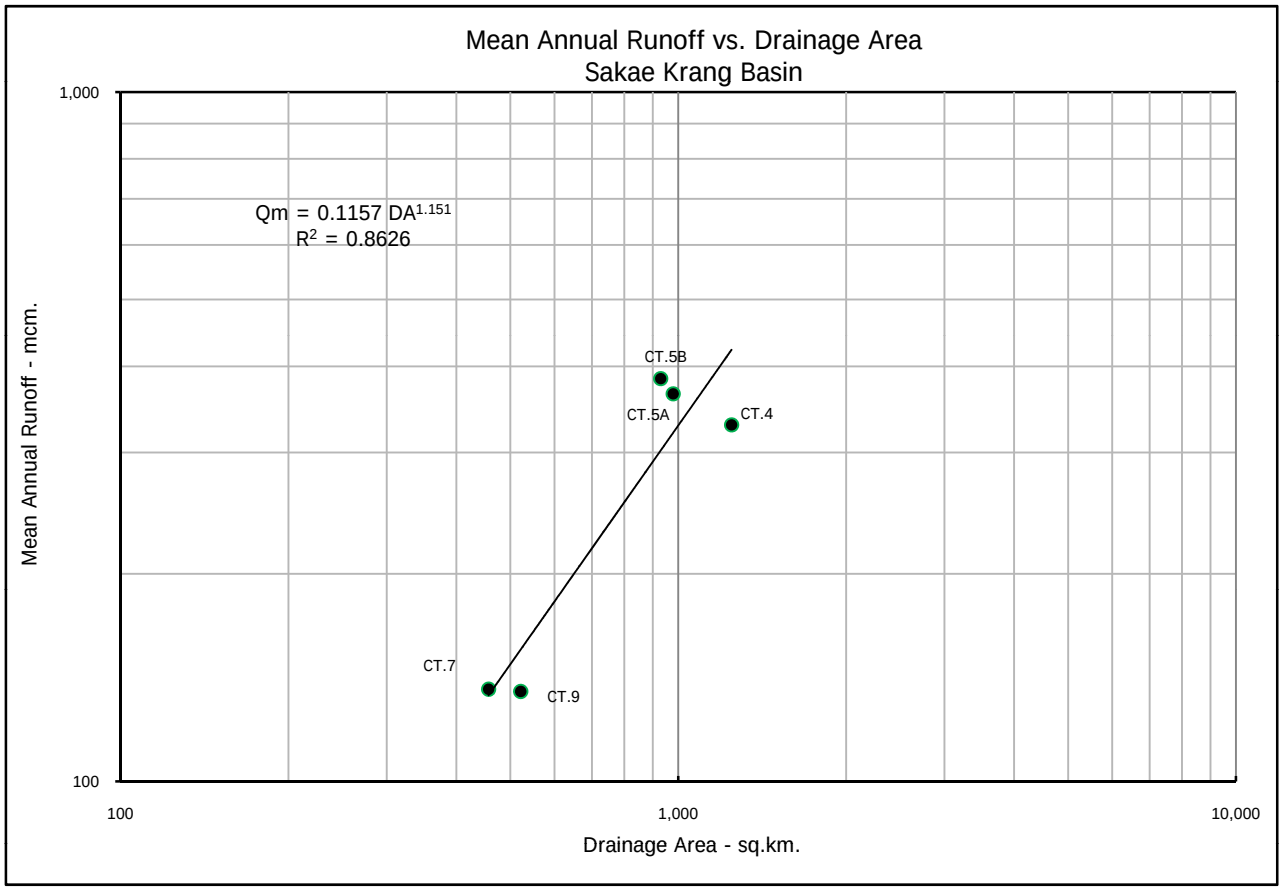

Mean Annual Runoff vs. Drainage Area
Ping Basin
Qm = 0.653 DA^0.883
R² = 0.949
Mean Annual Runoff - mcm.
Drainage Area - sq.km.
100,000
10,000
1,000
100
10
1
10
100
1,000
10,000
100,000
P.17
P.16
P.2A
P.7A
P.12
P.15
P.73
P.12C
P.19A
P.1
P.14
P.14A
P.67
P.13
P.5
P.75
P.4A
P.47
P.26A
P.81
P.35
P.20
P.50A
P.23
P.41
P.28
P.76
P.29
P.79
P.65
P.24A
P.52
P.77
P.80
P.42
P.22
P.32
P.27A

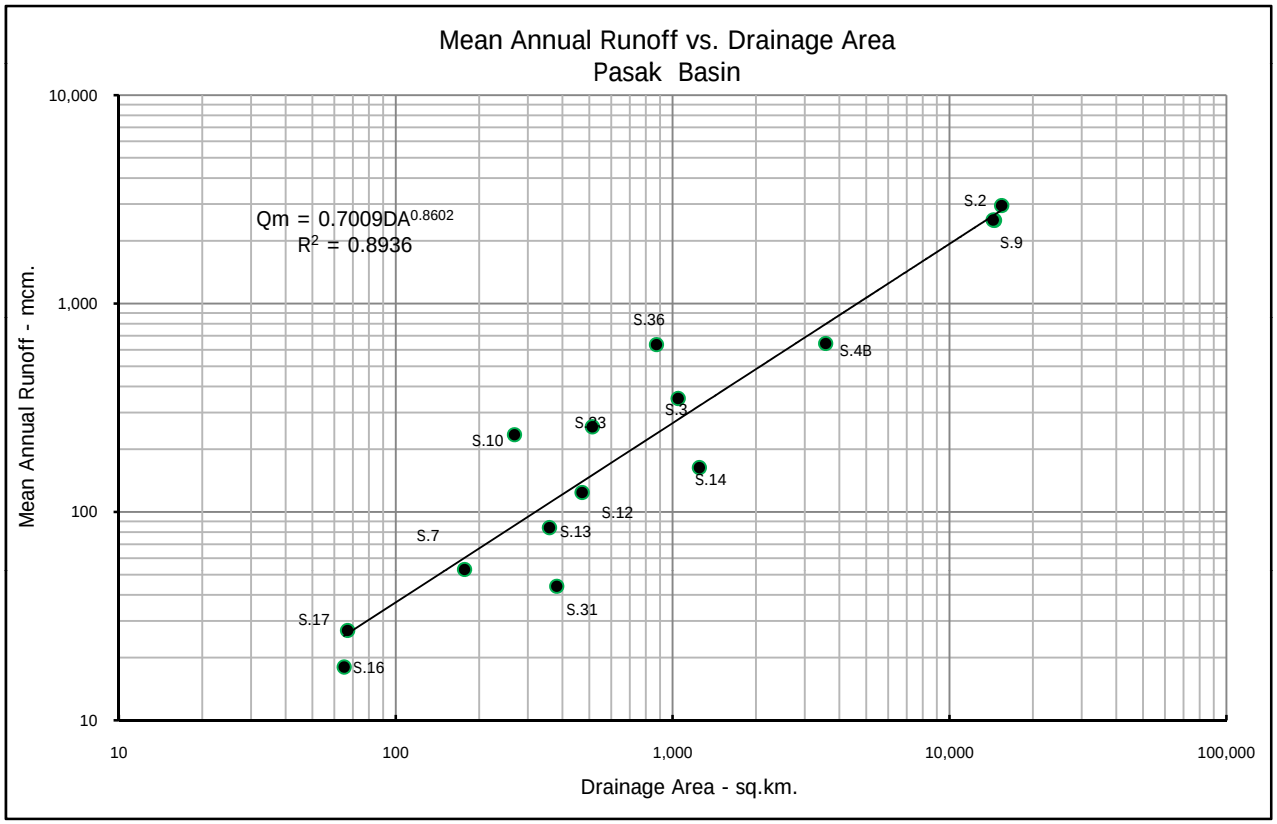

Mean Annual Runoff vs. Drainage Area
Wang Basin
Qm = 0.493 DA^0.869
R² = 0.953
Mean Annual Runoff - mcm.
Drainage Area - sq.km.
10,000
1,000
100
10
100
1,000
10,000
100,000
W.23
W.3A
W.5A
W.4A
W.3
W.1
W.21
W.1C
W10A
W.1A
W.16A
W.16
W.22
W.20
W.17
W.15A

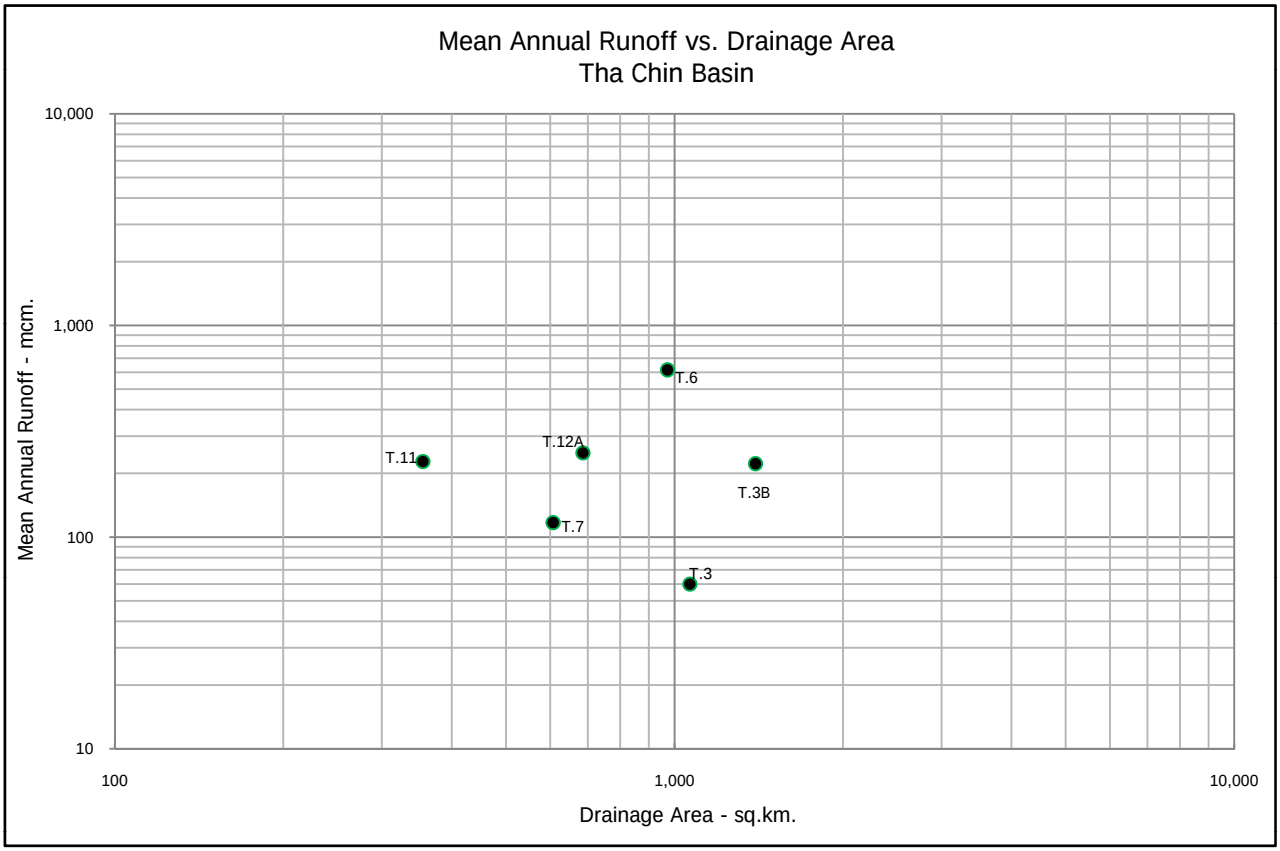

Mean Annual Runoff vs. Drainage Area
Yom Basin
Qm = 0.419 DA^0.930
R² = 0.953
Mean Annual Runoff - mcm.
Drainage Area - sq.km.
10,000
1,000
100
10
10
100
1,000
10,000
100,000
Y.16
Y.17
Y37
Y.3A
Y.33
Y.14
Y.6
Y.4
Y.20
Y.1C
Y.31
Y.36
Y.34
Y.24
Y.38
Y.26
Y.13A
Y.13
Y.21
Y.30
Y.25

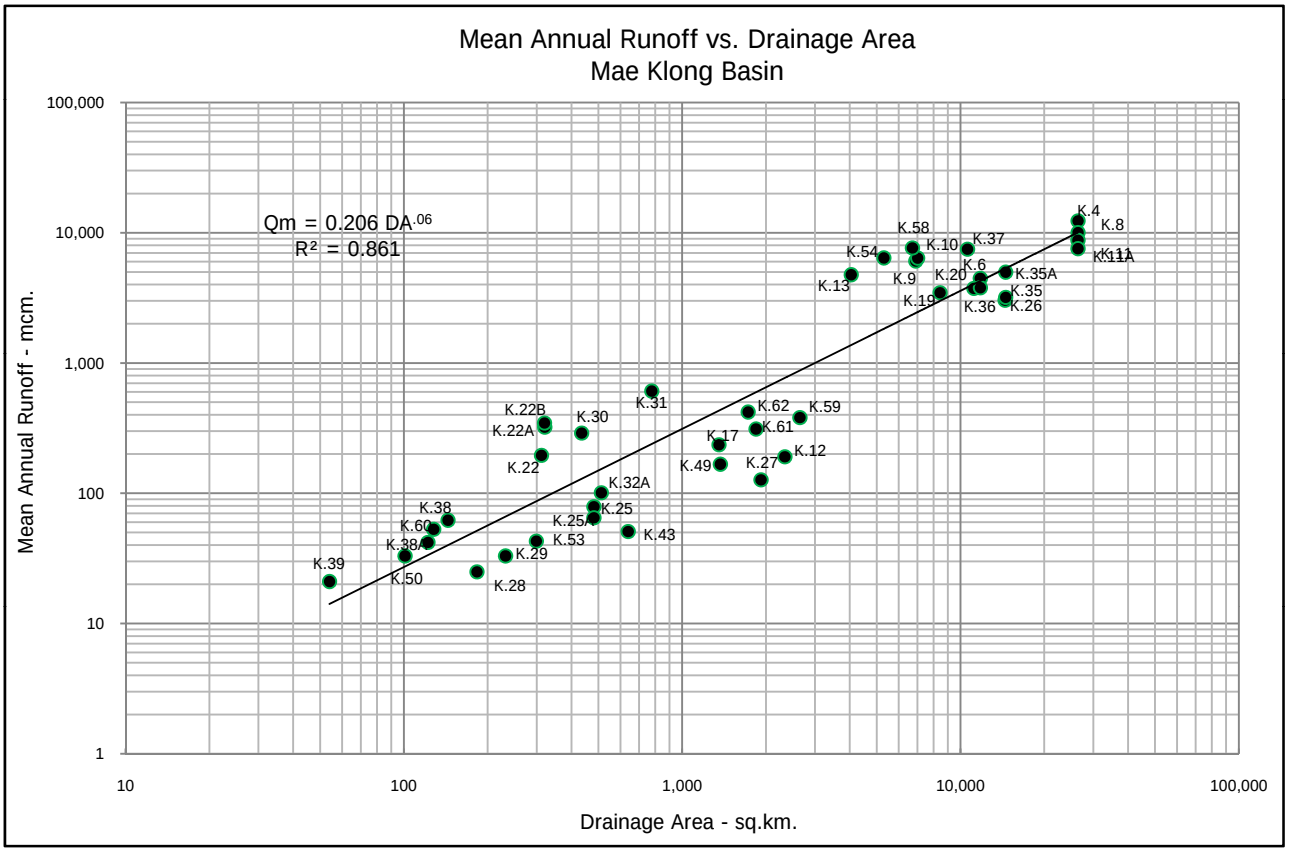

Mean Annual Runoff vs. Drainage Area
Nan Basin
Qm = 1.273 DA^0.872
R² = 0.953
Mean Annual Runoff - mcm.
Drainage Area - sq.km.
100,000
10,000
1,000
100
10
1
10
100
1,000
10,000
100,000
N.67
N.37
N.7A
N.74
N.8A
N.8
N.14
N.13A
N.35
N.13
N.6A
N.4
N.1
N.64
N.42
N.40
N.22
N.17
N.24
N.55
N.36
N.65
N.33
N.50
N.51
N.49
N.59
N.62
N.28
N.63
N.28A
N.53
N.54
N.58
N.52
N.66
N.47

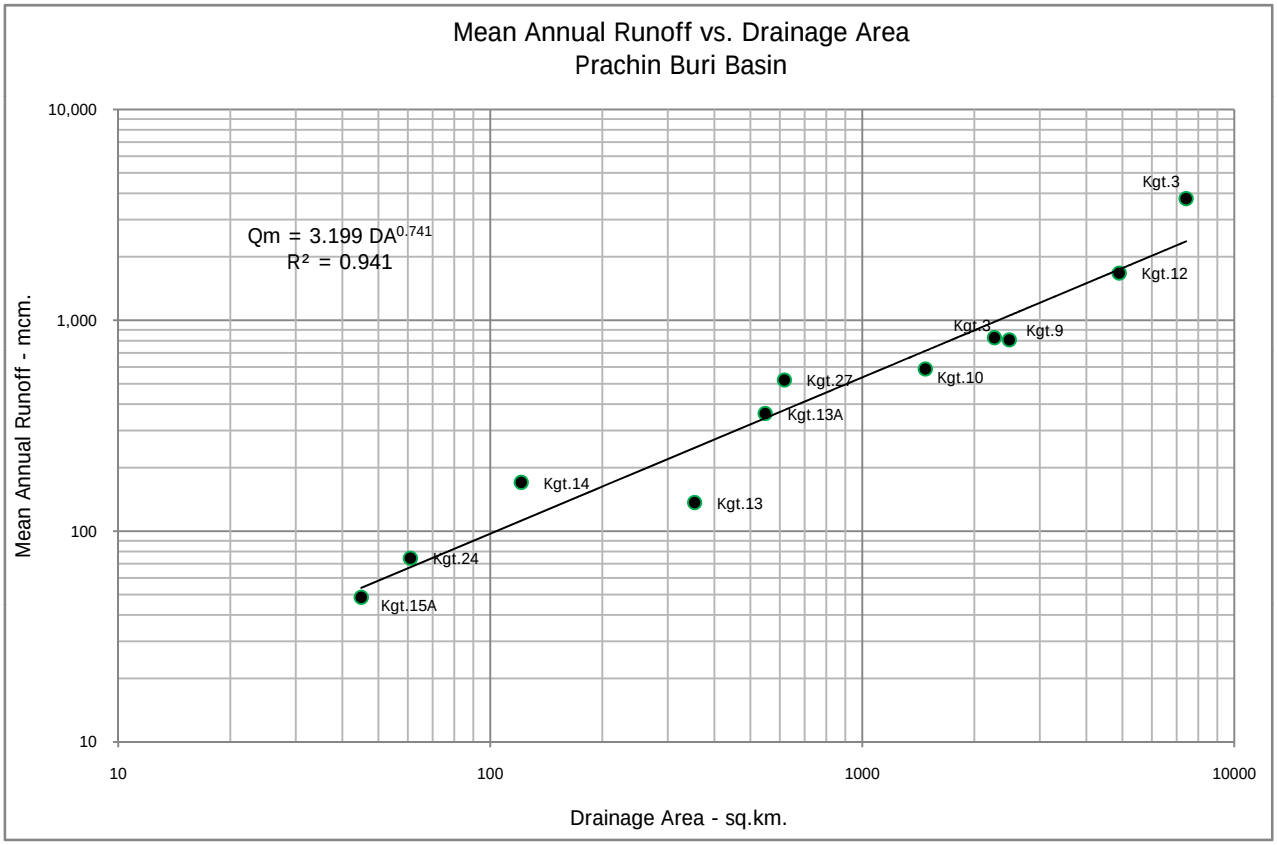

Mean Annual Runoff vs. Drainage Area
Chao Phraya Basin
Qm = 0.1157 DA^1.151
R² = 0.8626
Mean Annual Runoff - mcm.
Drainage Area - sq.km.
100,000
10,000
1,000
100
10
10
100
1,000
10,000
100,000
1,000,000
C.1
C.2
C.3
C.13
C.30

