THAILAND

HYDROLOGICAL YEARBOOK

WATER YEAR 2002

VOLUME 45

Thailand

Hydrological Yearbook

Water Year 2002

Volume 45

Royal Irrigation Department

Hydrology Division

Office of Water Management and Hydrology

Bangkok

CONTENTS

			Page
CONTENTS			III
ILLUSTRATION OF STREAM GAUGING ACTIVITIES			XX
HYDROLOGICAL YEARBOOK PUBLICATION			XX
Introduction			XX
Definition of terms and abbreviations			XX
Order of listing of gauging data			XXI
Series of yearbook pubications			XXII
STANDARD OF STREAMFLOW DATA PROCUREMENT			XXIV
Network design			XXIV
Field work			XXIV
Office data processing			XXV
Future plan for computerization			XXVII
Organization			XXVII
PARTICIPATION IN STREAM GAUGING WORKS			XXIX
UNITS OF MEASURE AND CONVERSION FACTORS			XXX
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.63	Huai Nam Kam at Ban Dan Muang Kham, Sakon Nakhon	16
9	Kh.64A	Nam Kam at Ban Don Khao, Nakhon Phanom	18
10	Kh.68	Lam Nam Bang at Ban Sang Mek, Nakhon Phanom	20
11	Kh.69A	Lam Nam Kam at Ban Nong Rua Thong, Nakhon Phanom	22

12	Kh.72	Nam Mae Kham at Ban Mae Kham Lak Chet, Chiang Rai	24
13	Kh.74	Songkhram River at Ban Tha Huai Lua, Sakon Nakhon	26
14	Kh.75	Nam Man at Ban Hua Na Yung, Loei	28
15	Kh.77A	Nam Thop at Ban Kok So, Loei	30
16	Kh.78	Huai Nam Huai at Ban Nam Huai, Loei	32
17	Kh.79	Huai Bang I at Ban Nong O, Muk Dahan	34
18	Kh.84	Huai Sai at Ban Nong - ian Dong, Muk Dahan	36
19	Kh.89	Nam Mae Chan at Ban Hua Saphan, Chiang Rai	38
20	Kh.90	Lam Nam Phung at Ban Tong Khop, Sakon Nakhon	40
21	Kh.91	Huai Chanot at Ban Don Sawan, Nakhon Phanom	42
22	Kh.92	Huai Bang Sai at Ban Kan Luang Dong, Muk Dahan	44
23	Kh.93	Songkhram River at Ban Khok Kham Lai, Udon Thani	46
24	Kh.94	Nam Som at Ban Wang Lao, Udon Thani	48
25	Kh.95	Nam San at Ban Kaeng Hai, Loei	50
26	Kh.96	Huai Nam Khao Man at Ban Kaeng Laen, Loei	52
27	Kh.101	Huai Muk at Ban Kaen Tao, Mukdahan	54
28	Kh.102	Huai Nam Suai at Ban Pong Si Thon, Loei	56

NAM MAE ING BASIN

29	I.6	Nam Waen at Ban Nam Waen, Phayao	58
30	I.14	Nam Mae Ing at Ban Nam Ing, Chiang Rai	60

NAM MAE KOK BASIN

31	G.4	Nam Mae Kon at Ban Pang Rim Kon, Chiang Rai	62
32	G.8	Nam Mae Lao at Ban Ton Yang, Chiang Rai	64
33	G.9	Nam Mae Suai at Ban Kariang Thung Phrao, Chiang Rai	66

CHI RIVER BASIN

34	E.1	Chi River at Ban Kum Wat Tai Kosum, Maha Sarakham	68
35	E.5	Chi River at Ban Non Puai, Chaiyaphum	70
36	E.6C	Lam Pa Thao at Ban Tat Ton, Chaiyaphum	72
37	E.8A	Chi River at Ban Din Dam, Maha Sarakham	74
38	E.9	Chi River at Ban Chot, Khon Kaen	76
39	E.16A	Chi River at Ban Tha Phra, Khon Kaen	78
40	E.18	Chi River at Ban Tha Sa Bang, Roi Et	80
41	E.20A	Chi River at Maha Chana Chai, Yasothon	82

42	E.21	Chi River at Ban Kaeng Ko, Chaiyaphum	84
43	E.22A	Lam Nam Phong at Ban Tha Mao , Khon Kaen	86
44	E.23	Chi River at Ban Khai, Chaiyaphum	88
45	E.26	Lam Phan at Ban Hua Khua, Kalasin	90
46	E.29	Lam Nam Phong at Ban Pha Nok Khao, Loei	92
47	E.32A	Chi River at Ban Nong O, Chiyaphum	94
48	E.49B	Lam Chi Long at Ban Lup Pho, Chaiyaphum	96
49	E.54	Nam Yang at Ban Kaeng Yao, Kalasin	98
50	E.57	Nam Yang at Ban Kut Chim Khum Mai, Kalasin	100
51	E.64	Lam Phaniang at Ban Na Klang, Nong Bua Lamphu	102
52	E.65	Lam Pao at Ban Tha Hai, Udon Thani	104
53	E.66A	Chi River at Ban Muang Lat, Roi Et	106
54	E.67	Lam Phan Chat at Ban Tha Ngam, Kalasin	108
55	E.68A	Lam Phaniang at Ban Khong Po, Nong Bua Lamphu	110
56	E.70	Lam Nam Yang at Ban Kut Kwang, Roi Et	112
57	E.72	Lam Chiang at Ban Chiang, Chaiyaphum	114
58	E.73	Lam Chao at Ban Wang Taku, Chaiyaphum	116
59	E.75	Lam Pao at Ban Nong Muang, Kalasin	118
60	E.76A	Huai Sang Ka at Ban Phon, Kalasin	120
61	E.77	Huai Prong Khunphet at Ban Prong Nok, Chaiyaphum	122

MUN RIVER BASIN

62	M.2A	Mun River at Ban Dan Taka, Nakhon Ratchasima	124
63	M.5	Mun River at Ban Mueang Kong, Si Sa Ket	126
64	M.7	Mun River at Ban Chumchondeengam, Ubon Ratchathani	128
65	M.8	Lam Plai Mat at Lam Plai Mat, Buri Ram	130
66	M.9	Huai Samran at Ban Nongyaplong, Si Sa ket	132
67	M.26	Lam Chi at Ban Kho Kho, Surin	134
68	M.32	Lam Se Bai at Ban Chiang Pheng, Yasothon	136
69	M.42	Huai Thap Than at Ban Huai Thap Than, Si Sa Ket	138
70	M.43A	Lam Takhong at Ban Tha Maprang, Nakhon Ratchasima	140
71	M.50	Lam Sae at Ban Khon Buri, Nakhon Ratchasima	142
72	M.66	Huai Khayung at Ban Wang Chom Pu, Si Sa Ket	144
73	M.85	Lam Chi at Ban Charok Yai, Buri Ram	146
74	M.89	Lam Takhong at Vaccine Serum Office, Nakhon Ratchasima	148

75	M.91	Huai Samran at Ban Thai Thaworn, Si Sa Ket	150
76	M.98	Huai Tha at Ban Phayu, Si Sa Ket	152
77	M.104	Mun River at Ban Wang Prat, Buri Ram	154
78	M.110	Huai Tunglung at Ban Don Yai, Ubon Ratchathani	156
79	M.112	Huai Takhong at Ban Khok Yai, Buri Ram	158
80	M.127	Huai Ta Thieo at Ban Na Hai, Ubon Ratchathani	160
81	M.134	Huai Hin Lap at Ban Hin Lap, Nakhon Ratchasima	162
82	M.137	Huai Nua at Ban Raka, Si Sa Ket	164
83	M.142	Huai Khayung at Ban Don - ao, Si Sa Ket	166
84	M.143	Huai Sang Kot at Ban Nong Yai, Si Sa Ket	168
85	M.144A	Huai Tha at Ban Tamnak Sai, Si Sa Ket	170
86	M.145	Lam Phra Phloeng at Ban Wang Takian Thong, Nakhon Ratchasima	172
87	M.151	Mun River at Ban Kra Bueang Noi, Nakhon Ratchasima	174
88	M.152	Huai Bon at Ban Phon Thong, Ubon Ratchathani	176
89	M.153	Lam Dom Yai at Ban Kut Chiang Mun, Ubon Ratchathani	178
90	M.154	Huai Luang at Ban Na Chaluai, Ubon Ratchathani	180
91	M.155	Huai La - ong at Ban Na Phu, Amnart Charoen	182
92	M.156	Huai Ban at Ban Na Phu, Amnart Charoen	184
93	M.157	Huai Lam Phong at Ban Nikhom, Yasothon	186
94	M.159	Lam Chi at Ban Lum Din, Surin	188
95	M.173	Mun River at Ban Non Sa - at, Nakhon Ratchasima	190
96	M.176	Huai Khayung at Ban Non Si Khlai, Si Sa Ket	192
97	M.177	Lam Ta Khong at Ban Lat Bua Khaow, Nakhon Ratchasima	194
98	M.180	Lam Phra Phloeng at Ban Tha Yiam, Nakhon Ratchasima	196

PING RIVER BASIN

99	P.1	Ping River at Nawarat Bridge, Chiang Mai	198
100	P.2A	Ping River at Ban Tha Khae, Tak	200
101	P.4A	Nam Mae Taeng at Ban Mae Taeng, Chiang Mai	202
102	P.7A	Ping River at Ban Huai Yang, Kamphaeng Phet	204
103	P.12C	Ping River at Ban Yanree, Tak	206
104	P.14	Nam Mae Chaem at Kaeng Ob Luang, Chiang Mai	208
105	P.15	Ping River at Wat Sri Phirom, Kamphaeng Phet	210
106	P.16	Ping River at Ban San Tor, Kamphaeng Phet	212
107	P.17	Ping River at Ban Tha Ngiu, Nakhon Sawan	214

108	P.20	Ping River at Ban Chiang Dao, Chiang Mai	216
109	P.21	Nam Mae Rim at Ban Mae Rim Tai, Chiang Mai	218
110	P.24A	Nam Mae Klang at Pracha Uthit Bridge, Chiang Mai	220
111	P.26A	Khlong Suan Mak at Ban Mai, Kamphaeng Phet	222
112	P.47	Khlong Suan Mak at Ban Pong Nam Ron, Kamphaeng Phet	224
113	P.50A	Khlong Wang Chao at Ban Thai Tawee, Kamphaeng Phet	226
114	P.52	Huai Tak at Ban Tak,Tak	228
115	P.56A	Nam Mae Ngat at Ban Sahakorn Romklao, Chiang Mai	230
116	P.64	Nam Mae Tun at Ban Luang, Chiang Mai	232
117	P.67	Ping River at Ban Mae Tae, Chiang Mai	234
118	P.71	Nam Mae Khan at Ban Klang , Chiang Mai	236
119	P.73	Ping River at Ban Sop Soi, Chiang Mai	238
120	P.75	Ping River at Ban Cho Lae, Chiang Mai	240
121	P.76	Nam Mae Li at Ban Mae E - Hai, Lamphun	242
122	P.77	Nam Mae Tha at Ban Sop Mae Sapuad, Lamphun	244
123	P.79	Nam Mae Kuang at Ban Mae Wan, Chiang Mai	246
124	P.80	Nam Mae Lai at Ban Pong Din, Chiang Mai	248
125	P.81	Nam Mae Kuang at Ban Pong, Chiang Mai	250

WANG RIVER BASIN

126	W.3A	Wang River at Ban Don Chai, Lampang	252
127	W.4A	Wang River at Ban Wang Man,Tak	254
128	W.16A	Wang River at Ban Hai, Lampang	256
129	W.17	Nam Mae Soi at Ban Nong Nao, Lampang	258
130	W.20	Nam Mae Tui at Ban Tha Lo, Lampang	260
131	W.21	Wang River at Ban Tha Dua, Lampang	262
132	W.22	Nam Mae Chang at Ban Wang Phrao, Lampang	264
133	W.23	Wang River at Ban Chiang Rai, Tak	266

YOM RIVER BASIN

134	Y.1C	Yom River at Ban Nam Khong, Phrae	268
135	Y.3A	Yom River at Ban Wang Mai Khon, Sukhothai	270
136	Y.6	Yom River at Ban Kaeng Luang, Sukhothai	272
137	Y.13A	Nam Ngao at Ban Luang Nua , Lampang	274
138	Y.14	Yom River at Ban Don Rabiang, Sukhothai	276
139	Y.16	Yom River at Ban Bang Rakam, Phitsanulok	278

140	Y.17	Yom River at Ban Sam Ngam, Phichit	280
141	Y.20	Yom River at Ban Huai Sak, Phrae	282
142	Y.21	Yom River at Ban Na Pla Kang , Sukhothai	284
143	Y.24	Nam Pi at Ban Mang, Phayao	286
144	Y.25	Nam Mae Suat at Ban Pa Wai Mai, Nan	288
145	Y.26	Huai Mae Mok at Ban Mae Phu , Lampang	290
146	Y.27	Huai Mae Phuak at Ban Pak Phuak, Phrae	292
147	Y.30	Huai Pong at Ban Pong, Lampang	294
148	Y.31	Yom River at Ban Thung Nong, Phayao	296
149	Y.33	Yom River at Ban Khlong Tan, Sukhothai	298
150	Y.34	Nam Mae Lai at Ban Mae Lai , Phrae	300
151	Y.36	Nam Khuan at Ban Pa Kha, Phayao	302
152	Y.37	Yom River at Ban Wang Chin, Phrae	304
153	Y.38	Nam Mae Kham Mi at Ban Mae Kham Mi Tamnak Tham, Phrae	306
154	Y.40	Yom River at Ban Bang Klan, Phichit	308

NAN RIVER BASIN

155	N.1	Nan River at Forestry Office, Nan	310
156	N.5A	Nan River at Mueang, Phitsanulok	312
157	N.7A	Nan River at Ban Rat Chang Khwan, Phichit	314
158	N.8A	Nan River at Ban Hor Krai, Phichit	316
159	N.10A	Nan River at Ban Taphan Hin, Phichit	318
160	N.12A	Nan River at Ban Hat Phai, Uttaradit	320
161	N.13A	Nan River at Ban Bun Nak, Nan	322
162	N.14A	Nan River at Wat Luang Pho Kaeo, Nakhon Sawan	324
163	N.22	Khwae Noi River at Ban Yang, Phitsanulok	326
164	N.24	Khek River at Ban Wang Nok Aen , Phitsanulok	328
165	N.27A	Nan River at Ban Nong Kham, Phitsanulok	330
166	N.36	Nam Khwae Noi at Ban Nong Krathao, Phitsanulok	332
167	N.40	Khwae Noi River at Ban Nong Bon, Phitsanulok	334
168	N.42	Nam Wa at Ban Hat Khao San, Nan	336
169	N.49	Nam Yao at Ban Nam Yao, Nan	338
170	N.54	Khlong Wang Pong at Ban Wang Pong, Phetchabun	340
171	N.55	Nam Phak at Ban Tha Sakae, Phitsanulok	342
172	N.58	Nam Fua at Ban Nam Fua, Phitsanulok	344

173	N.59	Lam Nam Khan at Ban Na Pho Na Chan, Phitsanulok	346
174	N.60	Nan River at Ban Hat Song Khwae, Uttaradit	348
175	N.62	Huai Nam Khlung at Ban Huai Tha Nua, Phitsanulok	350
176	N.63	Nam Haeng at Ban Hua Mueang, Nan	352
177	N.64	Nan River at Ban Pha Khwang, Nan	354
178	N.65	Nam Yao at Ban Pang Sa, Nan	356
179	N.66	Huai Om Sing at Ban Noen Phoem, Phitsanulok	358
180	N.67	Nan River at Ban Koei Chai, Nakhon Sawan	360
181	N.69	Khwae Noi River at Ban Na Thung Yai, Phitsanulok	362
182	N.70	Huai Nam Kup River at Ban Khok Phakwan, Phitsanulok	364
183	N.73	Khek River at Ban Tan Tawan, Phetchabun	366
184	N.74	Nan River at Bang Krathum, Phitsanulok	368

CHAO PHRAYA RIVER BASIN

185	C.2	Chao Phraya River at Khai Chira Prawat, Nakhon Sawan	370
186	C.3	Chao Phraya River at Ban Bang Phutsa, Sing Buri	372
187	C.13	Chao Phraya River at Ban Bang Luang, Chai Nat	374
188	C.30	Huai Khun Kaeo at Ban Samo Thong, Uthai Thani	376
189	C.36	Khlong Bang Luang at Ban Bang Luang Dod, Phra Nakhon Si Ayutthaya	378
190	C.37	Khlong Bang Ban at Ban Bang Ban, Phra Nakhon Si Ayutthaya	380

SAKAE KRANG RIVER BASIN

191	Ct.4	Nam Mae Wong at Ban San Chao Kai To, Nakhon Sawan (Ct.4)	382
192	Ct.5A	Nam Mae Wong at Ban Pang Makha, Kamphaeng Phet	384
193	Ct.5B	Nam Mae Wong at Ban Khao Chon Kan, Nakhon Sawan	386
194	Ct.7	Khlong Pho at Ban Mai Khlong Charoen, Nakhon Sawan	388
195	Ct.8	Khwae Tak Daet at Ban Khok Mo, Uthai Thani	390
196	Ct.9	Huai Thap Salao at Ban Bung Ai Chiam, Uthai Thani	392
197	Ct.19	Huai Tak Daet at Ban Tak Daet, Uthai Thani	394
198	Ct.20	Huai Thap Salao at Ban Saphan Leak, Uthai Thani	396

PASAK RIVER BASIN

199	S.2	Pasak River at Ban Kaeng Khoi, Saraburi	398
200	S.3	Pasak River at Ban Tan Dieo, Phetchabun	400
201	S.9	Pasak River at Ban Pa, Saraburi	402
202	S.12	Lam Kong at Ban Tha Lao, Phetchabun	404

203	S.13	Lam Sonthi at Ban Tha Yiam, Lop Buri	406
204	S.14	Lam Sonthi at Ban Tha Ruak , Lop Buri	408
205	S.33	Pasak River at Ban Tha Hi Yong, Phetchabun	410
206	S.34	Pasak River at Ban Lam Takhro, Phetchabun	412
207	S.36	Pasak River at Ban Non Thong, Phetchabun	414
208	S.39	Pasak River at Ban Bua Chum, Lop Buri	416

MAE KLONG RIVER BASIN

209	K.10	Khwae Noi River at Ban Lum Sum , Kanchanaburi	418
210	K.12	Lam Ta Phoen at Ban Thung Na Nang Rok, Kanchanaburi	420
211	K.17	Lam Phachi at Ban Bo, Ratchaburi	422
212	K.22B	Huai Mae Nam Noi at Ban Sai Yok, Kanchanaburi	424
213	K.25A	Huai Tha Khoei at Ban Kha, Ratchaburi	426
214	K.30	Huai Mae Nam Lo at Ban Sai Yok, Kanchanaburi	428
215	K.31	Huai Mae Nam Noi at Ban Nam Chon, Kanchanaburi	430
216	K.32A	Huai Bong Ti at Ban Bong Ti, Kanchanaburi	432
217	K.35A	Khwae Yai River at Ban Nong Bua, Kanchanaburi	434
218	K.36	Khwae Yai River at Ban Tha Manao, Kanchanaburi	436
219	K.37	Khwae Noi River at Ban Wang Yen, Kanchanaburi	438
220	K.38A	Huai Lin Thin at Ban Nong Bang, Kanchanaburi	440
221	K.39	Huai Ong Thi at Ban Ong Thi, Kanchanaburi	442
222	K.49	Lam Taphoen at Ban Yang Sung, Kanchanaburi	444
223	K.50	Huai Diso at Ban Hin Laem, Kanchanaburi	446
224	K.53	Huai Mae Kraban at Ban Si Mong Khon, Kanchanaburi	448
225	K.54	Khwae Noi River at Ban Lin Thin, Kanchanaburi	450
226	K.59	Lam Pha Chi at Ban Chorrakne Phuak, Kanchanaburi	452
227	K.60	Huai Kui Mang at Ban Kui Mang, Kanchanaburi	454

PRACHIN BURI RIVER BASIN

228	Kgt.3	Prachin Buri River at Ban Kabin Buri, Prachin Buri	456
229	Kgt.9	Khlong Phra Sathung at Ban Khao Chakan, Sa Kaeo	458
230	Kgt.10	Khlong Phra Sathung at Ban Wang Khian, Sa Kaeo	460
231	Kgt.12	Khlong Phra Prong at Ban Kaeng, Sa Kaeo	462
232	Kgt.13A	Khlong Phra Prong at Ban Non Suk Phum , Prachin Buri	464
233	Kgt.14	Khlong Yang at Ban Thung Faek, Prachin Buri	466
234	Kgt.15A	Huai Samong at Ban Kaeng Din So, Prachin Buri	468

235	Kgt.18	Khlong Si Yat at Ban Tha Kloi, Chachoengsao	470
236	Kgt.19	Khlong Luang at Ban Khao Nom Nang, Chon Buri	472
237	Kgt.33	Khwae Nam Sai at Ban Saphan Hin, Prachin Buri	474

BANG PAKONG RIVER BASIN

238	Ny.1B	Nakhon Nayok River at Ban Khao Nang Buat, Nakhon Nayok	476
239	Ny.3	Lower Khlong Ban Na at Ban Pa Kha, Nakhon Nayok	478
240	Ny.4	Khlong Samo Pun at Ban Noen Hom, Prachin Buri	480
241	Ny.6	Upper Khlong Ban Na at Ban Cha Om, Saraburi	482

TONLE SAP BASIN

242	Tl.3	Khlong Phra Phut at Ban Pang Ngon, Chanthaburi	484
243	Tl.4	Khlong Ta Kong at Ban Khlong Ta Kong, Chanthaburi	486

EAST COAST-GULF BASIN

244	Z.10	Khlong Yai at Ban Si Bua Thong, Trat	488
245	Z.11	Khlong Prasae at Ban Khao Chik, Rayong	490
246	Z.14	Khlong Phayat at Ban Chaman, Chanthaburi	492
247	Z.15	Khlong Yai at Ban Pak Phraek, Rayong	494
248	Z.21	Khlong Hin Dat at Ban Pong Rong Sen, Chanthaburi	496
249	Z.28	Upper Khlong Tanot at Ban Khun Song, Chanthaburi	498
250	Z.38	Khlong Thapma at Ban Khao Bot , Rayong	500
251	Z.46	Khlong Sano at Ban Nonthee, Trat	502
252	Z.47	Khlong Chanthi at Ban Khlong Khwang , Trat	504

PHETCHABURI RIVER BASIN

253	B.6	Huai Mae Prachan at Ban Sa Yai Non, Phetchaburi	506
254	B.8	Huai Phak at Ban Kariang, Phetchaburi	508
255	B.10	Phetchaburi River at Ban Tha Yang, Phetchaburi	510
256	B.11	Huai Mae Prachan at Ban Cha Prong , Phetchaburi	512

WEST COAST-GULF BASIN

257	Gt.7	Khlong Bang Saphan Yai at Ban Wang Yao, Prachuap Khiri Khan	514
258	Gt.8	Khlong Wa Thon at Ban Rai Khlong, Prachuap Khiri Khan	516
259	Gt.9	Khlong Thap Sakae at Ban Klang, Prachuap Khiri Khan	518
260	Gt.10	Khlong Krut at Ban Nong Ya Plong, Prachuap Khiri Khan	520
261	Gt.11	Khlong Yai at Ban Chang Laek, Prachuap Khiri Khan	522
262	Gt.16	Khlong Hin Chuang at Ban Hin Chuang , Prachuap Khiri Khan	524

263	Gt.17	Huai Yang at Ban Huai Yang, Prachuap Khiri Khan	526
264	Gt.18	Khlong Cha Kra at Ban Cha Kra Bon, Prachuap Khiri Khan	528
265	Gt.19	Khlong Ang Thong at Ban Ang Thong , Prachuap Khiri Khan	530

KHLONG KUI RIVER BASIN

266	Ky.3	Kui Buri River at Ban Thung Faek , Prachuap Khiri Khan	532

SOUTHERN PENINSULA EAST COAST

267	X.46	Khlong Rap Ro at Ban Tha Kham, Chumphon	534
268	X.53A	Khlong Chumphon at Ban Wang Phai, Chumphon	536
269	X.55	Khlong Tha Di at Ban Tha Yai, Nakhon Si Thammarat	538
270	X.64	Khlong Tha Sae at Ban Tha Sae, Chumphon	540
271	X.70	Khlong Ban Tan at Ban Wang Kong, Nakhon Si Thammarat	542
272	X.81A	Khlong Chawang at Ban Na San, Surat Thani	544
273	X.103	Khlong Takhian at Ban Nai Thon, Surat Thani	546
274	X.104	Khlong Tha Krachai at Ban Tha Kham, Surat Thani	548
275	X.105	Khlong Mai Siap at Ban Mai Siap, Nakhon Si Thammarat	550
276	X.106	Khlong Chaiya at Ban Phanang, Surat Thani	552
277	X.111	Khlong Sadao at Ban Sai, Songkhla	554
278	X.121	Khlong Waeng at Ban Kho Lo, Narathiwat	556
279	X.129	Khlong Ai To at Ban Ai To, Phatthalung	558
280	X.149	Khlong Klai at Ban Hua Na , Nakhon Si Thammarat	560
281	X.158	Khlong Tha Taphao at Ban Wang Khrok, Chumphon	562
282	X.159	Khlong To Daeng at Ban Kwa Ro Krung, Narathiwat	564
283	X.163	Khlong Chandi at Ban Manao Wan, Nakhon Si Thammarat	566
284	X.165	Khlong Nai Khieo at Ban Thon Hong, Nakhon Si Thammarat	568
285	X.167	Khlong Sao Thong at Ban Sao Thong, Nakhon Si Thammarat	570
286	X.168	Khlong The Pha at Ban Kabang, Yala	572
287	X.171	Khlong Wang Muang Yang at Ban Pa Ye, Narathiwat	574
288	X.172	Khlong Sadao at Ban Huai Khu, Songkhla	576
289	X.175	Khlong Yaha at Yaha, Yala	578
290	X.182	Khlong To Daeng at Ban To Daeng, Narathiwat	580
291	X.183	Khlong Pa Se Mat at Ban Ko Ti Mung, Narathiwat	582
292	X.184	Sai Buri River at Ban Sakor, Narathiwat	584
293	X.199	Sai Buri River at Ban Tha Rua, Narathiwat	586
294	X.203	Khlong Thadee at Ban Na Pa, Nakhon Si Thammarat	588

295	X.214	Lower Khlong Lamae at Ban Thung Luang , Chumphon	590
296	X.215	Upper Khlong Lamae at Ban Yan Sai, Chumphon	592

TAPI RIVER BASIN

297	X.36	Khlong Phum Duang at Ban Tha Khanon, Surat Thani	594
298	X.37A	Tapi River at Ban Yan Din Daeng, Surat Thani	596
299	X.195	Tapi River at Ban Tha Pho, Nakhon Si Thammarat	598

THALE SAP SONGKHLA BASIN

300	X.44	Khlong U - Taphao at Ban Hat Yai Nai, Songkhla	600
301	X.67	Khlong Ratthaphum at Ban Kamphaeng Phet, Songkhla	602
302	X.68	Khlong Tha Khae at Ban Tha Khae, Phatthalung	604
303	X.90	Khlong U - Taphao at Ban Bang Sala, Songkhla	606
304	X.109	Khlong Bang Kaeo at Ban Khuan In No Mo , Phutthalung	608
305	X.113	Khlong La Pang at Ban Thung Prap, Songkhla	610
306	X.170	Khlong Lam at Ban Khlong Lam, Phatthalung	612
307	X.173	Khlong U - Taphao at Ban Khlong Ngae, Songkhla	614

PATTANI RIVER BASIN

308	X.40A	Pattani River at Ban Tha Sap, Yala	616
309	X.77A	Pattani River at Ban Yu Ra Pan, Yala	618

SOUTHERN PENINSULA WEST COAST

310	X.139	Khlong Palian at Ban Lam Khlaeng, Trang	620
311	X.150	Khlong Langu at Ban Wang Pa Khian, Satun	622
312	X.187	Khlong Ta Kuaw Pa at Ban Hin Dan, Phangnga	624
313	X.189	Khlong Thalang at Ban Don, Phuket	626
314	X.191	Khlong Bang Yai at Satree Phuket school, Phuket	628
315	X.192	Khlong Bang Tha at Mueang , Phuket	630
316	X.193	Khlong Tha Yang at Ban Don, Phuket	632

LOCATION MAP OF HYDROLOGIC OBSERVATION STATIONS IN 2002 WATER YEAR

SUSPENDED SEDIMENT STATIONS

			Page
KHONG RIVER BASIN			
1	Kh.18	Huai Mong at Ban Na Ang, Udon Thani	636
2	Kh.28A	Loei River at Ban Na Lak, Loei	637
3	Kh.53	Huai Luang at Ban Nong Wua So, Udon Thani	638
4	Kh.58A	Loei River at Ban Fak Loei, Loei	639
5	Kh.61	Loei River at Ban Keng Bong, Loei	640
6	Kh.63	Huai Nam Kam at Ban Dan Muang Kham, Sakon Nakhon	641
7	Kh.69A	Lam Nam Kam at Ban Nong Rua Thong, Nakhon Phanom	642
8	Kh.77A	Nam Thop at Ban Kok So, Loei	643
9	Kh.90	Lam Nam Phung at Ban Tong Khop, Sakon Nakhon	644
10	Kh.91	Huai Chanot at Ban Don Sawan, Nakhon Phanom	645
11	Kh.92	Huai Bang Sai at Ban Kan Luang Dong, Muk Dahan	646
12	Kh.93	Songkhram River at Ban Khok Kham Lai, Udon Thani	647
13	Kh.94	Nam Som at Ban Wang Lao, Udon Thani	648
14	Kh.101	Huai Muk at Ban Kaen Tao, Mukdahan	649
NAM MAE ING BASIN			
15	I.14	Nam Mae Ing at Ban Nam Ing, Chiang Rai	650
NAM MAE KOK BASIN			
16	G.8	Nam Mae Lao at Ban Ton Yang, Chiang Rai	651
CHI RIVER BASIN			
17	E.1	Chi River at Ban Kum Wat Tai Kosum, Maha Sarakham	652
18	E.5	Chi River at Ban Non Puai, Chaiyaphum	653
19	E.6C	Lam Pa Thao at Ban Tat Ton, Chaiyaphum	654
20	E.21	Chi River at Ban Kaeng Ko, Chaiyaphum	655
21	E.23	Chi River at Ban Khai, Chaiyaphum	656
22	E.57	Nam Yang at Ban Kut Chim Khum Mai, Kalasin	657
23	E.68A	Lam Phaniang at Ban Khong Po, Nong Bua Lamphu	658
24	E.70	Lam Nam Yang at Ban Kut Kwang, Roi Et	659
MUN RIVER BASIN			
25	M.5	Mun River at Ban Mueang Kong, Si Sa Ket	660
26	M.9	Huai Samran at Ban Nongyaplong, Si Sa ket	661

27	M.42	Huai Thap Than at Ban Huai Thap Than, Si Sa Ket	662
28	M.66	Huai Khayung at Ban Wang Chom Pu, Si Sa Ket	663
29	M.89	Lam Takhong at Vaccine Serum Office, Nakhon Ratchasima	664
30	M.91	Huai Samran at Ban Thai Thaworn, Si Sa Ket	665
31	M.110	Huai Tunglung at Ban Don Yai, Ubon Ratchathani	666
32	M.127	Huai Ta Thieo at Ban Na Hai, Ubon Ratchathani	667
33	M.134	Huai Hin Lap at Ban Hin Lap, Nakhon Ratchasima	668
34	M.142	Huai Khayung at Ban Don - ao, Si Sa Ket	669
35	M.143	Huai Sang Kot at Ban Nong Yai, Si Sa Ket	670
36	M.152	Huai Bon at Ban Phon Thong, Ubon Ratchathani	671
37	M.153	Lam Dom Yai at Ban Kut Chiang Mun, Ubon Ratchathani	672
38	M.154	Huai Luang at Ban Na Chaluai, Ubon Ratchathani	673
39	M.155	Huai La - ong at Ban Na Phu, Amnart Charoen	674
40	M.157	Huai Lam Phong at Ban Nikhom, Yasothon	675

PING RIVER BASIN

41	P.1	Ping River at Nawarat Bridge, Chiang Mai	676
42	P.4A	Nam Mae Taeng at Ban Mae Taeng, Chiang Mai	677
43	P.14	Nam Mae Chaem at Kaeng Ob Luang, Chiang Mai	678
44	P.17	Ping River at Ban Tha Ngiu, Nakhon Sawan	679
45	P.21	Nam Mae Rim at Mae Rim Tai, Chiang Mai	680
46	P.24A	Nam Mae Klang at Pracha Uthit Bridge, Chiang Mai	681
47	P.56A	Nam Mae Ngat at Ban Sahakorn Romklao, Chiang Mai	682
48	P.64	Nam Mae Tun at Ban Luang, Chiang Mai	683
49	P.71	Nam Mae Khan at Ban Klang , Chiang Mai	684
50	P.73	Ping River at Ban Sop Soi, Chiang Mai	685
51	P.75	Ping River at Ban Cho Lae, Chiang Mai	686
52	P.76	Nam Mae Li at Ban Mae E - Hai, Lamphun	687
53	P.77	Nam Mae Tha at Ban Sop Mae Sapuad, Lamphun	688

WANG RIVER BASIN

54	W.3A	Wang River at Ban Don Chai, Lampang	689
55	W.4A	Wang River at Ban Wang Man, Tak	690
56	W.16A	Wang River at Ban Hai, Lampang	691
57	W.17	Nam Mae Soi at Ban Nong Nao, Lampang	692
58	W.20	Nam Mae Tui at Ban Tha Lo, Lampang	693

59	W.23	Wang River at Ban Chiang Rai, Tak	694

YOM RIVER BASIN

60	Y.1C	Yom River at Ban Nam Khong, Phrae	695
61	Y.6	Yom River at Ban Kaeng Luang, Sukhothai	696
62	Y.14	Yom River at Ban Don Rabiang, Sukhothai	697
63	Y.17	Yom River at Ban Sam Ngam, Phichit	698
64	Y.24	Nam Pi at Ban Mang, Phayao	699
65	Y.26	Huai Mae Mok at Ban Mae Phu , Lampang	700
66	Y.30	Huai Pong at Ban Pong, Lampang	701
67	Y.34	Nam Mae Lai at Ban Mae Lai , Phrae	702
68	Y.36	Nam Khuan at Ban Pa Kha, Phayao	703

NAN RIVER BASIN

69	N.7A	Nan River at Ban Rat Chang Khwan, Phichit	704
70	N.8A	Nan River at Ban Hor Krai, Phichit	705
71	N.13A	Nan River at Ban Bun Nak, Nan	706
72	N.22	Khwae Noi River at Ban Yang, Phitsanulok	707
73	N.24	Khek River at Ban Wang Nok Aen , Phitsanulok	708
74	N.36	Nam Khwae Noi at Ban Nong Krathao, Phitsanulok	709
75	N.42	Nam Wa at Ban Hat Khao San, Nan	710
76	N.49	Nam Yao at Ban Nam Yao, Nan	711
77	N.55	Nam Phak at Ban Tha Sakae, Phitsanulok	712
78	N.58	Nam Fua at Ban Nam Fua, Phitsanulok	713
79	N.59	Lam Nam Khan at Ban Na Pho Na Chan, Phitsanulok	714
80	N.63	Nam Haeng at Ban Hua Mueang, Nan	715
81	N.65	Nam Yao at Ban Pang Sa, Nan	716
82	N.66	Huai Om Sing at Ban Noen Phoem, Phitsanulok	717
83	N.69	Khwae Noi River at Ban Na Thung Yai, Phitsanulok	718

SAKAE KRANG RIVER BASIN

84	Ct.5A	Nam Mae Wong at Ban Pang Makha, Kamphaeng Phet	719
85	Ct.7	Khlong Pho at Ban Mai Khlong Charoen, Nakhon Sawan	720
86	Ct.8	Khwae Tak Daet at Ban Khok Mo, Uthai Thani	721
87	Ct.19	Huai Tak Daet at Ban Tak Daet, Uthai Thani	722
88	Ct.20	Huai Thap Salao at Ban Saphan Leak, Uthai Thani	723

PASAK RIVER BASIN

89	S.9	Pasak River at Ban Pa, Saraburi	724
90	S.12	Lam Kong at Ban Tha Lao, Phetchabun	725
91	S.13	Lam Sonthi at Ban Tha Yiam, Lop Buri	726
92	S.33	Pasak River at Ban Tha Hi Yong, Phetchabun	727
93	S.34	Pasak River at Ban Lam Takhro, Phetchabun	728
94	S.39	Pasak River at Ban Bua Chum, Lop Buri	729

MAE KLONG RIVER BASIN

95	K.12	Lam Ta Phoen at Ban Thung Na Nang Rok, Kanchanaburi	730
96	K.22B	Huai Mae Nam Noi at Ban Sai Yok, Kanchanaburi	731
97	K.30	Huai Mae Nam Lo at Ban Sai Yok, Kanchanaburi	732
98	K.31	Huai Mae Nam Noi at Ban Nam Chon, Kanchanaburi	733
99	K.38A	Huai Lin Thin at Ban Nong Bang, Kanchanaburi	734
100	K.39	Huai Ong Thi at Ban Ong Thi, Kanchanaburi	735
101	K.50	Huai Diso at Ban Hin Laem, Kanchanaburi	736
102	K.53	Huai Mae Kraban at Ban Si Mong Khon, Kanchanaburi	737
103	K.59	Lam Pha Chi at Ban Chorrakne Phuak, Kanchanaburi	738
104	K.60	Huai Kui Mang at Ban Kui Mang, Kanchanaburi	739

PRACHIN BURI RIVER BASIN

105	Kgt.9	Khlong Phra Sathung at Ban Khao Chakan, Sa Kaeo	740
106	Kgt.13A	Khlong Phra Prong at Ban Non Suk Phum , Prachin Buri	741
107	Kgt.19	Khlong Luang at Ban Khao Nom Nang, Chon Buri	742

BANG PAKONG RIVER BASIN

108	Ny.1B	Nakhon Nayok River at Ban Khao Nang Buat, Nakhon Nayok	743
109	Ny.3	Lower Khlong Ban Na at Ban Pa Kha, Nakhon Nayok	744
110	Ny.4	Khlong Samo Pun at Ban Noen Hom, Prachin Buri	745
111	Ny.6	Upper Khlong Ban Na at Ban Cha Om, Saraburi	746

EAST COAST-GULF BASIN

112	Z.11	Khlong Prasae at Ban Khao Chik, Rayong	747
113	Z.14	Khlong Phayat at Ban Chaman, Chanthaburi	748
114	Z.15	Khlong Yai at Ban Pak Phraek, Rayong	749
115	Z.21	Khlong Hin Dat at Ban Pong Rong Sen, Chanthaburi	750

PETCHABURI RIVER BASIN

116	B.10	Phetchaburi River at Ban Tha Yang, Phetchaburi	751
117	B.11	Huai Mae Prachan at Ban Cha Prong , Phetchaburi	752

WEST COAST-GULF BASIN

118	Gt.10	Khlong Krut at Ban Nong Ya Plong, Prachuap Khiri Khan	753
119	Gt.11	Khlong Yai at Ban Chang Laek, Prachuap Khiri Khan	754
120	Gt.19	Khlong Ang Thong at Ban Ang Thong , Prachuap Khiri Khan	755

SOUTHERN PENINSULA EAST COAST

121	X.46	Khlong Rap Ro at Ban Tha Kham, Chumphon	756
122	X.53A	Khlong Chumphon at Ban Wang Phai, Chumphon	757
123	X.55	Khlong Tha Di at Ban Tha Yai, Nakhon Si Thammarat	758
124	X.64	Khlong Tha Sae at Ban Tha Sae, Chumphon	759
125	X.70	Khlong Ban Tan at Ban Wang Kong, Nakhon Si Thammarat	760
126	X.81A	Khlong Chawang at Ban Na San, Surat Thani	761
127	X.103	Khlong Takhian at Ban Nai Thon, Surat Thani	762
128	X.104	Khlong Tha Krachai at Ban Tha Kham, Surat Thani	763
129	X.121	Khlong Waeng at Ban Kho Lo, Narathiwat	764
130	X.149	Khlong Klai at Ban Hua Na , Nakhon Si Thammarat	765
131	X.158	Khlong Tha Taphao at Ban Wang Khrok, Chumphon	766
132	X.163	Khlong Chandi at Ban Manao Wan, Nakhon Si Thammarat	767
133	X.165	Khlong Nai Khieo at Ban Thon Hong, Nakhon Si Thammarat	768
134	X.167	Khlong Sao Thong at Ban Sao Thong, Nakhon Si Thammarat	769
135	X.168	Khlong The Pha at Ban Kabang, Yala	770
136	X.171	Khlong Wang Muang Yang at Ban Pa Ye, Narathiwat	771
137	X.175	Khlong Yaha at Yaha, Yala	772

TAPI RIVER BASIN

138	X.36	Khlong Phum Duang at Ban Tha Khanon, Surat Thani	773
139	X.37A	Tapi River at Ban Yan Din Daeng, Surat Thani	774
140	X.195	Tapi River at Ban Tha Pho, Nakhon Si Thammarat	775

THALE SAP SONGKHLA BASIN

141	X.109	Khlong Bang Kaeo at Ban Khuan In No Mo , Phutthalung	776
142	X.173	Khlong U - Taphao at Ban Khlong Ngae, Songkhla	777

PATTANI RIVER BASIN

143 X.77A Pattani River at Ban Yu Ra Pan, Yala 778

SOUTHERN PENINSULA WEST COAST

144 X.139 Khlong Palian at Ban Lam Khlaeng, Trang 779

145 X.150 Khlong Langu at Ban Wang Pa Khian, Satun 780

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

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

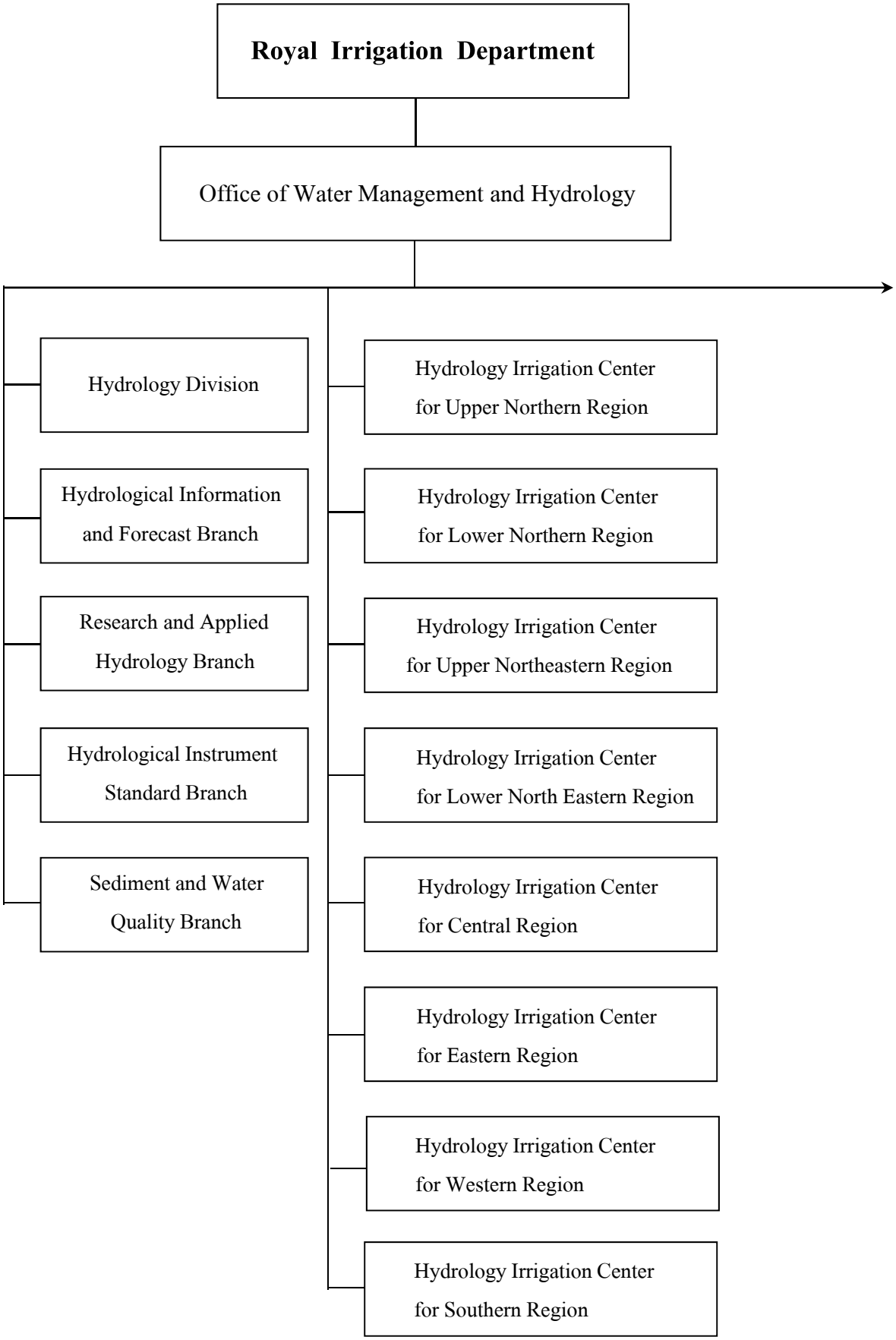
The Royal Irrigation Department (RID) has developed data system which include computerization of storage, Processing and retrieval of rainfall data since 1969. During the stream flow data system was being developed at RID in 1976, the National Economic and Social Development Board has made in agreement 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 Water Management and Hydrology
Hydrology Division
Hydrological Information and Forecast Branch
Research and Applied Hydrology Branch
Hydrological Instrument Standard Branch
Sediment and Water Quality Branch
Hydrology Irrigation Center for Upper Northern Region
Hydrology Irrigation Center for Lower Northern Region
Hydrology Irrigation Center for Upper Northeastern Region
Hydrology Irrigation Center for Lower North Eastern Region
Hydrology Irrigation Center for Central Region
Hydrology Irrigation Center for Eastern Region
Hydrology Irrigation Center for Western Region
Hydrology Irrigation 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 2002

WATER YEAR : 2002

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	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 station office.		**Elevation** +8.372 m. (A.D.)
Gage Reading Frequency	Recording.		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 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 fair. Stage-discharge relation defined by 62 discharge measurements made in 2002.		

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

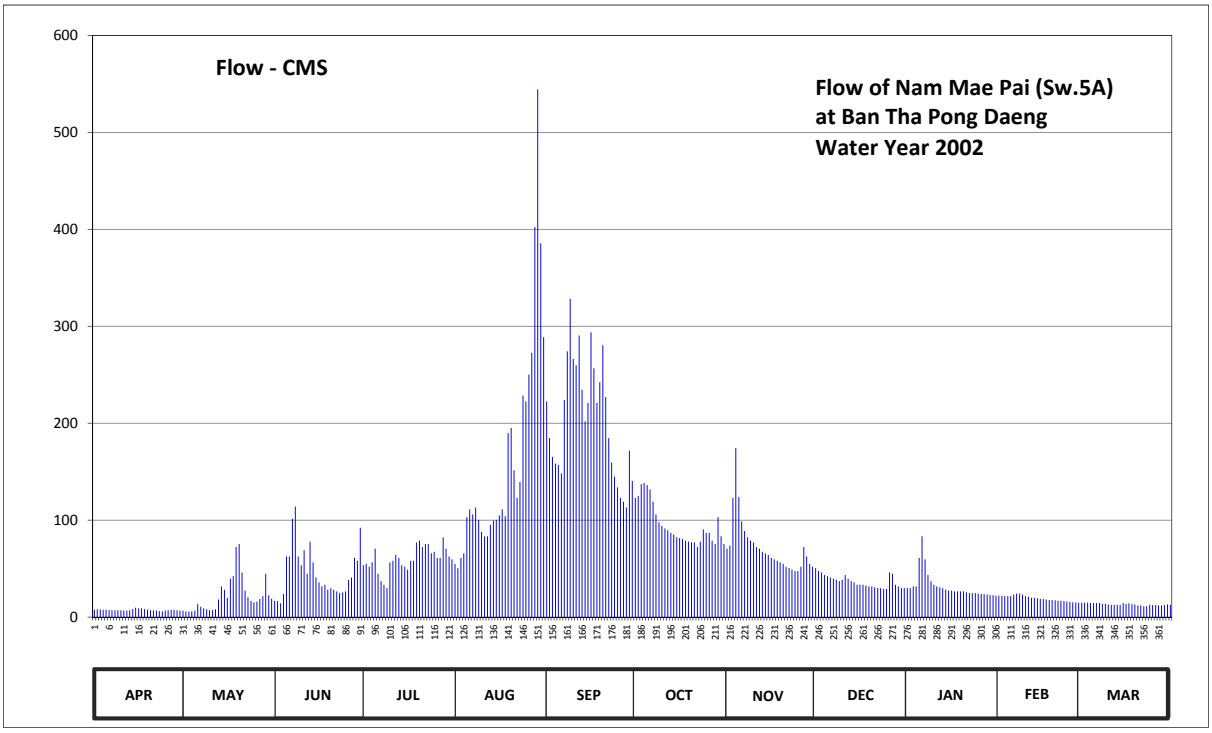
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	-0.13	-0.17	0.14	0.55	0.56	1.99	1.19	0.66	0.53	0.36	0.25	0.09	
2	-0.11	-0.19	0.13	0.56	0.53	1.72	1.21	0.68	0.51	0.36	0.25	0.09	
3	-0.12	-0.20	0.07	0.54	0.60	1.57	1.32	1.19	0.50	0.38	0.24	0.09	
4	-0.13	-0.19	0.28	0.57	0.63	1.51	1.33	1.64	0.48	0.38	0.24	0.08	
5	-0.13	-0.17	0.61	0.66	0.99	1.50	1.31	1.20	0.47	0.60	0.24	0.08	
6	-0.14	0.05	0.61	0.49	1.07	1.42	1.27	0.94	0.46	0.77	0.27	0.08	
7	-0.15	-0.03	0.97	0.43	1.02	2.00	1.15	0.83	0.45	0.59	0.29	0.08	
8	-0.15	-0.08	1.10	0.40	1.09	2.32	1.02	0.76	0.44	0.48	0.29	0.06	
9	-0.15	-0.11	0.61	0.36	0.96	2.64	0.93	0.72	0.43	0.43	0.27	0.06	
10	-0.15	-0.15	0.55	0.57	0.82	2.27	0.89	0.70	0.44	0.40	0.24	0.04	
11	-0.16	-0.14	0.65	0.58	0.77	2.23	0.86	0.67	0.48	0.38	0.23	0.03	
12	-0.16	-0.11	0.49	0.62	0.77	2.42	0.84	0.66	0.45	0.37	0.21	0.03	
13	-0.15	0.17	0.71	0.60	0.90	2.07	0.81	0.64	0.43	0.36	0.21	0.03	
14	-0.10	0.38	0.57	0.55	0.95	1.85	0.79	0.63	0.42	0.34	0.20	0.03	
15	-0.06	0.34	0.46	0.54	0.96	1.98	0.76	0.62	0.40	0.33	0.19	0.08	
16	-0.08	0.21	0.42	0.52	1.01	2.44	0.75	0.60	0.40	0.33	0.18	0.06	
17	-0.08	0.45	0.38	0.58	1.07	2.21	0.74	0.59	0.40	0.32	0.17	0.07	
18	-0.10	0.47	0.40	0.58	1.00	1.98	0.72	0.58	0.39	0.32	0.16	0.05	
19	-0.13	0.67	0.34	0.70	1.76	2.12	0.71	0.57	0.38	0.32	0.16	0.04	
20	-0.15	0.69	0.36	0.72	1.80	2.36	0.70	0.56	0.38	0.32	0.15	0.01	
21	-0.15	0.50	0.34	0.67	1.45	2.02	0.70	0.54	0.37	0.31	0.14	0.01	
22	-0.16	0.33	0.32	0.69	1.19	1.72	0.67	0.53	0.36	0.30	0.14	-0.01	
23	-0.18	0.22	0.30	0.69	1.34	1.52	0.71	0.52	0.36	0.30	0.13	-0.01	
24	-0.19	0.14	0.31	0.63	2.03	1.39	0.85	0.51	0.35	0.30	0.12	0.03	
25	-0.16	0.10	0.32	0.64	1.99	1.29	0.81	0.51	0.35	0.29	0.11	0.02	
26	-0.15	0.12	0.44	0.60	2.17	1.19	0.81	0.54	0.50	0.28	0.10	0.02	
27	-0.13	0.18	0.46	0.60	2.31	1.15	0.72	0.67	0.49	0.28	0.10	0.01	
28	-0.13	0.24	0.60	0.76	3.04	1.09	0.69	0.61	0.40	0.27	0.09	0.01	
29	-0.15	0.49	0.58	0.66	3.75	1.62	0.99	0.56	0.38	0.26		0.02	
30	-0.16	0.26	0.87	0.61	2.95	1.35	0.77	0.54	0.36	0.26		0.04	
31		0.19		0.59	2.41		0.69		0.36	0.25		0.03	
Mean	-0.14	0.15	0.48	0.59	1.42	1.83	0.89	0.70	0.42	0.36	0.19	0.04	
Max	-0.06	0.69	1.10	0.76	3.75	2.64	1.33	1.64	0.53	0.77	0.29	0.09	3.75
Min	-0.19	-0.20	0.07	0.36	0.53	1.09	0.67	0.51	0.35	0.25	0.09	-0.01	-0.20

Annual Max Momentary Gage Height 4.10 m. (A.D.) , at 05.00 Hours , on Aug 29 , 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed -1.14 m. (A.D.)

Left Bank Elevation 8.43 m. (A.D.) ,

Right Bank Elevation 5.52 m. (A.D.) , Drainage Are 4,470 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	7.59	6.51	16.88	53.50	55.00	222.50	123.00	70.60	50.50	29.90	22.10	14.84		
2	8.13	5.97	16.46	55.00	50.50	184.60	125.10	73.80	47.50	29.90	22.10	14.84		
3	7.86	5.70	14.12	52.00	61.00	165.40	137.20	123.00	46.00	31.60	21.56	14.84		
4	7.59	5.97	23.72	56.50	65.80	158.20	138.30	174.20	43.46	31.60	21.56	14.48		
5	7.59	6.51	62.60	70.60	103.10	157.00	136.10	124.00	42.19	61.00	21.56	14.48		
6	7.32	13.40	62.60	44.73	111.00	148.20	131.70	98.60	40.92	83.30	23.18	14.48		
7	7.05	10.64	101.30	37.11	106.00	224.00	119.00	88.70	39.65	59.50	24.26	14.48		
8	7.05	9.04	114.00	33.30	113.00	274.20	106.00	82.40	38.38	43.46	24.26	13.76		
9	7.05	8.13	62.60	29.90	100.40	328.20	97.70	78.80	37.11	37.11	23.18	13.76		
10	7.05	7.05	53.50	56.50	87.80	266.20	94.10	77.00	38.38	33.30	21.56	13.04		
11	6.78	7.32	69.00	58.00	83.30	259.80	91.40	72.20	43.46	31.60	21.02	12.68		
12	6.78	8.13	44.73	64.20	83.30	290.40	89.60	70.60	39.65	30.75	19.94	12.68		
13	7.05	18.14	77.90	61.00	95.00	234.50	86.90	67.40	37.11	29.90	19.94	12.68		
14	8.40	31.60	56.50	53.50	99.50	202.00	85.10	65.80	35.84	28.20	19.40	12.68		
15	9.68	28.20	40.92	52.00	100.40	221.00	82.40	64.20	33.30	27.35	18.98	14.48		
16	9.04	19.94	35.84	49.00	105.00	293.80	81.50	61.00	33.30	27.35	18.56	13.76		
17	9.04	39.65	31.60	58.00	111.00	256.60	80.60	59.50	33.30	26.50	18.14	14.12		
18	8.40	42.19	33.30	58.00	104.00	221.00	78.80	58.00	32.45	26.50	17.72	13.40		
19	7.59	72.20	28.20	77.00	189.80	242.20	77.90	56.50	31.60	26.50	17.72	13.04		
20	7.05	75.40	29.90	78.80	195.00	280.60	77.00	55.00	31.60	26.50	17.30	11.96		
21	7.05	46.00	28.20	72.20	151.50	227.00	77.00	52.00	30.75	25.65	16.88	11.96		
22	6.78	27.35	26.50	75.40	123.00	184.60	72.20	50.50	29.90	24.80	16.88	11.28		
23	6.24	20.48	24.80	75.40	139.40	159.40	77.90	49.00	29.90	24.80	16.46	11.28		
24	5.97	16.88	25.65	65.80	228.50	144.90	90.50	47.50	29.05	24.80	16.04	12.68		
25	6.78	15.20	26.50	67.40	222.50	133.90	86.90	47.50	29.05	24.26	15.62	12.32		
26	7.05	16.04	38.38	61.00	250.20	123.00	86.90	52.00	46.00	23.72	15.20	12.32		
27	7.59	18.56	40.92	61.00	272.60	119.00	78.80	72.20	44.73	23.72	15.20	11.96		
28	7.59	21.56	61.00	82.40	402.60	113.00	75.40	62.60	33.30	23.18	14.84	11.96		
29	7.05	44.73	58.00	70.60	544.50	171.60	103.10	55.00	31.60	22.64		12.32		
30	6.78	22.64	92.30	62.60	385.50	140.50	83.30	52.00	29.90	22.64		13.04		
31		18.98		59.50	288.70		75.40		29.90	22.10		12.68		
Total	222.97	690.11	1397.92	1851.94	5028.90	6147.30	2946.80	2161.60	1139.78	984.13	541.16	408.28	23520.89	CMSDAY
Mean	7.43	22.26	46.60	59.74	162.22	204.91	95.06	72.05	36.77	31.75	19.33	13.17	64.44	CMS
Max	9.68	75.40	114.00	82.40	544.50	328.20	138.30	174.20	50.50	83.30	24.26	14.84	544.50	CMS
Min	5.97	5.70	14.12	29.90	50.50	113.00	72.20	47.50	29.05	22.10	14.84	11.28	5.70	CMS
Runoff	19.26	59.63	120.78	160.01	434.50	531.13	254.60	186.76	98.48	85.03	46.76	35.28	2032.20	MCM

Momentary Peak 618.00 CMS. at 4.10 m. (A.D.) at 05.00 Hours , on Aug 29 , 2002

Runoff Yield 14.42 Liters/Second/Square KM. Momentary Peak Yield 138.260 Liters/Second/Square KM.

WATER YEAR : 2002

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** +278.845 m. (MSL.)
Gage Reading Frequency	Recording.		
Basis of Mean Daily Gage Height	Arithmetic mean 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	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 81 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

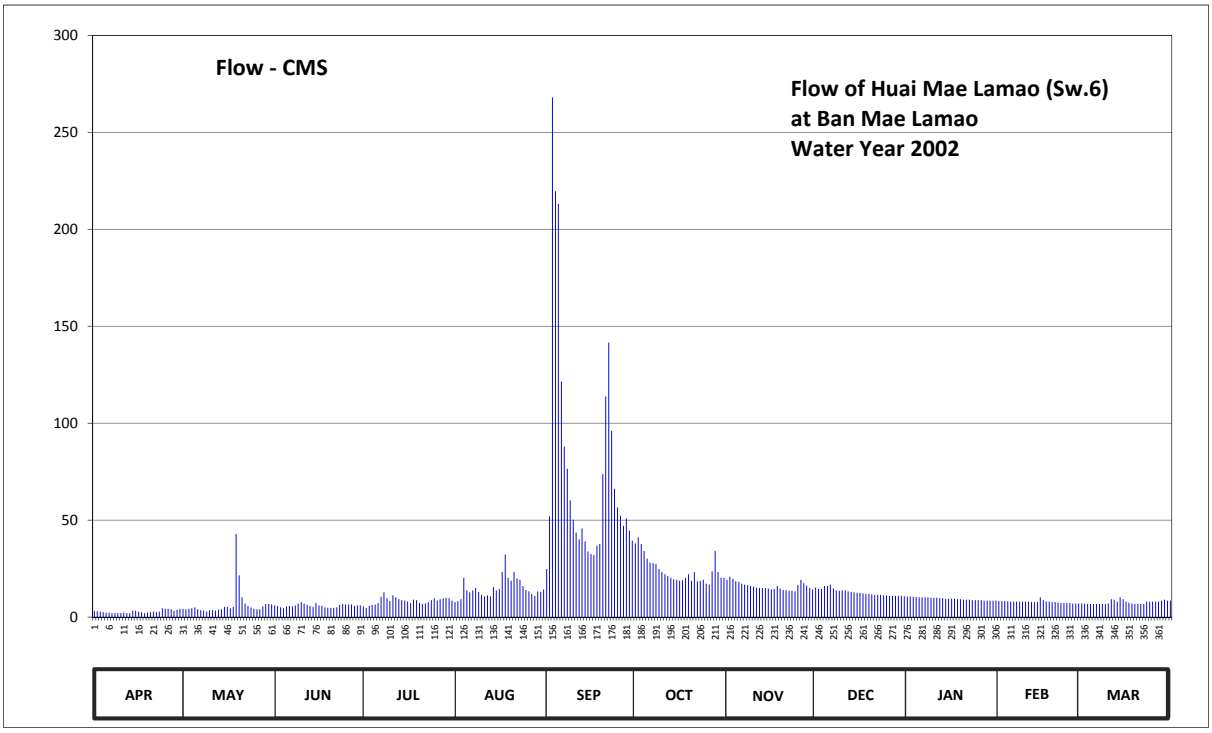
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	268.92	268.97	269.04	269.02	269.11	269.76	270.20	269.57	269.41	269.22	269.13	269.08	
2	268.92	268.96	269.03	268.99	269.13	270.60	270.29	269.63	269.38	269.23	269.13	269.08	
3	268.91	268.97	269.00	269.03	269.17	273.96	270.19	269.59	269.38	269.22	269.13	269.07	
4	268.90	268.98	268.98	269.05	269.61	273.46	270.07	269.54	269.44	269.22	269.13	269.07	
5	268.89	269.00	269.02	269.06	269.35	273.39	269.94	269.53	269.44	269.21	269.12	269.07	
6	268.89	268.96	269.03	269.09	269.31	272.10	269.87	269.49	269.47	269.21	269.12	269.07	
7	268.88	268.94	269.02	269.22	269.35	271.46	269.86	269.47	269.39	269.21	269.12	269.07	
8	268.88	268.93	269.04	269.31	269.40	271.21	269.85	269.46	269.35	269.21	269.12	269.07	
9	268.88	268.91	269.08	269.19	269.32	270.83	269.76	269.44	269.34	269.20	269.12	269.07	
10	268.88	268.94	269.11	269.13	269.26	270.55	269.71	269.43	269.35	269.20	269.12	269.08	
11	268.89	268.94	269.08	269.25	269.23	270.36	269.67	269.41	269.35	269.20	269.12	269.17	
12	268.88	268.93	269.05	269.21	269.25	270.26	269.64	269.40	269.33	269.19	269.11	269.16	
13	268.88	268.95	269.03	269.17	269.23	270.42	269.61	269.40	269.32	269.19	269.11	269.12	
14	268.93	268.96	269.01	269.15	269.42	270.23	269.58	269.40	269.31	269.18	269.11	269.21	
15	268.93	269.01	269.09	269.14	269.35	270.06	269.57	269.39	269.30	269.18	269.21	269.17	
16	268.91	269.01	269.04	269.12	269.38	270.02	269.55	269.37	269.30	269.18	269.15	269.12	
17	268.90	268.98	269.03	269.09	269.71	270.00	269.56	269.38	269.29	269.18	269.12	269.10	
18	268.88	269.01	269.00	269.16	270.01	270.16	269.61	269.44	269.28	269.17	269.12	269.08	
19	268.89	270.34	268.99	269.15	269.61	270.19	269.67	269.39	269.28	269.17	269.11	269.07	
20	268.90	269.65	268.99	269.09	269.55	271.15	269.55	269.36	269.27	269.16	269.11	269.07	
21	268.91	269.21	268.99	269.07	269.71	271.96	269.71	269.35	269.26	269.16	269.10	269.07	
22	268.90	269.08	269.00	269.08	269.60	272.44	269.54	269.34	269.26	269.16	269.09	269.07	
23	268.91	269.03	269.05	269.11	269.57	271.62	269.55	269.34	269.26	269.15	269.09	269.12	
24	268.98	269.00	269.07	269.15	269.44	270.98	269.57	269.33	269.25	269.15	269.09	269.12	
25	268.97	268.97	269.06	269.19	269.36	270.73	269.49	269.46	269.25	269.15	269.09	269.12	
26	268.97	268.96	269.06	269.14	269.33	270.61	269.47	269.57	269.24	269.15	269.08	269.12	
27	268.96	268.96	269.06	269.17	269.28	270.46	269.72	269.50	269.24	269.14	269.08	269.12	
28	268.93	269.02	269.03	269.19	269.24	270.57	270.07	269.45	269.24	269.14	269.08	269.14	
29	268.95	269.07	269.04	269.20	269.33	270.39	269.71	269.40	269.24	269.14		269.16	
30	268.97	269.07	269.04	269.19	269.32	270.24	269.61	269.37	269.24	269.14		269.14	
31		269.06		269.14	269.37		269.61		269.23	269.14		269.14	
Mean	268.91	269.06	269.04	269.14	269.40	271.01	269.74	269.44	269.31	269.18	269.11	269.11	
Max	268.98	270.34	269.11	269.31	270.01	273.96	270.29	269.63	269.47	269.23	269.21	269.21	273.96
Min	268.88	268.91	268.98	268.99	269.11	269.76	269.47	269.33	269.23	269.14	269.08	269.07	268.88

Annual Max Momentary Gage Height 274.82 m. (MSL.) , at 08.00 Hours , on Sep 3 , 2002

Zero Gage at Bottom Elevation 268.47 m. (MSL.) , River Bed 268.54 m. (MSL.)

Left Bank Elevation 277.07 m. (MSL.) ,

Right Bank Elevation 276.69 m. (MSL.) , Drainage Are 1,009 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.02	4.26	6.00	5.50	7.75	24.80	38.00	19.25	15.25	10.50	8.25	7.00		
2	3.02	4.01	5.75	4.75	8.25	52.00	41.15	20.90	14.50	10.75	8.25	7.00		
3	2.78	4.26	5.00	5.75	9.25	268.00	37.70	19.75	14.50	10.50	8.25	6.75		
4	2.53	4.51	4.51	6.25	20.30	219.70	34.10	18.50	16.00	10.50	8.25	6.75		
5	2.28	5.00	5.50	6.50	13.75	213.15	30.20	18.25	16.00	10.25	8.00	6.75		
6	2.28	4.01	5.75	7.25	12.75	121.50	28.10	17.25	16.75	10.25	8.00	6.75		
7	2.04	3.52	5.50	10.50	13.75	88.00	27.80	16.75	14.75	10.25	8.00	6.75		
8	2.04	3.27	6.00	12.75	15.00	76.45	27.50	16.50	13.75	10.25	8.00	6.75		
9	2.04	2.78	7.00	9.75	13.00	60.20	24.80	16.00	13.50	10.00	8.00	6.75		
10	2.04	3.52	7.75	8.25	11.50	50.25	23.30	15.75	13.75	10.00	8.00	7.00		
11	2.28	3.52	7.00	11.25	10.75	43.60	22.10	15.25	13.75	10.00	8.00	9.25		
12	2.04	3.27	6.25	10.25	11.25	40.10	21.20	15.00	13.25	9.75	7.75	9.00		
13	2.04	3.77	5.75	9.25	10.75	45.70	20.30	15.00	13.00	9.75	7.75	8.00		
14	3.27	4.01	5.25	8.75	15.50	39.05	19.50	15.00	12.75	9.50	7.75	10.25		
15	3.27	5.25	7.25	8.50	13.75	33.80	19.25	14.75	12.50	9.50	10.25	9.25		
16	2.78	5.25	6.00	8.00	14.50	32.60	18.75	14.25	12.50	9.50	8.75	8.00		
17	2.53	4.51	5.75	7.25	23.30	32.00	19.00	14.50	12.25	9.50	8.00	7.50		
18	2.04	5.25	5.00	9.00	32.30	36.80	20.30	16.00	12.00	9.25	8.00	7.00		
19	2.28	42.90	4.75	8.75	20.30	37.70	22.10	14.75	12.00	9.25	7.75	6.75		
20	2.53	21.50	4.75	7.25	18.75	73.75	18.75	14.00	11.75	9.00	7.75	6.75		
21	2.78	10.25	4.75	6.75	23.30	113.80	23.30	13.75	11.50	9.00	7.50	6.75		
22	2.53	7.00	5.00	7.00	20.00	141.60	18.50	13.50	11.50	9.00	7.25	6.75		
23	2.78	5.75	6.25	7.75	19.25	96.00	18.75	13.50	11.50	8.75	7.25	8.00		
24	4.51	5.00	6.75	8.75	16.00	66.20	19.25	13.25	11.25	8.75	7.25	8.00		
25	4.26	4.26	6.50	9.75	14.00	56.55	17.25	16.50	11.25	8.75	7.25	8.00		
26	4.26	4.01	6.50	8.50	13.25	52.35	16.75	19.25	11.00	8.75	7.00	8.00		
27	4.01	4.01	6.50	9.25	12.00	47.10	23.60	17.50	11.00	8.50	7.00	8.00		
28	3.27	5.50	5.75	9.75	11.00	50.95	34.10	16.25	11.00	8.50	7.00	8.50		
29	3.77	6.75	6.00	10.00	13.25	44.65	23.30	15.00	11.00	8.50		9.00		
30	4.26	6.75	6.00	9.75	13.00	39.40	20.30	14.25	11.00	8.50		8.50		
31		6.50		8.50	14.25		20.30		10.75	8.50		8.50		
Total	85.56	204.15	176.51	261.25	465.75	2297.75	749.30	480.15	397.25	293.75	220.25	238.00	5869.67	CMSDAY
Mean	2.85	6.59	5.88	8.43	15.02	76.59	24.17	16.00	12.81	9.48	7.87	7.68	16.08	CMS
Max	4.51	42.90	7.75	12.75	32.30	268.00	41.15	20.90	16.75	10.75	10.25	10.25	268.00	CMS
Min	2.04	2.78	4.51	4.75	7.75	24.80	16.75	13.25	10.75	8.50	7.00	6.75	2.04	CMS
Runoff	7.39	17.64	15.25	22.57	40.24	198.53	64.74	41.48	34.32	25.38	19.03	20.56	507.14	MCM

Momentary Peak 362.30 CMS. at 274.82 m. (MSL.) at 08.00 Hours , on Sep 3 , 2002

Runoff Yield 15.94 Liters/Second/Square KM. Momentary Peak Yield 359.070 Liters/Second/Square KM.

WATER YEAR : 2002

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.

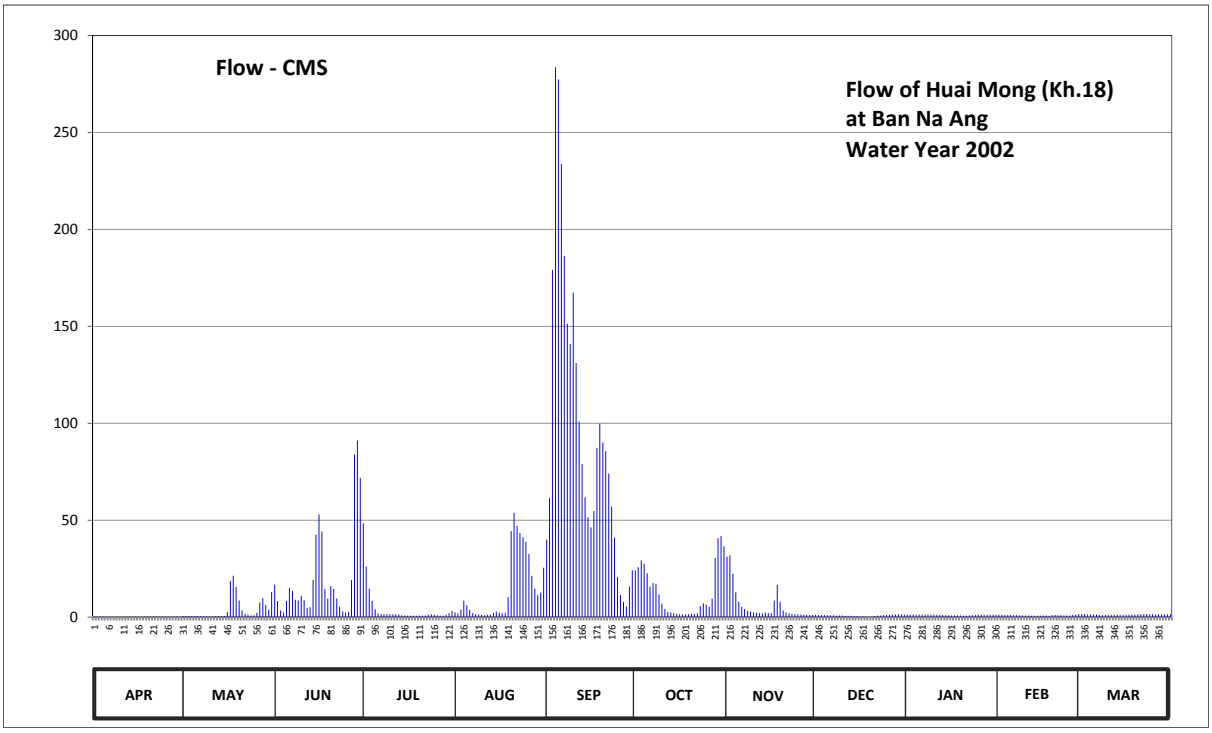
Ban Na Ang **Amphoe** Ban Phu **Changwat** Udon Thani

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 mean 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 +189.980 m.(M.S.L.) and is including overbank flow.
General Description	Records good. Stage-discharge relation defined by 19 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	184.86	184.97	187.56	189.89	185.76	189.33	188.22	188.74	185.26	185.39	185.30	185.46	
2	184.84	185.00	186.69	188.38	185.62	190.46	188.35	188.79	185.25	185.35	185.32	185.42	
3	184.83	184.97	185.98	187.37	186.06	191.74	188.62	188.07	185.23	185.34	185.26	185.38	
4	184.81	184.96	185.75	186.70	186.71	192.32	188.50	187.18	185.20	185.34	185.25	185.35	
5	184.79	184.95	186.70	186.09	186.44	192.29	188.09	186.66	185.20	185.34	185.22	185.34	
6	184.76	184.95	187.41	185.62	186.05	192.08	187.47	186.29	185.20	185.35	185.20	185.35	
7	184.72	184.96	187.26	185.50	185.67	191.79	187.65	186.11	185.15	185.35	185.19	185.23	
8	184.72	184.92	186.78	185.45	185.48	191.55	187.61	185.96	185.11	185.34	185.17	185.27	
9	184.73	184.90	186.73	185.43	185.41	191.47	187.07	185.87	185.14	185.32	185.14	185.28	
10	184.74	184.85	187.00	185.43	185.30	191.66	186.55	185.74	185.11	185.31	185.11	185.27	
11	184.75	184.89	186.75	185.45	185.21	191.38	186.12	185.71	185.04	185.32	185.11	185.27	
12	184.77	184.96	186.21	185.41	185.26	191.10	185.83	185.64	185.01	185.28	185.08	185.27	
13	184.77	184.96	186.27	185.35	185.37	190.80	185.74	185.59	185.01	185.23	185.06	185.27	
14	184.79	184.94	187.79	185.20	185.71	190.47	185.65	185.73	184.99	185.18	185.07	185.28	
15	184.83	184.99	189.50	185.11	185.87	190.06	185.54	185.68	184.89	185.19	185.09	185.28	
16	184.80	185.81	190.12	185.05	185.70	189.75	185.43	185.64	184.88	185.14	185.11	185.31	
17	184.80	187.74	189.61	185.07	185.64	190.19	185.41	186.72	184.83	185.16	185.11	185.30	
18	184.84	187.99	187.34	185.08	185.69	190.95	185.40	187.56	184.81	185.16	185.08	185.36	
19	184.82	187.46	186.83	185.06	186.92	191.09	185.46	186.65	184.74	185.13	185.23	185.36	
20	184.81	186.73	187.50	185.07	189.62	191.00	185.57	185.99	184.78	185.07	185.25	185.42	
21	184.88	185.99	187.35	185.05	190.15	190.92	185.48	185.74	184.98	185.07	185.19	185.46	
22	184.88	185.53	186.84	185.09	189.80	190.71	185.64	185.62	185.10	185.16	185.18	185.50	
23	184.80	185.26	186.33	185.34	189.56	190.28	186.37	185.51	185.12	185.20	185.17	185.49	
24	184.77	185.15	185.86	185.46	189.41	189.39	186.57	185.42	185.22	185.22	185.16	185.46	
25	184.79	185.19	185.72	185.30	189.25	187.92	186.49	185.38	185.25	185.30	185.15	185.42	
26	184.79	185.70	185.81	185.20	188.84	187.04	186.31	185.35	185.26	185.30	185.29	185.39	
27	184.79	186.62	187.78	185.12	187.98	186.65	186.84	185.32	185.32	185.32	185.27	185.39	
28	184.81	186.87	190.89	185.05	187.37	186.34	188.70	185.30	185.41	185.32	185.47	185.41	
29	184.87	186.47	191.01	185.28	187.03	187.48	189.38	185.29	185.42	185.32		185.41	
30	184.79	186.05	190.67	185.66	187.17	188.22	189.45	185.27	185.40	185.31		185.42	
31		187.19		185.91	188.33		189.10		185.39	185.30		185.42	
Mean	184.80	185.67	187.47	185.68	186.92	190.21	186.92	186.15	185.12	185.26	185.19	185.36	
Max	184.88	187.99	191.01	189.89	190.15	192.32	189.45	188.79	185.42	185.39	185.47	185.50	192.32
Min	184.72	184.85	185.72	185.05	185.21	186.34	185.40	185.27	184.74	185.07	185.06	185.23	184.72

Annual Max Momentary Gage Height	192.38	m. (MSL.) ,	at 06.00 Hours , on Sep 6 , 2002		
Zero Gage at Bottom Elevation	183.43	m. (MSL.) ,	River Bed	181.50	m. (MSL.)
Left Bank Elevation	190.99	m. (MSL.) ,			
Right Bank Elevation	189.97	m. (MSL.) ,	Drainage Are	1,309	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.32	0.54	16.66	48.35	2.44	39.95	24.14	31.10	1.12	1.38	1.20	1.52		
2	0.28	0.60	8.21	26.06	1.88	61.50	25.70	31.85	1.10	1.30	1.24	1.44		
3	0.26	0.54	3.41	14.70	3.86	179.04	29.30	22.34	1.06	1.28	1.12	1.36		
4	0.22	0.52	2.40	8.30	8.39	283.56	27.50	12.80	1.00	1.28	1.10	1.30		
5	0.18	0.50	8.30	4.04	6.14	277.32	22.58	7.94	1.00	1.28	1.04	1.28		
6	0.12	0.50	15.10	1.88	3.80	233.64	15.70	5.24	1.00	1.30	1.00	1.30		
7	0.04	0.52	13.60	1.60	2.08	186.34	17.65	4.16	0.90	1.30	0.98	1.06		
8	0.04	0.44	9.02	1.50	1.56	151.30	17.21	3.32	0.82	1.28	0.94	1.14		
9	0.06	0.40	8.57	1.46	1.42	140.76	11.70	2.91	0.88	1.24	0.88	1.16		
10	0.08	0.30	11.00	1.46	1.20	167.36	6.95	2.36	0.82	1.22	0.82	1.14		
11	0.10	0.38	8.75	1.50	1.02	131.04	4.22	2.24	0.68	1.24	0.82	1.14		
12	0.14	0.52	4.76	1.42	1.12	100.80	2.73	1.96	0.62	1.16	0.76	1.14		
13	0.14	0.52	5.12	1.30	1.34	79.00	2.36	1.78	0.62	1.06	0.72	1.14		
14	0.18	0.48	19.19	1.00	2.24	61.75	2.00	2.32	0.58	0.96	0.74	1.16		
15	0.26	0.58	42.50	0.82	2.91	51.50	1.68	2.12	0.38	0.98	0.78	1.16		
16	0.20	2.64	53.00	0.70	2.20	46.25	1.46	1.96	0.36	0.88	0.82	1.22		
17	0.20	18.64	44.15	0.74	1.96	54.75	1.42	8.48	0.26	0.92	0.82	1.20		
18	0.28	21.39	14.40	0.76	2.16	87.25	1.40	16.66	0.22	0.92	0.76	1.32		
19	0.24	15.60	9.47	0.72	10.28	99.72	1.52	7.85	0.08	0.86	1.06	1.32		
20	0.22	8.57	16.00	0.74	44.30	90.00	1.74	3.45	0.16	0.74	1.10	1.44		
21	0.36	3.45	14.50	0.70	53.75	85.60	1.56	2.36	0.56	0.74	0.98	1.52		
22	0.36	1.66	9.56	0.78	47.00	74.05	1.96	1.88	0.80	0.92	0.96	1.60		
23	0.20	1.12	5.48	1.28	43.40	57.00	5.72	1.62	0.84	1.00	0.94	1.58		
24	0.14	0.90	2.87	1.52	41.15	40.85	7.13	1.44	1.04	1.04	0.92	1.52		
25	0.18	0.98	2.28	1.20	38.75	20.62	6.44	1.36	1.10	1.20	0.90	1.44		
26	0.18	2.20	2.64	1.00	32.60	11.40	5.36	1.30	1.12	1.20	1.18	1.38		
27	0.18	7.58	19.08	0.84	21.28	7.85	9.56	1.24	1.24	1.24	1.14	1.38		
28	0.22	9.83	83.95	0.70	14.70	5.54	30.50	1.20	1.42	1.24	1.54	1.42		
29	0.34	6.32	91.08	1.16	11.30	15.80	40.70	1.18	1.44	1.24		1.42		
30	0.18	3.80	71.85	2.04	12.70	24.14	41.75	1.14	1.40	1.22		1.44		
31		12.90		3.09	25.46		36.50		1.38	1.20		1.44		
Total	5.90	124.92	616.90	133.36	444.39	2865.68	406.14	187.56	26.00	34.82	27.26	41.08	4914.01	CMSDAY
Mean	0.20	4.03	20.56	4.30	14.34	95.52	13.10	6.25	0.84	1.12	0.97	1.33	13.46	CMS
Max	0.36	21.39	91.08	48.35	53.75	283.56	41.75	31.85	1.44	1.38	1.54	1.60	283.56	CMS
Min	0.04	0.30	2.28	0.70	1.02	5.54	1.40	1.14	0.08	0.74	0.72	1.06	0.04	CMS
Runoff	0.51	10.79	53.30	11.52	38.40	247.59	35.09	16.21	2.25	3.01	2.36	3.55	424.57	MCM

Momentary Peak 296.04 CMS. at 192.38 m. (MSL.) at 06.00 Hours , on Sep 6 , 2002

Runoff Yield 10.28 Liters/Second/Square KM. Momentary Peak Yield 226.160 Liters/Second/Square KM.

WATER YEAR : 2002

KHONG RIVER BASIN

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

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

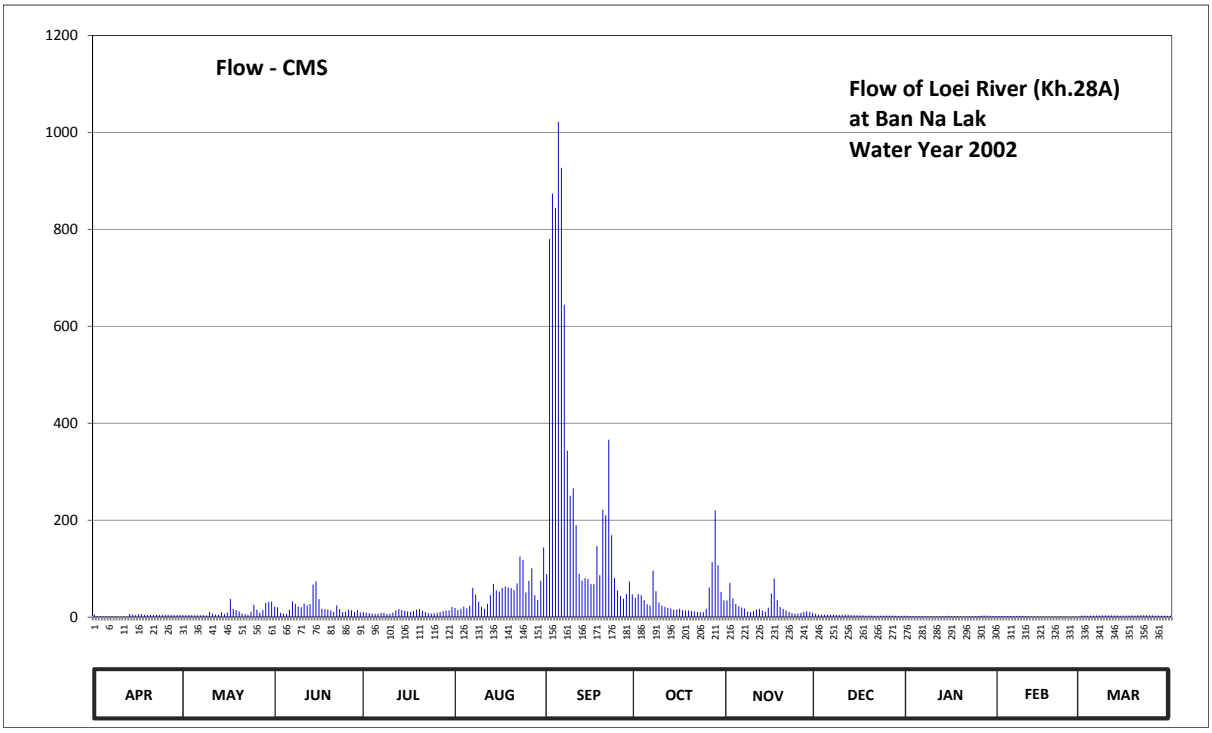
Location : on right bank at the bridge of Wang Saphung - Loei Highway.

	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** +253.928 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean 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	Overbank flow starts at elevation +245.940 m.(M.S.L.) and is including overbank flow.		
General Description	Records good. Stage-discharge relation defined by 36 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	240.04	240.01	240.67	240.29	240.56	242.28	241.19	241.06	240.14	239.94	239.90	239.90	
2	239.92	240.01	240.61	240.23	240.43	249.00	241.39	241.93	240.06	239.90	239.91	239.91	
3	239.89	240.02	240.23	240.20	240.51	249.31	241.33	241.16	240.05	239.91	239.92	239.93	
4	239.87	240.01	240.17	240.17	240.66	249.22	241.07	240.83	240.04	239.90	239.93	239.93	
5	239.87	240.00	240.15	240.14	240.54	249.64	240.81	240.68	240.04	239.90	239.92	239.93	
6	239.85	240.00	240.44	240.17	240.73	249.45	240.73	240.59	240.05	239.90	239.93	239.93	
7	239.83	239.99	241.01	240.22	241.71	248.39	242.40	240.53	240.04	239.89	239.93	239.93	
8	239.83	239.99	240.83	240.22	241.36	245.84	241.54	240.32	240.03	239.89	239.93	239.93	
9	239.81	239.98	240.67	240.12	240.99	244.68	240.93	240.29	240.02	239.87	239.93	239.93	
10	239.80	240.29	240.61	240.14	240.65	244.87	240.73	240.35	240.04	239.86	239.91	239.91	
11	239.79	240.17	240.87	240.24	240.51	243.87	240.64	240.45	240.04	239.86	239.87	239.87	
12	239.79	240.07	240.75	240.39	240.85	242.29	240.57	240.49	240.06	239.88	239.84	239.84	
13	240.12	240.03	240.83	240.48	241.33	242.03	240.52	240.38	240.02	239.89	239.82	239.84	
14	240.07	240.29	241.86	240.42	241.89	242.13	240.44	240.30	240.00	239.89	239.82	239.85	
15	240.01	240.12	241.99	240.37	241.58	242.09	240.45	240.58	239.99	239.93	239.81	239.86	
16	240.10	240.25	241.12	240.32	241.52	241.88	240.51	241.41	239.98	239.89	239.82	239.85	
17	240.11	241.13	240.51	240.30	241.71	241.87	240.42	242.11	239.98	239.89	239.83	239.80	
18	240.04	240.49	240.47	240.35	241.77	243.24	240.39	241.07	239.97	239.88	239.80	239.74	
19	240.02	240.43	240.45	240.45	241.72	242.24	240.39	240.64	239.96	239.86	239.82	239.76	
20	240.02	240.33	240.39	240.49	241.69	244.32	240.35	240.49	239.96	239.85	239.78	239.78	
21	240.02	240.18	240.29	240.37	241.59	244.16	240.32	240.40	239.95	239.84	239.78	239.83	
22	240.05	240.09	240.75	240.28	241.91	246.10	240.28	240.28	239.94	239.85	239.78	239.85	
23	240.03	240.03	240.49	240.21	242.88	243.57	240.26	240.21	239.94	239.86	239.78	239.85	
24	240.04	240.30	240.29	240.16	242.77	242.13	240.27	240.16	239.95	239.87	239.77	239.85	
25	240.03	240.79	240.32	240.18	241.47	241.58	240.51	240.18	239.96	239.91	239.76	239.83	
26	240.04	240.44	240.46	240.23	242.02	241.29	241.73	240.23	239.97	239.94	239.78	239.80	
27	240.04	240.24	240.41	240.28	242.48	241.14	242.69	240.28	239.95	239.96	239.82	239.86	
28	240.02	240.42	240.29	240.34	241.33	241.40	244.30	240.34	239.93	239.95	239.78	239.82	
29	240.02	240.90	240.42	240.38	241.07	241.99	242.59	240.28	239.93	239.94		239.82	
30	240.01	240.98	240.26	240.40	242.02	241.37	241.50	240.23	239.94	239.92		239.84	
31		241.00		240.63	243.19		241.06		239.94	239.91		239.97	
Mean	239.97	240.29	240.62	240.30	241.47	244.11	241.04	240.61	240.00	239.89	239.85	239.86	
Max	240.12	241.13	241.99	240.63	243.19	249.64	244.30	242.11	240.14	239.96	239.93	239.97	249.64
Min	239.79	239.98	240.15	240.12	240.43	241.14	240.26	240.16	239.93	239.84	239.76	239.74	239.74

Annual Max Momentary Gage Height	249.69	m. (MSL.) ,	at 18.00 Hours , on Sep 5 , 2002		
Zero Gage at Bottom Elevation	239.62	m. (MSL.) ,	River Bed	238.62	m. (MSL.)
Left Bank Elevation	246.13	m. (MSL.) ,			
Right Bank Elevation	246.77	m. (MSL.) ,	Drainage Are	1,271	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	4.80	4.20	22.10	10.70	18.80	88.80	39.60	34.40	6.80	2.80	2.00	2.80		
2	2.40	4.20	20.30	8.90	14.90	780.00	47.60	70.50	5.20	2.00	2.20	2.90		
3	1.90	4.40	8.90	8.00	17.30	873.60	45.20	38.40	5.00	2.20	2.40	3.00		
4	1.70	4.20	7.40	7.40	21.80	844.40	34.80	26.90	4.80	2.00	2.60	3.10		
5	1.70	4.00	7.00	6.80	18.20	1021.60	26.30	22.40	4.80	2.00	2.40	3.20		
6	1.50	4.00	15.20	7.40	23.90	927.00	23.90	19.70	5.00	2.00	2.60	3.40		
7	1.30	3.80	32.40	8.60	60.45	644.20	96.00	17.90	4.80	1.90	2.60	3.40		
8	1.30	3.80	26.90	8.60	46.40	343.20	53.60	11.60	4.60	1.90	2.60	3.50		
9	1.10	3.60	22.10	6.40	31.70	250.40	29.90	10.70	4.40	1.70	2.60	3.50		
10	1.00	10.70	20.30	6.80	21.50	265.60	23.90	12.50	4.80	1.60	2.20	3.60		
11	0.97	7.40	28.10	9.20	17.30	189.90	21.20	15.50	4.80	1.60	1.70	3.60		
12	0.97	5.40	24.50	13.70	27.50	89.40	19.10	16.70	5.20	1.80	1.40	3.60		
13	6.40	4.60	26.90	16.40	45.20	75.50	17.60	13.40	4.40	1.90	1.20	3.50		
14	5.40	10.70	67.20	14.60	68.55	80.50	15.20	11.00	4.00	1.90	1.20	3.40		
15	4.20	6.40	73.50	13.10	55.20	78.50	15.50	19.40	3.80	2.60	1.10	3.20		
16	6.00	9.50	36.80	11.60	52.80	68.10	17.30	48.40	3.60	1.90	1.20	3.20		
17	6.20	37.20	17.30	11.00	60.45	67.65	14.60	79.50	3.60	1.90	1.30	3.30		
18	4.80	16.70	16.10	12.50	63.15	146.60	13.70	34.80	3.40	1.80	1.00	3.50		
19	4.40	14.90	15.50	15.50	60.90	86.40	13.70	21.20	3.20	1.60	1.20	3.70		
20	4.40	11.90	13.70	16.70	59.60	221.60	12.50	16.70	3.20	1.50	0.95	3.80		
21	4.40	7.60	10.70	13.10	55.60	210.20	11.60	14.00	3.00	1.40	0.95	4.00		
22	5.00	5.80	24.50	10.40	69.50	366.00	10.40	10.40	2.80	1.50	0.95	4.00		
23	4.60	4.60	16.70	8.30	124.80	168.90	9.80	8.30	2.80	1.60	0.95	4.00		
24	4.80	11.00	10.70	7.20	118.20	80.50	10.10	7.20	3.00	1.70	0.92	3.80		
25	4.60	25.70	11.60	7.60	50.80	55.20	17.30	7.60	3.20	2.20	0.90	3.60		
26	4.80	15.20	15.80	8.90	75.00	43.60	61.35	8.90	3.40	2.80	0.95	3.30		
27	4.80	9.20	14.30	10.40	100.80	37.60	113.40	10.40	3.00	3.20	1.20	3.20		
28	4.40	14.60	10.70	12.20	45.20	48.00	220.00	12.20	2.60	3.00	0.95	3.10		
29	4.40	29.00	14.60	13.40	34.80	73.50	107.40	10.40	2.60	2.80		3.10		
30	4.20	31.40	9.80	14.00	75.00	46.80	52.00	8.90	2.80	2.40		3.00		
31		32.00		20.90	143.40		34.40		2.80	2.20		3.00		
Total	108.44	357.70	641.60	340.30	1678.70	8273.25	1228.95	639.90	121.40	63.40	44.22	54.30	13552.16	CMSDAY
Mean	3.61	11.54	21.39	10.98	54.15	275.77	39.64	21.33	3.92	2.05	1.58	1.75	37.13	CMS
Max	6.40	37.20	73.50	20.90	143.40	1021.60	220.00	79.50	6.80	3.20	2.60	3.40	1021.60	CMS
Min	0.97	3.60	7.00	6.40	14.90	37.60	9.80	7.20	2.60	1.40	0.90	0.85	0.85	CMS
Runoff	9.37	30.91	55.43	29.40	145.04	714.81	106.18	55.29	10.49	5.48	3.82	4.69	1170.91	MCM

Momentary Peak 1053.60 CMS. at 249.69 m. (MSL.) at 18.00 Hours , on Sep 5 , 2002

Runoff Yield 29.21 Liters/Second/Square KM. Momentary Peak Yield 828.950 Liters/Second/Square KM.

WATER YEAR : 2002

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 mean 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	Fairly stable.
Overbank Flow Conditions	Overbank flow starts at elevation +205.300 m.(M.S.L.) and is including overbank flow.
General Description	Records fair. Flow regulated by Huai Luang barrage. Stage-discharge relation defined by 22 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

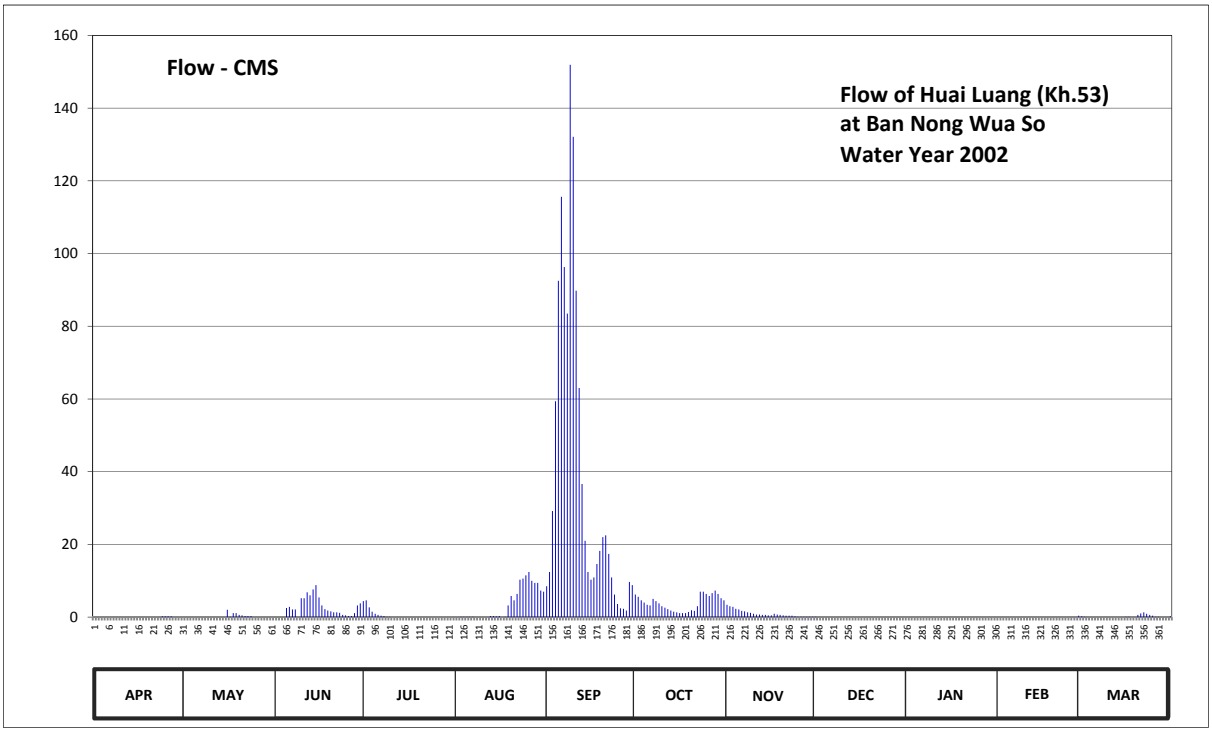
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	203.92	204.05	204.10	204.47	204.10	204.65	204.56	204.42	204.11	204.09	204.05	204.12	
2	203.92	204.05	204.10	204.48	204.10	204.78	204.53	204.40	204.10	204.09	204.05	204.11	
3	203.92	204.04	204.09	204.37	204.11	205.16	204.48	204.38	204.09	204.09	204.05	204.10	
4	203.92	204.06	204.09	204.25	204.11	205.69	204.45	204.33	204.09	204.09	204.04	204.09	
5	203.90	204.06	204.35	204.19	204.11	206.10	204.42	204.31	204.09	204.09	204.04	204.09	
6	203.90	204.06	204.38	204.16	204.11	206.32	204.41	204.27	204.09	204.09	204.04	204.08	
7	203.90	204.07	204.31	204.14	204.11	206.14	204.50	204.26	204.09	204.09	204.04	204.08	
8	203.89	204.07	204.31	204.13	204.10	206.00	204.47	204.23	204.09	204.09	204.04	204.07	
9	203.87	204.07	204.09	204.11	204.09	206.57	204.44	204.22	204.08	204.09	204.03	204.07	
10	203.87	204.07	204.51	204.11	204.09	206.44	204.40	204.19	204.07	204.09	204.02	204.07	
11	203.87	204.07	204.51	204.10	204.08	206.07	204.36	204.17	204.07	204.09	204.01	204.08	
12	203.87	204.07	204.59	204.09	204.09	205.74	204.32	204.17	204.07	204.09	204.01	204.09	
13	203.86	204.07	204.55	204.09	204.13	205.30	204.28	204.16	204.07	204.09	204.01	204.09	
14	203.86	204.07	204.62	204.08	204.13	205.00	204.25	204.16	204.07	204.08	204.01	204.10	
15	203.86	204.07	204.66	204.07	204.12	204.78	204.23	204.15	204.07	204.08	204.05	204.10	
16	203.86	204.30	204.52	204.07	204.13	204.71	204.21	204.15	204.06	204.08	204.06	204.11	
17	203.83	204.11	204.41	204.10	204.10	204.73	204.21	204.19	204.06	204.08	204.06	204.11	
18	203.83	204.21	204.32	204.09	204.11	204.84	204.21	204.17	204.08	204.08	204.07	204.10	
19	203.82	204.21	204.28	204.09	204.41	204.93	204.24	204.16	204.09	204.08	204.07	204.09	
20	203.81	204.16	204.26	204.08	204.54	205.02	204.29	204.15	204.09	204.07	204.07	204.16	
21	203.81	204.15	204.23	204.08	204.48	205.03	204.27	204.14	204.08	204.07	204.07	204.20	
22	203.81	204.13	204.23	204.08	204.57	204.91	204.40	204.14	204.08	204.06	204.07	204.23	
23	203.97	204.13	204.22	204.08	204.71	204.73	204.60	204.14	204.09	204.07	204.07	204.19	
24	204.12	204.13	204.16	204.08	204.72	204.56	204.60	204.12	204.09	204.07	204.06	204.16	
25	204.12	204.08	204.15	204.08	204.75	204.43	204.57	204.11	204.09	204.07	204.05	204.14	
26	204.12	204.08	204.13	204.07	204.78	204.34	204.54	204.11	204.09	204.07	204.07	204.11	
27	204.12	204.10	204.13	204.08	204.70	204.33	204.58	204.11	204.09	204.06	204.07	204.11	
28	204.06	204.09	204.21	204.08	204.68	204.28	204.61	204.11	204.09	204.06	204.14	204.10	
29	204.06	204.08	204.41	204.08	204.68	204.69	204.57	204.11	204.09	204.06		204.10	
30	204.04	204.08	204.44	204.09	204.61	204.66	204.51	204.11	204.09	204.06		204.10	
31		204.10		204.09	204.60		204.48		204.09	204.05		204.12	
Mean	203.92	204.10	204.31	204.13	204.33	205.16	204.42	204.19	204.08	204.08	204.05	204.11	
Max	204.12	204.30	204.66	204.48	204.78	206.57	204.61	204.42	204.11	204.09	204.14	204.23	206.57
Min	203.81	204.04	204.09	204.07	204.08	204.28	204.21	204.11	204.06	204.05	204.01	204.07	203.81

Annual Max Momentary Gage Height 207.10 m. (MSL.) , at 11.00 Hours , on Sep 9 , 2002

Zero Gage at Bottom Elevation 201.31 m. (MSL.) , River Bed 260.89 m. (MSL.)

Left Bank Elevation 205.29 m. (MSL.) ,

Right Bank Elevation 205.85 m. (MSL.) , Drainage Are 421 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	0.00	4.40	0.00	8.50	6.20	3.40	0.10	0.00	0.00	0.20		
2	0.00	0.00	0.00	4.60	0.00	12.40	5.60	3.00	0.00	0.00	0.00	0.10		
3	0.00	0.00	0.00	2.70	0.10	29.18	4.60	2.80	0.00	0.00	0.00	0.00		
4	0.00	0.00	0.00	1.50	0.10	59.35	4.00	2.30	0.00	0.00	0.00	0.00		
5	0.00	0.00	2.50	0.90	0.10	92.50	3.40	2.10	0.00	0.00	0.00	0.00		
6	0.00	0.00	2.80	0.60	0.10	115.60	3.20	1.70	0.00	0.00	0.00	0.00		
7	0.00	0.00	2.10	0.40	0.10	96.30	5.00	1.60	0.00	0.00	0.00	0.00		
8	0.00	0.00	2.10	0.30	0.00	83.50	4.40	1.30	0.00	0.00	0.00	0.00		
9	0.00	0.00	0.00	0.10	0.00	151.92	3.80	1.20	0.00	0.00	0.00	0.00		
10	0.00	0.00	5.20	0.10	0.00	132.10	3.00	0.90	0.00	0.00	0.00	0.00		
11	0.00	0.00	5.20	0.00	0.00	89.80	2.60	0.70	0.00	0.00	0.00	0.00		
12	0.00	0.00	6.80	0.00	0.00	63.00	2.20	0.70	0.00	0.00	0.00	0.00		
13	0.00	0.00	6.00	0.00	0.30	36.60	1.80	0.60	0.00	0.00	0.00	0.00		
14	0.00	0.00	7.60	0.00	0.30	21.00	1.50	0.60	0.00	0.00	0.00	0.00		
15	0.00	0.00	8.80	0.00	0.20	12.40	1.30	0.50	0.00	0.00	0.00	0.00		
16	0.00	2.00	5.40	0.00	0.30	10.30	1.10	0.50	0.00	0.00	0.00	0.10		
17	0.00	0.10	3.20	0.00	0.00	10.90	1.10	0.90	0.00	0.00	0.00	0.10		
18	0.00	1.10	2.20	0.00	0.10	14.60	1.10	0.70	0.00	0.00	0.00	0.00		
19	0.00	1.10	1.80	0.00	3.20	18.20	1.40	0.60	0.00	0.00	0.00	0.00		
20	0.00	0.60	1.60	0.00	5.80	22.00	1.90	0.50	0.00	0.00	0.00	0.60		
21	0.00	0.50	1.30	0.00	4.60	22.50	1.70	0.40	0.00	0.00	0.00	1.00		
22	0.00	0.30	1.30	0.00	6.40	17.40	3.00	0.40	0.00	0.00	0.00	1.30		
23	0.00	0.30	1.20	0.00	10.30	10.90	7.00	0.40	0.00	0.00	0.00	0.90		
24	0.20	0.30	0.60	0.00	10.60	6.20	7.00	0.20	0.00	0.00	0.00	0.60		
25	0.20	0.00	0.50	0.00	11.50	3.60	6.40	0.10	0.00	0.00	0.00	0.40		
26	0.20	0.00	0.30	0.00	12.40	2.40	5.80	0.10	0.00	0.00	0.00	0.10		
27	0.20	0.00	0.30	0.00	10.00	2.30	6.60	0.10	0.00	0.00	0.00	0.10		
28	0.00	0.00	1.10	0.00	9.40	1.80	7.30	0.10	0.00	0.00	0.40	0.00		
29	0.00	0.00	3.20	0.00	9.40	9.70	6.40	0.10	0.00	0.00		0.00		
30	0.00	0.00	3.80	0.00	7.30	8.80	5.20	0.10	0.00	0.00		0.00		
31		0.00		0.00	7.00		4.60		0.00	0.00		0.20		
Total	0.80	6.30	76.90	15.60	109.60	1165.75	120.20	28.60	0.10	0.00	0.40	5.70	1529.95	CMSDAY
Mean	0.03	0.20	2.56	0.50	3.54	38.86	3.88	0.95	0.00	0.00	0.01	0.18	4.19	CMS
Max	0.20	2.00	8.80	4.60	12.40	151.92	7.30	3.40	0.10	0.00	0.40	1.30	151.92	CMS
Min	0.00	0.00	0.00	0.00	0.00	1.80	1.10	0.10	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	0.07	0.54	6.64	1.35	9.47	100.72	10.39	2.47	0.01	0.00	0.03	0.49	132.19	MCM

Momentary Peak 243.00 CMS. at 207.10 m. (MSL.) at 11.00 Hours , on Sep 9 , 2002

Runoff Yield 9.96 Liters/Second/Square KM. Momentary Peak Yield 577.200 Liters/Second/Square KM.

WATER YEAR : 2002

KHONG RIVER BASIN

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

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

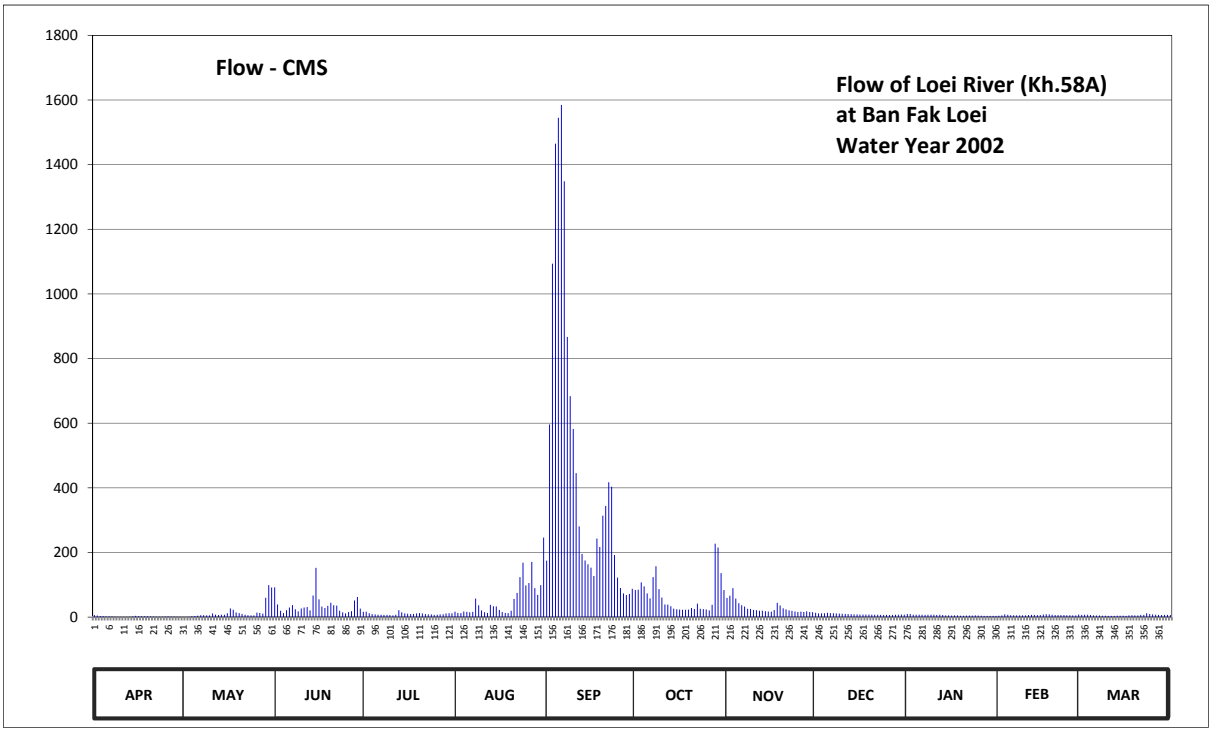
Location : on left bank at the bridge on road.

	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** +240.622 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean 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	Overbank flow starts at elevation +240.100 m.(M.S.L.) and is including overbank flow.		
General Description	Records good. Stage-discharge relation defined by 43 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2005 to March 31, 2006

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	230.43	230.11	232.46	230.87	230.89	233.62	232.33	231.92	230.75	230.57	230.32	230.44	
2	230.34	230.10	231.53	230.89	230.73	237.88	232.34	232.04	230.67	230.58	230.36	230.47	
3	230.28	230.13	230.99	230.68	230.71	240.61	232.68	232.42	230.69	230.47	230.52	230.46	
4	230.24	230.22	230.71	230.58	230.91	241.02	232.50	231.89	230.68	230.46	230.47	230.43	
5	230.20	230.28	231.04	230.52	230.87	241.06	232.15	231.62	230.75	230.46	230.39	230.36	
6	230.19	230.32	231.29	230.47	230.82	241.08	231.90	231.46	230.71	230.46	230.39	230.35	
7	230.18	230.39	231.48	230.46	230.88	240.91	232.91	231.36	230.69	230.45	230.38	230.34	
8	230.13	230.40	231.14	230.45	231.89	239.93	233.39	231.19	230.66	230.47	230.37	230.33	
9	230.09	230.36	230.93	230.44	231.47	238.59	232.38	231.18	230.64	230.47	230.37	230.32	
10	230.10	230.36	231.22	230.41	231.03	237.76	231.94	231.08	230.61	230.46	230.37	230.29	
11	230.09	230.66	231.29	230.37	230.83	236.53	231.53	231.04	230.59	230.45	230.41	230.30	
12	230.08	230.46	231.33	230.47	230.73	234.89	231.52	231.00	230.56	230.46	230.44	230.30	
13	230.13	230.43	231.03	231.05	231.50	233.88	231.39	230.99	230.55	230.43	230.44	230.32	
14	230.20	230.47	232.05	230.81	231.39	233.63	231.20	230.95	230.53	230.37	230.40	230.32	
15	230.29	230.48	233.32	230.66	231.38	233.48	231.14	230.91	230.53	230.36	230.41	230.31	
16	230.25	230.70	231.85	230.62	231.08	233.33	231.10	230.90	230.50	230.35	230.49	230.29	
17	230.22	231.22	231.36	230.56	230.86	232.96	231.09	231.06	230.49	230.36	230.55	230.36	
18	230.22	231.09	231.25	230.60	230.74	234.45	231.09	231.64	230.49	230.36	230.52	230.39	
19	230.23	230.80	231.42	230.66	230.71	234.14	231.10	231.45	230.49	230.31	230.48	230.38	
20	230.18	230.71	231.65	230.71	231.00	235.24	231.26	231.23	230.48	230.33	230.43	230.38	
21	230.15	230.60	231.47	230.67	231.87	235.54	231.17	231.12	230.47	230.34	230.43	230.45	
22	230.13	230.48	231.44	230.56	232.18	236.26	231.59	231.03	230.46	230.34	230.42	230.45	
23	230.13	230.40	231.00	230.53	232.91	236.13	231.19	230.98	230.44	230.35	230.41	230.69	
24	230.13	230.36	230.81	230.52	233.54	233.84	231.16	230.91	230.45	230.36	230.40	230.57	
25	230.17	230.36	230.66	230.44	232.54	232.89	231.13	230.86	230.45	230.34	230.39	230.51	
26	230.20	230.77	230.85	230.46	232.65	232.43	231.03	230.89	230.43	230.31	230.37	230.47	
27	230.17	230.73	230.94	230.52	233.57	232.15	231.50	230.86	230.45	230.30	230.38	230.44	
28	230.16	230.65	231.79	230.55	232.42	232.07	234.26	230.92	230.46	230.29	230.49	230.41	
29	230.14	231.93	231.97	230.66	232.08	232.13	234.12	230.86	230.48	230.29		230.44	
30	230.14	232.56	231.21	230.68	232.56	232.39	233.09	230.83	230.49	230.29		230.45	
31		232.45		230.70	234.48		232.33		230.48	230.30		230.43	
Mean	230.19	230.68	231.38	230.60	231.65	235.69	231.92	231.22	230.55	230.39	230.42	230.40	
Max	230.43	232.56	233.32	231.05	234.48	241.08	234.26	232.42	230.75	230.58	230.55	230.69	241.08
Min	230.08	230.10	230.66	230.37	230.71	232.07	231.03	230.83	230.43	230.29	230.32	230.29	230.08

Annual Max Momentary Gage Height	241.13	m. (MSL.) ,	at 11.00 Hours , on Sep 6 , 2002		
Zero Gage at Bottom Elevation	229.00	m. (MSL.) ,	River Bed	229.42	m. (MSL.)
Left Bank Elevation	240.43	m. (MSL.) ,			
Right Bank Elevation	240.40	m. (MSL.) ,	Drainage Are	3,093	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	6.60	0.65	92.20	16.25	16.75	174.60	83.80	59.20	13.25	9.40	4.40	6.80		
2	4.80	0.50	39.20	16.75	12.75	596.20	84.40	66.40	11.40	9.60	5.20	7.40		
3	3.60	0.95	19.70	11.60	12.25	1093.50	107.60	89.40	11.80	7.40	8.40	7.20		
4	2.80	2.40	12.25	9.60	17.30	1465.00	95.00	57.40	11.60	7.20	7.40	6.60		
5	2.00	3.60	21.20	8.40	16.25	1545.00	73.00	43.00	13.25	7.20	5.80	5.20		
6	1.85	4.40	29.60	7.40	15.00	1585.00	58.00	36.40	12.25	7.20	5.80	5.00		
7	1.70	5.80	37.20	7.20	16.50	1348.50	123.70	32.40	11.80	7.00	5.60	4.80		
8	0.95	6.00	24.20	7.00	57.40	867.08	157.30	25.70	11.20	7.40	5.40	4.60		
9	0.47	5.20	17.90	6.80	36.80	683.75	86.80	25.40	10.80	7.40	5.40	4.40		
10	0.50	5.20	26.80	6.20	20.90	582.40	60.40	22.40	10.20	7.20	5.40	3.80		
11	0.47	11.20	29.60	5.40	15.25	445.65	39.20	21.20	9.80	7.00	6.20	4.00		
12	0.44	7.20	31.20	7.40	12.75	280.65	38.80	20.00	9.20	7.20	6.80	4.00		
13	0.95	6.60	20.90	21.50	38.00	195.40	33.60	19.70	9.00	6.60	6.80	4.40		
14	2.00	7.40	67.00	14.75	33.60	175.40	26.00	18.50	8.60	5.40	6.00	4.40		
15	3.80	7.60	152.40	11.20	33.20	163.60	24.20	17.30	8.60	5.20	6.20	4.20		
16	3.00	12.00	55.00	10.40	22.40	153.10	23.00	17.00	8.00	5.00	7.80	3.80		
17	2.40	26.80	32.40	9.20	16.00	127.20	22.70	21.80	7.80	5.20	9.00	5.20		
18	2.40	22.70	28.00	10.00	13.00	243.25	22.70	44.00	7.80	5.20	8.40	5.80		
19	2.60	14.50	34.80	11.20	12.25	216.90	23.00	36.00	7.80	4.20	7.60	5.60		
20	1.70	12.25	44.50	12.25	20.00	314.00	28.40	27.20	7.60	4.60	6.60	5.60		
21	1.25	10.00	36.80	11.40	56.20	344.00	25.10	23.60	7.40	4.80	6.60	7.00		
22	0.95	7.60	35.60	9.20	74.80	417.30	41.60	20.90	7.20	4.80	6.40	7.00		
23	0.95	6.00	20.00	8.60	123.70	403.65	25.70	19.40	6.80	5.00	6.20	11.80		
24	0.95	5.20	14.75	8.40	168.20	192.20	24.80	17.30	7.00	5.20	6.00	9.40		
25	1.55	5.20	11.20	6.80	97.80	122.30	23.90	16.00	7.00	4.80	5.80	8.20		
26	2.00	13.75	15.75	7.20	105.50	90.10	20.90	16.75	6.60	4.20	5.40	7.40		
27	1.55	12.75	18.20	8.40	170.60	73.00	38.00	16.00	7.00	4.00	5.60	6.80		
28	1.40	11.00	51.50	9.00	89.40	68.20	227.10	17.60	7.20	3.80	7.80	6.20		
29	1.10	59.80	62.20	11.20	68.80	71.80	215.20	16.00	7.60	3.80		6.80		
30	1.10	99.20	26.40	11.60	99.20	87.40	136.30	15.25	7.80	3.80		7.00		
31		91.50		12.00	245.80		83.80		7.60	4.00		6.60		
Total	57.83	484.95	1108.45	314.30	1738.35	14126.13	2074.00	879.20	280.95	180.80	180.00	187.00	21611.96	CMSDAY
Mean	1.93	15.64	36.95	10.14	56.08	470.87	66.90	29.31	9.06	5.83	6.43	6.03	59.21	CMS
Max	6.60	99.20	152.40	21.50	245.80	1585.00	227.10	89.40	13.25	9.60	9.00	11.80	1585.00	CMS
Min	0.44	0.50	11.20	5.40	12.25	68.20	20.90	15.25	6.60	3.80	4.40	3.80	0.44	CMS
Runoff	5.00	41.90	95.77	27.16	150.19	1220.50	179.19	75.96	24.27	15.62	15.55	16.16	1867.27	MCM

Momentary Peak 1685.01 CMS. at 241.13 m. (MSL.) at 11.00 Hours , on Sep 6 , 2002

Runoff Yield 19.14 Liters/Second/Square KM. Momentary Peak Yield 544.780 Liters/Second/Square KM.

WATER YEAR : 2002

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.

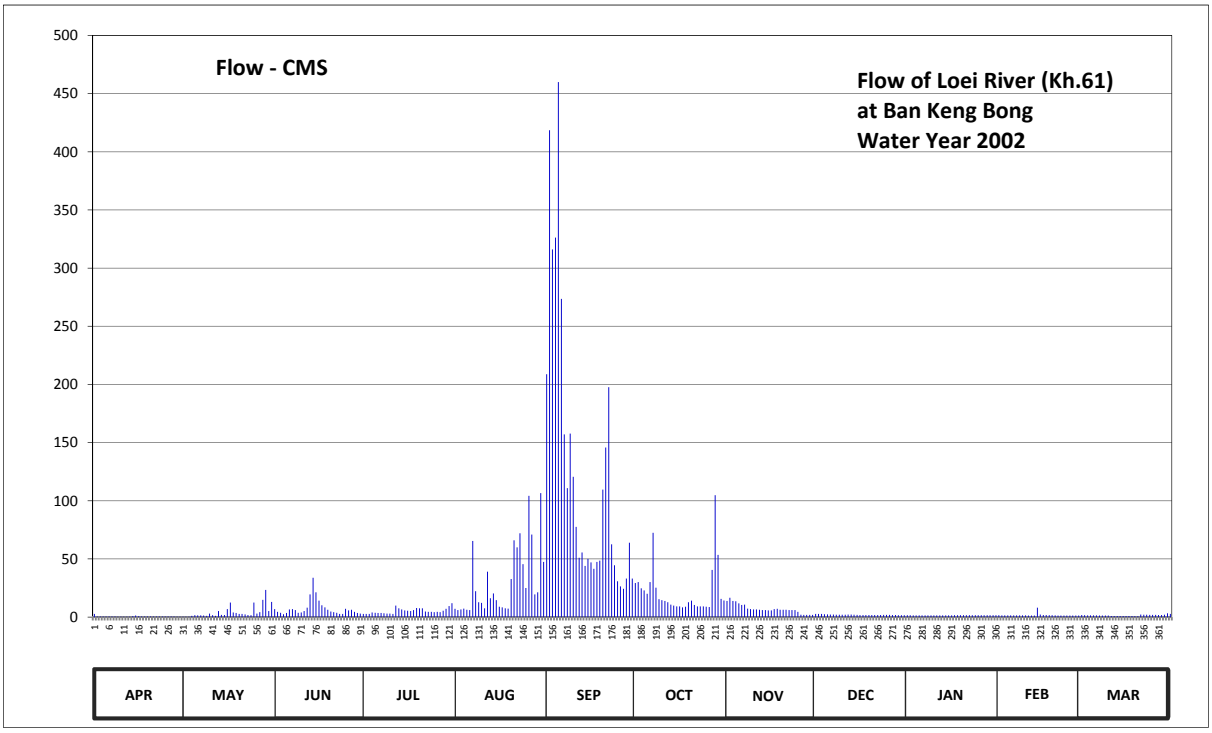
Ban Keng Bong **Amphoe** Phu Luang **Changwat** Loei

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 mean 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. Stage-discharge relation defined by 35 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	258.91	258.68	259.07	258.91	259.08	262.73	259.85	259.34	258.91	258.84	258.84	258.85	
2	258.70	258.68	258.98	258.91	259.04	264.47	259.87	259.45	258.91	258.84	258.83	258.84	
3	258.70	258.68	258.95	258.91	259.06	263.75	259.72	259.34	258.91	258.83	258.83	258.83	
4	258.70	258.81	258.90	258.96	259.09	263.83	259.67	259.33	258.90	258.83	258.83	258.83	
5	258.70	258.84	258.94	258.95	259.05	264.72	259.58	259.26	258.89	258.83	258.83	258.83	
6	258.70	258.83	259.06	258.94	259.04	263.40	259.87	259.21	258.88	258.83	258.83	258.83	
7	258.70	258.83	259.07	258.94	260.61	262.09	260.75	259.22	258.88	258.83	258.83	258.82	
8	258.70	258.82	259.04	258.93	259.65	261.43	259.74	259.09	258.87	258.83	258.83	258.82	
9	258.69	258.81	258.95	258.92	259.30	262.10	259.40	259.07	258.87	258.83	258.83	258.82	
10	258.69	258.92	258.96	258.92	259.28	261.58	259.37	259.06	258.87	258.83	258.83	258.82	
11	258.68	258.84	259.01	258.91	259.10	260.85	259.34	259.06	258.87	258.83	258.82	258.78	
12	258.68	258.81	259.12	259.19	260.08	260.32	259.30	259.05	258.88	258.83	258.82	258.78	
13	258.68	259.01	259.56	259.10	259.43	260.41	259.22	259.04	258.88	258.83	258.82	258.78	
14	258.75	258.86	259.97	259.06	259.59	260.18	259.19	259.04	258.87	258.83	259.12	258.78	
15	258.82	258.85	259.62	259.03	259.37	260.30	259.16	259.03	258.86	258.83	258.88	258.78	
16	258.77	259.07	259.35	259.02	259.15	260.24	259.16	259.03	258.85	258.83	258.85	258.78	
17	258.70	259.29	259.20	259.01	259.13	260.13	259.13	259.07	258.85	258.84	258.85	258.78	
18	258.71	258.96	259.13	259.04	259.10	260.25	259.15	259.08	258.85	258.84	258.84	258.78	
19	258.71	258.94	259.05	259.11	259.09	260.27	259.30	259.05	258.85	258.84	258.84	258.77	
20	258.71	258.91	258.99	259.10	259.94	261.41	259.35	259.05	258.85	258.84	258.83	258.77	
21	258.70	258.91	258.97	259.10	260.62	261.94	259.21	259.05	258.85	258.84	258.82	258.88	
22	258.70	258.89	258.95	258.99	260.50	262.60	259.16	259.04	258.85	258.84	258.82	258.87	
23	258.70	258.85	258.91	258.98	260.74	260.55	259.16	259.04	258.85	258.84	258.82	258.87	
24	258.70	258.84	258.91	258.98	260.21	260.19	259.16	259.04	258.86	258.84	258.82	258.86	
25	258.70	259.29	259.08	258.97	259.73	259.89	259.15	258.98	258.86	258.84	258.82	258.86	
26	258.70	258.92	259.03	258.98	261.32	259.77	259.14	258.87	258.86	258.84	258.82	258.86	
27	258.70	258.97	259.05	258.97	260.72	259.71	260.11	258.86	258.85	258.84	258.82	258.85	
28	258.70	259.38	258.98	259.02	259.56	259.95	261.33	258.86	258.85	258.84	258.82	258.85	
29	258.68	259.68	258.94	259.08	259.62	260.58	260.37	258.86	258.84	258.84		258.87	
30		259.01	258.92	259.17	261.36	259.95	259.41	258.86	258.84	258.84		258.93	
31		259.31		259.27	260.25		259.36		258.84	258.84		258.91	
Mean	258.71	258.95	259.09	259.01	259.74	261.32	259.54	259.08	258.87	258.84	258.84	258.83	
Max	258.91	259.68	259.97	259.27	261.36	264.72	261.33	259.45	258.91	258.84	259.12	258.93	264.72
Min	258.68	258.68	258.90	258.91	259.04	259.71	259.13	258.86	258.84	258.83	258.82	258.77	258.68

Annual Max Momentary Gage Height	264.86	m. (MSL.) ,	at 06.00 Hours , on Sep 2 , 2002		
Zero Gage at Bottom Elevation	258.36	m. (MSL.) ,	River Bed	258.55	m. (MSL.)
Left Bank Elevation	271.80	m. (MSL.) ,			
Right Bank Elevation	265.28	m. (MSL.) ,	Drainage Are	549	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.75	0.40	6.82	2.75	7.08	208.78	29.30	13.84	2.75	1.60	1.60	1.75		
2	0.50	0.40	4.50	2.75	6.04	418.50	30.06	16.70	2.75	1.60	1.45	1.60		
3	0.50	0.40	3.75	2.75	6.56	316.00	24.68	13.84	2.75	1.45	1.45	1.45		
4	0.50	1.15	2.50	4.00	7.34	326.24	22.98	13.58	2.50	1.45	1.45	1.45		
5	0.50	1.60	3.50	3.75	6.30	459.96	20.08	11.76	2.35	1.45	1.45	1.45		
6	0.50	1.45	6.56	3.50	6.04	273.60	30.06	10.46	2.20	1.45	1.45	1.45		
7	0.50	1.45	6.82	3.50	65.50	157.02	72.50	10.72	2.20	1.45	1.45	1.30		
8	0.50	1.30	6.04	3.25	22.30	110.80	25.36	7.34	2.05	1.45	1.45	1.30		
9	0.45	1.15	3.75	3.00	12.80	157.80	15.40	6.82	2.05	1.45	1.45	1.30		
10	0.45	3.00	4.00	3.00	12.28	120.60	14.62	6.56	2.05	1.45	1.45	1.30		
11	0.40	1.60	5.26	2.75	7.60	77.50	13.84	6.56	2.05	1.45	1.30	0.90		
12	0.40	1.15	8.12	9.94	39.00	51.00	12.80	6.30	2.20	1.45	1.30	0.90		
13	0.40	5.26	19.56	7.60	16.18	55.50	10.72	6.04	2.20	1.45	1.30	0.90		
14	0.75	1.90	33.86	6.56	20.34	44.00	9.94	6.04	2.05	1.45	8.12	0.90		
15	1.30	1.75	21.28	5.78	14.62	50.00	9.16	5.78	1.90	1.45	2.20	0.90		
16	0.85	6.82	14.10	5.52	8.90	47.00	9.16	5.78	1.75	1.45	1.75	0.90		
17	0.50	12.54	10.20	5.26	8.38	41.50	8.38	6.82	1.75	1.60	1.75	0.90		
18	0.55	4.00	8.38	6.04	7.60	47.50	8.90	7.08	1.75	1.60	1.60	0.90		
19	0.55	3.50	6.30	7.86	7.34	48.50	12.80	6.30	1.75	1.60	1.60	0.85		
20	0.55	2.75	4.75	7.60	32.72	109.60	14.10	6.30	1.75	1.60	1.45	0.85		
21	0.50	2.75	4.25	7.60	66.00	145.80	10.46	6.30	1.75	1.60	1.30	2.20		
22	0.50	2.35	3.75	4.75	60.00	197.60	9.16	6.04	1.75	1.60	1.30	2.05		
23	0.50	1.75	2.75	4.50	72.00	62.50	9.16	6.04	1.75	1.60	1.30	2.05		
24	0.50	1.60	2.75	4.50	45.50	44.50	9.16	6.04	1.90	1.60	1.30	1.90		
25	0.50	12.54	7.08	4.25	25.02	30.82	8.90	4.50	1.90	1.60	1.30	1.90		
26	0.50	3.00	5.78	4.50	104.20	26.38	8.64	2.05	1.90	1.60	1.30	1.90		
27	0.50	4.25	6.30	4.25	71.00	24.34	40.50	1.90	1.75	1.60	1.30	1.75		
28	0.50	14.88	4.50	5.52	19.56	33.10	104.80	1.90	1.75	1.60	1.30	1.75		
29	0.40	23.32	3.50	7.08	21.28	64.00	53.50	1.90	1.60	1.60		2.05		
30	0.40	5.26	3.00	9.42	106.60	33.10	15.66	1.90	1.60	1.60		3.25		
31		13.06		12.02	47.50		14.36		1.60	1.60		2.75		
Total	18.20	138.33	223.71	165.55	953.58	3783.54	679.14	213.19	62.05	47.50	47.42	46.80	6379.01	CMSDAY
Mean	0.61	4.46	7.46	5.34	30.76	126.12	21.91	7.11	2.00	1.53	1.69	1.51	17.48	CMS
Max	2.75	23.32	33.86	12.02	106.60	459.96	104.80	16.70	2.75	1.60	8.12	3.25	459.96	CMS
Min	0.40	0.40	2.50	2.75	6.04	24.34	8.38	1.90	1.60	1.45	1.30	0.85	0.40	CMS
Runoff	1.57	11.95	19.33	14.30	82.39	326.90	58.68	18.42	5.36	4.10	4.10	4.04	551.15	MCM

Momentary Peak 483.48 CMS. at 264.86 m. (MSL.) at 06.00 Hours , on Sep 2 , 2002

Runoff Yield 31.83 Liters/Second/Square KM. Momentary Peak Yield 880.660 Liters/Second/Square KM.

WATER YEAR : 2002

KHONG RIVER BASIN

Huai Nam Kam at Ban Dan Muang Kham, Sakon Nakhon (Kh.63)

Lat 17 - 06 - 08 N Long 104 - 21 - 28 E

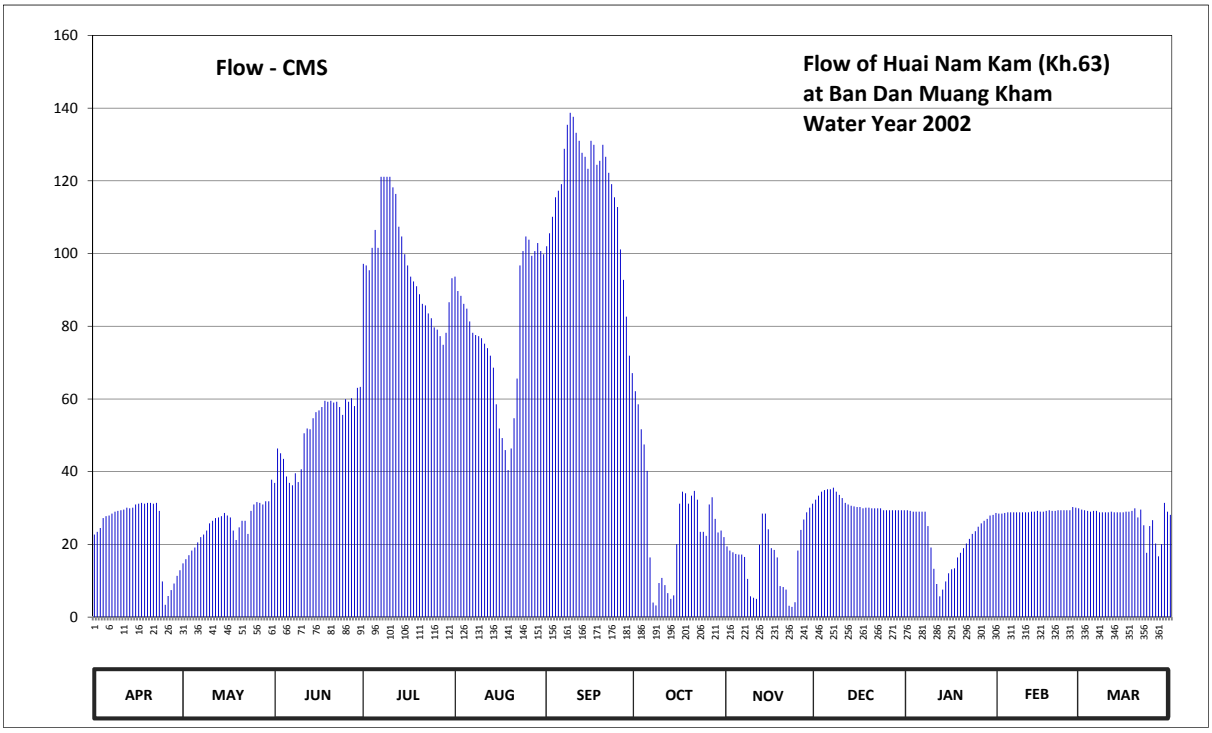
Location : on left bank at the bridge on road.

	Ban Dan Muang Kham	**Amphoe** Khok Si Suphan	**Changwat** Sakon Nakhon
Drainge Area	1,820 sq.km.		
Type of Gage	Water - stage recorder.		
Zero Gage at Bottom	+147.530 m. (MSL.)		
Bench Mark	B.M.- Highways Dept.		
Location BM	On left bank at the abutment of the bridge.		**Elevation** +155.198 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1982 to date		
Rating Operation			
Period of Rating	1982 - 1985, 1997 to date.		
Rated by Flot	-		
Rated by Current Meter	1982 - 1985, 1997 to date.		
Stability of Channel Regimes	Fairly stable because of backwater effect.		
Overbank Flow Conditions	Overbank flow starts at elevation +151.740 m.(M.S.L.) and is including overbank flow.		
General Description	Records fair. The weir situated downstream from the gage site.		
	Stage-discharge relation defined by 18 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	150.04	149.55	150.77	152.89	152.81	153.00	151.88	149.84	150.56	150.41	150.36	150.42	
2	150.08	149.62	151.20	152.88	152.72	153.04	151.73	149.77	150.61	150.40	150.36	150.41	
3	150.14	149.69	151.14	152.85	152.69	153.09	151.44	149.74	150.66	150.39	150.37	150.40	
4	150.29	149.77	151.07	152.99	152.64	153.15	151.25	149.71	150.68	150.39	150.38	150.39	
5	150.32	149.82	150.85	153.05	152.61	153.17	150.92	149.70	150.69	150.39	150.38	150.40	
6	150.33	149.91	150.77	152.99	152.53	153.19	149.65	149.70	150.69	150.39	150.38	150.40	
7	150.36	150.00	150.74	153.21	152.44	153.28	148.70	149.66	150.71	150.39	150.38	150.38	
8	150.39	150.04	150.89	153.21	152.42	153.34	148.62	149.25	150.66	150.17	150.38	150.38	
9	150.40	150.10	150.78	153.21	152.41	153.37	149.17	148.87	150.62	149.82	150.38	150.38	
10	150.41	150.21	150.94	153.21	152.39	153.36	149.27	148.83	150.58	149.45	150.38	150.38	
11	150.42	150.25	151.39	153.18	152.34	153.32	149.13	148.80	150.52	149.15	150.38	150.39	
12	150.45	150.29	151.45	153.16	152.30	153.30	148.96	149.87	150.50	148.87	150.39	150.38	
13	150.44	150.30	151.44	153.06	152.23	153.27	148.80	150.36	150.48	149.04	150.39	150.38	
14	150.45	150.32	151.57	153.03	152.12	153.26	148.90	150.36	150.47	149.20	150.40	150.38	
15	150.50	150.37	151.64	152.95	151.73	153.23	149.88	150.12	150.46	149.36	150.39	150.38	
16	150.51	150.33	151.66	152.88	151.45	153.30	150.51	149.81	150.46	149.44	150.39	150.39	
17	150.52	150.30	151.70	152.81	151.33	153.29	150.66	149.78	150.44	149.46	150.40	150.39	
18	150.51	150.10	151.77	152.78	151.18	153.24	150.64	149.65	150.45	149.65	150.41	150.40	
19	150.52	149.95	151.76	152.75	150.93	153.25	150.51	149.11	150.45	149.73	150.40	150.44	
20	150.52	150.15	151.77	152.70	151.20	153.29	150.61	149.09	150.44	149.81	150.40	150.30	
21	150.51	150.25	151.75	152.64	151.57	153.26	150.67	149.04	150.44	149.89	150.41	150.42	
22	150.52	150.25	151.76	152.63	152.02	153.22	150.56	148.61	150.44	149.97	150.41	150.18	
23	150.40	150.05	151.70	152.58	152.88	153.19	150.08	148.56	150.44	150.05	150.41	149.73	
24	149.20	150.40	151.61	152.55	152.97	153.15	150.08	148.71	150.41	150.09	150.41	150.17	
25	148.64	150.50	151.79	152.49	153.03	153.12	150.02	149.77	150.41	150.16	150.41	150.26	
26	148.88	150.53	151.76	152.47	153.02	152.98	150.50	150.11	150.41	150.21	150.46	149.89	
27	149.03	150.52	151.80	152.41	152.94	152.79	150.59	150.27	150.41	150.25	150.45	149.67	
28	149.16	150.50	151.71	152.33	152.97	152.56	150.28	150.38	150.41	150.28	150.44	149.88	
29	149.31	150.54	151.92	152.44	153.01	152.23	150.07	150.45	150.41	150.33		150.52	
30	149.42	150.54	151.93	152.65	152.97	152.07	150.10	150.51	150.41	150.34		150.39	
31		150.81		152.80	152.95		150.00		150.41	150.37		150.34	
Mean	150.09	150.19	151.43	152.83	152.35	153.11	150.13	149.61	150.51	149.93	150.40	150.30	
Max	150.52	150.81	151.93	153.21	153.03	153.37	151.88	150.51	150.71	150.41	150.46	150.52	153.37
Min	148.64	149.55	150.74	152.33	150.93	152.07	148.62	148.56	150.41	148.87	150.36	149.67	148.56

Annual Max Momentary Gage Height	153.37	m. (MSL.) ,	at 06.00 Hours , on Sep 9 , 2002		
Zero Gage at Bottom Elevation	147.53	m. (MSL.) ,	River Bed	147.21	m. (MSL.)
Left Bank Elevation	151.73	m. (MSL.) ,			
Right Bank Elevation	154.59	m. (MSL.) ,	Drainage Are	1,820	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	22.72	14.80	36.94	97.16	93.64	102.00	62.12	19.44	32.32	29.38	28.48	29.56		
2	23.44	15.92	46.40	96.72	89.68	105.60	58.52	18.32	33.42	29.20	28.48	29.38		
3	24.52	17.04	45.08	95.40	88.36	110.10	51.68	17.84	34.52	29.02	28.66	29.20		
4	27.22	18.32	43.54	101.56	86.16	115.50	47.50	17.36	34.96	29.02	28.84	29.02		
5	27.76	19.12	38.70	106.50	84.84	117.30	40.24	17.20	35.18	29.02	28.84	29.20		
6	27.94	20.56	36.94	101.56	81.32	119.10	16.40	17.20	35.18	29.02	28.84	29.20		
7	28.48	22.00	36.28	121.10	78.20	128.80	4.00	16.56	35.62	29.02	28.84	28.84		
8	29.02	22.72	39.58	121.10	77.60	135.40	3.20	10.50	34.52	25.06	28.84	28.84		
9	29.20	23.80	37.16	121.10	77.30	138.70	9.38	5.70	33.64	19.12	28.84	28.84		
10	29.38	25.78	40.68	121.10	76.70	137.60	10.78	5.30	32.76	13.30	28.84	28.84		
11	29.56	26.50	50.58	118.20	75.20	133.20	8.82	5.00	31.44	9.10	28.84	29.02		
12	30.10	27.22	51.90	116.40	74.00	131.00	6.60	19.92	31.00	5.70	29.02	28.84		
13	29.92	27.40	51.68	107.40	71.90	127.70	5.00	28.48	30.64	7.56	29.02	28.84		
14	30.10	27.76	54.68	104.70	68.60	126.60	6.00	28.48	30.46	9.80	29.20	28.84		
15	31.00	28.66	56.36	99.80	58.52	123.30	20.08	24.16	30.28	12.04	29.02	28.84		
16	31.22	27.94	56.84	96.72	51.90	131.00	31.22	18.96	30.28	13.16	29.02	29.02		
17	31.44	27.40	57.80	93.64	49.26	129.90	34.52	18.48	29.92	13.44	29.20	29.02		
18	31.22	23.80	59.48	92.32	45.96	124.40	34.08	16.40	30.10	16.40	29.38	29.20		
19	31.44	21.20	59.24	91.00	40.46	125.50	31.22	8.54	30.10	17.68	29.20	29.92		
20	31.44	24.70	59.48	88.80	46.40	129.90	33.42	8.26	29.92	18.96	29.20	27.40		
21	31.22	26.50	59.00	86.16	54.68	126.60	34.74	7.56	29.92	20.24	29.38	29.56		
22	31.44	26.50	59.24	85.72	65.60	122.20	32.32	3.10	29.92	21.52	29.38	25.24		
23	29.20	22.90	57.80	83.52	96.72	119.10	23.44	2.83	29.92	22.90	29.38	17.68		
24	9.80	29.20	55.64	82.20	100.68	115.50	23.44	4.10	29.38	23.62	29.38	25.06		
25	3.40	31.00	59.96	79.70	104.70	112.80	22.36	18.32	29.38	24.88	29.38	26.68		
26	5.80	31.66	59.24	79.10	103.80	101.12	31.00	23.98	29.38	25.78	30.28	20.24		
27	7.42	31.44	60.20	77.30	99.36	92.76	32.98	26.86	29.38	26.50	30.10	16.72		
28	9.24	31.00	58.04	74.90	100.68	82.64	27.04	28.84	29.38	27.04	29.92	20.08		
29	11.34	31.88	63.08	78.20	102.90	71.90	23.26	30.10	29.38	27.94		31.44		
30	12.88	31.88	63.32	86.60	100.68	67.10	23.80	31.22	29.38	28.12		29.02		
31		37.82		93.20	99.80		22.00		29.38	28.66		28.12		
Total	728.86	794.42	1554.86	2998.88	2445.60	3504.32	811.16	499.01	971.06	662.20	815.80	849.70	16635.87	CMSDAY
Mean	24.30	25.63	51.83	96.74	78.89	116.81	26.17	16.63	31.32	21.36	29.14	27.41	45.58	CMS
Max	31.44	37.82	63.32	121.10	104.70	138.70	62.12	31.22	35.62	29.38	30.28	31.44	138.70	CMS
Min	3.40	14.80	36.28	74.90	40.46	67.10	3.20	2.83	29.38	5.70	28.48	16.72	2.83	CMS
Runoff	62.97	68.64	134.34	259.10	211.30	302.77	70.08	43.11	83.90	57.21	70.49	73.41	1437.34	MCM

Momentary Peak 138.70 CMS. at 153.37 m. (MSL.) at 06.00 Hours , on Sep 9 , 2002

Runoff Yield 25.04 Liters/Second/Square KM. Momentary Peak Yield 76.210 Liters/Second/Square KM.

WATER YEAR : 2002

KHONG RIVER BASIN

Nam Kam at Ban Don Khao, Nakhon Phanom (Kh.64A)

Lat 16 - 57 - 22 N Long 104 - 37 - 27 E

Location : on left bank at the bridge on highway.

Ban Don Khao **Amphoe** Renu Nakhon **Changwat** Nakhon Phanom

Drainge Area	3,345 sq.km.
Type of Gage	Staff gage.
Zero Gage at Bottom	+132.030 m. (MSL.)
Bench Mark	B.M.- Highways Dept.
Location BM	On left bank downstream side at the abutment of the bridge. **Elevation** +141.813 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 mean 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 because of backwater effect.
Overbank Flow Conditions	Overbank flow starts at elevation +138.280 m.(M.S.L.) and is including overbank flow.
General Description	Records fair. Stage-discharge relation defined by 35 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

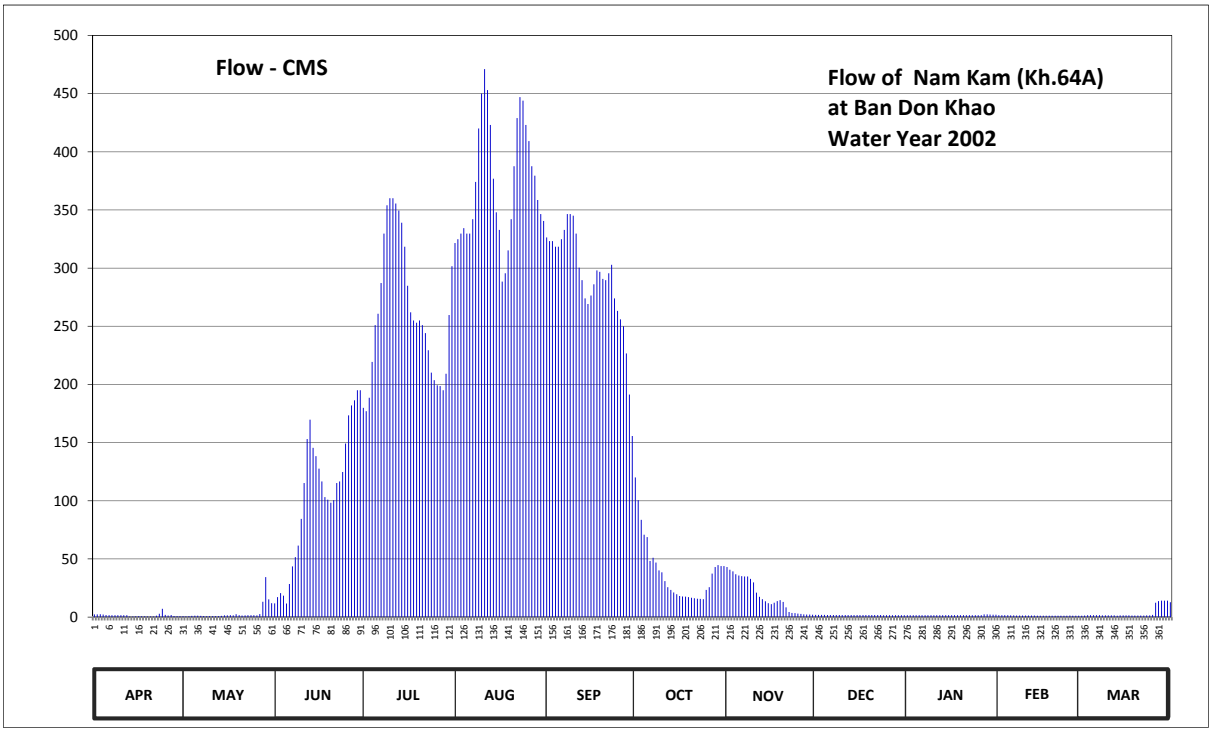
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	132.93	132.65	133.49	137.72	139.11	139.14	136.75	134.75	132.89	132.84	132.83	132.75	
2	132.93	132.64	133.76	137.68	139.13	139.12	136.33	134.67	132.89	132.84	132.83	132.76	
3	132.94	132.65	133.93	137.84	139.16	139.12	135.94	134.62	132.88	132.84	132.83	132.82	
4	132.92	132.72	133.82	138.21	139.19	139.09	135.62	134.53	132.87	132.84	132.82	132.82	
5	132.86	132.74	133.48	138.55	139.16	139.09	135.57	134.49	132.86	132.84	132.80	132.82	
6	132.84	132.75	134.23	138.64	139.16	139.13	134.94	134.47	132.85	132.84	132.79	132.82	
7	132.83	132.72	134.77	138.86	139.24	139.18	135.03	134.46	132.85	132.84	132.78	132.82	
8	132.83	132.68	135.05	139.16	139.43	139.27	134.89	134.46	132.85	132.84	132.77	132.81	
9	132.83	132.65	135.36	139.32	139.60	139.27	134.65	134.39	132.85	132.84	132.77	132.80	
10	132.82	132.65	135.96	139.36	139.70	139.26	134.59	134.28	132.85	132.83	132.77	132.80	
11	132.82	132.65	136.65	139.36	139.77	139.16	134.32	133.95	132.85	132.83	132.77	132.80	
12	132.82	132.65	137.33	139.33	139.71	138.97	134.13	133.77	132.85	132.83	132.77	132.80	
13	132.62	132.65	137.58	139.29	139.61	138.88	134.05	133.67	132.85	132.83	132.76	132.75	
14	132.62	132.72	137.21	139.22	139.44	138.75	133.96	133.58	132.85	132.83	132.75	132.80	
15	132.64	132.79	137.10	139.09	139.28	138.71	133.88	133.50	132.85	132.83	132.75	132.80	
16	132.65	132.81	136.91	138.84	139.18	138.77	133.81	133.45	132.85	132.83	132.75	132.80	
17	132.64	132.82	136.68	138.65	138.87	138.85	133.79	133.52	132.85	132.83	132.75	132.79	
18	132.63	132.81	136.39	138.59	138.93	138.95	133.78	133.59	132.85	132.83	132.75	132.78	
19	132.62	132.94	136.34	138.57	139.07	138.94	133.76	133.63	132.85	132.83	132.75	132.78	
20	132.62	132.82	136.28	138.59	139.24	138.89	133.73	133.55	132.85	132.83	132.75	132.78	
21	132.62	132.77	136.33	138.55	139.48	138.88	133.71	133.30	132.85	132.83	132.75	132.78	
22	132.75	132.81	136.65	138.48	139.63	138.93	133.69	133.08	132.85	132.83	132.75	132.78	
23	132.99	132.83	136.68	138.32	139.69	138.99	133.68	133.03	132.85	132.83	132.75	132.79	
24	133.23	132.82	136.85	138.11	139.68	138.75	133.67	133.02	132.84	132.83	132.75	132.80	
25	132.89	132.82	137.27	138.04	139.61	138.66	134.05	133.00	132.84	132.83	132.76	132.88	
26	132.76	132.81	137.63	137.99	139.56	138.60	134.13	132.97	132.84	132.83	132.75	133.52	
27	132.86	132.96	137.75	137.98	139.48	138.54	134.55	132.93	132.84	132.93	132.75	133.59	
28	132.70	133.56	137.81	137.93	139.45	138.29	134.75	132.92	132.84	132.93	132.75	133.61	
29	132.66	134.44	137.93	138.10	139.35	137.88	134.81	132.92	132.84	132.92		133.61	
30	132.65	133.66	137.93	138.63	139.27	137.37	134.78	132.91	132.84	132.91		133.61	
31		133.50		138.98	139.23		134.78		132.84	132.90		133.54	
Mean	132.78	132.89	136.17	138.58	139.37	138.85	134.52	133.71	132.85	132.85	132.77	132.95	
Max	133.23	134.44	137.93	139.36	139.77	139.27	136.75	134.75	132.89	132.93	132.83	133.61	139.77
Min	132.62	132.64	133.48	137.68	138.87	137.37	133.67	132.91	132.84	132.83	132.75	132.75	132.62

Annual Max Momentary Gage Height 139.77 m. (MSL.) , at 06.00 Hours , on Aug 11 , 2002

Zero Gage at Bottom Elevation 132.03 m. (MSL.) , River Bed 130.21 m. (MSL.)

Left Bank Elevation 138.27 m. (MSL.) ,

Right Bank Elevation 139.09 m. (MSL.) , Drainage Are 3,345 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.30	0.75	11.82	179.84	321.60	326.40	120.00	43.00	1.95	1.70	1.65	1.25		
2	2.30	0.70	17.20	176.96	324.80	323.20	100.52	40.76	1.95	1.70	1.65	1.30		
3	2.40	0.75	20.60	188.48	329.60	323.20	83.60	39.36	1.90	1.70	1.65	1.60		
4	2.20	1.10	18.40	219.32	334.40	318.40	70.80	36.84	1.85	1.70	1.60	1.60		
5	1.80	1.20	11.64	251.00	329.60	318.40	68.80	35.72	1.80	1.70	1.50	1.60		
6	1.70	1.25	28.44	260.80	329.60	324.80	48.32	35.16	1.75	1.70	1.45	1.60		
7	1.65	1.10	43.56	287.20	342.00	332.80	50.96	34.88	1.75	1.70	1.40	1.60		
8	1.65	0.90	51.60	329.60	374.10	346.50	46.92	34.88	1.75	1.70	1.35	1.55		
9	1.65	0.75	61.52	354.00	420.00	346.50	40.20	32.92	1.75	1.70	1.35	1.50		
10	1.60	0.75	84.40	360.00	450.00	345.00	38.52	29.84	1.75	1.65	1.35	1.50		
11	1.60	0.75	115.20	360.00	471.00	329.60	30.96	21.00	1.75	1.65	1.35	1.50		
12	1.60	0.75	153.12	355.50	453.00	300.40	25.64	17.40	1.75	1.65	1.35	1.50		
13	0.60	0.75	169.76	349.50	423.00	289.60	23.40	15.40	1.75	1.65	1.30	1.25		
14	0.60	1.10	145.44	339.00	376.80	274.00	21.20	13.60	1.75	1.65	1.25	1.50		
15	0.70	1.45	138.40	318.40	348.00	269.20	19.60	12.00	1.75	1.65	1.25	1.50		
16	0.75	1.55	127.68	284.80	332.80	276.40	18.20	11.10	1.75	1.65	1.25	1.50		
17	0.70	1.60	116.64	262.00	288.40	286.00	17.80	12.40	1.75	1.65	1.25	1.45		
18	0.65	1.55	103.16	255.00	295.60	298.00	17.60	13.80	1.75	1.65	1.25	1.40		
19	0.60	2.40	100.96	253.00	315.20	296.80	17.20	14.60	1.75	1.65	1.25	1.40		
20	0.60	1.60	98.32	255.00	342.00	290.80	16.60	13.00	1.75	1.65	1.25	1.40		
21	0.60	1.35	100.52	251.00	387.60	289.60	16.20	8.40	1.75	1.65	1.25	1.40		
22	1.25	1.55	115.20	244.16	429.00	295.60	15.80	4.44	1.75	1.65	1.25	1.40		
23	2.90	1.65	116.64	229.44	447.00	302.80	15.60	3.54	1.75	1.65	1.25	1.45		
24	7.14	1.60	124.80	210.12	444.00	274.00	15.40	3.36	1.70	1.65	1.25	1.50		
25	1.95	1.60	149.28	203.68	423.00	263.20	23.40	3.00	1.70	1.65	1.30	1.90		
26	1.30	1.55	173.36	199.28	409.20	256.00	25.64	2.70	1.70	1.65	1.25	12.40		
27	1.80	2.60	182.00	198.56	387.60	250.00	37.40	2.30	1.70	2.30	1.25	13.80		
28	1.00	13.20	186.32	194.96	379.50	226.68	43.00	2.20	1.70	2.30	1.25	14.20		
29	0.80	34.32	194.96	209.20	358.50	191.36	44.68	2.20	1.70	2.20		14.20		
30	0.75	15.20	194.96	259.60	346.50	155.68	43.84	2.10	1.70	2.10		14.20		
31		12.00		301.60	340.50		43.84		1.70	2.00		12.80		
Total	47.14	109.37	3155.90	8141.00	11553.90	8720.92	1201.64	541.90	54.55	54.25	37.75	118.75	33737.07	CMSDAY
Mean	1.57	3.53	105.20	262.61	372.71	290.70	38.76	18.06	1.76	1.75	1.35	3.83	92.43	CMS
Max	7.14	34.32	194.96	360.00	471.00	346.50	120.00	43.00	1.95	2.30	1.65	14.20	471.00	CMS
Min	0.60	0.70	11.64	176.96	288.40	155.68	15.40	2.10	1.70	1.65	1.25	1.25	0.60	CMS
Runoff	4.07	9.45	272.67	703.38	998.26	753.49	103.82	46.82	4.71	4.69	3.26	10.26	2914.88	MCM

Momentary Peak 471.00 CMS. at 139.77 m. (MSL.) at 06.00 Hours , on Aug 11 , 2002

Runoff Yield 27.63 Liters/Second/Square KM. Momentary Peak Yield 140.810 Liters/Second/Square KM.

WATER YEAR : 2002

KHONG RIVER BASIN

Lam Nam Bang at Ban Sang Mek, Nakhon Phanom (Kh.68)

Lat 17 - 00 - 41 N Long 104 - 34 - 16 E

Location : on left bank at the bridge on highway.

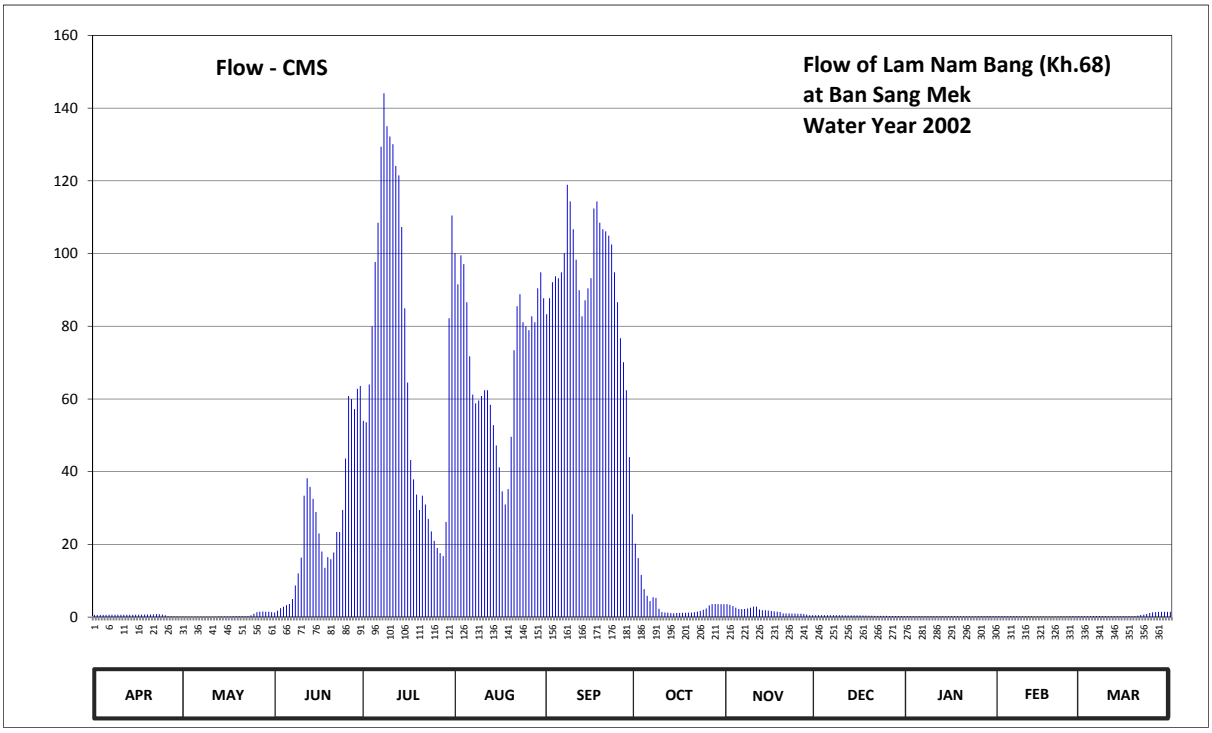
Ban Sang Mek **Amphoe** Renu Nakhon **Changwat** Nakhon Phanom

Drainge Area	703 sq.km.
Type of Gage	Staff gage.
Zero Gage at Bottom	+135.110 m. (MSL.)
Bench Mark	B.M.- Highways Dept.
Location BM	On left bank downstream side at the footpath of the bridge. **Elevation** +144.948 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 mean of 3 readings
Period of Available Gage Records	1982 to date
Rating Operation	
Period of Rating	1982 - 1985, 1996 to date.
Rated by Flot	-
Rated by Current Meter	1982 - 1985, 1996 to date.
Stability of Channel Regimes	Rather unstable because of backwater effect.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. The local weir situated downstream from the gage site. Stage-discharge relation defined by 11 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	135.82	135.42	136.24	140.15	141.06	140.76	139.01	137.38	135.76	135.60	135.58	135.58	
2	135.82	135.41	136.57	140.14	140.91	140.84	138.73	137.33	135.76	135.60	135.57	135.58	
3	135.82	135.40	137.02	140.40	141.05	140.92	138.36	137.21	135.76	135.58	135.57	135.58	
4	135.82	135.39	137.15	140.70	141.01	140.95	137.96	137.07	135.75	135.57	135.56	135.58	
5	135.82	135.38	137.30	141.02	140.82	140.94	137.73	136.91	135.75	135.56	135.56	135.59	
6	135.83	135.38	137.40	141.20	140.55	140.97	137.55	136.86	135.75	135.56	135.54	135.59	
7	135.83	135.38	137.62	141.52	140.33	141.06	137.68	136.90	135.74	135.56	135.54	135.59	
8	135.83	135.38	138.07	141.73	140.27	141.36	137.66	136.98	135.74	135.56	135.53	135.59	
9	135.83	135.37	138.40	141.60	140.29	141.29	136.92	137.07	135.74	135.55	135.52	135.59	
10	135.83	135.37	138.74	141.56	140.32	141.17	136.30	137.17	135.74	135.55	135.51	135.58	
11	135.83	135.37	139.58	141.53	140.36	141.03	136.25	137.16	135.73	135.55	135.50	135.58	
12	135.83	135.37	139.74	141.44	140.36	140.88	136.23	136.81	135.73	135.55	135.50	135.56	
13	135.84	135.43	139.66	141.40	140.26	140.75	136.13	136.65	135.72	135.55	135.49	135.56	
14	135.84	135.46	139.55	141.18	140.12	140.83	136.11	136.65	135.72	135.55	135.49	135.55	
15	135.84	135.46	139.43	140.79	139.98	140.89	136.16	136.61	135.71	135.55	135.49	135.55	
16	135.85	135.47	139.15	140.41	139.83	140.94	136.16	136.53	135.71	135.55	135.48	135.55	
17	135.85	135.48	138.86	139.88	139.62	141.26	136.18	136.46	135.70	135.54	135.48	135.55	
18	135.86	135.51	138.54	139.73	139.50	141.29	136.20	136.41	135.69	135.54	135.48	135.56	
19	135.86	135.56	138.75	139.59	139.64	141.20	136.21	136.35	135.67	135.53	135.48	135.58	
20	135.86	135.57	138.71	139.45	140.04	141.17	136.23	136.08	135.66	135.53	135.48	135.67	
21	135.89	135.57	138.84	139.58	140.58	141.16	136.31	136.06	135.65	135.52	135.49	135.77	
22	135.95	135.58	139.17	139.50	140.80	141.14	136.41	136.06	135.64	135.52	135.51	135.88	
23	135.93	135.58	139.17	139.35	140.86	141.10	136.54	136.05	135.63	135.51	135.52	135.98	
24	135.86	135.73	139.45	139.18	140.72	140.97	136.75	136.04	135.62	135.51	135.53	136.17	
25	135.76	136.00	139.89	139.05	140.70	140.82	136.99	136.03	135.62	135.54	135.54	136.29	
26	135.50	136.31	140.32	138.93	140.68	140.64	137.27	136.03	135.61	135.57	135.54	136.35	
27	135.50	136.39	140.30	138.83	140.75	140.52	137.38	135.96	135.61	135.58	135.56	136.36	
28	135.48	136.42	140.23	138.77	140.72	140.36	137.40	135.87	135.61	135.59	135.58	136.37	
29	135.46	136.41	140.37	139.31	140.89	139.90	137.39	135.76	135.61	135.59		136.37	
30	135.45	136.41	140.39	140.74	140.97	139.41	137.39	135.76	135.60	135.58		136.37	
31		136.31		141.23	140.84		137.38		135.60	135.58		136.37	
Mean	135.78	135.65	138.82	140.32	140.48	140.88	137.00	136.54	135.69	135.56	135.52	135.80	
Max	135.95	136.42	140.39	141.73	141.06	141.36	139.01	137.38	135.76	135.60	135.58	136.37	141.73
Min	135.45	135.37	136.24	138.77	139.50	139.41	136.11	135.76	135.60	135.51	135.48	135.55	135.37

Annual Max Momentary Gage Height	141.75	m. (MSL.) ,	at 06.00 Hours , on Jul 8 , 2002		
Zero Gage at Bottom Elevation	135.11	m. (MSL.) ,	River Bed	134.50	m. (MSL.)
Left Bank Elevation	144.79	m. (MSL.) ,			
Right Bank Elevation	144.76	m. (MSL.) ,	Drainage Are	703	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.63	0.12	1.26	54.00	100.10	83.30	20.20	3.54	0.54	0.30	0.28	0.28		
2	0.63	0.11	1.75	53.60	91.55	87.70	16.22	3.39	0.54	0.30	0.27	0.28		
3	0.63	0.10	2.46	64.00	99.50	92.10	11.60	3.03	0.54	0.28	0.27	0.28		
4	0.63	0.09	2.85	80.00	97.10	93.75	7.68	2.61	0.52	0.27	0.26	0.28		
5	0.63	0.08	3.30	97.70	86.60	93.20	5.84	2.26	0.52	0.26	0.26	0.29		
6	0.64	0.08	3.60	108.50	71.75	94.85	4.40	2.19	0.52	0.26	0.24	0.29		
7	0.64	0.08	4.96	129.40	61.20	100.10	5.44	2.25	0.51	0.26	0.24	0.29		
8	0.64	0.08	8.70	144.10	58.80	118.90	5.28	2.37	0.51	0.26	0.23	0.29		
9	0.64	0.07	12.00	135.00	59.60	114.35	2.28	2.61	0.51	0.25	0.22	0.29		
10	0.64	0.07	16.36	132.20	60.80	106.70	1.35	2.91	0.51	0.25	0.21	0.28		
11	0.64	0.07	33.40	130.10	62.40	98.30	1.27	2.88	0.49	0.25	0.20	0.28		
12	0.64	0.07	38.20	124.10	62.40	89.90	1.24	2.11	0.49	0.25	0.20	0.26		
13	0.66	0.13	35.80	121.50	58.40	82.75	1.09	1.87	0.48	0.25	0.19	0.26		
14	0.66	0.16	32.50	107.30	52.80	87.15	1.06	1.87	0.48	0.25	0.19	0.25		
15	0.66	0.16	28.90	84.95	47.20	90.45	1.14	1.81	0.46	0.25	0.19	0.25		
16	0.67	0.17	23.00	64.50	41.20	93.20	1.14	1.69	0.46	0.25	0.18	0.25		
17	0.67	0.18	18.04	43.20	34.60	112.40	1.17	1.59	0.45	0.24	0.18	0.25		
18	0.69	0.21	13.56	37.90	31.00	114.35	1.20	1.51	0.43	0.24	0.18	0.26		
19	0.69	0.26	16.50	33.70	35.20	108.50	1.21	1.42	0.40	0.23	0.18	0.28		
20	0.69	0.27	15.94	29.50	49.60	106.70	1.24	1.02	0.39	0.23	0.18	0.40		
21	0.73	0.27	17.76	33.40	73.40	106.10	1.36	0.99	0.37	0.22	0.19	0.55		
22	0.82	0.28	23.40	31.00	85.50	104.90	1.51	0.99	0.36	0.22	0.21	0.72		
23	0.79	0.28	23.40	27.00	88.80	102.50	1.71	0.97	0.34	0.21	0.22	0.87		
24	0.69	0.49	29.50	23.60	81.10	94.85	2.02	0.96	0.33	0.21	0.23	1.15		
25	0.54	0.90	43.60	21.00	80.00	86.60	2.39	0.94	0.33	0.24	0.24	1.33		
26	0.20	1.36	60.80	19.02	78.90	76.70	3.21	0.94	0.31	0.27	0.24	1.42		
27	0.20	1.48	60.00	17.62	82.75	70.10	3.54	0.84	0.31	0.28	0.26	1.44		
28	0.18	1.53	57.20	16.78	81.10	62.40	3.60	0.70	0.31	0.29	0.28	1.45		
29	0.16	1.51	62.80	26.20	90.45	44.00	3.57	0.54	0.31	0.29		1.45		
30	0.15	1.51	63.60	82.20	94.85	28.30	3.57	0.54	0.30	0.28		1.45		
31		1.36		110.45	87.70		3.54		0.30	0.28		1.45		
Total	17.48	13.53	755.14	2183.52	2186.35	2745.10	122.07	53.34	13.32	7.92	6.22	18.87	8122.86	CMSDAY
Mean	0.58	0.44	25.17	70.44	70.53	91.50	3.94	1.78	0.43	0.26	0.22	0.61	22.25	CMS
Max	0.82	1.53	63.60	144.10	100.10	118.90	20.20	3.54	0.54	0.30	0.28	1.45	144.10	CMS
Min	0.15	0.07	1.26	16.78	31.00	28.30	1.06	0.54	0.30	0.21	0.18	0.25	0.07	CMS
Runoff	1.51	1.17	65.24	188.66	188.90	237.18	10.55	4.61	1.15	0.68	0.54	1.63	701.82	MCM

Momentary Peak 145.50 CMS. at 141.75 m. (MSL.) at 06.00 Hours , on Jul 8 , 2002

Runoff Yield 31.66 Liters/Second/Square KM. Momentary Peak Yield 206.970 Liters/Second/Square KM.

WATER YEAR : 2002

KHONG RIVER BASIN

Lam Nam Kam at Ban Nong Rua Thong, Nakhon Phanom (Kh.69A)

Lat 16 - 57 - 32 N Long 104 - 28 - 02 E

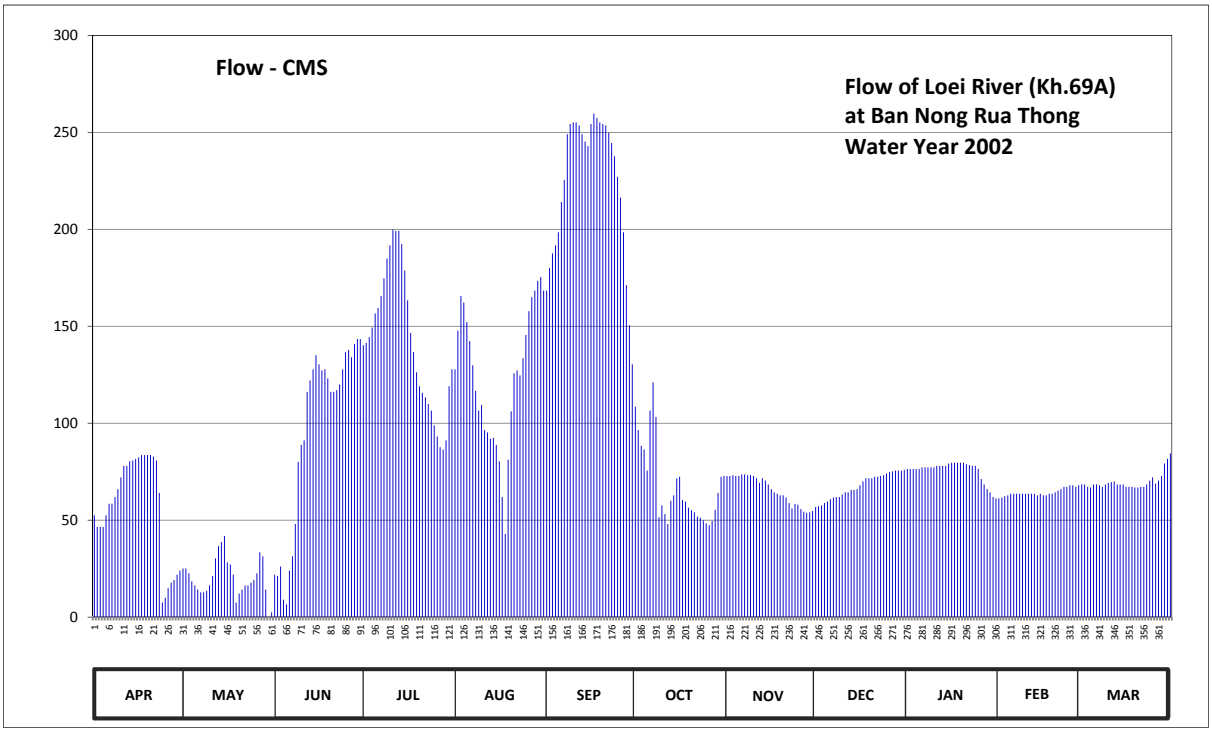
Location : on right bank at the bridge on highway.

	Ban Nong Rua Thong	**Amphoe** Na Kae	**Changwat** Nakhon Phanom
Drainge Area	2,288 sq.km.		
Type of Gage	Staff gage.		
Zero Gage at Bottom	+139.410 m. (MSL.)		
Bench Mark	B.M.- Highways Dept.		
Location BM	On left bank downstream side at the footpath of the bridge.		**Elevation** +149.121 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 mean 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 because of backwater effect.		
Overbank Flow Conditions	Overbank flow starts at elevation +145.020 m.(M.S.L.) and is including overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 16 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	142.45	142.21	142.17	143.89	143.65	144.40	143.26	142.42	142.02	142.51	142.13	142.31	
2	142.41	142.21	142.16	143.91	144.03	144.59	143.01	142.42	142.03	142.51	142.14	142.31	
3	142.41	142.18	142.22	143.97	144.35	144.70	142.81	142.43	142.04	142.51	142.16	142.28	
4	142.41	142.12	141.98	144.06	144.29	144.76	142.76	142.42	142.07	142.51	142.17	142.27	
5	142.45	142.09	141.93	144.19	144.11	144.86	142.49	142.42	142.09	142.51	142.19	142.31	
6	142.49	142.06	142.20	144.24	143.93	145.08	143.22	142.44	142.12	142.53	142.19	142.31	
7	142.49	142.04	142.27	144.35	143.69	145.23	143.52	142.44	142.14	142.53	142.19	142.30	
8	142.51	142.04	142.42	144.51	143.43	145.54	143.15	142.43	142.15	142.53	142.19	142.28	
9	142.53	142.05	142.60	144.66	143.22	145.61	141.86	142.43	142.15	142.53	142.19	142.31	
10	142.56	142.09	142.82	144.76	143.28	145.62	142.04	142.42	142.18	142.53	142.19	142.33	
11	142.59	142.16	142.88	144.88	143.01	145.62	141.91	142.39	142.21	142.55	142.19	142.34	
12	142.59	142.26	143.42	144.87	142.98	145.60	141.75	142.33	142.21	142.55	142.19	142.35	
13	142.61	142.32	143.54	144.87	142.90	145.54	142.10	142.39	142.24	142.55	142.19	142.31	
14	142.62	142.34	143.65	144.77	142.91	145.49	142.17	142.36	142.24	142.55	142.17	142.31	
15	142.64	142.37	143.79	144.57	142.82	145.46	142.39	142.31	142.25	142.58	142.19	142.31	
16	142.66	142.24	143.70	144.31	142.61	145.61	142.41	142.25	142.30	142.59	142.17	142.28	
17	142.69	142.23	143.64	144.01	142.51	145.68	142.11	142.21	142.35	142.59	142.17	142.28	
18	142.69	142.17	143.65	143.82	142.38	145.65	142.09	142.19	142.39	142.59	142.19	142.28	
19	142.69	141.95	143.56	143.62	142.63	145.62	142.01	142.17	142.39	142.59	142.19	142.27	
20	142.69	142.03	143.42	143.48	143.21	145.61	141.97	142.17	142.39	142.59	142.21	142.27	
21	142.67	142.06	143.42	143.41	143.61	145.60	141.94	142.14	142.41	142.57	142.23	142.28	
22	142.62	142.09	143.44	143.36	143.64	145.55	141.87	142.07	142.41	142.56	142.25	142.28	
23	142.52	142.09	143.50	143.29	143.59	145.48	141.85	142.00	142.42	142.55	142.28	142.31	
24	141.95	142.11	143.65	143.22	143.76	145.39	141.81	142.06	142.43	142.55	142.28	142.36	
25	142.00	142.13	143.82	143.06	143.99	145.25	141.76	142.05	142.45	142.51	142.30	142.40	
26	142.07	142.18	143.84	142.93	144.21	145.11	141.73	141.99	142.47	142.38	142.30	142.32	
27	142.11	142.29	143.77	142.79	144.34	144.86	141.80	141.95	142.48	142.31	142.28	142.36	
28	142.13	142.27	143.90	142.76	144.40	144.45	141.98	141.93	142.49	142.25	142.30	142.42	
29	142.17	142.06	143.95	142.88	144.49	144.08	142.20	141.94	142.49	142.21		142.58	
30	142.20	141.79	143.95	143.48	144.52	143.70	142.41	141.96	142.49	142.15		142.64	
31		141.85		143.65	144.40		142.42		142.50	142.13		142.71	
Mean	142.45	142.13	143.18	143.89	143.58	145.19	142.28	142.24	142.29	142.49	142.21	142.34	
Max	142.69	142.37	143.95	144.88	144.52	145.68	143.52	142.44	142.50	142.59	142.30	142.71	145.68
Min	141.95	141.79	141.93	142.76	142.38	143.70	141.73	141.93	142.02	142.13	142.13	142.27	141.73

Annual Max Momentary Gage Height	145.69	m. (MSL.) ,	at 06.00 Hours , on Sep 17 , 2002		
Zero Gage at Bottom Elevation	139.41	m. (MSL.) ,	River Bed	140.10	m. (MSL.)
Left Bank Elevation	146.25	m. (MSL.) ,			
Right Bank Elevation	145.02	m. (MSL.) ,	Drainage Are	2,288	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	52.50	25.05	21.90	140.28	127.80	168.40	108.48	72.80	56.80	76.40	61.20	68.40		
2	46.50	25.05	21.20	141.32	147.68	180.12	96.48	72.80	57.20	76.40	61.60	68.40		
3	46.50	22.60	26.10	144.44	165.60	187.60	88.40	73.20	57.60	76.40	62.40	67.20		
4	46.50	18.40	9.00	149.36	162.24	191.68	86.40	72.80	58.80	76.40	62.80	66.80		
5	52.50	16.30	6.50	156.64	152.16	198.48	75.60	72.80	59.60	76.40	63.60	68.40		
6	58.50	14.20	24.00	159.44	142.36	214.08	106.56	73.60	60.80	77.20	63.60	68.40		
7	58.50	12.80	31.35	165.60	129.88	225.48	121.04	73.60	61.60	77.20	63.60	68.00		
8	62.00	12.80	48.00	174.68	116.64	249.04	103.20	73.20	62.00	77.20	63.60	67.20		
9	66.00	13.50	80.00	184.88	106.56	254.36	51.52	73.20	62.00	77.20	63.60	68.40		
10	72.00	16.30	88.80	191.68	109.44	255.12	57.60	72.80	63.20	77.20	63.60	69.20		
11	78.00	21.20	91.20	199.84	96.48	255.12	53.12	71.60	64.40	78.00	63.60	69.60		
12	78.00	30.30	116.16	199.16	95.20	253.60	48.00	69.20	64.40	78.00	63.60	70.00		
13	80.40	36.60	122.08	199.16	92.00	249.04	60.00	71.60	65.60	78.00	63.60	68.40		
14	80.80	38.70	127.80	192.36	92.40	245.24	62.80	70.40	65.60	78.00	62.80	68.40		
15	81.60	41.85	135.08	178.76	88.80	242.96	71.60	68.40	66.00	79.20	63.60	68.40		
16	82.40	28.20	130.40	163.36	80.40	254.36	72.40	66.00	68.00	79.60	62.80	67.20		
17	83.60	27.15	127.28	146.56	62.00	259.68	60.40	64.40	70.00	79.60	62.80	67.20		
18	83.60	21.90	127.80	136.64	42.90	257.40	59.60	63.60	71.60	79.60	63.60	67.20		
19	83.60	7.50	123.12	126.24	81.20	255.12	56.40	62.80	71.60	79.60	63.60	66.80		
20	83.60	12.10	116.16	119.04	106.08	254.36	55.04	62.80	71.60	79.60	64.40	66.80		
21	82.80	14.20	116.16	115.68	125.72	253.60	54.08	61.60	72.40	78.80	65.20	67.20		
22	80.80	16.30	117.12	113.28	127.28	249.80	51.84	58.80	72.40	78.40	66.00	67.20		
23	64.00	16.30	120.00	109.92	124.68	244.48	51.20	56.00	72.80	78.00	67.20	68.40		
24	7.50	17.70	127.80	106.56	133.52	237.64	49.92	58.40	73.20	78.00	67.20	70.40		
25	10.00	19.10	136.64	98.88	145.48	227.00	48.32	58.00	74.00	76.40	68.00	72.00		
26	14.90	22.60	137.68	93.20	157.76	216.36	47.36	55.68	74.80	71.20	68.00	68.80		
27	17.70	33.45	134.04	87.60	165.04	198.48	49.60	54.40	75.20	68.40	67.20	70.40		
28	19.10	31.35	140.80	86.40	168.40	171.20	55.36	53.76	75.60	66.00	68.00	72.80		
29	21.90	14.20	143.40	91.20	173.44	150.48	64.00	54.08	75.60	64.40		79.20		
30	24.00	0.00	143.40	119.04	175.36	130.40	72.40	54.72	75.60	62.00		81.60		
31		2.50		127.80	168.40		72.80		76.00	61.20		84.40		
Total	1719.80	630.20	2890.97	4419.00	3862.90	6730.68	2111.52	1967.04	2096.00	2340.00	1800.80	2162.80	32731.71	CMSDAY
Mean	57.33	20.33	96.37	142.55	124.61	224.36	68.11	65.57	67.61	75.48	64.31	69.77	89.68	CMS
Max	83.60	41.85	143.40	199.84	175.36	259.68	121.04	73.60	76.00	79.60	68.00	84.40	259.68	CMS
Min	7.50	0.00	6.50	86.40	42.90	130.40	47.36	53.76	56.80	61.20	61.20	66.80	0.00	CMS
Runoff	148.59	54.45	249.78	381.80	333.75	581.53	182.44	169.95	181.09	202.18	155.59	186.87	2828.02	MCM

Momentary Peak 260.44 CMS. at 145.69 m. (MSL.) at 06.00 Hours , on Sep 17 , 2002

Runoff Yield 39.19 Liters/Second/Square KM. Momentary Peak Yield 113.830 Liters/Second/Square KM.

WATER YEAR : 2002

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	Staff gage.
Zero Gage at Bottom	+0.000 m. (A.D.)
Bench Mark	B.M.- H.D.
Location BM	On right bank about 20 meters from the top staff gage. **Elevation** +6.245 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 mean of 5 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 because of backwater effect
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Flow effected by the bridge of Chiang Rai - Mae Sai Highway construction. Stage-discharge relation defined by 38 discharge measurements made in 2002.

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

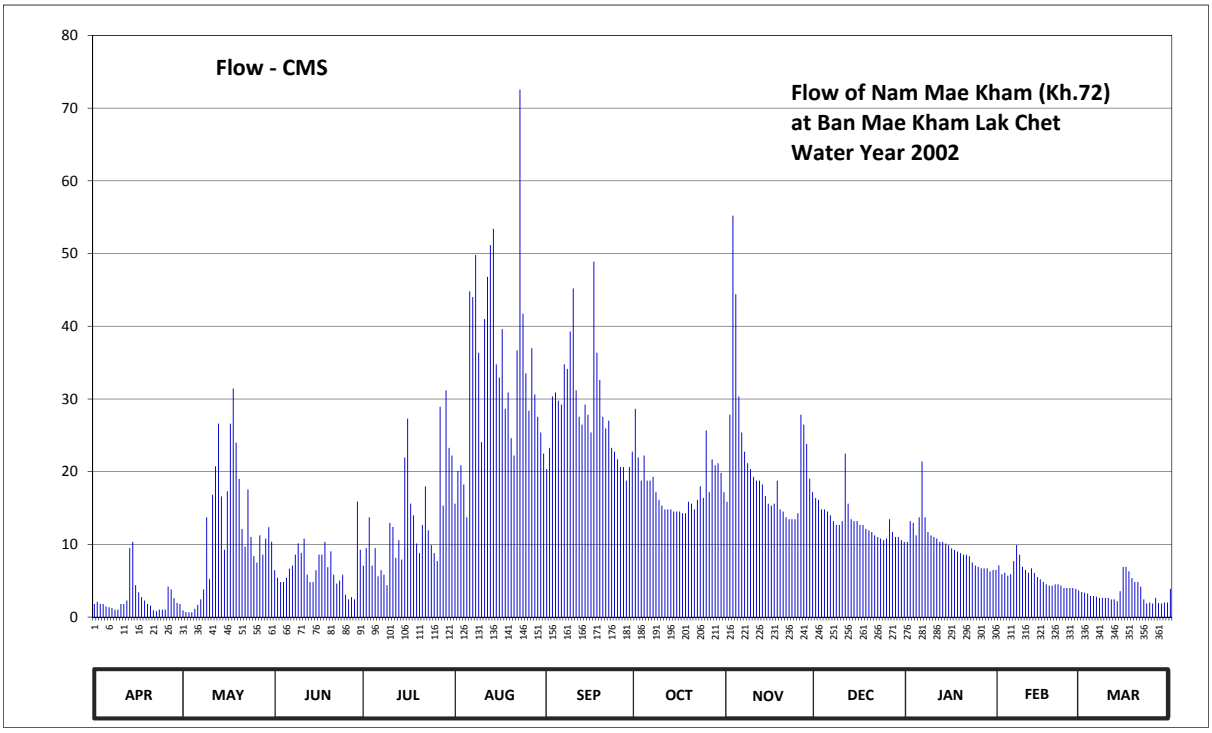
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	1.50	1.42	1.75	1.78	2.03	2.21	2.52	2.04	2.06	1.82	1.67	1.45	
2	1.52	1.40	1.70	1.89	2.20	2.32	2.27	2.49	2.05	1.94	1.61	1.44	
3	1.50	1.39	1.67	2.08	2.23	2.58	2.15	3.26	2.00	1.93	1.62	1.43	
4	1.50	1.39	1.67	1.78	2.13	2.60	2.28	3.01	2.00	1.86	1.60	1.40	
5	1.47	1.44	1.70	1.89	1.96	2.56	2.15	2.58	1.99	1.96	1.61	1.40	
6	1.46	1.49	1.76	1.71	3.02	2.54	2.15	2.40	1.97	2.25	1.70	1.39	
7	1.45	1.54	1.78	1.75	3.00	2.73	2.17	2.30	1.94	1.96	1.80	1.37	
8	1.43	1.62	1.85	1.72	3.14	2.71	2.09	2.24	1.92	1.88	1.74	1.37	
9	1.43	2.08	1.92	1.65	2.78	2.87	2.05	2.21	1.92	1.86	1.66	1.37	
10	1.50	1.69	1.86	1.93	2.35	3.03	2.02	2.17	1.94	1.85	1.64	1.37	
11	1.50	2.21	1.95	1.91	2.92	2.61	2.00	2.15	2.29	1.84	1.62	1.35	
12	1.53	2.37	1.72	1.72	3.07	2.48	2.00	2.15	2.03	1.82	1.65	1.35	
13	1.89	2.60	1.67	1.83	3.17	2.44	2.00	2.13	1.95	1.82	1.62	1.32	
14	1.93	2.20	1.67	1.71	3.22	2.54	1.99	2.07	1.94	1.81	1.59	1.46	
15	1.65	1.88	1.75	2.27	2.73	2.49	1.99	2.03	1.94	1.80	1.57	1.66	
16	1.60	2.23	1.85	2.47	2.67	2.40	1.99	2.02	1.92	1.78	1.55	1.66	
17	1.56	2.60	1.85	2.03	2.88	3.12	1.98	2.03	1.92	1.77	1.53	1.63	
18	1.53	2.78	1.93	1.97	2.52	2.78	1.98	2.15	1.90	1.76	1.52	1.58	
19	1.50	2.50	1.77	1.81	2.60	2.66	2.04	2.00	1.89	1.75	1.52	1.55	
20	1.48	2.30	1.87	1.75	2.37	2.48	2.03	1.99	1.88	1.74	1.53	1.55	
21	1.42	2.01	1.72	1.92	2.28	2.42	2.00	1.96	1.86	1.74	1.53	1.51	
22	1.41	1.90	1.66	2.12	2.79	2.46	2.05	1.95	1.85	1.73	1.52	1.35	
23	1.43	2.24	1.68	1.89	3.57	2.32	2.12	1.95	1.84	1.69	1.50	1.28	
24	1.43	1.96	1.72	1.80	2.94	2.30	2.06	1.95	1.83	1.67	1.50	1.30	
25	1.43	1.84	1.58	1.75	2.69	2.26	2.41	1.98	1.84	1.66	1.50	1.28	
26	1.64	1.80	1.54	1.70	2.51	2.22	2.09	2.49	1.95	1.65	1.50	1.37	
27	1.62	1.97	1.56	2.53	2.80	2.22	2.26	2.44	1.88	1.65	1.49	1.29	
28	1.55	1.85	1.54	2.02	2.59	2.15	2.23	2.34	1.85	1.65	1.47	1.28	
29	1.51	1.95	2.17	2.61	2.48	2.22	2.24	2.16	1.85	1.63		1.30	
30	1.50	2.02	1.88	2.32	2.40	2.30	2.19	2.09	1.83	1.64		1.30	
31		1.93		2.28	2.29		2.09		1.82	1.64		1.49	
Mean	1.53	1.95	1.76	1.95	2.66	2.50	2.12	2.22	1.93	1.79	1.58	1.41	
Max	1.93	2.78	2.17	2.61	3.57	3.12	2.52	3.26	2.29	2.25	1.80	1.66	3.57
Min	1.41	1.39	1.54	1.65	1.96	2.15	1.98	1.95	1.82	1.63	1.47	1.28	1.28

Annual Max Momentary Gage Height 3.72 m. (A.D.) , at 15.00 Hours , on Aug 23 , 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed 1.09 m. (A.D.)

Left Bank Elevation 6.24 m. (A.D.) ,

Right Bank Elevation 6.25 m. (A.D.) , Drainage Are 667 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.80	0.92	6.45	7.08	15.59	20.36	28.66	15.86	16.39	10.35	7.10	3.45		
2	2.12	0.70	5.41	9.48	20.10	23.28	21.95	27.83	16.12	13.21	5.90	3.34		
3	1.80	0.65	4.81	13.74	20.89	30.34	18.77	55.20	14.80	12.95	6.10	3.23		
4	1.80	0.65	4.81	7.08	18.24	30.90	22.22	44.40	14.80	11.25	5.70	2.90		
5	1.47	1.14	5.41	9.48	13.74	29.78	18.77	30.34	14.53	13.74	5.90	2.90		
6	1.36	1.69	6.66	5.62	44.80	29.22	18.77	25.40	14.00	21.42	7.70	2.81		
7	1.25	2.44	7.08	6.45	44.00	34.76	19.30	22.75	13.21	13.74	9.90	2.63		
8	1.03	3.80	8.60	5.83	49.80	34.12	17.18	21.16	12.68	11.70	8.58	2.63		
9	1.03	13.74	10.14	4.40	36.36	39.27	16.12	20.36	12.68	11.25	6.90	2.63		
10	1.80	5.21	8.82	12.95	24.07	45.20	15.33	19.30	13.21	11.03	6.50	2.63		
11	1.80	16.84	10.80	12.42	41.00	31.19	14.80	18.77	22.48	10.80	6.10	2.45		
12	2.28	20.75	5.83	8.14	46.80	27.56	14.80	18.77	15.59	10.35	6.70	2.45		
13	9.48	26.60	4.81	10.58	51.15	26.48	14.80	18.24	13.47	10.35	6.10	2.18		
14	10.36	16.60	4.81	7.92	53.40	29.22	14.53	16.65	13.21	10.13	5.53	3.56		
15	4.40	9.26	6.45	21.95	34.76	27.83	14.53	15.59	13.21	9.90	5.19	6.90		
16	3.40	17.32	8.60	27.29	32.93	25.40	14.53	15.33	12.68	9.46	4.85	6.90		
17	2.76	26.60	8.60	15.59	39.60	48.90	14.27	15.59	12.68	9.24	4.51	6.30		
18	2.28	31.44	10.36	14.00	28.66	36.36	14.27	18.77	12.15	9.02	4.34	5.36		
19	1.80	24.00	6.87	10.13	30.90	32.64	15.86	14.80	11.93	8.80	4.34	4.85		
20	1.58	19.00	9.04	8.80	24.60	27.56	15.59	14.53	11.70	8.58	4.51	4.85		
21	0.92	12.13	5.83	12.68	22.22	25.94	14.80	13.74	11.25	8.58	4.51	4.17		
22	0.81	9.70	4.61	17.98	36.68	27.02	16.12	13.47	11.03	8.36	4.34	2.45		
23	1.03	17.56	5.01	11.93	72.55	23.28	17.98	13.47	10.80	7.50	4.00	1.86		
24	1.03	11.02	5.83	9.90	41.75	22.75	16.39	13.47	10.58	7.10	4.00	2.00		
25	1.03	8.38	3.08	8.80	33.51	21.69	25.67	14.27	10.80	6.90	4.00	1.86		
26	4.20	7.50	2.44	7.70	28.38	20.63	17.18	27.83	13.47	6.70	4.00	2.63		
27	3.80	11.24	2.76	28.94	37.00	20.63	21.69	26.48	11.70	6.70	3.89	1.93		
28	2.60	8.60	2.44	15.33	30.62	18.77	20.89	23.81	11.03	6.70	3.67	1.86		
29	1.96	10.80	15.88	31.19	27.56	20.63	21.16	19.04	11.03	6.30		2.00		
30	1.80	12.36	9.26	23.28	25.40	22.75	19.83	17.18	10.58	6.50		2.00		
31		10.36		22.22	22.48		17.18		10.35	6.50		3.89		
Total	74.78	359.00	201.50	408.88	1049.54	854.46	553.94	632.40	404.14	305.11	154.86	101.60	5100.21	CMSDAY
Mean	2.49	11.58	6.72	13.19	33.86	28.48	17.87	21.08	13.04	9.84	5.53	3.28	13.97	CMS
Max	10.36	31.44	15.88	31.19	72.55	48.90	28.66	55.20	22.48	21.42	9.90	6.90	72.55	CMS
Min	0.81	0.65	2.44	4.40	13.74	18.77	14.27	13.47	10.35	6.30	3.67	1.86	0.65	CMS
Runoff	6.46	31.02	17.41	35.33	90.68	73.83	47.86	54.64	34.92	26.36	13.38	8.78	440.66	MCM

Momentary Peak 83.04 CMS. at 3.72 m. (A.D.) at 15.00 Hours , on Aug 23 , 2002

Runoff Yield 20.95 Liters/Second/Square KM. Momentary Peak Yield 124.500 Liters/Second/Square KM.

WATER YEAR : 2002

KHONG RIVER BASIN

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

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

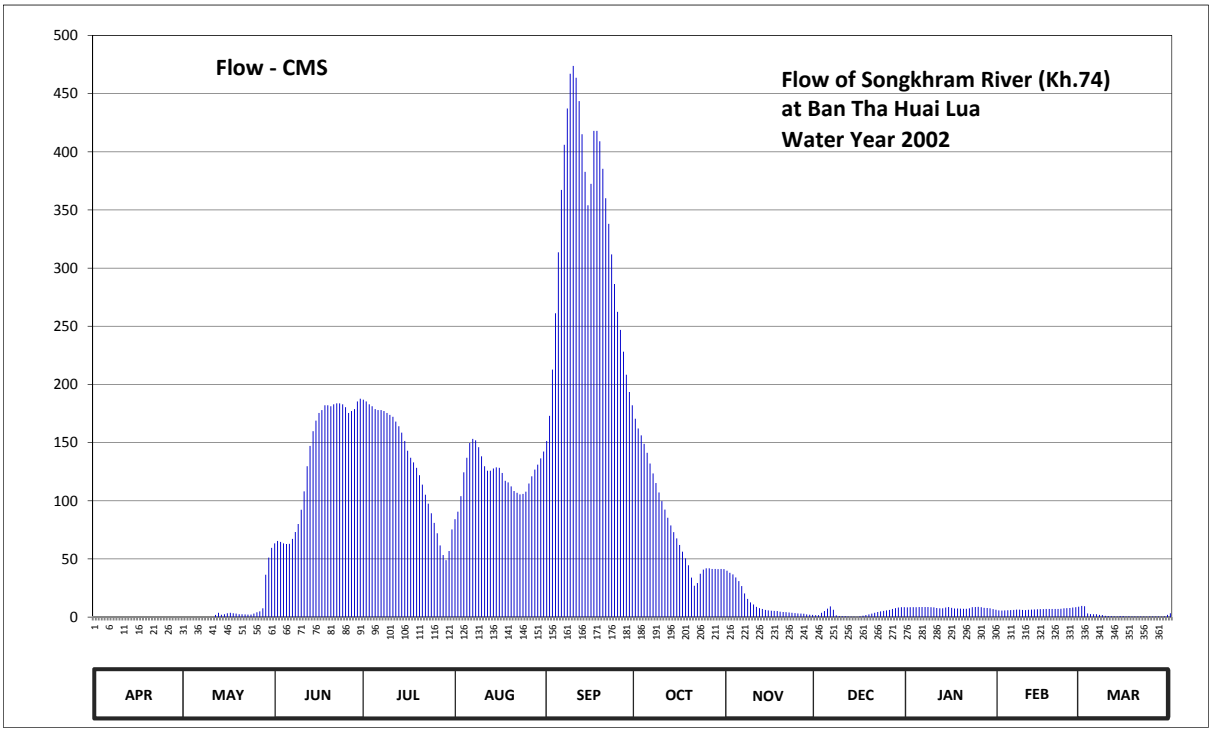
Location : on left bank at Ban Tha Huai Lua.

	Ban Tha Huai Lua	**Amphoe** Ban Muang	**Changwat** Sakon Nakhon
Drainge Area	2,199 sq.km.		
Type of Gage	Staff gage.		
Zero Gage at Bottom	+144.850 m. (MSL.)		
Bench Mark	B.M.- Highways Dept.		
Location BM	On left bank at the abutment of the bridge.		**Elevation** +156.483 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 mean of 5 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 +150.110 m.(M.S.L.) and is including overbank flow.		
General Description	Records good. Stage-discharge relation defined by 111 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	146.57	146.48	150.07	153.28	151.09	152.79	153.08	148.94	145.68	146.54	146.22	146.68	
2	146.56	146.47	150.17	153.26	151.36	153.11	152.97	148.84	145.67	146.55	146.20	146.65	
3	146.56	146.47	150.13	153.23	151.81	153.57	152.87	148.76	145.97	146.55	146.22	145.89	
4	146.56	146.46	150.07	153.21	152.30	154.01	152.75	148.62	146.15	146.55	146.24	145.81	
5	146.56	146.46	150.04	153.18	152.55	154.35	152.62	148.42	146.41	146.57	146.26	145.80	
6	146.56	146.45	150.05	153.17	152.76	154.62	152.46	148.12	146.64	146.58	146.28	145.79	
7	146.55	146.45	150.26	153.17	152.82	154.76	152.28	147.67	146.29	146.58	146.30	145.72	
8	146.55	146.45	150.56	153.16	152.80	154.86	152.11	147.29	145.66	146.58	146.30	145.69	
9	146.55	146.45	150.90	153.14	152.70	154.95	151.91	147.01	145.55	146.55	146.28	145.60	
10	146.55	146.45	151.43	153.12	152.57	154.97	151.68	146.82	145.54	146.54	146.25	145.57	
11	146.55	146.51	151.94	153.10	152.41	154.94	151.44	146.59	145.54	146.48	146.29	145.54	
12	146.55	146.79	152.41	153.05	152.33	154.88	151.17	146.46	145.49	146.45	146.31	145.52	
13	146.55	146.91	152.72	153.00	152.33	154.79	150.89	146.37	145.45	146.44	146.32	145.50	
14	146.54	146.80	152.93	152.91	152.37	154.68	150.60	146.28	145.42	146.52	146.34	145.56	
15	146.54	146.83	153.06	152.79	152.39	154.56	150.33	146.22	145.40	146.58	146.35	145.58	
16	146.53	146.89	153.14	152.65	152.38	154.64	150.05	146.19	145.52	146.49	146.36	145.50	
17	146.53	146.91	153.17	152.55	152.29	154.80	149.76	146.17	145.61	146.43	146.38	145.51	
18	146.52	146.89	153.22	152.48	152.15	154.80	149.47	146.15	145.69	146.43	146.38	145.48	
19	146.52	146.87	153.22	152.38	152.12	154.77	149.18	146.08	145.77	146.41	146.38	145.50	
20	146.52	146.83	153.21	152.25	152.05	154.69	148.61	146.05	145.87	146.40	146.38	145.50	
21	146.51	146.83	153.23	152.08	151.95	154.59	148.14	146.03	145.96	146.40	146.38	145.48	
22	146.50	146.82	153.24	151.85	151.90	154.48	148.31	146.00	146.05	146.45	146.40	145.46	
23	146.49	146.81	153.24	151.61	151.86	154.34	148.79	145.97	146.11	146.56	146.45	145.45	
24	146.49	146.81	153.23	151.30	151.87	154.19	148.99	145.93	146.17	146.57	146.46	145.46	
25	146.48	146.87	153.20	150.95	151.93	154.02	149.05	145.89	146.22	146.59	146.48	145.48	
26	146.48	146.94	153.14	150.50	152.10	153.88	149.05	145.87	146.27	146.56	146.52	145.47	
27	146.48	147.00	153.16	149.98	152.23	153.71	149.02	145.86	146.38	146.50	146.55	145.46	
28	146.48	147.17	153.18	149.57	152.35	153.53	149.02	145.78	146.47	146.48	146.60	145.45	
29	146.48	148.72	153.26	149.35	152.44	153.36	149.01	145.73	146.53	146.44		145.51	
30	146.48	149.46	153.29	149.74	152.54	153.22	149.02	145.71	146.55	146.36		145.71	
31		149.88		150.67	152.64		149.01		146.56	146.29		145.91	
Mean	146.53	146.97	152.16	152.15	152.24	154.30	150.44	146.73	145.95	146.50	146.35	145.65	
Max	146.57	149.88	153.29	153.28	152.82	154.97	153.08	148.94	146.64	146.59	146.60	146.68	154.97
Min	146.48	146.45	150.04	149.35	151.09	152.79	148.14	145.71	145.40	146.29	146.20	145.45	145.40

Annual Max Momentary Gage Height	154.97	m. (MSL.) ,	at 18.00 Hours , on Sep 8 , 2002		
Zero Gage at Bottom Elevation	144.85	m. (MSL.) ,	River Bed	144.42	m. (MSL.)
Left Bank Elevation	150.59	m. (MSL.) ,			
Right Bank Elevation	150.11	m. (MSL.) ,	Drainage Are	2,199	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	63.40	186.96	84.16	151.40	170.56	39.92	1.66	8.36	5.76	9.62		
2	0.00	0.00	65.40	185.32	90.64	173.02	162.20	38.12	1.59	8.45	5.60	9.35		
3	0.00	0.00	64.60	182.86	103.92	212.70	156.20	36.68	3.76	8.45	5.76	3.13		
4	0.00	0.00	63.40	181.22	124.40	261.20	149.00	34.16	5.20	8.45	5.92	2.57		
5	0.00	0.00	62.80	178.76	137.00	313.50	141.20	30.88	7.28	8.63	6.08	2.50		
6	0.00	0.00	63.00	177.94	149.60	367.20	132.08	26.68	9.26	8.72	6.24	2.43		
7	0.00	0.00	67.20	177.94	153.20	406.00	123.44	20.38	6.32	8.72	6.40	1.94		
8	0.00	0.00	73.20	177.12	152.00	437.20	115.28	15.69	1.52	8.72	6.40	1.73		
9	0.00	0.00	80.00	175.48	146.00	467.00	107.12	12.61	0.85	8.45	6.24	1.10		
10	0.00	0.00	92.32	173.84	138.20	473.80	99.76	10.88	0.80	8.36	6.00	0.95		
11	0.00	0.00	108.08	172.20	129.68	463.60	92.44	8.81	0.80	7.84	6.32	0.80		
12	0.00	1.86	129.68	168.10	125.84	443.60	85.42	7.68	0.57	7.60	6.48	0.70		
13	0.00	3.65	147.20	164.00	125.84	415.00	78.80	6.96	0.45	7.52	6.56	0.60		
14	0.00	2.00	159.80	158.60	127.76	382.80	73.00	6.24	0.36	8.18	6.72	0.90		
15	0.00	2.45	168.92	151.40	128.72	354.00	67.60	5.76	0.30	8.72	6.80	1.00		
16	0.00	3.35	175.48	143.00	128.24	372.40	62.00	5.52	0.70	7.92	6.88	0.60		
17	0.00	3.65	177.94	137.00	123.92	418.00	56.20	5.36	1.17	7.44	7.04	0.65		
18	0.00	3.35	182.04	133.04	117.20	418.00	50.40	5.20	1.73	7.44	7.04	0.54		
19	0.00	3.05	182.04	128.24	115.76	409.00	44.60	4.64	2.29	7.28	7.04	0.60		
20	0.00	2.45	181.22	122.00	112.40	385.40	33.98	4.40	2.99	7.20	7.04	0.60		
21	0.00	2.45	182.86	113.84	108.40	360.00	26.96	4.24	3.68	7.20	7.04	0.54		
22	0.00	2.30	183.68	105.20	106.80	338.00	29.34	4.00	4.40	7.60	7.20	0.48		
23	0.00	2.15	183.68	97.52	105.52	311.80	37.22	3.76	4.88	8.54	7.60	0.45		
24	0.00	2.15	182.86	89.20	105.84	286.40	40.82	3.44	5.36	8.63	7.68	0.48		
25	0.00	3.05	180.40	81.00	107.76	262.40	42.00	3.13	5.76	8.81	7.84	0.54		
26	0.00	4.10	175.48	72.00	114.80	246.80	42.00	2.99	6.16	8.54	8.18	0.51		
27	0.00	5.00	177.12	61.60	121.04	228.10	41.40	2.92	7.04	8.00	8.45	0.48		
28	0.00	7.55	178.76	53.40	126.80	208.30	41.40	2.36	7.76	7.84	8.90	0.45		
29	0.00	36.40	185.32	49.00	131.12	193.52	41.20	2.01	8.27	7.52		0.65		
30	0.00	51.20	187.78	56.80	136.40	182.04	41.40	1.87	8.45	6.88		1.87		
31		59.60		75.40	142.40		41.20		8.54	6.32		3.28		
Total	0.00	201.76	4125.66	4129.98	3821.36	9942.18	2426.22	357.29	119.90	248.33	191.21	52.04	25615.93	CMSDAY
Mean	0.00	6.51	137.52	133.23	123.27	331.41	78.27	11.91	3.87	8.01	6.83	1.68	70.18	CMS
Max	0.00	59.60	187.78	186.96	153.20	473.80	170.56	39.92	9.26	8.81	8.90	9.62	473.80	CMS
Min	0.00	0.00	62.80	49.00	84.16	151.40	26.96	1.87	0.30	6.32	5.60	0.45	0.00	CMS
Runoff	0.00	17.43	356.46	356.83	330.17	859.00	209.63	30.87	10.36	21.46	16.52	4.50	2213.22	MCM

Momentary Peak 473.80 CMS. at 154.97 m. (MSL.) at 18.00 Hours , on Sep 8 , 2002

Runoff Yield 31.91 Liters/Second/Square KM. Momentary Peak Yield 215.460 Liters/Second/Square KM.

WATER YEAR : 2002

KHONG RIVER BASIN

Nam Man at Ban Hua Na Yung, Loei (Kh.75)

Lat 17 - 16 - 30 N Long 101 - 09 - 06 E

Location : on left bank at the bridge of Nam Man.

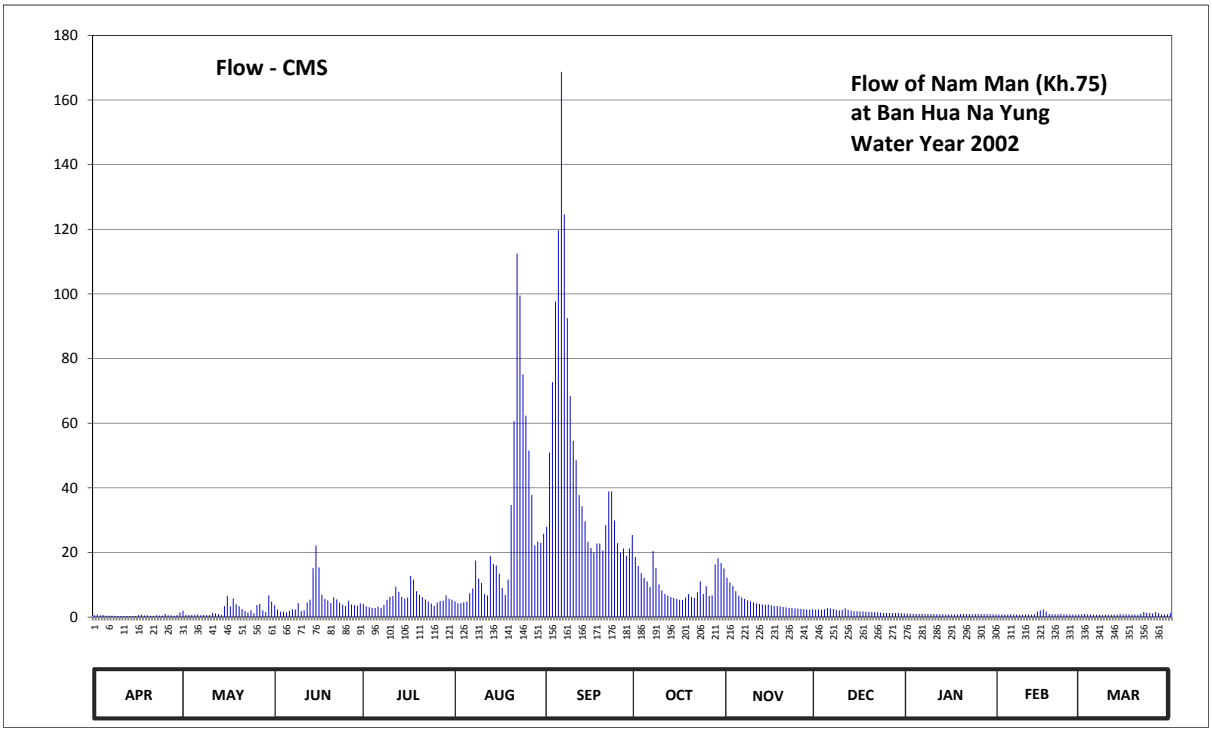
Ban Hua Na Yung **Amphoe** Dan Sai **Changwat** Loei

Drainge Area	388 sq.km.
Type of Gage	Staff gage.
Zero Gage at Bottom	+346.573 m. (MSL.)
Bench Mark	B.M.- Highways Dept.
Location BM	On left bank downstream side at the abutment of the bridge. **Elevation** +356.602 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 mean of 3 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	Overbank flow starts at elevation +355.250 m.(M.S.L.) and is including overbank flow.
General Description	Records good. Stage-discharge relation defined by 31 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	349.35	349.80	350.12	350.21	350.38	352.53	351.81	351.25	349.86	349.62	349.53	349.52	349.52
2	349.51	349.46	349.87	350.07	350.25	353.54	351.57	351.12	349.87	349.62	349.53	349.56	349.56
3	349.36	349.41	349.74	350.01	350.26	354.19	351.37	351.03	349.85	349.61	349.52	349.52	349.52
4	349.40	349.39	349.74	349.97	350.32	354.78	351.25	350.89	349.88	349.60	349.52	349.49	349.49
5	349.30	349.42	349.70	349.96	350.35	355.21	351.15	350.72	349.95	349.60	349.52	349.47	349.47
6	349.27	349.48	349.80	350.04	350.83	355.77	351.00	350.62	349.94	349.59	349.51	349.45	349.45
7	349.27	349.37	349.88	349.97	350.96	355.28	351.97	350.53	349.89	349.58	349.50	349.45	349.45
8	349.22	349.40	349.86	350.16	351.71	354.67	351.51	350.44	349.85	349.57	349.50	349.44	349.44
9	349.21	349.35	350.27	350.47	351.23	354.06	351.07	350.37	349.82	349.56	349.50	349.45	349.45
10	349.20	349.39	349.78	350.66	351.11	353.65	350.91	350.31	349.84	349.56	349.49	349.44	349.44
11	349.18	349.67	349.82	350.70	350.81	353.47	350.81	350.25	349.94	349.55	349.49	349.46	349.46
12	349.18	349.63	350.30	351.01	350.74	353.04	350.72	350.21	349.84	349.54	349.49	349.50	349.50
13	349.20	349.58	350.48	350.87	351.83	352.86	350.65	350.18	349.80	349.53	349.56	349.48	349.48
14	349.19	349.45	351.51	350.65	351.62	352.62	350.59	350.16	349.77	349.53	349.75	349.58	349.58
15	349.24	350.08	352.12	350.55	351.58	352.22	350.52	350.18	349.77	349.53	349.82	349.52	349.52
16	349.42	350.72	351.53	350.61	351.36	352.05	350.47	350.12	349.76	349.51	349.87	349.51	349.51
17	349.49	350.06	350.80	351.30	350.98	351.93	350.45	350.09	349.75	349.53	349.75	349.52	349.52
18	349.34	350.55	350.53	351.20	350.78	352.17	350.61	350.08	349.74	349.55	349.58	349.50	349.50
19	349.32	350.20	350.43	350.89	351.20	352.17	350.81	350.06	349.73	349.56	349.55	349.49	349.49
20	349.27	350.07	350.27	350.79	352.88	351.98	350.65	350.02	349.72	349.57	349.53	349.46	349.46
21	349.26	349.90	350.63	350.64	353.83	352.56	350.59	350.00	349.71	349.56	349.53	349.56	349.56
22	349.35	349.78	350.50	350.49	355.09	353.10	350.86	349.97	349.70	349.56	349.56	349.72	349.72
23	349.29	349.70	350.30	350.36	354.82	353.10	351.15	349.95	349.68	349.55	349.52	349.67	349.67
24	349.31	349.83	350.17	350.23	354.26	352.63	350.81	349.93	349.66	349.56	349.51	349.67	349.67
25	349.60	349.64	350.08	350.09	353.88	352.18	351.02	349.92	349.66	349.57	349.51	349.63	349.63
26	349.37	350.14	350.39	350.30	353.56	351.92	350.71	349.90	349.66	349.58	349.50	349.71	349.71
27	349.32	350.21	350.18	350.39	353.04	352.04	350.75	349.89	349.65	349.55	349.49	349.65	349.65
28	349.27	349.82	350.13	350.41	352.12	351.84	351.61	349.87	349.66	349.55	349.49	349.53	349.53
29	349.38	349.71	350.10	350.75	352.22	352.04	351.77	349.87	349.66	349.54		349.53	349.53
30	349.69	350.75	350.25	350.54	352.19	352.40	351.65	349.87	349.64	349.54		349.54	349.54
31		350.36		350.48	352.42		351.50		349.63	349.53		349.65	349.65
Mean	349.33	349.82	350.31	350.48	351.89	353.07	351.04	350.26	349.77	349.56	349.56	349.54	
Max	349.69	350.75	352.12	351.30	355.09	355.77	351.97	351.25	349.95	349.62	349.87	349.72	355.77
Min	349.18	349.35	349.70	349.96	350.25	351.84	350.45	349.87	349.63	349.51	349.49	349.44	349.18

Annual Max Momentary Gage Height	355.84	m. (MSL.) ,	at 18.00 Hours , on Sep 6 , 2002		
Zero Gage at Bottom Elevation	346.57	m. (MSL.) ,	River Bed	348.14	m. (MSL.)
Left Bank Elevation	355.40	m. (MSL.) ,			
Right Bank Elevation	355.24	m. (MSL.) ,	Drainage Are	388	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.57	2.00	3.60	4.05	4.90	27.91	18.62	12.18	2.30	1.10	0.86	0.84		
2	0.82	0.74	2.35	3.35	4.25	50.87	15.86	10.68	2.35	1.10	0.86	0.92		
3	0.59	0.66	1.70	3.05	4.30	72.74	13.56	9.65	2.25	1.05	0.84	0.84		
4	0.65	0.63	1.70	2.85	4.60	97.66	12.18	8.04	2.40	1.00	0.84	0.78		
5	0.50	0.68	1.50	2.80	4.75	119.70	11.03	6.60	2.75	1.00	0.84	0.75		
6	0.45	0.77	2.00	3.20	7.35	168.73	9.30	6.10	2.70	0.98	0.82	0.72		
7	0.45	0.60	2.40	2.85	8.84	124.60	20.46	5.65	2.45	0.96	0.80	0.72		
8	0.38	0.65	2.30	3.80	17.47	92.49	15.17	5.20	2.25	0.94	0.80	0.71		
9	0.36	0.57	4.35	5.35	11.95	68.36	10.11	4.85	2.10	0.92	0.80	0.72		
10	0.35	0.63	1.90	6.30	10.57	54.57	8.27	4.55	2.20	0.92	0.78	0.71		
11	0.32	1.35	2.10	6.50	7.12	48.52	7.12	4.25	2.70	0.90	0.78	0.74		
12	0.32	1.15	4.50	9.42	6.70	37.77	6.60	4.05	2.20	0.88	0.78	0.80		
13	0.35	0.96	5.40	7.81	18.85	34.29	6.25	3.90	2.00	0.86	0.92	0.77		
14	0.33	0.72	15.17	6.25	16.43	29.65	5.95	3.80	1.85	0.86	1.75	0.96		
15	0.41	3.40	22.18	5.75	15.97	23.33	5.60	3.90	1.85	0.86	2.10	0.84		
16	0.68	6.60	15.40	6.05	13.44	21.38	5.35	3.60	1.80	0.82	2.35	0.82		
17	0.78	3.30	7.00	12.75	9.07	20.00	5.25	3.45	1.75	0.86	1.75	0.84		
18	0.56	5.75	5.65	11.60	6.90	22.76	6.05	3.40	1.70	0.90	0.96	0.80		
19	0.53	4.00	5.15	8.04	11.60	22.76	7.12	3.30	1.65	0.92	0.90	0.78		
20	0.45	3.35	4.35	6.95	34.68	20.57	6.25	3.10	1.60	0.94	0.86	0.74		
21	0.44	2.50	6.15	6.20	60.63	28.49	5.95	3.00	1.55	0.92	0.86	0.92		
22	0.57	1.90	5.50	5.45	112.50	38.93	7.69	2.85	1.50	0.92	0.92	1.60		
23	0.48	1.50	4.50	4.80	99.54	38.93	11.03	2.75	1.40	0.90	0.84	1.35		
24	0.51	2.15	3.85	4.15	75.09	29.85	7.12	2.65	1.30	0.92	0.82	1.35		
25	1.00	1.20	3.40	3.45	62.31	22.87	9.53	2.60	1.30	0.94	0.82	1.15		
26	0.60	3.70	4.95	4.50	51.55	19.88	6.55	2.50	1.30	0.96	0.80	1.55		
27	0.53	4.05	3.90	4.95	37.77	21.26	6.75	2.45	1.25	0.90	0.78	1.25		
28	0.45	2.10	3.65	5.05	22.18	18.96	16.32	2.35	1.30	0.90	0.78	0.86		
29	0.62	1.55	3.50	6.75	23.33	21.26	18.16	2.35	1.30	0.88		0.86		
30	1.45	6.75	4.25	5.70	22.99	25.40	16.78	2.35	1.20	0.88		0.88		
31		4.80		5.40	25.79		15.05		1.15	0.86		1.25		
Total	16.50	70.71	154.35	175.12	813.42	1424.49	317.03	136.10	57.40	28.75	28.01	28.82	3250.70	CMSDAY
Mean	0.55	2.28	5.15	5.65	26.24	47.48	10.23	4.54	1.85	0.93	1.00	0.93	8.91	CMS
Max	1.45	6.75	22.18	12.75	112.50	168.73	20.46	12.18	2.75	1.10	2.35	1.60	168.73	CMS
Min	0.32	0.57	1.50	2.80	4.25	18.96	5.25	2.35	1.15	0.82	0.78	0.71	0.32	CMS
Runoff	1.43	6.11	13.34	15.13	70.28	123.08	27.39	11.76	4.96	2.48	2.42	2.49	280.86	MCM

Momentary Peak 174.90 CMS. at 355.84 m. (MSL.) at 18.00 Hours , on Sep 6 , 2002

Runoff Yield 22.95 Liters/Second/Square KM. Momentary Peak Yield 450.770 Liters/Second/Square KM.

WATER YEAR : 2002

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 mean 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	No overbank flow.		
General Description	Records fair. The cataract situated downstream from the gage site.		
	Stage-discharge relation defined by 34 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

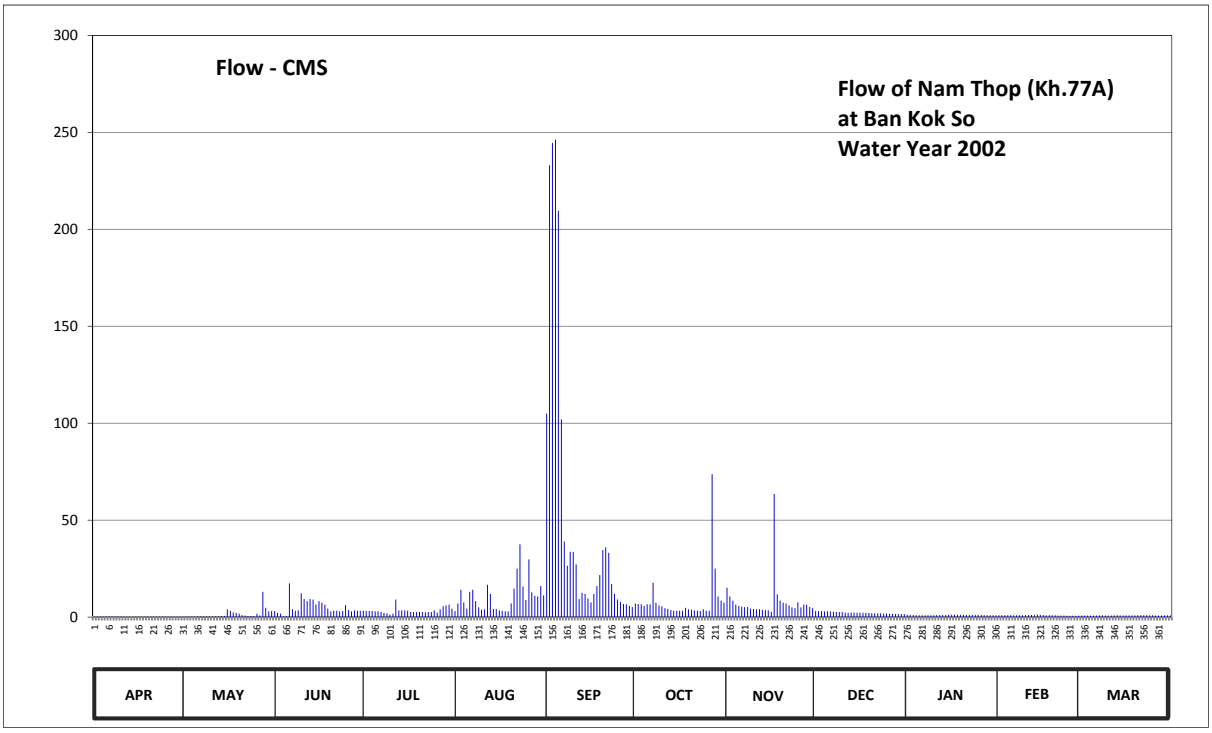
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	261.24	261.22	261.65	261.66	261.65	263.69	261.85	262.17	261.65	261.48	261.45	261.43	
2	261.24	261.22	261.59	261.65	261.85	264.45	261.84	262.00	261.65	261.48	261.45	261.43	
3	261.23	261.22	261.55	261.65	262.13	264.77	261.83	261.92	261.65	261.48	261.45	261.43	
4	261.23	261.21	261.30	261.65	261.88	264.78	261.79	261.82	261.64	261.47	261.45	261.43	
5	261.23	261.21	261.35	261.64	261.72	264.34	261.83	261.79	261.64	261.46	261.45	261.43	
6	261.23	261.26	262.24	261.64	262.09	263.66	261.83	261.77	261.64	261.46	261.45	261.43	
7	261.23	261.26	261.70	261.62	262.13	262.78	262.25	261.76	261.63	261.46	261.45	261.44	
8	261.22	261.26	261.66	261.58	261.91	262.49	261.87	261.76	261.62	261.46	261.45	261.44	
9	261.22	261.27	261.67	261.57	261.75	262.67	261.80	261.72	261.62	261.46	261.45	261.43	
10	261.22	261.28	262.06	261.50	261.69	262.67	261.78	261.71	261.62	261.46	261.46	261.43	
11	261.20	261.28	261.95	261.55	261.70	262.51	261.73	261.70	261.60	261.47	261.47	261.43	
12	261.20	261.29	261.91	261.94	262.22	261.95	261.71	261.70	261.59	261.47	261.47	261.44	
13	261.20	261.31	261.95	261.67	262.05	262.07	261.68	261.69	261.60	261.48	261.48	261.45	
14	261.19	261.39	261.94	261.67	261.71	262.05	261.66	261.68	261.60	261.48	261.50	261.44	
15	261.19	261.39	261.82	261.67	261.71	261.96	261.66	261.67	261.60	261.49	261.49	261.44	
16	261.19	261.70	261.91	261.66	261.67	261.88	261.66	261.62	261.60	261.49	261.47	261.44	
17	261.19	261.66	261.87	261.62	261.66	262.05	261.66	263.20	261.59	261.49	261.45	261.44	
18	261.19	261.61	261.82	261.62	261.64	262.20	261.74	262.04	261.59	261.48	261.45	261.44	
19	261.19	261.58	261.72	261.62	261.64	262.36	261.70	261.92	261.59	261.48	261.45	261.44	
20	261.19	261.55	261.64	261.62	261.85	262.69	261.69	261.87	261.57	261.48	261.45	261.45	
21	261.19	261.47	261.66	261.62	262.15	262.72	261.67	261.85	261.57	261.48	261.43	261.45	
22	261.19	261.43	261.66	261.61	262.45	262.66	261.66	261.80	261.57	261.48	261.43	261.46	
23	261.19	261.40	261.64	261.62	262.75	262.23	261.65	261.75	261.57	261.48	261.43	261.46	
24	261.19	261.39	261.65	261.62	262.19	262.05	261.70	261.73	261.55	261.48	261.42	261.45	
25	261.19	261.38	261.81	261.67	261.93	261.94	261.66	261.88	261.55	261.48	261.42	261.45	
26	261.19	261.54	261.68	261.60	262.58	261.89	261.66	261.75	261.54	261.47	261.42	261.43	
27	261.19	261.44	261.64	261.70	262.08	261.84	263.34	261.82	261.54	261.47	261.42	261.43	
28	261.19	262.09	261.67	261.78	262.01	261.83	262.45	261.82	261.53	261.46	261.42	261.43	
29	261.19	261.74	261.66	261.80	262.00	261.79	262.00	261.76	261.53	261.46		261.44	
30	261.19	261.64	261.66	261.82	262.20	261.76	261.92	261.73	261.53	261.45		261.44	
31		261.65		261.72	262.02		261.87		261.53	261.45		261.44	
Mean	261.20	261.43	261.73	261.66	261.97	262.62	261.84	261.85	261.59	261.47	261.45	261.44	
Max	261.24	262.09	262.24	261.94	262.75	264.78	263.34	263.20	261.65	261.49	261.50	261.46	264.78
Min	261.19	261.21	261.30	261.50	261.64	261.76	261.65	261.62	261.53	261.45	261.42	261.43	261.19

Annual Max Momentary Gage Height 265.03 m. (MSL.) , at 06.00 Hours , on Sep 4 , 2002

Zero Gage at Bottom Elevation 260.98 m. (MSL.) , River Bed 261.45 m. (MSL.)

Left Bank Elevation 268.63 m. (MSL.) ,

Right Bank Elevation 268.65 m. (MSL.) , Drainage Are 156 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.28	0.24	3.15	3.32	3.15	105.00	7.00	15.20	3.15	1.16	0.95	0.81		
2	0.28	0.24	2.20	3.15	7.00	233.00	6.80	10.67	3.15	1.16	0.95	0.81		
3	0.26	0.24	1.80	3.15	14.13	244.52	6.60	8.53	3.15	1.16	0.95	0.81		
4	0.26	0.22	0.40	3.15	7.60	246.23	5.80	6.40	2.98	1.09	0.95	0.81		
5	0.26	0.22	0.50	2.98	4.40	209.61	6.60	5.80	2.98	1.02	0.95	0.81		
6	0.26	0.32	17.40	2.98	13.07	102.00	6.60	5.40	2.98	1.02	0.95	0.81		
7	0.26	0.32	4.00	2.64	14.13	39.00	17.75	5.20	2.81	1.02	0.95	0.88		
8	0.24	0.32	3.32	2.10	8.27	26.47	7.40	5.20	2.64	1.02	0.95	0.88		
9	0.24	0.34	3.49	2.00	5.00	33.65	6.00	4.40	2.64	1.02	0.95	0.81		
10	0.24	0.36	12.27	1.30	3.83	33.65	5.60	4.20	2.64	1.02	1.02	0.81		
11	0.20	0.36	9.33	1.80	4.00	27.20	4.60	4.00	2.30	1.09	1.09	0.81		
12	0.20	0.38	8.27	9.07	16.70	9.33	4.20	4.00	2.20	1.09	1.09	0.88		
13	0.20	0.42	9.33	3.49	12.00	12.53	3.66	3.83	2.30	1.16	1.16	0.95		
14	0.18	0.58	9.07	3.49	4.20	12.00	3.32	3.66	2.30	1.16	1.30	0.88		
15	0.18	0.58	6.40	3.49	4.20	9.60	3.32	3.49	2.30	1.23	1.23	0.88		
16	0.18	4.00	8.27	3.32	3.49	7.60	3.32	2.64	2.30	1.23	1.09	0.88		
17	0.18	3.32	7.40	2.64	3.32	12.00	3.32	63.50	2.20	1.23	0.95	0.88		
18	0.18	2.47	6.40	2.64	2.98	16.00	4.80	11.73	2.20	1.16	0.95	0.88		
19	0.18	2.10	4.40	2.64	2.98	21.70	4.00	8.53	2.20	1.16	0.95	0.88		
20	0.18	1.80	2.98	2.64	7.00	34.55	3.83	7.40	2.00	1.16	0.95	0.95		
21	0.18	1.09	3.32	2.64	14.67	36.00	3.49	7.00	2.00	1.16	0.81	0.95		
22	0.18	0.81	3.32	2.47	25.00	33.20	3.32	6.00	2.00	1.16	0.81	1.02		
23	0.18	0.60	2.98	2.64	37.50	17.05	3.15	5.00	2.00	1.16	0.81	1.02		
24	0.18	0.58	3.15	2.64	15.73	12.00	4.00	4.60	1.80	1.16	0.74	0.95		
25	0.18	0.56	6.20	3.49	8.80	9.07	3.32	7.60	1.80	1.16	0.74	0.95		
26	0.18	1.70	3.66	2.30	29.77	7.80	3.32	5.00	1.70	1.09	0.74	0.81		
27	0.18	0.88	2.98	4.00	12.80	6.80	73.70	6.40	1.70	1.09	0.74	0.81		
28	0.18	13.07	3.49	5.60	10.93	6.60	25.00	6.40	1.60	1.02	0.74	0.81		
29	0.18	4.80	3.32	6.00	10.67	5.80	10.67	5.20	1.60	1.02		0.88		
30	0.18	2.98	3.32	6.40	16.00	5.20	8.53	4.60	1.60	0.95		0.88		
31		3.15		4.40	11.20		7.40		1.60	0.95		0.88		
Total	6.24	49.05	156.12	104.57	334.52	1575.16	260.42	241.58	70.82	34.28	26.46	27.07	2886.29	CMSDAY
Mean	0.21	1.58	5.20	3.37	10.79	52.51	8.40	8.05	2.28	1.11	0.94	0.87	7.91	CMS
Max	0.28	13.07	17.40	9.07	37.50	246.23	73.70	63.50	3.15	1.23	1.30	1.02	246.23	CMS
Min	0.18	0.22	0.40	1.30	2.98	5.20	3.15	2.64	1.60	0.95	0.74	0.81	0.18	CMS
Runoff	0.54	4.24	13.49	9.03	28.90	136.09	22.50	20.87	6.12	2.96	2.29	2.34	249.38	MCM

Momentary Peak 289.70 CMS. at 263.03 m. (MSL.) at 06.00 Hours , on Sep 4 , 2002

Runoff Yield 50.69 Liters/Second/Square KM. Momentary Peak Yield 1857.050 Liters/Second/Square KM.

WATER YEAR : 2002

KHONG RIVER BASIN

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

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

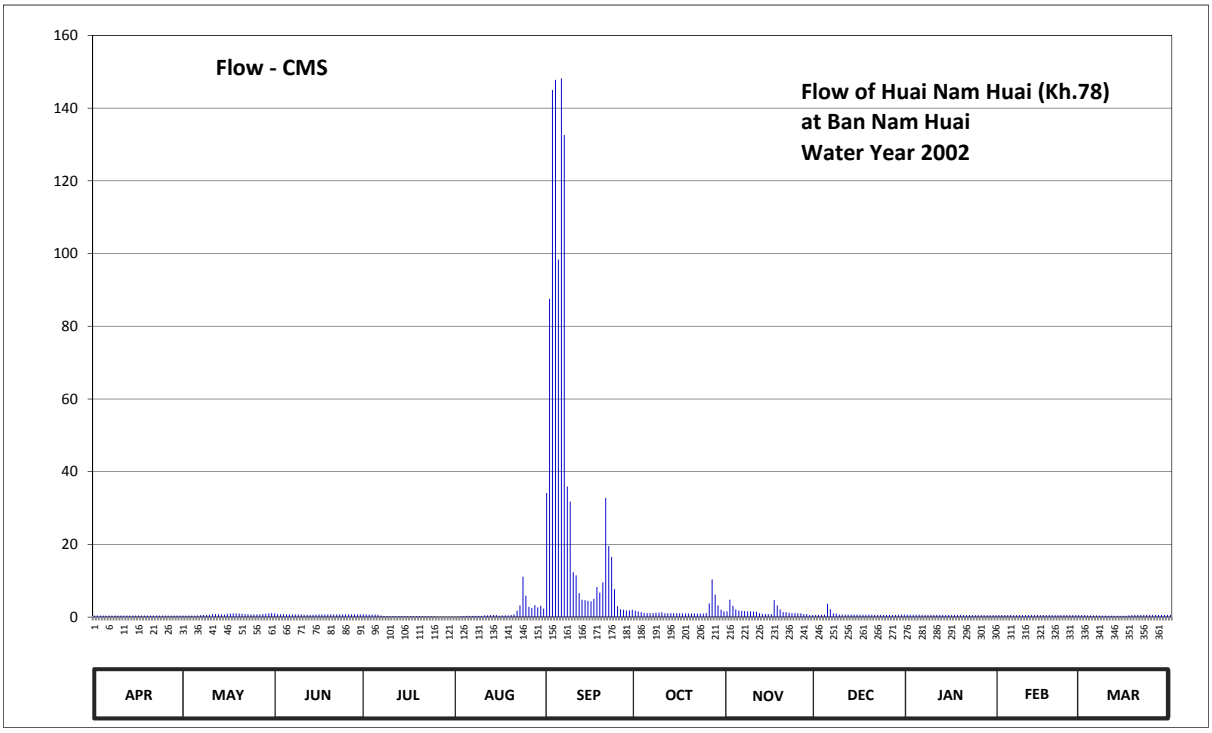
Location : on left bank at the bridge of Amphoe Wang Saphung - Amphoe Mueang Highway.

	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 mean 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	Fairly stable.		
Overbank Flow Conditions	Overbank flow starts at elevation +254.330 m.(M.S.L.) and is including overbank flow.		
General Description	Records fair. The concrete weir situated about 700 meters downstream from the gage site. Stage-discharge relation defined by 9 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	248.39	248.39	248.50	248.45	248.32	250.92	248.65	248.62	248.42	248.43	248.41	248.41	
2	248.39	248.39	248.47	248.45	248.33	253.16	248.61	249.02	248.42	248.43	248.41	248.41	
3	248.39	248.39	248.46	248.44	248.34	254.75	248.57	248.86	248.43	248.43	248.41	248.40	
4	248.39	248.39	248.46	248.44	248.35	254.82	248.53	248.72	248.44	248.43	248.41	248.40	
5	248.39	248.39	248.45	248.44	248.37	253.52	248.52	248.66	248.92	248.43	248.41	248.40	
6	248.39	248.40	248.45	248.42	248.37	254.83	248.52	248.64	248.73	248.42	248.41	248.40	
7	248.39	248.41	248.45	248.39	248.37	254.44	248.52	248.63	248.50	248.42	248.41	248.39	
8	248.39	248.42	248.45	248.36	248.37	251.02	248.54	248.62	248.49	248.42	248.41	248.39	
9	248.39	248.42	248.45	248.35	248.37	250.78	248.55	248.62	248.44	248.42	248.41	248.39	
10													
	248.39	248.42	248.45	248.34	248.37	249.56	248.56	248.61	248.44	248.42	248.41	248.38	
11	248.39	248.47	248.43	248.35	248.40	249.50	248.51	248.59	248.44	248.42	248.41	248.38	
12	248.39	248.47	248.43	248.35	248.40	249.15	248.51	248.51	248.44	248.42	248.42	248.38	
13	248.39	248.46	248.42	248.35	248.41	249.02	248.51	248.48	248.44	248.42	248.42	248.38	
14	248.39	248.45	248.43	248.35	248.41	249.01	248.51	248.47	248.44	248.42	248.42	248.38	
15	248.39	248.44	248.44	248.35	248.42	249.00	248.51	248.47	248.44	248.42	248.41	248.38	
16	248.39	248.48	248.45	248.35	248.38	248.98	248.51	248.47	248.43	248.42	248.41	248.38	
17	248.39	248.49	248.45	248.35	248.40	249.04	248.50	249.01	248.43	248.42	248.41	248.40	
18	248.39	248.50	248.45	248.35	248.40	249.27	248.50	248.87	248.43	248.42	248.41	248.41	
19	248.39	248.50	248.45	248.35	248.40	249.16	248.50	248.72	248.43	248.42	248.41	248.42	
20	248.39	248.49	248.45	248.35	248.41	249.36	248.50	248.57	248.43	248.41	248.41	248.42	
21	248.39	248.48	248.45	248.34	248.45	250.84	248.50	248.57	248.42	248.41	248.41	248.42	
22	248.39	248.47	248.45	248.34	248.65	250.06	248.49	248.54	248.42	248.41	248.41	248.42	
23	248.39	248.46	248.45	248.34	248.87	249.86	248.49	248.52	248.42	248.41	248.41	248.42	
24	248.39	248.45	248.45	248.34	249.47	249.23	248.49	248.52	248.42	248.41	248.41	248.42	
25	248.39	248.45	248.45	248.34	249.10	248.85	248.52	248.51	248.42	248.41	248.41	248.42	
26	248.39	248.45	248.45	248.32	248.83	248.73	248.93	248.51	248.42	248.41	248.41	248.42	
27	248.39	248.45	248.45	248.32	248.80	248.70	249.42	248.47	248.42	248.41	248.41	248.42	
28	248.39	248.47	248.45	248.32	248.88	248.67	249.12	248.47	248.42	248.41	248.41	248.42	
29	248.39	248.48	248.45	248.32	248.82	248.67	248.87	248.42	248.43	248.41		248.42	
30	248.39	248.50	248.45	248.32	248.86	248.70	248.70	248.42	248.44	248.41		248.42	
31		248.52		248.32	248.77		248.62		248.44	248.41		248.42	
Mean	248.39	248.45	248.45	248.36	248.55	250.39	248.61	248.60	248.46	248.42	248.41	248.40	
Max	248.39	248.52	248.50	248.45	249.47	254.83	249.42	249.02	248.92	248.43	248.42	248.42	254.83
Min	248.39	248.39	248.42	248.32	248.32	248.67	248.49	248.42	248.42	248.41	248.41	248.38	248.32

Annual Max Momentary Gage Height	255.22	m. (MSL.) ,	at 18.00 Hours , on Sep 3 , 2002		
Zero Gage at Bottom Elevation	246.22	m. (MSL.) ,	River Bed	247.43	m. (MSL.)
Left Bank Elevation	254.32	m. (MSL.) ,			
Right Bank Elevation	255.03	m. (MSL.) ,	Drainage Are	219	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.45	0.45	1.00	0.75	0.10	34.14	1.75	1.60	0.60	0.65	0.55	0.55		
2	0.45	0.45	0.85	0.75	0.15	87.55	1.55	4.78	0.60	0.65	0.55	0.55		
3	0.45	0.45	0.80	0.70	0.20	145.00	1.35	3.10	0.65	0.65	0.55	0.50		
4	0.45	0.45	0.80	0.70	0.25	147.80	1.15	2.10	0.70	0.65	0.55	0.50		
5	0.45	0.45	0.75	0.70	0.35	98.35	1.10	1.80	3.70	0.65	0.55	0.50		
6	0.45	0.50	0.75	0.60	0.35	148.20	1.10	1.70	2.15	0.60	0.55	0.50		
7	0.45	0.55	0.75	0.45	0.35	132.60	1.10	1.65	1.00	0.60	0.55	0.45		
8	0.45	0.60	0.75	0.30	0.35	35.90	1.20	1.60	0.95	0.60	0.55	0.45		
9	0.45	0.60	0.75	0.25	0.35	31.76	1.25	1.60	0.70	0.60	0.55	0.45		
10	0.45	0.60	0.75	0.20	0.35	12.34	1.30	1.55	0.70	0.60	0.55	0.40		
11	0.45	0.85	0.65	0.25	0.50	11.50	1.05	1.45	0.70	0.60	0.55	0.40		
12	0.45	0.85	0.65	0.25	0.50	6.60	1.05	1.05	0.70	0.60	0.60	0.40		
13	0.45	0.80	0.60	0.25	0.55	4.78	1.05	0.90	0.70	0.60	0.60	0.40		
14	0.45	0.75	0.65	0.25	0.55	4.64	1.05	0.85	0.70	0.60	0.60	0.40		
15	0.45	0.70	0.70	0.25	0.60	4.50	1.05	0.85	0.70	0.60	0.55	0.40		
16	0.45	0.90	0.75	0.25	0.40	4.30	1.05	0.85	0.65	0.60	0.55	0.40		
17	0.45	0.95	0.75	0.25	0.50	5.06	1.00	4.64	0.65	0.60	0.55	0.50		
18	0.45	1.00	0.75	0.25	0.50	8.28	1.00	3.20	0.65	0.60	0.55	0.55		
19	0.45	1.00	0.75	0.25	0.50	6.74	1.00	2.10	0.65	0.60	0.55	0.60		
20	0.45	0.95	0.75	0.25	0.55	9.54	1.00	1.35	0.65	0.55	0.55	0.60		
21	0.45	0.90	0.75	0.20	0.75	32.78	1.00	1.35	0.60	0.55	0.55	0.60		
22	0.45	0.85	0.75	0.20	1.75	19.52	0.95	1.20	0.60	0.55	0.55	0.60		
23	0.45	0.80	0.75	0.20	3.20	16.54	0.95	1.10	0.60	0.55	0.55	0.60		
24	0.45	0.75	0.75	0.20	11.08	7.72	0.95	1.10	0.60	0.55	0.55	0.60		
25	0.45	0.75	0.75	0.20	5.90	3.00	1.10	1.05	0.60	0.55	0.55	0.60		
26	0.45	0.75	0.75	0.10	2.80	2.15	3.80	1.05	0.60	0.55	0.55	0.60		
27	0.45	0.75	0.75	0.10	2.50	2.00	10.38	0.85	0.60	0.55	0.55	0.60		
28	0.45	0.85	0.75	0.10	3.30	1.85	6.18	0.85	0.60	0.55	0.55	0.60		
29	0.45	0.90	0.75	0.10	2.70	1.85	3.20	0.60	0.65	0.55		0.60		
30	0.45	1.00	0.75	0.10	3.10	2.00	2.00	0.60	0.70	0.55		0.60		
31		1.10		0.10	2.35		1.60		0.70	0.55		0.60		
Total	13.50	23.25	22.45	9.50	47.38	1028.99	55.26	48.47	25.35	18.25	15.55	16.10	1324.05	CMSDAY
Mean	0.45	0.75	0.75	0.31	1.53	34.30	1.78	1.62	0.82	0.59	0.56	0.52	3.63	CMS
Max	0.45	1.10	1.00	0.75	11.08	148.20	10.38	4.78	3.70	0.65	0.60	0.60	148.20	CMS
Min	0.45	0.45	0.60	0.10	0.10	1.85	0.95	0.60	0.60	0.55	0.55	0.40	0.10	CMS
Runoff	1.17	2.01	1.94	0.82	4.09	88.90	4.77	4.19	2.19	1.58	1.34	1.39	114.40	MCM

Momentary Peak 163.85 CMS. at 255.22 m. (MSL.) at 18.00 Hours , on Sep 3 , 2002

Runoff Yield 16.56 Liters/Second/Square KM. Momentary Peak Yield 748.170 Liters/Second/Square KM.

WATER YEAR : 2002

KHONG RIVER BASIN

Huai Bang I at Ban Nong O, Muk Dahan (Kh.79)

Lat 16 - 28 - 56 N Long 104 - 20 - 08 E

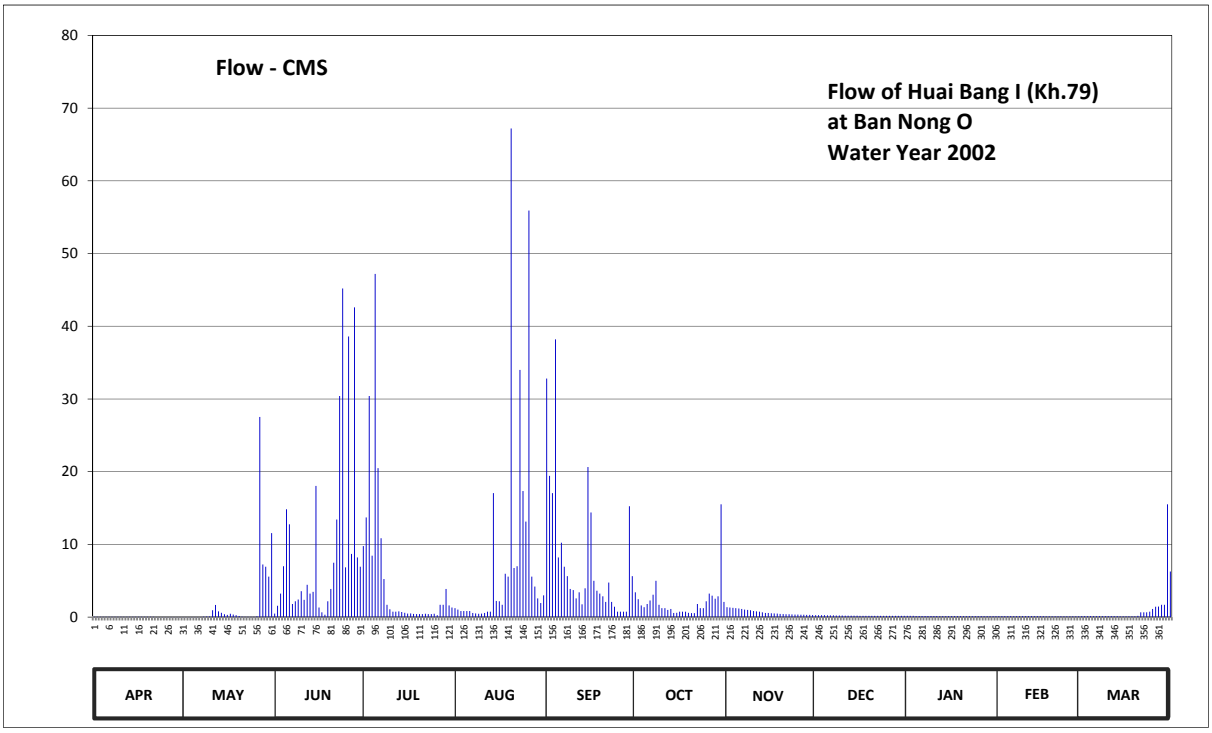
Location : on right bank at the bridge on highway.

	Ban Nong O	**Amphoe** Nong Sung	**Changwat** Muk Dahan
Drainge Area	104 sq.km.		
Type of Gage	Water - stage recorder.		
Zero Gage at Bottom	+186.130 m. (MSL.)		
Bench Mark	B.M.- Highways Dept.		
Location BM	On right bank at the abutment of the bridge.		**Elevation** +195.802 m. (MSL.)
Gage Reading Frequency	Recording.		
Basis of Mean Daily Gage Height	Arithmetic mean 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	Overbank flow starts at elevation +190.460 m.(M.S.L.) and is including overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 40 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	186.19	186.16	186.44	187.73	186.63	189.24	187.05	186.66	186.33	186.28	186.26	186.26	
2	186.19	186.16	186.70	188.05	186.59	188.46	186.89	186.65	186.33	186.28	186.26	186.25	
3	186.19	186.16	187.03	189.12	186.55	188.29	186.71	186.64	186.33	186.28	186.26	186.25	
4	186.19	186.16	187.50	187.62	186.55	189.51	186.66	186.63	186.33	186.27	186.26	186.25	
5	186.19	186.16	188.13	189.96	186.55	187.60	186.75	186.62	186.32	186.27	186.26	186.25	
6	186.19	186.16	187.98	188.53	186.55	187.77	186.85	186.61	186.32	186.27	186.26	186.25	
7	186.19	186.16	186.75	187.82	186.49	187.49	187.01	186.59	186.32	186.27	186.26	186.25	
8	186.19	186.21	186.83	187.28	186.45	187.33	187.25	186.58	186.31	186.27	186.26	186.25	
9	186.19	186.22	186.88	186.73	186.43	187.11	186.73	186.57	186.31	186.27	186.26	186.25	
10	186.19	186.22	187.07	186.60	186.44	187.09	186.63	186.55	186.31	186.27	186.26	186.25	
11	186.19	186.57	186.87	186.53	186.49	186.91	186.63	186.54	186.30	186.27	186.25	186.25	
12	186.18	186.72	187.18	186.53	186.53	187.05	186.58	186.53	186.30	186.26	186.25	186.25	
13	186.18	186.54	187.03	186.54	186.53	186.74	186.61	186.51	186.30	186.26	186.25	186.25	
14	186.18	186.50	187.06	186.52	188.29	187.12	186.49	186.49	186.30	186.26	186.25	186.24	
15	186.18	186.40	188.36	186.50	186.84	188.54	186.50	186.48	186.30	186.26	186.25	186.24	
16	186.17	186.35	186.65	186.44	186.83	188.10	186.53	186.46	186.29	186.26	186.25	186.24	
17	186.17	186.43	186.51	186.45	186.73	187.25	186.53	186.45	186.29	186.26	186.24	186.24	
18	186.17	186.37	186.36	186.42	187.37	187.08	186.53	186.44	186.29	186.26	186.24	186.24	
19	186.17	186.33	186.83	186.41	187.32	187.03	186.50	186.42	186.29	186.26	186.24	186.24	
20	186.17	186.27	187.11	186.41	190.80	186.97	186.47	186.41	186.29	186.26	186.24	186.28	
21	186.17	186.21	187.54	186.41	187.47	186.81	186.47	186.40	186.29	186.26	186.24	186.51	
22	186.16	186.19	188.03	186.43	187.50	187.22	186.75	186.40	186.29	186.26	186.24	186.51	
23	186.16	186.19	189.12	186.41	189.30	186.81	186.63	186.39	186.29	186.26	186.24	186.51	
24	186.16	186.17	189.86	186.41	188.31	186.67	186.63	186.38	186.28	186.26	186.23	186.53	
25	186.16	186.17	187.48	186.43	188.01	186.53	186.83	186.37	186.28	186.26	186.23	186.61	
26	186.16	186.23	189.53	186.33	190.33	186.53	187.03	186.36	186.28	186.26	186.23	186.67	
27	186.16	188.97	187.64	186.73	187.32	186.53	186.99	186.36	186.28	186.26	186.23	186.68	
28	186.16	187.52	189.73	186.73	187.15	186.53	186.90	186.35	186.28	186.26	186.24	186.73	
29	186.16	187.49	187.60	187.11	186.91	188.16	186.97	186.35	186.28	186.26		186.73	
30	186.16	187.32	187.49	186.71	186.78	187.33	188.18	186.34	186.28	186.26		188.18	
31		187.88		186.65	187.00		186.81		186.28	186.26		187.41	
Mean	186.18	186.54	187.51	186.99	187.26	187.39	186.78	186.48	186.30	186.26	186.25	186.45	
Max	186.19	188.97	189.86	189.96	190.80	189.51	188.18	186.66	186.33	186.28	186.26	188.18	190.80
Min	186.16	186.16	186.36	186.33	186.43	186.53	186.47	186.34	186.28	186.26	186.23	186.24	186.16

Annual Max Momentary Gage Height	190.96	m. (MSL.) ,	at 12.00 Hours , on Aug 20 , 2002		
Zero Gage at Bottom Elevation	186.13	m. (MSL.) ,	River Bed	185.06	m. (MSL.)
Left Bank Elevation	190.74	m. (MSL.) ,			
Right Bank Elevation	190.45	m. (MSL.) ,	Drainage Are	104	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.05	0.03	0.48	9.76	1.22	32.80	3.40	1.37	0.26	0.17	0.14	0.14		
2	0.05	0.03	1.56	13.70	1.03	19.44	2.47	1.32	0.26	0.17	0.14	0.13		
3	0.05	0.03	3.24	30.40	0.84	17.06	1.61	1.27	0.26	0.17	0.14	0.13		
4	0.05	0.03	7.00	8.44	0.84	38.20	1.37	1.22	0.26	0.15	0.14	0.13		
5	0.05	0.03	14.82	47.20	0.84	8.20	1.80	1.18	0.24	0.15	0.14	0.13		
6	0.05	0.03	12.76	20.48	0.84	10.24	2.28	1.13	0.24	0.15	0.14	0.13		
7	0.05	0.03	1.80	10.84	0.58	6.92	3.08	1.03	0.24	0.15	0.14	0.13		
8	0.05	0.07	2.18	5.24	0.50	5.64	5.00	0.98	0.22	0.15	0.14	0.13		
9	0.05	0.08	2.42	1.70	0.46	3.88	1.70	0.94	0.22	0.15	0.14	0.13		
10	0.05	0.08	3.56	1.08	0.48	3.72	1.22	0.84	0.22	0.15	0.14	0.13		
11	0.05	0.94	2.38	0.74	0.58	2.57	1.22	0.79	0.20	0.15	0.13	0.13		
12	0.04	1.66	4.44	0.74	0.74	3.40	0.98	0.74	0.20	0.14	0.13	0.13		
13	0.04	0.79	3.24	0.79	0.74	1.75	1.13	0.65	0.20	0.14	0.13	0.13		
14	0.04	0.60	3.48	0.70	17.06	3.96	0.58	0.58	0.20	0.14	0.13	0.11		
15	0.04	0.40	18.04	0.60	2.23	20.64	0.60	0.56	0.20	0.14	0.13	0.11		
16	0.04	0.30	1.32	0.48	2.18	14.40	0.74	0.52	0.18	0.14	0.13	0.11		
17	0.04	0.46	0.65	0.50	1.70	5.00	0.74	0.50	0.18	0.14	0.11	0.11		
18	0.04	0.34	0.32	0.44	5.96	3.64	0.74	0.48	0.18	0.14	0.11	0.11		
19	0.04	0.26	2.18	0.42	5.56	3.24	0.60	0.44	0.18	0.14	0.11	0.11		
20	0.04	0.15	3.88	0.42	67.20	2.86	0.54	0.42	0.18	0.14	0.11	0.17		
21	0.04	0.07	7.48	0.42	6.76	2.09	0.54	0.40	0.18	0.14	0.11	0.65		
22	0.03	0.05	13.42	0.46	7.00	4.76	1.80	0.40	0.18	0.14	0.11	0.65		
23	0.03	0.05	30.40	0.42	34.00	2.09	1.22	0.38	0.18	0.14	0.11	0.65		
24	0.03	0.04	45.20	0.42	17.34	1.42	1.22	0.36	0.17	0.14	0.10	0.74		
25	0.03	0.04	6.84	0.46	13.14	0.74	2.18	0.34	0.17	0.14	0.10	1.13		
26	0.03	0.10	38.60	0.26	55.92	0.74	3.24	0.32	0.17	0.14	0.10	1.42		
27	0.03	27.52	8.68	1.70	5.56	0.74	2.95	0.32	0.17	0.14	0.10	1.46		
28	0.03	7.24	42.60	1.70	4.20	0.74	2.52	0.30	0.17	0.14	0.11	1.70		
29	0.03	6.92	8.20	3.88	2.57	15.24	2.86	0.30	0.17	0.14		1.70		
30	0.03	5.56	6.92	1.61	1.94	5.64	15.52	0.28	0.17	0.14		15.52		
31		11.56		1.32	3.00		2.09		0.17	0.14		6.28		
Total	1.22	65.49	298.09	167.32	263.01	241.76	67.94	20.36	6.22	4.51	3.46	34.43	1173.81	CMSDAY
Mean	0.04	2.11	9.94	5.40	8.48	8.06	2.19	0.68	0.20	0.15	0.12	1.11	3.22	CMS
Max	0.05	27.52	45.20	47.20	67.20	38.20	15.52	1.37	0.26	0.17	0.14	15.52	67.20	CMS
Min	0.03	0.03	0.32	0.26	0.46	0.74	0.54	0.28	0.17	0.14	0.10	0.11	0.03	CMS
Runoff	0.11	5.66	25.75	14.46	22.72	20.89	5.87	1.76	0.54	0.39	0.30	2.97	101.42	MCM

Momentary Peak 71.04 CMS. at 190.96 m. (MSL.) at 12.00 Hours , on Aug 20 , 2002

Runoff Yield 30.92 Liters/Second/Square KM. Momentary Peak Yield 683.080 Liters/Second/Square KM.

WATER YEAR : 2002

KHONG RIVER BASIN

Huai Sai at Ban Nong - ian Dong, Muk Dahan (Kh.84)

Lat 16 - 32 - 17 N Long 104 - 24 - 12 E

Location : on left bank at the bridge of Ban Huai Sai - Ban Nong - ian Dong Road.

Ban Nong - ian Dong **Amphoe** Kham Cha - I **Changwat** Muk Dahan

Drainge Area	46 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+184.730 m. (MSL.)
Bench Mark	B.M.- Highways Dept.
Location BM	On left bank downstream side at the footpath of the bridge. **Elevation** +190.766 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 mean 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. Stage-discharge relation defined by 29 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

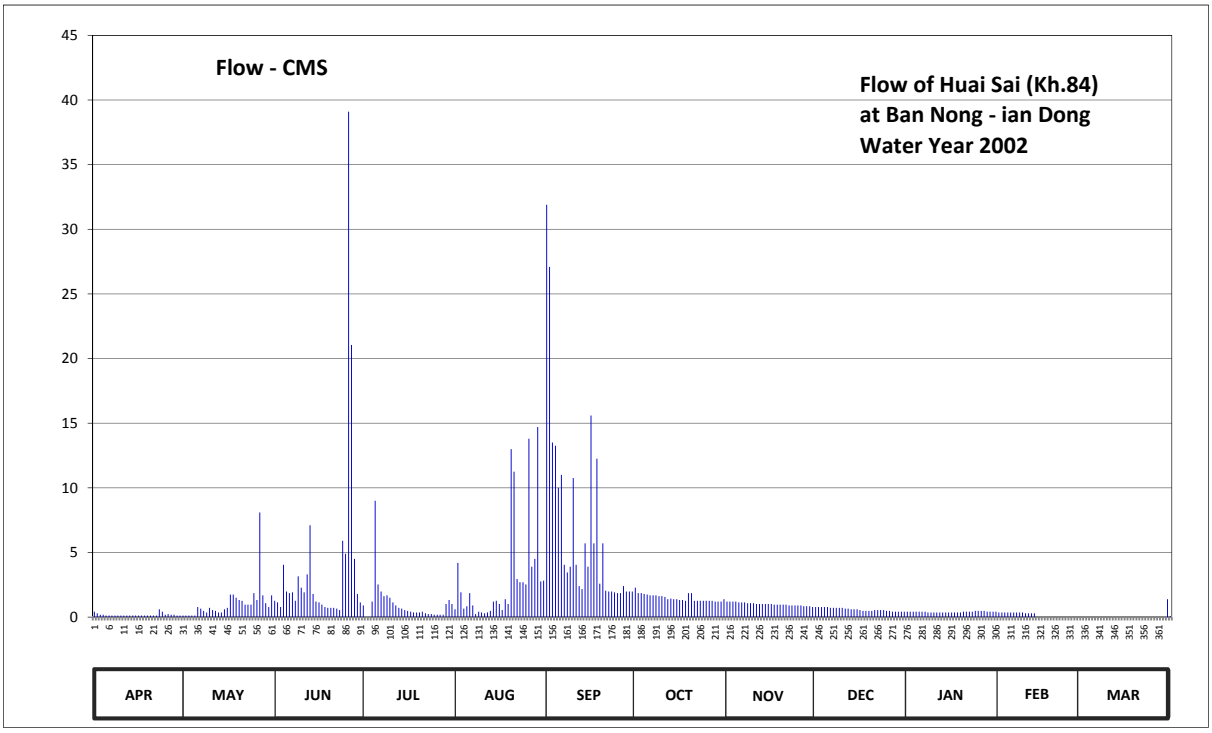
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	185.47	185.42	185.61	185.55	185.50	186.91	185.78	185.60	185.53	185.47	185.46	185.32	
2	185.45	185.42	185.59	185.39	185.98	186.79	185.71	185.60	185.53	185.47	185.46	185.32	
3	185.43	185.42	185.53	185.37	185.72	186.40	185.71	185.60	185.53	185.47	185.46	185.31	
4	185.43	185.42	185.97	185.60	185.51	186.39	185.70	185.60	185.53	185.47	185.46	185.30	
5	185.42	185.42	185.73	186.22	185.54	186.26	185.69	185.59	185.53	185.47	185.46	185.30	
6	185.42	185.53	185.71	185.82	185.71	186.30	185.68	185.59	185.52	185.47	185.46	185.29	
7	185.42	185.51	185.72	185.73	185.55	185.97	185.68	185.59	185.52	185.47	185.46	185.29	
8	185.42	185.48	185.61	185.67	185.44	185.93	185.68	185.58	185.52	185.46	185.46	185.29	
9	185.42	185.46	185.91	185.68	185.47	185.96	185.67	185.58	185.52	185.46	185.46	185.29	
10	185.42	185.52	185.78	185.65	185.46	186.29	185.67	185.58	185.52	185.46	185.45	185.30	
11	185.42	185.49	185.72	185.59	185.45	185.97	185.66	185.57	185.51	185.46	185.45	185.30	
12	185.42	185.48	185.92	185.55	185.46	185.80	185.63	185.57	185.51	185.46	185.45	185.30	
13	185.42	185.46	186.13	185.52	185.48	185.76	185.64	185.57	185.50	185.46	185.45	185.29	
14	185.42	185.46	185.70	185.51	185.60	186.06	185.63	185.57	185.50	185.46	185.31	185.29	
15	185.42	185.50	185.60	185.49	185.61	185.96	185.63	185.57	185.50	185.46	185.31	185.29	
16	185.42	185.52	185.59	185.48	185.57	186.47	185.62	185.57	185.49	185.46	185.31	185.29	
17	185.42	185.69	185.56	185.47	185.49	186.06	185.62	185.56	185.48	185.46	185.31	185.29	
18	185.42	185.69	185.53	185.46	185.63	186.35	185.61	185.56	185.48	185.46	185.31	185.29	
19	185.42	185.65	185.52	185.46	185.57	185.83	185.71	185.56	185.48	185.46	185.31	185.29	
20	185.42	185.62	185.52	185.46	186.38	186.06	185.71	185.56	185.48	185.47	185.31	185.29	
21	185.42	185.61	185.52	185.47	186.31	185.74	185.61	185.56	185.49	185.47	185.31	185.30	
22	185.42	185.56	185.51	185.45	185.89	185.73	185.61	185.55	185.49	185.47	185.30	185.30	
23	185.50	185.56	185.49	185.44	185.85	185.73	185.61	185.55	185.49	185.47	185.30	185.29	
24	185.47	185.56	186.07	185.44	185.85	185.72	185.61	185.55	185.49	185.48	185.30	185.29	
25	185.43	185.71	186.02	185.43	185.82	185.71	185.61	185.55	185.48	185.48	185.30	185.29	
26	185.44	185.62	187.08	185.43	186.41	185.71	185.61	185.55	185.48	185.48	185.37	185.29	
27	185.43	186.18	186.63	185.43	185.96	185.80	185.61	185.54	185.47	185.48	185.35	185.29	
28	185.43	185.68	186.00	185.43	186.00	185.73	185.60	185.54	185.47	185.47	185.33	185.29	
29	185.42	185.58	185.70	185.57	186.44	185.73	185.60	185.54	185.47	185.47		185.30	
30	185.42	185.53	185.59	185.62	185.86	185.73	185.60	185.53	185.47	185.47		185.63	
31		185.68		185.57	185.87		185.63		185.47	185.47		185.41	
Mean	185.43	185.56	185.79	185.55	185.75	186.03	185.65	185.57	185.50	185.47	185.38	185.31	
Max	185.50	186.18	187.08	186.22	186.44	186.91	185.78	185.60	185.53	185.48	185.46	185.63	187.08
Min	185.42	185.42	185.49	185.37	185.44	185.71	185.60	185.53	185.47	185.46	185.30	185.29	185.29

Annual Max Momentary Gage Height 187.13 m. (MSL.) , at 18.00 Hours , on Sep 1 , 2002

Zero Gage at Bottom Elevation 184.73 m. (MSL.) , River Bed 185.00 m. (MSL.)

Left Bank Elevation 190.53 m. (MSL.) ,

Right Bank Elevation 190.48 m. (MSL.) , Drainage Are 46 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.42	0.12	1.26	0.90	0.60	31.90	2.28	1.20	0.78	0.42	0.36	0.00		
2	0.30	0.12	1.14	0.00	4.20	27.10	1.86	1.20	0.78	0.42	0.36	0.00		
3	0.18	0.12	0.78	0.00	1.92	13.50	1.86	1.20	0.78	0.42	0.36	0.00		
4	0.18	0.12	4.05	1.20	0.66	13.25	1.80	1.20	0.78	0.42	0.36	0.00		
5	0.12	0.12	1.98	9.00	0.84	10.00	1.74	1.14	0.78	0.42	0.36	0.00		
6	0.12	0.78	1.86	2.52	1.86	11.00	1.68	1.14	0.72	0.42	0.36	0.00		
7	0.12	0.66	1.92	1.98	0.90	4.05	1.68	1.14	0.72	0.42	0.36	0.00		
8	0.12	0.48	1.26	1.62	0.24	3.45	1.68	1.08	0.72	0.36	0.36	0.00		
9	0.12	0.36	3.15	1.68	0.42	3.90	1.62	1.08	0.72	0.36	0.36	0.00		
10	0.12	0.72	2.28	1.50	0.36	10.75	1.62	1.08	0.72	0.36	0.30	0.00		
11	0.12	0.54	1.92	1.14	0.30	4.05	1.56	1.02	0.66	0.36	0.30	0.00		
12	0.12	0.48	3.30	0.90	0.36	2.40	1.38	1.02	0.66	0.36	0.30	0.00		
13	0.12	0.36	7.10	0.72	0.48	2.16	1.44	1.02	0.60	0.36	0.30	0.00		
14	0.12	0.36	1.80	0.66	1.20	5.70	1.38	1.02	0.60	0.36	0.00	0.00		
15	0.12	0.60	1.20	0.54	1.26	3.90	1.38	1.02	0.60	0.36	0.00	0.00		
16	0.12	0.72	1.14	0.48	1.02	15.60	1.32	1.02	0.54	0.36	0.00	0.00		
17	0.12	1.74	0.96	0.42	0.54	5.70	1.32	0.96	0.48	0.36	0.00	0.00		
18	0.12	1.74	0.78	0.36	1.38	12.25	1.26	0.96	0.48	0.36	0.00	0.00		
19	0.12	1.50	0.72	0.36	1.02	2.58	1.86	0.96	0.48	0.36	0.00	0.00		
20	0.12	1.32	0.72	0.36	13.00	5.70	1.86	0.96	0.48	0.42	0.00	0.00		
21	0.12	1.26	0.72	0.42	11.25	2.04	1.26	0.96	0.54	0.42	0.00	0.00		
22	0.12	0.96	0.66	0.30	2.94	1.98	1.26	0.90	0.54	0.42	0.00	0.00		
23	0.60	0.96	0.54	0.24	2.70	1.98	1.26	0.90	0.54	0.42	0.00	0.00		
24	0.42	0.96	5.90	0.24	2.70	1.92	1.26	0.90	0.54	0.48	0.00	0.00		
25	0.18	1.86	4.90	0.18	2.52	1.86	1.26	0.90	0.48	0.48	0.00	0.00		
26	0.24	1.32	39.10	0.18	13.80	1.86	1.26	0.90	0.48	0.48	0.00	0.00		
27	0.18	8.10	21.05	0.18	3.90	2.40	1.26	0.84	0.42	0.48	0.00	0.00		
28	0.18	1.68	4.50	0.18	4.50	1.98	1.20	0.84	0.42	0.42	0.00	0.00		
29	0.12	1.08	1.80	1.02	14.70	1.98	1.20	0.84	0.42	0.42		0.00		
30	0.12	0.78	1.14	1.32	2.76	1.98	1.20	0.78	0.42	0.42		1.38		
31		1.68		1.02	2.82		1.38		0.42	0.42		0.06		
Total	5.28	33.60	119.63	31.62	97.15	208.92	46.38	30.18	18.30	12.54	4.44	1.44	609.48	CMSDAY
Mean	0.18	1.08	3.99	1.02	3.13	6.96	1.50	1.01	0.59	0.40	0.16	0.05	1.67	CMS
Max	0.60	8.10	39.10	9.00	14.70	31.90	2.28	1.20	0.78	0.48	0.36	1.38	39.10	CMS
Min	0.12	0.12	0.54	0.00	0.24	1.86	1.20	0.78	0.42	0.36	0.00	0.00	0.00	CMS
Runoff	0.46	2.90	10.34	2.73	8.39	18.05	4.01	2.61	1.58	1.08	0.38	0.12	52.66	MCM

Momentary Peak 41.35 CMS. at 187.13 m. (MSL.) at 18.00 Hours , on Sep 1 , 2002

Runoff Yield 36.30 Liters/Second/Square KM. Momentary Peak Yield 898.910 Liters/Second/Square KM.

WATER YEAR : 2002

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	Staff gage.
Zero Gage at Bottom	+0.000 m. (A.D.)
Bench Mark	B.M.- Temporary.
Location BM	On right bank at the footpath of the bridge. **Elevation** +5.470 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 mean 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	Fairly stable because of backwater effect.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. The local weir situated about 300 meters downstream from the gage site. Stage-discharge relation defined by 38 discharge measurements made in 2002.

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

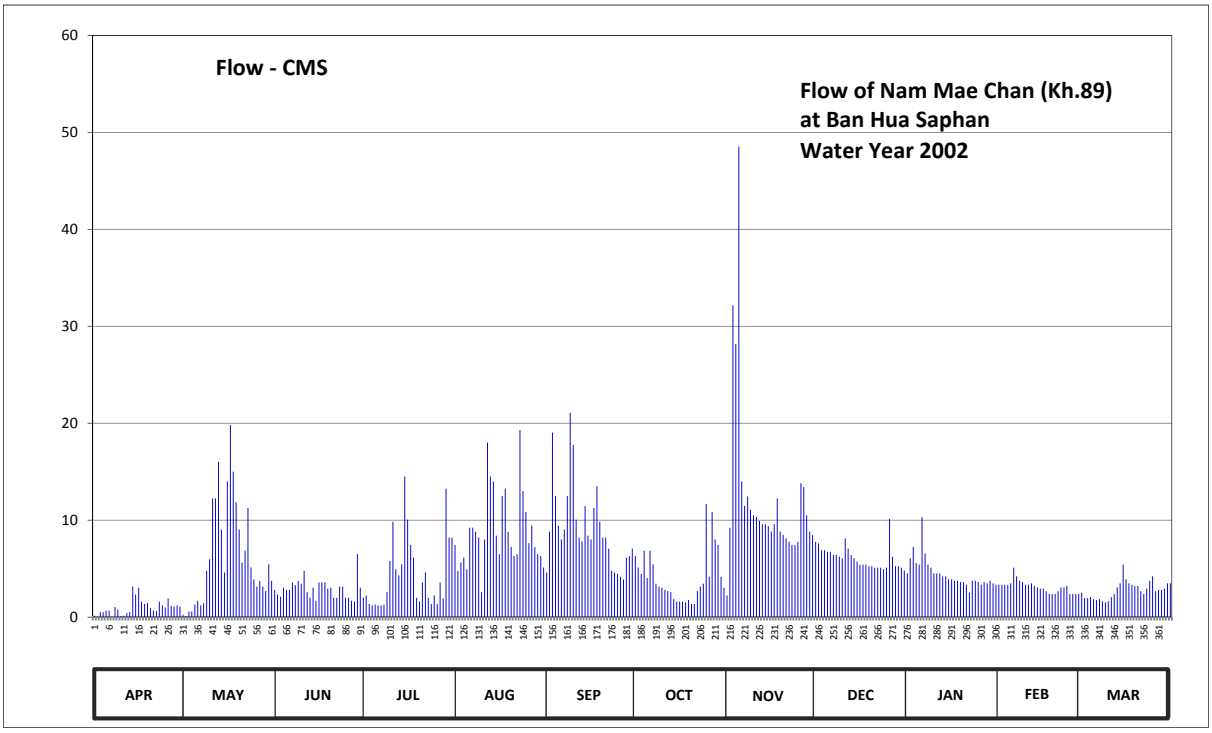
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.10	0.12	0.47	0.40	0.76	0.60	0.70	0.42	0.65	0.45	0.37	0.31	
2	0.03	0.08	0.43	0.42	0.61	0.83	0.63	0.73	0.64	0.55	0.37	0.26	
3	0.17	0.18	0.41	0.32	0.66	1.27	0.59	1.77	0.60	0.62	0.37	0.26	
4	0.17	0.18	0.49	0.30	0.69	1.01	0.73	1.62	0.60	0.52	0.37	0.27	
5	0.20	0.31	0.47	0.31	0.62	0.86	0.56	2.11	0.59	0.51	0.38	0.25	
6	0.20	0.36	0.47	0.30	0.85	0.79	0.73	0.98	0.59	0.79	0.49	0.24	
7	0.03	0.30	0.53	0.30	0.85	0.84	0.65	0.85	0.57	0.58	0.43	0.25	
8	0.27	0.33	0.51	0.31	0.83	1.01	0.52	0.90	0.57	0.51	0.40	0.23	
9	0.22	0.61	0.54	0.45	0.80	1.35	0.50	0.83	0.56	0.49	0.39	0.22	
10	0.07	0.68	0.52	0.67	0.45	1.22	0.49	0.80	0.55	0.45	0.37	0.23	
11	0.09	1.00	0.61	0.88	0.79	0.89	0.47	0.79	0.67	0.45	0.37	0.27	
12	0.15	1.00	0.45	0.62	1.23	0.80	0.46	0.77	0.61	0.45	0.38	0.30	
13	0.17	1.15	0.40	0.58	1.09	0.78	0.45	0.75	0.57	0.43	0.36	0.35	
14	0.50	0.84	0.49	0.65	1.07	0.96	0.38	0.75	0.55	0.43	0.35	0.38	
15	0.43	0.60	0.36	1.09	0.81	0.81	0.35	0.74	0.53	0.41	0.34	0.51	
16	0.49	1.07	0.53	0.89	0.71	0.79	0.35	0.71	0.51	0.41	0.34	0.41	
17	0.35	1.30	0.53	0.76	1.01	0.95	0.35	0.75	0.51	0.40	0.32	0.38	
18	0.32	1.11	0.53	0.69	1.04	1.05	0.34	0.89	0.51	0.40	0.30	0.37	
19	0.33	0.98	0.48	0.40	0.83	0.88	0.37	0.71	0.50	0.39	0.30	0.36	
20	0.25	0.84	0.49	0.35	0.75	0.80	0.32	0.69	0.50	0.39	0.30	0.36	
21	0.20	0.66	0.40	0.53	0.70	0.80	0.32	0.67	0.49	0.37	0.32	0.32	
22	0.19	0.73	0.40	0.60	0.71	0.74	0.46	0.65	0.49	0.31	0.35	0.30	
23	0.35	0.95	0.50	0.40	1.28	0.61	0.50	0.63	0.49	0.40	0.35	0.34	
24	0.30	0.63	0.50	0.32	1.03	0.60	0.52	0.63	0.48	0.40	0.36	0.40	
25	0.26	0.55	0.40	0.42	0.93	0.59	0.97	0.65	0.49	0.39	0.30	0.43	
26	0.39	0.50	0.40	0.32	0.77	0.57	0.57	0.97	0.78	0.37	0.30	0.32	
27	0.29	0.54	0.36	0.53	0.86	0.55	0.93	0.95	0.56	0.39	0.30	0.33	
28	0.28	0.50	0.35	0.39	0.75	0.69	0.79	0.80	0.50	0.38	0.30	0.33	
29	0.30	0.46	0.71	1.04	0.71	0.70	0.76	0.71	0.50	0.40		0.34	
30	0.28	0.65	0.49	0.80	0.70	0.74	0.57	0.69	0.49	0.38		0.38	
31		0.54		0.80	0.63		0.49		0.47	0.37		0.38	
Mean	0.25	0.64	0.47	0.54	0.82	0.84	0.54	0.86	0.55	0.44	0.35	0.33	
Max	0.50	1.30	0.71	1.09	1.28	1.35	0.97	2.11	0.78	0.79	0.49	0.51	2.11
Min	0.03	0.08	0.35	0.30	0.45	0.55	0.32	0.42	0.47	0.31	0.30	0.22	0.03

Annual Max Momentary Gage Height 2.18 m. (A.D.) , at 06.00 Hours , on Nov 5 , 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed -0.42 m. (A.D.)

Left Bank Elevation 5.23 m. (A.D.) ,

Right Bank Elevation 5.22 m. (A.D.) , Drainage Are 248 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.15	0.25	2.81	2.00	7.44	4.60	6.30	2.23	7.77	4.50	3.34	2.53		
2	0.05	0.12	2.34	2.23	4.77	8.81	5.11	9.20	7.60	6.07	3.34	1.96		
3	0.51	0.57	2.11	1.36	5.62	19.03	4.45	32.17	6.90	7.25	3.34	1.96		
4	0.51	0.57	3.04	1.20	6.13	12.50	6.87	28.16	6.90	5.58	3.34	2.07		
5	0.67	1.28	2.81	1.28	4.94	9.43	4.02	48.56	6.73	5.41	3.48	1.85		
6	0.67	1.68	2.81	1.20	9.23	8.01	6.87	14.01	6.73	10.31	5.10	1.74		
7	0.05	1.20	3.58	1.20	9.23	9.02	5.45	11.47	6.40	6.57	4.20	1.85		
8	1.04	1.44	3.30	1.28	8.81	12.50	3.44	12.45	6.40	5.41	3.75	1.63		
9	0.78	4.77	3.73	2.58	8.20	21.07	3.15	11.08	6.24	5.10	3.61	1.52		
10	0.11	5.96	3.44	5.79	2.58	17.76	3.04	10.50	6.07	4.50	3.34	1.63		
11	0.14	12.25	4.77	9.84	8.01	10.05	2.81	10.31	8.12	4.50	3.34	2.07		
12	0.41	12.25	2.58	4.94	18.01	8.20	2.69	9.94	7.07	4.50	3.48	2.40		
13	0.51	16.00	2.00	4.31	14.50	7.82	2.58	9.57	6.40	4.20	3.21	3.07		
14	3.15	9.02	3.04	5.45	14.00	11.45	1.84	9.57	6.07	4.20	3.07	3.48		
15	2.34	4.60	1.68	14.50	8.40	8.40	1.60	9.39	5.74	3.90	2.94	5.41		
16	3.04	14.00	3.58	10.05	6.49	8.01	1.60	8.83	5.41	3.90	2.94	3.90		
17	1.60	19.80	3.58	7.44	12.50	11.25	1.60	9.57	5.41	3.75	2.67	3.48		
18	1.36	15.00	3.58	6.13	13.25	13.50	1.52	12.25	5.41	3.75	2.40	3.34		
19	1.44	11.85	2.92	2.00	8.81	9.84	1.76	8.83	5.25	3.61	2.40	3.21		
20	0.93	9.02	3.04	1.60	7.25	8.20	1.36	8.47	5.25	3.61	2.40	3.21		
21	0.67	5.62	2.00	3.58	6.30	8.20	1.36	8.12	5.10	3.34	2.67	2.67		
22	0.62	6.87	2.00	4.60	6.49	7.06	2.69	7.77	5.10	2.53	3.07	2.40		
23	1.60	11.25	3.15	2.00	19.29	4.77	3.15	7.42	5.10	3.75	3.07	2.94		
24	1.20	5.11	3.15	1.36	13.00	4.60	3.44	7.42	4.95	3.75	3.21	3.75		
25	0.99	3.87	2.00	2.23	10.85	4.45	11.65	7.77	5.10	3.61	2.40	4.20		
26	1.92	3.15	2.00	1.36	7.63	4.16	4.16	13.81	10.13	3.34	2.40	2.67		
27	1.15	3.73	1.68	3.58	9.43	3.87	10.85	13.42	6.24	3.61	2.40	2.80		
28	1.09	3.15	1.60	1.92	7.25	6.13	8.01	10.50	5.25	3.48	2.40	2.80		
29	1.20	2.69	6.49	13.25	6.49	6.30	7.44	8.83	5.25	3.75		2.94		
30	1.09	5.45	3.04	8.20	6.30	7.06	4.16	8.47	5.10	3.48		3.48		
31		3.73		8.20	5.11		3.04		4.80	3.34		3.48		
Total	30.99	196.25	87.85	136.66	276.31	276.05	128.01	370.09	189.99	138.60	87.31	86.44	2004.55	CMSDAY
Mean	1.03	6.33	2.93	4.41	8.91	9.20	4.13	12.34	6.13	4.47	3.12	2.79	5.49	CMS
Max	3.15	19.80	6.49	14.50	19.29	21.07	11.65	48.56	10.13	10.31	5.10	5.41	48.56	CMS
Min	0.05	0.12	1.60	1.20	2.58	3.87	1.36	2.23	4.80	2.53	2.40	1.52	0.05	CMS
Runoff	2.68	16.96	7.59	11.81	23.87	23.85	11.06	31.98	16.42	11.98	7.54	7.47	173.19	MCM

Momentary Peak 53.18 CMS. at 2.18 m. (A.D.) at 06.00 Hours , on Nov 5 , 2002

Runoff Yield 22.14 Liters/Second/Square KM. Momentary Peak Yield 214.440 Liters/Second/Square KM.

WATER YEAR : 2002

KHONG RIVER BASIN

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

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

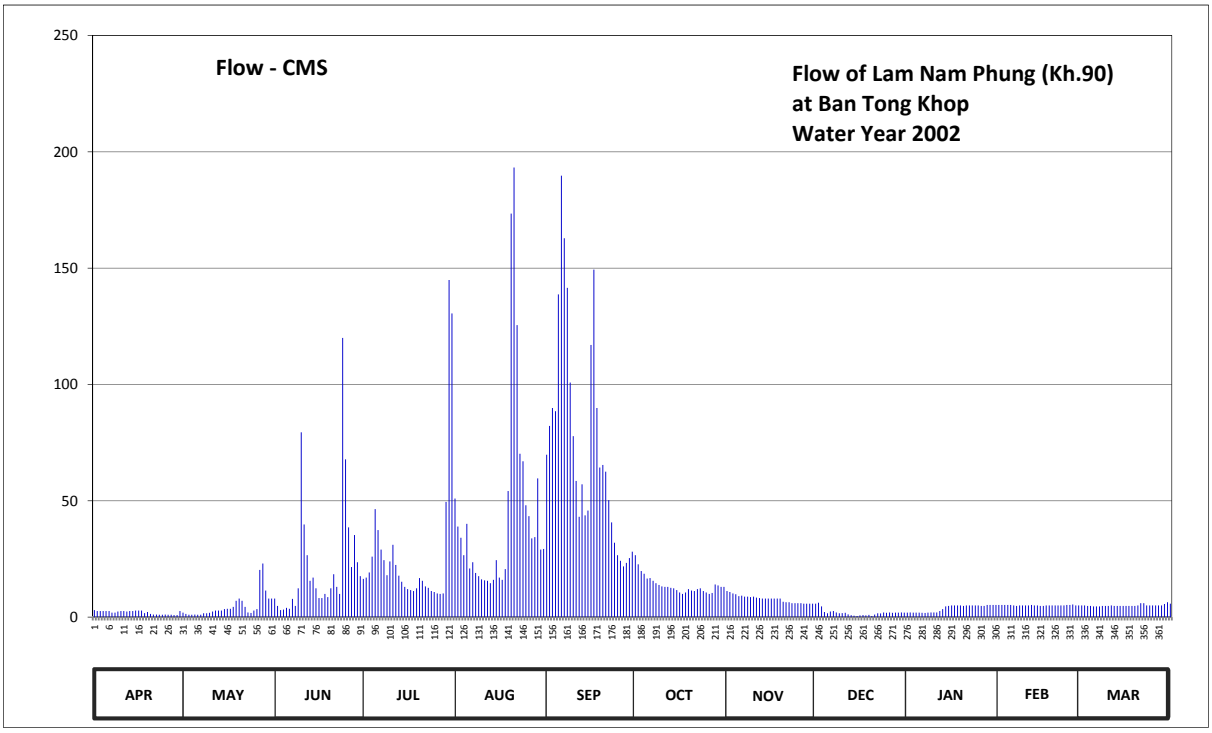
Location : on right bank at the bridge on highway.

	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 mean 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 +163.920 m.(M.S.L.) and is including overbank flow.		
General Description	Records good. Stage-discharge relation defined by 42 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	159.25	159.19	159.50	159.92	161.11	161.62	160.32	159.66	159.39	159.19	159.36	159.35	
2	159.23	159.12	159.34	159.95	160.73	161.93	160.19	159.64	159.41	159.20	159.36	159.35	
3	159.23	159.07	159.25	160.06	160.57	162.11	160.09	159.61	159.33	159.19	159.36	159.34	
4	159.23	159.07	159.26	160.30	160.32	162.08	160.03	159.59	159.21	159.19	159.36	159.34	
5	159.23	159.08	159.30	160.98	160.77	163.12	159.93	159.55	159.15	159.19	159.36	159.33	
6	159.23	159.07	159.28	160.68	160.13	164.03	159.94	159.56	159.22	159.18	159.35	159.33	
7	159.19	159.07	159.49	160.40	160.22	163.55	159.88	159.54	159.23	159.17	159.34	159.33	
8	159.19	159.15	159.34	160.25	160.05	163.17	159.83	159.54	159.20	159.19	159.35	159.34	
9	159.22	159.15	159.72	160.00	159.98	162.36	159.79	159.53	159.15	159.20	159.35	159.34	
10	159.23	159.18	161.86	160.23	159.91	161.82	159.76	159.54	159.16	159.20	159.35	159.34	
11	159.23	159.22	160.76	160.47	159.89	161.32	159.75	159.52	159.18	159.20	159.35	159.35	
12	159.22	159.24	160.32	160.18	159.88	160.87	159.75	159.51	159.09	159.23	159.36	159.34	
13	159.23	159.24	159.88	159.99	159.83	161.28	159.73	159.50	159.04	159.27	159.35	159.34	
14	159.23	159.24	159.95	159.86	159.90	160.89	159.72	159.50	159.01	159.33	159.35	159.34	
15	159.24	159.27	159.72	159.75	160.25	160.96	159.68	159.50	159.00	159.34	159.34	159.34	
16	159.24	159.28	159.51	159.70	159.95	162.70	159.63	159.50	159.03	159.35	159.34	159.34	
17	159.24	159.28	159.51	159.68	159.90	163.31	159.60	159.50	159.05	159.35	159.35	159.34	
18	159.16	159.32	159.60	159.66	160.12	162.11	159.63	159.50	159.03	159.35	159.35	159.34	
19	159.21	159.45	159.53	159.72	161.20	161.48	159.70	159.50	159.06	159.35	159.35	159.34	
20	159.12	159.50	159.72	159.94	163.74	161.51	159.67	159.43	158.99	159.34	159.35	159.35	
21	159.08	159.45	160.02	159.88	164.09	161.43	159.66	159.42	159.08	159.35	159.35	159.40	
22	159.08	159.32	159.75	159.76	162.87	161.09	159.70	159.42	159.15	159.35	159.35	159.40	
23	159.07	159.20	159.60	159.73	161.63	160.79	159.72	159.40	159.14	159.35	159.35	159.35	
24	159.07	159.17	162.76	159.66	161.55	160.50	159.66	159.40	159.20	159.35	159.36	159.35	
25	159.08	159.24	161.57	159.64	161.03	160.32	159.63	159.40	159.18	159.35	159.36	159.35	
26	159.07	159.27	160.72	159.61	160.88	160.24	159.60	159.40	159.20	159.34	159.37	159.35	
27	159.07	160.11	160.15	159.60	160.56	160.16	159.62	159.39	159.18	159.34	159.35	159.35	
28	159.05	160.20	160.61	159.61	160.58	160.21	159.80	159.39	159.19	159.36	159.35	159.35	
29	159.05	159.67	160.22	161.07	161.35	160.28	159.78	159.39	159.19	159.36		159.38	
30	159.23	159.50	159.98	163.23	160.40	160.37	159.75	159.39	159.20	159.36		159.42	
31		159.50		162.97	160.41		159.75		159.19	159.36		159.39	
Mean	159.17	159.32	160.01	160.21	160.77	161.59	159.78	159.49	159.16	159.29	159.35	159.35	
Max	159.25	160.20	162.76	163.23	164.09	164.03	160.32	159.66	159.41	159.36	159.37	159.42	164.09
Min	159.05	159.07	159.25	159.60	159.83	160.16	159.60	159.39	158.99	159.17	159.34	159.33	158.99

Annual Max Momentary Gage Height	164.33	m. (MSL.) ,	at 17.00 Hours , on Aug 20 , 2002		
Zero Gage at Bottom Elevation	158.50	m. (MSL.) ,	River Bed	157.75	m. (MSL.)
Left Bank Elevation	163.91	m. (MSL.) ,			
Right Bank Elevation	164.21	m. (MSL.) ,	Drainage Are	861	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.00	1.93	8.00	16.40	50.96	69.80	26.60	11.20	5.80	1.93	5.20	5.00		
2	2.60	1.40	4.80	17.00	38.90	82.20	22.70	10.80	6.20	2.00	5.20	5.00		
3	2.60	1.03	3.00	19.20	34.10	89.84	19.80	10.20	4.60	1.93	5.20	4.80		
4	2.60	1.03	3.20	26.00	26.60	88.52	18.60	9.80	2.20	1.93	5.20	4.80		
5	2.60	1.10	4.00	46.40	40.10	138.72	16.60	9.00	1.63	1.93	5.20	4.60		
6	2.60	1.03	3.60	37.40	20.90	189.74	16.80	9.20	2.40	1.85	5.00	4.60		
7	1.93	1.03	7.80	29.00	23.60	162.80	15.60	8.80	2.60	1.78	4.80	4.60		
8	1.93	1.63	4.80	24.50	19.00	141.52	14.60	8.80	2.00	1.93	5.00	4.80		
9	2.40	1.63	12.40	18.00	17.60	100.84	13.80	8.60	1.63	2.00	5.00	4.80		
10	2.60	1.85	79.40	23.90	16.20	77.80	13.20	8.80	1.70	2.00	5.00	4.80		
11	2.60	2.40	39.80	31.10	15.80	58.52	13.00	8.40	1.85	2.00	5.00	5.00		
12	2.40	2.80	26.60	22.40	15.60	43.10	13.00	8.20	1.18	2.60	5.20	4.80		
13	2.60	2.80	15.60	17.80	14.60	57.08	12.60	8.00	0.80	3.40	5.00	4.80		
14	2.60	2.80	17.00	15.20	16.00	43.70	12.40	8.00	0.58	4.60	5.00	4.80		
15	2.80	3.40	12.40	13.00	24.50	45.80	11.60	8.00	0.50	4.80	4.80	4.80		
16	2.80	3.60	8.20	12.00	17.00	117.00	10.60	8.00	0.73	5.00	4.80	4.80		
17	2.80	3.60	8.20	11.60	16.00	149.36	10.00	8.00	0.88	5.00	5.00	4.80		
18	1.70	4.40	10.00	11.20	20.60	89.84	10.60	8.00	0.73	5.00	5.00	4.80		
19	2.20	7.00	8.60	12.40	54.20	64.28	12.00	8.00	0.95	5.00	5.00	4.80		
20	1.40	8.00	12.40	16.80	173.44	65.40	11.40	6.60	0.45	4.80	5.00	5.00		
21	1.10	7.00	18.40	15.60	193.22	62.48	11.20	6.40	1.10	5.00	5.00	6.00		
22	1.10	4.40	13.00	13.20	125.50	50.24	12.00	6.40	1.63	5.00	5.00	6.00		
23	1.03	2.00	10.00	12.60	70.20	40.70	12.40	6.00	1.55	5.00	5.00	5.00		
24	1.03	1.78	120.00	11.20	67.00	32.00	11.20	6.00	2.00	5.00	5.20	5.00		
25	1.10	2.80	67.80	10.80	48.08	26.60	10.60	6.00	1.85	5.00	5.20	5.00		
26	1.03	3.40	38.60	10.20	43.40	24.20	10.00	6.00	2.00	4.80	5.40	5.00		
27	1.03	20.30	21.50	10.00	33.80	21.80	10.40	5.80	1.85	4.80	5.00	5.00		
28	0.88	23.00	35.30	10.20	34.40	23.30	14.00	5.80	1.93	5.20	5.00	5.00		
29	0.88	11.40	23.60	49.52	59.60	25.40	13.60	5.80	1.93	5.20		5.60		
30	2.60	8.00	17.60	144.88	29.00	28.10	13.00	5.80	2.00	5.20		6.40		
31		8.00		130.50	29.30		13.00		1.93	5.20		5.80		
Total	60.54	146.54	655.60	840.00	1389.20	2210.68	426.90	234.40	59.18	116.88	141.40	156.00	6437.32	CMSDAY
Mean	2.02	4.73	21.85	27.10	44.81	73.69	13.77	7.81	1.91	3.77	5.05	5.03	17.64	CMS
Max	3.00	23.00	120.00	144.88	193.22	189.74	26.60	11.20	6.20	5.20	5.40	6.40	193.22	CMS
Min	0.88	1.03	3.00	10.00	14.60	21.80	10.00	5.80	0.45	1.78	4.80	4.60	0.45	CMS
Runoff	5.23	12.66	56.64	72.58	120.03	191.00	36.88	20.25	5.11	10.10	12.22	13.48	556.18	MCM

Momentary Peak 207.14 CMS. at 164.33 m. (MSL.) at 17.00 Hours , on Aug 20 , 2002

Runoff Yield 20.48 Liters/Second/Square KM. Momentary Peak Yield 240.580 Liters/Second/Square KM.

WATER YEAR : 2002

KHONG RIVER BASIN

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

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

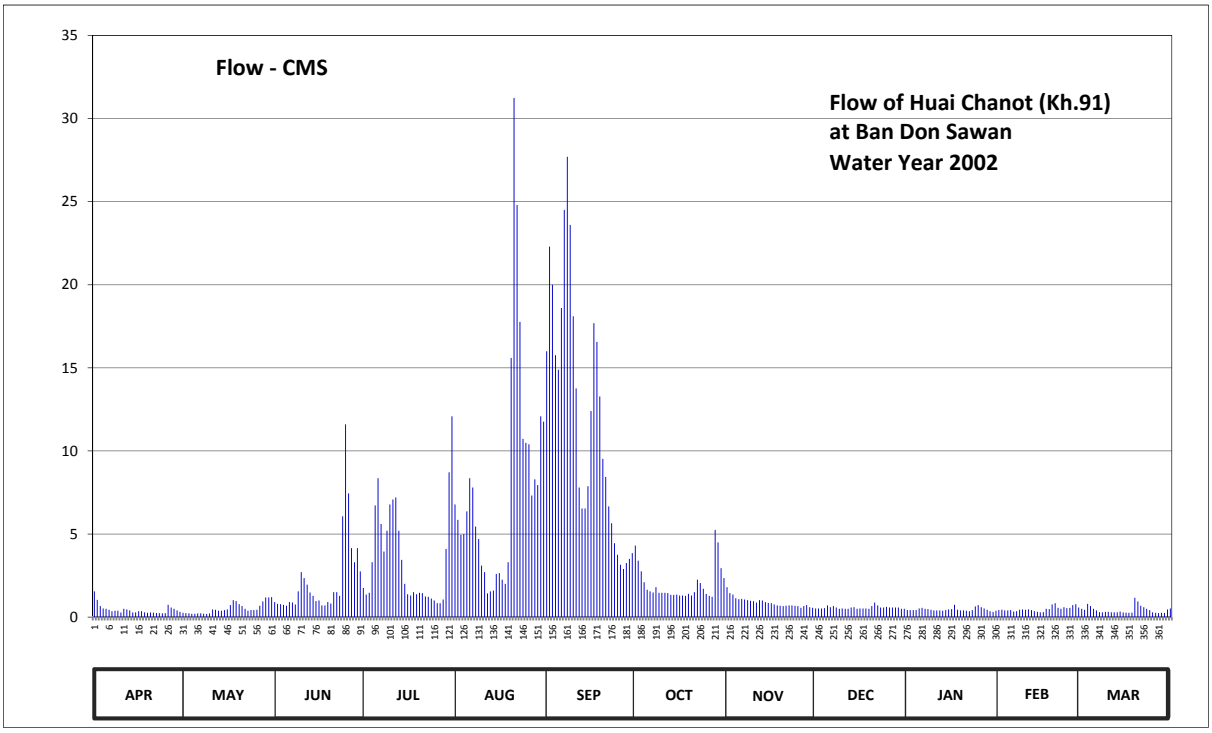
Location : on left bank at the bridge on highway.

	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 mean 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 because of back water effect.		
Overbank Flow Conditions	Overbank flow starts at elevation +152.940 m.(M.S.L.) and is including overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 41 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	150.51	149.86	150.20	150.55	151.53	152.75	151.06	150.56	150.01	149.96	149.96	150.00	
2	150.27	149.84	150.15	150.43	151.37	153.43	150.88	150.47	150.01	149.96	149.97	149.97	
3	150.08	149.83	150.14	150.48	151.19	153.20	150.75	150.43	150.01	149.96	149.95	150.15	
4	150.01	149.80	150.12	150.86	151.20	152.72	150.62	150.32	150.02	149.96	149.95	150.08	
5	150.00	149.80	150.09	151.52	151.46	152.61	150.53	150.29	150.10	150.01	149.96	150.00	
6	149.97	149.82	150.20	151.78	151.78	153.06	150.51	150.30	150.05	150.03	149.92	149.95	
7	149.93	149.83	150.19	151.32	151.70	153.65	150.49	150.28	150.08	150.00	149.93	149.90	
8	149.94	149.80	150.13	150.99	151.29	153.97	150.56	150.26	150.04	149.99	149.97	149.89	
9	149.94	149.79	150.51	151.24	151.14	153.56	150.48	150.24	150.00	149.97	149.98	149.91	
10	149.88	149.82	150.74	151.53	150.82	153.01	150.48	150.23	150.01	149.95	149.97	149.91	
11	150.00	149.98	150.67	151.58	150.74	152.47	150.48	150.19	150.00	149.95	149.98	149.89	
12	149.98	149.97	150.59	151.60	150.46	151.70	150.47	150.26	150.00	149.95	149.96	149.89	
13	149.95	149.94	150.49	151.24	150.51	151.49	150.42	150.25	150.04	149.94	149.93	149.89	
14	149.88	149.94	150.39	150.89	150.52	151.49	150.42	150.20	150.05	149.96	149.91	149.92	
15	149.89	149.96	150.23	150.60	150.72	151.71	150.43	150.18	150.00	149.98	149.89	149.88	
16	149.93	149.98	150.25	150.44	150.73	152.30	150.40	150.17	150.01	149.99	149.90	149.87	
17	149.93	150.11	150.10	150.40	150.65	152.96	150.40	150.13	150.01	150.12	150.00	149.86	
18	149.89	150.26	150.10	150.50	150.60	152.82	150.39	150.10	150.01	149.97	149.99	149.87	
19	149.86	150.23	150.20	150.44	150.86	152.41	150.45	150.09	150.00	149.95	150.13	150.33	
20	149.88	150.14	150.16	150.48	152.70	151.94	150.40	150.08	150.08	149.95	150.17	150.22	
21	149.87	150.08	150.50	150.47	154.27	151.79	150.50	150.09	150.19	149.94	150.03	150.09	
22	149.85	150.00	150.50	150.37	153.68	151.51	150.65	150.10	150.10	149.93	150.00	150.05	
23	149.84	149.94	150.39	150.36	152.97	151.33	150.61	150.10	150.04	149.96	150.05	150.00	
24	149.83	149.96	151.41	150.31	152.09	151.09	150.54	150.09	150.04	150.07	150.02	149.96	
25	149.84	149.96	152.20	150.25	152.06	150.95	150.45	150.08	150.06	150.11	150.03	149.89	
26	150.12	149.97	151.64	150.17	152.05	150.83	150.39	150.03	150.04	150.05	150.11	149.86	
27	150.04	150.09	151.03	150.17	151.62	150.78	150.36	150.08	150.04	150.01	150.14	149.84	
28	150.00	150.22	150.86	150.28	151.77	150.85	151.25	150.11	150.04	149.97	150.04	149.86	
29	149.95	150.34	151.03	151.02	151.72	150.90	151.10	150.05	150.04	149.93		149.85	
30	149.91	150.34	150.75	151.83	152.26	150.97	150.79	150.03	150.00	149.91		149.98	
31		150.35		152.26	152.22		150.67		150.00	149.94		150.01	
Mean	149.97	150.00	150.53	150.85	151.57	152.14	150.58	150.19	150.04	149.98	149.99	149.96	
Max	150.51	150.35	152.20	152.26	154.27	153.97	151.25	150.56	150.19	150.12	150.17	150.33	154.27
Min	149.83	149.79	150.09	150.17	150.46	150.78	150.36	150.03	150.00	149.91	149.89	149.84	149.79

Annual Max Momentary Gage Height	154.32	m. (MSL.) ,	at 06.00 Hours , on Aug 21, 2002		
Zero Gage at Bottom Elevation	149.00	m. (MSL.) ,	River Bed	149.34	m. (MSL.)
Left Bank Elevation	153.86	m. (MSL.) ,			
Right Bank Elevation	152.94	m. (MSL.) ,	Drainage Are	172	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.55	0.26	0.90	1.75	6.78	16.00	4.30	1.80	0.52	0.42	0.42	0.50		
2	1.04	0.24	0.80	1.36	5.85	22.30	3.40	1.44	0.52	0.42	0.44	0.44		
3	0.66	0.23	0.78	1.46	4.95	20.00	2.75	1.36	0.52	0.42	0.40	0.80		
4	0.52	0.20	0.74	3.30	5.00	15.76	2.10	1.14	0.54	0.42	0.40	0.66		
5	0.50	0.20	0.68	6.72	6.36	14.88	1.65	1.08	0.70	0.52	0.42	0.50		
6	0.44	0.22	0.90	8.36	8.36	18.60	1.55	1.10	0.60	0.56	0.34	0.40		
7	0.36	0.23	0.88	5.60	7.80	24.50	1.48	1.06	0.66	0.50	0.36	0.30		
8	0.38	0.20	0.76	3.95	5.45	27.70	1.80	1.02	0.58	0.48	0.44	0.29		
9	0.38	0.19	1.55	5.20	4.70	23.60	1.46	0.98	0.50	0.44	0.46	0.32		
10	0.28	0.22	2.70	6.78	3.10	18.10	1.46	0.96	0.52	0.40	0.44	0.32		
11	0.50	0.46	2.35	7.08	2.70	13.76	1.46	0.88	0.50	0.40	0.46	0.29		
12	0.46	0.44	1.95	7.20	1.42	7.80	1.44	1.02	0.50	0.40	0.42	0.29		
13	0.40	0.38	1.48	5.20	1.55	6.54	1.34	1.00	0.58	0.38	0.36	0.29		
14	0.28	0.38	1.28	3.45	1.60	6.54	1.34	0.90	0.60	0.42	0.32	0.34		
15	0.29	0.42	0.96	2.00	2.60	7.87	1.36	0.86	0.50	0.46	0.29	0.28		
16	0.36	0.46	1.00	1.38	2.65	12.40	1.30	0.84	0.52	0.48	0.30	0.27		
17	0.36	0.72	0.70	1.30	2.25	17.68	1.30	0.76	0.52	0.74	0.50	0.26		
18	0.29	1.02	0.70	1.50	2.00	16.56	1.28	0.70	0.52	0.44	0.48	0.27		
19	0.26	0.96	0.90	1.38	3.30	13.28	1.40	0.68	0.50	0.40	0.76	1.16		
20	0.28	0.78	0.82	1.46	15.60	9.52	1.30	0.66	0.66	0.40	0.84	0.94		
21	0.27	0.66	1.50	1.44	31.24	8.43	1.50	0.68	0.88	0.38	0.56	0.68		
22	0.25	0.50	1.50	1.24	24.80	6.66	2.25	0.70	0.70	0.36	0.50	0.60		
23	0.24	0.38	1.28	1.22	17.76	5.65	2.05	0.70	0.58	0.42	0.60	0.50		
24	0.23	0.42	6.06	1.12	10.72	4.45	1.70	0.68	0.58	0.64	0.54	0.42		
25	0.24	0.42	11.60	1.00	10.48	3.75	1.40	0.66	0.62	0.72	0.56	0.29		
26	0.74	0.44	7.44	0.84	10.40	3.15	1.28	0.56	0.58	0.60	0.72	0.26		
27	0.58	0.68	4.15	0.84	7.32	2.90	1.22	0.66	0.58	0.52	0.78	0.24		
28	0.50	0.94	3.30	1.06	8.29	3.25	5.25	0.72	0.58	0.44	0.58	0.26		
29	0.40	1.18	4.15	4.10	7.94	3.50	4.50	0.60	0.58	0.36		0.25		
30	0.32	1.18	2.75	8.71	12.08	3.85	2.95	0.56	0.50	0.32		0.46		
31		1.20		12.08	11.76		2.35		0.50	0.38		0.52		
Total	13.36	16.21	66.56	110.08	246.81	358.98	61.92	26.76	17.74	14.24	13.69	13.40	959.75	CMSDAY
Mean	0.45	0.52	2.22	3.55	7.96	11.97	2.00	0.89	0.57	0.46	0.49	0.43	2.63	CMS
Max	1.55	1.20	11.60	12.08	31.24	27.70	5.25	1.80	0.88	0.74	0.84	1.16	31.24	CMS
Min	0.23	0.19	0.68	0.84	1.42	2.90	1.22	0.56	0.50	0.32	0.29	0.24	0.19	CMS
Runoff	1.15	1.40	5.75	9.51	21.32	31.02	5.35	2.31	1.53	1.23	1.18	1.16	82.92	MCM

Momentary Peak 31.84 CMS. at 154.32 m. (MSL.) at 06.00 Hours , on Aug 21 , 2002

Runoff Yield 15.29 Liters/Second/Square KM. Momentary Peak Yield 185.120 Liters/Second/Square KM.

WATER YEAR : 2002

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 mean 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 +155.330 m.(MSL.) and is including overbank flow.
General Description	Records good. The local weir situated downstream from the gage site. Stage-discharge relation defined by 41 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

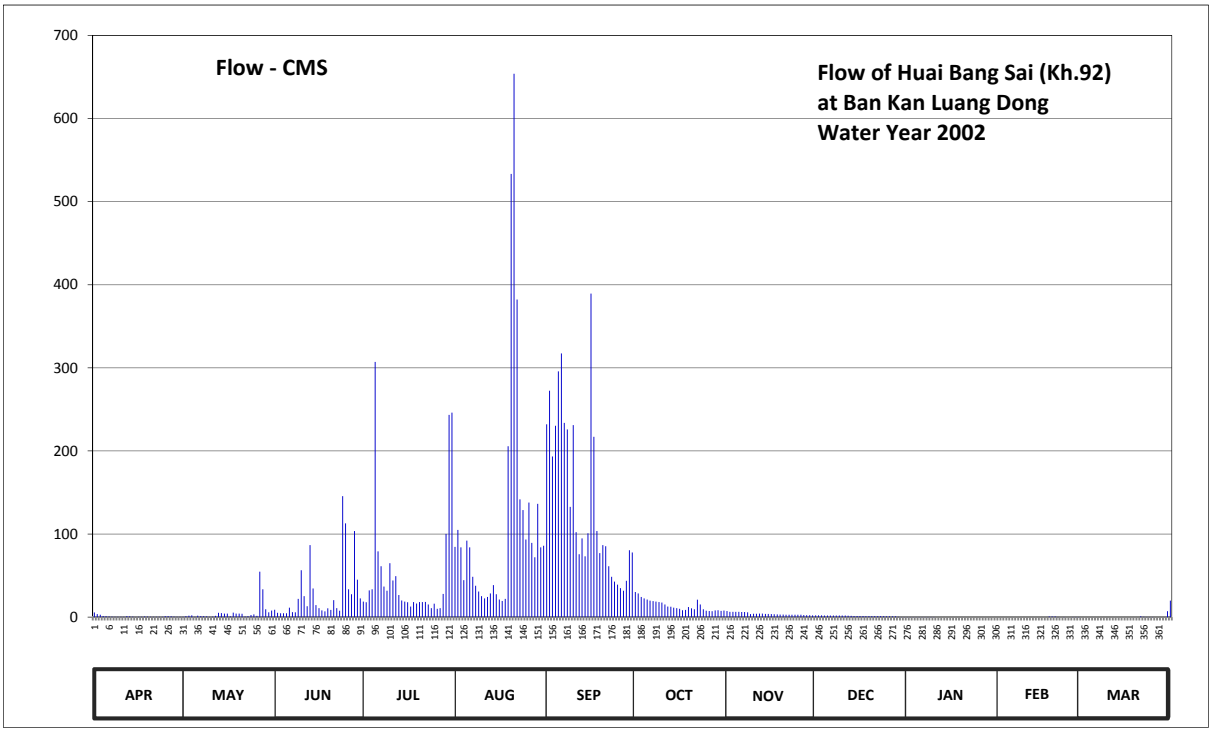
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	149.35	149.02	149.53	149.88	151.14	153.00	150.18	149.45	149.13	148.97	148.90	148.95	
2	149.23	149.07	149.32	149.85	151.44	153.46	150.14	149.39	149.13	148.97	148.90	148.93	
3	149.18	149.10	149.29	150.22	151.13	152.56	150.05	149.39	149.13	148.97	148.90	148.92	
4	149.08	149.13	149.29	150.25	150.49	152.98	150.01	149.40	149.12	148.97	148.90	148.92	
5	149.07	149.02	149.28	153.83	151.25	153.71	149.97	149.40	149.12	148.97	148.89	148.91	
6	149.04	149.10	149.62	151.06	151.13	153.94	149.92	149.38	149.12	148.97	148.89	148.90	
7	149.03	149.07	149.37	150.77	150.56	153.02	149.90	149.38	149.11	148.97	148.91	148.91	
8	149.02	149.07	149.36	150.32	150.34	152.93	149.88	149.36	149.11	148.97	148.90	148.90	
9	149.02	149.05	150.00	150.21	150.19	151.81	149.86	149.23	149.11	148.97	148.90	148.88	
10	149.02	149.02	150.69	150.83	150.07	152.99	149.84	149.25	149.11	148.97	148.90	148.88	
11	149.02	149.03	150.07	150.48	150.01	151.40	149.76	149.25	149.11	148.96	148.90	148.89	
12	149.06	149.09	149.68	150.57	150.05	151.01	149.67	149.26	149.10	148.96	148.89	148.90	
13	149.05	149.32	151.17	150.10	150.14	151.29	149.66	149.26	149.09	148.96	148.88	148.89	
14	149.03	149.30	150.27	149.93	150.36	150.97	149.62	149.24	149.08	148.96	148.88	148.89	
15	149.01	149.26	149.73	149.88	150.12	151.38	149.60	149.24	149.08	148.96	148.89	148.89	
16	149.02	149.26	149.60	149.85	149.97	154.66	149.57	149.22	149.08	148.96	148.89	148.88	
17	149.02	149.05	149.50	149.67	149.91	152.83	149.51	149.21	149.08	148.93	148.91	148.89	
18	149.04	149.34	149.43	149.86	150.00	151.42	149.52	149.20	149.07	148.89	149.04	148.89	
19	149.03	149.26	149.59	149.80	152.70	151.03	149.65	149.19	149.07	148.88	149.04	148.89	
20	149.02	149.26	149.52	149.86	156.06	151.17	149.59	149.19	149.07	148.84	149.04	148.93	
21	149.02	149.25	149.94	149.86	157.18	151.15	149.55	149.18	149.07	148.84	148.99	149.05	
22	149.02	149.04	149.60	149.87	154.59	150.77	149.96	149.18	149.07	148.84	148.92	149.02	
23	149.02	149.07	149.48	149.76	151.93	150.56	149.76	149.17	149.06	148.84	148.97	149.01	
24	149.02	149.15	151.98	149.60	151.76	150.45	149.55	149.17	149.06	148.84	148.93	148.99	
25	149.06	149.20	151.55	149.79	151.27	150.37	149.48	149.17	149.05	148.84	148.92	148.98	
26	149.07	149.09	150.25	149.57	151.88	150.28	149.46	149.17	149.05	148.84	149.01	148.91	
27	149.05	150.66	150.12	149.60	151.21	150.21	149.44	149.15	149.05	148.84	148.97	148.89	
28	149.03	150.25	151.42	150.13	150.95	150.47	149.50	149.14	149.05	148.84	148.99	148.89	
29	149.02	149.55	150.50	151.37	151.86	151.08	149.51	149.14	149.02	148.84		148.89	
30	149.02	149.36	150.01	153.13	151.13	151.04	149.47	149.13	148.98	148.90		149.44	
31		149.49		153.16	151.16		149.49		148.98	148.91		149.92	
Mean	149.06	149.26	149.97	150.42	151.35	151.80	149.71	149.25	149.08	148.92	148.93	148.97	
Max	149.35	150.66	151.98	153.83	157.18	154.66	150.18	149.45	149.13	148.97	149.04	149.92	157.18
Min	149.01	149.02	149.28	149.57	149.91	150.21	149.44	149.13	148.98	148.84	148.88	148.88	148.84

Annual Max Momentary Gage Height 157.70 m. (MSL.) , at 06.00 Hours , on Aug 21 , 2002

Zero Gage at Bottom Elevation 147.84 m. (MSL.) , River Bed 149.20 m. (MSL.)

Left Bank Elevation 155.33 m. (MSL.) ,

Right Bank Elevation 156.92 m. (MSL.) , Drainage Are 1,119 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	5.63	0.42	8.84	18.64	84.52	232.00	30.28	7.21	2.15	0.09	0.06	0.08		
2	3.73	1.21	5.16	17.80	104.92	272.48	28.44	6.26	2.15	0.09	0.06	0.07		
3	2.94	1.68	4.68	32.12	83.84	193.28	24.30	6.26	2.15	0.09	0.06	0.07		
4	1.36	2.15	4.68	33.50	44.54	230.24	22.46	6.42	2.00	0.09	0.06	0.07		
5	1.21	0.42	4.52	307.02	92.00	295.74	21.16	6.42	2.00	0.09	0.06	0.06		
6	0.73	1.68	11.36	79.08	83.84	317.36	19.76	6.10	2.00	0.09	0.06	0.06		
7	0.57	1.21	5.95	61.20	48.60	233.76	19.20	6.10	1.84	0.09	0.06	0.06		
8	0.42	1.21	5.79	36.72	37.64	225.84	18.64	5.79	1.84	0.09	0.06	0.06		
9	0.42	0.89	22.00	31.66	30.74	132.56	18.08	3.73	1.84	0.09	0.06	0.05		
10	0.42	0.42	56.40	64.80	25.22	231.12	17.52	4.05	1.84	0.09	0.06	0.05		
11	0.42	0.57	25.22	44.08	22.46	102.20	15.28	4.05	1.84	0.08	0.06	0.06		
12	1.05	1.52	13.04	49.20	24.30	75.68	12.76	4.21	1.68	0.08	0.06	0.06		
13	0.89	5.16	86.56	26.60	28.44	94.72	12.48	4.21	1.52	0.08	0.05	0.06		
14	0.57	4.84	34.42	20.04	38.56	73.20	11.36	3.89	1.36	0.08	0.05	0.06		
15	0.26	4.21	14.44	18.64	27.52	100.84	10.80	3.89	1.36	0.08	0.06	0.06		
16	0.42	4.21	10.80	17.80	21.16	389.32	9.96	3.58	1.36	0.08	0.06	0.05		
17	0.42	0.89	8.00	12.76	19.48	217.04	8.28	3.42	1.36	0.07	0.06	0.06		
18	0.73	5.47	6.89	18.08	22.00	103.56	8.56	3.26	1.21	0.06	0.73	0.06		
19	0.57	4.21	10.52	16.40	205.60	77.04	12.20	3.10	1.21	0.05	0.73	0.06		
20	0.42	4.21	8.56	18.08	533.36	86.56	10.52	3.10	1.21	0.04	0.73	0.07		
21	0.42	4.05	20.32	18.08	653.80	85.20	9.40	2.94	1.21	0.04	0.10	0.89		
22	0.42	0.73	10.80	18.36	382.18	61.20	20.88	2.94	1.21	0.04	0.07	0.42		
23	0.42	1.21	7.68	15.28	141.68	48.60	15.28	2.79	1.05	0.04	0.09	0.26		
24	0.42	2.47	145.48	10.80	128.76	42.70	9.40	2.79	1.05	0.04	0.07	0.10		
25	1.05	3.26	112.80	16.12	93.36	39.02	7.68	2.79	0.89	0.04	0.07	0.09		
26	1.21	1.52	33.50	9.96	137.88	34.88	7.37	2.79	0.89	0.04	0.26	0.06		
27	0.89	54.60	27.52	10.80	89.28	31.66	7.05	2.47	0.89	0.04	0.09	0.06		
28	0.57	33.50	103.56	27.98	72.00	43.62	8.00	2.31	0.89	0.04	0.10	0.06		
29	0.42	9.40	45.00	100.16	136.36	80.44	8.28	2.31	0.42	0.04		0.06		
30	0.42	5.79	22.46	243.44	83.84	77.72	7.53	2.15	0.09	0.06		7.05		
31		7.84		246.08	85.88		7.84		0.09	0.06		19.76		
Total	29.42	170.95	876.95	1641.28	3583.76	4229.58	440.75	121.33	42.60	2.08	4.04	30.04	11172.78	CMSDAY
Mean	0.98	5.51	29.23	52.94	115.61	140.99	14.22	4.04	1.37	0.07	0.14	0.97	30.61	CMS
Max	5.63	54.60	145.48	307.02	653.80	389.32	30.28	7.21	2.15	0.09	0.73	19.76	653.80	CMS
Min	0.26	0.42	4.52	9.96	19.48	31.66	7.05	2.15	0.09	0.04	0.05	0.05	0.04	CMS
Runoff	2.54	14.77	75.77	141.81	309.64	365.44	38.08	10.48	3.68	0.18	0.35	2.60	965.33	MCM

Momentary Peak 711.00 CMS. at 157.70 m. (MSL.) at 06.00 Hours , on Aug 21 , 2002

Runoff Yield 27.36 Liters/Second/Square KM. Momentary Peak Yield 635.390 Liters/Second/Square KM.

WATER YEAR : 2002

KHONG RIVER BASIN

Songkhram River at Ban Khok Kham Lai, Udon Thani (Kh.93)

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

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

Ban Khok Kham Lai **Amphoe** Ban Dung **Changwat** Udon Thani

Drainge Area	760 sq.km.
Type of Gage	Water - stage recorder.
Zero Gage at Bottom	+153.120 m. (MSL.)
Bench Mark	B.M.- Highways Dept.
Location BM	On left bank downstream side at the footpath of the bridge. **Elevation** +161.354 m. (MSL.)
Gage Reading Frequency	Recording.
Basis of Mean Daily Gage Height	Arithmetic mean 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 because of back water effect.
Overbank Flow Conditions	Overbank flow starts at elevation +157.340 m.(M.S.L.) and is including overbank flow.
General Description	Records fair. The weir situated downstream from the gage site. Stage-discharge relation defined by 27 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

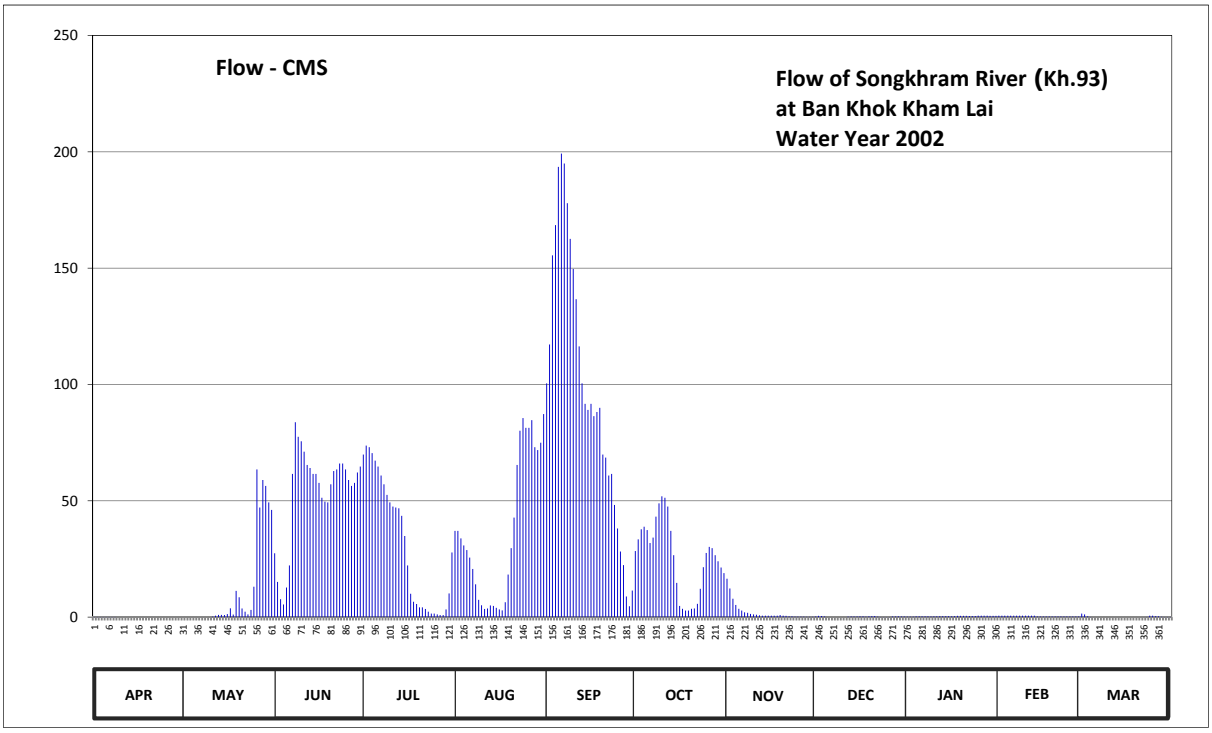
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	154.60	154.50	156.77	157.81	157.14	158.21	156.82	156.10	154.63	154.62	154.68	154.81	
2	154.60	154.49	156.01	157.87	157.14	158.40	157.04	155.82	154.67	154.62	154.68	154.76	
3	154.60	154.49	155.47	157.86	157.05	158.75	157.16	155.49	154.66	154.62	154.68	154.64	
4	154.60	154.49	155.24	157.82	156.94	158.86	157.19	155.22	154.63	154.64	154.68	154.58	
5	154.60	154.49	155.85	157.77	156.84	159.06	157.15	155.06	154.56	154.64	154.68	154.54	
6	154.60	154.49	156.48	157.73	156.68	159.10	156.99	154.98	154.56	154.64	154.68	154.53	
7	154.59	154.49	157.68	157.67	156.38	159.07	157.06	154.89	154.56	154.64	154.68	154.52	
8	154.58	154.49	158.02	157.61	155.94	158.94	157.31	154.86	154.56	154.64	154.68	154.52	
9	154.56	154.50	157.93	157.54	155.44	158.81	157.47	154.79	154.56	154.63	154.68	154.52	
10	154.56	154.54	157.90	157.48	155.21	158.70	157.53	154.76	154.56	154.64	154.68	154.52	
11	154.56	154.62	157.83	157.43	155.05	158.59	157.52	154.74	154.56	154.64	154.68	154.51	
12	154.55	154.68	157.74	157.42	155.07	158.39	157.43	154.70	154.62	154.65	154.68	154.52	
13	154.56	154.73	157.72	157.41	155.20	158.21	157.14	154.68	154.63	154.65	154.68	154.52	
14	154.56	154.73	157.68	157.32	155.18	158.11	156.73	154.68	154.63	154.65	154.63	154.51	
15	154.55	154.72	157.68	157.08	155.10	158.08	155.98	154.68	154.63	154.65	154.63	154.48	
16	154.55	154.78	157.62	156.48	155.03	158.11	155.18	154.68	154.64	154.64	154.63	154.48	
17	154.55	155.08	157.52	155.67	154.99	158.05	155.06	154.68	154.64	154.65	154.63	154.48	
18	154.54	154.75	157.49	155.36	155.34	158.07	154.98	154.68	154.62	154.67	154.63	154.49	
19	154.54	155.75	157.48	155.26	156.22	158.09	154.98	154.72	154.64	154.67	154.63	154.50	
20	154.53	155.55	157.61	155.12	156.88	157.81	155.06	154.68	154.65	154.67	154.63	154.52	
21	154.53	155.07	157.70	155.12	157.30	157.79	155.07	154.67	154.66	154.67	154.63	154.54	
22	154.53	154.92	157.71	155.05	157.74	157.67	155.27	154.64	154.62	154.66	154.63	154.56	
23	154.50	154.76	157.75	154.92	157.97	157.68	155.81	154.64	154.60	154.66	154.63	154.60	
24	154.49	155.01	157.75	154.81	158.04	157.45	156.43	154.62	154.60	154.66	154.63	154.68	
25	154.49	155.87	157.71	154.81	157.99	157.17	156.78	154.62	154.59	154.68	154.63	154.68	
26	154.50	157.71	157.64	154.76	157.99	156.81	156.91	154.62	154.57	154.68	154.63	154.65	
27	154.50	157.42	157.60	154.72	158.03	156.49	156.88	154.62	154.63	154.68	154.63	154.64	
28	154.50	157.64	157.62	154.72	157.86	155.59	156.73	154.61	154.63	154.68	154.63	154.61	
29	154.50	157.60	157.69	155.03	157.84	155.17	156.60	154.61	154.64	154.67		154.58	
30	154.50	157.48	157.73	155.68	157.89	155.76	156.42	154.61	154.63	154.67		154.58	
31		157.39		156.79	158.06		156.26		154.63	154.67		154.57	
Mean	154.55	155.33	157.35	156.39	156.63	157.90	156.48	154.84	154.61	154.65	154.65	154.57	
Max	154.60	157.71	158.02	157.87	158.06	159.10	157.53	156.10	154.67	154.68	154.68	154.81	159.10
Min	154.49	154.49	155.24	154.72	154.99	155.17	154.98	154.61	154.56	154.62	154.63	154.48	154.48

Annual Max Momentary Gage Height 159.12 m. (MSL.) , at 06.00 Hours , on Sep 6 , 2002

Zero Gage at Bottom Elevation 153.12 m. (MSL.) , River Bed 152.41 m. (MSL.)

Left Bank Elevation 156.33 m. (MSL.) ,

Right Bank Elevation 156.36 m. (MSL.) , Drainage Are 760 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.04	0.00	27.40	69.84	37.04	100.48	28.40	16.50	0.25	0.18	0.60	1.51		
2	0.04	0.00	15.15	73.68	37.04	117.20	33.44	12.30	0.53	0.18	0.60	1.16		
3	0.04	0.00	7.70	73.04	33.80	155.50	37.76	7.90	0.46	0.18	0.60	0.32		
4	0.04	0.00	5.40	70.48	30.80	168.48	38.84	5.20	0.25	0.32	0.60	0.03		
5	0.04	0.00	12.75	67.28	28.80	193.52	37.40	3.60	0.02	0.32	0.60	0.02		
6	0.04	0.00	22.20	64.72	25.60	199.20	31.80	2.83	0.02	0.32	0.60	0.01		
7	0.04	0.00	61.52	60.88	20.70	194.94	34.16	2.07	0.02	0.32	0.60	0.01		
8	0.03	0.00	83.76	57.04	14.10	177.92	43.16	1.86	0.02	0.32	0.60	0.01		
9	0.02	0.00	77.52	52.56	7.40	162.58	48.92	1.37	0.02	0.25	0.60	0.01		
10	0.02	0.02	75.60	49.28	5.10	149.60	51.92	1.16	0.02	0.32	0.60	0.01		
11	0.02	0.18	71.12	47.48	3.50	136.62	51.28	1.02	0.02	0.32	0.60	0.00		
12	0.02	0.60	65.36	47.12	3.70	116.32	47.48	0.74	0.18	0.39	0.60	0.01		
13	0.02	0.95	64.08	46.76	5.00	100.48	37.04	0.60	0.25	0.39	0.60	0.01		
14	0.02	0.95	61.52	43.52	4.80	91.68	26.60	0.60	0.25	0.39	0.25	0.00		
15	0.02	0.88	61.52	34.88	4.00	89.04	14.70	0.60	0.25	0.39	0.25	0.00		
16	0.02	1.30	57.68	22.20	3.30	91.68	4.80	0.60	0.32	0.32	0.25	0.00		
17	0.02	3.80	51.28	10.05	2.91	86.40	3.60	0.60	0.32	0.39	0.25	0.00		
18	0.02	1.09	49.64	6.60	6.40	88.16	2.83	0.60	0.18	0.53	0.25	0.00		
19	0.02	11.25	49.28	5.60	18.30	89.92	2.83	0.88	0.32	0.53	0.25	0.00		
20	0.01	8.50	57.04	4.20	29.60	69.84	3.60	0.60	0.39	0.53	0.25	0.01		
21	0.01	3.70	62.80	4.20	42.80	68.56	3.70	0.53	0.46	0.53	0.25	0.02		
22	0.01	2.31	63.44	3.50	65.36	60.88	5.70	0.32	0.18	0.46	0.25	0.02		
23	0.00	1.16	66.00	2.31	80.08	61.52	12.15	0.32	0.04	0.46	0.25	0.04		
24	0.00	3.10	66.00	1.51	85.52	48.20	21.45	0.18	0.04	0.46	0.25	0.60		
25	0.00	13.05	63.44	1.51	81.36	38.12	27.60	0.18	0.04	0.60	0.25	0.60		
26	0.00	63.44	58.96	1.16	81.36	28.20	30.20	0.18	0.03	0.60	0.25	0.39		
27	0.00	47.12	56.40	0.88	84.64	22.35	29.60	0.18	0.25	0.60	0.25	0.32		
28	0.00	58.96	57.68	0.88	73.04	8.90	26.60	0.11	0.25	0.60	0.25	0.11		
29	0.00	56.40	62.16	3.30	71.76	4.70	24.00	0.11	0.32	0.53		0.03		
30	0.00	49.28	64.72	10.20	74.96	11.40	21.30	0.11	0.25	0.53		0.03		
31		46.04		27.80	87.28		18.90		0.25	0.53		0.03		
Total	0.56	374.08	1599.12	964.46	1150.05	2932.39	801.76	63.85	6.20	12.79	11.55	5.31	7922.12	CMSDAY
Mean	0.02	12.07	53.30	31.11	37.10	97.75	25.86	2.13	0.20	0.41	0.41	0.17	21.70	CMS
Max	0.04	63.44	83.76	73.68	87.28	199.20	51.92	16.50	0.53	0.60	0.60	1.51	199.20	CMS
Min	0.00	0.00	5.40	0.88	2.91	4.70	2.83	0.11	0.02	0.18	0.25	0.00	0.00	CMS
Runoff	0.05	32.32	138.16	83.33	99.36	253.36	69.27	5.52	0.54	1.11	1.00	0.46	684.47	MCM

Momentary Peak 202.04 CMS. at 159.12 m. (MSL.) at 06.00 Hours , on Sep 6 , 2002

Runoff Yield 28.56 Liters/Second/Square KM. Momentary Peak Yield 265.840 Liters/Second/Square KM.

WATER YEAR : 2002

KHONG RIVER BASIN

Nam Som at Ban Wang Lao, Udon Thani (Kh.94)

Lat 17 - 58 - 03 N Long 102 - 14 - 46 E

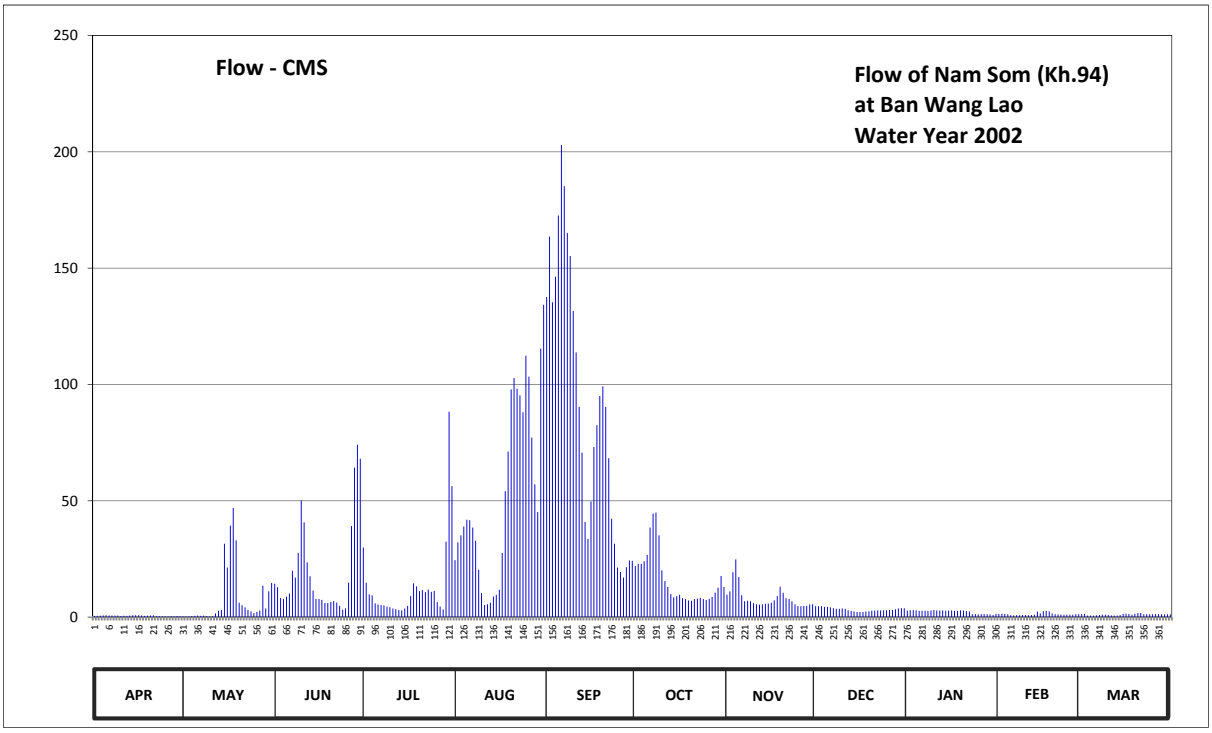
Location : on right bank at the bridge on road.

	Ban Wang Lao	**Amphoe** Na Yung	**Changwat** Udon Thani
Drainge Area	854 sq.km.		
Type of Gage	Staff gage.		
Zero Gage at Bottom	+173.240 m. (MSL.)		
Bench Mark	B.M.- Highways Dept.		
Location BM	On right bank downstream side at the footpath of the bridge.		**Elevation** +181.632 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 mean 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 +181.250 m.(M.S.L.) and is including overbank flow.		
General Description	Records good. Stage-discharge relation defined by 42 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	173.86	173.81	175.56	176.58	176.25	181.11	176.09	175.15	174.54	174.26	174.02	174.01	
2	173.85	173.80	175.44	175.59	176.70	182.02	176.15	175.28	174.54	174.29	174.04	174.03	
3	173.87	173.80	175.02	175.16	176.87	181.03	176.15	175.91	174.54	174.30	174.02	173.88	
4	173.90	173.84	174.98	175.12	177.07	181.42	176.22	176.27	174.50	174.28	173.98	173.88	
5	173.92	173.85	175.07	174.71	177.22	182.32	176.39	175.77	174.50	174.25	173.92	173.87	
6	173.89	173.89	175.19	174.65	177.21	183.33	177.05	175.13	174.47	174.26	173.90	173.90	
7	173.89	173.86	175.96	174.61	177.05	182.74	177.35	174.84	174.42	174.26	173.92	173.93	
8	173.89	173.87	175.75	174.59	176.74	182.07	177.37	174.86	174.38	174.25	173.91	173.96	
9	173.88	173.84	176.44	174.52	175.99	181.73	176.87	174.84	174.38	174.28	173.93	173.95	
10	173.84	173.80	177.63	174.48	175.21	180.89	175.97	174.72	174.40	174.30	173.93	173.94	
11	173.87	173.82	177.16	174.40	174.62	180.23	175.64	174.66	174.38	174.28	173.91	173.90	
12	173.85	174.06	176.19	174.35	174.66	179.34	175.45	174.64	174.29	174.27	173.93	173.88	
13	173.89	174.26	175.79	174.30	174.75	178.55	175.17	174.66	174.25	174.28	173.95	173.88	
14	173.91	174.31	175.31	174.28	175.08	177.17	175.05	174.68	174.21	174.26	174.19	173.93	
15	173.91	176.67	174.98	174.40	175.14	176.78	175.09	174.70	174.17	174.27	174.07	174.02	
16	173.91	176.05	174.97	174.56	175.34	177.61	175.15	174.75	174.17	174.28	174.23	174.04	
17	173.88	177.09	174.92	175.09	176.44	178.65	175.01	174.89	174.17	174.25	174.25	174.03	
18	173.85	177.47	174.73	175.57	177.83	179.04	174.97	175.09	174.20	174.25	174.22	173.96	
19	173.87	176.75	174.73	175.47	178.57	179.52	174.88	175.46	174.22	174.28	174.06	174.02	
20	173.89	174.75	174.80	175.29	179.63	179.68	174.86	175.22	174.26	174.27	174.00	174.09	
21	173.90	174.60	174.85	175.33	179.82	179.34	174.97	175.01	174.27	174.24	173.98	174.11	
22	173.83	174.47	174.76	175.25	179.64	178.45	174.99	174.98	174.28	174.20	173.97	174.00	
23	173.83	174.31	174.57	175.35	179.53	177.24	175.02	174.84	174.28	174.00	173.96	173.99	
24	173.81	174.22	174.32	175.26	179.25	176.67	174.97	174.66	174.29	174.01	173.95	173.99	
25	173.78	174.09	174.41	175.30	180.18	176.05	174.91	174.55	174.29	173.98	173.95	174.00	
26	173.80	174.18	175.59	174.78	179.84	175.92	174.98	174.54	174.30	173.99	173.95	174.01	
27	173.82	174.27	177.08	174.52	178.82	175.75	175.06	174.56	174.31	174.01	173.99	173.99	
28	173.81	175.50	178.28	174.34	177.98	176.06	175.23	174.57	174.35	174.00	174.00	173.99	
29	173.84	174.40	178.69	176.72	177.38	176.24	175.42	174.65	174.40	173.98		173.98	
30	173.81	175.28	178.44	179.26	180.29	176.23	175.80	174.66	174.42	173.93		174.00	
31		175.58		177.94	180.99		175.45		174.41	174.03		173.98	
Mean	173.86	174.66	175.72	175.22	177.49	179.11	175.60	174.95	174.34	174.19	174.00	173.97	
Max	173.92	177.47	178.69	179.26	180.99	183.33	177.37	176.27	174.54	174.30	174.25	174.11	183.33
Min	173.78	173.80	174.32	174.28	174.62	175.75	174.86	174.54	174.17	173.93	173.90	173.87	173.78

Annual Max Momentary Gage Height	183.37	m. (MSL.) ,	at 12.00 Hours , on Sep 6, 2002		
Zero Gage at Bottom Elevation	173.24	m. (MSL.) ,	River Bed	173.57	m. (MSL.)
Left Bank Elevation	181.29	m. (MSL.) ,			
Right Bank Elevation	181.42	m. (MSL.) ,	Drainage Are	854	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.57	0.34	14.34	29.94	24.50	137.58	21.94	9.65	4.68	2.75	1.35	1.30		
2	0.53	0.30	12.84	14.76	32.10	163.60	22.90	11.08	4.68	2.94	1.45	1.40		
3	0.62	0.30	8.22	9.76	35.16	135.34	22.90	19.24	4.68	3.00	1.35	0.66		
4	0.75	0.48	7.85	9.32	38.90	146.26	24.02	24.82	4.40	2.87	1.15	0.66		
5	0.85	0.53	8.77	5.89	41.90	172.60	26.74	17.28	4.40	2.68	0.85	0.62		
6	0.71	0.71	10.09	5.46	41.70	202.90	38.50	9.43	4.19	2.75	0.75	0.75		
7	0.71	0.57	19.94	5.17	38.50	185.20	44.50	6.83	3.84	2.75	0.85	0.90		
8	0.71	0.62	17.00	5.03	32.82	165.10	44.90	6.98	3.56	2.68	0.80	1.05		
9	0.66	0.48	27.54	4.54	20.36	155.17	35.16	6.83	3.56	2.87	0.90	1.00		
10	0.48	0.30	50.10	4.26	10.31	131.53	20.08	5.96	3.70	3.00	0.90	0.95		
11	0.62	0.39	40.70	3.70	5.24	113.71	15.46	5.53	3.56	2.87	0.80	0.75		
12	0.53	1.55	23.54	3.35	5.53	90.34	12.95	5.39	2.94	2.81	0.90	0.66		
13	0.71	2.75	17.56	3.00	6.18	70.70	9.87	5.53	2.68	2.87	1.00	0.66		
14	0.80	3.07	11.41	2.87	8.88	40.90	8.55	5.68	2.43	2.75	2.31	0.90		
15	0.80	31.56	7.85	3.70	9.54	33.54	8.99	5.82	2.18	2.81	1.60	1.35		
16	0.80	21.30	7.78	4.82	11.74	49.70	9.65	6.18	2.18	2.87	2.56	1.45		
17	0.66	39.30	7.42	8.99	27.54	73.10	8.11	7.20	2.18	2.68	2.68	1.40		
18	0.53	46.90	6.04	14.48	54.10	82.54	7.78	8.99	2.37	2.68	2.50	1.05		
19	0.62	33.00	6.04	13.17	71.18	95.02	7.12	13.06	2.50	2.87	1.55	1.35		
20	0.71	6.18	6.54	11.19	97.88	99.18	6.98	10.42	2.75	2.81	1.25	1.70		
21	0.75	5.10	6.90	11.63	102.82	90.34	7.78	8.11	2.81	2.62	1.15	1.81		
22	0.43	4.19	6.25	10.75	98.14	68.30	7.93	7.85	2.87	2.37	1.10	1.25		
23	0.43	3.07	4.89	11.85	95.28	42.30	8.22	6.83	2.87	1.25	1.05	1.20		
24	0.34	2.50	3.14	10.86	88.00	31.56	7.78	5.53	2.94	1.30	1.00	1.20		
25	0.24	1.70	3.77	11.30	112.36	21.30	7.34	4.75	2.94	1.15	1.00	1.25		
26	0.30	2.25	14.76	6.40	103.34	19.38	7.85	4.68	3.00	1.20	1.00	1.30		
27	0.39	2.81	39.10	4.54	77.18	17.00	8.66	4.82	3.07	1.30	1.20	1.20		
28	0.34	13.50	64.22	3.28	57.10	21.46	10.53	4.89	3.35	1.25	1.25	1.20		
29	0.48	3.70	74.06	32.46	45.10	24.34	12.62	5.46	3.70	1.15		1.15		
30	0.34	11.08	68.06	88.26	115.33	24.18	17.70	5.53	3.84	0.90		1.25		
31		14.62		56.30	134.23		12.95		3.77	1.40		1.15		
Total	17.41	255.15	596.72	411.03	1642.94	2704.17	506.46	250.35	102.62	72.20	36.25	34.52	6629.82	CMSDAY
Mean	0.58	8.23	19.89	13.26	53.00	90.14	16.34	8.35	3.31	2.33	1.29	1.11	18.16	CMS
Max	0.85	46.90	74.06	88.26	134.23	202.90	44.90	24.82	4.68	3.00	2.68	1.81	202.90	CMS
Min	0.24	0.30	3.14	2.87	5.24	17.00	6.98	4.68	2.18	0.90	0.75	0.62	0.24	CMS
Runoff	1.50	22.04	51.56	35.51	141.95	233.64	43.76	21.63	8.87	6.24	3.13	2.98	572.82	MCM

Momentary Peak 204.10 CMS. at 183.37 m. (MSL.) at 12.00 Hours , on Sep 6 , 2002

Runoff Yield 21.27 Liters/Second/Square KM. Momentary Peak Yield 238.990 Liters/Second/Square KM.

WATER YEAR : 2002

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 mean 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	Rather unstable.		
Overbank Flow Conditions	Overbank flow starts at elevation +602.420 m.(M.S.L.) and is including overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 31 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

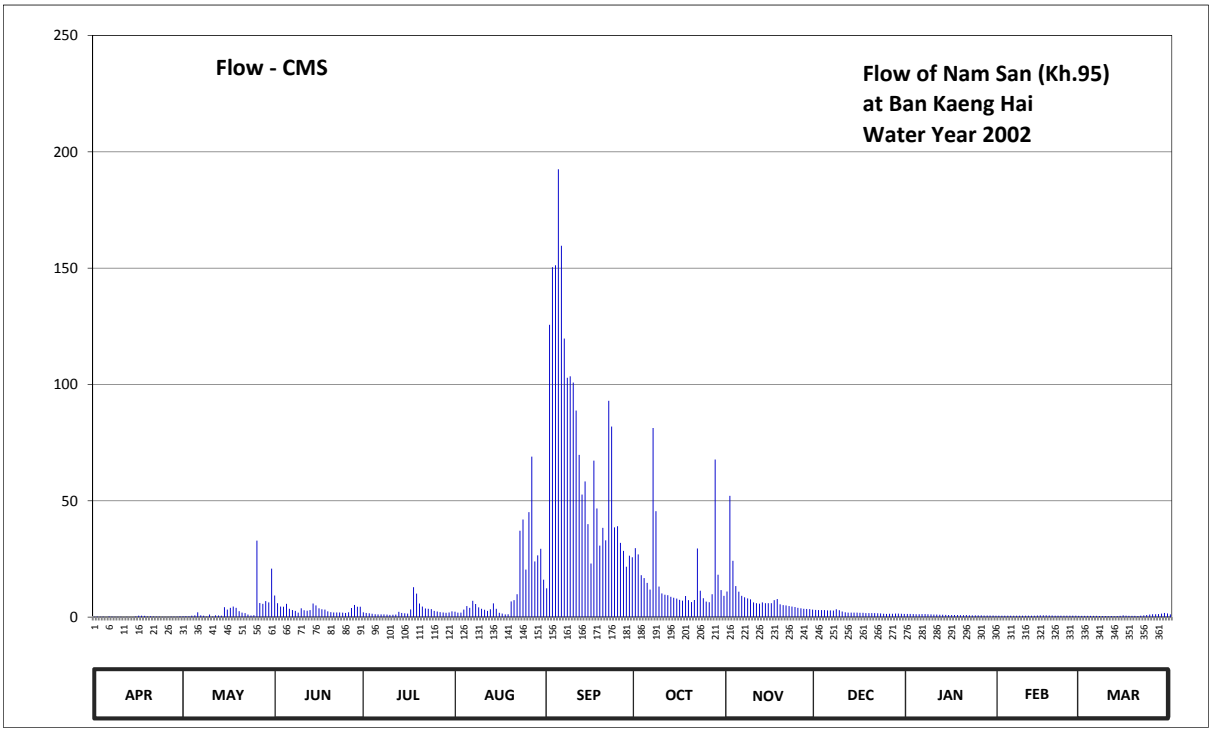
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	594.55	594.76	596.85	595.41	595.47	597.26	598.75	597.11	595.62	595.20	594.92	594.88	
2	594.58	594.79	596.20	595.33	595.38	602.59	598.57	599.98	595.61	595.18	594.92	594.88	
3	594.56	594.77	595.90	595.28	595.37	603.26	597.89	598.37	595.60	595.16	594.92	594.86	
4	594.61	594.91	595.89	595.21	595.64	603.28	597.75	597.37	595.60	595.14	594.92	594.86	
5	594.45	594.98	596.14	595.15	595.95	604.29	597.52	597.10	595.58	595.14	594.90	594.86	
6	594.68	595.41	595.71	595.12	595.79	603.49	597.20	596.83	595.58	595.16	594.90	594.86	
7	594.60	594.97	595.60	595.12	596.40	602.42	601.21	596.71	595.56	595.16	594.90	594.84	
8	594.54	594.91	595.53	595.11	596.13	601.93	599.65	596.61	595.67	595.14	594.90	594.84	
9	594.54	594.65	595.37	595.10	595.84	601.95	597.35	596.53	595.59	595.12	594.90	594.84	
10	594.55	595.09	595.76	595.06	595.71	601.86	597.02	596.27	595.48	595.10	594.90	594.82	
11	594.48	594.64	595.59	595.08	595.63	601.46	596.92	596.20	595.41	595.10	594.90	594.83	
12	594.51	594.96	595.55	595.09	595.54	600.75	596.88	596.16	595.38	595.08	594.90	594.82	
13	594.49	594.95	595.61	595.45	595.67	600.01	596.75	596.26	595.38	595.08	594.92	594.84	
14	594.44	594.89	596.17	595.33	596.18	600.27	596.66	596.20	595.38	595.06	594.93	594.88	
15	594.66	595.85	596.00	595.29	595.72	599.36	596.60	596.19	595.38	595.04	594.97	594.96	
16	594.90	595.65	595.75	595.23	595.36	598.29	596.49	596.19	595.36	595.04	594.96	594.92	
17	594.89	595.80	595.67	595.66	595.23	600.65	596.41	596.45	595.34	595.02	594.96	594.88	
18	594.87	595.90	595.64	597.32	595.13	599.71	596.82	596.55	595.31	595.02	594.95	594.88	
19	594.70	595.80	595.50	597.01	595.14	598.82	596.46	596.10	595.31	595.00	594.94	594.86	
20	594.72	595.51	595.43	596.17	596.34	599.27	596.29	596.03	595.30	595.00	594.92	594.84	
21	594.65	595.37	595.39	595.90	596.45	598.97	596.47	596.00	595.30	595.03	594.92	594.92	
22	594.57	595.30	595.40	595.74	596.97	601.60	598.74	595.95	595.28	594.98	594.92	594.97	
23	594.60	595.10	595.39	595.72	599.20	601.23	597.15	595.90	595.25	594.98	594.90	595.03	
24	594.56	594.95	595.37	595.68	599.47	599.28	596.62	595.87	595.22	594.98	594.90	595.10	
25	594.54	595.00	595.32	595.53	598.10	599.31	596.33	595.79	595.20	594.96	594.90	595.14	
26	594.56	598.96	595.41	595.48	599.63	598.90	596.28	595.75	595.21	594.96	594.90	595.15	
27	594.57	596.21	595.78	595.42	600.72	598.67	596.96	595.72	595.22	594.94	594.90	595.16	
28	594.60	596.14	596.04	595.39	598.35	598.19	600.67	595.70	595.24	594.94	594.88	595.23	
29	594.60	596.38	595.89	595.36	598.54	598.53	597.91	595.68	595.23	594.94		595.33	
30	594.74	596.27	595.89	595.39	598.73	598.48	597.18	595.64	595.22	594.94		595.27	
31		598.13		595.50	597.68		596.83		595.20	594.92		595.11	
Mean	594.61	595.52	595.72	595.50	596.69	600.47	597.43	596.44	595.39	595.05	594.92	594.96	
Max	594.90	598.96	596.85	597.32	600.72	604.29	601.21	599.98	595.67	595.20	594.97	595.33	604.29
Min	594.44	594.64	595.32	595.06	595.13	597.26	596.28	595.64	595.20	594.92	594.88	594.82	594.44

Annual Max Momentary Gage Height 604.88 m. (MSL.) , at 6.00 Hours , on Sep 5 , 2002

Zero Gage at Bottom Elevation 593.92 m. (MSL.) , River Bed 593.41 m. (MSL.)

Left Bank Elevation 605.17 m. (MSL.) ,

Right Bank Elevation 602.41 m. (MSL.) , Drainage Are 352 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.15	0.36	9.25	2.05	2.35	12.34	29.65	10.99	3.10	1.40	0.64	0.56		
2	0.18	0.39	6.00	1.79	1.94	125.65	26.98	52.10	3.05	1.34	0.64	0.56		
3	0.16	0.37	4.50	1.64	1.91	150.40	18.01	24.18	3.00	1.28	0.64	0.52		
4	0.21	0.62	4.45	1.43	3.20	151.20	16.75	13.33	3.00	1.22	0.64	0.52		
5	0.05	0.76	5.70	1.25	4.75	192.47	14.68	10.90	2.90	1.22	0.60	0.52		
6	0.28	2.05	3.55	1.16	3.95	159.60	11.80	9.15	2.90	1.28	0.60	0.52		
7	0.20	0.74	3.00	1.16	7.00	119.70	81.30	8.55	2.80	1.28	0.60	0.48		
8	0.14	0.62	2.65	1.13	5.65	102.90	45.50	8.05	3.35	1.22	0.60	0.48		
9	0.14	0.25	1.91	1.10	4.20	103.50	13.15	7.65	2.95	1.16	0.60	0.48		
10	0.15	1.07	3.80	0.98	3.55	100.80	10.18	6.35	2.40	1.10	0.60	0.44		
11	0.08	0.24	2.95	1.04	3.15	88.80	9.60	6.00	2.05	1.10	0.60	0.46		
12	0.11	0.72	2.75	1.07	2.70	69.75	9.40	5.80	1.94	1.04	0.60	0.44		
13	0.09	0.70	3.05	2.25	3.35	52.70	8.75	6.30	1.94	1.04	0.64	0.48		
14	0.04	0.58	5.85	1.79	5.90	58.31	8.30	6.00	1.94	0.98	0.66	0.56		
15	0.26	4.25	5.00	1.67	3.60	39.98	8.00	5.95	1.94	0.92	0.74	0.72		
16	0.60	3.25	3.75	1.49	1.88	23.06	7.45	5.95	1.88	0.92	0.72	0.64		
17	0.58	4.00	3.35	3.30	1.49	67.25	7.05	7.25	1.82	0.86	0.72	0.56		
18	0.54	4.50	3.20	12.88	1.19	46.70	9.10	7.75	1.73	0.86	0.70	0.56		
19	0.30	4.00	2.50	10.09	1.22	30.70	7.30	5.50	1.73	0.80	0.68	0.52		
20	0.32	2.55	2.15	5.85	6.70	38.36	6.45	5.15	1.70	0.80	0.64	0.48		
21	0.25	1.91	1.97	4.50	7.25	33.02	7.35	5.00	1.70	0.89	0.64	0.64		
22	0.17	1.70	2.00	3.70	9.85	93.00	29.50	4.75	1.64	0.76	0.64	0.74		
23	0.20	1.10	1.97	3.60	37.10	81.90	11.35	4.50	1.55	0.76	0.60	0.89		
24	0.16	0.70	1.91	3.40	41.96	38.54	8.10	4.35	1.46	0.76	0.60	1.10		
25	0.14	0.80	1.76	2.65	20.40	39.08	6.65	3.95	1.40	0.72	0.60	1.22		
26	0.16	32.86	2.05	2.40	45.10	31.90	6.40	3.75	1.43	0.72	0.60	1.25		
27	0.17	6.05	3.90	2.10	69.00	28.45	9.80	3.60	1.46	0.68	0.60	1.28		
28	0.20	5.70	5.20	1.97	23.90	21.66	67.75	3.50	1.52	0.68	0.56	1.49		
29	0.20	6.90	4.45	1.88	26.56	26.42	18.19	3.40	1.49	0.68		1.79		
30	0.34	6.35	4.45	1.97	29.35	25.72	11.62	3.20	1.46	0.68		1.61		
31		20.82		2.50	16.12		9.15		1.40	0.64		1.13		
Total	6.57	116.91	109.02	85.79	396.27	2153.86	535.26	252.90	64.63	29.79	17.70	23.64	3792.34	CMSDAY
Mean	0.22	3.77	3.63	2.77	12.78	71.80	17.27	8.43	2.08	0.96	0.63	0.76	10.39	CMS
Max	0.60	32.86	9.25	12.88	69.00	192.47	81.30	52.10	3.35	1.40	0.74	1.79	192.47	CMS
Min	0.04	0.24	1.76	0.98	1.19	12.34	6.40	3.20	1.40	0.64	0.56	0.44	0.04	CMS
Runoff	0.57	10.10	9.42	7.41	34.24	186.09	46.25	21.85	5.58	2.57	1.53	2.04	327.66	MCM

Momentary Peak 217.84 CMS. at 604.88 m. (MSL.) at 06.00 Hours , on Sep 5 , 2002

Runoff Yield 29.52 Liters/Second/Square KM. Momentary Peak Yield 618.860 Liters/Second/Square KM.

WATER YEAR : 2002

KHONG RIVER BASIN

Huai Nam Khao Man at Ban Kaeng Laen, Loei (Kh.96)

Lat 17 - 23 - 27 N Long 101 - 17 - 11 E

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

	Ban Kaeng Laen	**Amphoe** Phu Rua	**Changwat** Loei
Drainge Area	263 sq.km.		
Type of Gage	Staff gage.		
Zero Gage at Bottom	+589.200 m. (MSL.)		
Bench Mark	B.M.- Highways Dept.		
Location BM	On left bank down side on the footpath of the bridge.		**Elevation** +597.713 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 mean 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	Overbank flow starts at elevation +595.746 m.(M.S.L.) and is including overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 31 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

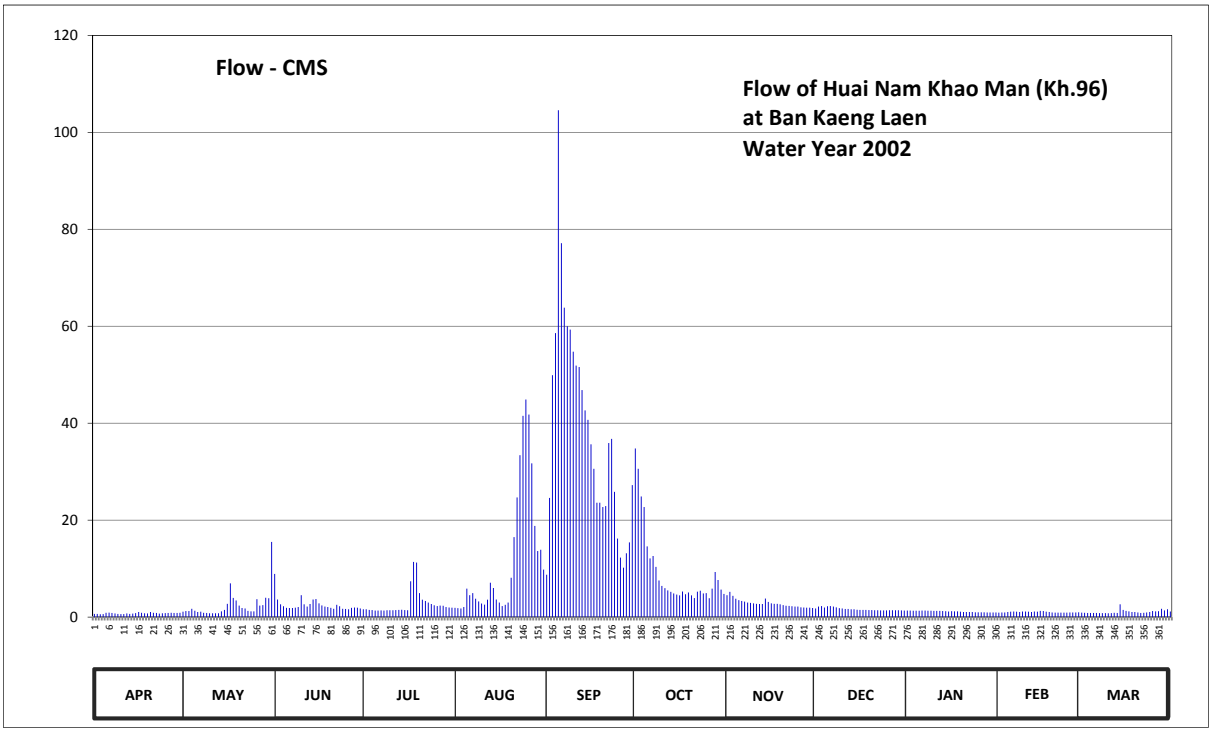
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	590.32	590.46	592.24	590.61	590.69	592.22	594.35	591.38	590.65	590.53	590.41	590.41	
2	590.32	590.50	591.16	590.60	590.67	593.96	594.20	591.55	590.77	590.53	590.42	590.40	
3	590.30	590.50	590.90	590.57	590.65	594.89	593.99	591.35	590.79	590.52	590.42	590.39	
4	590.31	590.63	590.78	590.56	590.74	595.16	593.77	591.20	590.71	590.52	590.45	590.39	
5	590.40	590.52	590.69	590.53	591.72	596.18	592.95	591.12	590.78	590.52	590.46	590.38	
6	590.41	590.45	590.68	590.53	591.38	595.69	592.64	591.08	590.79	590.53	590.47	590.38	
7	590.38	590.46	590.68	590.54	591.49	595.31	592.70	591.05	590.77	590.53	590.46	590.37	
8	590.35	590.40	590.70	590.53	591.20	595.20	592.42	591.00	590.72	590.52	590.45	590.37	
9	590.32	590.38	590.74	590.55	591.06	595.18	592.07	590.98	590.67	590.52	590.47	590.37	
10	590.31	590.36	591.38	590.55	590.94	595.05	591.86	590.95	590.65	590.51	590.47	590.36	
11	590.31	590.36	590.90	590.55	590.88	594.96	591.74	590.93	590.62	590.51	590.46	590.37	
12	590.35	590.36	590.77	590.56	591.15	594.95	591.63	590.92	590.62	590.51	590.45	590.40	
13	590.32	590.36	590.92	590.57	592.01	594.78	591.55	590.92	590.60	590.50	590.47	590.38	
14	590.34	590.48	591.16	590.58	591.75	594.63	591.47	591.21	590.60	590.49	590.46	590.90	
15	590.37	590.57	591.18	590.56	591.16	594.56	591.41	591.03	590.58	590.47	590.51	590.57	
16	590.45	590.93	590.95	590.55	591.00	594.38	591.37	590.95	590.57	590.49	590.50	590.51	
17	590.40	591.99	590.83	592.05	590.79	594.20	591.57	590.93	590.57	590.48	590.46	590.48	
18	590.36	591.24	590.76	592.55	590.87	593.86	591.43	590.93	590.57	590.48	590.44	590.45	
19	590.35	591.11	590.74	592.53	591.00	593.86	591.52	590.90	590.56	590.46	590.42	590.45	
20	590.44	590.82	590.69	591.49	592.14	593.77	591.37	590.85	590.56	590.45	590.41	590.42	
21	590.40	590.68	590.63	591.15	593.15	593.79	591.23	590.81	590.55	590.45	590.41	590.38	
22	590.38	590.65	590.87	591.08	593.97	594.39	591.56	590.80	590.55	590.44	590.41	590.40	
23	590.34	590.51	590.78	591.00	594.30	594.42	591.61	590.78	590.54	590.44	590.41	590.42	
24	590.36	590.48	590.63	590.92	594.59	594.03	591.47	590.77	590.54	590.43	590.41	590.44	
25	590.37	590.48	590.62	590.84	594.71	593.12	591.49	590.77	590.54	590.43	590.42	590.50	
26	590.38	591.17	590.60	590.79	594.60	592.66	591.22	590.72	590.55	590.43	590.42	590.48	
27	590.40	590.82	590.69	590.82	594.24	592.40	591.72	590.71	590.55	590.43	590.42	590.49	
28	590.38	590.85	590.71	590.81	593.38	592.77	592.29	590.70	590.55	590.42	590.43	590.63	
29	590.38	591.25	590.70	590.74	592.83	593.04	592.08	590.70	590.55	590.42		590.54	
30	590.40	591.22	590.65	590.71	592.86	594.08	591.67	590.68	590.54	590.42		590.60	
31		593.05		590.70	592.35		591.45		590.53	590.42		590.47	
Mean	590.36	590.78	590.86	590.87	592.07	594.25	592.06	590.96	590.62	590.48	590.44	590.45	
Max	590.45	593.05	592.24	592.55	594.71	596.18	594.35	591.55	590.79	590.53	590.51	590.90	596.18
Min	590.30	590.36	590.60	590.53	590.65	592.22	591.22	590.68	590.53	590.42	590.41	590.36	590.30

Annual Max Momentary Gage Height 596.22 m. (MSL.) , at 06.00 Hours , on Sep 5 , 2002

Zero Gage at Bottom Elevation 589.20 m. (MSL.) , River Bed 589.87 m. (MSL.)

Left Bank Elevation 595.75 m. (MSL.) ,

Right Bank Elevation 597.80 m. (MSL.) , Drainage Are 263 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.66	1.11	8.92	1.63	1.91	8.76	34.80	4.52	1.77	1.35	0.93	0.93		
2	0.66	1.25	3.64	1.60	1.84	24.60	30.60	5.20	2.19	1.35	0.97	0.90		
3	0.60	1.25	2.65	1.49	1.77	49.92	24.90	4.40	2.26	1.32	0.97	0.87		
4	0.63	1.70	2.23	1.46	2.09	58.60	22.70	3.80	1.98	1.32	1.07	0.87		
5	0.90	1.32	1.91	1.35	5.88	104.56	14.60	3.48	2.23	1.32	1.11	0.84		
6	0.93	1.07	1.88	1.35	4.52	77.15	12.12	3.32	2.26	1.35	1.14	0.84		
7	0.84	1.11	1.88	1.39	4.96	63.85	12.60	3.20	2.19	1.35	1.11	0.81		
8	0.75	0.90	1.95	1.35	3.80	60.00	10.36	3.00	2.02	1.32	1.07	0.81		
9	0.66	0.84	2.09	1.42	3.24	59.30	7.56	2.93	1.84	1.32	1.14	0.81		
10	0.63	0.78	4.52	1.42	2.79	54.75	6.44	2.82	1.77	1.28	1.14	0.78		
11	0.63	0.78	2.65	1.42	2.58	51.88	5.96	2.75	1.67	1.28	1.11	0.81		
12	0.75	0.78	2.19	1.46	3.60	51.60	5.52	2.72	1.67	1.28	1.07	0.90		
13	0.66	0.78	2.72	1.49	7.08	46.84	5.20	2.72	1.60	1.25	1.14	0.84		
14	0.72	1.18	3.64	1.53	6.00	42.64	4.88	3.84	1.60	1.21	1.11	2.65		
15	0.81	1.49	3.72	1.46	3.64	40.68	4.64	3.12	1.53	1.14	1.28	1.49		
16	1.07	2.75	2.82	1.42	3.00	35.64	4.48	2.82	1.49	1.21	1.25	1.28		
17	0.90	6.96	2.40	7.40	2.26	30.60	5.28	2.75	1.49	1.18	1.11	1.18		
18	0.78	3.96	2.16	11.40	2.54	23.60	4.72	2.75	1.49	1.18	1.04	1.07		
19	0.75	3.44	2.09	11.24	3.00	23.60	5.08	2.65	1.46	1.11	0.97	1.07		
20	1.04	2.37	1.91	4.96	8.12	22.70	4.48	2.47	1.46	1.07	0.93	0.97		
21	0.90	1.88	1.70	3.60	16.50	22.90	3.92	2.33	1.42	1.07	0.93	0.84		
22	0.84	1.77	2.54	3.32	24.70	35.92	5.24	2.30	1.42	1.04	0.93	0.90		
23	0.72	1.28	2.23	3.00	33.40	36.76	5.44	2.23	1.39	1.04	0.93	0.97		
24	0.78	1.18	1.70	2.72	41.52	25.84	4.88	2.19	1.39	1.00	0.93	1.04		
25	0.81	1.18	1.67	2.44	44.88	16.20	4.96	2.19	1.39	1.00	0.97	1.25		
26	0.84	3.68	1.60	2.26	41.80	12.28	3.88	2.02	1.42	1.00	0.97	1.18		
27	0.90	2.37	1.91	2.37	31.72	10.20	5.88	1.98	1.42	1.00	0.97	1.21		
28	0.84	2.47	1.98	2.33	18.80	13.16	9.32	1.95	1.42	0.97	1.00	1.70		
29	0.84	4.00	1.95	2.09	13.64	15.40	7.64	1.95	1.42	0.97		1.39		
30	0.90	3.88	1.77	1.98	13.88	27.24	5.68	1.88	1.39	0.97		1.60		
31		15.50		1.95	9.80		4.80		1.35	0.97		1.14		
Total	23.74	75.01	77.02	86.30	365.26	1147.17	288.56	86.28	51.40	36.22	29.29	33.94	2300.19	CMSDAY
Mean	0.79	2.42	2.57	2.78	11.78	38.24	9.31	2.88	1.66	1.17	1.05	1.09	6.30	CMS
Max	1.07	15.50	8.92	11.40	44.88	104.56	34.80	5.20	2.26	1.35	1.28	2.65	104.56	CMS
Min	0.60	0.78	1.60	1.35	1.77	8.76	3.88	1.88	1.35	0.97	0.93	0.78	0.60	CMS
Runoff	2.05	6.48	6.65	7.46	31.56	99.12	24.93	7.45	4.44	3.13	2.53	2.93	198.74	MCM

Momentary Peak 108.24 CMS. at 596.22 m. (MSL.) at 06.00 Hours , on Sep 5 , 2002

Runoff Yield 23.96 Liters/Second/Square KM. Momentary Peak Yield 411.560 Liters/Second/Square KM.

WATER YEAR : 2002

KHONG RIVER BASIN

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

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

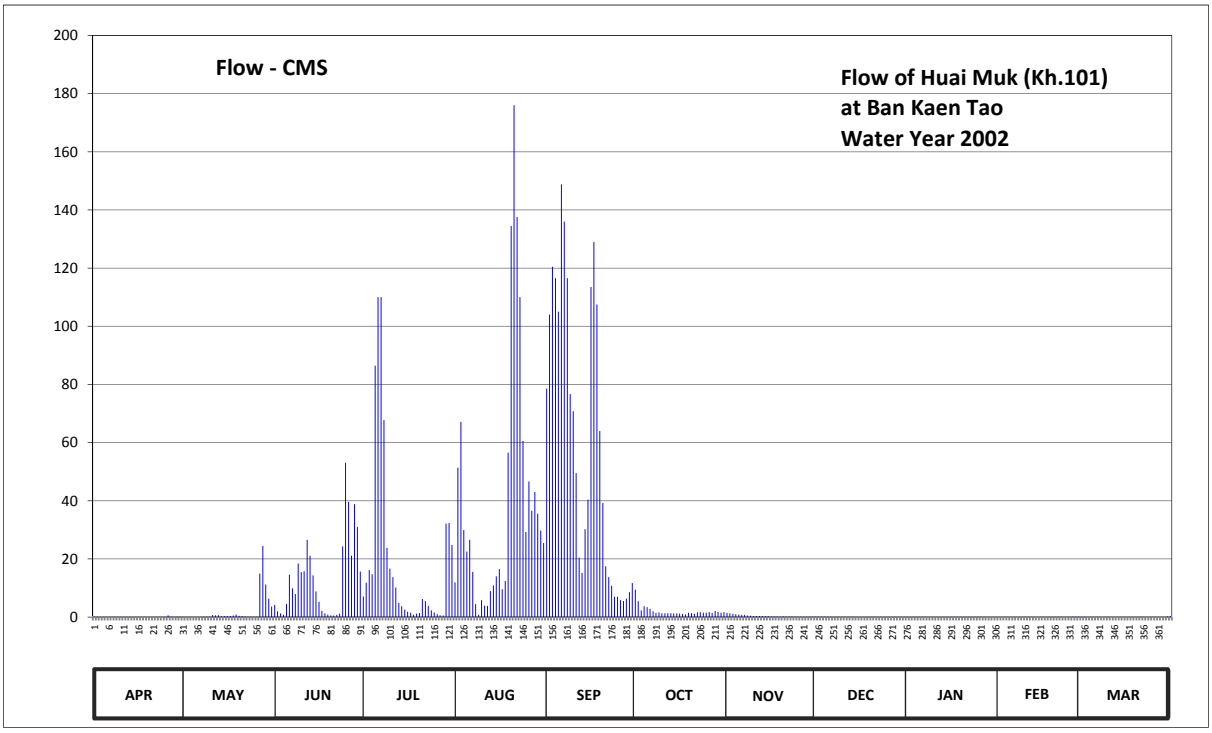
Location : on right bank at the bridge of Amphoe Dong Luang - Muk Dahan Highway.

	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 mean 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 +141.910 m.(M.S.L.) and is including overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 33 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	137.69	137.61	138.61	138.91	139.33	142.76	139.12	138.18	137.65	137.59	137.53	137.55	
2	137.66	137.60	138.30	139.32	141.81	143.36	138.75	138.15	137.65	137.57	137.53	137.55	
3	137.64	137.58	138.14	139.68	142.39	143.69	138.34	138.11	137.65	137.57	137.52	137.53	
4	137.61	137.53	137.99	139.56	140.62	143.61	138.55	138.06	137.65	137.56	137.52	137.53	
5	137.61	137.53	138.65	143.01	140.16	143.38	138.50	138.03	137.65	137.55	137.52	137.52	
6	137.61	137.53	139.55	143.48	140.41	144.16	138.42	137.99	137.65	137.55	137.52	137.48	
7	137.61	137.52	139.16	143.48	139.63	144.00	138.29	137.99	137.64	137.55	137.47	137.48	
8	137.59	137.67	138.99	142.41	138.64	143.61	138.19	137.91	137.64	137.53	137.47	137.46	
9	137.57	137.67	139.87	140.24	137.98	142.70	138.21	137.90	137.64	137.52	137.49	137.46	
10	137.55	137.65	139.62	139.72	138.78	142.51	138.15	137.84	137.64	137.51	137.49	137.46	
11	137.55	137.97	139.65	139.48	138.58	141.71	138.15	137.85	137.63	137.54	137.49	137.45	
12	137.55	137.93	140.41	139.18	138.56	140.03	138.15	137.85	137.63	137.55	137.49	137.45	
13	137.55	137.95	140.07	138.68	139.08	139.60	138.15	137.84	137.63	137.55	137.49	137.45	
14	137.55	137.78	139.53	138.55	139.24	140.64	138.14	137.81	137.62	137.59	137.48	137.43	
15	137.54	137.82	139.07	138.38	139.50	141.23	138.14	137.80	137.62	137.59	137.48	137.43	
16	137.53	137.80	138.73	138.26	139.71	143.55	138.13	137.77	137.62	137.59	137.48	137.43	
17	137.53	137.83	138.32	138.19	139.13	143.86	138.09	137.76	137.63	137.56	137.48	137.42	
18	137.53	137.91	138.14	138.00	139.37	143.43	138.05	137.74	137.62	137.56	137.49	137.42	
19	137.52	138.03	138.03	138.12	142.05	142.29	138.18	137.72	137.62	137.55	137.51	137.42	
20	137.52	137.88	137.94	138.17	143.97	141.17	138.15	137.77	137.62	137.55	137.58	137.42	
21	137.52	137.80	137.91	138.82	144.50	139.79	138.11	137.74	137.62	137.55	137.59	137.58	
22	137.51	137.75	137.98	138.75	144.02	139.48	138.22	137.73	137.62	137.55	137.57	137.54	
23	137.51	137.67	138.13	138.56	143.48	139.23	138.23	137.73	137.61	137.55	137.53	137.54	
24	137.51	137.65	140.27	138.34	142.18	138.90	138.20	137.71	137.59	137.55	137.53	137.51	
25	137.55	137.65	141.90	138.21	140.58	138.90	138.20	137.71	137.59	137.55	137.53	137.48	
26	137.94	137.65	141.19	138.07	141.56	138.78	138.24	137.71	137.58	137.55	137.66	137.53	
27	137.71	139.58	140.07	137.95	141.03	138.75	138.18	137.66	137.58	137.55	137.68	137.49	
28	137.61	140.28	141.15	137.94	141.37	138.83	138.31	137.66	137.57	137.54	137.65	137.49	
29	137.66	139.27	140.69	140.76	140.97	139.05	138.24	137.65	137.55	137.54		137.52	
30	137.65	138.83	139.64	140.77	140.61	139.31	138.20	137.65	137.55	137.54		137.75	
31		138.53		140.30	140.34		138.23		137.55	137.53		137.80	
Mean	137.59	137.98	139.26	139.46	140.63	141.41	138.26	137.83	137.62	137.55	137.53	137.50	
Max	137.94	140.28	141.90	143.48	144.50	144.16	139.12	138.18	137.65	137.59	137.68	137.80	144.50
Min	137.51	137.52	137.91	137.94	137.98	138.75	138.05	137.65	137.55	137.51	137.47	137.42	137.42

Annual Max Momentary Gage Height	144.56	m. (MSL.) ,	at 12.00 Hours , on Aug 21 , 2002		
Zero Gage at Bottom Elevation	136.90	m. (MSL.) ,	River Bed	137.21	m. (MSL.)
Left Bank Elevation	141.90	m. (MSL.) ,			
Right Bank Elevation	142.31	m. (MSL.) ,	Drainage Are	414	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.10	0.06	4.19	7.10	11.96	78.56	9.44	1.46	0.08	0.05	0.02	0.03		
2	0.08	0.05	2.00	11.84	51.39	104.00	5.50	1.32	0.08	0.04	0.02	0.03		
3	0.07	0.04	1.28	16.16	67.09	120.50	2.28	1.14	0.08	0.04	0.01	0.02		
4	0.06	0.02	0.77	14.72	29.92	116.50	3.75	0.98	0.08	0.03	0.01	0.02		
5	0.06	0.02	4.55	86.50	22.56	105.00	3.40	0.89	0.08	0.03	0.01	0.01		
6	0.06	0.02	14.60	110.00	26.56	148.80	2.84	0.77	0.08	0.03	0.01	0.00		
7	0.06	0.01	9.92	110.00	15.56	136.00	1.95	0.77	0.07	0.03	0.00	0.00		
8	0.05	0.09	7.90	67.71	4.46	116.50	1.50	0.53	0.07	0.02	0.00	0.00		
9	0.04	0.09	18.44	23.84	0.74	76.70	1.59	0.50	0.07	0.01	0.00	0.00		
10	0.03	0.08	15.44	16.64	5.80	70.81	1.32	0.38	0.07	0.01	0.00	0.00		
11	0.03	0.71	15.80	13.76	3.96	49.49	1.32	0.40	0.07	0.02	0.00	0.00		
12	0.03	0.59	26.56	10.16	3.82	20.48	1.32	0.40	0.07	0.03	0.00	0.00		
13	0.03	0.65	21.12	4.82	8.96	15.20	1.32	0.38	0.07	0.03	0.00	0.00		
14	0.03	0.26	14.36	3.75	10.88	30.24	1.28	0.32	0.06	0.05	0.00	0.00		
15	0.02	0.34	8.84	2.56	14.00	40.37	1.28	0.30	0.06	0.05	0.00	0.00		
16	0.02	0.30	5.30	1.82	16.52	113.50	1.23	0.24	0.06	0.05	0.00	0.00		
17	0.02	0.36	2.14	1.50	9.56	129.00	1.07	0.22	0.07	0.03	0.00	0.00		
18	0.02	0.53	1.28	0.80	12.44	107.50	0.95	0.18	0.06	0.03	0.00	0.00		
19	0.01	0.89	0.89	1.19	56.55	63.99	1.46	0.14	0.06	0.03	0.01	0.00		
20	0.01	0.46	0.62	1.41	134.50	39.23	1.32	0.24	0.06	0.03	0.04	0.00		
21	0.01	0.30	0.53	6.20	176.00	17.48	1.14	0.18	0.06	0.03	0.05	0.04		
22	0.01	0.20	0.74	5.50	137.60	13.76	1.64	0.16	0.06	0.03	0.04	0.02		
23	0.01	0.09	1.23	3.82	110.00	10.76	1.68	0.16	0.06	0.03	0.02	0.02		
24	0.01	0.08	24.32	2.28	60.58	7.00	1.55	0.12	0.05	0.03	0.02	0.01		
25	0.03	0.08	53.10	1.59	29.28	7.00	1.55	0.12	0.05	0.03	0.02	0.00		
26	0.62	0.08	39.61	1.01	46.64	5.80	1.73	0.12	0.04	0.03	0.08	0.02		
27	0.12	14.96	21.12	0.65	36.57	5.50	1.46	0.08	0.04	0.03	0.09	0.00		
28	0.06	24.48	38.85	0.62	43.03	6.30	2.07	0.08	0.04	0.02	0.08	0.00		
29	0.08	11.24	31.04	32.16	35.52	8.60	1.73	0.08	0.03	0.02		0.01		
30	0.08	6.30	15.68	32.32	29.76	11.72	1.55	0.08	0.03	0.02		0.20		
31		3.61		24.80	25.44		1.68		0.03	0.02		0.30		
Total	1.86	66.99	402.22	617.23	1237.65	1776.29	63.90	12.74	1.89	0.93	0.53	0.73	4182.96	CMSDAY
Mean	0.06	2.16	13.41	19.91	39.92	59.21	2.06	0.42	0.06	0.03	0.02	0.02	11.46	CMS
Max	0.62	24.48	53.10	110.00	176.00	148.80	9.44	1.46	0.08	0.05	0.09	0.30	176.00	CMS
Min	0.01	0.01	0.53	0.62	0.74	5.50	0.95	0.08	0.03	0.01	0.00	0.00	0.00	CMS
Runoff	0.16	5.79	34.75	53.33	106.93	153.47	5.52	1.10	0.16	0.08	0.05	0.06	361.41	MCM

Momentary Peak 180.80 CMS. at 144.56 m. (MSL.) at 12.00 Hours , on Aug 21 , 2002

Runoff Yield 27.68 Liters/Second/Square KM. Momentary Peak Yield 436.710 Liters/Second/Square KM.

WATER YEAR : 2002

KHONG RIVER BASIN

Huai Nam Suai at Ban Pong Si Thon, Loei (Kh.102)

Lat 17 - 21 - 51 N Long 101 - 54 - 57 E

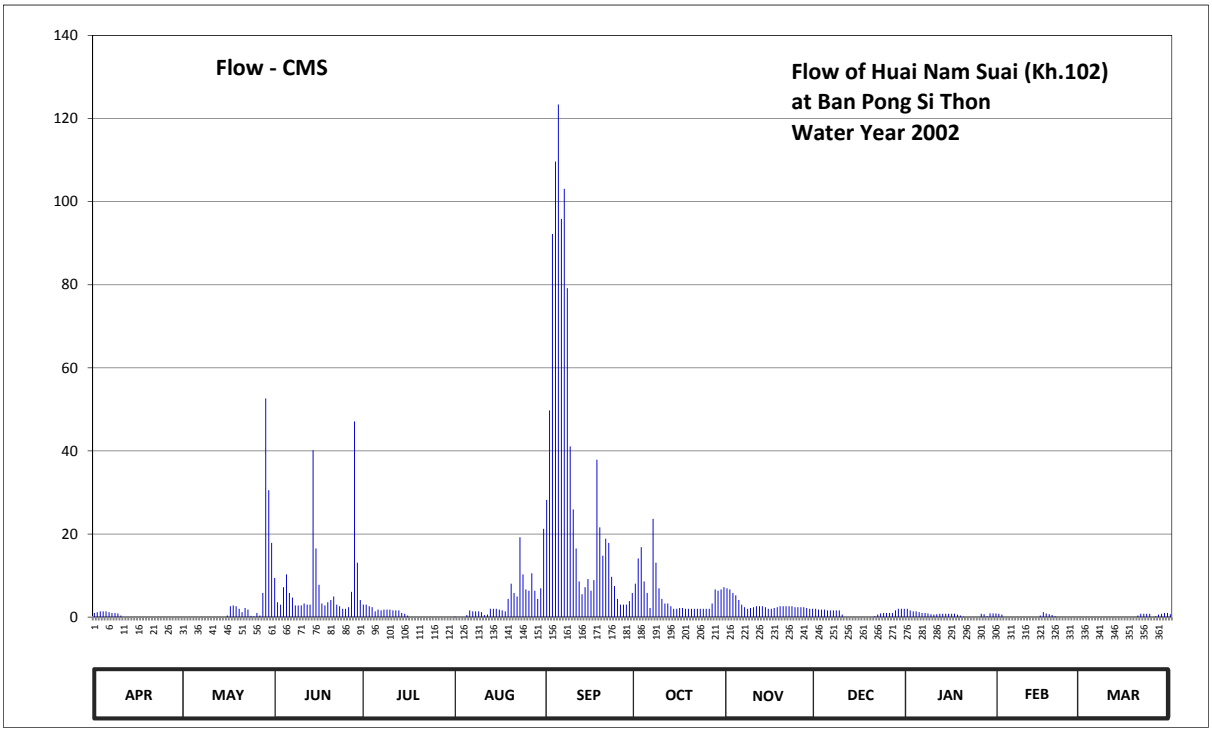
Location : on left bank at the bridge of Na Duang - Erawan Highway.

	Ban Pong Si Thon	**Amphoe** Erawan	**Changwat** Loei
Drainge Area	327 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+273.300 m. (MSL.)		
Bench Mark	B.M.- Highways Dept.		
Location BM	On left bank about 8.00 meters from the top staff gage.		**Elevation** +279.716 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 mean 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 +278.080 m.(M.S.L.) and is including overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 7 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	276.20	275.93	276.53	276.30	276.11	277.07	276.48	276.44	276.25	276.25	276.18	275.83	
2	276.21	275.90	276.32	276.30	276.06	277.53	276.68	276.43	276.24	276.23	276.16	275.81	
3	276.22	275.88	276.30	276.28	276.05	278.21	276.76	276.40	276.24	276.22	276.08	275.80	
4	276.22	275.87	276.45	276.27	276.08	278.45	276.50	276.38	276.24	276.22	276.07	275.78	
5	276.22	275.90	276.56	276.22	276.15	278.64	276.40	276.34	276.23	276.21	276.10	275.76	
6	276.21	275.89	276.40	276.24	276.23	278.26	276.26	276.30	276.23	276.20	276.10	275.74	
7	276.20	275.87	276.36	276.23	276.22	278.36	276.96	276.27	276.23	276.20	276.02	275.74	
8	276.20	275.84	276.29	276.24	276.22	278.03	276.65	276.25	276.23	276.19	275.96	275.74	
9	276.19	275.82	276.29	276.24	276.22	277.35	276.44	276.26	276.23	276.17	275.92	275.73	
10	276.14	275.80	276.29	276.24	276.21	277.02	276.35	276.27	276.16	276.16	275.87	275.73	
11	276.06	275.76	276.31	276.23	276.15	276.75	276.31	276.28	276.10	276.17	275.82	275.74	
12	276.02	275.80	276.30	276.23	276.16	276.50	276.31	276.28	276.10	276.18	275.80	275.76	
13	276.01	275.79	276.30	276.23	276.25	276.39	276.28	276.28	276.05	276.18	275.87	275.77	
14	276.02	275.76	277.33	276.20	276.25	276.45	276.25	276.27	275.92	276.18	275.95	275.79	
15	276.06	275.83	276.75	276.18	276.25	276.52	276.25	276.25	275.89	276.18	276.14	275.85	
16	276.07	276.14	276.47	276.14	276.24	276.42	276.26	276.25	275.96	276.18	276.21	275.94	
17	276.09	276.28	276.31	276.08	276.23	276.51	276.26	276.26	276.00	276.18	276.19	275.96	
18	276.10	276.29	276.29	276.05	276.22	277.28	276.25	276.27	276.03	276.16	276.17	275.98	
19	276.09	276.28	276.32	276.01	276.35	276.90	276.25	276.28	276.06	276.14	276.15	275.99	
20	276.09	276.25	276.34	276.00	276.48	276.70	276.25	276.28	276.08	276.11	276.12	276.14	
21	276.07	276.21	276.37	276.02	276.40	276.82	276.25	276.28	276.12	276.08	276.10	276.18	
22	276.05	276.26	276.30	275.99	276.37	276.79	276.25	276.28	276.16	275.95	276.06	276.18	
23	276.03	276.24	276.28	275.99	276.83	276.54	276.25	276.28	276.19	275.86	275.99	276.18	
24	276.02	276.13	276.25	276.00	276.56	276.46	276.25	276.27	276.20	275.90	275.96	276.18	
25	276.01	276.12	276.25	275.99	276.43	276.35	276.25	276.27	276.20	276.08	275.90	276.10	
26	275.97	276.20	276.27	276.02	276.42	276.30	276.25	276.27	276.20	276.18	275.87	276.12	
27	275.90	276.14	276.41	276.04	276.57	276.30	276.31	276.27	276.20	276.17	275.84	276.16	
28	275.88	276.40	277.48	276.04	276.42	276.30	276.43	276.26	276.23	276.12	275.84	276.18	
29	275.89	277.58	276.65	276.09	276.35	276.33	276.42	276.25	276.25	276.19		276.20	
30	275.95	277.12	276.34	276.10	276.44	276.40	276.43	276.25	276.25	276.19		276.20	
31		276.79		276.10	276.89		276.45		276.25	276.19		276.17	
Mean	276.08	276.13	276.44	276.14	276.32	277.00	276.38	276.29	276.15	276.15	276.02	275.95	
Max	276.22	277.58	277.48	276.30	276.89	278.64	276.96	276.44	276.25	276.25	276.21	276.20	278.64
Min	275.88	275.76	276.25	275.99	276.05	276.30	276.25	276.25	275.89	275.86	275.80	275.73	275.73

Annual Max Momentary Gage Height	278.69	m. (MSL.) ,	at 18.00 Hours , on Sep 3 , 2002		
Zero Gage at Bottom Elevation	273.30	m. (MSL.) ,	River Bed	272.76	m. (MSL.)
Left Bank Elevation	278.91	m. (MSL.) ,			
Right Bank Elevation	278.07	m. (MSL.) ,	Drainage Are	327	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.00	0.00	9.44	3.00	0.10	28.22	8.04	6.92	2.00	2.00	0.80	0.00		
2	1.20	0.00	3.56	3.00	0.00	49.74	14.12	6.64	1.80	1.60	0.60	0.00		
3	1.40	0.00	3.00	2.60	0.00	92.22	16.84	5.80	1.80	1.40	0.00	0.00		
4	1.40	0.00	7.20	2.40	0.00	109.62	8.60	5.24	1.80	1.40	0.00	0.00		
5	1.40	0.00	10.28	1.40	0.50	123.40	5.80	4.12	1.60	1.20	0.00	0.00		
6	1.20	0.00	5.80	1.80	1.60	95.85	2.20	3.00	1.60	1.00	0.00	0.00		
7	1.00	0.00	4.68	1.60	1.40	103.10	23.64	2.40	1.60	1.00	0.00	0.00		
8	1.00	0.00	2.80	1.80	1.40	79.17	13.10	2.00	1.60	0.90	0.00	0.00		
9	0.90	0.00	2.80	1.80	1.40	41.10	6.92	2.20	1.60	0.70	0.00	0.00		
10	0.40	0.00	2.80	1.80	1.20	25.92	4.40	2.40	0.60	0.60	0.00	0.00		
11	0.00	0.00	3.28	1.60	0.50	16.50	3.28	2.60	0.00	0.70	0.00	0.00		
12	0.00	0.00	3.00	1.60	0.60	8.60	3.28	2.60	0.00	0.80	0.00	0.00		
13	0.00	0.00	3.00	1.60	2.00	5.52	2.60	2.60	0.00	0.80	0.00	0.00		
14	0.00	0.00	40.18	1.00	2.00	7.20	2.00	2.40	0.00	0.80	0.00	0.00		
15	0.00	0.00	16.50	0.80	2.00	9.16	2.00	2.00	0.00	0.80	0.40	0.00		
16	0.00	0.40	7.76	0.40	1.80	6.36	2.20	2.00	0.00	0.80	1.20	0.00		
17	0.00	2.60	3.28	0.00	1.60	8.88	2.20	2.20	0.00	0.80	0.90	0.00		
18	0.00	2.80	2.80	0.00	1.40	37.88	2.00	2.40	0.00	0.60	0.70	0.00		
19	0.00	2.60	3.56	0.00	4.40	21.60	2.00	2.60	0.00	0.40	0.50	0.00		
20	0.00	2.00	4.12	0.00	8.04	14.80	2.00	2.60	0.00	0.10	0.20	0.40		
21	0.00	1.20	4.96	0.00	5.80	18.88	2.00	2.60	0.20	0.00	0.00	0.80		
22	0.00	2.20	3.00	0.00	4.96	17.86	2.00	2.60	0.60	0.00	0.00	0.80		
23	0.00	1.80	2.60	0.00	19.22	9.72	2.00	2.60	0.90	0.00	0.00	0.80		
24	0.00	0.30	2.00	0.00	10.28	7.48	2.00	2.40	1.00	0.00	0.00	0.80		
25	0.00	0.20	2.00	0.00	6.64	4.40	2.00	2.40	1.00	0.00	0.00	0.00		
26	0.00	1.00	2.40	0.00	6.36	3.00	2.00	2.40	1.00	0.80	0.00	0.20		
27	0.00	0.40	6.08	0.00	10.56	3.00	3.28	2.40	1.00	0.70	0.00	0.60		
28	0.00	5.80	47.08	0.00	6.36	3.00	6.64	2.20	1.60	0.20	0.00	0.80		
29	0.00	52.64	13.10	0.00	4.40	3.84	6.36	2.00	2.00	0.90		1.00		
30	0.00	30.52	4.12	0.00	6.92	5.80	6.64	2.00	2.00	0.90		1.00		
31		17.86		0.00	21.26		7.20		2.00	0.90		0.70		
Total	10.90	124.32	227.18	28.20	134.70	961.82	169.34	88.32	29.30	22.80	5.30	7.90	1810.08	CMSDAY
Mean	0.36	4.01	7.57	0.91	4.35	32.06	5.46	2.94	0.95	0.74	0.19	0.25	4.96	CMS
Max	1.40	52.64	47.08	3.00	21.26	123.40	23.64	6.92	2.00	2.00	1.20	1.00	123.40	CMS
Min	0.00	0.00	2.00	0.00	0.00	3.00	2.00	2.00	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	0.94	10.74	19.63	2.44	11.64	83.10	14.63	7.63	2.53	1.97	0.46	0.68	156.39	MCM

Momentary Peak 127.02 CMS. at 278.69 m. (MSL.) at 18.00 Hours , on Sep 3 , 2002

Runoff Yield 15.17 Liters/Second/Square KM. Momentary Peak Yield 388.440 Liters/Second/Square KM.

WATER YEAR : 2002

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	+0.000 m. (A.D.)
Bench Mark	B.M.-H.D.
Location BM	On left bank in the vicinity of gage observer's house. **Elevation** +8.152 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 mean of 5 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	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Flow effected by Nam Waen reservoir about 4 - 5 kilometers abov gage site. Stage-discharge relation defined by 43 discharge measurements made in 2002.

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

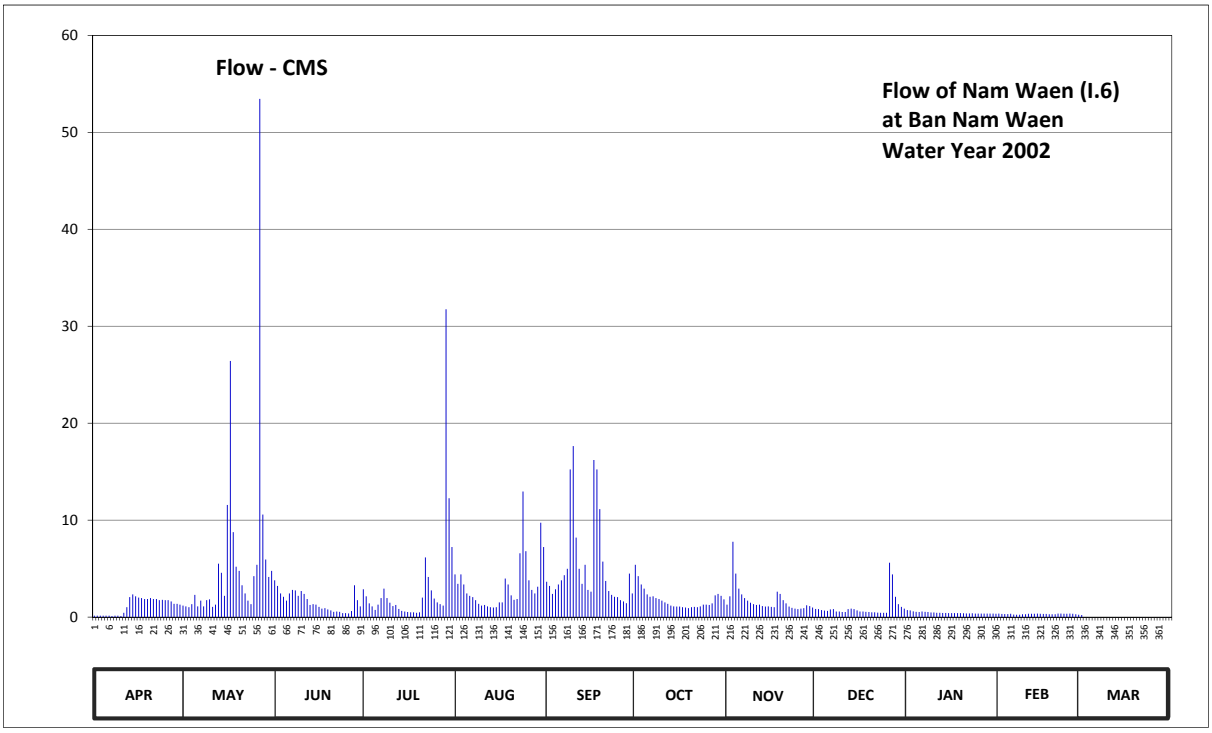
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.16	0.71	1.20	1.07	1.27	1.18	1.37	0.74	0.60	0.55	0.34	0.23	
2	0.17	0.69	1.12	0.94	1.15	1.12	1.25	0.94	0.59	0.54	0.32	0.51	
3	0.16	0.66	1.00	0.77	1.27	0.99	1.14	1.57	0.55	0.50	0.31	0.72	
4	0.17	0.75	0.93	0.69	1.14	1.07	1.08	1.28	0.53	0.47	0.31	0.67	
5	0.16	0.97	0.84	0.56	1.00	1.14	0.98	1.08	0.52	0.45	0.33	0.67	
6	0.17	0.69	1.00	0.74	0.95	1.20	0.93	0.98	0.58	0.48	0.27	0.63	
7	0.14	0.84	1.06	0.90	0.92	1.26	0.94	0.90	0.59	0.47	0.25	0.66	
8	0.16	0.69	1.05	1.08	0.85	1.33	0.90	0.84	0.48	0.45	0.25	0.70	
9	0.17	0.85	0.95	0.90	0.76	2.09	0.88	0.79	0.48	0.42	0.29	0.65	
10	0.14	0.87	1.04	0.79	0.71	2.24	0.84	0.75	0.45	0.42	0.30	0.64	
11	0.40	0.67	0.99	0.70	0.73	1.60	0.80	0.73	0.45	0.40	0.33	0.67	
12	0.66	0.74	0.88	0.73	0.69	1.33	0.76	0.74	0.59	0.40	0.33	0.65	
13	0.92	1.38	0.73	0.60	0.66	1.15	0.71	0.70	0.61	0.39	0.33	0.62	
14	0.98	1.29	0.75	0.52	0.65	1.37	0.69	0.68	0.59	0.39	0.34	0.58	
15	0.94	0.95	0.74	0.48	0.66	1.06	0.68	0.69	0.54	0.38	0.33	0.58	
16	0.91	1.84	0.67	0.45	0.80	1.03	0.68	0.67	0.49	0.38	0.32	0.58	
17	0.90	2.71	0.61	0.44	0.80	2.15	0.66	0.66	0.48	0.38	0.32	0.59	
18	0.88	1.64	0.63	0.43	1.22	2.09	0.65	1.03	0.46	0.38	0.30	0.59	
19	0.88	1.35	0.58	0.40	1.14	1.81	0.63	0.99	0.45	0.38	0.30	0.56	
20	0.90	1.31	0.54	0.44	0.96	1.40	0.66	0.85	0.44	0.37	0.30	0.65	
21	0.88	1.13	0.47	0.91	0.86	1.19	0.67	0.77	0.43	0.36	0.35	0.61	
22	0.88	1.00	0.48	1.44	0.88	1.04	0.66	0.68	0.41	0.36	0.34	0.65	
23	0.85	0.84	0.46	1.24	1.48	0.97	0.69	0.64	0.40	0.37	0.33	0.62	
24	0.86	0.75	0.38	1.05	1.94	0.93	0.74	0.61	0.40	0.35	0.33	0.65	
25	0.85	1.25	0.38	0.89	1.50	0.92	0.74	0.59	0.40	0.35	0.34	0.63	
26	0.85	1.37	0.36	0.80	1.20	0.85	0.73	0.61	1.39	0.35	0.33	0.65	
27	0.82	3.69	0.51	0.75	1.06	0.82	0.77	0.63	1.27	0.34	0.30	0.60	
28	0.76	1.77	1.13	0.71	1.00	0.78	0.96	0.72	0.93	0.35	0.25	0.54	
29	0.76	1.42	0.85	2.94	1.11	1.28	0.99	0.70	0.75	0.34		0.50	
30	0.74	1.24	0.69	1.89	1.71	1.00	0.95	0.65	0.67	0.35		0.53	
31		1.31		1.53	1.53		0.87		0.61	0.33		0.51	
Mean	0.61	1.21	0.77	0.90	1.05	1.28	0.84	0.81	0.58	0.40	0.31	0.60	
Max	0.98	3.69	1.20	2.94	1.94	2.24	1.37	1.57	1.39	0.55	0.35	0.72	3.69
Min	0.14	0.66	0.36	0.40	0.65	0.78	0.63	0.59	0.40	0.33	0.25	0.23	0.14

Annual Max Momentary Gage Height 4.36 m. (A.D.) , at 12.00 Hours , on May 27, 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed 0.31 m. (A.D.) ,

Left Bank Elevation 8.78 m. (A.D.) ,

Right Bank Elevation 8.81 m. (A.D.) , Drainage Are 151 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.14	1.18	3.80	2.87	4.40	3.65	5.40	1.29	0.84	0.72	0.36	0.22		
2	0.15	1.11	3.21	2.15	3.43	3.21	4.23	2.15	0.82	0.70	0.33	0.00		
3	0.14	1.02	2.44	1.41	4.40	2.39	3.36	7.78	0.72	0.60	0.31	0.00		
4	0.15	1.33	2.10	1.11	3.36	2.87	2.94	4.49	0.67	0.55	0.31	0.00		
5	0.14	2.30	1.70	0.74	2.44	3.36	2.34	2.94	0.65	0.52	0.34	0.00		
6	0.15	1.11	2.44	1.29	2.20	3.80	2.10	2.34	0.79	0.57	0.26	0.00		
7	0.12	1.70	2.81	1.96	2.06	4.32	2.15	1.96	0.82	0.55	0.24	0.00		
8	0.14	1.11	2.75	2.94	1.74	4.98	1.96	1.70	0.57	0.52	0.24	0.00		
9	0.15	1.74	2.20	1.96	1.37	15.24	1.87	1.48	0.57	0.47	0.29	0.00		
10	0.12	1.83	2.69	1.48	1.18	17.64	1.70	1.33	0.52	0.47	0.30	0.00		
11	0.44	1.05	2.39	1.14	1.25	8.20	1.52	1.25	0.52	0.44	0.34	0.00		
12	1.02	1.29	1.87	1.25	1.11	4.98	1.37	1.29	0.82	0.44	0.34	0.00		
13	2.06	5.51	1.25	0.84	1.02	3.43	1.18	1.14	0.87	0.43	0.34	0.00		
14	2.34	4.57	1.33	0.65	0.99	5.40	1.11	1.08	0.82	0.43	0.36	0.00		
15	2.15	2.20	1.29	0.57	1.02	2.81	1.08	1.11	0.70	0.41	0.34	0.00		
16	2.01	11.56	1.05	0.52	1.52	2.63	1.08	1.05	0.58	0.41	0.33	0.00		
17	1.96	26.42	0.87	0.50	1.52	16.20	1.02	1.02	0.57	0.41	0.33	0.00		
18	1.87	8.76	0.93	0.49	3.97	15.24	0.99	2.63	0.54	0.41	0.30	0.00		
19	1.87	5.19	0.79	0.44	3.36	11.14	0.93	2.39	0.52	0.41	0.30	0.00		
20	1.96	4.77	0.70	0.50	2.25	5.72	1.02	1.74	0.50	0.40	0.30	0.00		
21	1.87	3.28	0.55	2.01	1.78	3.73	1.05	1.41	0.49	0.38	0.37	0.00		
22	1.87	2.44	0.57	6.15	1.87	2.69	1.02	1.08	0.46	0.38	0.36	0.00		
23	1.74	1.70	0.54	4.14	6.58	2.30	1.11	0.96	0.44	0.40	0.34	0.00		
24	1.78	1.33	0.41	2.75	12.96	2.10	1.29	0.87	0.44	0.37	0.34	0.00		
25	1.74	4.23	0.41	1.92	6.80	2.06	1.29	0.82	0.44	0.37	0.36	0.00		
26	1.74	5.40	0.38	1.52	3.80	1.74	1.25	0.87	5.61	0.37	0.34	0.00		
27	1.61	53.46	0.62	1.33	2.81	1.61	1.41	0.93	4.40	0.36	0.30	0.00		
28	1.37	10.58	3.28	1.18	2.44	1.44	2.25	1.22	2.10	0.37	0.24	0.00		
29	1.37	5.94	1.74	31.76	3.13	4.49	2.39	1.14	1.33	0.36		0.00		
30	1.29	4.14	1.11	12.26	9.74	2.44	2.20	0.99	1.05	0.37		0.00		
31		4.77		7.22	7.22		1.83		0.87	0.34		0.00		
Total	35.46	183.02	48.22	97.05	103.72	161.81	56.44	52.45	31.04	13.93	8.91	0.22	792.27	CMSDAY
Mean	1.18	5.90	1.61	3.13	3.35	5.39	1.82	1.75	1.00	0.45	0.32	0.01	2.17	CMS
Max	2.34	53.46	3.80	31.76	12.96	17.64	5.40	7.78	5.61	0.72	0.37	0.22	53.46	CMS
Min	0.12	1.02	0.38	0.44	0.99	1.44	0.93	0.82	0.44	0.34	0.24	0.00	0.00	CMS
Runoff	3.06	15.81	4.17	8.39	8.96	13.98	4.88	4.53	2.68	1.20	0.77	0.02	68.45	MCM

Momentary Peak 77.28 CMS. at 4.36 m. (A.D.) at 12.00 Hours , on May 27 , 2002

Runoff Yield 14.37 Liters/Second/Square KM. Momentary Peak Yield 511.790 Liters/Second/Square KM.

WATER YEAR : 2002

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	+0.000 m. (A.D.)
Bench Mark	B.M.-H.D.
Location BM	On right bank downstream side at the approach of the bridge. **Elevation** +10.680 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 mean 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	Fairly stable because of backwadter effect.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Flow effected by the local weir about 100 meters downstream from the gage site. Stage-discharge relation defined by 39 discharge measurements made in 2002.

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

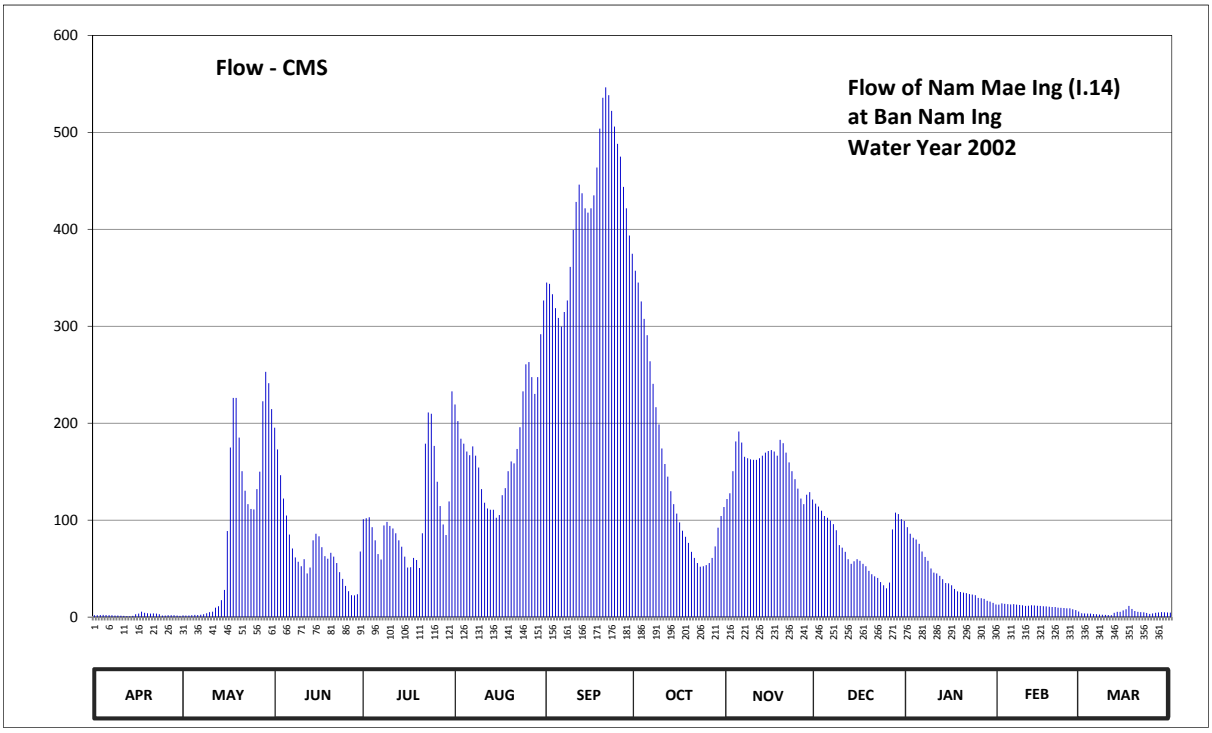
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.71	0.70	5.33	3.52	5.71	7.13	7.22	3.95	3.85	3.34	1.30	0.87	
2	0.72	0.69	4.93	3.54	5.45	7.12	7.13	4.07	3.79	3.19	1.35	0.86	
3	0.73	0.69	4.43	3.56	5.13	7.04	6.98	4.51	3.70	3.10	1.33	0.85	
4	0.74	0.72	3.96	3.34	5.04	6.91	6.80	5.08	3.59	3.06	1.32	0.84	
5	0.73	0.74	3.60	3.04	4.89	6.81	6.63	5.26	3.55	2.96	1.31	0.81	
6	0.72	0.73	3.17	2.72	4.82	6.72	6.32	5.06	3.49	2.78	1.32	0.79	
7	0.71	0.75	2.85	2.59	4.99	6.87	6.02	4.79	3.41	2.65	1.30	0.77	
8	0.69	0.80	2.64	3.38	4.81	6.99	5.67	4.76	3.27	2.56	1.29	0.75	
9	0.67	0.87	2.54	3.46	4.58	7.25	5.39	4.74	2.93	2.38	1.28	0.74	
10	0.66	0.94	2.43	3.37	4.15	7.52	4.95	4.73	2.87	2.28	1.25	0.73	
11	0.64	0.97	2.60	3.31	3.87	7.65	4.65	4.73	2.77	2.26	1.26	0.72	
12	0.59	1.18	2.26	3.20	3.75	7.73	4.40	4.76	2.60	2.20	1.28	0.90	
13	0.57	1.24	2.40	3.04	3.72	7.69	4.11	4.81	2.49	2.12	1.27	0.96	
14	0.64	1.47	3.04	2.89	3.72	7.62	3.84	4.87	2.55	2.03	1.26	0.96	
15	0.80	1.83	3.19	2.66	3.55	7.60	3.64	4.90	2.60	2.02	1.25	1.04	
16	0.85	3.25	3.13	2.40	3.61	7.62	3.45	4.92	2.56	1.97	1.24	1.09	
17	0.97	4.97	2.88	2.41	4.03	7.68	3.26	4.89	2.49	1.86	1.23	1.25	
18	0.90	5.81	2.67	2.63	4.17	7.81	3.12	4.81	2.43	1.78	1.22	1.11	
19	0.87	5.81	2.61	2.58	4.51	7.99	2.98	5.11	2.32	1.76	1.21	1.00	
20	0.85	5.15	2.75	2.39	4.70	8.11	2.77	5.05	2.24	1.74	1.21	0.96	
21	0.86	4.51	2.66	3.20	4.66	8.15	2.63	4.87	2.19	1.72	1.18	0.94	
22	0.84	4.12	2.51	5.04	4.94	8.12	2.51	4.68	2.15	1.69	1.17	0.93	
23	0.79	3.84	2.29	5.59	5.34	8.06	2.42	4.51	2.05	1.67	1.16	0.89	
24	0.68	3.74	2.13	5.57	5.91	8.00	2.43	4.35	1.97	1.65	1.14	0.82	
25	0.67	3.73	1.95	5.00	6.28	7.92	2.46	4.16	1.88	1.55	1.14	0.86	
26	0.72	4.15	1.79	4.30	6.31	7.86	2.51	3.96	2.04	1.54	1.09	0.90	
27	0.72	4.50	1.65	3.80	6.11	7.72	2.63	3.84	3.29	1.52	1.05	0.92	
28	0.71	5.76	1.64	3.40	5.87	7.62	2.90	4.04	3.66	1.45	0.98	0.94	
29	0.68	6.18	1.68	3.16	6.11	7.49	3.33	4.09	3.63	1.42		0.93	
30	0.64	6.03	2.78	3.90	6.64	7.35	3.59	3.94	3.52	1.37		0.92	
31		5.64		5.91	6.99		3.78		3.48	1.31		0.91	
Mean	0.74	2.95	2.82	3.51	4.98	7.54	4.21	4.61	2.88	2.09	1.23	0.90	
Max	0.97	6.18	5.33	5.91	6.99	8.15	7.22	5.26	3.85	3.34	1.35	1.25	8.15
Min	0.57	0.69	1.64	2.39	3.55	6.72	2.42	3.84	1.88	1.31	0.98	0.72	0.57

Annual Max Momentary Gage Height 8.15 m. (A.D.) , at 06.00 Hours , on Sep 21 , 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed 0.10 m. (A.D.)

Left Bank Elevation 10.63 m. (A.D.) ,

Right Bank Elevation 10.63 m. (A.D.) , Drainage Are 6,266 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.92	1.80	195.34	100.97	219.28	345.12	357.26	121.78	116.94	92.77	12.80	3.98		
2	2.04	1.72	172.88	101.94	202.16	343.78	345.12	127.81	114.04	85.99	14.15	3.84		
3	2.16	1.72	146.39	102.90	183.98	332.99	325.61	150.53	109.68	81.92	13.61	3.70		
4	2.28	2.04	122.26	92.77	178.87	318.64	307.68	181.14	104.36	80.11	13.34	3.56		
5	2.16	2.28	104.84	79.21	170.75	308.68	290.75	191.37	102.42	75.64	13.07	3.14		
6	2.04	2.16	85.08	65.08	167.02	299.71	263.83	180.01	99.55	67.72	13.34	2.88		
7	1.92	2.40	70.80	59.36	176.07	314.65	240.55	165.43	95.93	62.00	12.80	2.64		
8	1.72	3.00	61.56	94.58	166.49	326.60	216.56	163.83	89.60	58.04	12.54	2.40		
9	1.56	3.98	57.16	98.19	154.26	361.30	198.75	162.77	74.32	50.24	12.28	2.28		
10	1.48	5.12	52.39	94.12	131.94	399.44	173.94	162.24	71.68	45.94	11.50	2.16		
11	1.32	5.66	59.80	91.41	117.91	428.30	157.98	162.24	67.28	45.08	11.76	2.04		
12	0.94	9.80	45.08	86.44	112.10	446.06	144.84	163.83	59.80	42.50	12.28	4.40		
13	0.82	11.24	51.10	79.21	110.65	437.18	129.88	166.49	54.97	39.06	12.02	5.48		
14	1.32	17.46	79.21	72.56	110.65	421.64	116.46	169.68	57.60	35.19	11.76	5.48		
15	3.00	28.09	85.99	62.44	102.42	417.20	106.78	171.28	59.80	34.76	11.50	7.00		
16	3.70	88.70	83.28	51.10	105.32	421.64	97.74	172.34	58.04	32.85	11.24	8.00		
17	5.66	175.00	72.12	51.53	125.75	434.96	89.15	170.75	54.97	29.08	10.98	11.50		
18	4.40	226.08	62.88	61.12	132.97	463.82	82.82	166.49	52.39	26.50	10.72	8.40		
19	3.98	226.08	60.24	58.92	150.53	503.78	76.52	182.85	47.66	25.90	10.46	6.20		
20	3.70	185.12	66.40	50.67	160.64	535.70	67.28	179.44	44.22	25.30	10.46	5.48		
21	3.84	150.53	62.44	86.44	158.51	546.50	61.12	169.68	42.07	24.70	9.80	5.12		
22	3.56	130.39	55.84	178.87	173.41	538.40	55.84	159.58	40.35	23.81	9.60	4.94		
23	2.88	116.46	46.37	211.12	195.91	522.20	51.96	150.53	36.05	23.23	9.40	4.26		
24	1.64	111.62	39.49	209.76	232.88	506.00	52.39	142.26	32.85	22.65	9.00	3.28		
25	1.56	111.13	32.15	176.60	260.73	488.24	53.68	132.46	29.74	19.75	9.00	3.84		
26	2.04	131.94	26.80	139.68	263.06	474.92	55.84	122.26	35.62	19.46	8.00	4.40		
27	2.04	150.00	22.65	114.52	247.54	443.84	61.12	116.46	90.51	18.88	7.20	4.76		
28	1.92	222.68	22.36	95.48	230.16	421.64	73.00	126.26	107.74	16.90	5.84	5.12		
29	1.64	252.97	23.52	84.63	247.54	393.65	92.32	128.84	106.29	16.06		4.94		
30	1.32	241.33	67.72	119.36	291.74	374.78	104.36	121.30	100.97	14.69		4.76		
31		214.52		232.88	326.60		113.55		99.10	13.07		4.58		
Total	70.56	2833.02	2134.14	3203.86	5607.84	12571.36	4564.68	4681.93	2256.54	1249.79	310.45	144.56	39628.73	CMSDAY
Mean	2.35	91.39	71.14	103.35	180.90	419.05	147.25	156.06	72.79	40.32	11.09	4.66	108.57	CMS
Max	5.66	252.97	195.34	232.88	326.60	546.50	357.26	191.37	116.94	92.77	14.15	11.50	546.50	CMS
Min	0.82	1.72	22.36	50.67	102.42	299.71	51.96	116.46	29.74	13.07	5.84	2.04	0.82	CMS
Runoff	47.19	44.96	50.75	175.45	575.61	839.84	754.70	396.43	71.48	34.23	26.19	20.26	3037.09	MCM

Momentary Peak 546.50 CMS. at 8.15 m. (MSL.) at 06.00 Hours , on Sep 21 , 2002

Runoff Yield 17.33 Liters/Second/Square KM. Momentary Peak Yield 87.22 Liters/Second/Square KM.

WATER YEAR : 2002

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

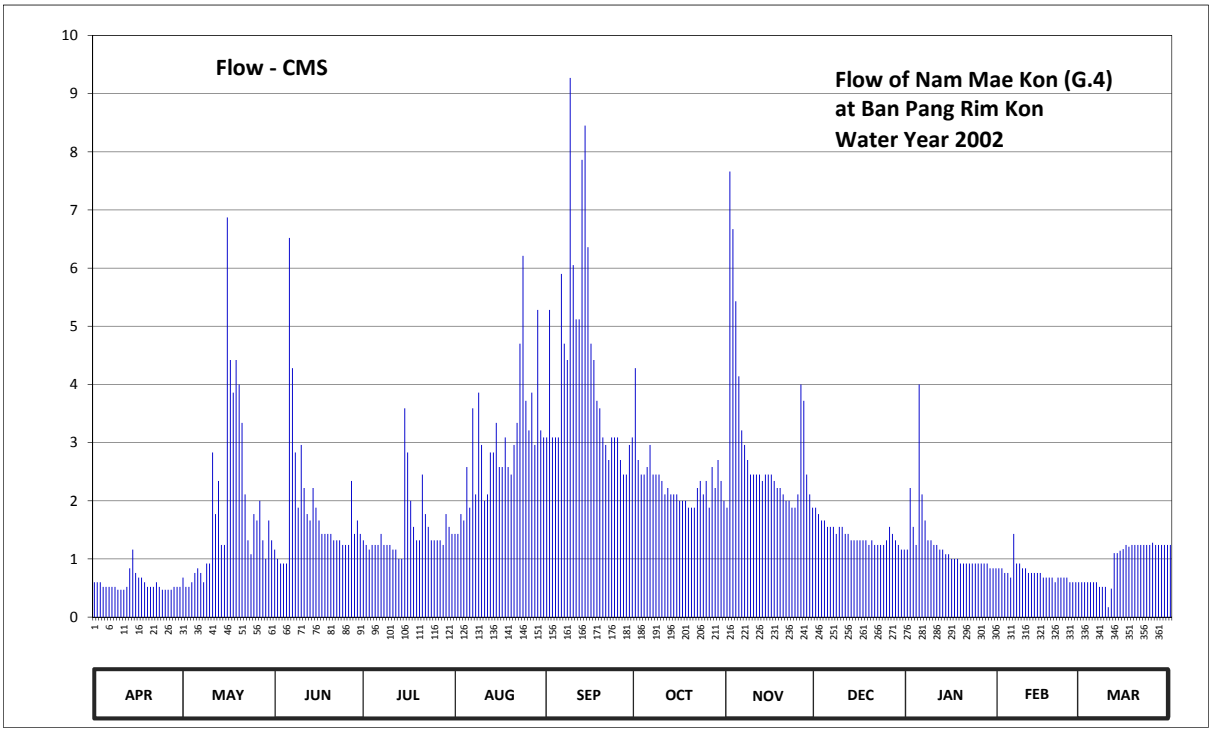
Location : on left bank at Ban Pang Rim Kon.

	Ban Pang Rim Kon	**Amphoe** Mueang	**Changwat** Chiang Rai
Drainge Area	49 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+0.000 m. (A.D.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank about 66.50 meters from the top staff gage.	**Elevation**	+3.400 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	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 because of back water effect.		
Overbank Flow Conditions	No overbank flow		
General Description	Records good. Stage-discharge relation defined by 38 discharge measurements made in 2002.		

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.51	0.52	0.58	0.60	0.61	0.75	0.84	0.65	0.65	0.58	0.54	0.51	
2	0.51	0.50	0.56	0.59	0.61	0.91	0.72	1.05	0.64	0.68	0.54	0.51	
3	0.51	0.50	0.55	0.58	0.64	0.75	0.70	1.00	0.63	0.62	0.53	0.51	
4	0.50	0.51	0.55	0.59	0.63	0.75	0.70	0.92	0.63	0.59	0.53	0.51	
5	0.50	0.53	0.55	0.59	0.71	0.75	0.71	0.83	0.62	0.82	0.52	0.51	
6	0.50	0.54	0.99	0.59	0.65	0.95	0.74	0.76	0.62	0.67	0.61	0.51	
7	0.50	0.53	0.84	0.61	0.79	0.87	0.70	0.74	0.62	0.63	0.55	0.50	
8	0.50	0.51	0.73	0.59	0.67	0.85	0.70	0.72	0.61	0.60	0.55	0.50	
9	0.49	0.55	0.65	0.59	0.81	1.12	0.70	0.70	0.62	0.60	0.54	0.50	
10	0.49	0.55	0.74	0.59	0.74	0.96	0.69	0.70	0.62	0.59	0.54	0.50	
11	0.49	0.73	0.68	0.58	0.66	0.90	0.67	0.70	0.61	0.59	0.53	0.64	
12	0.50	0.64	0.64	0.58	0.67	0.90	0.68	0.70	0.61	0.58	0.53	0.85	
13	0.54	0.69	0.63	0.56	0.73	1.06	0.67	0.69	0.60	0.58	0.53	0.85	
14	0.58	0.59	0.68	0.56	0.73	1.09	0.67	0.70	0.60	0.57	0.53	0.86	
15	0.53	0.59	0.65	0.79	0.77	0.98	0.67	0.70	0.60	0.57	0.53	0.87	
16	0.52	1.01	0.63	0.73	0.71	0.87	0.66	0.70	0.60	0.56	0.52	0.89	
17	0.52	0.85	0.61	0.66	0.71	0.85	0.66	0.69	0.60	0.56	0.52	0.88	
18	0.51	0.81	0.61	0.62	0.75	0.80	0.66	0.68	0.60	0.56	0.52	0.89	
19	0.50	0.85	0.61	0.60	0.71	0.79	0.65	0.68	0.59	0.55	0.52	0.89	
20	0.50	0.82	0.61	0.60	0.70	0.75	0.65	0.67	0.60	0.55	0.51	0.89	
21	0.50	0.77	0.60	0.70	0.74	0.74	0.65	0.66	0.59	0.55	0.52	0.89	
22	0.51	0.67	0.60	0.64	0.77	0.72	0.68	0.66	0.59	0.55	0.52	0.89	
23	0.50	0.60	0.60	0.62	0.87	0.75	0.69	0.65	0.59	0.55	0.52	0.89	
24	0.49	0.57	0.59	0.60	0.97	0.75	0.67	0.65	0.59	0.55	0.52	0.89	
25	0.49	0.64	0.59	0.60	0.80	0.75	0.69	0.67	0.60	0.55	0.51	0.90	
26	0.49	0.63	0.59	0.60	0.76	0.72	0.65	0.82	0.62	0.55	0.51	0.89	
27	0.49	0.66	0.69	0.60	0.81	0.70	0.71	0.80	0.61	0.55	0.51	0.89	
28	0.50	0.60	0.61	0.59	0.74	0.70	0.68	0.70	0.60	0.55	0.51	0.89	
29	0.50	0.56	0.63	0.64	0.91	0.74	0.72	0.67	0.59	0.54		0.89	
30	0.50	0.63	0.61	0.62	0.76	0.75	0.69	0.65	0.58	0.54		0.89	
31		0.60		0.61	0.75		0.66		0.58	0.54		0.89	
Mean	0.51	0.64	0.64	0.61	0.74	0.83	0.69	0.73	0.61	0.58	0.53	0.75	
Max	0.58	1.01	0.99	0.79	0.97	1.12	0.84	1.05	0.65	0.82	0.61	0.90	1.12
Min	0.49	0.50	0.55	0.56	0.61	0.70	0.65	0.65	0.58	0.54	0.51	0.50	0.70

Annual Max Momentary Gage Height	2.40	m. (A.D.) ,	at 18.00 Hours , on Sep 14 , 2002		
Zero Gage at Bottom Elevation	0.00	m. (A.D.) ,	River Bed	0.16	m. (A.D.)
Left Bank Elevation	3.24	m. (A.D.) ,			
Right Bank Elevation	2.70	m. (A.D.) ,	Drainage Are	49	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.60	0.68	1.16	1.32	1.43	3.09	4.28	1.88	1.88	1.16	0.84	0.60		
2	0.60	0.52	1.00	1.24	1.43	5.28	2.70	7.66	1.77	2.22	0.84	0.60		
3	0.60	0.52	0.92	1.16	1.77	3.09	2.45	6.67	1.66	1.55	0.76	0.60		
4	0.52	0.60	0.92	1.24	1.66	3.09	2.45	5.43	1.66	1.24	0.76	0.60		
5	0.52	0.76	0.92	1.24	2.58	3.09	2.58	4.14	1.55	4.00	0.68	0.60		
6	0.52	0.84	6.52	1.24	1.88	5.90	2.96	3.21	1.55	2.11	1.43	0.60		
7	0.52	0.76	4.28	1.43	3.59	4.70	2.45	2.96	1.55	1.66	0.92	0.52		
8	0.52	0.60	2.83	1.24	2.11	4.42	2.45	2.70	1.43	1.32	0.92	0.52		
9	0.47	0.92	1.88	1.24	3.86	9.27	2.45	2.45	1.55	1.32	0.84	0.52		
10	0.47	0.92	2.96	1.24	2.96	6.05	2.34	2.45	1.55	1.24	0.84	0.17		
11	0.47	2.83	2.22	1.16	2.00	5.12	2.11	2.45	1.43	1.24	0.76	0.49		
12	0.52	1.77	1.77	1.16	2.11	5.12	2.22	2.45	1.43	1.16	0.76	1.10		
13	0.84	2.34	1.66	1.00	2.83	7.86	2.11	2.34	1.32	1.16	0.76	1.10		
14	1.16	1.24	2.22	1.00	2.83	8.45	2.11	2.45	1.32	1.08	0.76	1.14		
15	0.76	1.24	1.88	3.59	3.34	6.36	2.11	2.45	1.32	1.08	0.76	1.17		
16	0.68	6.87	1.66	2.83	2.58	4.70	2.00	2.45	1.32	1.00	0.68	1.24		
17	0.68	4.42	1.43	2.00	2.58	4.42	2.00	2.34	1.32	1.00	0.68	1.21		
18	0.60	3.86	1.43	1.55	3.09	3.72	2.00	2.22	1.32	1.00	0.68	1.24		
19	0.52	4.42	1.43	1.32	2.58	3.59	1.88	2.22	1.24	0.92	0.68	1.24		
20	0.52	4.00	1.43	1.32	2.45	3.09	1.88	2.11	1.32	0.92	0.60	1.24		
21	0.52	3.34	1.32	2.45	2.96	2.96	1.88	2.00	1.24	0.92	0.68	1.24		
22	0.60	2.11	1.32	1.77	3.34	2.70	2.22	2.00	1.24	0.92	0.68	1.24		
23	0.52	1.32	1.32	1.55	4.70	3.09	2.34	1.88	1.24	0.92	0.68	1.24		
24	0.47	1.08	1.24	1.32	6.21	3.09	2.11	1.88	1.24	0.92	0.68	1.24		
25	0.47	1.77	1.24	1.32	3.72	3.09	2.34	2.11	1.32	0.92	0.60	1.28		
26	0.47	1.66	1.24	1.32	3.21	2.70	1.88	4.00	1.55	0.92	0.60	1.24		
27	0.47	2.00	2.34	1.32	3.86	2.45	2.58	3.72	1.43	0.92	0.60	1.24		
28	0.52	1.32	1.43	1.24	2.96	2.45	2.22	2.45	1.32	0.92	0.60	1.24		
29	0.52	1.00	1.66	1.77	5.28	2.96	2.70	2.11	1.24	0.84		1.24		
30	0.52	1.66	1.43	1.55	3.21	3.09	2.34	1.88	1.16	0.84		1.24		
31		1.32		1.43	3.09		2.00		1.16	0.84		1.24		
Total	17.17	58.69	55.06	46.56	92.20	128.99	72.14	87.06	43.63	38.26	21.07	30.18	691.01	CMSDAY
Mean	0.57	1.89	1.84	1.50	2.97	4.30	2.33	2.90	1.41	1.23	0.75	0.97	1.89	CMS
Max	1.16	6.87	6.52	3.59	6.21	9.27	4.28	7.66	1.88	4.00	1.43	1.28	9.27	CMS
Min	0.47	0.52	0.92	1.00	1.43	2.45	1.88	1.88	1.16	0.84	0.60	0.17	0.17	CMS
Runoff	1.48	5.07	4.76	4.02	7.97	11.14	6.23	7.52	3.77	3.31	1.82	2.61	59.70	MCM

Momentary Peak 82.50 CMS. at 2.40 m. (A.D.) at 18.00 Hours , on Sep 14 , 2002

Runoff Yield 38.64 Liters/Second/Square KM. Momentary Peak Yield 1683.670 Liters/Second/Square KM.

WATER YEAR : 2002

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	Staff gage.
Zero Gage at Bottom	+0.000 m. (A.D.)
Bench Mark	B.M.-H.D.
Location BM	On left bank about 8 meters from the top staff gage. **Elevation** +5.118 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 mean of 5 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 because of backwater effect.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Mae Lao weir situated about 10 kilometers above gage site. Stage-discharge relation defined by 42 discharge measurements made in 2002.

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

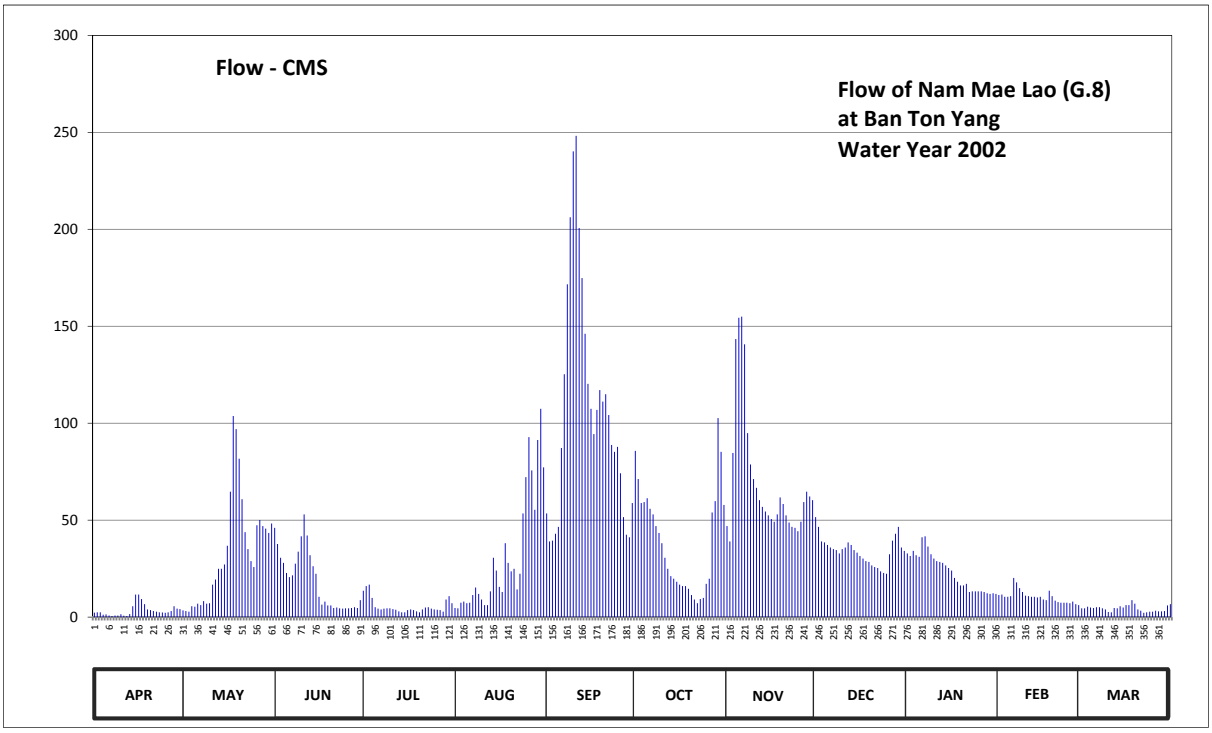
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.24	0.24	1.41	0.64	0.31	1.57	2.22	1.43	1.53	1.11	0.57	0.30	
2	0.25	0.22	1.22	0.71	0.30	1.25	1.93	1.25	1.42	1.08	0.58	0.30	
3	0.25	0.20	1.06	0.73	0.43	1.26	1.68	2.20	1.25	1.14	0.54	0.34	
4	0.16	0.35	1.00	0.52	0.45	1.34	1.69	3.30	1.24	1.09	0.54	0.32	
5	0.18	0.34	0.88	0.33	0.42	1.42	1.73	3.50	1.21	1.07	0.55	0.31	
6	0.12	0.41	0.83	0.29	0.43	2.25	1.62	3.51	1.18	1.30	0.82	0.33	
7	0.10	0.38	0.85	0.27	0.57	2.97	1.56	3.25	1.16	1.31	0.76	0.33	
8	0.12	0.46	0.99	0.29	0.69	3.78	1.43	2.40	1.15	1.19	0.68	0.30	
9	0.12	0.41	1.13	0.30	0.59	4.22	1.35	2.08	1.11	1.10	0.62	0.27	
10	0.19	0.42	1.31	0.30	0.49	4.52	1.23	1.93	1.16	1.05	0.56	0.19	
11	0.11	0.73	1.56	0.28	0.38	4.58	1.06	1.84	1.18	1.02	0.55	0.18	
12	0.10	0.80	1.32	0.26	0.38	4.16	0.93	1.71	1.24	1.01	0.54	0.31	
13	0.12	0.93	1.09	0.21	0.63	3.83	0.84	1.64	1.21	1.00	0.54	0.30	
14	0.35	0.93	0.96	0.18	1.06	3.35	0.81	1.59	1.15	0.97	0.53	0.35	
15	0.58	0.98	0.87	0.18	0.91	2.88	0.77	1.55	1.12	0.94	0.54	0.32	
16	0.58	1.20	0.54	0.25	0.70	2.64	0.73	1.51	1.08	0.91	0.49	0.38	
17	0.50	1.80	0.39	0.27	0.62	2.39	0.71	1.48	1.05	0.82	0.48	0.38	
18	0.40	2.57	0.45	0.25	1.23	2.63	0.71	1.56	1.02	0.77	0.64	0.48	
19	0.27	2.44	0.37	0.21	1.00	2.82	0.67	1.74	1.01	0.72	0.55	0.41	
20	0.25	2.14	0.37	0.18	0.90	2.71	0.57	1.67	0.97	0.72	0.47	0.27	
21	0.22	1.72	0.31	0.27	0.93	2.78	0.49	1.55	0.95	0.74	0.44	0.23	
22	0.20	1.36	0.32	0.32	0.66	2.58	0.42	1.47	0.94	0.62	0.43	0.16	
23	0.18	1.16	0.30	0.33	0.87	2.28	0.50	1.42	0.90	0.63	0.43	0.18	
24	0.17	1.02	0.29	0.29	1.57	2.21	0.52	1.41	0.88	0.63	0.43	0.20	
25	0.16	0.95	0.30	0.27	1.95	2.26	0.74	1.37	0.87	0.63	0.42	0.20	
26	0.18	1.44	0.30	0.26	2.36	1.99	0.81	1.48	1.10	0.63	0.45	0.23	
27	0.22	1.50	0.31	0.25	2.02	1.53	1.58	1.69	1.26	0.62	0.40	0.21	
28	0.35	1.43	0.33	0.20	1.61	1.33	1.70	1.80	1.34	0.60	0.38	0.21	
29	0.29	1.40	0.31	0.49	2.33	1.30	2.55	1.75	1.42	0.59		0.22	
30	0.28	1.35	0.48	0.55	2.64	1.68	2.21	1.71	1.18	0.60		0.37	
31		1.46		0.42	2.05		1.66		1.14	0.59		0.40	
Mean	0.24	1.06	0.73	0.33	1.02	2.55	1.21	1.89	1.14	0.88	0.53	0.29	
Max	0.58	2.57	1.56	0.73	2.64	4.58	2.55	3.51	1.53	1.31	0.82	0.48	4.58
Min	0.10	0.20	0.29	0.18	0.30	1.25	0.42	1.25	0.87	0.59	0.38	0.16	0.10

Annual Max Momentary Gage Height 4.73 m. (A.D.) , at 03.00 Hours , on Sep 11 , 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed -0.24 m. (A.D.)

Left Bank Elevation 5.44 m. (A.D.) ,

Right Bank Elevation 5.43 m. (A.D.) , Drainage Are 2,909 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.33	3.48	46.05	13.59	4.71	53.46	85.72	46.95	51.54	32.84	11.36	4.50		
2	2.50	3.14	37.68	15.98	4.50	39.00	71.20	39.00	46.50	31.52	11.66	4.50		
3	2.50	2.80	30.64	16.74	7.45	39.44	58.82	84.70	39.00	34.16	10.48	5.36		
4	1.21	5.57	28.00	9.89	7.98	42.96	59.31	143.40	38.56	31.96	10.48	4.93		
5	1.41	5.36	22.76	5.14	7.18	46.50	61.27	154.40	37.24	31.08	10.77	4.71		
6	0.81	6.91	20.66	4.33	7.45	87.25	55.88	154.99	35.92	41.20	20.24	5.14		
7	0.61	6.22	21.50	3.99	11.36	125.25	52.98	140.65	35.04	41.64	17.88	5.14		
8	0.81	8.24	27.56	4.33	15.27	171.62	46.95	94.90	34.60	36.36	14.93	4.50		
9	0.81	6.91	33.72	4.50	11.95	206.22	43.40	78.70	32.84	32.40	12.92	3.99		
10	1.51	7.18	41.64	4.50	9.04	240.18	38.12	71.20	35.04	30.20	11.07	2.65		
11	0.71	16.74	52.98	4.16	6.22	248.22	30.64	66.70	35.92	28.88	10.77	2.50		
12	0.61	19.40	42.08	3.82	6.22	200.68	24.92	60.29	38.56	28.44	10.48	4.71		
13	1.60	24.92	31.96	2.97	13.25	174.88	21.08	56.86	37.24	28.00	10.48	4.50		
14	5.57	24.92	26.24	2.50	30.64	146.15	19.82	54.42	34.60	26.68	10.18	5.57		
15	11.66	27.12	22.34	2.50	24.04	120.32	18.26	52.50	33.28	25.36	10.48	4.93		
16	11.66	36.80	10.48	3.65	15.60	107.42	16.74	50.58	31.52	24.04	9.04	6.22		
17	9.30	64.70	6.43	3.99	12.92	94.39	15.98	49.20	30.20	20.24	8.77	6.22		
18	6.65	103.71	7.98	3.65	38.12	106.89	15.98	52.98	28.88	18.26	13.59	8.77		
19	3.99	96.94	6.00	2.97	28.00	117.08	14.60	61.76	28.44	16.36	10.77	6.91		
20	3.65	81.70	6.00	2.50	23.60	111.14	11.36	58.33	26.68	16.36	8.51	3.99		
21	3.14	60.78	4.71	3.99	24.92	114.92	9.04	52.50	25.80	17.12	7.71	3.31		
22	2.80	43.84	4.93	4.93	14.26	104.24	7.18	48.75	25.36	12.92	7.45	2.20		
23	2.50	35.04	4.50	5.14	22.34	88.78	9.30	46.50	23.60	13.25	7.45	2.50		
24	2.35	28.88	4.33	4.33	53.46	85.21	9.89	46.05	22.76	13.25	7.45	2.80		
25	2.20	25.80	4.50	3.99	72.20	87.76	17.12	44.28	22.34	13.25	7.18	2.80		
26	2.50	47.40	4.50	3.82	92.86	74.20	19.82	49.20	32.40	13.25	7.98	3.31		
27	3.14	50.10	4.71	3.65	75.70	51.54	53.94	59.31	39.44	12.92	6.65	2.97		
28	5.57	46.95	5.14	2.80	55.39	42.52	59.80	64.70	42.96	12.25	6.22	2.97		
29	4.33	45.60	4.71	9.04	91.33	41.20	102.65	62.25	46.50	11.95		3.14		
30	4.16	43.40	8.77	10.77	107.42	58.82	85.21	60.29	35.92	12.25		6.00		
31		48.30		7.18	77.20		57.84		34.16	11.95		6.65		
Total	102.59	1028.85	573.50	175.34	972.58	3228.24	1194.82	2106.34	1062.84	720.34	292.95	138.39	11596.78	CMSDAY
Mean	3.42	33.19	19.12	5.66	31.37	107.61	38.54	70.21	34.29	23.24	10.46	4.46	31.77	CMS
Max	11.66	103.71	52.98	16.74	107.42	248.22	102.65	154.99	51.54	41.64	20.24	8.77	248.22	CMS
Min	0.61	2.80	4.33	2.50	4.50	39.00	7.18	39.00	22.34	11.95	6.22	2.20	0.61	CMS
Runoff	8.86	88.89	49.55	15.15	84.03	278.92	103.23	181.99	91.83	62.24	25.31	11.96	1001.96	MCM

Momentary Peak 271.73 CMS. at 4.73 m. (A.D.) at 03.00 Hours , on Sep 11 , 2002

Runoff Yield 10.92 Liters/Second/Square KM. Momentary Peak Yield 93.410 Liters/Second/Square KM.

WATER YEAR : 2002

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	+0.000 m. (A.D.)				
Bench Mark	B.M.-H.D.				
Location BM	On right bank about 20 meters from the top staff gage.			**Elevation**	+7.435 m. (A.D.)
Gage Reading Frequency	Recording				
Basis of Mean Daily Gage Height	Arithmetic mean 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 because of backwater effect.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records fair. Stage-discharge relation defined by 36 discharge measurements made in 2002.				

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

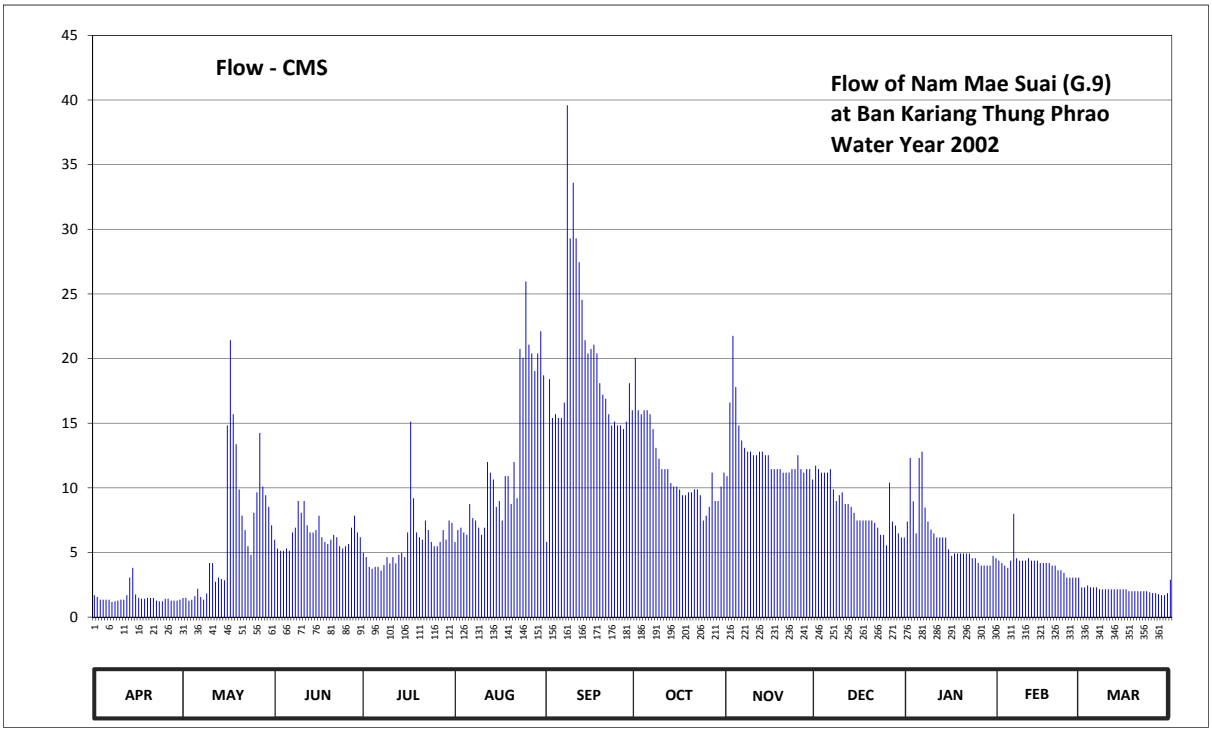
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.56	0.53	0.70	0.64	0.69	0.69	1.24	0.93	0.96	0.88	0.77	0.70	
2	0.54	0.53	0.66	0.62	0.74	1.19	1.11	1.13	0.95	0.99	0.76	0.70	
3	0.51	0.50	0.65	0.57	0.75	1.09	1.10	1.29	0.94	0.92	0.75	0.70	
4	0.51	0.51	0.65	0.56	0.73	1.10	1.11	1.17	0.94	0.85	0.74	0.69	
5	0.51	0.55	0.66	0.57	0.72	1.09	1.11	1.07	0.94	0.99	0.77	0.68	
6	0.51	0.62	0.65	0.57	0.84	1.09	1.10	1.03	0.95	1.00	0.90	0.70	
7	0.48	0.54	0.73	0.55	0.79	1.13	1.06	1.01	0.89	0.91	0.78	0.70	
8	0.49	0.51	0.75	0.58	0.78	1.76	1.01	1.00	0.85	0.88	0.77	0.69	
9	0.50	0.58	0.85	0.62	0.75	1.50	0.98	1.00	0.87	0.86	0.77	0.70	
10	0.51	0.76	0.81	0.59	0.72	1.61	0.95	0.99	0.88	0.85	0.77	0.71	
11	0.51	0.76	0.85	0.62	0.75	1.50	0.95	0.99	0.84	0.84	0.78	0.72	
12	0.56	0.67	0.76	0.59	0.97	1.45	0.95	1.00	0.84	0.84	0.77	0.71	
13	0.70	0.70	0.73	0.63	0.94	1.37	0.91	1.00	0.83	0.84	0.77	0.68	
14	0.74	0.69	0.73	0.64	0.92	1.28	0.90	0.99	0.81	0.84	0.77	0.69	
15	0.57	0.68	0.74	0.62	0.83	1.25	0.90	0.99	0.78	0.81	0.76	0.76	
16	0.53	1.07	0.80	0.73	0.85	1.26	0.89	0.95	0.78	0.79	0.76	0.71	
17	0.52	1.28	0.71	1.08	0.78	1.27	0.87	0.95	0.78	0.80	0.76	0.69	
18	0.52	1.10	0.69	0.86	0.93	1.25	0.87	0.95	0.78	0.80	0.76	0.68	
19	0.53	1.02	0.68	0.73	0.93	1.18	0.88	0.95	0.78	0.80	0.75	0.68	
20	0.53	0.89	0.70	0.71	0.84	1.15	0.88	0.94	0.78	0.80	0.75	0.66	
21	0.53	0.80	0.72	0.70	0.97	1.14	0.89	0.94	0.77	0.80	0.73	0.69	
22	0.50	0.74	0.71	0.78	0.86	1.10	0.89	0.94	0.75	0.80	0.73	0.69	
23	0.49	0.67	0.67	0.74	1.26	1.07	0.87	0.95	0.72	0.78	0.72	0.71	
24	0.49	0.63	0.66	0.69	1.24	1.08	0.78	0.95	0.72	0.78	0.70	0.70	
25	0.52	0.81	0.67	0.67	1.41	1.07	0.80	0.99	0.82	0.76	0.70	0.74	
26	0.52	0.88	0.68	0.67	1.27	1.07	0.83	0.95	0.95	0.75	0.70	0.77	
27	0.50	1.05	0.75	0.69	1.25	1.06	0.94	0.94	0.88	0.75	0.70	0.71	
28	0.50	0.90	0.80	0.74	1.21	1.08	0.85	0.95	0.87	0.75	0.70	0.71	
29	0.50	0.87	0.73	0.70	1.25	1.18	0.85	0.95	0.85	0.75		0.74	
30	0.51	0.83	0.71	0.78	1.30	1.11	0.90	0.92	0.84	0.79		0.78	
31		0.76		0.77	1.20		0.94		0.84	0.78		0.75	
Mean	0.53	0.76	0.72	0.68	0.95	1.21	0.95	0.99	0.84	0.83	0.75	0.71	
Max	0.74	1.28	0.85	1.08	1.41	1.76	1.24	1.29	0.96	1.00	0.90	0.78	1.76
Min	0.48	0.50	0.65	0.55	0.69	0.69	0.78	0.92	0.72	0.75	0.70	0.66	0.92

Annual Max Momentary Gage Height 2.30 m. (A.D.) , at 02.00 Hours , on Sep 8 , 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed -0.11 m. (A.D.)

Left Bank Elevation 6.92 m. (A.D.) ,

Right Bank Elevation 6.93 m. (A.D.) , Drainage Are 386 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.69	1.49	5.99	4.98	5.82	5.82	20.06	10.91	11.72	7.39	4.37	2.30		
2	1.56	1.49	5.31	4.64	6.73	18.40	16.00	16.60	11.45	12.32	4.18	2.30		
3	1.35	1.28	5.14	3.88	6.92	15.41	15.70	21.76	11.18	8.96	3.99	2.45		
4	1.35	1.35	5.14	3.74	6.55	15.70	16.00	17.80	11.18	6.47	3.81	2.30		
5	1.35	1.62	5.31	3.88	6.36	15.41	16.00	14.83	11.18	12.32	4.37	2.30		
6	1.35	2.19	5.14	3.88	8.75	15.41	15.70	13.67	11.45	12.80	8.00	2.30		
7	1.17	1.56	6.55	3.60	7.66	16.60	14.54	13.09	9.88	8.48	4.56	2.15		
8	1.23	1.35	6.92	4.02	7.48	39.60	13.09	12.80	8.98	7.39	4.37	2.15		
9	1.28	1.83	8.98	4.64	6.92	29.30	12.26	12.80	9.43	6.77	4.37	2.15		
10	1.35	4.18	8.07	4.16	6.36	33.60	11.45	12.53	9.65	6.47	4.37	2.15		
11	1.35	4.18	8.98	4.64	6.92	29.30	11.45	12.53	8.75	6.16	4.56	2.15		
12	1.69	2.73	7.11	4.16	11.99	27.45	11.45	12.80	8.75	6.16	4.37	2.15		
13	3.06	3.06	6.55	4.81	11.18	24.55	10.37	12.80	8.53	6.16	4.37	2.15		
14	3.81	2.95	6.55	4.98	10.64	21.42	10.10	12.53	8.07	6.16	4.37	2.15		
15	1.76	2.84	6.73	4.64	8.53	20.40	10.10	12.53	7.48	5.24	4.18	2.15		
16	1.49	14.83	7.85	6.55	8.98	20.74	9.88	11.45	7.48	4.74	4.18	2.15		
17	1.42	21.42	6.18	15.12	7.48	21.08	9.43	11.45	7.48	4.93	4.18	2.00		
18	1.42	15.70	5.82	9.20	10.91	20.40	9.43	11.45	7.48	4.93	4.18	2.00		
19	1.49	13.38	5.65	6.55	10.91	18.10	9.65	11.45	7.48	4.93	3.99	2.00		
20	1.49	9.88	5.99	6.18	8.75	17.20	9.65	11.18	7.48	4.93	3.99	2.00		
21	1.49	7.85	6.36	5.99	11.99	16.90	9.88	11.18	7.29	4.93	3.62	2.00		
22	1.28	6.73	6.18	7.48	9.20	15.70	9.88	11.18	6.92	4.93	3.62	2.00		
23	1.23	5.48	5.48	6.73	20.74	14.83	9.43	11.45	6.36	4.56	3.43	2.00		
24	1.23	4.81	5.31	5.82	20.06	15.12	7.48	11.45	6.36	4.56	3.06	1.92		
25	1.42	8.07	5.48	5.48	25.97	14.83	7.85	12.53	5.54	4.18	3.06	1.85		
26	1.42	9.65	5.65	5.48	21.08	14.83	8.53	11.45	10.40	3.99	3.06	1.85		
27	1.28	14.25	6.92	5.82	20.40	14.54	11.18	11.18	7.39	3.99	3.06	1.77		
28	1.28	10.10	7.85	6.73	19.04	15.12	8.98	11.45	7.08	3.99	3.06	1.70		
29	1.28	9.43	6.55	5.99	20.40	18.10	8.98	11.45	6.47	3.99		1.70		
30	1.35	8.53	6.18	7.48	22.10	16.00	10.10	10.64	6.16	4.74		1.85		
31		7.11		7.29	18.70		11.18		6.16	4.56		2.90		
Total	45.92	201.32	191.92	178.54	375.52	581.86	355.78	380.92	261.21	192.13	114.73	100.75	2980.60	CMSDAY
Mean	1.53	6.49	6.40	5.76	12.11	19.40	11.48	12.70	8.43	6.20	4.10	3.25	8.17	CMS
Max	3.81	21.42	8.98	15.12	25.97	39.60	20.06	21.76	11.72	12.80	8.00	4.56	39.60	CMS
Min	1.17	1.28	5.14	3.60	5.82	5.82	7.48	10.64	5.54	3.99	3.06	2.62	1.17	CMS
Runoff	3.97	17.39	16.58	15.43	32.44	50.27	30.74	32.91	22.57	16.60	9.91	8.70	257.52	MCM

Momentary Peak 63.00 CMS. at 2.30 m. (A.D.) at 02.00 Hours , on Sep 8 , 2002

Runoff Yield 21.16 Liters/Second/Square KM. Momentary Peak Yield 163.210 Liters/Second/Square KM.

WATER YEAR : 2002

CHI RIVER BASIN

Chi River at Ban Kum Wat Tai Kosum, Maha Sarakham (E.1)

Lat 16 - 15 - 00 N Long 103 - 24 - 09 E

Location : on right bank at Wat Tai Kosum about 800 meters north - east of Amphoe Kosum Phisai ,Tambon Mae Lay.

Ban Kum Wat Tai Kosum **Amphoe** Kosum Phisai **Changwat** Maha Sarakham

Drainge Area	29,438 sq.km.
Type of Gage	Staff gage.
Zero Gage at Bottom	+136.640 m. (MSL.)
Bench Mark	B.M.- Highways dept.
Location BM	On right at the footpath of the bridge. **Elevation** +149.341 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 mean of 3 readings
Period of Available Gage Records	1936 - 1943, 1951 to date.
Rating Operation	
Period of Rating	1965 - 1973, 1981 to date.
Rated by Flot	-
Rated by Current Meter	1965 - 1973, 1981 to date.
Stability of Channel Regimes	Fairly stable because of backwater effect.
Overbank Flow Conditions	Overbank flow starts at elevation +147.320 m.(M.S.L.) and is including overbank flow.
General Description	Records good. Flow regulated by Maha Sarakham Barrage above gage site. Stage-discharge relation defined by 45 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

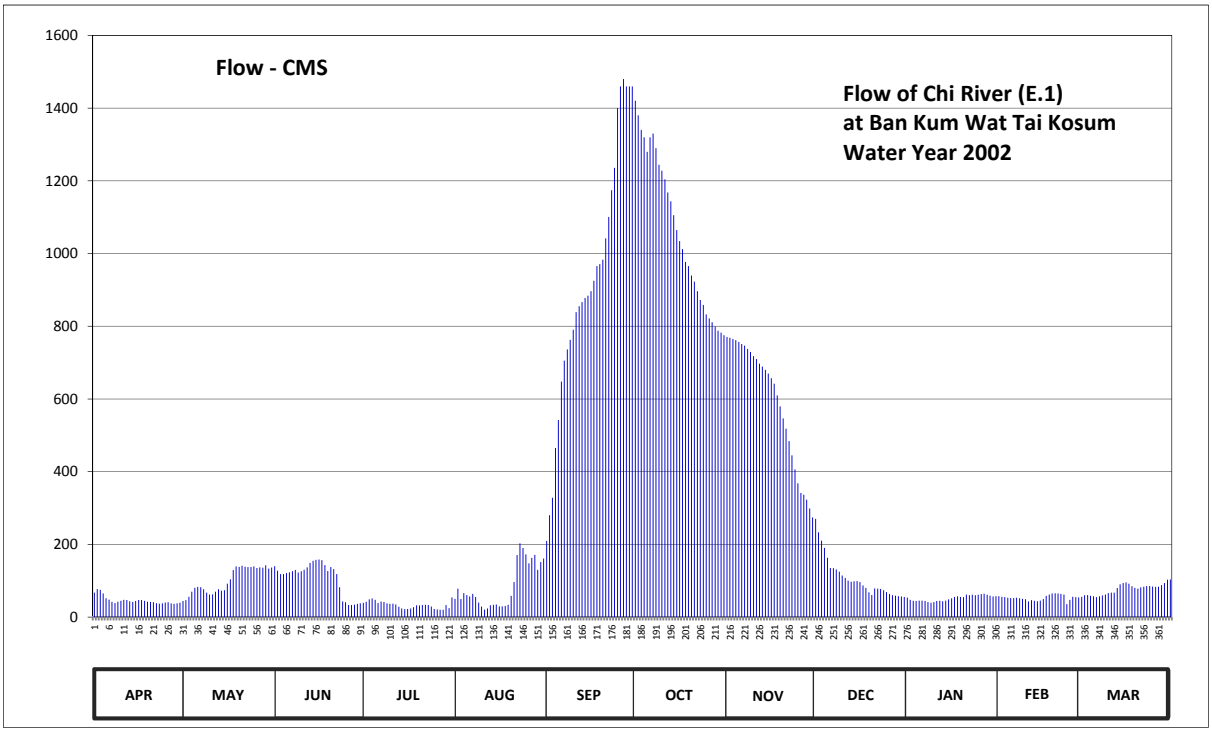
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	138.04	137.64	139.25	137.53	137.75	140.34	147.73	145.92	141.10	137.81	137.88	137.85	
2	138.20	137.68	139.04	137.60	138.22	141.22	147.71	145.90	140.64	137.70	137.85	137.92	
3	138.16	137.85	138.89	137.72	137.74	141.77	147.68	145.87	140.35	137.65	137.83	137.93	
4	138.00	138.08	138.89	137.77	138.02	143.17	147.66	145.84	140.08	137.64	137.80	137.89	
5	137.78	138.26	138.93	137.70	137.93	143.91	147.62	145.80	139.64	137.66	137.79	137.87	
6	137.71	138.30	138.97	137.52	137.86	144.85	147.66	145.75	139.17	137.66	137.79	137.83	
7	137.59	138.29	139.02	137.61	137.98	145.35	147.67	145.71	139.16	137.64	137.80	137.87	
8	137.52	138.19	139.08	137.59	137.84	145.62	147.63	145.63	139.10	137.58	137.78	137.91	
9	137.60	138.04	138.96	137.49	137.55	145.85	147.58	145.56	139.00	137.54	137.75	137.95	
10	137.65	137.95	139.02	137.46	137.28	146.08	147.56	145.46	138.82	137.58	137.73	138.02	
11	137.70	137.96	139.09	137.47	137.07	146.40	147.53	145.39	138.71	137.64	137.62	138.04	
12	137.69	138.08	139.20	137.42	137.14	146.50	147.48	145.28	138.59	137.65	137.68	138.04	
13	137.63	138.19	139.40	137.26	137.36	146.56	147.44	145.21	138.54	137.63	137.65	138.25	
14	137.59	138.13	139.50	137.14	137.40	146.62	147.37	145.13	138.56	137.66	137.63	138.42	
15	137.64	138.15	139.54	137.10	137.42	146.65	147.28	145.04	138.57	137.72	137.66	138.48	
16	137.69	138.45	139.56	137.11	137.29	146.71	147.20	144.93	138.52	137.78	137.74	138.51	
17	137.69	138.65	139.53	137.14	137.29	146.83	147.14	144.80	138.37	137.84	137.89	138.45	
18	137.65	139.07	139.30	137.23	137.32	146.99	147.03	144.52	138.26	137.87	137.95	138.33	
19	137.60	139.24	139.03	137.36	137.40	147.01	146.99	144.25	138.05	137.84	138.00	138.26	
20	137.59	139.22	139.21	137.35	137.89	147.05	146.89	143.95	137.93	137.83	138.01	138.22	
21	137.57	139.27	139.12	137.39	138.52	147.22	146.82	143.69	138.23	137.95	138.00	138.28	
22	137.51	139.23	138.89	137.40	139.76	147.36	146.71	143.36	138.22	137.92	137.98	138.31	
23	137.47	139.21	138.29	137.38	140.25	147.49	146.59	142.97	138.21	137.94	137.95	138.34	
24	137.49	139.21	137.62	137.27	140.07	147.57	146.52	142.58	138.15	137.92	137.44	138.35	
25	137.55	139.24	137.57	137.11	139.79	147.72	146.36	142.19	138.06	137.94	137.70	138.32	
26	137.57	139.17	137.39	137.08	139.38	147.75	146.29	141.91	137.98	137.97	137.85	138.30	
27	137.50	139.20	137.38	137.05	139.63	147.76	146.22	141.86	137.92	137.99	137.83	138.31	
28	137.46	139.18	137.41	137.06	139.77	147.75	146.14	141.71	137.90	137.94	137.82	138.38	
29	137.49	139.29	137.46	137.37	139.08	147.75	146.06	141.44	137.88	137.90		138.48	
30	137.54	139.14	137.49	137.17	139.44	147.75	146.02	141.15	137.86	137.86		138.63	
31		139.19		137.82	139.60		145.96		137.84	137.88		138.64	
Mean	137.66	138.60	138.73	137.38	138.29	146.05	147.05	144.29	138.69	137.78	137.80	138.21	
Max	138.20	139.29	139.56	137.82	140.25	147.76	147.73	145.92	141.10	137.99	138.01	138.64	147.76
Min	137.46	137.64	137.38	137.05	137.07	140.34	145.96	141.15	137.84	137.54	137.44	137.83	137.05

Annual Max Momentary Gage Height 147.76 m. (MSL.) , at 18.00 Hours, on Sep 26, 2002

Zero Gage at Bottom Elevation 136.64 m. (MSL.) , River Bed 132.63 m. (MSL.)

Left Bank Elevation 147.31 m. (MSL.) ,

Right Bank Elevation 149.37 m. (MSL.) , Drainage Are 29,438 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	67.40	44.20	140.00	39.20	50.25	209.50	1420.00	770.80	270.00	53.60	57.80	56.00		
2	77.00	46.40	127.40	42.00	78.20	280.20	1380.00	768.50	233.20	47.50	56.00	60.20		
3	74.60	56.00	118.40	48.60	49.70	328.30	1340.00	765.05	210.25	44.75	54.80	60.80		
4	65.00	69.80	118.40	51.35	66.20	465.00	1320.00	761.60	190.60	44.20	53.00	58.40		
5	51.90	80.60	120.80	47.50	60.80	542.10	1280.00	757.00	163.40	45.30	52.45	57.20		
6	48.05	83.00	123.20	38.80	56.60	647.75	1320.00	751.25	135.20	45.30	52.45	54.80		
7	41.60	82.40	126.20	42.55	63.80	705.25	1330.00	746.65	134.60	44.20	53.00	57.20		
8	38.80	76.40	129.80	41.60	55.40	736.30	1290.00	737.45	131.00	41.20	51.90	59.60		
9	42.00	67.40	122.60	37.60	40.00	762.75	1244.00	729.40	125.00	39.60	50.25	62.00		
10	44.75	62.00	126.20	36.40	29.20	790.40	1228.00	717.90	114.20	41.20	49.15	66.20		
11	47.50	62.60	130.40	36.80	20.80	839.00	1204.00	709.85	107.60	44.20	43.10	67.40		
12	46.95	69.80	137.00	34.80	23.60	855.00	1168.00	697.20	100.40	44.75	46.40	67.40		
13	43.65	76.40	149.00	28.40	32.40	866.40	1144.00	689.15	97.40	43.65	44.75	80.00		
14	41.60	72.80	155.00	23.60	34.00	878.00	1105.60	679.95	98.60	45.30	43.65	90.20		
15	44.20	74.00	157.40	22.00	34.80	884.00	1064.40	669.60	99.20	48.60	45.30	93.80		
16	46.95	92.00	158.60	22.40	29.60	896.40	1034.00	656.95	96.20	51.90	49.70	95.60		
17	46.95	104.00	156.80	23.60	29.60	925.20	1012.40	642.00	87.20	55.40	58.40	92.00		
18	44.75	129.20	143.00	27.20	30.80	965.40	977.00	609.80	80.60	57.20	62.00	84.80		
19	42.00	139.40	126.80	32.40	34.00	971.00	965.40	579.50	68.00	55.40	65.00	80.60		
20	41.60	138.20	137.60	32.00	58.40	983.00	939.60	546.50	60.80	54.80	65.60	78.20		
21	40.80	141.20	132.20	33.60	96.20	1041.60	922.80	518.45	78.80	62.00	65.00	81.80		
22	38.40	138.80	118.40	34.00	170.60	1100.80	896.40	484.00	78.20	60.20	63.80	83.60		
23	36.80	137.60	82.40	33.20	202.75	1174.00	872.10	445.00	77.60	61.40	62.00	85.40		
24	37.60	137.60	43.10	28.80	189.90	1236.00	858.80	406.00	74.00	60.20	35.60	86.00		
25	40.00	139.40	40.80	22.40	172.40	1400.00	832.60	368.05	68.60	61.40	47.50	84.20		
26	40.80	135.20	33.60	21.20	147.80	1460.00	821.50	341.45	63.80	63.20	56.00	83.00		
27	38.00	137.00	33.20	20.00	162.80	1480.00	811.00	336.70	60.20	64.40	54.80	83.60		
28	36.40	135.80	34.40	20.40	171.20	1460.00	799.00	322.90	59.00	61.40	54.20	87.80		
29	37.60	142.40	36.40	32.80	129.80	1460.00	787.80	298.90	57.80	59.00		93.80		
30	39.60	133.40	37.60	24.80	151.40	1460.00	782.60	274.25	56.60	56.60		102.80		
31		136.40		54.20	161.00		775.40		55.40	57.80		103.40		
Total	1383.25	3141.40	3296.70	1034.20	2634.00	27803.35	32926.40	17781.80	3333.45	1615.65	1493.60	2397.80	98841.60	CMSDAY
Mean	46.11	101.34	109.89	33.36	84.97	926.78	1062.14	592.73	107.53	52.12	53.34	77.35	270.80	CMS
Max	77.00	142.40	158.60	54.20	202.75	1480.00	1420.00	770.80	270.00	64.40	65.60	103.40	1480.00	CMS
Min	36.40	44.20	33.20	20.00	20.80	209.50	775.40	274.25	55.40	39.60	35.60	54.80	20.00	CMS
Runoff	119.51	271.42	284.83	89.35	227.58	2402.21	2844.84	1536.35	288.01	139.59	129.05	207.17	8539.91	MCM

Momentary Peak 1479.99 CMS, at 147.76 m. (MSL.), at 18.00 Hours, on Sep 26, 2002

Runoff Yield 9.20 Liters/Second/Square KM. Momentary Peak Yield 50.270 Liters/Second/Square KM.

WATER YEAR : 2002

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** +197.540 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean 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	Fairly stable because of backwater effect.
Overbank Flow Conditions	Overbank flow starts at elevation +197.100 m.(M.S.L.) and is including overbank flow.
General Description	Records good. The local weir situated about 100 meters downstream from the gage site. Stage-discharge relation defined by 50 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

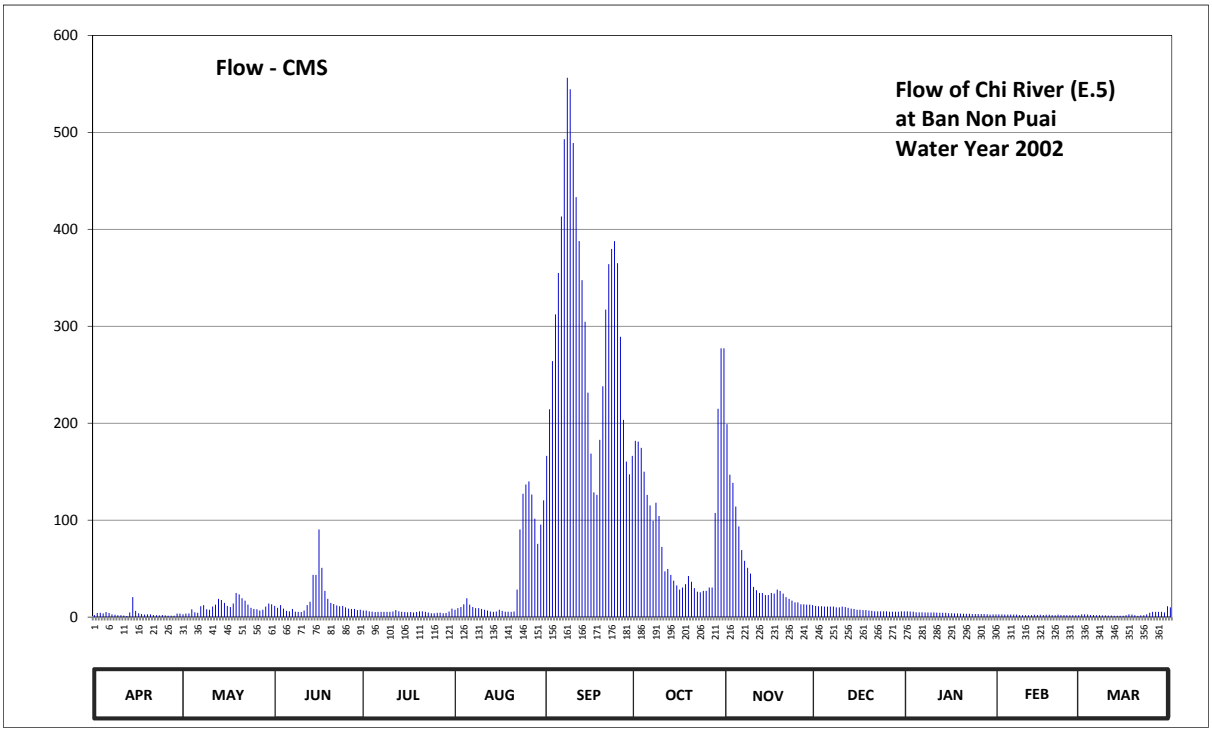
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	189.91	189.95	190.24	190.12	190.14	193.05	193.39	193.76	190.24	190.10	189.94	189.94	
2	190.01	189.98	190.19	190.12	190.18	194.08	193.37	192.57	190.23	190.09	189.94	189.94	
3	190.02	189.99	190.26	190.10	190.21	195.00	193.23	192.36	190.23	190.08	189.93	189.93	
4	189.99	190.15	190.17	190.08	190.28	195.69	192.65	191.75	190.22	190.05	189.93	189.91	
5	190.06	190.05	190.11	190.06	190.39	196.23	192.05	191.15	190.22	190.05	189.93	189.91	
6	190.01	190.02	190.10	190.07	190.27	196.73	191.78	190.87	190.22	190.05	189.93	189.90	
7	189.94	190.23	190.16	190.07	190.21	197.18	191.34	190.80	190.22	190.04	189.93	189.89	
8	189.92	190.26	190.08	190.07	190.18	197.46	191.85	190.74	190.20	190.04	189.91	189.88	
9	189.90	190.15	190.07	190.07	190.18	197.41	191.48	190.69	190.20	190.04	189.90	189.88	
10	189.90	190.14	190.06	190.07	190.16	197.16	190.89	190.56	190.22	190.04	189.90	189.86	
11	189.86	190.22	190.12	190.09	190.14	196.86	190.71	190.51	190.21	190.03	189.90	189.86	
12	189.82	190.27	190.26	190.13	190.12	196.54	190.73	190.47	190.19	190.02	189.90	189.84	
13	190.04	190.38	190.33	190.10	190.09	196.15	190.68	190.47	190.17	190.02	189.92	189.85	
14	190.41	190.36	190.68	190.07	190.07	195.58	190.63	190.44	190.16	190.02	189.91	189.85	
15	190.11	190.31	190.68	190.06	190.09	194.40	190.58	190.44	190.14	190.00	189.92	189.85	
16	190.00	190.24	191.02	190.05	190.14	193.10	190.52	190.47	190.14	190.00	189.91	189.89	
17	189.96	190.21	190.74	190.06	190.11	192.12	190.55	190.46	190.13	189.99	189.92	189.94	
18	189.93	190.30	190.50	190.04	190.08	192.05	190.60	190.52	190.13	189.99	189.92	189.93	
19	189.94	190.47	190.38	190.06	190.08	193.41	190.67	190.50	190.12	189.98	189.91	189.89	
20	189.94	190.45	190.31	190.10	190.07	194.52	190.62	190.46	190.11	189.97	189.90	189.83	
21	189.91	190.39	190.29	190.10	190.09	195.76	190.54	190.41	190.10	189.97	189.93	189.88	
22	189.89	190.35	190.25	190.07	190.52	196.32	190.49	190.38	190.10	189.97	189.91	189.89	
23	189.88	190.27	190.23	190.04	191.02	196.47	190.48	190.35	190.10	189.96	189.91	189.94	
24	189.91	190.19	190.24	190.00	192.08	196.54	190.50	190.32	190.10	189.96	189.90	190.02	
25	189.88	190.16	190.20	190.00	192.32	196.33	190.50	190.32	190.10	189.96	189.90	190.07	
26	189.84	190.15	190.17	190.02	192.40	195.36	190.55	190.28	190.08	189.96	189.90	190.07	
27	189.84	190.12	190.16	190.03	192.06	193.86	190.55	190.28	190.08	189.96	189.90	190.07	
28	189.85	190.14	190.16	190.00	191.40	192.91	191.57	190.27	190.08	189.95	189.89	190.07	
29	189.98	190.22	190.13	190.01	190.91	192.58	194.09	190.27	190.08	189.93		190.04	
30	189.98	190.30	190.14	190.09	191.21	193.05	195.19	190.26	190.10	189.94		190.23	
31		190.28		190.17	191.91		195.19		190.10	189.94		190.20	
Mean	189.95	190.22	190.28	190.07	190.62	195.13	191.55	190.77	190.15	190.00	189.91	189.94	
Max	190.41	190.47	191.02	190.17	192.40	197.46	195.19	193.76	190.24	190.10	189.94	190.23	197.46
Min	189.82	189.95	190.06	190.00	190.07	192.05	190.48	190.26	190.08	189.93	189.89	189.83	189.82

Annual Max Momentary Gage Height 197.48 m. (MSL.) , at 18.00 Hours, on Sep 8, 2002

Zero Gage at Bottom Elevation 186.07 m. (MSL.) , River Bed 186.60 m. (MSL.)

Left Bank Elevation 197.01 m. (MSL.) ,

Right Bank Elevation 197.69 m. (MSL.) , Drainage Are 4,207 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.20	3.00	11.60	6.80	7.60	166.30	181.94	198.96	11.60	6.00	2.80	2.80		
2	4.20	3.60	9.60	6.80	9.20	214.32	181.02	146.80	11.20	5.80	2.80	2.80		
3	4.40	3.80	12.40	6.00	10.40	264.00	174.58	138.40	11.20	5.60	2.60	2.60		
4	3.80	8.00	8.80	5.60	13.20	312.30	150.00	114.00	10.80	5.00	2.60	2.20		
5	5.20	5.00	6.40	5.20	19.40	355.00	126.00	93.50	10.80	5.00	2.60	2.20		
6	4.20	4.40	6.00	5.40	12.80	413.20	115.20	69.20	10.80	5.00	2.60	2.00		
7	2.80	11.20	8.40	5.40	10.40	493.00	99.40	58.00	10.80	4.80	2.60	1.90		
8	2.40	12.40	5.60	5.40	9.20	556.40	118.00	50.80	10.00	4.80	2.20	1.80		
9	2.00	8.00	5.40	5.40	9.20	544.40	104.30	44.80	10.00	4.80	2.00	1.80		
10	2.00	7.60	5.20	5.40	8.40	489.00	72.40	31.20	10.80	4.80	2.00	1.60		
11	1.60	10.80	6.80	5.80	7.60	433.20	47.20	27.70	10.40	4.60	2.00	1.60		
12	1.20	12.80	12.40	7.20	6.80	387.80	49.60	24.90	9.60	4.40	2.00	1.40		
13	4.80	18.80	15.80	6.00	5.80	347.50	43.60	24.90	8.80	4.40	2.40	1.50		
14	20.70	17.60	43.60	5.40	5.40	304.60	37.60	22.80	8.40	4.40	2.20	1.50		
15	6.40	14.60	43.60	5.20	5.80	231.60	32.60	22.80	7.60	4.00	2.40	1.50		
16	4.00	11.60	90.40	5.00	7.60	168.60	28.40	24.90	7.60	4.00	2.20	1.90		
17	3.20	10.40	50.80	5.20	6.40	128.80	30.50	24.20	7.20	3.80	2.40	2.80		
18	2.60	14.00	27.00	4.80	5.60	126.00	34.00	28.40	7.20	3.80	2.40	2.60		
19	2.80	24.90	18.80	5.20	5.60	182.86	42.40	27.00	6.80	3.60	2.20	1.90		
20	2.80	23.50	14.60	6.00	5.40	238.08	36.40	24.20	6.40	3.40	2.00	1.30		
21	2.20	19.40	13.60	6.00	5.80	317.20	29.80	20.70	6.00	3.40	2.60	1.80		
22	1.90	17.00	12.00	5.40	28.40	364.00	26.30	18.80	6.00	3.40	2.20	1.90		
23	1.80	12.80	11.20	4.80	90.40	379.70	25.60	17.00	6.00	3.20	2.20	2.80		
24	2.20	9.60	11.60	4.00	127.20	387.80	27.00	15.20	6.00	3.20	2.00	4.40		
25	1.80	8.40	10.00	4.00	136.80	365.00	27.00	15.20	6.00	3.20	2.00	5.40		
26	1.40	8.00	8.80	4.40	140.00	289.20	30.50	13.20	5.60	3.20	2.00	5.40		
27	1.40	6.80	8.40	4.60	126.40	203.56	30.50	13.20	5.60	3.20	2.00	5.40		
28	1.50	7.60	8.40	4.00	101.50	160.40	107.45	12.80	5.60	3.00	1.90	5.40		
29	3.60	10.80	7.20	4.20	75.60	147.20	214.86	12.80	5.60	2.60		4.80		
30	3.60	14.00	7.60	5.80	95.30	166.30	277.30	12.40	6.00	2.80		11.20		
31		13.20		8.80	120.40		277.30		6.00	2.80		10.00		
Total	104.70	353.60	502.00	169.20	1219.60	9137.32	2778.75	1348.76	252.40	126.00	63.90	98.20	16154.43	CMSDAY
Mean	3.49	11.41	16.73	5.46	39.34	304.58	89.64	44.96	8.14	4.06	2.28	3.17	44.26	CMS
Max	20.70	24.90	90.40	8.80	140.00	556.40	277.30	198.96	11.60	6.00	2.80	11.20	556.40	CMS
Min	1.20	3.00	5.20	4.00	5.40	126.00	25.60	12.40	5.60	2.60	1.90	1.30	1.20	CMS
Runoff	9.05	30.55	43.37	14.62	105.37	789.46	240.08	116.53	21.81	10.89	5.52	8.48	1395.74	MCM

Momentary Peak 561.20 CMS, at 197.48 m. (MSL.), at 18.00 Hours, on Sep 8, 2002

Runoff Yield 10.52 Liters/Second/Square KM. Momentary Peak Yield 133.400 Liters/Second/Square KM.

WATER YEAR : 2002

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** +199.546 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 mean 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 because of backwater effect.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Lam Pa Thao Dam situated about 5 kilometers and the weir situated about 2 kilometers upstream from the gage site.Stage-discharge relation defined by 51 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

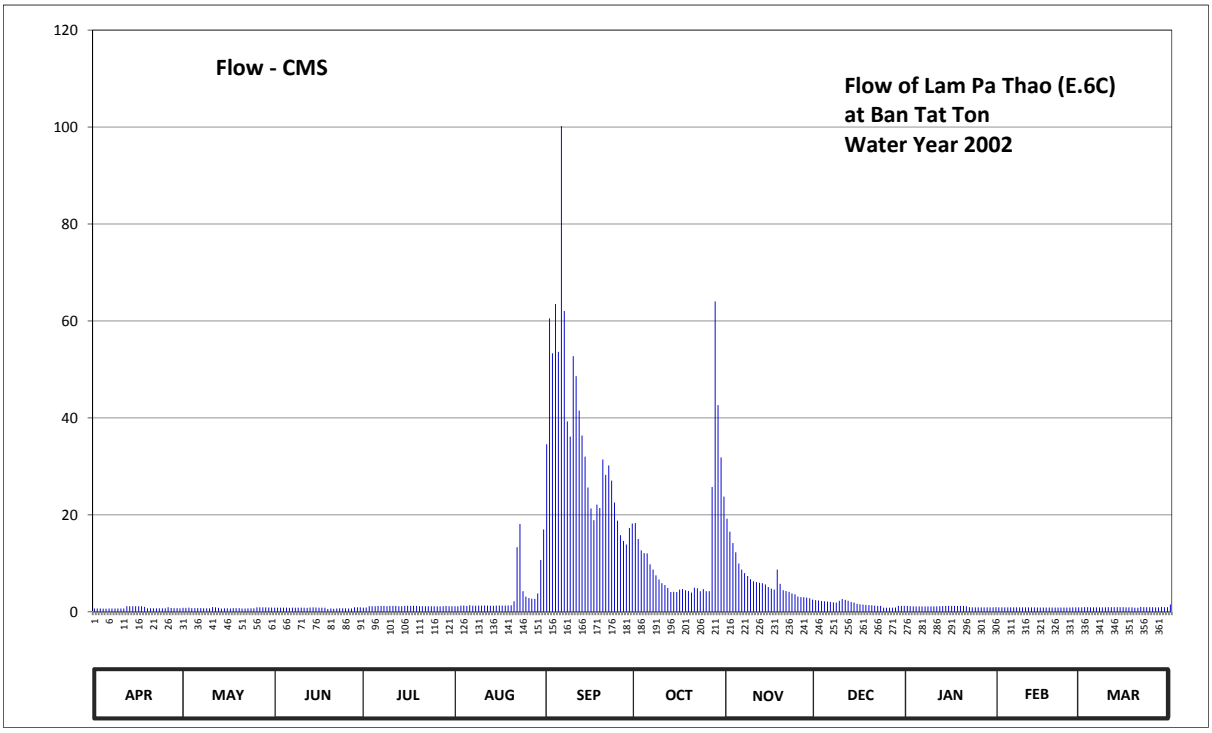
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	192.64	192.71	192.73	192.73	192.87	196.97	195.63	195.72	193.26	192.88	192.77	192.76	
2	192.64	192.71	192.72	192.74	192.87	197.91	195.25	195.44	193.24	192.86	192.77	192.78	
3	192.64	192.72	192.72	192.88	192.94	197.74	194.96	195.15	193.21	192.85	192.77	192.78	
4	192.63	192.68	192.72	192.88	192.94	197.97	194.89	194.91	193.19	192.85	192.77	192.77	
5	192.63	192.67	192.72	192.88	192.91	197.75	194.88	194.62	193.17	192.85	192.77	192.77	
6	192.64	192.67	192.71	192.91	192.97	198.44	194.60	194.45	193.15	192.85	192.77	192.77	
7	192.64	192.67	192.72	192.90	192.92	197.94	194.45	194.33	193.13	192.85	192.77	192.77	
8	192.64	192.66	192.72	192.90	192.92	197.19	194.25	194.23	193.12	192.85	192.77	192.77	
9	192.64	192.66	192.72	192.88	192.94	197.05	194.11	194.12	193.22	192.85	192.77	192.77	
10	192.64	192.65	192.72	192.90	192.94	197.72	193.98	194.05	193.32	192.84	192.76	192.78	
11	192.64	192.79	192.72	192.90	192.94	197.58	193.91	194.02	193.28	192.84	192.77	192.78	
12	192.88	192.76	192.71	192.90	192.94	197.29	193.80	194.00	193.22	192.86	192.77	192.78	
13	192.88	192.70	192.74	192.88	192.93	197.06	193.65	193.98	193.14	192.87	192.76	192.78	
14	192.88	192.63	192.75	192.88	192.93	196.80	193.66	193.93	193.12	192.89	192.75	192.78	
15	192.88	192.65	192.74	192.90	192.94	196.33	193.65	193.84	193.04	192.89	192.75	192.78	
16	192.88	192.66	192.73	192.93	192.94	195.93	193.74	193.78	193.01	192.89	192.75	192.77	
17	192.88	192.64	192.73	192.91	192.94	195.69	193.76	193.74	192.99	192.88	192.75	192.76	
18	192.80	192.67	192.73	192.92	192.94	196.01	193.72	194.45	192.97	192.88	192.75	192.76	
19	192.65	192.68	192.60	192.90	192.95	195.94	193.69	193.96	192.95	192.88	192.75	192.74	
20	192.65	192.68	192.64	192.88	192.97	196.76	193.63	193.72	192.93	192.88	192.75	192.74	
21	192.66	192.64	192.61	192.88	193.19	196.55	193.81	193.69	192.91	192.86	192.75	192.81	
22	192.66	192.64	192.64	192.88	195.04	196.68	193.79	193.66	192.89	192.78	192.75	192.78	
23	192.66	192.66	192.65	192.88	195.61	196.46	193.68	193.60	192.88	192.77	192.75	192.78	
24	192.66	192.66	192.66	192.88	193.68	196.05	193.76	193.57	192.74	192.76	192.75	192.78	
25	192.65	192.66	192.65	192.88	193.47	195.68	193.68	193.46	192.74	192.76	192.75	192.78	
26	192.78	192.76	192.64	192.86	193.38	195.35	193.68	193.44	192.74	192.76	192.77	192.76	
27	192.69	192.76	192.64	192.86	193.34	195.20	196.34	193.43	192.74	192.76	192.77	192.76	
28	192.67	192.76	192.76	192.87	193.33	195.11	197.98	193.41	192.75	192.76	192.77	192.80	
29	192.67	192.75	192.75	192.91	193.60	195.53	197.34	193.37	192.90	192.76		192.78	
30	192.66	192.74	192.75	192.87	194.71	195.62	196.79	193.29	192.88	192.77		192.78	
31		192.74		192.87	195.50		196.16		192.88	192.78		193.00	
Mean	192.71	192.69	192.70	192.88	193.34	196.68	194.56	194.05	193.02	192.83	192.76	192.78	
Max	192.88	192.79	192.76	192.93	195.61	198.44	197.98	195.72	193.32	192.89	192.77	193.00	198.44
Min	192.63	192.63	192.60	192.73	192.87	195.11	193.63	193.29	192.74	192.76	192.75	192.74	192.60

Annual Max Momentary Gage Height 198.60 m. (MSL.) , at 12.00 Hours, on Sep 6, 2002

Zero Gage at Bottom Elevation 192.70 m. (MSL.) , River Bed 192.34 m. (MSL.)

Left Bank Elevation 200.06 m. (MSL.) ,

Right Bank Elevation 199.47 m. (MSL.) , Drainage Are 378 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.68	0.82	0.86	0.86	1.14	34.55	18.30	19.20	2.41	1.20	0.93	0.90		
2	0.68	0.82	0.84	0.88	1.14	60.54	15.00	16.52	2.34	1.15	0.93	0.95		
3	0.68	0.84	0.84	1.16	1.28	53.33	12.68	14.20	2.24	1.12	0.93	0.95		
4	0.66	0.76	0.84	1.16	1.28	63.51	12.12	12.28	2.16	1.12	0.93	0.93		
5	0.66	0.74	0.84	1.16	1.22	53.62	12.04	9.96	2.09	1.12	0.93	0.93		
6	0.68	0.74	0.82	1.22	1.34	100.20	9.80	8.70	2.03	1.12	0.93	0.93		
7	0.68	0.74	0.84	1.20	1.24	62.03	8.70	7.98	1.95	1.12	0.93	0.93		
8	0.68	0.72	0.84	1.20	1.24	39.27	7.50	7.38	1.92	1.12	0.93	0.93		
9	0.68	0.72	0.84	1.16	1.28	36.13	6.66	6.72	2.27	1.12	0.93	0.93		
10	0.68	0.70	0.84	1.20	1.28	52.74	5.89	6.30	2.62	1.10	0.90	0.95		
11	0.68	0.98	0.84	1.20	1.28	48.61	5.50	6.12	2.48	1.10	0.93	0.95		
12	1.16	0.92	0.82	1.20	1.28	41.52	4.90	6.00	2.27	1.15	0.93	0.95		
13	1.16	0.80	0.88	1.16	1.26	36.35	4.08	5.89	1.99	1.18	0.90	0.95		
14	1.16	0.66	0.90	1.16	1.26	32.00	4.13	5.62	1.92	1.22	0.88	0.95		
15	1.16	0.70	0.88	1.20	1.28	25.63	4.08	5.12	1.64	1.22	0.88	0.95		
16	1.16	0.72	0.86	1.26	1.28	21.30	4.57	4.79	1.53	1.22	0.88	0.93		
17	1.16	0.68	0.86	1.22	1.28	18.90	4.68	4.57	1.48	1.20	0.88	0.90		
18	1.00	0.74	0.86	1.24	1.28	22.11	4.46	8.70	1.42	1.20	0.88	0.90		
19	0.70	0.76	0.60	1.20	1.30	21.40	4.29	5.78	1.37	1.20	0.88	0.85		
20	0.70	0.76	0.68	1.16	1.34	31.40	3.96	4.46	1.33	1.20	0.88	0.85		
21	0.72	0.68	0.62	1.16	2.16	28.25	4.96	4.29	1.27	1.15	0.88	1.03		
22	0.72	0.68	0.68	1.16	13.32	30.20	4.84	4.13	1.22	0.95	0.88	0.95		
23	0.72	0.72	0.70	1.16	18.10	27.06	4.24	3.80	1.20	0.93	0.88	0.95		
24	0.72	0.72	0.72	1.16	4.24	22.55	4.68	3.63	0.85	0.90	0.88	0.95		
25	0.70	0.72	0.70	1.16	3.14	18.80	4.24	3.11	0.85	0.90	0.88	0.95		
26	0.96	0.92	0.68	1.12	2.83	15.80	4.24	3.04	0.85	0.90	0.93	0.90		
27	0.78	0.92	0.68	1.12	2.69	14.60	25.74	3.01	0.85	0.90	0.93	0.90		
28	0.74	0.92	0.92	1.14	2.66	13.88	64.01	2.93	0.88	0.90	0.93	1.00		
29	0.74	0.90	0.90	1.22	3.80	17.30	42.65	2.80	1.25	0.90		0.95		
30	0.72	0.88	0.90	1.14	10.68	18.20	31.85	2.51	1.20	0.93		0.95		
31		0.88		1.14	17.00		23.76		1.20	0.95		1.50		
Total	24.32	24.26	24.08	35.88	105.90	1061.78	368.55	199.54	51.08	33.49	25.38	29.54	1983.80	CMSDAY
Mean	0.81	0.78	0.80	1.16	3.42	35.39	11.89	6.65	1.65	1.08	0.91	0.95	5.44	CMS
Max	1.16	0.98	0.92	1.26	18.10	100.20	64.01	19.20	2.62	1.22	0.93	1.50	100.20	CMS
Min	0.66	0.66	0.60	0.86	1.14	13.88	3.96	2.51	0.85	0.90	0.88	0.85	0.60	CMS
Runoff	2.10	2.10	2.08	3.10	9.15	91.74	31.84	17.24	4.41	2.89	2.19	2.55	171.40	MCM

Momentary Peak 123.50 CMS, at 198.60 m. (MSL.), at 12.00 Hours, on Sep 6, 2002

Runoff Yield 14.38 Liters/Second/Square KM. Momentary Peak Yield 326.720 Liters/Second/Square KM.

WATER YEAR : 2002

CHI RIVER BASIN

Chi River at Ban Din Dam, Maha Sarakham (E.8A)

Lat 16 - 13 - 51 N Long 103 - 16 - 28 E

Location : on right bank at the bridge of Maha Sarakham - Kalasin Highway.

Ban Din Dam **Amphoe** Mueang **Changwat** Maha Sarakham

Drainge Area	30,477 sq.km.
Type of Gage	Water - stage recorder.
Zero Gage at Bottom	+133.210 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	Near the automatic gage building. **Elevation** +144.420 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1955 to date.
Rating Operation	
Period of Rating	1955 - 1957, 1965 - 1976, 1982 to date.
Rated by Flot	-
Rated by Current Meter	1955 - 1957, 1965 - 1976, 1982 to date.
Stability of Channel Regimes	Fairly stable because of backwater effect.
Overbank Flow Conditions	Overbank flow starts at elevation +143.500 m.(M.S.L.) and is including overbank flow.
General Description	Records fair. Wang Yang barrage situated downstream from the gage site. Stage-discharge relation defined by 66 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

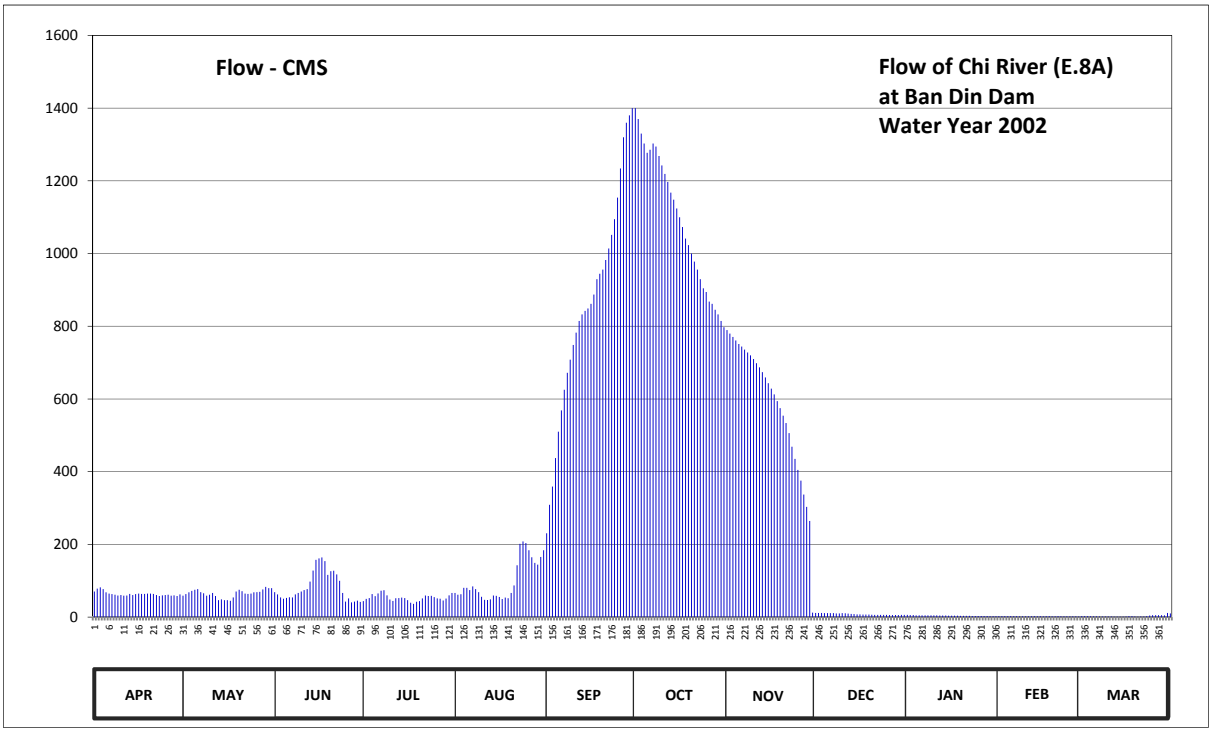
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	136.53	136.38	136.51	134.82	135.33	138.06	144.58	143.39	138.23	137.26	136.66	136.71	
2	136.62	136.44	136.43	135.00	135.23	139.12	144.55	143.35	138.23	137.21	136.69	136.72	
3	136.65	136.50	136.30	135.05	135.26	139.78	144.51	143.31	138.22	137.19	136.72	136.72	
4	136.61	136.55	136.24	135.27	135.61	140.75	144.48	143.27	138.20	137.21	136.73	136.66	
5	136.50	136.59	136.28	135.15	135.61	141.54	144.45	143.23	138.17	137.20	136.71	136.74	
6	136.46	136.61	136.31	135.30	135.49	142.14	144.46	143.20	137.91	137.18	136.70	136.75	
7	136.44	136.51	136.30	135.45	135.69	142.55	144.48	143.16	137.79	137.15	136.65	136.65	
8	136.42	136.47	136.43	135.48	135.54	142.83	144.47	143.12	137.80	136.75	136.65	136.69	
9	136.39	136.38	136.48	135.20	135.37	143.02	144.44	143.08	137.72	136.64	136.71	136.71	
10	136.41	136.42	136.53	134.95	135.12	143.22	144.41	143.03	137.56	136.65	136.67	136.68	
11	136.38	136.48	136.58	134.84	134.93	143.36	144.38	142.97	137.49	136.63	136.67	136.75	
12	136.39	136.37	136.61	135.04	134.91	143.48	144.35	142.91	137.40	136.65	136.63	136.75	
13	136.45	136.18	136.78	135.05	134.96	143.54	144.31	142.84	137.36	136.67	136.65	136.81	
14	136.41	136.21	136.92	135.07	135.19	143.57	144.28	142.76	137.32	136.70	136.69	136.89	
15	136.44	136.18	136.96	135.05	135.17	143.59	144.24	142.67	137.36	136.72	136.66	136.88	
16	136.46	136.18	137.02	134.90	135.11	143.63	144.20	142.57	137.42	136.70	136.63	136.87	
17	136.45	136.15	137.06	134.69	134.99	143.71	144.15	142.46	137.46	136.67	136.68	136.89	
18	136.45	136.30	136.90	134.60	135.07	143.83	144.09	142.33	137.35	136.74	136.64	136.92	
19	136.46	136.53	136.27	134.77	135.04	143.87	144.05	142.19	137.26	136.71	136.69	136.86	
20	136.46	136.59	136.44	134.82	135.33	143.90	144.00	142.00	137.23	136.74	136.66	136.82	
21	136.45	136.54	136.46	135.03	135.74	143.96	143.95	141.79	137.32	136.75	136.61	136.81	
22	136.41	136.46	136.29	135.19	136.71	144.03	143.90	141.50	137.30	136.71	136.49	136.84	
23	136.37	136.45	136.00	135.16	137.63	144.11	143.83	141.11	137.33	136.74	136.51	136.83	
24	136.40	136.46	135.33	135.17	137.73	144.19	143.76	140.72	137.30	136.75	136.71	136.86	
25	136.41	136.50	134.78	135.10	137.66	144.29	143.73	140.35	137.30	136.66	136.63	136.83	
26	136.42	136.51	135.03	135.03	137.36	144.40	143.65	139.99	137.26	136.70	136.61	136.86	
27	136.38	136.52	134.72	135.01	137.07	144.50	143.63	139.49	137.26	136.70	136.68	136.84	
28	136.40	136.60	134.79	134.88	136.82	144.54	143.58	139.04	137.24	136.71	136.68	136.84	
29	136.37	136.66	134.86	135.02	136.74	144.56	143.54	138.52	137.22	136.66		136.91	
30	136.43	136.63	134.76	135.20	137.08	144.58	143.48	138.16	137.23	136.71		137.08	
31		136.63		135.33	137.36		143.42		137.21	136.69		137.19	
Mean	136.45	136.45	136.15	135.05	135.90	143.09	144.11	141.95	137.53	136.81	136.66	136.82	
Max	136.65	136.66	137.06	135.48	137.73	144.58	144.58	143.39	138.23	137.26	136.73	137.19	144.58
Min	136.37	136.15	134.72	134.60	134.91	138.06	143.42	138.16	137.21	136.63	136.49	136.65	134.60

Annual Max Momentary Gage Height 144.58 m. (MSL.) , at 06.00 Hours, on Sep 30, 2002

Zero Gage at Bottom Elevation 133.21 m. (MSL.) , River Bed 133.40 m. (MSL.)

Left Bank Elevation 143.46 m. (MSL.) ,

Right Bank Elevation 143.97 m. (MSL.) , Drainage Are 30,477 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	70.40	58.80	68.80	43.88	66.50	230.44	1400.00	789.60	11.60	6.00	2.80	2.80		
2	78.40	63.20	62.40	50.00	61.50	309.12	1370.00	780.00	11.20	5.80	2.80	2.80		
3	82.00	68.00	54.00	52.50	63.00	359.28	1330.00	770.40	11.20	5.60	2.60	2.60		
4	77.20	72.00	50.40	63.50	80.50	437.50	1302.80	760.80	10.80	5.00	2.60	2.20		
5	68.00	75.20	52.80	57.50	80.50	509.84	1277.00	751.20	10.80	5.00	2.60	2.20		
6	64.80	77.20	54.60	65.00	74.50	568.80	1285.60	744.00	10.80	5.00	2.60	2.00		
7	63.20	68.80	54.00	72.50	84.50	625.50	1302.80	736.00	10.80	4.80	2.60	1.90		
8	61.60	65.60	62.40	74.00	77.00	672.05	1294.20	728.00	10.00	4.80	2.20	1.80		
9	59.40	58.80	66.40	60.00	68.50	708.00	1268.40	720.00	10.00	4.80	2.00	1.80		
10	60.80	61.60	70.40	48.30	56.00	748.80	1242.60	710.00	10.80	4.80	2.00	1.60		
11	58.80	66.40	74.40	44.56	47.62	782.40	1219.20	698.30	10.40	4.60	2.00	1.60		
12	59.40	58.20	77.20	52.00	46.94	814.40	1197.00	686.90	9.60	4.40	2.00	1.40		
13	64.00	46.80	97.60	52.50	48.64	832.80	1167.40	673.90	8.80	4.40	2.40	1.50		
14	60.80	48.60	128.00	53.50	59.50	842.40	1148.00	659.10	8.40	4.40	2.20	1.50		
15	63.20	46.80	157.60	52.50	58.50	848.80	1124.00	643.50	7.60	4.00	2.40	1.50		
16	64.80	46.80	161.32	46.60	55.50	861.60	1100.00	628.50	7.60	4.00	2.20	1.90		
17	64.00	45.00	163.96	39.46	49.66	887.40	1073.00	612.40	7.20	3.80	2.40	2.80		
18	64.00	54.00	154.00	36.40	53.50	929.40	1041.40	594.20	7.20	3.80	2.40	2.60		
19	64.80	70.40	116.20	42.18	52.00	944.60	1023.00	574.80	6.80	3.60	2.20	1.90		
20	64.80	75.20	126.40	43.88	66.50	956.00	1000.00	554.00	6.40	3.40	2.00	1.30		
21	64.00	71.20	127.60	51.50	87.00	982.40	978.00	533.84	6.00	3.40	2.60	1.80		
22	60.80	64.80	117.40	59.50	142.60	1013.80	956.00	506.00	6.00	3.40	2.20	1.90		
23	58.20	64.00	100.00	58.00	201.58	1051.40	929.40	468.56	6.00	3.20	2.20	2.80		
24	60.00	64.80	66.50	58.50	208.18	1094.60	904.40	435.04	6.00	3.20	2.00	4.40		
25	60.80	68.00	42.52	55.00	203.56	1154.00	894.20	404.70	6.00	3.20	2.00	5.40		
26	61.60	68.80	51.50	51.50	183.76	1234.00	868.00	375.24	5.60	3.20	2.00	5.40		
27	58.80	69.60	40.48	50.50	164.62	1320.00	861.60	337.24	5.60	3.20	2.00	5.40		
28	60.00	76.00	42.86	45.92	149.20	1360.00	845.60	303.04	5.60	3.00	1.90	5.40		
29	58.20	83.20	45.24	51.00	144.40	1380.00	832.80	264.48	5.60	2.60		4.80		
30	62.40	79.60	41.84	60.00	165.28	1400.00	814.40	12.40	6.00	2.80		11.20		
31		79.60		66.50	183.76		797.60		6.00	2.80		10.00		
Total	1919.20	2017.00	2528.82	1658.68	3084.80	25859.33	33848.40	17456.14	252.40	126.00	63.90	98.20	88912.87	CMSDAY
Mean	63.97	65.06	84.29	53.51	99.51	861.98	1091.88	581.87	8.14	4.06	2.28	3.17	243.60	CMS
Max	82.00	83.20	163.96	74.00	208.18	1400.00	1400.00	789.60	11.60	6.00	2.80	11.20	1400.00	CMS
Min	58.20	45.00	40.48	36.40	46.94	230.44	797.60	12.40	5.60	2.60	1.90	1.30	1.30	CMS
Runoff	165.82	174.27	218.49	143.31	266.53	2234.25	2924.50	1508.21	21.81	10.89	5.52	8.48	7682.07	MCM

Momentary Peak 1400.00 CMS, at 144.58 m. (MSL.), at 06.00 Hours, on Sep 30, 2002

Runoff Yield 7.99 Liters/Second/Square KM. Momentary Peak Yield 45.940 Liters/Second/Square KM.

WATER YEAR : 2002

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** +163.044 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 mean 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	stable.
Overbank Flow Conditions	Overbank flow starts at elevation +162.040 m.(M.S.L.) and is including overbank flow.
General Description	Records good. The barrage situated above gage site. Stage-discharge relation defined by 38 discharge measurement made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

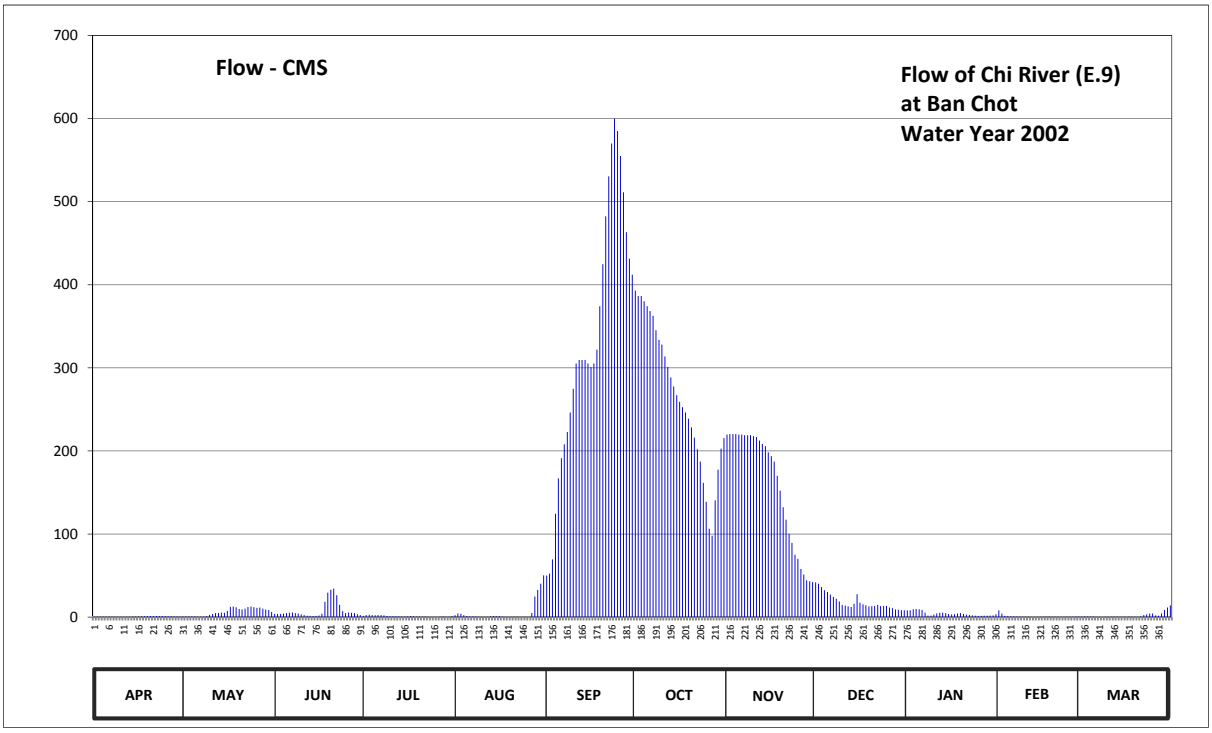
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	152.08	152.13	152.75	152.37	152.54	156.00	161.82	161.16	155.59	153.26	153.26	152.07	
2	152.06	152.14	152.74	152.57	152.81	156.10	161.81	161.17	155.51	153.25	152.78	152.12	
3	152.06	152.12	152.72	152.62	152.75	156.81	161.81	161.17	155.31	153.43	152.38	152.14	
4	152.05	152.11	152.77	152.55	152.53	158.68	161.80	161.17	155.12	153.47	152.25	152.06	
5	152.05	152.09	152.86	152.54	152.30	159.91	161.79	161.16	155.01	153.43	152.09	152.03	
6	152.03	152.07	152.93	152.56	152.15	160.53	161.78	161.16	154.81	153.34	152.09	151.94	
7	152.03	152.07	152.95	152.57	152.11	160.95	161.77	161.15	154.62	152.93	152.07	151.94	
8	152.01	152.05	152.86	152.52	152.08	161.21	161.74	161.15	154.48	152.50	152.05	151.95	
9	152.01	152.22	152.78	152.29	152.01	161.44	161.72	161.15	154.26	152.46	152.01	151.98	
10	152.00	152.58	152.66	152.21	151.98	161.58	161.71	161.13	153.96	152.64	151.99	152.00	
11	152.00	152.70	152.55	152.21	151.96	161.66	161.68	161.11	153.89	152.80	151.96	152.02	
12	152.00	152.86	152.45	152.17	151.96	161.67	161.65	161.04	153.79	152.91	151.95	152.05	
13	152.00	152.87	152.38	152.14	152.16	161.67	161.62	160.96	153.71	152.92	151.95	152.04	
14	152.06	152.93	152.29	152.09	152.32	161.67	161.59	160.89	154.06	152.86	151.95	152.02	
15	152.09	152.91	152.36	152.04	152.27	161.66	161.55	160.71	154.84	152.74	151.97	152.02	
16	152.09	153.18	152.47	152.14	152.22	161.65	161.52	160.59	154.16	152.65	152.01	152.02	
17	152.16	153.73	152.76	152.31	152.04	161.66	161.49	160.43	154.02	152.68	152.05	152.03	
18	152.22	153.76	154.23	152.21	151.94	161.70	161.44	160.00	153.93	152.77	152.04	151.99	
19	152.26	153.69	154.96	152.05	151.92	161.79	161.38	159.49	153.78	152.85	152.01	151.97	
20	152.29	153.48	155.15	152.05	151.97	161.87	161.28	158.92	153.80	152.74	152.01	151.94	
21	152.27	153.41	155.21	152.06	152.01	161.94	161.10	158.46	153.85	152.64	152.01	152.13	
22	152.31	153.51	154.76	152.06	151.99	161.99	160.80	157.94	153.96	152.59	151.99	152.56	
23	152.33	153.71	153.98	151.98	151.95	162.02	160.43	157.55	153.83	152.51	151.98	152.66	
24	152.29	153.76	153.13	151.90	151.93	162.04	159.76	157.04	153.85	152.41	151.98	152.77	
25	152.23	153.69	152.85	151.87	151.89	162.03	159.11	156.84	153.85	152.39	151.98	152.80	
26	152.18	153.62	152.94	151.86	151.86	162.01	158.13	156.33	153.66	152.40	152.01	152.51	
27	152.17	153.65	152.91	151.99	152.87	161.97	157.86	156.05	153.57	152.41	152.03	152.42	
28	152.15	153.51	152.84	152.09	154.65	161.92	159.16	155.71	153.41	152.45	152.04	152.81	
29	152.09	153.39	152.69	151.99	155.14	161.88	160.19	155.66	153.35	152.49		153.33	
30	152.08	153.30	152.56	152.02	155.51	161.85	160.82	155.61	153.30	152.51		153.65	
31		153.03		152.24	156.01		161.09		153.28	152.68		153.90	
Mean	152.12	152.98	153.12	152.20	152.58	161.00	161.01	159.43	154.15	152.78	152.10	152.32	
Max	152.33	153.76	155.21	152.62	156.01	162.04	161.82	161.17	155.59	153.47	153.26	153.90	162.04
Min	152.00	152.05	152.29	151.86	151.86	156.00	157.86	155.61	153.28	152.39	151.95	151.94	151.86

Annual Max Momentary Gage Height 162.04 m. (MSL.) , at 06.00 Hours, on Sep 24, 2002

Zero Gage at Bottom Elevation 151.11 m. (MSL.) , River Bed 150.22 m. (MSL.)

Left Bank Elevation 164.64 m. (MSL.) ,

Right Bank Elevation 162.04 m. (MSL.) , Drainage Are 10,878 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.64	0.79	4.00	1.51	2.32	50.00	392.80	219.60	41.80	8.08	8.08	0.61		
2	0.58	0.82	3.92	2.56	4.48	52.40	386.40	220.20	40.20	8.00	4.24	0.76		
3	0.58	0.76	3.76	2.96	4.00	69.44	386.40	220.20	36.20	9.44	1.54	0.82		
4	0.55	0.73	4.16	2.40	2.24	124.44	380.00	220.20	32.40	9.76	1.15	0.58		
5	0.55	0.67	4.88	2.32	1.30	166.85	374.20	219.60	30.20	9.44	0.67	0.49		
6	0.49	0.61	5.44	2.48	0.85	191.20	368.40	219.60	27.15	8.72	0.67	0.22		
7	0.49	0.61	5.60	2.56	0.73	208.00	362.60	219.00	24.30	5.44	0.61	0.22		
8	0.43	0.55	4.88	2.16	0.64	222.80	345.20	219.00	22.20	2.00	0.55	0.25		
9	0.43	1.06	4.24	1.27	0.43	246.20	333.60	219.00	18.90	1.84	0.43	0.34		
10	0.40	2.64	3.28	1.03	0.34	274.80	327.80	217.80	14.60	3.12	0.37	0.40		
11	0.40	3.60	2.40	1.03	0.28	305.20	313.60	216.60	13.90	4.40	0.28	0.46		
12	0.40	4.88	1.80	0.91	0.28	309.40	301.00	212.40	12.90	5.28	0.25	0.55		
13	0.40	4.96	1.54	0.82	0.88	309.40	288.40	208.40	12.10	5.36	0.25	0.52		
14	0.58	5.44	1.27	0.67	1.36	309.40	277.40	205.60	15.90	4.88	0.25	0.46		
15	0.67	5.28	1.48	0.52	1.21	305.20	267.00	198.40	27.60	3.92	0.31	0.46		
16	0.67	7.44	1.88	0.82	1.06	301.00	259.20	193.60	17.40	3.20	0.43	0.46		
17	0.88	12.30	4.08	1.33	0.52	305.20	252.70	187.20	15.30	3.44	0.55	0.49		
18	1.06	12.60	18.45	1.03	0.22	322.00	246.20	170.00	14.30	4.16	0.52	0.37		
19	1.18	11.90	29.40	0.55	0.16	374.20	238.80	152.15	12.80	4.80	0.43	0.31		
20	1.27	9.84	33.00	0.55	0.31	424.80	228.40	132.36	13.00	3.92	0.43	0.22		
21	1.21	9.28	34.20	0.58	0.43	482.40	216.00	117.18	13.50	3.12	0.43	0.79		
22	1.33	10.10	26.40	0.58	0.37	530.40	202.00	100.32	14.60	2.72	0.37	2.48		
23	1.39	12.10	14.80	0.34	0.25	570.00	187.20	89.40	13.30	2.08	0.34	3.28		
24	1.27	12.60	7.04	0.10	0.19	600.00	161.60	75.12	13.50	1.64	0.34	4.16		
25	1.09	11.90	4.80	0.07	0.09	585.00	138.85	70.16	13.50	1.57	0.34	4.40		
26	0.94	11.20	5.52	0.06	0.06	555.00	106.29	57.92	11.60	1.60	0.43	2.08		
27	0.91	11.50	5.28	0.37	4.96	511.20	98.08	51.20	10.70	1.64	0.49	1.68		
28	0.85	10.10	4.72	0.67	24.75	463.20	140.60	44.20	9.28	1.80	0.52	4.48		
29	0.67	9.12	3.52	0.37	32.80	431.20	177.60	43.20	8.80	1.96		8.64		
30	0.64	8.40	2.48	0.46	40.20	412.00	202.80	42.20	8.40	2.08		11.50		
31		6.24		1.12	50.24		215.40		8.24	3.44		14.00		
Total	22.95	200.02	248.22	34.20	177.95	10012.33	8176.52	4761.81	568.57	132.85	25.27	66.48	24427.17	CMSDAY
Mean	0.77	6.45	8.27	1.10	5.74	333.74	263.76	158.73	18.34	4.29	0.90	2.14	66.92	CMS
Max	1.39	12.60	34.20	2.96	50.24	600.00	392.80	220.20	41.80	9.76	8.08	14.00	600.00	CMS
Min	0.40	0.55	1.27	0.06	0.06	50.00	98.08	42.20	8.24	1.57	0.25	0.22	0.06	CMS
Runoff	1.98	17.28	21.45	2.95	15.37	865.07	706.45	411.42	49.12	11.48	2.18	5.74	2110.51	MCM

Momentary Peak 599.99 CMS, at 162.04 m. (MSL.), at 06.00 Hours, on Sep 24, 2002

Runoff Yield 6.15 Liters/Second/Square KM. Momentary Peak Yield 55.160 Liters/Second/Square KM.

WATER YEAR : 2002

CHI RIVER BASIN

Chi River at Ban Tha Phra, Khon Kaen (E.16A)

Lat 16 - 21 - 13 N Long 102 - 48 - 10 E

Location : on left bank about 400 meters upstream from the bridge on highway.

Ban Tha Phra **Amphoe** Mueang **Changwat** Khon Kaen

Drainge Area	13,572 sq.km.
Type of Gage	Staff gage.
Zero Gage at Bottom	+142.710 m. (MSL.)
Bench Mark	B.M.- H.D.
Location BM	On left bank at the abutment of the bridge. **Elevation** +154.907 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 mean of 3 readings
Period of Available Gage Records	1957 to date.
Rating Operation	
Period of Rating	1963, 1965 to date.
Rated by Flot	-
Rated by Current Meter	1963, 1965 to date.
Stability of Channel Regimes	Rather unstable because of backwater effect.
Overbank Flow Conditions	Overbank flow starts at elevation +152.050 m.(M.S.L.) and is including overbank flow.
General Description	Records fair. Flow regulated by Kui Chuak barrage above gage site. Stage-discharge relation defined by 38 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

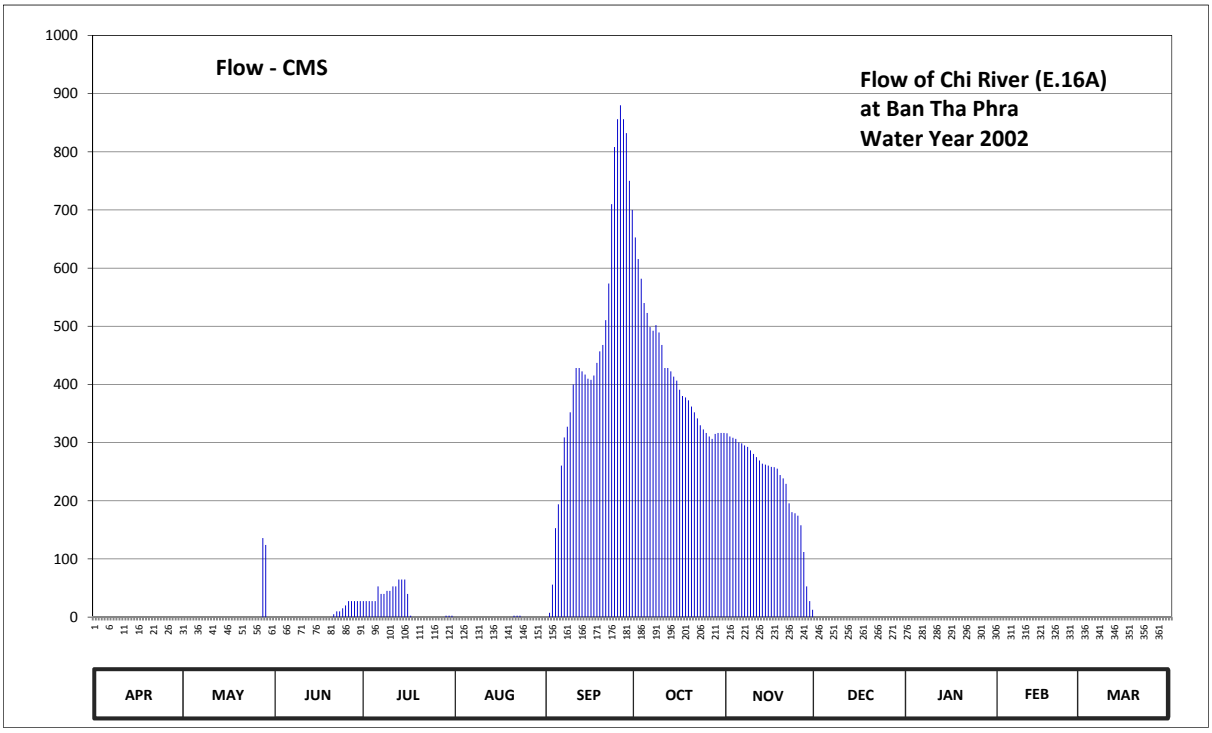
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	146.71	146.71	146.28	146.91	146.76	146.77	152.29	150.60	146.71	146.69	146.75	146.75	
2	146.71	146.71	146.28	146.91	146.76	146.83	152.24	150.51	146.68	146.68	146.74	146.76	
3	146.71	146.71	146.28	146.91	146.76	147.02	152.19	150.47	146.65	146.71	146.75	146.74	
4	146.71	146.70	146.28	146.91	146.76	147.63	152.09	150.44	146.61	146.71	146.73	146.73	
5	146.71	146.69	146.28	146.91	146.76	148.46	152.05	150.34	146.57	146.70	146.76	146.77	
6	146.71	146.69	146.28	147.01	146.76	149.65	151.99	150.31	146.54	146.69	146.76	146.76	
7	146.71	146.68	146.28	146.96	146.76	150.48	151.97	150.25	146.51	146.70	146.75	146.73	
8	146.71	146.67	146.28	146.96	146.76	150.79	152.00	150.21	146.49	146.71	146.75	146.76	
9	146.71	146.67	146.28	146.98	146.76	151.14	151.96	150.11	146.47	146.72	146.76	146.73	
10	146.71	146.66	146.28	146.98	146.76	151.55	151.89	150.01	146.46	146.73	146.74	146.75	
11	146.72	146.65	146.28	147.01	146.79	151.71	151.71	149.91	146.46	146.75	146.73	146.73	
12	146.72	146.64	146.28	147.01	146.77	151.71	151.71	149.81	146.44	146.75	146.75	146.75	
13	146.72	146.62	146.42	147.05	146.76	151.68	151.68	149.71	146.48	146.75	146.75	146.75	
14	146.72	146.61	146.28	147.05	146.76	151.65	151.63	149.68	146.51	146.77	146.76	146.75	
15	146.73	146.59	146.28	147.05	146.76	151.61	151.59	149.65	146.57	146.77	146.73	146.75	
16	146.73	146.58	146.26	146.96	146.76	151.60	151.49	149.61	146.60	146.77	146.74	146.74	
17	146.74	146.56	146.21	146.81	146.76	151.64	151.40	149.60	146.62	146.78	146.73	146.75	
18	146.74	146.54	146.26	146.76	146.76	151.75	151.38	149.56	146.69	146.77	146.75	146.72	
19	146.73	146.53	146.28	146.76	146.78	151.84	151.34	149.36	146.75	146.77	146.55	146.74	
20	146.72	146.52	146.29	146.76	146.78	151.89	151.24	149.26	146.77	146.77	146.45	146.72	
21	146.72	146.48	146.82	146.76	146.81	152.02	151.14	149.09	146.76	146.76	146.54	146.74	
22	146.72	146.45	146.84	146.76	146.81	152.17	151.02	148.49	146.75	146.75	146.70	146.72	
23	146.72	146.43	146.84	146.77	146.81	152.35	150.83	148.19	146.74	146.77	146.74	146.72	
24	146.71	146.39	146.86	146.77	146.79	152.42	150.71	148.15	146.73	146.75	146.63	146.72	
25	146.71	146.34	146.88	146.77	146.79	152.44	150.61	148.07	146.72	146.75	146.67	146.72	
26	146.71	146.46	146.91	146.78	146.77	152.45	150.51	147.74	146.71	146.76	146.75	146.74	
27	146.71	146.67	146.91	146.78	146.71	152.44	150.44	147.21	146.71	146.75	146.74	146.72	
28	146.71	147.29	146.91	146.78	146.67	152.43	150.58	147.01	146.67	146.76	146.75	146.78	
29	146.71	147.25	146.91	146.81	146.69	152.39	150.61	146.91	146.69	146.77		146.79	
30	146.71	146.65	146.91	146.81	146.71	152.34	150.61	146.85	146.67	146.75		146.76	
31		146.31		146.81	146.73		150.61		146.68	146.73		146.76	
Mean	146.72	146.63	146.48	146.88	146.76	151.03	151.40	149.24	146.63	146.74	146.71	146.74	
Max	146.74	147.29	146.91	147.05	146.81	152.45	152.29	150.60	146.77	146.78	146.76	146.79	152.45
Min	146.71	146.31	146.21	146.76	146.67	146.77	150.44	146.85	146.44	146.68	146.45	146.72	146.21

Annual Max Momentary Gage Height 152.45 m. (MSL.) , at 06.00 Hours, on Sep 26, 2002

Zero Gage at Bottom Elevation 142.71 m. (MSL.) , River Bed 141.59 m. (MSL.)

Left Bank Elevation 152.04 m. (MSL.) ,

Right Bank Elevation 153.58 m. (MSL.) , Drainage Are 13,572 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	0.00	27.50	0.00	0.00	652.60	316.00	0.00	0.00	0.00	0.00		
2	0.00	0.00	0.00	27.50	0.00	7.50	615.60	310.60	0.00	0.00	0.00	0.00		
3	0.00	0.00	0.00	27.50	0.00	55.80	581.80	308.20	0.00	0.00	0.00	0.00		
4	0.00	0.00	0.00	27.50	0.00	152.85	539.80	306.40	0.00	0.00	0.00	0.00		
5	0.00	0.00	0.00	27.50	0.00	194.00	523.00	300.40	0.00	0.00	0.00	0.00		
6	0.00	0.00	0.00	52.90	0.00	260.40	498.80	298.60	0.00	0.00	0.00	0.00		
7	0.00	0.00	0.00	40.00	0.00	308.80	492.40	295.00	0.00	0.00	0.00	0.00		
8	0.00	0.00	0.00	40.00	0.00	327.40	502.00	292.60	0.00	0.00	0.00	0.00		
9	0.00	0.00	0.00	45.00	0.00	352.00	489.20	286.60	0.00	0.00	0.00	0.00		
10	0.00	0.00	0.00	45.00	0.00	400.00	467.80	280.60	0.00	0.00	0.00	0.00		
11	0.00	0.00	0.00	52.90	0.00	428.20	428.20	274.96	0.00	0.00	0.00	0.00		
12	0.00	0.00	0.00	52.90	0.00	428.20	428.20	269.36	0.00	0.00	0.00	0.00		
13	0.00	0.00	0.00	64.50	0.00	422.40	422.40	263.76	0.00	0.00	0.00	0.00		
14	0.00	0.00	0.00	64.50	0.00	417.00	413.40	262.08	0.00	0.00	0.00	0.00		
15	0.00	0.00	0.00	64.50	0.00	409.80	406.40	260.40	0.00	0.00	0.00	0.00		
16	0.00	0.00	0.00	40.00	0.00	408.00	390.80	258.16	0.00	0.00	0.00	0.00		
17	0.00	0.00	0.00	2.50	0.00	415.20	380.00	257.60	0.00	0.00	0.00	0.00		
18	0.00	0.00	0.00	0.00	0.00	437.00	377.60	255.36	0.00	0.00	0.00	0.00		
19	0.00	0.00	0.00	0.00	0.00	456.80	372.80	244.16	0.00	0.00	0.00	0.00		
20	0.00	0.00	0.00	0.00	0.00	467.80	362.00	238.56	0.00	0.00	0.00	0.00		
21	0.00	0.00	5.00	0.00	2.50	510.40	352.00	229.04	0.00	0.00	0.00	0.00		
22	0.00	0.00	10.00	0.00	2.50	573.40	341.60	195.50	0.00	0.00	0.00	0.00		
23	0.00	0.00	10.00	0.00	2.50	710.00	329.80	180.50	0.00	0.00	0.00	0.00		
24	0.00	0.00	15.00	0.00	0.00	808.01	322.60	178.50	0.00	0.00	0.00	0.00		
25	0.00	0.00	20.00	0.00	0.00	856.01	316.60	174.50	0.00	0.00	0.00	0.00		
26	0.00	0.00	27.50	0.00	0.00	880.01	310.60	158.00	0.00	0.00	0.00	0.00		
27	0.00	0.00	27.50	0.00	0.00	856.01	306.40	112.00	0.00	0.00	0.00	0.00		
28	0.00	136.00	27.50	0.00	0.00	832.01	314.80	52.90	0.00	0.00	0.00	0.00		
29	0.00	124.00	27.50	2.50	0.00	750.01	316.60	27.50	0.00	0.00		0.00		
30	0.00	0.00	27.50	2.50	0.00	700.00	316.60	12.50	0.00	0.00		0.00		
31		0.00		2.50	0.00		316.60		0.00	0.00		0.00		
Total	0.00	260.00	197.50	709.70	7.50	13825.01	12889.00	6900.34	0.00	0.00	0.00	0.00	34789.05	CMSDAY
Mean	0.00	8.39	6.58	22.89	0.24	460.83	415.77	230.01	0.00	0.00	0.00	0.00	95.31	CMS
Max	0.00	136.00	27.50	64.50	2.50	880.01	652.60	316.00	0.00	0.00	0.00	0.00	880.01	CMS
Min	0.00	0.00	0.00	0.00	0.00	0.00	306.40	12.50	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	0.00	22.46	17.06	61.32	0.65	1194.48	1113.61	596.19	0.00	0.00	0.00	0.00	3005.77	MCM

Momentary Peak 880.00 CMS, at 152.45 m. (MSL.), at 06.00 Hours, on Sep 26, 2002

Runoff Yield 7.02 Liters/Second/Square KM. Momentary Peak Yield 64.840 Liters/Second/Square KM.

WATER YEAR : 2002

CHI RIVER BASIN

Chi River at Ban Tha Sa Baeng , 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 Baeng **Amphoe** Thung Khao Luang **Changwat** Roi Et

Drainge Area	41,187 sq.km.
Type of Gage	Water - stage recorder.
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** +135.757 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 mean 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	Stable.
Overbank Flow Conditions	Overbank flow starts at elevation +132.690 m.(M.S.L.) and is including overbank flow.
General Description	Records good. Stage-discharge relation defined by 177 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

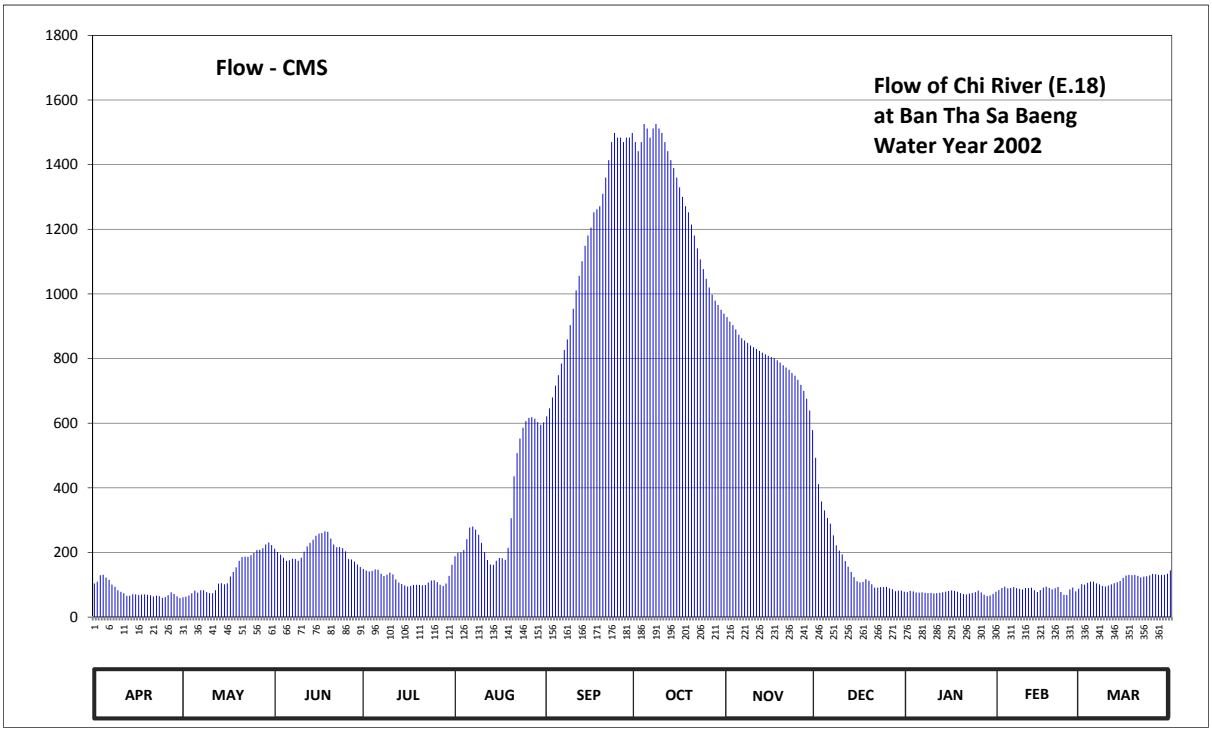
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	124.69	123.93	126.14	125.34	125.86	129.89	132.65	131.84	128.86	124.24	124.37	124.66	
2	124.78	123.97	126.02	125.27	125.98	130.08	132.63	131.79	128.18	124.32	124.48	124.64	
3	125.07	124.04	125.92	125.23	126.00	130.32	132.65	131.75	127.68	124.29	124.54	124.72	
4	125.09	124.17	125.81	125.26	126.09	130.58	132.69	131.70	127.40	124.22	124.46	124.78	
5	124.96	124.34	125.69	125.32	126.48	130.81	132.68	131.64	127.17	124.21	124.48	124.78	
6	124.86	124.21	125.71	125.31	126.87	131.07	132.66	131.60	126.99	124.23	124.52	124.70	
7	124.64	124.36	125.77	125.13	126.90	131.37	132.68	131.56	126.61	124.20	124.47	124.65	
8	124.54	124.36	125.76	125.03	126.81	131.58	132.69	131.52	126.26	124.18	124.44	124.58	
9	124.36	124.24	125.69	125.09	126.63	131.75	132.68	131.47	126.07	124.19	124.40	124.55	
10	124.26	124.18	125.81	125.18	126.35	131.93	132.67	131.43	125.93	124.16	124.48	124.59	
11	124.17	124.17	126.03	125.10	126.01	132.08	132.65	131.39	125.68	124.18	124.48	124.65	
12	124.02	124.36	126.22	124.88	125.72	132.18	132.63	131.35	125.44	124.20	124.49	124.71	
13	124.03	124.68	126.35	124.74	125.54	132.26	132.61	131.31	125.21	124.23	124.36	124.75	
14	124.12	124.71	126.46	124.67	125.53	132.33	132.59	131.27	124.98	124.27	124.25	124.81	
15	124.11	124.65	126.60	124.60	125.69	132.37	132.56	131.24	124.80	124.31	124.37	124.95	
16	124.07	124.70	126.67	124.55	125.80	132.40	132.53	131.21	124.74	124.35	124.49	125.05	
17	124.10	125.01	126.69	124.58	125.79	132.45	132.50	131.19	124.77	124.32	124.54	125.08	
18	124.11	125.21	126.75	124.62	125.73	132.46	132.47	131.14	124.89	124.27	124.48	125.07	
19	124.09	125.41	126.73	124.63	126.17	132.47	132.45	131.09	124.82	124.18	124.41	125.08	
20	124.06	125.69	126.50	124.62	127.16	132.51	132.41	131.03	124.65	124.13	124.46	125.04	
21	123.98	125.83	126.29	124.61	128.38	132.56	132.37	130.98	124.49	124.11	124.52	124.97	
22	124.03	125.85	126.19	124.62	128.98	132.61	132.32	130.93	124.49	124.15	124.25	125.00	
23	124.00	125.84	126.20	124.74	129.34	132.65	132.27	130.86	124.52	124.19	124.08	125.02	
24	123.89	125.90	126.16	124.83	129.61	132.67	132.22	130.80	124.52	124.24	124.07	125.06	
25	123.94	125.98	126.04	124.84	129.77	132.66	132.16	130.71	124.53	124.34	124.41	125.12	
26	124.06	126.09	125.76	124.76	129.85	132.66	132.10	130.60	124.46	124.22	124.50	125.11	
27	124.23	126.10	125.74	124.63	129.87	132.65	132.05	130.47	124.42	124.09	124.29	125.08	
28	124.14	126.16	125.66	124.58	129.83	132.66	132.01	130.29	124.30	124.01	124.44	125.08	
29	123.99	126.29	125.54	124.69	129.75	132.66	131.97	130.03	124.33	124.04		125.08	
30	123.88	126.36	125.43	125.04	129.68	132.67	131.92	129.55	124.34	124.14		125.13	
31		126.27		125.53	129.74		131.88		124.27	124.27		125.28	
Mean	124.28	125.07	126.08	124.90	127.35	131.98	132.43	131.12	125.48	124.21	124.41	124.90	
Max	125.09	126.36	126.75	125.53	129.87	132.67	132.69	131.84	128.86	124.35	124.54	125.28	132.69
Min	123.88	123.93	125.43	124.55	125.53	129.89	131.88	129.55	124.27	124.01	124.07	124.55	123.88

Annual Max Momentary Gage Height 132.69 m. (MSL.) , at 09.00 Hours, on Oct 4, 2002

Zero Gage at Bottom Elevation 122.24 m. (MSL.) , River Bed 120.38 m. (MSL.)

Left Bank Elevation 133.52 m. (MSL.) ,

Right Bank Elevation 132.66 m. (MSL.) , Drainage Are 41,187 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	103.85	61.50	211.90	148.80	188.10	621.25	1469.99	928.20	493.20	77.00	83.50	101.90		
2	109.70	63.50	201.70	143.90	198.30	646.20	1441.99	914.30	411.60	81.00	90.20	100.60		
3	129.90	67.00	193.20	141.10	200.00	679.80	1469.99	903.50	358.00	79.50	94.10	105.80		
4	131.30	73.50	183.85	143.20	207.65	716.20	1525.99	890.00	330.00	76.00	88.90	109.70		
5	122.20	82.00	174.20	147.40	241.20	748.40	1511.99	873.80	307.00	75.50	90.20	109.70		
6	115.20	75.50	175.80	146.70	277.00	784.80	1483.99	863.00	289.00	76.50	92.80	104.50		
7	100.60	83.00	180.60	134.10	280.00	826.80	1511.99	855.80	252.90	75.00	89.55	101.25		
8	94.10	83.00	179.80	127.10	271.00	859.40	1525.99	848.60	222.10	74.00	87.60	96.70		
9	83.00	77.00	174.20	131.30	254.70	903.50	1511.99	840.80	205.95	74.50	85.00	94.75		
10	78.00	74.00	183.85	137.60	229.75	954.00	1497.99	835.20	194.05	73.00	90.20	97.35		
11	73.50	73.50	202.55	132.00	200.85	1011.00	1469.99	829.60	173.40	74.00	90.20	101.25		
12	66.00	83.00	218.70	116.60	176.60	1056.00	1441.99	824.00	155.80	75.00	90.85	105.15		
13	66.50	103.20	229.75	107.10	162.80	1101.00	1413.99	818.40	139.70	76.50	83.00	107.75		
14	71.00	105.15	239.40	102.55	162.10	1149.00	1389.99	812.80	123.60	78.50	77.50	111.70		
15	70.50	101.25	252.00	98.00	174.20	1181.00	1360.00	808.60	111.00	80.50	83.50	121.50		
16	68.50	104.50	258.30	94.75	183.00	1205.00	1330.00	804.40	107.10	82.50	90.85	128.50		
17	70.00	125.70	260.10	96.70	182.20	1252.50	1300.00	801.60	109.05	81.00	94.10	130.60		
18	70.50	139.70	265.50	99.30	177.40	1262.00	1271.50	794.60	117.30	78.50	90.20	129.90		
19	69.50	153.70	263.70	99.95	214.45	1271.50	1252.50	787.60	112.40	74.00	85.65	130.60		
20	68.00	174.20	243.00	99.30	306.00	1310.00	1214.51	779.20	101.25	71.50	88.90	127.80		
21	64.00	185.55	224.65	98.65	435.60	1360.00	1181.00	772.20	90.85	70.50	92.80	122.90		
22	66.50	187.25	216.15	99.30	507.60	1413.99	1141.00	765.20	90.85	72.50	77.50	125.00		
23	65.00	186.40	217.00	107.10	552.50	1469.99	1107.00	755.40	92.80	74.50	69.00	126.40		
24	59.50	191.50	213.60	113.10	586.25	1497.99	1077.00	747.00	92.80	77.00	68.50	129.20		
25	62.00	198.30	203.40	113.80	606.25	1483.99	1047.00	734.40	93.45	82.00	85.65	133.40		
26	68.00	207.65	179.80	108.40	616.25	1483.99	1020.00	719.00	88.90	76.00	91.50	132.70		
27	76.50	208.50	178.20	99.95	618.75	1469.99	997.50	700.80	86.30	69.50	79.50	130.60		
28	72.00	213.60	171.80	96.70	613.75	1483.99	979.50	675.60	80.00	65.50	87.60	130.60		
29	64.50	224.65	162.80	103.85	603.75	1483.99	966.00	639.20	81.50	67.00		130.60		
30	59.00	230.60	155.10	127.80	595.00	1497.99	951.00	578.75	82.00	72.00		134.10		
31		222.95		162.10	602.50		939.40		78.50	78.50		144.60		
Total	2418.85	4160.85	6214.60	3678.20	10625.50	34185.26	39802.77	23901.55	5272.35	2339.00	2418.85	3657.10	138674.88	CMSDAY
Mean	80.63	134.22	207.15	118.65	342.76	1139.51	1283.96	796.72	170.08	75.45	86.39	117.97	379.93	CMS
Max	131.30	230.60	265.50	162.10	618.75	1497.99	1525.99	928.20	493.20	82.50	94.10	144.60	1525.99	CMS
Min	59.00	61.50	155.10	94.75	162.10	621.25	939.40	578.75	78.50	65.50	68.50	94.75	59.00	CMS
Runoff	208.99	359.50	536.94	317.80	918.04	2953.61	3438.96	2065.09	455.53	202.09	208.99	315.97	11981.51	MCM

Momentary Peak 1526.00 CMS, at 132.69 m. (MSL.), at 09.00 Hours, on Oct 4, 2002

Runoff Yield 9.22 Liters/Second/Square KM. Momentary Peak Yield 37.050 Liters/Second/Square KM.

WATER YEAR : 2002

CHI RIVER BASIN

Chi River at Ban 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** +127.137 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 mean 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	Rather unstable because of backwater effect.
Overbank Flow Conditions	Overbank flow starts at elevation +118.980 m.(M.S.L.) and is including overbank flow.
General Description	Records fair. Tat Noi barrage situated downstream from the gage site. Stage-discharge relation defined by 139 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

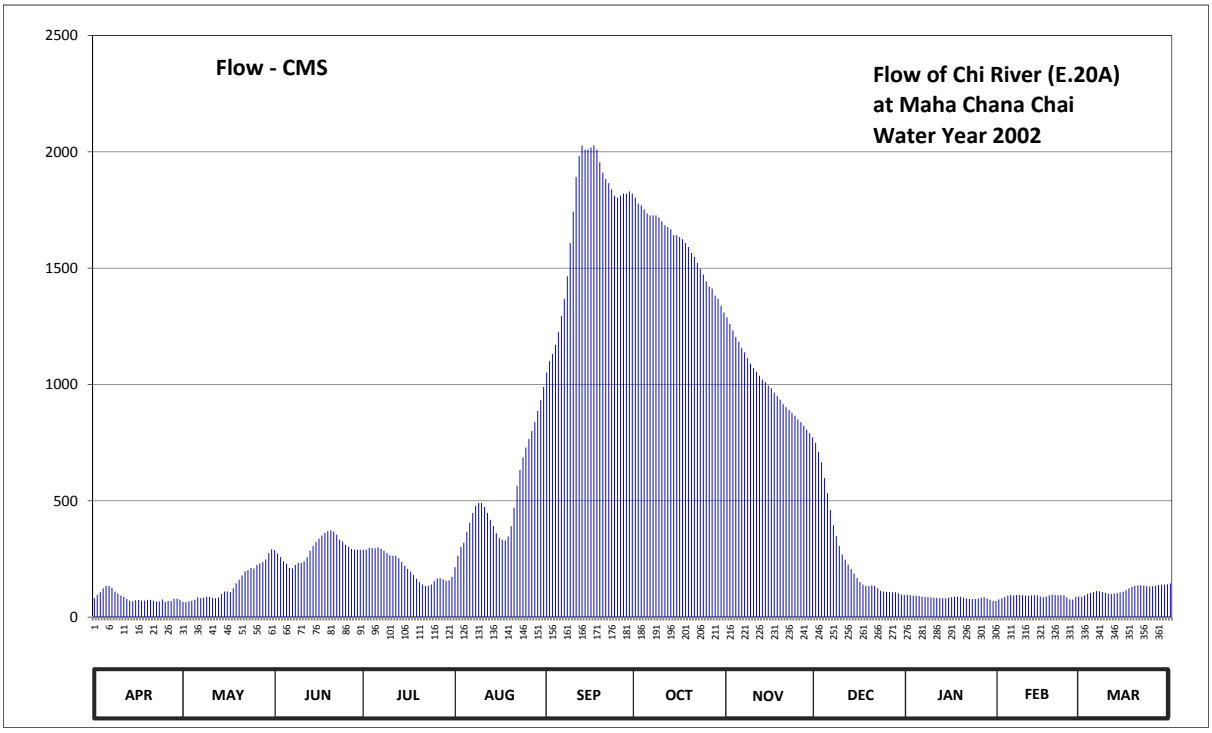
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	114.96	114.67	114.90	116.54	115.73	118.04	121.44	120.14	119.11	115.96	116.07	116.00	
2	114.96	114.67	114.92	117.15	115.72	117.94	121.45	120.03	118.87	115.77	116.08	115.98	
3	114.95	114.67	114.95	117.42	115.68	117.83	121.46	119.94	118.53	115.73	115.99	115.97	
4	114.93	114.70	114.96	117.49	115.72	117.71	121.47	119.87	118.10	115.80	115.97	115.95	
5	114.92	114.79	114.98	117.51	115.73	117.57	121.47	119.80	117.71	115.87	115.96	115.93	
6	114.91	115.00	115.05	117.64	115.73	117.37	121.49	119.73	116.87	115.94	115.93	115.90	
7	114.90	115.18	115.07	117.62	115.71	117.26	121.50	119.65	116.23	116.01	115.92	115.88	
8	114.88	115.36	115.07	117.51	115.44	117.22	121.48	119.57	116.00	116.07	115.91	115.86	
9	114.85	115.48	115.04	117.45	115.40	117.31	121.47	119.48	116.00	116.05	115.90	115.83	
10	114.84	115.48	115.00	117.41	116.10	117.49	121.46	119.38	116.35	115.99	115.90	115.77	
11	114.83	115.36	114.97	117.37	116.59	117.73	121.44	119.23	116.50	115.94	115.90	115.72	
12	114.83	115.16	115.01	117.39	116.67	117.91	121.43	119.10	116.53	115.92	115.90	115.72	
13	114.83	114.97	115.04	117.44	116.63	118.12	121.42	119.04	116.52	115.93	116.00	115.75	
14	114.84	114.86	115.08	117.44	116.58	119.05	121.41	119.04	116.54	115.93	116.15	115.78	
15	114.84	114.83	115.09	117.37	116.49	119.35	121.40	119.03	116.50	115.92	116.16	115.83	
16	114.84	114.82	115.08	117.26	116.27	119.60	121.39	119.13	116.44	115.91	116.08	115.89	
17	114.81	114.80	115.07	117.11	115.87	119.93	121.37	119.23	116.53	115.90	116.04	115.98	
18	114.82	114.76	115.05	116.92	115.37	120.23	121.34	119.30	116.62	115.90	116.08	116.07	
19	114.81	114.74	115.05	116.72	115.05	120.45	121.31	119.36	116.63	115.92	116.11	116.18	
20	114.81	114.73	115.03	116.54	114.97	120.64	121.27	119.41	116.62	115.96	116.09	116.24	
21	114.80	114.70	115.01	116.35	114.78	120.79	121.23	119.43	116.60	116.11	116.06	116.21	
22	114.79	114.71	114.97	116.04	114.67	120.93	121.17	119.43	116.50	116.21	116.02	116.18	
23	114.78	114.74	114.91	115.77	114.73	121.04	121.11	119.43	116.40	116.10	116.00	116.25	
24	114.76	114.75	114.86	115.72	114.79	121.13	121.04	119.42	116.18	116.03	115.99	116.57	
25	114.73	114.76	114.81	115.86	115.07	121.20	120.96	119.41	115.96	116.13	116.00	116.83	
26	114.71	114.75	114.82	115.94	115.19	121.25	120.87	119.40	115.90	116.15	116.01	116.70	
27	114.68	114.74	114.97	115.93	115.37	121.29	120.77	119.38	115.94	116.13	116.02	116.48	
28	114.67	114.75	115.23	115.89	115.80	121.32	120.65	119.36	116.02	116.10	116.01	116.25	
29	114.66	114.79	115.67	115.85	117.27	121.35	120.52	119.32	116.07	116.07		116.15	
30	114.66	114.82	115.98	115.80	117.98	121.40	120.38	119.25	116.12	116.07		116.10	
31		114.84		115.74	118.07		120.25		116.14	116.07		116.08	
Mean	114.82	114.88	115.05	116.78	115.84	119.35	121.21	119.44	116.68	115.99	116.01	116.07	
Max	114.96	115.48	115.98	117.64	118.07	121.40	121.50	120.14	119.11	116.21	116.16	116.83	121.50
Min	114.66	114.67	114.81	115.72	114.67	117.22	120.25	119.03	115.90	115.73	115.90	115.72	114.66

Annual Max Momentary Gage Height 123.04 m. (MSL.) , at 15.00 Hours, on Sep 17, 2002

Zero Gage at Bottom Elevation 112.00 m. (MSL.) , River Bed 111.85 m. (MSL.)

Left Bank Elevation 126.92 m. (MSL.) ,

Right Bank Elevation 126.93 m. (MSL.) , Drainage Are 47,800 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	81.30	65.90	288.00	289.20	214.80	1051.50	1803.00	1288.00	749.00	95.30	76.40	86.90		
2	94.60	64.50	273.60	290.40	264.00	1101.00	1777.50	1260.00	710.00	93.90	81.30	93.20		
3	107.20	67.30	258.00	297.60	301.20	1131.50	1769.00	1232.00	665.40	91.80	86.90	100.20		
4	124.00	70.10	240.00	296.40	319.20	1170.50	1752.00	1204.00	597.60	91.80	91.80	103.70		
5	134.00	75.00	229.20	295.20	366.40	1225.00	1735.00	1183.50	532.00	90.40	94.60	107.20		
6	134.00	85.50	211.20	300.00	405.60	1295.00	1726.50	1157.50	460.80	88.30	92.50	111.80		
7	126.00	82.00	210.00	294.00	447.60	1367.50	1726.50	1138.00	395.00	86.90	94.60	110.90		
8	109.30	84.10	224.40	284.40	478.00	1465.00	1726.50	1113.00	348.00	86.20	94.60	107.20		
9	101.60	88.30	232.80	276.00	490.80	1607.50	1718.00	1089.00	305.00	84.80	93.20	104.40		
10	91.80	86.90	234.00	265.20	490.80	1743.50	1701.00	1071.00	269.30	83.40	91.80	100.90		
11	86.90	83.40	240.00	264.00	473.20	1892.00	1684.00	1054.00	246.80	82.70	91.10	99.50		
12	77.80	81.30	256.80	264.00	447.60	1982.00	1675.50	1037.50	225.20	82.00	93.20	100.90		
13	70.80	84.80	285.60	253.20	418.20	2027.00	1667.00	1021.00	206.30	81.30	93.90	103.00		
14	68.00	98.80	306.00	236.40	391.60	2009.00	1641.50	1010.00	187.40	81.30	93.20	105.80		
15	72.90	110.00	322.80	220.80	360.80	2009.00	1641.50	995.00	167.60	84.10	89.00	109.30		
16	73.60	111.00	337.00	207.00	339.80	2018.00	1633.00	985.00	150.50	86.20	86.20	115.40		
17	70.10	107.90	351.00	195.00	332.80	2027.00	1624.50	965.00	139.70	88.30	89.00	123.50		
18	70.80	124.00	362.20	181.00	330.00	2009.00	1607.50	950.00	133.40	89.00	93.20	130.70		
19	72.90	145.00	369.20	165.00	346.80	1955.00	1590.50	935.00	132.50	87.60	96.00	134.30		
20	74.30	161.00	373.40	150.00	390.20	1910.00	1565.00	915.00	136.10	84.10	94.60	136.10		
21	70.80	179.00	367.80	140.00	470.00	1883.00	1548.00	902.00	134.30	80.60	93.20	137.00		
22	66.60	197.00	353.80	134.00	564.40	1865.00	1522.50	890.00	123.50	77.80	93.90	135.20		
23	67.30	202.00	332.80	134.00	631.70	1838.00	1497.00	878.00	113.60	77.10	93.20	132.50		
24	75.70	211.20	325.20	140.00	686.10	1811.50	1472.50	866.00	110.00	77.80	84.80	131.60		
25	65.20	209.00	310.80	155.00	728.60	1803.00	1442.50	850.00	108.60	79.90	76.40	132.50		
26	69.40	224.40	302.40	166.00	766.00	1811.50	1420.00	838.00	107.90	83.40	75.70	135.20		
27	69.40	230.40	292.80	168.00	800.00	1820.00	1412.50	822.00	107.20	85.50	86.90	137.90		
28	79.20	236.40	289.20	163.00	839.10	1820.00	1382.50	806.00	106.50	80.60	89.00	139.70		
29	79.20	247.20	289.20	156.00	885.50	1829.00	1367.50	790.00	102.30	75.00		139.70		
30	75.00	274.80	289.20	158.00	931.70	1820.00	1337.50	772.50	96.00	70.10		140.60		
31		291.60		173.00	988.50		1309.00		95.30	69.40		144.20		
Total	2559.70	4379.80	8758.40	6711.80	15901.00	51297.00	49476.50	30018.00	7962.80	2596.60	2510.20	3691.00	185862.80	CMSDAY
Mean	85.32	141.28	291.95	216.51	512.94	1709.90	1596.02	1000.60	256.86	83.76	89.65	119.06	509.21	CMS
Max	134.00	291.60	373.40	300.00	988.50	2027.00	1803.00	1288.00	749.00	95.30	96.00	144.20	2027.00	CMS
Min	65.20	64.50	210.00	134.00	214.80	1051.50	1309.00	772.50	95.30	69.40	75.70	86.90	64.50	CMS
Runoff	221.16	378.41	756.73	579.90	1373.85	4432.06	4274.77	2593.56	687.99	224.35	216.88	318.90	16058.55	MCM

Momentary Peak 2036.00 CMS, at 123.04 m. (MSL.), at 15.00 Hours, on Sep 17, 2002

Runoff Yield 10.65 Liters/Second/Square KM. Momentary Peak Yield 42.590 Liters/Second/Square KM.

WATER YEAR : 2002

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	Water - stage recorder.
Zero Gage at Bottom	+164.980 m. (MSL.)
Bench Mark	B.M.- H.D.
Location BM	In front of the automatic gage buiding. **Elevation** +174.414 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 mean 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	Fairly stable because of backwater effect.
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 65 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

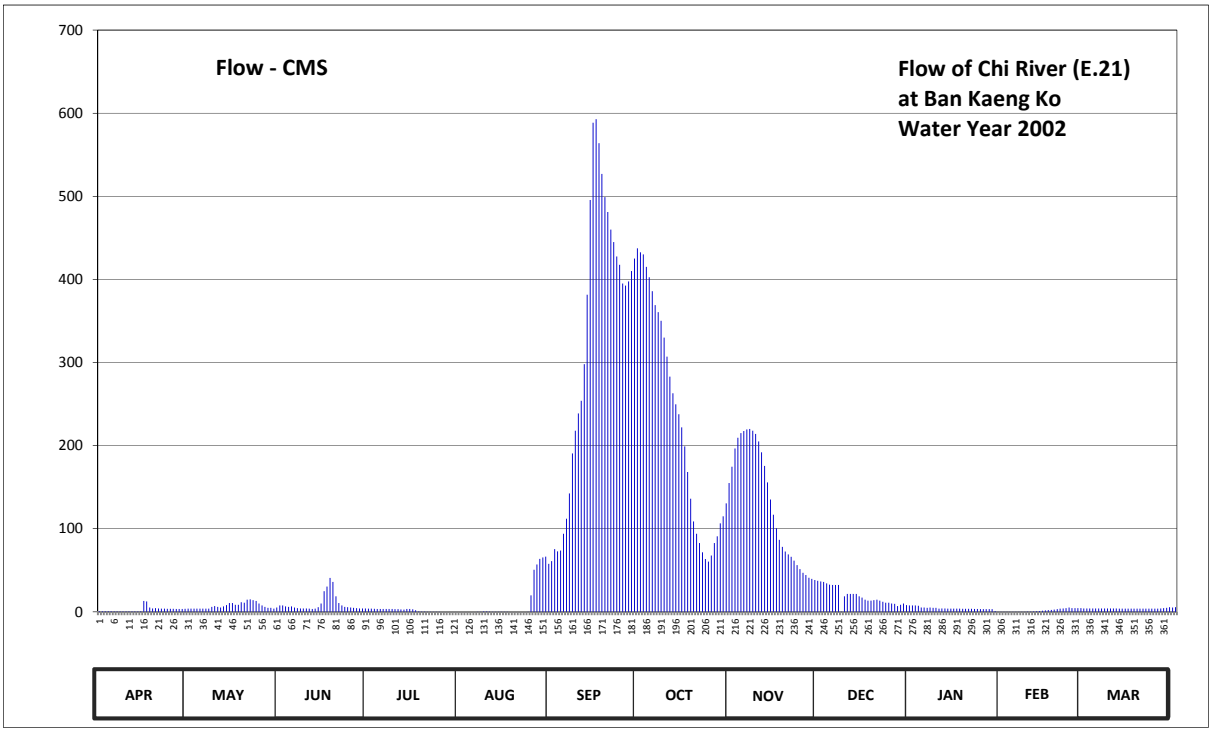
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	167.25	167.57	167.69	167.57	165.74	168.50	173.57	170.84	167.18	167.69	166.36	167.60	
2	167.25	167.57	167.69	167.57	165.60	168.66	173.56	171.29	167.16	167.69	166.37	167.60	
3	167.25	167.57	167.66	167.56	165.60	168.63	173.50	171.55	167.09	167.68	166.37	167.60	
4	167.25	167.57	167.65	167.54	165.52	168.64	173.45	171.66	167.03	167.63	166.51	167.60	
5	167.24	167.57	167.66	167.54	165.47	168.95	173.38	171.71	167.01	167.63	166.65	167.60	
6	167.22	167.57	167.63	167.54	165.47	169.40	173.30	171.75	167.01	167.62	166.78	167.60	
7	167.21	167.57	167.61	167.54	166.58	170.14	173.26	171.76	167.01	167.63	166.89	167.60	
8	167.19	167.57	167.59	167.54	167.01	171.17	173.21	171.72	167.07	167.62	167.00	167.60	
9	167.19	167.65	167.60	167.54	167.19	171.72	173.11	171.64	167.91	167.62	167.09	167.60	
10	167.19	167.67	167.59	167.53	167.20	172.13	172.98	171.46	167.96	167.58	167.15	167.60	
11	167.19	167.65	167.57	167.53	167.08	172.42	172.80	171.20	167.96	167.59	167.20	167.59	
12	167.20	167.63	167.55	167.48	166.99	172.92	172.57	170.86	167.96	167.59	167.25	167.58	
13	167.19	167.66	167.58	167.47	167.03	173.36	172.34	170.43	167.96	167.57	167.28	167.58	
14	167.20	167.70	167.64	167.54	167.01	173.81	172.11	169.98	167.91	167.57	167.32	167.58	
15	167.23	167.75	167.74	167.55	166.96	174.06	171.80	169.52	167.88	167.58	167.37	167.58	
16	167.80	167.75	168.01	167.51	166.74	174.07	171.34	169.11	167.83	167.58	167.40	167.57	
17	167.79	167.71	168.09	167.38	166.54	174.00	170.70	168.76	167.81	167.58	167.43	167.57	
18	167.63	167.71	168.24	167.19	166.32	173.90	170.00	168.52	167.81	167.56	167.47	167.57	
19	167.60	167.77	168.17	167.13	166.19	173.82	169.32	168.36	167.82	167.56	167.52	167.57	
20	167.61	167.76	167.91	167.09	166.02	173.76	168.95	168.26	167.83	167.56	167.58	167.57	
21	167.59	167.83	167.75	166.93	165.96	173.68	168.65	168.17	167.81	167.56	167.60	167.58	
22	167.58	167.84	167.69	166.79	165.97	173.62	168.33	168.02	167.78	167.55	167.61	167.57	
23	167.57	167.82	167.65	166.66	165.42	173.55	168.08	167.84	167.76	167.54	167.63	167.57	
24	167.56	167.80	167.64	166.64	166.61	173.51	167.98	167.68	167.76	167.53	167.61	167.57	
25	167.56	167.74	167.63	166.44	167.93	173.42	168.22	167.53	167.74	167.53	167.61	167.57	
26	167.56	167.69	167.62	166.25	168.37	173.41	168.65	167.44	167.73	167.53	167.61	167.59	
27	167.55	167.65	167.61	166.06	168.45	173.43	168.87	167.33	167.67	167.52	167.61	167.61	
28	167.54	167.62	167.59	165.98	168.53	173.48	169.26	167.29	167.71	167.52	167.60	167.62	
29	167.55	167.62	167.59	165.86	168.55	173.54	169.47	167.24	167.74	167.29		167.64	
30	167.56	167.58	167.59	165.83	168.56	173.59	169.86	167.21	167.70	166.46		167.63	
31		167.63		165.75	168.46		170.41		167.69	166.37		167.64	
Mean	167.41	167.67	167.71	167.05	166.81	172.31	171.07	169.54	167.62	167.50	167.21	167.59	
Max	167.80	167.84	168.24	167.57	168.56	174.07	173.57	171.76	167.96	167.69	167.63	167.64	174.07
Min	167.19	167.57	167.55	165.75	165.42	168.50	167.98	167.21	167.01	166.37	166.36	167.57	165.42

Annual Max Momentary Gage Height 174.09 m. (MSL.) , at 24.00 Hours, on Sep 15, 2002

Zero Gage at Bottom Elevation 164.98 m. (MSL.) , River Bed 163.71 m. (MSL.)

Left Bank Elevation 177.25 m. (MSL.) ,

Right Bank Elevation 177.27 m. (MSL.) , Drainage Are 8777 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.75	3.70	7.60	3.70	0.01	61.00	432.50	174.64	36.50	7.60	0.04	4.00		
2	0.75	3.70	7.60	3.70	0.01	75.40	430.00	196.50	36.00	7.60	0.04	4.00		
3	0.75	3.70	6.40	3.60	0.01	72.70	415.00	209.50	34.25	7.20	0.04	4.00		
4	0.75	3.70	6.00	3.40	0.01	73.60	402.50	215.00	32.75	5.20	0.04	4.00		
5	0.70	3.70	6.40	3.40	0.01	94.00	385.80	217.50	32.25	5.20	0.05	4.00		
6	0.60	3.70	5.20	3.40	0.01	112.00	369.00	219.50	32.25	4.80	0.05	4.00		
7	0.55	3.70	4.40	3.40	0.05	142.44	360.60	220.00	32.25	5.20	0.06	4.00		
8	0.48	3.70	3.90	3.40	0.12	190.50	350.10	218.00	0.24	4.80	0.10	4.00		
9	0.48	6.00	4.00	3.40	0.48	218.00	330.00	214.00	18.60	4.80	0.28	4.00		
10	0.48	6.80	3.90	3.30	0.50	238.76	307.00	205.00	21.60	3.80	0.40	4.00		
11	0.48	6.00	3.70	3.30	0.26	253.84	283.00	192.00	21.60	3.90	0.50	3.90		
12	0.50	5.20	3.50	2.80	0.10	298.00	262.90	175.56	21.60	3.90	0.75	3.80		
13	0.48	6.40	3.80	2.70	0.16	381.60	249.68	155.78	21.60	3.70	0.90	3.80		
14	0.50	8.00	5.60	3.40	0.12	495.50	237.72	135.20	18.60	3.70	1.20	3.80		
15	0.65	10.50	10.00	3.50	0.08	588.60	222.00	116.80	17.00	3.80	1.70	3.80		
16	13.00	10.50	24.70	3.10	0.05	592.70	199.00	100.40	14.50	3.80	2.00	3.70		
17	12.50	8.50	30.30	1.80	0.04	564.00	168.20	86.60	13.50	3.80	2.30	3.70		
18	5.20	8.50	40.80	0.48	0.03	527.00	136.00	78.20	13.50	3.60	2.70	3.70		
19	4.00	11.50	35.90	0.36	0.03	499.00	108.80	72.60	14.00	3.60	3.20	3.70		
20	4.40	11.00	18.60	0.28	0.02	481.20	94.00	69.10	14.50	3.60	3.80	3.70		
21	3.90	14.50	10.50	0.07	0.02	460.00	82.75	66.10	13.50	3.60	4.00	3.80		
22	3.80	15.00	7.60	0.06	0.02	445.00	71.55	61.60	12.00	3.50	4.40	3.70		
23	3.70	14.00	6.00	0.05	0.01	427.50	63.40	56.20	11.00	3.40	5.20	3.70		
24	3.60	13.00	5.60	0.05	0.05	417.50	60.40	51.40	11.00	3.30	4.40	3.70		
25	3.60	10.00	5.20	0.04	19.80	395.00	67.70	46.90	10.00	3.30	4.40	3.70		
26	3.60	7.60	4.80	0.03	50.60	392.50	82.75	44.20	9.50	3.30	4.40	3.90		
27	3.50	6.00	4.40	0.02	57.00	397.50	90.80	40.90	6.80	3.20	4.40	4.40		
28	3.40	4.80	3.90	0.02	63.70	410.00	106.40	39.70	8.50	3.20	4.00	4.80		
29	3.50	4.80	3.90	0.02	65.50	425.00	114.80	38.20	10.00	0.95		5.60		
30	3.60	3.80	3.90	0.02	66.40	437.50	130.40	37.30	8.00	0.04		5.20		
31		5.20		0.01	57.80		154.86		7.60	0.04		5.60		
Total	84.20	227.20	288.10	56.81	383.00	10167.34	6769.61	3754.38	554.99	121.43	55.35	125.70	22588.11	CMSDAY
Mean	2.81	7.33	9.60	1.83	12.35	338.91	218.37	125.15	17.90	3.92	1.98	4.05	61.89	CMS
Max	13.00	15.00	40.80	3.70	66.40	592.70	432.50	220.00	36.50	7.60	5.20	5.60	592.70	CMS
Min	0.48	3.70	3.50	0.01	0.01	61.00	60.40	37.30	0.24	0.04	0.04	3.70	0.01	CMS
Runoff	7.27	19.63	24.89	4.91	33.09	878.46	584.89	324.38	47.95	10.49	4.78	10.86	1951.61	MCM

Momentary Peak 600.90 CMS, at 174.09 m. (MSL.), at 24.00 Hours, on Sep 15, 2002

Runoff Yield 7.05 Liters/Second/Square KM. Momentary Peak Yield 68.460 Liters/Second/Square KM.

WATER YEAR : 2002

CHI RIVER BASIN

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

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	Water - stage recorder
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 mean 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 37 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

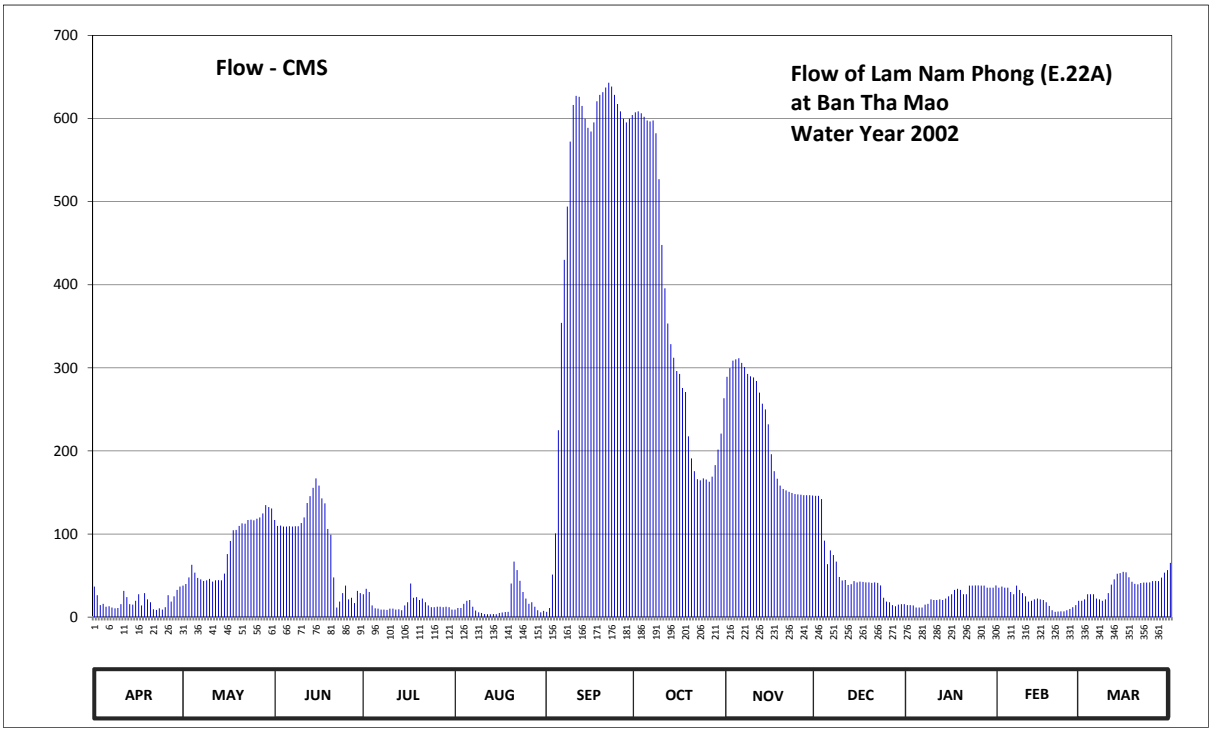
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	153.89	153.90	156.42	153.82	153.55	153.48	163.15	159.73	157.15	153.67	153.88	153.74	
2	153.81	153.99	156.24	153.87	153.60	153.60	163.16	159.88	157.15	153.67	153.89	153.76	
3	153.67	154.31	156.25	153.84	153.60	154.44	163.14	160.01	157.05	153.66	153.88	153.82	
4	153.70	154.83	156.22	153.66	153.70	155.99	163.10	160.03	155.75	153.61	153.88	153.82	
5	153.63	154.52	156.22	153.59	153.74	158.73	163.06	160.05	154.86	153.61	153.84	153.82	
6	153.64	154.29	156.23	153.58	153.75	160.59	163.05	159.97	155.41	153.61	153.82	153.77	
7	153.61	154.22	156.22	153.55	153.63	161.43	163.06	159.90	155.22	153.68	153.90	153.76	
8	153.59	154.14	156.23	153.55	153.52	162.09	162.92	159.78	154.96	153.70	153.86	153.74	
9	153.60	154.17	156.23	153.54	153.46	162.83	162.41	159.74	154.33	153.76	153.83	153.76	
10	153.69	154.24	156.33	153.58	153.43	163.23	161.62	159.72	154.16	153.75	153.80	153.83	
11	153.85	154.11	156.50	153.58	153.38	163.33	161.07	159.66	154.19	153.75	153.73	153.95	
12	153.79	154.17	156.93	153.55	153.37	163.32	160.58	159.46	153.93	153.76	153.74	154.22	
13	153.69	154.18	157.14	153.56	153.37	163.22	160.28	159.26	153.98	153.75	153.76	154.47	
14	153.68	154.17	157.37	153.53	153.38	163.08	160.06	159.15	154.13	153.77	153.77	154.50	
15	153.74	154.48	157.62	153.66	153.37	162.98	159.83	158.85	154.07	153.80	153.76	154.55	
16	153.82	155.26	157.43	153.72	153.43	162.94	159.78	158.20	154.11	153.82	153.75	154.53	
17	153.66	155.74	157.07	154.02	153.45	163.04	159.54	157.79	154.09	153.86	153.72	154.32	
18	153.83	156.10	156.92	153.78	153.47	163.27	159.47	157.61	154.07	153.87	153.65	154.10	
19	153.76	156.11	156.14	153.79	153.48	163.34	158.60	157.43	154.07	153.86	153.53	154.00	
20	153.72	156.24	155.95	153.75	154.02	163.37	158.10	157.34	154.05	153.82	153.48	153.97	
21	153.56	156.32	154.31	153.77	154.96	163.42	157.79	157.30	154.07	153.82	153.49	154.04	
22	153.54	156.31	153.61	153.72	154.62	163.47	157.60	157.26	154.05	153.90	153.50	154.06	
23	153.59	156.42	153.73	153.66	154.15	163.43	157.57	157.23	153.91	153.90	153.50	154.06	
24	153.55	156.43	153.83	153.62	153.84	163.34	157.62	157.20	153.78	153.91	153.53	154.07	
25	153.62	156.41	153.90	153.62	153.77	163.24	157.59	157.19	153.73	153.91	153.57	154.13	
26	153.81	156.46	153.76	153.63	153.70	163.16	157.53	157.18	153.72	153.90	153.62	154.14	
27	153.73	156.50	153.78	153.63	153.72	163.08	157.66	157.17	153.67	153.90	153.67	154.13	
28	153.80	156.62	153.71	153.62	153.63	163.04	157.94	157.17	153.64	153.88	153.74	154.30	
29	153.86	156.87	153.85	153.63	153.53	163.08	158.31	157.17	153.68	153.88		154.52	
30	153.89	156.81	153.83	153.62	153.46	163.12	158.66	157.16	153.69	153.88		154.62	
31		156.77		153.55	153.51		159.36		153.69	153.91		154.91	
Mean	153.71	155.33	155.67	153.66	153.66	161.69	160.12	158.52	154.46	153.79	153.72	154.11	
Max	153.89	156.87	157.62	154.02	154.96	163.47	163.16	160.05	157.15	153.91	153.90	154.91	163.47
Min	153.54	153.90	153.61	153.53	153.37	153.48	157.53	157.16	153.64	153.61	153.48	153.74	153.37

Annual Max Momentary Gage Height 163.48 m. (MSL.) , at 18.00 Hours, on Sep 22, 2002

Zero Gage at Bottom Elevation 150.92 m. (MSL.) , River Bed 150.87 m. (MSL.)

Left Bank Elevation 163.63 m. (MSL.) ,

Right Bank Elevation 163.62 m. (MSL.) , Drainage Are 13,638 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	36.70	38.00	116.80	27.60	9.00	6.40	607.50	289.10	146.00	14.50	35.40	19.60		
2	26.30	39.80	109.72	34.10	11.00	11.00	608.60	299.60	146.00	14.50	36.70	21.40		
3	14.50	47.75	110.10	30.20	11.00	51.20	606.40	308.70	142.00	14.00	35.40	27.60		
4	16.00	62.90	108.96	14.00	16.00	100.64	602.00	310.10	92.00	11.50	35.40	27.60		
5	12.50	53.60	108.96	10.60	19.60	224.80	597.60	311.50	63.80	11.50	30.20	27.60		
6	13.00	47.25	109.34	10.20	20.50	354.15	596.50	305.90	80.30	11.50	27.60	22.30		
7	11.50	45.50	108.96	9.00	12.50	429.85	597.60	301.00	74.60	15.00	38.00	21.40		
8	10.60	43.50	109.34	9.00	7.80	494.00	582.20	292.60	66.80	16.00	32.80	19.60		
9	11.00	44.25	109.34	8.60	5.80	572.30	527.05	289.80	48.25	21.40	28.90	21.40		
10	15.50	46.00	113.20	10.20	4.90	616.30	447.90	288.40	44.00	20.50	25.00	28.90		
11	31.50	42.75	120.00	10.20	3.60	627.30	395.65	284.20	44.75	20.50	18.70	39.00		
12	24.10	44.25	137.20	9.00	3.40	626.20	353.30	270.20	38.60	21.40	19.60	45.50		
13	15.50	44.50	145.60	9.40	3.40	615.20	328.50	256.90	39.60	20.50	21.40	52.10		
14	15.00	44.25	155.65	8.20	3.60	599.80	312.20	250.00	43.25	22.30	22.30	53.00		
15	19.60	52.40	167.00	14.00	3.40	588.80	296.10	232.00	41.75	25.00	21.40	54.50		
16	27.60	75.80	158.35	17.80	4.90	584.40	292.60	196.00	42.75	27.60	20.50	53.90		
17	14.00	91.64	142.80	40.50	5.50	595.40	275.80	175.50	42.25	32.80	17.80	48.00		
18	28.90	104.60	136.80	23.20	6.10	620.70	270.90	166.50	41.75	34.10	13.50	42.50		
19	21.40	104.96	106.04	24.10	6.40	628.40	217.50	158.35	41.75	32.80	8.20	40.00		
20	17.80	109.72	99.20	20.50	40.50	631.70	191.00	154.30	41.25	27.60	6.40	39.40		
21	9.40	112.80	47.75	22.30	66.80	637.30	175.50	152.50	41.75	27.60	6.70	41.00		
22	8.60	112.40	11.50	17.80	56.60	643.05	166.00	150.70	41.25	38.00	7.00	41.50		
23	10.60	116.80	18.70	14.00	43.75	638.45	164.65	149.35	38.20	38.00	7.00	41.50		
24	9.00	117.20	28.90	12.00	30.20	628.40	167.00	148.00	23.20	38.20	8.20	41.75		
25	12.00	116.40	38.00	12.00	22.30	617.40	165.55	147.60	18.70	38.20	9.80	43.25		
26	26.30	118.40	21.40	12.50	16.00	608.60	162.85	147.20	17.80	38.00	12.00	43.50		
27	18.70	120.00	23.20	12.50	17.80	599.80	169.00	146.80	14.50	38.00	14.50	43.25		
28	25.00	124.80	16.90	12.00	12.50	595.40	183.00	146.80	13.00	35.40	19.60	47.50		
29	32.80	134.80	31.50	12.50	8.20	599.80	201.55	146.80	15.00	35.40		53.60		
30	36.70	132.40	28.90	12.00	5.80	604.20	220.80	146.40	15.50	35.40		56.60		
31		130.80		9.00	7.40		263.40		15.50	38.20		65.30		
Total	572.10	2520.22	2740.11	489.00	486.25	15150.94	10746.20	6622.80	1575.85	815.40	580.00	1224.05	43522.92	CMSDAY
Mean	19.07	81.30	91.34	15.77	15.69	505.03	346.65	220.76	50.83	26.30	20.71	39.49	119.24	CMS
Max	36.70	134.80	167.00	40.50	66.80	643.05	608.60	311.50	146.00	38.20	38.00	65.30	643.05	CMS
Min	8.60	38.00	11.50	8.20	3.40	6.40	162.85	146.40	13.00	11.50	6.40	19.60	3.40	CMS
Runoff	49.43	217.75	236.75	42.25	42.01	1309.04	928.47	572.21	136.15	70.45	50.11	105.76	3760.38	MCM

Momentary Peak 644.20 CMS, at 163.48 m. (MSL.), at 18.00 Hours, on Sep 22, 2002

Runoff Yield 9.05 Liters/Second/Square KM. Momentary Peak Yield 48.870 Liters/Second/Square KM.

WATER YEAR : 2002

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	+174.000 m. (MSL.)
Bench Mark	B.M.- H.D.
Location BM	On left bank about 20 meters from the automatic gage building. **Elevation** +184.753 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean 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	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. The local weir situated about 50 meters downstream from the gage site. Stage-discharge relation defined by 55 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

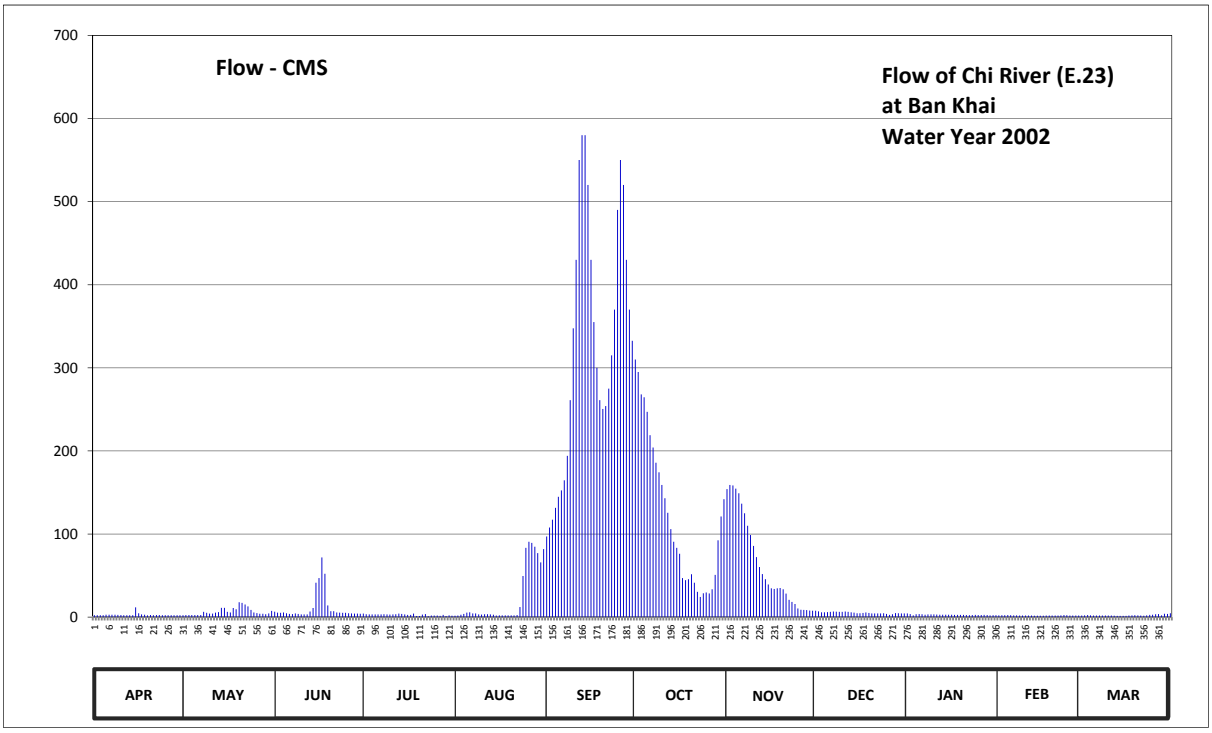
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	177.27	177.26	177.73	177.52	177.13	180.61	182.47	181.71	177.78	177.55	177.24	177.18	
2	177.25	177.28	177.64	177.45	177.18	180.85	182.44	181.80	177.75	177.47	177.26	177.24	
3	177.25	177.28	177.61	177.43	177.39	181.04	182.38	181.79	177.68	177.22	177.27	177.28	
4	177.25	177.28	177.66	177.43	177.49	181.30	182.37	181.72	177.67	177.45	177.28	177.24	
5	177.38	177.29	177.56	177.43	177.63	181.54	182.32	181.62	177.69	177.47	177.25	177.19	
6	177.39	177.29	177.48	177.42	177.68	181.68	182.23	181.39	177.72	177.44	177.24	177.18	
7	177.38	177.30	177.46	177.43	177.55	181.87	182.17	181.18	177.74	177.39	177.22	177.18	
8	177.36	177.72	177.55	177.45	177.54	182.12	182.07	180.90	177.73	177.43	177.19	177.17	
9	177.32	177.62	177.49	177.42	177.43	182.36	181.98	180.65	177.72	177.43	177.20	177.17	
10	177.28	177.53	177.43	177.41	177.40	182.53	181.80	180.36	177.72	177.42	177.19	177.20	
11	177.27	177.53	177.42	177.43	177.45	182.61	181.51	180.03	177.74	177.40	177.17	177.19	
12	177.26	177.64	177.43	177.44	177.45	182.65	181.19	179.73	177.72	177.36	177.17	177.15	
13	177.25	177.70	177.74	177.53	177.43	182.66	180.81	179.51	177.68	177.38	177.15	177.10	
14	177.27	177.96	177.95	177.48	177.39	182.66	180.47	179.33	177.64	177.37	177.15	177.10	
15	177.99	177.96	179.21	177.42	177.17	182.64	180.31	179.14	177.56	177.37	177.15	177.10	
16	177.56	177.72	179.37	177.35	177.24	182.61	180.13	178.99	177.56	177.37	177.16	177.12	
17	177.43	177.66	180.02	177.35	177.24	182.54	179.37	178.96	177.60	177.35	177.17	177.20	
18	177.36	177.95	179.52	177.53	177.23	182.45	179.30	178.99	177.65	177.34	177.19	177.24	
19	177.23	177.87	178.10	177.08	177.23	182.36	179.33	179.00	177.60	177.34	177.20	177.25	
20	177.28	178.29	177.76	177.07	177.23	182.33	179.50	178.95	177.55	177.33	177.19	177.23	
21	177.27	178.26	177.76	177.40	177.24	182.34	179.21	178.77	177.55	177.31	177.20	177.20	
22	177.29	178.16	177.65	177.46	177.28	182.40	178.85	178.44	177.54	177.25	177.22	177.16	
23	177.28	178.04	177.63	177.02	178.01	182.48	178.61	178.31	177.54	177.29	177.29	177.21	
24	177.27	177.83	177.61	177.20	179.44	182.56	178.79	178.19	177.56	177.32	177.25	177.34	
25	177.25	177.66	177.62	177.20	180.31	182.63	178.82	177.92	177.49	177.30	177.20	177.39	
26	177.26	177.58	177.57	177.19	180.47	182.65	178.78	177.84	177.32	177.29	177.20	177.44	
27	177.26	177.51	177.54	177.12	180.44	182.64	178.95	177.83	177.44	177.32	177.20	177.46	
28	177.26	177.51	177.53	177.32	180.34	182.61	179.48	177.82	177.58	177.30	177.18	177.24	
29	177.26	177.45	177.53	177.07	180.15	182.56	180.51	177.79	177.56	177.23		177.50	
30	177.25	177.55	177.50	177.21	179.87	182.51	181.11	177.78	177.55	177.26		177.48	
31		177.77		177.16	180.27		181.49		177.55	177.25		177.56	
Mean	177.32	177.66	177.87	177.34	178.11	182.23	180.60	179.55	177.62	177.35	177.21	177.25	
Max	177.99	178.29	180.02	177.53	180.47	182.66	182.47	181.80	177.78	177.55	177.29	177.56	182.66
Min	177.23	177.26	177.42	177.02	177.13	180.61	178.61	177.78	177.32	177.22	177.15	177.10	177.02

Annual Max Momentary Gage Height 182.66 m. (MSL.) , at 12.00 Hours, on Sep 12, 2002

Zero Gage at Bottom Elevation 174.00 m. (MSL.) , River Bed 174.98 m. (MSL.)

Left Bank Elevation 185.04 m. (MSL.) ,

Right Bank Elevation 185.43 m. (MSL.) , Drainage Are 6,282 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.35	2.30	6.60	4.20	1.65	96.95	310.00	154.05	7.60	4.50	2.20	1.90		
2	2.25	2.40	5.40	3.50	1.90	107.75	295.00	159.00	7.00	3.70	2.30	2.20		
3	2.25	2.40	5.10	3.30	2.95	117.20	268.00	158.45	5.80	2.10	2.35	2.40		
4	2.25	2.40	5.60	3.30	3.90	131.50	264.50	154.60	5.70	3.50	2.40	2.20		
5	2.90	2.45	4.60	3.30	5.30	144.70	247.00	149.10	5.90	3.70	2.25	1.95		
6	2.95	2.45	3.80	3.20	5.80	152.40	219.00	136.45	6.40	3.40	2.20	1.90		
7	2.90	2.50	3.60	3.30	4.50	164.60	204.00	124.90	6.80	2.95	2.10	1.90		
8	2.80	6.40	4.50	3.50	4.40	194.00	185.80	110.00	6.60	3.30	1.95	1.85		
9	2.60	5.20	3.90	3.20	3.30	261.00	174.20	98.75	6.40	3.30	2.00	1.85		
10	2.40	4.30	3.30	3.10	3.00	347.50	159.00	85.70	6.40	3.20	1.95	2.00		
11	2.35	4.30	3.20	3.30	3.50	429.98	143.05	72.20	6.80	3.00	1.85	1.95		
12	2.30	5.40	3.30	3.40	3.50	550.00	125.45	60.20	6.40	2.80	1.85	1.75		
13	2.25	6.00	6.80	4.30	3.30	580.00	105.95	51.85	5.80	2.90	1.75	1.50		
14	2.35	11.20	11.00	3.80	2.95	580.00	90.65	45.55	5.40	2.85	1.75	1.50		
15	11.80	11.20	41.35	3.20	1.85	519.99	83.45	39.20	4.60	2.85	1.75	1.50		
16	4.60	6.40	46.95	2.75	2.20	429.98	76.20	34.70	4.60	2.85	1.80	1.60		
17	3.30	5.60	71.80	2.75	2.20	355.00	46.95	33.80	5.00	2.75	1.85	2.00		
18	2.80	11.00	52.20	4.30	2.15	300.00	44.50	34.70	5.50	2.70	1.95	2.20		
19	2.15	9.40	14.00	1.40	2.15	261.00	45.55	35.00	5.00	2.70	2.00	2.25		
20	2.40	17.80	7.20	1.35	2.15	250.50	51.50	33.50	4.50	2.65	1.95	2.15		
21	2.35	17.20	7.20	3.00	2.20	254.00	41.35	28.25	4.50	2.55	2.00	2.00		
22	2.45	15.20	5.50	3.60	2.40	275.00	30.50	20.80	4.40	2.25	2.10	1.80		
23	2.40	12.80	5.30	1.10	12.20	315.00	24.25	18.20	4.40	2.45	2.45	2.05		
24	2.35	8.60	5.10	2.00	49.40	370.00	28.75	15.80	4.60	2.60	2.25	2.70		
25	2.25	5.60	5.20	2.00	83.45	489.99	29.60	10.40	3.90	2.50	2.00	2.95		
26	2.30	4.80	4.70	1.95	90.65	550.00	28.50	8.80	2.60	2.45	2.00	3.40		
27	2.30	4.10	4.40	1.60	89.30	519.99	33.50	8.60	3.40	2.60	2.00	3.60		
28	2.30	4.10	4.30	2.60	84.80	429.98	50.80	8.40	4.80	2.50	1.90	2.20		
29	2.30	3.50	4.30	1.35	77.00	370.00	92.45	7.80	4.60	2.15		4.00		
30	2.25	4.50	4.00	2.05	65.80	332.50	121.05	7.60	4.50	2.30		3.80		
31		7.40		1.80	81.80		141.95		4.50	2.25		4.60		
Total	85.20	208.90	354.20	87.50	701.65	9880.51	3762.45	1906.35	164.40	88.30	56.90	71.65	17368.01	CMSDAY
Mean	2.84	6.74	11.81	2.82	22.63	329.35	121.37	63.55	5.30	2.85	2.03	2.31	47.58	CMS
Max	11.80	17.80	71.80	4.30	90.65	580.00	310.00	159.00	7.60	4.50	2.45	4.60	580.00	CMS
Min	2.15	2.30	3.20	1.10	1.65	96.95	24.25	7.60	2.60	2.10	1.75	1.50	1.10	CMS
Runoff	7.36	18.05	30.60	7.56	60.62	853.68	325.08	164.71	14.20	7.63	4.92	6.19	1500.60	MCM

Momentary Peak 580.01 CMS, at 182.66 m. (MSL.), at 12.00 Hours, on Sep 12, 2002

Runoff Yield 7.57 Liters/Second/Square KM. Momentary Peak Yield 92.330 Liters/Second/Square KM.

WATER YEAR : 2002

CHI RIVER BASIN

Lam Phan at Ban Hua Khua, Kalasin (E.26)

Lat 16 - 24 - 33 N Long 103 - 28 - 16 E

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

Ban Hua Khua **Amphoe** Yang Talat **Changwat** Kalasin

Drainge Area	6,383 sq.km.
Type of Gage	Staff gage.
Zero Gage at Bottom	+134.633 m. (MSL.)
Bench Mark	B.M.- H.D.
Location BM	On right bank upstream side at the abutment of the bridge. **Elevation** +145.416 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 mean of 3 readings
Period of Available Gage Records	1954 to date.
Rating Operation	
Period of Rating	1971 - 1976, 1982 to date.
Rated by Flot	-
Rated by Current Meter	1971 - 1976, 1982 to date.
Stability of Channel Regimes	Rather unstable by some scouring.
Overbank Flow Conditions	Overbank flow starts at elevation +140.390 m.(M.S.L.) and is including overbank flow.
General Description	Records fair. Flow regulated by Lam Pao Dam. Stage-discharge relation defined by 29 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

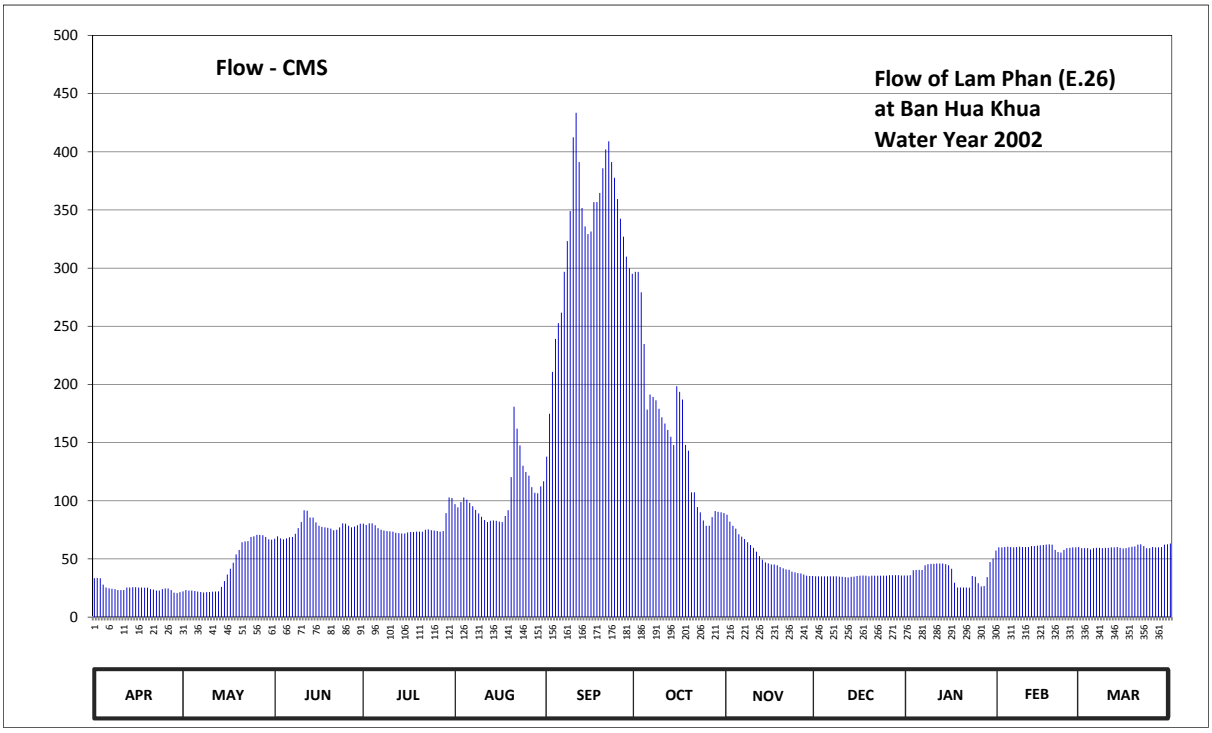
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	135.35	134.86	136.58	136.98	137.46	138.44	140.33	137.20	135.42	135.45	136.33	136.31	
2	135.36	134.91	136.65	136.95	137.38	139.13	140.33	137.03	135.42	135.46	136.33	136.31	
3	135.35	134.89	136.59	136.99	137.51	139.62	140.22	136.93	135.42	135.63	136.34	136.31	
4	135.12	134.89	136.56	136.99	137.62	139.91	139.87	136.86	135.42	135.64	136.35	136.27	
5	135.02	134.87	136.59	136.94	137.57	140.02	139.19	136.71	135.42	135.64	136.34	136.31	
6	134.99	134.85	136.62	136.87	137.49	140.09	139.39	136.64	135.42	135.64	136.33	136.32	
7	134.97	134.83	136.63	136.83	137.41	140.33	139.36	136.57	135.42	135.80	136.34	136.32	
8	134.95	134.81	136.72	136.81	137.32	140.48	139.32	136.48	135.42	135.84	136.35	136.31	
9	134.91	134.82	136.87	136.80	137.23	140.60	139.20	136.40	135.41	135.85	136.34	136.32	
10	134.91	134.83	137.02	136.79	137.15	140.83	139.08	136.32	135.40	135.85	136.34	136.32	
11	134.91	134.84	137.31	136.78	137.07	140.89	138.99	136.21	135.39	135.86	136.34	136.33	
12	135.02	134.85	137.30	136.75	137.02	140.76	138.89	136.08	135.38	135.86	136.37	136.33	
13	135.02	134.86	137.13	136.74	137.05	140.61	138.78	135.98	135.40	135.86	136.37	136.34	
14	135.03	135.04	137.13	136.73	137.06	140.54	138.64	135.90	135.41	135.84	136.38	136.32	
15	135.03	135.25	137.01	136.73	137.05	140.51	139.48	135.87	135.43	135.80	136.39	136.30	
16	135.02	135.48	136.93	136.76	137.03	140.52	139.42	135.83	135.44	135.68	136.40	136.31	
17	135.02	135.68	136.90	136.77	137.02	140.63	139.33	135.83	135.45	135.19	136.41	136.33	
18	135.01	135.89	136.89	136.77	137.17	140.63	138.64	135.80	135.44	135.02	136.42	136.35	
19	135.01	136.13	136.88	136.78	137.31	140.66	138.54	135.74	135.42	135.02	136.41	136.36	
20	134.95	136.26	136.86	136.78	138.06	140.74	137.73	135.70	135.44	135.02	136.26	136.41	
21	134.93	136.48	136.82	136.78	139.23	140.80	137.73	135.66	135.44	135.02	136.20	136.42	
22	134.89	136.50	136.83	136.83	138.91	140.82	137.39	135.65	135.44	135.01	136.18	136.37	
23	134.89	136.51	136.89	136.84	138.63	140.76	137.26	135.58	135.44	135.43	136.26	136.31	
24	134.95	136.63	136.99	136.82	138.28	140.71	137.06	135.56	135.44	135.40	136.31	136.31	
25	134.98	136.65	136.98	136.81	138.16	140.64	136.93	135.53	135.44	135.17	136.32	136.34	
26	134.98	136.69	136.93	136.80	138.09	140.57	136.93	135.52	135.46	135.06	136.33	136.33	
27	134.91	136.69	136.89	136.78	137.84	140.50	137.14	135.48	135.46	135.07	136.33	136.33	
28	134.80	136.68	136.91	136.80	137.72	140.41	137.29	135.44	135.46	135.39	136.34	136.34	
29	134.78	136.63	136.94	137.24	137.71	140.35	137.27	135.43	135.46	135.91		136.41	
30	134.82	136.56	136.98	137.62	137.86	140.32	137.26	135.43	135.45	136.01		136.42	
31		136.55		137.61	137.97		137.24		135.45	136.24		136.44	
Mean	135.00	135.66	136.88	136.89	137.63	140.39	138.52	136.05	135.43	135.54	136.34	136.34	
Max	135.36	136.69	137.31	137.62	139.23	140.89	140.33	137.20	135.46	136.24	136.42	136.44	140.89
Min	134.78	134.81	136.56	136.73	137.02	138.44	136.93	135.43	135.38	135.01	136.18	136.27	134.78

Annual Max Momentary Gage Height 140.90 m. (MSL.) , at 12.00 Hours, on Sep 11, 2002

Zero Gage at Bottom Elevation 134.63 m. (MSL.) , River Bed 129.08 m. (MSL.)

Left Bank Elevation 140.90 m. (MSL.) ,

Right Bank Elevation 140.39 m. (MSL.) , Drainage Are 6,383 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	33.40	22.20	67.40	80.30	97.10	138.00	296.80	88.00	35.08	35.80	59.90	59.30		
2	33.64	23.20	69.50	79.25	94.30	174.80	296.80	82.05	35.08	36.04	59.90	59.30		
3	33.40	22.80	67.70	80.65	98.85	210.80	279.20	78.55	35.08	40.25	60.20	59.30		
4	27.88	22.80	66.80	80.65	102.80	239.20	234.70	76.10	35.08	40.50	60.50	58.10		
5	25.48	22.40	67.70	78.90	100.95	252.60	178.40	71.30	35.08	40.50	60.20	59.30		
6	24.80	22.00	68.60	76.45	98.15	261.70	191.30	69.20	35.08	40.50	59.90	59.60		
7	24.40	21.60	68.90	75.05	95.35	296.80	189.20	67.10	35.08	44.50	60.20	59.60		
8	24.00	21.20	71.60	74.35	92.20	323.20	186.40	64.40	35.08	45.50	60.50	59.30		
9	23.20	21.40	76.45	74.00	89.05	349.00	179.00	62.00	34.84	45.75	60.20	59.60		
10	23.20	21.60	81.70	73.70	86.25	412.50	171.80	59.60	34.60	45.75	60.20	59.60		
11	23.20	21.80	91.85	73.40	83.45	433.50	166.45	56.30	34.36	46.00	60.20	59.90		
12	25.48	22.00	91.50	72.50	81.70	391.20	160.95	52.40	34.12	46.00	61.10	59.90		
13	25.48	22.20	85.55	72.20	82.75	351.60	155.00	49.40	34.60	46.00	61.10	60.20		
14	25.72	25.96	85.55	71.90	83.10	335.80	148.00	47.00	34.84	45.50	61.40	59.60		
15	25.72	31.00	81.35	71.90	82.75	329.20	198.40	46.25	35.32	44.50	61.70	59.00		
16	25.48	36.52	78.55	72.80	82.05	331.40	193.60	45.25	35.56	41.50	62.00	59.30		
17	25.48	41.50	77.50	73.10	81.70	356.80	187.10	45.25	35.80	29.56	62.30	59.90		
18	25.24	46.75	77.15	73.10	86.95	356.80	148.00	44.50	35.56	25.48	62.60	60.50		
19	25.24	53.90	76.80	73.40	91.85	364.60	143.00	43.00	35.08	25.48	62.30	60.80		
20	24.00	57.80	76.10	73.40	120.40	385.80	107.20	42.00	35.56	25.48	57.80	62.30		
21	23.60	64.40	74.70	73.40	180.80	402.00	107.20	41.00	35.56	25.48	56.00	62.60		
22	22.80	65.00	75.05	75.05	162.05	409.00	94.65	40.75	35.56	25.24	55.40	61.10		
23	22.80	65.30	77.15	75.40	147.50	391.20	90.10	39.00	35.56	35.32	57.80	59.30		
24	24.00	68.90	80.65	74.70	130.10	377.70	83.10	38.50	35.56	34.60	59.30	59.30		
25	24.60	69.50	80.30	74.35	124.70	359.40	78.55	37.75	35.56	29.08	59.60	60.20		
26	24.60	70.70	78.55	74.00	121.60	342.40	78.55	37.50	36.04	26.44	59.90	59.90		
27	23.20	70.70	77.15	73.40	111.60	327.00	85.90	36.52	36.04	26.68	59.90	59.90		
28	21.00	70.40	77.85	74.00	106.80	309.90	91.15	35.56	36.04	34.36	60.20	60.20		
29	20.60	68.90	78.90	89.40	106.40	300.00	90.45	35.32	36.04	47.30		62.30		
30	21.40	66.80	80.30	102.80	112.40	295.20	90.10	35.32	35.80	50.30		62.60		
31		66.50		102.40	116.80		89.40		35.80	57.20		63.20		
Total	753.04	1327.73	2308.85	2389.90	3252.45	9809.10	4790.45	1566.87	1094.44	1182.59	1682.30	1865.00	32022.72	CMSDAY
Mean	25.10	42.83	76.96	77.09	104.92	326.97	154.53	52.23	35.30	38.15	60.08	60.16	87.73	CMS
Max	33.64	70.70	91.85	102.80	180.80	433.50	296.80	88.00	36.04	57.20	62.60	63.20	433.50	CMS
Min	20.60	21.20	66.80	71.90	81.70	138.00	78.55	35.32	34.12	25.24	55.40	58.10	20.60	CMS
Runoff	65.06	114.72	199.48	206.49	281.01	847.51	413.89	135.38	94.56	102.18	145.35	161.14	2766.76	MCM

Momentary Peak 437.00 CMS, at 140.90 m. (MSL.), at 12.00 Hours, on Sep 11, 2002

Runoff Yield 13.74 Liters/Second/Square KM. Momentary Peak Yield 68.460 Liters/Second/Square KM.

WATER YEAR : 2002

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 mean 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	stable.
Overbank Flow Conditions	Overbank flow starts at elevation +237.390 m.(M.S.L.), records are channel flow only.
General Description	Records good. Flow effected by Ubonrat Dam. Stage-discharge relation defined by 132 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

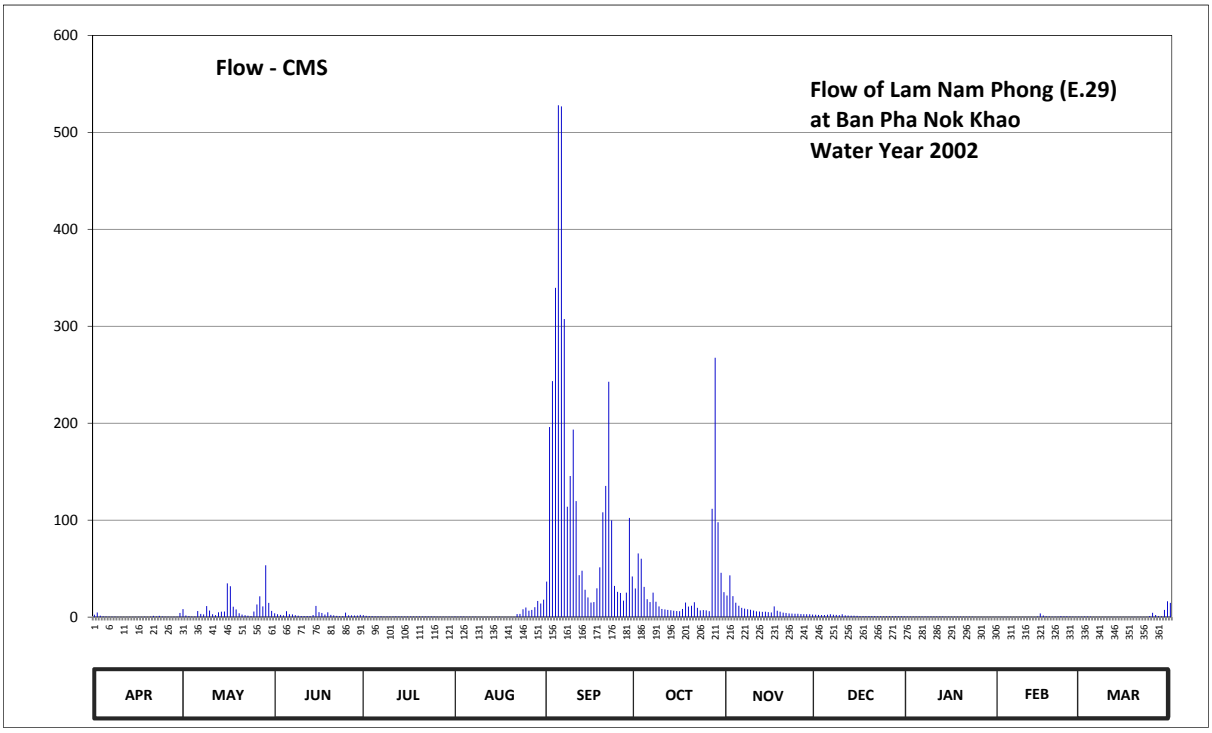
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	226.25	227.02	226.48	226.16	225.89	229.16	228.73	228.23	226.24	225.91	225.78	225.82	
2	226.60	226.11	226.32	226.05	225.83	234.57	230.53	229.49	226.21	225.91	225.78	225.89	
3	226.09	225.98	226.21	226.01	225.90	235.56	230.30	228.18	226.19	225.89	225.78	225.87	
4	225.93	225.91	226.13	225.97	225.88	237.10	228.84	227.62	226.19	225.89	225.78	225.83	
5	225.88	225.88	226.76	225.95	225.85	239.00	227.95	227.34	226.25	225.89	225.78	225.80	
6	225.84	226.78	226.34	225.92	225.83	238.99	227.68	227.14	226.34	225.89	225.78	225.80	
7	225.83	226.38	226.31	225.94	225.82	236.64	228.43	227.07	226.25	225.88	225.76	225.79	
8	225.81	226.30	226.15	225.91	225.81	232.31	227.71	227.01	226.21	225.88	225.76	225.78	
9	225.79	227.31	226.09	225.89	225.79	233.25	227.27	226.94	226.15	225.87	225.76	225.78	
10	225.78	226.84	226.03	225.89	225.78	234.51	227.04	226.84	226.34	225.86	225.76	225.78	
11	225.77	226.34	226.02	225.91	225.78	232.49	226.99	226.75	226.14	225.86	225.75	225.77	
12	225.75	226.15	226.02	225.92	225.78	229.50	226.93	226.72	226.10	225.86	225.75	225.77	
13	225.74	226.62	226.03	225.90	225.79	229.74	226.88	226.68	226.08	225.86	225.75	225.77	
14	225.74	226.69	226.18	225.90	225.77	228.63	226.83	226.70	226.08	225.85	225.87	225.78	
15	225.74	226.73	227.32	225.89	225.85	228.09	226.79	226.64	226.04	225.85	226.47	225.78	
16	225.75	229.07	226.63	225.89	225.82	227.63	226.76	226.59	226.01	225.85	226.10	225.79	
17	225.74	228.89	226.54	225.90	225.80	227.68	227.03	227.28	225.99	225.84	225.92	225.78	
18	225.84	227.25	226.26	225.90	225.77	228.74	227.64	226.82	225.98	225.84	225.86	225.78	
19	225.78	226.99	226.62	225.86	225.77	229.91	227.26	226.70	225.98	225.83	225.84	225.76	
20	225.83	226.49	226.22	225.90	225.78	232.13	227.33	226.58	225.97	225.83	225.82	225.76	
21	226.06	226.28	226.13	225.87	225.79	232.95	227.66	226.53	225.97	225.82	225.84	225.77	
22	225.89	226.16	226.06	225.86	226.36	235.55	227.14	226.46	225.96	225.82	226.00	225.78	
23	226.06	226.07	226.01	225.86	226.39	231.85	226.87	226.44	225.96	225.81	225.92	225.79	
24	225.90	226.02	225.98	225.86	227.01	228.91	226.91	226.41	225.95	225.80	225.92	226.02	
25	225.85	226.73	226.58	225.86	227.17	228.49	226.86	226.41	225.93	225.80	225.86	226.56	
26	225.82	227.46	226.13	225.84	226.83	228.41	226.76	226.36	225.93	225.79	225.82	226.20	
27	225.80	228.17	226.13	225.83	226.93	227.82	232.24	226.34	225.93	225.79	225.81	225.99	
28	225.82	227.27	226.10	225.84	227.20	228.43	235.99	226.33	225.93	225.79	225.83	225.94	
29	225.82	230.02	226.10	225.84	227.78	231.94	231.78	226.32	225.93	225.78		226.92	
30	226.53	227.61	226.21	225.84	227.54	229.43	229.63	226.26	225.92	225.78		227.76	
31		226.80		225.85	227.90		228.46		225.92	225.78		227.61	
Mean	225.90	226.91	226.27	225.90	226.23	231.65	228.23	226.91	226.07	225.84	225.85	226.01	
Max	226.60	230.02	227.32	226.16	227.90	239.00	235.99	229.49	226.34	225.91	226.47	227.76	239.00
Min	225.74	225.88	225.98	225.83	225.77	227.63	226.76	226.26	225.92	225.78	225.75	225.76	225.74

Annual Max Momentary Gage Height 239.57 m. (MSL.) , at 21.00 Hours, on Sep 5, 2002

Zero Gage at Bottom Elevation 225.00 m. (MSL.) , River Bed 255.47 m. (MSL.)

Left Bank Elevation 237.38 m. (MSL.) ,

Right Bank Elevation 237.47 m. (MSL.) , Drainage Are 949 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.50	8.22	3.88	1.96	0.67	36.62	29.58	22.33	2.44	0.73	0.36	0.46		
2	4.80	1.66	2.92	1.30	0.49	196.08	65.72	43.06	2.26	0.73	0.36	0.67		
3	1.54	0.94	2.26	1.06	0.70	243.36	60.20	21.61	2.14	0.67	0.36	0.61		
4	0.79	0.73	1.78	0.91	0.64	339.60	31.18	14.82	2.14	0.67	0.36	0.49		
5	0.64	0.64	6.08	0.85	0.55	528.00	18.45	11.74	2.50	0.67	0.36	0.40		
6	0.52	6.24	3.04	0.76	0.49	526.80	15.48	9.54	3.04	0.67	0.36	0.40		
7	0.49	3.28	2.86	0.82	0.46	307.52	25.24	8.77	2.50	0.64	0.32	0.38		
8	0.43	2.80	1.90	0.73	0.43	113.92	15.81	8.11	2.26	0.64	0.32	0.36		
9	0.38	11.41	1.54	0.67	0.38	145.50	10.97	7.52	1.90	0.61	0.32	0.36		
10	0.36	6.72	1.18	0.67	0.36	193.44	8.44	6.72	3.04	0.58	0.32	0.36		
11	0.34	3.04	1.12	0.73	0.36	119.68	7.92	6.00	1.84	0.58	0.30	0.34		
12	0.30	1.90	1.12	0.76	0.36	43.25	7.44	5.76	1.60	0.58	0.30	0.34		
13	0.28	4.96	1.18	0.70	0.38	47.93	7.04	5.44	1.48	0.58	0.30	0.34		
14	0.28	5.52	2.08	0.70	0.34	28.13	6.64	5.60	1.48	0.55	0.61	0.36		
15	0.28	5.84	11.52	0.67	0.55	20.31	6.32	5.12	1.24	0.55	3.82	0.36		
16	0.30	34.86	5.04	0.67	0.46	14.93	6.08	4.72	1.06	0.55	1.60	0.38		
17	0.28	31.90	4.32	0.70	0.40	15.48	8.33	11.08	0.97	0.52	0.76	0.36		
18	0.52	10.75	2.56	0.70	0.34	29.73	15.04	6.56	0.94	0.52	0.58	0.36		
19	0.36	7.92	4.96	0.58	0.34	51.24	10.86	5.60	0.94	0.49	0.52	0.32		
20	0.49	3.94	2.32	0.70	0.36	108.16	11.63	4.64	0.91	0.49	0.46	0.32		
21	1.36	2.68	1.78	0.61	0.38	135.30	15.26	4.24	0.91	0.46	0.52	0.34		
22	0.67	1.96	1.36	0.58	3.16	242.80	9.54	3.76	0.88	0.46	1.00	0.36		
23	1.36	1.42	1.06	0.58	3.34	99.80	6.96	3.64	0.88	0.43	0.76	0.38		
24	0.70	1.12	0.94	0.58	8.11	32.19	7.28	3.46	0.85	0.40	0.76	1.12		
25	0.55	5.84	4.64	0.58	9.87	26.11	6.88	3.46	0.79	0.40	0.58	4.48		
26	0.46	13.06	1.78	0.52	6.64	24.94	6.08	3.16	0.79	0.38	0.46	2.20		
27	0.40	21.46	1.78	0.49	7.44	17.02	111.68	3.04	0.79	0.38	0.43	0.97		
28	0.46	10.97	1.60	0.52	10.20	25.24	267.44	2.98	0.79	0.38	0.49	0.82		
29	0.46	53.48	1.60	0.52	16.58	102.32	97.84	2.92	0.79	0.36		7.36		
30	4.24	14.71	2.26	0.52	13.94	41.89	45.78	2.56	0.76	0.36		16.36		
31		6.40		0.55	17.90		25.67		0.76	0.36		14.71		
Total	26.54	286.37	82.46	22.69	106.62	3857.29	968.78	247.96	45.67	16.39	17.69	57.07	5735.53	CMSDAY
Mean	0.88	9.24	2.75	0.73	3.44	128.58	31.25	8.27	1.47	0.53	0.63	1.84	15.71	CMS
Max	4.80	53.48	11.52	1.96	17.90	528.00	267.44	43.06	3.04	0.73	3.82	16.36	528.00	CMS
Min	0.28	0.64	0.94	0.49	0.34	14.93	6.08	2.56	0.76	0.36	0.30	0.32	0.28	CMS
Runoff	2.29	24.74	7.12	1.96	9.21	333.27	83.70	21.42	3.95	1.42	1.53	4.93	495.55	MCM

Momentary Peak 615.20 CMS, at 239.57 m. (MSL.), at 21.00 Hours, on Sep 5, 2002

Runoff Yield 16.56 Liters/Second/Square KM. Momentary Peak Yield 648.260 Liters/Second/Square KM.

WATER YEAR : 2002

CHI RIVER BASIN

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

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

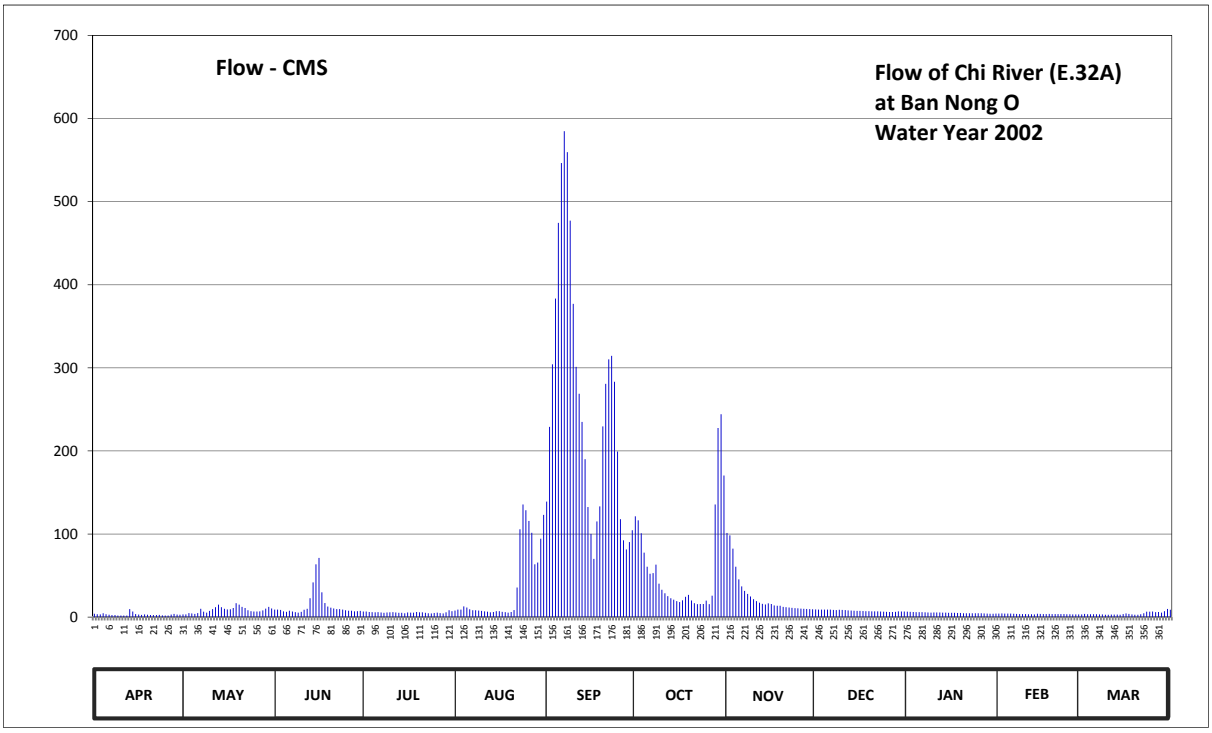
Location : on right bank about 500 meters north of Ban Nong O from about 600 meters upstream from E.32 gaging station.

	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** +210.661 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean 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 70 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	198.80	198.72	199.31	199.08	199.19	204.34	203.86	203.27	199.32	199.05	198.82	198.73	
2	198.74	198.72	199.30	199.07	199.31	206.50	203.72	203.19	199.31	199.04	198.85	198.78	
3	198.72	198.88	199.26	199.02	199.30	208.07	203.26	202.68	199.30	199.01	198.83	198.75	
4	198.87	198.85	199.10	199.00	199.68	209.03	202.52	201.94	199.30	199.00	198.83	198.74	
5	198.74	198.78	199.04	198.98	199.55	209.76	201.94	201.31	199.30	199.00	198.82	198.74	
6	198.68	198.88	199.17	198.99	199.35	210.24	201.59	200.95	199.30	198.99	198.81	198.74	
7	198.64	199.40	199.07	198.95	199.23	210.46	201.62	200.68	199.27	198.98	198.78	198.72	
8	198.64	199.06	198.99	198.92	199.23	210.32	202.04	200.50	199.24	198.96	198.76	198.72	
9	198.60	198.93	198.94	198.96	199.19	209.78	201.09	200.34	199.28	198.94	198.77	198.69	
10	198.58	199.15	199.03	198.97	199.15	208.97	200.75	200.18	199.27	198.95	198.76	198.68	
11	198.57	199.37	199.29	198.99	199.10	208.02	200.53	200.06	199.25	198.95	198.74	198.70	
12	198.57	199.60	199.40	198.95	199.05	207.35	200.36	199.97	199.21	198.95	198.75	198.70	
13	199.36	199.83	200.24	198.92	198.97	206.63	200.24	199.90	199.18	198.94	198.73	198.70	
14	199.08	199.59	201.16	198.92	199.02	205.62	200.15	199.85	199.16	198.94	198.80	198.69	
15	198.77	199.40	202.05	198.87	199.12	204.17	200.06	199.93	199.15	198.92	198.79	198.77	
16	198.71	199.32	202.31	198.96	199.12	203.24	200.00	199.88	199.14	198.92	198.77	198.85	
17	198.66	199.35	200.59	198.93	199.04	202.27	200.11	199.77	199.13	198.91	198.77	198.79	
18	198.72	199.50	199.95	198.93	199.00	203.68	200.32	199.74	199.12	198.89	198.78	198.72	
19	198.69	199.94	199.67	199.01	198.94	204.19	200.44	199.74	199.12	198.89	198.77	198.69	
20	198.64	199.83	199.54	198.98	199.01	206.51	200.10	199.64	199.10	198.87	198.77	198.68	
21	198.64	199.64	199.44	198.97	199.25	207.60	199.94	199.59	199.10	198.87	198.76	198.74	
22	198.65	199.49	199.37	198.92	200.88	208.17	199.87	199.56	199.10	198.87	198.76	198.86	
23	198.67	199.22	199.37	198.86	203.40	208.24	199.89	199.52	199.07	198.86	198.76	199.05	
24	198.61	199.12	199.31	198.85	204.25	207.65	199.88	199.48	199.06	198.86	198.75	199.06	
25	198.59	199.08	199.22	198.89	204.07	205.84	200.09	199.46	199.04	198.86	198.74	199.07	
26	198.60	199.08	199.16	198.94	203.70	203.76	199.87	199.42	199.02	198.86	198.73	199.00	
27	198.70	199.09	199.16	198.88	203.28	203.01	200.39	199.40	199.01	198.84	198.73	199.01	
28	198.78	199.20	199.10	198.85	202.05	202.65	204.25	199.38	199.04	198.82	198.73	198.93	
29	198.70	199.42	199.12	198.97	202.12	202.94	206.47	199.36	199.09	198.81		199.12	
30	198.68	199.64	199.14	199.23	203.07	203.37	206.83	199.34	199.07	198.81		199.39	
31		199.44		199.11	203.91		205.15		199.07	198.83		199.29	
Mean	198.71	199.27	199.59	198.96	200.44	206.41	201.53	200.27	199.17	198.92	198.77	198.84	
Max	199.36	199.94	202.31	199.23	204.25	210.46	206.83	203.27	199.32	199.05	198.85	199.39	210.46
Min	198.57	198.72	198.94	198.85	198.94	202.27	199.87	199.34	199.01	198.81	198.73	198.68	198.57

Annual Max Momentary Gage Height	210.48	m. (MSL.) ,	at 18.00 Hours, on Sep 7, 2002		
Zero Gage at Bottom Elevation	198.00	m. (MSL.) ,	River Bed	197.65	m. (MSL.)
Left Bank Elevation	210.53	m. (MSL.) ,			
Right Bank Elevation	210.89	m. (MSL.) ,	Drainage Are	2,867	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	4.00	3.20	9.10	6.80	7.90	138.92	121.24	101.18	9.20	6.50	4.20	3.30		
2	3.40	3.20	9.00	6.70	9.10	229.00	116.48	98.46	9.10	6.40	4.50	3.80		
3	3.20	4.80	8.60	6.20	9.00	304.20	100.84	82.40	9.00	6.10	4.30	3.50		
4	4.70	4.50	7.00	6.00	12.80	383.30	77.60	60.56	9.00	6.00	4.30	3.40		
5	3.40	3.80	6.40	5.80	11.50	474.40	60.56	45.44	9.00	6.00	4.20	3.40		
6	2.80	4.80	7.70	5.90	9.50	546.40	52.16	37.00	9.00	5.90	4.10	3.40		
7	2.40	10.00	6.70	5.50	8.30	584.80	52.88	31.60	8.70	5.80	3.80	3.20		
8	2.40	6.60	5.90	5.20	8.30	559.60	63.20	28.00	8.40	5.60	3.60	3.20		
9	2.00	5.30	5.40	5.60	7.90	477.20	40.16	24.80	8.80	5.40	3.70	2.90		
10	1.90	7.50	6.30	5.70	7.50	377.00	33.00	21.60	8.70	5.50	3.60	2.80		
11	1.85	9.70	8.90	5.90	7.00	301.20	28.60	19.20	8.50	5.50	3.40	3.00		
12	1.85	12.00	10.00	5.50	6.50	268.80	25.20	17.40	8.10	5.50	3.50	3.00		
13	9.60	14.95	22.80	5.20	5.70	234.98	22.80	16.00	7.80	5.40	3.30	3.00		
14	6.80	11.90	41.84	5.20	6.20	190.04	21.00	15.25	7.60	5.40	4.00	2.90		
15	3.70	10.00	63.50	4.70	7.20	132.46	19.20	16.60	7.50	5.20	3.90	3.70		
16	3.10	9.20	71.30	5.60	7.20	100.16	18.00	15.70	7.40	5.20	3.70	4.50		
17	2.60	9.50	29.80	5.30	6.40	70.10	20.20	14.05	7.30	5.10	3.70	3.90		
18	3.20	11.00	17.00	5.30	6.00	115.12	24.40	13.60	7.20	4.90	3.80	3.20		
19	2.90	16.80	12.70	6.10	5.40	133.22	26.80	13.60	7.20	4.90	3.70	2.90		
20	2.40	14.95	11.40	5.80	6.10	229.46	20.00	12.40	7.00	4.70	3.70	2.80		
21	2.40	12.40	10.40	5.70	8.50	280.80	16.80	11.90	7.00	4.70	3.60	3.40		
22	2.50	10.90	9.70	5.20	35.60	310.20	15.55	11.60	7.00	4.70	3.60	4.60		
23	2.70	8.20	9.70	4.60	105.60	314.40	15.85	11.20	6.70	4.60	3.60	6.50		
24	2.10	7.20	9.10	4.50	135.50	283.20	15.70	10.80	6.60	4.60	3.50	6.60		
25	1.95	6.80	8.20	4.90	128.66	199.28	19.80	10.60	6.40	4.60	3.40	6.70		
26	2.00	6.80	7.60	5.40	115.80	117.84	15.55	10.20	6.20	4.60	3.30	6.00		
27	3.00	6.90	7.60	4.80	101.52	92.34	25.80	10.00	6.10	4.40	3.30	6.10		
28	3.80	8.00	7.00	4.50	63.50	81.50	135.50	9.80	6.40	4.20	3.30	5.30		
29	3.00	10.20	7.20	5.70	65.60	90.20	227.62	9.60	6.90	4.10		7.20		
30	2.80	12.40	7.40	8.30	94.38	104.58	244.18	9.40	6.70	4.10		9.90		
31		10.40		7.10	122.94		170.30		6.70	4.30		8.90		
Total	94.45	273.90	445.24	174.70	1133.10	7724.70	1846.97	789.94	237.20	159.90	104.60	137.00	13121.70	CMSDAY
Mean	3.15	8.84	14.84	5.64	36.55	257.49	59.58	26.33	7.65	5.16	3.74	4.42	35.95	CMS
Max	9.60	16.80	71.30	8.30	135.50	584.80	244.18	101.18	9.20	6.50	4.50	9.90	584.80	CMS
Min	1.85	3.20	5.40	4.50	5.40	70.10	15.55	9.40	6.10	4.10	3.30	2.80	1.85	CMS
Runoff	8.16	23.66	38.47	15.09	97.90	667.41	159.58	68.25	20.49	13.82	9.04	11.84	1133.71	MCM

Momentary Peak 588.40 CMS, at 210.48 m. (MSL.), at 18.00 Hours, on Sep 7, 2002

Runoff Yield 12.54 Liters/Second/Square KM. Momentary Peak Yield 205.230 Liters/Second/Square KM.

WATER YEAR : 2002

CHI RIVER BASIN

Lam Chi Long at Ban Lup Pho, Chaiyaphum (E.49B)

Lat 15 - 47 - 28 N Long 101 - 52 - 20 E

Location : on right bank at the bridge on road Ban Lup Pho from Tumbom Talat Raeng.

Ban Lup Pho **Amphoe** Ban Khwao **Changwat** Chaiyaphum

Drainge Area	327 sq.km.
Type of Gage	Staff gage.
Zero Gage at Bottom	+196.182 m. (MSL.)
Bench Mark	B.M.- H.D.
Location BM	On left bank upstream site at the abutment of the bridge. **Elevation** +200.251 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 mean 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 fair. Flow effected by the local weir about 1.8 kilometers downstream from the gage site. Stage-discharge relation defined by 23 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

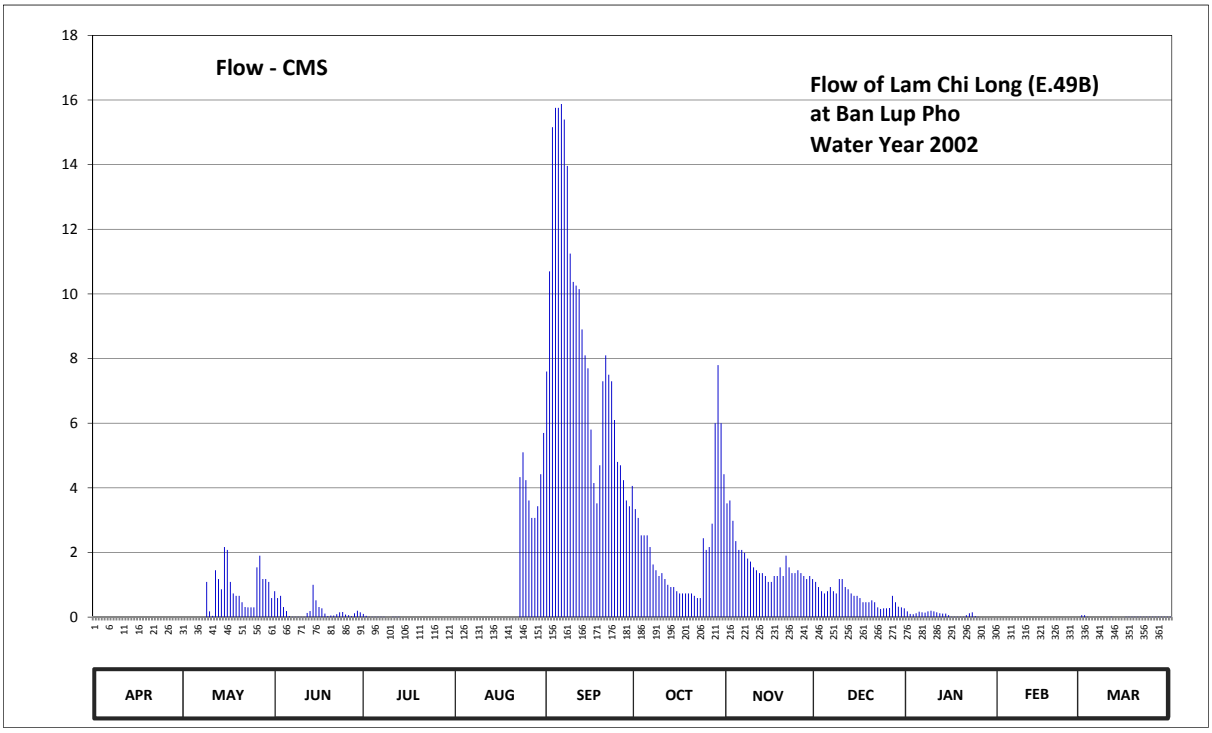
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	196.41	196.41	197.07	196.72	196.33	197.80	197.36	197.38	197.11	196.83	196.37	196.67	
2	196.41	196.41	197.04	196.64	196.33	198.10	197.33	197.39	197.09	196.72	196.36	196.67	
3	196.41	196.41	197.05	196.58	196.33	198.48	197.27	197.32	197.07	196.71	196.36	196.54	
4	196.41	196.41	196.99	196.55	196.33	198.53	197.27	197.25	197.06	196.74	196.36	196.41	
5	196.41	196.41	196.84	196.52	196.33	198.53	197.27	197.22	197.07	196.81	196.36	196.41	
6	196.41	196.41	196.63	196.50	196.33	198.54	197.23	197.22	197.09	196.78	196.36	196.41	
7	196.41	196.41	196.59	196.46	196.33	198.50	197.17	197.21	197.07	196.77	196.36	196.40	
8	196.41	196.41	196.54	196.44	196.33	198.38	197.15	197.19	197.06	196.83	196.36	196.38	
9	196.41	197.11	196.60	196.41	196.33	198.15	197.13	197.18	197.12	196.85	196.36	196.36	
10	196.41	196.82	196.55	196.41	196.33	198.07	197.14	197.16	197.12	196.83	196.36	196.42	
11	196.41	196.64	196.54	196.46	196.33	198.06	197.12	197.15	197.09	196.78	196.36	196.44	
12	196.41	197.15	196.76	196.50	196.33	198.05	197.10	197.14	197.08	196.75	196.36	196.39	
13	196.41	197.12	196.84	196.46	196.32	197.93	197.09	197.14	197.06	196.73	196.36	196.38	
14	196.41	197.08	197.10	196.41	196.30	197.85	197.09	197.13	197.05	196.73	196.36	196.36	
15	196.41	197.23	197.03	196.38	196.30	197.81	197.07	197.11	197.05	196.66	196.36	196.38	
16	196.41	197.22	196.99	196.37	196.30	197.62	197.06	197.11	197.04	196.58	196.36	196.43	
17	196.41	197.11	196.94	196.36	196.30	197.45	197.06	197.13	197.02	196.54	196.36	196.43	
18	196.41	197.06	196.73	196.36	196.30	197.38	197.06	197.13	197.02	196.52	196.36	196.43	
19	196.41	197.05	196.63	196.36	196.30	197.51	197.06	197.16	197.02	196.46	196.36	196.43	
20	196.41	197.05	196.65	196.36	196.30	197.77	197.06	197.13	197.03	196.48	196.36	196.43	
21	196.41	197.02	196.65	196.36	196.30	197.85	197.05	197.20	197.02	196.66	196.36	196.44	
22	196.41	196.99	196.70	196.34	196.39	197.79	197.04	197.16	196.97	196.74	196.36	196.45	
23	196.41	196.98	196.79	196.33	197.47	197.77	197.04	197.14	196.91	196.79	196.36	196.56	
24	196.41	196.97	196.80	196.33	197.55	197.65	197.26	197.14	196.94	196.63	196.36	196.58	
25	196.41	196.97	196.69	196.33	197.46	197.52	197.22	197.15	196.94	196.44	196.36	196.47	
26	196.41	197.16	196.67	196.33	197.39	197.51	197.23	197.14	196.95	196.39	196.36	196.45	
27	196.41	197.20	196.63	196.33	197.33	197.46	197.31	197.13	197.05	196.38	196.36	196.45	
28	196.41	197.12	196.75	196.33	197.33	197.39	197.64	197.12	197.02	196.38	196.36	196.45	
29	196.41	197.12	196.85	196.33	197.37	197.37	197.82	197.13	197.00	196.38		196.45	
30	196.41	197.11	196.79	196.33	197.48	197.44	197.64	197.12	196.97	196.38		196.45	
31		197.04		196.33	197.61		197.48		196.94	196.38		196.45	
Mean	196.41	196.89	196.78	196.42	196.65	197.88	197.22	197.18	197.03	196.63	196.36	196.45	
Max	196.41	197.23	197.10	196.72	197.61	198.54	197.82	197.39	197.12	196.85	196.37	196.67	198.54
Min	196.41	196.41	196.54	196.33	196.30	197.37	197.04	197.11	196.91	196.38	196.36	196.36	196.30

Annual Max Momentary Gage Height 198.55 m. (MSL.) , at 18.00 Hours, on Sep 3, 2002

Zero Gage at Bottom Elevation 196.18 m. (MSL.) , River Bed 196.39 m. (MSL.)

Left Bank Elevation 200.29 m. (MSL.) ,

Right Bank Elevation 200.32 m. (MSL.) , Drainage Are 327 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	0.80	0.10	0.00	7.60	3.34	3.52	1.09	0.18	0.00	0.06		
2	0.00	0.00	0.59	0.04	0.00	10.70	3.07	3.61	0.93	0.10	0.00	0.06		
3	0.00	0.00	0.66	0.01	0.00	15.16	2.53	2.98	0.80	0.09	0.00	0.01		
4	0.00	0.00	0.31	0.01	0.00	15.76	2.53	2.35	0.73	0.12	0.00	0.00		
5	0.00	0.00	0.19	0.01	0.00	15.76	2.53	2.08	0.80	0.17	0.00	0.00		
6	0.00	0.00	0.03	0.01	0.00	15.88	2.17	2.08	0.93	0.15	0.00	0.00		
7	0.00	0.00	0.01	0.01	0.00	15.40	1.63	1.99	0.80	0.14	0.00	0.00		
8	0.00	0.00	0.01	0.01	0.00	13.96	1.45	1.81	0.73	0.18	0.00	0.00		
9	0.00	1.09	0.01	0.00	0.00	11.25	1.27	1.72	1.18	0.20	0.00	0.00		
10	0.00	0.18	0.01	0.00	0.00	10.37	1.36	1.54	1.18	0.18	0.00	0.00		
11	0.00	0.04	0.01	0.01	0.00	10.26	1.18	1.45	0.93	0.15	0.00	0.01		
12	0.00	1.45	0.13	0.01	0.00	10.15	1.00	1.36	0.86	0.12	0.00	0.00		
13	0.00	1.18	0.19	0.01	0.00	8.90	0.93	1.36	0.73	0.11	0.00	0.00		
14	0.00	0.86	1.00	0.00	0.00	8.10	0.93	1.27	0.66	0.11	0.00	0.00		
15	0.00	2.17	0.52	0.00	0.00	7.70	0.80	1.09	0.66	0.06	0.00	0.00		
16	0.00	2.08	0.31	0.00	0.00	5.80	0.73	1.09	0.59	0.01	0.00	0.01		
17	0.00	1.09	0.27	0.00	0.00	4.15	0.73	1.27	0.46	0.01	0.00	0.01		
18	0.00	0.73	0.11	0.00	0.00	3.52	0.73	1.27	0.46	0.01	0.00	0.01		
19	0.00	0.66	0.03	0.00	0.00	4.70	0.73	1.54	0.46	0.01	0.00	0.01		
20	0.00	0.66	0.05	0.00	0.00	7.30	0.73	1.27	0.52	0.01	0.00	0.01		
21	0.00	0.46	0.05	0.00	0.00	8.10	0.66	1.90	0.46	0.06	0.00	0.01		
22	0.00	0.31	0.09	0.00	0.00	7.50	0.59	1.54	0.30	0.12	0.00	0.01		
23	0.00	0.30	0.15	0.00	4.33	7.30	0.59	1.36	0.25	0.15	0.00	0.01		
24	0.00	0.30	0.16	0.00	5.10	6.10	2.44	1.36	0.27	0.03	0.00	0.01		
25	0.00	0.30	0.08	0.00	4.24	4.80	2.08	1.45	0.27	0.01	0.00	0.01		
26	0.00	1.54	0.06	0.00	3.61	4.70	2.17	1.36	0.28	0.00	0.00	0.01		
27	0.00	1.90	0.03	0.00	3.07	4.24	2.89	1.27	0.66	0.00	0.00	0.01		
28	0.00	1.18	0.12	0.00	3.07	3.61	6.00	1.18	0.46	0.00	0.00	0.01		
29	0.00	1.18	0.20	0.00	3.43	3.43	7.80	1.27	0.32	0.00		0.01		
30	0.00	1.09	0.15	0.00	4.42	4.06	6.00	1.18	0.30	0.00		0.01		
31		0.59		0.00	5.70		4.42		0.27	0.00		0.01		
Total	0.00	21.34	6.33	0.23	36.97	256.26	66.01	50.52	19.34	2.48	0.00	0.30	459.78	CMSDAY
Mean	0.00	0.69	0.21	0.01	1.19	8.54	2.13	1.68	0.62	0.08	0.00	0.01	1.26	CMS
Max	0.00	2.17	1.00	0.10	5.70	15.88	7.80	3.61	1.18	0.20	0.00	0.06	15.88	CMS
Min	0.00	0.00	0.01	0.00	0.00	3.43	0.59	1.09	0.25	0.00	0.00	0.00	0.00	CMS
Runoff	0.00	1.84	0.55	0.02	3.19	22.14	5.70	4.36	1.67	0.21	0.00	0.03	39.72	MCM

Momentary Peak 16.00 CMS, at 198.55 m. (MSL.), at 18.00 Hours, on Sep 3, 2002

Runoff Yield 3.85 Liters/Second/Square KM. Momentary Peak Yield 48.930 Liters/Second/Square KM.

WATER YEAR : 2002

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 mean 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	Fairly stable because of backwater effect.
Overbank Flow Conditions	Overbank flow starts at elevation +144.180 m.(M.S.L.), records are channel flow only.
General Description	Records good. The weir situated about 100 meters downstream from the gage site. Stage-discharge relation defined by 46 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

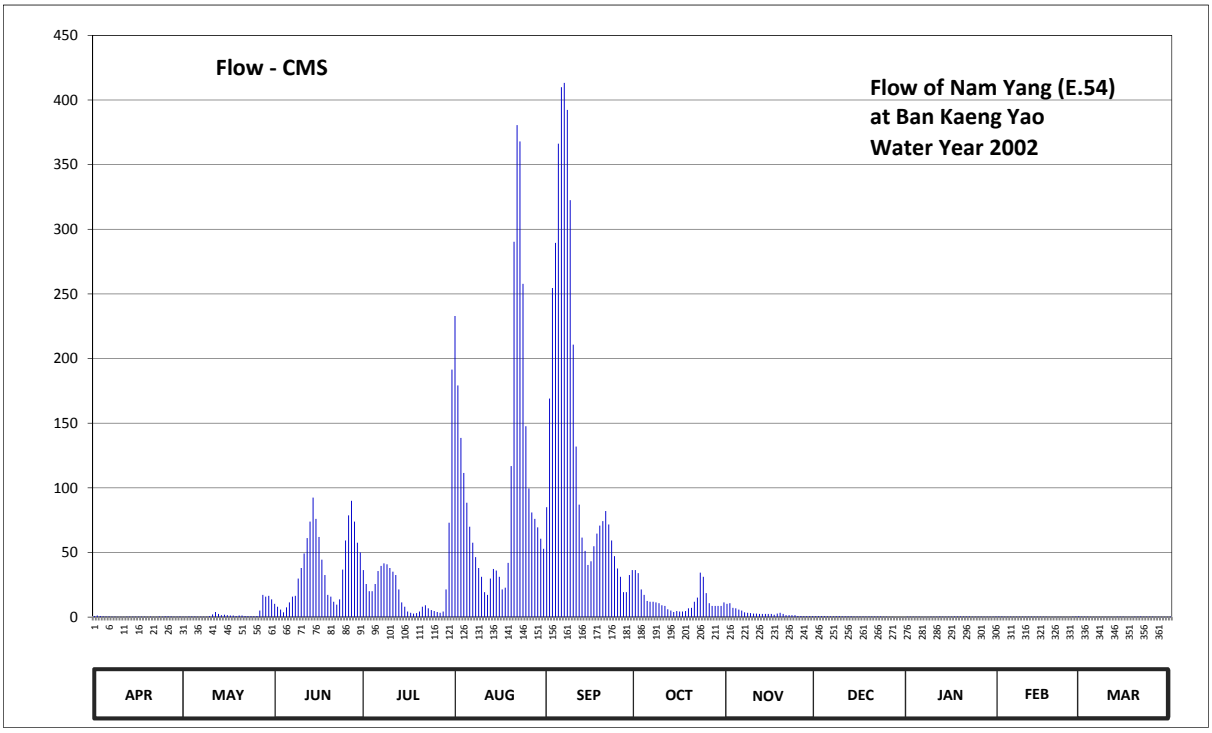
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	140.40	140.32	140.65	140.96	144.55	142.10	140.96	140.65	140.38	140.32	140.33	140.31	
2	140.41	140.32	140.61	140.84	143.77	143.61	140.90	140.66	140.38	140.32	140.33	140.31	
3	140.39	140.34	140.55	140.80	143.11	144.82	140.81	140.59	140.37	140.31	140.32	140.31	
4	140.35	140.34	140.49	140.80	142.62	145.25	140.76	140.58	140.37	140.31	140.32	140.30	
5	140.34	140.33	140.60	140.84	142.17	146.17	140.69	140.55	140.36	140.31	140.31	140.30	
6	140.33	140.32	140.67	140.94	141.77	146.69	140.68	140.53	140.36	140.30	140.31	140.29	
7	140.32	140.31	140.74	141.04	141.49	146.73	140.68	140.49	140.36	140.30	140.32	140.29	
8	140.31	140.31	140.75	141.09	141.21	146.48	140.67	140.48	140.37	140.30	140.31	140.29	
9	140.30	140.31	140.87	141.07	141.00	145.65	140.66	140.47	140.37	140.31	140.31	140.29	
10	140.30	140.37	141.00	141.00	140.88	144.24	140.63	140.46	140.36	140.31	140.31	140.29	
11	140.30	140.44	141.28	140.93	140.79	143.00	140.62	140.46	140.36	140.32	140.32	140.30	
12	140.31	140.50	141.57	140.89	140.76	142.14	140.56	140.45	140.35	140.33	140.32	140.29	
13	140.31	140.45	141.86	140.81	140.87	141.58	140.53	140.45	140.35	140.32	140.31	140.31	
14	140.31	140.42	142.25	140.67	140.98	141.33	140.50	140.45	140.34	140.32	140.31	140.31	
15	140.32	140.43	141.91	140.61	140.95	141.06	140.52	140.45	140.34	140.32	140.31	140.31	
16	140.32	140.42	141.59	140.51	140.88	141.13	140.51	140.45	140.34	140.32	140.31	140.30	
17	140.32	140.41	141.16	140.48	140.81	141.42	140.51	140.43	140.34	140.33	140.31	140.30	
18	140.31	140.41	140.89	140.46	140.82	141.65	140.52	140.46	140.34	140.33	140.30	140.30	
19	140.30	140.40	140.76	140.47	141.10	141.79	140.58	140.48	140.33	140.33	140.30	140.31	
20	140.31	140.41	140.74	140.51	142.72	141.87	140.59	140.45	140.33	140.33	140.30	140.32	
21	140.30	140.41	140.68	140.61	145.26	142.04	140.68	140.42	140.33	140.33	140.30	140.34	
22	140.29	140.40	140.64	140.63	146.34	141.81	140.73	140.42	140.33	140.33	140.29	140.32	
23	140.34	140.38	140.71	140.58	146.19	141.53	140.91	140.42	140.33	140.32	140.29	140.32	
24	140.32	140.37	140.97	140.54	144.86	141.23	140.88	140.42	140.32	140.32	140.29	140.32	
25	140.35	140.37	141.53	140.52	143.26	140.99	140.78	140.40	140.32	140.32	140.30	140.31	
26	140.35	140.39	141.97	140.50	142.39	140.88	140.66	140.39	140.30	140.31	140.32	140.30	
27	140.33	140.53	142.20	140.48	142.02	140.79	140.62	140.38	140.28	140.31	140.33	140.29	
28	140.32	140.76	141.86	140.51	141.91	140.79	140.62	140.38	140.27	140.31	140.36	140.29	
29	140.31	140.74	141.49	140.81	141.76	140.89	140.62	140.38	140.27	140.32		140.29	
30	140.33	140.75	141.30	141.84	141.56	140.96	140.62	140.38	140.27	140.32		140.30	
31		140.71		143.96	141.37		140.67		140.27	140.33		140.31	
Mean	140.33	140.43	141.14	140.86	142.26	142.69	140.67	140.47	140.34	140.32	140.31	140.30	
Max	140.41	140.76	142.25	143.96	146.34	146.73	140.96	140.66	140.38	140.33	140.36	140.34	146.73
Min	140.29	140.31	140.49	140.46	140.76	140.79	140.50	140.38	140.27	140.30	140.29	140.29	140.27

Annual Max Momentary Gage Height 146.76 m. (MSL.) , at 03.00 Hours, on Sep 7, 2002

Zero Gage at Bottom Elevation 138.34 m. (MSL.) , River Bed 138.06 m. (MSL.)

Left Bank Elevation 144.17 m. (MSL.) ,

Right Bank Elevation 146.36 m. (MSL.) , Drainage Are 1,548 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.90	0.38	10.25	36.40	233.00	85.00	36.40	10.25	0.77	0.38	0.44	0.31		
2	1.21	0.38	8.05	25.60	179.28	169.04	34.00	10.80	0.77	0.38	0.44	0.31		
3	0.84	0.51	5.75	20.00	138.60	254.60	21.40	7.15	0.71	0.31	0.38	0.31		
4	0.58	0.51	3.69	20.00	111.48	289.50	17.20	6.80	0.71	0.31	0.38	0.25		
5	0.51	0.44	7.50	25.60	88.50	366.28	12.45	5.75	0.64	0.31	0.31	0.25		
6	0.44	0.38	11.35	35.60	69.88	409.96	11.90	5.05	0.64	0.25	0.31	0.22		
7	0.38	0.31	15.80	39.60	57.60	413.32	11.90	3.69	0.64	0.25	0.38	0.22		
8	0.31	0.31	16.50	41.60	46.40	392.32	11.35	3.38	0.71	0.25	0.31	0.22		
9	0.25	0.31	29.80	40.80	38.00	322.60	10.80	3.07	0.71	0.31	0.31	0.22		
10	0.25	0.71	38.00	38.00	31.20	210.80	9.15	2.76	0.64	0.31	0.31	0.22		
11	0.25	2.14	49.20	35.20	19.30	132.00	8.60	2.76	0.64	0.38	0.38	0.25		
12	0.31	4.00	61.08	32.60	17.20	87.00	6.10	2.45	0.58	0.44	0.38	0.22		
13	0.31	2.45	73.84	21.40	29.80	61.52	5.05	2.45	0.58	0.38	0.31	0.31		
14	0.31	1.52	92.50	11.35	37.20	51.20	4.00	2.45	0.51	0.38	0.31	0.31		
15	0.38	1.83	76.04	8.05	36.00	40.40	4.70	2.45	0.51	0.38	0.31	0.31		
16	0.38	1.52	61.96	4.35	31.20	43.20	4.35	2.45	0.51	0.38	0.31	0.25		
17	0.38	1.21	44.40	3.38	21.40	54.80	4.35	1.83	0.51	0.44	0.31	0.25		
18	0.31	1.21	32.60	2.76	22.80	64.60	4.70	2.76	0.51	0.44	0.25	0.25		
19	0.25	0.90	17.20	3.07	42.00	70.76	6.80	3.38	0.44	0.44	0.25	0.31		
20	0.31	1.21	15.80	4.35	116.88	74.28	7.15	2.45	0.44	0.44	0.25	0.38		
21	0.25	1.21	11.90	8.05	290.32	82.00	11.90	1.52	0.44	0.44	0.25	0.51		
22	0.22	0.90	9.70	9.15	380.56	71.64	15.10	1.52	0.44	0.44	0.22	0.38		
23	0.51	0.77	13.70	6.80	367.96	59.32	34.40	1.52	0.44	0.38	0.22	0.38		
24	0.38	0.71	36.80	5.40	257.80	47.20	31.20	1.52	0.38	0.38	0.22	0.38		
25	0.58	0.71	59.32	4.70	147.60	37.60	18.60	0.90	0.38	0.38	0.25	0.31		
26	0.58	0.84	78.68	4.00	99.50	31.20	10.80	0.84	0.25	0.31	0.38	0.25		
27	0.44	5.05	90.00	3.38	81.00	19.30	8.60	0.77	0.20	0.31	0.44	0.22		
28	0.38	17.20	73.84	4.35	76.04	19.30	8.60	0.77	0.17	0.31	0.64	0.22		
29	0.31	15.80	57.60	21.40	69.44	32.60	8.60	0.77	0.17	0.38		0.22		
30	0.44	16.50	50.00	72.96	60.64	36.40	8.60	0.77	0.17	0.38		0.25		
31		13.70		191.44	52.80		11.35		0.17	0.44		0.31		
Total	12.95	95.62	1152.85	781.34	3251.38	4029.74	400.10	95.03	15.38	11.31	9.25	8.80	9863.75	CMSDAY
Mean	0.43	3.08	38.43	25.20	104.88	134.32	12.91	3.17	0.50	0.36	0.33	0.28	27.02	CMS
Max	1.21	17.20	92.50	191.44	380.56	413.32	36.40	10.80	0.77	0.44	0.64	0.51	413.32	CMS
Min	0.22	0.31	3.69	2.76	17.20	19.30	4.00	0.77	0.17	0.25	0.22	0.22	0.17	CMS
Runoff	1.12	8.26	99.61	67.51	280.92	348.17	34.57	8.21	1.33	0.98	0.80	0.76	852.23	MCM

Momentary Peak 415.84 CMS, at 146.76 m. (MSL.), at 03.00 Hours, on Sep 7, 2002

Runoff Yield 17.46 Liters/Second/Square KM. Momentary Peak Yield 268.630 Liters/Second/Square KM.

WATER YEAR : 2002

CHI RIVER BASIN

Nam Yang at Ban Kut Chim Khum Mai, 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 Mai.

Ban Kut Chim Khum Mai **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.- H.D.
Location BM	On right bank at the footpath of the bridge. **Elevation** +177.855 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 mean 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	Stable.
Overbank Flow Conditions	Overbank flow starts at elevation +173.180 m.(M.S.L.), records are channel flow only.
General Description	Records fair. The local weir situated about 100 meters from the gage site. Stage-discharge relation defined by 17 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

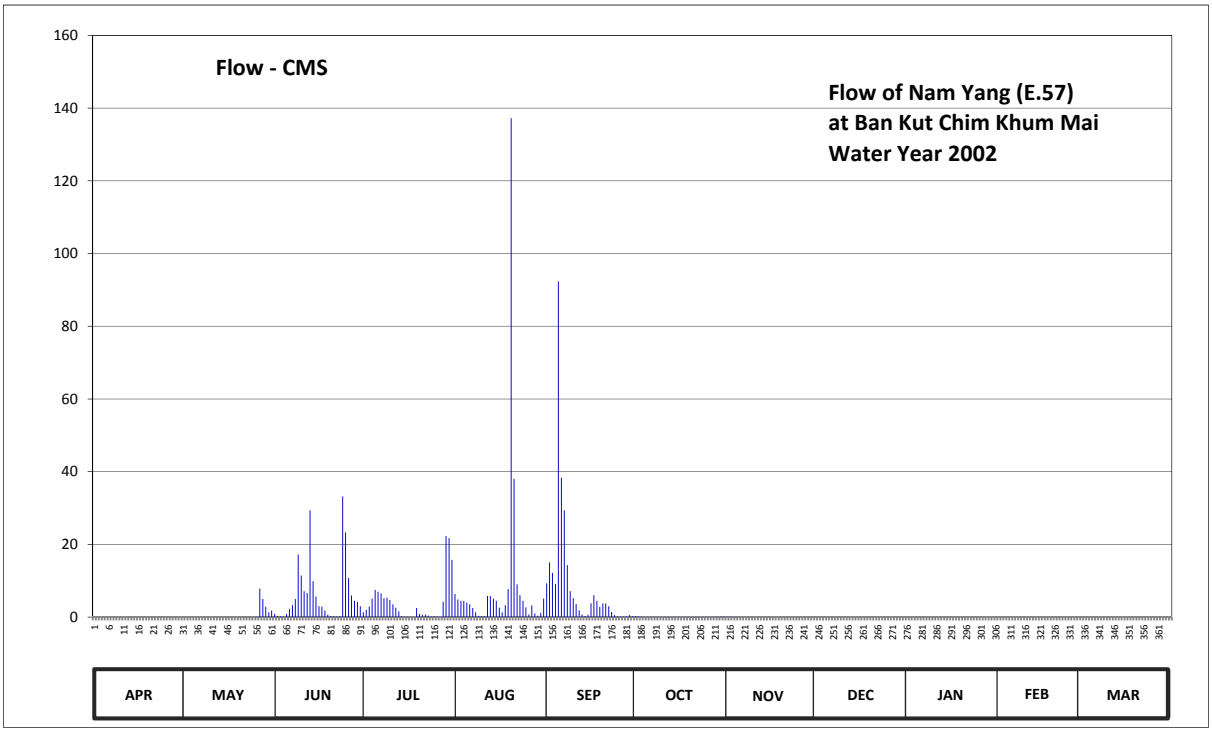
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	169.80	169.95	170.68	170.73	171.20	171.44	170.52	170.37	169.90	169.90	169.90	169.90	
2	169.80	169.96	170.55	170.80	171.07	171.71	170.47	170.34	169.90	169.90	169.90	169.90	
3	169.80	169.95	170.51	170.89	171.04	171.59	170.39	170.29	169.90	169.90	169.90	169.90	
4	169.80	170.02	170.45	171.09	171.04	171.43	170.32	170.22	169.90	169.90	169.90	169.90	
5	169.80	170.00	170.67	171.29	171.00	173.84	170.27	170.14	169.90	169.90	169.90	169.90	
6	169.80	169.99	170.83	171.25	170.95	172.51	170.24	170.11	169.90	169.90	169.90	169.90	
7	169.80	169.98	170.93	171.21	170.85	172.23	170.23	170.08	169.90	169.90	169.90	169.90	
8	169.80	170.04	171.08	171.10	170.73	171.68	170.21	170.07	169.90	169.90	169.90	169.90	
9	169.80	170.00	171.80	171.11	170.58	171.26	170.18	170.06	169.90	169.90	169.90	169.90	
10	169.80	170.07	171.56	171.06	170.53	171.10	170.15	170.05	169.90	169.90	169.90	169.90	
11	169.80	170.05	171.26	170.95	170.50	170.96	170.13	170.03	169.90	169.90	169.90	169.90	
12	169.80	170.03	171.22	170.86	171.15	170.79	170.14	170.02	169.90	169.90	169.90	169.90	
13	169.80	170.06	172.23	170.76	171.15	170.65	170.15	170.01	169.90	169.90	169.90	169.90	
14	169.80	170.06	171.49	170.52	171.09	170.56	170.14	170.00	169.90	169.90	169.90	169.90	
15	169.80	170.06	171.14	170.39	171.04	170.64	170.13	169.99	169.90	169.90	169.90	169.90	
16	169.80	170.07	170.90	170.34	170.86	170.98	170.13	169.98	169.90	169.90	169.90	169.90	
17	169.80	170.08	170.89	170.31	170.73	171.17	170.13	169.97	169.90	169.90	169.90	169.90	
18	169.80	170.09	170.78	170.27	170.93	171.04	170.14	169.96	169.90	169.90	169.90	169.90	
19	169.80	170.01	170.65	170.85	171.31	170.88	170.15	169.95	169.90	169.90	169.90	169.90	
20	169.80	170.00	170.55	170.67	174.70	170.98	170.17	169.95	169.90	169.90	169.90	169.90	
21	169.80	170.23	170.53	170.64	172.50	170.98	170.21	169.95	169.90	169.90	169.90	169.90	
22	169.80	170.18	170.49	170.65	171.42	170.90	170.32	169.95	169.90	169.90	169.90	169.90	
23	169.80	170.15	170.54	170.59	171.17	170.74	170.33	169.94	169.90	169.90	169.90	169.90	
24	169.80	170.11	172.35	170.46	171.04	170.62	170.31	169.94	169.90	169.90	169.90	169.90	
25	169.80	170.12	172.04	170.51	170.87	170.47	170.27	169.93	169.90	169.90	169.90	169.90	
26	169.80	170.13	171.53	170.43	170.66	170.44	170.22	169.92	169.90	169.90	169.90	169.90	
27	169.80	171.32	171.16	170.39	170.92	170.41	170.20	169.91	169.90	169.90	169.90	169.90	
28	169.80	171.08	171.04	171.02	170.70	170.47	170.27	169.90	169.90	169.90	169.90	169.90	
29	169.80	170.88	171.02	172.01	170.60	170.63	170.31	169.89	169.90	169.90		169.90	
30	169.80	170.73	170.90	171.99	170.72	170.54	170.42	169.88	169.90	169.90		170.15	
31		170.78		171.74	171.09		170.42		169.90	169.90		170.20	
Mean	169.80	170.20	171.06	170.87	171.10	171.12	170.25	170.03	169.90	169.90	169.90	169.92	
Max	169.80	171.32	172.35	172.01	174.70	173.84	170.52	170.37	169.90	169.90	169.90	170.20	174.70
Min	169.80	169.95	170.45	170.27	170.50	170.41	170.13	169.88	169.90	169.90	169.90	169.90	169.80

Annual Max Momentary Gage Height 175.39 m. (MSL.) , at 10.00 Hours, on Aug 20, 2002

Zero Gage at Bottom Elevation 170.10 m. (MSL.) , River Bed 168.67 m. (MSL.)

Left Bank Elevation 173.18 m. (MSL.) ,

Right Bank Elevation 173.40 m. (MSL.) , Drainage Are 103 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	0.88	1.30	6.40	9.28	0.24	0.09	0.00	0.00	0.00	0.00		
2	0.00	0.00	0.30	2.00	4.84	15.04	0.17	0.07	0.00	0.00	0.00	0.00		
3	0.00	0.00	0.22	2.90	4.48	12.16	0.10	0.05	0.00	0.00	0.00	0.00		
4	0.00	0.00	0.15	5.08	4.48	9.16	0.06	0.03	0.00	0.00	0.00	0.00		
5	0.00	0.00	0.82	7.48	4.00	92.32	0.04	0.02	0.00	0.00	0.00	0.00		
6	0.00	0.00	2.30	7.00	3.50	38.34	0.04	0.01	0.00	0.00	0.00	0.00		
7	0.00	0.00	3.30	6.52	2.50	29.36	0.04	0.01	0.00	0.00	0.00	0.00		
8	0.00	0.00	4.96	5.20	1.30	14.32	0.03	0.01	0.00	0.00	0.00	0.00		
9	0.00	0.00	17.20	5.32	0.36	7.12	0.03	0.01	0.00	0.00	0.00	0.00		
10	0.00	0.01	11.44	4.72	0.26	5.20	0.02	0.00	0.00	0.00	0.00	0.00		
11	0.00	0.00	7.12	3.50	0.20	3.60	0.02	0.00	0.00	0.00	0.00	0.00		
12	0.00	0.00	6.64	2.60	5.80	1.90	0.02	0.00	0.00	0.00	0.00	0.00		
13	0.00	0.01	29.36	1.60	5.80	0.70	0.02	0.00	0.00	0.00	0.00	0.00		
14	0.00	0.01	9.88	0.24	5.08	0.32	0.02	0.00	0.00	0.00	0.00	0.00		
15	0.00	0.01	5.68	0.10	4.48	0.64	0.02	0.00	0.00	0.00	0.00	0.00		
16	0.00	0.01	3.00	0.07	2.60	3.80	0.02	0.00	0.00	0.00	0.00	0.00		
17	0.00	0.01	2.90	0.05	1.30	6.04	0.02	0.00	0.00	0.00	0.00	0.00		
18	0.00	0.01	1.80	0.04	3.30	4.48	0.02	0.00	0.00	0.00	0.00	0.00		
19	0.00	0.00	0.70	2.50	7.72	2.80	0.02	0.00	0.00	0.00	0.00	0.00		
20	0.00	0.00	0.30	0.82	137.20	3.80	0.02	0.00	0.00	0.00	0.00	0.00		
21	0.00	0.04	0.26	0.64	38.00	3.80	0.03	0.00	0.00	0.00	0.00	0.00		
22	0.00	0.03	0.19	0.70	9.04	3.00	0.06	0.00	0.00	0.00	0.00	0.00		
23	0.00	0.02	0.28	0.38	6.04	1.40	0.06	0.00	0.00	0.00	0.00	0.00		
24	0.00	0.01	33.20	0.16	4.48	0.52	0.05	0.00	0.00	0.00	0.00	0.00		
25	0.00	0.01	23.28	0.22	2.70	0.17	0.04	0.00	0.00	0.00	0.00	0.00		
26	0.00	0.02	10.72	0.13	0.76	0.14	0.03	0.00	0.00	0.00	0.00	0.00		
27	0.00	7.84	5.92	0.10	3.20	0.11	0.03	0.00	0.00	0.00	0.00	0.00		
28	0.00	4.96	4.48	4.24	1.00	0.17	0.04	0.00	0.00	0.00	0.00	0.00		
29	0.00	2.80	4.24	22.32	0.40	0.58	0.05	0.00	0.00	0.00		0.00		
30	0.00	1.30	3.00	21.76	1.20	0.28	0.12	0.00	0.00	0.00		0.02		
31		1.80		15.76	5.08		0.12		0.00	0.00		0.03		
Total	0.00	18.90	194.52	125.45	277.50	270.55	1.60	0.30	0.00	0.00	0.00	0.05	888.87	CMSDAY
Mean	0.00	0.61	6.48	4.05	8.95	9.02	0.05	0.01	0.00	0.00	0.00	0.00	2.44	CMS
Max	0.00	7.84	33.20	22.32	137.20	92.32	0.24	0.09	0.00	0.00	0.00	0.03	137.20	CMS
Min	0.00	0.00	0.15	0.04	0.20	0.11	0.02	0.00	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	0.00	1.63	16.81	10.84	23.98	23.38	0.14	0.03	0.00	0.00	0.00	0.00	76.80	MCM

Momentary Peak 177.40 CMS, at 175.39 m. (MSL.), at 10.00 Hours, on Aug 20, 2002

Runoff Yield 23.64 Liters/Second/Square KM. Momentary Peak Yield 1722.330 Liters/Second/Square KM.

WATER YEAR : 2002

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 mean 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 because of backwater effect.
Overbank Flow Conditions	Overbank flow starts at elevation +257.530 m.(M.S.L.), records are channel flow only.
General Description	Records fair. The concrete weir situated downstream from the gage site. Stage-discharge relation defined by 26 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

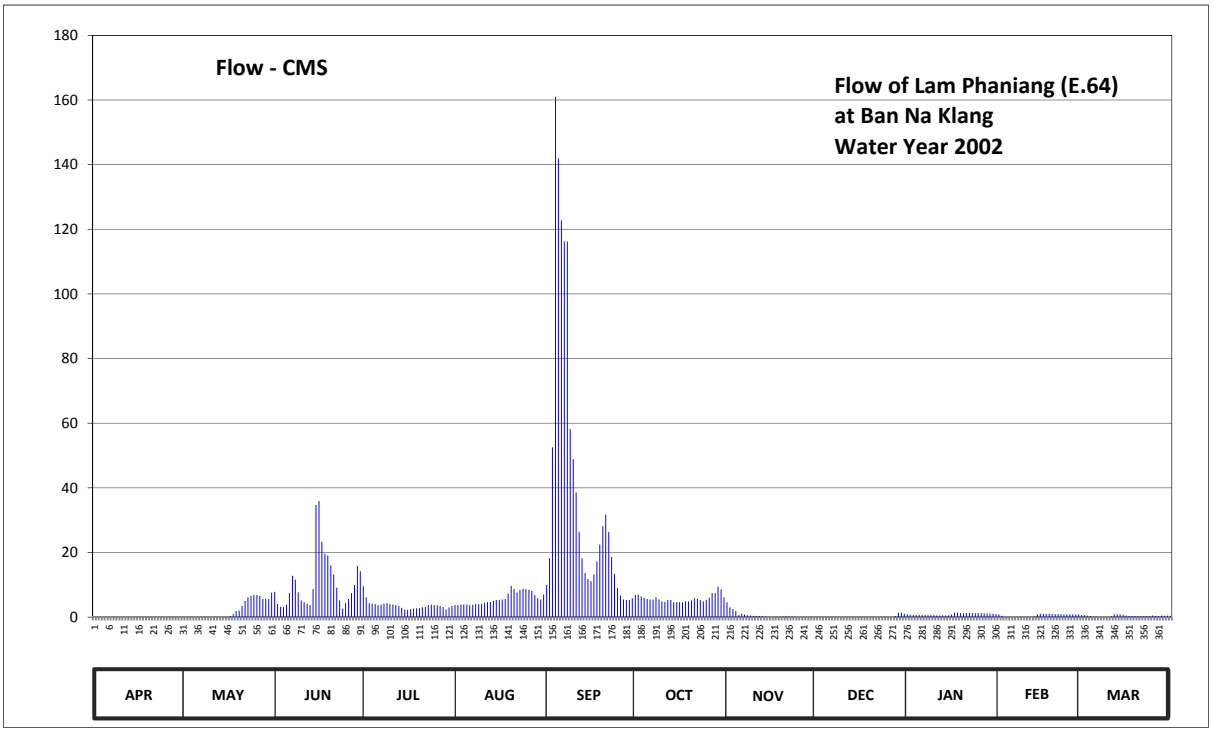
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	256.87	256.83	257.85	257.97	257.56	258.00	257.78	257.62	256.87	257.11	257.12	257.08	
2	256.88	256.83	257.58	257.73	257.56	258.41	257.79	257.51	256.86	257.09	257.00	257.05	
3	256.88	256.82	257.52	257.60	257.57	259.39	257.75	257.47	256.86	257.08	256.88	257.01	
4	256.88	256.83	257.52	257.59	257.57	260.06	257.72	257.43	256.86	257.08	256.88	256.98	
5	256.87	256.86	257.57	257.58	257.57	260.02	257.69	257.34	256.87	257.07	256.88	256.93	
6	256.87	256.87	257.82	257.56	257.56	259.97	257.68	257.18	256.87	257.06	256.88	256.92	
7	256.86	256.86	258.14	257.57	257.57	259.95	257.68	257.10	256.86	257.06	256.88	256.90	
8	256.85	256.83	258.08	257.59	257.58	259.95	257.73	257.05	256.86	257.05	256.88	256.88	
9	256.84	256.82	257.84	257.60	257.58	259.51	257.68	257.02	256.85	257.05	256.88	256.88	
10	256.84	256.82	257.66	257.58	257.59	259.31	257.64	257.00	256.85	257.05	256.88	256.87	
11	256.84	256.84	257.62	257.57	257.61	259.08	257.63	256.99	256.85	257.04	256.87	256.97	
12	256.84	256.84	257.59	257.56	257.62	258.71	257.67	256.98	256.85	257.04	256.87	257.11	
13	256.83	256.81	257.56	257.54	257.63	258.41	257.67	256.97	256.85	257.04	256.94	257.13	
14	256.83	256.82	257.91	257.50	257.65	258.18	257.62	256.93	256.85	257.03	257.12	257.11	
15	256.83	256.84	258.99	257.46	257.67	258.09	257.62	256.90	256.85	257.03	257.18	257.09	
16	256.83	256.86	259.02	257.45	257.67	258.06	257.62	256.90	256.84	257.11	257.17	257.02	
17	256.82	256.99	258.61	257.47	257.68	258.16	257.62	256.91	256.83	257.26	257.17	256.98	
18	256.82	257.13	258.48	257.48	257.69	258.36	257.64	256.92	256.81	257.25	257.17	256.98	
19	256.82	257.43	258.45	257.49	257.81	258.58	257.64	256.92	256.79	257.21	257.15	256.97	
20	256.83	257.44	258.30	257.49	257.98	258.77	257.66	256.93	256.72	257.20	257.14	256.97	
21	256.83	257.54	258.16	257.51	257.91	258.89	257.71	256.94	256.66	257.23	257.14	256.98	
22	256.83	257.65	257.94	257.52	257.83	258.71	257.69	256.93	256.62	257.23	257.13	256.98	
23	256.84	257.73	257.66	257.56	257.89	258.43	257.67	256.92	256.58	257.22	257.12	256.99	
24	256.84	257.76	257.48	257.57	257.92	258.17	257.64	256.90	256.56	257.22	257.11	256.99	
25	256.85	257.78	257.60	257.56	257.91	257.93	257.67	256.89	256.56	257.21	257.11	257.02	
26	256.85	257.78	257.69	257.55	257.89	257.77	257.72	256.89	256.57	257.21	257.11	257.00	
27	256.85	257.76	257.82	257.54	257.87	257.68	257.82	256.89	256.60	257.20	257.11	256.98	
28	256.84	257.69	258.00	257.52	257.78	257.67	257.82	256.88	256.97	257.19	257.11	257.01	
29	256.84	257.70	258.29	257.46	257.71	257.67	257.96	256.88	257.25	257.18		257.01	
30	256.84	257.69	258.21	257.51	257.68	257.71	257.90	256.88	257.25	257.17		257.01	
31		257.83		257.54	257.79		257.73		257.17	257.16		257.00	
Mean	256.84	257.20	257.97	257.56	257.71	258.65	257.71	257.04	256.83	257.13	257.03	256.99	
Max	256.88	257.83	259.02	257.97	257.98	260.06	257.96	257.62	257.25	257.26	257.18	257.13	260.06
Min	256.82	256.81	257.48	257.45	257.56	257.67	257.62	256.88	256.56	257.03	256.87	256.87	256.56

Annual Max Momentary Gage Height 260.07 m. (MSL.) , at 06.00 Hours, on Sep 4, 2002

Zero Gage at Bottom Elevation 254.47 m. (MSL.) , River Bed 254.39 m. (MSL.)

Left Bank Elevation 258.34 m. (MSL.) ,

Right Bank Elevation 257.52 m. (MSL.) , Drainage Are 362 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.01	0.00	7.83	9.53	3.73	9.95	6.84	4.58	0.01	0.82	0.86	0.71		
2	0.01	0.00	4.01	6.13	3.73	18.23	6.98	3.02	0.00	0.75	0.40	0.59		
3	0.01	0.00	3.16	4.29	3.87	52.51	6.41	2.45	0.00	0.71	0.01	0.44		
4	0.01	0.00	3.16	4.15	3.87	161.00	5.99	1.89	0.00	0.71	0.01	0.33		
5	0.01	0.00	3.87	4.01	3.87	142.00	5.57	0.62	0.01	0.67	0.01	0.13		
6	0.01	0.01	7.40	3.73	3.73	122.75	5.42	1.09	0.01	0.63	0.01	0.10		
7	0.00	0.00	12.78	3.87	3.87	116.25	5.42	0.79	0.00	0.63	0.01	0.02		
8	0.00	0.00	11.57	4.15	4.01	116.25	6.13	0.59	0.00	0.59	0.01	0.01		
9	0.00	0.00	7.69	4.29	4.01	58.19	5.42	0.48	0.00	0.59	0.01	0.01		
10	0.00	0.00	5.14	4.01	4.15	48.92	4.86	0.40	0.00	0.59	0.01	0.01		
11	0.00	0.00	4.58	3.87	4.43	38.59	4.72	0.36	0.00	0.56	0.01	0.29		
12	0.00	0.00	4.15	3.73	4.58	26.33	5.28	0.33	0.00	0.56	0.01	0.82		
13	0.00	0.00	3.73	3.44	4.72	18.23	5.28	0.29	0.00	0.56	0.17	0.90		
14	0.00	0.00	8.68	2.88	5.00	13.59	4.58	0.13	0.00	0.52	0.86	0.82		
15	0.00	0.00	34.70	2.31	5.28	11.77	4.58	0.02	0.00	0.52	1.09	0.75		
16	0.00	0.00	35.90	2.17	5.28	11.16	4.58	0.02	0.00	0.82	1.05	0.48		
17	0.00	0.36	23.34	2.45	5.42	13.18	4.58	0.06	0.00	1.40	1.05	0.33		
18	0.00	0.90	19.65	2.60	5.57	17.22	4.86	0.10	0.00	1.36	1.05	0.33		
19	0.00	1.89	19.04	2.74	7.26	22.44	4.86	0.10	0.00	1.21	0.98	0.29		
20	0.00	2.03	16.01	2.74	9.67	28.12	5.14	0.13	0.00	1.17	0.94	0.29		
21	0.00	3.44	13.18	3.02	8.68	31.71	5.85	0.17	0.00	1.28	0.94	0.33		
22	0.00	5.00	9.10	3.16	7.55	26.33	5.57	0.13	0.00	1.28	0.90	0.33		
23	0.00	6.13	5.14	3.73	8.39	18.64	5.28	0.10	0.00	1.24	0.86	0.36		
24	0.00	6.56	2.60	3.87	8.82	13.38	4.86	0.02	0.00	1.24	0.82	0.36		
25	0.00	6.84	4.29	3.73	8.68	8.96	5.28	0.02	0.00	1.21	0.82	0.48		
26	0.00	6.84	5.57	3.59	8.39	6.70	5.99	0.02	0.00	1.21	0.82	0.40		
27	0.00	6.56	7.40	3.44	8.11	5.42	7.40	0.02	0.00	1.17	0.82	0.33		
28	0.00	5.57	9.95	3.16	6.84	5.28	7.40	0.01	0.29	1.13	0.82	0.44		
29	0.00	5.71	15.81	2.31	5.85	5.28	9.38	0.01	1.36	1.09		0.44		
30	0.00	5.57	14.19	3.02	5.42	5.85	8.54	0.01	1.36	1.05		0.44		
31		7.55		3.44	6.98		6.13		1.05	1.01		0.40		
Total	0.06	70.96	323.62	113.56	179.76	1174.23	179.18	17.96	4.09	28.28	15.35	11.96	2119.01	CMSDAY
Mean	0.00	2.29	10.79	3.66	5.80	39.14	5.78	0.60	0.13	0.91	0.55	0.39	5.81	CMS
Max	0.01	7.55	35.90	9.53	9.67	161.00	9.38	4.58	1.36	1.40	1.09	0.90	161.00	CMS
Min	0.00	0.00	2.60	2.17	3.73	5.28	4.58	0.01	0.00	0.52	0.01	0.01	0.00	CMS
Runoff	0.01	6.13	27.96	9.81	15.53	101.45	15.48	1.55	0.35	2.44	1.33	1.03	183.08	MCM

Momentary Peak 165.75 CMS, at 260.07 m. (MSL.), at 06.00 ours, on Sep 4, 2002

Runoff Yield 16.05 Liters/Second/Square KM. Momentary Peak Yield 457.870 Liters/Second/Square KM.

WATER YEAR : 2002

CHI RIVER BASIN

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

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

Location : on left bank at the bridge on highway.

	Ban Tha Hai	**Amphoe** Si That	**Changwat** Udon Thani
Drainge Area	2,149 sq.km.		
Type of Gage	Water - stage recorder.		
Zero Gage at Bottom	+158.990 m. (MSL.)		
Bench Mark	B.M.- H.D.		
Location BM	On left bank at the abutment of the bridge.		**Elevation** +169.686 m. (MSL.)
Gage Reading Frequency	Recording.		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 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	Rather unstable because of backwater effect.		
Overbank Flow Conditions	Overbank flow starts at elevation +165.870 m.(M.S.L.), records are channel flow only.		
General Description	Records fair. Flow effected by Lam Pao Dam.		
	Stage-discharge relation defined by 16 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

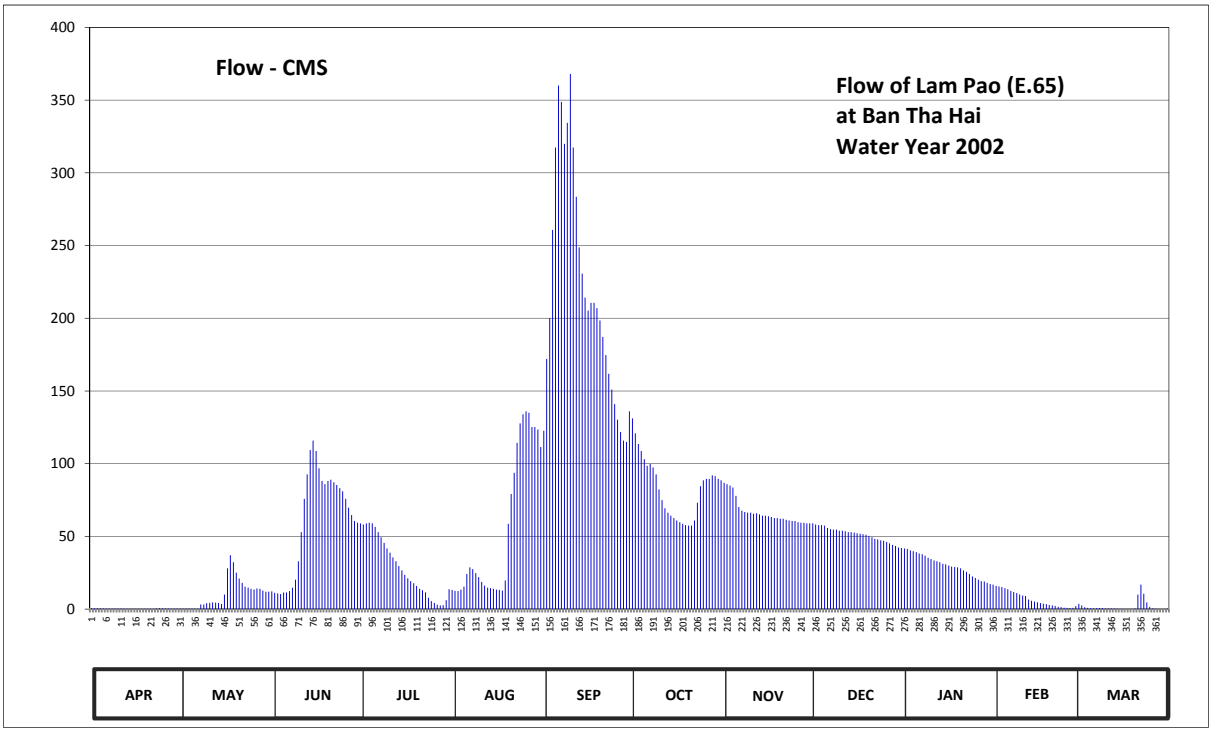
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	161.23	161.14	162.11	163.70	162.16	164.89	164.99	164.35	163.70	163.22	162.30	161.56	
2	161.23	161.14	162.06	163.68	162.13	165.37	164.87	164.33	163.68	163.21	162.28	161.45	
3	161.23	161.14	162.04	163.70	162.12	165.56	164.78	164.31	163.67	163.18	162.26	161.33	
4	161.21	161.14	162.02	163.71	162.17	165.87	164.71	164.28	163.67	163.16	162.22	161.28	
5	161.17	161.14	162.07	163.70	162.27	166.09	164.63	164.15	163.66	163.14	162.18	161.23	
6	161.14	161.15	162.07	163.64	162.64	166.21	164.56	163.97	163.62	163.11	162.13	161.19	
7	161.14	161.15	162.12	163.54	162.79	166.18	164.58	163.91	163.60	163.09	162.09	161.23	
8	161.15	161.52	162.24	163.44	162.75	166.10	164.54	163.89	163.59	163.06	162.05	161.25	
9	161.15	161.52	162.49	163.33	162.66	166.14	164.46	163.88	163.59	163.01	162.00	161.25	
10	161.14	161.61	162.93	163.22	162.56	166.23	164.25	163.88	163.57	162.98	161.97	161.20	
11	161.13	161.63	163.54	163.13	162.43	166.09	164.08	163.86	163.57	162.95	161.95	161.20	
12	161.12	161.66	164.10	163.02	162.31	165.96	163.95	163.87	163.56	162.93	161.83	161.17	
13	161.11	161.65	164.46	162.93	162.24	165.82	163.88	163.85	163.54	162.91	161.77	161.13	
14	161.10	161.62	164.72	162.82	162.22	165.73	163.83	163.83	163.54	162.87	161.72	161.09	
15	161.10	161.55	164.81	162.72	162.20	165.64	163.79	163.83	163.53	162.86	161.67	161.06	
16	161.10	162.00	164.71	162.62	162.17	165.59	163.75	163.82	163.52	162.83	161.62	161.04	
17	161.10	162.77	164.53	162.53	162.16	165.62	163.72	163.81	163.51	162.81	161.58	161.01	
18	161.10	163.07	164.38	162.45	162.14	165.62	163.69	163.79	163.50	162.80	161.54	161.00	
19	161.10	162.91	164.33	162.39	162.47	165.60	163.67	163.79	163.49	162.79	161.49	160.99	
20	161.11	162.67	164.38	162.30	163.69	165.55	163.66	163.78	163.47	162.77	161.45	161.19	
21	161.11	162.52	164.40	162.20	164.18	165.48	163.66	163.78	163.44	162.72	161.42	162.00	
22	161.11	162.40	164.36	162.15	164.48	165.39	163.75	163.76	163.41	162.69	161.36	162.34	
23	161.19	162.27	164.32	162.08	164.79	165.29	164.04	163.75	163.40	162.64	161.34	162.03	
24	161.24	162.24	164.27	161.89	164.95	165.19	164.30	163.74	163.38	162.58	161.30	161.66	
25	161.21	162.20	164.22	161.75	165.02	165.09	164.39	163.74	163.37	162.54	161.27	161.36	
26	161.19	162.17	164.10	161.63	165.04	164.98	164.41	163.72	163.35	162.49	161.26	161.21	
27	161.18	162.21	163.96	161.51	165.03	164.88	164.41	163.71	163.32	162.45	161.27	161.12	
28	161.16	162.20	163.84	161.45	164.92	164.81	164.45	163.71	163.29	162.44	161.41	161.05	
29	161.15	162.14	163.74	161.48	164.92	164.80	164.44	163.70	163.27	162.40		161.02	
30	161.14	162.10	163.71	161.81	164.90	165.04	164.41	163.70	163.24	162.36		161.00	
31		162.10		162.18	164.75		164.39		163.23	162.34		161.13	
Mean	161.15	161.89	163.57	162.67	163.27	165.56	164.23	163.88	163.49	162.82	161.74	161.28	
Max	161.24	163.07	164.81	163.71	165.04	166.23	164.99	164.35	163.70	163.22	162.30	162.34	166.23
Min	161.10	161.14	162.02	161.45	162.12	164.80	163.66	163.70	163.23	162.34	161.26	160.99	160.99

Annual Max Momentary Gage Height 166.24 m. (MSL.) , at 12.00 Hours, on Sep 10, 2002

Zero Gage at Bottom Elevation 158.99 m. (MSL.) , River Bed 159.01 m. (MSL.)

Left Bank Elevation 165.86 m. (MSL.) ,

Right Bank Elevation 165.92 m. (MSL.) , Drainage Are 2,149 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.65	0.32	12.20	59.00	13.20	122.65	131.15	86.78	59.00	41.70	16.00	3.60		
2	0.65	0.32	11.20	58.20	12.60	172.10	120.95	85.89	58.20	41.35	15.60	2.50		
3	0.65	0.32	10.80	59.00	12.40	200.20	113.60	85.00	57.80	40.40	15.20	1.30		
4	0.55	0.32	10.40	59.40	13.40	260.80	108.70	83.66	57.80	39.80	14.40	0.90		
5	0.41	0.32	11.40	59.00	15.40	317.40	103.10	77.95	57.40	39.20	13.60	0.65		
6	0.32	0.35	11.40	56.60	24.20	360.00	98.60	70.22	55.80	38.30	12.60	0.47		
7	0.32	0.35	12.40	52.90	28.70	348.80	99.80	67.67	55.00	37.70	11.80	0.65		
8	0.35	3.20	14.80	49.40	27.50	320.00	97.40	66.82	54.65	36.80	11.00	0.75		
9	0.35	3.20	20.25	45.55	24.80	334.40	92.60	66.40	54.65	35.30	10.00	0.75		
10	0.32	4.10	32.90	41.70	22.00	368.00	82.33	66.40	53.95	34.40	9.40	0.50		
11	0.29	4.30	52.90	38.90	18.75	317.40	74.94	65.55	53.95	33.50	9.00	0.50		
12	0.26	4.60	75.80	35.60	16.20	283.60	69.37	65.97	53.60	32.90	6.60	0.41		
13	0.23	4.50	92.60	32.90	14.80	248.80	66.40	65.12	52.90	32.30	5.70	0.29		
14	0.20	4.20	109.40	29.60	14.40	230.70	64.27	64.27	52.90	31.10	5.20	0.18		
15	0.20	3.50	115.85	26.60	14.00	214.20	62.60	64.27	52.55	30.80	4.70	0.12		
16	0.20	10.00	108.70	23.60	13.40	205.30	61.00	63.85	52.20	29.90	4.20	0.08		
17	0.20	28.10	96.80	21.25	13.20	210.60	59.80	63.42	51.85	29.30	3.80	0.02		
18	0.20	37.10	88.11	19.25	12.80	210.60	58.60	62.60	51.50	29.00	3.40	0.00		
19	0.20	32.30	85.89	17.80	19.75	207.00	57.80	62.60	51.15	28.70	2.90	0.00		
20	0.23	25.10	88.11	16.00	58.60	198.50	57.40	62.20	50.45	28.10	2.50	0.47		
21	0.23	21.00	89.00	14.00	79.24	187.20	57.40	62.20	49.40	26.60	2.20	10.00		
22	0.23	18.00	87.22	13.00	93.80	174.70	61.00	61.40	48.35	25.70	1.60	16.80		
23	0.47	15.40	85.44	11.60	114.30	161.90	73.22	61.00	48.00	24.20	1.40	10.60		
24	0.70	14.80	83.22	7.80	127.75	151.00	84.55	60.60	47.30	22.50	1.00	4.60		
25	0.55	14.00	80.99	5.50	134.00	141.00	88.56	60.60	46.95	21.50	0.85	1.60		
26	0.47	13.40	75.80	4.30	136.00	130.30	89.60	59.80	46.25	20.25	0.80	0.55		
27	0.44	14.20	69.80	3.10	135.00	121.80	89.60	59.40	45.20	19.25	0.85	0.26		
28	0.38	14.00	64.70	2.50	125.20	115.85	92.00	59.40	44.15	19.00	2.10	0.10		
29	0.35	12.80	60.60	2.80	125.20	115.00	91.40	59.00	43.45	18.00		0.04		
30	0.32	12.00	59.40	6.20	123.50	136.00	89.60	59.00	42.40	17.20		0.00		
31		12.00		13.60	111.50		88.56		42.05	16.80		0.29		
Total	10.92	328.10	1818.08	886.65	1695.59	6565.80	2585.90	1999.04	1590.80	921.55	188.40	58.98	18649.81	CMSDAY
Mean	0.36	10.58	60.60	28.60	54.70	218.86	83.42	66.63	51.32	29.73	6.73	1.90	51.10	CMS
Max	0.70	37.10	115.85	59.40	136.00	368.00	131.15	86.78	59.00	41.70	16.00	16.80	368.00	CMS
Min	0.20	0.32	10.40	2.50	12.40	115.00	57.40	59.00	42.05	16.80	0.80	0.00	0.00	CMS
Runoff	0.94	28.35	157.08	76.61	146.50	567.29	223.42	172.72	137.45	79.62	16.28	5.10	1611.34	MCM

Momentary Peak 372.00 CMS, at 166.24 m. (MSL.), at 12.00 Hours, on Sep 10, 2002

Runoff Yield 28.78 Liters/Second/Square KM. Momentary Peak Yield 173.100 Liters/Second/Square KM.

WATER YEAR : 2002

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 mean 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	Rather unstable because of backwater effect.		
Overbank Flow Conditions	Overbank flow starts at elevation +137.780 m.(M.S.L.), records are channel flow only.		
General Description	Records fair. Stage-discharge relation defined by 54 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

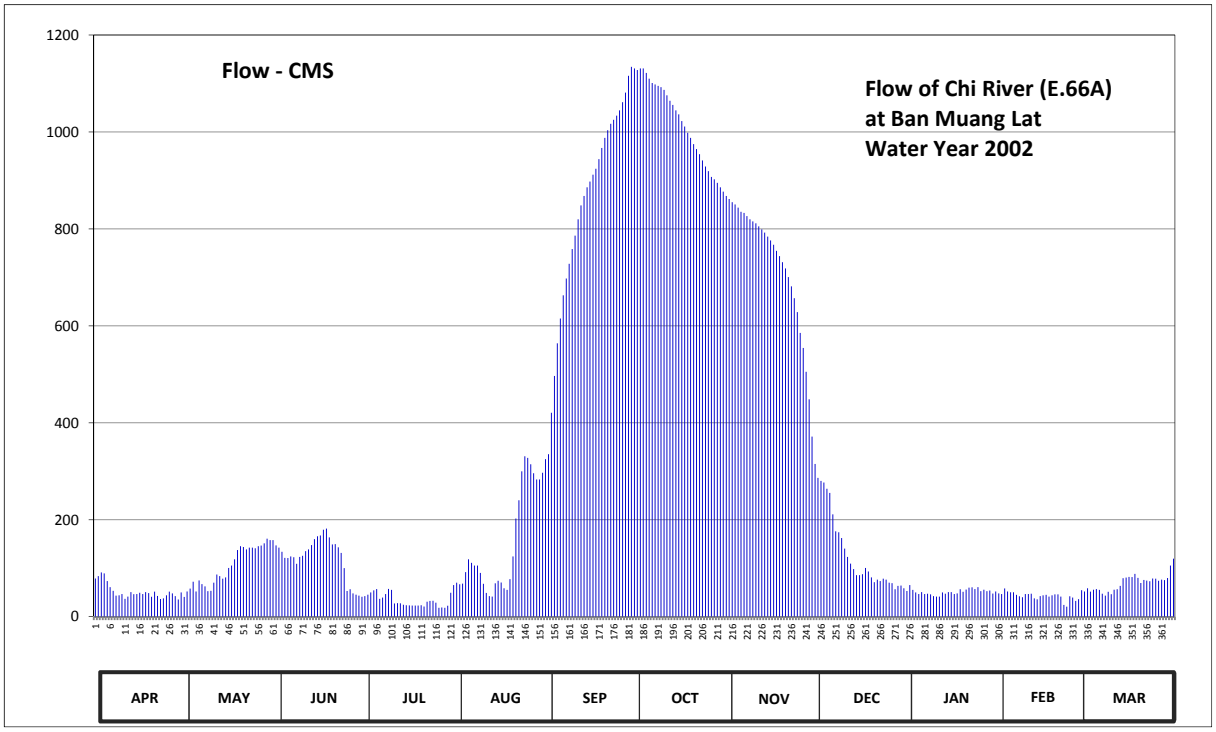
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	130.89	130.06	132.12	130.10	130.71	134.68	139.90	138.88	134.08	130.61	130.20	130.32	
2	130.99	130.32	132.04	130.17	130.64	135.66	139.91	138.85	134.00	130.39	130.46	130.47	
3	131.14	130.45	131.90	130.27	130.67	136.43	139.91	138.83	133.96	130.27	130.32	130.31	
4	131.10	130.75	131.69	130.37	131.15	137.03	139.88	138.80	133.80	130.20	130.28	130.40	
5	130.78	130.32	131.68	130.43	131.64	137.43	139.84	138.76	133.69	130.29	130.28	130.43	
6	130.52	130.81	131.74	129.97	131.52	137.77	139.81	138.75	133.10	130.20	130.16	130.39	
7	130.35	130.65	131.71	130.03	131.41	138.01	139.80	138.72	132.59	130.21	130.09	130.21	
8	130.12	130.55	131.48	130.20	131.41	138.20	139.79	138.69	132.56	130.18	130.05	130.12	
9	130.14	130.33	131.72	130.44	131.12	138.38	139.78	138.67	132.37	130.10	130.20	130.30	
10	130.20	130.35	131.76	130.39	130.66	138.53	139.76	138.65	132.01	130.08	130.20	130.19	
11	129.97	130.71	131.92	129.70	130.25	138.69	139.72	138.62	131.72	130.08	130.21	130.40	
12	130.08	131.06	131.98	129.72	130.10	138.82	139.68	138.59	131.49	130.27	129.99	130.42	
13	130.29	130.99	132.13	129.71	130.08	138.91	139.65	138.56	131.27	130.21	129.94	130.57	
14	130.19	130.88	132.33	129.63	130.68	138.99	139.61	138.52	131.03	130.29	130.10	130.90	
15	130.20	130.94	132.43	129.60	130.79	139.04	139.58	138.48	131.03	130.29	130.14	130.93	
16	130.26	131.32	132.46	129.59	130.72	139.10	139.53	138.43	131.07	130.20	130.16	130.96	
17	130.20	131.41	132.64	129.58	130.47	139.15	139.49	138.36	131.32	130.23	130.08	130.95	
18	130.29	131.64	132.67	129.58	130.39	139.23	139.44	138.30	131.18	130.42	130.14	131.08	
19	130.24	131.96	132.39	129.58	130.86	139.32	139.40	138.22	130.94	130.30	130.18	130.92	
20	130.07	132.09	132.15	129.60	131.74	139.40	139.35	138.14	130.73	130.41	130.18	130.70	
21	130.31	132.06	132.16	129.53	132.98	139.46	139.31	138.03	130.84	130.50	130.08	130.83	
22	130.11	131.98	132.05	129.80	133.50	139.51	139.27	137.90	130.78	130.51	129.62	130.80	
23	129.96	132.04	131.86	129.85	134.25	139.54	139.22	137.73	130.88	130.43	129.52	130.77	
24	129.99	132.04	131.31	129.86	134.63	139.57	139.17	137.53	130.84	130.52	130.09	130.89	
25	130.14	132.02	130.34	129.75	134.59	139.61	139.13	137.20	130.71	130.33	130.03	130.88	
26	130.31	132.09	130.42	129.44	134.43	139.67	139.08	136.95	130.69	130.40	129.85	130.79	
27	130.23	132.11	130.23	129.46	134.20	139.74	139.06	136.51	130.42	130.33	129.95	130.84	
28	130.10	132.19	130.17	129.44	134.04	139.86	139.03	135.96	130.57	130.36	130.38	130.82	
29	129.93	132.35	130.12	129.57	134.04	139.92	138.99	135.11	130.59	130.22		130.91	
30	130.27	132.30	130.07	130.26	134.21	139.91	138.95	134.44	130.47	130.32		131.41	
31		132.30		130.61	134.56		138.91		130.34	130.23		131.66	
Mean	130.31	131.32	131.66	129.88	132.01	138.65	139.48	137.97	131.65	130.30	130.10	130.70	
Max	131.14	132.35	132.67	130.61	134.63	139.92	139.91	138.88	134.08	130.61	130.46	131.66	139.92
Min	129.93	130.06	130.07	129.44	130.08	134.68	138.91	134.44	130.34	130.08	129.52	130.12	129.44

Annual Max Momentary Gage Height 139.92 m. (MSL.) , at 07.00 Hours, on Sep 29, 2002

Zero Gage at Bottom Elevation 126.90 m. (MSL.) , River Bed 126.70 m. (MSL.)

Left Bank Elevation 137.77 m. (MSL.) ,

Right Bank Elevation 139.40 m. (MSL.) , Drainage Are 31,879 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	78.72	40.64	147.20	42.40	70.08	335.12	1128.00	861.60	286.40	65.28	46.80	52.08		
2	83.52	52.08	142.40	45.48	66.72	420.72	1131.20	855.00	280.00	55.16	58.24	58.68		
3	91.28	57.80	134.00	49.88	68.16	496.72	1131.20	850.60	276.80	49.88	52.08	51.64		
4	89.20	72.00	121.40	54.28	91.80	563.84	1122.00	844.00	264.00	46.80	50.32	55.60		
5	73.44	52.08	120.80	56.92	118.40	615.04	1110.00	835.20	255.20	50.76	50.32	56.92		
6	60.96	74.88	124.40	36.92	111.20	662.88	1101.00	833.00	211.20	46.80	45.04	55.16		
7	53.40	67.20	122.60	39.32	105.32	697.60	1098.00	826.40	176.12	47.24	41.96	47.24		
8	43.28	62.40	108.96	46.80	105.32	728.00	1095.20	819.90	174.08	45.92	40.20	43.28		
9	44.16	52.52	123.20	57.36	90.24	758.40	1092.40	815.70	162.20	42.40	46.80	51.20		
10	46.80	53.40	125.60	55.16	67.68	786.30	1086.80	811.50	140.60	41.52	46.80	46.36		
11	36.92	70.08	135.20	27.20	49.00	819.90	1075.60	805.20	123.20	41.52	47.24	55.60		
12	41.52	87.12	138.80	27.92	42.40	848.40	1064.40	798.90	109.48	49.88	37.64	56.48		
13	50.76	83.52	147.80	27.56	41.52	868.20	1056.00	792.60	98.04	47.24	35.84	63.36		
14	46.36	78.24	159.80	24.68	68.64	885.80	1044.80	784.20	85.56	50.76	42.40	79.20		
15	46.80	81.12	165.80	23.60	73.92	897.60	1036.40	776.40	85.56	50.76	44.16	80.64		
16	49.44	100.64	167.60	23.24	70.56	912.00	1022.40	767.40	87.64	46.80	45.04	82.08		
17	46.80	105.32	179.52	22.88	58.68	924.00	1011.40	754.80	100.64	48.12	41.52	81.60		
18	50.76	118.40	181.56	22.88	55.16	943.80	998.40	744.00	93.36	56.48	44.16	88.16		
19	48.56	137.60	163.40	22.88	77.28	967.20	988.00	731.20	81.12	51.20	45.92	80.16		
20	41.08	145.40	149.00	23.60	124.40	988.00	975.00	718.40	71.04	56.04	45.92	69.60		
21	51.64	143.60	149.60	21.08	202.64	1003.60	964.60	700.80	76.32	60.00	41.52	75.84		
22	42.84	138.80	143.00	30.80	240.00	1016.80	954.20	681.60	73.44	60.48	24.32	74.40		
23	36.56	142.40	131.60	32.60	300.00	1025.20	941.20	657.12	78.24	56.92	20.72	72.96		
24	37.64	142.40	100.12	32.96	330.92	1033.60	928.80	628.32	76.32	60.96	41.96	78.72		
25	44.16	141.20	52.96	29.00	327.56	1044.80	919.20	585.60	70.08	52.52	39.32	78.24		
26	51.64	145.40	56.48	18.32	314.40	1061.60	907.20	554.40	69.12	55.60	32.60	73.92		
27	48.12	146.60	48.12	18.88	296.00	1081.20	902.40	505.12	56.48	52.52	36.20	76.32		
28	42.40	151.40	45.48	18.32	283.20	1116.00	895.20	448.32	63.36	53.84	54.72	75.36		
29	35.48	161.00	43.28	22.52	283.20	1134.40	885.80	371.68	64.32	47.68		79.68		
30	49.88	158.00	41.08	49.44	296.80	1131.20	877.00	315.20	58.68	52.08		105.32		
31		158.00		65.28	325.04		868.20		52.96	48.12		119.60		
Total	1564.12	3221.24	3670.76	1070.16	4756.24	25767.92	31412.00	21474.16	3901.56	1591.28	1199.76	2165.40	101794.60	CMSDAY
Mean	52.14	103.91	122.36	34.52	153.43	858.93	1013.29	715.81	125.86	51.33	42.85	69.85	278.89	CMS
Max	91.28	161.00	181.56	65.28	330.92	1134.40	1131.20	861.60	286.40	65.28	58.24	119.60	1134.40	CMS
Min	35.48	40.64	41.08	18.32	41.52	335.12	868.20	315.20	52.96	41.52	20.72	43.28	18.32	CMS
Runoff	135.14	278.32	317.15	92.46	410.94	2226.35	2714.00	1855.37	337.09	137.49	103.66	187.09	8795.05	MCM

Momentary Peak 1134.40 CMS, a 139.92m. (MSL.), at 07.00 Hours, on Sep 29, 2002

Runoff Yield 8.75 Liters/Second/Square KM. Momentary Peak Yield 35.580 Liters/Second/Square KM.

WATER YEAR : 2002

CHI RIVER BASIN

Lam Phan Chat at Ban Tha Ngam, Kalasin (E.67)

Lat 16 - 57 - 09 N Long 103 - 29 - 48 E

Location : on left bank at the bridge on road.

Ban Tha Ngam **Amphoe** Kham Muang **Changwat** Kalasin

Drainge Area	476 sq.km.
Type of Gage	Water - stage recorder.
Zero Gage at Bottom	+158.870 m. (MSL.)
Bench Mark	B.M.- Highways Dept.
Location BM	On left bank downstream side at the abutment of the bridge. **Elevation** +172.518 m. (MSL.)
Gage Reading Frequency	Recording.
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1983 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 because of backwater effect.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Flow effected by Lam Pao Dam. Stage-discharge relation defined by 12 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

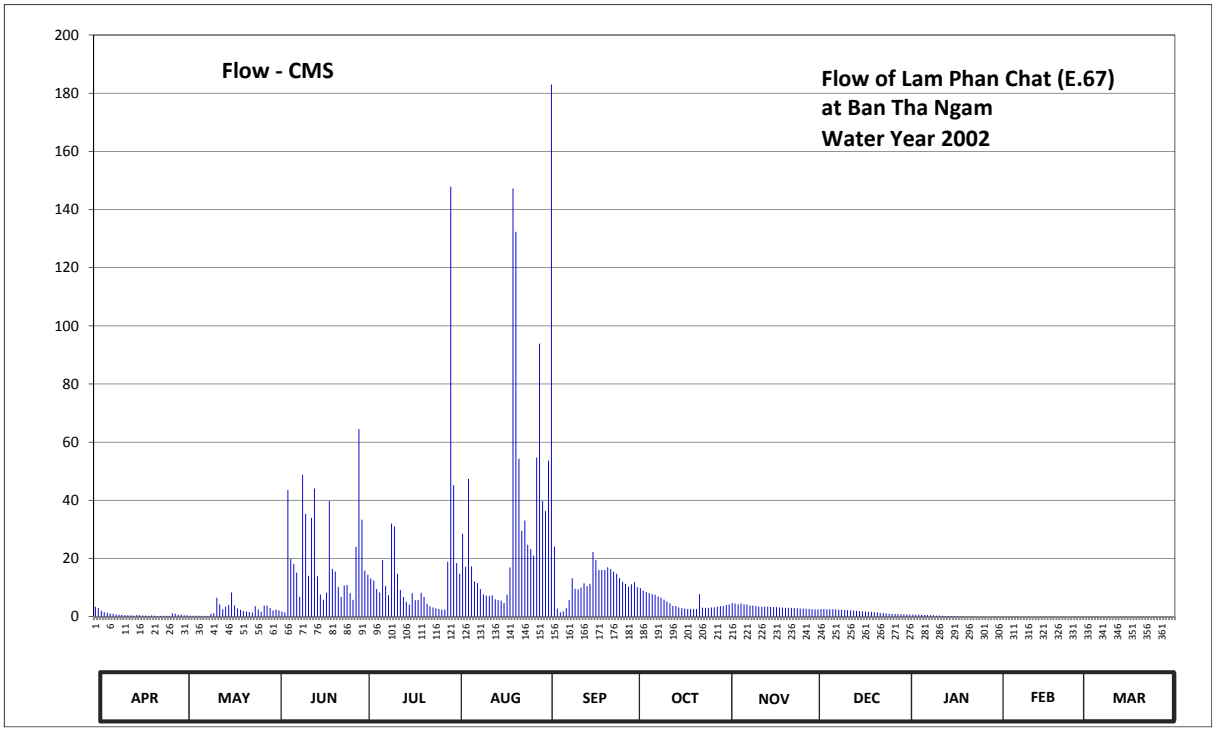
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	159.92	159.50	159.78	160.77	160.91	162.19	163.39	163.04	162.80	162.33	161.41	160.27	
2	159.86	159.49	159.74	160.69	160.71	164.82	163.37	163.07	162.82	162.31	161.37	160.22	
3	159.72	159.47	159.68	160.62	161.34	163.89	163.32	163.06	162.83	162.29	161.34	160.18	
4	159.66	159.47	159.64	160.58	160.84	162.86	163.29	163.04	162.81	162.26	161.28	160.12	
5	159.62	159.46	161.88	160.39	162.01	162.60	163.27	163.06	162.81	162.22	161.22	160.07	
6	159.59	159.45	160.99	160.31	160.85	162.67	163.25	163.04	162.81	162.20	161.19	160.02	
7	159.57	159.44	160.90	160.97	160.56	162.89	163.24	163.04	162.80	162.17	161.14	159.97	
8	159.54	159.45	160.73	160.47	160.53	163.13	163.20	163.02	162.78	162.14	161.11	159.91	
9	159.53	159.43	160.20	160.24	160.39	163.54	163.18	163.02	162.78	162.10	161.07	159.86	
10	159.52	159.57	162.05	161.48	160.26	163.36	163.14	163.01	162.77	162.05	161.03	160.01	
11	159.51	159.60	161.60	161.44	160.23	163.35	163.10	163.00	162.74	162.02	160.97	159.87	
12	159.50	160.18	160.67	160.71	160.22	163.38	163.06	162.99	162.73	162.00	160.94	159.78	
13	159.49	160.02	161.55	160.37	160.24	163.47	163.01	162.99	162.71	161.96	160.90	159.72	
14	159.48	159.79	161.90	160.20	160.14	163.41	163.01	162.99	162.70	161.94	160.85	159.68	
15	159.51	159.92	160.66	160.08	160.12	163.46	162.93	162.97	162.68	161.91	160.82	159.67	
16	159.50	160.00	160.26	160.01	160.11	163.83	162.89	162.96	162.67	161.87	160.78	159.64	
17	159.48	160.31	160.13	160.29	160.05	163.74	162.86	162.95	162.66	161.85	160.74	159.63	
18	159.47	159.98	160.30	160.12	160.26	163.63	162.83	162.93	162.64	161.83	160.70	159.63	
19	159.45	159.83	161.75	160.12	160.83	163.63	162.83	162.93	162.63	161.81	160.64	159.62	
20	159.48	159.76	160.80	160.30	164.22	163.63	162.83	162.91	162.61	161.79	160.61	159.69	
21	159.47	159.70	160.75	160.20	163.96	163.66	162.82	162.91	162.59	161.77	160.57	159.65	
22	159.44	159.68	160.44	160.03	162.21	163.64	163.25	162.90	162.57	161.75	160.52	160.05	
23	159.45	159.65	160.20	159.94	161.38	163.61	162.92	162.89	162.55	161.70	160.48	159.88	
24	159.45	159.64	160.48	159.88	161.52	163.59	162.91	162.88	162.52	161.69	160.46	159.80	
25	159.45	159.94	160.49	159.83	161.19	163.54	162.91	162.87	162.49	161.67	160.42	159.76	
26	159.45	159.78	160.29	159.80	161.13	163.50	162.93	162.85	162.47	161.64	160.38	159.74	
27	159.59	159.67	160.13	159.77	161.04	163.46	162.94	162.84	162.44	161.61	160.33	159.70	
28	159.57	159.97	161.16	159.78	162.22	163.40	162.99	162.83	162.41	161.57	160.31	159.69	
29	159.52	159.97	162.50	160.94	163.21	163.45	163.01	162.81	162.39	161.53		159.60	
30	159.53	159.85	161.53	164.23	161.75	163.49	163.01	162.80	162.37	161.49		159.60	
31		159.73		161.94	161.63		163.03		162.35	161.44		159.66	
Mean	159.54	159.73	160.77	160.53	161.16	163.43	163.06	162.95	162.64	161.90	160.84	159.83	
Max	159.92	160.31	162.50	164.23	164.22	164.82	163.39	163.07	162.83	162.33	161.41	160.27	164.82
Min	159.44	159.43	159.64	159.77	160.05	162.19	162.82	162.80	162.35	161.44	160.31	159.60	159.43

Annual Max Momentary Gage Height 165.37 m. (MSL.) , at 17.00 Hours, on Sep 2, 2002

Zero Gage at Bottom Elevation 158.87 m. (MSL.) , River Bed 159.34 m. (MSL.)

Left Bank Elevation 172.54 m. (MSL.) ,

Right Bank Elevation 172.45 m. (MSL.) , Drainage Are 476 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.44	0.50	2.46	15.86	18.38	53.65	10.13	4.18	2.50	0.76	0.00	0.00		
2	3.02	0.46	2.18	14.42	14.78	183.02	9.79	4.69	2.60	0.73	0.00	0.00		
3	2.04	0.38	1.76	13.16	28.50	24.09	8.94	4.52	2.65	0.71	0.00	0.00		
4	1.62	0.38	1.48	12.44	17.12	2.80	8.43	4.18	2.55	0.66	0.00	0.00		
5	1.34	0.34	43.52	9.46	47.35	1.50	8.09	4.52	2.55	0.61	0.00	0.00		
6	1.13	0.30	19.82	8.34	17.30	1.85	7.75	4.18	2.55	0.58	0.00	0.00		
7	0.99	0.26	18.20	19.46	12.08	2.95	7.58	4.18	2.50	0.54	0.00	0.00		
8	0.78	0.30	15.14	10.58	11.54	5.71	6.90	3.84	2.40	0.50	0.00	0.00		
9	0.71	0.22	6.80	7.36	9.46	13.24	6.56	3.84	2.40	0.44	0.00	0.00		
10	0.64	0.99	48.75	32.00	7.64	9.62	5.88	3.67	2.35	0.37	0.00	0.00		
11	0.57	1.20	35.40	31.00	7.22	9.45	5.20	3.50	2.20	0.33	0.00	0.00		
12	0.50	6.52	14.06	14.78	7.08	9.96	4.52	3.45	2.15	0.30	0.00	0.00		
13	0.46	4.28	33.95	9.18	7.36	11.49	3.67	3.45	2.05	0.26	0.00	0.00		
14	0.42	2.53	44.10	6.80	5.96	10.47	3.67	3.45	2.00	0.24	0.00	0.00		
15	0.57	3.44	13.88	5.12	5.68	11.32	3.15	3.35	1.90	0.21	0.00	0.00		
16	0.50	4.00	7.64	4.14	5.54	22.23	2.95	3.30	1.85	0.17	0.00	0.00		
17	0.42	8.34	5.82	8.06	4.70	19.44	2.80	3.25	1.80	0.15	0.00	0.00		
18	0.38	3.86	8.20	5.68	7.64	16.03	2.65	3.15	1.70	0.13	0.00	0.00		
19	0.30	2.81	39.75	5.68	16.94	16.03	2.65	3.15	1.65	0.11	0.00	0.00		
20	0.42	2.32	16.40	8.20	147.26	16.03	2.65	3.05	1.55	0.09	0.00	0.00		
21	0.38	1.90	15.50	6.80	132.34	16.96	2.60	3.05	1.45	0.07	0.00	0.00		
22	0.26	1.76	10.16	4.42	54.35	16.34	7.75	3.00	1.35	0.05	0.00	0.00		
23	0.30	1.55	6.80	3.58	29.50	15.41	3.10	2.95	1.25	0.00	0.00	0.00		
24	0.30	1.48	10.72	3.16	33.08	14.79	3.05	2.90	1.10	0.00	0.00	0.00		
25	0.30	3.58	10.86	2.81	24.75	13.24	3.05	2.85	0.99	0.00	0.00	0.00		
26	0.30	2.46	8.06	2.60	23.25	12.00	3.15	2.75	0.96	0.00	0.00	0.00		
27	1.13	1.69	5.82	2.39	21.00	11.32	3.20	2.70	0.92	0.00	0.00	0.00		
28	0.99	3.79	24.00	2.46	54.70	10.30	3.45	2.65	0.87	0.00	0.00	0.00		
29	0.64	3.79	64.50	18.92	93.87	11.15	3.67	2.55	0.85	0.00		0.00		
30	0.71	2.95	33.37	147.84	39.75	11.83	3.67	2.50	0.82	0.00		0.00		
31		2.11		45.26	36.27		4.01		0.79	0.00		0.00		
Total	25.56	70.49	569.10	481.96	942.39	574.22	154.66	102.80	55.25	8.01	0.00	0.00	2984.44	CMSDAY
Mean	0.85	2.27	18.97	15.55	30.40	19.14	4.99	3.43	1.78	0.26	0.00	0.00	8.18	CMS
Max	3.44	8.34	64.50	147.84	147.26	183.02	10.13	4.69	2.65	0.76	0.00	0.00	183.02	CMS
Min	0.26	0.22	1.48	2.39	4.70	1.50	2.60	2.50	0.79	0.00	0.00	0.00	0.00	CMS
Runoff	2.21	6.09	49.17	41.64	81.42	49.61	13.36	8.88	4.77	0.69	0.00	0.00	257.86	MCM

Momentary Peak 218.05 CMS, a 165.37 m. (MSL.), at 17.00 Hours, on Sep 2, 2002

Runoff Yield 17.18 Liters/Second/Square KM. Momentary Peak Yield 458.090 Liters/Second/Square KM.

WATER YEAR : 2002

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 mean 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 +198.820 m.(M.S.L.), records are channel flow only.		
General Description	Records fair. The concrete weir situated downstream from the gage site. Stage-discharge relation defined by 38 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

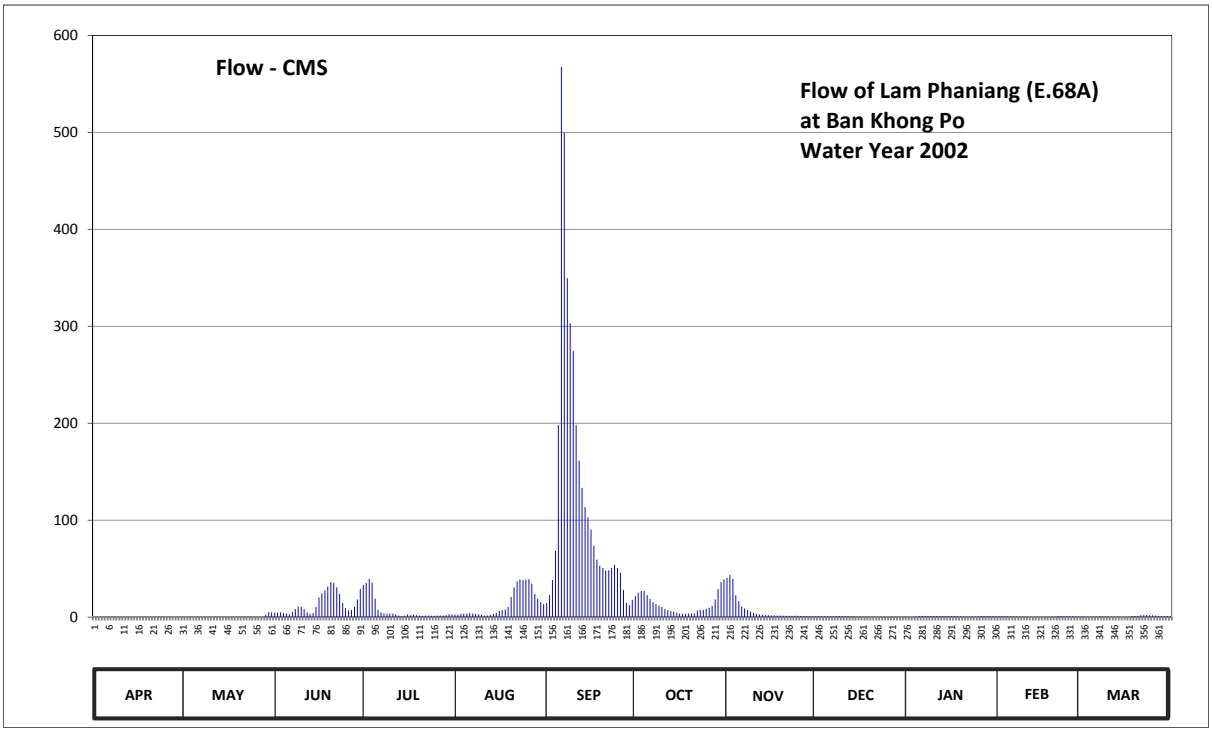
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	196.51	196.37	197.19	198.29	197.04	197.71	197.99	198.49	196.88	196.80	196.88	196.83	
2	196.51	196.36	197.19	198.35	197.05	198.02	198.08	198.55	196.89	196.80	196.88	196.83	
3	196.50	196.35	197.21	198.46	197.10	198.43	198.13	198.46	196.88	196.81	196.88	196.83	
4	196.50	196.38	197.15	198.36	197.11	199.05	198.13	198.01	196.88	196.85	196.88	196.82	
5	196.50	196.38	197.11	197.89	197.12	200.09	198.02	197.79	196.88	196.91	196.87	196.83	
6	196.49	196.37	197.06	197.40	197.15	200.93	197.88	197.58	196.87	196.92	196.86	196.84	
7	196.48	196.36	197.24	197.21	197.11	200.83	197.75	197.49	196.87	196.93	196.85	196.86	
8	196.47	196.37	197.44	197.14	197.09	200.56	197.67	197.37	196.88	196.92	196.84	196.86	
9	196.47	196.37	197.57	197.12	197.07	200.45	197.61	197.26	196.91	196.91	196.84	196.85	
10	196.46	196.36	197.56	197.12	197.04	200.37	197.56	197.16	196.89	196.91	196.83	196.84	
11	196.46	196.36	197.44	197.11	196.97	200.09	197.45	197.09	196.88	196.92	196.81	196.84	
12	196.46	196.36	197.20	197.06	196.96	199.89	197.36	197.05	196.88	196.90	196.81	196.82	
13	196.45	196.36	197.09	196.97	197.03	199.71	197.31	197.03	196.87	196.89	196.82	196.82	
14	196.45	196.35	197.15	196.88	197.09	199.56	197.27	197.01	196.86	196.89	196.83	196.81	
15	196.45	196.35	197.56	196.96	197.17	199.46	197.19	196.99	196.84	196.89	196.82	196.81	
16	196.44	196.39	197.93	197.07	197.31	199.34	197.11	196.98	196.84	196.89	196.81	196.81	
17	196.44	196.39	198.07	197.00	197.37	199.12	197.10	196.98	196.84	196.89	196.81	196.81	
18	196.43	196.39	198.15	197.05	197.41	198.88	197.10	196.97	196.83	196.88	196.81	196.90	
19	196.43	196.38	198.25	197.00	197.56	198.75	197.11	196.96	196.83	196.87	196.82	196.91	
20	196.42	196.38	198.37	196.97	197.95	198.70	197.13	196.95	196.82	196.86	196.84	196.90	
21	196.42	196.37	198.35	196.93	198.23	198.65	197.13	196.95	196.82	196.85	196.91	196.99	
22	196.41	196.37	198.23	196.96	198.39	198.65	197.34	196.93	196.82	196.84	196.90	197.02	
23	196.41	196.35	198.05	196.97	198.44	198.70	197.39	196.93	196.82	196.85	196.87	197.01	
24	196.41	196.35	197.71	196.95	198.43	198.77	197.39	196.94	196.82	196.85	196.87	196.99	
25	196.40	196.34	197.51	196.94	198.44	198.70	197.47	196.94	196.82	196.87	196.88	196.98	
26	196.40	196.34	197.35	196.96	198.45	198.60	197.53	196.92	196.82	196.89	196.88	196.96	
27	196.39	196.34	197.38	196.97	198.33	198.16	197.60	196.91	196.83	196.90	196.86	196.93	
28	196.39	196.34	197.56	196.97	198.05	197.72	197.86	196.90	196.82	196.91	196.85	196.92	
29	196.38	197.03	197.85	196.99	197.88	197.62	198.18	196.90	196.82	196.90		196.90	
30	196.37	197.22	198.18	197.07	197.76	197.84	198.37	196.88	196.82	196.89		196.89	
31		197.22		197.06	197.67		198.44		196.81	196.88		196.89	
Mean	196.44	196.44	197.60	197.23	197.54	199.11	197.60	197.25	196.85	196.88	196.85	196.88	
Max	196.51	197.22	198.37	198.46	198.45	200.93	198.44	198.55	196.91	196.93	196.91	197.02	200.93
Min	196.37	196.34	197.06	196.88	196.96	197.62	197.10	196.88	196.81	196.80	196.81	196.81	196.34

Annual Max Momentary Gage Height 201.13 m. (MSL.) , at 18.00 Hours, on Sep 6, 2002

Zero Gage at Bottom Elevation 194.73 m. (MSL.) , River Bed 193.60 m. (MSL.)

Left Bank Elevation 198.93 m. (MSL.) ,

Right Bank Elevation 198.82 m. (MSL.) , Drainage Are 1,364 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	4.66	33.02	2.56	14.46	21.74	40.62	0.80	0.00	0.80	0.30		
2	0.00	0.00	4.66	35.30	2.70	22.76	25.04	43.40	0.90	0.00	0.80	0.30		
3	0.00	0.00	4.94	39.48	3.40	38.34	26.94	39.48	0.80	0.10	0.80	0.30		
4	0.00	0.00	4.10	35.68	3.54	68.50	26.94	22.38	0.80	0.50	0.80	0.20		
5	0.00	0.00	3.54	19.14	3.68	198.00	22.76	16.54	0.80	1.10	0.70	0.30		
6	0.00	0.00	2.84	7.60	4.10	567.60	18.88	11.08	0.70	1.20	0.60	0.40		
7	0.00	0.00	5.36	4.94	3.54	499.80	15.50	8.86	0.70	1.30	0.50	0.60		
8	0.00	0.00	8.16	3.96	3.26	349.60	13.42	7.18	0.80	1.20	0.40	0.60		
9	0.00	0.00	10.82	3.68	2.98	303.00	11.86	5.64	1.10	1.10	0.40	0.50		
10	0.00	0.00	10.56	3.68	2.56	274.40	10.56	4.24	0.90	1.10	0.30	0.40		
11	0.00	0.00	8.16	3.54	1.70	198.00	8.30	3.26	0.80	1.20	0.10	0.40		
12	0.00	0.00	4.80	2.84	1.60	161.30	7.04	2.70	0.80	1.00	0.10	0.20		
13	0.00	0.00	3.26	1.70	2.42	133.40	6.34	2.42	0.70	0.90	0.20	0.20		
14	0.00	0.00	4.10	0.80	3.26	113.60	5.78	2.14	0.60	0.90	0.30	0.10		
15	0.00	0.00	10.56	1.60	4.38	102.80	4.66	1.90	0.40	0.90	0.20	0.10		
16	0.00	0.00	20.18	2.98	6.34	90.20	3.54	1.80	0.40	0.90	0.10	0.10		
17	0.00	0.00	24.66	2.00	7.18	73.40	3.40	1.80	0.40	0.90	0.10	0.10		
18	0.00	0.00	27.70	2.70	7.74	59.24	3.40	1.70	0.30	0.80	0.10	1.00		
19	0.00	0.00	31.50	2.00	10.56	53.00	3.54	1.60	0.30	0.70	0.20	1.10		
20	0.00	0.00	36.06	1.70	20.70	50.60	3.82	1.50	0.20	0.60	0.40	1.00		
21	0.00	0.00	35.30	1.30	30.74	48.20	3.82	1.50	0.20	0.50	1.10	1.90		
22	0.00	0.00	30.74	1.60	36.82	48.20	6.76	1.30	0.20	0.40	1.00	2.28		
23	0.00	0.00	23.90	1.70	38.72	50.60	7.46	1.30	0.20	0.50	0.70	2.14		
24	0.00	0.00	14.46	1.50	38.34	53.96	7.46	1.40	0.20	0.50	0.70	1.90		
25	0.00	0.00	9.26	1.40	38.72	50.60	8.58	1.40	0.20	0.70	0.80	1.80		
26	0.00	0.00	6.90	1.60	39.10	45.80	9.78	1.20	0.20	0.90	0.80	1.60		
27	0.00	0.00	7.32	1.70	34.54	28.08	11.60	1.10	0.30	1.00	0.60	1.30		
28	0.00	0.00	10.56	1.70	23.90	14.72	18.36	1.00	0.20	1.10	0.50	1.20		
29	0.00	2.42	18.10	1.90	18.88	12.12	28.84	1.00	0.20	1.00		1.00		
30	0.00	5.08	28.84	2.98	15.76	17.84	36.06	0.80	0.20	0.90		0.90		
31		5.08		2.84	13.42		38.72		0.10	0.80		0.90		
Total	0.00	12.58	416.00	228.56	427.14	3742.12	420.90	232.24	15.40	24.70	14.10	25.12	5558.86	CMSDAY
Mean	0.00	0.41	13.87	7.37	13.78	124.74	13.58	7.74	0.50	0.80	0.50	0.81	15.23	CMS
Max	0.00	5.08	36.06	39.48	39.10	567.60	38.72	43.40	1.10	1.30	1.10	2.28	567.60	CMS
Min	0.00	0.00	2.84	0.80	1.60	12.12	3.40	0.80	0.10	0.00	0.10	0.10	0.00	CMS
Runoff	0.00	1.09	35.94	19.75	36.90	323.32	36.37	20.07	1.33	2.13	1.22	2.17	480.29	MCM

Momentary Peak 721.20 CMS, at 201.13 m. (MSL.), at 18.00 Hours, on Sep 6, 2002

Runoff Yield 11.17 Liters/Second/Square KM. Momentary Peak Yield 528.740 Liters/Second/Square KM.

WATER YEAR : 2002

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 mean 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	Overbank flow starts at elevation +139.030 m.(M.S.L.), records are channel flow only.		
General Description	Records good. Stage-discharge relation defined by 70 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

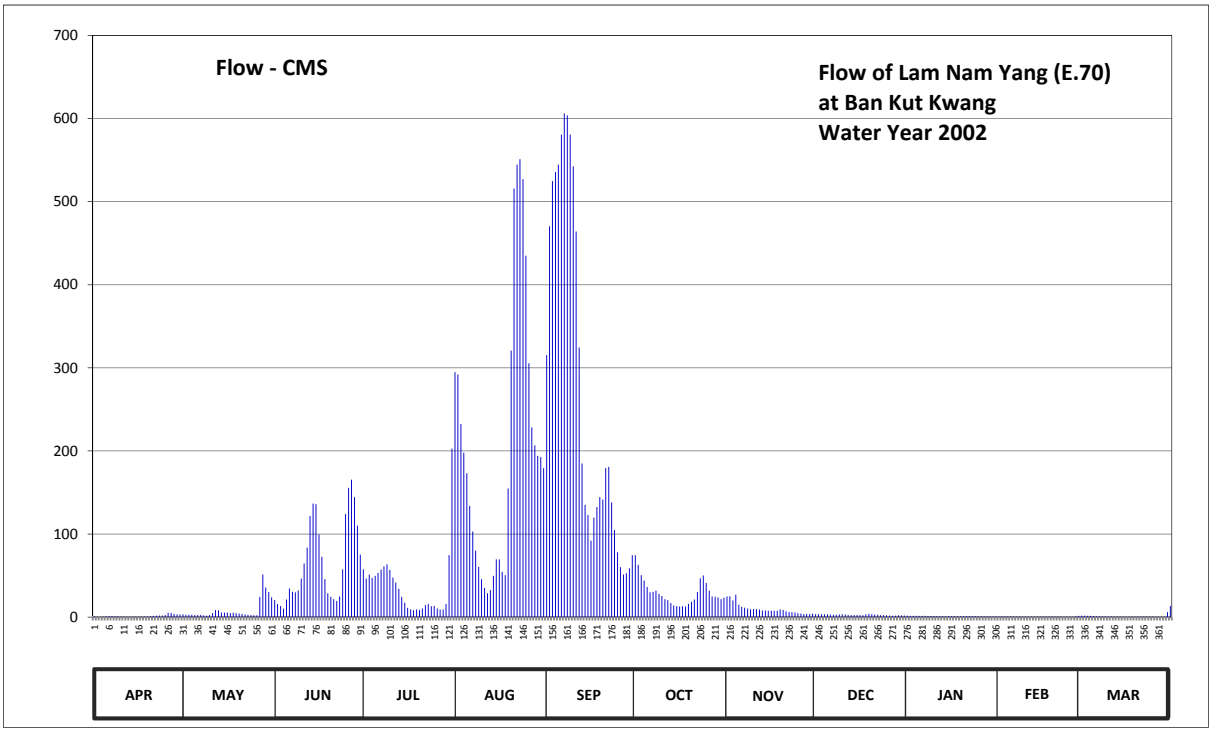
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	132.06	132.32	133.12	134.14	137.63	137.86	134.49	133.26	132.36	132.18	132.02	132.17	
2	131.91	132.29	132.95	133.86	137.60	139.46	134.26	133.27	132.35	132.16	132.07	132.17	
3	131.89	132.28	132.85	133.98	136.88	139.97	133.96	133.10	132.35	132.16	132.06	132.15	
4	131.97	132.28	132.71	133.88	136.45	140.07	133.80	133.33	132.34	132.16	132.05	132.15	
5	132.04	132.25	133.14	133.94	136.10	140.15	133.61	132.91	132.32	132.16	132.04	132.13	
6	132.09	132.24	133.56	134.03	135.54	140.48	133.43	132.81	132.31	132.16	132.04	132.09	
7	132.11	132.26	133.45	134.13	135.05	140.71	133.45	132.77	132.29	132.15	132.03	132.07	
8	132.07	132.21	133.43	134.22	134.60	140.69	133.49	132.72	132.28	132.14	132.03	132.06	
9	132.06	132.18	133.50	134.27	134.21	140.48	133.37	132.67	132.33	132.14	132.03	132.05	
10	132.03	132.24	133.86	134.12	133.84	140.13	133.28	132.69	132.34	132.14	132.02	132.02	
11	132.02	132.44	134.29	133.89	133.58	139.40	133.15	132.68	132.30	132.12	132.02	132.04	
12	131.99	132.62	134.67	133.74	133.39	137.96	133.11	132.65	132.27	132.11	132.02	132.03	
13	131.97	132.60	135.36	133.55	133.52	136.27	133.00	132.60	132.25	132.10	132.01	132.01	
14	131.99	132.48	135.58	133.25	133.94	135.56	132.88	132.59	132.25	132.09	132.01	132.00	
15	131.96	132.47	135.57	133.01	134.39	135.38	132.85	132.58	132.25	132.11	132.01	131.99	
16	131.97	132.48	134.99	132.76	134.39	134.84	132.83	132.58	132.24	132.11	132.01	131.98	
17	132.00	132.44	134.45	132.66	134.06	135.33	132.84	132.58	132.23	132.10	132.01	131.98	
18	132.03	132.46	133.84	132.61	133.96	135.52	132.83	132.58	132.32	132.10	132.01	131.97	
19	132.01	132.44	133.39	132.66	135.84	135.69	132.96	132.66	132.40	132.10	132.01	132.02	
20	132.10	132.41	133.25	132.63	137.92	135.65	133.05	132.63	132.35	132.11	132.01	132.01	
21	132.15	132.39	133.15	132.72	139.89	136.19	133.14	132.56	132.31	132.11	132.01	132.03	
22	132.17	132.33	133.08	132.90	140.15	136.21	133.44	132.51	132.28	132.11	132.00	132.05	
23	132.19	132.26	133.26	132.95	140.21	135.60	133.87	132.50	132.23	132.11	131.99	132.02	
24	132.20	132.24	134.14	132.84	139.99	135.08	133.95	132.48	132.23	132.11	131.97	132.01	
25	132.24	132.23	135.40	132.86	139.11	134.56	133.73	132.44	132.21	132.10	131.98	132.00	
26	132.46	132.22	135.85	132.72	137.75	134.20	133.49	132.41	132.20	132.09	131.98	131.94	
27	132.45	133.24	135.99	132.65	136.83	133.98	133.26	132.37	132.17	132.08	132.04	131.95	
28	132.39	133.98	135.69	132.66	136.56	134.02	133.25	132.39	132.17	132.07	132.15	131.96	
29	132.32	133.59	135.17	132.95	136.40	134.17	133.22	132.39	132.23	132.07		131.95	
30	132.32	133.44	134.50	134.49	136.38	134.49	133.15	132.41	132.21	132.07		132.50	
31		133.23		136.51	136.19		133.21		132.20	132.07		132.86	
Mean	132.11	132.53	134.14	133.47	136.20	137.00	133.37	132.67	132.28	132.12	132.02	132.08	
Max	132.46	133.98	135.99	136.51	140.21	140.71	134.49	133.33	132.40	132.18	132.15	132.86	140.71
Min	131.89	132.18	132.71	132.61	133.39	133.98	132.83	132.37	132.17	132.07	131.97	131.94	131.89

Annual Max Momentary Gage Height 140.73 m. (MSL.) , at 18.00 Hours, on Sep 7, 2002

Zero Gage at Bottom Elevation 132.12 m. (MSL.) , River Bed 130.18 m. (MSL.)

Left Bank Elevation 139.88 m. (MSL.) ,

Right Bank Elevation 139.02 m. (MSL.) , Drainage Are 2,647 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.80	3.20	20.60	57.60	294.70	315.40	74.50	24.80	3.60	1.80	0.60	1.70		
2	0.10	2.90	15.75	46.40	292.00	470.30	63.00	25.10	3.50	1.60	0.85	1.70		
3	0.05	2.80	13.25	51.20	232.40	524.70	50.40	20.00	3.50	1.60	0.80	1.50		
4	0.37	2.80	10.20	47.20	198.00	535.70	44.00	26.90	3.40	1.60	0.75	1.50		
5	0.70	2.50	21.20	49.60	173.00	544.50	36.40	14.75	3.20	1.60	0.70	1.30		
6	0.95	2.40	34.40	53.20	133.80	580.80	29.90	12.25	3.10	1.60	0.70	0.95		
7	1.10	2.60	30.50	57.20	103.00	606.10	30.50	11.40	2.90	1.50	0.65	0.85		
8	0.85	2.10	29.90	61.00	80.00	603.90	31.70	10.40	2.80	1.40	0.65	0.80		
9	0.80	1.80	32.00	63.50	60.50	580.80	28.10	9.40	3.30	1.40	0.65	0.75		
10	0.65	2.40	46.40	56.80	45.60	542.30	25.40	9.80	3.40	1.40	0.60	0.60		
11	0.60	4.80	64.50	47.60	35.20	464.00	21.50	9.60	3.00	1.20	0.60	0.70		
12	0.46	8.40	83.50	41.60	28.70	324.40	20.30	9.00	2.70	1.10	0.60	0.65		
13	0.37	8.00	121.60	34.00	32.80	184.90	17.00	8.00	2.50	1.00	0.55	0.55		
14	0.46	5.60	136.60	24.50	49.60	135.20	14.00	7.80	2.50	0.95	0.55	0.50		
15	0.32	5.40	135.90	17.30	69.50	122.80	13.25	7.60	2.50	1.10	0.55	0.46		
16	0.37	5.60	99.50	11.20	69.50	92.00	12.75	7.60	2.40	1.10	0.55	0.41		
17	0.50	4.80	72.50	9.20	54.40	119.80	13.00	7.60	2.30	1.00	0.55	0.41		
18	0.65	5.20	45.60	8.20	50.40	132.40	12.75	7.60	3.20	1.00	0.55	0.37		
19	0.55	4.80	28.70	9.20	154.80	144.30	16.00	9.20	4.00	1.00	0.55	0.60		
20	1.00	4.20	24.50	8.60	320.80	141.50	18.50	8.60	3.50	1.10	0.55	0.55		
21	1.50	3.90	21.50	10.40	515.90	179.30	21.20	7.20	3.10	1.10	0.55	0.65		
22	1.70	3.30	19.40	14.50	544.50	180.70	30.20	6.20	2.80	1.10	0.50	0.75		
23	1.90	2.60	24.80	15.75	551.10	138.00	46.80	6.00	2.30	1.10	0.46	0.60		
24	2.00	2.40	57.60	13.00	526.90	104.80	50.00	5.60	2.30	1.10	0.37	0.55		
25	2.40	2.30	124.00	13.50	435.00	78.00	41.20	4.80	2.10	1.00	0.41	0.50		
26	5.20	2.20	155.50	10.40	305.50	60.00	31.70	4.20	2.00	0.95	0.41	0.23		
27	5.00	24.20	165.30	9.00	228.40	51.20	24.80	3.70	1.70	0.90	0.70	0.28		
28	3.90	51.20	144.30	9.20	206.80	52.80	24.50	3.90	1.70	0.85	1.50	0.32		
29	3.20	35.60	110.20	15.75	194.00	58.80	23.60	3.90	2.30	0.85		0.28		
30	3.20	30.20	75.00	74.50	192.60	74.50	21.50	4.20	2.10	0.85		6.00		
31		23.90		202.80	179.30		23.30		2.00	0.85		13.50		
Total	41.65	264.10	1964.70	1143.90	6358.70	8143.90	911.75	297.10	85.70	36.70	17.45	40.51	19306.16	CMSDAY
Mean	1.39	8.52	65.49	36.90	205.12	271.46	29.41	9.90	2.76	1.18	0.62	1.31	52.89	CMS
Max	5.20	51.20	165.30	202.80	551.10	606.10	74.50	26.90	4.00	1.80	1.50	13.50	606.10	CMS
Min	0.05	1.80	10.20	8.20	28.70	51.20	12.75	3.70	1.70	0.85	0.37	0.23	0.05	CMS
Runoff	3.60	22.82	169.75	98.83	549.39	703.63	78.78	25.67	7.40	3.17	1.51	3.50	1668.05	MCM

Momentary Peak 608.30 CMS, at 140.73 m. (MSL.), at 18.00 Hours, on Sep 7, 2002

Runoff Yield 19.98 Liters/Second/Square KM. Momentary Peak Yield 229.810 Liters/Second/Square KM.

WATER YEAR : 2002

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 mean 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	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 60 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

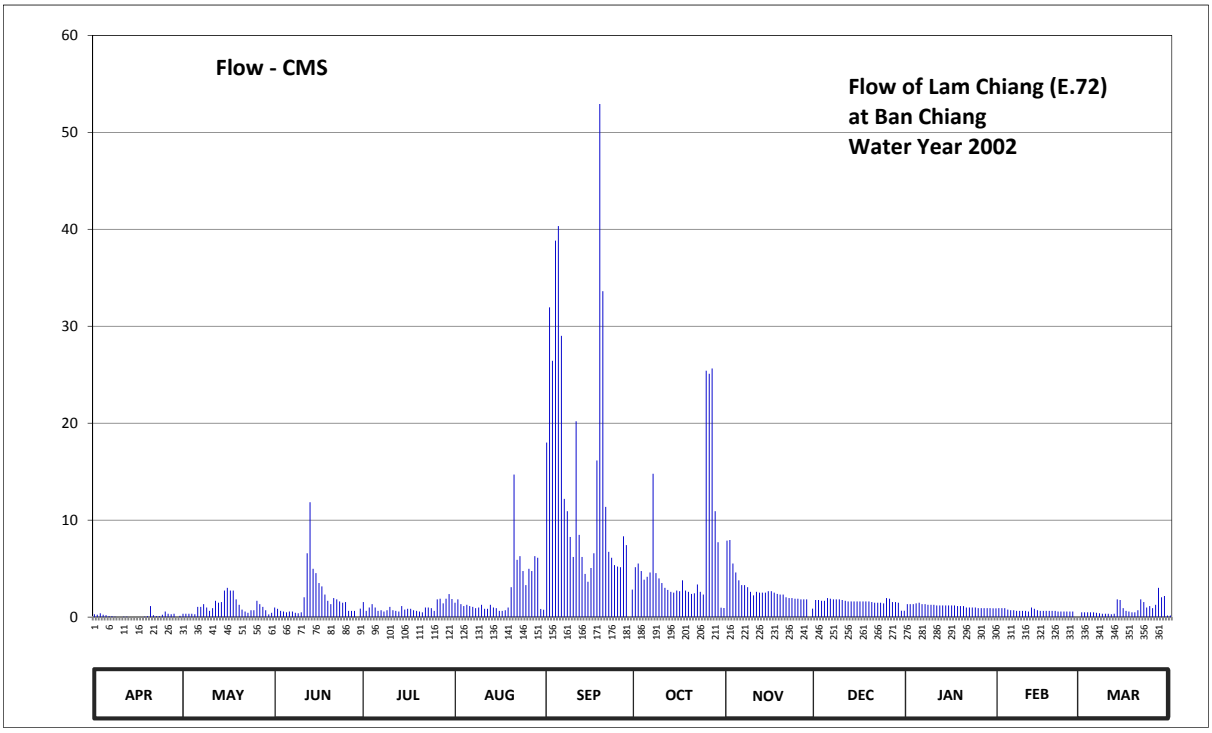
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	234.46	234.47	234.57	234.65	234.64	236.75	235.15	235.51	234.68	234.62	234.56	234.50	
2	234.45	234.47	234.55	234.52	234.69	238.09	235.20	235.52	234.68	234.62	234.56	234.50	
3	234.48	234.47	234.52	234.57	234.62	237.61	235.10	235.20	234.67	234.62	234.56	234.50	
4	234.45	234.47	234.51	234.62	234.59	238.62	234.98	235.08	234.67	234.63	234.54	234.50	
5	234.44	234.46	234.50	234.57	234.61	238.73	235.02	234.97	234.71	234.64	234.53	234.50	
6	234.42	234.58	234.51	234.52	234.59	237.84	235.08	234.90	234.70	234.62	234.53	234.49	
7	234.42	234.58	234.51	234.53	234.58	236.07	236.38	234.90	234.69	234.62	234.52	234.48	
8	234.41	234.62	234.49	234.51	234.56	235.91	235.07	234.87	234.69	234.61	234.52	234.47	
9	234.40	234.57	234.48	234.53	234.57	235.56	235.00	234.80	234.69	234.61	234.52	234.47	
10	234.40	234.52	234.50	234.58	234.61	235.29	234.93	234.75	234.68	234.61	234.52	234.47	
11	234.39	234.49	234.70	234.55	234.57	235.57	234.89	234.81	234.67	234.61	234.52	234.46	
12	234.41	234.56	234.72	234.53	234.55	237.00	234.86	234.80	234.67	234.60	234.51	234.46	
13	234.41	234.67	235.34	234.52	234.55	235.59	234.83	234.79	234.66	234.60	234.57	234.47	
14	234.40	234.64	236.03	234.51	234.61	235.29	234.80	234.79	234.66	234.60	234.55	234.69	
15	234.40	234.65	235.13	234.59	234.57	235.06	234.79	234.79	234.66	234.60	234.53	234.68	
16	234.40	234.82	235.07	234.54	234.56	234.95	234.82	234.81	234.66	234.60	234.52	234.56	
17	234.40	234.86	234.93	234.55	234.52	235.14	234.81	234.81	234.66	234.60	234.52	234.52	
18	234.40	234.82	234.88	234.55	234.52	235.34	234.97	234.79	234.66	234.60	234.52	234.51	
19	234.41	234.82	234.76	234.53	234.53	236.54	234.82	234.77	234.66	234.59	234.52	234.50	
20	234.42	234.69	234.67	234.52	234.57	239.60	234.80	234.76	234.66	234.59	234.52	234.50	
21	234.59	234.61	234.62	234.51	234.87	238.22	234.77	234.76	234.65	234.59	234.52	234.53	
22	234.48	234.58	234.71	234.51	237.62	237.23	234.77	234.74	234.65	234.58	234.52	234.90	
23	234.44	234.54	234.71	234.50	236.37	235.97	234.78	234.72	234.64	234.57	234.51	234.69	
24	234.42	234.51	234.69	234.57	235.25	235.36	234.91	234.71	234.64	234.57	234.51	234.65	
25	234.42	234.49	234.66	234.57	235.30	235.28	234.80	234.71	234.64	234.57	234.51	234.57	
26	234.45	234.53	234.64	234.56	235.10	235.18	234.76	234.70	234.63	234.57	234.51	234.59	
27	234.51	234.53	234.65	234.52	234.90	235.16	237.52	234.70	234.71	234.56	234.51	234.56	
28	234.47	234.67	234.52	234.69	235.13	235.15	237.49	234.69	234.70	234.56	234.51	234.61	
29	234.46	234.62	234.52	234.70	235.10	235.57	237.54	234.69	234.65	234.56		234.86	
30	234.47	234.58	234.52	234.63	235.30	235.45	235.91	234.69	234.65	234.56		234.72	
31		234.53		234.70	235.28		235.49		234.64	234.56		234.74	
Mean	234.44	234.59	234.72	234.56	234.90	236.30	235.26	234.85	234.67	234.59	234.53	234.57	
Max	234.59	234.86	236.03	234.70	237.62	239.60	237.54	235.52	234.71	234.64	234.57	234.90	239.60
Min	234.39	234.46	234.48	234.50	234.52	234.95	234.76	234.69	234.63	234.56	234.51	234.46	234.39

Annual Max Momentary Gage Height 240.34 m. (MSL.) , at 06.00 Hours, on Sep 20, 2002

Zero Gage at Bottom Elevation 234.12 m. (MSL.) , River Bed 234.63 m. (MSL.)

Left Bank Elevation 243.28 m. (MSL.) ,

Right Bank Elevation 243.25 m. (MSL.) , Drainage Are 323 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.30	0.35	0.99	1.55	1.48	18.00	5.14	7.88	1.76	1.34	0.92	0.50		
2	0.25	0.35	0.85	0.64	1.83	31.95	5.52	7.95	1.76	1.34	0.92	0.50		
3	0.40	0.35	0.64	0.99	1.34	26.43	4.76	5.52	1.69	1.34	0.92	0.50		
4	0.25	0.35	0.57	1.34	1.13	38.83	3.86	4.61	1.69	1.41	0.78	0.50		
5	0.20	0.30	0.50	0.99	1.27	40.33	4.15	3.79	1.97	1.48	0.71	0.50		
6	0.10	1.06	0.57	0.64	1.13	29.01	4.61	3.30	1.90	1.34	0.71	0.45		
7	0.10	1.06	0.57	0.71	1.06	12.19	14.79	3.30	1.83	1.34	0.64	0.40		
8	0.05	1.34	0.45	0.57	0.92	10.92	4.53	3.09	1.83	1.27	0.64	0.35		
9	0.00	0.99	0.40	0.71	0.99	8.26	4.00	2.60	1.83	1.27	0.64	0.35		
10	0.00	0.64	0.50	1.06	1.27	6.20	3.51	2.25	1.76	1.27	0.64	0.35		
	0.00	0.45	1.90	0.85	0.99	8.33	3.23	2.67	1.69	1.27	0.64	0.30		
11	0.05	0.92	2.04	0.71	0.85	20.20	3.02	2.60	1.69	1.20	0.57	0.30		
12	0.05	1.69	6.58	0.64	0.85	8.48	2.81	2.53	1.62	1.20	0.99	0.35		
13	0.00	1.48	11.85	0.57	1.27	6.20	2.60	2.53	1.62	1.20	0.85	1.83		
14	0.00	1.55	4.99	1.13	0.99	4.46	2.53	2.53	1.62	1.20	0.71	1.76		
15	0.00	2.74	4.53	0.78	0.92	3.65	2.74	2.67	1.62	1.20	0.64	0.92		
16	0.00	3.02	3.51	0.85	0.64	5.06	2.67	2.67	1.62	1.20	0.64	0.64		
17	0.00	2.74	3.16	0.85	0.64	6.58	3.79	2.53	1.62	1.20	0.64	0.57		
18	0.05	2.74	2.32	0.71	0.71	16.15	2.74	2.39	1.62	1.13	0.64	0.50		
19	0.10	1.83	1.69	0.64	0.99	52.92	2.60	2.32	1.62	1.13	0.64	0.50		
20	1.13	1.27	1.34	0.57	3.09	33.62	2.39	2.32	1.55	1.13	0.64	0.71		
	0.40	1.06	1.97	0.57	26.54	22.50	2.39	2.18	1.55	1.06	0.64	3.30		
21	0.20	0.78	1.97	0.50	14.71	11.37	2.46	2.04	1.48	0.99	0.57	1.83		
22	0.10	0.57	1.83	0.99	5.90	6.74	3.37	1.97	1.48	0.99	0.57	1.55		
23	0.10	0.45	1.62	0.99	6.28	6.13	2.60	1.97	1.48	0.99	0.57	0.99		
24	0.25	0.71	1.48	0.92	4.76	5.37	2.32	1.90	1.41	0.99	0.57	1.13		
25	0.57	0.71	1.55	0.64	3.30	5.22	25.42	1.90	1.97	0.92	0.57	0.92		
26	0.35	1.69	0.64	1.83	4.99	5.14	25.10	1.83	1.90	0.92	0.57	1.27		
27	0.30	1.34	0.64	1.90	4.76	8.33	25.65	1.83	1.55	0.92		3.02		
28	0.35	1.06	0.64	1.41	6.28	7.42	10.92	1.83	1.55	0.92		2.04		
29		0.71		1.90	6.13		7.72		1.48	0.92		2.18		
30	0.13	0.28	0.87	2.37	0.84	2.84	0.98	0.87	0.66	0.91		0.16		
31		0.44		1.87	0.76		0.94		0.66	0.91		0.16		
Total	5.65	36.30	62.29	29.15	108.01	465.99	193.94	89.50	51.76	36.08	19.18	31.01	1128.86	CMSDAY
Mean	0.19	1.17	2.08	0.94	3.48	15.53	6.26	2.98	1.67	1.16	0.69	1.00	3.09	CMS
Max	1.13	3.02	11.85	1.90	26.54	52.92	25.65	7.95	1.97	1.48	0.99	3.30	52.92	CMS
Min	0.00	0.30	0.40	0.50	0.64	3.65	2.32	1.83	1.41	0.92	0.57	0.30	0.00	CMS
Runoff	0.49	3.14	5.38	2.52	9.33	40.26	16.76	7.73	4.47	3.12	1.66	2.68	97.53	MCM

Momentary Peak 65.87 CMS, at 240.34 m. (MSL.), at 06.00 Hours, on Sep 20, 2002

Runoff Yield 9.58 Liters/Second/Square KM. Momentary Peak Yield 203.930 Liters/Second/Square KM.

WATER YEAR : 2002

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 mean 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	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. The local weir situated about 4 kilometers downstream from the gage site. Stage-discharge relation defined by 53 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

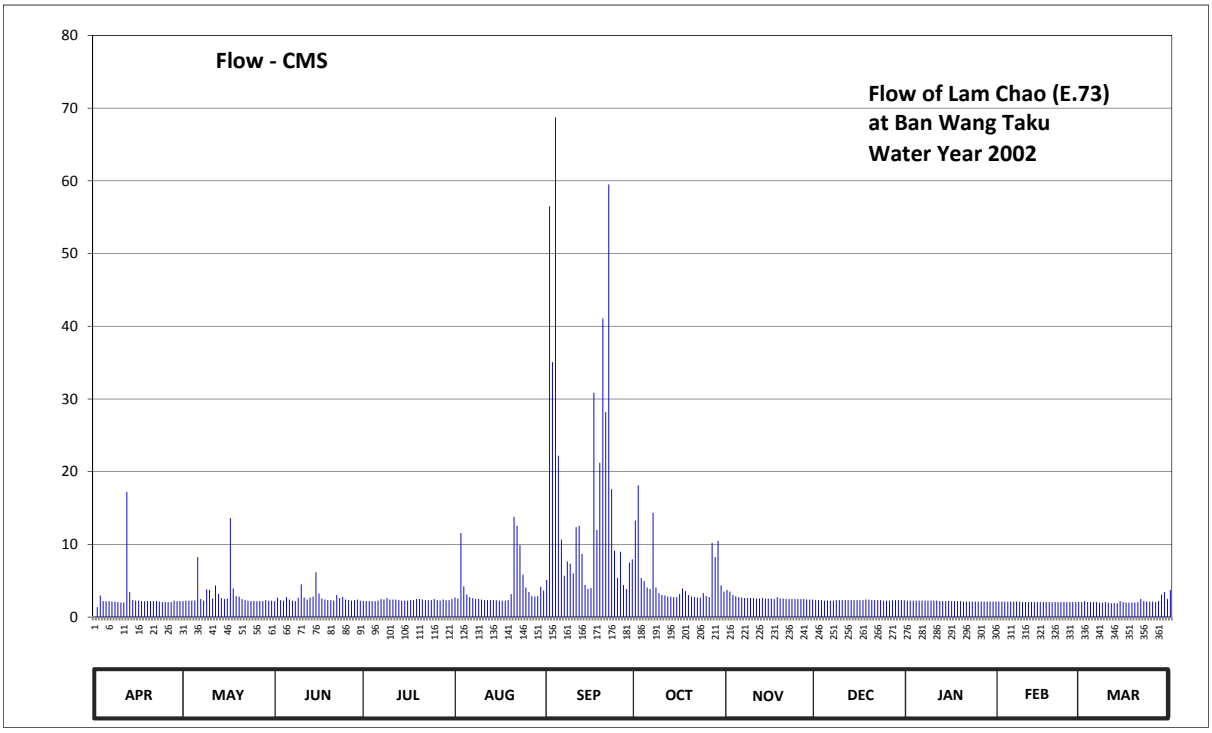
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	249.26	249.67	249.67	249.67	249.74	250.04	250.57	249.89	249.69	249.68	249.66	249.65	
2	249.55	249.68	249.74	249.67	249.72	252.35	250.84	249.86	249.69	249.68	249.66	249.67	
3	249.78	249.68	249.69	249.67	250.47	251.58	250.06	249.79	249.69	249.68	249.66	249.65	
4	249.67	249.68	249.68	249.67	249.96	252.75	250.03	249.77	249.68	249.68	249.66	249.65	
5	249.67	249.68	249.75	249.67	249.80	251.05	249.94	249.75	249.68	249.68	249.66	249.65	
6	249.67	250.25	249.70	249.68	249.75	250.41	249.91	249.74	249.68	249.68	249.66	249.65	
7	249.66	249.71	249.68	249.71	249.73	250.08	250.63	249.73	249.68	249.68	249.66	249.64	
8	249.66	249.68	249.67	249.70	249.71	250.21	249.94	249.73	249.69	249.68	249.66	249.64	
9	249.65	249.90	249.73	249.73	249.71	250.19	249.83	249.73	249.69	249.68	249.65	249.65	
10	249.64	249.89	250.00	249.70	249.70	250.10	249.79	249.73	249.69	249.68	249.65	249.64	
11	249.64	249.72	249.74	249.70	249.69	250.52	249.78	249.72	249.69	249.68	249.65	249.63	
12	250.79	249.98	249.70	249.70	249.69	250.53	249.76	249.72	249.69	249.67	249.65	249.63	
13	249.85	249.81	249.74	249.69	249.69	250.28	249.76	249.73	249.69	249.67	249.65	249.63	
14	249.69	249.73	249.76	249.68	249.69	249.99	249.75	249.72	249.69	249.67	249.65	249.67	
15	249.68	249.71	250.11	249.68	249.69	249.91	249.75	249.72	249.69	249.67	249.65	249.65	
16	249.68	249.72	249.82	249.68	249.68	249.93	249.81	249.72	249.69	249.67	249.65	249.64	
17	249.67	250.59	249.72	249.69	249.68	251.41	249.92	249.71	249.69	249.67	249.65	249.64	
18	249.67	249.92	249.70	249.69	249.68	250.50	249.87	249.75	249.70	249.67	249.65	249.64	
19	249.67	249.77	249.69	249.71	249.69	251.01	249.79	249.72	249.70	249.67	249.65	249.64	
20	249.67	249.76	249.69	249.71	249.81	251.81	249.76	249.72	249.69	249.66	249.65	249.65	
21	249.67	249.71	249.68	249.70	250.60	251.30	249.75	249.71	249.69	249.66	249.65	249.71	
22	249.67	249.69	249.79	249.69	250.53	252.45	249.74	249.71	249.69	249.66	249.65	249.67	
23	249.66	249.68	249.73	249.69	250.36	250.81	249.74	249.71	249.69	249.66	249.65	249.66	
24	249.65	249.67	249.75	249.69	250.09	250.31	249.83	249.71	249.68	249.66	249.65	249.66	
25	249.65	249.67	249.70	249.71	249.94	250.06	249.77	249.71	249.68	249.66	249.65	249.66	
26	249.65	249.67	249.69	249.69	249.85	250.30	249.75	249.71	249.68	249.66	249.65	249.65	
27	249.65	249.67	249.68	249.68	249.77	249.99	250.38	249.71	249.69	249.66	249.65	249.67	
28	249.68	249.67	249.69	249.70	249.76	249.91	250.25	249.70	249.69	249.66	249.65	249.80	
29	249.67	249.69	249.70	249.69	249.77	250.20	250.40	249.70	249.69	249.66		249.85	
30	249.67	249.68	249.68	249.69	249.95	250.23	249.98	249.70	249.69	249.66		249.71	
31		249.68		249.71	249.88		249.86		249.69	249.66		249.89	
Mean	249.69	249.77	249.74	249.69	249.86	250.67	249.97	249.73	249.69	249.67	249.65	249.67	
Max	250.79	250.59	250.11	249.73	250.60	252.75	250.84	249.89	249.70	249.68	249.66	249.89	252.75
Min	249.26	249.67	249.67	249.67	249.68	249.91	249.74	249.70	249.68	249.66	249.65	249.63	249.26

Annual Max Momentary Gage Height 252.89 m. (MSL.) , at 12.00 Hours, on Sep 4, 2002

Zero Gage at Bottom Elevation 247.24 m. (MSL.) , River Bed 247.58 m. (MSL.)

Left Bank Elevation 258.81 m. (MSL.) ,

Right Bank Elevation 253.46 m. (MSL.) , Drainage Are 251 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	2.20	2.20	2.20	2.69	5.10	13.26	3.73	2.34	2.27	2.13	2.06		
2	1.36	2.27	2.69	2.20	2.55	56.50	18.12	3.52	2.34	2.27	2.13	2.20		
3	2.96	2.27	2.34	2.20	11.55	35.08	5.40	3.03	2.34	2.27	2.13	2.06		
4	2.20	2.27	2.27	2.20	4.22	68.75	4.95	2.89	2.27	2.27	2.13	2.06		
5	2.20	2.27	2.75	2.20	3.10	22.20	4.08	2.75	2.27	2.27	2.13	2.06		
6	2.20	8.25	2.41	2.27	2.75	10.65	3.87	2.69	2.27	2.27	2.13	2.06		
7	2.13	2.48	2.27	2.48	2.62	5.70	14.34	2.62	2.27	2.27	2.13	1.99		
8	2.13	2.27	2.20	2.41	2.48	7.65	4.08	2.62	2.34	2.27	2.13	1.99		
9	2.06	3.80	2.62	2.62	2.48	7.35	3.31	2.62	2.34	2.27	2.06	2.06		
10	1.99	3.73	4.50	2.41	2.41	6.00	3.03	2.62	2.34	2.27	2.06	1.99		
11	1.99	2.55	2.69	2.41	2.34	12.36	2.96	2.55	2.34	2.27	2.06	1.92		
12	17.22	4.36	2.41	2.41	2.34	12.54	2.82	2.55	2.34	2.20	2.06	1.92		
13	3.45	3.17	2.69	2.34	2.34	8.70	2.82	2.62	2.34	2.20	2.06	1.92		
14	2.34	2.62	2.82	2.27	2.34	4.43	2.75	2.55	2.34	2.20	2.06	2.20		
15	2.27	2.48	6.15	2.27	2.34	3.87	2.75	2.55	2.34	2.20	2.06	2.06		
16	2.27	2.55	3.24	2.27	2.27	4.01	3.17	2.55	2.34	2.20	2.06	1.99		
17	2.20	13.62	2.55	2.34	2.27	30.84	3.94	2.48	2.34	2.20	2.06	1.99		
18	2.20	3.94	2.41	2.34	2.27	12.00	3.59	2.75	2.41	2.20	2.06	1.99		
19	2.20	2.89	2.34	2.48	2.34	21.24	3.03	2.55	2.41	2.20	2.06	1.99		
20	2.20	2.82	2.34	2.48	3.17	41.06	2.82	2.55	2.34	2.13	2.06	2.06		
21	2.20	2.48	2.27	2.41	13.80	28.20	2.75	2.48	2.34	2.13	2.06	2.48		
22	2.20	2.34	3.03	2.34	12.54	59.50	2.69	2.48	2.34	2.13	2.06	2.20		
23	2.13	2.27	2.62	2.34	9.90	17.58	2.69	2.48	2.34	2.13	2.06	2.13		
24	2.06	2.20	2.75	2.34	5.85	9.15	3.31	2.48	2.27	2.13	2.06	2.13		
25	2.06	2.20	2.41	2.48	4.08	5.40	2.89	2.48	2.27	2.13	2.06	2.13		
26	2.06	2.20	2.34	2.34	3.45	9.00	2.75	2.48	2.27	2.13	2.06	2.06		
27	2.06	2.20	2.27	2.27	2.89	4.43	10.20	2.48	2.34	2.13	2.06	2.20		
28	2.27	2.20	2.34	2.41	2.82	3.87	8.25	2.41	2.34	2.13	2.06	3.10		
29	2.20	2.34	2.41	2.34	2.89	7.50	10.50	2.41	2.34	2.13		3.45		
30	2.20	2.27	2.27	2.34	4.15	7.95	4.36	2.41	2.34	2.13		2.48		
31		2.27		2.48	3.66		3.52		2.34	2.13		3.73		
Total	79.01	97.78	80.60	72.89	126.90	528.61	159.00	79.38	72.19	68.13	58.24	68.66	1491.39	CMSDAY
Mean	2.63	3.15	2.69	2.35	4.09	17.62	5.13	2.65	2.33	2.20	2.08	2.21	4.09	CMS
Max	17.22	13.62	6.15	2.62	13.80	68.75	18.12	3.73	2.41	2.27	2.13	3.73	68.75	CMS
Min	0.00	2.20	2.20	2.20	2.27	3.87	2.69	2.41	2.27	2.13	2.06	1.92	0.00	CMS
Runoff	6.83	8.45	6.96	6.30	10.96	45.67	13.74	6.86	6.24	5.89	5.03	5.93	128.86	MCM

Momentary Peak 73.09 CMS, at 252.89 m. (MSL.), at 12.00 Hours, on Sep 4, 2002

Runoff Yield 16.28 Liters/Second/Square KM. Momentary Peak Yield 291.2 Liters/Second/Square KM.