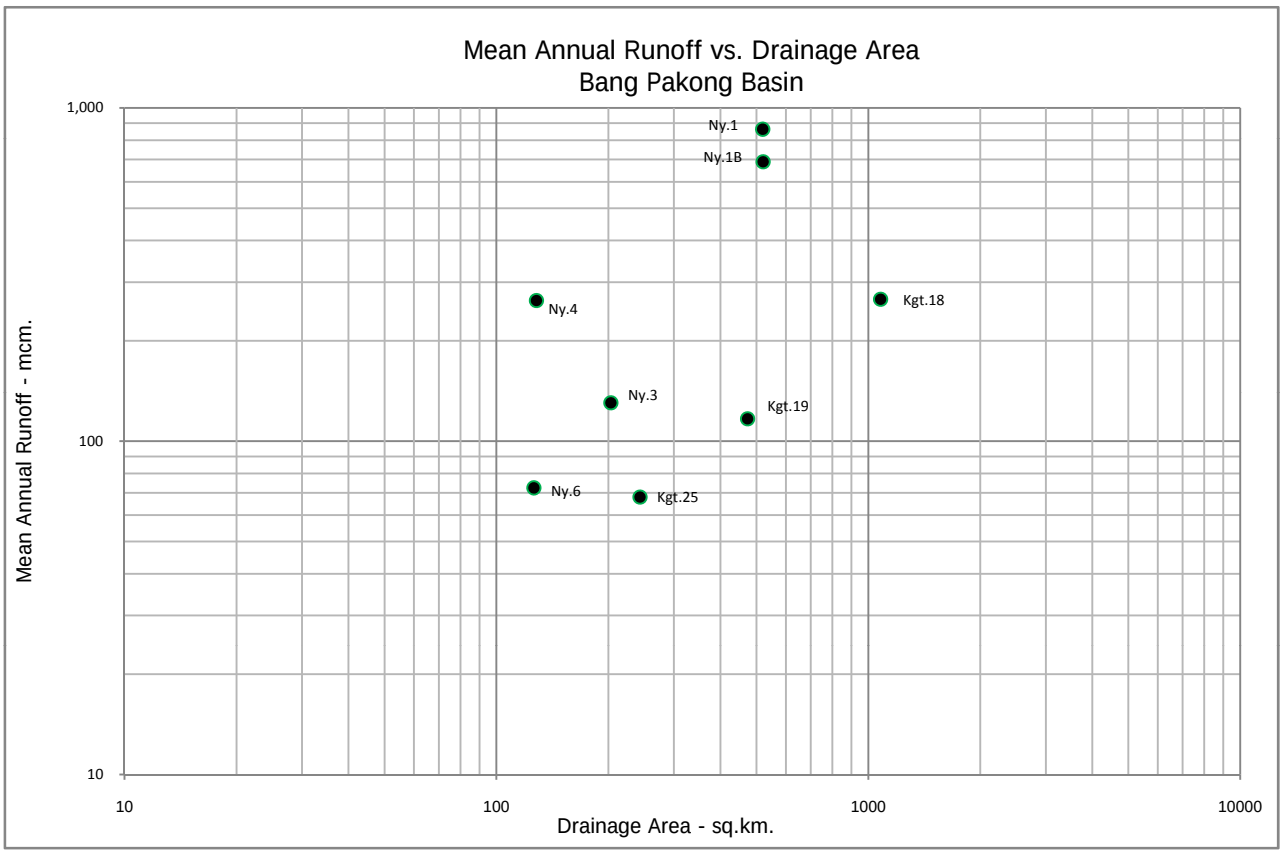

Mean Annual Runoff vs. Drainage Area
Sakae Krang Basin
Qm = 0.1157 DA1.151
R2 = 0.8626
CT.5B
CT.5A
CT.4
CT.7
CT.9
1,000
100
100
1,000
10,000
Mean Annual Runoff - mcm.
Drainage Area - sq.km.

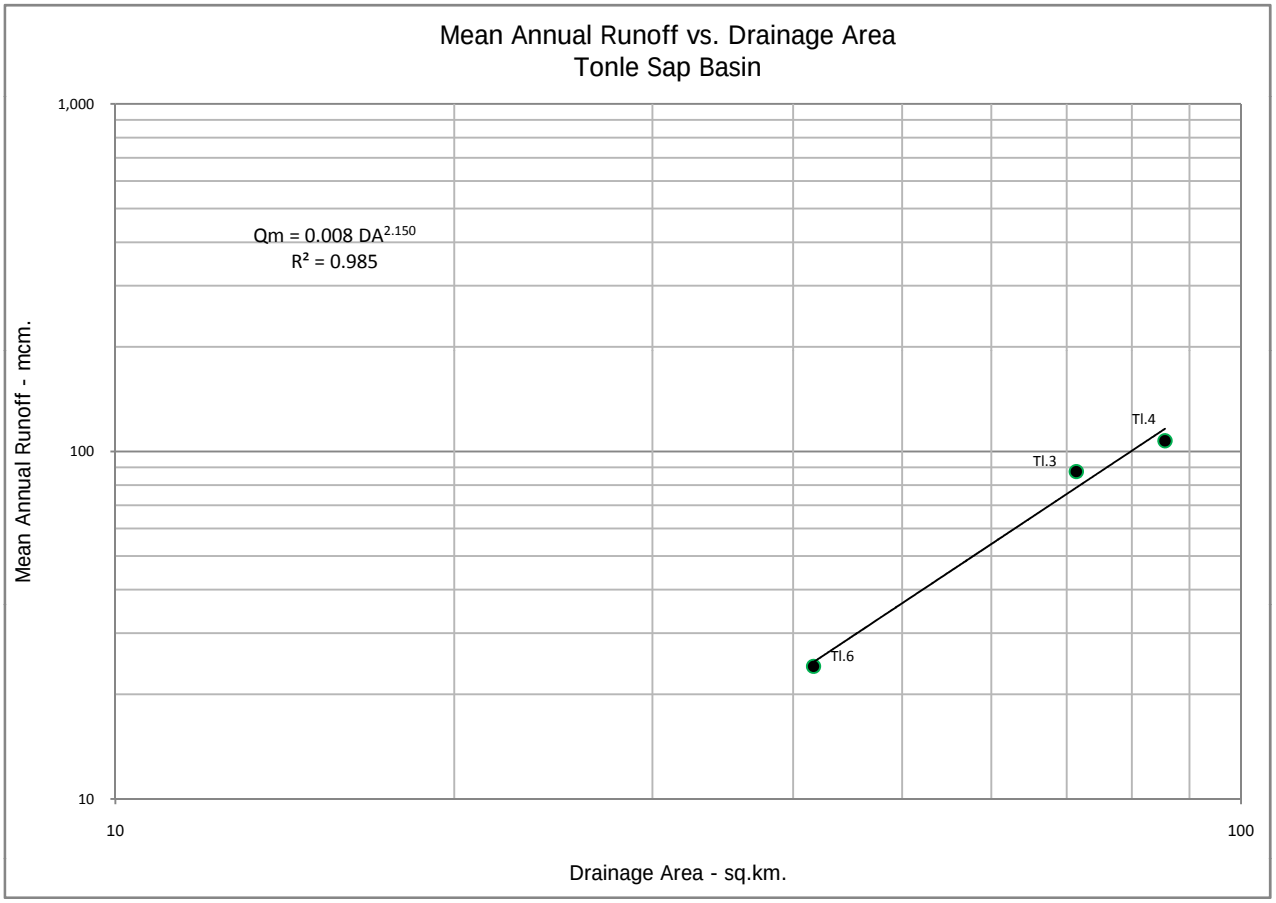

Mean Annual Runoff vs. Drainage Area
Pasak Basin
Qm = 0.7009DA0.8602
R2 = 0.8936
S.2
S.9
S.36
S.4B
S.3
S.33
S.10
S.14
S.12
S.13
S.7
S.31
S.17
S.16
10,000
1,000
100
10
10
100
1,000
10,000
100,000
Mean Annual Runoff - mcm.
Drainage Area - sq.km.

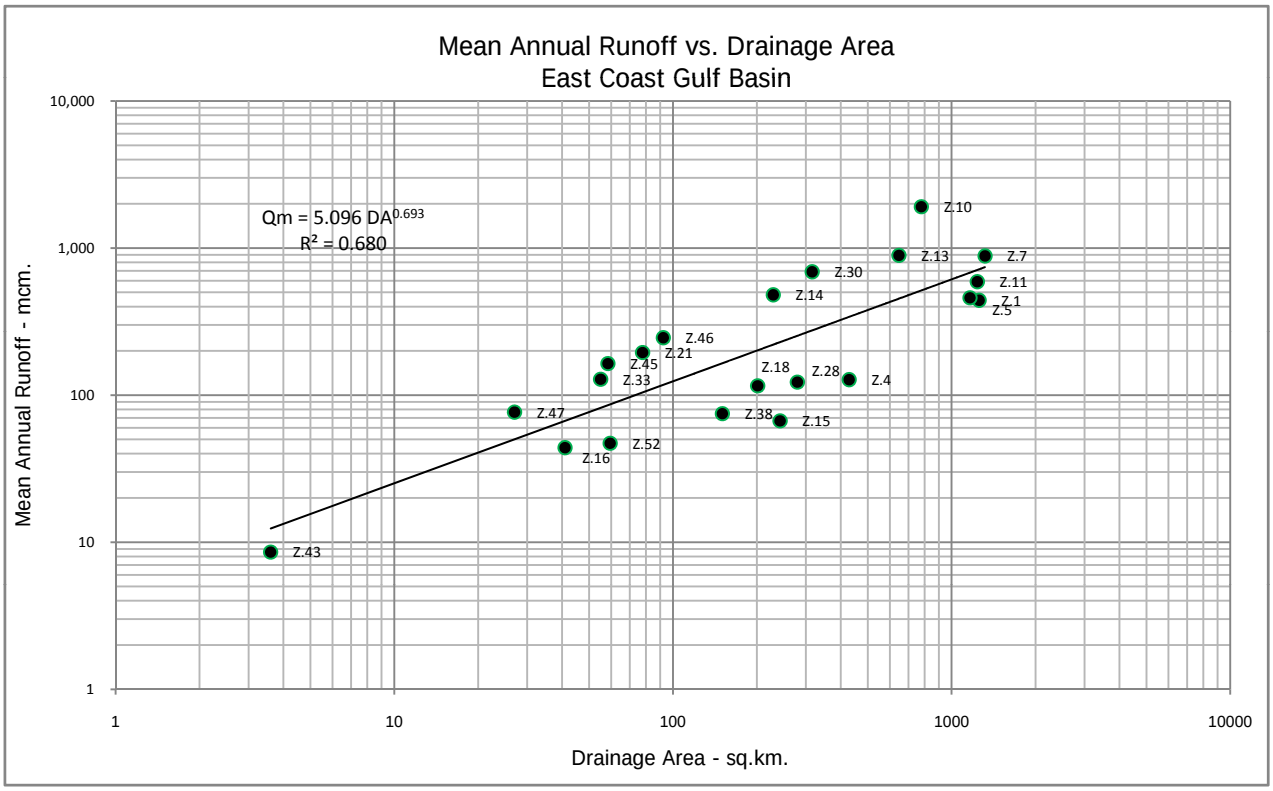

Mean Annual Runoff vs. Drainage Area
Tha Chin Basin
Mean Annual Runoff - mcm.
Drainage Area - sq.km.
10,000
1,000
100
10
100
1,000
10,000
T.6
T.12A
T.11
T.3B
T.7
T.3

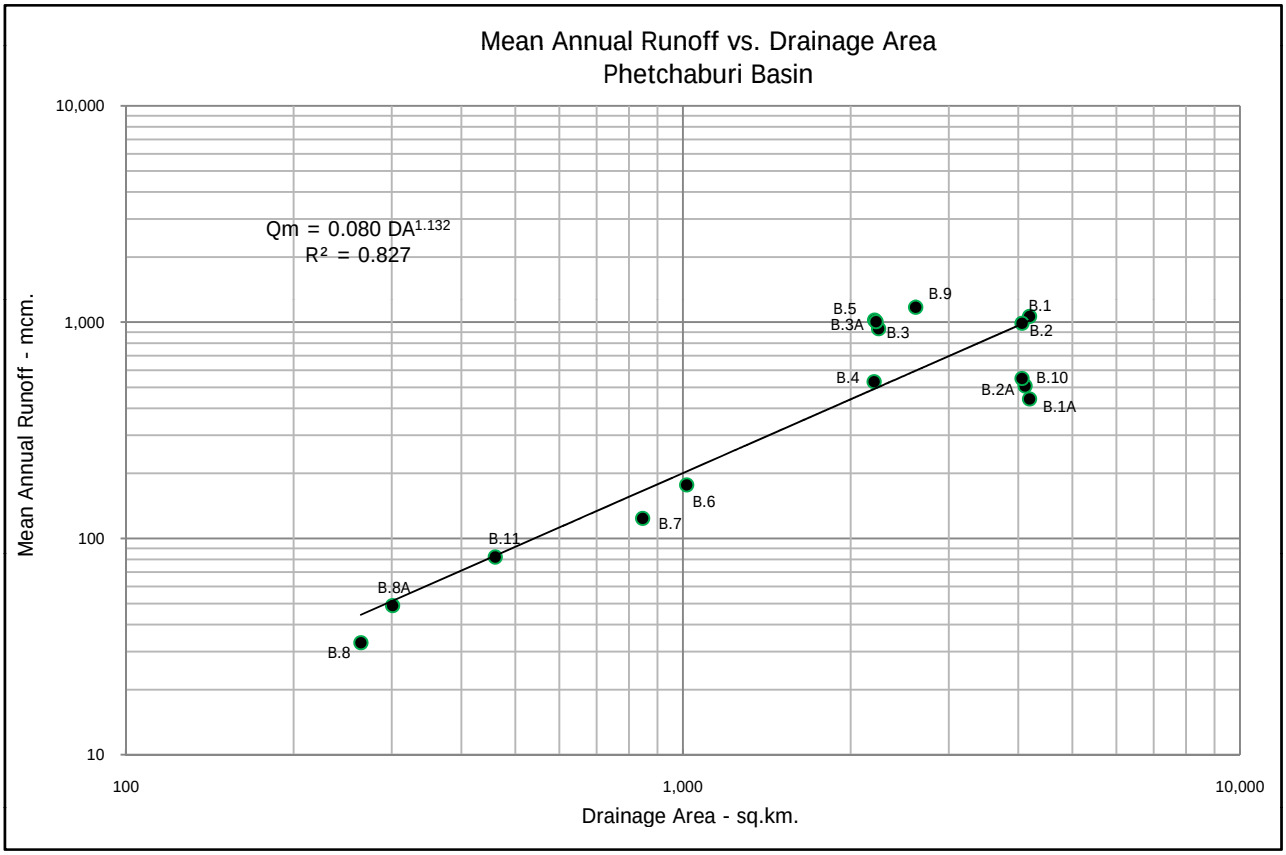

Mean Annual Runoff vs. Drainage Area
Mae Klong Basin
Qm = 0.206 DA.06
R² = 0.861
Mean Annual Runoff - mcm.
Drainage Area - sq.km.
100,000
10,000
1,000
100
10
1
10
100
1,000
10,000
100,000
K.4
K.8
K.58
K.10
K.37
K.54
K.6
K.11A
K.9
K.20
K.35A
K.13
K.35
K.19
K.36
K.26
K.31
K.62
K.59
K.22B
K.30
K.61
K.22A
K.17
K.12
K.49
K.27
K.22
K.32A
K.25
K.38
K.25A
K.60
K.53
K.43
K.38A
K.29
K.39
K.50
K.28

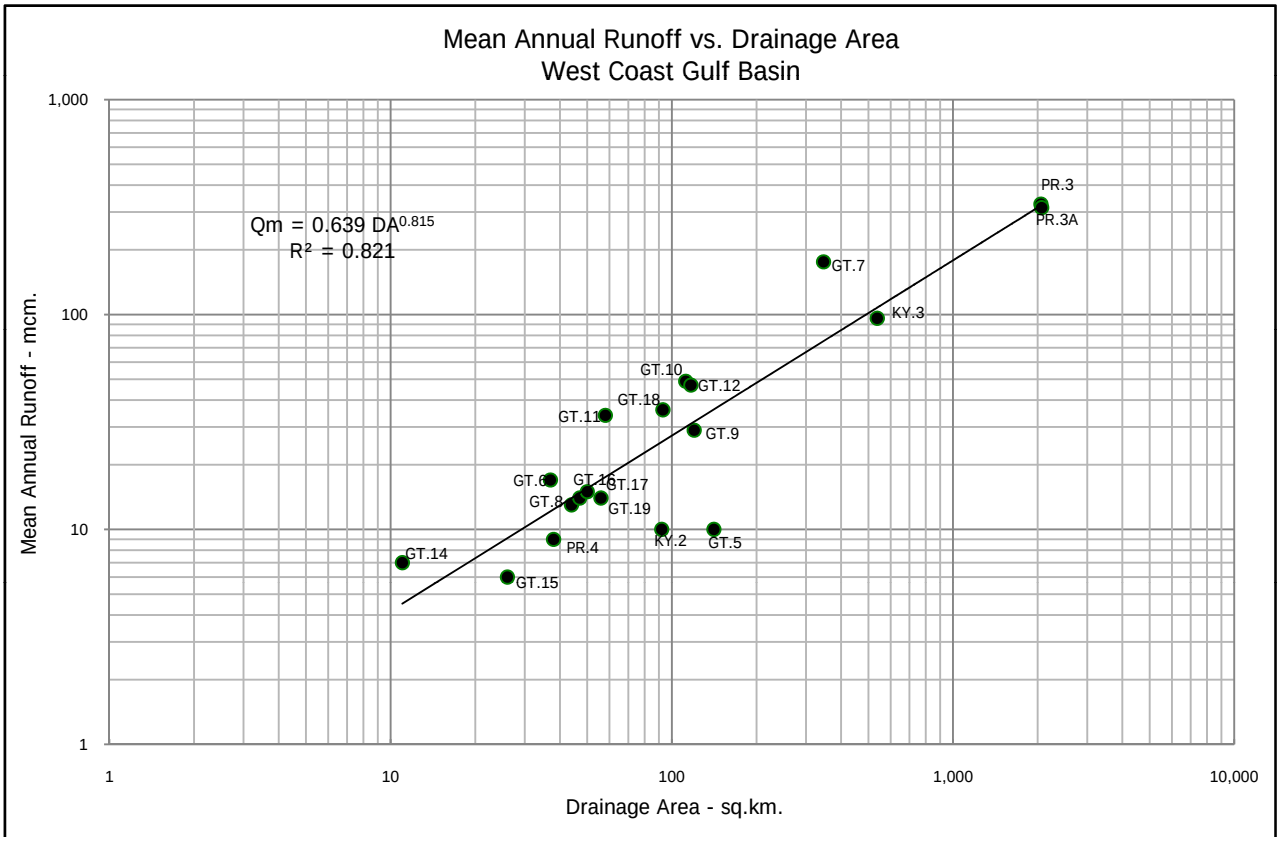

Mean Annual Runoff vs. Drainage Area
Prachin Buri Basin
Qm = 3.199 DA^0.741
R² = 0.941
Kgt.3
Kgt.12
Kgt.3
Kgt.9
Kgt.27
Kgt.10
Kgt.13A
Kgt.14
Kgt.13
Kgt.24
Kgt.15A
10,000
1,000
100
10
10
100
1000
10000
Mean Annual Runoff - mcm.
Drainage Area - sq.km.