WATER YEAR : 2002

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 mean 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	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Flow regulated by Lam Pao Dam.		
	Stage-discharge relation defined by 26 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

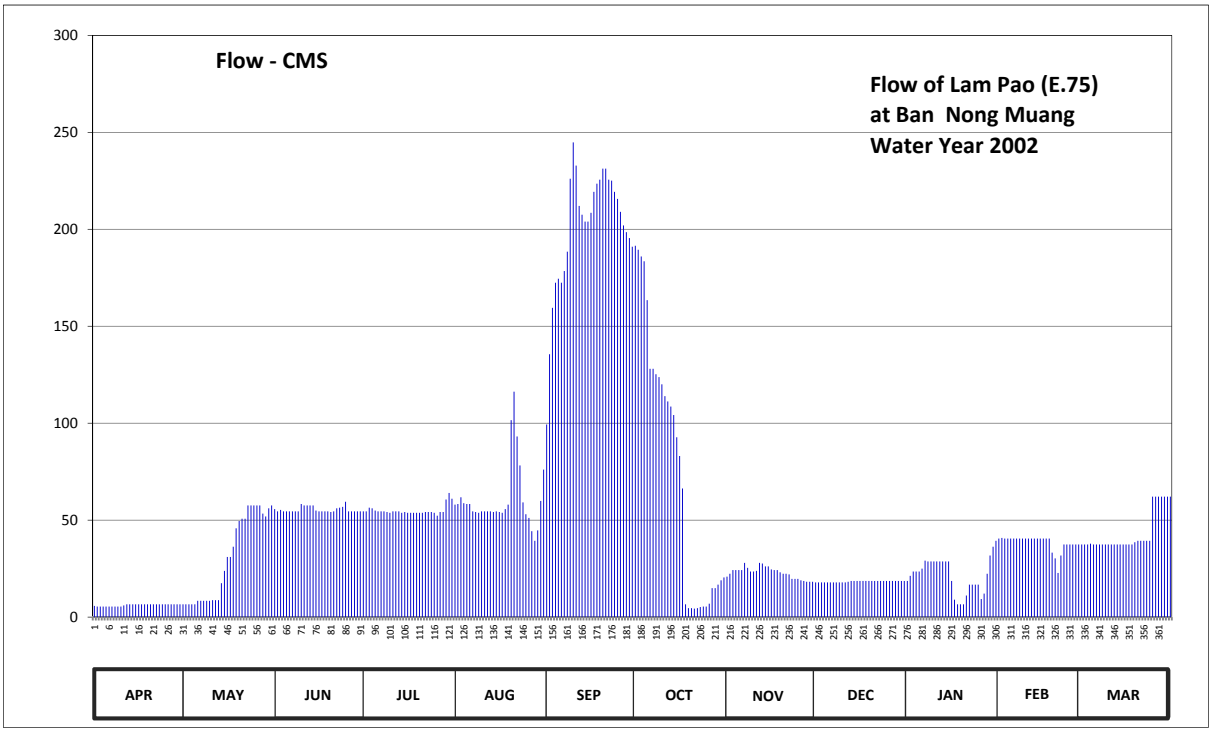
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	138.29	138.32	139.65	139.62	139.71	140.69	142.63	138.73	138.65	138.67	139.25	139.17	
2	138.27	138.32	139.62	139.62	139.72	141.48	142.59	138.77	138.65	138.74	139.26	139.17	
3	138.27	138.32	139.64	139.67	139.81	141.99	142.52	138.82	138.65	138.80	139.25	139.17	
4	138.27	138.32	139.62	139.66	139.73	142.25	142.47	138.82	138.65	138.80	139.25	139.18	
5	138.27	138.32	139.62	139.63	139.72	142.29	142.07	138.82	138.65	138.80	139.25	139.17	
6	138.27	138.38	139.62	139.62	139.72	142.25	141.32	138.82	138.65	138.84	139.25	139.17	
7	138.27	138.38	139.62	139.62	139.62	142.37	141.32	138.92	138.65	138.95	139.25	139.17	
8	138.27	138.38	139.62	139.62	139.61	142.57	141.26	138.85	138.65	138.94	139.25	139.17	
9	138.27	138.38	139.62	139.61	139.60	143.31	141.23	138.80	138.65	138.94	139.25	139.17	
10	138.27	138.38	139.72	139.60	139.62	143.67	141.15	138.80	138.65	138.94	139.25	139.17	
11	138.30	138.39	139.70	139.62	139.62	143.44	141.02	138.81	138.65	138.94	139.25	139.17	
12	138.32	138.39	139.70	139.62	139.62	143.04	140.96	138.92	138.66	138.94	139.25	139.17	
13	138.32	138.39	139.70	139.62	139.62	142.95	140.90	138.91	138.67	138.94	139.25	139.17	
14	138.32	138.64	139.70	139.60	139.61	142.88	140.80	138.87	138.67	138.94	139.25	139.17	
15	138.32	138.81	139.63	139.61	139.62	142.88	140.54	138.87	138.67	138.94	139.25	139.17	
16	138.32	139.00	139.62	139.60	139.61	142.97	140.32	138.83	138.67	138.67	139.25	139.17	
17	138.32	139.00	139.62	139.60	139.60	143.18	139.93	138.82	138.67	138.40	139.25	139.17	
18	138.32	139.14	139.62	139.60	139.65	143.26	138.32	138.82	138.67	138.32	139.25	139.17	
19	138.32	139.39	139.62	139.60	139.71	143.30	138.23	138.79	138.67	138.32	139.06	139.20	
20	138.32	139.49	139.61	139.60	140.74	143.41	138.23	138.77	138.67	138.32	138.98	139.22	
21	138.32	139.52	139.62	139.60	141.07	143.41	138.22	138.77	138.67	138.46	138.78	139.22	
22	138.32	139.52	139.66	139.61	140.55	143.30	138.23	138.76	138.67	138.62	139.02	139.22	
23	138.32	139.70	139.67	139.61	140.21	143.29	138.26	138.70	138.67	138.62	139.17	139.22	
24	138.32	139.70	139.68	139.61	139.74	143.18	138.27	138.70	138.67	138.62	139.17	139.22	
25	138.32	139.70	139.75	139.60	139.58	143.11	138.27	138.70	138.67	138.62	139.17	139.82	
26	138.32	139.70	139.62	139.56	139.53	142.98	138.33	138.68	138.67	138.41	139.17	139.82	
27	138.32	139.70	139.62	139.61	139.35	142.84	138.57	138.67	138.67	138.49	139.17	139.82	
28	138.32	139.59	139.62	139.61	139.22	142.77	138.57	138.66	138.67	138.77	139.17	139.82	
29	138.32	139.55	139.62	139.78	139.36	142.71	138.62	138.66	138.67	139.02		139.82	
30	138.32	139.66	139.62	139.87	139.76	142.62	138.68	138.66	138.67	139.14		139.82	
31		139.70		139.79	140.16		138.72		138.67	139.22		139.82	
Mean	138.30	138.97	139.64	139.63	139.77	142.81	140.02	138.78	138.66	138.75	139.19	139.33	
Max	138.32	139.70	139.75	139.87	141.07	143.67	142.63	138.92	138.67	139.22	139.26	139.82	143.67
Min	138.27	138.32	139.61	139.56	139.22	140.69	138.22	138.66	138.65	138.32	138.78	139.17	138.22

Annual Max Momentary Gage Height 143.66 m. (MSL.) , at 06.00 Hours, on Sep 10, 2002

Zero Gage at Bottom Elevation 138.01 m. (MSL.) , River Bed 137.56 m. (MSL.)

Left Bank Elevation 150.19 m. (MSL.) ,

Right Bank Elevation 150.21 m. (MSL.) , Drainage Are 6,013 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	5.80	6.60	55.70	54.56	57.98	99.36	191.50	20.87	17.87	18.62	40.50	37.46		
2	5.40	6.60	54.56	54.56	58.36	135.56	189.50	22.37	17.87	21.25	40.88	37.46		
3	5.40	6.60	55.32	56.46	61.78	159.53	186.00	24.25	17.87	23.50	40.50	37.46		
4	5.40	6.60	54.56	56.08	58.74	172.50	183.50	24.25	17.87	23.50	40.50	37.84		
5	5.40	6.60	54.56	54.94	58.36	174.50	163.50	24.25	17.87	23.50	40.50	37.46		
6	5.40	8.40	54.56	54.56	58.36	172.50	128.04	24.25	17.87	25.00	40.50	37.46		
7	5.40	8.40	54.56	54.56	54.56	178.50	128.04	28.00	17.87	29.12	40.50	37.46		
8	5.40	8.40	54.56	54.56	54.18	188.50	125.22	25.37	17.87	28.75	40.50	37.46		
9	5.40	8.40	54.56	54.18	53.80	226.12	123.81	23.50	17.87	28.75	40.50	37.46		
10	5.40	8.40	58.36	53.80	54.56	244.84	120.05	23.50	17.87	28.75	40.50	37.46		
11	6.00	8.70	57.60	54.56	54.56	232.88	113.94	23.87	17.87	28.75	40.50	37.46		
12	6.60	8.70	57.60	54.56	54.56	212.08	111.24	28.00	18.25	28.75	40.50	37.46		
13	6.60	8.70	57.60	54.56	54.56	207.50	108.60	27.62	18.62	28.75	40.50	37.46		
14	6.60	17.50	57.60	53.80	54.18	204.00	104.20	26.12	18.62	28.75	40.50	37.46		
15	6.60	23.87	54.94	54.18	54.56	204.00	92.76	26.12	18.62	28.75	40.50	37.46		
16	6.60	31.00	54.56	53.80	54.18	208.50	83.08	24.62	18.62	18.62	40.50	37.46		
17	6.60	31.00	54.56	53.80	53.80	219.36	66.34	24.25	18.62	9.00	40.50	37.46		
18	6.60	36.32	54.56	53.80	55.70	223.52	6.60	24.25	18.62	6.60	40.50	37.46		
19	6.60	45.82	54.56	53.80	57.98	225.60	4.60	23.12	18.62	6.60	33.28	38.60		
20	6.60	49.62	54.18	53.80	101.56	231.32	4.60	22.37	18.62	6.60	30.25	39.36		
21	6.60	50.76	54.56	53.80	116.29	231.32	4.40	22.37	18.62	11.10	22.75	39.36		
22	6.60	50.76	56.08	54.18	93.20	225.60	4.60	22.00	18.62	16.75	31.76	39.36		
23	6.60	57.60	56.46	54.18	78.24	225.08	5.20	19.75	18.62	16.75	37.46	39.36		
24	6.60	57.60	56.84	54.18	59.12	219.36	5.40	19.75	18.62	16.75	37.46	39.36		
25	6.60	57.60	59.50	53.80	53.04	215.72	5.40	19.75	18.62	16.75	37.46	62.16		
26	6.60	57.60	54.56	52.28	51.14	209.00	6.90	19.00	18.62	9.35	37.46	62.16		
27	6.60	57.60	54.56	54.18	44.30	202.00	14.95	18.62	18.62	12.15	37.46	62.16		
28	6.60	53.42	54.56	54.18	39.36	198.50	14.95	18.25	18.62	22.37	37.46	62.16		
29	6.60	51.90	54.56	60.64	44.68	195.50	16.75	18.25	18.62	31.76		62.16		
30	6.60	56.08	54.56	64.06	59.88	191.00	19.00	18.25	18.62	36.32		62.16		
31		57.60		61.02	76.04		20.50		18.62	39.36		62.16		
Total	185.80	944.75	1665.30	1705.42	1881.61	6033.75	2353.17	686.94	568.60	671.32	1072.18	1345.18	19114.02	CMSDAY
Mean	6.19	30.48	55.51	55.01	60.70	201.13	75.91	22.90	18.34	21.66	38.29	43.39	52.37	CMS
Max	6.60	57.60	59.50	64.06	116.29	244.84	191.50	28.00	18.62	39.36	40.88	62.16	244.84	CMS
Min	5.40	6.60	54.18	52.28	39.36	99.36	4.40	18.25	17.87	6.60	22.75	37.46	4.40	CMS
Runoff	16.05	81.63	143.88	147.35	162.57	521.32	203.31	59.35	49.13	58.00	92.64	116.22	1651.45	MCM

Momentary Peak 244.32 CMS, at 143.66 m. (MSL.), at 06.00 Hours, on Sep 10, 2002

Runoff Yield 8.71 Liters/Second/Square KM. Momentary Peak Yield 40.63 Liters/Second/Square KM.

WATER YEAR : 2002

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.- H.D.
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 mean 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 +169.420 m.(M.S.L.) and is including overbank flow.
General Description	Records fair. Stage-discharge relation defined by 13 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

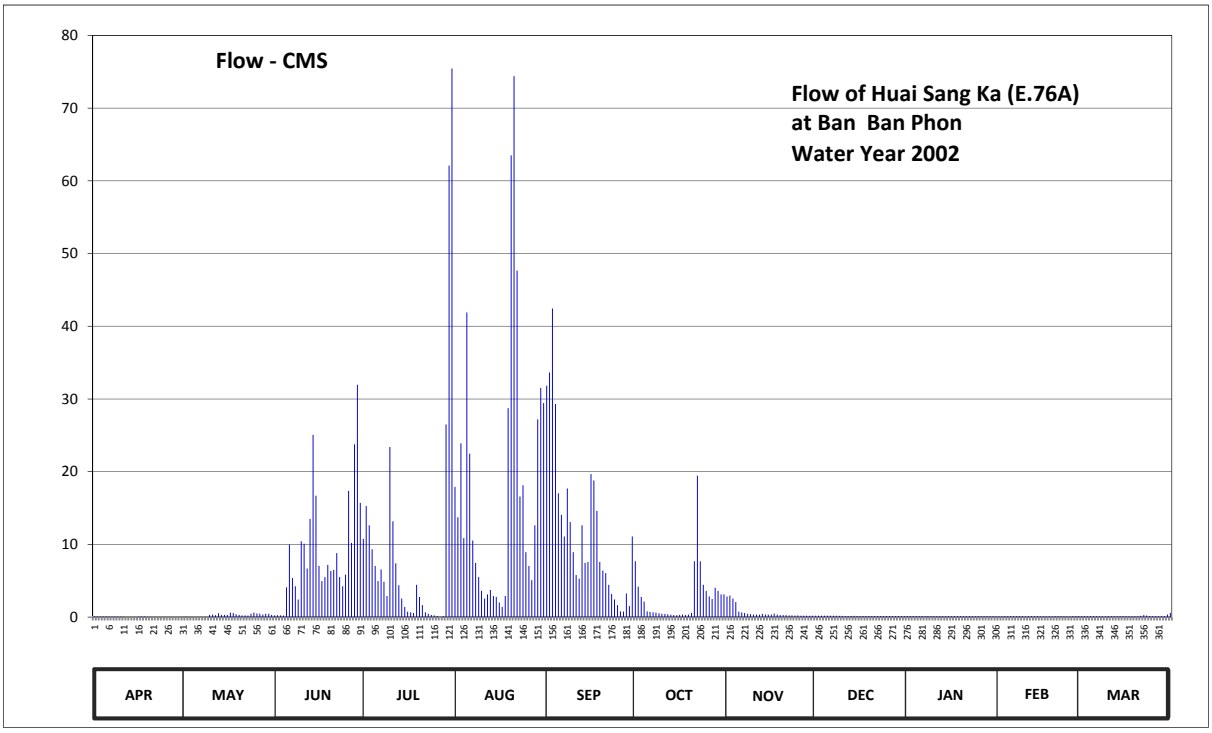
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	164.30	164.21	164.44	166.16	166.81	167.88	165.81	165.12	164.40	164.35	164.30	164.34	
2	164.29	164.24	164.47	166.57	166.43	168.01	165.31	165.14	164.39	164.35	164.31	164.34	
3	164.29	164.22	164.43	166.33	167.30	168.58	165.11	165.08	164.39	164.35	164.34	164.33	
4	164.28	164.21	164.41	166.03	166.17	167.70	165.02	165.01	164.39	164.35	164.34	164.33	
5	164.28	164.20	165.30	165.72	168.55	166.73	164.89	164.86	164.39	164.35	164.34	164.32	
6	164.27	164.20	166.09	165.42	167.19	166.46	164.83	164.79	164.39	164.35	164.34	164.32	
7	164.27	164.20	165.48	165.65	166.14	166.19	164.80	164.74	164.39	164.34	164.33	164.31	
8	164.27	164.20	165.32	165.41	165.78	166.79	164.77	164.66	164.40	164.35	164.32	164.31	
9	164.27	164.20	165.06	165.13	165.50	166.37	164.72	164.59	164.38	164.34	164.32	164.31	
10	164.26	164.50	166.13	167.26	165.23	165.99	164.66	164.56	164.38	164.34	164.31	164.32	
11	164.22	164.54	166.10	166.38	165.08	165.54	164.64	164.54	164.36	164.34	164.32	164.32	
12	164.20	164.47	165.67	165.77	165.16	165.47	164.60	164.52	164.35	164.34	164.34	164.32	
13	164.19	164.71	166.41	165.34	165.25	166.33	164.52	164.64	164.35	164.34	164.32	164.31	
14	164.19	164.51	167.39	165.08	165.13	165.78	164.48	164.55	164.37	164.34	164.32	164.32	
15	164.19	164.51	166.70	164.95	165.11	165.80	164.47	164.55	164.36	164.34	164.31	164.32	
16	164.25	164.50	165.72	164.86	165.00	166.97	164.51	164.55	164.35	164.34	164.31	164.32	
17	164.26	164.77	165.42	164.80	164.95	166.89	164.55	164.68	164.35	164.34	164.30	164.31	
18	164.26	164.73	165.50	164.74	165.13	166.51	164.49	164.54	164.36	164.34	164.30	164.31	
19	164.24	164.59	165.74	165.35	167.66	165.80	164.55	164.49	164.36	164.34	164.30	164.31	
20	164.21	164.50	165.62	165.11	169.70	165.63	164.74	164.48	164.35	164.34	164.32	164.31	
21	164.20	164.45	165.64	164.97	170.14	165.58	165.81	164.48	164.36	164.34	164.34	164.38	
22	164.20	164.44	165.97	164.80	168.87	165.35	166.95	164.45	164.36	164.34	164.33	164.48	
23	164.18	164.42	165.50	164.66	166.69	165.17	165.81	164.43	164.36	164.34	164.32	164.42	
24	164.18	164.65	165.32	164.51	166.83	165.06	165.35	164.42	164.36	164.34	164.31	164.36	
25	164.18	164.78	165.55	164.44	165.99	164.97	165.23	164.44	164.36	164.34	164.31	164.33	
26	164.19	164.70	166.76	164.35	165.72	164.90	165.12	164.40	164.36	164.34	164.33	164.32	
27	164.19	164.65	166.11	164.21	165.44	164.87	165.07	164.40	164.35	164.34	164.35	164.32	
28	164.18	164.56	167.29	164.33	166.33	165.18	165.29	164.40	164.35	164.34	164.35	164.32	
29	164.17	164.65	167.89	167.50	167.55	164.96	165.23	164.39	164.35	164.34		164.34	
30	164.19	164.67	166.61	169.63	167.86	166.19	165.16	164.40	164.35	164.34		164.54	
31		164.50		170.17	167.71		165.16		164.35	164.30		164.74	
Mean	164.23	164.47	165.80	165.67	166.53	166.12	165.02	164.61	164.37	164.34	164.32	164.35	
Max	164.30	164.78	167.89	170.17	170.14	168.58	166.95	165.14	164.40	164.35	164.35	164.74	170.17
Min	164.17	164.20	164.41	164.21	164.95	164.87	164.47	164.39	164.35	164.30	164.30	164.31	164.17

Annual Max Momentary Gage Height 170.50 m. (MSL.) , at 18.00 Hours, on Aug 20, 2002

Zero Gage at Bottom Elevation 163.90 m. (MSL.) , River Bed 163.92 m. (MSL.)

Left Bank Elevation 171.31 m. (MSL.) ,

Right Bank Elevation 169.42 m. (MSL.) , Drainage Are 195 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.10	0.01	0.24	10.76	17.91	31.82	7.67	2.84	0.20	0.15	0.10	0.14		
2	0.09	0.04	0.27	15.27	13.73	33.65	4.17	2.98	0.19	0.15	0.11	0.14		
3	0.09	0.02	0.23	12.63	23.90	42.44	2.77	2.56	0.19	0.15	0.14	0.13		
4	0.08	0.01	0.21	9.33	10.87	29.30	2.14	2.07	0.19	0.15	0.14	0.13		
5	0.08	0.00	4.10	7.04	41.90	17.03	0.79	0.74	0.19	0.15	0.14	0.12		
6	0.07	0.00	9.99	4.94	22.47	14.06	0.70	0.64	0.19	0.15	0.14	0.12		
7	0.07	0.00	5.36	6.55	10.54	11.09	0.65	0.56	0.19	0.14	0.13	0.11		
8	0.07	0.00	4.24	4.87	7.46	17.69	0.61	0.46	0.20	0.15	0.12	0.11		
9	0.07	0.00	2.42	2.91	5.50	13.07	0.53	0.39	0.18	0.14	0.12	0.11		
10	0.06	0.30	10.43	23.38	3.61	8.93	0.46	0.36	0.18	0.14	0.11	0.12		
11	0.02	0.34	10.10	13.18	2.56	5.78	0.44	0.34	0.16	0.14	0.12	0.12		
12	0.00	0.27	6.69	7.39	3.12	5.29	0.40	0.32	0.15	0.14	0.14	0.12		
13	0.00	0.52	13.51	4.38	3.75	12.63	0.32	0.44	0.15	0.14	0.12	0.11		
14	0.00	0.31	25.07	2.56	2.91	7.46	0.28	0.35	0.17	0.14	0.12	0.12		
15	0.00	0.31	16.70	1.40	2.77	7.60	0.27	0.35	0.16	0.14	0.11	0.12		
16	0.05	0.30	7.04	0.74	2.00	19.67	0.31	0.35	0.15	0.14	0.11	0.12		
17	0.06	0.61	4.94	0.65	1.40	18.79	0.35	0.48	0.15	0.14	0.10	0.11		
18	0.06	0.55	5.50	0.56	2.91	14.61	0.29	0.34	0.16	0.14	0.10	0.11		
19	0.04	0.39	7.18	4.45	28.74	7.60	0.35	0.29	0.16	0.14	0.10	0.11		
20	0.01	0.30	6.34	2.77	63.50	6.41	0.56	0.28	0.15	0.14	0.12	0.11		
21	0.00	0.25	6.48	1.64	74.40	6.06	7.67	0.28	0.16	0.14	0.14	0.18		
22	0.00	0.24	8.79	0.65	47.66	4.45	19.45	0.25	0.16	0.14	0.13	0.28		
23	0.00	0.22	5.50	0.46	16.59	3.19	7.67	0.23	0.16	0.14	0.12	0.22		
24	0.00	0.45	4.24	0.31	18.13	2.42	4.45	0.22	0.16	0.14	0.11	0.16		
25	0.00	0.62	5.85	0.24	8.93	1.64	3.61	0.24	0.16	0.14	0.11	0.13		
26	0.00	0.50	17.36	0.15	7.04	0.80	2.84	0.20	0.16	0.14	0.13	0.12		
27	0.00	0.45	10.21	0.01	5.08	0.76	2.49	0.20	0.15	0.14	0.15	0.12		
28	0.00	0.36	23.77	0.13	12.63	3.26	4.03	0.20	0.15	0.14	0.15	0.12		
29	0.00	0.45	31.96	26.50	27.20	1.52	3.61	0.19	0.15	0.14		0.14		
30	0.00	0.47	15.71	62.10	31.54	11.09	3.12	0.20	0.15	0.14		0.34		
31		0.30		75.45	29.44		3.12		0.15	0.10		0.56		
Total	1.02	8.59	270.43	303.40	550.19	360.11	86.12	19.35	5.17	4.37	3.43	4.75	1616.93	CMSDAY
Mean	0.03	0.28	9.01	9.79	17.75	12.00	2.78	0.64	0.17	0.14	0.12	0.15	4.43	CMS
Max	0.10	0.62	31.96	75.45	74.40	42.44	19.45	2.98	0.20	0.15	0.15	0.56	75.45	CMS
Min	0.00	0.00	0.21	0.01	1.40	0.76	0.27	0.19	0.15	0.10	0.10	0.11	0.00	CMS
Runoff	0.09	0.74	23.37	26.21	47.54	31.11	7.44	1.67	0.45	0.38	0.30	0.41	139.70	MCM

Momentary Peak 90.00 CMS, at 170.50 m. (MSL.), at 18.00 Hours, on Aug 20, 2002

Runoff Yield 22.72 Liters/Second/Square KM. Momentary Peak Yield 461.54 Liters/Second/Square KM.

WATER YEAR : 2002

CHI RIVER BASIN

Huai Prong Khunphet at Ban Prong Nok, Chaiyaphum (E.77)

Lat 15 - 49 - 45 N Long 101 - 30 - 42 E

Location : on right bank at the bridge of Chaiyaphum - Nakhon Sawan Highway between guidepost 119 - 120

Ban Prong Nok **Amphoe** Thep Sathit **Changwat** Chaiyaphum

Drainge Area	84 sq.km.
Type of Gage	Water - stage recorder.
Zero Gage at Bottom	+304.440 m. (MSL.)
Bench Mark	B.M.- H.D.
Location BM	In front of gage observer's house. **Elevation** +310.804 m. (MSL.)
Gage Reading Frequency	Recording.
Basis of Mean Daily Gage Height	Arithmetic mean 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	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 69 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

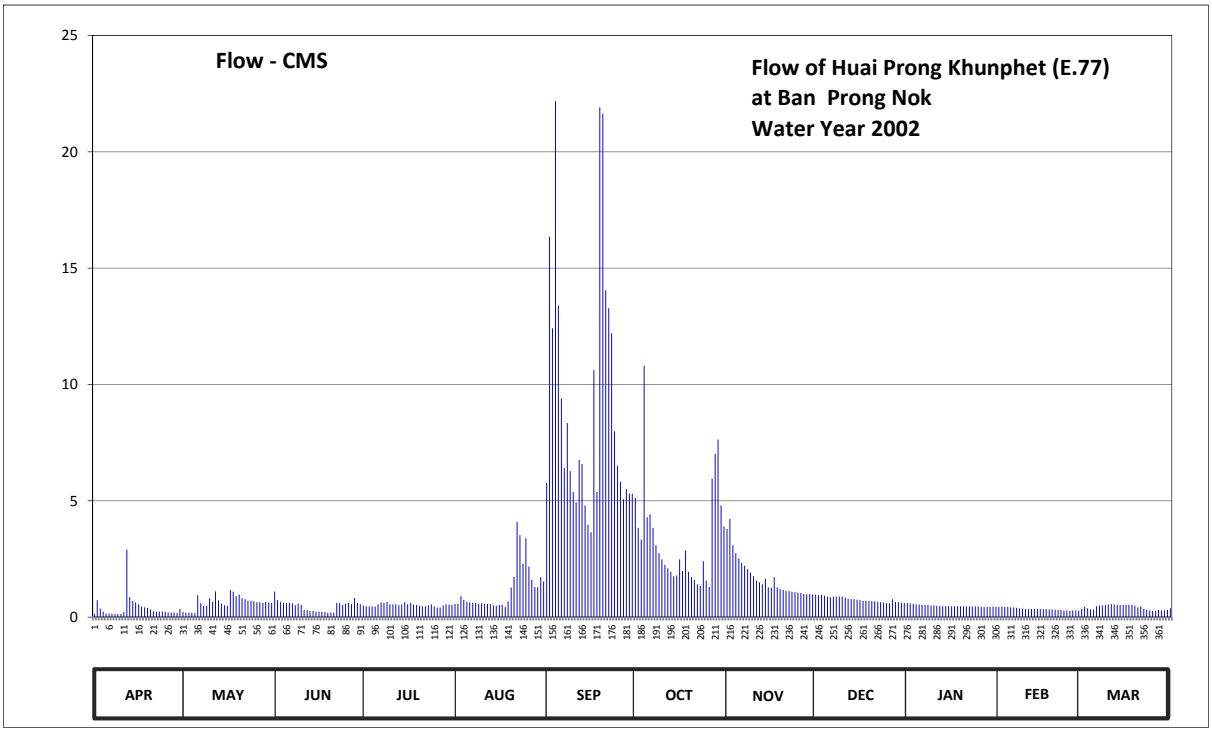
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	304.85	304.92	305.80	305.20	305.26	306.90	306.80	306.59	305.66	305.30	305.14	305.06	
2	305.43	304.89	305.43	305.17	305.27	308.01	306.60	306.66	305.64	305.29	305.15	305.14	
3	305.07	304.89	305.36	305.16	305.60	307.65	306.52	306.47	305.66	305.27	305.14	305.08	
4	304.93	304.88	305.32	305.16	305.44	308.44	307.50	306.38	305.62	305.25	305.14	305.03	
5	304.85	304.87	305.31	305.15	305.36	307.74	306.67	306.32	305.57	305.24	305.12	305.02	
6	304.85	305.64	305.31	305.25	305.33	307.34	306.69	306.27	305.55	305.23	305.12	305.17	
7	304.85	305.30	305.29	305.33	305.32	307.00	306.60	306.24	305.58	305.23	305.10	305.20	
8	304.84	305.18	305.21	305.31	305.31	307.22	306.47	306.20	305.59	305.22	305.08	305.20	
9	304.83	305.19	305.28	305.35	305.28	306.98	306.38	306.16	305.59	305.20	305.06	305.21	
10	304.83	305.51	305.23	305.25	305.29	306.84	306.31	306.12	305.58	305.20	305.04	305.24	
11	304.91	305.36	305.00	305.25	305.27	306.77	306.25	306.07	305.54	305.19	305.04	305.26	
12	306.42	305.81	305.00	305.25	305.27	307.04	306.21	306.05	305.50	305.18	305.04	305.24	
13	305.56	305.42	304.96	305.21	305.26	307.02	306.17	306.03	305.48	305.17	305.06	305.22	
14	305.40	305.28	304.96	305.24	305.20	306.75	306.12	306.09	305.47	305.17	305.05	305.22	
15	305.33	305.21	304.93	305.34	305.19	306.62	306.13	305.98	305.45	305.17	305.05	305.22	
16	305.25	305.19	304.93	305.25	305.22	306.57	306.31	305.96	305.43	305.17	305.04	305.23	
17	305.16	305.87	304.92	305.31	305.23	307.48	306.18	306.11	305.40	305.17	305.04	305.23	
18	305.12	305.79	304.92	305.24	305.14	306.84	306.41	305.98	305.40	305.17	305.03	305.23	
19	305.09	305.60	304.89	305.22	305.37	308.42	306.17	305.90	305.39	305.17	305.03	305.19	
20	305.03	305.67	304.89	305.19	305.97	308.40	306.11	305.87	305.39	305.16	305.02	305.12	
21	304.95	305.52	304.89	305.17	306.11	307.80	306.08	305.83	305.37	305.16	305.01	305.16	
22	304.92	305.47	305.31	305.16	306.64	307.73	306.03	305.82	305.36	305.16	305.01	305.05	
23	304.94	305.41	305.30	305.20	306.55	307.63	306.01	305.79	305.34	305.16	304.98	305.01	
24	304.94	305.41	305.23	305.25	306.26	307.18	306.29	305.77	305.32	305.16	304.99	304.99	
25	304.93	305.39	305.28	305.16	306.53	307.01	306.07	305.75	305.30	305.16	304.97	304.97	
26	304.90	305.34	305.31	305.11	306.23	306.91	306.00	305.73	305.30	305.14	304.99	304.97	
27	304.89	305.34	305.25	305.11	306.08	306.79	306.93	305.70	305.47	305.13	304.99	305.01	
28	304.90	305.32	305.52	305.20	306.00	306.86	307.07	305.68	305.35	305.14	304.98	304.99	
29	304.88	305.35	305.31	305.25	305.98	306.83	307.14	305.68	305.34	305.14		304.99	
30	305.04	305.33	305.25	305.24	306.11	306.83	306.75	305.67	305.32	305.15		305.01	
31		305.31		305.23	306.06		306.61		305.31	305.14		305.08	
Mean	305.06	305.34	305.19	305.22	305.65	307.25	306.44	306.03	305.46	305.19	305.05	305.12	
Max	306.42	305.87	305.80	305.35	306.64	308.44	307.50	306.66	305.66	305.30	305.15	305.26	308.44
Min	304.83	304.87	304.89	305.11	305.14	306.57	306.00	305.67	305.30	305.13	304.97	304.97	304.83

Annual Max Momentary Gage Height 309.24 m. (MSL.) , at 18.00 Hours, on Sep 19, 2002

Zero Gage at Bottom Elevation 304.44 m. (MSL.) , River Bed 305.33 m. (MSL.)

Left Bank Elevation 312.93 m. (MSL.) ,

Right Bank Elevation 312.92 m. (MSL.) , Drainage Are 84 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.15	0.22	1.10	0.50	0.56	5.76	5.12	3.78	0.96	0.60	0.44	0.36		
2	0.73	0.19	0.73	0.47	0.57	16.34	3.84	4.22	0.94	0.59	0.45	0.44		
3	0.37	0.19	0.66	0.46	0.90	12.42	3.33	3.09	0.96	0.57	0.44	0.38		
4	0.23	0.18	0.62	0.46	0.74	22.18	10.80	2.74	0.92	0.55	0.44	0.33		
5	0.15	0.17	0.61	0.45	0.66	13.39	4.29	2.52	0.87	0.54	0.42	0.32		
6	0.15	0.94	0.61	0.55	0.63	9.39	4.42	2.33	0.85	0.53	0.42	0.47		
7	0.15	0.60	0.59	0.63	0.62	6.40	3.84	2.21	0.88	0.53	0.40	0.50		
8	0.14	0.48	0.51	0.61	0.61	8.34	3.09	2.06	0.89	0.52	0.38	0.50		
9	0.13	0.49	0.58	0.65	0.58	6.27	2.74	1.91	0.89	0.50	0.36	0.51		
10	0.13	0.81	0.53	0.55	0.59	5.38	2.48	1.76	0.88	0.50	0.34	0.54		
11	0.21	0.66	0.30	0.55	0.57	4.93	2.25	1.57	0.84	0.49	0.34	0.56		
12	2.90	1.11	0.30	0.55	0.57	6.75	2.10	1.49	0.80	0.48	0.34	0.54		
13	0.86	0.72	0.26	0.51	0.56	6.58	1.95	1.41	0.78	0.47	0.36	0.52		
14	0.70	0.58	0.26	0.54	0.50	4.80	1.76	1.64	0.77	0.47	0.35	0.52		
15	0.63	0.51	0.23	0.64	0.49	3.97	1.79	1.28	0.75	0.47	0.35	0.52		
16	0.55	0.49	0.23	0.55	0.52	3.65	2.48	1.26	0.73	0.47	0.34	0.53		
17	0.46	1.17	0.22	0.61	0.53	10.62	1.98	1.72	0.70	0.47	0.34	0.53		
18	0.42	1.09	0.22	0.54	0.44	5.38	2.86	1.28	0.70	0.47	0.33	0.53		
19	0.39	0.90	0.19	0.52	0.67	21.91	1.95	1.20	0.69	0.47	0.33	0.49		
20	0.33	0.97	0.19	0.49	1.27	21.64	1.72	1.17	0.69	0.46	0.32	0.42		
21	0.25	0.82	0.19	0.47	1.72	14.04	1.60	1.13	0.67	0.46	0.31	0.46		
22	0.22	0.77	0.61	0.46	4.10	13.28	1.41	1.12	0.66	0.46	0.31	0.35		
23	0.24	0.71	0.60	0.50	3.52	12.20	1.34	1.09	0.64	0.46	0.28	0.31		
24	0.24	0.71	0.53	0.55	2.29	7.98	2.40	1.07	0.62	0.46	0.29	0.29		
25	0.23	0.69	0.58	0.46	3.39	6.49	1.57	1.05	0.60	0.46	0.27	0.27		
26	0.20	0.64	0.61	0.41	2.17	5.82	1.30	1.03	0.60	0.44	0.29	0.27		
27	0.19	0.64	0.55	0.41	1.60	5.06	5.95	1.00	0.77	0.43	0.29	0.31		
28	0.20	0.62	0.82	0.50	1.30	5.50	7.02	0.98	0.65	0.44	0.28	0.29		
29	0.18	0.65	0.61	0.55	1.28	5.31	7.63	0.98	0.64	0.44		0.29		
30	0.34	0.63	0.55	0.54	1.72	5.31	4.80	0.97	0.62	0.45		0.31		
31		0.61		0.53	1.53		3.90		0.61	0.44		0.38		
Total	12.07	19.96	14.59	16.21	37.20	277.09	103.71	51.06	23.57	15.09	9.81	13.04	593.40	CMSDAY
Mean	0.40	0.64	0.49	0.52	1.20	9.24	3.35	1.70	0.76	0.49	0.35	0.42	1.63	CMS
Max	2.90	1.17	1.10	0.65	4.10	22.18	10.80	4.22	0.96	0.60	0.45	0.56	22.18	CMS
Min	0.13	0.17	0.19	0.41	0.44	3.65	1.30	0.97	0.60	0.43	0.27	0.27	0.13	CMS
Runoff	1.04	1.72	1.26	1.40	3.21	23.94	8.96	4.41	2.04	1.30	0.85	1.13	51.27	MCM

Momentary Peak 34.92 CMS, at 309.24 m. (MSL.), at 18.00 Hours, on Sep 19, 2002

Runoff Yield 19.35 Liters/Second/Square KM. Momentary Peak Yield 415.710 Liters/Second/Square KM.

WATER YEAR : 2002

MUN RIVER BASIN

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

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

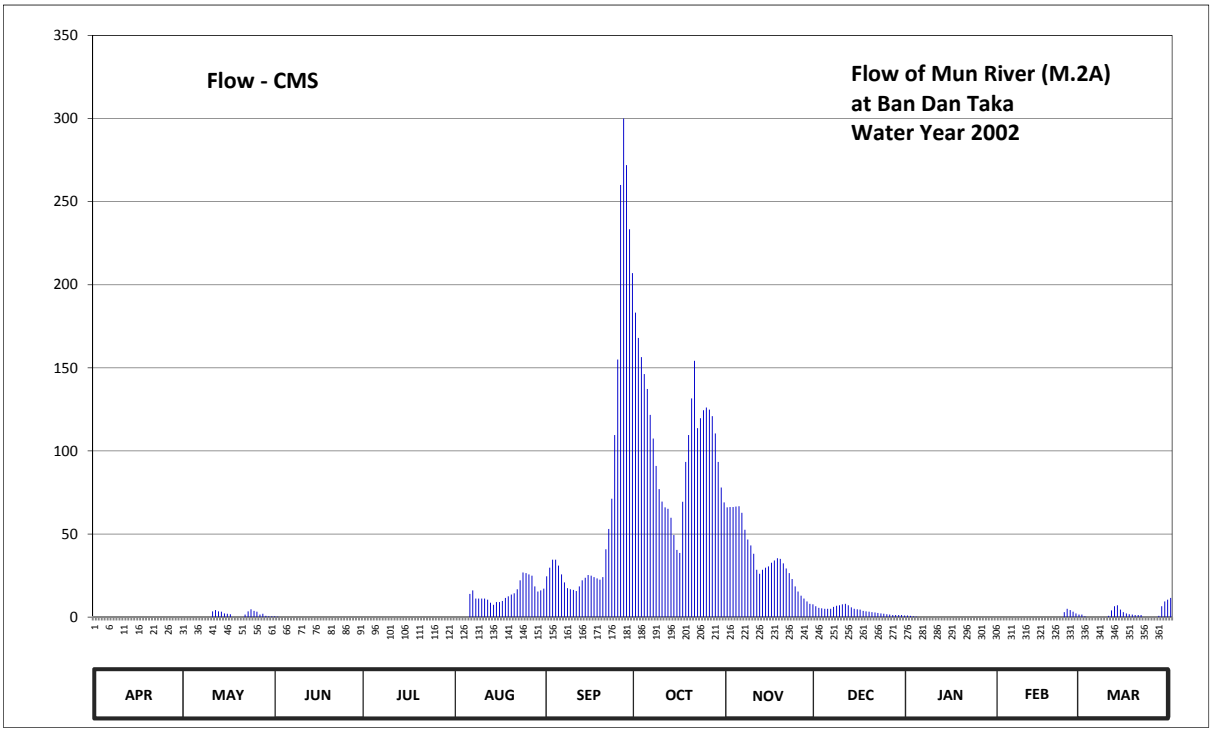
Location : on left bank at Ban Dan Taka.

	Ban Dan Taka **Amphoe** Chaloem Phra Kiat **Changwat** Nakhon Ratchasima
Drainge Area	4,724 sq.km.
Type of Gage	Staff gage.
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	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean 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 +165.760 m.(M.S.L.) and is including overbank flow.
General Description	Records good. Stage-discharge relation defined by 62 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	161.79	162.90	163.02	161.73	161.38	163.75	167.26	164.68	163.25	163.04	162.48	163.06	
2	161.81	162.84	163.01	161.68	161.37	163.88	167.18	164.69	163.22	163.03	162.48	163.02	
3	161.82	162.77	162.99	161.66	161.38	163.99	167.06	164.69	163.21	163.02	162.47	163.00	
4	161.81	162.73	162.91	161.64	161.41	163.99	166.92	164.70	163.20	163.01	162.41	162.97	
5	161.80	162.70	162.89	161.63	162.73	163.91	166.76	164.71	163.20	163.00	162.35	162.95	
6	161.79	162.67	162.91	161.63	163.47	163.78	166.43	164.58	163.20	162.99	162.27	162.91	
7	161.77	162.65	162.92	161.62	163.53	163.66	166.04	164.39	163.24	162.96	162.26	162.88	
8	161.74	162.63	162.90	161.61	163.39	163.57	165.57	164.26	163.26	162.95	162.26	162.88	
9	161.72	162.60	162.86	161.61	163.39	163.55	165.12	164.18	163.27	162.94	162.24	162.92	
10	161.71	162.88	162.83	161.60	163.39	163.54	164.82	164.07	163.29	162.94	162.22	163.03	
11	161.70	163.14	162.92	161.59	163.39	163.52	164.68	163.85	163.30	162.93	162.18	163.16	
12	161.70	163.17	162.86	161.57	163.37	163.60	164.62	163.79	163.27	162.93	162.15	163.25	
13	161.70	163.14	162.77	161.55	163.32	163.69	164.53	163.85	163.23	162.92	162.12	163.27	
14	161.70	163.13	162.70	161.52	163.28	163.73	164.32	163.88	163.20	162.84	162.10	163.18	
15	161.70	163.09	162.67	161.49	163.33	163.77	164.12	163.90	163.19	162.76	162.07	163.12	
16	161.70	163.08	162.60	161.45	163.33	163.76	164.08	163.95	163.18	162.74	162.06	163.09	
17	161.70	163.07	162.47	161.44	163.35	163.74	164.69	163.98	163.15	162.69	162.05	163.07	
18	161.70	163.00	162.36	161.43	163.40	163.72	165.09	164.01	163.14	162.68	162.05	163.06	
19	161.71	162.92	162.26	161.43	163.43	163.70	165.36	164.00	163.13	162.65	162.16	163.05	
20	161.71	162.87	162.22	161.43	163.46	163.74	165.68	163.94	163.12	162.59	162.27	163.05	
21	161.71	162.94	162.17	161.42	163.48	164.13	165.99	163.87	163.11	162.56	162.59	163.05	
22	161.71	163.06	162.15	161.41	163.55	164.40	166.22	163.80	163.10	162.56	162.94	162.96	
23	161.71	163.14	162.09	161.40	163.69	164.72	166.38	163.71	163.09	162.56	163.12	162.84	
24	161.70	163.19	162.03	161.40	163.81	165.36	166.50	163.60	163.08	162.56	163.20	162.79	
25	161.70	163.15	162.00	161.39	163.80	166.00	166.54	163.51	163.07	162.55	163.17	162.75	
26	162.05	163.13	161.97	161.39	163.78	167.20	166.51	163.44	163.06	162.55	163.13	162.80	
27	162.16	163.06	161.95	161.39	163.76	167.60	166.41	163.39	163.05	162.55	163.09	163.03	
28	162.11	163.08	161.92	161.39	163.60	167.53	166.13	163.34	163.05	162.54	163.06	163.25	
29	162.07	163.03	161.88	161.39	163.51	167.43	165.64	163.30	163.05	162.54		163.34	
30	162.00	163.02	161.82	161.38	163.53	167.35	165.16	163.29	163.05	162.53		163.37	
31		163.02		161.39	163.56		164.80		163.04	162.49		163.40	
Mean	161.79	162.96	162.50	161.51	163.20	164.54	165.70	163.98	163.16	162.76	162.46	163.05	
Max	162.16	163.19	163.02	161.73	163.81	167.60	167.26	164.71	163.30	163.04	163.20	163.40	162.16
Min	161.70	162.60	161.82	161.38	161.37	163.52	164.08	163.29	163.04	162.49	162.05	162.75	161.70

Annual Max Momentary Gage Height	167.60	m. (MSL.) ,	at 06.00 Hours , on Sep 27 , 2002		
Zero Gage at Bottom Elevation	161.00	m. (MSL.) ,	River Bed	159.52	m. (MSL.)
Left Bank Elevation	165.76	m. (MSL.) ,			
Right Bank Elevation	167.27	m. (MSL.) ,	Drainage Are	4,724	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	0.50	0.00	0.00	24.50	183.20	66.00	6.50	1.00	0.00	1.50		
2	0.00	0.00	0.25	0.00	0.00	29.70	168.00	66.25	5.60	0.75	0.00	0.50		
3	0.00	0.00	0.00	0.00	0.00	34.55	156.40	66.25	5.30	0.50	0.00	0.00		
4	0.00	0.00	0.00	0.00	0.00	34.55	146.20	66.50	5.00	0.25	0.00	0.00		
5	0.00	0.00	0.00	0.00	0.00	30.95	137.30	66.75	5.00	0.00	0.00	0.00		
6	0.00	0.00	0.00	0.00	13.95	25.70	121.70	62.80	5.00	0.00	0.00	0.00		
7	0.00	0.00	0.00	0.00	16.05	20.90	107.40	52.55	6.20	0.00	0.00	0.00		
8	0.00	0.00	0.00	0.00	11.15	17.45	90.95	46.70	6.80	0.00	0.00	0.00		
9	0.00	0.00	0.00	0.00	11.15	16.75	77.00	43.10	7.10	0.00	0.00	0.00		
10	0.00	0.00	0.00	0.00	11.15	16.40	69.50	38.15	7.70	0.00	0.00	0.75		
11	0.00	3.50	0.00	0.00	11.15	15.70	66.00	28.50	8.00	0.00	0.00	4.00		
12	0.00	4.25	0.00	0.00	10.45	18.50	65.20	26.10	7.10	0.00	0.00	6.50		
13	0.00	3.50	0.00	0.00	8.70	22.10	59.80	28.50	5.90	0.00	0.00	7.10		
14	0.00	3.25	0.00	0.00	7.40	23.70	49.40	29.70	5.00	0.00	0.00	4.50		
15	0.00	2.25	0.00	0.00	9.05	25.30	40.40	30.50	4.75	0.00	0.00	3.00		
16	0.00	2.00	0.00	0.00	9.05	24.90	38.60	32.75	4.50	0.00	0.00	2.25		
17	0.00	1.75	0.00	0.00	9.75	24.10	69.40	34.10	3.75	0.00	0.00	1.75		
18	0.00	0.00	0.00	0.00	11.50	23.30	93.40	35.45	3.50	0.00	0.00	1.50		
19	0.00	0.00	0.00	0.00	12.55	22.50	109.60	35.00	3.25	0.00	0.00	1.25		
20	0.00	0.00	0.00	0.00	13.60	24.10	131.60	32.30	3.00	0.00	0.00	1.25		
21	0.00	0.00	0.00	0.00	14.30	40.85	154.20	29.30	2.75	0.00	0.00	1.25		
22	0.00	1.50	0.00	0.00	16.75	53.00	113.70	26.50	2.50	0.00	0.00	0.00		
23	0.00	3.50	0.00	0.00	22.10	71.20	119.70	22.90	2.25	0.00	3.00	0.00		
24	0.00	4.75	0.00	0.00	26.90	109.60	124.50	18.50	2.00	0.00	5.00	0.00		
25	0.00	3.75	0.00	0.00	26.50	155.00	126.10	15.35	1.75	0.00	4.25	0.00		
26	0.00	3.25	0.00	0.00	25.70	260.00	124.90	12.90	1.50	0.00	3.25	0.00		
27	0.00	1.50	0.00	0.00	24.90	300.00	120.90	11.15	1.25	0.00	2.25	0.75		
28	0.00	2.00	0.00	0.00	18.50	272.00	110.55	9.40	1.25	0.00	1.50	6.50		
29	0.00	0.75	0.00	0.00	15.35	233.40	93.40	8.00	1.25	0.00		9.40		
30	0.00	0.50	0.00	0.00	16.05	207.00	78.00	7.70	1.25	0.00		10.45		
31		0.50		0.00	17.10		69.00		1.00	0.00		11.50		
Total	0.00	42.50	0.75	0.00	390.80	2177.70	3216.00	1049.65	127.70	2.50	19.25	75.70	7102.55	CMSDAY
Mean	0.00	1.37	0.03	0.00	12.61	72.59	103.74	34.99	4.12	0.08	0.69	2.44	19.46	CMS
Max	0.00	4.75	0.50	0.00	26.90	300.00	183.20	66.75	8.00	1.00	5.00	11.50	300.00	CMS
Min	0.00	0.00	0.00	0.00	0.00	15.70	38.60	7.70	1.00	0.00	0.00	0.00	0.00	CMS
Runoff	0.00	3.67	0.06	0.00	33.77	188.15	277.86	90.69	11.03	0.22	1.66	6.54	613.66	MCM

Momentary Peak 300.00 CMS. at 167.60 m. (MSL.) at 06.00 Hours , on Sep 27 , 2002

Runoff Yield 4.12 Liters/Second/Square KM. Momentary Peak Yield 63.510 Liters/Second/Square KM.

WATER YEAR : 2002

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.

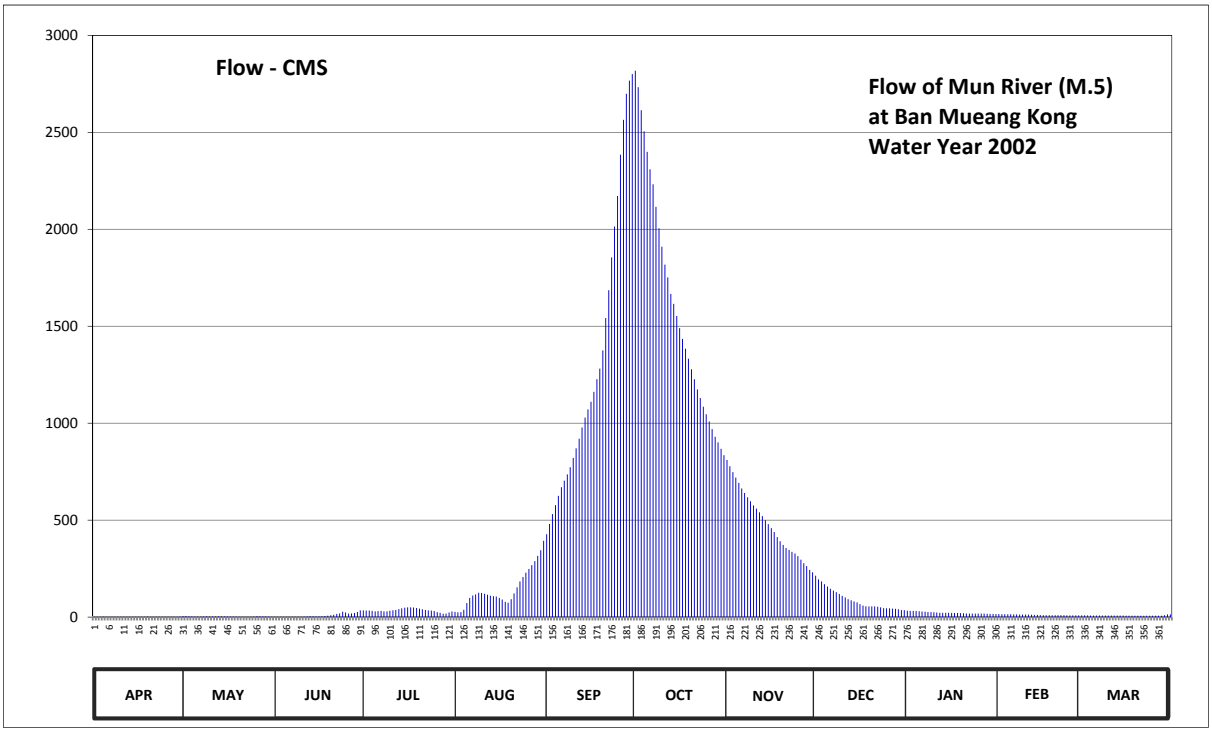
Ban Mueang Kong **Amphoe** Rasi Salai **Changwat** Si Sa Ket

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 mean of 5 readings
Period of Available Gage Records	1955 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	Overbank flow starts at elevation +118.091 m.(MSL.) and is including overbank flow.
General Description	Records good. Flow effected by Rasi Salai barrage about 10 kilometers above gage site. Stage-discharge relation defined by 62 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	109.97	110.10	109.99	110.82	110.66	115.34	121.74	117.94	113.32	110.78	110.36	110.20	
2	109.98	110.11	109.99	110.79	110.59	115.75	121.69	117.76	113.12	110.76	110.35	110.20	
3	110.00	110.08	109.99	110.79	110.61	116.14	121.62	117.58	113.00	110.76	110.35	110.20	
4	110.01	110.05	109.98	110.77	110.87	116.49	121.55	117.41	112.84	110.76	110.35	110.19	
5	110.00	110.02	109.98	110.71	111.51	116.81	121.48	117.24	112.68	110.73	110.34	110.19	
6	109.98	110.02	109.97	110.75	111.89	117.10	121.42	117.06	112.54	110.70	110.33	110.19	
7	109.98	110.02	109.96	110.76	112.06	117.31	121.36	116.91	112.42	110.67	110.32	110.18	
8	109.99	110.03	109.95	110.71	112.14	117.51	121.26	116.76	112.31	110.64	110.31	110.18	
9	109.99	110.06	109.96	110.71	112.26	117.73	121.15	116.62	112.18	110.62	110.30	110.18	
10	109.98	110.04	109.98	110.78	112.25	118.00	121.04	116.48	112.04	110.60	110.30	110.18	
11	109.98	110.03	110.01	110.83	112.19	118.27	120.92	116.36	111.92	110.57	110.30	110.18	
12	109.98	110.04	110.04	110.86	112.12	118.53	120.83	116.21	111.79	110.54	110.29	110.18	
13	109.98	110.08	110.09	110.94	112.05	118.80	120.70	116.06	111.71	110.53	110.27	110.17	
14	109.98	110.07	110.07	111.02	112.01	119.03	120.61	115.90	111.62	110.53	110.26	110.17	
15	109.98	110.04	110.05	111.10	111.99	119.22	120.50	115.74	111.55	110.53	110.24	110.17	
16	109.98	110.03	110.04	111.13	111.88	119.38	120.38	115.58	111.43	110.52	110.23	110.16	
17	109.98	110.01	110.06	111.13	111.77	119.56	120.27	115.43	111.31	110.51	110.22	110.16	
18	109.98	110.01	110.11	111.11	111.59	119.76	120.16	115.22	111.24	110.50	110.22	110.16	
19	110.01	110.01	110.16	111.06	111.53	119.91	120.04	115.04	111.22	110.48	110.22	110.16	
20	110.00	110.00	110.22	110.99	111.79	120.14	119.90	114.88	111.22	110.46	110.22	110.16	
21	109.98	109.99	110.28	110.92	112.22	120.48	119.76	114.74	111.22	110.45	110.22	110.16	
22	109.96	109.99	110.39	110.86	112.63	120.73	119.60	114.65	111.19	110.43	110.22	110.16	
23	109.93	109.98	110.44	110.82	113.00	120.97	119.45	114.56	111.13	110.43	110.22	110.16	
24	109.93	109.99	110.68	110.79	113.25	121.16	119.28	114.48	111.05	110.43	110.21	110.16	
25	109.93	110.01	110.57	110.74	113.48	121.31	119.11	114.34	111.02	110.43	110.21	110.16	
26	109.95	110.10	110.42	110.62	113.68	121.47	118.94	114.16	111.02	110.43	110.20	110.16	
27	109.95	110.08	110.44	110.54	113.88	121.59	118.76	113.98	110.99	110.42	110.20	110.16	
28	109.95	110.05	110.51	110.40	114.09	121.67	118.58	113.83	110.97	110.40	110.20	110.16	
29	109.97	110.03	110.63	110.42	114.36	121.71	118.43	113.63	110.93	110.38		110.23	
30	110.02	110.02	110.81	110.57	114.63	121.73	118.26	113.50	110.85	110.38		110.32	
31		110.00		110.70	115.06		118.08		110.84	110.37		110.33	
Mean	109.98	110.04	110.19	110.81	112.39	119.12	120.22	115.67	111.70	110.54	110.27	110.18	
Max	110.02	110.11	110.81	111.13	115.06	121.73	121.74	117.94	113.32	110.78	110.36	110.33	121.74
Min	109.93	109.98	109.95	110.40	110.59	115.34	118.08	113.50	110.84	110.37	110.20	110.16	109.93

Annual Max Momentary Gage Height	121.74	m. (MSL.) ,	at 06.00 Hours , on Oct 1 , 2002		
Zero Gage at Bottom Elevation	110.00	m. (MSL.) ,	River Bed	110.06	m. (MSL.)
Left Bank Elevation	121.30	m. (MSL.) ,			
Right Bank Elevation	118.09	m. (MSL.) ,	Drainage Are	44,295	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.70	5.00	1.90	35.00	27.40	427.20	2818.00	810.20	213.90	33.00	15.40	9.00		
2	1.80	5.40	1.90	33.50	24.60	480.50	2733.00	778.20	194.90	32.00	15.00	9.00		
3	2.00	4.40	1.90	33.50	25.40	531.20	2614.00	747.60	184.00	32.00	15.00	9.00		
4	2.30	3.50	1.80	32.50	37.50	577.60	2505.00	719.60	170.20	32.00	15.00	8.60		
5	2.00	2.60	1.80	29.50	72.70	625.50	2400.00	692.40	157.40	30.50	14.60	8.60		
6	1.80	2.60	1.70	31.50	99.30	670.00	2310.00	663.60	146.20	29.00	14.20	8.60		
7	1.80	2.60	1.60	32.00	111.20	703.60	2232.00	640.50	136.60	27.80	13.80	8.20		
8	1.90	2.90	1.50	29.50	116.80	735.70	2116.00	618.00	128.70	26.60	13.40	8.20		
9	1.90	3.80	1.60	29.50	125.20	773.10	2005.00	597.00	119.60	25.80	13.00	8.20		
10	1.80	3.20	1.80	33.00	124.50	821.00	1910.20	576.20	109.80	25.00	13.00	8.20		
11	1.80	2.90	2.30	35.50	120.30	870.30	1817.80	559.80	101.40	23.80	13.00	8.20		
12	1.80	3.20	3.20	37.00	115.40	920.00	1751.90	540.30	92.30	22.60	12.60	8.20		
13	1.80	4.40	4.70	41.00	110.50	978.00	1667.00	520.80	86.70	22.20	11.80	7.80		
14	1.80	4.10	4.10	45.00	107.70	1028.60	1615.70	500.00	80.40	22.20	11.40	7.80		
15	1.80	3.20	3.50	49.00	106.30	1070.80	1553.00	479.20	75.50	22.20	10.60	7.80		
16	1.80	2.90	3.20	50.50	98.60	1110.80	1490.60	458.40	67.10	21.80	10.20	7.40		
17	1.80	2.30	3.80	50.50	90.90	1162.00	1434.90	438.90	59.60	21.40	9.80	7.40		
18	1.80	2.30	5.40	49.50	78.30	1227.00	1384.40	412.40	56.00	21.00	9.80	7.40		
19	2.30	2.30	7.40	47.00	74.10	1281.80	1332.80	390.80	55.00	20.20	9.80	7.40		
20	2.00	2.00	9.80	43.50	92.30	1375.60	1278.00	371.81	55.00	19.40	9.80	7.40		
21	1.80	1.90	12.20	40.00	122.40	1542.60	1227.00	356.52	55.00	19.00	9.80	7.40		
22	1.60	1.90	16.60	37.00	153.40	1685.90	1174.00	346.69	53.50	18.20	9.80	7.40		
23	1.30	1.80	18.60	35.00	184.00	1854.80	1130.00	336.85	50.50	18.20	9.80	7.40		
24	1.30	1.90	28.20	33.50	207.25	2014.00	1085.20	328.29	46.50	18.20	9.40	7.40		
25	1.30	2.30	23.80	31.00	229.10	2172.00	1046.20	314.24	45.00	18.20	9.40	7.40		
26	1.50	5.00	17.80	25.80	248.10	2385.00	1008.80	296.17	45.00	18.20	9.00	7.40		
27	1.50	4.40	18.60	22.60	268.07	2565.00	969.20	278.11	43.50	17.80	9.00	7.40		
28	1.50	3.50	21.40	17.00	289.15	2699.00	930.00	263.05	42.50	17.00	9.00	7.40		
29	1.70	2.90	26.20	17.80	316.25	2767.00	900.70	243.35	40.50	16.20		10.20		
30	2.60	2.60	34.50	23.80	344.50	2801.00	868.40	231.00	36.50	16.20		13.80		
31		2.00		29.00	393.20		835.40		36.00	15.80		14.20		
Total	53.80	95.80	282.80	1080.50	4514.42	39856.60	50144.20	14509.98	2784.80	703.50	326.40	259.80	114612.60	CMSDAY
Mean	1.79	3.09	9.43	34.85	145.63	1328.55	1617.55	483.67	89.83	22.69	11.66	8.38	314.01	CMS
Max	2.60	5.40	34.50	50.50	393.20	2801.00	2818.00	810.20	213.90	33.00	15.40	14.20	2818.00	CMS
Min	1.30	1.80	1.50	17.00	24.60	427.20	835.40	231.00	36.00	15.80	9.00	7.40	1.30	CMS
Runoff	4.65	8.28	24.43	93.36	390.05	3443.61	4332.46	1253.66	240.61	60.78	28.20	22.45	9902.53	MCM

Momentary Peak 2817.99 CMS. at 121.74 m. (MSL.) at 06.00 Hours , on Oct 1 , 2002

Runoff Yield 7.09 Liters/Second/Square KM. Momentary Peak Yield 63.620 Liters/Second/Square KM.

WATER YEAR : 2002

MUN RIVER BASIN

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

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

Location : on left bank at Seri Prachathipatai Bridge.

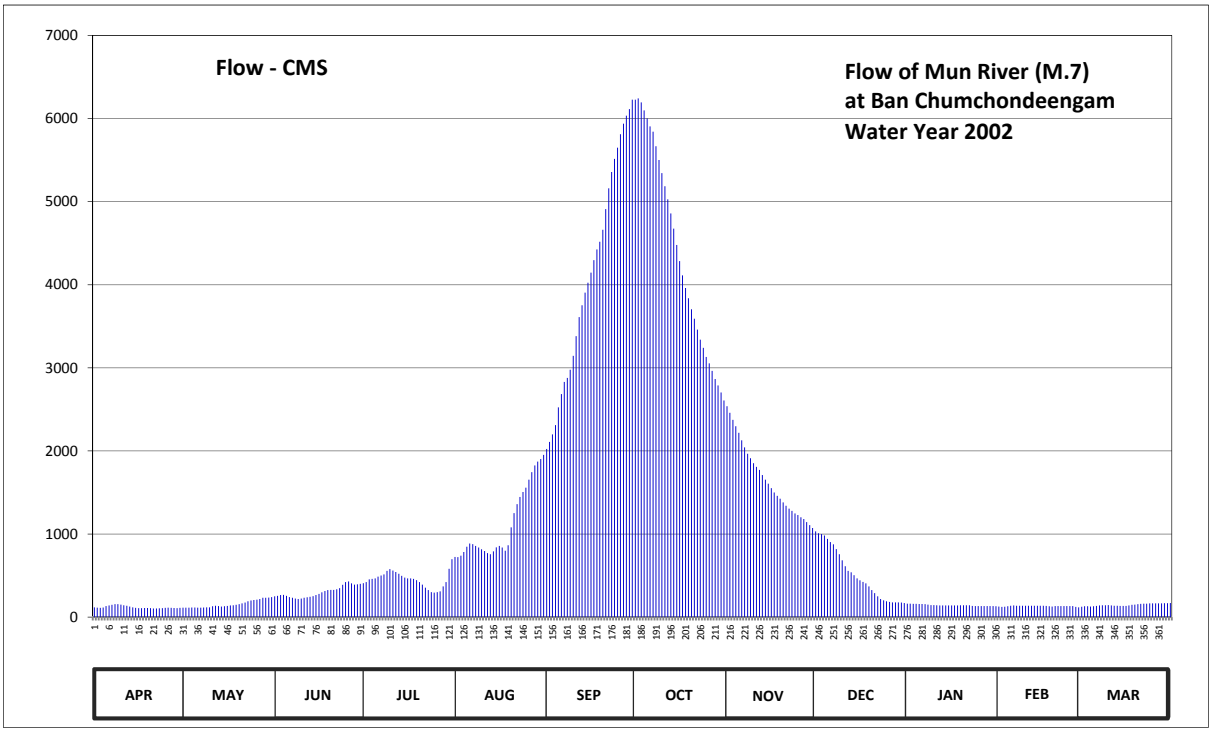
Ban Chumchondeengam **Amphoe** Warin Chamrap **Changwat** Ubon Ratchathani

Drainge Area	107,345 sq.km.
Type of Gage	Staff gage.
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 Bridg **Elevation** +117.645 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 mean of 5 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 +111.310 m.(M.S.L.) and is including overbank flow.
General Description	Records very good. Pak Mun barrage situated about 90 kilometers downstream from the gage site. Stage-discharge relation defined by 70 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	106.79	106.77	107.30	107.83	108.77	111.49	115.76	112.28	109.58	106.97	106.83	106.82	
2	106.77	106.77	107.32	107.87	108.76	111.62	115.77	112.16	109.53	106.97	106.81	106.84	
3	106.76	106.77	107.35	107.98	108.81	111.76	115.74	112.03	109.51	106.96	106.82	106.84	
4	106.78	106.78	107.36	108.00	108.94	111.93	115.68	111.91	109.47	106.96	106.84	106.83	
5	106.85	106.78	107.32	108.02	109.12	112.26	115.62	111.79	109.38	106.95	106.87	106.84	
6	106.88	106.77	107.27	108.09	109.23	112.49	115.56	111.65	109.28	106.95	106.88	106.86	
7	106.91	106.77	107.24	108.13	109.21	112.70	115.52	111.52	109.20	106.94	106.87	106.88	
8	106.94	106.78	107.21	108.17	109.15	112.77	115.41	111.40	109.04	106.92	106.87	106.89	
9	106.94	106.79	107.19	108.29	109.09	112.91	115.30	111.28	108.86	106.90	106.87	106.89	
10	106.92	106.79	107.21	108.35	109.03	113.15	115.18	111.15	108.65	106.90	106.87	106.90	
11	106.89	106.84	107.24	108.30	108.97	113.46	115.06	111.05	108.45	106.89	106.87	106.88	
12	106.87	106.87	107.26	108.25	108.90	113.71	114.94	110.98	108.29	106.88	106.87	106.87	
13	106.83	106.85	107.28	108.19	108.86	113.86	114.81	110.89	108.24	106.88	106.87	106.87	
14	106.79	106.83	107.31	108.12	108.96	114.02	114.67	110.81	108.14	106.88	106.87	106.86	
15	106.76	106.84	107.35	108.05	109.10	114.14	114.52	110.74	108.02	106.88	106.87	106.86	
16	106.74	106.86	107.40	108.02	109.15	114.25	114.37	110.66	107.94	106.88	106.87	106.86	
17	106.74	106.88	107.46	108.02	109.09	114.38	114.22	110.58	107.88	106.88	106.86	106.88	
18	106.75	106.89	107.51	108.00	108.98	114.48	114.08	110.50	107.82	106.88	106.84	106.91	
19	106.75	106.91	107.55	107.95	109.17	114.55	113.95	110.43	107.70	106.89	106.83	106.92	
20	106.74	106.94	107.56	107.87	109.69	114.66	113.81	110.34	107.55	106.89	106.85	106.94	
21	106.72	106.98	107.56	107.77	110.07	114.85	113.69	110.26	107.43	106.89	106.85	106.96	
22	106.72	107.02	107.58	107.65	110.30	115.04	113.55	110.19	107.30	106.89	106.85	106.97	
23	106.73	107.08	107.63	107.55	110.47	115.19	113.41	110.13	107.19	106.86	106.85	106.97	
24	106.74	107.12	107.76	107.47	110.59	115.31	113.28	110.06	107.13	106.85	106.85	106.98	
25	106.76	107.14	107.87	107.45	110.67	115.40	113.13	110.02	107.08	106.85	106.85	106.98	
26	106.77	107.16	107.90	107.47	110.81	115.50	113.02	109.96	107.05	106.85	106.85	106.98	
27	106.76	107.19	107.82	107.50	110.94	115.58	112.89	109.91	107.03	106.85	106.81	106.98	
28	106.75	107.24	107.77	107.70	111.09	115.64	112.75	109.83	107.03	106.85	106.79	106.98	
29	106.74	107.24	107.78	107.87	111.19	115.69	112.64	109.75	107.03	106.85		106.99	
30	106.76	107.25	107.80	108.36	111.26	115.76	112.52	109.67	107.02	106.85		106.99	
31		107.27		108.69	111.37		112.38		107.00	106.84		107.00	
Mean	106.80	106.94	107.47	107.97	109.67	113.95	114.30	110.80	108.09	106.89	106.85	106.91	
Max	106.94	107.27	107.90	108.69	111.37	115.76	115.77	112.28	109.58	106.97	106.88	107.00	115.77
Min	106.72	106.77	107.19	107.45	108.76	111.49	112.38	109.67	107.00	106.84	106.79	106.82	106.72

Annual Max Momentary Gage Height	115.77	m. (MSL.) ,	at 18.00 Hours , on Oct 1 , 2002		
Zero Gage at Bottom Elevation	105.00	m. (MSL.) ,	River Bed	100.98	m. (MSL.)
Left Bank Elevation	115.96	m. (MSL.) ,			
Right Bank Elevation	111.30	m. (MSL.) ,	Drainage Are	107,345	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	118.00	114.00	250.00	409.00	724.50	2023.50	6226.00	2537.00	1031.00	162.50	127.50	125.00		
2	114.00	114.00	256.00	421.00	721.00	2108.00	6242.00	2459.00	1008.50	162.50	122.50	130.00		
3	112.00	114.00	265.00	454.00	738.50	2199.00	6194.00	2374.50	999.50	160.00	125.00	130.00		
4	116.00	116.00	268.00	460.00	784.00	2309.50	6098.00	2296.50	981.50	160.00	130.00	127.50		
5	132.50	116.00	256.00	466.00	847.00	2524.00	6002.00	2218.50	942.00	157.50	137.50	130.00		
6	140.00	114.00	241.00	487.00	885.50	2683.00	5906.00	2127.50	903.00	157.50	140.00	135.00		
7	147.50	114.00	232.00	500.50	878.50	2830.00	5842.00	2043.00	875.00	155.00	137.50	140.00		
8	155.00	116.00	223.00	514.50	857.50	2879.00	5666.00	1965.00	819.00	150.00	137.50	142.50		
9	155.00	118.00	217.50	556.50	836.50	2977.00	5500.00	1911.00	756.00	145.00	137.50	142.50		
10	150.00	118.00	223.00	577.50	815.50	3145.00	5342.72	1852.50	682.50	145.00	137.50	145.00		
11	142.50	130.00	232.00	560.00	794.50	3381.00	5185.44	1807.50	612.50	142.50	137.50	140.00		
12	137.50	137.50	238.00	542.50	770.00	3609.50	5028.16	1771.25	556.50	140.00	137.50	137.50		
13	127.50	132.50	244.00	521.50	756.00	3752.00	4857.77	1709.38	539.00	140.00	137.50	137.50		
14	118.00	127.50	253.00	497.00	791.00	3904.00	4674.28	1654.38	504.00	140.00	137.50	135.00		
15	112.00	130.00	265.00	475.00	840.00	4024.00	4477.68	1606.25	466.00	140.00	137.50	135.00		
16	108.00	135.00	280.00	466.00	857.50	4145.00	4284.28	1551.25	442.00	140.00	137.50	135.00		
17	108.00	140.00	298.00	466.00	836.50	4296.32	4112.00	1500.00	424.00	140.00	135.00	140.00		
18	110.00	142.50	313.00	460.00	798.00	4425.25	3961.00	1460.00	406.00	140.00	130.00	147.50		
19	110.00	147.50	325.00	445.00	864.50	4517.00	3837.50	1425.00	370.00	142.50	127.50	150.00		
20	108.00	155.00	328.00	421.00	1080.50	4661.17	3704.50	1380.00	325.00	142.50	132.50	155.00		
21	104.00	165.00	328.00	391.00	1251.50	4910.20	3590.50	1340.00	289.00	142.50	132.50	160.00		
22	104.00	175.00	334.00	355.00	1360.00	5159.22	3460.00	1305.50	250.00	142.50	132.50	162.50		
23	106.00	190.00	349.00	325.00	1445.00	5355.82	3338.50	1278.50	217.50	135.00	132.50	162.50		
24	108.00	200.00	388.00	301.00	1505.00	5515.00	3240.00	1247.00	202.50	132.50	132.50	165.00		
25	112.00	205.00	421.00	295.00	1558.13	5650.00	3131.00	1229.00	190.00	132.50	132.50	165.00		
26	114.00	210.00	430.00	301.00	1654.38	5810.00	3054.00	1202.00	182.50	132.50	132.50	165.00		
27	112.00	217.50	406.00	310.00	1743.75	5938.00	2963.00	1179.50	177.50	132.50	122.50	165.00		
28	110.00	232.00	391.00	370.00	1825.50	6034.00	2865.00	1143.50	177.50	132.50	118.00	165.00		
29	108.00	232.00	394.00	421.00	1870.50	6114.00	2788.00	1107.50	177.50	132.50		167.50		
30	112.00	235.00	400.00	581.00	1902.00	6226.00	2704.00	1071.50	175.00	132.50		167.50		
31		241.00		696.50	1951.50		2606.00		170.00	130.00		170.00		
Total	3611.50	4834.00	9048.50	14046.50	34544.26	123105.48	136881.33	49753.51	15852.00	4440.00	3718.00	4575.00	404410.08	CMSDAY
Mean	120.38	155.94	301.62	453.11	1114.33	4103.52	4415.53	1658.45	511.35	143.23	132.79	147.58	1107.97	CMS
Max	155.00	241.00	430.00	696.50	1951.50	6226.00	6242.00	2537.00	1031.00	162.50	140.00	170.00	6242.00	CMS
Min	104.00	114.00	217.50	295.00	721.00	2023.50	2606.00	1071.50	170.00	130.00	118.00	125.00	104.00	CMS
Runoff	312.03	417.66	781.79	1213.62	2984.62	10636.31	11826.55	4298.70	1369.61	383.62	321.24	395.28	34941.03	MCM

Momentary Peak 6241.99 CMS. at 115.77 m. (MSL.) at 18.00 Hours , on Oct 1 , 2002

Runoff Yield 10.32 Liters/Second/Square KM. Momentary Peak Yield 58.150 Liters/Second/Square KM.

WATER YEAR : 2002

MUN RIVER BASIN

Lam Plai Mat at Lam Plai Mat, Buri Ram (M.8)

Lat 15 - 01 - 05 N Long 102 - 48 - 54 E

Location : on left bank about 60 meters upstream from the railway bridge.

Ban Nong Sang **Amphoe** Lam Plai Mat **Changwat** Buri Ram

Drainge Area	4,935 sq.km.
Type of Gage	Water - stage recorder.
Zero Gage at Bottom	+149.500 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank near the automatic gage building. **Elevation** +155.859 m. (MSL.)
Gage Reading Frequency	Recording.
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1951 to date
Rating Operation	
Period of Rating	1967, 1998 to date.
Rated by Flot	-
Rated by Current Meter	1967, 1998 to date.
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	Overbank flow starts at elevation +155.900 m.(MSL.) and is including verbank flow.
General Description	Records fair. Ban Don Thamung weir situated about 500 meters downstream from the gage site. Stage-discharge relation defined by 47 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

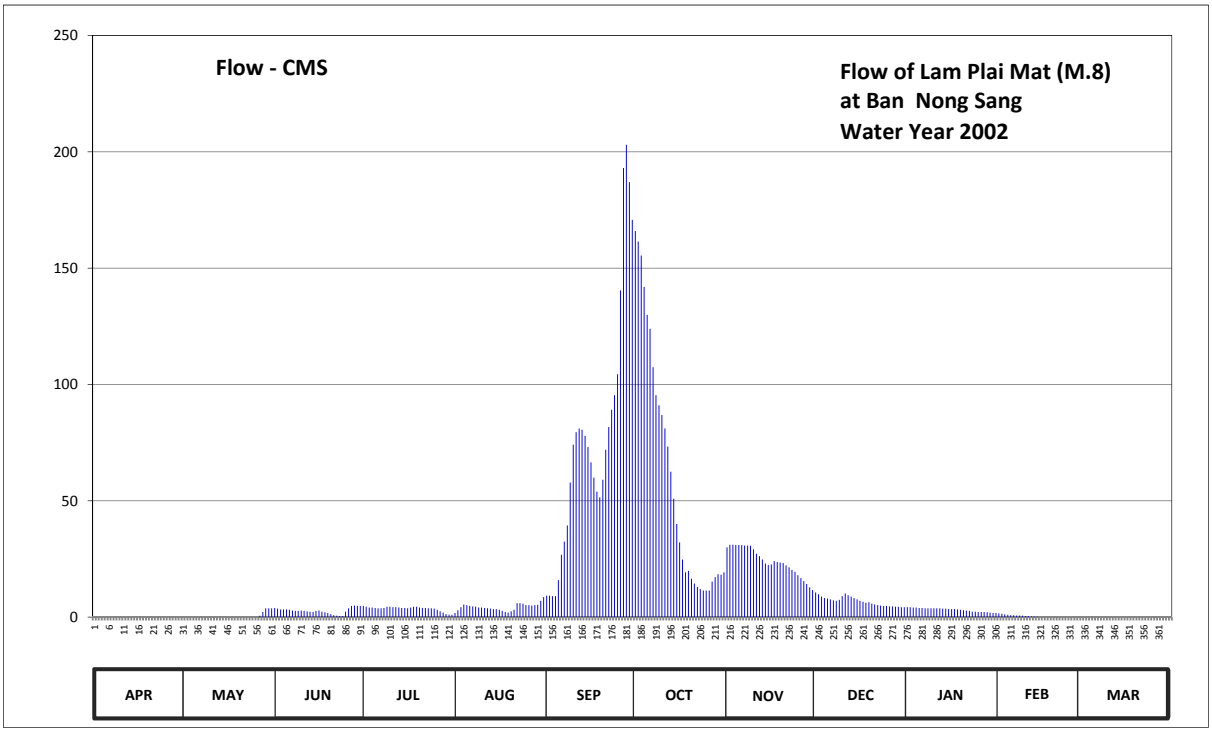
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	150.80	150.58	151.69	151.74	151.55	151.97	157.18	152.97	152.04	151.71	151.54	151.35	
2	150.79	150.64	151.67	151.72	151.63	151.97	157.15	153.10	152.00	151.71	151.53	151.36	
3	150.78	150.67	151.65	151.70	151.71	151.96	157.11	153.09	151.95	151.70	151.51	151.37	
4	150.78	150.90	151.65	151.70	151.78	151.96	157.02	153.08	151.92	151.70	151.50	151.36	
5	150.77	150.88	151.65	151.69	151.76	152.30	156.94	153.08	151.91	151.69	151.48	151.35	
6	150.76	150.91	151.64	151.68	151.74	152.82	156.90	153.07	151.89	151.69	151.48	151.35	
7	150.73	150.93	151.62	151.68	151.73	153.27	156.79	153.03	151.87	151.68	151.47	151.34	
8	150.70	150.94	151.61	151.69	151.72	153.84	156.71	153.02	151.86	151.68	151.47	151.34	
9	150.69	150.93	151.61	151.72	151.70	155.04	156.61	153.01	151.88	151.68	151.46	151.33	
10	150.68	150.94	151.62	151.72	151.70	155.89	156.48	152.93	151.96	151.68	151.45	151.32	
11	150.65	150.93	151.61	151.71	151.69	156.16	156.24	152.84	152.02	151.68	151.44	151.32	
12	150.64	150.93	151.60	151.71	151.68	156.24	155.85	152.79	151.98	151.68	151.43	151.31	
13	150.63	150.93	151.59	151.70	151.67	156.21	155.30	152.72	151.95	151.67	151.42	151.30	
14	150.63	150.93	151.58	151.69	151.66	156.08	154.60	152.64	151.92	151.67	151.41	151.29	
15	150.63	150.96	151.61	151.69	151.66	155.84	153.88	152.61	151.89	151.66	151.40	151.29	
16	150.62	150.94	151.62	151.68	151.64	155.51	153.23	152.62	151.86	151.66	151.38	151.28	
17	150.62	150.93	151.59	151.70	151.61	155.16	152.72	152.69	151.84	151.66	151.38	151.28	
18	150.62	150.91	151.57	151.72	151.58	154.80	152.46	152.67	151.82	151.65	151.38	151.27	
19	150.61	150.91	151.55	151.72	151.56	154.64	152.49	152.66	151.83	151.64	151.38	151.26	
20	150.60	150.93	151.52	151.70	151.60	155.11	152.33	152.65	151.80	151.63	151.37	151.23	
21	150.60	150.95	151.48	151.69	151.64	155.78	152.23	152.60	151.78	151.62	151.36	151.23	
22	150.60	150.94	151.46	151.69	151.81	156.27	152.16	152.56	151.76	151.61	151.35	151.23	
23	150.59	150.93	151.45	151.68	151.81	156.55	152.11	152.51	151.75	151.59	151.36	151.22	
24	150.58	150.92	151.45	151.68	151.80	156.71	152.08	152.47	151.74	151.59	151.36	151.22	
25	150.57	150.93	151.59	151.67	151.76	156.77	152.08	152.40	151.74	151.58	151.35	151.21	
26	150.56	151.34	151.68	151.64	151.76	157.01	152.08	152.34	151.73	151.58	151.35	151.20	
27	150.55	151.46	151.74	151.60	151.75	157.33	152.27	152.28	151.73	151.58	151.35	151.19	
28	150.54	151.58	151.75	151.56	151.76	157.38	152.36	152.22	151.72	151.57	151.35	151.19	
29	150.54	151.68	151.74	151.52	151.77	157.30	152.42	152.15	151.72	151.56		151.21	
30	150.56	151.68	151.74	151.50	151.86	157.21	152.41	152.09	151.71	151.55		151.20	
31		151.68		151.50	151.94		152.46		151.71	151.55		151.21	
Mean	150.65	151.02	151.61	151.67	151.71	155.17	154.28	152.70	151.85	151.64	151.42	151.28	
Max	150.80	151.68	151.75	151.74	151.94	157.38	157.18	153.10	152.04	151.71	151.54	151.37	157.38
Min	150.54	150.58	151.45	151.50	151.55	151.96	152.08	152.09	151.71	151.55	151.35	151.19	150.54

Annual Max Momentary Gage Height 157.39 m. (MSL.) , at 17.00 Hours , on Sep 28 , 2002

Zero Gage at Bottom Elevation 149.50 m. (MSL.) , River Bed 149.49 m. (MSL.)

Left Bank Elevation 155.89 m. (MSL.) ,

Right Bank Elevation 156.65 m. (MSL.) , Drainage Are 4,935 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	3.94	4.78	1.75	9.20	165.90	29.97	10.60	4.27	1.60	0.00		
2	0.00	0.00	3.62	4.44	2.98	9.20	161.40	31.10	9.80	4.27	1.45	0.00		
3	0.00	0.00	3.30	4.10	4.27	9.00	155.40	31.05	8.80	4.10	1.15	0.00		
4	0.00	0.00	3.30	4.10	5.46	9.00	141.90	31.00	8.20	4.10	1.00	0.00		
5	0.00	0.00	3.30	3.94	5.12	15.90	129.90	31.00	8.00	3.94	0.80	0.00		
6	0.00	0.00	3.14	3.78	4.78	26.82	123.90	30.95	7.60	3.94	0.80	0.00		
7	0.00	0.00	2.82	3.78	4.61	32.46	107.40	30.75	7.20	3.78	0.70	0.00		
8	0.00	0.00	2.66	3.94	4.44	39.43	95.40	30.70	7.00	3.78	0.70	0.00		
9	0.00	0.00	2.66	4.44	4.10	57.82	91.02	30.65	7.40	3.78	0.60	0.00		
10	0.00	0.00	2.82	4.44	4.10	74.10	86.86	29.13	9.00	3.78	0.50	0.00		
11	0.00	0.00	2.66	4.27	3.94	79.50	81.10	27.24	10.20	3.78	0.40	0.00		
12	0.00	0.00	2.50	4.27	3.78	81.10	73.30	26.19	9.40	3.78	0.30	0.00		
13	0.00	0.00	2.35	4.10	3.62	80.50	62.50	24.72	8.80	3.62	0.20	0.00		
14	0.00	0.00	2.20	3.94	3.46	77.90	50.88	23.04	8.20	3.62	0.10	0.00		
15	0.00	0.00	2.66	3.94	3.46	73.10	40.03	22.41	7.60	3.46	0.00	0.00		
16	0.00	0.00	2.82	3.78	3.14	66.50	32.14	22.62	7.00	3.46	0.00	0.00		
17	0.00	0.00	2.35	4.10	2.66	59.98	24.72	24.09	6.60	3.46	0.00	0.00		
18	0.00	0.00	2.05	4.44	2.20	53.90	19.26	23.67	6.20	3.30	0.00	0.00		
19	0.00	0.00	1.75	4.44	1.90	51.49	19.89	23.46	6.40	3.14	0.00	0.00		
20	0.00	0.00	1.30	4.10	2.50	59.08	16.53	23.25	5.80	2.98	0.00	0.00		
21	0.00	0.00	0.80	3.94	3.14	71.90	14.43	22.20	5.46	2.82	0.00	0.00		
22	0.00	0.00	0.60	3.94	6.00	81.70	13.00	21.36	5.12	2.66	0.00	0.00		
23	0.00	0.00	0.50	3.78	6.00	89.10	12.00	20.31	4.95	2.35	0.00	0.00		
24	0.00	0.00	0.50	3.78	5.80	95.40	11.40	19.47	4.78	2.35	0.00	0.00		
25	0.00	0.00	2.35	3.62	5.12	104.40	11.40	18.00	4.78	2.20	0.00	0.00		
26	0.00	0.00	3.78	3.14	5.12	140.40	11.40	16.74	4.61	2.20	0.00	0.00		
27	0.00	0.60	4.78	2.50	4.95	193.00	15.27	15.48	4.61	2.20	0.00	0.00		
28	0.00	2.20	4.95	1.90	5.12	203.00	17.16	14.22	4.44	2.05	0.00	0.00		
29	0.00	3.78	4.78	1.30	5.29	187.00	18.42	12.80	4.44	1.90		0.00		
30	0.00	3.78	4.78	1.00	7.00	170.71	18.21	11.60	4.27	1.75		0.00		
31		3.78		1.00	8.60		19.26		4.27	1.75		0.00		
Total	0.00	14.14	82.02	113.02	134.41	2302.59	1841.38	719.17	211.53	98.57	10.30	0.00	5527.13	CMSDAY
Mean	0.00	0.46	2.73	3.65	4.34	76.75	59.40	23.97	6.82	3.18	0.37	0.00	15.14	CMS
Max	0.00	3.78	4.95	4.78	8.60	203.00	165.90	31.10	10.60	4.27	1.60	0.00	203.00	CMS
Min	0.00	0.00	0.50	1.00	1.75	9.00	11.40	11.60	4.27	1.75	0.00	0.00	0.00	CMS
Runoff	0.00	1.22	7.09	9.76	11.61	198.94	159.10	62.14	18.28	8.52	0.89	0.00	477.54	MCM

Momentary Peak 205.00 CMS. at 157.39 m. (MSL.) at 17.00 Hours , on Sep 28 , 2002

Runoff Yield 3.07 Liters/Second/Square KM. Momentary Peak Yield 41.540 Liters/Second/Square KM.

WATER YEAR : 2002

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	Staff gage.
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** +122.055 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 mean of 5 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	Overbank flow starts at elevation +116.780 m.(MSL.) and is including overbank flow.
General Description	Records fair. The Water Supply weir situated above gage site. Stage-discharge relation defined by 65 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

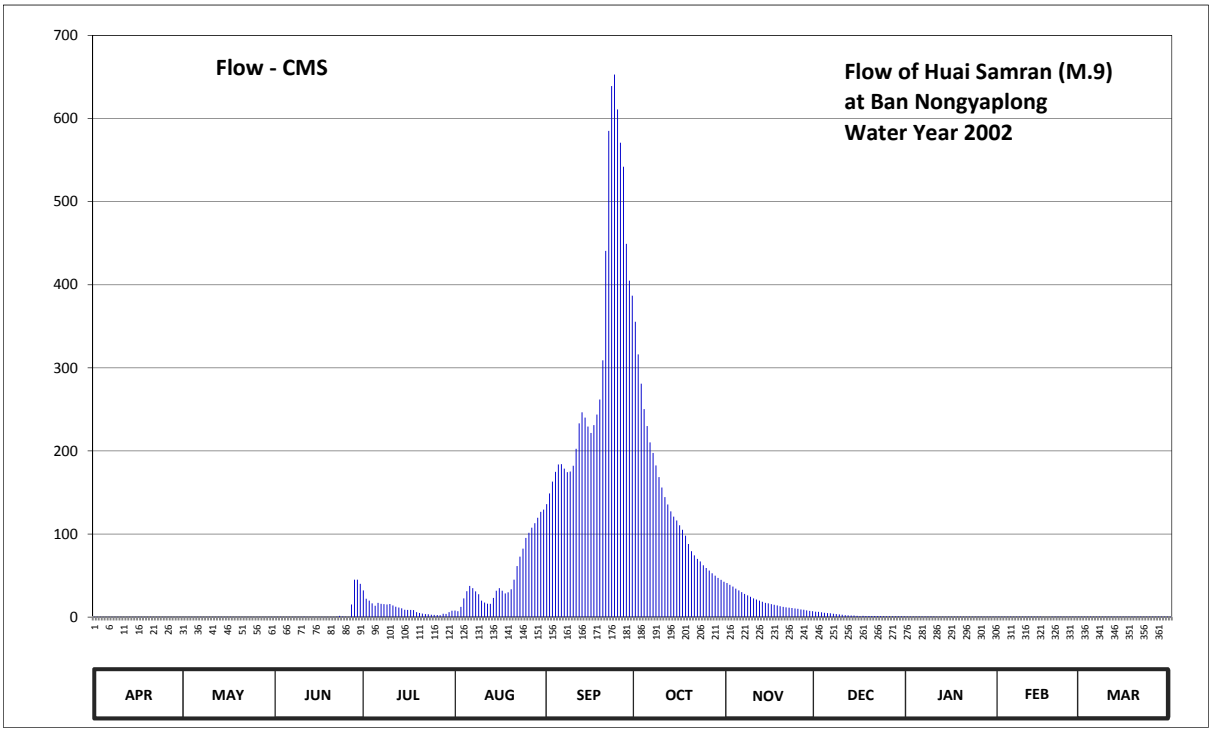
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	109.22	109.12	109.15	112.18	110.65	116.81	121.28	116.04	111.56	109.62	109.30	109.28	
2	109.22	109.12	109.15	111.66	110.59	117.26	121.19	115.86	111.49	109.60	109.30	109.28	
3	109.24	109.15	109.23	111.51	110.97	117.72	121.08	115.67	111.36	109.58	109.30	109.28	
4	109.26	109.22	109.23	111.27	111.69	118.06	120.97	115.45	111.16	109.58	109.30	109.29	
5	109.24	109.23	109.16	111.07	112.13	118.29	120.85	115.24	111.06	109.56	109.29	109.30	
6	109.21	109.24	109.16	111.31	112.45	118.30	120.72	115.03	110.94	109.53	109.29	109.30	
7	109.20	109.24	109.14	111.24	112.32	118.16	120.63	114.82	110.80	109.52	109.29	109.29	
8	109.15	109.24	109.14	111.20	112.12	118.05	120.51	114.64	110.66	109.50	109.29	109.29	
9	109.15	109.24	109.14	111.18	111.95	118.07	120.39	114.46	110.51	109.48	109.35	109.28	
10	109.15	109.24	109.14	111.22	111.51	118.25	120.25	114.28	110.38	109.46	109.40	109.28	
11	109.15	109.23	109.34	111.09	111.34	118.79	120.10	114.12	110.22	109.44	109.30	109.28	
12	109.14	109.24	109.20	110.99	111.25	119.43	119.97	113.97	110.11	109.40	109.30	109.28	
13	109.14	109.24	109.20	110.92	111.23	119.65	119.83	113.82	110.05	109.37	109.30	109.28	
14	109.14	109.24	109.15	110.85	111.72	119.55	119.69	113.66	110.05	109.34	109.30	109.28	
15	109.14	109.24	109.12	110.72	112.16	119.36	119.57	113.58	109.92	109.33	109.30	109.28	
16	109.14	109.24	109.10	110.71	112.32	119.22	119.43	113.44	109.77	109.33	109.21	109.28	
17	109.16	109.24	109.10	110.71	112.16	119.39	119.28	113.28	109.94	109.32	109.21	109.28	
18	109.18	109.24	109.14	110.69	112.00	119.61	119.05	113.12	109.90	109.32	109.26	109.28	
19	109.16	109.24	109.15	110.50	112.07	119.87	118.70	112.93	109.88	109.32	109.28	109.30	
20	109.16	109.22	109.14	110.39	112.25	120.39	118.36	112.80	109.86	109.31	109.28	109.30	
21	109.15	109.20	109.13	110.30	112.83	121.21	118.15	112.68	109.84	109.31	109.30	109.32	
22	109.14	109.20	109.28	110.23	113.65	121.59	117.93	112.59	109.83	109.31	109.30	109.30	
23	109.14	109.20	109.68	110.18	114.21	121.67	117.76	112.50	109.81	109.31	109.30	109.29	
24	109.14	109.20	109.40	110.09	114.66	121.69	117.50	112.40	109.74	109.31	109.29	109.28	
25	109.25	109.23	109.28	110.02	115.23	121.63	117.30	112.31	109.70	109.31	109.29	109.28	
26	109.20	109.22	109.24	109.97	115.50	121.56	117.10	112.17	109.68	109.31	109.29	109.28	
27	109.18	109.23	111.18	109.95	115.76	121.50	116.88	112.08	109.66	109.30	109.28	109.30	
28	109.15	109.20	112.83	110.28	115.98	121.43	116.69	111.93	109.66	109.30	109.28	109.31	
29	109.14	109.18	112.83	110.26	116.23	121.39	116.50	111.80	109.66	109.30		109.30	
30	109.12	109.16	112.58	110.50	116.48	121.35	116.33	111.70	109.66	109.30		109.28	
31		109.16		110.64	116.58		116.16		109.64	109.30		109.26	
Mean	109.17	109.21	109.62	110.77	112.97	119.64	119.04	113.61	110.21	109.40	109.29	109.29	
Max	109.26	109.24	112.83	112.18	116.58	121.69	121.28	116.04	111.56	109.62	109.40	109.32	121.69
Min	109.12	109.12	109.10	109.95	110.59	116.81	116.16	111.70	109.64	109.30	109.21	109.26	109.10

Annual Max Momentary Gage Height 121.70 m. (MSL.) , at 06.00 Hours , on Sep 24 , 2002

Zero Gage at Bottom Elevation 109.00 m. (MSL.) , River Bed 109.18 m. (MSL.)

Left Bank Elevation 119.39 m. (MSL.) ,

Right Bank Elevation 116.77 m. (MSL.) , Drainage Are 2,988 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.42	0.32	0.35	32.10	7.85	135.88	355.40	40.92	6.54	0.84	0.50	0.48		
2	0.42	0.32	0.35	22.06	7.08	148.80	316.20	38.86	6.26	0.80	0.50	0.48		
3	0.44	0.35	0.43	19.84	12.28	163.04	281.00	36.77	5.78	0.78	0.50	0.48		
4	0.46	0.42	0.43	16.48	22.54	174.88	250.30	34.35	5.18	0.78	0.50	0.49		
5	0.44	0.43	0.36	13.68	31.10	183.62	229.90	32.20	4.88	0.76	0.49	0.50		
6	0.41	0.44	0.36	17.04	37.50	184.00	210.20	30.10	4.52	0.73	0.49	0.50		
7	0.40	0.44	0.34	16.06	34.90	178.68	197.60	28.00	4.10	0.72	0.49	0.49		
8	0.35	0.44	0.34	15.50	30.90	174.50	182.60	26.20	3.68	0.70	0.49	0.49		
9	0.35	0.44	0.34	15.22	27.50	175.26	168.50	24.40	3.23	0.68	0.55	0.48		
10	0.35	0.44	0.34	15.78	19.84	182.10	155.90	22.60	2.84	0.66	0.60	0.48		
11	0.35	0.43	0.58	13.96	17.46	202.62	144.40	21.08	2.36	0.64	0.50	0.48		
12	0.34	0.44	0.40	12.56	16.20	233.15	135.60	19.73	2.03	0.60	0.50	0.48		
13	0.34	0.44	0.40	11.58	15.92	246.50	127.20	18.38	1.85	0.57	0.50	0.48		
14	0.34	0.44	0.35	10.60	23.06	240.00	121.00	17.08	1.85	0.54	0.50	0.48		
15	0.34	0.44	0.32	8.78	31.70	229.30	116.20	16.48	1.46	0.53	0.50	0.48		
16	0.34	0.44	0.30	8.64	34.90	221.60	110.60	15.64	1.14	0.53	0.41	0.48		
17	0.36	0.44	0.30	8.64	31.70	230.95	105.20	14.80	1.52	0.52	0.41	0.48		
18	0.38	0.44	0.34	8.37	28.50	243.70	97.90	14.00	1.40	0.52	0.46	0.48		
19	0.36	0.44	0.35	6.00	29.90	261.90	87.90	13.05	1.36	0.52	0.48	0.50		
20	0.36	0.42	0.34	4.92	33.50	308.95	79.40	12.40	1.32	0.51	0.48	0.50		
21	0.35	0.40	0.33	4.20	45.10	440.80	74.40	11.80	1.28	0.51	0.50	0.52		
22	0.34	0.40	0.48	3.71	61.50	585.20	70.14	11.35	1.26	0.51	0.50	0.50		
23	0.34	0.40	1.54	3.40	72.70	639.00	67.08	10.90	1.22	0.51	0.50	0.49		
24	0.34	0.40	0.70	2.95	82.42	653.00	62.40	10.40	1.08	0.51	0.49	0.48		
25	0.45	0.43	0.48	2.60	95.29	611.00	59.10	9.95	1.00	0.51	0.49	0.48		
26	0.40	0.42	0.44	2.41	101.50	570.80	56.10	9.25	0.96	0.51	0.49	0.48		
27	0.38	0.43	15.22	2.35	107.64	542.00	52.80	8.80	0.92	0.50	0.48	0.50		
28	0.35	0.40	45.10	4.06	112.92	449.18	49.95	8.05	0.92	0.50	0.48	0.51		
29	0.34	0.38	45.10	3.92	119.64	404.90	47.20	7.50	0.92	0.50		0.50		
30	0.32	0.36	40.10	6.00	126.64	386.90	44.82	7.10	0.92	0.50		0.48		
31		0.36		7.72	129.44		42.48		0.88	0.50		0.46		
Total	11.16	12.79	156.81	321.13	1549.12	9402.21	4099.47	572.14	74.66	18.49	13.78	15.11	16246.87	CMSDAY
Mean	0.37	0.41	5.23	10.36	49.97	313.41	132.24	19.07	2.41	0.60	0.49	0.49	44.51	CMS
Max	0.46	0.44	45.10	32.10	129.44	653.00	355.40	40.92	6.54	0.84	0.60	0.52	653.00	CMS
Min	0.32	0.32	0.30	2.35	7.08	135.88	42.48	7.10	0.88	0.50	0.41	0.46	0.30	CMS
Runoff	0.96	1.11	13.55	27.75	133.84	812.35	354.19	49.43	6.45	1.60	1.19	1.31	1403.73	MCM

Momentary Peak 660.00 CMS. at 121.70 m. (MSL.) at 06.00 Hours , on Sep 24 , 2002

Runoff Yield 14.90 Liters/Second/Square KM. Momentary Peak Yield 220.880 Liters/Second/Square KM.

WATER YEAR : 2002

MUN RIVER BASIN

Lam Chi at Ban Kho Kho, Surin (M.26)

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

Location : on left bank at railway bridge.

	Ban Kho Kho	**Amphoe** Mueang	**Changwat** Surin
Drainge Area	3,058 sq.km.		
Type of Gage	Water - stage recorder.		
Zero Gage at Bottom	+127.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	Near the automatic gage building.		**Elevation** +135.010 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1954 to date		
Rating Operation			
Period of Rating	1967 - 1968, 1978 to date.		
Rated by Flot	-		
Rated by Current Meter	1967 - 1968, 1978 to date.		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	Overbank flow starts at elevation +134.46 m.(M.S.L.) and is including 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 98 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

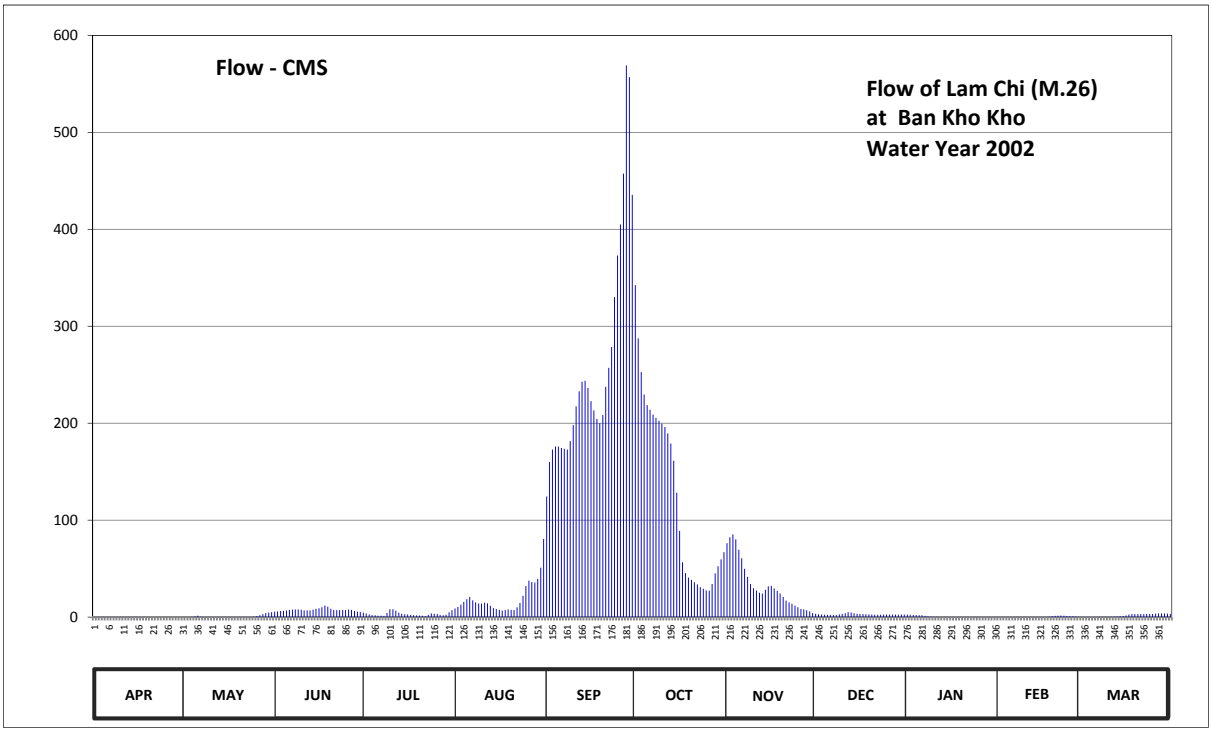
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	127.50	127.37	128.48	128.37	128.90	134.17	137.29	132.61	128.21	128.12	127.52	127.57	
2	127.50	127.32	128.51	128.26	129.08	135.10	137.03	132.81	128.16	128.10	127.52	127.53	
3	127.48	127.39	128.56	128.14	129.40	135.42	136.73	132.91	128.12	128.06	127.53	127.52	
4	127.48	127.49	128.60	128.05	129.75	135.50	136.47	132.74	128.10	128.04	127.54	127.53	
5	127.48	127.77	128.63	128.00	129.99	135.50	136.31	132.38	128.08	128.02	127.53	127.53	
6	127.48	127.94	128.72	127.94	130.11	135.46	136.23	132.05	128.06	128.00	127.52	127.56	
7	127.48	127.67	128.76	127.93	129.91	135.44	136.15	131.56	128.03	127.91	127.52	127.65	
8	127.48	127.56	128.77	127.91	129.69	135.42	136.09	131.15	128.04	127.80	127.50	127.69	
9	127.48	127.57	128.78	128.33	129.53	135.61	136.03	130.77	128.14	127.71	127.50	127.68	
10	127.48	127.57	128.73	128.79	129.54	135.94	135.97	130.56	128.20	127.66	127.51	127.66	
11	127.48	127.58	128.66	128.79	129.64	136.29	135.90	130.44	128.29	127.64	127.51	127.69	
12	127.48	127.59	128.65	128.61	129.57	136.51	135.77	130.32	128.43	127.60	127.52	127.73	
13	127.48	127.59	128.66	128.37	129.25	136.62	135.56	130.28	128.39	127.57	127.52	127.75	
14	127.48	127.60	128.76	128.22	128.94	136.63	135.13	130.48	128.29	127.55	127.53	127.83	
15	127.48	127.60	128.86	128.15	128.82	136.55	134.28	130.66	128.22	127.54	127.54	127.88	
16	127.48	127.60	128.93	128.11	128.72	136.38	133.03	130.69	128.20	127.54	127.55	127.97	
17	127.46	127.60	129.06	128.06	128.63	136.22	131.88	130.55	128.18	127.54	127.57	128.11	
18	127.46	127.61	129.28	128.00	128.69	136.07	131.34	130.42	128.16	127.54	127.67	128.17	
19	127.46	127.55	129.12	127.98	128.78	135.98	131.11	130.29	128.13	127.54	127.82	128.17	
20	127.46	127.53	128.85	127.97	128.71	136.14	130.99	130.11	128.12	127.54	127.90	128.17	
21	127.46	127.53	128.72	127.92	128.72	136.56	130.87	129.89	128.10	127.53	127.93	128.17	
22	127.46	127.53	128.69	127.83	129.04	136.78	130.75	129.69	128.10	127.53	127.95	128.18	
23	127.46	127.53	128.69	128.08	129.62	136.97	130.61	129.49	128.10	127.53	127.94	128.19	
24	127.46	127.58	128.69	128.26	130.17	137.24	130.53	129.27	128.11	127.53	127.88	128.19	
25	127.46	127.71	128.69	128.22	130.67	137.38	130.45	129.07	128.11	127.53	127.83	128.20	
26	127.46	127.88	128.75	128.17	130.95	137.45	130.43	128.84	128.11	127.54	127.80	128.23	
27	127.45	128.02	128.71	128.06	130.88	137.55	130.78	128.77	128.11	127.55	127.78	128.26	
28	127.45	128.18	128.58	128.00	130.85	137.74	131.32	128.68	128.11	127.54	127.66	128.27	
29	127.46	128.31	128.49	128.09	131.04	137.72	131.69	128.52	128.10	127.53		128.27	
30	127.46	128.37	128.44	128.40	131.62	137.51	132.00	128.31	128.11	127.53		128.24	
31		128.42		128.68	132.75		132.30		128.12	127.52		128.19	
Mean	127.47	127.70	128.73	128.18	129.74	136.33	133.58	130.48	128.15	127.67	127.65	127.93	
Max	127.50	128.42	129.28	128.79	132.75	137.74	137.29	132.91	128.43	128.12	127.95	128.27	137.74
Min	127.45	127.32	128.44	127.83	128.63	134.17	130.43	128.31	128.03	127.52	127.50	127.52	127.32

Annual Max Momentary Gage Height 137.77 m. (MSL.) , at 06.00 Hours , on Sep 21 , 2002

Zero Gage at Bottom Elevation 127.00 m. (MSL.) , River Bed 126.49 m. (MSL.)

Left Bank Elevation 134.45 m. (MSL.) ,

Right Bank Elevation 135.15 m. (MSL.) , Drainage Are 3,058 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.10	0.00	5.54	4.66	8.90	124.45	342.50	76.30	3.38	2.66	0.12	0.17		
2	0.10	0.00	5.78	3.78	10.34	160.00	287.50	82.30	2.98	2.50	0.12	0.13		
3	0.08	0.00	6.18	2.82	12.90	172.80	252.70	85.30	2.66	2.26	0.13	0.12		
4	0.08	0.09	6.50	2.20	15.70	176.00	229.60	80.20	2.50	2.14	0.14	0.13		
5	0.08	0.68	6.74	1.90	18.45	176.00	218.60	69.40	2.38	2.02	0.13	0.13		
6	0.08	1.54	7.46	1.54	20.80	174.40	213.80	60.75	2.26	1.90	0.12	0.16		
7	0.08	0.34	7.78	1.48	17.25	173.60	209.00	49.80	2.08	1.36	0.12	0.30		
8	0.08	0.16	7.86	1.36	15.22	172.80	205.50	41.60	2.14	0.80	0.10	0.38		
9	0.08	0.17	7.94	4.34	13.94	181.50	202.50	34.00	2.82	0.44	0.10	0.36		
10	0.08	0.17	7.54	8.02	14.02	198.00	199.50	29.80	3.30	0.32	0.11	0.32		
11	0.08	0.18	6.98	8.02	14.82	217.40	196.00	27.40	4.02	0.28	0.11	0.38		
12	0.08	0.19	6.90	6.58	14.26	232.90	189.50	25.00	5.14	0.20	0.12	0.52		
13	0.08	0.19	6.98	4.66	11.70	242.80	179.00	24.20	4.82	0.17	0.12	0.60		
14	0.08	0.20	7.78	3.46	9.22	243.70	161.20	28.20	4.02	0.15	0.13	0.95		
15	0.08	0.20	8.58	2.90	8.26	236.50	128.30	31.80	3.46	0.14	0.14	1.20		
16	0.08	0.20	9.14	2.58	7.46	222.80	88.90	32.40	3.30	0.14	0.15	1.72		
17	0.06	0.20	10.18	2.26	6.74	213.20	56.56	29.60	3.14	0.14	0.17	2.58		
18	0.06	0.22	11.94	1.90	7.22	204.50	45.40	27.00	2.98	0.14	0.34	3.06		
19	0.06	0.15	10.66	1.78	7.94	200.00	40.80	24.40	2.74	0.14	0.90	3.06		
20	0.06	0.13	8.50	1.72	7.38	208.40	38.40	20.80	2.66	0.14	1.30	3.06		
21	0.06	0.13	7.46	1.42	7.46	237.40	36.00	17.00	2.50	0.13	1.48	3.06		
22	0.06	0.13	7.22	0.95	10.02	257.20	33.60	15.22	2.50	0.13	1.60	3.14		
23	0.06	0.13	7.22	2.38	14.66	278.50	30.80	13.62	2.50	0.13	1.54	3.22		
24	0.06	0.18	7.22	3.78	22.00	330.00	29.20	11.86	2.58	0.13	1.20	3.22		
25	0.06	0.44	7.22	3.46	32.00	373.00	27.60	10.26	2.58	0.13	0.95	3.30		
26	0.06	1.20	7.70	3.06	37.60	405.00	27.20	8.42	2.58	0.14	0.80	3.54		
27	0.05	2.02	7.38	2.26	36.20	457.50	34.20	7.86	2.58	0.15	0.72	3.78		
28	0.05	3.14	6.34	1.90	35.60	569.00	45.00	7.14	2.58	0.14	0.32	3.86		
29	0.06	4.18	5.62	2.44	39.40	557.00	52.40	5.86	2.50	0.13		3.86		
30	0.06	4.66	5.22	4.90	51.00	435.50	59.50	4.18	2.58	0.13		3.62		
31		5.06		7.14	80.50		67.00		2.66	0.12		3.22		
Total	2.14	26.28	225.56	101.65	608.96	7831.85	3927.76	981.67	90.92	19.50	13.28	57.15	13886.72	CMSDAY
Mean	0.07	0.85	7.52	3.28	19.64	261.06	126.70	32.72	2.93	0.63	0.47	1.84	38.05	CMS
Max	0.10	5.06	11.94	8.02	80.50	569.00	342.50	85.30	5.14	2.66	1.60	3.86	569.00	CMS
Min	0.05	0.00	5.22	0.95	6.74	124.45	27.20	4.18	2.08	0.12	0.10	0.12	0.00	CMS
Runoff	0.18	2.27	19.49	8.78	52.61	676.67	339.36	84.82	7.86	1.68	1.15	4.94	1199.81	MCM

Momentary Peak 587.00 CMS. at 137.77 m. (MSL.) at 06.00 Hours , on Sep 21, 2002

Runoff Yield 12.44 Liters/Second/Square KM. Momentary Peak Yield 191.960 Liters/Second/Square KM.

WATER YEAR : 2002

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** +127.626 m. (MSL.)
Gage Reading Frequency	Recording.
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1968 - 1974, 1997 to date.
Rating Operation	
Period of Rating	1968 - 1969, 1997 to date.
Rated by Flot	-
Rated by Current Meter	1968 - 1969, 1997 to date.
Stability of Channel Regimes	Unstable.
Overbank Flow Conditions	Overbank flow starts at elevation +125.660 m.(MSL.), records are channel flow only.
General Description	Records fair. The concrete weir situated about 3 kilometers downstream from the gage site. Stage-discharge relation defined by 63 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

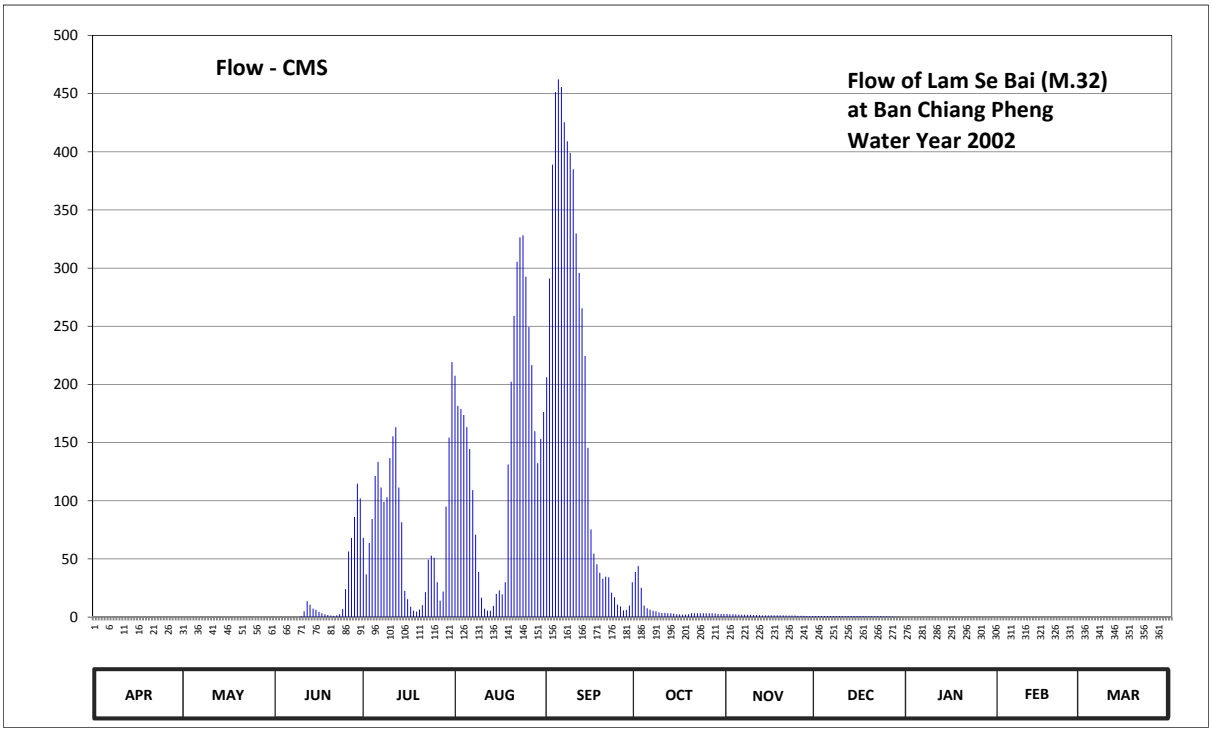
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	123.29	123.09	122.71	124.99	126.25	126.24	124.64	123.81	123.70	123.57	123.29	123.10	
2	123.27	123.07	122.70	124.61	126.05	126.80	124.71	123.80	123.70	123.57	123.28	123.10	
3	123.26	123.05	122.66	124.94	126.03	127.36	124.42	123.80	123.70	123.55	123.27	123.09	
4	123.25	123.04	122.61	125.17	125.99	127.66	124.07	123.79	123.70	123.52	123.27	123.08	
5	123.24	123.03	122.57	125.53	125.91	127.71	124.00	123.78	123.70	123.51	123.26	123.07	
6	123.24	123.03	122.69	125.64	125.74	127.68	123.95	123.77	123.70	123.50	123.25	123.06	
7	123.24	123.03	123.37	125.44	125.42	127.54	123.92	123.77	123.70	123.49	123.24	123.05	
8	123.23	123.02	123.50	125.32	125.02	127.46	123.90	123.77	123.70	123.48	123.23	123.04	
9	123.21	123.01	123.56	125.36	124.64	127.41	123.86	123.76	123.70	123.48	123.20	123.04	
10	123.20	122.99	123.68	125.67	124.24	127.34	123.84	123.75	123.70	123.47	123.19	123.03	
11	123.19	122.98	123.90	125.84	123.99	127.04	123.84	123.75	123.70	123.46	123.18	123.02	
12	123.19	122.98	124.17	125.91	123.92	126.83	123.83	123.74	123.69	123.45	123.17	123.00	
13	123.18	122.98	124.09	125.44	123.92	126.64	123.83	123.73	123.69	123.44	123.16	123.00	
14	123.18	122.99	123.99	125.14	124.06	126.38	123.82	123.73	123.69	123.44	123.16	122.99	
15	123.17	122.99	123.95	124.37	124.32	125.75	123.80	123.73	123.69	123.43	123.15	122.99	
16	123.17	122.98	123.88	124.21	124.38	125.07	123.79	123.73	123.69	123.42	123.14	122.97	
17	123.16	122.97	123.83	124.04	124.31	124.84	123.77	123.73	123.69	123.41	123.13	122.94	
18	123.16	122.97	123.79	123.92	124.50	124.73	123.78	123.73	123.68	123.39	123.13	122.93	
19	123.15	122.96	123.75	123.89	125.62	124.63	123.80	123.73	123.68	123.39	123.13	122.94	
20	123.13	122.94	123.72	123.96	126.21	124.55	123.83	123.73	123.68	123.38	123.13	122.99	
21	123.13	122.94	123.71	124.08	126.60	124.58	123.83	123.72	123.68	123.37	123.12	123.03	
22	123.12	122.93	123.73	124.35	126.89	124.57	123.83	123.72	123.68	123.36	123.11	123.08	
23	123.10	122.90	123.80	124.78	127.02	124.34	123.83	123.72	123.68	123.35	123.11	123.08	
24	123.09	122.83	123.98	124.82	127.03	124.25	123.83	123.72	123.67	123.35	123.10	123.10	
25	123.08	122.77	124.40	124.80	126.81	124.09	123.83	123.71	123.67	123.34	123.10	123.13	
26	123.07	122.74	124.86	124.50	126.54	124.05	123.83	123.71	123.66	123.34	123.10	123.14	
27	123.06	122.72	124.99	124.18	126.32	123.93	123.83	123.71	123.65	123.33	123.10	123.18	
28	123.05	122.71	125.19	124.36	125.88	123.94	123.82	123.70	123.63	123.33	123.10	123.21	
29	123.06	122.72	125.47	125.28	125.63	124.07	123.81	123.70	123.62	123.32		123.24	
30	123.07	122.72	125.35	125.83	125.82	124.50	123.81	123.70	123.60	123.32		123.25	
31		122.72		126.34	126.01		123.81		123.59	123.31		123.26	
Mean	123.16	122.93	123.82	124.93	125.52	125.73	123.92	123.74	123.68	123.42	123.17	123.07	
Max	123.29	123.09	125.47	126.34	127.03	127.71	124.71	123.81	123.70	123.57	123.29	123.26	127.71
Min	123.05	122.71	122.57	123.89	123.92	123.93	123.77	123.70	123.59	123.31	123.10	122.93	122.57

Annual Max Momentary Gage Height 127.71 m. (MSL.) , at 13.00 Hours , on Sep 26 , 2002

Zero Gage at Bottom Elevation 120.29 m. (MSL.) , River Bed 121.44 m. (MSL.)

Left Bank Elevation 125.65 m. (MSL.) ,

Right Bank Elevation 126.29 m. (MSL.) , Drainage Are 1,646 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	0.00	68.10	207.50	206.20	38.80	2.75	1.00	0.00	0.00	0.00		
2	0.00	0.00	0.00	36.70	181.50	291.00	43.80	2.50	1.00	0.00	0.00	0.00		
3	0.00	0.00	0.00	63.60	178.90	389.00	25.20	2.50	1.00	0.00	0.00	0.00		
4	0.00	0.00	0.00	84.30	173.70	451.20	9.95	2.35	1.00	0.00	0.00	0.00		
5	0.00	0.00	0.00	121.30	163.30	462.20	7.50	2.20	1.00	0.00	0.00	0.00		
6	0.00	0.00	0.00	133.40	144.40	455.60	6.25	2.05	1.00	0.00	0.00	0.00		
7	0.00	0.00	0.00	111.40	109.20	425.40	5.50	2.05	1.00	0.00	0.00	0.00		
8	0.00	0.00	0.00	99.00	70.80	409.00	5.00	2.05	1.00	0.00	0.00	0.00		
9	0.00	0.00	0.00	103.00	38.80	399.00	4.00	1.90	1.00	0.00	0.00	0.00		
10	0.00	0.00	0.80	136.70	16.60	385.00	3.50	1.75	1.00	0.00	0.00	0.00		
11	0.00	0.00	5.00	155.40	7.25	329.80	3.50	1.75	1.00	0.00	0.00	0.00		
12	0.00	0.00	13.80	163.30	5.50	295.80	3.25	1.60	0.90	0.00	0.00	0.00		
13	0.00	0.00	10.65	111.40	5.50	265.40	3.25	1.45	0.90	0.00	0.00	0.00		
14	0.00	0.00	7.25	81.60	9.60	224.40	3.00	1.45	0.90	0.00	0.00	0.00		
15	0.00	0.00	6.25	22.50	20.00	145.50	2.50	1.45	0.90	0.00	0.00	0.00		
16	0.00	0.00	4.50	15.40	23.00	75.30	2.35	1.45	0.90	0.00	0.00	0.00		
17	0.00	0.00	3.25	8.90	19.50	54.60	2.05	1.45	0.90	0.00	0.00	0.00		
18	0.00	0.00	2.35	5.50	30.00	45.40	2.20	1.45	0.80	0.00	0.00	0.00		
19	0.00	0.00	1.75	4.75	131.20	38.10	2.50	1.45	0.80	0.00	0.00	0.00		
20	0.00	0.00	1.30	6.50	202.30	33.00	3.25	1.45	0.80	0.00	0.00	0.00		
21	0.00	0.00	1.15	10.30	259.00	34.80	3.25	1.30	0.80	0.00	0.00	0.00		
22	0.00	0.00	1.45	21.50	305.40	34.20	3.25	1.30	0.80	0.00	0.00	0.00		
23	0.00	0.00	2.50	49.40	326.40	21.00	3.25	1.30	0.80	0.00	0.00	0.00		
24	0.00	0.00	7.00	52.80	328.10	17.00	3.25	1.30	0.70	0.00	0.00	0.00		
25	0.00	0.00	24.00	51.00	292.60	10.65	3.25	1.15	0.70	0.00	0.00	0.00		
26	0.00	0.00	56.40	30.00	249.40	9.25	3.25	1.15	0.60	0.00	0.00	0.00		
27	0.00	0.00	68.10	14.20	216.60	5.75	3.25	1.15	0.50	0.00	0.00	0.00		
28	0.00	0.00	86.10	22.00	159.80	6.00	3.00	1.00	0.30	0.00	0.00	0.00		
29	0.00	0.00	114.70	95.00	132.30	9.95	2.75	1.00	0.20	0.00		0.00		
30	0.00	0.00	102.00	154.30	153.20	30.00	2.75	1.00	0.00	0.00		0.00		
31		0.00		219.20	176.30		2.75		0.00	0.00		0.00		
Total	0.00	0.00	520.30	2252.45	4337.65	5559.50	211.35	48.70	24.20	0.00	0.00	0.00	12954.15	CMSDAY
Mean	0.00	0.00	17.34	72.66	139.92	185.32	6.82	1.62	0.78	0.00	0.00	0.00	35.49	CMS
Max	0.00	0.00	114.70	219.20	328.10	462.20	43.80	2.75	1.00	0.00	0.00	0.00	462.20	CMS
Min	0.00	0.00	0.00	4.75	5.50	5.75	2.05	1.00	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	0.00	0.00	44.95	194.61	374.77	480.34	18.26	4.21	2.09	0.00	0.00	0.00	1119.24	MCM

Momentary Peak 462.20 CMS. at 127.71 m. (MSL.) at 13.00 Hours , on Sep 26, 2002

Runoff Yield 21.56 Liters/Second/Square KM. Momentary Peak Yield 280.800 Liters/Second/Square KM.

WATER YEAR : 2002

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	Staff gage.
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** +11.591 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 mean of 5 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	Fairly stable.
Overbank Flow Conditions	Overbank flow starts at elevetion +6.000 m.(A.D.) and is including overbank flow.
General Description	Records fair. Flow effected by the local weir about 800 meters downstream from the gage site. Stage-discharge relation defined by 62 discharge measurements made in 2002.

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

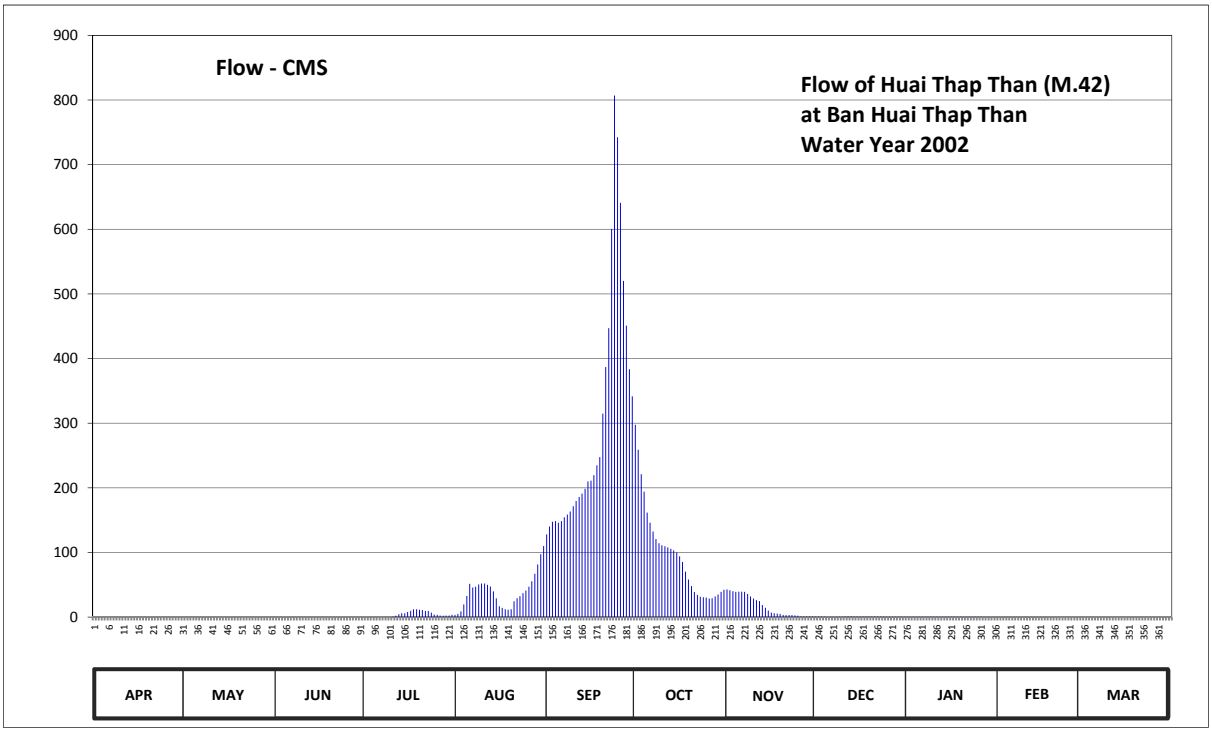
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	3.01	2.78	2.66	2.97	3.48	8.20	9.91	5.19	3.38	3.35	3.32	3.30	
2	3.00	2.78	2.65	2.96	3.52	8.50	9.73	5.13	3.38	3.35	3.32	3.29	
3	2.99	2.77	2.65	2.97	3.60	8.65	9.50	5.06	3.37	3.35	3.32	3.28	
4	2.98	2.76	2.65	2.97	3.75	8.67	9.29	5.00	3.34	3.35	3.32	3.27	
5	2.96	2.75	2.66	2.97	4.67	8.62	8.91	5.02	3.33	3.35	3.32	3.27	
6	2.94	2.76	2.66	3.06	5.62	8.67	8.62	5.02	3.34	3.35	3.32	3.27	
7	2.93	2.78	2.65	3.16	5.34	8.79	8.31	5.01	3.34	3.35	3.32	3.27	
8	2.92	2.80	2.65	3.17	5.40	8.86	8.02	4.85	3.34	3.35	3.32	3.26	
9	2.92	2.80	2.64	3.29	5.57	8.94	7.86	4.59	3.34	3.35	3.32	3.24	
10	2.91	2.78	2.64	3.31	5.65	9.05	7.78	4.28	3.34	3.35	3.32	3.18	
11	2.90	2.78	2.78	3.37	5.65	9.14	7.74	4.01	3.38	3.35	3.32	3.10	
12	2.90	2.77	2.78	3.44	5.55	9.21	7.70	3.87	3.40	3.35	3.32	3.10	
13	2.90	2.77	2.79	3.51	5.41	9.26	7.64	3.74	3.40	3.35	3.32	3.10	
14	2.88	2.76	2.80	3.54	5.04	9.33	7.58	3.69	3.38	3.35	3.32	3.10	
15	2.87	2.75	2.80	3.54	4.29	9.42	7.50	3.62	3.38	3.35	3.32	3.10	
16	2.86	2.74	2.80	3.58	3.72	9.43	7.35	3.56	3.38	3.35	3.32	3.10	
17	2.86	2.73	2.81	3.61	3.69	9.49	7.08	3.54	3.38	3.35	3.32	3.09	
18	2.85	2.72	2.81	3.65	3.65	9.60	6.57	3.53	3.38	3.35	3.31	3.09	
19	2.84	2.71	2.82	3.65	3.64	9.67	5.96	3.52	3.38	3.35	3.31	3.09	
20	2.83	2.71	2.82	3.64	3.65	9.98	5.45	3.48	3.38	3.35	3.31	3.08	
21	2.82	2.71	2.80	3.63	3.84	10.22	4.99	3.47	3.38	3.35	3.31	3.07	
22	2.81	2.70	2.87	3.61	4.31	10.38	4.77	3.47	3.38	3.35	3.31	3.06	
23	2.80	2.70	2.95	3.61	4.64	10.67	4.54	3.47	3.38	3.35	3.31	3.06	
24	2.79	2.69	2.97	3.56	4.90	10.94	4.46	3.46	3.37	3.35	3.31	3.06	
25	2.78	2.70	2.98	3.50	5.10	10.87	4.41	3.44	3.36	3.35	3.31	3.06	
26	2.77	2.70	2.98	3.48	5.40	10.73	4.26	3.39	3.36	3.34	3.31	3.06	
27	2.76	2.70	2.99	3.45	5.82	10.53	4.32	3.40	3.36	3.33	3.31	3.05	
28	2.75	2.67	2.99	3.44	6.40	10.39	4.59	3.40	3.35	3.33	3.31	3.05	
29	2.74	2.66	2.99	3.45	6.95	10.21	4.79	3.40	3.35	3.33		3.05	
30	2.80	2.66	2.99	3.45	7.43	10.08	5.00	3.39	3.36	3.33		3.05	
31		2.66		3.49	7.75		5.16		3.36	3.32		3.07	
Mean	2.87	2.73	2.80	3.39	4.95	9.55	6.77	4.00	3.37	3.35	3.32	3.14	
Max	3.01	2.80	2.99	3.65	7.75	10.94	9.91	5.19	3.40	3.35	3.32	3.30	10.94
Min	2.74	2.66	2.64	2.96	3.48	8.20	4.26	3.39	3.33	3.32	3.31	3.05	2.64

Annual Max Momentary Gage Height 10.95 m. (A.D.) , at 12.00 Hours , on Sep 24 , 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed 0.01 m. (A.D.) ,

Left Bank Elevation 6.41 m. (A.D.) ,

Right Bank Elevation 5.98 m. (A.D.) , Drainage Are 2,832 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	0.00	0.00	3.40	128.00	297.50	42.80	0.80	0.50	0.20	0.00		
2	0.00	0.00	0.00	0.00	5.00	140.00	259.00	41.60	0.80	0.50	0.20	0.00		
3	0.00	0.00	0.00	0.00	9.00	147.50	221.00	40.20	0.70	0.50	0.20	0.00		
4	0.00	0.00	0.00	0.00	19.50	148.50	194.00	39.00	0.40	0.50	0.20	0.00		
5	0.00	0.00	0.00	0.00	32.70	146.00	161.60	39.40	0.30	0.50	0.20	0.00		
6	0.00	0.00	0.00	0.00	51.40	148.50	146.00	39.40	0.40	0.50	0.20	0.00		
7	0.00	0.00	0.00	0.00	45.80	154.50	132.40	39.20	0.40	0.50	0.20	0.00		
8	0.00	0.00	0.00	0.00	47.00	158.60	120.80	36.00	0.40	0.50	0.20	0.00		
9	0.00	0.00	0.00	0.00	50.40	163.40	114.40	31.90	0.40	0.50	0.20	0.00		
10	0.00	0.00	0.00	0.10	52.00	171.50	111.20	28.80	0.40	0.50	0.20	0.00		
11	0.00	0.00	0.00	0.70	52.00	179.60	109.60	26.10	0.80	0.50	0.20	0.00		
12	0.00	0.00	0.00	2.20	50.00	186.00	108.00	24.70	1.00	0.50	0.20	0.00		
13	0.00	0.00	0.00	4.50	47.20	191.00	105.60	18.60	1.00	0.50	0.20	0.00		
14	0.00	0.00	0.00	6.00	39.80	198.60	103.20	14.40	0.80	0.50	0.20	0.00		
15	0.00	0.00	0.00	6.00	28.90	209.80	100.00	10.20	0.80	0.50	0.20	0.00		
16	0.00	0.00	0.00	8.00	16.80	211.20	94.00	7.00	0.80	0.50	0.20	0.00		
17	0.00	0.00	0.00	9.60	14.40	219.60	85.40	6.00	0.80	0.50	0.20	0.00		
18	0.00	0.00	0.00	12.00	12.00	235.00	70.40	5.50	0.80	0.50	0.10	0.00		
19	0.00	0.00	0.00	12.00	11.40	247.60	58.20	5.00	0.80	0.50	0.10	0.00		
20	0.00	0.00	0.00	11.40	12.00	315.00	48.00	3.40	0.80	0.50	0.10	0.00		
21	0.00	0.00	0.00	10.80	24.40	387.00	38.80	3.10	0.80	0.50	0.10	0.00		
22	0.00	0.00	0.00	9.60	29.10	447.00	34.40	3.10	0.80	0.50	0.10	0.00		
23	0.00	0.00	0.00	9.60	32.40	600.50	31.40	3.10	0.80	0.50	0.10	0.00		
24	0.00	0.00	0.00	7.00	37.00	807.00	30.60	2.80	0.70	0.50	0.10	0.00		
25	0.00	0.00	0.00	4.00	41.00	742.50	30.10	2.20	0.60	0.50	0.10	0.00		
26	0.00	0.00	0.00	3.40	47.00	641.00	28.60	0.90	0.60	0.40	0.10	0.00		
27	0.00	0.00	0.00	2.50	55.40	520.00	29.20	1.00	0.60	0.30	0.10	0.00		
28	0.00	0.00	0.00	2.20	67.00	451.00	31.90	1.00	0.50	0.30	0.10	0.00		
29	0.00	0.00	0.00	2.50	81.50	383.50	34.80	1.00	0.50	0.30		0.00		
30	0.00	0.00	0.00	2.50	97.20	341.60	39.00	0.90	0.60	0.30		0.00		
31		0.00		3.70	110.00		42.20		0.60	0.20		0.00		
Total	0.00	0.00	0.00	130.30	1222.70	9021.00	3011.30	518.30	20.50	14.30	4.50	0.00	13942.90	CMSDAY
Mean	0.00	0.00	0.00	4.20	39.44	300.70	97.14	17.28	0.66	0.46	0.16	0.00	38.20	CMS
Max	0.00	0.00	0.00	12.00	110.00	807.00	297.50	42.80	1.00	0.50	0.20	0.00	807.00	CMS
Min	0.00	0.00	0.00	0.00	3.40	128.00	28.60	0.90	0.30	0.20	0.10	0.00	0.00	CMS
Runoff	0.00	0.00	0.00	11.26	105.64	779.41	260.18	44.78	1.77	1.24	0.39	0.00	1204.67	MCM

Momentary Peak 817.50 CMS. at 10.95 m. (A.D.) at 12.00 Hours , on Sep 24 , 2002

Runoff Yield 13.49 Liters/Second/Square KM. Momentary Peak Yield 288.670 Liters/Second/Square KM.

WATER YEAR : 2002

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	Staff gage.
Zero Gage at Bottom	+0.000 m. (A.D.)
Bench Mark	B.M.-H.D.
Location BM	On left bank downstream at the footpath of the bridge. **Elevation** +6.135 m. (A.D.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 5 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 fair. The weir situated above gage site. Stage-discharge relation defined by 88 discharge measurements made in 2002.

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

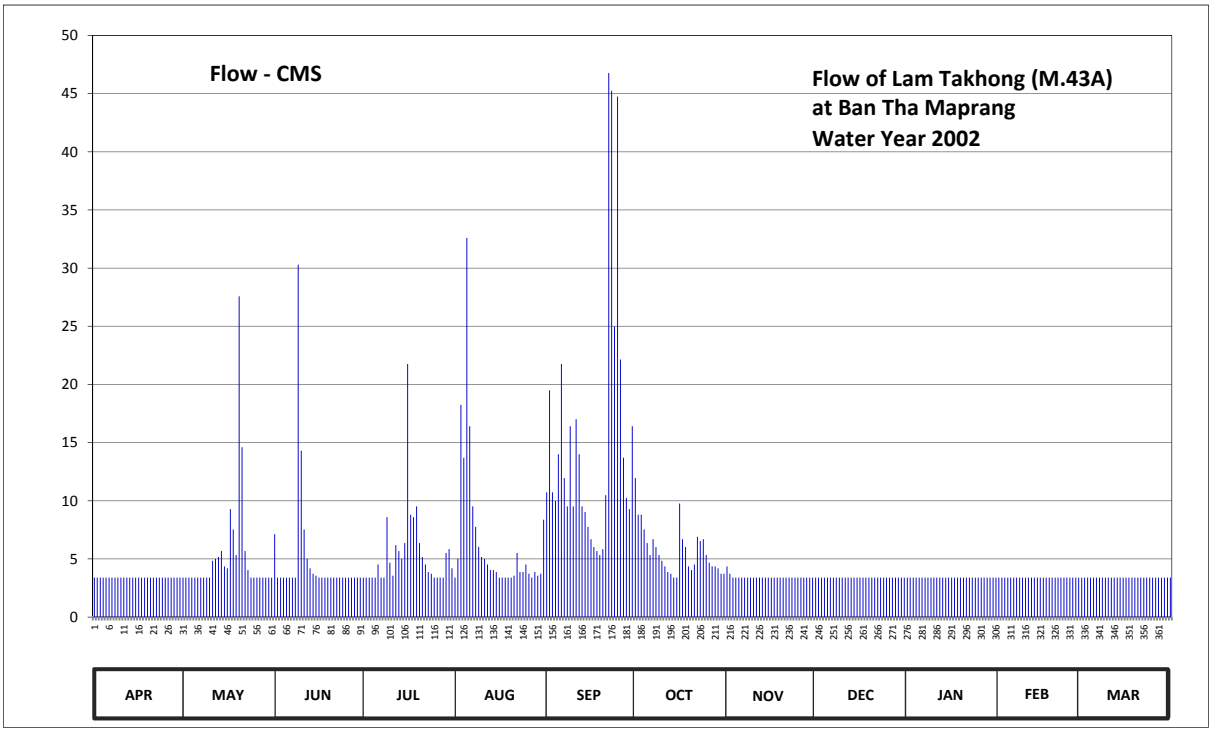
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	-0.50	-0.24	0.22	-0.19	-0.03	0.38	0.43	0.06	-0.18	-0.27	-0.34	-0.36	
2	-0.50	-0.24	-0.03	-0.20	0.10	0.69	0.30	0.02	-0.19	-0.27	-0.34	-0.36	
3	-0.50	-0.24	-0.08	-0.14	0.65	0.38	0.30	0.00	-0.20	-0.28	-0.34	-0.38	
4	-0.51	-0.23	-0.03	-0.18	0.50	0.35	0.24	-0.01	-0.20	-0.28	-0.34	-0.38	
5	-0.53	-0.30	-0.10	-0.16	1.00	0.51	0.18	-0.04	-0.21	-0.28	-0.34	-0.40	
6	-0.53	-0.32	0.00	0.07	0.59	0.75	0.12	-0.05	-0.21	-0.28	-0.35	-0.40	
7	-0.54	-0.32	-0.03	-0.02	0.33	0.43	0.20	-0.08	-0.21	-0.28	-0.36	-0.41	
8	-0.55	-0.33	-0.07	-0.06	0.25	0.33	0.16	-0.10	-0.23	-0.28	-0.37	-0.42	
9	-0.55	-0.32	0.95	0.29	0.16	0.59	0.12	-0.10	-0.23	-0.29	-0.38	-0.41	
10	-0.56	-0.14	0.52	0.08	0.11	0.33	0.09	-0.12	-0.23	-0.29	-0.39	-0.40	
11	-0.57	0.09	0.24	0.01	0.10	0.61	0.06	-0.11	-0.23	-0.29	-0.39	-0.40	
12	-0.57	0.10	0.10	0.17	0.07	0.51	0.03	-0.10	-0.23	-0.30	-0.37	-0.40	
13	-0.57	0.11	0.05	0.14	0.04	0.33	0.02	-0.12	-0.23	-0.30	-0.35	-0.40	
14	-0.58	0.14	0.02	0.10	0.04	0.31	0.00	-0.02	-0.23	-0.30	-0.35	-0.30	
15	-0.58	0.06	0.01	0.18	0.03	0.25	0.00	-0.02	-0.23	-0.30	-0.35	-0.22	
16	-0.58	0.05	-0.02	0.75	-0.02	0.20	0.34	-0.05	-0.24	-0.32	-0.35	-0.21	
17	-0.58	0.32	-0.08	0.30	-0.02	0.16	0.20	-0.10	-0.24	-0.32	-0.41	-0.25	
18	-0.58	0.24	-0.10	0.29	-0.02	0.14	0.16	-0.12	-0.24	-0.32	-0.44	-0.30	
19	-0.57	0.12	-0.12	0.33	-0.03	0.12	0.06	-0.14	-0.24	-0.32	-0.44	-0.30	
20	-0.50	0.89	-0.14	0.18	-0.05	0.15	0.04	-0.15	-0.24	-0.32	-0.44	-0.32	
21	-0.39	0.53	-0.15	0.11	0.01	0.37	0.07	-0.15	-0.24	-0.32	-0.44	-0.34	
22	-0.36	0.14	-0.15	0.07	0.13	1.28	0.21	-0.16	-0.25	-0.32	-0.36	-0.36	
23	-0.38	0.04	-0.17	0.03	0.03	1.25	0.19	-0.18	-0.25	-0.33	-0.36	-0.36	
24	-0.38	-0.01	-0.19	0.02	0.03	0.83	0.20	-0.18	-0.25	-0.33	-0.36	-0.34	
25	-0.35	-0.05	-0.19	0.00	0.07	1.24	0.12	-0.13	-0.26	-0.33	-0.36	-0.30	
26	-0.34	-0.10	-0.20	-0.05	0.02	0.76	0.08	-0.14	-0.26	-0.33	-0.36	-0.30	
27	-0.34	-0.05	-0.20	-0.05	0.00	0.50	0.06	-0.14	-0.26	-0.33	-0.36	-0.18	
28	-0.35	-0.04	-0.20	-0.03	0.03	0.36	0.06	-0.16	-0.26	-0.33	-0.36	-0.12	
29	-0.36	-0.03	-0.16	0.13	0.01	0.32	0.05	-0.18	-0.27	-0.33		-0.18	
30	-0.22	-0.08	-0.18	0.15	0.02	0.59	0.02	-0.18	-0.27	-0.33		-0.20	
31		-0.10		0.05	0.28		0.02		-0.27	-0.33		-0.05	
Mean	-0.48	-0.01	-0.02	0.08	0.14	0.50	0.13	-0.10	-0.23	-0.31	-0.37	-0.31	
Max	-0.22	0.89	0.95	0.75	1.00	1.28	0.43	0.06	-0.18	-0.27	-0.34	-0.05	1.28
Min	-0.58	-0.33	-0.20	-0.20	-0.05	0.12	0.00	-0.18	-0.27	-0.33	-0.44	-0.42	-0.58

Annual Max Momentary Gage Height 2.20 m. (A.D.) , at 24.00 Hours , on May 20 , 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed -0.88 m. (A.D.) ,

Left Bank Elevation 2.88 m. (A.D.) ,

Right Bank Elevation 3.46 m. (A.D.) , Drainage Are 153 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.40	3.40	7.12	3.40	3.40	10.72	11.95	4.36	3.40	3.40	3.40	3.40		
2	3.40	3.40	3.40	3.40	5.00	19.49	8.80	3.72	3.40	3.40	3.40	3.40		
3	3.40	3.40	3.40	3.40	18.25	10.72	8.80	3.40	3.40	3.40	3.40	3.40		
4	3.40	3.40	3.40	3.40	13.70	10.00	7.54	3.40	3.40	3.40	3.40	3.40		
5	3.40	3.40	3.40	3.40	32.60	14.00	6.36	3.40	3.40	3.40	3.40	3.40		
6	3.40	3.40	3.40	4.52	16.40	21.75	5.34	3.40	3.40	3.40	3.40	3.40		
7	3.40	3.40	3.40	3.40	9.52	11.95	6.70	3.40	3.40	3.40	3.40	3.40		
8	3.40	3.40	3.40	3.40	7.75	9.52	6.02	3.40	3.40	3.40	3.40	3.40		
9	3.40	3.40	30.30	8.59	6.02	16.40	5.34	3.40	3.40	3.40	3.40	3.40		
10	3.40	3.40	14.30	4.68	5.17	9.52	4.84	3.40	3.40	3.40	3.40	3.40		
11	3.40	4.84	7.54	3.56	5.00	17.01	4.36	3.40	3.40	3.40	3.40	3.40		
12	3.40	5.00	5.00	6.19	4.52	14.00	3.88	3.40	3.40	3.40	3.40	3.40		
13	3.40	5.17	4.20	5.68	4.04	9.52	3.72	3.40	3.40	3.40	3.40	3.40		
14	3.40	5.68	3.72	5.00	4.04	9.04	3.40	3.40	3.40	3.40	3.40	3.40		
15	3.40	4.36	3.56	6.36	3.88	7.75	3.40	3.40	3.40	3.40	3.40	3.40		
16	3.40	4.20	3.40	21.75	3.40	6.70	9.76	3.40	3.40	3.40	3.40	3.40		
17	3.40	9.28	3.40	8.80	3.40	6.02	6.70	3.40	3.40	3.40	3.40	3.40		
18	3.40	7.54	3.40	8.59	3.40	5.68	6.02	3.40	3.40	3.40	3.40	3.40		
19	3.40	5.34	3.40	9.52	3.40	5.34	4.36	3.40	3.40	3.40	3.40	3.40		
20	3.40	27.57	3.40	6.36	3.40	5.85	4.04	3.40	3.40	3.40	3.40	3.40		
21	3.40	14.60	3.40	5.17	3.56	10.48	4.52	3.40	3.40	3.40	3.40	3.40		
22	3.40	5.68	3.40	4.52	5.51	46.78	6.91	3.40	3.40	3.40	3.40	3.40		
23	3.40	4.04	3.40	3.88	3.88	45.25	6.53	3.40	3.40	3.40	3.40	3.40		
24	3.40	3.40	3.40	3.72	3.88	24.99	6.70	3.40	3.40	3.40	3.40	3.40		
25	3.40	3.40	3.40	3.40	4.52	44.74	5.34	3.40	3.40	3.40	3.40	3.40		
26	3.40	3.40	3.40	3.40	3.72	22.14	4.68	3.40	3.40	3.40	3.40	3.40		
27	3.40	3.40	3.40	3.40	3.40	13.70	4.36	3.40	3.40	3.40	3.40	3.40		
28	3.40	3.40	3.40	3.40	3.88	10.24	4.36	3.40	3.40	3.40	3.40	3.40		
29	3.40	3.40	3.40	5.51	3.56	9.28	4.20	3.40	3.40	3.40		3.40		
30	3.40	3.40	3.40	5.85	3.72	16.40	3.72	3.40	3.40	3.40		3.40		
31		3.40		4.20	8.38		3.72		3.40	3.40		3.40		
Total	102.00	164.50	150.54	169.85	204.30	464.98	176.37	103.28	105.40	105.40	95.20	105.40	1947.22	CMSDAY
Mean	3.40	5.31	5.02	5.48	6.59	15.50	5.69	3.44	3.40	3.40	3.40	3.40	5.33	CMS
Max	3.40	27.57	30.30	21.75	32.60	46.78	11.95	4.36	3.40	3.40	3.40	3.40	46.78	CMS
Min	3.40	3.40	3.40	3.40	3.40	5.34	3.40	3.40	3.40	3.40	3.40	3.40	3.40	CMS
Runoff	8.81	14.21	13.01	14.68	17.65	40.17	15.24	8.92	9.11	9.11	8.23	9.11	168.24	MCM

Momentary Peak 117.20 CMS. at 2.20 m. (A.D.) at 24.00 Hours , on May 20 , 2002

Runoff Yield 34.87 Liters/Second/Square KM. Momentary Peak Yield 766.010 Liters/Second/Square KM.

WATER YEAR : 2002

MUN RIVER BASIN

Lam Sae at Ban Khon Buri, Nakhon Ratchasima (M.50)

Lat 14 - 31 - 05 N Long 102 - 14 - 46 E

Location : on right bank infront of Amphoe Khon Buri Office.

	Ban Khon Buri	**Amphoe** Khon Buri	**Changwat** Nakhon Ratchasima
Drainge Area	864 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 automatic gage building.		**Elevation** +3.000 m. (A.D.)
Gage Reading Frequency	Recording.		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1965 to date.		
Rating Operation			
Period of Rating	1965 - 1967, 1999 to date.		
Rated by Flot	-		
Rated by Current Meter	1965 - 1982, 1999 to date.		
Stability of Channel Regimes	Fairly stable because of backwater effect.		
Overbank Flow Conditions	Overbank flow starts at elevation +2.680 m.(M.S.L.), records are channel flow only.		
General Description	Records fair. The weir situated about 2 kilometers downstream from the gage site. Stage-discharge relation defined by 74 discharge measurements made in 2002.		

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

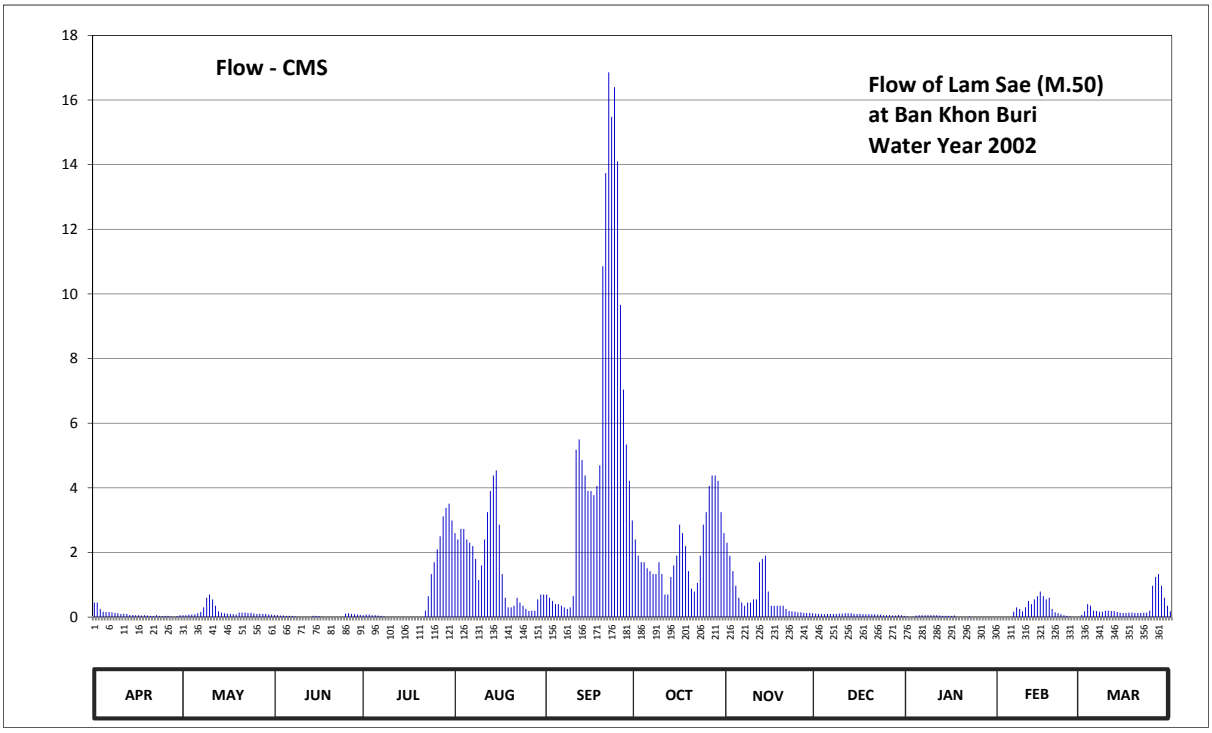
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	1.85	1.66	1.67	1.66	2.10	1.90	2.08	2.07	1.71	1.62	1.56	1.67	
2	1.85	1.66	1.66	1.68	2.08	1.88	2.03	2.03	1.70	1.60	1.53	1.78	
3	1.81	1.68	1.65	1.68	2.11	1.86	2.01	1.98	1.70	1.61	1.50	1.84	
4	1.77	1.68	1.65	1.66	2.11	1.84	2.01	1.93	1.69	1.65	1.48	1.83	
5	1.76	1.69	1.64	1.66	2.08	1.84	1.99	1.88	1.70	1.66	1.56	1.80	
6	1.76	1.72	1.64	1.65	2.07	1.83	1.98	1.85	1.70	1.66	1.77	1.79	
7	1.75	1.76	1.64	1.64	2.06	1.82	1.97	1.83	1.70	1.66	1.82	1.77	
8	1.73	1.82	1.62	1.62	2.02	1.81	1.97	1.85	1.70	1.66	1.81	1.77	
9	1.72	1.88	1.60	1.59	1.95	1.82	2.01	1.85	1.71	1.66	1.78	1.80	
10	1.70	1.90	1.59	1.57	2.00	1.89	1.97	1.87	1.71	1.66	1.82	1.80	
11	1.70	1.87	1.57	1.54	2.08	2.28	1.90	1.87	1.72	1.66	1.86	1.79	
12	1.70	1.83	1.55	1.51	2.15	2.30	1.90	2.01	1.72	1.65	1.84	1.79	
13	1.67	1.78	1.58	1.49	2.20	2.26	1.96	2.02	1.72	1.64	1.87	1.76	
14	1.67	1.74	1.64	1.47	2.23	2.23	2.00	2.03	1.70	1.64	1.89	1.74	
15	1.66	1.72	1.64	1.44	2.24	2.20	2.03	1.91	1.70	1.64	1.91	1.73	
16	1.66	1.71	1.63	1.40	2.12	2.20	2.12	1.83	1.70	1.64	1.89	1.73	
17	1.65	1.70	1.61	1.37	1.97	2.19	2.10	1.83	1.69	1.65	1.87	1.74	
18	1.66	1.69	1.59	1.34	1.88	2.21	2.06	1.83	1.69	1.60	1.88	1.74	
19	1.65	1.68	1.58	1.32	1.82	2.25	1.98	1.83	1.69	1.54	1.81	1.73	
20	1.64	1.74	1.57	1.30	1.82	2.51	1.92	1.83	1.69	1.53	1.75	1.73	
21	1.64	1.74	1.57	1.51	1.83	2.59	1.91	1.81	1.69	1.57	1.72	1.73	
22	1.66	1.74	1.57	1.80	1.88	2.66	1.94	1.79	1.68	1.62	1.69	1.74	
23	1.64	1.73	1.55	1.89	1.85	2.63	2.03	1.78	1.68	1.59	1.66	1.74	
24	1.63	1.73	1.53	1.97	1.83	2.65	2.12	1.77	1.66	1.55	1.64	1.80	
25	1.64	1.71	1.71	2.01	1.81	2.60	2.15	1.75	1.66	1.53	1.62	1.93	
26	1.64	1.70	1.72	2.05	1.79	2.47	2.21	1.75	1.66	1.52	1.60	1.96	
27	1.62	1.70	1.70	2.09	1.80	2.37	2.23	1.73	1.65	1.52	1.60	1.97	
28	1.61	1.70	1.69	2.14	1.80	2.29	2.23	1.73	1.65	1.52	1.60	1.93	
29	1.63	1.70	1.68	2.16	1.87	2.22	2.22	1.73	1.67	1.52		1.88	
30	1.66	1.68	1.67	2.17	1.90	2.13	2.15	1.72	1.66	1.55		1.83	
31		1.68		2.13	1.90		2.10		1.64	1.58		1.78	
Mean	1.69	1.73	1.62	1.69	1.98	2.19	2.04	1.86	1.69	1.60	1.73	1.79	
Max	1.85	1.90	1.72	2.17	2.24	2.66	2.23	2.07	1.72	1.66	1.91	1.97	2.66
Min	1.61	1.66	1.53	1.30	1.79	1.81	1.90	1.72	1.64	1.52	1.48	1.67	1.30

Annual Max Momentary Gage Height 2.70 m. (A.D.) , at 12.00 Hours , on Sep 22 , 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed -1.69 m. (A.D.)

Left Bank Elevation 2.67 m. (A.D.) ,

Right Bank Elevation 3.46 m. (A.D.) , Drainage Are 864 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.45	0.06	0.07	0.06	2.60	0.70	2.40	2.30	0.11	0.02	0.00	0.07		
2	0.45	0.06	0.06	0.08	2.40	0.60	1.90	1.90	0.10	0.00	0.00	0.18		
3	0.25	0.08	0.05	0.08	2.73	0.50	1.70	1.42	0.10	0.01	0.00	0.40		
4	0.17	0.08	0.05	0.06	2.73	0.40	1.70	0.97	0.09	0.05	0.00	0.35		
5	0.16	0.09	0.04	0.06	2.40	0.40	1.51	0.60	0.10	0.06	0.00	0.20		
6	0.16	0.12	0.04	0.05	2.30	0.35	1.42	0.45	0.10	0.06	0.17	0.19		
7	0.15	0.16	0.04	0.04	2.20	0.30	1.33	0.35	0.10	0.06	0.30	0.17		
8	0.13	0.30	0.02	0.02	1.80	0.25	1.33	0.45	0.10	0.06	0.25	0.17		
9	0.12	0.60	0.00	0.00	1.15	0.30	1.70	0.45	0.11	0.06	0.18	0.20		
10	0.10	0.70	0.00	0.00	1.60	0.65	1.33	0.55	0.11	0.06	0.30	0.20		
11	0.10	0.55	0.00	0.00	2.40	5.18	0.70	0.55	0.12	0.06	0.50	0.19		
12	0.10	0.35	0.00	0.00	3.25	5.50	0.70	1.70	0.12	0.05	0.40	0.19		
13	0.07	0.18	0.00	0.00	3.90	4.86	1.24	1.80	0.12	0.04	0.55	0.16		
14	0.07	0.14	0.04	0.00	4.38	4.38	1.60	1.90	0.10	0.04	0.65	0.14		
15	0.06	0.12	0.04	0.00	4.54	3.90	1.90	0.79	0.10	0.04	0.79	0.13		
16	0.06	0.11	0.03	0.00	2.86	3.90	2.86	0.35	0.10	0.04	0.65	0.13		
17	0.05	0.10	0.01	0.00	1.33	3.77	2.60	0.35	0.09	0.05	0.55	0.14		
18	0.06	0.09	0.00	0.00	0.60	4.06	2.20	0.35	0.09	0.00	0.60	0.14		
19	0.05	0.08	0.00	0.00	0.30	4.70	1.42	0.35	0.09	0.00	0.25	0.13		
20	0.04	0.14	0.00	0.00	0.30	10.86	0.88	0.35	0.09	0.00	0.15	0.13		
21	0.04	0.14	0.00	0.00	0.35	13.74	0.79	0.25	0.09	0.00	0.12	0.13		
22	0.06	0.14	0.00	0.20	0.60	16.86	1.06	0.19	0.08	0.02	0.09	0.14		
23	0.04	0.13	0.00	0.65	0.45	15.48	1.90	0.18	0.08	0.00	0.06	0.14		
24	0.03	0.13	0.00	1.33	0.35	16.40	2.86	0.17	0.06	0.00	0.04	0.20		
25	0.04	0.11	0.11	1.70	0.25	14.10	3.25	0.15	0.06	0.00	0.02	0.97		
26	0.04	0.10	0.12	2.10	0.19	9.66	4.06	0.15	0.06	0.00	0.00	1.24		
27	0.02	0.10	0.10	2.50	0.20	7.04	4.38	0.13	0.05	0.00	0.00	1.33		
28	0.01	0.10	0.09	3.12	0.20	5.34	4.38	0.13	0.05	0.00	0.00	0.97		
29	0.03	0.10	0.08	3.38	0.55	4.22	4.22	0.13	0.07	0.00		0.60		
30	0.06	0.08	0.07	3.51	0.70	2.99	3.25	0.12	0.06	0.00		0.35		
31		0.08		2.99	0.70		2.60		0.04	0.00		0.18		
Total	3.17	5.32	1.06	21.93	50.31	161.39	65.17	19.53	2.74	0.78	6.62	9.86	347.88	CMSDAY
Mean	0.11	0.17	0.04	0.71	1.62	5.38	2.10	0.65	0.09	0.03	0.24	0.32	0.95	CMS
Max	0.45	0.70	0.12	3.51	4.54	16.86	4.38	2.30	0.12	0.06	0.79	1.33	16.86	CMS
Min	0.01	0.06	0.00	0.00	0.19	0.25	0.70	0.12	0.04	0.00	0.00	0.07	0.00	CMS
Runoff	0.27	0.46	0.09	1.89	4.35	13.94	5.63	1.69	0.24	0.07	0.57	0.85	30.06	MCM

Momentary Peak 18.70 CMS. at 2.70 m. (A.D.) at 12.00 Hours , on Sep 22 , 2002

Runoff Yield 1.10 Liters/Second/Square KM. Momentary Peak Yield 21.640 Liters/Second/Square KM.

WATER YEAR : 2002

MUN RIVER BASIN

Huai Khayung at Ban Wang Chom Pu, Si Sa Ket (M.66)

Lat 14 - 38 - 27 N Long 104 - 39 - 50 E

Location : on right bank about 50 meters upstream from the bridge of Kantharalak - Det Udom Road.

	Ban Wang Chom Pu	**Amphoe** Kantharalak	**Changwat** Si Sa Ket
Drainge Area	562 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	At the automatic gage building.		**Elevation** +6.581 m. (A.D.)
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, 1972 - 1981, 1987 to date.		
Rated by Flot	-		
Rated by Current Meter	1965 - 1968, 1972 - 1981, 1987 to date.		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	Overbank flow starts at elevation +4.430 m.(A.D.), records are channel flow only.		
General Description	Records good. Stage-discharge relation defined by 60 discharge measurements made in 2002.		

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

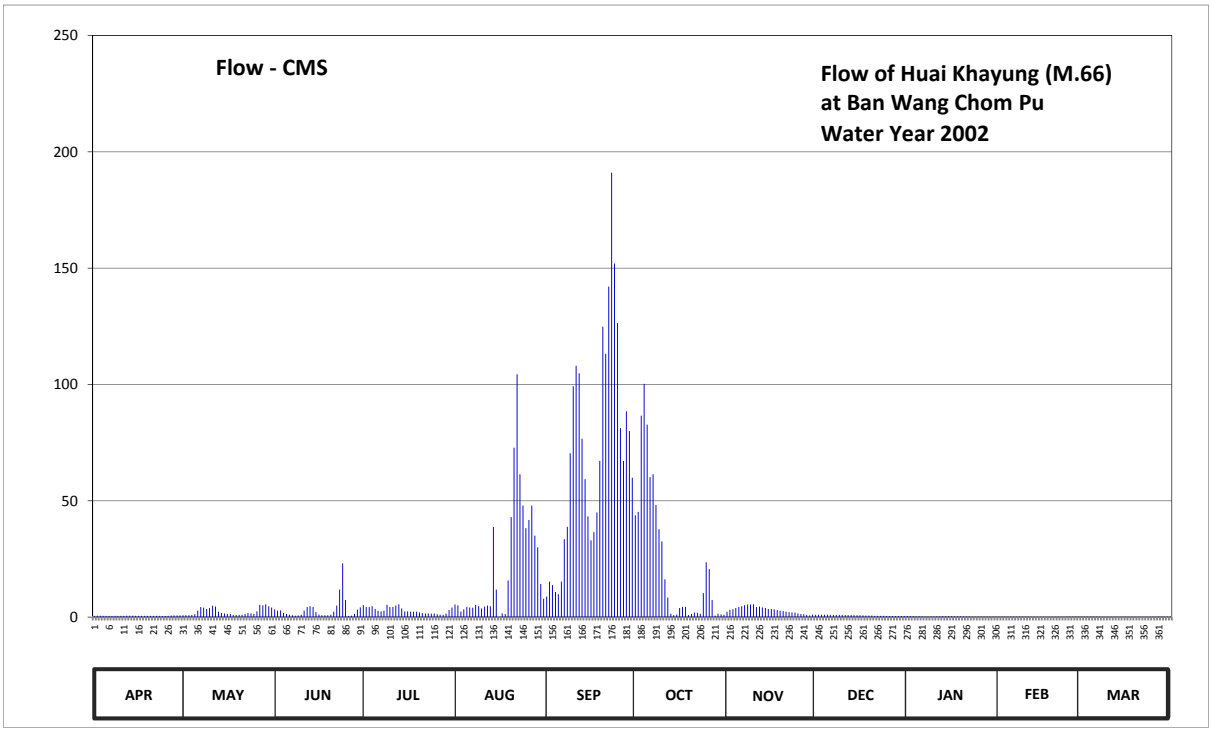
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	-1.07	-0.98	-0.71	-0.56	-0.59	0.18	1.17	-0.25	-0.90	-1.10	-1.23	-1.22	
2	-1.06	-0.97	-0.75	-0.66	-0.55	0.31	1.23	-0.34	-0.90	-1.12	-1.22	-1.22	
3	-1.06	-0.96	-0.74	-0.66	-0.26	0.28	2.62	-0.37	-0.90	-1.14	-1.22	-1.23	
4	-1.07	-0.94	-0.82	-0.64	-0.37	0.22	3.05	-0.43	-0.90	-1.16	-1.22	-1.23	
5	-1.08	-0.88	-0.86	-0.70	-0.48	0.20	2.49	-0.47	-0.90	-1.16	-1.21	-1.23	
6	-1.09	-0.75	-0.90	-0.75	-0.45	0.31	1.74	-0.51	-0.91	-1.17	-1.21	-1.23	
7	-1.10	-0.66	-0.96	-0.77	-0.44	0.76	1.78	-0.56	-0.91	-1.18	-1.21	-1.24	
8	-1.09	-0.44	-1.05	-0.75	-0.58	0.97	1.34	-0.59	-0.92	-1.19	-1.21	-1.24	
9	-1.08	-0.38	-1.03	-0.58	-0.64	2.08	0.93	-0.59	-0.92	-1.19	-1.21	-1.24	
10	-1.07	-0.42	-0.90	-0.47	-0.69	3.02	0.72	-0.60	-0.92	-1.18	-1.22	-1.24	
11	-1.08	-0.53	-0.75	-0.48	-0.65	3.25	0.33	-0.66	-0.93	-1.17	-1.23	-1.25	
12	-1.06	-0.65	-0.66	-0.55	-0.54	3.17	0.17	-0.65	-0.94	-1.16	-1.24	-1.25	
13	-1.06	-0.78	-0.64	-0.60	-0.51	2.29	0.03	-0.67	-0.95	-1.14	-1.25	-1.25	
14	-1.06	-0.82	-0.66	-0.69	0.97	1.71	-0.09	-0.68	-0.96	-1.14	-1.26	-1.25	
15	-1.07	-0.84	-0.79	-0.77	0.24	1.15	-0.12	-0.70	-0.97	-1.14	-1.26	-1.25	
16	-1.07	-0.86	-0.89	-0.77	-0.01	0.74	0.08	-0.70	-0.98	-1.14	-1.26	-1.25	
17	-1.07	-0.87	-0.97	-0.78	-0.17	0.88	0.09	-0.71	-1.00	-1.15	-1.26	-1.25	
18	-1.07	-0.91	-0.98	-0.78	-0.15	1.22	0.09	-0.73	-1.03	-1.16	-1.25	-1.25	
19	-1.07	-0.92	-0.97	-0.78	0.32	1.97	-0.10	-0.75	-1.03	-1.17	-1.25	-1.25	
20	-1.07	-0.92	-0.90	-0.80	1.14	3.67	-0.15	-0.76	-1.04	-1.18	-1.25	-1.25	
21	-1.07	-0.90	-0.78	-0.83	2.16	3.38	-0.22	-0.78	-1.07	-1.19	-1.24	-1.25	
22	-1.08	-0.86	-0.54	-0.85	3.16	4.08	-0.20	-0.79	-1.09	-1.20	-1.24	-1.25	
23	-1.09	-0.83	0.24	-0.84	1.78	5.05	-0.16	-0.80	-1.09	-1.21	-1.24	-1.24	
24	-1.10	-0.84	0.47	-0.85	1.33	4.29	0.21	-0.81	-1.09	-1.23	-1.23	-1.24	
25	-1.11	-0.86	0.15	-0.85	0.95	3.71	0.48	-0.84	-1.10	-1.23	-1.23	-1.24	
26	-1.08	-0.77	-0.05	-0.88	1.09	2.44	0.42	-0.87	-1.10	-1.23	-1.22	-1.24	
27	-1.02	-0.58	-0.07	-0.90	1.33	1.97	0.15	-0.88	-1.10	-1.23	-1.22	-1.23	
28	-1.00	-0.62	-0.15	-0.91	0.82	2.68	-0.07	-0.92	-1.10	-1.23	-1.22	-1.23	
29	-0.99	-0.60	-0.35	-0.85	0.62	2.40	-0.16	-1.00	-1.10	-1.23		-1.23	
30	-0.99	-0.64	-0.46	-0.73	0.29	1.73	-0.13	-0.89	-1.10	-1.23		-1.23	
31		-0.67		-0.45	0.16		-0.11		-1.10	-1.23		-1.23	
Mean	-1.07	-0.76	-0.62	-0.73	0.30	2.00	0.57	-0.68	-1.00	-1.18	-1.23	-1.24	
Max	-0.99	-0.38	0.47	-0.45	3.16	5.05	3.05	-0.25	-0.90	-1.10	-1.21	-1.22	5.05
Min	-1.11	-0.98	-1.05	-0.91	-0.69	0.18	-0.22	-1.00	-1.10	-1.23	-1.26	-1.25	-1.26

Annual Max Momentary Gage Height 5.18 m. (A.D.) , at 12.00 Hours , on Sep 23, 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed -1.57 m. (A.D.)

Left Bank Elevation 4.42 m. (A.D.) ,

Right Bank Elevation 5.40 m. (A.D.) , Drainage Are 562 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.57	0.80	3.35	5.13	5.41	8.85	43.75	2.29	1.00	0.50	0.17	0.20		
2	0.60	0.82	2.75	4.30	5.04	15.24	45.25	3.12	1.00	0.45	0.20	0.20		
3	0.60	0.85	2.90	4.30	2.38	13.77	86.60	3.39	1.00	0.40	0.20	0.17		
4	0.57	0.90	1.80	4.70	3.39	10.82	100.25	3.94	1.00	0.35	0.20	0.17		
5	0.55	1.20	1.40	3.50	4.40	9.83	82.70	4.31	1.00	0.35	0.22	0.17		
6	0.52	2.75	1.00	2.75	4.12	15.24	60.20	4.67	0.97	0.32	0.22	0.17		
7	0.50	4.30	0.85	2.45	4.03	33.50	61.40	5.13	0.97	0.30	0.22	0.15		
8	0.52	4.03	0.62	2.75	5.32	38.75	48.20	5.41	0.95	0.27	0.22	0.15		
9	0.55	3.48	0.67	5.32	4.70	70.40	37.75	5.41	0.95	0.27	0.22	0.15		
10	0.57	3.85	1.00	4.31	3.70	99.20	32.50	5.50	0.95	0.30	0.20	0.15		
11	0.55	4.86	2.75	4.40	4.50	108.00	16.22	4.30	0.92	0.32	0.17	0.12		
12	0.60	4.50	4.30	5.04	4.95	104.80	8.36	4.50	0.90	0.35	0.15	0.12		
13	0.60	2.30	4.70	5.50	4.67	76.70	1.47	4.10	0.87	0.40	0.12	0.12		
14	0.60	1.80	4.30	3.70	38.75	59.30	0.82	3.90	0.85	0.40	0.10	0.12		
15	0.57	1.60	2.15	2.45	11.80	43.25	1.10	3.50	0.82	0.40	0.10	0.12		
16	0.57	1.40	1.10	2.45	0.09	33.00	3.93	3.50	0.80	0.40	0.10	0.12		
17	0.57	1.30	0.82	2.30	1.56	36.50	4.42	3.35	0.75	0.37	0.10	0.12		
18	0.57	0.97	0.80	2.30	1.37	45.00	4.42	3.05	0.67	0.35	0.12	0.12		
19	0.57	0.95	0.82	2.30	15.73	67.10	0.92	2.75	0.67	0.32	0.12	0.12		
20	0.57	0.95	1.00	2.00	43.00	124.80	1.37	2.60	0.65	0.30	0.12	0.12		
21	0.57	1.00	2.30	1.70	72.80	113.20	2.02	2.30	0.57	0.27	0.15	0.12		
22	0.55	1.40	4.95	1.50	104.40	142.10	1.83	2.15	0.52	0.25	0.15	0.12		
23	0.52	1.70	11.80	1.60	61.40	191.00	1.47	2.00	0.52	0.22	0.15	0.15		
24	0.50	1.60	23.11	1.50	47.90	152.00	10.32	1.90	0.52	0.17	0.17	0.15		
25	0.47	1.40	7.37	1.50	38.25	126.40	23.60	1.60	0.50	0.17	0.17	0.15		
26	0.55	2.45	0.46	1.20	41.75	81.20	20.65	1.30	0.50	0.17	0.20	0.15		
27	0.70	5.32	0.64	1.00	47.90	67.10	7.37	1.20	0.50	0.17	0.20	0.17		
28	0.75	5.10	1.37	0.97	35.00	88.40	0.64	0.95	0.50	0.17	0.20	0.17		
29	0.77	5.50	3.21	1.50	30.00	80.00	1.47	0.75	0.50	0.17		0.17		
30	0.77	4.70	4.22	3.05	14.26	59.90	1.19	1.10	0.50	0.17		0.17		
31		4.10		4.12	7.87		1.01		0.50	0.17		0.17		
Total	17.47	77.88	98.51	91.59	670.44	2115.35	713.20	93.97	23.32	9.22	4.66	4.57	3920.18	CMSDAY
Mean	0.58	2.51	3.28	2.95	21.63	70.51	23.01	3.13	0.75	0.30	0.17	0.15	10.74	CMSDAY
Max	0.77	5.50	23.11	5.50	104.40	191.00	100.25	5.50	1.00	0.50	0.22	0.20	191.00	CMSDAY
Min	0.47	0.80	0.46	0.97	0.09	8.85	0.64	0.75	0.50	0.17	0.10	0.12	0.09	CMSDAY
Runoff	1.51	6.73	8.51	7.91	57.93	182.77	61.62	8.12	2.01	0.80	0.40	0.39	338.70	MCM

Momentary Peak 198.80 CMS. at 5.18 m. (A.D.) at 12.00 Hours , on Sep 23, 2002

Runoff Yield 19.11 Liters/Second/Square KM. Momentary Peak Yield 353.740 Liters/Second/Square KM.

WATER YEAR : 2002

MUN RIVER BASIN

Lam Chi at Ban Charok Yai, Buri Ram (M.85)

Lat 14 - 37 - 55 N Long 103 - 14 - 00 E

Location : on right bank at the bridge of Chok Chai - Det Udom Highway near guidepost 119 at Ban Charok Yai.

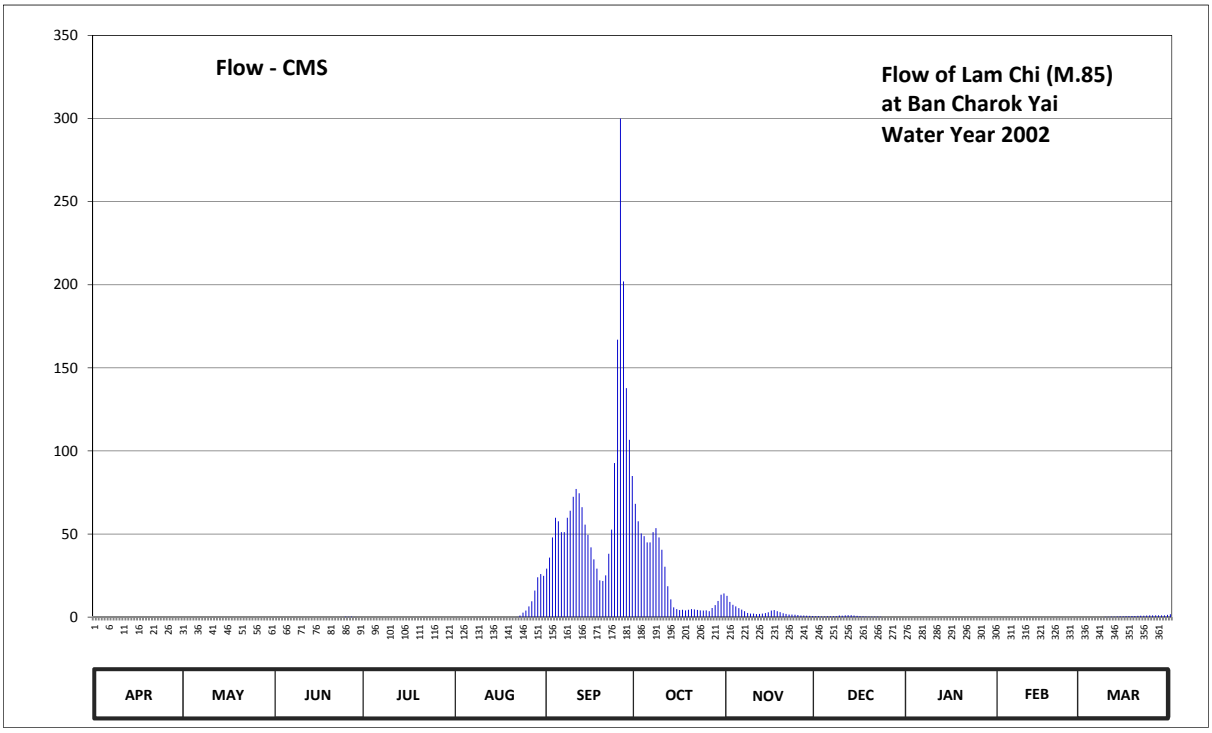
Ban Charok Yai **Amphoe** Prakhon Chai **Changwat** Buri Ram

Drainge Area	971 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 at the abutment of the bridge. **Elevation** +6.546 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 mean of 5 readings
Period of Available Gage Records	1969 - 1971, 1979 to date.
Rating Operation	
Period of Rating	1969 - 1971, 1979, 1981 to date.
Rated by Flot	-
Rated by Current Meter	1969 - 1971, 1979, 1981 to date.
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	Overbank flow starts at elevation +3.830 m.(A.D.) and is including overbank flow.
General Description	Records fair. Flow effected by the local weir. Stage-discharge relation by 47 discharge measurements made in 2002.

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	-0.23	-0.27	-0.35	-0.12	-0.30	3.37	3.97	2.55	0.29	-0.28	-0.34	-0.14	
2	-0.24	-0.21	-0.35	-0.14	-0.30	3.58	3.92	2.26	0.29	-0.28	-0.34	-0.12	
3	-0.31	-0.20	-0.33	-0.17	-0.29	3.83	3.86	2.09	0.21	-0.29	-0.34	-0.12	
4	-0.34	-0.19	-0.29	-0.19	-0.29	3.93	3.84	1.96	0.19	-0.29	-0.35	-0.11	
5	-0.34	-0.18	-0.29	-0.23	-0.30	3.92	3.79	1.79	0.22	-0.30	-0.35	-0.11	
6	-0.35	-0.17	-0.32	-0.25	-0.31	3.87	3.79	1.66	0.22	-0.31	-0.35	-0.10	
7	-0.35	-0.19	-0.33	-0.26	-0.31	3.87	3.87	1.49	0.28	-0.31	-0.35	-0.09	
8	-0.34	-0.24	-0.34	-0.26	-0.32	3.93	3.90	1.13	0.30	-0.30	-0.35	0.00	
9	-0.34	-0.28	-0.33	-0.26	-0.32	3.95	3.83	1.00	0.48	-0.30	-0.36	0.07	
10	-0.33	-0.32	-0.33	-0.27	-0.32	3.99	3.70	1.00	0.42	-0.31	-0.36	0.09	
11	-0.33	-0.34	-0.34	-0.28	-0.32	4.01	3.41	0.85	0.55	-0.32	-0.36	0.12	
12	-0.32	-0.35	-0.34	-0.29	-0.31	4.00	2.91	0.92	0.58	-0.32	-0.36	0.16	
13	-0.32	-0.35	-0.30	-0.30	-0.30	3.96	2.40	1.00	0.56	-0.33	-0.36	0.19	
14	-0.31	-0.34	-0.28	-0.31	-0.30	3.91	1.87	1.09	0.47	-0.33	-0.37	0.22	
15	-0.31	-0.34	-0.31	-0.30	-0.30	3.85	1.70	1.29	0.38	-0.33	-0.37	0.25	
16	-0.30	-0.35	-0.32	-0.29	-0.30	3.73	1.60	1.55	0.30	-0.33	-0.36	0.27	
17	-0.31	-0.34	-0.30	-0.29	-0.30	3.55	1.63	1.61	0.22	-0.33	-0.35	0.30	
18	-0.31	-0.34	-0.23	-0.30	-0.29	3.37	1.58	1.50	0.17	-0.34	-0.33	0.32	
19	-0.30	-0.34	-0.24	-0.27	-0.28	3.09	1.63	1.34	0.15	-0.34	-0.29	0.35	
20	-0.29	-0.34	-0.26	-0.26	-0.20	3.07	1.70	1.05	0.15	-0.34	-0.27	0.38	
21	-0.28	-0.34	-0.28	-0.27	-0.04	3.22	1.67	0.90	0.14	-0.34	-0.25	0.42	
22	-0.25	-0.35	-0.15	-0.29	0.05	3.64	1.62	0.77	0.12	-0.33	-0.24	0.44	
23	-0.25	-0.31	-0.09	-0.30	0.48	3.89	1.57	0.74	0.08	-0.31	-0.22	0.48	
24	-0.26	-0.31	-0.11	-0.30	1.20	4.07	1.56	0.70	0.01	-0.31	-0.21	0.51	
25	-0.27	-0.31	0.12	-0.28	1.56	4.31	1.57	0.60	-0.04	-0.32	-0.19	0.51	
26	-0.27	-0.32	0.11	-0.29	1.96	4.63	1.50	0.49	-0.08	-0.32	-0.18	0.51	
27	-0.27	-0.32	0.13	-0.30	2.29	4.40	1.81	0.46	-0.14	-0.32	-0.17	0.51	
28	-0.28	-0.33	0.06	-0.31	2.76	4.22	2.07	0.43	-0.19	-0.33	-0.15	0.51	
29	-0.29	-0.34	0.02	-0.30	3.17	4.12	2.31	0.36	-0.23	-0.33		0.55	
30	-0.30	-0.34	-0.06	-0.30	3.25	4.04	2.60	0.32	-0.25	-0.34		0.68	
31		-0.34		-0.30	3.21		2.65		-0.28	-0.34		0.82	
Mean	-0.30	-0.30	-0.21	-0.27	0.45	3.84	2.58	1.16	0.18	-0.32	-0.30	0.25	
Max	-0.23	-0.17	0.13	-0.12	3.25	4.63	3.97	2.55	0.58	-0.28	-0.15	0.82	4.63
Min	-0.35	-0.35	-0.35	-0.31	-0.32	3.07	1.50	0.32	-0.28	-0.34	-0.37	-0.14	-0.37

Annual Max Momentary Gage Height	4.65	m. (A.D.) ,	at 12.00 Hours , on Sep 26 , 2002		
Zero Gage at Bottom Elevation	0.00	m. (A.D.) ,	River Bed	-2.88	m. (A.D.)
Left Bank Elevation	3.82	m. (A.D.) ,			
Right Bank Elevation	4.33	m. (A.D.) ,	Drainage Are	971	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

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	29.16	68.20	12.75	0.58	0.00	0.00	0.00		
2	0.00	0.00	0.00	0.00	0.00	35.80	57.70	9.16	0.58	0.00	0.00	0.00		
3	0.00	0.00	0.00	0.00	0.00	47.90	50.30	7.42	0.42	0.00	0.00	0.00		
4	0.00	0.00	0.00	0.00	0.00	59.80	48.70	6.42	0.38	0.00	0.00	0.00		
5	0.00	0.00	0.00	0.00	0.00	57.70	45.00	5.34	0.44	0.00	0.00	0.00		
6	0.00	0.00	0.00	0.00	0.00	51.10	45.00	4.56	0.44	0.00	0.00	0.00		
7	0.00	0.00	0.00	0.00	0.00	51.10	51.10	3.56	0.56	0.00	0.00	0.00		
8	0.00	0.00	0.00	0.00	0.00	59.80	53.50	2.48	0.60	0.00	0.00	0.00		
9	0.00	0.00	0.00	0.00	0.00	64.00	47.90	2.15	0.96	0.00	0.00	0.14		
10	0.00	0.00	0.00	0.00	0.00	72.40	40.50	2.15	0.84	0.00	0.00	0.18		
11	0.00	0.00	0.00	0.00	0.00	77.10	30.30	1.78	1.10	0.00	0.00	0.24		
12	0.00	0.00	0.00	0.00	0.00	74.50	18.58	1.95	1.16	0.00	0.00	0.32		
13	0.00	0.00	0.00	0.00	0.00	66.10	10.70	2.15	1.12	0.00	0.00	0.38		
14	0.00	0.00	0.00	0.00	0.00	55.60	5.82	2.38	0.94	0.00	0.00	0.44		
15	0.00	0.00	0.00	0.00	0.00	49.50	4.80	2.88	0.76	0.00	0.00	0.50		
16	0.00	0.00	0.00	0.00	0.00	42.00	4.20	3.90	0.60	0.00	0.00	0.54		
17	0.00	0.00	0.00	0.00	0.00	34.75	4.38	4.26	0.44	0.00	0.00	0.60		
18	0.00	0.00	0.00	0.00	0.00	29.16	4.08	3.60	0.34	0.00	0.00	0.64		
19	0.00	0.00	0.00	0.00	0.00	22.18	4.38	3.02	0.30	0.00	0.00	0.70		
20	0.00	0.00	0.00	0.00	0.00	21.74	4.80	2.28	0.30	0.00	0.00	0.76		
21	0.00	0.00	0.00	0.00	0.00	25.12	4.62	1.90	0.28	0.00	0.00	0.84		
22	0.00	0.00	0.00	0.00	0.10	38.10	4.32	1.58	0.24	0.00	0.00	0.88		
23	0.00	0.00	0.00	0.00	0.96	52.70	4.02	1.50	0.16	0.00	0.00	0.96		
24	0.00	0.00	0.00	0.00	2.65	92.70	3.96	1.40	0.02	0.00	0.00	1.02		
25	0.00	0.00	0.24	0.00	3.96	166.90	4.02	1.20	0.00	0.00	0.00	1.02		
26	0.00	0.00	0.22	0.00	6.42	300.00	3.60	0.98	0.00	0.00	0.00	1.02		
27	0.00	0.00	0.26	0.00	9.49	202.00	5.46	0.92	0.00	0.00	0.00	1.02		
28	0.00	0.00	0.12	0.00	16.02	137.80	7.26	0.86	0.00	0.00	0.00	1.02		
29	0.00	0.00	0.04	0.00	23.94	106.70	9.71	0.72	0.00	0.00		1.10		
30	0.00	0.00	0.00	0.00	25.90	84.90	13.50	0.64	0.00	0.00		1.36		
31		0.00		0.00	24.86		14.25		0.00	0.00		1.70		
Total	0.00	0.00	0.88	0.00	114.30	2208.31	674.66	95.89	13.56	0.00	0.00	17.38	3124.98	CMSDAY
Mean	0.00	0.00	0.03	0.00	3.69	73.61	21.76	3.20	0.44	0.00	0.00	0.56	8.56	CMS
Max	0.00	0.00	0.26	0.00	25.90	300.00	68.20	12.75	1.16	0.00	0.00	1.70	300.00	CMS
Min	0.00	0.00	0.00	0.00	0.00	21.74	3.60	0.64	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	0.00	0.00	0.08	0.00	9.88	190.80	58.29	8.28	1.17	0.00	0.00	1.50	270.00	MCM

Momentary Peak 310.00 CMS. at 4.65 m. (A.D.) at 12.00 Hours , on Sep 26 , 2002

Runoff Yield 8.82 Liters/Second/Square KM. Momentary Peak Yield 319.260 Liters/Second/Square KM.

WATER YEAR : 2002

MUN RIVER BASIN

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

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

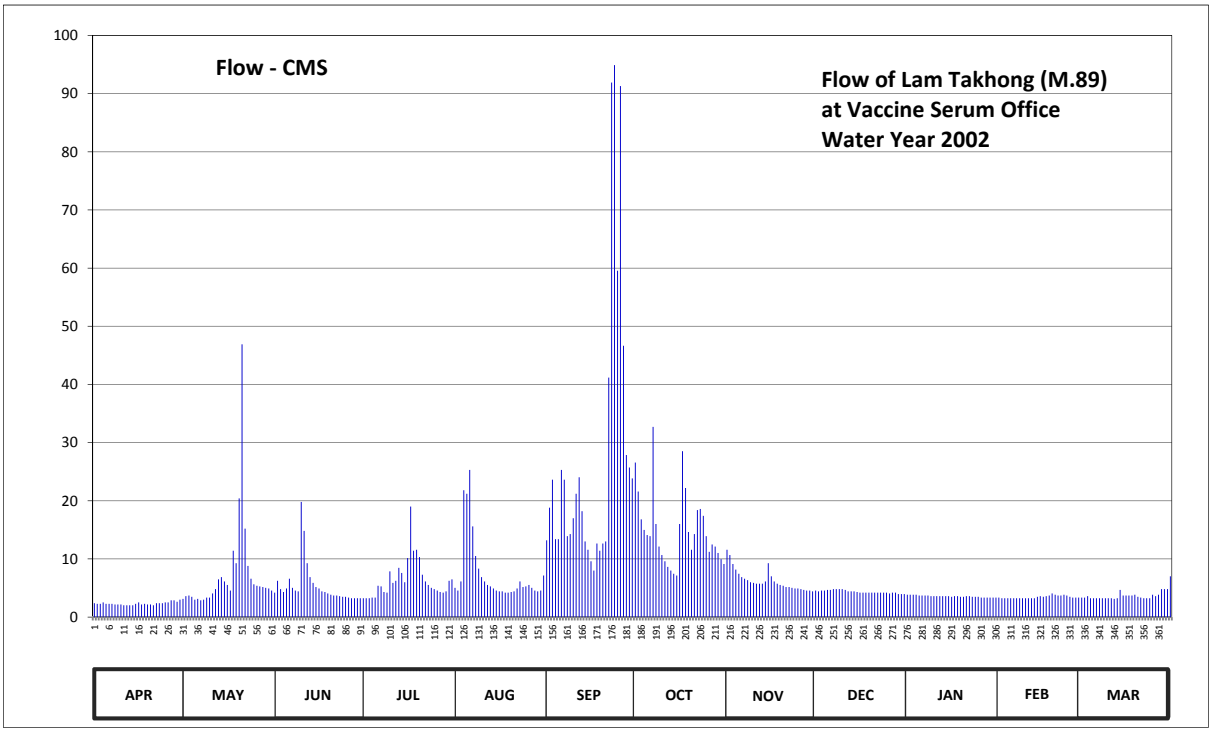
Location : on left bank at the bridge infront of Vaccine Serum Office.

	Ban -	**Amphoe** Pak Chong	**Changwat**	Nakhon Ratchasima
Drainge Area	713 sq.km.			
Type of Gage	Water - stage recorder.			
Zero Gage at Bottom	+0.000 m. (A.D.)			
Bench Mark	B.M.-H.D.			
Location BM	On left bank at the abutment of the bridge.		**Elevation**	+8.909 m. (A.D.)
Gage Reading Frequency	Recording.			
Basis of Mean Daily Gage Height	Arithmetic mean 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 fair. Stage-discharge relation defined by 93 discharge measurements made in 2002.			

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	1.15	1.21	1.30	1.22	1.37	1.90	2.57	1.81	1.33	1.27	1.23	1.23	
2	1.14	1.25	1.47	1.22	1.33	2.19	2.33	1.76	1.32	1.27	1.22	1.23	
3	1.14	1.26	1.35	1.22	1.46	2.43	2.09	1.67	1.33	1.27	1.22	1.25	
4	1.16	1.24	1.31	1.23	2.34	1.91	2.00	1.61	1.33	1.27	1.22	1.22	
5	1.14	1.20	1.36	1.23	2.31	1.91	1.95	1.56	1.34	1.26	1.22	1.22	
6	1.14	1.21	1.50	1.40	2.51	2.51	1.94	1.52	1.34	1.26	1.22	1.22	
7	1.14	1.19	1.37	1.39	2.03	2.43	2.85	1.50	1.35	1.26	1.22	1.22	
8	1.13	1.20	1.33	1.31	1.75	1.94	2.05	1.48	1.35	1.26	1.22	1.22	
9	1.13	1.23	1.32	1.30	1.62	1.96	1.84	1.45	1.35	1.25	1.22	1.22	
10	1.13	1.23	2.24	1.59	1.52	2.10	1.76	1.44	1.35	1.25	1.22	1.22	
11	1.12	1.29	1.99	1.44	1.46	2.31	1.70	1.43	1.34	1.25	1.22	1.22	
12	1.12	1.35	1.68	1.47	1.41	2.45	1.64	1.43	1.32	1.25	1.22	1.21	
13	1.12	1.49	1.52	1.63	1.39	2.16	1.60	1.43	1.32	1.25	1.22	1.22	
14	1.12	1.52	1.44	1.57	1.36	1.89	1.56	1.46	1.32	1.25	1.24	1.34	
15	1.14	1.46	1.38	1.45	1.33	1.81	1.54	1.68	1.31	1.25	1.25	1.26	
16	1.16	1.41	1.36	1.73	1.32	1.70	2.05	1.53	1.30	1.24	1.24	1.26	
17	1.13	1.33	1.32	2.20	1.32	1.60	2.66	1.46	1.30	1.25	1.25	1.26	
18	1.14	1.80	1.31	1.80	1.30	1.87	2.36	1.43	1.30	1.25	1.26	1.26	
19	1.13	1.68	1.29	1.81	1.30	1.80	1.98	1.41	1.30	1.24	1.29	1.27	
20	1.13	2.27	1.27	1.74	1.31	1.87	1.81	1.40	1.30	1.24	1.27	1.24	
21	1.12	3.45	1.26	1.55	1.32	1.89	1.96	1.38	1.30	1.25	1.26	1.23	
22	1.15	2.01	1.26	1.46	1.36	3.22	2.17	1.38	1.30	1.25	1.26	1.22	
23	1.15	1.65	1.25	1.41	1.46	5.03	2.18	1.37	1.30	1.24	1.27	1.22	
24	1.15	1.50	1.24	1.37	1.38	5.13	2.12	1.36	1.30	1.24	1.26	1.22	
25	1.16	1.42	1.24	1.35	1.39	3.92	1.94	1.36	1.30	1.24	1.24	1.27	
26	1.16	1.40	1.23	1.33	1.41	5.01	1.79	1.35	1.29	1.23	1.23	1.25	
27	1.19	1.39	1.22	1.31	1.37	3.44	1.86	1.34	1.30	1.23	1.23	1.27	
28	1.19	1.38	1.22	1.30	1.33	2.63	1.84	1.33	1.30	1.23	1.23	1.35	
29	1.17	1.37	1.22	1.32	1.32	2.53	1.78	1.33	1.28	1.23		1.35	
30	1.20	1.36	1.22	1.47	1.33	2.44	1.72	1.32	1.28	1.23		1.35	
31		1.33		1.49	1.54		1.67		1.28	1.23		1.53	
Mean	1.15	1.49	1.38	1.46	1.51	2.53	1.98	1.47	1.31	1.25	1.24	1.26	
Max	1.20	3.45	2.24	2.20	2.51	5.13	2.85	1.81	1.35	1.27	1.29	1.53	5.13
Min	1.12	1.19	1.22	1.22	1.30	1.60	1.54	1.32	1.28	1.23	1.22	1.21	1.12

Annual Max Momentary Gage Height	5.97	m. (A.D.) ,	at 03.00 Hours , on Sep 24, 2002		
Zero Gage at Bottom Elevation	0.00	m. (A.D.) ,	River Bed	020	m. (A.D.)
Left Bank Elevation	7.34	m. (A.D.) ,			
Right Bank Elevation	7.24	m. (A.D.) ,	Drainage Are	713	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.40	3.12	4.20	3.24	5.04	13.20	26.57	11.58	4.56	3.84	3.36	3.36		
2	2.28	3.60	6.24	3.24	4.56	18.80	21.60	10.68	4.44	3.84	3.24	3.36		
3	2.28	3.72	4.80	3.24	6.12	23.63	16.80	9.12	4.56	3.84	3.24	3.60		
4	2.52	3.48	4.32	3.36	21.80	13.38	15.00	8.16	4.56	3.84	3.24	3.24		
5	2.28	3.00	4.92	3.36	21.20	13.38	14.10	7.44	4.68	3.72	3.24	3.24		
6	2.28	3.12	6.60	5.40	25.31	25.31	13.92	6.88	4.68	3.72	3.24	3.24		
7	2.28	2.88	5.04	5.28	15.60	23.63	32.70	6.60	4.80	3.72	3.24	3.24		
8	2.16	3.00	4.56	4.32	10.50	13.92	16.00	6.36	4.80	3.72	3.24	3.24		
9	2.16	3.36	4.44	4.20	8.32	14.28	12.12	6.00	4.80	3.60	3.24	3.24		
10	2.16	3.36	19.80	7.86	6.88	17.00	10.68	5.88	4.80	3.60	3.24	3.24		
11	2.04	4.08	14.82	5.88	6.12	21.20	9.60	5.76	4.68	3.60	3.24	3.24		
12	2.04	4.80	9.28	6.24	5.52	24.05	8.64	5.76	4.44	3.60	3.24	3.12		
13	2.04	6.48	6.88	8.48	5.28	18.20	8.00	5.76	4.44	3.60	3.24	3.24		
14	2.04	6.88	5.88	7.58	4.92	13.02	7.44	6.12	4.44	3.60	3.48	4.68		
15	2.28	6.12	5.16	6.00	4.56	11.58	7.16	9.28	4.32	3.60	3.60	3.72		
16	2.52	5.52	4.92	10.14	4.44	9.60	16.00	7.02	4.20	3.48	3.48	3.72		
17	2.16	4.56	4.44	19.00	4.44	8.00	28.52	6.12	4.20	3.60	3.60	3.72		
18	2.28	11.40	4.32	11.40	4.20	12.66	22.20	5.76	4.20	3.60	3.72	3.72		
19	2.16	9.28	4.08	11.58	4.20	11.40	14.64	5.52	4.20	3.48	4.08	3.84		
20	2.16	20.40	3.84	10.32	4.32	12.66	11.58	5.40	4.20	3.48	3.84	3.48		
21	2.04	46.90	3.72	7.30	4.44	13.02	14.28	5.16	4.20	3.60	3.72	3.36		
22	2.40	15.20	3.72	6.12	4.92	41.18	18.40	5.16	4.20	3.60	3.72	3.24		
23	2.40	8.80	3.60	5.52	6.12	91.90	18.60	5.04	4.20	3.48	3.84	3.24		
24	2.40	6.60	3.48	5.04	5.16	94.90	17.40	4.92	4.20	3.48	3.72	3.24		
25	2.52	5.64	3.48	4.80	5.28	59.56	13.92	4.92	4.20	3.48	3.48	3.84		
26	2.52	5.40	3.36	4.56	5.52	91.30	11.22	4.80	4.08	3.36	3.36	3.60		
27	2.88	5.28	3.24	4.32	5.04	46.64	12.48	4.68	4.20	3.36	3.36	3.84		
28	2.88	5.16	3.24	4.20	4.56	27.86	12.12	4.56	4.20	3.36	3.36	4.80		
29	2.64	5.04	3.24	4.44	4.44	25.73	11.04	4.56	3.96	3.36		4.80		
30	3.00	4.92	3.24	6.24	4.56	23.84	9.96	4.44	3.96	3.36		4.80		
31		4.56		6.48	7.16		9.12		3.96	3.36		7.02		
Total	70.20	225.66	162.86	199.14	230.53	834.83	461.81	189.44	135.36	110.88	96.60	115.26	2832.57	CMSDAY
Mean	2.34	7.28	5.43	6.42	7.44	27.83	14.90	6.31	4.37	3.58	3.45	3.72	7.76	CMS
Max	3.00	46.90	19.80	19.00	25.31	94.90	32.70	11.58	4.80	3.84	4.08	7.02	94.90	CMS
Min	2.04	2.88	3.24	3.24	4.20	8.00	7.16	4.44	3.96	3.36	3.24	3.12	2.04	CMS
Runoff	6.07	19.50	14.07	17.21	19.92	72.13	39.90	16.37	11.70	9.58	8.35	9.96	244.73	MCM

Momentary Peak 122.65 CMS. at 5.97 m. (A.D.) at 03.00 Hours , on Sep 24, 2002

Runoff Yield 10.88 Liters/Second/Square KM. Momentary Peak Yield 172.020 Liters/Second/Square KM.

WATER YEAR : 2002

MUN RIVER BASIN

Huai Samran at Ban Thai Thaworn, Si Sa Ket (M.91)

Lat 14 - 29 - 40 N Long 104 - 03 - 34 E

Location : on right bank about 15 kilometers, the highway at Ban Thai Thaworn.

Ban Thai Thaworn **Amphoe** Phu Sing **Changwat** Si Sa Ket

Drainge Area	141 sq.km.
Type of Gage	Staff gage.
Zero Gage at Bottom	+175.259 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank downstream at the abutment of the bridge. **Elevation** +184.120 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 mean of 5 readings
Period of Available Gage Records	1977 to date.
Rating Operation	
Period of Rating	1977 - 1978, 1983 to date.
Rated by Flot	-
Rated by Current Meter	1977 - 1978, 1983 to date.
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	Overbank flow starts at elevation +179.340 m.(M.S.L.), records are channel flow only.
General Description	Records good. Huai Samran reservoir situated about 5 kilometers upstream and the local weir situated about 800 maters downstream from the gage site. Stage-discharge relation defined by 99 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

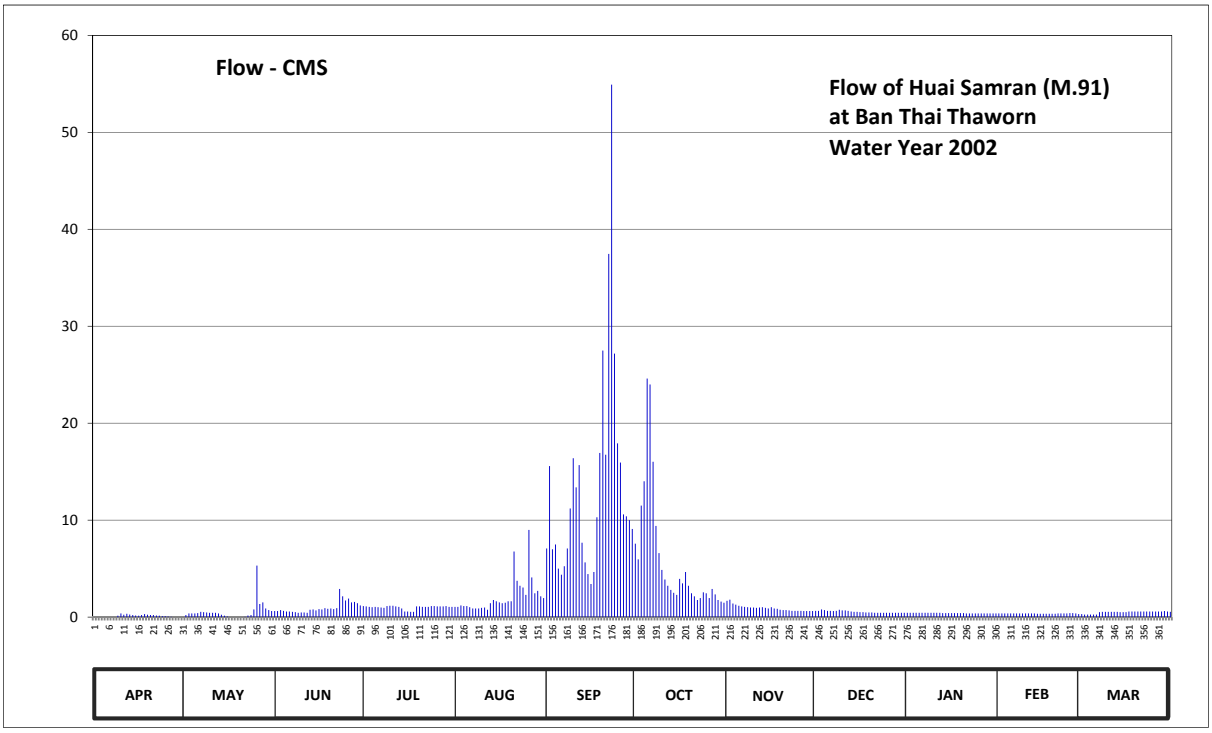
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	176.31	176.35	176.53	176.68	176.66	177.66	177.72	176.82	176.54	176.48	176.46	176.44	
2	176.31	176.41	176.53	176.67	176.66	178.42	177.52	176.85	176.54	176.48	176.46	176.43	
3	176.30	176.46	176.56	176.66	176.70	177.65	178.12	176.75	176.58	176.48	176.46	176.43	
4	176.29	176.46	176.54	176.65	176.68	177.71	178.31	176.72	176.56	176.48	176.46	176.43	
5	176.28	176.46	176.52	176.66	176.68	177.40	179.16	176.69	176.54	176.48	176.46	176.43	
6	176.28	176.47	176.52	176.65	176.65	177.31	179.12	176.67	176.54	176.48	176.46	176.43	
7	176.27	176.51	176.51	176.64	176.61	177.43	178.47	176.66	176.53	176.48	176.46	176.50	
8	176.27	176.50	176.50	176.63	176.61	177.66	177.91	176.65	176.54	176.48	176.46	176.51	
9	176.39	176.49	176.48	176.68	176.61	178.09	177.60	176.64	176.57	176.48	176.46	176.51	
10	176.46	176.48	176.49	176.69	176.63	178.51	177.38	176.64	176.55	176.48	176.46	176.51	
11	176.42	176.48	176.49	176.69	176.64	178.27	177.24	176.63	176.55	176.48	176.46	176.51	
12	176.45	176.48	176.48	176.67	176.57	178.43	177.14	176.64	176.54	176.48	176.46	176.51	
13	176.43	176.46	176.57	176.66	176.76	177.73	177.06	176.65	176.52	176.47	176.46	176.51	
14	176.41	176.42	176.58	176.61	176.84	177.48	177.00	176.63	176.51	176.47	176.45	176.50	
15	176.40	176.39	176.55	176.52	176.81	177.32	176.96	176.61	176.51	176.47	176.45	176.50	
16	176.39	176.37	176.59	176.52	176.78	177.17	177.25	176.65	176.50	176.47	176.45	176.50	
17	176.41	176.35	176.58	176.51	176.76	177.35	177.18	176.61	176.50	176.47	176.45	176.52	
18	176.44	176.34	176.62	176.51	176.77	178.00	177.35	176.60	176.49	176.47	176.45	176.52	
19	176.42	176.33	176.60	176.67	176.81	178.57	177.14	176.57	176.49	176.47	176.45	176.52	
20	176.41	176.32	176.61	176.67	176.81	179.35	176.99	176.56	176.49	176.47	176.45	176.52	
21	176.41	176.31	176.59	176.66	177.62	178.55	176.93	176.56	176.48	176.46	176.46	176.52	
22	176.40	176.36	176.62	176.66	177.22	179.93	176.84	176.55	176.48	176.46	176.46	176.52	
23	176.39	176.40	177.08	176.66	177.14	180.73	176.89	176.54	176.48	176.46	176.46	176.52	
24	176.38	176.41	176.93	176.68	177.11	179.33	177.01	176.54	176.48	176.46	176.46	176.52	
25	176.38	176.58	176.83	176.68	176.96	178.68	176.99	176.54	176.48	176.46	176.47	176.52	
26	176.37	177.44	176.88	176.67	177.87	178.46	176.89	176.54	176.48	176.46	176.47	176.52	
27	176.36	176.74	176.78	176.67	177.27	178.03	177.08	176.53	176.48	176.46	176.46	176.52	
28	176.34	176.78	176.79	176.67	176.99	178.01	176.97	176.53	176.48	176.46	176.44	176.52	
29	176.32	176.61	176.76	176.68	177.04	177.97	176.84	176.53	176.48	176.46		176.53	
30	176.32	176.56	176.70	176.66	176.93	177.88	176.80	176.53	176.48	176.46		176.52	
31		176.53		176.66	176.89		176.77		176.48	176.46		176.51	
Mean	176.37	176.49	176.63	176.64	176.87	178.17	177.38	176.62	176.51	176.47	176.46	176.50	
Max	176.46	177.44	177.08	176.69	177.87	180.73	179.16	176.85	176.58	176.48	176.47	176.53	180.73
Min	176.27	176.31	176.48	176.51	176.57	177.17	176.77	176.53	176.48	176.46	176.44	176.43	176.27

Annual Max Momentary Gage Height 180.87 m. (MSL.) , at 12.00 Hours , on Sep 23 , 2002

Zero Gage at Bottom Elevation 175.26 m. (MSL.) , River Bed 175.69 m. (MSL.)

Left Bank Elevation 180.16 m. (MSL.) ,

Right Bank Elevation 179.33 m. (MSL.) , Drainage Are 141 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	0.62	1.13	1.06	7.08	7.58	1.68	0.65	0.45	0.38	0.31		
2	0.00	0.21	0.62	1.10	1.06	15.58	5.96	1.80	0.65	0.45	0.38	0.27		
3	0.00	0.38	0.72	1.06	1.20	7.00	11.50	1.40	0.79	0.45	0.38	0.27		
4	0.00	0.38	0.65	1.03	1.13	7.49	14.01	1.28	0.72	0.45	0.38	0.27		
5	0.00	0.38	0.58	1.06	1.13	5.00	24.60	1.17	0.65	0.45	0.38	0.27		
6	0.00	0.41	0.58	1.03	1.03	4.37	24.00	1.10	0.65	0.45	0.38	0.27		
7	0.00	0.55	0.55	0.99	0.89	5.24	16.03	1.06	0.62	0.45	0.38	0.51		
8	0.00	0.51	0.51	0.96	0.89	7.08	9.40	1.03	0.65	0.45	0.38	0.55		
9	0.14	0.48	0.45	1.13	0.89	11.20	6.60	0.99	0.75	0.45	0.38	0.55		
10	0.38	0.45	0.48	1.17	0.96	16.39	4.86	0.99	0.69	0.45	0.38	0.55		
11	0.24	0.45	0.48	1.17	0.99	13.39	3.88	0.96	0.69	0.45	0.38	0.55		
12	0.34	0.45	0.45	1.10	0.75	15.67	3.24	0.99	0.65	0.45	0.38	0.55		
13	0.27	0.38	0.75	1.06	1.44	7.67	2.80	1.03	0.58	0.41	0.38	0.55		
14	0.21	0.24	0.79	0.89	1.76	5.64	2.50	0.96	0.55	0.41	0.34	0.51		
15	0.17	0.14	0.69	0.58	1.64	4.44	2.30	0.89	0.55	0.41	0.34	0.51		
16	0.14	0.07	0.82	0.58	1.52	3.42	3.95	1.03	0.51	0.41	0.34	0.51		
17	0.21	0.00	0.79	0.55	1.44	4.65	3.48	0.89	0.51	0.41	0.34	0.58		
18	0.31	0.00	0.93	0.55	1.48	10.30	4.65	0.86	0.48	0.41	0.34	0.58		
19	0.24	0.00	0.86	1.10	1.64	16.93	3.24	0.75	0.48	0.41	0.34	0.58		
20	0.21	0.00	0.89	1.10	1.64	27.50	2.45	0.72	0.48	0.41	0.34	0.58		
21	0.21	0.00	0.82	1.06	6.76	16.75	2.15	0.72	0.45	0.38	0.38	0.58		
22	0.17	0.03	0.93	1.06	3.74	37.47	1.76	0.69	0.45	0.38	0.38	0.58		
23	0.14	0.17	2.90	1.06	3.24	54.92	1.96	0.65	0.45	0.38	0.38	0.58		
24	0.10	0.21	2.15	1.13	3.06	27.18	2.55	0.65	0.45	0.38	0.38	0.58		
25	0.10	0.79	1.72	1.13	2.30	17.92	2.45	0.65	0.45	0.38	0.41	0.58		
26	0.07	5.32	1.92	1.10	9.00	15.94	1.96	0.65	0.45	0.38	0.41	0.58		
27	0.03	1.36	1.52	1.10	4.09	10.60	2.90	0.62	0.45	0.38	0.38	0.58		
28	0.00	1.52	1.56	1.10	2.45	10.40	2.35	0.62	0.45	0.38	0.31	0.58		
29	0.00	0.89	1.44	1.13	2.70	10.00	1.76	0.62	0.45	0.38		0.62		
30	0.00	0.72	1.20	1.06	2.15	9.10	1.60	0.62	0.45	0.38		0.58		
31		0.62		1.06	1.96		1.48		0.45	0.38		0.55		
Total	3.68	17.11	29.37	31.33	65.99	406.32	179.95	28.07	17.25	12.86	10.35	15.71	817.99	CMSDAY
Mean	0.12	0.55	0.98	1.01	2.13	13.54	5.80	0.94	0.56	0.41	0.37	0.51	2.24	CMS
Max	0.38	5.32	2.90	1.17	9.00	54.92	24.60	1.80	0.79	0.45	0.41	0.62	54.92	CMS
Min	0.00	0.00	0.45	0.55	0.75	3.42	1.48	0.62	0.45	0.38	0.31	0.27	0.00	CMS
Runoff	0.32	1.48	2.54	2.71	5.70	35.11	15.55	2.43	1.49	1.11	0.89	1.36	70.67	MCM

Momentary Peak 58.35 CMS. at 180.87 m. (MSL.) at 12.00 Hours , on Sep 23 , 2002

Runoff Yield 15.89 Liters/Second/Square KM. Momentary Peak Yield 413.830 Liters/Second/Square KM.

WATER YEAR : 2002

MUN RIVER BASIN

Huai Tha at Ban Phayu, Si Sa Ket (M.98)

Lat 14 - 52 - 41 N Long 104 - 26 - 17 E

Location : on right bank at the bridge of Si Sa Ket - Kantharalak Highway near guidepost 27+734.

Ban Phayu **Amphoe** Phayu **Changwat** Si Sa Ket

Drainge Area	1,150 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 in front of automatic gage building. **Elevation** +8.568 m. (A.D.)
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	1979 - 1981, 1987 to date.
Rated by Flot	-
Rated by Current Meter	1979 - 1981, 1987 to date.
Stability of Channel Regimes	Stable because of backwater effect.
Overbank Flow Conditions	Overbank flow starts at elevation +4.610 m.(A.D.) and is including overbank flow.
General Description	Records fair. The concrete weir situated downstream from the gage site. Stage-discharge relation defined by 49 discharge measurements made in 2002.

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

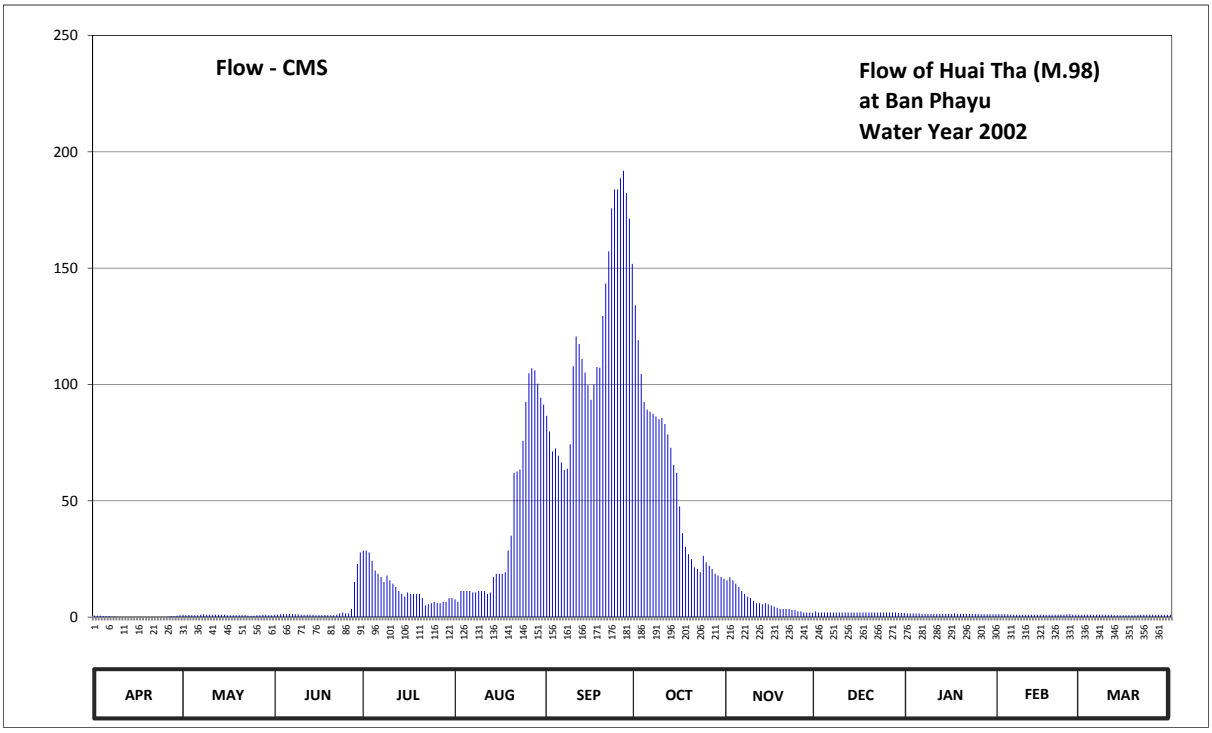
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	2.93	2.95	2.95	3.42	3.11	4.80	6.16	3.24	3.01	2.98	2.96	2.95	
2	2.93	2.94	2.95	3.42	3.09	4.55	5.80	3.26	3.00	2.98	2.96	2.95	
3	2.93	2.94	2.96	3.41	3.17	4.21	5.40	3.24	3.00	2.98	2.96	2.95	
4	2.92	2.94	2.96	3.36	3.17	4.26	5.00	3.22	3.00	2.98	2.96	2.95	
5	2.92	2.94	2.96	3.30	3.17	4.12	4.89	3.20	3.00	2.98	2.95	2.95	
6	2.92	2.94	2.97	3.28	3.17	3.97	4.86	3.17	3.00	2.97	2.95	2.95	
7	2.91	2.95	2.97	3.26	3.16	3.81	4.83	3.15	3.00	2.97	2.95	2.95	
8	2.91	2.96	2.96	3.23	3.16	3.84	4.79	3.13	3.00	2.97	2.95	2.95	
9	2.90	2.95	2.96	3.27	3.17	4.33	4.75	3.12	3.00	2.97	2.95	2.95	
10	2.90	2.95	2.95	3.24	3.17	5.51	4.77	3.10	3.00	2.97	2.95	2.95	
11	2.90	2.95	2.95	3.22	3.17	5.84	4.68	3.08	3.00	2.97	2.95	2.95	
12	2.90	2.95	2.95	3.20	3.15	5.76	4.50	3.08	3.00	2.97	2.95	2.94	
13	2.90	2.95	2.95	3.17	3.16	5.60	4.27	3.07	3.00	2.97	2.95	2.94	
14	2.90	2.95	2.95	3.15	3.26	5.42	3.92	3.08	3.00	2.97	2.95	2.94	
15	2.90	2.95	2.94	3.13	3.28	5.24	3.70	3.07	3.00	2.97	2.95	2.94	
16	2.90	2.94	2.94	3.16	3.28	5.03	3.61	3.06	3.00	2.97	2.95	2.94	
17	2.90	2.94	2.94	3.15	3.28	5.25	3.51	3.05	3.00	2.98	2.95	2.94	
18	2.90	2.94	2.94	3.15	3.29	5.50	3.44	3.04	3.00	2.97	2.95	2.94	
19	2.90	2.94	2.94	3.15	3.42	5.49	3.40	3.03	3.00	2.97	2.95	2.94	
20	2.90	2.94	2.94	3.15	3.50	6.06	3.37	3.03	3.00	2.97	2.95	2.95	
21	2.90	2.94	2.94	3.12	3.70	6.34	3.32	3.03	3.00	2.97	2.95	2.95	
22	2.90	2.94	2.95	3.06	3.76	6.56	3.31	3.03	3.00	2.97	2.95	2.95	
23	2.90	2.93	2.98	3.07	3.82	6.77	3.29	3.02	3.00	2.97	2.95	2.95	
24	2.89	2.93	3.00	3.08	4.39	6.83	3.39	3.02	3.00	2.97	2.96	2.95	
25	2.90	2.93	2.98	3.09	5.00	6.83	3.35	3.01	3.00	2.97	2.96	2.95	
26	2.91	2.94	2.98	3.08	5.41	6.86	3.33	3.01	3.00	2.96	2.95	2.95	
27	2.92	2.94	3.03	3.08	5.48	6.88	3.31	3.00	3.00	2.96	2.95	2.95	
28	2.92	2.95	3.23	3.09	5.45	6.82	3.28	3.00	3.00	2.96	2.95	2.95	
29	2.93	2.95	3.34	3.09	5.26	6.73	3.27	3.00	2.99	2.96		2.95	
30	2.94	2.94	3.41	3.12	5.06	6.48	3.26	2.99	2.99	2.96		2.95	
31		2.94		3.12	4.96		3.25		2.99	2.96		2.95	
Mean	2.91	2.94	3.00	3.19	3.76	5.52	4.06	3.08	3.00	2.97	2.95	2.95	
Max	2.94	2.96	3.41	3.42	5.48	6.88	6.16	3.26	3.01	2.98	2.96	2.95	6.88
Min	2.89	2.93	2.94	3.06	3.09	3.81	3.25	2.99	2.99	2.96	2.95	2.94	2.89

Annual Max Momentary Gage Height 6.88 m. (A.D.) , at 06.00 Hours , on Sep 27 , 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed -0.95 m. (A.D.)

Left Bank Elevation 4.60 m. (A.D.) ,

Right Bank Elevation 5.49 m. (A.D.) , Drainage Are 1,150 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.60	1.00	1.00	28.60	7.60	86.50	134.00	15.80	2.50	1.60	1.20	1.00		
2	0.60	0.80	1.00	28.60	6.50	79.75	119.00	17.20	2.00	1.60	1.20	1.00		
3	0.60	0.80	1.20	27.80	11.20	71.25	104.50	15.80	2.00	1.60	1.20	1.00		
4	0.40	0.80	1.20	24.20	11.20	72.50	92.50	14.40	2.00	1.60	1.20	1.00		
5	0.40	0.80	1.20	20.00	11.20	69.40	89.20	13.00	2.00	1.60	1.00	1.00		
6	0.40	0.80	1.40	18.60	11.20	66.40	88.30	11.20	2.00	1.40	1.00	1.00		
7	0.20	1.00	1.40	17.20	10.60	63.20	87.40	10.00	2.00	1.40	1.00	1.00		
8	0.20	1.20	1.20	15.10	10.60	63.80	86.20	8.80	2.00	1.40	1.00	1.00		
9	0.00	1.00	1.20	17.90	11.20	74.25	85.00	8.20	2.00	1.40	1.00	1.00		
10	0.00	1.00	1.00	15.80	11.20	107.85	85.60	7.00	2.00	1.40	1.00	1.00		
11	0.00	1.00	1.00	14.40	11.20	120.60	83.00	6.00	2.00	1.40	1.00	1.00		
12	0.00	1.00	1.00	13.00	10.00	117.40	78.50	6.00	2.00	1.40	1.00	0.80		
13	0.00	1.00	1.00	11.20	10.60	111.00	72.75	5.50	2.00	1.40	1.00	0.80		
14	0.00	1.00	1.00	10.00	17.20	105.10	65.40	6.00	2.00	1.40	1.00	0.80		
15	0.00	1.00	0.80	8.80	18.60	99.70	62.00	5.50	2.00	1.40	1.00	0.80		
16	0.00	0.80	0.80	10.60	18.60	93.40	47.60	5.00	2.00	1.40	1.00	0.80		
17	0.00	0.80	0.80	10.00	18.60	100.00	36.10	4.50	2.00	1.60	1.00	0.80		
18	0.00	0.80	0.80	10.00	19.30	107.50	30.20	4.00	2.00	1.40	1.00	0.80		
19	0.00	0.80	0.80	10.00	28.60	107.20	27.00	3.50	2.00	1.40	1.00	0.80		
20	0.00	0.80	0.80	10.00	35.00	129.40	24.90	3.50	2.00	1.40	1.00	1.00		
21	0.00	0.80	0.80	8.20	62.00	143.40	21.40	3.50	2.00	1.40	1.00	1.00		
22	0.00	0.80	1.00	5.00	62.60	157.20	20.70	3.50	2.00	1.40	1.00	1.00		
23	0.00	0.60	1.60	5.50	63.40	175.70	19.30	3.00	2.00	1.40	1.00	1.00		
24	0.00	0.60	2.00	6.00	75.75	183.80	26.30	3.00	2.00	1.40	1.20	1.00		
25	0.00	0.60	1.60	6.50	92.50	183.80	23.50	2.50	2.00	1.40	1.20	1.00		
26	0.20	0.80	1.60	6.00	104.80	188.60	22.10	2.50	2.00	1.20	1.00	1.00		
27	0.40	0.80	3.50	6.00	106.90	191.80	20.70	2.00	2.00	1.20	1.00	1.00		
28	0.40	1.00	15.10	6.50	106.00	182.20	18.60	2.00	2.00	1.20	1.00	1.00		
29	0.60	1.00	22.80	6.50	100.30	171.30	17.90	2.00	1.80	1.20		1.00		
30	0.80	0.80	27.80	8.20	94.30	151.80	17.20	1.80	1.80	1.20		1.00		
31		0.80		8.20	91.30		16.50		1.80	1.20		1.00		
Total	5.80	26.80	98.40	394.40	1250.05	3575.80	1723.35	196.70	61.90	43.40	29.20	29.40	7435.20	CMSDAY
Mean	0.19	0.86	3.28	12.72	40.32	119.19	55.59	6.56	2.00	1.40	1.04	0.95	20.37	CMS
Max	0.80	1.20	27.80	28.60	106.90	191.80	134.00	17.20	2.50	1.60	1.20	1.00	191.80	CMS
Min	0.00	0.60	0.80	5.00	6.50	63.20	16.50	1.80	1.80	1.20	1.00	0.80	0.00	CMS
Runoff	0.50	2.32	8.50	34.08	108.00	308.95	148.90	17.00	5.35	3.75	2.52	2.54	642.40	MCM

Momentary Peak 191.80 CMS. at 6.88 m. (A.D.) at 06.00 Hours , on Sep 27, 2002

Runoff Yield 17.71 Liters/Second/Square KM. Momentary Peak Yield 166.783 Liters/Second/Square KM.

WATER YEAR : 2005

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	+0.000 m. (A.D.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank at the footpath of the bridge.	**Elevation**	+10.575 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 mean of 5 readings		
Period of Available Gage Records	1980 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 69 discharge measurements made in 2002.		

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

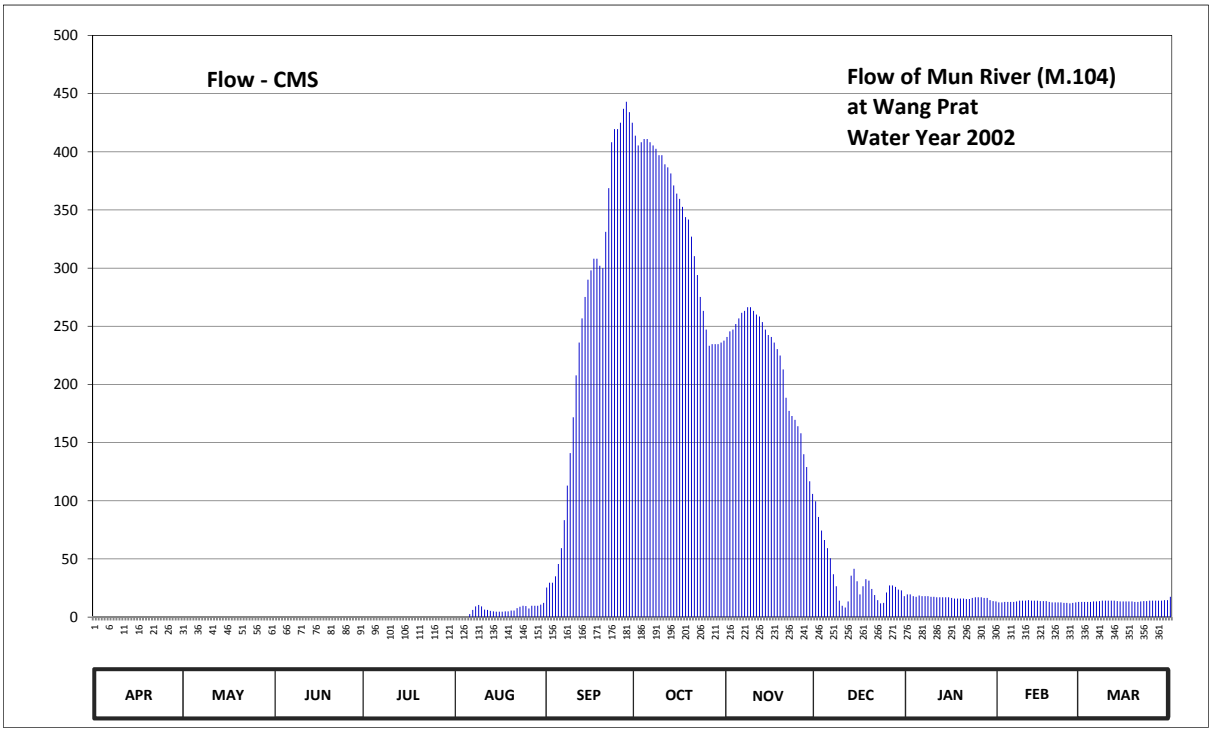
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	1.76	1.49	1.51	1.75	1.69	2.79	5.86	5.03	3.74	2.69	2.54	2.55	
2	1.76	1.47	1.49	1.70	1.70	2.86	5.83	5.06	3.59	2.69	2.54	2.55	
3	1.75	1.44	1.48	1.70	1.72	2.86	5.84	5.07	3.46	2.66	2.55	2.55	
4	1.74	1.42	1.50	1.70	1.75	2.95	5.85	5.10	3.37	2.65	2.55	2.55	
5	1.73	1.40	1.52	1.70	2.01	3.11	5.85	5.13	3.29	2.67	2.55	2.56	
6	1.72	1.39	1.51	1.71	2.22	3.29	5.84	5.16	3.18	2.66	2.55	2.56	
7	1.71	1.37	1.50	1.72	2.34	3.56	5.83	5.17	2.98	2.66	2.56	2.57	
8	1.69	1.36	1.49	1.75	2.44	3.89	5.82	5.19	2.81	2.66	2.58	2.58	
9	1.67	1.34	1.49	1.78	2.48	4.18	5.80	5.19	2.58	2.65	2.58	2.58	
10	1.66	1.34	1.48	1.78	2.44	4.48	5.80	5.17	2.46	2.65	2.58	2.58	
11	1.63	1.33	1.47	1.77	2.35	4.79	5.77	5.15	2.41	2.64	2.59	2.58	
12	1.61	1.32	1.46	1.77	2.34	5.00	5.76	5.14	2.56	2.64	2.58	2.58	
13	1.59	1.30	1.46	1.76	2.31	5.13	5.74	5.11	2.96	2.64	2.58	2.57	
14	1.57	1.30	1.46	1.76	2.30	5.24	5.70	5.07	3.05	2.64	2.58	2.56	
15	1.56	1.31	1.45	1.77	2.29	5.32	5.67	5.04	2.88	2.64	2.57	2.56	
16	1.54	1.33	1.45	1.76	2.29	5.36	5.65	5.03	2.69	2.63	2.57	2.56	
17	1.52	1.33	1.44	1.77	2.29	5.41	5.62	5.00	2.81	2.62	2.57	2.56	
18	1.50	1.33	1.44	1.77	2.30	5.41	5.58	4.96	2.91	2.62	2.55	2.56	
19	1.53	1.32	1.44	1.77	2.30	5.38	5.57	4.92	2.89	2.62	2.54	2.55	
20	1.51	1.31	1.44	1.77	2.32	5.37	5.50	4.83	2.77	2.62	2.54	2.55	
21	1.51	1.30	1.43	1.75	2.32	5.52	5.42	4.63	2.68	2.61	2.54	2.56	
22	1.50	1.30	1.43	1.73	2.39	5.69	5.34	4.53	2.59	2.61	2.54	2.57	
23	1.51	1.30	1.43	1.71	2.43	5.84	5.24	4.49	2.52	2.63	2.53	2.57	
24	1.51	1.31	1.42	1.71	2.46	5.88	5.17	4.46	2.53	2.64	2.53	2.58	
25	1.53	1.32	1.50	1.69	2.45	5.88	5.07	4.41	2.72	2.64	2.52	2.58	
26	1.56	1.35	1.58	1.68	2.38	5.90	4.98	4.35	2.82	2.64	2.53	2.58	
27	1.56	1.41	1.62	1.66	2.46	5.94	4.99	4.17	2.82	2.63	2.54	2.58	
28	1.54	1.47	1.67	1.65	2.46	5.96	4.99	4.06	2.80	2.63	2.55	2.58	
29	1.51	1.49	1.73	1.66	2.46	5.93	4.99	3.93	2.76	2.59		2.59	
30	1.51	1.50	1.77	1.66	2.49	5.90	5.00	3.81	2.75	2.57		2.59	
31		1.51		1.68	2.53		5.01		2.66	2.56		2.65	
Mean	1.60	1.37	1.50	1.73	2.28	4.83	5.52	4.81	2.87	2.64	2.55	2.57	
Max	1.76	1.51	1.77	1.78	2.53	5.96	5.86	5.19	3.74	2.69	2.59	2.65	5.96
Min	1.50	1.30	1.42	1.65	1.69	2.79	4.98	3.81	2.41	2.56	2.52	2.55	1.30

Annual Max Momentary Gage Height 5.96 m. (A.D.) , at 06.00 Hours , on Sep 28 , 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed -2.90 m. (A.D.) ,

Left Bank Elevation 10.35 m. (A.D.) ,

Right Bank Elevation 10.35 m. (A.D.) , Drainage Are 24,841 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

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	25.40	413.80	240.80	99.60	19.50	12.60	13.00		
2	0.00	0.00	0.00	0.00	0.00	29.60	405.40	245.60	86.10	19.50	12.60	13.00		
3	0.00	0.00	0.00	0.00	0.00	29.60	408.20	247.20	74.40	18.00	13.00	13.00		
4	0.00	0.00	0.00	0.00	0.00	35.00	411.00	252.00	66.30	17.50	13.00	13.00		
5	0.00	0.00	0.00	0.00	0.00	45.70	411.00	256.80	59.20	18.50	13.00	13.40		
6	0.00	0.00	0.00	0.00	2.60	59.20	408.20	261.60	50.60	18.00	13.00	13.40		
7	0.00	0.00	0.00	0.00	6.20	83.40	405.40	263.20	36.80	18.00	13.40	13.80		
8	0.00	0.00	0.00	0.00	9.20	113.10	402.60	266.40	26.60	18.00	14.20	14.20		
9	0.00	0.00	0.00	0.00	10.40	141.00	397.00	266.40	14.20	17.50	14.20	14.20		
10	0.00	0.00	0.00	0.00	9.20	171.80	397.00	263.20	9.80	17.50	14.20	14.20		
11	0.00	0.00	0.00	0.00	6.50	207.80	389.20	260.00	8.30	17.00	14.60	14.20		
12	0.00	0.00	0.00	0.00	6.20	236.00	386.60	258.40	13.40	17.00	14.20	14.20		
13	0.00	0.00	0.00	0.00	5.30	256.80	381.40	253.60	35.60	17.00	14.20	13.80		
14	0.00	0.00	0.00	0.00	5.00	275.20	371.00	247.20	41.50	17.00	14.20	13.40		
15	0.00	0.00	0.00	0.00	4.70	290.00	364.10	242.40	30.80	17.00	13.80	13.40		
16	0.00	0.00	0.00	0.00	4.70	298.00	359.50	240.80	19.50	16.50	13.80	13.40		
17	0.00	0.00	0.00	0.00	4.70	308.10	352.60	236.00	26.60	16.00	13.80	13.40		
18	0.00	0.00	0.00	0.00	5.00	308.10	343.80	230.40	32.60	16.00	13.00	13.40		
19	0.00	0.00	0.00	0.00	5.00	302.00	341.70	224.80	31.40	16.00	12.60	13.00		
20	0.00	0.00	0.00	0.00	5.60	300.00	327.00	212.90	24.20	16.00	12.60	13.00		
21	0.00	0.00	0.00	0.00	5.60	331.20	310.20	188.60	19.00	15.50	12.60	13.40		
22	0.00	0.00	0.00	0.00	7.70	368.70	294.00	177.30	14.60	15.50	12.60	13.80		
23	0.00	0.00	0.00	0.00	8.90	408.20	275.20	172.90	11.80	16.50	12.20	13.80		
24	0.00	0.00	0.00	0.00	9.80	419.40	263.20	169.60	12.20	17.00	12.20	14.20		
25	0.00	0.00	0.00	0.00	9.50	419.40	247.20	164.10	21.20	17.00	11.80	14.20		
26	0.00	0.00	0.00	0.00	7.40	425.00	233.20	158.00	27.20	17.00	12.20	14.20		
27	0.00	0.00	0.00	0.00	9.80	437.00	234.60	140.00	27.20	16.50	12.60	14.20		
28	0.00	0.00	0.00	0.00	9.80	443.00	234.60	129.00	26.00	16.50	13.00	14.20		
29	0.00	0.00	0.00	0.00	9.80	434.00	234.60	116.70	23.60	14.60		14.60		
30	0.00	0.00	0.00	0.00	10.70	425.00	236.00	105.90	23.00	13.80		14.60		
31		0.00		0.00	12.20		237.60		18.00	13.40		17.50		
Total	0.00	0.00	0.00	0.00	191.50	7626.70	10476.90	6491.80	1011.30	520.80	369.20	429.10	27117.30	CMSDAY
Mean	0.00	0.00	0.00	0.00	6.18	254.22	337.96	216.39	32.62	16.80	13.19	13.84	74.29	CMS
Max	0.00	0.00	0.00	0.00	12.20	443.00	413.80	266.40	99.60	19.50	14.60	17.50	443.00	CMS
Min	0.00	0.00	0.00	0.00	0.00	25.40	233.20	105.90	8.30	13.40	11.80	13.00	0.00	CMS
Runoff	0.00	0.00	0.00	0.00	16.55	658.95	905.20	560.89	87.38	45.00	31.90	37.07	2342.93	MCM

Momentary Peak 443.00 CMS. at 5.96 m. (A.D.) at 06.00 Hours , on Sep 28, 2002

Runoff Yield 2.99 Liters/Second/Square KM. Momentary Peak Yield 17.830 Liters/Second/Square KM.

WATER YEAR : 2002

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.
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 footpath of the bridge. **Elevation** +10.400 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 mean of 5 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 71 discharge measurements made in 2002.

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

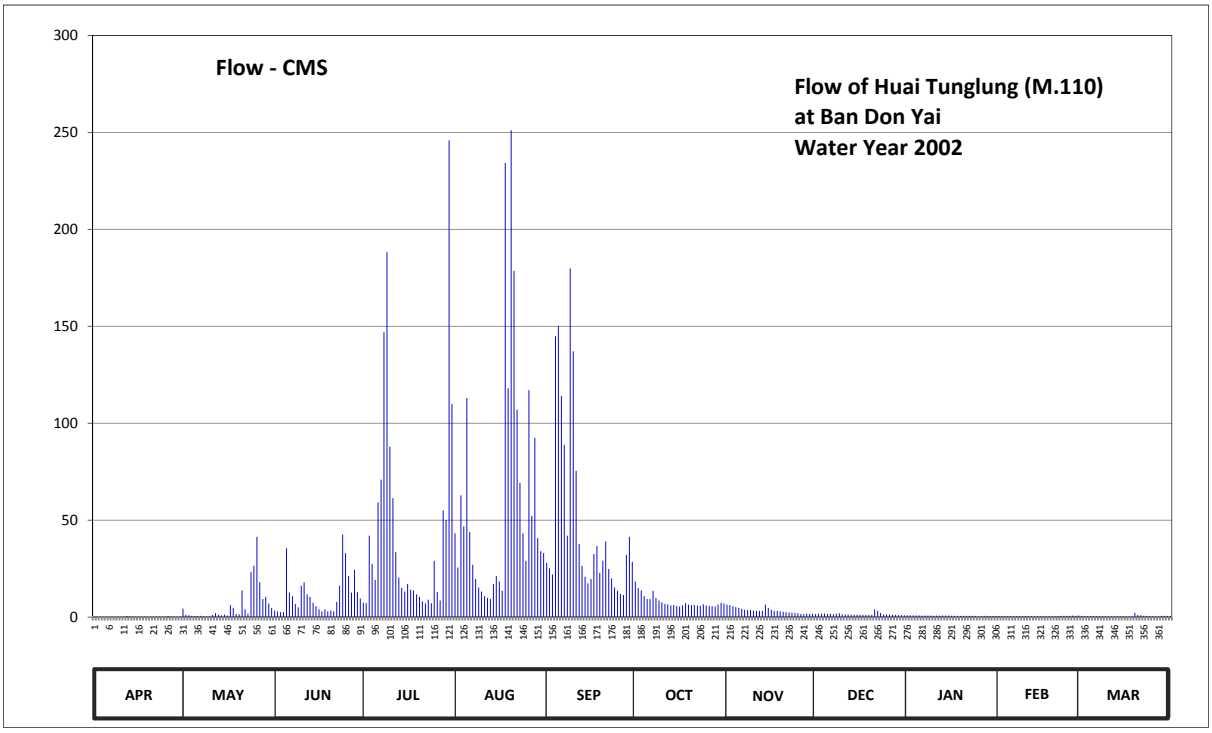
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	-0.29	0.07	0.02	0.22	1.12	0.84	0.61	0.17	-0.09	-0.17	-0.24	-0.22	
2	-0.29	-0.14	-0.01	0.21	0.79	0.78	0.50	0.16	-0.08	-0.17	-0.25	-0.25	
3	-0.30	-0.17	-0.03	1.10	1.41	0.70	0.46	0.13	-0.08	-0.18	-0.25	-0.25	
4	-0.30	-0.23	-0.03	0.83	1.18	2.28	0.36	0.11	-0.08	-0.19	-0.25	-0.25	
5	-0.31	-0.24	0.99	0.63	1.97	2.33	0.31	0.09	-0.09	-0.19	-0.25	-0.25	
6	-0.31	-0.24	0.42	1.36	1.13	1.98	0.31	0.06	-0.08	-0.20	-0.25	-0.25	
7	-0.32	-0.23	0.36	1.51	0.82	1.71	0.45	0.04	-0.10	-0.20	-0.25	-0.27	
8	-0.32	-0.26	0.19	2.30	0.64	1.10	0.33	0.03	-0.08	-0.20	-0.25	-0.27	
9	-0.33	-0.28	0.10	2.66	0.51	2.59	0.28	0.03	-0.07	-0.20	-0.25	-0.26	
10	-0.33	-0.28	0.54	1.70	0.44	2.21	0.23	0.02	-0.10	-0.21	-0.24	-0.28	
11	-0.33	-0.15	0.60	1.39	0.36	1.56	0.19	0.01	-0.11	-0.20	-0.26	-0.28	
12	-0.24	-0.07	0.39	0.95	0.33	1.03	0.18	0.01	-0.12	-0.20	-0.26	-0.28	
13	-0.28	-0.15	0.35	0.66	0.31	0.81	0.15	0.01	-0.13	-0.20	-0.26	-0.26	
14	-0.30	-0.19	0.22	0.50	0.57	0.67	0.16	0.17	-0.14	-0.20	-0.26	-0.27	
15	-0.31	-0.13	0.13	0.44	0.68	0.58	0.14	0.09	-0.14	-0.20	-0.26	-0.28	
16	-0.32	-0.20	0.05	0.57	0.61	0.64	0.12	0.04	-0.14	-0.21	-0.27	-0.28	
17	-0.32	0.16	0.00	0.47	0.45	0.93	0.15	0.01	-0.15	-0.21	-0.27	-0.28	
18	-0.33	0.09	0.05	0.46	3.04	1.01	0.21	0.01	-0.15	-0.22	-0.27	-0.28	
19	-0.33	-0.09	0.00	0.39	2.02	0.72	0.17	0.00	-0.15	-0.22	-0.27	-0.06	
20	-0.33	-0.12	0.02	0.35	3.17	0.86	0.16	-0.02	-0.15	-0.22	-0.27	-0.16	
21	-0.34	0.46	0.00	0.26	2.58	1.05	0.16	-0.03	0.05	-0.23	-0.25	-0.19	
22	-0.34	0.05	0.24	0.20	1.91	0.77	0.15	-0.04	0.01	-0.23	-0.23	-0.22	
23	-0.34	-0.08	0.54	0.30	1.49	0.65	0.14	-0.05	-0.06	-0.23	-0.22	-0.23	
24	-0.34	0.73	1.11	0.21	1.12	0.51	0.18	-0.06	-0.11	-0.23	-0.23	-0.24	
25	-0.34	0.81	0.94	0.86	0.86	0.45	0.15	-0.07	-0.12	-0.28	-0.22	-0.26	
26	-0.24	1.09	0.68	0.43	2.01	0.40	0.14	-0.09	-0.13	-0.26	-0.20	-0.26	
27	-0.29	0.60	0.42	0.28	1.26	0.38	0.13	-0.10	-0.14	-0.23	-0.23	-0.26	
28	-0.31	0.31	0.76	1.30	1.75	0.92	0.12	-0.08	-0.16	-0.23	-0.20	-0.22	
29	-0.32	0.35	0.43	1.23	1.08	1.09	0.17	-0.09	-0.16	-0.24		-0.23	
30	-0.32	0.20	0.32	3.13	0.96	0.85	0.22	-0.09	-0.16	-0.24		-0.24	
31		0.08		1.94	0.94		0.20		-0.17	-0.24		-0.23	
Mean	-0.31	0.06	0.33	0.93	1.21	1.08	0.23	0.02	-0.11	-0.21	-0.25	-0.24	
Max	-0.24	1.09	1.11	3.13	3.17	2.59	0.61	0.17	0.05	-0.17	-0.20	-0.06	3.17
Min	-0.34	-0.28	-0.03	0.20	0.31	0.38	0.12	-0.10	-0.17	-0.28	-0.27	-0.28	-0.34

Annual Max Momentary Gage Height 4.06 m. (A.D.) , at 18.00 Hours , on Aug 18, 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed -0.43 m. (A.D.) ,

Left Bank Elevation 4.77 m. (A.D.) ,

Right Bank Elevation 4.14 m. (A.D.) , Drainage Are 570 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.26	4.40	3.40	7.40	43.20	28.00	18.40	6.40	1.65	1.01	0.56	0.68		
2	0.26	1.22	2.85	7.20	25.60	25.20	15.00	6.20	1.80	1.01	0.50	0.50		
3	0.20	1.01	2.55	42.00	62.80	22.00	13.80	5.60	1.80	0.94	0.50	0.50		
4	0.20	0.62	2.55	27.50	46.80	144.80	10.80	5.20	1.80	0.87	0.50	0.50		
5	0.18	0.56	35.50	19.20	113.00	150.30	9.30	4.80	1.65	0.87	0.50	0.50		
6	0.18	0.56	12.60	59.20	43.80	114.00	9.30	4.20	1.80	0.80	0.50	0.50		
7	0.16	0.62	10.80	70.90	27.00	88.90	13.50	3.80	1.50	0.80	0.50	0.38		
8	0.16	0.44	6.80	147.00	19.60	42.00	9.90	3.60	1.80	0.80	0.50	0.38		
9	0.14	0.32	5.00	188.20	15.30	179.80	8.60	3.60	1.95	0.80	0.50	0.44		
10	0.14	0.32	16.20	88.00	13.20	137.10	7.60	3.40	1.50	0.74	0.56	0.32		
11	0.14	1.15	18.00	61.30	10.80	75.40	6.80	3.20	1.43	0.80	0.44	0.32		
12	0.56	1.95	11.70	33.50	9.90	37.80	6.60	3.20	1.36	0.80	0.44	0.32		
13	0.32	1.15	10.50	20.40	9.30	26.50	6.00	3.20	1.29	0.80	0.44	0.44		
14	0.20	0.87	7.40	15.00	17.10	20.80	6.20	6.40	1.22	0.80	0.44	0.38		
15	0.18	1.29	5.60	13.20	21.20	17.40	5.80	4.80	1.22	0.80	0.44	0.32		
16	0.16	0.80	4.00	17.10	18.40	19.60	5.40	3.80	1.22	0.74	0.38	0.32		
17	0.16	6.20	3.00	14.10	13.50	32.50	6.00	3.20	1.15	0.74	0.38	0.32		
18	0.14	4.80	4.00	13.80	234.20	36.60	7.20	3.20	1.15	0.68	0.38	0.32		
19	0.14	1.65	3.00	11.70	118.00	22.80	6.40	3.00	1.15	0.68	0.38	2.10		
20	0.14	1.36	3.40	10.50	251.10	29.00	6.20	2.70	1.15	0.68	0.38	1.08		
21	0.12	13.80	3.00	8.20	178.60	39.00	6.20	2.55	4.00	0.62	0.50	0.87		
22	0.12	4.00	7.80	7.00	107.00	24.80	6.00	2.40	3.20	0.62	0.62	0.68		
23	0.12	1.80	16.20	9.00	69.20	20.00	5.80	2.25	2.10	0.62	0.68	0.62		
24	0.12	23.20	42.60	7.20	43.20	15.30	6.60	2.10	1.43	0.62	0.62	0.56		
25	0.12	26.50	33.00	29.00	29.00	13.50	6.00	1.95	1.36	0.32	0.68	0.44		
26	0.56	41.40	21.20	12.90	117.00	12.00	5.80	1.65	1.29	0.44	0.80	0.44		
27	0.26	18.00	12.60	8.60	52.20	11.40	5.60	1.50	1.22	0.62	0.62	0.44		
28	0.18	9.30	24.40	55.00	92.50	32.00	5.40	1.80	1.08	0.62	0.80	0.68		
29	0.16	10.50	12.90	50.10	40.80	41.40	6.40	1.65	1.08	0.56		0.62		
30	0.16	7.00	9.60	245.90	34.00	28.50	7.40	1.65	1.08	0.56		0.56		
31		4.60		110.00	33.00		7.00		1.01	0.56		0.62		
Total	5.94	191.39	352.15	1410.10	1910.30	1488.40	247.00	103.00	48.44	22.32	14.54	17.15	5810.73	CMSDAY
Mean	0.20	6.17	11.74	45.49	61.62	49.61	7.97	3.43	1.56	0.72	0.52	0.55	15.92	CMS
Max	0.56	41.40	42.60	245.90	251.10	179.80	18.40	6.40	4.00	1.01	0.80	2.10	251.10	CMS
Min	0.12	0.32	2.55	7.00	9.30	11.40	5.40	1.50	1.01	0.32	0.38	0.32	0.12	CMS
Runoff	0.51	16.54	30.43	121.83	165.05	128.60	21.34	8.90	4.19	1.93	1.26	1.48	502.05	MCM

Momentary Peak 384.80 CMS, at 4.06 m. (A.D.) , at 18.00 Hours , on Aug 18, 2002

Runoff Yield 27.93 Liters/Second/Square KM. Momentary Peak Yield 675.090 Liters/Second/Square KM.

WATER YEAR : 2005

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	+0.000 m. (A.D.)
Bench Mark	B.M.-H.D.
Location BM	On left bank about 5 meters from the gage site. **Elevation** +9.129 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 mean 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	Fairly stable because of backwater effect.
Overbank Flow Conditions	Overbank flow starts at elevation +5.180 m.(A.D.) and is including overbank flow.
General Description	Records good. Ban Don Mon weir situated downstream from the gage site. Stage-discharge relation defined by 47 discharge measurements made in 2002.

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

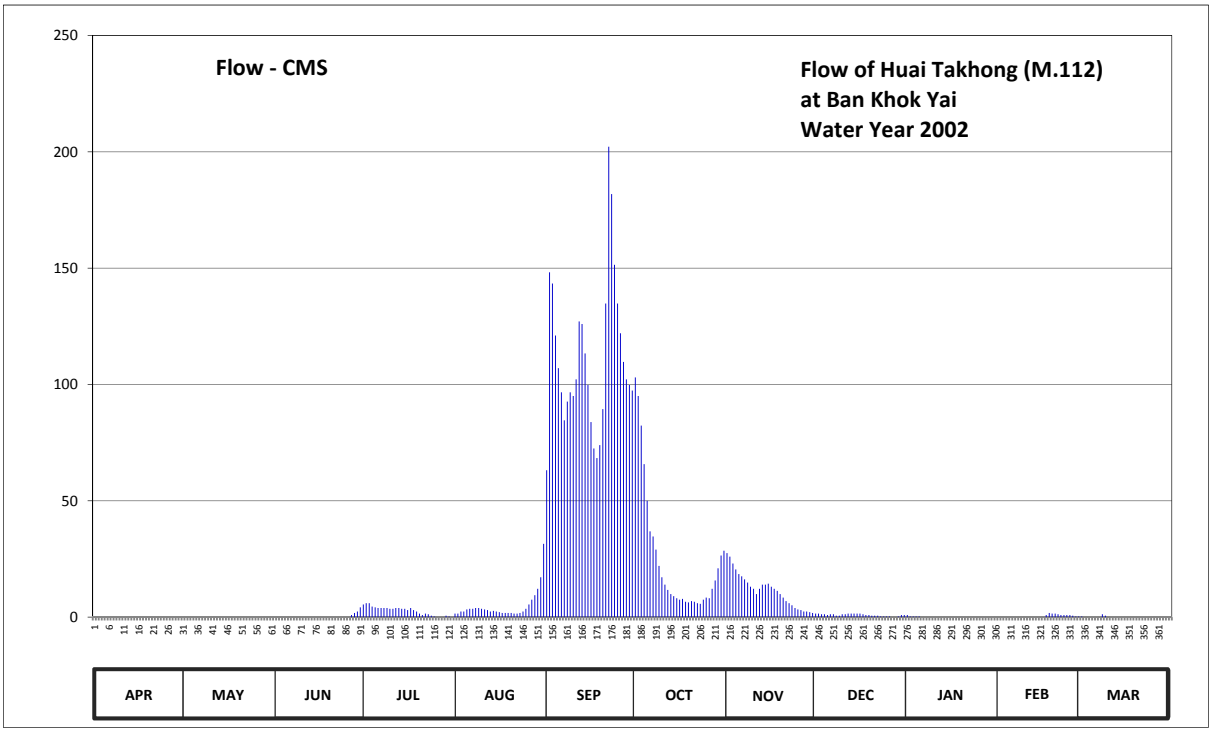
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	3.75	3.80	3.94	4.78	4.65	5.91	6.45	5.29	4.65	4.63	4.36	4.61	
2	3.73	3.80	3.94	4.80	4.65	6.87	6.35	5.26	4.65	4.61	4.36	4.60	
3	3.72	3.83	3.94	4.80	4.68	6.84	6.19	5.20	4.64	4.61	4.35	4.60	
4	3.71	3.87	3.99	4.75	4.68	6.65	5.95	5.15	4.64	4.61	4.33	4.60	
5	3.70	3.88	4.00	4.74	4.71	6.50	5.70	5.11	4.63	4.61	4.33	4.59	
6	3.68	3.88	4.01	4.73	4.72	6.37	5.47	5.09	4.64	4.60	4.31	4.58	
7	3.66	3.88	4.01	4.73	4.72	6.22	5.43	5.06	4.64	4.59	4.31	4.56	
8	3.65	3.87	4.00	4.73	4.73	6.32	5.32	5.03	4.62	4.58	4.30	4.64	
9	3.65	3.87	3.98	4.73	4.73	6.37	5.18	4.99	4.62	4.57	4.30	4.62	
10	3.65	3.88	3.98	4.72	4.72	6.35	5.08	4.97	4.64	4.57	4.29	4.60	
11	3.63	3.88	4.02	4.72	4.71	6.44	5.01	4.92	4.64	4.56	4.27	4.59	
12	3.62	3.87	4.03	4.73	4.70	6.71	4.96	4.97	4.65	4.55	4.25	4.59	
13	3.60	3.87	4.04	4.73	4.68	6.70	4.92	5.01	4.65	4.54	4.25	4.59	
14	3.60	3.88	4.03	4.72	4.69	6.57	4.90	5.01	4.65	4.54	4.24	4.58	
15	3.59	3.89	4.03	4.72	4.68	6.41	4.87	5.02	4.65	4.53	4.23	4.58	
16	3.59	3.89	4.03	4.70	4.67	6.21	4.85	4.99	4.65	4.53	4.38	4.57	
17	3.59	3.88	4.02	4.73	4.66	6.05	4.86	4.97	4.64	4.52	4.63	4.56	
18	3.58	3.87	4.02	4.70	4.66	5.99	4.82	4.95	4.63	4.51	4.66	4.56	
19	3.58	3.87	4.01	4.68	4.66	6.07	4.81	4.92	4.63	4.50	4.65	4.54	
20	3.63	3.88	4.00	4.65	4.66	6.28	4.83	4.88	4.62	4.49	4.65	4.54	
21	3.63	3.87	3.99	4.63	4.65	6.78	4.82	4.83	4.62	4.47	4.64	4.55	
22	3.62	3.87	3.98	4.65	4.65	7.08	4.80	4.80	4.62	4.44	4.63	4.55	
23	3.61	3.87	3.98	4.64	4.66	7.02	4.79	4.77	4.61	4.43	4.63	4.55	
24	3.61	3.87	4.05	4.62	4.68	6.89	4.85	4.73	4.61	4.43	4.63	4.54	
25	3.61	3.88	4.16	4.61	4.72	6.78	4.88	4.71	4.61	4.43	4.63	4.53	
26	3.74	3.94	4.47	4.60	4.78	6.66	4.87	4.70	4.61	4.42	4.62	4.52	
27	3.76	3.96	4.63	4.60	4.85	6.53	4.97	4.68	4.60	4.41	4.61	4.51	
28	3.76	3.97	4.66	4.60	4.91	6.44	5.05	4.68	4.60	4.40	4.61	4.51	
29	3.76	3.97	4.68	4.62	4.97	6.41	5.16	4.67	4.61	4.39		4.50	
30	3.76	3.96	4.74	4.61	5.08	6.38	5.27	4.66	4.63	4.38		4.49	
31		3.95		4.60	5.37		5.31		4.63	4.37		4.49	
Mean	3.66	3.89	4.11	4.69	4.74	6.49	5.18	4.93	4.63	4.51	4.44	4.56	
Max	3.76	3.97	4.74	4.80	5.37	7.08	6.45	5.29	4.65	4.63	4.66	4.64	7.08
Min	3.58	3.80	3.94	4.60	4.65	5.91	4.79	4.66	4.60	4.37	4.23	4.49	3.58

Annual Max Momentary Gage Height 7.09 m. (A.D.) , at 12.00 Hours , on Sep 22, 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed -0.17 m. (A.D.) ,

Left Bank Elevation 5.85 m. (A.D.) ,

Right Bank Elevation 5.18 m. (A.D.) , Drainage Are 1,232 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	0.00	5.40	1.50	63.15	103.00	27.50	1.50	0.90	0.00	0.30		
2	0.00	0.00	0.00	6.00	1.50	148.20	95.00	26.00	1.50	0.30	0.00	0.00		
3	0.00	0.00	0.00	6.00	2.40	143.40	82.30	23.00	1.20	0.30	0.00	0.00		
4	0.00	0.00	0.00	4.50	2.40	121.00	65.75	20.50	1.20	0.30	0.00	0.00		
5	0.00	0.00	0.00	4.20	3.30	107.00	50.00	18.50	0.90	0.30	0.00	0.00		
6	0.00	0.00	0.00	3.90	3.60	96.60	36.85	17.55	1.20	0.00	0.00	0.00		
7	0.00	0.00	0.00	3.90	3.60	84.60	34.65	16.20	1.20	0.00	0.00	0.00		
8	0.00	0.00	0.00	3.90	3.90	92.60	29.00	14.85	0.60	0.00	0.00	1.20		
9	0.00	0.00	0.00	3.90	3.90	96.60	22.00	13.05	0.60	0.00	0.00	0.60		
10	0.00	0.00	0.00	3.60	3.60	95.00	17.10	12.15	1.20	0.00	0.00	0.00		
11	0.00	0.00	0.00	3.60	3.30	102.20	13.95	9.90	1.20	0.00	0.00	0.00		
12	0.00	0.00	0.00	3.90	3.00	127.10	11.70	12.15	1.50	0.00	0.00	0.00		
13	0.00	0.00	0.00	3.90	2.40	126.00	9.90	13.95	1.50	0.00	0.00	0.00		
14	0.00	0.00	0.00	3.60	2.70	113.30	9.00	13.95	1.50	0.00	0.00	0.00		
15	0.00	0.00	0.00	3.60	2.40	99.80	8.10	14.40	1.50	0.00	0.00	0.00		
16	0.00	0.00	0.00	3.00	2.10	83.80	7.50	13.05	1.50	0.00	0.00	0.00		
17	0.00	0.00	0.00	3.90	1.80	72.50	7.80	12.15	1.20	0.00	0.90	0.00		
18	0.00	0.00	0.00	3.00	1.80	68.35	6.60	11.25	0.90	0.00	1.80	0.00		
19	0.00	0.00	0.00	2.40	1.80	73.90	6.30	9.90	0.90	0.00	1.50	0.00		
20	0.00	0.00	0.00	1.50	1.80	89.40	6.90	8.40	0.60	0.00	1.50	0.00		
21	0.00	0.00	0.00	0.90	1.50	134.80	6.60	6.90	0.60	0.00	1.20	0.00		
22	0.00	0.00	0.00	1.50	1.50	202.20	6.00	6.00	0.60	0.00	0.90	0.00		
23	0.00	0.00	0.00	1.20	1.80	181.80	5.70	5.10	0.30	0.00	0.90	0.00		
24	0.00	0.00	0.00	0.60	2.40	151.40	7.50	3.90	0.30	0.00	0.90	0.00		
25	0.00	0.00	0.00	0.30	3.60	134.80	8.40	3.30	0.30	0.00	0.90	0.00		
26	0.00	0.00	0.00	0.00	5.40	122.00	8.10	3.00	0.30	0.00	0.60	0.00		
27	0.00	0.00	0.90	0.00	7.50	109.70	12.15	2.40	0.00	0.00	0.30	0.00		
28	0.00	0.00	1.80	0.00	9.45	102.20	15.75	2.40	0.00	0.00	0.30	0.00		
29	0.00	0.00	2.40	0.60	12.15	99.80	21.00	2.10	0.30	0.00		0.00		
30	0.00	0.00	4.20	0.30	17.10	97.40	26.50	1.80	0.90	0.00		0.00		
31		0.00		0.00	31.50		28.50		0.90	0.00		0.00		
Total	0.00	0.00	9.30	83.10	146.70	3340.60	769.60	345.30	27.90	2.10	11.70	2.10	4738.40	CMSDAY
Mean	0.00	0.00	0.31	2.68	4.73	111.35	24.83	11.51	0.90	0.07	0.42	0.07	12.98	CMS
Max	0.00	0.00	4.20	6.00	31.50	202.20	103.00	27.50	1.50	0.90	1.80	1.20	202.20	CMS
Min	0.00	0.00	0.00	0.00	1.50	63.15	5.70	1.80	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	0.00	0.00	0.80	7.18	12.67	288.63	66.49	29.83	2.41	0.18	1.01	0.18	409.40	MCM

Momentary Peak 205.60 CMS, at 7.09 m. (A.D.) , at 12.00 Hours , on Sep 22, 2002

Runoff Yield 10.54 Liters/Second/Square KM. Momentary Peak Yield 166.880 Liters/Second/Square KM.

WATER YEAR : 2005

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	+0.000 m. (A.D.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank downstream side at the abutment of the bridge.	**Elevation**	+11.514 m. (A.D.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean 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	Fairly stable because of backwater effect.		
Overbank Flow Conditions	Overbank flow starts at elevation +6.050 m.(A.D.) record are channel flow only.		
General Description	Records fair. The weir situsted about 300 meters downstream from the gage site. Stage-discharge relation defined by 59 discharge measurements made in 2002.		

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

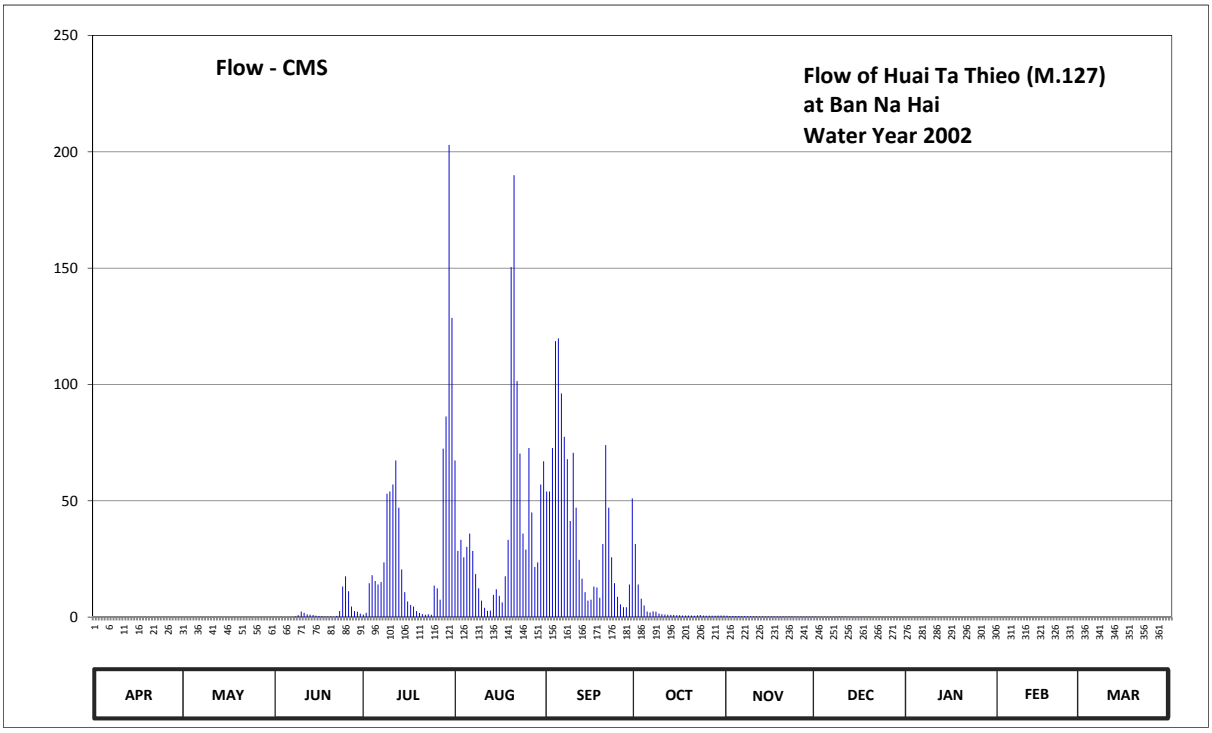
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	1.02	1.01	0.95	1.48	2.81	2.60	2.34	1.37	1.26	1.23	1.11	1.08	
2	1.03	1.01	0.95	1.58	2.29	2.60	2.01	1.35	1.25	1.23	1.11	1.07	
3	1.02	1.01	0.95	2.02	2.37	2.99	1.86	1.34	1.25	1.23	1.10	1.07	
4	1.02	1.01	0.97	2.09	2.24	4.34	1.78	1.34	1.24	1.22	1.10	1.06	
5	1.01	1.01	0.97	2.04	2.32	4.37	1.64	1.34	1.24	1.22	1.10	1.06	
6	1.01	1.00	0.98	2.01	2.41	3.77	1.60	1.33	1.25	1.22	1.09	1.06	
7	1.01	1.00	1.05	2.03	2.29	3.15	1.65	1.32	1.25	1.21	1.08	1.06	
8	1.01	1.00	1.29	2.20	2.10	2.83	1.63	1.31	1.26	1.21	1.08	1.05	
9	1.01	0.99	1.42	2.59	1.97	2.47	1.54	1.31	1.26	1.21	1.07	1.05	
10	1.00	0.99	1.64	2.60	1.84	2.92	1.50	1.31	1.26	1.21	1.07	1.05	
11	1.00	0.98	1.58	2.63	1.74	2.53	1.48	1.31	1.26	1.20	1.06	1.03	
12	0.99	0.98	1.49	2.81	1.67	2.22	1.46	1.30	1.25	1.19	1.06	1.02	
13	0.97	0.97	1.47	2.53	1.68	2.06	1.45	1.30	1.25	1.18	1.06	1.01	
14	0.96	0.97	1.44	2.14	1.90	1.93	1.45	1.30	1.25	1.18	1.05	1.01	
15	0.95	0.97	1.38	1.93	1.96	1.84	1.43	1.30	1.25	1.18	1.05	1.01	
16	0.95	0.97	1.35	1.83	1.89	1.85	1.42	1.30	1.24	1.18	1.05	1.00	
17	0.95	0.96	1.33	1.79	1.82	1.99	1.40	1.30	1.24	1.18	1.07	1.00	
18	0.95	0.96	1.30	1.76	2.08	1.98	1.39	1.30	1.24	1.17	1.07	0.99	
19	0.94	0.95	1.30	1.66	2.37	1.87	1.40	1.29	1.24	1.17	1.07	0.99	
20	0.94	0.93	1.28	1.57	4.99	2.34	1.40	1.28	1.23	1.16	1.07	0.99	
21	0.94	0.93	1.24	1.51	5.63	3.03	1.38	1.28	1.23	1.15	1.06	0.99	
22	0.93	0.93	1.35	1.46	3.91	2.53	1.41	1.28	1.23	1.15	1.06	0.97	
23	0.92	0.92	1.66	1.50	2.91	2.24	1.44	1.28	1.23	1.15	1.06	0.96	
24	0.92	0.92	1.99	1.47	2.41	2.02	1.40	1.27	1.23	1.15	1.06	0.96	
25	0.92	0.91	2.08	2.00	2.30	1.88	1.38	1.27	1.23	1.15	1.06	0.95	
26	0.92	0.91	1.94	1.97	2.99	1.80	1.38	1.27	1.23	1.14	1.08	0.95	
27	0.92	0.91	1.76	1.85	2.51	1.75	1.38	1.26	1.22	1.14	1.08	0.95	
28	0.92	0.91	1.66	2.98	2.16	1.75	1.38	1.26	1.22	1.13	1.08	0.97	
29	0.93	0.92	1.63	3.44	2.20	2.01	1.40	1.26	1.22	1.12		0.97	
30	1.01	0.96	1.54	5.82	2.63	2.57	1.39	1.26	1.22	1.12		0.97	
31		0.95		4.59	2.80		1.39		1.22	1.11		0.97	
Mean	0.97	0.96	1.40	2.25	2.49	2.47	1.52	1.30	1.24	1.18	1.07	1.01	
Max	1.03	1.01	2.08	5.82	5.63	4.37	2.34	1.37	1.26	1.23	1.11	1.08	5.82
Min	0.92	0.91	0.95	1.46	1.67	1.75	1.38	1.26	1.22	1.11	1.05	0.95	0.91

Annual Max Momentary Gage Height 6.33 m. (A.D.) , at 23.00 Hours , on Aug 20, 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed -0.46 m. (A.D.)

Left Bank Elevation 6.66 m. (A.D.) ,

Right Bank Elevation 6.04 m. (A.D.) , Drainage Are 424 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	0.00	1.10	67.30	54.00	31.40	0.58	0.18	0.09	0.00	0.00		
2	0.00	0.00	0.00	1.84	28.45	54.00	14.05	0.50	0.15	0.09	0.00	0.00		
3	0.00	0.00	0.00	14.54	33.20	72.70	7.92	0.46	0.15	0.09	0.00	0.00		
4	0.00	0.00	0.00	18.03	25.70	118.60	5.00	0.46	0.12	0.06	0.00	0.00		
5	0.00	0.00	0.00	15.54	30.20	119.80	2.40	0.46	0.12	0.06	0.00	0.00		
6	0.00	0.00	0.00	14.05	35.90	96.10	2.00	0.42	0.15	0.06	0.00	0.00		
7	0.00	0.00	0.00	15.04	28.45	77.50	2.50	0.38	0.15	0.03	0.00	0.00		
8	0.00	0.00	0.27	23.50	18.52	67.90	2.30	0.34	0.18	0.03	0.00	0.00		
9	0.00	0.00	0.80	53.00	12.34	41.30	1.52	0.34	0.18	0.03	0.00	0.00		
10	0.00	0.00	2.40	54.00	7.11	70.60	1.20	0.34	0.18	0.03	0.00	0.00		
11	0.00	0.00	1.84	57.00	4.00	47.00	1.10	0.34	0.18	0.00	0.00	0.00		
12	0.00	0.00	1.15	67.30	2.70	24.60	1.00	0.30	0.15	0.00	0.00	0.00		
13	0.00	0.00	1.05	47.00	2.80	16.53	0.95	0.30	0.15	0.00	0.00	0.00		
14	0.00	0.00	0.90	20.51	9.53	10.73	0.95	0.30	0.15	0.00	0.00	0.00		
15	0.00	0.00	0.62	10.73	11.94	7.11	0.85	0.30	0.15	0.00	0.00	0.00		
16	0.00	0.00	0.50	6.71	9.12	7.51	0.80	0.30	0.12	0.00	0.00	0.00		
17	0.00	0.00	0.42	5.25	6.31	13.15	0.70	0.30	0.12	0.00	0.00	0.00		
18	0.00	0.00	0.30	4.50	17.53	12.75	0.66	0.30	0.12	0.00	0.00	0.00		
19	0.00	0.00	0.30	2.60	33.20	8.32	0.70	0.27	0.12	0.00	0.00	0.00		
20	0.00	0.00	0.24	1.76	150.45	31.40	0.70	0.24	0.09	0.00	0.00	0.00		
21	0.00	0.00	0.12	1.28	189.95	73.90	0.62	0.24	0.09	0.00	0.00	0.00		
22	0.00	0.00	0.50	1.00	101.40	47.00	0.75	0.24	0.09	0.00	0.00	0.00		
23	0.00	0.00	2.60	1.20	70.30	25.70	0.90	0.24	0.09	0.00	0.00	0.00		
24	0.00	0.00	13.15	1.05	35.90	14.54	0.70	0.21	0.09	0.00	0.00	0.00		
25	0.00	0.00	17.53	13.55	29.00	8.72	0.62	0.21	0.09	0.00	0.00	0.00		
26	0.00	0.00	11.14	12.34	72.70	5.50	0.62	0.21	0.09	0.00	0.00	0.00		
27	0.00	0.00	4.50	7.51	45.00	4.25	0.62	0.18	0.06	0.00	0.00	0.00		
28	0.00	0.00	2.60	72.40	21.51	4.25	0.62	0.18	0.06	0.00	0.00	0.00		
29	0.00	0.00	2.30	86.20	23.50	14.05	0.70	0.18	0.06	0.00		0.00		
30	0.00	0.00	1.52	202.90	57.00	51.00	0.66	0.18	0.06	0.00		0.00		
31		0.00		128.60	67.00		0.66		0.06	0.00		0.00		
Total	0.00	0.00	66.75	962.03	1248.01	1200.51	86.17	9.30	3.75	0.57	0.00	0.00	3577.09	CMSDAY
Mean	0.00	0.00	2.23	31.03	40.26	40.02	2.78	0.31	0.12	0.02	0.00	0.00	9.80	CMS
Max	0.00	0.00	17.53	202.90	189.95	119.80	31.40	0.58	0.18	0.09	0.00	0.00	202.90	CMS
Min	0.00	0.00	0.00	1.00	2.70	4.25	0.62	0.18	0.06	0.00	0.00	0.00	0.00	CMS
Runoff	0.00	0.00	5.77	83.12	107.83	103.72	7.45	0.80	0.32	0.05	0.00	0.00	309.06	MCM

Momentary Peak 252.00 CMS, at 6.33 m. (A.D.) , at 23.00 Hours , on Aug 20, 2002

Runoff Yield 23.11 Liters/Second/Square KM. Momentary Peak Yield 594.340 Liters/Second/Square KM.

WATER YEAR : 2002

MUN RIVER BASIN

Huai Hin Lap at Ban Hin Lap, Nakhon Ratchasima (M.134)

Lat 14 - 43 - 29 N Long 101 - 34 - 21 E

Location : on left bank at Ban Hin Lap.

Ban Hin Lap **Amphoe** Pak Chong **Changwat** Nakhon Ratchasima

Drainge Area	250 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 gage observer's house. **Elevation** +10.405 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 mean of 5 readings
Period of Available Gage Records	1986 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 +6.150 m.(A.D.), records are channel flow only.
General Description	Records very good. Stage-discharge relation defined by 94 discharge measurements made in 2002.

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

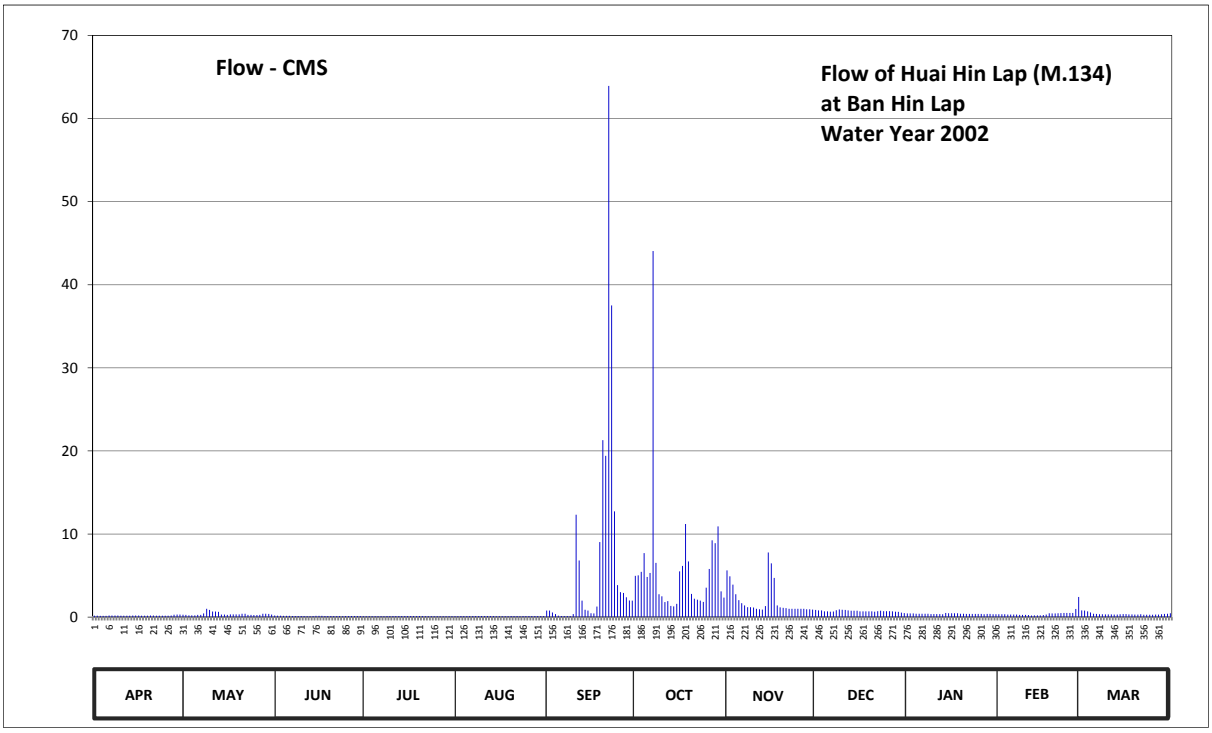
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.37	0.44	0.39	0.32	0.32	0.69	1.76	1.87	0.73	0.52	0.47	0.70	
2	0.37	0.43	0.38	0.32	0.32	0.69	1.77	1.75	0.70	0.52	0.47	0.69	
3	0.36	0.41	0.37	0.31	0.34	0.58	1.84	1.58	0.70	0.52	0.47	0.65	
4	0.36	0.41	0.36	0.31	0.34	0.48	2.20	1.35	0.65	0.50	0.45	0.58	
5	0.36	0.41	0.35	0.32	0.33	0.38	1.74	1.18	0.65	0.50	0.45	0.50	
6	0.40	0.43	0.35	0.32	0.33	0.33	1.82	1.06	0.63	0.50	0.45	0.49	
7	0.40	0.43	0.34	0.32	0.34	0.33	5.28	0.97	0.64	0.50	0.45	0.47	
8	0.40	0.52	0.33	0.32	0.33	0.33	2.02	0.90	0.71	0.50	0.43	0.47	
9	0.40	0.80	0.33	0.33	0.33	0.33	1.35	0.90	0.76	0.48	0.43	0.46	
10	0.38	0.73	0.33	0.33	0.33	0.48	1.30	0.88	0.74	0.48	0.43	0.46	
11	0.38	0.64	0.33	0.33	0.33	2.84	1.10	0.80	0.73	0.48	0.42	0.46	
12	0.38	0.64	0.32	0.33	0.33	2.07	1.14	0.77	0.70	0.48	0.40	0.45	
13	0.38	0.62	0.32	0.33	0.33	1.16	0.95	0.75	0.68	0.47	0.41	0.45	
14	0.39	0.45	0.33	0.33	0.33	0.74	0.93	0.94	0.68	0.55	0.41	0.47	
15	0.40	0.45	0.35	0.33	0.32	0.69	1.03	2.21	0.68	0.53	0.41	0.48	
16	0.40	0.43	0.35	0.33	0.32	0.53	1.85	2.01	0.65	0.53	0.42	0.48	
17	0.38	0.46	0.35	0.33	0.32	0.52	1.96	1.72	0.65	0.53	0.45	0.46	
18	0.38	0.46	0.34	0.33	0.32	0.92	2.70	0.97	0.65	0.53	0.53	0.46	
19	0.38	0.46	0.34	0.33	0.32	2.39	2.05	0.89	0.65	0.50	0.52	0.45	
20	0.39	0.46	0.33	0.33	0.33	3.82	1.36	0.86	0.65	0.50	0.52	0.45	
21	0.39	0.50	0.33	0.33	0.33	3.63	1.23	0.84	0.63	0.49	0.53	0.47	
22	0.38	0.50	0.33	0.32	0.33	6.07	1.20	0.80	0.66	0.49	0.54	0.44	
23	0.38	0.43	0.33	0.32	0.32	4.95	1.16	0.80	0.68	0.49	0.55	0.44	
24	0.37	0.43	0.32	0.32	0.33	2.89	1.11	0.80	0.66	0.49	0.55	0.44	
25	0.37	0.42	0.33	0.32	0.33	1.57	1.51	0.80	0.66	0.49	0.55	0.44	
26	0.37	0.42	0.34	0.32	0.33	1.40	1.90	0.80	0.66	0.49	0.55	0.45	
27	0.39	0.43	0.34	0.32	0.33	1.38	2.42	0.80	0.65	0.47	0.79	0.45	
28	0.44	0.50	0.34	0.32	0.33	1.27	2.37	0.77	0.63	0.49	1.28	0.47	
29	0.45	0.50	0.34	0.32	0.34	1.17	2.66	0.77	0.62	0.49		0.49	
30	0.45	0.49	0.33	0.32	0.34	1.16	1.42	0.75	0.57	0.47		0.50	
31		0.45		0.32	0.34		1.26		0.54	0.47		0.53	
Mean	0.39	0.49	0.34	0.32	0.33	1.53	1.75	1.08	0.66	0.50	0.51	0.49	
Max	0.45	0.80	0.38	0.33	0.34	6.07	5.28	2.21	0.76	0.55	1.28	0.69	6.07
Min	0.36	0.41	0.32	0.31	0.32	0.33	0.93	0.75	0.54	0.47	0.40	0.44	0.31

Annual Max Momentary Gage Height 6.91 m. (A.D.) , at 16.00 Hours , on Sep 22, 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed 0.22 m. (A.D.)

Left Bank Elevation 6.16 m. (A.D.) ,

Right Bank Elevation 6.15 m. (A.D.) , Drainage Are 250 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.17	0.28	0.19	0.12	0.12	0.78	4.96	5.62	0.86	0.44	0.34	0.80		
2	0.17	0.26	0.18	0.12	0.12	0.78	5.02	4.90	0.80	0.44	0.34	0.78		
3	0.16	0.22	0.17	0.11	0.14	0.56	5.44	3.90	0.80	0.44	0.34	0.70		
4	0.16	0.22	0.16	0.11	0.14	0.36	7.70	2.75	0.70	0.40	0.30	0.56		
5	0.16	0.22	0.15	0.12	0.13	0.18	4.84	2.04	0.70	0.40	0.30	0.40		
6	0.20	0.26	0.15	0.12	0.13	0.13	5.32	1.68	0.66	0.40	0.30	0.38		
7	0.20	0.26	0.14	0.12	0.14	0.13	44.06	1.41	0.68	0.40	0.30	0.34		
8	0.20	0.44	0.13	0.12	0.13	0.13	6.52	1.20	0.82	0.40	0.26	0.34		
9	0.20	1.00	0.13	0.13	0.13	0.13	2.75	1.20	0.92	0.36	0.26	0.32		
10	0.18	0.86	0.13	0.13	0.13	0.36	2.50	1.16	0.88	0.36	0.26	0.32		
11	0.18	0.68	0.13	0.13	0.13	12.32	1.80	1.00	0.86	0.36	0.24	0.32		
12	0.18	0.68	0.12	0.13	0.13	6.82	1.92	0.94	0.80	0.36	0.20	0.30		
13	0.18	0.64	0.12	0.13	0.13	1.98	1.35	0.90	0.76	0.34	0.22	0.30		
14	0.19	0.30	0.13	0.13	0.13	0.88	1.29	1.32	0.76	0.50	0.22	0.34		
15	0.20	0.30	0.15	0.13	0.12	0.78	1.59	7.77	0.76	0.46	0.22	0.36		
16	0.20	0.26	0.15	0.13	0.12	0.46	5.50	6.46	0.70	0.46	0.24	0.36		
17	0.18	0.32	0.15	0.13	0.12	0.44	6.16	4.72	0.70	0.46	0.30	0.32		
18	0.18	0.32	0.14	0.13	0.12	1.26	11.20	1.41	0.70	0.46	0.46	0.32		
19	0.18	0.32	0.14	0.13	0.12	9.03	6.70	1.18	0.70	0.40	0.44	0.30		
20	0.19	0.32	0.13	0.13	0.13	21.30	2.80	1.12	0.70	0.40	0.44	0.30		
21	0.19	0.40	0.13	0.13	0.13	19.40	2.22	1.08	0.66	0.38	0.46	0.34		
22	0.18	0.40	0.13	0.12	0.13	63.93	2.10	1.00	0.72	0.38	0.48	0.28		
23	0.18	0.26	0.13	0.12	0.12	37.50	1.98	1.00	0.76	0.38	0.50	0.28		
24	0.17	0.26	0.12	0.12	0.13	12.72	1.83	1.00	0.72	0.38	0.50	0.28		
25	0.17	0.24	0.13	0.12	0.13	3.85	3.55	1.00	0.72	0.38	0.50	0.28		
26	0.17	0.24	0.14	0.12	0.13	3.00	5.80	1.00	0.72	0.38	0.50	0.30		
27	0.19	0.26	0.14	0.12	0.13	2.90	9.24	1.00	0.70	0.34	0.98	0.30		
28	0.28	0.40	0.14	0.12	0.13	2.38	8.89	0.94	0.66	0.38	2.42	0.34		
29	0.30	0.40	0.14	0.12	0.14	2.01	10.92	0.94	0.64	0.38		0.38		
30	0.30	0.38	0.13	0.12	0.14	1.98	3.10	0.90	0.54	0.34		0.40		
31		0.30		0.12	0.14		2.34		0.48	0.34		0.46		
Total	5.79	11.70	4.22	3.83	4.01	208.48	181.39	62.54	22.58	12.30	12.32	11.80	540.96	CMSDAY
Mean	0.19	0.38	0.14	0.12	0.13	6.95	5.85	2.08	0.73	0.40	0.44	0.38	1.48	CMS
Max	0.30	1.00	0.19	0.13	0.14	63.93	44.06	7.77	0.92	0.50	2.42	0.80	63.93	CMS
Min	0.16	0.22	0.12	0.11	0.12	0.13	1.29	0.90	0.48	0.34	0.20	0.28	0.11	CMS
Runoff	0.50	1.01	0.36	0.33	0.35	18.01	15.67	5.40	1.95	1.06	1.06	1.02	46.74	MCM

Momentary Peak 94.51 CMS, at 6.91 m. (A.D.) , at 16.00 Hours , on Sep 22, 2002

Runoff Yield 5.93 Liters/Second/Square KM. Momentary Peak Yield 378.040 Liters/Second/Square KM.

WATER YEAR : 2002

MUN RIVER BASIN

Huai Nua at Ban Raka, Si Sa Ket (M.137)

Lat 14 - 47 - 28 N Long 104 - 10 - 35 E

Location : on right bank at the bridge on road.

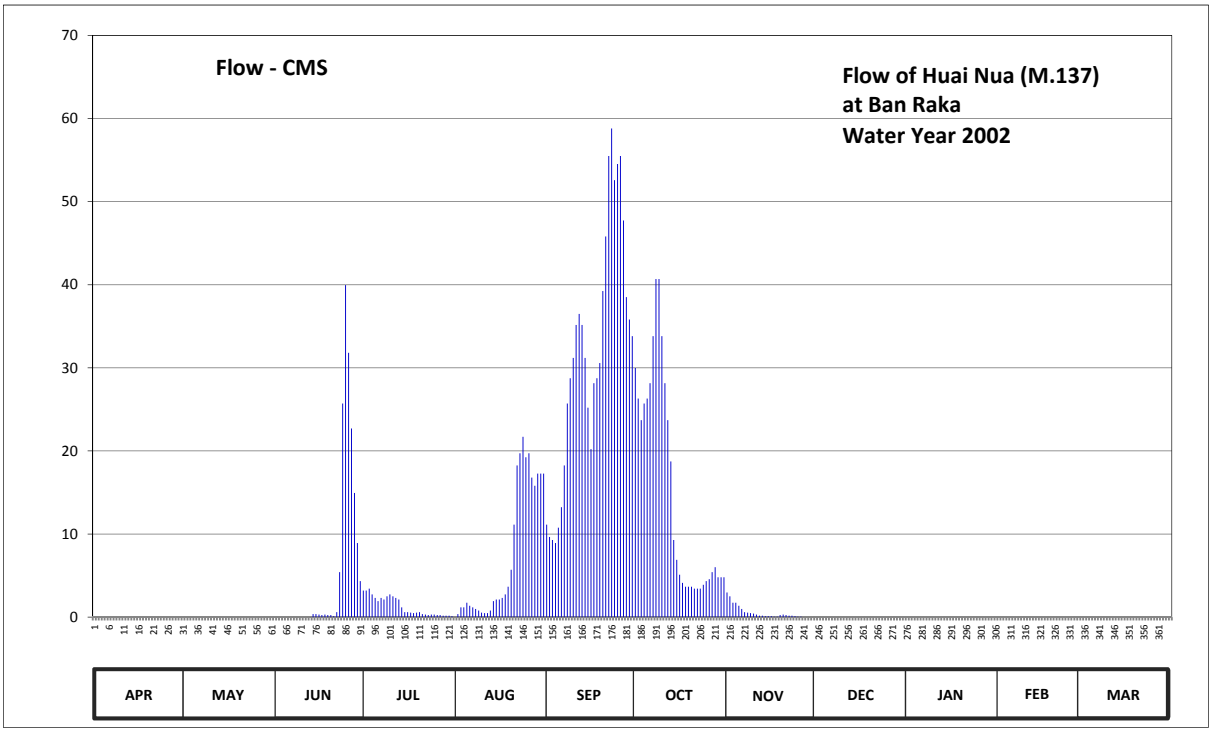
Ban Raka **Amphoe** Khu Khan **Changwat** Si Sa Ket

Drainge Area	478 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 upstream side at the abutment of the bridge. **Elevation** +4.625 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 mean 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	Rather unstable because of backwater effect.
Overbank Flow Conditions	Overbank flow starts at elevation +1.090 m.(A.D.) and is including overbank flow.
General Description	Records fair. Stage-discharge relation defined by 56 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.19	0.03	-0.08	1.43	1.19	1.69	2.07	1.42	1.19	0.74	0.53	0.38	
2	0.18	0.02	-0.10	1.43	1.26	1.65	2.01	1.40	1.18	0.74	0.52	0.38	
3	0.17	0.01	-0.09	1.44	1.33	1.64	1.96	1.36	1.16	0.74	0.50	0.38	
4	0.16	0.01	-0.05	1.41	1.33	1.63	2.00	1.36	1.15	0.73	0.48	0.37	
5	0.14	0.00	-0.06	1.39	1.36	1.68	2.01	1.34	1.12	0.73	0.47	0.36	
6	0.12	-0.01	-0.07	1.37	1.34	1.74	2.04	1.32	1.10	0.72	0.47	0.35	
7	0.10	-0.02	-0.07	1.39	1.33	1.85	2.13	1.30	1.07	0.71	0.46	0.34	
8	0.08	-0.03	-0.08	1.38	1.32	2.00	2.23	1.29	1.05	0.70	0.46	0.33	
9	0.06	-0.04	-0.09	1.40	1.31	2.05	2.23	1.28	1.03	0.70	0.45	0.32	
10	0.05	-0.05	-0.09	1.41	1.29	2.09	2.13	1.27	1.01	0.69	0.45	0.30	
11	0.08	-0.06	-0.04	1.40	1.28	2.15	2.04	1.25	1.00	0.68	0.44	0.28	
12	0.13	-0.07	-0.01	1.39	1.28	2.17	1.96	1.23	0.98	0.67	0.44	0.26	
13	0.15	-0.08	1.13	1.38	1.31	2.15	1.86	1.23	0.96	0.66	0.43	0.26	
14	0.15	-0.09	1.26	1.33	1.37	2.09	1.64	1.22	0.94	0.65	0.42	0.25	
15	0.15	-0.09	1.26	1.30	1.38	1.99	1.57	1.22	0.93	0.65	0.41	0.25	
16	0.14	-0.10	1.25	1.30	1.38	1.89	1.51	1.22	0.90	0.64	0.40	0.24	
17	0.13	-0.10	1.24	1.29	1.39	2.04	1.47	1.21	0.87	0.64	0.39	0.24	
18	0.12	-0.11	1.25	1.28	1.41	2.05	1.45	1.21	0.83	0.63	0.38	0.23	
19	0.13	-0.11	1.24	1.29	1.45	2.08	1.45	1.24	0.81	0.62	0.37	0.21	
20	0.12	-0.12	1.24	1.30	1.53	2.21	1.45	1.25	0.78	0.62	0.36	0.18	
21	0.12	-0.12	1.22	1.26	1.69	2.30	1.44	1.24	0.80	0.61	0.35	0.16	
22	0.11	-0.11	1.30	1.25	1.85	2.40	1.44	1.23	0.81	0.60	0.35	0.15	
23	0.10	-0.10	1.52	1.24	1.88	2.43	1.44	1.23	0.82	0.60	0.40	0.14	
24	0.09	-0.09	2.00	1.25	1.92	2.37	1.46	1.22	0.82	0.59	0.40	0.12	
25	0.09	-0.08	2.22	1.25	1.87	2.39	1.48	1.21	0.81	0.58	0.39	0.11	
26	0.08	-0.05	2.10	1.24	1.88	2.40	1.49	1.21	0.80	0.57	0.37	0.10	
27	0.07	-0.03	1.94	1.24	1.82	2.32	1.52	1.20	0.79	0.56	0.38	0.09	
28	0.06	-0.02	1.78	1.23	1.80	2.20	1.54	1.20	0.78	0.56	0.38	0.08	
29	0.05	-0.02	1.63	1.23	1.83	2.16	1.50	1.20	0.76	0.55		0.07	
30	0.04	-0.02	1.48	1.23	1.83	2.13	1.50	1.20	0.75	0.54		0.05	
31		-0.02		1.22	1.83		1.50		0.75	0.54		0.11	
Mean	0.11	-0.05	0.87	1.32	1.52	2.06	1.73	1.26	0.93	0.64	0.42	0.23	
Max	0.19	0.03	2.22	1.44	1.92	2.43	2.23	1.42	1.19	0.74	0.53	0.38	2.43
Min	0.04	-0.12	-0.10	1.22	1.19	1.63	1.44	1.20	0.75	0.54	0.35	0.05	-0.12

Annual Max Momentary Gage Height	2.43	m. (A.D.) ,	at 09.00 Hours , on Sep 23, 2002		
Zero Gage at Bottom Elevation	0.00	m. (A.D.) ,	River Bed	-2.44	m. (A.D.)
Left Bank Elevation	2.14	m. (A.D.) ,			
Right Bank Elevation	1.08	m. (A.D.) ,	Drainage Are	478	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	0.00	3.19	0.00	11.13	29.97	2.96	0.00	0.00	0.00	0.00		
2	0.00	0.00	0.00	3.19	0.36	9.65	26.31	2.50	0.00	0.00	0.00	0.00		
3	0.00	0.00	0.00	3.42	1.17	9.28	23.70	1.74	0.00	0.00	0.00	0.00		
4	0.00	0.00	0.00	2.73	1.17	8.91	25.70	1.74	0.00	0.00	0.00	0.00		
5	0.00	0.00	0.00	2.31	1.74	10.76	26.31	1.36	0.00	0.00	0.00	0.00		
6	0.00	0.00	0.00	1.93	1.36	13.22	28.14	0.98	0.00	0.00	0.00	0.00		
7	0.00	0.00	0.00	2.31	1.17	18.25	33.81	0.60	0.00	0.00	0.00	0.00		
8	0.00	0.00	0.00	2.12	0.98	25.70	40.69	0.54	0.00	0.00	0.00	0.00		
9	0.00	0.00	0.00	2.50	0.79	28.75	40.69	0.48	0.00	0.00	0.00	0.00		
10	0.00	0.00	0.00	2.73	0.54	31.19	33.81	0.42	0.00	0.00	0.00	0.00		
11	0.00	0.00	0.00	2.50	0.48	35.15	28.14	0.30	0.00	0.00	0.00	0.00		
12	0.00	0.00	0.00	2.31	0.48	36.49	23.70	0.18	0.00	0.00	0.00	0.00		
13	0.00	0.00	0.00	2.12	0.79	35.15	18.74	0.18	0.00	0.00	0.00	0.00		
14	0.00	0.00	0.36	1.17	1.93	31.19	9.28	0.12	0.00	0.00	0.00	0.00		
15	0.00	0.00	0.36	0.60	2.12	25.20	6.90	0.12	0.00	0.00	0.00	0.00		
16	0.00	0.00	0.30	0.60	2.12	20.21	5.10	0.12	0.00	0.00	0.00	0.00		
17	0.00	0.00	0.24	0.54	2.31	28.14	4.11	0.06	0.00	0.00	0.00	0.00		
18	0.00	0.00	0.30	0.48	2.73	28.75	3.65	0.06	0.00	0.00	0.00	0.00		
19	0.00	0.00	0.24	0.54	3.65	30.58	3.65	0.24	0.00	0.00	0.00	0.00		
20	0.00	0.00	0.24	0.60	5.70	39.23	3.65	0.30	0.00	0.00	0.00	0.00		
21	0.00	0.00	0.12	0.36	11.13	45.80	3.42	0.24	0.00	0.00	0.00	0.00		
22	0.00	0.00	0.60	0.30	18.25	55.50	3.42	0.18	0.00	0.00	0.00	0.00		
23	0.00	0.00	5.40	0.24	19.72	58.80	3.42	0.18	0.00	0.00	0.00	0.00		
24	0.00	0.00	25.70	0.30	21.70	52.59	3.88	0.12	0.00	0.00	0.00	0.00		
25	0.00	0.00	39.96	0.30	19.23	54.53	4.34	0.06	0.00	0.00	0.00	0.00		
26	0.00	0.00	31.80	0.24	19.72	55.50	4.57	0.06	0.00	0.00	0.00	0.00		
27	0.00	0.00	22.70	0.24	16.78	47.74	5.40	0.00	0.00	0.00	0.00	0.00		
28	0.00	0.00	14.94	0.18	15.80	38.50	6.00	0.00	0.00	0.00	0.00	0.00		
29	0.00	0.00	8.91	0.18	17.27	35.82	4.80	0.00	0.00	0.00		0.00		
30	0.00	0.00	4.34	0.18	17.27	33.81	4.80	0.00	0.00	0.00		0.00		
31		0.00		0.12	17.27		4.80		0.00	0.00		0.00		
Total	0.00	0.00	156.51	40.53	225.73	955.52	464.90	15.84	0.00	0.00	0.00	0.00	1859.03	CMSDAY
Mean	0.00	0.00	5.22	1.31	7.28	31.85	15.00	0.53	0.00	0.00	0.00	0.00	5.09	CMS
Max	0.00	0.00	39.96	3.42	21.70	58.80	40.69	2.96	0.00	0.00	0.00	0.00	58.80	CMS
Min	0.00	0.00	0.00	0.12	0.00	8.91	3.42	0.00	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	0.00	0.00	13.52	3.50	19.50	82.56	40.17	1.37	0.00	0.00	0.00	0.00	160.62	MCM

Momentary Peak 58.80 CMS, at 2.43 m. (A.D.) , at 09.00 Hours , on Sep 23, 2002

Runoff Yield 10.66 Liters/Second/Square KM. Momentary Peak Yield 123.010 Liters/Second/Square KM.

WATER YEAR : 2002

MUN RIVER BASIN

Huai Khayung at Ban Don - ao, Si Sa Ket (M.142)

Lat 14 - 30 - 33 N Long 104 - 37 - 27 E

Location : on left bank at the bridge on road.

Ban Don - ao **Amphoe** Kantharalak **Changwat** Si Sa Ket

Drainge Area	241 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 downstream side at the abutment of the bridge. **Elevation** +10.184 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 mean 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 +6.010 m.(A.D.), records are channel flow only.
General Description	Records very good. Stage-discharge relation defined by 53 discharge measurements made in 2002.

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

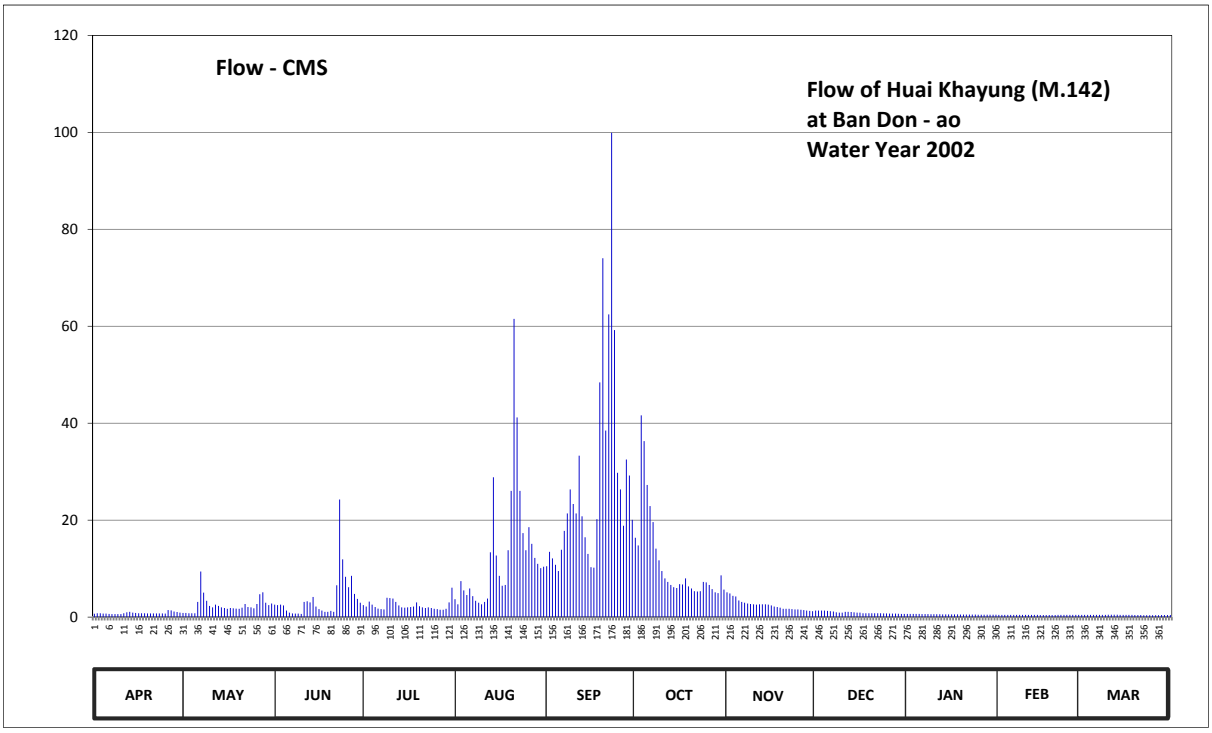
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.46	0.51	0.77	0.76	0.91	1.68	2.23	1.09	0.59	0.45	0.39	0.39	
2	0.50	0.51	0.76	0.72	0.78	1.97	2.09	1.06	0.59	0.45	0.39	0.39	
3	0.50	0.50	0.77	0.85	1.37	1.84	3.72	1.00	0.59	0.45	0.39	0.39	
4	0.47	0.50	0.75	0.77	1.14	1.71	3.46	0.98	0.59	0.45	0.39	0.39	
5	0.47	0.50	0.59	0.71	1.02	1.58	2.99	0.88	0.58	0.45	0.39	0.39	
6	0.45	0.84	0.52	0.66	1.19	2.01	2.70	0.84	0.57	0.44	0.39	0.39	
7	0.44	1.57	0.49	0.64	0.99	2.35	2.48	0.82	0.56	0.44	0.39	0.38	
8	0.44	1.08	0.47	0.63	0.87	2.60	2.03	0.80	0.53	0.44	0.38	0.38	
9	0.44	0.87	0.47	0.95	0.82	2.93	1.80	0.79	0.52	0.43	0.38	0.38	
10	0.44	0.74	0.45	0.94	0.78	2.73	1.58	0.78	0.52	0.43	0.38	0.40	
11	0.50	0.70	0.84	0.93	0.84	2.60	1.43	0.77	0.55	0.43	0.38	0.40	
12	0.53	0.77	0.86	0.84	0.93	3.31	1.35	0.78	0.55	0.43	0.38	0.40	
13	0.55	0.74	0.83	0.75	1.96	2.56	1.28	0.78	0.54	0.42	0.38	0.40	
14	0.52	0.70	0.97	0.70	3.08	2.24	1.22	0.78	0.53	0.42	0.38	0.39	
15	0.51	0.68	0.72	0.69	1.90	1.93	1.20	0.77	0.52	0.42	0.37	0.39	
16	0.50	0.65	0.64	0.70	1.48	1.66	1.30	0.75	0.52	0.42	0.37	0.39	
17	0.50	0.68	0.59	0.71	1.26	1.65	1.29	0.72	0.50	0.42	0.37	0.39	
18	0.50	0.67	0.55	0.72	1.28	2.52	1.43	0.71	0.50	0.42	0.37	0.38	
19	0.49	0.66	0.55	0.83	2.00	4.04	1.24	0.69	0.50	0.41	0.37	0.37	
20	0.49	0.65	0.58	0.73	2.91	5.15	1.19	0.65	0.50	0.41	0.37	0.37	
21	0.49	0.69	0.55	0.70	4.61	3.57	1.12	0.65	0.50	0.41	0.38	0.37	
22	0.49	0.79	1.27	0.68	3.70	4.65	1.11	0.65	0.50	0.41	0.38	0.36	
23	0.49	0.71	2.79	0.70	2.91	6.16	1.12	0.64	0.50	0.41	0.38	0.36	
24	0.49	0.70	1.82	0.68	2.31	4.51	1.35	0.63	0.49	0.41	0.38	0.36	
25	0.48	0.67	1.46	0.65	2.00	3.13	1.34	0.63	0.49	0.40	0.38	0.36	
26	0.61	0.79	1.22	0.64	2.41	2.93	1.28	0.62	0.48	0.40	0.38	0.36	
27	0.60	1.04	1.48	0.62	2.12	2.43	1.17	0.61	0.47	0.40	0.38	0.36	
28	0.56	1.09	1.05	0.62	1.85	3.27	1.09	0.59	0.47	0.40	0.38	0.37	
29	0.54	0.82	0.92	0.65	1.73	3.10	1.07	0.58	0.46	0.40		0.37	
30	0.52	0.76	0.82	0.83	1.64	2.51	1.49	0.57	0.45	0.40		0.37	
31		0.80		1.21	1.67		1.16		0.45	0.40		0.37	
Mean	0.50	0.75	0.89	0.75	1.76	2.84	1.66	0.75	0.52	0.42	0.38	0.38	
Max	0.61	1.57	2.79	1.21	4.61	6.16	3.72	1.09	0.59	0.45	0.39	0.40	6.16
Min	0.44	0.50	0.45	0.62	0.78	1.58	1.07	0.57	0.45	0.40	0.37	0.36	0.36

Annual Max Momentary Gage Height 6.48 m. (A.D.) , at 15.00 Hours , on Sep 23, 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed -0.14 m. (A.D.)

Left Bank Elevation 6.00 m. (A.D.) ,

Right Bank Elevation 6.28 m. (A.D.) , Drainage Are 241 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.68	0.86	2.56	2.48	3.68	10.50	16.36	5.12	1.34	0.65	0.47	0.47		
2	0.80	0.86	2.48	2.16	2.64	13.47	14.79	4.88	1.34	0.65	0.47	0.47		
3	0.80	0.80	2.56	3.20	7.43	12.10	41.62	4.40	1.34	0.65	0.47	0.47		
4	0.71	0.80	2.40	2.56	5.52	10.80	36.30	4.24	1.34	0.65	0.47	0.47		
5	0.71	0.80	1.34	2.08	4.56	9.50	27.25	3.44	1.28	0.65	0.47	0.47		
6	0.65	3.12	0.92	1.76	5.92	13.91	22.90	3.12	1.22	0.62	0.47	0.47		
7	0.62	9.40	0.77	1.64	4.32	17.80	19.60	2.96	1.16	0.62	0.47	0.45		
8	0.62	5.04	0.71	1.58	3.36	21.40	14.13	2.80	0.98	0.62	0.45	0.45		
9	0.62	3.36	0.71	4.00	2.96	26.35	11.70	2.72	0.92	0.59	0.45	0.45		
10	0.62	2.32	0.65	3.92	2.64	23.35	9.50	2.64	0.92	0.59	0.45	0.50		
11	0.80	2.00	3.12	3.84	3.12	21.40	8.00	2.56	1.10	0.59	0.45	0.50		
12	0.98	2.56	3.28	3.12	3.84	33.30	7.25	2.64	1.10	0.59	0.45	0.50		
13	1.10	2.32	3.04	2.40	13.36	20.80	6.64	2.64	1.04	0.56	0.45	0.50		
14	0.92	2.00	4.16	2.00	28.84	16.48	6.16	2.64	0.98	0.56	0.45	0.47		
15	0.86	1.88	2.16	1.94	12.70	13.03	6.00	2.56	0.92	0.56	0.42	0.47		
16	0.80	1.70	1.64	2.00	8.50	10.30	6.80	2.40	0.92	0.56	0.42	0.47		
17	0.80	1.88	1.34	2.08	6.48	10.20	6.72	2.16	0.80	0.56	0.42	0.47		
18	0.80	1.82	1.10	2.16	6.64	20.20	8.00	2.08	0.80	0.56	0.42	0.45		
19	0.77	1.76	1.10	3.04	13.80	48.42	6.32	1.94	0.80	0.53	0.42	0.42		
20	0.77	1.70	1.28	2.24	26.05	74.05	5.92	1.70	0.80	0.53	0.42	0.42		
21	0.77	1.94	1.10	2.00	61.53	38.50	5.36	1.70	0.80	0.53	0.45	0.42		
22	0.77	2.72	6.56	1.88	41.20	62.45	5.28	1.70	0.80	0.53	0.45	0.40		
23	0.77	2.08	24.25	2.00	26.05	99.92	5.36	1.64	0.80	0.53	0.45	0.40		
24	0.77	2.00	11.90	1.88	17.32	59.23	7.25	1.58	0.77	0.53	0.45	0.40		
25	0.74	1.82	8.30	1.70	13.80	29.77	7.16	1.58	0.77	0.50	0.45	0.40		
26	1.46	2.72	6.16	1.64	18.55	26.35	6.64	1.52	0.74	0.50	0.45	0.40		
27	1.40	4.72	8.50	1.52	15.12	18.85	5.76	1.46	0.71	0.50	0.45	0.40		
28	1.16	5.12	4.80	1.52	12.20	32.50	5.12	1.34	0.71	0.50	0.45	0.42		
29	1.04	2.96	3.76	1.70	11.00	29.20	4.96	1.28	0.68	0.50		0.42		
30	0.92	2.48	2.96	3.04	10.10	20.05	8.60	1.22	0.65	0.50		0.42		
31		2.80		6.08	10.40		5.68		0.65	0.50		0.42		
Total	25.23	78.34	115.61	75.16	403.63	844.18	349.13	74.66	29.18	17.51	12.56	13.84	2039.03	CMSDAY
Mean	0.84	2.53	3.85	2.42	13.02	28.14	11.26	2.49	0.94	0.56	0.45	0.45	5.59	CMS
Max	1.46	9.40	24.25	6.08	61.53	99.92	41.62	5.12	1.34	0.65	0.47	0.50	99.92	CMS
Min	0.62	0.80	0.65	1.52	2.64	9.50	4.96	1.22	0.65	0.50	0.42	0.40	0.40	CMS
Runoff	2.18	6.77	9.99	6.49	34.87	72.94	30.16	6.45	2.52	1.51	1.09	1.20	176.17	MCM

Momentary Peak 108.56 CMS, at 6.48 m. (A.D.) , at 15.00 Hours , on Sep 23, 2002

Runoff Yield 23.18 Liters/Second/Square KM. Momentary Peak Yield 450.460 Liters/Second/Square KM.

WATER YEAR : 2005

MUN RIVER BASIN

Huai Sang Kot at Ban Nong Yai, Si Sa Ket (M.143)

Lat 14 - 29 - 01 N Long 104 - 39 - 52 E

Location : on left bank at the bridge on road.

Ban Nong Yai **Amphoe** Kantharalak **Changwat** Si Sa Ket

Drainge Area	47 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 upstream at the abutments of the bridge. **Elevation** +6.460 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 mean 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 + 4.520 m.(A.D.), records are channel flow only.
General Description	Records good. Stage-discharge relation defined by 55 discharge measurrments made in 2002.

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

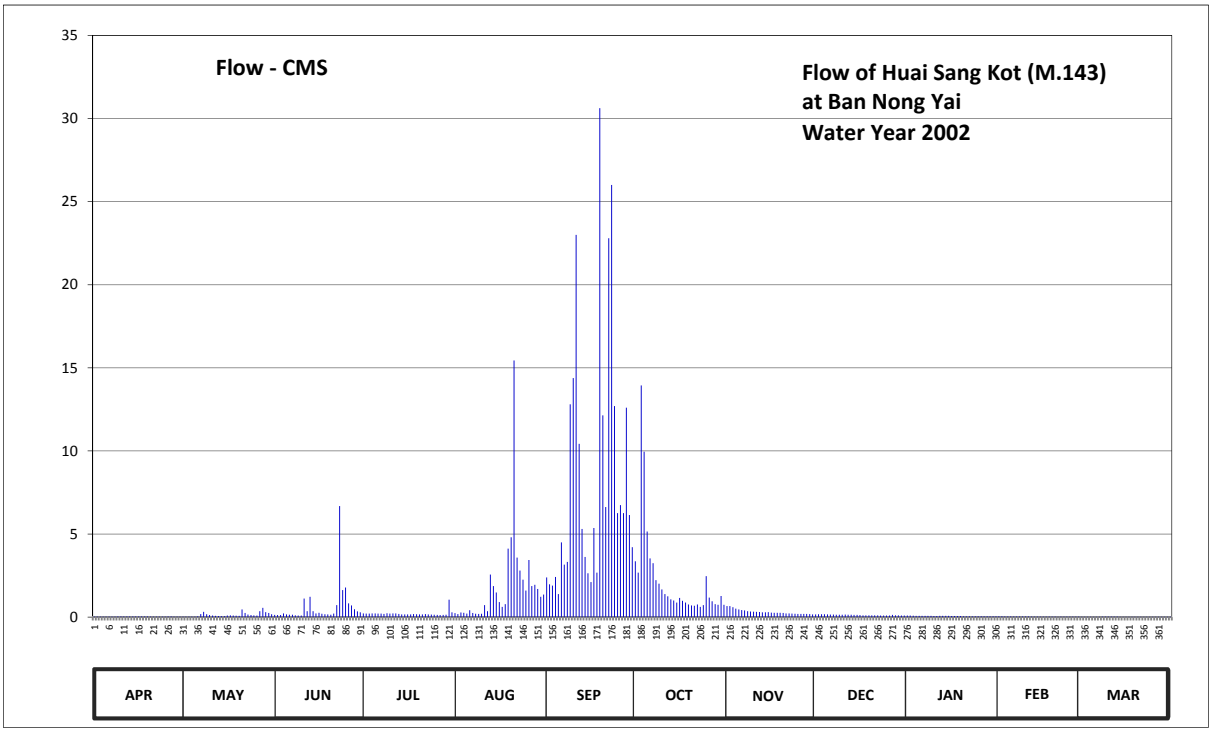
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.70	0.69	0.87	1.00	1.02	1.94	2.19	1.33	0.92	0.81	0.73	0.68	
2	0.70	0.69	0.85	0.98	0.94	1.82	2.02	1.33	0.93	0.81	0.73	0.68	
3	0.70	0.69	0.85	0.98	1.07	1.80	3.74	1.30	0.93	0.80	0.72	0.68	
4	0.69	0.70	1.00	1.00	1.04	1.95	3.30	1.25	0.93	0.79	0.72	0.68	
5	0.69	0.70	0.92	1.00	0.99	1.63	2.57	1.22	0.92	0.79	0.72	0.68	
6	0.69	0.74	0.88	0.99	1.19	2.44	2.23	1.20	0.90	0.79	0.72	0.68	
7	0.69	0.94	0.88	0.98	1.03	2.14	2.16	1.18	0.90	0.78	0.72	0.68	
8	0.70	1.11	0.84	0.95	0.97	2.18	1.89	1.15	0.89	0.78	0.72	0.69	
9	0.71	0.93	0.82	1.01	0.95	3.63	1.83	1.13	0.89	0.78	0.72	0.69	
10	0.71	0.85	0.82	0.99	0.97	3.78	1.72	1.12	0.89	0.77	0.71	0.69	
11	0.71	0.81	1.53	1.00	1.36	4.35	1.63	1.11	0.90	0.77	0.71	0.69	
12	0.71	0.79	1.15	1.00	1.15	3.36	1.58	1.10	0.88	0.78	0.70	0.69	
13	0.71	0.77	1.57	0.95	1.99	2.60	1.51	1.08	0.88	0.78	0.70	0.69	
14	0.71	0.75	1.15	0.92	1.79	2.25	1.48	1.08	0.86	0.78	0.69	0.68	
15	0.71	0.75	1.00	0.91	1.66	2.01	1.43	1.09	0.86	0.78	0.69	0.68	
16	0.72	0.81	1.05	0.91	1.44	1.86	1.54	1.06	0.85	0.76	0.69	0.68	
17	0.72	0.84	0.97	0.92	1.31	2.61	1.47	1.05	0.84	0.76	0.69	0.68	
18	0.71	0.81	0.93	0.94	1.39	2.02	1.43	1.05	0.84	0.76	0.69	0.68	
19	0.71	0.80	0.91	0.93	2.36	4.71	1.38	1.04	0.84	0.76	0.69	0.67	
20	0.70	0.78	0.89	0.92	2.50	3.56	1.35	1.03	0.83	0.74	0.69	0.67	
21	0.69	1.22	0.99	0.91	3.87	2.82	1.34	1.00	0.83	0.74	0.68	0.67	
22	0.69	1.03	1.36	0.94	2.24	4.34	1.38	1.00	0.83	0.74	0.69	0.67	
23	0.69	0.90	2.83	0.92	2.05	4.50	1.31	0.98	0.82	0.74	0.69	0.67	
24	0.69	0.85	1.71	0.90	1.90	3.62	1.36	0.97	0.82	0.74	0.69	0.67	
25	0.70	0.83	1.76	0.88	1.70	2.76	1.96	0.96	0.82	0.74	0.69	0.68	
26	0.71	0.82	1.41	0.86	2.21	2.84	1.55	0.95	0.82	0.74	0.69	0.68	
27	0.71	1.15	1.35	0.85	1.79	2.76	1.46	0.95	0.86	0.74	0.69	0.68	
28	0.70	1.28	1.23	0.86	1.81	3.61	1.39	0.95	0.84	0.73	0.69	0.68	
29	0.69	1.09	1.14	0.89	1.73	2.74	1.37	0.94	0.83	0.73		0.68	
30	0.69	1.03	1.08	1.50	1.57	2.38	1.59	0.92	0.82	0.73		0.68	
31		0.93		1.08	1.62		1.37		0.81	0.73		0.68	
Mean	0.70	0.87	1.16	0.96	1.60	2.83	1.76	1.08	0.86	0.76	0.70	0.68	
Max	0.72	1.28	2.83	1.50	3.87	4.71	3.74	1.33	0.93	0.81	0.73	0.69	4.71
Min	0.69	0.69	0.82	0.85	0.94	1.63	1.31	0.92	0.81	0.73	0.68	0.67	1.63

Annual Max Momentary Gage Height 5.85 m. (A.D.) , at 17.00 Hours , on Sep 11, 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed 0.45 m. (A.D.)

Left Bank Elevation 4.52 m. (A.D.) ,

Right Bank Elevation 4.24 m. (A.D.) , Drainage Are 47 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.03	0.03	0.13	0.22	0.24	2.39	3.36	0.66	0.16	0.10	0.05	0.02		
2	0.03	0.03	0.12	0.21	0.18	1.97	2.68	0.66	0.17	0.10	0.05	0.02		
3	0.03	0.03	0.12	0.21	0.28	1.90	13.94	0.60	0.17	0.09	0.04	0.02		
4	0.03	0.03	0.22	0.22	0.26	2.42	9.95	0.51	0.17	0.08	0.04	0.02		
5	0.03	0.03	0.16	0.22	0.21	1.39	5.15	0.46	0.16	0.08	0.04	0.02		
6	0.03	0.05	0.14	0.21	0.41	4.50	3.53	0.42	0.15	0.08	0.04	0.02		
7	0.03	0.18	0.14	0.21	0.25	3.16	3.24	0.40	0.15	0.08	0.04	0.02		
8	0.03	0.32	0.11	0.19	0.20	3.32	2.22	0.36	0.14	0.08	0.04	0.03		
9	0.04	0.17	0.10	0.23	0.19	12.80	2.01	0.34	0.14	0.08	0.04	0.03		
10	0.04	0.12	0.10	0.21	0.20	14.38	1.66	0.33	0.14	0.07	0.04	0.03		
11	0.04	0.10	1.12	0.22	0.72	23.00	1.39	0.32	0.15	0.07	0.04	0.03		
12	0.04	0.08	0.36	0.22	0.36	10.43	1.25	0.31	0.14	0.08	0.03	0.03		
13	0.04	0.07	1.22	0.19	2.56	5.30	1.07	0.29	0.14	0.08	0.03	0.03		
14	0.04	0.06	0.36	0.16	1.87	3.62	1.00	0.29	0.13	0.08	0.03	0.02		
15	0.04	0.06	0.22	0.16	1.48	2.64	0.88	0.30	0.13	0.08	0.03	0.02		
16	0.04	0.10	0.26	0.16	0.90	2.11	1.15	0.27	0.12	0.07	0.03	0.02		
17	0.04	0.11	0.20	0.16	0.62	5.36	0.98	0.26	0.11	0.07	0.03	0.02		
18	0.04	0.10	0.17	0.18	0.78	2.68	0.88	0.26	0.11	0.07	0.03	0.02		
19	0.04	0.09	0.16	0.17	4.12	30.62	0.76	0.26	0.11	0.07	0.03	0.02		
20	0.03	0.08	0.14	0.16	4.80	12.14	0.70	0.25	0.11	0.05	0.03	0.02		
21	0.03	0.46	0.21	0.16	15.44	6.62	0.68	0.22	0.11	0.05	0.02	0.02		
22	0.03	0.25	0.72	0.18	3.58	22.80	0.76	0.22	0.11	0.05	0.03	0.02		
23	0.03	0.15	6.68	0.16	2.80	26.00	0.62	0.21	0.10	0.05	0.03	0.02		
24	0.03	0.12	1.63	0.15	2.25	12.70	0.72	0.20	0.10	0.05	0.03	0.02		
25	0.03	0.11	1.78	0.14	1.60	6.26	2.46	0.19	0.10	0.05	0.03	0.02		
26	0.04	0.10	0.83	0.13	3.44	6.74	1.17	0.19	0.10	0.05	0.03	0.02		
27	0.04	0.36	0.70	0.12	1.87	6.26	0.95	0.19	0.13	0.05	0.03	0.02		
28	0.03	0.56	0.47	0.13	1.94	12.60	0.78	0.19	0.11	0.05	0.03	0.02		
29	0.03	0.30	0.35	0.14	1.69	6.14	0.74	0.18	0.11	0.05		0.02		
30	0.03	0.25	0.29	1.05	1.22	4.21	1.27	0.16	0.10	0.05		0.02		
31		0.17		0.29	1.36		0.74		0.10	0.05		0.02		
Total	1.03	4.67	19.21	6.56	57.82	256.46	68.69	9.50	3.97	2.11	0.96	0.68	431.66	CMSDAY
Mean	0.03	0.15	0.64	0.21	1.87	8.55	2.22	0.32	0.13	0.07	0.03	0.02	1.18	CMS
Max	0.04	0.56	6.68	1.05	15.44	30.62	13.94	0.66	0.17	0.10	0.05	0.03	30.62	CMS
Min	0.03	0.03	0.10	0.12	0.18	1.39	0.62	0.16	0.10	0.05	0.02	0.02	0.02	CMS
Runoff	0.09	0.40	1.66	0.57	5.00	22.16	5.93	0.82	0.34	0.18	0.08	0.06	37.30	MCM

Momentary Peak 60.40 CMS, at 5.85 m. (A.D.) , at 17.00 Hours , on Sep 11, 2002

Runoff Yield 25.16 Liters/Second/Square KM. Momentary Peak Yield 1285.110 Liters/Second/Square KM.

WATER YEAR : 2005

MUN RIVER BASIN

Huai Tha at Ban Tamnak Sai, Si Sa Ket (M.144A)

Lat 14 - 32 - 19 N Long 104 - 29 - 29 E

Location : on left bank at the bridge on road.

Ban Tamnak Sai **Amphoe** Khun Han **Changwat** Si Sa Ket

Drainge Area	169 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 footpath of the bridge. **Elevation** +9.717 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 mean of 5 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. The weir situated about 1 kilometer downstream from the gage site. Stage-discharge relation defined by 41 discharge measurements made in 2002.

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

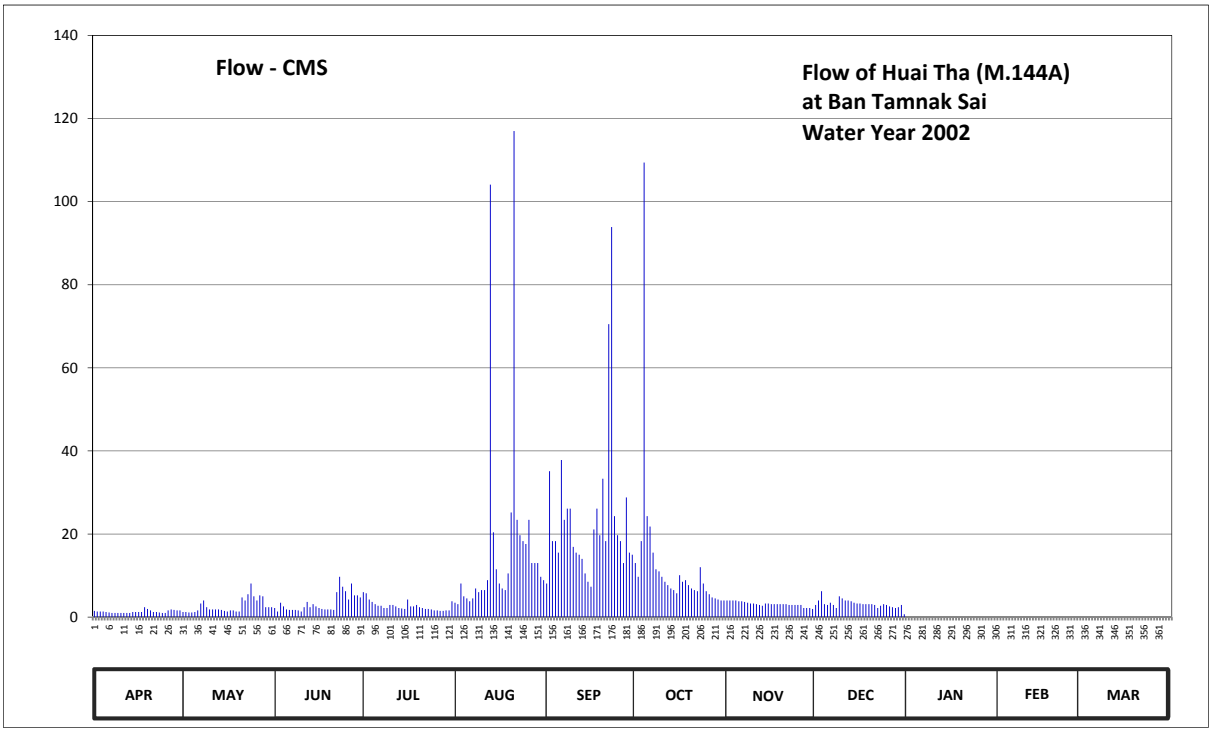
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	5.74	5.72	5.80	5.98	5.87	6.04	6.15	5.90	5.84	5.60	5.26	5.18	
2	5.73	5.72	5.73	5.97	5.85	6.44	6.08	5.90	5.90	5.57	5.26	5.09	
3	5.73	5.71	5.87	5.91	6.04	6.24	6.24	5.90	5.99	5.52	5.26	5.00	
4	5.73	5.71	5.82	5.88	5.94	6.24	7.01	5.90	5.85	5.49	5.25	4.97	
5	5.72	5.72	5.77	5.85	5.92	6.20	6.32	5.89	5.84	5.46	5.25	4.95	
6	5.71	5.75	5.76	5.83	5.89	6.47	6.29	5.89	5.87	5.44	5.23	4.93	
7	5.70	5.86	5.76	5.83	5.92	6.31	6.20	5.88	5.84	5.43	5.23	4.92	
8	5.70	5.90	5.76	5.80	6.01	6.34	6.12	5.87	5.80	5.42	5.23	4.96	
9	5.70	5.81	5.75	5.80	5.98	6.34	6.11	5.86	5.94	5.41	5.23	5.00	
10	5.70	5.77	5.73	5.84	6.00	6.22	6.08	5.86	5.92	5.40	5.23	4.99	
11	5.70	5.77	5.81	5.84	6.00	6.20	6.05	5.85	5.90	5.38	5.22	4.97	
12	5.70	5.77	5.88	5.82	6.06	6.19	6.03	5.84	5.90	5.37	5.14	4.96	
13	5.70	5.77	5.81	5.80	6.98	6.17	6.01	5.83	5.89	5.35	5.09	4.94	
14	5.72	5.76	5.85	5.79	6.27	6.10	6.00	5.86	5.87	5.34	5.08	4.93	
15	5.72	5.74	5.82	5.78	6.12	6.05	5.97	5.86	5.86	5.34	5.08	4.91	
16	5.72	5.73	5.80	5.91	6.04	6.02	6.09	5.85	5.86	5.34	5.08	4.90	
17	5.72	5.75	5.78	5.82	6.01	6.28	6.05	5.85	5.85	5.33	5.08	4.89	
18	5.81	5.75	5.77	5.82	6.00	6.34	6.06	5.85	5.85	5.32	5.09	4.89	
19	5.78	5.73	5.77	5.84	6.10	6.26	6.03	5.85	5.85	5.31	5.13	4.88	
20	5.75	5.73	5.77	5.81	6.33	6.42	6.01	5.85	5.85	5.30	5.15	4.87	
21	5.72	5.93	5.76	5.80	7.05	6.24	6.00	5.85	5.84	5.30	5.18	4.92	
22	5.72	5.90	5.98	5.78	6.31	6.76	5.99	5.84	5.80	5.30	5.19	4.92	
23	5.71	5.96	6.08	5.78	6.26	6.92	6.13	5.84	5.83	5.30	5.18	4.93	
24	5.70	6.04	6.02	5.77	6.24	6.32	6.04	5.84	5.85	5.30	5.24	4.93	
25	5.70	5.94	5.99	5.75	6.23	6.26	5.99	5.84	5.84	5.30	5.19	4.90	
26	5.75	5.90	5.91	5.75	6.31	6.24	5.96	5.84	5.82	5.28	5.19	4.87	
27	5.77	5.95	6.04	5.74	6.15	6.15	5.93	5.80	5.81	5.28	5.18	4.80	
28	5.76	5.94	5.95	5.74	6.15	6.37	5.92	5.80	5.80	5.27	5.18	4.82	
29	5.75	5.81	5.95	5.75	6.15	6.20	5.91	5.80	5.81	5.27		4.85	
30	5.75	5.81	5.93	5.75	6.08	6.19	5.90	5.78	5.84	5.27		4.88	
31		5.81		5.89	6.06		5.90		5.67	5.27		4.88	
Mean	5.73	5.81	5.85	5.82	6.14	6.28	6.08	5.85	5.85	5.36	5.18	4.93	
Max	5.81	6.04	6.08	5.98	7.05	6.92	7.01	5.90	5.99	5.60	5.26	5.18	7.05
Min	5.70	5.71	5.73	5.74	5.85	6.02	5.90	5.78	5.67	5.27	5.08	4.80	6.02

Annual Max Momentary Gage Height 7.08 m. (A.D.) , at 09.00 Hours , on Aug 21, 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed 0.65 m. (A.D.)

Left Bank Elevation 8.24 m. (A.D.) ,

Right Bank Elevation 7.63 m. (A.D.) , Drainage Are 169 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.48	1.24	2.20	6.00	3.46	8.10	13.00	4.00	2.92	0.00	0.00	0.00		
2	1.36	1.24	1.36	5.75	3.10	35.10	9.70	4.00	4.00	0.00	0.00	0.00		
3	1.36	1.12	3.46	4.25	8.10	18.30	18.30	4.00	6.25	0.00	0.00	0.00		
4	1.36	1.12	2.56	3.64	5.00	18.30	109.40	4.00	3.10	0.00	0.00	0.00		
5	1.24	1.24	1.84	3.10	4.50	15.50	24.30	3.82	2.92	0.00	0.00	0.00		
6	1.12	1.60	1.72	2.74	3.82	37.80	21.80	3.82	3.46	0.00	0.00	0.00		
7	1.00	3.28	1.72	2.74	4.50	23.40	15.50	3.64	2.92	0.00	0.00	0.00		
8	1.00	4.00	1.72	2.20	6.90	26.10	11.50	3.46	2.20	0.00	0.00	0.00		
9	1.00	2.38	1.60	2.20	6.00	26.10	11.00	3.28	5.00	0.00	0.00	0.00		
10	1.00	1.84	1.36	2.92	6.50	16.90	9.70	3.28	4.50	0.00	0.00	0.00		
11	1.00	1.84	2.38	2.92	6.50	15.50	8.50	3.10	4.00	0.00	0.00	0.00		
12	1.00	1.84	3.64	2.56	8.90	15.00	7.70	2.92	4.00	0.00	0.00	0.00		
13	1.00	1.84	2.38	2.20	104.10	14.00	6.90	2.74	3.82	0.00	0.00	0.00		
14	1.24	1.72	3.10	2.08	20.40	10.50	6.50	3.28	3.46	0.00	0.00	0.00		
15	1.24	1.48	2.56	1.96	11.50	8.50	5.75	3.28	3.28	0.00	0.00	0.00		
16	1.24	1.36	2.20	4.25	8.10	7.30	10.10	3.10	3.28	0.00	0.00	0.00		
17	1.24	1.60	1.96	2.56	6.90	21.10	8.50	3.10	3.10	0.00	0.00	0.00		
18	2.38	1.60	1.84	2.56	6.50	26.10	8.90	3.10	3.10	0.00	0.00	0.00		
19	1.96	1.36	1.84	2.92	10.50	19.70	7.70	3.10	3.10	0.00	0.00	0.00		
20	1.60	1.36	1.84	2.38	25.20	33.30	6.90	3.10	3.10	0.00	0.00	0.00		
21	1.24	4.75	1.72	2.20	117.00	18.30	6.50	3.10	2.92	0.00	0.00	0.00		
22	1.24	4.00	6.00	1.96	23.40	70.50	6.25	2.92	2.20	0.00	0.00	0.00		
23	1.12	5.50	9.70	1.96	19.70	93.90	12.00	2.92	2.74	0.00	0.00	0.00		
24	1.00	8.10	7.30	1.84	18.30	24.30	8.10	2.92	3.10	0.00	0.00	0.00		
25	1.00	5.00	6.25	1.60	17.60	19.70	6.25	2.92	2.92	0.00	0.00	0.00		
26	1.60	4.00	4.25	1.60	23.40	18.30	5.50	2.92	2.56	0.00	0.00	0.00		
27	1.84	5.25	8.10	1.48	13.00	13.00	4.75	2.20	2.38	0.00	0.00	0.00		
28	1.72	5.00	5.25	1.48	13.00	28.80	4.50	2.20	2.20	0.00	0.00	0.00		
29	1.60	2.38	5.25	1.60	13.00	15.50	4.25	2.20	2.38	0.00		0.00		
30	1.60	2.38	4.75	1.60	9.70	15.00	4.00	1.96	2.92	0.00		0.00		
31		2.38		3.82	8.90		4.00		0.70	0.00		0.00		
Total	39.78	83.80	101.85	83.07	537.48	713.90	387.75	94.38	98.53	0.00	0.00	0.00	2140.54	CMSDAY
Mean	1.33	2.70	3.40	2.68	17.34	23.80	12.51	3.15	3.18	0.00	0.00	0.00	5.86	CMS
Max	2.38	8.10	9.70	6.00	117.00	93.90	109.40	4.00	6.25	0.00	0.00	0.00	117.00	CMS
Min	1.00	1.12	1.36	1.48	3.10	7.30	4.00	1.96	0.70	0.00	0.00	0.00	0.00	CMS
Runoff	3.44	7.24	8.80	7.18	46.44	61.68	33.50	8.15	8.51	0.00	0.00	0.00	184.94	MCM

Momentary Peak 122.70 CMS, at 7.08 m. (A.D.) , at 09.00 Hours , on Aug 21, 2002

Runoff Yield 34.70 Liters/Second/Square KM. Momentary Peak Yield 726.040 Liters/Second/Square KM.

WATER YEAR : 2002

MUN RIVER BASIN

Lam Phra Phloeng at Ban Wang Takian Thong, Nakhon Ratchasima (M.145)

Lat 14 - 29 - 24 N Long 101 - 41 - 14 E

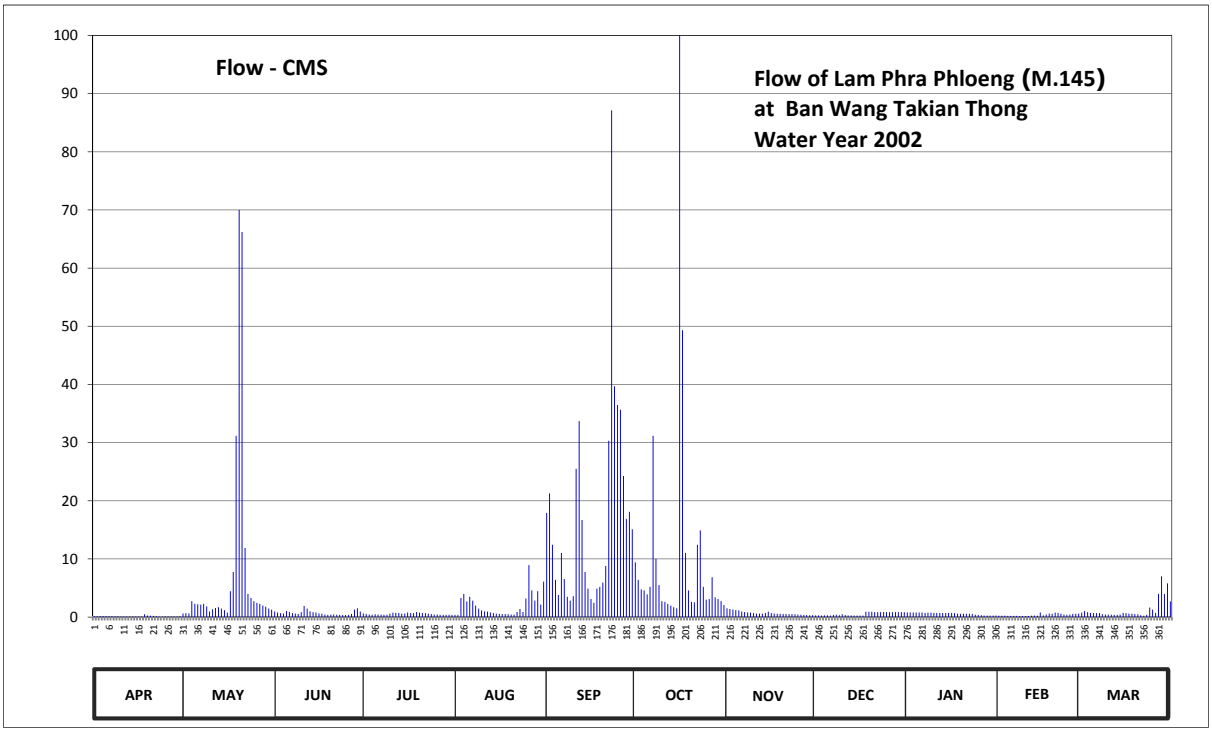
Location : on right bank at Ban Wang Takian Thong.

	Ban Wang Takian Thong	**Amphoe** Pak Chong	**Changwat** Nakhon Ratchasima
Drainge Area	335 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 about 12 meters from the top staff gage.	**Elevation**	+7.980 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 mean 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 +6.480 m.(A.D.), records are channel flow only.		
General Description	Records fair. Stage-discharge relation defined by 53 discharge measurements made in 2002.		

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	3.53	3.71	3.79	3.71	3.63	5.02	4.56	3.90	3.60	3.75	3.57	3.74	
2	3.53	3.72	3.75	3.68	3.63	5.18	4.36	3.88	3.60	3.75	3.57	3.81	
3	3.54	3.71	3.72	3.65	4.13	4.74	4.25	3.86	3.59	3.75	3.57	3.76	
4	3.54	4.07	3.70	3.64	4.20	4.36	4.24	3.84	3.60	3.75	3.56	3.73	
5	3.54	4.01	3.81	3.66	4.06	4.18	4.19	3.83	3.60	3.75	3.56	3.72	
6	3.53	4.00	3.77	3.65	4.15	4.66	4.28	3.79	3.59	3.75	3.56	3.72	
7	3.53	3.99	3.72	3.65	4.08	4.37	5.57	3.77	3.63	3.73	3.56	3.72	
8	3.52	4.01	3.70	3.64	3.97	4.15	4.60	3.75	3.64	3.74	3.55	3.66	
9	3.52	3.95	3.68	3.64	3.89	4.08	4.30	3.74	3.61	3.74	3.55	3.65	
10	3.51	3.79	3.76	3.69	3.83	4.16	4.07	3.72	3.66	3.73	3.55	3.65	
11	3.51	3.87	3.96	3.74	3.80	5.36	4.05	3.70	3.62	3.73	3.55	3.64	
12	3.51	3.91	3.89	3.73	3.78	5.66	4.01	3.70	3.60	3.73	3.57	3.63	
13	3.50	3.93	3.80	3.73	3.75	4.96	3.97	3.70	3.60	3.73	3.59	3.63	
14	3.50	3.89	3.76	3.69	3.72	4.45	3.93	3.73	3.59	3.73	3.57	3.65	
15	3.49	3.84	3.75	3.70	3.70	4.26	3.90	3.78	3.59	3.73	3.75	3.73	
16	3.49	3.74	3.71	3.75	3.68	4.11	7.66	3.72	3.58	3.73	3.60	3.72	
17	3.47	4.23	3.69	3.73	3.67	4.03	6.17	3.70	3.58	3.72	3.65	3.70	
18	3.66	4.45	3.65	3.72	3.67	4.26	4.66	3.69	3.78	3.70	3.70	3.69	
19	3.58	5.57	3.63	3.77	3.66	4.28	4.24	3.69	3.78	3.69	3.69	3.67	
20	3.57	6.70	3.64	3.74	3.65	4.33	4.05	3.68	3.78	3.69	3.74	3.66	
21	3.56	6.61	3.65	3.73	3.65	4.52	4.04	3.68	3.76	3.69	3.73	3.61	
22	3.53	4.71	3.64	3.72	3.77	5.54	4.74	3.67	3.76	3.69	3.69	3.57	
23	3.49	4.20	3.63	3.70	3.88	7.08	4.87	3.67	3.76	3.68	3.65	3.63	
24	3.49	4.13	3.62	3.67	3.77	5.87	4.28	3.66	3.77	3.64	3.64	3.92	
25	3.50	4.07	3.62	3.65	4.12	5.76	4.10	3.65	3.76	3.63	3.65	3.86	
26	3.50	4.03	3.63	3.65	4.53	5.73	4.11	3.64	3.76	3.61	3.68	3.73	
27	3.51	4.01	3.68	3.63	4.24	5.31	4.39	3.63	3.76	3.59	3.69	4.20	
28	3.51	3.97	3.86	3.63	4.08	4.97	4.14	3.62	3.76	3.59	3.70	4.40	
29	3.50	3.94	3.90	3.63	4.23	5.03	4.11	3.61	3.76	3.58		4.20	
30	3.52	3.89	3.79	3.64	3.99	4.88	4.07	3.61	3.76	3.58		4.32	
31		3.86		3.63	4.34		3.98		3.76	3.58		4.06	
Mean	3.52	4.21	3.73	3.68	3.91	4.84	4.45	3.72	3.68	3.69	3.62	3.79	
Max	3.66	6.70	3.96	3.77	4.53	7.08	7.66	3.90	3.78	3.75	3.75	4.40	7.66
Min	3.47	3.71	3.62	3.63	3.63	4.03	3.90	3.61	3.58	3.58	3.55	3.57	3.47

Annual Max Momentary Gage Height	7.88	m. (A.D.) ,	at 12.00 Hours , on Oct 16, 2002		
Zero Gage at Bottom Elevation	0.00	m. (A.D.) ,	River Bed	2.27	m. (A.D.)
Left Bank Elevation	7.75	m. (A.D.) ,			
Right Bank Elevation	6.47	m. (A.D.) ,	Drainage Are	335	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.16	0.64	0.96	0.64	0.39	17.90	9.40	1.50	0.30	0.80	0.24	0.76		
2	0.16	0.68	0.80	0.54	0.39	21.26	6.40	1.40	0.30	0.80	0.24	1.05		
3	0.18	0.64	0.68	0.45	3.30	12.42	4.75	1.30	0.28	0.80	0.24	0.84		
4	0.18	2.76	0.60	0.42	4.00	6.40	4.60	1.20	0.30	0.80	0.22	0.72		
5	0.18	2.28	1.05	0.48	2.68	3.80	3.90	1.15	0.30	0.80	0.22	0.68		
6	0.16	2.20	0.88	0.45	3.50	11.02	5.20	0.96	0.28	0.80	0.22	0.68		
7	0.16	2.13	0.68	0.45	2.84	6.55	31.16	0.88	0.39	0.72	0.22	0.68		
8	0.14	2.28	0.60	0.42	1.99	3.50	10.00	0.80	0.42	0.76	0.20	0.48		
9	0.14	1.85	0.54	0.42	1.45	2.84	5.50	0.76	0.33	0.76	0.20	0.45		
10	0.12	0.96	0.84	0.57	1.15	3.60	2.76	0.68	0.48	0.72	0.20	0.45		
11	0.12	1.35	1.92	0.76	1.00	25.50	2.60	0.60	0.36	0.72	0.20	0.42		
12	0.12	1.57	1.45	0.72	0.92	33.68	2.28	0.60	0.30	0.72	0.24	0.39		
13	0.10	1.71	1.00	0.72	0.80	16.70	1.99	0.60	0.30	0.72	0.28	0.39		
14	0.10	1.45	0.84	0.57	0.68	7.75	1.71	0.72	0.28	0.72	0.24	0.45		
15	0.09	1.20	0.80	0.60	0.60	4.90	1.50	0.92	0.28	0.72	0.80	0.72		
16	0.09	0.76	0.64	0.80	0.54	3.10	118.52	0.68	0.26	0.72	0.30	0.68		
17	0.07	4.45	0.57	0.72	0.51	2.44	49.31	0.60	0.26	0.68	0.45	0.60		
18	0.48	7.75	0.45	0.68	0.51	4.90	11.02	0.57	0.92	0.60	0.60	0.57		
19	0.26	31.16	0.39	0.88	0.48	5.20	4.60	0.57	0.92	0.57	0.57	0.51		
20	0.24	70.00	0.42	0.76	0.45	5.95	2.60	0.54	0.92	0.57	0.76	0.48		
21	0.22	66.22	0.45	0.72	0.45	8.80	2.52	0.54	0.84	0.57	0.72	0.33		
22	0.16	11.88	0.42	0.68	0.88	30.32	12.42	0.51	0.84	0.57	0.57	0.24		
23	0.09	4.00	0.39	0.60	1.40	87.10	14.90	0.51	0.84	0.54	0.45	0.39		
24	0.09	3.30	0.36	0.51	0.88	39.70	5.20	0.48	0.88	0.42	0.42	1.64		
25	0.10	2.76	0.36	0.45	3.20	36.48	3.00	0.45	0.84	0.39	0.45	1.30		
26	0.10	2.44	0.39	0.45	8.95	35.64	3.10	0.42	0.84	0.33	0.54	0.72		
27	0.12	2.28	0.54	0.39	4.60	24.25	6.85	0.39	0.84	0.28	0.57	4.00		
28	0.12	1.99	1.30	0.39	2.84	16.90	3.40	0.36	0.84	0.28	0.60	7.00		
29	0.10	1.78	1.50	0.39	4.45	18.10	3.10	0.33	0.84	0.26		4.00		
30	0.14	1.45	0.96	0.42	2.13	15.10	2.76	0.33	0.84	0.26		5.80		
31		1.30		0.39	6.10		2.06		0.84	0.26		2.68		
Total	4.49	237.22	22.78	17.44	64.06	511.80	339.11	21.35	17.46	18.66	10.96	40.10	1305.43	CMSDAY
Mean	0.15	7.65	0.76	0.56	2.07	17.06	10.94	0.71	0.56	0.60	0.39	1.29	3.58	CMS
Max	0.48	70.00	1.92	0.88	8.95	87.10	118.52	1.50	0.92	0.80	0.80	7.00	118.52	CMS
Min	0.07	0.64	0.36	0.39	0.39	2.44	1.50	0.33	0.26	0.26	0.20	0.24	0.07	CMS
Runoff	0.39	20.50	1.97	1.51	5.53	44.22	29.30	1.84	1.51	1.61	0.95	3.46	112.79	MCM

Momentary Peak 133.10 CMS, at 7.88 m. (A.D.) , at 12.00 Hours , on Oct 16 , 2002

Runoff Yield 10.68 Liters/Second/Square KM. Momentary Peak Yield 397.310 Liters/Second/Square KM.

WATER YEAR : 2002

MUN RIVER BASIN

Mun River at Ban Kra Bueang Noi, Nakhon Ratchasima (M.151)

Lat 15 - 13 - 12 N Long 102 - 28 - 22 E

Location : on right bank at the bridge on Nakhon Ratchasima - Phimai Highway.

Ban Kra Bueang Noi **Amphoe** Phimai **Changwat** Nakhon Ratchasima

Drainge Area	11,509 sq.km.
Type of Gage	Staff gage.
Zero Gage at Bottom	+149.000 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank about 35 meters from the measuring line. **Elevation** +153.190 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 mean of 5 readings
Period of Available Gage Records	1994 to date
Rating Operation	
Period of Rating	1996 to date
Rated by Flot	-
Rated by Current Meter	1996 to date
Stability of Channel Regimes	Rather unstable because of backwater effect.
Overbank Flow Conditions	Overbank flow starts at elevation +152.380 m.(M.S.L.), records are channel flow only.
General Description	Records fair. Stage-discharge relation defined by 62 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

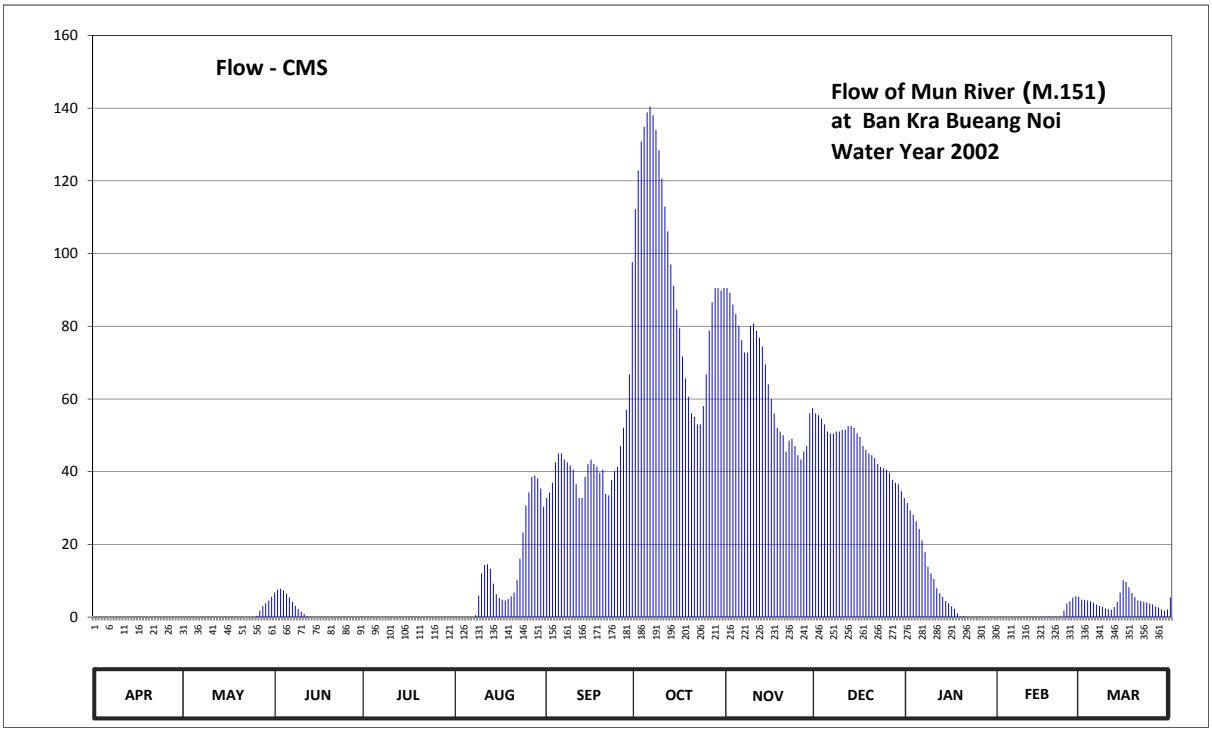
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	148.69	148.64	150.70	148.58	148.48	151.90	153.36	153.03	152.43	151.86	148.70	150.45	
2	148.67	148.62	150.77	148.58	148.48	151.94	153.51	153.01	152.42	151.80	148.70	150.44	
3	148.63	148.62	150.79	148.58	148.60	152.01	153.61	152.96	152.40	151.76	148.70	150.42	
4	148.60	148.60	150.75	148.58	148.61	152.15	153.66	152.92	152.37	151.70	148.70	150.38	
5	148.60	148.60	150.67	148.58	148.56	152.21	153.71	152.87	152.33	151.62	148.70	150.30	
6	148.60	148.66	150.54	148.58	148.56	152.21	153.73	152.81	152.32	151.49	148.70	150.20	
7	148.59	148.64	150.35	148.57	148.55	152.17	153.70	152.75	152.32	151.35	148.70	150.12	
8	148.59	148.63	150.14	148.56	149.62	152.15	153.65	152.75	152.33	151.16	148.70	150.08	
9	148.58	148.63	149.96	148.56	150.61	152.13	153.58	152.87	152.33	151.06	148.93	149.99	
10	148.58	148.62	149.81	148.54	151.06	152.10	153.48	152.88	152.34	150.97	149.04	149.95	
11	148.58	148.60	149.69	148.54	151.19	152.00	153.37	152.85	152.34	150.80	149.18	149.91	
12	148.59	148.60	149.56	148.50	151.20	151.90	153.27	152.82	152.36	150.68	149.27	150.07	
13	148.60	149.22	149.43	148.50	151.13	151.90	153.13	152.78	152.36	150.56	149.31	150.34	
14	148.61	149.30	149.31	148.49	150.89	152.05	153.04	152.69	152.35	150.40	149.34	150.70	
15	148.77	149.36	149.22	148.49	150.65	152.14	152.94	152.59	152.32	150.27	149.44	150.95	
16	148.68	149.31	149.05	148.51	150.52	152.17	152.86	152.51	152.30	150.11	149.43	150.92	
17	148.65	149.32	149.04	148.54	150.45	152.14	152.73	152.43	152.25	149.97	149.44	150.82	
18	148.59	149.30	148.96	148.50	150.42	152.12	152.62	152.35	152.23	149.71	149.48	150.69	
19	148.60	149.25	148.88	148.49	150.47	152.08	152.52	152.33	152.21	149.50	149.50	150.55	
20	148.56	149.19	148.83	148.48	150.58	152.10	152.43	152.31	152.20	149.54	149.48	150.42	
21	148.53	149.16	148.75	148.48	150.70	151.93	152.41	152.22	152.18	149.41	149.44	150.40	
22	148.53	149.14	148.71	148.48	150.95	151.92	152.37	152.28	152.14	149.29	149.46	150.36	
23	148.54	149.12	148.65	148.48	151.27	152.03	152.37	152.29	152.12	149.18	149.86	150.31	
24	148.59	149.10	148.63	148.48	151.58	152.09	152.47	152.25	152.11	149.07	150.25	150.26	
25	148.60	149.31	148.64	148.48	151.84	152.12	152.64	152.20	152.10	149.03	150.38	150.21	
26	148.60	149.59	148.62	148.48	151.94	152.25	152.85	152.17	152.08	148.84	150.53	150.10	
27	148.60	149.86	148.60	148.46	152.05	152.35	152.97	152.22	152.03	148.84	150.58	150.05	
28	148.60	150.12	148.60	148.46	152.06	152.45	153.03	152.25	152.01	148.80	150.56	149.93	
29	148.60	150.28	148.60	148.49	152.04	152.64	153.03	152.43	152.00	148.75		149.87	
30	148.71	150.42	148.60	148.50	151.97	153.14	153.02	152.46	151.95	148.70		149.93	
31		150.57		148.50	151.83		153.03		151.90	148.70		150.54	
Mean	148.61	149.17	149.43	148.52	150.54	152.15	153.07	152.58	152.23	150.16	149.38	150.31	
Max	148.77	150.57	150.79	148.58	152.06	153.14	153.73	153.03	152.43	151.86	150.58	150.95	153.73
Min	148.53	148.60	148.60	148.46	148.48	151.90	152.37	152.17	151.90	148.70	148.70	149.87	148.46

Annual Max Momentary Gage Height 153.73 m. (MSL.) , at 06.00 Hours , on Oct 6, 2002

Zero Gage at Bottom Elevation 149.00 m. (MSL.) , River Bed 147.87 m. (MSL.)

Left Bank Elevation 152.52 m. (MSL.) ,

Right Bank Elevation 152.37 m. (MSL.) , Drainage Are 11,509 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	6.74	0.00	0.00	32.74	112.24	90.49	56.04	31.38	0.00	4.79		
2	0.00	0.00	7.58	0.00	0.00	34.26	122.84	89.19	55.54	29.34	0.00	4.72		
3	0.00	0.00	7.82	0.00	0.00	36.94	130.84	85.94	54.54	28.14	0.00	4.58		
4	0.00	0.00	7.34	0.00	0.00	42.54	134.84	83.34	53.04	26.34	0.00	4.34		
5	0.00	0.00	6.47	0.00	0.00	45.04	138.84	80.09	51.04	24.26	0.00	3.94		
6	0.00	0.00	5.42	0.00	0.00	45.04	140.44	76.19	50.54	21.10	0.00	3.44		
7	0.00	0.00	4.19	0.00	0.00	43.34	138.04	72.79	50.54	17.84	0.00	3.04		
8	0.00	0.00	3.14	0.00	0.54	42.54	134.04	72.79	51.04	13.82	0.00	2.84		
9	0.00	0.00	2.24	0.00	5.93	41.74	128.44	80.09	51.04	12.02	0.00	2.39		
10	0.00	0.00	1.49	0.00	12.02	40.54	120.64	80.74	51.54	10.46	0.00	2.19		
11	0.00	0.00	0.89	0.00	14.36	36.54	112.94	78.79	51.54	7.94	0.00	1.99		
12	0.00	0.00	0.32	0.00	14.54	32.74	106.09	76.84	52.54	6.56	0.01	2.79		
13	0.00	0.00	0.07	0.00	13.28	32.74	96.99	74.44	52.54	5.56	0.01	4.14		
14	0.00	0.01	0.01	0.00	9.20	38.54	91.14	69.49	52.04	4.44	0.02	6.74		
15	0.00	0.03	0.00	0.00	6.29	42.14	84.64	64.04	50.54	3.79	0.08	10.14		
16	0.00	0.01	0.00	0.00	5.28	43.34	79.44	60.04	49.54	2.99	0.07	9.66		
17	0.00	0.02	0.00	0.00	4.79	42.14	71.69	56.04	47.04	2.29	0.08	8.22		
18	0.00	0.01	0.00	0.00	4.58	41.34	65.64	52.04	46.04	0.99	0.12	6.65		
19	0.00	0.00	0.00	0.00	4.93	39.74	60.54	51.04	45.04	0.14	0.14	5.49		
20	0.00	0.00	0.00	0.00	5.70	40.54	56.04	50.04	44.54	0.26	0.12	4.58		
21	0.00	0.00	0.00	0.00	6.74	33.88	55.04	45.54	43.74	0.05	0.08	4.44		
22	0.00	0.00	0.00	0.00	10.14	33.50	53.04	48.54	42.14	0.01	0.10	4.24		
23	0.00	0.00	0.00	0.00	16.08	37.74	53.04	49.04	41.34	0.00	1.74	3.99		
24	0.00	0.00	0.00	0.00	23.26	40.14	58.04	47.04	40.94	0.00	3.69	3.74		
25	0.00	0.01	0.00	0.00	30.70	41.34	66.74	44.54	40.54	0.00	4.34	3.49		
26	0.00	0.41	0.00	0.00	34.26	47.04	78.79	43.34	39.74	0.00	5.35	2.94		
27	0.00	1.74	0.00	0.00	38.54	52.04	86.59	45.54	37.74	0.00	5.70	2.69		
28	0.00	3.04	0.00	0.00	38.94	57.04	90.49	47.04	36.94	0.00	5.56	2.09		
29	0.00	3.84	0.00	0.00	38.14	66.74	90.49	56.04	36.54	0.00		1.79		
30	0.00	4.58	0.00	0.00	35.40	97.64	89.84	57.54	34.64	0.00		2.09		
31		5.63		0.00	30.36		90.49		32.74	0.00		5.42		
Total	0.00	19.33	53.72	0.00	404.00	1301.62	2938.94	1928.65	1443.34	249.72	27.21	133.59	8500.12	CMSDAY
Mean	0.00	0.62	1.79	0.00	13.03	43.39	94.80	64.29	46.56	8.06	0.97	4.31	23.29	CMS
Max	0.00	5.63	7.82	0.00	38.94	97.64	140.44	90.49	56.04	31.38	5.70	10.14	140.44	CMS
Min	0.00	0.00	0.00	0.00	0.00	32.74	53.04	43.34	32.74	0.00	0.00	1.79	0.00	CMS
Runoff	0.00	1.67	4.64	0.00	34.91	112.46	253.92	166.64	124.70	21.58	2.35	11.54	734.41	MCM

Momentary Peak 140.44 CMS, at 153.73 m. (MSL.) , at 06.00 Hours , on Oct 6 , 2002

Runoff Yield 2.02 Liters/Second/Square KM. Momentary Peak Yield 12.200 Liters/Second/Square KM.

WATER YEAR : 2002

MUN RIVER BASIN

Huai Bon at Ban Phon Thong, Ubon Ratchathani (M.152)

Lat 14 - 27 - 47 N Long 105 - 06 - 19 E

Location : on left bank at the bridge on road.

	Ban Phon Thong	**Amphoe** Nam Yuen	**Changwat** Ubon Ratchathani
Drainge Area	214 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 downstream at the footpath of the bridge.	**Elevation**	+9.719 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 mean 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 +5.930 m.(A.D.), records are channel flow only.		
General Description	Records good. Stage-discharge relation defined by 66 discharge measurements made in 2002.		

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

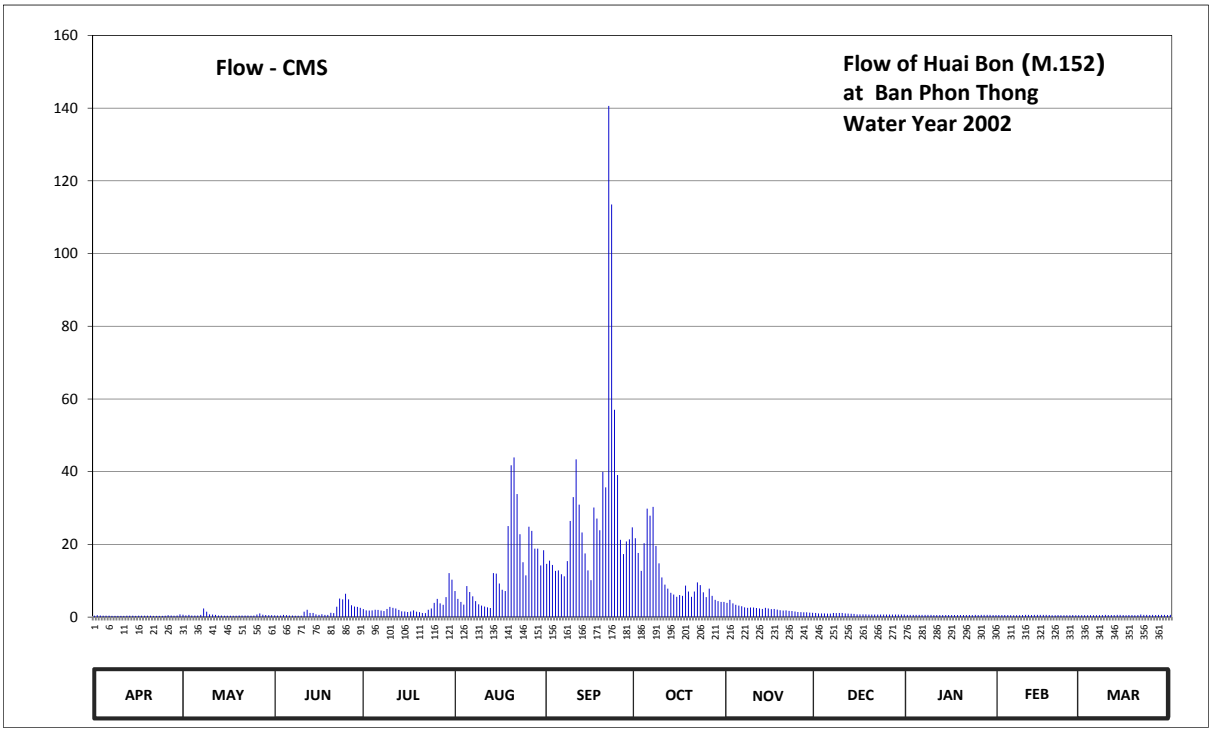
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	1.08	1.17	1.11	1.45	1.98	2.49	2.96	1.71	1.27	1.15	1.14	1.12	
2	1.12	1.11	1.10	1.39	1.80	2.55	2.69	1.78	1.25	1.15	1.14	1.13	
3	1.09	1.15	1.09	1.38	1.73	2.47	2.36	1.70	1.25	1.15	1.14	1.13	
4	1.08	1.09	1.16	1.39	1.65	2.36	2.87	1.64	1.25	1.15	1.14	1.13	
5	1.08	1.10	1.13	1.42	2.08	2.37	3.47	1.61	1.24	1.15	1.13	1.12	
6	1.07	1.09	1.10	1.41	1.96	2.30	3.35	1.58	1.24	1.15	1.12	1.13	
7	1.05	1.15	1.09	1.38	1.86	2.26	3.50	1.53	1.27	1.15	1.12	1.13	
8	1.06	1.48	1.08	1.36	1.75	2.54	2.82	1.51	1.26	1.15	1.13	1.14	
9	1.06	1.33	1.08	1.46	1.66	3.26	2.50	1.52	1.27	1.15	1.14	1.15	
10	1.06	1.20	1.08	1.55	1.61	3.67	2.24	1.52	1.27	1.14	1.16	1.14	
11	1.06	1.18	1.33	1.51	1.57	4.26	2.11	1.50	1.25	1.14	1.15	1.14	
12	1.07	1.15	1.42	1.48	1.53	3.54	2.03	1.48	1.24	1.14	1.14	1.14	
13	1.08	1.10	1.27	1.41	1.50	3.06	1.94	1.46	1.23	1.14	1.16	1.16	
14	1.07	1.09	1.27	1.35	2.32	2.68	1.90	1.51	1.22	1.14	1.15	1.16	
15	1.06	1.08	1.20	1.34	2.31	2.37	1.85	1.48	1.20	1.14	1.16	1.14	
16	1.07	1.08	1.15	1.32	2.13	2.19	1.89	1.45	1.20	1.14	1.15	1.13	
17	1.07	1.08	1.21	1.34	2.01	3.49	1.87	1.46	1.20	1.14	1.16	1.14	
18	1.08	1.07	1.16	1.39	1.98	3.30	2.09	1.43	1.20	1.14	1.14	1.14	
19	1.08	1.08	1.15	1.33	3.17	3.10	1.97	1.40	1.19	1.14	1.13	1.13	
20	1.07	1.09	1.28	1.31	4.17	4.07	1.85	1.38	1.19	1.14	1.13	1.14	
21	1.06	1.09	1.26	1.27	4.29	3.83	1.97	1.39	1.18	1.14	1.14	1.19	
22	1.06	1.09	1.56	1.26	3.72	7.11	2.15	1.37	1.18	1.14	1.13	1.16	
23	1.06	1.09	1.81	1.42	3.03	6.60	2.10	1.36	1.18	1.14	1.12	1.15	
24	1.06	1.08	1.79	1.48	2.52	4.93	1.95	1.34	1.18	1.15	1.12	1.14	
25	1.07	1.09	1.92	1.71	2.28	4.02	1.84	1.32	1.18	1.14	1.13	1.15	
26	1.12	1.19	1.79	1.80	3.16	2.93	2.03	1.31	1.19	1.15	1.14	1.14	
27	1.09	1.25	1.62	1.70	3.09	2.67	1.87	1.30	1.19	1.15	1.12	1.15	
28	1.08	1.17	1.57	1.64	2.77	2.90	1.78	1.30	1.19	1.15	1.12	1.16	
29	1.10	1.14	1.55	1.84	2.77	2.94	1.75	1.29	1.19	1.15		1.15	
30	1.20	1.13	1.51	2.32	2.46	3.15	1.73	1.28	1.18	1.14		1.14	
31		1.12		2.20	2.74		1.73		1.18	1.14		1.15	
Mean	1.08	1.14	1.33	1.50	2.37	3.31	2.23	1.46	1.22	1.14	1.14	1.14	
Max	1.20	1.48	1.92	2.32	4.29	7.11	3.50	1.78	1.27	1.15	1.16	1.19	7.11
Min	1.05	1.07	1.08	1.26	1.50	2.19	1.73	1.28	1.18	1.14	1.12	1.12	1.05

Annual Max Momentary Gage Height 7.23 m. (A.D.) , at 09.00 Hours , on Sep 22, 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed 0.31 m. (A.D.)

Left Bank Elevation 5.92 m. (A.D.) ,

Right Bank Elevation 6.42 m. (A.D.) , Drainage Are 214 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.41	0.66	0.48	2.20	7.16	14.65	21.70	3.92	1.14	0.60	0.57	0.51		
2	0.51	0.48	0.45	1.84	5.00	15.55	17.65	4.76	1.02	0.60	0.57	0.54		
3	0.43	0.60	0.43	1.78	4.16	14.35	12.70	3.80	1.02	0.60	0.57	0.54		
4	0.41	0.43	0.63	1.84	3.45	12.70	20.35	3.38	1.02	0.60	0.57	0.54		
5	0.41	0.45	0.54	2.02	8.52	12.85	29.82	3.17	0.97	0.60	0.54	0.51		
6	0.39	0.43	0.45	1.96	6.92	11.80	27.90	2.98	0.97	0.60	0.51	0.54		
7	0.35	0.60	0.43	1.78	5.72	11.20	30.30	2.68	1.14	0.60	0.51	0.54		
8	0.37	2.38	0.41	1.66	4.40	15.40	19.60	2.56	1.08	0.60	0.54	0.57		
9	0.37	1.48	0.41	2.26	3.52	26.46	14.80	2.62	1.14	0.60	0.57	0.60		
10	0.37	0.75	0.41	2.80	3.17	33.02	10.90	2.62	1.14	0.57	0.63	0.57		
11	0.37	0.69	1.48	2.56	2.92	43.38	8.95	2.50	1.02	0.57	0.60	0.57		
12	0.39	0.60	2.02	2.38	2.68	30.94	7.82	2.38	0.97	0.57	0.57	0.57		
13	0.41	0.45	1.14	1.96	2.50	23.26	6.68	2.26	0.91	0.57	0.63	0.63		
14	0.39	0.43	1.14	1.60	12.10	17.50	6.20	2.56	0.86	0.57	0.60	0.63		
15	0.37	0.41	0.75	1.54	11.95	12.85	5.60	2.38	0.75	0.57	0.63	0.57		
16	0.39	0.41	0.60	1.42	9.25	10.15	6.08	2.20	0.75	0.57	0.60	0.54		
17	0.39	0.41	0.80	1.54	7.54	30.14	5.84	2.26	0.75	0.57	0.63	0.57		
18	0.41	0.39	0.63	1.84	7.16	27.10	8.66	2.08	0.75	0.57	0.57	0.57		
19	0.41	0.41	0.60	1.48	25.02	23.90	7.04	1.90	0.72	0.57	0.54	0.54		
20	0.39	0.43	1.19	1.36	41.76	39.96	5.60	1.78	0.72	0.57	0.54	0.57		
21	0.37	0.43	1.08	1.14	43.92	35.71	7.04	1.84	0.69	0.57	0.57	0.72		
22	0.37	0.43	2.86	1.08	33.84	140.60	9.55	1.72	0.69	0.57	0.54	0.63		
23	0.37	0.43	5.12	2.02	22.78	113.50	8.80	1.66	0.69	0.57	0.51	0.60		
24	0.37	0.41	4.88	2.38	15.10	57.03	6.80	1.54	0.69	0.60	0.51	0.57		
25	0.39	0.43	6.44	3.92	11.50	39.06	5.48	1.42	0.69	0.57	0.54	0.60		
26	0.51	0.72	4.88	5.00	24.86	21.25	7.82	1.36	0.72	0.60	0.57	0.57		
27	0.43	1.02	3.24	3.80	23.74	17.35	5.84	1.30	0.72	0.60	0.51	0.60		
28	0.41	0.66	2.92	3.38	18.85	20.80	4.76	1.30	0.72	0.60	0.51	0.63		
29	0.45	0.57	2.80	5.48	18.85	21.40	4.40	1.25	0.72	0.60		0.60		
30	0.75	0.54	2.56	12.10	14.20	24.70	4.16	1.19	0.69	0.57		0.57		
31		0.51		10.30	18.40		4.16		0.69	0.57		0.60		
Total	12.36	19.04	51.77	88.42	420.94	918.56	343.00	69.37	26.55	18.09	15.75	17.91	2001.76	CMSDAY
Mean	0.41	0.61	1.73	2.85	13.58	30.62	11.06	2.31	0.86	0.58	0.56	0.58	5.48	CMS
Max	0.75	2.38	6.44	12.10	43.92	140.60	30.30	4.76	1.14	0.60	0.63	0.72	140.60	CMS
Min	0.35	0.39	0.41	1.08	2.50	10.15	4.16	1.19	0.69	0.57	0.51	0.51	0.35	CMS
Runoff	1.07	1.65	4.47	7.64	36.37	79.36	29.64	5.99	2.29	1.56	1.36	1.55	172.95	MCM

Momentary Peak 147.80 CMS, at 7.23 m. (A.D.) , at 09.00 Hours , on Sep 22 , 2002

Runoff Yield 25.63 Liters/Second/Square KM. Momentary Peak Yield 690.650 Liters/Second/Square KM.

WATER YEAR : 2002

MUN RIVER BASIN

Lam Dom Yai at Ban Kut Chiang Mun, Ubon Ratchathani (M.153)

Lat 14 - 26 - 41 N Long 105 - 07 - 30 E

Location : on right bank at the bridge on road.

Ban Kut Chiang Mun **Amphoe** Nam Yuen **Changwat** Ubon Ratchathani

Drainge Area	373 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 downstream at the footpath of the bridge. **Elevation** +11.183 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 mean 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 +4.430 m.(A.D.), records are channel flow only.
General Description	Records good. Stage-discharge relation defined by 64 discharge measurements made in 2002.

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

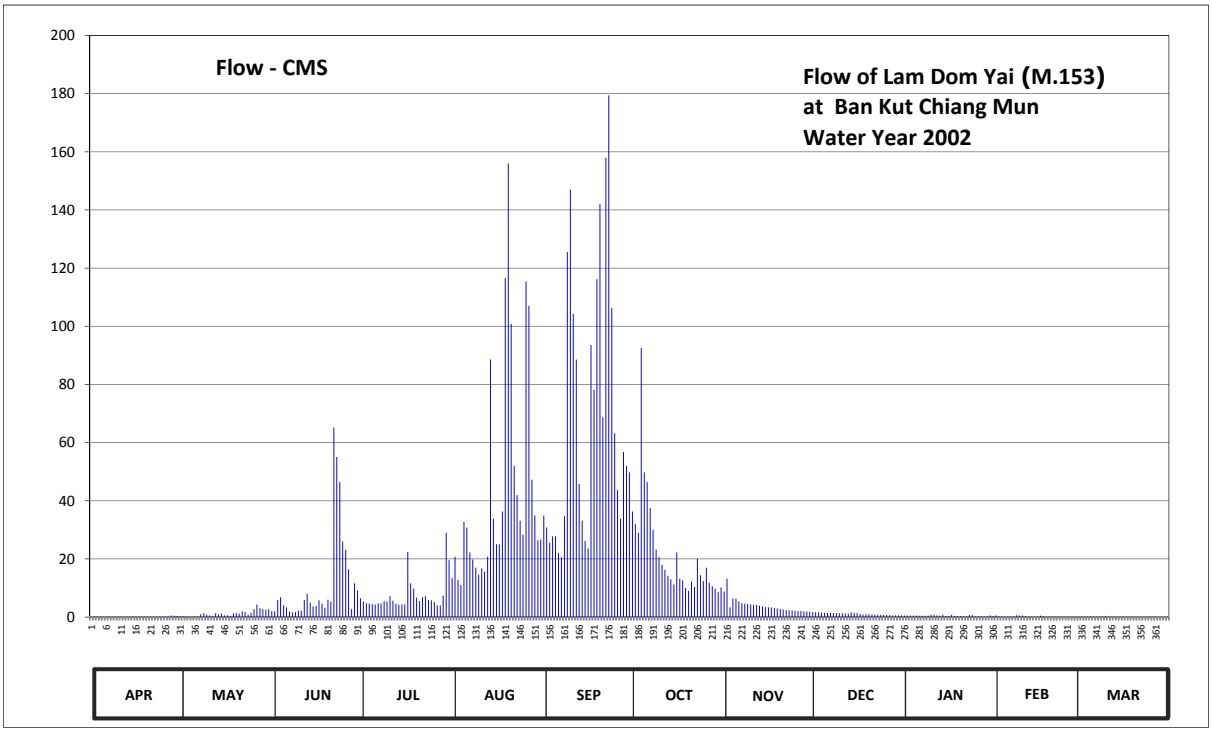
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.65	0.73	1.04	1.54	1.91	2.97	3.03	1.68	0.99	0.79	0.80	0.65	
2	0.67	0.71	1.04	1.45	2.28	2.78	2.84	1.90	0.98	0.79	0.70	0.65	
3	0.67	0.70	1.49	1.40	1.88	2.52	2.69	1.22	0.97	0.79	0.69	0.65	
4	0.67	0.68	1.57	1.38	1.79	2.63	4.87	1.53	0.96	0.78	0.68	0.67	
5	0.66	0.67	1.31	1.35	2.87	2.63	3.52	1.53	0.95	0.78	0.68	0.67	
6	0.66	0.68	1.21	1.34	2.78	2.34	3.40	1.45	0.94	0.77	0.68	0.65	
7	0.65	0.72	1.02	1.39	2.35	2.27	3.08	1.40	0.94	0.77	0.68	0.65	
8	0.66	0.86	0.97	1.39	2.23	2.96	2.74	1.38	0.93	0.76	0.81	0.65	
9	0.65	0.93	0.98	1.46	2.09	5.70	2.40	1.36	0.93	0.77	0.79	0.65	
10	0.67	0.84	1.07	1.45	1.97	6.14	2.27	1.34	0.93	0.84	0.78	0.73	
11	0.66	0.80	1.07	1.60	2.08	5.18	2.14	1.33	0.92	0.83	0.73	0.65	
12	0.65	0.74	1.49	1.47	2.02	4.76	2.05	1.32	0.91	0.80	0.66	0.65	
13	0.66	0.92	1.64	1.38	2.28	3.38	1.95	1.29	0.90	0.78	0.65	0.63	
14	0.65	0.85	1.42	1.33	4.76	2.89	1.89	1.26	0.97	0.84	0.65	0.62	
15	0.65	0.90	1.26	1.34	2.92	2.55	1.80	1.23	0.94	0.75	0.68	0.62	
16	0.65	0.80	1.28	1.34	2.49	2.42	2.35	1.22	0.93	0.74	0.77	0.64	
17	0.65	0.80	1.48	2.36	2.49	4.90	1.90	1.21	0.87	0.83	0.73	0.63	
18	0.65	0.76	1.38	1.82	3.03	4.47	1.87	1.19	0.85	0.74	0.65	0.63	
19	0.65	0.92	1.20	1.73	5.49	5.48	1.74	1.17	0.86	0.73	0.65	0.63	
20	0.64	0.93	1.50	1.56	6.32	6.04	1.69	1.14	0.86	0.73	0.65	0.63	
21	0.64	0.89	1.44	1.46	5.09	4.19	1.85	1.13	0.85	0.72	0.65	0.63	
22	0.65	1.04	4.07	1.57	3.60	6.36	1.76	1.10	0.84	0.72	0.65	0.63	
23	0.65	0.99	3.71	1.60	3.24	6.74	2.24	1.09	0.83	0.82	0.65	0.63	
24	0.65	0.85	3.40	1.49	2.89	5.23	1.96	1.08	0.83	0.82	0.65	0.64	
25	0.65	0.95	2.54	1.48	2.66	4.00	1.86	1.07	0.83	0.72	0.65	0.62	
26	0.68	1.14	2.40	1.43	5.46	3.30	2.09	1.05	0.82	0.70	0.65	0.62	
27	0.67	1.34	2.06	1.30	5.25	2.92	1.83	1.05	0.81	0.70	0.65	0.62	
28	0.78	1.18	1.14	1.30	3.43	3.77	1.77	1.03	0.80	0.69	0.65	0.62	
29	0.77	1.14	1.82	1.61	2.97	3.60	1.73	1.02	0.80	0.70		0.62	
30	0.75	1.12	1.70	2.69	2.56	3.52	1.67	1.01	0.80	0.80		0.63	
31		1.14		2.22	2.57		1.75		0.80	0.75		0.63	
Mean	0.67	0.89	1.66	1.56	3.09	3.95	2.28	1.26	0.89	0.77	0.69	0.64	
Max	0.78	1.34	4.07	2.69	6.32	6.74	4.87	1.90	0.99	0.84	0.81	0.73	6.74
Min	0.64	0.67	0.97	1.30	1.79	2.27	1.67	1.01	0.80	0.69	0.65	0.62	0.62

Annual Max Momentary Gage Height 7.13 m. (A.D.) , at 06.00 Hours , on Sep 23, 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed 0.56 m. (A.D.)