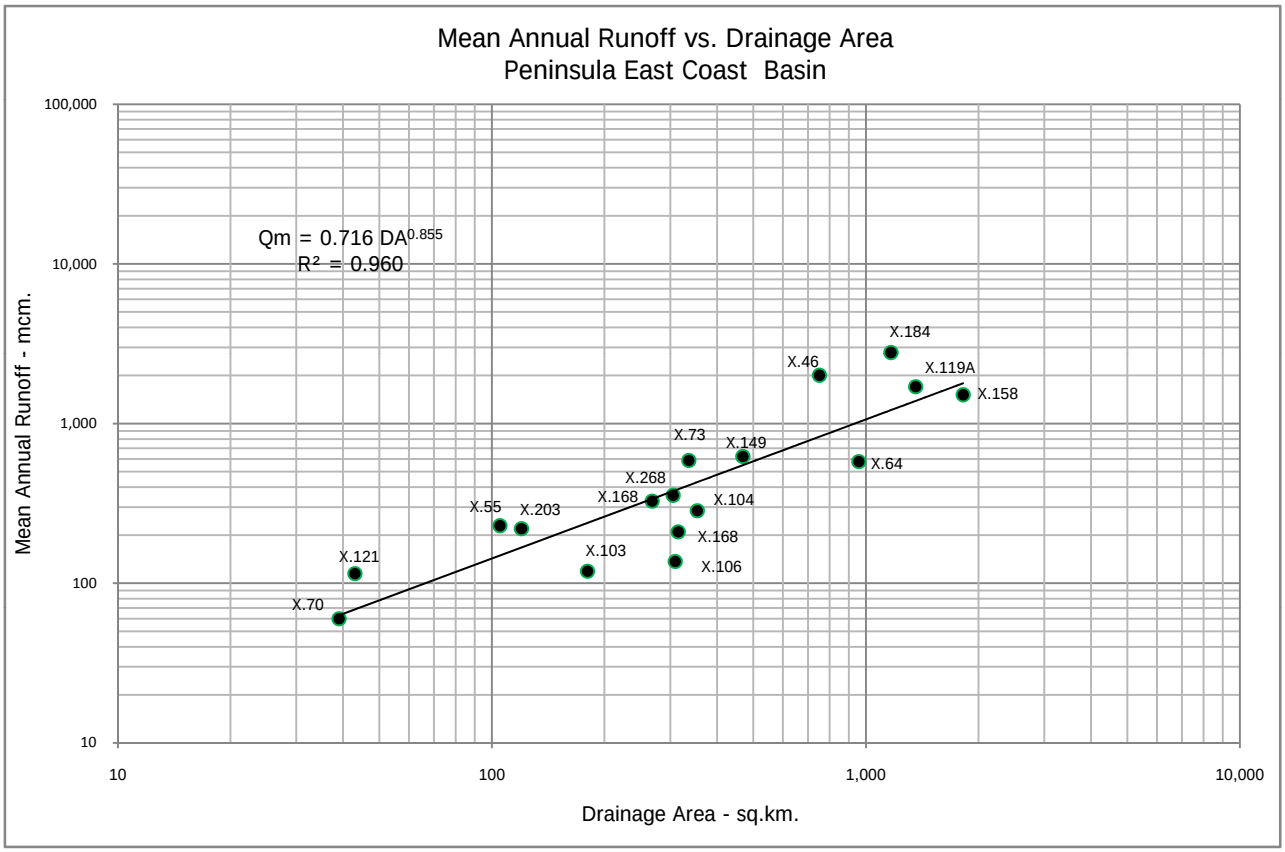

Mean Annual Runoff vs. Drainage Area
Bang Pakong Basin
Ny.1
Ny.1B
Ny.4
Kgt.18
Ny.3
Kgt.19
Ny.6
Kgt.25
1,000
100
10
10
100
1000
10000
Mean Annual Runoff - mcm.
Drainage Area - sq.km.

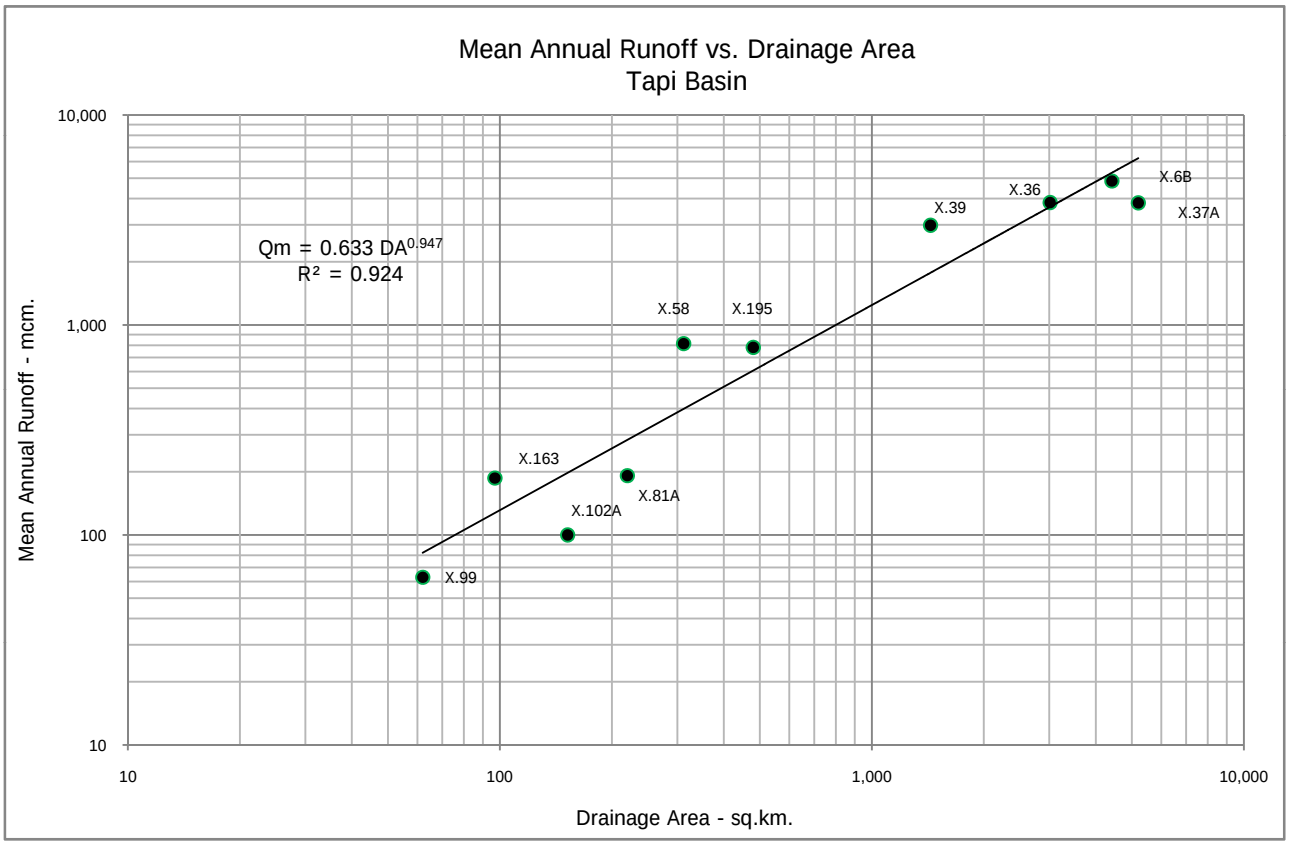

Mean Annual Runoff vs. Drainage Area
Tonle Sap Basin
Qm = 0.008 DA^2.150
R² = 0.985
Tl.4
Tl.3
Tl.6
1,000
100
10
10
100
Mean Annual Runoff - mcm.
Drainage Area - sq.km.

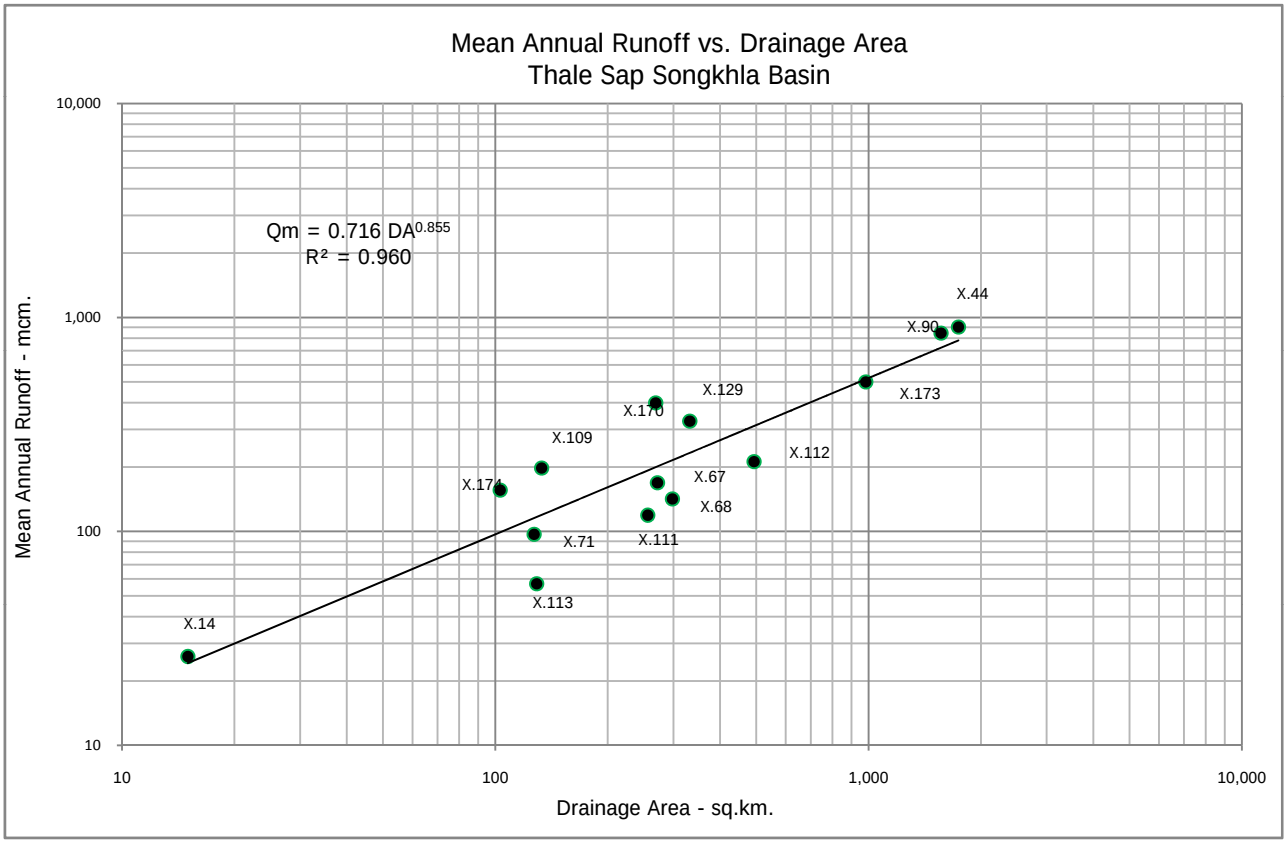

Mean Annual Runoff vs. Drainage Area
East Coast Gulf Basin
Qm = 5.096 DA^0.693
R² = 0.680
Z.10
Z.13
Z.7
Z.30
Z.11
Z.14
Z.1
Z.5
Z.46
Z.21
Z.45
Z.33
Z.18
Z.28
Z.4
Z.47
Z.38
Z.15
Z.52
Z.16
Z.43
10,000
1,000
100
10
1
1
10
100
1000
10000
Mean Annual Runoff - mcm.
Drainage Area - sq.km.

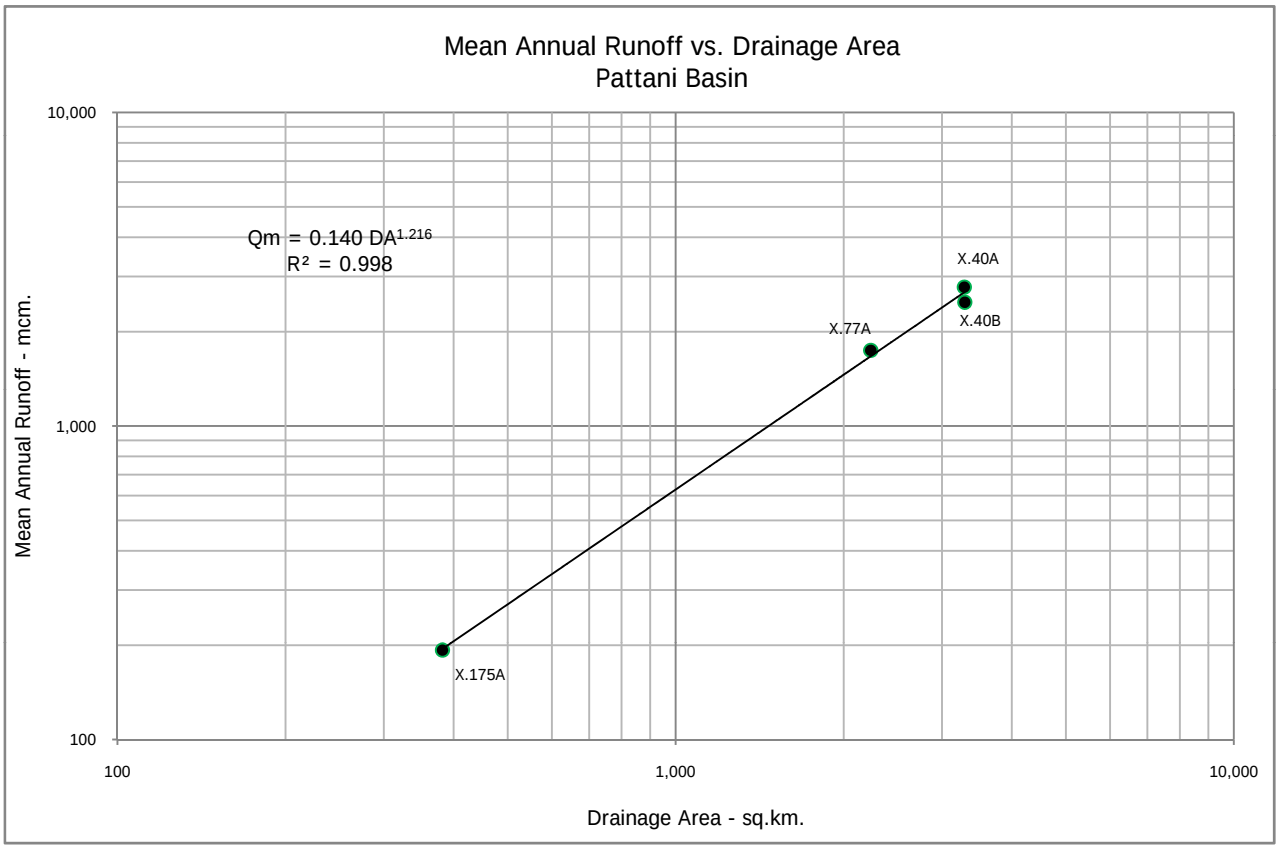

Mean Annual Runoff vs. Drainage Area
Phetchaburi Basin
Qm = 0.080 DA^1.132
R² = 0.827
Mean Annual Runoff - mcm.
Drainage Area - sq.km.
10,000
1,000
100
10
100
1,000
10,000
B.9
B.5
B.3A
B.3
B.1
B.2
B.4
B.10
B.2A
B.1A
B.6
B.7
B.11
B.8A
B.8

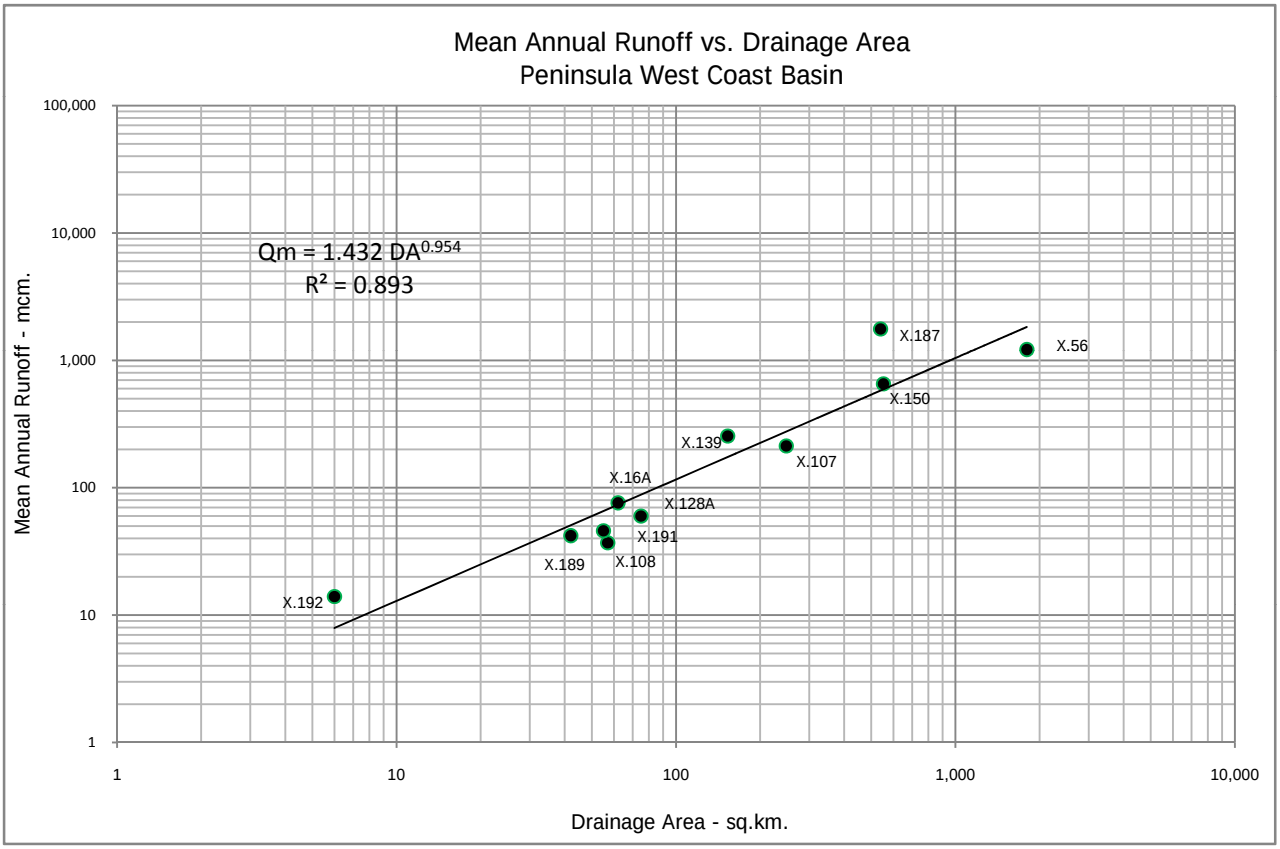

Mean Annual Runoff vs. Drainage Area
West Coast Gulf Basin
Qm = 0.639 DA^0.815
R² = 0.821
Mean Annual Runoff - mcm.
Drainage Area - sq.km.
1,000
100
10
1
1
10
100
1,000
10,000
PR.3
PR.3A
GT.7
KY.3
GT.10
GT.12
GT.18
GT.11
GT.9
GT.6
GT.16
GT.17
GT.8
GT.19
KY.2
GT.5
PR.4
GT.14
GT.15


Mean Annual Runoff vs. Drainage Area
Peninsula East Coast Basin
Qm = 0.716 DA^0.855
R² = 0.960
Mean Annual Runoff - mcm.
Drainage Area - sq.km.
100,000
10,000
1,000
100
10
10
100
1,000
10,000
X.184
X.46
X.119A
X.158
X.73
X.149
X.64
X.268
X.168
X.104
X.55
X.203
X.168
X.121
X.103
X.106
X.70


Mean Annual Runoff vs. Drainage Area
Tapi Basin
Qm = 0.633 DA^0.947
R² = 0.924
Mean Annual Runoff - mcm.
Drainage Area - sq.km.
10,000
1,000
100
10
10
100
1,000
10,000
X.6B
X.36
X.39
X.37A
X.58
X.195
X.163
X.81A
X.102A
X.99


Mean Annual Runoff vs. Drainage Area
Thale Sap Songkhla Basin
Qm = 0.716 DA^0.855
R² = 0.960
Mean Annual Runoff - mcm.
Drainage Area - sq.km.
10,000
1,000
100
10
10
100
1,000
10,000
X.44
X.90
X.173
X.129
X.170
X.109
X.112
X.174
X.67
X.68
X.111
X.71
X.113
X.14

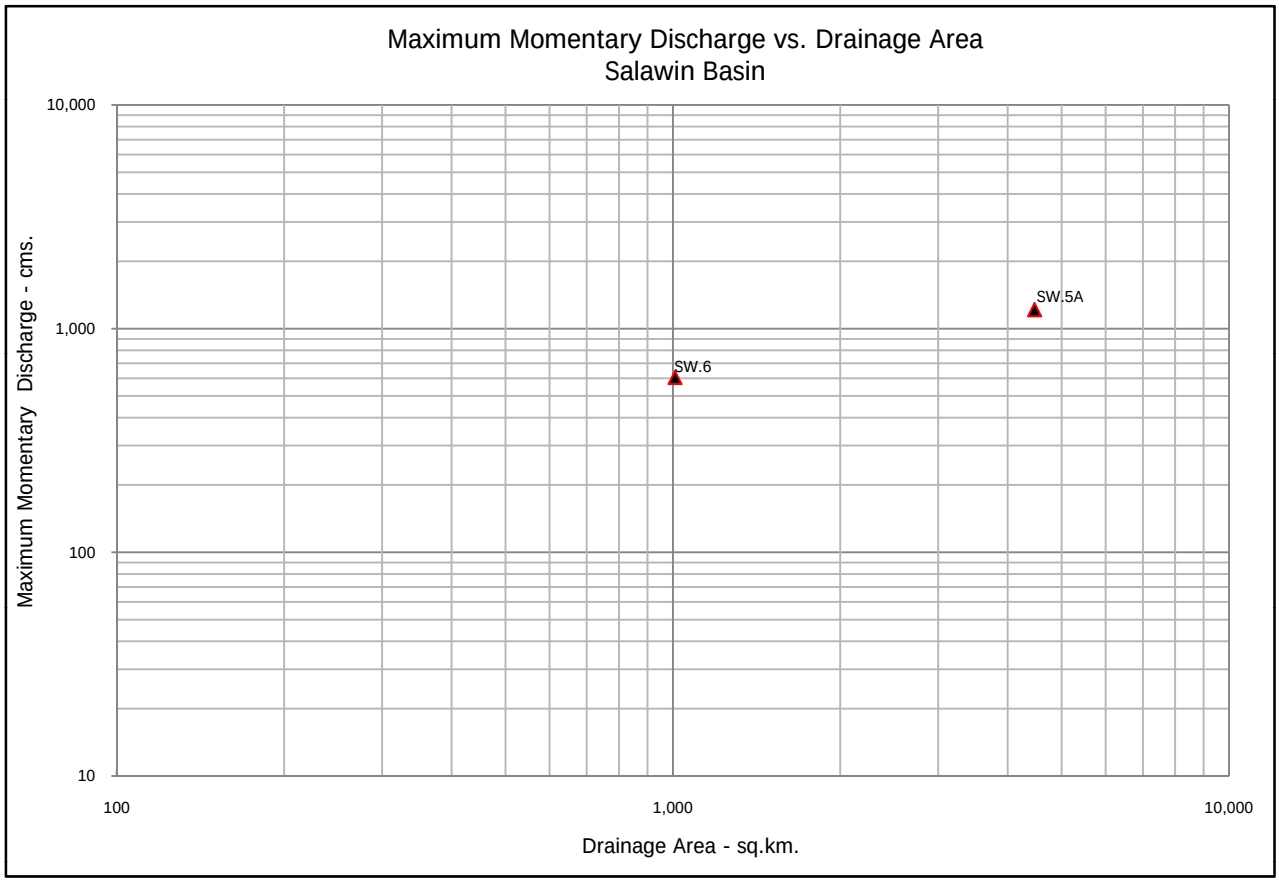

Mean Annual Runoff vs. Drainage Area
Pattani Basin
Qm = 0.140 DA^1.216
R² = 0.998
Mean Annual Runoff - mcm.
Drainage Area - sq.km.
10,000
1,000
100
100
1,000
10,000
X.40A
X.40B
X.77A
X.175A

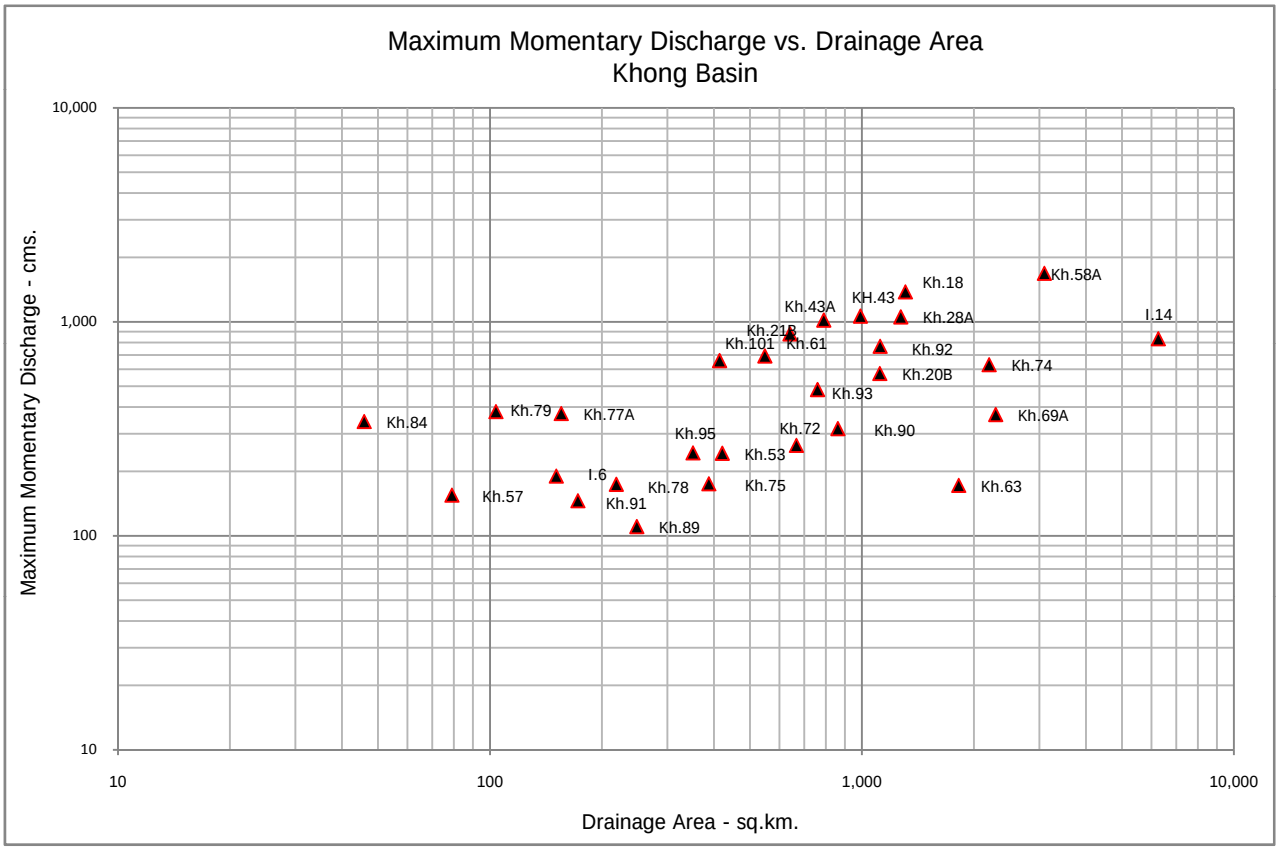

Mean Annual Runoff vs. Drainage Area
Peninsula West Coast Basin
Qm = 1.432 DA^0.954
R² = 0.893
Mean Annual Runoff - mcm.
Drainage Area - sq.km.
100,000
10,000
1,000
100
10
1
1
10
100
1,000
10,000
X.187
X.56
X.150
X.139
X.107
X.16A
X.128A
X.191
X.189
X.108
X.192

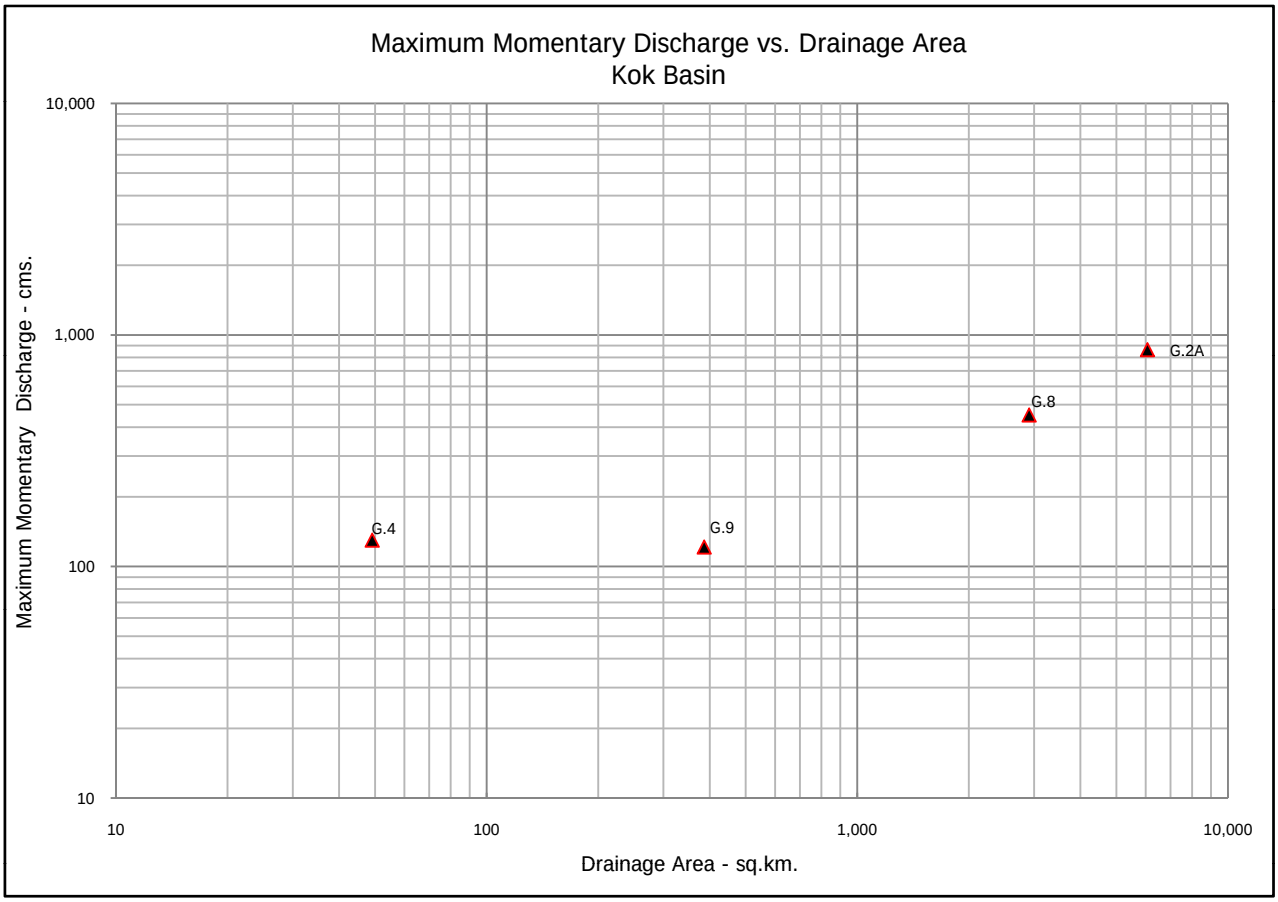
Appendix C

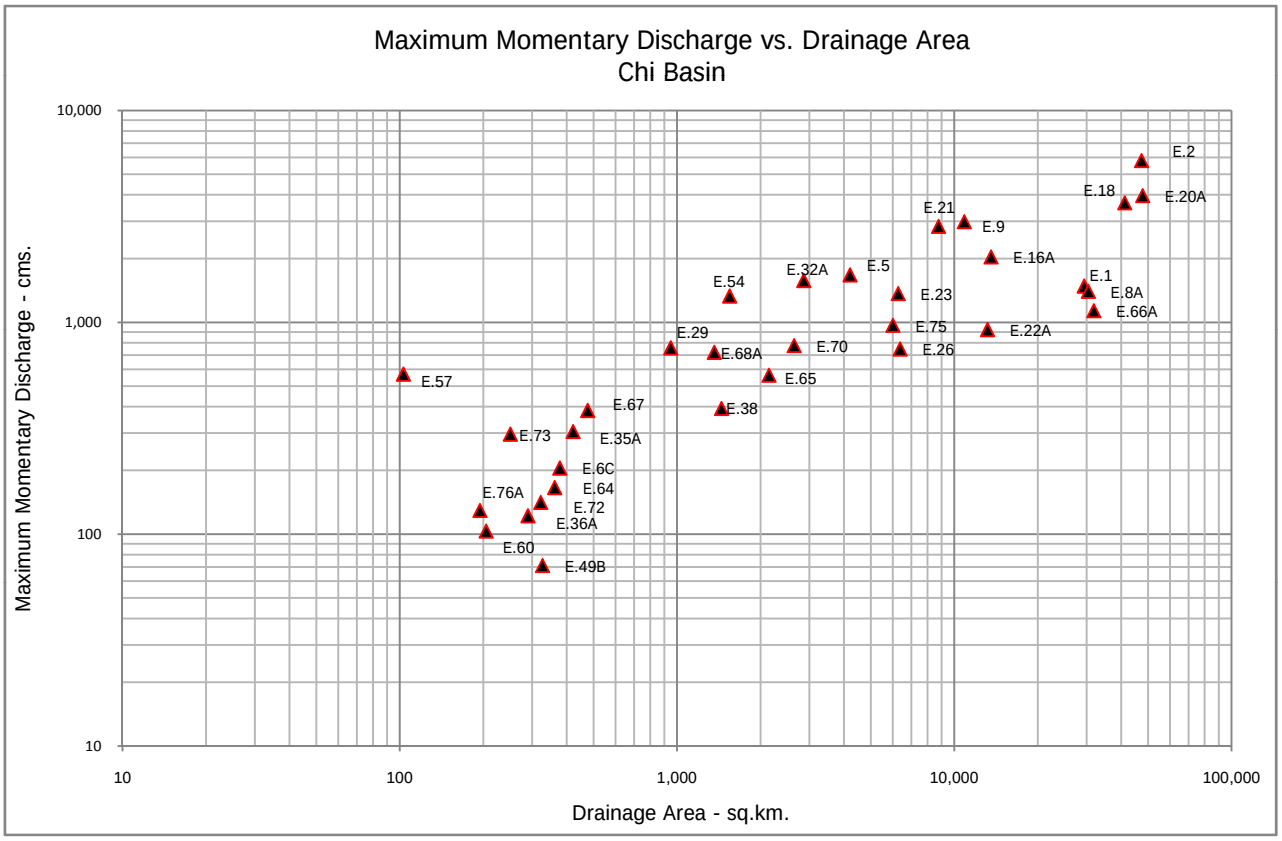
Maximum Momentary Discharge vs. Drainage Area

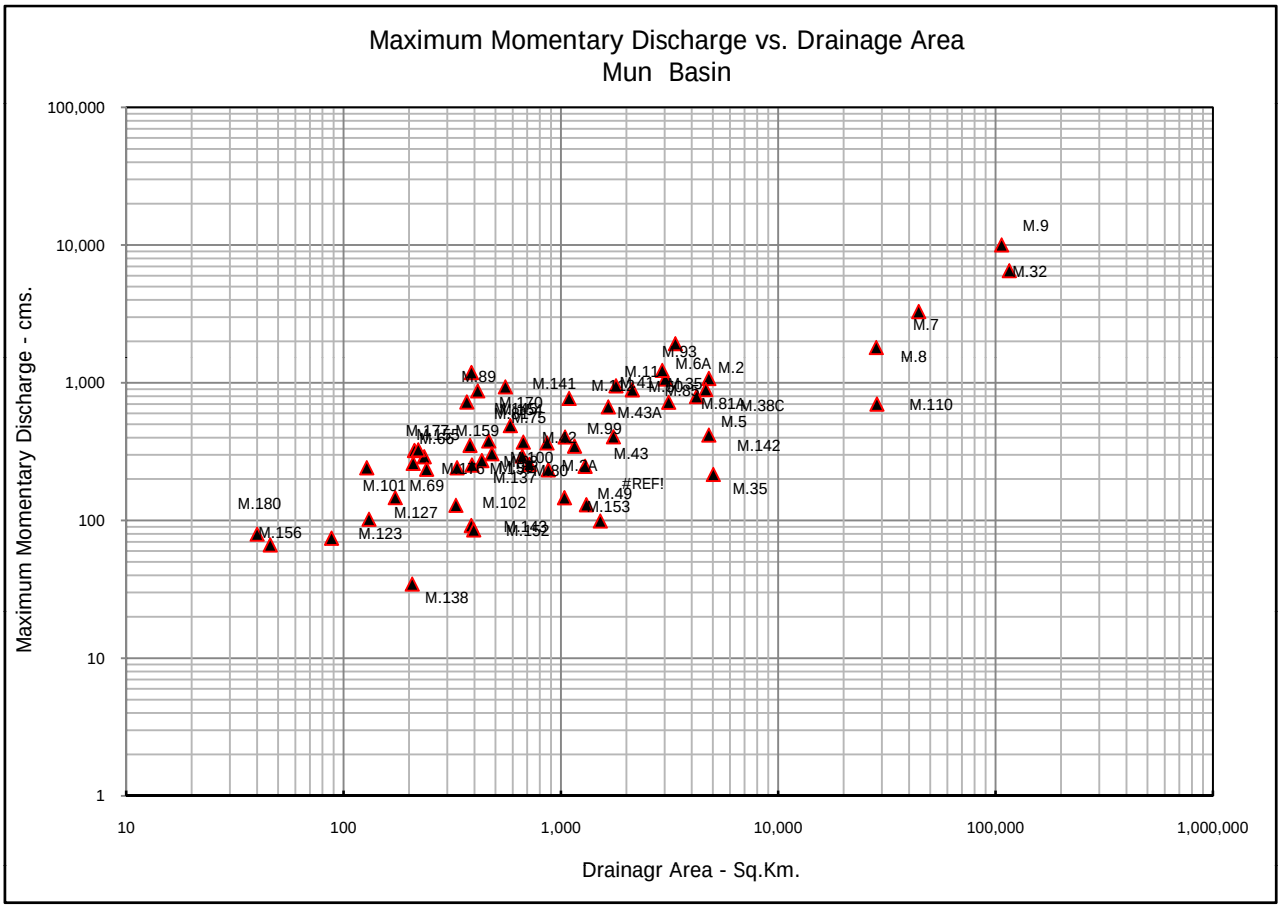
(Up to 2011)