Left Bank Elevation 4.43 m. (A.D.) ,

Right Bank Elevation 6.38 m. (A.D.) , Drainage Are 373 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.10	0.32	2.04	6.48	13.40	34.94	36.32	8.80	1.74	0.56	0.60	0.10		
2	0.14	0.24	2.04	5.40	20.80	30.80	32.08	13.20	1.68	0.56	0.20	0.10		
3	0.14	0.20	5.88	4.80	12.80	25.60	29.00	3.36	1.62	0.56	0.18	0.10		
4	0.14	0.16	6.84	4.64	11.00	27.80	92.52	6.36	1.56	0.52	0.16	0.14		
5	0.12	0.14	4.08	4.40	32.74	27.80	49.76	6.36	1.50	0.52	0.16	0.14		
6	0.12	0.16	3.28	4.32	30.80	22.00	46.40	5.40	1.44	0.48	0.16	0.10		
7	0.10	0.28	1.92	4.72	22.20	20.60	37.52	4.80	1.44	0.48	0.16	0.10		
8	0.12	0.96	1.62	4.72	19.80	34.72	30.00	4.64	1.38	0.44	0.66	0.10		
9	0.10	1.38	1.68	5.52	17.00	125.50	23.20	4.48	1.38	0.48	0.56	0.10		
10	0.14	0.84	2.22	5.40	14.60	147.00	20.60	4.32	1.38	0.84	0.52	0.32		
11	0.12	0.60	2.22	7.20	16.80	104.24	18.00	4.24	1.32	0.78	0.32	0.10		
12	0.10	0.36	5.88	5.64	15.60	88.56	16.20	4.16	1.26	0.60	0.12	0.10		
13	0.12	1.32	8.00	4.64	20.80	45.84	14.20	3.92	1.20	0.52	0.10	0.06		
14	0.10	0.90	5.04	4.24	88.56	33.18	13.00	3.68	1.62	0.84	0.10	0.04		
15	0.10	1.20	3.68	4.32	33.84	26.20	11.20	3.44	1.44	0.40	0.16	0.04		
16	0.10	0.60	3.84	4.32	25.00	23.60	22.20	3.36	1.38	0.36	0.48	0.08		
17	0.10	0.60	5.76	22.40	25.00	93.60	13.20	3.28	1.02	0.78	0.32	0.06		
18	0.10	0.44	4.64	11.60	36.32	78.12	12.60	3.12	0.90	0.36	0.10	0.06		
19	0.10	1.32	3.20	9.80	116.60	116.20	10.00	2.96	0.96	0.32	0.10	0.06		
20	0.08	1.38	6.00	6.72	156.00	142.00	9.00	2.72	0.96	0.32	0.10	0.06		
21	0.08	1.14	5.28	5.52	100.82	68.70	12.20	2.64	0.90	0.28	0.10	0.06		
22	0.10	2.04	65.16	6.84	52.00	158.00	10.40	2.40	0.84	0.28	0.10	0.06		
23	0.10	1.74	55.08	7.20	41.92	179.40	20.00	2.34	0.78	0.72	0.10	0.06		
24	0.10	0.90	46.40	5.88	33.18	106.20	14.40	2.28	0.78	0.72	0.10	0.08		
25	0.10	1.50	26.00	5.76	28.40	63.20	12.40	2.22	0.78	0.28	0.10	0.04		
26	0.16	2.72	23.20	5.16	115.40	43.60	17.00	2.10	0.72	0.20	0.10	0.04		
27	0.14	4.32	16.40	4.00	107.00	33.84	11.80	2.10	0.66	0.20	0.10	0.04		
28	0.52	3.04	2.72	4.00	47.24	56.76	10.60	1.98	0.60	0.18	0.10	0.04		
29	0.48	2.72	11.60	7.40	34.94	52.00	9.80	1.92	0.60	0.20		0.04		
30	0.40	2.56	9.20	29.00	26.40	49.76	8.60	1.86	0.60	0.60		0.06		
31		2.72		19.60	26.60		10.20		0.60	0.40		0.06		
Total	4.42	38.80	340.90	231.64	1343.56	2059.76	674.40	118.44	35.04	14.78	6.06	2.54	4870.34	CMSDAY
Mean	0.15	1.25	11.36	7.47	43.34	68.66	21.75	3.95	1.13	0.48	0.22	0.08	13.34	CMS
Max	0.52	4.32	65.16	29.00	156.00	179.40	92.52	13.20	1.74	0.84	0.66	0.32	179.40	CMS
Min	0.08	0.14	1.62	4.00	11.00	20.60	8.60	1.86	0.60	0.18	0.10	0.04	0.04	CMS
Runoff	0.38	3.35	29.45	20.01	116.08	177.96	58.27	10.23	3.03	1.28	0.52	0.22	420.80	MCM

Momentary Peak 205.10 CMS, at 7.13 m. (A.D.) , at 06.00 Hours , on Sep 23 , 2002

Runoff Yield 35.77 Liters/Second/Square KM. Momentary Peak Yield 549.870 Liters/Second/Square KM.

WATER YEAR : 2002

MUN RIVER BASIN

Huai Luang at Ban Na Chaluai, Ubon Ratchathani (M.154)

Lat 14 - 27 - 06 N Long 105 - 11 - 34 E

Location : on left bank at the bridge on road.

	Ban Na Chaluai	**Amphoe** Na Chaluai	**Changwat** Ubon Ratchathani
Drainge Area	210 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 downstream at the footpath of the bridge.	**Elevation**	+10.124 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 mean 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 +6.000 m.(A.D.), records are channel flow only.		
General Description	Records good. Stage-discharge relation defined by 61 discharge measurements made in 2002.		

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

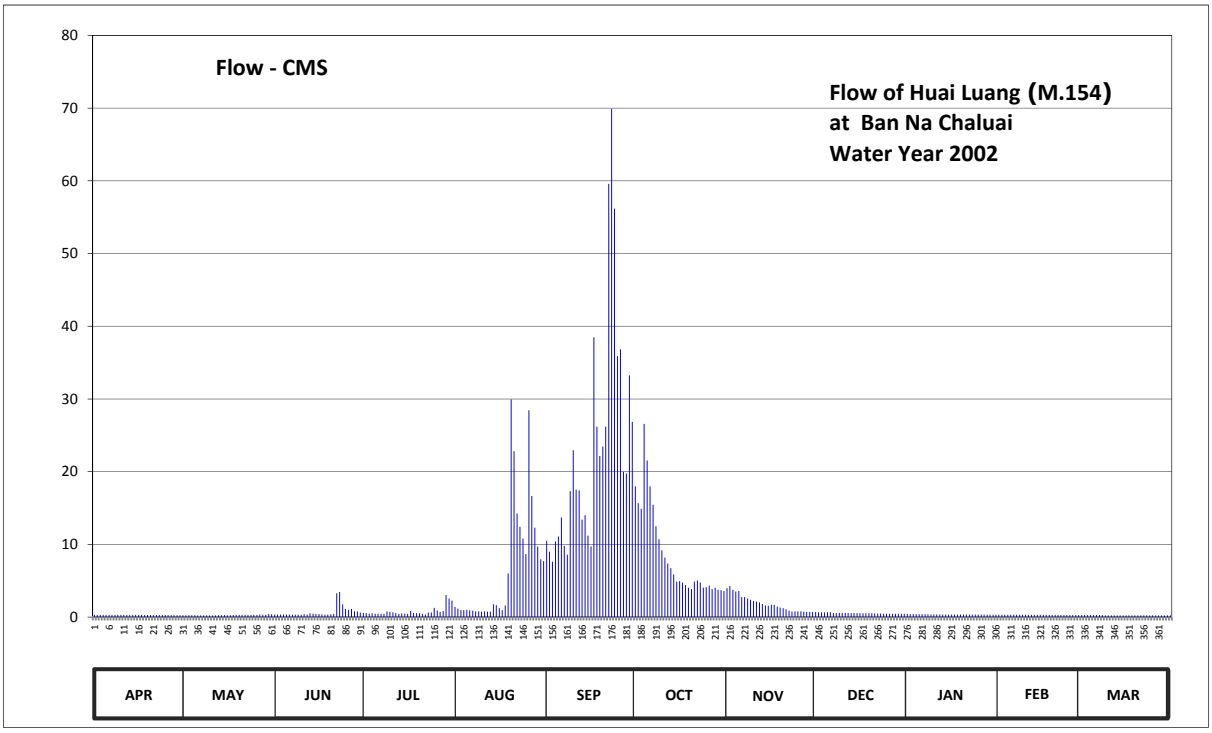
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.91	0.88	0.93	1.08	1.40	2.66	3.37	1.84	1.15	0.99	0.92	0.89	
2	0.91	0.88	0.93	1.06	1.34	2.51	3.16	1.88	1.13	0.98	0.92	0.89	
3	0.90	0.88	0.94	1.02	1.28	2.34	3.09	1.81	1.13	0.98	0.92	0.89	
4	0.90	0.88	0.93	1.05	1.28	2.65	4.06	1.77	1.13	0.98	0.92	0.89	
5	0.90	0.88	0.93	1.01	1.29	2.72	3.67	1.78	1.13	0.97	0.92	0.89	
6	0.90	0.87	0.93	1.01	1.26	2.98	3.37	1.64	1.13	0.96	0.92	0.89	
7	0.90	0.87	0.92	1.00	1.24	2.59	3.14	1.64	1.09	0.96	0.92	0.89	
8	0.90	0.87	0.92	1.00	1.20	2.46	2.86	1.61	1.09	0.96	0.92	0.89	
9	0.90	0.87	0.92	1.20	1.19	3.31	2.68	1.58	1.09	0.95	0.92	0.87	
10	0.90	0.87	0.92	1.16	1.17	3.78	2.53	1.55	1.09	0.95	0.92	0.87	
11	0.90	0.87	0.97	1.13	1.20	3.33	2.41	1.54	1.08	0.95	0.91	0.87	
12	0.90	0.87	0.93	1.07	1.17	3.32	2.31	1.52	1.08	0.95	0.91	0.87	
13	0.90	0.88	1.05	0.99	1.17	2.95	2.23	1.48	1.06	0.94	0.91	0.87	
14	0.90	0.88	1.00	1.04	1.47	3.01	2.11	1.44	1.06	0.94	0.91	0.87	
15	0.90	0.89	0.99	1.03	1.45	2.73	1.97	1.43	1.06	0.94	0.91	0.87	
16	0.90	0.88	0.98	0.99	1.36	2.58	1.98	1.46	1.06	0.94	0.91	0.87	
17	0.90	0.88	0.95	1.23	1.27	4.84	1.95	1.46	1.05	0.94	0.91	0.87	
18	0.89	0.89	0.94	1.09	1.44	4.03	1.90	1.41	1.05	0.93	0.91	0.87	
19	0.89	0.90	0.93	1.06	2.13	3.72	1.85	1.38	1.05	0.93	0.91	0.87	
20	0.89	0.90	0.96	1.05	4.29	3.82	1.82	1.36	1.05	0.93	0.90	0.87	
21	0.89	0.90	1.00	1.00	3.77	4.03	1.97	1.32	1.04	0.93	0.89	0.87	
22	0.89	0.90	1.73	0.93	3.03	6.01	1.99	1.24	1.03	0.93	0.89	0.87	
23	0.89	0.90	1.76	1.12	2.85	6.53	1.95	1.18	1.02	0.93	0.89	0.87	
24	0.89	0.91	1.47	1.12	2.69	5.83	1.85	1.19	1.00	0.93	0.89	0.87	
25	0.89	0.91	1.33	1.37	2.47	4.68	1.86	1.19	1.00	0.93	0.89	0.87	
26	0.89	0.91	1.30	1.25	4.19	4.74	1.89	1.19	1.00	0.93	0.89	0.87	
27	0.89	0.94	1.33	1.16	3.25	3.54	1.82	1.17	1.00	0.93	0.89	0.87	
28	0.88	0.92	1.19	1.22	2.84	3.52	1.85	1.16	1.00	0.92	0.89	0.87	
29	0.88	0.92	1.18	1.69	2.58	4.51	1.81	1.16	1.00	0.92		0.87	
30	0.88	0.99	1.11	1.61	2.38	4.08	1.80	1.15	1.00	0.92		0.87	
31		0.96		1.56	2.35		1.78		1.00	0.92		0.87	
Mean	0.90	0.90	1.08	1.14	2.00	3.66	2.36	1.45	1.06	0.94	0.91	0.88	
Max	0.91	0.99	1.76	1.69	4.29	6.53	4.06	1.88	1.15	0.99	0.92	0.89	6.53
Min	0.88	0.87	0.92	0.93	1.17	2.34	1.78	1.15	1.00	0.92	0.89	0.87	0.87

Annual Max Momentary Gage Height 6.68 m. (A.D.) , at 06.00 Hours , on Sep 23, 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed 0.66 m. (A.D.)

Left Bank Elevation 6.78 m. (A.D.) ,

Right Bank Elevation 5.99 m. (A.D.) , Drainage Are 210 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.31	0.27	0.34	0.57	1.40	10.50	17.97	3.98	0.70	0.43	0.33	0.28		
2	0.31	0.27	0.34	0.54	1.16	9.00	15.66	4.26	0.66	0.42	0.33	0.28		
3	0.30	0.27	0.36	0.48	0.96	7.62	14.89	3.77	0.66	0.42	0.33	0.28		
4	0.30	0.27	0.34	0.52	0.96	10.40	26.58	3.52	0.66	0.42	0.33	0.28		
5	0.30	0.27	0.34	0.46	0.98	11.10	21.54	3.58	0.66	0.40	0.33	0.28		
6	0.30	0.25	0.34	0.46	0.92	13.70	17.97	2.74	0.66	0.39	0.33	0.28		
7	0.30	0.25	0.33	0.45	0.88	9.80	15.44	2.74	0.58	0.39	0.33	0.28		
8	0.30	0.25	0.33	0.45	0.80	8.58	12.50	2.56	0.58	0.39	0.33	0.28		
9	0.30	0.25	0.33	0.80	0.78	17.31	10.70	2.38	0.58	0.37	0.33	0.25		
10	0.30	0.25	0.33	0.72	0.74	22.94	9.20	2.20	0.58	0.37	0.33	0.25		
11	0.30	0.25	0.40	0.66	0.80	17.53	8.18	2.14	0.57	0.37	0.31	0.25		
12	0.30	0.25	0.34	0.55	0.74	17.42	7.38	2.02	0.57	0.37	0.31	0.25		
13	0.30	0.27	0.52	0.43	0.74	13.40	6.74	1.80	0.54	0.36	0.31	0.25		
14	0.30	0.27	0.45	0.51	1.75	14.01	5.87	1.60	0.54	0.36	0.31	0.25		
15	0.30	0.28	0.43	0.49	1.65	11.20	4.89	1.55	0.54	0.36	0.31	0.25		
16	0.30	0.27	0.42	0.43	1.24	9.70	4.96	1.70	0.54	0.36	0.31	0.25		
17	0.30	0.27	0.37	0.86	0.94	38.48	4.75	1.70	0.52	0.36	0.31	0.25		
18	0.28	0.28	0.36	0.58	1.60	26.19	4.40	1.45	0.52	0.34	0.31	0.25		
19	0.28	0.30	0.34	0.54	6.01	22.16	4.05	1.32	0.52	0.34	0.31	0.25		
20	0.28	0.30	0.39	0.52	29.95	23.46	3.84	1.24	0.52	0.34	0.30	0.25		
21	0.28	0.30	0.45	0.45	22.81	26.19	4.89	1.08	0.51	0.34	0.28	0.25		
22	0.28	0.30	3.28	0.34	14.23	59.59	5.03	0.88	0.49	0.34	0.28	0.25		
23	0.28	0.30	3.46	0.64	12.40	69.90	4.75	0.76	0.48	0.34	0.28	0.25		
24	0.28	0.31	1.75	0.64	10.80	56.17	4.05	0.78	0.45	0.34	0.28	0.25		
25	0.28	0.31	1.12	1.28	8.66	35.88	4.12	0.78	0.45	0.34	0.28	0.25		
26	0.28	0.31	1.00	0.90	28.45	36.84	4.33	0.78	0.45	0.34	0.28	0.25		
27	0.28	0.36	1.12	0.72	16.65	19.98	3.84	0.74	0.45	0.34	0.28	0.25		
28	0.27	0.33	0.78	0.84	12.30	19.74	4.05	0.72	0.45	0.33	0.28	0.25		
29	0.27	0.33	0.76	3.04	9.70	33.25	3.77	0.72	0.45	0.33		0.25		
30	0.27	0.43	0.62	2.56	7.94	26.84	3.70	0.70	0.45	0.33		0.25		
31		0.39		2.26	7.70		3.58		0.45	0.33		0.25		
Total	8.73	9.01	21.74	24.69	206.64	698.88	263.62	56.19	16.78	11.26	8.63	7.99	1334.16	CMSDAY
Mean	0.29	0.29	0.72	0.80	6.67	23.30	8.50	1.87	0.54	0.36	0.31	0.26	3.66	CMS
Max	0.31	0.43	3.46	3.04	29.95	69.90	26.58	4.26	0.70	0.43	0.33	0.28	69.90	CMS
Min	0.27	0.25	0.33	0.34	0.74	7.62	3.58	0.70	0.45	0.33	0.28	0.25	0.25	CMS
Runoff	0.75	0.78	1.88	2.13	17.85	60.38	22.78	4.85	1.45	0.97	0.75	0.69	115.27	MCM

Momentary Peak 72.90 CMS, at 6.68 m. (A.D.) , at 06.00 Hours , on Sep 23 , 2002

Runoff Yield 17.41 Liters/Second/Square KM. Momentary Peak Yield 347.140 Liters/Second/Square KM.

WATER YEAR : 2002

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	+0.000 m. (A.D.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank upstream side at the footpath of the bridge.	**Elevation**	+9.545 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 mean 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 fair. The weir situated about 1.5 kilometers downstream from the gage site. Stage-discharge relation defined by 63 discharge measurements made in 2002.		

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

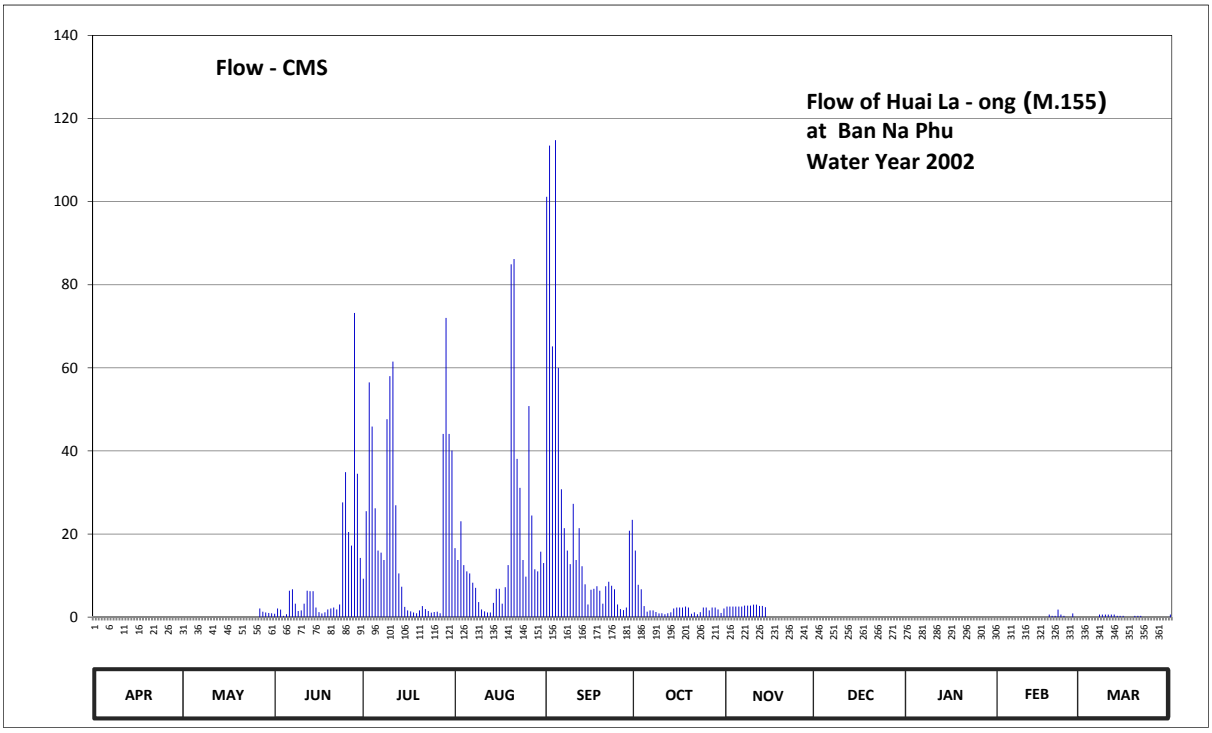
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.48	0.50	0.72	1.23	1.52	3.31	1.50	0.62	0.47	0.47	0.49	0.50	
2	0.48	0.48	0.64	1.80	1.41	3.50	1.14	0.62	0.47	0.47	0.49	0.50	
3	0.48	0.47	0.56	2.56	1.73	2.73	1.05	0.62	0.47	0.47	0.49	0.50	
4	0.48	0.47	0.51	2.33	1.36	3.52	0.93	0.62	0.47	0.47	0.50	0.50	
5	0.47	0.47	0.70	1.82	1.30	2.63	0.80	0.62	0.47	0.47	0.50	0.50	
6	0.47	0.49	1.02	1.50	1.28	1.95	0.84	0.62	0.47	0.47	0.50	0.50	
7	0.47	0.48	1.05	1.48	1.18	1.68	0.84	0.61	0.48	0.47	0.50	0.52	
8	0.47	0.47	0.96	1.41	1.08	1.50	0.79	0.61	0.48	0.47	0.50	0.52	
9	0.47	0.47	0.82	2.37	0.98	1.37	0.73	0.61	0.48	0.47	0.50	0.52	
10	0.47	0.47	0.84	2.59	0.87	1.85	0.69	0.60	0.49	0.47	0.50	0.52	
11	0.47	0.48	0.96	2.66	0.81	1.41	0.70	0.60	0.49	0.47	0.50	0.52	
12	0.47	0.47	1.02	1.84	0.77	1.68	0.74	0.59	0.49	0.47	0.50	0.52	
13	0.47	0.47	1.01	1.28	0.77	1.35	0.68	0.59	0.49	0.47	0.50	0.51	
14	0.47	0.47	1.01	1.10	0.97	1.15	0.64	0.58	0.49	0.47	0.50	0.51	
15	0.47	0.47	0.91	0.92	1.06	0.95	0.63	0.49	0.49	0.47	0.50	0.51	
16	0.47	0.47	0.78	0.84	1.06	1.04	0.63	0.47	0.49	0.47	0.50	0.50	
17	0.47	0.47	0.73	0.81	0.96	1.06	0.63	0.47	0.49	0.47	0.50	0.50	
18	0.48	0.47	0.68	0.77	1.09	1.11	0.62	0.47	0.47	0.47	0.52	0.50	
19	0.47	0.47	0.65	0.74	1.36	1.02	0.63	0.47	0.47	0.47	0.51	0.51	
20	0.47	0.48	0.64	0.84	3.06	0.96	0.72	0.47	0.46	0.47	0.51	0.51	
21	0.47	0.48	0.63	0.93	3.08	1.11	0.68	0.47	0.48	0.47	0.56	0.51	
22	0.47	0.48	0.65	0.88	2.14	1.20	0.70	0.47	0.47	0.47	0.52	0.50	
23	0.47	0.48	0.95	0.82	1.96	1.12	0.78	0.47	0.47	0.47	0.51	0.50	
24	0.47	0.48	1.86	0.76	1.41	1.05	0.63	0.47	0.47	0.47	0.50	0.50	
25	0.47	0.48	2.06	0.79	1.25	0.95	0.63	0.47	0.47	0.47	0.50	0.50	
26	0.47	0.48	1.65	0.80	2.44	0.88	0.66	0.47	0.47	0.47	0.53	0.49	
27	0.47	0.64	1.54	0.74	1.77	0.85	0.63	0.47	0.47	0.47	0.50	0.49	
28	0.47	0.80	2.87	2.29	1.32	0.91	0.63	0.47	0.47	0.47	0.50	0.49	
29	0.47	0.77	2.05	2.85	1.30	1.66	0.65	0.47	0.47	0.47		0.50	
30	0.49	0.75	1.43	2.29	1.49	1.74	0.75	0.47	0.47	0.47		0.50	
31		0.74		2.19	1.38		0.64		0.47	0.48		0.52	
Mean	0.47	0.52	1.06	1.49	1.42	1.57	0.75	0.54	0.48	0.47	0.50	0.51	
Max	0.49	0.80	2.87	2.85	3.08	3.52	1.50	0.62	0.49	0.48	0.56	0.52	3.52
Min	0.47	0.47	0.51	0.74	0.77	0.85	0.62	0.47	0.46	0.47	0.49	0.49	0.85

Annual Max Momentary Gage Height 4.51 m. (A.D.) , at 18.00 Hours , on Sep 1, 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed -0.29 m. (A.D.)

Left Bank Elevation 6.39 m. (A.D.) ,

Right Bank Elevation 5.78 m. (A.D.) , Drainage Are 219 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	0.82	9.25	16.60	101.15	16.00	2.54	0.00	0.00	0.00	0.00		
2	0.00	0.00	2.08	25.50	13.75	113.50	7.78	2.54	0.00	0.00	0.00	0.00		
3	0.00	0.00	1.80	56.50	23.05	65.15	6.70	2.54	0.00	0.00	0.00	0.00		
4	0.00	0.00	0.30	45.85	12.50	114.80	2.67	2.54	0.00	0.00	0.00	0.00		
5	0.00	0.00	0.70	26.20	11.00	60.00	1.30	2.54	0.00	0.00	0.00	0.00		
6	0.00	0.00	6.34	16.00	10.50	30.75	1.62	2.54	0.00	0.00	0.00	0.00		
7	0.00	0.00	6.70	15.50	8.26	21.40	1.62	2.77	0.00	0.00	0.00	0.60		
8	0.00	0.00	3.24	13.75	7.06	16.00	1.24	2.77	0.00	0.00	0.00	0.60		
9	0.00	0.00	1.46	47.65	3.62	12.75	0.88	2.77	0.00	0.00	0.00	0.60		
10	0.00	0.00	1.62	58.00	1.86	27.25	0.93	3.00	0.00	0.00	0.00	0.60		
11	0.00	0.00	3.24	61.50	1.38	13.75	0.70	3.00	0.00	0.00	0.00	0.60		
12	0.00	0.00	6.34	26.90	1.12	21.40	0.94	2.70	0.00	0.00	0.00	0.60		
13	0.00	0.00	6.22	10.50	1.12	12.25	1.16	2.70	0.00	0.00	0.00	0.30		
14	0.00	0.00	6.22	7.30	3.43	7.90	2.08	2.40	0.00	0.00	0.00	0.30		
15	0.00	0.00	2.29	2.48	6.82	3.05	2.31	0.00	0.00	0.00	0.00	0.30		
16	0.00	0.00	1.18	1.62	6.82	6.58	2.31	0.00	0.00	0.00	0.00	0.00		
17	0.00	0.00	0.88	1.38	3.24	6.82	2.31	0.00	0.00	0.00	0.00	0.00		
18	0.00	0.00	1.16	1.12	7.18	7.42	2.54	0.00	0.00	0.00	0.60	0.00		
19	0.00	0.00	1.85	0.94	12.50	6.34	2.31	0.00	0.00	0.00	0.30	0.30		
20	0.00	0.00	2.08	1.62	84.90	3.24	0.82	0.00	0.00	0.00	0.30	0.30		
21	0.00	0.00	2.31	2.67	86.20	7.42	1.16	0.00	0.00	0.00	1.80	0.30		
22	0.00	0.00	1.85	1.94	38.10	8.50	0.70	0.00	0.00	0.00	0.60	0.00		
23	0.00	0.00	3.05	1.46	31.10	7.54	1.18	0.00	0.00	0.00	0.30	0.00		
24	0.00	0.00	27.60	1.06	13.75	6.70	2.31	0.00	0.00	0.00	0.00	0.00		
25	0.00	0.00	34.90	1.24	9.75	3.05	2.31	0.00	0.00	0.00	0.00	0.00		
26	0.00	0.00	20.50	1.30	50.80	1.94	1.62	0.00	0.00	0.00	0.90	0.00		
27	0.00	2.08	17.20	0.94	24.45	1.70	2.31	0.00	0.00	0.00	0.00	0.00		
28	0.00	1.30	73.20	44.10	11.50	2.29	2.31	0.00	0.00	0.00	0.00	0.00		
29	0.00	1.12	34.50	72.00	11.00	20.80	1.85	0.00	0.00	0.00		0.00		
30	0.00	1.00	14.25	44.10	15.75	23.40	1.00	0.00	0.00	0.00		0.00		
31		0.94		40.10	13.00		2.08		0.00	0.00		0.60		
Total	0.00	6.44	285.88	640.47	542.11	734.84	77.05	37.35	0.00	0.00	4.80	6.00	2334.94	CMSDAY
Mean	0.00	0.21	9.53	20.66	17.49	24.49	2.49	1.25	0.00	0.00	0.17	0.19	6.40	CMS
Max	0.00	2.08	73.20	72.00	86.20	114.80	16.00	3.00	0.00	0.00	1.80	0.60	114.80	CMS
Min	0.00	0.00	0.30	0.94	1.12	1.70	0.70	0.00	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	0.00	0.56	24.70	55.34	46.84	63.49	6.66	3.23	0.00	0.00	0.42	0.52	201.74	MCM

Momentary Peak 188.30 CMS, at 4.51 m. (A.D.) , at 18.00 Hours , on Sep 1 , 2002

Runoff Yield 29.21 Liters/Second/Square KM. Momentary Peak Yield 859.817 Liters/Second/Square KM.

WATER YEAR : 2002

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	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 footpath of the bridge.		**Elevation** +6.230 m. (A.D.)
Gage Reading Frequency	Recording.		
Basis of Mean Daily Gage Height	Arithmetic mean 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	Stable.		
Overbank Flow Conditions	Overbank flow starts at elevation +3.530 m.(A.D.), records are channel flow only.		
General Description	Records fair. The concrete weir situated about 250 meters downstream from the gage site. Stage-discharge relation defined by 60 diacharge measurements made in 2002.		

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

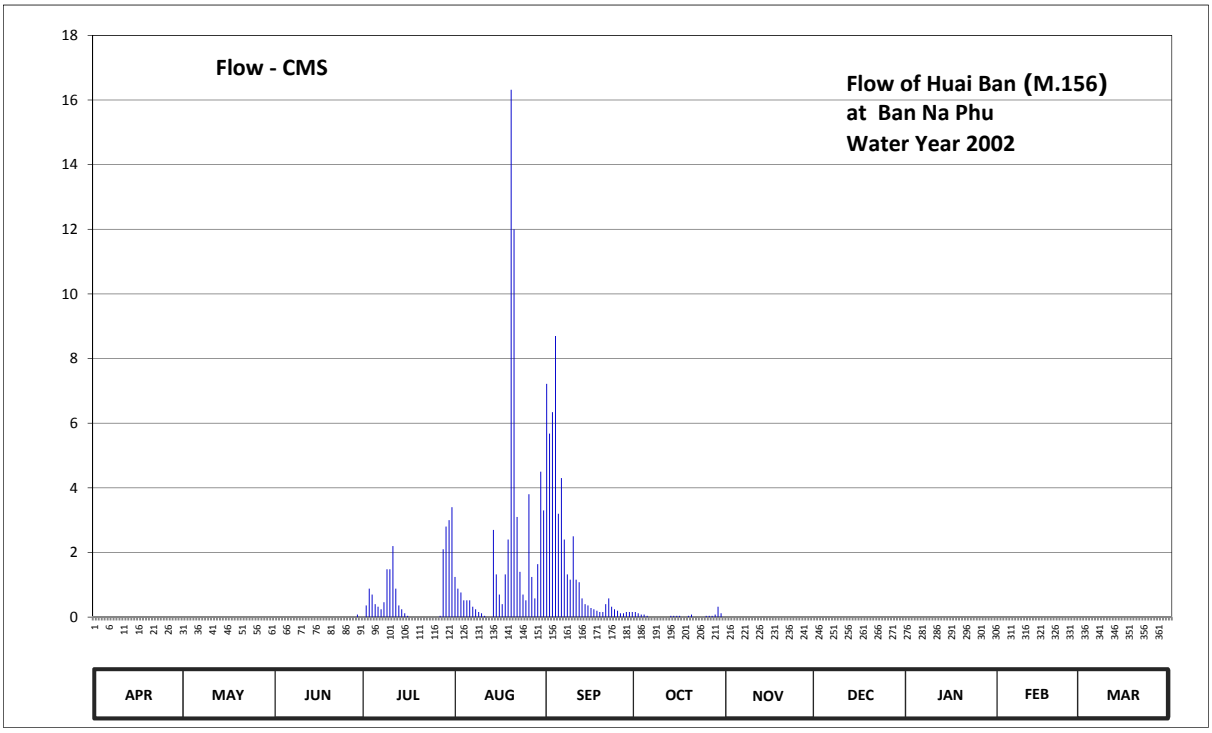
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	1.33	1.09	0.89	1.68	1.93	2.52	1.74	1.69	1.64	1.42	1.14	1.34	
2	1.32	1.12	0.88	1.79	1.88	2.38	1.73	1.69	1.64	1.41	1.13	1.33	
3	1.32	1.11	0.87	1.88	1.86	2.44	1.72	1.69	1.63	1.40	1.12	1.32	
4	1.31	1.10	0.86	1.85	1.82	2.64	1.72	1.69	1.62	1.39	1.10	1.32	
5	1.30	1.09	0.87	1.80	1.82	2.14	1.71	1.69	1.61	1.38	1.09	1.31	
6	1.29	1.08	0.88	1.78	1.82	2.25	1.70	1.69	1.60	1.37	1.08	1.30	
7	1.28	1.09	0.87	1.76	1.78	2.06	1.70	1.69	1.61	1.35	1.07	1.29	
8	1.27	1.08	0.88	1.81	1.76	1.94	1.70	1.68	1.61	1.34	1.06	1.29	
9	1.26	1.10	0.87	1.96	1.74	1.92	1.70	1.67	1.60	1.33	1.05	1.28	
10	1.25	1.06	0.88	1.96	1.73	2.07	1.70	1.67	1.59	1.32	1.04	1.27	
11	1.24	1.05	0.87	2.04	1.71	1.92	1.70	1.67	1.58	1.31	1.04	1.26	
12	1.23	1.06	0.87	1.88	1.70	1.91	1.70	1.67	1.57	1.30	1.03	1.25	
13	1.22	1.06	0.88	1.79	1.70	1.83	1.71	1.66	1.56	1.29	1.02	1.24	
14	1.21	1.06	0.87	1.76	2.09	1.80	1.71	1.66	1.55	1.28	1.02	1.23	
15	1.20	1.05	0.87	1.73	1.94	1.79	1.71	1.66	1.54	1.27	1.01	1.22	
16	1.19	1.04	0.86	1.71	1.85	1.77	1.71	1.66	1.53	1.26	1.01	1.21	
17	1.17	1.03	0.84	1.70	1.80	1.76	1.70	1.66	1.52	1.25	1.00	1.20	
18	1.16	1.02	0.82	1.70	1.94	1.75	1.70	1.66	1.51	1.25	1.03	1.19	
19	1.15	1.01	0.81	1.69	2.06	1.74	1.71	1.66	1.50	1.24	1.03	1.20	
20	1.14	1.00	0.80	1.70	3.09	1.74	1.72	1.66	1.49	1.23	1.02	1.24	
21	1.13	0.99	0.79	1.70	2.85	1.80	1.69	1.66	1.51	1.22	1.11	1.26	
22	1.12	0.98	0.81	1.70	2.13	1.83	1.69	1.66	1.51	1.22	1.20	1.25	
23	1.11	0.96	0.86	1.70	1.95	1.78	1.70	1.66	1.50	1.21	1.20	1.24	
24	1.10	0.95	1.23	1.70	1.85	1.76	1.70	1.66	1.49	1.21	1.20	1.23	
25	1.09	0.93	1.38	1.70	1.82	1.75	1.71	1.65	1.48	1.20	1.19	1.22	
26	1.08	0.91	1.43	1.70	2.20	1.73	1.71	1.65	1.47	1.19	1.35	1.22	
27	1.07	0.93	1.49	1.71	1.93	1.73	1.71	1.65	1.46	1.19	1.37	1.21	
28	1.06	0.93	1.59	2.03	1.83	1.74	1.72	1.64	1.45	1.18	1.35	1.20	
29	1.05	0.91	1.72	2.10	1.98	1.74	1.78	1.64	1.44	1.17		1.20	
30	1.05	0.90	1.69	2.12	2.27	1.74	1.73	1.64	1.43	1.16		1.22	
31		0.90		2.16	2.15		1.70		1.42	1.15		1.27	
Mean	1.19	1.02	1.01	1.82	1.97	1.93	1.71	1.67	1.54	1.27	1.11	1.25	
Max	1.33	1.12	1.72	2.16	3.09	2.64	1.78	1.69	1.64	1.42	1.37	1.34	3.09
Min	1.05	0.90	0.79	1.68	1.70	1.73	1.69	1.64	1.42	1.15	1.00	1.19	0.79

Annual Max Momentary Gage Height 3.66 m. (A.D.) , at 12.00 Hours , on Aug 20, 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed 0.43 m. (A.D.)

Left Bank Elevation 3.52 m. (A.D.) ,

Right Bank Elevation 3.52 m. (A.D.) , Drainage Are 40 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	0.00	0.00	1.24	7.22	0.16	0.00	0.00	0.00	0.00	0.00		
2	0.00	0.00	0.00	0.36	0.88	5.68	0.12	0.00	0.00	0.00	0.00	0.00		
3	0.00	0.00	0.00	0.88	0.76	6.34	0.08	0.00	0.00	0.00	0.00	0.00		
4	0.00	0.00	0.00	0.70	0.52	8.70	0.08	0.00	0.00	0.00	0.00	0.00		
5	0.00	0.00	0.00	0.40	0.52	3.20	0.04	0.00	0.00	0.00	0.00	0.00		
6	0.00	0.00	0.00	0.32	0.52	4.30	0.00	0.00	0.00	0.00	0.00	0.00		
7	0.00	0.00	0.00	0.24	0.32	2.40	0.00	0.00	0.00	0.00	0.00	0.00		
8	0.00	0.00	0.00	0.46	0.24	1.32	0.00	0.00	0.00	0.00	0.00	0.00		
9	0.00	0.00	0.00	1.48	0.16	1.16	0.00	0.00	0.00	0.00	0.00	0.00		
10	0.00	0.00	0.00	1.48	0.12	2.50	0.00	0.00	0.00	0.00	0.00	0.00		
11	0.00	0.00	0.00	2.20	0.04	1.16	0.00	0.00	0.00	0.00	0.00	0.00		
12	0.00	0.00	0.00	0.88	0.00	1.08	0.00	0.00	0.00	0.00	0.00	0.00		
13	0.00	0.00	0.00	0.36	0.00	0.58	0.04	0.00	0.00	0.00	0.00	0.00		
14	0.00	0.00	0.00	0.24	2.70	0.40	0.04	0.00	0.00	0.00	0.00	0.00		
15	0.00	0.00	0.00	0.12	1.32	0.36	0.04	0.00	0.00	0.00	0.00	0.00		
16	0.00	0.00	0.00	0.04	0.70	0.28	0.04	0.00	0.00	0.00	0.00	0.00		
17	0.00	0.00	0.00	0.00	0.40	0.24	0.00	0.00	0.00	0.00	0.00	0.00		
18	0.00	0.00	0.00	0.00	1.32	0.20	0.00	0.00	0.00	0.00	0.00	0.00		
19	0.00	0.00	0.00	0.00	2.40	0.16	0.04	0.00	0.00	0.00	0.00	0.00		
20	0.00	0.00	0.00	0.00	16.32	0.16	0.08	0.00	0.00	0.00	0.00	0.00		
21	0.00	0.00	0.00	0.00	12.00	0.40	0.00	0.00	0.00	0.00	0.00	0.00		
22	0.00	0.00	0.00	0.00	3.10	0.58	0.00	0.00	0.00	0.00	0.00	0.00		
23	0.00	0.00	0.00	0.00	1.40	0.32	0.00	0.00	0.00	0.00	0.00	0.00		
24	0.00	0.00	0.00	0.00	0.70	0.24	0.00	0.00	0.00	0.00	0.00	0.00		
25	0.00	0.00	0.00	0.00	0.52	0.20	0.04	0.00	0.00	0.00	0.00	0.00		
26	0.00	0.00	0.00	0.00	3.80	0.12	0.04	0.00	0.00	0.00	0.00	0.00		
27	0.00	0.00	0.00	0.04	1.24	0.12	0.04	0.00	0.00	0.00	0.00	0.00		
28	0.00	0.00	0.00	2.10	0.58	0.16	0.08	0.00	0.00	0.00	0.00	0.00		
29	0.00	0.00	0.08	2.80	1.64	0.16	0.32	0.00	0.00	0.00		0.00		
30	0.00	0.00	0.00	3.00	4.50	0.16	0.12	0.00	0.00	0.00		0.00		
31		0.00		3.40	3.30		0.00		0.00	0.00		0.00		
Total	0.00	0.00	0.08	21.50	63.26	49.90	1.40	0.00	0.00	0.00	0.00	0.00	136.14	CMSDAY
Mean	0.00	0.00	0.00	0.69	2.04	1.66	0.05	0.00	0.00	0.00	0.00	0.00	0.37	CMS
Max	0.00	0.00	0.08	3.40	16.32	8.70	0.32	0.00	0.00	0.00	0.00	0.00	16.32	CMS
Min	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	0.00	0.00	0.01	1.86	5.47	4.31	0.12	0.00	0.00	0.00	0.00	0.00	11.76	MCM

Momentary Peak 28.08 CMS, at 3.66 m. (A.D.) , at 12.00 Hours , on Aug 20 , 2002

Runoff Yield 9.32 Liters/Second/Square KM. Momentary Peak Yield 702.000 Liters/Second/Square KM.

WATER YEAR : 2002

MUN RIVER BASIN

Huai Lam Phong at Ban Nikhom, Yasothon (M.157)

Lat 15 - 48 - 17 N Long 104 - 19 - 52 E

Location : on right bank at the bridge of Arun Prasoet road.

Ban Nikhom **Amphoe** Pa Tio **Changwat** Yasothon

Drainge Area	729 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 upstream side of the footpath of the bridge. **Elevation** +10.090 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 mean of 5 readings
Period of Available Gage Records	1997 to date
Rating Operation	
Period of Rating	1997 - 1999, 2001 to date.
Rated by Flot	-
Rated by Current Meter	1997 - 1999, 2001 to date.
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	Overbank flow starts at elevation +4.760 m.(A.D.), records are channel flow only.
General Description	Records fair. Stage-discharge relation defined by 62 discharge measurements made in 2002.

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

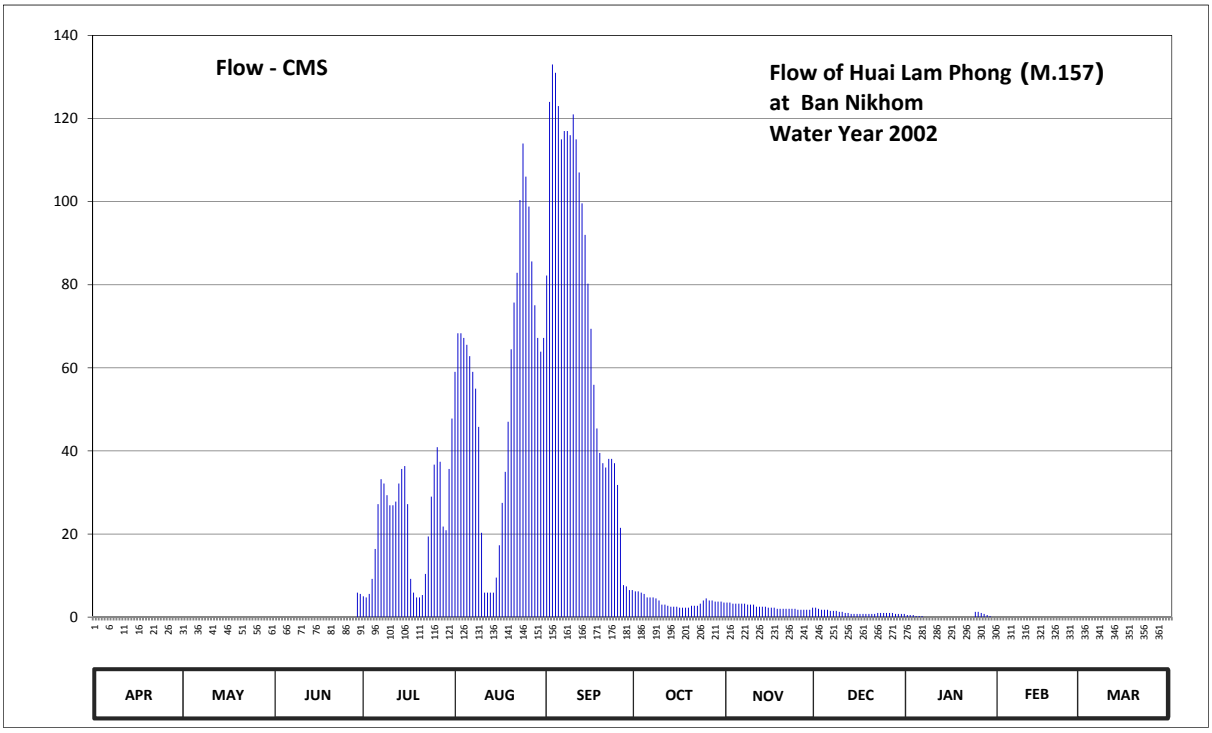
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	2.62	2.57	2.48	3.80	5.39	5.78	3.84	3.74	3.69	3.62	3.56	3.12	
2	2.62	2.56	2.47	3.79	5.56	6.28	3.84	3.74	3.68	3.62	3.53	3.09	
3	2.62	2.56	2.47	3.82	5.56	6.37	3.83	3.73	3.67	3.62	3.50	3.06	
4	2.61	2.56	2.47	3.94	5.54	6.35	3.82	3.73	3.67	3.61	3.44	3.03	
5	2.61	2.55	2.47	4.18	5.51	6.27	3.79	3.73	3.67	3.61	3.38	3.00	
6	2.61	2.55	2.47	4.54	5.46	6.19	3.79	3.73	3.66	3.61	3.35	2.95	
7	2.61	2.55	2.46	4.72	5.39	6.21	3.79	3.73	3.66	3.60	3.32	2.94	
8	2.61	2.54	2.46	4.69	5.30	6.21	3.78	3.72	3.66	3.60	3.29	2.92	
9	2.61	2.54	2.46	4.61	5.07	6.20	3.76	3.72	3.65	3.59	3.26	2.91	
10	2.61	2.54	2.45	4.53	4.31	6.25	3.72	3.72	3.65	3.59	3.24	2.91	
11	2.61	2.54	2.45	4.53	3.83	6.19	3.72	3.70	3.64	3.59	3.23	2.90	
12	2.61	2.54	2.45	4.56	3.83	6.11	3.71	3.70	3.64	3.58	3.23	2.88	
13	2.60	2.54	2.45	4.69	3.83	6.02	3.70	3.70	3.63	3.57	3.23	2.86	
14	2.60	2.54	2.44	4.79	3.83	5.92	3.70	3.70	3.63	3.57	3.23	2.86	
15	2.60	2.54	2.43	4.81	3.95	5.75	3.70	3.69	3.63	3.57	3.21	2.84	
16	2.60	2.53	2.42	4.54	4.21	5.58	3.69	3.69	3.63	3.56	3.20	2.79	
17	2.59	2.53	2.40	3.94	4.55	5.32	3.69	3.69	3.63	3.56	3.19	2.77	
18	2.59	2.53	2.38	3.83	4.77	5.06	3.69	3.68	3.63	3.56	3.18	2.74	
19	2.59	2.53	2.36	3.79	5.10	4.90	3.69	3.68	3.63	3.56	3.18	2.72	
20	2.59	2.52	2.34	3.79	5.49	4.83	3.71	3.68	3.63	3.56	3.17	2.71	
21	2.58	2.52	2.30	3.81	5.68	4.80	3.71	3.68	3.63	3.55	3.17	2.71	
22	2.57	2.52	2.35	3.98	5.79	4.86	3.71	3.68	3.64	3.54	3.17	2.71	
23	2.57	2.52	2.39	4.28	6.03	4.86	3.73	3.68	3.64	3.60	3.17	2.71	
24	2.55	2.52	2.48	4.60	6.18	4.83	3.76	3.68	3.64	3.65	3.16	2.71	
25	2.54	2.51	2.60	4.82	6.10	4.68	3.78	3.67	3.64	3.65	3.16	2.70	
26	2.54	2.51	2.66	4.94	6.01	4.35	3.76	3.67	3.64	3.64	3.15	2.70	
27	2.53	2.50	2.70	4.84	5.83	3.89	3.76	3.67	3.64	3.63	3.14	2.69	
28	2.53	2.50	3.59	4.36	5.67	3.88	3.75	3.67	3.63	3.62	3.13	2.69	
29	2.53	2.49	3.83	4.33	5.54	3.85	3.75	3.67	3.63	3.61		2.70	
30	2.57	2.49	3.82	4.79	5.48	3.85	3.75	3.69	3.63	3.60		2.72	
31		2.49		5.12	5.54		3.74		3.63	3.57		2.72	
Mean	2.59	2.53	2.58	4.38	5.17	5.39	3.75	3.70	3.64	3.59	3.26	2.83	
Max	2.62	2.57	3.83	5.12	6.18	6.37	3.84	3.74	3.69	3.65	3.56	3.12	6.37
Min	2.53	2.49	2.30	3.79	3.83	3.85	3.69	3.67	3.63	3.54	3.13	2.69	2.30

Annual Max Momentary Gage Height 6.38 m. (A.D.) , at 12.00 Hours , on Sep 3, 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed 1.52 m. (A.D.)

Left Bank Elevation 4.76 m. (A.D.) ,

Right Bank Elevation 4.75 m. (A.D.) , Drainage Are 729 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	0.00	5.00	59.05	82.20	6.20	3.50	2.25	0.50	0.00	0.00		
2	0.00	0.00	0.00	4.75	68.30	124.00	6.20	3.50	2.00	0.50	0.00	0.00		
3	0.00	0.00	0.00	5.60	68.30	133.00	5.90	3.25	1.75	0.50	0.00	0.00		
4	0.00	0.00	0.00	9.20	67.20	131.00	5.60	3.25	1.75	0.25	0.00	0.00		
5	0.00	0.00	0.00	16.40	65.55	123.00	4.75	3.25	1.75	0.25	0.00	0.00		
6	0.00	0.00	0.00	27.20	62.80	115.00	4.75	3.25	1.50	0.25	0.00	0.00		
7	0.00	0.00	0.00	33.20	59.05	117.00	4.75	3.25	1.50	0.00	0.00	0.00		
8	0.00	0.00	0.00	32.15	55.00	117.00	4.50	3.00	1.50	0.00	0.00	0.00		
9	0.00	0.00	0.00	29.35	45.80	116.00	4.00	3.00	1.25	0.00	0.00	0.00		
10	0.00	0.00	0.00	26.90	20.30	121.00	3.00	3.00	1.25	0.00	0.00	0.00		
11	0.00	0.00	0.00	26.90	5.90	115.00	3.00	2.50	1.00	0.00	0.00	0.00		
12	0.00	0.00	0.00	27.80	5.90	107.00	2.75	2.50	1.00	0.00	0.00	0.00		
13	0.00	0.00	0.00	32.15	5.90	99.60	2.50	2.50	0.75	0.00	0.00	0.00		
14	0.00	0.00	0.00	35.65	5.90	92.00	2.50	2.50	0.75	0.00	0.00	0.00		
15	0.00	0.00	0.00	36.35	9.50	80.25	2.50	2.25	0.75	0.00	0.00	0.00		
16	0.00	0.00	0.00	27.20	17.30	69.40	2.25	2.25	0.75	0.00	0.00	0.00		
17	0.00	0.00	0.00	9.20	27.50	55.90	2.25	2.25	0.75	0.00	0.00	0.00		
18	0.00	0.00	0.00	5.90	34.95	45.40	2.25	2.00	0.75	0.00	0.00	0.00		
19	0.00	0.00	0.00	4.75	47.00	39.50	2.25	2.00	0.75	0.00	0.00	0.00		
20	0.00	0.00	0.00	4.75	64.45	37.05	2.75	2.00	0.75	0.00	0.00	0.00		
21	0.00	0.00	0.00	5.30	75.70	36.00	2.75	2.00	0.75	0.00	0.00	0.00		
22	0.00	0.00	0.00	10.40	82.85	38.10	2.75	2.00	1.00	0.00	0.00	0.00		
23	0.00	0.00	0.00	19.40	100.40	38.10	3.25	2.00	1.00	0.00	0.00	0.00		
24	0.00	0.00	0.00	29.00	114.00	37.05	4.00	2.00	1.00	1.25	0.00	0.00		
25	0.00	0.00	0.00	36.70	106.00	31.80	4.50	1.75	1.00	1.25	0.00	0.00		
26	0.00	0.00	0.00	40.90	98.80	21.50	4.00	1.75	1.00	1.00	0.00	0.00		
27	0.00	0.00	0.00	37.40	85.60	7.70	4.00	1.75	1.00	0.75	0.00	0.00		
28	0.00	0.00	0.00	21.80	75.05	7.40	3.75	1.75	0.75	0.50	0.00	0.00		
29	0.00	0.00	5.90	20.90	67.20	6.50	3.75	1.75	0.75	0.25		0.00		
30	0.00	0.00	5.60	35.65	63.90	6.50	3.75	2.25	0.75	0.00		0.00		
31		0.00		47.80	67.20		3.50		0.75	0.00		0.00		
Total	0.00	0.00	11.50	705.65	1732.35	2150.95	114.65	74.00	34.25	7.25	0.00	0.00	4830.60	CMSDAY
Mean	0.00	0.00	0.38	22.76	55.88	71.70	3.70	2.47	1.10	0.23	0.00	0.00	13.23	CMS
Max	0.00	0.00	5.90	47.80	114.00	133.00	6.20	3.50	2.25	1.25	0.00	0.00	133.00	CMS
Min	0.00	0.00	0.00	4.75	5.90	6.50	2.25	1.75	0.75	0.00	0.00	0.00	0.00	CMS
Runoff	0.00	0.00	0.99	60.97	149.68	185.84	9.91	6.39	2.96	0.63	0.00	0.00	417.36	MCM

Momentary Peak 134.00 CMS, at 6.38 m. (A.D.) , at 12.00 Hours , on Sep 3 , 2002

Runoff Yield 18.15 Liters/Second/Square KM. Momentary Peak Yield 183.810 Liters/Second/Square KM.

WATER YEAR : 2002

MUN RIVER BASIN

Lam Chi at Ban Lum Din, Surin (M.159)

Lat 15 - 08 - 24 N Long 103 - 25 - 57 E

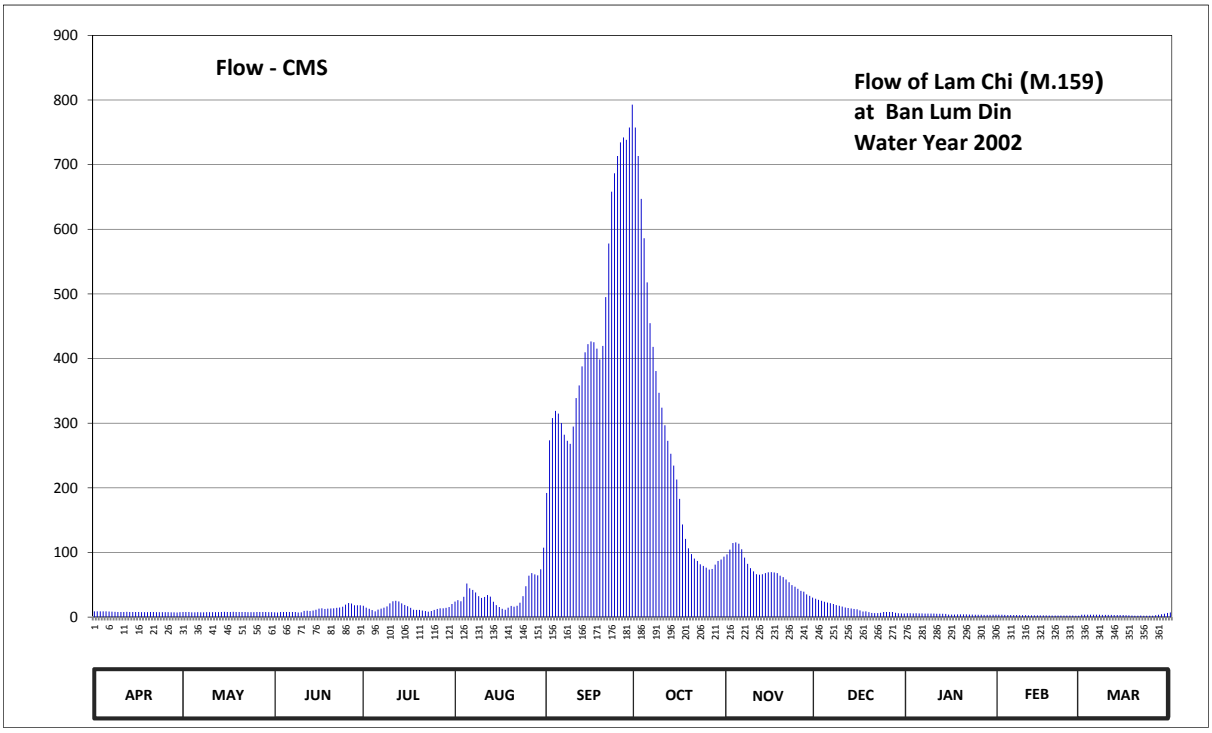
Location : On right bank at Ban Lum Din.

	Ban Lum Din	**Amphoe** Chom Phra	**Changwat** Surin
Drainge Area	4,806 sq.km.		
Type of Gage	Staff gage.		
Zero Gage at Bottom	+0.000 m. (A.D.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank at staff gage line.		**Elevation** +10.225 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 mean 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	Rather unstable because of backwater effect.		
Overbank Flow Conditions	Overbank flow starts at elevation +7.290 m.(A.D.), records are channel flow only.		
General Description	Records good. Stage-discharge relation defined by 51 discharge measurements made in 2002.		

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	1.31	1.20	1.16	2.03	2.56	6.90	10.88	5.14	2.84	1.01	0.80	0.80	
2	1.31	1.20	1.15	1.80	2.69	8.07	10.76	5.29	2.73	1.01	0.79	0.81	
3	1.30	1.20	1.20	1.65	2.59	8.45	10.55	5.49	2.63	0.99	0.78	0.81	
4	1.29	1.17	1.20	1.49	3.00	8.56	10.33	5.51	2.54	1.01	0.76	0.80	
5	1.29	1.16	1.21	1.31	3.83	8.52	10.02	5.47	2.46	0.99	0.76	0.80	
6	1.28	1.18	1.21	1.55	3.58	8.37	9.68	5.30	2.36	0.99	0.75	0.79	
7	1.26	1.16	1.20	1.66	3.48	8.17	9.43	5.04	2.26	0.98	0.74	0.79	
8	1.23	1.17	1.20	1.80	3.32	8.06	9.14	4.81	2.13	0.98	0.73	0.78	
9	1.21	1.18	1.15	1.95	3.05	8.00	8.84	4.62	2.04	0.98	0.72	0.78	
10	1.21	1.18	1.16	2.35	2.91	8.31	8.61	4.46	1.94	0.97	0.72	0.77	
11	1.22	1.18	1.37	2.58	2.98	8.76	8.33	4.31	1.82	0.96	0.71	0.77	
12	1.23	1.18	1.38	2.63	3.13	8.95	8.06	4.29	1.75	0.95	0.71	0.76	
13	1.22	1.18	1.34	2.57	3.01	9.20	7.81	4.31	1.69	0.94	0.71	0.76	
14	1.20	1.20	1.42	2.35	2.54	9.37	7.55	4.37	1.63	0.93	0.70	0.75	
15	1.20	1.23	1.53	2.15	2.13	9.46	7.23	4.41	1.59	0.83	0.70	0.74	
16	1.20	1.20	1.67	1.97	1.88	9.49	6.75	4.42	1.43	0.83	0.70	0.73	
17	1.19	1.21	1.70	1.76	1.65	9.48	6.06	4.40	1.27	0.82	0.69	0.69	
18	1.18	1.23	1.63	1.52	1.52	9.41	5.62	4.37	1.30	0.85	0.68	0.67	
19	1.19	1.20	1.66	1.50	1.79	9.29	5.33	4.24	1.18	0.84	0.68	0.65	
20	1.20	1.20	1.68	1.50	2.02	9.44	5.15	4.16	1.08	0.84	0.68	0.65	
21	1.20	1.20	1.70	1.42	1.91	9.90	5.01	4.04	1.05	0.84	0.68	0.66	
22	1.18	1.20	1.77	1.34	2.03	10.30	4.92	3.90	1.05	0.83	0.67	0.65	
23	1.18	1.19	1.81	1.25	2.42	10.59	4.79	3.75	1.09	0.82	0.67	0.64	
24	1.19	1.18	1.92	1.35	3.05	10.68	4.72	3.67	1.20	0.81	0.67	0.65	
25	1.18	1.18	2.19	1.51	3.69	10.76	4.64	3.55	1.20	0.80	0.66	0.65	
26	1.18	1.20	2.38	1.63	4.24	10.82	4.55	3.42	1.20	0.79	0.66	0.72	
27	1.17	1.21	2.33	1.70	4.37	10.84	4.58	3.37	1.21	0.78	0.65	0.79	
28	1.16	1.20	2.11	1.70	4.30	10.83	4.78	3.18	1.09	0.78	0.65	0.87	
29	1.15	1.20	2.11	1.76	4.25	10.88	4.92	3.07	1.03	0.77		0.94	
30	1.18	1.18	2.10	1.87	4.57	10.97	4.98	2.93	1.00	0.80		1.07	
31		1.18		2.26	5.35		5.07		0.98	0.80		1.15	
Mean	1.22	1.19	1.59	1.80	3.03	9.36	7.07	4.31	1.64	0.89	0.71	0.77	
Max	1.31	1.23	2.38	2.63	5.35	10.97	10.88	5.51	2.84	1.01	0.80	1.15	10.97
Min	1.15	1.16	1.15	1.25	1.52	6.90	4.55	2.93	0.98	0.77	0.65	0.64	0.64

Annual Max Momentary Gage Height	10.98	m. (A.D.) ,	at 06.00 Hours , on Sep 30, 2002		
Zero Gage at Bottom Elevation	0.00	m. (A.D.) ,	River Bed	-0.05	m. (A.D.)
Left Bank Elevation	7.28	m. (A.D.) ,			
Right Bank Elevation	10.17	m. (A.D.) ,	Drainage Are	4,806	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	9.01	7.80	7.36	17.46	24.06	192.00	757.40	97.00	28.54	5.80	3.70	3.70		
2	9.01	7.80	7.25	14.70	26.14	273.60	713.40	104.50	26.78	5.80	3.60	3.80		
3	8.90	7.80	7.80	12.90	24.54	308.00	647.00	114.50	25.18	5.60	3.50	3.80		
4	8.79	7.47	7.80	10.99	31.50	319.00	586.10	115.50	23.74	5.80	3.30	3.70		
5	8.79	7.36	7.91	9.01	51.90	315.00	517.80	113.50	22.62	5.60	3.30	3.70		
6	8.68	7.58	7.91	11.70	44.50	300.30	454.80	105.00	21.42	5.60	3.20	3.60		
7	8.46	7.36	7.80	13.02	42.00	282.30	418.20	92.00	20.22	5.50	3.10	3.60		
8	8.13	7.47	7.80	14.70	38.00	272.80	380.80	82.40	18.66	5.50	3.00	3.50		
9	7.91	7.58	7.25	16.50	32.50	268.00	347.00	75.70	17.58	5.50	2.90	3.50		
10	7.91	7.58	7.36	21.30	29.70	294.90	324.00	70.80	16.38	5.40	2.90	3.40		
11	8.02	7.58	9.67	24.38	31.10	339.00	296.70	66.30	14.94	5.30	2.80	3.40		
12	8.13	7.58	9.78	25.18	34.10	358.50	272.80	65.70	14.10	5.20	2.80	3.30		
13	8.02	7.58	9.34	24.22	31.70	388.00	252.80	66.30	13.38	5.10	2.80	3.30		
14	7.80	7.80	10.22	21.30	23.74	409.80	234.50	68.10	12.66	5.00	2.70	3.20		
15	7.80	8.13	11.46	18.90	18.66	422.40	212.95	69.30	12.18	4.00	2.70	3.10		
16	7.80	7.80	13.14	16.74	15.66	426.60	183.00	69.60	10.33	4.00	2.70	3.00		
17	7.69	7.91	13.50	14.22	12.90	425.20	143.30	69.00	8.57	3.90	2.61	2.61		
18	7.58	8.13	12.66	11.34	11.34	415.40	121.00	68.10	8.90	4.20	2.52	2.43		
19	7.69	7.80	13.02	11.10	14.58	398.80	106.50	64.20	7.58	4.10	2.52	2.25		
20	7.80	7.80	13.26	11.10	17.34	419.60	97.50	61.80	6.50	4.10	2.52	2.25		
21	7.80	7.80	13.50	10.22	16.02	495.00	90.50	58.20	6.20	4.10	2.52	2.34		
22	7.58	7.80	14.34	9.34	17.46	578.00	86.80	54.00	6.20	4.00	2.43	2.25		
23	7.58	7.69	14.82	8.35	22.14	658.20	81.65	49.50	6.60	3.90	2.43	2.16		
24	7.69	7.58	16.14	9.45	32.50	686.60	79.20	47.10	7.80	3.80	2.43	2.25		
25	7.58	7.58	19.38	11.22	47.70	713.40	76.40	43.75	7.80	3.70	2.34	2.25		
26	7.58	7.80	21.66	12.66	64.20	734.60	73.50	40.50	7.80	3.60	2.34	2.90		
27	7.47	7.91	21.06	13.50	68.10	742.20	74.40	39.25	7.91	3.50	2.25	3.60		
28	7.36	7.80	18.42	13.50	66.00	738.40	81.30	35.10	6.60	3.50	2.25	4.40		
29	7.25	7.80	18.42	14.22	64.50	757.40	86.80	32.90	6.00	3.40		5.10		
30	7.58	7.58	18.30	15.54	74.10	793.00	89.20	30.10	5.70	3.70		6.40		
31		7.58		20.22	107.50		93.50		5.50	3.70		7.25		
Total	239.39	238.83	368.33	458.98	1136.18	13726.00	7980.80	2069.70	404.37	141.90	78.16	106.04	26948.68	CMSDAY
Mean	7.98	7.70	12.28	14.81	36.65	457.53	257.45	68.99	13.04	4.58	2.79	3.42	73.83	CMS
Max	9.01	8.13	21.66	25.18	107.50	793.00	757.40	115.50	28.54	5.80	3.70	7.25	793.00	CMS
Min	7.25	7.36	7.25	8.35	11.34	192.00	73.50	30.10	5.50	3.40	2.25	2.16	2.16	CMS
Runoff	20.68	20.63	31.82	39.66	98.17	1185.93	689.54	178.82	34.94	12.26	6.75	9.16	2328.37	MCM

Momentary Peak 797.00 CMS, at 10.98 m. (A.D.) , at 06.00 Hours , on Sep 30 , 2002

Runoff Yield 15.36 Liters/Second/Square KM. Momentary Peak Yield 165.830 Liters/Second/Square KM.

WATER YEAR : 2002

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	Staff gage.		
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**	+9.032 m. (A.D.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.0 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean 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	Overbank flow starts at elevation +4.310 m.(A.D.) and is including overbank flow.		
General Description	Records very good. Stage-discharge relation defined by 82 discharge measurements made in 2002.		

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

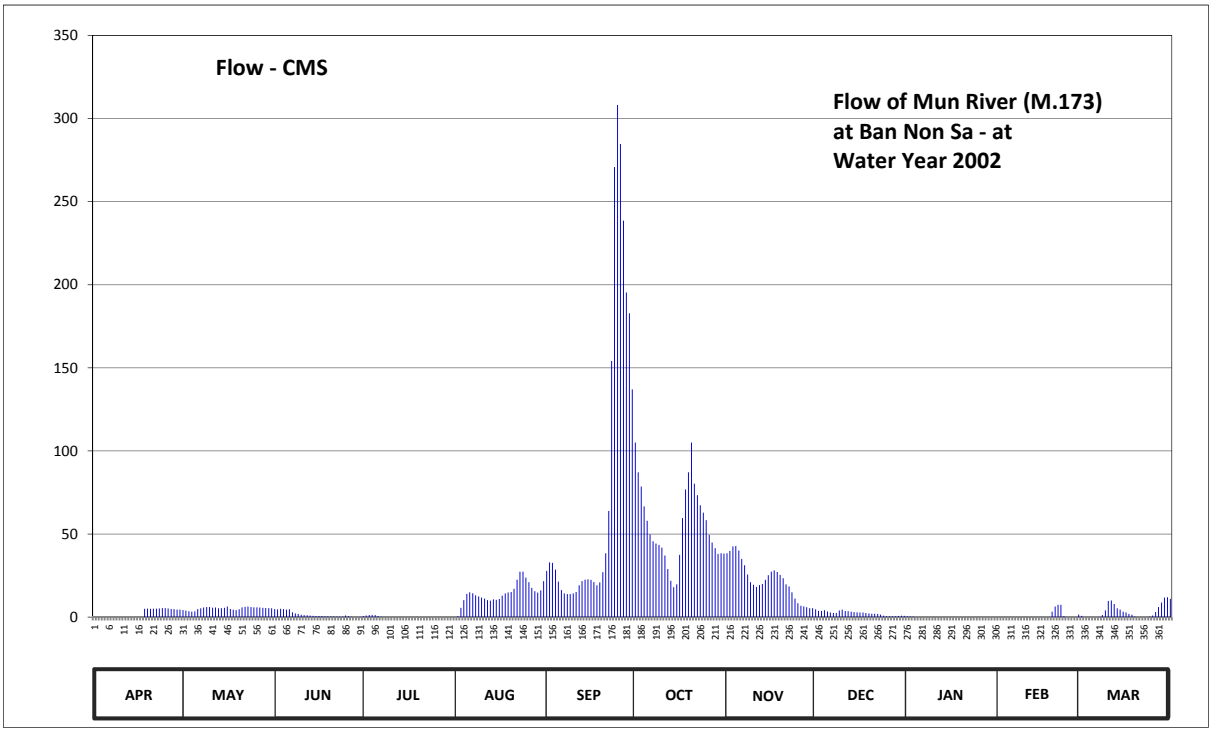
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	1.03	1.83	1.91	1.31	0.91	3.85	6.40	4.51	1.90	1.30	1.00	1.34	
2	0.98	1.79	1.89	1.37	1.31	4.17	6.24	4.59	1.76	1.28	1.00	1.18	
3	0.96	1.74	1.94	1.40	2.03	4.15	6.11	4.74	1.76	1.25	1.00	1.18	
4	0.95	1.69	1.92	1.42	2.48	3.90	5.85	4.75	1.82	1.20	1.00	1.18	
5	0.95	1.72	1.87	1.40	2.80	3.41	5.51	4.60	1.71	1.18	0.95	1.18	
6	0.92	1.92	1.90	1.32	2.88	2.99	5.12	4.30	1.63	1.15	0.95	1.15	
7	0.88	1.98	1.64	1.23	2.83	2.82	4.91	4.06	1.59	1.15	0.93	1.21	
8	0.88	2.05	1.55	1.19	2.72	2.79	4.84	3.71	1.58	1.12	0.88	1.40	
9	0.88	2.10	1.50	1.17	2.67	2.79	4.79	3.38	1.79	1.17	0.88	1.80	
10	0.86	2.10	1.43	1.14	2.61	2.82	4.70	3.25	1.88	1.22	0.87	2.44	
11	0.85	2.04	1.40	1.07	2.56	2.89	4.43	3.15	1.75	1.18	0.87	2.47	
12	0.85	2.05	1.39	1.05	2.48	3.23	3.92	3.24	1.73	1.18	0.87	2.29	
13	0.84	1.99	1.36	1.01	2.46	3.44	3.45	3.29	1.70	1.17	0.87	1.99	
14	0.83	2.00	1.34	1.00	2.52	3.51	3.13	3.50	1.65	1.17	0.87	1.87	
15	0.83	2.03	1.33	0.95	2.50	3.52	3.28	3.69	1.64	1.17	0.92	1.70	
16	0.84	2.13	1.33	0.98	2.54	3.50	4.45	3.82	1.63	1.16	0.97	1.63	
17	1.10	1.93	1.32	0.94	2.71	3.39	5.59	3.87	1.62	1.16	1.05	1.50	
18	1.94	1.86	1.30	0.91	2.82	3.23	6.08	3.81	1.59	1.16	1.13	1.44	
19	1.96	1.83	1.29	0.90	2.87	3.37	6.24	3.70	1.55	1.15	1.69	1.26	
20	1.94	1.90	1.28	0.90	2.89	3.80	6.40	3.57	1.52	1.15	2.14	1.15	
21	1.95	2.07	1.27	0.89	3.05	4.51	6.14	3.28	1.51	1.15	2.25	1.04	
22	1.95	2.11	1.26	0.88	3.51	5.76	6.02	3.17	1.50	1.18	2.25	1.10	
23	1.97	2.13	1.26	0.87	3.82	6.61	5.87	2.88	1.45	1.17	1.31	1.18	
24	2.00	2.10	1.25	0.85	3.82	6.88	5.72	2.56	1.35	1.15	0.99	1.25	
25	2.00	2.07	1.37	0.85	3.60	6.96	5.53	2.33	1.30	1.15	0.82	1.37	
26	1.97	2.06	1.31	0.84	3.38	6.91	5.11	2.20	1.30	1.13	0.93	1.67	
27	1.93	2.05	1.23	0.81	3.10	6.81	4.87	2.15	1.30	1.10	1.13	2.10	
28	1.92	2.03	1.20	0.80	2.93	6.71	4.68	2.08	1.30	1.06	1.45	2.36	
29	1.88	2.01	1.20	0.80	2.86	6.68	4.49	2.00	1.32	1.05		2.61	
30	1.87	2.00	1.22	0.85	2.97	6.55	4.51	2.00	1.35	1.05		2.63	
31		1.99		0.86	3.44		4.50		1.34	1.04		2.55	
Mean	1.36	1.98	1.45	1.03	2.78	4.40	5.13	3.41	1.57	1.16	1.14	1.65	
Max	2.00	2.13	1.94	1.42	3.82	6.96	6.40	4.75	1.90	1.30	2.25	2.63	6.96
Min	0.83	1.69	1.20	0.80	0.91	2.79	3.13	2.00	1.30	1.04	0.82	1.04	0.80

Annual Max Momentary Gage Height 6.96 m. (A.D.) , at 09.00 Hours, on Sep 25, 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed -0.66 m. (A.D.) ,

Left Bank Elevation 4.30 m. (A.D.) ,

Right Bank Elevation 6.90 m. (A.D.) , Drainage Are 4,211 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	4.21	4.77	0.57	0.00	27.80	105.00	38.38	4.70	0.50	0.00	0.78		
2	0.00	3.93	4.63	0.99	0.57	32.92	87.08	39.82	3.72	0.40	0.00	0.00		
3	0.00	3.58	4.98	1.20	5.61	32.60	78.58	42.52	3.72	0.25	0.00	0.00		
4	0.00	3.23	4.84	1.34	10.16	28.60	66.60	42.70	4.14	0.00	0.00	0.00		
5	0.00	3.44	4.49	1.20	14.00	21.32	57.91	40.00	3.37	0.00	0.00	0.00		
6	0.00	4.84	4.70	0.64	14.96	16.28	49.72	35.00	2.81	0.00	0.00	0.00		
7	0.00	5.26	2.88	0.15	14.36	14.24	45.58	31.16	2.53	0.00	0.00	0.05		
8	0.00	5.75	2.25	0.00	13.04	13.88	44.32	25.56	2.46	0.00	0.00	1.20		
9	0.00	6.10	1.90	0.00	12.44	13.88	43.42	20.96	3.93	0.00	0.00	4.00		
10	0.00	6.10	1.41	0.00	11.72	14.24	41.80	19.40	4.56	0.10	0.00	9.68		
11	0.00	5.68	1.20	0.00	11.12	15.08	37.08	18.20	3.65	0.00	0.00	10.04		
12	0.00	5.75	1.13	0.00	10.16	19.16	28.92	19.28	3.51	0.00	0.00	7.88		
13	0.00	5.33	0.92	0.00	9.92	21.68	21.80	19.88	3.30	0.00	0.00	5.33		
14	0.00	5.40	0.78	0.00	10.64	22.54	17.96	22.40	2.95	0.00	0.00	4.49		
15	0.00	5.61	0.71	0.00	10.40	22.68	19.76	25.24	2.88	0.00	0.00	3.30		
16	0.00	6.31	0.71	0.00	10.88	22.40	37.40	27.32	2.81	0.00	0.00	2.81		
17	0.00	4.91	0.64	0.00	12.92	21.08	59.59	28.12	2.74	0.00	0.00	1.90		
18	4.98	4.42	0.50	0.00	14.24	19.16	76.84	27.16	2.53	0.00	0.00	1.48		
19	5.12	4.21	0.45	0.00	14.84	20.84	87.08	25.40	2.25	0.00	3.23	0.30		
20	4.98	4.70	0.40	0.00	15.08	27.00	105.00	23.38	2.04	0.00	6.38	0.00		
21	5.05	5.89	0.35	0.00	17.00	38.38	80.32	19.76	1.97	0.00	7.40	0.00		
22	5.05	6.17	0.30	0.00	22.54	63.92	73.36	18.44	1.90	0.00	7.40	0.00		
23	5.19	6.31	0.30	0.00	27.32	154.10	67.24	14.96	1.55	0.00	0.57	0.00		
24	5.40	6.10	0.25	0.00	27.32	270.80	62.84	11.12	0.85	0.00	0.00	0.25		
25	5.40	5.89	0.99	0.00	23.80	308.20	58.33	8.36	0.50	0.00	0.00	0.99		
26	5.19	5.82	0.57	0.00	20.96	284.70	49.51	6.80	0.50	0.00	0.00	3.09		
27	4.91	5.75	0.15	0.00	17.60	238.60	44.86	6.45	0.50	0.00	0.00	6.10		
28	4.84	5.61	0.00	0.00	15.56	195.30	41.44	5.96	0.50	0.00	1.55	8.72		
29	4.56	5.47	0.00	0.00	14.72	182.80	38.04	5.40	0.64	0.00		11.72		
30	4.49	5.40	0.10	0.00	16.04	137.00	38.38	5.40	0.85	0.00		11.96		
31		5.33		0.00	21.68		38.20		0.78	0.00		11.00		
Total	65.16	162.50	47.30	6.09	441.60	2301.18	1703.96	674.53	75.14	1.25	26.53	107.07	5612.31	CMSDAY
Mean	2.17	5.24	1.58	0.20	14.25	76.71	54.97	22.48	2.42	0.04	0.95	3.45	15.38	CMS
Max	5.40	6.31	4.98	1.34	27.32	308.20	105.00	42.70	4.70	0.50	7.40	11.96	308.20	CMS
Min	0.00	3.23	0.00	0.00	0.00	13.88	17.96	5.40	0.50	0.00	0.00	0.00	0.00	CMS
Runoff	5.63	14.04	4.09	0.53	38.15	198.82	147.22	58.28	6.49	0.11	2.29	9.25	484.90	MCM

Momentary Peak 308.20 CMS, at 6.96 m. (A.D.), at 09.00 Hours, on Sep 25, 2002

Runoff Yield 3.65 Liters/Second/Square KM. Momentary Peak Yield 73.190 Liters/Second/Square KM.

WATER YEAR : 2002

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	+0.000 m. (A.D.)
Bench Mark	B.M.-H.D.
Location BM	On left bank at the footpath of the bridge. **Elevation** +13.903 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 mean 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	Overbank flow starts at elevation +9.500 m.(A.D.) and is including overbank flow
General Description	Records very good. Stage-discharge relation defined by 65 discharge measurements made in 2002.

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

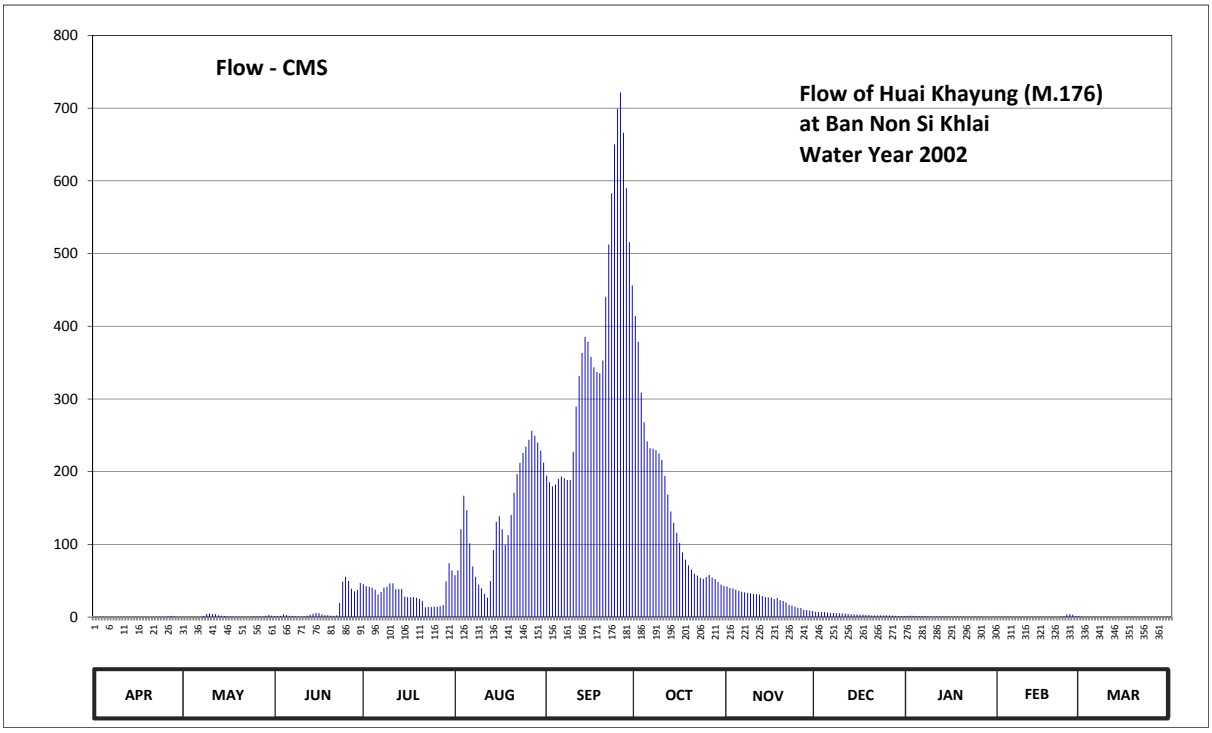
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.77	0.75	1.08	3.56	4.03	8.09	11.50	5.00	1.60	1.06	0.84	0.90	
2	0.78	0.70	1.03	3.46	4.29	7.86	11.34	4.81	1.58	1.09	0.83	0.80	
3	0.81	0.69	1.07	3.42	6.13	7.72	11.13	4.72	1.56	1.06	0.81	0.80	
4	0.87	0.73	1.29	3.37	7.40	7.78	10.85	4.49	1.57	1.05	0.81	0.77	
5	0.74	0.75	1.18	3.27	6.88	7.98	10.54	4.22	1.52	1.04	0.81	0.72	
6	0.72	0.75	1.08	3.01	5.55	8.06	10.39	4.00	1.49	1.05	0.80	0.73	
7	0.73	0.80	1.07	3.14	4.48	8.00	10.38	3.78	1.46	1.01	0.77	0.70	
8	0.72	1.06	0.99	3.37	3.95	7.94	10.34	3.62	1.44	0.95	0.78	0.70	
9	0.69	1.32	0.92	3.42	3.53	7.94	10.27	3.46	1.42	0.94	0.77	0.70	
10	0.67	1.41	0.95	3.60	3.34	8.89	10.12	3.24	1.40	0.95	0.77	0.70	
11	0.66	1.34	0.97	3.60	3.04	10.24	9.74	3.09	1.38	0.95	0.75	0.69	
12	0.67	1.30	1.09	3.30	2.80	10.98	9.23	3.01	1.33	0.94	0.75	0.71	
13	0.68	1.15	1.22	3.30	3.72	11.26	8.73	2.90	1.30	0.95	0.73	0.70	
14	0.69	1.08	1.35	3.31	5.24	11.37	8.34	2.83	1.28	0.92	0.72	0.71	
15	0.73	1.04	1.46	2.87	6.42	11.34	8.00	2.81	1.27	0.92	0.70	0.74	
16	0.76	0.95	1.44	2.83	6.63	11.23	7.65	2.80	1.24	0.91	0.70	0.82	
17	0.75	0.93	1.28	2.84	6.12	11.12	7.27	2.70	1.22	0.92	0.69	0.82	
18	0.75	0.90	1.16	2.84	5.48	11.05	6.93	2.78	1.20	0.91	0.69	0.81	
19	0.76	0.87	1.17	2.79	5.89	11.03	6.67	2.62	1.18	0.89	0.70	0.81	
20	0.76	0.85	1.09	2.70	6.69	11.20	6.41	2.55	1.15	0.88	0.78	0.78	
21	0.74	0.82	1.07	2.55	7.50	11.61	6.18	2.44	1.14	0.84	0.79	0.76	
22	0.73	0.84	1.13	2.03	8.14	11.87	6.06	2.22	1.14	0.82	0.86	0.77	
23	0.72	0.82	2.41	2.05	8.53	12.08	5.89	2.17	1.13	0.83	0.97	0.74	
24	0.72	0.87	3.69	2.05	8.86	12.25	5.79	2.08	1.14	0.82	1.26	0.70	
25	0.72	0.92	3.95	2.08	9.05	12.37	5.94	1.99	1.14	0.82	1.31	0.67	
26	0.97	0.92	3.73	2.08	9.26	12.42	6.10	1.96	1.13	0.78	1.23	0.67	
27	1.06	0.92	3.31	2.13	9.54	12.29	5.90	1.80	1.10	0.78	1.04	0.64	
28	0.96	0.95	3.18	2.22	9.39	12.10	5.78	1.76	1.06	0.78	1.02	0.68	
29	0.85	1.10	3.25	3.71	9.18	11.88	5.50	1.71	1.05	0.78		0.75	
30	0.79	1.19	3.63	4.64	8.93	11.67	5.21	1.66	1.05	0.77		0.82	
31		1.10		4.29	8.54		5.05		1.05	0.77		0.90	
Mean	0.77	0.96	1.74	3.03	6.40	10.39	8.04	2.97	1.28	0.91	0.85	0.75	
Max	1.06	1.41	3.95	4.64	9.54	12.42	11.50	5.00	1.60	1.09	1.31	0.90	12.42
Min	0.66	0.69	0.92	2.03	2.80	7.72	5.05	1.66	1.05	0.77	0.69	0.64	0.64

Annual Max Momentary Gage Height 12.42 m. (A.D.) , at 06.00 Hours, on Sep 26, 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed -0.78 m. (A.D.)

Left Bank Elevation 11.04 m. (A.D.) ,

Right Bank Elevation 9.49 m. (A.D.) , Drainage Are 3,131 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.27	0.25	1.84	45.36	57.58	194.60	414.00	42.20	7.40	1.68	0.46	0.70		
2	0.28	0.20	1.44	42.76	64.34	185.40	378.80	40.10	7.12	1.92	0.42	0.30		
3	0.34	0.19	1.76	41.72	121.05	179.80	308.70	39.28	6.84	1.68	0.34	0.30		
4	0.58	0.23	3.90	40.42	167.00	182.20	268.00	37.54	6.98	1.60	0.34	0.27		
5	0.24	0.25	2.80	37.82	147.30	190.20	241.80	36.10	6.28	1.52	0.34	0.22		
6	0.22	0.25	1.84	31.24	101.50	193.40	232.40	35.00	5.90	1.60	0.30	0.23		
7	0.23	0.30	1.76	34.44	69.64	191.00	231.80	34.12	5.60	1.28	0.27	0.20		
8	0.22	1.68	1.15	40.42	55.50	188.60	229.40	33.48	5.40	0.95	0.28	0.20		
9	0.19	4.20	0.80	41.72	44.58	188.60	225.20	32.84	5.20	0.90	0.27	0.20		
10	0.17	5.10	0.95	46.40	39.64	227.05	216.20	31.96	5.00	0.95	0.27	0.20		
11	0.16	4.40	1.05	46.40	31.96	289.50	194.20	31.36	4.80	0.95	0.25	0.19		
12	0.17	4.00	1.92	38.60	26.80	331.60	168.50	31.04	4.30	0.90	0.25	0.21		
13	0.18	2.50	3.20	38.60	49.52	363.20	145.20	28.80	4.00	0.95	0.23	0.20		
14	0.19	1.84	4.50	38.86	92.20	385.40	129.60	27.40	3.80	0.80	0.22	0.21		
15	0.23	1.52	5.60	28.20	131.20	378.80	116.00	27.00	3.70	0.80	0.20	0.24		
16	0.26	0.95	5.40	27.40	138.55	358.10	102.00	26.80	3.40	0.75	0.20	0.38		
17	0.25	0.85	3.80	27.60	120.70	343.40	89.10	24.80	3.20	0.80	0.19	0.38		
18	0.25	0.70	2.60	27.60	99.40	337.00	78.90	26.40	3.00	0.75	0.19	0.34		
19	0.26	0.58	2.70	26.60	112.65	335.40	71.28	23.36	2.80	0.66	0.20	0.34		
20	0.26	0.50	1.92	24.80	140.65	353.00	65.04	22.10	2.50	0.62	0.28	0.28		
21	0.24	0.38	1.76	22.10	171.00	440.60	59.76	20.12	2.40	0.46	0.29	0.26		
22	0.23	0.46	2.30	13.48	196.60	512.40	57.20	16.52	2.40	0.38	0.54	0.27		
23	0.22	0.38	19.58	13.80	212.20	582.80	54.14	15.72	2.30	0.42	1.05	0.24		
24	0.22	0.58	48.74	13.80	225.70	650.00	52.55	14.28	2.40	0.38	3.60	0.20		
25	0.22	0.80	55.50	14.28	234.25	699.40	54.98	12.86	2.40	0.38	4.10	0.17		
26	1.05	0.80	49.78	14.28	243.70	721.60	58.00	12.44	2.30	0.28	3.30	0.17		
27	1.68	0.80	38.86	15.08	256.30	666.00	54.30	10.20	2.00	0.28	1.52	0.14		
28	1.00	0.95	35.48	16.52	249.55	590.00	52.40	9.64	1.68	0.28	1.36	0.18		
29	0.50	2.00	37.30	49.26	240.10	515.60	48.30	8.94	1.60	0.28		0.25		
30	0.29	2.90	47.18	74.20	228.85	456.20	44.72	8.24	1.60	0.27		0.38		
31		2.00		64.34	212.60		42.80		1.60	0.27		0.70		
Total	10.60	42.54	387.41	1038.10	4282.61	11230.85	4485.27	760.64	119.90	25.74	21.26	8.55	22413.47	CMSDAY
Mean	0.35	1.37	12.91	33.49	138.15	374.36	144.69	25.35	3.87	0.83	0.76	0.28	61.41	CMS
Max	1.68	5.10	55.50	74.20	256.30	721.60	414.00	42.20	7.40	1.92	4.10	0.70	721.60	CMS
Min	0.16	0.19	0.80	13.48	26.80	179.80	42.80	8.24	1.60	0.27	0.19	0.14	0.14	CMS
Runoff	0.92	3.68	33.47	89.69	370.02	970.35	387.53	65.72	10.36	2.22	1.84	0.74	1936.52	MCM

Momentary Peak 721.60 CMS, at 12.42 m. (A.D.), at 06.00 Hours, on Sep 26, 2002

Runoff Yield 19.61 Liters/Second/Square KM. Momentary Peak Yield 230.470 Liters/Second/Square KM.

WATER YEAR : 2002

MUN RIVER BASIN

Lam Ta Khong at Ban Lat Bua Khaow, Nakhon Ratchasima (M.177)

Lat 14 - 50 - 57 N Long 101 - 37 - 12 E

Location : on right bank at the bridge.

	Ban Lat Bua Khaow	**Amphoe** Si Khiu	**Changwat** Nakhon Ratchasima
Drainge Area	1,519 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 at the footpath of the bridge.		**Elevation** +7.413 m. (A.D.)
Gage Reading Frequency	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.0 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean 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	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 73 discharge measurements made in 2002.		

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

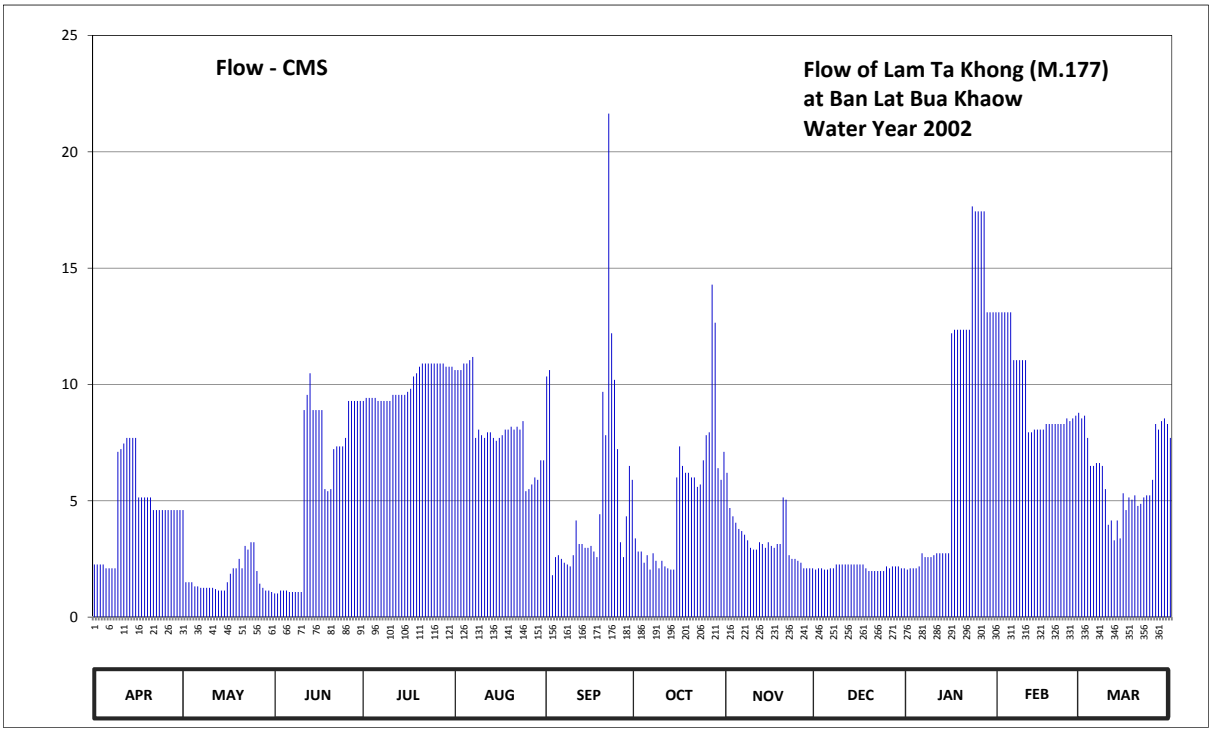
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	1.62	1.90	1.42	2.33	2.43	2.41	1.76	2.07	1.59	1.59	2.60	2.27	
2	1.62	1.50	1.42	2.34	2.43	2.43	1.69	1.91	1.60	1.60	2.60	2.28	
3	1.62	1.50	1.44	2.34	2.43	1.55	1.69	1.87	1.60	1.60	2.60	2.20	
4	1.62	1.50	1.44	2.34	2.45	1.66	1.63	1.84	1.59	1.60	2.60	2.10	
5	1.60	1.47	1.44	2.34	2.45	1.67	1.67	1.81	1.59	1.61	2.60	2.10	
6	1.60	1.47	1.43	2.33	2.46	1.65	1.59	1.80	1.60	1.68	2.46	2.11	
7	1.60	1.46	1.43	2.33	2.47	1.63	1.68	1.78	1.60	1.66	2.46	2.11	
8	1.60	1.46	1.43	2.33	2.20	1.62	1.64	1.75	1.62	1.66	2.46	2.10	
9	2.15	1.46	1.43	2.33	2.23	1.61	1.60	1.71	1.62	1.66	2.46	2.00	
10	2.16	1.46	1.43	2.33	2.21	1.67	1.64	1.70	1.62	1.67	2.46	1.83	
11	2.18	1.46	2.30	2.35	2.20	1.85	1.61	1.70	1.62	1.68	2.22	1.85	
12	2.20	1.45	2.35	2.35	2.22	1.73	1.60	1.74	1.62	1.68	2.22	1.75	
13	2.20	1.44	2.42	2.35	2.22	1.73	1.59	1.73	1.62	1.68	2.23	1.85	
14	2.20	1.44	2.30	2.35	2.20	1.71	1.59	1.71	1.62	1.68	2.23	1.76	
15	2.20	1.44	2.30	2.35	2.19	1.71	2.05	1.74	1.62	1.68	2.23	1.98	
16	1.96	1.50	2.30	2.36	2.20	1.72	2.17	1.72	1.62	2.54	2.23	1.90	
17	1.96	1.56	2.30	2.37	2.21	1.69	2.10	1.71	1.62	2.55	2.25	1.96	
18	1.96	1.60	2.00	2.41	2.23	1.66	2.07	1.73	1.60	2.55	2.25	1.95	
19	1.96	1.60	1.99	2.42	2.23	1.88	2.07	1.73	1.58	2.55	2.25	1.97	
20	1.96	1.65	2.00	2.44	2.24	2.36	2.05	1.96	1.58	2.55	2.25	1.92	
21	1.90	1.60	2.16	2.45	2.23	2.21	2.05	1.95	1.58	2.55	2.25	1.93	
22	1.90	1.72	2.17	2.45	2.24	3.02	2.01	1.67	1.58	2.55	2.25	1.96	
23	1.90	1.70	2.17	2.45	2.23	2.54	2.02	1.65	1.58	2.85	2.25	1.97	
24	1.90	1.74	2.17	2.45	2.26	2.40	2.12	1.65	1.58	2.84	2.27	1.97	
25	1.90	1.74	2.20	2.45	1.99	2.16	2.21	1.64	1.61	2.84	2.26	2.04	
26	1.90	1.58	2.33	2.45	2.00	1.74	2.22	1.63	1.60	2.84	2.27	2.25	
27	1.90	1.49	2.33	2.45	2.02	1.66	2.67	1.60	1.61	2.84	2.28	2.23	
28	1.90	1.46	2.33	2.45	2.05	1.87	2.57	1.60	1.61	2.60	2.29	2.26	
29	1.90	1.44	2.33	2.44	2.04	2.10	2.09	1.60	1.61	2.60		2.27	
30	1.90	1.44	2.33	2.44	2.12	2.04	2.04	1.60	1.60	2.60		2.25	
31		1.43		2.44	2.12		2.15		1.60	2.60		2.20	
Mean	1.90	1.54	1.97	2.39	2.23	1.92	1.92	1.74	1.60	2.17	2.35	2.04	
Max	2.20	1.90	2.42	2.45	2.47	3.02	2.67	2.07	1.62	2.85	2.60	2.28	3.02
Min	1.60	1.43	1.42	2.33	1.99	1.55	1.59	1.60	1.58	1.59	2.22	1.75	1.42

Annual Max Momentary Gage Height 3.27 m. (A.D.) , at 06.00 Hours, on Sep 22, 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed 0.67 m. (A.D.) ,

Left Bank Elevation 7.04 m. (A.D.) ,

Right Bank Elevation 7.15 m. (A.D.) , Drainage Are 1,519 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.26	4.60	1.02	9.29	10.62	10.34	3.38	6.20	2.04	2.04	13.10	8.54		
2	2.26	1.50	1.02	9.42	10.62	10.62	2.82	4.69	2.10	2.10	13.10	8.66		
3	2.26	1.50	1.14	9.42	10.62	1.80	2.82	4.33	2.10	2.10	13.10	7.70		
4	2.26	1.50	1.14	9.42	10.90	2.58	2.34	4.06	2.04	2.10	13.10	6.50		
5	2.10	1.32	1.14	9.42	10.90	2.66	2.66	3.79	2.04	2.18	13.10	6.50		
6	2.10	1.32	1.08	9.29	11.04	2.50	2.04	3.70	2.10	2.74	11.04	6.62		
7	2.10	1.26	1.08	9.29	11.18	2.34	2.74	3.54	2.10	2.58	11.04	6.62		
8	2.10	1.26	1.08	9.29	7.70	2.26	2.42	3.30	2.26	2.58	11.04	6.50		
9	7.10	1.26	1.08	9.29	8.06	2.18	2.10	2.98	2.26	2.58	11.04	5.50		
10	7.22	1.26	1.08	9.29	7.82	2.66	2.42	2.90	2.26	2.66	11.04	3.97		
11	7.46	1.26	8.90	9.55	7.70	4.15	2.18	2.90	2.26	2.74	7.94	4.15		
12	7.70	1.20	9.55	9.55	7.94	3.14	2.10	3.22	2.26	2.74	7.94	3.30		
13	7.70	1.14	10.48	9.55	7.94	3.14	2.04	3.14	2.26	2.74	8.06	4.15		
14	7.70	1.14	8.90	9.55	7.70	2.98	2.04	2.98	2.26	2.74	8.06	3.38		
15	7.70	1.14	8.90	9.55	7.58	2.98	6.00	3.22	2.26	2.74	8.06	5.32		
16	5.14	1.50	8.90	9.68	7.70	3.06	7.34	3.06	2.26	12.20	8.06	4.60		
17	5.14	1.86	8.90	9.81	7.82	2.82	6.50	2.98	2.26	12.35	8.30	5.14		
18	5.14	2.10	5.50	10.34	8.06	2.58	6.20	3.14	2.10	12.35	8.30	5.05		
19	5.14	2.10	5.41	10.48	8.06	4.42	6.20	3.14	1.98	12.35	8.30	5.23		
20	5.14	2.50	5.50	10.76	8.18	9.68	6.00	5.14	1.98	12.35	8.30	4.78		
21	4.60	2.10	7.22	10.90	8.06	7.82	6.00	5.05	1.98	12.35	8.30	4.87		
22	4.60	3.06	7.34	10.90	8.18	21.64	5.60	2.66	1.98	12.35	8.30	5.14		
23	4.60	2.90	7.34	10.90	8.06	12.20	5.70	2.50	1.98	17.65	8.30	5.23		
24	4.60	3.22	7.34	10.90	8.42	10.20	6.74	2.50	1.98	17.44	8.54	5.23		
25	4.60	3.22	7.70	10.90	5.41	7.22	7.82	2.42	2.18	17.44	8.42	5.90		
26	4.60	1.98	9.29	10.90	5.50	3.22	7.94	2.34	2.10	17.44	8.54	8.30		
27	4.60	1.44	9.29	10.90	5.70	2.58	14.29	2.10	2.18	17.44	8.66	8.06		
28	4.60	1.26	9.29	10.90	6.00	4.33	12.65	2.10	2.18	13.10	8.78	8.42		
29	4.60	1.14	9.29	10.76	5.90	6.50	6.40	2.10	2.18	13.10		8.54		
30	4.60	1.14	9.29	10.76	6.74	5.90	5.90	2.10	2.10	13.10		8.30		
31		1.08		10.76	6.74		7.10		2.10	13.10		7.70		
Total	141.72	55.26	175.19	311.72	252.85	160.50	158.48	98.28	66.12	263.47	269.86	187.90	2141.35	CMSDAY
Mean	4.72	1.78	5.84	10.06	8.16	5.35	5.11	3.28	2.13	8.50	9.64	6.06	5.87	CMS
Max	7.70	4.60	10.48	10.90	11.18	21.64	14.29	6.20	2.26	17.65	13.10	8.66	21.64	CMS
Min	2.10	1.08	1.02	9.29	5.41	1.80	2.04	2.10	1.98	2.04	7.94	3.30	1.02	CMS
Runoff	12.24	4.77	15.14	26.93	21.85	13.87	13.69	8.49	5.71	22.76	23.32	16.23	185.01	MCM

Momentary Peak 29.66 CMS, at 3.27 m. (A.D.), at 06.00 Hours, on Sep 22, 2002

Runoff Yield 3.86 Liters/Second/Square KM. Momentary Peak Yield 19.530 Liters/Second/Square KM.

WATER YEAR : 2002

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	0.000 m. (A.D.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank at the footpath of the bridge.	**Elevation**	+8.679 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 mean 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 fair. Stage-discharge relation defined by 82 discharge measurements made in 2002.		

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

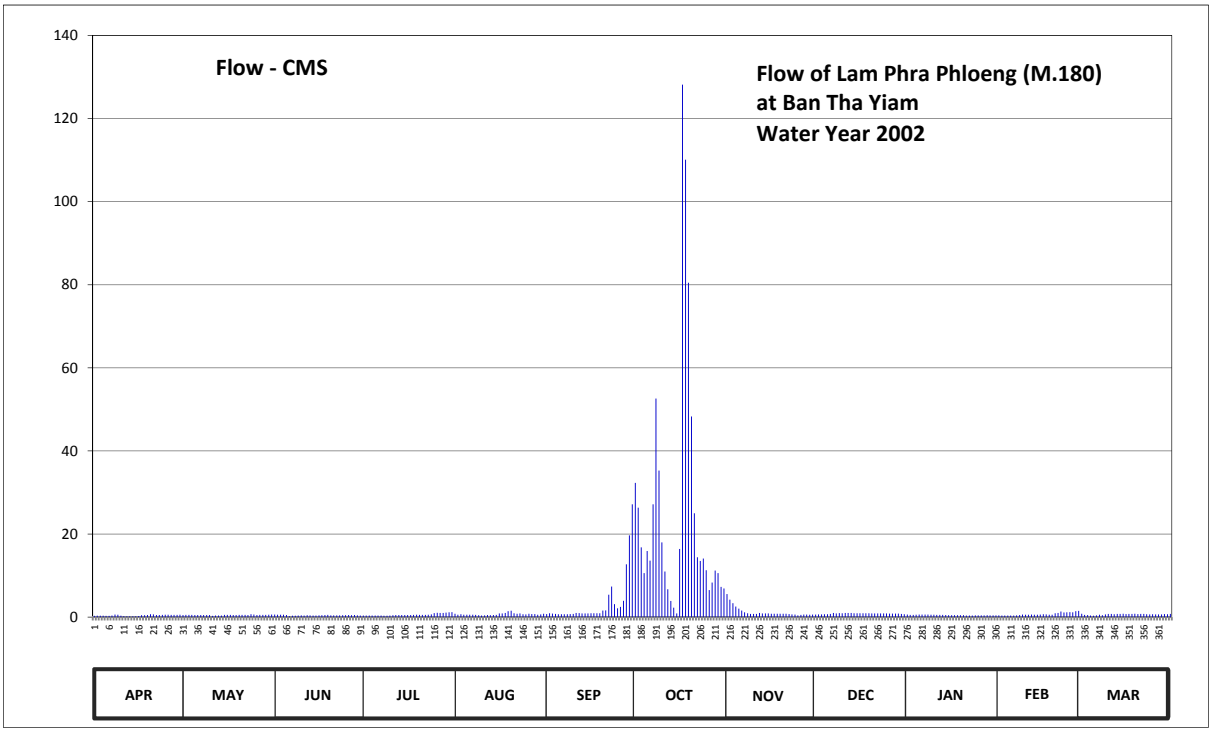
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.30	0.50	0.60	0.40	0.82	0.74	4.79	2.25	0.62	0.60	0.41	0.81	
2	0.35	0.55	0.59	0.38	0.59	0.94	4.47	1.97	0.65	0.54	0.40	0.53	
3	0.35	0.55	0.58	0.37	0.70	0.84	3.73	1.76	0.65	0.54	0.40	0.50	
4	0.34	0.55	0.57	0.38	0.58	0.75	3.01	1.54	0.68	0.58	0.40	0.37	
5	0.30	0.50	0.50	0.40	0.58	0.70	3.64	1.38	0.70	0.60	0.40	0.35	
6	0.30	0.50	0.24	0.39	0.59	0.70	3.41	1.23	0.78	0.60	0.40	0.43	
7	0.37	0.50	0.36	0.39	0.58	0.70	4.52	1.07	1.00	0.60	0.42	0.59	
8	0.62	0.50	0.36	0.34	0.55	0.70	5.58	0.91	0.88	0.60	0.50	0.45	
9	0.57	0.50	0.39	0.36	0.47	0.71	4.92	0.78	0.97	0.59	0.60	0.66	
10	0.33	0.50	0.42	0.38	0.39	0.77	3.84	0.75	0.91	0.57	0.59	0.76	
11	0.22	0.30	0.38	0.45	0.41	0.99	3.07	0.75	0.99	0.55	0.57	0.76	
12	0.20	0.40	0.45	0.48	0.48	0.96	2.45	0.99	1.00	0.55	0.60	0.70	
13	0.20	0.40	0.43	0.50	0.47	0.89	1.90	0.90	0.98	0.55	0.56	0.75	
14	0.20	0.39	0.40	0.50	0.48	0.90	1.45	0.90	0.92	0.49	0.57	0.75	
15	0.20	0.55	0.40	0.50	0.52	0.90	0.90	0.90	0.92	0.47	0.63	0.81	
16	0.25	0.55	0.41	0.50	0.87	0.92	3.69	0.80	0.92	0.47	0.70	0.72	
17	0.47	0.55	0.46	0.51	0.90	0.91	7.43	0.80	0.92	0.47	0.67	0.78	
18	0.47	0.50	0.48	0.53	1.00	0.92	7.08	0.82	0.92	0.47	0.59	0.78	
19	0.48	0.50	0.53	0.56	1.18	0.91	6.40	0.81	0.92	0.47	0.57	0.79	
20	0.70	0.55	0.44	0.54	1.21	1.23	5.43	0.80	0.89	0.45	0.94	0.72	
21	0.65	0.55	0.44	0.52	0.94	1.24	4.38	0.79	0.88	0.40	0.99	0.78	
22	0.50	0.53	0.44	0.55	0.80	2.22	3.49	0.72	0.88	0.40	1.15	0.75	
23	0.50	0.50	0.43	0.58	0.89	2.55	3.40	0.66	0.87	0.40	1.05	0.70	
24	0.53	0.70	0.45	0.66	0.69	1.70	3.46	0.63	0.87	0.44	1.07	0.64	
25	0.57	0.60	0.45	0.95	0.67	1.41	3.11	0.44	0.87	0.44	1.09	0.69	
26	0.56	0.50	0.48	1.01	0.79	1.52	2.42	0.54	0.86	0.44	1.07	0.66	
27	0.55	0.55	0.47	0.99	0.73	1.91	2.69	0.60	0.86	0.44	1.18	0.65	
28	0.55	0.55	0.48	1.00	0.71	3.30	3.10	0.60	0.86	0.45	1.20	0.67	
29	0.55	0.55	0.41	1.04	0.58	3.98	3.01	0.57	0.83	0.42		0.72	
30	0.56	0.58	0.40	1.08	0.65	4.52	2.54	0.60	0.78	0.41		0.70	
31		0.60		1.09	0.80		2.48		0.70	0.41		0.75	
Mean	0.42	0.52	0.45	0.59	0.70	1.38	3.74	0.94	0.85	0.50	0.70	0.67	
Max	0.70	0.70	0.60	1.09	1.21	4.52	7.43	2.25	1.00	0.60	1.20	0.81	7.43
Min	0.20	0.30	0.24	0.34	0.39	0.70	0.90	0.44	0.62	0.40	0.40	0.35	0.20

Annual Max Momentary Gage Height 7.60 m. (A.D.) , at 18.00 Hours, on Oct 17, 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed 0.14 m. (A.D.)

Left Bank Elevation 4.18 m. (A.D.) ,

Right Bank Elevation 4.73 m. (A.D.) , Drainage Are 864 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.30	0.50	0.60	0.40	0.82	0.74	32.30	5.55	0.62	0.60	0.41	0.81		
2	0.35	0.55	0.59	0.38	0.59	0.94	26.35	4.18	0.65	0.54	0.40	0.53		
3	0.35	0.55	0.58	0.37	0.70	0.84	16.80	3.34	0.65	0.54	0.40	0.50		
4	0.34	0.55	0.57	0.38	0.58	0.75	10.57	2.52	0.68	0.58	0.40	0.37		
5	0.30	0.50	0.50	0.40	0.58	0.70	15.90	2.04	0.70	0.60	0.40	0.35		
6	0.30	0.50	0.24	0.39	0.59	0.70	13.60	1.59	0.78	0.60	0.40	0.43		
7	0.37	0.50	0.36	0.39	0.58	0.70	27.14	1.14	1.00	0.60	0.42	0.59		
8	0.62	0.50	0.36	0.34	0.55	0.70	52.62	0.91	0.88	0.60	0.50	0.45		
9	0.57	0.50	0.39	0.36	0.47	0.71	35.26	0.78	0.97	0.59	0.60	0.66		
10	0.33	0.50	0.42	0.38	0.39	0.77	17.98	0.75	0.91	0.57	0.59	0.76		
11	0.22	0.30	0.38	0.45	0.41	0.99	10.99	0.75	0.99	0.55	0.57	0.76		
12	0.20	0.40	0.45	0.48	0.48	0.96	6.70	0.99	1.00	0.55	0.60	0.70		
13	0.20	0.40	0.43	0.50	0.47	0.89	3.90	0.90	0.98	0.55	0.56	0.75		
14	0.20	0.39	0.40	0.50	0.48	0.90	2.25	0.90	0.92	0.49	0.57	0.75		
15	0.20	0.55	0.40	0.50	0.52	0.90	0.90	0.90	0.92	0.47	0.63	0.81		
16	0.25	0.55	0.41	0.50	0.87	0.92	16.40	0.80	0.92	0.47	0.70	0.72		
17	0.47	0.55	0.46	0.51	0.90	0.91	128.15	0.80	0.92	0.47	0.67	0.78		
18	0.47	0.50	0.48	0.53	1.00	0.92	110.10	0.82	0.92	0.47	0.59	0.78		
19	0.48	0.50	0.53	0.56	1.44	0.91	80.50	0.81	0.92	0.47	0.57	0.79		
20	0.70	0.55	0.44	0.54	1.53	1.59	48.27	0.80	0.89	0.45	0.94	0.72		
21	0.65	0.55	0.44	0.52	0.94	1.62	25.00	0.79	0.88	0.40	0.99	0.78		
22	0.50	0.53	0.44	0.55	0.80	5.40	14.40	0.72	0.88	0.40	1.35	0.75		
23	0.50	0.50	0.43	0.58	0.89	7.35	13.50	0.66	0.87	0.40	1.10	0.70		
24	0.53	0.70	0.45	0.66	0.69	3.10	14.10	0.63	0.87	0.44	1.14	0.64		
25	0.57	0.60	0.45	0.95	0.67	2.13	11.27	0.44	0.87	0.44	1.18	0.69		
26	0.56	0.50	0.48	1.02	0.79	2.46	6.52	0.54	0.86	0.44	1.14	0.66		
27	0.55	0.55	0.47	0.99	0.73	3.94	8.33	0.60	0.86	0.44	1.44	0.65		
28	0.55	0.55	0.48	1.00	0.71	12.70	11.20	0.60	0.86	0.45	1.50	0.67		
29	0.55	0.55	0.41	1.08	0.58	19.66	10.57	0.57	0.83	0.42		0.72		
30	0.56	0.58	0.40	1.16	0.65	27.14	7.28	0.60	0.78	0.41		0.70		
31		0.60		1.18	0.80		6.88		0.70	0.41		0.75		
Total	12.74	16.05	13.44	18.55	22.20	102.94	785.73	37.42	26.48	15.41	20.76	20.72	1092.44	CMSDAY
Mean	0.42	0.52	0.45	0.60	0.72	3.43	25.35	1.25	0.85	0.50	0.74	0.67	2.99	CMS
Max	0.70	0.70	0.60	1.18	1.53	27.14	128.15	5.55	1.00	0.60	1.50	0.81	128.15	CMS
Min	0.20	0.30	0.24	0.34	0.39	0.70	0.90	0.44	0.62	0.40	0.40	0.35	0.20	CMS
Runoff	1.10	1.39	1.16	1.60	1.92	8.89	67.89	3.23	2.29	1.33	1.79	1.79	94.39	MCM

Momentary Peak 137.50 CMS, at 7.60 m. (A.D.), at 18.00 Hours, on Oct 17, 2002

Runoff Yield 3.46 Liters/Second/Square KM. Momentary Peak Yield 159.140 Liters/Second/Square KM.

WATER YEAR : 2002

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 mean 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.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Flow regulated by Mae Ngat Dam and Mae Taeng Weir above gage site. Phaya Kham weir situated about 2 Kilometers downstream form the gage site. Stage-discharge relation defined by 42 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

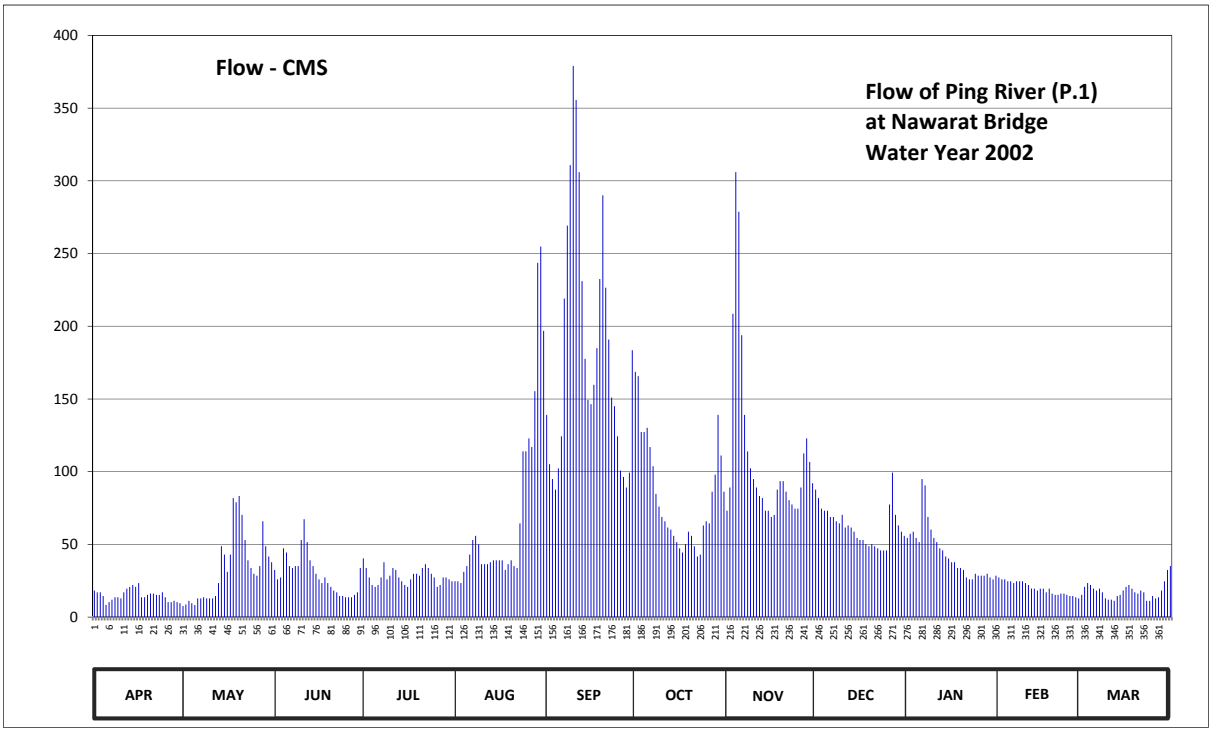
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	301.81	301.67	301.92	301.98	301.86	302.66	302.86	302.21	302.31	302.08	301.88	301.78	
2	301.80	301.70	301.87	301.93	301.86	302.43	302.84	302.32	302.27	302.10	301.87	301.83	
3	301.80	301.73	301.88	301.88	301.85	302.36	302.58	303.13	302.22	302.11	301.87	301.85	
4	301.77	301.71	302.03	301.84	301.91	302.31	302.58	303.75	302.21	302.08	301.86	301.84	
5	301.69	301.69	302.01	301.83	301.94	302.41	302.60	303.58	302.21	302.06	301.86	301.82	
6	301.72	301.75	301.94	301.84	302.00	302.56	302.51	303.03	302.18	302.36	301.85	301.81	
7	301.74	301.75	301.93	301.88	302.07	303.20	302.42	302.66	302.18	302.33	301.86	301.82	
8	301.76	301.76	301.94	301.96	302.09	303.52	302.29	302.49	302.16	302.18	301.86	301.80	
9	301.76	301.75	301.94	301.87	302.05	303.78	302.23	302.41	302.15	302.12	301.86	301.75	
10	301.75	301.75	302.07	301.89	301.95	304.20	302.18	302.36	302.19	302.08	301.85	301.74	
11	301.80	301.75	302.17	301.93	301.95	304.06	302.16	302.32	302.13	302.06	301.84	301.74	
12	301.82	301.77	302.06	301.92	301.95	303.75	302.13	302.28	302.14	302.03	301.82	301.73	
13	301.83	301.85	301.97	301.88	301.96	303.28	302.12	302.27	302.13	302.02	301.82	301.77	
14	301.84	302.04	301.94	301.86	301.97	302.92	302.09	302.21	302.11	301.99	301.81	301.78	
15	301.83	302.00	301.90	301.84	301.97	302.73	302.06	302.21	302.08	301.98	301.82	301.81	
16	301.85	301.91	301.87	301.83	301.97	302.71	302.03	302.18	302.07	301.96	301.82	301.83	
17	301.76	302.00	301.85	301.87	301.97	302.80	302.01	302.19	302.07	301.96	301.80	301.84	
18	301.76	302.27	301.88	301.90	301.92	302.97	302.05	302.31	302.05	301.93	301.82	301.82	
19	301.78	302.25	301.85	301.90	301.95	303.29	302.11	302.35	302.04	301.93	301.79	301.80	
20	301.79	302.28	301.83	301.89	301.97	303.65	302.09	302.35	302.05	301.92	301.78	301.79	
21	301.79	302.19	301.81	301.93	301.94	303.25	302.04	302.30	302.04	301.88	301.78	301.81	
22	301.78	302.07	301.80	301.95	301.93	303.01	301.99	302.26	302.03	301.87	301.79	301.80	
23	301.78	301.97	301.77	301.93	302.15	302.74	302.00	302.24	302.02	301.87	301.79	301.73	
24	301.80	301.93	301.77	301.90	302.49	302.70	302.14	302.22	302.02	301.90	301.78	301.73	
25	301.76	301.90	301.76	301.88	302.49	302.56	302.16	302.22	302.02	301.89	301.77	301.77	
26	301.72	301.89	301.76	301.83	302.55	302.40	302.15	302.32	302.24	301.89	301.77	301.75	
27	301.72	301.94	301.76	301.84	302.51	302.37	302.30	302.48	302.39	301.89	301.76	301.76	
28	301.73	302.16	301.78	301.88	302.77	302.32	302.38	302.55	302.19	301.90	301.75	301.81	
29	301.72	302.04	301.80	301.88	303.36	302.39	302.66	302.44	302.14	301.88		301.86	
30	301.71	301.99	301.93	301.87	303.43	302.96	302.47	302.34	302.11	301.87		301.92	
31		301.96		301.86	303.05		302.30		302.09	301.89		301.94	
Mean	301.77	301.92	301.89	301.89	302.19	302.94	302.28	302.47	302.14	302.00	301.82	301.80	
Max	301.85	302.28	302.17	301.98	303.43	304.20	302.86	303.75	302.39	302.36	301.88	301.94	304.20
Min	301.69	301.67	301.76	301.83	301.85	302.31	301.99	302.18	302.02	301.87	301.75	301.73	301.67

Annual Max Momentary Gage Height 304.23 m. (MSL.) , at 14.00 Hours , on Sep 10 , 2002

Zero Gage at Bottom Elevation 300.50 m. (MSL.) , River Bed 229.41 m. (MSL.)

Left Bank Elevation 307.70 m. (MSL.) ,

Right Bank Elevation 307.71 m. (MSL.) , Drainage Are 6,350 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	18.28	7.53	32.44	40.36	24.68	139.08	168.68	73.15	87.66	54.44	27.24	15.34		
2	17.00	8.70	25.96	33.76	24.68	105.21	165.72	89.12	81.85	57.30	25.96	20.84		
3	17.00	11.19	27.24	27.24	23.40	94.96	127.26	208.64	74.60	58.74	25.96	23.40		
4	14.51	9.53	47.29	22.12	31.12	87.66	127.26	306.00	73.15	54.44	24.68	22.12		
5	8.31	8.31	44.43	20.84	35.08	102.27	130.20	278.80	73.15	51.58	24.68	19.56		
6	10.36	12.85	35.08	22.12	43.00	124.32	116.97	193.84	68.82	94.96	23.40	18.28		
7	12.02	12.85	33.76	27.24	53.01	219.00	103.74	139.08	68.82	90.58	24.68	19.56		
8	13.68	13.68	35.08	37.72	55.87	269.20	84.75	114.03	65.94	68.82	24.68	17.00		
9	13.68	12.85	35.08	25.96	50.15	310.80	76.05	102.27	64.50	60.18	24.68	12.85		
10	12.85	12.85	53.01	28.52	36.40	379.00	68.82	94.96	70.26	54.44	23.40	12.02		
11	17.00	12.85	67.38	33.76	36.40	355.60	65.94	89.12	61.62	51.58	22.12	12.02		
12	19.56	14.51	51.58	32.44	36.40	306.00	61.62	83.30	63.06	47.29	19.56	11.19		
13	20.84	23.40	39.04	27.24	37.72	231.00	60.18	81.85	61.62	45.86	19.56	14.51		
14	22.12	48.72	35.08	24.68	39.04	177.56	55.87	73.15	58.74	41.68	18.28	15.34		
15	20.84	43.00	29.80	22.12	39.04	149.44	51.58	73.15	54.44	40.36	19.56	18.28		
16	23.40	31.12	25.96	20.84	39.04	146.48	47.29	68.82	53.01	37.72	19.56	20.84		
17	13.68	43.00	23.40	25.96	39.04	159.80	44.43	70.26	53.01	37.72	17.00	22.12		
18	13.68	81.85	27.24	29.80	32.44	184.96	50.15	87.66	50.15	33.76	19.56	19.56		
19	15.34	78.95	23.40	29.80	36.40	232.50	58.74	93.50	48.72	33.76	16.17	17.00		
20	16.17	83.30	20.84	28.52	39.04	290.00	55.87	93.50	50.15	32.44	15.34	16.17		
21	16.17	70.26	18.28	33.76	35.08	226.50	48.72	86.20	48.72	27.24	15.34	18.28		
22	15.34	53.01	17.00	36.40	33.76	190.88	41.68	80.40	47.29	25.96	16.17	17.00		
23	15.34	39.04	14.51	33.76	64.50	150.92	43.00	77.50	45.86	25.96	16.17	11.19		
24	17.00	33.76	14.51	29.80	114.03	145.00	63.06	74.60	45.86	29.80	15.34	11.19		
25	13.68	29.80	13.68	27.24	114.03	124.32	65.94	74.60	45.86	28.52	14.51	14.51		
26	10.36	28.52	13.68	20.84	122.85	100.80	64.50	89.12	77.50	28.52	14.51	12.85		
27	10.36	35.08	13.68	22.12	116.97	96.42	86.20	112.56	99.34	28.52	13.68	13.68		
28	11.19	65.94	15.34	27.24	155.36	89.12	97.88	122.85	70.26	29.80	12.85	18.28		
29	10.36	48.72	17.00	27.24	243.60	99.34	139.08	106.68	63.06	27.24		24.68		
30	9.53	41.68	33.76	25.96	254.80	183.48	111.09	92.04	58.74	25.96		32.44		
31		37.72		24.68	196.80		86.20		55.87	28.52		35.08		
Total	449.65	1054.57	884.53	870.08	2203.73	5471.62	2568.47	3330.75	1941.63	1353.69	554.64	557.18	21240.54	CMSDAY
Mean	14.99	34.02	29.48	28.07	71.09	182.39	82.85	111.02	62.63	43.67	19.81	17.97	58.19	CMS
Max	23.40	83.30	67.38	40.36	254.80	379.00	168.68	306.00	99.34	94.96	27.24	35.08	379.00	CMS
Min	8.31	7.53	13.68	20.84	23.40	87.66	41.68	68.82	45.86	25.96	12.85	11.19	7.53	CMS
Runoff	38.85	91.11	76.42	75.17	190.40	472.75	221.92	287.78	167.76	116.96	47.92	48.14	1835.18	MCM

Momentary Peak 384.10 CMS. at 304.23 m. (MSL.) at 14.00 Hours , on Sep 10 , 2002

Runoff Yield 9.16 Liters/Second/Square KM. Momentary Peak Yield 60.490 Liters/Second/Square KM.

WATER YEAR : 2002

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** +108.00 m. (MSL.)
Gage Reading Frequency	Recording.
Basis of Mean Daily Gage Height	Arithmetic mean 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	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Flow regulated by Phumiphol Dam reservoir since 1964. Stage-discharge relation defined by 33 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

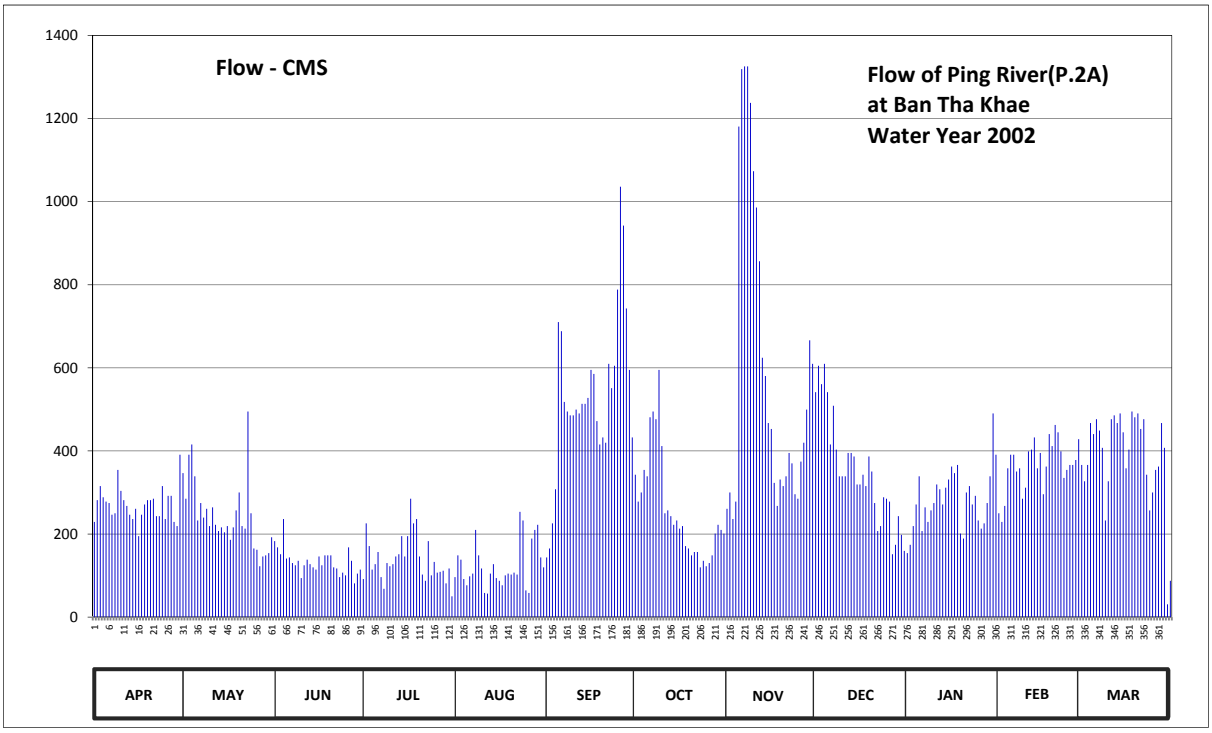
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	105.22	105.54	105.07	104.72	104.74	104.93	105.53	105.31	105.99	104.97	105.28	105.59	
2	105.37	105.38	105.02	105.21	104.95	105.01	105.36	105.42	106.12	105.04	105.22	105.49	
3	105.46	105.65	104.96	105.03	104.91	105.21	105.42	105.24	106.03	105.19	105.33	105.59	
4	105.39	105.71	105.24	104.82	104.72	105.44	105.56	105.36	106.13	105.34	105.57	105.83	
5	105.36	105.52	104.92	104.87	104.65	106.32	105.52	107.10	105.99	105.52	105.65	105.77	
6	105.35	105.23	104.93	104.98	104.75	106.28	105.86	107.31	105.71	105.15	105.65	105.85	
7	105.27	105.35	104.88	104.74	104.78	105.94	105.89	107.32	105.92	105.32	105.55	105.79	
8	105.28	105.25	104.86	104.61	105.16	105.89	105.85	107.32	105.68	105.22	105.57	105.69	
9	105.56	105.31	104.90	104.88	104.95	105.87	106.10	107.19	105.52	105.30	105.38	105.23	
10	105.43	105.19	104.73	104.85	104.83	105.87	105.70	106.93	105.52	105.35	105.45	105.49	
11	105.37	105.32	104.86	104.87	104.55	105.90	105.28	106.79	105.52	105.47	105.67	105.85	
12	105.33	105.20	104.91	104.94	104.54	105.88	105.30	106.58	105.66	105.44	105.68	105.87	
13	105.27	105.15	104.87	104.96	104.78	105.93	105.26	106.16	105.66	105.34	105.75	105.83	
14	105.24	105.18	104.84	105.11	104.87	105.93	105.20	106.07	105.64	105.45	105.57	105.88	
15	105.31	105.14	104.82	104.94	104.73	105.96	105.23	105.83	105.47	105.50	105.66	105.78	
16	105.11	105.19	104.94	105.11	104.70	106.10	105.17	105.80	105.47	105.58	105.41	105.57	
17	105.27	105.08	104.86	105.38	104.65	106.08	105.19	105.48	105.53	105.54	105.58	105.68	
18	105.34	105.18	104.95	105.21	104.76	105.84	105.03	105.33	105.46	105.59	105.77	105.89	
19	105.37	105.30	104.95	105.24	104.78	105.71	105.01	105.50	105.64	105.13	105.70	105.86	
20	105.37	105.42	104.95	104.94	104.77	105.75	104.95	105.46	105.55	105.09	105.82	105.88	
21	105.38	105.19	104.84	104.77	104.79	105.72	104.98	105.52	105.35	105.42	105.78	105.80	
22	105.26	105.17	104.83	104.70	104.77	106.13	104.98	105.66	105.15	105.46	105.67	105.85	
23	105.26	105.89	104.74	105.07	105.29	106.01	104.84	105.60	105.19	105.34	105.51	105.53	
24	105.46	105.28	104.79	104.76	105.23	106.12	104.90	105.41	105.39	105.40	105.56	105.30	
25	105.24	105.01	104.76	104.89	104.59	106.46	104.85	105.38	105.38	105.23	105.59	105.42	
26	105.40	105.00	105.02	104.79	104.55	106.87	104.88	105.61	105.36	105.17	105.59	105.56	
27	105.40	104.85	104.90	104.80	105.09	106.72	104.95	105.72	104.96	105.21	105.62	105.58	
28	105.22	104.94	104.67	104.81	105.16	106.38	105.13	105.90	105.04	105.35	105.74	105.83	
29	105.19	104.95	104.78	104.67	105.20	106.10	105.20	106.24	105.26	105.52		105.69	
30	105.65	104.97	104.82	104.83	104.93	105.75	105.16	106.13	105.12	105.88		104.37	
31		105.10		104.50	104.84		105.13		104.99	105.65		104.70	
Mean	105.34	105.25	104.89	104.90	104.84	105.94	105.27	106.02	105.53	105.36	105.58	105.61	
Max	105.65	105.89	105.24	105.38	105.29	106.87	106.10	107.32	106.13	105.88	105.82	105.89	107.32
Min	105.11	104.85	104.67	104.50	104.54	104.93	104.84	105.24	104.96	104.97	105.22	104.37	104.37

Annual Max Momentary Gage Height 107.32 m. (MSL.) , at 11.00 Hours, on Nov 6, 2002

Zero Gage at Bottom Elevation 104.00 m. (MSL.) , River Bed 101.66 m. (MSL.)

Left Bank Elevation 115.88 m. (MSL.) ,

Right Bank Elevation 115.87 m. (MSL.) , Drainage Are 38,681 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	229.00	346.60	183.00	91.80	96.10	143.45	342.70	260.50	541.35	154.05	250.00	366.10		
2	281.50	285.00	168.00	225.50	148.75	165.00	278.00	299.80	604.80	174.00	229.00	327.10		
3	315.40	390.75	151.40	171.00	138.15	225.50	299.80	236.00	560.70	219.00	267.50	366.10		
4	288.50	415.65	236.00	114.30	91.80	307.60	354.40	278.00	609.70	271.00	358.30	466.95		
5	278.00	338.80	140.80	127.55	76.75	710.00	338.80	1180.50	541.35	338.80	390.75	440.55		
6	274.50	232.50	143.45	156.70	98.25	688.00	480.90	1318.80	415.65	207.00	390.75	476.25		
7	246.50	274.50	130.20	96.10	104.70	518.10	494.85	1325.60	508.80	264.00	350.50	448.85		
8	250.00	239.50	124.90	68.15	210.00	494.85	476.25	1325.60	403.20	229.00	358.30	407.35		
9	354.40	260.50	135.50	130.20	148.75	485.55	595.00	1237.65	338.80	257.00	285.00	232.50		
10	303.70	219.00	93.95	122.25	116.95	485.55	411.50	1073.25	338.80	274.50	311.50	327.10		
11	281.50	264.00	124.90	127.55	58.00	499.50	250.00	985.80	338.80	319.30	399.05	476.25		
12	267.50	222.00	138.15	146.10	56.40	490.20	257.00	856.60	394.90	307.60	403.20	485.55		
13	246.50	207.00	127.55	151.40	104.70	513.45	243.00	624.40	394.90	271.00	432.25	466.95		
14	236.00	216.00	119.60	195.00	127.55	513.45	222.00	580.30	386.60	311.50	358.30	490.20		
15	260.50	204.00	114.30	146.10	93.95	527.40	232.50	466.95	319.30	331.00	394.90	444.70		
16	195.00	219.00	146.10	195.00	87.50	595.00	213.00	453.00	319.30	362.20	295.90	358.30		
17	246.50	186.00	124.90	285.00	76.75	585.20	219.00	323.20	342.70	346.60	362.20	403.20		
18	271.00	216.00	148.75	225.50	100.40	471.60	171.00	267.50	315.40	366.10	440.55	494.85		
19	281.50	257.00	148.75	236.00	104.70	415.65	165.00	331.00	386.60	201.00	411.50	480.90		
20	281.50	299.80	148.75	146.10	102.55	432.25	148.75	315.40	350.50	189.00	462.30	490.20		
21	285.00	219.00	119.60	102.55	106.85	419.80	156.70	338.80	274.50	299.80	444.70	453.00		
22	243.00	213.00	116.95	87.50	102.55	609.70	156.70	394.90	207.00	315.40	399.05	476.25		
23	243.00	494.85	96.10	183.00	253.50	550.90	119.60	370.00	219.00	271.00	334.90	342.70		
24	315.40	250.00	106.85	100.40	232.50	604.80	135.50	295.90	288.50	292.00	354.40	257.00		
25	236.00	165.00	100.40	132.85	64.40	788.20	122.25	285.00	285.00	232.50	366.10	299.80		
26	292.00	162.00	168.00	106.85	58.00	1035.75	130.20	374.15	278.00	213.00	366.10	354.40		
27	292.00	122.25	135.50	109.00	189.00	942.40	148.75	419.80	151.40	225.50	378.30	362.20		
28	229.00	146.10	81.05	111.65	210.00	743.00	201.00	499.50	174.00	274.50	428.10	466.95		
29	219.00	148.75	104.70	81.05	222.00	595.00	222.00	666.00	243.00	338.80		407.35		
30	390.75	154.05	114.30	116.95	143.45	432.25	210.00	609.70	198.00	490.20		30.70		
31		192.00		50.00	119.60		201.00		159.35	390.75		87.50		
Total	8134.15	7560.60	3992.40	4339.10	3844.55	15989.10	7997.15	17993.60	10889.90	8737.10	10223.40	11987.80	111688.85	CMSDAY
Mean	271.14	243.89	133.08	139.97	124.02	532.97	257.97	599.79	351.29	281.84	365.12	386.70	306.00	CMS
Max	390.75	494.85	236.00	285.00	253.50	1035.75	595.00	1325.60	609.70	490.20	462.30	494.85	1325.60	CMS
Min	195.00	122.25	81.05	50.00	56.40	143.45	119.60	236.00	151.40	154.05	229.00	30.70	30.70	CMS
Runoff	702.79	653.24	344.94	374.90	332.17	1381.46	690.95	1554.65	940.89	754.89	883.30	1035.75	9649.92	MCM

Momentary Peak 1325.60 CMS. at 107.32 m. (MSL.) at 11.00 Hours , on Nov 6, 2002

Runoff Yield 7.91 Liters/Second/Square KM. Momentary Peak Yield 34.270 Liters/Second/Square KM.

WATER YEAR : 2002

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.

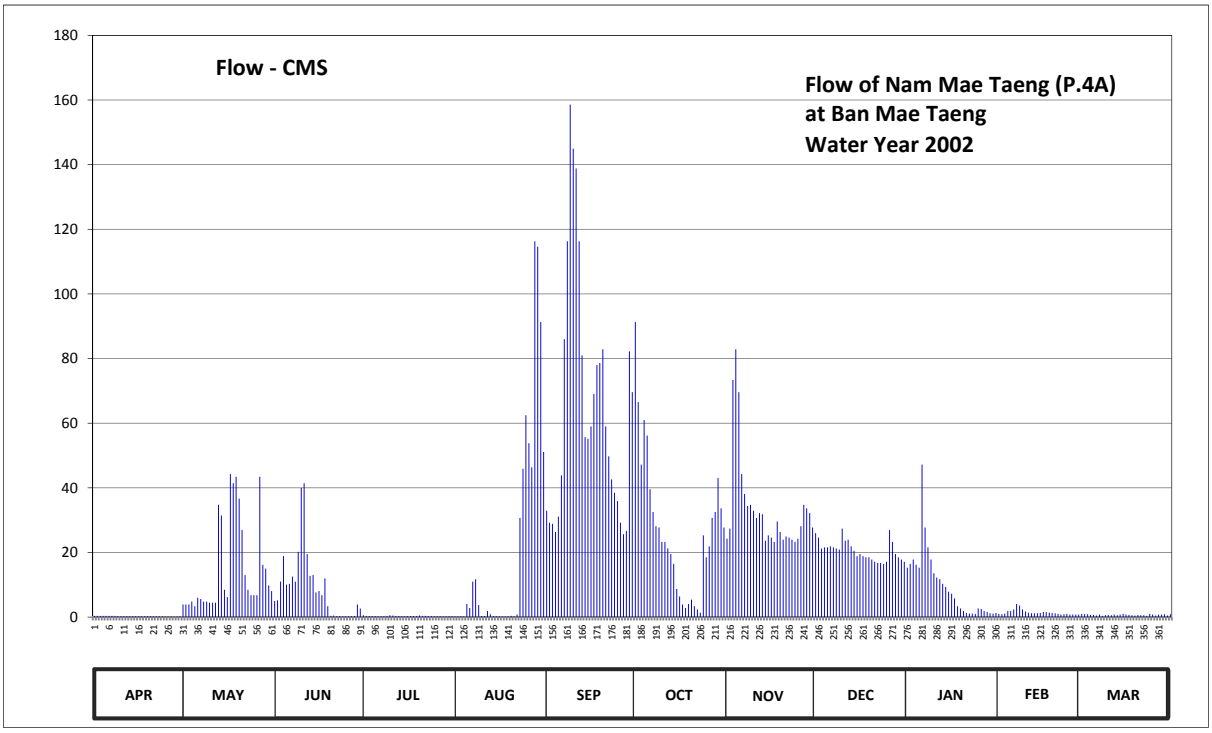
Ban Mae Taeng **Amphoe** Mae Taeng **Changwat** Chiang Mai

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** +338.736 m. (MSL.)
Gage Reading Frequency	Recording.
Basis of Mean Daily Gage Height	Arithmetic mean 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	Rather unstable with variable water surface slope.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Flow regulated by Mae Taeng weir about 7 kilometers above gage site. Stage-discharge relation defined by 38 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	334.80	335.05	335.11	334.82	334.73	336.06	337.26	335.82	335.87	335.55	334.86	334.86	
2	334.80	335.05	335.12	334.77	334.73	335.96	336.84	335.91	335.83	335.59	334.85	334.85	
3	334.80	335.05	335.39	334.77	334.74	335.95	336.43	336.97	335.73	335.63	334.87	334.85	
4	334.80	335.10	335.66	334.77	334.72	335.88	336.73	337.13	335.74	335.58	334.93	334.83	
5	334.80	335.02	335.35	334.76	335.06	336.01	336.63	336.90	335.74	335.55	334.93	334.83	
6	334.80	335.16	335.36	334.75	334.99	336.35	336.24	336.36	335.75	336.43	334.96	334.81	
7	334.80	335.14	335.45	334.75	335.39	337.18	336.05	336.20	335.74	335.92	335.06	334.84	
8	334.80	335.10	335.39	334.74	335.42	337.58	335.93	336.10	335.73	335.74	335.03	334.80	
9	334.74	335.10	335.70	334.77	335.04	338.02	335.92	336.11	335.72	335.63	334.96	334.82	
10	334.74	335.08	336.25	334.82	334.78	337.89	335.79	336.06	335.91	335.49	334.92	334.83	
11	334.74	335.08	336.29	334.81	334.77	337.83	335.79	336.00	335.80	335.44	334.90	334.82	
12	334.74	335.08	335.68	334.77	334.93	337.58	335.73	336.04	335.81	335.42	334.88	334.84	
13	334.74	336.11	335.46	334.76	334.85	337.10	335.68	336.03	335.75	335.36	334.88	334.82	
14	334.74	336.02	335.47	334.75	334.78	336.62	335.59	335.80	335.71	335.32	334.88	334.84	
15	334.74	335.28	335.24	334.75	334.75	336.61	335.29	335.85	335.66	335.25	334.89	334.86	
16	334.74	335.17	335.26	334.77	334.73	336.69	335.18	335.83	335.68	335.22	334.91	334.84	
17	334.74	336.36	335.20	334.76	334.71	336.89	335.05	335.79	335.66	335.15	334.91	334.83	
18	334.74	336.29	335.43	334.78	334.70	337.05	334.99	335.97	335.65	335.02	334.90	334.82	
19	334.74	336.34	335.02	334.76	334.71	337.06	335.06	335.88	335.65	334.98	334.89	334.81	
20	334.74	336.16	334.80	334.81	334.80	337.13	335.13	335.81	335.63	334.93	334.88	334.83	
21	334.73	335.90	334.81	334.79	334.71	336.69	335.02	335.84	335.61	334.89	334.86	334.82	
22	334.72	335.47	334.74	334.80	334.84	336.49	334.96	335.83	335.60	334.87	334.84	334.82	
23	334.72	335.28	334.77	334.76	336.00	336.32	334.90	335.81	335.60	334.87	334.85	334.80	
24	334.71	335.20	334.73	334.77	336.40	336.21	335.85	335.79	335.59	334.86	334.86	334.86	
25	334.70	335.20	334.73	334.75	336.76	336.14	335.65	335.82	335.61	334.98	334.84	334.84	
26	334.70	335.20	334.74	334.75	336.58	335.96	335.75	335.93	335.90	334.97	334.84	334.81	
27	334.70	336.34	334.75	334.74	336.41	335.86	336.00	336.11	335.79	334.93	334.84	334.84	
28	334.70	335.58	334.75	334.72	337.58	335.89	336.05	336.08	335.68	334.91	334.84	334.84	
29	334.70	335.54	335.05	334.75	337.56	337.12	336.33	336.04	335.65	334.88		334.85	
30	334.70	335.34	334.98	334.74	337.26	336.90	336.08	335.92	335.63	334.87		334.81	
31		335.26		334.74	336.52		335.92		335.61	334.89		334.85	
Mean	334.75	335.45	335.22	334.77	335.42	336.70	335.80	336.06	335.71	335.26	334.89	334.83	
Max	334.80	336.36	336.29	334.82	337.58	338.02	337.26	337.13	335.91	336.43	335.06	334.86	338.02
Min	334.70	335.02	334.73	334.72	334.70	335.86	334.90	335.79	335.59	334.86	334.84	334.80	334.70

Annual Max Momentary Gage Height	338.10	m. (MSL.) ,	at 06.00 Hours , on Sep 9 , 2002		
Zero Gage at Bottom Elevation	334.00	m. (MSL.) ,	River Bed	333.41	m. (MSL.)
Left Bank Elevation	339.83	m. (MSL.) ,			
Right Bank Elevation	339.81	m. (MSL.) ,	Drainage Are	1,930	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.40	3.90	5.00	0.60	0.26	32.92	91.30	24.28	25.98	15.30	1.00	1.00		
2	0.40	3.90	5.20	0.34	0.26	29.22	66.54	27.37	24.62	16.50	0.90	0.90		
3	0.40	3.90	10.97	0.34	0.28	28.85	47.19	73.38	21.22	17.82	1.10	0.90		
4	0.40	4.80	18.84	0.34	0.24	26.32	61.00	82.87	21.56	16.20	1.88	0.70		
5	0.40	3.36	10.05	0.32	4.08	31.07	56.17	69.60	21.56	15.30	1.88	0.70		
6	0.40	6.00	10.28	0.30	2.84	43.85	39.58	44.26	21.90	47.19	2.36	0.50		
7	0.40	5.60	12.50	0.30	10.97	86.00	32.55	38.10	21.56	27.74	4.08	0.80		
8	0.40	4.80	10.97	0.28	11.72	116.30	28.11	34.40	21.22	21.56	3.54	0.40		
9	0.28	4.80	20.20	0.34	3.72	158.60	27.74	34.77	20.88	17.82	2.36	0.60		
10	0.28	4.44	39.95	0.60	0.36	144.98	23.26	32.92	27.37	13.54	1.72	0.70		
11	0.28	4.44	41.43	0.50	0.34	138.83	23.26	30.70	23.60	12.24	1.40	0.60		
12	0.28	4.44	19.52	0.34	1.88	116.30	21.22	32.18	23.94	11.72	1.20	0.80		
13	0.28	34.77	12.76	0.32	0.90	81.00	19.52	31.81	21.90	10.28	1.20	0.60		
14	0.28	31.44	13.02	0.30	0.36	55.70	16.50	23.60	20.54	9.36	1.20	0.80		
15	0.28	8.48	7.64	0.30	0.30	55.22	8.69	25.30	18.84	7.85	1.30	1.00		
16	0.28	6.20	8.06	0.34	0.26	59.02	6.40	24.62	19.52	7.22	1.56	0.80		
17	0.28	44.26	6.80	0.32	0.22	69.09	3.90	23.26	18.84	5.80	1.56	0.70		
18	0.28	41.43	11.98	0.36	0.20	78.00	2.84	29.59	18.50	3.36	1.40	0.60		
19	0.28	43.44	3.36	0.32	0.22	78.60	4.08	26.32	18.50	2.68	1.30	0.50		
20	0.28	36.62	0.40	0.50	0.40	82.87	5.40	23.94	17.82	1.88	1.20	0.70		
21	0.26	27.00	0.50	0.38	0.22	59.02	3.36	24.96	17.14	1.30	1.00	0.60		
22	0.24	13.02	0.28	0.40	0.80	49.77	2.36	24.62	16.80	1.10	0.80	0.60		
23	0.24	8.48	0.34	0.32	30.70	42.62	1.40	23.94	16.80	1.10	0.90	0.40		
24	0.22	6.80	0.26	0.34	45.90	38.47	25.30	23.26	16.50	1.00	1.00	1.00		
25	0.20	6.80	0.26	0.30	62.50	35.88	18.50	24.28	17.14	2.68	0.80	0.80		
26	0.20	6.80	0.28	0.30	53.84	29.22	21.90	28.11	27.00	2.52	0.80	0.50		
27	0.20	43.44	0.30	0.28	46.33	25.64	30.70	34.77	23.26	1.88	0.80	0.80		
28	0.20	16.20	0.30	0.24	116.30	26.66	32.55	33.66	19.52	1.56	0.80	0.80		
29	0.20	15.00	3.90	0.30	114.60	82.25	43.03	32.18	18.50	1.20		0.90		
30	0.20	9.82	2.68	0.28	91.30	69.60	33.66	27.74	17.82	1.10		0.50		
31		8.06		0.28	51.11		27.74		17.14	1.30		0.90		
Total	8.72	462.44	278.03	10.78	653.41	1971.87	825.75	1010.79	637.49	298.10	41.04	22.10	6220.52	CMSDAY
Mean	0.29	14.92	9.27	0.35	21.08	65.73	26.64	33.69	20.56	9.62	1.47	0.71	17.04	CMS
Max	0.40	44.26	41.43	0.60	116.30	158.60	91.30	82.87	27.37	47.19	4.08	1.00	158.60	CMS
Min	0.20	3.36	0.26	0.24	0.20	25.64	1.40	23.26	16.50	1.00	0.80	0.40	0.20	CMS
Runoff	0.75	39.95	24.02	0.93	56.45	170.37	71.34	87.33	55.08	25.76	3.55	1.91	537.45	MCM

Momentary Peak 167.00 CMS. at 338.10 m. (MSL.) at 06.00 Hours , on Sep 9 , 2002

Runoff Yield 8.83 Liters/Second/Square KM. Momentary Peak Yield 86.530 Liters/Second/Square KM.

WATER YEAR : 2002

PING RIVER BASIN

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

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

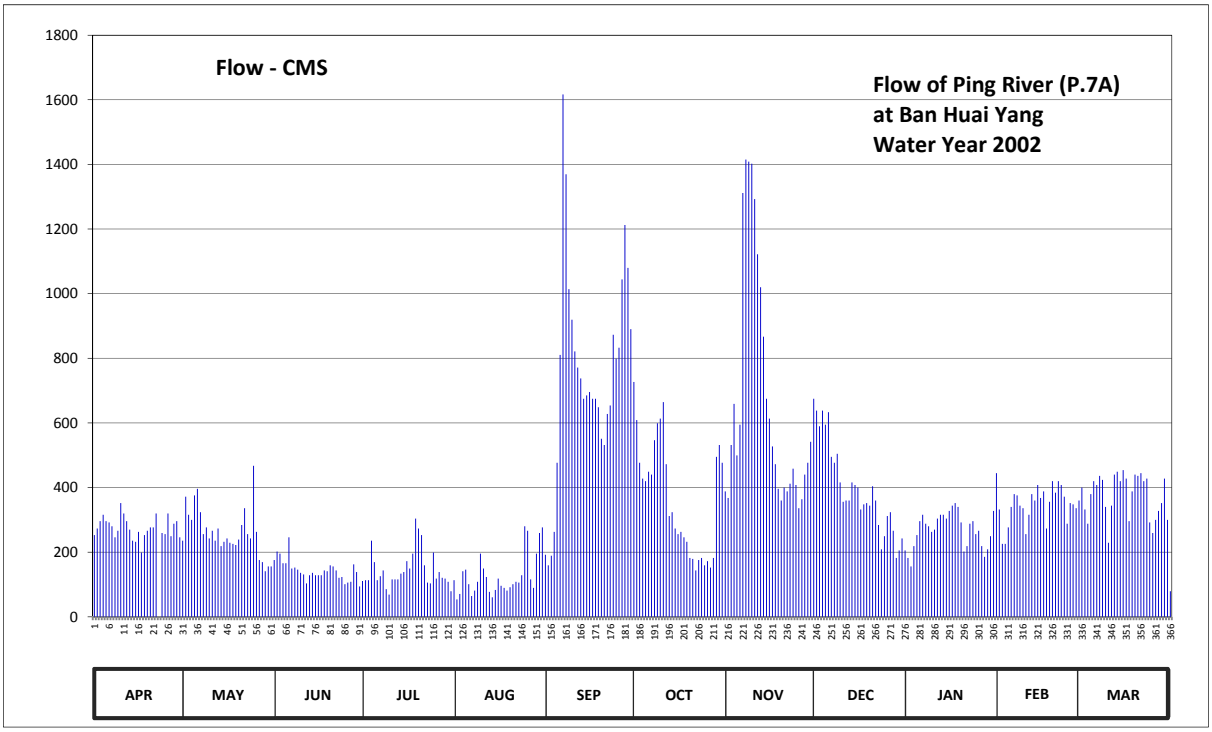
Location : on left bank about 100 meters upstream from the bridge on highway.

	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 mean of 24 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	Fairly stable by some silting.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Flow regulated by Phumiphol Dam reservior above gage site.		
	Stage-discharge relation defined by 37 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	72.92	73.23	72.77	72.47	72.20	72.64	73.76	73.22	73.82	72.71	73.13	73.30	
2	72.98	73.09	72.75	72.47	72.28	72.73	73.48	73.60	73.72	72.63	72.84	73.13	
3	73.04	73.05	72.66	72.87	72.58	72.95	73.37	73.86	73.82	72.82	72.84	73.02	
4	73.09	73.24	72.66	72.67	72.60	73.48	73.35	73.53	73.73	72.92	72.99	73.25	
5	73.04	73.29	72.90	72.47	72.42	74.14	73.42	73.73	73.81	73.04	73.15	73.35	
6	73.03	73.11	72.61	72.52	72.25	75.44	73.40	74.98	73.52	73.09	73.25	73.32	
7	73.00	72.93	72.62	72.59	72.33	75.07	73.63	75.14	73.48	73.02	73.24	73.39	
8	72.90	72.99	72.60	72.35	72.45	74.49	73.74	75.13	73.54	73.00	73.16	73.36	
9	72.96	72.89	72.56	72.27	72.75	74.33	73.77	75.12	73.34	72.95	73.14	73.15	
10	73.18	72.96	72.54	72.48	72.61	74.16	73.87	74.95	73.19	72.97	72.93	72.85	
11	73.10	72.87	72.43	72.48	72.51	74.07	73.47	74.67	73.20	73.06	73.09	73.16	
12	73.04	72.98	72.53	72.48	72.31	74.01	73.08	74.50	73.20	73.09	73.25	73.40	
13	72.97	72.82	72.56	72.55	72.23	73.89	73.11	74.24	73.34	73.09	73.20	73.42	
14	72.87	72.86	72.53	72.57	72.34	73.91	72.98	73.89	73.32	73.06	73.32	73.35	
15	72.86	72.89	72.53	72.68	72.49	73.93	72.93	73.77	73.30	73.12	73.22	73.43	
16	72.95	72.85	72.53	72.61	72.40	73.89	72.95	73.59	73.13	73.16	73.27	73.37	
17	72.76	72.84	72.59	72.75	72.37	73.89	72.90	73.47	73.17	73.18	72.98	73.04	
18	72.92	72.83	72.58	73.06	72.33	73.84	72.86	73.29	73.18	73.15	73.19	73.27	
19	72.96	72.88	72.64	72.98	72.38	73.64	72.71	73.20	73.16	73.03	73.35	73.40	
20	72.99	73.01	72.63	72.92	72.42	73.60	72.70	73.30	73.31	72.77	73.26	73.39	
21	72.99	73.14	72.59	72.64	72.45	73.80	72.59	73.27	73.20	72.82	73.35	73.41	
22	73.10	72.93	72.50	72.44	72.44	73.85	72.69	73.33	73.01	73.02	73.32	73.35	
23	72.94	72.89	72.51	72.43	72.53	74.25	72.71	73.44	72.79	73.04	73.23	73.37	
24	72.93	73.46	72.42	72.76	73.00	74.12	72.64	73.32	72.91	72.93	73.02	73.03	
25	73.10	72.95	72.44	72.49	72.96	74.18	72.68	73.14	73.08	72.96	73.18	72.94	
26	72.91	72.69	72.45	72.57	72.48	74.54	72.62	73.21	73.11	72.82	73.17	73.05	
27	73.02	72.67	72.65	72.50	72.37	74.82	72.71	73.40	72.96	72.72	73.14	73.12	
28	73.04	72.58	72.57	72.49	72.75	74.60	73.52	73.48	72.71	72.79	73.20	73.18	
29	72.90	72.63	72.39	72.45	72.94	74.28	73.60	73.62	72.78	72.91		73.37	
30	72.87	72.63	72.46	72.32	72.99	73.99	73.48	73.89	72.89	73.12		73.05	
31		72.69		72.47	72.74		73.27		72.78	73.41		72.32	
Mean	72.98	72.93	72.57	72.57	72.51	74.02	73.16	73.84	73.24	72.98	73.16	73.21	
Max	73.18	73.46	72.90	73.06	73.00	75.44	73.87	75.14	73.82	73.41	73.35	73.43	75.44
Min	72.76	72.58	72.39	72.27	72.20	72.64	72.59	73.14	72.71	72.63	72.84	72.32	72.20

Annual Max Momentary Gage Height	75.65	m. (MSL.) ,	at 14.00 Hours , on Sep 6 , 2002		
Zero Gage at Bottom Elevation	71.73	m. (MSL.) ,	River Bed	70.06	m. (MSL.)
Left Bank Elevation	82.44	m. (MSL.) ,			
Right Bank Elevation	84.56	m. (MSL.) ,	Drainage Are	42,464	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	252.80	372.00	202.10	113.50	54.00	159.20	608.80	368.00	638.40	182.30	332.00	400.00		
2	273.20	316.00	195.50	113.50	70.80	188.90	476.80	532.00	589.60	155.90	225.60	332.00		
3	296.00	300.00	165.80	235.80	141.00	263.00	428.00	659.20	638.40	218.80	225.60	288.00		
4	316.00	376.00	165.80	169.10	146.00	476.80	420.00	499.80	594.40	252.80	276.60	380.00		
5	296.00	396.00	246.00	113.50	101.00	810.40	449.20	594.40	633.20	296.00	340.00	420.00		
6	292.00	324.00	149.30	126.00	64.50	1616.40	440.00	1311.60	495.20	316.00	380.00	408.00		
7	280.00	256.20	152.60	143.50	81.30	1369.50	546.40	1415.00	476.80	288.00	376.00	436.00		
8	246.00	276.60	146.00	85.50	108.50	1014.00	599.20	1408.50	504.40	280.00	344.00	424.00		
9	266.40	242.60	136.00	68.70	195.50	919.40	613.60	1402.00	416.00	263.00	336.00	340.00		
10	352.00	266.40	131.00	116.00	149.30	821.60	664.40	1293.00	356.00	269.80	256.20	229.00		
11	320.00	235.80	103.50	116.00	123.50	771.20	472.20	1122.00	360.00	304.00	316.00	344.00		
12	296.00	273.20	128.50	116.00	77.10	737.60	312.00	1020.00	360.00	316.00	380.00	440.00		
13	269.80	218.80	136.00	133.50	60.30	674.80	324.00	867.20	416.00	316.00	360.00	449.20		
14	235.80	232.40	128.50	138.50	83.40	685.20	273.20	674.80	408.00	304.00	408.00	420.00		
15	232.40	242.60	128.50	172.40	118.50	695.60	256.20	613.60	400.00	328.00	368.00	453.80		
16	263.00	229.00	128.50	149.30	96.00	674.80	263.00	527.40	332.00	344.00	388.00	428.00		
17	198.80	225.60	143.50	195.50	89.70	674.80	246.00	472.20	348.00	352.00	273.20	296.00		
18	252.80	222.20	141.00	304.00	81.30	648.80	232.40	396.00	352.00	340.00	356.00	388.00		
19	266.40	239.20	159.20	273.20	91.80	551.20	182.30	360.00	344.00	292.00	420.00	440.00		
20	276.60	284.00	155.90	252.80	101.00	532.00	179.00	400.00	404.00	202.10	384.00	436.00		
21	276.60	336.00	143.50	159.20	108.50	628.00	143.50	388.00	360.00	218.80	420.00	444.60		
22	320.00	256.20	121.00	106.00	106.00	654.00	175.70	412.00	284.00	288.00	408.00	420.00		
23	259.60	242.60	123.50	103.50	128.50	873.00	182.30	458.40	208.70	296.00	372.00	428.00		
24	256.20	467.60	101.00	198.80	280.00	799.20	159.20	408.00	249.40	256.20	288.00	292.00		
25	320.00	263.00	106.00	118.50	266.40	832.80	172.40	336.00	312.00	266.40	352.00	259.60		
26	249.40	175.70	108.50	138.50	116.00	1044.00	152.60	364.00	324.00	218.80	348.00	300.00		
27	288.00	169.10	162.50	121.00	89.70	1212.40	182.30	440.00	266.40	185.60	336.00	328.00		
28	296.00	141.00	138.50	118.50	195.50	1080.00	495.20	476.80	182.30	208.70	360.00	352.00		
29	246.00	155.90	93.90	108.50	259.60	890.40	532.00	541.60	205.40	249.40		428.00		
30	235.80	155.90	111.00	79.20	276.60	726.80	476.80	674.80	242.60	328.00		300.00		
31		175.70		113.50	192.20		388.00		205.40	444.60		79.20		
Total	8229.60	8067.30	4252.60	4501.50	4053.50	23025.80	11046.70	20436.30	11906.60	8581.20	9629.20	11383.40	125113.70	CMSDAY
Mean	274.32	260.24	141.75	145.21	130.76	767.53	356.35	681.21	384.08	276.81	343.90	367.21	342.78	CMS
Max	352.00	467.60	246.00	304.00	280.00	1616.40	664.40	1415.00	638.40	444.60	420.00	453.80	1616.40	CMS
Min	198.80	141.00	93.90	68.70	54.00	159.20	143.50	336.00	182.30	155.90	225.60	79.20	54.00	CMS
Runoff	711.04	697.01	367.42	388.93	350.22	1989.43	954.43	1765.70	1028.73	741.42	831.96	983.53	10809.82	MCM

Momentary Peak 1758.50 CMS. at 75.65 m. (MSL.) at 14.00 Hours , on Sep 6 , 2002

Runoff Yield 8.07 Liters/Second/Square KM. Momentary Peak Yield 41.410 Liters/Second/Square KM.

WATER YEAR : 2002

PING RIVER BASIN

Ping River at Ban Yanree , Tak (P.12C)

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

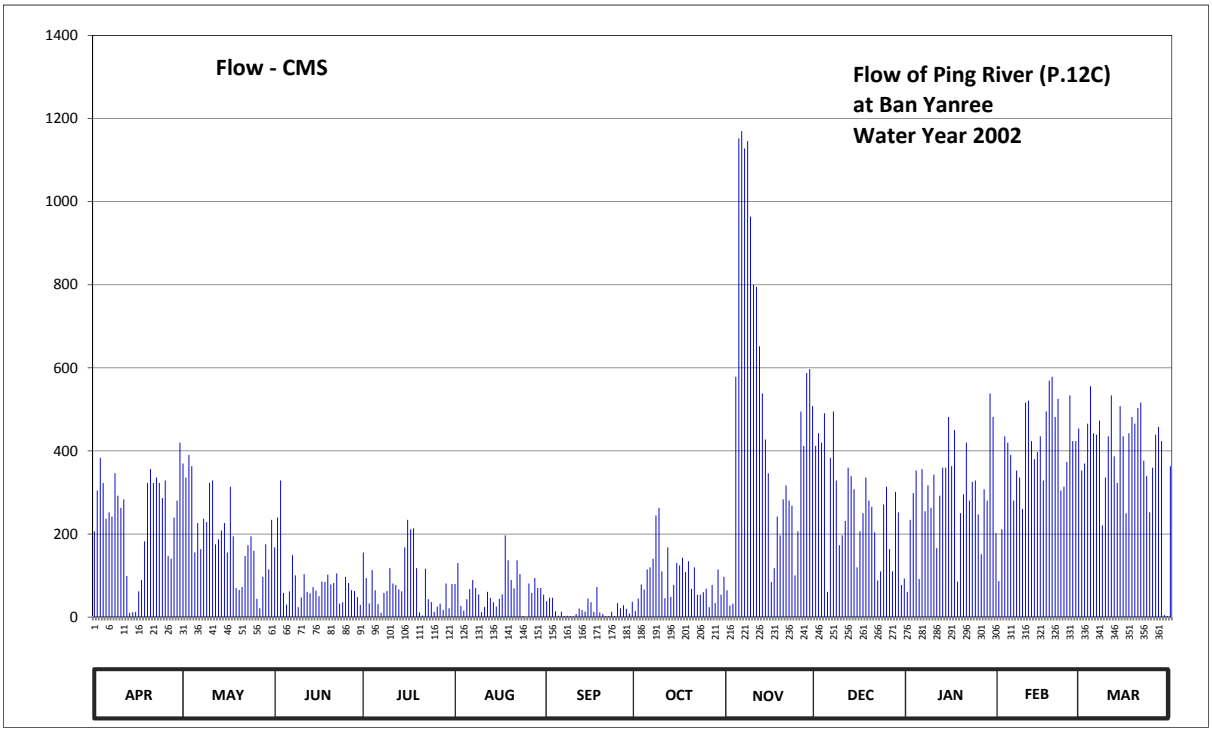
Location : on right bank about 3 kilometers from Phumiphol Dam reservoir.

	Ban Yanree	**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** +134.000 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 mean 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	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Flow requlated by Phumiphol Dam reservior downstream from the gage site. Stage-discharge relation defined by 23 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	130.96	131.52	130.80	130.74	130.28	129.82	129.43	130.14	131.64	130.10	130.34	131.47	
2	131.32	131.42	131.09	130.40	130.62	129.93	129.90	129.66	131.72	131.07	130.98	131.52	
3	131.56	131.58	131.40	129.74	129.64	129.93	130.27	129.73	131.66	131.30	131.70	131.78	
4	131.38	131.50	130.07	130.52	129.44	129.42	130.16	132.04	131.84	131.47	131.66	131.99	
5	131.08	130.74	129.69	130.14	129.88	129.19	130.53	133.12	130.10	130.38	131.58	131.72	
6	131.14	131.04	130.11	129.71	130.17	129.40	130.56	133.15	131.56	131.48	131.24	131.71	
7	131.10	130.78	130.71	129.34	130.36	129.17	130.67	133.08	131.85	131.15	131.47	131.80	
8	131.45	131.08	130.44	130.07	130.20	129.18	131.11	133.11	131.40	131.36	131.42	131.02	
9	131.28	131.05	129.60	130.12	130.03	129.17	131.18	132.80	130.82	131.18	131.17	131.42	
10	131.18	131.38	129.94	130.55	129.38	129.15	130.50	132.50	130.92	131.44	131.90	131.70	
11	131.25	131.40	130.46	130.29	129.61	129.27	129.91	132.49	131.06	130.79	131.91	131.94	
12	130.43	130.83	130.10	130.26	130.10	129.54	130.80	132.20	131.49	131.28	131.67	131.57	
13	129.34	130.88	130.06	130.16	129.92	129.47	129.96	131.95	131.43	131.49	131.55	131.38	
14	129.38	130.97	130.22	130.11	129.78	129.40	130.26	131.68	131.33	131.49	131.60	131.88	
15	129.39	131.04	130.13	130.80	129.62	129.90	130.62	131.45	130.56	131.82	131.70	131.70	
16	130.11	130.74	129.98	131.07	129.89	129.78	130.59	130.32	130.96	131.50	131.40	131.13	
17	130.36	131.35	130.33	130.98	130.03	129.39	130.68	130.55	131.13	131.74	131.85	131.72	
18	130.86	130.91	130.32	130.99	130.92	130.22	130.49	131.10	131.42	130.33	132.02	131.82	
19	131.38	130.20	130.45	130.55	130.65	129.36	130.64	130.92	131.24	131.13	132.04	131.78	
20	131.48	130.15	130.27	129.36	130.36	129.28	130.18	131.25	131.19	131.29	131.82	131.87	
21	131.38	130.22	130.30	129.20	130.19	129.17	130.56	131.36	130.95	131.66	131.92	131.90	
22	131.42	130.70	130.47	130.54	130.65	129.16	130.02	131.24	130.35	131.24	131.32	131.54	
23	131.38	130.82	129.73	129.88	130.46	129.40	130.02	131.20	130.50	131.39	131.35	131.43	
24	131.26	130.91	129.78	129.79	129.17	129.17	130.09	130.44	131.21	131.40	131.53	131.14	
25	131.40	130.76	130.42	129.39	129.11	129.75	130.18	130.96	131.35	131.12	131.94	131.49	
26	130.70	129.89	130.30	129.62	130.29	129.55	129.60	131.85	130.78	130.72	131.67	131.71	
27	130.67	129.55	130.14	129.73	130.07	129.67	130.26	131.64	130.50	131.33	131.67	131.76	
28	131.09	130.42	130.12	129.48	130.40	129.53	129.75	132.06	131.31	131.24	131.75	131.67	
29	131.24	130.83	129.95	130.29	130.20	129.30	130.53	132.08	131.14	131.95		129.22	
30	131.66	130.53	129.68	129.55	130.20	129.80	130.02	131.88	130.26	131.82		129.16	
31		131.07		130.28	130.02		130.42		130.39	130.94		131.50	
Mean	130.95	130.85	130.24	130.12	130.05	129.48	130.32	131.60	131.10	131.25	131.58	131.47	
Max	131.66	131.58	131.40	131.07	130.92	130.22	131.18	133.15	131.85	131.95	132.04	131.99	133.15
Min	129.34	129.55	129.60	129.20	129.11	129.15	129.43	129.66	130.10	130.10	130.34	129.16	129.11

Annual Max Momentary Gage Height	133.30	m. (MSL.) ,	at 18.00 Hours , on Nov 4 , 2002		
Zero Gage at Bottom Elevation	129.00	m. (MSL.) ,	River Bed	128.27	m. (MSL.)
Left Bank Elevation	133.33	m. (MSL.) ,			
Right Bank Elevation	133.87	m. (MSL.) ,	Drainage Are	26,241	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	206.40	369.80	168.00	155.40	79.60	38.50	14.65	64.60	412.20	61.00	86.80	352.80		
2	304.60	335.80	239.40	94.00	130.20	46.75	44.50	27.90	442.60	234.20	211.20	369.80		
3	383.40	390.20	329.00	33.10	26.60	46.75	78.40	32.45	419.80	298.50	435.00	465.40		
4	322.90	363.00	58.30	113.20	15.20	14.10	66.40	578.40	490.40	352.80	419.80	555.65		
5	236.80	155.40	29.85	64.60	43.00	3.60	114.80	1152.00	61.00	91.60	390.20	442.60		
6	252.40	226.40	61.90	31.15	67.30	13.00	119.60	1170.00	383.40	356.20	280.20	438.80		
7	242.00	163.80	149.10	10.30	89.20	2.80	140.70	1128.00	494.75	255.00	352.80	473.00		
8	346.00	236.80	100.40	58.30	70.00	3.20	244.60	1146.00	329.00	316.80	335.80	221.20		
9	292.40	229.00	24.00	62.80	54.70	2.80	262.80	964.00	172.80	262.80	260.20	335.80		
10	262.80	322.90	47.50	118.00	12.10	2.00	110.00	800.00	196.80	342.60	516.50	435.00		
11	283.25	329.00	103.60	80.80	24.65	7.15	45.25	794.80	231.60	165.90	520.85	533.90		
12	98.80	175.20	61.00	77.20	61.00	20.70	168.00	652.00	359.60	292.40	423.60	386.80		
13	10.30	187.20	57.40	66.40	46.00	16.85	49.00	538.25	339.20	359.60	380.00	322.90		
14	12.10	208.80	72.40	61.90	35.70	13.00	77.20	427.40	307.65	359.60	397.00	507.80		
15	12.55	226.40	63.70	168.00	25.30	44.50	130.20	346.00	119.60	481.70	435.00	435.00		
16	61.90	155.40	50.50	234.20	43.75	35.70	124.40	84.40	206.40	363.00	329.00	249.80		
17	89.20	313.75	85.60	211.20	54.70	12.55	142.80	118.00	249.80	450.20	494.75	442.60		
18	182.40	194.40	84.40	213.60	196.80	72.40	108.40	242.00	335.80	85.60	569.20	481.70		
19	322.90	70.00	102.00	118.00	136.50	11.20	134.40	196.80	280.20	249.80	578.40	465.40		
20	356.20	65.50	78.40	11.20	89.20	7.60	68.20	283.25	265.40	295.45	481.70	503.45		
21	322.90	72.40	82.00	4.00	69.10	2.80	119.60	316.80	204.00	419.80	525.20	516.50		
22	335.80	147.00	105.20	116.40	136.50	2.40	53.80	280.20	88.00	280.20	304.60	376.60		
23	322.90	172.80	32.45	43.00	103.60	13.00	53.80	268.00	110.00	325.95	313.75	339.20		
24	286.30	194.40	35.70	36.35	2.80	2.80	60.10	100.40	271.05	329.00	373.20	252.40		
25	329.00	159.60	97.20	12.55	0.40	33.75	68.20	206.40	313.75	247.20	533.90	359.60		
26	147.00	43.75	82.00	25.30	80.80	21.25	24.00	494.75	163.80	151.20	423.60	438.80		
27	140.70	21.25	64.60	32.45	58.30	28.55	77.20	412.20	110.00	307.65	423.60	457.80		
28	239.40	97.20	62.80	17.40	94.00	20.15	33.75	587.60	301.55	280.20	454.00	423.60		
29	280.20	175.20	48.25	80.80	70.00	8.50	114.80	596.80	252.40	538.25		4.90		
30	419.80	114.80	29.20	21.25	70.00	37.00	53.80	507.80	77.20	481.70		2.40		
31		234.20		79.60	53.80		97.20		92.80	201.60		363.00		
Total	7103.30	6151.35	2605.85	2452.45	2040.80	585.35	3000.55	14517.20	8082.55	9237.50	11249.85	11954.20	78980.95	CMSDAY
Mean	236.78	198.43	86.86	79.11	65.83	19.51	96.79	483.91	260.73	297.98	401.78	385.62	216.39	CMS
Max	419.80	390.20	329.00	234.20	196.80	72.40	262.80	1170.00	494.75	538.25	578.40	555.65	1170.00	CMS
Min	10.30	21.25	24.00	4.00	0.40	2.00	14.65	27.90	61.00	61.00	86.80	2.40	0.40	CMS
Runoff	613.73	531.48	225.15	211.89	176.33	50.57	259.25	1254.29	698.33	798.12	971.99	1032.84	6823.95	MCM

Momentary Peak 1261.00 CMS. at 133.30 m. (MSL.) at 18.00 Hours , on Nov 4 , 2002

Runoff Yield 8.25 Liters/Second/Square KM. Momentary Peak Yield 48.050 Liters/Second/Square KM.

WATER YEAR : 2005

PING RIVER BASIN

Nam Mae Chaem at Kaeng Ob Luang, Chiang Mai (P.14)

Lat 18 - 13 - 50 N Long 98 - 33 - 38 E

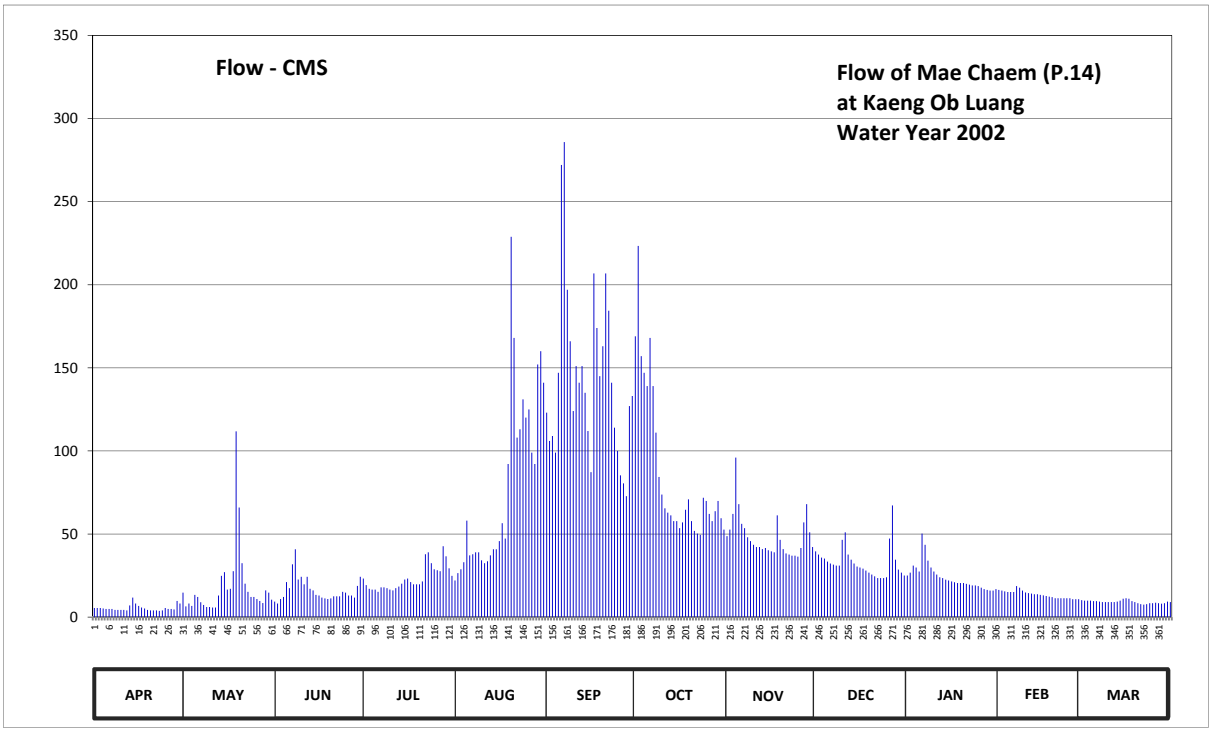
Location : on right bank near the bridge of Hot - Mae Sariang Highway at guidepost 7+500.

	Ban -	**Amphoe** Hot	**Changwat** Chiang Mai
Drainge Area	3,836 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+275.800 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	about 10 meters in front of automatic gage building.		**Elevation** +282.200 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1953 to date		
Rating Operation			
Period of Rating	1954 - 1960, 1967 to date.		
Rated by Flot	-		
Rated by Current Meter	1954 - 1960, 1967 to date.		
Stability of Channel Regimes	Rather unstable by some silting.		
Overbank Flow Conditions	Overbank flow starts at elevation +282.150 m.(M.S.L.) and is including overbank flow.		
General Description	Records fair. The concrete weir situated about 6 Kilometers downstream from the gage site. Stage-discharge relation defined by 57 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	278.10	278.35	278.22	278.53	278.51	279.86	280.32	279.07	278.94	278.70	278.52	278.34	
2	278.10	278.13	278.19	278.45	278.59	279.69	280.83	279.12	278.91	278.73	278.51	278.33	
3	278.10	278.19	278.26	278.40	278.63	279.72	280.20	279.23	278.88	278.80	278.50	278.33	
4	278.09	278.14	278.29	278.39	278.70	279.62	280.10	279.59	278.87	278.78	278.49	278.33	
5	278.08	278.32	278.49	278.39	279.08	280.10	280.02	279.30	278.84	278.74	278.49	278.32	
6	278.08	278.29	278.41	278.36	278.77	281.27	280.31	279.16	278.82	279.09	278.49	278.32	
7	278.08	278.21	278.68	278.42	278.78	281.39	280.02	279.13	278.81	279.00	278.57	278.31	
8	278.06	278.16	278.83	278.42	278.80	280.59	279.74	279.06	278.80	278.85	278.55	278.30	
9	278.06	278.12	278.52	278.41	278.80	280.29	279.47	279.03	278.80	278.78	278.51	278.30	
10	278.06	278.12	278.55	278.39	278.72	279.87	279.36	279.00	279.04	278.74	278.48	278.30	
11	278.06	278.11	278.46	278.38	278.69	280.14	279.27	278.98	279.10	278.71	278.47	278.30	
12	278.05	278.11	278.55	278.41	278.71	280.04	279.24	278.98	278.91	278.68	278.46	278.30	
13	278.15	278.31	278.40	278.43	278.77	280.14	279.22	278.96	278.86	278.67	278.45	278.31	
14	278.28	278.56	278.38	278.47	278.83	279.98	279.18	278.97	278.82	278.65	278.45	278.33	
15	278.19	278.60	278.32	278.52	278.83	279.75	279.18	278.95	278.79	278.64	278.44	278.37	
16	278.14	278.39	278.31	278.53	278.91	279.50	279.13	278.94	278.78	278.63	278.43	278.38	
17	278.11	278.40	278.28	278.49	279.06	280.68	279.17	278.93	278.77	278.62	278.42	278.37	
18	278.09	278.61	278.27	278.46	279.05	280.37	279.26	279.22	278.75	278.61	278.41	278.32	
19	278.06	279.72	278.26	278.46	279.55	280.08	279.33	279.04	278.73	278.61	278.40	278.30	
20	278.05	279.18	278.27	278.46	280.88	280.26	279.18	278.96	278.71	278.61	278.38	278.28	
21	278.05	278.69	278.30	278.50	280.31	280.68	279.11	278.92	278.69	278.60	278.38	278.26	
22	278.05	278.47	278.30	278.78	279.71	280.47	279.09	278.91	278.67	278.59	278.38	278.25	
23	278.04	278.36	278.30	278.80	279.76	280.04	279.08	278.90	278.67	278.58	278.38	278.26	
24	278.05	278.29	278.36	278.69	279.94	279.77	279.34	278.90	278.67	278.58	278.38	278.28	
25	278.10	278.29	278.35	278.63	279.83	279.63	279.32	278.89	278.68	278.57	278.38	278.28	
26	278.08	278.26	278.31	278.62	279.88	279.48	279.23	278.97	279.05	278.55	278.36	278.29	
27	278.08	278.23	278.31	278.61	279.62	279.43	279.18	279.17	279.29	278.53	278.36	278.28	
28	278.07	278.20	278.28	278.86	279.55	279.35	279.25	279.30	278.86	278.52	278.36	278.27	
29	278.23	278.38	278.44	278.76	280.15	279.90	279.32	279.10	278.76	278.51		278.28	
30	278.19	278.35	278.55	278.64	280.23	279.96	279.20	278.98	278.73	278.51		278.31	
31		278.25		278.56	280.04		279.12		278.70	278.53		278.30	
Mean	278.10	278.38	278.38	278.52	279.28	280.07	279.48	279.06	278.83	278.67	278.44	278.31	
Max	278.28	279.72	278.83	278.86	280.88	281.39	280.83	279.59	279.29	279.09	278.57	278.38	281.39
Min	278.04	278.11	278.19	278.36	278.51	279.35	279.08	278.89	278.67	278.51	278.36	278.25	278.04

Annual Max Momentary Gage Height	282.15	m. (MSL.) ,	at 20.00 Hours , on Sep 6 , 2002		
Zero Gage at Bottom Elevation	275.80	m. (MSL.) ,	River Bed	0.00	m. (MSL)
Left Bank Elevation	285.00	m. (MSL.) ,			
Right Bank Elevation	282.15	m. (MSL.) ,	Drainage Are	3,836	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	5.50	14.75	9.30	23.15	22.05	123.00	169.00	48.75	39.60	25.00	16.40	10.20		
2	5.50	6.40	8.20	19.25	26.45	106.00	223.30	52.70	37.65	26.80	15.95	9.90		
3	5.50	8.20	10.90	17.00	28.80	109.00	157.00	62.05	35.80	31.00	15.50	9.90		
4	5.20	6.70	12.10	16.55	33.00	99.00	147.00	96.02	35.20	29.80	15.15	9.90		
5	4.90	13.40	21.05	16.55	58.00	147.00	139.00	68.00	33.40	27.40	15.15	9.60		
6	4.90	12.10	17.45	15.20	37.20	272.05	168.00	56.10	32.20	50.25	15.15	9.60		
7	4.90	8.90	31.80	17.90	37.80	285.85	139.00	53.55	31.60	43.50	18.65	9.30		
8	4.30	7.30	40.80	17.90	39.00	196.95	111.00	48.00	31.00	34.00	17.75	9.00		
9	4.30	6.10	22.60	17.45	39.00	166.00	84.33	45.75	31.00	29.80	15.95	9.00		
10	4.30	6.10	24.25	16.55	34.20	124.00	73.70	43.50	46.50	27.40	14.80	9.00		
11	4.30	5.80	19.70	16.10	32.40	151.00	65.45	42.20	51.00	25.60	14.45	9.00		
12	4.00	5.80	24.25	17.45	33.60	141.00	62.90	42.20	37.65	24.00	14.10	9.00		
13	7.00	12.95	17.00	18.35	37.20	151.00	61.20	40.90	34.60	23.50	13.75	9.30		
14	11.70	24.80	16.10	20.15	40.80	135.00	57.80	41.55	32.20	22.50	13.75	9.90		
15	8.20	27.00	13.40	22.60	40.80	112.00	57.80	40.25	30.40	22.00	13.40	11.10		
16	6.70	16.55	12.95	23.15	45.70	87.25	53.55	39.60	29.80	21.50	13.05	11.40		
17	5.80	17.00	11.70	21.05	56.50	206.80	56.95	38.95	29.20	21.00	12.70	11.10		
18	5.20	27.60	11.30	19.70	47.25	174.00	64.60	61.20	28.00	20.50	12.35	9.60		
19	4.30	111.80	10.90	19.70	92.12	145.00	70.85	46.50	26.80	20.50	12.00	9.00		
20	4.00	65.90	11.30	19.70	228.80	163.00	57.80	40.90	25.60	20.50	11.40	8.40		
21	4.00	32.40	12.50	21.50	168.00	206.80	51.85	38.30	24.50	20.00	11.40	7.80		
22	4.00	20.15	12.50	37.80	108.00	184.35	50.25	37.65	23.50	19.55	11.40	7.50		
23	3.70	15.20	12.50	39.00	113.00	141.00	49.50	37.00	23.50	19.10	11.40	7.80		
24	4.00	12.10	15.20	32.40	131.00	114.00	71.80	37.00	23.50	19.10	11.40	8.40		
25	5.50	12.10	14.75	28.80	120.00	100.00	69.90	36.40	24.00	18.65	11.40	8.40		
26	4.90	10.90	12.95	28.20	125.00	85.30	62.05	41.55	47.25	17.75	10.80	8.70		
27	4.90	9.70	12.95	27.60	99.00	80.43	57.80	56.95	67.15	16.85	10.80	8.40		
28	4.60	8.50	11.70	42.60	92.12	72.75	63.75	68.00	34.60	16.40	10.80	8.10		
29	9.70	16.10	18.80	36.60	152.00	127.00	69.90	51.00	28.60	15.95		8.40		
30	8.20	14.75	24.25	29.40	160.00	133.00	59.50	42.20	26.80	15.95		9.30		
31		10.50		24.80	141.00		52.70		25.00	16.85		9.00		
Total	164.00	567.55	495.15	724.15	2419.79	4339.53	2679.23	1454.72	1027.60	742.70	380.80	285.00	15280.22	CMSDAY
Mean	5.47	18.31	16.50	23.36	78.06	144.65	86.43	48.49	33.15	23.96	13.60	9.19	41.86	CMS
Max	11.70	111.80	40.80	42.60	228.80	285.85	223.30	96.02	67.15	50.25	18.65	11.40	285.85	CMS
Min	3.70	5.80	8.20	15.20	22.05	72.75	49.50	36.40	23.50	15.95	10.80	7.50	3.70	CMS
Runoff	14.17	49.04	42.78	62.57	209.07	374.94	231.49	125.69	88.78	64.17	32.90	24.62	1320.21	MCM

Momentary Peak 378.75 CMS. at 282.15 m. (MSL.) at 20.00 Hours , on Sep 6 , 2002

Runoff Yield 10.91 Liters/Second/Square KM. Momentary Peak Yield 98.740 Liters/Second/Square KM.

WATER YEAR : 2002

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	+51.560 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 mean 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	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 37 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

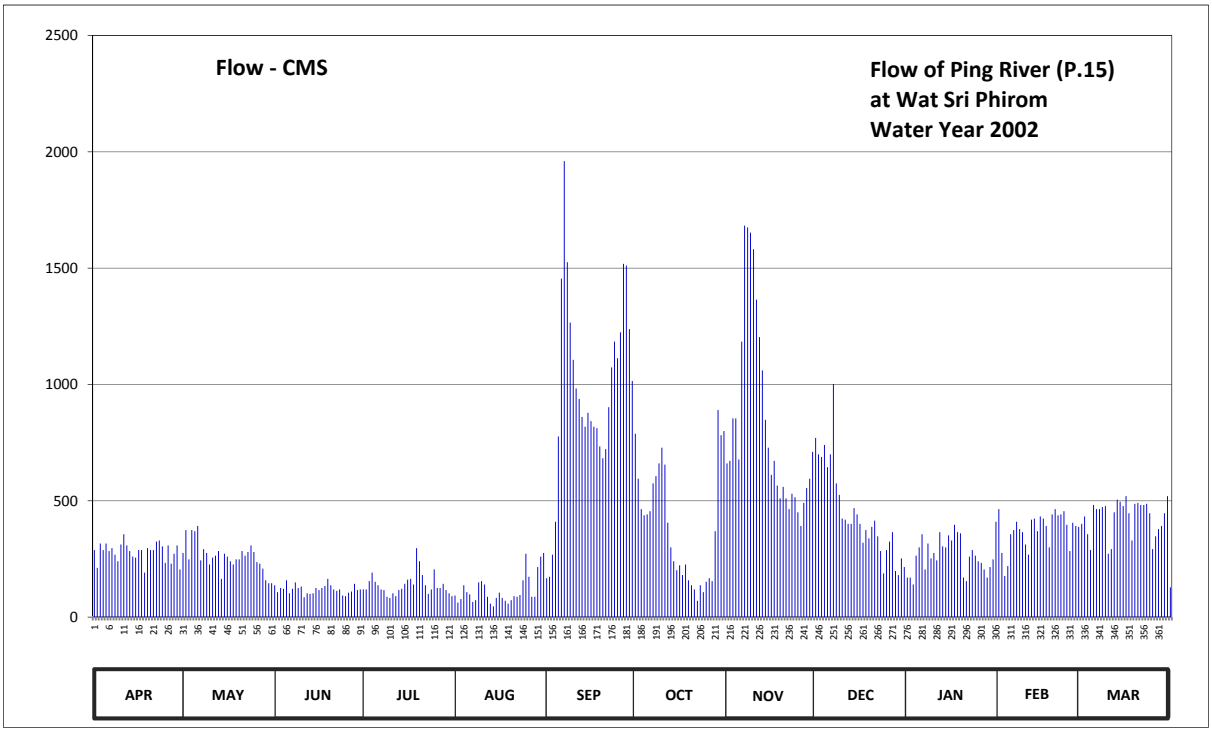
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	53.72	53.69	53.29	53.23	53.13	53.39	54.73	54.51	54.70	53.40	54.12	53.98	
2	53.52	53.92	53.19	53.23	53.01	53.41	54.39	54.53	54.58	53.40	53.69	54.05	
3	53.79	53.62	53.25	53.35	53.07	53.67	54.12	54.84	54.56	53.30	53.42	53.88	
4	53.72	53.92	53.24	53.46	53.29	54.00	54.06	54.84	54.65	53.66	53.54	53.72	
5	53.79	53.91	53.36	53.34	53.19	54.71	54.07	54.54	54.48	53.75	53.88	54.16	
6	53.71	53.96	53.17	53.29	53.15	55.75	54.10	55.36	54.58	53.88	53.92	54.12	
7	53.74	53.61	53.24	53.23	53.02	56.44	54.35	56.07	55.08	53.50	54.00	54.12	
8	53.67	53.73	53.33	53.22	53.05	55.85	54.41	56.06	54.35	53.79	53.93	54.14	
9	53.60	53.69	53.25	53.11	53.33	55.48	54.51	56.03	54.25	53.63	53.90	54.15	
10	53.78	53.56	53.27	53.09	53.35	55.24	54.63	55.93	54.03	53.69	53.78	53.68	
11	53.88	53.64	53.10	53.17	53.30	55.05	54.50	55.62	54.02	53.61	53.67	53.73	
12	53.77	53.66	53.17	53.12	53.11	54.98	53.99	55.39	53.98	53.90	54.02	54.09	
13	53.71	53.71	53.16	53.22	52.99	54.85	53.75	55.17	53.98	53.76	54.03	54.21	
14	53.65	53.38	53.17	53.24	52.93	54.78	53.60	54.83	54.13	53.75	53.91	54.19	
15	53.64	53.68	53.25	53.31	53.09	54.88	53.49	54.63	54.07	53.87	54.05	54.15	
16	53.72	53.65	53.22	53.37	53.18	54.82	53.55	54.42	53.98	53.82	54.03	54.24	
17	53.72	53.60	53.25	53.38	53.09	54.78	53.43	54.53	53.80	53.97	53.96	54.08	
18	53.46	53.56	53.28	53.30	53.04	54.77	53.56	54.33	53.92	53.90	53.75	53.82	
19	53.74	53.62	53.38	53.74	52.99	54.64	53.36	54.22	53.84	53.89	54.07	54.17	
20	53.72	53.62	53.29	53.60	53.05	54.55	53.29	54.32	53.95	53.40	54.12	54.18	
21	53.72	53.71	53.23	53.43	53.12	54.62	53.23	54.22	54.01	53.35	54.06	54.16	
22	53.81	53.66	53.21	53.29	53.11	54.92	53.04	54.12	53.86	53.65	54.07	54.16	
23	53.82	53.70	53.23	53.16	53.14	55.19	53.29	54.26	53.71	53.72	54.10	54.17	
24	53.76	53.77	53.13	53.23	53.36	55.36	53.19	54.23	53.45	53.66	53.97	54.08	
25	53.58	53.70	53.12	53.50	53.68	55.25	53.34	54.09	53.72	53.60	53.71	53.73	
26	53.77	53.59	53.18	53.25	53.41	55.42	53.39	53.96	53.81	53.58	53.99	53.86	
27	53.57	53.57	53.20	53.25	53.11	55.84	53.35	54.18	53.90	53.50	53.96	53.93	
28	53.68	53.51	53.31	53.31	53.11	55.83	53.91	54.31	53.48	53.40	53.95	53.96	
29	53.77	53.36	53.22	53.22	53.53	55.44	54.90	54.39	53.43	53.53		54.08	
30	53.50	53.32	53.23	53.17	53.65	55.10	54.72	54.60	53.63	53.62		54.24	
31		53.32		53.12	53.69		54.75		53.53	54.00		53.26	
Mean	53.70	53.64	53.23	53.29	53.20	54.97	53.90	54.75	54.05	53.66	53.91	54.02	
Max	53.88	53.96	53.38	53.74	53.69	56.44	54.90	56.07	55.08	54.00	54.12	54.24	56.44
Min	53.46	53.32	53.10	53.09	52.93	53.39	53.04	53.96	53.43	53.30	53.42	53.26	52.93

Annual Max Momentary Gage Height 55.95 m. (MSL.) , at 06.00 Hours , on Sep 7 , 2002

Zero Gage at Bottom Elevation 51.56 m. (MSL.) , River Bed 51.55 m. (MSL.)

Left Bank Elevation 57.48 m. (MSL.) ,

Right Bank Elevation 57.53 m. (MSL.) , Drainage Are 44,461 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	288.00	276.00	137.00	119.00	92.50	167.00	788.00	660.50	770.00	170.00	464.00	401.00		
2	212.00	374.00	107.50	119.00	62.50	173.50	595.00	671.50	699.00	170.00	276.00	432.50		
3	316.00	248.00	125.00	155.00	77.50	268.00	464.00	854.00	688.00	140.00	177.00	356.00		
4	288.00	374.00	122.00	191.00	137.00	410.00	437.00	854.00	740.00	264.00	219.00	288.00		
5	316.00	369.50	158.00	152.00	107.50	776.00	441.50	677.00	644.00	300.00	356.00	482.00		
6	284.00	392.00	102.50	137.00	97.50	1455.00	455.00	1184.00	699.00	356.00	374.00	464.00		
7	296.00	244.00	122.00	119.00	65.00	1960.00	575.00	1682.50	1002.00	205.00	410.00	464.00		
8	268.00	292.00	149.00	116.00	72.50	1525.00	605.50	1675.00	575.00	316.00	378.50	473.00		
9	240.00	276.00	125.00	87.50	149.00	1266.00	660.50	1652.50	525.00	252.00	365.00	477.50		
10	312.00	226.00	131.00	82.50	155.00	1106.00	728.00	1581.00	423.50	276.00	312.00	272.00		
11	356.00	256.00	85.00	102.50	140.00	982.50	655.00	1364.00	419.00	244.00	268.00	292.00		
12	308.00	264.00	102.50	90.00	87.50	938.00	405.50	1203.50	401.00	365.00	419.00	450.50		
13	284.00	284.00	100.00	116.00	58.00	860.00	300.00	1060.50	401.00	304.00	423.50	505.00		
14	260.00	164.00	102.50	122.00	46.00	818.00	240.00	848.00	468.50	300.00	369.50	495.50		
15	256.00	272.00	125.00	143.00	82.50	878.00	201.50	728.00	441.50	351.50	432.50	477.50		
16	288.00	260.00	116.00	161.00	105.00	842.00	222.50	611.00	401.00	329.00	423.50	520.00		
17	288.00	240.00	125.00	164.00	82.50	818.00	180.50	671.50	320.00	396.50	392.00	446.00		
18	191.00	226.00	134.00	140.00	70.00	812.00	226.00	565.00	374.00	365.00	300.00	329.00		
19	296.00	248.00	164.00	296.00	58.00	734.00	158.00	510.00	338.00	360.50	441.50	486.50		
20	288.00	248.00	137.00	240.00	72.50	682.50	137.00	560.00	387.50	170.00	464.00	491.00		
21	288.00	284.00	119.00	180.50	90.00	722.00	119.00	510.00	414.50	155.00	437.00	482.00		
22	324.50	264.00	113.00	137.00	87.50	902.00	70.00	464.00	347.00	260.00	441.50	482.00		
23	329.00	280.00	119.00	100.00	95.00	1073.50	137.00	530.00	284.00	288.00	455.00	486.50		
24	304.00	308.00	92.50	119.00	158.00	1184.00	107.50	515.00	187.50	264.00	396.50	446.00		
25	233.00	280.00	90.00	205.00	272.00	1112.50	152.00	450.50	288.00	240.00	284.00	292.00		
26	308.00	236.50	105.00	125.00	173.50	1224.00	167.00	392.00	324.50	233.00	405.50	347.00		
27	229.50	229.50	110.00	125.00	87.50	1518.00	155.00	491.00	365.00	205.00	392.00	378.50		
28	272.00	208.50	143.00	143.00	87.50	1511.00	369.50	555.00	198.00	170.00	387.50	392.00		
29	308.00	158.00	116.00	116.00	215.50	1238.00	890.00	595.00	180.50	215.50		446.00		
30	205.00	146.00	119.00	102.50	260.00	1015.00	782.00	710.00	252.00	248.00		520.00		
31		146.00		90.00	276.00		800.00		215.50	410.00		128.00		
Total	8436.00	8074.00	3596.50	4295.50	3620.50	28971.50	12224.50	24826.00	13773.50	8323.00	10464.00	13003.00	139608.00	CMSDAY
Mean	281.20	260.45	119.88	138.56	116.79	965.72	394.34	827.53	444.31	268.48	373.71	419.45	382.49	CMS
Max	356.00	392.00	164.00	296.00	276.00	1960.00	890.00	1682.50	1002.00	410.00	464.00	520.00	1960.00	CMS
Min	191.00	146.00	85.00	82.50	46.00	167.00	70.00	392.00	180.50	140.00	177.00	128.00	46.00	CMS
Runoff	728.87	697.59	310.74	371.13	312.81	2503.14	1056.20	2144.97	1190.03	719.11	904.09	1123.46	12062.13	MCM

Momentary Peak 1595.00 CMS. at 55.95 m. (MSL.) at 06.00 Hours , on Sep 7 , 2002

Runoff Yield 8.60 Liters/Second/Square KM. Momentary Peak Yield 35.870 Liters/Second/Square KM.

WATER YEAR : 2002

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.

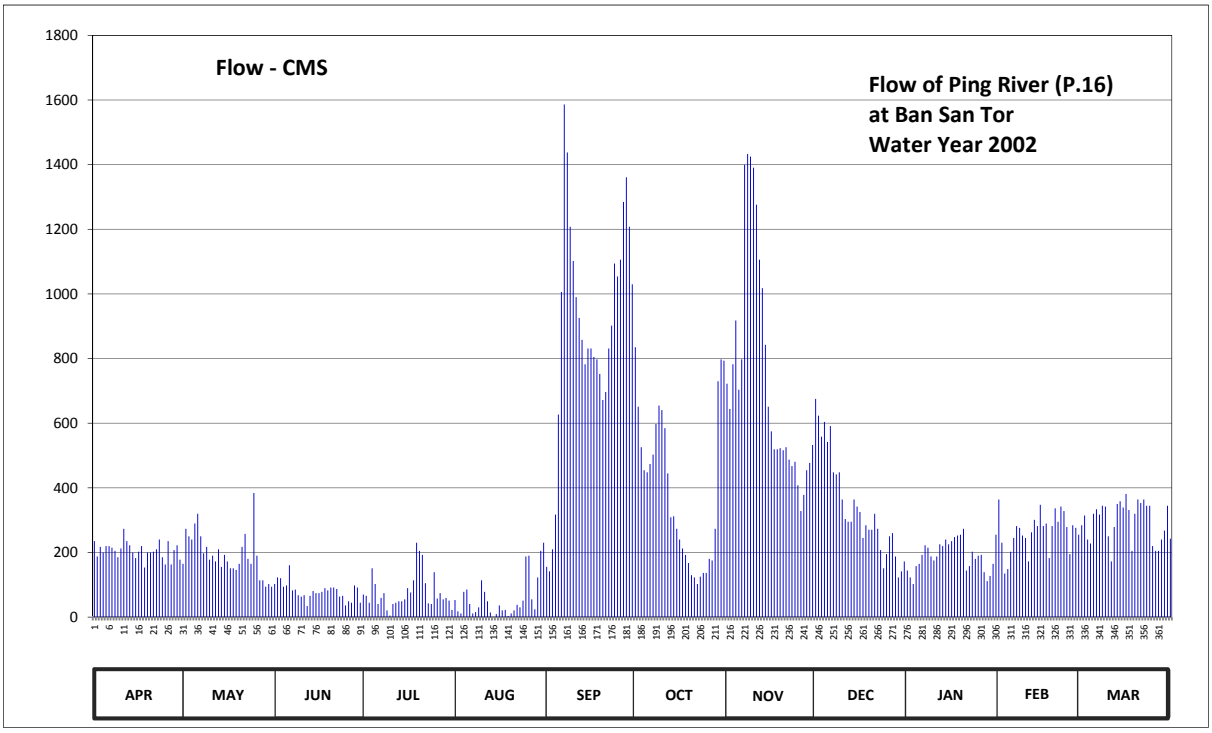
Ban San Tor **Amphoe** Khanu Woralaksaburi **Changwat** Kamphaeng Phet

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 mean 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	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 37 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	41.88	41.60	41.33	41.18	41.10	41.56	43.76	43.46	43.33	41.51	42.36	42.07	
2	41.69	42.03	41.42	41.16	40.91	41.50	43.26	43.24	43.18	41.42	41.86	42.18	
3	41.81	41.94	41.41	41.06	40.87	41.78	42.88	43.62	42.98	41.33	41.47	41.90	
4	41.74	41.90	41.29	41.54	41.22	42.19	42.66	43.97	43.12	41.57	41.53	41.85	
5	41.82	42.09	41.31	41.33	41.25	43.19	42.64	43.41	42.93	41.60	41.75	42.20	
6	41.82	42.20	41.58	41.04	41.04	44.19	42.72	43.66	43.08	41.71	41.92	42.25	
7	41.80	41.94	41.24	41.13	40.87	45.57	42.81	45.14	42.64	41.83	42.06	42.19	
8	41.76	41.73	41.25	41.20	40.90	45.23	43.10	45.22	42.62	41.80	42.04	42.29	
9	41.68	41.81	41.17	40.93	40.99	44.69	43.27	45.20	42.64	41.69	41.95	42.28	
10	41.79	41.65	41.15	40.83	41.38	44.43	43.23	45.12	42.36	41.64	41.92	41.94	
11	42.03	41.70	41.17	41.04	41.22	44.15	43.06	44.85	42.14	41.69	41.63	41.63	
12	41.88	41.63	41.01	41.06	41.08	43.99	42.63	44.44	42.11	41.84	41.99	42.05	
13	41.83	41.78	41.16	41.08	40.89	43.82	42.16	44.22	42.11	41.82	42.13	42.31	
14	41.74	41.56	41.23	41.08	40.80	43.62	42.17	43.78	42.36	41.90	42.06	42.34	
15	41.67	41.71	41.20	41.11	40.86	43.75	42.03	43.26	42.28	41.84	42.30	42.27	
16	41.75	41.63	41.20	41.27	41.02	43.75	41.90	43.03	42.22	41.88	42.06	42.42	
17	41.82	41.54	41.22	41.21	40.93	43.68	41.79	42.86	41.92	41.93	42.09	42.24	
18	41.55	41.54	41.27	41.38	40.94	43.66	41.71	42.86	42.07	41.95	41.67	41.76	
19	41.74	41.52	41.24	41.86	40.82	43.54	41.61	42.87	42.02	41.96	42.06	42.20	
20	41.74	41.60	41.28	41.76	40.87	43.32	41.45	42.85	42.02	42.03	42.26	42.36	
21	41.75	41.81	41.28	41.71	40.93	43.39	41.42	42.88	42.20	41.51	42.11	42.32	
22	41.78	41.97	41.26	41.34	41.03	43.75	41.33	42.76	42.03	41.57	42.28	42.36	
23	41.90	41.66	41.15	41.05	40.99	43.93	41.43	42.70	41.77	41.75	42.23	42.29	
24	41.68	41.60	41.16	41.04	41.09	44.41	41.48	42.74	41.54	41.66	42.05	42.29	
25	41.59	42.43	41.02	41.49	41.69	44.31	41.48	42.51	41.72	41.70	41.72	41.82	
26	41.88	41.70	41.08	41.12	41.70	44.44	41.66	42.23	41.94	41.71	42.07	41.76	
27	41.59	41.38	41.06	41.20	41.11	44.87	41.64	42.41	41.98	41.49	42.04	41.76	
28	41.77	41.38	41.31	41.11	40.95	45.05	42.03	42.66	41.69	41.37	41.96	41.90	
29	41.83	41.29	41.28	41.13	41.42	44.69	43.48	42.73	41.42	41.44		42.01	
30	41.65	41.33	41.06	41.09	41.76	44.25	43.66	42.90	41.50	41.60		42.29	
31		41.29		40.94	41.86		43.65		41.63	41.96		41.91	
Mean	41.77	41.71	41.23	41.21	41.11	43.82	42.39	43.45	42.24	41.70	41.98	42.11	
Max	42.03	42.43	41.58	41.86	41.86	45.57	43.76	45.22	43.33	42.03	42.36	42.42	45.57
Min	41.55	41.29	41.01	40.83	40.80	41.50	41.33	42.23	41.42	41.33	41.47	41.63	40.80

Annual Max Momentary Gage Height	45.66	m. (MSL.) ,	at 13.00 Hours , on Sep 7 , 2002		
Zero Gage at Bottom Elevation	41.78	m. (MSL.) ,	River Bed	38.36	m. (MSL.)
Left Bank Elevation	49.12	m. (MSL.) ,			
Right Bank Elevation	51.45	m. (MSL.) ,	Drainage Are	45,076	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	235.00	165.00	102.60	69.80	53.00	155.60	835.00	722.50	675.50	143.85	364.00	284.25		
2	187.50	273.25	122.70	65.60	17.60	141.50	651.00	644.00	623.50	122.70	230.00	314.50		
3	217.50	250.00	120.35	44.60	11.20	210.00	526.00	782.50	558.50	102.60	134.45	240.00		
4	200.00	240.00	93.80	150.90	78.40	317.25	454.50	918.00	604.00	157.95	148.55	227.50		
5	220.00	289.75	98.20	102.60	85.00	626.75	448.00	703.75	542.25	165.00	202.50	320.00		
6	220.00	320.00	160.30	40.40	40.40	1006.00	474.00	797.50	591.00	192.50	245.00	333.75		
7	215.00	250.00	82.80	59.30	11.20	1586.50	503.25	1399.50	448.00	222.50	281.50	317.25		
8	205.00	197.50	85.00	74.00	16.00	1437.75	597.50	1433.50	441.50	215.00	276.00	344.75		
9	185.00	217.50	67.70	20.80	30.40	1208.25	654.50	1425.00	448.00	187.50	252.50	342.00		
10	212.50	177.50	63.50	4.80	113.60	1102.00	640.50	1391.00	364.00	175.00	245.00	250.00		
11	273.25	190.00	67.70	40.40	78.40	990.00	584.50	1276.25	303.50	187.50	172.50	172.50		
12	235.00	172.50	34.10	44.60	48.80	926.00	444.75	1106.00	295.25	225.00	262.50	278.75		
13	222.50	210.00	65.60	48.80	14.40	858.00	309.00	1018.00	295.25	220.00	300.75	350.25		
14	200.00	155.60	80.60	48.80	0.00	782.50	311.75	842.50	364.00	240.00	281.50	358.50		
15	182.50	192.50	74.00	55.10	9.60	831.25	273.25	651.00	342.00	225.00	347.50	339.25		
16	202.50	172.50	74.00	89.40	36.20	831.25	240.00	574.75	325.50	235.00	281.50	381.00		
17	220.00	150.90	78.40	76.20	20.80	805.00	212.50	519.50	245.00	247.50	289.75	331.00		
18	153.25	150.90	89.40	113.60	22.40	797.50	192.50	519.50	284.25	252.50	182.50	205.00		
19	200.00	146.20	82.80	230.00	3.20	752.50	167.50	522.75	270.50	255.00	281.50	320.00		
20	200.00	165.00	91.60	205.00	11.20	672.00	129.75	516.25	270.50	273.25	336.50	364.00		
21	202.50	217.50	91.60	192.50	20.80	696.50	122.70	526.00	320.00	143.85	295.25	353.00		
22	210.00	257.50	87.20	104.80	38.30	831.25	102.60	487.00	273.25	157.95	342.00	364.00		
23	240.00	180.00	63.50	42.50	30.40	902.00	125.05	467.50	207.50	202.50	328.25	344.75		
24	185.00	165.00	65.60	40.40	50.90	1094.00	136.80	480.50	150.90	180.00	278.75	344.75		
25	162.65	384.00	36.20	139.15	187.50	1054.00	136.80	408.00	195.00	190.00	195.00	220.00		
26	235.00	190.00	48.80	57.20	190.00	1106.00	180.00	328.25	250.00	192.50	284.25	205.00		
27	162.65	113.60	44.60	74.00	55.10	1284.75	175.00	378.00	260.00	139.15	276.00	205.00		
28	207.50	113.60	98.20	55.10	24.00	1361.25	273.25	454.50	187.50	111.40	255.00	240.00		
29	222.50	93.80	91.60	59.30	122.70	1208.25	730.00	477.25	122.70	127.40		267.75		
30	177.50	102.60	44.60	50.90	205.00	1030.00	797.50	532.50	141.50	165.00		344.75		
31		93.80		22.40	230.00		793.75		172.50	255.00		242.50		
Total	6191.80	5998.00	2407.05	2422.95	1856.50	26605.60	12223.20	22303.25	10572.85	5910.10	7370.50	9205.75	113067.55	CMSDAY
Mean	206.39	193.48	80.23	78.16	59.89	886.85	394.30	743.44	341.06	190.65	263.23	296.96	309.77	CMS
Max	273.25	384.00	160.30	230.00	230.00	1586.50	835.00	1433.50	675.50	273.25	364.00	381.00	1586.50	CMS
Min	153.25	93.80	34.10	4.80	0.00	141.50	102.60	328.25	122.70	102.60	134.45	172.50	0.00	CMS
Runoff	534.97	518.23	207.97	209.34	160.40	2298.72	1056.08	1927.00	913.49	510.63	636.81	795.38	9769.04	MCM

Momentary Peak 1627.00 CMS. at 45.66 m. (MSL.) at 13.00 Hours , on Sep 7 , 2002

Runoff Yield 6.87 Liters/Second/Square KM. Momentary Peak Yield 36.090 Liters/Second/Square KM.

WATER YEAR : 2002

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	Staff gage.
Zero Gage at Bottom	+32.000 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	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 5 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	No overbank flow.
General Description	Records good. Flow effected by Phumiphol Dam. Stage - discharge relation defined by 57 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

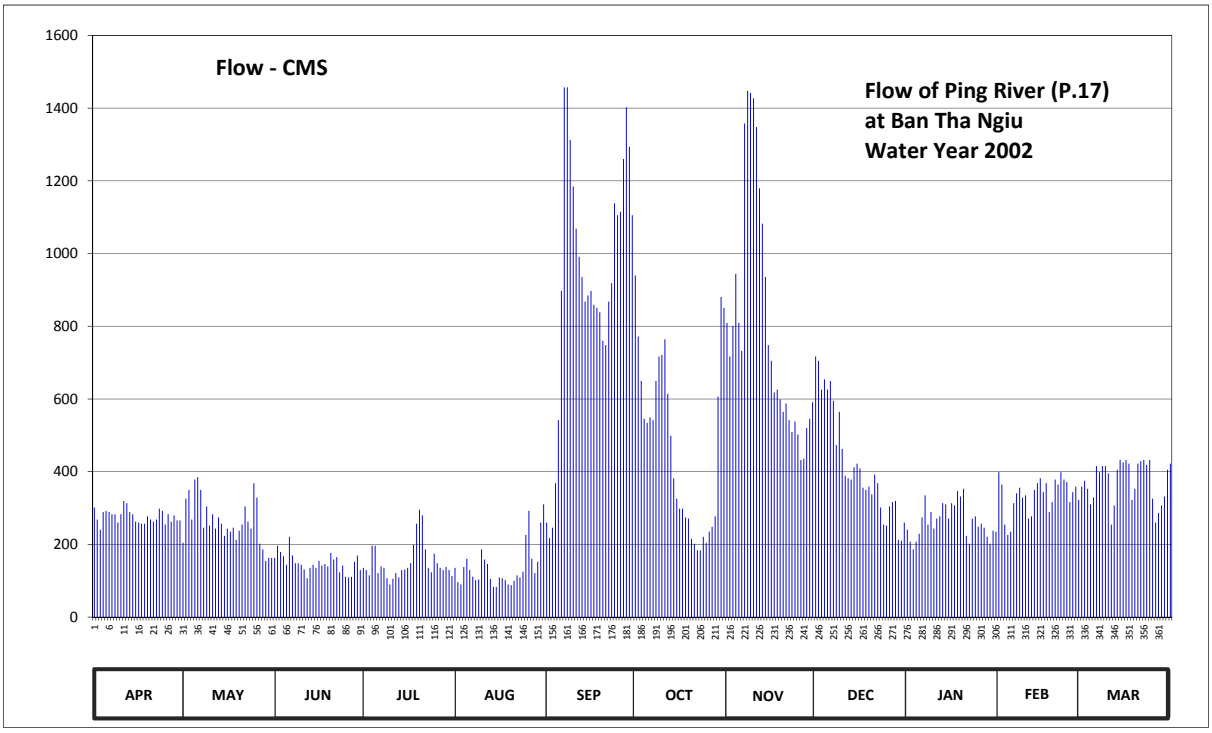
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	35.19	34.85	34.68	34.55	34.55	35.05	36.90	36.59	36.36	34.98	35.50	35.38	
2	35.08	35.27	34.82	34.52	34.35	34.90	36.50	36.36	36.33	34.86	35.40	35.43	
3	34.98	35.35	34.75	34.45	34.31	35.00	36.19	36.57	36.13	34.78	35.03	35.36	
4	35.15	35.08	34.70	34.82	34.56	35.41	35.92	36.91	36.20	34.86	34.93	35.22	
5	35.16	35.44	34.59	34.82	34.67	35.91	35.89	36.59	36.13	34.94	34.96	35.28	
6	35.15	35.46	34.91	34.48	34.52	36.80	35.93	36.40	36.19	35.10	35.23	35.55	
7	35.13	35.35	34.71	34.57	34.43	38.00	35.91	37.80	36.05	35.30	35.32	35.50	
8	35.13	35.00	34.61	34.55	34.38	38.00	36.19	37.98	35.72	35.03	35.37	35.55	
9	35.05	35.20	34.61	34.41	34.39	37.71	36.36	37.97	35.97	35.15	35.28	35.55	
10	35.13	35.02	34.59	34.31	34.78	37.44	36.37	37.94	35.69	34.99	35.30	35.49	
11	35.25	35.13	34.53	34.40	34.66	37.19	36.48	37.78	35.47	35.09	35.09	35.03	
12	35.23	34.99	34.41	34.48	34.60	37.02	36.10	37.43	35.45	35.11	35.11	35.21	
13	35.15	35.10	34.55	34.42	34.40	36.89	35.79	37.22	35.44	35.23	35.35	35.52	
14	35.13	35.04	34.59	34.52	34.27	36.73	35.45	36.89	35.54	35.22	35.41	35.60	
15	35.06	34.92	34.55	34.53	34.27	36.77	35.27	36.44	35.57	35.09	35.45	35.58	
16	35.05	34.99	34.64	34.55	34.42	36.80	35.18	36.33	35.53	35.23	35.33	35.60	
17	35.04	34.96	34.58	34.61	34.41	36.71	35.18	36.11	35.37	35.21	35.41	35.57	
18	35.04	35.00	34.60	34.83	34.38	36.69	35.10	36.13	35.35	35.34	35.15	35.26	
19	35.11	34.88	34.57	35.04	34.31	36.66	35.09	36.06	35.38	35.29	35.24	35.36	
20	35.08	34.97	34.74	35.17	34.30	36.47	34.89	35.97	35.31	35.36	35.44	35.57	
21	35.06	35.03	34.66	35.12	34.37	36.44	34.84	36.03	35.48	34.92	35.40	35.59	
22	35.08	35.20	34.69	34.78	34.45	36.73	34.77	35.91	35.41	34.84	35.50	35.60	
23	35.18	35.06	34.49	34.55	34.42	36.85	34.77	35.82	35.19	35.09	35.44	35.56	
24	35.16	34.99	34.58	34.49	34.50	37.34	34.91	35.90	35.03	35.11	35.42	35.60	
25	35.03	35.41	34.43	34.73	34.93	37.27	34.85	35.80	35.02	35.01	35.24	35.27	
26	35.13	35.28	34.42	34.61	35.16	37.29	34.96	35.60	35.20	35.04	35.33	35.05	
27	35.06	34.84	34.43	34.55	34.67	37.60	35.01	35.61	35.24	35.00	35.38	35.14	
28	35.12	34.78	34.63	34.52	34.48	37.89	35.11	35.85	35.25	34.91	35.26	35.21	
29	35.07	34.64	34.71	34.56	34.63	37.67	36.08	35.92	34.88	34.84		35.29	
30	35.07	34.68	34.52	34.52	35.05	37.27	36.76	36.04	34.87	34.97		35.52	
31		34.68		34.44	35.22		36.69		35.05	34.96		35.57	
Mean	35.11	35.05	34.61	34.61	34.54	36.82	35.66	36.53	35.54	35.06	35.30	35.42	
Max	35.25	35.46	34.91	35.17	35.22	38.00	36.90	37.98	36.36	35.36	35.50	35.60	38.00
Min	34.98	34.64	34.41	34.31	34.27	34.90	34.77	35.60	34.87	34.78	34.93	35.03	34.27

Annual Max Momentary Gage Height 38.03 m. (MSL.) , at 18.00 Hours , on Sep 7 , 2002

Zero Gage at Bottom Elevation 32.00 m. (MSL.) , River Bed 32.52 m. (MSL.)

Left Bank Elevation 38.17 m. (MSL.) ,

Right Bank Elevation 38.13 m. (MSL.) , Drainage Are 45,297 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	301.30	204.50	162.80	135.50	135.50	260.00	939.67	809.35	716.70	240.40	398.67	358.93		
2	268.40	325.57	196.40	129.20	96.50	218.00	772.00	716.70	704.85	207.20	365.00	375.10		
3	240.40	349.83	179.00	115.00	89.70	246.00	649.55	801.05	625.85	186.20	254.40	352.87		
4	289.17	268.40	167.00	196.40	137.60	368.37	545.60	943.90	653.50	207.20	226.40	310.40		
5	292.20	378.47	143.90	196.40	160.70	541.80	534.40	809.35	625.85	229.20	234.80	328.60		
6	289.17	385.20	220.80	121.00	129.20	897.33	549.40	732.50	649.55	274.00	313.43	415.50		
7	283.10	349.83	169.40	139.70	111.00	1457.25	541.80	1357.75	595.00	334.67	340.73	398.67		
8	283.10	246.00	148.10	135.50	101.60	1457.25	649.55	1447.30	473.20	254.40	355.90	415.50		
9	260.00	304.33	148.10	107.00	103.30	1312.97	716.70	1442.33	564.60	289.17	328.60	415.50		
10	283.10	251.60	143.90	89.70	186.20	1184.20	720.65	1427.40	462.63	243.20	334.67	395.30		
11	319.50	283.10	131.30	105.00	158.60	1068.40	764.10	1347.80	388.57	271.20	271.20	254.40		
12	313.43	243.20	107.00	121.00	146.00	991.00	614.00	1179.57	381.83	277.03	277.03	307.37		
13	289.17	274.00	135.50	109.00	105.00	935.43	498.40	1082.27	378.47	313.43	349.83	405.40		
14	283.10	257.20	143.90	129.20	83.20	867.70	381.83	935.43	412.13	310.40	368.37	432.33		
15	262.80	223.60	135.50	131.30	83.20	884.63	325.57	748.30	422.23	271.20	381.83	425.60		
16	260.00	243.20	154.40	135.50	109.00	897.33	298.27	704.85	408.77	313.43	343.77	432.33		
17	257.20	234.80	141.80	148.10	107.00	859.23	298.27	617.95	355.90	307.37	368.37	422.23		
18	257.20	246.00	146.00	199.10	101.60	850.85	274.00	625.85	349.83	346.80	289.17	322.53		
19	277.03	212.60	139.70	257.20	89.70	838.40	271.20	598.80	358.93	331.63	316.47	352.87		
20	268.40	237.60	176.60	295.23	88.00	760.15	215.30	564.60	337.70	352.87	378.47	422.23		
21	262.80	254.40	158.60	280.07	99.90	748.30	201.80	587.40	391.93	223.60	365.00	428.97		
22	268.40	304.33	164.90	186.20	115.00	867.70	183.80	541.80	368.37	201.80	398.67	432.33		
23	298.27	262.80	123.00	135.50	109.00	918.50	183.80	509.20	301.30	271.20	378.47	418.87		
24	292.20	243.20	141.80	123.00	125.00	1137.87	220.80	538.00	254.40	277.03	371.73	432.33		
25	254.40	368.37	111.00	174.20	226.40	1105.43	204.50	502.00	251.60	248.80	316.47	325.57		
26	283.10	328.60	109.00	148.10	292.20	1114.70	234.80	432.33	304.33	257.20	343.77	260.00		
27	262.80	201.80	111.00	135.50	160.70	1260.00	248.80	435.70	316.47	246.00	358.93	286.13		
28	280.07	186.20	152.30	129.20	121.00	1402.53	277.03	520.00	319.50	220.80	322.53	307.37		
29	265.60	154.40	169.40	137.60	152.30	1293.60	606.40	545.60	212.60	201.80		331.63		
30	265.60	162.80	129.20	129.20	260.00	1105.43	880.40	591.20	209.90	237.60		405.40		
31		162.80		113.00	310.40		850.85		260.00	234.80		422.23		
Total	8311.01	8148.73	4461.30	4687.60	4294.50	27850.35	14653.24	24096.28	13056.49	8181.63	9352.68	11594.49	138688.30	CMSDAY
Mean	277.03	262.86	148.71	151.21	138.53	928.34	472.69	803.21	421.18	263.92	334.02	374.02	379.97	CMS
Max	319.50	385.20	220.80	295.23	310.40	1457.25	939.67	1447.30	716.70	352.87	398.67	432.33	1457.25	CMS
Min	240.40	154.40	107.00	89.70	83.20	218.00	183.80	432.33	209.90	186.20	226.40	254.40	83.20	CMS
Runoff	718.07	704.05	385.46	405.01	371.04	2406.27	1266.04	2081.92	1128.08	706.89	808.07	1001.76	11982.67	MCM

Momentary Peak 1472.17 CMS. at 38.03 m. (MSL.) at 18.00 Hours , on Sep 7, 2002

Runoff Yield 8.39 Liters/Second/Square KM. Momentary Peak Yield 32.500 Liters/Second/Square KM.

WATER YEAR : 2002

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	+0.000 m. (A.D.)		
Bench Mark	B.M.-H.D.		
Location BM	About 2 meters from automatic gage building.		**Elevation** +4.133 m. (A.D.)
Gage Reading Frequency	Recording.		
Basis of Mean Daily Gage Height	Arithmetic mean 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 fair. Flow effected by the local weir about 300 meters downstream from the gage site. Stage-discharge relation defined by 36 discharge measurements made in 2002.		

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

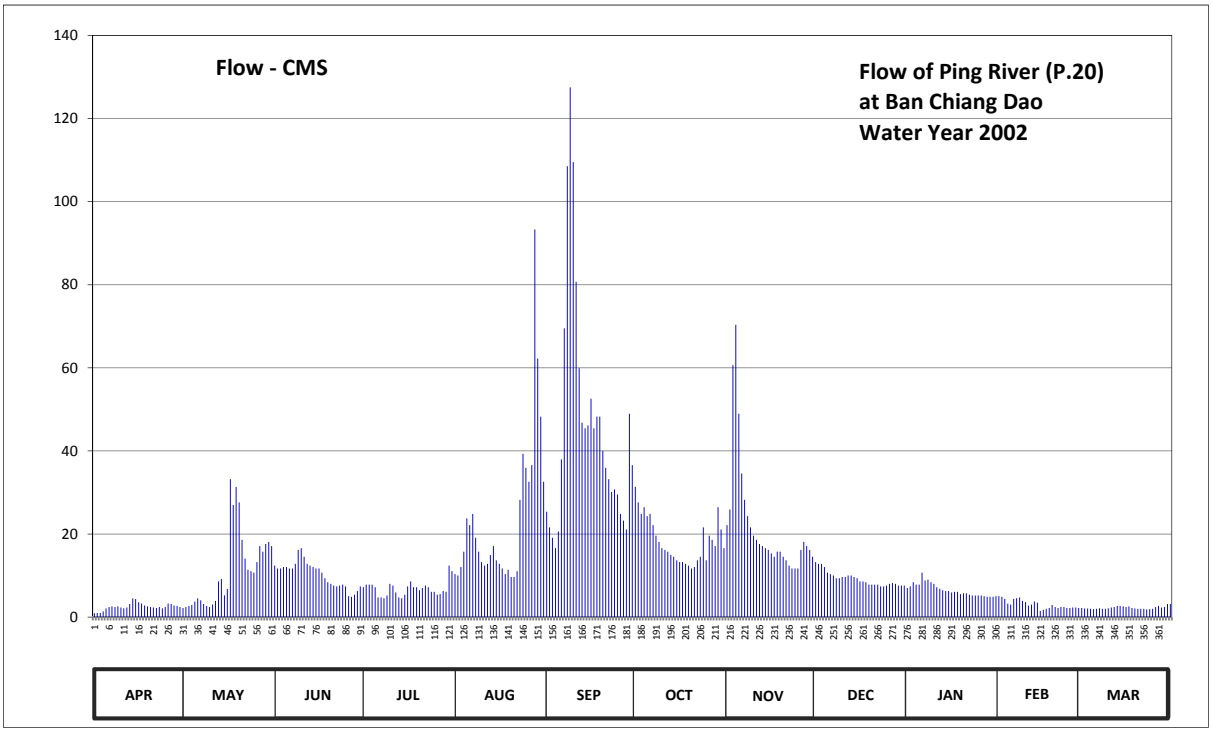
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.26	0.50	0.70	0.51	0.64	0.97	1.07	0.91	0.72	0.50	0.39	0.50	
2	0.27	0.52	0.68	0.54	0.63	0.90	1.01	0.98	0.71	0.52	0.38	0.48	
3	0.27	0.54	0.68	0.54	0.69	0.85	0.96	1.49	0.71	0.57	0.35	0.48	
4	0.37	0.56	0.69	0.54	0.78	0.80	0.99	1.61	0.69	0.54	0.27	0.47	
5	0.48	0.62	0.69	0.51	0.94	0.88	0.95	1.33	0.65	0.54	0.25	0.46	
6	0.52	0.67	0.68	0.37	0.91	1.17	0.96	1.12	0.64	0.65	0.35	0.47	
7	0.53	0.64	0.68	0.37	0.96	1.60	0.91	1.02	0.63	0.59	0.36	0.49	
8	0.52	0.58	0.71	0.36	0.85	2.03	0.86	0.95	0.61	0.60	0.37	0.47	
9	0.53	0.54	0.79	0.40	0.78	2.22	0.83	0.90	0.61	0.57	0.32	0.47	
10	0.51	0.52	0.80	0.55	0.72	2.04	0.80	0.86	0.62	0.55	0.30	0.49	
11	0.49	0.57	0.75	0.53	0.70	1.73	0.79	0.84	0.62	0.51	0.23	0.51	
12	0.51	0.63	0.71	0.44	0.71	1.48	0.78	0.82	0.63	0.49	0.25	0.52	
13	0.58	0.85	0.70	0.37	0.76	1.30	0.76	0.81	0.63	0.47	0.31	0.54	
14	0.67	0.87	0.69	0.36	0.81	1.28	0.75	0.80	0.62	0.46	0.29	0.54	
15	0.66	0.71	0.68	0.41	0.73	1.29	0.73	0.79	0.61	0.46	0.40	0.53	
16	0.61	0.78	0.68	0.52	0.71	1.38	0.72	0.77	0.58	0.44	0.44	0.52	
17	0.59	1.10	0.65	0.58	0.68	1.28	0.72	0.75	0.58	0.45	0.47	0.53	
18	0.55	1.00	0.61	0.51	0.64	1.32	0.71	0.78	0.57	0.45	0.50	0.50	
19	0.53	1.07	0.57	0.51	0.67	1.32	0.70	0.78	0.54	0.42	0.56	0.48	
20	0.52	1.01	0.55	0.47	0.62	1.20	0.68	0.75	0.54	0.43	0.52	0.47	
21	0.51	0.84	0.53	0.50	0.62	1.14	0.69	0.73	0.54	0.43	0.50	0.47	
22	0.50	0.74	0.52	0.53	0.66	1.10	0.73	0.70	0.54	0.41	0.52	0.47	
23	0.52	0.67	0.53	0.51	1.02	1.05	0.75	0.68	0.52	0.40	0.52	0.45	
24	0.49	0.66	0.54	0.45	1.19	1.06	0.90	0.68	0.52	0.40	0.50	0.46	
25	0.52	0.65	0.52	0.45	1.14	1.04	0.73	0.68	0.53	0.40	0.50	0.47	
26	0.59	0.72	0.39	0.41	1.09	0.96	0.86	0.79	0.55	0.40	0.51	0.52	
27	0.58	0.81	0.38	0.42	1.15	0.93	0.84	0.83	0.56	0.39	0.51	0.54	
28	0.55	0.78	0.41	0.46	1.87	0.89	0.81	0.81	0.55	0.38	0.50	0.51	
29	0.54	0.82	0.46	0.45	1.51	1.33	0.99	0.79	0.53	0.38		0.52	
30	0.52	0.83	0.52	0.70	1.32	1.15	0.89	0.75	0.53	0.38		0.58	
31		0.81		0.66	1.09		0.80		0.53	0.39		0.58	
Mean	0.51	0.73	0.62	0.48	0.89	1.26	0.83	0.88	0.59	0.47	0.41	0.50	
Max	0.67	1.10	0.80	0.70	1.87	2.22	1.07	1.61	0.72	0.65	0.56	0.58	2.22
Min	0.26	0.50	0.38	0.36	0.62	0.80	0.68	0.68	0.52	0.38	0.23	0.45	0.23

Annual Max Momentary Gage Height 2.36 m. (A.D.) , at 23.00 Hours , on Sep 8 , 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed -0.64 m. (A.D.)

Left Bank Elevation 9.87 m. (A.D.) ,

Right Bank Elevation 10.97 m. (A.D.) , Drainage Are 1,345 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.94	2.20	12.40	7.20	10.36	25.38	31.34	22.14	13.24	7.00	5.04	2.20		
2	0.98	2.44	11.72	7.80	10.02	21.60	27.62	25.92	12.82	7.40	4.88	2.06		
3	0.98	2.68	11.72	7.80	12.06	19.10	24.84	60.66	12.82	8.40	4.40	2.06		
4	1.38	2.92	12.06	7.80	15.76	16.60	26.46	70.35	12.06	7.80	3.24	1.99		
5	2.06	3.72	12.06	7.20	23.76	20.60	24.30	48.96	10.70	7.80	3.00	1.92		
6	2.44	4.52	11.72	4.72	22.14	37.96	24.84	34.56	10.36	10.70	4.40	1.99		
7	2.56	4.04	11.72	4.72	24.84	69.50	22.14	28.24	10.02	8.80	4.56	2.13		
8	2.44	3.16	12.82	4.56	19.10	108.50	19.60	24.30	9.34	9.00	4.72	1.99		
9	2.56	2.68	16.18	5.20	15.76	127.50	18.10	21.60	9.34	8.40	3.92	1.99		
10	2.32	2.44	16.60	8.00	13.24	109.50	16.60	19.60	9.68	8.00	3.60	2.13		
11	2.13	3.04	14.50	7.60	12.40	80.70	16.18	18.60	9.68	7.20	2.76	2.32		
12	2.32	3.88	12.82	5.92	12.82	59.92	15.76	17.60	10.02	6.82	3.00	2.44		
13	3.16	8.60	12.40	4.72	14.92	46.80	14.92	17.10	10.02	6.46	3.76	2.68		
14	4.52	9.16	12.06	4.56	17.10	45.44	14.50	16.60	9.68	6.28	3.48	2.68		
15	4.36	5.22	11.72	5.38	13.66	46.12	13.66	16.18	9.34	6.28	1.50	2.56		
16	3.56	6.76	11.72	7.40	12.82	52.56	13.24	15.34	8.60	5.92	1.78	2.44		
17	3.28	33.20	10.70	8.60	11.72	45.44	13.24	14.50	8.60	6.10	1.99	2.56		
18	2.80	27.00	9.34	7.20	10.36	48.24	12.82	15.76	8.40	6.10	2.20	2.20		
19	2.56	31.34	8.40	7.20	11.38	48.24	12.40	15.76	7.80	5.56	2.92	2.06		
20	2.44	27.62	8.00	6.46	9.68	40.00	11.72	14.50	7.80	5.74	2.44	1.99		
21	2.32	18.60	7.60	7.00	9.68	35.92	12.06	13.66	7.80	5.74	2.20	1.99		
22	2.20	14.08	7.40	7.60	11.04	33.20	13.66	12.40	7.80	5.38	2.44	1.99		
23	2.44	11.38	7.60	7.20	28.24	30.10	14.50	11.72	7.40	5.20	2.44	1.85		
24	2.13	11.04	7.80	6.10	39.32	30.72	21.60	11.72	7.40	5.20	2.20	1.92		
25	2.44	10.70	7.40	6.10	35.92	29.48	13.66	11.72	7.60	5.20	2.20	1.99		
26	3.28	13.24	5.04	5.38	32.58	24.84	19.60	16.18	8.00	5.20	2.32	2.44		
27	3.16	17.10	4.88	5.56	36.60	23.22	18.60	18.10	8.20	5.04	2.32	2.68		
28	2.80	15.76	5.38	6.28	93.30	21.10	17.10	17.10	8.00	4.88	2.20	2.32		
29	2.68	17.60	6.28	6.10	62.21	48.96	26.46	16.18	7.60	4.88		2.44		
30	2.44	18.10	7.40	12.40	48.24	36.60	21.10	14.50	7.60	4.88		3.16		
31		17.10		11.04	32.58		16.60		7.60	5.04		3.16		
Total	75.68	351.32	307.44	210.80	723.61	1383.84	569.22	661.55	285.32	202.40	85.91	70.33	4927.42	CMSDAY
Mean	2.52	11.33	10.25	6.80	23.34	46.13	18.36	22.05	9.20	6.53	3.07	2.27	13.50	CMS
Max	4.52	33.20	16.60	12.40	93.30	127.50	31.34	70.35	13.24	10.70	5.04	3.16	127.50	CMS
Min	0.94	2.20	4.88	4.56	9.68	16.60	11.72	11.72	7.40	4.88	1.50	1.85	0.94	CMS
Runoff	6.54	30.35	26.56	18.21	62.52	119.56	49.18	57.16	24.65	17.49	7.42	6.08	425.73	MCM

Momentary Peak 141.50 CMS. at 2.36 m. (A.D.) at 23.00 Hours , on Sep 8 , 2002

Runoff Yield 10.04 Liters/Second/Square KM. Momentary Peak Yield 105.200 Liters/Second/Square KM.

WATER YEAR : 2002

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	Staff gage.
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** 1.1 =+323.982 m. (M.S
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 mean of 5 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 with variable water surface slope.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Stage-discharge relation defined by 36 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

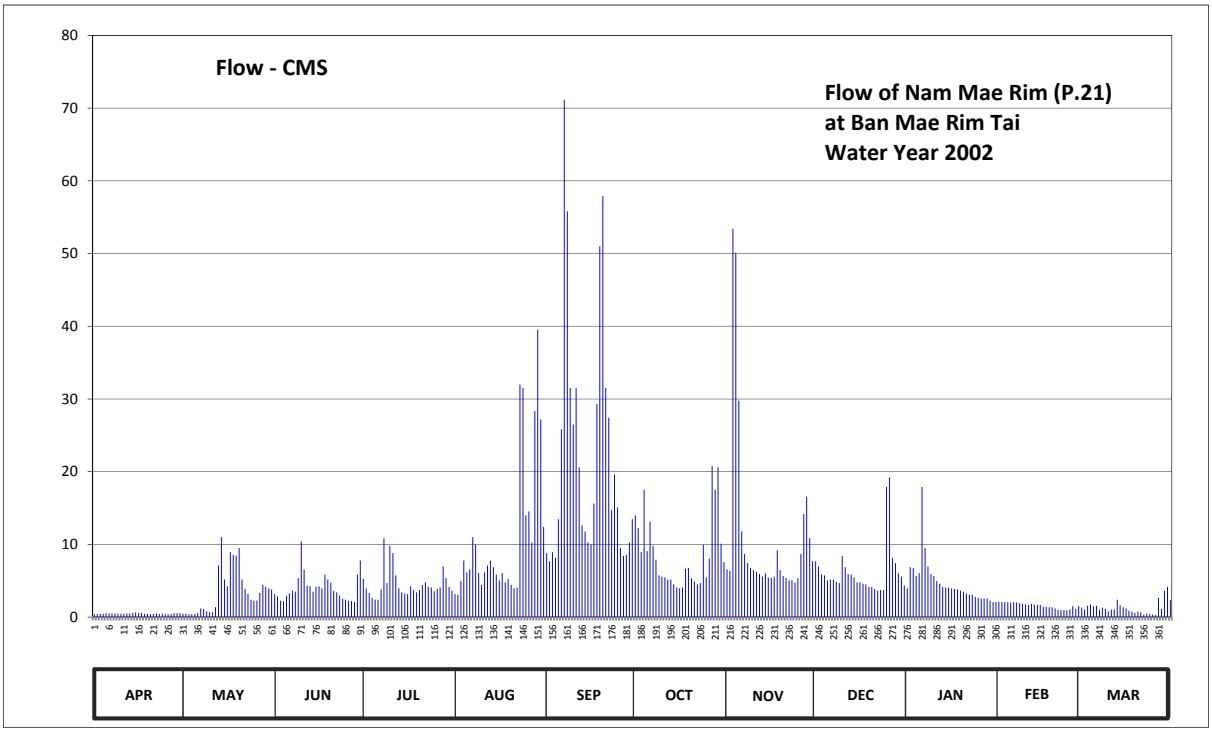
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	320.34	320.36	320.81	321.05	320.81	321.37	321.70	321.18	321.28	320.91	320.67	320.54	
2	320.35	320.36	320.77	320.91	320.80	321.28	321.60	321.16	321.22	321.21	320.66	320.50	
3	320.36	320.34	320.69	320.83	321.02	321.38	321.38	323.34	321.11	321.20	320.66	320.58	
4	320.36	320.34	320.68	320.74	321.29	321.32	321.89	323.23	321.10	321.09	320.66	320.61	
5	320.38	320.35	320.78	320.71	321.14	321.67	321.39	322.47	321.03	321.13	320.65	320.57	
6	320.37	320.39	320.82	320.71	321.18	322.30	321.65	321.57	321.04	321.91	320.66	320.58	
7	320.37	320.52	320.87	320.89	321.52	323.93	321.44	321.36	321.04	321.42	320.65	320.49	
8	320.37	320.51	320.85	321.51	321.45	323.42	321.30	321.26	321.01	321.22	320.64	320.54	
9	320.36	320.44	321.06	320.99	321.13	322.54	321.10	321.20	320.99	321.12	320.62	320.51	
10	320.36	320.42	321.48	321.44	320.96	322.33	321.08	321.17	321.34	321.09	320.61	320.44	
11	320.36	320.41	321.18	321.37	321.14	322.54	321.07	321.15	321.21	321.02	320.60	320.50	
12	320.37	320.55	320.95	321.10	321.23	322.05	321.04	321.12	321.12	320.98	320.62	320.50	
13	320.37	321.23	320.94	320.91	321.29	321.62	321.04	321.08	321.11	320.93	320.61	320.71	
14	320.40	321.52	320.85	320.84	321.21	321.57	320.97	321.13	321.07	320.92	320.60	320.59	
15	320.41	321.04	320.93	320.82	321.11	321.47	320.92	321.07	321.00	320.92	320.60	320.55	
16	320.40	320.94	320.94	320.81	321.03	321.45	320.91	321.06	321.00	320.91	320.56	320.52	
17	320.39	321.38	320.91	320.94	321.13	321.79	320.92	321.08	320.98	320.90	320.56	320.46	
18	320.36	321.35	321.11	320.88	321.00	322.45	321.19	321.40	320.97	320.89	320.55	320.43	
19	320.35	321.34	321.04	320.84	321.05	323.26	321.20	321.17	320.93	320.87	320.55	320.39	
20	320.34	321.42	320.99	320.88	320.96	323.49	321.06	321.09	320.93	320.85	320.52	320.43	
21	320.35	321.04	320.87	320.96	320.91	322.54	321.01	321.06	320.90	320.82	320.49	320.41	
22	320.37	320.90	320.84	321.00	320.92	322.37	320.97	321.03	320.87	320.80	320.48	320.33	
23	320.35	320.81	320.78	320.93	322.56	321.74	320.99	321.03	320.88	320.80	320.48	320.36	
24	320.36	320.71	320.73	320.92	322.54	322.00	321.45	321.00	320.88	320.76	320.47	320.34	
25	320.34	320.69	320.71	320.86	321.70	321.76	321.07	321.06	321.91	320.74	320.50	320.33	
26	320.34	320.69	320.69	320.90	321.73	321.42	321.31	321.36	321.98	320.73	320.57	320.31	
27	320.35	320.83	320.68	320.92	321.47	321.34	322.06	321.71	321.32	320.73	320.51	320.74	
28	320.38	320.96	320.66	321.22	322.41	321.35	321.89	321.84	321.26	320.73	320.57	320.51	
29	320.38	320.93	321.11	321.06	322.85	321.47	322.05	321.51	321.13	320.69		320.87	
30	320.38	320.91	321.29	320.93	322.36	321.67	321.46	321.28	321.08	320.66		320.93	
31		320.89		320.87	321.61		321.27		320.95	320.66		320.70	
Mean	320.37	320.79	320.90	320.96	321.40	322.03	321.30	321.41	321.12	320.96	320.58	320.52	
Max	320.41	321.52	321.48	321.51	322.85	323.93	322.06	323.34	321.98	321.91	320.67	320.93	323.93
Min	320.34	320.34	320.66	320.71	320.80	321.28	320.91	321.00	320.87	320.66	320.47	320.31	320.31

Annual Max Momentary Gage Height 323.98 m. (MSL.) , at 08.00 Hours , on Sep 7, 2002

Zero Gage at Bottom Elevation 319.70 m. (MSL.) , River Bed 319.43 m. (MSL.)

Left Bank Elevation 325.14 m. (MSL.) ,

Right Bank Elevation 325.14 m. (MSL.) , Drainage Are 452 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.39	0.46	3.17	5.26	3.17	8.81	14.00	6.55	7.67	3.97	2.13	1.30		
2	0.43	0.46	2.86	3.97	3.09	7.67	12.25	6.35	6.98	6.86	2.06	1.05		
3	0.46	0.39	2.26	3.33	4.97	8.94	8.94	53.40	5.85	6.75	2.06	1.55		
4	0.46	0.39	2.19	2.63	7.79	8.16	17.51	50.10	5.75	5.65	2.06	1.74		
5	0.53	0.43	2.94	2.40	6.15	13.47	9.07	29.78	5.07	6.05	2.00	1.49		
6	0.50	0.57	3.25	2.40	6.55	25.80	13.12	11.78	5.17	17.89	2.06	1.55		
7	0.50	1.18	3.64	3.80	11.01	71.16	9.80	8.68	5.17	9.50	2.00	1.01		
8	0.50	1.11	3.49	10.85	9.95	55.80	7.90	7.44	4.88	6.98	1.94	1.30		
9	0.46	0.78	5.36	4.69	6.05	31.50	5.75	6.75	4.69	5.95	1.81	1.11		
10	0.46	0.69	10.40	9.80	4.42	26.49	5.56	6.45	8.42	5.65	1.74	0.78		
11	0.46	0.65	6.55	8.81	6.15	31.50	5.46	6.25	6.86	4.97	1.68	1.05		
12	0.50	1.36	4.33	5.75	7.09	20.60	5.17	5.95	5.95	4.60	1.81	1.05		
13	0.50	7.09	4.24	3.97	7.79	12.60	5.17	5.56	5.85	4.15	1.74	2.40		
14	0.60	11.01	3.49	3.41	6.86	11.78	4.51	6.05	5.46	4.06	1.68	1.62		
15	0.65	5.17	4.15	3.25	5.85	10.25	4.06	5.46	4.78	4.06	1.68	1.36		
16	0.60	4.24	4.24	3.17	5.07	9.95	3.97	5.36	4.78	3.97	1.43	1.18		
17	0.57	8.94	3.97	4.24	6.05	15.62	4.06	5.56	4.60	3.88	1.43	0.87		
18	0.46	8.55	5.85	3.72	4.78	29.30	6.65	9.20	4.51	3.80	1.36	0.74		
19	0.43	8.42	5.17	3.41	5.26	51.00	6.75	6.45	4.15	3.64	1.36	0.57		
20	0.39	9.50	4.69	3.72	4.42	57.90	5.36	5.65	4.15	3.49	1.18	0.74		
21	0.43	5.17	3.64	4.42	3.97	31.50	4.88	5.36	3.88	3.25	1.01	0.65		
22	0.50	3.88	3.41	4.78	4.06	27.41	4.51	5.07	3.64	3.09	0.96	0.36		
23	0.43	3.17	2.94	4.15	32.00	14.72	4.69	5.07	3.72	3.09	0.96	0.46		
24	0.46	2.40	2.55	4.06	31.50	19.60	9.95	4.78	3.72	2.78	0.92	0.39		
25	0.39	2.26	2.40	3.56	14.00	15.08	5.46	5.36	17.89	2.63	1.05	0.36		
26	0.39	2.26	2.26	3.88	14.54	9.50	8.03	8.68	19.22	2.55	1.49	0.29		
27	0.43	3.33	2.19	4.06	10.25	8.42	20.80	14.18	8.16	2.55	1.11	2.63		
28	0.53	4.42	2.06	6.98	28.34	8.55	17.51	16.56	7.44	2.55	1.49	1.11		
29	0.53	4.15	5.85	5.36	39.55	10.25	20.60	10.85	6.05	2.26		3.64		
30	0.53	3.97	7.79	4.15	27.18	13.47	10.10	7.67	5.56	2.06		4.15		
31		3.80		3.64	12.42		7.56		4.33	2.06		2.32		
Total	14.47	110.20	121.33	141.62	340.28	666.80	269.15	332.35	194.35	144.74	44.20	40.82	2420.31	CMSDAY
Mean	0.48	3.55	4.04	4.57	10.98	22.23	8.68	11.08	6.27	4.67	1.58	1.32	6.63	CMS
Max	0.65	11.01	10.40	10.85	39.55	71.16	20.80	53.40	19.22	17.89	2.13	4.15	71.16	CMS
Min	0.39	0.39	2.06	2.40	3.09	7.67	3.97	4.78	3.64	2.06	0.92	0.29	0.29	CMS
Runoff	1.25	9.52	10.48	12.24	29.40	57.61	23.25	28.72	16.79	12.51	3.82	3.53	209.11	MCM

Momentary Peak 72.76 CMS. at 323.98 m. (MSL.) at 08.00 Hours , on Sep 7 , 2002

Runoff Yield 14.67 Liters/Second/Square KM. Momentary Peak Yield 160.970 Liters/Second/Square KM.

WATER YEAR : 2002

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	5-time daily readings at 06.00,09.00,12.00,15.00 and 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 5 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 because of backwater effect.
Overbank Flow Conditions	Overbank flow starts at elevation +278.440 m.(M.S.L.) and is including overbank flow.
General Description	Records fair. Stage-discharge relation defined by 38 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

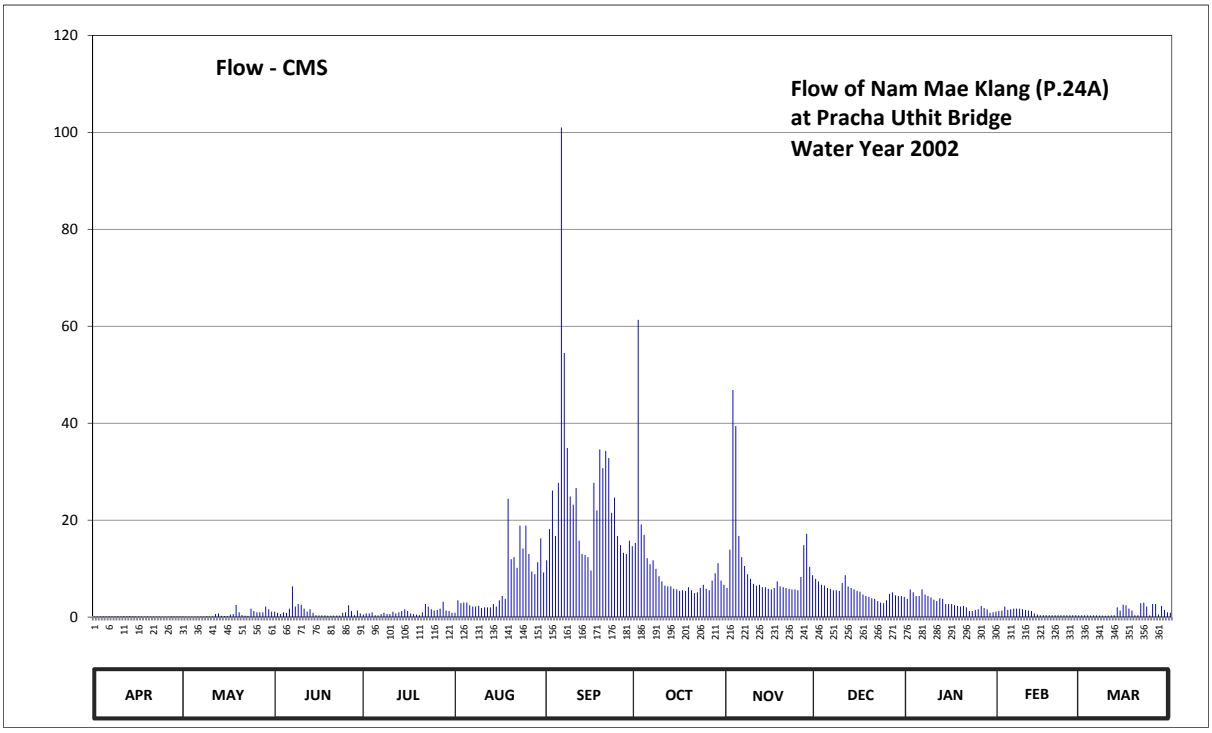
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	275.66	275.66	275.66	275.61	275.64	276.31	276.47	276.00	276.11	275.85	275.67	275.58	
2	275.65	275.61	275.64	275.63	275.83	276.59	277.99	276.41	276.08	275.98	275.68	275.58	
3	275.67	275.58	275.62	275.63	275.79	276.92	276.63	277.61	276.04	275.94	275.74	275.58	
4	275.72	275.53	275.65	275.65	275.80	276.53	276.54	277.38	276.03	275.89	275.69	275.57	
5	275.70	275.57	275.64	275.59	275.80	276.98	276.33	276.53	276.00	275.89	275.70	275.58	
6	275.70	275.61	275.71	275.58	275.76	278.83	276.27	276.34	275.99	275.98	275.71	275.58	
7	275.69	275.59	276.02	275.62	275.74	277.82	276.31	276.25	275.97	275.91	275.71	275.57	
8	275.69	275.61	275.74	275.64	275.74	277.23	276.22	276.16	275.97	275.89	275.71	275.56	
9	275.70	275.71	275.78	275.62	275.75	276.87	276.14	276.11	275.96	275.87	275.70	275.54	
10	275.69	275.67	275.77	275.62	275.72	276.80	276.08	276.05	276.06	275.84	275.69	275.57	
11	275.76	275.67	275.71	275.66	275.73	276.94	276.03	276.03	276.15	275.82	275.68	275.58	
12	275.72	276.03	275.66	275.63	275.73	276.49	276.02	276.04	276.02	275.86	275.67	275.59	
13	275.78	276.11	275.70	275.65	275.73	276.37	276.02	276.01	276.00	275.85	275.63	275.73	
14	275.70	275.81	275.64	275.67	275.78	276.36	275.99	276.01	275.98	275.78	275.61	275.68	
15	275.68	275.77	275.60	275.70	275.74	276.34	275.98	275.99	275.96	275.78	275.59	275.77	
16	275.66	275.75	275.58	275.67	275.83	276.20	275.96	275.98	275.95	275.78	275.60	275.76	
17	275.59	275.98	275.58	275.63	275.89	276.98	275.97	276.00	275.91	275.76	275.60	275.71	
18	275.57	276.04	275.58	275.62	275.85	276.75	275.96	276.08	275.89	275.75	275.60	275.68	
19	275.64	276.69	275.55	275.61	276.85	277.22	276.01	276.02	275.88	275.74	275.59	275.60	
20	275.63	276.22	275.55	275.60	276.32	277.09	275.97	276.01	275.86	275.75	275.59	275.60	
21	275.61	275.92	275.57	275.65	276.34	277.21	275.93	276.00	275.85	275.73	275.59	275.79	
22	275.59	275.82	275.57	275.78	276.23	277.16	275.94	275.99	275.82	275.67	275.59	275.80	
23	275.62	275.80	275.56	275.74	276.62	276.73	276.00	275.98	275.80	275.67	275.59	275.74	
24	275.56	275.71	275.64	275.70	276.42	276.86	276.04	275.98	275.79	275.69	275.59	275.58	
25	275.49	275.67	275.65	275.68	276.62	276.53	275.99	275.97	275.83	275.70	275.59	275.78	
26	275.53	275.65	275.76	275.69	276.37	276.45	275.97	276.13	275.92	275.75	275.59	275.78	
27	275.69	275.65	275.67	275.71	276.19	276.38	276.09	276.45	275.94	275.72	275.59	275.61	
28	275.68	275.65	275.59	275.81	276.16	276.37	276.17	276.55	275.90	275.70	275.58	275.75	
29	275.65	275.74	275.68	275.68	276.29	276.49	276.28	276.24	275.89	275.64		275.69	
30	275.69	275.70	275.63	275.67	276.51	276.44	276.09	276.15	275.89	275.65		275.65	
31		275.66		275.64	276.18		276.04		275.88	275.66		275.64	
Mean	275.66	275.78	275.66	275.66	276.03	276.81	276.18	276.21	275.95	275.79	275.64	275.65	
Max	275.78	276.69	276.02	275.81	276.85	278.83	277.99	277.61	276.15	275.98	275.74	275.80	278.83
Min	275.49	275.53	275.55	275.58	275.64	276.20	275.93	275.97	275.79	275.64	275.58	275.54	275.49

Annual Max Momentary Gage Height 279.23 m. (MSL.) , at 14.00 Hours , on Sep 6 , 2002

Zero Gage at Bottom Elevation 275.00 m. (MSL.) , River Bed 275.05 m. (MSL.)

Left Bank Elevation 278.50 m. (MSL.) ,

Right Bank Elevation 278.43 m. (MSL.) , Drainage Are 452 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.13	0.13	1.12	0.52	0.88	11.72	15.31	6.00	7.89	3.75	1.24	0.36		
2	0.12	0.10	0.88	0.76	3.45	18.16	61.33	13.93	7.36	5.70	1.36	0.36		
3	0.13	0.09	0.64	0.76	2.86	26.12	19.12	46.85	6.68	5.10	2.16	0.36		
4	0.17	0.06	1.00	1.00	3.00	16.72	16.96	39.40	6.51	4.35	1.48	0.34		
5	0.15	0.08	0.88	0.38	3.00	27.68	12.16	16.72	6.00	4.35	1.60	0.36		
6	0.15	0.10	1.74	0.36	2.44	101.00	10.93	12.38	5.85	5.70	1.74	0.36		
7	0.14	0.09	6.34	0.64	2.16	54.50	11.72	10.55	5.55	4.65	1.74	0.34		
8	0.14	0.10	2.16	0.88	2.16	34.90	9.98	8.84	5.55	4.35	1.74	0.32		
9	0.15	0.16	2.72	0.64	2.30	24.88	8.46	7.89	5.40	4.05	1.60	0.28		
10	0.14	0.13	2.58	0.64	1.88	23.20	7.36	6.85	7.02	3.60	1.48	0.34		
11	0.21	0.13	1.74	1.12	2.02	26.64	6.51	6.51	8.65	3.30	1.36	0.36		
12	0.17	0.61	1.12	0.76	2.02	15.77	6.34	6.68	6.34	3.90	1.24	0.38		
13	0.23	0.77	1.60	1.00	2.02	13.04	6.34	6.17	6.00	3.75	0.76	2.02		
14	0.15	0.27	0.88	1.24	2.72	12.82	5.85	6.17	5.70	2.72	0.52	1.36		
15	0.14	0.22	0.40	1.60	2.16	12.38	5.70	5.85	5.40	2.72	0.38	2.58		
16	0.13	0.20	0.36	1.24	3.45	9.60	5.40	5.70	5.25	2.72	0.40	2.44		
17	0.09	0.52	0.36	0.76	4.35	27.68	5.55	6.00	4.65	2.44	0.40	1.74		
18	0.08	0.63	0.36	0.64	3.75	22.00	5.40	7.36	4.35	2.30	0.40	1.36		
19	0.12	2.51	0.30	0.52	24.40	34.60	6.17	6.34	4.20	2.16	0.38	0.40		
20	0.11	1.00	0.30	0.40	11.94	30.72	5.55	6.17	3.90	2.30	0.38	0.40		
21	0.10	0.43	0.34	1.00	12.38	34.30	4.95	6.00	3.75	2.02	0.38	2.86		
22	0.09	0.28	0.34	2.72	10.17	32.80	5.10	5.85	3.30	1.24	0.38	3.00		
23	0.11	0.25	0.32	2.16	18.88	21.52	6.00	5.70	3.00	1.24	0.38	2.16		
24	0.08	1.74	0.88	1.60	14.16	24.64	6.68	5.70	2.86	1.48	0.38	0.36		
25	0.05	1.24	1.00	1.36	18.88	16.72	5.85	5.55	3.45	1.60	0.38	2.72		
26	0.06	1.00	2.44	1.48	13.04	14.85	5.55	8.27	4.80	2.30	0.38	2.72		
27	0.14	1.00	1.24	1.74	9.41	13.26	7.53	14.85	5.10	1.88	0.38	0.52		
28	0.14	1.00	0.38	3.15	8.84	13.04	9.03	17.20	4.50	1.60	0.36	2.30		
29	0.12	2.16	1.36	1.36	11.31	15.77	11.12	10.36	4.35	0.88		1.48		
30	0.14	1.60	0.76	1.24	16.24	14.62	7.53	8.65	4.35	1.00		1.00		
31		1.12		0.88	9.22		6.68		4.20	1.12		0.88		
Total	3.88	19.72	36.54	34.55	225.49	745.65	308.16	320.49	161.91	90.27	25.38	36.46	2008.50	CMSDAY
Mean	0.13	0.64	1.22	1.11	7.27	24.85	9.94	10.68	5.22	2.91	0.91	1.18	5.50	CMS
Max	0.23	2.51	6.34	3.15	24.40	101.00	61.33	46.85	8.65	5.70	2.16	3.00	101.00	CMS
Min	0.05	0.06	0.30	0.36	0.88	9.60	4.95	5.55	2.86	0.88	0.36	0.28	0.05	CMS
Runoff	0.34	1.70	3.16	2.99	19.48	64.42	26.63	27.69	13.99	7.80	2.19	3.15	173.53	MCM

Momentary Peak 122.80 CMS. at 279.23 m. (MSL.) at 14.00 Hours , on Sep 6 , 2002

Runoff Yield 12.17 Liters/Second/Square KM. Momentary Peak Yield 271.680 Liters/Second/Square KM.

WATER YEAR : 2002

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 mean 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	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Flow effected by Tha Kradan weir about 3.5 kilometers above gage site. Stage-discharge reletion defined by 33 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

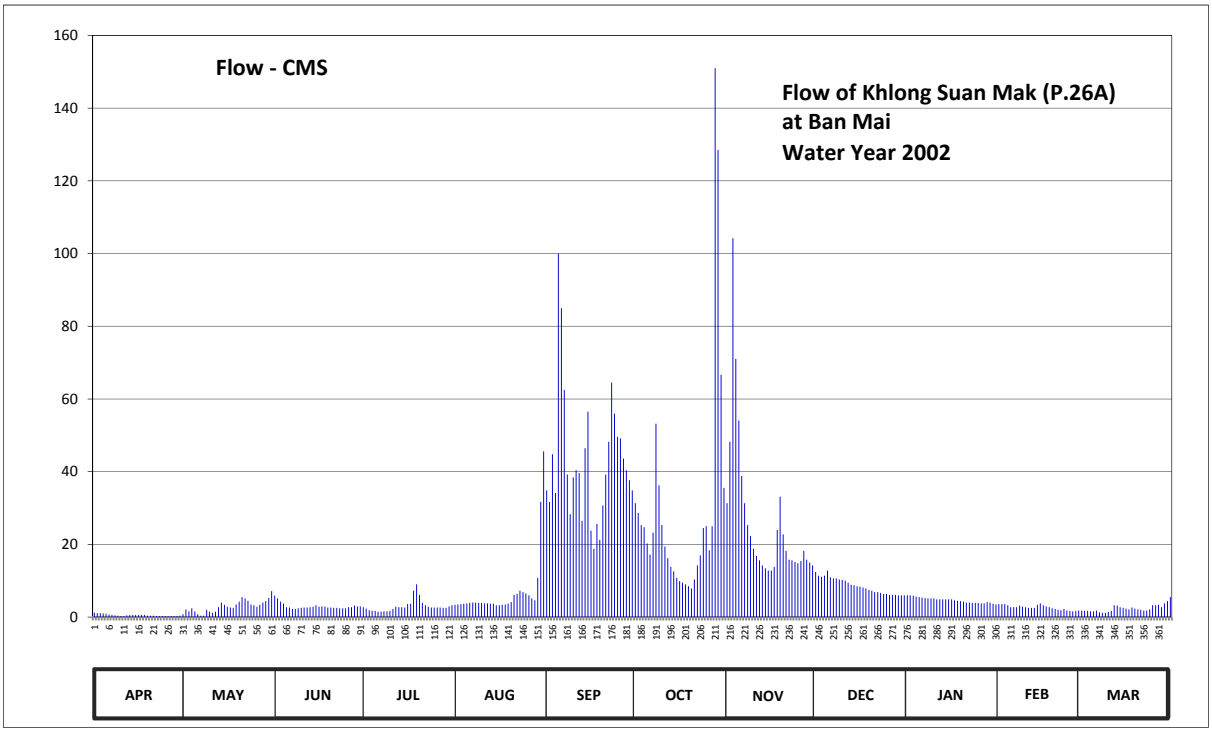
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	83.93	83.89	84.35	84.08	84.14	85.71	85.61	85.61	84.82	84.36	84.16	83.99	
2	83.92	84.02	84.29	84.04	84.15	85.62	85.52	86.05	84.76	84.36	84.16	83.98	
3	83.92	83.97	84.22	84.00	84.16	85.97	85.41	87.07	84.74	84.35	84.16	83.98	
4	83.91	84.05	84.17	83.98	84.17	85.69	85.39	86.51	84.76	84.33	84.13	83.97	
5	83.90	83.97	84.08	83.98	84.18	87.00	85.21	86.18	84.84	84.32	84.08	83.97	
6	83.88	83.89	84.07	83.96	84.19	86.75	85.06	85.82	84.73	84.31	84.08	83.99	
7	83.87	83.85	84.03	83.96	84.20	86.35	85.33	85.61	84.71	84.30	84.08	83.94	
8	83.86	83.85	84.03	83.97	84.20	85.83	86.16	85.41	84.71	84.29	84.12	83.93	
9	83.85	84.01	84.05	83.97	84.19	85.51	85.75	85.29	84.69	84.29	84.09	83.93	
10	83.84	83.96	84.06	83.98	84.19	85.81	85.41	85.14	84.68	84.29	84.08	83.95	
11	83.84	83.93	84.07	84.03	84.18	85.86	85.17	85.04	84.67	84.27	84.06	83.98	
12	83.86	83.96	84.07	84.09	84.18	85.84	85.01	84.98	84.63	84.27	84.06	84.13	
13	83.87	84.08	84.08	84.08	84.17	85.45	84.89	84.91	84.59	84.27	84.06	84.12	
14	83.87	84.20	84.09	84.08	84.17	86.01	84.83	84.87	84.58	84.27	84.14	84.08	
15	83.87	84.14	84.13	84.07	84.13	86.23	84.72	84.84	84.56	84.27	84.18	84.06	
16	83.87	84.09	84.09	84.16	84.13	85.35	84.66	84.84	84.55	84.27	84.13	84.04	
17	83.87	84.07	84.10	84.17	84.14	85.14	84.63	84.89	84.53	84.25	84.10	84.02	
18	83.87	84.06	84.10	84.46	84.15	85.42	84.60	85.36	84.51	84.24	84.08	84.07	
19	83.85	84.15	84.07	84.60	84.17	85.25	84.56	85.66	84.48	84.23	84.05	84.04	
20	83.85	84.22	84.07	84.37	84.21	85.59	84.51	85.31	84.46	84.22	84.03	84.02	
21	83.85	84.32	84.06	84.19	84.37	85.83	84.69	85.11	84.43	84.20	84.01	84.01	
22	83.84	84.29	84.06	84.13	84.39	86.05	84.91	84.99	84.43	84.20	84.00	83.99	
23	83.84	84.24	84.05	84.09	84.46	86.39	85.05	84.98	84.41	84.19	84.03	83.99	
24	83.84	84.15	84.05	84.07	84.43	86.22	85.38	84.96	84.39	84.19	83.99	84.02	
25	83.84	84.13	84.05	84.07	84.40	86.08	85.40	84.94	84.39	84.19	83.98	84.13	
26	83.84	84.09	84.08	84.07	84.36	86.07	85.12	84.97	84.37	84.18	83.97	84.13	
27	83.84	84.14	84.08	84.07	84.29	85.94	85.40	85.11	84.37	84.18	83.98	84.14	
28	83.84	84.20	84.12	84.06	84.25	85.86	87.76	84.99	84.37	84.21	83.99	84.08	
29	83.84	84.23	84.10	84.06	84.72	85.79	87.45	84.95	84.36	84.20		84.18	
30	83.85	84.30	84.10	84.10	85.62	85.71	86.43	84.91	84.36	84.17		84.23	
31		84.45		84.13	85.99		85.73		84.36	84.15		84.32	
Mean	83.86	84.09	84.10	84.10	84.34	85.88	85.35	85.31	84.56	84.25	84.07	84.05	
Max	83.93	84.45	84.35	84.60	85.99	87.00	87.76	87.07	84.84	84.36	84.18	84.32	87.76
Min	83.84	83.85	84.03	83.96	84.13	85.14	84.51	84.84	84.36	84.15	83.97	83.93	83.84

Annual Max Momentary Gage Height 87.91 m. (MSL.) , at 18.00 Hours , on Oct 28 , 2002

Zero Gage at Bottom Elevation 84.11 m. (MSL.) , River Bed 82.42 m. (MSL.)

Left Bank Elevation 89.31 m. (MSL.) ,

Right Bank Elevation 91.47 m. (MSL.) , Drainage Are 974 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.20	0.80	5.88	2.74	3.37	34.85	31.35	31.35	12.40	6.00	3.58	1.80		
2	1.10	2.11	5.13	2.32	3.48	31.70	28.60	48.25	11.40	6.00	3.58	1.70		
3	1.10	1.60	4.25	1.90	3.58	44.80	25.30	104.20	11.10	5.88	3.58	1.70		
4	1.00	2.43	3.69	1.70	3.69	34.15	24.75	71.05	11.40	5.63	3.27	1.60		
5	0.90	1.60	2.74	1.70	3.79	100.00	20.25	54.10	12.80	5.50	2.74	1.60		
6	0.70	0.80	2.64	1.50	3.90	85.00	17.20	38.80	10.95	5.38	2.74	1.80		
7	0.60	0.40	2.22	1.50	4.00	62.50	23.25	31.35	10.65	5.25	2.74	1.30		
8	0.50	0.40	2.22	1.60	4.00	39.20	53.20	25.30	10.65	5.13	3.16	1.20		
9	0.40	2.01	2.43	1.60	3.90	28.30	36.25	22.25	10.35	5.13	2.85	1.20		
10	0.30	1.50	2.53	1.70	3.90	38.40	25.30	18.80	10.20	5.13	2.74	1.40		
11	0.30	1.20	2.64	2.22	3.79	40.40	19.40	16.80	10.05	4.88	2.53	1.70		
12	0.50	1.50	2.64	2.85	3.79	39.60	16.20	15.60	9.45	4.88	2.53	3.27		
13	0.60	2.74	2.74	2.74	3.69	26.50	13.80	14.20	8.88	4.88	2.53	3.16		
14	0.60	4.00	2.85	2.74	3.69	46.45	12.60	13.40	8.75	4.88	3.37	2.74		
15	0.60	3.37	3.27	2.64	3.27	56.50	10.80	12.80	8.50	4.88	3.79	2.53		
16	0.60	2.85	2.85	3.58	3.27	23.75	9.90	12.80	8.38	4.88	3.27	2.32		
17	0.60	2.64	2.95	3.69	3.37	18.80	9.45	13.80	8.13	4.63	2.95	2.11		
18	0.60	2.53	2.95	7.25	3.48	25.60	9.00	24.00	7.88	4.50	2.74	2.64		
19	0.40	3.48	2.64	9.00	3.69	21.25	8.50	33.10	7.50	4.38	2.43	2.32		
20	0.40	4.25	2.64	6.13	4.13	30.70	7.88	22.75	7.25	4.25	2.22	2.11		
21	0.40	5.50	2.53	3.90	6.13	39.20	10.35	18.20	6.88	4.00	2.01	2.01		
22	0.30	5.13	2.53	3.27	6.38	48.25	14.20	15.80	6.88	4.00	1.90	1.80		
23	0.30	4.50	2.43	2.85	7.25	64.50	17.00	15.60	6.63	3.90	2.22	1.80		
24	0.30	3.48	2.43	2.64	6.88	56.00	24.50	15.20	6.38	3.90	1.80	2.11		
25	0.30	3.27	2.43	2.64	6.50	49.60	25.00	14.80	6.38	3.90	1.70	3.27		
26	0.30	2.85	2.74	2.64	6.00	49.15	18.40	15.40	6.13	3.79	1.60	3.27		
27	0.30	3.37	2.74	2.64	5.13	43.60	25.00	18.20	6.13	3.79	1.70	3.37		
28	0.30	4.00	3.16	2.53	4.63	40.40	151.00	15.80	6.13	4.13	1.80	2.74		
29	0.30	4.38	2.95	2.53	10.80	37.65	128.50	15.00	6.00	4.00		3.79		
30	0.40	5.25	2.95	2.95	31.70	34.85	66.65	14.20	6.00	3.69		4.38		
31		7.13		3.27	45.60		35.55		6.00	3.48		5.50		
Total	16.20	91.07	88.79	92.96	210.78	1291.65	919.13	782.90	266.21	144.65	74.07	74.24	4052.65	CMSDAY
Mean	0.54	2.94	2.96	3.00	6.80	43.05	29.65	26.10	8.59	4.67	2.65	2.39	11.10	CMS
Max	1.20	7.13	5.88	9.00	45.60	100.00	151.00	104.20	12.80	6.00	3.79	5.50	151.00	CMS
Min	0.30	0.40	2.22	1.50	3.27	18.80	7.88	12.80	6.00	3.48	1.60	1.20	0.30	CMS
Runoff	1.40	7.87	7.67	8.03	18.21	111.60	79.41	67.64	23.00	12.50	6.40	6.41	350.15	MCM

Momentary Peak 162.25 CMS. at 87.91 m. (MSL.) at 18.00 Hours , on Oct 28 , 2002

Runoff Yield 11.40 Liters/Second/Square KM. Momentary Peak Yield 166.580 Liters/Second/Square KM.

WATER YEAR : 2002

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.

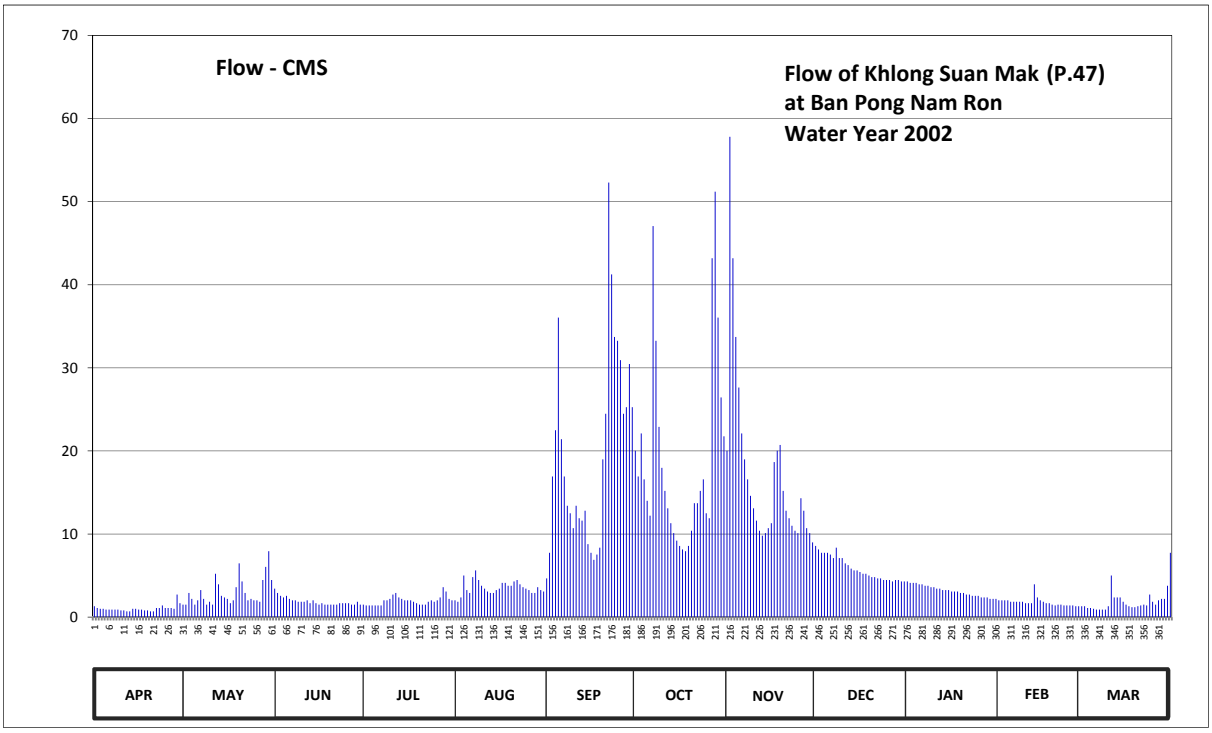
Ban Pong Nam Ron **Amphoe** Khlong Lan **Changwat** Kamphaeng Phet

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** +153.134 m. (MSL.)
Gage Reading Frequency	16-time daily readings at 03.00, 06.00 - 18.00, 21.00 and 24.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 16 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	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 94 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	143.78	143.80	143.91	143.80	143.83	143.98	144.54	144.54	144.17	143.96	143.83	143.78	
2	143.76	143.80	143.88	143.79	143.82	144.13	144.45	145.36	144.15	143.95	143.83	143.78	
3	143.75	143.88	143.86	143.79	143.85	144.45	144.60	145.08	144.13	143.95	143.83	143.76	
4	143.75	143.84	143.85	143.79	144.00	144.61	144.44	144.88	144.13	143.95	143.83	143.76	
5	143.74	143.80	143.86	143.79	143.90	144.93	144.36	144.74	144.13	143.94	143.82	143.75	
6	143.74	143.83	143.84	143.79	143.88	144.58	144.30	144.60	144.12	143.94	143.82	143.74	
7	143.74	143.90	143.83	143.79	143.99	144.45	145.16	144.51	144.10	143.93	143.82	143.74	
8	143.74	143.84	143.83	143.83	144.03	144.34	144.87	144.44	144.16	143.93	143.82	143.74	
9	143.74	143.80	143.82	143.83	143.97	144.31	144.62	144.38	144.10	143.92	143.82	143.74	
10	143.73	143.82	143.82	143.84	143.93	144.25	144.48	144.33	144.10	143.92	143.81	143.78	
11	143.73	143.80	143.82	143.87	143.91	144.34	144.40	144.28	144.07	143.91	143.81	144.00	
12	143.72	144.01	143.83	143.88	143.89	144.29	144.33	144.24	144.06	143.91	143.81	143.85	
13	143.72	143.94	143.81	143.85	143.88	144.28	144.27	144.22	144.04	143.90	143.94	143.85	
14	143.75	143.86	143.83	143.84	143.88	144.32	144.23	144.23	144.03	143.90	143.85	143.85	
15	143.75	143.85	143.81	143.83	143.90	144.18	144.20	144.25	144.03	143.90	143.83	143.82	
16	143.74	143.84	143.80	143.83	143.91	144.13	144.17	144.27	144.02	143.89	143.82	143.80	
17	143.74	143.81	143.81	143.83	143.95	144.09	144.15	144.50	144.01	143.89	143.81	143.78	
18	143.73	143.83	143.80	143.82	143.95	144.12	144.14	144.54	144.01	143.89	143.81	143.77	
19	143.73	143.92	143.80	143.81	143.93	144.16	144.17	144.56	144.00	143.88	143.80	143.77	
20	143.72	144.07	143.80	143.80	143.93	144.51	144.24	144.40	143.99	143.88	143.79	143.78	
21	143.72	143.96	143.80	143.80	143.96	144.66	144.35	144.32	143.99	143.87	143.80	143.79	
22	143.76	143.88	143.80	143.80	143.97	145.26	144.35	144.29	143.98	143.87	143.80	143.80	
23	143.76	143.83	143.81	143.82	143.94	145.04	144.40	144.26	143.98	143.86	143.79	143.79	
24	143.79	143.84	143.81	143.83	143.92	144.88	144.44	144.24	143.97	143.86	143.79	143.87	
25	143.76	143.83	143.81	143.82	143.91	144.87	144.31	144.23	143.97	143.86	143.79	143.82	
26	143.76	143.83	143.81	143.83	143.90	144.82	144.29	144.37	143.97	143.85	143.79	143.80	
27	143.76	143.82	143.80	143.85	143.88	144.66	145.08	144.32	143.96	143.85	143.78	143.83	
28	143.75	143.97	143.80	143.92	143.88	144.68	145.24	144.25	143.97	143.85	143.78	143.84	
29	143.87	144.05	143.82	143.89	143.92	144.81	144.93	144.23	143.97	143.84		143.84	
30	143.81	144.14	143.80	143.84	143.90	144.68	144.71	144.19	143.96	143.84		143.93	
31		143.97		143.83	143.89		144.59		143.96	143.84		144.13	
Mean	143.75	143.88	143.82	143.83	143.92	144.49	144.48	144.43	144.04	143.89	143.82	143.82	
Max	143.87	144.14	143.91	143.92	144.03	145.26	145.24	145.36	144.17	143.96	143.94	144.13	145.36
Min	143.72	143.80	143.80	143.79	143.82	143.98	144.14	144.19	143.96	143.84	143.78	143.74	143.72

Annual Max Momentary Gage Height	145.89	m. (MSL.) ,	at 16.00 Hours , on Oct 27 , 2002		
Zero Gage at Bottom Elevation	143.77	m. (MSL.) ,	River Bed	143.35	m. (MSL.)
Left Bank Elevation	149.52	m. (MSL.) ,			
Right Bank Elevation	149.61	m. (MSL.) ,	Drainage Are	529	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.30	1.50	3.42	1.50	2.02	4.65	20.03	20.03	8.57	4.30	2.02	1.30		
2	1.10	1.50	2.90	1.40	1.85	7.73	16.93	57.80	8.15	4.12	2.02	1.30		
3	1.00	2.90	2.55	1.40	2.37	16.93	22.10	43.18	7.73	4.12	2.02	1.10		
4	1.00	2.20	2.37	1.40	5.00	22.49	16.58	33.72	7.73	4.12	2.02	1.10		
5	0.90	1.50	2.55	1.40	3.25	36.04	14.00	27.63	7.73	3.95	1.85	1.00		
6	0.90	2.02	2.20	1.40	2.90	21.41	12.20	22.10	7.52	3.95	1.85	0.90		
7	0.90	3.25	2.02	1.40	4.82	16.93	47.06	18.99	7.10	3.77	1.85	0.90		
8	0.90	2.20	2.02	2.02	5.63	13.40	33.25	16.58	8.36	3.77	1.85	0.90		
9	0.90	1.50	1.85	2.02	4.47	12.50	22.89	14.60	7.10	3.60	1.85	0.90		
10	0.80	1.85	1.85	2.20	3.77	10.70	17.96	13.10	7.10	3.60	1.67	1.30		
11	0.80	1.50	1.85	2.72	3.42	13.40	15.20	11.60	6.47	3.42	1.67	5.00		
12	0.70	5.21	2.02	2.90	3.07	11.90	13.10	10.40	6.26	3.42	1.67	2.37		
13	0.70	3.95	1.67	2.37	2.90	11.60	11.30	9.80	5.84	3.25	3.95	2.37		
14	1.00	2.55	2.02	2.20	2.90	12.80	10.10	10.10	5.63	3.25	2.37	2.37		
15	1.00	2.37	1.67	2.02	3.25	8.78	9.20	10.70	5.63	3.25	2.02	1.85		
16	0.90	2.20	1.50	2.02	3.42	7.73	8.57	11.30	5.42	3.07	1.85	1.50		
17	0.90	1.67	1.67	2.02	4.12	6.89	8.15	18.65	5.21	3.07	1.67	1.30		
18	0.80	2.02	1.50	1.85	4.12	7.52	7.94	20.03	5.21	3.07	1.67	1.20		
19	0.80	3.60	1.50	1.67	3.77	8.36	8.57	20.72	5.00	2.90	1.50	1.20		
20	0.70	6.47	1.50	1.50	3.77	18.99	10.40	15.20	4.82	2.90	1.40	1.30		
21	0.70	4.30	1.50	1.50	4.30	24.47	13.70	12.80	4.82	2.72	1.50	1.40		
22	1.10	2.90	1.50	1.50	4.47	52.30	13.70	11.90	4.65	2.72	1.50	1.50		
23	1.10	2.02	1.67	1.85	3.95	41.24	15.20	11.00	4.65	2.55	1.40	1.40		
24	1.40	2.20	1.67	2.02	3.60	33.72	16.58	10.40	4.47	2.55	1.40	2.72		
25	1.10	2.02	1.67	1.85	3.42	33.25	12.50	10.10	4.47	2.55	1.40	1.85		
26	1.10	2.02	1.67	2.02	3.25	30.93	11.90	14.30	4.47	2.37	1.40	1.50		
27	1.10	1.85	1.50	2.37	2.90	24.47	43.18	12.80	4.30	2.37	1.30	2.02		
28	1.00	4.47	1.50	3.60	2.90	25.26	51.20	10.70	4.47	2.37	1.30	2.20		
29	2.72	6.05	1.85	3.07	3.60	30.46	36.04	10.10	4.47	2.20		2.20		
30	1.67	7.94	1.50	2.20	3.25	25.26	26.44	8.99	4.30	2.20		3.77		
31		4.47		2.02	3.07		21.75		4.30	2.20		7.73		
Total	30.99	92.20	56.66	61.41	109.53	592.11	587.72	519.32	181.95	97.70	49.97	59.45	2439.01	CMSDAY
Mean	1.03	2.97	1.89	1.98	3.53	19.74	18.96	17.31	5.87	3.15	1.78	1.92	6.68	CMS
Max	2.72	7.94	3.42	3.60	5.63	52.30	51.20	57.80	8.57	4.30	3.95	7.73	57.80	CMS
Min	0.70	1.50	1.50	1.40	1.85	4.65	7.94	8.99	4.30	2.20	1.30	0.90	0.70	CMS
Runoff	2.68	7.97	4.90	5.31	9.46	51.16	50.78	44.87	15.72	8.44	4.32	5.14	210.73	MCM

Momentary Peak 91.30 CMS. at 145.89 m. (MSL.) at 16.00 Hours , on Oct 27 , 2002

Runoff Yield 12.63 Liters/Second/Square KM. Momentary Peak Yield 172.590 Liters/Second/Square KM.

WATER YEAR : 2002

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** +109.873 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 mean 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 good. Stage-discharge relation defined by 36 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

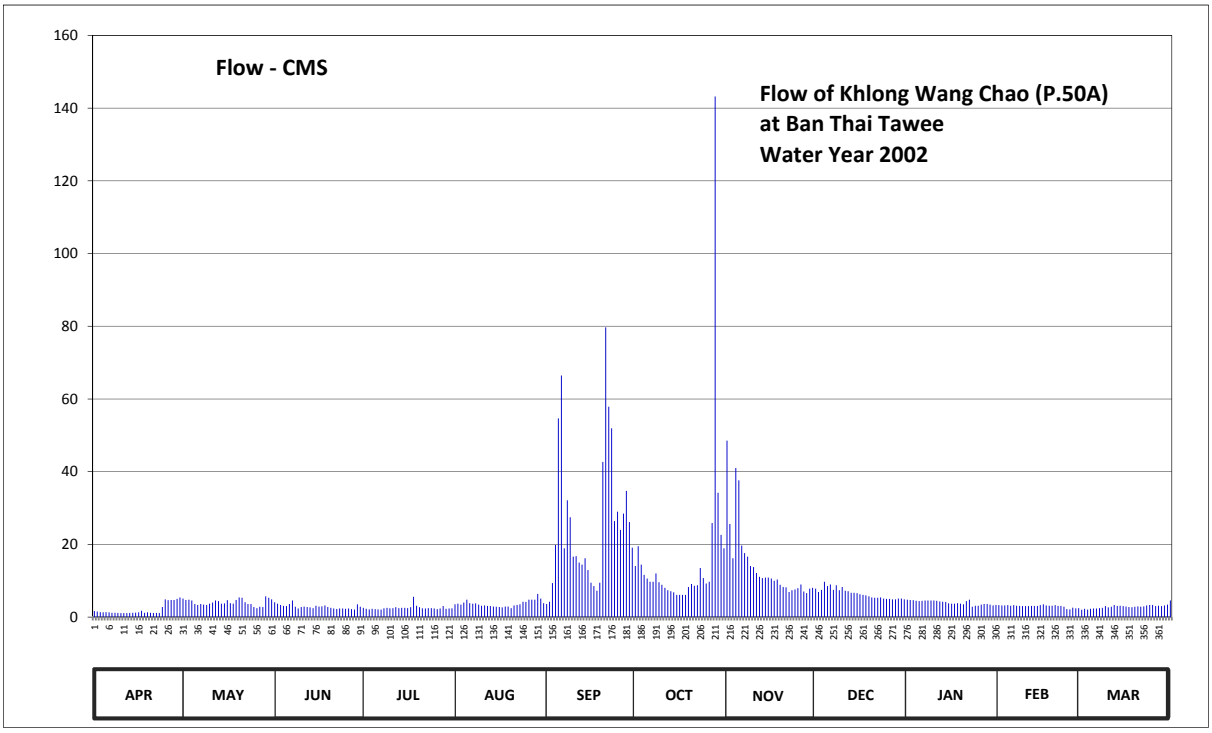
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	105.13	105.63	105.51	105.29	105.44	105.45	106.38	107.34	105.89	105.60	105.41	105.20	
2	105.11	105.59	105.46	105.25	105.46	105.53	106.72	106.97	105.81	105.59	105.40	105.25	
3	105.07	105.60	105.42	105.22	105.43	106.02	106.41	106.53	105.86	105.58	105.40	105.21	
4	105.06	105.57	105.38	105.25	105.50	106.74	106.20	107.25	106.05	105.56	105.41	105.25	
5	105.07	105.45	105.37	105.23	105.60	107.41	106.12	107.21	105.95	105.55	105.39	105.26	
6	105.06	105.42	105.45	105.22	105.48	107.52	106.05	106.73	105.99	105.56	105.41	105.26	
7	105.04	105.45	105.57	105.21	105.46	106.69	106.05	106.62	105.86	105.57	105.39	105.28	
8	105.04	105.43	105.34	105.27	105.47	107.11	106.23	106.56	105.97	105.57	105.38	105.29	
9	105.03	105.42	105.26	105.29	105.43	107.02	106.04	106.38	105.85	105.57	105.37	105.37	
10	105.02	105.46	105.33	105.27	105.39	106.56	105.98	106.36	105.93	105.57	105.37	105.31	
11	105.02	105.50	105.35	105.28	105.40	106.57	105.91	106.24	105.84	105.56	105.37	105.34	
12	105.02	105.57	105.33	105.32	105.38	106.45	105.85	106.16	105.83	105.54	105.38	105.42	
13	105.03	105.55	105.31	105.28	105.37	106.41	105.83	106.13	105.79	105.53	105.38	105.38	
14	105.04	105.46	105.28	105.29	105.35	106.53	105.80	106.14	105.79	105.52	105.38	105.39	
15	105.05	105.47	105.39	105.29	105.34	106.30	105.73	106.14	105.78	105.47	105.41	105.37	
16	105.06	105.58	105.35	105.28	105.33	106.03	105.73	106.12	105.75	105.46	105.44	105.35	
17	105.15	105.48	105.36	105.32	105.31	105.95	105.73	106.07	105.73	105.46	105.40	105.33	
18	105.04	105.46	105.40	105.68	105.35	105.84	105.73	106.10	105.72	105.48	105.39	105.32	
19	105.06	105.59	105.33	105.39	105.35	106.03	105.93	105.98	105.69	105.46	105.39	105.34	
20	105.04	105.66	105.29	105.32	105.28	107.27	106.00	105.93	105.66	105.44	105.41	105.36	
21	105.03	105.65	105.26	105.27	105.40	107.64	105.96	105.92	105.65	105.55	105.38	105.34	
22	105.03	105.51	105.24	105.26	105.42	107.44	105.97	105.81	105.65	105.60	105.38	105.36	
23	105.03	105.45	105.26	105.28	105.44	107.38	106.34	105.85	105.66	105.34	105.34	105.40	
24	105.33	105.45	105.26	105.28	105.53	107.00	106.13	105.87	105.63	105.39	105.23	105.42	
25	105.61	105.33	105.25	105.26	105.52	107.05	106.01	105.90	105.62	105.39	105.22	105.42	
26	105.58	105.28	105.26	105.23	105.60	106.91	106.05	105.99	105.62	105.43	105.30	105.37	
27	105.59	105.34	105.23	105.26	105.60	107.04	106.98	105.82	105.61	105.45	105.27	105.39	
28	105.59	105.33	105.21	105.37	105.60	107.16	108.13	105.78	105.61	105.45	105.28	105.37	
29	105.62	105.69	105.44	105.25	105.76	106.99	107.15	105.89	105.63	105.43		105.40	
30	105.66	105.65	105.34	105.26	105.63	106.70	106.86	105.91	105.63	105.40		105.43	
31		105.61		105.27	105.48		106.69		105.61	105.42		105.57	
Mean	105.17	105.50	105.34	105.29	105.45	106.69	106.22	106.26	105.76	105.50	105.37	105.35	
Max	105.66	105.69	105.57	105.68	105.76	107.64	108.13	107.34	106.05	105.60	105.44	105.57	108.13
Min	105.02	105.28	105.21	105.21	105.28	105.45	105.73	105.78	105.61	105.34	105.22	105.20	105.02

Annual Max Momentary Gage Height 108.30 m. (MSL.) , at 12.00 Hours , on Oct 28 , 2002

Zero Gage at Bottom Elevation 104.36 m. (MSL.) , River Bed 104.38 m. (MSL.)

Left Bank Elevation 109.89 m. (MSL.) ,

Right Bank Elevation 109.86 m. (MSL.) , Drainage Are 480 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.65	5.10	4.08	2.54	3.52	3.60	14.03	48.56	7.83	4.80	3.28	2.00		
2	1.55	4.72	3.68	2.30	3.68	4.24	19.48	25.59	6.91	4.72	3.20	2.30		
3	1.35	4.80	3.36	2.12	3.44	9.35	14.44	16.19	7.49	4.64	3.20	2.06		
4	1.30	4.56	3.08	2.30	4.00	19.86	11.60	41.00	9.73	4.48	3.28	2.30		
5	1.35	3.60	3.02	2.18	4.80	54.67	10.60	37.64	8.52	4.40	3.14	2.36		
6	1.30	3.36	3.60	2.12	3.84	66.44	9.73	19.67	8.98	4.48	3.28	2.36		
7	1.20	3.60	4.56	2.06	3.68	18.91	9.73	17.58	7.49	4.56	3.14	2.48		
8	1.20	3.44	2.84	2.42	3.76	32.12	12.01	16.62	8.75	4.56	3.08	2.54		
9	1.15	3.36	2.36	2.54	3.44	27.44	9.60	14.03	7.37	4.56	3.02	3.02		
10	1.10	3.68	2.78	2.42	3.14	16.62	8.87	13.76	8.29	4.56	3.02	2.66		
11	1.10	4.00	2.90	2.48	3.20	16.77	8.06	12.14	7.26	4.48	3.02	2.84		
12	1.10	4.56	2.78	2.72	3.08	15.02	7.37	11.10	7.14	4.32	3.08	3.36		
13	1.15	4.40	2.66	2.48	3.02	14.44	7.14	10.73	6.70	4.24	3.08	3.08		
14	1.20	3.68	2.48	2.54	2.90	16.19	6.80	10.85	6.70	4.16	3.08	3.14		
15	1.25	3.76	3.14	2.54	2.84	12.95	6.10	10.85	6.60	3.76	3.28	3.02		
16	1.30	4.64	2.90	2.48	2.78	9.48	6.10	10.60	6.30	3.68	3.52	2.90		
17	1.75	3.84	2.96	2.72	2.66	8.52	6.10	9.98	6.10	3.68	3.20	2.78		
18	1.20	3.68	3.20	5.60	2.90	7.26	6.10	10.35	6.00	3.84	3.14	2.72		
19	1.30	4.72	2.78	3.14	2.90	9.48	8.29	8.87	5.70	3.68	3.14	2.84		
20	1.20	5.40	2.54	2.72	2.48	42.68	9.10	8.29	5.40	3.52	3.28	2.96		
21	1.15	5.30	2.36	2.42	3.20	79.68	8.64	8.18	5.30	4.40	3.08	2.84		
22	1.15	4.08	2.24	2.36	3.36	57.88	8.75	6.91	5.30	4.80	3.08	2.96		
23	1.15	3.60	2.36	2.48	3.52	51.92	13.49	7.37	5.40	2.84	2.84	3.20		
24	2.78	3.60	2.36	2.48	4.24	26.40	10.73	7.60	5.10	3.14	2.18	3.36		
25	4.90	2.78	2.30	2.36	4.16	29.00	9.23	7.95	5.00	3.14	2.12	3.36		
26	4.64	2.48	2.36	2.18	4.80	23.97	9.73	8.98	5.00	3.44	2.60	3.02		
27	4.72	2.84	2.18	2.36	4.80	28.48	25.86	7.03	4.90	3.60	2.42	3.14		
28	4.72	2.78	2.06	3.02	4.80	34.72	143.20	6.60	4.90	3.60	2.48	3.02		
29	5.00	5.70	3.52	2.30	6.40	26.13	34.20	7.83	5.10	3.44		3.20		
30	5.40	5.30	2.84	2.36	5.10	19.10	22.62	8.06	5.10	3.20		3.44		
31		4.90		2.42	3.84		18.91		4.90	3.36		4.56		
Total	61.31	126.26	86.28	79.16	114.28	783.32	496.61	430.91	201.26	124.08	84.26	89.82	2677.55	CMSDAY
Mean	2.04	4.07	2.88	2.55	3.69	26.11	16.02	14.36	6.49	4.00	3.01	2.90	7.34	CMS
Max	5.40	5.70	4.56	5.60	6.40	79.68	143.20	48.56	9.73	4.80	3.52	4.56	143.20	CMS
Min	1.10	2.48	2.06	2.06	2.48	3.60	6.10	6.60	4.90	2.84	2.12	2.00	1.10	CMS
Runoff	5.30	10.91	7.45	6.84	9.87	67.68	42.91	37.23	17.39	10.72	7.28	7.76	231.34	MCM

Momentary Peak 168.00 CMS. at 108.30 m. (MSL.) at 12.00 Hours , on Oct 28 , 2002

Runoff Yield 15.28 Liters/Second/Square KM. Momentary Peak Yield 350.000 Liters/Second/Square KM.

WATER YEAR : 2002

PING RIVER BASIN

Huai Tak at Ban Tak,Tak (P.52)

Lat 17 - 02 - 13 N Long 99 - 03 - 09 E

Location : on right bank at the bridge on road.

Ban Tak Tok **Amphoe** Ban Tak **Changwat** Tak

Drainge Area	355 sq.km.
Type of Gage	Staff gage.
Zero Gage at Bottom	+120.230 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank about 10 meters from the top staff gage. **Elevation** +125.393 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 mean of 5 readings
Period of Available Gage Records	1983 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 good. Stage-discharge relation defined by 19 discharge measurements made 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

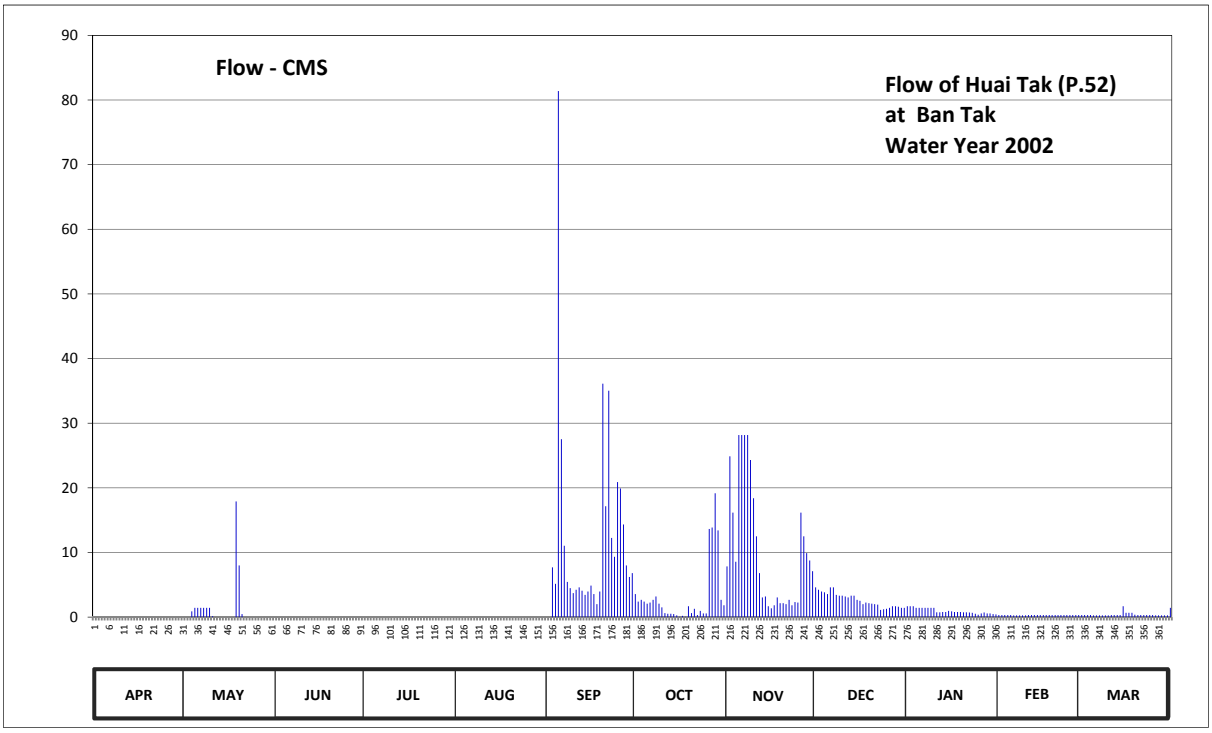
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	119.31	119.58	119.34	119.25	119.26	119.32	120.09	120.39	120.17	119.91	119.70	119.70	
2	119.31	119.58	119.34	119.25	119.26	119.51	120.00	121.12	120.14	119.91	119.70	119.70	
3	119.31	119.58	119.34	119.25	119.26	120.38	120.02	120.79	120.12	119.91	119.70	119.70	
4	119.31	119.81	119.33	119.25	119.29	120.21	120.00	120.43	120.11	119.88	119.70	119.70	
5	119.31	119.88	119.33	119.25	119.27	122.50	119.96	121.23	120.09	119.88	119.70	119.69	
6	119.31	119.88	119.28	119.26	119.27	121.21	119.98	121.23	120.17	119.88	119.69	119.69	
7	119.31	119.88	119.28	119.25	119.27	120.56	120.02	121.23	120.17	119.88	119.69	119.69	
8	119.31	119.88	119.23	119.25	119.27	120.23	120.06	121.23	120.08	119.88	119.69	119.69	
9	119.30	119.88	119.23	119.25	119.27	120.16	119.96	121.10	120.07	119.88	119.69	119.69	
10	119.30	119.88	119.23	119.25	119.27	120.10	119.89	120.88	120.07	119.88	119.69	119.69	
11	119.30	119.66	119.23	119.25	119.26	120.14	119.76	120.63	120.06	119.79	119.70	119.70	
12	119.30	119.56	119.25	119.25	119.26	120.17	119.74	120.32	120.05	119.79	119.70	119.70	
13	119.30	119.48	119.28	119.25	119.26	120.13	119.74	120.05	120.07	119.80	119.70	119.70	
14	119.30	119.35	119.28	119.25	119.26	120.08	119.73	120.06	120.07	119.80	119.70	119.70	
15	119.30	119.30	119.28	119.26	119.26	120.12	119.69	119.91	120.02	119.82	119.70	119.91	
16	119.30	119.30	119.28	119.27	119.26	120.19	119.64	119.87	120.01	119.81	119.70	119.77	
17	119.30	119.43	119.28	119.28	119.26	120.09	119.67	119.93	119.95	119.80	119.70	119.77	
18	119.30	119.49	119.28	119.28	119.26	119.95	119.64	120.05	119.98	119.80	119.70	119.77	
19	119.30	120.86	119.28	119.28	119.26	120.12	119.91	119.97	119.97	119.80	119.70	119.71	
20	119.30	120.40	119.28	119.27	119.26	121.47	119.76	119.97	119.96	119.79	119.70	119.70	
21	119.30	119.73	119.28	119.27	119.61	120.83	119.86	119.95	119.95	119.79	119.70	119.70	
22	119.30	119.59	119.28	119.27	119.45	121.44	119.70	120.02	119.94	119.78	119.70	119.70	
23	119.30	119.55	119.28	119.26	119.45	120.62	119.82	119.93	119.84	119.77	119.70	119.70	
24	119.30	119.45	119.27	119.26	119.45	120.47	119.75	119.99	119.85	119.74	119.70	119.70	
25	119.30	119.36	119.27	119.26	119.41	120.98	119.75	119.98	119.86	119.71	119.70	119.70	
26	119.30	119.35	119.26	119.26	119.29	120.94	120.68	120.79	119.88	119.75	119.70	119.69	
27	119.30	119.34	119.25	119.26	119.29	120.71	120.69	120.63	119.91	119.78	119.70	119.69	
28	119.30	119.42	119.25	119.26	119.28	120.40	120.91	120.50	119.91	119.75	119.70	119.69	
29	119.56	119.48	119.25	119.26	119.28	120.28	120.67	120.44	119.90	119.75		119.69	
30	119.43	119.38	119.25	119.26	119.28	120.32	120.02	120.34	119.88	119.73		119.69	
31		119.35		119.26	119.28		119.93		119.88	119.72		119.88	
Mean	119.32	119.63	119.28	119.26	119.30	120.45	119.97	120.43	120.00	119.81	119.70	119.72	
Max	119.56	120.86	119.34	119.28	119.61	122.50	120.91	121.23	120.17	119.91	119.70	119.91	122.50
Min	119.30	119.30	119.23	119.25	119.26	119.32	119.64	119.87	119.84	119.71	119.69	119.69	119.23

Annual Max Momentary Gage Height 123.38 m. (MSL.) , at 12.00 Hours , on Sep 5 , 2002

Zero Gage at Bottom Elevation 120.23 m. (MSL.) , River Bed 119.26 m. (MSL.)

Left Bank Elevation 125.17 m. (MSL.) ,

Right Bank Elevation 125.19 m. (MSL.) , Drainage Are 355 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

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	3.57	7.85	4.61	1.68	0.33	0.33		
2	0.00	0.00	0.00	0.00	0.00	0.00	2.40	24.88	4.22	1.68	0.33	0.33		
3	0.00	0.00	0.00	0.00	0.00	7.70	2.66	16.17	3.96	1.68	0.33	0.33		
4	0.00	0.88	0.00	0.00	0.00	5.15	2.40	8.57	3.83	1.44	0.33	0.33		
5	0.00	1.44	0.00	0.00	0.00	81.40	2.08	28.16	3.57	1.44	0.33	0.28		
6	0.00	1.44	0.00	0.00	0.00	27.52	2.24	28.16	4.61	1.44	0.28	0.28		
7	0.00	1.44	0.00	0.00	0.00	11.04	2.66	28.16	4.61	1.44	0.28	0.28		
8	0.00	1.44	0.00	0.00	0.00	5.45	3.18	28.16	3.44	1.44	0.28	0.28		
9	0.00	1.44	0.00	0.00	0.00	4.48	2.08	24.30	3.31	1.44	0.28	0.28		
10	0.00	1.44	0.00	0.00	0.00	3.70	1.52	18.40	3.31	1.44	0.28	0.28		
11	0.00	0.14	0.00	0.00	0.00	4.22	0.61	12.49	3.18	0.75	0.33	0.33		
12	0.00	0.00	0.00	0.00	0.00	4.61	0.52	6.80	3.05	0.75	0.33	0.33		
13	0.00	0.00	0.00	0.00	0.00	4.09	0.52	3.05	3.31	0.80	0.33	0.33		
14	0.00	0.00	0.00	0.00	0.00	3.44	0.47	3.18	3.31	0.80	0.33	0.33		
15	0.00	0.00	0.00	0.00	0.00	3.96	0.28	1.68	2.66	0.96	0.33	1.68		
16	0.00	0.00	0.00	0.00	0.00	4.87	0.05	1.36	2.53	0.88	0.33	0.66		
17	0.00	0.00	0.00	0.00	0.00	3.57	0.19	1.84	2.00	0.80	0.33	0.66		
18	0.00	0.00	0.00	0.00	0.00	2.00	0.05	3.05	2.24	0.80	0.33	0.66		
19	0.00	17.90	0.00	0.00	0.00	3.96	1.68	2.16	2.16	0.80	0.33	0.38		
20	0.00	8.00	0.00	0.00	0.00	36.12	0.61	2.16	2.08	0.75	0.33	0.33		
21	0.00	0.47	0.00	0.00	0.00	17.15	1.28	2.00	2.00	0.75	0.33	0.33		
22	0.00	0.00	0.00	0.00	0.00	35.04	0.33	2.66	1.92	0.71	0.33	0.33		
23	0.00	0.00	0.00	0.00	0.00	12.26	0.96	1.84	1.12	0.66	0.33	0.33		
24	0.00	0.00	0.00	0.00	0.00	9.33	0.56	2.32	1.20	0.52	0.33	0.33		
25	0.00	0.00	0.00	0.00	0.00	20.90	0.56	2.24	1.28	0.38	0.33	0.33		
26	0.00	0.00	0.00	0.00	0.00	19.90	13.64	16.17	1.44	0.56	0.33	0.28		
27	0.00	0.00	0.00	0.00	0.00	14.33	13.87	12.49	1.68	0.71	0.33	0.28		
28	0.00	0.00	0.00	0.00	0.00	8.00	19.15	9.90	1.68	0.56	0.33	0.28		
29	0.00	0.00	0.00	0.00	0.00	6.20	13.41	8.76	1.60	0.56		0.28		
30	0.00	0.00	0.00	0.00	0.00	6.80	2.66	7.10	1.44	0.47		0.28		
31		0.00		0.00	0.00		1.84		1.44	0.42		1.44		
Total	0.00	36.03	0.00	0.00	0.00	367.19	98.03	316.06	82.79	29.51	8.99	13.18	951.78	CMSDAY
Mean	0.00	1.16	0.00	0.00	0.00	12.24	3.16	10.54	2.67	0.95	0.32	0.43	2.61	CMS
Max	0.00	17.90	0.00	0.00	0.00	81.40	19.15	28.16	4.61	1.68	0.33	1.68	81.40	CMS
Min	0.00	0.00	0.00	0.00	0.00	0.00	0.05	1.36	1.12	0.38	0.28	0.28	0.00	CMS
Runoff	0.00	3.11	0.00	0.00	0.00	31.73	8.47	27.31	7.15	2.55	0.78	1.14	82.23	MCM

Momentary Peak 129.26 CMS. at 123.38 m. (MSL.) at 12.00 Hours , on Sep 5 , 2002

Runoff Yield 7.35 Liters/Second/Square KM. Momentary Peak Yield 364.110 Liters/Second/Square KM.

WATER YEAR : 2002

PING RIVER BASIN

Nam Mae Ngat at Ban Sahakorn Romklao , Chiang Mai (P.56A)

Lat 19 - 17 - 04 N Long 99 - 11 - 23 E

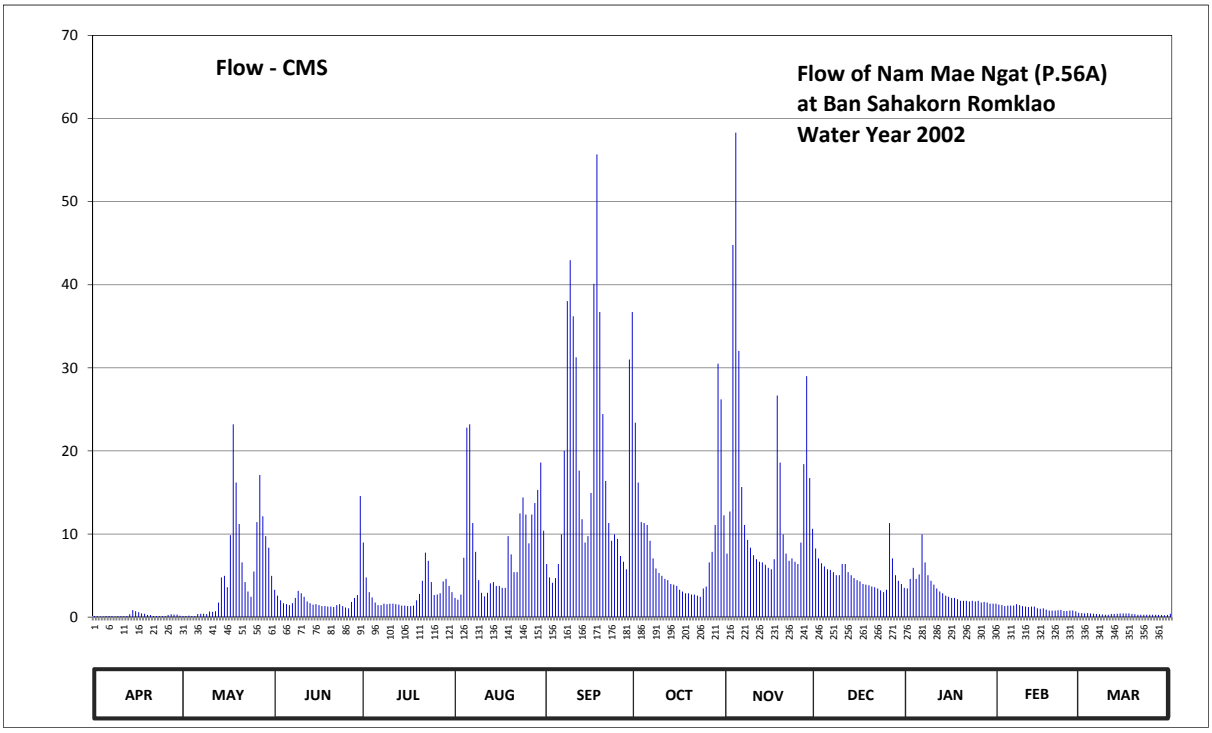
Location : on left bank at the bridge near land Cooperative Office.

	Ban Sahakorn Romklao	**Amphoe** Phrao		**Changwat** Chiang Mai	
Drainge Area	546 sq.km.				
Type of Gage	Water - stage recorder.				
Zero Gage at Bottom	+0.000 m. (A.D.)				
Bench Mark	B.M.-H.D.				
Location BM	On left bank about 10 meters from the top staff gage.			**Elevation**	+6.000 m. (A.D.)
Gage Reading Frequency	Recording.				
Basis of Mean Daily Gage Height	Arithmetic mean 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 because of backwater effect.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records fair. Stage-discharge relation defined by 38 discharge measurements made in 2002.				

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.52	0.52	1.04	1.67	0.90	1.41	2.57	1.54	1.60	1.06	0.78	0.56	
2	0.51	0.52	0.94	1.23	0.87	1.23	2.20	2.00	1.48	1.21	0.77	0.55	
3	0.50	0.53	0.86	1.00	0.96	1.15	1.89	3.43	1.42	1.36	0.75	0.56	
4	0.50	0.52	0.81	0.91	1.49	1.22	1.88	3.91	1.38	1.21	0.76	0.55	
5	0.52	0.52	0.79	0.82	2.54	1.41	1.86	2.94	1.34	1.27	0.76	0.54	
6	0.52	0.59	0.77	0.77	2.56	1.76	1.69	2.17	1.33	1.76	0.76	0.53	
7	0.51	0.60	0.81	0.77	1.88	2.40	1.48	1.86	1.30	1.43	0.79	0.52	
8	0.50	0.60	0.90	0.80	1.56	3.17	1.35	1.70	1.26	1.26	0.77	0.51	
9	0.51	0.59	1.02	0.79	1.19	3.36	1.29	1.61	1.26	1.18	0.75	0.50	
10	0.51	0.67	0.98	0.80	0.99	3.10	1.25	1.52	1.41	1.12	0.74	0.50	
11	0.51	0.66	0.92	0.80	0.93	2.91	1.21	1.47	1.41	1.06	0.73	0.53	
12	0.52	0.68	0.84	0.79	0.99	2.28	1.19	1.44	1.30	1.01	0.74	0.53	
13	0.58	0.82	0.81	0.78	1.14	1.92	1.13	1.43	1.26	0.98	0.74	0.54	
14	0.71	1.23	0.78	0.76	1.16	1.67	1.12	1.40	1.22	0.94	0.70	0.55	
15	0.68	1.25	0.79	0.76	1.10	1.74	1.10	1.36	1.19	0.92	0.69	0.55	
16	0.65	1.08	0.77	0.75	1.10	2.13	1.04	1.34	1.17	0.90	0.70	0.55	
17	0.61	1.75	0.75	0.75	1.07	3.25	1.01	1.47	1.13	0.90	0.67	0.55	
18	0.60	2.56	0.75	0.76	1.07	3.82	0.98	2.72	1.12	0.88	0.64	0.53	
19	0.56	2.20	0.74	0.86	1.74	3.12	0.98	2.33	1.11	0.85	0.64	0.52	
20	0.55	1.87	0.74	0.97	1.53	2.62	0.96	1.76	1.09	0.85	0.64	0.50	
21	0.52	1.43	0.73	1.18	1.30	2.21	0.96	1.54	1.08	0.85	0.65	0.50	
22	0.52	1.16	0.77	1.55	1.30	1.88	0.94	1.45	1.06	0.84	0.66	0.50	
23	0.51	1.01	0.79	1.45	1.98	1.69	0.92	1.48	1.03	0.85	0.63	0.50	
24	0.52	0.92	0.75	1.16	2.10	1.76	1.06	1.44	1.00	0.84	0.63	0.50	
25	0.51	1.31	0.72	0.95	1.97	1.71	1.09	1.41	1.04	0.85	0.64	0.50	
26	0.55	1.89	0.70	0.96	1.66	1.51	1.43	1.67	1.88	0.82	0.64	0.50	
27	0.58	2.25	0.83	0.98	1.97	1.44	1.56	2.32	1.48	0.83	0.62	0.49	
28	0.57	1.95	0.90	1.17	2.06	1.34	1.86	2.82	1.26	0.82	0.57	0.49	
29	0.57	1.74	0.95	1.21	2.15	2.90	2.88	2.23	1.18	0.80		0.48	
30	0.53	1.61	2.11	1.10	2.33	3.12	2.70	1.82	1.13	0.80		0.49	
31		1.25		1.00	1.80		1.96		1.07	0.80		0.54	
Mean	0.55	1.17	0.87	0.98	1.53	2.17	1.47	1.92	1.26	1.01	0.70	0.52	
Max	0.71	2.56	2.11	1.67	2.56	3.82	2.88	3.91	1.88	1.76	0.79	0.56	3.91
Min	0.50	0.52	0.70	0.75	0.87	1.15	0.92	1.34	1.00	0.80	0.57	0.48	0.48

Annual Max Momentary Gage Height	4.23	m. (A.D.) ,	at 22.00 Hours , on Sep 17 , 2002		
Zero Gage at Bottom Elevation	0.00	m. (A.D.) ,	River Bed	0.49	m. (A.D.)
Left Bank Elevation	7.42	m. (A.D.) ,			
Right Bank Elevation	7.45	m. (A.D.) ,	Drainage Are	546	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.14	0.14	3.30	8.98	2.30	6.39	23.40	7.65	8.25	3.45	1.50	0.48		
2	0.11	0.14	2.58	4.78	2.09	4.78	16.20	12.70	7.06	4.61	1.44	0.44		
3	0.08	0.18	2.02	3.00	2.72	4.13	11.44	44.78	6.48	5.93	1.33	0.48		
4	0.08	0.14	1.68	2.37	7.15	4.70	11.32	58.30	6.11	4.61	1.39	0.44		
5	0.14	0.14	1.55	1.75	22.80	6.39	11.09	32.04	5.76	5.14	1.39	0.41		
6	0.14	0.37	1.44	1.44	23.20	9.96	9.19	15.66	5.67	9.96	1.39	0.38		
7	0.11	0.40	1.68	1.44	11.32	20.00	7.06	11.09	5.40	6.58	1.55	0.35		
8	0.08	0.40	2.30	1.61	7.85	38.02	5.85	9.30	5.05	5.05	1.44	0.32		
9	0.11	0.37	3.15	1.55	4.44	42.96	5.31	8.35	5.05	4.37	1.33	0.29		
10	0.11	0.68	2.86	1.61	2.93	36.20	4.96	7.45	6.39	3.90	1.27	0.29		
11	0.11	0.64	2.44	1.61	2.51	31.26	4.61	6.96	6.39	3.45	1.22	0.38		
12	0.14	0.72	1.89	1.55	2.93	17.64	4.44	6.67	5.40	3.07	1.27	0.38		
13	0.34	1.75	1.68	1.50	4.06	11.78	3.98	6.58	5.05	2.86	1.27	0.41		
14	0.85	4.78	1.50	1.39	4.21	8.98	3.90	6.29	4.70	2.58	1.05	0.44		
15	0.72	4.96	1.55	1.39	3.75	9.74	3.75	5.93	4.44	2.44	1.00	0.44		
16	0.60	3.60	1.44	1.33	3.75	14.94	3.30	5.76	4.29	2.30	1.05	0.44		
17	0.44	9.85	1.33	1.33	3.52	40.10	3.07	6.96	3.98	2.30	0.91	0.44		
18	0.40	23.20	1.33	1.39	3.52	55.68	2.86	26.66	3.90	2.16	0.78	0.38		
19	0.27	16.20	1.27	2.02	9.74	36.72	2.86	18.60	3.83	1.96	0.78	0.35		
20	0.24	11.21	1.27	2.79	7.55	24.44	2.72	9.96	3.67	1.96	0.78	0.29		
21	0.14	6.58	1.22	4.37	5.40	16.38	2.72	7.65	3.60	1.96	0.82	0.29		
22	0.14	4.21	1.44	7.75	5.40	11.32	2.58	6.77	3.45	1.89	0.87	0.29		
23	0.11	3.07	1.55	6.77	12.47	9.19	2.44	7.06	3.22	1.96	0.73	0.29		
24	0.14	2.44	1.33	4.21	14.40	9.96	3.45	6.67	3.00	1.89	0.73	0.29		
25	0.11	5.49	1.16	2.65	12.35	9.41	3.67	6.39	3.30	1.96	0.78	0.29		
26	0.24	11.44	1.05	2.72	8.88	7.35	6.58	8.98	11.32	1.75	0.78	0.29		
27	0.34	17.10	1.82	2.86	12.35	6.67	7.85	18.40	7.06	1.82	0.69	0.26		
28	0.30	12.12	2.30	4.29	13.72	5.76	11.09	29.00	5.05	1.75	0.51	0.26		
29	0.30	9.74	2.65	4.61	15.30	31.00	30.50	16.74	4.37	1.61		0.23		
30	0.18	8.35	14.58	3.75	18.60	36.72	26.20	10.63	3.98	1.61		0.26		
31		4.96		3.00	10.40		12.24		3.52	1.61		0.41		
Total	7.21	165.37	67.36	91.81	261.61	568.57	250.63	425.98	158.74	98.49	30.05	10.99	2136.81	CMSDAY
Mean	0.24	5.33	2.25	2.96	8.44	18.95	8.08	14.20	5.12	3.18	1.07	0.35	5.85	CMS
Max	0.85	23.20	14.58	8.98	23.20	55.68	30.50	58.30	11.32	9.96	1.55	0.48	58.30	CMS
Min	0.08	0.14	1.05	1.33	2.09	4.13	2.44	5.76	3.00	1.61	0.51	0.23	0.08	CMS
Runoff	0.62	14.29	5.82	7.93	22.60	49.12	21.65	36.80	13.72	8.51	2.60	0.95	184.62	MCM

Momentary Peak 67.90 CMS. at 4.23 m. (A.D.) at 22.00 Hours , on Sep 17 , 2002

Runoff Yield 10.72 Liters/Second/Square KM. Momentary Peak Yield 124.360 Liters/Second/Square KM.

WATER YEAR : 2002

PING RIVER BASIN

Nam Mae Tun at Ban Luang, Chiang Mai (P.64)

Lat 17 - 46 - 56 N Long 98 - 22 - 29 E

Location : on rigth bank at the bridge on Highway.

Ban Luang **Amphoe** Omkoi **Changwat** Chiang Mai

Drainge Area	502 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 about 35.00 meters from the top staff gage. **Elevation** +9.000 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 mean 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 fair. Stage-discharge relation defined by 123 discharge measurements made in 2002.

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

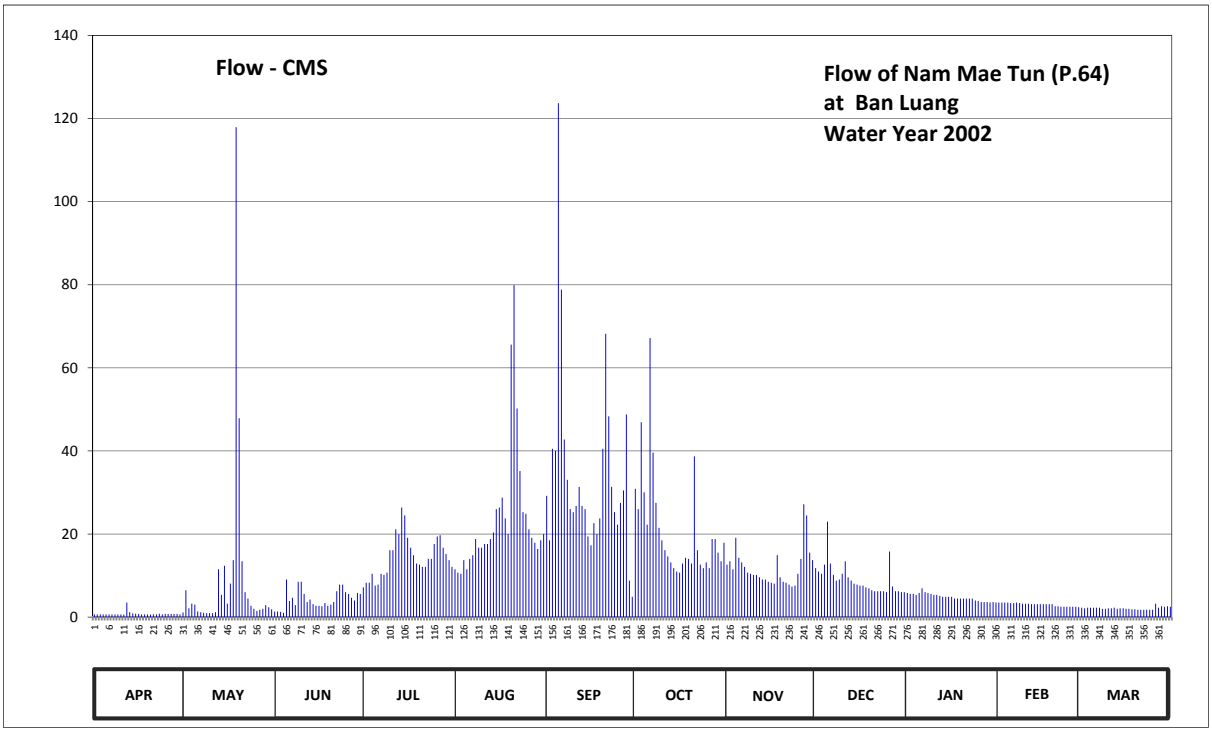
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.29	0.35	0.38	0.74	0.91	1.44	1.48	0.95	0.92	0.68	0.56	0.46	
2	0.29	0.71	0.38	0.79	0.88	1.15	1.36	0.98	0.89	0.67	0.56	0.45	
3	0.29	0.45	0.37	0.79	0.87	1.70	1.84	0.91	0.87	0.67	0.56	0.46	
4	0.29	0.54	0.34	0.87	0.99	1.69	1.46	1.17	0.95	0.66	0.56	0.46	
5	0.29	0.52	0.82	0.76	0.91	3.29	1.26	1.01	1.28	0.68	0.55	0.46	
6	0.29	0.38	0.59	0.77	1.00	2.48	2.26	0.97	0.96	0.73	0.55	0.46	
7	0.29	0.36	0.63	0.87	1.03	1.75	1.68	0.93	0.86	0.69	0.56	0.46	
8	0.29	0.34	0.51	0.86	1.16	1.53	1.40	0.88	0.81	0.68	0.55	0.44	
9	0.29	0.33	0.80	0.88	1.09	1.36	1.24	0.87	0.82	0.67	0.54	0.44	
10	0.29	0.33	0.80	1.07	1.09	1.34	1.15	0.86	0.87	0.66	0.54	0.45	
11	0.28	0.33	0.67	1.07	1.12	1.38	1.07	0.86	0.98	0.66	0.54	0.45	
12	0.56	0.36	0.57	1.23	1.12	1.49	1.02	0.84	0.84	0.65	0.53	0.46	
13	0.36	0.91	0.61	1.20	1.16	1.38	0.97	0.82	0.81	0.64	0.53	0.44	
14	0.32	0.66	0.53	1.37	1.21	1.36	0.92	0.82	0.78	0.64	0.53	0.45	
15	0.31	0.94	0.50	1.32	1.36	1.18	0.89	0.80	0.77	0.64	0.53	0.45	
16	0.30	0.54	0.50	1.17	1.37	1.11	0.88	0.79	0.76	0.64	0.53	0.44	
17	0.29	0.78	0.49	1.09	1.43	1.27	0.96	0.78	0.76	0.62	0.53	0.44	
18	0.29	0.99	0.55	1.03	1.30	1.20	1.01	1.03	0.74	0.62	0.53	0.43	
19	0.29	3.19	0.50	0.96	1.20	1.30	1.00	0.84	0.73	0.62	0.53	0.43	
20	0.28	1.86	0.52	0.95	2.23	1.70	0.96	0.80	0.71	0.62	0.49	0.42	
21	0.29	0.98	0.57	0.93	2.50	2.28	1.66	0.79	0.70	0.62	0.49	0.42	
22	0.29	0.69	0.70	0.93	1.91	1.87	1.07	0.77	0.70	0.62	0.48	0.42	
23	0.31	0.62	0.77	1.00	1.58	1.49	0.95	0.75	0.70	0.62	0.48	0.42	
24	0.29	0.50	0.77	1.00	1.34	1.34	0.92	0.76	0.70	0.60	0.48	0.42	
25	0.30	0.44	0.69	1.12	1.33	1.26	0.97	0.87	0.69	0.59	0.48	0.42	
26	0.30	0.40	0.67	1.18	1.23	1.40	0.92	1.00	1.06	0.57	0.48	0.54	
27	0.30	0.42	0.63	1.19	1.17	1.47	1.16	1.39	0.75	0.57	0.48	0.46	
28	0.30	0.44	0.60	1.09	1.13	1.88	1.16	1.32	0.70	0.57	0.47	0.49	
29	0.30	0.51	0.68	1.04	1.08	0.81	1.05	1.05	0.70	0.56		0.48	
30	0.29	0.47	0.67	0.99	1.15	0.64	0.98	0.99	0.69	0.57		0.49	
31		0.43		0.93	1.20		1.13		0.69	0.56		0.48	
Mean	0.30	0.67	0.59	1.01	1.26	1.52	1.19	0.92	0.81	0.63	0.52	0.45	
Max	0.56	3.19	0.82	1.37	2.50	3.29	2.26	1.39	1.28	0.73	0.56	0.54	3.29
Min	0.28	0.33	0.34	0.74	0.87	0.64	0.88	0.75	0.69	0.56	0.47	0.42	0.28

Annual Max Momentary Gage Height 4.07 m. (A.D.) , at 18.00 Hours , on Sep 5 , 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed 0.08 m. (A.D.)

Left Bank Elevation 4.51 m. (A.D.) ,

Right Bank Elevation 4.53 m. (A.D.) , Drainage Are 502 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.67	1.12	1.35	7.15	11.52	29.20	30.90	12.62	11.80	5.80	3.50	2.25		
2	0.67	6.47	1.35	8.27	10.70	18.50	26.00	13.45	10.97	5.57	3.50	2.12		
3	0.67	2.12	1.27	8.27	10.42	40.50	46.90	11.52	10.42	5.57	3.50	2.25		
4	0.67	3.25	1.05	10.42	13.72	40.05	30.05	19.10	12.62	5.35	3.50	2.25		
5	0.67	3.00	9.05	7.60	11.52	123.67	22.25	14.30	23.00	5.80	3.37	2.25		
6	0.67	1.35	3.87	7.82	14.00	78.83	67.15	13.17	12.90	6.92	3.37	2.25		
7	0.67	1.20	4.67	10.42	14.90	42.75	39.60	12.07	10.15	6.02	3.50	2.25		
8	0.67	1.05	2.87	10.15	18.80	33.02	27.50	10.70	8.77	5.80	3.37	2.00		
9	0.67	0.97	8.50	10.70	16.70	26.00	21.50	10.42	9.05	5.57	3.25	2.00		
10	0.67	0.97	8.50	16.10	16.70	25.25	18.50	10.15	10.42	5.35	3.25	2.12		
11	0.60	0.97	5.57	16.10	17.60	26.75	16.10	10.15	13.45	5.35	3.25	2.12		
12	3.50	1.20	3.62	21.12	17.60	31.33	14.60	9.60	9.60	5.12	3.12	2.25		
13	1.20	11.52	4.22	20.00	18.80	26.75	13.17	9.05	8.77	4.90	3.12	2.00		
14	0.90	5.35	3.12	26.38	20.37	26.00	11.80	9.05	8.05	4.90	3.12	2.12		
15	0.82	12.35	2.75	24.50	26.00	19.40	10.97	8.50	7.82	4.90	3.12	2.12		
16	0.75	3.25	2.75	19.10	26.38	17.30	10.70	8.27	7.60	4.90	3.12	2.00		
17	0.67	8.05	2.62	16.70	28.78	22.62	12.90	8.05	7.60	4.45	3.12	2.00		
18	0.67	13.72	3.37	14.90	23.75	20.00	14.30	14.90	7.15	4.45	3.12	1.87		
19	0.67	117.92	2.75	12.90	20.00	23.75	14.00	9.60	6.92	4.45	3.12	1.87		
20	0.60	47.85	3.00	12.62	65.57	40.50	12.90	8.50	6.47	4.45	2.62	1.75		
21	0.67	13.45	3.62	12.07	79.92	68.20	38.70	8.27	6.25	4.45	2.62	1.75		
22	0.67	6.02	6.25	12.07	50.23	48.33	16.10	7.82	6.25	4.45	2.50	1.75		
23	0.82	4.45	7.82	14.00	35.15	31.33	12.62	7.37	6.25	4.45	2.50	1.75		
24	0.67	2.75	7.82	14.00	25.25	25.25	11.80	7.60	6.25	4.00	2.50	1.75		
25	0.75	2.00	6.02	17.60	24.87	22.25	13.17	10.42	6.02	3.87	2.50	1.75		
26	0.75	1.50	5.57	19.40	21.12	27.50	11.80	14.00	15.80	3.62	2.50	3.25		
27	0.75	1.75	4.67	19.70	19.10	30.48	18.80	27.13	7.37	3.62	2.50	2.25		
28	0.75	2.00	4.00	16.70	17.90	48.80	18.80	24.50	6.25	3.62	2.37	2.62		
29	0.75	2.87	5.80	15.20	16.40	8.77	15.50	15.50	6.25	3.50		2.50		
30	0.67	2.37	5.57	13.72	18.50	4.90	13.45	13.72	6.02	3.62		2.62		
31		1.87		12.07	20.00		17.90		6.02	3.50		2.50		
Total	24.33	284.71	133.39	447.75	732.27	1027.98	650.43	359.50	282.26	148.32	84.93	66.33	4242.20	CMSDAY
Mean	0.81	9.18	4.45	14.44	23.62	34.27	20.98	11.98	9.11	4.78	3.03	2.14	11.62	CMS
Max	3.50	117.92	9.05	26.38	79.92	123.67	67.15	27.13	23.00	6.92	3.50	3.25	123.67	CMS
Min	0.60	0.97	1.05	7.15	10.42	4.90	10.70	7.37	6.02	3.50	2.37	1.75	0.60	CMS
Runoff	2.10	24.60	11.52	38.69	63.27	88.82	56.20	31.06	24.39	12.81	7.34	5.73	366.53	MCM

Momentary Peak 170.55 CMS. at 4.07 m. (A.D.) at 18.00 Hours , on Sep 5 , 2002

Runoff Yield 23.15 Liters/Second/Square KM. Momentary Peak Yield 339.740 Liters/Second/Square KM.

WATER YEAR : 2002

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	+315.930 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 mean 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	Rather unstable.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Flow regulated by Mae Faek and Mae Taeng weir situated above gage site. Flow effected by the sand-dredger about 10 kilometers downstrem from the gage site. Stage-discharge relation defined by 38 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

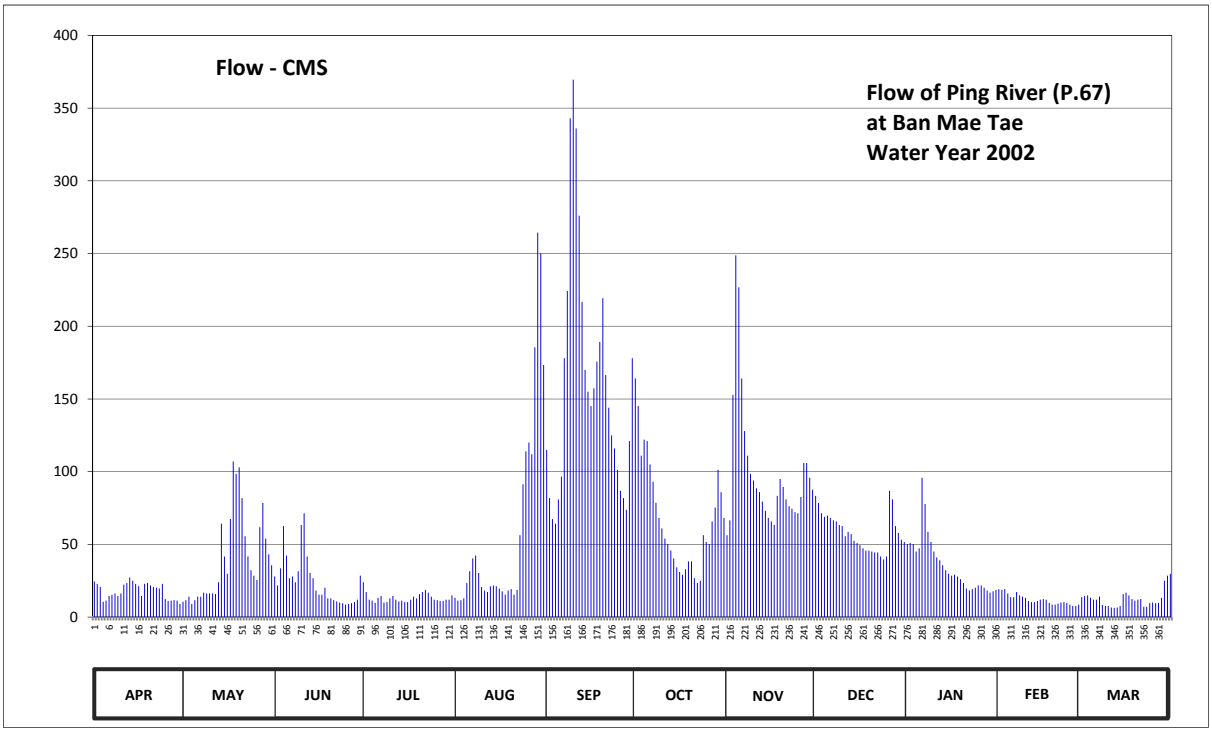
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	317.07	316.76	317.13	317.06	316.84	318.22	318.68	317.54	317.88	317.46	316.97	316.85	
2	317.04	316.80	317.02	316.93	316.79	317.86	318.51	317.67	317.82	317.47	316.96	316.87	
3	317.00	316.86	317.22	316.81	316.80	317.68	318.18	318.58	317.73	317.46	316.97	316.88	
4	316.76	316.70	317.62	316.79	316.83	317.64	318.29	319.36	317.70	317.39	316.91	316.84	
5	316.79	316.80	317.35	316.73	317.05	317.85	318.28	319.19	317.71	317.42	316.85	316.81	
6	316.87	316.86	317.11	316.84	317.19	318.03	318.12	318.68	317.69	318.02	316.85	316.81	
7	316.89	316.86	317.13	316.87	317.32	318.80	317.99	318.35	317.67	317.81	316.93	316.86	
8	316.91	316.92	317.06	316.74	317.35	319.17	317.82	318.18	317.66	317.57	316.88	316.67	
9	316.87	316.91	317.19	316.75	317.17	320.05	317.69	318.05	317.63	317.48	316.86	316.64	
10	316.91	316.91	317.63	316.83	317.00	320.24	317.60	318.00	317.62	317.39	316.84	316.63	
11	317.03	316.91	317.73	316.87	316.95	320.00	317.51	317.94	317.53	317.33	316.78	316.58	
12	317.05	316.90	317.34	316.81	316.93	319.57	317.46	317.91	317.57	317.30	316.75	316.57	
13	317.12	317.06	317.17	316.77	317.01	319.11	317.40	317.83	317.55	317.25	316.75	316.58	
14	317.08	317.64	317.11	316.79	317.02	318.73	317.32	317.75	317.49	317.20	316.78	316.63	
15	317.04	317.34	316.95	316.75	317.01	318.60	317.23	317.69	317.47	317.16	316.81	316.90	
16	317.01	317.16	316.89	316.75	316.98	318.51	317.18	317.66	317.45	317.14	316.82	316.92	
17	316.87	317.68	316.89	316.81	316.94	318.62	317.15	317.63	317.42	317.15	316.81	316.88	
18	317.04	318.14	316.99	316.86	316.89	318.78	317.21	317.88	317.40	317.13	316.73	316.82	
19	317.05	318.05	316.83	316.83	316.95	318.89	317.29	318.01	317.40	317.10	316.68	316.79	
20	317.02	318.10	316.83	316.90	316.97	319.13	317.29	317.95	317.39	317.05	316.68	316.81	
21	317.00	317.86	316.80	316.93	316.89	318.70	317.11	317.85	317.38	316.98	316.71	316.82	
22	316.99	317.53	316.77	316.96	316.96	318.50	317.05	317.79	317.38	316.95	316.74	316.61	
23	316.98	317.34	316.74	316.92	317.54	318.32	317.08	317.77	317.34	316.97	316.75	316.61	
24	317.04	317.20	316.72	316.86	317.97	318.23	317.54	317.74	317.31	316.99	316.73	316.72	
25	316.82	317.14	316.68	316.81	318.21	318.08	317.48	317.73	317.34	317.02	316.68	316.74	
26	316.78	317.09	316.70	316.80	318.27	317.92	317.46	317.87	317.92	317.02	316.64	316.72	
27	316.79	317.61	316.72	316.78	318.19	317.86	317.66	318.13	317.85	316.99	316.64	316.73	
28	316.80	317.82	316.75	316.78	318.86	317.76	317.78	318.13	317.62	316.95	316.68	316.84	
29	316.79	317.51	316.81	316.81	319.48	318.28	318.08	318.02	317.56	316.92		317.08	
30	316.70	317.36	317.14	316.81	319.37	318.80	317.91	317.93	317.50	316.94		317.14	
31		317.25		316.88	318.76		317.69		317.48	316.96		317.16	
Mean	316.94	317.26	317.03	316.83	317.44	318.60	317.65	318.03	317.56	317.22	316.79	316.79	
Max	317.12	318.14	317.73	317.06	319.48	320.24	318.68	319.36	317.92	318.02	316.97	317.16	320.24
Min	316.70	316.70	316.68	316.73	316.79	317.64	317.05	317.54	317.31	316.92	316.64	316.57	316.57

Annual Max Momentary Gage Height 320.28 m. (MSL.) , at 19.00 Hours , on Sep 9 , 2002

Zero Gage at Bottom Elevation 315.93 m. (MSL.) , River Bed 315.76 m. (MSL.)

Left Bank Elevation 325.32 m. (MSL.) ,

Right Bank Elevation 325.32 m. (MSL.) , Drainage Are 5,323 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	24.48	10.56	27.93	23.94	13.28	115.00	164.20	56.32	83.40	50.24	19.23	13.70		
2	22.86	11.60	21.78	17.27	11.34	81.80	145.10	66.60	78.60	50.98	18.74	14.54		
3	20.70	14.12	33.56	12.02	11.60	67.40	111.00	152.80	71.40	50.24	19.23	14.96		
4	10.56	9.00	62.60	11.34	12.86	64.20	122.00	248.80	69.00	45.12	16.29	13.28		
5	11.34	11.60	42.40	9.78	23.40	81.00	121.00	226.75	69.80	47.28	13.70	12.02		
6	14.54	14.12	26.71	13.28	31.59	96.70	105.00	164.20	68.20	95.80	13.70	12.02		
7	15.38	14.12	27.93	14.54	40.36	178.00	93.10	128.00	66.60	77.80	17.27	14.12		
8	16.29	16.78	23.94	10.04	42.40	224.25	78.60	111.00	65.80	58.66	14.96	8.37		
9	14.54	16.29	31.59	10.30	30.37	343.00	68.20	98.50	63.40	51.72	14.12	7.74		
10	16.29	16.29	63.40	12.86	20.70	369.60	61.00	94.00	62.60	45.12	13.28	7.53		
11	22.32	16.29	71.40	14.54	18.25	336.00	53.98	88.60	55.54	41.04	11.08	6.56		
12	23.40	15.80	41.72	12.02	17.27	276.10	50.24	85.90	58.66	39.00	10.30	6.39		
13	27.32	23.94	30.37	10.82	21.24	216.75	45.80	79.40	57.10	35.60	10.30	6.56		
14	25.02	64.20	26.71	11.34	21.78	169.95	40.36	73.00	52.46	32.20	11.08	7.53		
15	22.86	41.72	18.25	10.30	21.24	155.00	34.24	68.20	50.98	29.76	12.02	15.80		
16	21.24	29.76	15.38	10.30	19.72	145.10	30.98	65.80	49.50	28.54	12.44	16.78		
17	14.54	67.40	15.38	12.02	17.76	157.30	29.15	63.40	47.28	29.15	12.02	14.96		
18	22.86	107.00	20.21	14.12	15.38	175.70	32.88	83.40	45.80	27.93	9.78	12.44		
19	23.40	98.50	12.86	12.86	18.25	189.25	38.32	94.90	45.80	26.10	8.58	11.34		
20	21.78	103.00	12.86	15.80	19.23	219.25	38.32	89.50	45.12	23.40	8.58	12.02		
21	20.70	81.80	11.60	17.27	15.38	166.50	26.71	81.00	44.44	19.72	9.26	12.44		
22	20.21	55.54	10.82	18.74	18.74	144.00	23.40	76.20	44.44	18.25	10.04	7.11		
23	19.72	41.72	10.04	16.78	56.32	125.00	25.02	74.60	41.72	19.23	10.30	7.11		
24	22.86	32.20	9.52	14.12	91.30	116.00	56.32	72.20	39.68	20.21	9.78	9.52		
25	12.44	28.54	8.58	12.02	114.00	101.20	51.72	71.40	41.72	21.78	8.58	10.04		
26	11.08	25.56	9.00	11.60	120.00	86.80	50.24	82.60	86.80	21.78	7.74	9.52		
27	11.34	61.80	9.52	11.08	112.00	81.80	65.80	106.00	81.00	20.21	7.74	9.78		
28	11.60	78.60	10.30	11.08	185.50	73.80	75.40	106.00	62.60	18.25	8.58	13.28		
29	11.34	53.98	12.02	12.02	264.40	121.00	101.20	95.80	57.88	16.78		25.02		
30	9.00	43.08	28.54	12.02	250.10	178.00	85.90	87.70	53.20	17.76		28.54		
31		35.60		14.96	173.40		68.20		51.72	18.74		29.76		
Total	542.01	1240.51	746.92	411.18	1829.16	4855.45	2093.38	2992.57	1812.24	1098.39	338.72	390.78	18351.31	CMSDAY
Mean	18.07	40.02	24.90	13.26	59.01	161.85	67.53	99.75	58.46	35.43	12.10	12.61	50.28	CMS
Max	27.32	107.00	71.40	23.94	264.40	369.60	164.20	248.80	86.80	95.80	19.23	29.76	369.60	CMS
Min	9.00	9.00	8.58	9.78	11.34	64.20	23.40	56.32	39.68	16.78	7.74	6.39	6.39	CMS
Runoff	46.83	107.18	64.53	35.53	158.04	419.51	180.87	258.56	156.58	94.90	29.27	33.76	1585.55	MCM

Momentary Peak 375.20 CMS. at 320.28 m. (MSL.) at 19.00 Hours , on Sep 9 , 2002

Runoff Yield 9.45 Liters/Second/Square KM. Momentary Peak Yield 70.490 Liters/Second/Square KM.

WATER YEAR : 2002

PING RIVER BASIN

Nam Mae Khan at Ban Klang , Chiang Mai (P.71)

Lat 18 - 32 - 13 N Long 98 - 51 - 45 E

Location : on left bank at the bridge on highway.

Ban Klang **Amphoe** San Pa Tong **Changwat** Chiang Mai

Drainge Area	1,758 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 about 3 meters from the top staff gage. **Elevation** +6.400 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 mean 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 because of backwater effect.
Overbank Flow Conditions	Overbank flow starts at elevation +4.490 m.(A.D.) and is including overbank flow.
General Description	Records fair. The concrete weir made by R.I.D about 3 kilometers and the temporary weir about 300 meters downstream from the gage site. Stage-discharge relation defined by 39 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

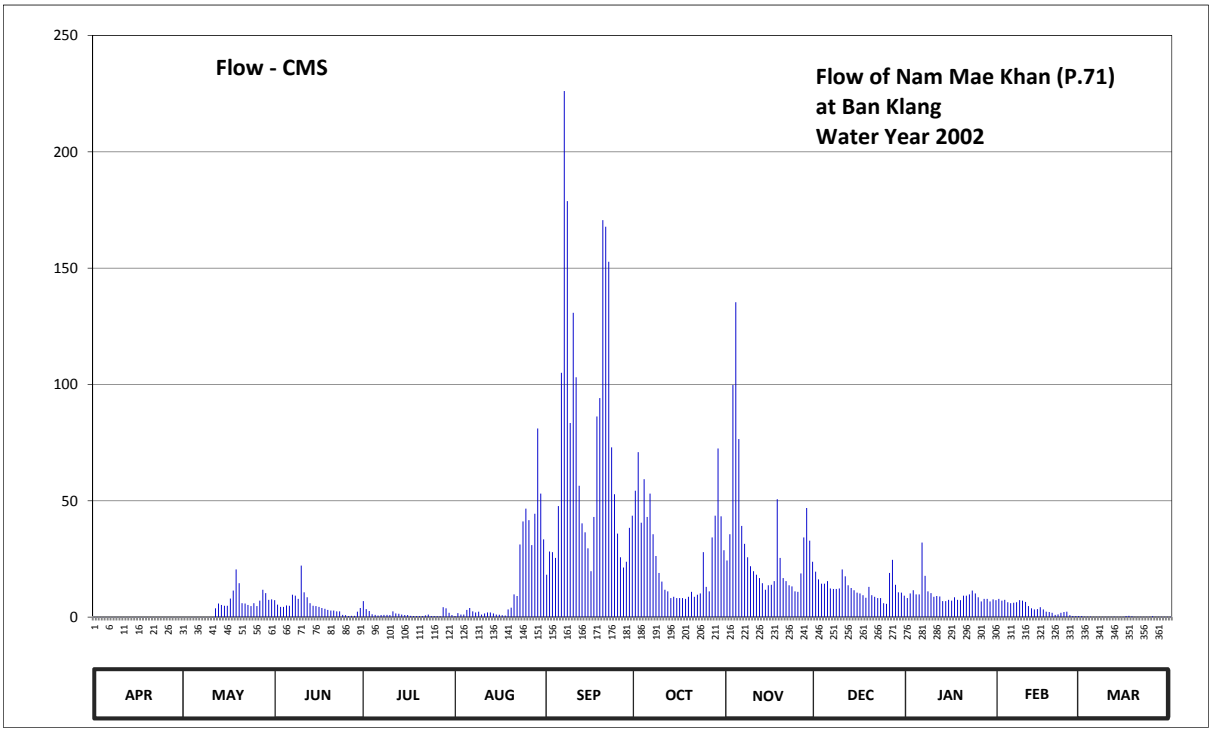
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.42	0.79	1.07	1.05	0.60	1.61	2.91	1.84	1.66	1.12	1.10	0.60	
2	0.42	0.80	0.96	0.84	0.73	1.98	3.36	2.25	1.53	1.23	1.06	0.51	
3	0.42	0.79	0.90	0.79	0.68	1.97	2.43	3.92	1.45	1.31	1.08	0.51	
4	0.43	0.79	0.90	0.70	0.68	1.88	3.05	4.37	1.45	1.21	1.02	0.51	
5	0.43	0.80	0.94	0.66	0.82	2.69	2.52	3.49	1.50	1.21	1.00	0.49	
6	0.43	0.80	0.93	0.62	0.87	4.00	2.87	2.38	1.35	2.12	1.01	0.48	
7	0.70	0.82	1.20	0.65	0.78	4.97	2.25	2.10	1.34	1.59	1.02	0.48	
8	0.70	0.82	1.18	0.66	0.75	4.74	1.91	1.89	1.34	1.28	1.07	0.49	
9	0.78	0.82	1.10	0.66	0.77	3.64	1.64	1.75	1.35	1.24	1.06	0.49	
10	0.75	0.79	1.76	0.65	0.68	4.32	1.49	1.67	1.70	1.15	1.03	0.49	
11	0.82	0.79	1.26	0.78	0.72	3.97	1.32	1.61	1.58	1.17	0.92	0.50	
12	0.79	0.86	1.14	0.72	0.75	2.97	1.28	1.55	1.42	1.16	0.86	0.51	
13	0.78	0.99	1.00	0.71	0.75	2.42	1.12	1.46	1.36	1.05	0.83	0.50	
14	0.79	0.95	0.93	0.68	0.72	2.28	1.15	1.32	1.31	1.05	0.84	0.48	
15	0.79	0.93	0.92	0.65	0.68	2.03	1.12	1.42	1.25	1.08	0.89	0.49	
16	0.80	0.93	0.90	0.65	0.67	1.67	1.12	1.43	1.23	1.06	0.83	0.59	
17	0.80	1.11	0.87	0.61	0.64	2.52	1.12	1.50	1.19	1.14	0.77	0.61	
18	0.80	1.30	0.85	0.59	0.62	3.70	1.10	2.79	1.13	1.08	0.76	0.56	
19	0.79	1.70	0.82	0.59	0.83	3.83	1.15	1.88	1.39	1.07	0.74	0.47	
20	0.80	1.46	0.80	0.57	0.88	4.69	1.27	1.55	1.19	1.18	0.66	0.46	
21	0.80	1.00	0.80	0.60	1.21	4.67	1.15	1.50	1.15	1.18	0.69	0.46	
22	0.80	0.99	0.78	0.63	1.17	4.55	1.20	1.42	1.12	1.21	0.74	0.48	
23	0.80	0.95	0.78	0.68	2.09	3.41	1.23	1.40	1.12	1.30	0.76	0.50	
24	0.80	0.92	0.66	0.60	2.45	2.86	1.97	1.28	1.00	1.23	0.77	0.50	
25	0.80	1.00	0.64	0.60	2.65	2.26	1.39	1.27	0.98	1.14	0.64	0.57	
26	0.80	0.92	0.60	0.58	2.47	1.89	1.28	1.63	1.64	1.04	0.60	0.46	
27	0.80	1.06	0.61	0.58	2.08	1.73	2.20	2.20	1.85	1.10	0.60	0.50	
28	0.80	1.32	0.61	0.89	2.57	1.82	2.54	2.66	1.43	1.10	0.60	0.49	
29	0.80	1.24	0.77	0.86	3.59	2.35	3.40	2.15	1.26	1.04		0.49	
30	0.79	1.08	0.87	0.74	2.87	2.54	2.53	1.82	1.25	1.09		0.49	
31		1.09		0.65	2.17		2.00		1.18	1.07		0.49	
Mean	0.71	0.99	0.92	0.69	1.29	3.00	1.84	1.98	1.35	1.19	0.86	0.50	
Max	0.82	1.70	1.76	1.05	3.59	4.97	3.40	4.37	1.85	2.12	1.10	0.61	4.97
Min	0.42	0.79	0.60	0.57	0.60	1.61	1.10	1.27	0.98	1.04	0.60	0.46	0.42

Annual Max Momentary Gage Height 5.01 m. (A.D.) , at 13.00 Hours , on Sep 7 , 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed 0.01 m. (A.D.)

Left Bank Elevation 4.49 m. (A.D.) ,

Right Bank Elevation 4.48 m. (A.D.) , Drainage Are 1,758 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.07	0.09	7.26	6.90	0.50	18.25	54.35	24.35	19.50	8.16	7.80	0.50		
2	0.07	0.09	5.36	3.44	1.72	28.20	70.90	35.62	16.25	10.14	7.08	0.18		
3	0.07	0.09	4.40	2.64	1.10	27.92	40.57	99.80	14.35	11.58	7.44	0.18		
4	0.08	0.09	4.40	1.25	1.10	25.45	59.25	135.30	14.35	9.78	6.36	0.18		
5	0.08	0.09	5.04	0.95	3.12	47.72	43.05	76.55	15.50	9.78	6.00	0.14		
6	0.08	0.09	4.88	0.65	3.92	105.00	53.10	39.20	12.30	32.05	6.18	0.13		
7	0.07	0.09	9.60	0.87	2.49	226.10	35.62	31.50	12.12	17.75	6.36	0.13		
8	0.07	0.09	9.24	0.95	2.02	178.80	26.27	25.72	12.12	11.04	7.26	0.14		
9	0.09	0.09	7.80	0.95	2.33	83.40	19.00	21.87	12.30	10.32	7.08	0.14		
10	0.08	0.09	22.15	0.87	1.10	130.80	15.27	19.75	20.50	8.70	6.54	0.14		
11	0.09	0.09	10.68	2.49	1.56	103.05	11.76	18.25	17.50	9.06	4.72	0.15		
12	0.09	3.76	8.52	1.56	2.02	56.45	11.04	16.75	13.66	8.88	3.76	0.18		
13	0.09	5.84	6.00	1.41	2.02	40.30	8.16	14.58	12.48	6.90	3.28	0.15		
14	0.09	5.20	4.88	1.10	1.56	36.45	8.70	11.76	11.58	6.90	3.44	0.13		
15	0.09	4.88	4.72	0.87	1.10	29.57	8.16	13.66	10.50	7.44	4.24	0.14		
16	0.09	4.88	4.40	0.87	1.03	19.75	8.16	13.89	10.14	7.08	3.28	0.46		
17	0.09	7.98	3.92	0.57	0.80	43.05	8.16	15.50	9.42	8.52	2.33	0.57		
18	0.09	11.40	3.60	0.46	0.65	86.25	7.80	50.70	8.34	7.44	2.18	0.36		
19	0.09	20.50	3.12	0.46	3.28	94.13	8.70	25.45	13.02	7.26	1.87	0.12		
20	0.09	14.58	2.80	0.39	4.08	170.60	10.86	16.75	9.42	9.24	0.95	0.11		
21	0.09	6.00	2.80	0.50	9.78	167.80	8.70	15.50	8.70	9.24	1.18	0.11		
22	0.09	5.84	2.49	0.72	9.06	152.75	9.60	13.66	8.16	9.78	1.87	0.13		
23	0.09	5.20	2.49	1.10	31.22	72.95	10.14	13.20	8.16	11.40	2.18	0.15		
24	0.09	4.72	0.95	0.50	41.12	52.80	27.92	11.04	6.00	10.14	2.33	0.15		
25	0.09	6.00	0.80	0.50	46.62	35.90	13.02	10.86	5.68	8.52	0.80	0.39		
26	0.09	4.72	0.50	0.43	41.67	25.72	11.04	18.75	19.00	6.72	0.50	0.11		
27	0.09	7.08	0.57	0.43	30.95	21.32	34.25	34.25	24.62	7.80	0.50	0.15		
28	0.09	11.76	0.57	4.24	44.42	23.80	43.60	46.90	13.89	7.80	0.50	0.14		
29	0.09	10.32	2.33	3.76	81.05	38.37	72.50	32.87	10.68	6.72		0.14		
30	0.09	7.44	3.92	1.87	53.10	43.60	43.32	23.80	10.50	7.62		0.14		
31		7.62		0.87	33.42		28.75		9.24	7.26		0.14		
Total	2.56	156.71	150.19	44.57	459.91	2186.25	811.72	927.78	389.98	301.02	108.01	5.98	5544.68	CMSDAY
Mean	0.09	5.06	5.01	1.44	14.84	72.88	26.18	30.93	12.58	9.71	3.86	0.19	15.19	CMS
Max	0.09	20.50	22.15	6.90	81.05	226.10	72.50	135.30	24.62	32.05	7.80	0.57	226.10	CMS
Min	0.07	0.09	0.50	0.39	0.50	18.25	7.80	10.86	5.68	6.72	0.50	0.11	0.07	CMS
Runoff	0.22	13.54	12.98	3.85	39.74	188.89	70.13	80.16	33.69	26.01	9.33	0.52	479.06	MCM

Momentary Peak 236.10 CMS. at 5.01 m. (A.D.) at 13.00 Hours , on Sep 7 , 2002

Runoff Yield 8.64 Liters/Second/Square KM. Momentary Peak Yield 134.300 Liters/Second/Square KM.

WATER YEAR : 2002

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 mean 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 +267.720 m.(MSL.) and is including overbank flow.
General Description	Records good. No gage hieght in the drought period. Stage-discharge relation defined by 40 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

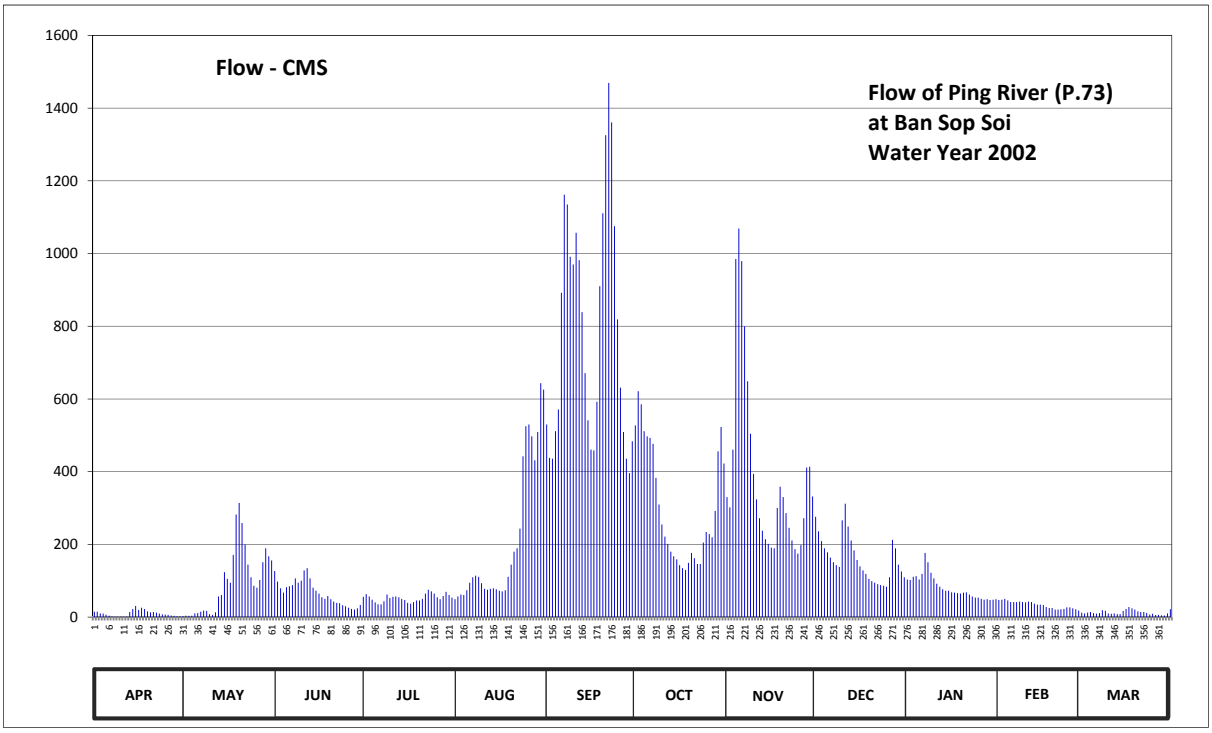
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	262.06	261.80	262.98	262.48	262.42	264.99	264.98	264.09	263.82	262.83	262.40	262.03	
2	262.06	261.85	262.79	262.54	262.49	264.59	265.38	263.95	263.61	262.82	262.41	262.00	
3	262.00	261.84	262.66	262.49	262.53	264.58	265.23	264.69	263.46	262.88	262.43	262.03	
4	261.99	261.86	262.57	262.41	262.52	264.91	264.91	266.71	263.35	262.89	262.39	262.05	
5	261.93	262.00	262.68	262.34	262.62	265.17	264.85	266.99	263.29	262.83	262.35	262.01	
6	261.85	262.01	262.70	262.29	262.77	266.40	264.83	266.69	263.21	262.93	262.35	261.99	
7	261.75	262.06	262.72	262.29	262.87	267.30	264.76	266.07	263.13	263.28	262.35	262.01	
8	261.64	262.10	262.85	262.37	262.90	267.21	264.34	265.49	263.08	263.13	262.36	262.11	
9	261.66	262.09	262.77	262.53	262.88	266.73	263.99	264.88	263.05	262.95	262.35	262.09	
10	261.71	261.96	262.81	262.45	262.76	266.66	263.71	264.39	263.77	262.85	262.34	262.00	
11	261.66	261.92	262.99	262.48	262.65	266.95	263.53	264.06	264.00	262.75	262.36	261.98	
12	261.73	262.04	263.03	262.49	262.63	266.70	263.42	263.80	263.68	262.69	262.35	262.00	
13	262.05	262.49	262.85	262.47	262.65	266.21	263.30	263.62	263.47	262.64	262.31	261.97	
14	262.15	262.52	262.67	262.43	262.66	265.58	263.23	263.49	263.32	262.61	262.28	261.97	
15	262.24	262.96	262.61	262.40	262.64	265.04	263.18	263.42	263.17	262.61	262.28	262.09	
16	262.12	262.84	262.55	262.33	262.61	264.69	263.08	263.36	263.06	262.58	262.27	262.15	
17	262.19	262.77	262.47	262.31	262.60	264.68	263.03	263.35	262.99	262.57	262.21	262.21	
18	262.15	263.25	262.43	262.35	262.62	265.26	263.00	263.94	262.93	262.56	262.18	262.17	
19	262.07	263.85	262.50	262.39	262.88	266.46	263.12	264.23	262.84	262.55	262.18	262.13	
20	262.04	264.01	262.42	262.39	263.09	267.13	263.28	264.09	262.80	262.57	262.13	262.07	
21	262.05	263.73	262.36	262.43	263.30	267.83	263.20	263.87	262.77	262.58	262.13	262.05	
22	262.03	263.41	262.33	262.55	263.35	268.28	263.10	263.66	262.74	262.53	262.14	262.05	
23	261.99	263.09	262.32	262.63	263.65	267.94	263.10	263.47	262.72	262.49	262.15	262.02	
24	261.95	262.87	262.26	262.60	264.61	267.01	263.44	263.34	262.71	262.46	262.20	261.94	
25	261.94	262.71	262.23	262.55	264.97	266.14	263.60	263.27	262.69	262.46	262.20	261.98	
26	261.92	262.67	262.19	262.47	264.99	265.42	263.57	263.40	262.87	262.43	262.17	261.91	
27	261.88	262.82	262.15	262.42	264.85	264.90	263.52	263.80	263.48	262.41	262.14	261.92	
28	261.84	263.13	262.13	262.50	264.56	264.58	263.90	264.47	263.35	262.42	262.10	261.89	
29	261.79	263.35	262.17	262.59	264.90	264.40	264.67	264.48	263.09	262.40		261.88	
30	261.79	263.23	262.27	262.52	265.47	264.79	264.96	264.10	262.97	262.41		262.00	
31		263.16		262.46	265.40		264.52		262.87	262.42		262.14	
Mean	261.94	262.66	262.55	262.45	263.35	265.95	263.89	264.31	263.17	262.66	262.27	262.03	
Max	262.24	264.01	263.03	262.63	265.47	268.28	265.38	266.99	264.00	263.28	262.43	262.21	268.28
Min	261.64	261.80	262.13	262.29	262.42	264.40	263.00	263.27	262.69	262.40	262.10	261.88	261.64

Annual Max Momentary Gage Height 267.60 m. (MSL.) , at 14.00 Hours , on Sep 22 , 2002

Zero Gage at Bottom Elevation 261.75 m. (MSL.) , River Bed 260.60 m. (MSL.)

Left Bank Elevation 267.71 m. (MSL.) ,

Right Bank Elevation 268.01 m. (MSL.) , Drainage Are 14,814 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	14.80	2.50	126.80	55.80	49.20	529.70	527.40	330.00	276.00	103.50	47.00	12.40		
2	14.80	3.75	97.60	63.20	56.90	437.80	621.20	302.00	235.90	102.00	48.10	10.00		
3	10.00	3.50	79.40	56.90	61.90	435.60	585.20	460.70	208.80	111.00	50.30	12.40		
4	9.50	4.00	67.10	48.10	60.60	511.30	511.30	985.00	189.00	112.50	45.90	14.00		
5	6.50	10.00	82.20	40.40	73.80	571.10	497.50	1069.00	178.20	103.50	41.50	10.80		
6	3.75	10.80	85.00	35.10	94.80	892.00	492.90	979.00	163.80	118.80	41.50	9.50		
7	1.75	14.80	87.80	35.10	109.50	1162.00	476.80	799.60	150.80	176.40	41.50	10.80		
8	0.70	18.00	106.50	43.70	114.00	1135.00	382.80	648.50	142.80	150.80	42.60	18.90		
9	0.80	17.20	94.80	61.90	111.00	991.00	310.00	504.40	138.00	122.00	41.50	17.20		
10	1.15	8.00	100.50	52.50	93.40	970.00	254.90	393.80	266.30	106.50	40.40	10.00		
11	0.80	6.00	128.40	55.80	78.00	1057.00	221.40	324.00	312.00	92.00	42.60	9.00		
12	1.45	13.20	134.80	56.90	75.20	982.00	201.60	272.00	249.20	83.60	41.50	10.00		
13	14.00	56.90	106.50	54.70	78.00	838.80	180.00	237.80	210.60	76.60	37.10	8.50		
14	22.50	60.60	80.80	50.30	79.40	671.00	167.40	214.20	183.60	72.40	34.20	8.50		
15	30.60	123.60	72.40	47.00	76.60	541.20	158.80	201.60	157.20	72.40	34.20	17.20		
16	19.80	105.00	64.50	39.30	72.40	460.70	142.80	190.80	139.60	68.40	33.30	22.50		
17	26.10	94.80	54.70	37.10	71.00	458.40	134.80	189.00	128.40	67.10	27.90	27.90		
18	22.50	171.00	50.30	41.50	73.80	592.40	130.00	300.00	118.80	65.80	25.20	24.30		
19	15.60	282.00	58.00	45.90	111.00	910.00	149.20	358.60	105.00	64.50	25.20	20.70		
20	13.20	314.00	49.20	45.90	144.40	1111.00	176.40	330.00	99.00	67.10	20.70	15.60		
21	14.00	258.70	42.60	50.30	180.00	1325.60	162.00	286.00	94.80	68.40	20.70	14.00		
22	12.40	199.80	39.30	64.50	189.00	1469.60	146.00	245.40	90.60	61.90	21.60	14.00		
23	9.50	144.40	38.20	75.20	243.50	1360.80	146.00	210.60	87.80	56.90	22.50	11.60		
24	7.50	109.50	32.40	71.00	442.30	1075.00	205.20	187.20	86.40	53.60	27.00	7.00		
25	7.00	86.40	29.70	64.50	525.10	819.20	234.00	174.60	83.60	53.60	27.00	9.00		
26	6.00	80.80	26.10	54.70	529.70	631.00	228.60	198.00	109.50	50.30	24.30	5.50		
27	4.50	102.00	22.50	49.20	497.50	509.00	219.60	272.00	212.40	48.10	21.60	6.00		
28	3.50	150.80	20.70	58.00	431.20	435.60	292.00	411.40	189.00	49.20	18.00	4.75		
29	2.35	189.00	24.30	69.70	509.00	396.00	456.10	413.60	144.40	47.00		4.50		
30	2.35	167.40	33.30	60.60	643.50	483.70	522.80	332.00	125.20	48.10		10.00		
31		155.60		53.60	626.00		422.40		109.50	49.20		21.60		
Total	299.40	2964.05	2036.40	1638.40	6501.70	23763.50	9357.10	11820.80	4986.20	2523.20	944.90	398.15	67233.80	CMSDAY
Mean	9.98	95.61	67.88	52.85	209.73	792.12	301.84	394.03	160.85	81.39	33.75	12.84	184.20	CMS
Max	30.60	314.00	134.80	75.20	643.50	1469.60	621.20	1069.00	312.00	176.40	50.30	27.90	1469.60	CMS
Min	0.70	2.50	20.70	35.10	49.20	396.00	130.00	174.60	83.60	47.00	18.00	4.50	0.70	CMS
Runoff	25.87	256.09	175.94	141.56	561.75	2053.17	808.45	1021.32	430.81	218.00	81.64	34.40	5809.00	MCM

Momentary Peak 1252.00 CMS. at 267.60 m. (MSL.) at 14.00 Hours , on Sep 22 , 2002

Runoff Yield 12.43 Liters/Second/Square KM. Momentary Peak Yield 84.510 Liters/Second/Square KM.

WATER YEAR : 2002

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	+0.000 m. (A.D.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank about 3 meters from the top staff gage.		**Elevation** +4.205 m. (A.D.)
Gage Reading Frequency	Recording.		
Basis of Mean Daily Gage Height	Arithmetic mean 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 fair. This station is situated about 3 kilometers downstream from Mae Ngat Dam. Stage-discharge relation defined by 38 discharge measurements made in 2002.		

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

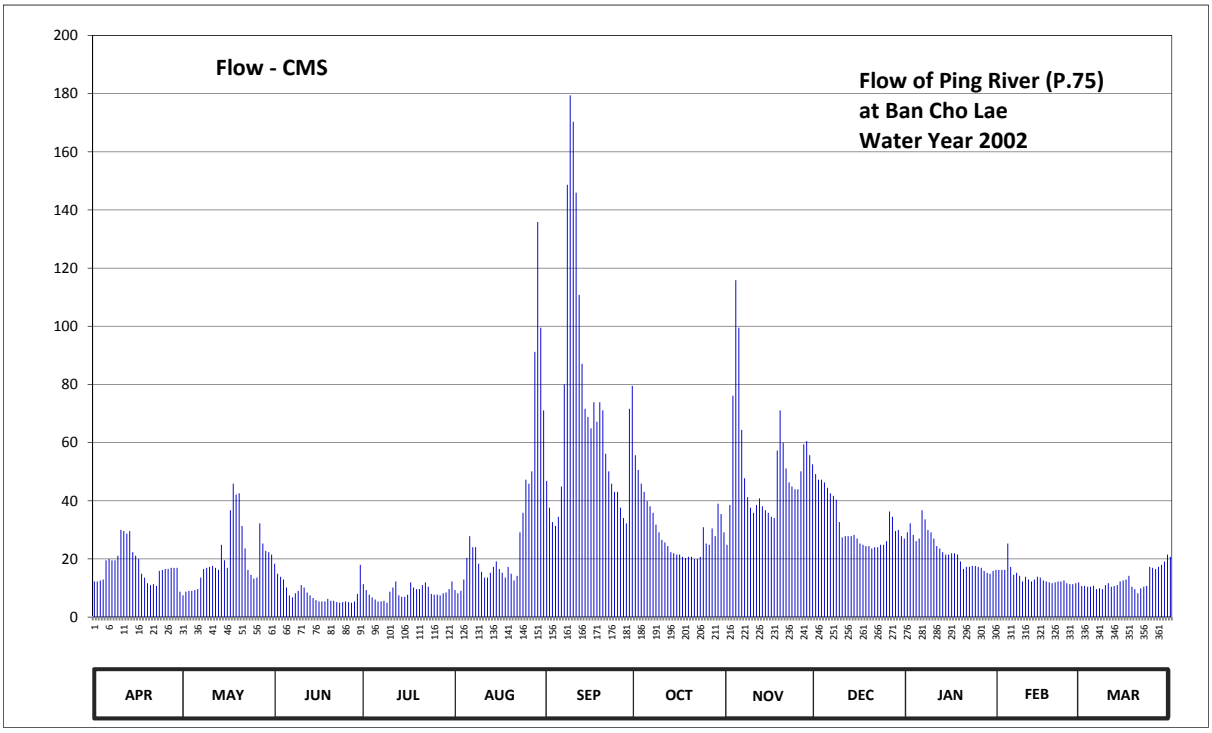
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.74	0.57	0.92	0.71	0.64	1.57	1.75	1.08	1.62	1.18	0.86	0.69	
2	0.74	0.62	0.82	0.64	0.60	1.37	1.65	1.39	1.58	1.25	0.86	0.69	
3	0.75	0.63	0.79	0.58	0.63	1.26	1.55	2.12	1.58	1.16	0.86	0.68	
4	0.76	0.63	0.76	0.54	0.76	1.23	1.49	2.78	1.56	1.11	1.09	0.68	
5	0.95	0.64	0.67	0.51	0.97	1.30	1.42	2.52	1.52	1.13	0.89	0.69	
6	0.96	0.65	0.57	0.48	1.15	1.53	1.38	1.91	1.48	1.35	0.81	0.65	
7	0.95	0.78	0.54	0.48	1.06	2.19	1.33	1.59	1.46	1.28	0.83	0.66	
8	0.95	0.87	0.60	0.49	1.06	3.28	1.24	1.45	1.43	1.20	0.80	0.65	
9	0.99	0.88	0.63	0.46	0.92	3.72	1.18	1.37	1.26	1.18	0.74	0.70	
10	1.20	0.89	0.70	0.62	0.84	3.59	1.12	1.33	1.14	1.13	0.79	0.72	
11	1.19	0.90	0.67	0.67	0.78	3.24	1.10	1.39	1.15	1.07	0.76	0.68	
12	1.17	0.88	0.61	0.74	0.78	2.70	1.07	1.44	1.15	1.05	0.74	0.69	
13	1.19	0.86	0.57	0.57	0.83	2.31	1.02	1.38	1.15	1.02	0.76	0.70	
14	1.02	1.08	0.53	0.55	0.89	2.04	1.01	1.35	1.16	1.00	0.79	0.74	
15	0.99	0.95	0.50	0.55	0.94	1.99	1.00	1.33	1.13	1.00	0.78	0.75	
16	0.96	0.88	0.48	0.58	0.87	1.92	1.00	1.30	1.09	1.01	0.75	0.76	
17	0.82	1.35	0.48	0.73	0.83	2.08	0.98	1.29	1.08	1.01	0.74	0.80	
18	0.78	1.55	0.48	0.67	0.78	1.96	0.97	1.78	1.07	1.00	0.73	0.68	
19	0.72	1.47	0.52	0.65	0.89	2.08	0.98	2.03	1.07	0.94	0.72	0.65	
20	0.70	1.48	0.49	0.65	0.82	2.03	0.98	1.83	1.05	0.87	0.73	0.60	
21	0.71	1.23	0.49	0.70	0.75	1.76	0.96	1.66	1.06	0.89	0.74	0.66	
22	0.69	1.05	0.47	0.73	0.80	1.64	0.96	1.56	1.06	0.89	0.74	0.68	
23	0.85	0.86	0.46	0.68	1.18	1.55	0.98	1.53	1.08	0.90	0.75	0.69	
24	0.86	0.81	0.47	0.59	1.33	1.49	1.22	1.51	1.08	0.90	0.72	0.89	
25	0.87	0.77	0.48	0.58	1.58	1.49	1.09	1.51	1.11	0.89	0.71	0.88	
26	0.87	0.78	0.47	0.58	1.55	1.37	1.08	1.64	1.34	0.88	0.71	0.87	
27	0.88	1.25	0.46	0.57	1.64	1.29	1.21	1.82	1.30	0.85	0.72	0.89	
28	0.88	1.09	0.48	0.60	2.38	1.25	1.15	1.84	1.19	0.83	0.73	0.91	
29	0.88	1.03	0.59	0.61	3.09	2.04	1.40	1.75	1.20	0.82		0.94	
30	0.62	1.02	0.91	0.65	2.52	2.18	1.32	1.69	1.15	0.85		1.00	
31		1.00		0.74	2.03		1.18		1.13	0.86		0.98	
Mean	0.89	0.95	0.59	0.61	1.16	1.98	1.19	1.64	1.24	1.02	0.78	0.75	
Max	1.20	1.55	0.92	0.74	3.09	3.72	1.75	2.78	1.62	1.35	1.09	1.00	3.72
Min	0.62	0.57	0.46	0.46	0.60	1.23	0.96	1.08	1.05	0.82	0.71	0.60	0.46

Annual Max Momentary Gage Height 3.84 m. (A.D.) , at 17.00 Hours , on Sep 9 , 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed -0.96 m. (A.D.)