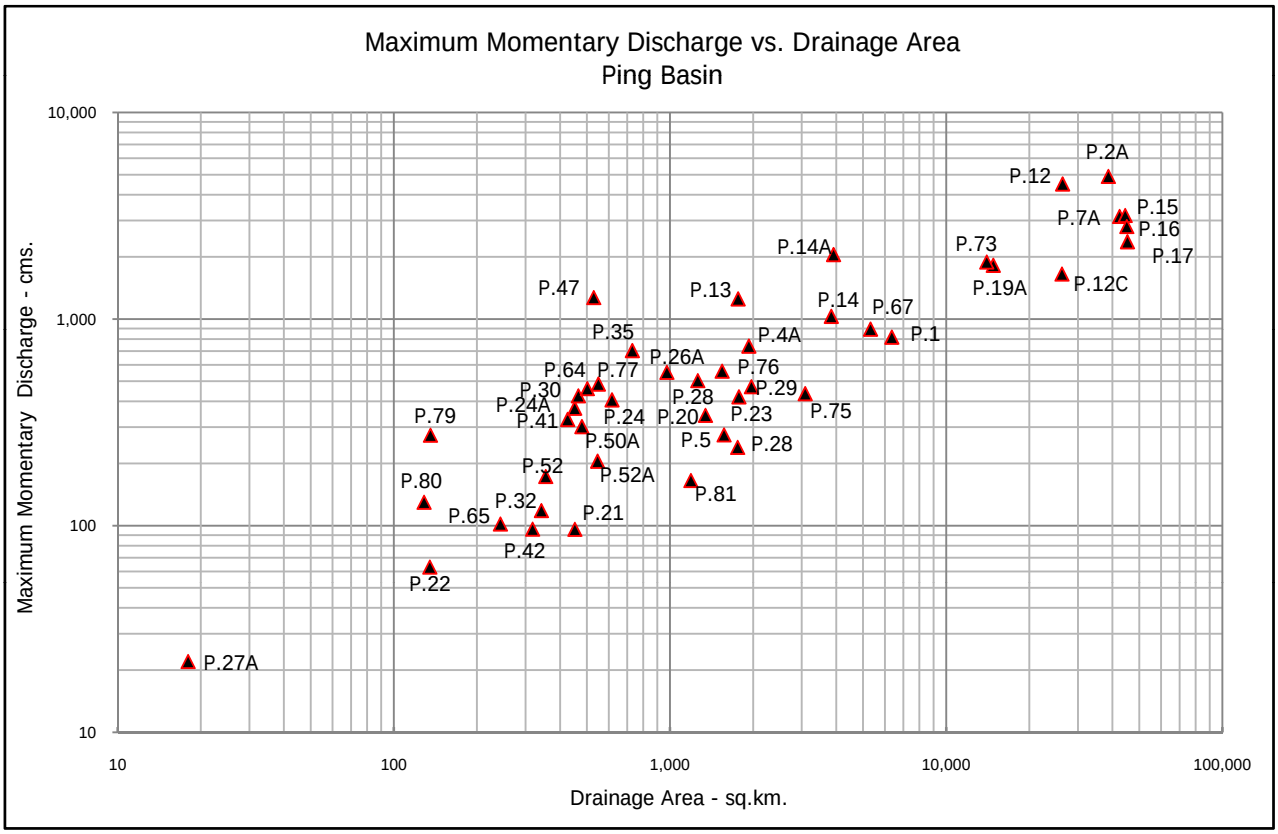

Maximum Momentary Discharge vs. Drainage Area
Salawin Basin
Maximum Momentary Discharge - cms.
10,000
1,000
100
10
100
1,000
10,000
Drainage Area - sq.km.
SW.5A
SW.6

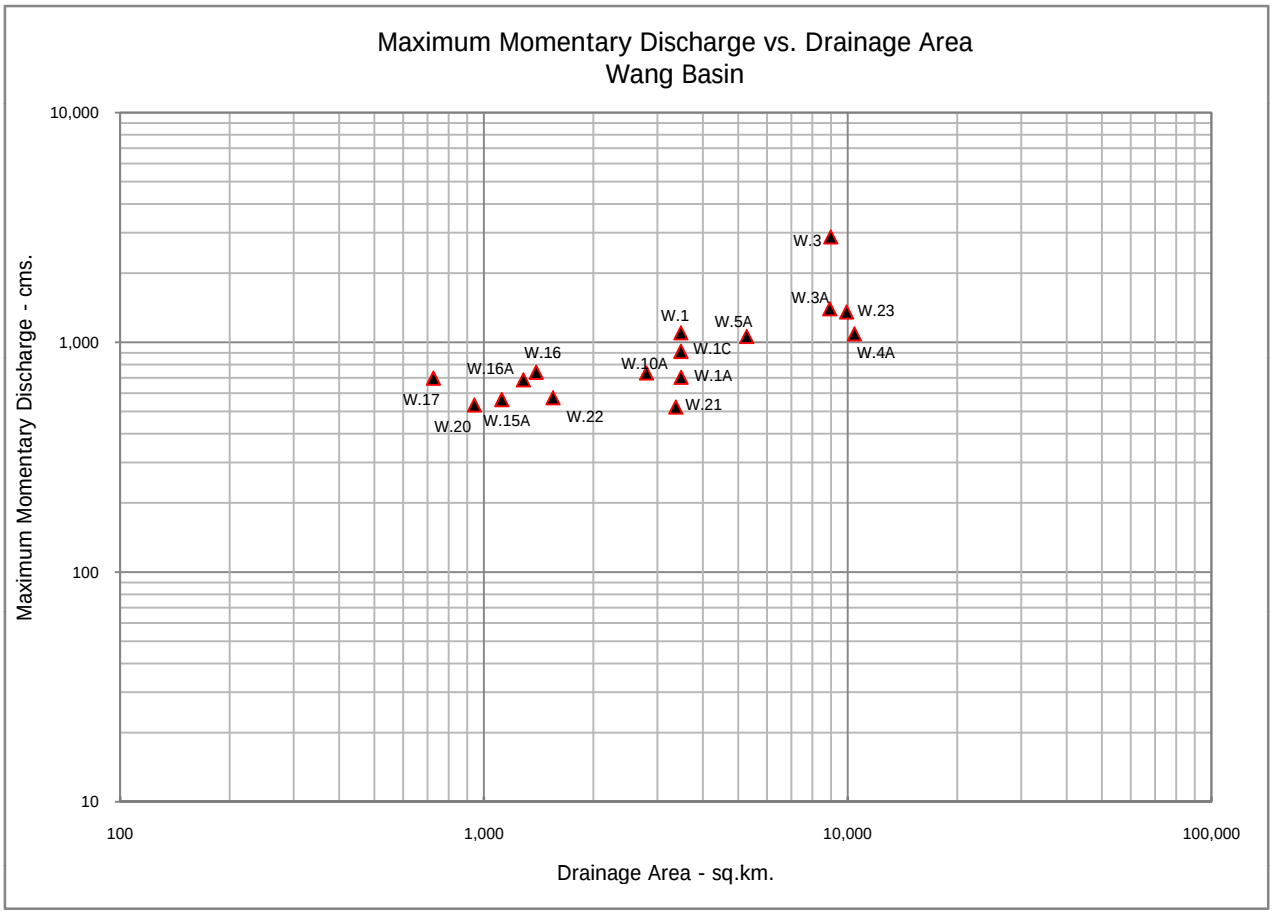

Maximum Momentary Discharge vs. Drainage Area
Khong Basin
Maximum Momentary Discharge - cms.
10,000
1,000
100
10
10
100
1,000
10,000
Drainage Area - sq.km.
Kh.58A
Kh.18
KH.43
Kh.43A
Kh.28A
I.14
Kh.21B
Kh.101
Kh.61
Kh.92
Kh.74
Kh.20B
Kh.93
Kh.84
Kh.79
Kh.77A
Kh.69A
Kh.95
Kh.72
Kh.90
Kh.53
I.6
Kh.78
Kh.75
Kh.63
Kh.57
Kh.91
Kh.89

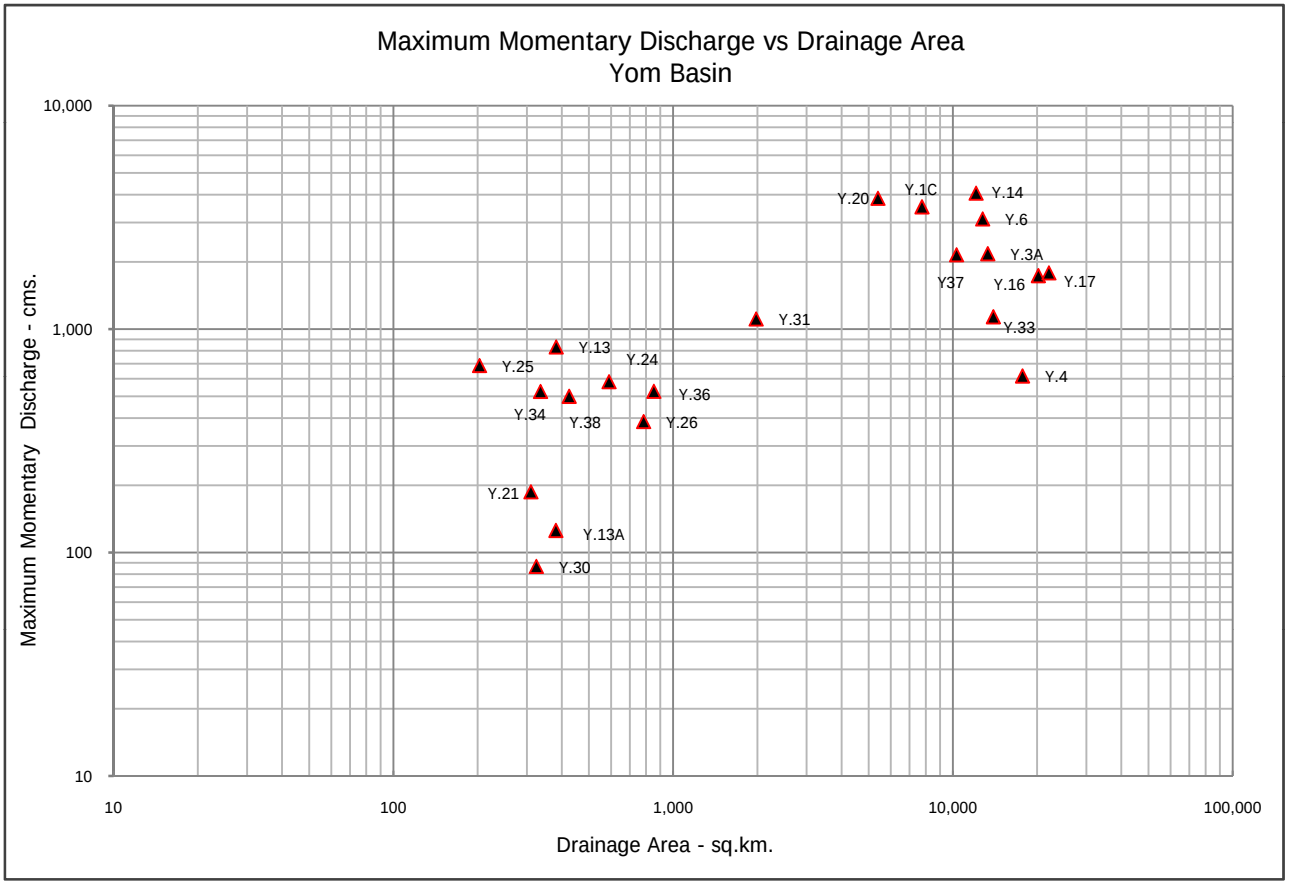

Maximum Momentary Discharge vs. Drainage Area
Kok Basin
Maximum Momentary Discharge - cms.
10,000
1,000
100
10
10
100
1,000
10,000
Drainage Area - sq.km.
G.2A
G.8
G.4
G.9

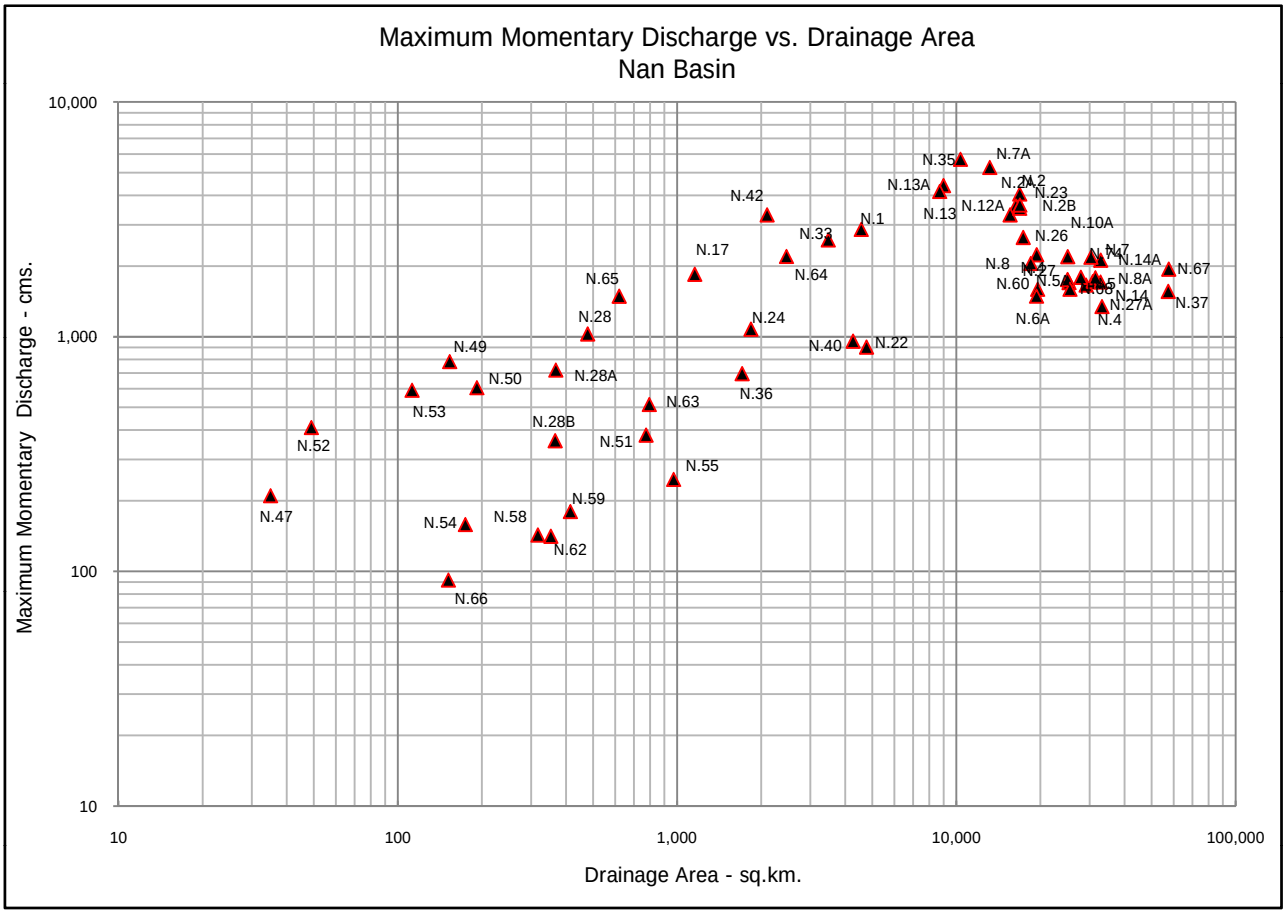

Maximum Momentary Discharge vs. Drainage Area
Chi Basin
Maximum Momentary Discharge - cms.
10,000
1,000
100
10
10
100
1,000
10,000
100,000
Drainage Area - sq.km.
E.2
E.18
E.20A
E.21
E.9
E.16A
E.32A
E.5
E.1
E.54
E.23
E.8A
E.66A
E.29
E.75
E.22A
E.68A
E.70
E.26
E.57
E.65
E.67
E.38
E.73
E.35A
E.6C
E.64
E.76A
E.72
E.36A
E.60
E.49B

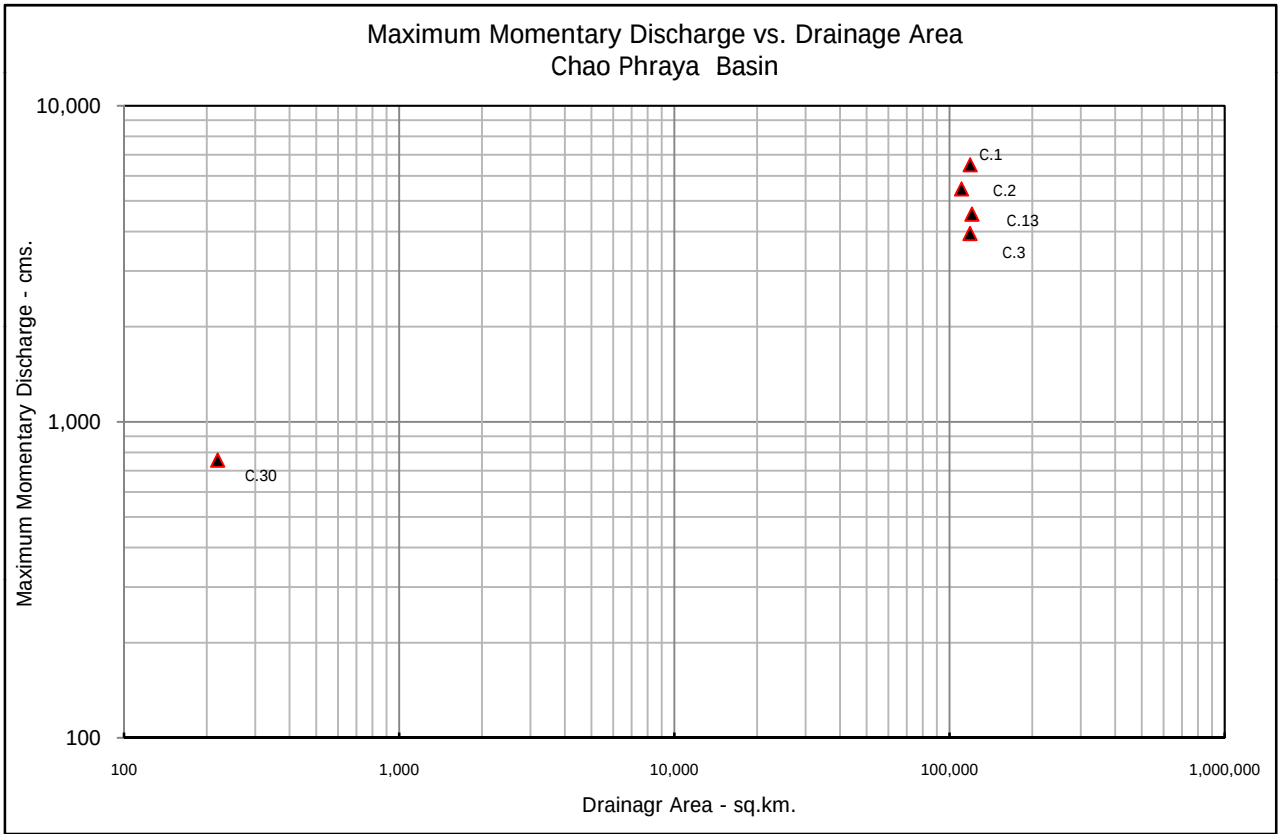

Maximum Momentary Discharge vs. Drainage Area
Mun Basin
Maximum Momentary Discharge - cms.
Drainagr Area - Sq.Km.
100,000
10,000
1,000
100
10
1
10
100
1,000
10,000
100,000
1,000,000
M.9
M.32
M.7
M.8
M.110
M.93
M.6A
M.2
M.89
M.141
M.43A
M.81A
M.38C
M.5
M.99
M.142
M.43
M.159
M.101
M.69
M.102
M.49
M.153
M.35
#REF!
M.180
M.156
M.127
M.123
M.138

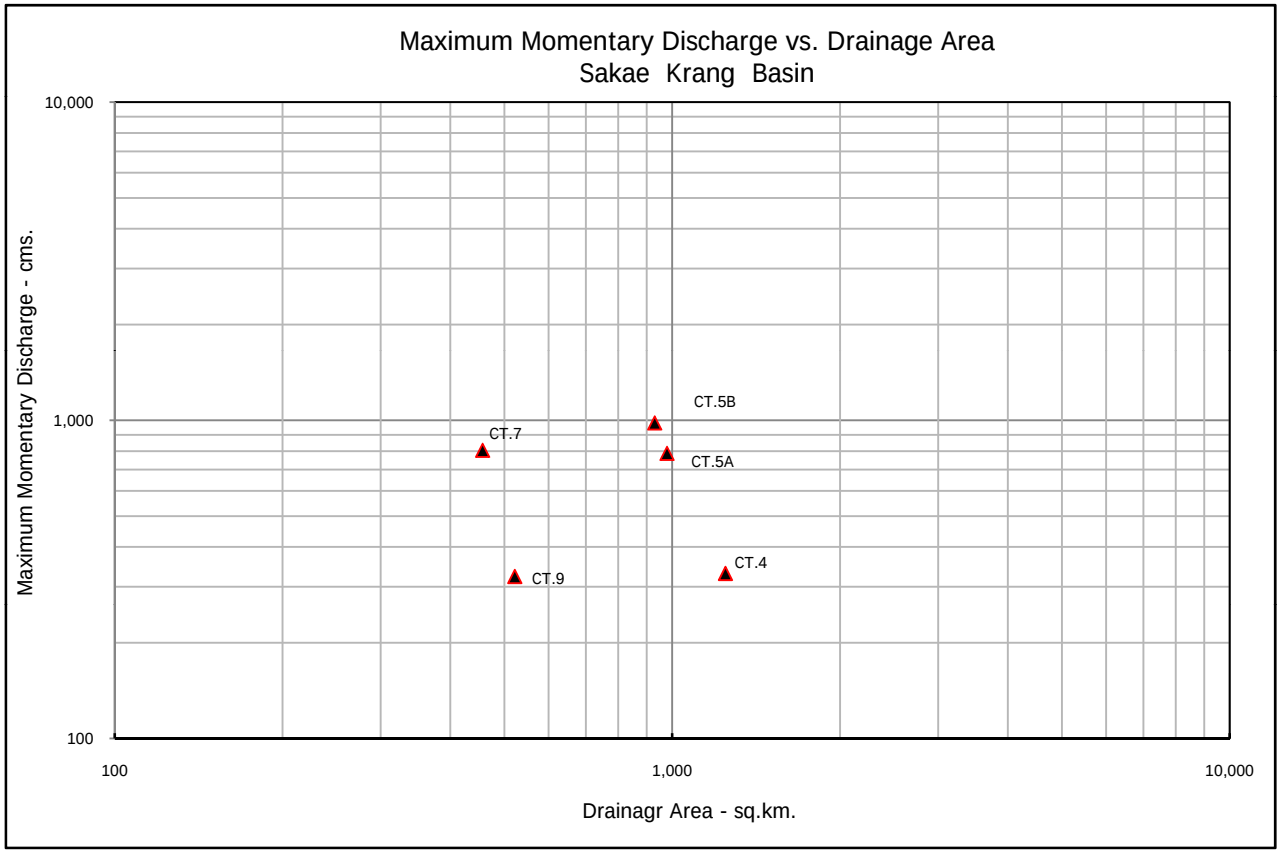

Maximum Momentary Discharge vs. Drainage Area
Ping Basin
Maximum Momentary Discharge - cms.
Drainage Area - sq.km.
10,000
1,000
100
10
10
100
1,000
10,000
100,000
P.2A
P.12
P.7A
P.15
P.16
P.17
P.14A
P.73
P.19A
P.12C
P.47
P.13
P.14
P.67
P.1
P.35
P.4A
P.26A
P.64
P.77
P.76
P.30
P.29
P.24A
P.28
P.41
P.24
P.20
P.23
P.75
P.79
P.50A
P.5
P.28
P.52
P.52A
P.80
P.81
P.32
P.65
P.21
P.42
P.22
P.27A

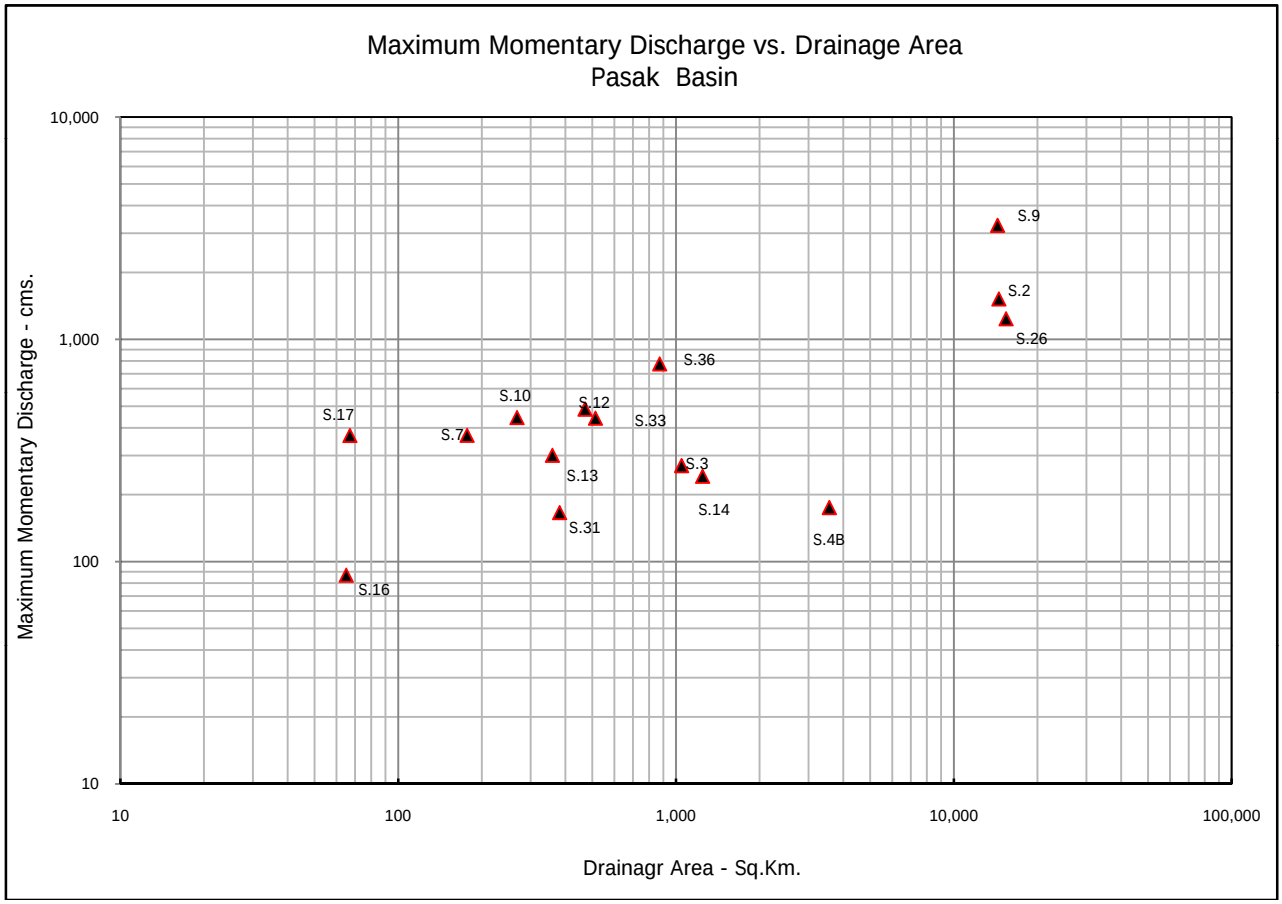

Maximum Momentary Discharge vs. Drainage Area
Wang Basin
Maximum Momentary Discharge - cms.
10,000
1,000
100
10
100
1,000
10,000
100,000
Drainage Area - sq.km.
W.3
W.3A
W.23
W.4A
W.1
W.5A
W.1C
W.1A
W.10A
W.21
W.16
W.16A
W.17
W.20
W.15A
W.22

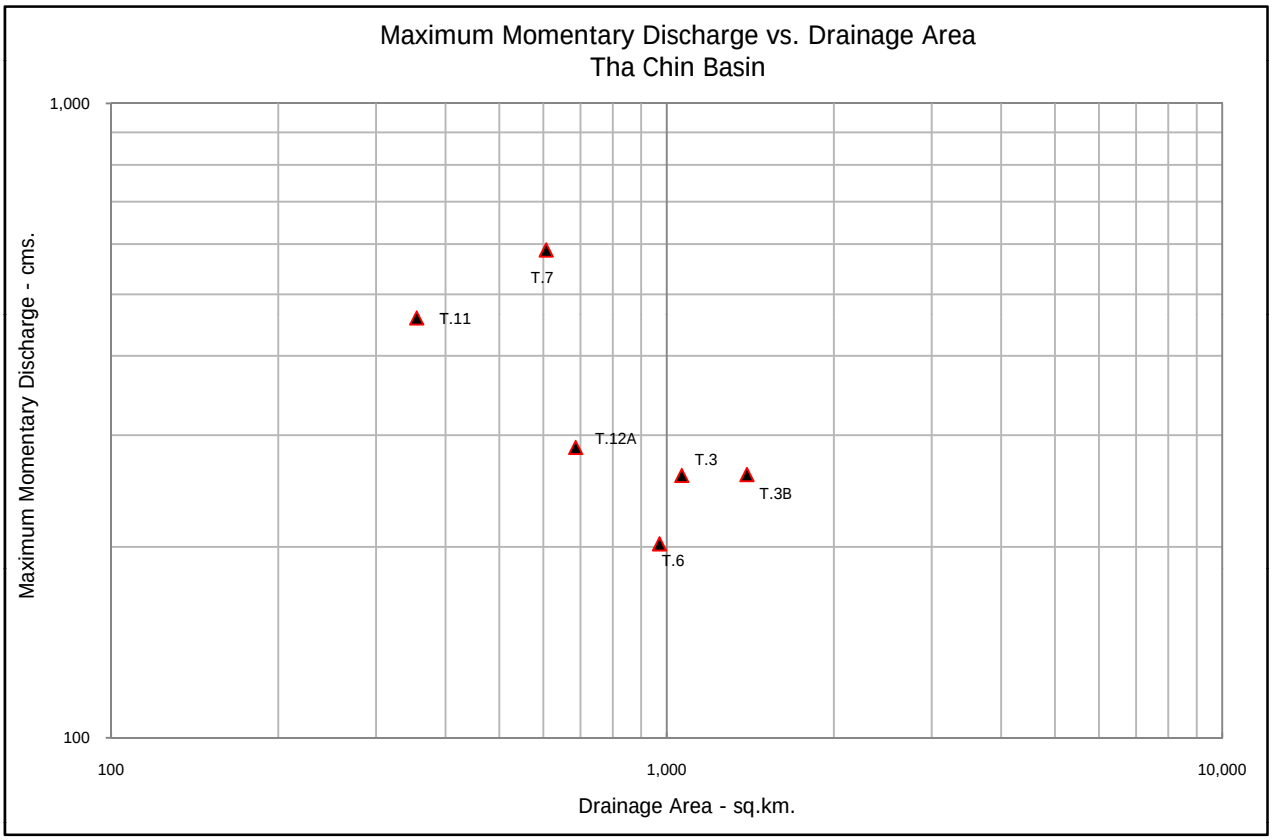

Maximum Momentary Discharge vs Drainage Area
Yom Basin
Maximum Momentary Discharge - cms.
10,000
1,000
100
10
10
100
1,000
10,000
100,000
Drainage Area - sq.km.
Y.20
Y.1C
Y.14
Y.6
Y.3A
Y37
Y.16
Y.17
Y.31
Y.33
Y.4
Y.13
Y.25
Y.24
Y.36
Y.34
Y.38
Y.26
Y.21
Y.13A
Y.30

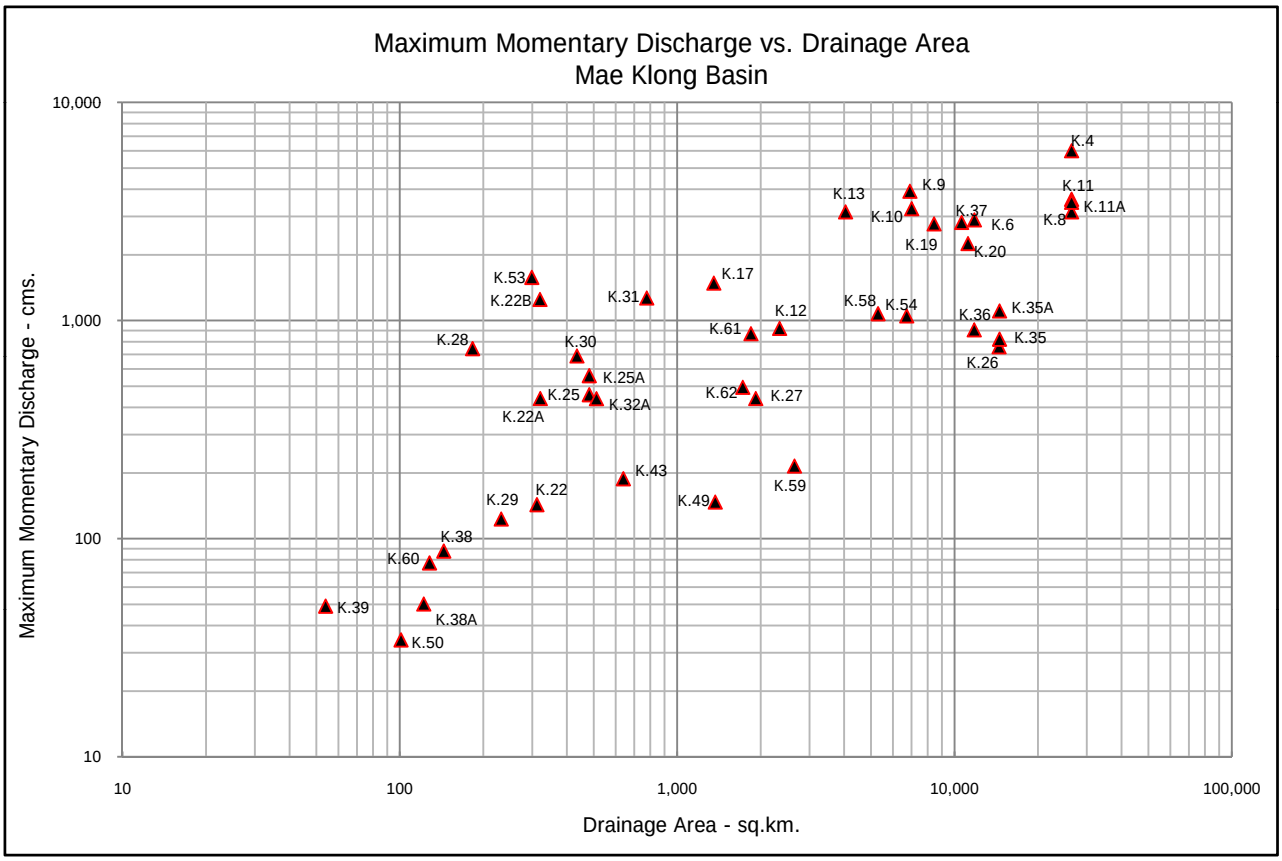

Maximum Momentary Discharge vs. Drainage Area
Nan Basin
Maximum Momentary Discharge - cms.
Drainage Area - sq.km.
10,000
1,000
100
10
10
100
1,000
10,000
100,000
N.35
N.7A
N.13A
N.2
N.23
N.42
N.13
N.12A
N.2B
N.1
N.10A
N.33
N.26
N.17
N.14A
N.67
N.8
N.64
N.65
N.60
N.8A
N.37
N.28
N.24
N.27A
N.6A
N.4
N.49
N.40
N.22
N.50
N.28A
N.36
N.53
N.63
N.28B
N.51
N.52
N.55
N.47
N.59
N.54
N.58
N.62
N.66

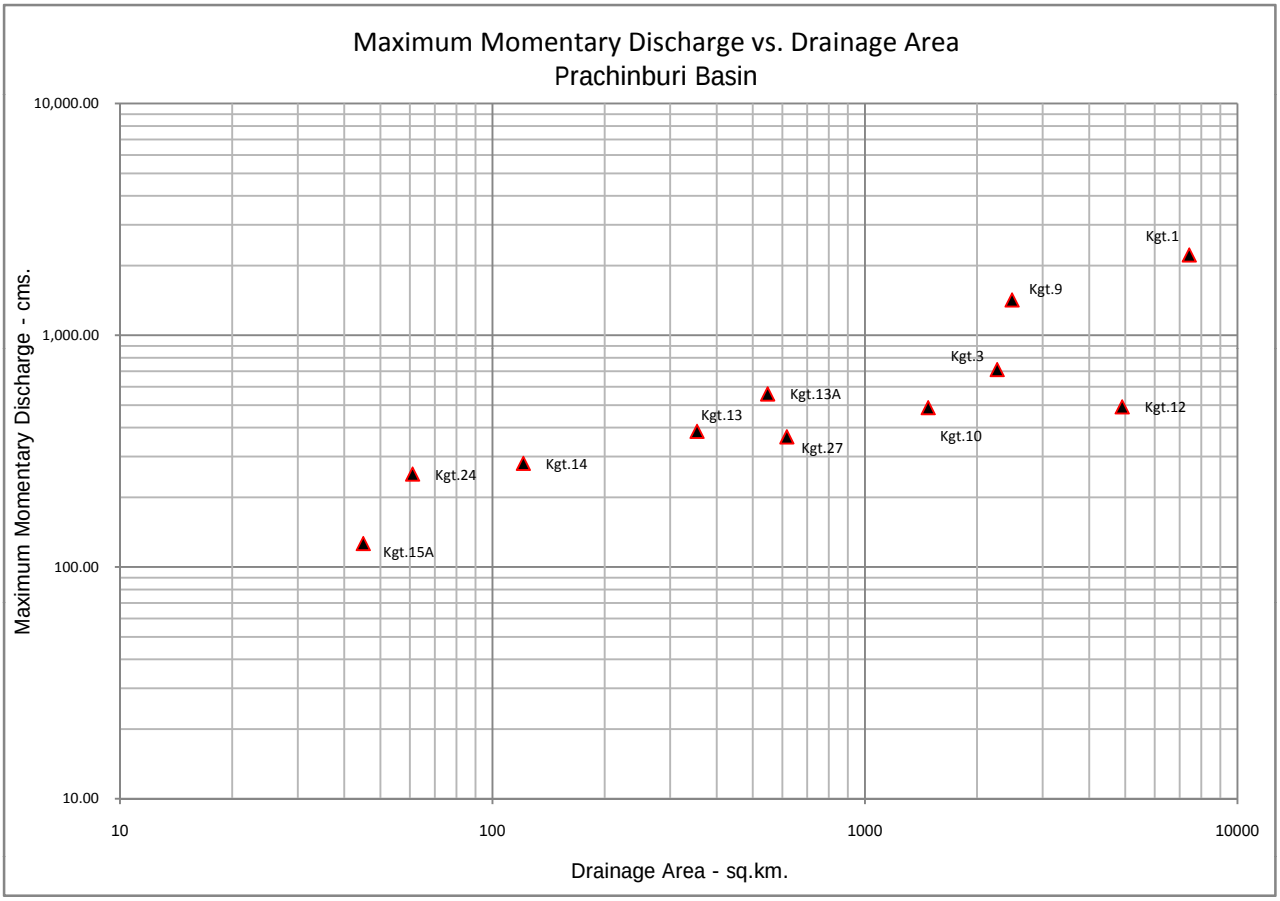

Maximum Momentary Discharge vs. Drainage Area
Chao Phraya Basin
Maximum Momentary Discharge - cms.
Drainagr Area - sq.km.
10,000
1,000
100
100
1,000
10,000
100,000
1,000,000
C.1
C.2
C.13
C.3
C.30