Left Bank Elevation 7.51 m. (A.D.) ,

Right Bank Elevation 7.54 m. (A.D.) , Drainage Are 3,088 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	12.28	7.48	18.38	11.32	9.32	46.79	55.65	24.86	49.16	29.14	16.24	10.72		
2	12.28	8.76	14.88	9.32	8.20	37.65	50.60	38.55	47.26	32.25	16.24	10.72		
3	12.60	9.04	13.88	7.72	9.04	32.70	45.85	76.12	47.26	28.28	16.24	10.44		
4	12.92	9.04	12.92	6.76	12.92	31.35	43.05	115.84	46.32	26.13	25.28	10.44		
5	19.55	9.32	10.16	6.04	20.33	34.50	39.90	99.54	44.44	26.99	17.26	10.72		
6	19.94	9.60	7.48	5.38	27.85	44.91	38.10	64.36	42.60	36.75	14.54	9.60		
7	19.55	13.56	6.76	5.38	24.02	80.04	35.85	47.73	41.70	33.60	15.22	9.88		
8	19.55	16.58	8.20	5.59	24.02	148.64	31.80	41.25	40.35	30.00	14.20	9.60		
9	21.11	16.92	9.04	4.96	18.38	179.40	29.14	37.65	32.70	29.14	12.28	11.00		
10	30.00	17.26	11.00	8.76	15.56	170.30	26.56	35.85	27.42	26.99	13.88	11.64		
11	29.57	17.60	10.16	10.16	13.56	145.92	25.70	38.55	27.85	24.44	12.92	10.44		
12	28.71	16.92	8.48	12.28	13.56	110.80	24.44	40.80	27.85	23.60	12.28	10.72		
13	29.57	16.24	7.48	7.48	15.22	87.09	22.34	38.10	27.85	22.34	12.92	11.00		
14	22.34	24.86	6.52	7.00	17.26	71.64	21.92	36.75	28.28	21.50	13.88	12.28		
15	21.11	19.55	5.80	7.00	19.16	68.84	21.50	35.85	26.99	21.50	13.56	12.60		
16	19.94	16.92	5.38	7.72	16.58	64.92	21.50	34.50	25.28	21.92	12.60	12.92		
17	14.88	36.75	5.38	11.96	15.22	73.88	20.72	34.05	24.86	21.92	12.28	14.20		
18	13.56	45.85	5.38	10.16	13.56	67.16	20.33	57.24	24.44	21.50	11.96	10.44		
19	11.64	42.15	6.28	9.60	17.26	73.88	20.72	71.08	24.44	19.16	11.64	9.60		
20	11.00	42.60	5.59	9.60	14.88	71.08	20.72	59.95	23.60	16.58	11.96	8.20		
21	11.32	31.35	5.59	11.00	12.60	56.18	19.94	51.08	24.02	17.26	12.28	9.88		
22	10.72	23.60	5.17	11.96	14.20	50.12	19.94	46.32	24.02	17.26	12.28	10.44		
23	15.90	16.24	4.96	10.44	29.14	45.85	20.72	44.91	24.86	17.60	12.60	10.72		
24	16.24	14.54	5.17	7.96	35.85	43.05	30.90	43.97	24.86	17.60	11.64	17.26		
25	16.58	13.24	5.38	7.72	47.26	43.05	25.28	43.97	26.13	17.26	11.32	16.92		
26	16.58	13.56	5.17	7.72	45.85	37.65	24.86	50.12	36.30	16.92	11.32	16.58		
27	16.92	32.25	4.96	7.48	50.12	34.05	30.45	59.40	34.50	15.90	11.64	17.26		
28	16.92	25.28	5.38	8.20	91.22	32.25	27.85	60.50	29.57	15.22	11.96	17.99		
29	16.92	22.76	7.96	8.48	135.85	71.64	39.00	55.65	30.00	14.88		19.16		
30	8.76	22.34	17.99	9.60	99.54	79.48	35.40	52.52	27.85	15.90		21.50		
31		21.50		12.28	71.08		29.14		26.99	16.24		20.72		
Total	528.96	633.66	246.88	267.03	958.61	2134.81	919.87	1537.06	989.75	695.77	382.42	395.59	9690.41	CMSDAY
Mean	17.63	20.44	8.23	8.61	30.92	71.16	29.67	51.24	31.93	22.44	13.66	12.76	26.55	CMS
Max	30.00	45.85	18.38	12.28	135.85	179.40	55.65	115.84	49.16	36.75	25.28	21.50	179.40	CMS
Min	8.76	7.48	4.96	4.96	8.20	31.35	19.94	24.86	23.60	14.88	11.32	8.20	4.96	CMS
Runoff	45.70	54.75	21.33	23.07	82.82	184.45	79.48	132.80	85.51	60.11	33.04	34.18	837.25	MCM

Momentary Peak 187.80 CMS. at 3.84 m. (A.D.) at 17.00 Hours , on Sep 9 , 2002

Runoff Yield 8.60 Liters/Second/Square KM. Momentary Peak Yield 60.820 Liters/Second/Square KM.

WATER YEAR : 2002

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	Staff gage.		
Zero Gage at Bottom	+0.000 m. (A.D.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank about 15 meters from the top staff gage.	**Elevation**	+7.320m. (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 mean 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	Rather unstable by some scouring.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage - discharge relation defined by 43 discharge measurements made in 2002.		

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

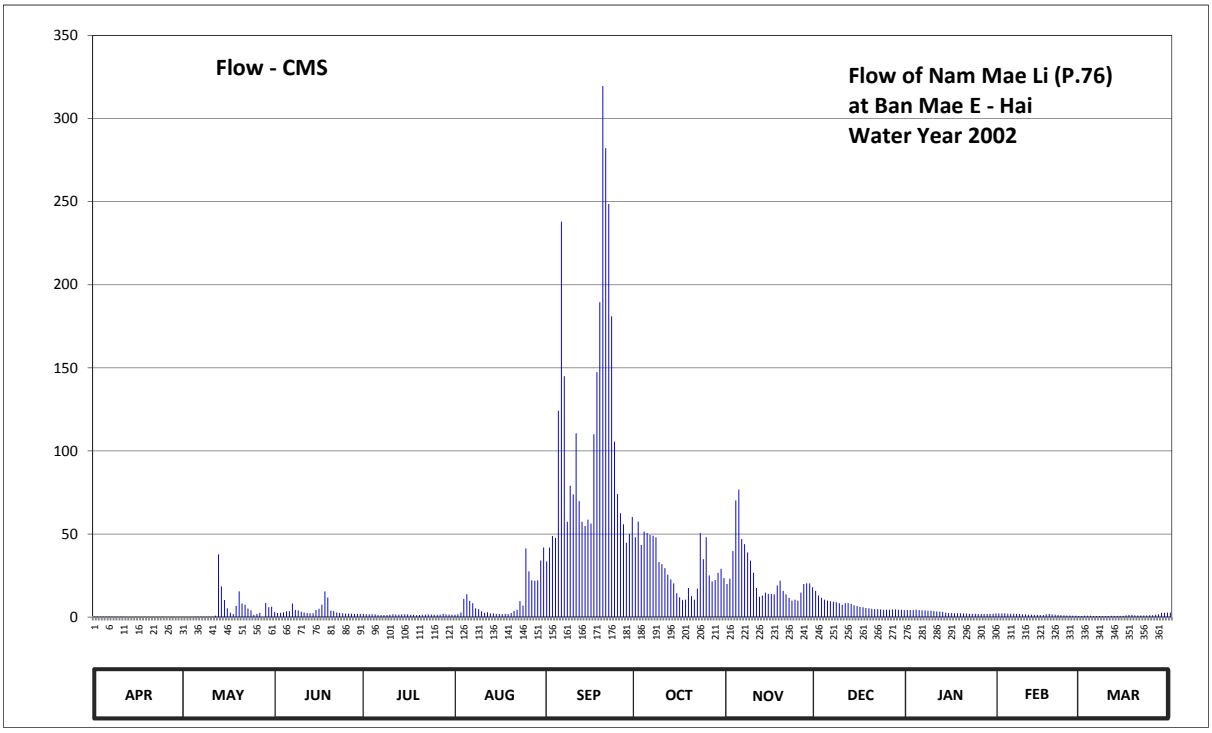
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.36	0.23	0.89	0.70	0.61	2.25	2.22	1.56	1.45	1.06	0.94	0.80	
2	0.35	0.23	0.80	0.67	0.66	2.53	2.40	1.64	1.37	1.06	0.94	0.82	
3	0.34	0.24	0.82	0.64	0.84	2.76	2.12	2.04	1.33	1.06	0.94	0.82	
4	0.34	0.25	0.86	0.66	1.44	2.72	2.29	2.63	1.30	1.07	0.93	0.82	
5	0.33	0.28	0.93	0.65	1.55	4.36	2.27	2.75	1.28	1.06	0.93	0.80	
6	0.32	0.29	0.95	0.59	1.39	4.98	2.25	2.20	1.27	1.05	0.93	0.80	
7	0.32	0.29	1.31	0.57	1.32	4.60	2.24	2.13	1.26	1.05	0.92	0.78	
8	0.31	0.27	1.03	0.57	1.12	3.01	2.22	2.02	1.25	1.04	0.92	0.78	
9	0.30	0.28	1.00	0.56	1.08	3.55	1.89	1.91	1.23	1.04	0.90	0.78	
10	0.30	0.27	0.91	0.63	0.93	3.42	1.86	1.73	1.20	1.03	0.90	0.78	
11	0.27	0.27	0.84	0.66	0.82	4.16	1.80	1.50	1.23	1.02	0.88	0.81	
12	0.26	0.49	0.79	0.63	0.85	3.32	1.70	1.35	1.23	1.02	0.88	0.81	
13	0.26	2.39	0.76	0.63	0.75	3.01	1.63	1.37	1.22	1.01	0.87	0.81	
14	0.26	1.74	0.77	0.64	0.75	2.94	1.57	1.42	1.19	0.98	0.87	0.81	
15	0.26	1.41	1.02	0.66	0.70	3.04	1.41	1.40	1.17	0.96	0.86	0.81	
16	0.26	1.12	1.10	0.64	0.70	2.98	1.34	1.40	1.15	0.96	0.86	0.84	
17	0.26	0.83	1.27	0.58	0.68	3.24	1.29	1.39	1.14	0.95	0.90	0.86	
18	0.25	0.69	1.62	0.60	0.70	3.71	1.30	1.54	1.12	0.95	0.92	0.87	
19	0.23	1.22	1.47	0.54	0.69	4.15	1.50	1.61	1.11	0.95	0.90	0.84	
20	0.23	1.62	0.98	0.56	0.80	5.13	1.36	1.45	1.10	0.94	0.88	0.83	
21	0.24	1.31	0.96	0.60	0.97	4.88	1.30	1.39	1.09	0.94	0.86	0.83	
22	0.24	1.26	0.84	0.62	1.04	4.64	1.49	1.33	1.09	0.93	0.85	0.83	
23	0.24	1.11	0.80	0.65	1.38	4.07	2.27	1.28	1.08	0.93	0.84	0.83	
24	0.23	1.00	0.77	0.63	1.23	3.18	1.93	1.30	1.07	0.93	0.83	0.85	
25	0.22	0.58	0.74	0.61	2.51	2.70	2.22	1.28	1.07	0.92	0.83	0.85	
26	0.21	0.71	0.73	0.58	2.05	2.49	1.69	1.42	1.07	0.92	0.82	0.88	
27	0.23	0.82	0.72	0.60	1.87	2.37	1.60	1.56	1.08	0.92	0.82	0.90	
28	0.25	0.18	0.70	0.70	1.86	2.15	1.62	1.57	1.08	0.92	0.80	0.97	
29	0.24	1.33	0.72	0.65	1.87	2.26	1.73	1.57	1.07	0.93		0.97	
30	0.23	1.17	0.70	0.62	2.27	2.45	1.79	1.51	1.07	0.93		0.98	
31		1.19		0.60	2.53		1.65		1.06	0.94		0.98	
Mean	0.27	0.81	0.93	0.62	1.22	3.37	1.80	1.64	1.18	0.98	0.88	0.84	
Max	0.36	2.39	1.62	0.70	2.53	5.13	2.40	2.75	1.45	1.07	0.94	0.98	5.13
Min	0.21	0.18	0.70	0.54	0.61	2.15	1.29	1.28	1.06	0.92	0.80	0.78	0.18

Annual Max Momentary Gage Height 5.35 m. (A.D.) , at 08.00 Hours , on Sep 20 , 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed 0.18 m. (A.D.)

Left Bank Elevation 7.86 m. (A.D.) ,

Right Bank Elevation 7.84 m. (A.D.) , Drainage Are 1,544 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.38	0.06	3.13	1.90	1.45	33.50	48.00	19.90	15.75	4.20	2.16	0.70		
2	0.35	0.06	2.50	1.75	1.70	41.90	57.50	23.10	12.95	4.20	2.16	0.88		
3	0.32	0.08	2.64	1.60	2.78	48.80	43.40	39.80	11.55	4.20	2.16	0.88		
4	0.32	0.10	2.92	1.70	11.00	47.60	51.50	70.15	10.50	4.40	2.02	0.88		
5	0.29	0.16	3.44	1.65	13.75	124.20	50.50	76.75	9.88	4.20	2.02	0.70		
6	0.26	0.18	3.60	1.35	9.80	238.00	49.50	47.00	9.57	4.00	2.02	0.70		
7	0.26	0.18	8.20	1.25	8.40	145.00	49.00	43.85	9.26	4.00	1.88	0.63		
8	0.23	0.14	4.30	1.25	5.28	57.40	48.00	38.90	8.95	3.80	1.88	0.63		
9	0.20	0.16	4.00	1.20	4.80	79.00	33.10	33.95	8.33	3.80	1.60	0.63		
10	0.20	0.14	3.28	1.55	3.44	73.80	31.90	26.70	7.40	3.60	1.60	0.63		
11	0.14	0.14	2.78	1.70	2.64	110.60	29.50	17.50	8.33	3.40	1.42	0.79		
12	0.12	0.86	2.44	1.55	2.85	69.80	25.50	12.25	8.33	3.40	1.42	0.79		
13	0.12	37.70	2.26	1.55	2.20	57.40	22.70	12.95	8.02	3.20	1.33	0.79		
14	0.12	18.50	2.32	1.60	2.20	54.90	20.30	14.70	7.16	2.72	1.33	0.79		
15	0.12	10.25	4.20	1.70	1.90	58.60	14.35	14.00	6.68	2.44	1.24	0.79		
16	0.12	5.28	5.00	1.60	1.90	56.30	11.90	14.00	6.20	2.44	1.24	1.06		
17	0.12	2.71	7.52	1.30	1.80	110.00	10.19	13.65	5.96	2.30	1.60	1.24		
18	0.10	1.85	15.50	1.40	1.90	147.35	10.50	19.10	5.48	2.30	1.88	1.33		
19	0.06	6.72	11.75	1.10	1.85	189.50	17.50	21.90	5.24	2.30	1.60	1.06		
20	0.06	15.50	3.84	1.20	2.50	319.50	12.60	15.75	5.00	2.16	1.42	0.97		
21	0.08	8.20	3.68	1.40	3.76	282.20	10.50	13.65	4.80	2.16	1.24	0.97		
22	0.08	7.36	2.78	1.50	4.40	248.60	17.15	11.55	4.80	2.02	1.15	0.97		
23	0.08	5.14	2.50	1.65	9.60	181.00	50.50	9.88	4.60	2.02	1.06	0.97		
24	0.06	4.00	2.32	1.55	6.88	105.60	34.85	10.50	4.40	2.02	0.97	1.15		
25	0.04	1.30	2.14	1.45	41.30	74.00	48.00	9.88	4.40	1.88	0.97	1.15		
26	0.02	1.96	2.08	1.30	27.50	62.45	25.10	14.70	4.40	1.88	0.88	1.42		
27	0.06	2.64	2.02	1.40	22.10	55.85	21.50	19.90	4.60	1.88	0.88	1.60		
28	0.10	0.00	1.90	1.90	21.80	44.75	22.30	20.30	4.60	1.88	0.70	2.58		
29	0.08	8.60	2.02	1.65	22.10	50.00	26.70	20.30	4.40	2.02		2.58		
30	0.06	5.98	1.90	1.50	34.10	60.25	29.10	17.90	4.40	2.02		2.72		
31		6.26		1.40	41.90		23.50		4.20	2.16		2.72		
Total	4.55	152.21	118.96	46.60	319.58	3227.85	946.64	724.46	220.14	89.00	41.83	35.70	5927.52	CMSDAY
Mean	0.15	4.91	3.97	1.50	10.31	107.59	30.54	24.15	7.10	2.87	1.49	1.15	16.24	CMS
Max	0.38	37.70	15.50	1.90	41.90	319.50	57.50	76.75	15.75	4.40	2.16	2.72	319.50	CMS
Min	0.02	0.00	1.90	1.10	1.45	33.50	10.19	9.88	4.20	1.88	0.70	0.63	0.00	CMS
Runoff	0.39	13.15	10.28	4.03	27.61	278.89	81.79	62.59	19.02	7.69	3.61	3.08	512.14	MCM

Momentary Peak 355.50 CMS. at 5.35 m. (A.D.) at 08.00 Hours , on Sep 20 , 2002

Runoff Yield 10.52 Liters/Second/Square KM. Momentary Peak Yield 230.250 Liters/Second/Square KM.

WATER YEAR : 2002

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	Staff gage.		
Zero Gage at Bottom	+0.000 m. (A.D.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank about 20 meters from the top staff gage.	**Elevation**	+4.908 m. (A.D.)
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 mean 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 because of backwater effect.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 38 discharge measurements made in 2002.		

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

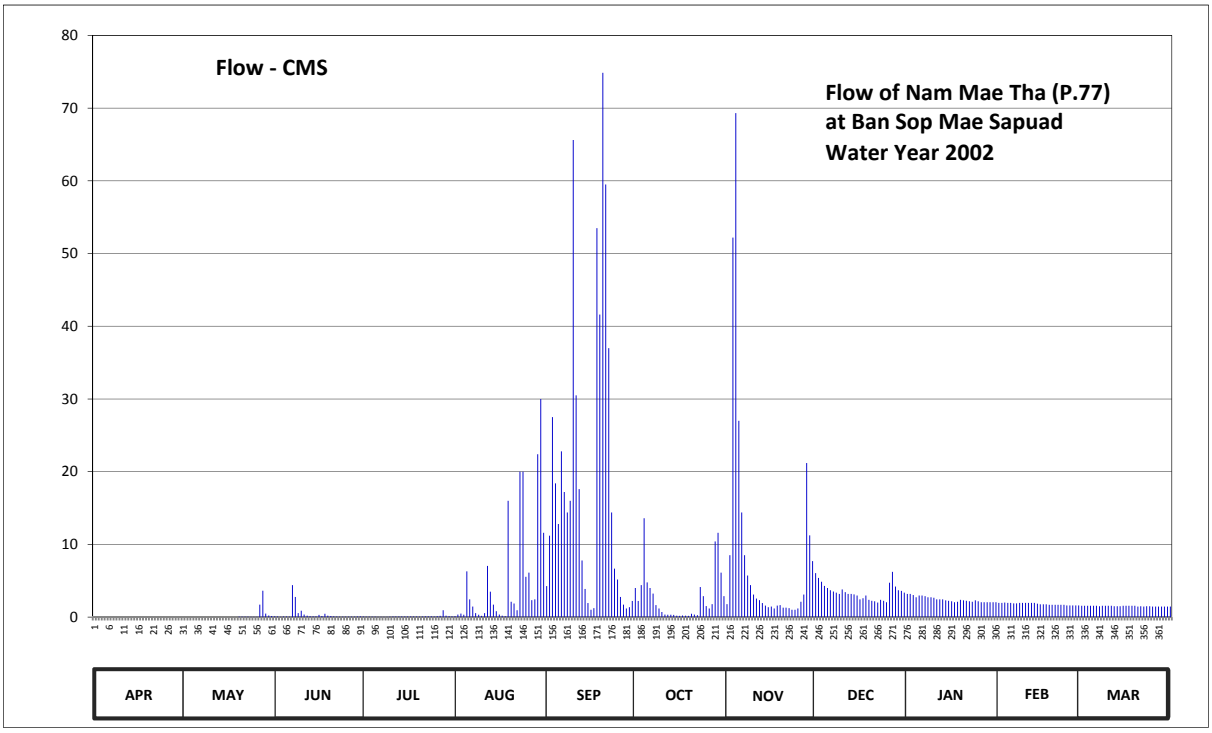
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	-0.02	-0.03	0.29	0.25	0.33	0.99	0.97	0.77	0.91	0.65	0.47	0.39	
2	-0.03	-0.03	0.24	0.23	0.47	1.23	0.82	1.16	0.86	0.65	0.47	0.39	
3	-0.03	-0.03	0.18	0.21	0.53	1.63	1.11	2.02	0.82	0.63	0.48	0.39	
4	-0.03	-0.03	0.25	0.21	0.46	1.41	1.29	2.29	0.77	0.59	0.47	0.39	
5	-0.03	-0.03	0.25	0.19	1.10	1.27	1.02	1.62	0.74	0.62	0.47	0.39	
6	-0.04	-0.03	0.21	0.17	0.84	1.52	0.97	1.31	0.71	0.62	0.46	0.39	
7	-0.04	-0.03	1.00	0.17	0.72	1.38	0.91	1.16	0.69	0.61	0.46	0.38	
8	-0.04	-0.05	0.87	0.17	0.55	1.31	0.79	1.07	0.67	0.59	0.47	0.39	
9	-0.04	-0.05	0.55	0.17	0.46	1.35	0.68	1.00	0.65	0.59	0.47	0.39	
10	-0.05	-0.05	0.63	0.21	0.37	2.31	0.60	0.90	0.72	0.58	0.47	0.39	
11	-0.06	-0.09	0.48	0.25	0.55	1.69	0.47	0.85	0.68	0.55	0.47	0.39	
12	-0.04	-0.05	0.39	0.27	1.12	1.39	0.46	0.83	0.65	0.55	0.47	0.38	
13	-0.03	-0.04	0.34	0.26	0.93	1.14	0.46	0.79	0.65	0.55	0.47	0.38	
14	-0.03	-0.04	0.31	0.25	0.76	0.96	0.45	0.74	0.64	0.53	0.45	0.38	
15	-0.02	-0.05	0.30	0.25	0.62	0.79	0.40	0.71	0.62	0.52	0.43	0.39	
16	-0.02	-0.05	0.45	0.27	0.48	0.65	0.38	0.73	0.55	0.51	0.43	0.39	
17	-0.02	-0.04	0.35	0.26	0.39	0.69	0.41	0.68	0.55	0.49	0.43	0.39	
18	-0.03	-0.04	0.52	0.25	0.34	2.16	0.40	0.74	0.61	0.50	0.42	0.39	
19	-0.04	-0.03	0.40	0.24	1.35	1.91	0.38	0.75	0.54	0.54	0.42	0.39	
20	-0.06	0.21	0.39	0.23	0.81	2.35	0.52	0.70	0.52	0.53	0.42	0.37	
21	-0.06	0.22	0.30	0.27	0.78	2.18	0.47	0.70	0.51	0.52	0.42	0.38	
22	-0.04	0.22	0.26	0.29	0.64	1.82	0.43	0.69	0.48	0.51	0.42	0.37	
23	-0.06	0.19	0.23	0.29	1.45	1.31	0.98	0.65	0.54	0.50	0.42	0.38	
24	-0.15	0.17	0.21	0.29	1.45	1.11	0.88	0.65	0.52	0.53	0.40	0.38	
25	-0.09	0.16	0.19	0.28	1.06	1.24	0.73	0.68	0.49	0.51	0.40	0.37	
26	-0.09	0.17	0.19	0.33	1.09	0.87	0.68	0.81	0.81	0.49	0.40	0.37	
27	-0.05	0.76	0.23	0.38	0.83	0.76	0.77	0.90	0.92	0.49	0.40	0.37	
28	-0.04	1.00	0.23	0.64	0.84	0.68	1.21	1.48	0.76	0.49	0.40	0.37	
29	-0.04	0.53	0.27	0.40	1.51	0.71	1.24	1.17	0.71	0.49		0.37	
30	-0.03	0.41	0.30	0.32	1.68	0.82	1.20	1.01	0.70	0.49		0.37	
31		0.35		0.29	1.24		0.88		0.67	0.49		0.37	
Mean	-0.04	0.12	0.36	0.27	0.83	1.32	0.74	0.99	0.67	0.55	0.44	0.38	
Max	-0.02	1.00	1.00	0.64	1.68	2.35	1.29	2.29	0.92	0.65	0.48	0.39	2.35
Min	-0.15	-0.09	0.18	0.17	0.33	0.65	0.38	0.65	0.48	0.49	0.40	0.37	-0.15

Annual Max Momentary Gage Height 2.85 m. (A.D.) , at 09.00 Hours , on Sep 18 , 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed -0.27 m. (A.D.)

Left Bank Elevation 5.74 m. (A.D.) ,

Right Bank Elevation 9.63 m. (A.D.) , Drainage Are 550 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	0.10	0.08	0.13	4.27	4.01	1.79	6.06	3.20	1.95	1.55		
2	0.00	0.00	0.08	0.07	0.34	11.20	2.22	8.52	5.38	3.20	1.95	1.55		
3	0.00	0.00	0.05	0.06	0.49	27.50	4.40	52.20	4.86	3.04	2.00	1.55		
4	0.00	0.00	0.08	0.06	0.32	18.40	13.60	69.32	4.30	2.73	1.95	1.55		
5	0.00	0.00	0.08	0.06	6.30	12.80	4.78	27.00	4.00	2.96	1.95	1.55		
6	0.00	0.00	0.06	0.05	2.44	22.80	4.01	14.40	3.70	2.96	1.90	1.55		
7	0.00	0.00	4.40	0.05	1.44	17.20	3.23	8.52	3.52	2.88	1.90	1.50		
8	0.00	0.00	2.77	0.05	0.55	14.40	1.65	5.73	3.36	2.73	1.95	1.55		
9	0.00	0.00	0.55	0.05	0.32	16.00	1.18	4.40	3.20	2.73	1.95	1.55		
10	0.00	0.00	0.88	0.06	0.17	65.62	0.70	3.10	3.80	2.66	1.95	1.55		
11	0.00	0.00	0.36	0.08	0.55	30.50	0.34	2.55	3.44	2.45	1.95	1.55		
12	0.00	0.00	0.19	0.09	7.04	17.60	0.32	2.33	3.20	2.45	1.95	1.50		
13	0.00	0.00	0.14	0.08	3.49	7.78	0.32	1.93	3.20	2.45	1.95	1.50		
14	0.00	0.00	0.11	0.08	1.72	3.88	0.30	1.58	3.12	2.31	1.85	1.50		
15	0.00	0.00	0.10	0.08	0.82	1.93	0.20	1.37	2.96	2.24	1.75	1.55		
16	0.00	0.00	0.30	0.09	0.36	1.00	0.18	1.44	2.45	2.17	1.75	1.55		
17	0.00	0.00	0.15	0.08	0.19	1.24	0.22	1.18	2.59	2.05	1.75	1.55		
18	0.00	0.00	0.46	0.08	0.14	53.50	0.20	1.58	2.96	2.10	1.70	1.55		
19	0.00	0.00	0.20	0.08	16.00	41.60	0.18	1.65	2.38	2.38	1.70	1.55		
20	0.00	0.06	0.15	0.07	2.11	74.87	0.46	1.30	2.24	2.31	1.70	1.45		
21	0.00	0.07	0.10	0.09	1.86	59.50	0.34	1.30	2.17	2.24	1.70	1.50		
22	0.00	0.06	0.08	0.10	0.94	37.00	0.26	1.24	2.00	2.17	1.70	1.45		
23	0.00	0.06	0.07	0.10	20.00	14.40	4.14	1.00	2.38	2.10	1.70	1.50		
24	0.00	0.05	0.06	0.10	20.00	6.67	2.88	1.00	2.24	2.31	1.60	1.50		
25	0.00	0.05	0.06	0.09	5.54	5.16	1.51	1.18	2.05	2.17	1.60	1.45		
26	0.00	0.05	0.06	0.13	6.11	2.77	1.18	2.11	4.73	2.05	1.60	1.45		
27	0.00	1.72	0.07	0.18	2.33	1.72	1.79	3.10	6.22	2.05	1.60	1.45		
28	0.00	3.62	0.07	0.94	2.44	1.18	10.40	21.20	4.20	2.05	1.60	1.45		
29	0.00	0.49	0.09	0.20	22.40	1.37	11.60	11.25	3.70	2.05		1.45		
30	0.00	0.22	0.10	0.12	30.00	2.22	6.11	7.70	3.60	2.05		1.45		
31		0.15		0.10	11.60		2.88		3.36	2.05		1.45		
Total	0.00	6.60	11.97	3.55	168.14	576.08	85.59	262.97	107.37	75.29	50.60	46.80	1394.96	CMSDAY
Mean	0.00	0.21	0.40	0.11	5.42	19.20	2.76	8.77	3.46	2.43	1.81	1.51	3.82	CMS
Max	0.00	3.62	4.40	0.94	30.00	74.87	13.60	69.32	6.22	3.20	2.00	1.55	74.87	CMS
Min	0.00	0.00	0.05	0.05	0.13	1.00	0.18	1.00	2.00	2.05	1.60	1.45	0.00	CMS
Runoff	0.00	0.57	1.03	0.31	14.53	49.77	7.39	22.72	9.28	6.51	4.37	4.04	120.52	MCM

Momentary Peak 128.50 CMS. at 2.85 m. (A.D.) at 09.00 Hours , on Sep 18 , 2002

Runoff Yield 6.95 Liters/Second/Square KM. Momentary Peak Yield 233.640 Liters/Second/Square KM.

WATER YEAR : 2002

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	+0.000 m. (A.D.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank at the approach of the bridge.	**Elevation**	+4.857 m. (A.D.)
Gage Reading Frequency	Recording.		
Basis of Mean Daily Gage Height	Arithmetic mean 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 35 discharge measurements made in 2002.		

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

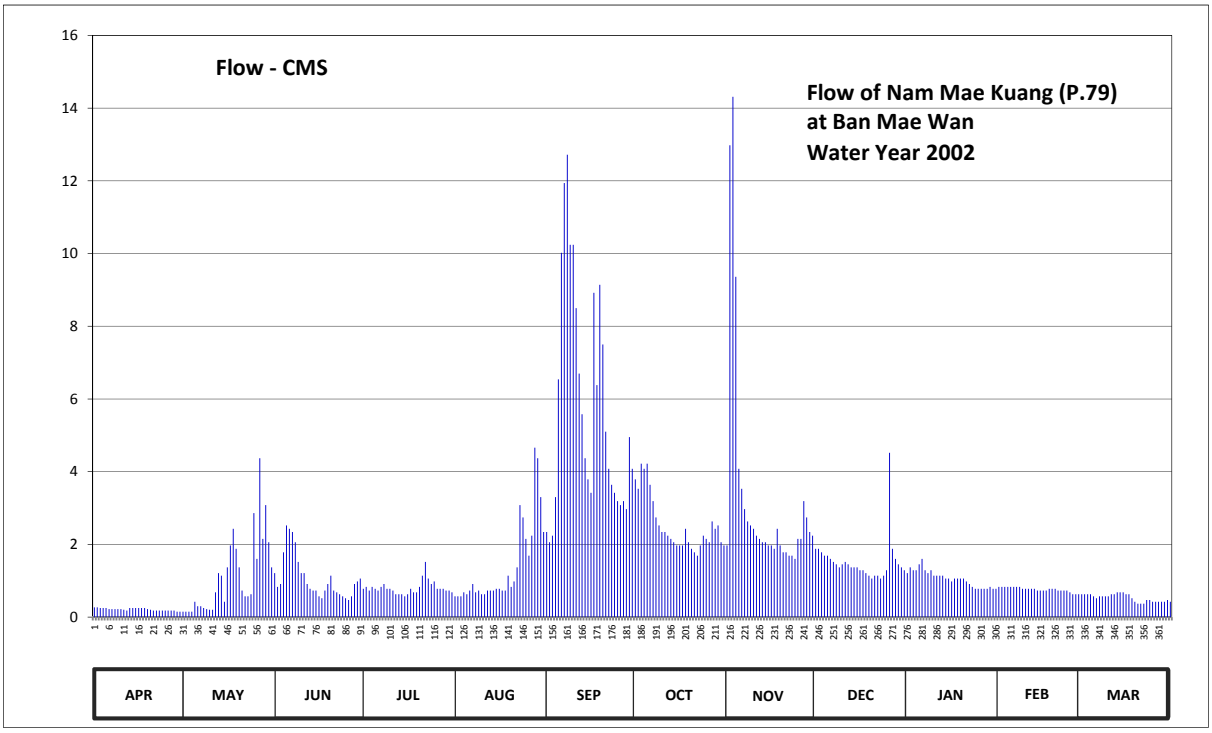
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.38	0.33	0.55	0.49	0.45	0.68	0.81	0.64	0.63	0.55	0.50	0.46	
2	0.38	0.33	0.50	0.50	0.45	0.65	0.79	1.28	0.63	0.57	0.50	0.46	
3	0.37	0.33	0.51	0.48	0.45	0.67	0.84	1.33	0.62	0.56	0.50	0.46	
4	0.37	0.33	0.62	0.50	0.47	0.77	0.83	1.13	0.61	0.56	0.50	0.46	
5	0.37	0.42	0.70	0.49	0.46	0.99	0.84	0.83	0.61	0.58	0.50	0.45	
6	0.36	0.39	0.69	0.48	0.48	1.16	0.80	0.79	0.60	0.60	0.50	0.44	
7	0.36	0.39	0.68	0.50	0.51	1.24	0.76	0.74	0.59	0.56	0.50	0.45	
8	0.36	0.37	0.65	0.51	0.47	1.27	0.72	0.71	0.58	0.55	0.50	0.45	
9	0.36	0.36	0.59	0.49	0.48	1.17	0.70	0.70	0.57	0.56	0.49	0.45	
10	0.36	0.35	0.55	0.49	0.46	1.17	0.68	0.69	0.58	0.54	0.49	0.45	
11	0.35	0.35	0.55	0.48	0.46	1.09	0.68	0.67	0.59	0.54	0.49	0.46	
12	0.34	0.47	0.51	0.46	0.48	1.00	0.67	0.66	0.58	0.54	0.49	0.46	
13	0.37	0.55	0.49	0.46	0.48	0.93	0.66	0.65	0.57	0.54	0.49	0.47	
14	0.37	0.54	0.48	0.46	0.48	0.85	0.65	0.65	0.57	0.53	0.48	0.47	
15	0.37	0.42	0.48	0.45	0.49	0.81	0.64	0.64	0.57	0.53	0.48	0.47	
16	0.37	0.57	0.45	0.46	0.49	0.78	0.64	0.64	0.56	0.52	0.48	0.46	
17	0.37	0.64	0.44	0.49	0.48	1.11	0.64	0.63	0.56	0.53	0.48	0.46	
18	0.37	0.69	0.48	0.47	0.48	0.98	0.69	0.69	0.55	0.53	0.49	0.44	
19	0.36	0.63	0.51	0.47	0.54	1.12	0.65	0.64	0.54	0.53	0.49	0.42	
20	0.35	0.57	0.54	0.50	0.50	1.04	0.63	0.62	0.53	0.53	0.49	0.41	
21	0.34	0.48	0.48	0.54	0.52	0.90	0.62	0.62	0.54	0.52	0.48	0.41	
22	0.34	0.45	0.47	0.59	0.57	0.83	0.61	0.61	0.54	0.51	0.48	0.41	
23	0.34	0.45	0.46	0.53	0.75	0.80	0.64	0.61	0.53	0.50	0.48	0.43	
24	0.34	0.46	0.45	0.51	0.72	0.78	0.67	0.60	0.54	0.49	0.48	0.43	
25	0.34	0.73	0.44	0.52	0.66	0.76	0.66	0.66	0.56	0.49	0.47	0.42	
26	0.34	0.60	0.43	0.49	0.61	0.75	0.65	0.66	0.86	0.49	0.46	0.42	
27	0.34	0.85	0.45	0.49	0.67	0.76	0.71	0.76	0.63	0.49	0.46	0.42	
28	0.34	0.66	0.51	0.49	0.87	0.74	0.69	0.72	0.60	0.49	0.46	0.42	
29	0.33	0.75	0.52	0.48	0.85	0.89	0.70	0.68	0.58	0.50		0.42	
30	0.33	0.65	0.53	0.48	0.77	0.83	0.65	0.67	0.57	0.49		0.43	
31		0.57		0.47	0.68		0.64		0.56	0.49		0.42	
Mean	0.36	0.51	0.52	0.49	0.56	0.92	0.70	0.73	0.59	0.53	0.49	0.44	
Max	0.38	0.85	0.70	0.59	0.87	1.27	0.84	1.33	0.86	0.60	0.50	0.47	1.33
Min	0.33	0.33	0.43	0.45	0.45	0.65	0.61	0.60	0.53	0.49	0.46	0.41	0.33

Annual Max Momentary Gage Height 1.92 m. (A.D.) , at 20.00 Hours , on Sep 6 , 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed 0.10 m. (A.D.)

Left Bank Elevation 4.56 m. (A.D.) ,

Right Bank Elevation 3.79 m. (A.D.) , Drainage Are 136 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.27	0.15	1.21	0.78	0.57	2.34	3.79	1.97	1.88	1.21	0.83	0.63		
2	0.27	0.15	0.83	0.83	0.57	2.06	3.53	12.98	1.88	1.37	0.83	0.63		
3	0.25	0.15	0.91	0.73	0.57	2.24	4.22	14.31	1.78	1.29	0.83	0.63		
4	0.25	0.15	1.78	0.83	0.68	3.30	4.08	9.36	1.69	1.29	0.83	0.63		
5	0.25	0.42	2.52	0.78	0.63	6.54	4.22	4.08	1.69	1.45	0.83	0.57		
6	0.22	0.30	2.43	0.73	0.73	10.02	3.64	3.53	1.60	1.60	0.83	0.52		
7	0.22	0.30	2.34	0.83	0.91	11.94	3.19	2.97	1.52	1.29	0.83	0.57		
8	0.22	0.25	2.06	0.91	0.68	12.72	2.74	2.63	1.45	1.21	0.83	0.57		
9	0.22	0.22	1.52	0.78	0.73	10.24	2.52	2.52	1.37	1.29	0.78	0.57		
10	0.22	0.20	1.21	0.78	0.63	10.24	2.34	2.43	1.45	1.14	0.78	0.57		
11	0.20	0.20	1.21	0.73	0.63	8.50	2.34	2.24	1.52	1.14	0.78	0.63		
12	0.18	0.68	0.91	0.63	0.73	6.70	2.24	2.15	1.45	1.14	0.78	0.63		
13	0.25	1.21	0.78	0.63	0.73	5.58	2.15	2.06	1.37	1.14	0.78	0.68		
14	0.25	1.14	0.73	0.63	0.73	4.37	2.06	2.06	1.37	1.06	0.73	0.68		
15	0.25	0.42	0.73	0.57	0.78	3.79	1.97	1.97	1.37	1.06	0.73	0.68		
16	0.25	1.37	0.57	0.63	0.78	3.42	1.97	1.97	1.29	0.98	0.73	0.63		
17	0.25	1.97	0.52	0.78	0.73	8.92	1.97	1.88	1.29	1.06	0.73	0.63		
18	0.25	2.43	0.73	0.68	0.73	6.38	2.43	2.43	1.21	1.06	0.78	0.52		
19	0.22	1.88	0.91	0.68	1.14	9.14	2.06	1.97	1.14	1.06	0.78	0.42		
20	0.20	1.37	1.14	0.83	0.83	7.50	1.88	1.78	1.06	1.06	0.78	0.37		
21	0.18	0.73	0.73	1.14	0.98	5.10	1.78	1.78	1.14	0.98	0.73	0.37		
22	0.18	0.57	0.68	1.52	1.37	4.08	1.69	1.69	1.14	0.91	0.73	0.37		
23	0.18	0.57	0.63	1.06	3.08	3.64	1.97	1.69	1.06	0.83	0.73	0.47		
24	0.18	0.63	0.57	0.91	2.74	3.42	2.24	1.60	1.14	0.78	0.73	0.47		
25	0.18	2.86	0.52	0.98	2.15	3.19	2.15	2.15	1.29	0.78	0.68	0.42		
26	0.18	1.60	0.47	0.78	1.69	3.08	2.06	2.15	4.52	0.78	0.63	0.42		
27	0.18	4.37	0.57	0.78	2.24	3.19	2.63	3.19	1.88	0.78	0.63	0.42		
28	0.18	2.15	0.91	0.78	4.66	2.97	2.43	2.74	1.60	0.78	0.63	0.42		
29	0.15	3.08	0.98	0.73	4.37	4.95	2.52	2.34	1.45	0.83		0.42		
30	0.15	2.06	1.06	0.73	3.30	4.08	2.06	2.24	1.37	0.78		0.47		
31		1.37		0.68	2.34		1.97		1.29	0.78		0.42		
Total	6.43	34.95	32.16	24.86	43.43	173.64	78.84	98.86	47.26	32.91	21.29	16.43	611.06	CMSDAY
Mean	0.21	1.13	1.07	0.80	1.40	5.79	2.54	3.30	1.52	1.06	0.76	0.53	1.67	CMS
Max	0.27	4.37	2.52	1.52	4.66	12.72	4.22	14.31	4.52	1.60	0.83	0.68	14.31	CMS
Min	0.15	0.15	0.47	0.57	0.57	2.06	1.69	1.60	1.06	0.78	0.63	0.37	0.15	CMS
Runoff	0.56	3.02	2.78	2.15	3.75	15.00	6.81	8.54	4.08	2.84	1.84	1.42	52.80	MCM

Momentary Peak 34.00 CMS. at 1.92 m. (A.D.) at 20.00 Hours , on Sep 6 , 2002

Runoff Yield 12.31 Liters/Second/Square KM. Momentary Peak Yield 250.000 Liters/Second/Square KM.

WATER YEAR : 2002

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	+0.000 m. (A.D.)
Bench Mark	B.M.-H.D.
Location BM	On left bank at the approach of the bridge. **Elevation** +6.802 m. (A.D.)
Gage Reading Frequency	Recording.
Basis of Mean Daily Gage Height	Arithmetic mean 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 35 diacharge measurements made in 2002.

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

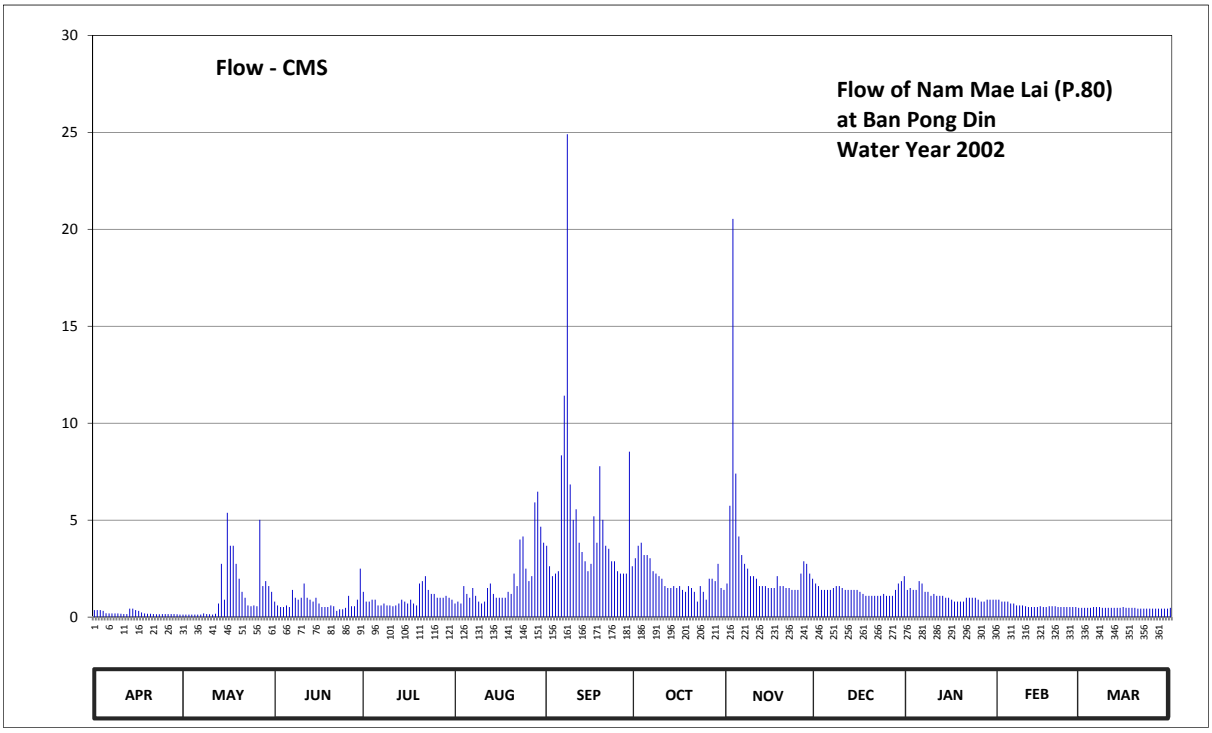
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.54	0.45	0.62	0.67	0.61	0.85	0.81	0.71	0.71	0.68	0.63	0.57	
2	0.54	0.45	0.60	0.62	0.62	0.78	0.85	0.97	0.70	0.69	0.62	0.57	
3	0.54	0.45	0.58	0.62	0.61	0.74	0.86	1.68	0.68	0.68	0.62	0.57	
4	0.53	0.45	0.58	0.63	0.70	0.75	0.82	1.06	0.68	0.68	0.62	0.57	
5	0.50	0.45	0.60	0.63	0.66	0.76	0.82	0.88	0.68	0.72	0.61	0.58	
6	0.49	0.45	0.58	0.60	0.64	1.11	0.81	0.82	0.68	0.71	0.61	0.58	
7	0.49	0.45	0.68	0.60	0.69	1.27	0.76	0.79	0.69	0.67	0.60	0.58	
8	0.49	0.49	0.64	0.61	0.65	1.86	0.75	0.77	0.70	0.67	0.60	0.57	
9	0.49	0.47	0.63	0.60	0.62	1.03	0.74	0.74	0.70	0.65	0.60	0.57	
10	0.48	0.46	0.64	0.60	0.61	0.93	0.73	0.74	0.69	0.66	0.59	0.57	
11	0.47	0.45	0.71	0.59	0.62	0.96	0.70	0.73	0.68	0.65	0.58	0.57	
12	0.47	0.48	0.64	0.60	0.69	0.86	0.69	0.70	0.68	0.65	0.58	0.57	
13	0.56	0.61	0.63	0.61	0.71	0.83	0.69	0.70	0.68	0.65	0.58	0.57	
14	0.56	0.79	0.62	0.63	0.66	0.80	0.70	0.70	0.68	0.64	0.58	0.57	
15	0.54	0.63	0.64	0.62	0.64	0.76	0.69	0.69	0.68	0.64	0.59	0.58	
16	0.53	0.95	0.61	0.61	0.64	0.79	0.70	0.69	0.67	0.63	0.58	0.57	
17	0.51	0.85	0.58	0.63	0.64	0.94	0.68	0.69	0.66	0.62	0.58	0.57	
18	0.49	0.85	0.58	0.61	0.64	0.86	0.67	0.74	0.65	0.62	0.59	0.57	
19	0.48	0.79	0.58	0.60	0.67	1.08	0.70	0.70	0.65	0.62	0.59	0.57	
20	0.48	0.73	0.60	0.71	0.66	0.93	0.69	0.70	0.65	0.62	0.59	0.56	
21	0.47	0.67	0.59	0.72	0.75	0.85	0.67	0.69	0.65	0.64	0.58	0.56	
22	0.46	0.64	0.53	0.74	0.70	0.84	0.62	0.69	0.65	0.64	0.58	0.56	
23	0.46	0.60	0.55	0.68	0.87	0.80	0.70	0.68	0.65	0.64	0.58	0.56	
24	0.47	0.59	0.55	0.66	0.88	0.80	0.67	0.68	0.66	0.64	0.58	0.56	
25	0.47	0.60	0.57	0.66	0.77	0.76	0.63	0.68	0.65	0.63	0.58	0.56	
26	0.47	0.59	0.65	0.64	0.72	0.75	0.73	0.75	0.65	0.62	0.58	0.56	
27	0.47	0.93	0.59	0.64	0.74	0.75	0.73	0.80	0.65	0.62	0.58	0.56	
28	0.47	0.70	0.59	0.64	0.98	0.75	0.72	0.79	0.68	0.63	0.57	0.56	
29	0.46	0.72	0.63	0.65	1.01	1.12	0.79	0.75	0.71	0.63		0.56	
30	0.45	0.70	0.77	0.64	0.91	0.78	0.69	0.73	0.72	0.63		0.56	
31		0.67		0.63	0.86		0.68		0.74	0.63		0.57	
Mean	0.49	0.62	0.61	0.64	0.72	0.90	0.73	0.78	0.68	0.65	0.59	0.57	
Max	0.56	0.95	0.77	0.74	1.01	1.86	0.86	1.68	0.74	0.72	0.63	0.58	1.86
Min	0.45	0.45	0.53	0.59	0.61	0.74	0.62	0.68	0.65	0.62	0.57	0.56	0.45

Annual Max Momentary Gage Height 2.70 m. (A.D.) , at 01.00 Hours , on Sep 8 , 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed 0.29 m. (A.D.)

Left Bank Elevation 6.80 m. (A.D.) ,

Right Bank Elevation 6.81 m. (A.D.) , Drainage Are 129 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.36	0.13	0.80	1.30	0.70	3.68	3.04	1.73	1.73	1.40	0.90	0.48		
2	0.36	0.13	0.60	0.80	0.80	2.62	3.68	5.74	1.60	1.50	0.80	0.48		
3	0.36	0.13	0.52	0.80	0.70	2.11	3.84	20.54	1.40	1.40	0.80	0.48		
4	0.32	0.13	0.52	0.90	1.60	2.24	3.20	7.40	1.40	1.40	0.80	0.48		
5	0.20	0.13	0.60	0.90	1.20	2.37	3.20	4.16	1.40	1.86	0.70	0.52		
6	0.19	0.13	0.52	0.60	1.00	8.34	3.04	3.20	1.40	1.73	0.70	0.52		
7	0.19	0.13	1.40	0.60	1.50	11.42	2.37	2.75	1.50	1.30	0.60	0.52		
8	0.19	0.19	1.00	0.70	1.10	24.90	2.24	2.50	1.60	1.30	0.60	0.48		
9	0.19	0.16	0.90	0.60	0.80	6.84	2.11	2.11	1.60	1.10	0.60	0.48		
10	0.17	0.15	1.00	0.60	0.70	5.02	1.98	2.11	1.50	1.20	0.56	0.48		
11	0.16	0.13	1.73	0.56	0.80	5.56	1.60	1.98	1.40	1.10	0.52	0.48		
12	0.16	0.17	1.00	0.60	1.50	3.84	1.50	1.60	1.40	1.10	0.52	0.48		
13	0.44	0.70	0.90	0.70	1.73	3.36	1.50	1.60	1.40	1.10	0.52	0.48		
14	0.44	2.75	0.80	0.90	1.20	2.88	1.60	1.60	1.40	1.00	0.52	0.48		
15	0.36	0.90	1.00	0.80	1.00	2.37	1.50	1.50	1.40	1.00	0.56	0.52		
16	0.32	5.38	0.70	0.70	1.00	2.75	1.60	1.50	1.30	0.90	0.52	0.48		
17	0.24	3.68	0.52	0.90	1.00	5.20	1.40	1.50	1.20	0.80	0.52	0.48		
18	0.19	3.68	0.52	0.70	1.00	3.84	1.30	2.11	1.10	0.80	0.56	0.48		
19	0.17	2.75	0.52	0.60	1.30	7.78	1.60	1.60	1.10	0.80	0.56	0.48		
20	0.17	1.98	0.60	1.73	1.20	5.02	1.50	1.60	1.10	0.80	0.56	0.44		
21	0.16	1.30	0.56	1.86	2.24	3.68	1.30	1.50	1.10	1.00	0.52	0.44		
22	0.15	1.00	0.32	2.11	1.60	3.52	0.80	1.50	1.10	1.00	0.52	0.44		
23	0.15	0.60	0.40	1.40	4.00	2.88	1.60	1.40	1.10	1.00	0.52	0.44		
24	0.16	0.56	0.40	1.20	4.16	2.88	1.30	1.40	1.20	1.00	0.52	0.44		
25	0.16	0.60	0.48	1.20	2.50	2.37	0.90	1.40	1.10	0.90	0.52	0.44		
26	0.16	0.56	1.10	1.00	1.86	2.24	1.98	2.24	1.10	0.80	0.52	0.44		
27	0.16	5.02	0.56	1.00	2.11	2.24	1.98	2.88	1.10	0.80	0.52	0.44		
28	0.16	1.60	0.56	1.00	5.92	2.24	1.86	2.75	1.40	0.90	0.48	0.44		
29	0.15	1.86	0.90	1.10	6.47	8.53	2.75	2.24	1.73	0.90		0.44		
30	0.13	1.60	2.50	1.00	4.66	2.62	1.50	1.98	1.86	0.90		0.44		
31		1.30		0.90	3.84		1.40		2.11	0.90		0.48		
Total	6.72	39.53	23.93	29.76	61.19	145.34	61.17	88.12	42.83	33.69	16.54	14.60	563.42	CMSDAY
Mean	0.22	1.28	0.80	0.96	1.97	4.84	1.97	2.94	1.38	1.09	0.59	0.47	1.54	CMS
Max	0.44	5.38	2.50	2.11	6.47	24.90	3.84	20.54	2.11	1.86	0.90	0.52	24.90	CMS
Min	0.13	0.13	0.32	0.56	0.70	2.11	0.80	1.40	1.10	0.80	0.48	0.44	0.13	CMS
Runoff	0.58	3.42	2.07	2.57	5.29	12.56	5.29	7.61	3.70	2.91	1.43	1.26	48.68	MCM

Momentary Peak 47.40 CMS. at 2.70 m. (A.D.) at 01.00 Hours , on Sep 8 , 2002

Runoff Yield 11.97 Liters/Second/Square KM. Momentary Peak Yield 367.440 Liters/Second/Square KM.

WATER YEAR : 2002

PING RIVER BASIN

Nam Mae Kuang at Ban Pong, Chiang Mai (P.81)

Lat 18 - 41 - 37 N Long 99 - 04 - 58 E

Location : on left bank at the bridge on road.

Ban Pong **Amphoe** San Kamphaeng **Changwat** Chiang Mai

Drainge Area	1,190 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 approach of the bridge. **Elevation** +6.936 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 mean 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	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Stage-discharge relation defined by 39 diacharge measurements made in 2002.

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

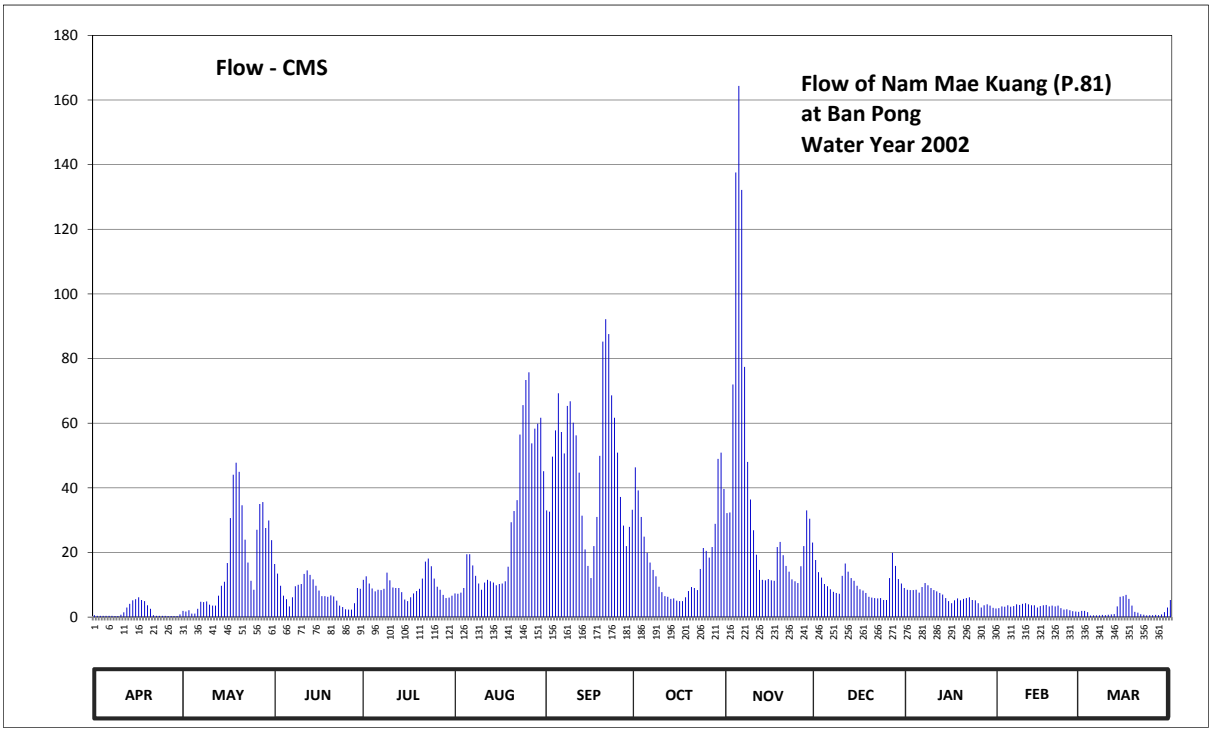
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.83	0.99	2.13	1.78	1.47	3.10	3.73	3.06	2.21	1.56	1.07	0.99	
2	0.80	0.97	1.92	1.86	1.46	3.08	3.41	3.07	1.95	1.55	1.12	0.99	
3	0.80	1.01	1.65	1.70	1.49	3.87	3.00	4.70	1.83	1.55	1.11	0.95	
4	0.80	0.90	1.41	1.59	1.60	4.20	2.66	5.99	1.69	1.56	1.15	0.81	
5	0.80	0.90	1.32	1.52	2.33	4.62	2.36	6.30	1.64	1.49	1.11	0.82	
6	0.80	1.05	1.12	1.56	2.33	4.18	2.16	5.92	1.57	1.62	1.13	0.82	
7	0.80	1.25	1.37	1.55	2.10	3.91	2.00	4.86	1.51	1.71	1.18	0.82	
8	0.78	1.24	1.64	1.58	1.87	4.49	1.86	3.80	1.48	1.66	1.16	0.84	
9	0.78	1.26	1.67	1.94	1.70	4.54	1.63	3.27	1.46	1.60	1.19	0.83	
10	0.85	1.17	1.69	1.77	1.56	4.29	1.50	2.77	1.87	1.55	1.21	0.85	
11	0.94	1.14	1.91	1.61	1.72	4.14	1.40	2.32	2.14	1.52	1.18	0.86	
12	1.09	1.14	1.99	1.60	1.78	3.66	1.38	2.00	1.96	1.48	1.15	0.88	
13	1.19	1.41	1.89	1.60	1.75	3.02	1.33	1.78	1.82	1.44	1.15	1.12	
14	1.29	1.65	1.79	1.50	1.72	2.43	1.34	1.77	1.76	1.35	1.09	1.38	
15	1.32	1.74	1.65	1.31	1.66	2.09	1.28	1.80	1.65	1.27	1.13	1.40	
16	1.37	2.15	1.54	1.27	1.69	1.82	1.27	1.77	1.57	1.21	1.15	1.43	
17	1.30	2.98	1.40	1.37	1.70	2.50	1.27	1.76	1.54	1.29	1.16	1.33	
18	1.27	3.63	1.40	1.47	1.75	3.00	1.37	2.48	1.48	1.34	1.12	1.14	
19	1.15	3.79	1.38	1.53	2.07	3.88	1.53	2.57	1.38	1.29	1.14	0.96	
20	1.05	3.67	1.42	1.58	2.91	5.08	1.62	2.31	1.36	1.33	1.12	0.93	
21	0.83	3.18	1.39	1.81	3.09	5.25	1.60	2.09	1.35	1.35	1.14	0.87	
22	0.80	2.61	1.28	2.18	3.26	5.14	1.55	1.96	1.34	1.37	1.07	0.85	
23	0.80	2.16	1.14	2.24	4.15	4.60	2.02	1.79	1.35	1.30	1.03	0.82	
24	0.80	1.76	1.10	2.08	4.50	4.35	2.46	1.75	1.30	1.29	1.04	0.83	
25	0.79	1.56	1.04	1.81	4.74	3.92	2.40	1.71	1.30	1.21	1.01	0.83	
26	0.78	2.78	1.03	1.63	4.81	3.31	2.26	2.08	1.82	1.09	0.98	0.84	
27	0.78	3.20	1.03	1.56	4.04	2.85	2.48	2.50	2.36	1.15	0.97	0.83	
28	0.78	3.23	1.21	1.43	4.22	2.50	2.88	3.10	2.09	1.18	0.96	0.86	
29	0.77	2.81	1.60	1.35	4.28	2.83	3.84	2.97	1.80	1.14		0.95	
30	0.86	2.94	1.58	1.36	4.35	3.11	3.92	2.56	1.70	1.08		1.09	
31		2.60		1.41	3.68		3.43		1.60	1.06		1.30	
Mean	0.93	2.03	1.49	1.63	2.64	3.66	2.16	2.89	1.67	1.37	1.11	0.97	
Max	1.37	3.79	2.13	2.24	4.81	5.25	3.92	6.30	2.36	1.71	1.21	1.43	6.30
Min	0.77	0.90	1.03	1.27	1.46	1.82	1.27	1.71	1.30	1.06	0.96	0.81	0.77

Annual Max Momentary Gage Height 6.31 m. (A.D.) , at 10.00 Hours , on Sep 8 , 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed -0.04 m. (A.D.)

Left Bank Elevation 6.92 m. (A.D.) ,

Right Bank Elevation 6.93 m. (A.D.) , Drainage Are 1,190 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.61	1.91	16.45	11.52	7.34	33.00	46.32	32.20	17.65	8.48	2.77	1.91		
2	0.40	1.73	13.48	12.64	7.22	32.60	39.22	32.40	13.90	8.35	3.32	1.91		
3	0.40	2.11	9.70	10.40	7.58	49.68	31.00	72.00	12.22	8.35	3.21	1.55		
4	0.40	1.10	6.62	8.87	9.00	57.80	24.88	137.57	10.26	8.48	3.65	0.47		
5	0.40	1.10	5.54	7.96	19.45	69.28	19.90	164.40	9.56	7.58	3.21	0.54		
6	0.40	2.55	3.32	8.48	19.45	57.28	16.90	132.20	8.61	9.28	3.43	0.54		
7	0.40	4.75	6.14	8.35	16.00	50.64	14.60	77.44	7.83	10.54	3.98	0.54		
8	0.35	4.64	9.56	8.74	12.78	65.34	12.64	48.00	7.46	9.84	3.76	0.68		
9	0.35	4.86	9.98	13.76	10.40	66.80	9.42	36.40	7.22	9.00	4.09	0.61		
10	0.75	3.87	10.26	11.38	8.48	60.14	7.70	26.86	12.78	8.35	4.31	0.75		
11	1.46	3.54	13.34	9.14	10.68	56.24	6.50	19.30	16.60	7.96	3.98	0.82		
12	2.99	3.54	14.46	9.00	11.52	44.72	6.26	14.60	14.04	7.46	3.65	0.96		
13	4.09	6.62	13.06	9.00	11.10	31.40	5.66	11.52	12.08	6.98	3.65	3.32		
14	5.19	9.70	11.66	7.70	10.68	20.95	5.78	11.38	11.24	5.90	2.99	6.26		
15	5.54	10.96	9.70	5.42	9.84	15.86	5.08	11.80	9.70	4.97	3.43	6.50		
16	6.14	16.75	8.22	4.97	10.26	12.08	4.97	11.38	8.61	4.31	3.65	6.86		
17	5.30	30.64	6.50	6.14	10.40	22.00	4.97	11.24	8.22	5.19	3.76	5.66		
18	4.97	44.06	6.50	7.34	11.10	31.00	6.14	21.70	7.46	5.78	3.32	3.54		
19	3.65	47.76	6.26	8.09	15.58	49.92	8.09	23.26	6.26	5.19	3.54	1.64		
20	2.55	44.94	6.74	8.74	29.38	85.24	9.28	19.15	6.02	5.66	3.32	1.37		
21	0.61	34.60	6.38	11.94	32.80	92.20	9.00	15.86	5.90	5.90	3.54	0.89		
22	0.40	23.98	5.08	17.20	36.20	87.60	8.35	14.04	5.78	6.14	2.77	0.75		
23	0.40	16.90	3.54	18.10	56.50	68.60	14.88	11.66	5.90	5.30	2.33	0.54		
24	0.40	11.24	3.10	15.72	65.60	61.70	21.40	11.10	5.30	5.19	2.44	0.61		
25	0.37	8.48	2.44	11.94	73.36	50.88	20.50	10.54	5.30	4.31	2.11	0.61		
26	0.35	27.04	2.33	9.42	75.74	37.20	18.40	15.72	12.08	2.99	1.82	0.68		
27	0.35	35.00	2.33	8.48	53.76	28.30	21.70	22.00	19.90	3.65	1.73	0.61		
28	0.35	35.60	4.31	6.86	58.32	22.00	28.84	33.00	15.86	3.98	1.64	0.82		
29	0.32	27.58	9.00	5.90	59.88	27.94	48.96	30.46	11.80	3.54		1.55		
30	0.82	29.92	8.74	6.02	61.70	33.20	50.88	23.08	10.40	2.88		2.99		
31		23.80		6.62	45.16		39.66		9.00	2.66		5.30		
Total	50.71	521.27	234.74	295.84	867.26	1421.59	567.88	1102.26	314.94	194.19	89.40	61.78	5721.86	CMSDAY
Mean	1.69	16.82	7.82	9.54	27.98	47.39	18.32	36.74	10.16	6.26	3.19	1.99	15.68	CMS
Max	6.14	47.76	16.45	18.10	75.74	92.20	50.88	164.40	19.90	10.54	4.31	6.86	164.40	CMS
Min	0.32	1.10	2.33	4.97	7.22	12.08	4.97	10.54	5.30	2.66	1.64	0.47	0.32	CMS
Runoff	4.38	45.04	20.28	25.56	74.93	122.83	49.06	95.24	27.21	16.78	7.72	5.34	494.37	MCM

Momentary Peak 165.40 CMS. at 6.31 m. (A.D.) at 10.00 Hours , on Sep 8 , 2002

Runoff Yield 13.17 Liters/Second/Square KM. Momentary Peak Yield 138.990 Liters/Second/Square KM.

WATER YEAR : 2002

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 mean 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	Rather unstable because of backwater effect.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. The channel is fulled of the Mimosa pudica plants.		
	Stage-discharge relation defined by 39 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

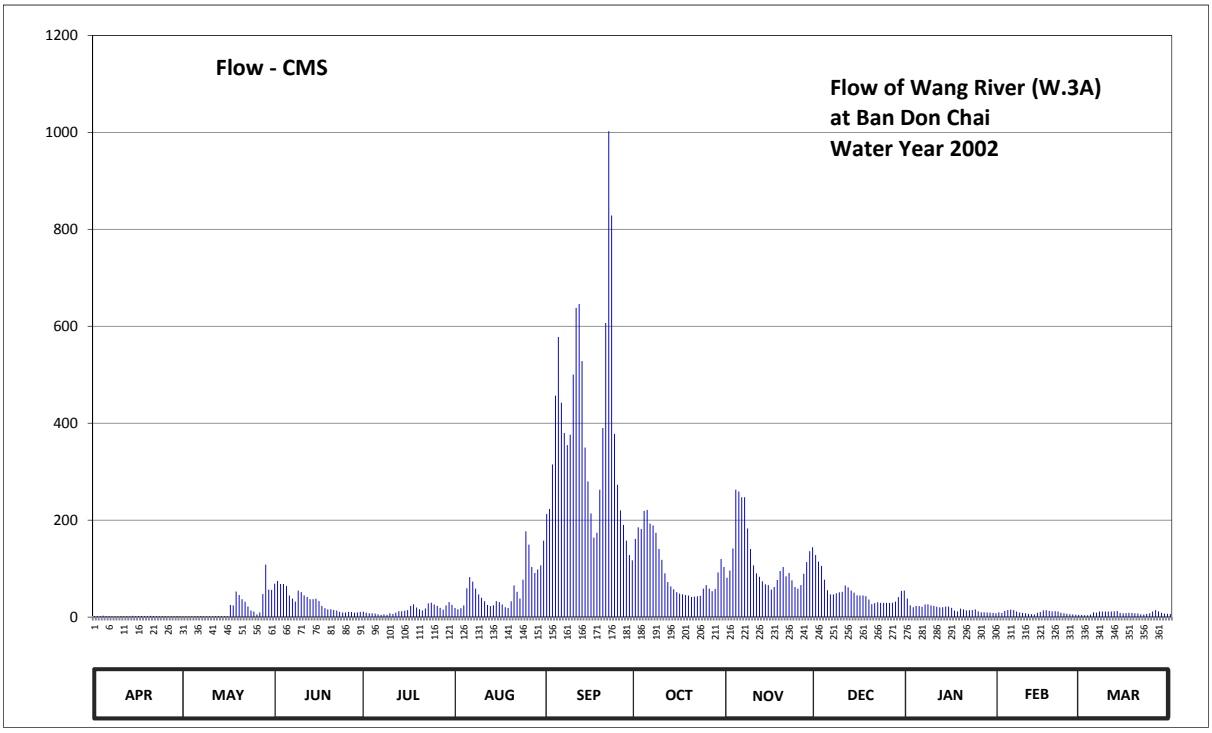
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	161.11	160.97	162.27	161.14	161.37	163.89	163.37	162.44	163.00	161.78	161.09	160.87	
2	161.09	160.95	162.35	161.07	161.30	163.99	163.61	162.63	162.85	161.50	161.04	160.84	
3	161.08	160.93	162.26	161.02	161.36	164.72	163.58	163.15	162.75	161.41	161.20	160.83	
4	161.28	160.98	162.26	161.02	161.49	165.47	163.95	164.34	162.39	161.47	161.25	160.91	
5	161.09	161.00	162.20	160.99	162.13	165.90	163.97	164.31	162.07	161.46	161.28	161.09	
6	161.02	161.04	161.89	160.92	162.46	165.41	163.69	164.21	161.93	161.43	161.25	161.07	
7	160.97	161.01	161.78	160.88	162.33	165.11	163.65	164.21	161.93	161.53	161.15	161.16	
8	160.95	160.97	161.66	160.92	162.12	164.97	163.50	163.59	161.97	161.54	161.08	161.16	
9	160.96	160.97	162.06	160.87	161.93	165.09	163.14	163.14	162.00	161.49	161.04	161.15	
10	161.06	160.97	162.01	161.01	161.81	165.64	162.89	162.76	162.02	161.47	161.01	161.15	
11	161.06	160.96	161.90	160.96	161.67	166.07	162.56	162.56	162.22	161.43	160.98	161.15	
12	161.00	161.01	161.84	161.07	161.51	166.09	162.32	162.47	162.16	161.40	160.94	161.17	
13	160.98	161.03	161.75	161.18	161.46	165.74	162.19	162.34	162.06	161.41	160.93	161.19	
14	161.18	161.02	161.75	161.18	161.50	164.94	162.10	162.25	161.99	161.44	161.05	161.06	
15	161.06	161.00	161.77	161.21	161.68	164.47	162.01	162.23	161.90	161.44	161.12	161.01	
16	161.16	160.98	161.68	161.25	161.64	163.90	161.96	162.09	161.89	161.38	161.23	161.03	
17	161.10	161.51	161.47	161.47	161.53	163.40	161.93	162.17	161.89	161.22	161.24	161.06	
18	161.09	161.49	161.36	161.54	161.41	163.50	161.91	162.38	161.87	161.17	161.20	161.04	
19	161.07	162.03	161.29	161.39	161.37	164.34	161.89	162.62	161.74	161.33	161.17	161.01	
20	161.23	161.91	161.30	161.30	161.67	165.16	161.84	162.72	161.55	161.29	161.18	161.00	
21	161.12	161.75	161.26	161.23	162.22	165.99	161.85	162.48	161.59	161.23	161.16	160.93	
22	161.07	161.65	161.22	161.34	162.02	166.72	161.86	162.57	161.63	161.24	161.05	160.93	
23	161.03	161.44	161.13	161.58	161.78	166.46	161.88	162.37	161.60	161.25	161.01	160.96	
24	161.02	161.22	161.08	161.61	162.39	165.10	162.12	162.17	161.60	161.29	160.98	161.01	
25	161.07	161.15	161.08	161.53	163.53	164.42	162.23	162.12	161.60	161.17	160.94	161.15	
26	160.99	160.93	161.13	161.47	163.24	163.96	162.12	162.23	161.60	161.10	160.92	161.25	
27	160.98	161.08	161.12	161.38	162.72	163.66	162.04	162.55	161.61	161.10	160.90	161.17	
28	161.00	161.94	161.07	161.28	162.57	163.33	162.11	162.84	161.66	161.08	160.88	161.06	
29	161.16	162.78	161.08	161.49	162.66	163.00	162.58	163.09	161.83	161.07		160.99	
30	161.04	162.09	161.13	161.64	162.76	162.88	162.91	163.18	162.05	161.04		160.97	
31		162.08		161.52	163.33		162.72		162.06	161.02		160.96	
Mean	161.07	161.32	161.60	161.24	162.03	164.78	162.60	162.81	161.97	161.33	161.08	161.04	
Max	161.28	162.78	162.35	161.64	163.53	166.72	163.97	164.34	163.00	161.78	161.28	161.25	166.72
Min	160.95	160.93	161.07	160.87	161.30	162.88	161.84	162.09	161.55	161.02	160.88	160.83	160.83

Annual Max Momentary Gage Height 166.88 m. (MSL.) , at 03.00 Hours , on Sep 23 , 2002

Zero Gage at Bottom Elevation 161.00 m. (MSL.) , River Bed 159.45 m. (MSL.)

Left Bank Elevation 169.08 m. (MSL.) ,

Right Bank Elevation 167.42 m. (MSL.) , Drainage Are 8,924 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.24	1.68	68.90	11.12	18.86	213.00	161.30	81.04	128.00	38.42	9.75	4.55		
2	2.16	1.60	74.50	9.25	16.20	223.00	185.00	95.90	114.50	24.50	8.50	4.10		
3	2.12	1.52	68.20	8.00	18.48	314.80	182.00	141.50	105.75	20.45	12.80	3.95		
4	2.92	1.72	68.20	8.00	24.05	456.80	219.00	262.80	77.30	23.15	14.50	5.25		
5	2.16	1.80	64.00	7.25	59.31	578.00	221.00	259.20	55.41	22.70	15.52	9.75		
6	1.88	1.96	44.45	5.50	82.56	442.40	193.00	247.20	46.80	21.35	14.50	9.25		
7	1.68	1.84	38.42	4.70	73.10	380.00	189.00	247.20	46.80	25.91	11.40	11.68		
8	1.60	1.68	32.14	5.50	58.64	354.90	174.00	183.00	49.20	26.38	9.50	11.68		
9	1.64	1.68	54.78	4.55	46.80	376.20	140.60	140.60	51.00	24.05	8.50	11.40		
10	2.04	1.68	51.63	7.75	40.05	500.40	118.10	106.60	52.26	23.15	7.75	11.40		
11	2.04	1.64	45.00	6.50	32.63	638.00	90.34	90.34	65.40	21.35	7.00	11.40		
12	1.80	1.84	41.70	9.25	24.97	646.00	72.40	83.32	61.32	20.00	6.00	11.96		
13	1.72	1.92	36.80	12.24	22.70	528.00	63.33	73.80	54.78	20.45	5.75	12.52		
14	2.52	1.88	36.80	12.24	24.50	349.80	57.30	67.50	50.40	21.80	8.75	9.00		
15	2.04	1.80	37.88	13.14	33.12	279.80	51.63	66.10	45.00	21.80	10.56	7.75		
16	2.44	1.72	33.12	14.50	31.16	214.00	48.60	56.67	44.45	19.24	13.82	8.25		
17	2.20	24.97	23.15	23.15	25.91	164.00	46.80	61.99	44.45	13.48	14.16	9.00		
18	2.16	24.05	18.48	26.38	20.45	174.00	45.60	76.60	43.35	11.96	12.80	8.50		
19	2.08	52.89	15.86	19.62	18.86	262.80	44.45	95.10	36.26	17.34	11.96	7.75		
20	2.72	45.60	16.20	16.20	32.63	390.00	41.70	103.20	26.85	15.86	12.24	7.50		
21	2.28	36.80	14.84	13.82	65.40	606.80	42.25	84.08	28.73	13.82	11.68	5.75		
22	2.08	31.65	13.48	17.72	52.26	1002.40	42.80	91.13	30.67	14.16	8.75	5.75		
23	1.92	21.80	10.84	28.26	38.42	828.40	43.90	75.90	29.20	14.50	7.75	6.50		
24	1.88	13.48	9.50	29.69	77.30	378.00	58.64	61.99	29.20	15.86	7.00	7.75		
25	2.08	11.40	9.50	25.91	177.00	272.80	66.10	58.64	29.20	11.96	6.00	11.40		
26	1.76	5.75	10.84	23.15	149.60	220.00	58.64	66.10	29.20	10.00	5.50	14.50		
27	1.72	9.50	10.56	19.24	103.20	190.00	53.52	89.55	29.69	10.00	5.00	11.96		
28	1.80	47.40	9.25	15.52	91.13	157.70	57.97	113.60	32.14	9.50	4.70	9.00		
29	2.44	108.30	9.50	24.05	98.30	128.00	91.92	136.10	41.15	9.25		7.25		
30	1.96	56.67	10.84	31.16	106.60	117.20	119.90	144.20	54.15	8.50		6.75		
31		56.04		25.44	157.70		103.20		54.78	8.00		6.50		
Total	62.08	574.26	979.36	478.80	1821.89	11387.20	3083.99	3460.95	1587.39	558.89	272.14	269.75	24536.70	CMSDAY
Mean	2.07	18.52	32.65	15.45	58.77	379.57	99.48	115.36	51.21	18.03	9.72	8.70	67.22	CMS
Max	2.92	108.30	74.50	31.16	177.00	1002.40	221.00	262.80	128.00	38.42	15.52	14.50	1002.40	CMS
Min	1.60	1.52	9.25	4.55	16.20	117.20	41.70	56.67	26.85	8.00	4.70	3.95	1.52	CMS
Runoff	5.36	49.62	84.62	41.37	157.41	983.85	266.46	299.03	137.15	48.29	23.51	23.31	2119.97	MCM

Momentary Peak 1127.21 CMS. at 166.88 m. (MSL.) at 03.00 Hours , on Sep 23 , 2002

Runoff Yield 7.53 Liters/Second/Square KM. Momentary Peak Yield 126.310 Liters/Second/Square KM.

WATER YEAR : 2002

WANG RIVER BASIN

Wang River at Ban Wang Man , Tak (W.4A)

Lat 17 - 12 - 19 N Long 99 - 06 - 05 E

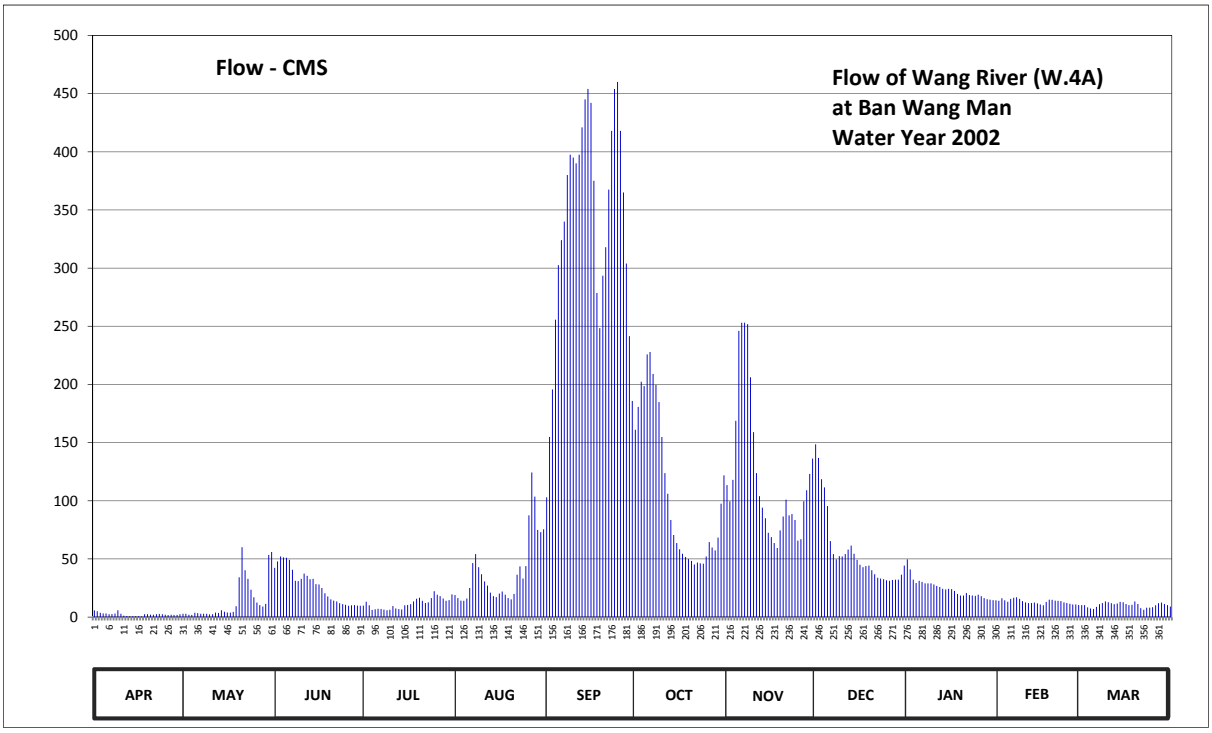
Location : on left bank about 200 meters upstream from the bridge on highway.

	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** +136.000 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 mean 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	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 32 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	130.74	130.53	132.24	131.02	131.48	133.66	134.63	133.87	134.45	132.46	131.25	131.04	
2	130.69	130.53	132.41	131.21	131.37	134.54	134.89	133.59	134.27	132.20	131.36	131.04	
3	130.59	130.48	132.53	131.03	131.26	135.06	135.13	133.96	133.97	131.93	131.27	130.92	
4	130.55	130.47	132.51	130.77	131.25	135.62	135.09	134.74	133.83	131.84	131.21	130.85	
5	130.55	130.59	132.50	130.81	131.35	135.95	135.36	135.54	133.51	131.90	131.33	130.83	
6	130.50	130.57	132.45	130.84	131.70	136.07	135.38	135.60	132.89	131.87	131.38	130.95	
7	130.51	130.53	132.19	130.83	132.37	136.15	135.20	135.60	132.59	131.83	131.40	131.09	
8	130.54	130.53	131.90	130.79	132.59	136.32	135.10	135.59	132.46	131.83	131.33	131.15	
9	130.75	130.53	131.89	130.75	132.26	136.39	134.94	135.17	132.54	131.83	131.24	131.22	
10	130.53	130.49	131.95	130.78	132.07	136.38	134.54	134.60	132.53	131.80	131.18	131.19	
11	130.42	130.50	132.09	130.99	131.88	136.36	134.06	134.06	132.59	131.76	131.15	131.14	
12	130.39	130.60	132.03	130.85	131.77	136.39	133.72	133.68	132.70	131.73	131.15	131.09	
13	130.38	130.58	131.94	130.82	131.56	136.47	133.27	133.48	132.80	131.68	131.17	131.12	
14	130.38	130.75	131.95	130.80	131.44	136.55	133.01	133.30	132.60	131.66	131.13	131.20	
15	130.38	130.66	131.81	131.03	131.41	136.58	132.85	133.05	132.45	131.68	131.07	131.19	
16	130.38	130.61	131.80	131.05	131.53	136.54	132.71	132.97	132.32	131.67	131.03	131.10	
17	130.35	130.60	131.70	131.09	131.60	136.30	132.60	132.85	132.26	131.62	131.20	131.04	
18	130.50	130.65	131.54	131.22	131.49	135.79	132.52	132.74	132.29	131.52	131.30	131.06	
19	130.50	130.98	131.43	131.34	131.37	135.56	132.47	133.09	132.30	131.46	131.29	131.22	
20	130.48	131.99	131.31	131.38	131.31	135.89	132.42	133.33	132.18	131.46	131.26	131.10	
21	130.48	132.76	131.26	131.25	131.52	136.04	132.33	133.62	132.07	131.55	131.25	130.87	
22	130.50	132.18	131.22	131.15	132.06	136.27	132.38	133.35	131.98	131.48	131.24	130.78	
23	130.52	131.95	131.14	131.18	132.28	136.46	132.36	133.37	131.96	131.46	131.18	130.90	
24	130.50	131.65	131.09	131.37	131.96	136.58	132.35	133.27	131.94	131.45	131.15	130.90	
25	130.48	131.40	131.06	131.61	132.29	136.60	132.53	132.90	131.91	131.49	131.11	130.93	
26	130.46	131.17	131.01	131.49	133.35	136.46	132.87	132.93	131.90	131.44	131.07	131.03	
27	130.48	131.04	131.03	131.44	134.07	136.26	132.75	133.59	131.92	131.37	131.07	131.14	
28	130.47	130.96	131.04	131.35	133.67	135.96	132.68	133.78	131.93	131.32	131.05	131.17	
29	130.47	131.11	131.02	131.25	133.10	135.50	132.96	134.05	131.93	131.30		131.10	
30	130.50	132.57	131.01	131.28	133.06	134.95	133.55	134.26	132.06	131.28		131.04	
31		132.64		131.50	133.11		134.03		132.30	131.27		130.96	
Mean	130.50	131.05	131.70	131.11	132.05	135.99	133.57	133.86	132.56	131.65	131.21	131.04	
Max	130.75	132.76	132.53	131.61	134.07	136.60	135.38	135.60	134.45	132.46	131.40	131.22	136.60
Min	130.35	130.47	131.01	130.75	131.25	133.66	132.33	132.74	131.90	131.27	131.03	130.78	130.35

Annual Max Momentary Gage Height	136.64	m. (MSL.) ,	at 18.00 Hours , on Sep 24 , 2002		
Zero Gage at Bottom Elevation	130.00	m. (MSL.) ,	River Bed	129.58	m. (MSL.)
Left Bank Elevation	141.79	m. (MSL.) ,			
Right Bank Elevation	141.87	m. (MSL.) ,	Drainage Are	10,439	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	5.76	2.82	42.30	9.94	19.00	103.00	161.10	113.50	148.50	49.60	14.00	10.28		
2	5.06	2.82	47.85	13.20	16.40	154.80	180.65	99.50	136.88	41.00	16.20	10.28		
3	3.66	2.12	52.05	10.11	14.20	195.70	202.35	118.00	118.50	32.22	14.40	8.40		
4	3.10	1.98	51.35	6.18	14.00	255.70	198.55	168.80	111.50	29.30	13.20	7.35		
5	3.10	3.66	51.00	6.75	16.00	302.50	225.80	246.10	95.50	31.25	15.60	7.05		
6	2.40	3.38	49.25	7.20	25.00	324.00	227.90	253.00	65.32	30.27	16.60	8.85		
7	2.54	2.82	40.68	7.05	46.53	340.00	209.00	253.00	54.15	28.97	17.00	11.13		
8	2.96	2.82	31.25	6.46	54.15	380.00	199.50	251.85	49.60	28.97	15.60	12.15		
9	5.90	2.82	30.92	5.90	42.95	397.50	184.90	206.15	52.40	28.97	13.80	13.40		
10	2.82	2.26	32.87	6.32	36.78	395.00	154.80	159.00	52.05	28.00	12.66	12.83		
11	1.28	2.40	37.43	9.45	30.60	390.00	123.75	123.75	54.15	26.80	12.15	11.98		
12	0.90	3.80	35.48	7.35	27.10	397.50	106.00	104.00	58.00	25.90	12.15	11.13		
13	0.80	3.52	32.55	6.90	21.00	421.00	83.50	94.00	61.50	24.40	12.49	11.64		
14	0.80	5.90	32.87	6.60	18.00	445.00	70.50	85.00	54.50	23.80	11.81	13.00		
15	0.80	4.64	28.32	10.11	17.25	454.00	63.62	72.50	49.25	24.40	10.79	12.83		
16	0.80	3.94	28.00	10.45	20.25	442.00	58.35	68.72	44.90	24.10	10.11	11.30		
17	0.50	3.80	25.00	11.13	22.00	375.00	54.50	63.62	42.95	22.60	13.00	10.28		
18	2.40	4.50	20.50	13.40	19.25	278.65	51.70	59.40	43.93	20.00	15.00	10.62		
19	2.40	9.30	17.75	15.80	16.40	248.40	49.95	74.50	44.25	18.50	14.80	13.40		
20	2.12	34.17	15.20	16.60	15.20	293.50	48.20	86.50	40.35	18.50	14.20	11.30		
21	2.12	60.10	14.20	14.00	20.00	318.00	45.23	101.00	36.78	20.75	14.00	7.65		
22	2.40	40.35	13.40	12.15	36.45	367.50	46.85	87.50	33.85	19.00	13.80	6.32		
23	2.68	32.87	11.98	12.66	43.60	418.00	46.20	88.50	33.20	18.50	12.66	8.10		
24	2.40	23.50	11.13	16.40	33.20	454.00	45.88	83.50	32.55	18.25	12.15	8.10		
25	2.12	17.00	10.62	22.30	43.93	460.00	52.05	65.75	31.57	19.25	11.47	8.55		
26	1.84	12.49	9.77	19.25	87.50	418.00	64.47	67.02	31.25	18.00	10.79	10.11		
27	2.12	10.28	10.11	18.00	124.38	365.00	59.75	99.50	31.90	16.40	10.79	11.98		
28	1.98	9.00	10.28	16.00	103.50	304.00	57.30	109.00	32.22	15.40	10.45	12.49		
29	1.98	11.47	9.94	14.00	75.00	241.50	68.30	123.13	32.22	15.00		11.30		
30	2.40	53.45	9.77	14.60	73.00	185.75	97.50	136.25	36.45	14.60		10.28		
31		55.90		19.50	75.50		121.88		44.25	14.40		9.00		
Total	72.14	429.88	813.82	365.76	1208.12	10125.00	3360.03	3662.04	1754.42	747.10	371.67	323.08	23233.06	CMSDAY
Mean	2.40	13.87	27.13	11.80	38.97	337.50	108.39	122.07	56.59	24.10	13.27	10.42	63.65	CMS
Max	5.90	60.10	52.05	22.30	124.38	460.00	227.90	253.00	148.50	49.60	17.00	13.40	460.00	CMS
Min	0.50	1.98	9.77	5.90	14.00	103.00	45.23	59.40	31.25	14.40	10.11	6.32	0.50	CMS
Runoff	6.23	37.14	70.31	31.60	104.38	874.80	290.31	316.40	151.58	64.55	32.11	27.91	2007.34	MCM

Momentary Peak 473.20 CMS. at 136.64 m. (MSL.) at 18.00 Hours , on Sep 24 , 2002

Runoff Yield 6.10 Liters/Second/Square KM. Momentary Peak Yield 45.330 Liters/Second/Square KM.

WATER YEAR : 2002

WANG RIVER BASIN

Wang River at Ban Hai , Lampang (W.16A)

Lat 18 - 46 - 45 N Long 99 - 37 - 52 E

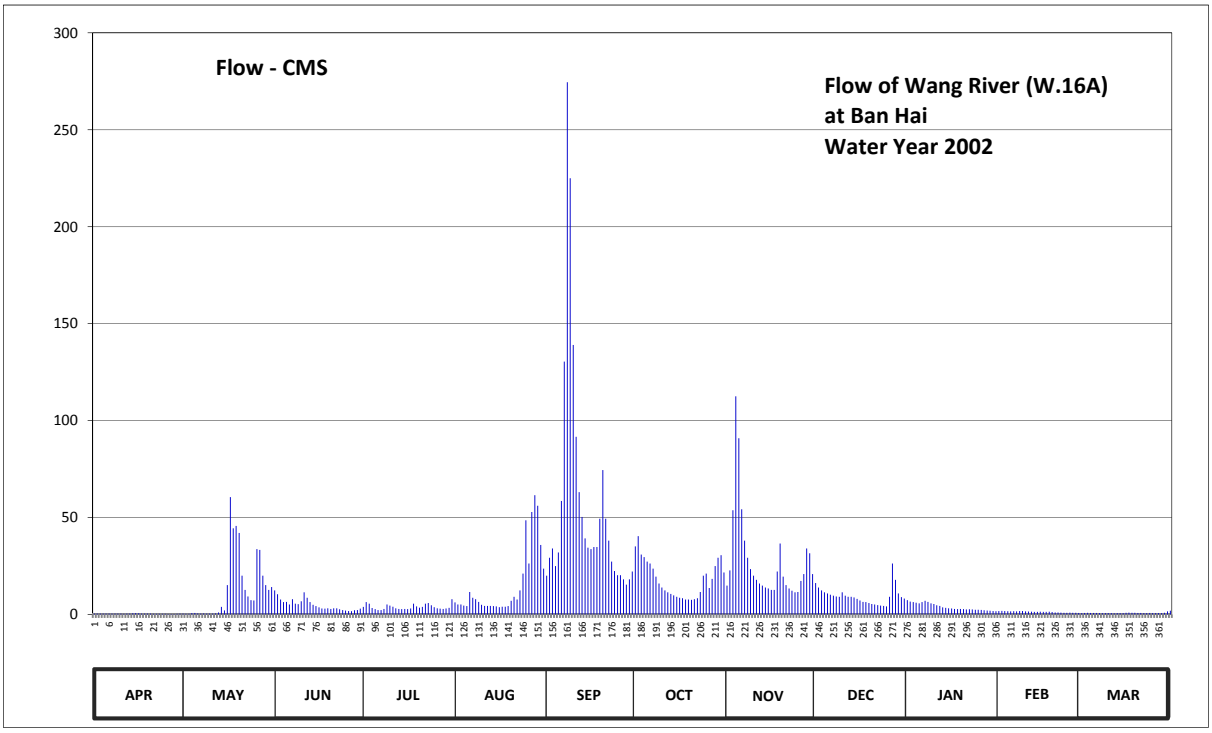
Location : on left bank at Ban Hai

	Ban Hai	**Amphoe** Chae Hom	**Changwat** Lampang
Drainge Area	1,392 sq.km.		
Type of Gage	Water - stage recorder.		
Zero Gage at Bottom	+0.000 m. (A.D.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank about 10.00 meters from the top staff gage.		**Elevation** +6.177 m. (A.D.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean 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 because of backwater effect.		
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 42 discharge measurements made in 2002.		

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	1.19	1.17	2.01	1.51	1.67	2.30	2.77	2.11	2.16	1.74	1.30	1.15	
2	1.19	1.16	1.91	1.68	1.60	2.60	2.91	2.40	2.07	1.70	1.31	1.16	
3	1.18	1.16	1.76	1.63	1.60	2.74	2.65	3.23	2.01	1.68	1.30	1.17	
4	1.17	1.23	1.68	1.46	1.56	2.47	2.61	4.16	1.96	1.66	1.29	1.16	
5	1.17	1.24	1.69	1.41	1.54	2.68	2.54	3.89	1.93	1.64	1.28	1.16	
6	1.17	1.20	1.60	1.36	1.97	3.33	2.51	3.24	1.90	1.68	1.29	1.16	
7	1.17	1.19	1.77	1.36	1.81	4.35	2.43	2.85	1.87	1.72	1.28	1.15	
8	1.18	1.20	1.63	1.42	1.77	5.23	2.28	2.60	1.85	1.69	1.30	1.15	
9	1.18	1.19	1.61	1.60	1.69	5.00	2.15	2.42	1.84	1.64	1.30	1.14	
10	1.17	1.18	1.71	1.56	1.59	4.43	2.07	2.30	1.96	1.62	1.28	1.14	
11	1.16	1.18	1.96	1.52	1.55	3.90	2.01	2.22	1.87	1.57	1.27	1.14	
12	1.17	1.20	1.81	1.45	1.55	3.42	1.96	2.15	1.84	1.55	1.26	1.13	
13	1.19	1.27	1.68	1.42	1.55	3.15	1.92	2.11	1.84	1.49	1.25	1.14	
14	1.22	1.52	1.59	1.41	1.54	2.88	1.88	2.07	1.82	1.47	1.25	1.15	
15	1.23	1.38	1.54	1.42	1.53	2.75	1.84	2.05	1.78	1.45	1.26	1.15	
16	1.21	2.12	1.49	1.41	1.50	2.73	1.81	2.02	1.73	1.44	1.25	1.17	
17	1.19	3.37	1.44	1.44	1.52	2.76	1.80	2.02	1.69	1.42	1.25	1.19	
18	1.19	3.01	1.43	1.63	1.52	2.76	1.76	2.38	1.68	1.41	1.26	1.17	
19	1.17	3.04	1.45	1.53	1.54	3.13	1.76	2.81	1.65	1.42	1.24	1.17	
20	1.17	2.95	1.42	1.48	1.72	3.63	1.75	2.28	1.62	1.41	1.21	1.16	
21	1.15	2.30	1.45	1.51	1.84	3.13	1.77	2.12	1.60	1.39	1.20	1.16	
22	1.15	2.02	1.45	1.63	1.76	2.85	1.80	2.05	1.58	1.40	1.19	1.15	
23	1.15	1.85	1.40	1.65	2.01	2.54	1.97	2.00	1.56	1.39	1.18	1.14	
24	1.15	1.74	1.36	1.57	2.34	2.39	2.30	1.96	1.55	1.38	1.17	1.16	
25	1.15	1.73	1.33	1.50	3.11	2.31	2.34	1.97	1.53	1.38	1.19	1.15	
26	1.14	2.73	1.30	1.45	2.51	2.31	2.06	2.20	1.84	1.37	1.18	1.15	
27	1.13	2.72	1.29	1.43	3.21	2.23	2.24	2.33	2.51	1.35	1.18	1.15	
28	1.13	2.30	1.35	1.42	3.39	2.13	2.47	2.74	2.22	1.33	1.16	1.15	
29	1.15	2.12	1.36	1.44	3.28	2.23	2.60	2.67	1.93	1.32		1.17	
30	1.18	2.02	1.43	1.47	2.79	2.38	2.64	2.33	1.83	1.30		1.28	
31		2.08		1.77	2.43		2.36		1.79	1.29		1.32	
Mean	1.17	1.82	1.56	1.50	1.97	3.02	2.19	2.46	1.84	1.49	1.25	1.16	
Max	1.23	3.37	2.01	1.77	3.39	5.23	2.91	4.16	2.51	1.74	1.31	1.32	5.23
Min	1.13	1.16	1.29	1.36	1.50	2.13	1.75	1.96	1.53	1.29	1.16	1.13	1.13

Annual Max Momentary Gage Height	5.31	m. (A.D.) ,	at 06.00 Hours , on Sep 8 , 2002		
Zero Gage at Bottom Elevation	0.00	m. (A.D.) ,	River Bed	-0.69	m. (A.D.)
Left Bank Elevation	6.12	m. (A.D.) ,			
Right Bank Elevation	6.07	m. (A.D.) ,	Drainage Are	1,392	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.47	0.40	12.44	3.89	6.19	20.00	35.12	14.87	16.22	7.35	1.72	0.71		
2	0.47	0.37	10.40	6.34	5.12	29.20	40.40	22.70	13.88	6.65	1.81	0.77		
3	0.44	0.37	7.70	5.58	5.12	34.04	30.90	53.78	12.44	6.34	1.72	0.82		
4	0.40	0.71	6.34	3.31	4.57	24.94	29.54	112.48	11.40	6.04	1.65	0.77		
5	0.40	0.78	6.50	2.76	4.30	31.92	27.22	90.91	10.80	5.73	1.57	0.77		
6	0.40	0.50	5.12	2.28	11.60	58.50	26.23	54.24	10.20	6.34	1.65	0.77		
7	0.40	0.47	7.88	2.28	8.58	130.40	23.66	38.10	9.66	7.00	1.57	0.71		
8	0.44	0.50	5.58	2.87	7.88	274.48	19.46	29.20	9.30	6.50	1.72	0.71		
9	0.44	0.47	5.27	5.12	6.50	225.00	15.95	23.34	9.12	5.73	1.72	0.66		
10	0.40	0.44	6.82	4.57	4.98	139.02	13.88	20.00	11.40	5.43	1.57	0.66		
11	0.37	0.44	11.40	4.02	4.43	91.60	12.44	17.84	9.66	4.71	1.50	0.66		
12	0.40	0.50	8.58	3.20	4.43	63.06	11.40	15.95	9.12	4.43	1.42	0.61		
13	0.47	0.99	6.34	2.87	4.43	50.25	10.60	14.87	9.12	3.64	1.35	0.66		
14	0.64	3.93	4.98	2.76	4.30	39.24	9.84	13.88	8.76	3.42	1.35	0.71		
15	0.71	2.10	4.30	2.87	4.16	34.40	9.12	13.40	8.05	3.20	1.42	0.71		
16	0.57	15.14	3.64	2.76	3.75	33.68	8.58	12.68	7.17	3.09	1.35	0.82		
17	0.47	60.50	3.09	3.09	4.02	34.76	8.40	12.68	6.50	2.87	1.35	0.93		
18	0.47	44.41	2.98	5.58	4.02	34.76	7.70	22.16	6.34	2.76	1.42	0.82		
19	0.40	45.64	3.20	4.16	4.30	49.39	7.70	36.58	5.88	2.87	1.28	0.82		
20	0.40	42.00	2.87	3.53	7.00	74.44	7.52	19.46	5.43	2.76	1.05	0.77		
21	0.34	20.00	3.20	3.89	9.12	49.39	7.88	15.14	5.12	2.56	0.98	0.77		
22	0.34	12.68	3.20	5.58	7.70	38.10	8.40	13.40	4.85	2.65	0.93	0.71		
23	0.34	9.30	2.65	5.88	12.44	27.22	11.60	12.20	4.57	2.56	0.87	0.66		
24	0.34	7.35	2.28	4.71	21.08	22.43	20.00	11.40	4.43	2.46	0.82	0.77		
25	0.34	7.17	2.00	3.75	48.53	20.27	21.08	11.60	4.16	2.46	0.93	0.71		
26	0.31	33.68	1.72	3.20	26.23	20.27	13.64	17.30	9.12	2.37	0.87	0.71		
27	0.28	33.32	1.65	2.98	52.86	18.11	18.38	20.81	26.23	2.19	0.87	0.71		
28	0.28	20.00	2.19	2.87	61.50	15.41	24.94	34.04	17.84	2.00	0.77	0.71		
29	0.34	15.14	2.28	3.09	56.08	18.11	29.20	31.58	10.80	1.91		0.82		
30	0.44	12.68	2.98	3.42	35.84	22.16	30.56	20.81	8.94	1.72		1.57		
31		14.12		7.88	23.66		21.62		8.23	1.65		1.91		
Total	12.51	406.10	149.58	121.09	464.72	1724.55	562.96	827.40	294.74	121.39	37.23	24.91	4747.18	CMSDAY
Mean	0.42	13.10	4.99	3.91	14.99	57.49	18.16	27.58	9.51	3.92	1.33	0.80	13.01	CMS
Max	0.71	60.50	12.44	7.88	61.50	274.48	40.40	112.48	26.23	7.35	1.81	1.91	274.48	CMS
Min	0.28	0.37	1.65	2.28	3.75	15.41	7.52	11.40	4.16	1.65	0.77	0.61	0.28	CMS
Runoff	1.08	35.09	12.92	10.46	40.15	149.00	48.64	71.49	25.47	10.49	3.22	2.15	410.16	MCM

Momentary Peak 293.55 CMS. at 5.31 m. (A.D.) at 06.00 Hours , on Sep 8 , 2002

Runoff Yield 9.34 Liters/Second/Square KM. Momentary Peak Yield 210.880 Liters/Second/Square KM.

WATER YEAR : 2002

WANG RIVER BASIN

Nam Mae Soi at Ban Nong Nao , Lampang (W.17)

Lat 18 - 43 - 13 N Long 99 - 34 - 04 E

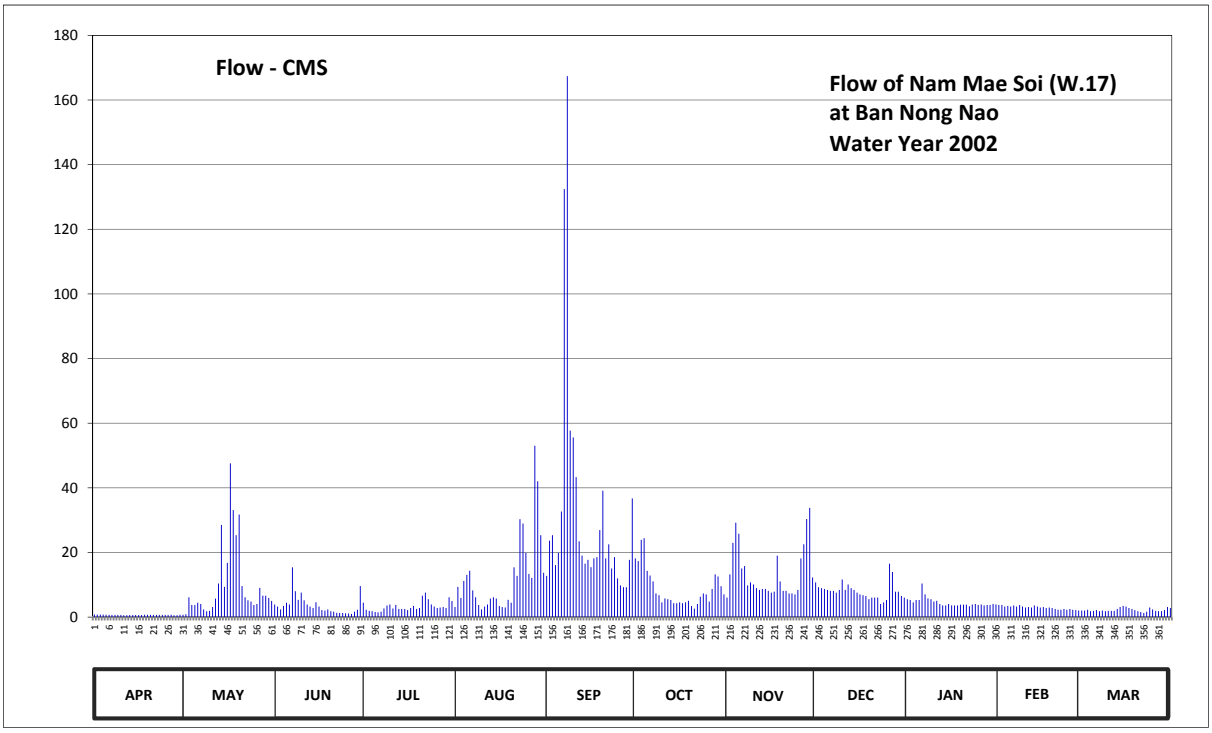
Location : on right at the bridge of Lampang - Wang Nua Road.

	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** +295.790 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean 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	Rather unstable by some scouring.		
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 41 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	292.16	292.13	291.69	291.72	291.64	292.06	291.83	291.45	291.62	291.43	291.68	291.56	
2	292.16	292.22	291.65	291.58	291.94	292.35	291.81	291.70	291.57	291.42	291.68	291.56	
3	292.16	291.81	291.59	291.55	291.80	292.39	291.96	291.94	291.56	291.40	291.65	291.58	
4	292.15	291.68	291.66	291.54	292.01	292.16	291.97	292.68	291.55	291.42	291.66	291.54	
5	292.14	291.68	291.72	291.52	292.07	292.26	291.73	292.00	291.54	291.42	291.65	291.55	
6	292.11	291.72	291.69	291.51	292.11	292.55	291.69	291.75	291.53	291.61	291.67	291.57	
7	292.10	291.70	292.14	291.53	291.90	293.84	291.63	291.67	291.53	291.49	291.65	291.54	
8	292.11	291.59	291.89	291.61	291.81	294.12	291.50	291.59	291.51	291.44	291.68	291.56	
9	292.10	291.54	291.77	291.67	291.68	292.51	291.48	291.62	291.54	291.43	291.65	291.54	
10	292.10	291.55	291.87	291.69	291.59	292.48	291.39	291.60	291.64	291.40	291.63	291.55	
11	292.02	291.64	291.76	291.61	291.65	292.30	291.44	291.56	291.54	291.41	291.64	291.55	
12	292.01	291.79	291.69	291.68	291.69	291.95	291.43	291.54	291.60	291.37	291.63	291.55	
13	292.03	291.98	291.65	291.60	291.79	291.85	291.42	291.55	291.56	291.35	291.67	291.60	
14	292.03	292.46	291.62	291.60	291.81	291.79	291.38	291.55	291.54	291.35	291.65	291.64	
15	292.03	291.94	291.73	291.60	291.79	291.82	291.38	291.53	291.51	291.37	291.63	291.66	
16	292.04	292.18	291.65	291.57	291.66	291.76	291.39	291.51	291.49	291.35	291.64	291.65	
17	292.03	292.83	291.57	291.62	291.64	291.83	291.38	291.52	291.48	291.35	291.62	291.62	
18	292.13	292.56	291.56	291.66	291.63	291.84	291.39	291.85	291.47	291.35	291.63	291.60	
19	292.13	292.39	291.59	291.60	291.77	292.02	291.41	291.63	291.43	291.36	291.62	291.57	
20	292.11	292.53	291.54	291.62	291.72	292.23	291.34	291.53	291.45	291.36	291.60	291.54	
21	292.09	291.95	291.53	291.83	292.14	291.83	291.31	291.53	291.45	291.36	291.58	291.52	
22	292.08	291.81	291.50	291.87	292.06	291.93	291.37	291.50	291.45	291.34	291.58	291.49	
23	292.08	291.76	291.49	291.78	292.50	291.75	291.46	291.50	291.37	291.69	291.60	291.53	
24	292.08	291.74	291.49	291.69	292.47	291.84	291.50	291.49	291.39	291.70	291.58	291.63	
25	292.08	291.68	291.48	291.65	292.26	291.66	291.49	291.55	291.42	291.68	291.60	291.59	
26	292.08	291.70	291.47	291.62	292.08	291.59	291.40	291.83	291.79	291.69	291.58	291.55	
27	292.12	291.93	291.45	291.63	292.04	291.57	291.55	291.93	291.72	291.67	291.57	291.54	
28	292.02	291.83	291.53	291.64	292.92	291.57	291.70	292.08	291.52	291.68	291.56	291.54	
29	292.02	291.83	291.58	291.62	292.73	291.82	291.67	291.86	291.52	291.68		291.57	
30	292.14	291.80	291.95	291.81	292.39	292.19	291.58	291.67	291.47	291.70		291.64	
31		291.75		291.75	292.09		291.49		291.45	291.69		291.62	
Mean	292.09	291.93	291.65	291.64	291.98	292.13	291.53	291.69	291.52	291.48	291.63	291.57	
Max	292.16	292.83	292.14	291.87	292.92	294.12	291.97	292.68	291.79	291.70	291.68	291.66	294.12
Min	292.01	291.54	291.45	291.51	291.59	291.57	291.31	291.45	291.37	291.34	291.56	291.49	291.31

Annual Max Momentary Gage Height	294.56	m. (MSL.) ,	at 09.00 Hours , on Sep 8 , 2002		
Zero Gage at Bottom Elevation	292.00	m. (MSL.) ,	River Bed	291.03	m. (MSL.)
Left Bank Elevation	296.54	m. (MSL.) ,			
Right Bank Elevation	295.17	m. (MSL.) ,	Drainage Are	726	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.79	0.75	3.90	4.43	3.12	12.76	18.16	6.05	10.72	5.55	3.75	2.04		
2	0.79	0.88	3.28	2.27	9.33	23.65	17.32	13.20	9.26	5.30	3.75	2.04		
3	0.79	6.16	2.38	1.92	5.92	25.37	23.92	22.98	8.98	4.56	3.28	2.27		
4	0.77	3.75	3.44	1.81	11.21	16.10	24.39	29.22	8.70	5.30	3.44	1.81		
5	0.76	3.75	4.43	1.58	13.07	19.90	14.31	25.80	8.42	5.30	3.28	1.92		
6	0.71	4.43	3.90	1.47	14.35	32.65	12.89	15.05	8.14	10.41	3.59	2.16		
7	0.70	4.06	15.40	1.69	8.28	132.44	11.03	15.79	8.14	7.05	3.28	1.81		
8	0.71	2.38	8.04	2.66	6.16	167.38	7.30	9.82	7.58	5.80	3.75	2.04		
9	0.70	1.81	5.36	3.59	3.75	57.72	6.80	10.72	8.42	5.55	3.28	1.81		
10	0.70	1.92	7.57	3.90	2.38	55.60	4.56	10.10	11.65	4.80	2.97	1.92		
11	0.60	3.12	5.18	2.66	3.28	43.30	5.80	8.98	8.42	5.05	3.12	1.92		
12	0.59	5.73	3.90	3.75	3.90	23.45	5.55	8.42	10.10	4.08	2.97	1.92		
13	0.62	10.38	3.28	2.50	5.73	19.00	5.30	8.70	8.98	3.60	3.59	2.50		
14	0.62	28.50	2.81	2.50	6.16	16.53	4.32	8.70	8.42	3.60	3.28	3.12		
15	0.62	9.33	4.62	2.50	5.73	17.74	4.32	8.14	7.58	4.08	2.97	3.44		
16	0.63	16.80	3.28	2.16	3.44	15.42	4.56	7.58	7.05	3.60	3.12	3.28		
17	0.62	47.60	2.16	2.81	3.12	18.16	4.32	7.86	6.80	3.60	2.81	2.81		
18	0.75	33.12	2.04	3.44	2.97	18.58	4.56	19.00	6.55	3.60	2.97	2.50		
19	0.75	25.37	2.38	2.50	5.36	26.94	5.05	11.03	5.55	3.84	2.81	2.16		
20	0.71	31.71	1.81	2.81	4.43	39.10	3.39	8.14	6.05	3.84	2.50	1.81		
21	0.69	9.59	1.69	6.63	15.40	18.16	2.64	8.14	6.05	3.84	2.27	1.58		
22	0.68	6.16	1.35	7.57	12.76	22.51	4.08	7.30	6.05	3.36	2.27	1.27		
23	0.68	5.18	1.27	5.55	30.30	15.05	6.30	7.30	4.08	3.90	2.50	1.69		
24	0.68	4.80	1.27	3.90	28.95	18.58	7.30	7.05	4.56	4.06	2.27	2.97		
25	0.68	3.75	1.20	3.28	19.90	11.96	7.05	8.42	5.30	3.75	2.50	2.38		
26	0.68	4.06	1.12	2.81	13.38	9.82	4.80	18.16	16.53	3.90	2.27	1.92		
27	0.73	9.07	0.97	2.97	12.14	9.26	8.70	22.51	13.94	3.59	2.16	1.81		
28	0.60	6.63	1.69	3.12	53.04	9.26	13.20	30.36	7.86	3.75	2.04	1.81		
29	0.60	6.63	2.27	2.81	42.02	17.74	12.58	33.82	7.86	3.75		2.16		
30	0.76	5.92	9.59	6.16	25.37	36.72	9.54	12.27	6.55	4.06		3.12		
31		4.99		4.99	13.69		7.05		6.05	3.90		2.81		
Total	20.71	308.33	111.58	102.74	388.64	950.85	271.09	410.61	250.34	140.37	82.79	68.80	3106.85	CMSDAY
Mean	0.69	9.95	3.72	3.31	12.54	31.70	8.74	13.69	8.08	4.53	2.96	2.22	8.51	CMS
Max	0.79	47.60	15.40	7.57	53.04	167.38	24.39	33.82	16.53	10.41	3.75	3.44	167.38	CMS
Min	0.59	0.75	0.97	1.47	2.38	9.26	2.64	6.05	4.08	3.36	2.04	1.27	0.59	CMS
Runoff	1.79	26.64	9.64	8.88	33.58	82.15	23.42	35.48	21.63	12.13	7.15	5.94	268.43	MCM

Momentary Peak 232.84 CMS. at 294.56 m. (MSL.) at 09.00 Hours , on Sep 8 , 2002

Runoff Yield 11.72 Liters/Second/Square KM. Momentary Peak Yield 320.720 Liters/Second/Square KM.

WATER YEAR : 2002

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	Staff gage.
Zero Gage at Bottom	+0.000 m. (A.D.)
Bench Mark	B.M.-H.D.
Location BM	On left bank at the approach of the bridge. **Elevation** +7.710 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 mean 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	Rather unstable because of back water effect.
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 43 discharge measurements made in 2002.

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

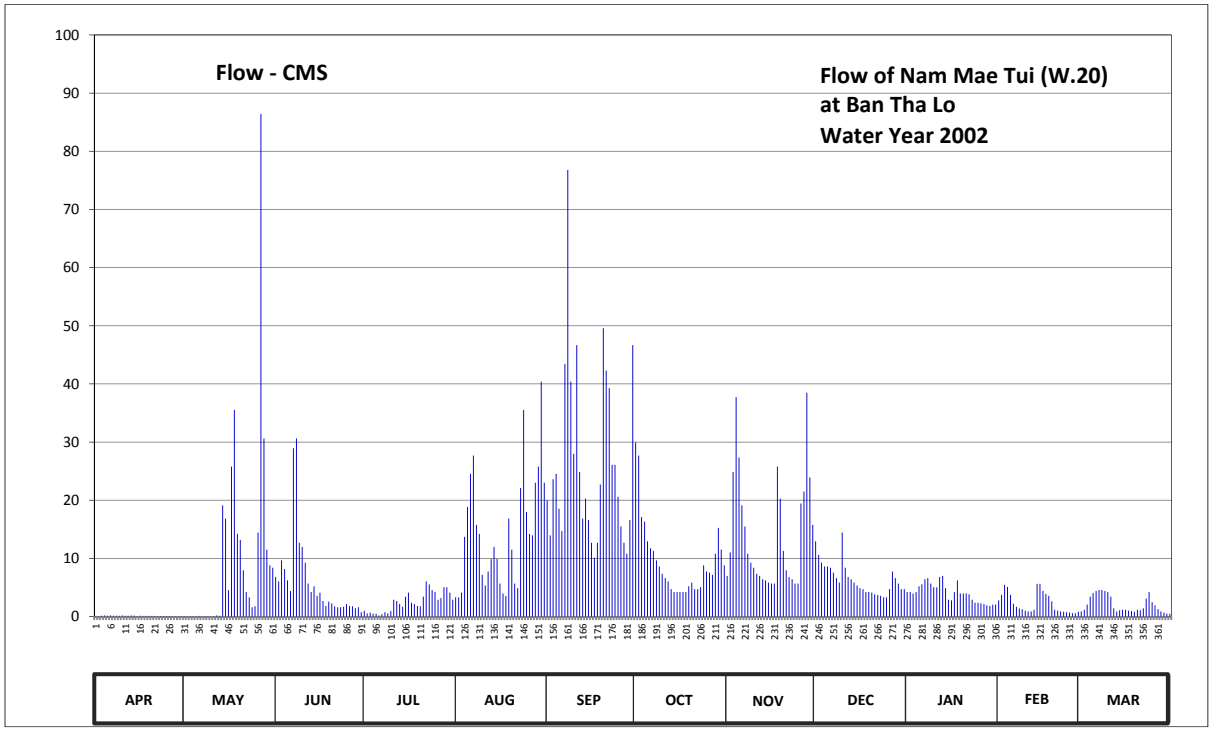
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.23	0.22	0.95	0.49	0.73	1.49	1.81	0.96	1.23	0.80	0.72	0.56	
2	0.22	0.21	0.91	0.39	0.73	1.27	1.74	1.15	1.13	0.80	0.78	0.60	
3	0.25	0.20	1.09	0.42	0.79	1.61	1.39	1.65	1.07	0.78	0.88	0.67	
4	0.28	0.21	1.02	0.38	1.26	1.64	1.36	2.03	1.04	0.80	0.86	0.76	
5	0.25	0.21	0.92	0.37	1.45	1.44	1.23	1.73	1.04	0.86	0.78	0.80	
6	0.28	0.23	0.81	0.29	1.64	1.30	1.18	1.46	1.03	0.88	0.68	0.82	
7	0.26	0.21	1.78	0.35	1.74	2.18	1.16	1.33	0.99	0.93	0.64	0.83	
8	0.25	0.20	1.83	0.44	1.34	2.92	1.09	1.14	0.94	0.94	0.62	0.83	
9	0.25	0.20	1.22	0.40	1.28	2.10	1.04	1.07	0.90	0.89	0.61	0.82	
10	0.28	0.18	1.19	0.48	0.97	1.75	0.98	1.03	1.29	0.85	0.58	0.81	
11	0.26	0.20	1.07	0.70	0.87	2.26	0.94	0.98	1.03	0.85	0.56	0.76	
12	0.25	0.28	0.89	0.68	1.00	1.65	0.91	0.96	0.95	0.95	0.56	0.62	
13	0.28	0.26	0.80	0.63	1.10	1.38	0.83	0.93	0.93	0.96	0.60	0.56	
14	0.27	1.46	0.86	0.58	1.19	1.50	0.80	0.92	0.90	0.84	0.89	0.59	
15	0.20	1.38	0.75	0.74	1.10	1.37	0.80	0.90	0.87	0.70	0.89	0.60	
16	0.25	0.82	0.79	0.79	0.89	1.22	0.80	0.89	0.84	0.69	0.82	0.60	
17	0.23	1.68	0.68	0.65	0.78	1.11	0.80	0.89	0.83	0.80	0.79	0.58	
18	0.24	1.97	0.60	0.63	0.75	1.22	0.80	1.68	0.80	0.92	0.77	0.57	
19	0.23	1.28	0.67	0.60	1.38	1.58	0.86	1.50	0.80	0.78	0.71	0.55	
20	0.23	1.24	0.64	0.59	1.17	2.33	0.90	1.16	0.79	0.78	0.60	0.60	
21	0.23	1.01	0.59	0.74	0.89	2.15	0.83	1.01	0.77	0.78	0.58	0.59	
22	0.22	0.80	0.57	0.91	0.84	2.07	0.83	0.95	0.76	0.77	0.56	0.62	
23	0.22	0.73	0.57	0.88	1.56	1.69	0.85	0.93	0.75	0.70	0.55	0.74	
24	0.22	0.57	0.58	0.82	1.97	1.69	1.05	0.89	0.73	0.65	0.54	0.81	
25	0.22	0.59	0.63	0.80	1.42	1.51	1.00	0.89	0.73	0.65	0.53	0.70	
26	0.22	1.29	0.60	0.70	1.28	1.33	0.99	1.47	0.83	0.64	0.51	0.66	
27	0.21	3.11	0.59	0.72	1.27	1.22	0.97	1.54	1.00	0.63	0.51	0.61	
28	0.21	1.83	0.55	0.85	1.59	1.14	1.14	2.05	0.94	0.61	0.55	0.56	
29	0.20	1.17	0.57	0.85	1.68	1.37	1.32	1.62	0.89	0.60		0.53	
30	0.20	1.05	0.44	0.79	2.10	2.26	1.17	1.34	0.83	0.62		0.50	
31		1.03		0.70	1.59		1.05		0.83	0.67		0.49	
Mean	0.24	0.83	0.84	0.62	1.24	1.66	1.05	1.24	0.92	0.78	0.67	0.66	
Max	0.28	3.11	1.83	0.91	2.10	2.92	1.81	2.05	1.29	0.96	0.89	0.83	3.11
Min	0.20	0.18	0.44	0.29	0.73	1.11	0.80	0.89	0.73	0.60	0.51	0.49	0.18

Annual Max Momentary Gage Height 3.40 m. (A.D.) , at 12.00 Hours , on May 27 , 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed -0.21 m. (A.D.)

Left Bank Elevation 7.66 m. (A.D.) ,

Right Bank Elevation 7.66 m. (A.D.) , Drainage Are 941 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.11	0.09	6.80	1.00	3.30	20.01	29.94	6.99	12.95	4.23	2.78	0.90		
2	0.09	0.08	6.04	0.54	3.30	13.95	27.68	11.05	10.59	4.23	3.73	1.16		
3	0.14	0.06	9.68	0.67	4.10	23.61	17.13	24.85	9.25	3.96	5.45	2.07		
4	0.20	0.08	8.18	0.50	13.70	24.54	16.32	37.74	8.61	4.23	5.10	3.41		
5	0.14	0.08	6.23	0.47	18.85	18.56	12.95	27.36	8.61	5.20	3.73	4.05		
6	0.20	0.11	4.39	0.21	24.54	14.70	11.74	19.14	8.39	5.53	2.20	4.40		
7	0.16	0.08	28.96	0.40	27.68	43.44	11.28	15.51	7.56	6.42	1.68	4.58		
8	0.14	0.06	30.62	0.76	15.78	76.80	9.68	10.82	6.61	6.61	1.42	4.58		
9	0.14	0.06	12.70	0.57	14.20	40.40	8.61	9.25	5.85	5.69	1.29	4.40		
10	0.20	0.05	11.97	0.95	7.18	28.00	7.37	8.39	14.45	5.04	1.03	4.23		
11	0.16	0.06	9.25	2.90	5.36	46.66	6.61	7.37	8.39	5.04	0.90	3.41		
12	0.14	0.20	5.69	2.69	7.75	24.85	6.04	6.99	6.80	6.80	0.90	1.42		
13	0.20	0.16	4.23	2.16	9.90	16.86	4.72	6.42	6.42	6.99	1.16	0.90		
14	0.18	19.14	5.20	1.68	11.97	20.30	4.23	6.23	5.85	4.88	5.63	1.09		
15	0.06	16.86	3.57	3.43	9.90	16.59	4.23	5.85	5.36	2.90	5.63	1.16		
16	0.14	4.55	4.10	4.10	5.69	12.70	4.23	5.69	4.88	2.79	4.40	1.16		
17	0.11	25.78	2.69	2.37	3.96	10.13	4.23	5.69	4.72	4.23	3.89	1.03		
18	0.13	35.52	1.84	2.16	3.57	12.70	4.23	25.78	4.23	6.23	3.57	0.96		
19	0.11	14.20	2.58	1.84	16.86	22.70	5.20	20.30	4.23	3.96	2.62	0.83		
20	0.11	13.20	2.26	1.76	11.51	49.59	5.85	11.28	4.10	3.96	1.16	1.16		
21	0.11	7.96	1.76	3.43	5.69	42.30	4.72	7.96	3.83	3.96	1.03	1.09		
22	0.09	4.23	1.60	6.04	4.88	39.26	4.72	6.80	3.70	3.83	0.90	1.42		
23	0.09	3.30	1.60	5.53	22.10	26.09	5.04	6.42	3.57	2.90	0.83	3.10		
24	0.09	1.60	1.68	4.55	35.52	26.09	8.82	5.69	3.30	2.37	0.76	4.23		
25	0.09	1.76	2.16	4.23	17.98	20.60	7.75	5.69	3.30	2.37	0.70	2.46		
26	0.09	14.45	1.84	2.90	14.20	15.51	7.56	19.43	4.72	2.26	0.57	1.94		
27	0.08	86.43	1.76	3.17	13.95	12.70	7.18	21.50	7.75	2.16	0.57	1.29		
28	0.08	30.62	1.44	5.04	23.00	10.82	10.82	38.50	6.61	1.95	0.83	0.90		
29	0.06	11.51	1.60	5.04	25.78	16.59	15.24	23.92	5.69	1.84		0.70		
30	0.06	8.82	0.76	4.10	40.40	46.66	11.51	15.78	4.72	2.05		0.50		
31		8.39		2.90	23.00		8.82		4.72	2.07		0.47		
Total	3.70	309.49	183.18	78.09	445.60	793.71	294.45	424.39	199.76	126.68	64.46	65.00	2988.51	CMSDAY
Mean	0.12	9.98	6.11	2.52	14.37	26.46	9.50	14.15	6.44	4.09	2.30	2.10	8.19	CMS
Max	0.20	86.43	30.62	6.04	40.40	76.80	29.94	38.50	14.45	6.99	5.63	4.58	86.43	CMS
Min	0.06	0.05	0.76	0.21	3.30	10.13	4.23	5.69	3.30	1.84	0.57	0.47	0.05	CMS
Runoff	0.32	26.74	15.83	6.75	38.50	68.58	25.44	36.67	17.26	10.95	5.57	5.62	258.21	MCM

Momentary Peak 102.00 CMS. at 3.40 m. (A.D.) at 12.00 Hours , on May 27 , 2002

Runoff Yield 8.70 Liters/Second/Square KM. Momentary Peak Yield 108.400 Liters/Second/Square KM.

WATER YEAR : 2002

WANG RIVER BASIN

Wang River at Ban Tha Dua , Lampang (W.21)

Lat 18 - 20 - 18 N Long 99 - 32 - 27 E

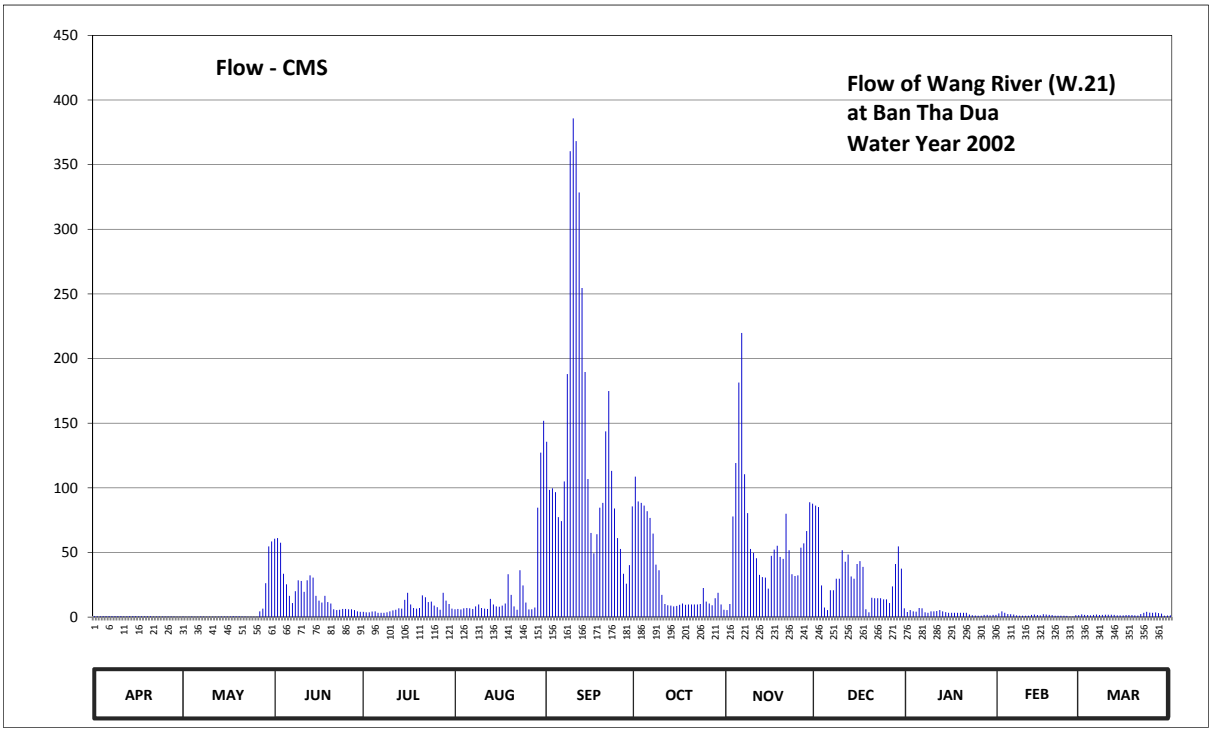
Location : on left bank at the bridge on highway.

	Ban Tha Dua	**Amphoe** Mueang	**Changwat** Lampang
Drainge Area	3,367 sq.km.		
Type of Gage	Staff gage.		
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	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean 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	Rather unstable by some scouring.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 41 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	232.19	232.07	233.57	232.16	232.27	234.86	234.46	232.24	234.07	232.15	232.04	231.95	
2	232.18	232.01	233.58	232.13	232.28	234.29	234.13	232.41	234.05	232.24	232.20	231.90	
3	232.17	232.06	233.51	232.13	232.26	234.31	234.11	233.91	232.78	232.20	232.10	231.89	
4	232.20	232.09	232.99	232.18	232.30	234.26	234.07	234.62	232.32	232.17	232.00	231.84	
5	232.20	232.04	232.80	232.19	232.31	233.90	233.99	235.45	232.24	232.31	231.97	231.90	
6	232.21	232.03	232.58	232.10	232.30	233.84	233.89	235.90	232.69	232.30	231.94	231.93	
7	232.21	232.10	232.43	232.10	232.28	234.40	233.65	234.49	232.69	232.13	231.84	231.88	
8	232.23	232.09	232.67	232.10	232.35	235.53	233.15	233.96	232.90	232.10	231.80	231.90	
9	232.23	232.05	232.87	232.13	232.40	237.41	233.05	233.41	232.90	232.20	231.80	231.92	
10	232.20	232.06	232.86	232.19	232.31	237.67	232.60	233.35	233.39	232.20	231.81	231.92	
11	232.18	232.02	232.66	232.23	232.29	237.49	232.41	233.26	233.20	232.21	231.81	231.92	
12	232.18	232.03	232.87	232.25	232.28	237.08	232.38	232.97	233.32	232.24	231.91	231.91	
13	232.21	232.04	232.96	232.30	232.52	236.29	232.37	232.93	232.94	232.20	231.93	231.85	
14	232.21	232.09	232.92	232.29	232.40	235.55	232.35	232.92	232.90	232.14	231.89	231.85	
15	232.20	232.10	232.58	232.50	232.35	234.43	232.36	232.72	233.16	232.10	231.85	231.84	
16	232.17	232.07	232.48	232.64	232.34	233.66	232.39	233.30	233.21	232.10	231.97	231.88	
17	232.16	232.11	232.44	232.40	232.37	233.34	232.42	233.40	233.11	232.10	231.94	231.89	
18	232.15	232.20	232.58	232.31	232.42	233.64	232.39	233.46	232.27	232.10	231.90	231.88	
19	232.13	232.16	232.45	232.29	232.98	234.04	232.40	233.28	232.13	232.10	231.88	231.84	
20	232.13	232.15	232.42	232.31	232.60	234.11	232.40	233.25	232.54	232.10	231.81	231.83	
21	232.11	232.11	232.27	232.59	232.35	234.97	232.40	233.95	232.53	232.10	231.81	232.00	
22	232.11	232.08	232.24	232.55	232.25	235.37	232.40	233.39	232.53	231.94	231.80	232.10	
23	232.11	232.05	232.25	232.45	233.05	234.53	232.41	232.98	232.53	231.86	231.80	232.16	
24	232.10	232.04	232.28	232.46	232.78	234.03	232.73	232.95	232.51	231.83	231.79	232.11	
25	232.10	232.04	232.28	232.37	232.44	233.58	232.46	232.96	232.51	231.80	231.70	232.10	
26	232.10	232.05	232.27	232.33	232.26	233.41	232.42	233.43	232.43	231.80	231.70	232.12	
27	232.08	232.19	232.27	232.25	232.27	232.99	232.38	233.50	232.76	231.90	231.87	232.07	
28	232.07	232.29	232.24	232.64	232.32	232.81	232.53	233.69	233.16	231.90	231.87	232.03	
29	232.05	232.82	232.20	232.48	234.04	233.14	232.64	234.12	233.45	231.85		231.81	
30	232.04	233.45	232.16	232.41	234.74	234.06	232.40	234.10	233.08	231.90		231.83	
31		233.53		232.29	235.08		232.25		232.30	231.90		231.85	
Mean	232.15	232.20	232.62	232.31	232.62	234.63	232.84	233.54	232.86	232.07	231.88	231.93	
Max	232.23	233.53	233.58	232.64	235.08	237.67	234.46	235.90	234.07	232.31	232.20	232.16	237.67
Min	232.04	232.01	232.16	232.10	232.25	232.81	232.25	232.24	232.13	231.80	231.70	231.81	231.70

Annual Max Momentary Gage Height	237.70	m. (MSL.) ,	at 06.00 Hours , on Sep 10 , 2002		
Zero Gage at Bottom Elevation	232.00	m. (MSL.) ,	River Bed	231.03	m. (MSL.)
Left Bank Elevation	239.82	m. (MSL.) ,			
Right Bank Elevation	240.71	m. (MSL.) ,	Drainage Are	3,367	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.68	0.44	60.60	4.04	6.11	135.66	108.72	5.42	86.21	3.92	2.78	2.05		
2	0.66	0.32	61.10	3.69	6.34	98.43	89.45	10.16	85.15	5.42	4.50	1.70		
3	0.64	0.42	57.60	3.69	5.88	99.60	88.35	77.82	24.56	4.50	3.35	1.64		
4	0.70	0.48	33.57	4.27	6.80	96.72	86.21	119.14	7.40	4.16	2.40	1.33		
5	0.70	0.38	25.40	4.39	7.10	77.30	81.98	181.40	5.42	7.10	2.19	1.70		
6	0.73	0.36	16.44	3.35	6.80	74.24	76.79	219.80	20.80	6.80	1.98	1.91		
7	0.73	0.50	10.88	3.35	6.34	105.00	64.60	110.58	20.80	3.69	1.33	1.58		
8	0.79	0.48	20.00	3.35	8.30	187.99	40.60	80.42	29.70	3.35	1.08	1.70		
9	0.79	0.40	28.41	3.69	9.80	360.38	36.20	52.69	29.70	4.50	1.08	1.84		
10	0.70	0.42	27.98	4.39	7.10	385.86	17.20	49.80	51.72	4.50	1.14	1.84		
11	0.66	0.34	19.60	5.19	6.57	368.22	10.16	45.56	42.80	4.73	1.14	1.84		
12	0.66	0.36	28.41	5.65	6.34	328.48	9.20	32.71	48.36	5.42	1.77	1.77		
13	0.73	0.38	32.28	6.80	14.16	254.60	8.90	30.99	31.42	4.50	1.91	1.39		
14	0.73	0.48	30.56	6.57	9.80	189.65	8.30	30.56	29.70	3.81	1.64	1.39		
15	0.70	0.50	16.44	13.40	8.30	106.86	8.60	22.04	41.04	3.35	1.39	1.33		
16	0.64	0.44	12.68	18.80	8.00	65.10	9.50	47.40	43.26	3.35	2.19	1.58		
17	0.62	0.52	11.24	9.80	8.90	49.32	10.52	52.20	38.84	3.35	1.98	1.64		
18	0.60	0.70	16.44	7.10	10.52	64.10	9.50	55.14	6.11	3.35	1.70	1.58		
19	0.56	0.62	11.60	6.57	33.14	84.62	9.80	46.48	3.69	3.35	1.58	1.33		
20	0.56	0.60	10.52	7.10	17.20	88.35	9.80	45.10	14.92	3.35	1.14	1.27		
21	0.52	0.52	6.11	16.82	8.30	143.68	9.80	79.90	14.54	3.35	1.14	2.40		
22	0.52	0.46	5.42	15.30	5.65	174.87	9.80	51.72	14.54	1.98	1.08	3.35		
23	0.52	0.40	5.65	11.60	36.20	113.18	10.16	33.14	14.54	1.45	1.08	4.04		
24	0.50	0.38	6.34	11.96	24.56	84.09	22.46	31.85	13.78	1.27	1.02	3.46		
25	0.50	0.38	6.34	8.90	11.24	61.10	11.96	32.28	13.78	1.08	0.50	3.35		
26	0.50	0.40	6.11	7.70	5.88	52.69	10.52	53.67	10.88	1.08	0.50	3.58		
27	0.46	4.39	6.11	5.65	6.11	33.57	9.20	57.10	23.72	1.70	1.51	3.06		
28	0.44	6.57	5.42	18.80	7.40	25.83	14.54	66.60	41.04	1.70	1.51	2.68		
29	0.40	26.26	4.50	12.68	84.62	40.16	18.80	88.90	54.65	1.39		1.14		
30	0.38	54.65	4.04	10.16	127.26	85.68	9.80	87.80	37.52	1.70		1.27		
31		58.60		6.57	151.82		5.65		6.80	1.70		1.39		
Total	18.32	162.15	587.79	251.33	662.54	4035.33	917.07	1898.37	907.39	104.90	46.61	62.13	9653.93	CMSDAY
Mean	0.61	5.23	19.59	8.11	21.37	134.51	29.58	63.28	29.27	3.38	1.66	2.00	26.45	CMS
Max	0.79	58.60	61.10	18.80	151.82	385.86	108.72	219.80	86.21	7.10	4.50	4.04	385.86	CMS
Min	0.38	0.32	4.04	3.35	5.65	25.83	5.65	5.42	3.69	1.08	0.50	1.14	0.32	CMS
Runoff	1.58	14.01	50.79	21.71	57.24	348.65	79.23	164.02	78.40	9.06	4.03	5.37	834.10	MCM

Momentary Peak 388.80 CMS. at 237.70 m. (MSL.) at 06.00 Hours , on Sep 10 , 2002

Runoff Yield 7.74 Liters/Second/Square KM. Momentary Peak Yield 113.850 Liters/Second/Square KM.

WATER YEAR : 2002

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	+0.000 m. (A.D.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank at the approach of the bridge.		**Elevation** +6.065 m. (A.D.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean 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 40 discharge measurements made in 2002.		

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

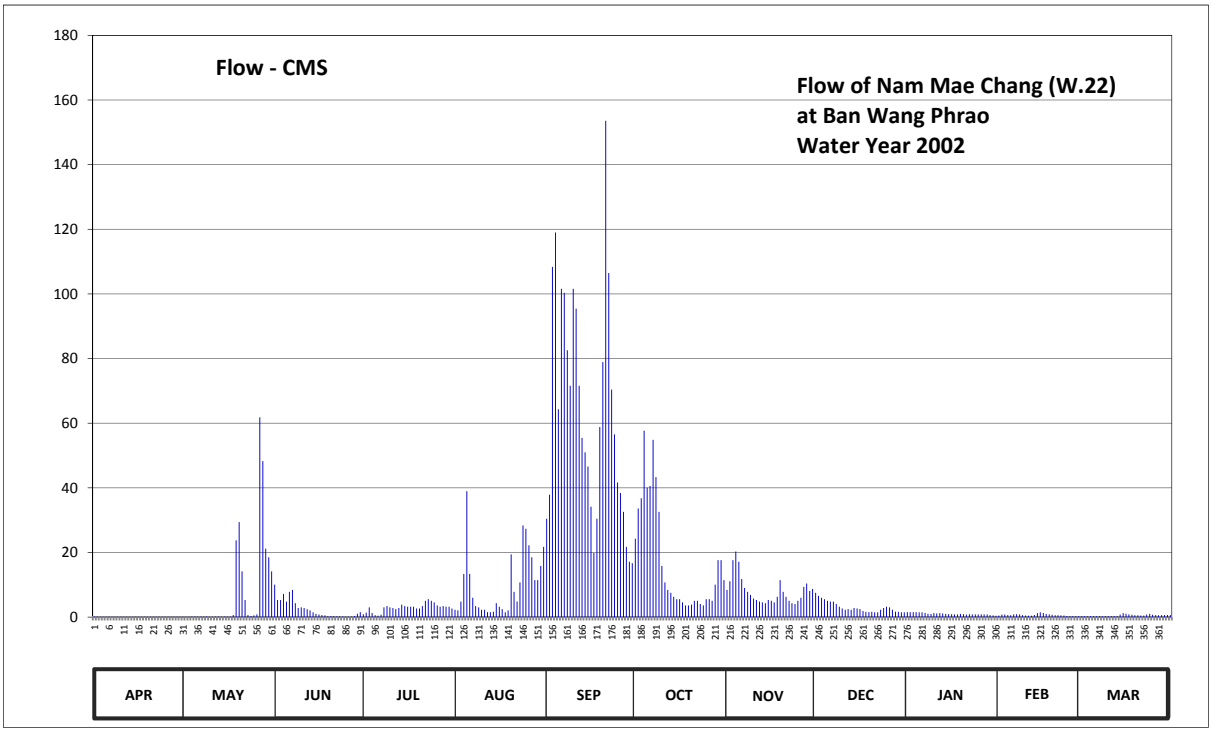
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.39	0.37	1.03	0.60	0.73	1.48	1.36	0.98	0.95	0.68	0.53	0.48	
2	0.38	0.37	0.87	0.66	0.72	1.62	1.54	1.06	0.92	0.68	0.58	0.49	
3	0.37	0.37	0.87	0.77	0.85	2.81	1.60	1.22	0.90	0.68	0.58	0.47	
4	0.37	0.38	0.94	0.65	1.12	2.98	1.98	1.28	0.88	0.68	0.56	0.49	
5	0.36	0.39	0.85	0.55	1.64	2.09	1.66	1.21	0.86	0.67	0.55	0.49	
6	0.36	0.39	0.96	0.52	1.12	2.70	1.67	1.08	0.85	0.67	0.59	0.49	
7	0.36	0.39	0.98	0.57	0.90	2.68	1.93	1.00	0.85	0.65	0.60	0.49	
8	0.36	0.40	0.83	0.77	0.79	2.39	1.72	0.96	0.82	0.62	0.59	0.49	
9	0.36	0.42	0.76	0.79	0.77	2.21	1.52	0.93	0.78	0.61	0.55	0.48	
10	0.36	0.37	0.77	0.77	0.73	2.70	1.18	0.89	0.75	0.64	0.53	0.49	
11	0.36	0.37	0.76	0.76	0.73	2.60	1.05	0.87	0.73	0.63	0.52	0.49	
12	0.36	0.38	0.74	0.74	0.68	2.21	0.98	0.85	0.74	0.64	0.52	0.49	
13	0.36	0.38	0.72	0.76	0.68	1.94	0.95	0.84	0.73	0.63	0.56	0.50	
14	0.36	0.38	0.67	0.81	0.70	1.86	0.91	0.83	0.76	0.61	0.64	0.58	
15	0.36	0.39	0.61	0.79	0.83	1.78	0.88	0.87	0.75	0.60	0.67	0.64	
16	0.36	0.39	0.58	0.78	0.78	1.55	0.88	0.86	0.74	0.60	0.65	0.62	
17	0.36	0.41	0.56	0.78	0.74	1.27	0.84	0.84	0.71	0.59	0.61	0.59	
18	0.36	0.56	0.54	0.78	0.67	1.48	0.80	0.91	0.69	0.59	0.59	0.57	
19	0.36	1.35	0.47	0.75	0.72	2.00	0.80	1.07	0.68	0.61	0.57	0.55	
20	0.36	1.46	0.48	0.75	1.26	2.33	0.81	0.96	0.69	0.60	0.55	0.55	
21	0.37	1.14	0.48	0.79	0.96	3.50	0.86	0.91	0.67	0.58	0.55	0.53	
22	0.37	0.87	0.47	0.86	0.85	2.78	0.86	0.86	0.67	0.60	0.54	0.53	
23	0.37	0.56	0.47	0.88	1.05	2.19	0.82	0.83	0.73	0.59	0.53	0.58	
24	0.37	0.51	0.42	0.86	1.44	1.96	0.80	0.82	0.76	0.59	0.51	0.61	
25	0.37	0.54	0.40	0.84	1.42	1.69	0.88	0.86	0.78	0.59	0.49	0.57	
26	0.37	0.59	0.41	0.80	1.32	1.63	0.88	0.90	0.77	0.59	0.49	0.56	
27	0.37	2.05	0.40	0.78	1.24	1.52	0.86	1.01	0.73	0.59	0.49	0.55	
28	0.37	1.81	0.48	0.79	1.07	1.31	1.03	1.04	0.70	0.59	0.48	0.55	
29	0.37	1.30	0.62	0.78	1.07	1.21	1.22	0.97	0.69	0.56		0.56	
30	0.37	1.24	0.68	0.78	1.18	1.20	1.22	0.99	0.67	0.54		0.56	
31		1.14		0.75	1.31		1.07		0.67	0.52		0.56	
Mean	0.37	0.70	0.66	0.75	0.97	2.06	1.15	0.96	0.76	0.61	0.56	0.54	
Max	0.39	2.05	1.03	0.88	1.64	3.50	1.98	1.28	0.95	0.68	0.67	0.64	3.50
Min	0.36	0.37	0.40	0.52	0.67	1.20	0.80	0.82	0.67	0.52	0.48	0.47	0.36

Annual Max Momentary Gage Height 4.17 m. (A.D.) , at 17.00 Hours , on Sep 21 , 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed -0.71 m. (A.D.)

Left Bank Elevation 6.01 m. (A.D.) ,

Right Bank Elevation 6.07 m. (A.D.) , Drainage Are 1,549 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.14	0.12	10.05	0.90	2.27	30.46	24.26	8.40	7.50	1.54	0.48	0.27		
2	0.13	0.12	5.28	1.38	2.08	37.88	33.62	11.10	6.60	1.54	0.78	0.29		
3	0.12	0.12	5.28	3.03	4.80	108.38	36.80	17.60	6.00	1.54	0.78	0.26		
4	0.12	0.13	7.20	1.30	13.34	119.04	57.68	20.30	5.52	1.54	0.66	0.29		
5	0.11	0.14	4.80	0.60	38.96	64.29	40.04	17.15	5.04	1.46	0.60	0.29		
6	0.11	0.14	7.80	0.42	13.34	101.60	40.58	11.80	4.80	1.46	0.84	0.29		
7	0.11	0.14	8.40	0.72	6.00	100.37	54.88	9.00	4.80	1.30	0.90	0.29		
8	0.11	0.15	4.32	3.03	3.41	82.59	43.30	7.80	4.08	1.06	0.84	0.29		
9	0.11	0.18	2.84	3.41	3.03	71.61	32.56	6.90	3.22	0.98	0.60	0.27		
10	0.11	0.12	3.03	3.03	2.27	101.60	15.86	5.76	2.65	1.22	0.48	0.29		
11	0.11	0.12	2.84	2.84	2.27	95.45	10.75	5.28	2.27	1.14	0.42	0.29		
12	0.11	0.13	2.46	2.46	1.54	71.61	8.40	4.80	2.46	1.22	0.42	0.29		
13	0.11	0.13	2.08	2.84	1.54	55.44	7.50	4.56	2.27	1.14	0.66	0.30		
14	0.11	0.13	1.46	3.84	1.70	51.00	6.30	4.32	2.84	0.98	1.22	0.78		
15	0.11	0.14	0.98	3.41	4.32	46.60	5.52	5.28	2.65	0.90	1.46	1.22		
16	0.11	0.14	0.78	3.22	3.22	34.15	5.52	5.04	2.46	0.90	1.30	1.06		
17	0.11	0.16	0.66	3.22	2.46	19.85	4.56	4.56	1.89	0.84	0.98	0.84		
18	0.11	0.66	0.54	3.22	1.46	30.46	3.60	6.30	1.62	0.84	0.84	0.72		
19	0.11	23.75	0.26	2.65	2.08	58.80	3.60	11.45	1.54	0.98	0.72	0.60		
20	0.11	29.42	0.27	2.65	19.40	78.93	3.84	7.80	1.62	0.90	0.60	0.60		
21	0.12	14.18	0.27	3.41	7.80	153.60	5.04	6.30	1.46	0.78	0.60	0.48		
22	0.12	5.28	0.26	5.04	4.80	106.52	5.04	5.04	1.46	0.90	0.54	0.48		
23	0.12	0.66	0.26	5.52	10.75	70.39	4.08	4.32	2.27	0.84	0.48	0.78		
24	0.12	0.36	0.18	5.04	28.38	56.56	3.60	4.08	2.84	0.84	0.36	0.98		
25	0.12	0.54	0.15	4.56	27.34	41.66	5.52	5.04	3.22	0.84	0.29	0.72		
26	0.12	0.84	0.16	3.60	22.22	38.42	5.52	6.00	3.03	0.84	0.29	0.66		
27	0.12	61.85	0.15	3.22	18.50	32.56	5.04	9.35	2.27	0.84	0.29	0.60		
28	0.12	48.25	0.27	3.41	11.45	21.71	10.05	10.40	1.70	0.84	0.27	0.60		
29	0.12	21.20	1.06	3.22	11.45	17.15	17.60	8.10	1.62	0.66		0.66		
30	0.12	18.50	1.54	3.22	15.86	16.70	17.60	8.70	1.46	0.54		0.66		
31		14.18		2.65	21.71		11.45		1.46	0.42		0.66		
Total	3.47	241.98	75.63	91.06	309.75	1915.38	529.71	242.53	94.62	31.82	18.70	16.81	3571.46	CMSDAY
Mean	0.12	7.81	2.52	2.94	9.99	63.85	17.09	8.08	3.05	1.03	0.67	0.54	9.78	CMS
Max	0.14	61.85	10.05	5.52	38.96	153.60	57.68	20.30	7.50	1.54	1.46	1.22	153.60	CMS
Min	0.11	0.12	0.15	0.42	1.46	16.70	3.60	4.08	1.46	0.42	0.27	0.26	0.11	CMS
Runoff	0.30	20.91	6.53	7.87	26.76	165.49	45.77	20.95	8.18	2.75	1.62	1.45	308.57	MCM

Momentary Peak 199.50 CMS. at 4.17 m. (A.D.) at 17.00 Hours , on Sep 21 , 2002

Runoff Yield 6.32 Liters/Second/Square KM. Momentary Peak Yield 128.790 Liters/Second/Square KM.

WATER YEAR : 2002

WANG RIVER BASIN

Wang River at Ban Chiang Rai , Tak (W.23)

Lat 17 - 22 - 01 N Long 99 - 06 - 55 E

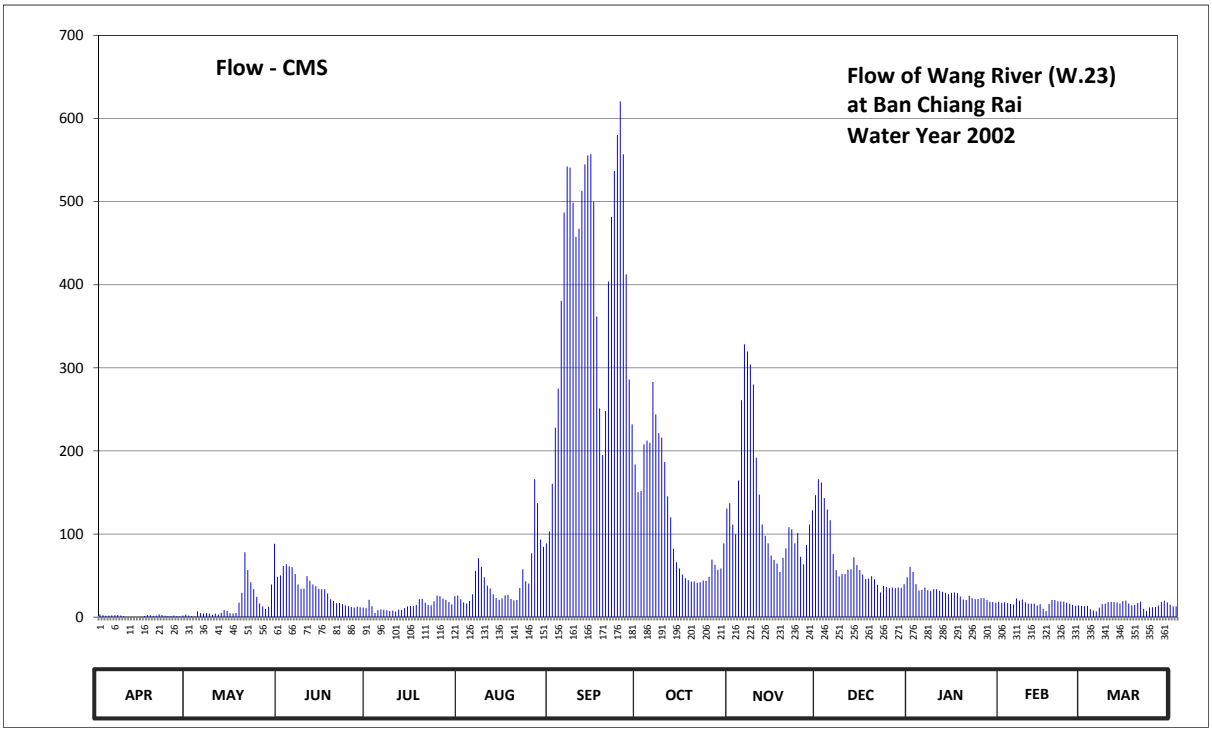
Location : on left bank at Amphoe Sam Ngao.

	Ban Chiang Rai	**Amphoe** Sam Ngao	**Changwat** Tak
Drainge Area	9,930 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+141.271 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the gage site.		**Elevation** +148.569 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 mean 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	Fairly stable.		
Overbank Flow Conditions	Overbank flow starts at elevation +148.300 m.(MSL.) and is including overbank flow.		
General Description	Records good. Stage-discharge relation defined by 32 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	141.67	141.60	143.05	142.31	142.33	144.83	144.71	144.13	144.85	143.14	142.22	142.08	
2	141.62	141.56	143.29	142.07	142.22	145.63	145.41	143.95	144.59	142.79	142.20	141.94	
3	141.59	141.53	143.33	141.75	142.18	146.10	145.46	144.88	144.39	142.60	142.16	141.88	
4	141.60	141.84	143.28	141.89	142.27	147.08	145.43	145.96	144.21	142.62	142.14	141.84	
5	141.61	141.74	143.26	141.93	142.49	147.93	146.18	146.62	143.56	142.69	142.36	142.01	
6	141.62	141.72	143.09	141.91	143.17	148.35	145.79	146.54	143.19	142.61	142.28	142.15	
7	141.63	141.74	142.78	141.89	143.47	148.34	145.56	146.39	143.02	142.59	142.32	142.17	
8	141.60	141.71	142.65	141.86	143.27	148.02	145.50	146.15	143.09	142.64	142.22	142.23	
9	141.56	141.65	142.66	141.87	143.00	147.70	145.16	145.22	143.09	142.64	142.17	142.24	
10	141.49	141.71	143.03	141.83	142.75	147.78	144.62	144.65	143.20	142.59	142.17	142.23	
11	141.48	141.66	142.89	141.92	142.66	148.13	144.26	144.13	143.21	142.56	142.17	142.22	
12	141.47	141.76	142.78	141.90	142.49	148.37	143.67	143.92	143.49	142.53	142.10	142.18	
13	141.47	141.90	142.73	141.99	142.37	148.45	143.38	143.78	143.31	142.49	142.15	142.27	
14	141.47	141.86	142.65	142.06	142.31	148.46	143.23	143.53	143.19	142.53	141.96	142.28	
15	141.51	141.73	142.64	142.08	142.36	148.03	143.07	143.43	143.07	142.54	141.85	142.18	
16	141.57	141.72	142.64	142.07	142.45	146.92	142.97	143.35	142.95	142.52	142.16	142.10	
17	141.63	141.75	142.51	142.12	142.47	145.86	142.91	143.14	142.96	142.42	142.30	142.12	
18	141.62	142.21	142.33	142.33	142.34	145.26	142.87	143.48	143.03	142.32	142.30	142.20	
19	141.58	142.53	142.27	142.34	142.29	145.83	142.88	143.68	142.94	142.30	142.26	142.25	
20	141.60	143.60	142.19	142.21	142.30	147.27	142.83	144.08	142.77	142.44	142.25	141.96	
21	141.67	143.19	142.20	142.12	142.67	147.89	142.85	144.04	142.54	142.37	142.24	141.86	
22	141.63	142.85	142.15	142.11	143.21	148.31	142.90	143.78	142.74	142.33	142.21	142.02	
23	141.59	142.64	142.10	142.26	142.88	148.63	142.89	143.97	142.71	142.34	142.17	142.03	
24	141.57	142.41	142.07	142.45	142.81	148.91	143.01	143.50	142.67	142.37	142.13	142.04	
25	141.57	142.18	142.04	142.43	143.58	148.46	143.44	143.33	142.69	142.37	142.09	142.10	
26	141.60	142.06	142.02	142.35	144.90	147.34	143.32	143.75	142.67	142.30	142.10	142.23	
27	141.56	141.95	142.05	142.31	144.50	146.21	143.20	144.13	142.69	142.24	142.08	142.28	
28	141.55	142.05	142.03	142.23	143.85	145.67	143.23	144.38	142.68	142.23	142.07	142.22	
29	141.60	142.78	142.02	142.14	143.71	145.12	143.78	144.64	142.79	142.21		142.13	
30	141.66	143.77	141.99	142.43	143.78	144.69	144.41	144.90	143.00	142.23		142.06	
31		143.01		142.45	144.00		144.50		143.27	142.21		142.06	
Mean	141.58	142.14	142.56	142.12	142.94	147.19	143.98	144.38	143.18	142.48	142.17	142.11	
Max	141.67	143.77	143.33	142.45	144.90	148.91	146.18	146.62	144.85	143.14	142.36	142.28	148.91
Min	141.47	141.53	141.99	141.75	142.18	144.69	142.83	143.14	142.54	142.21	141.85	141.84	141.47

Annual Max Momentary Gage Height	148.92	m. (MSL.) ,	at 06.00 Hours , on Sep 24 , 2002		
Zero Gage at Bottom Elevation	141.29	m. (MSL.) ,	River Bed	141.43	m. (MSL.)
Left Bank Elevation	148.27	m. (MSL.) ,			
Right Bank Elevation	149.12	m. (MSL.) ,	Drainage Are	9,930	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.33	1.90	50.25	20.85	21.55	160.40	151.70	111.45	162.00	54.30	17.70	13.40		
2	2.31	1.21	61.50	13.10	17.70	228.00	207.90	99.75	143.30	39.60	17.00	9.50		
3	1.73	0.69	63.50	4.97	16.40	275.00	212.40	164.40	129.30	32.00	15.80	8.00		
4	1.90	7.00	61.00	8.25	19.45	380.60	209.70	261.00	116.70	32.80	15.20	7.00		
5	2.10	4.77	60.00	9.25	27.60	486.90	283.00	328.20	75.80	35.60	22.60	11.30		
6	2.31	4.36	52.05	8.75	55.65	542.25	244.00	319.70	56.55	32.40	19.80	15.50		
7	2.51	4.77	39.20	8.25	70.85	540.90	221.40	304.00	48.90	31.60	21.20	16.10		
8	1.90	4.15	34.00	7.50	60.50	498.60	216.00	280.00	52.05	33.60	17.70	18.05		
9	1.21	2.92	34.40	7.75	48.00	457.50	186.80	191.70	52.05	33.60	16.10	18.40		
10	0.00	4.15	49.35	6.75	38.00	467.50	145.40	147.50	57.00	31.60	16.10	18.05		
11	0.00	3.13	43.60	9.00	34.40	512.90	120.20	111.45	57.50	30.40	16.10	17.70		
12	0.00	5.18	39.20	8.50	27.60	544.95	82.20	97.80	71.95	29.20	14.00	16.40		
13	0.00	8.50	37.20	10.75	22.95	555.75	66.00	88.80	62.50	27.60	15.50	19.45		
14	0.00	7.50	34.00	12.80	20.85	557.10	58.50	74.15	56.55	29.20	10.00	19.80		
15	0.35	4.56	33.60	13.40	22.60	499.90	51.15	68.65	51.15	29.60	7.25	16.40		
16	1.38	4.36	33.60	13.10	26.00	361.80	46.80	64.50	46.00	28.80	15.80	14.00		
17	2.51	4.97	28.40	14.60	26.80	251.00	44.40	54.30	46.40	24.80	20.50	14.60		
18	2.31	17.35	21.55	21.55	21.90	195.10	42.80	71.40	49.35	21.20	20.50	17.00		
19	1.55	29.20	19.45	21.90	20.15	248.00	43.20	82.80	45.60	20.50	19.10	18.75		
20	1.90	78.00	16.70	17.35	20.50	403.75	41.20	108.20	38.80	25.60	18.75	10.00		
21	3.33	56.55	17.00	14.60	34.80	481.70	42.00	105.60	29.60	22.95	18.40	7.50		
22	2.51	42.00	15.50	14.30	57.50	536.85	44.00	88.80	37.60	21.55	17.35	11.60		
23	1.73	33.60	14.00	19.10	43.20	580.20	43.60	101.05	36.40	21.90	16.10	11.90		
24	1.38	24.40	13.10	26.00	40.40	620.50	48.45	72.50	34.80	22.95	14.90	12.20		
25	1.38	16.40	12.20	25.20	76.90	557.10	69.20	63.50	35.60	22.95	13.70	14.00		
26	1.90	12.80	11.60	22.25	166.00	412.50	63.00	87.00	34.80	20.50	14.00	18.05		
27	1.21	9.75	12.50	20.85	137.00	286.00	57.00	111.45	35.60	18.40	13.40	19.80		
28	1.04	12.50	11.90	18.05	93.25	232.00	58.50	128.60	35.20	18.05	13.10	17.70		
29	1.90	39.20	11.60	15.20	84.60	183.60	88.80	146.80	39.60	17.35		14.90		
30	3.13	88.20	10.75	25.20	88.80	150.30	130.70	166.00	48.00	18.05		12.80		
31		48.45		26.00	103.00		137.00		60.50	17.35		12.80		
Total	48.81	582.52	942.70	465.12	1544.90	12208.65	3457.00	4101.05	1847.15	846.00	457.65	452.65	26954.20	CMSDAY
Mean	1.63	18.79	31.42	15.00	49.84	406.96	111.52	136.70	59.59	27.29	16.34	14.60	73.85	CMS
Max	3.33	88.20	63.50	26.00	166.00	620.50	283.00	328.20	162.00	54.30	22.60	19.80	620.50	CMS
Min	0.00	0.69	10.75	4.97	16.40	150.30	41.20	54.30	29.60	17.35	7.25	7.00	0.00	CMS
Runoff	4.22	50.33	81.45	40.19	133.48	1054.83	298.68	354.33	159.59	73.09	39.54	39.11	2328.84	MCM

Momentary Peak 622.00 CMS. at 148.92 m. (MSL.) at 06.00 Hours , on Sep 24 , 2002

Runoff Yield 7.44 Liters/Second/Square KM. Momentary Peak Yield 62.640 Liters/Second/Square KM.

WATER YEAR : 2002

YOM RIVER BASIN

Yom River at Ban Nam Khong , Phrae (Y.1C)

Lat 18 - 07 - 57 N Long 100 - 07 - 42 E

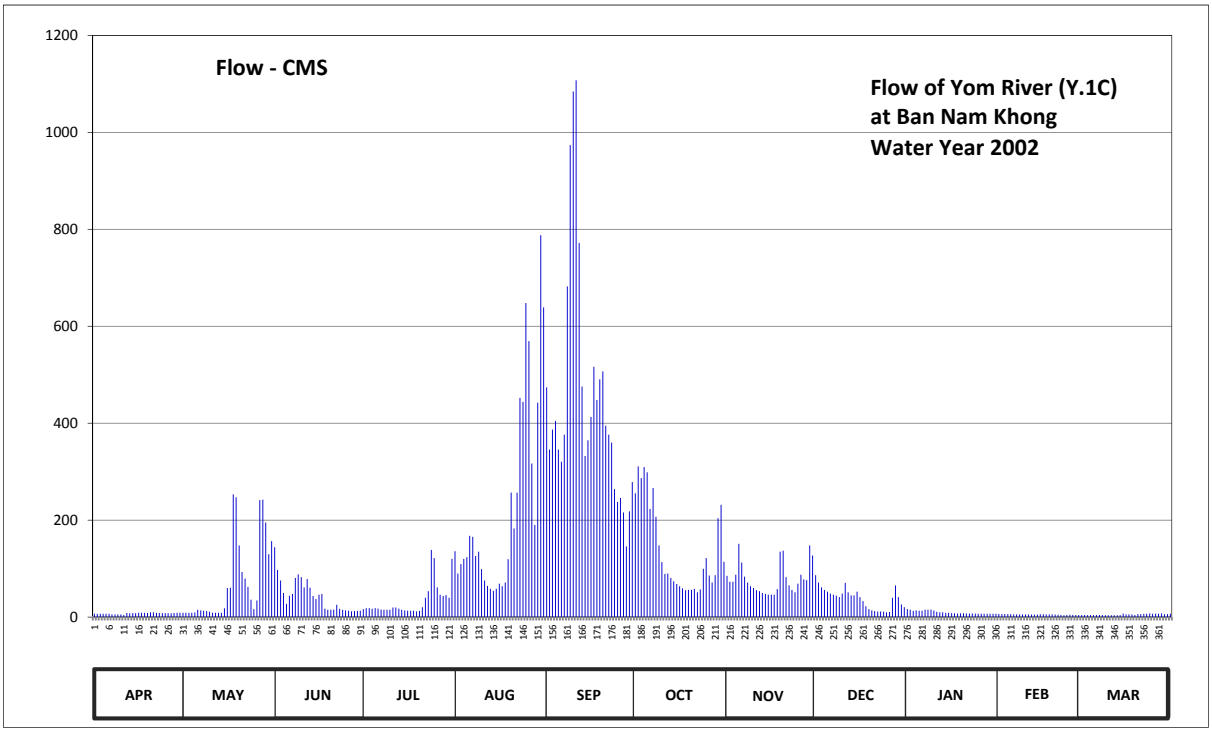
Location : on right bank about 5 meters downstream from Phathana Phak Nua 8 Bridge.

	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** +153.908 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean 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.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Mae Yom weir situated about 76 kilometers above gage site. Stage-discharge relation defined by 64 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	143.87	143.95	145.69	144.15	145.60	148.48	146.78	145.00	145.02	144.15	143.86	143.76	
2	143.87	143.95	145.15	144.19	145.06	147.53	147.24	144.85	144.83	144.12	143.85	143.76	
3	143.88	143.95	144.88	144.19	145.29	147.86	147.04	144.85	144.70	144.07	143.85	143.76	
4	143.88	143.96	144.54	144.16	145.42	147.99	147.23	145.03	144.63	144.10	143.85	143.77	
5	143.88	143.98	144.31	144.19	145.46	147.53	147.14	145.77	144.58	144.08	143.84	143.77	
6	143.87	144.12	144.46	144.17	145.95	147.32	146.51	145.33	144.52	144.08	143.83	143.77	
7	143.83	144.10	144.51	144.13	145.93	147.78	146.87	144.98	144.49	144.12	143.83	143.77	
8	143.83	144.08	144.95	144.12	145.49	149.74	146.35	144.83	144.46	144.12	143.82	143.76	
9	143.83	144.06	145.04	144.12	145.59	151.19	145.73	144.73	144.42	144.13	143.83	143.74	
10	143.82	144.03	144.97	144.12	145.17	151.68	145.34	144.68	144.52	144.09	143.83	143.74	
11	143.77	143.95	144.70	144.21	144.88	151.78	145.05	144.62	144.82	144.02	143.83	143.75	
12	143.94	143.95	144.92	144.21	144.74	150.20	145.06	144.59	144.56	143.99	143.81	143.74	
13	143.92	143.96	144.69	144.17	144.66	148.49	144.95	144.54	144.47	143.99	143.81	143.75	
14	143.93	143.96	144.45	144.12	144.60	147.42	144.86	144.51	144.47	143.96	143.81	143.77	
15	143.93	144.18	144.38	144.10	144.66	147.69	144.79	144.49	144.58	143.96	143.84	143.89	
16	143.95	144.68	144.49	144.08	144.80	148.05	144.73	144.49	144.42	143.93	143.84	143.83	
17	143.95	144.69	144.51	144.08	144.73	148.76	144.67	144.49	144.35	143.92	143.82	143.82	
18	143.95	146.76	144.17	144.08	144.83	148.30	144.62	144.65	144.25	143.89	143.83	143.82	
19	143.94	146.71	144.12	144.05	145.41	148.59	144.63	145.59	144.15	143.91	143.82	143.76	
20	144.00	145.73	144.12	144.07	146.79	148.70	144.63	145.61	144.10	143.91	143.81	143.85	
21	143.99	145.10	144.13	144.22	146.11	147.92	144.66	144.97	144.06	143.90	143.79	143.84	
22	143.96	144.93	144.29	144.40	146.79	147.78	144.56	144.75	144.04	143.89	143.78	143.88	
23	143.94	144.71	144.16	144.59	148.33	147.65	144.64	144.63	144.04	143.90	143.75	143.88	
24	143.93	144.37	144.12	145.63	148.27	146.85	145.18	144.56	144.03	143.89	143.76	143.90	
25	143.93	144.15	144.10	145.44	149.55	146.63	145.44	144.80	144.00	143.88	143.80	143.88	
26	143.93	144.36	144.08	144.70	149.09	146.70	145.01	145.03	144.01	143.88	143.78	143.89	
27	143.92	146.66	144.05	144.49	147.29	146.44	144.83	144.91	144.40	143.88	143.77	143.88	
28	143.94	146.67	144.06	144.45	146.18	145.71	145.02	144.89	144.75	143.88	143.76	143.90	
29	143.96	146.23	144.07	144.48	148.26	146.46	146.32	145.73	144.42	143.87		143.84	
30	143.95	145.53	144.08	144.40	150.28	146.97	146.58	145.50	144.30	143.87		143.85	
31		145.83		145.42	149.50		145.35		144.22	143.87		143.88	
Mean	143.91	144.75	144.47	144.35	146.28	148.14	145.54	144.91	144.41	143.98	143.81	143.81	
Max	144.00	146.76	145.69	145.63	150.28	151.78	147.24	145.77	145.02	144.15	143.86	143.90	151.78
Min	143.77	143.95	144.05	144.05	144.60	145.71	144.56	144.49	144.00	143.87	143.75	143.74	143.74

Annual Max Momentary Gage Height	151.98	m. (MSL.) ,	at 03.00 Hours , on Sep 11 , 2002		
Zero Gage at Bottom Elevation	143.50	m. (MSL.) ,	River Bed	142.35	m. (MSL.)
Left Bank Elevation	153.84	m. (MSL.) ,			
Right Bank Elevation	153.83	m. (MSL.) ,	Drainage Are	7,749	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	6.75	8.75	144.10	16.50	136.00	474.00	255.60	85.00	86.60	16.50	6.50	4.20		
2	6.75	8.75	97.25	18.50	89.80	345.60	310.80	73.00	71.40	15.00	6.25	4.20		
3	7.00	8.75	75.40	18.50	109.15	386.80	286.80	73.00	61.50	12.80	6.25	4.20		
4	7.00	9.00	49.80	17.00	120.20	404.60	309.60	87.40	56.25	14.00	6.25	4.40		
5	7.00	9.50	27.40	18.50	123.60	345.60	298.80	151.30	52.60	13.20	6.00	4.40		
6	6.75	15.00	44.20	17.50	167.50	320.40	223.20	112.55	48.40	13.20	5.75	4.40		
7	5.75	14.00	47.70	15.50	165.70	376.40	266.40	83.40	46.30	15.00	5.75	4.40		
8	5.75	13.20	81.00	15.00	126.15	682.20	207.00	71.40	44.20	15.00	5.50	4.20		
9	5.75	12.40	88.20	15.00	135.10	973.80	147.70	63.75	41.40	15.50	5.75	3.80		
10	5.50	11.20	82.60	15.00	98.95	1084.40	113.40	60.00	48.40	13.60	5.75	3.80		
11	4.40	8.75	61.50	19.70	75.40	1107.40	89.00	55.50	70.60	10.80	5.75	4.00		
12	8.50	8.75	78.60	19.70	64.50	772.00	89.80	53.30	51.20	9.75	5.25	3.80		
13	8.00	9.00	60.75	17.50	58.50	475.50	81.00	49.80	44.90	9.75	5.25	4.00		
14	8.25	9.00	43.50	15.00	54.00	332.40	73.80	47.70	44.90	9.00	5.25	4.40		
15	8.25	18.00	37.20	14.00	58.50	364.80	68.25	46.30	52.60	9.00	6.00	7.25		
16	8.75	60.00	46.30	13.20	69.00	413.00	63.75	46.30	41.40	8.25	6.00	5.75		
17	8.75	60.75	47.70	13.20	63.75	516.60	59.25	46.30	33.00	8.00	5.50	5.50		
18	8.75	253.20	17.50	13.20	71.40	448.00	55.50	57.75	22.50	7.25	5.75	5.50		
19	8.50	247.20	15.00	12.00	119.35	490.50	56.25	135.10	16.50	7.75	5.50	4.20		
20	10.00	147.70	15.00	12.80	256.80	507.00	56.25	136.90	14.00	7.75	5.25	6.25		
21	9.75	93.00	15.50	20.40	183.00	394.80	58.50	82.60	12.40	7.50	4.80	6.00		
22	9.00	79.40	25.30	40.00	256.80	376.40	51.20	65.25	11.60	7.25	4.60	7.00		
23	8.50	62.25	17.00	53.30	452.20	360.00	57.00	56.25	11.60	7.50	4.00	7.00		
24	8.25	35.80	15.00	138.70	443.80	264.00	99.80	51.20	11.20	7.25	4.20	7.50		
25	8.25	16.50	14.00	121.90	648.00	237.60	121.90	69.00	10.00	7.00	5.00	7.00		
26	8.25	34.40	13.20	61.50	569.40	246.00	85.80	87.40	10.40	7.00	4.60	7.25		
27	8.00	241.20	12.00	46.30	316.80	216.00	71.40	77.80	40.00	7.00	4.40	7.00		
28	8.50	242.40	12.40	43.50	190.00	145.90	86.60	76.20	65.25	7.00	4.20	7.50		
29	9.00	195.00	12.80	45.60	442.40	218.00	204.00	147.70	41.40	6.75		6.00		
30	8.75	129.70	13.20	40.00	788.00	278.40	231.60	127.00	26.00	6.75		6.25		
31		156.70		120.20	639.00		114.25		20.40	6.75		7.00		
Total	232.40	2219.25	1311.10	1048.70	7092.75	13558.10	4294.20	2376.15	1208.90	308.85	151.05	168.15	33969.60	CMSDAY
Mean	7.75	71.59	43.70	33.83	228.80	451.94	138.52	79.20	39.00	9.96	5.39	5.42	93.07	CMS
Max	10.00	253.20	144.10	138.70	788.00	1107.40	310.80	151.30	86.60	16.50	6.50	7.50	1107.40	CMS
Min	4.40	8.75	12.00	12.00	54.00	145.90	51.20	46.30	10.00	6.75	4.00	3.80	3.80	CMS
Runoff	20.08	191.74	113.28	90.61	612.81	1171.42	371.02	205.30	104.45	26.68	13.05	14.53	2934.97	MCM

Momentary Peak 1153.40 CMS. at 151.98 m. (MSL.) at 03.00 Hours , on Sep 11 , 2002

Runoff Yield 12.21 Liters/Second/Square KM. Momentary Peak Yield 151.290 Liters/Second/Square KM.

WATER YEAR : 2002

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	Water - stage recorder.
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	Recording.
Basis of Mean Daily Gage Height	Arithmetic mean 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.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 41 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

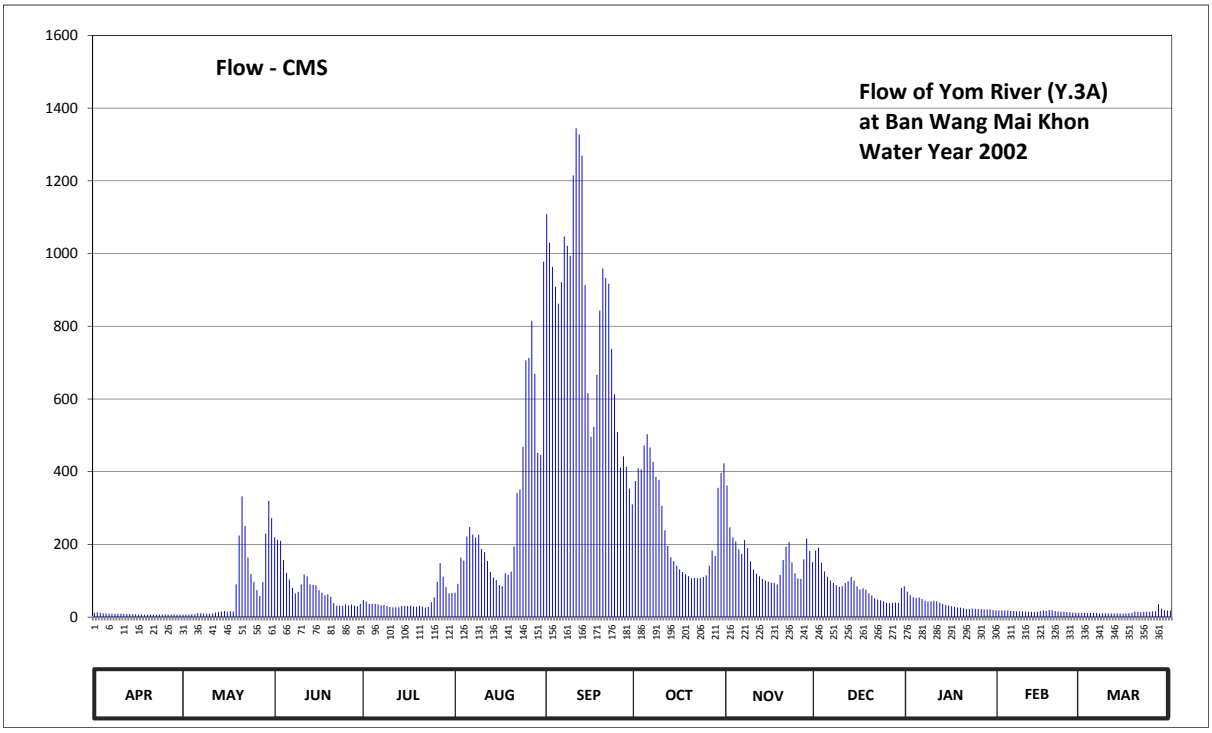
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	51.17	50.95	54.10	51.87	52.16	60.36	55.63	55.52	53.70	52.20	51.35	51.15	
2	51.21	50.96	54.03	51.81	52.51	60.00	55.94	54.40	53.79	52.07	51.35	51.15	
3	51.16	50.98	54.00	51.71	53.48	59.68	55.92	54.10	53.31	51.98	51.34	51.14	
4	51.11	50.99	53.40	51.71	53.38	59.41	56.49	53.98	52.99	51.95	51.36	51.14	
5	51.08	51.00	52.94	51.71	54.13	59.17	56.75	53.74	52.79	51.97	51.32	51.14	
6	51.07	51.12	52.68	51.68	54.41	59.47	56.44	53.60	52.64	51.91	51.30	51.13	
7	51.06	51.10	52.35	51.64	54.19	60.08	56.10	54.02	52.54	51.84	51.28	51.08	
8	51.05	51.07	52.13	51.66	54.10	59.96	55.73	53.78	52.46	51.81	51.28	51.10	
9	51.05	51.06	52.19	51.61	54.19	59.83	55.66	53.35	52.39	51.82	51.28	51.10	
10	51.04	51.05	52.48	51.55	53.75	60.83	54.99	53.06	52.41	51.84	51.27	51.09	
11	51.03	51.07	52.88	51.54	53.65	61.38	54.31	52.91	52.54	51.82	51.25	51.09	
12	51.02	51.18	52.80	51.54	53.37	61.31	53.84	52.80	52.61	51.76	51.24	51.08	
13	51.01	51.23	52.49	51.54	52.98	61.06	53.49	52.70	52.78	51.70	51.23	51.08	
14	51.00	51.27	52.47	51.61	52.75	59.43	53.36	52.64	52.63	51.65	51.26	51.08	
15	50.99	51.30	52.45	51.62	52.65	57.66	53.21	52.59	52.41	51.63	51.31	51.09	
16	50.98	51.25	52.26	51.61	52.46	56.69	53.07	52.55	52.29	51.60	51.35	51.09	
17	50.97	51.29	52.16	51.62	52.41	56.92	52.97	52.55	52.33	51.56	51.32	51.12	
18	50.96	51.27	52.06	51.58	52.92	58.03	52.89	52.48	52.28	51.53	51.39	51.15	
19	50.95	52.49	52.09	51.58	52.86	59.07	52.81	52.86	52.13	51.52	51.37	51.25	
20	50.95	54.16	52.00	51.61	52.99	59.66	52.72	53.40	52.05	51.48	51.31	51.24	
21	50.94	55.24	51.74	51.58	53.83	59.53	52.74	53.82	51.94	51.45	51.27	51.20	
22	50.93	54.44	51.63	51.52	55.33	59.45	52.73	53.96	51.89	51.44	51.26	51.23	
23	50.94	53.48	51.62	51.56	55.42	58.48	52.74	53.32	51.86	51.47	51.25	51.25	
24	50.95	52.89	51.62	51.78	56.46	57.64	52.78	52.92	51.82	51.46	51.23	51.24	
25	50.95	52.58	51.68	51.97	58.29	56.80	52.84	52.72	51.76	51.45	51.20	51.28	
26	50.96	52.26	51.63	52.59	58.33	55.96	53.21	52.70	51.74	51.44	51.18	51.29	
27	50.97	52.03	51.67	53.29	58.92	56.23	53.70	53.42	51.75	51.43	51.16	51.69	
28	50.99	52.58	51.63	52.79	58.05	55.98	53.53	54.07	51.77	51.42	51.15	51.47	
29	50.96	54.22	51.60	52.38	56.31	55.44	55.46	53.69	51.75	51.42		51.37	
30	50.95	55.12	51.70	52.13	56.26	55.03	55.83	53.33	52.35	51.38		51.34	
31		54.66		52.15	59.75		56.06		52.41	51.36		51.35	
Mean	51.01	52.14	52.35	51.82	54.59	58.68	54.32	53.37	52.39	51.66	51.28	51.20	
Max	51.21	55.24	54.10	53.29	59.75	61.38	56.75	55.52	53.79	52.20	51.39	51.69	61.38
Min	50.93	50.95	51.60	51.52	52.16	55.03	52.72	52.48	51.74	51.36	51.15	51.08	50.93

Annual Max Momentary Gage Height 61.39 m. (MSL.) , at 04.00 Hours , on Sep 11 , 2002

Zero Gage at Bottom Elevation 51.00 m. (MSL.) , River Bed 48.35 m. (MSL.)

Left Bank Elevation 65.46 m. (MSL.) ,

Right Bank Elevation 65.35 m. (MSL.) , Drainage Are 13,331 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	12.25	7.00	219.00	46.90	67.20	1108.20	374.30	362.20	183.00	70.00	18.25	11.75		
2	13.35	7.20	212.70	42.70	91.70	1030.00	409.10	247.00	191.10	60.90	18.25	11.75		
3	12.00	7.60	210.00	36.60	163.80	963.40	406.80	219.00	149.80	54.60	17.90	11.50		
4	10.75	7.80	157.00	36.60	155.40	909.00	472.35	208.20	125.30	52.50	18.60	11.50		
5	10.00	8.00	121.80	36.60	221.70	862.30	503.00	186.60	111.30	53.90	17.20	11.50		
6	9.75	11.00	103.60	34.80	247.95	921.00	466.60	174.00	100.80	49.70	16.50	11.25		
7	9.50	10.50	80.50	32.40	227.10	1047.20	427.50	211.80	93.80	44.80	15.80	10.00		
8	9.25	9.75	65.10	33.60	219.00	1021.60	385.30	190.20	88.20	42.70	15.80	10.50		
9	9.25	9.50	69.30	30.60	227.10	994.30	377.60	153.00	83.30	43.40	15.80	10.50		
10	9.00	9.25	89.60	27.50	187.50	1215.05	305.95	130.50	84.70	44.80	15.45	10.25		
11	8.75	9.75	117.60	27.00	178.50	1344.30	238.45	119.70	93.80	43.40	14.75	10.25		
12	8.50	12.50	112.00	27.00	154.60	1327.85	195.60	112.00	98.70	39.60	14.40	10.00		
13	8.25	14.05	90.30	27.00	124.60	1269.10	164.65	105.00	110.60	36.00	14.05	10.00		
14	8.00	15.45	88.90	30.60	108.50	913.00	153.80	100.80	100.10	33.00	15.10	10.00		
15	7.80	16.50	87.50	31.20	101.50	615.80	141.80	97.30	84.70	31.80	16.85	10.25		
16	7.60	14.75	74.20	30.60	88.20	495.80	131.25	94.50	76.30	30.00	18.25	10.25		
17	7.40	16.15	67.20	31.20	84.70	523.40	123.90	94.50	79.10	28.00	17.20	11.00		
18	7.20	15.45	60.20	29.00	120.40	666.50	118.30	89.60	75.60	26.50	19.65	11.75		
19	7.00	90.30	62.30	29.00	116.20	843.30	112.70	116.20	65.10	26.00	18.95	14.75		
20	7.00	224.40	56.00	30.60	125.30	959.30	106.40	157.00	59.50	24.00	16.85	14.40		
21	6.80	332.20	38.40	29.00	194.70	933.00	107.80	193.80	51.80	22.50	15.45	13.00		
22	6.60	250.80	31.80	26.00	341.65	917.00	107.10	206.40	48.30	22.00	15.10	14.05		
23	6.80	163.80	31.20	28.00	351.20	737.60	107.80	150.60	46.20	23.50	14.75	14.75		
24	7.00	118.30	31.20	40.80	468.90	613.20	110.60	120.40	43.40	23.00	14.05	14.40		
25	7.00	96.60	34.80	53.90	706.40	509.00	114.80	106.40	39.60	22.50	13.00	15.80		
26	7.20	74.20	31.80	97.30	712.80	411.40	141.80	105.00	38.40	22.00	12.50	16.15		
27	7.40	58.10	34.20	148.20	815.20	442.45	183.00	158.70	39.00	21.50	12.00	35.40		
28	7.80	96.60	31.80	111.30	669.50	413.70	168.05	216.30	40.20	21.00	11.75	23.50		
29	7.20	229.90	30.00	82.60	451.65	353.40	355.60	182.10	39.00	21.00		18.95		
30	7.00	319.60	36.00	65.10	445.90	310.15	396.45	151.40	80.50	19.30		17.90		
31		272.00		66.50	977.75		422.90		84.70	18.60		18.20		
Total	253.40	2529.00	2476.00	1400.20	9146.60	24671.30	7831.25	4760.20	2605.90	1072.50	444.20	425.25	57615.80	CMSDAY
Mean	8.45	81.58	82.53	45.17	295.05	822.38	252.62	158.67	84.06	34.60	15.86	13.72	157.85	CMS
Max	13.35	332.20	219.00	148.20	977.75	1344.30	503.00	362.20	191.10	70.00	19.65	35.40	1344.30	CMS
Min	6.60	7.00	30.00	26.00	67.20	310.15	106.40	89.60	38.40	18.60	11.75	10.00	6.60	CMS
Runoff	21.89	218.51	213.93	120.98	790.27	2131.60	676.62	411.28	225.15	92.66	38.38	36.74	4978.01	MCM

Momentary Peak 1346.65 CMS. at 61.39 m. (MSL.) at 04.00 Hours , on Sep 11 , 2002

Runoff Yield 11.84 Liters/Second/Square KM. Momentary Peak Yield 101.020 Liters/Second/Square KM.

WATER YEAR : 2002

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	Water - stage recorder.		
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	Recording.		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 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.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 45 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

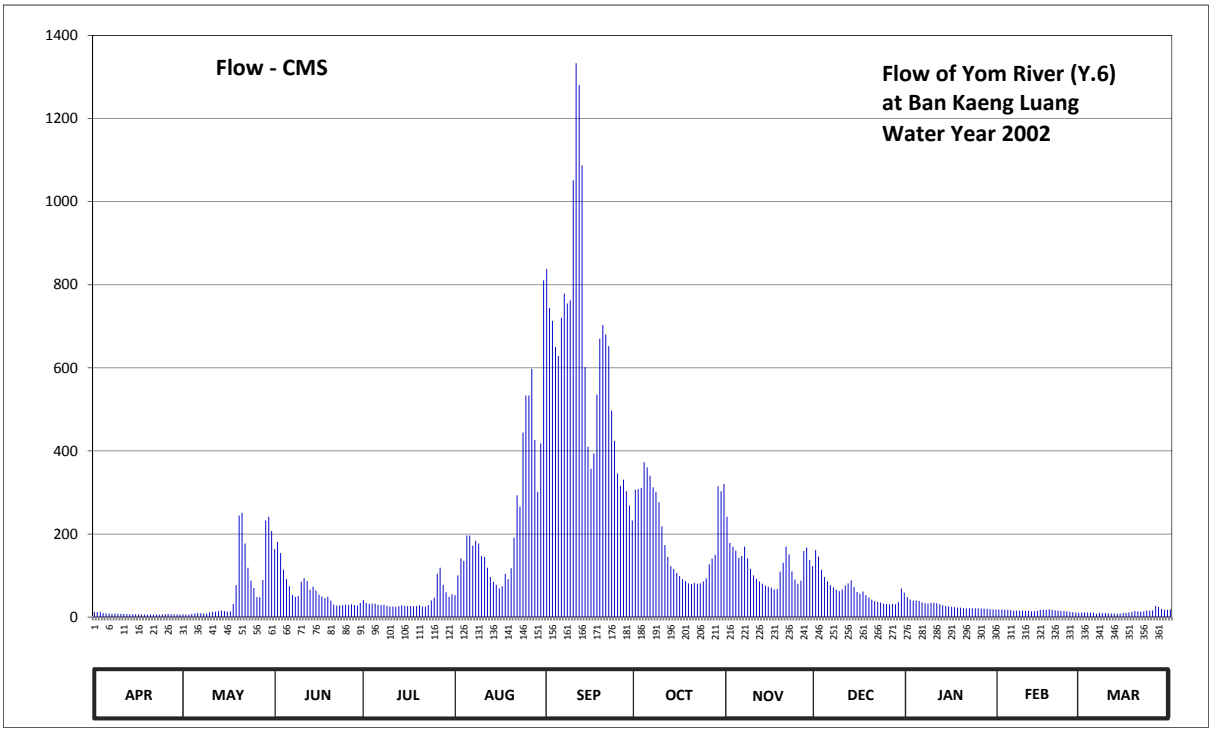
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	59.66	59.39	61.89	60.52	60.72	65.32	62.89	62.47	61.87	60.65	59.89	59.60	
2	59.65	59.35	62.03	60.38	61.28	64.97	62.90	62.01	61.73	60.55	59.88	59.60	
3	59.65	59.35	61.81	60.32	61.69	64.85	62.92	61.94	61.42	60.49	59.87	59.61	
4	59.53	59.43	61.42	60.33	61.63	64.60	63.29	61.86	61.24	60.49	59.86	59.59	
5	59.50	59.49	61.18	60.33	62.15	64.51	63.22	61.70	61.12	60.48	59.83	59.56	
6	59.47	59.56	60.99	60.27	62.15	64.88	63.10	61.74	61.02	60.41	59.78	59.45	
7	59.46	59.51	60.73	60.25	61.96	65.10	62.93	61.94	60.96	60.36	59.78	59.56	
8	59.47	59.48	60.66	60.27	62.05	65.01	62.86	61.69	60.89	60.34	59.78	59.53	
9	59.46	59.48	60.69	60.21	62.00	65.04	62.70	61.44	60.85	60.38	59.78	59.54	
10	59.45	59.60	61.11	60.15	61.74	66.01	62.31	61.28	60.90	60.38	59.76	59.50	
11	59.43	59.66	61.21	60.14	61.72	66.85	61.97	61.19	61.01	60.36	59.76	59.50	
12	59.42	59.68	61.13	60.12	61.47	66.70	61.72	61.12	61.07	60.30	59.72	59.50	
13	59.40	59.73	60.89	60.17	61.24	66.12	61.51	61.06	61.15	60.25	59.73	59.47	
14	59.40	59.79	60.98	60.23	61.11	64.40	61.44	61.01	60.97	60.20	59.77	59.50	
15	59.40	59.75	60.87	60.21	61.03	63.49	61.34	60.98	60.83	60.16	59.87	59.54	
16	59.39	59.69	60.74	60.19	60.93	63.20	61.26	60.95	60.77	60.13	59.87	59.55	
17	59.37	59.72	60.67	60.18	60.99	63.41	61.18	60.90	60.84	60.09	59.86	59.60	
18	59.37	60.31	60.61	60.17	61.32	64.10	61.13	60.91	60.72	60.06	59.91	59.67	
19	59.35	61.02	60.66	60.19	61.18	64.68	61.07	61.37	60.63	60.05	59.85	59.76	
20	59.35	62.49	60.49	60.24	61.46	64.81	61.05	61.59	60.55	60.01	59.80	59.71	
21	59.36	62.53	60.28	60.16	62.11	64.72	61.08	61.94	60.47	59.99	59.78	59.69	
22	59.36	62.00	60.22	60.13	62.81	64.61	61.06	61.78	60.43	59.99	59.76	59.71	
23	59.35	61.47	60.23	60.24	62.63	63.92	61.07	61.38	60.40	60.00	59.74	59.79	
24	59.36	61.14	60.26	60.50	63.66	63.56	61.12	61.17	60.34	60.00	59.71	59.78	
25	59.39	60.94	60.28	60.63	64.09	63.13	61.20	61.06	60.31	59.99	59.67	59.81	
26	59.43	60.65	60.25	61.32	64.09	62.95	61.55	61.14	60.29	59.98	59.63	60.20	
27	59.40	60.65	60.29	61.47	64.38	63.04	61.69	61.85	60.31	59.97	59.61	60.12	
28	59.37	61.16	60.25	61.03	63.57	62.87	61.77	61.92	60.29	59.96	59.58	59.95	
29	59.36	62.41	60.23	60.82	62.86	62.65	62.94	61.65	60.43	59.93		59.86	
30	59.35	62.47	60.37	60.66	63.53	62.41	62.87	61.51	60.93	59.90		59.86	
31		62.23		60.75	65.22		62.98		60.81	59.90		59.90	
Mean	59.43	60.46	60.78	60.41	62.22	64.40	62.00	61.49	60.82	60.19	59.78	59.68	
Max	59.66	62.53	62.03	61.47	65.22	66.85	63.29	62.47	61.87	60.65	59.91	60.20	66.85
Min	59.35	59.35	60.22	60.12	60.72	62.41	61.05	60.90	60.29	59.90	59.58	59.45	59.35

Annual Max Momentary Gage Height 66.92 m. (MSL.) , at 12.00 Hours , on Sep 11 , 2002

Zero Gage at Bottom Elevation 59.00 m. (MSL.) , River Bed 57.67 m. (MSL.)

Left Bank Elevation 68.79 m. (MSL.) ,

Right Bank Elevation 67.77 m. (MSL.) , Drainage Are 12,769 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	12.50	6.85	163.80	41.00	52.80	838.00	306.40	241.50	161.40	48.25	18.25	11.00		
2	12.25	6.25	180.90	34.20	100.60	744.20	308.00	178.30	145.65	42.50	18.00	11.00		
3	12.25	6.25	154.20	31.80	141.45	713.00	311.20	169.80	114.00	39.50	17.75	11.25		
4	9.60	7.60	114.00	32.20	135.15	650.00	372.75	160.20	96.80	39.50	17.50	10.80		
5	9.00	8.80	91.20	32.20	196.50	628.40	360.50	142.50	85.80	39.00	16.75	10.20		
6	8.40	10.20	74.15	29.80	196.50	720.80	340.50	146.70	76.80	35.50	15.50	8.00		
7	8.20	9.20	53.45	29.00	172.20	778.50	312.80	169.80	71.60	33.40	15.50	10.20		
8	8.40	8.60	48.90	29.80	183.50	754.65	301.60	141.45	65.65	32.60	15.50	9.60		
9	8.20	8.60	50.85	27.40	177.00	762.60	276.50	116.00	62.25	34.20	15.50	9.80		
10	8.00	11.00	84.90	25.50	146.70	1051.25	218.40	100.60	66.50	34.20	15.00	9.00		
11	7.60	12.50	93.95	25.20	144.60	1333.25	173.40	92.10	75.90	33.40	15.00	9.00		
12	7.40	13.00	86.70	24.60	119.00	1280.50	144.60	85.80	81.30	31.00	14.00	9.00		
13	7.00	14.25	65.65	26.10	96.80	1087.00	123.00	80.40	88.50	29.00	14.25	8.40		
14	7.00	15.75	73.30	28.20	84.90	602.00	116.00	75.90	72.45	27.00	15.25	9.00		
15	7.00	14.75	63.95	27.40	77.70	410.00	106.30	73.30	60.55	25.80	17.75	9.80		
16	6.85	13.25	54.10	26.70	69.05	357.00	98.70	70.75	56.05	24.90	17.75	10.00		
17	6.55	14.00	49.55	26.40	74.15	394.00	91.20	66.50	61.40	23.70	17.50	11.00		
18	6.55	31.40	45.65	26.10	104.40	535.50	86.70	67.35	52.80	22.80	18.75	12.75		
19	6.25	76.80	48.90	26.70	91.20	670.00	81.30	109.15	46.95	22.50	17.25	15.00		
20	6.25	244.50	39.50	28.60	118.00	702.60	79.50	131.00	42.50	21.30	16.00	13.75		
21	6.40	250.50	30.20	25.80	191.30	680.00	82.20	169.80	38.50	20.75	15.50	13.25		
22	6.40	177.00	27.80	24.90	293.60	652.50	80.40	150.90	36.50	20.75	15.00	13.75		
23	6.25	119.00	28.20	28.60	265.65	497.20	81.30	110.10	35.00	21.00	14.50	15.75		
24	6.40	87.60	29.40	40.00	444.00	424.00	85.80	90.30	32.60	21.00	13.75	15.50		
25	6.85	69.90	30.20	46.95	533.35	345.45	93.00	80.40	31.40	20.75	12.75	16.25		
26	7.60	48.25	29.00	104.40	533.35	316.00	127.00	87.60	30.60	20.50	11.75	27.00		
27	7.00	48.25	30.60	119.00	597.50	330.60	141.45	159.00	31.40	20.25	11.25	24.60		
28	6.55	89.40	29.00	77.70	426.00	303.20	149.85	167.40	30.60	20.00	10.60	19.75		
29	6.40	232.50	28.20	59.70	301.60	268.75	314.40	137.25	36.50	19.25		17.50		
30	6.25	241.50	33.80	48.90	418.00	232.50	303.20	123.00	69.05	18.50		17.50		
31		207.20		54.75	810.50		320.80		58.85	18.50		18.50		
Total	231.35	2104.65	1934.00	1209.60	7297.05	19063.45	5988.75	3694.85	2015.85	861.30	433.85	407.90	45242.60	CMSDAY
Mean	7.71	67.89	64.47	39.02	235.39	635.45	193.19	123.16	65.03	27.78	15.49	13.16	123.95	CMS
Max	12.50	250.50	180.90	119.00	810.50	1333.25	372.75	241.50	161.40	48.25	18.75	27.00	1333.25	CMS
Min	6.25	6.25	27.80	24.60	52.80	232.50	79.50	66.50	30.60	18.50	10.60	8.00	6.25	CMS
Runoff	19.99	181.84	167.10	104.51	630.47	1647.08	517.43	319.24	174.17	74.42	37.48	35.24	3908.96	MCM

Momentary Peak 1358.80 CMS. at 66.92 m. (MSL.) at 12.00 Hours , on Sep 11 , 2002

Runoff Yield 9.71 Liters/Second/Square KM. Momentary Peak Yield 106.410 Liters/Second/Square KM.

WATER YEAR : 2002

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 mean 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	Rather unstable because of backwater effect.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Stage-discharge relation defined by 37 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

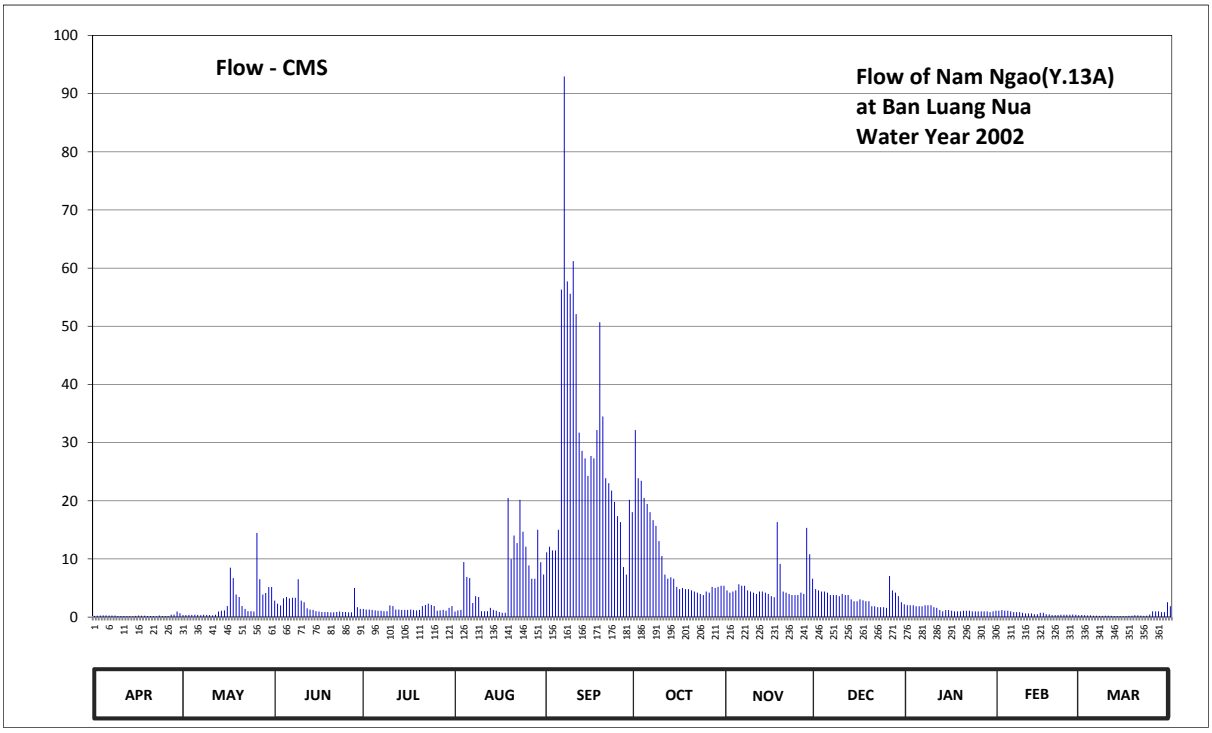
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	268.76	268.82	269.14	269.01	268.95	269.32	269.87	269.06	269.07	268.92	268.85	268.76	
2	268.77	268.82	269.10	269.00	268.98	269.35	269.68	269.04	269.06	268.92	268.86	268.75	
3	268.78	268.83	269.07	269.00	268.99	269.33	269.67	269.05	269.05	268.92	268.85	268.74	
4	268.80	268.83	269.17	268.99	269.53	269.33	269.60	269.06	269.05	268.91	268.85	268.74	
5	268.80	268.84	269.19	268.98	269.41	269.44	269.57	269.11	269.04	268.91	268.84	268.73	
6	268.79	268.83	269.17	268.97	269.40	270.29	269.53	269.10	269.02	268.91	268.83	268.73	
7	268.78	268.81	269.18	268.97	269.11	270.73	269.49	269.10	269.02	268.92	268.83	268.72	
8	268.78	268.84	269.18	268.96	269.20	270.31	269.46	269.06	269.02	268.92	268.83	268.72	
9	268.75	268.83	269.39	268.96	269.19	270.28	269.38	269.05	269.01	268.92	268.82	268.73	
10	268.75	268.82	269.14	269.07	268.96	270.36	269.30	269.04	269.03	268.90	268.81	268.73	
11	268.74	268.80	269.12	269.06	268.96	270.23	269.18	269.03	269.02	268.89	268.81	268.72	
12	268.73	268.84	269.02	269.00	268.96	269.86	269.15	269.05	269.02	268.86	268.81	268.71	
13	268.73	268.95	269.00	269.00	269.03	269.79	269.16	269.05	268.98	268.84	268.80	268.71	
14	268.72	268.97	268.99	268.99	268.99	269.76	269.15	269.04	268.96	268.86	268.80	268.71	
15	268.76	268.98	268.96	268.99	268.97	269.69	269.09	269.03	268.96	268.86	268.82	268.70	
16	268.78	269.06	268.95	268.99	268.94	269.77	269.07	269.01	268.98	268.85	268.82	268.70	
17	268.77	269.49	268.94	269.00	268.92	269.76	269.08	269.00	268.97	268.84	268.80	268.72	
18	268.77	269.40	268.94	268.99	268.92	269.87	269.07	269.48	268.96	268.84	268.79	268.73	
19	268.75	269.22	268.94	268.98	269.60	270.21	269.07	269.25	268.96	268.84	268.76	268.75	
20	268.75	269.19	268.93	268.99	269.28	269.92	269.06	269.05	268.91	268.85	268.76	268.74	
21	268.75	269.06	268.93	269.06	269.41	269.68	269.05	269.04	268.91	268.85	268.76	268.73	
22	268.72	269.01	268.94	269.08	269.37	269.66	269.04	269.03	268.90	268.85	268.77	268.72	
23	268.78	268.96	268.95	269.10	269.59	269.63	269.03	269.02	268.90	268.84	268.77	268.73	
24	268.75	268.96	268.94	269.08	269.43	269.58	269.02	269.02	268.90	268.84	268.77	268.78	
25	268.75	268.95	268.94	269.06	269.35	269.51	269.05	269.02	268.89	268.84	268.77	268.84	
26	268.74	269.71	268.93	268.97	269.24	269.48	269.04	269.04	269.17	268.84	268.78	268.84	
27	268.84	269.39	268.93	268.98	269.15	269.23	269.09	269.03	269.06	268.84	268.77	268.84	
28	268.85	269.22	269.30	268.99	269.15	269.18	269.08	269.45	269.04	268.84	268.75	268.83	
29	268.95	269.24	269.04	268.97	269.44	269.59	269.09	269.31	269.01	268.83		268.83	
30	268.91	269.31	269.01	269.03	269.26	269.53	269.10	269.15	268.95	268.84		268.95	
31		269.31		269.06	269.18		269.10		268.93	268.85		268.91	
Mean	268.78	269.04	269.05	269.01	269.19	269.76	269.24	269.09	268.99	268.87	268.80	268.76	
Max	268.95	269.71	269.39	269.10	269.60	270.73	269.87	269.48	269.17	268.92	268.86	268.95	270.73
Min	268.72	268.80	268.93	268.96	268.92	269.18	269.02	269.00	268.89	268.83	268.75	268.70	268.70

Annual Max Momentary Gage Height 270.97 m. (MSL.) , at 12.00 Hours , on Sep 7 , 2002

Zero Gage at Bottom Elevation 268.30 m. (MSL.) , River Bed 268.27 m. (MSL.)

Left Bank Elevation 274.84 m. (MSL.) ,

Right Bank Elevation 274.80 m. (MSL.) , Drainage Are 381 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.22	0.36	2.82	1.40	0.95	11.14	32.15	4.60	4.80	2.04	1.10	0.36		
2	0.24	0.36	2.30	1.30	1.16	12.10	23.86	4.20	4.60	2.04	1.22	0.33		
3	0.26	0.39	2.00	1.30	1.23	11.46	23.44	4.40	4.40	2.04	1.10	0.29		
4	0.30	0.39	3.21	1.23	9.45	11.46	20.50	4.60	4.40	1.87	1.10	0.29		
5	0.30	0.42	3.47	1.16	6.90	15.02	19.45	5.64	4.20	1.87	0.98	0.25		
6	0.28	0.39	3.21	1.09	6.70	56.30	18.05	5.40	3.80	1.87	0.86	0.25		
7	0.26	0.33	3.34	1.09	2.43	92.95	16.67	5.40	3.80	2.04	0.86	0.22		
8	0.26	0.42	3.34	1.02	3.60	57.70	15.68	4.60	3.80	2.04	0.86	0.22		
9	0.20	0.39	6.53	1.02	3.47	55.60	13.06	4.40	3.60	2.04	0.74	0.25		
10	0.20	0.36	2.82	2.00	1.02	61.20	10.50	4.20	4.00	1.70	0.62	0.25		
11	0.18	0.30	2.56	1.90	1.02	52.10	7.32	4.00	3.80	1.58	0.62	0.22		
12	0.16	0.42	1.50	1.30	1.02	31.70	6.60	4.40	3.80	1.22	0.62	0.18		
13	0.16	0.95	1.30	1.30	1.60	28.57	6.84	4.40	3.06	0.98	0.50	0.18		
14	0.14	1.09	1.23	1.23	1.23	27.28	6.60	4.20	2.72	1.22	0.50	0.18		
15	0.22	1.16	1.02	1.23	1.09	24.28	5.20	4.00	2.72	1.22	0.74	0.15		
16	0.26	1.90	0.95	1.23	0.88	27.71	4.80	3.60	3.06	1.10	0.74	0.15		
17	0.24	8.50	0.88	1.30	0.74	27.28	5.00	3.40	2.89	0.98	0.50	0.22		
18	0.24	6.70	0.88	1.23	0.74	32.15	4.80	16.34	2.72	0.98	0.47	0.25		
19	0.20	3.88	0.88	1.16	20.50	50.70	4.80	9.15	2.72	0.98	0.36	0.33		
20	0.20	3.47	0.81	1.23	9.96	34.50	4.60	4.40	1.87	1.10	0.36	0.29		
21	0.20	1.90	0.81	1.90	14.03	23.86	4.40	4.20	1.87	1.10	0.36	0.25		
22	0.14	1.40	0.88	2.10	12.74	23.02	4.20	4.00	1.70	1.10	0.40	0.22		
23	0.26	1.02	0.95	2.30	20.15	21.76	4.00	3.80	1.70	0.98	0.40	0.25		
24	0.20	1.02	0.88	2.10	14.69	19.80	3.80	3.80	1.70	0.98	0.40	0.43		
25	0.20	0.95	0.88	1.90	12.10	17.35	4.40	3.80	1.58	0.98	0.40	0.98		
26	0.18	14.47	0.81	1.09	8.88	16.34	4.20	4.20	7.08	0.98	0.43	0.98		
27	0.42	6.53	0.81	1.16	6.60	8.61	5.20	4.00	4.60	0.98	0.40	0.98		
28	0.45	3.88	5.00	1.23	6.60	7.32	5.00	15.35	4.20	0.98	0.33	0.86		
29	0.95	4.16	1.70	1.09	15.02	20.15	5.20	10.82	3.60	0.86		0.86		
30	0.67	5.17	1.40	1.60	9.42	18.05	5.40	6.60	2.55	0.98		2.55		
31		5.17		1.90	7.32		5.40		2.21	1.10		1.87		
Total	8.19	77.85	59.17	44.09	203.24	897.46	301.12	165.90	103.55	41.93	17.97	15.09	1935.56	CMSDAY
Mean	0.27	2.51	1.97	1.42	6.56	29.92	9.71	5.53	3.34	1.35	0.64	0.49	5.30	CMS
Max	0.95	14.47	6.53	2.30	20.50	92.95	32.15	16.34	7.08	2.04	1.22	2.55	92.95	CMS
Min	0.14	0.30	0.81	1.02	0.74	7.32	3.80	3.40	1.58	0.86	0.33	0.15	0.14	CMS
Runoff	0.71	6.73	5.11	3.81	17.56	77.54	26.02	14.33	8.95	3.62	1.55	1.30	167.23	MCM

Momentary Peak 125.50 CMS. at 270.97 m. (MSL.) at 12.00 Hours , on Sep 7 , 2002

Runoff Yield 13.92 Liters/Second/Square KM. Momentary Peak Yield 329.400 Liters/Second/Square KM.

WATER YEAR : 2002

YOM RIVER BASIN

Yom River at Ban Don Rabiang , Sukhothai (Y.14)

Lat 17 - 35 - 42 N Long 99 - 43 - 06 E

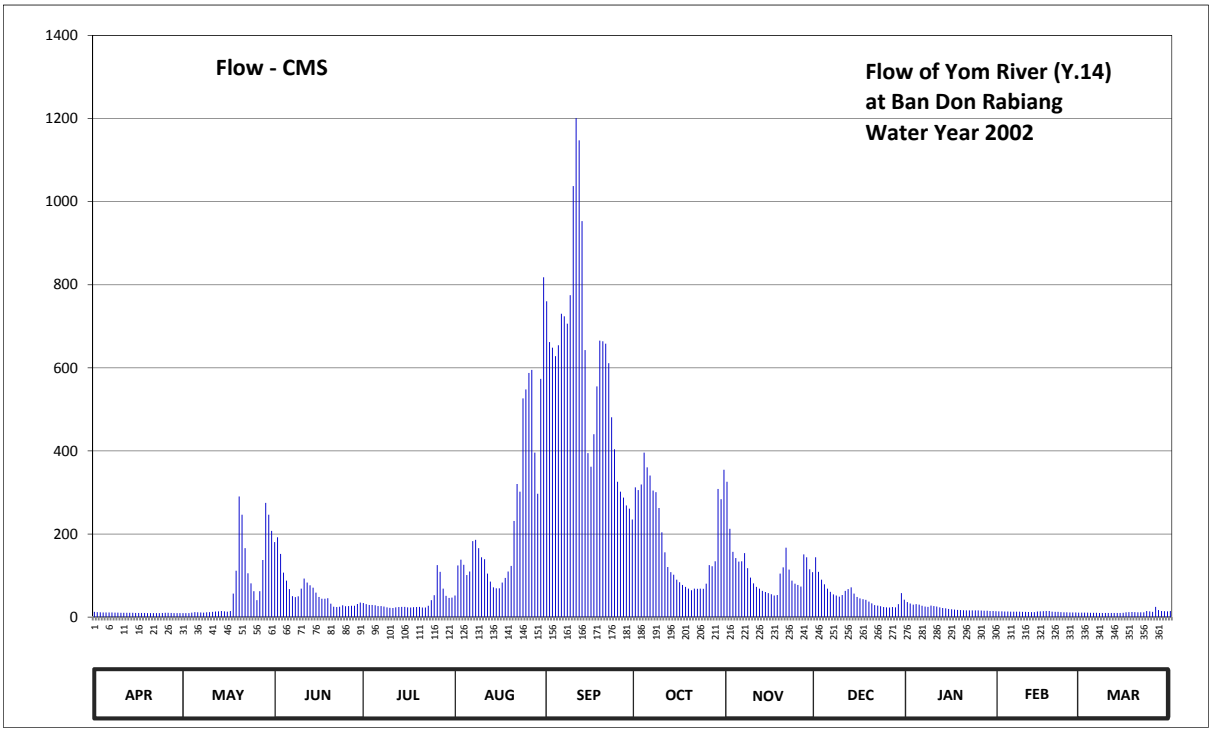
Location : on left bank about 50 meters from Si Satchanalai - Den Chai Highway No.101 at guidepost 44 th.

	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 mean 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	Stable.					
Overbank Flow Conditions	No overbank flow.					
General Description	Records good. Stage-discharge relation defined by 42 discharge measurements made in 2002.					

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	66.02	65.84	68.35	66.56	66.86	72.02	69.41	69.51	67.99	66.60	66.08	65.92	
2	65.99	65.83	68.45	66.51	67.78	71.52	69.36	68.62	67.61	66.54	66.07	65.92	
3	65.96	65.83	68.07	66.48	67.93	71.45	69.46	68.12	67.39	66.49	66.06	65.91	
4	65.94	65.91	67.59	66.48	67.80	71.34	70.00	67.97	67.25	66.51	66.06	65.90	
5	65.93	66.00	67.36	66.46	67.52	71.48	69.76	67.88	67.11	66.49	66.05	65.89	
6	65.93	65.98	67.09	66.43	67.62	71.87	69.62	67.89	67.00	66.44	66.04	65.89	
7	65.93	65.94	66.84	66.43	68.37	71.84	69.35	68.09	66.90	66.41	66.04	65.87	
8	65.92	65.92	66.80	66.41	68.40	71.75	69.32	67.71	66.86	66.39	66.04	65.87	
9	65.91	65.97	66.83	66.36	68.21	72.09	69.02	67.45	66.82	66.45	66.03	65.87	
10	65.90	66.00	67.11	66.33	67.99	73.21	68.55	67.28	66.88	66.43	66.02	65.87	
11	65.89	66.02	67.42	66.32	67.94	73.86	68.11	67.17	67.03	66.41	66.01	65.87	
12	65.89	66.06	67.30	66.36	67.56	73.65	67.74	67.11	67.09	66.36	66.00	65.87	
13	65.88	66.08	67.22	66.38	67.33	72.87	67.60	67.03	67.15	66.32	66.00	65.86	
14	65.88	66.11	67.14	66.39	67.15	71.42	67.53	66.99	66.93	66.30	66.06	65.86	
15	65.87	66.07	66.97	66.39	67.12	69.99	67.39	66.95	66.81	66.27	66.08	65.88	
16	65.87	66.04	66.81	66.36	67.12	69.77	67.31	66.91	66.75	66.25	66.09	65.96	
17	65.86	66.11	66.74	66.35	67.30	70.28	67.23	66.86	66.72	66.23	66.11	65.99	
18	65.86	66.93	66.74	66.37	67.44	70.94	67.17	66.88	66.69	66.21	66.10	66.01	
19	65.85	67.64	66.76	66.38	67.62	71.54	67.11	67.56	66.62	66.20	66.04	66.00	
20	65.85	69.24	66.53	66.39	67.77	71.53	67.05	67.73	66.55	66.18	66.02	65.98	
21	65.85	68.89	66.40	66.35	68.77	71.50	67.11	68.22	66.47	66.16	66.02	65.98	
22	65.85	68.21	66.38	66.35	69.47	71.25	67.10	67.67	66.45	66.16	66.00	65.98	
23	65.85	67.57	66.40	66.44	69.33	70.52	67.11	67.36	66.42	66.17	65.98	66.11	
24	65.86	67.28	66.46	66.68	70.78	70.05	67.10	67.27	66.38	66.16	65.96	66.07	
25	65.89	67.02	66.42	66.87	70.90	69.51	67.27	67.23	66.36	66.16	65.95	66.02	
26	65.88	66.68	66.43	67.79	71.12	69.33	67.79	67.18	66.35	66.15	65.94	66.39	
27	65.86	67.02	66.44	67.61	71.16	69.22	67.76	68.06	66.38	66.14	65.93	66.20	
28	65.85	67.92	66.44	67.11	70.00	69.07	67.89	67.99	66.36	66.13	65.91	66.11	
29	65.85	69.12	66.52	66.85	69.29	69.01	69.38	67.68	66.51	66.11		66.09	
30	65.84	68.89	66.58	66.77	71.04	68.80	69.19	67.60	66.95	66.10		66.08	
31		68.58		66.78	72.29		69.72		66.70	66.09		66.10	
Mean	65.89	66.86	66.95	66.57	68.61	71.09	68.24	67.60	66.82	66.29	66.02	65.98	
Max	66.02	69.24	68.45	67.79	72.29	73.86	70.00	69.51	67.99	66.60	66.11	66.39	73.86
Min	65.84	65.83	66.38	66.32	66.86	68.80	67.05	66.86	66.35	66.09	65.91	65.86	65.83

Annual Max Momentary Gage Height	73.93	m. (MSL.) ,	at 12.00 Hours , on Sep 11 , 2002			
Zero Gage at Bottom Elevation	65.10	m. (MSL.) ,	River Bed	63.03	m. (MSL.)	
Left Bank Elevation	78.17	m. (MSL.) ,				
Right Bank Elevation	78.52	m. (MSL.) ,	Drainage Are	12,100	Square Kilometers	



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	12.50	9.60	180.75	33.80	51.90	760.20	312.35	325.85	144.05	36.00	14.00	10.80		
2	11.85	9.45	192.00	31.05	124.20	661.80	305.80	212.50	108.90	32.70	13.75	10.80		
3	11.40	9.45	152.00	29.40	138.35	648.50	319.10	157.00	90.20	29.95	13.50	10.65		
4	11.10	10.65	107.15	29.40	126.00	627.90	396.00	142.15	79.00	31.05	13.50	10.50		
5	10.95	12.00	87.80	28.30	101.20	654.20	360.40	133.60	68.70	29.95	13.25	10.35		
6	10.95	11.70	67.30	26.65	109.80	730.00	340.80	134.55	61.00	27.20	13.00	10.35		
7	10.95	11.10	50.60	26.65	182.85	724.00	304.50	154.00	54.50	25.55	13.00	10.05		
8	10.80	10.80	48.00	25.55	186.00	706.25	300.60	117.90	51.90	24.60	13.00	10.05		
9	10.65	11.55	49.95	23.40	166.05	774.90	262.50	95.25	49.30	27.75	12.75	10.05		
10	10.50	12.00	68.70	22.20	144.05	1037.50	204.00	81.40	53.20	26.65	12.50	10.05		
11	10.35	12.50	92.70	21.80	139.30	1200.90	156.00	72.90	63.10	25.55	12.25	10.05		
12	10.35	13.50	83.00	23.40	104.60	1147.50	120.60	68.70	67.30	23.40	12.00	10.05		
13	10.20	14.00	76.60	24.20	85.40	953.15	108.00	63.10	71.50	21.80	12.00	9.90		
14	10.20	14.75	70.80	24.60	71.50	642.80	102.05	60.35	56.45	21.00	13.50	9.90		
15	10.05	13.75	59.05	24.60	69.40	394.50	90.20	57.75	48.65	19.80	14.00	10.20		
16	10.05	13.00	48.65	23.40	69.40	361.80	83.80	55.15	45.00	19.00	14.25	11.40		
17	9.90	14.75	44.40	23.00	83.00	440.20	77.40	51.90	43.20	18.20	14.75	11.85		
18	9.90	56.45	44.40	23.80	94.40	555.20	72.90	53.20	41.40	17.40	14.50	12.25		
19	9.75	111.60	45.60	24.20	109.80	665.60	68.70	104.60	37.20	17.00	13.00	12.00		
20	9.75	290.20	32.15	24.60	123.30	663.70	64.50	119.70	33.25	16.50	12.50	11.70		
21	9.75	246.25	25.00	23.00	231.25	658.00	68.70	167.10	28.85	16.00	12.50	11.70		
22	9.75	166.05	24.20	23.00	320.45	611.25	68.00	114.30	27.75	16.00	12.00	11.70		
23	9.75	105.45	25.00	27.20	301.90	481.00	68.70	87.80	26.10	16.25	11.70	14.75		
24	9.90	81.40	28.30	40.80	526.50	403.75	68.00	80.60	24.20	16.00	11.40	13.75		
25	10.35	62.40	26.10	52.55	548.00	325.85	80.60	77.40	23.40	16.00	11.25	12.50		
26	10.20	40.80	26.65	125.10	587.60	301.90	125.10	73.60	23.00	15.75	11.10	24.60		
27	9.90	62.40	27.20	108.90	594.80	287.60	122.40	151.00	24.20	15.50	10.95	17.00		
28	9.75	137.40	27.20	68.70	396.00	268.75	134.55	144.05	23.40	15.25	10.65	14.75		
29	9.75	275.00	31.60	51.25	296.70	261.25	308.40	115.20	31.05	14.75		14.25		
30	9.60	246.25	34.90	46.20	573.20	235.00	283.75	108.00	57.75	14.50		14.00		
31		207.60		46.80	817.80		354.80		42.00	14.25		14.50		
Total	310.85	2293.80	1877.75	1127.50	7474.70	18184.95	5733.20	3380.60	1599.50	661.30	356.55	376.45	43377.15	CMSDAY
Mean	10.36	73.99	62.59	36.37	241.12	606.16	184.94	112.69	51.60	21.33	12.73	12.14	118.84	CMS
Max	12.50	290.20	192.00	125.10	817.80	1200.90	396.00	325.85	144.05	36.00	14.75	24.60	1200.90	CMS
Min	9.60	9.45	24.20	21.80	51.90	235.00	64.50	51.90	23.00	14.25	10.65	9.90	9.45	CMS
Runoff	26.86	198.18	162.24	97.42	645.81	1571.18	495.35	292.08	138.20	57.14	30.81	32.53	3747.79	MCM

Momentary Peak 1219.45 CMS. at 73.93 m. (MSL.) at 12.00 Hours , on Sep 11 , 2002

Runoff Yield 9.82 Liters/Second/Square KM. Momentary Peak Yield 100.780 Liters/Second/Square KM.

WATER YEAR : 2002

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** +41.630 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 mean 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	Stable.
Overbank Flow Conditions	Overbank flow starts at elevation +37.780 m.(MSL.) and is including overbank flow.
General Description	Records good. Stage-discharge relation defined by 17 discharge measurements made in 2002.
Remark	

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

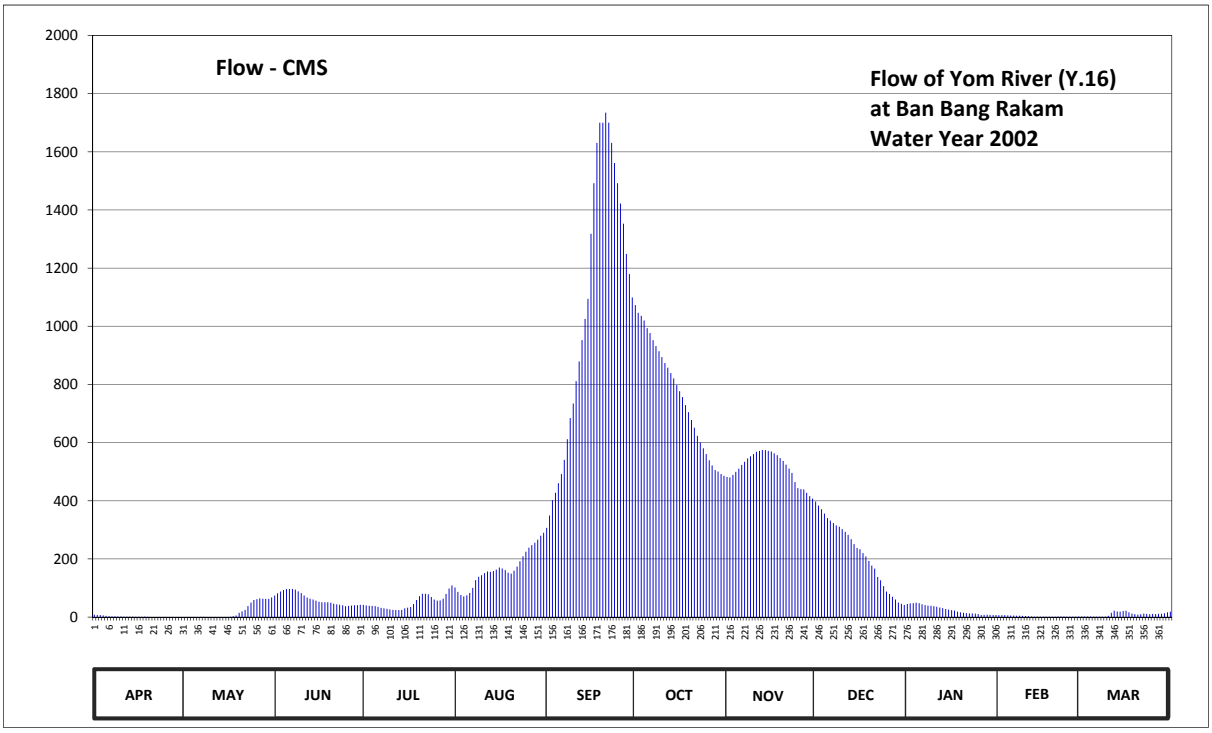
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	32.73	31.91	35.19	34.34	35.67	38.14	42.53	39.67	38.96	34.44	32.65	32.21	
2	32.71	31.91	35.34	34.27	35.43	38.54	42.48	39.66	38.84	34.51	32.64	32.21	
3	32.66	31.89	35.45	34.23	35.22	39.00	42.46	39.73	38.73	34.53	32.63	32.21	
4	32.58	31.87	35.53	34.22	35.12	39.22	42.43	39.81	38.60	34.58	32.61	32.22	
5	32.42	31.85	35.59	34.20	35.20	39.50	42.37	39.90	38.46	34.53	32.57	32.17	
6	32.32	31.85	35.60	34.11	35.36	39.75	42.32	40.00	38.38	34.39	32.54	32.11	
7	32.28	32.01	35.60	34.00	35.66	40.14	42.25	40.09	38.30	34.30	32.51	32.11	
8	32.25	31.98	35.56	33.94	36.06	40.66	42.19	40.18	38.22	34.26	32.48	32.10	
9	32.21	31.87	35.46	33.89	36.22	41.10	42.13	40.24	38.18	34.23	32.43	32.14	
10	32.19	31.87	35.35	33.82	36.29	41.39	42.06	40.30	38.10	34.17	32.38	32.42	
11	32.16	31.85	35.18	33.74	36.38	41.75	41.99	40.36	38.01	34.13	32.30	33.18	
12	32.13	31.85	35.04	33.70	36.45	42.01	41.93	40.39	37.91	34.04	32.23	33.60	
13	32.11	31.86	34.96	33.70	36.43	42.25	41.86	40.41	37.76	33.96	32.16	33.46	
14	32.08	31.92	34.89	33.74	36.47	42.44	41.79	40.41	37.59	33.86	32.16	33.43	
15	32.05	31.95	34.79	33.94	36.53	42.57	41.69	40.39	37.45	33.79	32.14	33.55	
16	32.04	31.91	34.68	34.02	36.62	42.66	41.60	40.37	37.40	33.70	32.11	33.60	
17	32.03	31.99	34.63	34.09	36.58	42.71	41.50	40.32	37.24	33.62	32.12	33.31	
18	32.13	32.33	34.63	34.43	36.51	42.75	41.36	40.27	37.09	33.43	32.13	33.01	
19	32.01	32.53	34.63	34.84	36.40	42.77	41.22	40.19	36.90	33.31	32.15	32.88	
20	31.91	33.17	34.59	35.14	36.36	42.77	41.06	40.11	36.70	33.20	32.16	32.77	
21	31.87	33.49	34.48	35.31	36.48	42.78	40.90	40.01	36.57	33.11	32.19	32.85	
22	31.86	33.73	34.40	35.31	36.66	42.77	40.73	39.90	36.21	33.04	32.20	33.01	
23	31.85	34.19	34.35	35.27	36.89	42.75	40.59	39.78	36.05	33.03	32.18	32.93	
24	31.85	34.60	34.28	35.09	37.10	42.73	40.45	39.53	35.75	32.99	32.17	32.85	
25	31.85	34.85	34.17	34.88	37.30	42.71	40.30	39.36	35.45	32.90	32.16	32.94	
26	31.87	34.92	34.21	34.79	37.46	42.69	40.13	39.33	35.29	32.68	32.15	32.90	
27	31.87	34.98	34.25	34.80	37.55	42.67	39.99	39.32	35.10	32.71	32.17	32.97	
28	31.87	34.95	34.28	34.95	37.64	42.64	39.86	39.22	34.89	32.74	32.18	32.97	
29	31.89	34.94	34.31	35.30	37.74	42.62	39.82	39.12	34.60	32.72		33.09	
30	31.90	34.94	34.34	35.62	37.88	42.58	39.75	39.05	34.46	32.66		33.31	
31		35.05		35.78	37.98		39.70		34.32	32.67		33.44	
Mean	32.12	32.94	34.86	34.50	36.50	41.64	41.34	39.91	37.02	33.62	32.30	32.84	
Max	32.73	35.05	35.60	35.78	37.98	42.78	42.53	40.41	38.96	34.58	32.65	33.60	42.78
Min	31.85	31.85	34.17	33.70	35.12	38.14	39.70	39.05	34.32	32.66	32.11	32.10	31.85

Annual Max Momentary Gage Height 42.78 m. (MSL.) , at 12.00 Hours , on Sep 19 , 2002

Zero Gage at Bottom Elevation 31.63 m. (MSL.) , River Bed 30.36 m. (MSL.)

Left Bank Elevation 37.77 m. (MSL.) ,

Right Bank Elevation 43.06 m. (MSL.) , Drainage Are 20,201 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	7.95	0.55	74.50	42.20	101.55	306.70	1072.90	481.75	397.40	45.20	6.75	2.10		
2	7.65	0.55	82.00	40.10	86.80	349.40	1046.40	480.50	383.60	47.30	6.60	2.10		
3	6.90	0.45	88.00	38.90	76.00	402.00	1035.80	489.25	370.95	47.90	6.45	2.10		
4	5.80	0.35	92.80	38.60	71.00	427.30	1019.90	499.25	356.00	49.40	6.15	2.20		
5	4.20	0.25	96.40	38.00	75.00	460.50	993.65	510.50	340.60	47.90	5.70	1.85		
6	3.20	0.25	97.00	35.30	83.00	491.75	976.40	523.00	331.90	43.70	5.40	1.55		
7	2.80	1.05	97.00	32.00	100.90	540.50	952.25	534.25	323.50	41.00	5.10	1.55		
8	2.50	0.90	94.60	30.20	127.20	611.90	932.05	545.50	315.10	39.80	4.80	1.50		
9	2.10	0.35	88.60	28.70	138.60	684.50	914.35	553.00	310.90	38.90	4.30	1.70		
10	1.95	0.35	82.50	26.60	144.20	734.25	893.70	560.50	302.50	37.10	3.80	4.20		
11	1.80	0.25	74.00	24.80	151.40	811.50	873.35	568.00	293.05	35.90	3.00	14.70		
12	1.65	0.25	67.00	24.00	157.00	878.95	857.45	571.75	283.00	33.20	2.30	22.00		
13	1.55	0.30	63.40	24.00	155.40	952.25	838.90	574.45	268.00	30.80	1.80	19.20		
14	1.40	0.60	60.60	24.80	158.60	1025.20	820.70	574.45	251.05	27.80	1.80	18.60		
15	1.25	0.75	56.65	30.20	163.40	1094.10	797.70	571.75	237.75	25.80	1.70	21.00		
16	1.20	0.55	52.80	32.60	170.60	1318.20	777.00	569.25	233.00	24.00	1.55	22.00		
17	1.15	0.95	51.05	34.70	167.40	1491.70	756.50	563.00	220.20	22.40	1.60	16.65		
18	1.65	3.30	51.05	44.90	161.80	1630.50	729.00	556.75	208.20	18.60	1.65	12.15		
19	1.05	5.30	51.05	58.60	153.00	1699.90	704.50	546.75	193.00	16.65	1.75	10.20		
20	0.55	14.55	49.70	72.00	149.80	1699.90	677.90	536.75	177.00	15.00	1.80	8.55		
21	0.35	19.80	46.40	80.50	159.40	1734.60	651.50	524.25	166.60	13.65	1.95	9.75		
22	0.30	24.60	44.00	80.50	173.80	1699.90	623.45	510.50	137.80	12.60	2.00	12.15		
23	0.25	37.70	42.50	78.50	192.20	1630.50	600.55	495.50	126.50	12.45	1.90	10.95		
24	0.25	50.00	40.40	69.50	209.00	1561.10	580.25	464.25	106.75	11.85	1.85	9.75		
25	0.25	59.00	37.10	60.20	225.00	1491.70	560.50	443.40	88.00	10.50	1.80	11.10		
26	0.35	61.80	38.30	56.65	238.70	1422.30	539.25	439.95	79.50	7.20	1.75	10.50		
27	0.35	64.20	39.50	57.00	247.25	1352.90	521.75	438.80	70.00	7.65	1.85	11.55		
28	0.35	63.00	40.40	63.00	256.00	1248.80	505.50	427.30	60.60	8.10	1.90	11.55		
29	0.45	62.60	41.30	80.00	266.00	1179.41	500.50	415.80	50.00	7.80		13.35		
30	0.50	62.60	42.20	98.30	280.00	1099.40	491.75	407.75	45.80	6.90		16.65		
31		67.50		108.70	290.00		485.50		41.60	7.05		18.80		
Total	61.70	604.65	1882.80	1554.05	5130.00	32031.61	23730.90	15377.90	6769.85	794.10	89.00	322.00	88348.56	CMSDAY
Mean	2.06	19.50	62.76	50.13	165.48	1067.72	765.51	512.60	218.38	25.62	3.18	10.39	242.05	CMS
Max	7.95	67.50	97.00	108.70	290.00	1734.60	1072.90	574.45	397.40	49.40	6.75	22.00	1734.60	CMS
Min	0.25	0.25	37.10	24.00	71.00	306.70	485.50	407.75	41.60	6.90	1.55	1.50	0.25	CMS
Runoff	5.33	52.24	162.67	134.27	443.23	2767.53	2050.35	1328.65	584.92	68.61	7.69	27.82	7633.32	MCM

Momentary Peak 1734.60 CMS. at 42.78 m. (MSL.) at 12.00 Hours , on Sep 19 , 2002

Runoff Yield 11.98 Liters/Second/Square KM. Momentary Peak Yield 85.870 Liters/Second/Square KM.

WATER YEAR : 2002

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** +41.843 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 mean 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 24 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

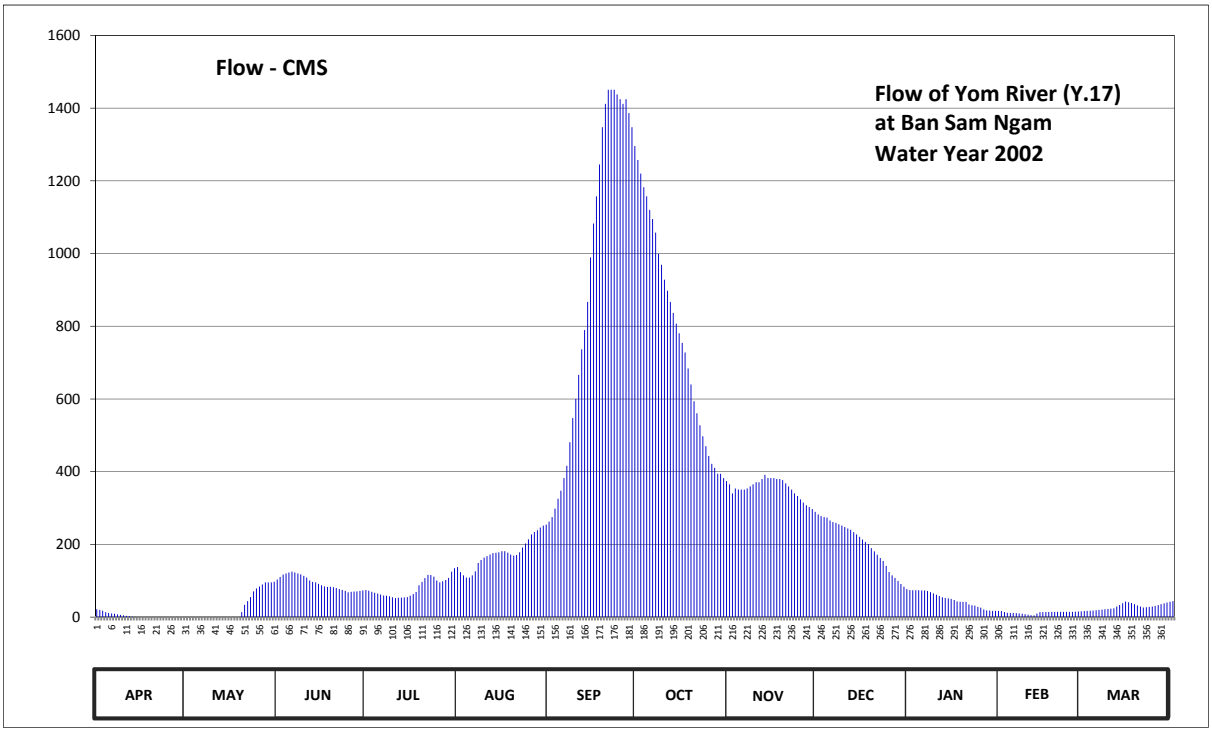
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	32.41	31.40	34.02	33.53	34.55	36.33	38.19	37.08	36.58	33.53	32.29	32.29	
2	32.37	31.41	34.13	33.49	34.33	36.49	38.16	36.99	36.52	33.52	32.23	32.30	
3	32.31	31.34	34.23	33.43	34.20	36.73	38.13	37.04	36.49	33.52	32.17	32.31	
4	32.22	31.19	34.28	33.38	34.10	36.91	38.11	37.03	36.47	33.52	32.16	32.33	
5	32.15	31.00	34.32	33.33	34.10	37.02	38.08	37.03	36.37	33.51	32.15	32.35	
6	32.12	30.80	34.35	33.28	34.20	37.14	38.06	37.03	36.31	33.51	32.14	32.37	
7	32.09	30.60	34.32	33.23	34.37	37.23	38.03	37.04	36.28	33.47	32.12	32.39	
8	32.04	30.50	34.28	33.22	34.72	37.35	37.98	37.06	36.23	33.41	32.09	32.41	
9	32.00	30.50	34.24	33.18	34.85	37.46	37.95	37.08	36.18	33.34	32.05	32.43	
10	31.96	30.50	34.18	33.13	34.95	37.54	37.91	37.10	36.13	33.27	32.01	32.45	
11	31.92	30.50	34.10	33.09	35.01	37.63	37.88	37.10	36.08	33.20	31.97	32.47	
12	31.88	30.50	33.98	33.10	35.08	37.71	37.85	37.13	36.03	33.13	31.96	32.58	
13	31.85	30.50	33.92	33.11	35.14	37.77	37.82	37.17	35.94	33.09	32.10	32.68	
14	31.82	31.01	33.90	33.12	35.15	37.85	37.79	37.14	35.86	33.07	32.22	32.78	
15	31.79	31.12	33.84	33.14	35.17	37.97	37.76	37.14	35.77	33.04	32.22	32.88	
16	31.76	31.20	33.77	33.22	35.22	38.05	37.73	37.14	35.67	32.98	32.23	32.84	
17	31.73	31.26	33.72	33.31	35.22	38.11	37.70	37.13	35.58	32.89	32.23	32.79	
18	31.68	31.46	33.69	33.42	35.16	38.18	37.65	37.13	35.50	32.87	32.24	32.72	
19	31.63	31.78	33.70	33.77	35.08	38.26	37.60	37.12	35.34	32.86	32.24	32.65	
20	31.58	32.22	33.68	33.92	35.03	38.31	37.53	37.09	35.21	32.86	32.24	32.58	
21	31.53	32.69	33.64	34.08	35.06	38.34	37.48	37.06	35.07	32.71	32.24	32.52	
22	31.48	32.91	33.58	34.22	35.17	38.34	37.43	37.03	34.93	32.66	32.24	32.54	
23	31.47	33.14	33.54	34.21	35.36	38.34	37.38	36.99	34.81	32.64	32.24	32.56	
24	31.44	33.46	33.48	34.14	35.52	38.33	37.33	36.95	34.60	32.56	32.24	32.58	
25	31.41	33.61	33.40	33.98	35.68	38.32	37.28	36.90	34.34	32.51	32.24	32.62	
26	31.42	33.71	33.43	33.90	35.86	38.31	37.24	36.85	34.20	32.40	32.25	32.67	
27	31.43	33.81	33.45	33.95	35.95	38.32	37.22	36.81	34.09	32.34	32.26	32.72	
28	31.44	33.90	33.46	34.00	36.01	38.29	37.18	36.77	33.96	32.33	32.27	32.77	
29	31.46	33.90	33.48	34.09	36.11	38.26	37.18	36.72	33.83	32.30		32.82	
30	31.47	33.90	33.51	34.35	36.18	38.22	37.14	36.65	33.70	32.30		32.87	
31		33.93		34.50	36.22		37.11		33.58	32.30		32.91	
Mean	31.80	31.93	33.85	33.61	35.12	37.77	37.67	37.02	35.41	32.96	32.18	32.59	
Max	32.41	33.93	34.35	34.50	36.22	38.34	38.19	37.17	36.58	33.53	32.29	32.91	38.34
Min	31.41	30.50	33.40	33.09	34.10	36.33	37.11	36.65	33.58	32.30	31.96	32.29	30.50

Annual Max Momentary Gage Height 38.34 m. (MSL.) , at 06.00 Hours , on Sep 21 , 2002

Zero Gage at Bottom Elevation 31.49 m. (MSL.) , River Bed 30.83 m. (MSL.)

Left Bank Elevation 41.85 m. (MSL.) ,

Right Bank Elevation 41.88 m. (MSL.) , Drainage Are 22,034 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	21.45	0.00	103.30	74.50	137.75	262.75	1257.50	365.20	282.40	74.50	16.60	16.60		
2	19.80	0.00	110.45	72.50	123.45	275.20	1220.00	340.20	277.60	74.00	14.20	17.00		
3	17.40	0.00	116.95	69.50	115.00	298.30	1182.50	353.60	275.20	74.00	11.95	17.40		
4	13.80	0.00	120.20	67.00	108.50	325.80	1157.50	350.70	273.60	74.00	11.60	18.20		
5	11.25	0.00	122.80	64.50	108.50	347.80	1120.00	350.70	265.75	73.50	11.25	19.00		
6	10.20	0.00	124.75	62.00	115.00	382.60	1095.00	350.70	261.25	73.50	10.90	19.80		
7	9.15	0.00	122.80	59.50	126.05	416.20	1057.50	353.60	259.00	71.50	10.20	20.60		
8	7.40	0.00	120.20	59.00	148.80	481.00	999.60	359.40	255.25	68.50	9.15	21.45		
9	6.00	0.00	117.60	57.00	157.25	547.60	969.00	365.20	251.50	65.00	7.75	22.35		
10	4.80	0.00	113.70	54.50	163.75	600.40	928.20	371.00	247.75	61.50	6.35	23.25		
11	3.60	0.00	108.50	52.50	167.65	666.40	897.60	371.00	244.00	58.00	5.10	24.15		
12	2.40	0.00	100.70	53.00	172.20	736.80	867.00	379.70	240.25	54.50	4.80	29.10		
13	1.50	0.00	96.80	53.50	176.10	789.60	836.40	391.30	233.50	52.50	9.50	33.60		
14	0.60	0.00	95.50	54.00	176.75	867.00	807.20	382.60	227.50	51.50	13.80	38.10		
15	0.00	0.00	91.60	55.00	178.05	989.40	780.80	382.60	220.75	50.00	13.80	42.60		
16	0.00	0.00	87.35	59.00	181.40	1082.50	754.40	382.60	213.25	47.10	14.20	40.80		
17	0.00	0.00	84.60	63.50	181.40	1157.50	728.00	379.70	206.60	43.05	14.20	38.55		
18	0.00	0.00	82.95	69.00	177.40	1245.00	684.00	379.70	201.00	42.15	14.60	35.40		
19	0.00	0.00	83.50	87.35	172.20	1347.40	640.00	376.80	189.80	41.70	14.60	32.25		
20	0.00	13.80	82.40	96.80	168.95	1411.90	593.80	368.10	180.70	41.70	14.60	29.10		
21	0.00	34.05	80.20	107.20	170.90	1450.60	560.80	359.40	171.55	34.95	14.60	26.40		
22	0.00	43.95	77.00	116.30	178.05	1450.60	527.80	350.70	162.45	32.70	14.60	27.30		
23	0.00	55.00	75.00	115.65	191.20	1450.60	497.20	340.20	154.65	31.80	14.60	28.20		
24	0.00	71.00	72.00	111.10	202.40	1437.70	470.20	333.00	141.00	28.20	14.60	29.10		
25	0.00	78.55	68.00	100.70	214.00	1424.80	443.20	324.00	124.10	25.95	14.60	30.90		
26	0.00	84.05	69.50	95.50	227.50	1411.90	421.60	315.00	115.00	21.00	15.00	33.15		
27	0.00	89.65	70.50	98.75	234.25	1424.80	410.80	307.80	107.85	18.60	15.40	35.40		
28	0.00	95.50	71.00	102.00	238.75	1386.10	394.20	302.70	99.40	18.20	15.80	37.65		
29	0.00	95.50	72.00	107.85	246.25	1347.40	394.20	297.20	90.95	17.00		39.90		
30	0.00	95.50	73.50	124.75	251.50	1295.80	382.60	289.50	83.50	17.00		42.15		
31		97.45		134.50	254.50		373.90		77.00	17.00		43.95		
Total	129.35	854.00	2815.35	2497.95	5465.45	28311.45	23452.50	10573.90	6134.10	1454.60	348.35	913.40	82950.40	CMSDAY
Mean	4.31	27.55	93.84	80.58	176.30	943.71	756.53	352.46	197.87	46.92	12.44	29.46	227.26	CMS
Max	21.45	97.45	124.75	134.50	254.50	1450.60	1257.50	391.30	282.40	74.50	16.60	43.95	1450.60	CMS
Min	0.00	0.00	68.00	52.50	108.50	262.75	373.90	289.50	77.00	17.00	4.80	16.60	0.00	CMS
Runoff	11.18	73.79	243.25	215.82	472.21	2446.11	2026.30	913.58	529.99	125.68	30.10	78.92	7166.91	MCM

Momentary Peak 1450.60 CMS. at 38.34 m. (MSL.) at 06.00 Hours , on Sep 21 , 2002

Runoff Yield 10.31 Liters/Second/Square KM. Momentary Peak Yield 65.830 Liters/Second/Square KM.

WATER YEAR : 2002

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 mean 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.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Mae yom weir situated about 15 kilometers above site. Stage-discharge relation defined by 125 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

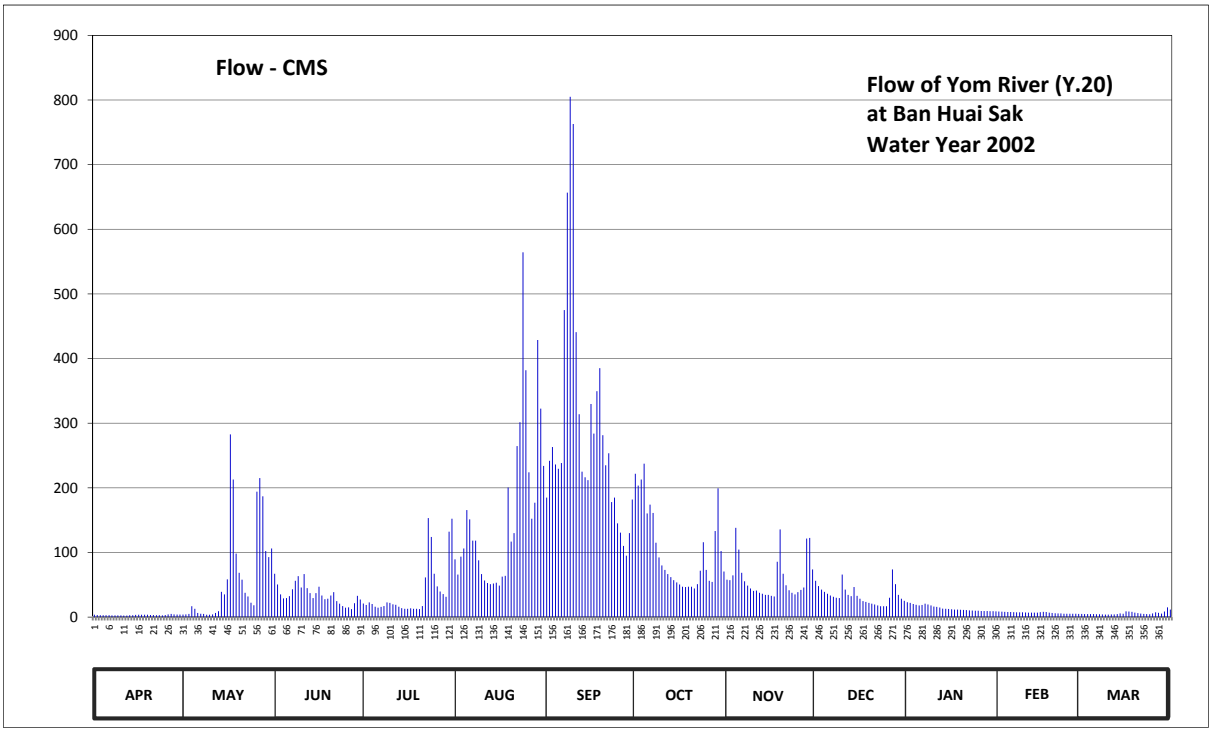
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	182.00	182.02	183.49	182.62	183.81	184.93	185.28	183.34	183.31	182.67	182.23	182.06	
2	181.98	182.03	183.21	182.56	183.47	185.46	185.11	183.33	183.17	182.64	182.22	182.05	
3	181.97	182.06	182.92	182.66	183.87	185.64	185.20	183.45	183.07	182.60	182.21	182.05	
4	181.96	182.51	182.80	182.60	184.03	185.41	185.42	184.42	183.00	182.57	182.20	182.05	
5	181.96	182.39	182.81	182.49	184.73	185.35	184.67	184.01	182.94	182.54	182.20	182.05	
6	181.96	182.13	182.87	182.44	184.57	185.43	184.82	183.51	182.89	182.56	182.19	182.04	
7	181.95	182.08	183.08	182.48	184.18	186.99	184.68	183.30	182.85	182.61	182.18	182.04	
8	181.95	182.06	183.31	182.52	184.18	187.81	184.14	183.18	182.82	182.58	182.18	182.03	
9	181.95	182.01	183.43	182.66	183.79	188.34	183.85	183.10	182.81	182.54	182.18	182.02	
10	181.95	182.00	183.13	182.64	183.48	188.20	183.68	183.03	183.47	182.50	182.17	182.02	
11	181.94	182.03	183.48	182.59	183.32	186.81	183.58	183.04	183.07	182.48	182.16	182.03	
12	181.94	182.13	183.11	182.57	183.25	186.02	183.48	182.97	182.91	182.45	182.15	182.03	
13	181.96	182.25	182.96	182.49	183.22	185.31	183.41	182.94	182.87	182.40	182.16	182.05	
14	181.97	183.00	182.81	182.42	183.24	185.23	183.33	182.91	183.14	182.39	182.16	182.10	
15	181.99	182.92	182.96	182.39	183.26	185.19	183.27	182.91	182.88	182.38	182.19	182.08	
16	182.00	183.35	183.15	182.39	183.18	186.13	183.21	182.88	182.79	182.36	182.21	182.24	
17	182.01	185.79	182.89	182.41	183.42	185.80	183.15	182.86	182.71	182.35	182.20	182.23	
18	182.01	185.20	182.77	182.39	183.44	186.26	183.14	183.76	182.68	182.35	182.16	182.21	
19	182.00	183.93	182.79	182.39	185.08	186.48	183.15	184.39	182.64	182.34	182.13	182.15	
20	181.98	183.51	182.89	182.37	184.16	185.78	183.15	183.49	182.61	182.33	182.11	182.12	
21	181.98	183.34	182.99	182.52	184.32	185.40	183.10	183.19	182.58	182.32	182.10	182.09	
22	181.96	182.97	182.71	183.40	185.65	185.56	183.22	183.05	182.54	182.31	182.10	182.06	
23	181.97	182.86	182.61	184.59	185.93	184.86	183.56	182.97	182.51	182.30	182.08	182.05	
24	181.95	182.65	182.52	184.25	187.42	184.93	184.15	182.92	182.51	182.29	182.08	182.04	
25	181.98	182.55	182.44	183.49	186.46	184.50	183.58	182.99	182.51	182.29	182.07	182.10	
26	182.03	185.02	182.46	183.16	185.30	184.33	183.31	183.06	182.82	182.27	182.08	182.18	
27	182.06	185.22	182.37	183.01	184.58	184.08	183.28	183.13	183.59	182.27	182.07	182.14	
28	182.03	184.95	182.63	182.93	184.85	183.89	184.36	184.22	183.22	182.26	182.06	182.09	
29	182.02	183.98	182.88	182.85	186.74	184.32	185.07	184.23	182.91	182.25		182.23	
30	182.02	183.86	182.76	184.35	186.08	184.90	183.98	183.59	182.79	182.25		182.46	
31		184.03		184.58	185.39		183.54		182.72	182.24		182.35	
Mean	181.98	183.12	182.91	182.88	184.46	185.64	183.90	183.34	182.88	182.41	182.15	182.11	
Max	182.06	185.79	183.49	184.59	187.42	188.34	185.42	184.42	183.59	182.67	182.23	182.46	188.34
Min	181.94	182.00	182.37	182.37	183.18	183.89	183.10	182.86	182.51	182.24	182.06	182.02	181.94

Annual Max Momentary Gage Height 189.01 m. (MSL.) , at 17.00 Hours , on Sep 9 , 2002

Zero Gage at Bottom Elevation 181.00 m. (MSL.) , River Bed 183.08 m. (MSL.)

Left Bank Elevation 193.51 m. (MSL.) ,

Right Bank Elevation 195.00 m. (MSL.) , Drainage Are 5,394 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.60	4.02	67.15	21.10	89.24	185.00	221.80	57.82	56.08	23.10	8.59	4.86		
2	3.24	4.23	50.37	18.74	65.85	241.90	203.55	57.24	48.12	21.90	8.36	4.65		
3	3.06	4.86	35.02	22.70	93.68	263.20	213.00	64.55	42.67	20.30	8.13	4.65		
4	2.88	16.79	29.00	20.30	106.13	236.15	237.30	138.14	39.10	19.13	7.90	4.65		
5	2.88	12.90	29.50	16.08	165.70	229.50	160.30	104.51	36.04	17.96	7.90	4.65		
6	2.88	6.36	32.50	14.48	151.33	238.45	174.00	68.46	33.50	18.74	7.68	4.44		
7	2.70	5.28	43.18	15.76	118.36	475.10	161.20	55.50	31.50	20.70	7.46	4.44		
8	2.70	4.86	56.08	17.18	118.36	656.65	115.08	48.68	30.00	19.52	7.46	4.23		
9	2.70	3.81	63.25	22.70	87.77	805.00	92.20	44.20	29.50	17.96	7.46	4.02		
10	2.70	3.60	45.88	21.90	66.50	763.00	79.84	40.63	65.85	16.40	7.24	4.02		
11	2.52	4.23	66.50	19.91	56.66	440.90	73.08	41.14	42.67	15.76	7.02	4.23		
12	2.52	6.36	44.76	19.13	52.65	313.90	66.50	37.57	34.51	14.80	6.80	4.23		
13	2.88	9.05	37.06	16.08	50.94	225.10	61.95	36.04	32.50	13.20	7.02	4.65		
14	3.06	39.10	29.50	13.84	52.08	216.30	57.24	34.51	46.44	12.90	7.02	5.70		
15	3.42	35.02	37.06	12.90	53.22	211.95	53.79	34.51	33.00	12.60	7.68	5.28		
16	3.60	58.40	47.00	12.90	48.68	329.85	50.37	33.00	28.53	12.00	8.13	8.82		
17	3.81	282.70	33.50	13.52	62.60	284.00	47.00	32.00	24.77	11.70	7.90	8.59		
18	3.81	213.00	27.59	12.90	63.90	349.60	46.44	85.58	23.50	11.70	7.02	8.13		
19	3.60	98.24	28.53	12.90	200.40	385.20	47.00	135.58	21.90	11.40	6.36	6.80		
20	3.24	68.46	33.50	12.30	116.72	281.40	47.00	67.15	20.70	11.10	5.92	6.14		
21	3.24	57.82	38.59	17.18	129.84	235.00	44.20	49.24	19.52	10.80	5.70	5.49		
22	2.88	37.57	24.77	61.30	264.50	253.40	50.94	41.65	17.96	10.50	5.70	4.86		
23	3.06	32.00	20.70	153.11	301.55	178.00	71.76	37.57	16.79	10.20	5.28	4.65		
24	2.70	22.30	17.18	124.10	564.50	185.00	115.90	35.02	16.79	9.97	5.28	4.44		
25	3.24	18.35	14.48	67.15	381.90	145.10	73.08	38.59	16.79	9.97	5.07	5.70		
26	4.23	194.10	15.12	47.56	224.00	130.66	56.08	42.16	30.00	9.51	5.28	7.46		
27	4.86	215.20	12.30	39.61	152.22	110.18	54.36	45.88	73.74	9.51	5.07	6.58		
28	4.23	187.00	21.50	35.53	177.00	95.16	133.12	121.64	50.94	9.28	4.86	5.49		
29	4.02	102.14	33.00	31.50	428.80	129.84	199.35	122.46	34.51	9.05		8.59		
30	4.02	92.94	27.12	132.30	322.60	182.00	102.14	73.74	28.53	9.05		15.12		
31		106.13		152.22	233.90		70.44		25.24	8.82		11.70		
Total	98.28	1946.82	1061.69	1198.88	5001.58	8776.49	3180.01	1824.76	1051.69	429.53	191.29	187.26	24948.28	CMSDAY
Mean	3.28	62.80	35.39	38.67	161.34	292.55	102.58	60.83	33.93	13.86	6.83	6.04	68.35	CMS
Max	4.86	282.70	67.15	153.11	564.50	805.00	237.30	138.14	73.74	23.10	8.59	15.12	805.00	CMS
Min	2.52	3.60	12.30	12.30	48.68	95.16	44.20	32.00	16.79	8.82	4.86	4.02	2.52	CMS
Runoff	8.49	168.21	91.73	103.58	432.14	758.29	274.75	157.66	90.87	37.11	16.53	16.18	2155.53	MCM

Momentary Peak 1024.60 CMS. at 189.01 m. (MSL.) at 17.00 Hours , on Sep 9 , 2002

Runoff Yield 12.67 Liters/Second/Square KM. Momentary Peak Yield 189.950 Liters/Second/Square KM.

WATER YEAR : 2002

YOM RIVER BASIN

Yom River at Ban Na Pla Kang , Sukhothai (Y.21)

Lat 17 - 47 - 31 N Long 99 - 47 - 27 E

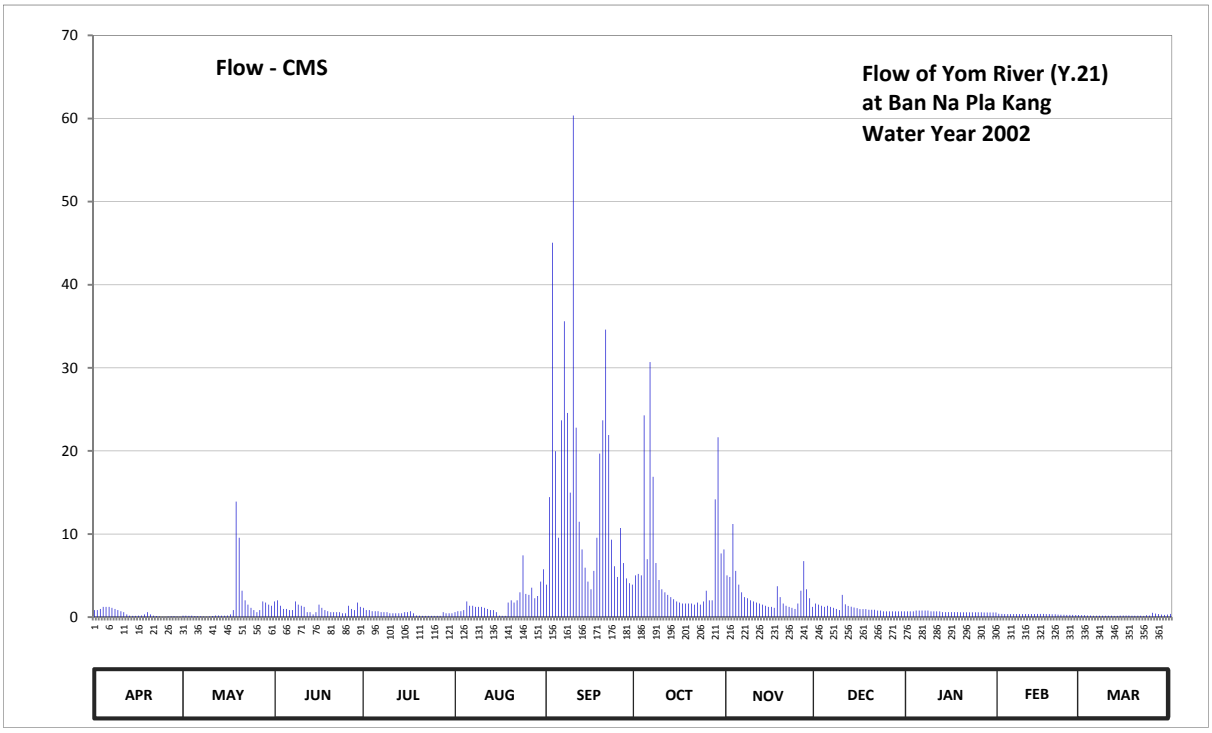
Location : on right bank at Ban Na Pla Kang.

	Ban	Na Pla Kang	**Amphoe**	Si Satchanalai	**Changwat**	Sukhothai
Drainge Area	310	sq.km.				
Type of Gage	Staff gage					
Zero Gage at Bottom	+0.000	m. (A.D.)				
Bench Mark	B.M.-H.D.					
Location BM	On left bank near the gage site.				**Elevation**	+2.000 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	1972 to date.					
Rating Operation						
Period of Rating	1982 - 1986, 1989 -1996, 2001 to date.					
Rated by Flot	-					
Rated by Current Meter	1982 - 1986, 1989 -1996, 2001 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 2002.					

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.85	0.79	0.93	0.87	0.83	1.06	1.12	1.12	0.91	0.81	0.71	0.63	
2	0.85	0.79	0.94	0.85	0.84	1.52	1.13	1.11	0.90	0.81	0.70	0.63	
3	0.86	0.78	0.89	0.85	0.84	2.50	1.12	1.40	0.89	0.81	0.69	0.62	
4	0.88	0.79	0.86	0.84	0.85	1.72	1.87	1.15	0.88	0.82	0.69	0.62	
5	0.88	0.77	0.86	0.84	0.93	1.33	1.22	1.06	0.89	0.82	0.69	0.61	
6	0.88	0.76	0.85	0.84	0.89	1.85	2.08	1.01	0.88	0.82	0.69	0.61	
7	0.87	0.75	0.85	0.83	0.89	2.23	1.61	0.97	0.87	0.82	0.69	0.61	
8	0.86	0.74	0.93	0.83	0.88	1.88	1.20	0.96	0.86	0.82	0.69	0.61	
9	0.85	0.73	0.90	0.83	0.88	1.54	1.09	0.94	0.85	0.81	0.69	0.61	
10	0.84	0.74	0.89	0.82	0.88	2.88	1.03	0.93	0.99	0.81	0.69	0.61	
11	0.83	0.77	0.88	0.82	0.87	1.82	1.01	0.92	0.90	0.81	0.69	0.61	
12	0.81	0.80	0.83	0.82	0.86	1.41	0.99	0.91	0.88	0.81	0.69	0.60	
13	0.79	0.80	0.83	0.82	0.85	1.27	0.97	0.90	0.87	0.80	0.69	0.60	
14	0.78	0.79	0.81	0.82	0.85	1.17	0.95	0.89	0.86	0.80	0.70	0.62	
15	0.78	0.79	0.83	0.83	0.83	1.08	0.93	0.88	0.85	0.80	0.70	0.62	
16	0.79	0.80	0.90	0.83	0.79	1.03	0.92	0.88	0.84	0.80	0.70	0.62	
17	0.80	0.81	0.87	0.84	0.78	1.15	0.91	0.87	0.84	0.80	0.69	0.62	
18	0.81	0.85	0.85	0.82	0.78	1.33	0.91	1.05	0.84	0.80	0.69	0.61	
19	0.83	1.50	0.84	0.80	0.92	1.71	0.91	0.97	0.83	0.79	0.68	0.61	
20	0.81	1.33	0.83	0.79	0.94	1.85	0.91	0.91	0.83	0.79	0.68	0.61	
21	0.79	1.02	0.83	0.78	0.92	2.20	0.90	0.89	0.83	0.79	0.67	0.61	
22	0.77	0.94	0.83	0.78	0.94	1.79	0.92	0.88	0.82	0.79	0.66	0.60	
23	0.74	0.90	0.83	0.78	1.01	1.32	0.90	0.87	0.82	0.79	0.66	0.63	
24	0.72	0.87	0.82	0.78	1.24	1.18	0.93	0.86	0.81	0.79	0.65	0.62	
25	0.72	0.85	0.82	0.78	1.00	1.11	1.02	0.91	0.81	0.79	0.65	0.76	
26	0.74	0.83	0.89	0.78	0.99	1.38	0.94	1.02	0.81	0.79	0.65	0.72	
27	0.75	0.85	0.86	0.78	1.04	1.20	0.94	1.21	0.81	0.78	0.64	0.69	
28	0.76	0.93	0.85	0.83	0.96	1.10	1.51	1.03	0.81	0.78	0.64	0.67	
29	0.74	0.92	0.92	0.82	0.98	1.07	1.78	0.96	0.81	0.78		0.65	
30	0.73	0.90	0.88	0.82	1.08	1.06	1.25	0.88	0.81	0.78		0.67	
31		0.89		0.82	1.16		1.27		0.81	0.78		0.70	
Mean	0.80	0.86	0.86	0.82	0.92	1.52	1.14	0.98	0.85	0.80	0.68	0.63	
Max	0.88	1.50	0.94	0.87	1.24	2.88	2.08	1.40	0.99	0.82	0.71	0.76	2.88
Min	0.72	0.73	0.81	0.78	0.78	1.03	0.90	0.86	0.81	0.78	0.64	0.60	0.60

Annual Max Momentary Gage Height	3.47	m. (A.D.) ,	at 06.00 Hours , on Sep 10 , 2002			
Zero Gage at Bottom Elevation	0.00	m. (A.D.) ,	River Bed	1.02	m. (A.D.)	
Left Bank Elevation	7.32	m. (A.D.) ,				
Right Bank Elevation	7.33	m. (A.D.) ,	Drainage Are	310	Square Kilometers	



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.85	0.18	1.89	1.11	0.59	3.91	5.02	5.02	1.63	0.69	0.40	0.23		
2	0.85	0.18	2.02	0.85	0.72	14.44	5.20	4.83	1.50	0.69	0.38	0.23		
3	0.98	0.16	1.37	0.85	0.72	45.05	5.02	11.20	1.37	0.69	0.36	0.20		
4	1.24	0.18	0.98	0.72	0.85	19.96	24.27	5.57	1.24	0.79	0.36	0.20		
5	1.24	0.14	0.98	0.72	1.89	9.55	6.97	3.91	1.37	0.79	0.36	0.18		
6	1.24	0.12	0.85	0.72	1.37	23.68	30.70	2.98	1.24	0.79	0.36	0.18		
7	1.11	0.10	0.85	0.59	1.37	35.60	16.88	2.41	1.11	0.79	0.36	0.18		
8	0.98	0.08	1.89	0.59	1.24	24.56	6.50	2.28	0.98	0.79	0.36	0.18		
9	0.85	0.06	1.50	0.59	1.24	14.98	4.46	2.02	0.85	0.69	0.36	0.18		
10	0.72	0.08	1.37	0.46	1.24	60.36	3.35	1.89	2.67	0.69	0.36	0.18		
11	0.59	0.14	1.24	0.46	1.11	22.79	2.98	1.76	1.53	0.69	0.36	0.18		
12	0.33	0.20	0.59	0.46	0.98	11.47	2.67	1.63	1.35	0.69	0.36	0.16		
13	0.18	0.20	0.59	0.46	0.85	8.14	2.41	1.50	1.25	0.60	0.36	0.16		
14	0.16	0.18	0.33	0.46	0.85	5.94	2.15	1.37	1.16	0.60	0.38	0.20		
15	0.16	0.18	0.59	0.59	0.59	4.28	1.89	1.24	1.07	0.60	0.38	0.20		
16	0.18	0.20	1.50	0.59	0.18	3.35	1.76	1.24	0.97	0.60	0.38	0.20		
17	0.20	0.33	1.11	0.72	0.16	5.57	1.63	1.11	0.97	0.60	0.36	0.20		
18	0.33	0.85	0.85	0.46	0.16	9.55	1.63	3.72	0.97	0.60	0.36	0.18		
19	0.59	13.90	0.72	0.20	1.76	19.68	1.63	2.41	0.88	0.58	0.34	0.18		
20	0.33	9.55	0.59	0.18	2.02	23.68	1.63	1.63	0.88	0.58	0.34	0.18		
21	0.18	3.17	0.59	0.16	1.76	34.60	1.50	1.37	0.88	0.58	0.31	0.18		
22	0.14	2.02	0.59	0.16	2.02	21.92	1.76	1.24	0.79	0.58	0.29	0.16		
23	0.08	1.50	0.59	0.16	2.98	9.32	1.50	1.11	0.79	0.58	0.29	0.23		
24	0.04	1.11	0.46	0.16	7.44	6.13	1.89	0.98	0.69	0.58	0.27	0.20		
25	0.04	0.85	0.46	0.16	2.80	4.83	3.17	1.63	0.69	0.58	0.27	0.51		
26	0.08	0.59	1.37	0.16	2.67	10.73	2.02	3.17	0.69	0.58	0.27	0.42		
27	0.10	0.85	0.98	0.16	3.54	6.50	2.02	6.73	0.69	0.56	0.25	0.36		
28	0.12	1.89	0.85	0.59	2.28	4.65	14.17	3.35	0.69	0.56	0.25	0.31		
29	0.08	1.76	1.76	0.46	2.54	4.09	21.64	2.28	0.69	0.56		0.27		
30	0.06	1.50	1.24	0.46	4.28	3.91	7.67	1.24	0.69	0.56		0.31		
31		1.37		0.46	5.76		8.14		0.69	0.56		0.38		
Total	14.03	43.62	30.70	14.87	57.96	473.22	194.23	82.82	32.97	19.82	9.48	7.11	980.83	CMSDAY
Mean	0.47	1.41	1.02	0.48	1.87	15.77	6.27	2.76	1.06	0.64	0.34	0.23	2.69	CMS
Max	1.24	13.90	2.02	1.11	7.44	60.36	30.70	11.20	2.67	0.79	0.40	0.51	60.36	CMS
Min	0.04	0.06	0.33	0.16	0.16	3.35	1.50	0.98	0.69	0.56	0.25	0.16	0.04	CMS
Runoff	1.21	3.77	2.65	1.28	5.01	40.89	16.78	7.16	2.85	1.71	0.82	0.61	84.74	MCM

Momentary Peak 86.69 CMS. at 3.47 m. (A.D.) at 06.00 Hours , on Sep 10 , 2002

Runoff Yield 8.67 Liters/Second/Square KM. Momentary Peak Yield 279.65 Liters/Second/Square KM.

WATER YEAR : 2002

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	+0.000 m. (A.D.)
Bench Mark	B.M.-H.D.
Location BM	On right bank at the abutment of the bridge. **Elevation** +7.035 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 mean of 5 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.
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 2002.

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

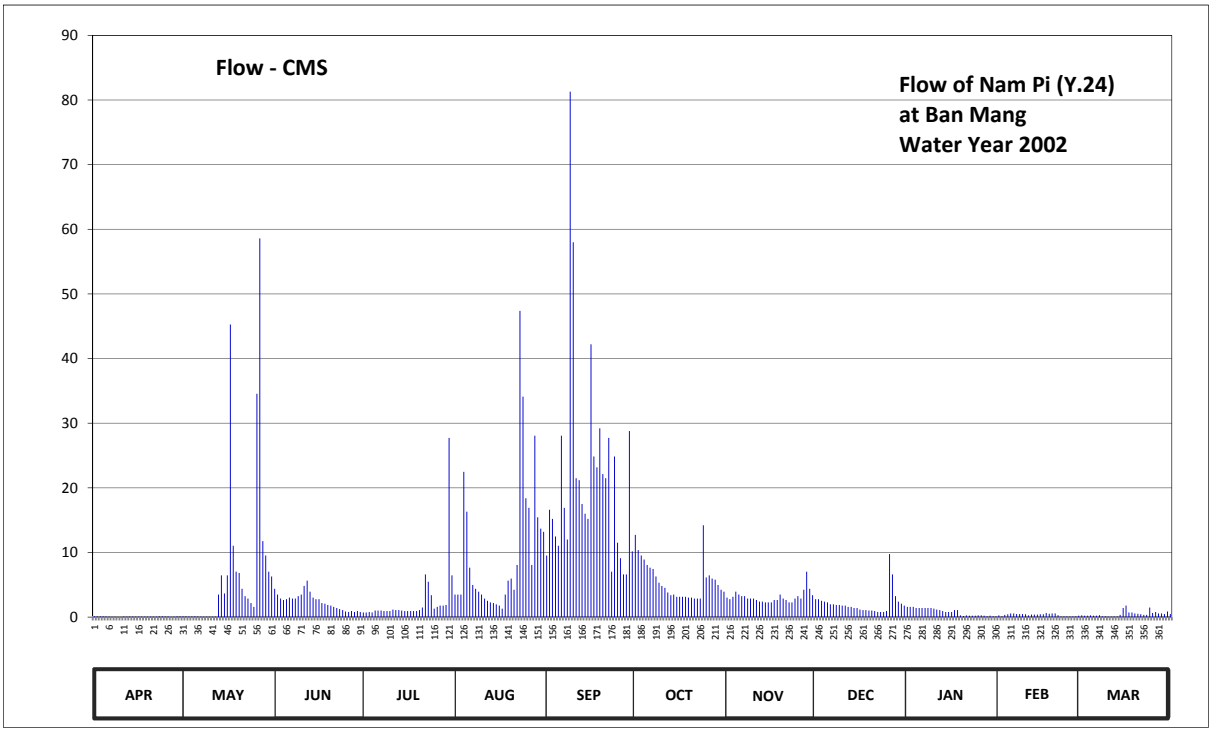
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	1.39	1.39	1.86	1.52	1.80	2.14	2.28	1.76	1.74	1.63	1.43	1.43	
2	1.39	1.39	1.80	1.52	1.80	2.43	2.18	1.74	1.74	1.63	1.40	1.42	
3	1.40	1.38	1.75	1.53	1.80	2.38	2.14	1.77	1.72	1.63	1.45	1.42	
4	1.40	1.38	1.73	1.52	2.62	2.27	2.11	1.83	1.71	1.61	1.47	1.43	
5	1.38	1.40	1.74	1.56	2.42	2.21	2.07	1.80	1.70	1.61	1.50	1.42	
6	1.35	1.37	1.76	1.56	2.05	2.78	2.05	1.78	1.67	1.61	1.50	1.42	
7	1.31	1.34	1.75	1.56	1.90	2.44	2.04	1.78	1.67	1.61	1.48	1.44	
8	1.30	1.34	1.75	1.55	1.86	2.25	1.98	1.75	1.66	1.61	1.48	1.40	
9	1.25	1.34	1.78	1.55	1.83	3.69	1.92	1.75	1.66	1.61	1.48	1.40	
10	1.25	1.34	1.80	1.55	1.80	3.39	1.89	1.75	1.65	1.60	1.47	1.34	
11	1.36	1.35	1.89	1.58	1.75	2.59	1.87	1.73	1.65	1.58	1.43	1.35	
12	1.35	1.35	1.94	1.57	1.72	2.58	1.82	1.71	1.63	1.57	1.46	1.38	
13	1.37	1.80	1.83	1.57	1.70	2.46	1.79	1.71	1.63	1.55	1.46	1.36	
14	1.37	1.99	1.76	1.56	1.69	2.41	1.80	1.70	1.61	1.53	1.46	1.45	
15	1.35	1.81	1.74	1.55	1.67	2.38	1.77	1.70	1.61	1.53	1.47	1.61	
16	1.35	1.99	1.74	1.55	1.65	3.11	1.77	1.70	1.58	1.53	1.47	1.65	
17	1.34	3.17	1.69	1.55	1.60	2.69	1.77	1.73	1.57	1.57	1.51	1.52	
18	1.35	2.21	1.68	1.55	1.80	2.64	1.77	1.73	1.57	1.57	1.49	1.52	
19	1.35	2.02	1.66	1.55	1.94	2.81	1.76	1.80	1.56	1.43	1.50	1.50	
20	1.34	2.01	1.65	1.57	1.96	2.61	1.76	1.75	1.56	1.41	1.50	1.49	
21	1.34	1.86	1.63	1.62	1.85	2.59	1.75	1.73	1.55	1.43	1.44	1.47	
22	1.34	1.78	1.61	2.00	2.07	2.77	1.75	1.70	1.53	1.42	1.38	1.45	
23	1.39	1.75	1.59	1.93	3.21	2.02	1.75	1.70	1.53	1.42	1.37	1.45	
24	1.39	1.69	1.57	1.79	2.93	2.69	2.34	1.75	1.53	1.42	1.36	1.62	
25	1.37	1.63	1.54	1.60	2.49	2.23	1.97	1.78	1.55	1.43	1.36	1.51	
26	1.37	2.94	1.53	1.63	2.44	2.12	1.99	1.75	2.15	1.43	1.38	1.53	
27	1.32	3.40	1.55	1.65	2.07	2.00	1.96	1.85	2.00	1.42	1.40	1.50	
28	1.35	2.24	1.53	1.65	2.78	2.00	1.95	2.02	1.78	1.40	1.42	1.50	
29	1.39	2.14	1.55	1.66	2.39	2.80	1.90	1.86	1.71	1.42		1.48	
30	1.40	2.02	1.53	2.77	2.32	2.17	1.85	1.79	1.68	1.40		1.54	
31		1.98		1.99	2.30		1.83		1.65	1.40		1.48	
Mean	1.35	1.83	1.70	1.66	2.07	2.52	1.92	1.76	1.66	1.52	1.45	1.47	
Max	1.40	3.40	1.94	2.77	3.21	3.69	2.34	2.02	2.15	1.63	1.51	1.65	3.69
Min	1.25	1.34	1.53	1.52	1.60	2.00	1.75	1.70	1.53	1.40	1.36	1.34	1.25

Annual Max Momentary Gage Height 3.99 m. (A.D.) , at 13.00 Hours , on Sep. 9 , 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed -1.82 m. (A.D.)

Left Bank Elevation 8.47 m. (A.D.) ,

Right Bank Elevation 8.93 m. (A.D.) , Drainage Are 590 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.11	0.11	4.39	0.72	3.50	9.54	12.72	3.01	2.76	1.59	0.26	0.26		
2	0.11	0.11	3.50	0.72	3.50	16.60	10.38	2.76	2.76	1.59	0.12	0.21		
3	0.12	0.10	2.88	0.79	3.50	15.20	9.54	3.13	2.52	1.59	0.35	0.21		
4	0.12	0.10	2.64	0.72	22.48	12.48	8.91	3.94	2.39	1.40	0.44	0.26		
5	0.10	0.12	2.76	1.01	16.30	11.04	8.08	3.50	2.27	1.40	0.57	0.21		
6	0.08	0.10	3.01	1.01	7.66	28.08	7.66	3.25	1.98	1.40	0.57	0.21		
7	0.05	0.07	2.88	1.01	4.98	16.90	7.45	3.25	1.98	1.40	0.48	0.30		
8	0.04	0.07	2.88	0.93	4.39	12.00	6.29	2.88	1.88	1.40	0.48	0.12		
9	0.02	0.07	3.25	0.93	3.94	81.30	5.31	2.88	1.88	1.40	0.48	0.12		
10	0.02	0.07	3.50	0.93	3.50	57.99	4.83	2.88	1.78	1.30	0.44	0.07		
11	0.09	0.08	4.83	1.15	2.88	21.49	4.54	2.64	1.78	1.15	0.26	0.08		
12	0.08	0.08	5.64	1.08	2.52	21.18	3.80	2.39	1.59	1.08	0.39	0.10		
13	0.10	3.50	3.94	1.08	2.27	17.50	3.38	2.39	1.59	0.93	0.39	0.09		
14	0.10	6.46	3.01	1.01	2.17	16.00	3.50	2.27	1.40	0.79	0.39	0.35		
15	0.08	3.65	2.76	0.93	1.98	15.20	3.13	2.27	1.40	0.79	0.44	1.40		
16	0.08	6.46	2.76	0.93	1.78	42.21	3.13	2.27	1.15	0.79	0.44	1.78		
17	0.07	45.27	2.17	0.93	1.30	24.86	3.13	2.64	1.08	1.08	0.64	0.72		
18	0.08	11.04	2.08	0.93	3.50	23.16	3.13	2.64	1.08	1.08	0.53	0.72		
19	0.08	7.04	1.88	0.93	5.64	29.20	3.01	3.50	1.01	0.26	0.57	0.57		
20	0.07	6.83	1.78	1.08	5.96	22.14	3.01	2.88	1.01	0.17	0.57	0.53		
21	0.07	4.39	1.59	1.49	4.24	21.49	2.88	2.64	0.93	0.26	0.30	0.44		
22	0.07	3.25	1.40	6.62	8.08	27.72	2.88	2.27	0.79	0.21	0.10	0.35		
23	0.11	2.88	1.23	5.47	47.37	7.04	2.88	2.27	0.79	0.21	0.10	0.35		
24	0.11	2.17	1.08	3.38	34.12	24.86	14.20	2.88	0.79	0.21	0.09	1.49		
25	0.10	1.59	0.86	1.30	18.40	11.52	6.13	3.25	0.93	0.26	0.09	0.64		
26	0.10	34.56	0.79	1.59	16.90	9.12	6.46	2.88	9.75	0.26	0.10	0.79		
27	0.06	58.60	0.93	1.78	8.08	6.62	5.96	4.24	6.62	0.21	0.12	0.57		
28	0.08	11.76	0.79	1.78	28.08	6.62	5.80	7.04	3.25	0.12	0.21	0.57		
29	0.11	9.54	0.93	1.88	15.45	28.80	4.98	4.39	2.39	0.21		0.48		
30	0.12	7.04	0.79	27.72	13.70	10.17	4.24	3.38	2.08	0.12		0.86		
31		6.29		6.46	13.20		3.94		1.78	0.12		0.48		
Total	2.53	233.40	72.93	78.29	311.37	648.03	175.28	92.61	65.39	24.78	9.92	15.33	1729.86	CMSDAY
Mean	0.08	7.53	2.43	2.53	10.04	21.60	5.65	3.09	2.11	0.80	0.35	0.49	4.74	CMS
Max	0.12	58.60	5.64	27.72	47.37	81.30	14.20	7.04	9.75	1.59	0.64	1.78	81.30	CMS
Min	0.02	0.07	0.79	0.72	1.30	6.62	2.88	2.27	0.79	0.12	0.09	0.07	0.02	CMS
Runoff	0.22	20.17	6.30	6.76	26.90	55.99	15.14	8.00	5.65	2.14	0.86	1.32	149.46	MCM

Momentary Peak 112.08 CMS. at 3.99 m. (A.D.) at 13 .00 Hours , on Sep 9 , 2002

Runoff Yield 8.03 Liters/Second/Square KM. Momentary Peak Yield 189.970 Liters/Second/Square KM.

WATER YEAR : 2002

YOM RIVER BASIN

Nam Mae Suat at Ban Pa Kha Noi, Nan (Y.25)

Lat 18 - 50 - 28 N Long 100 - 25 - 55 E

Location : on left bank at the bridge of Phayao - Nan Highway and about 1.5 kilometers from Amphoe Ban Luang.

Ban Pa Kha Noi **Amphoe** Ban Luang **Changwat** Nan

Drainge Area	203 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 about 6.00 meters from the abutment of the bridge. **Elevation** +4.637 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 mean of 5 readings
Period of Available Gage Records	1980 to date.
Rating Operation	
Period of Rating	1980 - 1988, 2000 to date.
Rated by Flot	-
Rated by Current Meter	1980 - 1988, 2000 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 24 discharge measurements made in 2002.

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

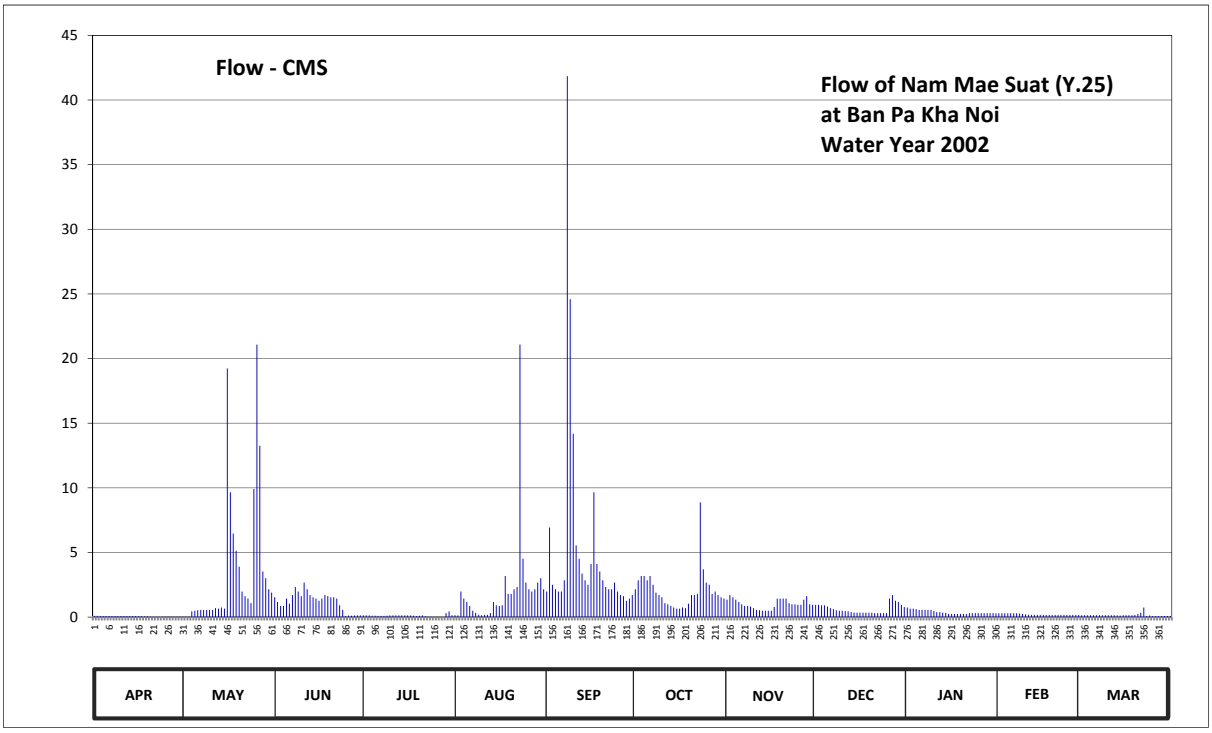
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.56	0.38	0.65	0.61	0.30	0.70	0.71	0.63	0.57	0.52	0.37	0.30	
2	0.56	0.38	0.61	0.61	0.29	0.95	0.75	0.67	0.57	0.50	0.37	0.30	
3	0.56	0.38	0.55	0.61	0.70	0.73	0.77	0.65	0.56	0.50	0.37	0.30	
4	0.55	0.43	0.55	0.58	0.64	0.71	0.77	0.63	0.56	0.49	0.37	0.30	
5	0.55	0.45	0.64	0.58	0.61	0.70	0.75	0.61	0.54	0.47	0.37	0.30	
6	0.54	0.46	0.59	0.57	0.55	0.70	0.77	0.58	0.51	0.47	0.37	0.30	
7	0.54	0.47	0.67	0.57	0.45	0.75	0.73	0.55	0.49	0.47	0.37	0.30	
8	0.54	0.47	0.72	0.57	0.39	1.90	0.69	0.55	0.46	0.47	0.36	0.30	
9	0.54	0.47	0.70	0.58	0.31	1.51	0.67	0.54	0.45	0.47	0.35	0.30	
10	0.54	0.47	0.66	0.64	0.30	1.22	0.65	0.51	0.45	0.44	0.33	0.30	
11	0.54	0.47	0.74	0.62	0.31	0.89	0.60	0.47	0.44	0.41	0.32	0.30	
12	0.54	0.51	0.71	0.62	0.31	0.84	0.58	0.46	0.43	0.41	0.31	0.30	
13	0.55	0.50	0.67	0.62	0.38	0.78	0.55	0.45	0.41	0.40	0.31	0.29	
14	0.55	0.52	0.65	0.62	0.61	0.75	0.52	0.45	0.40	0.39	0.31	0.28	
15	0.54	0.50	0.64	0.62	0.56	0.73	0.50	0.45	0.40	0.35	0.31	0.30	
16	0.51	1.37	0.62	0.63	0.55	0.82	0.50	0.45	0.40	0.35	0.31	0.30	
17	0.49	1.06	0.64	0.62	0.56	1.06	0.52	0.53	0.40	0.35	0.31	0.30	
18	0.47	0.93	0.67	0.58	0.77	0.82	0.51	0.64	0.40	0.35	0.31	0.30	
19	0.46	0.87	0.66	0.55	0.68	0.79	0.59	0.64	0.40	0.35	0.31	0.31	
20	0.41	0.81	0.65	0.56	0.68	0.75	0.67	0.64	0.39	0.35	0.31	0.35	
21	0.35	0.70	0.65	0.62	0.71	0.72	0.67	0.64	0.38	0.35	0.31	0.39	
22	0.31	0.66	0.64	0.48	0.72	0.71	0.68	0.60	0.38	0.38	0.31	0.52	
23	0.37	0.64	0.56	0.35	1.42	0.71	1.03	0.58	0.38	0.38	0.31	0.52	
24	0.38	0.60	0.47	0.31	0.84	0.74	0.80	0.58	0.38	0.38	0.31	0.60	
25	0.39	1.07	0.49	0.31	0.74	0.70	0.74	0.57	0.38	0.38	0.31	0.50	
26	0.39	1.42	0.60	0.30	0.71	0.67	0.73	0.57	0.64	0.38	0.31	0.51	
27	0.39	1.19	0.59	0.23	0.70	0.66	0.68	0.63	0.67	0.38	0.31	0.51	
28	0.39	0.79	0.60	0.24	0.71	0.62	0.70	0.66	0.62	0.38	0.31	0.51	
29	0.39	0.76	0.61	0.38	0.74	0.64	0.67	0.58	0.61	0.38		0.52	
30	0.39	0.71	0.61	0.43	0.76	0.67	0.65	0.57	0.57	0.38		0.52	
31		0.69		0.30	0.71		0.64		0.53	0.37		0.53	
Mean	0.48	0.68	0.63	0.51	0.60	0.83	0.67	0.57	0.48	0.41	0.33	0.38	
Max	0.56	1.42	0.74	0.64	1.42	1.90	1.03	0.67	0.67	0.52	0.37	0.60	1.90
Min	0.31	0.38	0.47	0.23	0.29	0.62	0.50	0.45	0.38	0.35	0.31	0.28	0.23

Annual Max Momentary Gage Height 2.44 m. (A.D.) , at 18.00 Hours , on May 16 , 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed -0.19 m. (A.D.)

Left Bank Elevation 6.35 m. (A.D.) ,

Right Bank Elevation 6.34 m. (A.D.) , Drainage Are 203 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.10	0.04	1.53	0.13	0.15	1.98	2.15	1.35	0.95	0.74	0.29	0.15		
2	0.10	0.04	1.17	0.13	0.13	6.93	2.84	1.71	0.95	0.65	0.29	0.15		
3	0.10	0.04	0.86	0.13	1.98	2.50	3.18	1.53	0.91	0.65	0.29	0.15		
4	0.09	0.44	0.86	0.11	1.44	2.15	3.18	1.35	0.91	0.62	0.29	0.15		
5	0.09	0.50	1.44	0.11	1.17	1.98	2.84	1.17	0.82	0.56	0.29	0.15		
6	0.09	0.53	1.04	0.10	0.86	1.98	3.18	0.99	0.69	0.56	0.29	0.15		
7	0.09	0.56	1.71	0.10	0.50	2.84	2.50	0.86	0.62	0.56	0.29	0.15		
8	0.09	0.56	2.32	0.10	0.33	41.85	1.89	0.86	0.53	0.56	0.27	0.15		
9	0.09	0.56	1.98	0.11	0.17	24.60	1.71	0.82	0.50	0.56	0.25	0.15		
10	0.09	0.56	1.62	0.14	0.15	14.19	1.53	0.69	0.50	0.47	0.21	0.15		
11	0.09	0.56	2.67	0.13	0.17	5.55	1.08	0.56	0.47	0.38	0.19	0.15		
12	0.09	0.69	2.15	0.13	0.17	4.52	0.99	0.53	0.44	0.38	0.17	0.15		
13	0.09	0.65	1.71	0.13	0.31	3.36	0.86	0.50	0.38	0.35	0.17	0.13		
14	0.09	0.74	1.53	0.13	1.17	2.84	0.74	0.50	0.35	0.33	0.17	0.12		
15	0.09	0.65	1.44	0.13	0.91	2.50	0.65	0.50	0.35	0.25	0.17	0.15		
16	0.07	19.24	1.26	0.14	0.86	4.11	0.65	0.50	0.35	0.25	0.17	0.15		
17	0.07	9.66	1.44	0.13	0.91	9.66	0.74	0.78	0.35	0.25	0.17	0.15		
18	0.06	6.46	1.71	0.11	3.18	4.11	0.69	1.44	0.35	0.25	0.17	0.15		
19	0.06	5.14	1.62	0.09	1.80	3.53	1.04	1.44	0.35	0.25	0.17	0.17		
20	0.04	3.90	1.53	0.10	1.80	2.84	1.71	1.44	0.33	0.25	0.17	0.25		
21	0.03	1.98	1.53	0.13	2.15	2.32	1.71	1.44	0.31	0.25	0.17	0.33		
22	0.02	1.62	1.44	0.06	2.32	2.15	1.80	1.08	0.31	0.31	0.17	0.74		
23	0.03	1.44	0.91	0.03	21.08	2.15	8.88	0.99	0.31	0.31	0.17	0.08		
24	0.04	1.08	0.56	0.02	4.52	2.67	3.70	0.99	0.31	0.31	0.17	0.12		
25	0.04	9.92	0.07	0.02	2.67	1.98	2.67	0.95	0.31	0.31	0.17	0.07		
26	0.04	21.08	0.12	0.02	2.15	1.71	2.50	0.95	1.44	0.31	0.17	0.07		
27	0.04	13.26	0.11	0.01	1.98	1.62	1.80	1.35	1.71	0.31	0.17	0.07		
28	0.04	3.53	0.12	0.01	2.15	1.26	1.98	1.62	1.26	0.31	0.17	0.07		
29	0.04	3.01	0.13	0.31	2.67	1.44	1.71	0.99	1.17	0.31		0.08		
30	0.04	2.15	0.13	0.44	3.01	1.71	1.53	0.95	0.95	0.31		0.08		
31		1.89		0.15	2.15		1.44		0.78	0.29		0.08		
Total	2.04	112.48	36.71	3.58	65.01	163.03	63.87	30.83	19.96	12.20	5.84	4.86	520.41	CMSDAY
Mean	0.07	3.63	1.22	0.12	2.10	5.43	2.06	1.03	0.64	0.39	0.21	0.16	1.43	CMS
Max	0.10	21.08	2.67	0.44	21.08	41.85	8.88	1.71	1.71	0.74	0.29	0.74	41.85	CMS
Min	0.02	0.04	0.07	0.01	0.13	1.26	0.65	0.50	0.31	0.25	0.17	0.07	0.01	CMS
Runoff	0.18	9.72	3.17	0.31	5.62	14.09	5.52	2.66	1.72	1.05	0.50	0.42	44.96	MCM

Momentary Peak 69.84 CMS. at 2.44 m. (A.D.) at 18 .00 Hours , on May 16 , 2002

Runoff Yield 7.02 Liters/Second/Square KM. Momentary Peak Yield 344.040 Liters/Second/Square KM.

WATER YEAR : 2002

YOM RIVER BASIN

Huai Mae Mok at Ban Mae Phu , Lampang (Y.26)

Lat 17 - 19 - 37 N Long 99 - 27 - 42 E

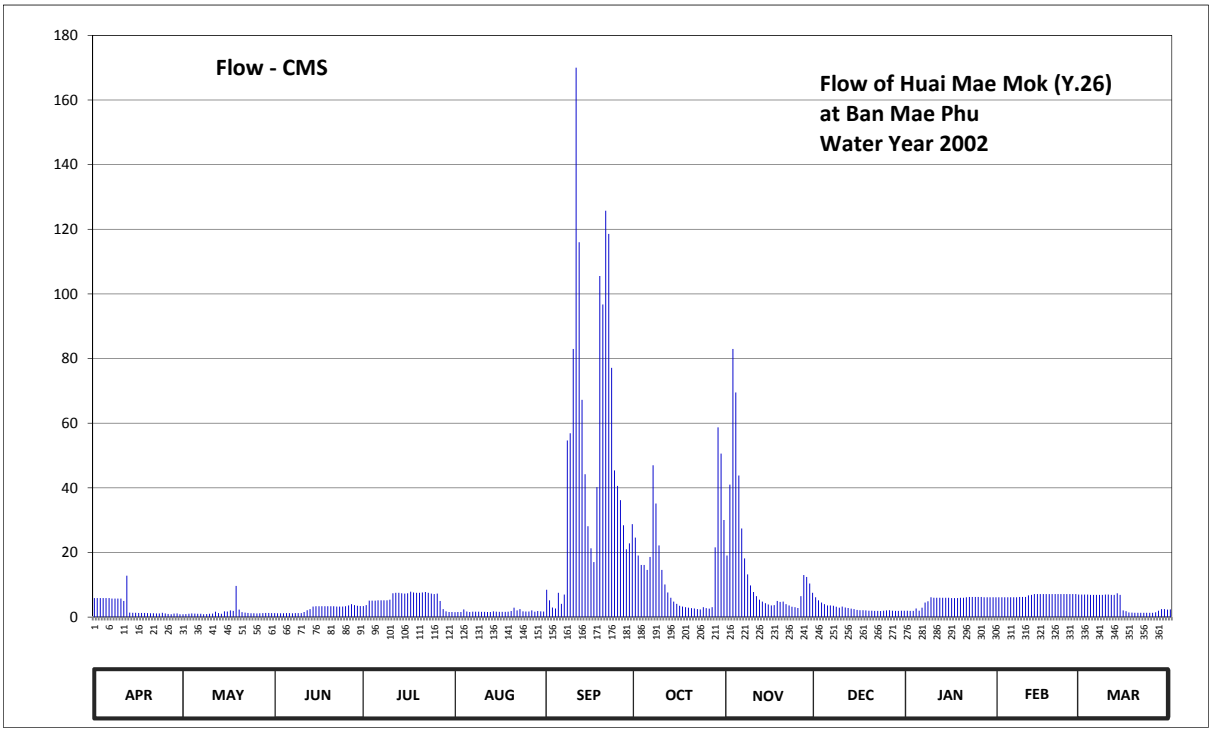
Location : on left bank downstream from Ban Mae Phu Tambon Wiang Mok.

	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** +108.388 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 mean 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 good. Stage-discharge relation defined by 36 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	101.63	100.98	101.05	101.39	101.11	101.83	102.57	102.38	101.65	101.20	101.65	101.72	
2	101.63	100.99	101.04	101.42	101.12	101.57	102.38	103.05	101.57	101.19	101.65	101.72	
3	101.63	101.01	101.04	101.56	101.12	101.33	102.25	104.00	101.50	101.19	101.65	101.72	
4	101.63	101.03	101.04	101.56	101.25	101.29	102.25	103.70	101.45	101.29	101.65	101.71	
5	101.63	101.02	101.05	101.56	101.15	101.76	102.18	103.12	101.41	101.20	101.65	101.71	
6	101.63	101.01	101.05	101.57	101.12	101.46	102.36	102.66	101.41	101.32	101.65	101.71	
7	101.62	101.01	101.04	101.57	101.14	101.72	103.20	102.34	101.40	101.50	101.65	101.71	
8	101.62	100.98	101.05	101.57	101.14	103.37	102.89	102.11	101.36	101.54	101.66	101.71	
9	101.62	100.99	101.05	101.57	101.14	103.42	102.49	101.92	101.32	101.65	101.66	101.72	
10	101.62	101.01	101.05	101.59	101.13	104.00	102.18	101.78	101.37	101.64	101.66	101.72	
11	101.55	101.02	101.12	101.75	101.13	105.40	101.94	101.68	101.33	101.64	101.70	101.71	
12	102.09	101.14	101.22	101.76	101.12	104.60	101.77	101.59	101.31	101.64	101.71	101.71	
13	101.08	101.05	101.26	101.76	101.12	103.65	101.64	101.53	101.28	101.64	101.73	101.75	
14	101.07	101.01	101.37	101.75	101.16	103.13	101.53	101.48	101.26	101.64	101.73	101.71	
15	101.07	101.16	101.38	101.74	101.14	102.68	101.46	101.44	101.23	101.64	101.73	101.21	
16	101.06	101.15	101.38	101.75	101.13	102.46	101.40	101.41	101.22	101.63	101.73	101.17	
17	101.06	101.21	101.38	101.79	101.13	102.29	101.37	101.42	101.22	101.63	101.73	101.09	
18	101.06	101.19	101.38	101.77	101.13	103.03	101.34	101.55	101.21	101.63	101.73	101.08	
19	101.05	101.91	101.38	101.76	101.14	104.41	101.32	101.52	101.20	101.64	101.73	101.07	
20	101.04	101.24	101.38	101.76	101.18	104.25	101.30	101.53	101.20	101.64	101.73	101.07	
21	101.04	101.11	101.38	101.77	101.32	104.75	101.29	101.45	101.19	101.65	101.73	101.07	
22	101.03	101.08	101.37	101.78	101.21	104.64	101.26	101.41	101.19	101.66	101.73	101.07	
23	101.03	101.06	101.37	101.76	101.26	103.87	101.25	101.36	101.18	101.66	101.73	101.07	
24	101.07	101.04	101.37	101.74	101.16	103.16	101.34	101.34	101.20	101.66	101.73	101.07	
25	101.03	101.04	101.38	101.73	101.15	103.04	101.30	101.31	101.21	101.66	101.73	101.07	
26	101.00	101.03	101.41	101.74	101.15	102.92	101.28	101.68	101.22	101.66	101.73	101.10	
27	100.98	101.04	101.45	101.55	101.21	102.69	101.34	102.10	101.20	101.65	101.73	101.20	
28	101.02	101.05	101.42	101.26	101.14	102.45	102.47	102.07	101.19	101.65	101.72	101.26	
29	101.03	101.06	101.40	101.16	101.18	102.51	103.46	101.96	101.19	101.65		101.26	
30	100.98	101.06	101.39	101.12	101.16	102.70	103.28	101.76	101.20	101.65		101.24	
31		101.05		101.12	101.15		102.74		101.20	101.65		101.25	
Mean	101.29	101.09	101.26	101.60	101.16	103.01	101.96	101.95	101.29	101.56	101.70	101.40	
Max	102.09	101.91	101.45	101.79	101.32	105.40	103.46	104.00	101.65	101.66	101.73	101.75	105.40
Min	100.98	100.98	101.04	101.12	101.11	101.29	101.25	101.31	101.18	101.19	101.65	101.07	100.98

Annual Max Momentary Gage Height	105.54	m. (MSL.) ,	at 15.00 Hours , on Sep 11 , 2002		
Zero Gage at Bottom Elevation	100.38	m. (MSL.) ,	River Bed	100.38	m. (MSL.)
Left Bank Elevation	107.79	m. (MSL.) ,			
Right Bank Elevation	106.51	m. (MSL.) ,	Drainage Are	784	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	5.88	0.90	1.25	3.42	1.55	8.45	24.60	19.05	6.13	2.00	6.13	7.00		
2	5.88	0.95	1.20	3.70	1.60	5.20	19.05	41.00	5.20	1.95	6.13	7.00		
3	5.88	1.05	1.20	5.10	1.60	2.98	16.13	83.00	4.50	1.95	6.13	7.00		
4	5.88	1.15	1.20	5.10	2.38	2.68	16.13	69.50	4.00	2.68	6.13	6.87		
5	5.88	1.10	1.25	5.10	1.75	7.50	14.60	43.80	3.60	2.00	6.13	6.87		
6	5.88	1.05	1.25	5.20	1.60	4.10	18.60	27.45	3.60	2.90	6.13	6.87		
7	5.75	1.05	1.20	5.20	1.70	7.00	47.00	18.15	3.50	4.50	6.13	6.87		
8	5.75	0.90	1.25	5.20	1.70	54.65	35.15	13.20	3.20	4.90	6.25	6.87		
9	5.75	0.95	1.25	5.20	1.70	56.90	22.20	9.80	2.90	6.13	6.25	7.00		
10	5.75	1.05	1.25	5.40	1.65	83.00	14.60	7.75	3.27	6.00	6.25	7.00		
11	5.00	1.10	1.60	7.37	1.65	170.00	10.10	6.50	2.98	6.00	6.75	6.87		
12	12.80	1.70	2.15	7.50	1.60	116.00	7.62	5.40	2.83	6.00	6.87	6.87		
13	1.40	1.25	2.45	7.50	1.60	67.25	6.00	4.80	2.60	6.00	7.12	7.37		
14	1.35	1.05	3.27	7.37	1.80	44.20	4.80	4.30	2.45	6.00	7.12	6.87		
15	1.35	1.80	3.35	7.25	1.70	28.10	4.10	3.90	2.23	6.00	7.12	2.08		
16	1.30	1.75	3.35	7.37	1.65	21.30	3.50	3.60	2.15	5.88	7.12	1.85		
17	1.30	2.08	3.35	7.87	1.65	17.03	3.27	3.70	2.15	5.88	7.12	1.45		
18	1.30	1.95	3.35	7.62	1.65	40.20	3.05	5.00	2.08	5.88	7.12	1.40		
19	1.25	9.65	3.35	7.50	1.70	105.55	2.90	4.70	2.00	6.00	7.12	1.35		
20	1.20	2.30	3.35	7.50	1.90	96.75	2.75	4.80	2.00	6.00	7.12	1.35		
21	1.20	1.55	3.35	7.62	2.90	125.75	2.68	4.00	1.95	6.13	7.12	1.35		
22	1.15	1.40	3.27	7.75	2.08	118.60	2.45	3.60	1.95	6.25	7.12	1.35		
23	1.15	1.30	3.27	7.50	2.45	77.15	2.38	3.20	1.90	6.25	7.12	1.35		
24	1.35	1.20	3.27	7.25	1.80	45.40	3.05	3.05	2.00	6.25	7.12	1.35		
25	1.15	1.20	3.35	7.12	1.75	40.60	2.75	2.83	2.08	6.25	7.12	1.35		
26	1.00	1.15	3.60	7.25	1.75	36.20	2.60	6.50	2.15	6.25	7.12	1.50		
27	0.90	1.20	4.00	5.00	2.08	28.42	3.05	13.00	2.00	6.13	7.12	2.00		
28	1.10	1.25	3.70	2.45	1.70	21.00	21.60	12.40	1.95	6.13	7.00	2.45		
29	1.15	1.30	3.50	1.80	1.90	22.80	58.70	10.40	1.95	6.13		2.45		
30	0.90	1.30	3.42	1.60	1.80	28.75	50.60	7.50	2.00	6.13		2.30		
31		1.25		1.60	1.75		30.05		2.00	6.13		2.38		
Total	97.58	48.88	76.60	180.41	56.09	1483.51	456.06	445.88	85.30	162.68	189.08	126.64	3408.71	CMSDAY
Mean	3.25	1.58	2.55	5.82	1.81	49.45	14.71	14.86	2.75	5.25	6.75	4.09	9.34	CMS
Max	12.80	9.65	4.00	7.87	2.90	170.00	58.70	83.00	6.13	6.25	7.12	7.37	170.00	CMS
Min	0.90	0.90	1.20	1.60	1.55	2.68	2.38	2.83	1.90	1.95	6.13	1.35	0.90	CMS
Runoff	8.43	4.22	6.62	15.59	4.85	128.18	39.40	38.52	7.37	14.06	16.34	10.94	294.51	MCM

Momentary Peak 181.20 CMS. at 105.54 m. (MSL.) at 15.00 Hours , on Sep 11 , 2002

Runoff Yield 11.91 Liters/Second/Square KM. Momentary Peak Yield 231.120 Liters/Second/Square KM.

WATER YEAR : 2002

YOM RIVER BASIN

Huai Mae Phuak at Ban Pak Chua, Phrae (Y.27)

Lat 17 - 58 - 20 N Long 100 - 04 - 04 E

Location : on right bank at the bridge near the College of Agriculture.

Ban Pak Chua **Amphoe** Den Chai **Changwat** Phrae

Drainge Area	229 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 at the abutment of the bridge. **Elevation** +8.340 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 mean of 5 readings
Period of Available Gage Records	1982 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. The weir situated about 3 kilometers above gage site. Stage-discharge relation defined by 40 discharge measurements made in 2002.

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

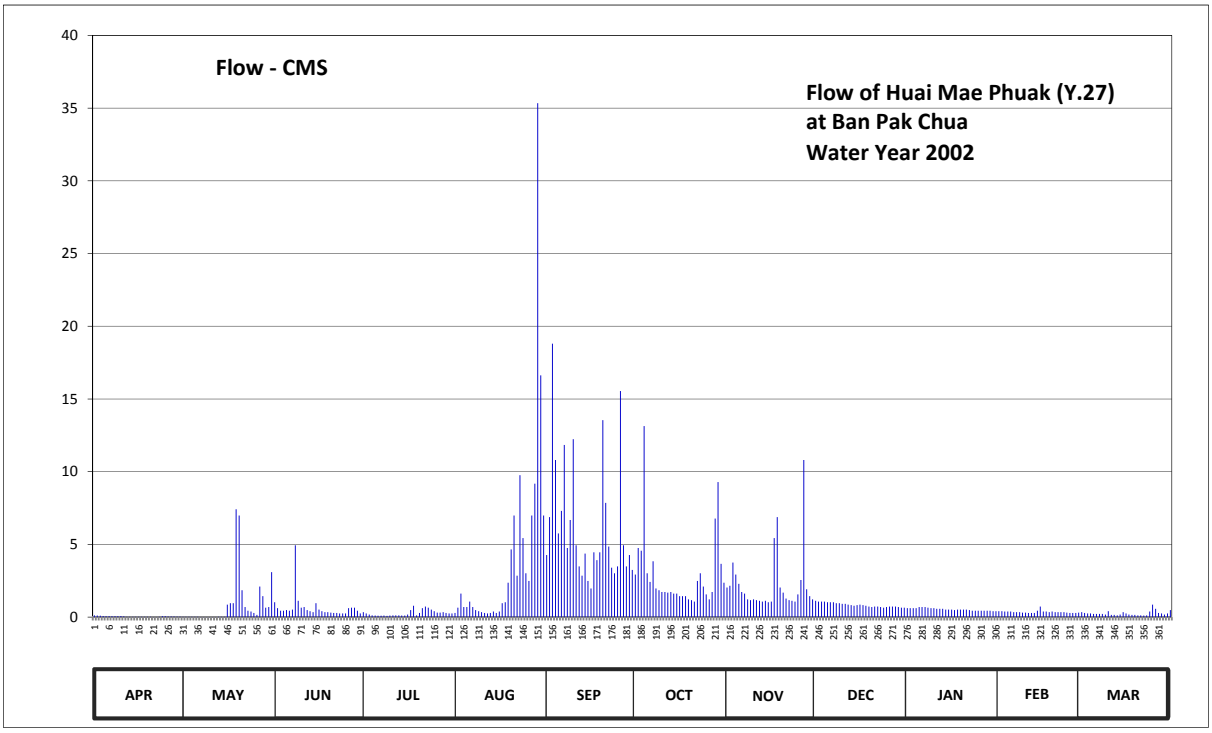
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.60	0.50	0.83	0.67	0.65	1.30	1.14	1.01	0.85	0.74	0.69	0.67	
2	0.59	0.50	0.74	0.64	0.75	1.56	1.35	1.03	0.84	0.74	0.69	0.65	
3	0.58	0.50	0.70	0.62	0.94	2.45	1.33	1.24	0.84	0.74	0.68	0.64	
4	0.56	0.50	0.70	0.60	0.76	1.90	2.08	1.14	0.84	0.74	0.68	0.64	
5	0.55	0.50	0.71	0.59	0.76	1.45	1.15	1.05	0.83	0.76	0.68	0.63	
6	0.55	0.49	0.70	0.58	0.84	1.60	1.07	0.96	0.83	0.76	0.67	0.63	
7	0.55	0.47	0.72	0.58	0.76	1.98	1.25	0.94	0.83	0.76	0.67	0.63	
8	0.55	0.47	1.37	0.59	0.71	1.35	1.00	0.87	0.82	0.75	0.67	0.63	
9	0.55	0.46	0.85	0.57	0.69	1.54	0.98	0.86	0.82	0.74	0.66	0.62	
10	0.56	0.45	0.75	0.59	0.67	2.01	0.96	0.87	0.81	0.74	0.66	0.69	
11	0.53	0.44	0.76	0.60	0.65	1.37	0.96	0.86	0.81	0.73	0.65	0.61	
12	0.49	0.45	0.71	0.60	0.64	1.21	0.95	0.85	0.80	0.73	0.65	0.61	
13	0.48	0.48	0.69	0.60	0.65	1.13	0.96	0.84	0.79	0.73	0.65	0.60	
14	0.48	0.48	0.67	0.59	0.68	1.31	0.94	0.85	0.78	0.72	0.70	0.62	
15	0.48	0.49	0.82	0.59	0.65	1.08	0.94	0.83	0.79	0.72	0.77	0.67	
16	0.48	0.80	0.72	0.62	0.68	1.00	0.91	0.84	0.80	0.72	0.68	0.64	
17	0.48	0.82	0.69	0.71	0.82	1.32	0.91	1.42	0.79	0.71	0.68	0.62	
18	0.48	0.82	0.67	0.78	0.83	1.26	0.91	1.56	0.78	0.72	0.67	0.61	
19	0.48	1.61	0.67	0.60	1.06	1.32	0.87	1.01	0.77	0.72	0.68	0.61	
20	0.48	1.57	0.66	0.65	1.34	2.11	0.86	0.95	0.76	0.72	0.67	0.60	
21	0.47	0.98	0.65	0.74	1.57	1.65	0.84	0.88	0.77	0.72	0.67	0.60	
22	0.47	0.76	0.65	0.77	1.13	1.36	1.08	0.86	0.77	0.71	0.67	0.59	
23	0.48	0.70	0.64	0.75	1.82	1.20	1.15	0.85	0.76	0.70	0.67	0.60	
24	0.54	0.68	0.64	0.72	1.42	1.15	1.02	0.84	0.75	0.70	0.66	0.68	
25	0.54	0.65	0.64	0.69	1.15	1.21	0.93	0.93	0.76	0.70	0.65	0.80	
26	0.52	0.61	0.74	0.66	1.08	2.25	0.87	1.09	0.77	0.70	0.65	0.73	
27	0.52	1.02	0.75	0.66	1.57	1.37	0.96	1.90	0.77	0.70	0.65	0.65	
28	0.52	0.91	0.75	0.67	1.77	1.21	1.55	0.99	0.77	0.70	0.66	0.64	
29	0.51	0.75	0.70	0.65	3.14	1.30	1.78	0.91	0.76	0.70		0.62	
30	0.51	0.76	0.64	0.64	2.32	1.18	1.23	0.87	0.75	0.69		0.64	
31		1.16		0.64	1.57		1.06		0.75	0.69		0.71	
Mean	0.52	0.70	0.73	0.64	1.10	1.47	1.10	1.00	0.79	0.72	0.67	0.64	
Max	0.60	1.61	1.37	0.78	3.14	2.45	2.08	1.90	0.85	0.76	0.77	0.80	3.14
Min	0.47	0.44	0.64	0.57	0.64	1.00	0.84	0.83	0.75	0.69	0.65	0.59	0.44

Annual Max Momentary Gage Height 3.34 m. (A.D.) , at 12.00 Hours , on Aug 29 , 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed -0.98 m. (A.D.)

Left Bank Elevation 8.80 m. (A.D.) ,

Right Bank Elevation 8.29 m. (A.D.) , Drainage Are 229 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.12	0.02	1.02	0.34	0.28	4.27	2.93	2.03	1.12	0.61	0.41	0.34		
2	0.11	0.02	0.61	0.25	0.65	6.88	4.75	2.16	1.07	0.61	0.41	0.28		
3	0.10	0.02	0.44	0.18	1.62	18.80	4.56	3.75	1.07	0.61	0.38	0.25		
4	0.08	0.02	0.44	0.12	0.69	10.80	13.14	2.93	1.07	0.61	0.38	0.25		
5	0.07	0.02	0.48	0.11	0.69	5.75	3.01	2.29	1.02	0.69	0.38	0.22		
6	0.07	0.02	0.44	0.10	1.07	7.30	2.42	1.73	1.02	0.69	0.34	0.22		
7	0.07	0.01	0.52	0.10	0.69	11.84	3.84	1.62	1.02	0.69	0.34	0.22		
8	0.07	0.01	4.94	0.11	0.48	4.75	1.97	1.22	0.96	0.65	0.34	0.22		
9	0.07	0.01	1.12	0.09	0.41	6.68	1.85	1.17	0.96	0.61	0.31	0.18		
10	0.08	0.01	0.65	0.11	0.34	12.23	1.73	1.22	0.91	0.61	0.31	0.41		
11	0.05	0.01	0.69	0.12	0.28	4.94	1.73	1.17	0.91	0.57	0.28	0.15		
12	0.02	0.01	0.48	0.12	0.25	3.49	1.68	1.12	0.86	0.57	0.28	0.15		
13	0.02	0.02	0.41	0.12	0.28	2.85	1.73	1.07	0.82	0.57	0.28	0.12		
14	0.02	0.02	0.34	0.11	0.38	4.37	1.62	1.12	0.78	0.52	0.44	0.18		
15	0.02	0.02	0.96	0.11	0.28	2.49	1.62	1.02	0.82	0.52	0.73	0.34		
16	0.02	0.86	0.52	0.18	0.38	1.97	1.44	1.07	0.86	0.52	0.38	0.25		
17	0.02	0.96	0.41	0.48	0.96	4.46	1.44	5.44	0.82	0.48	0.38	0.18		
18	0.02	0.96	0.34	0.78	1.02	3.92	1.44	6.88	0.78	0.52	0.34	0.15		
19	0.02	7.41	0.34	0.12	2.36	4.46	1.22	2.03	0.73	0.52	0.38	0.15		
20	0.02	6.99	0.31	0.28	4.65	13.54	1.17	1.68	0.69	0.52	0.34	0.12		
21	0.01	1.85	0.28	0.61	6.99	7.85	1.07	1.28	0.73	0.52	0.34	0.12		
22	0.01	0.69	0.28	0.73	2.85	4.85	2.49	1.17	0.73	0.48	0.34	0.11		
23	0.02	0.44	0.25	0.65	9.76	3.40	3.01	1.12	0.69	0.44	0.34	0.12		
24	0.06	0.38	0.25	0.52	5.44	3.01	2.10	1.07	0.65	0.44	0.31	0.38		
25	0.06	0.28	0.25	0.41	3.01	3.49	1.56	1.56	0.69	0.44	0.28	0.86		
26	0.04	0.15	0.61	0.31	2.49	15.55	1.22	2.55	0.73	0.44	0.28	0.57		
27	0.04	2.10	0.65	0.31	6.99	4.94	1.73	10.80	0.73	0.44	0.28	0.28		
28	0.04	1.44	0.65	0.34	9.17	3.49	6.78	1.91	0.73	0.44	0.31	0.25		
29	0.03	0.65	0.44	0.28	35.34	4.27	9.28	1.44	0.69	0.44		0.18		
30	0.03	0.69	0.25	0.25	16.62	3.24	3.66	1.22	0.65	0.41		0.25		
31		3.09		0.25	6.99		2.36		0.65	0.41		0.48		
Total	1.41	29.18	19.37	8.59	123.41	189.88	90.55	66.84	25.96	16.59	9.91	7.98	589.67	CMSDAY
Mean	0.05	0.94	0.65	0.28	3.98	6.33	2.92	2.23	0.84	0.54	0.35	0.26	1.62	CMS
Max	0.12	7.41	4.94	0.78	35.34	18.80	13.14	10.80	1.12	0.69	0.73	0.86	35.34	CMS
Min	0.01	0.01	0.25	0.09	0.25	1.97	1.07	1.02	0.65	0.41	0.28	0.11	0.01	CMS
Runoff	0.12	2.52	1.67	0.74	10.66	16.41	7.82	5.77	2.24	1.43	0.86	0.69	50.95	MCM

Momentary Peak 41.90 CMS. at 3.34 m. (A.D.) at 12.00 Hours , on Aug 29 , 2002

Runoff Yield 7.05 Liters/Second/Square KM. Momentary Peak Yield 182.970 Liters/Second/Square KM.

WATER YEAR : 2002

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	+0.000 m. (A.D.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank about 25 meters from the top staff gage.	**Elevation**	+6.620 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 mean 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	Fairly stable because of back water effect..		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. The carcass of the bridge is near the gage site. Stage-discharge relation defined by 38 discharge measurements made in 2002.		

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

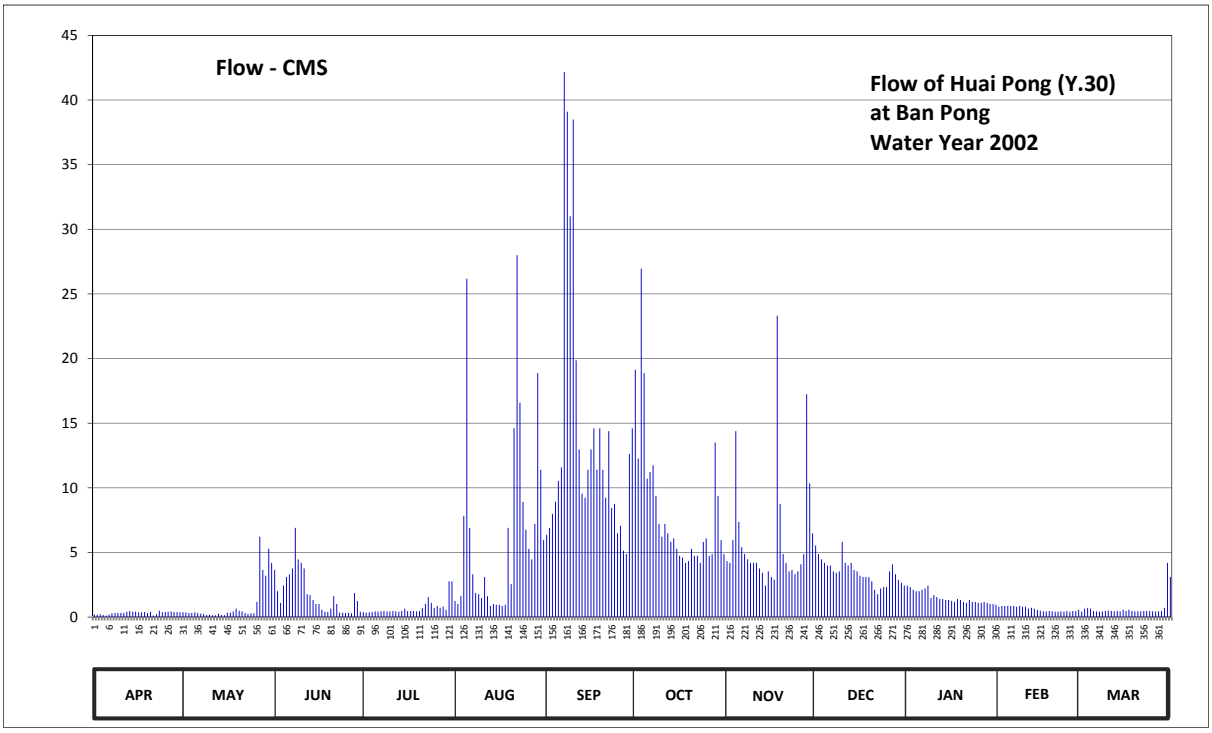
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.48	0.55	0.95	0.55	0.70	1.16	1.85	1.01	1.10	0.84	0.64	0.57	
2	0.48	0.55	0.80	0.54	0.67	1.20	1.53	1.00	1.05	0.83	0.65	0.62	
3	0.49	0.53	0.68	0.55	0.75	1.27	2.16	1.13	1.02	0.81	0.65	0.63	
4	0.47	0.53	0.84	0.56	1.26	1.33	1.84	1.64	1.00	0.80	0.65	0.62	
5	0.45	0.55	0.90	0.58	2.13	1.43	1.44	1.23	0.98	0.80	0.65	0.59	
6	0.48	0.53	0.92	0.57	1.20	1.49	1.47	1.09	0.98	0.81	0.65	0.58	
7	0.52	0.51	0.96	0.58	0.92	2.67	1.50	1.05	0.94	0.82	0.64	0.57	
8	0.53	0.50	1.20	0.59	0.78	2.57	1.36	1.02	0.93	0.84	0.65	0.58	
9	0.53	0.47	1.02	0.58	0.77	2.30	1.22	1.00	0.94	0.73	0.64	0.59	
10	0.53	0.47	1.00	0.58	0.73	2.55	1.15	1.00	1.12	0.76	0.64	0.60	
11	0.53	0.46	0.96	0.59	0.90	1.88	1.22	1.00	1.00	0.74	0.62	0.59	
12	0.57	0.46	0.77	0.58	0.75	1.57	1.17	0.96	0.98	0.72	0.63	0.58	
13	0.59	0.51	0.76	0.57	0.65	1.37	1.12	0.93	1.00	0.72	0.62	0.59	
14	0.57	0.47	0.71	0.59	0.67	1.35	1.14	0.84	0.95	0.71	0.61	0.58	
15	0.57	0.46	0.67	0.62	0.66	1.48	1.08	0.94	0.94	0.71	0.60	0.61	
16	0.55	0.54	0.67	0.59	0.66	1.57	1.04	0.90	0.91	0.70	0.58	0.59	
17	0.55	0.54	0.61	0.59	0.65	1.65	1.03	0.88	0.90	0.69	0.58	0.61	
18	0.56	0.58	0.57	0.59	0.66	1.48	1.00	2.02	0.90	0.72	0.59	0.59	
19	0.53	0.62	0.56	0.58	1.20	1.65	1.01	1.32	0.90	0.71	0.58	0.58	
20	0.56	0.60	0.62	0.59	0.85	1.48	1.08	1.05	0.87	0.69	0.57	0.58	
21	0.45	0.58	0.75	0.63	1.65	1.35	1.04	1.00	0.81	0.68	0.57	0.58	
22	0.49	0.53	0.67	0.67	2.20	1.64	1.04	0.94	0.77	0.71	0.58	0.59	
23	0.60	0.50	0.54	0.74	1.74	1.30	1.00	0.95	0.82	0.69	0.57	0.59	
24	0.55	0.52	0.54	0.68	1.33	1.32	1.12	0.92	0.83	0.69	0.59	0.59	
25	0.56	0.52	0.53	0.63	1.19	1.17	1.14	0.94	0.83	0.68	0.57	0.58	
26	0.57	0.69	0.54	0.65	1.08	1.21	1.04	0.99	0.94	0.68	0.59	0.58	
27	0.58	1.15	0.52	0.63	1.02	1.07	1.05	1.05	0.99	0.69	0.59	0.58	
28	0.56	0.95	0.78	0.64	1.22	1.05	1.60	1.77	0.92	0.68	0.61	0.59	
29	0.56	0.91	0.70	0.61	1.84	1.55	1.36	1.42	0.88	0.67		0.63	
30	0.55	1.08	0.57	0.87	1.48	1.65	1.13	1.17	0.86	0.67		1.00	
31		1.00		0.87	1.13		1.05		0.84	0.66		0.90	
Mean	0.53	0.61	0.74	0.62	1.08	1.56	1.26	1.11	0.93	0.73	0.61	0.61	
Max	0.60	1.15	1.20	0.87	2.20	2.67	2.16	2.02	1.12	0.84	0.65	1.00	2.67
Min	0.45	0.46	0.52	0.54	0.65	1.05	1.00	0.84	0.77	0.66	0.57	0.57	0.45

Annual Max Momentary Gage Height 2.80 m. (A.D.) , at 15.00 Hours , on Sep 7 , 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed 0.16 m. (A.D.)

Left Bank Elevation 8.16 m. (A.D.) ,

Right Bank Elevation 9.20 m. (A.D.) , Drainage Are 325 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.20	0.37	3.65	0.37	1.25	6.36	19.13	4.33	5.55	2.44	0.80	0.42		
2	0.20	0.37	2.00	0.35	1.02	6.90	12.27	4.20	4.87	2.33	0.87	0.65		
3	0.22	0.32	1.10	0.37	1.62	7.98	26.96	5.95	4.47	2.11	0.87	0.72		
4	0.17	0.32	2.44	0.40	7.83	8.92	18.88	14.38	4.20	2.00	0.87	0.65		
5	0.12	0.37	3.10	0.45	26.18	10.53	10.70	7.36	3.98	2.00	0.87	0.47		
6	0.20	0.32	3.32	0.42	6.90	11.58	11.23	5.41	3.98	2.11	0.87	0.45		
7	0.30	0.27	3.76	0.45	3.32	42.17	11.75	4.87	3.54	2.22	0.80	0.42		
8	0.32	0.25	6.90	0.47	1.85	39.10	9.38	4.47	3.43	2.44	0.87	0.45		
9	0.32	0.17	4.47	0.45	1.77	31.00	7.21	4.20	3.54	1.47	0.80	0.47		
10	0.32	0.17	4.20	0.45	1.47	38.50	6.22	4.20	5.82	1.70	0.80	0.50		
11	0.32	0.15	3.76	0.47	3.10	19.86	7.21	4.20	4.20	1.55	0.65	0.47		
12	0.42	0.15	1.77	0.45	1.62	12.97	6.49	3.76	3.98	1.40	0.72	0.45		
13	0.47	0.27	1.70	0.42	0.87	9.54	5.82	3.43	4.20	1.40	0.65	0.47		
14	0.42	0.17	1.32	0.47	1.02	9.23	6.09	2.44	3.65	1.32	0.57	0.45		
15	0.42	0.15	1.02	0.65	0.95	11.40	5.28	3.54	3.54	1.32	0.50	0.57		
16	0.37	0.35	1.02	0.47	0.95	12.97	4.74	3.10	3.21	1.25	0.45	0.47		
17	0.37	0.35	0.57	0.47	0.87	14.60	4.60	2.88	3.10	1.17	0.45	0.57		
18	0.40	0.45	0.42	0.47	0.95	11.40	4.20	23.32	3.10	1.40	0.47	0.47		
19	0.32	0.65	0.40	0.45	6.90	14.60	4.33	8.76	3.10	1.32	0.45	0.45		
20	0.40	0.50	0.65	0.47	2.55	11.40	5.28	4.87	2.77	1.17	0.42	0.45		
21	0.12	0.45	1.62	0.72	14.60	9.23	4.74	4.20	2.11	1.10	0.42	0.45		
22	0.22	0.32	1.02	1.02	28.00	14.38	4.74	3.54	1.77	1.32	0.45	0.47		
23	0.50	0.25	0.35	1.55	16.58	8.45	4.20	3.65	2.22	1.17	0.42	0.47		
24	0.37	0.30	0.35	1.10	8.92	8.76	5.82	3.32	2.33	1.17	0.47	0.47		
25	0.40	0.30	0.32	0.72	6.76	6.49	6.09	3.54	2.33	1.10	0.42	0.45		
26	0.42	1.17	0.35	0.87	5.28	7.05	4.74	4.09	3.54	1.10	0.47	0.45		
27	0.45	6.22	0.30	0.72	4.47	5.14	4.87	4.87	4.09	1.17	0.47	0.45		
28	0.40	3.65	1.85	0.80	7.21	4.87	13.50	17.24	3.32	1.10	0.57	0.47		
29	0.40	3.21	1.25	0.57	18.88	12.62	9.38	10.35	2.88	1.02		0.72		
30	0.37	5.28	0.42	2.77	11.40	14.60	5.95	6.49	2.66	1.02		4.20		
31		4.20		2.77	5.95		4.87		2.44	0.95		3.10		
Total	9.93	31.47	55.40	22.58	201.04	422.60	256.67	180.96	107.92	46.34	17.44	21.72	1374.07	CMSDAY
Mean	0.33	1.02	1.85	0.73	6.49	14.09	8.28	6.03	3.48	1.49	0.62	0.70	3.76	CMS
Max	0.50	6.22	6.90	2.77	28.00	42.17	26.96	23.32	5.82	2.44	0.87	4.20	42.17	CMS
Min	0.12	0.15	0.30	0.35	0.87	4.87	4.20	2.44	1.77	0.95	0.42	0.42	0.12	CMS
Runoff	0.86	2.72	4.79	1.95	17.37	36.51	22.18	15.63	9.32	4.00	1.51	1.88	118.72	MCM

Momentary Peak 46.20 CMS. at 2.80 m. (A.D.) at 15.00 Hours , on Sep 7 , 2002

Runoff Yield 11.58 Liters/Second/Square KM. Momentary Peak Yield 142.150 Liters/Second/Square KM.

WATER YEAR : 2002

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	Staff gage.
Zero Gage at Bottom	+0.000 m. (A.D.)
Bench Mark	B.M.-H.D.
Location BM	On right bank about 5 meters from the top staff gage. **Elevation** +8.255 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 mean of 5 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 downstream from the gage site. Stage-discharge relation defined by 55 discharge measurements made in 2002.

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

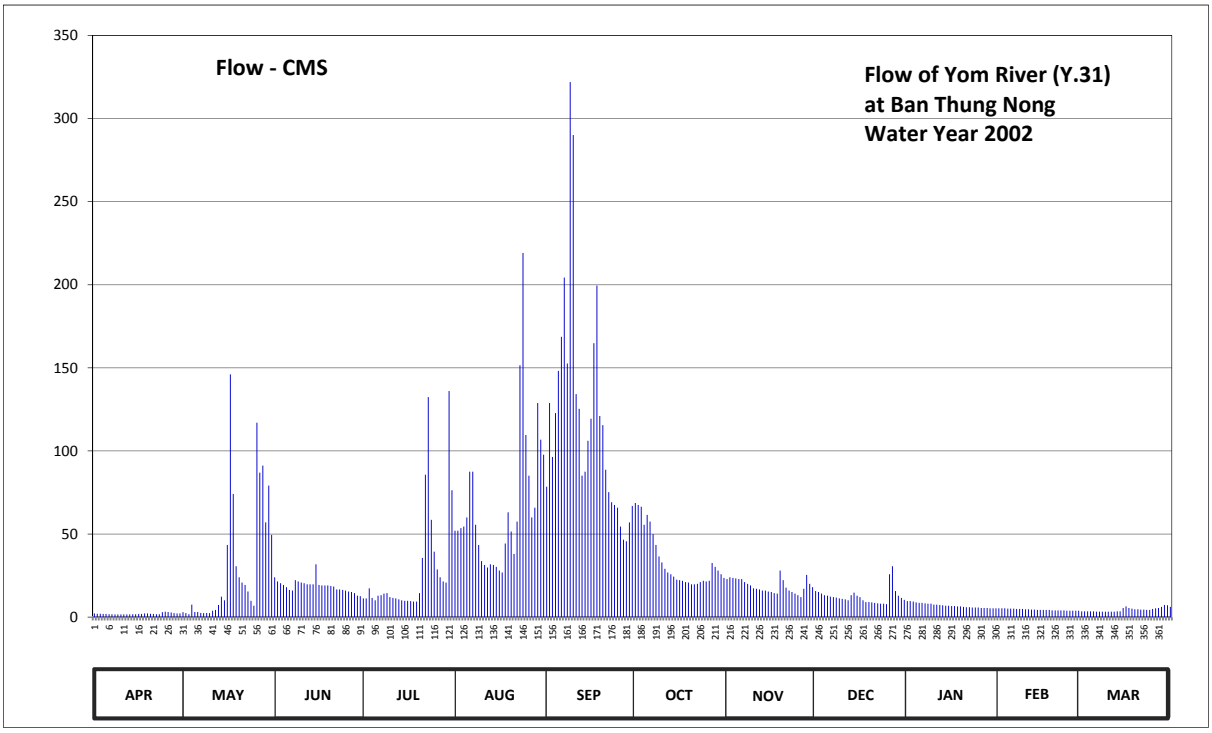
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.93	0.98	1.73	1.34	2.40	2.90	2.72	1.70	1.49	1.28	1.10	1.01	
2	0.92	0.94	1.66	1.34	2.40	3.62	2.70	1.73	1.47	1.28	1.10	1.01	
3	0.92	0.90	1.63	1.54	2.43	3.19	2.68	1.72	1.44	1.27	1.10	1.01	
4	0.91	1.20	1.60	1.35	2.45	3.55	2.47	1.71	1.41	1.25	1.09	1.01	
5	0.91	0.99	1.56	1.30	2.56	3.82	2.59	1.70	1.40	1.24	1.09	1.01	
6	0.90	0.99	1.51	1.40	3.05	3.99	2.51	1.70	1.38	1.24	1.09	1.00	
7	0.90	0.95	1.50	1.41	3.05	4.23	2.36	1.65	1.37	1.23	1.08	1.00	
8	0.89	0.94	1.68	1.44	2.47	3.86	2.22	1.62	1.36	1.22	1.08	1.00	
9	0.89	0.95	1.66	1.45	2.22	4.83	2.06	1.59	1.34	1.22	1.08	1.00	
10	0.89	0.94	1.64	1.37	1.99	4.69	1.97	1.54	1.33	1.20	1.07	1.00	
11	0.89	1.03	1.63	1.35	1.93	3.68	1.87	1.53	1.32	1.20	1.07	1.00	
12	0.89	1.05	1.61	1.34	1.89	3.58	1.81	1.52	1.30	1.19	1.06	1.00	
13	0.89	1.19	1.61	1.32	1.94	3.01	1.78	1.50	1.41	1.18	1.06	1.01	
14	0.90	1.38	1.61	1.30	1.93	3.05	1.74	1.50	1.46	1.17	1.05	1.01	
15	0.90	1.30	1.94	1.29	1.90	3.33	1.69	1.48	1.40	1.17	1.05	1.11	
16	0.91	2.22	1.60	1.29	1.84	3.51	1.68	1.47	1.37	1.16	1.05	1.15	
17	0.91	3.80	1.59	1.28	1.81	3.96	1.67	1.45	1.30	1.16	1.05	1.11	
18	0.93	2.82	1.59	1.27	2.24	4.20	1.65	1.44	1.26	1.15	1.05	1.09	
19	0.93	1.91	1.59	1.27	2.62	3.53	1.64	1.84	1.26	1.15	1.04	1.07	
20	0.92	1.73	1.58	1.45	2.39	3.46	1.61	1.68	1.25	1.14	1.04	1.07	
21	0.91	1.64	1.57	2.04	2.10	3.07	1.61	1.55	1.24	1.13	1.04	1.06	
22	0.90	1.60	1.52	3.02	2.51	2.84	1.62	1.50	1.23	1.13	1.04	1.06	
23	0.90	1.48	1.52	3.66	3.85	2.73	1.65	1.47	1.22	1.12	1.04	1.05	
24	0.98	1.29	1.51	2.53	4.32	2.70	1.67	1.44	1.22	1.12	1.03	1.05	
25	1.00	1.17	1.50	2.13	3.38	2.67	1.66	1.41	1.21	1.12	1.03	1.08	
26	0.99	3.48	1.48	1.86	3.01	2.45	1.67	1.37	1.78	1.11	1.03	1.10	
27	0.97	3.04	1.47	1.73	2.56	2.29	1.96	1.53	1.91	1.11	1.03	1.11	
28	0.94	3.11	1.45	1.66	2.67	2.27	1.90	1.77	1.49	1.11	1.03	1.14	
29	0.93	2.50	1.40	1.64	3.62	2.50	1.84	1.62	1.40	1.10		1.19	
30	0.93	2.91	1.39	3.70	3.34	2.69	1.78	1.56	1.35	1.10		1.18	
31		2.35		2.86	3.21		1.72		1.31	1.10		1.14	
Mean	0.92	1.70	1.58	1.74	2.58	3.34	1.95	1.58	1.38	1.17	1.06	1.06	
Max	1.00	3.80	1.94	3.70	4.32	4.83	2.72	1.84	1.91	1.28	1.10	1.19	4.83
Min	0.89	0.90	1.39	1.27	1.81	2.27	1.61	1.37	1.21	1.10	1.03	1.00	0.89

Annual Max Momentary Gage Height 5.39 m. (A.D.) , at 16.00 Hours , on Sep 9 , 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed -3.60 m. (A.D.)

Left Bank Elevation 5.40 m. (A.D.) ,

Right Bank Elevation 5.39 m. (A.D.) , Drainage Are 1,981 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.21	2.97	23.98	11.22	52.00	78.50	68.60	22.90	15.69	9.59	5.30	3.47		
2	2.05	2.36	21.48	11.22	52.00	128.80	67.50	23.98	15.07	9.59	5.30	3.47		
3	2.05	1.75	20.41	17.34	53.50	96.35	66.40	23.62	14.14	9.34	5.30	3.47		
4	1.90	7.55	19.35	11.50	54.50	122.75	55.50	23.26	13.21	8.83	5.10	3.47		
5	1.90	3.12	18.01	10.10	60.00	148.20	61.50	22.90	12.90	8.57	5.10	3.47		
6	1.75	3.12	16.33	12.90	87.50	168.70	57.50	22.90	12.34	8.57	5.10	3.27		
7	1.75	2.51	16.00	13.21	87.50	204.30	50.00	21.12	12.06	8.31	4.89	3.27		
8	1.64	2.36	22.19	14.14	55.50	152.60	43.40	20.06	11.78	8.06	4.89	3.27		
9	1.64	2.51	21.48	14.45	43.40	321.90	36.44	19.01	11.22	8.06	4.89	3.27		
10	1.64	2.36	20.77	12.06	33.71	290.05	32.93	17.34	10.94	7.55	4.69	3.27		
11	1.64	3.88	20.41	11.50	31.37	134.20	29.09	17.00	10.66	7.55	4.69	3.27		
12	1.64	4.28	19.70	11.22	29.83	125.30	26.87	16.67	10.10	7.32	4.49	3.27		
13	1.64	7.32	19.70	10.66	31.76	85.10	25.78	16.00	13.21	7.10	4.49	3.47		
14	1.75	12.34	19.70	10.10	31.37	87.50	24.34	16.00	14.76	6.87	4.28	3.47		
15	1.75	10.10	31.76	9.85	30.20	106.10	22.54	15.38	12.90	6.87	4.28	5.52		
16	1.90	43.40	19.35	9.85	27.98	119.35	22.19	15.07	12.06	6.65	4.28	6.42		
17	1.90	146.00	19.01	9.59	26.87	164.80	21.83	14.45	10.10	6.65	4.28	5.52		
18	2.21	74.10	19.01	9.34	44.30	199.50	21.12	14.14	9.08	6.42	4.28	5.10		
19	2.21	30.59	19.01	9.34	63.10	121.05	20.77	27.98	9.08	6.42	4.08	4.69		
20	2.05	23.98	18.68	14.45	51.50	115.50	19.70	22.19	8.83	6.20	4.08	4.69		
21	1.90	20.77	18.34	35.66	38.00	88.70	19.70	17.67	8.57	5.97	4.08	4.49		
22	1.75	19.35	16.67	85.70	57.50	75.20	20.06	16.00	8.31	5.97	4.08	4.49		
23	1.75	15.38	16.67	132.40	151.50	69.15	21.12	15.07	8.06	5.75	4.08	4.28		
24	2.97	9.85	16.33	58.50	219.10	67.50	21.83	14.14	8.06	5.75	3.88	4.28		
25	3.27	6.87	16.00	39.35	109.60	65.85	21.48	13.21	7.80	5.75	3.88	4.89		
26	3.12	117.00	15.38	28.72	85.10	54.50	21.83	12.06	25.78	5.52	3.88	5.30		
27	2.81	86.90	15.07	23.98	60.00	46.55	32.54	17.00	30.59	5.52	3.88	5.52		
28	2.36	91.15	14.45	21.48	65.85	45.65	30.20	25.42	15.69	5.52	3.88	6.20		
29	2.21	57.00	12.90	20.77	128.80	57.00	27.98	20.06	12.90	5.30		7.32		
30	2.21	79.10	12.62	136.00	106.80	66.95	25.78	18.01	11.50	5.30		7.10		
31		49.50		76.30	97.70		23.62		10.38	5.30		6.20		
Total	61.57	939.47	560.76	892.90	2067.84	3607.60	1040.14	560.61	387.77	216.17	125.43	139.19	10599.45	CMSDAY
Mean	2.05	30.31	18.69	28.80	66.70	120.25	33.55	18.69	12.51	6.97	4.48	4.49	29.04	CMS
Max	3.27	146.00	31.76	136.00	219.10	321.90	68.60	27.98	30.59	9.59	5.30	7.32	321.90	CMS
Min	1.64	1.75	12.62	9.34	26.87	45.65	19.70	12.06	7.80	5.30	3.88	3.27	1.64	CMS
Runoff	5.32	81.17	48.45	77.15	178.66	311.70	89.87	48.44	33.50	18.68	10.84	12.03	915.79	MCM

Momentary Peak 464.30 CMS. at 5.39 m. (A.D.) at 16.00 Hours , on Sep 9 , 2002

Runoff Yield 14.66 Liters/Second/Square KM. Momentary Peak Yield 234.380 Liters/Second/Square KM.

WATER YEAR : 2002

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** +55.420 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 mean 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. Flow effected by the temporary weir about 500 meters downstream from the gage site. Stage-discharge relation defined by 35 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

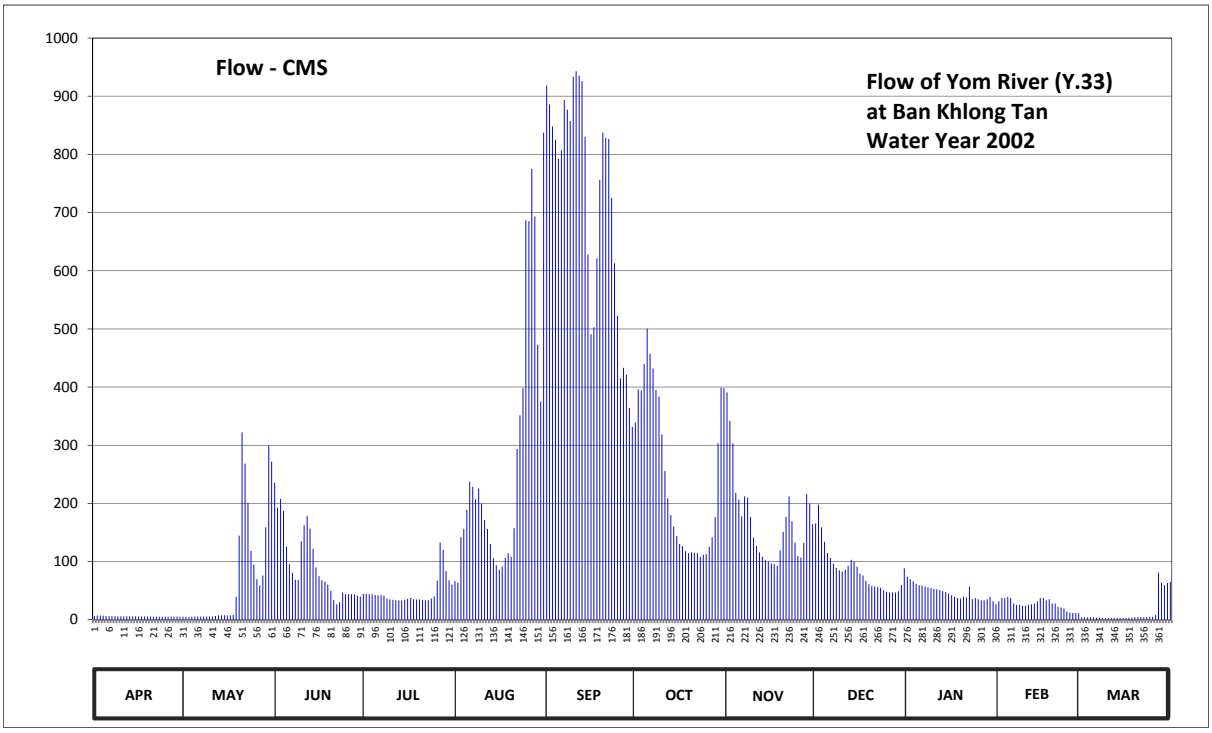
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	47.05	46.80	50.77	47.74	48.21	56.17	51.96	52.49	49.84	48.38	48.02	46.61	
2	47.26	46.80	50.21	47.74	48.16	56.00	52.54	51.99	50.28	48.29	48.05	46.63	
3	47.24	46.81	50.41	47.72	49.49	55.79	52.52	51.57	49.74	48.21	48.05	46.62	
4	47.19	46.84	50.14	47.72	49.70	55.66	52.96	50.55	49.37	48.12	48.06	46.63	
5	47.05	46.90	49.24	47.69	50.16	55.47	53.47	50.39	49.07	48.07	48.05	46.64	
6	47.04	46.89	48.76	47.68	50.79	55.56	53.11	50.01	48.94	48.06	48.00	46.51	
7	47.03	46.87	48.51	47.68	50.68	56.04	52.89	50.47	48.78	48.02	47.97	46.50	
8	47.03	46.87	48.27	47.66	50.40	55.95	52.53	50.44	48.65	48.00	47.97	46.41	
9	46.99	46.88	48.26	47.53	50.65	55.84	52.42	49.99	48.58	47.97	47.95	46.43	
10	46.97	46.90	49.38	47.49	50.30	56.25	51.74	49.48	48.54	47.94	47.95	46.41	
11	46.97	46.93	49.79	47.47	49.92	56.30	51.02	49.26	48.60	47.92	47.97	46.42	
12	46.98	47.10	50.02	47.45	49.70	56.26	50.42	49.09	48.72	47.89	47.98	46.42	
13	46.98	47.29	49.71	47.44	49.31	56.21	50.04	48.97	48.89	47.85	48.00	46.42	
14	46.97	47.30	49.18	47.44	48.93	55.69	49.76	48.88	48.84	47.81	48.02	46.42	
15	46.97	47.30	48.67	47.48	48.73	54.43	49.52	48.83	48.69	47.75	48.05	46.42	
16	46.96	47.30	48.40	47.52	48.60	53.39	49.31	48.79	48.48	47.68	48.05	46.42	
17	46.94	47.29	48.25	47.56	48.70	53.49	49.25	48.77	48.42	47.61	48.03	46.47	
18	46.91	47.40	48.20	47.50	48.94	54.38	49.12	48.72	48.23	47.56	48.04	46.54	
19	46.90	48.06	48.09	47.49	49.07	55.26	49.07	49.14	48.11	47.54	48.00	46.67	
20	46.87	49.53	47.86	47.49	48.97	55.73	49.09	49.63	48.04	47.62	48.00	46.78	
21	46.81	51.78	47.46	47.47	49.72	55.68	49.08	50.00	48.02	47.58	47.92	46.72	
22	46.80	51.18	47.25	47.46	51.46	55.67	49.07	50.47	48.00	48.02	47.91	46.71	
23	46.80	50.32	47.37	47.46	52.09	55.07	48.97	49.89	47.98	48.04	47.89	46.71	
24	46.82	49.13	47.80	47.53	52.56	54.32	49.03	49.35	47.88	48.05	47.82	46.79	
25	46.84	48.75	47.72	47.63	54.83	53.65	49.04	48.99	47.82	48.04	47.79	46.81	
26	46.87	48.29	47.72	48.23	54.82	52.73	49.24	48.95	47.80	48.03	47.75	47.44	
27	46.92	48.06	47.72	49.35	55.37	52.90	49.49	49.34	47.80	48.03	47.73	48.51	
28	46.88	48.42	47.71	49.16	54.87	52.79	49.99	50.52	47.80	48.04	47.72	48.16	
29	46.84	49.74	47.66	48.56	53.24	52.22	51.57	50.30	47.84	48.06		48.07	
30	46.81	51.53	47.62	48.25	52.33	51.88	52.57	49.82	48.08	48.02		48.15	
31		51.22		48.09	55.73		52.56		48.64	47.98		48.19	
Mean	46.96	48.14	48.60	47.76	50.85	54.89	50.75	49.84	48.53	47.94	47.95	46.86	
Max	47.26	51.78	50.77	49.35	55.73	56.30	53.47	52.49	50.28	48.38	48.06	48.51	56.30
Min	46.80	46.80	47.25	47.44	48.16	51.88	48.97	48.72	47.80	47.54	47.72	46.41	46.41

Annual Max Momentary Gage Height 56.30 m. (MSL.) , at 18.00 Hours , on Sep 10 , 2002

Zero Gage at Bottom Elevation 45.82 m. (MSL.) , River Bed 44.71 m. (MSL.)

Left Bank Elevation 56.60 m. (MSL.) ,

Right Bank Elevation 56.42 m. (MSL.) , Drainage Are 13,948 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	6.30	5.00	235.60	44.60	66.00	918.30	339.20	391.00	165.80	74.00	31.70	4.10		
2	7.30	5.00	192.70	44.60	63.60	886.00	396.00	342.10	198.00	69.80	37.20	4.20		
3	7.20	5.10	207.80	43.80	141.90	848.20	394.00	303.30	158.80	66.00	37.20	4.10		
4	6.90	5.20	187.50	43.80	156.00	824.80	439.60	218.30	134.00	61.70	39.10	4.20		
5	6.30	5.50	125.60	42.60	189.00	791.90	500.40	206.30	114.50	59.30	37.20	4.20		
6	6.20	5.50	95.20	42.20	237.20	807.20	457.20	177.70	106.20	58.90	28.00	3.50		
7	6.10	5.30	81.00	42.20	228.40	893.60	431.90	212.30	96.30	57.00	25.70	3.50		
8	6.10	5.30	68.80	41.40	207.00	877.00	395.00	210.00	88.90	56.00	25.70	3.10		
9	6.00	5.40	68.30	36.40	226.00	857.20	384.00	176.30	84.90	54.70	24.10	3.20		
10	5.90	5.50	134.70	34.90	199.50	933.50	318.60	141.20	82.70	53.30	24.10	3.10		
11	5.90	5.70	162.30	34.10	171.40	943.00	255.60	126.90	86.00	52.40	25.70	3.10		
12	5.90	6.50	178.50	33.40	156.00	935.40	208.50	115.90	92.90	51.00	26.40	3.10		
13	5.90	7.50	156.70	33.00	130.20	925.90	180.00	108.10	103.10	49.20	28.00	3.10		
14	5.90	7.50	121.70	33.00	105.60	830.20	160.20	102.50	100.00	47.50	31.70	3.10		
15	5.90	7.50	90.00	34.50	93.50	628.20	143.80	99.40	91.20	45.00	37.20	3.10		
16	5.80	7.50	75.00	36.00	86.00	490.80	130.20	96.90	79.40	42.20	37.20	3.10		
17	5.70	7.50	67.90	37.50	91.80	502.80	126.30	95.80	76.10	39.40	33.50	3.40		
18	5.60	8.00	65.50	35.20	106.20	621.20	117.80	92.90	66.90	37.50	35.40	3.70		
19	5.50	39.10	60.30	34.90	114.50	756.20	114.50	119.10	61.20	36.80	28.00	4.30		
20	5.30	144.50	49.70	34.90	108.10	837.40	115.90	151.10	57.90	39.80	28.00	4.90		
21	5.10	322.20	33.70	34.10	157.40	828.40	115.20	177.00	57.00	38.30	21.80	4.60		
22	5.00	268.40	26.60	33.70	293.40	826.60	114.50	212.30	56.00	57.00	21.00	4.50		
23	5.00	201.00	30.50	33.70	351.50	725.20	108.10	169.30	55.10	35.40	19.50	4.50		
24	5.10	118.50	47.00	36.40	398.00	612.80	111.90	132.70	50.60	37.20	14.10	5.00		
25	5.20	94.60	43.80	40.20	686.80	522.50	112.60	109.40	47.90	35.40	12.30	5.10		
26	5.30	69.80	43.80	66.90	685.20	415.00	125.60	106.90	47.00	33.50	11.60	8.20		
27	5.60	58.90	43.80	132.70	774.90	433.00	141.90	132.10	47.00	33.50	11.30	81.00		
28	5.40	76.10	43.40	120.40	693.20	421.00	176.30	216.00	47.00	35.40	11.10	63.60		
29	5.20	158.80	41.40	83.80	472.80	364.00	303.30	199.50	48.80	39.10		59.30		
30	5.10	299.70	39.80	67.90	375.00	331.60	399.00	164.40	59.80	31.70		63.10		
31		271.80		60.30	837.40		398.00		88.30	26.40		65.00		
Total	173.70	2233.90	2818.60	1473.10	8603.50	21588.90	7715.10	5106.70	2649.30	1454.40	743.80	436.00	54997.00	CMSDAY
Mean	5.80	72.10	94.00	47.50	277.50	719.60	248.90	170.20	85.50	46.90	26.60	14.10	150.70	CMS
Max	7.30	322.20	235.60	132.70	837.40	943.00	500.40	391.00	198.00	74.00	39.10	81.00	943.00	CMS
Min	5.00	5.00	26.60	33.00	63.60	331.60	108.10	92.90	47.00	26.40	11.10	3.10	3.10	CMS
Runoff	15.01	193.01	243.53	127.28	743.34	1865.28	666.58	441.22	228.90	125.66	64.26	37.67	4751.74	MCM

Momentary Peak 943.00 CMS. at 56.30 m. (MSL.) at 18.00 Hours , on Sep 10 , 2002

Runoff Yield 10.80 Liters/Second/Square KM. Momentary Peak Yield 67.608 Liters/Second/Square KM.

WATER YEAR : 2002

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	Staff gage.		
Zero Gage at Bottom	+0.000 m. (A.D.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank about 10 meters from the top staff gage.	**Elevation**	+4.464 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 mean 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 because of backwater effect.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Flow effected by the temporary weir about 300 meters downstream from the gage site. Stage-discharge relation defined by 43 discharge measurements made in 2002.		

Gage Height in Meter (A.D.) Water Year April 1, 2015 to March 31, 2016

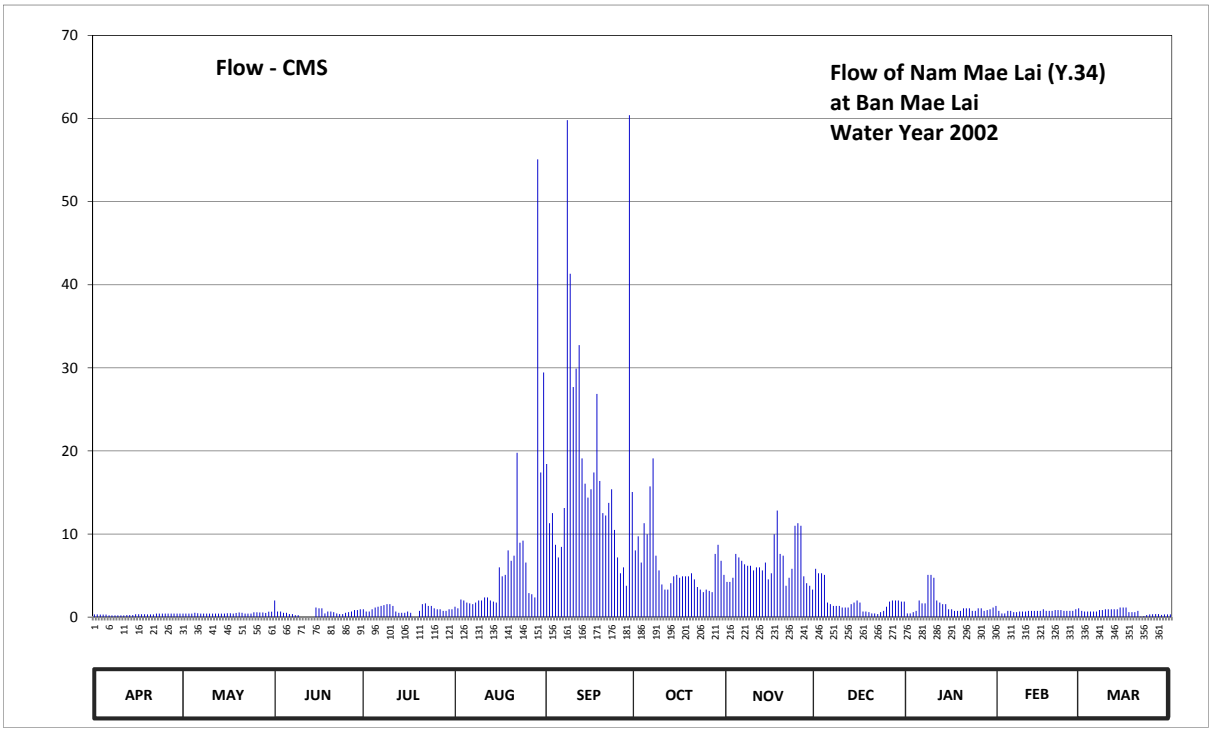
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.89	1.00	0.62	0.52	0.55	1.33	0.98	0.78	0.87	0.46	0.50	0.50	
2	0.89	1.00	0.49	0.49	0.53	1.11	1.05	0.78	0.84	0.46	0.46	0.49	
3	0.87	1.00	0.49	0.49	0.63	1.15	0.91	0.81	0.84	0.48	0.46	0.49	
4	0.85	1.00	0.47	0.52	0.62	1.01	1.11	0.96	0.83	0.50	0.50	0.49	
5	0.85	1.06	0.47	0.54	0.60	0.94	1.06	0.94	0.60	0.62	0.50	0.49	
6	0.76	1.02	0.45	0.55	0.59	1.00	1.25	0.92	0.58	0.59	0.48	0.49	
7	0.76	1.00	0.45	0.56	0.58	1.17	1.35	0.90	0.56	0.59	0.48	0.51	
8	0.76	1.00	0.43	0.57	0.60	2.19	0.95	0.89	0.56	0.83	0.49	0.51	
9	0.76	1.00	0.43	0.58	0.62	1.86	0.86	0.89	0.56	0.83	0.49	0.52	
10	0.76	1.00	0.39	0.58	0.62	1.58	0.76	0.86	0.54	0.81	0.49	0.52	
11	0.76	1.00	0.39	0.56	0.65	1.63	0.72	0.88	0.54	0.62	0.50	0.52	
12	0.79	1.00	0.38	0.49	0.65	1.69	0.72	0.88	0.54	0.60	0.50	0.52	
13	0.79	1.00	0.38	0.47	0.62	1.35	0.77	0.86	0.58	0.58	0.50	0.52	
14	0.79	1.00	0.38	0.47	0.61	1.26	0.82	0.91	0.60	0.58	0.50	0.54	
15	0.90	1.00	0.54	0.47	0.60	1.21	0.83	0.80	0.62	0.52	0.50	0.54	
16	0.90	1.02	0.53	0.49	0.88	1.24	0.81	0.84	0.60	0.52	0.52	0.54	
17	0.90	1.02	0.53	0.47	0.82	1.30	0.82	1.06	0.49	0.50	0.50	0.48	
18	0.90	1.00	0.46	0.39	0.83	1.56	0.82	1.16	0.49	0.50	0.50	0.48	
19	0.88	1.05	0.49	0.40	0.98	1.27	0.82	0.96	0.48	0.50	0.50	0.48	
20	0.88	1.08	0.49	0.50	0.92	1.15	0.84	0.95	0.46	0.53	0.51	0.50	
21	0.88	1.06	0.48	0.58	0.95	1.14	0.80	0.75	0.46	0.53	0.51	0.52	
22	1.00	1.00	0.46	0.59	1.37	1.19	0.74	0.81	0.45	0.53	0.51	0.61	
23	1.00	1.00	0.45	0.56	1.02	1.24	0.72	0.87	0.48	0.50	0.50	0.79	
24	1.00	1.00	0.45	0.56	1.03	1.08	0.70	1.10	0.50	0.50	0.50	0.88	
25	1.00	1.09	0.47	0.53	0.91	0.94	0.72	1.11	0.55	0.53	0.50	0.90	
26	1.00	1.09	0.48	0.52	0.69	0.84	0.71	1.10	0.61	0.53	0.50	0.92	
27	1.00	1.08	0.49	0.52	0.68	0.88	0.70	0.82	0.62	0.50	0.52	0.92	
28	1.00	1.08	0.51	0.50	0.65	0.75	0.96	0.77	0.62	0.51	0.53	0.82	
29	1.00	1.05	0.51	0.50	2.11	2.20	1.01	0.75	0.62	0.52		0.88	
30	1.00	1.15	0.52	0.52	1.30	1.23	0.92	0.72	0.61	0.54		0.88	
31		1.15		0.52	1.62		0.83		0.61	0.56		0.88	
Mean	0.88	1.03	0.47	0.52	0.83	1.28	0.87	0.89	0.59	0.56	0.50	0.62	
Max	1.00	1.15	0.62	0.59	2.11	2.20	1.35	1.16	0.87	0.83	0.53	0.92	2.20
Min	0.76	1.00	0.38	0.39	0.53	0.75	0.70	0.72	0.45	0.46	0.46	0.48	0.38

Annual Max Momentary Gage Height 2.40 m. (A.D.) , at 12.00 Hours , on Sep 29 , 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed -0.55 m. (A.D.)

Left Bank Elevation 10.24 m. (A.D.) ,

Right Bank Elevation 10.20 m. (A.D.) , Drainage Are 336 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.33	0.43	2.00	0.95	1.25	18.42	8.03	4.24	5.81	0.45	0.75	0.75		
2	0.33	0.43	0.68	0.68	1.05	11.30	9.72	4.24	5.27	0.45	0.45	0.68		
3	0.31	0.43	0.68	0.68	2.12	12.52	6.56	4.73	5.27	0.60	0.45	0.68		
4	0.30	0.43	0.52	0.95	2.00	8.71	11.30	7.61	5.09	0.75	0.75	0.68		
5	0.30	0.52	0.52	1.15	1.75	7.19	9.98	7.19	1.75	2.00	0.75	0.68		
6	0.22	0.46	0.37	1.25	1.65	8.45	15.73	6.77	1.55	1.65	0.60	0.68		
7	0.22	0.43	0.37	1.35	1.55	13.13	19.10	6.35	1.35	1.65	0.60	0.85		
8	0.22	0.43	0.23	1.45	1.75	59.81	7.40	6.17	1.35	5.09	0.68	0.85		
9	0.22	0.43	0.23	1.55	2.00	41.32	5.63	6.17	1.35	5.09	0.68	0.95		
10	0.22	0.43	0.00	1.55	2.00	27.68	3.93	5.63	1.15	4.73	0.68	0.95		
11	0.22	0.43	0.00	1.35	2.37	29.91	3.31	5.99	1.15	2.00	0.75	0.95		
12	0.24	0.43	0.00	0.68	2.37	32.73	3.31	5.99	1.15	1.75	0.75	0.95		
13	0.24	0.43	0.00	0.52	2.00	19.10	4.09	5.63	1.55	1.55	0.75	0.95		
14	0.24	0.43	0.00	0.52	1.87	16.06	4.91	6.56	1.75	1.55	0.75	1.15		
15	0.34	0.43	1.15	0.52	1.75	14.39	5.09	4.55	2.00	0.95	0.75	1.15		
16	0.34	0.46	1.05	0.68	5.99	15.39	4.73	5.27	1.75	0.95	0.95	1.15		
17	0.34	0.46	1.05	0.52	4.91	17.40	4.91	9.98	0.68	0.75	0.75	0.60		
18	0.34	0.43	0.45	0.00	5.09	26.86	4.91	12.83	0.68	0.75	0.75	0.60		
19	0.32	0.50	0.68	0.00	8.03	16.39	4.91	7.61	0.60	0.75	0.75	0.60		
20	0.32	0.55	0.68	0.75	6.77	12.52	5.27	7.40	0.45	1.05	0.85	0.75		
21	0.32	0.52	0.60	1.55	7.40	12.22	4.55	3.78	0.45	1.05	0.85	0.06		
22	0.43	0.43	0.45	1.65	19.78	13.75	3.62	4.73	0.37	1.05	0.85	0.12		
23	0.43	0.43	0.37	1.35	8.96	15.39	3.31	5.81	0.60	0.75	0.75	0.24		
24	0.43	0.43	0.37	1.35	9.21	10.49	3.00	11.00	0.75	0.75	0.75	0.32		
25	0.43	0.57	0.52	1.05	6.56	7.19	3.31	11.30	1.25	1.05	0.75	0.34		
26	0.43	0.57	0.60	0.95	2.88	5.27	3.15	11.00	1.87	1.05	0.75	0.36		
27	0.43	0.55	0.68	0.95	2.75	5.99	3.00	4.91	2.00	0.75	0.95	0.36		
28	0.43	0.55	0.85	0.75	2.37	3.78	7.61	4.09	2.00	0.85	1.05	0.27		
29	0.43	0.50	0.85	0.75	55.09	60.40	8.71	3.78	2.00	0.95		0.32		
30	0.43	0.66	0.95	0.95	17.40	15.06	6.77	3.31	1.87	1.15		0.32		
31		0.66		0.95	29.44		5.09		1.87	1.35		0.32		
Total	9.80	14.84	16.90	29.35	220.11	558.82	194.94	194.62	56.73	45.26	20.89	19.63	1381.89	CMSDAY
Mean	0.33	0.48	0.56	0.95	7.10	18.63	6.29	6.49	1.83	1.46	0.75	0.63	3.79	CMS
Max	0.43	0.66	2.00	1.65	55.09	60.40	19.10	12.83	5.81	5.09	1.05	1.15	60.40	CMS
Min	0.22	0.43	0.00	0.00	1.05	3.78	3.00	3.31	0.37	0.45	0.45	0.06	0.00	CMS
Runoff	0.85	1.28	1.46	2.54	19.02	48.28	16.84	16.82	4.90	3.91	1.81	1.70	119.40	MCM

Momentary Peak 73.00 CMS. at 2.40 m. (A.D.) at 12.00 Hours , on Sep 29 , 2002

Runoff Yield 11.27 Liters/Second/Square KM. Momentary Peak Yield 217.262 Liters/Second/Square KM.

WATER YEAR : 2002

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	+0.000 m. (A.D.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank about 20 meters from the abutment of the bridge.	**Elevation**	+9.178 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 mean of 5 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 because of backwater effect.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Flow effected by the islet at the gage site. Stage-discharge relation defined by 54 discharge measurements made in 2002.		

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

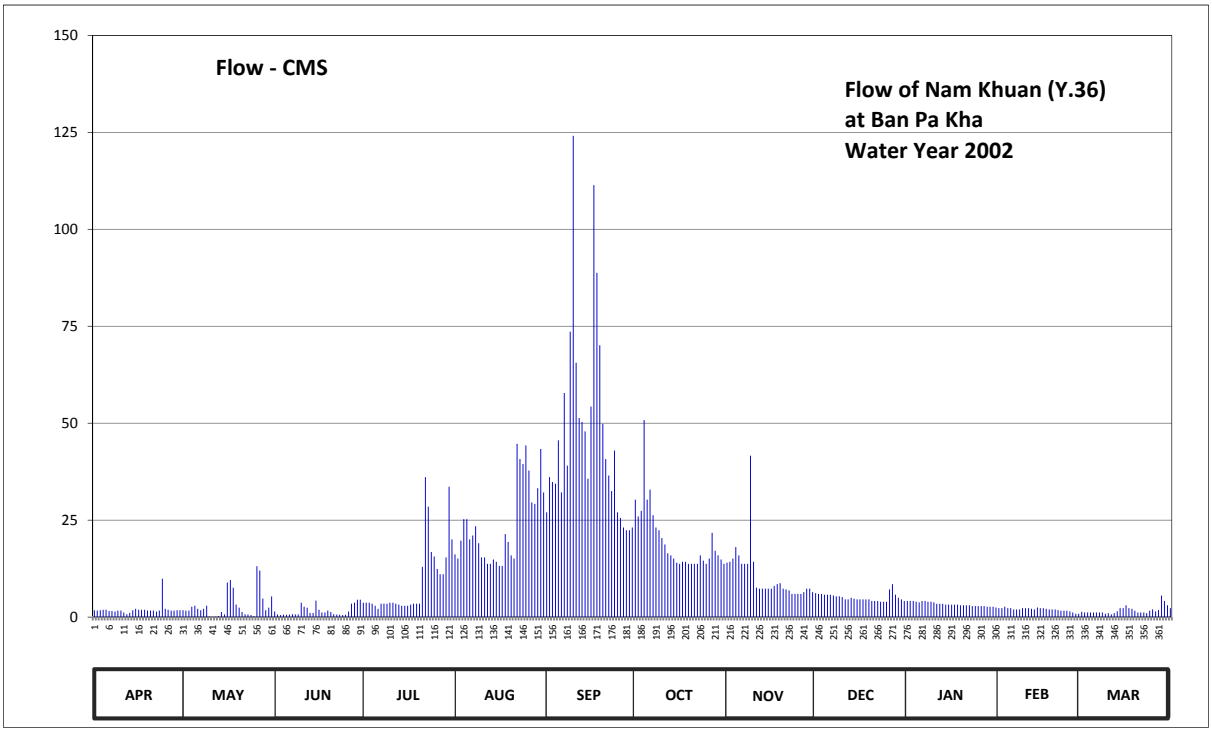
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	1.69	1.69	1.66	1.77	2.09	2.41	2.50	2.01	1.70	1.60	1.50	1.44	
2	1.68	1.68	1.59	1.77	2.05	2.65	2.38	2.02	1.69	1.60	1.50	1.43	
3	1.69	1.68	1.56	1.77	2.20	2.62	2.42	2.05	1.69	1.60	1.52	1.43	
4	1.70	1.73	1.57	1.76	2.36	2.61	2.98	2.15	1.68	1.59	1.50	1.43	
5	1.70	1.74	1.57	1.74	2.36	2.87	2.50	2.08	1.68	1.58	1.50	1.43	
6	1.67	1.71	1.58	1.71	2.21	2.55	2.57	2.00	1.68	1.60	1.48	1.43	
7	1.67	1.69	1.60	1.76	2.24	3.12	2.39	2.00	1.67	1.60	1.48	1.43	
8	1.66	1.71	1.59	1.76	2.31	2.72	2.30	2.00	1.66	1.59	1.48	1.43	
9	1.68	1.74	1.59	1.76	2.18	3.41	2.28	2.78	1.66	1.59	1.50	1.41	
10	1.68	1.41	1.77	1.77	2.06	4.11	2.22	2.02	1.65	1.58	1.50	1.42	
11	1.64	1.30	1.73	1.77	2.06	3.27	2.17	1.76	1.62	1.56	1.50	1.40	
12	1.60	1.38	1.72	1.76	2.00	2.99	2.10	1.75	1.62	1.56	1.49	1.42	
13	1.63	1.49	1.63	1.75	2.00	2.97	2.08	1.75	1.64	1.56	1.48	1.44	
14	1.69	1.64	1.63	1.74	2.04	2.92	2.05	1.75	1.63	1.55	1.51	1.50	
15	1.71	1.59	1.79	1.74	2.02	2.64	2.01	1.75	1.62	1.55	1.50	1.50	
16	1.70	1.95	1.70	1.74	1.98	3.05	2.00	1.75	1.62	1.55	1.50	1.54	
17	1.70	1.97	1.64	1.75	1.98	3.96	2.02	1.78	1.62	1.55	1.49	1.50	
18	1.70	1.92	1.64	1.76	2.25	3.65	2.02	1.80	1.62	1.55	1.48	1.49	
19	1.68	1.75	1.68	1.76	2.19	3.35	2.00	1.81	1.62	1.54	1.48	1.46	
20	1.68	1.72	1.65	1.76	2.08	2.96	2.00	1.75	1.60	1.54	1.48	1.43	
21	1.68	1.65	1.60	1.97	2.05	2.76	2.00	1.74	1.60	1.54	1.47	1.43	
22	1.66	1.60	1.58	2.65	2.85	2.66	2.00	1.73	1.60	1.54	1.46	1.43	
23	1.68	1.58	1.57	2.45	2.76	2.56	2.08	1.69	1.59	1.53	1.46	1.42	
24	1.98	1.56	1.56	2.11	2.73	2.81	2.03	1.69	1.59	1.53	1.46	1.46	
25	1.71	1.50	1.57	2.07	2.84	2.41	2.00	1.69	1.59	1.53	1.45	1.48	
26	1.70	2.07	1.66	1.95	2.69	2.37	2.05	1.69	1.74	1.53	1.43	1.45	
27	1.68	2.04	1.76	1.90	2.48	2.30	2.26	1.71	1.80	1.53	1.41	1.47	
28	1.68	1.81	1.77	1.90	2.47	2.28	2.12	1.75	1.68	1.52	1.41	1.67	
29	1.69	1.69	1.80	2.06	2.58	2.28	2.08	1.75	1.64	1.52		1.60	
30	1.69	1.72	1.80	2.59	2.82	2.30	2.04	1.71	1.62	1.52		1.54	
31		1.83		2.21	2.55		2.00		1.60	1.51		1.50	
Mean	1.69	1.69	1.65	1.90	2.31	2.85	2.18	1.86	1.65	1.56	1.48	1.46	
Max	1.98	2.07	1.80	2.65	2.85	4.11	2.98	2.78	1.80	1.60	1.52	1.67	4.11
Min	1.60	1.30	1.56	1.71	1.98	2.28	2.00	1.69	1.59	1.51	1.41	1.40	1.30

Annual Max Momentary Gage Height 4.61 m. (A.D.) , at 18.00 Hours , on Sep 17, 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed 0.86 m. (A.D.)