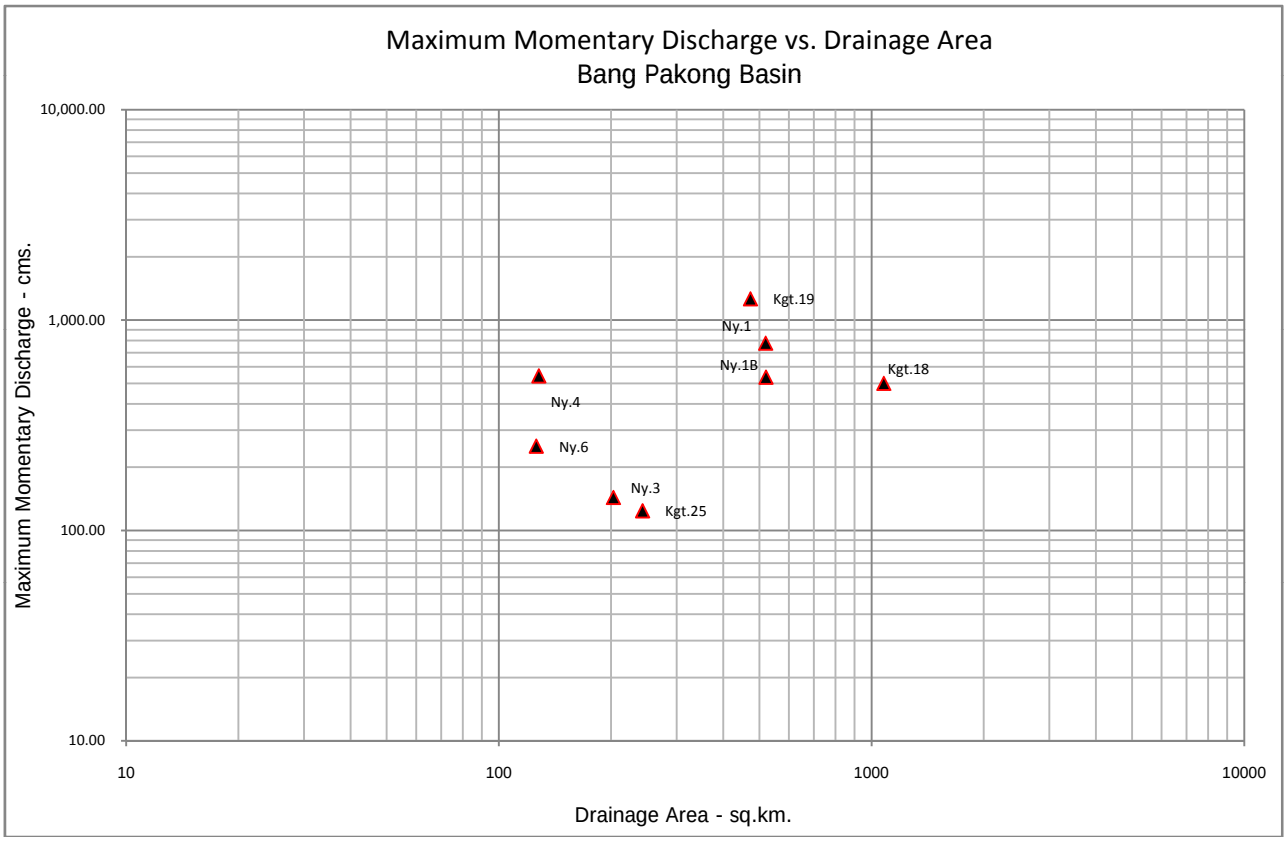

Maximum Momentary Discharge vs. Drainage Area
Sakae Krang Basin
Maximum Momentary Discharge - cms.
10,000
1,000
100
100
1,000
10,000
Drainagr Area - sq.km.
CT.5B
CT.7
CT.5A
CT.4
CT.9

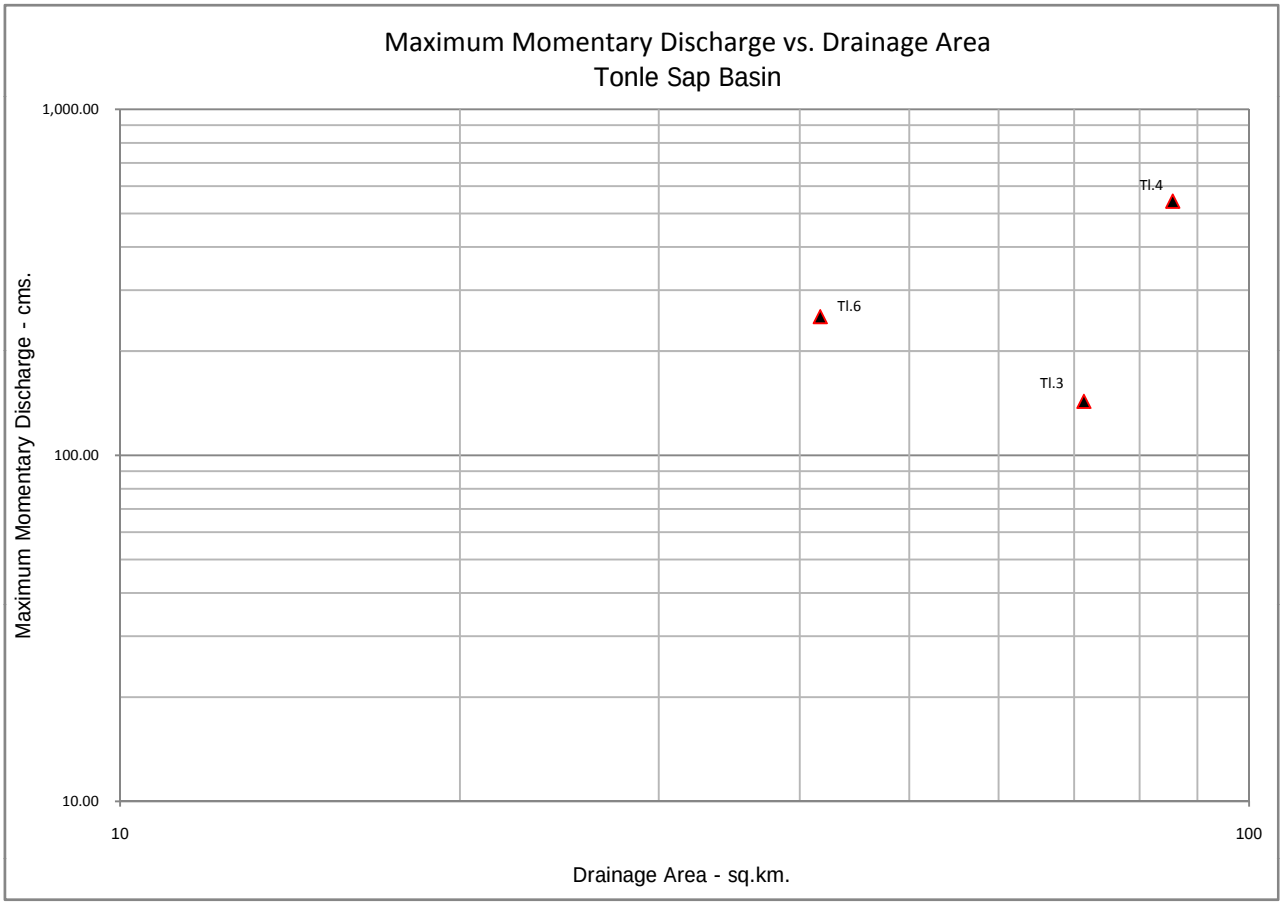

Maximum Momentary Discharge vs. Drainage Area
Pasak Basin
Maximum Momentary Discharge - cms.
10,000
1,000
100
10
10
100
1,000
10,000
100,000
Drainagr Area - Sq.Km.
S.9
S.2
S.26
S.36
S.10
S.12
S.33
S.17
S.7
S.13
S.3
S.14
S.31
S.4B
S.16

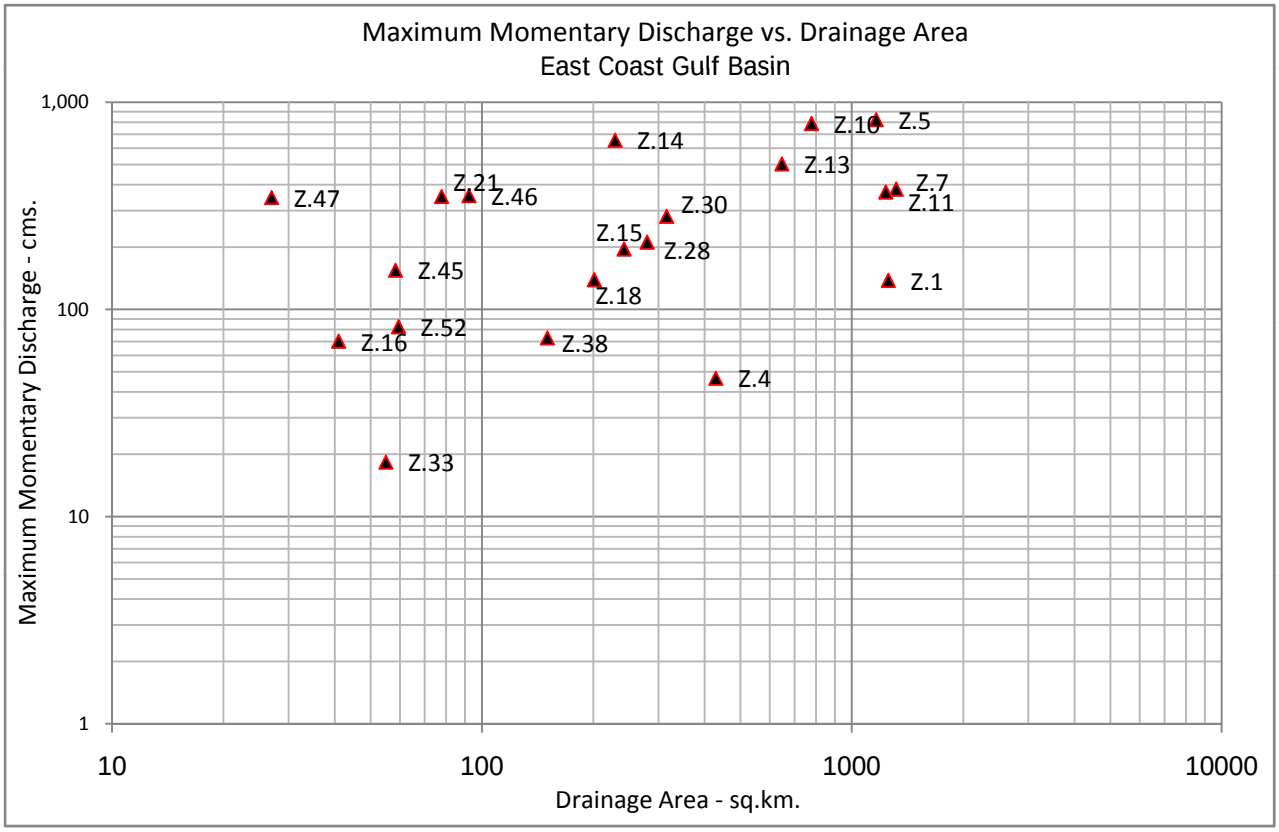

Maximum Momentary Discharge vs. Drainage Area
Tha Chin Basin
Maximum Momentary Discharge - cms.
1,000
100
100
1,000
10,000
Drainage Area - sq.km.
T.7
T.11
T.12A
T.3
T.3B
T.6

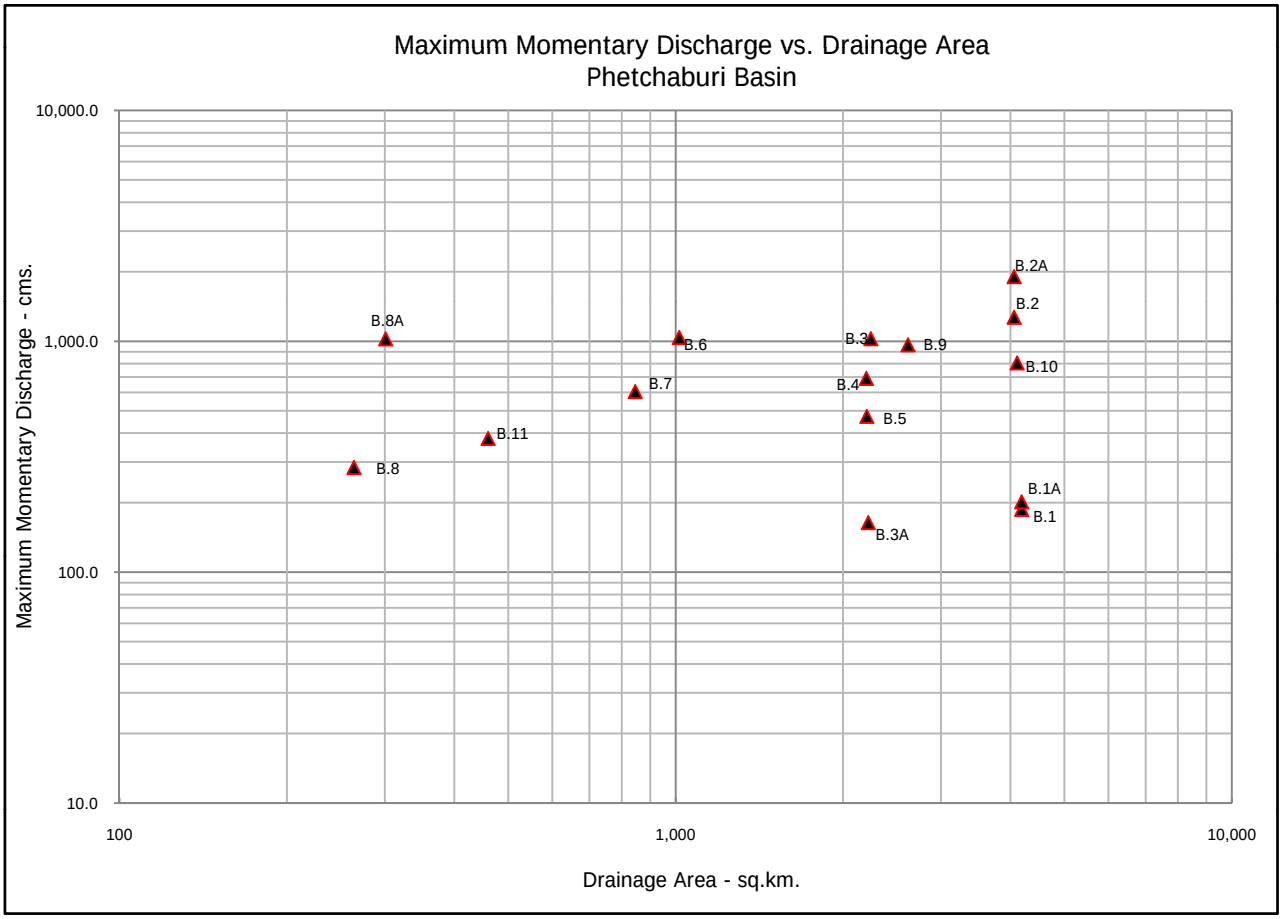

Maximum Momentary Discharge vs. Drainage Area
Mae Klong Basin
Maximum Momentary Discharge - cms.
10,000
1,000
100
10
10
100
1,000
10,000
100,000
Drainage Area - sq.km.
K.4
K.13
K.9
K.11
K.11A
K.10
K.37
K.6
K.8
K.19
K.20
K.53
K.17
K.22B
K.31
K.58
K.54
K.12
K.35A
K.36
K.61
K.35
K.28
K.30
K.26
K.25A
K.25
K.32A
K.62
K.27
K.22A
K.43
K.59
K.22
K.29
K.49
K.38
K.60
K.39
K.38A
K.50

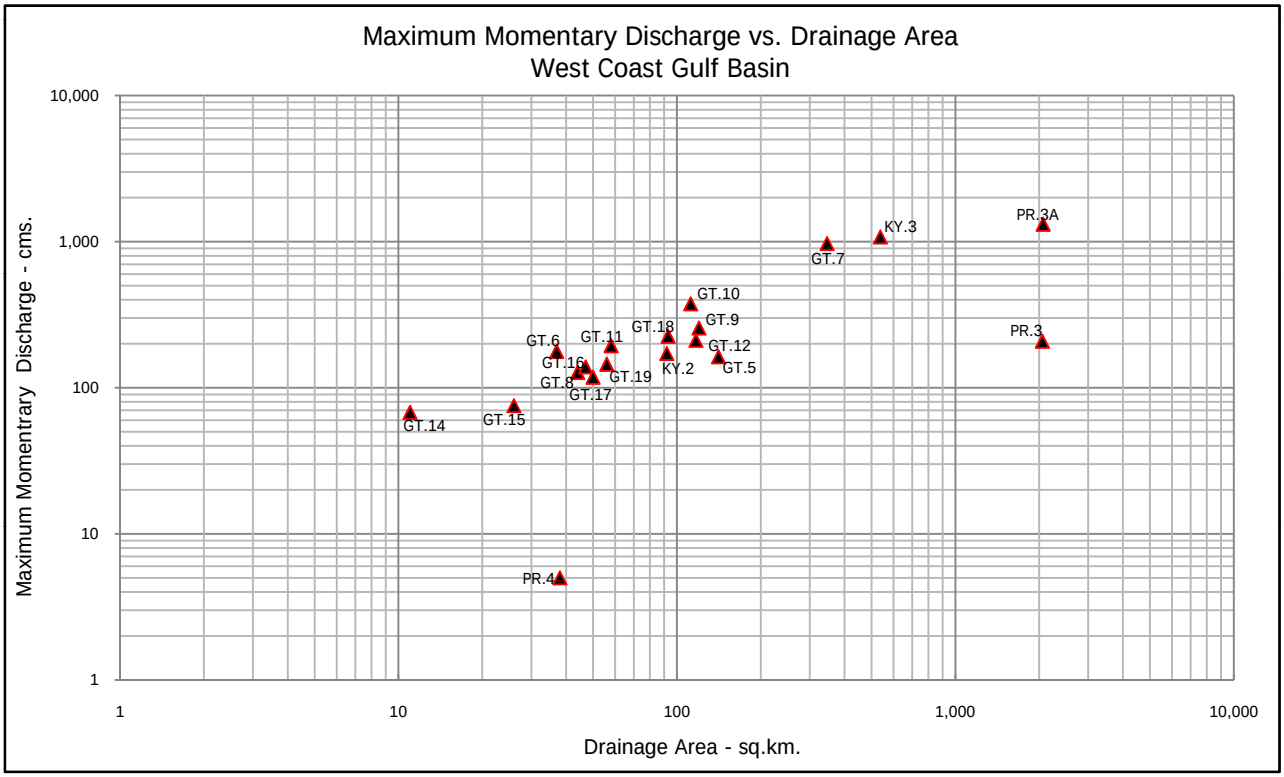

Maximum Momentary Discharge vs. Drainage Area
Prachinburi Basin
Maximum Momentary Discharge - cms.
10,000.00
1,000.00
100.00
10.00
10
100
1000
10000
Drainage Area - sq.km.
Kgt.1
Kgt.9
Kgt.3
Kgt.13A
Kgt.13
Kgt.12
Kgt.10
Kgt.27
Kgt.14
Kgt.24
Kgt.15A

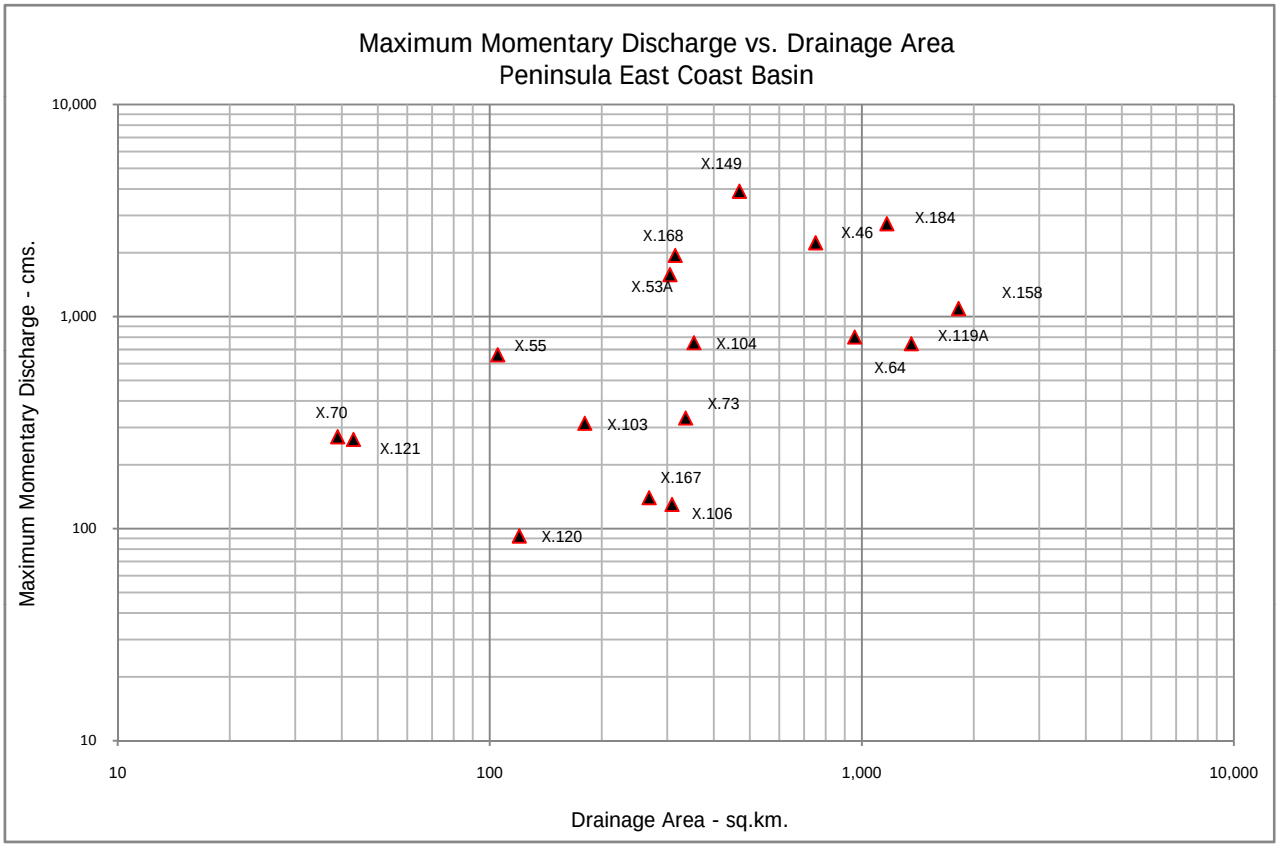

Maximum Momentary Discharge vs. Drainage Area
Bang Pakong Basin
Maximum Momentary Discharge - cms.
10,000.00
1,000.00
100.00
10.00
10
100
1000
10000
Drainage Area - sq.km.
Kgt.19
Ny.1
Ny.1B
Kgt.18
Ny.4
Ny.6
Ny.3
Kgt.25

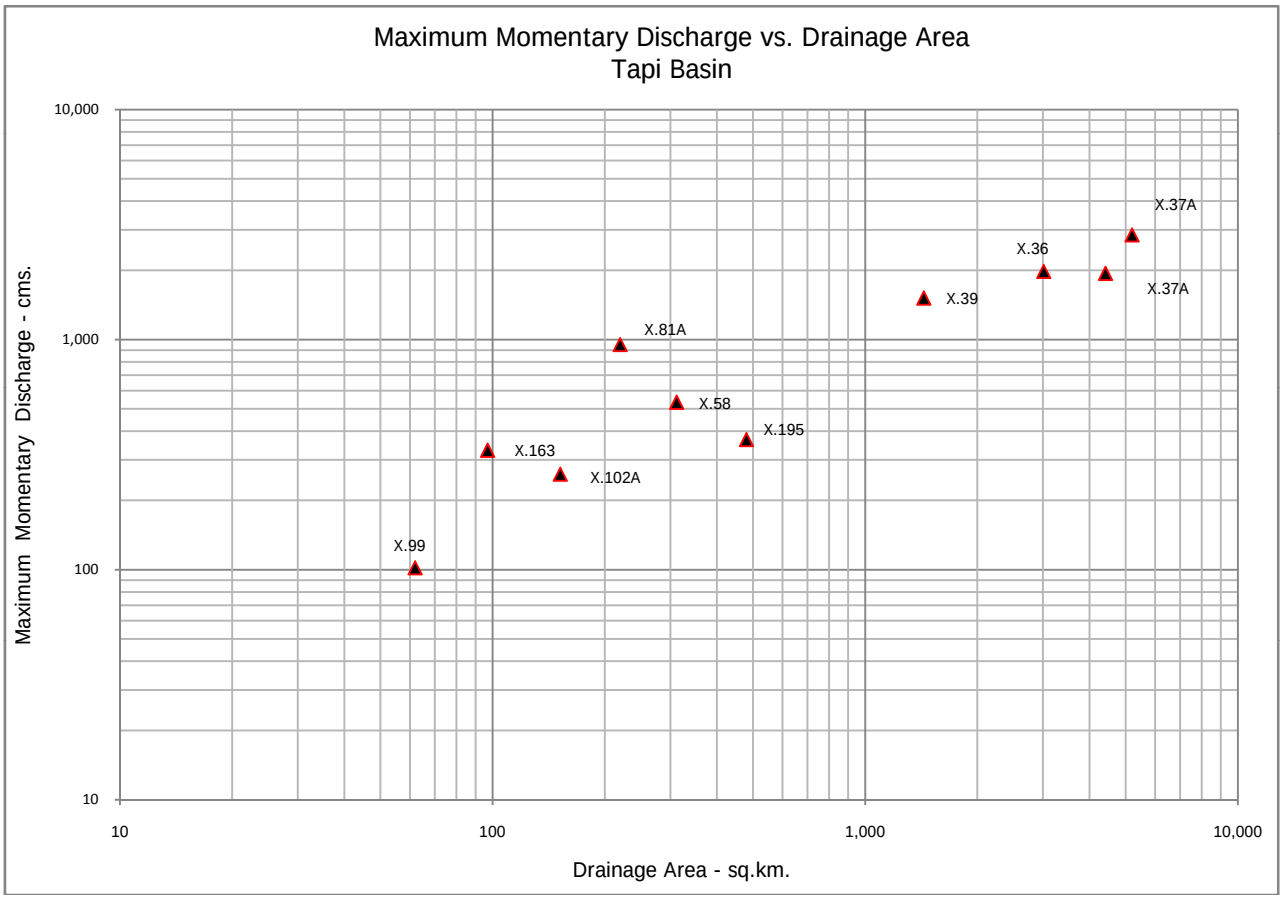

Maximum Momentary Discharge vs. Drainage Area
Tonle Sap Basin
1,000.00
100.00
10.00
10
100
Maximum Momentary Discharge - cms.
Drainage Area - sq.km.
Tl.4
Tl.6
Tl.3

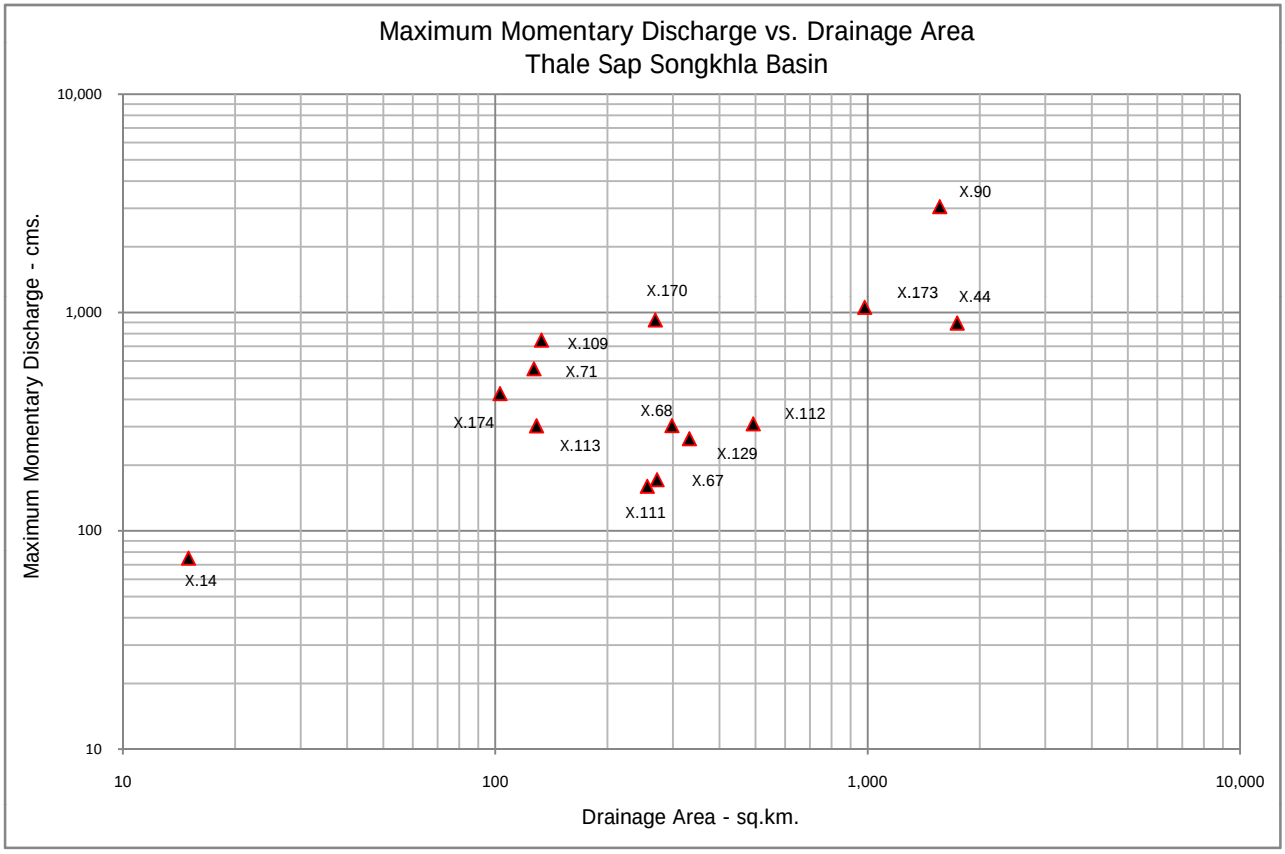

Maximum Momentary Discharge vs. Drainage Area
East Coast Gulf Basin
1,000
100
10
1
10
100
1000
10000
Maximum Momentary Discharge - cms.
Drainage Area - sq.km.
Z.10
Z.5
Z.14
Z.13
Z.7
Z.11
Z.47
Z.21
Z.46
Z.30
Z.15
Z.28
Z.45
Z.18
Z.1
Z.52
Z.16
Z.38
Z.4
Z.33

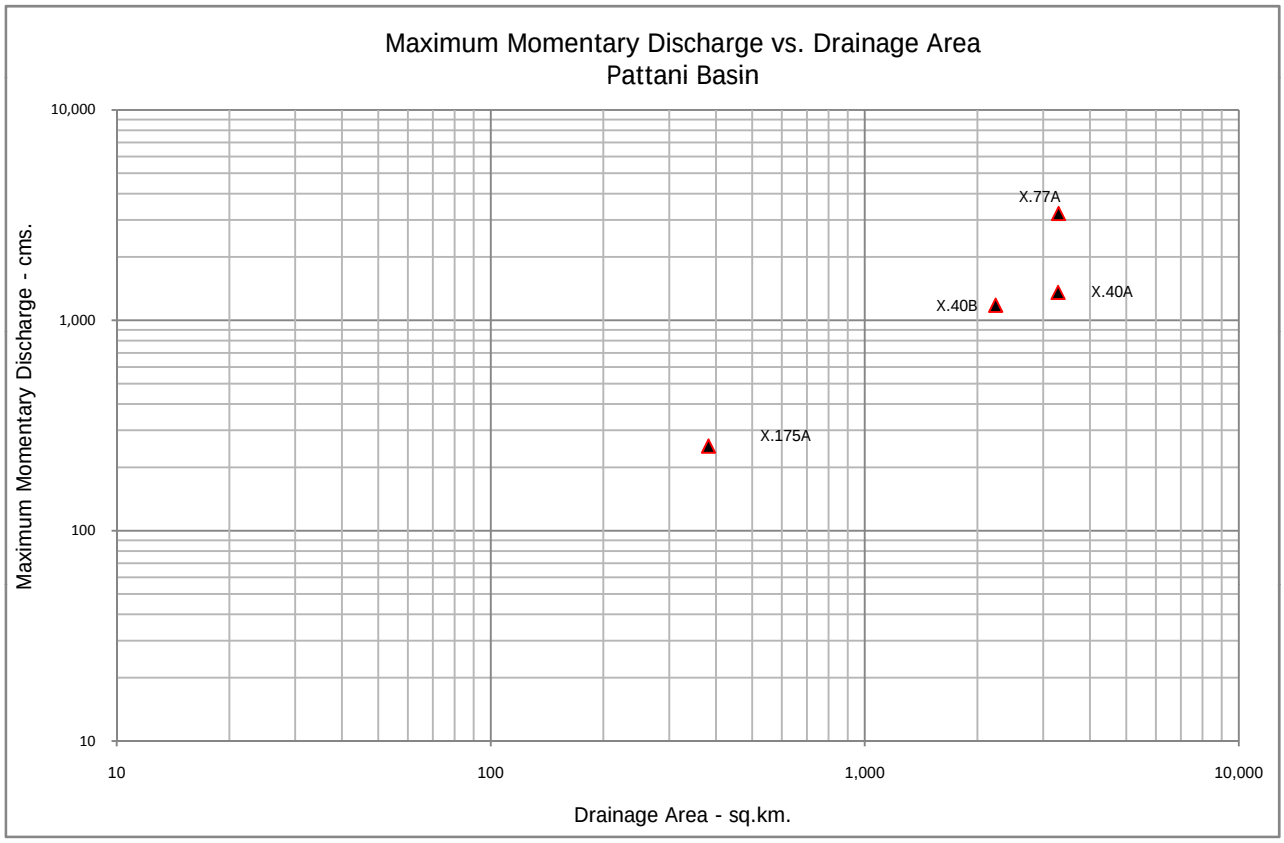

Maximum Momentary Discharge vs. Drainage Area
Phetchaburi Basin
Maximum Momentary Discharge - cms.
10,000.0
1,000.0
100.0
10.0
100
1,000
10,000
Drainage Area - sq.km.
B.2A
B.2
B.8A
B.6
B.3
B.9
B.10
B.7
B.4
B.5
B.11
B.8
B.1A
B.1
B.3A

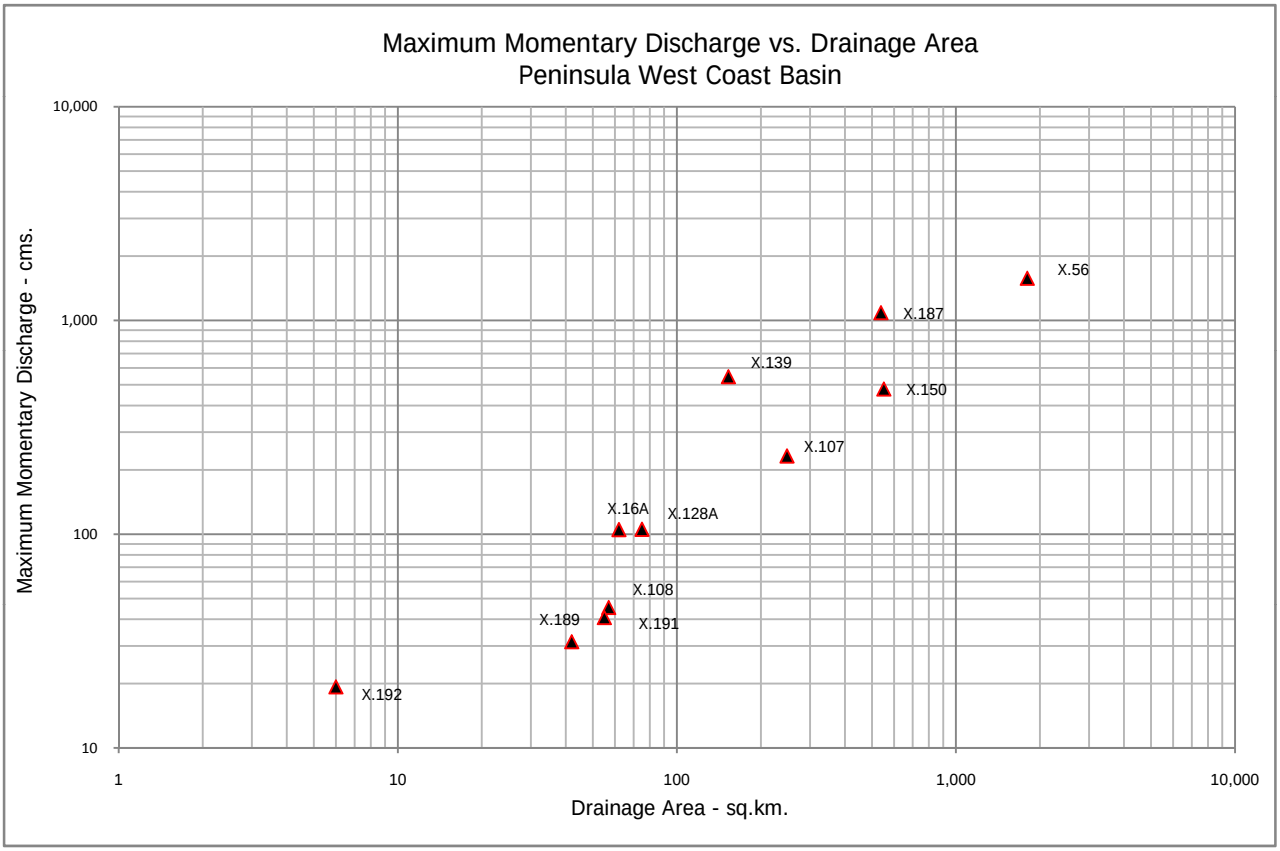

Maximum Momentary Discharge vs. Drainage Area
West Coast Gulf Basin
Maximum Momentrary Discharge - cms.
10,000
1,000
100
10
1
1
10
100
1,000
10,000
Drainage Area - sq.km.
PR.3A
KY.3
GT.7
GT.10
GT.9
GT.18
GT.11
GT.6
GT.12
PR.3
GT.16
GT.5
KY.2
GT.19
GT.8
GT.17
GT.14
GT.15
PR.4


Maximum Momentary Discharge vs. Drainage Area
Peninsula East Coast Basin
Maximum Momentary Discharge - cms.
Drainage Area - sq.km.
10,000
1,000
100
10
10
100
1,000
10,000
X.149
X.184
X.46
X.168
X.53A
X.158
X.119A
X.55
X.104
X.64
X.73
X.70
X.103
X.121
X.167
X.106
X.120


Maximum Momentary Discharge vs. Drainage Area
Tapi Basin
Maximum Momentary Discharge - cms.
Drainage Area - sq.km.
10,000
1,000
100
10
10
100
1,000
10,000
X.37A
X.36
X.37A
X.39
X.81A
X.58
X.195
X.163
X.102A
X.99


Maximum Momentary Discharge vs. Drainage Area
Thale Sap Songkhla Basin
Maximum Momentary Discharge - cms.
Drainage Area - sq.km.
10,000
1,000
100
10
10
100
1,000
10,000
X.90
X.170
X.173
X.44
X.109
X.71
X.174
X.68
X.112
X.113
X.129
X.67
X.111
X.14


Maximum Momentary Discharge vs. Drainage Area
Pattani Basin
Maximum Momentary Discharge - cms.
Drainage Area - sq.km.
10,000
1,000
100
10
10
100
1,000
10,000
X.77A
X.40A
X.40B
X.175A


Maximum Momentary Discharge vs. Drainage Area
Peninsula West Coast Basin
Maximum Momentary Discharge - cms.
10,000
1,000
100
10
1
10
100
1,000
10,000
Drainage Area - sq.km.
X.56
X.187
X.139
X.150
X.107
X.16A
X.128A
X.108
X.189
X.191
X.192