Left Bank Elevation 8.79 m. (A.D.) ,

Right Bank Elevation 8.90 m. (A.D.) , Drainage Are 853 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.79	1.79	1.44	3.72	16.18	27.01	30.30	14.02	6.20	4.15	2.30	1.34		
2	1.67	1.67	0.70	3.72	15.10	36.10	25.94	14.29	6.00	4.15	2.30	1.18		
3	1.79	1.67	0.55	3.72	19.70	34.84	27.38	15.10	6.00	4.15	2.67	1.18		
4	1.90	2.68	0.60	3.46	25.23	34.42	50.82	18.08	5.79	3.97	2.30	1.18		
5	1.90	2.94	0.60	2.94	25.23	45.58	30.30	15.91	5.79	3.78	2.30	1.18		
6	1.55	2.16	0.65	2.16	20.04	32.15	32.89	13.75	5.79	4.15	1.98	1.18		
7	1.55	1.79	0.75	3.46	21.06	57.82	26.29	13.75	5.58	4.15	1.98	1.18		
8	1.44	2.16	0.70	3.46	23.45	39.06	23.10	13.75	5.38	3.97	1.98	1.18		
9	1.67	2.94	0.70	3.46	19.05	73.60	22.42	41.64	5.38	3.97	2.30	0.86		
10	1.67	0.11	3.72	3.72	15.37	124.12	20.38	14.29	5.17	3.78	2.30	1.02		
11	1.21	0.00	2.68	3.72	15.37	65.61	18.73	7.58	4.56	3.41	2.30	0.70		
12	0.75	0.08	2.42	3.46	13.75	51.31	16.45	7.35	4.56	3.41	2.14	1.02		
13	1.09	0.24	1.09	3.20	13.75	50.33	15.91	7.35	4.97	3.41	1.98	1.50		
14	1.79	1.32	1.09	2.94	14.83	47.88	15.10	7.35	4.76	3.22	2.48	2.30		
15	2.16	0.70	4.24	2.94	14.29	35.68	14.02	7.35	4.56	3.22	2.30	2.30		
16	1.90	8.90	1.90	2.94	13.21	54.30	13.75	7.35	4.56	3.22	2.30	3.04		
17	1.90	9.56	1.21	3.20	13.21	111.40	14.29	8.04	4.56	3.22	2.14	2.30		
18	1.90	7.58	1.21	3.46	21.40	88.80	14.29	8.50	4.56	3.22	1.98	2.14		
19	1.67	3.20	1.67	3.46	19.38	70.10	13.75	8.76	4.56	3.04	1.98	1.66		
20	1.67	2.42	1.32	3.46	15.91	49.84	13.75	7.35	4.15	3.04	1.98	1.18		
21	1.67	1.32	0.75	12.94	15.10	40.78	13.75	7.12	4.15	3.04	1.82	1.18		
22	1.44	0.75	0.65	36.10	44.70	36.52	13.75	6.89	4.15	3.04	1.66	1.18		
23	1.67	0.65	0.60	28.47	40.78	32.52	15.91	6.00	3.97	2.85	1.66	1.02		
24	9.89	0.55	0.55	16.77	39.49	42.94	14.56	6.00	3.97	2.85	1.66	1.66		
25	2.16	0.25	0.60	15.64	44.26	27.01	13.75	6.00	3.97	2.85	1.50	1.98		
26	1.90	13.10	1.44	12.40	37.78	25.58	15.10	6.00	7.12	2.85	1.18	1.50		
27	1.67	12.01	3.46	11.05	29.57	23.10	21.74	6.43	8.50	2.85	0.86	1.82		
28	1.67	4.77	3.72	11.05	29.20	22.42	17.10	7.35	5.79	2.67	0.86	5.58		
29	1.79	1.79	4.50	15.37	33.26	22.42	15.91	7.35	4.97	2.67		4.15		
30	1.79	2.42	4.50	33.63	43.38	23.10	14.83	6.43	4.56	2.67		3.04		
31		5.33		20.04	32.15		13.75		4.15	2.48		2.30		
Total	58.62	96.85	50.01	280.06	745.18	1426.34	610.01	317.13	158.18	103.45	55.19	55.03	3956.05	CMSDAY
Mean	1.95	3.12	1.67	9.03	24.04	47.54	19.68	10.57	5.10	3.34	1.97	1.78	10.84	CMS
Max	9.89	13.10	4.50	36.10	44.70	124.12	50.82	41.64	8.50	4.15	2.67	5.58	345.77	CMS
Min	0.75	0.00	0.55	2.16	13.21	22.42	13.75	6.00	3.97	2.48	0.86	0.70	66.85	CMS
Runoff	5.065	8.368	4.321	24.197	64.384	123.236	52.705	27.400	13.667	8.938	4.768	4.755	341.803	MCM

Momentary Peak 174.01 CMS. 4.61 at m. (A.D.) at 18.00 Hours , on Sep 17 , 2002

Runoff Yield 12.71 Liters/Second/Square KM. Momentary Peak Yield 203.998 Liters/Second/Square KM.

WATER YEAR : 2002

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	Staff gage.		
Zero Gage at Bottom	+0.000 m. (A.D.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank about 5 meters from the top staff gage.	**Elevation**	+10.030 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 mean 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.The weir situated about 1 kilometer downstream from the gage site. Stage-discharge relation defined by 41 discharge measurements made in 2002.		

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

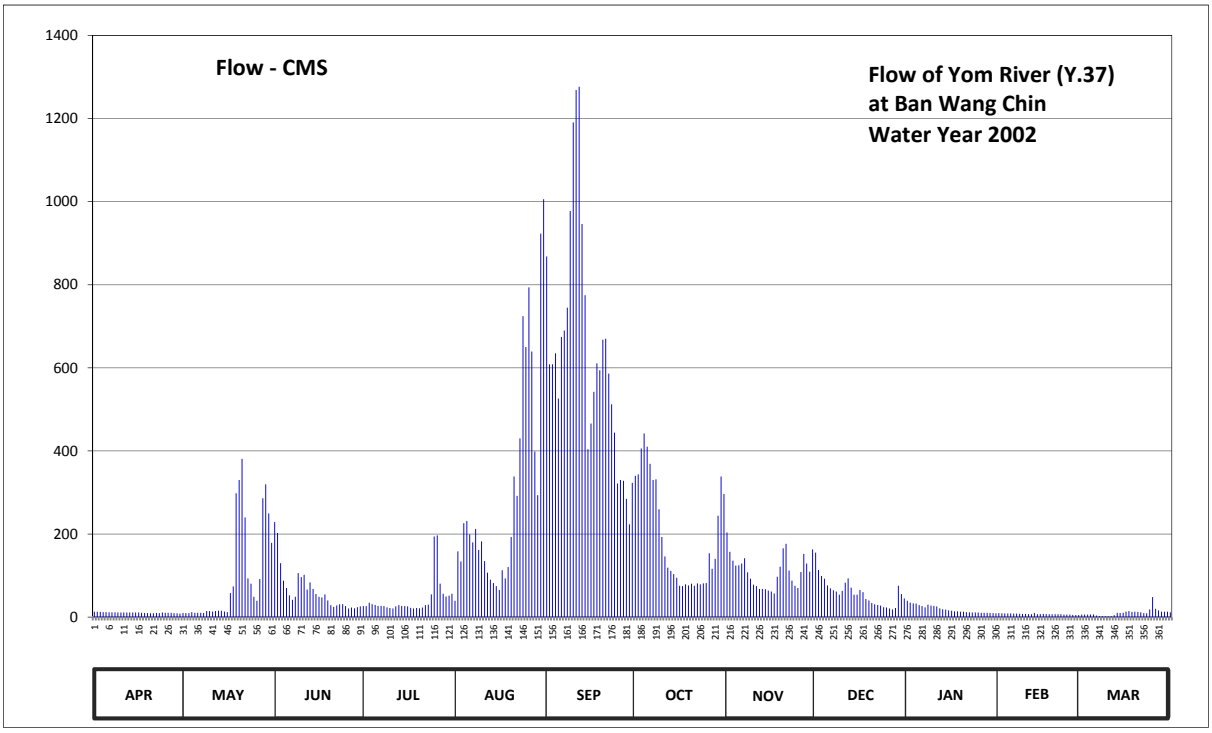
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	2.18	2.09	4.69	2.44	2.64	7.95	5.43	4.49	4.08	2.64	2.08	1.96	
2	2.17	2.08	4.48	2.44	4.11	6.82	5.45	4.10	3.59	2.58	2.07	1.96	
3	2.16	2.08	3.78	2.57	3.83	6.82	5.81	3.85	3.41	2.55	2.06	1.96	
4	2.15	2.15	3.27	2.52	4.67	6.94	5.99	3.71	3.33	2.54	2.06	1.96	
5	2.15	2.10	3.05	2.49	4.71	6.41	5.83	3.72	3.13	2.48	2.06	1.98	
6	2.14	2.10	2.82	2.45	4.45	7.12	5.60	3.77	3.04	2.44	2.05	1.84	
7	2.14	2.10	2.67	2.45	4.29	7.19	5.37	3.92	2.98	2.39	2.04	1.75	
8	2.14	2.09	2.77	2.44	4.56	7.43	5.38	3.52	2.94	2.50	2.03	1.75	
9	2.13	2.21	3.50	2.39	4.14	8.39	4.91	3.33	2.84	2.46	2.02	1.74	
10	2.13	2.21	3.38	2.36	4.31	9.21	4.40	3.15	2.96	2.45	2.02	1.74	
11	2.13	2.19	3.45	2.34	3.84	9.51	3.97	3.11	3.21	2.43	2.01	1.74	
12	2.13	2.21	3.00	2.43	3.51	9.54	3.65	3.02	3.34	2.35	2.00	1.88	
13	2.13	2.23	3.22	2.48	3.30	8.27	3.56	3.02	3.06	2.31	2.09	2.10	
14	2.12	2.23	3.02	2.45	3.20	7.56	3.47	3.01	2.84	2.29	2.00	2.09	
15	2.12	2.19	2.86	2.44	3.11	5.80	3.36	2.97	2.84	2.25	2.01	2.10	
16	2.12	2.15	2.77	2.43	2.99	6.11	3.12	2.94	2.99	2.23	2.02	2.17	
17	2.10	2.89	2.75	2.37	3.58	6.49	3.11	2.88	2.92	2.20	2.01	2.21	
18	2.09	3.10	2.85	2.34	3.34	6.83	3.16	3.39	2.70	2.20	2.00	2.16	
19	2.08	5.18	2.65	2.36	3.67	6.75	3.13	3.68	2.65	2.18	2.00	2.17	
20	2.07	5.37	2.48	2.35	4.40	7.09	3.18	4.17	2.56	2.17	2.00	2.16	
21	2.07	5.67	2.41	2.38	5.42	7.10	3.12	4.26	2.51	2.15	2.00	2.14	
22	2.09	4.77	2.47	2.48	5.14	6.71	3.19	3.57	2.49	2.14	1.99	2.08	
23	2.08	3.34	2.51	2.50	5.93	6.34	3.16	3.27	2.46	2.13	1.95	2.07	
24	2.12	3.18	2.52	2.85	7.34	6.00	3.19	3.12	2.40	2.12	1.95	2.30	
25	2.10	2.77	2.44	4.41	7.01	5.32	3.20	3.05	2.38	2.12	1.95	2.76	
26	2.10	2.64	2.34	4.43	7.64	5.37	4.06	3.53	2.34	2.10	1.93	2.33	
27	2.10	3.32	2.38	3.18	6.96	5.36	3.62	4.04	2.30	2.10	1.91	2.25	
28	2.08	5.10	2.35	2.87	5.77	5.09	3.90	3.77	2.36	2.10	1.90	2.18	
29	2.07	5.31	2.40	2.78	5.15	4.65	4.80	3.54	3.12	2.09		2.17	
30	2.05	4.84	2.43	2.81	8.18	5.33	5.42	4.15	2.86	2.08		2.17	
31		4.28		2.87	8.50		5.17		2.72	2.07		2.14	
Mean	2.11	3.10	2.92	2.65	4.83	6.85	4.22	3.54	2.88	2.29	2.01	2.06	
Max	2.18	5.67	4.69	4.43	8.50	9.54	5.99	4.49	4.08	2.64	2.09	2.76	9.54
Min	2.05	2.08	2.34	2.34	2.64	4.65	3.11	2.88	2.30	2.07	1.90	1.74	1.74

Annual Max Momentary Gage Height 9.59 m. (A.D.) , at 06.00 Hours , on Sep 12 , 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed -0.37 m. (A.D.)

Left Bank Elevation 12.99 m. (A.D.) ,

Right Bank Elevation 14.05 m. (A.D.) , Drainage Are 10,305 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	13.20	9.90	228.70	26.40	39.30	868.00	340.10	203.80	155.30	39.30	9.60	6.20		
2	12.90	9.60	202.60	26.40	158.20	608.40	343.50	157.00	113.60	35.20	9.20	6.20		
3	12.50	9.60	129.80	34.50	134.10	608.40	406.00	135.80	98.80	33.20	8.90	6.20		
4	12.10	12.10	87.60	31.30	226.10	634.80	442.00	123.90	92.40	32.60	8.90	6.20		
5	12.10	10.20	70.10	29.40	231.40	526.00	410.00	124.70	76.40	28.80	8.90	6.60		
6	11.70	10.20	52.50	27.00	199.00	674.40	369.00	129.00	69.30	26.40	8.60	3.70		
7	11.70	10.20	41.40	27.00	179.80	689.80	329.90	141.70	64.70	23.50	8.30	2.10		
8	11.70	9.90	48.70	26.40	212.20	744.90	331.60	107.70	61.60	30.00	8.00	2.10		
9	11.30	14.50	106.00	23.50	161.80	977.40	259.40	92.40	54.00	27.60	7.60	1.90		
10	11.30	14.50	96.40	21.80	182.20	1190.60	193.00	78.00	63.10	27.00	7.60	1.90		
11	11.30	13.60	102.00	20.70	134.90	1268.60	146.00	74.80	82.80	25.80	7.30	1.90		
12	11.30	14.50	66.20	25.80	106.90	1276.40	118.80	67.80	93.20	21.20	7.00	4.50		
13	11.30	15.40	83.60	28.80	90.00	946.20	111.10	67.80	70.90	19.00	9.90	10.20		
14	11.00	15.40	67.80	27.00	82.00	774.80	103.60	67.00	54.00	18.00	7.00	9.90		
15	11.00	13.60	55.50	26.40	74.80	404.00	94.80	63.90	54.00	16.20	7.30	10.20		
16	11.00	12.10	48.70	25.80	65.40	466.00	75.60	61.60	65.40	15.40	7.60	12.90		
17	10.20	57.70	47.20	22.30	112.80	542.00	74.80	57.00	60.00	14.00	7.30	14.50		
18	9.90	74.00	54.70	20.70	93.20	610.60	78.80	97.20	43.50	14.00	7.00	12.50		
19	9.60	298.00	40.00	21.80	120.50	594.00	76.40	121.30	40.00	13.20	7.00	12.90		
20	9.20	329.90	28.80	21.20	193.00	667.80	80.40	165.40	33.90	12.90	7.00	12.50		
21	9.20	380.90	24.60	22.90	338.40	670.00	75.60	176.20	30.60	12.10	7.00	11.70		
22	9.90	239.80	28.20	28.80	292.00	586.00	81.20	112.00	29.40	11.70	6.80	9.60		
23	9.60	93.20	30.60	30.00	430.00	512.00	78.80	87.60	27.60	11.30	6.00	9.20		
24	11.00	80.40	31.30	54.70	724.20	444.00	81.20	75.60	24.00	11.00	6.00	18.50		
25	10.20	48.70	26.40	194.20	650.20	321.40	82.00	70.10	22.90	11.00	6.00	48.00		
26	10.20	39.30	20.70	196.60	793.60	329.90	153.60	108.50	20.70	10.20	5.50	20.10		
27	10.20	91.60	22.90	80.40	639.20	328.20	116.20	151.90	18.50	10.20	5.10	16.20		
28	9.60	286.00	21.20	56.20	398.60	284.60	140.00	129.00	21.80	10.20	4.90	13.20		
29	9.20	319.70	24.00	49.50	293.50	223.50	244.00	109.40	75.60	9.90		12.90		
30	8.60	249.60	25.80	51.70	923.20	323.10	338.40	163.00	55.50	9.60		12.90		
31		178.60		56.20	1006.00		296.50		45.00	9.20		11.70		
Total	324.00	2962.70	1914.00	1335.40	9286.50	19095.80	6072.30	3321.10	1818.50	589.70	207.30	329.10	47256.40	CMSDAY
Mean	10.80	95.60	63.80	43.10	299.60	636.50	195.90	110.70	58.70	19.00	7.40	10.60	129.50	CMS
Max	13.20	380.90	228.70	196.60	1006.00	1276.40	442.00	203.80	155.30	39.30	9.90	48.00	1276.40	CMS
Min	8.60	9.60	20.70	20.70	39.30	223.50	74.80	57.00	18.50	9.20	4.90	1.90	1.90	CMS
Runoff	27.99	255.98	165.37	115.38	802.35	1649.88	524.65	286.94	157.12	50.95	17.91	28.43	4082.95	MCM

Momentary Peak 1289.40 CMS. at 9.59 m. (A.D.) at 06.00 Hours , on Sep 12, 2002

Runoff Yield 12.56 Liters/Second/Square KM. Momentary Peak Yield 125.124 Liters/Second/Square KM.

WATER YEAR : 2002

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	Staff gage.
Zero Gage at Bottom	+0.000 m. (A.D.)
Bench Mark	B.M.-H.D.
Location BM	On right bank about 15 meters from the top staff gage. **Elevation** +5.284 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 mean 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	Rather unstable because of backwater effect.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. The islet situated of the gage site. Stage-discharge relation defined by 43 discharge measurements made in 2002.

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

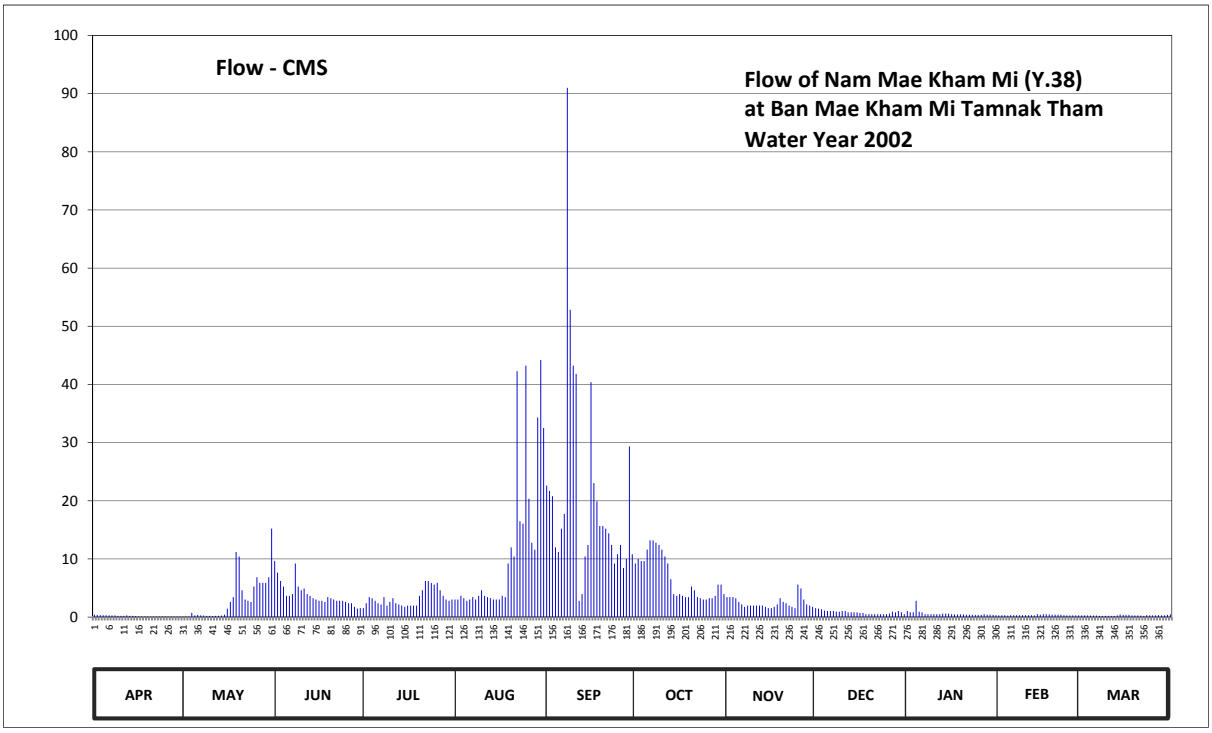
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	2.18	2.09	2.47	2.20	2.27	2.78	2.46	2.29	2.20	2.15	2.05	2.05	
2	2.17	2.10	2.42	2.24	2.27	2.76	2.48	2.29	2.19	2.13	2.06	2.05	
3	2.16	2.09	2.38	2.29	2.30	2.74	2.47	2.29	2.18	2.13	2.06	2.05	
4	2.16	2.24	2.35	2.28	2.28	2.53	2.47	2.28	2.16	2.26	2.04	2.04	
5	2.16	2.15	2.30	2.26	2.26	2.51	2.52	2.25	2.15	2.14	2.06	2.04	
6	2.15	2.17	2.30	2.24	2.27	2.61	2.56	2.23	2.15	2.13	2.06	2.04	
7	2.15	2.15	2.31	2.23	2.29	2.67	2.56	2.21	2.15	2.10	2.06	2.03	
8	2.15	2.14	2.46	2.29	2.27	4.20	2.55	2.22	2.14	2.10	2.06	2.03	
9	2.13	2.13	2.35	2.22	2.30	3.43	2.54	2.22	2.14	2.10	2.06	2.03	
10	2.13	2.13	2.33	2.25	2.33	3.23	2.52	2.22	2.15	2.10	2.06	2.03	
11	2.13	2.12	2.34	2.28	2.30	3.20	2.49	2.22	2.15	2.10	2.06	2.03	
12	2.15	2.13	2.31	2.24	2.29	2.26	2.46	2.22	2.13	2.10	2.06	2.03	
13	2.13	2.13	2.30	2.23	2.28	2.31	2.39	2.22	2.13	2.11	2.05	2.05	
14	2.13	2.14	2.28	2.22	2.27	2.49	2.31	2.21	2.13	2.11	2.10	2.09	
15	2.12	2.18	2.27	2.21	2.27	2.54	2.30	2.20	2.13	2.11	2.08	2.07	
16	2.10	2.19	2.26	2.22	2.27	3.17	2.31	2.20	2.12	2.10	2.10	2.07	
17	2.10	2.25	2.26	2.22	2.30	2.79	2.30	2.21	2.12	2.09	2.10	2.07	
18	2.09	2.29	2.25	2.22	2.29	2.72	2.29	2.23	2.10	2.09	2.09	2.05	
19	2.09	2.51	2.29	2.22	2.46	2.62	2.29	2.27	2.10	2.09	2.08	2.05	
20	2.09	2.49	2.28	2.30	2.53	2.62	2.35	2.25	2.10	2.09	2.08	2.05	
21	2.08	2.33	2.27	2.33	2.49	2.61	2.33	2.24	2.10	2.08	2.08	2.04	
22	2.08	2.27	2.26	2.38	3.21	2.59	2.29	2.22	2.10	2.08	2.08	2.03	
23	2.09	2.26	2.26	2.38	2.64	2.54	2.28	2.21	2.10	2.08	2.06	2.06	
24	2.10	2.25	2.26	2.37	2.63	2.46	2.27	2.20	2.10	2.07	2.05	2.05	
25	2.10	2.35	2.25	2.36	3.23	2.50	2.27	2.36	2.10	2.07	2.05	2.05	
26	2.09	2.40	2.24	2.37	2.73	2.54	2.28	2.34	2.11	2.07	2.05	2.05	
27	2.09	2.37	2.24	2.33	2.55	2.44	2.28	2.27	2.14	2.10	2.05	2.06	
28	2.08	2.37	2.21	2.30	2.52	2.48	2.30	2.23	2.13	2.08	2.05	2.05	
29	2.08	2.37	2.19	2.27	3.04	2.93	2.36	2.22	2.15	2.08		2.05	
30	2.08	2.40	2.20	2.26	3.25	2.50	2.35	2.21	2.13	2.07		2.07	
31		2.61		2.27	3.00		2.31		2.10	2.06		2.09	
Mean	2.12	2.25	2.30	2.27	2.50	2.73	2.39	2.24	2.13	2.10	2.07	2.05	
Max	2.18	2.61	2.47	2.38	3.25	4.20	2.56	2.36	2.20	2.26	2.10	2.09	4.20
Min	2.08	2.09	2.19	2.20	2.26	2.26	2.27	2.20	2.10	2.06	2.04	2.03	2.03

Annual Max Momentary Gage Height 4.49 m. (A.D.) , at 11.00 Hours , on Sep 8 , 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed 1.60 m. (A.D.)

Left Bank Elevation 9.68 m. (A.D.) ,

Right Bank Elevation 9.70 m. (A.D.) , Drainage Are 425 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.42	0.09	9.62	1.55	3.02	22.60	9.22	3.44	1.55	1.03	0.30	0.30		
2	0.38	0.10	7.64	2.39	3.02	21.70	10.01	3.44	1.45	0.82	0.34	0.30		
3	0.34	0.09	6.21	3.44	3.65	20.80	9.62	3.44	1.34	0.82	0.34	0.30		
4	0.34	0.74	5.25	3.23	3.23	12.00	9.62	3.23	1.13	2.81	0.26	0.26		
5	0.34	0.30	3.65	2.81	2.81	11.20	11.60	2.60	1.03	0.92	0.34	0.26		
6	0.30	0.38	3.65	2.39	3.02	15.22	13.20	2.18	1.03	0.82	0.34	0.26		
7	0.30	0.30	3.97	2.18	3.44	17.74	13.20	1.76	1.03	0.50	0.34	0.22		
8	0.30	0.26	9.22	3.44	3.02	91.00	12.80	1.97	0.92	0.50	0.34	0.22		
9	0.22	0.22	5.25	1.97	3.65	52.84	12.40	1.97	0.92	0.50	0.34	0.22		
10	0.22	0.22	4.61	2.60	4.61	43.24	11.60	1.97	1.03	0.50	0.34	0.22		
11	0.22	0.18	4.93	3.23	3.65	41.80	10.41	1.97	1.03	0.50	0.34	0.22		
12	0.30	0.22	3.97	2.39	3.44	2.81	9.22	1.97	0.82	0.50	0.34	0.22		
13	0.22	0.22	3.65	2.18	3.23	3.97	6.53	1.97	0.82	0.60	0.30	0.30		
14	0.22	0.26	3.23	1.97	3.02	10.41	3.97	1.76	0.82	0.60	0.50	0.46		
15	0.18	0.42	3.02	1.76	3.02	12.40	3.65	1.55	0.82	0.60	0.42	0.38		
16	0.10	1.45	2.81	1.97	3.02	40.39	3.97	1.55	0.71	0.50	0.50	0.38		
17	0.10	2.60	2.81	1.97	3.65	23.05	3.65	1.76	0.71	0.46	0.50	0.38		
18	0.09	3.44	2.60	1.97	3.44	19.90	3.44	2.18	0.50	0.46	0.46	0.30		
19	0.09	11.20	3.44	1.97	9.22	15.64	3.44	3.23	0.50	0.46	0.42	0.30		
20	0.09	10.41	3.23	3.65	12.00	15.64	5.25	2.60	0.50	0.46	0.42	0.30		
21	0.08	4.61	3.02	4.61	10.41	15.22	4.61	2.39	0.50	0.42	0.42	0.26		
22	0.08	3.02	2.81	6.21	42.28	14.40	3.44	1.97	0.50	0.42	0.42	0.22		
23	0.09	2.81	2.81	6.21	16.48	12.40	3.23	1.76	0.50	0.42	0.34	0.34		
24	0.10	2.60	2.81	5.89	16.06	9.22	3.02	1.55	0.50	0.38	0.30	0.30		
25	0.10	5.25	2.60	5.57	43.24	10.80	3.02	5.57	0.50	0.38	0.30	0.30		
26	0.09	6.85	2.39	5.89	20.35	12.40	3.23	4.93	0.60	0.38	0.30	0.30		
27	0.09	5.89	2.39	4.61	12.80	8.43	3.23	3.02	0.92	0.50	0.30	0.34		
28	0.08	5.89	1.76	3.65	11.60	10.01	3.65	2.18	0.82	0.42	0.30	0.30		
29	0.08	5.89	1.45	3.02	34.34	29.35	5.57	1.97	1.03	0.42		0.30		
30	0.08	6.85	1.55	2.81	44.20	10.80	5.57	1.76	0.82	0.38		0.38		
31		15.22		3.02	32.50		3.97		0.50	0.34		0.46		
Total	5.64	97.98	116.35	100.55	365.42	627.38	209.34	73.64	25.85	18.82	10.16	9.30	1660.43	CMSDAY
Mean	0.19	3.16	3.88	3.24	11.79	20.91	6.75	2.45	0.83	0.61	0.36	0.30	4.55	CMS
Max	0.42	15.22	9.62	6.21	44.20	91.00	13.20	5.57	1.55	2.81	0.50	0.46	91.00	CMS
Min	0.08	0.09	1.45	1.55	2.81	2.81	3.02	1.55	0.50	0.34	0.26	0.22	0.08	CMS
Runoff	0.49	8.47	10.05	8.69	31.57	54.21	18.09	6.36	2.23	1.63	0.88	0.80	143.46	MCM

Momentary Peak 106.07 CMS. at 4.49 m. (A.D.) at 11.00 Hours , on Sep 8 , 2002

Runoff Yield 10.70 Liters/Second/Square KM. Momentary Peak Yield 249.576 Liters/Second/Square KM.

WATER YEAR : 2002

YOM RIVER BASIN

Yom River at Ban Bang Klan, Phichit (Y.40)

Lat 16 - 01 - 00 N Long 100 - 16 - 30 E

Location : on left bank at Ban Bang Klan.

	Ban Bang Klan	**Amphoe** Pho Thale	**Changwat** Phichit
Drainge Area	24,421 sq.km.		
Type of Gage	Water - stage recorder.		
Zero Gage at Bottom	+20.510 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank near the gage site.		**Elevation** +31.006 m. (MSL.)
Gage Reading Frequency	Recording.		
Basis of Mean Daily Gage Height	Arithmetic mean 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 because of backwater effect.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 30 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

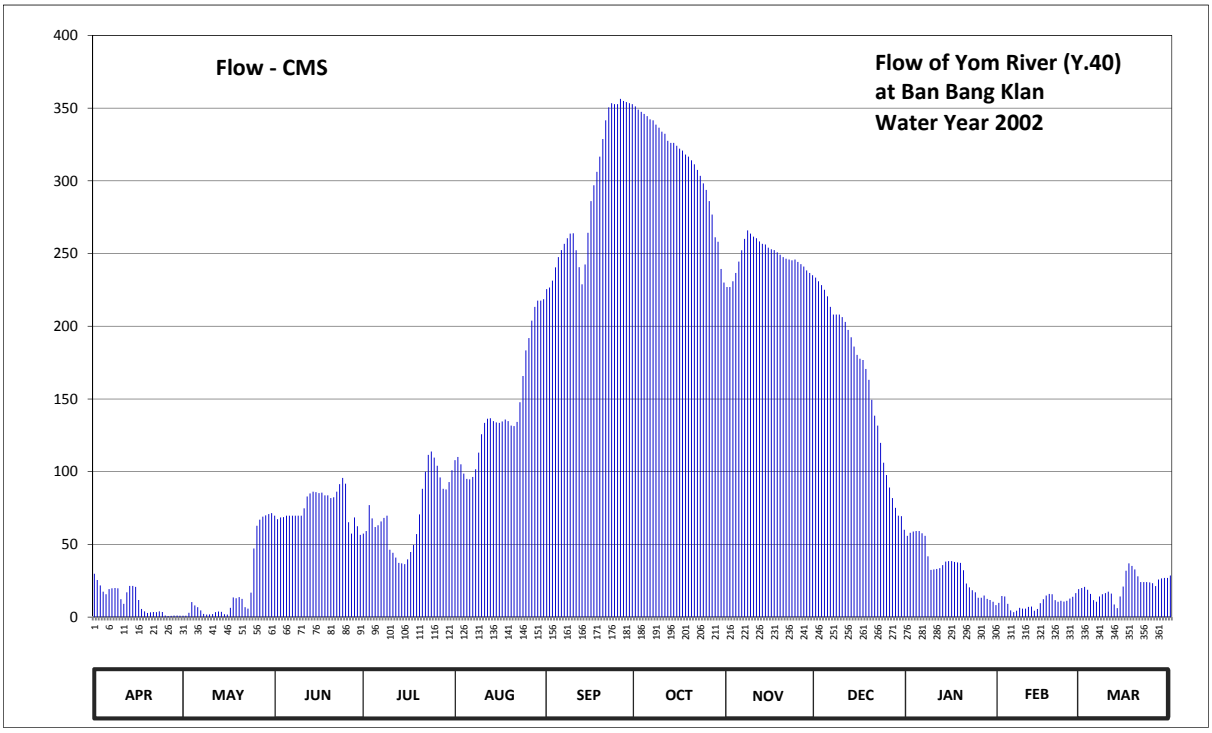
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	22.66	21.30	23.99	23.58	25.17	28.05	30.11	29.00	28.20	23.53	21.88	22.30	
2	22.51	21.30	23.91	23.64	25.23	28.07	30.08	29.00	28.15	23.60	22.08	22.33	
3	22.37	21.50	23.95	24.23	25.09	28.16	30.06	28.98	28.10	23.63	22.07	22.25	
4	22.20	21.90	23.96	23.93	24.90	28.33	30.04	28.95	28.04	23.64	21.85	22.14	
5	22.13	21.80	23.99	23.73	24.79	28.46	30.02	28.91	27.95	23.64	21.63	21.96	
6	22.27	21.74	23.99	23.77	24.78	28.55	29.99	28.87	27.80	23.59	21.54	21.91	
7	22.29	21.63	23.99	23.86	24.83	28.63	29.98	28.83	27.69	23.53	21.62	22.07	
8	22.30	21.42	23.99	23.94	24.99	28.70	29.94	28.80	27.69	23.06	21.72	22.13	
9	22.29	21.38	23.99	23.99	25.31	28.76	29.91	28.76	27.69	22.75	21.69	22.16	
10	21.99	21.39	23.99	23.21	25.65	28.81	29.87	28.72	27.65	22.76	21.69	22.20	
11	21.85	21.41	24.16	23.14	25.88	28.87	29.85	28.70	27.58	22.77	21.75	22.15	
12	22.18	21.54	24.42	23.03	25.98	28.93	29.78	28.66	27.46	22.79	21.76	21.83	
13	22.36	21.58	24.48	22.91	25.99	28.99	29.76	28.63	27.35	22.86	21.62	21.71	
14	22.36	21.56	24.52	22.90	25.92	29.05	29.76	28.62	27.21	22.94	21.68	22.07	
15	22.33	21.40	24.51	22.88	25.89	29.12	29.73	28.58	27.08	22.95	21.87	22.34	
16	21.97	21.38	24.49	22.99	25.88	29.19	29.70	28.56	27.02	22.95	21.99	22.73	
17	21.68	21.72	24.50	23.16	25.91	29.32	29.68	28.55	27.00	22.93	22.09	22.90	
18	21.60	22.04	24.44	23.32	25.96	29.46	29.64	28.52	26.86	22.92	22.14	22.84	
19	21.49	22.02	24.44	23.57	25.92	29.62	29.62	28.49	26.67	22.91	22.13	22.76	
20	21.53	22.05	24.38	24.02	25.81	29.80	29.58	28.46	26.32	22.74	21.96	22.60	
21	21.55	22.00	24.40	24.58	25.80	29.98	29.54	28.44	26.04	22.42	21.91	22.46	
22	21.54	21.74	24.52	24.94	25.90	30.10	29.48	28.43	25.81	22.32	21.94	22.46	
23	21.60	21.69	24.68	25.27	26.28	30.14	29.42	28.42	25.49	22.24	21.92	22.46	
24	21.55	22.17	24.81	25.33	26.74	30.13	29.34	28.43	25.12	22.18	21.94	22.45	
25	21.31	23.24	24.69	25.22	27.15	30.13	29.27	28.40	24.87	22.03	22.01	22.43	
26	21.28	23.76	23.84	25.06	27.34	30.18	29.19	28.37	24.61	22.03	22.06	22.35	
27	21.29	23.90	23.58	24.82	27.60	30.16	29.16	28.34	24.38	22.09	22.16	22.52	
28	21.31	23.97	23.95	24.58	27.80	30.15	29.11	28.29	24.17	22.00	22.27	22.55	
29	21.31	24.00	23.75	24.57	27.89	30.14	29.10	28.26	23.99	21.97		22.56	
30	21.30	24.03	23.55	24.72	27.89	30.13	29.04	28.23	23.98	21.91		22.56	
31		24.05		24.97	27.91		29.01		23.67	21.81		22.62	
Mean	21.88	22.15	24.20	24.00	26.07	29.27	29.64	28.61	26.50	22.76	21.89	22.35	
Max	22.66	24.05	24.81	25.33	27.91	30.18	30.11	29.00	28.20	23.64	22.27	22.90	30.18
Min	21.28	21.30	23.55	22.88	24.78	28.05	29.01	28.23	23.67	21.81	21.54	21.71	21.28

Annual Max Momentary Gage Height 30.21 m. (MSL.) , at 08.00 Hours , on Sep 26 , 2002

Zero Gage at Bottom Elevation 20.51 m. (MSL.) , River Bed 20.14 m. (MSL.)

Left Bank Elevation 31.07 m. (MSL.) ,

Right Bank Elevation 30.44 m. (MSL.) , Drainage Are 24,421 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	29.80	1.00	69.70	57.40	107.90	225.60	351.20	227.00	233.50	55.90	9.80	20.00		
2	25.50	1.00	67.30	59.20	110.10	226.70	349.00	227.00	230.90	58.00	14.50	20.80		
3	21.80	3.00	68.50	77.00	105.10	231.40	347.50	230.90	228.30	58.90	14.20	18.80		
4	17.50	10.30	68.80	67.90	98.70	240.50	346.00	236.70	225.10	59.20	9.10	16.00		
5	15.70	8.00	69.70	61.90	95.10	247.50	344.50	244.50	220.60	59.20	4.60	11.60		
6	19.30	6.80	69.70	63.10	94.70	252.40	342.30	252.30	213.30	57.70	3.40	10.50		
7	19.80	4.60	69.70	65.80	96.40	256.70	341.60	260.10	208.10	55.90	4.40	14.20		
8	20.00	2.20	69.70	68.20	101.70	260.50	338.70	265.90	208.10	41.80	6.40	15.70		
9	19.80	1.80	69.70	69.70	113.10	263.70	336.60	263.70	208.10	32.50	5.80	16.50		
10	12.30	1.90	69.70	46.30	125.80	264.00	333.80	261.60	206.30	32.80	5.80	17.50		
11	9.10	2.10	74.80	44.20	133.60	252.30	332.40	260.50	203.00	33.10	7.00	16.20		
12	17.00	3.40	83.00	40.90	136.40	240.60	327.50	258.30	197.50	33.70	7.20	8.70		
13	21.50	3.80	85.00	37.30	136.70	228.90	326.10	256.70	192.40	35.80	4.40	6.20		
14	21.50	3.60	86.20	37.00	134.80	242.50	326.10	256.20	186.00	38.20	5.60	14.20		
15	20.80	2.00	85.90	36.40	133.90	264.30	324.10	254.00	180.30	38.50	9.60	21.00		
16	11.80	1.80	85.30	39.70	133.60	286.10	322.10	252.90	177.70	38.50	12.30	31.90		
17	5.60	6.40	85.60	44.80	134.50	297.00	320.80	252.40	176.80	37.90	14.80	37.00		
18	4.00	13.50	83.70	49.60	135.90	306.20	318.10	250.80	170.60	37.60	16.00	35.20		
19	2.90	13.00	83.70	57.10	134.80	316.70	316.70	249.20	163.20	37.30	15.70	32.80		
20	3.30	13.70	81.80	70.60	131.70	328.80	314.10	247.50	149.40	32.20	11.60	28.00		
21	3.50	12.50	82.40	88.20	131.40	341.60	311.40	246.50	138.50	23.10	10.50	24.10		
22	3.40	6.80	86.20	100.00	134.20	350.50	307.50	245.90	131.70	20.50	11.20	24.10		
23	4.00	5.80	91.40	111.60	147.80	353.40	303.50	245.40	119.80	18.50	10.70	24.10		
24	3.50	16.80	95.70	113.90	165.80	352.70	298.30	245.90	106.20	17.00	11.20	23.90		
25	1.10	47.20	91.80	109.70	183.40	352.70	293.80	244.30	97.70	13.30	12.80	23.30		
26	0.80	62.80	65.20	104.10	191.90	356.40	286.10	242.70	89.10	13.30	14.00	21.30		
27	0.90	67.00	57.40	96.10	203.90	354.90	276.80	241.10	81.80	14.80	16.50	25.80		
28	1.10	69.10	68.50	88.20	213.30	354.20	261.20	238.40	75.10	12.50	19.30	26.60		
29	1.10	70.00	62.50	87.80	217.60	353.40	258.10	236.70	69.70	11.80		26.90		
30	1.00	70.90	56.50	92.80	217.60	352.70	239.40	235.10	69.40	10.50		26.90		
31		71.50		101.00	218.60		230.10		60.10	8.20		28.60		
Total	339.40	604.30	2285.10	2187.50	4420.00	8754.90	9725.40	7430.20	5018.30	1038.20	288.40	668.40	42760.10	CMSDAY
Mean	11.30	19.50	76.20	70.60	142.60	291.80	313.70	247.70	161.90	33.50	10.30	21.60	117.20	CMS
Max	29.80	71.50	95.70	113.90	218.60	356.40	351.20	265.90	233.50	59.20	19.30	37.00	356.40	CMS
Min	0.80	1.00	56.50	36.40	94.70	225.60	230.10	227.00	60.10	8.20	3.40	6.20	0.80	CMS
Runoff	29.32	52.21	197.43	189.00	381.89	756.42	840.27	641.97	433.58	89.70	24.92	57.75	3694.47	MCM

Momentary Peak 358.65 CMS. at 30.21 m. (MSL.) at 08.00 Hours , on Sep 26 , 2002

Runoff Yield 4.80 Liters/Second/Square KM. Momentary Peak Yield 14.686 Liters/Second/Square KM.

WATER YEAR : 2002

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 mean 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	Rather unstable with varisble water surface slope.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 42 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

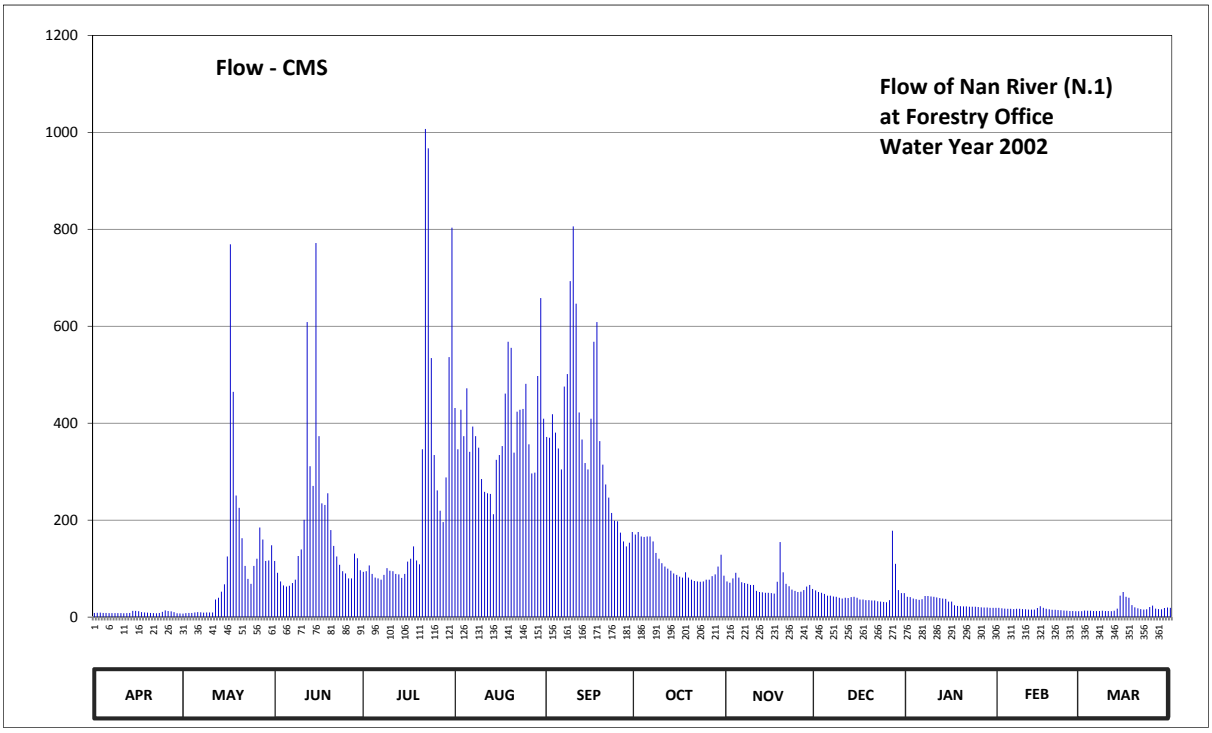
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	192.49	192.45	193.64	193.44	195.71	195.38	194.08	193.23	193.00	192.83	192.48	192.34	
2	192.51	192.48	193.42	193.45	195.23	195.37	194.12	193.20	192.96	192.82	192.46	192.37	
3	192.52	192.49	193.23	193.56	195.69	195.64	194.05	193.30	192.94	192.78	192.45	192.36	
4	192.50	192.49	193.13	193.40	195.39	195.43	194.04	193.42	192.91	192.76	192.44	192.36	
5	192.49	192.53	193.10	193.32	195.93	195.24	194.05	193.32	192.86	192.74	192.44	192.35	
6	192.48	192.56	193.12	193.30	195.20	194.98	194.05	193.21	192.86	192.76	192.43	192.35	
7	192.48	192.54	193.19	193.27	195.50	195.95	193.97	193.19	192.84	192.85	192.44	192.35	
8	192.48	192.52	193.27	193.38	195.39	196.08	193.78	193.17	192.83	192.85	192.44	192.36	
9	192.48	192.53	193.73	193.51	195.25	196.95	193.68	193.14	192.80	192.84	192.43	192.35	
10	192.48	192.53	193.84	193.46	194.86	197.42	193.60	193.14	192.78	192.83	192.42	192.35	
11	192.47	192.53	194.30	193.45	194.69	196.75	193.54	192.99	192.80	192.81	192.41	192.34	
12	192.48	192.75	196.58	193.40	194.67	195.66	193.50	192.96	192.79	192.79	192.41	192.36	
13	192.49	192.80	195.02	193.39	194.66	195.35	193.46	192.95	192.82	192.78	192.41	192.45	
14	192.65	192.97	194.77	193.31	194.38	195.06	193.41	192.94	192.83	192.77	192.47	192.86	
15	192.65	193.16	197.28	193.40	195.10	194.98	193.38	192.94	192.80	192.69	192.54	192.96	
16	192.62	193.72	195.39	193.63	195.16	195.59	193.34	192.93	192.75	192.69	192.48	192.83	
17	192.56	197.27	194.53	193.68	195.27	196.40	193.32	192.92	192.75	192.57	192.44	192.80	
18	192.53	195.89	194.51	193.89	195.87	196.58	193.43	193.22	192.73	192.55	192.42	192.58	
19	192.52	194.64	194.67	193.65	196.40	195.33	193.32	193.96	192.73	192.54	192.40	192.50	
20	192.49	194.47	194.15	193.58	196.34	195.04	193.27	193.43	192.72	192.53	192.40	192.46	
21	192.48	194.02	193.90	195.23	195.19	194.79	193.24	193.17	192.72	192.53	192.39	192.43	
22	192.47	193.55	193.72	198.20	195.67	194.61	193.23	193.11	192.70	192.52	192.38	192.41	
23	192.50	193.29	193.57	198.05	195.69	194.40	193.22	193.02	192.69	192.52	192.37	192.42	
24	192.58	193.17	193.45	196.24	195.70	194.29	193.23	192.99	192.68	192.52	192.36	192.51	
25	192.68	193.55	193.41	195.16	195.98	194.28	193.27	192.96	192.67	192.51	192.35	192.56	
26	192.64	193.68	193.30	194.71	195.29	194.11	193.27	192.97	192.73	192.50	192.35	192.45	
27	192.61	194.19	193.30	194.43	194.93	193.97	193.35	193.01	194.14	192.49	192.34	192.43	
28	192.56	194.00	193.77	194.27	194.94	193.89	193.39	193.10	193.59	192.49	192.34	192.42	
29	192.47	193.64	193.69	194.88	196.06	193.95	193.54	193.14	193.01	192.48		192.47	
30	192.46	193.65	193.47	196.25	196.80	194.12	193.75	193.04	192.93	192.48		192.49	
31		193.91		197.41	195.59		193.36		192.93	192.48		192.48	
Mean	192.53	193.42	194.02	194.33	195.44	195.25	193.56	193.14	192.88	192.65	192.42	192.48	
Max	192.68	197.27	197.28	198.20	196.80	197.42	194.12	193.96	194.14	192.85	192.54	192.96	198.20
Min	192.46	192.45	193.10	193.27	194.38	193.89	193.22	192.92	192.67	192.48	192.34	192.34	192.34

Annual Max Momentary Gage Height 198.47 m. (MSL.) , at 24.00 Hours , on Jul 22 , 2002

Zero Gage at Bottom Elevation 192.20 m. (MSL.) , River Bed 189.24 m. (MSL.)

Left Bank Elevation 199.64 m. (MSL.) ,

Right Bank Elevation 199.42 m. (MSL.) , Drainage Are 4,560 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	8.43	7.35	115.70	93.46	431.35	371.60	170.40	73.64	55.00	41.96	19.16	12.12		
2	8.97	8.16	91.28	94.55	346.10	369.90	175.60	71.00	51.80	41.24	18.12	13.56		
3	9.24	8.43	73.64	106.66	427.65	418.40	166.50	79.80	50.20	38.40	17.60	13.08		
4	8.70	8.43	65.40	89.10	373.30	380.40	165.20	91.28	47.80	37.00	17.08	13.08		
5	8.43	9.51	63.00	81.66	472.05	347.80	166.50	81.66	44.12	35.60	17.08	12.60		
6	8.16	10.32	64.60	79.80	341.00	304.70	166.50	71.88	44.12	37.00	16.56	12.60		
7	8.16	9.78	70.20	77.16	393.00	475.75	156.10	70.20	42.68	43.40	17.08	12.60		
8	8.16	9.24	77.16	87.24	373.30	501.40	132.28	68.60	41.96	43.40	17.08	13.08		
9	8.16	9.51	126.23	101.11	349.50	693.25	120.30	66.20	39.80	42.68	16.56	12.60		
10	8.16	9.51	139.62	95.64	284.90	806.10	111.10	66.20	38.40	41.96	16.04	12.60		
11	7.89	9.51	200.50	94.55	258.50	646.75	104.44	54.20	39.80	40.52	15.52	12.12		
12	8.16	36.30	608.50	89.10	255.50	422.10	100.00	51.80	39.10	39.10	15.52	13.08		
13	8.43	39.80	311.30	88.17	254.00	366.50	95.64	51.00	41.24	38.40	15.52	17.60		
14	13.00	52.60	270.50	80.73	212.10	317.90	90.19	50.20	41.96	37.70	18.64	44.12		
15	13.00	67.80	771.60	89.10	324.50	304.70	87.24	50.20	39.80	32.12	22.52	51.80		
16	12.04	125.02	373.30	114.55	334.40	409.20	83.52	49.40	36.30	32.12	19.16	41.96		
17	10.32	769.15	234.50	120.30	352.90	568.00	81.66	48.60	36.30	24.26	17.08	39.80		
18	9.51	464.65	231.50	145.77	460.95	608.50	92.37	72.76	34.90	23.10	16.04	24.84		
19	9.24	251.00	255.50	116.85	568.00	363.10	81.66	154.80	34.90	22.52	15.00	20.20		
20	8.43	225.50	179.50	108.88	555.40	314.60	77.16	92.37	34.20	21.94	15.00	18.12		
21	8.16	162.60	147.00	346.10	339.35	273.50	74.52	68.60	34.20	21.94	14.52	16.56		
22	7.89	105.55	125.02	1007.00	423.95	246.50	73.64	63.80	32.80	21.36	14.04	15.52		
23	8.70	78.92	107.77	967.25	427.65	215.00	72.76	56.60	32.12	21.36	13.56	16.04		
24	10.86	68.60	94.55	534.40	429.50	199.05	73.64	54.20	31.44	21.36	13.08	20.78		
25	13.96	105.55	90.19	334.40	481.30	197.60	77.16	51.80	30.76	20.78	12.60	23.68		
26	12.68	120.30	79.80	261.50	356.30	174.30	77.16	52.60	34.90	20.20	12.60	17.60		
27	11.72	184.70	79.80	219.50	296.45	156.10	84.45	55.80	178.20	19.68	12.12	16.56		
28	10.32	160.00	131.07	196.15	298.10	145.77	88.17	63.00	109.99	19.68	12.12	16.04		
29	7.89	115.70	121.45	288.20	497.30	153.50	104.44	66.20	55.80	19.16		18.64		
30	7.62	116.85	96.73	536.50	658.00	175.60	128.65	58.20	49.40	19.16		19.68		
31		148.30		803.55	409.20		85.38		49.40	19.16		19.16		
Total	284.39	3498.64	5396.91	7448.93	11985.50	10927.57	3364.33	2006.59	1473.39	938.26	447.00	611.82	48383.33	CMSDAY
Mean	9.48	112.86	179.90	240.29	386.63	364.25	108.53	66.89	47.53	30.27	15.96	19.74	132.56	CMS
Max	13.96	769.15	771.60	1007.00	658.00	806.10	175.60	154.80	178.20	43.40	22.52	51.80	1007.00	CMS
Min	7.62	7.35	63.00	77.16	212.10	145.77	72.76	48.60	30.76	19.16	12.12	12.12	7.35	CMS
Runoff	24.57	302.28	466.29	643.59	1035.55	944.14	290.68	173.37	127.30	81.07	38.62	52.86	4180.32	MCM

Momentary Peak 1079.60 CMS. at 198.47 m. (MSL.) at 24.00 Hours , on Jul 22 , 2002

Runoff Yield 29.07 Liters/Second/Square KM. Momentary Peak Yield 236.750 Liters/Second/Square KM.

WATER YEAR : 2002

NAN RIVER BASIN

Nan River at Mueang , Phitsunulok (N.5A)

Lat 16 - 49 - 19 N Long 100 - 15 - 49 E

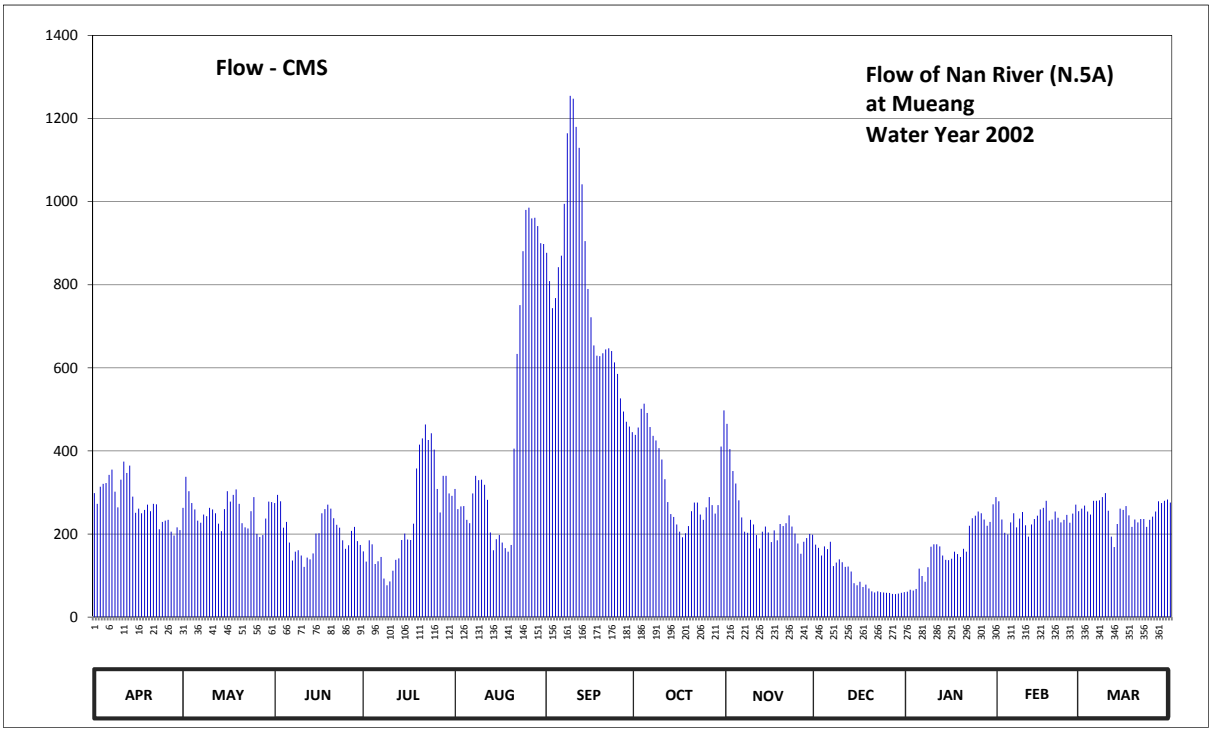
Location : on left bank near the post office and about 1 kilometer upstream from gaging station N.5.

	Ban -	**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**	+45.739 m. (MSL.)
Gage Reading Frequency	Recording.				
Basis of Mean Daily Gage Height	Arithmetic mean 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	No overbank flow.				
General Description	Records good.Flow effected by Naresuan Dam.				
	Stage-discharge relation defined by 19 discharge measurements made in 2002.				

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	37.96	37.63	37.74	36.51	38.05	42.24	39.15	39.36	36.70	35.28	37.78	37.61	
2	37.72	38.31	37.92	36.22	37.60	41.85	39.29	38.87	36.61	35.35	37.35	37.68	
3	38.10	38.00	37.78	36.82	37.66	41.45	39.65	38.43	36.39	35.32	37.02	37.54	
4	38.16	37.74	37.15	36.71	37.67	41.61	39.75	38.17	36.65	35.38	36.98	37.47	
5	38.18	37.59	37.29	36.15	37.34	42.04	39.57	37.80	36.57	36.02	37.28	37.79	
6	38.35	37.32	36.76	36.23	37.26	42.20	39.30	37.40	36.78	35.81	37.50	37.79	
7	38.46	37.27	36.25	36.35	37.95	42.89	39.13	37.05	36.09	35.63	37.16	37.80	
8	37.99	37.47	36.50	35.73	38.33	43.72	39.04	37.02	36.19	36.06	37.37	37.87	
9	37.64	37.43	36.54	35.51	38.24	44.12	38.89	37.34	36.28	36.64	37.53	37.96	
10	38.25	37.63	36.39	35.64	38.25	44.09	38.66	37.23	36.20	36.71	37.21	37.56	
11	38.62	37.59	36.07	35.96	38.14	43.79	38.26	36.96	36.07	36.71	36.92	36.92	
12	38.39	37.50	36.33	36.27	37.81	43.56	37.76	36.59	36.08	36.65	37.23	36.63	
13	38.54	37.25	36.28	36.31	37.03	43.14	37.48	37.05	35.94	36.39	37.36	37.24	
14	37.88	37.06	36.45	36.83	36.54	42.40	37.41	37.18	35.58	36.27	37.44	37.61	
15	37.51	37.60	37.00	37.00	36.85	41.74	37.23	37.03	35.51	36.26	37.59	37.58	
16	37.61	38.00	37.01	36.84	36.96	41.30	37.05	36.77	35.63	36.30	37.63	37.67	
17	37.50	37.77	37.50	36.83	36.76	40.82	36.90	37.08	35.45	36.50	37.79	37.45	
18	37.58	37.92	37.60	37.25	36.60	40.64	37.01	36.82	35.53	36.43	37.32	37.17	
19	37.70	38.04	37.70	38.48	36.50	40.63	37.19	37.24	35.40	36.35	37.35	37.35	
20	37.55	37.72	37.61	38.96	36.69	40.68	37.55	37.19	35.29	36.58	37.54	37.28	
21	37.72	37.26	37.38	39.08	38.88	40.75	37.75	37.26	35.25	36.50	37.39	37.36	
22	37.71	37.16	37.22	39.35	40.67	40.77	37.75	37.45	35.29	37.20	37.28	37.36	
23	37.11	37.13	37.15	39.05	41.50	40.72	37.47	37.18	35.26	37.38	37.34	37.17	
24	37.29	37.55	36.82	39.18	42.26	40.52	37.34	37.00	35.25	37.44	37.46	37.34	
25	37.32	37.87	36.58	38.86	42.81	40.31	37.64	36.73	35.24	37.54	37.27	37.42	
26	37.34	36.99	36.68	38.05	42.84	39.85	37.87	36.44	35.23	37.50	37.49	37.54	
27	37.05	36.91	37.07	37.52	42.70	39.60	37.69	36.78	35.20	37.35	37.70	37.78	
28	36.95	36.96	37.17	38.33	42.71	39.40	37.49	36.88	35.19	37.20	37.55	37.74	
29	37.16	37.37	36.80	38.33	42.60	39.31	37.69	36.99	35.21	37.29		37.79	
30	37.09	37.77	36.69	37.95	42.37	39.20	38.92	36.97	35.24	37.71		37.82	
31		37.76		37.90	42.36		39.62		35.26	37.87		37.75	
Mean	37.75	37.53	36.98	37.30	39.03	41.51	38.18	37.28	35.76	36.57	37.39	37.52	
Max	38.62	38.31	37.92	39.35	42.84	44.12	39.75	39.36	36.78	37.87	37.79	37.96	44.12
Min	36.95	36.91	36.07	35.51	36.50	39.20	36.90	36.44	35.19	35.28	36.92	36.63	35.19

Annual Max Momentary Gage Height	44.22	m. (MSL.) ,	at 01.00 Hours , on Sep 10 , 2002		
Zero Gage at Bottom Elevation	34.50	m. (MSL.) ,	River Bed	32.91	m. (MSL.)
Left Bank Elevation	45.54	m. (MSL.) ,			
Right Bank Elevation	45.60	m. (MSL.) ,	Drainage Are	25,039	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	298.60	263.15	274.70	158.35	308.50	877.00	438.75	465.00	174.50	61.20	278.90	261.05		
2	272.60	337.65	294.20	133.70	260.00	808.75	456.25	404.40	166.85	65.75	235.00	268.40		
3	314.00	303.00	278.90	184.80	266.30	743.50	501.25	351.60	148.15	63.80	202.90	254.00		
4	320.60	274.70	215.25	175.35	267.35	767.70	513.75	321.70	170.25	67.70	199.20	247.00		
5	322.80	259.00	229.00	127.75	234.00	842.00	491.25	281.00	163.45	116.70	228.00	279.95		
6	342.25	232.00	179.60	134.55	226.00	870.00	457.50	240.00	181.30	98.85	250.00	279.95		
7	355.20	227.00	136.25	144.75	297.50	994.65	436.25	205.75	122.65	85.25	216.20	281.00		
8	301.90	247.00	157.50	92.75	339.95	1164.40	425.00	202.90	131.15	120.10	237.00	288.70		
9	264.20	243.00	160.90	76.70	329.60	1254.60	406.80	234.00	138.80	169.40	253.00	298.60		
10	330.75	263.15	148.15	86.00	330.75	1247.70	379.20	223.00	132.00	175.35	221.00	256.00		
11	374.40	259.00	120.95	111.60	318.40	1179.80	331.90	197.40	120.95	175.35	193.80	193.80		
12	346.85	250.00	143.05	137.95	282.10	1129.40	276.80	165.15	121.80	170.25	223.00	168.55		
13	364.80	225.00	138.80	141.35	203.85	1041.60	248.00	205.75	109.90	148.15	236.00	224.00		
14	289.80	206.70	153.25	185.70	160.90	905.00	241.00	218.10	81.60	137.95	244.00	261.05		
15	251.00	260.00	201.00	201.00	187.50	789.80	223.00	203.85	76.70	137.10	259.00	258.00		
16	261.05	303.00	201.95	186.60	197.40	721.50	205.75	180.45	85.25	140.50	263.15	267.35		
17	250.00	277.85	250.00	185.70	179.60	653.80	192.00	208.60	72.50	157.50	279.95	245.00		
18	258.00	294.20	260.00	225.00	166.00	629.40	201.95	184.80	78.10	151.55	232.00	217.15		
19	270.50	307.40	270.50	357.60	157.50	628.05	219.05	224.00	69.00	144.75	235.00	235.00		
20	255.00	272.60	261.05	415.20	173.65	634.80	255.00	219.05	61.85	164.30	254.00	228.00		
21	272.60	226.00	238.00	430.00	405.60	644.25	275.75	226.00	59.25	157.50	239.00	236.00		
22	271.55	216.20	222.00	463.75	633.45	646.95	275.75	245.00	61.85	220.00	228.00	236.00		
23	211.45	213.35	215.25	426.25	751.00	640.20	247.00	218.10	59.90	238.00	234.00	217.15		
24	229.00	255.00	184.80	442.50	880.50	613.20	234.00	201.00	59.25	244.00	246.00	234.00		
25	232.00	288.70	164.30	403.20	979.85	585.30	264.20	177.05	58.60	254.00	227.00	242.00		
26	234.00	200.10	172.80	308.50	985.40	526.25	288.70	152.40	57.95	250.00	249.00	254.00		
27	205.75	192.90	207.65	252.00	959.50	495.00	269.45	181.30	56.00	235.00	270.50	278.90		
28	196.50	197.40	217.15	339.95	961.35	470.00	249.00	190.20	55.35	220.00	255.00	274.70		
29	216.20	237.00	183.00	339.95	941.00	458.75	269.45	200.10	56.65	229.00		279.95		
30	209.55	277.85	173.65	297.50	899.75	445.00	410.40	198.30	58.60	271.55		283.20		
31		276.80		292.00	898.00		497.50		59.90	288.70		275.75		
Total	8322.90	7886.70	6053.60	7458.00	14182.25	23408.35	10181.65	6925.95	3050.05	5159.25	6689.60	7824.20	107142.50	CMSDAY
Mean	277.43	254.41	201.79	240.58	457.49	780.28	328.44	230.87	98.39	166.43	238.91	252.39	293.54	CMS
Max	374.40	337.65	294.20	463.75	985.40	1254.60	513.75	465.00	181.30	288.70	279.95	298.60	1254.60	CMS
Min	196.50	192.90	120.95	76.70	157.50	445.00	192.00	152.40	55.35	61.20	193.80	168.55	55.35	CMS
Runoff	719.10	681.41	523.03	644.37	1225.35	2022.48	879.69	598.40	263.52	445.76	577.98	676.01	9257.11	MCM

Momentary Peak 1277.70 CMS. at 44.22 m. (MSL.) at 01.00 Hours , on Sep 10 , 2002

Runoff Yield 11.72 Liters/Second/Square KM. Momentary Peak Yield 51.030 Liters/Second/Square KM.

WATER YEAR : 2002

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 mean 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 32 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

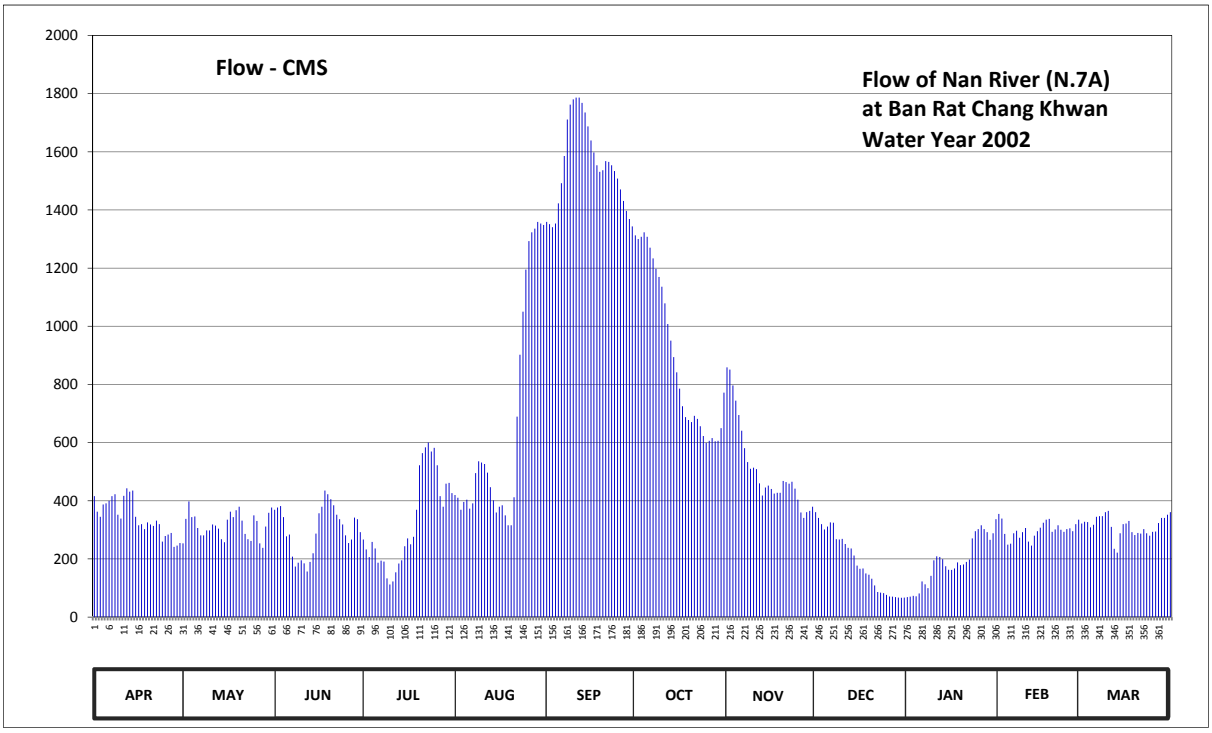
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	30.29	28.98	29.93	29.09	30.32	35.83	35.65	33.41	29.87	27.05	29.82	29.55	
2	29.88	29.68	29.99	28.79	30.25	35.80	35.60	33.36	29.71	27.07	29.69	29.60	
3	29.74	30.15	30.03	28.54	29.93	35.76	35.63	33.01	29.53	27.11	29.25	29.59	
4	30.07	29.73	29.73	29.02	30.14	35.81	35.69	32.67	29.38	27.09	28.94	29.44	
5	30.10	29.75	29.18	28.82	30.20	36.08	35.63	32.33	29.46	27.22	28.97	29.51	
6	30.17	29.42	29.23	28.35	29.96	36.34	35.48	31.95	29.58	27.70	29.27	29.74	
7	30.29	29.21	28.56	28.42	30.10	36.67	35.33	31.52	29.57	27.60	29.34	29.76	
8	30.34	29.21	28.22	28.39	30.89	37.09	35.18	31.17	29.10	27.44	29.14	29.76	
9	29.80	29.35	28.35	27.81	31.19	37.26	35.06	31.00	29.09	27.90	29.30	29.87	
10	29.69	29.35	28.43	27.59	31.16	37.32	34.91	31.03	29.11	28.43	29.42	29.90	
11	30.30	29.52	28.33	27.70	31.12	37.34	34.65	30.99	28.96	28.57	29.03	29.45	
12	30.50	29.49	28.05	28.02	30.90	37.34	34.30	30.63	28.84	28.55	28.91	28.81	
13	30.41	29.40	28.38	28.32	30.53	37.28	33.99	30.31	28.82	28.47	29.20	28.69	
14	30.44	29.10	28.67	28.43	30.18	37.17	33.64	30.52	28.60	28.23	29.33	29.27	
15	29.74	29.01	29.26	28.89	29.86	37.01	33.30	30.57	28.25	28.11	29.43	29.53	
16	29.50	29.66	29.84	29.12	30.01	36.85	32.94	30.48	28.14	28.10	29.57	29.55	
17	29.53	29.88	30.01	28.95	30.05	36.71	32.54	30.36	28.15	28.15	29.66	29.62	
18	29.39	29.73	30.44	29.17	29.78	36.56	32.28	30.38	27.98	28.36	29.68	29.30	
19	29.58	29.92	30.34	29.93	29.50	36.48	32.21	30.38	27.94	28.27	29.31	29.22	
20	29.52	30.01	30.21	31.09	29.50	36.50	32.16	30.69	27.80	28.29	29.38	29.28	
21	29.48	29.63	30.05	31.40	30.26	36.61	32.31	30.66	27.55	28.38	29.50	29.26	
22	29.63	29.25	29.80	31.54	32.29	36.60	32.24	30.62	27.28	28.46	29.37	29.39	
23	29.53	29.10	29.67	31.66	33.69	36.56	32.06	30.67	27.25	29.12	29.31	29.27	
24	29.03	29.05	29.52	31.44	34.51	36.49	31.82	30.49	27.23	29.33	29.39	29.20	
25	29.19	29.78	29.21	31.53	35.17	36.40	31.65	30.20	27.15	29.39	29.41	29.31	
26	29.23	29.62	28.99	31.09	35.57	36.26	31.70	29.86	27.08	29.50	29.33	29.32	
27	29.28	28.98	29.09	30.29	35.69	36.11	31.77	29.71	27.07	29.39	29.53	29.56	
28	28.87	28.84	29.72	30.01	35.74	35.98	31.69	29.87	27.05	29.30	29.66	29.71	
29	28.91	29.46	29.67	30.62	35.83	35.87	31.70	29.90	27.03	29.08		29.71	
30	28.99	29.85	29.30	30.64	35.81	35.77	32.01	30.01	27.02	29.27		29.80	
31		29.99		30.37	35.79		32.85		27.03	29.67		29.87	
Mean	29.71	29.49	29.34	29.52	31.80	36.53	33.48	30.96	28.28	28.34	29.36	29.48	
Max	30.50	30.15	30.44	31.66	35.83	37.34	35.69	33.41	29.87	29.67	29.82	29.90	37.34
Min	28.87	28.84	28.05	27.59	29.50	35.76	31.65	29.71	27.02	27.05	28.91	28.69	27.02

Annual Max Momentary Gage Height 37.35 m. (MSL.) , at 15.00 Hours , on Sep 11 , 2002

Zero Gage at Bottom Elevation 26.00 m. (MSL.) , River Bed 21.90 m. (MSL.)

Left Bank Elevation 41.87 m. (MSL.) ,

Right Bank Elevation 41.98 m. (MSL.) , Drainage Are 27,897 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	415.70	253.80	368.90	266.80	419.60	1358.65	1312.75	858.55	361.10	68.75	354.60	322.00		
2	362.40	337.60	376.70	232.90	410.50	1351.00	1300.00	850.80	341.20	70.25	338.80	328.00		
3	344.80	397.50	381.90	206.00	368.90	1340.80	1307.65	796.55	319.60	73.25	286.00	326.80		
4	387.10	343.60	343.60	258.40	396.20	1353.55	1322.95	744.50	301.60	71.75	249.40	308.80		
5	391.00	346.00	277.60	236.20	404.00	1422.80	1307.65	694.85	311.20	81.60	252.70	317.20		
6	400.10	306.40	283.60	187.00	372.80	1491.80	1270.00	641.00	325.60	122.50	288.40	344.80		
7	415.70	281.20	208.00	194.00	391.00	1585.65	1233.20	580.80	324.40	113.00	296.80	347.20		
8	422.20	281.20	174.00	191.00	495.15	1711.00	1197.40	532.95	268.00	99.40	272.80	347.20		
9	352.00	298.00	187.00	133.00	535.65	1762.00	1169.80	510.00	266.80	142.00	292.00	361.10		
10	338.80	298.00	195.00	112.15	531.60	1780.00	1136.20	514.05	269.20	195.00	306.40	365.00		
11	417.00	318.40	185.00	122.50	526.20	1786.00	1079.00	508.65	251.60	209.00	259.60	310.00		
12	443.00	314.80	157.00	154.00	496.50	1786.00	1008.00	460.05	238.40	207.00	246.10	235.10		
13	431.30	304.00	190.00	184.00	446.90	1768.00	950.35	418.30	236.20	199.00	280.00	221.90		
14	435.20	268.00	219.70	195.00	401.40	1735.00	894.20	445.60	212.00	175.00	295.60	288.40		
15	344.80	257.20	287.20	243.90	359.80	1687.00	841.50	452.10	177.00	163.00	307.60	319.60		
16	316.00	335.20	357.20	270.40	379.30	1639.00	785.70	440.40	166.00	162.00	324.40	322.00		
17	319.60	362.40	379.30	250.50	384.50	1597.45	725.30	424.80	167.00	167.00	335.20	330.40		
18	302.80	343.60	435.20	276.40	349.60	1553.60	687.60	427.40	150.00	188.00	337.60	292.00		
19	325.60	367.60	422.20	368.90	316.00	1530.80	677.45	427.40	146.00	179.00	293.20	282.40		
20	318.40	379.30	405.30	522.15	316.00	1536.50	670.40	468.15	132.00	181.00	301.60	289.60		
21	313.60	331.60	384.50	564.00	411.80	1567.95	691.95	464.10	108.75	190.00	316.00	287.20		
22	331.60	286.00	352.00	583.60	689.05	1565.00	681.80	458.70	86.40	198.00	300.40	302.80		
23	319.60	268.00	336.40	600.40	901.95	1553.60	656.40	465.45	84.00	270.40	293.20	288.40		
24	259.60	262.00	318.40	569.60	1050.00	1533.65	622.80	441.70	82.40	295.60	302.80	280.00		
25	278.80	349.60	281.20	582.20	1195.10	1508.00	599.00	404.00	76.25	302.80	305.20	293.20		
26	283.60	330.40	254.90	522.15	1292.50	1470.20	606.00	359.80	71.00	316.00	295.60	294.40		
27	289.60	253.80	266.80	415.70	1322.95	1430.60	615.80	341.20	70.25	302.80	319.60	323.20		
28	241.70	238.40	342.40	379.30	1335.70	1396.90	604.60	361.10	68.75	292.00	335.20	341.20		
29	246.10	311.20	336.40	458.70	1358.65	1368.85	606.00	365.00	67.25	265.60		341.20		
30	254.90	358.50	292.00	461.40	1353.55	1343.35	649.40	379.30	66.50	288.40		352.00		
31		376.70		426.10	1348.45		771.75		67.25	336.40		361.10		
Total	10302.60	9760.00	8999.40	10168.35	20561.30	46514.70	27982.60	15237.25	5813.70	5925.50	8386.80	9724.20	179376.40	CMSDAY
Mean	343.42	314.84	299.98	328.01	663.27	1550.49	902.66	507.91	187.54	191.15	299.53	313.68	491.44	CMS
Max	443.00	397.50	435.20	600.40	1358.65	1786.00	1322.95	858.55	361.10	336.40	354.60	365.00	1786.00	CMS
Min	241.70	238.40	157.00	112.15	316.00	1340.80	599.00	341.20	66.50	68.75	246.10	221.90	66.50	CMS
Runoff	890.14	843.26	777.55	878.55	1776.50	4018.87	2417.70	1316.50	502.30	511.96	724.62	840.17	15498.12	MCM

Momentary Peak 1789.00 CMS. at 37.35 m. (MSL.) at 15.00 Hours , on Sep 11 , 2002

Runoff Yield 17.62 Liters/Second/Square KM. Momentary Peak Yield 64.130 Liters/Second/Square KM.

WATER YEAR : 2002

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.

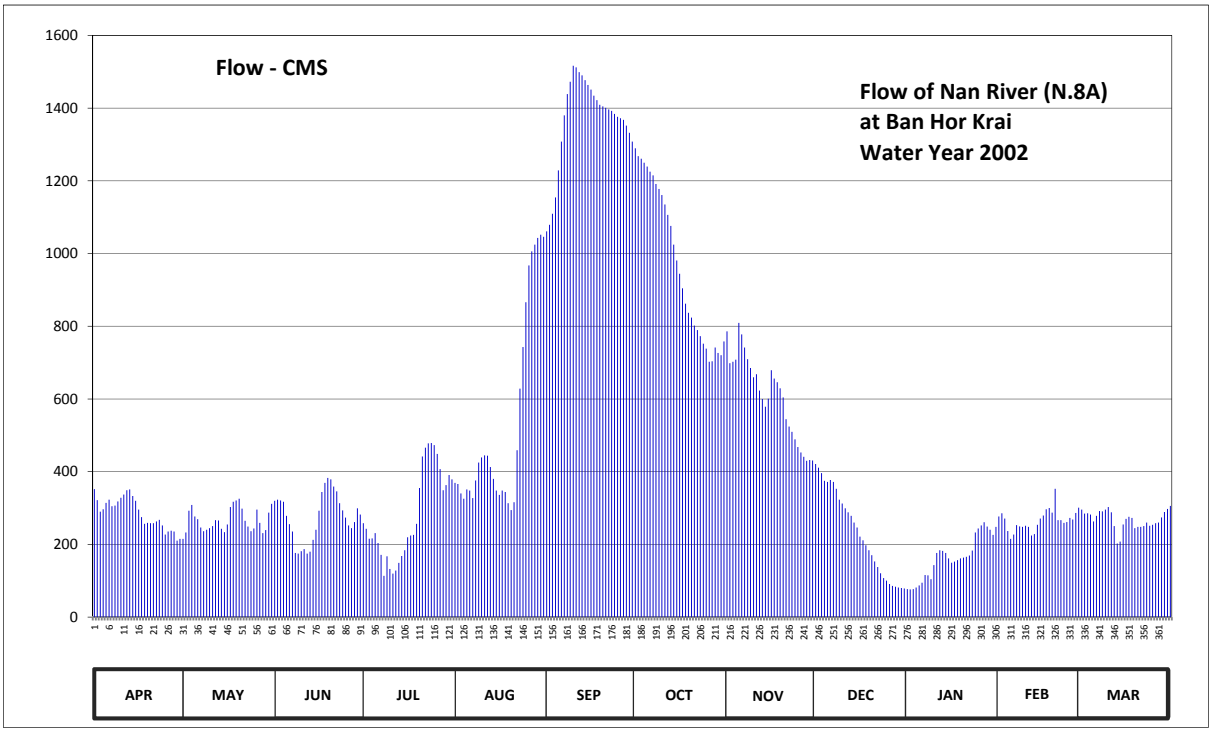
Ban Hor Krai **Amphoe** Bang Mun Nak **Changwat** Phichit

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 mean 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 +30.870 m. (M.S.L.) and is including overbank flow.
General Description	Records good. Flow effected by Naresuan Dam. Stage-discharge relation defined by 27 discharge mesurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	24.94	23.40	24.61	23.92	25.11	30.07	30.76	28.81	25.63	21.42	24.14	24.35	
2	24.63	23.62	24.64	23.74	25.08	30.13	30.70	28.23	25.53	21.40	24.24	24.23	
3	24.29	24.32	24.62	23.41	24.82	30.23	30.68	28.26	25.38	21.42	24.07	24.24	
4	24.36	24.49	24.58	23.42	24.67	30.37	30.65	28.30	25.17	21.50	23.67	24.20	
5	24.55	24.14	24.16	23.60	24.93	30.59	30.62	28.94	25.14	21.60	23.40	23.98	
6	24.64	24.05	23.89	23.26	24.90	30.81	30.58	28.76	25.19	21.73	23.55	24.16	
7	24.45	23.78	23.65	22.84	24.69	30.99	30.55	28.53	25.14	22.05	23.86	24.31	
8	24.47	23.66	22.91	22.02	25.18	31.13	30.48	28.31	24.95	22.04	23.82	24.30	
9	24.59	23.71	22.89	22.79	25.67	31.21	30.44	28.13	24.64	21.88	23.80	24.35	
10	24.70	23.76	22.98	22.29	25.81	31.31	30.39	27.92	24.53	22.44	23.84	24.43	
11	24.79	23.83	23.05	22.11	25.87	31.30	30.31	27.99	24.39	22.91	23.80	24.27	
12	24.91	24.02	22.89	22.23	25.86	31.27	30.22	27.59	24.27	23.01	23.52	23.83	
13	24.93	24.01	22.96	22.53	25.55	31.25	30.12	27.37	24.16	22.99	23.57	23.24	
14	24.75	23.74	23.37	22.80	25.22	31.22	29.94	27.17	23.94	22.91	23.87	23.31	
15	24.61	23.63	23.71	23.01	24.90	31.19	29.77	27.38	23.78	22.71	24.07	23.88	
16	24.35	23.88	24.32	23.46	24.78	31.16	29.61	28.08	23.48	22.54	24.17	24.06	
17	24.12	24.43	24.86	23.52	24.90	31.12	29.43	27.89	23.35	22.58	24.36	24.13	
18	23.90	24.58	25.11	23.54	24.86	31.09	29.22	27.80	23.18	22.64	24.40	24.09	
19	23.93	24.62	25.25	23.90	24.54	31.06	29.09	27.65	23.01	22.71	24.26	23.76	
20	23.92	24.67	25.21	24.97	24.34	31.05	29.02	27.41	22.83	22.74	24.95	23.80	
21	23.92	24.38	25.01	25.84	24.57	31.04	28.90	26.84	22.59	22.77	24.02	23.80	
22	23.98	24.00	24.88	26.08	26.01	31.03	28.83	26.65	22.37	22.82	24.02	23.83	
23	24.03	23.81	24.54	26.20	27.64	31.02	28.73	26.51	22.12	23.00	23.93	23.94	
24	23.85	23.66	24.33	26.21	28.54	31.00	28.60	26.31	21.93	23.62	23.96	23.84	
25	23.55	23.75	24.10	26.15	29.24	30.98	28.51	26.10	21.82	23.75	24.09	23.87	
26	23.65	24.35	23.85	25.91	29.71	30.97	28.26	25.95	21.67	23.85	24.04	23.92	
27	23.68	23.93	23.76	25.49	29.87	30.96	28.27	25.83	21.58	23.95	24.25	23.94	
28	23.65	23.60	23.96	24.91	29.94	30.92	28.53	25.72	21.54	23.81	24.41	24.11	
29	23.34	23.70	24.39	25.05	30.01	30.87	28.43	25.74	21.50	23.71		24.28	
30	23.40	24.26	24.20	25.33	30.04	30.81	28.39	25.73	21.47	23.54		24.37	
31		24.52		25.21	30.02		28.64		21.45	23.80		24.46	
Mean	24.23	24.01	24.09	24.06	26.36	30.94	29.57	27.40	23.48	22.70	24.00	24.04	
Max	24.94	24.67	25.25	26.21	30.04	31.31	30.76	28.94	25.63	23.95	24.95	24.46	31.31
Min	23.34	23.40	22.89	22.02	24.34	30.07	28.26	25.72	21.45	21.40	23.40	23.24	21.40

Annual Max Momentary Gage Height	31.35	m. (MSL.) ,	at 18.00 Hours , on Sep 10 , 2002		
Zero Gage at Bottom Elevation	20.00	m. (MSL.) ,	River Bed	19.58	m. (MSL.)
Left Bank Elevation	31.24	m. (MSL.) ,			
Right Bank Elevation	30.86	m. (MSL.) ,	Drainage Are	31,472	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	352.00	215.00	319.95	258.20	369.00	1061.00	1289.60	785.80	421.00	77.10	276.90	295.50		
2	321.85	232.70	322.80	242.90	366.00	1079.00	1268.00	698.20	411.00	76.00	285.60	284.70		
3	290.10	292.80	320.90	215.80	340.00	1109.60	1260.80	702.40	396.00	77.10	270.95	285.60		
4	296.40	308.55	317.10	216.60	325.65	1154.40	1250.00	708.00	375.00	81.50	236.95	282.00		
5	314.25	276.90	278.60	231.00	351.00	1228.60	1239.20	809.20	372.00	87.00	215.00	263.30		
6	322.80	269.25	255.65	203.80	348.00	1308.00	1225.20	777.60	377.00	94.80	227.00	278.60		
7	304.75	246.30	235.25	171.00	327.55	1380.00	1215.00	741.50	372.00	115.50	253.10	291.90		
8	306.65	236.10	176.25	113.40	376.00	1438.60	1191.20	709.40	353.00	114.80	249.70	291.00		
9	318.05	240.35	174.75	167.30	425.00	1472.40	1177.60	685.25	322.80	104.20	248.00	295.50		
10	328.50	244.60	181.50	132.30	439.00	1516.40	1160.80	659.80	312.35	142.80	251.40	302.85		
11	337.05	250.55	187.00	119.70	445.00	1512.00	1135.20	667.85	299.10	176.25	248.00	288.30		
12	349.00	266.70	174.75	128.10	444.00	1498.80	1106.40	622.95	288.30	183.80	224.60	250.55		
13	351.00	265.85	180.00	149.10	413.00	1490.00	1076.00	599.85	278.60	182.25	228.60	202.20		
14	333.25	242.90	212.60	168.00	380.00	1476.80	1024.40	578.85	259.90	176.25	253.95	207.80		
15	319.95	233.55	240.35	183.80	348.00	1463.80	981.10	600.90	246.30	161.70	270.95	254.80		
16	295.50	254.80	292.80	219.80	336.10	1451.20	944.30	679.00	221.40	149.80	279.45	270.10		
17	275.20	302.85	344.00	224.60	348.00	1434.40	904.60	656.35	211.00	152.60	296.40	276.05		
18	256.50	317.10	369.00	226.20	344.00	1421.80	862.00	646.00	197.40	156.80	300.00	272.65		
19	259.05	320.90	383.00	256.50	313.30	1409.20	837.10	629.50	183.80	161.70	287.40	244.60		
20	258.20	325.65	379.00	355.00	294.60	1405.00	823.80	604.05	170.25	163.80	353.00	248.00		
21	258.20	298.20	359.00	442.00	316.15	1400.80	802.00	544.20	153.30	165.90	266.70	248.00		
22	263.30	265.00	346.00	466.00	459.00	1396.60	789.40	524.25	137.90	169.50	266.70	250.55		
23	267.55	248.85	313.30	478.00	628.40	1392.40	772.80	509.55	120.40	183.00	259.05	259.90		
24	252.25	236.10	293.70	479.00	743.00	1384.00	752.00	489.00	107.45	232.70	261.60	251.40		
25	227.00	243.75	273.50	473.00	866.00	1376.00	738.50	468.00	100.30	243.75	272.65	253.95		
26	235.25	295.50	252.25	449.00	967.30	1372.00	702.40	453.00	91.20	252.25	268.40	258.20		
27	237.80	259.05	244.60	407.00	1006.20	1368.00	703.80	441.00	85.90	260.75	286.50	259.90		
28	235.25	231.00	261.60	349.00	1024.40	1352.00	741.50	430.00	83.70	248.85	300.95	274.35		
29	210.20	239.50	299.10	363.00	1043.00	1332.00	726.50	432.00	81.50	240.35		289.20		
30	215.00	287.40	282.00	391.00	1052.00	1308.00	720.60	431.00	79.85	226.20		297.30		
31		311.40		379.00	1046.00		758.40		78.75	248.00		305.70		
Total	8591.85	8259.15	8270.30	8659.10	16484.65	40992.80	30180.20	18284.45	7188.45	5107.00	7439.50	8334.45	167791.90	CMSDAY
Mean	286.40	266.42	275.68	279.33	531.76	1366.43	973.55	609.48	231.89	164.74	265.70	268.85	459.70	CMS
Max	352.00	325.65	383.00	479.00	1052.00	1516.40	1289.60	809.20	421.00	260.75	353.00	305.70	1516.40	CMS
Min	210.20	215.00	174.75	113.40	294.60	1061.00	702.40	430.00	78.75	76.00	215.00	202.20	76.00	CMS
Runoff	742.34	713.59	714.55	748.15	1424.27	3541.78	2607.57	1579.78	621.08	441.24	642.77	720.10	14497.22	MCM

Momentary Peak 1534.00 CMS. at 31.35 m. (MSL.) at 18.00 Hours , on Sep 10 , 2002

Runoff Yield 14.61 Liters/Second/Square KM. Momentary Peak Yield 48.740 Liters/Second/Square KM.

WATER YEAR : 2002

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

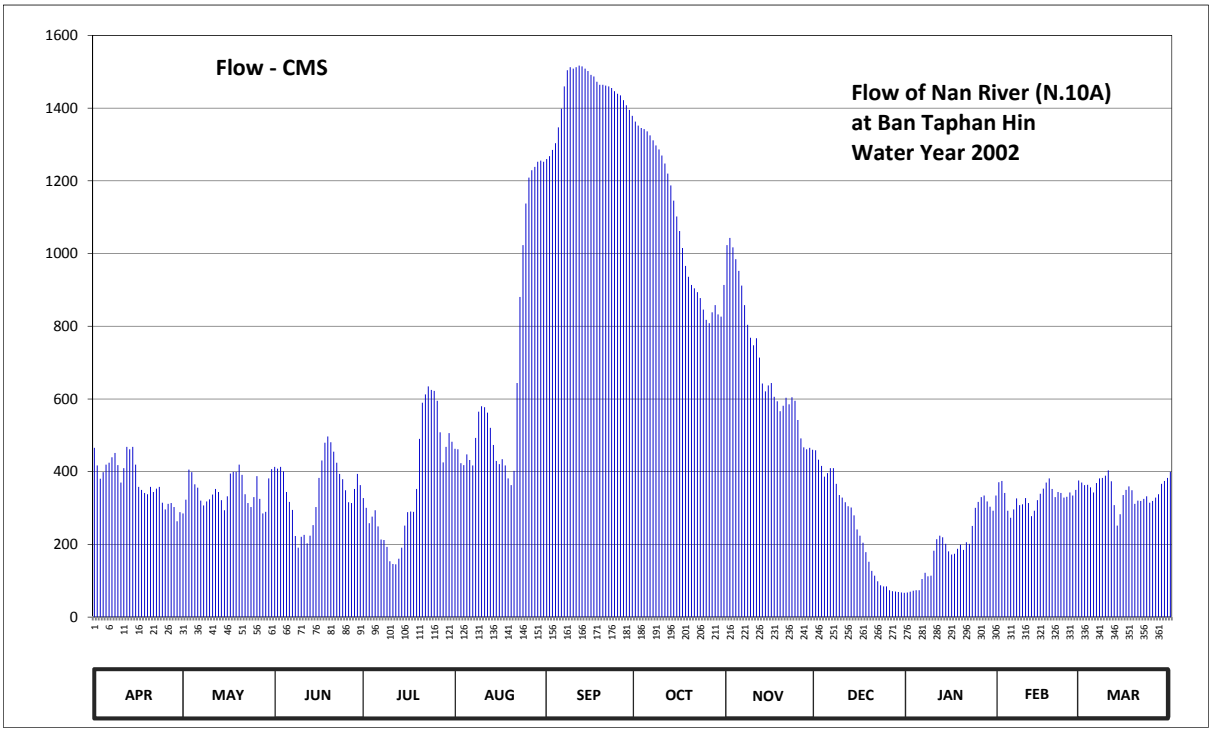
Ban Taphan Hin **Amphoe** Taphan Hin **Changwat** Phichit

Drainge Area	30,328 sq.km.
Type of Gage	Water - stage recorder.
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	Recording.
Basis of Mean Daily Gage Height	Arithmetic mean of 24 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	Fairly stable.
Overbank Flow Conditions	Overbank flow starts at elevation +33.130 m. (MSL.) and ia including overbank flow.
General Description	Records good. Flow effected by Naresuan Dam. Stage-discharge relation defined by 31 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	26.42	24.91	26.01	25.29	26.40	31.84	32.50	30.31	26.37	22.66	25.66	25.65	
2	26.04	25.25	25.97	25.05	26.39	31.89	32.43	30.44	26.17	22.69	25.69	25.59	
3	25.74	25.95	26.01	24.66	26.09	32.00	32.39	30.27	26.03	22.73	25.41	25.60	
4	25.89	25.89	25.91	24.83	26.05	32.12	32.37	30.06	25.79	22.75	24.98	25.54	
5	26.06	25.61	25.43	24.99	26.28	32.40	32.33	29.85	25.87	22.75	24.80	25.42	
6	26.10	25.53	25.20	24.58	26.16	32.71	32.26	29.58	25.98	23.14	25.01	25.64	
7	26.22	25.23	25.00	24.24	26.04	33.00	32.17	29.22	25.98	23.34	25.28	25.75	
8	26.31	25.11	24.33	24.23	26.63	33.21	32.08	28.86	25.62	23.23	25.12	25.76	
9	26.05	25.21	24.03	24.05	27.17	33.25	32.01	28.62	25.36	23.25	25.14	25.81	
10	25.65	25.26	24.31	23.67	27.28	33.23	31.90	28.48	25.30	23.95	25.29	25.93	
11	25.98	25.37	24.36	23.60	27.26	33.25	31.76	28.61	25.19	24.25	25.17	25.68	
12	26.44	25.50	24.14	23.59	27.15	33.27	31.58	28.25	25.09	24.34	24.84	25.12	
13	26.39	25.43	24.34	23.74	26.84	33.26	31.37	27.74	25.06	24.30	24.98	24.60	
14	26.44	25.24	24.61	24.03	26.48	33.23	31.10	27.58	24.86	24.13	25.24	24.89	
15	26.06	24.99	25.07	24.60	26.14	33.20	30.82	27.70	24.50	23.93	25.39	25.36	
16	25.55	25.33	25.76	24.94	26.07	33.15	30.56	27.75	24.34	23.85	25.51	25.48	
17	25.48	25.86	26.15	24.96	26.18	33.13	30.26	27.47	24.16	23.87	25.65	25.56	
18	25.41	25.90	26.53	24.95	26.04	33.06	29.94	27.38	23.91	24.00	25.75	25.47	
19	25.38	25.90	26.66	25.50	25.75	33.02	29.74	27.18	23.66	24.11	25.50	25.15	
20	25.55	26.06	26.54	26.61	25.59	33.02	29.59	27.29	23.40	23.97	25.31	25.23	
21	25.43	25.83	26.34	27.35	25.92	33.01	29.53	27.45	23.25	24.17	25.43	25.22	
22	25.51	25.38	26.10	27.52	27.75	33.00	29.46	27.32	23.07	24.13	25.41	25.27	
23	25.55	25.17	25.85	27.68	29.37	32.98	29.35	27.46	22.93	24.59	25.30	25.33	
24	25.18	25.07	25.73	27.61	30.31	32.94	29.14	27.39	22.89	25.05	25.32	25.18	
25	25.01	25.31	25.47	27.59	31.05	32.91	28.95	27.00	22.89	25.20	25.42	25.22	
26	25.15	25.80	25.19	27.39	31.51	32.89	28.89	26.62	22.75	25.31	25.35	25.30	
27	25.17	25.27	25.17	26.75	31.64	32.83	29.09	26.43	22.71	25.35	25.48	25.38	
28	25.07	24.91	25.50	26.11	31.70	32.76	29.22	26.39	22.70	25.21	25.70	25.62	
29	24.71	24.95	25.85	26.44	31.79	32.69	29.05	26.42	22.68	25.08		25.69	
30	24.94	25.75	25.59	26.73	31.81	32.60	29.01	26.38	22.66	24.98		25.76	
31		25.96		26.55	31.79		29.59		22.65	25.35		25.90	
Mean	25.70	25.45	25.44	25.48	27.83	32.86	30.66	28.05	24.32	24.05	25.33	25.45	
Max	26.44	26.06	26.66	27.68	31.81	33.27	32.50	30.44	26.37	25.35	25.75	25.93	33.27
Min	24.71	24.91	24.03	23.59	25.59	31.84	28.89	26.38	22.65	22.66	24.80	24.60	22.65

Annual Max Momentary Gage Height	33.27	m. (MSL.) ,	at 01.00 Hours , on Sep 12 , 2002		
Zero Gage at Bottom Elevation	22.28	m. (MSL.) ,	River Bed	19.00	m. (MSL.)
Left Bank Elevation	33.17	m. (MSL.) ,			
Right Bank Elevation	33.12	m. (MSL.) ,	Drainage Are	30,328	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	465.60	285.19	413.25	327.59	463.00	1260.20	1363.00	1023.05	459.10	67.66	371.13	369.95		
2	417.00	322.88	408.34	300.50	461.70	1267.95	1351.80	1043.20	433.25	69.79	374.66	362.89		
3	380.54	405.90	413.25	258.22	423.25	1285.00	1345.45	1016.85	415.75	72.63	341.71	364.07		
4	398.58	398.58	401.02	276.47	418.25	1303.60	1342.35	984.30	386.42	74.05	292.82	357.01		
5	419.50	365.24	344.06	293.91	447.40	1347.00	1336.15	952.50	396.14	74.05	273.20	342.89		
6	424.50	355.83	317.00	249.66	432.00	1398.80	1325.30	912.00	409.56	104.55	296.10	368.77		
7	439.60	320.53	295.00	213.28	417.00	1460.00	1311.35	858.00	409.56	121.75	326.41	381.72		
8	451.30	307.10	222.91	212.21	492.90	1504.15	1297.40	804.00	366.42	112.12	308.20	382.89		
9	418.25	318.18	191.15	193.25	565.12	1512.75	1286.55	768.42	335.83	113.87	310.40	388.82		
10	369.95	324.06	220.77	153.35	580.08	1508.45	1269.50	747.75	328.77	182.75	327.59	403.46		
11	409.56	337.00	226.12	146.00	577.36	1512.75	1247.80	766.94	315.90	214.35	313.70	373.48		
12	468.20	352.30	202.70	145.05	562.40	1517.05	1219.90	713.78	304.90	223.98	277.56	308.20		
13	461.70	344.06	223.98	160.70	520.40	1514.90	1187.35	642.64	301.60	219.70	292.82	251.80		
14	468.20	321.71	252.87	191.15	473.40	1508.45	1145.50	620.88	279.74	201.65	321.71	283.01		
15	419.50	293.91	302.70	251.80	429.50	1502.00	1102.10	637.20	241.10	180.65	339.36	335.83		
16	358.18	332.30	382.89	288.46	420.75	1491.50	1061.80	644.00	223.98	172.25	353.48	349.95		
17	349.95	394.92	430.75	290.64	434.50	1487.30	1015.30	605.92	204.80	174.35	369.95	359.36		
18	341.71	399.80	479.90	289.55	417.00	1472.60	966.00	593.68	178.55	188.00	381.72	348.77		
19	338.18	399.80	496.80	352.30	381.72	1464.20	936.00	566.48	152.30	199.55	352.30	311.50		
20	358.18	419.50	481.20	490.30	362.89	1464.20	913.50	581.44	127.00	184.85	329.94	320.53		
21	344.06	391.26	455.20	589.60	402.24	1462.10	904.50	603.20	113.87	205.85	344.06	319.35		
22	353.48	338.18	424.50	612.72	644.00	1460.00	894.00	585.52	98.77	201.65	341.71	325.24		
23	358.18	313.70	393.70	634.48	880.50	1455.50	877.50	604.56	87.61	250.73	328.77	332.30		
24	314.80	302.70	379.36	624.96	1023.05	1446.50	846.00	595.04	84.53	300.50	331.12	314.80		
25	296.10	329.94	348.77	622.24	1137.75	1439.75	817.50	542.00	84.53	317.00	342.89	319.35		
26	311.50	387.60	315.90	595.04	1209.05	1435.25	808.50	491.60	74.05	329.94	334.65	328.77		
27	313.70	325.24	313.70	508.50	1229.20	1421.75	838.50	466.90	71.21	334.65	349.95	338.18		
28	302.70	285.19	352.30	425.75	1238.50	1407.80	858.00	461.70	70.50	318.18	375.83	366.42		
29	263.57	289.55	393.70	468.20	1252.45	1395.20	832.50	465.60	69.08	303.80		374.66		
30	288.46	381.72	362.89	505.90	1255.55	1379.00	826.50	460.40	67.66	292.82		382.89		
31		407.12		482.50	1252.45		913.50		66.95	334.65		399.80		
Total	11304.73	10750.99	10446.68	11154.28	20805.36	43085.70	33441.10	20759.55	7159.43	6142.32	9303.74	10766.66	195120.54	CMSDAY
Mean	376.82	346.81	348.22	359.82	671.14	1436.19	1078.75	691.99	230.95	198.14	332.28	347.31	534.58	CMS
Max	468.20	419.50	496.80	634.48	1255.55	1517.05	1363.00	1043.20	459.10	334.65	381.72	403.46	1517.05	CMS
Min	263.57	285.19	191.15	145.05	362.89	1260.20	808.50	460.40	66.95	67.66	273.20	251.80	66.95	CMS
Runoff	976.73	928.89	902.59	963.73	1797.58	3722.60	2889.31	1793.63	618.57	530.70	803.84	930.24	16858.41	MCM

Momentary Peak 1517.05 CMS. at 33.27 m. (MSL.) at 01.00 Hours , on Sep 12 , 2002

Runoff Yield 17.63 Liters/Second/Square KM. Momentary Peak Yield 50.020 Liters/Second/Square KM.

WATER YEAR : 2002

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 mean 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.
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 106 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

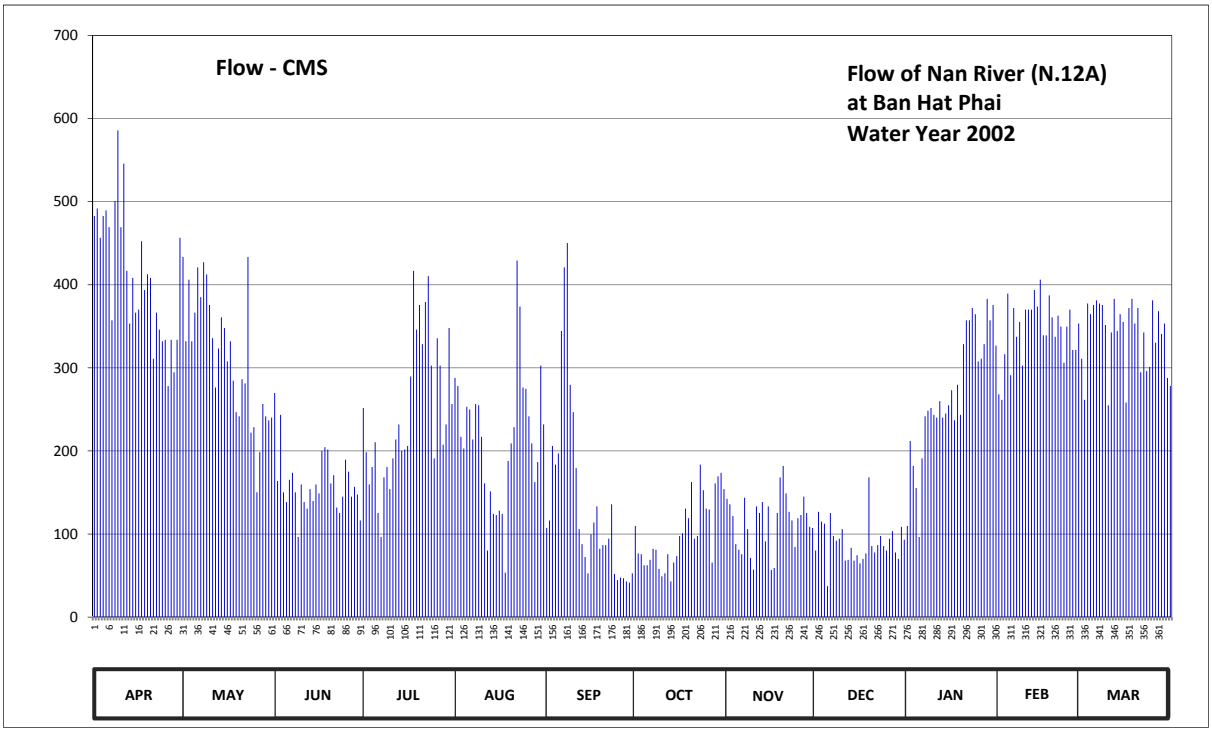
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	73.07	72.84	71.95	71.84	72.06	70.84	70.86	71.11	70.60	70.86	71.94	72.20	
2	73.11	72.32	71.27	71.51	72.00	70.91	70.57	71.06	70.99	71.60	71.90	71.90	
3	72.95	72.71	71.79	71.24	71.63	71.56	70.56	70.95	70.90	71.40	72.23	72.57	
4	73.07	72.32	71.17	71.39	71.54	71.41	70.44	70.67	70.88	71.21	72.63	72.50	
5	73.10	72.51	71.08	71.59	71.85	71.50	70.44	70.61	70.12	70.75	72.08	72.56	
6	73.01	72.78	71.28	70.98	71.83	72.39	70.50	70.56	70.98	71.46	72.54	72.59	
7	72.46	72.61	71.34	70.75	71.61	72.78	70.62	71.12	70.76	71.78	72.35	72.57	
8	73.15	72.81	71.17	71.30	71.87	72.92	70.61	70.83	70.71	71.82	72.45	72.56	
9	73.52	72.74	70.75	71.39	71.86	72.01	70.40	70.52	70.73	71.84	72.15	72.43	
10	73.01	72.56	71.24	71.20	71.63	71.81	70.28	70.39	70.83	71.79	72.53	71.86	
11	73.35	72.34	71.08	71.46	71.25	71.38	70.33	71.04	70.49	71.77	72.53	72.38	
12	72.76	71.99	71.02	71.61	70.60	70.83	70.56	70.98	70.50	71.89	72.53	72.60	
13	72.44	72.27	71.20	71.72	71.18	70.67	70.20	71.08	70.63	71.77	72.65	72.39	
14	72.72	72.48	71.09	71.52	70.97	70.53	70.47	70.70	70.49	71.80	72.55	72.50	
15	72.51	72.41	71.24	71.53	70.96	70.33	70.54	71.04	70.55	71.86	72.71	72.45	
16	72.53	72.18	71.16	71.56	71.00	70.78	70.76	70.38	70.46	71.97	72.36	71.88	
17	72.93	72.32	71.52	72.07	70.97	70.89	70.79	70.41	70.51	71.75	72.36	72.54	
18	72.65	72.04	71.55	72.76	70.34	71.04	71.02	70.98	70.57	72.01	72.62	72.60	
19	72.74	71.81	71.53	72.40	71.44	70.62	70.93	71.30	71.30	71.79	72.48	72.44	
20	72.72	71.78	71.25	72.56	71.58	70.66	71.26	71.40	70.65	72.30	72.35	72.54	
21	72.20	72.05	71.32	72.30	71.70	70.66	70.73	71.16	70.58	72.46	72.49	72.10	
22	72.51	72.02	71.03	72.58	72.82	70.73	70.76	70.99	70.66	72.46	72.42	72.38	
23	72.40	72.84	70.98	72.73	72.55	71.06	71.41	70.91	70.76	72.54	72.17	72.11	
24	72.32	71.66	71.13	72.15	71.99	70.32	71.19	70.64	70.65	72.50	72.42	72.14	
25	72.33	71.70	71.45	71.46	71.98	70.22	71.02	70.93	70.60	72.18	72.53	72.59	
26	72.00	71.17	71.35	72.34	71.78	70.26	71.01	70.96	70.73	72.20	72.26	72.31	
27	72.33	71.51	71.13	72.15	71.58	70.25	70.47	71.13	70.81	72.30	72.26	72.52	
28	72.10	71.87	71.22	71.57	71.26	70.20	71.25	70.98	70.58	72.60	72.44	72.37	
29	72.33	71.78	71.15	71.72	71.43	70.18	71.31	70.85	70.51	72.46		72.44	
30	72.95	71.75	70.91	72.41	72.15	70.33	71.34	70.84	70.85	72.56		72.06	
31		71.77		71.87	71.72		71.20		70.72	72.29		72.00	
Mean	72.71	72.19	71.24	71.80	71.58	71.00	70.77	70.88	70.68	71.93	72.39	72.36	
Max	73.52	72.84	71.95	72.76	72.82	72.92	71.41	71.40	71.30	72.60	72.71	72.60	73.52
Min	72.00	71.17	70.75	70.75	70.34	70.18	70.20	70.38	70.12	70.75	71.90	71.86	70.12

Annual Max Momentary Gage Height 74.22 m. (MSL.) , at 16.00 Hours , on Aug 22 , 2002

Zero Gage at Bottom Elevation 69.00 m. (MSL.) , River Bed 68.22 m. (MSL.)

Left Bank Elevation 82.47 m. (MSL.) ,

Right Bank Elevation 81.24 m. (MSL.) , Drainage Are 15,579 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	482.75	433.40	269.75	251.60	287.90	107.20	109.80	142.30	80.00	109.80	268.10	311.00		
2	491.75	332.00	163.80	198.50	278.00	116.30	76.70	135.80	126.70	212.00	261.50	261.50		
3	456.50	406.10	243.35	159.60	216.95	206.00	75.60	121.50	115.00	182.00	316.25	377.45		
4	482.75	332.00	150.10	180.60	203.00	183.50	62.40	87.70	112.40	155.40	389.30	364.50		
5	489.50	366.35	138.40	210.50	253.25	197.00	62.40	81.10	37.20	96.50	291.20	375.60		
6	469.25	420.80	165.20	125.40	249.95	344.25	69.00	75.60	125.40	191.00	371.90	381.15		
7	357.10	385.10	173.60	96.50	213.65	420.80	82.20	143.60	97.60	241.70	337.25	377.45		
8	500.75	427.10	150.10	168.00	256.55	450.20	81.10	105.90	92.10	248.30	355.25	375.60		
9	585.80	412.40	96.50	180.60	254.90	279.65	58.00	71.20	94.30	251.60	302.75	351.55		
10	469.25	375.60	159.60	154.00	216.95	246.65	49.00	57.25	105.90	243.35	370.05	254.90		
11	545.75	335.50	138.40	191.00	161.00	179.20	52.75	133.20	67.90	240.05	370.05	342.50		
12	416.60	276.35	130.60	213.65	80.00	105.90	75.60	125.40	69.00	259.85	370.05	383.00		
13	353.40	323.25	154.00	231.80	151.40	87.70	43.00	138.40	83.30	240.05	393.50	344.25		
14	408.20	360.80	139.70	200.00	124.10	72.30	65.70	91.00	67.90	245.00	373.75	364.50		
15	366.35	347.85	159.60	201.50	122.80	52.75	73.40	133.20	74.50	254.90	406.10	355.25		
16	370.05	307.70	148.80	206.00	128.00	99.80	97.60	56.50	64.60	273.05	339.00	258.20		
17	452.30	332.00	200.00	289.55	124.10	113.70	100.90	59.10	70.10	236.75	339.00	371.90		
18	393.50	284.60	204.50	416.60	53.50	133.20	130.60	125.40	76.70	279.65	387.20	383.00		
19	412.40	246.65	201.50	346.00	188.00	82.20	118.90	168.00	168.00	243.35	360.80	353.40		
20	408.20	241.70	161.00	375.60	209.00	86.60	162.40	182.00	85.50	328.50	337.25	371.90		
21	311.00	286.25	170.80	328.50	228.50	86.60	94.30	148.80	77.80	357.10	362.65	294.50		
22	366.35	281.30	131.90	379.30	429.20	94.30	97.60	126.70	86.60	357.10	349.70	342.50		
23	346.00	433.40	125.40	410.30	373.75	135.80	183.50	116.30	97.60	371.90	306.05	296.15		
24	332.00	221.90	144.90	302.75	276.35	52.00	152.70	84.40	85.50	364.50	349.70	301.10		
25	333.75	228.50	189.50	191.00	274.70	44.50	130.60	118.90	80.00	307.70	370.05	381.15		
26	278.00	150.10	175.00	335.50	241.70	47.50	129.30	122.80	94.30	311.00	321.50	330.25		
27	333.75	198.50	144.90	302.75	209.00	46.75	65.70	144.90	103.30	328.50	321.50	368.20		
28	294.50	256.55	156.80	207.50	162.40	43.00	161.00	125.40	77.80	383.00	353.40	340.75		
29	333.75	241.70	147.50	231.80	186.50	41.55	169.40	108.50	70.10	357.10		353.40		
30	456.50	236.75	116.30	347.85	302.75	52.75	173.60	107.20	108.50	375.60		287.90		
31		240.05		256.55	231.80		154.00		93.20	326.75		278.00		
Total	12297.75	9722.25	4851.50	7690.80	6689.65	4209.65	3158.75	3438.05	2788.80	8373.05	9674.80	10532.50	83427.55	CMSDAY
Mean	409.93	313.62	161.72	248.09	215.80	140.32	101.90	114.60	89.96	270.10	345.53	339.76	228.57	CMS
Max	585.80	433.40	269.75	416.60	429.20	450.20	183.50	182.00	168.00	383.00	406.10	383.00	585.80	CMS
Min	278.00	150.10	96.50	96.50	53.50	41.55	43.00	56.50	37.20	96.50	261.50	254.90	37.20	CMS
Runoff	1062.53	840.00	419.17	664.49	577.99	363.71	272.92	297.05	240.95	723.43	835.90	910.01	7208.14	MCM

Momentary Peak 762.20 CMS. at 74.22 m. (MSL.) at 16.00 Hours , on Aug 22 , 2002

Runoff Yield 14.67 Liters/Second/Square KM. Momentary Peak Yield 48.920 Liters/Second/Square KM.

WATER YEAR : 2002

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	Water - stage recorder.		
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** +192.690 m. (MSL.)
Gage Reading Frequency	Recording.		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 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	Rather unstable by some scouring.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 140 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

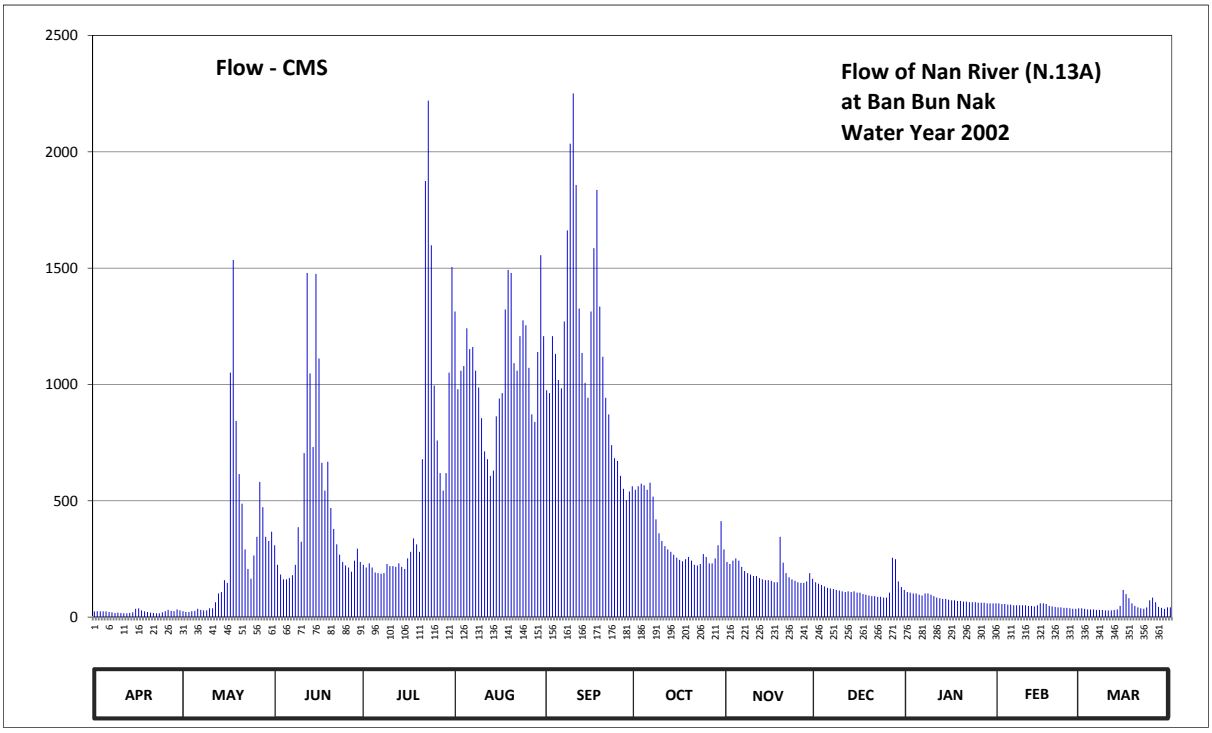
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	178.08	178.09	179.06	178.80	181.62	180.80	179.70	178.84	178.55	178.41	178.24	178.15	
2	178.09	178.06	178.80	178.76	180.81	180.77	179.74	178.81	178.53	178.40	178.23	178.14	
3	178.08	178.06	178.66	178.82	181.01	181.37	179.77	178.86	178.51	178.39	178.23	178.13	
4	178.08	178.09	178.59	178.76	181.06	181.19	179.75	178.89	178.49	178.39	178.22	178.13	
5	178.08	178.10	178.59	178.69	181.45	180.91	179.70	178.86	178.47	178.37	178.22	178.13	
6	178.06	178.14	178.61	178.68	181.24	180.82	179.78	178.77	178.46	178.36	178.21	178.12	
7	178.05	178.12	178.65	178.67	181.26	181.52	179.62	178.71	178.45	178.39	178.21	178.12	
8	178.03	178.11	178.80	178.68	181.01	182.44	179.36	178.68	178.44	178.39	178.21	178.12	
9	178.04	178.11	179.27	178.81	180.83	183.30	179.20	178.66	178.43	178.37	178.21	178.11	
10	178.03	178.15	179.10	178.78	180.50	183.78	179.11	178.64	178.42	178.35	178.21	178.11	
11	178.02	178.15	180.12	178.78	180.14	182.90	179.05	178.64	178.41	178.33	178.20	178.11	
12	178.02	178.26	182.01	178.77	180.05	181.65	179.01	178.61	178.42	178.32	178.20	178.12	
13	178.03	178.39	180.98	178.82	179.86	181.20	178.98	178.59	178.41	178.31	178.19	178.13	
14	178.05	178.41	180.19	178.77	179.92	180.88	178.94	178.58	178.42	178.31	178.21	178.20	
15	178.14	178.58	182.00	178.74	180.52	180.72	178.90	178.58	178.40	178.30	178.24	178.44	
16	178.15	178.54	181.14	178.89	180.71	181.62	178.87	178.57	178.40	178.29	178.24	178.38	
17	178.11	180.99	180.01	178.98	180.77	182.26	178.85	178.55	178.38	178.29	178.23	178.32	
18	178.08	182.14	179.69	179.14	181.64	182.85	178.88	178.55	178.37	178.28	178.20	178.24	
19	178.06	180.47	180.02	179.07	182.04	181.67	178.91	179.16	178.36	178.28	178.19	178.20	
20	178.04	179.88	179.49	178.98	182.01	181.16	178.86	178.83	178.35	178.27	178.18	178.17	
21	178.03	179.54	179.25	180.05	181.09	180.72	178.80	178.68	178.35	178.27	178.17	178.15	
22	178.02	179.01	179.07	182.94	181.01	180.54	178.79	178.62	178.34	178.26	178.17	178.14	
23	178.02	178.74	178.94	183.71	181.37	180.21	178.81	178.59	178.34	178.26	178.16	178.17	
24	178.05	178.60	178.84	182.29	181.53	180.06	178.95	178.57	178.33	178.26	178.16	178.29	
25	178.09	178.93	178.79	180.85	181.48	180.03	178.91	178.55	178.33	178.25	178.15	178.33	
26	178.12	179.16	178.76	180.26	181.04	179.86	178.82	178.54	178.40	178.25	178.14	178.26	
27	178.10	179.79	178.70	179.89	180.54	179.71	178.82	178.54	178.90	178.25	178.14	178.18	
28	178.09	179.50	178.86	179.69	180.46	179.58	178.89	178.56	178.88	178.24	178.15	178.16	
29	178.13	179.16	179.02	179.89	181.21	179.68	179.06	178.68	178.56	178.24		178.14	
30	178.11	179.11	178.84	180.99	182.19	179.74	179.34	178.60	178.48	178.24		178.17	
31		179.22		182.07	181.37		179.01		178.44	178.24		178.17	
Mean	178.07	178.89	179.43	179.65	181.02	181.13	179.13	178.68	178.45	178.31	178.20	178.18	
Max	178.15	182.14	182.01	183.71	182.19	183.78	179.78	179.16	178.90	178.41	178.24	178.44	183.78
Min	178.02	178.06	178.59	178.67	179.86	179.58	178.79	178.54	178.33	178.24	178.14	178.11	178.02

Annual Max Momentary Gage Height 183.85 m. (MSL.) , at 05.00 Hours , on Sep 10 , 2002

Zero Gage at Bottom Elevation 177.40 m. (MSL.) , River Bed 174.59 m. (MSL.)

Left Bank Elevation 187.80 m. (MSL.) ,

Right Bank Elevation 192.62 m. (MSL.) , Drainage Are 8,706 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	24.40	25.70	308.90	225.00	1313.50	975.00	547.50	237.00	150.00	108.00	58.80	37.50		
2	25.70	21.80	225.00	213.00	979.00	963.00	562.50	228.00	144.00	105.00	56.10	35.40		
3	24.40	21.80	183.00	231.00	1059.00	1207.25	573.75	243.00	138.00	102.00	56.10	33.30		
4	24.40	25.70	162.00	213.00	1079.00	1131.00	566.25	252.00	132.00	102.00	53.40	33.30		
5	24.40	27.00	162.00	192.00	1241.25	1019.00	547.50	243.00	126.00	96.00	53.40	33.30		
6	21.80	35.40	168.00	189.00	1152.00	983.00	577.50	216.00	123.00	93.00	50.70	31.20		
7	20.50	31.20	180.00	186.00	1160.50	1271.00	517.50	198.00	120.00	102.00	50.70	31.20		
8	17.90	29.10	225.00	189.00	1059.00	1662.00	420.00	189.00	117.00	102.00	50.70	31.20		
9	19.20	29.10	386.25	228.00	987.00	2035.00	360.00	183.00	114.00	96.00	50.70	29.10		
10	17.90	37.50	323.50	219.00	855.00	2251.00	327.15	177.00	111.00	90.00	50.70	29.10		
11	16.60	37.50	705.00	219.00	712.50	1857.50	305.25	177.00	108.00	84.00	48.00	29.10		
12	16.60	64.20	1479.25	216.00	678.75	1326.25	290.65	168.00	111.00	81.00	48.00	31.20		
13	17.90	102.00	1047.00	231.00	607.50	1135.00	280.60	162.00	108.00	78.00	45.90	33.30		
14	20.50	108.00	731.25	216.00	630.00	1007.00	267.80	159.00	111.00	78.00	50.70	48.00		
15	35.40	159.00	1475.00	207.00	863.00	943.00	255.00	159.00	105.00	75.00	58.80	117.00		
16	37.50	147.00	1111.00	252.00	939.00	1313.50	246.00	156.00	105.00	72.30	58.80	99.00		
17	29.10	1051.00	663.75	280.60	963.00	1585.50	240.00	150.00	99.00	72.30	56.10	81.00		
18	24.40	1534.50	543.75	338.10	1322.00	1836.25	249.00	150.00	96.00	69.60	48.00	58.80		
19	21.80	843.00	667.50	312.55	1492.00	1334.75	258.20	345.40	93.00	69.60	45.90	48.00		
20	19.20	615.00	468.75	280.60	1479.25	1119.00	243.00	234.00	90.00	66.90	43.80	41.70		
21	17.90	487.50	378.75	678.75	1091.00	943.00	225.00	189.00	90.00	66.90	41.70	37.50		
22	16.60	290.65	312.55	1874.50	1059.00	871.00	222.00	171.00	87.00	64.20	41.70	35.40		
23	16.60	207.00	267.80	2219.50	1207.25	739.00	228.00	162.00	87.00	64.20	39.60	41.70		
24	20.50	165.00	237.00	1598.25	1275.25	682.50	271.00	156.00	84.00	64.20	39.60	72.30		
25	25.70	264.60	222.00	995.00	1254.00	671.25	258.20	150.00	84.00	61.50	37.50	84.00		
26	31.20	345.40	213.00	759.00	1071.00	607.50	231.00	147.00	105.00	61.50	35.40	64.20		
27	27.00	581.25	195.00	618.75	871.00	551.25	231.00	147.00	255.00	61.50	35.40	43.80		
28	25.70	472.50	243.00	543.75	839.00	502.50	252.00	153.00	249.00	58.80	37.50	39.60		
29	33.30	345.40	294.30	618.75	1139.25	540.00	308.90	189.00	153.00	58.80		35.40		
30	29.10	327.15	237.00	1051.00	1555.75	562.50	412.50	165.00	129.00	58.80		41.70		
31		367.50		1504.75	1207.25		290.65		117.00	58.80		41.70		
Total	703.20	8799.45	13816.30	17099.85	33142.00	33625.50	10565.40	5655.40	3741.00	2421.90	1343.70	1449.00	132362.70	CMSDAY
Mean	23.44	283.85	460.54	551.61	1069.10	1120.85	340.82	188.51	120.68	78.13	47.99	46.74	362.64	CMS
Max	37.50	1534.50	1479.25	2219.50	1555.75	2251.00	577.50	345.40	255.00	108.00	58.80	117.00	2251.00	CMS
Min	16.60	21.80	162.00	186.00	607.50	502.50	222.00	147.00	84.00	58.80	35.40	29.10	16.60	CMS
Runoff	60.76	760.27	1193.73	1477.43	2863.47	2905.24	912.85	488.63	323.22	209.25	116.10	125.19	11436.14	MCM

Momentary Peak 2282.50 CMS. at 183.85 m. (MSL.) at 05.00 Hours , on Sep 10 , 2002

Runoff Yield 41.65 Liters/Second/Square KM. Momentary Peak Yield 262.180 Liters/Second/Square KM.

WATER YEAR : 2002

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

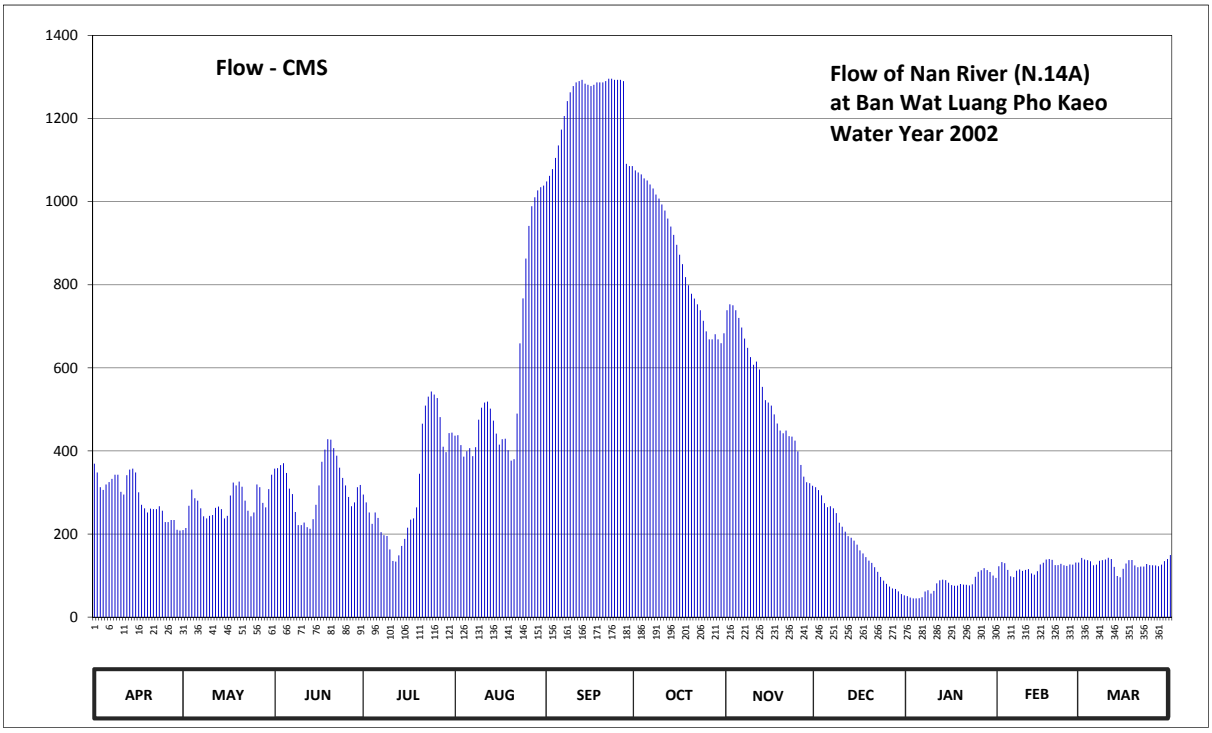
Ban Wat Luang Pho Kaeo **Amphoe** Chum Saeng **Changwat** Nakhon Sawan

Drainge Area	32,826 sq.km.
Type of Gage	Staff gage.
Zero Gage at Bottom	+19.000 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank in front of automatic gage building. **Elevation** +27.842 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 mean of 5 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	Overbank flow starts at elevation +26.881 m.(MSL.), records are channel flow only.
General Description	Records good. Flow effected by Naresuan Dam .
	Stage-discharge relation defined by 57 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	22.61	21.13	22.51	21.95	23.17	27.42	28.39	27.38	24.67	20.23	21.88	22.28	
2	22.43	21.18	22.52	21.78	23.18	27.49	28.38	27.44	24.61	20.15	22.08	22.20	
3	22.11	21.71	22.58	21.55	22.98	27.57	28.37	27.43	24.50	20.10	22.03	22.17	
4	22.05	22.06	22.62	21.28	22.75	27.70	28.35	27.38	24.32	20.10	21.71	22.12	
5	22.17	21.87	22.42	21.55	22.86	27.84	28.34	27.30	24.21	20.11	21.40	21.93	
6	22.22	21.82	22.08	21.42	22.92	28.01	28.32	27.20	24.24	20.17	21.36	21.96	
7	22.29	21.65	21.96	21.08	22.76	28.14	28.30	27.08	24.18	20.51	21.67	22.14	
8	22.38	21.46	21.56	21.01	22.94	28.26	28.27	26.96	24.04	20.58	21.73	22.17	
9	22.38	21.41	21.25	20.99	23.49	28.33	28.25	26.84	23.76	20.38	21.66	22.20	
10	22.01	21.47	21.25	20.66	23.73	28.38	28.22	26.74	23.64	20.54	21.71	22.29	
11	21.95	21.49	21.31	20.33	23.83	28.41	28.19	26.78	23.48	20.99	21.75	22.23	
12	22.37	21.66	21.20	20.31	23.85	28.42	28.15	26.68	23.31	21.17	21.54	21.85	
13	22.49	21.69	21.16	20.50	23.71	28.43	28.11	26.42	23.24	21.21	21.48	21.42	
14	22.51	21.63	21.39	20.75	23.47	28.40	28.05	26.23	23.10	21.18	21.65	21.35	
15	22.43	21.41	21.73	20.92	23.21	28.39	27.97	26.19	22.91	21.03	21.97	21.76	
16	22.00	21.47	22.15	21.19	22.99	28.38	27.89	26.15	22.64	20.88	22.05	22.01	
17	21.73	21.93	22.65	21.38	23.10	28.39	27.81	26.00	22.49	20.85	22.20	22.17	
18	21.65	22.21	22.89	21.41	23.11	28.41	27.70	25.86	22.32	20.86	22.23	22.18	
19	21.55	22.15	23.10	21.67	22.88	28.41	27.63	25.72	22.15	20.95	22.19	21.92	
20	21.64	22.23	23.09	22.40	22.67	28.41	27.55	25.67	22.04	20.91	21.94	21.84	
21	21.63	22.12	22.92	23.41	22.70	28.42	27.50	25.72	21.84	20.90	21.94	21.87	
22	21.63	21.82	22.77	23.77	23.61	28.44	27.44	25.62	21.62	20.87	22.00	21.87	
23	21.70	21.59	22.53	23.95	24.97	28.44	27.38	25.61	21.37	20.93	21.93	21.99	
24	21.59	21.46	22.31	24.05	25.78	28.43	27.27	25.54	21.15	21.38	21.90	21.94	
25	21.32	21.55	22.15	23.99	26.40	28.43	27.16	25.35	20.96	21.62	21.97	21.93	
26	21.32	22.17	21.90	23.92	26.84	28.43	27.07	25.11	20.80	21.69	21.96	21.92	
27	21.37	22.11	21.70	23.54	27.10	28.42	27.07	24.88	20.69	21.79	22.06	21.88	
28	21.37	21.77	21.78	22.95	27.22	28.42	27.13	24.77	20.66	21.70	22.06	21.96	
29	21.14	21.67	22.11	22.84	27.31	28.41	27.07	24.75	20.52	21.61		22.13	
30	21.12	22.07	22.16	23.22	27.35	28.41	27.02	24.70	20.36	21.44		22.23	
31		22.38		23.23	27.37		27.14		20.28	21.31		22.42	
Mean	21.91	21.75	22.12	22.03	24.20	28.25	27.79	26.18	22.58	20.91	21.86	22.01	
Max	22.61	22.38	23.10	24.05	27.37	28.44	28.39	27.44	24.67	21.79	22.23	22.42	28.44
Min	21.12	21.13	21.16	20.31	22.67	27.42	27.02	24.70	20.28	20.10	21.36	21.35	20.10

Annual Max Momentary Gage Height	28.45	m. (MSL.) ,	at 09.00 Hours , on Sep 23 , 2002		
Zero Gage at Bottom Elevation	19.00	m. (MSL.) ,	River Bed	14.17	m. (MSL.)
Left Bank Elevation	29.87	m. (MSL.) ,			
Right Bank Elevation	32.14	m. (MSL.) ,	Drainage Are	32,826	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	369.25	209.37	357.21	294.81	436.74	1048.40	1075.17	738.67	312.55	50.30	122.25	142.46		
2	348.21	214.42	358.41	275.90	437.94	1062.05	1070.33	752.67	305.65	47.04	132.36	138.42		
3	312.61	268.11	365.64	251.83	413.84	1078.35	1065.50	750.33	293.00	45.00	129.83	136.91		
4	305.94	307.05	370.46	224.53	386.13	1105.00	1055.83	738.67	274.10	45.00	113.66	134.38		
5	319.29	285.91	347.10	251.83	399.38	1135.10	1051.00	720.00	264.50	45.41	98.00	124.78		
6	324.85	280.35	309.27	238.69	406.61	1173.30	1041.33	697.00	267.00	47.85	96.37	126.29		
7	332.64	261.94	295.92	204.31	387.33	1206.00	1031.67	670.30	262.00	61.72	111.64	135.39		
8	342.65	242.73	252.84	197.23	409.02	1242.00	1017.17	648.10	250.33	64.57	114.67	136.91		
9	342.65	237.68	221.50	195.21	475.29	1263.00	1007.50	625.90	227.00	56.42	111.14	138.42		
10	301.49	243.74	221.50	162.70	504.22	1278.00	993.00	607.40	217.50	62.94	113.66	142.97		
11	294.81	245.77	227.57	134.98	516.26	1287.00	978.50	614.80	205.70	81.28	115.68	139.94		
12	341.54	262.96	216.44	133.55	518.68	1290.00	959.17	596.00	194.65	88.62	105.07	120.74		
13	354.89	265.99	212.40	148.50	501.81	1293.00	939.83	554.00	190.97	90.25	102.04	99.01		
14	357.21	259.92	235.66	171.25	472.88	1284.00	920.00	522.20	183.89	89.03	110.63	95.96		
15	348.21	237.68	270.34	188.13	441.56	1281.00	896.00	516.20	174.29	82.92	126.80	116.19		
16	300.37	243.74	317.06	215.43	415.04	1278.00	872.17	509.00	160.65	76.80	130.84	128.82		
17	270.34	292.59	374.07	234.64	428.30	1281.00	849.50	488.00	153.07	75.58	138.42	136.91		
18	261.94	323.74	403.00	237.68	429.50	1287.00	818.33	466.00	144.48	75.98	139.94	137.41		
19	251.83	317.06	428.30	263.97	401.79	1287.00	798.50	449.14	135.89	79.65	137.92	124.27		
20	260.93	325.96	427.10	344.87	376.49	1287.00	778.33	442.36	130.34	78.02	125.28	120.23		
21	259.92	313.72	406.61	465.66	380.10	1290.00	766.67	449.14	120.23	77.62	125.28	121.75		
22	259.92	280.35	388.54	509.04	489.75	1296.00	752.67	435.57	109.12	76.39	128.32	121.75		
23	267.00	255.88	359.62	530.72	658.88	1296.00	738.67	434.21	96.78	78.84	124.78	127.81		
24	255.88	242.73	334.86	542.78	767.13	1293.00	713.10	424.71	87.81	97.18	123.26	125.28		
25	228.58	251.83	317.06	535.54	863.00	1293.00	687.80	398.93	80.06	109.12	126.80	124.78		
26	228.58	319.29	289.25	527.11	941.63	1293.00	668.45	366.36	73.54	112.65	126.29	124.27		
27	233.63	312.61	267.00	481.32	988.75	1290.00	668.45	338.05	69.05	117.71	131.35	122.25		
28	233.63	274.79	275.90	410.22	1010.50	1091.00	680.90	324.57	67.83	113.16	131.35	126.29		
29	210.38	263.97	312.61	396.97	1026.95	1085.50	668.45	322.12	62.12	108.61		134.88		
30	208.36	308.16	318.17	442.76	1034.75	1085.50	659.20	316.00	55.60	100.02		139.94		
31		342.65		443.97	1038.65		683.20		52.34	94.33		149.54		
Total	8727.53	8492.69	9481.41	9656.13	17958.90	36759.20	26906.39	15916.40	5222.04	2430.01	3393.63	3994.95	148939.28	CMSDAY
Mean	290.92	273.96	316.05	311.49	579.32	1225.31	867.95	530.55	168.45	78.39	121.20	128.87	408.05	CMS
Max	369.25	342.65	428.30	542.78	1038.65	1296.00	1075.17	752.67	312.55	117.71	139.94	149.54	1296.00	CMS
Min	208.36	209.37	212.40	133.55	376.49	1048.40	659.20	316.00	52.34	45.00	96.37	95.96	45.00	CMS
Runoff	754.06	733.77	819.19	834.29	1551.65	3175.99	2324.71	1375.18	451.18	209.95	293.21	345.16	12868.35	MCM

Momentary Peak 1299.00 CMS. at 28.45 m. (MSL.) at 09.00 Hours , on Sep 23 , 2002

Runoff Yield 12.43 Liters/Second/Square KM. Momentary Peak Yield 39.570 Liters/Second/Square KM.

WATER YEAR : 2002

NAN RIVER BASIN

Khwae Noi River at Ban Yang, Phitsanulok (N.22)

Lat 17 - 01 - 56 N Long 100 - 22 - 20 E

Location : on left bank about 1 kilometer downstream from District Forestry Office.

Ban Yang **Amphoe** Wat Bot **Changwat** Phitsanulok

Drainge Area	4,764 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+42.670 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	In front of the Meteorological Station. **Elevation** +51.975 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	1963 - 1974, 1996 to date.
Rated by Flot	-
Rated by Current Meter	1963 - 1974, 1996 to date.
Stability of Channel Regimes	Fairly stable.
Overbank Flow Conditions	Overbank flow starts at elevation +51.470 m.(MSL.), records are channel flow only.
General Description	Records good. Stage-discharge relation defined by 21 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

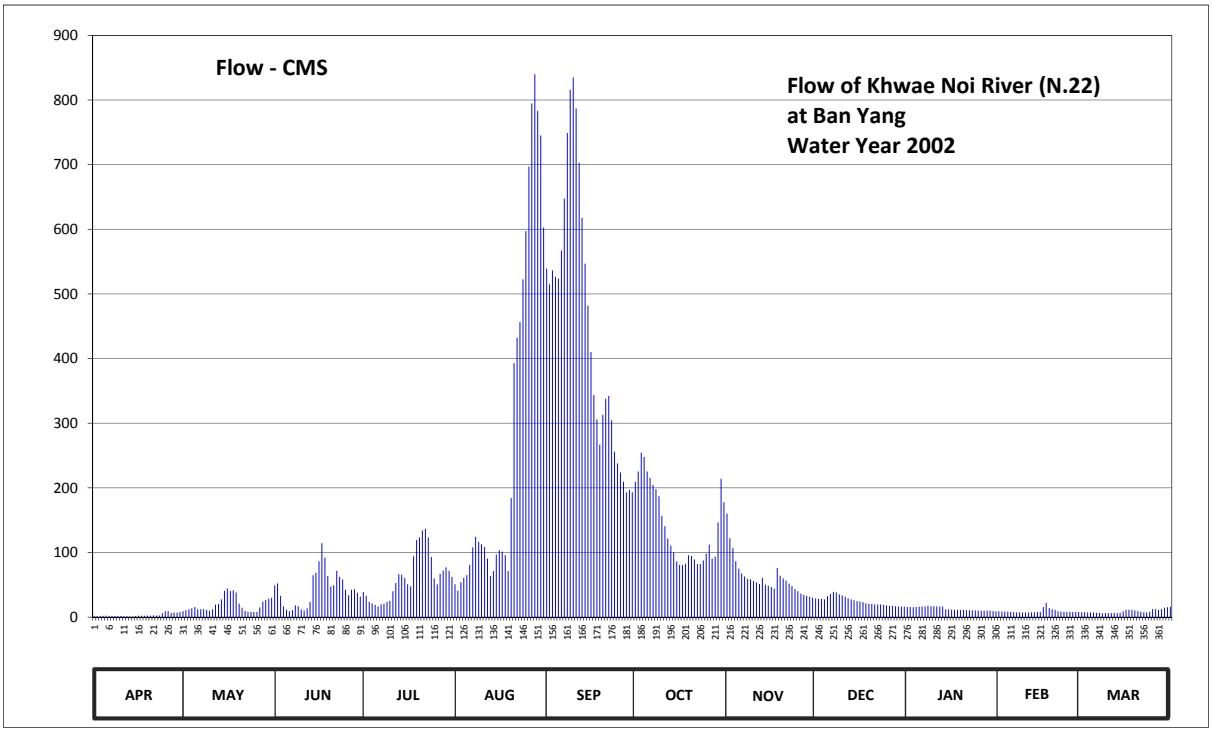
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	42.49	43.01	44.23	43.97	44.27	50.87	47.09	46.37	43.71	43.29	42.99	42.91	
2	42.48	43.08	44.30	43.82	44.02	50.68	47.31	45.73	43.69	43.29	42.98	42.90	
3	42.47	43.15	43.82	43.55	44.35	50.85	47.70	45.45	43.69	43.28	42.97	42.88	
4	42.49	43.22	43.32	43.47	44.52	50.77	47.61	45.07	43.67	43.29	42.96	42.87	
5	42.53	43.29	43.13	43.39	44.62	50.75	47.31	44.84	43.81	43.30	42.94	42.87	
6	42.50	43.15	43.01	43.32	44.96	51.07	47.18	44.68	43.90	43.31	42.91	42.84	
7	42.49	43.15	43.09	43.43	45.47	51.50	47.02	44.57	43.98	43.32	42.90	42.82	
8	42.48	43.15	43.38	43.45	45.77	51.85	46.93	44.48	43.95	43.34	42.89	42.80	
9	42.47	43.11	43.33	43.55	45.63	52.02	46.77	44.46	43.88	43.33	42.88	42.81	
10	42.47	43.04	43.14	43.61	45.56	52.06	46.32	44.39	43.84	43.32	42.88	42.81	
11	42.45	43.16	43.06	44.00	45.48	51.95	46.06	44.34	43.78	43.32	42.87	42.82	
12	42.45	43.41	43.21	44.32	45.15	51.71	45.72	44.28	43.71	43.32	42.87	42.82	
13	42.42	43.44	43.55	44.65	44.59	51.36	45.52	44.52	43.67	43.31	42.89	42.83	
14	42.43	43.67	44.62	44.64	44.76	50.93	45.33	44.25	43.63	43.16	42.92	42.84	
15	42.48	44.02	44.70	44.51	45.27	50.40	45.06	44.21	43.59	43.14	42.95	43.00	
16	42.52	44.11	45.07	44.27	45.39	49.61	44.96	44.16	43.57	43.13	43.29	43.12	
17	42.50	44.01	45.59	44.19	45.35	48.82	44.95	44.10	43.54	43.12	43.50	43.12	
18	42.53	44.04	45.18	45.22	45.25	48.35	44.99	44.86	43.48	43.12	43.23	43.12	
19	42.52	43.95	44.59	45.68	44.76	47.86	45.25	44.60	43.45	43.11	43.16	43.07	
20	42.53	43.46	44.18	45.75	46.73	48.44	45.23	44.50	43.44	43.10	43.10	43.01	
21	42.57	43.25	44.23	45.95	49.41	48.75	45.12	44.41	43.43	43.09	43.01	42.95	
22	42.54	43.02	44.77	45.99	49.87	48.80	44.98	44.30	43.42	43.08	42.96	42.90	
23	42.58	42.96	44.56	45.75	50.14	48.33	44.98	44.20	43.42	43.08	42.94	42.87	
24	42.80	42.94	44.46	45.20	50.74	47.72	45.09	44.08	43.40	43.07	42.94	42.95	
25	43.01	42.92	44.06	44.50	51.25	47.48	45.29	44.00	43.37	43.06	42.94	43.17	
26	43.01	42.93	43.85	44.26	51.69	47.29	45.55	43.91	43.35	43.05	42.93	43.17	
27	42.83	43.27	44.06	44.66	51.97	47.09	45.15	43.86	43.34	43.04	42.93	43.11	
28	42.87	43.57	44.08	44.78	52.07	46.86	45.21	43.82	43.32	43.05	42.92	43.17	
29	42.86	43.64	43.94	44.88	51.94	46.91	46.16	43.78	43.32	43.06		43.25	
30	42.92	43.70	43.79	44.77	51.84	46.86	47.16	43.75	43.31	43.02		43.28	
31		43.74		44.55	51.28		46.64		43.31	43.00		43.30	
Mean	42.59	43.37	44.01	44.45	47.23	49.60	45.99	44.47	43.58	43.18	42.99	42.98	
Max	43.01	44.11	45.59	45.99	52.07	52.06	47.70	46.37	43.98	43.34	43.50	43.30	52.07
Min	42.42	42.92	43.01	43.32	44.02	46.86	44.95	43.75	43.31	43.00	42.87	42.80	42.42

Annual Max Momentary Gage Height 52.09 m. (MSL.) , at 09.00 Hours , on Aug 28 , 2002

Zero Gage at Bottom Elevation 42.67 m. (MSL.) , River Bed 41.09 m. (MSL.)

Left Bank Elevation 51.46 m. (MSL.) ,

Right Bank Elevation 52.16 m. (MSL.) , Drainage Are 4,764 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.90	9.20	49.20	38.80	50.80	539.10	209.30	160.05	28.85	15.70	8.85	7.65		
2	1.80	10.60	52.00	32.80	40.80	515.00	225.25	122.15	28.15	15.70	8.70	7.50		
3	1.70	12.00	32.80	23.50	54.00	536.50	254.50	106.75	28.15	15.40	8.55	7.20		
4	1.90	13.60	16.60	21.10	60.80	526.25	247.75	86.50	27.45	15.70	8.40	7.05		
5	2.30	15.70	11.60	18.70	64.90	523.75	225.25	75.00	32.40	16.00	8.10	7.05		
6	2.00	12.00	9.20	16.60	81.00	567.20	215.60	67.60	36.00	16.30	7.65	6.60		
7	1.90	12.00	10.80	19.90	107.85	647.50	204.40	62.80	39.20	16.60	7.50	6.30		
8	1.80	12.00	18.40	20.50	124.35	749.00	198.10	59.20	38.00	17.20	7.35	6.00		
9	1.70	11.20	16.90	23.50	116.65	815.70	186.90	58.40	35.20	16.90	7.20	6.15		
10	1.70	9.80	11.80	25.35	112.80	835.10	156.80	55.60	33.60	16.60	7.20	6.15		
11	1.50	12.20	10.20	40.00	108.40	787.00	140.60	53.60	31.30	16.60	7.05	6.30		
12	1.50	19.30	13.30	52.80	90.50	703.00	121.60	51.20	28.85	16.60	7.05	6.30		
13	1.20	20.20	23.50	66.25	63.60	617.60	110.60	60.80	27.45	16.30	7.35	6.45		
14	1.30	27.45	64.90	65.80	71.20	546.90	100.15	50.00	26.05	12.20	7.80	6.60		
15	1.80	40.80	68.50	60.40	96.85	482.00	86.00	48.40	24.70	11.80	8.25	9.00		
16	2.20	44.40	86.50	50.80	103.45	409.85	81.00	46.40	24.10	11.60	15.70	11.40		
17	2.00	40.40	114.45	47.60	101.25	343.60	80.50	44.00	23.20	11.40	22.00	11.40		
18	2.30	41.60	92.00	94.10	95.75	306.00	82.50	76.00	21.40	11.40	13.90	11.40		
19	2.20	38.00	63.60	119.40	71.20	266.80	95.75	64.00	20.50	11.20	12.20	10.40		
20	2.30	20.80	47.20	123.25	184.10	313.20	94.65	60.00	20.20	11.00	11.00	9.20		
21	2.70	14.50	49.20	134.25	392.85	338.00	89.00	56.40	19.90	10.80	9.20	8.25		
22	2.40	9.40	71.65	136.45	432.30	342.00	82.00	52.00	19.60	10.60	8.40	7.50		
23	2.80	8.40	62.40	123.25	456.60	304.40	82.00	48.00	19.60	10.60	8.10	7.05		
24	6.00	8.10	58.40	93.00	522.50	256.00	87.50	43.20	19.00	10.40	8.10	8.25		
25	9.20	7.80	42.40	60.00	597.25	238.00	97.95	40.00	18.10	10.20	8.10	12.40		
26	9.20	7.95	34.00	50.40	697.00	223.75	112.25	36.40	17.50	10.00	7.95	12.40		
27	6.45	15.10	42.40	66.70	794.60	209.30	90.50	34.40	17.20	9.80	7.95	11.20		
28	7.05	24.10	43.20	72.10	839.95	193.20	93.55	32.80	16.60	10.00	7.80	12.40		
29	6.90	26.40	37.60	77.00	783.20	196.70	146.60	31.30	16.60	10.20		14.50		
30	7.80	28.50	31.65	71.65	745.20	193.20	214.20	30.25	16.30	9.40		15.40		
31		29.90		62.00	602.80		177.80		16.30	9.00		16.00		
Total	97.50	603.40	1286.35	1907.95	8664.50	13525.60	4390.55	1813.20	771.45	403.20	257.40	281.45	34002.55	CMSDAY
Mean	3.25	19.46	42.88	61.55	279.50	450.85	141.63	60.44	24.89	13.01	9.19	9.08	93.16	CMS
Max	9.20	44.40	114.45	136.45	839.95	835.10	254.50	160.05	39.20	17.20	22.00	16.00	839.95	CMS
Min	1.20	7.80	9.20	16.60	40.80	193.20	80.50	30.25	16.30	9.00	7.05	6.00	1.20	CMS
Runoff	8.42	52.13	111.14	164.85	748.61	1168.61	379.34	156.66	66.65	34.84	22.24	24.32	2937.82	MCM

Momentary Peak 849.65 CMS. at 52.09 m. (MSL.) at 09.00 Hours , on Aug 28 , 2002

Runoff Yield 19.55 Liters/Second/Square KM. Momentary Peak Yield 178.350 Liters/Second/Square KM.

WATER YEAR : 2002

NAN RIVER BASIN

Khek River at Ban Wang Nok Aen , Phitsanulok (N.24)

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	Water - stage recorder.
Zero Gage at Bottom	+41.207 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	Near the gage site. **Elevation** +55.246 m. (MSL.)
Gage Reading Frequency	Recording.
Basis of Mean Daily Gage Height	Arithmetic mean of 24 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	Fairly stable.
Overbank Flow Conditions	Overbank flow starts at elevation +52.960 m. (M.S.L.) and is including overbank flow.
General Description	Records good. Stage-discharge relation defined by 23 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

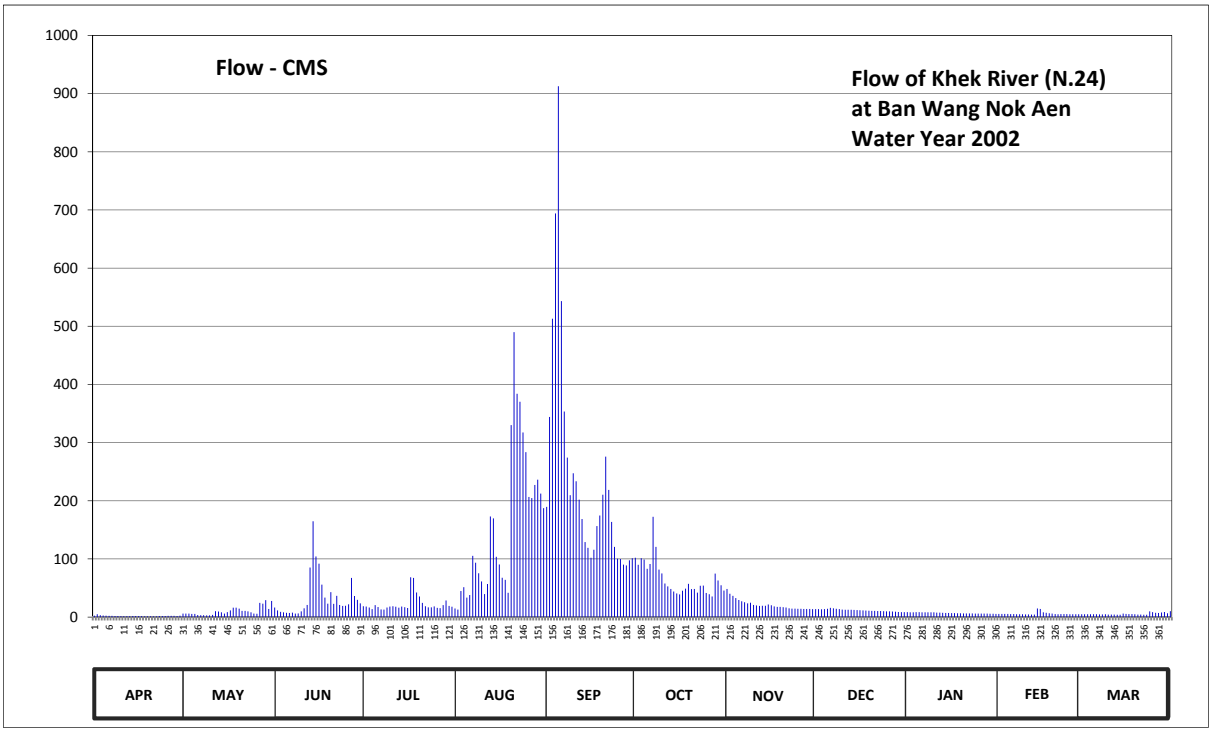
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	41.69	42.11	43.03	43.18	42.93	48.46	46.60	44.62	42.84	42.34	42.06	41.99	
2	41.99	42.11	42.65	43.14	42.80	50.40	46.20	44.26	42.84	42.33	42.06	41.99	
3	41.83	42.09	42.41	43.04	44.47	51.85	46.57	44.08	42.83	42.33	42.06	41.99	
4	41.77	42.06	42.32	42.85	44.74	52.94	46.50	43.88	42.84	42.34	42.04	41.99	
5	41.67	42.04	42.23	43.28	43.93	53.81	45.97	43.72	42.89	42.34	42.03	41.98	
6	41.64	41.86	42.20	43.09	44.15	52.06	46.24	43.61	43.00	42.33	42.01	41.98	
7	41.61	41.83	42.26	42.81	46.71	50.49	48.17	43.53	42.94	42.33	42.00	41.97	
8	41.59	41.82	42.10	42.78	46.32	49.65	47.14	43.43	42.88	42.33	41.99	41.96	
9	41.57	41.81	42.12	43.03	45.69	48.78	45.92	43.48	42.84	42.33	41.98	42.00	
10	41.55	41.80	42.49	43.15	45.13	49.31	45.68	43.30	42.79	42.32	41.97	41.95	
11	41.54	41.89	42.94	43.17	44.23	49.12	44.99	43.25	42.77	42.28	41.96	41.94	
12	41.53	42.51	43.30	43.12	44.96	48.66	44.79	43.21	42.76	42.26	41.94	41.93	
13	41.53	42.45	46.04	43.02	48.18	48.10	44.62	43.22	42.75	42.24	41.94	41.92	
14	41.59	42.32	48.03	43.15	48.12	47.33	44.44	43.23	42.74	42.22	42.92	41.91	
15	41.58	42.11	46.67	43.06	46.66	47.10	44.28	43.34	42.71	42.21	42.86	42.10	
16	41.56	42.35	46.26	42.97	46.22	46.60	44.20	43.26	42.69	42.19	42.32	42.05	
17	41.52	42.64	44.91	45.42	45.39	47.02	44.49	43.16	42.65	42.18	42.23	42.03	
18	41.49	43.02	43.93	45.38	45.24	47.88	44.64	43.11	42.63	42.17	42.16	42.01	
19	41.49	43.01	43.40	44.37	44.34	48.21	44.97	43.10	42.61	42.16	42.11	41.98	
20	41.49	42.90	44.40	44.02	50.26	48.79	44.61	43.06	42.58	42.14	42.03	41.95	
21	41.49	42.58	43.39	43.47	51.68	49.67	44.62	43.03	42.56	42.13	42.00	41.93	
22	41.49	42.56	44.08	43.18	50.78	48.91	44.35	42.94	42.55	42.13	42.03	41.91	
23	41.58	42.48	43.29	43.05	50.65	48.01	44.84	42.91	42.54	42.12	42.02	41.91	
24	41.60	42.31	43.21	43.05	50.13	47.14	44.85	42.90	42.52	42.11	42.01	42.50	
25	41.58	42.11	43.23	43.16	49.76	46.55	44.33	42.89	42.49	42.10	42.00	42.36	
26	41.61	42.07	43.35	43.00	48.73	46.53	44.22	42.88	42.48	42.10	41.99	42.23	
27	41.61	43.47	45.37	42.95	48.70	46.21	44.02	42.87	42.45	42.10	41.98	42.21	
28	41.61	43.41	44.07	43.28	49.03	46.16	45.67	42.86	42.42	42.10	41.99	42.29	
29	41.59	43.70	43.73	43.68	49.16	46.45	45.20	42.86	42.39	42.08		42.39	
30	41.71	42.87	43.43	43.21	48.82	46.57	44.87	42.85	42.36	42.07		42.15	
31		43.64		43.12	48.42		44.51		42.35	42.06		42.52	
Mean	41.60	42.45	43.69	43.33	46.98	48.63	45.24	43.29	42.67	42.21	42.10	42.07	
Max	41.99	43.70	48.03	45.42	51.68	53.81	48.17	44.62	43.00	42.34	42.92	42.52	53.81
Min	41.49	41.80	42.10	42.78	42.80	46.16	44.02	42.85	42.35	42.06	41.94	41.91	41.49

Annual Max Momentary Gage Height 54.37 m. (MSL.) , at 10.00 Hours , on Sep 5 , 2002

Zero Gage at Bottom Elevation 40.71 m. (MSL.) , River Bed 41.27 m. (MSL.)

Left Bank Elevation 53.34 m. (MSL.) ,

Right Bank Elevation 52.96 m. (MSL.) , Drainage Are 1,838 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.45	6.10	16.45	18.70	14.95	189.60	102.00	48.50	13.60	8.40	5.60	4.90		
2	4.90	6.10	11.50	18.10	13.00	344.00	90.00	40.20	13.60	8.30	5.60	4.90		
3	3.30	5.90	9.10	16.60	44.75	513.00	101.10	36.60	13.45	8.30	5.60	4.90		
4	2.85	5.60	8.20	13.75	51.50	694.00	99.00	32.60	13.60	8.40	5.40	4.90		
5	2.35	5.40	7.30	20.60	33.60	912.75	83.10	29.40	14.35	8.40	5.30	4.80		
6	2.20	3.60	7.00	17.35	38.00	543.30	91.20	27.20	16.00	8.30	5.10	4.80		
7	2.05	3.30	7.60	13.15	105.30	353.45	172.35	25.60	15.10	8.30	5.00	4.70		
8	1.95	3.20	6.00	12.80	93.60	274.25	120.60	23.60	14.20	8.30	4.90	4.60		
9	1.85	3.10	6.20	16.45	75.25	209.70	81.60	24.60	13.60	8.30	4.80	5.00		
10	1.75	3.00	9.90	18.25	61.25	247.25	75.00	21.00	12.90	8.20	4.70	4.50		
11	1.70	3.90	15.10	18.55	39.60	233.40	57.75	20.00	12.70	7.80	4.60	4.40		
12	1.65	10.10	21.00	17.80	57.00	201.90	52.75	19.20	12.60	7.60	4.40	4.30		
13	1.65	9.50	85.20	16.30	172.90	168.50	48.50	19.40	12.50	7.40	4.40	4.20		
14	1.95	8.20	164.65	18.25	169.60	128.85	44.00	19.60	12.40	7.20	14.80	4.10		
15	1.90	6.10	104.10	16.90	103.80	119.00	40.60	21.80	12.10	7.10	13.90	6.00		
16	1.80	8.50	91.80	15.55	90.60	102.00	39.00	20.20	11.90	6.90	8.20	5.50		
17	1.60	11.40	55.75	68.50	67.75	115.80	45.25	18.40	11.50	6.80	7.30	5.30		
18	1.45	16.30	33.60	67.50	64.00	156.40	49.00	17.65	11.30	6.70	6.60	5.10		
19	1.45	16.15	23.00	42.40	41.80	174.60	57.25	17.50	11.10	6.60	6.10	4.80		
20	1.45	14.50	43.00	35.40	330.00	210.35	48.25	16.90	10.80	6.40	5.30	4.50		
21	1.45	10.80	22.80	24.40	489.80	275.95	48.50	16.45	10.60	6.30	5.00	4.30		
22	1.45	10.60	36.60	18.70	383.90	218.70	42.00	15.10	10.50	6.30	5.30	4.10		
23	1.90	9.80	20.80	16.75	370.25	163.55	54.00	14.65	10.40	6.20	5.20	4.10		
24	2.00	8.10	19.20	16.75	317.35	120.60	54.25	14.50	10.20	6.10	5.10	10.00		
25	1.90	6.10	19.60	18.40	283.60	100.50	41.60	14.35	9.90	6.00	5.00	8.60		
26	2.05	5.70	22.00	16.00	206.45	99.90	39.40	14.20	9.80	6.00	4.90	7.30		
27	2.05	24.40	67.25	15.25	204.50	90.30	35.40	14.05	9.50	6.00	4.80	7.10		
28	2.05	23.20	36.40	20.60	227.10	88.80	74.75	13.90	9.20	6.00	4.90	7.90		
29	1.95	29.00	29.60	28.60	236.20	97.50	63.00	13.90	8.90	5.80		8.90		
30	2.55	14.05	23.60	19.20	212.40	101.10	54.75	13.75	8.60	5.70		6.50		
31		27.80		17.80	187.20		45.75		8.50	5.60		10.20		
Total	61.60	319.50	1024.30	695.35	4787.00	7249.00	2051.70	644.80	365.40	219.70	167.80	175.20	17761.35	CMSDAY
Mean	2.05	10.31	34.14	22.43	154.42	241.63	66.18	21.49	11.79	7.09	5.99	5.65	48.66	CMS
Max	4.90	29.00	164.65	68.50	489.80	912.75	172.35	48.50	16.00	8.40	14.80	10.20	912.75	CMS
Min	1.45	3.00	6.00	12.80	13.00	88.80	35.40	13.75	8.50	5.60	4.40	4.10	1.45	CMS
Runoff	5.32	27.60	88.50	60.08	413.60	626.31	177.27	55.71	31.57	18.98	14.50	15.14	1534.58	MCM

Momentary Peak 1076.00 CMS. at 54.37 m. (MSL.) at 10.00 Hours , on Sep 5 , 2002

Runoff Yield 26.48 Liters/Second/Square KM. Momentary Peak Yield 585.420 Liters/Second/Square KM.

WATER YEAR : 2002

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 mean 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.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Flow regulated by Naresuan Dam about 2 kilometers above gage site. Stage-discharge relation defined by 18 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

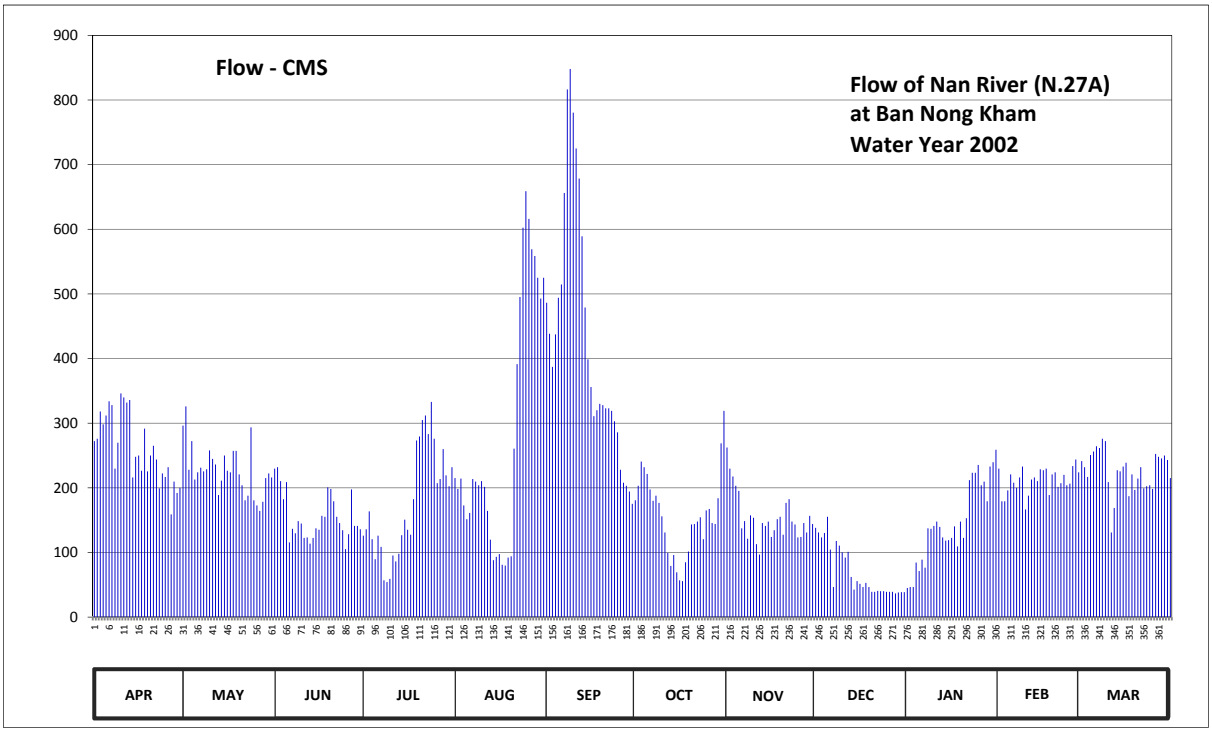
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	41.86	42.12	41.37	40.03	41.19	43.90	40.76	41.75	40.20	38.76	41.37	41.51	
2	41.90	42.42	41.40	40.17	40.98	43.50	41.04	41.37	40.10	38.79	40.74	41.40	
3	42.34	41.35	41.13	40.54	41.18	43.03	41.50	41.22	39.99	38.79	40.74	41.21	
4	42.14	41.86	40.78	39.95	40.66	43.49	41.40	41.04	40.09	39.42	40.95	41.62	
5	42.28	41.16	41.11	39.50	40.38	43.96	41.27	40.94	40.43	39.22	41.26	41.68	
6	42.50	41.30	39.88	40.03	40.51	44.12	40.97	40.19	39.72	39.49	41.10	41.77	
7	42.44	41.39	40.18	39.78	41.17	45.18	40.75	40.34	38.79	39.30	41.00	41.74	
8	41.37	41.32	40.08	38.98	41.12	46.29	40.85	39.96	39.91	40.19	41.20	41.90	
9	41.83	41.36	40.34	38.93	41.05	46.50	40.71	40.46	39.81	40.18	41.41	41.86	
10	42.62	41.70	40.29	39.02	41.13	46.05	40.44	40.41	39.66	40.24	40.58	41.11	
11	42.56	41.55	39.98	39.59	41.02	45.67	40.10	39.84	39.54	40.33	40.85	40.10	
12	42.48	41.45	39.99	39.45	40.55	45.34	39.65	39.61	39.67	40.22	41.16	40.61	
13	42.52	40.86	39.85	39.63	39.94	44.69	39.34	40.30	39.07	39.99	41.20	41.34	
14	41.20	41.14	39.98	40.04	39.48	43.84	39.60	40.24	38.71	39.92	41.13	41.32	
15	41.59	41.61	40.19	40.37	39.56	43.14	39.19	40.33	38.96	39.93	41.36	41.41	
16	41.61	41.33	40.16	40.16	39.62	42.72	38.98	40.00	38.88	39.98	41.34	41.48	
17	41.33	41.30	40.45	40.05	39.37	42.27	38.96	40.15	38.79	40.23	41.37	40.84	
18	42.07	41.69	40.43	40.78	39.35	42.36	39.43	40.38	38.91	39.79	40.86	41.26	
19	41.32	41.69	41.01	41.87	39.54	42.46	39.68	40.43	38.79	40.33	41.26	40.96	
20	41.61	41.26	40.98	41.94	39.57	42.44	40.27	40.05	38.64	39.98	41.30	41.18	
21	41.78	41.05	40.74	42.21	41.73	42.39	40.28	40.71	38.64	40.40	41.02	41.40	
22	41.54	40.76	40.43	42.28	43.07	42.39	40.33	40.78	38.67	41.15	41.09	40.99	
23	40.99	40.85	40.30	41.98	43.97	42.35	40.42	40.33	38.66	41.29	41.25	41.03	
24	41.28	42.09	40.15	42.49	44.79	42.19	39.95	40.27	38.66	41.29	41.05	41.05	
25	41.21	40.76	39.73	41.90	45.20	42.01	40.56	39.99	38.64	41.44	41.08	40.98	
26	41.40	40.66	40.06	41.09	44.89	41.35	40.59	40.00	38.64	41.05	41.42	41.64	
27	40.48	40.55	40.97	41.17	44.54	41.10	40.30	40.30	38.64	41.12	41.54	41.59	
28	41.12	40.73	40.24	41.72	44.46	41.04	40.28	40.10	38.59	40.74	41.30	41.56	
29	40.90	41.19	40.24	41.24	44.20	40.93	40.80	40.45	38.62	41.41		41.61	
30	41.00	41.28	40.17	41.03	43.95	40.69	41.82	40.28	38.63	41.49		41.53	
31		41.20		41.40	44.20		42.35		38.63	41.71		41.19	
Mean	41.71	41.32	40.42	40.62	41.69	43.25	40.41	40.41	39.15	40.26	41.14	41.32	
Max	42.62	42.42	41.40	42.49	45.20	46.50	42.35	41.75	40.43	41.71	41.54	41.90	46.50
Min	40.48	40.55	39.73	38.93	39.35	40.69	38.96	39.61	38.59	38.76	40.58	40.10	38.59

Annual Max Momentary Gage Height 46.58 m. (MSL.) , at 12.00 Hours , on Sep 9 , 2002

Zero Gage at Bottom Elevation 38.43 m. (MSL.) , River Bed 37.64 m. (MSL.)

Left Bank Elevation 49.26 m. (MSL.) ,

Right Bank Elevation 48.67 m. (MSL.) , Drainage Are 19,363 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	272.40	296.40	229.60	126.10	215.20	486.50	180.80	262.50	138.00	45.00	229.60	241.35		
2	276.00	326.00	232.00	135.90	198.40	438.50	203.20	229.60	131.00	46.50	179.20	232.00		
3	318.00	228.00	210.40	163.50	214.40	387.15	240.50	217.60	123.30	46.50	179.20	216.80		
4	298.30	272.40	182.40	120.50	172.80	437.35	232.00	203.20	130.30	84.30	196.00	250.80		
5	312.00	212.80	208.80	89.50	151.50	494.00	221.60	195.20	155.25	71.30	220.80	256.20		
6	334.00	224.00	115.60	126.10	161.25	514.60	197.60	137.30	104.40	88.85	208.00	264.30		
7	328.00	231.20	136.60	108.60	213.60	656.20	180.00	148.50	46.50	76.50	200.00	261.60		
8	229.60	225.60	129.60	56.90	209.60	816.50	188.00	121.20	117.70	137.30	216.00	276.00		
9	269.70	228.80	148.50	54.15	204.00	848.00	176.80	157.50	110.70	136.60	232.85	272.40		
10	346.00	258.00	144.75	59.20	210.40	780.50	156.00	153.75	100.20	141.00	166.50	208.80		
11	340.00	244.75	122.60	95.35	201.60	725.15	131.00	112.80	92.10	147.75	188.00	131.00		
12	332.00	236.25	123.30	86.25	164.25	678.60	99.50	96.70	100.90	139.50	212.80	168.80		
13	336.00	188.80	113.50	98.10	119.80	589.15	79.10	145.50	62.20	123.30	216.00	227.20		
14	216.00	211.20	122.60	126.80	88.20	479.00	96.00	141.00	42.50	118.40	210.40	225.60		
15	248.15	249.90	137.30	150.75	93.40	398.70	69.40	147.75	55.80	119.10	228.80	232.85		
16	249.90	226.40	135.20	135.20	97.40	356.00	56.90	124.00	51.40	122.60	227.20	238.80		
17	226.40	224.00	156.75	127.50	81.05	311.00	55.80	134.50	46.50	140.25	229.60	187.20		
18	291.65	257.10	155.25	182.40	79.75	320.00	84.95	151.50	53.05	109.30	188.80	220.80		
19	225.60	257.10	200.80	273.30	92.10	330.00	101.60	155.25	46.50	147.75	220.80	196.80		
20	249.90	220.80	198.40	279.60	94.05	328.00	143.25	127.50	39.00	122.60	224.00	214.40		
21	265.20	204.00	179.20	305.00	260.70	323.00	144.00	176.80	39.00	153.00	201.60	232.00		
22	243.90	180.80	155.25	312.00	391.35	323.00	147.75	182.40	40.50	212.00	207.20	199.20		
23	199.20	188.00	145.50	283.20	495.25	319.00	154.50	147.75	40.00	223.20	220.00	202.40		
24	222.40	293.55	134.50	333.00	602.65	303.05	120.50	143.25	40.00	223.20	204.00	204.00		
25	216.80	180.80	105.10	276.00	659.00	285.95	165.00	123.30	39.00	235.40	206.40	198.40		
26	232.00	172.80	128.20	207.20	616.15	228.00	167.25	124.00	39.00	204.00	233.70	252.60		
27	159.00	164.25	197.60	213.60	569.20	208.00	145.50	145.50	39.00	209.60	243.90	248.15		
28	209.60	178.40	141.00	259.80	558.80	203.20	144.00	131.00	36.50	179.20	224.00	245.60		
29	192.00	215.20	141.00	219.20	525.00	194.40	184.00	156.75	38.00	232.85		249.90		
30	200.00	222.40	135.90	202.40	492.75	175.20	268.80	144.00	38.50	239.65		243.05		
31		216.00		232.00	525.00		319.00		38.50	258.90		215.20		
Total	7839.70	7035.70	4667.20	5439.10	8758.60	12937.70	4854.30	4637.60	2175.30	4535.40	5915.35	7014.20	75810.15	CMSDAY
Mean	261.32	226.96	155.57	175.45	282.54	431.26	156.59	154.59	70.17	146.30	211.26	226.26	207.70	CMS
Max	346.00	326.00	232.00	333.00	659.00	848.00	319.00	262.50	155.25	258.90	243.90	276.00	848.00	CMS
Min	159.00	164.25	105.10	54.15	79.75	175.20	55.80	96.70	36.50	45.00	166.50	131.00	36.50	CMS
Runoff	677.35	607.88	403.25	469.94	756.74	1117.82	419.41	400.69	187.95	391.86	511.09	606.03	6550.00	MCM

Momentary Peak 860.00 CMS. at 46.58 m. (MSL.) at 12.00 Hours , on Sep 9 , 2002

Runoff Yield 10.73 Liters/Second/Square KM. Momentary Peak Yield 44.410 Liters/Second/Square KM.

WATER YEAR : 2002

NAN RIVER BASIN

Khwae Noi River at Ban Nong Krathao , Phitsanulok (N.36)

Lat 17 - 04 - 59 N Long 100 - 49 - 44 E

Location : on left bank about 50 meters upstream from the bridge along Lom Sak - Nakhon Thai Road, Tambon Nong Krathao.

Ban Nong Krathao **Amphoe** Nakhon Thai **Changwat** Phitsanulok

Drainge Area	1,710 sq.km.
Type of Gage	Water - stage recorder.
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	Recording.
Basis of Mean Daily Gage Height	Arithmetic mean of 24 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	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 31 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

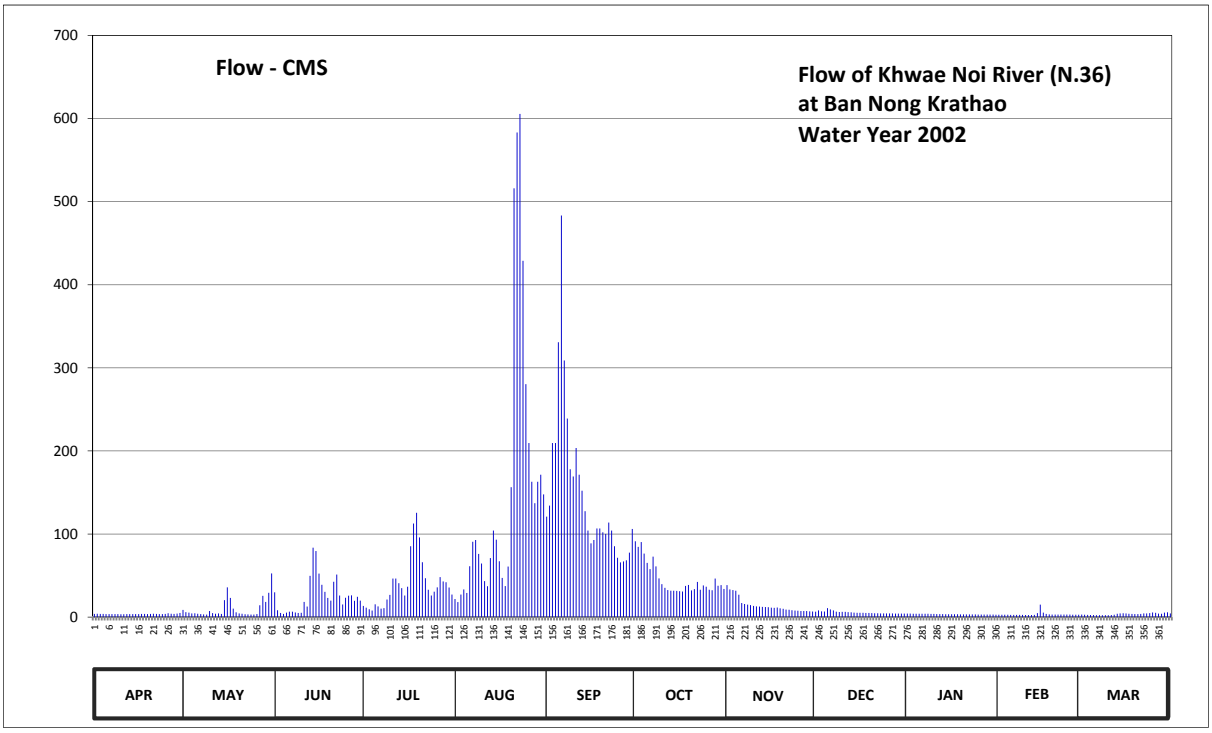
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	193.34	193.93	195.30	194.27	194.82	198.83	198.21	195.77	193.75	193.39	193.14	193.15	
2	193.36	193.66	193.90	194.12	194.57	198.97	197.94	195.50	193.88	193.39	193.13	193.12	
3	193.34	193.60	193.53	193.99	195.15	199.25	198.17	195.46	193.78	193.38	193.11	193.08	
4	193.31	193.42	193.32	193.87	195.50	199.25	197.62	195.41	193.77	193.37	193.11	193.05	
5	193.29	193.47	193.59	194.39	195.26	199.43	197.11	195.14	194.09	193.36	193.09	193.04	
6	193.28	193.35	193.74	194.23	196.91	199.57	196.74	194.49	193.98	193.35	193.09	193.01	
7	193.28	193.29	193.73	194.05	198.19	199.41	197.46	194.42	193.89	193.35	193.08	193.00	
8	193.27	193.21	193.61	194.08	198.26	199.30	196.90	194.37	193.75	193.35	193.08	193.00	
9	193.27	193.16	193.54	194.78	197.60	199.19	196.18	194.33	193.70	193.34	193.07	192.98	
10	193.26	193.83	193.56	195.13	197.07	199.15	195.83	194.27	193.72	193.32	193.06	193.00	
11	193.26	193.51	194.58	196.17	196.02	199.24	195.61	194.23	193.72	193.30	193.06	193.03	
12	193.27	193.38	194.21	196.17	195.71	199.16	195.46	194.21	193.66	193.29	193.06	193.13	
13	193.30	193.45	196.33	195.89	197.38	199.07	195.42	194.19	193.64	193.27	193.09	193.35	
14	193.28	193.32	197.90	195.59	198.56	198.90	195.41	194.18	193.60	193.26	193.49	193.44	
15	193.28	194.72	197.74	195.08	198.27	198.56	195.40	194.16	193.58	193.26	194.37	193.46	
16	193.30	195.64	196.47	195.68	197.21	198.11	195.38	194.12	193.57	193.26	193.60	193.42	
17	193.32	194.91	195.79	197.97	196.21	198.26	195.36	194.11	193.56	193.25	193.33	193.35	
18	193.31	194.05	195.34	198.71	195.72	198.61	195.73	194.14	193.54	193.24	193.21	193.31	
19	193.29	193.64	194.90	198.88	196.89	198.61	195.78	194.07	193.52	193.23	193.18	193.29	
20	193.31	193.45	194.69	198.36	199.09	198.51	195.44	194.03	193.50	193.22	193.15	193.27	
21	193.35	193.37	195.98	197.15	199.60	198.47	195.53	193.97	193.48	193.22	193.15	193.31	
22	193.32	193.26	196.41	196.19	199.63	198.73	195.97	193.94	193.46	193.21	193.16	193.43	
23	193.28	193.21	195.08	195.48	199.64	198.56	195.48	193.90	193.45	193.21	193.17	193.45	
24	193.27	193.15	194.38	195.09	199.52	197.97	195.76	193.87	193.44	193.20	193.15	193.49	
25	193.34	193.17	194.92	195.35	199.37	197.40	195.68	193.86	193.43	193.19	193.15	193.62	
26	193.48	193.29	195.07	195.64	199.25	197.14	195.48	193.83	193.42	193.18	193.14	193.55	
27	193.38	194.31	195.10	196.26	199.12	197.20	195.45	193.83	193.42	193.17	193.11	193.41	
28	193.32	195.06	194.68	196.00	199.00	197.26	196.17	193.82	193.41	193.17	193.13	193.38	
29	193.39	194.59	194.99	195.95	199.12	197.66	195.74	193.80	193.41	193.16		193.60	
30	193.53	195.27	194.69	195.63	199.16	198.60	195.77	193.77	193.40	193.15		193.64	
31		196.48		195.15	199.05		195.54		193.40	193.14		193.45	
Mean	193.32	193.88	194.90	195.65	197.64	198.61	196.12	194.31	193.61	193.26	193.20	193.28	
Max	193.53	196.48	197.90	198.88	199.64	199.57	198.21	195.77	194.09	193.39	194.37	193.64	199.64
Min	193.26	193.15	193.32	193.87	194.57	197.14	195.36	193.77	193.40	193.14	193.06	192.98	192.98

Annual Max Momentary Gage Height 199.68 m. (MSL.) , at 23.00 Hours , on Aug 22 , 2002

Zero Gage at Bottom Elevation 191.88 m. (MSL.) , River Bed 192 m. (MSL.)

Left Bank Elevation 203.08 m. (MSL.) ,

Right Bank Elevation 203.31 m. (MSL.) , Drainage Are 1,710 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.90	8.62	29.75	13.55	21.80	120.85	91.30	38.40	6.60	4.15	2.93	2.98		
2	4.00	5.88	8.25	11.30	18.05	134.15	84.50	33.25	8.00	4.15	2.89	2.84		
3	3.90	5.40	4.98	9.37	27.12	209.50	90.25	32.55	6.84	4.10	2.80	2.66		
4	3.75	4.32	3.80	7.87	33.25	209.50	76.50	31.67	6.76	4.05	2.80	2.53		
5	3.65	4.62	5.34	15.35	29.05	330.70	65.20	26.95	10.85	4.00	2.71	2.48		
6	3.60	3.95	6.52	12.95	61.20	483.30	57.80	16.85	9.25	3.95	2.71	2.35		
7	3.60	3.65	6.44	10.25	90.75	308.91	72.85	15.80	8.12	3.95	2.66	2.30		
8	3.55	3.25	5.48	10.70	92.80	239.00	61.00	15.05	6.60	3.95	2.66	2.30		
9	3.55	3.02	5.04	21.20	76.00	177.85	46.60	14.45	6.20	3.90	2.62	2.22		
10	3.50	7.37	5.16	26.77	64.40	169.25	39.60	13.55	6.36	3.80	2.57	2.30		
11	3.50	4.86	18.20	46.40	43.40	203.60	35.20	12.95	6.36	3.70	2.57	2.44		
12	3.55	4.10	12.65	46.40	37.20	171.40	32.55	12.65	5.88	3.65	2.57	2.89		
13	3.70	4.50	49.60	40.80	71.05	152.05	31.85	12.35	5.72	3.55	2.71	3.95		
14	3.60	3.80	83.50	34.82	104.20	127.50	31.67	12.20	5.40	3.50	4.74	4.44		
15	3.60	20.30	79.50	25.90	93.10	104.20	31.50	11.90	5.28	3.50	15.05	4.56		
16	3.70	35.80	52.40	36.60	67.23	88.75	31.15	11.30	5.22	3.50	5.40	4.32		
17	3.80	23.15	38.80	85.25	47.20	92.80	30.80	11.15	5.16	3.45	3.85	3.95		
18	3.75	10.25	30.45	112.60	37.40	106.60	37.60	11.60	5.04	3.40	3.25	3.75		
19	3.65	5.72	23.00	125.60	60.80	106.60	38.60	10.55	4.92	3.35	3.11	3.65		
20	3.75	4.50	19.85	95.80	156.35	101.95	32.20	9.95	4.80	3.30	2.98	3.55		
21	3.95	4.05	42.60	66.00	516.00	100.15	33.77	9.12	4.68	3.30	2.98	3.75		
22	3.80	3.50	51.20	46.80	583.19	113.80	42.40	8.75	4.56	3.25	3.02	4.38		
23	3.60	3.25	25.90	32.90	605.59	104.20	32.90	8.25	4.50	3.25	3.07	4.50		
24	3.55	2.98	15.20	26.07	428.80	85.25	38.20	7.87	4.44	3.20	2.98	4.74		
25	3.90	3.07	23.30	30.62	280.30	71.50	36.60	7.75	4.38	3.16	2.98	5.56		
26	4.68	3.65	25.72	35.80	209.50	65.80	32.90	7.37	4.32	3.11	2.93	5.10		
27	4.10	14.15	26.25	48.20	162.80	67.00	32.37	7.37	4.32	3.07	2.80	4.26		
28	3.80	25.55	19.70	43.00	137.00	68.35	46.40	7.25	4.26	3.07	2.89	4.10		
29	4.15	18.35	24.35	42.00	162.80	77.50	37.80	7.00	4.26	3.02		5.40		
30	4.98	29.22	19.85	35.60	171.40	106.00	38.40	6.76	4.20	2.98		5.72		
31		52.60		27.12	147.75		33.95		4.20	2.93		4.50		
Total	114.11	327.43	762.78	1223.59	4637.48	4498.01	1424.41	432.61	177.48	109.24	97.23	114.47	13918.84	CMSDAY
Mean	3.80	10.56	25.43	39.47	149.60	149.93	45.95	14.42	5.73	3.52	3.47	3.69	38.13	CMS
Max	4.98	52.60	83.50	125.60	605.59	483.30	91.30	38.40	10.85	4.15	15.05	5.72	605.59	CMS
Min	3.50	2.98	3.80	7.87	18.05	65.80	30.80	6.76	4.20	2.93	2.57	2.22	2.22	CMS
Runoff	9.86	28.29	65.90	105.72	400.68	388.63	123.07	37.38	15.33	9.44	8.40	9.89	1202.59	MCM

Momentary Peak 695.19 CMS. at 199.68 m. (MSL.) at 23.00 Hours , on Aug 22 , 2002

Runoff Yield 22.30 Liters/Second/Square KM. Momentary Peak Yield 406.540 Liters/Second/Square KM.

WATER YEAR : 2002

NAN RIVER BASIN

Khwae Noi River at Ban Nong Bon, Phitsanulok (N.40)

Lat 17 - 13 - 07 N Long 100 - 21 - 14 E

Location : on left bank about 2 kilometers upstream, Ban Nong Bon.

Ban Nong Bon **Amphoe** Wat Bot **Changwat** Phitsanulok

Drainge Area	4,264 sq.km.
Type of Gage	Staff gage.
Zero Gage at Bottom	+47.450 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank near the gage site. **Elevation** +61.392 m. (MSL.)
Gage Reading Frequency	8-time daily readings at 03.00,06.00,09.00,12.00,15.00,18.00,21.00,24.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 8 readings
Period of Available Gage Records	1967 -1968, 1972 to date.
Rating Operation	
Period of Rating	1977 to date.
Rated by Flot	-
Rated by Current Meter	1977 to date.
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	Overbank flow starts at elevation +59.800 m. (MSL.) and is including overbank flow.
General Description	Records good. Stage-discharge relation defined by 50 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

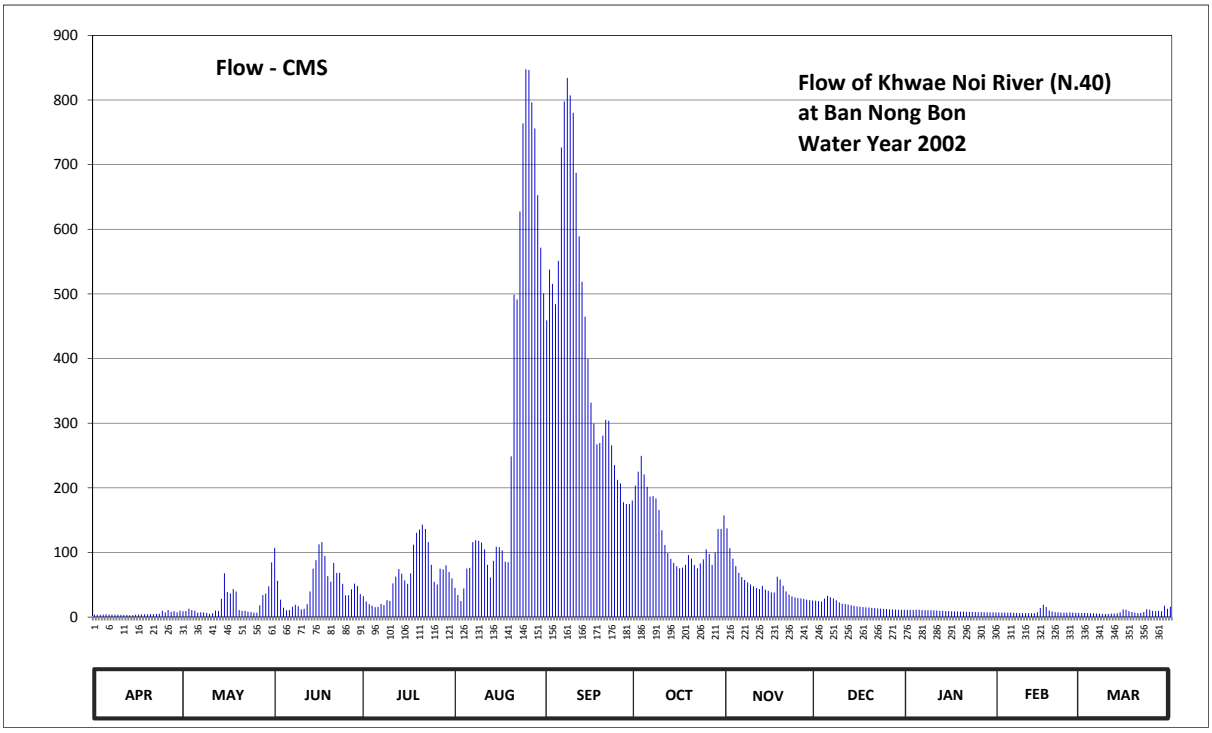
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	48.07	48.44	51.16	49.30	49.66	56.57	52.99	51.79	49.08	48.56	48.31	48.26	
2	48.06	48.45	49.93	49.04	49.35	57.33	53.35	51.15	49.06	48.56	48.30	48.26	
3	48.05	48.64	49.13	48.90	49.07	57.12	53.73	50.79	49.03	48.55	48.30	48.24	
4	48.08	48.53	48.70	48.82	49.63	56.82	53.28	50.50	49.19	48.57	48.29	48.23	
5	48.11	48.48	48.52	48.73	50.40	57.46	52.96	50.24	49.31	48.56	48.29	48.22	
6	48.08	48.30	48.55	48.75	50.43	58.95	52.70	50.08	49.25	48.54	48.27	48.21	
7	48.07	48.33	48.76	48.91	51.36	59.48	52.71	49.96	49.20	48.53	48.26	48.19	
8	48.06	48.31	48.87	48.85	51.42	59.75	52.65	49.87	49.10	48.52	48.25	48.17	
9	48.05	48.28	48.79	49.11	51.40	59.55	52.32	49.79	48.99	48.52	48.25	48.16	
10	48.05	48.15	48.59	49.07	51.34	59.35	51.73	49.72	48.92	48.51	48.25	48.16	
11	48.03	48.22	48.63	49.83	51.11	58.65	51.26	49.65	48.91	48.49	48.24	48.20	
12	48.03	48.49	48.90	50.09	50.55	57.81	50.98	49.61	48.88	48.47	48.24	48.20	
13	48.00	48.45	49.50	50.38	50.06	57.15	50.78	49.73	48.84	48.46	48.24	48.22	
14	48.01	49.18	50.40	50.20	50.70	56.63	50.62	49.59	48.82	48.45	48.33	48.33	
15	48.07	50.22	50.73	49.95	51.20	55.86	50.49	49.53	48.78	48.43	48.68	48.59	
16	48.10	49.48	51.28	49.81	51.18	54.91	50.41	49.47	48.76	48.42	48.87	48.56	
17	48.09	49.42	51.36	50.22	51.07	54.45	50.44	49.46	48.74	48.42	48.74	48.44	
18	48.11	49.61	50.88	51.27	50.67	53.99	50.55	50.09	48.72	48.41	48.50	48.36	
19	48.10	49.50	50.11	51.65	50.65	54.02	50.91	49.98	48.71	48.40	48.41	48.29	
20	48.12	48.53	49.90	51.75	53.72	54.18	50.79	49.74	48.69	48.39	48.35	48.25	
21	48.14	48.47	50.62	51.90	56.96	54.53	50.54	49.51	48.67	48.38	48.32	48.26	
22	48.13	48.46	50.23	51.77	56.89	54.51	50.41	49.37	48.65	48.38	48.31	48.36	
23	48.18	48.40	50.24	51.36	58.16	53.97	50.60	49.29	48.64	48.37	48.30	48.60	
24	48.48	48.34	49.81	50.55	59.23	53.51	50.76	49.24	48.62	48.36	48.29	48.56	
25	48.31	48.29	49.33	49.89	59.85	53.14	51.11	49.21	48.61	48.35	48.31	48.47	
26	48.53	48.29	49.34	49.79	59.84	53.05	50.95	49.20	48.60	48.34	48.30	48.43	
27	48.37	48.84	49.60	50.40	59.47	52.54	50.54	49.17	48.59	48.33	48.28	48.46	
28	48.43	49.35	49.82	50.37	59.17	52.49	51.00	49.13	48.58	48.33	48.26	48.43	
29	48.33	49.41	49.73	50.53	58.38	52.49	51.77	49.11	48.57	48.32		48.82	
30	48.48	49.72	49.39	50.27	57.65	52.59	51.77	49.09	48.57	48.32		48.63	
31		50.64		50.02	56.98		52.17		48.57	48.31		48.76	
Mean	48.16	48.81	49.69	50.05	53.47	55.76	51.52	49.77	48.83	48.44	48.35	48.37	
Max	48.53	50.64	51.36	51.90	59.85	59.75	53.73	51.79	49.31	48.57	48.87	48.82	59.85
Min	48.00	48.15	48.52	48.73	49.07	52.49	50.41	49.09	48.57	48.31	48.24	48.16	52.49

Annual Max Momentary Gage Height 59.96 m. (MSL.) , at 21.00 Hours , on Aug 25 , 2002

Zero Gage at Bottom Elevation 47.45 m. (MSL.) , River Bed 46.60 m. (MSL.)

Left Bank Elevation 60.68 m. (MSL.) ,

Right Bank Elevation 59.79 m. (MSL.) , Drainage Are 4,264 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.87	9.20	107.20	32.50	45.40	459.15	203.40	137.50	25.40	11.30	7.15	6.40		
2	3.75	9.37	56.20	24.20	34.25	537.65	225.00	106.75	24.80	11.30	7.00	6.40		
3	3.62	13.00	26.90	20.00	25.10	515.60	249.45	90.60	23.90	11.13	7.00	6.10		
4	4.00	10.78	14.50	17.60	44.20	484.10	220.80	79.00	28.70	11.48	6.85	5.95		
5	4.37	9.90	10.60	15.25	75.00	551.30	201.60	68.60	32.85	11.30	6.85	5.80		
6	4.00	7.00	11.13	15.75	76.20	726.50	186.50	62.20	30.75	10.95	6.55	5.65		
7	3.87	7.45	16.00	20.30	116.20	797.80	187.05	57.40	29.00	10.78	6.40	5.37		
8	3.75	7.15	19.10	18.50	119.00	834.25	183.75	53.80	26.00	10.60	6.25	5.12		
9	3.62	6.70	16.75	26.30	118.00	807.25	165.60	50.60	22.70	10.60	6.25	5.00		
10	3.62	4.87	11.83	25.10	115.30	780.25	134.50	47.80	20.60	10.43	6.25	5.00		
11	3.37	5.80	12.75	52.20	104.95	687.50	111.70	45.00	20.30	10.07	6.10	5.50		
12	3.37	10.07	20.00	62.60	81.00	589.10	99.10	43.40	19.40	9.72	6.10	5.50		
13	3.00	9.37	39.50	74.20	61.40	518.75	90.20	48.20	18.20	9.55	6.10	5.80		
14	3.12	28.40	75.00	67.00	87.00	465.00	83.80	42.65	17.60	9.37	7.45	7.45		
15	3.87	67.80	88.20	57.00	109.00	399.50	78.60	40.55	16.50	9.02	14.00	11.83		
16	4.25	38.80	112.60	51.40	108.10	331.70	75.40	38.45	16.00	8.85	19.10	11.30		
17	4.12	36.70	116.20	67.80	103.15	299.50	76.60	38.10	15.50	8.85	15.50	9.20		
18	4.37	43.40	94.60	112.15	85.80	267.30	81.00	62.60	15.00	8.67	10.25	7.90		
19	4.25	39.50	63.40	130.50	85.00	269.40	95.95	58.20	14.75	8.50	8.67	6.85		
20	4.50	10.78	55.00	135.50	248.80	280.60	90.60	48.60	14.25	8.35	7.75	6.25		
21	4.75	9.72	83.80	143.00	498.80	305.10	80.60	39.85	13.75	8.20	7.30	6.40		
22	4.62	9.55	68.20	136.50	491.45	303.70	75.40	34.95	13.25	8.20	7.15	7.90		
23	5.25	8.50	68.60	116.20	627.60	265.90	83.00	32.15	13.00	8.05	7.00	12.00		
24	9.90	7.60	51.40	81.00	764.05	235.15	89.40	30.40	12.50	7.90	6.85	11.30		
25	7.15	6.85	33.55	54.60	847.75	212.40	104.95	29.35	12.25	7.75	7.15	9.72		
26	10.78	6.85	33.90	50.60	846.40	207.00	97.75	29.00	12.00	7.60	7.00	9.02		
27	8.05	18.20	43.00	75.00	796.45	177.70	80.60	28.10	11.83	7.45	6.70	9.55		
28	9.02	34.25	51.80	73.80	755.95	174.95	100.00	26.90	11.65	7.45	6.40	9.02		
29	7.45	36.35	48.20	80.20	652.70	174.95	136.50	26.30	11.48	7.30		17.60		
30	9.90	47.80	35.65	69.80	571.50	180.45	136.50	25.70	11.48	7.30		12.75		
31		84.60		59.80	500.90		157.35		11.48	7.15		16.00		
Total	153.56	646.31	1485.56	1966.35	9196.40	12839.50	3982.65	1522.70	566.87	285.17	223.12	255.63	33123.82	CMSDAY
Mean	5.12	20.85	49.52	63.43	296.66	427.98	128.47	50.76	18.29	9.20	7.97	8.25	90.75	CMS
Max	10.78	84.60	116.20	143.00	847.75	834.25	249.45	137.50	32.85	11.48	19.10	17.60	847.75	CMS
Min	3.00	4.87	10.60	15.25	25.10	174.95	75.40	25.70	11.48	7.15	6.10	5.00	3.00	CMS
Runoff	13.27	55.84	128.35	169.89	794.57	1109.33	344.10	131.56	48.98	24.64	19.28	22.09	2861.90	MCM

Momentary Peak 862.60 CMS. at 59.96 m. (MSL.) at 21.00 Hours , on Aug 25 , 2002

Runoff Yield 21.28 Liters/Second/Square KM. Momentary Peak Yield 202.300 Liters/Second/Square KM.

WATER YEAR : 2002

NAN RIVER BASIN

Nam Wa at Ban Hat Khao San, Nan (N.42)

Lat 18 - 34 - 05 N Long 100 - 52 - 28 E

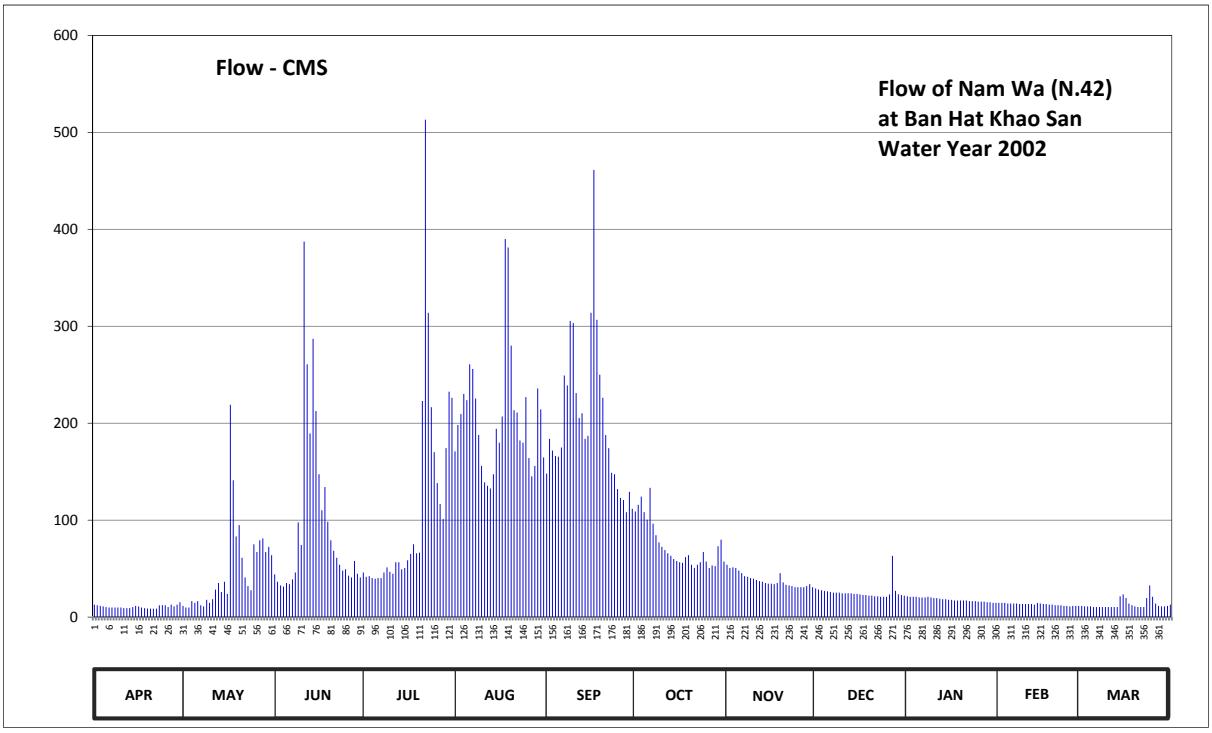
Location : on right bank at Ban Hat Khao San, Tambon Lai Nan.

	Ban Hat Khao San	**Amphoe** Wiang Sa	**Changwat** Nan
Drainge Area	2,099 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**	+11.892 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 mean of 5 readings		
Period of Available Gage Records	1972 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 fair. Stage-discharge relation defined by 62 discharge measurements made in 2002.		

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	1.42	1.40	1.92	1.95	3.75	3.44	2.88	2.07	1.69	1.56	1.45	1.40	
2	1.41	1.37	1.80	1.88	4.09	3.91	2.98	2.02	1.67	1.55	1.45	1.39	
3	1.40	1.37	1.74	1.89	4.23	3.76	3.10	2.03	1.66	1.55	1.45	1.39	
4	1.39	1.48	1.72	1.86	4.49	3.69	2.87	2.02	1.65	1.55	1.44	1.39	
5	1.38	1.45	1.78	1.85	4.41	3.68	2.76	1.98	1.64	1.54	1.44	1.38	
6	1.37	1.48	1.76	1.86	4.85	3.80	3.23	1.94	1.63	1.54	1.44	1.38	
7	1.37	1.41	1.84	1.86	4.80	4.72	2.70	1.89	1.62	1.54	1.44	1.38	
8	1.37	1.39	1.95	1.95	4.43	4.60	2.53	1.88	1.62	1.55	1.43	1.38	
9	1.37	1.50	2.72	2.03	3.96	5.30	2.42	1.86	1.62	1.54	1.43	1.38	
10	1.37	1.45	2.38	1.96	3.55	5.28	2.35	1.85	1.61	1.53	1.43	1.38	
11	1.36	1.51	6.01	1.93	3.31	4.50	2.30	1.83	1.61	1.53	1.43	1.38	
12	1.36	1.67	4.85	2.11	3.26	4.18	2.25	1.81	1.61	1.52	1.43	1.38	
13	1.36	1.78	3.98	2.11	3.22	4.24	2.21	1.80	1.61	1.51	1.42	1.38	
14	1.38	1.63	5.12	2.00	3.43	3.91	2.16	1.78	1.60	1.51	1.45	1.56	
15	1.40	1.80	4.27	2.02	4.04	3.95	2.13	1.77	1.60	1.50	1.44	1.59	
16	1.39	1.60	3.43	2.14	3.86	5.38	2.11	1.77	1.59	1.50	1.43	1.53	
17	1.37	4.35	2.90	2.24	4.20	6.56	2.10	1.76	1.58	1.49	1.43	1.44	
18	1.36	3.34	3.24	2.39	6.03	5.31	2.19	1.78	1.58	1.49	1.42	1.41	
19	1.35	2.51	2.73	2.25	5.96	4.73	2.22	1.94	1.57	1.49	1.42	1.39	
20	1.35	2.68	2.45	2.26	5.05	4.44	2.07	1.79	1.57	1.49	1.41	1.38	
21	1.35	2.18	2.29	4.40	4.28	3.96	2.02	1.75	1.56	1.49	1.41	1.38	
22	1.35	1.87	2.18	6.91	4.25	3.79	2.07	1.74	1.56	1.48	1.41	1.38	
23	1.41	1.73	2.07	5.38	3.89	3.45	2.11	1.73	1.55	1.48	1.40	1.53	
24	1.41	1.66	1.98	4.32	3.86	3.43	2.27	1.71	1.55	1.48	1.40	1.74	
25	1.41	2.39	2.00	3.74	4.45	3.21	2.12	1.71	1.55	1.47	1.39	1.55	
26	1.38	2.27	1.90	3.30	3.66	3.08	2.02	1.71	1.59	1.47	1.40	1.44	
27	1.42	2.45	1.87	2.99	3.40	3.05	2.06	1.71	2.21	1.47	1.40	1.40	
28	1.39	2.48	2.13	2.77	3.55	2.87	2.05	1.73	1.65	1.46	1.40	1.39	
29	1.42	2.27	1.93	3.79	4.56	3.17	2.36	1.76	1.59	1.46		1.39	
30	1.46	2.35	1.87	4.52	4.29	2.92	2.46	1.71	1.58	1.45		1.40	
31		2.22		4.44	3.67		2.12		1.57	1.45		1.42	
Mean	1.38	1.97	2.63	2.81	4.15	4.08	2.36	1.83	1.62	1.50	1.42	1.43	
Max	1.46	4.35	6.01	6.91	6.03	6.56	3.23	2.07	2.21	1.56	1.45	1.74	6.91
Min	1.35	1.37	1.72	1.85	3.22	2.87	2.02	1.71	1.55	1.45	1.39	1.38	3.22

Annual Max Momentary Gage Height	8.00	m. (A.D.) ,	at 15.00 Hours , on Jun 11 , 2002		
Zero Gage at Bottom Elevation	0.00	m. (A.D.) ,	River Bed	-0.16	m. (A.D.)
Left Bank Elevation	13.24	m. (A.D.) ,			
Right Bank Elevation	12.28	m. (A.D.) ,	Drainage Are	2,099	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	12.84	11.60	44.10	46.05	171.00	148.10	108.90	53.92	29.58	21.52	14.70	11.60		
2	12.22	9.86	36.40	41.52	198.20	183.80	115.90	50.62	28.34	20.90	14.70	11.02		
3	11.60	9.86	32.68	42.16	209.40	171.80	124.30	51.28	27.72	20.90	14.70	11.02		
4	11.02	16.56	31.44	40.24	230.20	166.25	108.20	50.62	27.10	20.90	14.08	11.02		
5	10.44	14.70	35.16	39.60	223.80	165.50	100.50	48.00	26.48	20.28	14.08	10.44		
6	9.86	16.56	33.92	40.24	260.75	175.00	133.40	45.40	25.86	20.28	14.08	10.44		
7	9.86	12.22	38.96	40.24	256.00	249.20	96.30	42.16	25.24	20.28	14.08	10.44		
8	9.86	11.02	46.05	46.05	225.40	239.00	84.54	41.52	25.24	20.90	13.46	10.44		
9	9.86	17.80	97.70	51.28	187.80	305.50	77.14	40.24	25.24	20.28	13.46	10.44		
10	9.86	14.70	74.46	46.70	155.90	303.40	72.45	39.60	24.62	19.66	13.46	10.44		
11	9.28	18.42	387.30	44.75	139.00	231.00	69.10	38.32	24.62	19.66	13.46	10.44		
12	9.28	28.34	260.75	56.56	135.50	205.40	65.80	37.04	24.62	19.04	13.46	10.44		
13	9.28	35.16	189.40	56.56	132.70	210.20	63.16	36.40	24.62	18.42	12.84	10.44		
14	10.44	25.86	287.00	49.30	147.40	183.80	59.86	35.16	24.00	18.42	14.70	21.52		
15	11.60	36.40	212.60	50.62	194.20	187.00	57.88	34.54	24.00	17.80	14.08	23.38		
16	11.02	24.00	147.40	58.54	179.80	313.90	56.56	34.54	23.38	17.80	13.46	19.66		
17	9.86	219.00	110.30	65.14	207.00	461.20	55.90	33.92	22.76	17.18	13.46	14.08		
18	9.28	141.10	134.10	75.13	389.90	306.55	61.84	35.16	22.76	17.18	12.84	12.22		
19	8.70	83.18	98.40	65.80	381.20	250.05	63.82	45.40	22.14	17.18	12.84	11.02		
20	8.70	94.90	79.15	66.46	280.00	226.20	53.92	35.78	22.14	17.18	12.22	10.44		
21	8.70	61.18	68.44	223.00	213.40	187.80	50.62	33.30	21.52	17.18	12.22	10.44		
22	8.70	40.88	61.18	513.05	211.00	174.20	53.92	32.68	21.52	16.56	12.22	10.44		
23	12.22	32.06	53.92	313.90	182.20	148.80	56.56	32.06	20.90	16.56	11.60	19.66		
24	12.22	27.72	48.00	216.60	179.80	147.40	67.12	30.82	20.90	16.56	11.60	32.68		
25	12.22	75.13	49.30	170.20	227.00	132.00	57.22	30.82	20.90	15.94	11.02	20.90		
26	10.44	67.12	42.80	138.30	164.00	122.90	50.62	30.82	23.38	15.94	11.60	14.08		
27	12.84	79.15	40.88	116.60	145.30	120.80	53.26	30.82	63.16	15.94	11.60	11.60		
28	11.02	81.16	57.88	101.20	155.90	108.20	52.60	32.06	27.10	15.32	11.60	11.02		
29	12.84	67.12	44.75	174.20	235.80	129.20	73.12	33.92	23.38	15.32		11.02		
30	15.32	72.45	40.88	232.60	214.20	111.70	79.82	30.82	22.76	14.70		11.60		
31		63.82		226.20	164.75		57.22		22.14	14.70		12.84		
Total	321.38	1509.03	2885.30	3448.79	6398.50	6065.85	2281.55	1147.74	788.12	560.48	367.62	417.22	26191.58	CMSDAY
Mean	10.71	48.68	96.18	111.25	206.40	202.19	73.60	38.26	25.42	18.08	13.13	13.46	71.76	CMS
Max	15.32	219.00	387.30	513.05	389.90	461.20	133.40	53.92	63.16	21.52	14.70	32.68	513.05	CMS
Min	8.70	9.86	31.44	39.60	132.70	108.20	50.62	30.82	20.90	14.70	11.02	10.44	8.70	CMS
Runoff	27.77	130.38	249.29	297.98	552.83	524.09	197.13	99.16	68.09	48.43	31.76	36.05	2262.95	MCM

Momentary Peak 692.00 CMS. at 8.00 m. (A.D.) at 15.00 Hours , on Jun 11 , 2002

Runoff Yield 34.19 Liters/Second/Square KM. Momentary Peak Yield 329.680 Liters/Second/Square KM.

WATER YEAR : 2002

NAN RIVER BASIN

Nam Yao at Ban Nam Yao , Nan (N.49)

Lat 18 - 59 - 33 N Long 100 - 56 - 36 E

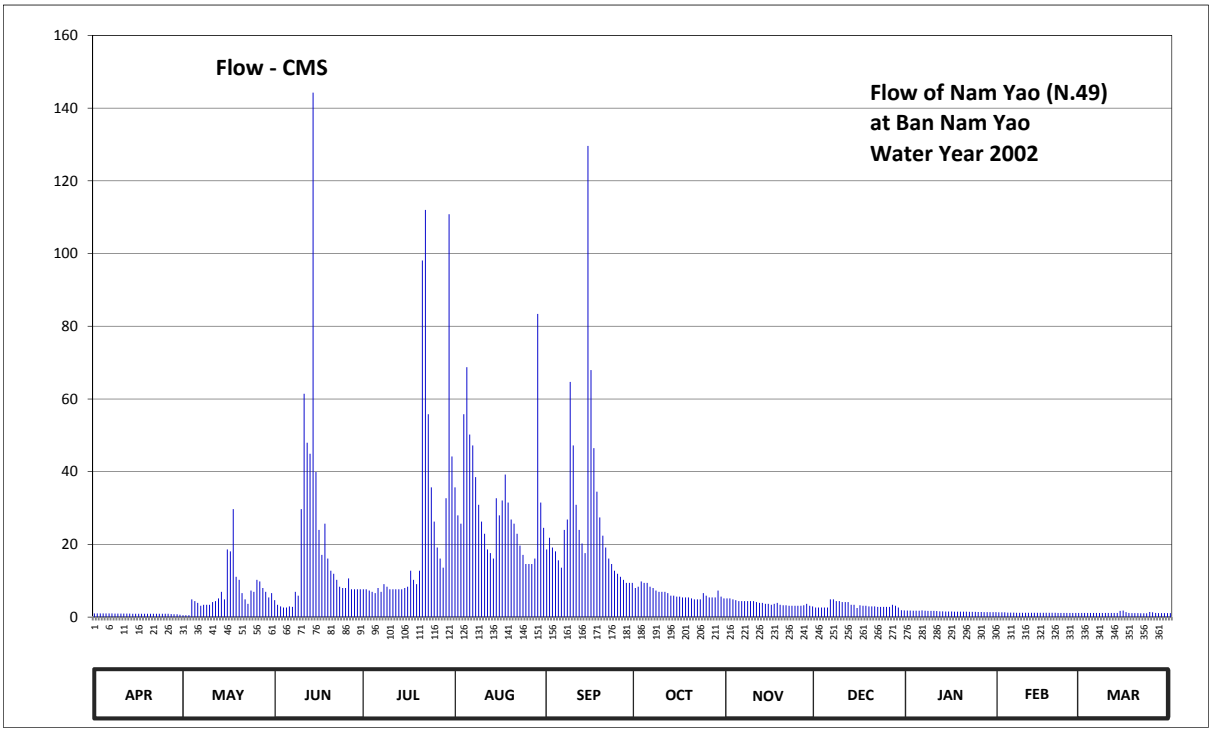
Location : on right bank downstream of the bridge of Nam Yao, along Pua - Sila Phet Road.

	Ban Nam Yao	**Amphoe** Pua	**Changwat** Nan
Drainge Area	153 sq.km.		
Type of Gage	Staff gage.		
Zero Gage at Bottom	+0.000 m. (A.D.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank about 15 meters from the top staff gage.	**Elevation**	+6.052 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 mean 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 because of backwater effect.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 38 discharge measurements made in 2002.		

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	1.74	1.54	1.65	1.75	2.30	2.00	1.76	1.67	1.55	1.48	1.38	1.35	
2	1.74	1.53	1.60	1.75	2.17	2.06	1.77	1.67	1.55	1.48	1.38	1.35	
3	1.73	1.53	1.57	1.74	2.13	2.01	1.81	1.66	1.55	1.47	1.38	1.35	
4	1.73	1.66	1.55	1.73	2.57	1.99	1.80	1.65	1.55	1.47	1.37	1.35	
5	1.73	1.64	1.55	1.72	2.73	1.94	1.80	1.64	1.55	1.47	1.37	1.35	
6	1.73	1.62	1.57	1.76	2.50	1.90	1.77	1.64	1.66	1.49	1.37	1.35	
7	1.73	1.58	1.56	1.73	2.46	2.10	1.76	1.64	1.66	1.47	1.36	1.35	
8	1.72	1.60	1.73	1.79	2.34	2.15	1.74	1.64	1.64	1.46	1.36	1.35	
9	1.72	1.60	1.70	1.77	2.22	2.68	1.73	1.64	1.64	1.46	1.36	1.35	
10	1.72	1.60	2.20	1.75	2.14	2.46	1.73	1.64	1.63	1.46	1.36	1.35	
11	1.72	1.63	2.64	1.75	2.08	2.22	1.73	1.63	1.63	1.45	1.36	1.35	
12	1.72	1.64	2.47	1.75	2.00	2.10	1.72	1.62	1.63	1.44	1.36	1.35	
13	1.72	1.67	2.43	1.75	1.98	2.03	1.70	1.62	1.60	1.44	1.36	1.35	
14	1.71	1.73	3.41	1.75	1.95	1.98	1.70	1.61	1.60	1.43	1.36	1.46	
15	1.70	1.66	2.36	1.76	2.25	3.30	1.69	1.61	1.54	1.43	1.36	1.48	
16	1.70	2.00	2.10	1.77	2.17	2.72	1.69	1.60	1.59	1.43	1.36	1.39	
17	1.70	1.99	1.97	1.88	2.24	2.45	1.68	1.61	1.58	1.42	1.36	1.35	
18	1.70	2.20	2.13	1.82	2.35	2.28	1.68	1.62	1.58	1.42	1.36	1.34	
19	1.70	1.84	1.95	1.79	2.23	2.16	1.68	1.60	1.57	1.42	1.36	1.34	
20	1.70	1.82	1.88	1.88	2.15	2.07	1.67	1.59	1.57	1.42	1.36	1.34	
21	1.70	1.72	1.86	3.04	2.13	2.01	1.66	1.59	1.57	1.42	1.35	1.33	
22	1.70	1.66	1.82	3.16	2.08	1.95	1.66	1.58	1.56	1.41	1.35	1.33	
23	1.70	1.61	1.77	2.57	2.02	1.92	1.66	1.58	1.56	1.41	1.35	1.33	
24	1.70	1.74	1.76	2.30	1.97	1.88	1.72	1.58	1.56	1.41	1.35	1.40	
25	1.70	1.73	1.76	2.14	1.92	1.86	1.70	1.58	1.56	1.40	1.35	1.38	
26	1.70	1.82	1.83	2.01	1.92	1.84	1.68	1.58	1.56	1.40	1.35	1.35	
27	1.68	1.81	1.75	1.95	1.92	1.82	1.68	1.59	1.60	1.39	1.35	1.34	
28	1.66	1.76	1.75	1.90	1.95	1.80	1.68	1.61	1.58	1.39	1.35	1.34	
29	1.66	1.73	1.75	2.25	2.90	1.80	1.74	1.58	1.55	1.39		1.34	
30	1.60	1.68	1.75	3.15	2.23	1.80	1.69	1.57	1.50	1.39		1.34	
31		1.72		2.42	2.11		1.67		1.49	1.39		1.34	
Mean	1.71	1.71	1.93	2.01	2.20	2.11	1.71	1.61	1.58	1.43	1.36	1.36	
Max	1.74	2.20	3.41	3.16	2.90	3.30	1.81	1.67	1.66	1.49	1.38	1.48	3.41
Min	1.60	1.53	1.55	1.72	1.92	1.80	1.66	1.57	1.49	1.39	1.35	1.33	1.33

Annual Max Momentary Gage Height	4.36	m. (A.D.) ,	at 06.00 Hours , on Jun 14 , 2002		
Zero Gage at Bottom Elevation	0.00	m. (A.D.) ,	River Bed	0.12	m. (A.D.)
Left Bank Elevation	9.20	m. (A.D.) ,			
Right Bank Elevation	11.24	m. (A.D.) ,	Drainage Are	153	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.02	0.53	4.65	7.65	35.70	18.60	8.00	5.15	2.65	1.80	1.30	1.15		
2	1.02	0.51	3.40	7.65	27.99	21.84	8.35	5.15	2.65	1.80	1.30	1.15		
3	0.99	0.51	2.95	7.30	25.71	19.14	9.82	4.90	2.65	1.75	1.30	1.15		
4	0.99	4.90	2.65	6.95	55.80	18.10	9.40	4.65	2.65	1.75	1.25	1.15		
5	0.99	4.40	2.65	6.60	68.76	15.60	9.40	4.40	2.65	1.75	1.25	1.15		
6	0.99	3.90	2.95	8.00	50.20	13.60	8.35	4.40	4.90	1.85	1.25	1.15		
7	0.99	3.10	2.80	6.95	47.20	24.00	8.00	4.40	4.90	1.75	1.20	1.15		
8	0.96	3.40	6.95	9.05	38.50	26.85	7.30	4.40	4.40	1.70	1.20	1.15		
9	0.96	3.40	5.90	8.35	30.90	64.68	6.95	4.40	4.40	1.70	1.20	1.15		
10	0.96	3.40	29.70	7.65	26.28	47.20	6.95	4.40	4.15	1.70	1.20	1.15		
11	0.96	4.15	61.44	7.65	22.92	30.90	6.95	4.15	4.15	1.65	1.20	1.15		
12	0.96	4.40	47.95	7.65	18.60	24.00	6.60	3.90	4.15	1.60	1.20	1.15		
13	0.96	5.15	44.95	7.65	17.60	20.22	5.90	3.90	3.40	1.60	1.20	1.15		
14	0.93	6.95	144.26	7.65	16.10	17.60	5.90	3.65	3.40	1.55	1.20	1.70		
15	0.90	4.90	39.90	8.00	32.70	129.60	5.65	3.65	2.50	1.55	1.20	1.80		
16	0.90	18.60	24.00	8.35	27.99	67.94	5.65	3.40	3.25	1.55	1.20	1.35		
17	0.90	18.10	17.10	12.76	32.10	46.45	5.40	3.65	3.10	1.50	1.20	1.15		
18	0.90	29.70	25.71	10.24	39.20	34.50	5.40	3.90	3.10	1.50	1.20	1.10		
19	0.90	11.08	16.10	9.05	31.50	27.42	5.40	3.40	2.95	1.50	1.20	1.10		
20	0.90	10.24	12.76	12.76	26.85	22.38	5.15	3.25	2.95	1.50	1.20	1.10		
21	0.90	6.60	11.92	98.08	25.71	19.14	4.90	3.25	2.95	1.50	1.15	1.05		
22	0.90	4.90	10.24	112.00	22.92	16.10	4.90	3.10	2.80	1.45	1.15	1.05		
23	0.90	3.65	8.35	55.80	19.68	14.60	4.90	3.10	2.80	1.45	1.15	1.05		
24	0.90	7.30	8.00	35.70	17.10	12.76	6.60	3.10	2.80	1.45	1.15	1.40		
25	0.90	6.95	8.00	26.28	14.60	11.92	5.90	3.10	2.80	1.40	1.15	1.30		
26	0.90	10.24	10.66	19.14	14.60	11.08	5.40	3.10	2.80	1.40	1.15	1.15		
27	0.85	9.82	7.65	16.10	14.60	10.24	5.40	3.25	3.40	1.35	1.15	1.10		
28	0.80	8.00	7.65	13.60	16.10	9.40	5.40	3.65	3.10	1.35	1.15	1.10		
29	0.80	6.95	7.65	32.70	83.40	9.40	7.30	3.10	2.65	1.35		1.10		
30	0.65	5.40	7.65	110.80	31.50	9.40	5.65	2.95	1.90	1.35		1.10		
31		6.60		44.20	24.57		5.15		1.85	1.35		1.10		
Total	27.58	217.73	586.54	732.31	957.38	814.66	202.02	114.80	98.80	48.45	33.65	36.75	3870.67	CMSDAY
Mean	0.92	7.02	19.55	23.62	30.88	27.16	6.52	3.83	3.19	1.56	1.20	1.19	10.60	CMS
Max	1.02	29.70	144.26	112.00	83.40	129.60	9.82	5.15	4.90	1.85	1.30	1.80	144.26	CMS
Min	0.65	0.51	2.65	6.60	14.60	9.40	4.90	2.95	1.85	1.35	1.15	1.05	0.51	CMS
Runoff	2.38	18.81	50.68	63.27	82.72	70.39	17.45	9.92	8.54	4.19	2.91	3.18	334.43	MCM

Momentary Peak 343.20 CMS. at 4.36 m. (A.D.) at 06.00 Hours , on Jun 14 , 2002

Runoff Yield 69.31 Liters/Second/Square KM. Momentary Peak Yield 2243.140 Liters/Second/Square KM.

WATER YEAR : 2002

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** +110.240 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 mean of 5 readings
Period of Available Gage Records	1982 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 18 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

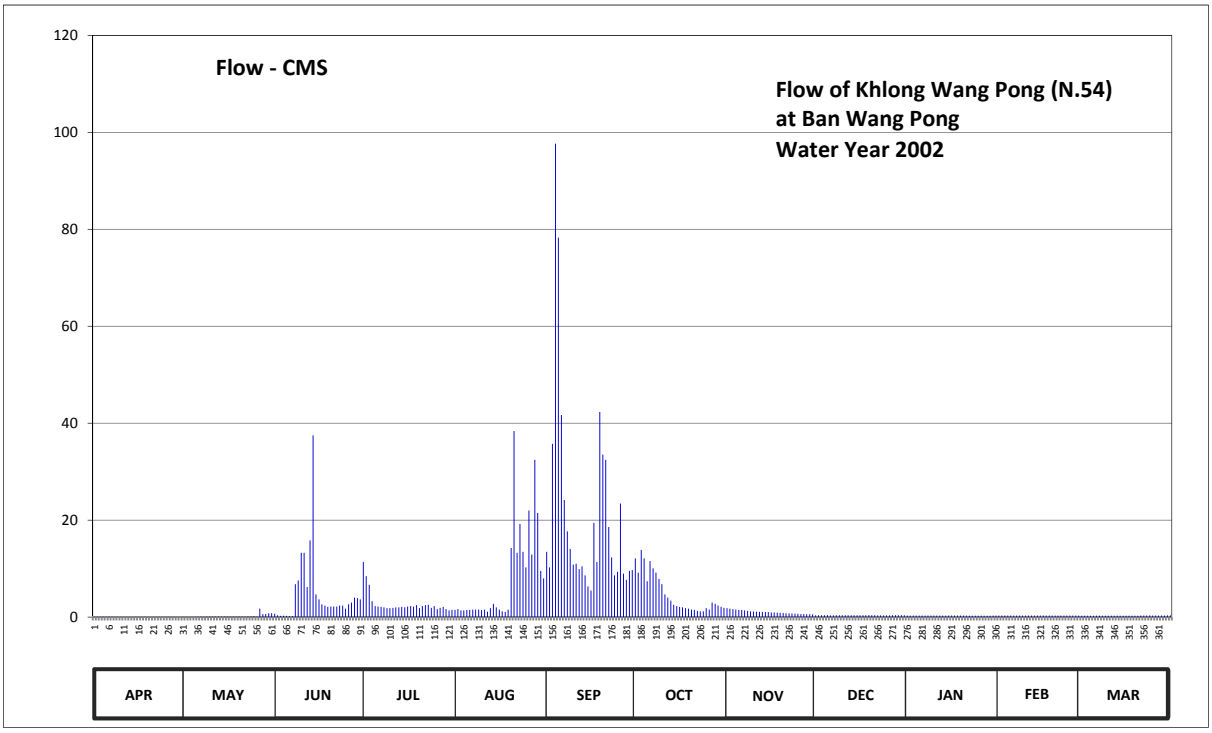
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	103.97	103.91	104.27	105.15	104.43	105.26	105.19	104.47	104.18	104.15	104.15	104.12	
2	103.97	103.91	104.17	104.99	104.45	105.09	105.03	104.46	104.19	104.15	104.15	104.12	
3	103.97	103.92	104.10	104.87	104.42	106.19	105.28	104.45	104.19	104.15	104.15	104.12	
4	103.97	103.93	104.13	104.62	104.42	107.96	105.19	104.44	104.19	104.15	104.15	104.12	
5	103.97	103.93	104.10	104.52	104.43	107.45	104.92	104.43	104.19	104.15	104.15	104.12	
6	103.95	103.95	104.05	104.51	104.43	106.39	105.16	104.43	104.18	104.15	104.15	104.12	
7	103.94	103.95	104.05	104.50	104.44	105.75	105.08	104.42	104.18	104.15	104.15	104.12	
8	103.93	103.96	104.88	104.49	104.44	105.47	105.03	104.41	104.19	104.15	104.15	104.12	
9	103.93	103.99	104.93	104.47	104.44	105.29	104.95	104.40	104.19	104.15	104.15	104.12	
10	103.93	103.99	105.25	104.47	104.43	105.12	104.88	104.39	104.19	104.15	104.15	104.12	
11	103.93	104.00	105.25	104.48	104.44	105.13	104.73	104.38	104.19	104.15	104.15	104.12	
12	103.93	104.00	104.84	104.49	104.38	105.07	104.68	104.37	104.19	104.15	104.15	104.12	
13	103.92	104.00	105.38	104.49	104.47	105.10	104.63	104.37	104.19	104.15	104.15	104.12	
14	103.92	104.00	106.25	104.50	104.57	105.00	104.55	104.36	104.19	104.15	104.15	104.12	
15	103.92	104.00	104.73	104.49	104.49	104.85	104.52	104.36	104.19	104.15	104.15	104.12	
16	103.92	104.00	104.65	104.51	104.44	104.79	104.50	104.34	104.19	104.15	104.15	104.12	
17	103.92	104.00	104.56	104.52	104.40	105.55	104.49	104.34	104.19	104.15	104.15	104.12	
18	103.92	104.00	104.53	104.51	104.36	105.15	104.47	104.33	104.19	104.15	104.15	104.12	
19	103.92	104.00	104.50	104.54	104.44	106.41	104.46	104.32	104.19	104.15	104.15	104.12	
20	103.92	104.00	104.51	104.47	105.30	106.11	104.44	104.31	104.19	104.15	104.15	104.14	
21	103.91	104.00	104.51	104.52	106.28	106.07	104.43	104.30	104.19	104.15	104.15	104.15	
22	103.91	104.00	104.51	104.54	105.25	105.51	104.41	104.29	104.18	104.13	104.15	104.16	
23	103.91	104.01	104.53	104.55	105.54	105.20	104.40	104.29	104.18	104.13	104.15	104.16	
24	103.91	104.02	104.53	104.48	105.26	105.00	104.40	104.28	104.18	104.13	104.15	104.17	
25	103.91	104.05	104.46	104.52	105.09	105.04	104.47	104.27	104.18	104.13	104.15	104.16	
26	103.91	104.00	104.56	104.45	105.66	105.72	104.44	104.26	104.18	104.13	104.15	104.16	
27	103.91	104.46	104.60	104.48	105.23	105.02	104.60	104.26	104.19	104.12	104.15	104.16	
28	103.91	104.26	104.68	104.50	106.07	104.94	104.57	104.25	104.19	104.12	104.15	104.16	
29	103.90	104.26	104.67	104.45	105.64	105.05	104.53	104.25	104.19	104.12		104.16	
30	103.90	104.30	104.65	104.42	105.05	105.06	104.50	104.24	104.20	104.15		104.17	
31		104.30		104.43	104.96		104.48		104.20	104.15		104.17	
Mean	103.93	104.04	104.63	104.55	104.83	105.52	104.69	104.35	104.19	104.14	104.15	104.14	
Max	103.97	104.46	106.25	105.15	106.28	107.96	105.28	104.47	104.20	104.15	104.15	104.17	107.96
Min	103.90	103.91	104.05	104.42	104.36	104.79	104.40	104.24	104.18	104.12	104.15	104.12	103.90

Annual Max Momentary Gage Height 108.00 m. (MSL.) , at 09.00 Hours , on Sep 4 , 2002

Zero Gage at Bottom Elevation 104.35 m. (MSL.) , River Bed 103.91 m. (MSL.)

Left Bank Elevation 110.22 m. (MSL.) ,

Right Bank Elevation 110.25 m. (MSL.) , Drainage Are 174 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.07	0.02	0.68	11.38	1.47	13.47	12.12	1.83	0.37	0.33	0.33	0.28		
2	0.07	0.02	0.36	8.45	1.65	10.27	9.16	1.74	0.39	0.33	0.33	0.28		
3	0.07	0.03	0.25	6.65	1.38	35.73	13.86	1.65	0.39	0.33	0.33	0.28		
4	0.07	0.04	0.30	3.26	1.38	97.68	12.12	1.56	0.39	0.33	0.33	0.28		
5	0.07	0.04	0.25	2.28	1.47	78.30	7.40	1.47	0.39	0.33	0.33	0.28		
6	0.05	0.05	0.18	2.19	1.47	41.70	11.56	1.47	0.37	0.33	0.33	0.28		
7	0.05	0.05	0.18	2.10	1.56	24.17	10.08	1.38	0.37	0.33	0.33	0.28		
8	0.04	0.06	6.80	2.01	1.56	17.70	9.16	1.29	0.39	0.33	0.33	0.28		
9	0.04	0.09	7.55	1.83	1.56	14.06	7.85	1.20	0.39	0.33	0.33	0.28		
10	0.04	0.09	13.28	1.83	1.47	10.82	6.80	1.16	0.39	0.33	0.33	0.28		
11	0.04	0.10	13.28	1.92	1.56	11.01	4.69	1.12	0.39	0.33	0.33	0.28		
12	0.04	0.10	6.20	2.01	1.12	9.90	4.04	1.08	0.39	0.33	0.33	0.28		
13	0.03	0.10	15.81	2.01	1.83	10.45	3.39	1.08	0.39	0.33	0.33	0.28		
14	0.03	0.10	37.50	2.10	2.73	8.60	2.55	1.04	0.39	0.33	0.33	0.28		
15	0.03	0.10	4.69	2.01	2.01	6.35	2.28	1.04	0.39	0.33	0.33	0.28		
16	0.03	0.10	3.65	2.19	1.56	5.47	2.10	0.96	0.39	0.33	0.33	0.28		
17	0.03	0.10	2.64	2.28	1.20	19.43	2.01	0.96	0.39	0.33	0.33	0.28		
18	0.03	0.10	2.37	2.19	1.04	11.38	1.83	0.92	0.39	0.33	0.33	0.28		
19	0.03	0.10	2.10	2.46	1.56	42.32	1.74	0.88	0.39	0.33	0.33	0.28		
20	0.03	0.10	2.19	1.83	14.25	33.53	1.56	0.84	0.39	0.33	0.33	0.31		
21	0.02	0.10	2.19	2.28	38.40	32.43	1.47	0.80	0.39	0.33	0.33	0.33		
22	0.02	0.10	2.19	2.46	13.28	18.57	1.29	0.76	0.37	0.30	0.33	0.34		
23	0.02	0.12	2.37	2.55	19.21	12.30	1.20	0.76	0.37	0.30	0.33	0.34		
24	0.02	0.13	2.37	1.92	13.47	8.60	1.20	0.72	0.37	0.30	0.33	0.36		
25	0.02	0.18	1.74	2.28	10.27	9.34	1.83	0.68	0.37	0.30	0.33	0.34		
26	0.02	0.10	2.64	1.65	21.97	23.44	1.56	0.64	0.37	0.30	0.33	0.34		
27	0.02	1.74	3.00	1.92	12.89	8.97	3.00	0.64	0.39	0.28	0.33	0.34		
28	0.02	0.64	4.04	2.10	32.43	7.70	2.73	0.60	0.39	0.28	0.33	0.34		
29	0.01	0.64	3.91	1.65	21.48	9.53	2.37	0.60	0.39	0.28		0.34		
30	0.01	0.80	3.65	1.38	9.53	9.71	2.10	0.56	0.40	0.33		0.36		
31		0.80		1.47	8.00		1.92		0.40	0.33		0.36		
Total	1.07	6.84	148.36	84.64	244.76	642.93	146.97	31.43	11.95	9.93	9.24	9.42	1347.54	CMSDAY
Mean	0.04	0.22	4.95	2.73	7.90	21.43	4.74	1.05	0.39	0.32	0.33	0.30	3.69	CMS
Max	0.07	1.74	37.50	11.38	38.40	97.68	13.86	1.83	0.40	0.33	0.33	0.36	97.68	CMS
Min	0.01	0.02	0.18	1.38	1.04	5.47	1.20	0.56	0.37	0.28	0.33	0.28	0.01	CMS
Runoff	0.09	0.59	12.82	7.31	21.15	55.55	12.70	2.72	1.03	0.86	0.80	0.81	116.43	MCM

Momentary Peak 99.20 CMS. at 108.00 m. (MSL.) at 09.00 Hours , on Sep 4 , 2002

Runoff Yield 21.22 Liters/Second/Square KM. Momentary Peak Yield 570.110 Liters/Second/Square KM.

WATER YEAR : 2002

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	+182.757 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank about 13 meters from the top staff gage. **Elevation** +191.414 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 mean 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	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 29 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

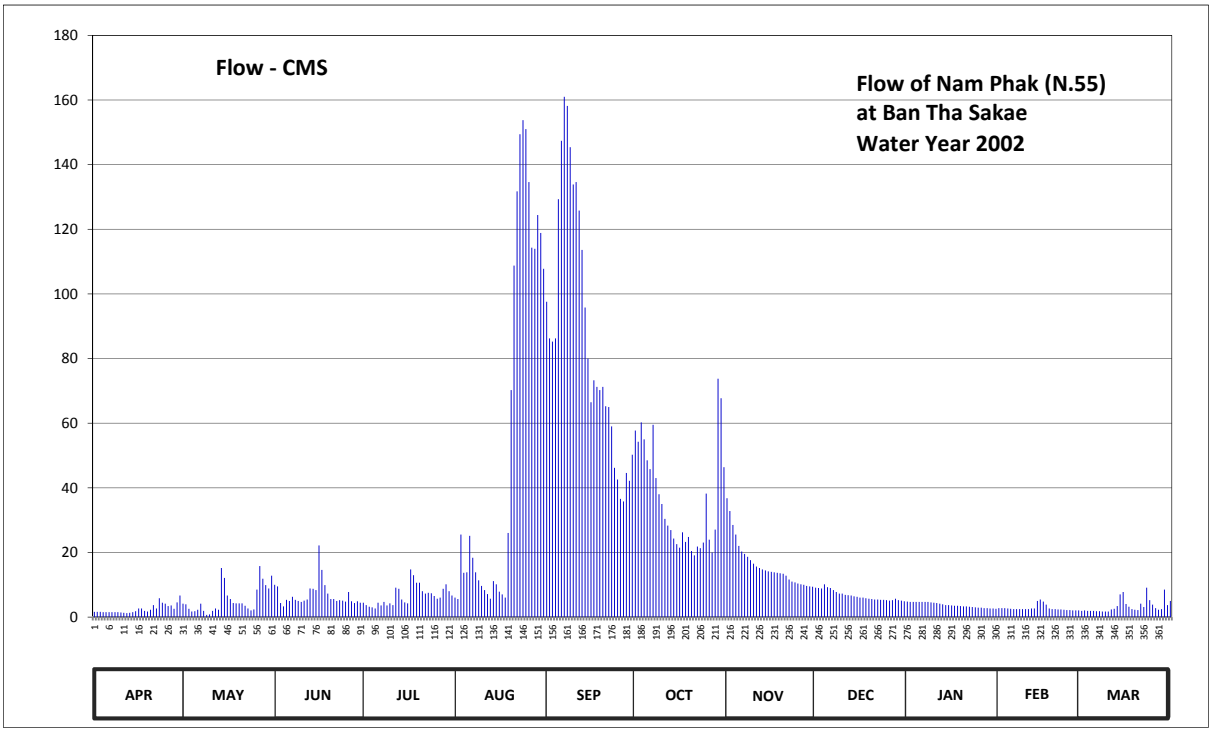
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	183.47	183.71	184.20	183.74	183.88	188.32	186.79	185.84	184.13	183.77	183.58	183.50	
2	183.47	183.69	184.16	183.67	183.84	187.93	186.65	185.64	184.12	183.76	183.58	183.51	
3	183.47	183.56	183.73	183.62	185.23	187.89	186.89	185.40	184.11	183.76	183.58	183.50	
4	183.46	183.48	183.63	183.60	184.48	187.93	186.68	185.23	184.21	183.76	183.57	183.50	
5	183.46	183.49	183.82	183.57	184.49	189.28	186.42	185.03	184.14	183.76	183.56	183.50	
6	183.46	183.53	183.79	183.74	185.21	189.76	186.29	184.92	184.12	183.76	183.55	183.49	
7	183.46	183.71	183.90	183.66	184.79	190.10	186.86	184.87	184.07	183.76	183.55	183.49	
8	183.46	183.50	183.82	183.76	184.49	190.03	186.15	184.81	184.02	183.76	183.55	183.48	
9	183.46	183.36	183.79	183.66	184.31	189.71	185.90	184.74	183.98	183.75	183.55	183.48	
10	183.45	183.39	183.76	183.72	184.17	189.41	185.75	184.67	183.98	183.74	183.55	183.48	
11	183.44	183.50	183.80	183.67	184.07	189.43	185.51	184.61	183.95	183.73	183.55	183.54	
12	183.43	183.57	183.83	184.13	183.97	189.18	185.39	184.58	183.94	183.71	183.57	183.56	
13	183.44	183.53	184.11	184.10	183.85	188.82	185.31	184.55	183.93	183.69	183.57	183.64	
14	183.46	184.58	184.10	183.83	184.29	188.26	185.16	184.53	183.91	183.67	183.79	183.96	
15	183.49	184.37	184.07	183.75	184.21	187.68	185.06	184.51	183.90	183.67	183.83	184.02	
16	183.57	183.93	185.04	183.72	184.03	187.14	185.00	184.50	183.88	183.66	183.77	183.70	
17	183.57	183.84	184.54	184.55	183.96	187.41	185.27	184.49	183.88	183.65	183.68	183.62	
18	183.50	183.73	184.19	184.43	183.88	187.33	185.10	184.48	183.86	183.65	183.57	183.55	
19	183.48	183.72	183.98	184.25	185.26	187.29	185.19	184.47	183.85	183.64	183.55	183.53	
20	183.53	183.72	183.84	184.25	187.29	187.33	184.93	184.46	183.84	183.63	183.55	183.52	
21	183.67	183.72	183.84	184.04	188.67	187.09	184.84	184.42	183.83	183.63	183.54	183.71	
22	183.57	183.65	183.79	183.98	189.35	187.08	185.02	184.33	183.83	183.62	183.54	183.61	
23	183.86	183.57	183.81	184.00	189.81	186.84	184.99	184.28	183.82	183.61	183.53	184.13	
24	183.74	183.51	183.80	183.99	189.92	186.31	185.09	184.26	183.82	183.60	183.52	183.81	
25	183.71	183.54	183.77	183.92	189.85	186.13	185.91	184.23	183.81	183.59	183.52	183.68	
26	183.64	184.08	184.02	183.85	189.43	185.83	185.14	184.21	183.80	183.59	183.51	183.58	
27	183.66	184.62	183.78	183.88	188.84	185.79	184.90	184.20	183.81	183.58	183.51	183.53	
28	183.56	184.35	183.73	184.10	188.83	186.23	185.32	184.17	183.85	183.58	183.51	183.55	
29	183.75	184.19	183.78	184.21	189.14	186.11	187.43	184.16	183.81	183.57		184.08	
30	183.93	184.11	183.74	184.04	188.98	186.49	187.19	184.15	183.80	183.57		183.67	
31		184.42		183.93	188.64		186.32		183.78	183.56		183.79	
Mean	183.55	183.80	183.94	183.91	186.17	187.80	185.76	184.62	183.93	183.67	183.58	183.64	
Max	183.93	184.62	185.04	184.55	189.92	190.10	187.43	185.84	184.21	183.77	183.83	184.13	190.10
Min	183.43	183.36	183.63	183.57	183.84	185.79	184.84	184.15	183.78	183.56	183.51	183.48	183.36

Annual Max Momentary Gage Height 190.13 m. (MSL.) , at 18.00 Hours , on Sep 7 , 2002

Zero Gage at Bottom Elevation 182.83 m. (MSL.) , River Bed 182.76 m. (MSL.)

Left Bank Elevation 191.28 m. (MSL.) ,

Right Bank Elevation 191.23 m. (MSL.) , Drainage Are 971 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.64	4.15	10.00	4.47	6.06	97.60	57.75	36.80	9.13	4.78	2.79	1.95		
2	1.64	3.94	9.50	3.73	5.58	86.25	54.25	32.80	9.00	4.68	2.79	2.06		
3	1.64	2.58	4.36	3.21	25.52	85.25	60.25	28.50	8.88	4.68	2.79	1.95		
4	1.53	1.74	3.32	3.00	13.70	86.25	55.00	25.52	10.13	4.68	2.69	1.95		
5	1.53	1.85	5.34	2.69	13.85	129.30	48.50	22.02	9.25	4.68	2.58	1.95		
6	1.53	2.27	4.99	4.47	25.17	147.40	45.80	20.30	9.00	4.68	2.48	1.85		
7	1.53	4.15	6.30	3.63	18.35	161.00	59.50	19.55	8.38	4.68	2.48	1.85		
8	1.53	1.95	5.34	4.68	13.85	158.20	43.00	18.65	7.75	4.68	2.48	1.74		
9	1.53	0.69	4.99	3.63	11.38	145.40	38.00	17.60	7.26	4.57	2.48	1.74		
10	1.43	0.85	4.68	4.26	9.63	133.88	35.00	16.55	7.26	4.47	2.48	1.74		
11	1.32	1.95	5.10	3.73	8.38	134.63	30.42	15.65	6.90	4.36	2.48	2.37		
12	1.22	2.69	5.46	9.13	7.14	125.80	28.32	15.20	6.78	4.15	2.69	2.58		
13	1.32	2.27	8.88	8.75	5.70	113.65	26.92	14.75	6.66	3.94	2.69	3.42		
14	1.53	15.20	8.75	5.46	11.13	95.80	24.30	14.45	6.42	3.73	4.99	7.02		
15	1.85	12.13	8.38	4.57	10.13	80.00	22.55	14.15	6.30	3.73	5.46	7.75		
16	2.69	6.66	22.20	4.26	7.88	66.50	21.50	14.00	6.06	3.63	4.78	4.05		
17	2.69	5.58	14.60	14.75	7.02	73.25	26.22	13.85	6.06	3.53	3.84	3.21		
18	1.95	4.36	9.88	12.95	6.06	71.25	23.25	13.70	5.82	3.53	2.69	2.48		
19	1.74	4.26	7.26	10.63	26.05	70.25	24.82	13.55	5.70	3.42	2.48	2.27		
20	2.27	4.26	5.58	10.63	70.25	71.25	20.45	13.40	5.58	3.32	2.48	2.16		
21	3.73	4.26	5.58	8.00	108.78	65.25	19.10	12.80	5.46	3.32	2.37	4.15		
22	2.69	3.53	4.99	7.26	131.75	65.00	21.85	11.63	5.46	3.21	2.37	3.11		
23	5.82	2.69	5.22	7.50	149.40	59.00	21.35	11.00	5.34	3.11	2.27	9.13		
24	4.47	2.06	5.10	7.38	153.80	46.20	23.07	10.75	5.34	3.00	2.16	5.22		
25	4.15	2.37	4.78	6.54	151.00	42.60	38.20	10.38	5.22	2.90	2.16	3.84		
26	3.42	8.50	7.75	5.70	134.63	36.60	23.95	10.13	5.10	2.90	2.06	2.79		
27	3.63	15.80	4.89	6.06	114.30	35.80	20.00	10.00	5.22	2.79	2.06	2.27		
28	2.58	11.88	4.36	8.75	113.98	44.60	27.10	9.63	5.70	2.79	2.06	2.48		
29	4.57	9.88	4.89	10.13	124.40	42.20	73.75	9.50	5.22	2.69		8.50		
30	6.66	8.88	4.47	8.00	118.85	50.25	67.75	9.38	5.10	2.69		3.73		
31		12.80		6.66	107.80		46.40		4.89	2.58		4.99		
Total	75.83	166.18	206.94	204.61	1711.52	2620.41	1128.32	486.19	206.37	115.90	78.13	106.30	7106.70	CMSDAY
Mean	2.53	5.36	6.90	6.60	55.21	87.35	36.40	16.21	6.66	3.74	2.79	3.43	19.47	CMS
Max	6.66	15.80	22.20	14.75	153.80	161.00	73.75	36.80	10.13	4.78	5.46	9.13	161.00	CMS
Min	1.22	0.69	3.32	2.69	5.58	35.80	19.10	9.38	4.89	2.58	2.06	1.74	0.69	CMS
Runoff	6.55	14.36	17.88	17.68	147.88	226.40	97.49	42.01	17.83	10.01	6.75	9.18	614.02	MCM

Momentary Peak 162.20 CMS. at 190.13 m. (MSL.) at 18.00 Hours , on Sep 7 , 2002

Runoff Yield 20.05 Liters/Second/Square KM. Momentary Peak Yield 167.040 Liters/Second/Square KM.

WATER YEAR : 2002

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 mean 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 good. Stage-discharge relation defined by 28 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

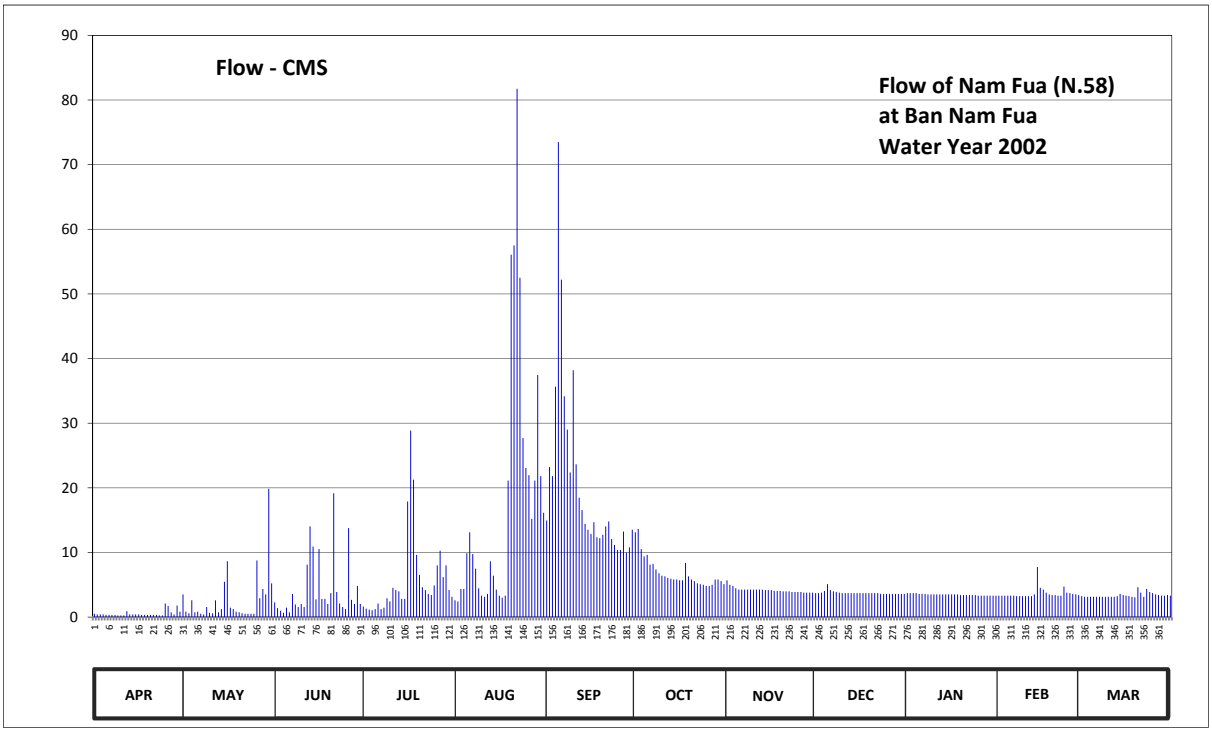
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	208.66	209.03	208.88	208.80	208.92	209.98	209.84	209.25	209.05	209.05	209.01	209.00	
2	208.65	208.70	208.77	208.76	208.90	210.58	209.88	209.19	209.05	209.05	209.01	208.99	
3	208.65	208.67	208.72	208.74	209.12	210.48	209.64	209.17	209.06	209.05	209.01	208.99	
4	208.65	208.92	208.68	208.73	209.12	211.43	209.55	209.13	209.09	209.05	209.01	208.99	
5	208.64	208.69	208.78	208.75	209.59	213.83	209.57	209.11	209.20	209.04	209.01	208.99	
6	208.64	208.70	208.69	208.86	209.84	212.51	209.45	209.11	209.10	209.04	209.01	208.99	
7	208.64	208.66	209.04	208.75	209.58	211.33	209.46	209.11	209.08	209.04	209.00	208.99	
8	208.64	208.65	208.84	208.78	209.40	210.98	209.39	209.11	209.07	209.03	209.00	208.99	
9	208.63	208.79	208.79	208.96	209.13	210.52	209.34	209.11	209.06	209.03	209.00	208.99	
10	208.63	208.68	208.85	208.90	209.01	211.60	209.31	209.11	209.05	209.03	209.00	208.99	
11	208.63	208.67	208.79	209.14	208.99	210.61	209.30	209.11	209.05	209.03	209.00	208.99	
12	208.71	208.92	209.45	209.10	209.04	210.24	209.28	209.11	209.05	209.03	209.00	208.99	
13	208.65	208.69	209.91	209.08	209.49	210.10	209.27	209.11	209.05	209.03	209.03	209.00	
14	208.65	208.75	209.67	208.95	209.31	209.94	209.26	209.10	209.05	209.03	209.42	209.04	
15	208.65	209.23	208.94	208.95	209.11	209.87	209.26	209.10	209.05	209.03	209.14	209.02	
16	208.65	209.49	209.64	210.20	209.01	209.82	209.25	209.10	209.05	209.03	209.11	209.01	
17	208.64	208.78	208.95	210.97	208.97	209.96	209.25	209.09	209.05	209.03	209.06	209.00	
18	208.64	208.75	208.95	210.44	209.01	209.78	209.47	209.09	209.05	209.03	209.03	208.99	
19	208.64	208.70	208.85	209.57	210.43	209.77	209.30	209.09	209.05	209.02	209.02	208.98	
20	208.64	208.69	209.05	209.32	212.76	209.81	209.26	209.08	209.05	209.02	209.02	209.15	
21	208.64	208.67	210.29	209.15	212.85	209.91	209.24	209.08	209.05	209.02	209.01	209.06	
22	208.64	208.66	209.07	209.10	214.33	209.97	209.21	209.08	209.05	209.02	209.01	208.99	
23	208.63	208.66	208.86	209.04	212.53	209.76	209.20	209.07	209.04	209.02	209.16	209.12	
24	208.63	208.66	208.79	209.02	210.89	209.69	209.19	209.07	209.04	209.02	209.06	209.07	
25	208.86	208.66	208.75	209.18	210.57	209.63	209.17	209.07	209.04	209.01	209.05	209.05	
26	208.81	209.50	209.89	209.44	210.49	209.63	209.17	209.07	209.04	209.01	209.04	209.03	
27	208.69	208.96	208.93	209.62	210.00	209.85	209.19	209.06	209.04	209.01	209.03	209.02	
28	208.65	209.12	208.85	209.29	210.43	209.60	209.26	209.06	209.04	209.01	209.02	209.01	
29	208.82	209.03	209.17	209.44	211.55	209.66	209.26	209.06	209.04	209.01		209.01	
30	208.70	210.34	208.85	209.10	210.48	209.87	209.24	209.06	209.04	209.01		209.02	
31		209.21		208.99	210.07		209.20		209.04	209.01		209.01	
Mean	208.67	208.89	209.06	209.20	210.09	210.36	209.34	209.10	209.06	209.03	209.05	209.02	
Max	208.86	210.34	210.29	210.97	214.33	213.83	209.88	209.25	209.20	209.05	209.42	209.15	214.33
Min	208.63	208.65	208.68	208.73	208.90	209.60	209.17	209.06	209.04	209.01	209.00	208.98	208.63

Annual Max Momentary Gage Height 215.47 m. (MSL.) , at 09.00 Hours , on Aug 22 , 2002

Zero Gage at Bottom Elevation 208.36 m. (MSL.) , River Bed 208.36 m. (MSL.)

Left Bank Elevation 214.90 m. (MSL.) ,

Right Bank Elevation 214.87 m. (MSL.) , Drainage Are 317 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.51	3.51	2.27	1.63	2.59	14.94	13.12	5.70	3.70	3.70	3.32	3.23		
2	0.43	0.83	1.39	1.31	2.43	23.22	13.64	5.01	3.70	3.70	3.32	3.15		
3	0.43	0.59	0.99	1.15	4.35	21.82	10.52	4.82	3.79	3.70	3.32	3.15		
4	0.43	2.59	0.67	1.07	4.35	35.65	9.37	4.45	4.07	3.70	3.32	3.15		
5	0.35	0.75	1.47	1.23	9.87	73.50	9.62	4.26	5.10	3.60	3.32	3.15		
6	0.35	0.83	0.75	2.11	13.12	52.20	8.13	4.26	4.17	3.60	3.32	3.15		
7	0.35	0.51	3.60	1.23	9.75	34.15	8.25	4.26	3.98	3.60	3.23	3.15		
8	0.35	0.43	1.95	1.47	7.50	29.01	7.38	4.26	3.88	3.51	3.23	3.15		
9	0.27	1.55	1.55	2.91	4.45	22.38	6.78	4.26	3.79	3.51	3.23	3.15		
10	0.27	0.67	2.03	2.43	3.32	38.20	6.42	4.26	3.70	3.51	3.23	3.15		
11	0.27	0.59	1.55	4.54	3.15	23.64	6.30	4.26	3.70	3.51	3.23	3.15		
12	0.91	2.59	8.13	4.17	3.60	18.46	6.06	4.26	3.70	3.51	3.23	3.15		
13	0.43	0.75	14.03	3.98	8.63	16.55	5.94	4.26	3.70	3.51	3.51	3.23		
14	0.43	1.23	10.91	2.83	6.42	14.42	5.82	4.17	3.70	3.51	7.75	3.60		
15	0.43	5.46	2.75	2.83	4.26	13.51	5.82	4.17	3.70	3.51	4.54	3.42		
16	0.43	8.63	10.52	17.90	3.32	12.86	5.70	4.17	3.70	3.51	4.26	3.32		
17	0.35	1.47	2.83	28.86	2.99	14.68	5.70	4.07	3.70	3.51	3.79	3.23		
18	0.35	1.23	2.83	21.26	3.32	12.34	8.38	4.07	3.70	3.51	3.51	3.15		
19	0.35	0.83	2.03	9.62	21.12	12.21	6.30	4.07	3.70	3.42	3.42	3.07		
20	0.35	0.75	3.70	6.54	56.08	12.73	5.82	3.98	3.70	3.42	3.42	4.63		
21	0.35	0.59	19.16	4.63	57.50	14.03	5.58	3.98	3.70	3.42	3.32	3.79		
22	0.35	0.51	3.88	4.17	81.75	14.81	5.22	3.98	3.70	3.42	3.32	3.15		
23	0.27	0.51	2.11	3.60	52.51	12.08	5.10	3.88	3.60	3.42	4.73	4.35		
24	0.27	0.51	1.55	3.42	27.70	11.17	5.01	3.88	3.60	3.42	3.79	3.88		
25	2.11	0.51	1.23	4.91	23.08	10.39	4.82	3.88	3.60	3.32	3.70	3.70		
26	1.71	8.75	13.77	8.00	21.96	10.39	4.82	3.88	3.60	3.32	3.60	3.51		
27	0.75	2.91	2.67	10.26	15.20	13.25	5.01	3.79	3.60	3.32	3.51	3.42		
28	0.43	4.35	2.03	6.18	21.12	10.00	5.82	3.79	3.60	3.32	3.42	3.32		
29	1.79	3.51	4.82	8.00	37.45	10.78	5.82	3.79	3.60	3.32		3.32		
30	0.83	19.86	2.03	4.17	21.82	13.51	5.58	3.79	3.60	3.32		3.42		
31		5.22		3.15	16.15		5.10		3.60	3.32		3.32		
Total	16.90	83.02	129.20	179.56	550.86	616.88	212.95	125.66	116.68	107.97	102.89	104.71	2347.28	CMSDAY
Mean	0.56	2.68	4.31	5.79	17.77	20.56	6.87	4.19	3.76	3.48	3.67	3.38	6.43	CMS
Max	2.11	19.86	19.16	28.86	81.75	73.50	13.64	5.70	5.10	3.70	7.75	4.63	81.75	CMS
Min	0.27	0.43	0.67	1.07	2.43	10.00	4.82	3.79	3.60	3.32	3.23	3.07	0.27	CMS
Runoff	1.46	7.17	11.16	15.51	47.59	53.30	18.40	10.86	10.08	9.33	8.89	9.05	202.80	MCM

Momentary Peak 101.09 CMS. at 215.47 m. (MSL.) at 09.00 Hours , on Aug 22 , 2002

Runoff Yield 20.29 Liters/Second/Square KM. Momentary Peak Yield 318.900 Liters/Second/Square KM.

WATER YEAR : 2002

NAN RIVER BASIN

Lam Nam Khan at Ban Na Pho Na Chan , Phitsanulok (N.59)

Lat 17 - 01 - 49 N Long 100 - 50 - 35 E

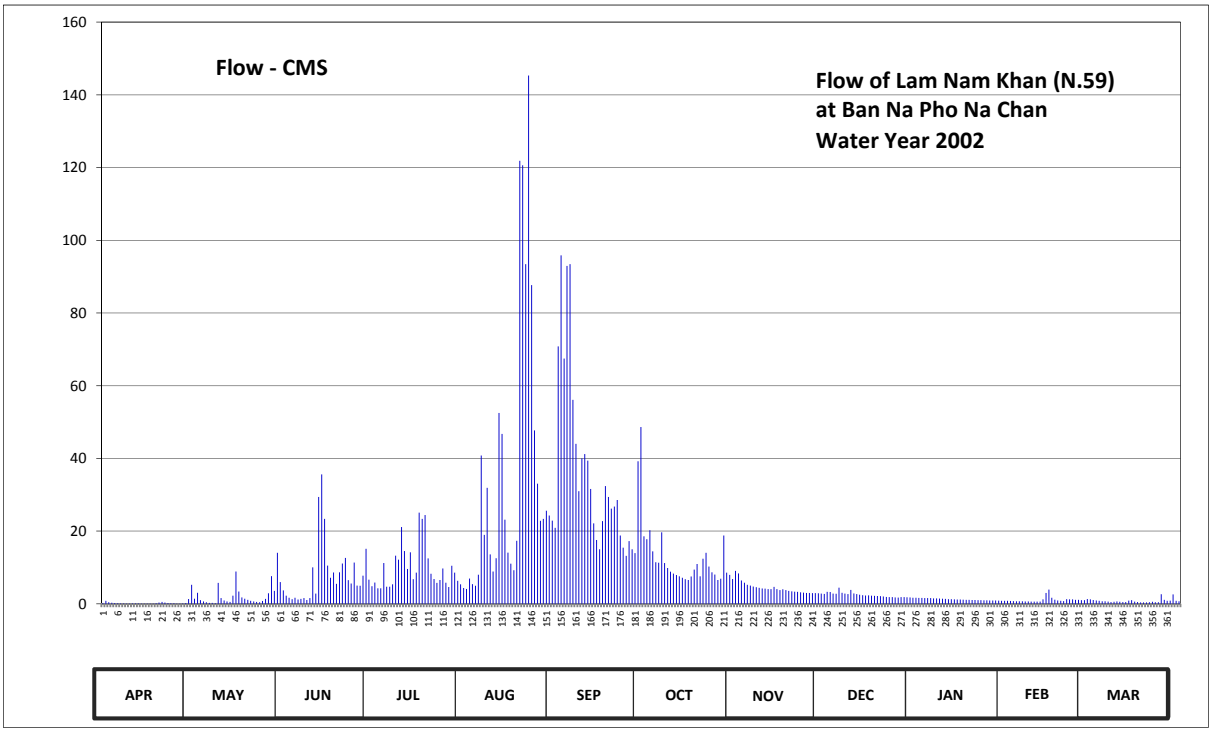
Location : on left bank at Ban Na Pho Na Chan.

	Ban Na Pho 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 mean 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	Overbank flow starts at elevation +204.110 m.(MSL.) and is including overbank flow.
General Description	Records good. Stage-discharge relation defined by 28 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	199.05	200.55	200.20	200.47	200.36	202.96	202.67	201.30	199.91	199.55	199.28	199.41	
2	199.28	199.47	199.75	200.67	200.30	205.42	202.57	201.17	200.08	199.54	199.26	199.35	
3	199.14	200.01	199.56	200.34	200.89	205.98	202.88	200.78	200.07	199.54	199.25	199.31	
4	199.08	199.33	199.43	200.34	200.58	205.33	202.12	200.66	199.93	199.53	199.24	199.27	
5	199.05	199.22	199.55	201.65	200.49	205.92	201.68	200.55	199.92	199.53	199.24	199.24	
6	199.03	199.14	199.39	200.44	201.10	205.93	201.66	200.50	200.39	199.52	199.23	199.23	
7	199.01	199.07	199.46	200.44	204.36	204.99	202.81	200.45	200.01	199.50	199.22	199.20	
8	199.01	199.07	199.52	200.57	202.72	204.51	201.65	200.41	199.93	199.50	199.22	199.15	
9	198.99	199.03	199.35	201.95	203.87	203.81	201.43	200.37	199.89	199.48	199.21	199.18	
10	198.99	200.65	199.53	201.79	202.00	204.32	201.26	200.33	200.23	199.47	199.21	199.22	
11	199.01	199.52	201.46	202.99	201.27	204.38	201.16	200.32	199.95	199.45	199.21	199.18	
12	199.01	199.31	199.93	202.13	201.85	204.29	201.08	200.29	199.89	199.43	199.20	199.16	
13	199.01	199.22	203.70	201.39	204.86	203.85	201.01	200.29	199.83	199.42	199.41	199.16	
14	199.00	199.17	204.09	202.08	204.63	203.11	200.93	200.43	199.79	199.41	199.99	199.29	
15	199.00	199.75	203.24	200.85	203.22	202.54	200.85	200.29	199.76	199.40	200.25	199.34	
16	198.99	201.27	201.54	201.21	202.07	202.20	200.81	200.22	199.77	199.39	199.56	199.20	
17	198.99	200.11	200.93	203.39	201.62	203.18	201.00	200.28	199.75	199.38	199.38	199.15	
18	198.99	199.59	201.22	203.24	201.33	203.90	201.36	200.22	199.73	199.37	199.30	199.12	
19	199.02	199.47	200.60	203.33	202.51	203.70	201.61	200.16	199.71	199.36	199.27	199.11	
20	199.10	199.37	201.23	201.84	206.45	203.47	201.01	200.12	199.70	199.35	199.25	199.11	
21	199.17	199.28	201.63	201.15	206.43	203.51	201.83	200.10	199.67	199.35	199.42	199.14	
22	199.09	199.22	201.86	200.86	205.93	203.64	202.06	200.08	199.63	199.34	199.41	199.18	
23	199.04	199.17	200.80	200.65	206.82	202.70	201.50	200.05	199.61	199.33	199.41	199.13	
24	199.03	199.14	200.62	200.81	205.81	202.26	201.23	200.02	199.61	199.32	199.37	199.14	
25	199.03	199.26	201.67	201.41	204.67	201.94	201.11	200.00	199.59	199.32	199.36	199.88	
26	199.00	199.46	200.50	200.66	203.94	202.50	200.81	199.99	199.57	199.31	199.34	199.37	
27	199.00	199.97	200.49	200.42	203.19	202.20	200.88	199.98	199.61	199.31	199.34	199.28	
28	199.01	201.02	201.05	201.53	203.24	202.05	202.70	199.98	199.61	199.30	199.44	199.29	
29	199.04	200.16	202.22	201.21	203.43	204.28	201.21	199.96	199.60	199.29		199.86	
30	199.44	202.06	200.83	200.77	203.32	204.71	201.09	199.93	199.59	199.28		199.28	
31		200.70		200.57	203.20		200.86		199.55	199.27		199.23	
Mean	199.05	199.73	200.84	201.33	203.11	203.79	201.51	200.31	199.80	199.40	199.37	199.26	
Max	199.44	202.06	204.09	203.39	206.82	205.98	202.88	201.30	200.39	199.55	200.25	199.88	206.82
Min	198.99	199.03	199.35	200.34	200.30	201.94	200.81	199.93	199.55	199.27	199.20	199.11	198.99

Annual Max Momentary Gage Height	206.90	m. (MSL.) ,	at 15.00 Hours , on Aug 20 , 2002		
Zero Gage at Bottom Elevation	197.68	m. (MSL.) ,	River Bed	198.89	m. (MSL.)
Left Bank Elevation	206.21	m. (MSL.) ,			
Right Bank Elevation	204.10	m. (MSL.) ,	Drainage Are	415	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.23	5.25	3.70	4.85	4.34	20.88	18.56	9.08	2.73	1.65	0.84	1.23		
2	0.84	1.41	2.25	5.85	4.10	70.80	17.77	8.35	3.28	1.62	0.78	1.05		
3	0.45	3.04	1.68	4.26	6.95	95.84	20.24	6.40	3.25	1.62	0.75	0.93		
4	0.30	0.99	1.29	4.26	5.40	67.48	14.44	5.80	2.79	1.59	0.72	0.81		
5	0.23	0.66	1.65	11.22	4.95	92.96	11.42	5.25	2.76	1.59	0.72	0.72		
6	0.18	0.45	1.17	4.70	8.00	93.44	11.29	5.00	4.46	1.56	0.69	0.69		
7	0.13	0.28	1.38	4.70	40.80	56.12	19.68	4.75	3.04	1.50	0.66	0.60		
8	0.13	0.28	1.56	5.35	18.96	44.02	11.22	4.55	2.79	1.50	0.66	0.48		
9	0.09	0.18	1.05	13.25	31.92	30.96	9.84	4.38	2.67	1.44	0.63	0.55		
10	0.09	5.75	1.59	12.13	13.60	40.00	8.85	4.22	3.82	1.41	0.63	0.66		
11	0.13	1.56	10.03	21.12	8.90	41.20	8.30	4.18	2.85	1.35	0.63	0.55		
12	0.13	0.93	2.79	14.51	12.55	39.40	7.90	4.06	2.67	1.29	0.60	0.50		
13	0.13	0.66	29.40	9.59	52.48	31.60	7.55	4.06	2.49	1.26	1.23	0.50		
14	0.10	0.53	35.62	14.16	46.72	22.14	7.15	4.65	2.37	1.23	2.97	0.87		
15	0.10	2.25	23.36	6.75	23.13	17.55	6.75	4.06	2.28	1.20	3.90	1.02		
16	0.09	8.90	10.52	8.56	14.09	15.00	6.55	3.78	2.31	1.17	1.68	0.60		
17	0.09	3.39	7.15	25.09	11.03	22.73	7.50	4.02	2.25	1.14	1.14	0.48		
18	0.09	1.77	8.62	23.36	9.25	32.40	9.42	3.78	2.19	1.11	0.90	0.40		
19	0.15	1.41	5.50	24.40	17.32	29.40	10.96	3.56	2.13	1.08	0.81	0.38		
20	0.35	1.11	8.67	12.48	121.85	26.18	7.55	3.42	2.10	1.05	0.75	0.38		
21	0.53	0.84	11.09	8.25	120.63	26.74	12.41	3.35	2.01	1.05	1.26	0.45		
22	0.33	0.66	12.62	6.80	93.44	28.56	14.02	3.28	1.89	1.02	1.23	0.55		
23	0.20	0.53	6.50	5.75	145.30	18.80	10.27	3.18	1.83	0.99	1.23	0.43		
24	0.18	0.45	5.60	6.55	87.68	15.45	8.67	3.07	1.83	0.96	1.11	0.45		
25	0.18	0.78	11.35	9.71	47.68	13.18	8.05	3.00	1.77	0.96	1.08	2.64		
26	0.10	1.38	5.00	5.80	33.04	17.25	6.55	2.97	1.71	0.93	1.02	1.11		
27	0.10	2.91	4.95	4.60	22.82	15.00	6.90	2.94	1.83	0.93	1.02	0.84		
28	0.13	7.60	7.75	10.46	23.36	13.95	18.80	2.94	1.83	0.90	1.32	0.87		
29	0.20	3.56	15.15	8.56	25.62	39.20	8.56	2.88	1.80	0.87		2.58		
30	1.32	14.02	6.65	6.35	24.28	48.64	7.95	2.79	1.77	0.84		0.84		
31		6.00		5.35	22.90		6.80		1.65	0.81		0.69		
Total	7.30	79.53	245.64	308.77	1103.09	1126.87	331.92	127.75	75.15	37.62	30.96	24.85	3499.45	CMSDAY
Mean	0.24	2.57	8.19	9.96	35.58	37.56	10.71	4.26	2.42	1.21	1.11	0.80	9.59	CMS
Max	1.32	14.02	35.62	25.09	145.30	95.84	20.24	9.08	4.46	1.65	3.90	2.64	145.30	CMS
Min	0.09	0.18	1.05	4.26	4.10	13.18	6.55	2.79	1.65	0.81	0.60	0.38	0.09	CMS
Runoff	0.63	6.87	21.22	26.68	95.31	97.36	28.68	11.04	6.49	3.25	2.67	2.15	302.35	MCM

Momentary Peak 150.50 CMS. at 206.90 m. (MSL.) at 15.00 Hours , on Aug 20 , 2002

Runoff Yield 23.10 Liters/Second/Square KM. Momentary Peak Yield 362.650 Liters/Second/Square KM.

WATER YEAR : 2002

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.

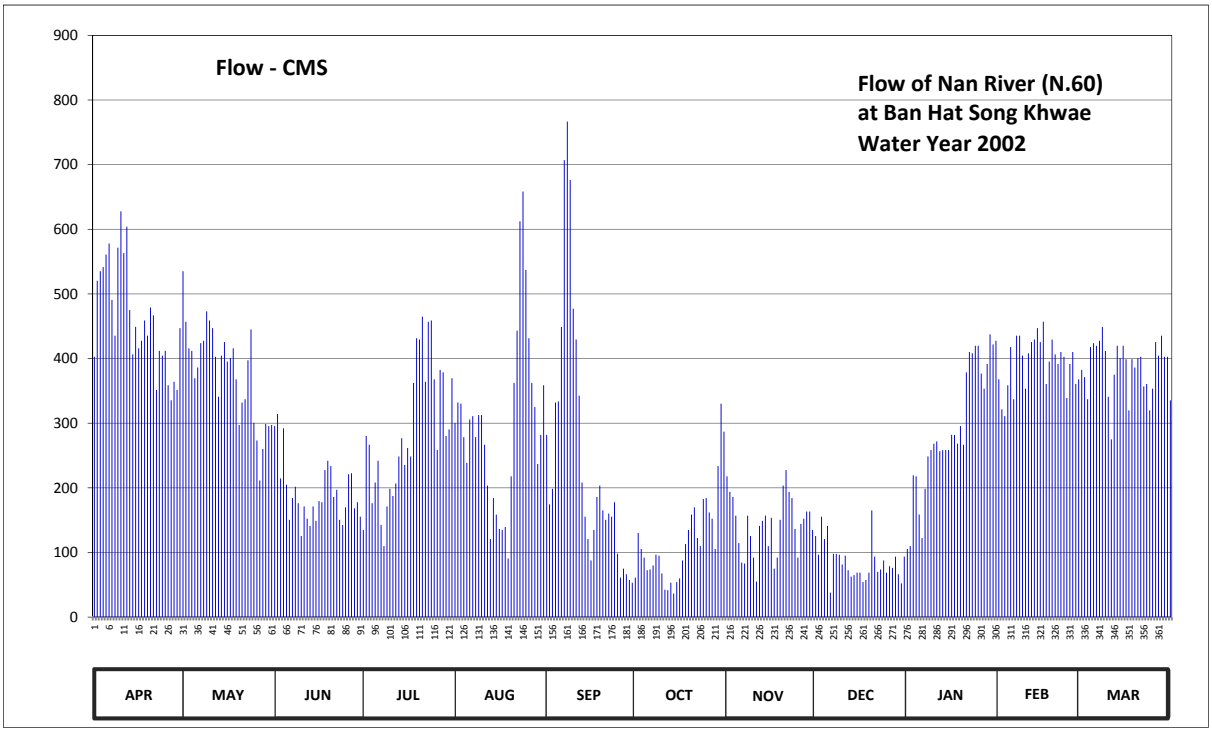
Ban Hat Song Khwae **Amphoe** Tron **Changwat** Uttaradit

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 mean 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 80 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	51.35	52.01	50.75	49.76	50.78	50.67	49.25	50.28	49.70	49.57	51.16	51.24	
2	51.94	51.63	50.86	50.66	50.96	50.01	49.73	50.13	49.51	49.60	50.90	51.18	
3	52.01	51.42	50.26	50.58	50.95	50.16	49.57	50.08	49.89	50.29	50.84	50.99	
4	52.04	51.40	50.73	50.02	50.65	50.96	49.48	49.90	49.67	50.28	51.11	51.43	
5	52.13	51.17	50.20	50.22	50.41	50.97	49.34	49.63	49.80	49.91	51.43	51.46	
6	52.21	51.26	49.86	50.43	50.81	51.59	49.35	49.43	49.01	49.68	50.99	51.44	
7	51.80	51.46	50.07	49.81	50.84	52.80	49.40	49.42	49.52	50.16	51.52	51.48	
8	51.52	51.48	50.18	49.60	50.65	53.07	49.51	49.90	49.52	50.47	51.52	51.59	
9	52.18	51.71	50.02	49.99	50.85	52.66	49.50	49.70	49.51	50.53	51.36	51.40	
10	52.44	51.64	49.70	50.16	50.85	51.73	49.30	49.48	49.41	50.59	51.08	51.01	
11	52.14	51.58	49.99	50.09	50.58	51.49	49.06	49.20	49.50	50.61	51.38	50.63	
12	52.33	51.35	49.87	50.21	50.19	51.02	49.05	49.80	49.34	50.52	51.47	51.20	
13	51.72	51.01	49.80	50.47	49.67	50.22	49.18	49.85	49.26	50.53	51.49	51.44	
14	51.37	51.36	49.99	50.64	50.07	49.89	48.99	49.90	49.28	50.53	51.58	51.34	
15	51.59	51.47	49.85	50.39	49.91	49.67	49.19	49.60	49.31	50.53	51.47	51.44	
16	51.42	51.31	50.04	50.55	49.77	49.45	49.24	49.88	49.31	50.67	51.63	51.33	
17	51.48	51.34	50.03	50.47	49.76	49.76	49.45	49.36	49.19	50.67	51.12	50.89	
18	51.64	51.42	50.34	51.13	49.79	50.08	49.62	49.48	49.22	50.59	51.31	51.33	
19	51.52	51.16	50.43	51.50	49.47	50.19	49.76	49.86	49.31	50.75	51.49	51.26	
20	51.74	50.76	50.38	51.49	50.28	49.95	49.91	50.19	49.95	50.58	51.37	51.34	
21	51.68	50.96	50.08	51.67	51.13	49.86	49.98	50.34	49.49	51.22	51.29	51.35	
22	51.07	50.99	50.15	51.14	51.56	49.92	49.68	50.13	49.32	51.39	51.39	51.10	
23	51.40	51.32	49.86	51.63	52.37	49.89	49.60	50.07	49.35	51.38	51.35	51.12	
24	51.36	51.57	49.81	51.64	52.58	50.03	50.06	49.77	49.45	51.44	51.00	50.89	
25	51.40	50.78	49.98	51.16	52.02	49.52	50.07	49.48	49.31	51.44	51.29	51.08	
26	51.11	50.62	50.30	50.53	51.50	49.25	49.93	49.82	49.39	51.21	51.39	51.47	
27	50.98	50.24	50.31	51.24	51.13	49.36	49.87	49.87	49.37	51.08	51.12	51.36	
28	51.14	50.54	49.97	51.22	50.92	49.29	49.57	49.94	49.49	51.29	51.16	51.52	
29	51.07	50.77	50.03	50.66	50.40	49.22	50.38	49.94	49.29	51.53		51.35	
30	51.58	50.75	49.89	50.72	50.67	49.18	50.95	49.76	49.17	51.45		51.35	
31		50.76		51.17	51.11		50.70		49.49	51.48		50.98	
Mean	51.65	51.20	50.12	50.68	50.73	50.40	49.63	49.81	49.43	50.71	51.29	51.26	
Max	52.44	52.01	50.86	51.67	52.58	53.07	50.95	50.34	49.95	51.53	51.63	51.59	53.07
Min	50.98	50.24	49.70	49.60	49.47	49.18	48.99	49.20	49.01	49.57	50.84	50.63	48.99

Annual Max Momentary Gage Height	53.14	m. (MSL.) ,	at 22.00 Hours , on Sep 8 , 2002		
Zero Gage at Bottom Elevation	48.50	m. (MSL.) ,	River Bed	44.68	m. (MSL.)
Left Bank Elevation	60.31	m. (MSL.) ,			
Right Bank Elevation	59.82	m. (MSL.) ,	Drainage Are	18,447	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	402.75	535.15	295.50	134.80	300.60	281.90	61.25	217.80	125.50	105.50	367.80	382.40		
2	520.40	457.00	314.50	280.20	332.00	174.60	130.15	193.80	96.50	110.00	321.50	371.40		
3	535.15	415.90	214.60	266.70	330.25	198.60	105.50	185.80	155.40	219.40	311.00	337.25		
4	541.60	412.00	292.10	176.20	278.50	332.00	92.00	157.00	120.85	217.80	358.80	417.85		
5	560.95	369.60	205.00	208.20	238.65	333.75	72.50	114.65	141.00	158.60	417.85	423.70		
6	578.15	386.10	150.60	241.95	305.75	449.05	73.75	84.50	37.90	122.40	337.25	419.80		
7	491.00	423.70	184.20	142.60	311.00	707.00	80.00	83.00	98.00	198.60	435.40	427.60		
8	435.40	427.60	201.80	110.00	278.50	766.75	96.50	157.00	98.00	248.55	435.40	449.05		
9	571.70	473.00	176.20	171.40	312.75	676.20	95.00	125.50	96.50	258.45	404.60	412.00		
10	627.80	459.00	125.50	198.60	312.75	477.00	67.50	92.00	81.50	268.35	353.40	340.80		
11	563.10	447.10	171.40	187.40	266.70	429.55	42.40	55.00	95.00	271.70	408.30	275.10		
12	603.95	402.75	152.20	206.60	203.40	342.60	41.50	141.00	72.50	256.80	425.65	375.00		
13	475.00	340.80	141.00	248.55	120.85	208.20	53.20	149.00	62.50	258.45	429.55	419.80		
14	406.45	404.60	171.40	276.80	184.20	155.40	36.25	157.00	65.00	258.45	447.10	400.90		
15	449.05	425.65	149.00	235.40	158.60	120.85	54.10	110.00	68.75	258.45	425.65	419.80		
16	415.90	395.35	179.40	261.75	136.35	87.50	60.00	153.80	68.75	281.90	457.00	399.05		
17	427.60	400.90	177.80	248.55	134.80	134.80	87.50	75.00	54.10	281.90	360.60	319.75		
18	459.00	415.90	227.40	362.40	139.45	185.80	113.10	92.00	57.50	268.35	395.35	399.05		
19	435.40	367.80	241.95	431.50	90.50	203.40	134.80	150.60	68.75	295.50	429.55	386.10		
20	479.00	297.20	233.80	429.55	217.80	165.00	158.60	203.40	165.00	266.70	406.45	400.90		
21	467.00	332.00	185.80	465.00	362.40	150.60	169.80	227.40	93.50	378.70	391.65	402.75		
22	351.60	337.25	197.00	364.20	443.20	160.20	122.40	193.80	70.00	410.15	410.15	357.00		
23	412.00	397.20	150.60	457.00	612.55	155.40	110.00	184.20	73.75	408.30	402.75	360.60		
24	404.60	445.15	142.60	459.00	658.60	177.80	182.60	136.35	87.50	419.80	339.00	319.75		
25	412.00	300.60	169.80	367.80	537.30	98.00	184.20	92.00	68.75	419.80	391.65	353.40		
26	358.80	273.40	221.00	258.45	431.50	61.25	161.80	144.20	78.75	376.85	410.15	425.65		
27	335.50	211.40	222.60	382.40	362.40	75.00	152.20	152.20	76.25	353.40	360.60	404.60		
28	364.20	260.10	168.20	378.70	325.00	66.25	105.50	163.40	93.50	391.65	367.80	435.40		
29	351.60	298.90	177.80	280.20	237.00	57.50	233.80	163.40	66.25	437.35		402.75		
30	447.10	295.50	155.40	290.40	281.90	53.20	330.25	134.80	52.30	421.75		402.75		
31		297.20		369.60	358.80		287.00		93.50	427.60		335.50		
Total	13883.75	11705.80	5796.15	8891.90	9264.05	7485.15	3695.15	4289.60	2683.05	9051.20	11001.95	11977.45	99725.20	CMSDAY
Mean	462.79	377.61	193.21	286.84	298.84	249.50	119.20	142.99	86.55	291.97	392.93	386.37	273.22	CMS
Max	627.80	535.15	314.50	465.00	658.60	766.75	330.25	227.40	165.00	437.35	457.00	449.05	766.75	CMS
Min	335.50	211.40	125.50	110.00	90.50	53.20	36.25	55.00	37.90	105.50	311.00	275.10	36.25	CMS
Runoff	1199.56	1011.38	500.79	768.26	800.41	646.72	319.26	370.62	231.82	782.02	950.57	1034.85	8616.26	MCM

Momentary Peak 782.50 CMS. at 53.14 m. (MSL.) at 22.00 Hours , on Sep 8 , 2002

Runoff Yield 14.81 Liters/Second/Square KM. Momentary Peak Yield 42.420 Liters/Second/Square KM.

WATER YEAR : 2002

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 mean 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	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 28 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

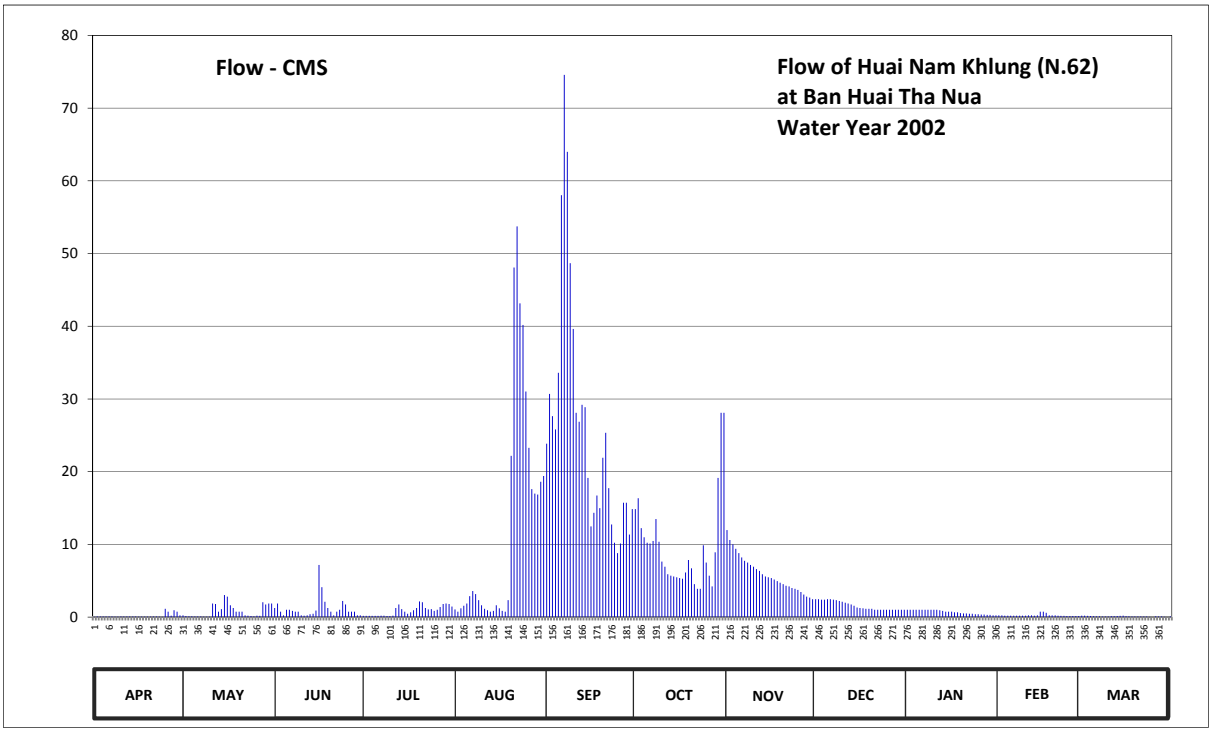
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	191.06	191.21	191.41	191.18	191.37	193.43	192.74	192.51	191.61	191.36	191.21	191.19	
2	191.09	191.15	191.51	191.17	191.31	193.87	192.86	192.40	191.61	191.36	191.21	191.19	
3	191.09	191.11	191.31	191.18	191.40	193.68	192.53	192.35	191.60	191.36	191.20	191.17	
4	191.09	191.11	191.21	191.18	191.46	193.56	192.43	192.30	191.60	191.36	191.19	191.16	
5	191.09	191.09	191.36	191.18	191.51	194.04	192.37	192.25	191.61	191.36	191.19	191.13	
6	191.09	191.09	191.36	191.18	191.67	195.34	192.36	192.20	191.61	191.36	191.19	191.11	
7	191.09	191.09	191.33	191.19	191.77	196.16	192.39	192.16	191.60	191.36	191.20	191.11	
8	191.08	191.08	191.31	191.20	191.71	195.64	192.63	192.14	191.59	191.36	191.20	191.09	
9	191.08	191.08	191.31	191.16	191.59	194.86	192.38	192.11	191.57	191.36	191.20	191.09	
10	191.09	191.08	191.21	191.16	191.47	194.38	192.15	192.09	191.55	191.36	191.20	191.09	
11	191.09	191.51	191.20	191.20	191.39	193.71	192.09	192.06	191.53	191.36	191.21	191.12	
12	191.09	191.50	191.21	191.41	191.35	193.63	192.00	192.04	191.51	191.35	191.21	191.13	
13	191.09	191.31	191.24	191.49	191.31	193.78	191.98	192.00	191.49	191.33	191.20	191.15	
14	191.09	191.38	191.25	191.38	191.33	193.76	191.97	191.97	191.46	191.31	191.21	191.17	
15	191.09	191.69	191.34	191.31	191.47	193.08	191.96	191.96	191.42	191.31	191.31	191.20	
16	191.08	191.66	192.11	191.25	191.40	192.55	191.95	191.95	191.41	191.31	191.31	191.14	
17	191.08	191.47	191.83	191.29	191.33	192.70	191.94	191.93	191.40	191.29	191.28	191.11	
18	191.08	191.41	191.55	191.35	191.31	192.89	192.02	191.91	191.39	191.29	191.21	191.10	
19	191.08	191.31	191.41	191.41	191.59	192.75	192.17	191.89	191.39	191.27	191.21	191.10	
20	191.08	191.31	191.31	191.56	193.31	193.29	192.07	191.87	191.39	191.26	191.21	191.09	
21	191.09	191.31	191.21	191.54	194.83	193.53	191.87	191.85	191.36	191.26	191.19	191.09	
22	191.09	191.21	191.31	191.41	195.12	192.97	191.81	191.84	191.36	191.25	191.18	191.10	
23	191.07	191.19	191.36	191.37	194.57	192.57	191.81	191.82	191.36	191.25	191.18	191.10	
24	191.05	191.16	191.57	191.38	194.41	192.37	192.34	191.81	191.36	191.24	191.16	191.06	
25	191.39	191.11	191.49	191.33	193.89	192.25	192.14	191.79	191.36	191.24	191.16	191.00	
26	191.31	191.19	191.31	191.36	193.39	192.36	191.98	191.75	191.36	191.23	191.16	191.11	
27	191.19	191.18	191.31	191.43	192.96	192.81	191.84	191.70	191.36	191.23	191.16	191.09	
28	191.35	191.54	191.31	191.50	192.91	192.81	192.26	191.66	191.36	191.22	191.16	191.09	
29	191.31	191.49	191.21	191.51	192.90	192.46	193.08	191.64	191.36	191.22		191.06	
30	191.21	191.51	191.21	191.50	193.04	192.74	193.71	191.61	191.36	191.21		191.01	
31		191.51		191.44	193.10		193.71		191.36	191.21		191.10	
Mean	191.13	191.29	191.37	191.33	192.33	193.47	192.31	191.99	191.46	191.30	191.20	191.11	
Max	191.39	191.69	192.11	191.56	195.12	196.16	193.71	192.51	191.61	191.36	191.31	191.20	196.16
Min	191.05	191.08	191.20	191.16	191.31	192.25	191.81	191.61	191.36	191.21	191.16	191.00	191.00

Annual Max Momentary Gage Height 196.22 m. (MSL.) , at 10.00 Hours , on Sep 7 , 2002

Zero Gage at Bottom Elevation 190.31 m. (MSL.) , River Bed 187.69 m. (MSL.)

Left Bank Elevation 193.73 m. (MSL.) ,

Right Bank Elevation 193.72 m. (MSL.) , Drainage Are 353 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.05	0.25	1.26	0.18	1.05	23.85	14.85	11.98	2.47	1.00	0.25	0.19		
2	0.08	0.15	1.86	0.17	0.75	30.69	16.35	10.60	2.47	1.00	0.25	0.19		
3	0.08	0.11	0.75	0.18	1.20	27.64	12.23	10.00	2.40	1.00	0.20	0.17		
4	0.08	0.11	0.25	0.18	1.56	25.80	10.98	9.40	2.40	1.00	0.19	0.16		
5	0.08	0.08	1.00	0.18	1.86	33.60	10.24	8.80	2.47	1.00	0.19	0.13		
6	0.08	0.08	1.00	0.18	2.89	58.03	10.12	8.20	2.47	1.00	0.19	0.11		
7	0.08	0.08	0.85	0.19	3.59	74.58	10.48	7.74	2.40	1.00	0.20	0.11		
8	0.07	0.07	0.75	0.20	3.17	64.00	13.48	7.51	2.34	1.00	0.20	0.08		
9	0.07	0.07	0.75	0.16	2.34	48.67	10.36	7.17	2.22	1.00	0.20	0.08		
10	0.08	0.07	0.25	0.16	1.62	39.64	7.63	6.94	2.10	1.00	0.20	0.08		
11	0.08	1.86	0.20	0.20	1.15	28.10	6.94	6.59	1.98	1.00	0.25	0.12		
12	0.08	1.80	0.25	1.26	0.95	26.86	5.90	6.36	1.86	0.95	0.25	0.13		
13	0.08	0.75	0.40	1.74	0.75	29.19	5.69	5.90	1.74	0.85	0.20	0.15		
14	0.08	1.10	0.45	1.10	0.85	28.88	5.58	5.58	1.56	0.75	0.25	0.17		
15	0.08	3.03	0.90	0.75	1.62	19.14	5.48	5.48	1.32	0.75	0.75	0.20		
16	0.07	2.82	7.17	0.45	1.20	12.48	5.37	5.37	1.26	0.75	0.75	0.14		
17	0.07	1.62	4.11	0.65	0.85	14.35	5.27	5.16	1.20	0.65	0.60	0.11		
18	0.07	1.26	2.10	0.95	0.75	16.73	6.13	4.95	1.15	0.65	0.25	0.09		
19	0.07	0.75	1.26	1.26	2.34	14.98	7.86	4.74	1.15	0.55	0.25	0.09		
20	0.07	0.75	0.75	2.16	22.19	21.92	6.71	4.53	1.15	0.50	0.25	0.08		
21	0.08	0.75	0.25	2.04	48.08	25.35	4.53	4.32	1.00	0.50	0.19	0.08		
22	0.08	0.25	0.75	1.26	53.74	17.73	3.90	4.22	1.00	0.45	0.18	0.09		
23	0.06	0.19	1.00	1.05	43.14	12.73	3.90	4.01	1.00	0.45	0.18	0.09		
24	0.04	0.16	2.22	1.10	40.19	10.24	9.88	3.90	1.00	0.40	0.16	0.05		
25	1.15	0.11	1.74	0.85	31.03	8.80	7.51	3.73	1.00	0.40	0.16	0.00		
26	0.75	0.19	0.75	1.00	23.27	10.12	5.69	3.45	1.00	0.35	0.16	0.11		
27	0.19	0.18	0.75	1.38	17.60	15.73	4.22	3.10	1.00	0.35	0.16	0.08		
28	0.95	2.04	0.75	1.80	16.98	15.73	8.92	2.82	1.00	0.30	0.16	0.08		
29	0.75	1.74	0.25	1.86	16.85	11.35	19.14	2.68	1.00	0.30		0.05		
30	0.25	1.86	0.25	1.80	18.62	14.85	28.10	2.47	1.00	0.25		0.00		
31		1.86		1.44	19.40		28.10		1.00	0.25		0.09		
Total	5.80	26.14	35.02	27.88	381.58	781.76	301.54	177.70	49.11	21.40	7.22	3.30	1818.45	CMSDAY
Mean	0.19	0.84	1.17	0.90	12.31	26.06	9.73	5.92	1.58	0.69	0.26	0.11	4.98	CMS
Max	1.15	3.03	7.17	2.16	53.74	74.58	28.10	11.98	2.47	1.00	0.75	0.20	74.58	CMS
Min	0.04	0.07	0.20	0.16	0.75	8.80	3.90	2.47	1.00	0.25	0.16	0.00	0.00	CMS
Runoff	0.50	2.26	3.03	2.41	32.97	67.54	26.05	15.35	4.24	1.85	0.62	0.29	157.11	MCM

Momentary Peak 75.82 CMS. at 196.22 m. (MSL.) at 10.00 Hours , on Sep 7 , 2002

Runoff Yield 14.11 Liters/Second/Square KM. Momentary Peak Yield 214.790 Liters/Second/Square KM.

WATER YEAR : 2002

NAN RIVER BASIN

Nam Haeng at Ban Hua Mueang, Nan (N.63)

Lat 18 - 21 - 47 N Long 100 - 43 - 40 E

Location : on left bank at the bridge on road, tambon Si Sa Ket.

Ban Hua Mueang **Amphoe** Na Noi **Changwat** Nan

Drainge Area	795 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 about 34 meters from the first staff gage. **Elevation** +11.000 m. (A.D.)
Gage Reading Frequency	Recording.
Basis of Mean Daily Gage Height	Arithmetic mean of 24 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 fair. Flow effected by Nam Ngae reservoir about 6 kilometers above gage site. Stage-discharge relation defined by 39 discharge measurements made in 2002.

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

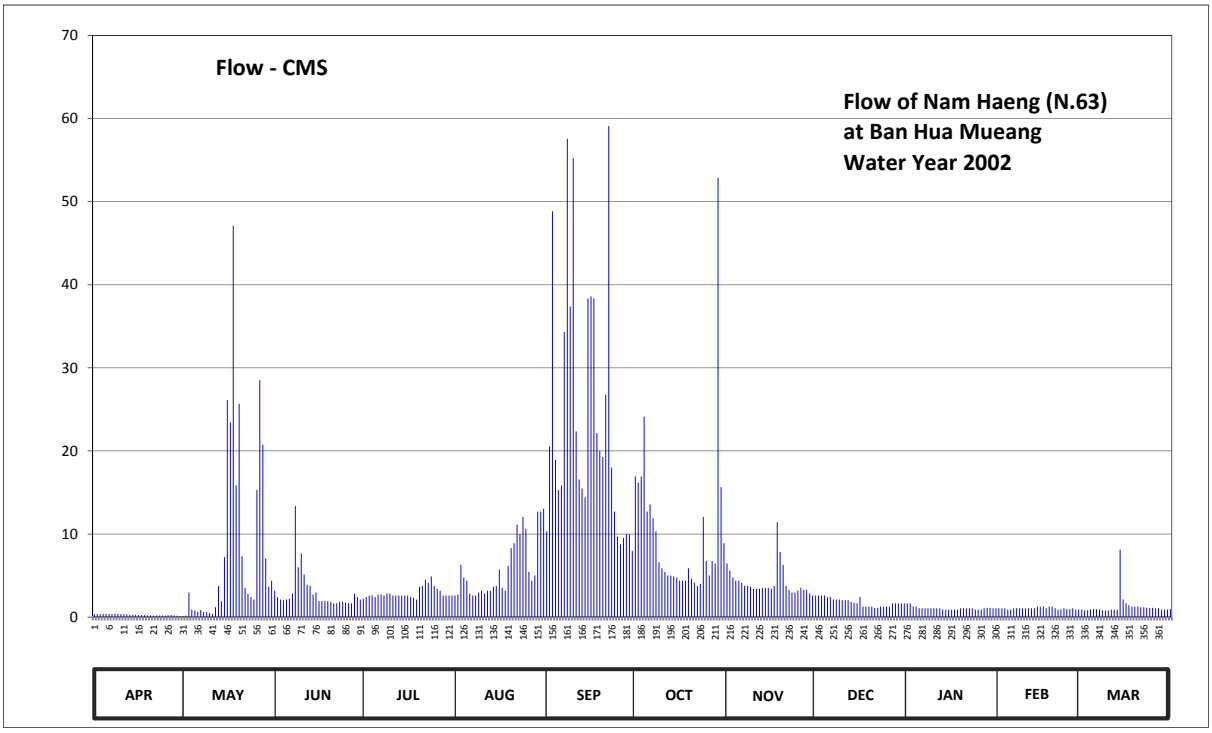
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	1.08	0.95	1.35	1.26	1.30	1.85	2.24	1.60	1.30	1.20	1.12	1.10	
2	1.08	0.98	1.28	1.28	1.31	2.44	2.20	1.54	1.30	1.20	1.12	1.08	
3	1.08	1.33	1.25	1.30	1.59	3.67	2.24	1.48	1.30	1.15	1.12	1.08	
4	1.09	1.10	1.24	1.30	1.48	2.35	2.61	1.45	1.30	1.15	1.10	1.10	
5	1.09	1.08	1.25	1.28	1.45	2.15	2.00	1.45	1.28	1.12	1.10	1.11	
6	1.09	1.05	1.26	1.31	1.32	2.18	2.05	1.43	1.28	1.12	1.12	1.11	
7	1.08	1.09	1.32	1.31	1.30	3.07	1.95	1.40	1.25	1.12	1.12	1.10	
8	1.09	1.04	2.04	1.30	1.30	4.01	1.85	1.40	1.25	1.12	1.12	1.08	
9	1.09	1.04	1.57	1.32	1.33	3.20	1.61	1.39	1.25	1.12	1.12	1.08	
10	1.08	1.02	1.68	1.32	1.35	3.92	1.56	1.37	1.24	1.12	1.12	1.08	
11	1.07	1.00	1.51	1.30	1.32	2.53	1.53	1.37	1.24	1.12	1.12	1.10	
12	1.07	1.14	1.41	1.30	1.35	2.22	1.50	1.37	1.24	1.12	1.12	1.10	
13	1.05	1.40	1.40	1.30	1.35	2.16	1.50	1.38	1.22	1.10	1.12	1.10	
14	1.05	1.23	1.31	1.30	1.39	2.10	1.49	1.38	1.21	1.10	1.15	1.71	
15	1.05	1.65	1.33	1.30	1.40	3.24	1.48	1.38	1.20	1.10	1.15	1.25	
16	1.03	2.70	1.23	1.30	1.55	3.25	1.45	1.37	1.28	1.10	1.15	1.20	
17	1.03	2.58	1.23	1.28	1.38	3.24	1.45	1.40	1.15	1.10	1.12	1.17	
18	1.03	3.60	1.23	1.27	1.35	2.52	1.45	1.92	1.15	1.10	1.15	1.15	
19	1.01	2.18	1.23	1.25	1.58	2.41	1.56	1.69	1.15	1.12	1.15	1.15	
20	1.01	2.68	1.22	1.39	1.72	2.37	1.47	1.59	1.15	1.12	1.12	1.15	
21	1.00	1.66	1.20	1.40	1.76	2.73	1.43	1.40	1.13	1.12	1.10	1.14	
22	1.00	1.38	1.20	1.46	1.90	4.07	1.40	1.36	1.13	1.12	1.10	1.14	
23	1.00	1.32	1.22	1.43	1.83	2.30	1.42	1.33	1.15	1.12	1.12	1.13	
24	1.00	1.28	1.22	1.49	1.96	2.00	1.96	1.33	1.15	1.10	1.11	1.13	
25	1.00	1.25	1.21	1.40	1.87	1.81	1.62	1.35	1.15	1.10	1.11	1.13	
26	1.02	2.15	1.20	1.37	1.53	1.75	1.50	1.38	1.15	1.10	1.12	1.12	
27	1.03	2.81	1.20	1.35	1.45	1.80	1.62	1.36	1.20	1.12	1.10	1.12	
28	1.01	2.45	1.32	1.30	1.50	1.83	1.60	1.36	1.20	1.13	1.10	1.10	
29	0.98	1.64	1.28	1.30	2.00	1.83	3.83	1.32	1.20	1.13		1.10	
30	0.95	1.39	1.25	1.30	2.00	1.70	2.17	1.30	1.20	1.12		1.10	
31		1.45		1.30	2.02		1.76		1.20	1.12		1.11	
Mean	1.04	1.60	1.32	1.32	1.55	2.56	1.79	1.43	1.21	1.12	1.12	1.14	
Max	1.09	3.60	2.04	1.49	2.02	4.07	3.83	1.92	1.30	1.20	1.15	1.71	4.07
Min	0.95	0.95	1.20	1.25	1.30	1.70	1.40	1.30	1.13	1.10	1.10	1.08	0.95

Annual Max Momentary Gage Height 5.03 m. (A.D.) , at 06.00 Hours , on Sep 10 , 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed 0.54 m. (A.D.)

Left Bank Elevation 10.00 m. (A.D.) ,

Right Bank Elevation 6.80 m. (A.D.) , Drainage Are 795 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.36	0.14	3.18	2.22	2.60	10.31	16.92	6.45	2.60	1.65	1.05	0.90		
2	0.36	0.17	2.41	2.41	2.72	20.56	16.20	5.58	2.60	1.65	1.05	0.80		
3	0.36	2.95	2.12	2.60	6.30	48.85	16.92	4.75	2.60	1.27	1.05	0.80		
4	0.38	0.90	2.03	2.60	4.75	18.90	24.12	4.38	2.60	1.27	0.90	0.90		
5	0.38	0.80	2.12	2.41	4.38	15.30	12.70	4.38	2.41	1.05	0.90	0.97		
6	0.38	0.65	2.22	2.72	2.83	15.84	13.55	4.13	2.41	1.05	1.05	0.97		
7	0.36	0.85	2.83	2.72	2.60	34.31	11.90	3.75	2.12	1.05	1.05	0.90		
8	0.38	0.60	13.38	2.60	2.60	57.56	10.31	3.75	2.12	1.05	1.05	0.80		
9	0.38	0.60	6.01	2.83	2.95	37.40	6.60	3.64	2.12	1.05	1.05	0.80		
10	0.36	0.50	7.67	2.83	3.18	55.22	5.87	3.41	2.03	1.05	1.05	0.80		
11	0.34	0.40	5.14	2.60	2.83	22.36	5.43	3.41	2.03	1.05	1.05	0.90		
12	0.34	1.20	3.88	2.60	3.18	16.56	5.00	3.41	2.03	1.05	1.05	0.90		
13	0.29	3.75	3.75	2.60	3.18	15.48	5.00	3.52	1.84	0.90	1.05	0.90		
14	0.29	1.93	2.72	2.60	3.64	14.40	4.88	3.52	1.74	0.90	1.27	8.13		
15	0.29	7.21	2.95	2.60	3.75	38.36	4.75	3.52	1.65	0.90	1.27	2.12		
16	0.25	26.10	1.93	2.60	5.72	38.60	4.38	3.41	2.41	0.90	1.27	1.65		
17	0.25	23.46	1.93	2.41	3.52	38.36	4.38	3.75	1.27	0.90	1.05	1.42		
18	0.25	47.10	1.93	2.32	3.18	22.14	4.38	11.42	1.27	0.90	1.27	1.27		
19	0.21	15.84	1.93	2.12	6.16	19.99	5.87	7.83	1.27	1.05	1.27	1.27		
20	0.21	25.66	1.84	3.64	8.29	19.26	4.63	6.30	1.27	1.05	1.05	1.27		
21	0.19	7.37	1.65	3.75	8.90	26.76	4.13	3.75	1.12	1.05	0.90	1.20		
22	0.19	3.52	1.65	4.50	11.10	59.12	3.75	3.29	1.12	1.05	0.90	1.20		
23	0.19	2.83	1.84	4.13	9.99	18.00	4.00	2.95	1.27	1.05	1.05	1.12		
24	0.19	2.41	1.84	4.88	12.06	12.70	12.06	2.95	1.27	0.90	0.97	1.12		
25	0.19	2.12	1.74	3.75	10.63	9.68	6.76	3.18	1.27	0.90	0.97	1.12		
26	0.23	15.30	1.65	3.41	5.43	8.75	5.00	3.52	1.27	0.90	1.05	1.05		
27	0.25	28.52	1.65	3.18	4.38	9.52	6.76	3.29	1.65	1.05	0.90	1.05		
28	0.21	20.75	2.83	2.60	5.00	9.99	6.45	3.29	1.65	1.12	0.90	0.90		
29	0.17	7.06	2.41	2.60	12.70	9.99	52.88	2.83	1.65	1.12		0.90		
30	0.14	3.64	2.12	2.60	12.70	7.98	15.66	2.60	1.65	1.05		0.90		
31		4.38		2.60	13.04		8.90		1.65	1.05		0.97		
Total	8.37	258.71	91.35	90.03	184.29	732.25	310.14	125.96	55.96	32.98	29.44	40.00	1959.48	CMSDAY
Mean	0.28	8.35	3.05	2.90	5.94	24.41	10.00	4.20	1.81	1.06	1.05	1.29	5.37	CMS
Max	0.38	47.10	13.38	4.88	13.04	59.12	52.88	11.42	2.60	1.65	1.27	8.13	59.12	CMS
Min	0.14	0.14	1.65	2.12	2.60	7.98	3.75	2.60	1.12	0.90	0.90	0.80	0.14	CMS
Runoff	0.72	22.35	7.89	7.78	15.92	63.27	26.80	10.88	4.83	2.85	2.54	3.46	169.30	MCM

Momentary Peak 85.44 CMS. at 5.03 m. (A.D.) at 06.00 Hours , on Sep 10 , 2002

Runoff Yield 6.75 Liters/Second/Square KM. Momentary Peak Yield 107.470 Liters/Second/Square KM.

WATER YEAR : 2002

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	Staff gage.
Zero Gage at Bottom	+0.000 m. (A.D.)
Bench Mark	B.M.- Temporary.
Location BM	On right bank at the approach of the bridge. **Elevation** +13.195 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 mean of 5 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 with variable water surface slope.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Stage-discharge relation defined by 42 discharge measurements made in 2002.

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

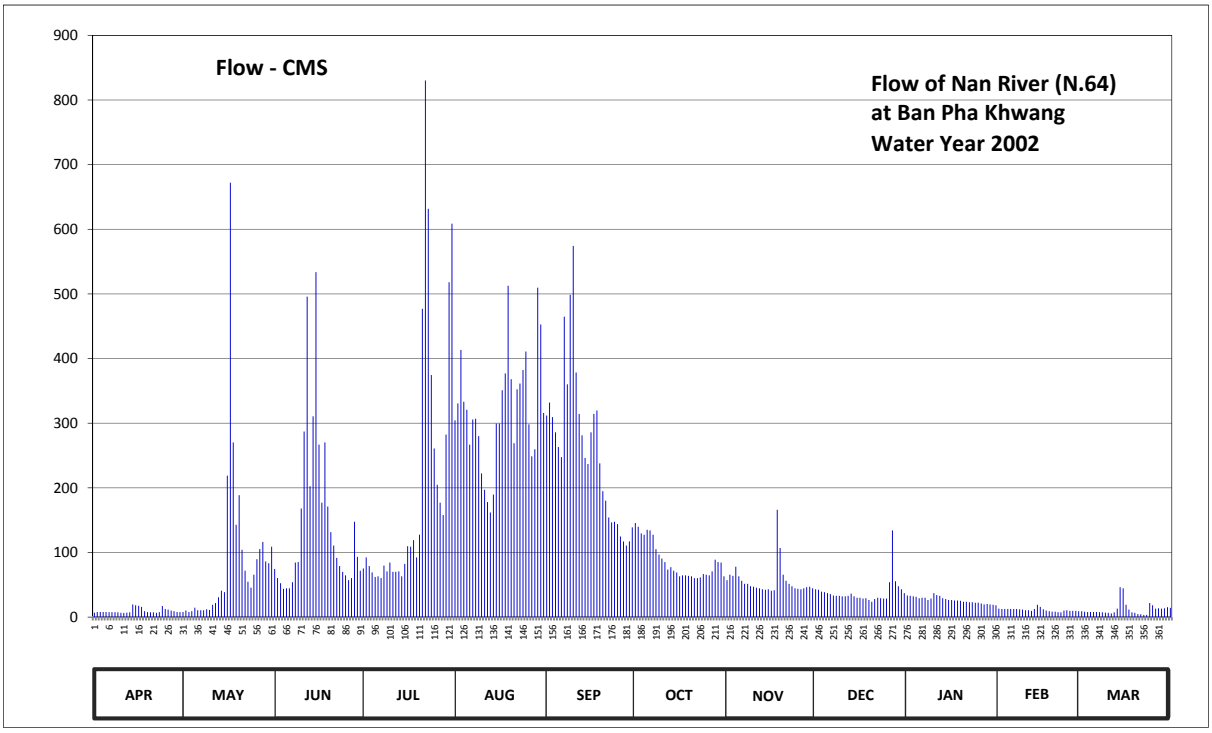
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.97	1.00	1.91	1.92	4.10	4.16	2.68	1.71	1.53	1.40	1.10	1.02	
2	1.00	1.04	1.75	2.11	4.31	4.32	2.62	1.81	1.52	1.39	1.09	1.01	
3	1.00	1.00	1.65	1.96	4.95	4.14	2.51	1.79	1.48	1.38	1.09	1.00	
4	1.00	1.02	1.54	1.85	4.33	3.95	2.49	1.95	1.47	1.37	1.09	1.00	
5	1.00	1.12	1.55	1.77	4.23	3.76	2.57	1.78	1.45	1.34	1.09	1.00	
6	0.99	1.05	1.55	1.78	3.79	3.63	2.56	1.70	1.43	1.35	1.09	1.00	
7	0.99	1.05	1.67	1.75	4.11	5.34	2.49	1.64	1.40	1.35	1.09	0.99	
8	0.99	1.05	2.02	1.97	4.12	4.54	2.25	1.64	1.39	1.30	1.08	0.98	
9	0.98	1.08	2.03	1.87	3.90	5.59	2.16	1.59	1.39	1.33	1.07	0.97	
10	0.96	1.06	2.91	2.02	3.42	6.13	2.09	1.58	1.38	1.45	1.05	0.96	
11	0.95	1.19	3.96	1.86	3.19	4.68	2.03	1.56	1.38	1.41	1.05	0.93	
12	0.97	1.23	5.57	1.86	3.01	4.18	1.90	1.55	1.39	1.39	1.03	0.98	
13	0.98	1.36	3.24	1.87	2.85	3.91	1.94	1.53	1.44	1.34	1.09	1.10	
14	1.20	1.50	4.15	1.78	3.12	3.62	1.88	1.52	1.38	1.32	1.19	1.57	
15	1.18	1.47	5.84	2.00	4.06	3.54	1.85	1.53	1.35	1.30	1.14	1.55	
16	1.17	3.39	3.79	2.30	4.06	3.95	1.78	1.50	1.35	1.30	1.08	1.19	
17	1.14	6.80	3.00	2.29	4.47	4.18	1.80	1.51	1.33	1.29	1.04	1.07	
18	1.02	3.82	3.82	2.40	4.67	4.22	1.80	2.89	1.34	1.29	1.02	0.98	
19	0.99	2.65	2.94	2.11	5.69	3.55	1.79	2.27	1.30	1.28	1.01	0.96	
20	0.98	3.11	2.53	2.49	4.60	3.17	1.78	1.81	1.26	1.26	1.01	0.90	
21	0.98	2.24	2.31	5.43	3.81	3.03	1.75	1.70	1.32	1.26	0.99	0.89	
22	0.96	1.88	2.10	7.84	4.48	2.77	1.75	1.64	1.35	1.25	0.98	0.85	
23	0.99	1.68	1.96	6.53	4.55	2.69	1.76	1.59	1.34	1.25	1.04	0.85	
24	1.16	1.56	1.86	4.65	4.71	2.70	1.82	1.55	1.33	1.24	1.05	0.95	
25	1.09	1.81	1.80	3.74	4.93	2.66	1.81	1.54	1.33	1.24	1.03	0.88	
26	1.07	2.08	1.71	3.26	4.05	2.46	1.80	1.53	1.67	1.22	1.03	0.76	
27	1.04	2.25	1.75	3.00	3.64	2.38	1.87	1.55	2.56	1.20	1.03	0.77	
28	1.02	2.37	2.70	2.81	3.73	2.31	2.07	1.57	1.69	1.21	1.02	0.76	
29	1.00	2.04	2.12	3.92	5.67	2.38	2.03	1.58	1.59	1.20		0.77	
30	0.99	2.01	1.88	5.73	5.25	2.61	2.02	1.55	1.53	1.19		0.81	
31		2.29		6.37	4.19		1.78		1.45	1.18		0.79	
Mean	1.03	1.91	2.59	3.01	4.19	3.68	2.05	1.69	1.46	1.30	1.06	0.98	
Max	1.20	6.80	5.84	7.84	5.69	6.13	2.68	2.89	2.56	1.45	1.19	1.57	7.84
Min	0.95	1.00	1.54	1.75	2.85	2.31	1.75	1.50	1.26	1.18	0.98	0.76	0.76

Annual Max Momentary Gage Height 8.03 m. (A.D.) , at 18.00 Hours , on Jul 22, 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed 0.12 m. (A.D.)

Left Bank Elevation 15.80 m. (A.D.) ,

Right Bank Elevation 12.63 m. (A.D.) , Drainage Are 3,476 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	6.98	8.00	74.40	75.30	304.50	312.00	145.60	57.05	43.11	33.50	13.20	9.04		
2	8.00	10.08	60.45	92.40	330.75	332.00	139.90	65.58	42.34	32.80	12.68	8.52		
3	8.00	8.00	52.35	78.90	413.50	309.50	129.45	63.85	39.34	32.10	12.68	8.00		
4	8.00	9.04	43.88	69.10	333.25	286.00	127.55	78.00	38.61	31.40	12.68	8.00		
5	8.00	14.48	44.65	62.15	320.75	263.20	135.15	63.00	37.15	29.30	12.68	8.00		
6	7.66	10.60	44.65	63.00	266.80	247.60	134.20	56.20	35.69	30.00	12.68	8.00		
7	7.66	10.60	53.89	60.45	305.75	464.90	127.55	51.58	33.50	30.00	12.68	7.66		
8	7.66	10.60	84.30	79.80	307.00	360.20	105.12	51.58	32.80	26.50	12.16	7.32		
9	7.32	12.16	85.20	70.86	280.00	498.65	96.90	47.73	32.80	28.60	11.64	6.98		
10	6.64	11.12	168.00	84.30	222.40	574.20	90.60	46.96	32.10	37.15	10.60	6.64		
11	6.30	18.96	287.20	69.98	196.95	378.40	85.20	45.42	32.10	34.23	10.60	5.62		
12	6.98	21.67	495.95	69.98	178.05	314.50	73.50	44.65	32.80	32.80	9.56	7.32		
13	7.32	30.70	202.40	70.86	162.00	281.20	77.10	43.11	36.42	29.30	12.68	13.20		
14	19.60	40.80	310.75	63.00	189.60	246.40	71.74	42.34	32.10	27.90	18.96	46.19		
15	18.32	38.61	533.60	82.50	299.50	236.80	69.10	43.11	30.00	26.50	15.76	44.65		
16	17.68	218.90	266.80	109.75	299.50	286.00	63.00	40.80	30.00	26.50	12.16	18.96		
17	15.76	672.00	177.00	108.82	351.10	314.50	64.70	41.57	28.60	25.81	10.08	11.64		
18	9.04	270.40	270.40	119.00	377.10	319.50	64.70	166.00	29.30	25.81	9.04	7.32		
19	7.66	142.75	171.00	92.40	512.60	238.00	63.85	106.97	26.50	25.12	8.52	6.64		
20	7.32	188.55	131.35	127.55	368.00	194.85	63.00	65.58	23.74	23.74	8.52	4.60		
21	7.32	104.20	110.67	477.05	269.20	180.15	60.45	56.20	27.90	23.74	7.66	4.37		
22	6.64	71.74	91.50	830.20	352.40	154.15	60.45	51.58	30.00	23.05	7.32	3.45		
23	7.66	54.66	78.90	631.85	361.50	146.55	61.30	47.73	29.30	23.05	10.08	3.45		
24	17.04	45.42	69.98	374.50	382.30	147.50	66.46	44.65	28.60	22.36	10.60	21.80		
25	12.68	65.58	64.70	260.80	410.90	143.70	65.58	43.88	28.60	22.36	9.56	18.32		
26	11.64	89.70	57.05	204.60	298.25	124.70	64.70	43.11	53.89	20.98	9.56	13.12		
27	10.08	105.12	60.45	177.00	248.80	117.15	70.86	44.65	134.20	19.60	9.56	13.54		
28	9.04	116.22	147.50	158.00	259.60	110.67	88.80	46.19	55.43	20.29	9.04	13.12		
29	8.00	86.10	93.30	282.40	509.80	117.15	85.20	46.96	47.73	19.60		13.54		
30	7.66	83.40	71.74	518.20	452.75	138.95	84.30	44.65	43.11	18.96		15.24		
31		108.82		608.65	315.75		63.00		37.15	18.32		14.38		
Total	289.66	2678.98	4404.01	6173.35	9880.35	7839.07	2699.01	1690.68	1184.91	821.37	312.94	378.63	38352.96	CMSDAY
Mean	9.66	86.42	146.80	199.14	318.72	261.30	87.06	56.36	38.22	26.50	11.18	12.21	105.08	CMS
Max	19.60	672.00	533.60	830.20	512.60	574.20	145.60	166.00	134.20	37.15	18.96	46.19	830.20	CMS
Min	6.30	8.00	43.88	60.45	162.00	110.67	60.45	40.80	23.74	18.32	7.32	3.45	3.45	CMS
Runoff	25.03	231.46	380.51	533.38	853.66	677.30	233.19	146.07	102.38	70.97	27.04	32.71	3313.70	MCM

Momentary Peak 859.65 CMS. at 8.03 m. (A.D.) at 18.00 Hours , on Jul 22 , 2002

Runoff Yield 30.23 Liters/Second/Square KM. Momentary Peak Yield 247.310 Liters/Second/Square KM.

WATER YEAR : 2002

NAN RIVER BASIN

Nam Yao at Ban Pang Sa , Nan (N.65)

Lat 19 - 13 - 47 N Long 100 - 45 - 27 E

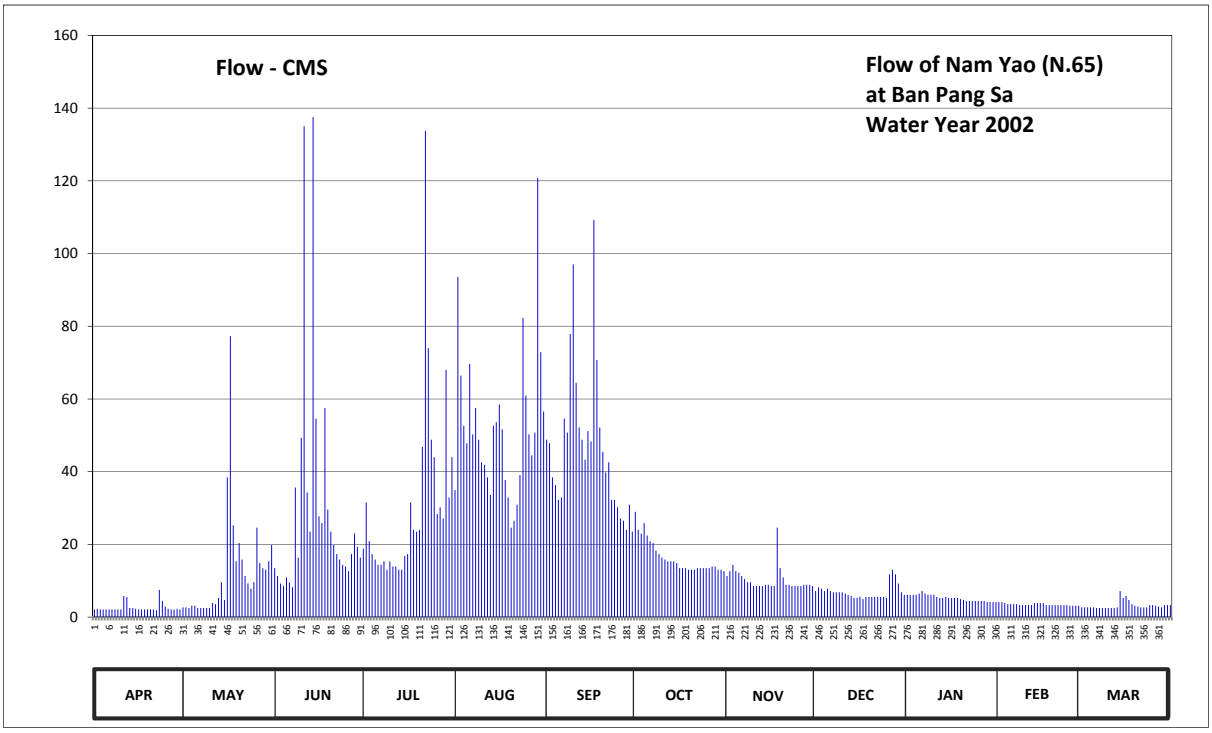
Location : on right bank at the bridge on highway.

	Ban Pang Sa	**Amphoe** Tha Wang Pha	**Changwat** Nan		
Drainge Area	621 sq.km.				
Type of Gage	Staff gage.				
Zero Gage at Bottom	+0.000 m. (A.D.)				
Bench Mark	B.M.- H.D.				
Location BM	On right bank about 20 meters from the top staff gage.	**Elevation** +8.630 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 mean 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 fair. Stage-discharge relation defined by 39 discharge measurements made in 2002.				

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.84	0.87	1.19	1.30	1.57	1.80	1.48	1.14	1.03	1.00	0.93	0.87	
2	0.85	0.87	1.14	1.52	2.65	1.78	1.40	1.17	1.06	1.00	0.93	0.87	
3	0.84	0.86	1.09	1.34	2.16	1.62	1.38	1.21	1.05	1.00	0.92	0.87	
4	0.84	0.89	1.07	1.27	1.88	1.59	1.43	1.17	1.03	1.00	0.91	0.87	
5	0.84	0.89	1.13	1.24	1.78	1.53	1.37	1.16	1.05	1.01	0.91	0.87	
6	0.84	0.86	1.10	1.21	2.22	1.54	1.34	1.14	1.03	1.03	0.91	0.86	
7	0.84	0.86	1.06	1.21	1.83	1.92	1.33	1.12	1.02	1.01	0.91	0.86	
8	0.84	0.86	1.58	1.23	1.98	1.84	1.29	1.10	1.02	1.00	0.90	0.86	
9	0.84	0.86	1.25	1.18	1.80	2.37	1.27	1.10	1.02	1.00	0.90	0.86	
10	0.84	0.86	1.81	1.23	1.68	2.71	1.25	1.07	1.02	1.00	0.90	0.86	
11	0.99	0.92	3.34	1.20	1.67	2.12	1.24	1.07	1.01	0.98	0.90	0.86	
12	0.98	0.91	1.56	1.20	1.62	1.87	1.23	1.07	1.00	0.97	0.90	0.86	
13	0.86	0.97	1.39	1.18	1.55	1.80	1.23	1.07	0.99	0.97	0.92	0.87	
14	0.86	1.10	3.38	1.18	1.88	1.69	1.23	1.08	0.97	0.98	0.92	1.03	
15	0.85	0.95	1.92	1.26	1.90	1.85	1.22	1.08	0.97	0.97	0.92	0.97	
16	0.84	1.62	1.46	1.27	2.00	1.79	1.19	1.07	0.98	0.97	0.92	0.99	
17	0.84	2.36	1.43	1.52	1.86	2.92	1.19	1.07	0.96	0.97	0.90	0.95	
18	0.84	1.42	1.98	1.40	1.61	2.24	1.19	1.41	0.98	0.97	0.90	0.91	
19	0.84	1.23	1.49	1.39	1.54	1.87	1.18	1.19	0.98	0.96	0.90	0.89	
20	0.84	1.33	1.39	1.40	1.41	1.73	1.18	1.13	0.98	0.95	0.90	0.88	
21	0.84	1.24	1.32	1.76	1.44	1.64	1.18	1.08	0.98	0.94	0.90	0.87	
22	0.83	1.14	1.27	3.32	1.51	1.68	1.19	1.08	0.98	0.94	0.90	0.87	
23	1.04	1.09	1.24	2.30	1.63	1.53	1.19	1.07	0.98	0.94	0.90	0.87	
24	0.94	1.05	1.21	1.80	2.45	1.53	1.19	1.07	0.98	0.94	0.90	0.90	
25	0.88	1.10	1.20	1.70	2.05	1.50	1.19	1.07	0.97	0.94	0.89	0.90	
26	0.85	1.41	1.17	1.47	1.83	1.45	1.19	1.07	1.15	0.94	0.89	0.89	
27	0.84	1.22	1.27	1.50	1.71	1.44	1.20	1.08	1.18	0.94	0.89	0.88	
28	0.84	1.19	1.38	1.45	1.84	1.40	1.20	1.08	1.15	0.93	0.89	0.87	
29	0.85	1.18	1.31	2.19	3.11	1.51	1.18	1.08	1.09	0.93		0.90	
30	0.84	1.23	1.25	1.54	2.28	1.39	1.18	1.07	1.02	0.93		0.90	
31		1.32		1.70	1.96		1.17		1.00	0.93		0.90	
Mean	0.86	1.12	1.48	1.50	1.88	1.79	1.25	1.11	1.02	0.97	0.91	0.89	
Max	1.04	2.36	3.38	3.32	3.11	2.92	1.48	1.41	1.18	1.03	0.93	1.03	3.38
Min	0.83	0.86	1.06	1.18	1.41	1.39	1.17	1.07	0.96	0.93	0.89	0.86	0.83

Annual Max Momentary Gage Height	4.33	m. (A.D.) ,	at 11.00 Hours , on Jun 14 , 2002		
Zero Gage at Bottom Elevation	0.00	m. (A.D.) ,	River Bed	-0.30	m. (A.D.)
Left Bank Elevation	8.14	m. (A.D.) ,			
Right Bank Elevation	7.98	m. (A.D.) ,	Drainage Are	621	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.10	2.70	13.47	18.80	34.96	48.80	28.96	11.32	7.15	6.10	4.14	2.70		
2	2.30	2.70	11.32	31.56	93.55	47.84	24.00	12.61	8.20	6.10	4.14	2.70		
3	2.10	2.50	9.25	20.88	66.46	38.40	22.96	14.39	7.85	6.10	3.86	2.70		
4	2.10	3.10	8.55	17.33	52.64	36.32	25.86	12.61	7.15	6.10	3.58	2.70		
5	2.10	3.10	10.89	15.86	47.84	32.24	22.44	12.18	7.85	6.45	3.58	2.70		
6	2.10	2.50	9.60	14.39	69.60	32.92	20.88	11.32	7.15	7.15	3.58	2.50		
7	2.10	2.50	8.20	14.39	50.24	54.58	20.36	10.46	6.80	6.45	3.58	2.50		
8	2.10	2.50	35.64	15.37	57.52	50.72	18.31	9.60	6.80	6.10	3.30	2.50		
9	2.10	2.50	16.35	13.04	48.80	77.85	17.33	9.60	6.80	6.10	3.30	2.50		
10	2.10	2.50	49.28	15.37	42.60	96.98	16.35	8.55	6.80	6.10	3.30	2.50		
11	5.82	3.86	135.02	13.90	41.90	64.42	15.86	8.55	6.45	5.54	3.30	2.50		
12	5.54	3.58	34.28	13.90	38.40	52.16	15.37	8.55	6.10	5.26	3.30	2.50		
13	2.50	5.26	23.48	13.04	33.60	48.80	15.37	8.55	5.82	5.26	3.86	2.70		
14	2.50	9.60	137.54	13.04	52.64	43.30	15.37	8.90	5.26	5.54	3.86	7.15		
15	2.30	4.70	54.58	16.84	53.60	51.20	14.88	8.90	5.26	5.26	3.86	5.26		
16	2.10	38.40	27.72	17.33	58.50	48.32	13.47	8.55	5.54	5.26	3.86	5.82		
17	2.10	77.30	25.86	31.56	51.68	109.22	13.47	8.55	4.98	5.26	3.30	4.70		
18	2.10	25.24	57.52	24.00	37.70	70.70	13.47	24.62	5.54	5.26	3.30	3.58		
19	2.10	15.37	29.58	23.48	32.92	52.16	13.04	13.47	5.54	4.98	3.30	3.10		
20	2.10	20.36	23.48	24.00	24.62	45.44	13.04	10.89	5.54	4.70	3.30	2.90		
21	2.10	15.86	19.84	46.88	26.48	39.80	13.04	8.90	5.54	4.42	3.30	2.70		
22	1.90	11.32	17.33	133.76	30.88	42.60	13.47	8.90	5.54	4.42	3.30	2.70		
23	7.50	9.25	15.86	74.00	39.10	32.24	13.47	8.55	5.54	4.42	3.30	2.70		
24	4.42	7.85	14.39	48.80	82.25	32.24	13.47	8.55	5.54	4.42	3.30	3.30		
25	2.90	9.60	13.90	44.00	60.95	30.20	13.47	8.55	5.26	4.42	3.10	3.30		
26	2.30	24.62	12.61	28.34	50.24	27.10	13.47	8.55	11.75	4.42	3.10	3.10		
27	2.10	14.88	17.33	30.20	44.48	26.48	13.90	8.90	13.04	4.42	3.10	2.90		
28	2.10	13.47	22.96	27.10	50.72	24.00	13.90	8.90	11.75	4.14	3.10	2.70		
29	2.30	13.04	19.32	67.99	120.81	30.88	13.04	8.90	9.25	4.14		3.30		
30	2.10	15.37	16.35	32.92	72.90	23.48	13.04	8.55	6.80	4.14		3.30		
31		19.84		44.00	56.54		12.61		6.10	4.14		3.30		
Total	80.08	385.37	891.50	946.07	1625.12	1411.39	507.67	309.42	214.69	162.57	97.20	99.51	6730.59	CMSDAY
Mean	2.67	12.43	29.72	30.52	52.42	47.05	16.38	10.31	6.93	5.24	3.47	3.21	18.44	CMS
Max	7.50	77.30	137.54	133.76	120.81	109.22	28.96	24.62	13.04	7.15	4.14	7.15	137.54	CMS
Min	1.90	2.50	8.20	13.04	24.62	23.48	12.61	8.55	4.98	4.14	3.10	2.50	1.90	CMS
Runoff	6.92	33.30	77.03	81.74	140.41	121.94	43.86	26.73	18.55	14.05	8.40	8.60	581.52	MCM

Momentary Peak 199.74 CMS. at 4.33 m. (A.D.) at 11.00 Hours , on Jun 14 , 2002

Runoff Yield 29.69 Liters/Second/Square KM. Momentary Peak Yield 321.640 Liters/Second/Square KM.

WATER YEAR : 2005

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	Water - stage recorder		
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	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 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 27 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

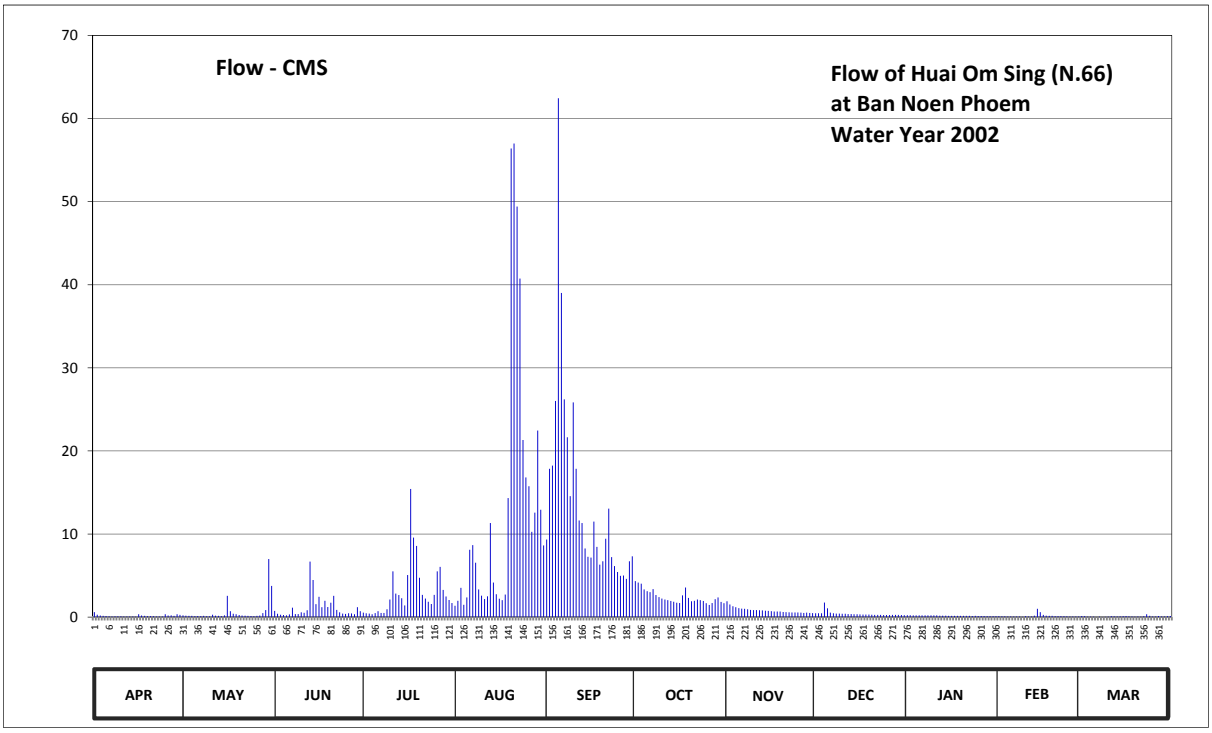
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	201.80	201.55	201.86	201.76	202.09	203.97	202.92	202.27	201.72	201.57	201.48	201.49	
2	201.61	201.53	201.68	201.72	202.29	205.08	202.88	202.14	201.72	201.57	201.46	201.47	
3	201.54	201.50	201.61	201.69	202.73	205.11	202.85	202.07	201.72	201.56	201.46	201.43	
4	201.51	201.50	201.58	201.65	202.13	205.59	202.68	202.03	202.22	201.56	201.45	201.42	
5	201.49	201.48	201.56	201.73	202.42	207.04	202.63	201.99	201.98	201.55	201.45	201.42	
6	201.46	201.49	201.63	201.85	203.74	206.20	202.60	201.97	201.76	201.56	201.45	201.40	
7	201.45	201.48	202.01	201.74	203.85	205.60	202.69	201.96	201.72	201.55	201.45	201.42	
8	201.46	201.50	201.66	201.74	203.41	205.34	202.50	201.94	201.70	201.56	201.44	201.40	
9	201.46	201.47	201.66	201.94	202.68	204.78	202.43	201.91	201.69	201.56	201.41	201.41	
10	201.46	201.46	201.79	202.34	202.48	205.58	202.38	201.90	201.68	201.55	201.47	201.42	
11	201.45	201.61	201.75	203.18	202.36	205.08	202.34	201.90	201.68	201.55	201.44	201.47	
12	201.45	201.52	201.89	202.55	202.46	204.37	202.31	201.89	201.66	201.53	201.44	201.46	
13	201.45	201.50	203.44	202.50	204.32	204.32	202.28	201.88	201.66	201.52	201.53	201.45	
14	201.45	201.48	202.95	202.39	202.88	203.77	202.25	201.87	201.64	201.52	201.96	201.46	
15	201.42	201.56	202.15	202.10	202.53	203.57	202.21	201.86	201.64	201.50	201.80	201.47	
16	201.65	202.47	202.44	203.08	202.37	203.55	202.20	201.85	201.63	201.51	201.60	201.49	
17	201.54	201.85	202.03	204.87	202.31	204.35	202.49	201.83	201.62	201.51	201.53	201.46	
18	201.50	201.68	202.29	204.01	202.52	203.81	202.74	201.83	201.62	201.51	201.51	201.44	
19	201.47	201.65	202.04	203.83	204.75	203.36	202.40	201.83	201.62	201.50	201.50	201.42	
20	201.47	201.58	202.21	203.01	206.84	203.45	202.27	201.81	201.61	201.51	201.48	201.44	
21	201.47	201.54	202.47	202.51	206.86	203.99	202.29	201.80	201.60	201.51	201.48	201.43	
22	201.45	201.52	201.91	202.38	206.60	204.58	202.34	201.78	201.60	201.50	201.47	201.48	
23	201.45	201.50	201.78	202.25	206.27	203.56	202.31	201.77	201.59	201.49	201.47	201.64	
24	201.45	201.49	201.70	202.16	205.32	203.32	202.28	201.77	201.58	201.50	201.46	201.50	
25	201.65	201.48	201.67	202.51	205.00	203.16	202.19	201.77	201.58	201.49	201.45	201.45	
26	201.54	201.51	201.72	203.18	204.90	203.06	202.12	201.76	201.58	201.49	201.44	201.45	
27	201.55	201.54	201.71	203.30	204.14	203.07	202.20	201.74	201.59	201.49	201.44	201.49	
28	201.51	201.73	201.65	202.67	204.51	202.98	202.35	201.76	201.60	201.48	201.44	201.44	
29	201.65	201.90	202.03	202.45	205.39	203.45	202.42	201.74	201.60	201.48		201.44	
30	201.59	203.51	201.85	202.32	204.56	203.58	202.24	201.73	201.58	201.47		201.47	
31		202.79		202.20	203.84		202.19		201.57	201.48		201.49	
Mean	201.51	201.69	201.96	202.50	203.82	204.29	202.42	201.88	201.67	201.52	201.50	201.46	
Max	201.80	203.51	203.44	204.87	206.86	207.04	202.92	202.27	202.22	201.57	201.96	201.64	207.04
Min	201.42	201.46	201.56	201.65	202.09	202.98	202.12	201.73	201.57	201.47	201.41	201.40	201.40

Annual Max Momentary Gage Height 207.61 m. (MSL.) , at 15.00 Hours , on Sep 5 , 2002

Zero Gage at Bottom Elevation 201.22 m. (MSL.) , River Bed 201.23 m. (MSL.)

Left Bank Elevation 209.40 m. (MSL.) ,

Right Bank Elevation 208.38 m. (MSL.) , Drainage Are 152 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.60	0.21	0.75	0.53	1.37	9.33	4.34	1.91	0.47	0.23	0.12	0.13		
2	0.29	0.18	0.40	0.47	1.97	17.84	4.16	1.52	0.47	0.23	0.10	0.11		
3	0.19	0.15	0.29	0.42	3.52	18.23	4.02	1.31	0.47	0.22	0.10	0.06		
4	0.16	0.15	0.24	0.35	1.49	26.02	3.32	1.19	1.76	0.22	0.08	0.05		
5	0.13	0.12	0.22	0.48	2.37	62.44	3.12	1.07	1.05	0.21	0.08	0.05		
6	0.10	0.13	0.32	0.72	8.10	39.00	3.00	1.02	0.53	0.22	0.08	0.02		
7	0.08	0.12	1.13	0.50	8.67	26.20	3.36	1.00	0.47	0.21	0.08	0.05		
8	0.10	0.15	0.37	0.50	6.54	21.64	2.65	0.95	0.43	0.22	0.07	0.02		
9	0.10	0.11	0.37	0.95	3.32	14.55	2.41	0.87	0.42	0.22	0.03	0.03		
10	0.10	0.10	0.58	2.12	2.58	25.84	2.24	0.85	0.40	0.21	0.11	0.05		
11	0.08	0.29	0.52	5.51	2.18	17.84	2.12	0.85	0.40	0.21	0.07	0.11		
12	0.08	0.17	0.82	2.82	2.51	11.62	2.03	0.82	0.37	0.18	0.07	0.10		
13	0.08	0.15	6.68	2.65	11.32	11.32	1.94	0.80	0.37	0.17	0.18	0.08		
14	0.08	0.12	4.47	2.27	4.16	8.25	1.85	0.77	0.34	0.17	1.00	0.10		
15	0.05	0.22	1.55	1.40	2.75	7.26	1.73	0.75	0.34	0.15	0.60	0.11		
16	0.35	2.55	2.44	5.06	2.21	7.17	1.70	0.72	0.32	0.16	0.27	0.13		
17	0.19	0.72	1.19	15.43	2.03	11.50	2.62	0.67	0.30	0.16	0.18	0.10		
18	0.15	0.40	1.97	9.56	2.72	8.45	3.56	0.67	0.30	0.16	0.16	0.07		
19	0.11	0.35	1.22	8.56	14.32	6.32	2.30	0.67	0.30	0.15	0.15	0.05		
20	0.11	0.24	1.73	4.74	56.40	6.72	1.91	0.62	0.29	0.16	0.12	0.07		
21	0.11	0.19	2.55	2.68	57.00	9.44	1.97	0.60	0.27	0.16	0.12	0.06		
22	0.08	0.17	0.87	2.24	49.40	13.06	2.12	0.57	0.27	0.15	0.11	0.12		
23	0.08	0.15	0.57	1.85	40.75	7.22	2.03	0.55	0.26	0.13	0.11	0.34		
24	0.08	0.13	0.43	1.58	21.32	6.14	1.94	0.55	0.24	0.15	0.10	0.15		
25	0.35	0.12	0.39	2.68	16.80	5.42	1.67	0.55	0.24	0.13	0.08	0.08		
26	0.19	0.16	0.47	5.51	15.75	4.97	1.46	0.53	0.24	0.13	0.07	0.08		
27	0.21	0.19	0.45	6.05	10.27	5.01	1.70	0.50	0.26	0.13	0.07	0.13		
28	0.16	0.48	0.35	3.28	12.57	4.61	2.15	0.53	0.27	0.12	0.07	0.07		
29	0.35	0.85	1.19	2.48	22.44	6.72	2.37	0.50	0.27	0.12		0.07		
30	0.26	6.99	0.72	2.06	12.92	7.31	1.82	0.48	0.24	0.11		0.11		
31		3.76		1.70	8.62		1.67		0.23	0.12		0.13		
Total	5.00	19.82	35.25	97.15	408.37	427.44	75.28	24.39	12.59	5.31	4.38	2.83	1117.81	CMSDAY
Mean	0.17	0.64	1.18	3.13	13.17	14.25	2.43	0.81	0.41	0.17	0.16	0.09	3.06	CMS
Max	0.60	6.99	6.68	15.43	57.00	62.44	4.34	1.91	1.76	0.23	1.00	0.34	62.44	CMS
Min	0.05	0.10	0.22	0.35	1.37	4.61	1.46	0.48	0.23	0.11	0.03	0.02	0.02	CMS
Runoff	0.43	1.71	3.05	8.39	35.28	36.93	6.50	2.11	1.09	0.46	0.38	0.24	96.58	MCM

Momentary Peak 80.74 CMS. at 207.61 m. (MSL.) at 15.00 Hours , on Sep 5 , 2002

Runoff Yield 20.15 Liters/Second/Square KM. Momentary Peak Yield 531.180 Liters/Second/Square KM.

WATER YEAR : 2002

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	+13.120 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 mean 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 +27.410 m.(M.S.L.), records are channel flow only.
General Description	Records good. Flow effected by Mae Yom side flow. Stage - discharge relation defined by 65 measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

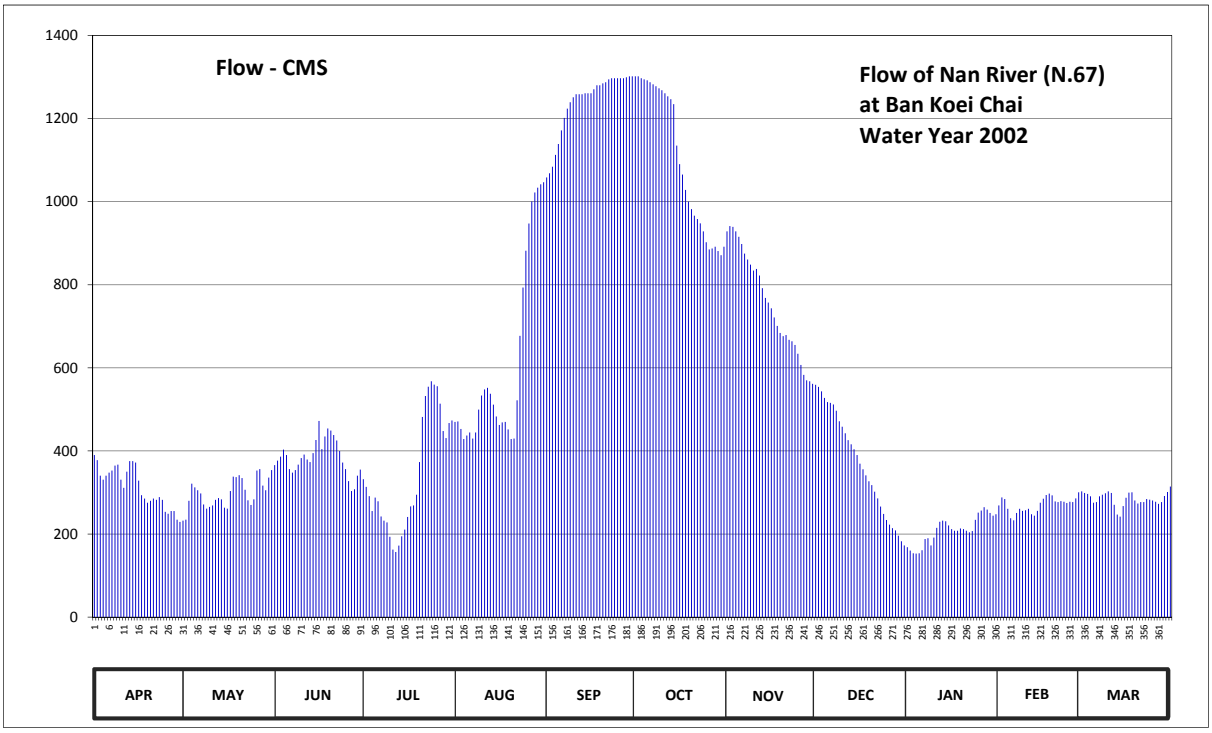
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	22.08	20.71	21.88	21.60	22.74	26.73	27.89	27.00	24.51	20.09	21.33	21.75	
2	21.98	20.73	21.97	21.44	22.75	26.79	27.89	27.06	24.46	20.00	21.57	21.70	
3	21.67	21.14	22.05	21.24	22.60	26.87	27.87	27.05	24.35	19.93	21.52	21.67	
4	21.59	21.51	22.19	20.92	22.40	27.01	27.86	27.00	24.19	19.92	21.23	21.60	
5	21.67	21.43	22.08	21.21	22.47	27.14	27.85	26.94	24.09	19.93	20.93	21.41	
6	21.73	21.37	21.80	21.13	22.53	27.30	27.83	26.86	24.07	20.01	20.87	21.43	
7	21.77	21.30	21.73	20.80	22.41	27.45	27.81	26.75	24.03	20.31	21.11	21.60	
8	21.87	21.06	21.78	20.71	22.53	27.56	27.79	26.67	23.88	20.33	21.23	21.65	
9	21.89	20.97	21.89	20.67	22.98	27.63	27.77	26.59	23.62	20.14	21.17	21.69	
10	21.59	21.01	22.02	20.33	23.24	27.68	27.75	26.51	23.49	20.35	21.19	21.75	
11	21.42	21.04	22.09	20.02	23.35	27.71	27.72	26.53	23.33	20.63	21.23	21.70	
12	21.75	21.16	21.99	19.96	23.38	27.71	27.69	26.44	23.16	20.82	21.05	21.35	
13	21.96	21.20	21.94	20.12	23.27	27.71	27.66	26.25	23.06	20.86	20.99	21.04	
14	21.96	21.17	22.12	20.34	23.07	27.72	27.61	26.10	22.94	20.84	21.17	20.97	
15	21.93	20.99	22.38	20.50	22.85	27.72	27.55	26.03	22.77	20.71	21.41	21.31	
16	21.57	20.97	22.76	20.79	22.68	27.72	27.50	25.94	22.53	20.59	21.53	21.56	
17	21.26	21.35	22.20	21.02	22.73	27.76	27.45	25.80	22.37	20.54	21.64	21.71	
18	21.19	21.65	22.45	21.04	22.74	27.80	27.37	25.67	22.21	20.54	21.68	21.72	
19	21.10	21.64	22.61	21.27	22.59	27.80	27.30	25.55	22.04	20.61	21.63	21.48	
20	21.14	21.68	22.57	21.94	22.40	27.82	27.24	25.49	21.93	20.59	21.45	21.39	
21	21.19	21.62	22.48	22.84	22.41	27.83	27.18	25.51	21.74	20.54	21.43	21.43	
22	21.16	21.38	22.37	23.23	23.15	27.86	27.14	25.42	21.54	20.49	21.46	21.43	
23	21.22	21.15	22.16	23.40	24.32	27.87	27.09	25.39	21.30	20.53	21.44	21.52	
24	21.16	21.05	21.93	23.50	25.12	27.87	27.00	25.32	21.07	20.89	21.40	21.50	
25	20.90	21.17	21.80	23.44	25.70	27.87	26.88	25.15	20.88	21.12	21.44	21.48	
26	20.86	21.77	21.56	23.41	26.12	27.87	26.80	24.92	20.73	21.18	21.43	21.44	
27	20.92	21.80	21.35	23.09	26.38	27.87	26.81	24.71	20.62	21.28	21.54	21.38	
28	20.92	21.47	21.39	22.56	26.51	27.88	26.83	24.60	20.55	21.21	21.72	21.43	
29	20.73	21.37	21.67	22.42	26.58	27.89	26.78	24.58	20.40	21.11		21.61	
30	20.68	21.63	21.79	22.72	26.63	27.89	26.73	24.53	20.25	20.99		21.73	
31		21.78		22.77	26.66		26.83		20.14	21.05		21.89	
Mean	21.43	21.30	22.03	21.63	23.72	27.61	27.40	25.95	22.46	20.58	21.35	21.53	
Max	22.08	21.80	22.76	23.50	26.66	27.89	27.89	27.06	24.51	21.28	21.72	21.89	27.89
Min	20.68	20.71	21.35	19.96	22.40	26.73	26.73	24.53	20.14	19.92	20.87	20.97	19.92

Annual Max Momentary Gage Height 27.90 m. (MSL.) , at 23.00 Hours , on Sep 29 , 2002

Zero Gage at Bottom Elevation 13.12 m. (MSL.) , River Bed 13.05 m. (MSL.)

Left Bank Elevation 28.98 m. (MSL.) ,

Right Bank Elevation 27.40 m. (MSL.) , Drainage Are 57,384 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	390.01	232.11	365.87	332.07	469.69	1058.38	1301.60	928.33	559.20	168.10	268.69	302.81		
2	377.94	234.34	376.74	313.32	470.89	1068.34	1301.60	941.33	554.05	160.00	288.19	298.75		
3	340.52	279.95	386.39	291.07	452.79	1084.18	1296.80	939.17	543.20	153.70	284.13	296.31		
4	330.86	321.21	403.29	255.47	428.64	1112.53	1294.40	928.33	527.41	152.80	260.56	290.63		
5	340.52	312.21	390.01	287.74	437.09	1138.85	1292.00	915.33	517.55	153.70	238.00	275.19		
6	347.76	305.54	356.21	278.84	444.34	1171.25	1287.20	898.00	515.57	160.90	232.90	276.81		
7	352.59	297.75	347.76	242.12	429.85	1201.62	1282.40	875.00	511.63	187.90	250.81	290.63		
8	364.66	271.05	353.80	232.11	444.34	1223.90	1277.60	860.50	496.83	189.70	260.56	294.69		
9	367.08	261.04	367.08	227.95	499.47	1239.20	1272.80	848.25	471.17	172.60	255.69	297.94		
10	330.86	265.49	382.77	193.38	533.48	1251.20	1268.00	834.25	458.35	191.50	257.31	302.81		
11	311.10	268.82	391.22	162.40	547.88	1258.40	1260.80	837.75	442.56	214.75	260.56	298.75		
12	350.18	282.17	379.15	156.70	551.80	1258.40	1253.60	822.00	425.79	229.40	247.50	270.31		
13	375.53	286.62	373.11	172.03	537.41	1258.40	1246.40	791.56	415.92	232.20	244.00	247.00		
14	375.53	283.29	394.84	194.40	511.24	1260.80	1234.40	768.13	404.00	230.80	255.69	242.00		
15	371.91	263.26	426.23	210.67	482.96	1260.80	1135.00	757.19	389.90	220.80	275.19	267.06		
16	328.45	261.04	472.10	241.01	462.44	1260.80	1090.00	743.12	369.17	211.75	284.94	287.38		
17	293.30	303.31	404.50	266.60	468.48	1270.40	1065.00	721.25	355.83	208.00	293.88	299.56		
18	285.51	338.11	434.68	268.82	469.69	1280.00	1028.00	700.94	341.00	208.00	297.13	300.38		
19	275.50	336.90	453.99	294.41	451.58	1280.00	1000.00	683.75	326.90	213.25	293.06	280.87		
20	279.95	341.73	449.16	373.11	428.64	1284.80	982.00	676.25	317.55	211.75	278.44	273.56		
21	285.51	334.49	438.30	481.76	429.85	1287.20	966.00	678.75	302.00	208.00	276.81	276.81		
22	282.17	306.65	425.02	532.18	521.71	1294.40	958.00	667.50	285.75	204.10	279.25	276.81		
23	288.85	281.06	399.67	554.42	677.11	1296.80	947.83	663.75	266.25	207.25	277.62	284.13		
24	282.17	269.94	371.91	567.50	793.33	1296.80	928.33	655.00	248.50	234.30	274.37	282.50		
25	253.25	283.29	356.21	559.65	881.91	1296.80	902.33	633.75	233.60	251.62	277.62	280.87		
26	248.80	352.59	327.24	555.73	947.40	1296.80	885.00	607.00	222.40	256.50	276.81	277.62		
27	255.47	356.21	303.31	513.86	1000.28	1296.80	887.17	582.83	214.00	264.62	285.75	272.75		
28	255.47	316.66	307.76	447.96	1021.86	1299.20	891.50	570.00	208.75	258.94	300.38	276.81		
29	234.34	305.54	340.52	431.06	1033.48	1301.60	881.00	567.60	196.00	250.81		291.44		
30	228.97	335.69	355.01	467.27	1041.78	1301.60	871.00	561.60	182.50	244.00		301.19		
31		353.80		473.31	1046.76		891.50		172.60	247.50		314.19		
Total	9404.76	9241.86	11533.85	10578.92	18918.17	37190.25	34179.26	22658.21	11475.93	6499.24	7575.84	8828.56	188084.85	CMSDAY
Mean	313.49	298.12	384.46	341.26	610.26	1239.67	1102.56	755.27	370.19	209.65	270.57	284.79	515.30	CMS
Max	390.01	356.21	472.10	567.50	1046.76	1301.60	1301.60	941.33	559.20	264.62	300.38	314.19	1301.60	CMS
Min	228.97	232.11	303.31	156.70	428.64	1058.38	871.00	561.60	172.60	152.80	232.90	242.00	152.80	CMS
Runoff	812.57	798.50	996.52	914.02	1634.53	3213.24	2953.09	1957.67	991.52	561.53	654.55	762.79	16250.53	MCM

Momentary Peak 1304.00 CMS. at 27.90 m. (MSL.) at 23.00 Hours , on Sep 29 , 2002

Runoff Yield 8.98 Liters/Second/Square KM. Momentary Peak Yield 22.720 Liters/Second/Square KM.

WATER YEAR : 2002

NAN RIVER BASIN

Khwae Noi River at Ban Na Thung Yai, Phitsanulok (N.69)

Lat 17 - 18 - 52 N Long 100 - 51 - 08 E

Location : on right bank at Ban Na Thung Yai.

Ban Na Thung Yai **Amphoe** Nakhon Thai **Changwat** Phitsanulok

Drainge Area	176 sq.km.
Type of Gage	Staff gage.
Zero Gage at Bottom	+390.510 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank near the gage site. **Elevation** +396.758 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 mean 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	Overbank flow starts at elevation +395.490 m. (M.S.L.) and is including overbank flow.
General Description	Records good. Stage-discharge relation defined by 26 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

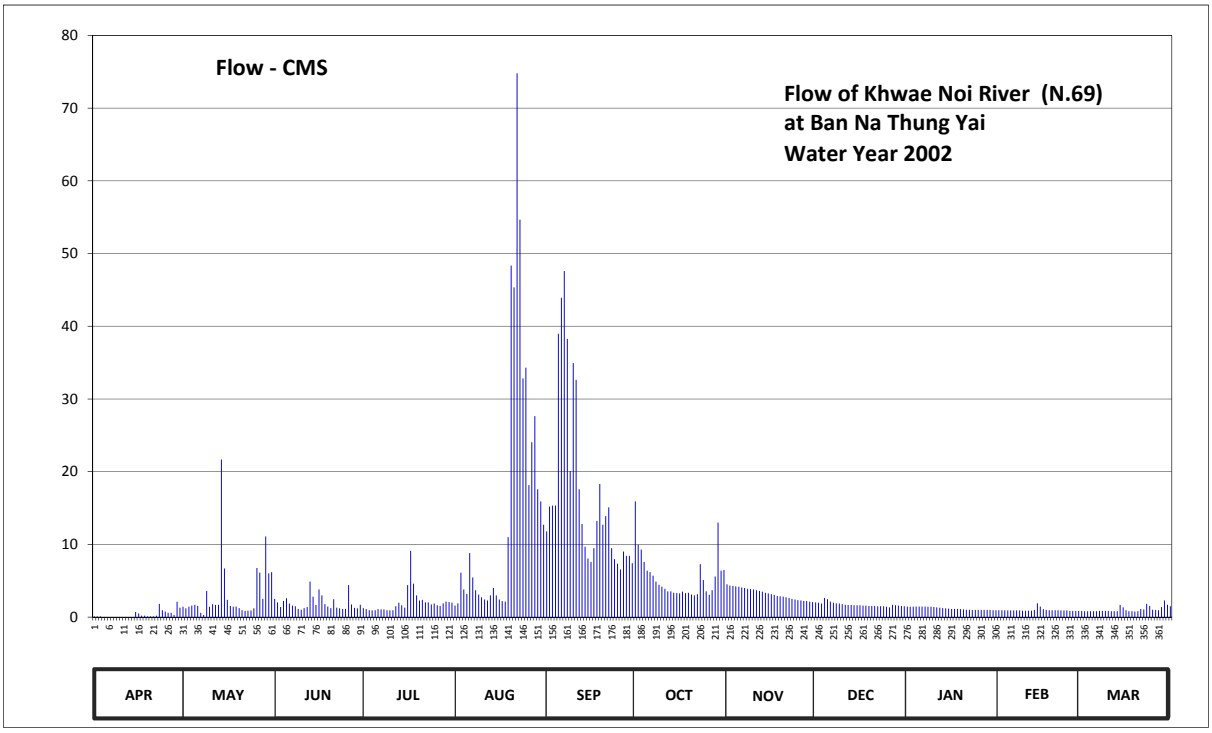
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	390.55	390.83	391.09	390.78	390.87	392.48	392.85	391.49	390.98	390.84	390.70	390.67	
2	390.55	390.77	390.98	390.74	390.95	392.80	392.29	391.46	390.97	390.83	390.70	390.66	
3	390.55	390.83	390.82	390.70	391.77	392.81	392.22	391.45	390.94	390.83	390.70	390.66	
4	390.54	390.87	391.03	390.69	391.36	392.81	392.00	391.44	391.12	390.84	390.69	390.66	
5	390.54	390.90	391.11	390.70	391.24	394.12	391.81	391.43	391.08	390.84	390.69	390.66	
6	390.54	390.86	390.94	390.74	392.16	394.33	391.78	391.41	391.01	390.84	390.69	390.66	
7	390.54	390.60	390.87	390.73	391.66	394.48	391.70	391.40	390.97	390.84	390.69	390.67	
8	390.54	390.57	390.85	390.73	391.34	394.09	391.56	391.38	390.95	390.83	390.69	390.67	
9	390.54	391.32	390.75	390.70	391.22	393.14	391.48	391.37	390.94	390.83	390.68	390.67	
10	390.54	390.83	390.72	390.69	391.14	393.94	391.43	391.36	390.92	390.82	390.68	390.67	
11	390.54	390.92	390.78	390.70	391.07	393.83	391.38	391.34	390.90	390.81	390.68	390.66	
12	390.54	390.89	390.82	390.85	391.04	392.97	391.31	391.32	390.89	390.80	390.68	390.66	
13	390.54	390.90	391.56	390.97	391.20	392.58	391.31	391.30	390.89	390.78	390.71	390.66	
14	390.54	393.24	391.16	390.88	391.40	392.26	391.27	391.27	390.88	390.77	390.95	390.89	
15	390.63	391.86	390.89	390.80	391.20	392.06	391.26	391.25	390.88	390.76	390.84	390.81	
16	390.59	391.06	391.36	391.47	391.07	392.00	391.25	391.23	390.88	390.75	390.74	390.70	
17	390.56	390.86	391.20	392.20	391.02	392.24	391.30	391.21	390.87	390.75	390.71	390.66	
18	390.56	390.83	390.92	391.51	391.01	392.62	391.26	391.18	390.87	390.75	390.70	390.66	
19	390.55	390.84	390.84	391.20	392.40	393.02	391.27	391.17	390.86	390.74	390.70	390.65	
20	390.55	390.78	390.78	391.04	394.51	392.57	391.22	391.16	390.86	390.73	390.70	390.66	
21	390.55	390.70	391.08	391.06	394.39	392.68	391.20	391.14	390.86	390.72	390.70	390.74	
22	390.56	390.67	390.80	390.98	395.40	392.79	391.23	391.12	390.85	390.72	390.69	390.73	
23	390.93	390.68	390.77	390.98	394.75	392.24	391.95	391.09	390.85	390.71	390.69	390.93	
24	390.70	390.69	390.75	390.91	393.84	392.05	391.60	391.07	390.85	390.71	390.69	390.86	
25	390.65	390.77	390.75	390.94	393.91	391.96	391.31	391.05	390.83	390.71	390.67	390.72	
26	390.60	391.87	391.47	390.88	393.01	391.84	391.21	391.04	390.81	390.71	390.67	390.71	
27	390.60	391.77	390.91	390.86	393.38	392.19	391.34	391.03	390.90	390.71	390.67	390.70	
28	390.57	391.09	390.79	390.95	393.58	392.11	391.68	391.02	390.88	390.71	390.67	390.82	
29	391.00	392.41	390.77	391.01	392.97	392.11	392.60	391.00	390.87	390.71		391.04	
30	390.80	391.75	390.90	390.99	392.85	391.97	391.81	390.99	390.86	390.70		390.90	
31		391.78		390.97	392.57		391.83		390.85	390.70		390.85	
Mean	390.60	391.12	390.95	390.95	392.27	392.77	391.60	391.24	390.91	390.77	390.71	390.73	
Max	391.00	393.24	391.56	392.20	395.40	394.48	392.85	391.49	391.12	390.84	390.95	391.04	395.40
Min	390.54	390.57	390.72	390.69	390.87	391.84	391.20	390.99	390.81	390.70	390.67	390.65	390.54

Annual Max Momentary Gage Height 395.71 m. (MSL.) , at 15.00 Hours , on Aug 22 , 2002

Zero Gage at Bottom Elevation 390.51 m. (MSL.) , River Bed 390.53 m. (MSL.)

Left Bank Elevation 395.48 m. (MSL.) ,

Right Bank Elevation 395.98 m. (MSL.) , Drainage Are 176 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.10	1.42	2.50	1.23	1.58	11.80	15.90	4.50	2.02	1.46	0.95	0.85		
2	0.10	1.20	2.02	1.09	1.90	15.20	9.95	4.33	1.98	1.42	0.95	0.81		
3	0.10	1.42	1.38	0.95	6.12	15.34	9.29	4.28	1.86	1.42	0.95	0.81		
4	0.00	1.58	2.23	0.92	3.80	15.34	7.60	4.22	2.64	1.46	0.92	0.81		
5	0.00	1.70	2.59	0.95	3.20	38.96	6.37	4.17	2.46	1.46	0.92	0.81		
6	0.00	1.54	1.86	1.09	8.80	43.92	6.18	4.06	2.14	1.46	0.92	0.81		
7	0.00	0.60	1.58	1.06	5.46	47.60	5.70	4.00	1.98	1.46	0.92	0.85		
8	0.00	0.30	1.50	1.06	3.70	38.27	4.88	3.90	1.90	1.42	0.92	0.85		
9	0.00	3.60	1.13	0.95	3.10	20.10	4.44	3.85	1.86	1.42	0.88	0.85		
10	0.00	1.42	1.02	0.92	2.73	34.94	4.17	3.80	1.78	1.38	0.88	0.85		
11	0.00	1.78	1.23	0.95	2.41	32.63	3.90	3.70	1.70	1.34	0.88	0.81		
12	0.00	1.66	1.38	1.50	2.28	17.58	3.55	3.60	1.66	1.30	0.88	0.81		
13	0.00	1.70	4.88	1.98	3.00	12.80	3.55	3.50	1.66	1.23	0.99	0.81		
14	0.00	21.68	2.82	1.62	4.00	9.67	3.35	3.35	1.62	1.20	1.90	1.66		
15	0.70	6.69	1.66	1.30	3.00	8.05	3.30	3.25	1.62	1.16	1.46	1.34		
16	0.50	2.37	3.80	4.39	2.41	7.60	3.25	3.15	1.62	1.13	1.09	0.95		
17	0.20	1.54	3.00	9.10	2.19	9.48	3.50	3.05	1.58	1.13	0.99	0.81		
18	0.20	1.42	1.78	4.60	2.14	13.22	3.30	2.91	1.58	1.13	0.95	0.81		
19	0.10	1.46	1.46	3.00	11.00	18.30	3.35	2.86	1.54	1.09	0.95	0.77		
20	0.10	1.23	1.23	2.28	48.35	12.70	3.10	2.82	1.54	1.06	0.95	0.81		
21	0.10	0.95	2.46	2.37	45.36	13.88	3.00	2.73	1.54	1.02	0.95	1.09		
22	0.20	0.85	1.30	2.02	74.80	15.09	3.15	2.64	1.50	1.02	0.92	1.06		
23	1.82	0.88	1.20	2.02	54.65	9.48	7.28	2.50	1.50	0.99	0.92	1.82		
24	0.95	0.92	1.13	1.74	32.84	7.97	5.10	2.41	1.50	0.99	0.92	1.54		
25	0.77	1.20	1.13	1.86	34.31	7.34	3.55	2.32	1.42	0.99	0.85	1.02		
26	0.60	6.76	4.39	1.62	18.15	6.56	3.05	2.28	1.34	0.99	0.85	0.99		
27	0.60	6.12	1.74	1.54	24.06	9.02	3.70	2.23	1.70	0.99	0.85	0.95		
28	0.30	2.50	1.27	1.90	27.64	8.42	5.58	2.19	1.62	0.99	0.85	1.38		
29	2.10	11.10	1.20	2.14	17.58	8.42	13.00	2.10	1.58	0.99		2.28		
30	1.30	6.00	1.70	2.06	15.90	7.41	6.37	2.06	1.54	0.95		1.70		
31		6.18		1.98	12.70		6.50		1.50	0.95		1.50		
Total	10.84	99.77	58.57	62.19	479.16	517.09	168.91	96.76	53.48	37.00	27.36	33.21	1644.34	CMSDAY
Mean	0.36	3.22	1.95	2.01	15.46	17.24	5.45	3.23	1.73	1.19	0.98	1.07	4.51	CMS
Max	2.10	21.68	4.88	9.10	74.80	47.60	15.90	4.50	2.64	1.46	1.90	2.28	74.80	CMS
Min	0.00	0.30	1.02	0.92	1.58	6.56	3.00	2.06	1.34	0.95	0.85	0.77	0.00	CMS
Runoff	0.94	8.62	5.06	5.37	41.40	44.68	14.59	8.36	4.62	3.20	2.36	2.87	142.07	MCM

Momentary Peak 85.91 CMS. at 395.71 m. (MSL.) at 15.00 Hours , on Aug 22 , 2002

Runoff Yield 25.60 Liters/Second/Square KM. Momentary Peak Yield 488.130 Liters/Second/Square KM.

WATER YEAR : 2002

NAN RIVER BASIN

Huai Nam Kup River at Ban Khok Phakwan, Phitsanulok (N.70)

Lat 17 - 18 - 21 N Long 100 - 38 - 46 E

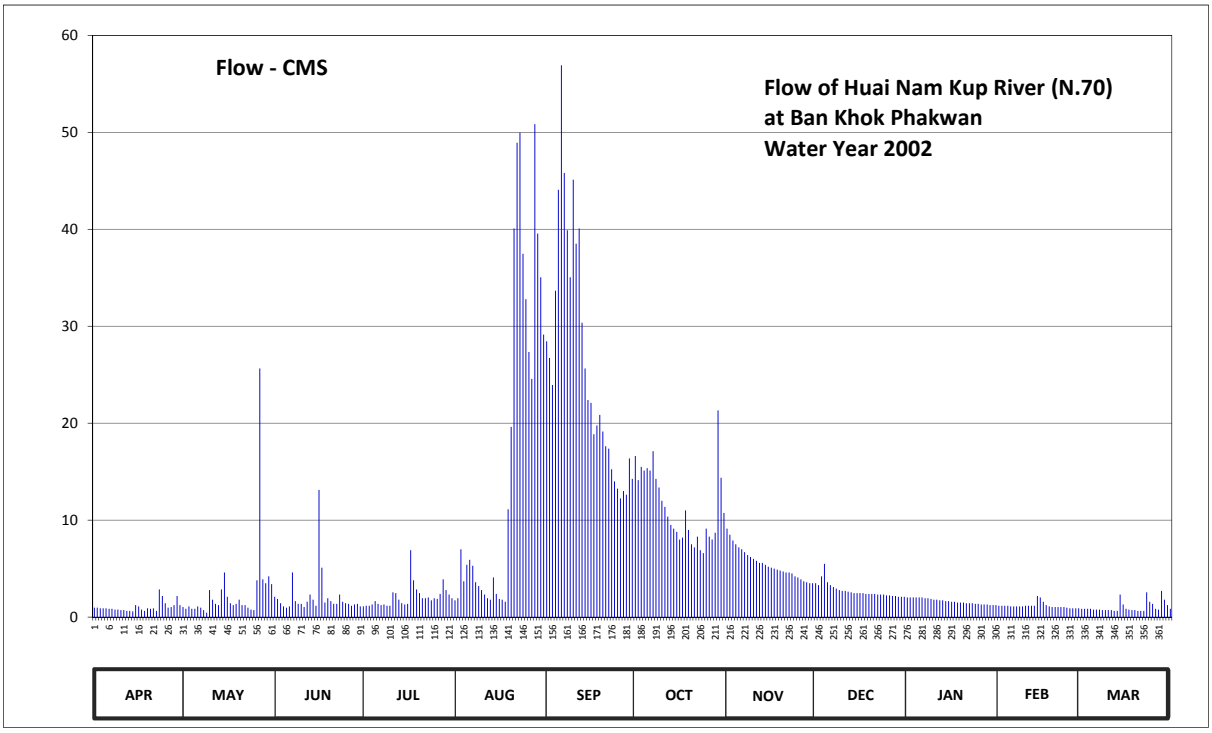
Location : on left bank at Ban Khok Phakwan.

	Ban	Khok Phakwan	**Amphoe**	Chat Trakan	**Changwat** Phitsanulok
Drainge Area	261	sq.km.			
Type of Gage	Staff gage.				
Zero Gage at Bottom	+188.210 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On left bank near the gage site.				**Elevation** +195.837 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 mean 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 28 discharge measurements made in 2002.				

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	188.92	188.93	189.08	188.94	189.03	191.21	190.41	189.81	189.25	189.07	188.95	188.90	
2	188.92	188.90	189.05	188.95	189.06	191.10	190.21	189.75	189.23	189.07	188.95	188.90	
3	188.91	188.94	188.99	188.95	189.60	190.92	190.32	189.69	189.32	189.07	188.95	188.90	
4	188.91	188.90	188.94	188.97	189.27	191.51	190.29	189.65	189.45	189.07	188.95	188.90	
5	188.91	188.90	188.92	189.02	189.44	192.11	190.31	189.62	189.26	189.07	188.94	188.89	
6	188.90	188.94	188.94	188.98	189.49	192.85	190.29	189.60	189.23	189.07	188.94	188.89	
7	188.90	188.92	189.36	188.96	189.43	192.21	190.45	189.57	189.21	189.06	188.94	188.89	
8	188.89	188.88	189.02	188.97	189.26	191.87	190.22	189.54	189.19	189.06	188.94	188.88	
9	188.89	188.84	188.98	188.95	189.22	191.59	190.15	189.52	189.17	189.05	188.94	188.88	
10	188.88	189.17	188.98	188.95	189.17	192.17	190.04	189.50	189.16	189.04	188.95	188.88	
11	188.88	189.04	188.93	189.14	189.11	191.79	189.99	189.48	189.16	189.04	188.95	188.88	
12	188.87	188.98	189.01	189.13	189.06	191.88	189.91	189.46	189.15	189.03	188.95	188.87	
13	188.87	188.96	189.11	189.04	189.04	191.32	189.84	189.46	189.14	189.03	188.95	188.87	
14	188.86	189.18	189.04	188.99	189.31	191.03	189.81	189.44	189.13	189.02	189.09	189.11	
15	188.96	189.36	188.95	188.97	189.12	190.82	189.78	189.42	189.13	189.02	189.07	188.97	
16	188.94	189.08	190.13	188.98	189.05	190.80	189.70	189.41	189.13	189.01	189.01	188.90	
17	188.89	188.99	189.41	189.59	189.04	190.59	189.72	189.40	189.13	189.01	188.96	188.89	
18	188.87	188.96	189.00	189.28	189.01	190.65	189.96	189.39	189.12	189.00	188.94	188.88	
19	188.91	188.98	189.06	189.18	189.97	190.72	189.80	189.38	189.12	189.00	188.93	188.88	
20	188.90	189.04	189.02	189.13	190.64	190.61	189.65	189.37	189.12	189.00	188.93	188.87	
21	188.91	188.96	188.98	189.06	191.88	190.49	189.62	189.36	189.12	188.99	188.93	188.87	
22	188.87	188.96	188.98	189.06	192.39	190.47	189.73	189.36	189.11	188.99	188.93	188.87	
23	189.18	188.92	189.11	189.07	192.45	190.30	189.59	189.35	189.11	188.99	188.93	189.14	
24	189.09	188.89	189.01	189.03	191.73	190.20	189.56	189.32	189.11	188.98	188.92	189.01	
25	188.99	188.88	188.99	189.06	191.46	190.14	189.81	189.31	189.10	188.98	188.91	188.98	
26	188.92	189.28	188.98	189.05	191.14	190.06	189.73	189.29	189.10	188.97	188.91	188.90	
27	188.93	191.03	188.95	189.12	190.96	190.12	189.70	189.27	189.09	188.97	188.91	188.89	
28	188.96	189.29	188.97	189.29	192.50	190.09	189.77	189.26	189.09	188.97	188.91	189.16	
29	189.09	189.25	188.98	189.17	191.85	190.39	190.75	189.25	189.08	188.96		189.04	
30	188.96	189.32	188.94	189.11	191.59	190.22	190.23	189.25	189.08	188.96		188.96	
31		189.24		189.06	191.25		189.94		189.08	188.96		188.90	
Mean	188.93	189.09	189.06	189.07	190.18	191.01	189.98	189.45	189.16	189.02	188.95	188.93	
Max	189.18	191.03	190.13	189.59	192.50	192.85	190.75	189.81	189.45	189.07	189.09	189.16	192.85
Min	188.86	188.84	188.92	188.94	189.01	190.06	189.56	189.25	189.08	188.96	188.91	188.87	188.84

Annual Max Momentary Gage Height	193.17	m. (MSL.) ,	at 06.00 Hours , on Aug 28 , 2002		
Zero Gage at Bottom Elevation	188.21	m. (MSL.) ,	River Bed	188.72	m. (MSL.)
Left Bank Elevation	195.82	m. (MSL.) ,			
Right Bank Elevation	195.83	m. (MSL.) ,	Drainage Are	261	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.98	1.04	2.10	1.11	1.73	28.45	16.62	9.12	3.50	2.03	1.17	0.85		
2	0.98	0.85	1.88	1.17	1.95	26.73	14.12	8.50	3.30	2.03	1.17	0.85		
3	0.91	1.11	1.43	1.17	7.00	23.95	15.50	7.90	4.20	2.03	1.17	0.85		
4	0.91	0.85	1.11	1.30	3.70	33.66	15.12	7.50	5.50	2.03	1.17	0.85		
5	0.91	0.85	0.98	1.65	5.40	44.08	15.37	7.20	3.60	2.03	1.11	0.78		
6	0.85	1.11	1.11	1.37	5.90	56.92	15.12	7.00	3.30	2.03	1.11	0.78		
7	0.85	0.98	4.60	1.24	5.30	45.81	17.12	6.70	3.10	1.95	1.11	0.78		
8	0.78	0.72	1.65	1.30	3.60	39.91	14.25	6.40	2.93	1.95	1.11	0.72		
9	0.78	0.46	1.37	1.17	3.20	35.05	13.37	6.20	2.78	1.88	1.11	0.72		
10	0.72	2.78	1.37	1.17	2.78	45.12	12.00	6.00	2.70	1.80	1.17	0.72		
11	0.72	1.80	1.04	2.55	2.33	38.52	11.37	5.80	2.70	1.80	1.17	0.72		
12	0.65	1.37	1.58	2.48	1.95	40.08	10.37	5.60	2.63	1.73	1.17	0.65		
13	0.65	1.24	2.33	1.80	1.80	30.36	9.50	5.60	2.55	1.73	1.17	0.65		
14	0.59	2.85	1.80	1.43	4.10	25.65	9.12	5.40	2.48	1.65	2.18	2.33		
15	1.24	4.60	1.17	1.30	2.40	22.40	8.80	5.20	2.48	1.65	2.03	1.30		
16	1.11	2.10	13.12	1.37	1.88	22.09	8.00	5.10	2.48	1.58	1.58	0.85		
17	0.78	1.43	5.10	6.90	1.80	18.87	8.20	5.00	2.48	1.58	1.24	0.78		
18	0.65	1.24	1.50	3.80	1.58	19.77	11.00	4.90	2.40	1.50	1.11	0.72		
19	0.91	1.37	1.95	2.85	11.12	20.86	9.00	4.80	2.40	1.50	1.04	0.72		
20	0.85	1.80	1.65	2.48	19.62	19.15	7.50	4.70	2.40	1.50	1.04	0.65		
21	0.91	1.24	1.37	1.95	40.08	17.62	7.20	4.60	2.40	1.43	1.04	0.65		
22	0.65	1.24	1.37	1.95	48.94	17.37	8.30	4.60	2.33	1.43	1.04	0.65		
23	2.85	0.98	2.33	2.03	49.98	15.25	6.90	4.50	2.33	1.43	1.04	2.55		
24	2.18	0.78	1.58	1.73	37.48	14.00	6.60	4.20	2.33	1.37	0.98	1.58		
25	1.43	0.72	1.43	1.95	32.79	13.25	9.12	4.10	2.25	1.37	0.91	1.37		
26	0.98	3.80	1.37	1.88	27.35	12.25	8.30	3.90	2.25	1.30	0.91	0.85		
27	1.04	25.65	1.17	2.40	24.57	13.00	8.00	3.70	2.18	1.30	0.91	0.78		
28	1.24	3.90	1.30	3.90	50.85	12.62	8.70	3.60	2.18	1.30	0.91	2.70		
29	2.18	3.50	1.37	2.78	39.56	16.37	21.32	3.50	2.10	1.24		1.80		
30	1.24	4.20	1.11	2.33	35.05	14.25	14.37	3.50	2.10	1.24		1.24		
31		3.40		1.95	29.15		10.75		2.10	1.24		0.85		
Total	31.52	79.96	63.24	64.46	504.94	783.41	351.01	164.82	84.46	50.63	32.87	32.29	2243.61	CMSDAY
Mean	1.05	2.58	2.11	2.08	16.29	26.11	11.32	5.49	2.72	1.63	1.17	1.04	6.15	CMS
Max	2.85	25.65	13.12	6.90	50.85	56.92	21.32	9.12	5.50	2.03	2.18	2.70	56.92	CMS
Min	0.59	0.46	0.98	1.11	1.58	12.25	6.60	3.50	2.10	1.24	0.91	0.65	0.46	CMS
Runoff	2.72	6.91	5.46	5.57	43.63	67.69	30.33	14.24	7.30	4.37	2.84	2.79	193.85	MCM

Momentary Peak 62.48 CMS. at 193.17 m. (MSL.) at 06.00 Hours , on Aug 28 , 2002

Runoff Yield 23.55 Liters/Second/Square KM. Momentary Peak Yield 239.390 Liters/Second/Square KM.

WATER YEAR : 2002

NAN RIVER BASIN

Khek River at Ban Tan Tawan , Phetchabun (N.73)

Lat 16 - 33 - 24 N Long 100 - 53 - 44 E

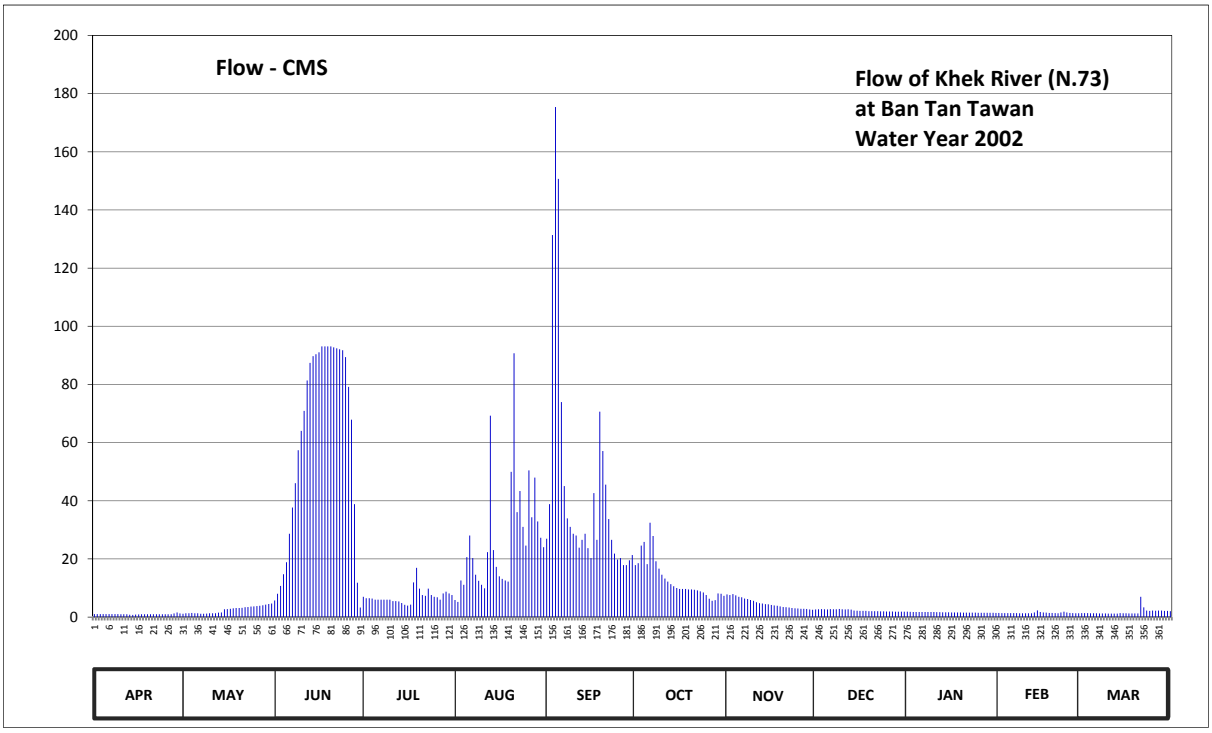
Location : on right bank at Ban Tan Tawan.

	Ban Tan Tawan	**Amphoe** Khao Kho	**Changwat** Phetchabun
Drainge Area	213 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+0.000 m. (A.D.)		
Bench Mark	B.M.- H.D.		
Location BM	On right bank near the gage site.	**Elevation**	+8.509 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 mean 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	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 25 discharge measurements made in 2002.		

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	1.02	1.05	1.87	2.00	1.89	3.38	2.85	2.07	1.45	1.27	1.14	1.12	
2	1.02	1.10	2.09	1.95	1.82	3.95	2.89	2.05	1.46	1.26	1.13	1.12	
3	1.02	1.10	2.32	1.95	2.47	6.97	3.25	2.08	1.47	1.25	1.13	1.12	
4	1.02	1.15	2.63	1.94	2.35	8.11	3.32	2.04	1.46	1.25	1.13	1.11	
5	1.02	1.10	2.91	1.90	3.02	7.48	2.87	2.00	1.45	1.25	1.13	1.11	
6	1.02	1.10	3.47	1.90	3.44	5.30	3.66	1.98	1.47	1.25	1.12	1.10	
7	1.02	1.05	3.90	1.90	3.00	4.21	3.43	1.94	1.46	1.25	1.12	1.09	
8	1.02	1.05	4.25	1.90	2.62	3.73	2.93	1.92	1.46	1.24	1.11	1.08	
9	1.02	1.06	4.70	1.90	2.46	3.59	2.77	1.89	1.48	1.24	1.11	1.08	
10	1.00	1.10	4.95	1.90	2.35	3.47	2.62	1.86	1.46	1.24	1.11	1.07	
11	1.00	1.10	5.20	1.85	2.25	3.44	2.52	1.81	1.45	1.23	1.10	1.07	
12	1.00	1.11	5.54	1.85	3.12	3.21	2.44	1.77	1.46	1.23	1.10	1.06	
13	0.92	1.17	5.73	1.84	5.14	3.36	2.37	1.75	1.44	1.22	1.20	1.07	
14	0.90	1.20	5.80	1.78	3.16	3.47	2.31	1.72	1.39	1.21	1.40	1.13	
15	0.94	1.46	5.82	1.69	2.81	3.20	2.26	1.71	1.37	1.21	1.25	1.10	
16	0.97	1.47	5.84	1.65	2.58	3.00	2.23	1.68	1.36	1.20	1.19	1.10	
17	1.00	1.49	5.90	1.70	2.51	4.11	2.23	1.66	1.35	1.19	1.17	1.09	
18	1.00	1.51	5.90	2.42	2.47	3.36	2.23	1.64	1.35	1.19	1.15	1.09	
19	1.00	1.53	5.90	2.79	2.44	5.19	2.22	1.61	1.33	1.19	1.14	1.08	
20	1.00	1.53	5.90	2.24	4.41	4.69	2.22	1.58	1.33	1.17	1.13	1.08	
21	1.00	1.54	5.89	2.05	5.83	4.23	2.21	1.57	1.32	1.17	1.11	2.00	
22	1.00	1.57	5.88	2.03	3.83	3.72	2.19	1.55	1.32	1.17	1.19	1.56	
23	1.00	1.58	5.87	2.24	4.14	3.36	2.16	1.53	1.31	1.17	1.27	1.39	
24	1.00	1.60	5.86	2.05	3.59	3.09	2.13	1.51	1.30	1.17	1.19	1.36	
25	1.00	1.61	5.79	2.00	3.25	2.97	2.05	1.50	1.29	1.16	1.15	1.38	
26	1.00	1.63	5.47	1.98	4.43	3.00	1.93	1.49	1.29	1.16	1.12	1.37	
27	1.00	1.64	5.09	1.90	3.75	2.85	1.86	1.49	1.29	1.16	1.11	1.39	
28	1.08	1.67	3.95	2.10	4.33	2.85	1.88	1.48	1.28	1.16	1.10	1.38	
29	1.20	1.70	2.41	2.15	3.68	2.95	2.10	1.45	1.28	1.16		1.36	
30	1.09	1.73	1.55	2.10	3.40	3.06	2.09	1.43	1.27	1.16		1.35	
31		1.75		2.05	3.22		2.03		1.27	1.14		1.33	
Mean	1.01	1.37	4.61	1.99	3.22	3.98	2.46	1.73	1.38	1.20	1.15	1.22	
Max	1.20	1.75	5.90	2.79	5.83	8.11	3.66	2.08	1.48	1.27	1.40	2.00	8.11
Min	0.90	1.05	1.55	1.65	1.82	2.85	1.86	1.43	1.27	1.14	1.10	1.06	0.90

Annual Max Momentary Gage Height	8.23	m. (A.D.) ,	at 18.00 Hours , on Sep 4 , 2002		
Zero Gage at Bottom Elevation	0.00	m. (A.D.) ,	River Bed	0.29	m. (A.D.)
Left Bank Elevation	8.50	m. (A.D.) ,			
Right Bank Elevation	8.46	m. (A.D.) ,	Drainage Are	213	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.06	1.15	5.70	7.00	5.90	26.94	17.90	7.80	2.63	1.84	1.42	1.36		
2	1.06	1.30	8.03	6.50	5.20	38.85	18.54	7.57	2.69	1.81	1.39	1.36		
3	1.06	1.30	10.74	6.50	12.61	131.39	24.60	7.92	2.75	1.77	1.39	1.36		
4	1.06	1.45	14.72	6.40	11.10	175.40	25.86	7.46	2.69	1.77	1.39	1.33		
5	1.06	1.30	18.86	6.00	20.64	150.68	18.22	7.00	2.63	1.77	1.39	1.33		
6	1.06	1.30	28.66	6.00	28.08	73.95	32.46	6.80	2.75	1.77	1.36	1.30		
7	1.06	1.15	37.70	6.00	20.30	45.05	27.88	6.40	2.69	1.77	1.36	1.27		
8	1.06	1.15	46.03	6.00	14.58	33.93	19.18	6.20	2.69	1.74	1.33	1.24		
9	1.06	1.18	57.35	6.00	12.48	31.01	16.68	5.90	2.82	1.74	1.33	1.24		
10	1.00	1.30	64.05	6.00	11.10	28.66	14.58	5.60	2.69	1.74	1.33	1.21		
11	1.00	1.30	70.90	5.50	9.90	28.08	13.26	5.10	2.63	1.70	1.30	1.21		
12	1.00	1.33	81.34	5.50	22.34	23.88	12.22	4.79	2.69	1.70	1.30	1.18		
13	0.80	1.51	87.42	5.40	69.25	26.58	11.34	4.65	2.56	1.67	1.60	1.21		
14	0.75	1.60	89.70	4.86	23.02	28.66	10.62	4.44	2.27	1.63	2.30	1.39		
15	0.85	2.69	90.38	4.23	17.26	23.70	10.02	4.37	2.20	1.63	1.77	1.30		
16	0.92	2.75	91.06	3.95	14.04	20.30	9.66	4.16	2.16	1.60	1.57	1.30		
17	1.00	2.88	93.10	4.30	13.13	42.64	9.66	4.02	2.12	1.57	1.51	1.27		
18	1.00	3.01	93.10	11.96	12.61	26.58	9.66	3.88	2.12	1.57	1.45	1.27		
19	1.00	3.14	93.10	16.96	12.22	70.63	9.54	3.67	2.05	1.57	1.42	1.24		
20	1.00	3.14	93.10	9.78	49.95	57.08	9.54	3.47	2.05	1.51	1.39	1.24		
21	1.00	3.21	92.76	7.57	90.72	45.54	9.42	3.40	2.02	1.51	1.33	7.00		
22	1.00	3.40	92.42	7.34	36.09	33.72	9.18	3.27	2.02	1.51	1.57	3.34		
23	1.00	3.47	92.08	9.78	43.36	26.58	8.84	3.14	1.98	1.51	1.84	2.27		
24	1.00	3.60	91.74	7.57	31.01	21.83	8.49	3.01	1.95	1.51	1.57	2.16		
25	1.00	3.67	89.37	7.00	24.60	19.82	7.57	2.95	1.91	1.48	1.45	2.23		
26	1.00	3.81	79.17	6.80	50.45	20.30	6.30	2.88	1.91	1.48	1.36	2.20		
27	1.00	3.88	67.88	6.00	34.35	17.90	5.60	2.88	1.91	1.48	1.33	2.27		
28	1.24	4.09	38.85	8.15	47.99	17.90	5.80	2.82	1.88	1.48	1.30	2.23		
29	1.60	4.30	11.83	8.72	32.88	19.50	8.15	2.63	1.88	1.48		2.16		
30	1.27	4.51	3.27	8.15	27.30	21.32	8.03	2.50	1.84	1.48		2.12		
31		4.65		7.57	24.06		7.34		1.84	1.42		2.05		
Total	30.97	78.52	1834.41	219.49	828.52	1328.40	406.14	140.68	71.02	50.21	41.05	55.64	5085.05	CMSDAY
Mean	1.03	2.53	61.15	7.08	26.73	44.28	13.10	4.69	2.29	1.62	1.47	1.79	13.93	CMS
Max	1.60	4.65	93.10	16.96	90.72	175.40	32.46	7.92	2.82	1.84	2.30	7.00	175.40	CMS
Min	0.75	1.15	3.27	3.95	5.20	17.90	5.60	2.50	1.84	1.42	1.30	1.18	0.75	CMS
Runoff	2.68	6.78	158.49	18.96	71.58	114.77	35.09	12.15	6.14	4.34	3.55	4.81	439.35	MCM

Momentary Peak 180.27 CMS. at 8.23 m. (A.D.) at 18.00 Hours , on Sep 4 , 2002

Runoff Yield 65.41 Liters/Second/Square KM. Momentary Peak Yield 846.340 Liters/Second/Square KM.

WATER YEAR : 2002

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 mean 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 2002.				

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

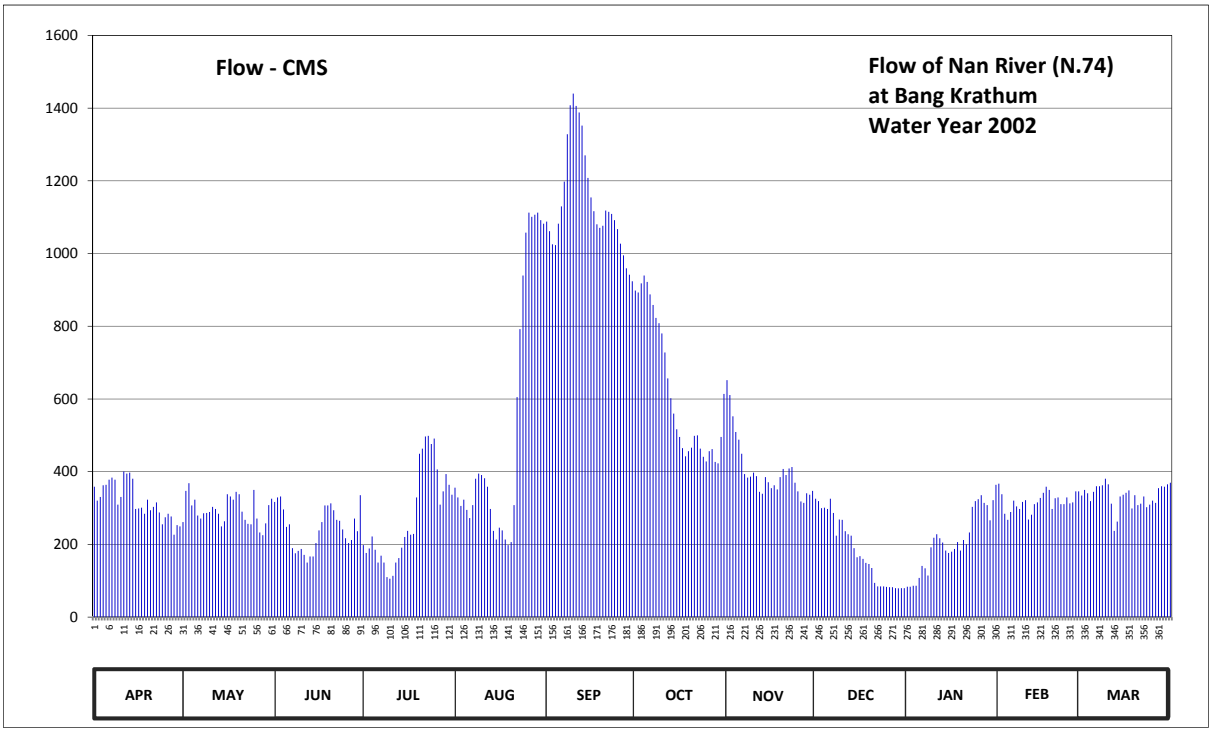
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	33.36	32.57	33.03	32.04	33.34	37.80	36.78	35.36	33.10	30.86	33.42	33.17	
2	33.06	33.27	33.13	31.85	33.13	37.66	36.75	35.10	33.05	30.86	33.20	33.29	
3	33.14	33.43	33.15	31.96	32.94	37.47	36.89	34.71	32.89	30.89	32.76	33.22	
4	33.39	32.95	32.86	32.24	33.08	37.46	37.01	34.42	32.90	30.89	32.62	33.05	
5	33.40	33.08	32.46	31.93	32.85	37.77	36.91	34.28	32.87	31.16	32.80	33.25	
6	33.50	32.72	32.52	31.61	32.66	38.02	36.72	34.01	33.10	31.52	33.06	33.37	
7	33.54	32.65	31.97	31.78	32.96	38.37	36.56	33.61	32.78	31.45	32.93	33.37	
8	33.50	32.77	31.84	31.61	33.52	39.02	36.36	33.54	32.26	31.24	32.87	33.39	
9	32.97	32.78	31.90	31.19	33.62	39.42	36.28	33.56	32.63	31.99	33.03	33.52	
10	33.14	32.80	31.95	31.13	33.59	39.58	36.12	33.64	32.62	32.21	33.07	33.41	
11	33.66	32.92	31.80	31.23	33.53	39.41	35.81	33.57	32.36	32.29	32.63	32.99	
12	33.62	32.87	31.61	31.61	33.36	39.32	35.39	33.25	32.29	32.20	32.74	32.37	
13	33.64	32.76	31.76	31.72	32.87	39.14	35.04	33.21	32.26	32.10	32.98	32.58	
14	33.52	32.47	31.76	31.98	32.37	38.73	34.76	33.55	31.97	31.91	33.02	33.15	
15	32.87	32.59	32.09	32.23	32.17	38.42	34.47	33.45	31.74	31.85	33.12	33.19	
16	32.88	33.20	32.38	32.37	32.44	38.15	34.33	33.33	31.77	31.88	33.23	33.23	
17	32.90	33.15	32.57	32.28	32.38	37.95	34.12	33.39	31.70	31.95	33.36	33.28	
18	32.76	33.08	32.95	32.30	32.17	37.76	33.96	33.30	31.60	32.11	33.29	32.88	
19	33.08	33.25	32.95	33.13	32.04	37.71	34.06	33.55	31.57	31.91	32.87	33.18	
20	32.84	33.20	33.00	34.01	32.11	37.74	34.13	33.71	31.46	32.16	33.11	32.96	
21	32.92	32.81	32.84	34.11	32.96	37.96	34.35	33.59	30.99	32.06	33.13	32.99	
22	33.02	32.62	32.62	34.34	35.06	37.94	34.36	33.72	30.87	32.33	32.98	33.15	
23	32.79	32.53	32.60	34.35	36.19	37.91	34.11	33.75	30.87	32.92	32.98	32.91	
24	32.52	32.52	32.40	34.20	37.01	37.82	33.95	33.44	30.87	33.05	33.13	32.97	
25	32.68	33.29	32.20	34.30	37.64	37.69	33.86	33.26	30.85	33.09	33.00	33.06	
26	32.76	32.65	32.09	33.70	37.93	37.48	34.06	33.04	30.84	33.18	33.02	33.01	
27	32.70	32.33	32.16	32.97	37.87	37.31	34.10	33.01	30.84	33.01	33.26	33.33	
28	32.28	32.27	32.65	33.26	37.90	37.12	33.85	33.22	30.81	32.96	33.26	33.37	
29	32.50	32.54	32.36	33.61	37.93	37.02	33.82	33.19	30.80	32.61		33.36	
30	32.47	32.96	33.18	33.40	37.82	36.92	34.33	33.27	30.81	33.07		33.41	
31		33.10		33.19	37.77		35.12		30.81	33.40		33.44	
Mean	33.05	32.84	32.43	32.63	34.30	38.07	35.11	33.67	31.82	32.10	33.03	33.16	
Max	33.66	33.43	33.18	34.35	37.93	39.58	37.01	35.36	33.10	33.40	33.42	33.52	39.58
Min	32.28	32.27	31.61	31.13	32.04	36.92	33.82	33.01	30.80	30.86	32.62	32.37	30.80

Annual Max Momentary Gage Height 39.66 m. (MSL.) , at 09.00 Hours , on Sep 10 , 2002

Zero Gage at Bottom Elevation 29.36 m. (MSL.) , River Bed 28.24 m. (MSL.)

Left Bank Elevation 44.38 m. (MSL.) ,

Right Bank Elevation 44.47 m. (MSL.) , Drainage Are 25,489 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	358.80	261.40	316.75	197.80	356.20	1088.00	898.40	651.60	325.50	83.80	366.80	334.25		
2	320.50	347.10	329.25	176.50	329.25	1061.40	893.00	611.00	319.25	83.80	338.00	349.70		
3	330.50	368.20	331.75	188.60	305.80	1025.30	918.20	552.50	299.80	86.20	284.20	340.60		
4	362.70	307.00	296.20	221.80	323.00	1023.40	939.80	509.00	301.00	86.20	267.40	319.25		
5	364.00	323.00	248.20	185.30	295.00	1082.30	921.80	488.00	297.40	107.80	289.00	344.50		
6	378.00	279.40	255.40	150.10	272.20	1129.80	887.60	449.40	325.50	141.00	320.50	360.10		
7	383.60	271.00	189.70	168.80	308.20	1198.00	858.80	393.40	286.60	134.00	304.60	360.10		
8	378.00	285.40	175.40	150.10	380.80	1328.00	822.80	383.60	224.20	114.60	297.40	362.70		
9	309.40	286.60	182.00	110.20	394.80	1408.00	808.40	386.40	268.60	191.90	316.75	380.80		
10	330.50	289.00	187.50	105.40	390.60	1440.00	780.40	397.60	267.40	218.20	321.75	365.40		
11	400.40	303.40	171.00	113.70	382.20	1406.00	727.70	387.80	236.20	227.80	268.60	311.80		
12	394.80	297.40	150.10	150.10	358.80	1388.00	656.40	344.50	227.80	217.00	281.80	237.40		
13	397.60	284.20	166.60	162.20	297.40	1352.00	602.00	339.30	224.20	205.00	310.60	262.60		
14	380.80	249.40	166.60	190.80	237.40	1270.00	560.00	385.00	189.70	183.10	315.50	331.75		
15	297.40	263.80	203.80	220.60	213.40	1208.00	516.50	371.00	164.40	176.50	328.00	336.75		
16	298.60	338.00	238.60	237.40	245.80	1154.50	495.50	354.90	167.70	179.80	341.90	341.90		
17	301.00	331.75	261.40	226.60	238.60	1116.50	464.80	362.70	160.00	187.50	358.80	348.40		
18	284.20	323.00	307.00	229.00	213.40	1080.40	442.40	351.00	149.00	206.20	349.70	298.60		
19	323.00	344.50	307.00	329.25	197.80	1070.90	456.40	385.00	146.00	183.10	297.40	335.50		
20	293.80	338.00	313.00	449.40	206.20	1076.60	466.20	407.40	135.00	212.20	326.75	308.20		
21	303.40	290.20	293.80	463.40	308.20	1118.40	498.50	390.60	94.20	200.20	329.25	311.80		
22	315.50	267.40	267.40	497.00	605.00	1114.60	500.00	408.80	84.60	232.60	310.60	331.75		
23	287.80	256.60	265.00	498.50	792.30	1108.90	463.40	413.00	84.60	303.40	310.60	302.20		
24	255.40	255.40	241.00	476.00	939.80	1091.80	441.00	369.60	84.60	319.25	329.25	309.40		
25	274.60	349.70	217.00	491.00	1057.60	1067.10	428.40	345.80	83.00	324.25	313.00	320.50		
26	284.20	271.00	203.80	406.00	1112.70	1027.20	456.40	318.00	82.20	335.50	315.50	314.25		
27	277.00	232.60	212.20	309.40	1101.30	994.90	462.00	314.25	82.20	314.25	345.80	354.90		
28	226.60	225.40	271.00	345.80	1107.00	959.60	427.00	340.60	79.80	308.20	345.80	360.10		
29	253.00	257.80	236.20	393.40	1112.70	941.60	422.80	336.75	79.00	266.20		358.80		
30	249.40	308.20	335.50	364.00	1091.80	923.60	495.50	347.10	79.80	321.75		365.40		
31		325.50		336.75	1082.30		614.00		79.80	364.00		369.60		
Total	9614.50	9131.35	7340.15	8544.90	16257.55	34254.80	19326.10	12095.60	5629.05	6515.30	8885.25	10329.00	147923.55	CMSDAY
Mean	320.48	294.56	244.67	275.64	524.44	1141.83	623.42	403.19	181.58	210.17	317.33	333.19	405.27	CMS
Max	400.40	368.20	335.50	498.50	1112.70	1440.00	939.80	651.60	325.50	364.00	366.80	380.80	1440.00	CMS
Min	226.60	225.40	150.10	105.40	197.80	923.60	422.80	314.25	79.00	83.80	267.40	237.40	79.00	CMS
Runoff	830.69	788.95	634.19	738.28	1404.65	2959.61	1669.78	1045.06	486.35	562.92	767.69	892.43	12780.59	MCM

Momentary Peak 1456.00 CMS. at 39.66 m. (MSL.) at 09.00 Hours , on Sep 10 , 2002

Runoff Yield 15.90 Liters/Second/Square KM. Momentary Peak Yield 57.120 Liters/Second/Square KM.

WATER YEAR : 2002

CHAO PHRAYA RIVER BASIN

Chao Phraya River at Khai Chira Prawat, Nakhon Sawan (C.2)

Lat 15 - 40 - 15 N Long 100 - 06 - 49 E

Location : on left bank at Khai Chira Prawat about 3 kilometers downstream from Dechatiwong Bridge.

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 mean 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	Stable
Overbank Flow Conditions	Overbank flow starts at elevation +25.840 m.(M.S.L.) and is including overbank flow.
General Description	Records very good. Flow effected by Phumiphol Dam, Sirikit Dam and Phrom Phiram Dam. Stage-discharge relation defined by 159 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

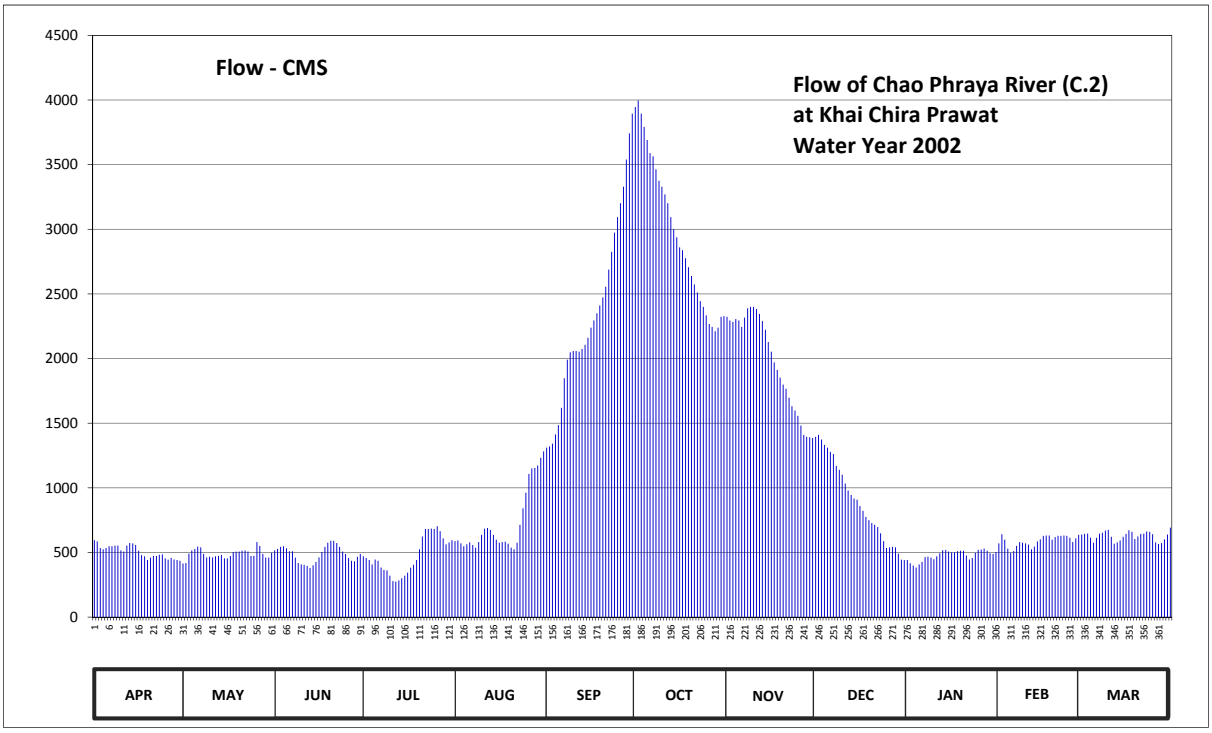
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	19.90	19.09	19.58	19.36	19.87	22.27	26.06	24.51	22.51	19.22	19.80	20.07	
2	19.86	19.11	19.63	19.30	19.89	22.30	26.07	24.46	22.55	19.10	20.08	20.09	
3	19.66	19.46	19.69	19.22	19.80	22.36	26.05	24.44	22.45	19.01	19.91	20.10	
4	19.62	19.58	19.71	19.05	19.71	22.56	26.03	24.48	22.33	18.94	19.64	19.97	
5	19.66	19.63	19.65	19.24	19.77	22.76	26.01	24.46	22.27	19.05	19.49	19.82	
6	19.71	19.70	19.55	19.19	19.83	23.09	25.98	24.37	22.18	19.15	19.56	19.97	
7	19.71	19.68	19.55	18.94	19.75	23.60	25.97	24.50	22.13	19.33	19.72	20.10	
8	19.73	19.45	19.31	18.85	19.67	23.90	25.93	24.63	21.86	19.35	19.84	20.13	
9	19.73	19.32	19.11	18.83	19.84	24.01	25.89	24.65	21.77	19.31	19.82	20.19	
10	19.58	19.35	19.05	18.62	20.06	24.03	25.86	24.65	21.65	19.25	19.80	20.21	
11	19.54	19.32	19.04	18.40	20.25	24.03	25.82	24.62	21.44	19.36	19.76	20.00	
12	19.73	19.36	19.00	18.38	20.27	24.02	25.77	24.55	21.27	19.47	19.62	19.79	
13	19.81	19.37	18.92	18.43	20.21	24.06	25.68	24.45	21.16	19.59	19.70	19.83	
14	19.80	19.41	19.02	18.52	20.06	24.12	25.59	24.33	21.07	19.60	19.86	19.89	
15	19.75	19.28	19.15	18.62	19.91	24.22	25.52	24.16	21.04	19.54	19.92	20.00	
16	19.57	19.28	19.32	18.74	19.82	24.36	25.42	24.02	20.88	19.51	20.03	20.09	
17	19.40	19.37	19.52	18.93	19.84	24.46	25.39	23.86	20.75	19.51	20.04	20.20	
18	19.36	19.52	19.69	19.04	19.85	24.56	25.29	23.74	20.58	19.55	20.04	20.15	
19	19.22	19.53	19.82	19.22	19.79	24.67	25.18	23.61	20.49	19.57	19.91	19.93	
20	19.31	19.54	19.88	19.62	19.67	24.78	25.07	23.49	20.41	19.57	19.99	20.01	
21	19.38	19.57	19.88	20.01	19.62	24.93	24.96	23.42	20.36	19.39	20.03	20.09	
22	19.37	19.58	19.81	20.24	19.82	25.15	24.85	23.27	20.30	19.24	20.03	20.10	
23	19.42	19.54	19.69	20.24	20.36	25.37	24.73	23.12	20.11	19.29	20.04	20.16	
24	19.43	19.37	19.54	20.25	20.82	25.56	24.65	23.04	19.87	19.49	20.03	20.15	
25	19.28	19.38	19.45	20.24	21.22	25.68	24.53	22.94	19.66	19.60	19.97	20.08	
26	19.23	19.84	19.30	20.32	21.67	25.77	24.41	22.75	19.68	19.61	19.84	19.83	
27	19.30	19.72	19.19	20.17	21.80	25.86	24.37	22.55	19.69	19.64	19.95	19.78	
28	19.24	19.45	19.17	19.95	21.81	25.96	24.31	22.51	19.68	19.57	20.06	19.81	
29	19.22	19.31	19.34	19.77	21.87	26.02	24.36	22.50	19.46	19.47		19.92	
30	19.19	19.31	19.45	19.83	22.05	26.05	24.51	22.48	19.23	19.45		20.07	
31		19.49		19.90	22.19		24.52		19.22	19.52		20.28	
Mean	19.52	19.45	19.43	19.34	20.36	24.35	25.32	23.82	20.90	19.40	19.87	20.03	
Max	19.90	19.84	19.88	20.32	22.19	26.05	26.07	24.65	22.55	19.64	20.08	20.28	26.07
Min	19.19	19.09	18.92	18.38	19.62	22.27	24.31	22.48	19.22	18.94	19.49	19.78	18.38

Annual Max Momentary Gage Height 26.07 m. (MSL.) , at 22.00 Hours , on Oct 2 , 2002

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed 14.04 m. (MSL.)

Left Bank Elevation 25.56 m. (MSL.) ,

Right Bank Elevation 26.33 m. (MSL.) , Drainage Are 109,973 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	595.90	414.80	515.90	470.50	588.30	1310.50	3946.00	2322.80	1395.30	441.60	570.60	638.80		
2	585.70	418.90	527.60	458.10	593.30	1321.10	3997.00	2295.00	1409.50	416.90	641.40	643.90		
3	535.20	491.10	542.80	441.60	570.60	1342.30	3895.00	2283.90	1374.10	398.30	598.40	646.40		
4	525.10	515.90	547.80	406.60	547.80	1413.00	3793.00	2306.10	1331.70	383.90	530.10	613.60		
5	535.20	527.60	532.60	445.70	563.00	1485.70	3691.00	2295.00	1310.50	406.60	497.30	575.60		
6	547.80	545.30	509.70	435.40	578.20	1619.20	3590.00	2245.00	1278.60	427.20	511.70	613.60		
7	547.80	540.20	509.70	383.90	557.90	1848.30	3565.00	2317.20	1261.00	464.30	550.30	646.40		
8	552.90	489.10	460.20	365.30	537.70	1991.70	3465.00	2389.40	1169.50	468.40	580.70	654.00		
9	552.90	462.20	418.90	361.20	580.70	2048.50	3375.00	2400.60	1140.30	460.20	575.60	669.20		
10	515.90	468.40	406.60	320.40	636.30	2058.80	3330.00	2400.60	1101.30	447.80	570.60	674.20		
11	507.60	462.20	404.50	278.00	684.40	2058.80	3270.00	2383.90	1033.00	470.50	560.50	621.10		
12	552.90	470.50	396.30	274.50	689.40	2053.70	3202.50	2345.00	978.70	493.20	525.10	568.00		
13	573.10	472.60	379.80	283.80	674.20	2074.30	3094.00	2289.40	944.30	517.90	545.30	578.20		
14	570.60	480.80	400.40	301.10	636.30	2106.10	3001.00	2222.80	917.00	520.00	585.70	593.30		
15	557.90	454.00	427.20	320.40	598.40	2161.70	2938.00	2128.30	907.90	507.60	600.90	621.10		
16	513.80	454.00	462.20	343.50	575.60	2239.40	2860.00	2053.70	859.30	501.40	628.70	643.90		
17	478.70	472.60	503.50	381.80	580.70	2295.00	2838.70	1971.00	821.20	501.40	631.30	671.70		
18	470.50	503.50	542.80	404.50	583.20	2350.60	2776.30	1912.50	774.30	509.70	631.30	659.10		
19	441.60	505.60	575.60	441.60	568.00	2411.70	2707.50	1852.90	749.40	513.80	598.40	603.40		
20	460.20	507.60	590.80	525.10	537.70	2472.80	2638.70	1797.90	727.40	513.80	618.60	623.70		
21	474.60	513.80	590.80	623.70	525.10	2556.10	2572.80	1765.80	713.60	476.70	628.70	643.90		
22	472.60	515.90	573.10	681.80	575.60	2688.70	2511.70	1697.10	697.00	445.70	628.70	646.40		
23	482.90	507.60	542.80	681.80	713.60	2826.30	2445.00	1631.70	649.00	456.10	631.30	661.60		
24	484.90	472.60	507.60	684.40	841.10	2974.00	2400.60	1598.30	588.30	497.30	628.70	659.10		
25	454.00	474.60	489.10	681.80	962.80	3094.00	2333.90	1556.70	535.20	520.00	613.60	641.40		
26	443.70	580.70	458.10	702.50	1107.80	3202.50	2267.20	1481.90	540.20	522.50	580.70	578.20		
27	458.10	550.30	435.40	664.10	1150.00	3330.00	2245.00	1409.50	542.80	530.10	608.50	565.50		
28	445.70	489.10	431.30	608.50	1153.20	3540.00	2211.70	1395.30	540.20	513.80	636.30	573.10		
29	441.60	460.20	466.40	563.00	1172.80	3742.00	2239.40	1391.80	491.10	493.20		600.90		
30	435.40	460.20	489.10	578.20	1232.70	3895.00	2322.80	1384.70	443.70	489.10		638.80		
31		497.30		595.90	1282.20		2328.30		441.60	503.50		691.90		
Total	15214.80	15179.20	14638.60	14708.70	22598.60	70511.80	91852.10	59525.80	27667.00	14812.50	16509.00	19460.00	382678.10	CMSDAY
Mean	507.20	489.70	488.00	474.50	729.00	2350.40	2963.00	1984.20	892.50	477.80	589.60	627.70	1048.40	CMS
Max	595.90	580.70	590.80	702.50	1282.20	3895.00	3997.00	2400.60	1409.50	530.10	641.40	691.90	3997.00	CMS
Min	435.40	414.80	379.80	274.50	525.10	1310.50	2211.70	1384.70	441.60	383.90	497.30	565.50	274.50	CMS
Runoff	1314.56	1311.48	1264.77	1270.83	1952.52	6092.22	7936.02	5143.03	2390.43	1279.8	1426.38	1681.34	33063.39	MCM

Momentary Peak 3997.00 CMS. at 26.07 m. (MSL.) at 22.00 Hours , on Oct 2 , 2002

Runoff Yield 9.53 Liters/Second/Square KM. Momentary Peak Yield 36.345 Liters/Second/Square KM.

WATER YEAR : 2002

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	Staff gage.		
Zero Gage at Bottom	+0.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank at the bridge		**Elevation** +11.643 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 mean of 3 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	Overbank flow starts at elevation +11.890 m.(M.S.L.) and in including overbank flow.No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 46 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

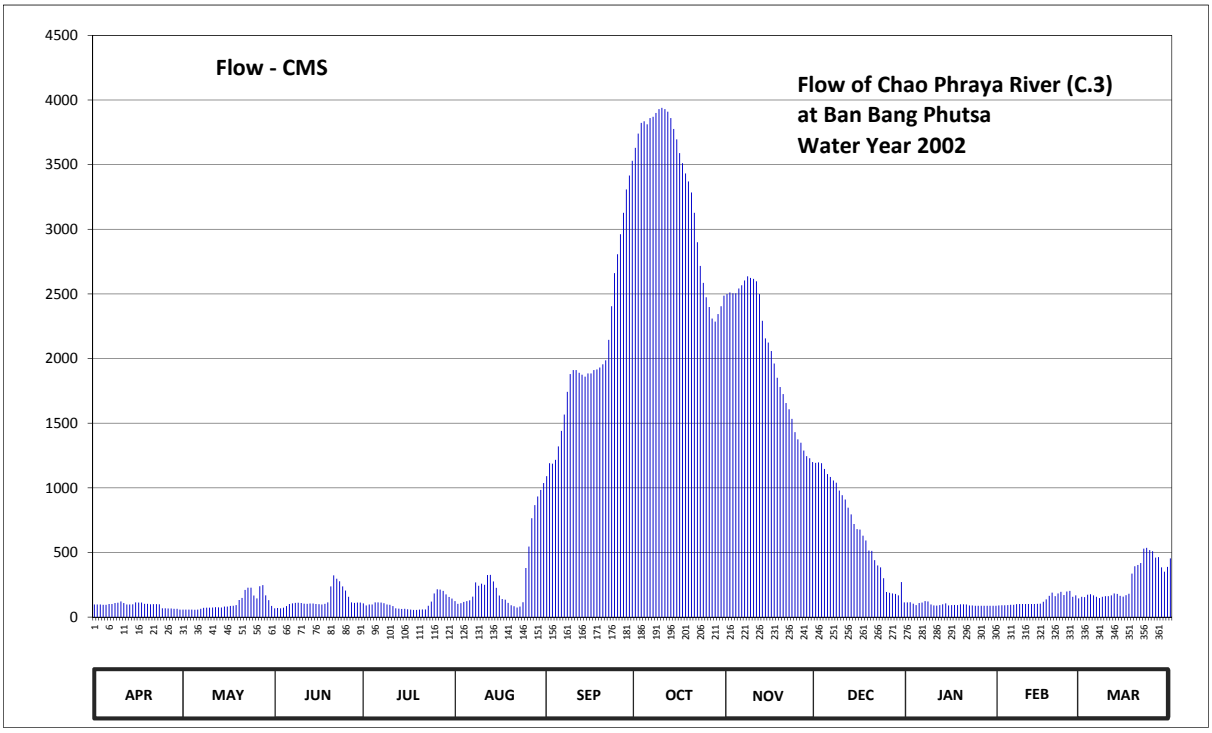
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	2.37	1.92	2.05	2.45	2.60	7.82	12.70	11.12	8.18	2.51	2.30	2.90	
2	2.37	1.92	2.07	2.30	2.41	8.17	12.80	11.14	8.19	2.53	2.31	2.88	
3	2.37	1.92	2.04	2.37	2.46	8.16	12.87	11.13	8.17	2.43	2.31	3.05	
4	2.35	1.92	2.10	2.37	2.55	8.26	12.88	11.13	8.02	2.33	2.33	3.08	
5	2.35	1.90	2.25	2.51	2.60	8.59	12.86	11.19	7.88	2.47	2.35	3.00	
6	2.40	1.92	2.40	2.52	2.66	8.95	12.90	11.23	7.80	2.50	2.35	2.90	
7	2.40	2.00	2.45	2.50	2.91	9.29	12.91	11.29	7.70	2.60	2.39	2.82	
8	2.47	2.09	2.48	2.46	3.78	9.71	12.94	11.34	7.63	2.58	2.40	2.90	
9	2.49	2.10	2.49	2.37	3.60	10.00	12.97	11.32	7.39	2.37	2.40	2.95	
10	2.58	2.10	2.47	2.35	3.72	10.06	12.98	11.31	7.25	2.30	2.40	2.95	
11	2.47	2.12	2.43	2.25	3.66	10.06	12.97	11.28	7.12	2.29	2.40	3.00	
12	2.37	2.15	2.42	2.04	4.14	10.02	12.95	11.12	6.85	2.32	2.40	3.13	
13	2.37	2.13	2.44	2.02	4.15	9.99	12.90	10.78	6.61	2.38	2.40	3.10	
14	2.38	2.12	2.44	1.98	3.83	9.96	12.83	10.54	6.25	2.45	2.41	2.97	
15	2.51	2.20	2.40	2.00	3.49	10.01	12.76	10.48	6.05	2.30	2.43	2.92	
16	2.50	2.21	2.39	1.95	2.99	10.01	12.66	10.35	6.03	2.33	2.56	3.02	
17	2.50	2.26	2.37	1.92	2.75	10.06	12.58	10.16	5.80	2.34	2.72	3.11	
18	2.42	2.28	2.42	1.89	2.70	10.07	12.49	9.94	5.61	2.33	2.97	4.21	
19	2.42	2.33	2.52	1.89	2.48	10.10	12.41	9.79	5.22	2.38	3.18	4.56	
20	2.38	2.68	3.57	1.91	2.31	10.15	12.30	9.67	5.21	2.38	2.95	4.62	
21	2.39	2.83	4.13	1.93	2.23	10.21	12.08	9.51	4.82	2.37	3.13	4.70	
22	2.39	3.36	3.97	1.94	2.12	10.52	11.77	9.39	4.60	2.30	3.23	5.30	
23	2.38	3.50	3.84	2.27	2.20	10.97	11.47	9.20	4.51	2.30	3.03	5.33	
24	2.05	3.50	3.57	2.57	2.53	11.38	11.26	8.92	3.99	2.27	3.25	5.24	
25	2.05	2.99	3.32	3.13	4.48	11.62	11.08	8.76	3.22	2.27	3.30	5.20	
26	2.03	2.79	2.90	3.40	5.38	11.85	10.96	8.68	3.17	2.27	2.90	4.93	
27	2.03	3.58	2.52	3.38	6.47	12.08	10.81	8.49	3.13	2.27	3.00	4.95	
28	2.00	3.64	2.48	3.30	6.94	12.33	10.77	8.35	3.10	2.28	2.79	4.51	
29	2.00	3.00	2.50	3.07	7.21	12.47	10.87	8.30	3.00	2.27		4.30	
30	1.92	2.67	2.50	2.89	7.41	12.60	10.97	8.20	3.80	2.27		4.53	
31		2.26		2.78	7.62		11.10		2.51	2.28		4.90	
Mean	2.32	2.46	2.66	2.41	3.75	10.18	12.22	10.14	5.77	2.36	2.66	3.81	
Max	2.58	3.64	4.13	3.40	7.62	12.60	12.98	11.34	8.19	2.60	3.30	5.33	12.98
Min	1.92	1.90	2.04	1.89	2.12	7.82	10.77	8.20	2.51	2.27	2.30	2.82	1.89

Annual Max Momentary Gage Height 12.98 m. (MSL.) , at 01.00 Hours , on Oct 11 , 2002

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed -1.48 m. (MSL.)

Left Bank Elevation 11.88 m. (MSL.) ,

Right Bank Elevation 12.04 m. (MSL.) , Drainage Are 118,752 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	97.70	58.20	68.30	106.60	123.30	1090.20	3630.00	2498.80	1193.40	113.30	90.00	156.70		
2	97.70	58.20	70.10	90.00	102.10	1190.40	3740.00	2511.30	1196.40	115.50	91.10	154.50		
3	97.70	58.20	67.50	97.70	107.70	1187.50	3824.00	2505.00	1190.40	104.30	91.10	173.40		
4	95.50	58.20	72.70	97.70	117.70	1217.10	3836.00	2505.00	1145.90	93.30	93.30	176.80		
5	95.50	56.70	85.70	113.30	123.30	1320.40	3812.00	2542.40	1106.80	108.80	95.50	167.90		
6	101.00	58.20	101.00	114.40	130.00	1441.00	3860.00	2567.40	1084.70	112.10	95.50	156.70		
7	101.00	64.00	106.60	112.10	157.80	1567.20	3870.00	2604.80	1057.00	123.30	99.90	147.80		
8	108.80	71.80	109.90	107.70	268.30	1742.60	3900.00	2635.90	1039.30	121.10	101.00	156.70		
9	111.00	72.70	111.00	97.70	242.00	1880.00	3930.00	2623.50	978.50	97.70	101.00	162.30		
10	121.10	72.70	108.80	95.50	259.10	1910.50	3940.00	2617.20	943.00	90.00	101.00	162.30		
11	108.80	74.40	104.30	85.70	250.40	1910.50	3930.00	2598.50	910.10	89.10	101.00	167.90		
12	97.70	77.00	103.20	67.50	324.90	1890.20	3910.00	2498.80	846.20	92.20	101.00	182.70		
13	97.70	75.30	105.50	65.70	326.50	1875.20	3860.00	2291.80	794.70	98.80	101.00	179.00		
14	98.80	74.40	105.50	62.60	275.90	1860.80	3776.00	2156.20	720.80	106.60	102.10	164.50		
15	113.30	81.30	101.00	64.00	226.80	1885.10	3696.00	2123.80	680.60	90.00	104.30	158.90		
16	112.10	82.20	99.90	60.40	166.70	1885.10	3590.00	2057.80	676.60	93.30	118.80	170.10		
17	112.10	86.50	97.70	58.20	140.00	1910.50	3512.00	1961.30	630.40	94.40	136.70	180.20		
18	103.20	88.30	103.20	56.00	134.40	1915.60	3432.20	1851.20	592.30	93.30	164.50	336.30		
19	103.20	93.30	114.40	56.00	109.90	1930.80	3370.20	1779.40	514.40	98.80	188.80	393.50		
20	98.80	132.20	237.80	57.50	91.10	1956.20	3285.00	1725.10	512.50	98.80	162.30	403.60		
21	99.90	148.90	323.20	58.90	83.90	1986.70	3128.30	1656.30	440.00	97.70	182.70	418.20		
22	99.90	210.80	297.40	59.70	74.40	2145.10	2899.90	1607.50	400.00	90.00	194.90	530.00		
23	98.80	228.00	277.50	87.40	81.30	2405.40	2717.00	1533.00	385.30	90.00	171.20	536.00		
24	68.30	228.00	237.80	119.90	115.50	2660.90	2586.10	1430.20	300.50	87.40	197.40	518.30		
25	68.30	166.70	206.00	182.70	380.40	2807.60	2473.90	1375.40	193.70	87.40	203.50	510.50		
26	66.60	144.50	156.70	215.80	546.10	2961.50	2399.20	1348.70	187.60	87.40	156.70	460.10		
27	66.60	239.20	114.40	213.30	765.00	3128.30	2309.40	1288.90	182.70	87.40	167.90	463.70		
28	64.00	247.60	109.90	203.50	866.60	3308.20	2286.00	1244.80	179.00	88.30	144.50	385.30		
29	64.00	167.90	112.10	175.70	932.90	3416.80	2344.50	1229.00	167.90	87.40		351.00		
30	58.20	131.10	112.10	155.60	983.50	3530.00	2405.40	1199.30	271.30	87.40		388.60		
31		86.50		143.30	1036.70		2486.30		113.30	88.30		454.60		
Total	2827.30	3493.00	4021.20	3282.10	9544.20	61917.40	102739.40	60568.30	20635.30	3013.40	3658.70	8968.10	284668.40	CMSDAY
Mean	94.20	112.70	134.00	105.90	307.90	2063.90	3314.20	2018.90	665.70	97.20	130.70	289.30	779.90	CMS
Max	121.10	247.60	323.20	215.80	1036.70	3530.00	3940.00	2635.90	1196.40	123.30	203.50	536.00	3940.00	CMS
Min	58.20	56.70	67.50	56.00	74.40	1090.20	2286.00	1199.30	113.30	87.40	90.00	147.80	56.00	CMS
Runoff	244.28	301.80	347.43	283.57	824.62	5349.66	8876.68	5233.10	1782.89	260.36	316.11	774.84	24595.35	MCM

Momentary Peak 3940.00 CMS. at 12.98 m. (MSL.) at 01.00 Hours , on Oct 11 , 2002

Runoff Yield 6.57 Liters/Second/Square KM. Momentary Peak Yield 33.178 Liters/Second/Square KM.

WATER YEAR : 2002

CHAO PHRAYA RIVER BASIN

Chao Phraya River at Ban Bang Luang, Chai Nat (C.13)

Lat 15 - 19 - 57 N Long 100 - 11 - 32 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** +16.400 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean 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 +16.410 m.(M.S.L.) and is including overbank flow.
General Description	Records good. Flow regulated by Chao Phraya Dam above gage site. Stage-discharge relation defined by 115 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

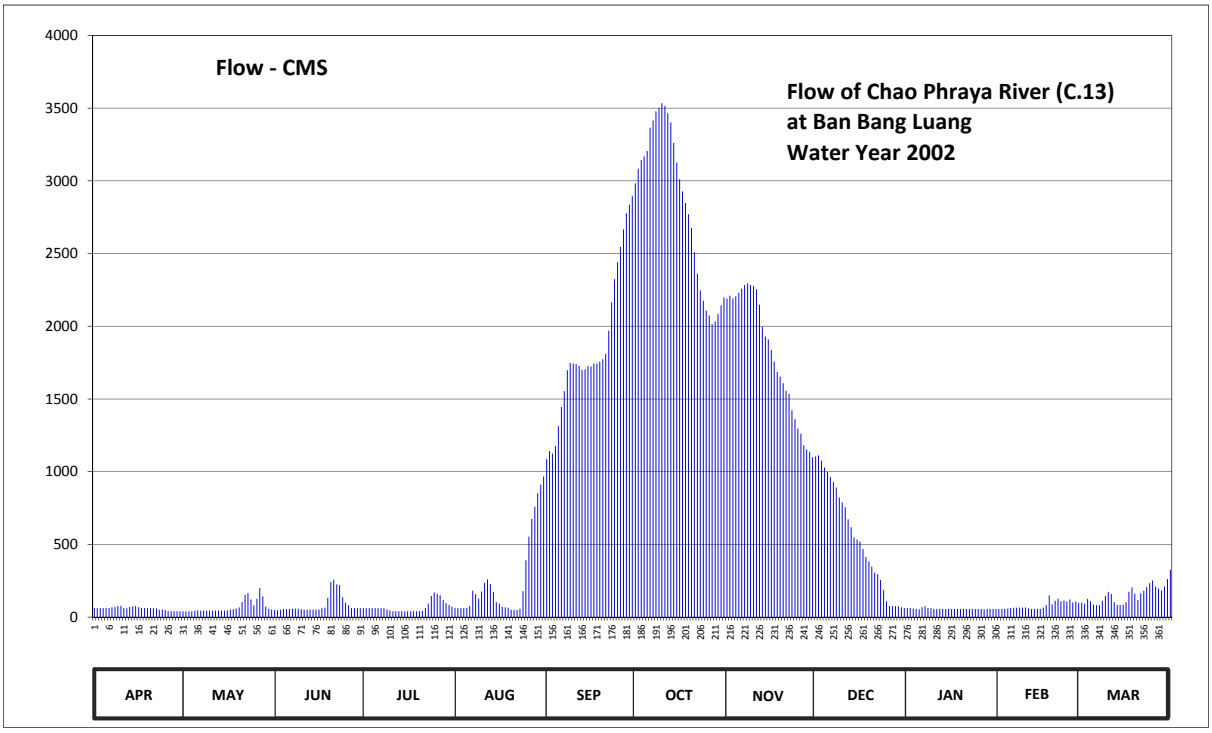
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	6.29	5.88	6.07	6.30	6.30	11.77	16.65	15.03	11.83	6.31	6.19	6.80	
2	6.30	5.88	6.02	6.30	6.30	11.95	16.79	15.08	11.85	6.34	6.19	6.72	
3	6.30	5.88	6.08	6.30	6.30	11.89	16.86	15.03	11.73	6.26	6.19	7.04	
4	6.29	5.88	6.19	6.30	6.30	12.06	16.89	15.07	11.57	6.19	6.25	6.90	
5	6.29	5.97	6.18	6.30	6.31	12.49	16.93	15.13	11.46	6.15	6.32	6.65	
6	6.32	6.02	6.20	6.30	6.52	12.90	17.08	15.20	11.34	6.41	6.35	6.60	
7	6.39	5.99	6.22	6.30	7.53	13.24	17.12	15.26	11.21	6.50	6.35	6.58	
8	6.43	5.99	6.24	6.27	7.35	13.68	17.17	15.29	11.08	6.31	6.36	6.92	
9	6.52	5.99	6.22	6.12	7.06	13.83	17.19	15.26	10.82	6.27	6.36	7.23	
10	6.54	5.99	6.16	6.00	7.49	13.82	17.21	15.25	10.69	6.19	6.37	7.47	
11	6.31	5.99	6.11	5.89	7.92	13.81	17.20	15.19	10.56	6.19	6.27	7.35	
12	6.28	5.99	6.10	5.90	8.08	13.77	17.16	14.92	10.23	6.19	6.19	6.82	
13	6.44	5.99	6.10	5.90	7.86	13.69	17.11	14.52	9.99	6.19	6.20	6.61	
14	6.50	5.99	6.10	5.90	7.47	13.70	16.99	14.34	9.66	6.19	6.19	6.61	
15	6.52	5.99	6.10	5.90	6.83	13.77	16.84	14.29	9.59	6.19	6.20	6.64	
16	6.41	6.03	6.12	5.90	6.72	13.76	16.69	14.09	9.52	6.19	6.37	6.82	
17	6.32	6.10	6.27	5.90	6.45	13.82	16.57	13.86	9.27	6.19	6.61	7.48	
18	6.32	6.15	6.36	5.90	6.40	13.82	16.44	13.65	8.99	6.19	7.27	7.70	
19	6.29	6.26	7.12	5.90	6.33	13.86	16.31	13.55	8.82	6.19	6.67	7.37	
20	6.29	6.39	7.95	5.90	6.08	13.91	16.14	13.41	8.62	6.19	6.93	6.97	
21	6.29	6.83	8.07	5.93	6.06	14.02	15.80	13.25	8.37	6.19	7.06	7.39	
22	6.25	7.32	7.85	6.30	6.04	14.45	15.45	13.18	8.30	6.19	6.89	7.52	
23	6.09	7.40	7.81	6.72	6.21	14.97	15.17	12.83	8.06	6.19	6.94	7.72	
24	6.10	7.00	7.15	7.23	7.51	15.36	14.99	12.64	7.57	6.19	6.86	7.90	
25	6.07	6.57	6.78	7.44	8.87	15.64	14.82	12.44	6.89	6.19	7.00	8.03	
26	5.91	7.04	6.58	7.37	9.69	15.88	14.73	12.33	6.52	6.19	6.80	7.74	
27	5.90	7.68	6.30	7.29	10.24	16.12	14.57	12.08	6.50	6.15	6.87	7.65	
28	5.90	7.21	6.30	6.97	10.57	16.32	14.62	11.98	6.50	6.16	6.78	7.54	
29	5.90	6.46	6.30	6.77	10.94	16.42	14.76	11.93	6.50	6.19		7.74	
30	5.90	6.22	6.30	6.61	11.15	16.52	14.91	11.81	6.40	6.19		8.10	
31		6.10		6.46	11.35		15.05		6.32	6.19		8.49	
Mean	6.26	6.33	6.51	6.34	7.62	14.04	16.20	13.93	9.25	6.22	6.54	7.26	
Max	6.54	7.68	8.07	7.44	11.35	16.52	17.21	15.29	11.85	6.50	7.27	8.49	17.21
Min	5.90	5.88	6.02	5.89	6.04	11.77	14.57	11.81	6.32	6.15	6.19	6.58	5.88

Annual Max Momentary Gage Height 17.21 m. (MSL.) , at 13.00 Hours , on Oct 10 , 2002

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed 2.03 m. (MSL.)

Left Bank Elevation 16.56 m. (MSL.) ,

Right Bank Elevation 16.40 m. (MSL.) , Drainage Are 117,187 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	61.20	39.70	49.70	61.80	61.80	1087.40	2983.00	2190.50	1105.70	62.30	56.00	100.00		
2	61.80	39.70	47.00	61.80	61.80	1142.20	3082.80	2210.10	1111.80	63.90	56.00	92.00		
3	61.80	39.70	50.20	61.80	61.80	1124.00	3142.80	2190.50	1075.10	59.70	56.00	125.00		
4	61.20	39.70	56.00	61.80	61.80	1175.80	3169.20	2206.20	1029.20	56.00	59.10	110.40		
5	61.20	44.40	55.40	61.80	62.30	1313.10	3205.60	2230.10	998.10	53.90	62.80	86.20		
6	62.80	47.00	56.50	61.80	76.20	1444.60	3366.00	2258.50	964.20	67.80	64.40	82.30		
7	66.50	45.50	57.50	61.80	181.10	1553.60	3415.00	2282.80	927.40	74.70	64.40	80.80		
8	69.30	45.50	58.60	60.20	158.30	1697.10	3477.50	2295.00	890.60	62.30	64.90	112.50		
9	76.20	45.50	57.50	52.30	127.00	1747.20	3502.50	2282.80	822.20	60.20	64.90	144.70		
10	77.70	45.50	54.40	46.00	176.10	1743.90	3534.50	2278.80	789.20	56.00	65.40	173.50		
11	62.30	45.50	51.80	40.20	236.10	1740.50	3515.00	2254.40	756.10	56.00	60.20	158.30		
12	60.70	45.50	51.20	40.80	259.10	1727.20	3465.00	2147.20	672.50	56.00	56.00	102.10		
13	70.10	45.50	51.20	40.80	227.40	1700.50	3402.50	1995.50	618.30	56.00	56.50	83.10		
14	74.70	45.50	51.20	40.80	173.50	1703.80	3260.80	1928.30	547.60	56.00	56.00	83.10		
15	76.20	45.50	51.20	40.80	103.10	1727.20	3125.20	1909.60	533.40	56.00	56.50	85.40		
16	67.80	47.60	52.30	40.80	92.00	1723.80	3011.00	1836.40	519.20	56.00	65.40	102.10		
17	62.80	51.20	60.20	40.80	70.80	1743.90	2928.20	1757.20	468.50	56.00	83.10	174.80		
18	62.80	53.90	64.90	40.80	67.00	1743.90	2846.90	1687.10	413.10	56.00	148.90	204.40		
19	61.20	59.70	133.30	40.80	63.30	1757.20	2770.90	1653.70	382.20	56.00	87.70	160.90		
20	61.20	66.50	240.40	40.80	50.20	1773.90	2677.00	1608.10	347.70	56.00	113.50	117.70		
21	61.20	103.10	257.70	42.30	49.10	1811.20	2510.00	1556.80	305.90	56.00	127.00	163.40		
22	59.10	154.50	226.00	61.80	48.10	1969.30	2361.30	1534.40	294.50	56.00	109.40	179.90		
23	50.70	164.70	220.20	92.00	57.00	2166.90	2246.30	1422.10	256.20	56.00	114.60	207.30		
24	51.20	120.80	136.40	144.70	178.60	2323.90	2174.70	1361.20	186.20	56.00	106.20	233.20		
25	49.70	80.00	98.00	169.70	390.80	2440.10	2107.90	1297.00	109.40	56.00	120.80	251.90		
26	41.30	125.00	80.80	160.90	553.70	2546.00	2073.90	1261.80	76.20	56.00	100.00	210.20		
27	40.80	201.50	61.80	151.00	675.00	2666.00	2014.10	1181.90	74.70	53.90	107.30	197.20		
28	40.80	142.60	61.80	117.70	758.70	2776.70	2032.80	1151.40	74.70	54.40	98.00	182.40		
29	40.80	71.60	61.80	97.00	852.70	2835.20	2085.10	1136.20	74.70	56.00		210.20		
30	40.80	57.50	61.80	83.10	910.40	2895.20	2143.30	1099.60	67.00	56.00		262.00		
31		51.20		71.60	967.00		2198.30		62.80	56.00		325.40		
Total	1795.90	2211.10	2616.80	2190.30	7811.80	55801.30	87829.10	54205.20	16554.40	1789.10	2281.00	4802.40	239888.40	CMSDAY
Mean	59.90	71.30	87.20	70.70	252.00	1860.00	2833.20	1806.80	534.00	57.70	81.50	154.90	657.20	CMS
Max	77.70	201.50	257.70	169.70	967.00	2895.20	3534.50	2295.00	1111.80	74.70	148.90	325.40	3534.50	CMS
Min	40.80	39.70	47.00	40.20	48.10	1087.40	2014.10	1099.60	62.80	53.90	56.00	80.80	39.70	CMS
Runoff	155.17	191.04	226.09	189.24	674.94	4821.23	7588.43	4683.33	1430.30	154.58	197.08	414.93	20726.36	MCM

Momentary Peak 3534.50 CMS. at 17.21 m. (MSL.) at 13.00 Hours , on Oct 10 , 2002

Runoff Yield 5.610 Liters/Second/Square KM. Momentary Peak Yield 30.161 Liters/Second/Square KM.

WATER YEAR : 2002

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

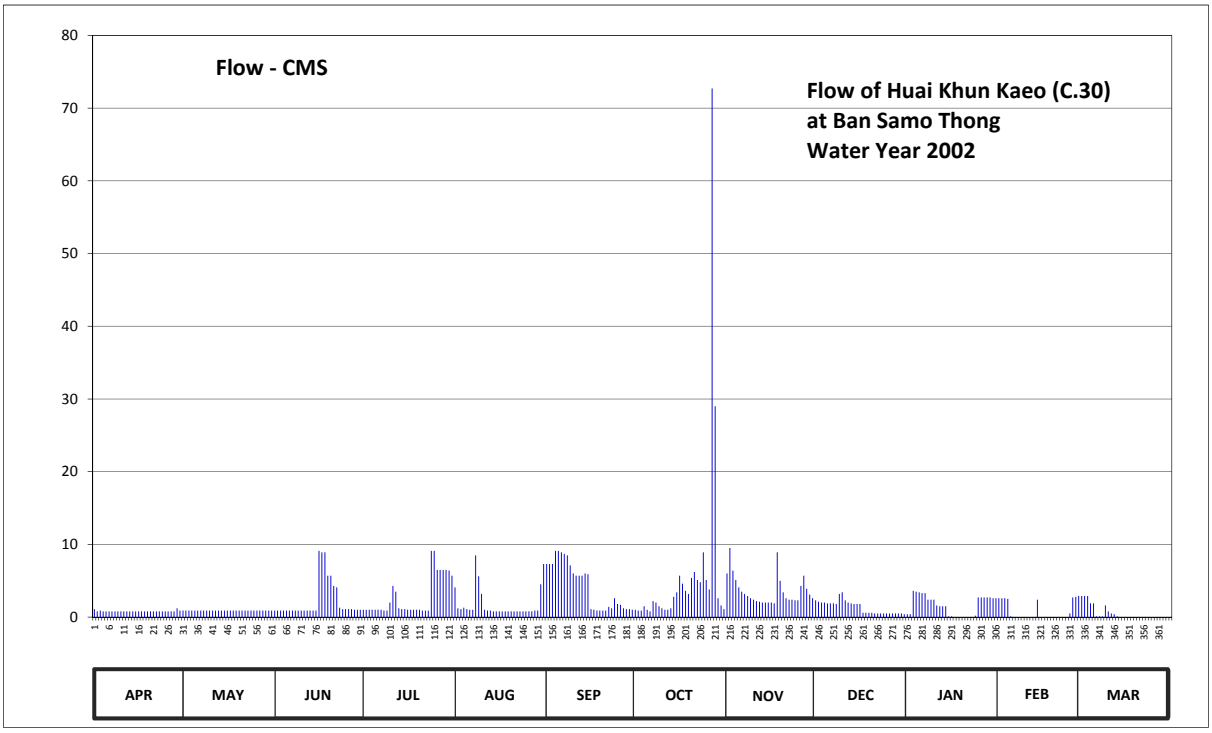
Location : on right bank in front of Wat Samo Thong School

	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** +113.380 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 mean 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 25 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	102.40	102.27	102.27	102.34	103.11	103.34	102.33	103.26	102.86	102.05	102.91	102.96	
2	102.26	102.27	102.27	102.33	102.44	103.34	102.31	103.45	102.83	102.05	102.91	102.96	
3	102.30	102.27	102.27	102.33	102.38	103.34	102.31	103.29	102.81	103.04	102.91	102.96	
4	102.26	102.27	102.27	102.33	102.48	103.43	102.55	103.19	102.79	103.03	102.90	102.73	
5	102.26	102.27	102.27	102.32	102.40	103.43	102.35	103.11	102.77	103.02	101.75	102.73	
6	102.25	102.27	102.27	102.32	102.34	103.42	102.25	103.03	102.75	103.01	101.71	101.83	
7	102.25	102.28	102.27	102.32	102.33	103.41	102.85	102.99	102.73	103.01	101.70	101.83	
8	102.24	102.29	102.27	102.31	103.40	103.40	102.80	102.96	102.71	102.88	101.69	101.83	
9	102.24	102.29	102.27	102.31	103.23	103.33	102.55	102.91	103.00	102.88	101.68	102.60	
10	102.24	102.29	102.27	102.80	103.00	103.26	102.42	102.88	103.02	102.88	101.68	102.22	
11	102.24	102.28	102.27	103.12	102.33	103.24	102.34	102.84	102.86	102.62	101.67	102.12	
12	102.24	102.28	102.27	103.03	102.29	103.24	102.32	102.83	102.78	102.58	101.67	102.02	
13	102.24	102.28	102.27	102.43	102.27	103.24	102.44	102.81	102.75	102.55	101.67	101.76	
14	102.24	102.28	102.27	102.37	102.26	103.26	102.94	102.80	102.72	102.55	102.88	101.72	
15	102.24	102.29	102.27	102.36	102.25	103.25	103.02	102.80	102.70	101.75	101.70	101.72	
16	102.24	102.29	103.43	102.34	102.24	102.36	103.24	102.78	102.69	101.75	101.69	101.72	
17	102.23	102.28	103.42	102.33	102.24	102.32	103.15	102.77	102.15	101.74	101.66	101.72	
18	102.23	102.28	103.42	102.33	102.24	102.30	103.04	103.42	102.14	101.72	101.64	101.72	
19	102.23	102.27	103.24	102.32	102.24	102.29	102.99	103.18	102.14	101.71	101.63	101.72	
20	102.23	102.27	103.24	102.32	102.24	102.27	103.21	103.02	102.13	101.71	101.62	101.71	
21	102.23	102.28	103.12	102.31	102.24	102.30	103.28	102.92	102.12	101.71	101.61	101.71	
22	102.23	102.28	103.11	102.30	102.23	102.54	103.19	102.88	102.09	101.70	101.61	101.71	
23	102.23	102.28	102.48	102.30	102.23	102.44	103.16	102.87	102.07	101.70	101.60	101.71	
24	102.23	102.28	102.39	103.43	102.23	102.92	103.42	102.86	102.07	101.90	101.65	101.71	
25	102.24	102.28	102.37	103.43	102.23	102.70	103.19	102.86	102.07	102.93	102.07	101.70	
26	102.25	102.28	102.36	103.30	102.23	102.65	103.07	103.12	102.07	102.93	102.93	101.70	
27	102.25	102.27	102.36	103.30	102.23	102.44	104.56	103.24	102.08	102.93	102.94	101.70	
28	102.25	102.27	102.35	103.30	102.27	102.40	103.98	103.08	102.10	102.93	102.96	101.69	
29	102.41	102.27	102.34	103.30	102.30	102.36	102.92	102.98	102.09	102.93		101.69	
30	102.28	102.27	102.34	103.29	103.14	102.34	102.60	102.92	102.07	102.92		101.68	
31		102.27		103.24	103.34		102.39		102.06	102.92		101.68	
Mean	102.26	102.28	102.53	102.65	102.46	102.89	102.88	103.00	102.46	102.45	102.04	101.98	
Max	102.41	102.29	103.43	103.43	103.40	103.43	104.56	103.45	103.02	103.04	102.96	102.96	104.56
Min	102.23	102.27	102.27	102.30	102.23	102.27	102.25	102.77	102.06	101.70	101.60	101.68	101.60

Annual Max Momentary Gage Height	104.93	m. (MSL.) ,	at 15.00 Hours , on Oct 27 , 2002		
Zero Gage at Bottom Elevation	101.53	m. (MSL.) ,	River Bed	101.28	m. (MSL.)
Left Bank Elevation	112.84	m. (MSL.) ,			
Right Bank Elevation	113.28	m. (MSL.) ,	Drainage Are	227	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.10	0.90	0.90	1.00	4.10	7.30	1.00	6.00	2.30	0.40	2.60	2.90		
2	0.80	0.90	0.90	1.00	1.20	7.30	0.90	9.50	2.10	0.40	2.60	2.90		
3	0.90	0.90	0.90	1.00	1.10	7.30	0.90	6.40	2.00	3.60	2.60	2.90		
4	0.80	0.90	0.90	1.00	1.30	9.10	1.50	5.10	2.00	3.50	2.50	1.90		
5	0.80	0.90	0.90	1.00	1.10	9.10	1.00	4.10	1.90	3.40	0.10	1.90		
6	0.80	0.90	0.90	1.00	1.00	8.90	0.80	3.50	1.90	3.30	0.00	0.10		
7	0.80	0.90	0.90	1.00	1.00	8.70	2.20	3.20	1.90	3.30	0.00	0.10		
8	0.80	0.90	0.90	0.90	8.50	8.50	2.00	2.90	1.80	2.40	0.00	0.10		
9	0.80	0.90	0.90	0.90	5.60	7.10	1.50	2.60	3.20	2.40	0.00	1.60		
10	0.80	0.90	0.90	2.00	3.20	6.00	1.20	2.40	3.40	2.40	0.00	0.80		
11	0.80	0.90	0.90	4.30	1.00	5.70	1.00	2.20	2.30	1.60	0.00	0.50		
12	0.80	0.90	0.90	3.50	0.90	5.70	1.00	2.10	2.00	1.50	0.00	0.40		
13	0.80	0.90	0.90	1.20	0.90	5.70	1.20	2.00	1.90	1.50	0.00	0.10		
14	0.80	0.90	0.90	1.10	0.80	6.00	2.80	2.00	1.80	1.50	2.40	0.00		
15	0.80	0.90	0.90	1.10	0.80	5.90	3.40	2.00	1.80	0.10	0.00	0.00		
16	0.80	0.90	9.10	1.00	0.80	1.10	5.70	2.00	1.80	0.10	0.00	0.00		
17	0.80	0.90	8.90	1.00	0.80	1.00	4.60	1.90	0.60	0.00	0.00	0.00		
18	0.80	0.90	8.90	1.00	0.80	0.90	3.60	8.90	0.60	0.00	0.00	0.00		
19	0.80	0.90	5.70	1.00	0.80	0.90	3.20	5.00	0.60	0.00	0.00	0.00		
20	0.80	0.90	5.70	1.00	0.80	0.90	5.40	3.40	0.60	0.00	0.00	0.00		
21	0.80	0.90	4.30	0.90	0.80	0.90	6.20	2.60	0.50	0.00	0.00	0.00		
22	0.80	0.90	4.10	0.90	0.80	1.40	5.10	2.40	0.50	0.00	0.00	0.00		
23	0.80	0.90	1.30	0.90	0.80	1.20	4.80	2.40	0.50	0.00	0.00	0.00		
24	0.80	0.90	1.10	9.10	0.80	2.60	8.90	2.30	0.50	0.20	0.00	0.00		
25	0.80	0.90	1.10	9.10	0.80	1.80	5.10	2.30	0.50	2.70	0.50	0.00		
26	0.80	0.90	1.10	6.50	0.80	1.70	3.80	4.30	0.50	2.70	2.70	0.00		
27	0.80	0.90	1.10	6.50	0.80	1.20	72.70	5.70	0.50	2.70	2.80	0.00		
28	0.80	0.90	1.00	6.50	0.90	1.10	29.00	3.90	0.50	2.70	2.90	0.00		
29	1.20	0.90	1.00	6.50	0.90	1.10	2.60	3.10	0.50	2.70		0.00		
30	0.90	0.90	1.00	6.40	4.50	1.00	1.60	2.60	0.50	2.60		0.00		
31		0.90		5.70	7.30		1.10		0.40	2.60		0.00		
Total	24.90	27.90	68.90	86.00	55.70	127.10	185.80	108.80	41.90	50.30	21.70	16.20	815.20	CMSDAY
Mean	0.80	0.90	2.30	2.80	1.80	4.20	6.00	3.60	1.40	1.60	0.80	0.50	2.20	CMS
Max	1.20	0.90	9.10	9.10	8.50	9.10	72.70	9.50	3.40	3.60	2.90	2.90	72.70	CMS
Min	0.80	0.90	0.90	0.90	0.80	0.90	0.80	1.90	0.40	0.00	0.00	0.00	0.00	CMS
Runoff	2.15	2.41	5.95	7.43	4.81	10.98	16.05	9.40	3.62	4.35	1.87	1.40	70.43	MCM

Momentary Peak 115.35 CMS. at 104.93 m. (MSL.) at 15.00 Hours , on Oct 27 , 2002

Runoff Yield 9.84 Liters/Second/Square KM. Momentary Peak Yield 508.150 Liters/Second/Square KM.

WATER YEAR : 2002

CHAO PHRAYA RIVER BASIN

Khlong Bang Luang at Ban Bang Luang Dod, Phra Nakhon Si Ayutthaya (C.36)

Lat 14 - 24 - 50 N Long 100 - 26 - 37 E

Location : on right bank at Ban Bang Luang Dod.

	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 mean 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.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records good. Stage-discharge relation defined by 51 discharge measurements made in 2002.				

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

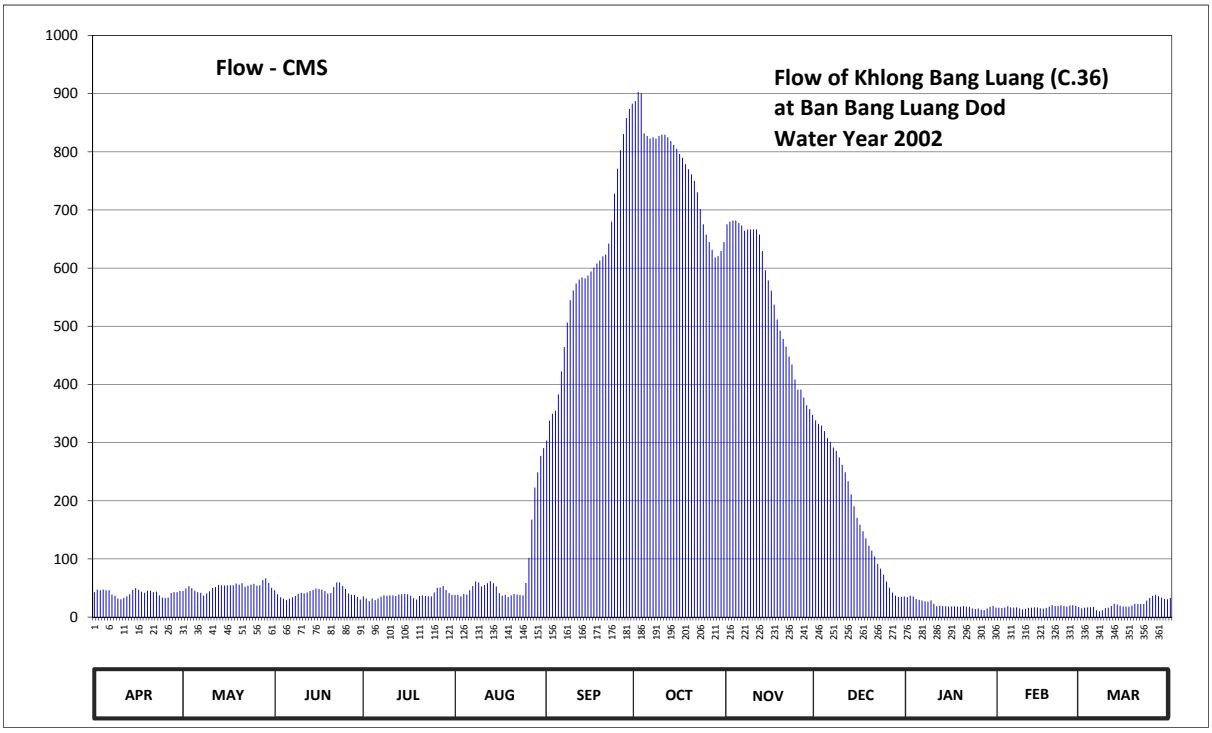
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.19	0.22	0.24	0.07	0.11	2.84	6.23	5.57	3.85	0.92	0.28	0.23	
2	0.26	0.29	0.13	0.00	0.11	3.10	6.30	5.59	3.81	1.00	0.25	0.28	
3	0.24	0.36	0.04	-0.08	0.07	3.19	6.29	5.60	3.79	0.96	0.29	0.31	
4	0.26	0.30	-0.01	0.00	0.14	3.23	6.28	5.60	3.73	0.82	0.39	0.32	
5	0.24	0.23	-0.05	-0.05	0.12	3.43	6.26	5.58	3.65	0.77	0.30	0.34	
6	0.24	0.19	0.00	0.00	0.24	3.69	6.24	5.56	3.61	0.74	0.28	0.08	
7	0.12	0.17	0.04	0.06	0.36	3.95	6.25	5.52	3.54	0.70	0.30	-0.01	
8	0.09	0.09	0.08	0.10	0.49	4.21	6.24	5.53	3.50	0.68	0.21	0.07	
9	0.00	0.15	0.14	0.09	0.46	4.45	6.26	5.53	3.42	0.75	0.14	0.24	
10	-0.02	0.21	0.17	0.10	0.35	4.55	6.27	5.53	3.33	0.57	0.19	0.28	
11	0.02	0.31	0.15	0.10	0.39	4.62	6.27	5.53	3.24	0.39	0.27	0.41	
12	0.07	0.33	0.18	0.08	0.44	4.66	6.25	5.49	3.13	0.43	0.28	0.56	
13	0.13	0.39	0.22	0.12	0.50	4.68	6.22	5.36	2.97	0.41	0.31	0.52	
14	0.25	0.38	0.25	0.13	0.44	4.67	6.19	5.21	2.82	0.39	0.29	0.43	
15	0.30	0.37	0.29	0.14	0.35	4.70	6.16	5.13	2.66	0.37	0.23	0.37	
16	0.25	0.38	0.28	0.13	0.16	4.74	6.12	5.05	2.56	0.38	0.20	0.37	
17	0.20	0.38	0.26	0.09	0.09	4.78	6.09	4.94	2.46	0.39	0.26	0.35	
18	0.17	0.38	0.22	0.01	0.11	4.82	6.04	4.82	2.34	0.37	0.35	0.45	
19	0.23	0.43	0.15	-0.03	0.05	4.85	6.00	4.73	2.21	0.35	0.48	0.56	
20	0.23	0.40	0.16	0.08	0.10	4.89	5.96	4.66	2.12	0.40	0.41	0.55	
21	0.19	0.44	0.33	0.10	0.14	4.91	5.91	4.59	2.01	0.37	0.42	0.55	
22	0.20	0.34	0.46	0.08	0.12	5.02	5.82	4.50	1.87	0.34	0.47	0.55	
23	0.10	0.37	0.46	0.07	0.11	5.23	5.69	4.42	1.78	0.21	0.40	0.73	
24	0.03	0.40	0.36	0.07	0.10	5.48	5.57	4.27	1.66	0.17	0.37	0.88	
25	0.02	0.42	0.28	0.18	0.45	5.69	5.49	4.17	1.50	0.21	0.45	0.99	
26	0.03	0.37	0.15	0.31	1.00	5.84	5.43	4.17	1.30	0.12	0.48	1.05	
27	0.16	0.38	0.11	0.32	1.69	5.97	5.37	4.09	1.14	0.09	0.42	0.97	
28	0.19	0.52	0.11	0.36	2.20	6.10	5.31	4.01	1.00	0.22	0.33	0.90	
29	0.19	0.56	0.05	0.25	2.42	6.17	5.32	3.97	0.93	0.34		0.83	
30	0.22	0.45	-0.03	0.16	2.64	6.21	5.36	3.91	0.94	0.42		0.81	
31		0.31		0.11	2.74		5.43		0.96	0.28		0.88	
Mean	0.16	0.34	0.17	0.10	0.60	4.69	5.96	4.95	2.51	0.47	0.32	0.51	
Max	0.30	0.56	0.46	0.36	2.74	6.21	6.30	5.60	3.85	1.00	0.48	1.05	6.30
Min	-0.02	0.09	-0.05	-0.08	0.05	3.10	5.31	3.91	0.93	0.09	0.14	-0.01	-0.08

Annual Max Momentary Gage Height 6.31 m. (MSL.) , at 08.00 Hours , on Oct 2 , 2002

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed -4.61 m. (MSL.)

Left Bank Elevation 7.05 m. (MSL.) ,

Right Bank Elevation 7.69 m. (MSL.) , Drainage Area Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	43.01	44.85	46.07	35.85	38.11	303.63	887.03	675.40	338.33	34.30	16.23	15.15		
2	47.30	49.14	39.34	32.00	38.11	337.75	902.67	679.80	332.20	36.83	15.58	16.23		
3	46.07	53.42	34.20	27.60	35.85	349.56	900.43	682.00	329.13	35.57	16.45	16.88		
4	47.30	49.75	31.45	32.00	39.95	354.81	831.60	682.00	319.93	31.13	18.62	17.10		
5	46.07	45.46	29.25	29.25	38.72	382.85	827.20	677.60	307.67	29.55	16.67	17.53		
6	46.07	43.01	32.00	32.00	46.07	422.45	822.80	673.20	301.53	28.60	16.23	11.90		
7	38.72	41.79	34.20	35.30	53.42	464.31	825.00	664.40	291.50	27.33	16.67	9.95		
8	36.95	36.95	36.40	37.50	61.39	506.24	822.80	666.60	285.83	26.70	14.72	11.68		
9	32.00	40.56	39.95	36.95	59.55	544.94	827.20	666.60	274.50	28.92	13.20	15.37		
10	30.90	44.24	41.79	37.50	52.81	561.58	829.40	666.60	261.75	23.22	14.28	16.23		
11	33.10	50.36	40.56	37.50	55.26	573.60	829.40	666.60	249.00	18.62	16.02	19.05		
12	35.85	51.59	42.40	36.40	58.32	580.47	825.00	657.80	233.42	19.48	16.23	22.90		
13	39.34	55.26	44.85	38.72	62.00	583.90	818.40	629.20	210.95	19.05	16.88	21.63		
14	46.69	54.65	46.69	39.34	58.32	582.18	811.80	596.20	190.70	18.62	16.45	19.48		
15	49.75	54.04	49.14	39.95	52.81	587.33	805.20	578.60	170.40	18.18	15.15	18.18		
16	46.69	54.65	48.52	39.34	41.17	594.20	796.40	561.00	158.90	18.40	14.50	18.18		
17	43.62	54.65	47.30	36.95	36.95	601.07	789.80	537.20	147.80	18.62	15.80	17.75		
18	41.79	54.65	44.85	32.55	38.11	607.93	778.80	511.60	135.20	18.18	17.75	19.92		
19	45.46	57.71	40.56	30.35	34.75	613.08	770.00	492.40	122.72	17.75	20.57	22.90		
20	45.46	55.87	41.17	36.40	37.50	619.95	761.20	478.40	114.44	18.83	19.05	22.58		
21	43.01	58.32	51.59	37.50	39.95	623.38	750.20	465.10	104.32	18.18	19.27	22.58		
22	43.62	52.20	59.55	36.40	38.72	642.27	730.40	448.00	91.44	17.53	20.35	22.58		
23	37.50	54.04	59.55	35.85	38.11	680.05	701.80	434.20	83.20	14.72	18.83	28.28		
24	33.65	55.87	53.42	35.85	37.50	728.10	675.40	408.33	73.00	13.85	18.18	33.03		
25	33.10	57.10	48.52	42.40	58.94	770.95	657.80	391.08	61.00	14.72	19.92	36.52		
26	33.65	54.04	40.56	50.36	102.00	802.75	644.60	391.08	50.50	12.77	20.57	38.42		
27	41.17	54.65	38.11	50.97	167.48	830.38	631.40	377.35	42.10	12.12	19.27	35.88		
28	43.01	63.50	38.11	53.42	222.75	858.00	618.20	364.15	36.83	14.93	17.32	33.67		
29	43.01	66.50	34.75	46.69	249.00	873.63	620.40	357.55	34.62	17.53		31.45		
30	44.85	58.94	30.35	41.17	277.38	882.57	629.20	347.65	34.93	19.27		30.82		
31		50.36		38.11	290.50		644.60		35.57	16.23		33.03		
Total	1238.71	1618.12	1265.20	1172.17	2461.50	17863.91	23766.13	16427.69	5423.41	659.73	480.76	696.85	73074.18	CMSDAY
Mean	41.29	52.20	42.17	37.81	79.40	595.46	766.65	547.59	174.95	21.28	17.17	22.48	200.20	CMS
Max	49.75	66.50	59.55	53.42	290.50	882.57	902.67	682.00	338.33	36.83	20.57	38.42	902.67	CMS
Min	30.90	36.95	29.25	27.60	34.75	303.63	618.20	347.65	34.62	12.12	13.20	9.95	9.95	CMS
Runoff	107.02	139.81	109.31	101.28	212.67	1543.44	2053.39	1419.35	468.58	57.00	41.54	60.21	6313.61	MCM

Momentary Peak 904.90 CMS. at 6.31 m. (MSL.) at 08.00 Hours , on Oct 2 , 2002

Runoff Yield ***** Liters/Second/Square KM. Momentary Peak Yield ***** Liters/Second/Square KM.

WATER YEAR : 2002

CHAO PHRAYA RIVER BASIN

Khlong Bang Ban at Ban Bang Ban, Phra Nakhon Si Ayutthaya (C.37)

Lat 14 - 21 - 28 N Long 100 - 29 - 03 E

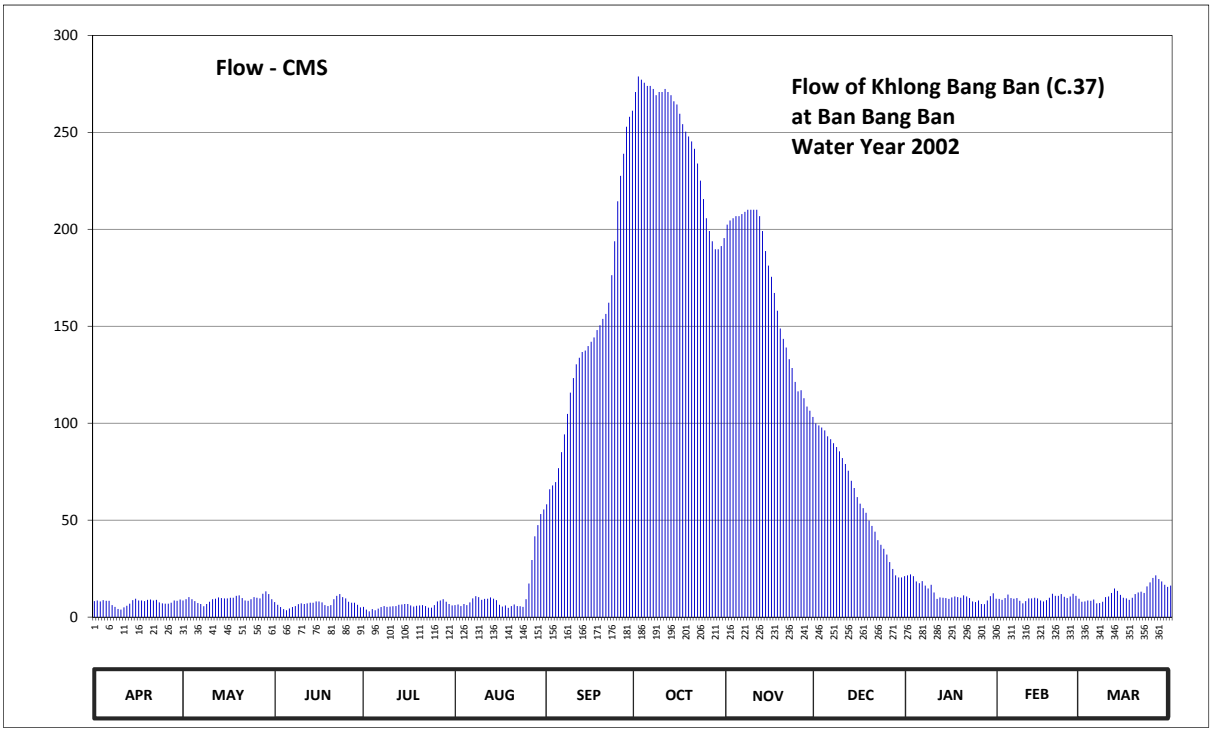
Location : on left bank at the bridge.

	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** +7.861 m. (MSL.)		
Gage Reading Frequency	Recording				
Basis of Mean Daily Gage Height	Arithmetic mean 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.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records good. Stage-discharge relation defined by 40 discharge measurements made in 2002.				

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.24	0.26	0.21	0.05	0.11	2.14	5.08	4.54	3.14	0.91	0.31	0.22	
2	0.26	0.30	0.12	-0.06	0.13	2.37	5.13	4.56	3.12	0.93	0.28	0.23	
3	0.23	0.37	0.04	-0.15	0.08	2.43	5.12	4.57	3.10	0.89	0.34	0.26	
4	0.27	0.30	-0.04	-0.04	0.15	2.48	5.11	4.58	3.07	0.76	0.44	0.25	
5	0.25	0.24	-0.09	-0.09	0.11	2.65	5.10	4.58	3.01	0.72	0.34	0.29	
6	0.25	0.18	-0.01	-0.02	0.20	2.84	5.10	4.59	2.98	0.77	0.32	0.17	
7	0.11	0.15	0.04	0.04	0.33	3.03	5.09	4.60	2.94	0.66	0.34	0.18	
8	0.05	0.07	0.08	0.08	0.40	3.23	5.07	4.61	2.90	0.59	0.25	0.22	
9	-0.03	0.15	0.14	0.05	0.37	3.43	5.08	4.61	2.85	0.68	0.17	0.37	
10	-0.06	0.22	0.17	0.06	0.28	3.55	5.08	4.61	2.77	0.49	0.24	0.39	
11	0.03	0.30	0.15	0.07	0.31	3.66	5.09	4.61	2.70	0.31	0.33	0.48	
12	0.09	0.32	0.17	0.08	0.32	3.71	5.08	4.58	2.62	0.36	0.33	0.59	
13	0.16	0.36	0.19	0.12	0.36	3.75	5.07	4.51	2.50	0.35	0.35	0.53	
14	0.27	0.34	0.19	0.13	0.32	3.76	5.05	4.39	2.39	0.34	0.33	0.43	
15	0.32	0.33	0.23	0.15	0.27	3.79	5.04	4.30	2.25	0.31	0.26	0.35	
16	0.26	0.33	0.23	0.15	0.12	3.82	5.01	4.23	2.15	0.36	0.23	0.33	
17	0.26	0.35	0.20	0.10	0.06	3.85	4.97	4.13	2.08	0.39	0.27	0.28	
18	0.24	0.35	0.11	0.06	0.10	3.90	4.94	4.02	2.01	0.37	0.35	0.35	
19	0.28	0.41	0.08	0.09	0.01	3.93	4.92	3.91	1.89	0.35	0.46	0.45	
20	0.29	0.42	0.11	0.10	0.08	3.97	4.90	3.84	1.81	0.42	0.41	0.49	
21	0.26	0.34	0.30	0.11	0.13	4.00	4.87	3.78	1.72	0.39	0.41	0.51	
22	0.28	0.26	0.41	0.08	0.08	4.07	4.81	3.70	1.59	0.34	0.45	0.48	
23	0.20	0.25	0.45	0.02	0.07	4.24	4.74	3.63	1.51	0.23	0.38	0.64	
24	0.17	0.30	0.37	0.02	0.05	4.45	4.66	3.52	1.44	0.21	0.34	0.74	
25	0.16	0.37	0.33	0.11	0.30	4.65	4.57	3.44	1.33	0.26	0.39	0.85	
26	0.16	0.35	0.22	0.23	0.71	4.76	4.51	3.45	1.18	0.15	0.46	0.91	
27	0.19	0.33	0.19	0.26	1.22	4.85	4.45	3.38	1.04	0.14	0.41	0.82	
28	0.26	0.46	0.19	0.30	1.65	4.96	4.40	3.30	0.91	0.26	0.32	0.76	
29	0.25	0.52	0.12	0.22	1.82	5.00	4.40	3.26	0.86	0.40		0.68	
30	0.29	0.45	0.03	0.15	1.99	5.02	4.42	3.20	0.86	0.47		0.63	
31		0.30		0.10	2.06		4.47		0.89	0.32		0.66	
Mean	0.20	0.31	0.16	0.08	0.46	3.74	4.88	4.10	2.12	0.46	0.34	0.47	
Max	0.32	0.52	0.45	0.30	2.06	5.02	5.13	4.61	3.14	0.93	0.46	0.91	5.13
Min	-0.06	0.07	-0.09	-0.15	0.01	2.14	4.40	3.20	0.86	0.14	0.17	0.17	-0.15

Annual Max Momentary Gage Height	5.13	m. (MSL.) ,	at 12.00 Hours , on Oct 2 , 2002		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	-2.76	m. (MSL.)
Left Bank Elevation	7.52	m. (MSL.) ,			
Right Bank Elevation	6.40	m. (MSL.) ,	Drainage Area	Square Kilometers	



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	8.24	8.56	7.76	5.30	6.16	58.18	270.80	202.40	99.96	21.55	9.36	7.92		
2	8.56	9.20	6.32	3.88	6.48	65.92	278.80	204.60	98.88	22.06	8.88	8.08		
3	8.08	10.32	5.16	2.98	5.72	67.94	277.20	205.70	97.80	21.09	9.84	8.56		
4	8.72	9.20	4.12	4.12	6.80	69.63	275.60	206.80	96.29	18.36	11.64	8.40		
5	8.40	8.24	3.52	3.52	6.16	76.82	274.00	206.80	93.26	17.52	9.84	9.04		
6	8.40	7.28	4.48	4.36	7.60	85.09	274.00	207.90	91.74	18.57	9.52	7.12		
7	6.16	6.80	5.16	5.16	9.68	94.27	272.40	209.00	89.72	16.26	9.84	7.28		
8	5.30	5.58	5.72	5.72	10.80	104.82	269.20	210.10	87.70	14.79	8.40	7.92		
9	4.24	6.80	6.64	5.30	10.32	115.80	270.80	210.10	85.52	16.68	7.12	10.32		
10	3.88	7.92	7.12	5.44	8.88	123.25	270.80	210.10	82.04	12.69	8.24	10.64		
11	5.02	9.20	6.80	5.58	9.36	130.40	272.40	210.10	79.00	9.36	9.68	12.48		
12	5.86	9.52	7.12	5.72	9.52	133.75	270.80	206.80	75.52	10.16	9.68	14.79		
13	6.96	10.16	7.44	6.32	10.16	136.75	269.20	199.10	70.30	10.00	10.00	13.53		
14	8.72	9.84	7.44	6.48	9.52	137.50	266.00	188.83	66.60	9.84	9.68	11.43		
15	9.52	9.68	8.08	6.80	8.72	139.75	264.40	181.33	61.88	9.36	8.56	10.00		
16	8.56	9.68	8.08	6.80	6.32	142.00	259.60	175.50	58.52	10.16	8.08	9.68		
17	8.56	10.00	7.60	6.00	5.44	144.25	254.20	167.17	56.16	10.64	8.72	8.88		
18	8.24	10.00	6.16	5.44	6.00	148.00	250.40	158.00	53.80	10.32	10.00	10.00		
19	8.88	11.01	5.72	5.86	4.74	150.50	247.87	148.83	49.76	10.00	12.06	11.85		
20	9.04	11.22	6.16	6.00	5.72	153.83	245.33	143.50	47.07	11.22	11.01	12.69		
21	8.56	9.84	9.20	6.16	6.48	156.33	241.53	139.00	44.04	10.64	11.01	13.11		
22	8.88	8.56	11.01	5.72	5.72	162.17	233.93	133.00	39.70	9.84	11.85	12.48		
23	7.60	8.40	11.85	4.88	5.58	176.33	225.07	128.45	37.30	8.08	10.48	15.84		
24	7.12	9.20	10.32	4.88	5.30	193.83	215.60	121.30	35.20	7.76	9.84	17.94		
25	6.96	10.32	9.68	6.16	9.20	214.50	205.70	116.40	32.22	8.56	10.64	20.25		
26	6.96	10.00	7.92	8.08	17.31	227.60	199.10	117.00	28.41	6.80	12.06	21.55		
27	7.44	9.68	7.44	8.56	29.43	239.00	193.83	112.92	24.86	6.64	11.01	19.62		
28	8.56	12.06	7.44	9.20	41.68	252.93	189.67	108.60	21.55	8.56	9.52	18.36		
29	8.40	13.32	6.32	7.92	47.41	258.00	189.67	106.44	20.46	10.80		16.68		
30	9.04	11.85	5.02	6.80	53.13	261.20	191.33	103.20	20.46	12.27		15.63		
31		9.20		6.00	55.49		195.50		21.09	9.52		16.26		
Total	228.86	292.64	212.80	181.14	430.83	4420.34	7614.73	5038.97	1866.81	380.10	276.56	388.33	21332.11	CMSDAY
Mean	7.63	9.44	7.09	5.84	13.90	147.34	245.64	167.97	60.22	12.26	9.88	12.53	58.44	CMS
Max	9.52	13.32	11.85	9.20	55.49	261.20	278.80	210.10	99.96	22.06	12.06	21.55	278.80	CMS
Min	3.88	5.58	3.52	2.98	4.74	58.18	189.67	103.20	20.46	6.64	7.12	7.12	2.98	CMS
Runoff	19.77	25.28	18.39	15.65	37.22	381.92	657.91	435.37	161.29	32.84	23.89	33.55	1843.09	MCM

Momentary Peak 278.80 CMS. at 5.13 m. (MSL.) at 12.00 Hours , on Oct 2 , 2002

Runoff Yield ***** Liters/Second/Square KM. Momentary Peak Yield ***** Liters/Second/Square KM.

WATER YEAR : 2002

SAKAE KRANG RIVER BASIN

Nam Mae Wong at Ban San Chao Kai To, Nakhon Sawan (Ct.4)

Lat 15 - 47 - 01 N Long 99 - 40 - 55 E

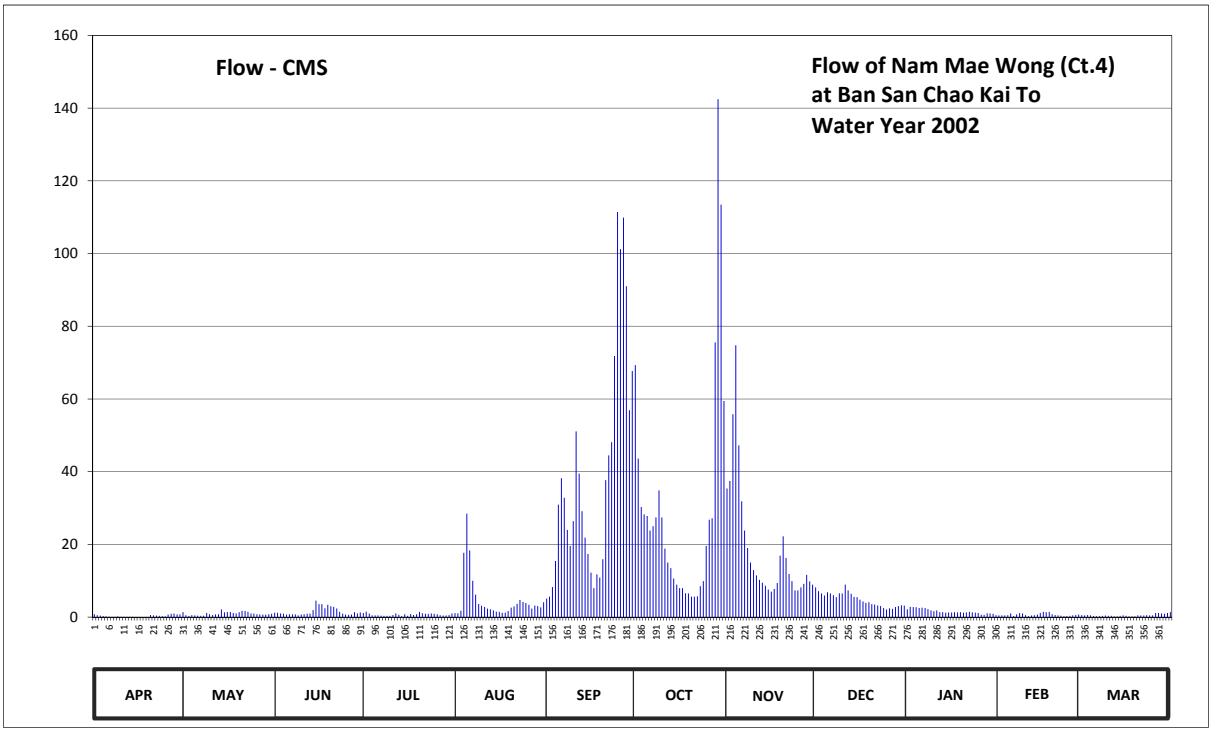
Location : on left bank at Ban San Chao Kai To.

	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** +75.250 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 mean 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 21 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	66.08	66.26	66.22	66.18	66.17	66.88	69.84	68.82	67.23	66.42	65.98	65.99	
2	65.99	65.99	66.20	66.30	66.16	66.95	69.12	68.90	67.13	66.54	65.98	65.98	
3	65.96	65.92	66.15	66.13	66.35	67.24	68.61	69.49	67.06	66.53	65.97	66.01	
4	65.92	65.99	66.12	65.98	67.95	67.81	68.52	69.97	66.99	66.52	65.99	65.97	
5	65.89	65.98	66.04	65.98	68.53	68.64	68.50	69.24	67.10	66.48	66.14	65.92	
6	65.86	65.95	66.08	65.97	67.99	68.93	68.30	68.68	67.06	66.50	65.92	65.91	
7	65.83	65.94	66.06	65.95	67.40	68.72	68.36	68.30	67.00	66.48	66.06	65.91	
8	65.84	65.95	66.06	65.94	67.02	68.31	68.48	68.03	66.93	66.43	66.17	65.93	
9	65.88	66.18	65.97	65.94	66.68	68.06	68.80	67.78	67.07	66.36	66.15	65.96	
10	65.83	66.07	66.04	65.93	66.59	68.43	68.48	67.63	67.06	66.32	65.99	65.93	
11	65.83	66.01	66.07	66.00	66.54	69.36	68.02	67.52	67.30	66.36	65.90	65.94	
12	65.83	66.06	66.12	66.15	66.45	68.98	67.78	67.42	67.15	66.25	65.96	65.89	
13	65.83	66.07	66.13	66.03	66.42	68.56	67.67	67.35	67.05	66.25	65.99	65.89	
14	65.83	66.41	66.38	65.91	66.36	68.19	67.45	67.27	66.94	66.22	66.04	65.93	
15	65.82	66.24	66.81	66.07	66.30	67.93	67.30	67.17	66.93	66.23	66.19	65.97	
16	65.82	66.27	66.67	65.93	66.28	67.58	67.21	67.12	66.84	66.23	66.28	65.93	
17	65.82	66.27	66.67	66.09	66.20	67.21	67.21	67.19	66.78	66.25	66.26	65.89	
18	65.82	66.18	66.47	66.01	66.22	67.54	67.07	67.34	66.73	66.23	66.29	65.89	
19	65.82	66.14	66.64	66.07	66.33	67.47	67.06	67.90	66.75	66.25	66.07	65.89	
20	66.01	66.26	66.57	66.29	66.50	67.84	66.95	68.21	66.67	66.22	66.00	65.97	
21	65.98	66.34	66.54	66.16	66.56	68.91	66.95	67.86	66.66	66.24	65.97	65.96	
22	65.96	66.33	66.46	66.12	66.69	69.15	66.96	67.55	66.61	66.29	65.95	65.96	
23	65.94	66.29	66.29	66.10	66.83	69.27	67.26	67.39	66.58	66.24	65.91	65.99	
24	65.91	66.15	66.13	66.15	66.76	69.90	67.39	67.15	66.48	66.22	65.92	65.98	
25	65.88	66.13	66.05	66.12	66.72	70.72	68.06	67.15	66.41	66.18	65.93	65.97	
26	66.05	66.07	66.02	66.07	66.64	70.52	68.45	67.23	66.47	66.03	65.97	66.19	
27	66.12	66.06	66.05	65.99	66.45	70.69	68.47	67.32	66.44	66.02	66.00	66.19	
28	66.13	66.05	66.25	65.96	66.60	70.32	69.99	67.53	66.53	66.16	66.04	66.14	
29	66.06	66.05	66.14	65.96	66.58	69.52	71.23	67.38	66.58	66.14		66.12	
30	66.06	66.07	66.23	66.01	66.51	69.80	70.76	67.30	66.62	66.12		66.19	
31		66.11		66.15	66.75		69.59		66.60	65.99		66.25	
Mean	65.92	66.12	66.25	66.05	66.69	68.65	68.25	67.84	66.83	66.28	66.04	65.99	
Max	66.13	66.41	66.81	66.30	68.53	70.72	71.23	69.97	67.30	66.54	66.29	66.25	71.23
Min	65.82	65.92	65.97	65.91	66.16	66.88	66.95	67.12	66.41	65.99	65.90	65.89	65.82

Annual Max Momentary Gage Height	71.25	m. (MSL.) ,	at 15.00 Hours , on Oct 29 , 2002		
Zero Gage at Bottom Elevation	65.88	m. (MSL.) ,	River Bed	65.67	m. (MSL.)
Left Bank Elevation	72.18	m. (MSL.) ,			
Right Bank Elevation	72.19	m. (MSL.) ,	Drainage Are	1,386	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.81	1.37	1.25	1.12	1.09	5.10	69.33	35.38	8.19	2.16	0.50	0.53		
2	0.53	0.53	1.19	1.50	1.06	5.64	43.60	37.43	7.12	2.82	0.50	0.50		
3	0.44	0.31	1.03	0.97	1.77	8.29	30.28	55.80	6.49	2.77	0.47	0.59		
4	0.31	0.53	0.94	0.50	17.70	15.46	28.25	74.75	5.95	2.71	0.53	0.47		
5	0.22	0.50	0.69	0.50	28.48	30.95	27.80	47.20	6.80	2.49	1.00	0.31		
6	0.15	0.41	0.81	0.47	18.34	38.20	23.80	31.85	6.49	2.60	0.31	0.28		
7	0.07	0.37	0.75	0.41	10.00	32.81	25.00	23.80	6.03	2.49	0.75	0.28		
8	0.10	0.41	0.75	0.37	6.18	24.00	27.40	19.03	5.48	2.21	1.09	0.34		
9	0.20	1.12	0.47	0.37	3.59	19.56	34.87	15.02	6.57	1.83	1.03	0.44		
10	0.07	0.78	0.69	0.34	3.10	26.40	27.40	12.92	6.49	1.61	0.53	0.34		
11	0.07	0.59	0.78	0.56	2.82	51.10	18.85	11.50	8.93	1.83	0.25	0.37		
12	0.07	0.75	0.94	1.03	2.32	39.49	15.02	10.25	7.33	1.34	0.44	0.22		
13	0.07	0.78	0.97	0.66	2.16	29.15	13.48	9.47	6.41	1.34	0.53	0.22		
14	0.07	2.10	1.94	0.28	1.83	21.86	10.62	8.61	5.56	1.25	0.69	0.34		
15	0.05	1.31	4.55	0.78	1.50	17.38	8.93	7.55	5.48	1.28	1.16	0.47		
16	0.05	1.41	3.54	0.34	1.44	12.25	7.97	7.01	4.79	1.28	1.44	0.34		
17	0.05	1.41	3.54	0.84	1.19	7.97	7.97	7.76	4.32	1.34	1.37	0.22		
18	0.05	1.12	2.43	0.59	1.25	11.75	6.57	9.36	3.93	1.28	1.47	0.22		
19	0.05	1.00	3.37	0.78	1.66	10.87	6.49	16.90	4.09	1.34	0.78	0.22		
20	0.59	1.37	2.99	1.47	2.60	15.94	5.64	22.21	3.54	1.25	0.56	0.47		
21	0.50	1.72	2.82	1.06	2.93	37.69	5.64	16.26	3.48	1.31	0.47	0.44		
22	0.44	1.66	2.38	0.94	3.65	44.50	5.72	11.88	3.21	1.47	0.41	0.44		
23	0.37	1.47	1.47	0.87	4.71	48.10	8.51	9.89	3.04	1.31	0.28	0.53		
24	0.28	1.03	0.97	1.03	4.17	71.83	9.89	7.33	2.49	1.25	0.31	0.50		
25	0.20	0.97	0.72	0.94	3.86	111.42	19.56	7.33	2.10	1.12	0.34	0.47		
26	0.72	0.78	0.62	0.78	3.37	101.22	26.80	8.19	2.43	0.66	0.47	1.16		
27	0.94	0.75	0.72	0.53	2.32	109.89	27.20	9.15	2.27	0.62	0.56	1.16		
28	0.97	0.72	1.34	0.44	3.15	91.02	75.58	11.63	2.77	1.06	0.69	1.00		
29	0.75	0.72	1.00	0.44	3.04	56.90	142.45	9.79	3.04	1.00		0.94		
30	0.75	0.78	1.28	0.59	2.66	67.67	113.46	8.93	3.26	0.94		1.16		
31		0.91		1.03	4.09		59.47		3.15	0.53		1.34		
Total	9.94	29.68	46.94	22.53	148.03	1164.41	933.55	564.18	151.23	48.49	18.93	16.31	3154.22	CMSDAY
Mean	0.33	0.96	1.56	0.73	4.78	38.81	30.11	18.81	4.88	1.56	0.68	0.53	8.64	CMS
Max	0.97	2.10	4.55	1.50	28.48	111.42	142.45	74.75	8.93	2.82	1.47	1.34	142.45	CMS
Min	0.05	0.31	0.47	0.28	1.06	5.10	5.64	7.01	2.10	0.53	0.25	0.22	0.05	CMS
Runoff	0.86	2.56	4.06	1.95	12.79	100.61	80.66	48.75	13.07	4.19	1.64	1.41	272.52	MCM

Momentary Peak 143.75 CMS. at 71.25 m. (MSL.) at 15.00 Hours , on Sep 29, 2002

Runoff Yield 6.23 Liters/Second/Square KM. Momentary Peak Yield 103.720 Liters/Second/Square KM.

WATER YEAR : 2002

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

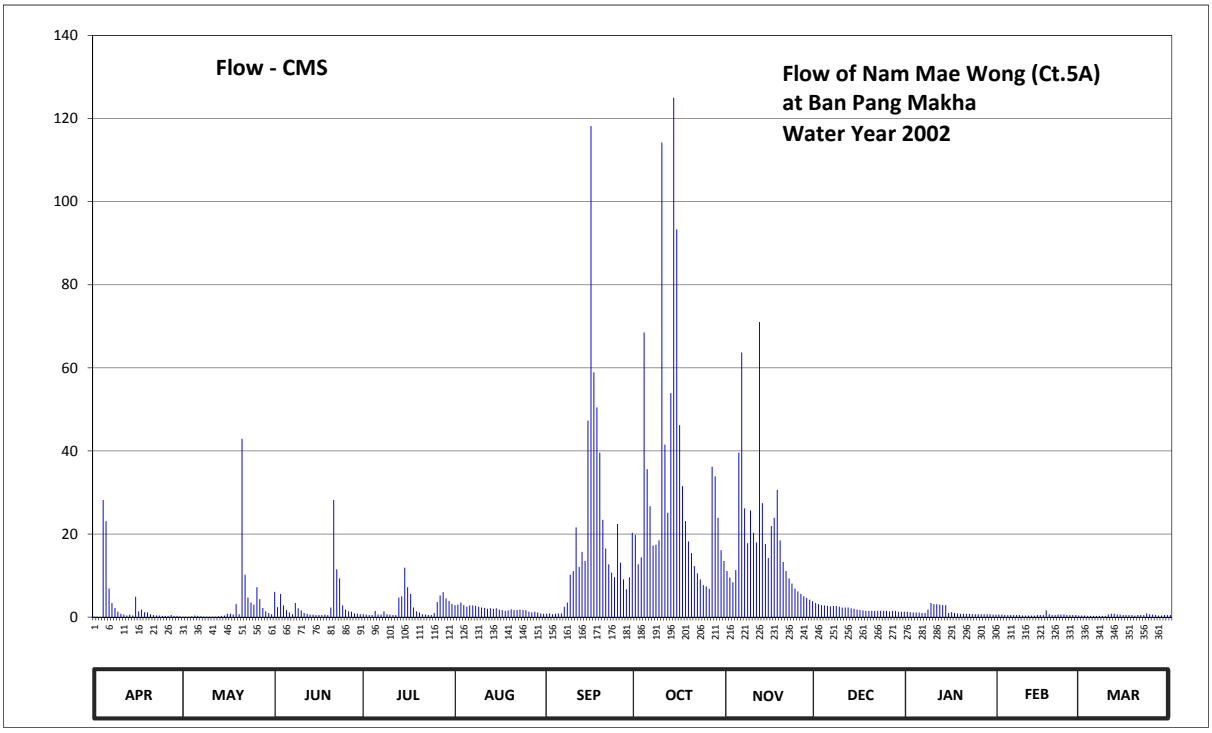
Location : on left bank behind Wat Pang Makha.

	Ban	Pang Makha	**Amphoe** Khanu Woralaksaburi	**Changwat**	Kamphaeng Phet
Drainge Area	977	sq.km.			
Type of Gage	Water - stage recorder				
Zero Gage at Bottom	+102.480 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	In front of the station office			**Elevation**	+107.140 m. (MSL.)
Gage Reading Frequency	Recording				
Basis of Mean Daily Gage Height	Arithmetic mean 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	Fairly stable				
Overbank Flow Conditions	No overbank flow.				
General Description	Records good. Flow effected by the local weir above gage site.				
	Stage-discharge relation defined by 56 discharge measurements made in 2002.				

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	103.04	103.11	103.25	103.09	103.18	103.27	104.51	104.59	103.53	103.15	102.97	102.93	
2	103.04	103.13	103.20	103.07	103.23	103.56	104.27	105.10	103.47	103.14	102.97	102.93	
3	103.03	103.09	103.16	103.07	103.16	103.68	104.32	105.09	103.45	103.11	102.97	102.92	
4	103.03	103.10	103.14	103.07	104.04	104.25	104.25	104.57	103.58	103.10	102.96	102.92	
5	103.02	103.15	103.23	103.07	103.66	104.77	104.16	104.30	103.51	103.13	102.96	102.91	
6	103.02	103.11	103.14	103.06	103.41	104.29	103.93	104.12	103.44	103.12	102.95	102.91	
7	103.02	103.12	103.13	103.07	103.36	104.01	104.30	103.95	103.40	103.11	102.95	102.91	
8	103.01	103.11	103.11	103.12	103.36	103.89	104.81	103.86	103.50	103.11	102.93	102.91	
9	103.01	103.09	103.11	103.13	103.37	103.82	104.23	103.79	103.50	103.10	102.93	102.93	
10	103.01	103.07	103.11	103.15	103.32	104.11	103.99	103.72	103.73	103.09	102.92	102.91	
11	103.01	103.10	103.11	103.17	103.28	104.35	103.85	103.67	103.62	103.08	102.91	102.91	
12	103.05	103.11	103.15	103.17	103.26	103.91	103.80	103.63	103.52	103.08	102.91	102.94	
13	103.12	103.49	103.17	103.20	103.23	103.93	103.71	103.60	103.46	103.07	102.95	102.98	
14	103.07	103.31	103.23	103.17	103.21	103.97	103.66	103.58	103.42	103.06	103.05	102.97	
15	103.02	103.23	103.19	103.15	103.21	103.69	103.62	103.55	103.39	103.06	102.93	102.96	
16	103.03	103.33	103.23	103.25	103.20	103.48	103.58	103.53	103.35	103.05	102.94	102.93	
17	103.08	103.24	103.20	103.18	103.24	103.47	103.57	103.53	103.33	103.04	102.94	102.91	
18	103.05	103.20	103.15	103.18	103.28	103.42	103.53	103.91	103.31	103.04	102.93	102.91	
19	103.03	103.25	103.28	103.16	103.51	103.52	103.51	104.25	103.28	103.04	102.93	102.91	
20	103.09	103.32	103.20	103.17	103.44	104.67	103.47	103.90	103.26	103.03	102.93	102.90	
21	103.10	103.48	103.14	103.12	103.48	104.13	103.41	103.75	103.25	103.03	102.94	102.89	
22	103.15	103.33	103.11	103.11	103.51	104.29	103.80	103.66	103.23	103.02	102.93	102.88	
23	103.09	103.24	103.11	103.11	103.54	105.57	103.80	103.59	103.22	103.01	102.93	103.01	
24	103.05	103.22	103.13	103.13	103.59	105.44	104.80	103.56	103.21	103.00	102.93	103.26	
25	103.09	103.20	103.13	103.13	103.37	105.32	104.26	103.55	103.20	102.99	102.93	103.06	
26	103.28	103.18	103.14	103.11	103.33	105.69	103.92	103.66	103.19	102.99	102.94	102.96	
27	103.29	103.16	103.12	103.12	103.32	104.87	105.62	103.91	103.18	102.98	102.97	102.95	
28	103.20	103.15	103.14	103.18	103.24	104.73	106.25	103.73	103.18	102.98	102.92	102.93	
29	103.38	103.22	103.12	103.23	103.23	105.15	105.02	103.64	103.20	102.97		102.93	
30	103.25	103.34	103.11	103.20	103.34	105.09	104.52	103.58	103.19	102.97		102.93	
31		103.33		103.18	103.36		104.27		103.17	102.97		104.30	
Mean	103.09	103.21	103.16	103.14	103.36	104.28	104.15	103.90	103.36	103.05	102.94	102.99	
Max	103.38	103.49	103.28	103.25	104.04	105.69	106.25	105.10	103.73	103.15	103.05	103.26	106.25
Min	103.01	103.07	103.11	103.06	103.16	103.27	103.41	103.53	103.18	102.97	102.91	102.88	102.88

Annual Max Momentary Gage Height	106.61	m. (MSL.) ,	at 06.00 Hours , on Oct 28 , 2002		
Zero Gage at Bottom Elevation	102.48	m. (MSL.) ,	River Bed	102.54	m. (MSL.)
Left Bank Elevation	107.69	m. (MSL.) ,			
Right Bank Elevation	108.01	m. (MSL.) ,	Drainage Are	977	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.10	0.10	6.10	0.70	2.90	0.80	19.80	11.10	3.40	1.30	0.60	0.40		
2	0.10	0.10	2.40	0.60	3.00	0.90	12.70	9.50	3.10	1.20	0.60	0.40		
3	0.00	0.10	5.60	0.50	3.50	0.70	14.40	8.40	2.90	1.10	0.50	0.30		
4	28.20	0.20	2.80	0.50	2.90	0.80	68.50	11.30	2.80	1.10	0.50	0.30		
5	23.10	0.40	1.70	1.50	2.50	0.90	35.60	39.60	2.70	1.10	0.50	0.30		
6	6.90	0.30	1.10	0.60	2.80	0.90	26.70	63.70	2.60	1.00	0.50	0.30		
7	3.40	0.20	0.70	0.60	2.80	2.50	17.20	26.20	2.70	1.00	0.50	0.30		
8	2.20	0.10	3.40	1.40	2.70	3.50	17.40	17.80	2.70	1.80	0.50	0.30		
9	1.30	0.10	2.10	0.70	2.50	10.20	18.50	25.70	2.50	3.40	0.40	0.30		
10	0.80	0.10	1.60	0.60	2.30	11.10	114.20	20.30	2.30	3.10	0.40	0.60		
11	0.60	0.10	1.00	0.50	2.20	21.60	41.50	18.00	2.30	3.10	0.40	0.80		
12	0.40	0.10	0.80	0.50	2.00	12.10	25.10	71.00	2.30	3.00	0.40	0.80		
13	0.60	0.20	0.60	4.70	2.10	15.70	53.90	27.40	2.10	2.90	0.40	0.60		
14	0.40	0.30	0.60	5.00	2.00	13.50	125.00	17.60	2.00	2.90	0.50	0.60		
15	4.90	0.40	0.50	11.90	2.10	47.30	93.30	14.20	1.80	1.00	0.50	0.50		
16	1.40	0.80	0.50	7.20	1.80	118.20	46.20	21.90	1.70	1.20	0.50	0.50		
17	1.80	0.80	0.50	5.60	1.70	58.90	31.50	23.90	1.60	1.00	1.60	0.50		
18	1.20	0.60	0.60	2.30	1.50	50.50	23.10	30.60	1.50	0.90	0.70	0.50		
19	1.10	3.10	0.50	1.40	1.60	39.60	18.20	18.50	1.50	0.80	0.50	0.40		
20	0.70	0.70	2.30	1.10	1.90	23.40	15.40	13.30	1.50	0.80	0.50	0.50		
21	0.50	42.90	28.20	0.70	1.70	16.50	12.30	11.10	1.50	0.80	0.60	0.50		
22	0.40	10.20	11.50	0.60	1.70	12.70	10.50	9.30	1.50	0.80	0.60	0.50		
23	0.40	4.70	9.30	0.50	1.80	10.70	9.10	8.10	1.50	0.70	0.60	0.90		
24	0.30	3.50	2.80	0.50	1.70	9.60	7.70	6.90	1.50	0.70	0.50	0.70		
25	0.30	3.00	1.80	1.00	1.70	22.40	7.40	6.20	1.50	0.70	0.50	0.60		
26	0.30	7.20	1.40	3.60	1.30	13.10	6.80	5.60	1.40	0.70	0.50	0.50		
27	0.50	4.30	1.30	5.20	1.10	9.10	36.20	5.00	1.50	0.70	0.50	0.40		
28	0.30	2.20	0.90	6.00	1.30	6.70	33.90	4.60	1.50	0.70	0.40	0.40		
29	0.30	1.40	0.80	4.50	1.10	9.60	23.90	4.20	1.30	0.70		0.50		
30	0.20	1.00	0.70	3.90	0.90	20.30	16.10	3.80	1.30	0.60		0.50		
31		0.70		3.20	0.80		13.50		1.30	0.60		0.50		
Total	70.91	129.93	97.28	91.98	222.00	1090.91	977.76	644.21	219.85	56.47	22.74	59.53	3683.57	CMSDAY
Mean	2.36	4.19	3.24	2.97	7.16	36.36	31.54	21.47	7.09	1.82	0.81	1.92	10.09	CMS
Max	7.14	9.52	5.34	4.80	24.43	101.36	141.44	67.17	15.47	3.10	1.75	33.13	141.44	CMS
Min	1.31	1.97	2.46	1.86	3.26	5.16	7.72	10.43	3.42	0.99	0.57	0.40	0.40	CMS
Runoff	6.13	11.23	8.40	7.95	19.18	94.25	84.48	55.66	19.00	4.88	1.96	5.14	318.26	MCM

Momentary Peak 169.30 CMS. at 106.61 m. (MSL.) at 06.00 Hours , on Oct 28, 2002

Runoff Yield 10.33 Liters/Second/Square KM. Momentary Peak Yield 173.290 Liters/Second/Square KM.

WATER YEAR : 2002

SAKAE KRANG RIVER BASIN

Nam Mae Wong at Ban Khao Chon Kan, Nakhon Sawan (Ct.5B)

Lat 15 - 54 - 11 N Long 99 - 27 - 37 E

Location : on left bank 8 kilometers upstream from Ct.5A, Tambon Mae Lay.

Ban Khao Chon Kan **Amphoe** Lat Yao **Changwat** Nakhon Sawan

Drainge Area	930 sq.km.
Type of Gage	Staff gage.
Zero Gage at Bottom	+103.410 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank at the bridge. **Elevation** +116.583 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 mean of 5 readings
Period of Available Gage Records	1987 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	No overbank flow.
General Description	Records good. Flow effected by the local weir during Mar.14 - 31, 99 discharge estimated by recession equation. Stage-discharge relation defined by 28 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

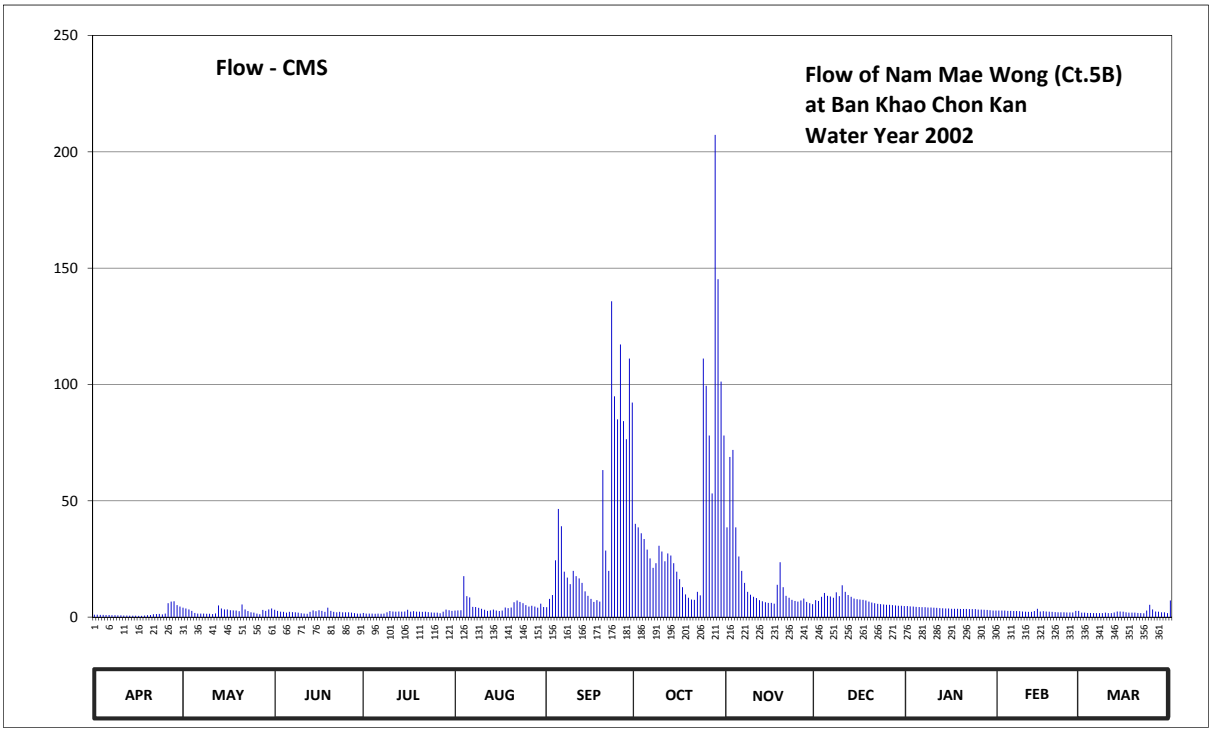
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	107.98	108.35	108.25	108.10	108.21	108.37	109.62	109.59	108.60	108.42	108.21	108.11	
2	107.98	108.31	108.20	108.06	108.22	108.64	109.59	110.09	108.58	108.41	108.21	108.11	
3	107.97	108.27	108.16	108.06	108.23	108.75	109.54	110.13	108.70	108.40	108.21	108.10	
4	107.97	108.20	108.15	108.05	109.08	109.27	109.49	109.59	108.81	108.39	108.20	108.10	
5	107.96	108.10	108.11	108.04	108.72	109.74	109.38	109.31	108.73	108.38	108.20	108.09	
6	107.96	108.06	108.15	108.05	108.68	109.60	109.29	109.15	108.71	108.37	108.19	108.09	
7	107.95	108.05	108.14	108.04	108.39	109.14	109.19	108.99	108.67	108.37	108.19	108.09	
8	107.95	108.05	108.13	108.05	108.38	109.06	109.24	108.83	108.82	108.36	108.18	108.09	
9	107.94	108.04	108.11	108.13	108.34	108.97	109.42	108.76	108.72	108.36	108.17	108.11	
10	107.94	108.04	108.08	108.19	108.30	109.15	109.36	108.70	108.95	108.35	108.16	108.09	
11	107.93	108.02	108.06	108.17	108.25	109.08	109.26	108.66	108.83	108.34	108.15	108.09	
12	107.93	108.07	108.04	108.16	108.20	109.05	109.34	108.60	108.75	108.33	108.15	108.12	
13	107.92	108.44	108.15	108.17	108.22	108.99	109.32	108.57	108.70	108.32	108.19	108.17	
14	107.92	108.31	108.22	108.16	108.26	108.84	109.24	108.54	108.65	108.31	108.30	108.17	
15	107.92	108.27	108.18	108.17	108.21	108.73	109.14	108.52	108.63	108.31	108.17	108.16	
16	107.91	108.27	108.23	108.25	108.19	108.64	109.04	108.52	108.62	108.30	108.18	108.13	
17	107.91	108.23	108.20	108.16	108.21	108.55	108.92	108.50	108.61	108.30	108.17	108.11	
18	107.93	108.22	108.15	108.18	108.36	108.60	108.77	108.96	108.59	108.30	108.16	108.11	
19	107.95	108.21	108.35	108.16	108.33	108.56	108.67	109.25	108.56	108.29	108.15	108.11	
20	107.96	108.18	108.20	108.16	108.36	110.01	108.62	108.92	108.53	108.29	108.14	108.10	
21	108.01	108.47	108.15	108.15	108.54	109.37	108.61	108.73	108.51	108.29	108.13	108.09	
22	108.02	108.27	108.13	108.16	108.59	109.15	108.83	108.67	108.49	108.28	108.13	108.08	
23	108.03	108.19	108.15	108.14	108.55	110.83	108.74	108.61	108.48	108.28	108.13	108.21	
24	108.00	108.13	108.13	108.12	108.51	110.41	110.59	108.58	108.47	108.28	108.12	108.46	
25	108.06	108.11	108.13	108.11	108.45	110.30	110.46	108.56	108.46	108.26	108.12	108.27	
26	108.51	108.05	108.13	108.11	108.40	110.65	110.21	108.59	108.46	108.26	108.12	108.17	
27	108.56	108.01	108.11	108.08	108.43	110.29	109.85	108.65	108.45	108.25	108.20	108.16	
28	108.57	108.24	108.09	108.16	108.40	110.19	111.46	108.55	108.44	108.24	108.20	108.13	
29	108.45	108.20	108.06	108.26	108.35	110.59	110.92	108.51	108.43	108.23		108.13	
30	108.40	108.27	108.06	108.23	108.50	110.38	110.48	108.48	108.43	108.21		108.09	
31		108.31		108.20	108.38		110.21		108.42	108.21		108.59	
Mean	108.05	108.19	108.15	108.14	108.39	109.40	109.51	108.87	108.61	108.31	108.17	108.15	
Max	108.57	108.47	108.35	108.26	109.08	110.83	111.46	110.13	108.95	108.42	108.30	108.59	111.46
Min	107.91	108.01	108.04	108.04	108.19	108.37	108.61	108.48	108.42	108.21	108.12	108.08	107.91

Annual Max Momentary Gage Height 111.61 m. (MSL.) , at 06.00 Hours , on Oct 28 , 2002

Zero Gage at Bottom Elevation 103.41 m. (MSL.) , River Bed 107.69 m. (MSL.)

Left Bank Elevation 116.86 m. (MSL.) ,

Right Bank Elevation 116.58 m. (MSL.) , Drainage Are 930 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.02	4.05	3.15	1.80	2.79	4.23	40.06	38.55	7.27	4.76	2.79	1.89		
2	1.02	3.69	2.70	1.54	2.88	7.85	38.55	68.80	6.97	4.63	2.79	1.89		
3	0.95	3.33	2.34	1.54	2.97	9.47	36.02	71.83	8.73	4.50	2.79	1.80		
4	0.95	2.70	2.25	1.48	17.60	24.42	33.58	38.55	10.41	4.41	2.70	1.80		
5	0.89	1.80	1.89	1.41	9.03	46.46	29.00	26.08	9.17	4.32	2.70	1.74		
6	0.89	1.54	2.25	1.48	8.44	39.05	25.25	19.88	8.88	4.23	2.61	1.74		
7	0.82	1.48	2.16	1.41	4.41	19.55	21.18	14.73	8.29	4.23	2.61	1.74		
8	0.82	1.48	2.07	1.48	4.32	16.95	23.17	10.83	10.62	4.14	2.52	1.74		
9	0.76	1.41	1.89	2.07	3.96	14.19	30.67	9.61	9.03	4.14	2.43	1.89		
10	0.76	1.41	1.67	2.61	3.60	19.88	28.17	8.73	13.65	4.05	2.34	1.74		
11	0.69	1.28	1.54	2.43	3.15	17.60	24.00	8.15	10.83	3.96	2.25	1.74		
12	0.69	1.61	1.41	2.34	2.70	16.63	27.33	7.27	9.47	3.87	2.25	1.98		
13	0.63	5.02	2.25	2.43	2.88	14.73	26.50	6.83	8.73	3.78	2.61	2.43		
14	0.63	3.69	2.88	2.34	3.24	11.04	23.17	6.39	8.00	3.69	3.60	2.43		
15	0.63	3.33	2.52	2.43	2.79	9.17	19.55	6.09	7.71	3.69	2.43	2.34		
16	0.56	3.33	2.97	3.15	2.61	7.85	16.30	6.09	7.56	3.60	2.52	2.07		
17	0.56	2.97	2.70	2.34	2.79	6.53	12.84	5.80	7.41	3.60	2.43	1.89		
18	0.69	2.88	2.25	2.52	4.14	7.27	9.76	13.92	7.12	3.60	2.34	1.89		
19	0.82	2.79	4.05	2.34	3.87	6.68	8.29	23.58	6.68	3.51	2.25	1.89		
20	0.89	2.52	2.70	2.34	4.14	63.20	7.56	12.84	6.24	3.51	2.16	1.80		
21	1.22	5.41	2.25	2.25	6.39	28.58	7.41	9.17	5.95	3.51	2.07	1.74		
22	1.28	3.33	2.07	2.34	7.12	19.88	10.83	8.29	5.67	3.42	2.07	1.67		
23	1.35	2.61	2.25	2.16	6.53	135.77	9.32	7.41	5.54	3.42	2.07	2.79		
24	1.15	2.07	2.07	1.98	5.95	94.90	111.10	6.97	5.41	3.42	1.98	5.28		
25	1.54	1.89	2.07	1.89	5.15	85.00	99.40	6.68	5.28	3.24	1.98	3.33		
26	5.95	1.48	2.07	1.89	4.50	117.17	78.02	7.12	5.28	3.24	1.98	2.43		
27	6.68	1.22	1.89	1.67	4.89	84.22	53.12	8.00	5.15	3.15	2.70	2.34		
28	6.83	3.06	1.74	2.34	4.50	76.47	207.27	6.53	5.02	3.06	2.70	2.07		
29	5.15	2.70	1.54	3.24	4.05	111.10	145.23	5.95	4.89	2.97		2.07		
30	4.50	3.33	1.54	2.97	5.80	92.20	101.20	5.54	4.89	2.79		1.74		
31		3.69		2.70	4.32		78.02		4.76	2.79		7.12		
Total	51.32	83.10	67.13	66.91	151.51	1208.04	1381.87	476.21	230.61	115.23	68.67	71.01	3971.61	CMSDAY
Mean	1.71	2.68	2.24	2.16	4.89	40.27	44.58	15.87	7.44	3.72	2.45	2.29	10.88	CMS
Max	6.83	5.41	4.05	3.24	17.60	135.77	207.27	71.83	13.65	4.76	3.60	7.12	207.27	CMS
Min	0.56	1.22	1.41	1.41	2.61	4.23	7.41	5.54	4.76	2.79	1.98	1.67	0.56	CMS
Runoff	4.43	7.18	5.80	5.78	13.09	104.37	119.39	41.14	19.92	9.96	5.93	6.14	343.15	MCM

Momentary Peak 225.75 CMS. at 111.61 m. (MSL.) at 06.00 Hours , on Oct 28, 2002

Runoff Yield 11.70 Liters/Second/Square KM. Momentary Peak Yield 242.740 Liters/Second/Square KM.

WATER YEAR : 2002

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

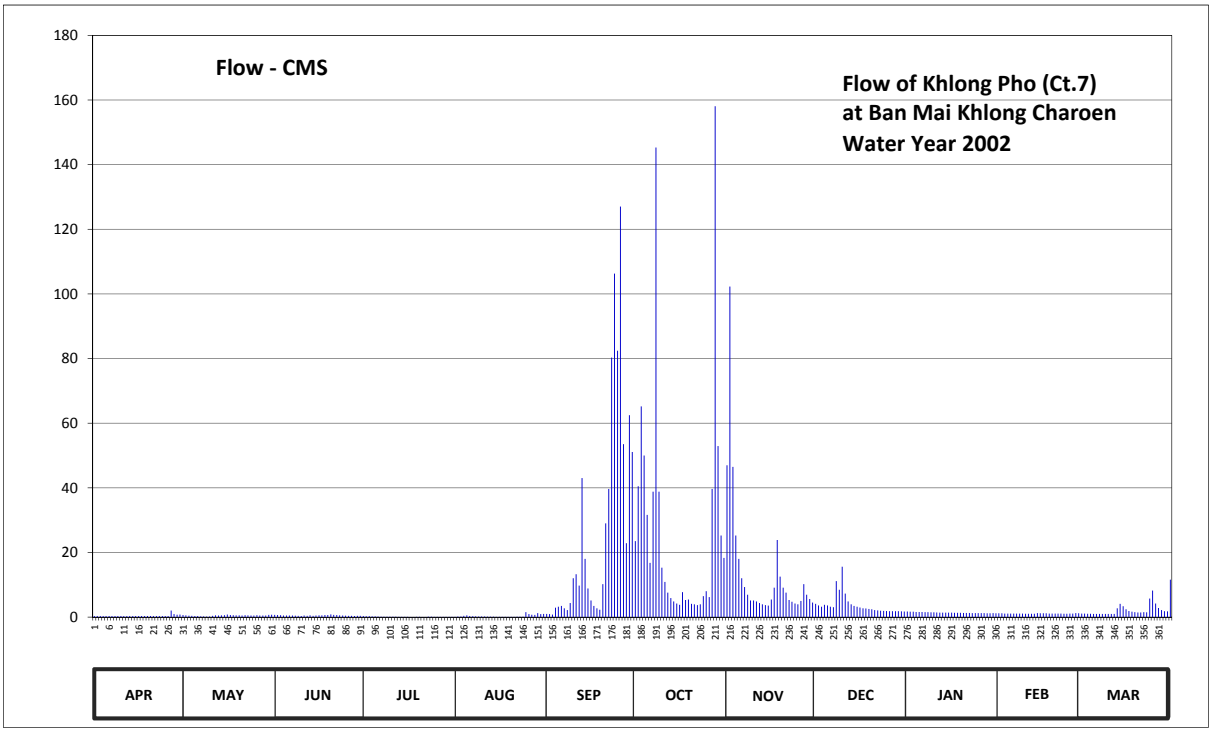
Location : on right bank at Ban Mai Khlong Charoen.

	Ban	Mai Khlong Charoen	**Amphoe**	Mae Poen	**Changwat**	Nakhon Sawan
Drainge Area	453	sq.km.				
Type of Gage	Staff gage.					
Zero Gage at Bottom	+100.070 m. (MSL.)					
Bench Mark	B.M.-H.D.					
Location BM	Near the sling pole.				**Elevation**	+104.520 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 mean 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. Flow effected by the local weir about 500 meters above gage site. Stage-discharge relation defined by 32 discharge measurements made in 2002.					

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	100.35	100.47	100.49	100.35	100.26	100.60	101.87	102.43	101.03	100.73	100.63	100.62	
2	100.35	100.43	100.46	100.34	100.30	100.58	102.30	103.26	100.99	100.72	100.63	100.62	
3	100.35	100.39	100.44	100.33	100.29	100.52	102.74	102.42	100.94	100.72	100.62	100.61	
4	100.35	100.37	100.41	100.32	100.37	100.90	102.49	101.92	101.01	100.71	100.62	100.61	
5	100.35	100.35	100.40	100.31	100.43	100.94	102.09	101.70	100.99	100.71	100.62	100.60	
6	100.35	100.36	100.40	100.30	100.36	100.97	101.66	101.48	100.94	100.71	100.62	100.60	
7	100.35	100.32	100.40	100.28	100.34	100.88	102.26	101.36	100.92	100.70	100.62	100.59	
8	100.35	100.31	100.39	100.28	100.32	100.81	103.75	101.23	101.44	100.70	100.62	100.59	
9	100.35	100.30	100.38	100.28	100.30	101.05	102.26	101.11	101.32	100.69	100.62	100.60	
10	100.35	100.30	100.36	100.28	100.30	101.48	101.61	101.11	101.62	100.69	100.61	100.60	
11	100.35	100.38	100.41	100.28	100.29	101.53	101.43	101.09	101.25	100.68	100.61	100.60	
12	100.35	100.42	100.38	100.27	100.28	101.38	101.27	101.05	101.09	100.67	100.61	100.60	
13	100.35	100.41	100.43	100.26	100.28	102.35	101.16	101.02	101.02	100.67	100.61	100.88	
14	100.35	100.42	100.38	100.25	100.27	101.70	101.09	101.00	100.97	100.67	100.64	101.03	
15	100.35	100.44	100.41	100.25	100.26	101.34	101.04	100.98	100.94	100.67	100.63	100.96	
16	100.35	100.52	100.43	100.24	100.26	101.11	101.01	101.13	100.91	100.67	100.63	100.84	
17	100.35	100.47	100.43	100.23	100.26	100.97	101.28	101.35	100.88	100.66	100.63	100.76	
18	100.35	100.45	100.47	100.23	100.26	100.88	101.12	101.88	100.87	100.66	100.62	100.72	
19	100.35	100.43	100.46	100.25	100.26	100.82	101.13	101.50	100.85	100.66	100.62	100.70	
20	100.35	100.42	100.54	100.26	100.25	101.40	101.03	101.35	100.84	100.65	100.62	100.68	
21	100.35	100.41	100.49	100.23	100.26	102.02	101.02	101.27	100.81	100.65	100.62	100.68	
22	100.35	100.44	100.46	100.22	100.28	102.28	101.00	101.12	100.80	100.65	100.62	100.70	
23	100.35	100.43	100.43	100.28	100.28	102.96	101.02	101.08	100.78	100.64	100.61	100.69	
24	100.35	100.41	100.41	100.27	100.28	103.31	101.20	101.04	100.77	100.64	100.61	101.15	
25	100.35	100.40	100.39	100.26	100.70	102.99	101.30	101.02	100.76	100.64	100.62	101.31	
26	100.36	100.44	100.38	100.25	100.57	103.55	101.18	101.10	100.75	100.64	100.62	101.04	
27	100.79	100.41	100.37	100.24	100.51	102.55	102.28	101.40	100.75	100.64	100.64	100.89	
28	100.58	100.40	100.36	100.25	100.49	101.85	103.89	101.23	100.75	100.63	100.63	100.81	
29	100.51	100.41	100.37	100.24	100.64	102.70	102.54	101.14	100.75	100.63		100.75	
30	100.52	100.49	100.37	100.24	100.57	102.51	101.92	101.06	100.74	100.64		100.74	
31		100.50		100.26	100.59		101.71		100.73	100.63		101.46	
Mean	100.38	100.41	100.42	100.27	100.36	101.63	101.73	101.39	100.94	100.67	100.62	100.78	
Max	100.79	100.52	100.54	100.35	100.70	103.55	103.89	103.26	101.62	100.73	100.64	101.46	103.89
Min	100.35	100.30	100.36	100.22	100.25	100.52	101.00	100.98	100.73	100.63	100.61	100.59	100.22

Annual Max Momentary Gage Height	104.01	m. (MSL.) ,	at 09.00 Hours , on Oct 28 , 2002		
Zero Gage at Bottom Elevation	100.07	m. (MSL.) ,	River Bed	100.15	m. (MSL.)
Left Bank Elevation	104.20	m. (MSL.) ,			
Right Bank Elevation	104.47	m. (MSL.) ,	Drainage Are	453	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.33	0.65	0.71	0.33	0.12	1.00	23.52	47.00	4.09	1.71	1.17	1.11		
2	0.33	0.55	0.63	0.31	0.20	0.95	40.50	102.30	3.62	1.66	1.17	1.11		
3	0.33	0.44	0.57	0.28	0.18	0.79	65.20	46.50	3.22	1.66	1.11	1.06		
4	0.33	0.39	0.49	0.25	0.39	2.90	50.00	25.25	3.83	1.60	1.11	1.06		
5	0.33	0.33	0.47	0.23	0.55	3.22	31.63	18.00	3.62	1.60	1.11	1.00		
6	0.33	0.36	0.47	0.20	0.36	3.46	16.80	12.04	3.22	1.60	1.11	1.00		
7	0.33	0.25	0.47	0.16	0.31	2.74	38.80	9.32	3.06	1.55	1.11	0.97		
8	0.33	0.23	0.44	0.16	0.25	2.18	145.31	6.95	11.12	1.55	1.11	0.97		
9	0.33	0.20	0.41	0.16	0.20	4.35	38.80	5.15	8.44	1.49	1.11	1.00		
10	0.33	0.20	0.36	0.16	0.20	12.04	15.30	5.15	15.60	1.49	1.06	1.00		
11	0.33	0.41	0.49	0.16	0.18	13.25	10.89	4.87	7.25	1.44	1.06	1.00		
12	0.33	0.52	0.41	0.14	0.16	9.76	7.55	4.35	4.87	1.38	1.06	1.00		
13	0.33	0.49	0.55	0.12	0.16	43.00	5.90	3.96	3.96	1.38	1.06	2.74		
14	0.33	0.52	0.41	0.10	0.14	18.00	4.87	3.70	3.46	1.38	1.22	4.09		
15	0.33	0.57	0.49	0.10	0.12	8.88	4.22	3.54	3.22	1.38	1.17	3.38		
16	0.33	0.79	0.55	0.08	0.12	5.15	3.83	5.45	2.98	1.38	1.17	2.42		
17	0.33	0.65	0.55	0.06	0.12	3.46	7.70	9.10	2.74	1.33	1.17	1.88		
18	0.33	0.60	0.65	0.06	0.12	2.74	5.30	23.85	2.66	1.33	1.11	1.66		
19	0.33	0.55	0.63	0.10	0.12	2.26	5.45	12.50	2.50	1.33	1.11	1.55		
20	0.33	0.52	0.84	0.12	0.10	10.20	4.09	9.10	2.42	1.28	1.11	1.44		
21	0.33	0.49	0.71	0.06	0.12	29.00	3.96	7.55	2.18	1.28	1.11	1.44		
22	0.33	0.57	0.63	0.04	0.16	39.65	3.70	5.30	2.10	1.28	1.11	1.55		
23	0.33	0.55	0.55	0.16	0.16	80.30	3.96	4.74	1.99	1.22	1.06	1.49		
24	0.33	0.49	0.49	0.14	0.16	106.30	6.50	4.22	1.93	1.22	1.06	5.75		
25	0.33	0.47	0.44	0.12	1.55	82.45	8.00	3.96	1.88	1.22	1.11	8.22		
26	0.36	0.57	0.41	0.10	0.92	127.06	6.20	5.00	1.82	1.22	1.11	4.22		
27	2.04	0.49	0.39	0.08	0.76	53.50	39.65	10.20	1.82	1.22	1.22	2.82		
28	0.95	0.47	0.36	0.10	0.71	22.87	158.09	6.95	1.82	1.17	1.17	2.18		
29	0.76	0.49	0.39	0.08	1.22	62.50	52.90	5.60	1.82	1.17		1.82		
30	0.79	0.71	0.39	0.08	0.92	51.10	25.25	4.48	1.77	1.22		1.77		
31		0.73		0.12	0.97		18.33		1.71	1.17		11.58		
Total	13.15	15.25	15.35	4.36	11.75	805.06	852.20	416.08	116.72	42.91	31.36	74.28	2398.47	CMSDAY
Mean	0.44	0.49	0.51	0.14	0.38	26.84	27.49	13.87	3.77	1.38	1.12	2.40	6.57	CMS
Max	2.04	0.79	0.84	0.33	1.55	127.06	158.09	102.30	15.60	1.71	1.22	11.58	158.09	CMS
Min	0.33	0.20	0.36	0.04	0.10	0.79	3.70	3.54	1.71	1.17	1.06	0.97	0.04	CMS
Runoff	1.14	1.32	1.33	0.38	1.02	69.56	73.63	35.95	10.08	3.71	2.71	6.42	207.23	MCM

Momentary Peak 169.45 CMS. at 104.01 m. (MSL.) at 09.00 Hours , on Oct 28 , 2002

Runoff Yield 14.51 Liters/Second/Square KM. Momentary Peak Yield 374.060 Liters/Second/Square KM.

WATER YEAR : 2002

SAKAE KRANG RIVER BASIN

Khwae Tak Daet 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	+26.230 m. (MSL.)
Bench Mark	B.M.- Highways Dept.
Location BM	On right bank at the bridge. **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 mean 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 20 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

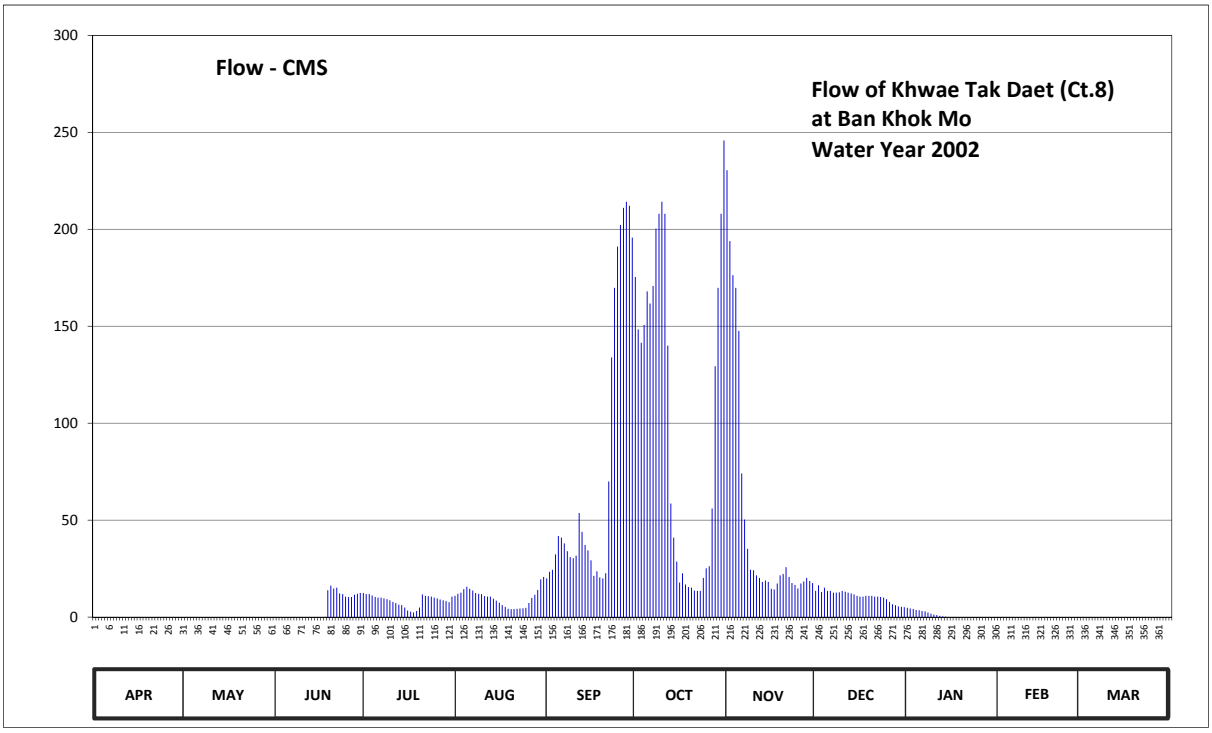
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	27.17	27.26	27.15	30.26	30.18	30.62	33.38	33.95	30.32	29.68	27.58	28.56	
2	27.18	27.25	27.18	30.23	30.24	30.75	33.06	33.58	30.48	29.64	27.37	28.53	
3	27.20	27.29	27.18	30.23	30.27	30.79	32.97	33.39	30.29	29.62	27.45	28.48	
4	27.19	27.34	27.18	30.19	30.37	31.05	33.09	33.32	30.41	29.56	27.31	28.44	
5	27.19	27.32	27.15	30.15	30.44	31.29	33.30	33.05	30.32	29.54	27.26	28.41	
6	27.18	27.17	27.20	30.13	30.38	31.27	33.23	31.96	30.32	29.49	27.20	28.38	
7	27.19	27.04	27.28	30.13	30.33	31.20	33.33	31.49	30.27	29.48	27.21	28.35	
8	27.20	26.91	27.22	30.11	30.26	31.10	33.65	31.13	30.27	29.41	27.27	28.28	
9	27.20	26.88	27.21	30.08	30.24	31.01	33.73	30.79	30.28	29.31	27.31	28.30	
10	27.22	26.87	27.30	30.04	30.23	30.99	33.79	30.78	30.32	29.24	27.27	28.28	
11	27.20	26.94	27.39	29.98	30.17	31.03	33.73	30.68	30.30	29.19	27.22	28.30	
12	27.19	26.96	27.44	29.94	30.16	31.57	32.95	30.63	30.27	29.12	27.23	28.30	
13	27.20	27.01	27.57	29.87	30.16	31.34	31.67	30.55	30.25	29.08	27.22	28.30	
14	27.21	27.04	27.63	29.84	30.10	31.18	31.27	30.58	30.22	29.05	27.34	28.25	
15	27.21	27.04	28.45	29.70	30.03	31.11	30.94	30.55	30.18	29.00	27.49	28.20	
16	27.22	27.05	28.33	29.52	29.95	30.96	30.54	30.38	30.16	28.98	27.51	28.13	
17	27.20	27.08	28.30	29.46	29.84	30.67	30.72	30.36	30.16	28.97	27.55	28.09	
18	27.20	26.99	28.32	29.41	29.74	30.76	30.50	30.52	30.18	28.92	27.68	28.06	
19	27.20	26.86	30.34	29.49	29.63	30.64	30.43	30.68	30.18	28.90	27.98	27.99	
20	27.19	26.83	30.47	29.70	29.61	30.62	30.41	30.71	30.18	28.89	28.38	27.89	
21	27.18	26.88	30.39	30.22	29.62	30.72	30.33	30.84	30.16	28.86	28.48	27.82	
22	27.19	26.88	30.41	30.18	29.63	31.89	30.32	30.65	30.16	28.82	28.51	27.77	
23	27.21	26.92	30.25	30.17	29.64	32.87	30.32	30.53	30.15	28.78	28.58	27.72	
24	27.20	26.95	30.23	30.16	29.65	33.32	30.63	30.49	30.13	28.70	28.56	27.67	
25	27.17	26.97	30.16	30.13	29.68	33.55	30.82	30.39	30.08	28.67	28.61	27.67	
26	27.18	26.98	30.15	30.11	29.94	33.67	30.86	30.52	29.98	28.57	28.61	27.65	
27	27.20	26.96	30.15	30.07	30.12	33.76	31.62	30.56	29.89	28.37	28.57	27.70	
28	27.18	26.86	30.21	30.04	30.21	33.79	32.81	30.63	29.83	28.29	28.58	27.80	
29	27.20	26.84	30.24	30.01	30.35	33.77	33.32	30.57	29.77	28.22		27.83	
30	27.24	26.98	30.26	29.97	30.60	33.60	33.73	30.53	29.74	27.94		27.83	
31		27.08		30.16	30.65		34.10		29.72	27.77		27.85	
Mean	27.20	27.01	28.62	29.99	30.08	31.70	32.11	31.16	30.16	28.97	27.76	28.09	
Max	27.24	27.34	30.47	30.26	30.65	33.79	34.10	33.95	30.48	29.68	28.61	28.56	34.10
Min	27.17	26.83	27.15	29.41	29.61	30.62	30.32	30.36	29.72	27.77	27.20	27.65	26.83

Annual Max Momentary Gage Height 34.11 m. (MSL.) , at 12.00 Hours , on Oct 31 , 2002

Zero Gage at Bottom Elevation 26.23 m. (MSL.) , River Bed 26.66 m. (MSL.)

Left Bank Elevation 34.28 m. (MSL.) ,

Right Bank Elevation 34.28 m. (MSL.) , Drainage Are 3,207 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	0.00	12.42	10.96	19.95	175.40	230.50	13.51	4.76	0.00	0.00		
2	0.00	0.00	0.00	11.87	12.05	23.36	148.36	193.90	16.43	4.41	0.00	0.00		
3	0.00	0.00	0.00	11.87	12.60	24.41	141.52	176.33	12.97	4.24	0.00	0.00		
4	0.00	0.00	0.00	11.14	14.43	32.32	150.64	169.85	15.16	3.71	0.00	0.00		
5	0.00	0.00	0.00	10.41	15.70	41.82	168.00	147.60	13.51	3.53	0.00	0.00		
6	0.00	0.00	0.00	10.05	14.61	40.97	161.70	74.10	13.51	3.09	0.00	0.00		
7	0.00	0.00	0.00	10.05	13.70	38.00	170.78	50.32	12.60	3.00	0.00	0.00		
8	0.00	0.00	0.00	9.68	12.42	34.00	200.37	35.20	12.60	2.39	0.00	0.00		
9	0.00	0.00	0.00	9.22	12.05	30.98	208.06	24.41	12.78	1.76	0.00	0.00		
10	0.00	0.00	0.00	8.66	11.87	30.32	214.18	24.15	13.51	1.34	0.00	0.00		
11	0.00	0.00	0.00	7.82	10.78	31.65	208.06	21.53	13.15	1.04	0.00	0.00		
12	0.00	0.00	0.00	7.26	10.59	53.72	140.00	20.21	12.60	0.62	0.00	0.00		
13	0.00	0.00	0.00	6.44	10.59	43.95	58.62	18.11	12.24	0.40	0.00	0.00		
14	0.00	0.00	0.00	6.17	9.50	37.20	40.97	18.90	11.69	0.25	0.00	0.00		
15	0.00	0.00	0.00	4.94	8.52	34.40	28.64	18.11	10.96	0.00	0.00	0.00		
16	0.00	0.00	0.00	3.36	7.40	29.31	17.85	14.61	10.59	0.00	0.00	0.00		
17	0.00	0.00	0.00	2.83	6.17	21.26	22.58	14.24	10.59	0.00	0.00	0.00		
18	0.00	0.00	0.00	2.39	5.29	23.63	16.80	17.32	10.96	0.00	0.00	0.00		
19	0.00	0.00	13.88	3.09	4.32	20.48	15.52	21.53	10.96	0.00	0.00	0.00		
20	0.00	0.00	16.25	4.94	4.15	19.95	15.16	22.31	10.96	0.00	0.00	0.00		
21	0.00	0.00	14.79	11.69	4.24	22.58	13.70	25.73	10.59	0.00	0.00	0.00		
22	0.00	0.00	15.16	10.96	4.32	69.98	13.51	20.74	10.59	0.00	0.00	0.00		
23	0.00	0.00	12.24	10.78	4.41	133.92	13.51	17.59	10.41	0.00	0.00	0.00		
24	0.00	0.00	11.87	10.59	4.50	169.85	20.21	16.62	10.05	0.00	0.00	0.00		
25	0.00	0.00	10.59	10.05	4.76	191.12	25.20	14.79	9.22	0.00	0.00	0.00		
26	0.00	0.00	10.41	9.68	7.26	202.22	26.25	17.32	7.82	0.00	0.00	0.00		
27	0.00	0.00	10.41	9.08	9.86	211.12	56.03	18.38	6.61	0.00	0.00	0.00		
28	0.00	0.00	11.51	8.66	11.51	214.18	129.36	20.21	6.08	0.00	0.00	0.00		
29	0.00	0.00	12.05	8.24	14.06	212.14	169.85	18.64	5.56	0.00		0.00		
30	0.00	0.00	12.42	7.68	19.43	195.75	208.06	17.59	5.29	0.00		0.00		
31		0.00		10.59	20.74		245.80		5.12	0.00		0.00		
Total	0.00	0.00	151.58	262.61	312.79	2254.54	3224.69	1500.84	338.62	34.54	0.00	0.00	8080.21	CMSDAY
Mean	0.00	0.00	5.05	8.47	10.09	75.15	104.02	50.03	10.92	1.11	0.00	0.00	22.14	CMS
Max	0.00	0.00	16.25	12.42	20.74	214.18	245.80	230.50	16.43	4.76	0.00	0.00	245.80	CMS
Min	0.00	0.00	0.00	2.39	4.15	19.95	13.51	14.24	5.12	0.00	0.00	0.00	0.00	CMS
Runoff	0.00	0.00	13.10	22.69	27.03	194.79	278.61	129.67	29.26	2.98	0.00	0.00	698.13	MCM

Momentary Peak 246.82 CMS. at 34.11 m. (MSL.) at 12.00 Hours , on Oct 31, 2002

Runoff Yield 6.90 Liters/Second/Square KM. Momentary Peak Yield 76.960 Liters/Second/Square KM.

WATER YEAR : 2002

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	+123.450 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 mean 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 because of backwater effect.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Flow regulated by Rabum Dam above gage site. Stage-discharge relation defined by 24 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

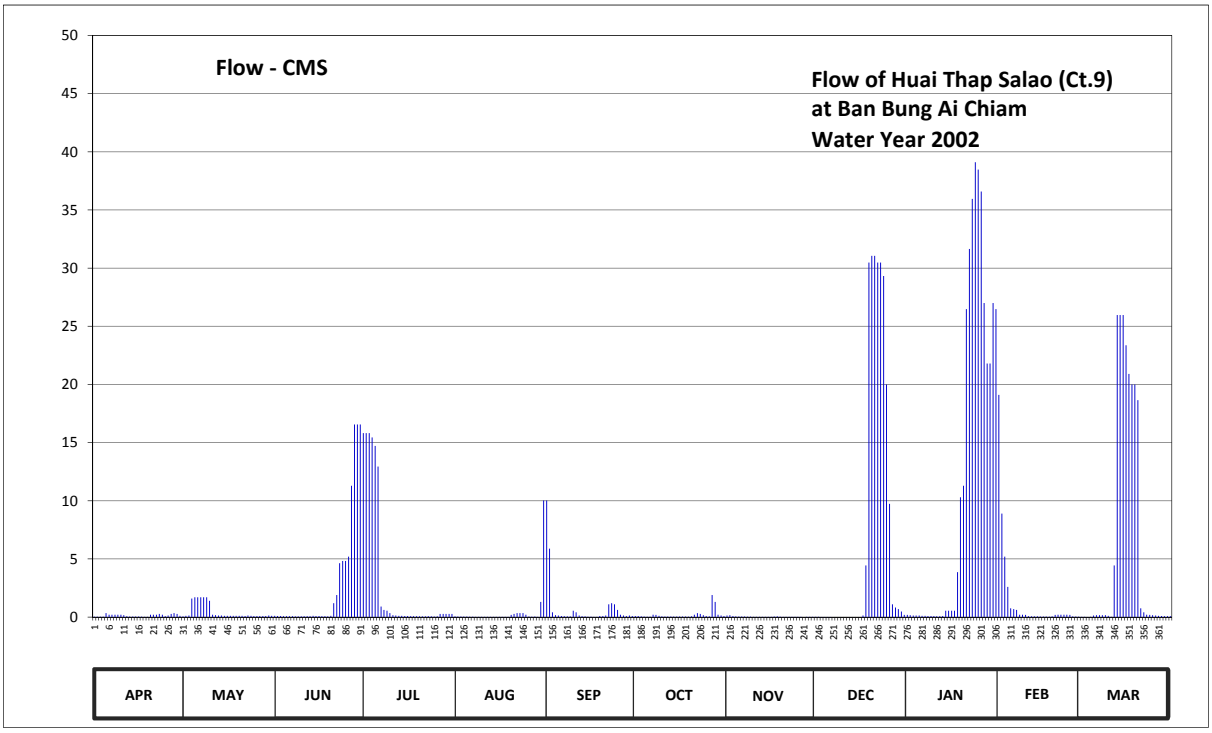
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	123.59	123.61	123.64	124.46	123.61	124.29	123.63	123.65	123.57	123.69	124.54	123.57	
2	123.59	123.64	123.63	124.46	123.60	124.13	123.63	123.67	123.57	123.67	124.25	123.57	
3	123.59	123.66	123.63	124.46	123.60	123.73	123.61	123.63	123.56	123.66	124.10	123.56	
4	123.59	123.87	123.62	124.45	123.60	123.68	123.60	123.61	123.56	123.65	123.95	123.58	
5	123.72	123.88	123.62	124.43	123.60	123.65	123.59	123.60	123.56	123.65	123.78	123.66	
6	123.70	123.88	123.62	124.38	123.59	123.63	123.59	123.60	123.56	123.64	123.77	123.67	
7	123.70	123.88	123.62	123.80	123.59	123.62	123.70	123.60	123.55	123.64	123.76	123.67	
8	123.70	123.88	123.61	123.76	123.58	123.61	123.69	123.59	123.55	123.63	123.70	123.67	
9	123.70	123.88	123.61	123.75	123.58	123.61	123.64	123.59	123.55	123.63	123.70	123.67	
10	123.70	123.85	123.61	123.72	123.57	123.75	123.61	123.58	123.55	123.63	123.69	123.64	
11	123.68	123.70	123.62	123.67	123.57	123.73	123.60	123.58	123.55	123.62	123.62	123.58	
12	123.62	123.68	123.62	123.65	123.57	123.66	123.60	123.58	123.55	123.62	123.61	124.06	
13	123.60	123.66	123.62	123.64	123.58	123.62	123.60	123.58	123.55	123.63	123.61	124.68	
14	123.60	123.66	123.64	123.64	123.58	123.61	123.60	123.58	123.55	123.75	123.61	124.68	
15	123.60	123.64	123.63	123.63	123.58	123.59	123.60	123.58	123.55	123.75	123.60	124.68	
16	123.60	123.64	123.63	123.63	123.58	123.59	123.60	123.58	123.55	123.75	123.60	124.63	
17	123.59	123.64	123.62	123.62	123.58	123.58	123.60	123.60	123.65	123.75	123.60	124.58	
18	123.58	123.64	123.62	123.62	123.58	123.58	123.60	123.61	124.06	124.03	123.59	124.56	
19	123.58	123.64	123.61	123.62	123.58	123.63	123.59	123.59	124.76	124.30	123.61	124.56	
20	123.70	123.64	123.64	123.61	123.69	123.63	123.61	123.58	124.77	124.33	123.69	124.53	
21	123.70	123.64	123.83	123.61	123.71	123.65	123.70	123.58	124.77	124.69	123.70	123.78	
22	123.70	123.63	123.90	123.61	123.72	123.82	123.72	123.58	124.76	124.78	123.70	123.73	
23	123.71	123.65	124.07	123.62	123.72	123.83	123.71	123.58	124.76	124.85	123.70	123.70	
24	123.70	123.64	124.08	123.61	123.72	123.82	123.67	123.57	124.74	124.90	123.70	123.69	
25	123.62	123.63	124.08	123.60	123.70	123.76	123.63	123.57	124.56	124.89	123.69	123.68	
26	123.65	123.63	124.10	123.61	123.60	123.70	123.61	123.58	124.28	124.86	123.61	123.65	
27	123.71	123.63	124.33	123.71	123.59	123.65	123.90	123.55	123.82	124.70	123.60	123.64	
28	123.72	123.63	124.48	123.71	123.60	123.63	123.84	123.58	123.79	124.60	123.59	123.63	
29	123.71	123.63	124.48	123.71	123.58	123.65	123.70	123.57	123.77	124.60		123.62	
30	123.64	123.65	124.48	123.71	123.84	123.63	123.66	123.57	123.74	124.70		123.62	
31		123.64		123.71	124.29		123.63		123.69	124.69		123.62	
Mean	123.65	123.70	123.81	123.81	123.64	123.70	123.65	123.59	123.90	124.11	123.74	123.91	
Max	123.72	123.88	124.48	124.46	124.29	124.29	123.90	123.67	124.77	124.90	124.54	124.68	124.90
Min	123.58	123.61	123.61	123.60	123.57	123.58	123.59	123.55	123.55	123.62	123.59	123.56	123.55

Annual Max Momentary Gage Height 124.90 m. (MSL.) , at 18.00 Hours , on Jan 23 , 2002

Zero Gage at Bottom Elevation 123.45 m. (MSL.) , River Bed 123.48 m. (MSL.)

Left Bank Elevation 127.51 m. (MSL.) ,

Right Bank Elevation 127.71 m. (MSL.) , Drainage Are 528 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.04	0.07	0.11	15.82	0.07	10.02	0.10	0.13	0.02	0.19	19.10	0.02		
2	0.04	0.11	0.10	15.82	0.05	5.89	0.10	0.16	0.02	0.16	8.90	0.02		
3	0.04	0.14	0.10	15.82	0.05	0.41	0.07	0.10	0.01	0.14	5.20	0.01		
4	0.04	1.60	0.08	15.45	0.05	0.17	0.05	0.07	0.01	0.13	2.60	0.03		
5	0.34	1.70	0.08	14.71	0.05	0.13	0.04	0.05	0.01	0.13	0.76	0.14		
6	0.20	1.70	0.08	12.94	0.04	0.10	0.04	0.05	0.01	0.11	0.69	0.16		
7	0.20	1.70	0.08	0.90	0.04	0.08	0.20	0.05	0.00	0.11	0.62	0.16		
8	0.20	1.70	0.07	0.62	0.03	0.07	0.19	0.04	0.00	0.10	0.20	0.16		
9	0.20	1.70	0.07	0.55	0.03	0.07	0.11	0.04	0.00	0.10	0.20	0.16		
10	0.20	1.40	0.07	0.34	0.02	0.55	0.07	0.03	0.00	0.10	0.19	0.11		
11	0.17	0.20	0.08	0.16	0.02	0.41	0.05	0.03	0.00	0.08	0.08	0.03		
12	0.08	0.17	0.08	0.13	0.02	0.14	0.05	0.03	0.00	0.08	0.07	4.44		
13	0.05	0.14	0.08	0.11	0.03	0.08	0.05	0.03	0.00	0.10	0.07	25.96		
14	0.05	0.14	0.11	0.11	0.03	0.07	0.05	0.03	0.00	0.55	0.07	25.96		
15	0.05	0.11	0.10	0.10	0.03	0.04	0.05	0.03	0.00	0.55	0.05	25.96		
16	0.05	0.11	0.10	0.10	0.03	0.04	0.05	0.03	0.00	0.55	0.05	23.36		
17	0.04	0.11	0.08	0.08	0.03	0.03	0.05	0.05	0.13	0.55	0.05	20.90		
18	0.03	0.11	0.08	0.08	0.03	0.03	0.05	0.07	4.44	3.87	0.04	20.00		
19	0.03	0.11	0.07	0.08	0.03	0.10	0.04	0.04	30.48	10.30	0.07	20.00		
20	0.20	0.11	0.11	0.07	0.19	0.10	0.07	0.03	31.06	11.29	0.19	18.65		
21	0.20	0.11	1.20	0.07	0.27	0.13	0.20	0.03	31.06	26.48	0.20	0.76		
22	0.20	0.10	1.90	0.07	0.34	1.10	0.34	0.03	30.48	31.64	0.20	0.41		
23	0.27	0.13	4.63	0.08	0.34	1.20	0.27	0.03	30.48	35.95	0.20	0.20		
24	0.20	0.11	4.82	0.07	0.34	1.10	0.16	0.02	29.32	39.10	0.20	0.19		
25	0.08	0.10	4.82	0.05	0.20	0.62	0.10	0.02	20.00	38.47	0.19	0.17		
26	0.13	0.10	5.20	0.07	0.05	0.20	0.07	0.03	9.74	36.58	0.07	0.13		
27	0.27	0.10	11.29	0.27	0.04	0.13	1.90	0.00	1.10	27.00	0.05	0.11		
28	0.34	0.10	16.56	0.27	0.05	0.10	1.30	0.03	0.83	21.80	0.04	0.10		
29	0.27	0.10	16.56	0.27	0.03	0.13	0.20	0.02	0.69	21.80		0.08		
30	0.11	0.13	16.56	0.27	1.30	0.10	0.14	0.02	0.48	27.00		0.08		
31		0.11		0.27	10.02		0.10		0.19	26.48		0.08		
Total	4.32	14.32	85.27	95.75	13.85	23.34	6.26	1.32	220.56	361.49	40.35	188.54	1055.37	CMSDAY
Mean	0.14	0.46	2.84	3.09	0.45	0.78	0.20	0.04	7.11	11.66	1.44	6.08	2.89	CMS
Max	0.34	1.70	16.56	15.82	10.02	10.02	1.90	0.16	31.06	39.10	19.10	25.96	39.10	CMS
Min	0.03	0.07	0.07	0.05	0.02	0.03	0.04	0.00	0.00	0.08	0.04	0.01	0.00	CMS
Runoff	0.37	1.24	7.37	8.27	1.20	2.02	0.54	0.11	19.06	31.23	3.49	16.29	91.18	MCM

Momentary Peak 39.10 CMS. at 124.90 m. (MSL.) at 18.00 Hours , on Jan 23, 2002

Runoff Yield 5.48 Liters/Second/Square KM. Momentary Peak Yield 74.050 Liters/Second/Square KM.

WATER YEAR : 2002

SAKAE KRANG RIVER BASIN

Huai Tak Daet at Ban Tak Daet, Uthai Thani (Ct.19)

Lat 15 - 27 - 07 N Long 100 - 02 - 00 E

Location : on left bank near Ban Tak Daet.

	Ban Tak Daet	**Amphoe** Mueang	**Changwat** Uthai Thani
Drainge Area	3,454 sq.km.		
Type of Gage	Staff gage.		
Zero Gage at Bottom	+10.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank about 5.00 meters from the top staff gage.	**Elevation** +24.356 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 mean 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. Stage-discharge relation defined by 36 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

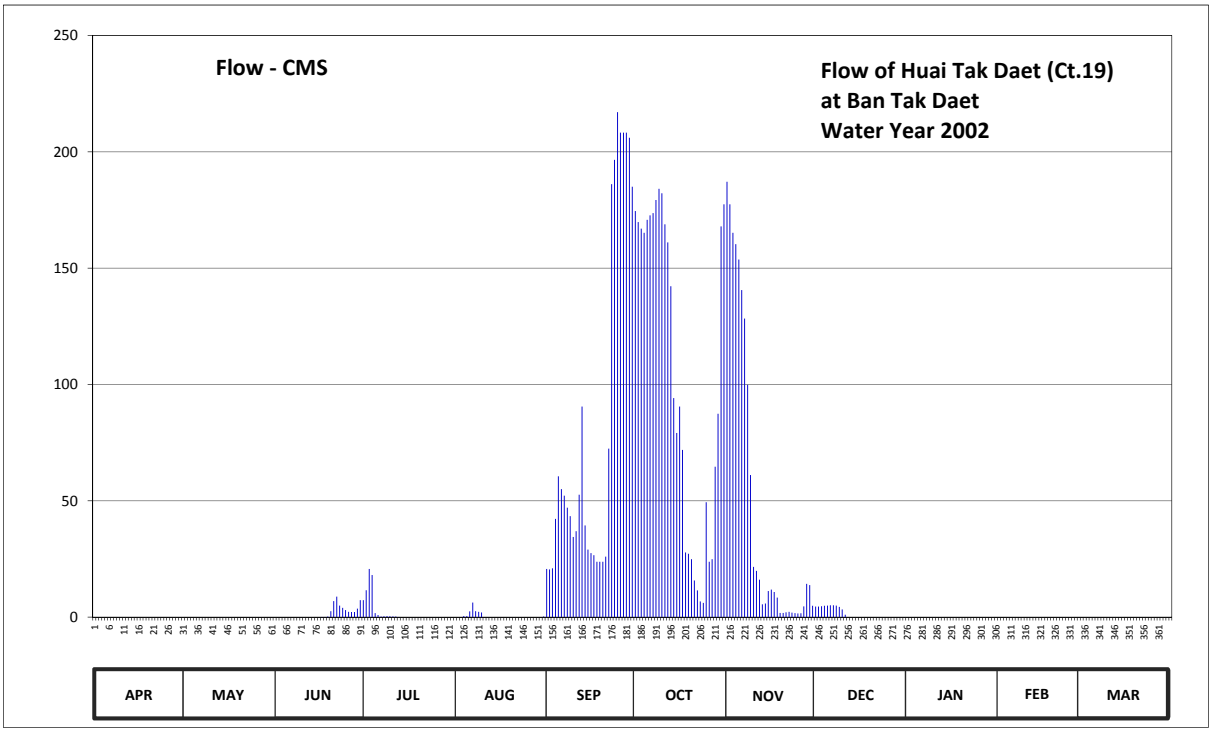
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	17.00	17.00	17.36	19.00	17.92	19.86	22.69	22.82	18.74	17.00	17.00	17.00	
2	17.00	17.00	17.35	19.34	17.92	19.85	22.64	22.72	18.74	17.00	17.00	17.00	
3	17.00	17.00	17.34	19.86	17.93	19.87	22.61	22.59	18.76	17.00	17.00	17.00	
4	17.00	17.00	17.33	19.74	18.11	20.58	22.59	22.53	18.78	17.00	17.00	17.00	
5	17.00	17.00	17.33	18.38	18.11	21.01	22.65	22.45	18.79	17.00	17.00	17.00	
6	17.00	17.00	17.33	18.21	18.50	20.90	22.67	22.29	18.80	17.00	17.00	17.00	
7	17.00	17.00	17.36	18.06	18.92	20.83	22.68	22.14	18.80	17.00	17.00	17.00	
8	17.00	17.00	17.40	18.10	18.51	20.70	22.74	21.74	18.79	17.00	17.00	17.00	
9	17.00	17.00	17.43	18.11	18.47	20.61	22.79	21.02	18.73	17.00	17.00	17.00	
10	17.00	17.00	17.45	18.10	18.43	20.37	22.77	19.90	18.61	17.00	17.00	17.00	
11	17.00	17.00	17.47	18.09	18.00	20.44	22.63	19.82	18.24	17.00	17.00	17.00	
12	17.00	17.00	17.48	18.07	18.00	20.84	22.54	19.64	18.00	17.12	17.00	17.00	
13	17.00	17.00	17.50	18.02	18.00	21.59	22.31	18.85	18.00	17.43	17.00	17.00	
14	17.00	17.00	17.58	18.00	18.00	20.51	21.65	18.88	18.00	17.80	17.00	17.00	
15	17.00	17.00	17.78	18.00	18.00	20.20	21.37	19.31	18.00	17.80	17.00	17.00	
16	17.00	17.00	17.92	18.00	18.00	20.15	21.59	19.36	18.00	17.80	17.00	17.00	
17	17.00	17.00	18.02	18.00	18.00	20.12	21.23	19.28	18.00	17.60	17.00	17.00	
18	17.00	17.12	18.01	18.00	17.98	20.00	20.16	19.09	18.00	17.41	17.00	17.00	
19	17.00	17.24	18.06	18.00	17.90	20.00	20.14	18.39	18.00	17.15	17.00	17.00	
20	17.00	17.30	18.51	18.00	17.90	20.00	20.05	18.39	17.84	17.02	17.00	17.00	
21	17.00	17.34	18.97	18.00	17.89	20.10	19.62	18.44	17.58	17.00	17.00	17.00	
22	17.00	17.34	19.12	18.00	17.86	21.24	19.33	18.47	17.42	17.00	17.00	17.00	
23	17.00	17.34	18.79	18.00	17.86	22.81	18.96	18.42	17.16	17.00	17.00	17.00	
24	17.00	17.34	18.68	18.00	17.84	22.91	18.91	18.38	17.04	17.00	17.00	17.00	
25	17.00	17.35	18.57	18.00	17.84	23.10	20.76	18.35	17.00	17.00	17.00	17.00	
26	17.00	17.36	18.47	18.00	17.84	23.02	20.00	18.37	17.00	17.00	17.00	17.00	
27	17.00	17.36	18.46	18.00	17.80	23.02	20.05	18.75	17.00	17.00	17.00	17.00	
28	17.00	17.37	18.46	18.00	17.80	23.02	21.09	19.54	17.00	17.00	17.00	17.00	
29	17.00	17.39	18.65	18.00	17.80	23.00	21.53	19.51	17.00	17.00		17.00	
30	17.00	17.39	19.00	17.96	17.80	22.80	22.62	18.78	17.00	17.00		17.00	
31		17.37		17.93	18.07		22.72		17.00	17.00		17.00	
Mean	17.00	17.15	17.97	18.22	18.03	21.11	21.49	19.94	17.93	17.13	17.00	17.00	
Max	17.00	17.39	19.12	19.86	18.92	23.10	22.79	22.82	18.80	17.80	17.00	17.00	23.10
Min	17.00	17.00	17.33	17.96	17.80	19.85	18.91	18.35	17.00	17.00	17.00	17.00	17.00

Annual Max Momentary Gage Height 23.11 m. (MSL.) , at 12.00 Hours , on Sep 25 , 2002

Zero Gage at Bottom Elevation 10.00 m. (MSL.) , River Bed 17.06 m. (MSL.)

Left Bank Elevation 24.36 m. (MSL.) ,

Right Bank Elevation 24.35 m. (MSL.) , Drainage Are 3,454 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	0.00	7.27	0.00	20.72	174.55	187.10	4.51	0.00	0.00	0.00		
2	0.00	0.00	0.00	11.57	0.00	20.50	169.80	177.40	4.51	0.00	0.00	0.00		
3	0.00	0.00	0.00	20.72	0.00	20.94	166.95	165.18	4.69	0.00	0.00	0.00		
4	0.00	0.00	0.00	18.08	0.45	42.20	165.18	160.26	4.88	0.00	0.00	0.00		
5	0.00	0.00	0.00	1.71	0.45	60.52	170.75	153.70	4.97	0.00	0.00	0.00		
6	0.00	0.00	0.00	0.91	2.50	55.00	172.65	140.58	5.07	0.00	0.00	0.00		
7	0.00	0.00	0.00	0.24	6.25	52.20	173.60	128.28	5.07	0.00	0.00	0.00		
8	0.00	0.00	0.00	0.40	2.57	47.00	179.30	99.87	4.97	0.00	0.00	0.00		
9	0.00	0.00	0.00	0.45	2.29	43.40	184.05	61.03	4.41	0.00	0.00	0.00		
10	0.00	0.00	0.00	0.40	2.01	34.45	182.15	21.60	3.29	0.00	0.00	0.00		
11	0.00	0.00	0.00	0.36	0.00	36.90	168.85	19.84	1.05	0.00	0.00	0.00		
12	0.00	0.00	0.00	0.28	0.00	52.60	161.08	16.12	0.00	0.00	0.00	0.00		
13	0.00	0.00	0.00	0.08	0.00	90.48	142.22	5.53	0.00	0.00	0.00	0.00		
14	0.00	0.00	0.00	0.00	0.00	39.40	94.17	5.81	0.00	0.00	0.00	0.00		
15	0.00	0.00	0.00	0.00	0.00	29.00	79.12	11.19	0.00	0.00	0.00	0.00		
16	0.00	0.00	0.00	0.00	0.00	27.50	90.48	11.83	0.00	0.00	0.00	0.00		
17	0.00	0.00	0.08	0.00	0.00	26.60	71.88	10.81	0.00	0.00	0.00	0.00		
18	0.00	0.00	0.04	0.00	0.00	23.80	27.80	8.41	0.00	0.00	0.00	0.00		
19	0.00	0.00	0.24	0.00	0.00	23.80	27.20	1.75	0.00	0.00	0.00	0.00		
20	0.00	0.00	2.57	0.00	0.00	23.80	24.90	1.75	0.00	0.00	0.00	0.00		
21	0.00	0.00	6.89	0.00	0.00	26.00	15.76	2.08	0.00	0.00	0.00	0.00		
22	0.00	0.00	8.79	0.00	0.00	72.40	11.45	2.29	0.00	0.00	0.00	0.00		
23	0.00	0.00	4.97	0.00	0.00	186.05	6.76	1.94	0.00	0.00	0.00	0.00		
24	0.00	0.00	3.95	0.00	0.00	196.55	6.13	1.71	0.00	0.00	0.00	0.00		
25	0.00	0.00	2.99	0.00	0.00	217.00	49.40	1.57	0.00	0.00	0.00	0.00		
26	0.00	0.00	2.29	0.00	0.00	208.20	23.80	1.66	0.00	0.00	0.00	0.00		
27	0.00	0.00	2.22	0.00	0.00	208.20	24.90	4.60	0.00	0.00	0.00	0.00		
28	0.00	0.00	2.22	0.00	0.00	208.20	64.65	14.32	0.00	0.00	0.00	0.00		
29	0.00	0.00	3.67	0.00	0.00	206.00	87.38	13.78	0.00	0.00		0.00		
30	0.00	0.00	7.27	0.00	0.00	185.00	167.90	4.88	0.00	0.00		0.00		
31		0.00		0.00	0.28		177.40		0.00	0.00		0.00		
Total	0.00	0.00	48.19	62.47	16.80	2484.41	3262.21	1436.87	47.42	0.00	0.00	0.00	7358.37	CMSDAY
Mean	0.00	0.00	1.61	2.02	0.54	82.81	105.23	47.90	1.53	0.00	0.00	0.00	20.16	CMS
Max	0.00	0.00	8.79	20.72	6.25	217.00	184.05	187.10	5.07	0.00	0.00	0.00	217.00	CMS
Min	0.00	0.00	0.00	0.00	0.00	20.50	6.13	1.57	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	0.00	0.00	4.16	5.40	1.45	214.65	281.85	124.15	4.10	0.00	0.00	0.00	635.76	MCM

Momentary Peak 218.10 CMS. at 23.11 m. (MSL.) at 12.00 Hours , on Sep 25, 2002

Runoff Yield 5.84 Liters/Second/Square KM. Momentary Peak Yield 63.140 Liters/Second/Square KM.

WATER YEAR : 2002

SAKAE KRANG RIVER BASIN

Huai Thap Salao at Ban Saphan Leak, Uthai Thani (Ct.20)

Lat 15 - 26 - 45 N Long 99 - 35 - 22 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	Staff gage.		
Zero Gage at Bottom	+96.620 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank near the automatic gage building.	**Elevation** +101.800 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 mean 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 good. Stage-discharge relation defined by 28 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

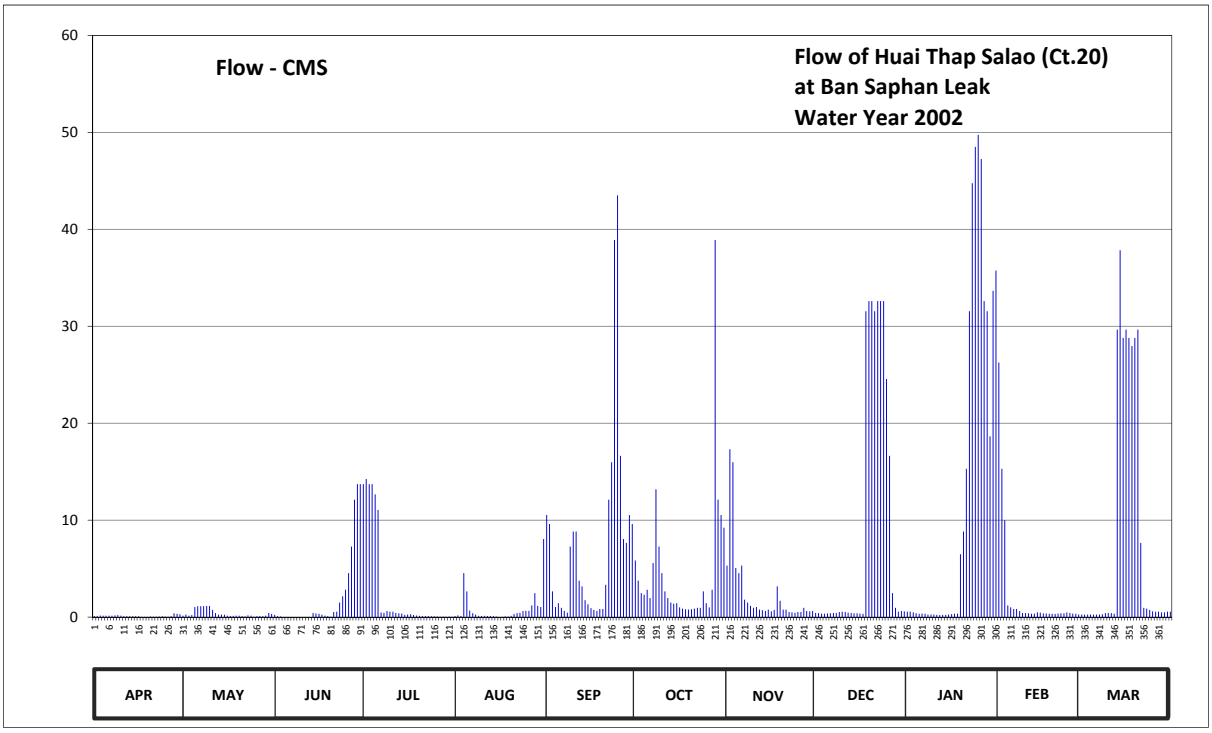
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	98.31	98.34	98.40	99.27	98.31	99.21	99.09	99.07	98.55	98.62	99.45	98.42	
2	98.31	98.42	98.29	99.28	98.36	99.19	99.01	99.33	98.53	98.62	99.30	98.42	
3	98.35	98.34	98.26	99.27	98.31	98.95	98.94	99.31	98.50	98.60	99.20	98.42	
4	98.33	98.38	98.22	99.27	99.04	98.76	98.93	99.06	98.49	98.52	98.80	98.42	
5	98.34	98.76	98.21	99.25	98.95	98.84	98.96	99.04	98.51	98.49	98.75	98.42	
6	98.34	98.78	98.22	99.22	98.66	98.74	98.91	99.07	98.52	98.50	98.71	98.42	
7	98.33	98.78	98.21	98.58	98.53	98.65	99.08	98.90	98.54	98.48	98.71	98.42	
8	98.36	98.78	98.19	98.56	98.43	98.57	99.26	98.85	98.54	98.42	98.64	98.44	
9	98.38	98.79	98.21	98.64	98.32	99.13	99.13	98.79	98.61	98.42	98.55	98.53	
10	98.34	98.79	98.22	98.62	98.31	99.17	99.04	98.74	98.62	98.42	98.53	98.55	
11	98.30	98.68	98.21	98.62	98.32	99.17	98.95	98.76	98.61	98.40	98.52	98.53	
12	98.29	98.53	98.21	98.54	98.31	99.01	98.91	98.69	98.57	98.39	98.49	98.48	
13	98.29	98.41	98.21	98.52	98.31	98.98	98.85	98.67	98.55	98.40	98.50	99.49	
14	98.29	98.43	98.54	98.50	98.29	98.89	98.83	98.65	98.52	98.40	98.60	99.57	
15	98.29	98.41	98.51	98.40	98.27	98.82	98.84	98.69	98.52	98.43	98.57	99.48	
16	98.29	98.34	98.48	98.43	98.21	98.73	98.75	98.63	98.50	98.46	98.51	99.49	
17	98.24	98.31	98.41	98.44	98.23	98.68	98.72	98.68	98.49	98.49	98.51	99.48	
18	98.23	98.32	98.34	98.39	98.28	98.64	98.70	98.98	99.51	98.50	98.48	99.47	
19	98.24	98.33	98.31	98.35	98.27	98.71	98.69	98.88	99.52	99.11	98.48	99.48	
20	98.27	98.34	98.25	98.32	98.32	98.71	98.70	98.69	99.52	99.17	98.47	99.49	
21	98.25	98.31	98.61	98.31	98.46	98.99	98.72	98.69	99.51	99.30	98.50	99.14	
22	98.25	98.28	98.62	98.31	98.53	99.24	98.74	98.61	99.52	99.51	98.52	98.74	
23	98.27	98.36	98.85	98.31	98.56	99.31	98.74	98.59	99.52	99.63	98.52	98.72	
24	98.29	98.34	98.92	98.30	98.64	99.58	98.95	98.56	99.52	99.66	98.58	98.68	
25	98.26	98.25	98.96	98.29	98.65	99.62	98.84	98.61	99.43	99.67	98.55	98.63	
26	98.25	98.29	99.04	98.28	98.65	99.32	98.75	98.61	99.32	99.65	98.50	98.62	
27	98.29	98.31	99.13	98.25	98.80	99.15	98.96	98.74	98.94	99.52	98.49	98.62	
28	98.52	98.30	99.24	98.26	98.94	99.14	99.58	98.64	98.74	99.51	98.43	98.60	
29	98.49	98.34	99.27	98.25	98.79	99.21	99.24	98.63	98.62	99.35		98.60	
30	98.44	98.54	99.27	98.27	98.76	99.19	99.21	98.64	98.64	99.53		98.62	
31		98.47		98.25	99.15		99.18		98.63	99.55		98.62	
Mean	98.31	98.45	98.53	98.57	98.51	99.01	98.94	98.79	98.84	98.89	98.64	98.81	
Max	98.52	98.79	99.27	99.28	99.15	99.62	99.58	99.33	99.52	99.67	99.45	99.57	99.67
Min	98.23	98.25	98.19	98.25	98.21	98.57	98.69	98.56	98.49	98.39	98.43	98.42	98.19

Annual Max Momentary Gage Height 99.63 m. (MSL.) , at 12.00 Hours , on Sep 25 , 2002

Zero Gage at Bottom Elevation 96.62 m. (MSL.) , River Bed 97.85 m. (MSL.)

Left Bank Elevation 104.33 m. (MSL.) ,

Right Bank Elevation 104.35 m. (MSL.) , Drainage Are 691 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.11	0.15	0.23	13.71	0.11	10.53	5.84	5.32	0.43	0.56	26.25	0.26		
2	0.11	0.26	0.09	14.24	0.18	9.61	3.76	17.31	0.41	0.56	15.30	0.26		
3	0.17	0.15	0.06	13.71	0.11	2.65	2.48	15.97	0.37	0.50	10.00	0.26		
4	0.14	0.21	0.02	13.71	4.54	1.04	2.31	5.06	0.35	0.39	1.20	0.26		
5	0.15	1.04	0.01	12.65	2.65	1.44	2.82	4.54	0.38	0.35	1.00	0.26		
6	0.15	1.12	0.02	11.06	0.68	0.96	1.97	5.32	0.39	0.37	0.84	0.26		
7	0.14	1.12	0.01	0.47	0.41	0.65	5.58	1.80	0.42	0.34	0.84	0.26		
8	0.18	1.12	0.00	0.45	0.27	0.46	13.18	1.50	0.42	0.26	0.62	0.29		
9	0.21	1.16	0.01	0.62	0.13	7.27	7.27	1.16	0.53	0.26	0.43	0.41		
10	0.15	1.16	0.02	0.56	0.11	8.83	4.54	0.96	0.56	0.26	0.41	0.43		
11	0.10	0.74	0.01	0.56	0.13	8.83	2.65	1.04	0.53	0.23	0.39	0.41		
12	0.09	0.41	0.01	0.42	0.11	3.76	1.97	0.77	0.46	0.22	0.35	0.34		
13	0.09	0.25	0.01	0.39	0.11	3.16	1.50	0.71	0.43	0.23	0.37	29.65		
14	0.09	0.27	0.42	0.37	0.09	1.74	1.38	0.65	0.39	0.23	0.50	37.85		
15	0.09	0.25	0.38	0.23	0.07	1.32	1.44	0.77	0.39	0.27	0.46	28.80		
16	0.09	0.15	0.34	0.27	0.01	0.92	1.00	0.59	0.37	0.31	0.38	29.65		
17	0.04	0.11	0.25	0.29	0.03	0.74	0.88	0.74	0.35	0.35	0.38	28.80		
18	0.03	0.13	0.15	0.22	0.08	0.62	0.80	3.16	31.55	0.37	0.34	27.95		
19	0.04	0.14	0.11	0.17	0.07	0.84	0.77	1.68	32.60	6.49	0.34	28.80		
20	0.07	0.15	0.05	0.13	0.13	0.84	0.80	0.77	32.60	8.83	0.33	29.65		
21	0.05	0.11	0.53	0.11	0.31	3.33	0.88	0.77	31.55	15.30	0.37	7.66		
22	0.05	0.08	0.56	0.11	0.41	12.12	0.96	0.53	32.60	31.55	0.39	0.96		
23	0.07	0.18	1.50	0.11	0.45	15.97	0.96	0.49	32.60	44.75	0.39	0.88		
24	0.09	0.15	2.14	0.10	0.62	38.90	2.65	0.45	32.60	48.50	0.47	0.74		
25	0.06	0.05	2.82	0.09	0.65	43.50	1.44	0.53	24.55	49.75	0.43	0.59		
26	0.05	0.09	4.54	0.08	0.65	16.64	1.00	0.53	16.64	47.25	0.37	0.56		
27	0.09	0.11	7.27	0.05	1.20	8.05	2.82	0.96	2.48	32.60	0.35	0.56		
28	0.39	0.10	12.12	0.06	2.48	7.66	38.90	0.62	0.96	31.55	0.27	0.50		
29	0.35	0.15	13.71	0.05	1.16	10.53	12.12	0.59	0.56	18.65		0.50		
30	0.29	0.42	13.71	0.07	1.04	9.61	10.53	0.62	0.62	33.65		0.56		
31		0.33		0.05	8.05		9.22		0.59	35.75		0.56		
Total	3.73	11.86	61.10	85.11	27.04	232.52	144.42	75.91	279.68	410.68	63.77	258.92	1654.74	CMSDAY
Mean	0.12	0.38	2.04	2.75	0.87	7.75	4.66	2.53	9.02	13.25	2.28	8.35	4.53	CMS
Max	0.39	1.16	13.71	14.24	8.05	43.50	38.90	17.31	32.60	49.75	26.25	37.85	49.75	CMS
Min	0.03	0.05	0.00	0.05	0.01	0.46	0.77	0.45	0.35	0.22	0.27	0.26	0.00	CMS
Runoff	0.32	1.02	5.28	7.35	2.34	20.09	12.48	6.56	24.16	35.48	5.51	22.37	142.97	MCM

Momentary Peak 44.75 CMS. at 99.63 m. (MSL.) at 12.00 Hours , on Sep 25, 2002

Runoff Yield 6.56 Liters/Second/Square KM. Momentary Peak Yield 64.760 Liters/Second/Square KM.

WATER YEAR : 2002

PASAK RIVER BASIN

Pasak River at Ban Kaeng Khoi, Saraburi (S.2)

Lat 14 - 35 - 32 N Long 100 - 00 - 23 E

Location : on left bank about 100 meters downstream from Kaeng Khoi Water Supply.

Ban Kaeng Khoi **Amphoe** Kaeng Khoi **Changwat** Saraburi

Drainge Area	14,449 sq.km.
Type of Gage	Water - stage recorder.
Zero Gage at Bottom	+6.110 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank near the automatic gage building. **Elevation** +20.130 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	1959 - 1962, 1965 - 1966, 1993 to date.
Rated by Flot	-
Rated by Current Meter	1959 - 1962, 1965 - 1966, 1993 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 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

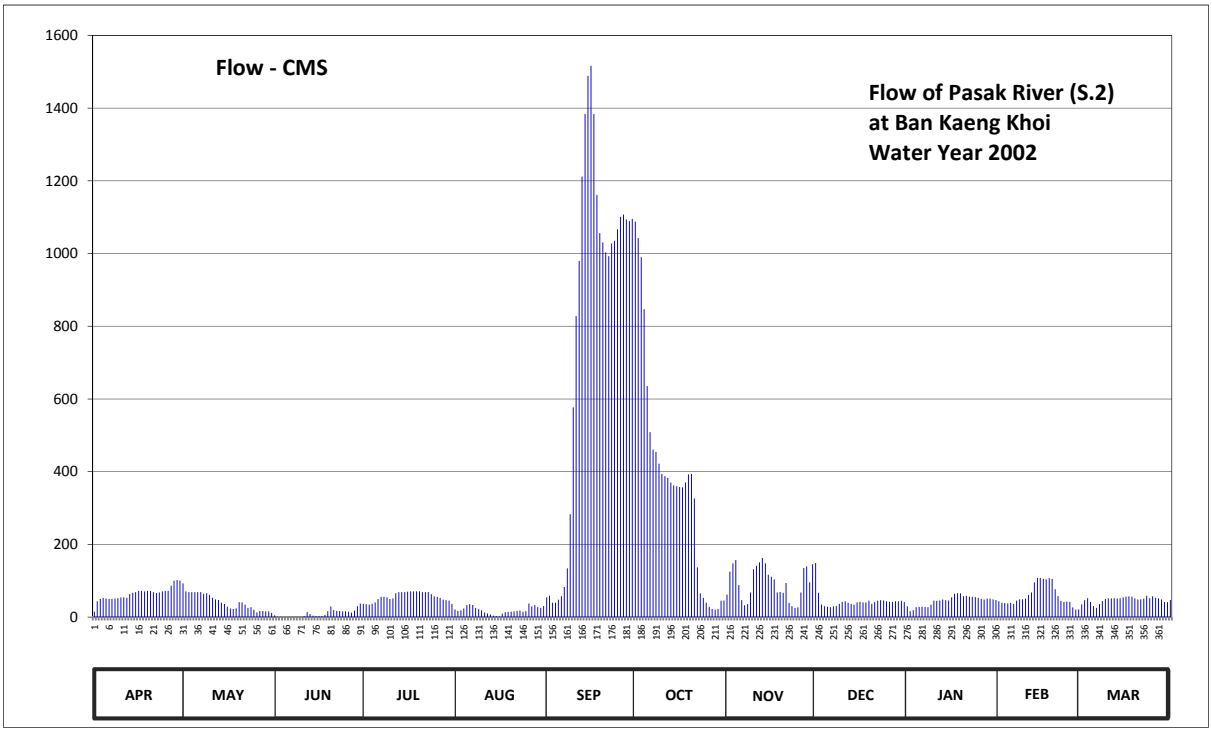
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	7.31	8.50	7.12	7.67	7.42	7.96	16.48	8.07	9.16	7.55	7.78	7.64	
2	7.78	8.19	7.02	7.65	7.34	8.03	16.18	8.89	8.14	7.33	7.72	7.83	
3	7.89	8.16	6.91	7.63	7.37	7.72	15.83	9.15	7.64	7.38	7.70	7.92	
4	7.93	8.16	6.91	7.67	7.46	7.72	14.88	9.25	7.56	7.52	7.69	7.75	
5	7.90	8.16	6.92	7.73	7.61	7.85	13.39	8.43	7.54	7.53	7.71	7.57	
6	7.89	8.16	6.97	7.88	7.65	8.01	12.42	7.83	7.52	7.54	7.67	7.49	
7	7.89	8.16	7.00	7.98	7.62	8.36	12.05	7.60	7.55	7.53	7.81	7.65	
8	7.90	8.10	6.99	7.98	7.48	9.00	12.00	7.66	7.57	7.52	7.87	7.79	
9	7.92	8.12	6.99	7.95	7.43	10.53	11.75	8.15	7.67	7.63	7.87	7.88	
10	7.95	8.06	6.96	7.88	7.38	12.94	11.52	8.97	7.75	7.81	7.90	7.91	
11	7.96	7.94	7.06	7.91	7.27	14.75	11.47	9.08	7.78	7.80	8.05	7.91	
12	7.94	7.87	7.28	8.12	7.22	15.76	11.43	9.18	7.72	7.82	8.15	7.92	
13	8.09	7.84	7.19	8.16	7.17	17.29	11.32	9.31	7.67	7.86	8.53	7.90	
14	8.14	7.72	7.10	8.16	7.10	18.32	11.25	9.15	7.63	7.83	8.68	7.92	
15	8.16	7.66	7.06	8.16	7.06	18.90	11.23	8.79	7.73	7.82	8.68	7.96	
16	8.21	7.54	7.06	8.18	7.04	19.05	11.21	8.72	7.75	7.96	8.65	7.99	
17	8.21	7.46	7.06	8.19	7.21	18.32	11.20	8.63	7.73	8.10	8.63	8.00	
18	8.19	7.44	7.14	8.19	7.28	16.97	11.32	8.15	7.73	8.12	8.67	7.99	
19	8.21	7.47	7.33	8.19	7.30	16.27	11.51	8.17	7.81	8.12	8.65	7.91	
20	8.21	7.74	7.55	8.19	7.31	16.10	11.52	8.14	7.67	8.00	8.27	7.86	
21	8.16	7.73	7.39	8.16	7.32	15.92	10.93	8.51	7.75	8.02	8.01	7.87	
22	8.13	7.63	7.35	8.16	7.35	15.85	9.03	7.71	7.81	7.99	7.80	7.90	
23	8.15	7.48	7.34	8.17	7.36	16.08	8.11	7.56	7.83	7.98	7.75	8.02	
24	8.19	7.52	7.32	8.08	7.31	16.13	7.93	7.49	7.82	7.97	7.77	7.92	
25	8.21	7.40	7.33	8.00	7.33	16.34	7.72	7.51	7.78	7.93	7.75	8.00	
26	8.21	7.27	7.31	7.98	7.68	16.57	7.53	8.15	7.76	7.89	7.51	7.94	
27	8.41	7.34	7.26	7.93	7.55	16.61	7.44	9.01	7.75	7.86	7.41	7.91	
28	8.59	7.34	7.36	7.85	7.61	16.52	7.41	9.06	7.78	7.90	7.42	7.87	
29	8.61	7.32	7.56	7.83	7.52	16.49	7.44	8.53	7.78	7.90		7.75	
30	8.59	7.32	7.68	7.81	7.49	16.53	7.81	9.12	7.80	7.87		7.74	
31		7.24		7.67	7.57		7.82		7.75	7.84		7.84	
Mean	8.10	7.74	7.18	7.97	7.38	14.10	10.94	8.47	7.77	7.80	8.00	7.86	
Max	8.61	8.50	7.68	8.19	7.68	19.05	16.48	9.31	9.16	8.12	8.68	8.02	19.05
Min	7.31	7.24	6.91	7.63	7.04	7.72	7.41	7.49	7.52	7.33	7.41	7.49	6.91

Annual Max Momentary Gage Height 19.06 m. (MSL.) , at 06.00 Hours , on Sep 16 , 2002

Zero Gage at Bottom Elevation 6.11 m. (MSL.) , River Bed 6.00 m. (MSL.)

Left Bank Elevation 21.62 m. (MSL.) ,

Right Bank Elevation 21.59 m. (MSL.) , Drainage Are 14,449 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	15.05	93.00	5.00	36.65	21.23	54.53	1087.78	62.04	148.67	29.25	43.43	34.80		
2	43.43	70.68	0.80	35.42	16.70	59.16	1042.67	124.98	67.08	16.15	39.73	46.52		
3	50.22	68.52	0.00	34.18	18.35	39.73	990.05	147.75	34.80	18.90	38.50	52.07		
4	52.68	68.52	0.00	36.65	23.70	39.73	847.21	156.92	29.87	27.40	37.88	41.58		
5	50.83	68.52	0.00	40.35	32.95	47.75	635.49	87.96	28.63	28.02	39.12	30.48		
6	50.22	68.52	0.00	49.60	35.42	57.72	508.91	46.52	27.40	28.63	36.65	25.55		
7	50.22	68.52	0.00	55.77	33.57	82.92	460.62	32.33	29.25	28.02	45.28	35.42		
8	50.83	64.20	0.00	55.77	24.93	134.00	454.10	36.03	30.48	27.40	48.98	44.05		
9	52.07	65.64	0.00	53.92	21.85	282.93	421.87	67.80	36.65	34.18	48.98	49.60		
10	53.92	61.32	0.00	49.60	18.90	576.77	393.70	131.54	41.58	45.28	50.83	51.45		
11	54.53	53.30	2.40	51.45	12.85	827.66	387.58	141.33	43.43	44.67	60.60	51.45		
12	53.30	48.98	13.40	65.64	10.10	979.52	382.68	150.50	39.73	45.90	67.80	52.07		
13	63.48	47.13	8.50	68.52	7.50	1211.72	370.10	162.42	36.65	48.37	95.46	50.83		
14	67.08	39.73	4.00	68.52	4.00	1384.29	362.31	147.75	34.18	46.52	107.76	52.07		
15	68.52	36.03	2.40	68.52	2.40	1488.83	360.09	116.78	40.35	45.90	107.76	54.53		
16	72.12	28.63	2.40	69.96	1.60	1516.50	357.86	111.04	41.58	54.53	105.30	56.38		
17	72.12	23.70	2.40	70.68	9.55	1384.29	356.75	103.66	40.35	64.20	103.66	57.00		
18	70.68	22.47	6.00	70.68	13.40	1161.45	370.10	67.80	40.35	65.64	106.94	56.38		
19	72.12	24.32	16.15	70.68	14.50	1056.20	392.48	69.24	45.28	65.64	105.30	51.45		
20	72.12	40.97	29.25	70.68	15.05	1030.64	393.70	67.08	36.65	57.00	76.44	48.37		
21	68.52	40.35	19.45	68.52	15.60	1003.58	326.71	93.82	41.58	58.44	57.72	48.98		
22	66.36	34.18	17.25	68.52	17.25	993.05	136.75	39.12	45.28	56.38	44.67	50.83		
23	67.80	24.93	16.70	69.24	17.80	1027.64	64.92	29.87	46.52	55.77	41.58	58.44		
24	70.68	27.40	15.60	62.76	15.05	1035.15	52.68	25.55	45.90	55.15	42.82	52.07		
25	72.12	20.00	16.15	57.00	16.15	1066.73	39.73	26.78	43.43	52.68	41.58	57.00		
26	72.12	12.85	15.05	55.77	37.27	1101.31	28.02	67.80	42.20	50.22	26.78	53.30		
27	86.52	16.70	12.30	52.68	29.25	1107.32	22.47	134.92	41.58	48.37	20.62	51.45		
28	100.38	16.70	17.80	47.75	32.95	1093.79	20.62	139.50	43.43	50.83	21.23	48.98		
29	102.02	15.60	29.87	46.52	27.40	1089.28	22.47	95.46	43.43	50.83		41.58		
30	100.38	15.60	37.27	45.28	25.55	1095.30	45.28	145.00	44.67	48.98		40.97		
31		11.20		36.65	30.48		45.90		41.58	47.13		47.13		
Total	1942.44	1298.21	290.14	1733.93	603.30	24029.49	11381.60	2829.29	1352.56	1396.38	1663.40	1492.78	50013.52	CMSDAY
Mean	64.75	41.88	9.67	55.93	19.46	800.98	367.15	94.31	43.63	45.04	59.41	48.15	137.02	CMS
Max	102.02	93.00	37.27	70.68	37.27	1516.50	1087.78	162.42	148.67	65.64	107.76	58.44	1516.50	CMS
Min	15.05	11.20	0.00	34.18	1.60	39.73	20.62	25.55	27.40	16.15	20.62	25.55	0.00	CMS
Runoff	167.83	112.17	25.07	149.81	52.13	2076.15	983.37	244.45	116.86	120.65	143.72	128.98	4321.17	MCM

Momentary Peak 1518.40 CMS. at 19.06 m. (MSL.) at 06.00 Hours , on Sep 16 , 2002

Runoff Yield 9.48 Liters/Second/Square KM. Momentary Peak Yield 105.090 Liters/Second/Square KM.

WATER YEAR : 2002

PASAK RIVER BASIN

Pasak River at Ban Tan Dieo , Phetchabun (S.3)

Lat 16 - 46 - 51 N Long 101 - 14 - 57 E

Location : on left bank near the bridge of Samakkhichai - Nonthakit Road.

Ban Tan Dieo **Amphoe** Lom Sak **Changwat** Phetchabun

Drainge Area	1,037 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+136.630 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank at the staff gage. **Elevation** +146.409 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	1950 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. Flow effected by the concrete weir about 150 meters downstream from the gage site. Stage-discharge relation defined by 24 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

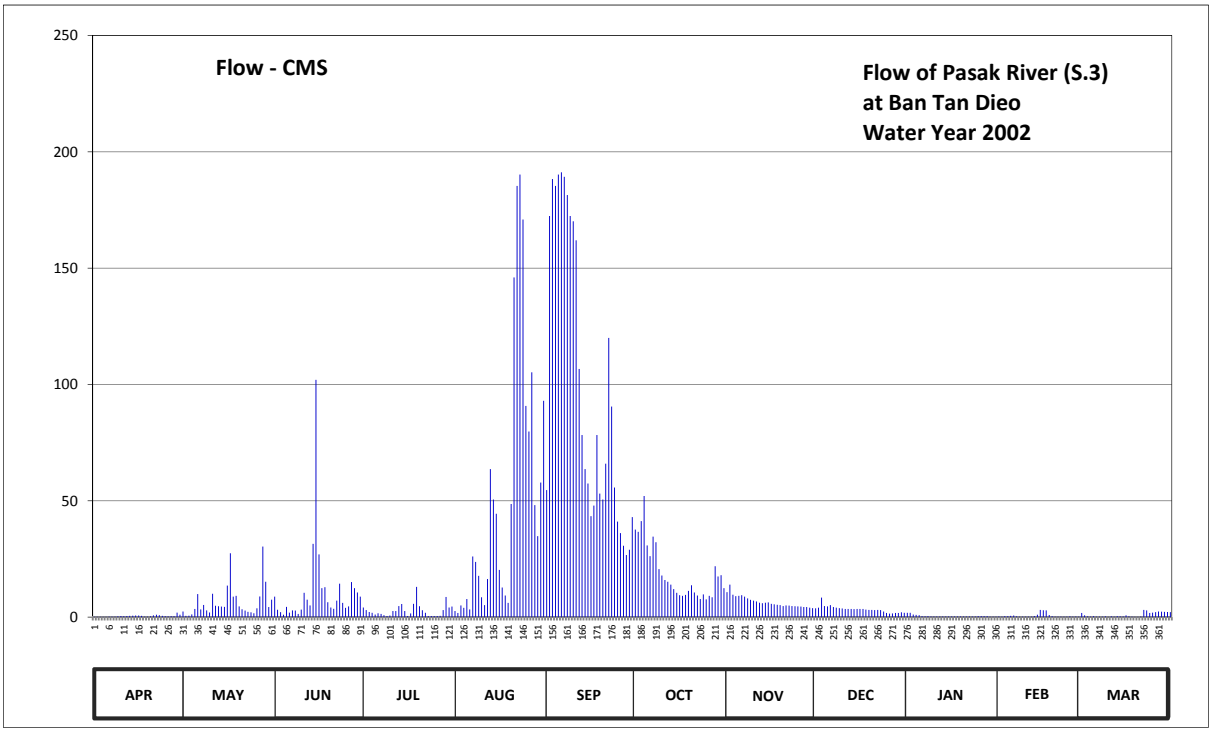
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	137.35	138.23	138.91	138.46	138.26	141.60	140.77	139.06	138.42	138.13	137.64	138.11	
2	137.42	137.82	138.34	138.32	138.12	144.72	140.72	139.29	138.45	138.13	137.61	137.88	
3	137.48	137.83	138.19	138.20	138.56	144.90	140.96	138.98	138.88	137.97	137.73	137.69	
4	137.49	137.99	137.95	138.13	138.44	144.87	141.48	138.93	138.53	137.93	137.73	137.59	
5	137.52	138.39	138.49	137.97	138.83	144.92	140.39	138.94	138.51	137.90	137.82	137.75	
6	137.55	139.00	138.15	138.09	138.36	144.93	140.11	138.96	138.57	137.76	137.86	137.56	
7	137.56	138.36	138.30	138.03	140.10	144.91	140.61	138.91	138.48	137.71	137.71	137.57	
8	137.58	138.58	138.29	137.90	139.95	144.83	140.47	138.85	138.45	137.75	137.61	137.59	
9	137.70	138.30	138.03	137.79	139.56	144.72	139.75	138.80	138.43	137.65	137.61	137.71	
10	137.78	138.16	138.35	137.85	138.89	144.69	139.57	138.77	138.41	137.65	137.61	137.53	
11	137.76	139.01	139.04	138.26	138.57	144.58	139.43	138.73	138.39	137.65	137.61	137.68	
12	137.80	138.54	138.81	138.26	139.46	143.59	139.38	138.68	138.39	137.66	137.62	137.55	
13	137.81	138.52	138.56	138.53	142.01	142.64	139.29	138.66	138.39	137.64	137.78	137.76	
14	137.83	138.50	140.43	138.62	141.41	142.01	139.15	138.68	138.38	137.63	137.96	137.71	
15	137.85	138.49	143.46	138.26	141.12	141.73	139.04	138.69	138.39	137.63	138.33	137.63	
16	137.85	139.26	140.16	137.77	139.73	141.07	138.96	138.63	138.39	137.63	138.31	137.87	
17	137.82	140.19	139.18	138.08	139.20	141.29	138.94	138.61	138.39	137.63	138.30	137.71	
18	137.62	138.91	139.21	138.63	138.95	142.64	138.97	138.59	138.35	137.63	137.92	137.60	
19	137.58	138.94	138.70	139.22	138.67	141.53	139.10	138.57	138.33	137.63	137.72	137.47	
20	137.69	138.51	138.46	138.52	141.32	141.41	139.27	138.53	138.33	137.63	137.58	137.44	
21	137.87	138.37	138.40	138.31	144.34	142.11	139.05	138.56	138.32	137.63	137.58	137.63	
22	137.96	138.29	138.77	138.13	144.87	143.88	138.95	138.55	138.33	137.63	137.58	138.33	
23	137.90	138.21	139.32	137.78	144.92	143.11	138.83	138.53	138.32	137.63	137.58	138.30	
24	137.81	138.17	138.67	137.78	144.70	141.65	138.99	138.52	138.23	137.64	137.62	138.11	
25	137.74	138.09	138.44	137.79	143.12	140.95	138.82	138.51	138.11	137.73	137.70	138.15	
26	137.71	138.42	138.51	137.78	142.70	140.69	138.94	138.50	138.06	137.73	137.58	138.19	
27	137.72	138.92	139.37	137.82	143.55	140.38	138.89	138.48	138.07	137.75	137.63	138.23	
28	137.76	140.36	139.18	138.32	141.30	140.14	139.83	138.48	138.12	137.74	137.59	138.22	
29	138.14	139.38	139.05	138.90	140.62	140.28	139.54	138.45	138.12	137.61		138.21	
30	137.96	138.48	138.91	138.46	141.75	141.05	139.58	138.43	138.17	137.59		138.20	
31		138.81		138.50	143.20		139.18		138.13	137.59		138.19	
Mean	137.72	138.61	138.92	138.21	140.79	142.73	139.58	138.70	138.35	137.72	137.75	137.84	
Max	138.14	140.36	143.46	139.22	144.92	144.93	141.48	139.29	138.88	138.13	138.33	138.33	144.93
Min	137.35	137.82	137.95	137.77	138.12	140.14	138.82	138.43	138.06	137.59	137.58	137.44	137.35

Annual Max Momentary Gage Height 144.93 m. (MSL.) , at 12.00 Hours , on Aug 23 , 2002

Zero Gage at Bottom Elevation 136.63 m. (MSL.) , River Bed 136.34 m. (MSL.)

Left Bank Elevation 146.30 m. (MSL.) ,

Right Bank Elevation 146.23 m. (MSL.) , Drainage Are 1,037 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.12	2.41	8.77	4.14	2.62	54.60	37.63	10.74	3.78	1.85	0.26	1.75		
2	0.11	0.57	3.18	3.04	1.80	172.42	36.68	13.96	4.05	1.85	0.21	0.78		
3	0.14	0.60	2.15	2.20	5.04	188.25	41.24	9.65	8.40	1.09	0.39	0.33		
4	0.15	1.16	1.02	1.85	3.96	185.32	52.02	9.02	4.77	0.95	0.39	0.19		
5	0.16	3.53	4.41	1.09	7.77	190.20	30.83	9.15	4.59	0.85	0.57	0.42		
6	0.17	9.90	1.95	1.65	3.32	191.17	26.21	9.40	5.13	0.44	0.71	0.18		
7	0.18	3.32	2.90	1.35	26.05	189.22	34.59	8.77	4.32	0.36	0.36	0.18		
8	0.19	5.22	2.83	0.85	23.72	181.42	32.19	8.02	4.05	0.42	0.21	0.19		
9	0.35	2.90	1.35	0.48	17.74	172.42	20.62	7.40	3.87	0.27	0.21	0.36		
10	0.47	2.00	3.25	0.67	8.52	170.14	17.88	7.10	3.69	0.27	0.21	0.16		
11	0.44	10.04	10.46	2.62	5.13	161.97	15.92	6.70	3.53	0.27	0.21	0.32		
12	0.50	4.86	7.52	2.62	16.34	106.64	15.22	6.20	3.53	0.29	0.23	0.17		
13	0.53	4.68	5.04	4.77	63.63	78.22	13.96	6.00	3.53	0.26	0.47	0.44		
14	0.60	4.50	31.51	5.60	50.52	63.63	12.00	6.20	3.46	0.24	1.06	0.36		
15	0.67	4.41	101.96	2.62	44.40	57.39	10.46	6.30	3.53	0.24	3.11	0.24		
16	0.67	13.54	26.98	0.45	20.31	43.40	9.40	5.70	3.53	0.24	2.97	0.74		
17	0.57	27.45	12.42	1.60	12.70	47.94	9.15	5.50	3.53	0.24	2.90	0.36		
18	0.23	8.77	12.84	5.70	9.27	78.22	9.52	5.31	3.25	0.24	0.92	0.20		
19	0.19	9.15	6.40	12.98	6.10	53.09	11.30	5.13	3.11	0.24	0.38	0.14		
20	0.33	4.59	4.14	4.68	48.58	50.52	13.68	4.77	3.11	0.24	0.19	0.12		
21	0.74	3.39	3.60	2.97	146.01	65.93	10.60	5.04	3.04	0.24	0.19	0.24		
22	1.06	2.83	7.10	1.85	185.32	120.00	9.27	4.95	3.11	0.24	0.19	3.11		
23	0.85	2.27	14.38	0.47	190.20	90.48	7.77	4.77	3.04	0.24	0.19	2.90		
24	0.53	2.05	6.10	0.47	170.90	55.67	9.77	4.68	2.41	0.26	0.23	1.75		
25	0.41	1.65	3.96	0.48	90.76	41.05	7.65	4.59	1.75	0.39	0.35	1.95		
26	0.36	3.78	4.59	0.47	79.75	36.11	9.15	4.50	1.50	0.39	0.19	2.15		
27	0.38	8.90	15.08	0.57	105.20	30.66	8.52	4.32	1.55	0.42	0.24	2.41		
28	0.44	30.32	12.42	3.04	48.15	26.67	21.86	4.32	1.80	0.41	0.19	2.34		
29	1.90	15.22	10.60	8.65	34.78	28.96	17.46	4.05	1.80	0.21		2.27		
30	1.06	4.32	8.77	4.14	57.82	43.00	18.02	3.87	2.05	0.19		2.20		
31		7.52		4.50	93.00		12.42		1.85	0.19		2.15		
Total	14.50	205.85	337.68	88.57	1579.41	2974.71	582.99	196.11	104.66	14.03	17.73	31.10	6147.34	CMSDAY
Mean	0.48	6.64	11.26	2.86	50.95	99.16	18.81	6.54	3.38	0.45	0.63	1.00	16.84	CMS
Max	1.90	30.32	101.96	12.98	190.20	191.17	52.02	13.96	8.40	1.85	3.11	3.11	191.17	CMS
Min	0.11	0.57	1.02	0.45	1.80	26.67	7.65	3.87	1.50	0.19	0.19	0.12	0.11	CMS
Runoff	1.25	17.79	29.18	7.65	136.46	257.01	50.37	16.94	9.04	1.21	1.53	2.69	531.13	MCM

Momentary Peak 191.17 CMS. at 144.93 m. (MSL.) at 12.00 Hours , on Aug 23 , 2002

Runoff Yield 16.24 Liters/Second/Square KM. Momentary Peak Yield 184.350 Liters/Second/Square KM.

WATER YEAR : 2002

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	+7.490 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 mean 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 because of backwater effect.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Flow regulated by Pasak Dam above gage site. Stage-discharge relation defined by 32 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

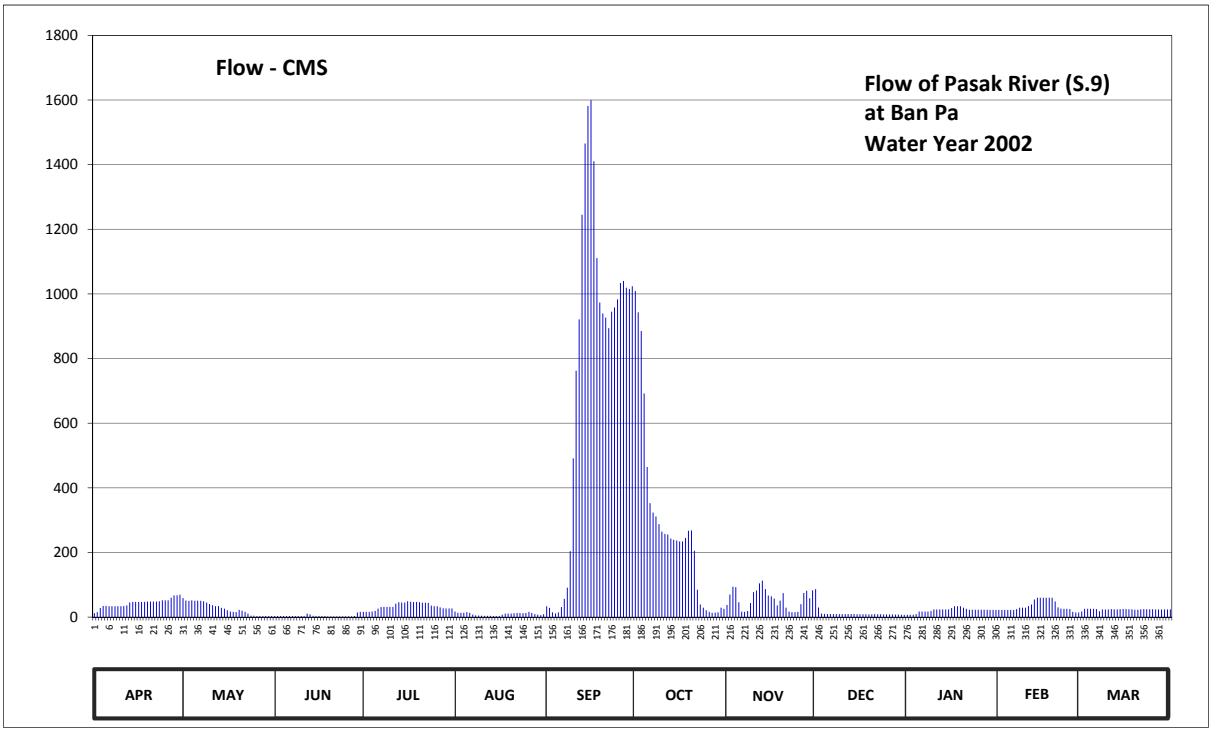
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	8.79	9.82	8.51	8.91	8.94	9.33	17.48	9.41	10.30	8.63	9.08	8.94	
2	8.89	9.68	8.51	8.91	8.82	9.22	17.14	10.03	9.25	8.63	9.08	9.15	
3	9.21	9.66	8.51	8.91	8.82	8.86	16.82	10.42	8.75	8.63	9.08	9.15	
4	9.35	9.69	8.51	8.95	8.82	8.76	15.75	10.40	8.71	8.70	9.08	9.15	
5	9.35	9.66	8.51	9.01	8.89	8.86	14.26	9.57	8.69	8.94	9.07	9.15	
6	9.33	9.67	8.51	9.17	8.82	9.28	13.36	8.93	8.71	8.94	9.07	9.13	
7	9.33	9.66	8.51	9.28	8.65	9.77	13.12	8.92	8.69	8.94	9.13	8.97	
8	9.33	9.63	8.51	9.29	8.57	10.37	13.02	8.99	8.69	8.94	9.23	9.11	
9	9.33	9.55	8.51	9.29	8.55	11.94	12.79	9.52	8.69	9.00	9.24	9.11	
10	9.33	9.47	8.51	9.29	8.54	14.45	12.56	10.15	8.69	9.11	9.24	9.11	
11	9.34	9.39	8.51	9.29	8.53	16.14	12.49	10.23	8.69	9.11	9.34	9.13	
12	9.38	9.33	8.74	9.49	8.53	17.02	12.47	10.59	8.69	9.11	9.44	9.12	
13	9.55	9.34	8.66	9.57	8.52	18.57	12.35	10.71	8.69	9.11	9.74	9.11	
14	9.59	9.22	8.53	9.55	8.51	19.57	12.31	10.30	8.69	9.11	9.84	9.13	
15	9.59	9.17	8.51	9.55	8.51	20.10	12.29	9.98	8.68	9.11	9.84	9.14	
16	9.59	9.05	8.51	9.63	8.51	20.18	12.26	9.93	8.68	9.21	9.84	9.13	
17	9.59	8.94	8.51	9.60	8.64	19.32	12.26	9.79	8.68	9.33	9.84	9.12	
18	9.59	8.91	8.51	9.58	8.74	17.96	12.37	9.38	8.68	9.33	9.84	9.12	
19	9.61	8.90	8.48	9.59	8.75	17.30	12.59	9.67	8.67	9.33	9.84	9.09	
20	9.61	9.07	8.48	9.57	8.75	17.12	12.60	10.10	8.67	9.23	9.62	9.09	
21	9.61	9.02	8.48	9.54	8.77	17.05	11.96	9.23	8.69	9.15	9.26	9.11	
22	9.61	8.91	8.48	9.54	8.81	16.87	10.27	8.95	8.68	9.09	9.17	9.13	
23	9.63	8.74	8.48	9.53	8.81	17.15	9.44	8.89	8.68	9.09	9.16	9.12	
24	9.69	8.54	8.48	9.37	8.79	17.22	9.24	8.89	8.67	9.09	9.15	9.12	
25	9.69	8.54	8.48	9.33	8.81	17.35	9.05	8.91	8.67	9.09	9.13	9.12	
26	9.69	8.51	8.48	9.33	8.92	17.60	8.92	9.46	8.67	9.09	8.92	9.11	
27	9.84	8.51	8.48	9.26	8.81	17.63	8.82	10.11	8.66	9.09	8.85	9.11	
28	9.99	8.51	8.51	9.19	8.69	17.53	8.83	10.22	8.65	9.09	8.85	9.11	
29	9.99	8.51	8.85	9.18	8.63	17.51	8.86	9.81	8.65	9.08		9.11	
30	10.02	8.51	8.91	9.18	8.59	17.55	9.23	10.24	8.62	9.08		9.11	
31		8.51		9.18	8.68		9.15		8.61	9.08		9.11	
Mean	9.51	9.12	8.54	9.32	8.70	15.25	12.07	9.72	8.75	9.05	9.32	9.11	
Max	10.02	9.82	8.91	9.63	8.94	20.18	17.48	10.71	10.30	9.33	9.84	9.15	20.18
Min	8.79	8.51	8.48	8.91	8.51	8.76	8.82	8.89	8.61	8.63	8.85	8.94	8.48

Annual Max Momentary Gage Height 20.21 m. (MSL.) , at 06.00 Hours , on Sep 16 , 2002

Zero Gage at Bottom Elevation 7.49 m. (MSL.) , River Bed 5.59 m. (MSL.)

Left Bank Elevation 23.10 m. (MSL.) ,

Right Bank Elevation 22.57 m. (MSL.) , Drainage Are 14,233 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	12.35	58.74	3.48	16.15	17.10	33.54	1009.40	37.66	86.50	7.28	22.47	17.10		
2	15.52	51.54	3.48	16.15	13.30	28.53	943.16	69.85	29.83	7.28	22.47	25.50		
3	28.10	50.51	3.48	16.15	13.30	14.57	885.33	93.90	11.08	7.28	22.47	25.50		
4	34.57	52.06	3.48	17.42	13.30	11.40	692.00	92.67	9.82	9.50	22.47	25.50		
5	34.57	50.51	3.48	19.43	15.52	14.57	464.40	45.89	9.18	17.10	22.03	25.50		
6	33.54	51.03	3.48	26.37	13.30	31.13	352.46	16.78	9.82	17.10	22.03	24.63		
7	33.54	50.51	3.48	31.13	7.92	56.17	323.42	16.47	9.18	17.10	24.63	18.05		
8	33.54	48.97	3.48	31.57	5.38	90.82	311.40	18.68	9.18	17.10	28.97	23.77		
9	33.54	44.86	3.48	31.57	4.75	203.73	287.74	43.31	9.18	19.00	29.40	23.77		
10	33.54	40.74	3.48	31.57	4.43	491.00	264.45	77.25	9.18	23.77	29.40	23.77		
11	34.06	36.63	3.48	31.57	4.12	762.44	257.36	82.18	9.18	23.77	34.06	24.63		
12	36.11	33.54	10.77	41.77	4.12	921.47	255.34	104.38	9.18	23.77	39.20	24.20		
13	44.86	34.06	8.23	45.89	3.80	1245.40	243.19	112.80	9.18	23.77	54.63	23.77		
14	46.91	28.53	4.12	44.86	3.48	1465.40	239.14	86.50	9.18	23.77	59.77	24.63		
15	46.91	26.37	3.48	44.86	3.48	1582.00	237.11	66.97	8.87	23.77	59.77	25.07		
16	46.91	21.17	3.48	48.97	3.48	1599.60	234.08	64.40	8.87	28.10	59.77	24.63		
17	46.91	17.10	3.48	47.43	7.60	1410.40	234.08	57.20	8.87	33.54	59.77	24.20		
18	46.91	16.15	3.48	46.40	10.77	1111.20	245.21	36.11	8.87	33.54	59.77	24.20		
19	47.94	15.83	2.53	46.91	11.08	973.50	267.49	51.03	8.55	33.54	59.77	22.90		
20	47.94	22.03	2.53	45.89	11.08	939.54	268.50	74.17	8.55	28.97	48.46	22.90		
21	47.94	19.87	2.53	44.34	11.72	926.89	205.60	28.97	9.18	25.50	30.27	23.77		
22	47.94	16.15	2.53	44.34	12.98	894.36	84.65	17.42	8.87	22.90	26.37	24.63		
23	48.97	10.77	2.53	43.83	12.98	944.96	39.20	15.52	8.87	22.90	25.93	24.20		
24	52.06	4.43	2.53	35.60	12.35	957.90	29.40	15.52	8.55	22.90	25.50	24.20		
25	52.06	4.43	2.53	33.54	12.98	983.25	21.17	16.15	8.55	22.90	24.63	24.20		
26	52.06	3.48	2.53	33.54	16.47	1034.00	16.47	40.23	8.55	22.90	16.47	23.77		
27	59.77	3.48	2.53	30.27	12.98	1040.40	13.30	74.78	8.23	22.90	14.25	23.77		
28	67.49	3.48	3.48	27.23	9.18	1019.65	13.62	81.57	7.92	22.90	14.25	23.77		
29	67.49	3.48	14.25	26.80	7.28	1015.55	14.57	58.23	7.92	22.47		23.77		
30	69.23	3.48	16.15	26.80	6.02	1023.75	28.97	82.80	6.97	22.47		23.77		
31		3.48		26.80	8.87		25.50		6.65	22.47		23.77		
Total	1303.28	827.41	131.97	1055.15	295.12	22827.12	8507.71	1679.39	372.51	672.26	958.98	737.84	39368.74	CMSDAY
Mean	43.44	26.69	4.40	34.04	9.52	760.90	274.44	55.98	12.02	21.69	34.25	23.80	107.86	CMS
Max	69.23	58.74	16.15	48.97	17.10	1599.60	1009.40	112.80	86.50	33.54	59.77	25.50	1599.60	CMS
Min	12.35	3.48	2.53	16.15	3.48	11.40	13.30	15.52	6.65	7.28	14.25	17.10	2.53	CMS
Runoff	112.60	71.49	11.40	91.16	25.50	1972.26	735.07	145.10	32.18	58.08	82.86	63.75	3401.46	MCM

Momentary Peak 1606.20 CMS. at 20.21 m. (MSL.) at 06.00 Hours , on Sep 16 , 2002

Runoff Yield 7.58 Liters/Second/Square KM. Momentary Peak Yield 112.850 Liters/Second/Square KM.

WATER YEAR : 2002

PASAK RIVER BASIN

Lam Kong at Ban Tha Lao, Phetchabun (S.12)

Lat 15 - 59 - 50 N Long 101 - 14 - 31 E

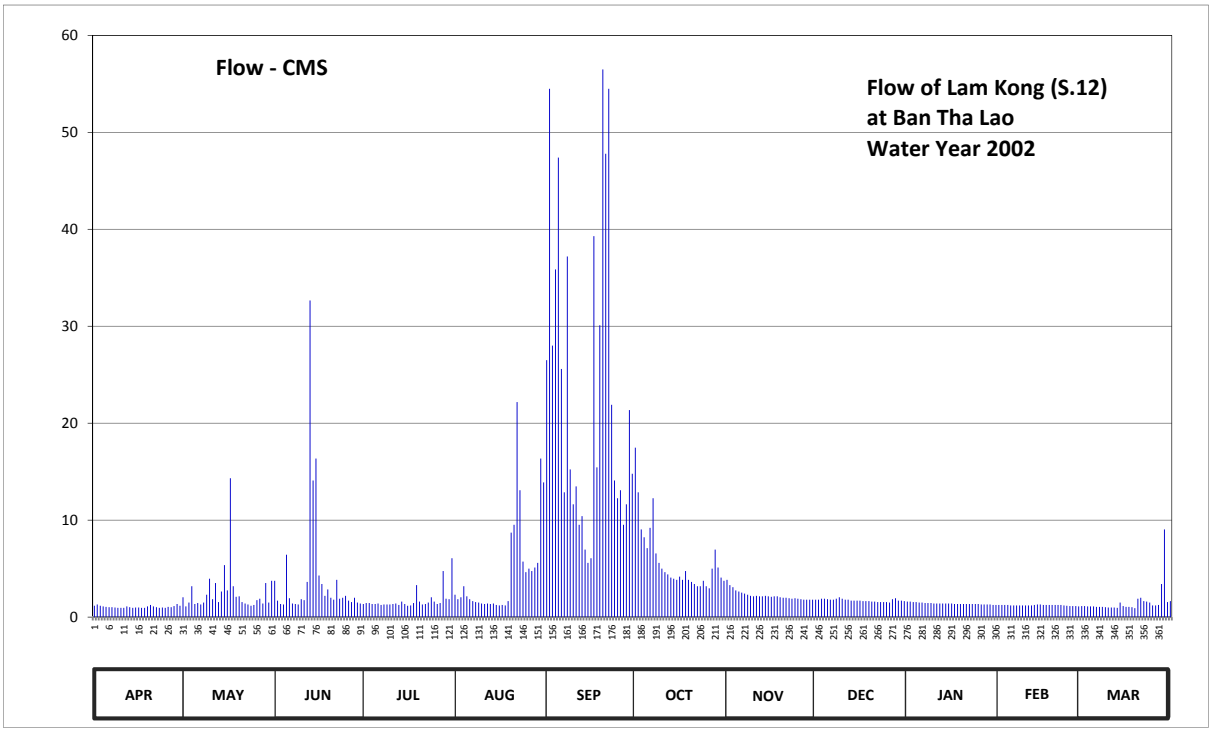
Location : on left bank at Ban Tha Lao.

	Ban Tha Lao	**Amphoe** Nong Phai	**Changwat** Phetchabun
Drainge Area	477 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+108.590 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank along the gage line.		**Elevation** +113.514 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean 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. Stage-discharge relation defined by 73 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	109.19	109.37	109.54	109.23	109.41	110.68	110.35	109.55	109.32	109.28	109.21	109.18	
2	109.22	109.17	109.30	109.25	109.33	111.48	110.14	109.50	109.32	109.28	109.21	109.18	
3	109.19	109.26	109.23	109.25	109.37	110.73	109.94	109.48	109.34	109.27	109.21	109.17	
4	109.17	109.49	109.22	109.23	109.49	110.98	109.89	109.45	109.34	109.27	109.21	109.17	
5	109.16	109.23	109.77	109.23	109.39	111.30	109.82	109.44	109.33	109.26	109.20	109.17	
6	109.15	109.25	109.35	109.24	109.33	110.65	109.95	109.43	109.32	109.26	109.20	109.16	
7	109.15	109.22	109.24	109.21	109.29	110.14	110.11	109.42	109.32	109.25	109.20	109.16	
8	109.14	109.26	109.23	109.22	109.27	111.02	109.78	109.41	109.34	109.25	109.20	109.16	
9	109.13	109.41	109.22	109.22	109.26	110.25	109.70	109.40	109.37	109.25	109.20	109.15	
10	109.13	109.56	109.33	109.22	109.24	110.08	109.65	109.39	109.34	109.24	109.20	109.14	
11	109.13	109.33	109.31	109.23	109.23	110.17	109.62	109.40	109.32	109.24	109.20	109.14	
12	109.17	109.52	109.53	109.24	109.24	109.97	109.60	109.39	109.32	109.24	109.20	109.14	
13	109.15	109.27	110.88	109.21	109.23	110.02	109.57	109.39	109.30	109.24	109.21	109.13	
14	109.13	109.44	110.20	109.28	109.24	109.81	109.56	109.40	109.30	109.24	109.22	109.26	
15	109.14	109.68	110.30	109.23	109.21	109.70	109.55	109.39	109.30	109.24	109.22	109.18	
16	109.14	109.45	109.59	109.19	109.20	109.74	109.58	109.38	109.30	109.24	109.21	109.16	
17	109.13	110.21	109.51	109.20	109.21	111.08	109.55	109.39	109.29	109.23	109.21	109.16	
18	109.13	109.49	109.40	109.25	109.20	110.26	109.63	109.39	109.29	109.23	109.21	109.15	
19	109.17	109.38	109.46	109.50	109.29	110.80	109.55	109.37	109.29	109.23	109.21	109.12	
20	109.21	109.39	109.36	109.28	109.92	111.53	109.53	109.36	109.28	109.23	109.21	109.34	
21	109.17	109.27	109.32	109.22	109.97	111.31	109.51	109.36	109.28	109.23	109.21	109.36	
22	109.15	109.24	109.55	109.23	110.53	111.48	109.49	109.35	109.27	109.23	109.21	109.29	
23	109.13	109.22	109.34	109.26	110.15	110.52	109.49	109.34	109.27	109.23	109.20	109.28	
24	109.14	109.19	109.36	109.37	109.71	110.20	109.54	109.35	109.27	109.23	109.19	109.26	
25	109.13	109.21	109.40	109.28	109.62	110.11	109.49	109.34	109.27	109.23	109.18	109.20	
26	109.16	109.31	109.30	109.23	109.65	110.15	109.47	109.33	109.26	109.22	109.18	109.20	
27	109.15	109.34	109.27	109.25	109.63	109.97	109.65	109.32	109.33	109.22	109.18	109.21	
28	109.18	109.24	109.36	109.63	109.66	110.08	109.81	109.32	109.35	109.22	109.17	109.51	
29	109.23	109.52	109.26	109.34	109.70	110.50	109.66	109.32	109.30	109.22		109.94	
30	109.19	109.26	109.24	109.33	110.30	110.23	109.57	109.32	109.30	109.21		109.27	
31		109.54		109.74	110.19		109.54		109.29	109.21		109.29	
Mean	109.16	109.38	109.48	109.28	109.53	110.50	109.69	109.39	109.31	109.24	109.20	109.23	
Max	109.23	110.21	110.88	109.74	110.53	111.53	110.35	109.55	109.37	109.28	109.22	109.94	111.53
Min	109.13	109.17	109.22	109.19	109.20	109.70	109.47	109.32	109.26	109.21	109.17	109.12	109.12

Annual Max Momentary Gage Height	112.54	m. (MSL.) ,	at 04.00 Hours , on Sep 22 , 2002		
Zero Gage at Bottom Elevation	108.59	m. (MSL.) ,	River Bed	107.87	m. (MSL.)
Left Bank Elevation	113.23	m. (MSL.) ,			
Right Bank Elevation	112.85	m. (MSL.) ,	Drainage Are	477	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.17	2.05	3.74	1.35	2.31	26.50	17.47	3.85	1.80	1.60	1.25	1.13		
2	1.30	1.10	1.70	1.45	1.85	54.50	12.87	3.30	1.80	1.60	1.25	1.13		
3	1.17	1.50	1.35	1.45	2.05	28.00	9.04	3.08	1.90	1.55	1.25	1.10		
4	1.10	3.19	1.30	1.35	3.19	35.86	8.24	2.75	1.90	1.55	1.25	1.10		
5	1.06	1.35	6.44	1.35	2.15	47.40	7.12	2.64	1.85	1.50	1.20	1.10		
6	1.03	1.45	1.95	1.40	1.85	25.60	9.20	2.53	1.80	1.50	1.20	1.06		
7	1.03	1.30	1.40	1.25	1.65	12.87	12.26	2.42	1.80	1.45	1.20	1.06		
8	0.99	1.50	1.35	1.30	1.55	37.20	6.56	2.31	1.90	1.45	1.20	1.06		
9	0.96	2.31	1.30	1.30	1.50	15.23	5.60	2.20	2.05	1.45	1.20	1.03		
10	0.96	3.96	1.85	1.30	1.40	11.64	5.00	2.15	1.90	1.40	1.20	0.99		
11	0.96	1.85	1.75	1.35	1.35	13.49	4.64	2.20	1.80	1.40	1.20	0.99		
12	1.10	3.52	3.63	1.40	1.40	9.52	4.40	2.15	1.80	1.40	1.20	0.99		
13	1.03	1.55	32.66	1.25	1.35	10.41	4.07	2.15	1.70	1.40	1.25	0.96		
14	0.96	2.64	14.10	1.60	1.40	6.96	3.96	2.20	1.70	1.40	1.30	1.50		
15	0.99	5.36	16.35	1.35	1.25	5.60	3.85	2.15	1.70	1.40	1.30	1.13		
16	0.99	2.75	4.29	1.17	1.20	6.08	4.18	2.10	1.70	1.40	1.25	1.06		
17	0.96	14.33	3.41	1.20	1.25	39.30	3.85	2.15	1.65	1.35	1.25	1.06		
18	0.96	3.19	2.20	1.45	1.20	15.45	4.76	2.15	1.65	1.35	1.25	1.03		
19	1.10	2.10	2.86	3.30	1.65	30.10	3.85	2.05	1.65	1.35	1.25	0.92		
20	1.25	2.15	2.00	1.60	8.72	56.50	3.63	2.00	1.60	1.35	1.25	1.90		
21	1.10	1.55	1.80	1.30	9.52	47.79	3.41	2.00	1.60	1.35	1.25	2.00		
22	1.03	1.40	3.85	1.35	22.18	54.50	3.19	1.95	1.55	1.35	1.25	1.65		
23	0.96	1.30	1.90	1.50	13.08	21.90	3.19	1.90	1.55	1.35	1.20	1.60		
24	0.99	1.17	2.00	2.05	5.72	14.10	3.74	1.95	1.55	1.35	1.17	1.50		
25	0.96	1.25	2.20	1.60	4.64	12.26	3.19	1.90	1.55	1.35	1.13	1.20		
26	1.06	1.75	1.70	1.35	5.00	13.08	2.97	1.85	1.50	1.30	1.13	1.20		
27	1.03	1.90	1.55	1.45	4.76	9.52	5.00	1.80	1.85	1.30	1.13	1.25		
28	1.13	1.40	2.00	4.76	5.12	11.64	6.96	1.80	1.95	1.30	1.10	3.41		
29	1.35	3.52	1.50	1.90	5.60	21.35	5.12	1.80	1.70	1.30		9.04		
30	1.17	1.50	1.40	1.85	16.35	14.78	4.07	1.80	1.70	1.25		1.55		
31		3.74		6.08	13.90		3.74		1.65	1.25		1.65		
Total	31.85	79.63	125.53	54.36	146.14	709.13	179.13	67.28	53.80	43.30	34.06	48.35	1572.56	CMSDAY
Mean	1.06	2.57	4.18	1.75	4.71	23.64	5.78	2.24	1.74	1.40	1.22	1.56	4.31	CMS
Max	1.35	14.33	32.66	6.08	22.18	56.50	17.47	3.85	2.05	1.60	1.30	9.04	56.50	CMS
Min	0.96	1.10	1.30	1.17	1.20	5.60	2.97	1.80	1.50	1.25	1.10	0.92	0.92	CMS
Runoff	2.75	6.88	10.85	4.70	12.63	61.27	15.48	5.81	4.65	3.74	2.94	4.18	135.87	MCM

Momentary Peak 103.40 CMS. at 112.54 m. (MSL.) at 04.00 Hours , on Sep 22 , 2002

Runoff Yield 9.03 Liters/Second/Square KM. Momentary Peak Yield 216.770 Liters/Second/Square KM.

WATER YEAR : 2002

PASAK RIVER BASIN

Lam Sonthi at Ban Tha Yiam, Lop Buri (S.13)

Lat 15 - 20 - 21 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. (A.D.)
Bench Mark	B.M.-H.D.
Location BM	About 15 meters from the top staff gage. **Elevation** +8.697 m. (A.D.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean 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 42 discharge measurements made in 2002.

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

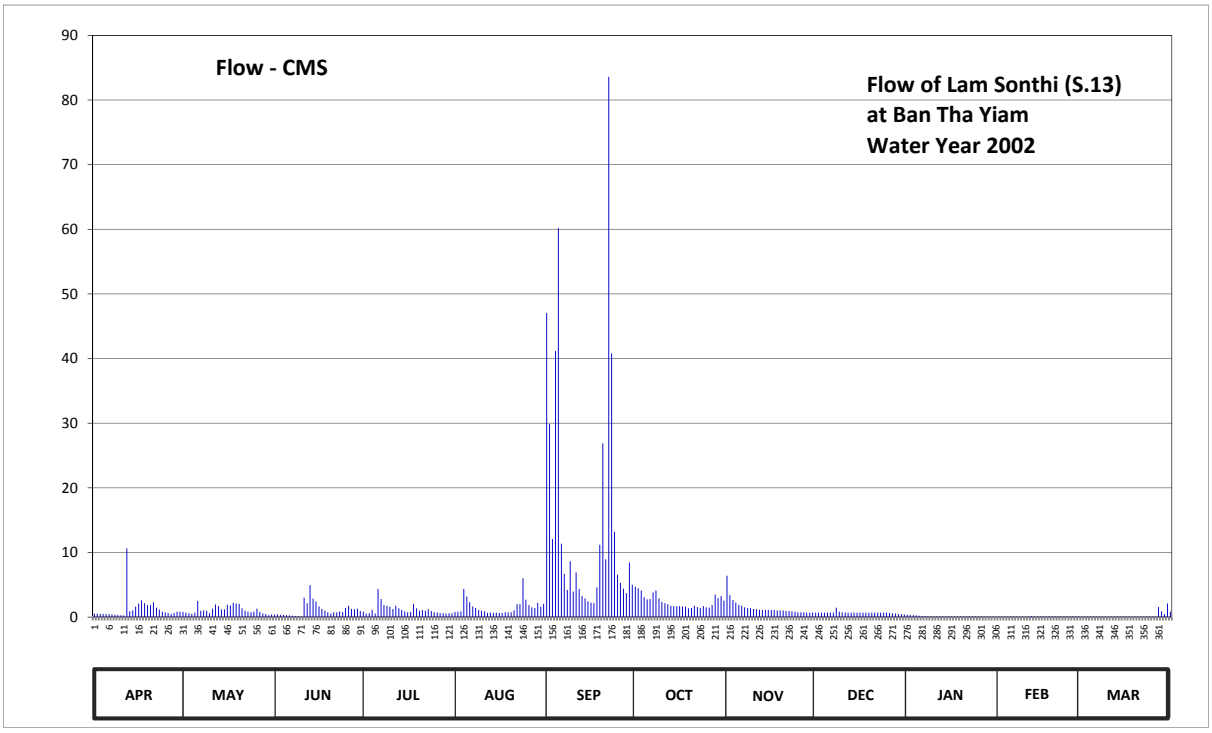
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.51	0.56	0.48	0.57	0.56	4.95	1.34	1.63	0.54	0.47	0.38	0.38	
2	0.51	0.54	0.48	0.51	0.57	3.99	1.29	1.08	0.54	0.46	0.38	0.38	
3	0.50	0.52	0.47	0.52	0.58	2.41	1.22	0.93	0.54	0.45	0.38	0.38	
4	0.50	0.50	0.46	0.62	1.27	4.63	1.02	0.85	0.54	0.44	0.38	0.38	
5	0.49	0.54	0.45	0.51	1.04	5.64	0.95	0.78	0.54	0.43	0.38	0.38	
6	0.49	0.90	0.44	1.27	0.86	2.32	0.96	0.75	0.54	0.42	0.38	0.38	
7	0.48	0.60	0.43	0.96	0.73	1.67	1.16	0.70	0.54	0.41	0.38	0.38	
8	0.47	0.61	0.42	0.77	0.68	1.24	1.22	0.68	0.69	0.40	0.38	0.38	
9	0.46	0.60	0.41	0.75	0.62	1.95	0.98	0.67	0.57	0.40	0.38	0.38	
10	0.45	0.52	0.40	0.72	0.60	1.19	0.87	0.65	0.55	0.40	0.38	0.38	
11	0.44	0.66	1.00	0.65	0.58	1.70	0.83	0.64	0.54	0.40	0.38	0.38	
12	2.23	0.79	0.83	0.75	0.53	1.27	0.80	0.62	0.54	0.40	0.41	0.38	
13	0.58	0.74	1.39	0.67	0.54	1.05	0.75	0.62	0.54	0.40	0.40	0.38	
14	0.61	0.64	0.97	0.62	0.53	0.98	0.74	0.62	0.54	0.40	0.40	0.40	
15	0.72	0.64	0.88	0.58	0.54	0.89	0.73	0.62	0.54	0.40	0.40	0.38	
16	0.82	0.78	0.73	0.55	0.53	0.85	0.74	0.62	0.54	0.40	0.40	0.38	
17	0.92	0.76	0.65	0.56	0.53	0.83	0.73	0.62	0.54	0.40	0.40	0.38	
18	0.83	0.84	0.60	0.81	0.55	1.32	0.72	0.61	0.54	0.40	0.40	0.38	
19	0.77	0.82	0.55	0.67	0.55	2.30	0.67	0.61	0.54	0.40	0.40	0.38	
20	0.77	0.81	0.51	0.60	0.55	3.79	0.68	0.61	0.54	0.40	0.40	0.37	
21	0.86	0.67	0.55	0.62	0.61	1.99	0.75	0.59	0.54	0.40	0.40	0.37	
22	0.69	0.60	0.55	0.60	0.80	6.70	0.71	0.59	0.54	0.40	0.39	0.37	
23	0.63	0.57	0.58	0.64	0.80	4.61	0.68	0.58	0.54	0.40	0.39	0.37	
24	0.57	0.55	0.56	0.59	1.57	2.55	0.74	0.57	0.54	0.40	0.39	0.37	
25	0.55	0.57	0.68	0.55	0.94	1.65	0.70	0.55	0.54	0.38	0.39	0.37	
26	0.53	0.66	0.75	0.54	0.77	1.45	0.69	0.55	0.53	0.38	0.39	0.37	
27	0.50	0.56	0.65	0.53	0.70	1.28	0.77	0.55	0.52	0.38	0.39	0.71	
28	0.53	0.51	0.64	0.52	0.68	1.14	1.10	0.54	0.51	0.38	0.39	0.58	
29	0.57	0.49	0.66	0.51	0.84	1.92	0.99	0.54	0.50	0.38		0.49	
30	0.57	0.45	0.59	0.52	0.72	1.40	1.05	0.54	0.49	0.38		0.82	
31		0.48		0.52	0.81		0.91		0.48	0.38		0.57	
Mean	0.65	0.63	0.63	0.64	0.72	2.32	0.89	0.68	0.54	0.40	0.39	0.42	
Max	2.23	0.90	1.39	1.27	1.57	6.70	1.34	1.63	0.69	0.47	0.41	0.82	6.70
Min	0.44	0.45	0.40	0.51	0.53	0.83	0.67	0.54	0.48	0.38	0.38	0.37	0.37

Annual Max Momentary Gage Height 6.74 m. (A.D.) , at 12.00 Hours , on Sep 22 , 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed 3.00 m. (A.D.)

Left Bank Elevation 9.15 m. (A.D.) ,

Right Bank Elevation 9.28 m. (A.D.) , Drainage Are 357 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.55	0.80	0.42	0.85	0.80	47.07	4.70	6.41	0.70	0.38	0.08	0.08		
2	0.55	0.70	0.42	0.55	0.85	29.85	4.45	3.40	0.70	0.34	0.08	0.08		
3	0.50	0.60	0.38	0.60	0.90	12.08	4.10	2.65	0.70	0.30	0.08	0.08		
4	0.50	0.50	0.34	1.10	4.35	41.16	3.10	2.25	0.70	0.26	0.08	0.08		
5	0.46	0.70	0.30	0.55	3.20	60.18	2.75	1.90	0.70	0.22	0.08	0.08		
6	0.46	2.50	0.26	4.35	2.30	11.36	2.80	1.75	0.70	0.18	0.08	0.08		
7	0.42	1.00	0.22	2.80	1.65	6.69	3.80	1.50	0.70	0.14	0.08	0.08		
8	0.38	1.05	0.18	1.85	1.40	4.20	4.10	1.40	1.45	0.10	0.08	0.08		
9	0.34	1.00	0.14	1.75	1.10	8.65	2.90	1.35	0.85	0.10	0.08	0.08		
10	0.30	0.60	0.10	1.60	1.00	3.95	2.35	1.25	0.75	0.10	0.08	0.08		
11	0.26	1.30	3.00	1.25	0.90	6.90	2.15	1.20	0.70	0.10	0.08	0.08		
12	10.64	1.95	2.15	1.75	0.65	4.35	2.00	1.10	0.70	0.10	0.14	0.08		
13	0.90	1.70	4.95	1.35	0.70	3.25	1.75	1.10	0.70	0.10	0.10	0.08		
14	1.05	1.20	2.85	1.10	0.65	2.90	1.70	1.10	0.70	0.10	0.10	0.10		
15	1.60	1.20	2.40	0.90	0.70	2.45	1.65	1.10	0.70	0.10	0.10	0.08		
16	2.10	1.90	1.65	0.75	0.65	2.25	1.70	1.10	0.70	0.10	0.10	0.08		
17	2.60	1.80	1.25	0.80	0.65	2.15	1.65	1.10	0.70	0.10	0.10	0.08		
18	2.15	2.20	1.00	2.05	0.75	4.60	1.60	1.05	0.70	0.10	0.10	0.08		
19	1.85	2.10	0.75	1.35	0.75	11.20	1.35	1.05	0.70	0.10	0.10	0.08		
20	1.85	2.05	0.55	1.00	0.75	26.88	1.40	1.05	0.70	0.10	0.10	0.07		
21	2.30	1.35	0.75	1.10	1.05	8.93	1.75	0.95	0.70	0.10	0.10	0.07		
22	1.45	1.00	0.75	1.00	2.00	83.60	1.55	0.95	0.70	0.10	0.09	0.07		
23	1.15	0.85	0.90	1.20	2.00	40.79	1.40	0.90	0.70	0.10	0.09	0.07		
24	0.85	0.75	0.80	0.95	6.02	13.20	1.70	0.85	0.70	0.10	0.09	0.07		
25	0.75	0.85	1.40	0.75	2.70	6.55	1.50	0.75	0.70	0.08	0.09	0.07		
26	0.65	1.30	1.75	0.70	1.85	5.30	1.45	0.75	0.65	0.08	0.09	0.07		
27	0.50	0.80	1.25	0.65	1.50	4.40	1.85	0.75	0.60	0.08	0.09	1.55		
28	0.65	0.55	1.20	0.60	1.40	3.70	3.50	0.70	0.55	0.08	0.09	0.90		
29	0.85	0.46	1.30	0.55	2.20	8.44	2.95	0.70	0.50	0.08		0.46		
30	0.85	0.30	0.95	0.60	1.60	5.00	3.25	0.70	0.46	0.08		2.10		
31		0.42		0.60	2.05		2.55		0.42	0.08		0.85		
Total	39.46	35.48	34.36	37.00	49.07	472.03	75.45	42.81	21.63	4.08	2.55	7.89	821.81	CMSDAY
Mean	1.32	1.14	1.15	1.19	1.58	15.73	2.43	1.43	0.70	0.13	0.09	0.25	2.25	CMS
Max	10.64	2.50	4.95	4.35	6.02	83.60	4.70	6.41	1.45	0.38	0.14	2.10	83.60	CMS
Min	0.26	0.30	0.10	0.55	0.65	2.15	1.35	0.70	0.42	0.08	0.08	0.07	0.07	CMS
Runoff	3.41	3.07	2.97	3.20	4.24	40.78	6.52	3.70	1.87	0.35	0.22	0.68	71.00	MCM

Momentary Peak 84.52 CMS. at 6.74 m. (A.D.) at 12.00 Hours , on Sep 22 , 2002

Runoff Yield 6.31 Liters/Second/Square KM. Momentary Peak Yield 236.750 Liters/Second/Square KM.

WATER YEAR : 2002

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	Staff gage.
Zero Gage at Bottom	+52.580 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank at the abutment of the bridge. **Elevation** +62.645 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 mean of 5 readings
Period of Available Gage Records	1978 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 good. Stage-discharge relation defined by 16 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

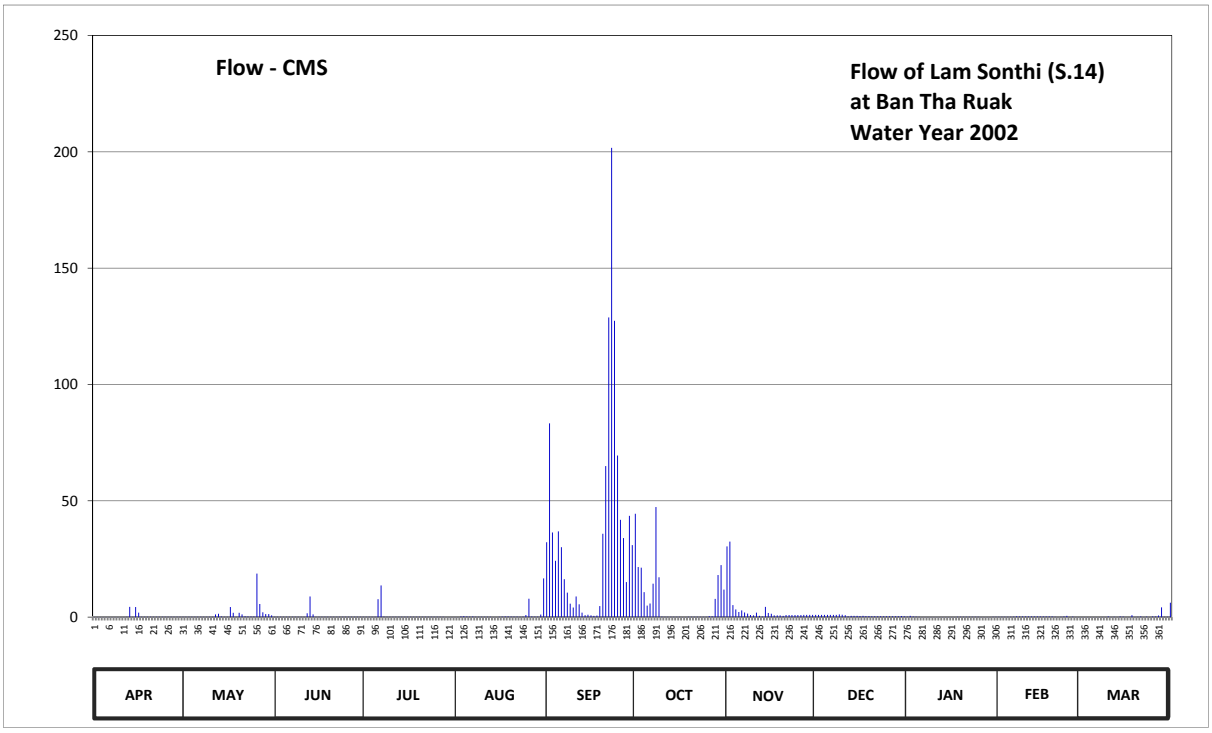
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	53.95	53.98	54.00	54.02	53.92	57.91	58.68	57.79	54.56	54.16	53.99	53.94	
2	53.94	53.98	54.00	54.02	53.92	60.45	57.12	57.93	54.55	54.42	53.99	53.94	
3	53.94	53.98	54.00	54.02	54.22	58.19	57.10	55.39	54.55	54.26	53.99	53.94	
4	53.94	53.98	53.99	54.01	54.35	57.34	56.11	55.10	54.55	54.12	53.98	53.94	
5	53.95	53.98	53.98	54.01	54.29	58.22	55.36	54.85	54.55	53.98	54.00	53.94	
6	53.95	53.98	53.99	55.72	54.18	57.77	55.48	55.01	54.55	53.97	54.16	53.94	
7	53.95	53.98	54.00	56.40	54.22	56.66	56.47	54.80	54.55	53.96	54.32	53.94	
8	53.95	53.98	53.98	54.19	53.99	56.08	58.85	54.69	54.55	53.96	54.30	53.94	
9	53.94	53.98	53.98	54.01	53.98	55.47	56.74	54.54	54.61	53.95	54.24	53.94	
10	53.95	53.98	53.98	54.01	53.98	55.23	54.09	54.49	54.57	53.95	54.20	54.28	
11	53.94	53.98	53.98	54.00	53.98	55.87	54.06	54.78	54.50	53.94	54.21	53.97	
12	53.98	54.62	54.72	53.99	53.98	55.44	54.06	54.41	54.33	53.94	54.20	53.99	
13	55.28	54.67	55.87	53.98	53.98	54.79	54.06	54.25	54.41	53.93	54.21	53.95	
14	53.99	54.27	54.61	53.98	53.97	54.51	53.98	55.28	54.41	53.93	54.21	54.29	
15	55.27	54.04	54.05	53.98	53.97	54.58	53.98	54.76	54.41	53.93	54.21	54.11	
16	54.78	54.00	54.06	53.98	53.98	54.48	53.98	54.68	54.40	53.93	54.21	53.94	
17	54.06	55.26	54.05	53.98	54.11	54.42	53.94	54.49	54.42	53.94	54.20	53.93	
18	53.98	54.77	54.03	53.98	54.20	54.45	53.94	54.48	54.35	53.99	54.20	54.50	
19	53.98	53.99	54.03	53.98	54.20	55.33	54.00	54.48	54.34	54.03	54.20	53.91	
20	53.98	54.77	54.03	53.98	54.09	58.15	54.04	54.42	54.32	54.02	54.07	54.03	
21	53.98	54.61	54.03	53.98	54.16	59.71	54.04	54.53	54.32	54.02	53.93	54.29	
22	53.98	54.31	54.02	53.98	54.13	61.72	54.08	54.54	54.32	54.02	54.03	53.95	
23	53.98	54.25	54.01	53.98	53.98	63.02	54.06	54.54	54.33	54.02	54.29	54.12	
24	53.98	54.25	54.00	53.98	54.18	61.69	54.06	54.54	54.33	54.01	54.41	53.92	
25	53.98	54.25	53.99	53.98	54.54	59.90	54.06	54.54	54.33	53.99	53.95	54.22	
26	53.98	56.89	53.98	53.98	55.75	58.53	54.36	54.54	54.33	53.95	54.11	54.22	
27	53.98	55.45	54.00	53.98	54.22	58.03	54.32	54.55	54.32	53.95	53.94	54.47	
28	53.98	54.82	54.00	53.98	54.12	56.54	55.74	54.56	54.32	53.94	53.93	55.24	
29	53.98	54.65	53.98	53.94	54.15	58.63	56.83	54.56	54.32	53.95		53.98	
30	53.98	54.64	54.02	53.92	54.60	57.83	57.19	54.56	54.39	53.99		53.98	
31		54.49		53.92	56.69		56.22		54.32	53.99		55.53	
Mean	54.08	54.41	54.11	54.12	54.26	57.36	55.19	54.87	54.42	54.00	54.13	54.14	
Max	55.28	56.89	55.87	56.40	56.69	63.02	58.85	57.93	54.61	54.42	54.41	55.53	63.02
Min	53.94	53.98	53.98	53.92	53.92	54.42	53.94	54.25	54.32	53.93	53.93	53.91	53.91

Annual Max Momentary Gage Height 61.35 m. (MSL.) , at 17.00 Hours , on Sep 24 , 2002

Zero Gage at Bottom Elevation 52.58 m. (MSL.) , River Bed 53.48 m. (MSL.)

Left Bank Elevation 63.87 m. (MSL.) ,

Right Bank Elevation 63.84 m. (MSL.) , Drainage Are 1,263 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.08	0.10	0.11	0.12	0.06	32.17	44.40	30.36	0.98	0.21	0.11	0.07		
2	0.07	0.10	0.11	0.12	0.06	83.25	21.49	32.47	0.95	0.56	0.11	0.07		
3	0.07	0.10	0.11	0.12	0.25	36.39	21.25	5.18	0.95	0.28	0.11	0.07		
4	0.07	0.10	0.11	0.12	0.40	24.19	10.75	3.30	0.95	0.19	0.10	0.07		
5	0.08	0.10	0.10	0.12	0.29	36.84	4.97	2.20	0.95	0.10	0.11	0.07		
6	0.08	0.10	0.11	7.67	0.23	30.06	5.81	2.90	0.95	0.09	0.21	0.07		
7	0.08	0.10	0.11	13.63	0.25	16.32	14.36	1.98	0.95	0.09	0.34	0.07		
8	0.08	0.10	0.10	0.23	0.11	10.49	47.34	1.50	0.95	0.09	0.30	0.07		
9	0.07	0.10	0.10	0.12	0.10	5.74	17.15	0.92	1.14	0.08	0.26	0.07		
10	0.08	0.10	0.10	0.12	0.10	4.11	0.17	0.77	1.01	0.08	0.24	0.29		
11	0.07	0.10	0.10	0.11	0.10	8.85	0.15	1.89	0.80	0.07	0.24	0.09		
12	0.10	1.19	1.63	0.11	0.10	5.53	0.15	0.53	0.36	0.07	0.24	0.11		
13	4.43	1.41	8.85	0.10	0.10	1.94	0.15	0.27	0.53	0.07	0.24	0.08		
14	0.11	0.28	1.14	0.10	0.09	0.83	0.10	4.43	0.53	0.07	0.24	0.29		
15	4.36	0.14	0.14	0.10	0.09	1.04	0.10	1.80	0.53	0.07	0.24	0.18		
16	1.89	0.11	0.15	0.10	0.10	0.74	0.10	1.45	0.50	0.07	0.24	0.07		
17	0.15	4.30	0.14	0.10	0.18	0.56	0.07	0.77	0.56	0.07	0.24	0.07		
18	0.10	1.85	0.13	0.10	0.24	0.65	0.07	0.74	0.40	0.11	0.24	0.80		
19	0.10	0.11	0.13	0.10	0.24	4.76	0.11	0.74	0.38	0.13	0.24	0.06		
20	0.10	1.85	0.13	0.10	0.17	35.79	0.14	0.56	0.34	0.12	0.16	0.13		
21	0.10	1.14	0.13	0.10	0.21	64.94	0.14	0.89	0.34	0.12	0.07	0.29		
22	0.10	0.32	0.12	0.10	0.19	128.77	0.16	0.92	0.34	0.12	0.13	0.08		
23	0.10	0.27	0.12	0.10	0.10	201.67	0.15	0.92	0.36	0.12	0.29	0.19		
24	0.10	0.27	0.11	0.10	0.23	127.37	0.15	0.92	0.36	0.12	0.53	0.06		
25	0.10	0.27	0.11	0.10	0.92	69.47	0.15	0.92	0.36	0.11	0.08	0.25		
26	0.10	18.70	0.10	0.10	7.91	41.82	0.42	0.92	0.36	0.08	0.18	0.25		
27	0.10	5.60	0.11	0.10	0.25	33.98	0.34	0.95	0.34	0.08	0.07	0.71		
28	0.10	2.07	0.11	0.10	0.19	15.08	7.83	0.98	0.34	0.07	0.07	4.18		
29	0.10	1.32	0.10	0.07	0.21	43.54	18.08	0.98	0.34	0.08		0.10		
30	0.10	1.28	0.12	0.06	1.10	30.96	22.35	0.98	0.48	0.11		0.10		
31		0.77		0.06	16.63		11.82		0.34	0.11		6.19		
Total	13.17	44.35	14.73	24.38	31.20	1097.85	250.42	104.14	18.67	3.74	5.63	15.20	1623.48	CMSDAY
Mean	0.44	1.43	0.49	0.79	1.01	36.60	8.08	3.47	0.60	0.12	0.20	0.49	4.45	CMS
Max	4.43	18.70	8.85	13.63	16.63	201.67	47.34	32.47	1.14	0.56	0.53	6.19	201.67	CMS
Min	0.07	0.10	0.10	0.06	0.06	0.56	0.07	0.27	0.34	0.07	0.07	0.06	0.06	CMS
Runoff	1.14	3.83	1.27	2.11	2.70	94.85	21.64	9.00	1.61	0.32	0.49	1.31	140.27	MCM

Momentary Peak 112.87 CMS. at 61.35 m. (MSL.) at 17.00 Hours , on Sep 24 , 2002

Runoff Yield 3.52 Liters/Second/Square KM. Momentary Peak Yield 89.370 Liters/Second/Square KM.

WATER YEAR : 2002

PASAK RIVER BASIN

Pasak River at Ban Tha Hi Yong , Phetchabun (S.33)

Lat 17 - 00 - 10 N Long 101 - 21 - 23 E

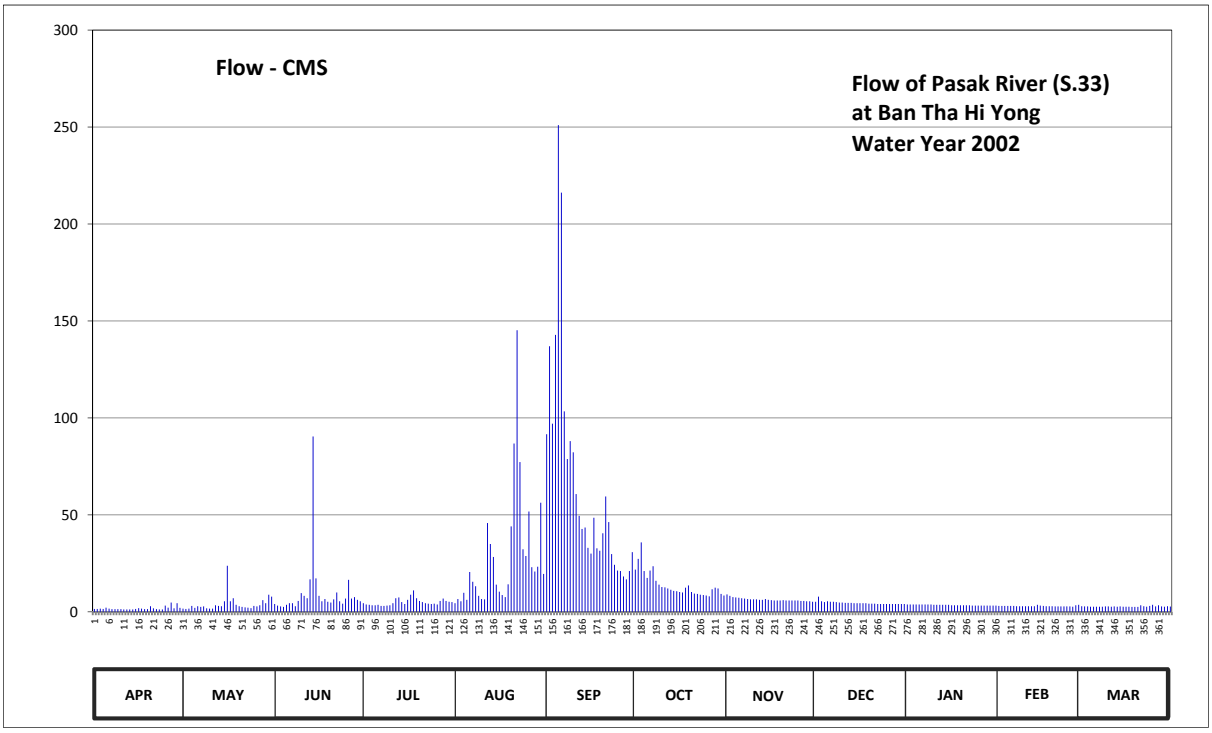
Location : on left bank at Ban Tha Hai Yong

	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	13-time daily readings at 03.00, 06.00 - 15.00, 18.00 and 24.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 13 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 good. Stage-discharge relation defined by 92 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	190.48	190.49	190.65	190.67	190.67	194.22	191.47	190.90	190.71	190.64	190.60	190.59	
2	190.48	190.48	190.61	190.64	190.78	195.51	191.69	190.86	190.84	190.64	190.60	190.58	
3	190.49	190.49	190.58	190.63	190.72	194.40	192.03	190.83	190.72	190.64	190.60	190.58	
4	190.48	190.60	190.56	190.62	190.94	195.63	191.44	190.82	190.70	190.64	190.60	190.57	
5	190.53	190.52	190.63	190.62	190.76	196.95	191.30	190.81	190.72	190.64	190.60	190.57	
6	190.49	190.59	190.67	190.63	191.42	196.58	191.45	190.80	190.71	190.64	190.60	190.57	
7	190.47	190.56	190.67	190.60	191.22	194.61	191.54	190.79	190.71	190.64	190.59	190.57	
8	190.47	190.58	190.59	190.60	191.11	193.75	191.24	190.78	190.70	190.64	190.59	190.57	
9	190.47	190.50	190.73	190.61	190.86	194.10	191.15	190.77	190.69	190.64	190.59	190.58	
10	190.47	190.49	190.93	190.62	190.78	193.89	191.09	190.77	190.69	190.63	190.59	190.58	
11	190.46	190.49	190.86	190.67	190.77	193.03	191.08	190.77	190.68	190.63	190.59	190.57	
12	190.46	190.62	190.80	190.80	192.43	192.58	191.05	190.76	190.68	190.63	190.59	190.58	
13	190.46	190.60	191.27	190.82	192.00	192.31	191.02	190.76	190.68	190.63	190.59	190.57	
14	190.46	190.59	194.18	190.70	191.73	192.34	190.99	190.78	190.67	190.63	190.63	190.58	
15	190.48	190.72	191.29	190.65	191.15	191.92	190.98	190.76	190.67	190.63	190.61	190.57	
16	190.51	191.55	190.86	190.76	190.97	191.80	190.96	190.75	190.67	190.62	190.60	190.57	
17	190.49	190.72	190.72	190.89	190.88	192.54	190.95	190.74	190.67	190.62	190.59	190.57	
18	190.47	190.80	190.78	191.00	190.83	191.91	191.07	190.74	190.67	190.62	190.59	190.56	
19	190.47	190.63	190.71	190.80	191.16	191.86	191.13	190.74	190.66	190.62	190.59	190.56	
20	190.59	190.59	190.69	190.73	192.36	192.22	190.96	190.75	190.66	190.62	190.58	190.56	
21	190.50	190.56	190.77	190.70	194.06	192.98	190.92	190.74	190.66	190.62	190.58	190.62	
22	190.47	190.54	190.95	190.67	195.67	192.45	190.91	190.74	190.65	190.62	190.58	190.59	
23	190.46	190.53	190.72	190.66	193.69	191.79	190.89	190.74	190.65	190.61	190.58	190.57	
24	190.46	190.51	190.66	190.65	191.89	191.57	190.88	190.74	190.65	190.61	190.58	190.60	
25	190.61	190.60	190.79	190.66	191.75	191.45	190.87	190.74	190.65	190.61	190.58	190.63	
26	190.53	190.58	191.26	190.64	192.67	191.44	190.85	190.73	190.65	190.61	190.57	190.58	
27	190.69	190.62	190.79	190.73	191.52	191.33	191.03	190.73	190.65	190.61	190.62	190.62	
28	190.50	190.75	190.83	190.79	191.43	191.27	191.07	190.72	190.65	190.61	190.63	190.58	
29	190.67	190.67	190.76	190.73	191.53	191.44	191.05	190.72	190.65	190.61		190.57	
30	190.52	190.89	190.72	190.71	192.85	191.83	190.91	190.71	190.65	190.61		190.59	
31		190.84		190.70	191.38		190.87		190.65	190.61		190.58	
Mean	190.50	190.64	190.90	190.70	191.68	192.99	191.12	190.77	190.68	190.62	190.59	190.58	
Max	190.69	191.55	194.18	191.00	195.67	196.95	192.03	190.90	190.84	190.64	190.63	190.63	196.95
Min	190.46	190.48	190.56	190.60	190.67	191.27	190.85	190.71	190.65	190.61	190.57	190.56	190.46

Annual Max Momentary Gage Height	197.80	m. (MSL.) ,	at 21.00 Hours , on Sep 4 , 2002		
Zero Gage at Bottom Elevation	190.09	m. (MSL.) ,	River Bed	190.05	m. (MSL.)
Left Bank Elevation	198.90	m. (MSL.) ,			
Right Bank Elevation	198.93	m. (MSL.) ,	Drainage Are	521	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.50	1.63	4.00	4.40	4.40	91.60	21.75	9.00	5.20	3.80	3.00	2.87		
2	1.50	1.50	3.20	3.80	6.60	136.95	27.25	8.20	7.80	3.80	3.00	2.75		
3	1.63	1.63	2.75	3.60	5.40	97.00	35.75	7.60	5.40	3.80	3.00	2.75		
4	1.50	3.00	2.50	3.40	9.80	142.80	21.00	7.40	5.00	3.80	3.00	2.62		
5	2.12	2.00	3.60	3.40	6.20	251.00	17.50	7.20	5.40	3.80	3.00	2.62		
6	1.63	2.87	4.40	3.60	20.50	216.20	21.25	7.00	5.20	3.80	3.00	2.62		
7	1.38	2.50	4.40	3.00	15.50	103.35	23.50	6.80	5.20	3.80	2.87	2.62		
8	1.38	2.75	2.87	3.00	13.20	78.75	16.00	6.60	5.00	3.80	2.87	2.62		
9	1.38	1.75	5.60	3.20	8.20	88.00	14.00	6.40	4.80	3.80	2.87	2.75		
10	1.38	1.63	9.60	3.40	6.60	82.25	12.80	6.40	4.80	3.60	2.87	2.75		
11	1.25	1.63	8.20	4.40	6.40	60.75	12.60	6.40	4.60	3.60	2.87	2.62		
12	1.25	3.40	7.00	7.00	45.75	49.50	12.00	6.20	4.60	3.60	2.87	2.75		
13	1.25	3.00	16.75	7.40	35.00	42.75	11.40	6.20	4.60	3.60	2.87	2.62		
14	1.25	2.87	90.40	5.00	28.25	43.50	10.80	6.60	4.40	3.60	3.60	2.75		
15	1.50	5.40	17.25	4.00	14.00	33.00	10.60	6.20	4.40	3.60	3.20	2.62		
16	1.87	23.75	8.20	6.20	10.40	30.00	10.20	6.00	4.40	3.40	3.00	2.62		
17	1.63	5.40	5.40	8.80	8.60	48.50	10.00	5.80	4.40	3.40	2.87	2.62		
18	1.38	7.00	6.60	11.00	7.60	32.75	12.40	5.80	4.40	3.40	2.87	2.50		
19	1.38	3.60	5.20	7.00	14.20	31.50	13.60	5.80	4.20	3.40	2.87	2.50		
20	2.87	2.87	4.80	5.60	44.00	40.50	10.20	6.00	4.20	3.40	2.75	2.50		
21	1.75	2.50	6.40	5.00	86.80	59.50	9.40	5.80	4.20	3.40	2.75	3.40		
22	1.38	2.25	10.00	4.40	145.20	46.25	9.20	5.80	4.00	3.40	2.75	2.87		
23	1.25	2.12	5.40	4.20	77.25	29.75	8.80	5.80	4.00	3.20	2.75	2.62		
24	1.25	1.87	4.20	4.00	32.25	24.25	8.60	5.80	4.00	3.20	2.75	3.00		
25	3.20	3.00	6.80	4.20	28.75	21.25	8.40	5.80	4.00	3.20	2.75	3.60		
26	2.12	2.75	16.50	3.80	51.75	21.00	8.00	5.60	4.00	3.20	2.62	2.75		
27	4.80	3.40	6.80	5.60	23.00	18.25	11.60	5.60	4.00	3.20	3.40	3.40		
28	1.75	6.00	7.60	6.80	20.75	16.75	12.40	5.40	4.00	3.20	3.60	2.75		
29	4.40	4.40	6.20	5.60	23.25	21.00	12.00	5.40	4.00	3.20		2.62		
30	2.00	8.80	5.40	5.20	56.25	30.75	9.20	5.20	4.00	3.20		2.87		
31		7.80		5.00	19.50		8.40		4.00	3.20		2.70		
Total	54.93	125.07	288.02	155.00	875.35	1989.40	430.60	189.80	142.20	108.40	82.62	85.65	4527.04	CMSDAY
Mean	1.83	4.03	9.60	5.00	28.24	66.31	13.89	6.33	4.59	3.50	2.95	2.76	12.40	CMS
Max	4.80	23.75	90.40	11.00	145.20	251.00	35.75	9.00	7.80	3.80	3.60	3.60	251.00	CMS
Min	1.25	1.50	2.50	3.00	4.40	16.75	8.00	5.20	4.00	3.20	2.62	2.50	1.25	CMS
Runoff	4.75	10.81	24.88	13.39	75.63	171.88	37.20	16.40	12.29	9.37	7.14	7.40	391.14	MCM

Momentary Peak 345.00 CMS. at 197.80 m. (MSL.) at 21.00 Hours , on Sep 4 , 2002

Runoff Yield 23.81 Liters/Second/Square KM. Momentary Peak Yield 662.190 Liters/Second/Square KM.

WATER YEAR : 2002

PASAK RIVER BASIN

Pasak River at Ban Lam Takhro, Phetchabun (S.34)

Lat 15 - 50 - 01 N Long 101 - 03 - 01 E

Location : on left bank at Ban Lam Takhro, Tambon Lam Takhro.

Ban Lam Takhro **Amphoe** Bung Sam Pun **Changwat** Phetchabun

Drainge Area	6,626 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+65.300 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank about 50 meters from the gage observer's house. **Elevation** +75.857 m. (MSL.)
Gage Reading Frequency	13-time daily readings at 03.00, 06.00 - 15.00, 18.00 and 24.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 13 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. Stage-discharge relation defined by 23 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

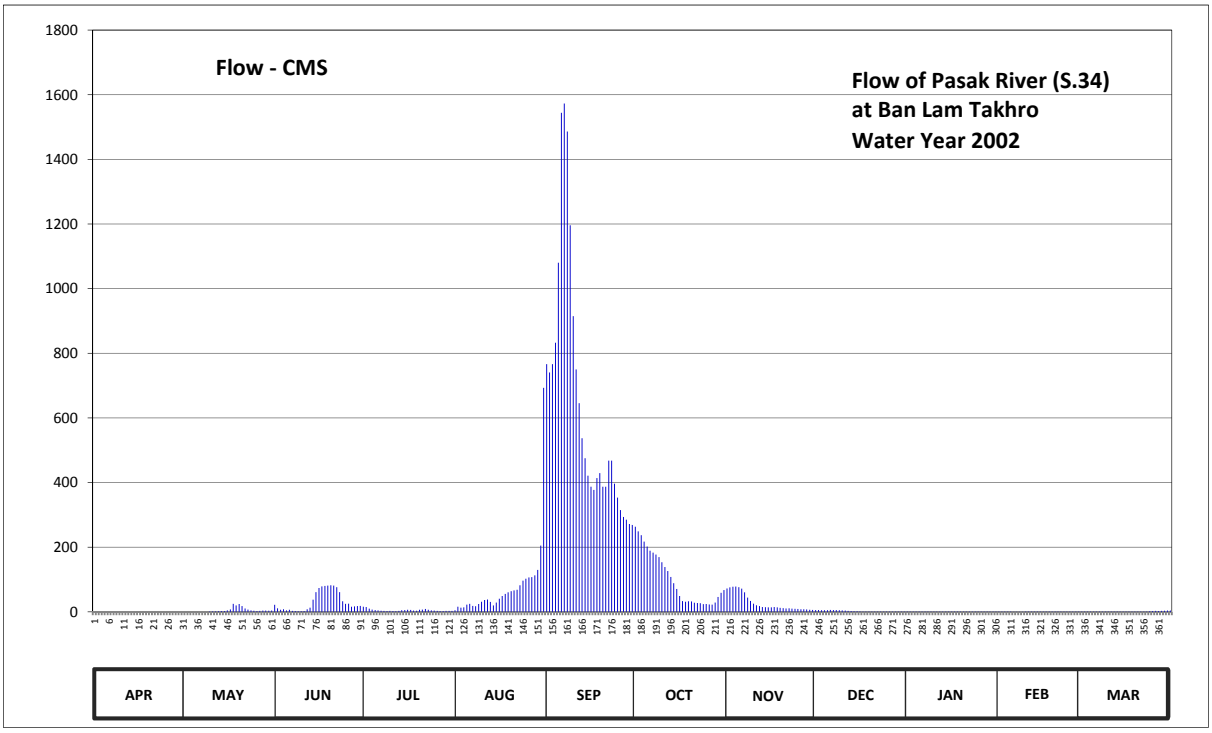
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	65.87	66.08	69.85	69.51	68.66	76.61	75.83	72.55	68.74	67.68	67.50	67.65	
2	65.87	66.08	69.21	69.45	69.50	76.59	75.77	72.73	68.72	67.57	67.46	67.61	
3	65.87	66.08	68.84	69.13	69.31	76.61	75.71	72.83	68.68	67.89	67.47	67.59	
4	65.87	66.08	68.98	68.90	69.39	76.65	75.61	72.85	68.65	67.86	67.45	67.58	
5	65.88	66.08	68.62	68.74	69.86	76.80	75.50	72.76	68.68	67.73	67.41	67.57	
6	65.88	66.08	68.84	68.60	70.01	76.96	75.40	72.52	68.77	67.98	67.38	67.55	
7	65.88	66.08	68.41	68.44	69.65	76.97	75.33	71.96	68.73	67.91	67.35	67.53	
8	65.88	66.08	68.27	68.34	69.57	76.94	75.26	71.10	68.70	67.88	67.33	67.53	
9	65.89	66.17	68.18	68.31	69.97	76.84	75.16	70.51	68.67	67.87	67.36	67.57	
10	65.89	67.44	68.15	68.33	70.38	76.70	74.95	70.03	68.59	67.85	67.42	67.56	
11	65.89	68.11	68.22	68.24	70.69	76.60	74.72	69.76	68.50	67.87	67.47	67.52	
12	65.89	68.09	68.96	68.18	70.76	76.49	74.47	69.60	68.40	67.88	67.52	67.48	
13	65.90	68.17	69.32	68.39	70.35	76.37	74.00	69.45	68.31	67.94	67.60	67.41	
14	65.90	68.25	70.74	68.67	69.71	76.29	73.32	69.42	68.19	67.94	67.61	67.43	
15	65.90	68.24	71.98	68.74	70.23	76.22	72.48	69.38	68.12	67.88	67.58	67.43	
16	65.90	68.59	72.64	68.85	70.91	76.16	71.39	69.38	68.03	67.87	67.59	67.44	
17	65.90	68.94	72.86	68.76	71.38	76.14	70.49	69.43	67.97	67.84	67.63	67.45	
18	65.91	70.00	72.93	68.53	71.71	76.21	70.37	69.38	67.90	67.83	67.69	67.46	
19	65.91	69.71	72.99	68.48	71.96	76.23	70.46	69.30	67.84	67.85	67.70	67.50	
20	65.91	69.98	73.02	68.83	72.14	76.16	70.42	69.23	67.92	67.84	67.87	67.54	
21	65.92	69.60	72.97	68.89	72.26	76.16	70.20	69.17	67.89	67.80	67.93	67.55	
22	65.92	69.15	72.76	69.05	72.36	76.28	70.15	69.18	67.86	67.77	67.89	67.53	
23	65.92	68.88	71.98	68.84	73.03	76.28	70.11	69.14	67.80	67.75	67.79	67.66	
24	65.92	68.60	70.47	68.63	73.61	76.18	69.96	69.08	67.69	67.75	67.75	68.18	
25	65.92	68.44	70.01	68.54	73.81	76.09	69.99	69.04	67.55	67.75	67.70	68.26	
26	65.92	68.30	70.03	68.36	73.94	76.01	69.89	69.00	67.53	67.72	67.72	68.33	
27	65.92	68.39	69.50	68.29	73.98	75.94	69.87	68.99	67.52	67.75	67.71	68.29	
28	65.92	68.50	69.56	68.23	74.14	75.91	70.22	68.93	67.51	67.77	67.69	68.38	
29	65.92	68.52	69.62	68.40	74.55	75.86	71.22	68.85	67.50	67.76		68.49	
30	65.92	68.49	69.65	68.39	75.52	75.85	71.89	68.80	67.50	67.77		68.51	
31		68.51		68.37	76.54		72.31		67.49	67.68		68.50	
Mean	65.90	67.93	70.25	68.63	71.61	76.37	72.66	70.14	68.13	67.81	67.59	67.74	
Max	65.92	70.00	73.02	69.51	76.54	76.97	75.83	72.85	68.77	67.98	67.93	68.51	76.97
Min	65.87	66.08	68.15	68.18	68.66	75.85	69.87	68.80	67.49	67.57	67.33	67.41	65.87

Annual Max Momentary Gage Height 77.00 m. (MSL.) , at 18.00 Hours , on Sep 6 , 2002

Zero Gage at Bottom Elevation 65.30 m. (MSL.) , River Bed 66.14 m. (MSL.)

Left Bank Elevation 78.72 m. (MSL.) ,

Right Bank Elevation 78.82 m. (MSL.) , Drainage Are 6,626 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	21.87	15.92	4.74	766.50	263.25	72.00	5.46	0.75	0.68	0.74		
2	0.00	0.00	10.96	14.87	15.75	740.50	249.00	75.60	5.28	0.71	0.66	0.72		
3	0.00	0.00	6.40	9.82	12.56	766.50	237.00	77.67	4.92	0.89	0.67	0.72		
4	0.00	0.00	7.80	7.00	13.84	832.50	217.00	78.12	4.65	0.86	0.66	0.71		
5	0.00	0.00	4.38	5.46	22.05	1080.00	202.00	76.20	4.92	0.77	0.64	0.71		
6	0.00	0.00	6.40	4.20	24.67	1544.00	189.00	71.40	5.73	0.98	0.51	0.70		
7	0.00	0.00	3.06	3.24	18.37	1573.00	183.05	60.20	5.37	0.91	0.32	0.69		
8	0.00	0.00	2.35	2.70	16.97	1486.00	177.10	43.75	5.10	0.88	0.19	0.69		
9	0.00	0.00	1.90	2.55	23.97	1195.99	169.00	33.42	4.83	0.87	0.38	0.71		
10	0.00	0.66	1.75	2.65	31.15	915.00	153.50	25.02	4.14	0.85	0.65	0.70		
11	0.00	1.55	2.10	2.20	36.57	750.00	138.60	20.30	3.60	0.87	0.67	0.69		
12	0.00	1.45	7.60	1.90	37.80	645.50	126.15	17.50	3.00	0.88	0.69	0.67		
13	0.00	1.85	12.72	2.95	30.62	536.90	108.00	14.87	2.55	0.94	0.72	0.64		
14	0.00	2.25	37.45	4.83	19.42	475.30	88.70	14.35	1.95	0.94	0.72	0.65		
15	0.00	2.20	60.60	5.46	28.52	421.40	70.60	13.68	1.60	0.88	0.71	0.65		
16	0.00	4.14	73.80	6.50	40.42	386.80	48.82	13.68	1.15	0.87	0.72	0.66		
17	0.00	7.40	78.35	5.64	48.65	377.20	33.07	14.52	0.97	0.84	0.73	0.66		
18	0.00	24.50	79.92	3.78	55.20	413.70	30.97	13.68	0.90	0.83	0.76	0.66		
19	0.00	19.42	81.27	3.48	60.20	429.10	32.55	12.40	0.84	0.85	0.76	0.68		
20	0.00	24.15	81.95	6.30	63.80	386.80	31.85	11.28	0.92	0.84	0.87	0.70		
21	0.00	17.50	80.82	6.90	66.20	386.80	28.00	10.38	0.89	0.80	0.93	0.70		
22	0.00	10.10	76.20	8.70	68.20	467.60	27.12	10.52	0.86	0.79	0.89	0.69		
23	0.00	6.80	60.60	6.40	82.17	467.60	26.42	9.96	0.80	0.78	0.80	0.74		
24	0.00	4.20	32.72	4.47	96.30	396.40	23.80	9.12	0.76	0.78	0.78	1.90		
25	0.00	3.24	24.67	3.84	102.30	353.20	24.32	8.56	0.70	0.78	0.76	2.30		
26	0.00	2.50	25.02	2.80	106.20	314.80	22.57	8.00	0.69	0.77	0.77	2.65		
27	0.00	2.95	15.75	2.45	107.40	293.50	22.22	7.90	0.69	0.78	0.76	2.45		
28	0.00	3.60	16.80	2.15	112.90	285.25	28.35	7.30	0.68	0.79	0.76	2.90		
29	0.00	3.72	17.85	3.00	129.75	271.50	45.85	6.50	0.68	0.78		3.54		
30	0.00	3.54	18.37	2.95	204.60	268.75	58.80	6.00	0.68	0.79		3.66		
31		3.66		2.85	693.00		67.20		0.68	0.75		3.60		
Total	0.00	151.38	951.43	157.96	2374.29	19228.09	3123.86	843.88	75.99	25.80	19.16	38.88	26990.72	CMSDAY
Mean	0.00	4.88	31.71	5.10	76.59	640.94	100.77	28.13	2.45	0.83	0.68	1.25	73.95	CMS
Max	0.00	24.50	81.95	15.92	693.00	1573.00	263.25	78.12	5.73	0.98	0.93	3.66	1573.00	CMS
Min	0.00	0.00	1.75	1.90	4.74	268.75	22.22	6.00	0.68	0.71	0.19	0.64	0.00	CMS
Runoff	0.00	13.08	82.20	13.65	205.14	1661.31	269.90	72.91	6.57	2.23	1.66	3.36	2332.00	MCM

Momentary Peak 1660.00 CMS. at 77.00 m. (MSL.) at 18.00 Hours , on Sep 6 , 2002

Runoff Yield 11.16 Liters/Second/Square KM. Momentary Peak Yield 250.530 Liters/Second/Square KM.

WATER YEAR : 2002

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 mean 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	No overbank flow.		
General Description	Records good.Stage-discharge relation defined by 22 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

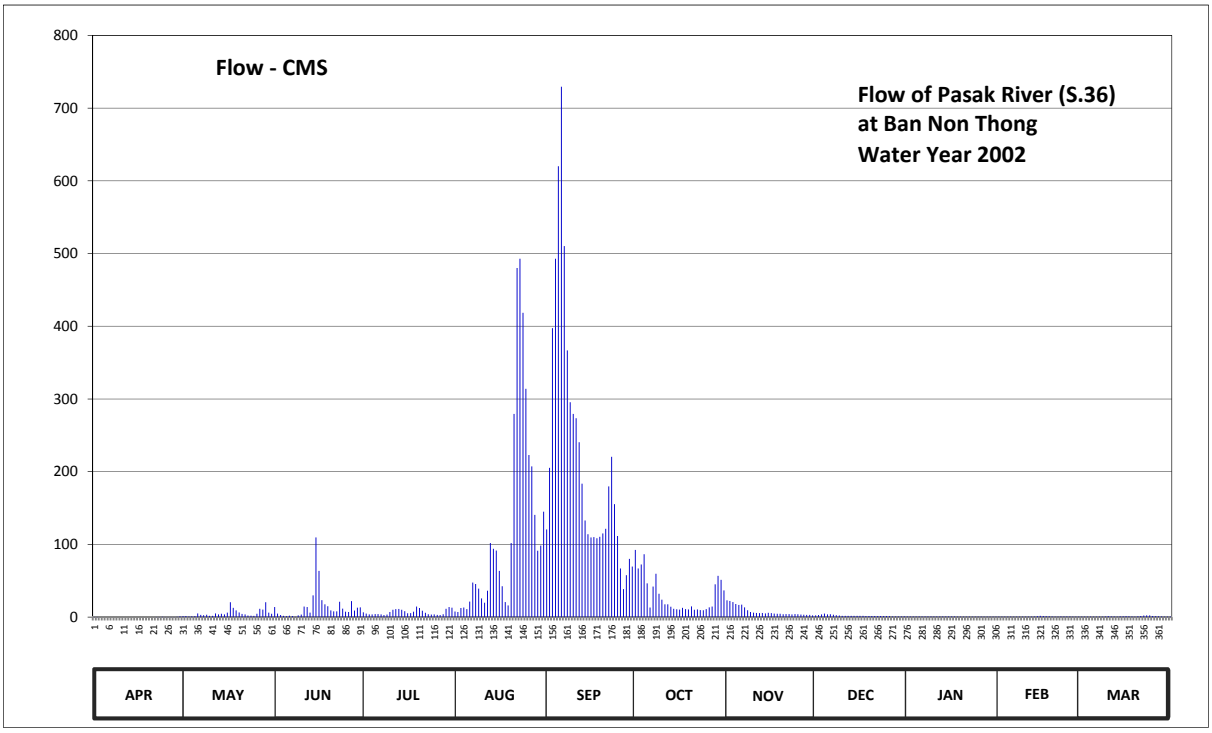
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	134.07	134.49	135.19	134.88	134.93	138.03	137.41	135.56	134.63	134.40	134.35	134.34	
2	134.07	134.50	134.79	134.79	134.90	139.36	136.77	135.53	134.65	134.40	134.35	134.34	
3	134.06	134.41	134.66	134.72	135.14	140.45	136.91	135.47	134.72	134.40	134.35	134.34	
4	134.05	134.44	134.55	134.71	135.17	140.70	137.26	135.36	134.79	134.40	134.35	134.34	
5	134.03	134.47	134.48	134.74	135.08	140.97	136.26	135.31	134.72	134.40	134.35	134.34	
6	134.00	134.80	134.59	134.75	135.49	141.15	135.17	135.33	134.73	134.40	134.35	134.34	
7	133.97	134.67	134.51	134.71	136.29	140.74	136.15	135.18	134.68	134.40	134.35	134.34	
8	133.95	134.64	134.23	134.66	136.24	140.35	136.59	135.02	134.64	134.41	134.35	134.34	
9	133.93	134.68	134.62	134.70	136.08	140.03	135.87	134.90	134.61	134.40	134.35	134.40	
10	133.89	134.55	134.70	134.90	135.66	139.93	135.60	134.86	134.55	134.39	134.35	134.46	
11	133.89	134.55	135.22	135.04	135.43	139.89	135.34	134.84	134.54	134.39	134.35	134.38	
12	133.87	134.80	135.19	135.08	136.01	139.66	135.34	134.82	134.55	134.39	134.31	134.36	
13	133.84	134.71	134.86	135.09	137.64	139.10	135.21	134.83	134.57	134.39	134.41	134.34	
14	133.85	134.77	135.80	135.04	137.45	138.28	135.10	134.80	134.54	134.39	134.48	134.42	
15	133.91	134.72	137.81	134.96	137.39	137.90	135.07	134.85	134.54	134.39	134.54	134.45	
16	133.96	134.86	136.69	134.81	136.69	137.81	135.05	134.82	134.54	134.38	134.52	134.48	
17	134.02	135.46	135.57	134.82	136.16	137.82	135.15	134.79	134.54	134.36	134.49	134.44	
18	134.02	135.15	135.34	134.92	135.47	137.79	135.08	134.77	134.53	134.35	134.43	134.39	
19	134.03	135.01	135.24	135.22	135.28	137.83	135.06	134.77	134.52	134.35	134.38	134.34	
20	134.03	134.87	135.01	135.14	137.64	137.92	135.23	134.73	134.52	134.35	134.33	134.42	
21	134.04	134.76	134.94	134.99	139.93	138.05	135.04	134.75	134.52	134.35	134.34	134.53	
22	134.12	134.71	134.95	134.85	140.67	139.05	135.06	134.74	134.52	134.35	134.36	134.61	
23	134.16	134.61	135.48	134.73	140.70	139.50	135.03	134.71	134.51	134.35	134.39	134.62	
24	134.21	134.58	135.11	134.70	140.51	138.69	135.02	134.74	134.51	134.35	134.41	134.62	
25	134.20	134.57	134.92	134.72	140.13	137.85	135.08	134.73	134.51	134.35	134.41	134.50	
26	134.17	134.78	134.90	134.67	139.52	136.77	135.18	134.70	134.48	134.35	134.34	134.47	
27	134.14	135.10	135.52	134.65	139.38	136.06	135.22	134.69	134.40	134.35	134.34	134.45	
28	134.13	135.05	135.00	134.73	138.43	136.54	136.23	134.67	134.41	134.35	134.34	134.37	
29	134.26	135.46	135.16	135.10	137.38	137.10	136.52	134.67	134.40	134.35		134.34	
30	134.45	134.86	135.18	135.19	137.56	136.84	136.38	134.63	134.40	134.34		134.33	
31		134.78		135.16	138.51		136.02		134.42	134.34		134.32	
Mean	134.04	134.77	135.14	134.88	137.19	138.74	135.69	134.92	134.55	134.37	134.38	134.41	
Max	134.45	135.46	137.81	135.22	140.70	141.15	137.41	135.56	134.79	134.41	134.54	134.62	141.15
Min	133.84	134.41	134.23	134.65	134.90	136.06	135.02	134.63	134.40	134.34	134.31	134.32	133.84

Annual Max Momentary Gage Height 141.22 m. (MSL.) , at 06.00 Hours , on Sep 6 , 2002

Zero Gage at Bottom Elevation 130.95 m. (MSL.) , River Bed 130.89 m. (MSL.)

Left Bank Elevation 143.22 m. (MSL.) ,

Right Bank Elevation 143.16 m. (MSL.) , Drainage Are 1,775 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.11	1.40	13.75	6.60	7.60	120.50	92.40	23.00	2.45	0.90	0.75	0.72		
2	0.11	1.45	4.85	4.85	7.00	205.40	66.80	22.25	2.75	0.90	0.75	0.72		
3	0.09	0.96	2.90	3.80	12.50	397.50	72.40	20.75	3.80	0.90	0.75	0.72		
4	0.08	1.12	1.72	3.65	13.25	493.00	86.40	18.00	4.85	0.90	0.75	0.72		
5	0.05	1.29	1.34	4.10	11.00	620.15	46.40	16.75	3.80	0.90	0.75	0.72		
6	0.00	5.00	1.94	4.25	21.25	729.50	13.25	17.25	3.95	0.90	0.75	0.72		
7	0.00	3.05	1.50	3.65	47.60	510.20	42.00	13.50	3.20	0.90	0.75	0.72		
8	0.00	2.60	0.39	2.90	45.60	366.75	59.60	9.50	2.60	0.96	0.75	0.72		
9	0.00	3.20	2.30	3.50	39.20	295.55	32.10	7.00	2.15	0.90	0.75	0.90		
10	0.00	1.72	3.50	7.00	25.80	279.50	24.00	6.20	1.72	0.87	0.75	1.23		
11	0.00	1.72	14.50	10.00	19.75	273.50	17.50	5.80	1.67	0.87	0.75	0.84		
12	0.00	5.00	13.75	11.00	36.40	240.40	17.50	5.40	1.72	0.87	0.63	0.78		
13	0.00	3.65	6.20	11.25	101.80	183.50	14.25	5.60	1.83	0.87	0.96	0.72		
14	0.00	4.55	30.00	10.00	94.00	133.00	11.50	5.00	1.67	0.87	1.34	1.01		
15	0.00	3.80	109.50	8.20	91.60	114.00	10.75	6.00	1.67	0.87	1.67	1.18		
16	0.00	6.20	63.60	5.20	63.60	109.50	10.25	5.40	1.67	0.84	1.56	1.34		
17	0.03	20.50	23.25	5.40	42.40	110.00	12.75	4.85	1.67	0.78	1.40	1.12		
18	0.03	12.75	17.50	7.40	20.75	108.55	11.00	4.55	1.61	0.75	1.07	0.87		
19	0.05	9.25	15.00	14.50	16.00	110.50	10.50	4.55	1.56	0.75	0.84	0.72		
20	0.05	6.40	9.25	12.50	101.80	115.00	14.75	3.95	1.56	0.75	0.69	1.01		
21	0.06	4.40	7.80	8.80	279.50	121.50	10.00	4.25	1.56	0.75	0.72	1.61		
22	0.18	3.65	8.00	6.00	480.10	179.75	10.50	4.10	1.56	0.75	0.78	2.15		
23	0.24	2.15	21.00	3.95	493.00	220.50	9.75	3.65	1.50	0.75	0.87	2.30		
24	0.33	1.89	11.75	3.50	418.50	155.40	9.50	4.10	1.50	0.75	0.96	2.30		
25	0.30	1.83	7.40	3.80	314.05	111.50	11.00	3.95	1.50	0.75	0.96	1.45		
26	0.26	4.70	7.00	3.05	222.80	66.80	13.50	3.50	1.34	0.75	0.72	1.29		
27	0.21	11.50	22.00	2.75	207.20	38.40	14.50	3.35	0.90	0.75	0.72	1.18		
28	0.20	10.25	9.00	3.95	140.65	57.60	45.20	3.05	0.96	0.75	0.72	0.81		
29	0.48	20.50	13.00	11.50	91.20	80.00	56.80	3.05	0.90	0.75		0.72		
30	1.18	6.20	13.50	13.75	98.40	69.60	51.20	2.45	0.90	0.72		0.69		
31		4.70		13.00	145.05		36.80		1.01	0.72		0.66		
Total	4.04	167.38	457.19	213.80	3709.35	6617.05	934.85	240.75	61.53	25.44	24.86	32.64	12488.88	CMSDAY
Mean	0.13	5.40	15.24	6.90	119.66	220.57	30.16	8.03	1.98	0.82	0.89	1.05	34.22	CMS
Max	1.18	20.50	109.50	14.50	493.00	729.50	92.40	23.00	4.85	0.96	1.67	2.30	729.50	CMS
Min	0.00	0.96	0.39	2.75	7.00	38.40	9.50	2.45	0.90	0.72	0.63	0.66	0.00	CMS
Runoff	0.35	14.46	39.50	18.47	320.49	571.71	80.77	20.80	5.32	2.20	2.15	2.82	1079.04	MCM

Momentary Peak 774.70 CMS. at 141.22 m. (MSL.) at 06.00 Hours , on Sep 6 , 2002

Runoff Yield 19.28 Liters/Second/Square KM. Momentary Peak Yield 436.450 Liters/Second/Square KM.

WATER YEAR : 2002

PASAK RIVER BASIN

Pasak River at Ban Bua Chum, Lop Buri (S.39)

Lat 15 - 15 - 48 N Long 101 - 11 - 30 E

Location : on right bank at Ban Bua Chum.

	Ban Bua Chum	**Amphoe** Chai Badan	**Changwat** Lop Buri
Drainge Area	9,505 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+32.040 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank near the gage site.	**Elevation**	+52.528 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 mean 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	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 26 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

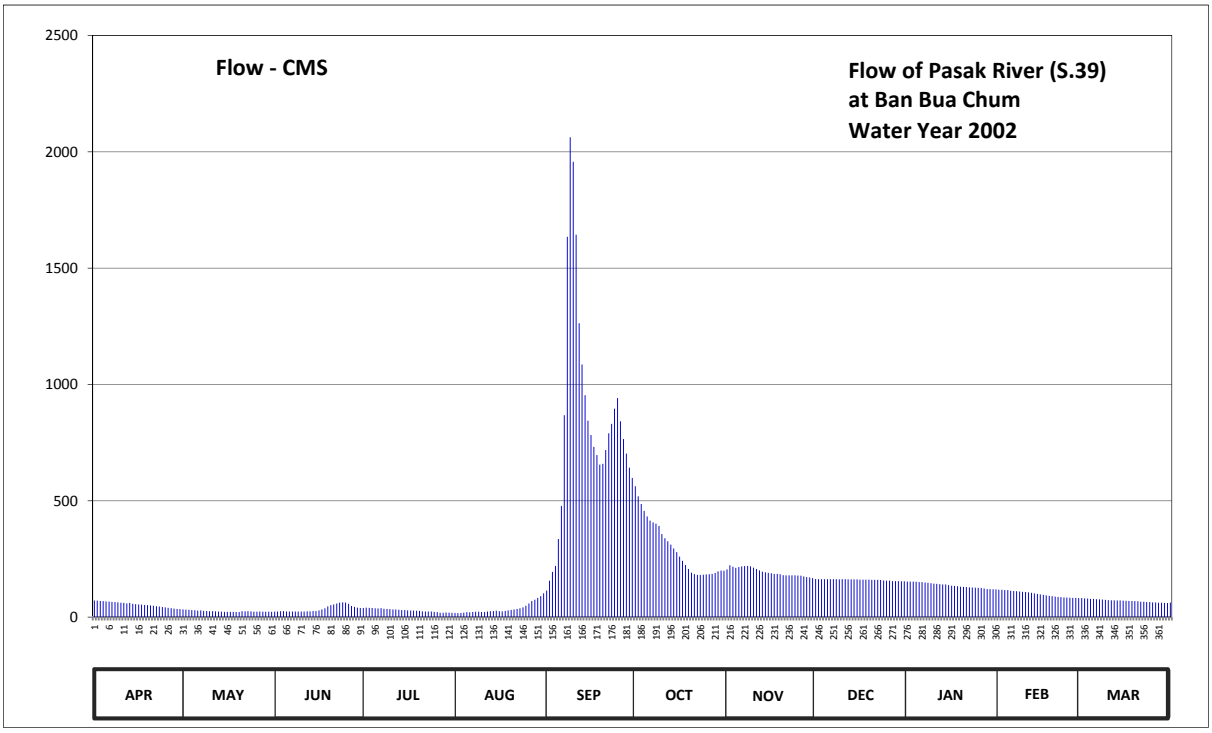
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	41.11	39.81	39.32	40.08	39.08	42.10	47.47	43.59	42.97	42.79	42.16	41.38	
2	41.09	39.76	39.36	40.12	39.05	42.85	47.14	43.85	42.96	42.79	42.16	41.36	
3	41.04	39.72	39.43	40.09	39.06	43.45	46.85	43.76	42.96	42.79	42.13	41.33	
4	41.02	39.68	39.44	40.06	39.13	43.81	46.58	43.69	42.96	42.78	42.13	41.31	
5	40.98	39.62	39.38	40.02	39.22	45.31	46.34	43.74	42.96	42.75	42.08	41.30	
6	40.96	39.56	39.36	39.99	39.21	46.78	46.16	43.78	42.96	42.75	42.06	41.27	
7	40.92	39.59	39.36	40.05	39.26	48.96	46.09	43.80	42.96	42.72	42.04	41.26	
8	40.89	39.50	39.36	39.95	39.32	50.32	46.03	43.81	42.96	42.71	42.02	41.23	
9	40.84	39.48	39.37	39.89	39.33	50.57	45.94	43.78	42.95	42.68	41.98	41.21	
10	40.81	39.44	39.36	39.86	39.28	50.52	45.57	43.70	42.96	42.64	41.97	41.16	
11	40.78	39.42	39.36	39.82	39.28	50.33	45.35	43.62	42.96	42.63	41.94	41.14	
12	40.72	39.40	39.41	39.79	39.36	49.83	45.19	43.54	42.95	42.61	41.90	41.13	
13	40.78	39.38	39.40	39.72	39.44	49.49	45.01	43.46	42.94	42.58	41.85	41.11	
14	40.65	39.34	39.46	39.67	39.48	49.18	44.81	43.42	42.94	42.58	41.81	41.12	
15	40.61	39.31	39.46	39.66	39.52	48.88	44.61	43.39	42.94	42.54	41.76	41.09	
16	40.57	39.29	39.60	39.60	39.45	48.64	44.37	43.36	42.92	42.50	41.71	41.07	
17	40.53	39.29	39.80	39.58	39.40	48.43	44.12	43.32	42.92	42.48	41.66	41.05	
18	40.49	39.29	40.03	39.56	39.49	48.27	43.87	43.32	42.92	42.46	41.62	41.04	
19	40.46	39.28	40.29	39.52	39.59	48.06	43.62	43.30	42.92	42.41	41.58	41.02	
20	40.42	39.28	40.46	39.49	39.69	48.08	43.40	43.24	42.91	42.40	41.53	41.01	
21	40.38	39.44	40.57	39.41	39.79	48.37	43.31	43.22	42.91	42.39	41.51	40.94	
22	40.31	39.40	40.69	39.38	39.92	48.67	43.26	43.22	42.91	42.36	41.49	40.93	
23	40.27	39.42	40.81	39.36	40.03	48.83	43.26	43.22	42.90	42.35	41.46	40.89	
24	40.21	39.39	40.85	39.36	40.16	49.04	43.27	43.22	42.87	42.33	41.43	40.89	
25	40.15	39.34	40.82	39.30	40.38	49.15	43.29	43.21	42.86	42.32	41.42	40.86	
26	40.10	39.34	40.64	39.24	40.70	48.87	43.30	43.20	42.86	42.31	41.41	40.84	
27	40.04	39.38	40.35	39.11	41.05	48.57	43.32	43.15	42.82	42.27	41.41	40.80	
28	39.98	39.32	40.22	39.09	41.22	48.30	43.38	43.10	42.82	42.21	41.39	40.80	
29	39.92	39.32	40.12	39.16	41.40	47.98	43.48	43.08	42.82	42.21		40.79	
30	39.87	39.32	40.08	39.13	41.59	47.71	43.53	43.03	42.81	42.20		40.76	
31		39.31		39.09	41.87		43.52		42.81	42.19		40.83	
Mean	40.56	39.43	39.87	39.62	39.83	47.98	44.69	43.44	42.91	42.51	41.77	41.06	
Max	41.11	39.81	40.85	40.12	41.87	50.57	47.47	43.85	42.97	42.79	42.16	41.38	50.57
Min	39.87	39.28	39.32	39.09	39.05	42.10	43.26	43.03	42.81	42.19	41.39	40.76	39.05

Annual Max Momentary Gage Height 50.58 m. (MSL.) , at 12.00 Hours , on Sep 9 , 2002

Zero Gage at Bottom Elevation 32.04 m. (MSL.) , River Bed 34.42 m. (MSL.)

Left Bank Elevation 52.63 m. (MSL.) ,

Right Bank Elevation 52.59 m. (MSL.) , Drainage Are 9,505 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	71.22	33.09	23.00	39.47	18.06	114.43	562.78	204.56	163.79	152.76	117.51	81.50		
2	70.61	32.06	23.82	40.70	17.44	156.44	519.20	223.00	163.18	152.76	117.51	80.67		
3	69.07	31.24	25.26	39.77	17.65	194.64	485.88	216.62	163.18	152.76	115.97	79.42		
4	68.45	30.41	25.47	38.85	19.09	220.16	456.87	211.65	163.18	152.15	115.97	78.58		
5	67.22	29.18	24.24	37.62	20.94	335.56	432.60	215.20	163.18	150.31	113.40	78.17		
6	66.60	27.94	23.82	36.79	20.74	478.00	414.40	218.04	163.18	150.31	112.37	76.92		
7	65.37	28.56	23.82	38.54	21.76	868.00	407.32	219.45	163.18	148.48	111.34	76.50		
8	64.44	26.71	23.82	35.97	23.00	1634.27	401.26	220.16	163.18	147.86	110.31	75.25		
9	62.90	26.29	24.03	34.74	23.21	2062.00	392.16	218.04	162.56	146.03	108.26	74.42		
10	61.97	25.47	23.82	34.12	22.18	1957.00	356.58	212.36	163.18	143.58	107.74	72.77		
11	61.05	25.06	23.82	33.29	22.18	1643.73	338.79	206.69	163.18	142.96	106.20	72.15		
12	59.20	24.65	24.85	32.68	23.82	1263.25	325.86	201.02	162.56	141.74	104.14	71.84		
13	61.05	24.24	24.65	31.24	25.47	1085.75	311.31	195.35	161.95	139.90	101.57	71.22		
14	57.04	23.41	25.88	30.21	26.29	954.00	295.14	192.51	161.95	139.90	99.51	71.53		
15	55.81	22.79	25.88	30.00	27.12	844.40	278.97	190.38	161.95	137.45	97.33	70.61		
16	54.57	22.38	28.76	28.76	25.68	782.80	259.87	188.25	160.73	135.00	95.25	69.99		
17	53.34	22.38	32.88	28.35	24.65	731.35	242.15	185.42	160.73	133.97	93.17	69.37		
18	52.11	22.38	37.92	27.94	26.50	696.70	224.42	185.42	160.73	132.94	91.50	69.07		
19	51.18	22.18	45.94	27.12	28.56	655.44	206.69	184.00	160.73	130.37	89.83	68.45		
20	49.95	22.18	51.18	26.50	30.62	658.72	191.09	180.33	160.11	129.86	87.75	68.14		
21	48.72	25.47	54.57	24.85	32.68	717.70	184.71	179.10	160.11	129.34	86.92	65.98		
22	46.56	24.65	58.27	24.24	35.35	790.15	181.55	179.10	160.11	127.80	86.08	65.67		
23	45.32	25.06	61.97	23.82	37.92	830.40	181.55	179.10	159.50	127.29	84.83	64.44		
24	43.47	24.44	63.21	23.82	41.93	896.00	182.16	179.10	157.66	126.26	83.58	64.44		
25	41.62	23.41	62.28	22.59	48.72	941.25	183.39	178.49	157.05	125.74	83.17	63.52		
26	40.08	23.41	56.73	21.35	58.58	841.60	184.00	177.88	157.05	125.23	82.75	62.90		
27	38.23	24.24	47.79	18.68	69.37	765.65	185.42	174.81	154.60	123.17	82.75	61.67		
28	36.59	23.00	43.78	18.26	74.83	703.00	189.67	171.75	154.60	120.09	81.92	61.67		
29	35.35	23.00	40.70	19.71	82.33	642.32	196.76	170.53	154.60	120.09		61.36		
30	34.32	23.00	39.47	19.09	90.25	598.04	200.31	167.46	153.99	119.57		60.43		
31		22.79		18.26	102.60		199.60		153.99	119.06		62.59		
Total	1633.41	785.07	1091.63	907.33	1139.52	25062.75	9172.46	5825.77	4969.67	4224.73	2768.63	2171.24	59752.21	CMSDAY
Mean	54.45	25.32	36.39	29.27	36.76	835.43	295.89	194.19	160.31	136.28	98.88	70.04	163.70	CMS
Max	71.22	33.09	63.21	40.70	102.60	2062.00	562.78	223.00	163.79	152.76	117.51	81.50	2062.00	CMS
Min	34.32	22.18	23.00	18.26	17.44	114.43	181.55	167.46	153.99	119.06	81.92	60.43	17.44	CMS
Runoff	141.13	67.83	94.32	78.39	98.45	2165.42	792.50	503.35	429.38	365.02	239.21	187.60	5162.59	MCM

Momentary Peak 2083.01 CMS. at 50.58 m. (MSL.) at 12.00 Hours , on Sep 9 , 2002

Runoff Yield 17.22 Liters/Second/Square KM. Momentary Peak Yield 219.150 Liters/Second/Square KM.

WATER YEAR : 2002

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	6,991 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 mean 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 149 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

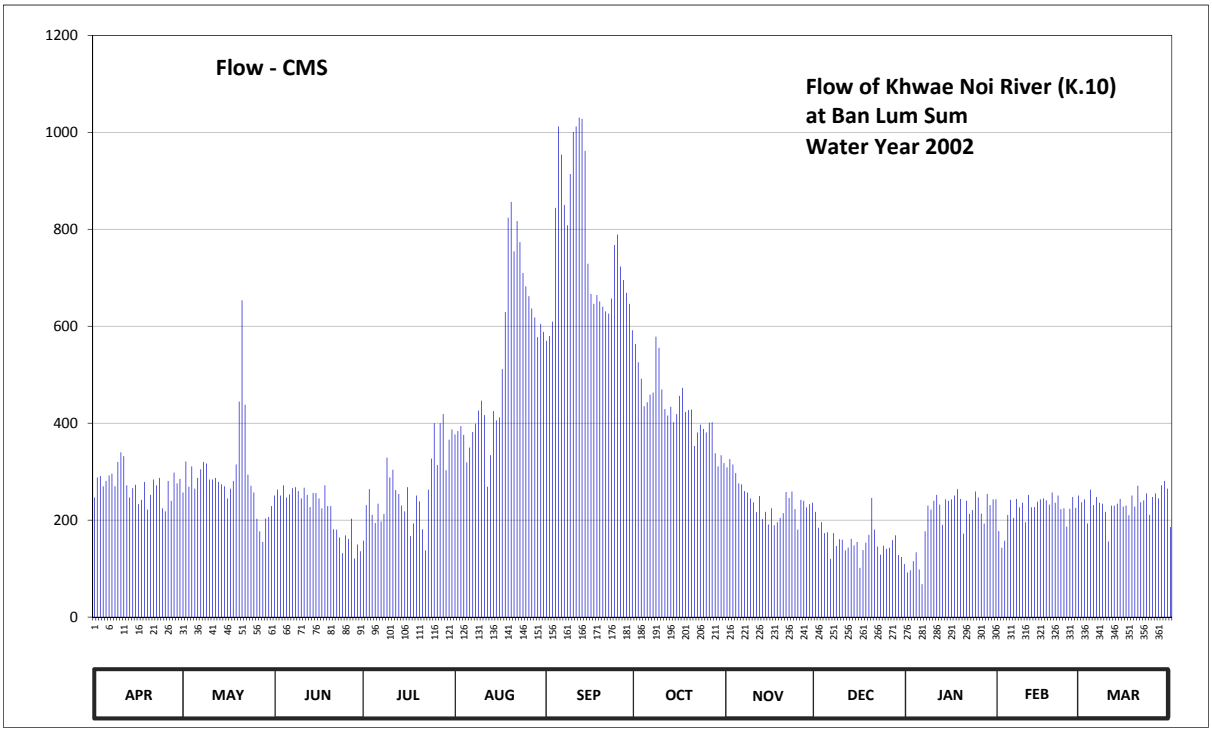
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	33.88	33.98	33.92	32.91	35.18	36.99	36.93	34.50	33.57	32.10	33.13	33.78	
2	34.29	34.62	34.04	33.72	35.25	37.08	36.59	34.67	33.20	32.16	32.74	33.84	
3	34.32	34.10	33.92	34.05	35.35	37.35	36.28	34.56	33.33	32.39	32.91	33.30	
4	34.11	34.52	34.13	33.50	35.17	39.32	35.76	34.38	33.08	32.62	33.50	34.04	
5	34.22	34.06	33.88	33.31	34.60	40.68	35.84	34.17	33.10	32.18	33.83	33.72	
6	34.33	34.28	33.94	33.75	34.91	40.23	35.98	34.15	32.45	31.77	33.43	33.89	
7	34.37	34.46	34.07	33.35	35.23	39.37	36.02	34.01	33.08	33.12	33.85	33.77	
8	34.11	34.61	34.09	33.52	35.40	39.02	37.07	33.98	32.78	33.71	33.67	33.75	
9	34.61	34.58	34.01	34.70	35.67	39.90	36.86	33.86	32.94	33.62	33.77	33.57	
10	34.81	34.25	33.86	34.29	35.87	40.59	36.08	33.78	32.93	33.81	33.33	32.89	
11	34.73	34.25	34.08	34.45	35.58	40.68	35.70	33.56	32.67	33.93	33.93	33.71	
12	34.13	34.28	33.93	34.03	34.10	40.82	35.57	33.91	32.74	33.73	33.67	33.71	
13	33.88	34.20	33.68	33.95	34.75	40.80	35.75	33.40	32.95	33.27	33.68	33.75	
14	34.07	34.15	33.97	33.71	35.66	40.29	35.43	33.57	32.80	33.84	33.79	33.85	
15	34.14	34.11	33.97	33.58	35.47	38.36	35.60	33.28	32.88	33.81	33.84	33.69	
16	33.74	33.86	33.86	34.09	35.53	37.84	35.96	33.65	32.22	33.84	33.86	33.71	
17	33.83	34.06	33.65	33.01	36.46	37.67	36.11	33.26	32.68	33.92	33.82	33.49	
18	34.20	34.22	34.13	33.30	37.53	37.82	35.64	33.33	32.86	34.05	33.73	33.92	
19	33.62	34.56	33.70	33.92	39.15	37.71	35.68	33.43	33.04	33.85	33.98	33.69	
20	33.93	35.85	33.70	33.80	39.42	37.62	35.69	33.54	33.87	33.07	33.77	34.12	
21	34.25	37.73	33.17	33.17	38.57	37.54	34.94	33.99	33.16	33.81	33.92	33.78	
22	34.13	35.79	33.16	32.67	39.09	37.50	35.22	33.87	32.77	33.52	33.63	33.82	
23	34.28	34.35	32.98	34.04	38.73	37.76	35.38	34.00	32.56	33.61	33.65	33.96	
24	33.65	34.12	32.60	34.68	38.20	38.68	35.29	33.63	32.79	34.00	33.23	33.50	
25	33.58	33.98	33.03	35.41	37.97	38.86	35.22	33.16	32.71	33.88	33.64	33.89	
26	34.22	33.41	32.95	34.55	37.80	38.31	35.42	33.83	32.74	33.53	33.89	33.96	
27	33.81	33.12	33.41	35.41	37.59	38.08	35.43	33.81	32.92	33.30	33.66	33.86	
28	34.39	32.88	32.46	35.60	37.43	37.86	34.79	33.67	33.03	33.95	33.92	34.13	
29	34.17	33.42	32.82	34.44	37.06	37.67	34.52	33.74	32.55	33.72		34.22	
30	34.26	33.45	32.65	35.07	37.31	37.19	34.75	33.77	32.50	33.84		34.06	
31		33.70		35.28	37.16		34.59		32.32	33.84		33.22	
Mean	34.14	34.29	33.59	34.04	36.55	38.65	35.68	33.82	32.88	33.41	33.63	33.76	
Max	34.81	37.73	34.13	35.60	39.42	40.82	37.07	34.67	33.87	34.05	33.98	34.22	40.82
Min	33.58	32.88	32.46	32.67	34.10	36.99	34.52	33.16	32.22	31.77	32.74	32.89	31.77

Annual Max Momentary Gage Height 40.86 m. (MSL.) , at 15.00 Hours , on Sep 12 , 2002

Zero Gage at Bottom Elevation 30.40 m. (MSL.) , River Bed 30.23 m. (MSL.)

Left Bank Elevation 41.11 m. (MSL.) ,

Right Bank Elevation 46.80 m. (MSL.) , Drainage Are 6,991 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	247.00	257.00	251.00	157.90	377.00	569.90	563.30	309.00	217.30	92.00	177.70	237.00		
2	288.00	321.00	263.00	231.00	384.00	579.80	525.90	326.00	184.00	96.80	143.20	243.00		
3	291.00	269.00	251.00	264.00	394.00	609.50	491.80	315.00	195.70	115.20	157.90	193.00		
4	270.00	311.00	272.00	211.00	376.00	844.40	435.00	297.00	173.20	133.60	211.00	263.00		
5	281.00	265.00	247.00	193.90	319.00	1012.40	443.40	276.00	175.00	98.40	242.00	231.00		
6	292.00	287.00	253.00	234.00	350.00	953.90	458.80	274.00	120.00	67.90	204.70	248.00		
7	296.00	305.00	266.00	197.50	382.00	850.40	463.20	260.00	173.20	176.80	244.00	236.00		
8	270.00	320.00	268.00	212.80	399.00	808.40	578.70	257.00	146.40	230.00	226.30	234.00		
9	320.00	317.00	260.00	329.00	426.00	914.00	555.60	245.00	160.60	221.80	236.00	217.30		
10	340.00	284.00	245.00	288.00	446.70	1000.70	469.80	237.00	159.70	240.00	195.70	156.10		
11	332.00	284.00	267.00	304.00	417.00	1012.40	429.00	216.40	137.60	252.00	252.00	230.00		
12	272.00	287.00	252.00	262.00	269.00	1030.60	416.00	250.00	143.20	232.00	226.30	230.00		
13	247.00	279.00	227.20	254.00	334.00	1028.00	434.00	202.00	161.50	190.30	227.20	234.00		
14	266.00	274.00	256.00	230.00	425.00	961.70	402.00	217.30	148.00	243.00	238.00	244.00		
15	273.00	270.00	256.00	218.20	406.00	729.20	419.00	191.20	155.20	240.00	243.00	228.10		
16	233.00	245.00	245.00	268.00	412.00	666.80	456.60	224.50	101.60	243.00	245.00	230.00		
17	242.00	265.00	224.50	166.90	511.60	646.40	473.10	189.40	138.40	251.00	241.00	210.10		
18	279.00	281.00	272.00	193.00	629.60	664.40	423.00	195.70	153.40	264.00	232.00	251.00		
19	221.80	315.00	229.00	251.00	824.00	651.20	427.00	204.70	169.60	244.00	257.00	228.10		
20	252.00	444.50	229.00	239.00	856.40	640.40	428.00	214.60	246.00	172.30	236.00	271.00		
21	284.00	653.60	181.30	181.30	754.40	630.80	353.00	258.00	180.40	240.00	251.00	237.00		
22	272.00	438.00	180.40	137.60	816.80	626.00	381.00	246.00	145.60	212.80	222.70	241.00		
23	287.00	294.00	164.20	263.00	773.60	657.20	397.00	259.00	128.80	220.90	224.50	255.00		
24	224.50	271.00	132.00	327.00	710.00	767.60	388.00	222.70	147.20	259.00	186.70	211.00		
25	218.20	257.00	168.70	400.00	682.40	789.20	381.00	180.40	140.80	247.00	223.60	248.00		
26	281.00	202.90	161.50	314.00	662.00	723.20	401.00	242.00	143.20	213.70	248.00	255.00		
27	240.00	176.80	202.90	400.00	636.80	695.60	402.00	240.00	158.80	193.00	225.40	245.00		
28	298.00	155.20	120.80	419.00	618.30	669.20	338.00	226.30	168.70	254.00	251.00	272.00		
29	276.00	203.80	149.80	303.00	577.60	646.40	311.00	233.00	128.00	231.00		281.00		
30	285.00	206.50	136.00	366.00	605.10	591.90	334.00	236.00	124.00	243.00		265.00		
31		229.00		387.00	588.60		318.00		109.60	243.00		185.80		
Total	8178.50	8968.30	6631.30	8203.10	16363.90	22971.60	13297.20	7245.20	4834.70	6361.50	6268.90	7310.50	116634.70	CMSDAY
Mean	272.62	289.30	221.04	264.62	527.87	765.72	428.94	241.51	155.96	205.21	223.89	235.82	319.55	CMS
Max	340.00	653.60	272.00	419.00	856.40	1030.60	578.70	326.00	246.00	264.00	257.00	281.00	1030.60	CMS
Min	218.20	155.20	120.80	137.60	269.00	569.90	311.00	180.40	101.60	67.90	143.20	156.10	67.90	CMS
Runoff	706.62	774.86	572.94	708.75	1413.84	1984.75	1148.88	625.99	417.72	549.63	541.63	631.63	10077.24	MCM

Momentary Peak 1035.80 CMS. at 40.86 m. (MSL.) at 15.00 Hours , on Sep 12 , 2002

Runoff Yield 45.71 Liters/Second/Square KM. Momentary Peak Yield 148.160 Liters/Second/Square KM.

WATER YEAR : 2002

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

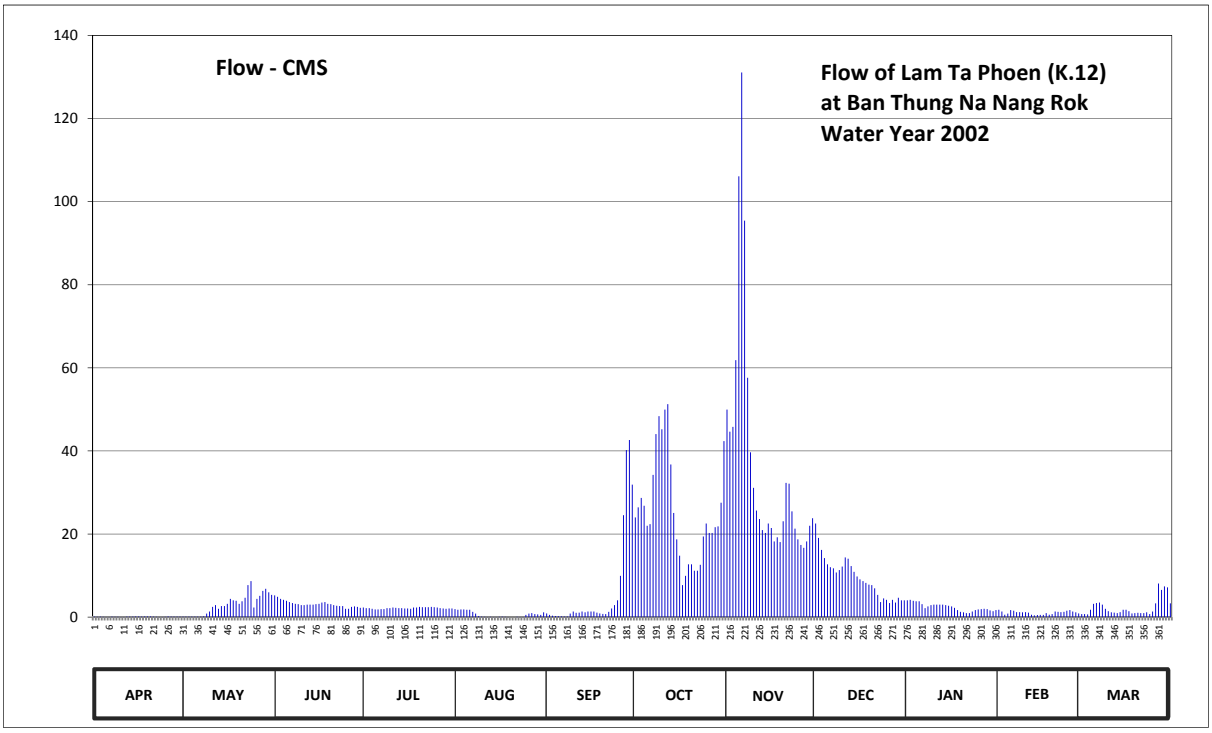
Location : on left bank about 50 meters downstream from Wat Thung Na Nang Rok.

	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 mean 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 113 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	41.23	41.25	41.92	41.64	41.59	41.45	43.16	44.23	43.08	41.82	41.57	41.42	
2	41.20	41.24	41.89	41.62	41.57	41.38	43.29	44.06	42.88	41.83	41.52	41.42	
3	41.25	41.24	41.85	41.62	41.58	41.34	43.41	44.10	42.71	41.81	41.39	41.41	
4	41.22	41.24	41.83	41.60	41.58	41.32	43.31	44.56	42.58	41.80	41.44	41.57	
5	41.18	41.24	41.81	41.58	41.57	41.31	43.05	45.43	42.48	41.80	41.56	41.74	
6	41.18	41.25	41.78	41.58	41.57	41.30	43.07	45.83	42.43	41.73	41.54	41.76	
7	41.23	41.25	41.76	41.59	41.51	41.27	43.67	45.24	42.41	41.62	41.50	41.77	
8	41.22	41.30	41.74	41.59	41.44	41.26	44.04	44.45	42.34	41.67	41.50	41.72	
9	41.20	41.44	41.73	41.62	41.32	41.44	44.18	43.88	42.38	41.71	41.49	41.60	
10	41.19	41.52	41.71	41.62	41.24	41.52	44.08	43.53	42.44	41.72	41.50	41.53	
11	41.19	41.66	41.71	41.64	41.22	41.47	44.23	43.25	42.59	41.72	41.48	41.49	
12	41.24	41.71	41.72	41.63	41.19	41.48	44.27	43.14	42.57	41.72	41.39	41.48	
13	41.23	41.60	41.72	41.62	41.20	41.52	43.77	42.99	42.45	41.72	41.36	41.46	
14	41.25	41.68	41.72	41.62	41.19	41.49	43.22	42.95	42.35	41.71	41.37	41.50	
15	41.27	41.68	41.73	41.61	41.18	41.52	42.86	43.08	42.27	41.69	41.38	41.57	
16	41.28	41.74	41.74	41.61	41.22	41.52	42.62	43.02	42.22	41.67	41.38	41.57	
17	41.25	41.85	41.77	41.60	41.23	41.52	42.12	42.83	42.19	41.63	41.46	41.53	
18	41.26	41.82	41.78	41.64	41.21	41.48	42.28	42.89	42.16	41.56	41.39	41.45	
19	41.26	41.81	41.74	41.64	41.17	41.45	42.48	42.82	42.13	41.51	41.42	41.46	
20	41.26	41.74	41.73	41.66	41.15	41.43	42.48	43.11	42.12	41.49	41.52	41.47	
21	41.25	41.80	41.71	41.65	41.15	41.42	42.37	43.59	42.06	41.46	41.51	41.46	
22	41.22	41.87	41.69	41.65	41.20	41.51	42.37	43.58	41.93	41.46	41.50	41.46	
23	41.19	42.12	41.68	41.65	41.19	41.61	42.47	43.24	41.78	41.52	41.51	41.49	
24	41.18	42.19	41.68	41.66	41.17	41.71	42.90	43.01	41.86	41.56	41.54	41.42	
25	41.21	41.64	41.60	41.65	41.38	41.82	43.08	42.86	41.83	41.58	41.56	41.52	
26	41.27	41.85	41.60	41.64	41.44	42.28	42.95	42.78	41.76	41.59	41.52	41.75	
27	41.24	41.91	41.66	41.62	41.46	43.19	42.95	42.74	41.83	41.60	41.49	42.15	
28	41.24	42.01	41.67	41.61	41.42	43.90	43.03	42.83	41.77	41.59	41.45	42.03	
29	41.24	42.05	41.66	41.60	41.41	43.99	43.04	43.05	41.87	41.55		42.10	
30	41.23	41.98	41.63	41.61	41.38	43.57	43.35	43.15	41.82	41.53		42.08	
31		41.93		41.61	41.49		43.98		41.82	41.56		41.75	
Mean	41.23	41.66	41.73	41.62	41.34	41.78	43.16	43.54	42.23	41.64	41.47	41.62	
Max	41.28	42.19	41.92	41.66	41.59	43.99	44.27	45.83	43.08	41.83	41.57	42.15	45.83
Min	41.18	41.24	41.60	41.58	41.15	41.26	42.12	42.74	41.76	41.46	41.36	41.41	41.15

Annual Max Momentary Gage Height	45.89	m. (MSL.) ,	at 02.00 Hours , on Nov 6 , 2002		
Zero Gage at Bottom Elevation	40.44	m. (MSL.) ,	River Bed	41.12	m. (MSL.)
Left Bank Elevation	46.53	m. (MSL.) ,			
Right Bank Elevation	46.55	m. (MSL.) ,	Drainage Are	2,375	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.11	0.13	5.24	2.32	1.92	0.90	23.98	49.96	22.54	4.04	1.76	0.72		
2	0.07	0.12	4.88	2.16	1.76	0.52	26.41	44.64	19.06	4.16	1.36	0.72		
3	0.13	0.12	4.40	2.16	1.84	0.36	28.70	45.80	16.17	3.92	0.56	0.66		
4	0.09	0.12	4.16	2.00	1.84	0.28	26.79	61.86	14.20	3.80	0.84	1.76		
5	0.04	0.12	3.92	1.84	1.76	0.24	22.00	106.08	12.72	3.80	1.68	3.20		
6	0.04	0.13	3.60	1.84	1.76	0.20	22.36	131.10	12.02	3.10	1.52	3.40		
7	0.11	0.13	3.40	1.92	1.28	0.16	34.25	95.44	11.74	2.16	1.20	3.50		
8	0.09	0.20	3.20	1.92	0.84	0.15	44.06	57.60	10.76	2.56	1.20	3.00		
9	0.07	0.84	3.10	2.16	0.28	0.84	48.36	39.66	11.32	2.90	1.14	2.00		
10	0.05	1.36	2.90	2.16	0.12	1.36	45.22	31.10	12.16	3.00	1.20	1.44		
11	0.05	2.48	2.90	2.32	0.09	1.02	49.96	25.65	14.35	3.00	1.08	1.14		
12	0.12	2.90	3.00	2.24	0.05	1.08	51.24	23.62	14.05	3.00	0.56	1.08		
13	0.11	2.00	3.00	2.16	0.07	1.36	36.75	20.93	12.30	3.00	0.44	0.96		
14	0.13	2.64	3.00	2.16	0.05	1.14	25.08	20.25	10.90	2.90	0.48	1.20		
15	0.16	2.64	3.10	2.08	0.04	1.36	18.72	22.54	9.78	2.72	0.52	1.76		
16	0.17	3.20	3.20	2.08	0.09	1.36	14.80	21.46	9.08	2.56	0.52	1.76		
17	0.13	4.40	3.50	2.00	0.11	1.36	7.68	18.21	8.66	2.24	0.96	1.44		
18	0.15	4.04	3.60	2.32	0.08	1.08	9.92	19.23	8.24	1.68	0.56	0.90		
19	0.15	3.92	3.20	2.32	0.03	0.90	12.72	18.04	7.82	1.28	0.72	0.96		
20	0.15	3.20	3.10	2.48	0.00	0.78	12.72	23.08	7.68	1.14	1.36	1.02		
21	0.13	3.80	2.90	2.40	0.00	0.72	11.18	32.30	6.92	0.96	1.28	0.96		
22	0.09	4.64	2.72	2.40	0.07	1.28	11.18	32.10	5.36	0.96	1.20	0.96		
23	0.05	7.68	2.64	2.40	0.05	2.08	12.58	25.46	3.60	1.36	1.28	1.14		
24	0.04	8.66	2.64	2.48	0.03	2.90	19.40	21.28	4.52	1.68	1.52	0.72		
25	0.08	2.32	2.00	2.40	0.52	4.04	22.54	18.72	4.16	1.84	1.68	1.36		
26	0.16	4.40	2.00	2.32	0.84	9.92	20.25	17.36	3.40	1.92	1.36	3.30		
27	0.12	5.12	2.48	2.16	0.96	24.52	20.25	16.68	4.16	2.00	1.14	8.10		
28	0.12	6.32	2.56	2.08	0.72	40.20	21.64	18.21	3.50	1.92	0.90	6.56		
29	0.12	6.80	2.48	2.00	0.66	42.63	21.82	22.00	4.64	1.60		7.40		
30	0.11	5.96	2.24	2.08	0.52	31.90	27.55	23.80	4.04	1.44		7.16		
31		5.36		2.08	1.14		42.36		4.04	1.68		3.30		
Total	3.14	95.75	95.06	67.44	19.52	176.64	792.47	1104.16	293.89	74.32	30.02	73.58	2825.99	CMSDAY
Mean	0.10	3.09	3.17	2.18	0.63	5.89	25.56	36.81	9.48	2.40	1.07	2.37	7.74	CMS
Max	0.17	8.66	5.24	2.48	1.92	42.63	51.24	131.10	22.54	4.16	1.76	8.10	131.10	CMS
Min	0.04	0.12	2.00	1.84	0.00	0.15	7.68	16.68	3.40	0.96	0.44	0.66	0.00	CMS
Runoff	0.27	8.27	8.21	5.83	1.69	15.26	68.47	95.40	25.39	6.42	2.59	6.36	244.17	MCM

Momentary Peak 135.30 CMS. at 45.89 m. (MSL.) at 02.00 Hours , on Nov 6, 2002

Runoff Yield 3.26 Liters/Second/Square KM. Momentary Peak Yield 56.970 Liters/Second/Square KM.

WATER YEAR : 2002

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 mean 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 96 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

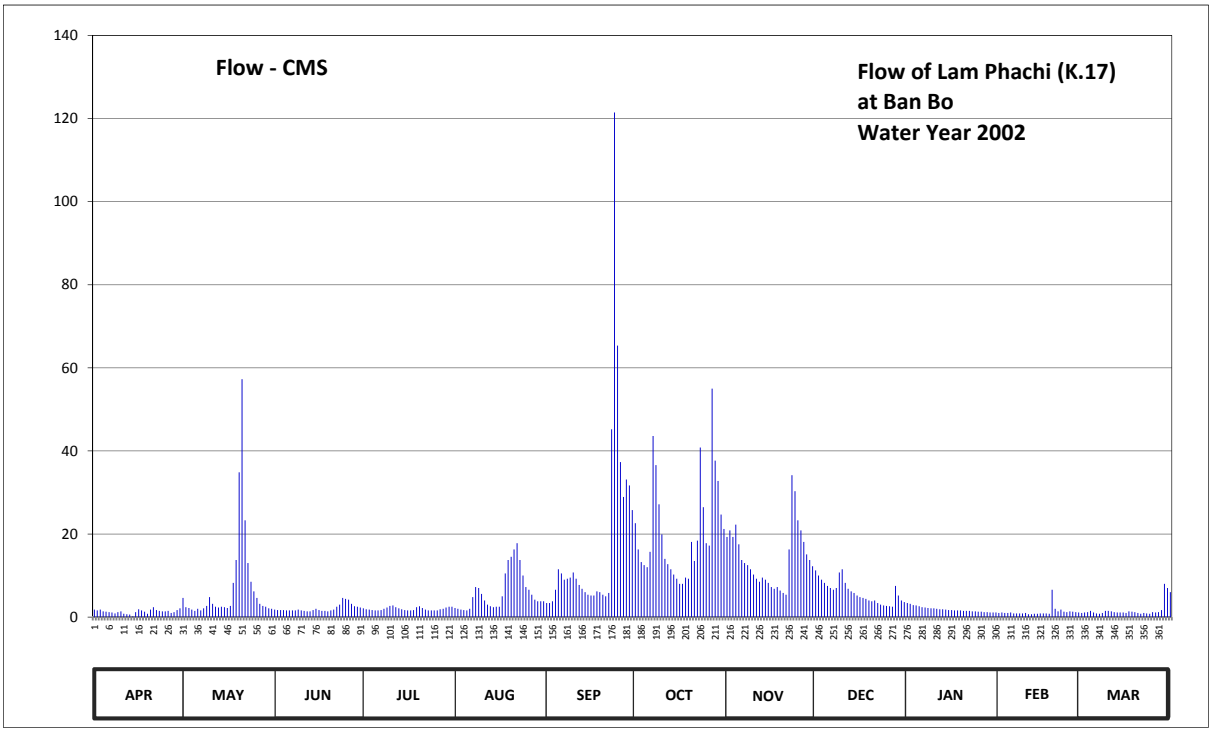
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	97.68	97.88	97.68	97.71	97.72	97.82	98.56	98.46	98.17	97.82	97.60	97.60	
2	97.66	97.74	97.67	97.69	97.70	97.82	98.36	98.51	98.12	97.81	97.61	97.61	
3	97.68	97.72	97.67	97.68	97.68	97.84	98.25	98.46	98.08	97.79	97.60	97.62	
4	97.64	97.68	97.67	97.67	97.67	97.98	98.22	98.55	98.05	97.78	97.60	97.65	
5	97.63	97.65	97.66	97.66	97.66	98.18	98.20	98.40	98.02	97.76	97.61	97.61	
6	97.62	97.70	97.66	97.66	97.70	98.14	98.34	98.27	98.00	97.74	97.59	97.59	
7	97.61	97.66	97.66	97.67	97.89	98.08	99.14	98.24	97.98	97.73	97.59	97.58	
8	97.59	97.71	97.66	97.70	98.01	98.09	98.96	98.22	98.00	97.72	97.59	97.60	
9	97.62	97.77	97.68	97.73	98.00	98.10	98.69	98.18	98.15	97.71	97.59	97.65	
10	97.64	97.89	97.66	97.77	97.93	98.15	98.48	98.13	98.18	97.71	97.60	97.65	
11	97.58	97.81	97.65	97.78	97.85	98.09	98.28	98.09	98.05	97.70	97.57	97.64	
12	97.57	97.75	97.64	97.74	97.80	98.03	98.23	98.06	97.99	97.69	97.57	97.62	
13	97.56	97.73	97.64	97.71	97.76	97.99	98.18	98.10	97.96	97.69	97.58	97.61	
14	97.52	97.75	97.67	97.69	97.74	97.95	98.13	98.08	97.94	97.68	97.58	97.61	
15	97.62	97.74	97.70	97.67	97.75	97.92	98.09	98.05	97.91	97.67	97.59	97.61	
16	97.69	97.72	97.67	97.66	97.75	97.91	98.04	98.01	97.89	97.67	97.59	97.60	
17	97.66	97.77	97.65	97.66	97.90	97.91	98.04	97.99	97.88	97.66	97.59	97.64	
18	97.63	98.05	97.65	97.67	98.14	97.96	98.10	98.01	97.87	97.66	97.58	97.63	
19	97.58	98.27	97.64	97.74	98.27	97.95	98.09	97.97	97.85	97.66	97.98	97.62	
20	97.68	98.91	97.66	97.76	98.30	97.92	98.42	97.94	97.84	97.65	97.70	97.60	
21	97.74	99.45	97.68	97.72	98.36	97.90	98.26	97.92	97.85	97.65	97.64	97.58	
22	97.67	98.58	97.75	97.68	98.41	97.94	98.43	98.36	97.82	97.65	97.68	97.60	
23	97.65	98.24	97.80	97.66	98.27	99.18	99.07	98.89	97.80	97.64	97.63	97.59	
24	97.64	98.06	97.88	97.66	98.12	100.63	98.67	98.78	97.78	97.64	97.62	97.58	
25	97.64	97.96	97.87	97.66	98.01	99.63	98.41	98.58	97.77	97.63	97.64	97.62	
26	97.65	97.88	97.86	97.66	97.98	98.98	98.39	98.51	97.76	97.63	97.63	97.61	
27	97.60	97.81	97.81	97.69	97.92	98.74	99.40	98.42	97.75	97.62	97.62	97.62	
28	97.62	97.77	97.76	97.70	97.86	98.86	98.99	98.32	98.02	97.62	97.61	97.67	
29	97.67	97.75	97.75	97.73	97.84	98.82	98.85	98.27	97.91	97.61		98.04	
30	97.71	97.71	97.73	97.75	97.84	98.65	98.62	98.21	97.85	97.61		98.00	
31		97.70		97.75	97.84		98.52		97.83	97.61		97.95	
Mean	97.63	97.93	97.70	97.70	97.92	98.31	98.46	98.27	97.94	97.68	97.62	97.65	
Max	97.74	99.45	97.88	97.78	98.41	100.63	99.40	98.89	98.18	97.82	97.98	98.04	100.63
Min	97.52	97.65	97.64	97.66	97.66	97.82	98.04	97.92	97.75	97.61	97.57	97.58	97.52

Annual Max Momentary Gage Height 100.86 m. (MSL.) , at 16.00 Hours , on Sep 24, 2002

Zero Gage at Bottom Elevation 97.46 m. (MSL.) , River Bed 97.26 m. (MSL.)

Left Bank Elevation 103.57 m. (MSL.) ,

Right Bank Elevation 103.50 m. (MSL.) , Drainage Are 1,344 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.80	4.60	1.80	2.10	2.20	3.40	22.60	19.30	11.25	3.40	1.00	1.00		
2	1.60	2.40	1.70	1.90	2.00	3.40	16.30	20.85	10.00	3.20	1.10	1.10		
3	1.80	2.20	1.70	1.80	1.80	3.80	13.25	19.30	9.00	2.90	1.00	1.20		
4	1.40	1.80	1.70	1.70	1.70	6.60	12.50	22.25	8.25	2.80	1.00	1.50		
5	1.30	1.50	1.60	1.60	1.60	11.50	12.00	17.50	7.50	2.60	1.10	1.10		
6	1.20	2.00	1.60	1.60	2.00	10.50	15.70	13.75	7.00	2.40	0.90	0.90		
7	1.10	1.60	1.60	1.70	4.80	9.00	43.60	13.00	6.60	2.30	0.90	0.80		
8	0.90	2.10	1.60	2.00	7.25	9.25	36.60	12.50	7.00	2.20	0.90	1.00		
9	1.20	2.70	1.80	2.30	7.00	9.50	27.15	11.50	10.75	2.10	0.90	1.50		
10	1.40	4.80	1.60	2.70	5.60	10.75	19.90	10.25	11.50	2.10	1.00	1.50		
11	0.80	3.20	1.50	2.80	4.00	9.25	14.00	9.25	8.25	2.00	0.70	1.40		
12	0.70	2.50	1.40	2.40	3.00	7.75	12.75	8.50	6.80	1.90	0.70	1.20		
13	0.60	2.30	1.40	2.10	2.60	6.80	11.50	9.50	6.20	1.90	0.80	1.10		
14	0.20	2.50	1.70	1.90	2.40	6.00	10.25	9.00	5.80	1.80	0.80	1.10		
15	1.20	2.40	2.00	1.70	2.50	5.40	9.25	8.25	5.20	1.70	0.90	1.10		
16	1.90	2.20	1.70	1.60	2.50	5.20	8.00	7.25	4.80	1.70	0.90	1.00		
17	1.60	2.70	1.50	1.60	5.00	5.20	8.00	6.80	4.60	1.60	0.90	1.40		
18	1.30	8.25	1.50	1.70	10.50	6.20	9.50	7.25	4.40	1.60	0.80	1.30		
19	0.80	13.75	1.40	2.40	13.75	6.00	9.25	6.40	4.00	1.60	6.60	1.20		
20	1.80	34.85	1.60	2.60	14.50	5.40	18.10	5.80	3.80	1.50	2.00	1.00		
21	2.40	57.25	1.80	2.20	16.30	5.00	13.50	5.40	4.00	1.50	1.40	0.80		
22	1.70	23.30	2.50	1.80	17.80	5.80	18.40	16.30	3.40	1.50	1.80	1.00		
23	1.50	13.00	3.00	1.60	13.75	45.20	40.80	34.15	3.00	1.40	1.30	0.90		
24	1.40	8.50	4.60	1.60	10.00	121.45	26.45	30.30	2.80	1.40	1.20	0.80		
25	1.40	6.20	4.40	1.60	7.25	65.35	17.80	23.30	2.70	1.30	1.40	1.20		
26	1.50	4.60	4.20	1.60	6.60	37.30	17.20	20.85	2.60	1.30	1.30	1.10		
27	1.00	3.20	3.20	1.90	5.40	28.90	55.00	18.10	2.50	1.20	1.20	1.20		
28	1.20	2.70	2.60	2.00	4.20	33.10	37.65	15.10	7.50	1.20	1.10	1.70		
29	1.70	2.50	2.50	2.30	3.80	31.70	32.75	13.75	5.20	1.10		8.00		
30	2.10	2.10	2.30	2.50	3.80	25.75	24.70	12.25	4.00	1.10		7.00		
31		2.00		2.50	3.80		21.20		3.60	1.10		6.00		
Total	40.50	225.70	63.50	61.80	189.40	540.45	635.65	427.70	184.00	57.40	35.60	53.10	2514.80	CMSDAY
Mean	1.35	7.28	2.12	1.99	6.11	18.02	20.50	14.26	5.94	1.85	1.27	1.71	6.89	CMS
Max	2.40	57.25	4.60	2.80	17.80	121.45	55.00	34.15	11.50	3.40	6.60	8.00	121.45	CMS
Min	0.20	1.50	1.40	1.60	1.60	3.40	8.00	5.40	2.50	1.10	0.70	0.80	0.20	CMS
Runoff	3.50	19.50	5.49	5.34	16.36	46.69	54.92	36.95	15.90	4.96	3.08	4.59	217.28	MCM

Momentary Peak 137.20 CMS. at 100.86 m. (MSL.) at 16.00 Hours , on Sep 24, 2002

Runoff Yield 5.13 Liters/Second/Square KM. Momentary Peak Yield 255.506 Liters/Second/Square KM.

WATER YEAR : 2002

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	Staff gage.
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** +73.578 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 mean of 5 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 72 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

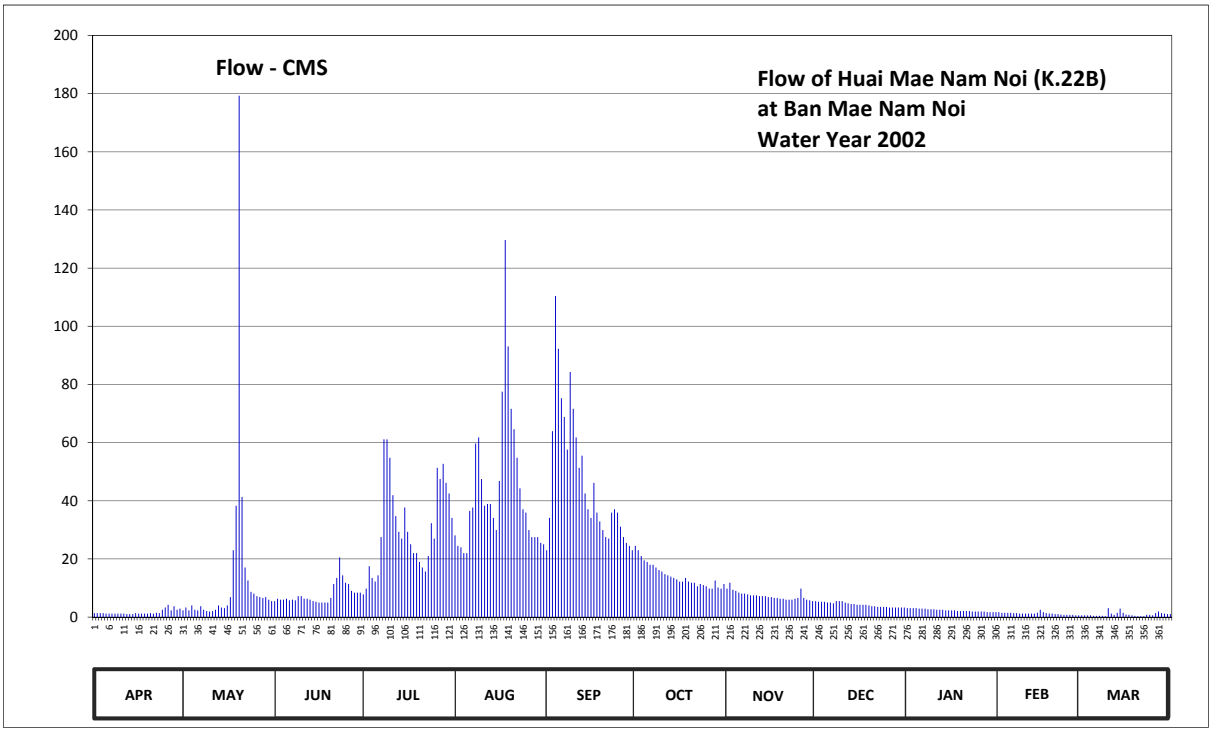
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	68.39	68.44	68.58	68.66	69.11	69.01	69.04	68.72	68.58	68.48	68.41	68.34	
2	68.39	68.49	68.61	68.72	69.04	69.21	69.01	68.77	68.57	68.48	68.40	68.34	
3	68.39	68.44	68.60	68.90	69.03	69.67	68.97	68.71	68.57	68.48	68.40	68.34	
4	68.39	68.52	68.60	68.81	68.99	70.26	68.94	68.70	68.57	68.48	68.40	68.34	
5	68.38	68.45	68.61	68.78	68.99	70.05	68.93	68.68	68.56	68.47	68.40	68.33	
6	68.38	68.44	68.59	68.83	69.25	69.83	68.91	68.67	68.56	68.47	68.39	68.33	
7	68.38	68.51	68.60	69.10	69.27	69.74	68.91	68.67	68.55	68.47	68.39	68.33	
8	68.38	68.45	68.59	69.63	69.61	69.58	68.89	68.66	68.58	68.46	68.38	68.33	
9	68.38	68.43	68.64	69.63	69.64	69.95	68.87	68.65	68.58	68.46	68.38	68.32	
10	68.38	68.42	68.64	69.54	69.43	69.78	68.86	68.65	68.58	68.46	68.38	68.48	
11	68.38	68.43	68.61	69.34	69.28	69.64	68.84	68.65	68.56	68.45	68.38	68.38	
12	68.37	68.45	68.61	69.22	69.29	69.49	68.83	68.64	68.55	68.45	68.38	68.35	
13	68.37	68.52	68.60	69.13	69.29	69.55	68.82	68.64	68.54	68.45	68.38	68.40	
14	68.37	68.49	68.58	69.09	69.21	69.35	68.81	68.64	68.54	68.44	68.40	68.47	
15	68.39	68.48	68.57	69.27	69.14	69.26	68.80	68.63	68.53	68.44	68.45	68.40	
16	68.38	68.52	68.56	69.13	69.42	69.21	68.78	68.63	68.53	68.44	68.41	68.36	
17	68.38	68.63	68.56	69.05	69.86	69.41	68.78	68.62	68.53	68.44	68.39	68.35	
18	68.38	69.01	68.56	68.99	70.47	69.24	68.81	68.62	68.53	68.43	68.38	68.34	
19	68.38	69.28	68.56	68.99	70.06	69.19	68.78	68.61	68.52	68.43	68.38	68.33	
20	68.39	70.94	68.62	68.93	69.78	69.14	68.77	68.61	68.51	68.43	68.37	68.32	
21	68.38	69.33	68.76	68.89	69.68	69.10	68.77	68.60	68.51	68.43	68.37	68.32	
22	68.40	68.89	68.81	68.86	69.54	69.09	68.74	68.60	68.50	68.43	68.36	68.32	
23	68.39	68.79	68.96	68.97	69.38	69.24	68.76	68.60	68.50	68.42	68.35	68.35	
24	68.45	68.69	68.83	69.18	69.26	69.26	68.75	68.61	68.50	68.42	68.35	68.35	
25	68.49	68.67	68.77	69.09	69.24	69.24	68.74	68.62	68.50	68.42	68.35	68.34	
26	68.53	68.64	68.76	69.49	69.14	69.16	68.72	68.72	68.49	68.42	68.35	68.39	
27	68.44	68.63	68.70	69.43	69.10	69.10	68.72	68.62	68.49	68.42	68.34	68.42	
28	68.51	68.62	68.68	69.51	69.10	69.06	68.79	68.60	68.49	68.41	68.34	68.39	
29	68.45	68.63	68.68	69.41	69.10	69.04	68.73	68.59	68.49	68.41		68.38	
30	68.47	68.60	68.68	69.35	69.06	69.01	68.72	68.58	68.49	68.41		68.37	
31		68.58		69.21	69.05		68.76		68.49	68.41		68.37	
Mean	68.40	68.69	68.65	69.13	69.35	69.40	68.82	68.64	68.53	68.44	68.38	68.36	
Max	68.53	70.94	68.96	69.63	70.47	70.26	69.04	68.77	68.58	68.48	68.45	68.48	70.94
Min	68.37	68.42	68.56	68.66	68.99	69.01	68.72	68.58	68.49	68.41	68.34	68.32	68.32

Annual Max Momentary Gage Height 71.91 m. (MSL.) , at 13.00 Hours , on May 20 , 2002

Zero Gage at Bottom Elevation 67.00 m. (MSL.) , River Bed 67.90 m. (MSL.)

Left Bank Elevation 75.94 m. (MSL.) ,

Right Bank Elevation 72.19 m. (MSL.) , Drainage Are 311 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.35	2.30	5.50	7.80	28.10	23.00	24.50	9.80	5.50	3.10	1.70	0.60		
2	1.35	3.30	6.30	9.80	24.50	34.10	23.00	11.80	5.25	3.10	1.50	0.60		
3	1.35	2.30	6.00	17.50	24.00	63.90	21.00	9.40	5.25	3.10	1.50	0.60		
4	1.35	4.00	6.00	13.45	22.00	110.40	19.50	9.00	5.25	3.10	1.50	0.60		
5	1.20	2.50	6.30	12.20	22.00	92.25	19.00	8.40	5.00	2.90	1.50	0.45		
6	1.20	2.30	5.75	14.35	36.50	75.25	18.00	8.10	5.00	2.90	1.35	0.45		
7	1.20	3.75	6.00	27.50	37.70	68.80	18.00	8.10	4.75	2.90	1.35	0.45		
8	1.20	2.50	5.75	61.10	59.70	57.60	17.05	7.80	5.50	2.70	1.20	0.45		
9	1.20	2.10	7.20	61.10	61.80	84.25	16.15	7.50	5.50	2.70	1.20	0.30		
10	1.20	1.90	7.20	54.80	47.45	71.60	15.70	7.50	5.50	2.70	1.20	3.10		
11	1.20	2.10	6.30	41.90	38.30	61.80	14.80	7.50	5.00	2.50	1.20	1.20		
12	1.05	2.50	6.30	34.70	38.90	51.35	14.35	7.20	4.75	2.50	1.20	0.75		
13	1.05	4.00	6.00	29.30	38.90	55.50	13.90	7.20	4.50	2.50	1.20	1.50		
14	1.05	3.30	5.50	27.00	34.10	42.50	13.45	7.20	4.50	2.30	1.50	2.90		
15	1.35	3.10	5.25	37.70	29.90	37.10	13.00	6.90	4.25	2.30	2.50	1.50		
16	1.20	4.00	5.00	29.30	46.80	34.10	12.20	6.90	4.25	2.30	1.70	0.90		
17	1.20	6.90	5.00	25.00	77.50	46.15	12.20	6.60	4.25	2.30	1.35	0.75		
18	1.20	23.00	5.00	22.00	129.65	35.90	13.45	6.60	4.25	2.10	1.20	0.60		
19	1.20	38.30	5.00	22.00	93.10	32.90	12.20	6.30	4.00	2.10	1.20	0.45		
20	1.35	179.30	6.60	19.00	71.60	29.90	11.80	6.30	3.75	2.10	1.05	0.30		
21	1.20	41.30	11.40	17.05	64.60	27.50	11.80	6.00	3.75	2.10	1.05	0.30		
22	1.50	17.05	13.45	15.70	54.80	27.00	10.60	6.00	3.50	2.10	0.90	0.30		
23	1.35	12.60	20.50	21.00	44.30	35.90	11.40	6.00	3.50	1.90	0.75	0.75		
24	2.50	8.70	14.35	32.30	37.10	37.10	11.00	6.30	3.50	1.90	0.75	0.75		
25	3.30	8.10	11.80	27.00	35.90	35.90	10.60	6.60	3.50	1.90	0.75	0.60		
26	4.25	7.20	11.40	51.35	29.90	31.10	9.80	9.80	3.30	1.90	0.75	1.35		
27	2.30	6.90	9.00	47.45	27.50	27.50	9.80	6.60	3.30	1.90	0.60	1.90		
28	3.75	6.60	8.40	52.70	27.50	25.50	12.60	6.00	3.30	1.70	0.60	1.35		
29	2.50	6.90	8.40	46.15	27.50	24.50	10.20	5.75	3.30	1.70		1.20		
30	2.90	6.00	8.40	42.50	25.50	23.00	9.80	5.50	3.30	1.70		1.05		
31		5.50		34.10	25.00		11.40		3.30	1.70		1.05		
Total	50.00	420.30	235.05	954.80	1362.10	1403.35	442.25	220.65	133.55	72.70	34.25	29.05	5358.05	CMSDAY
Mean	1.67	13.56	7.83	30.80	43.94	46.78	14.27	7.36	4.31	2.35	1.22	0.94	14.68	CMS
Max	4.25	179.30	20.50	61.10	129.65	110.40	24.50	11.80	5.50	3.10	2.50	3.10	179.30	CMS
Min	1.05	1.90	5.00	7.80	22.00	23.00	9.80	5.50	3.30	1.70	0.60	0.30	0.30	CMS
Runoff	4.32	36.31	20.31	82.49	117.69	121.25	38.21	19.06	11.54	6.28	2.96	2.51	462.94	MCM

Momentary Peak 302.93 CMS. at 71.91 m. (MSL.) at 13.00 Hours , on May 20, 2002

Runoff Yield 47.20 Liters/Second/Square KM. Momentary Peak Yield 974.050 Liters/Second/Square KM.

WATER YEAR : 2002

MAE KLONG RIVER BASIN

Huai Tha Khoei at Ban Kha , Ratchaburi (K.25A)

Lat 13 - 24 - 07 N Long 99 - 25 - 14 E

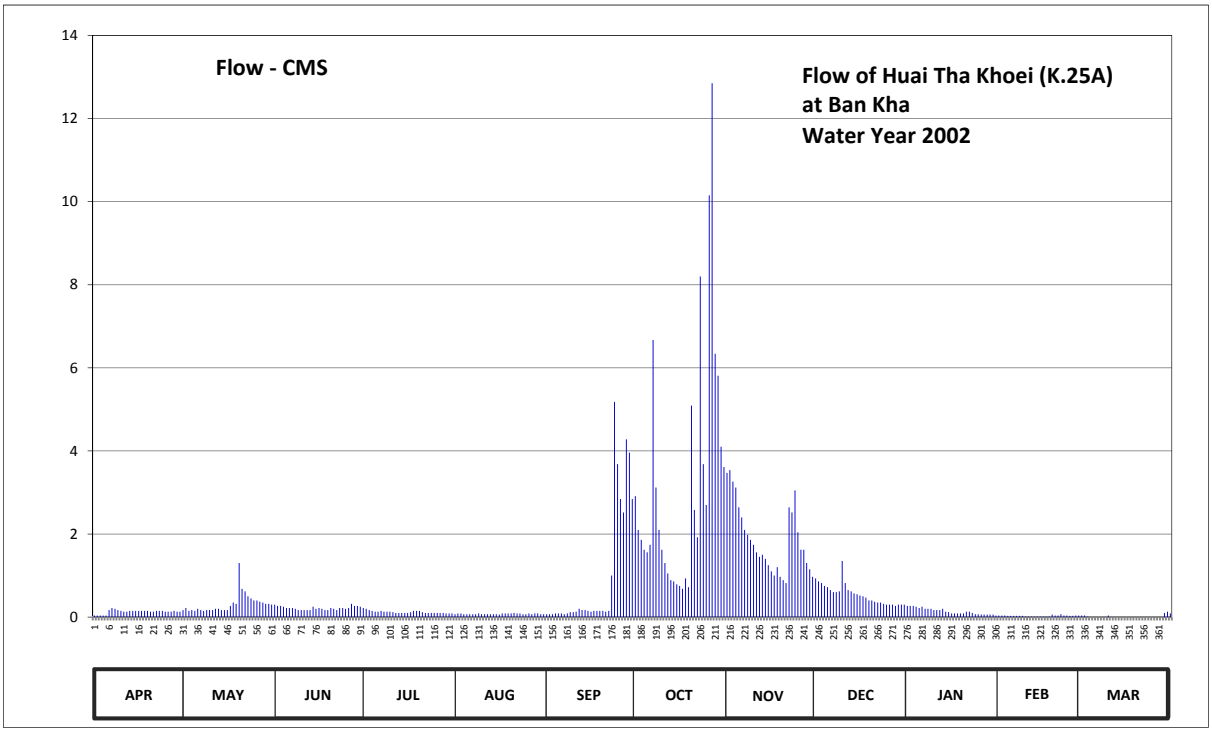
Location : on right bank about 8 kilometers upstream from station K.25

	Ban Kha	**Amphoe** Ban Kha	**Changwat** Ratchaburi
Drainge Area	367 sq.km.		
Type of Gage	Staff gage.		
Zero Gage at Bottom	+0.000 m. (A.D.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank about 1 meter from the top staff gage.	**Elevation**	+6.962 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 mean of 5 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 good. Stage-discharge relation defined by 101 discharge measurements made in 2002.		

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.33	0.41	0.46	0.43	0.35	0.35	1.03	1.11	0.68	0.45	0.33	0.33	
2	0.33	0.43	0.45	0.42	0.36	0.35	0.90	1.12	0.66	0.45	0.33	0.33	
3	0.33	0.40	0.45	0.41	0.36	0.35	0.86	1.08	0.65	0.45	0.33	0.31	
4	0.33	0.41	0.44	0.40	0.35	0.36	0.82	1.06	0.63	0.44	0.32	0.30	
5	0.33	0.40	0.43	0.39	0.35	0.36	0.81	0.99	0.62	0.43	0.32	0.29	
6	0.41	0.42	0.43	0.39	0.35	0.36	0.84	0.95	0.60	0.44	0.32	0.29	
7	0.43	0.41	0.43	0.40	0.35	0.35	1.47	0.90	0.58	0.42	0.32	0.29	
8	0.42	0.40	0.42	0.39	0.35	0.36	1.06	0.88	0.58	0.42	0.32	0.28	
9	0.41	0.41	0.41	0.39	0.36	0.38	0.90	0.86	0.59	0.42	0.32	0.27	
10	0.40	0.41	0.41	0.39	0.35	0.38	0.82	0.84	0.77	0.41	0.31	0.33	
11	0.39	0.41	0.41	0.38	0.35	0.39	0.76	0.81	0.65	0.41	0.31	0.29	
12	0.39	0.42	0.41	0.37	0.35	0.42	0.71	0.79	0.60	0.41	0.31	0.29	
13	0.40	0.42	0.41	0.37	0.35	0.41	0.67	0.80	0.59	0.42	0.31	0.29	
14	0.40	0.41	0.44	0.37	0.35	0.41	0.66	0.78	0.57	0.39	0.31	0.29	
15	0.40	0.41	0.42	0.37	0.35	0.40	0.64	0.75	0.56	0.38	0.31	0.29	
16	0.40	0.41	0.43	0.37	0.34	0.39	0.63	0.72	0.55	0.36	0.31	0.29	
17	0.40	0.45	0.42	0.38	0.36	0.40	0.61	0.70	0.54	0.36	0.31	0.28	
18	0.40	0.48	0.41	0.40	0.36	0.40	0.68	0.74	0.53	0.36	0.31	0.28	
19	0.40	0.47	0.41	0.40	0.36	0.40	0.62	0.69	0.50	0.36	0.34	0.28	
20	0.39	0.76	0.43	0.40	0.36	0.40	1.31	0.67	0.50	0.36	0.33	0.28	
21	0.39	0.61	0.42	0.38	0.37	0.39	0.98	0.65	0.49	0.39	0.33	0.28	
22	0.40	0.59	0.41	0.37	0.36	0.40	0.87	0.99	0.48	0.39	0.35	0.28	
23	0.40	0.54	0.43	0.37	0.36	0.70	1.58	0.97	0.48	0.37	0.33	0.27	
24	0.40	0.52	0.43	0.37	0.35	1.32	1.14	1.05	0.47	0.35	0.33	0.27	
25	0.39	0.50	0.42	0.37	0.35	1.14	1.00	0.89	0.46	0.35	0.32	0.27	
26	0.39	0.50	0.43	0.37	0.36	1.02	1.71	0.82	0.46	0.34	0.32	0.28	
27	0.39	0.49	0.47	0.37	0.35	0.97	1.89	0.82	0.46	0.34	0.33	0.29	
28	0.40	0.48	0.45	0.37	0.36	1.22	1.44	0.76	0.45	0.34	0.33	0.29	
29	0.39	0.47	0.45	0.36	0.36	1.18	1.39	0.73	0.46	0.34		0.37	
30	0.39	0.47	0.44	0.36	0.35	1.02	1.20	0.69	0.46	0.34		0.39	
31		0.46		0.36	0.35		1.13		0.46	0.33		0.36	
Mean	0.39	0.46	0.43	0.38	0.35	0.57	1.00	0.85	0.55	0.39	0.32	0.30	
Max	0.43	0.76	0.47	0.43	0.37	1.32	1.89	1.12	0.77	0.45	0.35	0.39	1.89
Min	0.33	0.40	0.41	0.36	0.34	0.35	0.61	0.65	0.45	0.33	0.31	0.27	0.27

Annual Max Momentary Gage Height	3.15	m. (A.D.) ,	at 18.00 Hours , on Oct 26, 2002		
Zero Gage at Bottom Elevation	0.00	m. (A.D.) ,	River Bed	0.13	m. (A.D.) ,
Left Bank Elevation	4.84	m. (A.D.) ,			
Right Bank Elevation	8.02	m. (A.D.) ,	Drainage Are	367	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.04	0.17	0.30	0.22	0.07	0.07	2.91	3.47	0.93	0.27	0.04	0.04		
2	0.04	0.22	0.27	0.20	0.09	0.07	2.10	3.54	0.86	0.27	0.04	0.04		
3	0.04	0.15	0.27	0.17	0.09	0.07	1.86	3.26	0.82	0.27	0.04	0.01		
4	0.04	0.17	0.25	0.15	0.07	0.09	1.62	3.12	0.75	0.25	0.03	0.00		
5	0.04	0.15	0.22	0.13	0.07	0.09	1.56	2.64	0.72	0.22	0.03	0.00		
6	0.17	0.20	0.22	0.13	0.07	0.09	1.74	2.40	0.65	0.25	0.03	0.00		
7	0.22	0.17	0.22	0.15	0.07	0.07	6.67	2.10	0.60	0.20	0.03	0.00		
8	0.20	0.15	0.20	0.13	0.07	0.09	3.12	1.98	0.60	0.20	0.03	0.00		
9	0.17	0.17	0.17	0.13	0.09	0.12	2.10	1.86	0.62	0.20	0.03	0.00		
10	0.15	0.17	0.17	0.13	0.07	0.12	1.62	1.74	1.35	0.17	0.01	0.04		
11	0.13	0.17	0.17	0.12	0.07	0.13	1.30	1.56	0.82	0.17	0.01	0.00		
12	0.13	0.20	0.17	0.10	0.07	0.20	1.05	1.45	0.65	0.17	0.01	0.00		
13	0.15	0.20	0.17	0.10	0.07	0.17	0.89	1.50	0.62	0.20	0.01	0.00		
14	0.15	0.17	0.25	0.10	0.07	0.17	0.86	1.40	0.57	0.13	0.01	0.00		
15	0.15	0.17	0.20	0.10	0.07	0.15	0.79	1.25	0.55	0.12	0.01	0.00		
16	0.15	0.17	0.22	0.10	0.06	0.13	0.75	1.10	0.52	0.09	0.01	0.00		
17	0.15	0.27	0.20	0.12	0.09	0.15	0.68	1.00	0.50	0.09	0.01	0.00		
18	0.15	0.35	0.17	0.15	0.09	0.15	0.93	1.20	0.47	0.09	0.01	0.00		
19	0.15	0.32	0.17	0.15	0.09	0.15	0.72	0.97	0.40	0.09	0.06	0.00		
20	0.13	1.30	0.22	0.15	0.09	0.15	5.09	0.89	0.40	0.09	0.04	0.00		
21	0.13	0.68	0.20	0.12	0.10	0.13	2.58	0.82	0.37	0.13	0.04	0.00		
22	0.15	0.62	0.17	0.10	0.09	0.15	1.92	2.64	0.35	0.13	0.07	0.00		
23	0.15	0.50	0.22	0.10	0.09	1.00	8.20	2.52	0.35	0.10	0.04	0.00		
24	0.15	0.45	0.22	0.10	0.07	5.18	3.68	3.05	0.32	0.07	0.04	0.00		
25	0.13	0.40	0.20	0.10	0.07	3.68	2.70	2.04	0.30	0.07	0.03	0.00		
26	0.13	0.40	0.22	0.10	0.09	2.84	10.15	1.62	0.30	0.06	0.03	0.00		
27	0.13	0.37	0.32	0.10	0.07	2.52	12.85	1.62	0.30	0.06	0.04	0.00		
28	0.15	0.35	0.27	0.10	0.09	4.28	6.34	1.30	0.27	0.06	0.04	0.00		
29	0.13	0.32	0.27	0.09	0.09	3.96	5.81	1.15	0.30	0.06		0.10		
30	0.13	0.32	0.25	0.09	0.07	2.84	4.10	0.97	0.30	0.06		0.13		
31		0.30		0.09	0.07		3.61		0.30	0.04		0.09		
Total	3.93	9.75	6.57	3.82	2.43	29.01	100.30	56.16	16.86	4.38	0.82	0.45	234.48	CMSDAY
Mean	0.13	0.31	0.22	0.12	0.08	0.97	3.24	1.87	0.54	0.14	0.03	0.01	0.64	CMS
Max	0.22	1.30	0.32	0.22	0.10	5.18	12.85	3.54	1.35	0.27	0.07	0.13	12.85	CMS
Min	0.04	0.15	0.17	0.09	0.06	0.07	0.68	0.82	0.27	0.04	0.01	0.00	0.00	CMS
Runoff	0.34	0.84	0.57	0.33	0.21	2.51	8.67	4.85	1.46	0.38	0.07	0.04	20.26	MCM

Momentary Peak 40.25 CMS. at 3.15 m. (A.D.) at 15.00 Hours , on Oct 26, 2002

Runoff Yield 1.75 Liters/Second/Square KM. Momentary Peak Yield 109.670 Liters/Second/Square KM.

WATER YEAR : 2002

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	Staff gage.		
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	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean 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	Fairly stable by some scouring.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 71 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

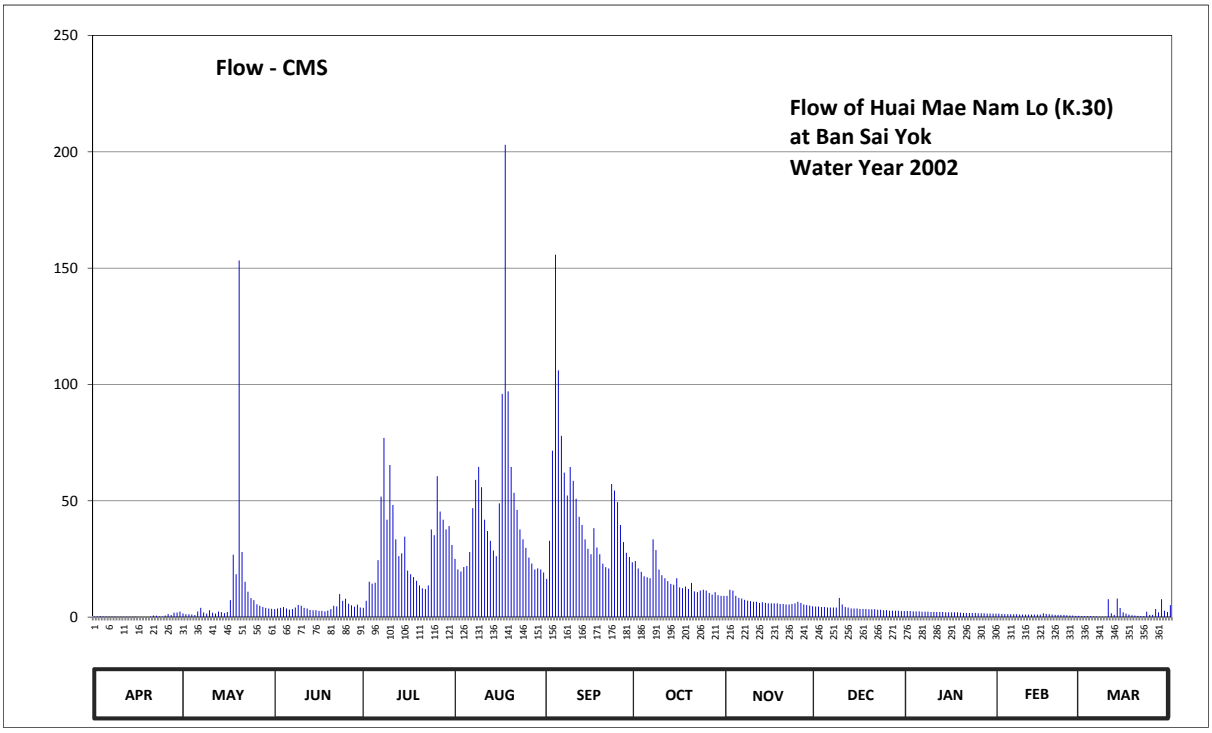
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	68.57	68.71	68.86	68.90	69.50	69.31	69.33	68.97	68.79	68.69	68.61	68.53	
2	68.58	68.67	68.88	69.05	69.41	69.63	69.27	69.05	68.79	68.69	68.60	68.53	
3	68.59	68.67	68.90	69.28	69.39	70.15	69.24	69.04	68.78	68.68	68.59	68.53	
4	68.58	68.66	68.92	69.26	69.43	70.89	69.20	68.97	68.78	68.68	68.59	68.53	
5	68.57	68.64	68.88	69.27	69.44	70.40	69.19	68.94	68.77	68.68	68.59	68.52	
6	68.57	68.79	68.85	69.49	69.55	70.10	69.18	68.93	68.77	68.67	68.59	68.52	
7	68.57	68.90	68.86	69.91	69.84	69.90	69.49	68.91	68.77	68.67	68.59	68.51	
8	68.57	68.75	68.91	70.21	70.00	69.76	69.41	68.90	68.77	68.67	68.58	68.51	
9	68.56	68.70	68.98	69.77	70.07	69.93	69.26	68.89	68.94	68.66	68.58	68.51	
10	68.56	68.83	68.96	70.08	69.96	69.85	69.21	68.88	68.83	68.66	68.58	68.92	
11	68.56	68.74	68.90	69.86	69.77	69.74	69.18	68.88	68.78	68.66	68.58	68.62	
12	68.56	68.70	68.88	69.64	69.70	69.63	69.15	68.86	68.77	68.66	68.58	68.57	
13	68.56	68.79	68.84	69.52	69.63	69.58	69.12	68.87	68.75	68.66	68.58	68.93	
14	68.56	68.76	68.83	69.54	69.56	69.49	69.11	68.86	68.75	68.65	68.58	68.76	
15	68.56	68.72	68.83	69.66	69.52	69.42	69.18	68.85	68.75	68.65	68.58	68.65	
16	68.55	68.77	68.81	69.40	69.87	69.38	69.08	68.85	68.74	68.65	68.62	68.61	
17	68.55	69.06	68.81	69.36	70.39	69.56	69.07	68.85	68.74	68.65	68.60	68.58	
18	68.55	69.53	68.80	69.33	71.22	69.43	69.09	68.85	68.74	68.65	68.59	68.56	
19	68.55	69.36	68.82	69.29	70.40	69.38	69.06	68.84	68.73	68.64	68.58	68.55	
20	68.57	70.87	68.86	69.24	70.07	69.31	69.13	68.84	68.73	68.63	68.57	68.54	
21	68.62	69.55	68.96	69.21	69.93	69.28	69.03	68.83	68.73	68.63	68.57	68.53	
22	68.61	69.28	68.94	69.20	69.83	69.27	69.02	68.83	68.72	68.63	68.57	68.53	
23	68.58	69.17	69.14	69.24	69.71	69.83	69.04	68.84	68.72	68.63	68.57	68.67	
24	68.57	69.09	69.05	69.71	69.64	69.79	69.05	68.85	68.71	68.63	68.56	68.57	
25	68.62	69.06	69.08	69.67	69.58	69.72	69.04	68.88	68.71	68.62	68.55	68.57	
26	68.68	69.00	69.01	70.02	69.51	69.58	69.01	68.86	68.70	68.62	68.55	68.74	
27	68.64	68.96	68.97	69.82	69.46	69.47	68.99	68.83	68.70	68.62	68.54	68.65	
28	68.74	68.92	68.93	69.77	69.41	69.39	69.02	68.82	68.70	68.61	68.54	68.92	
29	68.75	68.90	68.99	69.71	69.42	69.36	68.98	68.81	68.70	68.61		68.70	
30	68.79	68.88	68.91	69.73	69.41	69.32	68.97	68.80	68.69	68.61		68.66	
31		68.87		69.60	69.38		68.97		68.69	68.61		68.82	
Mean	68.60	68.98	68.91	69.54	69.74	69.66	69.13	68.88	68.75	68.65	68.58	68.62	
Max	68.79	70.87	69.14	70.21	71.22	70.89	69.49	69.05	68.94	68.69	68.62	68.93	71.22
Min	68.55	68.64	68.80	68.90	69.38	69.27	68.97	68.80	68.69	68.61	68.54	68.51	68.51

Annual Max Momentary Gage Height 71.45 m. (MSL.) , at 12.00 Hours , on Aug 18, 2002

Zero Gage at Bottom Elevation 68.00 m. (MSL.) , River Bed 67.89 m. (MSL.)

Left Bank Elevation 73.13 m. (MSL.) ,

Right Bank Elevation 79.87 m. (MSL.) , Drainage Are 466 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.20	1.60	3.40	4.00	25.00	16.40	24.14	9.13	4.50	2.61	1.51	0.41		
2	0.30	1.20	3.70	7.00	20.50	32.80	20.93	11.75	4.50	2.61	1.38	0.41		
3	0.40	1.20	4.00	15.20	19.60	71.50	19.46	11.40	4.31	2.48	1.24	0.41		
4	0.30	1.10	4.30	14.40	21.50	155.75	17.50	9.13	4.31	2.48	1.24	0.41		
5	0.20	0.90	3.70	14.80	22.00	106.00	17.10	8.26	4.11	2.48	1.24	0.28		
6	0.20	2.40	3.25	24.50	28.00	77.90	16.70	7.97	4.11	2.34	1.24	0.28		
7	0.20	4.00	3.40	51.80	46.80	62.10	33.42	7.39	4.11	2.34	1.24	0.14		
8	0.20	2.00	4.15	77.00	59.00	52.26	28.78	7.10	4.11	2.34	1.10	0.14		
9	0.10	1.50	5.20	41.90	64.60	64.47	20.44	6.86	8.26	2.20	1.10	0.14		
10	0.10	2.95	4.90	65.40	55.80	58.59	17.99	6.62	5.42	2.20	1.10	7.68		
11	0.10	1.90	4.00	48.20	41.90	50.86	16.70	6.62	4.31	2.20	1.10	1.65		
12	0.10	1.50	3.70	33.40	37.00	43.13	15.50	6.14	4.11	2.20	1.10	0.96		
13	0.10	2.40	3.10	26.20	32.80	39.62	14.30	6.38	3.72	2.20	1.10	7.97		
14	0.10	2.10	2.95	27.40	28.60	33.42	13.90	6.14	3.72	2.06	1.10	3.92		
15	0.10	1.70	2.95	34.60	26.20	29.36	16.70	5.90	3.72	2.06	1.10	2.06		
16	0.00	2.20	2.65	20.00	48.90	27.04	12.80	5.90	3.53	2.06	1.65	1.51		
17	0.00	7.30	2.65	18.40	95.90	38.21	12.45	5.90	3.53	2.06	1.38	1.10		
18	0.00	26.80	2.50	17.20	203.00	29.94	13.15	5.90	3.53	2.06	1.24	0.83		
19	0.00	18.40	2.80	15.60	97.00	27.04	12.10	5.66	3.34	1.93	1.10	0.69		
20	0.20	153.25	3.40	13.60	64.60	22.98	14.70	5.66	3.34	1.79	0.96	0.55		
21	0.70	28.00	4.90	12.40	53.40	21.42	11.05	5.42	3.34	1.79	0.96	0.41		
22	0.60	15.20	4.60	12.00	46.10	20.93	10.70	5.42	3.14	1.79	0.96	0.41		
23	0.30	10.95	9.90	13.60	37.70	57.18	11.40	5.66	3.14	1.79	0.96	2.34		
24	0.20	8.20	7.00	37.70	33.40	54.37	11.75	5.90	2.95	1.79	0.83	0.96		
25	0.70	7.30	7.90	35.20	29.80	49.45	11.40	6.62	2.95	1.65	0.69	0.96		
26	1.30	5.50	5.80	60.60	25.60	39.62	10.35	6.14	2.75	1.65	0.69	3.53		
27	0.90	4.90	5.05	45.40	23.00	32.26	9.71	5.42	2.75	1.65	0.55	2.06		
28	1.90	4.30	4.45	41.90	20.50	27.62	10.70	5.18	2.75	1.51	0.55	7.68		
29	2.00	4.00	5.35	37.70	21.00	25.88	9.42	4.94	2.75	1.51		2.75		
30	2.40	3.70	4.15	39.10	20.50	23.56	9.13	4.70	2.61	1.51		2.20		
31		3.55		31.00	19.20		9.13		2.61	1.51		5.18		
Total	13.90	332.00	129.80	937.20	1368.90	1391.66	473.50	201.21	116.33	62.85	30.41	60.02	5117.78	CMSDAY
Mean	0.46	10.71	4.33	30.23	44.16	46.39	15.27	6.71	3.75	2.03	1.09	1.94	14.02	CMS
Max	2.40	153.25	9.90	77.00	203.00	155.75	33.42	11.75	8.26	2.61	1.65	7.97	203.00	CMS
Min	0.00	0.90	2.50	4.00	19.20	16.40	9.13	4.70	2.61	1.51	0.55	0.14	0.00	CMS
Runoff	1.20	28.68	11.21	80.97	118.27	120.24	40.91	17.38	10.05	5.43	2.63	5.19	442.18	MCM

Momentary Peak 239.00 CMS. at 71.45 m. (MSL.) at 12.00 Hours , on Aug 18, 2002

Runoff Yield 30.09 Liters/Second/Square KM. Momentary Peak Yield 512.880 Liters/Second/Square KM.

WATER YEAR : 2002

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

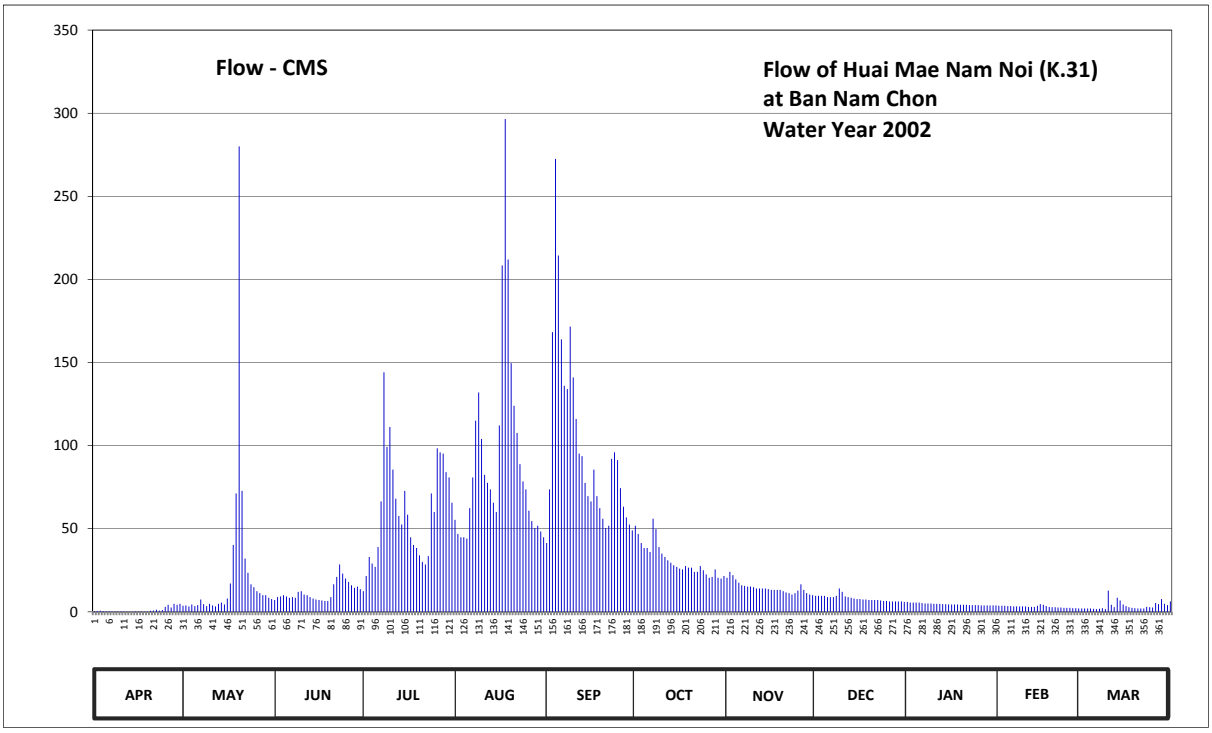
Location : on right bank about 2 kilometers downstream from station K.22A

	Ban Nam Chon	**Amphoe** Sai Yok	**Changwat** Kanchanaburi
Drainge Area	799 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+62.720 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank about 5 meters from the top staff gage.		**Elevation** +70.537 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean 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 70 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	65.65	65.83	65.97	66.11	66.89	66.69	66.84	66.29	66.04	65.93	65.83	65.75	
2	65.65	65.84	66.02	66.31	66.77	67.12	66.77	66.36	66.04	65.92	65.83	65.75	
3	65.66	65.81	66.03	66.54	66.74	68.13	66.69	66.32	66.04	65.92	65.83	65.75	
4	65.65	65.87	66.05	66.46	66.74	68.95	66.64	66.27	66.04	65.92	65.82	65.75	
5	65.64	65.82	66.03	66.42	66.73	68.52	66.64	66.23	66.02	65.92	65.82	65.74	
6	65.64	65.85	66.01	66.65	66.98	68.09	66.60	66.20	66.02	65.91	65.81	65.73	
7	65.63	65.98	66.02	67.03	67.21	67.83	66.90	66.19	66.02	65.90	65.81	65.74	
8	65.63	65.88	66.01	67.91	67.62	67.81	66.81	66.18	66.04	65.90	65.81	65.76	
9	65.63	65.82	66.10	67.44	67.79	68.16	66.65	66.18	66.15	65.90	65.81	65.73	
10	65.63	65.89	66.11	67.58	67.50	67.88	66.58	66.17	66.10	65.89	65.81	66.12	
11	65.63	65.84	66.06	67.27	67.23	67.63	66.54	66.15	66.03	65.89	65.80	65.86	
12	65.62	65.81	66.05	67.05	67.17	67.39	66.50	66.15	66.02	65.89	65.80	65.79	
13	65.62	65.89	66.02	66.92	67.12	67.37	66.47	66.15	66.01	65.88	65.80	66.01	
14	65.62	65.92	66.00	66.85	67.02	67.17	66.44	66.15	66.00	65.88	65.83	65.96	
15	65.64	65.87	65.98	67.11	66.95	67.07	66.42	66.14	65.99	65.87	65.88	65.87	
16	65.63	66.00	65.97	66.93	67.59	67.03	66.40	66.13	65.99	65.87	65.86	65.82	
17	65.63	66.22	65.96	66.74	68.47	67.27	66.39	66.13	65.98	65.87	65.82	65.79	
18	65.62	66.67	65.95	66.67	69.11	67.07	66.43	66.13	65.98	65.87	65.80	65.77	
19	65.62	67.09	65.95	66.64	68.50	66.98	66.41	66.13	65.97	65.86	65.79	65.76	
20	65.66	69.00	66.02	66.56	67.96	66.90	66.41	66.11	65.97	65.86	65.79	65.75	
21	65.67	67.11	66.21	66.48	67.71	66.82	66.36	66.09	65.97	65.86	65.78	65.75	
22	65.71	66.52	66.30	66.45	67.54	66.84	66.36	66.08	65.97	65.85	65.78	65.75	
23	65.67	66.35	66.45	66.55	67.31	67.35	66.43	66.06	65.96	65.85	65.77	65.80	
24	65.70	66.21	66.34	67.09	67.18	67.40	66.38	66.08	65.95	65.85	65.77	65.79	
25	65.80	66.17	66.28	66.95	67.12	67.34	66.33	66.12	65.95	65.85	65.77	65.78	
26	65.86	66.11	66.24	67.43	66.96	67.13	66.29	66.21	65.94	65.84	65.76	65.91	
27	65.78	66.08	66.20	67.40	66.88	66.99	66.30	66.13	65.94	65.84	65.76	65.88	
28	65.89	66.05	66.16	67.39	66.82	66.91	66.39	66.08	65.94	65.84	65.75	65.99	
29	65.86	66.05	66.18	67.25	66.84	66.85	66.29	66.06	65.94	65.84		65.89	
30	65.89	66.01	66.14	67.21	66.79	66.80	66.28	66.05	65.94	65.84		65.85	
31		65.99		67.02	66.74		66.31		65.93	65.84		65.94	
Mean	65.68	66.18	66.09	66.92	67.29	67.38	66.49	66.16	66.00	65.88	65.80	65.82	
Max	65.89	69.00	66.45	67.91	69.11	68.95	66.90	66.36	66.15	65.93	65.88	66.12	69.11
Min	65.62	65.81	65.95	66.11	66.73	66.69	66.28	66.05	65.93	65.84	65.75	65.73	65.62

Annual Max Momentary Gage Height	70.37	m. (MSL.) ,	at 13.00 Hours , on May 20 , 2002		
Zero Gage at Bottom Elevation	62.72	m. (MSL.) ,	River Bed	64.99	m. (MSL.)
Left Bank Elevation	70.61	m. (MSL.) ,			
Right Bank Elevation	81.25	m. (MSL.) ,	Drainage Are	799	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.50	3.60	7.10	12.40	55.30	41.40	51.80	20.50	9.60	5.90	3.60	2.00		
2	0.50	3.80	8.80	21.50	46.90	73.60	46.90	24.00	9.60	5.60	3.60	2.00		
3	0.60	3.20	9.20	33.00	44.80	168.30	41.40	22.00	9.60	5.60	3.60	2.00		
4	0.50	4.40	10.00	29.00	44.80	272.50	38.40	19.50	9.60	5.60	3.40	2.00		
5	0.40	3.40	9.20	27.00	44.10	214.40	38.40	17.50	8.80	5.60	3.40	1.80		
6	0.40	4.00	8.40	39.00	62.40	163.90	36.00	16.00	8.80	5.30	3.20	1.60		
7	0.30	7.40	8.80	66.40	80.80	136.00	56.00	15.60	8.80	5.00	3.20	1.80		
8	0.30	4.60	8.40	144.10	115.00	134.00	49.70	15.20	9.60	5.00	3.20	2.20		
9	0.30	3.40	12.00	99.20	132.00	171.60	39.00	15.20	14.00	5.00	3.20	1.60		
10	0.30	4.80	12.40	111.20	104.00	141.00	35.00	14.80	12.00	4.80	3.20	12.80		
11	0.30	3.80	10.40	85.60	82.40	116.00	33.00	14.00	9.20	4.80	3.00	4.20		
12	0.20	3.20	10.00	68.00	77.60	95.20	31.00	14.00	8.80	4.80	3.00	2.80		
13	0.20	4.80	8.80	57.60	73.60	93.60	29.50	14.00	8.40	4.60	3.00	8.40		
14	0.20	5.60	8.00	52.50	65.60	77.60	28.00	14.00	8.00	4.60	3.60	6.80		
15	0.40	4.40	7.40	72.80	60.00	69.60	27.00	13.60	7.70	4.40	4.60	4.40		
16	0.30	8.00	7.10	58.40	112.10	66.40	26.00	13.20	7.70	4.40	4.20	3.40		
17	0.30	17.00	6.80	44.80	208.40	85.60	25.50	13.20	7.40	4.40	3.40	2.80		
18	0.20	40.20	6.50	40.20	296.50	69.60	27.50	13.20	7.40	4.40	3.00	2.40		
19	0.20	71.20	6.50	38.40	212.00	62.40	26.50	13.20	7.10	4.20	2.80	2.20		
20	0.60	280.00	8.80	34.00	149.60	56.00	26.50	12.40	7.10	4.20	2.80	2.00		
21	0.70	72.80	16.50	30.00	124.00	50.40	24.00	11.60	7.10	4.20	2.60	2.00		
22	1.20	32.00	21.00	28.50	107.60	51.80	24.00	11.20	7.10	4.00	2.60	2.00		
23	0.70	23.50	28.50	33.50	88.80	92.00	27.50	10.40	6.80	4.00	2.40	3.00		
24	1.00	16.50	23.00	71.20	78.40	96.00	25.00	11.20	6.50	4.00	2.40	2.80		
25	3.00	14.80	20.00	60.00	73.60	91.20	22.50	12.80	6.50	4.00	2.40	2.60		
26	4.20	12.40	18.00	98.40	60.80	74.40	20.50	16.50	6.20	3.80	2.20	5.30		
27	2.60	11.20	16.00	96.00	54.60	63.20	21.00	13.20	6.20	3.80	2.20	4.60		
28	4.80	10.00	14.40	95.20	50.40	56.80	25.50	11.20	6.20	3.80	2.00	7.70		
29	4.20	10.00	15.20	84.00	51.80	52.50	20.50	10.40	6.20	3.80		4.80		
30	4.80	8.40	13.60	80.80	48.30	49.00	20.00	10.00	6.20	3.80		4.00		
31		7.70		65.60	44.80		21.50		5.90	3.80		6.20		
Total	34.20	700.10	360.80	1878.30	2851.00	2986.00	965.10	433.60	250.10	141.20	85.80	114.20	10800.40	CMSDAY
Mean	1.14	22.58	12.03	60.59	91.97	99.53	31.13	14.45	8.07	4.55	3.06	3.68	29.59	CMS
Max	4.80	280.00	28.50	144.10	296.50	272.50	56.00	24.00	14.00	5.90	4.60	12.80	296.50	CMS
Min	0.20	3.20	6.50	12.40	44.10	41.40	20.00	10.00	5.90	3.80	2.00	1.60	0.20	CMS
Runoff	2.95	60.49	31.17	162.29	246.33	257.99	83.38	37.46	21.61	12.20	7.41	9.87	933.15	MCM

Momentary Peak 506.60 CMS. at 70.37 m. (MSL.) at 13.00 Hours , on May 20 , 2002

Runoff Yield 37.03 Liters/Second/Square KM. Momentary Peak Yield 634.040 Liters/Second/Square KM.

WATER YEAR : 2002

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	Staff gage		
Zero Gage at Bottom	+0.000 m. (A.D.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank about 6.50 meters from the top staff gage.	**Elevation**	+6.055 m. (A.D.)
Gage Reading Frequency	16-time daily readings at 03.00, 06.00 - 18.00, 21.00 and 24.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 16 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 stableby some scouring.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 72 discharge measurements made in 2002.		

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

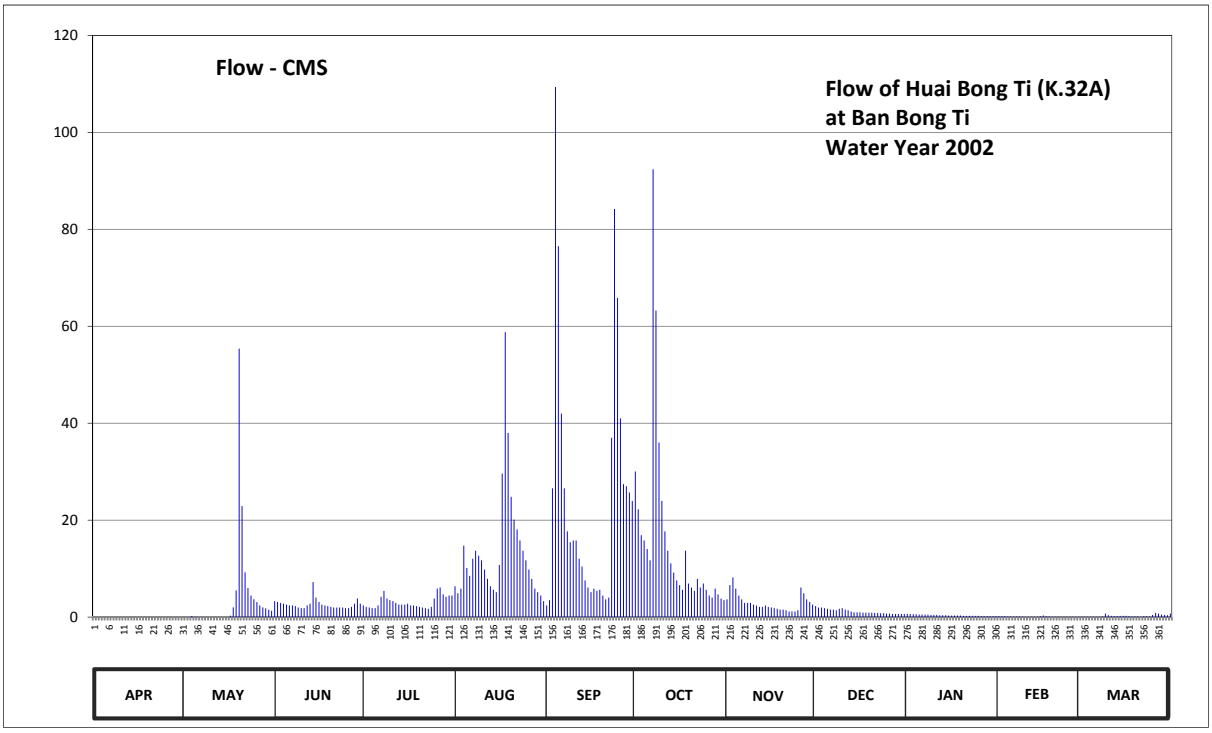
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.49	0.44	0.85	0.80	0.99	0.80	1.62	0.87	0.79	0.65	0.58	0.56	
2	0.48	0.43	0.84	0.78	0.93	0.86	1.44	1.00	0.77	0.65	0.58	0.56	
3	0.47	0.48	0.83	0.77	0.97	1.54	1.31	1.05	0.77	0.64	0.58	0.56	
4	0.47	0.67	0.82	0.76	1.25	2.83	1.28	0.97	0.76	0.64	0.57	0.56	
5	0.47	0.57	0.81	0.76	1.11	2.44	1.23	0.91	0.75	0.63	0.57	0.56	
6	0.47	0.52	0.80	0.80	1.06	1.87	1.16	0.87	0.74	0.63	0.57	0.56	
7	0.47	0.49	0.80	0.90	1.17	1.54	2.64	0.83	0.74	0.63	0.57	0.56	
8	0.47	0.47	0.79	0.95	1.22	1.33	2.25	0.83	0.73	0.63	0.57	0.57	
9	0.46	0.46	0.77	0.88	1.19	1.27	1.75	0.83	0.75	0.62	0.56	0.66	
10	0.46	0.46	0.76	0.86	1.16	1.28	1.48	0.81	0.76	0.62	0.56	0.61	
11	0.45	0.46	0.76	0.85	1.10	1.28	1.33	0.80	0.74	0.62	0.56	0.59	
12	0.45	0.46	0.80	0.83	1.04	1.17	1.22	0.78	0.73	0.61	0.56	0.58	
13	0.45	0.46	0.82	0.81	0.99	1.12	1.14	0.78	0.71	0.61	0.56	0.58	
14	0.45	0.46	1.02	0.81	0.96	1.03	1.08	0.80	0.70	0.61	0.56	0.59	
15	0.46	0.46	0.89	0.81	0.94	0.98	1.03	0.78	0.70	0.60	0.58	0.59	
16	0.45	0.50	0.84	0.82	1.13	0.94	1.00	0.77	0.70	0.60	0.60	0.59	
17	0.45	0.70	0.81	0.80	1.61	0.97	0.96	0.76	0.69	0.60	0.58	0.58	
18	0.44	0.95	0.80	0.80	2.18	0.95	1.22	0.75	0.69	0.60	0.57	0.57	
19	0.44	1.20	0.79	0.79	1.79	0.96	1.01	0.74	0.69	0.60	0.56	0.57	
20	0.44	2.28	0.78	0.78	1.50	0.91	0.98	0.74	0.69	0.59	0.56	0.57	
21	0.44	1.72	0.77	0.77	1.39	0.87	0.95	0.73	0.68	0.59	0.56	0.56	
22	0.44	1.35	0.77	0.76	1.34	0.89	1.04	0.71	0.68	0.59	0.56	0.58	
23	0.43	1.22	0.77	0.75	1.28	1.77	0.98	0.71	0.67	0.59	0.56	0.58	
24	0.44	1.13	0.77	0.78	1.22	2.54	1.01	0.71	0.67	0.59	0.56	0.57	
25	0.49	1.08	0.76	0.88	1.16	2.29	0.96	0.73	0.66	0.59	0.56	0.62	
26	0.46	1.04	0.76	0.97	1.10	1.85	0.91	0.98	0.66	0.58	0.56	0.68	
27	0.45	0.99	0.78	0.98	1.04	1.56	0.89	0.93	0.65	0.58	0.56	0.66	
28	0.45	0.95	0.82	0.92	0.97	1.55	0.97	0.87	0.65	0.58	0.56	0.63	
29	0.44	0.93	0.88	0.90	0.94	1.52	0.92	0.84	0.65	0.58		0.62	
30	0.44	0.90	0.82	0.91	0.91	1.48	0.88	0.81	0.65	0.58		0.61	
31		0.87		0.91	0.85		0.86		0.65	0.58		0.66	
Mean	0.46	0.81	0.81	0.84	1.18	1.41	1.21	0.82	0.71	0.61	0.57	0.59	
Max	0.49	2.28	1.02	0.98	2.18	2.83	2.64	1.05	0.79	0.65	0.60	0.68	2.83
Min	0.43	0.43	0.76	0.75	0.85	0.80	0.86	0.71	0.65	0.58	0.56	0.56	0.43

Annual Max Momentary Gage Height 3.58 m. (A.D.) , at 13.00 Hours , on Oct 7 , 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed 0.32 m. (A.D.)

Left Bank Elevation 6.21 m. (A.D.) ,

Right Bank Elevation 6.11 m. (A.D.) , Drainage Are 518 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	3.30	2.40	6.36	2.40	30.03	3.66	2.26	0.67	0.20	0.07		
2	0.00	0.00	3.12	2.12	4.92	3.48	22.23	6.60	1.98	0.67	0.20	0.07		
3	0.00	0.00	2.94	1.98	5.88	26.57	16.90	8.20	1.98	0.60	0.20	0.07		
4	0.00	0.24	2.76	1.84	14.75	109.35	15.80	5.88	1.84	0.60	0.13	0.07		
5	0.00	0.07	2.58	1.84	10.12	76.50	14.05	4.44	1.70	0.53	0.13	0.07		
6	0.00	0.02	2.40	2.40	8.52	42.00	11.72	3.66	1.56	0.53	0.13	0.07		
7	0.00	0.00	2.40	4.20	12.04	26.57	92.40	2.94	1.56	0.53	0.13	0.07		
8	0.00	0.00	2.26	5.40	13.70	17.70	63.25	2.94	1.42	0.53	0.13	0.13		
9	0.00	0.00	1.98	3.84	12.68	15.45	36.00	2.94	1.70	0.47	0.07	0.73		
10	0.00	0.00	1.84	3.48	11.72	15.80	23.97	2.58	1.84	0.47	0.07	0.40		
11	0.00	0.00	1.84	3.30	9.80	15.80	17.70	2.40	1.56	0.47	0.07	0.27		
12	0.00	0.00	2.40	2.94	7.88	12.04	13.70	2.12	1.42	0.40	0.07	0.20		
13	0.00	0.00	2.76	2.58	6.36	10.44	11.08	2.12	1.14	0.40	0.07	0.20		
14	0.00	0.00	7.24	2.58	5.64	7.56	9.16	2.40	1.00	0.40	0.07	0.27		
15	0.00	0.00	4.02	2.58	5.16	6.12	7.56	2.12	1.00	0.33	0.20	0.27		
16	0.00	0.00	3.12	2.76	10.76	5.16	6.60	1.98	1.00	0.33	0.33	0.27		
17	0.00	0.30	2.58	2.40	29.60	5.88	5.64	1.84	0.93	0.33	0.20	0.20		
18	0.00	2.00	2.40	2.40	58.80	5.40	13.70	1.70	0.93	0.33	0.13	0.13		
19	0.00	5.50	2.26	2.26	38.00	5.64	6.92	1.56	0.93	0.33	0.07	0.13		
20	0.00	55.40	2.12	2.12	24.83	4.44	6.12	1.56	0.93	0.27	0.07	0.13		
21	0.00	22.90	1.98	1.98	20.10	3.66	5.40	1.42	0.87	0.27	0.07	0.07		
22	0.00	9.25	1.98	1.84	18.10	4.02	7.88	1.14	0.87	0.27	0.07	0.20		
23	0.00	6.00	1.98	1.70	15.80	37.00	6.12	1.14	0.80	0.27	0.07	0.20		
24	0.00	4.45	1.98	2.12	13.70	84.20	6.92	1.14	0.80	0.27	0.07	0.13		
25	0.00	3.70	1.84	3.84	11.72	65.85	5.64	1.42	0.73	0.27	0.07	0.47		
26	0.00	3.10	1.84	5.88	9.80	41.00	4.44	6.12	0.73	0.20	0.07	0.87		
27	0.00	2.40	2.12	6.12	7.88	27.43	4.02	4.92	0.67	0.20	0.07	0.73		
28	0.00	2.00	2.76	4.68	5.88	27.00	5.88	3.66	0.67	0.20	0.07	0.53		
29	0.00	1.80	3.84	4.20	5.16	25.70	4.68	3.12	0.67	0.20		0.47		
30	0.00	1.50	2.76	4.44	4.44	23.97	3.84	2.58	0.67	0.20		0.40		
31		1.32		4.44	3.30		3.48		0.67	0.20		0.73		
Total	0.00	121.95	79.40	96.66	413.40	754.13	482.83	90.30	36.83	11.74	3.23	8.62	2099.09	CMSDAY
Mean	0.00	3.93	2.65	3.12	13.34	25.14	15.58	3.01	1.19	0.38	0.12	0.28	5.75	CMS
Max	0.00	55.40	7.24	6.12	58.80	109.35	92.40	8.20	2.26	0.67	0.33	0.87	109.35	CMS
Min	0.00	0.00	1.84	1.70	3.30	2.40	3.48	1.14	0.67	0.20	0.07	0.07	0.00	CMS
Runoff	0.00	10.54	6.86	8.35	35.72	65.16	41.72	7.80	3.18	1.01	0.28	0.74	181.36	MCM

Momentary Peak 205.50 CMS. at 3.58 m. (A.D.) at 13.00 Hours , on Oct 7 , 2002

Runoff Yield 11.10 Liters/Second/Square KM. Momentary Peak Yield 396.720 Liters/Second/Square KM.

WATER YEAR : 2002

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.

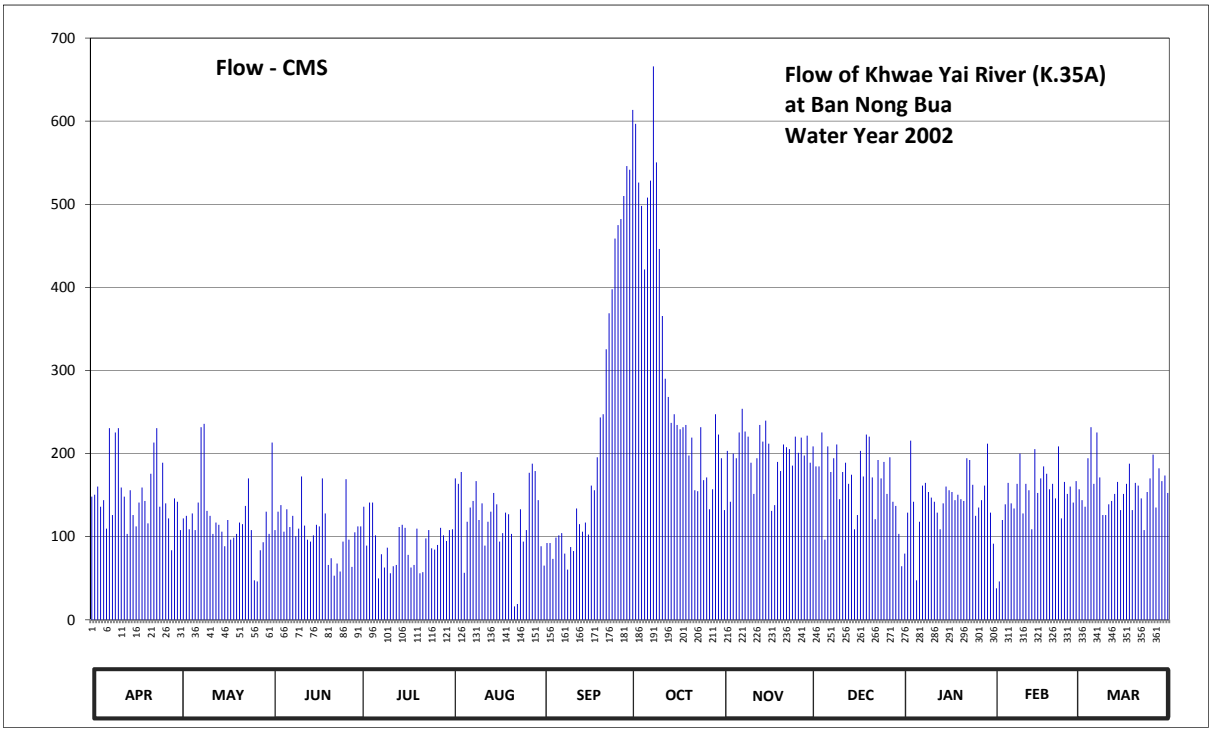
Ban Nong Bua **Amphoe** Mueang **Changwat** Kanchanaburi

Drainge Area	14,444 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+0.000 m. (A.D.)
Bench Mark	B.M.-H.D.
Location BM	On left bank about 3 meters from the third staff gage. **Elevation** +7.667 m. (A.D.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean 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	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Flow regulated by Sri Nakarindra Dam. Stage-discharge relation defined by 51 discharge measurements made in 2002.

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	3.72	3.31	4.31	3.36	3.32	2.79	6.69	3.56	4.27	2.97	2.38	3.80	
2	3.74	3.46	3.31	3.60	3.92	3.13	6.62	4.22	4.05	3.53	2.52	3.68	
3	3.83	3.49	3.54	3.09	3.86	3.13	6.31	3.66	4.05	4.33	3.44	3.60	
4	3.60	3.32	3.62	3.65	3.99	2.89	6.17	4.19	4.41	3.66	3.63	4.14	
5	3.68	3.52	3.29	3.65	2.68	3.21	5.75	4.14	3.18	2.54	3.87	4.46	
6	3.33	3.31	3.57	3.24	3.42	3.24	6.22	4.41	4.27	3.42	3.64	3.86	
7	4.45	3.65	3.35	2.58	3.59	3.27	6.32	4.63	3.99	3.84	3.58	4.41	
8	3.50	4.46	3.49	2.96	3.67	2.97	6.90	4.42	4.14	3.87	3.86	3.93	
9	4.41	4.49	3.23	2.76	3.89	2.73	6.42	4.37	4.29	3.77	4.19	3.50	
10	4.45	3.55	3.33	3.06	3.44	3.07	5.89	4.09	3.69	3.71	3.52	3.50	
11	3.82	3.49	3.94	2.67	3.64	3.01	5.41	3.75	3.99	3.66	3.86	3.63	
12	3.72	3.26	3.37	2.78	3.09	3.58	4.90	4.14	4.09	3.53	3.79	3.67	
13	3.26	3.41	3.18	2.80	3.42	3.39	4.74	4.48	3.86	3.32	3.32	3.75	
14	3.79	3.38	3.15	3.35	3.54	3.29	4.50	4.32	3.96	3.64	4.24	3.88	
15	3.50	3.29	3.24	3.38	3.76	3.41	4.58	4.52	3.32	3.83	3.76	3.56	
16	3.36	3.08	3.38	3.34	3.63	3.25	4.48	4.30	3.50	3.79	3.92	3.75	
17	3.65	3.44	3.36	2.95	3.15	3.84	4.44	3.55	4.22	3.77	4.05	3.86	
18	3.82	3.18	3.92	2.76	3.27	3.79	4.46	3.62	3.94	3.68	3.97	4.08	
19	3.67	3.21	3.52	2.80	3.53	4.15	4.48	4.10	4.39	3.74	3.80	3.56	
20	3.40	3.26	2.80	3.33	3.51	4.55	4.17	4.00	4.37	3.69	3.86	3.87	
21	3.97	3.41	2.90	2.67	3.26	4.58	4.36	4.29	3.93	3.67	3.70	3.84	
22	4.31	3.39	2.63	2.69	1.95	5.15	3.79	4.26	3.45	4.14	4.27	3.70	
23	4.45	3.61	2.82	3.20	2.02	5.43	3.78	4.24	4.12	4.12	3.46	3.31	
24	3.60	3.92	2.70	3.31	3.57	5.61	4.46	4.06	3.92	3.85	3.88	3.77	
25	4.09	3.31	3.15	3.05	3.15	5.96	3.90	4.37	4.10	3.49	3.75	3.92	
26	3.64	2.54	3.91	3.03	3.31	6.05	3.93	4.20	3.75	3.59	3.83	4.18	
27	3.46	2.52	3.18	3.10	3.98	6.09	3.57	4.36	4.15	3.68	3.65	3.59	
28	3.02	3.02	2.77	3.34	4.08	6.23	3.80	4.17	3.66	3.84	3.89	4.03	
29	3.70	3.14	3.28	3.24	4.00	6.40	4.58	4.38	3.61	4.30		3.89	
30	3.66	3.54	3.36	3.16	3.68	6.38	4.39	4.09	3.26	3.53		3.95	
31		3.26		3.31	3.08		4.14		2.78	3.12		3.76	
Mean	3.75	3.39	3.32	3.10	3.43	4.15	4.97	4.16	3.89	3.67	3.70	3.82	
Max	4.45	4.49	4.31	3.65	4.08	6.40	6.90	4.63	4.41	4.33	4.27	4.46	6.90
Min	3.02	2.52	2.63	2.58	1.95	2.73	3.57	3.55	2.78	2.54	2.38	3.31	1.95

Annual Max Momentary Gage Height	6.92	m. (A.D.) ,	at 08.00 Hours , on Oct 8 , 2002		
Zero Gage at Bottom Elevation	0.00	m. (A.D.) ,	River Bed	-0.67	m. (A.D.)
Left Bank Elevation	7.11	m. (A.D.) ,			
Right Bank Elevation	10.65	m. (A.D.) ,	Drainage Are	14,444	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	148.20	107.90	213.20	112.40	108.80	65.20	613.60	132.00	208.70	79.60	37.80	157.00		
2	150.40	122.00	107.90	136.00	170.20	92.40	596.80	203.20	184.50	129.00	46.20	144.00		
3	160.30	125.00	130.00	89.20	163.60	92.40	526.20	142.00	184.50	215.60	120.00	136.00		
4	136.00	108.80	138.00	141.00	177.90	73.20	498.00	199.90	225.30	142.00	139.00	194.40		
5	144.00	128.00	106.10	141.00	56.60	98.90	421.50	194.40	96.40	47.40	164.70	231.80		
6	109.70	107.90	133.00	101.60	118.00	101.60	508.00	225.30	208.70	118.00	140.00	163.60		
7	230.50	141.00	111.50	49.80	135.00	104.30	528.40	253.90	177.90	161.40	134.00	225.30		
8	126.00	231.80	125.00	78.80	143.00	79.60	666.00	226.60	194.40	164.70	163.60	171.30		
9	225.30	235.70	100.70	62.80	166.90	60.40	550.40	220.40	210.90	153.70	199.90	126.00		
10	230.50	131.00	109.70	86.80	120.00	87.60	446.20	188.90	145.00	147.10	128.00	126.00		
11	159.20	125.00	172.40	55.90	140.00	82.80	365.60	151.50	177.90	142.00	163.60	139.00		
12	148.20	103.40	113.30	64.40	89.20	134.00	290.00	194.40	188.90	129.00	155.90	143.00		
13	103.40	117.00	96.40	66.00	118.00	115.10	268.20	234.40	163.60	108.80	108.80	151.50		
14	155.90	114.20	94.00	111.50	130.00	106.10	237.00	214.40	174.60	140.00	205.40	165.80		
15	126.00	106.10	101.60	114.20	152.60	117.00	247.40	239.60	108.80	160.30	152.60	132.00		
16	112.40	88.40	114.20	110.60	139.00	102.50	234.40	212.00	126.00	155.90	170.20	151.50		
17	141.00	120.00	112.40	78.00	94.00	161.40	229.20	131.00	203.20	153.70	184.50	163.60		
18	159.20	96.40	170.20	62.80	104.30	155.90	231.80	138.00	172.40	144.00	175.70	187.80		
19	143.00	98.90	128.00	66.00	129.00	195.50	234.40	190.00	222.80	150.40	157.00	132.00		
20	116.00	103.40	66.00	109.70	127.00	243.50	197.70	179.00	220.40	145.00	163.60	164.70		
21	175.70	117.00	74.00	55.90	103.40	247.40	219.20	210.90	171.30	143.00	146.00	161.40		
22	213.20	115.10	53.10	57.30	16.00	325.50	155.90	207.60	121.00	194.40	208.70	146.00		
23	230.50	137.00	67.60	98.00	19.00	368.80	154.80	205.40	192.20	192.20	122.00	107.90		
24	136.00	170.20	58.00	107.90	133.00	397.70	231.80	185.60	170.20	162.50	165.80	153.70		
25	188.90	107.90	94.00	86.00	94.00	458.80	168.00	220.40	190.00	125.00	151.50	170.20		
26	140.00	47.40	169.10	84.40	107.90	475.00	171.30	201.00	151.50	135.00	160.30	198.80		
27	122.00	46.20	96.40	90.00	176.80	482.20	133.00	219.20	195.50	144.00	141.00	135.00		
28	83.60	83.60	63.60	110.60	187.80	510.00	157.00	197.70	142.00	161.40	166.90	182.30		
29	146.00	93.20	105.20	101.60	179.00	546.00	247.40	221.60	137.00	212.00		166.90		
30	142.00	130.00	112.40	94.80	144.00	541.60	222.80	188.90	103.40	129.00		173.50		
31		103.4		107.90	88.40		194.40		64.40	91.60		152.60		
Total	4603.10	3662.90	3337.00	2832.90	3832.40	6622.40	9946.40	5929.20	5233.40	4477.70	4172.70	4954.60	59604.70	CMSDAY
Mean	153.44	118.16	111.23	91.38	123.63	220.75	320.85	197.64	168.82	144.44	149.03	159.83	163.30	CMS
Max	230.50	235.70	213.20	141.00	187.80	546.00	666.00	253.90	225.30	215.60	208.70	231.80	666.00	CMS
Min	83.60	46.20	53.10	49.80	16.00	60.40	133.00	131.00	64.40	47.40	37.80	107.90	16.00	CMS
Runoff	397.71	316.47	288.32	244.76	331.12	572.18	859.37	512.28	452.17	386.87	360.52	428.08	5149.85	MCM

Momentary Peak 671.20 CMS. at 6.92 m. (A.D.) at 08.00 Hours , on Oct 8 , 2002

Runoff Yield 11.31 Liters/Second/Square KM. Momentary Peak Yield 46.470 Liters/Second/Square KM.

WATER YEAR : 2002

MAE KLONG RIVER BASIN

Khwae Yai River at Ban Tha Manao, Kanchanaburi (K.36)

Lat 14 - 09 - 52 N Long 99 - 16 - 37 E

Location : on left bank at Ban Tha Manao.

	Ban Tha Manao	**Amphoe** Mueang	**Changwat** Kanchanaburi
Drainge Area	11,685 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 about 10 meters from the top staff gage.	**Elevation**	+6.888 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 mean 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	Stable.		
Overbank Flow Conditions	Overbank flow starts at elevation + 6.90 m.(A.D.), records are channel flow only.		
General Description	Records good. Flow regulated by Sri Nakarindra Dam. Stage-discharge relation defined by 48 discharge measurements made in 2002.		

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

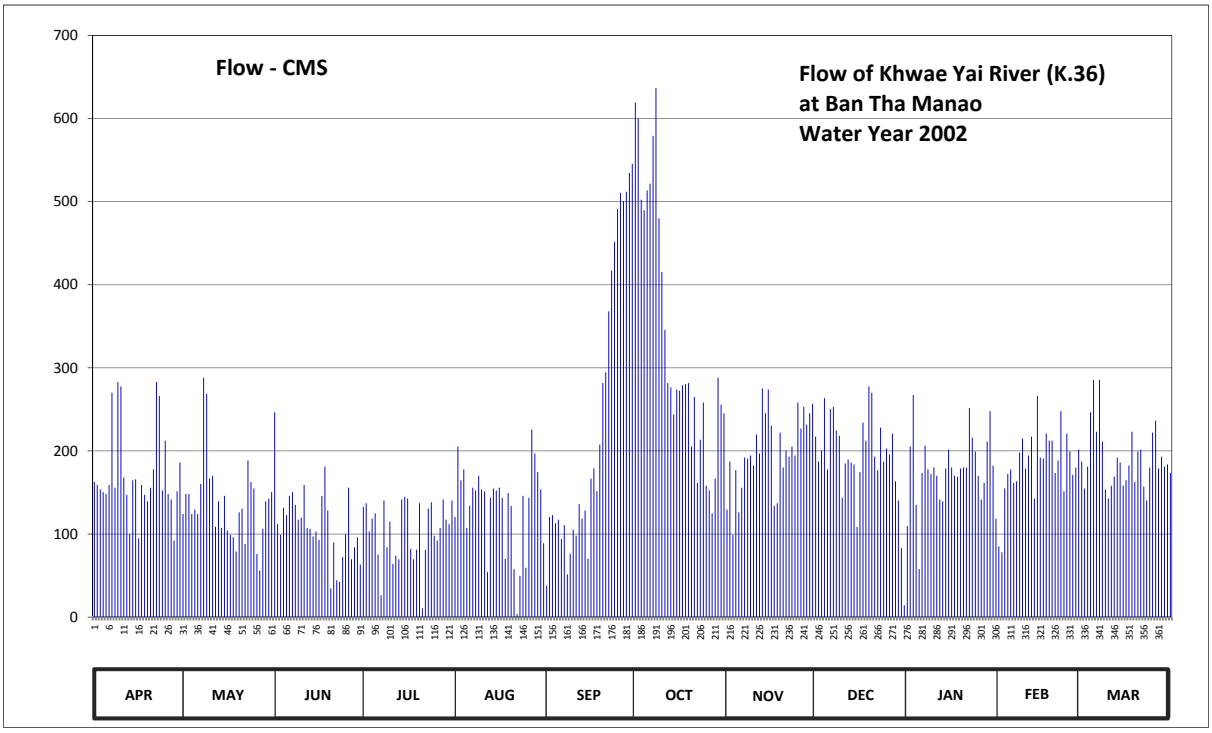
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	3.54	3.19	4.25	3.27	3.16	2.31	6.77	3.24	4.01	3.06	2.82	3.76	
2	3.51	3.41	3.08	3.31	3.91	3.16	6.65	3.76	3.76	3.91	2.75	3.47	
3	3.46	3.41	2.96	3.00	3.56	3.18	6.04	2.96	3.87	4.41	3.47	3.71	
4	3.43	3.19	3.26	3.14	3.68	3.09	5.96	3.67	4.38	3.29	3.63	4.25	
5	3.41	3.24	3.18	3.20	3.04	3.13	6.11	3.21	3.68	2.53	3.68	4.55	
6	3.51	3.19	3.39	2.72	3.28	2.91	6.16	3.48	4.28	3.64	3.53	4.06	
7	4.43	3.52	3.43	2.16	3.48	3.07	6.52	3.80	4.30	3.92	3.55	4.55	
8	3.48	4.57	3.29	3.34	3.45	2.46	6.88	3.79	4.07	3.68	3.85	3.96	
9	4.53	4.42	3.13	2.81	3.61	2.73	5.90	3.82	4.02	3.63	3.99	3.46	
10	4.49	3.58	3.15	3.11	3.46	3.02	5.47	3.72	3.37	3.70	3.69	3.36	
11	3.59	3.61	3.51	2.60	3.44	2.95	4.99	4.03	3.74	3.61	3.82	3.50	
12	3.40	3.05	3.04	2.71	2.49	3.30	4.52	3.84	3.78	3.35	4.01	3.60	
13	2.97	3.33	3.03	2.66	3.37	3.14	4.48	4.47	3.75	3.33	3.36	3.80	
14	3.56	3.04	2.94	3.35	3.47	3.23	4.23	4.24	3.73	3.69	4.40	3.75	
15	3.57	3.39	3.00	3.38	3.45	2.67	4.46	4.46	3.05	3.88	3.80	3.50	
16	2.92	3.01	2.90	3.36	3.48	3.58	4.45	4.12	3.65	3.70	3.79	3.56	
17	3.51	2.96	3.39	2.79	3.37	3.69	4.50	3.28	4.15	3.61	4.04	3.72	
18	3.40	2.93	3.71	2.66	2.67	3.44	4.51	3.31	3.97	3.60	3.97	4.06	
19	3.33	2.76	3.23	2.78	3.42	3.93	4.52	4.05	4.49	3.69	3.97	3.54	
20	3.48	3.21	2.27	3.31	3.28	4.52	3.91	3.70	4.43	3.70	3.64	3.86	
21	3.68	3.25	2.87	1.91	2.53	4.62	4.39	3.87	3.81	3.70	3.77	3.88	
22	4.53	2.85	2.38	2.78	1.73	5.15	3.53	3.81	3.67	4.29	4.26	3.49	
23	4.40	3.77	2.36	3.25	2.44	5.48	3.98	3.91	4.10	4.00	3.44	3.34	
24	3.45	3.54	2.69	3.32	3.39	5.71	4.34	3.82	3.76	3.86	4.04	3.70	
25	3.97	3.47	2.97	2.95	2.55	5.97	3.50	4.34	3.89	3.61	3.86	4.05	
26	3.41	2.73	3.48	2.89	3.37	6.09	3.45	4.09	3.83	3.35	3.62	4.17	
27	3.35	2.51	2.66	3.04	4.08	6.03	3.20	4.30	4.04	3.53	3.70	3.69	
28	2.89	3.03	2.81	3.35	3.84	6.10	3.58	4.13	3.55	3.96	3.88	3.81	
29	3.44	3.33	2.93	3.13	3.65	6.24	4.57	4.24	3.34	4.26		3.71	
30	3.75	3.36	2.59	3.08	3.46	6.31	4.32	4.33	2.80	3.72		3.73	
31		3.43		3.34	2.86		4.24		1.97	3.14		3.64	
Mean	3.61	3.30	3.06	2.99	3.26	4.04	4.84	3.86	3.78	3.66	3.73	3.78	
Max	4.53	4.57	4.25	3.38	4.08	6.31	6.88	4.47	4.49	4.41	4.40	4.55	6.88
Min	2.89	2.51	2.27	1.91	1.73	2.31	3.20	2.96	1.97	2.53	2.75	3.34	1.73

Annual Max Momentary Gage Height 7.00 m. (A.D.) , at 19.00 Hours , on Oct 6 , 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed 0.55 m. (A.D.)

Left Bank Elevation 6.89 m. (A.D.) ,

Right Bank Elevation 7.12 m. (A.D.) , Drainage Are 11,685 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	162.40	123.90	246.50	132.70	120.60	37.90	619.20	129.40	217.20	109.60	85.00	187.20		
2	159.10	148.10	111.80	137.10	205.20	120.60	600.00	187.20	187.20	205.20	78.00	154.70		
3	153.60	148.10	99.00	103.00	164.60	122.80	502.40	99.00	200.40	267.30	154.70	181.20		
4	150.30	123.90	131.60	118.40	177.80	112.90	489.60	176.70	263.40	134.90	172.30	246.50		
5	148.10	129.40	122.80	125.00	107.40	117.30	513.60	126.10	177.80	57.70	177.80	285.50		
6	159.10	123.90	145.90	75.00	133.80	94.00	521.60	155.80	250.40	173.40	161.30	223.20		
7	269.90	160.20	150.30	26.20	155.80	110.70	579.20	192.00	253.00	206.40	163.50	285.50		
8	155.80	288.10	134.90	140.40	152.50	51.40	636.80	190.80	224.40	177.80	198.00	211.20		
9	282.90	268.60	117.30	84.00	170.10	76.00	480.00	194.40	218.40	172.30	214.80	153.60		
10	277.70	166.80	119.50	115.10	153.60	105.20	415.50	182.40	143.70	180.00	178.90	142.60		
11	167.90	170.10	159.10	64.00	151.40	98.00	345.60	219.60	184.80	170.10	194.40	158.00		
12	147.00	108.50	107.40	74.00	54.10	136.00	281.60	196.80	189.60	141.50	217.20	169.00		
13	100.00	139.30	106.30	69.40	143.70	118.40	276.40	275.10	186.00	139.30	142.60	192.00		
14	164.60	107.40	97.00	141.50	154.70	128.30	243.90	245.20	183.60	178.90	266.00	186.00		
15	165.70	145.90	103.00	144.80	152.50	70.30	273.80	273.80	108.50	201.60	192.00	158.00		
16	95.00	104.10	93.00	142.60	155.80	166.80	272.50	230.40	174.50	180.00	190.80	164.60		
17	159.10	99.00	145.90	82.00	143.70	178.90	279.00	133.80	234.00	170.10	220.80	182.40		
18	147.00	96.00	181.20	69.40	70.30	151.40	280.30	137.10	212.40	169.00	212.40	223.20		
19	139.30	79.00	128.30	81.00	149.20	207.60	281.60	222.00	277.70	178.90	212.40	162.40		
20	155.80	126.10	34.60	137.10	133.80	281.60	205.20	180.00	269.90	180.00	173.40	199.20		
21	177.80	130.50	90.00	10.60	57.70	294.60	264.70	200.40	193.20	180.00	188.40	201.60		
22	282.90	88.00	44.20	81.00	3.60	368.00	161.30	193.20	176.70	251.70	247.80	156.90		
23	266.00	188.40	42.40	130.50	49.60	417.00	213.60	205.20	228.00	216.00	151.40	140.40		
24	152.50	162.40	72.10	138.20	145.90	451.50	258.20	194.40	187.20	199.20	220.80	180.00		
25	212.40	154.70	100.00	98.00	59.50	491.20	158.00	258.20	202.80	170.10	199.20	222.00		
26	148.10	76.00	155.80	92.00	143.70	510.40	152.50	226.80	195.60	141.50	171.20	236.40		
27	141.50	55.90	69.40	107.40	225.60	500.80	125.00	253.00	220.80	161.30	180.00	178.90		
28	92.00	106.30	84.00	141.50	196.80	512.00	166.80	231.60	163.50	211.20	201.60	193.20		
29	151.40	139.30	96.00	117.30	174.50	534.40	288.10	245.20	140.40	247.80		181.20		
30	186.00	142.60	63.10	111.80	153.60	545.60	255.60	256.90	83.00	182.40		183.60		
31		150.30		140.40	89.00		245.20		14.20	118.40		173.40		
Total	5170.90	4250.80	3352.40	3231.40	4150.10	7111.60	10386.80	6012.50	5962.30	5473.60	5166.70	5913.60	66182.70	CMSDAY
Mean	172.36	137.12	111.75	104.24	133.87	237.05	335.06	200.42	192.33	176.57	184.53	190.76	181.32	CMS
Max	282.90	288.10	246.50	144.80	225.60	545.60	636.80	275.10	277.70	267.30	266.00	285.50	636.80	CMS
Min	92.00	55.90	34.60	10.60	3.60	37.90	125.00	99.00	14.20	57.70	78.00	140.40	3.60	CMS
Runoff	446.77	367.27	289.65	279.19	358.57	614.44	897.42	519.48	515.14	472.92	446.40	510.94	5718.19	MCM

Momentary Peak 656.00 CMS. at 7.00 m. (A.D.) at 19.00 Hours , on Oct 6 , 2002

Runoff Yield 15.52 Liters/Second/Square KM. Momentary Peak Yield 56.140 Liters/Second/Square KM.

WATER YEAR : 2002

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 mean 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	Overbank flow starts at elevation +26.640 m.(M.S.L.), records are channel flow only.		
General Description	Records good. Flow regulated by Khao Laem Dam.		
	Stage-discharge relation defined by 63 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

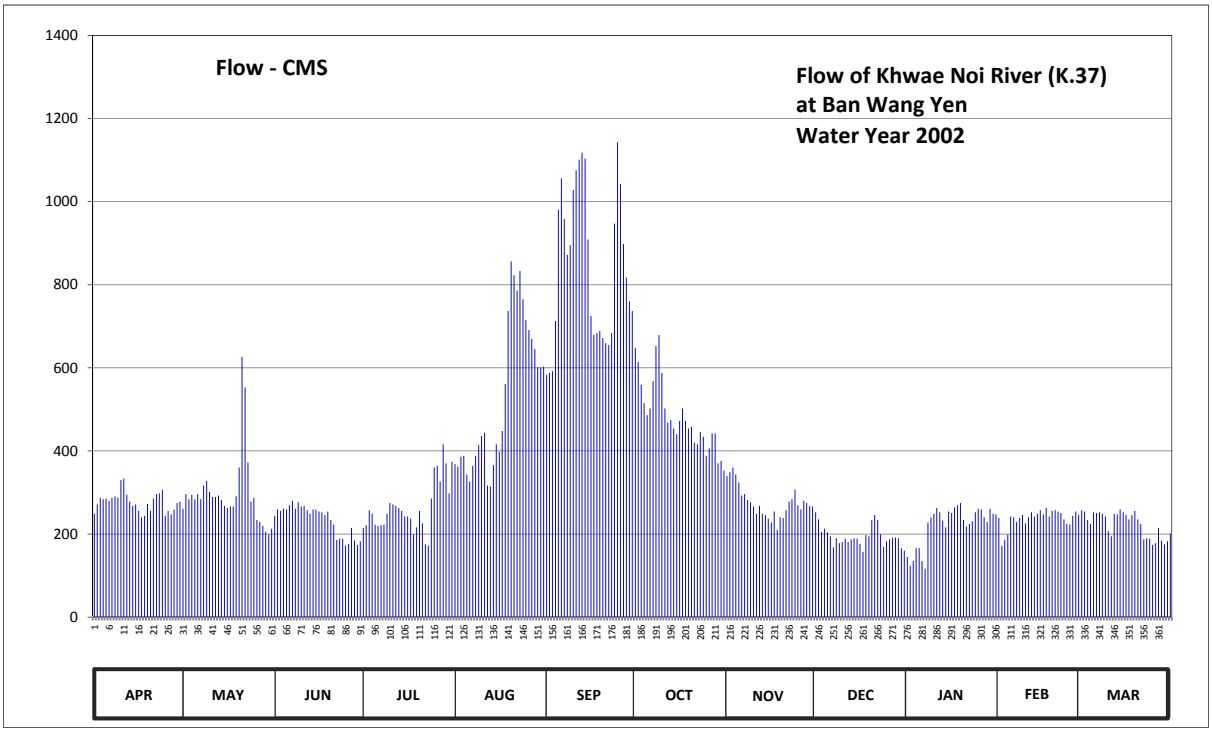
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	24.17	24.24	24.14	23.96	24.82	25.86	26.14	24.67	24.19	23.49	24.11	24.22	
2	24.30	24.44	24.23	24.00	24.79	25.88	26.00	24.72	24.09	23.34	23.68	24.20	
3	24.39	24.37	24.21	24.22	24.91	25.90	25.75	24.78	23.90	23.42	23.77	24.08	
4	24.37	24.43	24.24	24.17	24.92	26.41	25.55	24.69	23.95	23.64	23.86	24.02	
5	24.38	24.37	24.23	24.01	24.69	27.43	25.41	24.59	23.89	23.64	24.13	24.19	
6	24.35	24.44	24.29	23.99	24.60	27.70	25.49	24.42	23.83	23.42	24.12	24.18	
7	24.39	24.37	24.35	24.00	24.80	27.35	25.79	24.44	23.65	23.29	24.05	24.19	
8	24.41	24.55	24.24	24.01	24.92	27.03	26.16	24.36	23.80	24.04	24.11	24.17	
9	24.39	24.61	24.33	24.17	25.05	27.12	26.27	24.33	23.72	24.12	24.15	24.13	
10	24.62	24.47	24.27	24.32	25.16	27.60	25.88	24.27	23.74	24.17	24.03	23.91	
11	24.64	24.40	24.28	24.30	25.20	27.77	25.49	24.17	23.79	24.25	24.12	23.83	
12	24.43	24.40	24.22	24.28	24.55	27.86	25.32	24.28	23.74	24.19	24.19	24.17	
13	24.34	24.42	24.17	24.25	24.54	27.92	25.35	24.17	23.78	24.07	24.13	24.16	
14	24.28	24.36	24.23	24.21	24.81	27.87	25.25	24.15	23.80	23.97	24.17	24.23	
15	24.30	24.28	24.23	24.13	25.06	27.17	25.18	24.10	23.79	24.20	24.22	24.19	
16	24.21	24.25	24.20	24.13	24.97	26.46	25.34	24.04	23.71	24.18	24.16	24.15	
17	24.12	24.27	24.19	24.10	25.22	26.27	25.49	24.20	23.58	24.26	24.25	24.09	
18	24.14	24.27	24.15	23.86	25.76	26.29	25.34	23.93	23.85	24.29	24.13	24.15	
19	24.31	24.41	24.20	23.97	26.51	26.31	25.25	24.12	23.83	24.32	24.21	24.21	
20	24.21	24.78	24.08	24.21	26.97	26.24	25.27	24.11	24.08	24.08	24.22	24.09	
21	24.38	26.05	24.01	24.03	26.84	26.19	25.08	24.22	24.15	23.98	24.20	24.02	
22	24.44	25.72	23.77	23.70	26.70	26.17	25.06	24.34	24.08	24.02	24.18	23.78	
23	24.45	24.84	23.79	23.68	26.88	26.29	25.21	24.37	23.86	24.06	24.09	23.80	
24	24.50	24.34	23.79	24.38	26.62	27.31	25.15	24.50	23.66	24.19	24.02	23.79	
25	24.14	24.39	23.68	24.78	26.42	28.01	24.92	24.29	23.75	24.24	24.01	23.69	
26	24.21	24.08	23.71	24.80	26.32	27.65	25.01	24.23	23.78	24.23	24.14	23.72	
27	24.16	24.05	23.96	24.60	26.23	27.13	25.19	24.35	23.81	24.12	24.20	23.96	
28	24.23	23.99	23.76	25.06	26.13	26.82	25.19	24.32	23.81	24.05	24.15	23.76	
29	24.32	23.90	23.69	24.83	25.94	26.60	24.83	24.28	23.80	24.24		23.70	
30	24.34	23.86	23.75	24.45	25.94	26.51	24.86	24.27	23.64	24.17		23.75	
31		23.95		24.85	25.95		24.74		23.60	24.16		23.87	
Mean	24.33	24.43	24.08	24.24	25.56	26.90	25.39	24.32	23.83	23.99	24.10	24.01	
Max	24.64	26.05	24.35	25.06	26.97	28.01	26.27	24.78	24.19	24.32	24.25	24.23	28.01
Min	24.12	23.86	23.68	23.68	24.54	25.86	24.74	23.93	23.58	23.29	23.68	23.69	23.29

Annual Max Momentary Gage Height 28.11 m. (MSL.) , at 07.00 Hours , on Sep 25 , 2002

Zero Gage at Bottom Elevation 19.84 m. (MSL.) , River Bed 19.06 m. (MSL.)

Left Bank Elevation 26.63 m. (MSL.) ,

Right Bank Elevation 27.78 m. (MSL.) , Drainage Are 10,557 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	248.90	260.80	243.80	214.60	368.00	583.20	647.60	339.30	252.30	144.60	238.70	257.40		
2	271.00	296.20	259.10	221.00	362.10	587.60	614.00	348.80	235.40	123.60	172.00	254.00		
3	287.20	283.60	255.70	257.40	386.00	592.00	559.00	360.20	205.00	134.80	185.50	233.80		
4	283.60	294.40	260.80	248.90	388.00	712.40	515.00	343.10	213.00	166.00	199.00	224.20		
5	285.40	283.60	259.10	222.60	343.10	980.40	486.00	324.10	203.50	166.00	242.10	252.30		
6	280.00	296.20	269.30	219.40	326.00	1056.00	502.00	292.60	194.50	134.80	240.40	250.60		
7	287.20	283.60	280.00	221.00	364.00	958.00	567.80	296.20	167.50	116.60	229.00	252.30		
8	290.80	316.50	260.80	222.60	388.00	871.80	652.40	281.80	190.00	227.40	238.70	248.90		
9	287.20	327.90	276.40	248.90	414.00	895.40	678.80	276.40	178.00	240.40	245.50	242.10		
10	329.80	301.60	265.90	274.60	436.00	1028.00	587.60	265.90	181.00	248.90	225.80	206.60		
11	333.60	289.00	267.60	271.00	444.00	1075.60	502.00	248.90	188.50	262.50	240.40	194.50		
12	294.40	289.00	257.40	267.60	316.50	1100.80	468.00	267.60	181.00	252.30	252.30	248.90		
13	278.20	292.60	248.90	262.50	314.60	1117.60	474.00	248.90	187.00	232.20	242.10	247.20		
14	267.60	281.80	259.10	255.70	366.00	1103.60	454.00	245.50	190.00	216.20	248.90	259.10		
15	271.00	267.60	259.10	242.10	416.00	908.90	440.00	237.00	188.50	254.00	257.40	252.30		
16	255.70	262.50	254.00	242.10	398.00	724.40	472.00	227.40	176.50	250.60	247.20	245.50		
17	240.40	265.90	252.30	237.00	448.00	678.80	502.00	254.00	157.20	264.20	262.50	235.40		
18	243.80	265.90	245.50	199.00	561.20	683.60	472.00	209.80	197.50	269.30	242.10	245.50		
19	272.80	290.80	254.00	216.20	736.60	688.40	454.00	240.40	194.50	274.60	255.70	255.70		
20	255.70	360.20	233.80	255.70	856.20	671.60	458.00	238.70	233.80	233.80	257.40	235.40		
21	285.40	626.00	222.60	225.80	822.40	659.60	420.00	257.40	245.50	217.80	254.00	224.20		
22	296.20	552.40	185.50	175.00	786.00	654.80	416.00	278.20	233.80	224.20	250.60	187.00		
23	298.00	372.00	188.50	172.00	832.80	683.60	446.00	283.60	199.00	230.60	235.40	190.00		
24	307.00	278.20	188.50	285.40	765.20	946.80	434.00	307.00	169.00	252.30	224.20	188.50		
25	243.80	287.20	172.00	360.20	714.80	1142.90	388.00	269.30	182.50	260.80	222.60	173.50		
26	255.70	233.80	176.50	364.00	690.80	1042.00	406.00	259.10	187.00	259.10	243.80	178.00		
27	247.20	229.00	214.60	326.00	669.20	898.10	442.00	280.00	191.50	240.40	254.00	214.60		
28	259.10	219.40	184.00	416.00	645.20	817.20	442.00	274.60	191.50	229.00	245.50	184.00		
29	274.60	205.00	173.50	370.00	600.80	760.00	370.00	267.60	190.00	260.80		175.00		
30	278.20	199.00	182.50	298.00	600.80	736.60	376.00	265.90	166.00	248.90		182.50		
31		213.00		374.00	603.00		352.60		160.00	247.20		200.50		
Total	8309.50	9224.70	7050.80	8166.30	16363.30	25359.70	14998.80	8289.30	6030.50	6883.90	6652.80	6939.50	124269.10	CMSDAY
Mean	276.98	297.57	235.03	263.43	527.85	845.32	483.83	276.31	194.53	222.06	237.60	223.85	340.46	CMS
Max	333.60	626.00	280.00	416.00	856.20	1142.90	678.80	360.20	252.30	274.60	262.50	259.10	1142.90	CMS
Min	240.40	199.00	172.00	172.00	314.60	583.20	352.60	209.80	157.20	116.60	172.00	173.50	116.60	CMS
Runoff	717.94	797.01	609.19	705.57	1413.79	2191.08	1295.90	716.20	521.04	594.77	574.80	599.57	10736.85	MCM

Momentary Peak 1171.90 CMS. at 28.11 m. (MSL.) at 07.00 Hours , on Sep 25 , 2002

Runoff Yield 32.25 Liters/Second/Square KM. Momentary Peak Yield 111.010 Liters/Second/Square KM.

WATER YEAR : 2002

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	+0.000 m. (A.D.)
Bench Mark	B.M.-H.D.
Location BM	On left bank at the abutment of the bridge. **Elevation** +28.400 m. (A.D.)
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 mean 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 66 discharge measurements made in 2002.

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

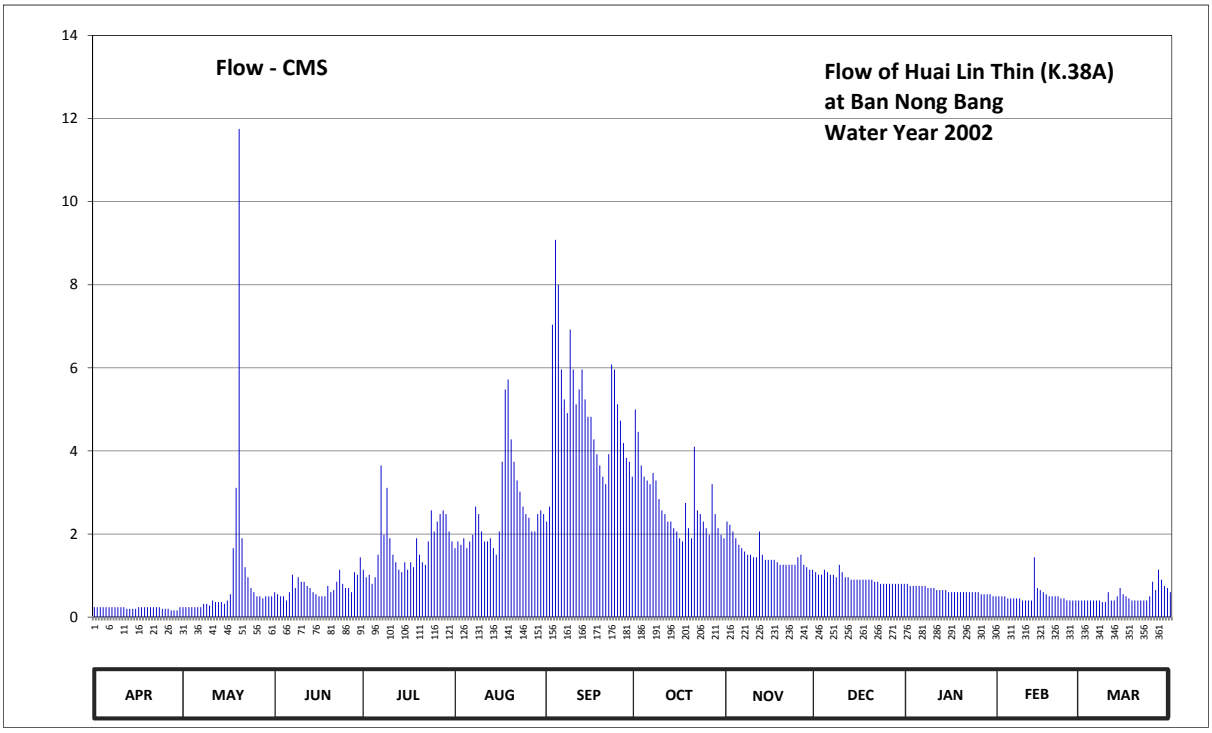
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.36	0.36	0.44	0.54	0.62	0.70	1.00	0.70	0.53	0.48	0.42	0.40	
2	0.36	0.36	0.43	0.51	0.64	0.74	0.94	0.69	0.52	0.47	0.42	0.40	
3	0.36	0.36	0.42	0.52	0.63	1.17	0.85	0.67	0.52	0.47	0.42	0.40	
4	0.36	0.36	0.42	0.48	0.65	1.34	0.82	0.65	0.54	0.47	0.41	0.40	
5	0.36	0.36	0.40	0.51	0.62	1.25	0.81	0.63	0.53	0.47	0.41	0.40	
6	0.36	0.36	0.44	0.60	0.64	1.08	0.80	0.62	0.52	0.47	0.41	0.40	
7	0.36	0.36	0.52	0.85	0.66	1.02	0.83	0.61	0.52	0.47	0.41	0.40	
8	0.36	0.38	0.46	0.66	0.74	0.99	0.81	0.60	0.51	0.46	0.41	0.39	
9	0.36	0.38	0.51	0.79	0.72	1.16	0.76	0.60	0.56	0.46	0.40	0.39	
10	0.36	0.37	0.49	0.65	0.67	1.08	0.73	0.59	0.53	0.46	0.40	0.44	
11	0.36	0.40	0.49	0.60	0.64	1.01	0.72	0.59	0.51	0.45	0.40	0.40	
12	0.35	0.39	0.47	0.57	0.64	1.04	0.70	0.67	0.51	0.45	0.40	0.40	
13	0.35	0.39	0.46	0.54	0.65	1.08	0.70	0.60	0.50	0.45	0.59	0.42	
14	0.35	0.39	0.44	0.53	0.62	1.02	0.68	0.58	0.50	0.45	0.46	0.46	
15	0.35	0.38	0.43	0.57	0.60	0.98	0.67	0.58	0.50	0.44	0.45	0.43	
16	0.36	0.40	0.42	0.54	0.67	0.98	0.65	0.58	0.50	0.44	0.44	0.42	
17	0.36	0.43	0.42	0.57	0.86	0.92	0.64	0.58	0.50	0.44	0.43	0.41	
18	0.36	0.62	0.42	0.55	1.04	0.88	0.75	0.57	0.50	0.44	0.42	0.40	
19	0.36	0.79	0.47	0.65	1.06	0.85	0.68	0.56	0.50	0.44	0.42	0.40	
20	0.36	1.53	0.44	0.60	0.92	0.82	0.65	0.56	0.50	0.44	0.42	0.40	
21	0.36	0.65	0.45	0.57	0.86	0.80	0.90	0.56	0.49	0.44	0.42	0.40	
22	0.36	0.55	0.49	0.56	0.81	0.88	0.73	0.56	0.49	0.44	0.41	0.40	
23	0.36	0.51	0.54	0.64	0.78	1.09	0.72	0.56	0.48	0.44	0.41	0.40	
24	0.35	0.46	0.48	0.73	0.74	1.08	0.70	0.56	0.48	0.44	0.40	0.42	
25	0.35	0.44	0.46	0.67	0.72	1.01	0.68	0.59	0.48	0.44	0.40	0.49	
26	0.35	0.42	0.46	0.70	0.71	0.97	0.66	0.60	0.48	0.43	0.40	0.45	
27	0.34	0.42	0.44	0.72	0.67	0.91	0.80	0.56	0.48	0.43	0.40	0.54	
28	0.34	0.41	0.53	0.73	0.67	0.87	0.72	0.55	0.48	0.43	0.40	0.50	
29	0.34	0.42	0.52	0.72	0.72	0.86	0.68	0.54	0.48	0.43		0.47	
30	0.36	0.42	0.59	0.67	0.73	0.82	0.66	0.54	0.48	0.42		0.46	
31		0.42		0.64	0.72		0.65		0.48	0.42		0.44	
Mean	0.36	0.47	0.46	0.62	0.72	0.98	0.74	0.60	0.50	0.45	0.42	0.42	
Max	0.36	1.53	0.59	0.85	1.06	1.34	1.00	0.70	0.56	0.48	0.59	0.54	1.53
Min	0.34	0.36	0.40	0.48	0.60	0.70	0.64	0.54	0.48	0.42	0.40	0.39	0.34

Annual Max Momentary Gage Height 2.00 m. (A.D.) , at 11.00 Hours , on May 20 , 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed 0.25 m. (A.D.)

Left Bank Elevation 4.00 m. (A.D.) ,

Right Bank Elevation 4.00 m. (A.D.) , Drainage Are 122 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.24	0.24	0.60	1.14	1.66	2.30	5.00	2.30	1.08	0.80	0.50	0.40		
2	0.24	0.24	0.55	0.96	1.82	2.66	4.46	2.22	1.02	0.75	0.50	0.40		
3	0.24	0.24	0.50	1.02	1.74	7.04	3.65	2.06	1.02	0.75	0.50	0.40		
4	0.24	0.24	0.50	0.80	1.90	9.08	3.38	1.90	1.14	0.75	0.45	0.40		
5	0.24	0.24	0.40	0.96	1.66	8.00	3.29	1.74	1.08	0.75	0.45	0.40		
6	0.24	0.24	0.60	1.50	1.82	5.96	3.20	1.66	1.02	0.75	0.45	0.40		
7	0.24	0.24	1.02	3.65	1.98	5.24	3.47	1.58	1.02	0.75	0.45	0.40		
8	0.24	0.32	0.70	1.98	2.66	4.91	3.29	1.50	0.96	0.70	0.45	0.36		
9	0.24	0.32	0.96	3.11	2.48	6.92	2.84	1.50	1.26	0.70	0.40	0.36		
10	0.24	0.28	0.85	1.90	2.06	5.96	2.57	1.44	1.08	0.70	0.40	0.60		
11	0.24	0.40	0.85	1.50	1.82	5.12	2.48	1.44	0.96	0.65	0.40	0.40		
12	0.20	0.36	0.75	1.32	1.82	5.48	2.30	2.06	0.96	0.65	0.40	0.40		
13	0.20	0.36	0.70	1.14	1.90	5.96	2.30	1.50	0.90	0.65	1.44	0.50		
14	0.20	0.36	0.60	1.08	1.66	5.24	2.14	1.38	0.90	0.65	0.70	0.70		
15	0.20	0.32	0.55	1.32	1.50	4.82	2.06	1.38	0.90	0.60	0.65	0.55		
16	0.24	0.40	0.50	1.14	2.06	4.82	1.90	1.38	0.90	0.60	0.60	0.50		
17	0.24	0.55	0.50	1.32	3.74	4.28	1.82	1.38	0.90	0.60	0.55	0.45		
18	0.24	1.66	0.50	1.20	5.48	3.92	2.75	1.32	0.90	0.60	0.50	0.40		
19	0.24	3.11	0.75	1.90	5.72	3.65	2.14	1.26	0.90	0.60	0.50	0.40		
20	0.24	11.75	0.60	1.50	4.28	3.38	1.90	1.26	0.90	0.60	0.50	0.40		
21	0.24	1.90	0.65	1.32	3.74	3.20	4.10	1.26	0.85	0.60	0.50	0.40		
22	0.24	1.20	0.85	1.26	3.29	3.92	2.57	1.26	0.85	0.60	0.45	0.40		
23	0.24	0.96	1.14	1.82	3.02	6.08	2.48	1.26	0.80	0.60	0.45	0.40		
24	0.20	0.70	0.80	2.57	2.66	5.96	2.30	1.26	0.80	0.60	0.40	0.50		
25	0.20	0.60	0.70	2.06	2.48	5.12	2.14	1.44	0.80	0.60	0.40	0.85		
26	0.20	0.50	0.70	2.30	2.39	4.73	1.98	1.50	0.80	0.55	0.40	0.65		
27	0.16	0.50	0.60	2.48	2.06	4.19	3.20	1.26	0.80	0.55	0.40	1.14		
28	0.16	0.45	1.08	2.57	2.06	3.83	2.48	1.20	0.80	0.55	0.40	0.90		
29	0.16	0.50	1.02	2.48	2.48	3.74	2.14	1.14	0.80	0.55		0.75		
30	0.24	0.50	1.44	2.06	2.57	3.38	1.98	1.14	0.80	0.50		0.70		
31		0.50		1.82	2.48		1.90		0.80	0.50		0.60		
Total	6.68	30.18	21.96	53.18	78.99	148.89	84.21	44.98	28.70	19.80	14.19	16.11	547.87	CMSDAY
Mean	0.22	0.97	0.73	1.72	2.55	4.96	2.72	1.50	0.93	0.64	0.51	0.52	1.50	CMS
Max	0.24	11.75	1.44	3.65	5.72	9.08	5.00	2.30	1.26	0.80	1.44	1.14	11.75	CMS
Min	0.16	0.24	0.40	0.80	1.50	2.30	1.82	1.14	0.80	0.50	0.40	0.36	0.16	CMS
Runoff	0.58	2.61	1.90	4.59	6.82	12.86	7.28	3.89	2.48	1.71	1.23	1.39	47.34	MCM

Momentary Peak 19.20 CMS. at 2.00 m. (A.D.) at 11.00 Hours , on May 20 , 2002

Runoff Yield 12.30 Liters/Second/Square KM. Momentary Peak Yield 157.380 Liters/Second/Square KM.

WATER YEAR : 2002

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	+0.000 m. (A.D.)
Bench Mark	B.M.-H.D.
Location BM	On right bank about 16 meters from the third staff gage. **Elevation** +3.414 m. (A.D.)
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 mean 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 66 discharge measurements made in 2002.

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

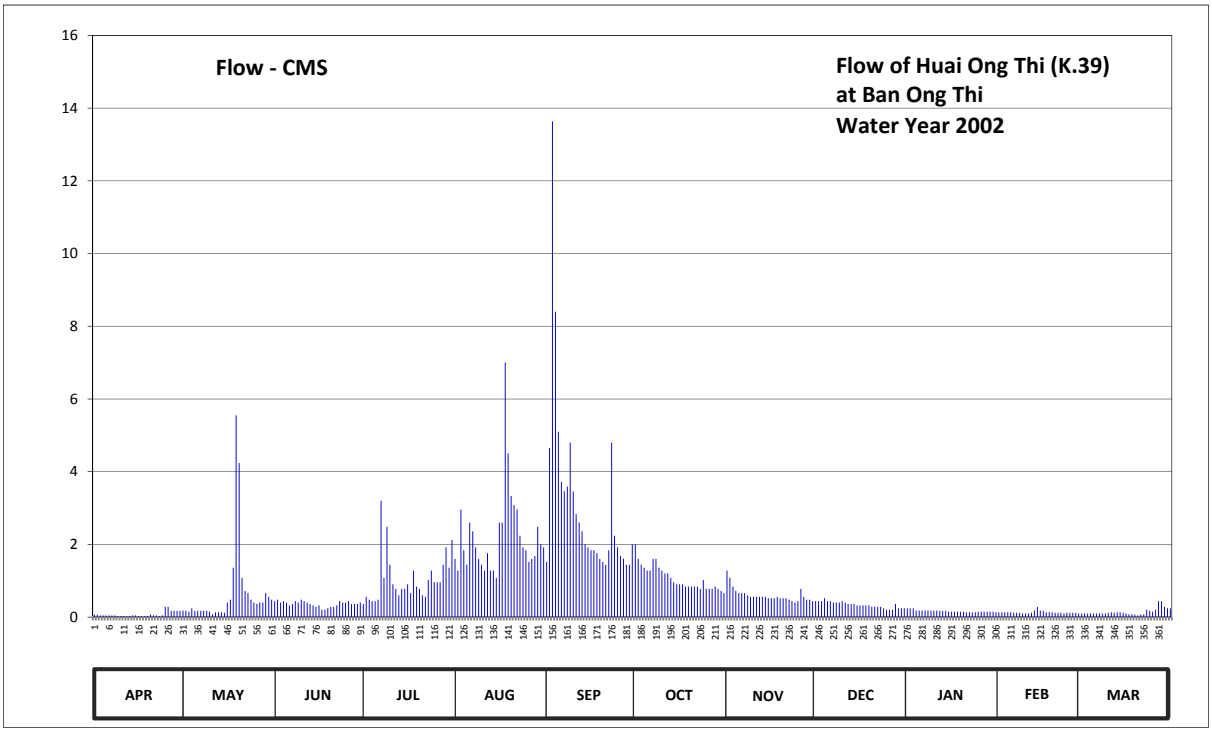
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.22	0.29	0.36	0.34	0.55	0.54	0.60	0.51	0.36	0.31	0.26	0.24	
2	0.22	0.28	0.37	0.39	0.51	0.81	0.55	0.48	0.36	0.31	0.26	0.24	
3	0.21	0.27	0.35	0.37	0.68	1.26	0.53	0.44	0.36	0.31	0.26	0.24	
4	0.21	0.31	0.36	0.36	0.58	1.02	0.52	0.42	0.38	0.29	0.26	0.24	
5	0.21	0.28	0.35	0.36	0.53	0.84	0.51	0.41	0.36	0.29	0.26	0.24	
6	0.21	0.28	0.33	0.37	0.65	0.74	0.51	0.41	0.36	0.29	0.25	0.24	
7	0.21	0.28	0.34	0.70	0.63	0.72	0.55	0.41	0.35	0.29	0.25	0.24	
8	0.21	0.28	0.36	0.48	0.59	0.73	0.55	0.40	0.35	0.29	0.25	0.24	
9	0.20	0.28	0.35	0.64	0.55	0.82	0.52	0.39	0.35	0.29	0.24	0.24	
10	0.20	0.27	0.37	0.53	0.53	0.72	0.51	0.39	0.36	0.29	0.24	0.25	
11	0.20	0.23	0.36	0.45	0.51	0.67	0.50	0.39	0.35	0.29	0.24	0.26	
12	0.19	0.26	0.35	0.43	0.57	0.65	0.50	0.39	0.34	0.28	0.25	0.25	
13	0.20	0.26	0.34	0.40	0.51	0.63	0.48	0.39	0.34	0.28	0.29	0.26	
14	0.21	0.26	0.33	0.43	0.51	0.60	0.46	0.39	0.34	0.28	0.32	0.26	
15	0.21	0.25	0.32	0.43	0.48	0.59	0.45	0.38	0.33	0.27	0.29	0.25	
16	0.20	0.35	0.33	0.45	0.65	0.58	0.45	0.38	0.33	0.27	0.28	0.24	
17	0.19	0.37	0.30	0.41	0.65	0.58	0.45	0.38	0.33	0.27	0.26	0.23	
18	0.19	0.52	0.30	0.51	0.95	0.57	0.44	0.39	0.33	0.27	0.26	0.23	
19	0.20	0.87	0.31	0.44	0.80	0.55	0.44	0.38	0.33	0.27	0.26	0.22	
20	0.22	0.78	0.32	0.43	0.71	0.54	0.44	0.38	0.32	0.27	0.25	0.21	
21	0.21	0.48	0.32	0.40	0.69	0.53	0.44	0.38	0.32	0.26	0.25	0.22	
22	0.21	0.42	0.33	0.39	0.68	0.58	0.44	0.37	0.32	0.26	0.25	0.23	
23	0.20	0.41	0.36	0.47	0.62	0.82	0.43	0.36	0.32	0.26	0.24	0.30	
24	0.21	0.37	0.35	0.51	0.59	0.62	0.47	0.35	0.31	0.26	0.25	0.28	
25	0.32	0.35	0.35	0.46	0.58	0.59	0.43	0.36	0.30	0.27	0.25	0.27	
26	0.32	0.34	0.36	0.46	0.54	0.56	0.43	0.43	0.30	0.27	0.25	0.30	
27	0.28	0.35	0.34	0.46	0.55	0.55	0.43	0.39	0.30	0.27	0.25	0.36	
28	0.28	0.35	0.34	0.53	0.56	0.53	0.44	0.37	0.34	0.27	0.24	0.36	
29	0.28	0.41	0.34	0.59	0.64	0.53	0.43	0.37	0.31	0.27		0.32	
30	0.28	0.39	0.35	0.52	0.60	0.60	0.42	0.36	0.31	0.27		0.31	
31		0.37		0.61	0.59		0.41		0.31	0.26		0.31	
Mean	0.22	0.36	0.34	0.46	0.61	0.67	0.48	0.39	0.33	0.28	0.26	0.26	
Max	0.32	0.87	0.37	0.70	0.95	1.26	0.60	0.51	0.38	0.31	0.32	0.36	1.26
Min	0.19	0.23	0.30	0.34	0.48	0.53	0.41	0.35	0.30	0.26	0.24	0.21	0.19

Annual Max Momentary Gage Height 1.65 m. (A.D.) , at 12.00 Hours , on Sep 3 , 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed -0.21 m. (A.D.)

Left Bank Elevation 3.68 m. (A.D.) ,

Right Bank Elevation 2.88 m. (A.D.) , Drainage Are 51 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.07	0.18	0.44	0.36	1.60	1.52	2.00	1.28	0.44	0.24	0.13	0.10		
2	0.07	0.17	0.48	0.56	1.28	4.65	1.60	1.08	0.44	0.24	0.13	0.10		
3	0.05	0.15	0.40	0.48	2.96	13.64	1.44	0.84	0.44	0.24	0.13	0.10		
4	0.05	0.24	0.44	0.44	1.84	8.40	1.36	0.72	0.52	0.18	0.13	0.10		
5	0.05	0.17	0.40	0.44	1.44	5.10	1.28	0.66	0.44	0.18	0.13	0.10		
6	0.05	0.17	0.32	0.48	2.60	3.72	1.28	0.66	0.44	0.18	0.12	0.10		
7	0.05	0.17	0.36	3.20	2.36	3.46	1.60	0.66	0.40	0.18	0.12	0.10		
8	0.05	0.17	0.44	1.08	1.92	3.59	1.60	0.60	0.40	0.18	0.12	0.10		
9	0.03	0.17	0.40	2.48	1.60	4.80	1.36	0.56	0.40	0.18	0.10	0.10		
10	0.03	0.15	0.48	1.44	1.44	3.46	1.28	0.56	0.44	0.18	0.10	0.12		
11	0.03	0.08	0.44	0.90	1.28	2.84	1.20	0.56	0.40	0.18	0.10	0.13		
12	0.02	0.13	0.40	0.78	1.76	2.60	1.20	0.56	0.36	0.17	0.12	0.12		
13	0.03	0.13	0.36	0.60	1.28	2.36	1.08	0.56	0.36	0.17	0.18	0.13		
14	0.05	0.13	0.32	0.78	1.28	2.00	0.96	0.56	0.36	0.17	0.28	0.13		
15	0.05	0.12	0.28	0.78	1.08	1.92	0.90	0.52	0.32	0.15	0.18	0.12		
16	0.03	0.40	0.32	0.90	2.60	1.84	0.90	0.52	0.32	0.15	0.17	0.10		
17	0.02	0.48	0.20	0.66	2.60	1.84	0.90	0.52	0.32	0.15	0.13	0.08		
18	0.02	1.36	0.20	1.28	7.00	1.76	0.84	0.56	0.32	0.15	0.13	0.08		
19	0.03	5.55	0.24	0.84	4.50	1.60	0.84	0.52	0.32	0.15	0.13	0.07		
20	0.07	4.24	0.28	0.78	3.33	1.52	0.84	0.52	0.28	0.15	0.12	0.05		
21	0.05	1.08	0.28	0.60	3.08	1.44	0.84	0.52	0.28	0.13	0.12	0.07		
22	0.05	0.72	0.32	0.56	2.96	1.84	0.84	0.48	0.28	0.13	0.12	0.08		
23	0.03	0.66	0.44	1.02	2.24	4.80	0.78	0.44	0.28	0.13	0.10	0.20		
24	0.05	0.48	0.40	1.28	1.92	2.24	1.02	0.40	0.24	0.13	0.12	0.17		
25	0.28	0.40	0.40	0.96	1.84	1.92	0.78	0.44	0.20	0.15	0.12	0.15		
26	0.28	0.36	0.44	0.96	1.52	1.68	0.78	0.78	0.20	0.15	0.12	0.20		
27	0.17	0.40	0.36	0.96	1.60	1.60	0.78	0.56	0.20	0.15	0.12	0.44		
28	0.17	0.40	0.36	1.44	1.68	1.44	0.84	0.48	0.36	0.15	0.10	0.44		
29	0.17	0.66	0.36	1.92	2.48	1.44	0.78	0.48	0.24	0.15		0.28		
30	0.17	0.56	0.40	1.36	2.00	2.00	0.72	0.44	0.24	0.15		0.24		
31		0.48		2.12	1.92		0.66		0.24	0.13		0.24		
Total	2.27	20.56	10.96	32.44	68.99	93.02	33.28	18.04	10.48	5.12	3.67	4.54	303.37	CMSDAY
Mean	0.08	0.66	0.37	1.05	2.23	3.10	1.07	0.60	0.34	0.17	0.13	0.15	0.83	CMS
Max	0.28	5.55	0.48	3.20	7.00	13.64	2.00	1.28	0.52	0.24	0.28	0.44	13.64	CMS
Min	0.02	0.08	0.20	0.36	1.08	1.44	0.66	0.40	0.20	0.13	0.10	0.05	0.02	CMS
Runoff	0.20	1.78	0.95	2.80	5.96	8.04	2.88	1.56	0.91	0.44	0.32	0.39	26.21	MCM

Momentary Peak 24.90 CMS. at 1.65 m. (A.D.) at 12.00 Hours , on Sep 3 , 2002

Runoff Yield 16.30 Liters/Second/Square KM. Momentary Peak Yield 488.240 Liters/Second/Square KM.

WATER YEAR : 2002

MAE KLONG RIVER BASIN

Lam Taphoen at Ban Yang Sung, Kanchanaburi (K.49)

Lat 14 - 29 - 15 N Long 99 - 28 - 24 E

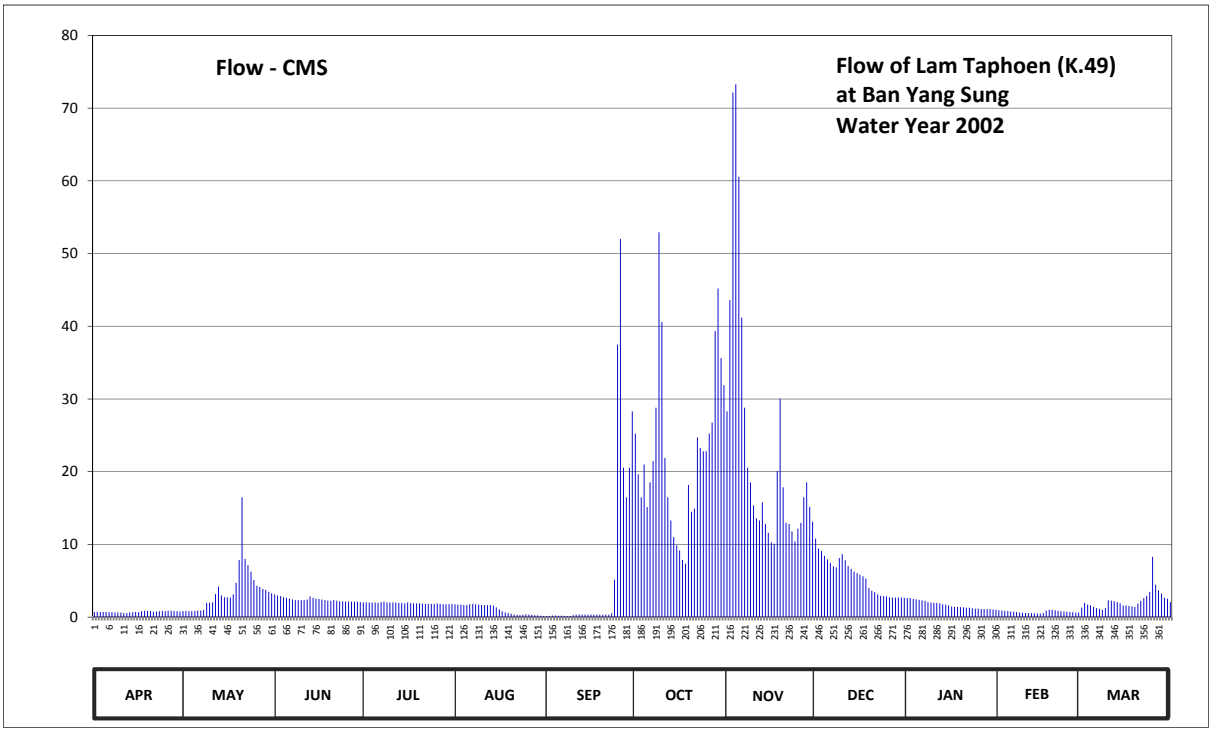
Location : on right bank at the bridge on road.

	Ban Yang Sung	**Amphoe** Bo Phloi	**Changwat** Kanchanaburi
Drainge Area	1,372 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 at the abutment of the bridge.	**Elevation**	+7.835 m. (A.D.)
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 mean of 5 readings		
Period of Available Gage Records	1986 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	Overbank flow starts at elevation +5.140 m.(A.D.), records are channel flow only.		
General Description	Records good. Stage-discharge relation defined by 31 discharge measurements made in 2002.		

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	2.10	2.14	2.78	2.48	2.40	1.88	4.73	4.79	4.18	2.65	2.17	2.27	
2	2.11	2.14	2.74	2.48	2.39	1.89	4.61	5.03	4.02	2.65	2.16	2.46	
3	2.10	2.13	2.72	2.48	2.39	1.91	4.52	5.33	3.97	2.61	2.14	2.39	
4	2.10	2.13	2.68	2.47	2.38	1.91	4.64	5.34	3.87	2.60	2.14	2.36	
5	2.10	2.14	2.66	2.47	2.38	1.90	4.47	5.22	3.79	2.58	2.12	2.30	
6	2.09	2.15	2.63	2.46	2.40	1.90	4.58	5.00	3.69	2.56	2.11	2.25	
7	2.09	2.16	2.60	2.49	2.42	1.89	4.65	4.80	3.60	2.54	2.10	2.22	
8	2.08	2.18	2.57	2.51	2.40	1.88	4.80	4.63	3.57	2.49	2.08	2.18	
9	2.08	2.46	2.57	2.48	2.39	1.88	5.14	4.58	3.82	2.47	2.07	2.25	
10	2.08	2.46	2.57	2.48	2.38	1.93	4.99	4.48	3.91	2.46	2.06	2.56	
11	2.06	2.48	2.57	2.48	2.37	1.97	4.66	4.40	3.76	2.45	2.05	2.55	
12	2.05	2.79	2.59	2.47	2.37	1.97	4.52	4.38	3.61	2.44	2.05	2.53	
13	2.07	3.03	2.71	2.46	2.37	1.98	4.38	4.50	3.53	2.40	2.04	2.49	
14	2.09	2.75	2.66	2.45	2.35	1.98	4.20	4.35	3.45	2.39	2.03	2.44	
15	2.10	2.69	2.62	2.44	2.28	1.98	4.08	4.26	3.41	2.36	2.03	2.36	
16	2.10	2.68	2.61	2.47	2.20	1.97	3.98	4.13	3.37	2.31	2.05	2.35	
17	2.13	2.67	2.59	2.45	2.13	1.97	3.77	4.11	3.32	2.30	2.16	2.34	
18	2.15	2.78	2.57	2.44	2.08	1.97	3.67	4.62	3.26	2.30	2.19	2.32	
19	2.14	3.14	2.55	2.44	2.06	1.96	4.57	4.82	2.99	2.29	2.19	2.30	
20	2.13	3.77	2.54	2.44	2.02	1.96	4.44	4.56	2.91	2.28	2.17	2.43	
21	2.11	4.52	2.57	2.43	1.98	1.96	4.46	4.36	2.86	2.27	2.15	2.54	
22	2.12	3.80	2.55	2.42	1.96	1.96	4.72	4.35	2.78	2.27	2.13	2.65	
23	2.13	3.63	2.52	2.42	1.94	2.04	4.69	4.28	2.73	2.25	2.12	2.73	
24	2.14	3.45	2.52	2.42	1.96	3.23	4.68	4.14	2.72	2.23	2.11	2.87	
25	2.13	3.22	2.51	2.42	2.00	4.94	4.68	4.31	2.71	2.23	2.10	3.85	
26	2.15	3.06	2.51	2.43	1.98	5.13	4.73	4.36	2.68	2.22	2.09	3.09	
27	2.15	3.02	2.51	2.42	1.95	4.63	4.76	4.52	2.67	2.21	2.07	2.92	
28	2.14	2.96	2.51	2.41	1.93	4.52	4.97	4.58	2.67	2.21	2.08	2.81	
29	2.13	2.93	2.50	2.40	1.92	4.63	5.05	4.47	2.67	2.21		2.66	
30	2.12	2.87	2.49	2.41	1.89	4.79	4.91	4.37	2.67	2.20		2.62	
31		2.82		2.42	1.88		4.85		2.66	2.19		2.49	
Mean	2.11	2.81	2.59	2.45	2.18	2.55	4.58	4.57	3.29	2.37	2.11	2.53	
Max	2.15	4.52	2.78	2.51	2.42	5.13	5.14	5.34	4.18	2.65	2.19	3.85	5.34
Min	2.05	2.13	2.49	2.40	1.88	1.88	3.67	4.11	2.66	2.19	2.03	2.18	1.88

Annual Max Momentary Gage Height	5.41	m. (A.D.) ,	at 06.00 Hours , on Sep 26 , 2002		
Zero Gage at Bottom Elevation	0.00	m. (A.D.) ,	River Bed	1.84	m. (A.D.)
Left Bank Elevation	5.13	m. (A.D.) ,			
Right Bank Elevation	5.19	m. (A.D.) ,	Drainage Are	1,372	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.70	0.84	3.12	2.03	1.75	0.16	25.23	28.29	10.80	2.62	0.95	1.30		
2	0.74	0.84	2.96	2.03	1.72	0.18	19.65	43.60	9.44	2.62	0.91	1.96		
3	0.70	0.81	2.88	2.03	1.72	0.22	16.48	72.16	9.09	2.48	0.84	1.72		
4	0.70	0.81	2.73	1.99	1.68	0.22	21.00	73.28	8.42	2.45	0.84	1.61		
5	0.70	0.84	2.66	1.99	1.68	0.20	15.14	60.56	7.95	2.38	0.77	1.40		
6	0.67	0.88	2.55	1.96	1.75	0.20	18.52	41.20	7.45	2.31	0.74	1.23		
7	0.67	0.91	2.45	2.06	1.82	0.18	21.45	28.80	7.00	2.24	0.70	1.12		
8	0.64	0.98	2.34	2.13	1.75	0.16	28.80	20.55	6.85	2.06	0.64	0.98		
9	0.64	1.96	2.34	2.03	1.72	0.16	52.92	18.52	8.12	1.99	0.61	1.23		
10	0.64	1.96	2.34	2.03	1.68	0.26	40.58	15.36	8.67	1.96	0.58	2.31		
11	0.58	2.03	2.34	2.03	1.65	0.34	21.90	13.60	7.80	1.93	0.55	2.27		
12	0.55	3.16	2.41	1.99	1.65	0.34	16.48	13.28	7.05	1.89	0.55	2.20		
13	0.61	4.19	2.84	1.96	1.65	0.36	13.28	15.80	6.65	1.75	0.52	2.06		
14	0.67	3.00	2.66	1.93	1.58	0.36	11.00	12.80	6.25	1.72	0.49	1.89		
15	0.70	2.76	2.52	1.89	1.33	0.36	9.86	11.60	6.05	1.61	0.49	1.61		
16	0.70	2.73	2.48	1.99	1.05	0.34	9.16	10.30	5.85	1.44	0.55	1.58		
17	0.81	2.69	2.41	1.93	0.81	0.34	7.85	10.10	5.60	1.40	0.91	1.54		
18	0.88	3.12	2.34	1.89	0.64	0.34	7.35	20.10	5.30	1.40	1.02	1.47		
19	0.84	4.70	2.27	1.89	0.58	0.32	18.18	30.04	4.00	1.37	1.02	1.40		
20	0.81	7.85	2.24	1.89	0.46	0.32	14.48	17.84	3.64	1.33	0.95	1.86		
21	0.74	16.48	2.34	1.86	0.36	0.32	14.92	12.96	3.44	1.30	0.88	2.24		
22	0.77	8.00	2.27	1.82	0.32	0.32	24.72	12.80	3.12	1.30	0.81	2.62		
23	0.81	7.15	2.17	1.82	0.28	0.52	23.25	11.80	2.92	1.23	0.77	2.92		
24	0.84	6.25	2.17	1.82	0.32	5.15	22.80	10.40	2.88	1.16	0.74	3.48		
25	0.81	5.10	2.13	1.82	0.40	37.48	22.80	12.16	2.84	1.16	0.70	8.30		
26	0.88	4.32	2.13	1.86	0.36	51.99	25.23	12.96	2.73	1.12	0.67	4.46		
27	0.88	4.14	2.13	1.82	0.30	20.55	26.76	16.48	2.69	1.09	0.61	3.69		
28	0.84	3.87	2.13	1.79	0.26	16.48	39.34	18.52	2.69	1.09	0.64	3.24		
29	0.81	3.73	2.10	1.75	0.24	20.55	45.20	15.14	2.69	1.09		2.66		
30	0.77	3.48	2.06	1.79	0.18	28.29	35.62	13.12	2.69	1.05		2.52		
31		3.28		1.82	0.16		31.90		2.66	1.02		2.06		
Total	22.10	112.86	72.51	59.64	31.85	187.01	701.85	694.12	173.33	51.56	20.45	70.93	2198.21	CMSDAY
Mean	0.74	3.64	2.42	1.92	1.03	6.23	22.64	23.14	5.59	1.66	0.73	2.29	6.02	CMS
Max	0.88	16.48	3.12	2.13	1.82	51.99	52.92	73.28	10.80	2.62	1.02	8.30	73.28	CMS
Min	0.55	0.81	2.06	1.75	0.16	0.16	7.35	10.10	2.66	1.02	0.49	0.98	0.16	CMS
Runoff	1.91	9.75	6.26	5.15	2.75	16.16	60.64	59.97	14.98	4.45	1.77	6.13	189.93	MCM

Momentary Peak 81.25 CMS. at 5.41 m. (A.D.) at 06.00 Hours , on Sep 26 , 2002

Runoff Yield 4.39 Liters/Second/Square KM. Momentary Peak Yield 59.220 Liters/Second/Square KM.

WATER YEAR : 2002

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	+0.000 m. (A.D.)
Bench Mark	B.M.-H.D.
Location BM	On left bank at the abutment of the bridge. **Elevation** +4.837 m. (A.D.)
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 mean 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	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 67 discharge measurements made in 2002.

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

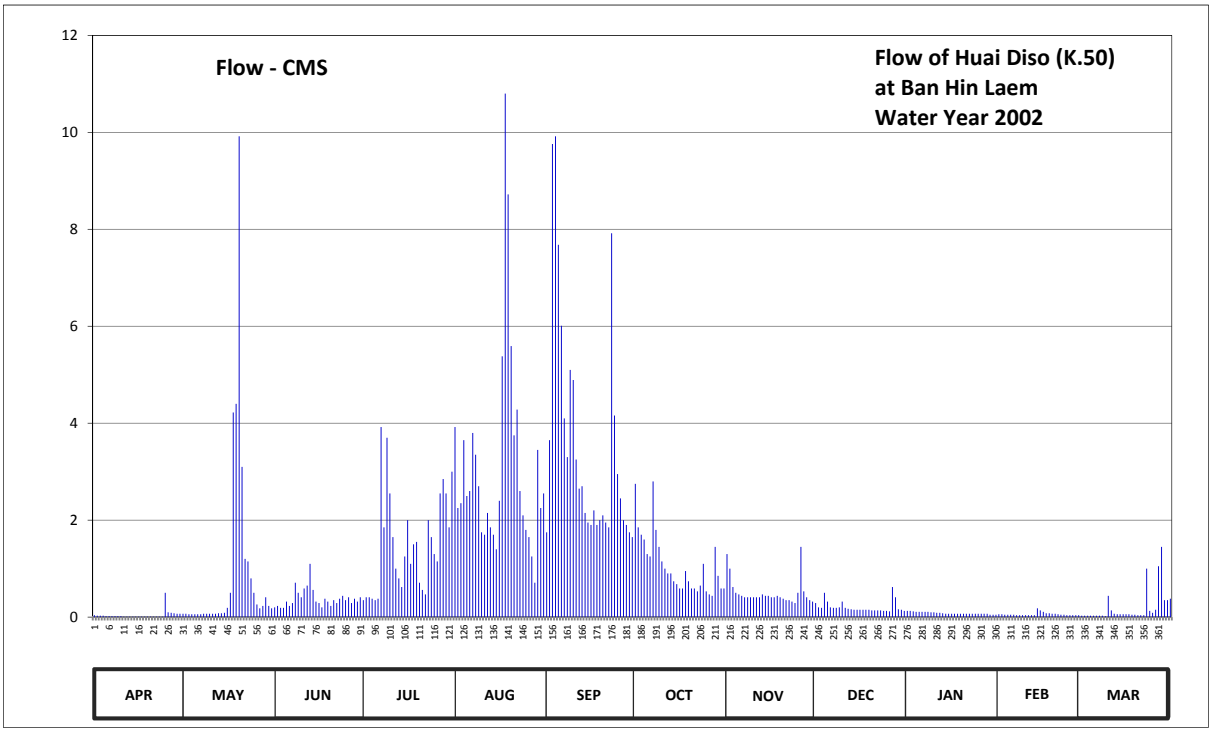
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.53	0.56	0.70	0.75	1.52	1.09	1.29	1.00	0.73	0.63	0.55	0.52	
2	0.52	0.56	0.71	0.77	1.19	1.47	1.11	0.94	0.70	0.63	0.55	0.52	
3	0.52	0.55	0.69	0.77	1.21	2.32	1.08	0.84	0.69	0.62	0.54	0.52	
4	0.51	0.55	0.69	0.76	1.47	2.34	1.06	0.80	0.80	0.61	0.54	0.51	
5	0.50	0.55	0.74	0.75	1.24	2.06	1.00	0.79	0.74	0.61	0.54	0.51	
6	0.50	0.55	0.71	0.76	1.26	1.83	0.99	0.78	0.70	0.61	0.54	0.51	
7	0.50	0.55	0.73	1.52	1.50	1.55	1.30	0.77	0.69	0.61	0.53	0.51	
8	0.50	0.56	0.87	1.11	1.41	1.40	1.10	0.77	0.69	0.61	0.53	0.51	
9	0.50	0.56	0.80	1.48	1.28	1.70	1.03	0.77	0.70	0.60	0.53	0.50	
10	0.50	0.56	0.77	1.25	1.09	1.67	0.97	0.77	0.74	0.60	0.53	0.78	
11	0.49	0.56	0.83	1.07	1.08	1.39	0.94	0.77	0.69	0.59	0.53	0.64	
12	0.49	0.57	0.85	0.94	1.17	1.27	0.92	0.77	0.67	0.59	0.53	0.56	
13	0.49	0.58	0.96	0.90	1.11	1.28	0.92	0.79	0.66	0.58	0.53	0.55	
14	0.49	0.58	0.82	0.84	1.08	1.17	0.88	0.78	0.65	0.57	0.68	0.55	
15	0.49	0.59	0.74	0.99	1.02	1.13	0.86	0.78	0.65	0.57	0.64	0.55	
16	0.49	0.69	0.73	1.14	1.22	1.12	0.83	0.77	0.65	0.57	0.61	0.55	
17	0.49	0.80	0.70	0.96	1.74	1.18	0.83	0.77	0.65	0.57	0.58	0.55	
18	0.49	1.57	0.76	1.04	2.45	1.12	0.93	0.78	0.65	0.57	0.58	0.54	
19	0.49	1.60	0.74	1.05	2.19	1.14	0.88	0.77	0.65	0.57	0.56	0.54	
20	0.49	2.34	0.71	0.87	1.77	1.16	0.83	0.76	0.64	0.56	0.56	0.53	
21	0.49	1.36	0.75	0.82	1.49	1.13	0.83	0.75	0.64	0.56	0.55	0.53	
22	0.49	0.98	0.73	0.79	1.58	1.11	0.81	0.75	0.64	0.56	0.54	0.53	
23	0.49	0.97	0.76	1.14	1.26	2.09	0.85	0.74	0.64	0.56	0.54	0.94	
24	0.49	0.90	0.78	1.07	1.16	1.56	0.96	0.73	0.63	0.56	0.53	0.63	
25	0.80	0.80	0.75	1.00	1.10	1.33	0.81	0.80	0.63	0.57	0.53	0.59	
26	0.60	0.72	0.77	0.97	1.07	1.23	0.79	1.03	0.62	0.56	0.53	0.65	
27	0.59	0.68	0.73	1.25	0.99	1.14	0.78	0.81	0.84	0.56	0.53	0.95	
28	0.58	0.71	0.76	1.31	0.87	1.12	1.03	0.77	0.77	0.56	0.53	1.03	
29	0.57	0.77	0.74	1.25	1.43	1.09	0.91	0.75	0.66	0.54		0.75	
30	0.57	0.71	0.77	1.11	1.19	1.07	0.83	0.74	0.65	0.54		0.75	
31		0.68		1.34	1.25		0.83		0.63	0.54		0.76	
Mean	0.52	0.80	0.76	1.02	1.34	1.41	0.94	0.79	0.68	0.58	0.55	0.61	
Max	0.80	2.34	0.96	1.52	2.45	2.34	1.30	1.03	0.84	0.63	0.68	1.03	2.45
Min	0.49	0.55	0.69	0.75	0.87	1.07	0.78	0.73	0.62	0.54	0.53	0.50	0.49

Annual Max Momentary Gage Height 2.60 m. (A.D.) , at 18.00 Hours , on Sep 3 , 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed 0.29 m. (A.D.)

Left Bank Elevation 3.16 m. (A.D.) ,

Right Bank Elevation 3.03 m. (A.D.) , Drainage Are 123 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.04	0.07	0.20	0.35	3.92	1.75	2.75	1.30	0.29	0.13	0.06	0.03		
2	0.03	0.07	0.23	0.41	2.25	3.65	1.85	1.00	0.20	0.13	0.06	0.03		
3	0.03	0.06	0.19	0.41	2.35	9.76	1.70	0.62	0.19	0.12	0.05	0.03		
4	0.03	0.06	0.19	0.38	3.65	9.92	1.60	0.50	0.50	0.11	0.05	0.03		
5	0.02	0.06	0.32	0.35	2.50	7.68	1.30	0.47	0.32	0.11	0.05	0.03		
6	0.02	0.06	0.23	0.38	2.60	6.01	1.25	0.44	0.20	0.11	0.05	0.03		
7	0.02	0.06	0.29	3.92	3.80	4.10	2.80	0.41	0.19	0.11	0.04	0.03		
8	0.02	0.07	0.71	1.85	3.35	3.30	1.80	0.41	0.19	0.11	0.04	0.03		
9	0.02	0.07	0.50	3.70	2.70	5.10	1.45	0.41	0.20	0.10	0.04	0.02		
10	0.02	0.07	0.41	2.55	1.75	4.89	1.15	0.41	0.32	0.10	0.04	0.44		
11	0.01	0.07	0.59	1.65	1.70	3.25	1.00	0.41	0.19	0.09	0.04	0.14		
12	0.01	0.07	0.65	1.00	2.15	2.65	0.90	0.41	0.17	0.09	0.04	0.07		
13	0.01	0.08	1.10	0.80	1.85	2.70	0.90	0.47	0.16	0.08	0.04	0.06		
14	0.01	0.08	0.56	0.62	1.70	2.15	0.74	0.44	0.15	0.07	0.18	0.06		
15	0.01	0.09	0.32	1.25	1.40	1.95	0.68	0.44	0.15	0.07	0.14	0.06		
16	0.01	0.19	0.29	2.00	2.40	1.90	0.59	0.41	0.15	0.07	0.11	0.06		
17	0.01	0.50	0.20	1.10	5.38	2.20	0.59	0.41	0.15	0.07	0.08	0.06		
18	0.01	4.22	0.38	1.50	10.80	1.90	0.95	0.44	0.15	0.07	0.08	0.05		
19	0.01	4.40	0.32	1.55	8.72	2.00	0.74	0.41	0.15	0.07	0.07	0.05		
20	0.01	9.92	0.23	0.71	5.59	2.10	0.59	0.38	0.14	0.07	0.07	0.04		
21	0.01	3.10	0.35	0.56	3.75	1.95	0.59	0.35	0.14	0.07	0.06	0.04		
22	0.01	1.20	0.29	0.47	4.28	1.85	0.53	0.35	0.14	0.07	0.05	0.04		
23	0.01	1.15	0.38	2.00	2.60	7.92	0.65	0.32	0.14	0.07	0.05	1.00		
24	0.01	0.80	0.44	1.65	2.10	4.16	1.10	0.29	0.13	0.07	0.04	0.13		
25	0.50	0.50	0.35	1.30	1.80	2.95	0.53	0.50	0.13	0.07	0.04	0.09		
26	0.10	0.26	0.41	1.15	1.65	2.45	0.47	1.45	0.12	0.07	0.04	0.15		
27	0.09	0.18	0.29	2.55	1.25	2.00	0.44	0.53	0.62	0.07	0.04	1.05		
28	0.08	0.23	0.38	2.85	0.71	1.90	1.45	0.41	0.41	0.07	0.04	1.45		
29	0.07	0.41	0.32	2.55	3.45	1.75	0.85	0.35	0.16	0.05		0.35		
30	0.07	0.23	0.41	1.85	2.25	1.65	0.59	0.32	0.15	0.05		0.35		
31		0.18		3.00	2.55		0.59		0.13	0.05		0.38		
Total	1.30	28.51	11.53	46.41	96.95	107.54	33.12	15.06	6.43	2.59	1.69	6.38	357.51	CMSDAY
Mean	0.04	0.92	0.38	1.50	3.13	3.58	1.07	0.50	0.21	0.08	0.06	0.21	0.98	CMS
Max	0.50	9.92	1.10	3.92	10.80	9.92	2.80	1.45	0.62	0.13	0.18	1.45	10.80	CMS
Min	0.01	0.06	0.19	0.35	0.71	1.65	0.44	0.29	0.12	0.05	0.04	0.02	0.01	CMS
Runoff	0.11	2.46	1.00	4.01	8.38	9.29	2.86	1.30	0.56	0.22	0.15	0.55	30.89	MCM

Momentary Peak 12.00 CMS. at 2.60 m. (A.D.) at 18.00 Hours , on Sep 3 , 2002

Runoff Yield 7.96 Liters/Second/Square KM. Momentary Peak Yield 97.560 Liters/Second/Square KM.

WATER YEAR : 2002

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	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (A.D.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank about 20 meters from the top staff gage.	**Elevation**	+6.300 m. (A.D.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 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	Fairly stable.		
Overbank Flow Conditions	Overbank flow starts at elevation +5.100 m.(A.D.), records are channel flow only.		
General Description	Records good. Stage-discharge relation defined by 66 discharge measurements made in 2002.		

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

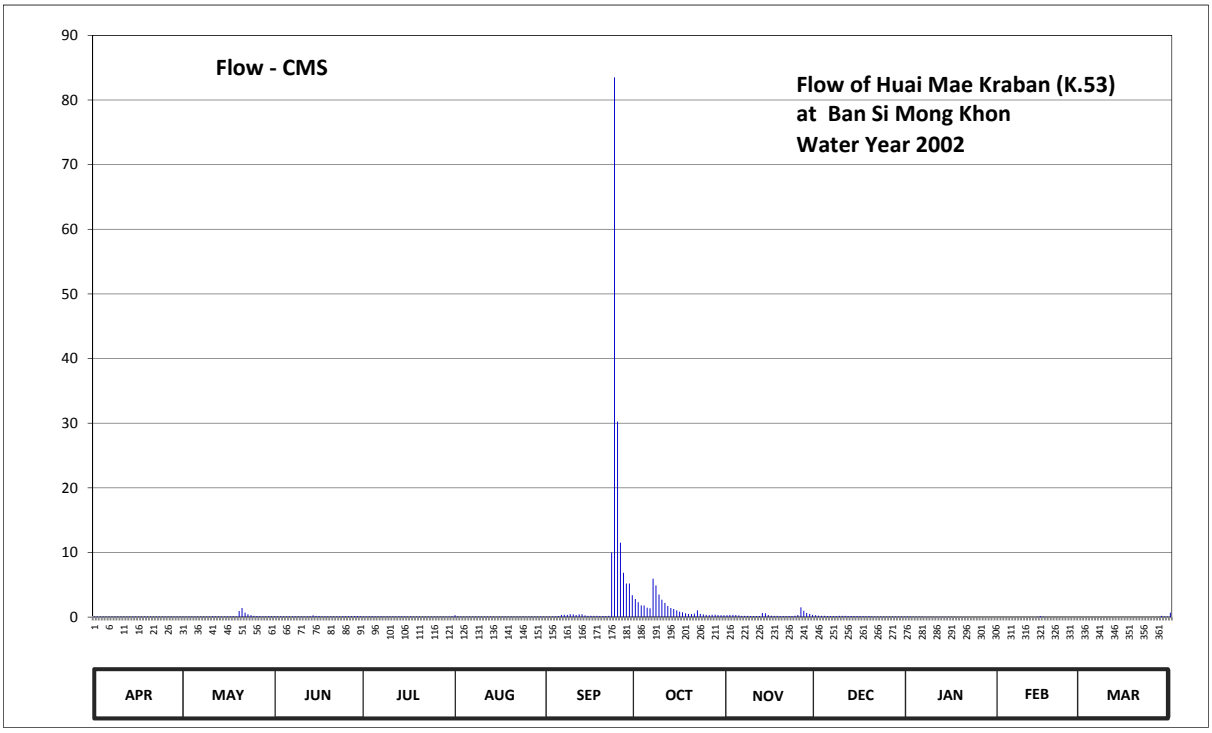
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	1.40	1.40	1.44	1.43	1.53	1.39	1.93	1.53	1.53	1.39	1.34	1.32	
2	1.40	1.40	1.43	1.43	1.42	1.39	1.88	1.55	1.51	1.39	1.34	1.32	
3	1.40	1.40	1.42	1.43	1.40	1.39	1.83	1.55	1.50	1.38	1.34	1.32	
4	1.40	1.40	1.42	1.44	1.40	1.42	1.83	1.54	1.49	1.38	1.34	1.32	
5	1.40	1.40	1.41	1.43	1.39	1.47	1.79	1.52	1.48	1.38	1.34	1.32	
6	1.40	1.40	1.41	1.43	1.40	1.55	1.77	1.50	1.48	1.38	1.34	1.32	
7	1.40	1.40	1.41	1.43	1.39	1.56	2.23	1.50	1.47	1.37	1.34	1.32	
8	1.40	1.40	1.41	1.43	1.39	1.55	2.14	1.49	1.47	1.37	1.34	1.32	
9	1.40	1.40	1.41	1.43	1.40	1.58	2.00	1.48	1.49	1.37	1.34	1.32	
10	1.39	1.40	1.41	1.43	1.39	1.57	1.92	1.48	1.50	1.37	1.34	1.32	
11	1.39	1.45	1.41	1.43	1.39	1.54	1.87	1.47	1.50	1.37	1.34	1.32	
12	1.39	1.41	1.41	1.42	1.39	1.57	1.82	1.46	1.48	1.37	1.34	1.32	
13	1.39	1.41	1.45	1.41	1.39	1.58	1.78	1.63	1.47	1.36	1.33	1.33	
14	1.39	1.40	1.52	1.41	1.39	1.52	1.75	1.62	1.47	1.36	1.37	1.33	
15	1.39	1.40	1.47	1.41	1.38	1.50	1.71	1.54	1.46	1.36	1.47	1.33	
16	1.39	1.41	1.46	1.40	1.39	1.49	1.67	1.51	1.46	1.36	1.38	1.33	
17	1.39	1.42	1.43	1.41	1.40	1.50	1.65	1.49	1.45	1.36	1.35	1.33	
18	1.39	1.44	1.42	1.40	1.40	1.49	1.62	1.49	1.45	1.35	1.34	1.33	
19	1.39	1.41	1.41	1.40	1.39	1.48	1.60	1.48	1.44	1.35	1.33	1.33	
20	1.39	1.69	1.42	1.40	1.39	1.47	1.59	1.47	1.42	1.35	1.33	1.33	
21	1.39	1.78	1.43	1.40	1.39	1.47	1.61	1.46	1.40	1.35	1.33	1.32	
22	1.39	1.64	1.42	1.40	1.39	1.49	1.71	1.46	1.40	1.34	1.33	1.32	
23	1.39	1.58	1.43	1.40	1.39	2.50	1.60	1.46	1.40	1.34	1.33	1.32	
24	1.39	1.53	1.44	1.40	1.39	4.83	1.57	1.51	1.40	1.34	1.33	1.32	
25	1.39	1.49	1.44	1.40	1.39	3.41	1.55	1.54	1.39	1.34	1.33	1.33	
26	1.40	1.46	1.45	1.40	1.39	2.60	1.53	1.80	1.39	1.34	1.32	1.33	
27	1.40	1.45	1.45	1.40	1.39	2.29	1.56	1.70	1.39	1.34	1.31	1.35	
28	1.40	1.43	1.48	1.40	1.39	2.17	1.56	1.63	1.39	1.34	1.31	1.49	
29	1.40	1.43	1.47	1.40	1.40	2.17	1.54	1.60	1.39	1.34		1.39	
30	1.40	1.45	1.45	1.40	1.40	1.99	1.53	1.55	1.39	1.34		1.38	
31		1.44		1.41	1.40		1.53		1.39	1.34		1.64	
Mean	1.39	1.46	1.43	1.41	1.40	1.83	1.73	1.53	1.45	1.36	1.34	1.34	
Max	1.40	1.78	1.52	1.44	1.53	4.83	2.23	1.80	1.53	1.39	1.47	1.64	4.83
Min	1.39	1.40	1.41	1.40	1.38	1.39	1.53	1.46	1.39	1.34	1.31	1.32	1.31

Annual Max Momentary Gage Height 5.72 m. (A.D.) , at 15.00 Hours , on Sep 24 , 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed 1.30 m. (A.D.)

Left Bank Elevation 5.09 m. (A.D.) ,

Right Bank Elevation 5.11 m. (A.D.) , Drainage Are 308 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.10	0.10	0.14	0.13	0.29	0.09	2.80	0.29	0.29	0.09	0.01	0.00		
2	0.10	0.10	0.13	0.13	0.12	0.09	2.30	0.35	0.23	0.09	0.01	0.00		
3	0.10	0.10	0.12	0.13	0.10	0.09	1.80	0.35	0.20	0.07	0.01	0.00		
4	0.10	0.10	0.12	0.14	0.10	0.12	1.80	0.32	0.19	0.07	0.01	0.00		
5	0.10	0.10	0.11	0.13	0.09	0.17	1.45	0.26	0.18	0.07	0.01	0.00		
6	0.10	0.10	0.11	0.13	0.10	0.35	1.35	0.20	0.18	0.07	0.01	0.00		
7	0.10	0.10	0.11	0.13	0.09	0.38	5.95	0.20	0.17	0.06	0.01	0.00		
8	0.10	0.10	0.11	0.13	0.09	0.35	4.90	0.19	0.17	0.06	0.01	0.00		
9	0.10	0.10	0.11	0.13	0.10	0.44	3.50	0.18	0.19	0.06	0.01	0.00		
10	0.09	0.10	0.11	0.13	0.09	0.41	2.70	0.18	0.20	0.06	0.01	0.00		
11	0.09	0.15	0.11	0.13	0.09	0.32	2.20	0.17	0.20	0.06	0.01	0.00		
12	0.09	0.11	0.11	0.12	0.09	0.41	1.70	0.16	0.18	0.06	0.01	0.00		
13	0.09	0.11	0.15	0.11	0.09	0.44	1.40	0.65	0.17	0.04	0.00	0.00		
14	0.09	0.10	0.26	0.11	0.09	0.26	1.25	0.60	0.17	0.04	0.06	0.00		
15	0.09	0.10	0.17	0.11	0.07	0.20	1.05	0.32	0.16	0.04	0.17	0.00		
16	0.09	0.11	0.16	0.10	0.09	0.19	0.85	0.23	0.16	0.04	0.07	0.00		
17	0.09	0.12	0.13	0.11	0.10	0.20	0.75	0.19	0.15	0.04	0.03	0.00		
18	0.09	0.14	0.12	0.10	0.10	0.19	0.60	0.19	0.15	0.03	0.01	0.00		
19	0.09	0.11	0.11	0.10	0.09	0.18	0.50	0.18	0.14	0.03	0.00	0.00		
20	0.09	0.95	0.12	0.10	0.09	0.17	0.47	0.17	0.12	0.03	0.00	0.00		
21	0.09	1.40	0.13	0.10	0.09	0.17	0.55	0.16	0.10	0.03	0.00	0.00		
22	0.09	0.70	0.12	0.10	0.09	0.19	1.05	0.16	0.10	0.01	0.00	0.00		
23	0.09	0.44	0.13	0.10	0.09	10.00	0.50	0.16	0.10	0.01	0.00	0.00		
24	0.09	0.29	0.14	0.10	0.09	83.50	0.41	0.23	0.10	0.01	0.00	0.00		
25	0.09	0.19	0.14	0.10	0.09	30.25	0.35	0.32	0.09	0.01	0.00	0.00		
26	0.10	0.16	0.15	0.10	0.09	11.50	0.29	1.50	0.09	0.01	0.00	0.00		
27	0.10	0.15	0.15	0.10	0.09	6.85	0.38	1.00	0.09	0.01	0.00	0.03		
28	0.10	0.13	0.18	0.10	0.09	5.20	0.38	0.65	0.09	0.01	0.00	0.19		
29	0.10	0.13	0.17	0.10	0.10	5.20	0.32	0.50	0.09	0.01		0.09		
30	0.10	0.15	0.15	0.10	0.10	3.40	0.29	0.35	0.09	0.01		0.07		
31		0.14		0.11	0.10		0.29		0.09	0.01		0.70		
Total	2.84	6.88	4.07	3.51	3.09	161.31	44.13	10.41	4.63	1.24	0.46	1.08	243.65	CMSDAY
Mean	0.09	0.22	0.14	0.11	0.10	5.38	1.42	0.35	0.15	0.04	0.02	0.03	0.67	CMS
Max	0.10	1.40	0.26	0.14	0.29	83.50	5.95	1.50	0.29	0.09	0.17	0.70	83.50	CMS
Min	0.09	0.10	0.11	0.10	0.07	0.09	0.29	0.16	0.09	0.01	0.00	0.00	0.00	CMS
Runoff	0.25	0.59	0.35	0.30	0.27	13.94	3.81	0.90	0.40	0.11	0.04	0.09	21.05	MCM

Momentary Peak 134.40 CMS. at 5.72 m. (A.D.) at 15.00 Hours , on Sep 24 , 2002

Runoff Yield 2.11 Liters/Second/Square KM. Momentary Peak Yield 436.360 Liters/Second/Square KM.

WATER YEAR : 2002

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	+0.000 m. (A.D.)
Bench Mark	B.M.-H.D.
Location BM	On right bank about 40 meters from the gage observer's house. **Elevation** +14.615 m. (A.D.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean 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	Overbank flow starts at elevation +7.680 m.(A.D.), records are channel flow only.
General Description	Records good. Flow regulated by Khao Laem Dam. Stage-discharge relation defined by 70 discharge measurements made in 2002.

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

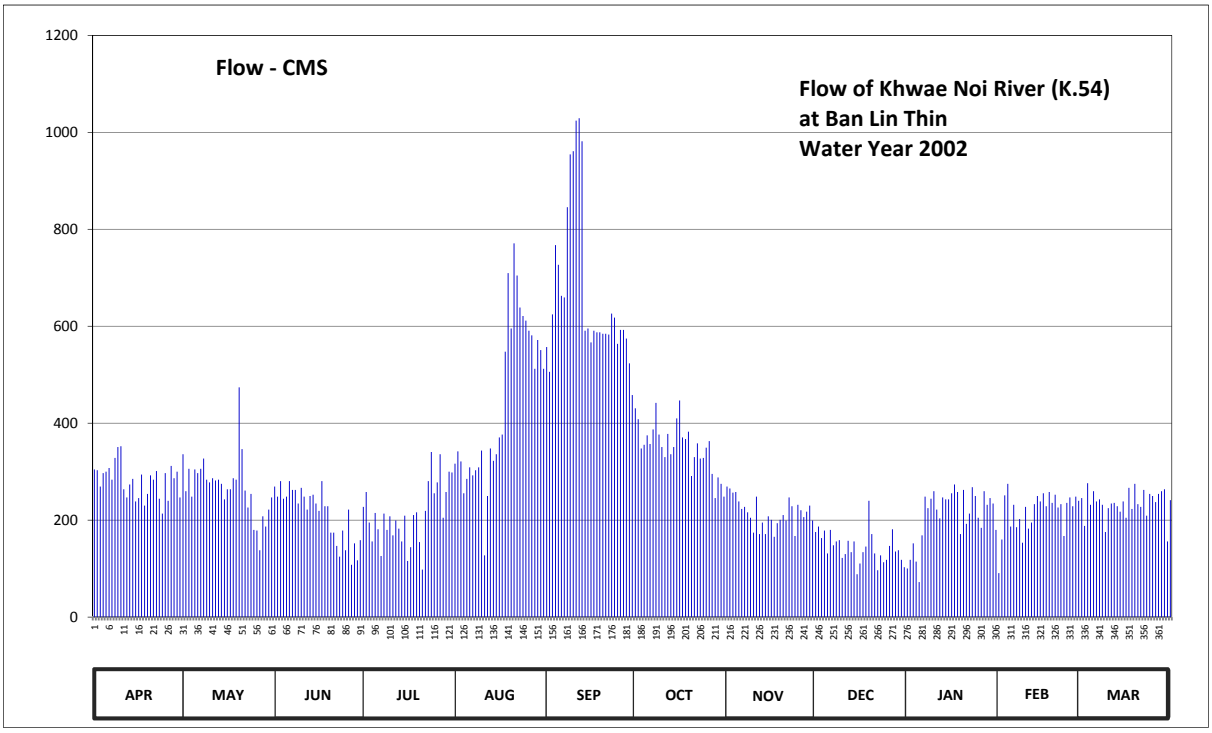
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	3.45	3.66	3.21	2.91	3.53	5.07	4.28	3.21	2.54	1.97	1.89	3.04	
2	3.44	3.14	3.06	3.13	3.70	4.75	4.14	3.18	2.62	2.11	2.43	2.63	
3	3.21	3.46	3.29	2.68	3.56	5.49	3.74	3.12	2.45	2.37	3.08	3.26	
4	3.40	3.06	3.03	2.40	3.11	6.35	3.79	3.13	2.56	2.08	3.25	2.94	
5	3.42	3.45	3.06	2.82	3.32	6.11	3.92	2.99	2.21	1.73	2.62	3.14	
6	3.47	3.40	3.29	2.58	3.48	5.73	3.80	2.88	2.57	2.49	2.94	2.99	
7	3.31	3.46	3.16	2.17	3.37	5.71	4.00	2.91	2.34	3.06	2.61	3.02	
8	3.61	3.60	3.16	2.81	3.44	6.81	4.35	2.83	2.40	2.89	2.73	2.94	
9	3.76	3.31	2.96	2.57	3.48	7.45	3.93	2.75	2.42	3.03	2.38	2.54	
10	3.77	3.27	3.19	2.77	3.71	7.49	3.76	2.53	2.14	3.14	2.91	2.89	
11	3.17	3.33	3.06	2.49	2.18	7.86	3.62	3.06	2.20	2.87	2.59	2.96	
12	3.05	3.30	2.87	2.71	3.07	7.89	3.94	2.51	2.41	2.74	2.68	2.97	
13	3.24	3.31	3.07	2.59	3.74	7.61	3.66	2.68	2.23	3.05	2.95	2.92	
14	3.32	3.25	3.09	2.40	3.57	5.28	3.76	2.51	2.40	3.02	3.07	2.84	
15	2.99	3.02	2.96	2.78	3.66	5.31	4.15	2.77	1.87	3.02	2.99	2.99	
16	3.04	3.17	2.85	2.09	3.89	5.13	4.38	2.72	2.05	3.11	3.11	2.75	
17	3.38	3.17	3.29	2.31	3.93	5.28	3.89	2.47	2.23	3.24	2.92	3.19	
18	2.93	3.33	2.92	2.79	5.01	5.26	3.87	2.67	2.32	3.13	3.13	2.88	
19	3.10	3.31	2.92	2.83	6.01	5.26	3.97	2.72	3.00	2.51	2.97	3.25	
20	3.37	4.55	2.53	2.39	5.31	5.24	3.36	2.79	2.51	3.16	3.09	2.95	
21	3.31	3.73	2.53	1.95	6.37	5.24	3.62	2.71	2.21	2.66	2.90	2.91	
22	3.43	3.15	2.33	2.85	5.98	5.23	3.81	3.05	1.94	2.81	2.95	3.16	
23	3.03	2.90	2.16	3.29	5.58	5.50	3.60	2.92	2.18	3.20	2.48	2.78	
24	2.81	3.10	2.56	3.69	5.47	5.45	3.61	2.48	2.07	3.07	2.97	3.10	
25	3.40	2.57	2.26	3.11	5.41	5.11	3.75	2.94	2.11	2.75	3.05	3.07	
26	3.00	2.56	2.87	3.27	5.28	5.29	3.84	2.86	2.33	2.60	2.92	2.98	
27	3.50	2.26	2.03	3.66	5.22	5.29	3.39	2.76	2.58	3.14	3.06	3.10	
28	3.33	2.77	2.37	2.75	4.79	5.18	3.04	2.84	2.24	2.94	3.00	3.14	
29	3.42	2.62	2.10	3.13	5.16	4.86	3.34	2.93	2.26	3.04		3.17	
30	3.05	2.87	2.42	3.42	5.03	4.45	3.25	2.71	2.11	2.96		2.40	
31		3.05		3.41	4.79		3.06		1.99	2.57		3.01	
Mean	3.29	3.20	2.82	2.80	4.33	5.76	3.76	2.82	2.31	2.79	2.85	2.96	
Max	3.77	4.55	3.29	3.69	6.37	7.89	4.38	3.21	3.00	3.24	3.25	3.26	7.89
Min	2.81	2.26	2.03	1.95	2.18	4.45	3.04	2.47	1.87	1.73	1.89	2.40	1.73

Annual Max Momentary Gage Height 8.01 m. (A.D.) , at 07.00 Hours , on Sep 12 , 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed 2.60 m. (A.D.)

Left Bank Elevation 7.67 m. (A.D.) ,

Right Bank Elevation 7.67 m. (A.D.) , Drainage Are 4,774 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	304.50	336.00	269.40	227.40	316.50	557.20	430.80	269.40	175.60	100.40	90.80	245.60		
2	303.00	259.60	248.40	258.20	342.00	506.00	408.40	265.20	186.80	118.30	160.20	188.20		
3	269.40	306.00	280.60	195.20	321.00	624.40	348.00	256.80	163.00	152.10	251.20	276.40		
4	297.00	248.40	244.20	156.00	255.40	767.50	355.50	258.20	178.40	114.40	275.00	231.60		
5	300.00	304.50	248.40	214.80	285.00	726.70	375.00	238.60	131.30	72.30	186.80	259.60		
6	307.50	297.00	280.60	181.20	309.00	662.80	357.00	223.20	179.80	168.60	231.60	238.60		
7	283.50	306.00	262.40	126.10	292.50	659.60	387.00	227.40	148.20	248.40	185.40	242.80		
8	328.50	327.00	262.40	213.40	303.00	845.70	442.00	216.20	156.00	224.60	202.20	231.60		
9	351.00	283.50	234.40	179.80	309.00	954.50	376.50	205.00	158.80	244.20	153.40	175.60		
10	352.50	277.80	266.60	207.80	343.50	961.30	351.00	174.20	122.20	259.60	227.40	224.60		
11	263.80	286.50	248.40	168.60	127.40	1024.20	330.00	248.40	130.00	221.80	182.60	234.40		
12	247.00	282.00	221.80	199.40	249.80	1029.30	378.00	171.40	157.40	203.60	195.20	235.80		
13	273.60	283.50	249.80	182.60	348.00	981.70	336.00	195.20	133.90	247.00	233.00	228.80		
14	285.00	275.00	252.60	156.00	322.50	590.80	351.00	171.40	156.00	242.80	249.80	217.60		
15	238.60	242.80	234.40	209.20	336.00	595.60	410.00	207.80	88.40	242.80	238.60	238.60		
16	245.60	263.80	219.00	115.70	370.50	566.80	446.80	200.80	110.50	255.40	255.40	205.00		
17	294.00	263.80	280.60	144.30	376.50	590.80	370.50	165.80	133.90	273.60	228.80	266.60		
18	230.20	286.50	228.80	210.60	547.60	587.60	367.50	193.80	145.60	258.20	258.20	223.20		
19	254.00	283.50	228.80	216.20	709.70	587.60	382.50	200.80	240.00	171.40	235.80	275.00		
20	292.50	474.00	174.20	154.70	595.60	584.40	291.00	210.60	171.40	262.40	252.60	233.00		
21	283.50	346.50	174.20	98.00	770.90	584.40	330.00	199.40	131.30	192.40	226.00	227.40		
22	301.50	261.00	146.90	219.00	704.60	582.80	358.50	247.00	96.80	213.40	233.00	262.40		
23	244.20	226.00	124.80	280.60	638.80	626.00	327.00	228.80	127.40	268.00	167.20	209.20		
24	213.40	254.00	178.40	340.50	621.20	618.00	328.50	167.20	113.10	249.80	235.80	254.00		
25	297.00	179.80	137.80	255.40	611.60	563.60	349.50	231.60	118.30	205.00	247.00	249.80		
26	240.00	178.40	221.80	277.80	590.80	592.40	363.00	220.40	146.90	184.00	228.80	237.20		
27	312.00	137.80	107.90	336.00	581.20	592.40	295.50	206.40	181.20	259.60	248.40	254.00		
28	286.50	207.80	152.10	205.00	512.40	574.80	245.60	217.60	135.20	231.60	240.00	259.60		
29	300.00	186.80	117.00	258.20	571.60	523.60	288.00	230.20	137.80	245.60		263.80		
30	247.00	221.80	158.80	300.00	550.80	458.00	275.00	199.40	118.30	234.40		156.00		
31		247.00		298.50	512.40		248.40		102.80	179.80		241.40		
Total	8446.30	8334.10	6455.50	6586.20	13726.80	20120.50	10903.50	6448.20	4476.30	6545.50	6120.20	7287.40	105450.50	CMSDAY
Mean	281.54	268.84	215.18	212.46	442.80	670.68	351.73	214.94	144.40	211.15	218.58	235.08	288.91	CMS
Max	352.50	474.00	280.60	340.50	770.90	1029.30	446.80	269.40	240.00	273.60	275.00	276.40	1029.30	CMS
Min	213.40	137.80	107.90	98.00	127.40	458.00	245.60	165.80	88.40	72.30	90.80	156.00	72.30	CMS
Runoff	729.76	720.07	557.76	569.05	1186.00	1738.41	942.06	557.12	386.75	565.53	528.79	629.63	9110.92	MCM

Momentary Peak 1049.70 CMS. at 8.01 m. (A.D.) at 07.00 Hours , on Sep 12 , 2002

Runoff Yield 60.52 Liters/Second/Square KM. Momentary Peak Yield 219.880 Liters/Second/Square KM.

WATER YEAR : 2002

MAE KLONG RIVER BASIN

Lam Pha Chi at Ban Chorrakne Phuak, Kanchanaburi (K.59)

Lat 14 - 54 - 26 N Long 99 - 23 - 05 E

Location : on left bank at the bridge on road.

Ban Chorrakne Phuak **Amphoe** Dan Makham Tia **Changwat** Kanchanaburi

Drainge Area	2,435 sq.km.
Type of Gage	Staff gage.
Zero Gage at Bottom	+24.000 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank at the abutment of the bridge. **Elevation** +34.488 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 mean 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	Rather unstable.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Stage-discharge relation defined by 51 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

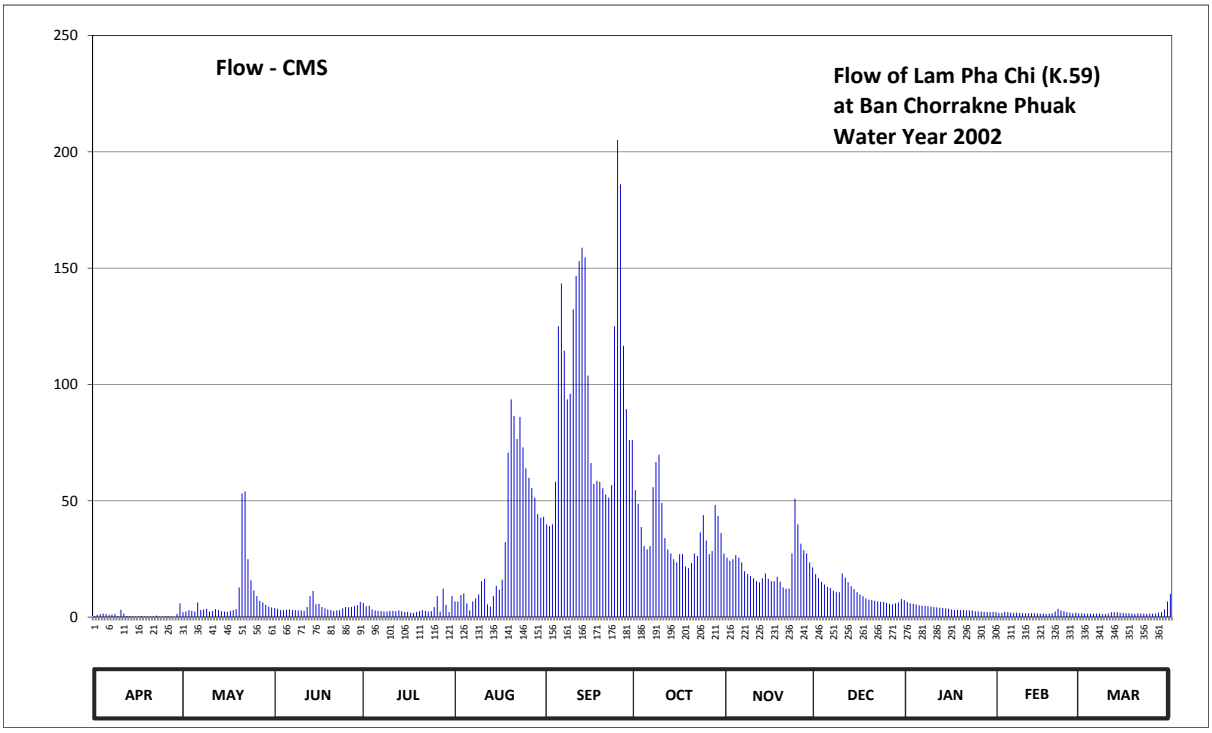
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	25.10	25.24	25.36	25.48	25.51	26.56	26.90	26.16	25.95	25.50	25.22	25.21	
2	25.15	25.26	25.34	25.41	25.51	26.54	26.77	26.12	25.89	25.47	25.22	25.20	
3	25.18	25.30	25.30	25.42	25.62	26.56	26.53	26.14	25.84	25.46	25.25	25.20	
4	25.20	25.28	25.30	25.32	25.65	26.98	26.30	26.19	25.80	25.45	25.24	25.20	
5	25.18	25.26	25.31	25.29	25.47	28.20	26.26	26.16	25.76	25.43	25.23	25.19	
6	25.15	25.49	25.32	25.28	25.29	28.43	26.30	26.10	25.74	25.42	25.22	25.20	
7	25.16	25.30	25.30	25.27	25.51	28.05	26.93	25.99	25.69	25.42	25.23	25.20	
8	25.18	25.32	25.30	25.26	25.56	27.71	27.17	25.95	25.67	25.41	25.22	25.19	
9	25.09	25.34	25.29	25.26	25.63	27.75	27.24	25.92	25.67	25.40	25.21	25.18	
10	25.31	25.26	25.29	25.28	25.85	28.29	26.78	25.89	25.96	25.39	25.21	25.20	
11	25.20	25.28	25.28	25.28	25.88	28.47	26.40	25.85	25.90	25.38	25.21	25.24	
12	25.10	25.33	25.39	25.27	25.45	28.55	26.26	25.83	25.83	25.37	25.21	25.24	
13	25.09	25.30	25.60	25.29	25.40	28.62	26.21	25.89	25.77	25.36	25.21	25.24	
14	25.08	25.27	25.69	25.27	25.60	28.57	26.14	25.96	25.72	25.35	25.20	25.23	
15	25.07	25.26	25.45	25.25	25.78	27.88	26.10	25.88	25.67	25.34	25.20	25.22	
16	25.08	25.25	25.46	25.25	25.71	27.16	26.20	25.85	25.63	25.32	25.20	25.21	
17	25.10	25.28	25.39	25.23	25.87	26.96	26.20	25.85	25.60	25.30	25.19	25.21	
18	25.08	25.30	25.35	25.22	26.35	26.99	26.05	25.91	25.56	25.31	25.20	25.20	
19	25.08	25.33	25.32	25.25	27.26	26.98	26.03	25.84	25.54	25.30	25.21	25.19	
20	25.07	25.75	25.30	25.27	27.71	26.92	26.09	25.75	25.53	25.30	25.26	25.21	
21	25.07	26.87	25.28	25.30	27.59	26.86	26.21	25.73	25.52	25.29	25.34	25.20	
22	25.12	26.89	25.29	25.28	27.39	26.83	26.18	25.73	25.51	25.29	25.29	25.20	
23	25.07	26.14	25.30	25.26	27.58	26.95	26.47	26.21	25.50	25.29	25.27	25.19	
24	25.07	25.86	25.35	25.27	27.31	28.20	26.66	26.82	25.50	25.27	25.24	25.20	
25	25.08	25.70	25.39	25.39	27.11	29.10	26.37	26.56	25.48	25.26	25.23	25.20	
26	25.10	25.60	25.38	25.60	27.02	28.91	26.20	26.33	25.46	25.26	25.21	25.20	
27	25.08	25.52	25.39	25.26	26.92	28.08	26.24	26.25	25.45	25.25	25.23	25.23	
28	25.05	25.49	25.41	25.73	26.83	27.64	26.76	26.21	25.47	25.24	25.21	25.24	
29	25.19	25.44	25.43	25.44	26.67	27.38	26.65	26.10	25.49	25.24		25.32	
30	25.47	25.40	25.50	25.24	26.63	27.38	26.46	26.04	25.55	25.25		25.51	
31		25.38		25.60	26.64		26.21		25.53	25.24		25.64	
Mean	25.13	25.51	25.37	25.33	26.27	27.65	26.43	26.04	25.65	25.34	25.23	25.24	
Max	25.47	26.89	25.69	25.73	27.71	29.10	27.24	26.82	25.96	25.50	25.34	25.64	29.10
Min	25.05	25.24	25.28	25.22	25.29	26.54	26.03	25.73	25.45	25.24	25.19	25.18	25.05

Annual Max Momentary Gage Height 29.20 m. (MSL.) , at 06.00 Hours , on Sep 25 , 2.002

Zero Gage at Bottom Elevation 24.00 m. (MSL.) , River Bed 24.60 m. (MSL.)

Left Bank Elevation 34.19 m. (MSL.) ,

Right Bank Elevation 34.16 m. (MSL.) , Drainage Are 2,435 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.50	2.10	3.90	6.10	6.75	39.90	54.50	25.60	18.50	6.50	1.80	1.65		
2	1.00	2.40	3.60	4.70	6.75	39.10	48.65	24.20	16.70	5.90	1.80	1.50		
3	1.30	3.00	3.00	4.90	9.50	39.90	38.70	24.90	15.20	5.70	2.25	1.50		
4	1.50	2.70	3.00	3.30	10.25	58.10	30.50	26.65	14.00	5.50	2.10	1.50		
5	1.30	2.40	3.15	2.85	5.90	125.00	29.10	25.60	13.00	5.10	1.95	1.40		
6	1.00	6.30	3.30	2.70	2.85	143.40	30.50	23.50	12.50	4.90	1.80	1.50		
7	1.10	3.00	3.00	2.55	6.75	114.50	55.85	19.70	11.25	4.90	1.95	1.50		
8	1.30	3.30	3.00	2.40	8.00	93.60	66.65	18.50	10.75	4.70	1.80	1.40		
9	0.40	3.60	2.85	2.40	9.75	96.00	69.80	17.60	10.75	4.50	1.65	1.30		
10	3.15	2.40	2.85	2.70	15.50	132.20	49.10	16.70	18.80	4.35	1.65	1.50		
11	1.50	2.70	2.70	2.70	16.40	146.60	34.00	15.50	17.00	4.20	1.65	2.10		
12	0.50	3.45	4.35	2.55	5.50	153.00	29.10	14.90	14.90	4.05	1.65	2.10		
13	0.40	3.00	9.00	2.85	4.50	158.80	27.35	16.70	13.25	3.90	1.65	2.10		
14	0.30	2.55	11.25	2.55	9.00	154.60	24.90	18.80	12.00	3.75	1.50	1.95		
15	0.20	2.40	5.50	2.25	13.50	103.80	23.50	16.40	10.75	3.60	1.50	1.80		
16	0.30	2.25	5.70	2.25	11.75	66.20	27.00	15.50	9.75	3.30	1.50	1.65		
17	0.50	2.70	4.35	1.95	16.10	57.20	27.00	15.50	9.00	3.00	1.40	1.65		
18	0.30	3.00	3.75	1.80	32.25	58.55	21.75	17.30	8.00	3.15	1.50	1.50		
19	0.30	3.45	3.30	2.25	70.70	58.10	21.05	15.20	7.50	3.00	1.65	1.40		
20	0.20	12.75	3.00	2.55	93.60	55.40	23.15	12.75	7.25	3.00	2.40	1.65		
21	0.20	53.15	2.70	3.00	86.50	52.70	27.35	12.25	7.00	2.85	3.60	1.50		
22	0.70	54.05	2.85	2.70	76.55	51.35	26.30	12.25	6.75	2.85	2.85	1.50		
23	0.20	24.90	3.00	2.40	86.00	56.75	36.45	27.35	6.50	2.85	2.55	1.40		
24	0.20	15.80	3.75	2.55	72.95	125.00	43.90	50.90	6.50	2.55	2.10	1.50		
25	0.30	11.50	4.35	4.35	63.95	205.00	32.95	39.90	6.10	2.40	1.95	1.50		
26	0.50	9.00	4.20	9.00	59.90	186.00	27.00	31.55	5.70	2.40	1.65	1.50		
27	0.30	7.00	4.35	2.40	55.40	116.60	28.40	28.75	5.50	2.25	1.95	1.95		
28	0.00	6.30	4.70	12.25	51.35	89.40	48.20	27.35	5.90	2.10	1.65	2.10		
29	1.40	5.30	5.10	5.30	44.30	76.10	43.50	23.50	6.30	2.10		3.30		
30	5.90	4.50	6.50	2.10	42.70	76.10	36.10	21.40	7.75	2.25		6.75		
31		4.20		9.00	43.10		27.35		7.25	2.10		10.00		
Total	26.75	265.15	126.05	113.35	1038.00	2928.95	1109.65	656.70	322.10	113.70	53.45	65.65	6819.50	CMSDAY
Mean	0.89	8.55	4.20	3.66	33.48	97.63	35.80	21.89	10.39	3.67	1.91	2.12	18.68	CMS
Max	5.90	54.05	11.25	12.25	93.60	205.00	69.80	50.90	18.80	6.50	3.60	10.00	205.00	CMS
Min	0.00	2.10	2.70	1.80	2.85	39.10	21.05	12.25	5.50	2.10	1.40	1.30	0.00	CMS
Runoff	2.31	22.91	10.89	9.79	89.68	253.06	95.87	56.74	27.83	9.82	4.62	5.67	589.20	MCM

Momentary Peak 215.00 CMS. at 29.20 m. (MSL.) at 06.00 Hours , on Sep 25 , 2002

Runoff Yield 7.67 Liters/Second/Square KM. Momentary Peak Yield 88.300 Liters/Second/Square KM.

WATER YEAR : 2002

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	+0.000 m. (A.D.)
Bench Mark	B.M.-H.D.
Location BM	On right bank about 15 meters from the top staff gage. **Elevation** +5.262 m.(A.D.)
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 mean 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 74 discharge measurements made in 2002.

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

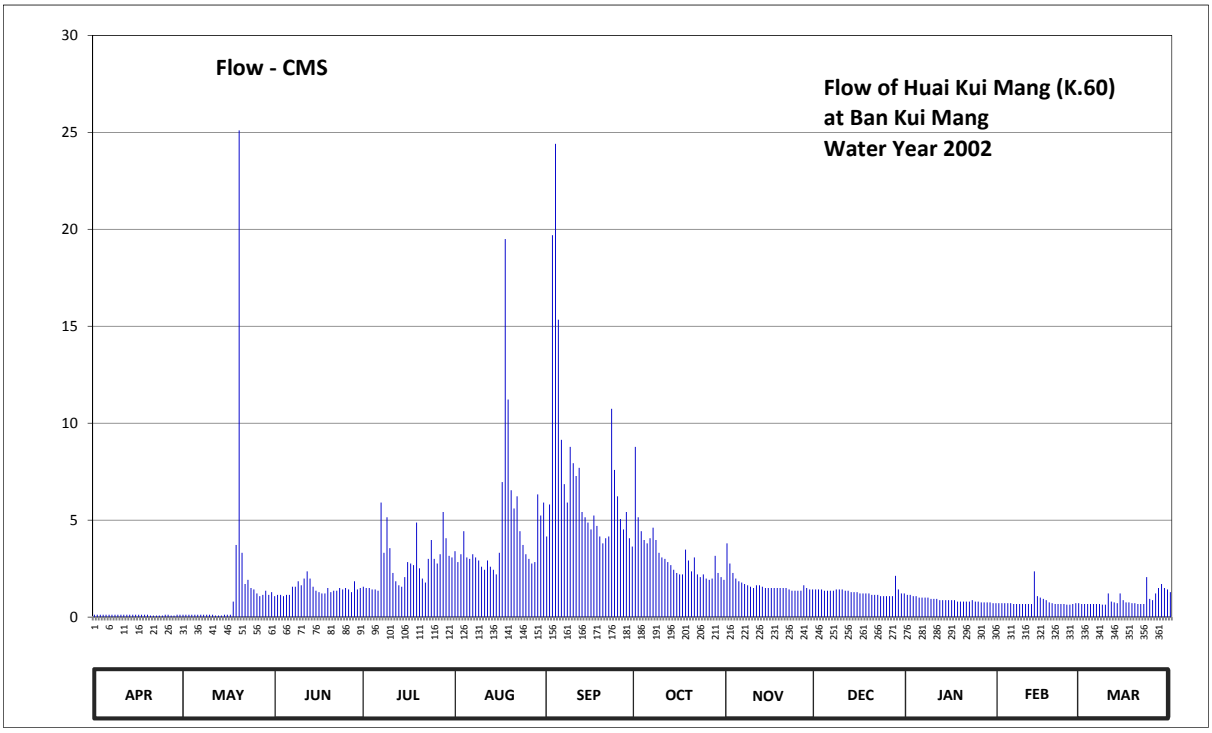
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.73	0.73	0.94	1.01	1.25	1.34	1.79	1.30	0.99	0.95	0.88	0.87	
2	0.73	0.73	0.95	1.00	1.18	1.52	1.45	1.17	0.99	0.95	0.88	0.87	
3	0.73	0.73	0.95	1.00	1.23	2.46	1.37	1.11	0.99	0.94	0.88	0.87	
4	0.73	0.73	0.94	0.99	1.37	2.67	1.32	1.07	0.98	0.94	0.88	0.87	
5	0.73	0.73	0.95	0.99	1.21	2.22	1.30	1.05	0.98	0.93	0.88	0.87	
6	0.73	0.73	0.95	0.98	1.20	1.82	1.33	1.04	0.98	0.93	0.87	0.87	
7	0.73	0.73	1.01	1.53	1.23	1.62	1.39	1.03	0.98	0.93	0.87	0.87	
8	0.73	0.73	1.01	1.24	1.21	1.53	1.32	1.02	0.99	0.93	0.87	0.86	
9	0.73	0.73	1.05	1.45	1.19	1.79	1.24	1.01	0.99	0.92	0.87	0.86	
10	0.73	0.73	1.02	1.27	1.15	1.72	1.21	1.00	0.99	0.92	0.87	0.96	
11	0.73	0.73	1.07	1.11	1.13	1.66	1.20	1.02	0.98	0.92	0.87	0.90	
12	0.73	0.72	1.12	1.05	1.19	1.70	1.18	1.02	0.98	0.91	0.87	0.89	
13	0.73	0.72	1.07	1.02	1.15	1.48	1.16	1.01	0.97	0.91	1.12	0.88	
14	0.73	0.72	1.01	1.01	1.13	1.45	1.13	1.00	0.97	0.91	0.94	0.96	
15	0.73	0.73	0.98	1.08	1.10	1.42	1.11	1.00	0.97	0.91	0.93	0.91	
16	0.73	0.73	0.97	1.18	1.24	1.38	1.10	1.00	0.96	0.91	0.92	0.89	
17	0.73	0.73	0.96	1.17	1.63	1.46	1.10	1.00	0.96	0.91	0.91	0.89	
18	0.73	0.90	0.96	1.16	2.45	1.40	1.26	1.00	0.96	0.90	0.89	0.88	
19	0.73	1.29	1.00	1.42	1.97	1.34	1.19	1.00	0.96	0.90	0.88	0.88	
20	0.72	2.70	0.97	1.14	1.59	1.30	1.12	1.00	0.95	0.90	0.87	0.87	
21	0.72	1.24	0.98	1.07	1.50	1.33	1.21	1.00	0.95	0.90	0.87	0.87	
22	0.72	1.03	0.98	1.04	1.56	1.34	1.10	0.99	0.95	0.90	0.87	0.87	
23	0.72	1.06	1.00	1.20	1.37	1.94	1.08	0.98	0.94	0.91	0.87	1.08	
24	0.72	1.00	0.99	1.32	1.29	1.69	1.10	0.98	0.94	0.90	0.86	0.92	
25	0.73	0.99	1.00	1.20	1.23	1.56	1.07	0.98	0.94	0.90	0.86	0.91	
26	0.73	0.96	0.99	1.17	1.20	1.44	1.06	0.98	0.94	0.89	0.87	0.96	
27	0.72	0.94	0.97	1.23	1.17	1.38	1.07	1.02	0.94	0.89	0.88	1.00	
28	0.72	0.95	1.05	1.48	1.18	1.48	1.22	1.00	1.09	0.89	0.88	1.03	
29	0.73	0.98	0.99	1.33	1.57	1.33	1.11	0.99	0.99	0.89		1.00	
30	0.73	0.95	1.00	1.22	1.46	1.28	1.08	0.99	0.96	0.88		0.99	
31		0.97		1.21	1.53		1.06		0.96	0.88		0.97	
Mean	0.73	0.91	0.99	1.17	1.35	1.60	1.21	1.03	0.97	0.91	0.89	0.91	
Max	0.73	2.70	1.12	1.53	2.45	2.67	1.79	1.30	1.09	0.95	1.12	1.08	2.70
Min	0.72	0.72	0.94	0.98	1.10	1.28	1.06	0.98	0.94	0.88	0.86	0.86	0.72

Annual Max Momentary Gage Height 3.45 m. (A.D.) , at 18.00 Hours , on Sep 3 , 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed -0.11 m. (A.D.)

Left Bank Elevation 8.34 m. (A.D.) ,

Right Bank Elevation 8.34 m. (A.D.) , Drainage Are 128 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.12	0.12	1.08	1.57	3.40	4.16	8.78	3.80	1.43	1.15	0.72	0.68		
2	0.12	0.12	1.15	1.50	2.84	5.81	5.15	2.76	1.43	1.15	0.72	0.68		
3	0.12	0.12	1.15	1.50	3.24	19.70	4.43	2.28	1.43	1.08	0.72	0.68		
4	0.12	0.12	1.08	1.43	4.43	24.41	3.98	1.99	1.36	1.08	0.72	0.68		
5	0.12	0.12	1.15	1.43	3.08	15.34	3.80	1.85	1.36	1.01	0.72	0.68		
6	0.12	0.12	1.15	1.36	3.00	9.14	4.07	1.78	1.36	1.01	0.68	0.68		
7	0.12	0.12	1.57	5.91	3.24	6.86	4.61	1.71	1.36	1.01	0.68	0.68		
8	0.12	0.12	1.57	3.32	3.08	5.91	3.98	1.64	1.43	1.01	0.68	0.64		
9	0.12	0.12	1.85	5.15	2.92	8.78	3.32	1.57	1.43	0.94	0.68	0.64		
10	0.12	0.12	1.64	3.56	2.60	7.94	3.08	1.50	1.43	0.94	0.68	1.22		
11	0.12	0.12	1.99	2.28	2.44	7.28	3.00	1.64	1.36	0.94	0.68	0.80		
12	0.12	0.08	2.36	1.85	2.92	7.70	2.84	1.64	1.36	0.87	0.68	0.76		
13	0.12	0.08	1.99	1.64	2.60	5.42	2.68	1.57	1.29	0.87	2.36	0.72		
14	0.12	0.08	1.57	1.57	2.44	5.15	2.44	1.50	1.29	0.87	1.08	1.22		
15	0.12	0.12	1.36	2.06	2.20	4.88	2.28	1.50	1.29	0.87	1.01	0.87		
16	0.12	0.12	1.29	2.84	3.32	4.52	2.20	1.50	1.22	0.87	0.94	0.76		
17	0.12	0.12	1.22	2.76	6.96	5.24	2.20	1.50	1.22	0.87	0.87	0.76		
18	0.12	0.80	1.22	2.68	19.50	4.70	3.48	1.50	1.22	0.80	0.76	0.72		
19	0.12	3.72	1.50	4.88	11.22	4.16	2.92	1.50	1.22	0.80	0.72	0.72		
20	0.08	25.10	1.29	2.52	6.54	3.80	2.36	1.50	1.15	0.80	0.68	0.68		
21	0.08	3.32	1.36	1.99	5.60	4.07	3.08	1.50	1.15	0.80	0.68	0.68		
22	0.08	1.71	1.36	1.78	6.23	4.16	2.20	1.43	1.15	0.80	0.68	0.68		
23	0.08	1.92	1.50	3.00	4.43	10.74	2.06	1.36	1.08	0.87	0.68	2.06		
24	0.08	1.50	1.43	3.98	3.72	7.59	2.20	1.36	1.08	0.80	0.64	0.94		
25	0.12	1.43	1.50	3.00	3.24	6.23	1.99	1.36	1.08	0.80	0.64	0.87		
26	0.12	1.22	1.43	2.76	3.00	5.06	1.92	1.36	1.08	0.76	0.68	1.22		
27	0.08	1.08	1.29	3.24	2.76	4.52	1.99	1.64	1.08	0.76	0.72	1.50		
28	0.08	1.15	1.85	5.42	2.84	5.42	3.16	1.50	2.13	0.76	0.72	1.71		
29	0.12	1.36	1.43	4.07	6.33	4.07	2.28	1.43	1.43	0.76		1.50		
30	0.12	1.15	1.50	3.16	5.24	3.64	2.06	1.43	1.22	0.72		1.43		
31		1.29		3.08	5.91		1.92		1.22	0.72		1.29		
Total	3.32	48.67	43.83	87.29	141.27	216.40	96.46	50.60	40.34	27.49	22.22	29.15	807.04	CMSDAY
Mean	0.11	1.57	1.46	2.82	4.56	7.21	3.11	1.69	1.30	0.89	0.79	0.94	2.21	CMS
Max	0.12	25.10	2.36	5.91	19.50	24.41	8.78	3.80	2.13	1.15	2.36	2.06	25.10	CMS
Min	0.08	0.08	1.08	1.36	2.20	3.64	1.92	1.36	1.08	0.72	0.64	0.64	0.08	CMS
Runoff	0.29	4.21	3.79	7.54	12.21	18.70	8.33	4.37	3.49	2.38	1.92	2.52	69.73	MCM

Momentary Peak 46.85 CMS. at 3.45 m. (A.D.) at 18.00 Hours , on Sep 3 , 2002

Runoff Yield 17.27 Liters/Second/Square KM. Momentary Peak Yield 366.020 Liters/Second/Square KM.

WATER YEAR : 2002

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 mean 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	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Stage-discharge relation defined by 50 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

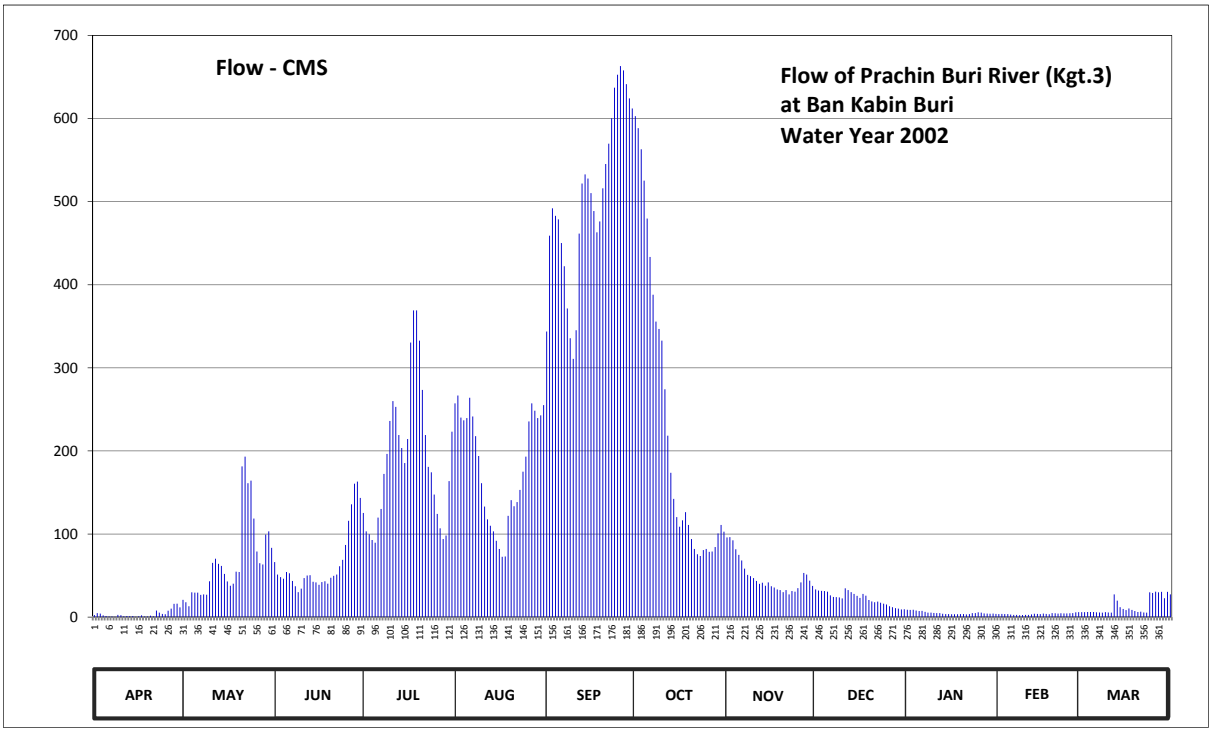
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.14	0.96	2.23	3.45	5.52	6.74	9.92	2.88	1.37	0.49	0.21	0.33	
2	0.27	0.85	1.86	3.03	5.66	8.20	9.75	2.89	1.33	0.48	0.22	0.33	
3	0.24	0.67	1.78	2.96	5.27	8.60	9.45	2.81	1.32	0.49	0.21	0.34	
4	0.12	1.26	1.73	2.82	5.22	8.49	9.00	2.58	1.31	0.43	0.20	0.34	
5	0.08	1.25	1.94	2.75	5.26	8.44	8.45	2.43	1.29	0.40	0.17	0.34	
6	0.04	1.25	1.90	3.35	5.62	8.09	7.88	2.28	1.14	0.41	0.15	0.32	
7	0.05	1.16	1.66	3.54	5.29	7.74	7.31	2.04	1.08	0.35	0.15	0.31	
8	0.02	1.18	1.48	4.25	4.94	7.10	6.90	1.85	1.07	0.30	0.13	0.30	
9	0.15	1.17	1.27	4.62	4.58	6.63	6.78	1.81	1.06	0.30	0.14	0.33	
10	0.13	1.65	1.40	5.21	4.07	6.29	6.59	1.75	1.02	0.28	0.15	0.31	
11	0.06	2.21	1.75	5.56	3.59	6.76	5.77	1.66	1.41	0.27	0.15	0.30	
12	0.08	2.33	1.83	5.46	3.31	8.23	4.95	1.56	1.35	0.27	0.18	1.18	
13	0.07	2.18	1.84	4.96	3.16	8.96	4.27	1.60	1.27	0.23	0.23	0.92	
14	0.08	2.12	1.63	4.73	3.03	9.09	3.76	1.50	1.20	0.21	0.22	0.63	
15	0.02	1.88	1.61	4.45	2.80	9.03	3.36	1.61	1.12	0.20	0.20	0.54	
16	0.06	1.64	1.53	4.89	2.59	8.82	3.14	1.48	1.04	0.19	0.24	0.47	
17	0.12	1.50	1.62	6.56	2.38	8.56	3.29	1.44	1.20	0.19	0.22	0.56	
18	0.05	1.57	1.65	7.07	2.39	8.25	3.47	1.37	1.13	0.19	0.19	0.48	
19	0.05	1.95	1.57	7.07	3.39	8.41	3.18	1.35	0.95	0.20	0.27	0.40	
20	0.10	1.94	1.76	6.59	3.73	8.89	2.84	1.27	0.89	0.20	0.26	0.34	
21	0.06	4.39	1.82	5.76	3.60	9.24	2.59	1.35	0.85	0.18	0.24	0.36	
22	0.43	4.57	1.86	4.96	3.69	9.53	2.45	1.18	0.88	0.20	0.26	0.31	
23	0.30	4.07	2.11	4.38	3.94	9.89	2.40	1.31	0.83	0.27	0.25	0.30	
24	0.22	4.12	2.30	4.28	4.29	10.32	2.56	1.29	0.79	0.27	0.25	1.26	
25	0.19	3.33	2.69	3.85	4.57	10.50	2.59	1.42	0.75	0.32	0.26	1.24	
26	0.42	2.52	3.28	3.43	5.20	10.62	2.51	1.61	0.67	0.30	0.27	1.29	
27	0.55	2.20	3.64	3.10	5.52	10.56	2.52	1.91	0.63	0.25	0.32	1.26	
28	0.78	2.16	4.06	2.84	5.39	10.37	2.64	1.86	0.58	0.24	0.33	1.28	
29	0.79	2.95	4.10	2.93	5.26	10.17	2.98	1.67	0.55	0.23		1.03	
30	0.62	3.03	3.78	4.11	5.31	10.03	3.18	1.49	0.51	0.24		1.28	
31		2.62		5.02	5.49		3.02		0.52	0.22		1.18	
Mean	0.21	2.15	2.12	4.45	4.32	8.75	4.82	1.77	1.00	0.28	0.22	0.64	
Max	0.79	4.57	4.10	7.07	5.66	10.62	9.92	2.89	1.41	0.49	0.33	1.29	10.62
Min	0.02	0.67	1.27	2.75	2.38	6.29	2.40	1.18	0.51	0.18	0.13	0.30	0.02

Annual Max Momentary Gage Height 10.64 m. (MSL.) , at 18.00 Hours, on Sep26, 2002

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed 0.93 m. (MSL.)

Left Bank Elevation 11.49 m. (MSL.) ,

Right Bank Elevation 11.12 m. (MSL.) , Drainage Are 7,425 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.44	20.82	66.13	125.25	257.16	343.76	602.80	95.82	33.24	8.92	3.74	5.96		
2	4.85	17.85	51.24	103.23	266.68	459.00	588.35	96.31	31.96	8.73	3.92	5.96		
3	4.29	12.99	48.12	99.74	240.16	492.00	562.90	92.39	31.64	8.92	3.74	6.14		
4	2.07	29.76	46.17	92.88	236.76	482.87	525.20	81.60	31.32	7.81	3.55	6.14		
5	1.36	29.45	54.36	89.55	239.48	478.72	479.55	74.85	30.69	7.25	3.00	6.14		
6	0.68	29.45	52.80	119.75	263.96	450.20	433.40	68.18	26.10	7.44	2.63	5.77		
7	0.85	26.70	43.56	130.20	241.52	422.20	387.99	58.34	24.30	6.33	2.63	5.59		
8	0.34	27.30	37.08	172.40	217.72	371.40	355.60	50.85	24.00	5.40	2.26	5.40		
9	2.63	27.00	30.07	196.40	193.80	335.62	346.72	49.29	23.70	5.40	2.44	5.96		
10	2.26	43.20	34.20	236.08	161.14	310.79	332.66	46.95	22.50	5.03	2.63	5.59		
11	1.02	65.31	46.95	259.88	132.95	345.24	274.16	43.56	34.56	4.85	2.63	5.40		
12	1.36	70.35	50.07	253.08	117.55	461.46	218.40	39.96	32.60	4.85	3.18	27.30		
13	1.19	64.08	50.46	219.08	109.86	521.88	173.68	41.40	30.07	4.11	4.11	19.74		
14	1.36	61.62	42.48	203.58	103.23	532.67	142.30	37.80	27.90	3.74	3.92	11.91		
15	0.34	52.02	41.76	185.35	91.90	527.69	120.30	41.76	25.50	3.55	3.55	9.90		
16	1.02	42.84	38.88	214.32	82.05	510.26	108.84	37.08	23.10	3.37	4.29	8.55		
17	2.07	37.80	42.12	330.44	72.60	488.68	116.49	35.64	27.90	3.37	3.92	10.30		
18	0.85	40.32	43.20	369.03	73.05	463.10	126.35	33.24	25.80	3.37	3.37	8.73		
19	0.85	54.75	40.32	369.03	121.95	476.23	110.88	32.60	20.55	3.55	4.85	7.25		
20	1.70	54.36	47.34	332.66	140.65	516.07	93.86	30.07	18.93	3.55	4.66	6.14		
21	1.02	181.45	49.68	273.48	133.50	545.26	82.05	32.60	17.85	3.18	4.29	6.51		
22	7.81	193.15	51.24	219.08	138.45	569.65	75.75	27.30	18.66	3.55	4.66	5.59		
23	5.40	161.14	61.21	180.80	153.08	600.25	73.50	31.32	17.31	4.85	4.48	5.40		
24	3.92	164.24	69.00	174.32	174.96	637.12	80.70	30.69	16.23	4.85	4.48	29.76		
25	3.37	118.65	86.73	147.55	193.15	652.70	82.05	34.92	15.15	5.77	4.66	29.14		
26	7.62	78.90	115.98	124.15	235.40	663.14	78.45	41.76	12.99	5.40	4.85	30.69		
27	10.10	64.90	135.70	106.80	257.16	657.92	78.90	53.19	11.91	4.48	5.77	29.76		
28	15.96	63.26	160.52	93.86	248.32	641.42	84.38	51.24	10.70	4.29	5.96	30.38		
29	16.23	99.25	163.00	98.27	239.48	624.22	100.72	43.92	10.10	4.11		22.80		
30	11.64	103.23	143.40	163.62	242.88	612.18	110.88	37.44	9.30	4.29		30.38		
31		83.44		223.16	255.12		102.72		9.50	3.92		27.30		
Total	116.60	2119.58	1943.77	5907.02	5635.67	15193.70	7050.53	1472.07	696.06	158.23	108.17	421.58	40822.98	CMSDAY
Mean	3.89	68.37	64.79	190.55	181.80	506.46	227.44	49.07	22.45	5.10	3.86	13.60	111.84	CMS
Max	16.23	193.15	163.00	369.03	266.68	663.14	602.80	96.31	34.56	8.92	5.96	30.69	663.14	CMS
Min	0.34	12.99	30.07	89.55	72.60	310.79	73.50	27.30	9.30	3.18	2.26	5.40	0.34	CMS
Runoff	10.07	183.13	167.94	510.37	486.92	1312.74	609.17	127.19	60.14	13.67	9.35	36.42	3527.11	MCM

Momentary Peak 664.88 CMS, at 10.64 m. (MSL.), at 18.00 Hours, on Sep 26, 2002

Runoff Yield 15.06 Liters/Second/Square KM. Momentary Peak Yield 89.550 Liters/Second/Square KM.

WATER YEAR : 2002

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

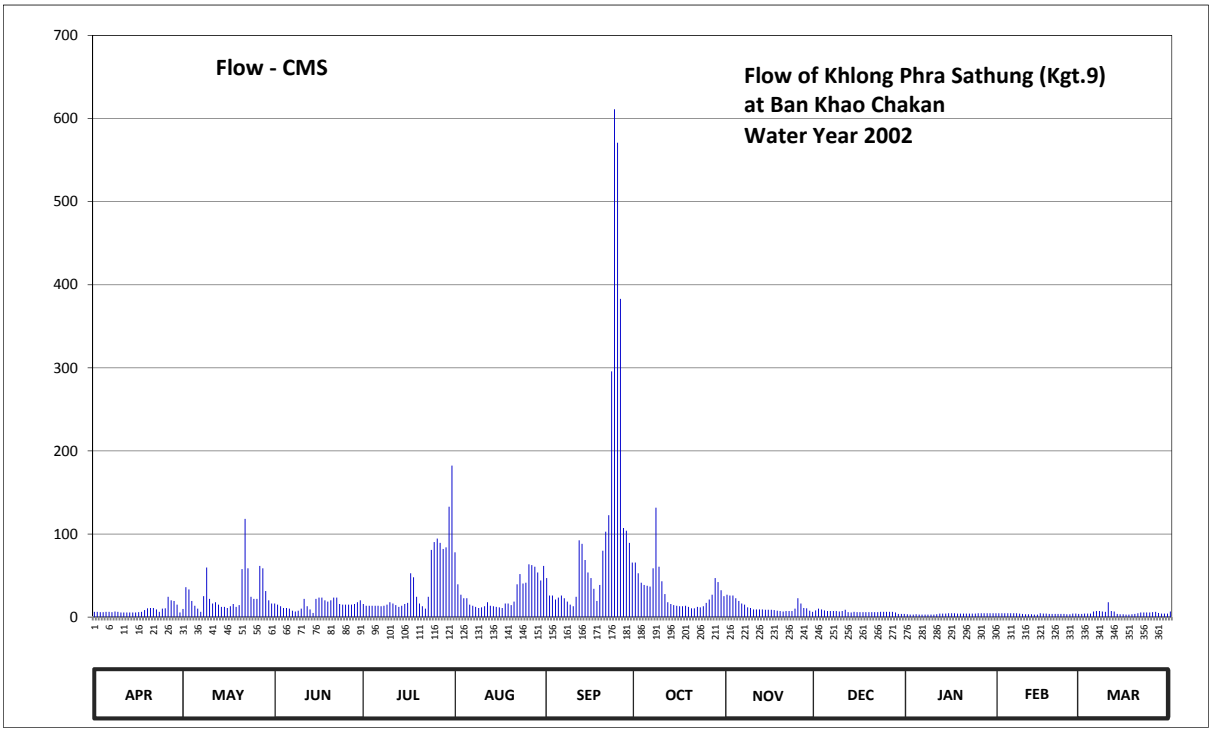
Location : on right bank near Wat Khao Chakan.

	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	+0.000 m. (A.D.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank about 10 meters from the automatic gage building.	**Elevation**	+9.020 m. (A.D.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean 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	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 16 discharge measurements made in 2002.		

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	3.69	3.77	3.88	3.87	4.54	4.23	4.42	4.01	3.73	3.61	3.64	3.62	
2	3.69	4.11	3.86	3.84	4.15	4.00	4.29	4.00	3.78	3.60	3.64	3.63	
3	3.68	4.08	3.83	3.84	4.01	4.00	4.17	4.00	3.76	3.60	3.64	3.63	
4	3.68	3.92	3.80	3.84	3.96	3.94	4.14	3.96	3.73	3.61	3.64	3.63	
5	3.69	3.84	3.80	3.84	3.96	3.97	4.13	3.92	3.71	3.60	3.64	3.70	
6	3.69	3.78	3.78	3.84	3.86	4.00	4.12	3.88	3.71	3.60	3.64	3.71	
7	3.68	3.69	3.72	3.83	3.84	3.96	4.35	3.86	3.71	3.60	3.64	3.71	
8	3.70	3.99	3.70	3.84	3.82	3.91	5.04	3.81	3.71	3.60	3.63	3.70	
9	3.69	4.36	3.72	3.86	3.80	3.86	4.37	3.80	3.70	3.60	3.62	3.69	
10	3.67	3.95	3.78	3.90	3.81	3.83	4.19	3.76	3.71	3.60	3.61	3.90	
11	3.67	3.88	3.95	3.88	3.83	3.98	4.02	3.76	3.75	3.61	3.61	3.71	
12	3.67	3.90	3.83	3.85	3.90	4.68	3.90	3.76	3.68	3.63	3.61	3.70	
13	3.67	3.86	3.76	3.82	3.84	4.64	3.87	3.76	3.67	3.63	3.60	3.62	
14	3.67	3.82	3.65	3.84	3.83	4.45	3.85	3.75	3.69	3.63	3.60	3.61	
15	3.67	3.82	3.95	3.87	3.82	4.30	3.84	3.75	3.68	3.64	3.64	3.61	
16	3.68	3.80	3.97	3.89	3.81	4.23	3.83	3.75	3.68	3.64	3.63	3.60	
17	3.69	3.83	3.97	4.29	3.80	4.09	3.83	3.74	3.68	3.64	3.63	3.60	
18	3.74	3.87	3.93	4.24	3.88	3.92	3.84	3.72	3.68	3.63	3.62	3.61	
19	3.79	3.82	3.91	3.98	3.88	4.14	3.82	3.71	3.68	3.63	3.62	3.62	
20	3.80	3.85	3.93	3.88	3.85	4.56	3.79	3.70	3.68	3.63	3.62	3.64	
21	3.80	4.34	3.97	3.83	3.91	4.78	3.79	3.71	3.68	3.63	3.62	3.67	
22	3.76	4.92	3.97	3.78	4.15	4.96	3.82	3.71	3.68	3.63	3.62	3.67	
23	3.69	4.35	3.87	3.98	4.28	6.36	3.81	3.71	3.69	3.63	3.62	3.67	
24	3.78	3.98	3.86	4.57	4.16	8.46	3.83	3.78	3.69	3.63	3.61	3.67	
25	3.79	3.95	3.86	4.66	4.17	8.21	3.89	3.96	3.69	3.64	3.61	3.68	
26	3.98	3.95	3.86	4.70	4.40	6.97	3.94	3.88	3.69	3.64	3.63	3.69	
27	3.93	4.38	3.86	4.65	4.39	4.82	4.01	3.80	3.69	3.64	3.63	3.65	
28	3.92	4.35	3.87	4.58	4.37	4.79	4.23	3.79	3.67	3.64	3.62	3.63	
29	3.86	4.06	3.90	4.60	4.30	4.65	4.18	3.72	3.62	3.64		3.63	
30	3.67	3.93	3.93	5.05	4.20	4.42	4.07	3.69	3.62	3.64		3.63	
31		3.88		5.47	4.38		3.99		3.62	3.64		3.70	
Mean	3.74	4.00	3.86	4.13	4.03	4.70	4.04	3.80	3.69	3.62	3.62	3.66	
Max	3.98	4.92	3.97	5.47	4.54	8.46	5.04	4.01	3.78	3.64	3.64	3.90	8.46
Min	3.67	3.69	3.65	3.78	3.80	3.83	3.79	3.69	3.62	3.60	3.60	3.60	3.60

Annual Max Momentary Gage Height	8.60	m. (A.D.) ,	at 18.00 Hours, on Sep 24, 2002		
Zero Gage at Bottom Elevation	0.00	m. (A.D.) ,	River Bed	0.15	m. (A.D.)
Left Bank Elevation	9.66	m. (A.D.) ,			
Right Bank Elevation	11.03	m. (A.D.) ,	Drainage Are	2,264	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	6.42	9.74	16.44	15.76	77.88	46.94	65.64	26.90	8.06	3.38	4.52	3.76		
2	6.42	35.90	15.08	13.72	39.50	26.00	52.82	26.00	10.16	3.00	4.52	4.14		
3	6.04	33.20	13.04	13.72	26.90	26.00	41.30	26.00	9.32	3.00	4.52	4.14		
4	6.04	19.44	11.00	13.72	22.72	21.08	38.60	22.72	8.06	3.38	4.52	4.14		
5	6.42	13.72	11.00	13.72	22.72	23.54	37.70	19.44	7.22	3.00	4.52	6.80		
6	6.42	10.16	10.16	13.72	15.08	26.00	36.80	16.44	7.22	3.00	4.52	7.22		
7	6.04	6.42	7.64	13.04	13.72	22.72	58.70	15.08	7.22	3.00	4.52	7.22		
8	6.80	25.18	6.80	13.72	12.36	18.62	131.60	11.68	7.22	3.00	4.14	6.80		
9	6.42	59.68	7.64	15.08	11.00	15.08	60.66	11.00	6.80	3.00	3.76	6.42		
10	5.66	21.90	10.16	17.80	11.68	13.04	43.10	9.32	7.22	3.00	3.38	17.80		
11	5.66	16.44	21.90	16.44	13.04	24.36	27.80	9.32	8.90	3.38	3.38	7.22		
12	5.66	17.80	13.04	14.40	17.80	92.40	17.80	9.32	6.04	4.14	3.38	6.80		
13	5.66	15.08	9.32	12.36	13.72	88.20	15.76	9.32	5.66	4.14	3.00	3.76		
14	5.66	12.36	4.90	13.72	13.04	68.70	14.40	8.90	6.42	4.14	3.00	3.38		
15	5.66	12.36	21.90	15.76	12.36	53.80	13.72	8.90	6.04	4.52	4.52	3.38		
16	6.04	11.00	23.54	17.12	11.68	46.94	13.04	8.90	6.04	4.52	4.14	3.00		
17	6.42	13.04	23.54	52.82	11.00	34.10	13.04	8.48	6.04	4.52	4.14	3.00		
18	8.48	15.76	20.26	47.92	16.44	19.44	13.72	7.64	6.04	4.14	3.76	3.38		
19	10.58	12.36	18.62	24.36	16.44	38.60	12.36	7.22	6.04	4.14	3.76	3.76		
20	11.00	14.40	20.26	16.44	14.40	79.92	10.58	6.80	6.04	4.14	3.76	4.52		
21	11.00	57.72	23.54	13.04	18.62	102.90	10.58	7.22	6.04	4.14	3.76	5.66		
22	9.32	118.20	23.54	10.16	39.50	122.60	12.36	7.22	6.04	4.14	3.76	5.66		
23	6.42	58.70	15.76	24.36	51.84	295.76	11.68	7.22	6.42	4.14	3.76	5.66		
24	10.16	24.36	15.08	80.94	40.40	611.20	13.04	10.16	6.42	4.14	3.38	5.66		
25	10.58	21.90	15.08	90.30	41.30	570.98	17.12	22.72	6.42	4.52	3.38	6.04		
26	24.36	21.90	15.08	94.50	63.60	383.02	21.08	16.44	6.42	4.52	4.14	6.42		
27	20.26	61.64	15.08	89.25	62.62	107.20	26.90	11.00	6.42	4.52	4.14	4.90		
28	19.44	58.70	15.76	81.96	60.66	103.95	46.94	10.58	5.66	4.52	3.76	4.14		
29	15.08	31.40	17.80	84.00	53.80	89.25	42.20	7.64	3.76	4.52		4.14		
30	5.66	20.26	20.26	132.75	44.00	65.64	32.30	6.42	3.76	4.52		4.14		
31		16.44		182.28	61.64		25.18		3.76	4.52		6.80		
Total	265.78	867.16	463.22	1258.88	931.46	3237.98	978.52	376.00	202.88	120.74	109.84	169.86	8982.32	CMSDAY
Mean	8.86	27.97	15.44	40.61	30.05	107.93	31.57	12.53	6.54	3.89	3.92	5.48	24.61	CMS
Max	24.36	118.20	23.54	182.28	77.88	611.20	131.60	26.90	10.16	4.52	4.52	17.80	611.20	CMS
Min	5.66	6.42	4.90	10.16	11.00	13.04	10.58	6.42	3.76	3.00	3.00	3.00	3.00	CMS
Runoff	22.96	74.92	40.02	108.77	80.48	279.76	84.54	32.49	17.53	10.43	9.49	14.68	776.07	MCM

Momentary Peak 635.00 CMS, at 8.60 m. (A.D.), at 18.00 Hours, on Sep 24, 2002

Runoff Yield 10.87 Liters/Second/Square KM. Momentary Peak Yield 280.480 Liters/Second/Square KM.

WATER YEAR : 2002

PRACHIN BURI RIVER BASIN

Khlong Phra Sathung at Ban Wang Khian, Sa Kaeo (Kgt.10)

Lat 13 - 48 - 23 N Long 102 - 03 - 37 E

Location : on left bank near Saha Charoen Sawmill.

Ban Wang Khian **Amphoe** Mueang **Changwat** Sa Kaeo

Drainge Area	2,482 sq.km.
Type of Gage	Water - stage recorder.
Zero Gage at Bottom	+23.741 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank about 10 meters from the automatic gage building. **Elevation** +34.652 m. (MSL.)
Gage Reading Frequency	Recording.
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1966 to date.
Rating Operation	
Period of Rating	1966 - 1996, 1998 to date.
Rated by Flot	-
Rated by Current Meter	1966 - 1996, 1998 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 17 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

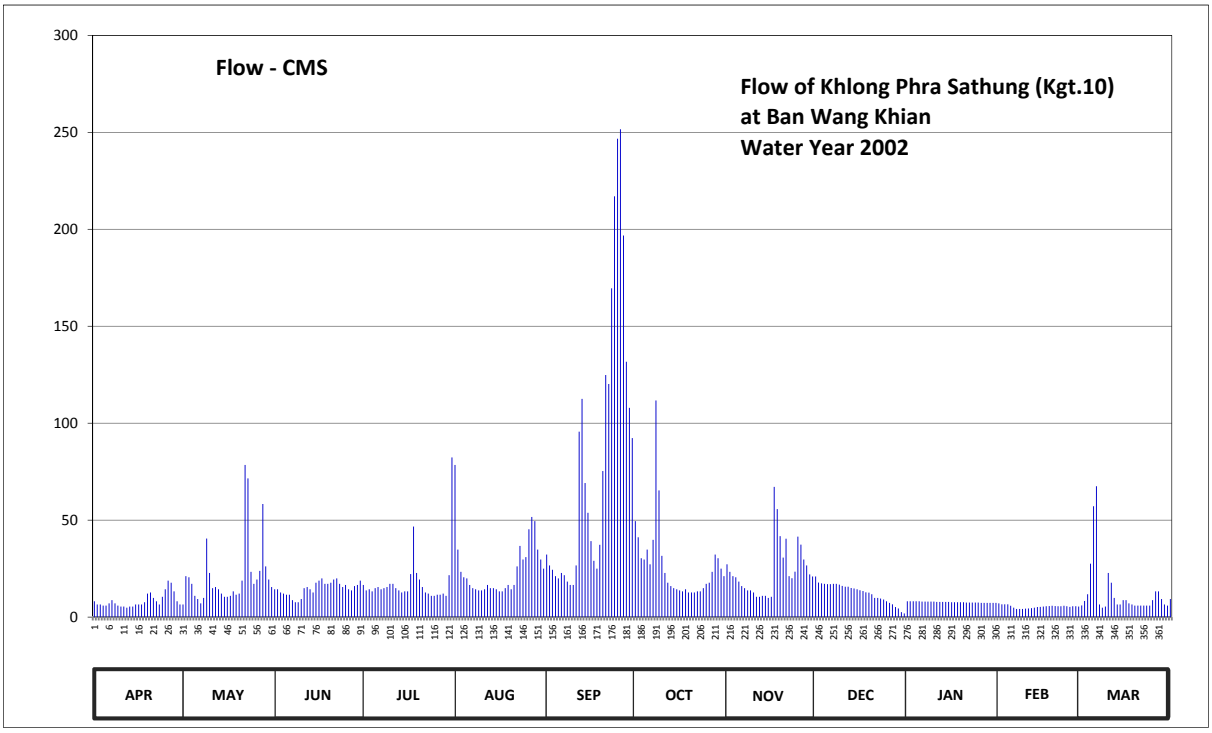
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	29.65	29.62	29.76	29.80	30.71	30.07	30.33	29.99	27.86	27.24	27.17	27.10	
2	29.62	29.88	29.76	29.75	30.11	29.98	30.21	29.92	27.72	27.24	27.14	27.25	
3	29.62	29.87	29.73	29.76	29.92	29.94	30.04	29.88	27.70	27.24	27.14	27.44	
4	29.61	29.81	29.72	29.74	29.87	29.88	30.03	29.87	27.69	27.24	27.14	28.15	
5	29.61	29.70	29.71	29.77	29.86	29.86	30.11	29.83	27.68	27.24	27.09	29.26	
6	29.63	29.67	29.71	29.78	29.80	29.91	29.99	29.79	27.68	27.23	27.02	29.61	
7	29.66	29.63	29.66	29.76	29.77	29.89	30.19	29.77	27.69	27.23	26.97	29.62	
8	29.63	29.68	29.64	29.77	29.76	29.83	31.13	29.75	27.69	27.23	26.97	29.59	
9	29.61	30.20	29.64	29.78	29.75	29.80	30.54	29.75	27.67	27.23	26.97	29.60	
10	29.60	29.91	29.67	29.81	29.75	29.80	30.06	29.73	27.64	27.23	26.98	29.91	
11	29.60	29.77	29.77	29.81	29.76	29.98	29.91	29.69	27.62	27.22	26.99	29.82	
12	29.59	29.78	29.78	29.77	29.80	30.93	29.82	29.69	27.62	27.22	27.00	29.68	
13	29.60	29.76	29.76	29.75	29.77	31.14	29.79	29.70	27.59	27.22	27.02	29.62	
14	29.60	29.72	29.73	29.73	29.77	30.59	29.77	29.70	27.58	27.22	27.04	29.62	
15	29.62	29.69	29.82	29.74	29.76	30.39	29.76	29.68	27.56	27.22	27.05	29.66	
16	29.62	29.69	29.84	29.74	29.74	30.18	29.75	29.69	27.54	27.21	27.06	29.66	
17	29.62	29.70	29.86	29.90	29.74	30.02	29.74	29.60	27.52	27.21	27.07	29.63	
18	29.64	29.74	29.81	30.29	29.77	29.95	29.76	29.21	27.49	27.21	27.08	29.62	
19	29.72	29.71	29.81	29.91	29.80	30.15	29.73	28.71	27.48	27.21	27.09	29.61	
20	29.73	29.72	29.82	29.85	29.76	30.67	29.73	28.28	27.44	27.21	27.08	29.61	
21	29.68	29.84	29.85	29.78	29.80	31.29	29.73	28.66	27.34	27.20	27.07	29.61	
22	29.65	30.71	29.86	29.73	29.97	31.25	29.74	27.87	27.34	27.20	27.07	29.61	
23	29.62	30.62	29.81	29.72	30.14	32.55	29.74	27.82	27.32	27.20	27.09	29.61	
24	29.69	29.92	29.78	29.70	30.03	33.70	29.77	27.97	27.29	27.20	27.07	29.61	
25	29.76	29.81	29.80	29.70	30.05	34.38	29.81	28.70	27.24	27.20	27.05	29.66	
26	29.84	29.85	29.76	29.71	30.27	34.49	29.82	28.54	27.19	27.19	27.07	29.74	
27	29.82	29.93	29.75	29.71	30.36	33.22	29.92	28.24	27.14	27.19	27.07	29.74	
28	29.74	30.45	29.79	29.72	30.33	31.56	30.07	28.11	27.04	27.19	27.06	29.67	
29	29.65	29.97	29.80	29.70	30.11	30.89	30.04	27.91	26.99	27.19		29.62	
30	29.62	29.85	29.84	29.89	30.03	30.41	29.95	27.86	26.84	27.19		29.61	
31		29.78		30.76	29.95		29.88		26.79	27.19		29.67	
Mean	29.66	29.87	29.77	29.82	29.94	30.89	29.96	29.13	27.45	27.21	27.06	29.36	
Max	29.84	30.71	29.86	30.76	30.71	34.49	31.13	29.99	27.86	27.24	27.17	29.91	34.49
Min	29.59	29.62	29.64	29.70	29.74	29.80	29.73	27.82	26.79	27.19	26.97	27.10	26.79

Annual Max Momentary Gage Height 34.58 m. (MSL.) , at 06.00 Hours, on Sep 26, 2002

Zero Gage at Bottom Elevation 23.74 m. (MSL.) , River Bed 29.09 m. (MSL.)

Left Bank Elevation 34.41 m. (MSL.) ,

Right Bank Elevation 35.82 m. (MSL.) , Drainage Are 2,482 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	8.20	6.52	14.36	16.60	78.45	32.24	49.53	27.24	20.92	8.18	7.05	6.00		
2	6.52	21.08	14.36	13.80	34.78	26.68	41.19	23.32	17.84	8.18	6.60	8.35		
3	6.52	20.52	12.68	14.36	23.32	24.44	30.34	21.08	17.40	8.18	6.60	11.80		
4	5.96	17.16	12.12	13.24	20.52	21.08	29.71	20.52	17.18	8.18	6.60	27.55		
5	5.96	11.00	11.56	14.92	19.96	19.96	34.79	18.28	16.96	8.18	5.86	57.14		
6	7.08	9.32	11.56	15.48	16.60	22.76	27.24	16.04	16.96	8.01	4.88	67.50		
7	8.76	7.08	8.76	14.36	14.92	21.64	39.86	14.92	17.18	8.01	4.21	6.52		
8	7.08	9.88	7.64	14.92	14.36	18.28	111.76	13.80	17.18	8.01	4.21	4.86		
9	5.96	40.50	7.64	15.48	13.80	16.60	65.32	13.80	16.74	8.01	4.21	5.40		
10	5.40	22.76	9.32	17.16	13.80	16.60	31.61	12.68	16.08	8.01	4.34	22.76		
11	5.40	14.92	14.92	17.16	14.36	26.68	22.76	10.44	15.64	7.84	4.47	17.72		
12	4.86	15.48	15.48	14.92	16.60	95.67	17.72	10.44	15.64	7.84	4.60	9.88		
13	5.40	14.36	14.36	13.80	14.92	112.58	16.04	11.00	14.98	7.84	4.88	6.52		
14	5.40	12.12	12.68	12.68	14.92	69.18	14.92	11.00	14.76	7.84	5.16	6.52		
15	6.52	10.44	17.72	13.24	14.36	53.79	14.36	9.88	14.32	7.84	5.30	8.76		
16	6.52	10.44	18.84	13.24	13.24	39.23	13.80	10.44	13.88	7.67	5.44	8.76		
17	6.52	11.00	19.96	22.20	13.24	29.07	13.24	67.20	13.44	7.67	5.58	7.08		
18	7.64	13.24	17.16	46.71	14.92	25.00	14.36	55.69	12.80	7.67	5.72	6.52		
19	12.12	11.56	17.16	22.76	16.60	37.32	12.68	41.77	12.60	7.67	5.86	5.96		
20	12.68	12.12	17.72	19.40	14.36	75.36	12.68	30.70	11.80	7.67	5.72	5.96		
21	9.88	18.84	19.40	15.48	16.60	124.88	12.68	40.46	9.92	7.50	5.58	5.96		
22	8.20	78.45	19.96	12.68	26.12	120.25	13.24	21.14	9.92	7.50	5.58	5.96		
23	6.52	71.50	17.16	12.12	36.69	169.60	13.24	20.04	9.56	7.50	5.86	5.96		
24	10.44	23.32	15.48	11.00	29.70	217.00	14.92	23.41	9.03	7.50	5.58	5.96		
25	14.36	17.16	16.60	11.00	30.97	246.72	17.16	41.50	8.18	7.50	5.30	8.76		
26	18.84	19.40	14.36	11.56	45.33	251.56	17.72	37.34	7.35	7.35	5.58	13.24		
27	17.72	23.88	13.80	11.56	51.66	196.82	23.32	29.70	6.60	7.35	5.58	13.24		
28	13.24	58.36	16.04	12.12	49.53	131.72	32.24	26.63	5.16	7.35	5.44	9.32		
29	8.20	26.12	16.60	11.00	34.78	107.97	30.34	22.03	4.47	7.35		6.52		
30	6.52	19.40	18.84	21.64	29.70	92.32	25.00	20.92	2.52	7.35		5.96		
31		15.48		82.31	25.00		21.08		1.90	7.35		9.32		
Total	254.42	663.41	444.24	558.90	774.11	2443.00	834.85	723.41	388.91	240.10	151.79	391.76	7868.90	CMSDAY
Mean	8.48	21.40	14.81	18.03	24.97	81.43	26.93	24.11	12.55	7.75	5.42	12.64	21.56	CMS
Max	18.84	78.45	19.96	82.31	78.45	251.56	111.76	67.20	20.92	8.18	7.05	67.50	251.56	CMS
Min	4.86	6.52	7.64	11.00	13.24	16.60	12.68	9.88	1.90	7.35	4.21	4.86	1.90	CMS
Runoff	21.98	57.32	38.38	48.29	66.88	211.08	72.13	62.50	33.60	20.74	13.11	33.85	679.87	MCM

Momentary Peak 255.52 CMS, at 34.58 m. (MSL.), at 06.00 Hours, on Sep 26, 2002

Runoff Yield 8.69 Liters/Second/Square KM. Momentary Peak Yield 102.950 Liters/Second/Square KM.

WATER YEAR : 2002

PRACHIN BURI RIVER BASIN

Khlong Phra Prong at Ban Kaeng , Sa Kaeo (Kgt.12)

Lat 13 - 56 - 10 N Long 101 - 58 - 27 E

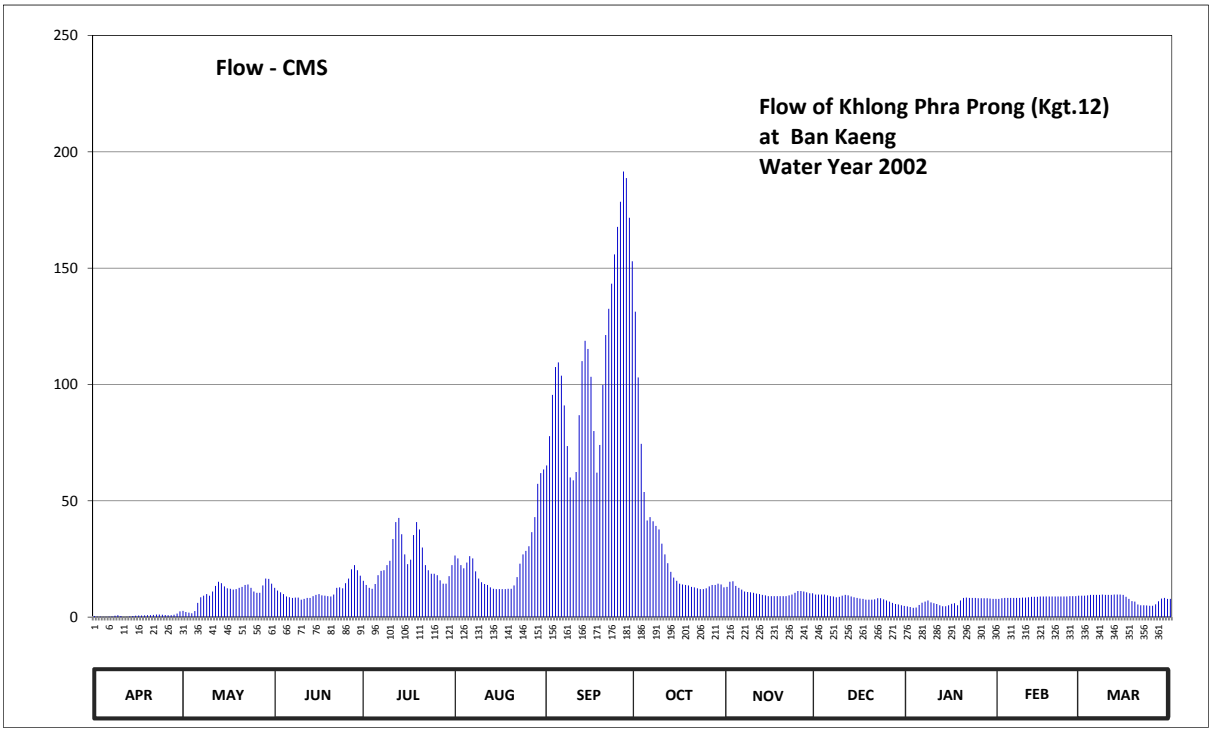
Location : on left bank near the railway station at Ban Kaeng at about 200 meters upstream from Thot Saphon Sawmill.

	Ban Kaeng	**Amphoe** Mueang	**Changwat** Sa Kaeo
Drainge Area	1,478 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+0.000 m. (A.D.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank in front of the gage observer's house.		**Elevation** +9.687 m. (A.D.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean 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.		
Overbank Flow Conditions	Overbank flow starts at elevation +8.580 m.(A.D.) and is including overbank flow.		
General Description	Records fair. The concrete weir situated about 7 kilometers downstream from the gage site Stage-discharge relation defined by 37 discharge measurements made in 2002.		

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.80	1.56	2.59	2.74	3.23	4.50	7.16	2.61	2.44	2.03	2.32	2.41	
2	0.61	1.39	2.53	2.65	3.18	5.03	6.04	2.72	2.44	2.00	2.34	2.41	
3	0.57	1.30	2.49	2.59	3.06	5.74	4.90	2.73	2.44	1.93	2.35	2.42	
4	0.55	1.22	2.45	2.57	3.00	6.22	4.10	2.63	2.44	1.96	2.35	2.43	
5	0.54	1.54	2.39	2.67	3.11	6.30	3.75	2.59	2.42	2.09	2.35	2.43	
6	0.60	2.18	2.37	2.86	3.22	6.07	3.79	2.55	2.40	2.19	2.35	2.43	
7	0.68	2.37	2.35	2.95	3.18	5.56	3.74	2.51	2.39	2.23	2.35	2.43	
8	0.87	2.41	2.36	2.96	2.94	4.86	3.68	2.50	2.37	2.27	2.35	2.44	
9	0.93	2.45	2.36	3.06	2.79	4.26	3.63	2.49	2.38	2.20	2.36	2.43	
10	0.78	2.41	2.30	3.14	2.71	4.20	3.42	2.48	2.41	2.17	2.36	2.43	
11	0.49	2.51	2.32	3.49	2.67	4.37	3.25	2.46	2.43	2.13	2.37	2.43	
12	0.51	2.63	2.35	3.73	2.65	5.39	3.10	2.45	2.42	2.08	2.38	2.44	
13	0.67	2.72	2.35	3.78	2.60	6.32	2.93	2.43	2.39	2.04	2.38	2.44	
14	0.80	2.69	2.40	3.56	2.57	6.67	2.81	2.42	2.37	2.04	2.38	2.44	
15	0.85	2.62	2.43	3.25	2.56	6.53	2.74	2.40	2.35	2.08	2.39	2.43	
16	0.88	2.58	2.45	3.08	2.56	6.05	2.68	2.40	2.33	2.14	2.39	2.38	
17	0.90	2.57	2.42	3.16	2.56	5.12	2.66	2.40	2.32	2.17	2.39	2.32	
18	0.91	2.55	2.41	3.55	2.56	4.36	2.65	2.40	2.30	2.08	2.39	2.25	
19	0.93	2.56	2.40	3.73	2.57	4.88	2.64	2.40	2.30	2.27	2.39	2.23	
20	0.93	2.59	2.39	3.63	2.57	5.91	2.61	2.40	2.30	2.35	2.39	2.11	
21	0.99	2.61	2.44	3.36	2.64	6.77	2.60	2.40	2.31	2.36	2.39	2.08	
22	1.04	2.65	2.59	3.06	2.82	7.20	2.58	2.42	2.34	2.35	2.39	2.08	
23	1.03	2.66	2.60	2.96	3.09	7.56	2.56	2.44	2.34	2.35	2.39	2.07	
24	1.00	2.59	2.58	2.89	3.25	7.98	2.56	2.48	2.31	2.35	2.39	2.06	
25	0.97	2.51	2.69	2.89	3.31	8.25	2.58	2.52	2.27	2.34	2.40	2.06	
26	0.93	2.48	2.79	2.86	3.38	8.45	2.62	2.52	2.23	2.34	2.40	2.12	
27	0.94	2.48	2.98	2.75	3.59	8.65	2.65	2.51	2.18	2.34	2.40	2.24	
28	1.02	2.64	3.06	2.68	3.79	8.61	2.65	2.49	2.13	2.34	2.41	2.33	
29	1.17	2.79	2.96	2.68	4.20	8.33	2.68	2.47	2.11	2.33		2.35	
30	1.50	2.78	2.85	2.84	4.35	7.88	2.66	2.47	2.08	2.32		2.32	
31		2.68		3.06	4.42		2.60		2.05	2.32		2.32	
Mean	0.85	2.38	2.52	3.07	3.07	6.27	3.26	2.49	2.32	2.20	2.38	2.31	
Max	1.50	2.79	3.06	3.78	4.42	8.65	7.16	2.73	2.44	2.36	2.41	2.44	8.65
Min	0.49	1.22	2.30	2.57	2.56	4.20	2.56	2.40	2.05	1.93	2.32	2.06	0.49

Annual Max Momentary Gage Height	8.67	m. (A.D.) ,	at 24.00 Hours, on Sep 27, 2002		
Zero Gage at Bottom Elevation	0.00	m. (A.D.) ,	River Bed	-0.95	m. (A.D.)
Left Bank Elevation	9.63	m. (A.D.) ,			
Right Bank Elevation	8.57	m. (A.D.) ,	Drainage Are	1,478	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.50	2.68	12.60	15.60	26.45	65.20	131.30	13.00	9.72	4.60	7.80	9.18		
2	0.21	2.17	11.40	13.80	25.20	77.75	103.00	15.20	9.72	4.30	8.10	9.18		
3	0.17	1.90	10.62	12.60	22.32	95.50	74.50	15.40	9.72	3.95	8.25	9.36		
4	0.15	1.66	9.90	12.20	21.00	107.50	53.80	13.40	9.72	4.10	8.25	9.54		
5	0.14	2.62	8.85	14.20	23.45	109.50	41.55	12.60	9.36	5.20	8.25	9.54		
6	0.20	6.10	8.55	18.00	26.20	103.75	42.95	11.80	9.00	6.20	8.25	9.54		
7	0.28	8.55	8.25	19.90	25.20	91.00	41.20	11.00	8.85	6.66	8.25	9.54		
8	0.64	9.18	8.40	20.12	19.68	73.50	39.20	10.80	8.55	7.14	8.25	9.72		
9	0.79	9.90	8.40	22.32	16.60	60.00	37.70	10.62	8.70	6.30	8.40	9.54		
10	0.46	9.18	7.50	24.20	15.00	58.80	31.56	10.44	9.18	6.00	8.40	9.54		
11	0.09	11.00	7.80	33.52	14.20	62.34	26.95	10.08	9.54	5.60	8.55	9.54		
12	0.11	13.40	8.25	40.85	13.80	86.75	23.20	9.90	9.36	5.10	8.70	9.72		
13	0.27	15.20	8.25	42.60	12.80	110.00	19.46	9.54	8.85	4.70	8.70	9.72		
14	0.50	14.60	9.00	35.60	12.20	118.75	17.00	9.36	8.55	4.70	8.70	9.72		
15	0.60	13.20	9.54	26.95	12.00	115.25	15.60	9.00	8.25	5.10	8.85	9.54		
16	0.66	12.40	9.90	22.76	12.00	103.25	14.40	9.00	7.95	5.70	8.85	8.70		
17	0.70	12.20	9.36	24.70	12.00	80.00	14.00	9.00	7.80	6.00	8.85	7.80		
18	0.73	11.80	9.18	35.30	12.00	62.12	13.80	9.00	7.50	5.10	8.85	6.90		
19	0.79	12.00	9.00	40.85	12.20	74.00	13.60	9.00	7.50	7.14	8.85	6.66		
20	0.79	12.60	8.85	37.70	12.20	99.75	13.00	9.00	7.50	8.25	8.85	5.40		
21	0.97	13.00	9.72	29.88	13.60	121.25	12.80	9.00	7.65	8.40	8.85	5.10		
22	1.12	13.80	12.60	22.32	17.20	132.50	12.40	9.36	8.10	8.25	8.85	5.10		
23	1.09	14.00	12.80	20.12	22.98	143.30	12.00	9.72	8.10	8.25	8.85	5.00		
24	1.00	12.60	12.40	18.60	26.95	155.90	12.00	10.44	7.65	8.25	8.85	4.90		
25	0.91	11.00	14.60	18.60	28.48	167.75	12.40	11.20	7.14	8.10	9.00	4.90		
26	0.79	10.44	16.60	18.00	30.44	178.50	13.20	11.20	6.66	8.10	9.00	5.50		
27	0.82	10.44	20.56	15.80	36.50	191.50	13.80	11.00	6.10	8.10	9.00	6.78		
28	1.06	13.60	22.32	14.40	42.95	188.70	13.80	10.62	5.60	8.10	9.18	7.95		
29	1.51	16.60	20.12	14.40	57.30	171.65	14.40	10.26	5.40	7.95		8.25		
30	2.50	16.40	17.80	17.60	61.90	152.90	14.00	10.26	5.10	7.80		7.80		
31		14.40		22.32	63.44		12.80		4.80	7.80		7.80		
Total	20.55	328.62	343.12	725.81	748.24	3358.66	911.37	320.20	247.62	200.94	241.53	247.46	7694.12	CMSDAY
Mean	0.69	10.60	11.44	23.41	24.14	111.96	29.40	10.67	7.99	6.48	8.63	7.98	21.08	CMS
Max	2.50	16.60	22.32	42.60	63.44	191.50	131.30	15.40	9.72	8.40	9.18	9.72	191.50	CMS
Min	0.09	1.66	7.50	12.20	12.00	58.80	12.00	9.00	4.80	3.95	7.80	4.90	0.09	CMS
Runoff	1.78	28.39	29.65	62.71	64.65	290.19	78.74	27.67	21.39	17.36	20.87	21.38	664.77	MCM

Momentary Peak 192.90 CMS, at 8.67 m. (A.D.), at 24.00 Hours, on Sep 27, 2005

Runoff Yield 14.26 Liters/Second/Square KM. Momentary Peak Yield 130.510 Liters/Second/Square KM.

WATER YEAR : 2002

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. (A.D.)
Bench Mark	B.M.-H.D.
Location BM	On left bank at the top staff gage. **Elevation** +13.310 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	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	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Stage-discharge relation defined by 41 discharge measurements made in 2002.

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

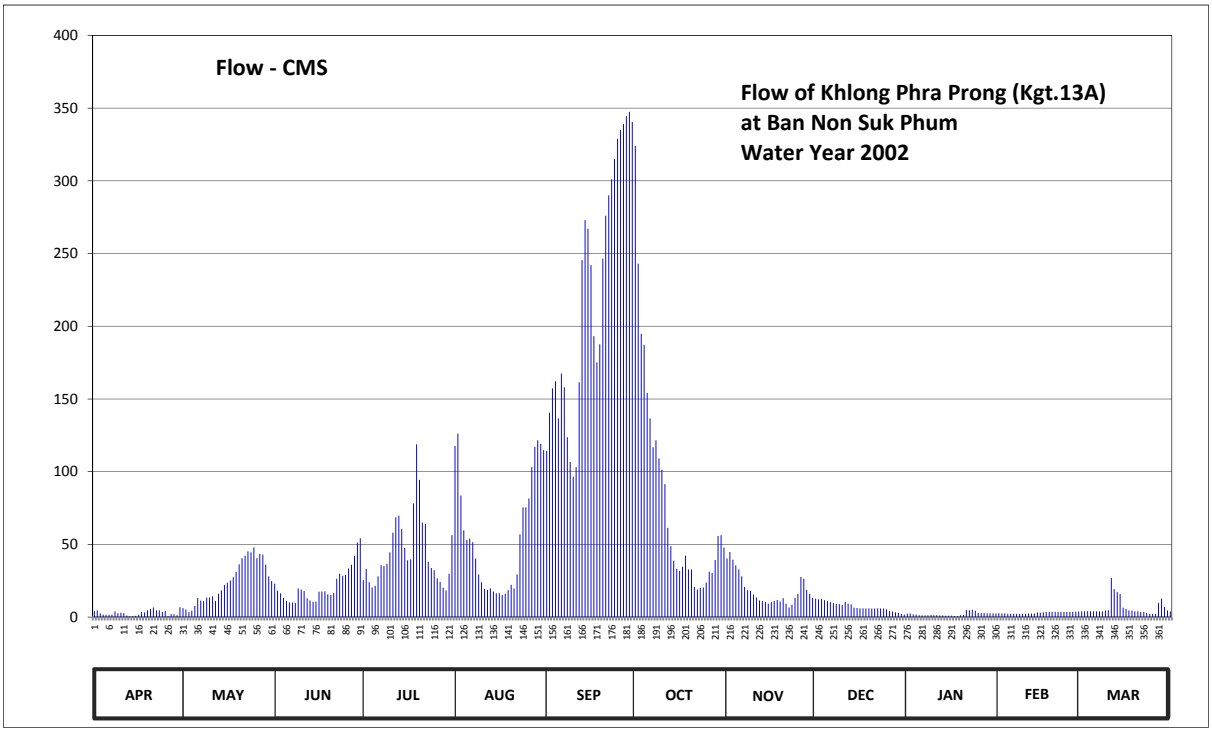
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	2.62	2.81	3.95	4.07	7.45	7.34	12.22	4.77	3.31	2.44	2.46	2.59	
2	2.66	2.73	3.68	4.45	7.69	8.10	10.60	4.95	3.28	2.45	2.45	2.60	
3	2.45	2.54	3.55	4.00	6.32	8.58	9.57	4.74	3.30	2.38	2.45	2.61	
4	2.35	2.65	3.34	3.82	5.52	8.72	9.38	4.58	3.24	2.34	2.43	2.60	
5	2.33	2.97	3.21	3.88	5.28	7.99	8.49	4.44	3.19	2.26	2.43	2.60	
6	2.31	3.34	3.14	4.20	5.32	8.87	7.99	4.20	3.16	2.25	2.43	2.60	
7	2.35	3.22	3.13	4.59	5.22	8.60	7.42	3.84	3.11	2.25	2.42	2.60	
8	2.59	3.20	3.12	4.55	4.77	7.62	7.56	3.70	3.07	2.26	2.42	2.60	
9	2.46	3.36	3.78	4.63	4.27	7.09	7.17	3.67	3.06	2.30	2.42	2.65	
10	2.50	3.36	3.73	4.94	4.00	6.75	6.91	3.50	3.02	2.27	2.42	2.67	
11	2.47	3.42	3.66	5.47	3.76	6.97	6.58	3.36	3.16	2.27	2.45	4.15	
12	2.21	3.20	3.33	5.82	3.71	8.70	5.58	3.23	3.08	2.25	2.44	3.75	
13	2.14	3.54	3.23	5.86	3.79	10.65	5.11	3.20	3.05	2.25	2.44	3.61	
14	2.12	3.69	3.17	5.55	3.64	11.20	4.71	3.16	2.85	2.20	2.52	3.53	
15	2.18	3.90	3.18	5.06	3.56	11.08	4.46	3.08	2.83	2.20	2.51	2.85	
16	2.32	3.98	3.63	4.72	3.56	10.58	4.39	3.15	2.80	2.20	2.53	2.77	
17	2.55	4.06	3.64	4.75	3.48	9.53	4.53	3.21	2.80	2.15	2.55	2.65	
18	2.53	4.17	3.65	6.14	3.54	9.08	4.85	3.25	2.79	2.13	2.55	2.65	
19	2.66	4.35	3.51	7.48	3.70	9.39	4.44	3.18	2.80	2.26	2.55	2.60	
20	2.75	4.61	3.48	6.68	3.91	10.67	4.44	3.33	2.79	2.30	2.56	2.60	
21	2.86	4.78	3.57	5.70	3.78	11.26	3.84	3.08	2.79	2.69	2.56	2.55	
22	2.66	4.85	4.12	5.67	4.27	11.54	3.73	2.86	2.80	2.66	2.56	2.55	
23	2.66	4.97	4.29	4.68	5.43	11.76	3.80	3.03	2.79	2.70	2.55	2.50	
24	2.55	4.94	4.22	4.49	6.05	12.04	3.82	3.35	2.79	2.64	2.55	2.42	
25	2.62	5.08	4.25	4.41	6.05	12.32	3.99	3.53	2.73	2.48	2.56	2.41	
26	2.12	4.78	4.47	4.13	6.25	12.44	4.36	4.18	2.62	2.47	2.56	2.41	
27	2.41	4.90	4.60	4.01	6.97	12.52	4.32	4.12	2.58	2.48	2.57	3.11	
28	2.40	4.88	4.84	3.81	7.43	12.63	4.73	3.72	2.53	2.46	2.58	3.32	
29	2.27	4.60	5.21	3.69	7.56	12.69	5.39	3.53	2.50	2.46		2.90	
30	2.88	4.20	5.33	4.29	7.49	12.55	5.41	3.35	2.41	2.45		2.65	
31		4.04		5.41	7.36		5.07		2.36	2.45		2.58	
Mean	2.47	3.91	3.80	4.87	5.20	9.98	5.96	3.64	2.89	2.37	2.50	2.80	
Max	2.88	5.08	5.33	7.48	7.69	12.69	12.22	4.95	3.31	2.70	2.58	4.15	12.69
Min	2.12	2.54	3.12	3.69	3.48	6.75	3.73	2.86	2.36	2.13	2.42	2.41	2.12

Annual Max Momentary Gage Height 12.70 m. (A.D.) , at 18.00 Hours, on Sep 29, 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed 0.91 m. (A.D.)

Left Bank Elevation 14.07 m. (A.D.) ,

Right Bank Elevation 14.62 m. (A.D.) , Drainage Are 4,906 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	4.20	6.10	23.00	25.40	117.75	114.20	324.00	40.25	12.65	2.40	2.60	3.90		
2	4.60	5.30	18.20	33.00	126.15	140.50	243.00	44.75	12.20	2.50	2.50	4.00		
3	2.50	3.40	16.25	24.00	83.60	157.30	194.80	39.50	12.50	1.90	2.50	4.10		
4	1.75	4.50	13.10	20.40	59.60	162.20	187.20	35.60	11.60	1.70	2.30	4.00		
5	1.65	7.70	11.15	21.60	53.00	136.65	154.15	32.80	10.85	1.30	2.30	4.00		
6	1.55	13.10	10.10	28.00	54.00	167.45	136.65	28.00	10.40	1.25	2.30	4.00		
7	1.75	11.30	9.95	35.80	51.50	158.00	116.70	20.80	9.65	1.25	2.20	4.00		
8	3.90	11.00	9.80	35.00	40.25	123.70	121.60	18.50	9.05	1.30	2.20	4.00		
9	2.60	13.40	19.70	36.75	29.40	106.70	109.10	18.05	8.90	1.50	2.20	4.50		
10	3.00	13.40	18.95	44.50	24.00	96.50	101.30	15.50	8.30	1.35	2.20	4.70		
11	2.70	14.30	17.90	58.10	19.40	103.10	91.40	13.40	10.40	1.35	2.50	27.00		
12	1.05	11.00	12.95	68.60	18.65	161.50	61.40	11.45	9.20	1.25	2.40	19.25		
13	0.70	16.10	11.45	69.80	19.85	245.50	48.75	11.00	8.75	1.25	2.40	17.15		
14	0.60	18.35	10.55	60.50	17.60	273.00	38.75	10.40	6.50	1.00	3.20	15.95		
15	0.90	22.00	10.70	47.50	16.40	267.00	33.20	9.20	6.30	1.00	3.10	6.50		
16	1.60	23.60	17.45	39.00	16.40	242.00	31.80	10.25	6.00	1.00	3.30	5.70		
17	3.50	25.20	17.60	39.75	15.20	193.20	34.60	11.15	6.00	0.75	3.50	4.50		
18	3.30	27.40	17.75	78.20	16.10	175.20	42.25	11.75	5.90	0.65	3.50	4.50		
19	4.60	31.00	15.65	118.80	18.50	187.60	32.80	10.70	6.00	1.30	3.50	4.00		
20	5.50	36.25	15.20	94.40	22.20	246.50	32.80	12.95	5.90	1.50	3.60	4.00		
21	6.60	40.50	16.55	65.00	19.70	276.00	20.80	9.20	5.90	4.90	3.60	3.50		
22	4.60	42.25	26.40	64.10	29.40	290.00	18.95	6.60	6.00	4.60	3.60	3.50		
23	4.60	45.25	29.80	38.00	56.90	301.00	20.00	8.45	5.90	5.00	3.50	3.00		
24	3.50	44.50	28.40	33.80	75.50	315.00	20.40	13.25	5.90	4.40	3.50	2.20		
25	4.20	48.00	29.00	32.20	75.50	329.00	23.80	15.95	5.30	2.80	3.60	2.10		
26	0.60	40.50	33.40	26.60	81.50	335.00	31.20	27.60	4.20	2.70	3.60	2.10		
27	2.10	43.50	36.00	24.20	103.10	339.00	30.40	26.40	3.80	2.80	3.70	9.65		
28	2.00	43.00	42.00	20.20	117.05	344.50	39.25	18.80	3.30	2.60	3.80	12.80		
29	1.35	36.00	51.25	18.35	121.60	347.50	55.75	15.95	3.00	2.60		7.00		
30	6.80	28.00	54.25	29.80	119.15	340.50	56.30	13.25	2.10	2.50		4.50		
31		24.80		56.30	114.80		47.75		1.80	2.50		3.80		
Total	88.30	750.70	644.45	1387.65	1733.75	6675.30	2500.85	561.45	224.25	64.90	83.20	203.90	14918.70	CMSDAY
Mean	2.94	24.22	21.48	44.76	55.93	222.51	80.67	18.71	7.23	2.09	2.97	6.58	40.87	CMS
Max	6.80	48.00	54.25	118.80	126.15	347.50	324.00	44.75	12.65	5.00	3.80	27.00	347.50	CMS
Min	0.60	3.40	9.80	18.35	15.20	96.50	18.95	6.60	1.80	0.65	2.20	2.10	0.60	CMS
Runoff	7.63	64.86	55.68	119.89	149.80	576.75	216.07	48.51	19.38	5.61	7.19	17.62	1288.98	MCM

Momentary Peak 348.00 CMS, at 12.70 m. (A.D.), at 18.00 Hours, on Sep 29, 2002

Runoff Yield 8.33 Liters/Second/Square KM. Momentary Peak Yield 70.930 Liters/Second/Square KM.

WATER YEAR : 2002

PRACHIN BURI RIVER BASIN

Khlong Yang at Ban Thung Faek , Prachin Buri (Kgt.14)

Lat 14 - 09 - 29 N Long 101 - 52 - 50 E

Location : on left bank about 2 kilometers from Kabin Buri - Nakhon Ratchasima Highway.

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 mean 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	Stable.
Overbank Flow Conditions	Overbank flow starts at elevation +41.240 m.(M.S.L.), records are channel flow only.
General Description	Records good. Stage-discharge relation defined by 23 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

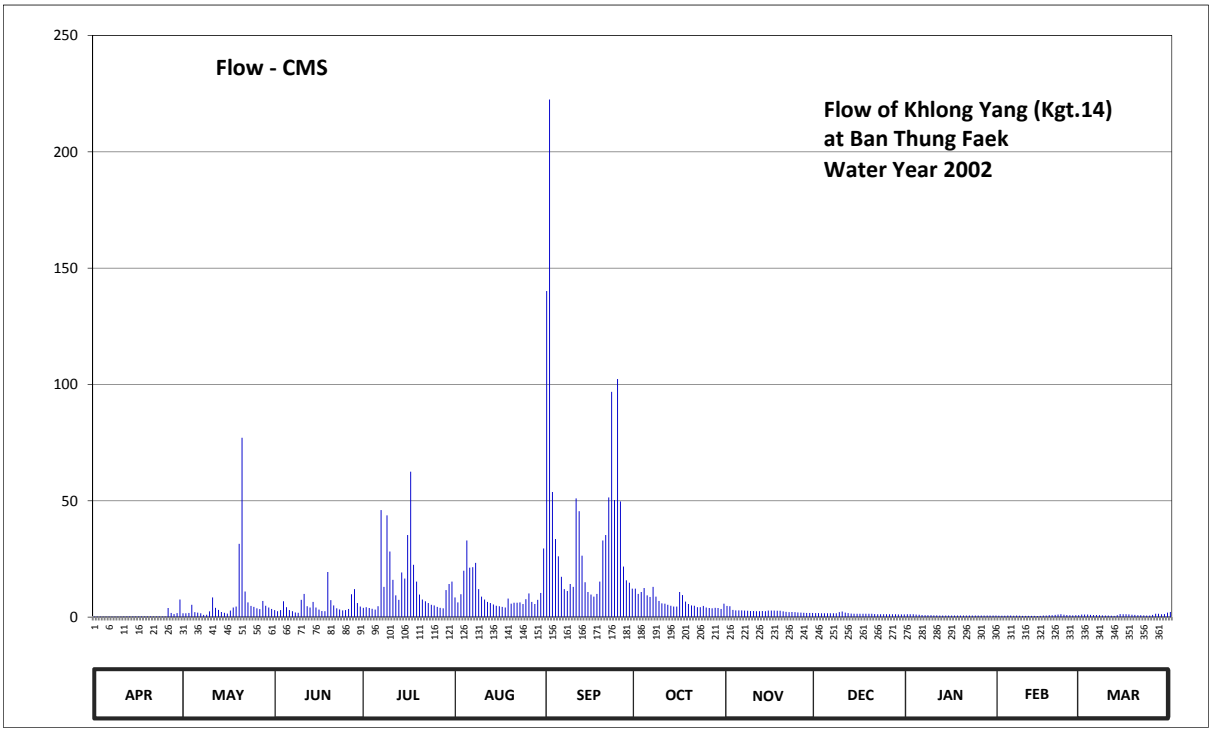
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	34.76	35.04	35.20	35.30	35.61	39.41	35.81	35.36	35.05	34.98	34.86	34.96	
2	34.76	35.04	35.15	35.32	35.47	41.09	35.70	35.35	35.05	34.98	34.86	34.96	
3	34.76	35.06	35.20	35.29	35.69	37.28	35.74	35.21	35.04	34.98	34.86	34.96	
4	34.76	35.40	35.50	35.26	36.11	36.62	35.82	35.19	35.04	34.96	34.87	34.93	
5	34.76	35.10	35.32	35.22	36.60	36.35	35.66	35.19	35.04	34.95	34.87	34.92	
6	34.76	35.08	35.20	35.35	36.16	36.01	35.62	35.19	35.04	34.92	34.86	34.92	
7	34.76	35.04	35.15	36.96	36.17	35.80	35.84	35.18	35.04	34.91	34.87	34.90	
8	34.76	34.93	35.09	35.84	36.24	35.76	35.63	35.17	35.04	34.91	34.86	34.89	
9	34.76	34.94	35.07	36.91	35.80	35.89	35.51	35.16	35.10	34.90	34.85	34.88	
10	34.76	35.14	35.54	36.43	35.63	35.84	35.44	35.16	35.13	34.89	34.85	34.87	
11	34.77	35.61	35.70	35.96	35.55	37.15	35.43	35.15	35.08	34.89	34.85	34.86	
12	34.77	35.30	35.35	35.66	35.48	36.95	35.40	35.15	35.05	34.88	34.85	34.85	
13	34.77	35.21	35.31	35.54	35.45	36.36	35.37	35.16	35.03	34.88	34.85	34.91	
14	34.77	35.11	35.48	36.08	35.41	35.92	35.34	35.15	35.02	34.88	34.84	35.00	
15	34.77	35.07	35.31	35.98	35.37	35.74	35.34	35.18	35.02	34.88	34.85	34.99	
16	34.78	35.03	35.22	36.68	35.35	35.68	35.74	35.18	35.02	34.88	34.87	34.98	
17	34.79	35.18	35.16	37.49	35.33	35.63	35.67	35.18	35.02	34.88	34.88	34.97	
18	34.80	35.31	35.15	36.21	35.31	35.70	35.49	35.17	35.02	34.88	34.90	34.95	
19	34.80	35.34	36.09	35.93	35.58	35.93	35.42	35.17	35.02	34.88	34.90	34.93	
20	34.80	36.55	35.53	35.68	35.43	36.60	35.38	35.14	35.02	34.88	34.93	34.91	
21	34.80	37.84	35.38	35.55	35.46	36.68	35.37	35.12	35.00	34.88	34.96	34.90	
22	34.80	35.75	35.28	35.50	35.46	37.17	35.32	35.10	34.98	34.88	34.98	34.89	
23	34.80	35.47	35.23	35.45	35.47	38.42	35.32	35.11	34.98	34.88	34.95	34.88	
24	34.80	35.36	35.19	35.40	35.42	37.12	35.36	35.10	34.98	34.88	34.92	34.88	
25	34.80	35.33	35.20	35.38	35.56	38.55	35.31	35.09	34.98	34.88	34.90	34.93	
26	35.29	35.28	35.25	35.33	35.71	37.09	35.29	35.08	34.98	34.88	34.89	35.02	
27	35.06	35.24	35.69	35.30	35.48	36.18	35.28	35.07	34.98	34.88	34.91	35.02	
28	35.00	35.51	35.80	35.28	35.42	35.95	35.30	35.06	34.98	34.87	34.91	34.99	
29	35.05	35.37	35.45	35.78	35.54	35.91	35.29	35.06	34.97	34.88		35.00	
30	35.55	35.31	35.34	35.89	35.72	35.81	35.25	35.06	34.97	34.88		35.08	
31		35.25		35.93	36.48		35.43		34.97	34.87		35.11	
Mean	34.85	35.36	35.35	35.80	35.66	36.69	35.48	35.15	35.02	34.90	34.88	34.94	
Max	35.55	37.84	36.09	37.49	36.60	41.09	35.84	35.36	35.13	34.98	34.98	35.11	41.09
Min	34.76	34.93	35.07	35.22	35.31	35.63	35.25	35.06	34.97	34.87	34.84	34.85	34.76

Annual Max Momentary Gage Height 41.48 m. (MSL.) , at 12.00 Hours, on Sep 2, 2002

Zero Gage at Bottom Elevation 34.60 m. (MSL.) , River Bed 33.87 m. (MSL.)

Left Bank Elevation 41.69 m. (MSL.) ,

Right Bank Elevation 41.24 m. (MSL.) , Drainage Are 354 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.22	1.62	3.00	4.00	8.47	140.16	12.25	4.78	1.70	1.20	0.60	1.10		
2	0.22	1.62	2.55	4.26	6.35	222.48	10.00	4.65	1.70	1.20	0.60	1.10		
3	0.22	1.78	3.00	3.90	9.83	53.77	10.80	3.10	1.62	1.20	0.60	1.10		
4	0.22	5.30	6.80	3.60	19.92	33.52	12.50	2.91	1.62	1.10	0.65	0.95		
5	0.22	2.10	4.26	3.20	32.93	26.12	9.32	2.91	1.62	1.05	0.65	0.90		
6	0.22	1.94	3.00	4.65	21.22	17.34	8.64	2.91	1.62	0.90	0.60	0.90		
7	0.22	1.62	2.55	46.00	21.47	12.00	13.00	2.82	1.62	0.85	0.65	0.80		
8	0.22	0.95	2.02	13.00	23.28	11.20	8.81	2.73	1.62	0.85	0.60	0.75		
9	0.22	1.00	1.86	43.75	12.00	14.25	6.95	2.64	2.10	0.80	0.55	0.70		
10	0.22	2.46	7.40	28.19	8.81	13.00	5.90	2.64	2.37	0.75	0.55	0.65		
11	0.24	8.47	10.00	16.05	7.55	51.00	5.75	2.55	1.94	0.75	0.55	0.60		
12	0.24	4.00	4.65	9.32	6.50	45.55	5.30	2.55	1.70	0.70	0.55	0.55		
13	0.24	3.10	4.13	7.40	6.05	26.38	4.91	2.64	1.54	0.70	0.55	0.85		
14	0.24	2.19	6.50	19.15	5.45	15.02	4.52	2.55	1.46	0.70	0.50	1.30		
15	0.24	1.86	4.13	16.57	4.91	10.80	4.52	2.82	1.46	0.70	0.55	1.25		
16	0.26	1.54	3.20	35.28	4.65	9.66	10.80	2.82	1.46	0.70	0.65	1.20		
17	0.28	2.82	2.64	62.47	4.39	8.81	9.49	2.82	1.46	0.70	0.70	1.15		
18	0.30	4.13	2.55	22.51	4.13	10.00	6.65	2.73	1.46	0.70	0.80	1.05		
19	0.30	4.52	19.41	15.27	8.00	15.27	5.60	2.73	1.46	0.70	0.80	0.95		
20	0.30	31.47	7.25	9.66	5.75	32.93	5.04	2.46	1.46	0.70	0.95	0.85		
21	0.30	77.08	5.04	7.55	6.20	35.28	4.91	2.28	1.30	0.70	1.10	0.80		
22	0.30	11.00	3.80	6.80	6.20	51.43	4.26	2.10	1.20	0.70	1.20	0.75		
23	0.30	6.35	3.30	6.05	6.35	96.84	4.26	2.19	1.20	0.70	1.05	0.70		
24	0.30	4.78	2.91	5.30	5.60	50.36	4.78	2.10	1.20	0.70	0.90	0.70		
25	0.30	4.39	3.00	5.04	7.70	102.30	4.13	2.02	1.20	0.70	0.80	0.95		
26	3.90	3.80	3.50	4.39	10.20	49.72	3.90	1.94	1.20	0.70	0.75	1.46		
27	1.78	3.40	9.83	4.00	6.50	21.73	3.80	1.86	1.20	0.70	0.85	1.46		
28	1.30	6.95	12.00	3.80	5.60	15.79	4.00	1.78	1.20	0.65	0.85	1.25		
29	1.70	4.91	6.05	11.60	7.40	14.76	3.90	1.78	1.15	0.70		1.30		
30	7.55	4.13	4.52	14.25	10.40	12.25	3.50	1.78	1.15	0.70		1.94		
31		3.50		15.27	29.48		5.75		1.15	0.65		2.19		
Total	22.57	214.78	154.85	452.28	323.29	1219.72	207.94	78.59	46.14	24.55	20.15	32.20	2797.06	CMSDAY
Mean	0.75	6.93	5.16	14.59	10.43	40.66	6.71	2.62	1.49	0.79	0.72	1.04	7.66	CMS
Max	7.55	77.08	19.41	62.47	32.93	222.48	13.00	4.78	2.37	1.20	1.20	2.19	222.48	CMS
Min	0.22	0.95	1.86	3.20	4.13	8.81	3.50	1.78	1.15	0.65	0.50	0.55	0.22	CMS
Runoff	1.95	18.56	13.38	39.08	27.93	105.38	17.97	6.79	3.99	2.12	1.74	2.78	241.67	MCM

Momentary Peak 243.14 CMS, at 41.48 m. (MSL.), at 12.00 Hours, on Sep 2, 2002

Runoff Yield 21.65 Liters/Second/Square KM. Momentary Peak Yield 686.840 Liters/Second/Square KM.

WATER YEAR : 2002

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

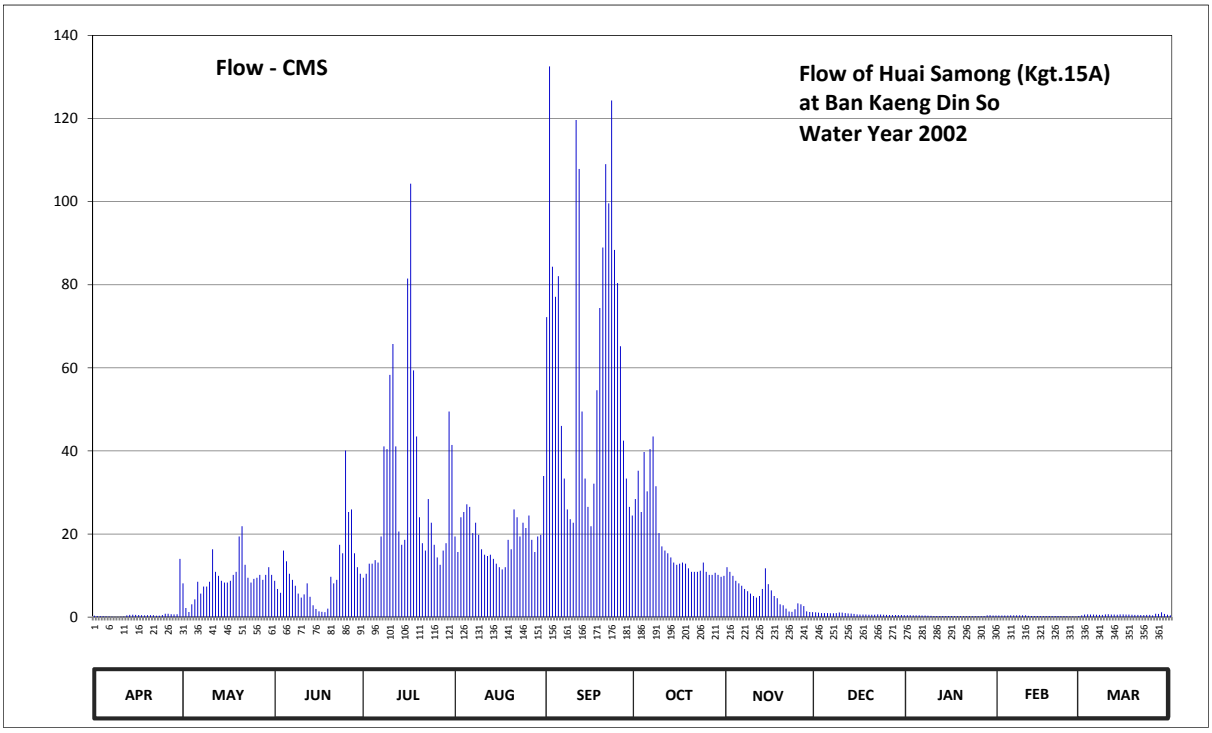
Location : on right bank at Ban Kaeng Din So about 1 kilometer upstream from the Kgt.15 Station.

	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 mean 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	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Flow effected by the local weir.		
	Stage-discharge relation defined by 32 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	14.03	15.48	15.51	15.54	15.86	16.93	16.05	15.64	14.86	14.16	14.07	14.14	
2	13.98	15.10	15.41	15.58	15.76	17.97	16.16	15.60	14.78	14.15	14.07	14.33	
3	13.94	14.91	15.36	15.67	15.97	17.15	16.00	15.56	14.67	14.14	14.07	14.36	
4	13.92	15.18	15.77	15.67	16.00	17.02	16.26	15.51	14.67	14.13	14.09	14.33	
5	13.88	15.27	15.69	15.70	16.03	17.11	16.08	15.48	14.65	14.12	14.13	14.30	
6	13.86	15.50	15.58	15.68	16.02	16.43	16.28	15.45	14.61	14.10	14.14	14.26	
7	13.83	15.35	15.52	15.86	15.88	16.13	16.37	15.41	14.62	14.10	14.13	14.25	
8	13.79	15.44	15.45	16.30	15.94	16.01	16.10	15.38	14.67	14.06	14.13	14.25	
9	13.78	15.44	15.35	16.28	15.87	15.96	15.88	15.35	14.80	13.99	14.14	14.35	
10	13.82	15.50	15.30	16.67	15.78	15.94	15.80	15.32	14.79	13.97	14.13	14.38	
11	13.87	15.78	15.34	16.81	15.74	17.75	15.77	15.30	14.67	13.95	13.99	14.32	
12	14.14	15.60	15.48	16.30	15.73	17.55	15.75	15.32	14.59	13.95	13.96	14.30	
13	14.25	15.56	15.31	15.89	15.74	16.50	15.72	15.41	14.56	13.95	13.96	14.29	
14	14.28	15.51	15.16	15.81	15.71	16.13	15.68	15.63	14.46	13.95	13.96	14.34	
15	14.22	15.49	15.07	15.84	15.67	16.02	15.66	15.47	14.35	13.95	13.97	14.36	
16	14.20	15.49	14.99	17.10	15.64	15.92	15.67	15.39	14.32	13.95	13.96	14.33	
17	14.16	15.51	14.93	17.49	15.62	16.11	15.68	15.32	14.31	13.94	13.95	14.32	
18	14.14	15.57	14.90	16.69	15.64	16.60	15.67	15.29	14.30	13.94	13.95	14.29	
19	14.15	15.60	15.08	16.37	15.84	16.97	15.63	15.18	14.29	13.94	13.95	14.25	
20	14.15	15.86	15.55	15.97	15.78	17.23	15.60	15.16	14.28	13.94	13.95	14.22	
21	14.15	15.92	15.48	15.82	16.01	17.57	15.60	15.08	14.29	13.94	13.97	14.20	
22	14.05	15.66	15.52	15.77	15.97	17.41	15.60	14.97	14.34	13.93	13.91	14.19	
23	14.05	15.54	15.81	16.05	15.86	17.83	15.61	14.93	14.31	13.93	13.95	14.22	
24	14.21	15.49	15.75	15.94	15.94	17.22	15.68	15.06	14.27	13.93	13.92	14.22	
25	14.52	15.53	16.27	15.81	15.91	17.08	15.60	15.20	14.23	13.93	13.89	14.12	
26	14.51	15.54	16.00	15.72	15.98	16.80	15.57	15.18	14.21	13.93	13.88	14.50	
27	14.39	15.57	16.01	15.66	15.84	16.34	15.57	15.14	14.20	13.96	13.85	14.47	
28	14.35	15.52	15.75	15.77	15.76	16.13	15.59	15.00	14.19	14.11	13.97	14.87	
29	14.40	15.57	15.64	15.82	15.86	16.02	15.57	14.92	14.18	14.15		14.46	
30	15.71	15.64	15.58	16.50	15.87	15.98	15.55	14.89	14.18	14.10		14.26	
31		15.57		16.31	16.14		15.56		14.17	14.07		14.11	
Mean	14.16	15.51	15.49	16.08	15.85	16.73	15.78	15.28	14.45	14.01	14.00	14.31	
Max	15.71	15.92	16.27	17.49	16.14	17.97	16.37	15.64	14.86	14.16	14.14	14.87	17.97
Min	13.78	14.91	14.90	15.54	15.62	15.92	15.55	14.89	14.17	13.93	13.85	14.11	13.78

Annual Max Momentary Gage Height	18.28	m. (MSL.) ,	at 18.00 Hours, on Sep 11, 2002		
Zero Gage at Bottom Elevation	12.80	m. (MSL.) ,	River Bed	12.79	m. (MSL.)
Left Bank Elevation	24.39	m. (MSL.) ,			
Right Bank Elevation	22.24	m. (MSL.) ,	Drainage Are	548	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.33	8.12	8.74	9.46	19.40	72.22	28.40	12.02	1.16	0.46	0.37	0.44		
2	0.28	2.20	6.79	10.42	15.68	132.55	35.22	10.90	1.08	0.45	0.37	0.63		
3	0.24	1.22	5.84	12.86	24.01	84.35	25.30	9.94	0.97	0.44	0.37	0.66		
4	0.22	3.08	16.01	12.86	25.30	77.10	39.74	8.74	0.97	0.43	0.39	0.63		
5	0.18	4.28	13.42	13.70	27.16	82.07	30.26	8.12	0.95	0.42	0.43	0.60		
6	0.16	8.50	10.42	13.14	26.54	46.00	40.42	7.55	0.91	0.40	0.44	0.56		
7	0.13	5.65	8.98	19.40	20.20	33.36	43.48	6.79	0.92	0.40	0.43	0.55		
8	0.09	7.36	7.55	41.10	22.72	25.92	31.50	6.22	0.97	0.36	0.43	0.55		
9	0.08	7.36	5.65	40.42	19.80	23.58	20.20	5.65	1.10	0.29	0.44	0.65		
10	0.12	8.50	4.70	58.31	16.34	22.72	17.00	5.08	1.09	0.27	0.43	0.68		
11	0.17	16.34	5.46	65.74	15.02	119.65	16.01	4.70	0.97	0.25	0.29	0.62		
12	0.44	10.90	8.12	41.10	14.69	107.85	15.35	5.08	0.89	0.25	0.26	0.60		
13	0.55	9.94	4.89	20.60	15.02	49.50	14.36	6.79	0.86	0.25	0.26	0.59		
14	0.58	8.74	2.86	17.40	14.03	33.36	13.14	11.74	0.76	0.25	0.26	0.64		
15	0.52	8.31	1.96	18.60	12.86	26.54	12.58	7.93	0.65	0.25	0.27	0.66		
16	0.50	8.31	1.38	81.50	12.02	21.86	12.86	6.41	0.62	0.25	0.26	0.63		
17	0.46	8.74	1.26	104.31	11.46	32.12	13.14	5.08	0.61	0.24	0.25	0.62		
18	0.44	10.18	1.20	59.37	12.02	54.60	12.86	4.56	0.60	0.24	0.25	0.59		
19	0.45	10.90	2.04	43.48	18.60	74.38	11.74	3.08	0.59	0.24	0.25	0.55		
20	0.45	19.40	9.70	24.01	16.34	88.97	10.90	2.86	0.58	0.24	0.25	0.52		
21	0.45	21.86	8.12	17.80	25.92	109.03	10.90	2.04	0.59	0.24	0.27	0.50		
22	0.35	12.58	8.98	16.01	24.01	99.59	10.90	1.34	0.64	0.23	0.21	0.49		
23	0.35	9.46	17.40	28.40	19.40	124.36	11.18	1.26	0.61	0.23	0.25	0.52		
24	0.51	8.31	15.35	22.72	22.72	88.38	13.14	1.88	0.57	0.23	0.22	0.52		
25	0.82	9.22	40.08	17.40	21.43	80.40	10.90	3.30	0.53	0.23	0.19	0.42		
26	0.81	9.46	25.30	14.36	24.44	65.20	10.18	3.08	0.51	0.23	0.18	0.80		
27	0.69	10.18	25.92	12.58	18.60	42.46	10.18	2.64	0.50	0.26	0.15	0.77		
28	0.65	8.98	15.35	16.01	15.68	33.36	10.66	1.40	0.49	0.41	0.27	1.17		
29	0.70	10.18	12.02	17.80	19.40	26.54	10.18	1.24	0.48	0.45		0.76		
30	14.03	12.02	10.42	49.50	19.80	24.44	9.70	1.19	0.48	0.40		0.56		
31		10.18		41.44	33.98		9.94		0.47	0.37		0.41		
Total	25.75	290.46	305.91	961.80	604.59	1902.46	562.32	158.61	23.12	9.66	8.44	18.89	4872.01	CMSDAY
Mean	0.86	9.37	10.20	31.03	19.50	63.42	18.14	5.29	0.75	0.31	0.30	0.61	13.35	CMS
Max	14.03	21.86	40.08	104.31	33.98	132.55	43.48	12.02	1.16	0.46	0.44	1.17	132.55	CMS
Min	0.08	1.22	1.20	9.46	11.46	21.86	9.70	1.19	0.47	0.23	0.15	0.41	0.08	CMS
Runoff	2.22	25.10	26.43	83.10	52.24	164.37	48.58	13.70	2.00	0.83	0.73	1.63	420.94	MCM

Momentary Peak 150.96 CMS, at 18.28 m. (MSL.), at 18.00 Hours, on Sep 11, 2002

Runoff Yield 24.36 Liters/Second/Square KM. Momentary Peak Yield 275.470 Liters/Second/Square KM.

WATER YEAR : 2002

PRACHIN BURI RIVER BASIN

Khlong Si Yat at Ban Tha Kloi, Chachoengsao (Kgt.18)

Lat 13 - 28 - 28 N Long 101 - 37 - 52 E

Location : on left bank at Ban Tha Kloi.

Ban Tha Kloi **Amphoe** Tha Ta Kiab **Changwat** Chachoengsao

Drainge Area	1,078 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+34.200 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank near the automatic gage building. **Elevation** +41.426 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean 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	Fairly stable because of backwater effect.Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Flow regulate by Si Yud Dam is downstream from the gage site. Stage-discharge relation defined by 29 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

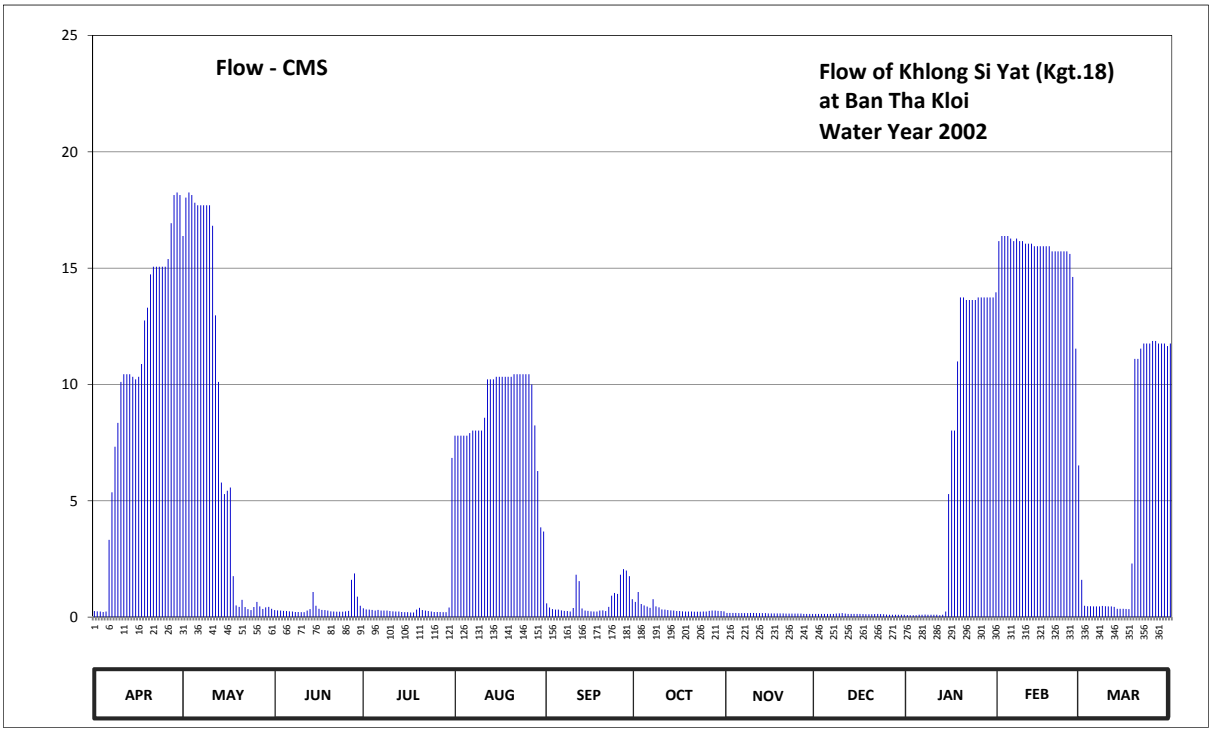
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	35.46	37.68	35.50	35.58	36.90	35.73	35.75	35.38	35.34	35.29	37.66	35.98	
2	35.45	37.83	35.49	35.53	36.90	35.61	35.87	35.38	35.34	35.28	37.68	35.69	
3	35.44	37.85	35.48	35.52	36.90	35.54	35.72	35.38	35.34	35.28	37.68	35.67	
4	35.42	37.84	35.47	35.51	36.90	35.52	35.70	35.38	35.34	35.28	37.68	35.67	
5	35.44	37.81	35.46	35.48	36.90	35.52	35.65	35.37	35.34	35.30	37.67	35.66	
6	36.27	37.80	35.45	35.51	36.91	35.49	35.60	35.37	35.34	35.30	37.66	35.66	
7	36.58	37.80	35.44	35.48	36.92	35.47	35.79	35.37	35.34	35.31	37.67	35.66	
8	36.84	37.80	35.42	35.48	36.92	35.46	35.66	35.37	35.35	35.30	37.66	35.68	
9	36.95	37.80	35.42	35.48	36.92	35.44	35.62	35.38	35.36	35.30	37.66	35.67	
10	37.11	37.80	35.41	35.46	36.92	35.59	35.53	35.38	35.37	35.30	37.65	35.66	
11	37.14	37.72	35.41	35.45	36.97	36.02	35.52	35.37	35.35	35.30	37.65	35.66	
12	37.14	37.37	35.48	35.44	37.12	35.97	35.50	35.37	35.34	35.28	37.65	35.64	
13	37.14	37.11	35.54	35.44	37.12	35.57	35.49	35.37	35.34	35.30	37.64	35.56	
14	37.13	36.64	35.87	35.42	37.12	35.48	35.48	35.37	35.34	35.44	37.64	35.56	
15	37.12	36.57	35.69	35.41	37.13	35.47	35.46	35.36	35.34	36.57	37.64	35.56	
16	37.13	36.59	35.56	35.41	37.13	35.45	35.46	35.36	35.34	36.92	37.64	35.55	
17	37.18	36.61	35.51	35.40	37.13	35.44	35.45	35.36	35.33	36.92	37.64	35.54	
18	37.35	36.01	35.50	35.40	37.13	35.44	35.44	35.36	35.32	37.19	37.64	36.10	
19	37.40	35.70	35.48	35.52	37.13	35.48	35.44	35.36	35.32	37.44	37.62	37.20	
20	37.53	35.64	35.45	35.60	37.13	35.49	35.44	35.36	35.32	37.44	37.62	37.20	
21	37.56	35.78	35.44	35.50	37.14	35.46	35.43	35.35	35.33	37.43	37.62	37.24	
22	37.56	35.63	35.43	35.48	37.14	35.64	35.43	35.35	35.34	37.43	37.62	37.26	
23	37.56	35.54	35.43	35.46	37.14	35.83	35.43	35.35	35.33	37.43	37.62	37.26	
24	37.56	35.50	35.43	35.44	37.14	35.86	35.44	35.35	35.32	37.43	37.62	37.26	
25	37.56	35.63	35.45	35.42	37.14	35.85	35.44	35.35	35.31	37.44	37.61	37.27	
26	37.59	35.75	35.47	35.42	37.14	36.02	35.47	35.35	35.30	37.44	37.52	37.27	
27	37.73	35.66	35.98	35.42	37.10	36.06	35.48	35.34	35.30	37.44	37.24	37.26	
28	37.84	35.55	36.03	35.41	36.94	36.05	35.48	35.34	35.30	37.44	36.74	37.26	
29	37.85	35.62	35.82	35.41	36.71	36.01	35.47	35.34	35.30	37.44		37.26	
30	37.84	35.64	35.69	35.61	36.36	35.79	35.46	35.34	35.30	37.44		37.25	
31		35.56		36.78	36.33		35.45		35.30	37.46		37.26	
Mean	37.00	36.64	35.54	35.51	36.98	35.66	35.53	35.36	35.33	36.41	37.59	36.34	
Max	37.85	37.85	36.03	36.78	37.14	36.06	35.87	35.38	35.37	37.46	37.68	37.27	37.85
Min	35.42	35.50	35.41	35.40	36.33	35.44	35.43	35.34	35.30	35.28	36.74	35.54	35.28

Annual Max Momentary Gage Height 37.86 m. (MSL.) , at 24.00 Hours, on Apr 30, 2002

Zero Gage at Bottom Elevation 34.20 m. (MSL.) , River Bed 34.10 m. (MSL.)

Left Bank Elevation 41.63 m. (MSL.) ,

Right Bank Elevation 40.53 m. (MSL.) , Drainage Are 1,078 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.26	16.38	0.30	0.38	7.80	0.59	0.65	0.18	0.14	0.09	16.16	1.60		
2	0.25	18.03	0.29	0.33	7.80	0.41	1.08	0.18	0.14	0.08	16.38	0.49		
3	0.24	18.25	0.28	0.32	7.80	0.34	0.56	0.18	0.14	0.08	16.38	0.47		
4	0.22	18.14	0.27	0.31	7.80	0.32	0.50	0.18	0.14	0.08	16.38	0.47		
5	0.24	17.81	0.26	0.28	7.80	0.32	0.45	0.17	0.14	0.10	16.27	0.46		
6	3.32	17.70	0.25	0.31	7.91	0.29	0.40	0.17	0.14	0.10	16.16	0.46		
7	5.36	17.70	0.24	0.28	8.02	0.27	0.77	0.17	0.14	0.11	16.27	0.46		
8	7.32	17.70	0.22	0.28	8.02	0.26	0.46	0.17	0.15	0.10	16.16	0.48		
9	8.35	17.70	0.22	0.28	8.02	0.24	0.42	0.18	0.16	0.10	16.16	0.47		
10	10.11	17.70	0.21	0.26	8.02	0.39	0.33	0.18	0.17	0.10	16.05	0.46		
11	10.44	16.82	0.21	0.25	8.57	1.82	0.32	0.17	0.15	0.10	16.05	0.46		
12	10.44	12.97	0.28	0.24	10.22	1.55	0.30	0.17	0.14	0.08	16.05	0.44		
13	10.44	10.11	0.34	0.24	10.22	0.37	0.29	0.17	0.14	0.10	15.94	0.36		
14	10.33	5.78	1.08	0.22	10.22	0.28	0.28	0.17	0.14	0.24	15.94	0.36		
15	10.22	5.29	0.49	0.21	10.33	0.27	0.26	0.16	0.14	5.29	15.94	0.36		
16	10.33	5.43	0.36	0.21	10.33	0.25	0.26	0.16	0.14	8.02	15.94	0.35		
17	10.88	5.57	0.31	0.20	10.33	0.24	0.25	0.16	0.13	8.02	15.94	0.34		
18	12.75	1.76	0.30	0.20	10.33	0.24	0.24	0.16	0.12	10.99	15.94	2.30		
19	13.30	0.50	0.28	0.32	10.33	0.28	0.24	0.16	0.12	13.74	15.72	11.10		
20	14.73	0.44	0.25	0.40	10.33	0.29	0.24	0.16	0.12	13.74	15.72	11.10		
21	15.06	0.74	0.24	0.30	10.44	0.26	0.23	0.15	0.13	13.63	15.72	11.54		
22	15.06	0.43	0.23	0.28	10.44	0.44	0.23	0.15	0.14	13.63	15.72	11.76		
23	15.06	0.34	0.23	0.26	10.44	0.92	0.23	0.15	0.13	13.63	15.72	11.76		
24	15.06	0.30	0.23	0.24	10.44	1.04	0.24	0.15	0.12	13.63	15.72	11.76		
25	15.06	0.43	0.25	0.22	10.44	1.00	0.24	0.15	0.11	13.74	15.61	11.87		
26	15.39	0.65	0.27	0.22	10.44	1.82	0.27	0.15	0.10	13.74	14.62	11.87		
27	16.93	0.46	1.60	0.22	10.00	2.06	0.28	0.14	0.10	13.74	11.54	11.76		
28	18.14	0.35	1.88	0.21	8.24	2.00	0.28	0.14	0.10	13.74	6.52	11.76		
29	18.25	0.42	0.88	0.21	6.28	1.76	0.27	0.14	0.10	13.74		11.76		
30	18.14	0.44	0.49	0.41	3.86	0.77	0.26	0.14	0.10	13.74		11.65		
31		0.36		6.84	3.68		0.25		0.10	13.96		11.76		
Total	311.68	246.70	12.74	14.93	274.90	21.09	11.08	4.86	4.03	212.18	432.72	162.24	1709.15	CMSDAY
Mean	10.39	7.96	0.42	0.48	8.87	0.70	0.36	0.16	0.13	6.84	15.45	5.23	4.68	CMS
Max	18.25	18.25	1.88	6.84	10.44	2.06	1.08	0.18	0.17	13.96	16.38	11.87	18.25	CMS
Min	0.22	0.30	0.21	0.20	3.68	0.24	0.23	0.14	0.10	0.08	6.52	0.34	0.08	CMS
Runoff	26.93	21.31	1.10	1.29	23.75	1.82	0.96	0.42	0.35	18.33	37.39	14.02	147.67	MCM

Momentary Peak 18.36 CMS, at 37.86 m. (MSL.), at 24.00 Hours, on Apr 30, 2002

Runoff Yield 4.34 Liters/Second/Square KM. Momentary Peak Yield 17.030 Liters/Second/Square KM.

WATER YEAR : 2002

PRACHIN BURI RIVER BASIN

Khlong Luang at Ban Khao Nom Nang, Chon Buri (Kgt.19)

Lat 13 - 23 - 21 N Long 101 - 20 - 52 E

Location : on left bank about 4 kilometers east of Khok Pho Market and about 16 kilometers from Amphoe Phanat Nikhom.

Ban Khao Nom Nang **Amphoe** Phanat Nikhom **Changwat** Chon Buri

Drainge Area	473 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+20.124 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	Beside the Meteorological station. **Elevation** +25.658 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1965 to date.
Rating Operation	
Period of Rating	1965 - 1974, 1987 to date.
Rated by Flot	-
Rated by Current Meter	1965 - 1974, 1987 to date.
Stability of Channel Regimes	Fairly stable because of backwater effect.Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Stage-discharge relation defined by 34 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	20.58	20.64	22.40	22.54	22.49	22.45	22.48	22.57	22.24	22.04	21.28	21.14	
2	20.60	20.64	22.40	22.51	22.44	22.43	22.46	22.52	22.29	22.03	21.26	21.14	
3	20.60	20.84	22.38	22.46	22.40	22.42	22.43	22.44	22.32	21.96	21.14	21.16	
4	20.59	22.36	22.41	22.43	22.39	22.39	22.48	22.41	22.26	22.04	20.94	21.16	
5	20.59	22.36	22.40	22.42	22.37	22.37	22.52	22.41	22.27	22.04	20.85	21.12	
6	20.58	22.64	22.38	22.42	22.36	22.37	22.46	22.38	22.20	21.98	20.85	21.09	
7	20.58	22.52	22.36	22.40	22.36	22.36	22.82	22.37	22.18	21.82	20.88	21.10	
8	20.57	22.40	22.36	22.42	22.36	22.35	22.75	22.34	22.23	21.78	20.88	21.05	
9	20.57	22.40	22.32	22.43	22.42	22.34	22.47	22.33	22.23	21.79	20.88	21.03	
10	20.56	22.34	22.22	22.42	22.44	22.24	22.43	22.32	22.40	21.85	20.90	20.94	
11	20.56	22.93	22.24	22.39	22.40	22.29	22.41	22.32	22.37	21.94	20.86	20.91	
12	20.56	23.05	22.38	22.36	22.38	22.35	22.39	22.49	22.32	22.03	20.85	20.79	
13	20.56	22.74	22.61	22.36	22.36	22.35	22.37	22.50	22.25	22.08	20.87	20.72	
14	20.56	22.56	22.88	22.33	22.36	22.32	22.36	22.43	22.18	22.07	20.89	20.72	
15	20.56	22.46	22.49	22.28	22.36	22.31	22.35	22.38	22.13	22.03	20.93	20.72	
16	20.56	22.42	22.46	22.41	22.34	22.26	22.35	22.36	22.19	21.98	20.94	20.68	
17	20.56	22.50	22.42	22.55	22.36	22.21	22.38	22.37	22.14	21.90	20.94	20.51	
18	20.55	22.67	22.40	22.42	22.37	22.23	22.38	22.34	22.11	21.75	20.96	20.51	
19	20.55	22.82	22.44	22.49	22.36	22.39	22.36	22.23	22.09	21.70	20.97	20.52	
20	20.62	22.63	22.53	22.51	22.32	22.49	22.38	22.31	22.05	21.68	20.98	20.50	
21	20.68	22.65	22.66	22.42	22.31	22.42	22.44	22.27	22.02	21.63	21.00	20.49	
22	20.67	22.54	22.55	22.38	22.32	22.43	22.42	22.14	21.99	21.62	21.02	20.59	
23	20.66	22.45	22.45	22.38	22.42	22.78	22.65	22.17	22.08	21.54	21.02	20.83	
24	20.66	22.42	22.44	22.38	22.42	23.08	22.72	22.23	22.07	21.58	21.04	21.36	
25	20.66	22.40	22.44	22.37	22.40	22.80	22.49	22.41	22.03	21.62	21.05	21.90	
26	20.65	22.44	22.46	22.32	22.44	22.55	22.44	22.37	22.02	21.66	21.08	22.16	
27	20.64	22.70	22.56	22.28	22.42	22.66	22.46	22.38	22.04	21.68	21.11	22.39	
28	20.64	22.55	22.70	22.25	22.42	22.97	22.58	22.35	22.03	21.66	21.14	22.37	
29	20.64	22.57	23.01	22.27	22.45	22.81	22.55	22.26	22.01	21.59		22.31	
30	20.64	22.54	22.94	22.53	22.46	22.54	22.47	22.25	21.99	21.52		22.36	
31		22.44		22.74	22.48		22.44		22.00	21.39		22.39	
Mean	20.60	22.37	22.49	22.42	22.39	22.47	22.47	22.36	22.15	21.81	20.98	21.18	
Max	20.68	23.05	23.01	22.74	22.49	23.08	22.82	22.57	22.40	22.08	21.28	22.39	23.08
Min	20.55	20.64	22.22	22.25	22.31	22.21	22.35	22.14	21.99	21.39	20.85	20.49	20.49

Annual Max Momentary Gage Height 23.21 m. (MSL.) , at 20.00 Hours, on Sep 28, 2002

Zero Gage at Bottom Elevation 20.12 m. (MSL.) , River Bed 26.51 m. (MSL.)

Left Bank Elevation 24.90 m. (MSL.) ,

Right Bank Elevation 26.01 m. (MSL.) , Drainage Are 473 Square Kilometers

WATER YEAR : 2002

PRACHIN BURI RIVER BASIN

Khlong Luang at Ban Khao Nom Nang, Chon Buri (Kgt.19)

Lat 13 - 23 - 21 N Long 101 - 20 - 52 E

Location : on left bank about 4 kilometers east of Khok Pho Market and about 16 kilometers from Amphoe Phanat Nikhom.

Ban Khao Nom Nang **Amphoe** Phanat Nikhom **Changwat** Chon Buri

Drainge Area	473 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+20.124 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	Beside the Meteorological station. **Elevation** +25.658 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1965 to date.
Rating Operation	
Period of Rating	1965 - 1974, 1987 to date.
Rated by Flot	-
Rated by Current Meter	1965 - 1974, 1987 to date.
Stability of Channel Regimes	Fairly stable because of backwater effect.Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Stage-discharge relation defined by 34 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	20.58	20.64	22.40	22.54	22.49	22.45	22.48	22.57	22.24	22.04	21.28	21.14	
2	20.60	20.64	22.40	22.51	22.44	22.43	22.46	22.52	22.29	22.03	21.26	21.14	
3	20.60	20.84	22.38	22.46	22.40	22.42	22.43	22.44	22.32	21.96	21.14	21.16	
4	20.59	22.36	22.41	22.43	22.39	22.39	22.48	22.41	22.26	22.04	20.94	21.16	
5	20.59	22.36	22.40	22.42	22.37	22.37	22.52	22.41	22.27	22.04	20.85	21.12	
6	20.58	22.64	22.38	22.42	22.36	22.37	22.46	22.38	22.20	21.98	20.85	21.09	
7	20.58	22.52	22.36	22.40	22.36	22.36	22.82	22.37	22.18	21.82	20.88	21.10	
8	20.57	22.40	22.36	22.42	22.36	22.35	22.75	22.34	22.23	21.78	20.88	21.05	
9	20.57	22.40	22.32	22.43	22.42	22.34	22.47	22.33	22.23	21.79	20.88	21.03	
10	20.56	22.34	22.22	22.42	22.44	22.24	22.43	22.32	22.40	21.85	20.90	20.94	
11	20.56	22.93	22.24	22.39	22.40	22.29	22.41	22.32	22.37	21.94	20.86	20.91	
12	20.56	23.05	22.38	22.36	22.38	22.35	22.39	22.49	22.32	22.03	20.85	20.79	
13	20.56	22.74	22.61	22.36	22.36	22.35	22.37	22.50	22.25	22.08	20.87	20.72	
14	20.56	22.56	22.88	22.33	22.36	22.32	22.36	22.43	22.18	22.07	20.89	20.72	
15	20.56	22.46	22.49	22.28	22.36	22.31	22.35	22.38	22.13	22.03	20.93	20.72	
16	20.56	22.42	22.46	22.41	22.34	22.26	22.35	22.36	22.19	21.98	20.94	20.68	
17	20.56	22.50	22.42	22.55	22.36	22.21	22.38	22.37	22.14	21.90	20.94	20.51	
18	20.55	22.67	22.40	22.42	22.37	22.23	22.38	22.34	22.11	21.75	20.96	20.51	
19	20.55	22.82	22.44	22.49	22.36	22.39	22.36	22.23	22.09	21.70	20.97	20.52	
20	20.62	22.63	22.53	22.51	22.32	22.49	22.38	22.31	22.05	21.68	20.98	20.50	
21	20.68	22.65	22.66	22.42	22.31	22.42	22.44	22.27	22.02	21.63	21.00	20.49	
22	20.67	22.54	22.55	22.38	22.32	22.43	22.42	22.14	21.99	21.62	21.02	20.59	
23	20.66	22.45	22.45	22.38	22.42	22.78	22.65	22.17	22.08	21.54	21.02	20.83	
24	20.66	22.42	22.44	22.38	22.42	23.08	22.72	22.23	22.07	21.58	21.04	21.36	
25	20.66	22.40	22.44	22.37	22.40	22.80	22.49	22.41	22.03	21.62	21.05	21.90	
26	20.65	22.44	22.46	22.32	22.44	22.55	22.44	22.37	22.02	21.66	21.08	22.16	
27	20.64	22.70	22.56	22.28	22.42	22.66	22.46	22.38	22.04	21.68	21.11	22.39	
28	20.64	22.55	22.70	22.25	22.42	22.97	22.58	22.35	22.03	21.66	21.14	22.37	
29	20.64	22.57	23.01	22.27	22.45	22.81	22.55	22.26	22.01	21.59		22.31	
30	20.64	22.54	22.94	22.53	22.46	22.54	22.47	22.25	21.99	21.52		22.36	
31		22.44		22.74	22.48		22.44		22.00	21.39		22.39	
Mean	20.60	22.37	22.49	22.42	22.39	22.47	22.47	22.36	22.15	21.81	20.98	21.18	
Max	20.68	23.05	23.01	22.74	22.49	23.08	22.82	22.57	22.40	22.08	21.28	22.39	23.08
Min	20.55	20.64	22.22	22.25	22.31	22.21	22.35	22.14	21.99	21.39	20.85	20.49	20.49

Annual Max Momentary Gage Height 23.21 m. (MSL.) , at 20.00 Hours, on Sep 28, 2002

Zero Gage at Bottom Elevation 20.12 m. (MSL.) , River Bed 26.51 m. (MSL.)

Left Bank Elevation 24.90 m. (MSL.) ,

Right Bank Elevation 26.01 m. (MSL.) , Drainage Are 473 Square Kilometers

WATER YEAR : 2002

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 mean 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	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 43 discharge measurements made in 2002.		

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

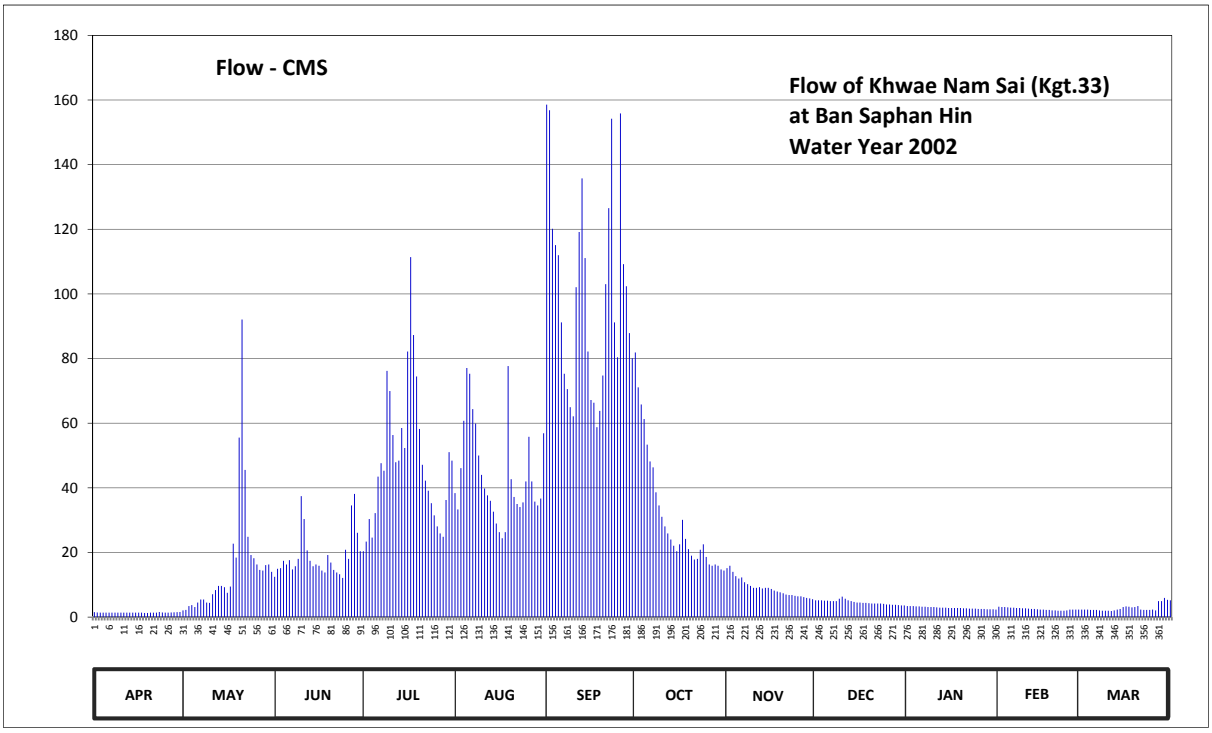
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.79	0.85	1.61	2.02	2.82	6.84	4.42	1.75	1.15	0.98	0.96	0.87	
2	0.77	0.86	1.74	2.16	2.61	6.79	4.05	1.79	1.15	0.98	0.95	0.87	
3	0.76	0.98	1.75	2.48	3.13	5.67	3.86	1.69	1.15	0.98	0.95	0.87	
4	0.76	1.01	1.87	2.22	3.68	5.51	3.70	1.62	1.14	0.97	0.94	0.86	
5	0.76	0.95	1.81	2.56	4.26	5.41	3.41	1.58	1.14	0.97	0.93	0.86	
6	0.76	1.09	1.88	3.03	4.20	4.73	3.21	1.60	1.13	0.96	0.93	0.86	
7	0.76	1.17	1.73	3.19	3.81	4.20	3.14	1.52	1.13	0.96	0.92	0.85	
8	0.76	1.17	1.78	3.10	3.65	4.03	2.83	1.49	1.13	0.95	0.92	0.84	
9	0.76	1.09	1.90	4.23	3.28	3.83	2.66	1.46	1.19	0.95	0.91	0.84	
10	0.76	1.08	2.78	4.01	3.05	3.73	2.51	1.43	1.24	0.95	0.91	0.84	
11	0.76	1.30	2.48	3.52	2.88	5.09	2.38	1.43	1.19	0.94	0.90	0.83	
12	0.76	1.39	2.03	3.20	2.79	5.64	2.28	1.44	1.15	0.93	0.89	0.85	
13	0.76	1.46	1.87	3.22	2.72	6.15	2.19	1.42	1.13	0.93	0.89	0.87	
14	0.76	1.46	1.78	3.60	2.58	5.38	2.10	1.43	1.11	0.93	0.88	0.89	
15	0.76	1.44	1.81	3.37	2.42	4.43	2.02	1.43	1.09	0.92	0.87	0.95	
16	0.76	1.33	1.79	4.43	2.30	3.91	2.12	1.41	1.09	0.92	0.87	0.97	
17	0.76	1.45	1.71	5.39	2.21	3.88	2.47	1.38	1.08	0.92	0.86	0.96	
18	0.75	2.13	1.68	4.60	2.30	3.61	2.20	1.36	1.08	0.92	0.86	0.94	
19	0.75	1.92	1.96	4.17	4.28	3.79	2.05	1.34	1.07	0.92	0.85	0.95	
20	0.76	3.49	1.84	3.59	3.00	4.18	1.95	1.32	1.06	0.91	0.85	0.98	
21	0.76	4.76	1.72	3.17	2.77	5.12	1.89	1.29	1.06	0.91	0.84	0.87	
22	0.76	3.11	1.68	2.98	2.68	5.87	1.90	1.28	1.06	0.90	0.84	0.86	
23	0.80	2.23	1.65	2.85	2.64	6.71	2.04	1.28	1.06	0.90	0.84	0.86	
24	0.77	1.96	1.59	2.69	2.70	4.73	2.12	1.26	1.05	0.90	0.85	0.86	
25	0.76	1.91	2.04	2.53	2.97	4.37	1.93	1.25	1.03	0.89	0.87	0.87	
26	0.76	1.81	1.90	2.38	3.50	6.76	1.81	1.25	1.03	0.89	0.87	0.85	
27	0.77	1.72	2.66	2.28	2.97	5.32	1.79	1.23	1.02	0.89	0.87	1.13	
28	0.78	1.71	2.81	2.23	2.71	5.10	1.81	1.21	1.02	0.88	0.87	1.13	
29	0.79	1.80	2.29	2.73	2.66	4.62	1.79	1.20	1.01	0.88		1.21	
30	0.80	1.81	2.02	3.32	2.75	4.36	1.73	1.18	1.00	0.88		1.16	
31		1.69		3.22	3.54		1.71		1.00	0.87		1.15	
Mean	0.77	1.68	1.94	3.18	3.03	4.99	2.45	1.41	1.09	0.93	0.89	0.93	
Max	0.80	4.76	2.81	5.39	4.28	6.84	4.42	1.79	1.24	0.98	0.96	1.21	6.84
Min	0.75	0.85	1.59	2.02	2.21	3.61	1.71	1.18	1.00	0.87	0.84	0.83	0.75

Annual Max Momentary Gage Height 7.61 m. (A.D.), at 06.00 Hours, on Sep 26, 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.), River Bed -0.15 m. (A.D.),

Left Bank Elevation 10.81 m. (A.D.),

Right Bank Elevation 10.81 m. (A.D.), Drainage Are 617 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.54	2.10	12.49	20.42	38.38	158.56	81.90	15.15	5.20	3.40	3.20	2.30		
2	1.42	2.20	14.96	23.36	33.34	156.87	71.10	15.91	5.20	3.40	3.10	2.30		
3	1.36	3.40	15.15	30.34	46.08	120.14	65.78	14.01	5.20	3.40	3.10	2.30		
4	1.36	3.70	17.43	24.62	60.74	115.11	61.30	12.68	5.08	3.30	3.00	2.20		
5	1.36	3.10	16.29	32.18	77.10	112.01	53.37	11.92	5.08	3.30	2.90	2.20		
6	1.36	4.50	17.62	43.48	75.30	91.20	48.16	12.30	4.96	3.20	2.90	2.20		
7	1.36	5.44	14.77	47.64	64.38	75.30	46.34	10.78	4.96	3.20	2.80	2.10		
8	1.36	5.44	15.72	45.30	59.90	70.54	38.62	10.21	4.96	3.10	2.80	2.00		
9	1.36	4.50	18.00	76.20	49.98	64.94	34.54	9.64	5.68	3.10	2.70	2.00		
10	1.36	4.40	37.42	69.98	44.00	62.14	31.03	9.07	6.32	3.10	2.70	2.00		
11	1.36	7.10	30.34	56.34	39.82	102.09	28.06	9.07	5.68	3.00	2.60	1.90		
12	1.36	8.36	20.63	47.90	37.66	119.18	25.88	9.26	5.20	2.90	2.50	2.10		
13	1.36	9.64	17.43	48.42	35.98	135.75	23.99	8.88	4.96	2.90	2.50	2.30		
14	1.36	9.64	15.72	58.50	32.64	111.08	22.10	9.07	4.72	2.90	2.40	2.50		
15	1.36	9.26	16.29	52.32	28.96	82.20	20.42	9.07	4.50	2.80	2.30	3.10		
16	1.36	7.52	15.91	82.20	26.30	67.18	22.52	8.69	4.50	2.80	2.30	3.30		
17	1.36	9.45	14.39	111.39	24.41	66.34	30.11	8.22	4.40	2.80	2.20	3.20		
18	1.30	22.73	13.82	87.30	26.30	58.78	24.20	7.94	4.40	2.80	2.20	3.00		
19	1.30	18.40	19.20	74.46	77.70	63.82	21.05	7.66	4.30	2.80	2.10	3.10		
20	1.36	55.53	16.86	58.23	42.70	74.74	19.00	7.38	4.20	2.70	2.10	3.40		
21	1.36	92.10	14.58	47.12	37.18	103.02	17.81	6.97	4.20	2.70	2.00	2.30		
22	1.36	45.56	13.82	42.22	35.02	126.54	18.00	6.84	4.20	2.60	2.00	2.20		
23	1.60	24.83	13.25	39.10	34.06	154.23	20.84	6.84	4.20	2.60	2.00	2.20		
24	1.42	19.20	12.11	35.26	35.50	91.20	22.52	6.58	4.10	2.60	2.10	2.20		
25	1.36	18.20	20.84	31.49	41.98	80.40	18.60	6.45	3.90	2.50	2.30	2.30		
26	1.36	16.29	18.00	28.06	55.80	155.88	16.29	6.45	3.90	2.50	2.30	2.10		
27	1.42	14.58	34.54	25.88	41.98	109.22	15.91	6.19	3.80	2.50	2.30	4.96		
28	1.48	14.39	38.14	24.83	35.74	102.40	16.29	5.93	3.80	2.40	2.30	4.96		
29	1.54	16.10	26.09	36.22	34.54	87.90	15.91	5.80	3.70	2.40		5.93		
30	1.60	16.29	20.42	51.02	36.70	80.10	14.77	5.56	3.60	2.40		5.32		
31		14.01		48.42	56.88		14.39		3.60	2.30		5.20		
Total	41.82	487.96	572.23	1500.20	1367.05	2998.86	960.80	270.52	142.50	88.40	69.70	89.17	8589.21	CMSDAY
Mean	1.39	15.74	19.07	48.39	44.10	99.96	30.99	9.02	4.60	2.85	2.49	2.88	23.53	CMS
Max	1.60	92.10	38.14	111.39	77.70	158.56	81.90	15.91	6.32	3.40	3.20	5.93	158.56	CMS
Min	1.30	2.10	12.11	20.42	24.41	58.78	14.39	5.56	3.60	2.30	2.00	1.90	1.30	CMS
Runoff	3.61	42.16	49.44	129.62	118.11	259.10	83.01	23.37	12.31	7.64	6.02	7.70	742.11	MCM

Momentary Peak 185.26 CMS, at 7.61 m. (A.D.), at 06.00 Hours, on Sep 26, 2002

Runoff Yield 38.14 Liters/Second/Square KM. Momentary Peak Yield 300.260 Liters/Second/Square KM.

WATER YEAR : 2002

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 mean 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	Stable.					
Overbank Flow Conditions	No overbank flow.					
General Description	Records fair. Stage-discharge relation defined by 96 discharge measurements made in 2002.					

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

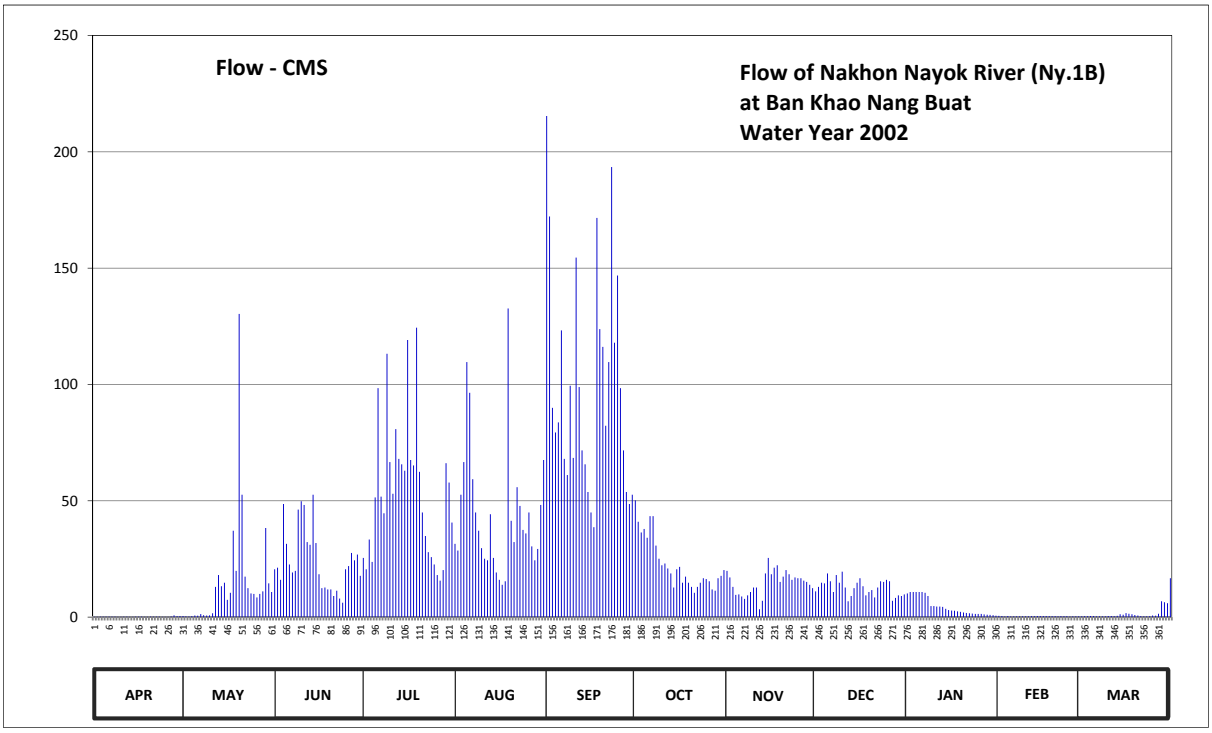
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	3.33	3.46	4.63	4.77	4.94	8.34	5.42	4.61	4.33	4.30	3.49	3.42	
2	3.33	3.41	4.65	4.63	4.86	7.70	5.19	4.53	4.40	4.32	3.46	3.44	
3	3.34	3.40	4.50	4.99	5.48	6.29	5.07	4.40	4.46	4.32	3.40	3.44	
4	3.34	3.43	5.38	4.72	5.80	6.07	5.11	4.27	4.45	4.32	3.46	3.45	
5	3.35	3.52	4.94	5.45	6.66	6.16	5.01	4.28	4.58	4.32	3.39	3.45	
6	3.36	3.51	4.69	6.46	6.42	6.89	5.25	4.24	4.48	4.32	3.41	3.42	
7	3.36	3.66	4.59	5.46	5.64	5.83	5.25	4.19	4.32	4.31	3.42	3.41	
8	3.34	3.55	4.61	5.28	5.29	5.68	4.92	4.26	4.56	4.25	3.41	3.41	
9	3.31	3.52	5.32	6.72	5.09	6.48	4.76	4.32	4.46	4.03	3.42	3.41	
10	3.32	3.54	5.41	5.80	4.89	5.84	4.68	4.39	4.60	4.03	3.42	3.45	
11	3.34	3.72	5.37	5.49	4.76	7.42	4.70	4.39	4.39	4.02	3.42	3.47	
12	3.34	4.40	4.96	6.10	4.74	6.47	4.64	3.93	4.14	4.02	3.43	3.44	
13	3.33	4.56	4.93	5.83	5.27	5.91	4.58	4.15	4.25	4.01	3.44	3.48	
14	3.33	4.41	5.48	5.78	4.77	5.78	4.39	4.58	4.38	3.95	3.45	3.65	
15	3.34	4.46	4.95	5.72	4.59	5.51	4.63	4.77	4.46	3.90	3.45	3.61	
16	3.34	4.17	4.57	6.82	4.50	5.29	4.66	4.57	4.52	3.88	3.45	3.74	
17	3.35	4.31	4.38	5.82	4.43	5.13	4.46	4.65	4.41	3.87	3.45	3.69	
18	3.33	5.09	4.39	5.77	4.48	7.69	4.54	4.68	4.26	3.84	3.44	3.65	
19	3.32	4.61	4.36	6.91	7.05	6.90	4.46	4.47	4.32	3.82	3.43	3.57	
20	3.35	7.01	4.36	5.71	5.20	6.77	4.40	4.54	4.35	3.78	3.43	3.52	
21	3.36	5.48	4.25	5.29	4.96	6.13	4.31	4.62	4.22	3.75	3.42	3.44	
22	3.36	4.54	4.34	5.03	5.56	6.66	4.40	4.57	4.39	3.72	3.44	3.42	
23	3.35	4.38	4.20	4.84	5.36	8.02	4.46	4.50	4.48	3.70	3.43	3.42	
24	3.33	4.30	4.11	4.78	5.10	6.80	4.52	4.53	4.47	3.67	3.43	3.44	
25	3.30	4.29	4.63	4.69	5.06	7.29	4.51	4.52	4.50	3.68	3.40	3.52	
26	3.32	4.22	4.67	4.56	5.29	6.46	4.48	4.52	4.48	3.67	3.42	3.50	
27	3.40	4.29	4.83	4.49	4.91	5.91	4.36	4.49	4.15	3.63	3.42	3.69	
28	3.53	4.33	4.74	4.62	4.74	5.51	4.34	4.47	4.21	3.61	3.42	4.14	
29	3.44	5.12	4.81	5.79	4.88	5.38	4.52	4.43	4.26	3.59		4.12	
30	3.45	4.45	4.55	5.61	5.37	5.48	4.55	4.38	4.25	3.56		4.10	
31		4.32		5.18	5.82		4.62		4.28	3.50		4.52	
Mean	3.35	4.24	4.72	5.46	5.22	6.39	4.68	4.44	4.38	3.93	3.43	3.59	
Max	3.53	7.01	5.48	6.91	7.05	8.34	5.42	4.77	4.60	4.32	3.49	4.52	8.34
Min	3.30	3.40	4.11	4.49	4.43	5.13	4.31	3.93	4.14	3.50	3.39	3.41	3.30

Annual Max Momentary Gage Height 9.24 m. (MSL.) , at 09.00 Hours , on Sep 1 , 2002

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed 2.66 m. (MSL.)

Left Bank Elevation 11.53 m. (MSL.) ,

Right Bank Elevation 11.53 m. (MSL.) , Drainage Are 521 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.16	0.48	20.55	25.45	31.48	215.36	50.20	19.85	11.04	10.20	0.57	0.36		
2	0.16	0.33	21.25	20.55	28.60	172.20	41.01	17.05	13.00	10.76	0.48	0.42		
3	0.18	0.30	16.00	33.33	52.60	89.92	36.36	13.00	14.80	10.76	0.30	0.42		
4	0.18	0.39	48.60	23.70	66.60	79.36	37.89	9.54	14.50	10.76	0.48	0.45		
5	0.20	0.68	31.48	51.40	109.64	83.68	34.08	9.76	18.80	10.76	0.28	0.45		
6	0.22	0.64	22.65	98.40	96.40	123.21	43.40	8.88	15.40	10.76	0.33	0.36		
7	0.22	1.30	19.15	51.80	59.24	67.98	43.40	7.80	10.76	10.48	0.36	0.33		
8	0.18	0.80	19.85	44.60	45.00	61.08	30.74	9.32	18.10	9.10	0.33	0.33		
9	0.12	0.68	46.20	113.18	37.12	99.40	25.10	10.76	14.80	4.74	0.36	0.33		
10	0.14	0.76	49.80	66.60	29.65	68.44	22.30	12.72	19.50	4.74	0.36	0.45		
11	0.18	1.62	48.20	53.00	25.10	154.48	23.00	12.72	12.72	4.56	0.36	0.51		
12	0.18	13.00	32.22	80.80	24.40	98.90	20.90	3.36	6.80	4.56	0.39	0.42		
13	0.16	18.10	31.11	67.98	44.20	71.68	18.80	7.00	9.10	4.38	0.42	0.54		
14	0.16	13.30	52.60	65.68	25.45	65.68	12.72	18.80	12.44	3.60	0.45	1.25		
15	0.18	14.80	31.85	62.92	19.15	53.80	20.55	25.45	14.80	3.00	0.45	1.05		
16	0.18	7.40	18.45	119.08	16.00	45.00	21.60	18.45	16.70	2.82	0.45	1.74		
17	0.20	10.48	12.44	67.52	13.90	38.67	14.80	21.25	13.30	2.73	0.45	1.45		
18	0.16	37.12	12.72	65.22	15.40	171.55	17.40	22.30	9.32	2.46	0.42	1.25		
19	0.14	19.85	11.88	124.39	132.65	123.80	14.80	15.10	10.76	2.28	0.39	0.88		
20	0.20	130.29	11.88	62.46	41.40	116.13	13.00	17.40	11.60	1.98	0.39	0.68		
21	0.22	52.60	9.10	45.00	32.22	82.24	10.48	20.20	8.44	1.80	0.36	0.42		
22	0.22	17.40	11.32	34.84	55.80	109.64	13.00	18.45	12.72	1.62	0.42	0.36		
23	0.20	12.44	8.00	27.90	47.80	193.44	14.80	16.00	15.40	1.50	0.39	0.36		
24	0.16	10.20	6.20	25.80	37.50	117.90	16.70	17.05	15.10	1.35	0.39	0.42		
25	0.10	9.98	20.55	22.65	35.98	146.81	16.35	16.70	16.00	1.40	0.30	0.68		
26	0.14	8.44	21.95	18.10	45.00	98.40	15.40	16.70	15.40	1.35	0.36	0.60		
27	0.30	9.98	27.55	15.70	30.37	71.68	11.88	15.70	7.00	1.15	0.36	1.45		
28	0.72	11.04	24.40	20.20	24.40	53.80	11.32	15.10	8.22	1.05	0.36	6.80		
29	0.42	38.28	26.85	66.14	29.30	48.60	16.70	13.90	9.32	0.96		6.40		
30	0.45	14.50	17.75	57.86	48.20	52.60	17.75	12.44	9.10	0.84		6.00		
31		10.76		40.62	67.52		20.20		9.76	0.60		16.70		
Total	6.43	467.94	732.55	1672.87	1368.07	2975.43	706.63	442.75	394.70	139.05	10.96	53.86	8971.24	CMSDAY
Mean	0.21	15.09	24.42	53.96	44.13	99.18	22.79	14.76	12.73	4.49	0.39	1.74	24.58	CMS
Max	0.72	130.29	52.60	124.39	132.65	215.36	50.20	25.45	19.50	10.76	0.57	16.70	215.36	CMS
Min	0.10	0.30	6.20	15.70	13.90	38.67	10.48	3.36	6.80	0.60	0.28	0.33	0.10	CMS
Runoff	0.56	40.43	63.29	144.54	118.20	257.08	61.05	38.25	34.10	12.01	0.95	4.65	775.12	MCM

Momentary Peak 285.60 CMS. at 9.24 m. (MSL.) at 09.00 Hours , on Sep 1 , 2002

Runoff Yield 47.18 Liters/Second/Square KM. Momentary Peak Yield 548.180 Liters/Second/Square KM.

WATER YEAR : 2002

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	Staff gage.
Zero Gage at Bottom	+0.000 m. (A.D.)
Bench Mark	B.M.-H.D.
Location BM	About 10 meters from the top staff gage. **Elevation** +6.367 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 mean of 5 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	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Flow effected by the local weir. Stage-discharge relation defined by 50 discharge measurements made in 2002.

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

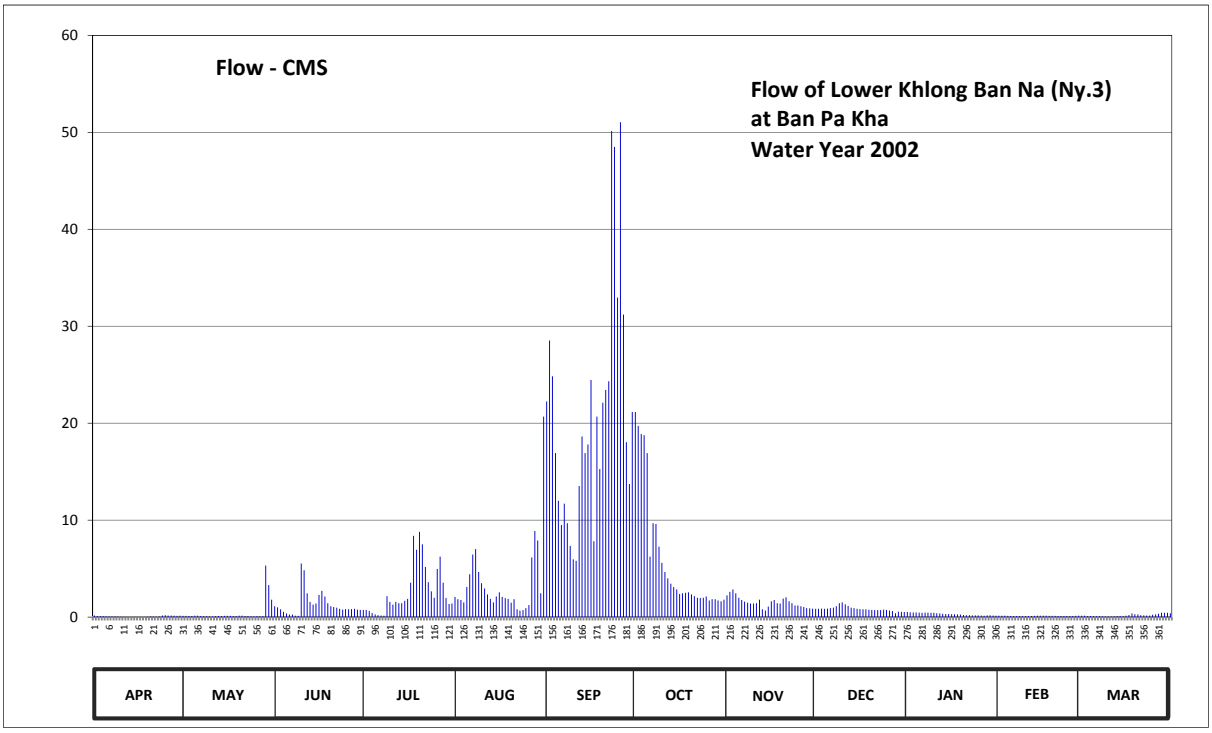
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.66	0.63	1.13	0.97	1.37	3.67	3.58	1.41	1.03	0.86	0.65	0.65	
2	0.62	0.63	1.10	0.97	1.31	4.16	3.46	1.48	1.03	0.85	0.65	0.64	
3	0.61	0.62	1.00	0.92	1.29	3.88	3.39	1.53	1.04	0.84	0.64	0.62	
4	0.59	0.62	0.87	0.81	1.23	3.22	3.38	1.45	1.03	0.84	0.63	0.62	
5	0.58	0.64	0.79	0.74	1.58	2.76	3.22	1.35	1.04	0.83	0.62	0.60	
6	0.56	0.64	0.73	0.70	1.82	2.49	2.09	1.29	1.06	0.82	0.62	0.59	
7	0.57	0.61	0.73	0.67	2.12	2.73	2.51	1.25	1.09	0.83	0.61	0.60	
8	0.56	0.60	0.65	0.65	2.19	2.51	2.50	1.22	1.13	0.83	0.61	0.58	
9	0.55	0.60	0.63	1.39	1.86	2.23	2.22	1.20	1.21	0.82	0.60	0.56	
10	0.53	0.58	1.99	1.24	1.66	2.05	2.00	1.20	1.23	0.82	0.60	0.56	
11	0.52	0.57	1.89	1.17	1.55	2.03	1.86	1.21	1.18	0.80	0.60	0.56	
12	0.50	0.59	1.45	1.24	1.43	2.91	1.75	1.30	1.14	0.79	0.61	0.58	
13	0.49	0.62	1.24	1.21	1.32	3.37	1.65	1.00	1.09	0.77	0.63	0.62	
14	0.50	0.62	1.17	1.21	1.23	3.22	1.58	0.94	1.06	0.76	0.65	0.62	
15	0.49	0.63	1.20	1.27	1.38	3.30	1.53	1.12	1.03	0.76	0.65	0.60	
16	0.49	0.63	1.42	1.32	1.47	3.85	1.44	1.26	1.01	0.75	0.64	0.65	
17	0.50	0.63	1.50	1.67	1.37	2.29	1.45	1.29	1.00	0.75	0.64	0.71	
18	0.49	0.62	1.38	2.36	1.34	3.54	1.46	1.21	1.00	0.74	0.63	0.79	
19	0.53	0.61	1.21	2.18	1.32	3.07	1.47	1.20	0.98	0.73	0.63	0.75	
20	0.56	0.65	1.13	2.41	1.22	3.66	1.43	1.33	0.97	0.71	0.63	0.74	
21	0.55	0.65	1.11	2.25	1.31	3.77	1.39	1.36	0.96	0.69	0.62	0.70	
22	0.53	0.62	1.09	1.94	1.00	3.84	1.35	1.26	0.96	0.69	0.61	0.68	
23	0.57	0.61	1.03	1.68	0.93	5.44	1.34	1.21	0.96	0.68	0.61	0.66	
24	0.66	0.58	0.99	1.49	0.96	5.35	1.35	1.15	0.99	0.68	0.62	0.66	
25	0.69	0.57	1.01	1.35	1.06	4.47	1.38	1.15	0.97	0.68	0.62	0.72	
26	0.67	0.59	1.00	1.91	1.16	5.49	1.28	1.13	0.94	0.67	0.62	0.74	
27	0.66	0.59	1.01	2.09	2.08	4.35	1.31	1.11	0.91	0.65	0.63	0.77	
28	0.65	0.60	1.03	1.67	2.42	3.32	1.31	1.06	0.80	0.68	0.65	0.83	
29	0.63	1.96	0.99	1.34	2.30	2.93	1.28	1.05	0.88	0.70		0.82	
30	0.65	1.62	0.97	1.19	1.45	3.58	1.26	1.04	0.87	0.67		0.82	
31		1.30		1.20	3.54		1.30		0.86	0.65		0.80	
Mean	0.57	0.71	1.11	1.39	1.56	3.45	1.89	1.23	1.01	0.75	0.63	0.67	
Max	0.69	1.96	1.99	2.41	3.54	5.49	3.58	1.53	1.23	0.86	0.65	0.83	5.49
Min	0.49	0.57	0.63	0.65	0.93	2.03	1.26	0.94	0.80	0.65	0.60	0.56	0.49

Annual Max Momentary Gage Height 5.83 m. (A.D.) , at 15.00 Hours , on Sep 23 , 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed 0.44 m. (A.D.)

Left Bank Elevation 7.27 m. (A.D.) ,

Right Bank Elevation 7.31 m. (A.D.) , Drainage Are 203 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.16	0.13	1.12	0.74	2.08	22.24	21.16	2.25	0.86	0.52	0.15	0.15		
2	0.12	0.13	1.00	0.74	1.84	28.54	19.72	2.60	0.86	0.50	0.15	0.14		
3	0.11	0.12	0.80	0.64	1.76	24.84	18.88	2.85	0.88	0.48	0.14	0.12		
4	0.09	0.12	0.54	0.42	1.52	16.92	18.76	2.45	0.86	0.48	0.13	0.12		
5	0.08	0.14	0.38	0.28	3.10	12.00	16.92	2.00	0.88	0.46	0.12	0.10		
6	0.06	0.14	0.26	0.20	4.42	9.51	6.23	1.76	0.92	0.44	0.12	0.09		
7	0.07	0.11	0.26	0.17	6.46	11.70	9.69	1.60	0.98	0.46	0.11	0.10		
8	0.06	0.10	0.15	0.15	7.02	9.69	9.60	1.48	1.12	0.46	0.11	0.08		
9	0.05	0.10	0.13	2.16	4.66	7.34	7.26	1.40	1.44	0.44	0.10	0.06		
10	0.03	0.08	5.53	1.56	3.50	5.95	5.60	1.40	1.52	0.44	0.10	0.06		
11	0.02	0.07	4.84	1.28	2.95	5.81	4.66	1.44	1.32	0.40	0.10	0.06		
12	0.00	0.09	2.45	1.56	2.35	13.51	4.00	1.80	1.16	0.38	0.11	0.08		
13	0.00	0.12	1.56	1.44	1.88	18.64	3.45	0.80	0.98	0.34	0.13	0.12		
14	0.00	0.12	1.28	1.44	1.52	16.92	3.10	0.68	0.92	0.32	0.15	0.12		
15	0.00	0.13	1.40	1.68	2.12	17.80	2.85	1.08	0.86	0.32	0.15	0.10		
16	0.00	0.13	2.30	1.88	2.55	24.45	2.40	1.64	0.82	0.30	0.14	0.15		
17	0.00	0.13	2.70	3.55	2.08	7.82	2.45	1.76	0.80	0.30	0.14	0.22		
18	0.00	0.12	2.12	8.38	1.96	20.68	2.50	1.44	0.80	0.28	0.13	0.38		
19	0.03	0.11	1.44	6.94	1.88	15.27	2.55	1.40	0.76	0.26	0.13	0.30		
20	0.06	0.15	1.12	8.79	1.48	22.12	2.35	1.92	0.74	0.22	0.13	0.28		
21	0.05	0.15	1.04	7.50	1.84	23.44	2.16	2.04	0.72	0.19	0.12	0.20		
22	0.03	0.12	0.98	5.18	0.80	24.32	2.00	1.64	0.72	0.19	0.11	0.18		
23	0.07	0.11	0.86	3.60	0.66	50.13	1.96	1.44	0.72	0.18	0.11	0.16		
24	0.16	0.08	0.78	2.65	0.72	48.50	2.00	1.20	0.78	0.18	0.12	0.16		
25	0.19	0.07	0.82	2.00	0.92	32.95	2.12	1.20	0.74	0.18	0.12	0.24		
26	0.17	0.09	0.80	4.97	1.24	51.04	1.72	1.12	0.68	0.17	0.12	0.28		
27	0.16	0.09	0.82	6.23	6.16	31.20	1.84	1.04	0.62	0.15	0.13	0.34		
28	0.15	0.10	0.86	3.55	8.88	18.04	1.84	0.92	0.40	0.18	0.15	0.46		
29	0.13	5.32	0.78	1.96	7.90	13.73	1.72	0.90	0.56	0.20		0.44		
30	0.15	3.30	0.74	1.36	2.45	21.16	1.64	0.88	0.54	0.17		0.44		
31		1.80		1.40	20.68		1.80		0.52	0.15		0.40		
Total	2.20	13.57	39.86	84.40	109.38	626.26	184.93	46.13	26.48	9.74	3.52	6.13	1152.60	CMSDAY
Mean	0.07	0.44	1.33	2.72	3.53	20.88	5.97	1.54	0.85	0.31	0.13	0.20	3.16	CMS
Max	0.19	5.32	5.53	8.79	20.68	51.04	21.16	2.85	1.52	0.52	0.15	0.46	51.04	CMS
Min	0.00	0.07	0.13	0.15	0.66	5.81	1.64	0.68	0.40	0.15	0.10	0.06	0.00	CMS
Runoff	0.19	1.17	3.44	7.29	9.45	54.11	15.98	3.99	2.29	0.84	0.30	0.53	99.58	MCM

Momentary Peak 57.21 CMS. at 5.83 m. (A.D.) at 15.00 Hours , on Sep 23 , 2002

Runoff Yield 15.56 Liters/Second/Square KM. Momentary Peak Yield 281.820 Liters/Second/Square KM.

WATER YEAR : 2002

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	Water - stage recorder.
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	Recording.
Basis of Mean Daily Gage Height	Arithmetic mean 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 good. Stage-discharge relation defined by 40 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

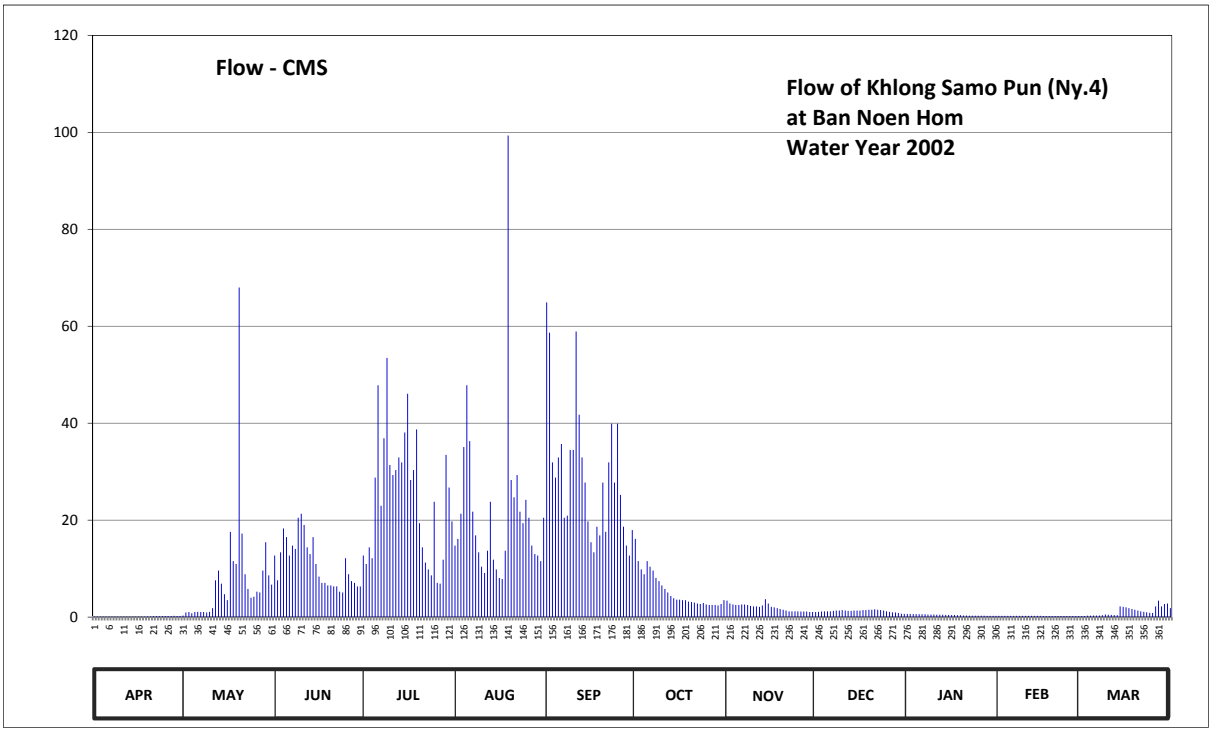
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	376.30	376.41	377.29	377.29	377.35	378.26	377.39	376.84	376.57	376.49	376.38	376.36	
2	376.30	376.55	377.10	377.23	377.39	378.13	377.25	376.78	376.58	376.49	376.38	376.36	
3	376.30	376.57	377.31	377.34	377.53	377.75	377.19	376.76	376.59	376.48	376.38	376.40	
4	376.30	376.52	377.45	377.27	377.81	377.69	377.15	376.75	376.60	376.48	376.38	376.40	
5	376.30	376.57	377.40	377.69	378.01	377.77	377.25	376.75	376.60	376.47	376.38	376.41	
6	376.30	376.58	377.29	378.01	377.83	377.82	377.21	376.76	376.60	376.47	376.38	376.41	
7	376.30	376.57	377.35	377.57	377.54	377.51	377.18	376.76	376.61	376.47	376.38	376.41	
8	376.29	376.57	377.33	377.84	377.41	377.52	377.12	376.75	376.62	376.46	376.38	376.42	
9	376.29	376.55	377.51	378.06	377.31	377.80	377.09	376.73	376.62	376.46	376.38	376.46	
10	376.29	376.58	377.53	377.74	377.21	377.80	377.04	376.72	376.63	376.46	376.38	376.45	
11	376.29	376.68	377.47	377.70	377.16	378.14	377.00	376.72	376.62	376.45	376.38	376.44	
12	376.29	377.10	377.34	377.72	377.32	377.92	376.96	376.71	376.61	376.45	376.38	376.43	
13	376.29	377.18	377.30	377.77	377.59	377.77	376.92	376.74	376.61	376.45	376.38	376.42	
14	376.29	377.06	377.40	377.75	377.26	377.67	376.89	376.87	376.62	376.44	376.38	376.72	
15	376.29	376.94	377.23	377.86	377.19	377.49	376.86	376.78	376.62	376.44	376.38	376.71	
16	376.29	376.85	377.13	377.99	377.12	377.37	376.86	376.71	376.62	376.43	376.37	376.70	
17	376.29	377.43	377.07	377.68	377.11	377.31	376.85	376.70	376.63	376.43	376.37	376.68	
18	376.30	377.25	377.07	377.72	377.32	377.46	376.85	376.68	376.63	376.42	376.37	376.66	
19	376.31	377.23	377.04	377.87	378.65	377.41	376.82	376.66	376.64	376.42	376.37	376.64	
20	376.32	378.30	377.04	377.48	377.68	377.67	376.81	376.64	376.64	376.41	376.37	376.62	
21	376.34	377.42	377.03	377.34	377.61	377.43	376.80	376.62	376.65	376.41	376.37	376.60	
22	376.35	377.15	377.03	377.24	377.70	377.75	376.78	376.60	376.64	376.40	376.37	376.58	
23	376.35	377.00	376.97	377.19	377.54	377.89	376.77	376.60	376.63	376.40	376.37	376.56	
24	376.36	376.90	376.96	377.14	377.48	377.67	376.79	376.60	376.62	376.39	376.37	376.54	
25	376.36	376.91	377.27	377.59	377.60	377.89	376.76	376.60	376.60	376.39	376.36	376.53	
26	376.37	376.97	377.15	377.07	377.51	377.62	376.75	376.59	376.58	376.39	376.36	376.72	
27	376.37	376.96	377.09	377.06	377.35	377.46	376.75	376.59	376.56	376.39	376.36	376.84	
28	376.38	377.18	377.07	377.26	377.30	377.35	376.75	376.59	376.55	376.38	376.36	376.72	
29	376.37	377.37	377.03	377.78	377.29	377.29	376.74	376.57	376.53	376.38		376.77	
30	376.37	377.14	377.03	377.65	377.25	377.44	376.77	376.57	376.50	376.38		376.78	
31		377.05		377.49	377.51		376.85		376.49	376.38		376.68	
Mean	376.32	376.95	377.21	377.56	377.48	377.67	376.94	376.69	376.60	376.43	376.37	376.56	
Max	376.38	378.30	377.53	378.06	378.65	378.26	377.39	376.87	376.65	376.49	376.38	376.84	378.65
Min	376.29	376.41	376.96	377.06	377.11	377.29	376.74	376.57	376.49	376.38	376.36	376.36	376.29

Annual Max Momentary Gage Height 379.46 m. (MSL.) , at 07.00 Hours , on Aug 19 , 2002

Zero Gage at Bottom Elevation 376.10 m. (MSL.) , River Bed 375.69 m. (MSL.)

Left Bank Elevation 383.08 m. (MSL.) ,

Right Bank Elevation 384.02 m. (MSL.) , Drainage Are 128 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.10	0.34	12.71	12.71	14.75	64.92	16.15	3.40	1.05	0.66	0.26	0.22		
2	0.10	0.95	7.60	10.97	16.15	58.69	11.55	2.80	1.10	0.66	0.26	0.22		
3	0.10	1.05	13.35	14.40	21.33	31.90	9.85	2.60	1.15	0.62	0.26	0.30		
4	0.10	0.80	18.30	12.13	35.10	28.79	8.85	2.50	1.20	0.62	0.26	0.30		
5	0.10	1.05	16.50	28.79	47.83	32.94	11.55	2.50	1.20	0.58	0.26	0.34		
6	0.10	1.10	12.71	47.83	36.30	35.70	10.39	2.60	1.20	0.58	0.26	0.34		
7	0.10	1.05	14.75	22.97	21.74	20.51	9.60	2.60	1.28	0.58	0.26	0.34		
8	0.09	1.05	14.05	36.90	16.86	20.92	8.10	2.50	1.36	0.54	0.26	0.38		
9	0.09	0.95	20.51	53.48	13.35	34.50	7.42	2.30	1.36	0.54	0.26	0.54		
10	0.09	1.10	21.33	31.38	10.39	34.50	6.52	2.20	1.44	0.54	0.26	0.50		
11	0.09	1.84	19.02	29.30	9.10	58.92	5.80	2.20	1.36	0.50	0.26	0.46		
12	0.09	7.60	14.40	30.34	13.70	41.74	5.08	2.10	1.28	0.50	0.26	0.42		
13	0.09	9.60	13.00	32.94	23.79	32.94	4.36	2.40	1.28	0.50	0.26	0.38		
14	0.09	6.88	16.50	31.90	11.84	27.77	3.90	3.70	1.36	0.46	0.26	2.20		
15	0.09	4.72	10.97	38.10	9.85	19.74	3.60	2.80	1.36	0.46	0.26	2.10		
16	0.09	3.50	8.35	46.08	8.10	15.45	3.60	2.10	1.36	0.42	0.24	2.00		
17	0.09	17.58	7.06	28.28	7.85	13.35	3.50	2.00	1.44	0.42	0.24	1.84		
18	0.10	11.55	7.06	30.34	13.70	18.66	3.50	1.84	1.44	0.38	0.24	1.68		
19	0.12	10.97	6.52	38.70	99.35	16.86	3.20	1.68	1.52	0.38	0.24	1.52		
20	0.14	68.00	6.52	19.38	28.28	27.77	3.10	1.52	1.52	0.34	0.24	1.36		
21	0.18	17.22	6.34	14.40	24.71	17.58	3.00	1.36	1.60	0.34	0.24	1.20		
22	0.20	8.85	6.34	11.26	29.30	31.90	2.80	1.20	1.52	0.30	0.24	1.10		
23	0.20	5.80	5.26	9.85	21.74	39.90	2.70	1.20	1.44	0.30	0.24	1.00		
24	0.22	4.00	5.08	8.60	19.38	27.77	2.90	1.20	1.36	0.28	0.24	0.90		
25	0.22	4.18	12.13	23.79	24.20	39.90	2.60	1.20	1.20	0.28	0.22	0.85		
26	0.24	5.26	8.85	7.06	20.51	25.22	2.50	1.15	1.10	0.28	0.22	2.20		
27	0.24	5.08	7.42	6.88	14.75	18.66	2.50	1.15	1.00	0.28	0.22	3.40		
28	0.26	9.60	7.06	11.84	13.00	14.75	2.50	1.15	0.95	0.26	0.22	2.20		
29	0.24	15.45	6.34	33.46	12.71	12.71	2.40	1.05	0.85	0.26		2.70		
30	0.24	8.60	6.34	26.75	11.55	17.94	2.70	1.05	0.70	0.26		2.80		
31		6.70		19.74	20.51		3.50		0.66	0.26		1.84		
Total	4.20	242.42	332.37	770.55	671.72	882.90	169.72	60.05	38.64	13.38	6.94	37.63	3230.52	CMSDAY
Mean	0.14	7.82	11.08	24.86	21.67	29.43	5.47	2.00	1.25	0.43	0.25	1.21	8.85	CMS
Max	0.26	68.00	21.33	53.48	99.35	64.92	16.15	3.70	1.60	0.66	0.26	3.40	99.35	CMS
Min	0.09	0.34	5.08	6.88	7.85	12.71	2.40	1.05	0.66	0.26	0.22	0.22	0.09	CMS
Runoff	0.36	20.95	28.72	66.58	58.04	76.28	14.66	5.19	3.34	1.16	0.60	3.25	279.12	MCM

Momentary Peak 196.90 CMS. at 379.46 m. (MSL.) at 07.00 Hours , on Aug 19, 2002

Runoff Yield 69.15 Liters/Second/Square KM. Momentary Peak Yield 1538.280 Liters/Second/Square KM.

WATER YEAR : 2002

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

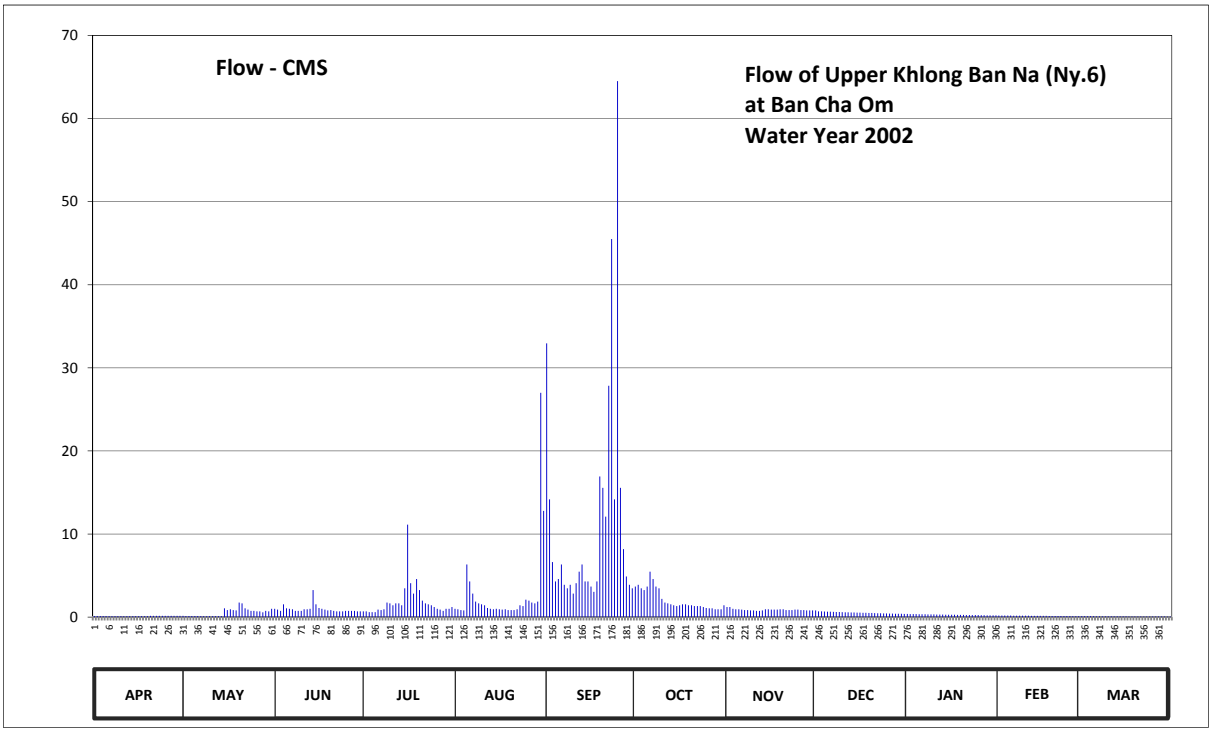
Location : on right bank about 50 meters from the top staff gage.

	Ban Cha Om	**Amphoe** Kaeng Khoi	**Changwat** Saraburi
Drainge Area	126 sq.km.		
Type of Gage	Staff gage.		
Zero Gage at Bottom	+0.000 m. (A.D.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank about 50 meters from the top staff gage.	**Elevation**	+5.360 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 mean 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	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 37 discharge measurements made in 2002.		

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	1.52	1.53	1.78	1.72	1.78	2.47	1.97	1.81	1.74	1.93	1.85	1.85	
2	1.52	1.52	1.76	1.72	1.77	2.23	1.98	1.81	1.72	1.93	1.85	1.84	
3	1.52	1.52	1.73	1.70	1.75	2.08	1.96	1.78	1.64	1.93	1.88	1.83	
4	1.52	1.52	1.84	1.70	1.74	2.00	1.95	1.77	1.64	1.93	1.87	1.83	
5	1.52	1.52	1.79	1.70	2.07	2.01	1.97	1.77	2.00	1.92	1.86	1.82	
6	1.51	1.52	1.78	1.76	2.00	2.07	2.04	1.76	1.99	1.92	1.86	1.82	
7	1.51	1.51	1.77	1.75	1.93	1.98	2.01	1.75	2.00	1.92	1.87	1.82	
8	1.51	1.51	1.73	1.77	1.87	1.96	1.97	1.75	2.00	1.92	1.86	1.82	
9	1.51	1.51	1.73	1.86	1.85	1.98	1.96	1.74	2.00	1.92	1.86	1.82	
10	1.51	1.51	1.73	1.85	1.84	1.93	1.90	1.74	2.00	1.92	1.86	1.82	
11	1.51	1.51	1.77	1.83	1.83	1.99	1.86	1.73	1.99	1.91	1.85	1.82	
12	1.51	1.51	1.77	1.85	1.80	2.04	1.85	1.73	1.98	1.91	1.87	1.82	
13	1.51	1.51	1.78	1.85	1.78	2.07	1.84	1.74	1.97	1.91	1.88	1.83	
14	1.51	1.51	1.95	1.83	1.77	2.00	1.83	1.77	1.97	1.91	1.90	1.89	
15	1.51	1.79	1.84	1.96	1.78	2.00	1.82	1.77	1.97	1.90	1.88	1.86	
16	1.51	1.75	1.80	2.18	1.77	1.97	1.83	1.76	1.97	1.90	1.88	1.86	
17	1.51	1.77	1.78	1.99	1.76	1.94	1.84	1.76	1.96	1.90	1.88	1.86	
18	1.51	1.75	1.76	1.93	1.77	2.00	1.84	1.76	1.96	1.89	1.87	1.85	
19	1.51	1.74	1.74	2.01	1.75	2.27	1.83	1.77	1.95	1.90	1.87	1.84	
20	1.53	1.86	1.75	1.95	1.75	2.25	1.83	1.77	1.95	1.91	1.87	1.84	
21	1.53	1.85	1.73	1.88	1.75	2.20	1.82	1.75	1.95	1.91	1.86	1.84	
22	1.53	1.79	1.72	1.85	1.77	2.41	1.82	1.75	1.95	1.91	1.86	1.85	
23	1.53	1.76	1.72	1.84	1.83	2.60	1.82	1.75	1.95	1.90	1.86	1.85	
24	1.53	1.73	1.72	1.83	1.82	2.23	1.81	1.76	1.95	1.90	1.85	1.85	
25	1.53	1.73	1.73	1.81	1.89	2.76	1.80	1.76	1.95	1.90	1.85	1.85	
26	1.53	1.72	1.73	1.78	1.88	2.25	1.79	1.75	1.94	1.90	1.85	1.87	
27	1.53	1.72	1.73	1.76	1.86	2.12	1.79	1.75	1.94	1.90	1.85	1.86	
28	1.53	1.69	1.73	1.73	1.85	2.02	1.77	1.74	1.93	1.90	1.85	1.85	
29	1.53	1.73	1.72	1.78	1.87	1.98	1.77	1.74	1.93	1.90		1.85	
30	1.53	1.72	1.72	1.78	2.40	1.96	1.77	1.74	1.93	1.90		1.85	
31		1.78		1.81	2.21		1.83		1.93	1.90		1.85	
Mean	1.52	1.65	1.76	1.83	1.85	2.13	1.87	1.76	1.93	1.91	1.86	1.84	
Max	1.53	1.86	1.95	2.18	2.40	2.76	2.04	1.81	2.00	1.93	1.90	1.89	2.76
Min	1.51	1.51	1.72	1.70	1.74	1.93	1.77	1.73	1.64	1.89	1.85	1.82	1.51

Annual Max Momentary Gage Height	3.00	m. (A.D.) ,	at 12.00 Hours , on Sep 25 , 2002		
Zero Gage at Bottom Elevation	0.00	m. (A.D.) ,	River Bed	1.77	m. (A.D.)
Left Bank Elevation	5.20	m. (A.D.) ,			
Right Bank Elevation	5.18	m. (A.D.) ,	Drainage Are	126	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.14	0.16	1.00	0.70	1.00	32.95	3.67	1.21	0.80	0.38	0.20	0.12		
2	0.14	0.14	0.90	0.70	0.95	14.17	3.88	1.21	0.70	0.37	0.20	0.11		
3	0.14	0.14	0.75	0.60	0.85	6.62	3.46	1.00	0.69	0.37	0.20	0.11		
4	0.14	0.14	1.54	0.60	0.80	4.30	3.25	0.95	0.67	0.36	0.19	0.11		
5	0.14	0.14	1.05	0.60	6.33	4.59	3.67	0.95	0.66	0.35	0.19	0.11		
6	0.12	0.14	1.00	0.90	4.30	6.33	5.46	0.90	0.65	0.35	0.18	0.10		
7	0.12	0.12	0.95	0.85	2.83	3.88	4.59	0.85	0.63	0.34	0.18	0.10		
8	0.12	0.12	0.75	0.95	1.87	3.46	3.67	0.85	0.62	0.33	0.18	0.10		
9	0.12	0.12	0.75	1.76	1.65	3.88	3.46	0.80	0.61	0.32	0.17	0.10		
10	0.12	0.12	0.75	1.65	1.54	2.83	2.20	0.80	0.60	0.32	0.17	0.10		
11	0.12	0.12	0.95	1.43	1.43	4.09	1.76	0.75	0.58	0.31	0.17	0.09		
12	0.12	0.12	0.95	1.65	1.10	5.46	1.65	0.75	0.57	0.31	0.16	0.09		
13	0.12	0.12	1.00	1.65	1.00	6.33	1.54	0.80	0.56	0.30	0.16	0.09		
14	0.12	0.12	3.25	1.43	0.95	4.30	1.43	0.95	0.55	0.29	0.16	0.09		
15	0.12	1.05	1.54	3.46	1.00	4.30	1.32	0.95	0.54	0.29	0.15	0.09		
16	0.12	0.85	1.10	11.12	0.95	3.67	1.43	0.90	0.53	0.28	0.15	0.09		
17	0.12	0.95	1.00	4.09	0.90	3.04	1.54	0.90	0.52	0.28	0.15	0.08		
18	0.12	0.85	0.90	2.83	0.95	4.30	1.54	0.90	0.51	0.27	0.14	0.08		
19	0.12	0.80	0.80	4.59	0.85	16.93	1.43	0.95	0.50	0.27	0.14	0.08		
20	0.16	1.76	0.85	3.25	0.85	15.55	1.43	0.95	0.49	0.26	0.14	0.08		
21	0.16	1.65	0.75	1.98	0.85	12.10	1.32	0.85	0.48	0.25	0.14	0.08		
22	0.16	1.05	0.70	1.65	0.95	27.85	1.32	0.85	0.47	0.25	0.13	0.08		
23	0.16	0.90	0.70	1.54	1.43	45.50	1.32	0.85	0.46	0.24	0.13	0.07		
24	0.16	0.75	0.70	1.43	1.32	14.17	1.21	0.90	0.45	0.24	0.13	0.07		
25	0.16	0.75	0.75	1.21	2.09	64.50	1.10	0.90	0.44	0.24	0.13	0.07		
26	0.16	0.70	0.75	1.00	1.98	15.55	1.05	0.85	0.43	0.23	0.12	0.07		
27	0.16	0.70	0.75	0.90	1.76	8.18	1.05	0.85	0.42	0.23	0.12	0.07		
28	0.16	0.57	0.75	0.75	1.65	4.88	0.95	0.80	0.41	0.22	0.12	0.07		
29	0.16	0.75	0.70	1.00	1.87	3.88	0.95	0.80	0.41	0.22		0.07		
30	0.16	0.70	0.70	1.00	27.00	3.46	0.95	0.80	0.40	0.21		0.06		
31		1.00		1.21	12.79		1.43		0.39	0.21		0.06		
Total	4.14	17.60	29.03	58.48	85.79	351.05	65.03	26.77	16.74	8.89	4.40	2.69	670.61	CMSDAY
Mean	0.14	0.57	0.97	1.89	2.77	11.70	2.10	0.89	0.54	0.29	0.16	0.09	1.84	CMS
Max	0.16	1.76	3.25	11.12	27.00	64.50	5.46	1.21	0.80	0.38	0.20	0.12	64.50	CMS
Min	0.12	0.12	0.70	0.60	0.80	2.83	0.95	0.75	0.39	0.21	0.12	0.06	0.06	CMS
Runoff	0.36	1.52	2.51	5.05	7.41	30.33	5.62	2.31	1.45	0.77	0.38	0.23	57.94	MCM

Momentary Peak 99.70 CMS. at 3.00 m. (A.D.) at 12.00 Hours , on Sep 25, 2002

Runoff Yield 14.58 Liters/Second/Square KM. Momentary Peak Yield 791.270 Liters/Second/Square KM.

WATER YEAR : 2002

TONLE SAP BASIN

Khlong Phra Phut at Ban Pang Ngon , Chanthaburi (TI.3)

Lat 12 - 58 - 12 N Long 102 - 17 - 20 E

Location : on left bank downstream from the bridge of Pong Nam Ron -Wang Nam Yen Highway.

Ban Pang Ngon **Amphoe** Pong Nam Ron **Changwat** Chanthaburi

Drainge Area	71 sq.km.
Type of Gage	Water - stage recorder.
Zero Gage at Bottom	+190.675 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank about 6 meters from the top staff gage. **Elevation** +195.793 m. (MSL.)
Gage Reading Frequency	Recording.
Basis of Mean Daily Gage Height	Arithmetic mean 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	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Flow effected by the local weir. Stage-discharge relation defined by 91 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

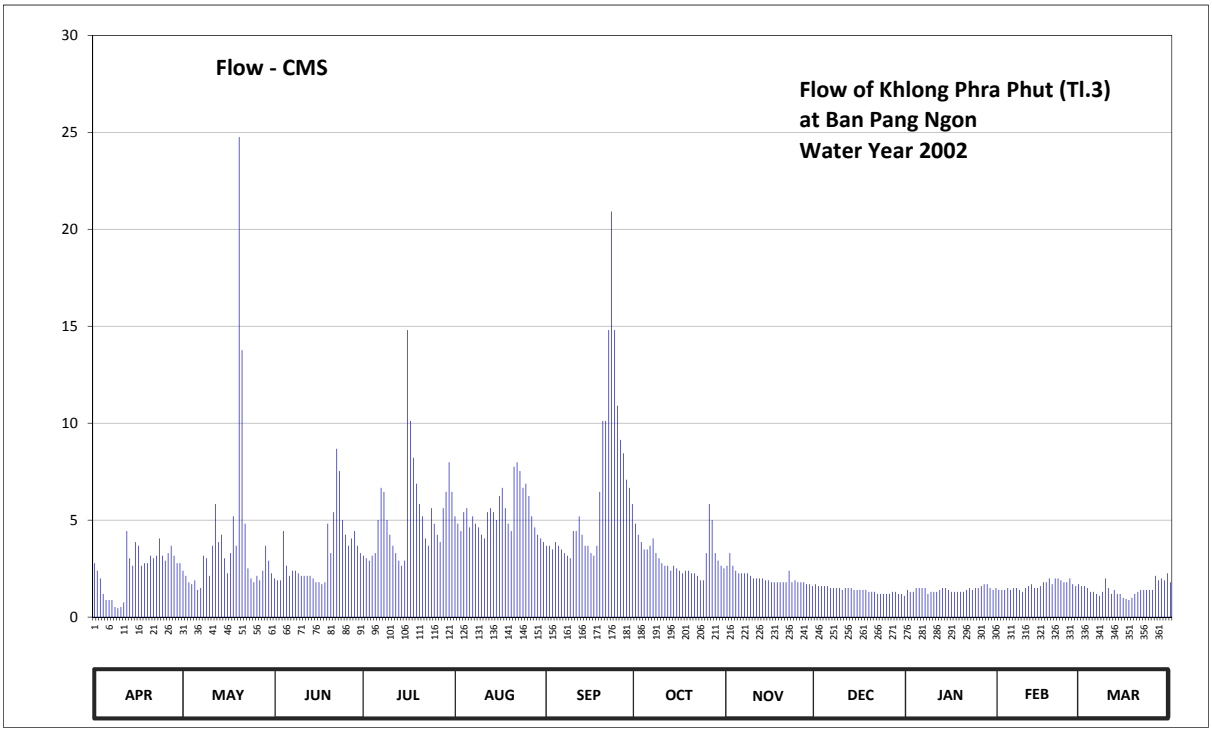
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	191.16	191.13	191.10	191.19	191.30	191.22	191.28	191.15	191.07	191.04	191.04	191.06	
2	191.13	191.11	191.09	191.18	191.28	191.22	191.25	191.20	191.06	191.03	191.04	191.06	
3	191.10	191.08	191.09	191.17	191.26	191.21	191.23	191.15	191.06	191.03	191.04	191.05	
4	191.02	191.07	191.26	191.19	191.31	191.23	191.21	191.13	191.06	191.05	191.05	191.03	
5	190.98	191.09	191.15	191.20	191.32	191.22	191.21	191.12	191.06	191.05	191.04	191.03	
6	190.98	191.04	191.11	191.29	191.27	191.21	191.22	191.12	191.05	191.05	191.05	191.02	
7	190.98	191.05	191.13	191.37	191.30	191.20	191.24	191.12	191.05	191.05	191.05	191.01	
8	190.92	191.19	191.13	191.36	191.28	191.19	191.20	191.12	191.05	191.02	191.04	191.03	
9	190.91	191.18	191.12	191.29	191.27	191.18	191.18	191.11	191.05	191.03	191.03	191.10	
10	190.92	191.11	191.11	191.25	191.25	191.26	191.16	191.10	191.04	191.03	191.05	191.05	
11	190.96	191.22	191.11	191.22	191.24	191.26	191.15	191.10	191.05	191.03	191.06	191.02	
12	191.26	191.33	191.11	191.20	191.31	191.30	191.15	191.10	191.05	191.04	191.07	191.04	
13	191.18	191.23	191.11	191.17	191.32	191.25	191.13	191.10	191.05	191.05	191.05	191.02	
14	191.15	191.25	191.10	191.15	191.31	191.22	191.15	191.09	191.04	191.05	191.05	191.02	
15	191.23	191.18	191.08	191.17	191.29	191.22	191.14	191.09	191.04	191.04	191.06	191.00	
16	191.22	191.12	191.08	191.70	191.35	191.20	191.13	191.08	191.04	191.03	191.08	190.99	
17	191.15	191.20	191.07	191.52	191.37	191.19	191.12	191.08	191.04	191.03	191.08	190.98	
18	191.16	191.30	191.08	191.44	191.32	191.22	191.13	191.08	191.04	191.03	191.10	191.00	
19	191.16	191.22	191.28	191.38	191.28	191.36	191.13	191.08	191.03	191.03	191.07	191.02	
20	191.19	192.03	191.20	191.33	191.26	191.52	191.12	191.08	191.03	191.03	191.10	191.03	
21	191.18	191.66	191.31	191.30	191.42	191.52	191.12	191.08	191.03	191.04	191.10	191.04	
22	191.19	191.28	191.46	191.24	191.43	191.70	191.11	191.13	191.02	191.05	191.09	191.04	
23	191.24	191.14	191.41	191.22	191.41	191.91	191.09	191.08	191.02	191.04	191.08	191.04	
24	191.19	191.10	191.29	191.32	191.37	191.70	191.09	191.09	191.02	191.05	191.08	191.04	
25	191.17	191.08	191.25	191.28	191.38	191.55	191.20	191.08	191.02	191.05	191.10	191.04	
26	191.20	191.11	191.22	191.25	191.35	191.48	191.33	191.08	191.02	191.06	191.07	191.11	
27	191.22	191.09	191.24	191.23	191.30	191.45	191.29	191.08	191.03	191.07	191.06	191.09	
28	191.19	191.13	191.26	191.32	191.27	191.39	191.20	191.07	191.03	191.07	191.07	191.10	
29	191.16	191.22	191.22	191.36	191.25	191.37	191.17	191.07	191.02	191.05		191.09	
30	191.16	191.17	191.20	191.43	191.24	191.33	191.15	191.06	191.02	191.04		191.12	
31		191.12		191.36	191.23		191.14		191.01	191.05		191.08	
Mean	191.12	191.20	191.18	191.29	191.31	191.34	191.17	191.10	191.04	191.04	191.06	191.04	
Max	191.26	192.03	191.46	191.70	191.43	191.91	191.33	191.20	191.06	191.07	191.10	191.12	192.03
Min	190.91	191.04	191.07	191.15	191.23	191.18	191.09	191.06	191.01	191.02	191.03	190.98	190.91

Annual Max Momentary Gage Height 193.45 m. (MSL.) , at 16.00 Hours , on May 20 , 2002

Zero Gage at Bottom Elevation 190.68 m. (MSL.) , River Bed 190.63 m. (MSL.)

Left Bank Elevation 196.58 m. (MSL.) ,

Right Bank Elevation 196.58 m. (MSL.) , Drainage Are 71 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.78	2.39	2.00	3.17	5.20	3.68	4.82	2.65	1.70	1.40	1.40	1.60		
2	2.39	2.13	1.90	3.04	4.82	3.68	4.25	3.30	1.60	1.30	1.40	1.60		
3	2.00	1.80	1.90	2.91	4.44	3.49	3.87	2.65	1.60	1.30	1.40	1.50		
4	1.20	1.70	4.44	3.17	5.41	3.87	3.49	2.39	1.60	1.50	1.50	1.30		
5	0.88	1.90	2.65	3.30	5.62	3.68	3.49	2.26	1.60	1.50	1.40	1.30		
6	0.88	1.40	2.13	5.01	4.63	3.49	3.68	2.26	1.50	1.50	1.50	1.20		
7	0.88	1.50	2.39	6.67	5.20	3.30	4.06	2.26	1.50	1.50	1.50	1.10		
8	0.52	3.17	2.39	6.46	4.82	3.17	3.30	2.26	1.50	1.20	1.40	1.30		
9	0.46	3.04	2.26	5.01	4.63	3.04	3.04	2.13	1.50	1.30	1.30	2.00		
10	0.52	2.13	2.13	4.25	4.25	4.44	2.78	2.00	1.40	1.30	1.50	1.50		
11	0.76	3.68	2.13	3.68	4.06	4.44	2.65	2.00	1.50	1.30	1.60	1.20		
12	4.44	5.83	2.13	3.30	5.41	5.20	2.65	2.00	1.50	1.40	1.70	1.40		
13	3.04	3.87	2.13	2.91	5.62	4.25	2.39	2.00	1.50	1.50	1.50	1.20		
14	2.65	4.25	2.00	2.65	5.41	3.68	2.65	1.90	1.40	1.50	1.50	1.20		
15	3.87	3.04	1.80	2.91	5.01	3.68	2.52	1.90	1.40	1.40	1.60	1.00		
16	3.68	2.26	1.80	14.80	6.25	3.30	2.39	1.80	1.40	1.30	1.80	0.94		
17	2.65	3.30	1.70	10.12	6.67	3.17	2.26	1.80	1.40	1.30	1.80	0.88		
18	2.78	5.20	1.80	8.22	5.62	3.68	2.39	1.80	1.40	1.30	2.00	1.00		
19	2.78	3.68	4.82	6.88	4.82	6.46	2.39	1.80	1.30	1.30	1.70	1.20		
20	3.17	24.76	3.30	5.83	4.44	10.12	2.26	1.80	1.30	1.30	2.00	1.30		
21	3.04	13.76	5.41	5.20	7.76	10.12	2.26	1.80	1.30	1.40	2.00	1.40		
22	3.17	4.82	8.68	4.06	7.99	14.80	2.13	2.39	1.20	1.50	1.90	1.40		
23	4.06	2.52	7.53	3.68	7.53	20.92	1.90	1.80	1.20	1.40	1.80	1.40		
24	3.17	2.00	5.01	5.62	6.67	14.80	1.90	1.90	1.20	1.50	1.80	1.40		
25	2.91	1.80	4.25	4.82	6.88	10.90	3.30	1.80	1.20	1.50	2.00	1.40		
26	3.30	2.13	3.68	4.25	6.25	9.14	5.83	1.80	1.20	1.60	1.70	2.13		
27	3.68	1.90	4.06	3.87	5.20	8.45	5.01	1.80	1.30	1.70	1.60	1.90		
28	3.17	2.39	4.44	5.62	4.63	7.09	3.30	1.70	1.30	1.70	1.70	2.00		
29	2.78	3.68	3.68	6.46	4.25	6.67	2.91	1.70	1.20	1.50		1.90		
30	2.78	2.91	3.30	7.99	4.06	5.83	2.65	1.60	1.20	1.40		2.26		
31		2.26		6.46	3.87		2.52		1.10	1.50		1.80		
Total	74.39	121.20	97.84	162.32	167.42	192.54	95.04	61.25	43.00	44.10	46.00	44.71	1149.81	CMSDAY
Mean	2.48	3.91	3.26	5.24	5.40	6.42	3.07	2.04	1.39	1.42	1.64	1.44	3.15	CMS
Max	4.44	24.76	8.68	14.80	7.99	20.92	5.83	3.30	1.70	1.70	2.00	2.26	24.76	CMS
Min	0.46	1.40	1.70	2.65	3.87	3.04	1.90	1.60	1.10	1.20	1.30	0.88	0.46	CMS
Runoff	6.43	10.47	8.45	14.02	14.47	16.64	8.21	5.29	3.72	3.81	3.97	3.86	99.34	MCM

Momentary Peak 91.10 CMS. at 193.45 m. (MSL.) at 16.00 Hours, on May 20 , 2002

Runoff Yield 44.37 Liters/Second/Square KM. Momentary Peak Yield 1283.100 Liters/Second/Square KM.

WATER YEAR : 2002

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 mean 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	Stable.
Overbank Flow Conditions	No overbank flow
General Description	Records fair. Flow effected by the local weir. Stage-discharge relation defined by 34 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

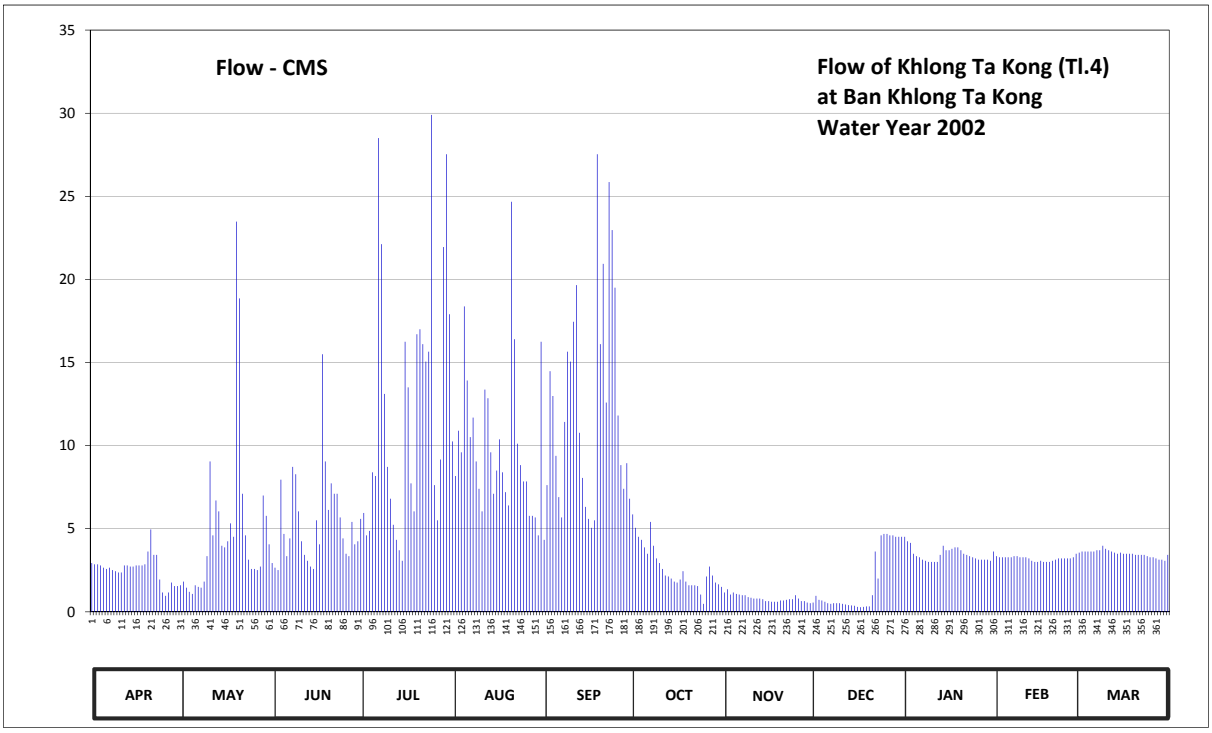
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	178.19	177.98	178.19	178.51	178.95	178.37	178.54	177.89	177.74	178.39	178.25	178.28	
2	178.18	178.02	178.15	178.55	178.77	178.72	178.45	177.93	177.84	178.36	178.24	178.29	
3	178.18	177.95	178.13	178.40	179.00	179.27	178.39	177.86	177.78	178.35	178.24	178.29	
4	178.17	177.90	178.75	178.43	178.90	179.16	178.37	177.89	177.77	178.27	178.24	178.29	
5	178.15	177.87	178.41	178.79	179.53	178.88	178.32	177.87	177.75	178.25	178.24	178.29	
6	178.14	177.98	178.25	178.77	179.23	178.65	178.27	177.86	177.73	178.24	178.24	178.29	
7	178.15	177.96	178.38	180.12	178.97	178.52	178.49	177.85	177.72	178.22	178.25	178.30	
8	178.13	177.95	178.82	179.76	179.06	179.04	178.33	177.85	177.73	178.21	178.25	178.30	
9	178.12	178.02	178.78	179.17	178.85	179.35	178.23	177.82	177.73	178.20	178.24	178.33	
10	178.11	178.25	178.56	178.82	178.70	179.31	178.19	177.81	177.73	178.20	178.24	178.31	
11	178.11	178.85	178.36	178.64	178.56	179.47	178.14	177.80	177.72	178.20	178.24	178.30	
12	178.17	178.40	178.26	178.47	179.19	179.61	178.08	177.80	177.71	178.20	178.23	178.29	
13	178.17	178.63	178.21	178.37	179.15	178.99	178.07	177.80	177.70	178.26	178.21	178.28	
14	178.16	178.56	178.16	178.30	178.90	178.76	178.05	177.79	177.69	178.33	178.20	178.27	
15	178.16	178.33	178.14	178.21	178.67	178.59	178.02	177.76	177.68	178.30	178.20	178.28	
16	178.17	178.32	178.50	179.39	178.80	178.51	178.01	177.76	177.65	178.30	178.21	178.27	
17	178.17	178.36	178.34	179.20	178.96	178.45	178.04	177.75	177.64	178.31	178.20	178.27	
18	178.17	178.48	179.34	178.73	178.79	178.50	178.12	177.75	177.65	178.32	178.20	178.27	
19	178.18	178.39	178.85	178.56	178.68	180.07	178.02	177.75	177.66	178.32	178.20	178.27	
20	178.29	179.84	178.57	179.42	178.60	179.38	177.98	177.77	177.66	178.30	178.21	178.26	
21	178.44	179.56	178.73	179.44	179.91	179.69	177.98	177.77	177.85	178.27	178.22	178.26	
22	178.26	178.67	178.67	179.38	179.40	179.13	177.98	177.78	178.29	178.26	178.23	178.26	
23	178.26	178.40	178.67	179.31	178.94	179.98	177.97	177.79	178.05	178.25	178.23	178.26	
24	178.04	178.22	178.52	179.35	178.83	179.81	177.86	177.79	178.40	178.24	178.23	178.25	
25	177.89	178.14	178.38	180.19	178.74	179.60	177.72	177.85	178.41	178.23	178.23	178.24	
26	177.84	178.14	178.27	178.72	178.74	179.07	178.07	177.80	178.41	178.22	178.23	178.24	
27	177.89	178.13	178.25	178.50	178.53	178.83	178.16	177.76	178.40	178.22	178.24	178.23	
28	178.01	178.16	178.49	178.86	178.53	178.70	178.08	177.76	178.40	178.22	178.27	178.22	
29	177.97	178.66	178.34	179.75	178.52	178.84	178.01	177.74	178.39	178.22		178.22	
30	177.97	178.53	178.36	180.07	178.40	178.64	177.99	177.73	178.39	178.21		178.21	
31		178.34		179.50	179.39		177.96		178.39	178.29		178.26	
Mean	178.13	178.35	178.46	179.02	178.91	179.06	178.13	177.80	177.92	178.26	178.23	178.27	
Max	178.44	179.84	179.34	180.19	179.91	180.07	178.54	177.93	178.41	178.39	178.27	178.33	180.19
Min	177.84	177.87	178.13	178.21	178.40	178.37	177.72	177.73	177.64	178.20	178.20	178.21	177.64

Annual Max Momentary Gage Height 181.78 m. (MSL.) , at 17.00 Hours , on May 20 , 2002

Zero Gage at Bottom Elevation 176.80 m. (MSL.) , River Bed 175.48 m. (MSL.)

Left Bank Elevation 186.18 m. (MSL.) ,

Right Bank Elevation 185.84 m. (MSL.) , Drainage Are 86 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.93	1.60	2.93	5.59	10.25	4.33	5.86	1.16	0.56	4.51	3.35	3.56		
2	2.86	1.82	2.65	5.95	8.17	7.62	5.05	1.35	0.96	4.24	3.28	3.63		
3	2.86	1.45	2.51	4.60	10.90	14.48	4.51	1.04	0.72	4.15	3.28	3.63		
4	2.79	1.20	7.95	4.87	9.60	12.98	4.33	1.16	0.68	3.49	3.28	3.63		
5	2.65	1.08	4.69	8.39	18.38	9.38	3.88	1.08	0.60	3.35	3.28	3.63		
6	2.58	1.60	3.35	8.17	13.92	6.90	3.49	1.04	0.52	3.28	3.28	3.63		
7	2.65	1.50	4.42	28.50	10.51	5.68	5.41	1.00	0.48	3.14	3.35	3.70		
8	2.51	1.45	8.72	22.12	11.68	11.42	3.97	1.00	0.52	3.07	3.35	3.70		
9	2.44	1.82	8.28	13.11	9.05	15.65	3.21	0.88	0.52	3.00	3.28	3.97		
10	2.37	3.35	6.04	8.72	7.40	15.05	2.93	0.84	0.52	3.00	3.28	3.79		
11	2.37	9.05	4.24	6.80	6.04	17.45	2.58	0.80	0.48	3.00	3.28	3.70		
12	2.79	4.60	3.42	5.23	13.37	19.66	2.18	0.80	0.44	3.00	3.21	3.63		
13	2.79	6.70	3.07	4.33	12.85	10.77	2.12	0.80	0.40	3.42	3.07	3.56		
14	2.72	6.04	2.72	3.70	9.60	8.06	2.00	0.76	0.38	3.97	3.00	3.49		
15	2.72	3.97	2.58	3.07	7.10	6.31	1.82	0.64	0.36	3.70	3.00	3.56		
16	2.79	3.88	5.50	16.25	8.50	5.59	1.76	0.64	0.30	3.70	3.07	3.49		
17	2.79	4.24	4.06	13.50	10.38	5.05	1.94	0.60	0.28	3.79	3.00	3.49		
18	2.79	5.32	15.50	7.73	8.39	5.50	2.44	0.60	0.30	3.88	3.00	3.49		
19	2.86	4.51	9.05	6.04	7.20	27.53	1.82	0.60	0.32	3.88	3.00	3.49		
20	3.63	23.48	6.13	16.70	6.40	16.10	1.60	0.68	0.32	3.70	3.07	3.42		
21	4.96	18.86	7.73	17.00	24.67	20.94	1.60	0.68	1.00	3.49	3.14	3.42		
22	3.42	7.10	7.10	16.10	16.40	12.59	1.60	0.72	3.63	3.42	3.21	3.42		
23	3.42	4.60	7.10	15.05	10.12	25.86	1.55	0.76	2.00	3.35	3.21	3.42		
24	1.94	3.14	5.68	15.65	8.83	22.97	1.04	0.76	4.60	3.28	3.21	3.35		
25	1.16	2.58	4.42	29.90	7.84	19.50	0.48	1.00	4.69	3.21	3.21	3.28		
26	0.96	2.58	3.49	7.62	7.84	11.81	2.12	0.80	4.69	3.14	3.21	3.28		
27	1.16	2.51	3.35	5.50	5.77	8.83	2.72	0.64	4.60	3.14	3.28	3.21		
28	1.76	2.72	5.41	9.16	5.77	7.40	2.18	0.64	4.60	3.14	3.49	3.14		
29	1.55	7.00	4.06	21.95	5.68	8.94	1.76	0.56	4.51	3.14		3.14		
30	1.55	5.77	4.24	27.53	4.60	6.80	1.65	0.52	4.51	3.07		3.07		
31		4.06		17.90	16.25		1.50		4.51	3.63		3.42		
Total	76.77	149.58	160.39	376.73	313.46	371.15	81.10	24.55	53.00	107.28	89.67	108.34	1912.02	CMSDAY
Mean	2.56	4.83	5.35	12.15	10.11	12.37	2.62	0.82	1.71	3.46	3.20	3.49	5.24	CMS
Max	4.96	23.48	15.50	29.90	24.67	27.53	5.86	1.35	4.69	4.51	3.49	3.97	29.90	CMS
Min	0.96	1.08	2.51	3.07	4.60	4.33	0.48	0.52	0.28	3.00	3.00	3.07	0.28	CMS
Runoff	6.63	12.92	13.86	32.55	27.08	32.07	7.01	2.12	4.58	9.27	7.75	9.36	165.20	MCM

Momentary Peak 68.52 CMS. at 181.78 m. (MSL.) at 17.00 Hours , on May 20 , 2002

Runoff Yield 60.91 Liters/Second/Square KM. Momentary Peak Yield 796.740 Liters/Second/Square KM.

WATER YEAR : 2002

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	Staff gage.		
Zero Gage at Bottom	+0.000 m. (A.D.)		
Bench Mark	B.M.-H.D.		
Location BM	Near automatic gage building.	**Elevation**	+11.280 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 mean of 5 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	Stable.		
Overbank Flow Conditions	No overbank flow		
General Description	Records good. Stage-discharge relation defined by 104 discharge measurements made in 2002.		

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

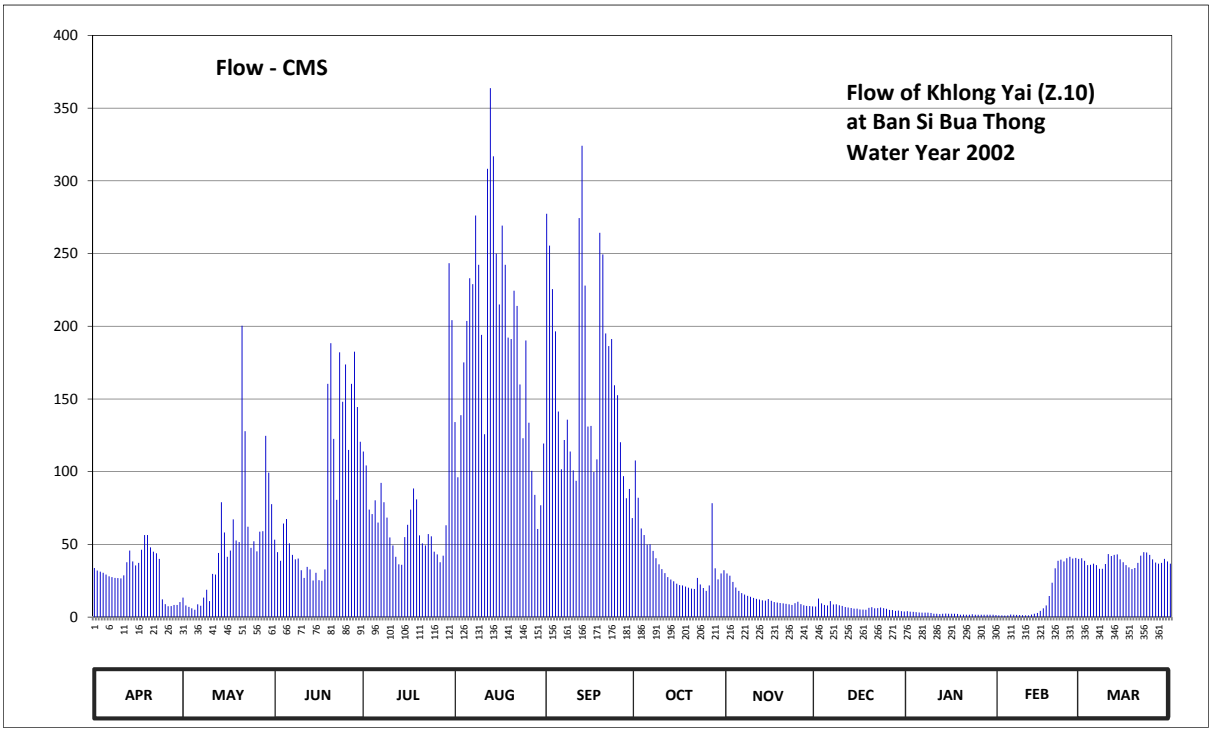
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	3.27	2.30	4.01	5.79	6.29	9.19	5.63	3.12	1.90	1.64	1.28	3.54	
2	3.20	1.96	3.70	5.54	5.32	8.80	4.91	3.06	2.26	1.61	1.27	3.47	
3	3.17	1.89	3.47	4.67	6.40	8.24	4.27	2.86	2.06	1.60	1.26	3.35	
4	3.14	1.81	4.38	4.58	7.20	7.65	4.12	2.67	1.99	1.58	1.27	3.36	
5	3.09	1.73	4.48	4.86	7.80	6.46	3.89	2.55	1.96	1.56	1.37	3.39	
6	3.04	2.02	3.92	4.40	8.39	5.47	3.90	2.47	2.16	1.55	1.36	3.35	
7	3.02	1.95	3.63	5.21	8.31	5.99	3.73	2.42	2.01	1.55	1.34	3.25	
8	3.00	2.30	3.51	4.82	9.17	6.33	3.54	2.37	2.02	1.55	1.32	3.25	
9	2.99	2.59	3.53	4.51	8.56	5.79	3.37	2.33	1.97	1.52	1.30	3.38	
10	2.98	2.16	3.21	4.06	7.60	5.45	3.24	2.29	1.94	1.46	1.29	3.65	
11	3.07	3.11	3.00	3.87	6.09	5.25	3.13	2.25	1.88	1.45	1.29	3.60	
12	3.43	3.09	3.30	3.58	9.69	9.14	3.02	2.22	1.85	1.42	1.37	3.63	
13	3.74	3.68	3.23	3.37	10.51	9.93	2.94	2.19	1.83	1.45	1.45	3.64	
14	3.45	4.82	2.91	3.36	9.82	8.29	2.88	2.18	1.79	1.47	1.53	3.51	
15	3.34	4.18	3.14	4.07	8.70	6.22	2.80	2.24	1.79	1.46	1.66	3.43	
16	3.41	3.58	2.92	4.35	8.03	6.23	2.75	2.17	1.75	1.46	1.81	3.35	
17	3.76	3.74	2.90	4.67	9.05	5.42	2.74	2.12	1.74	1.45	1.96	3.29	
18	4.12	4.47	3.23	5.10	8.56	5.65	2.70	2.10	1.73	1.44	2.36	3.24	
19	4.12	3.99	6.88	4.88	7.56	8.96	2.66	2.08	1.84	1.35	2.83	3.27	
20	3.82	3.95	7.48	4.11	7.54	8.69	2.63	2.06	1.87	1.37	3.26	3.41	
21	3.71	7.73	6.01	3.92	8.22	7.62	2.62	2.04	1.81	1.36	3.47	3.61	
22	3.67	6.14	4.87	3.87	8.01	7.44	3.00	2.02	1.82	1.36	3.50	3.70	
23	3.52	4.31	7.35	4.14	6.87	7.54	2.77	1.99	1.85	1.41	3.45	3.69	
24	2.23	3.81	6.61	4.09	6.02	6.86	2.65	2.07	1.82	1.36	3.54	3.63	
25	2.03	3.97	7.17	3.71	7.52	6.71	2.55	2.13	1.78	1.35	3.58	3.51	
26	1.92	3.72	5.82	3.64	6.28	5.95	2.74	2.03	1.72	1.36	3.53	3.42	
27	1.93	4.20	6.88	3.43	5.44	5.34	4.80	1.97	1.71	1.36	3.55	3.39	
28	1.99	4.21	7.36	3.61	4.97	4.90	3.26	1.94	1.66	1.35	3.52	3.41	
29	1.99	6.06	6.53	4.34	4.26	5.09	2.95	1.93	1.68	1.35		3.52	
30	2.12	5.41	5.96	8.58	4.76	4.50	3.12	1.91	1.64	1.35		3.45	
31		4.78		7.81	5.93		3.21		1.62	1.32		3.39	
Mean	3.08	3.67	4.71	4.55	7.38	6.84	3.31	2.26	1.85	1.45	2.17	3.45	
Max	4.12	7.73	7.48	8.58	10.51	9.93	5.63	3.12	2.26	1.64	3.58	3.70	10.51
Min	1.92	1.73	2.90	3.36	4.26	4.50	2.55	1.91	1.62	1.32	1.26	3.24	1.26

Annual Max Momentary Gage Height 10.55 m. (A.D.) , at 06.00 Hours, on Aug 13, 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed -0.15 m. (A.D.)

Left Bank Elevation 14.10 m. (A.D.) ,

Right Bank Elevation 14.05 m. (A.D.) , Drainage Are 779 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	33.75	13.40	53.29	113.82	134.07	277.40	107.74	30.00	7.20	4.04	1.20	40.50		
2	32.00	7.98	44.70	104.32	96.20	255.50	82.04	28.50	12.72	3.71	1.15	38.75		
3	31.25	7.07	38.75	73.88	138.80	225.50	60.97	24.20	9.40	3.60	1.10	35.75		
4	30.50	6.03	64.38	70.82	175.10	196.50	56.48	20.40	8.37	3.40	1.15	36.00		
5	29.25	5.06	67.48	80.34	203.70	141.38	49.83	18.00	7.98	3.20	1.72	36.75		
6	28.00	8.80	50.68	65.00	233.00	101.66	50.10	16.46	11.02	3.10	1.66	35.75		
7	27.50	7.85	42.81	92.35	229.00	121.80	45.51	15.56	8.65	3.10	1.54	33.25		
8	27.00	13.40	39.75	78.98	276.20	135.79	40.50	14.66	8.80	3.10	1.42	33.25		
9	26.80	18.80	40.25	68.44	242.30	113.82	36.25	13.94	8.11	2.80	1.30	36.50		
10	26.60	11.02	32.25	54.74	194.10	100.90	33.00	13.23	7.72	2.32	1.25	43.35		
11	28.75	29.75	27.00	49.29	125.80	93.75	30.25	12.55	6.94	2.25	1.25	42.00		
12	37.75	29.25	34.50	41.50	308.34	274.40	27.50	12.04	6.55	2.04	1.72	42.81		
13	45.78	44.16	32.75	36.25	363.69	324.18	25.80	11.53	6.29	2.25	2.25	43.08		
14	38.25	78.98	25.20	36.00	316.92	228.00	24.60	11.36	5.78	2.39	2.90	39.75		
15	35.50	58.22	30.50	55.03	250.00	131.06	23.00	12.38	5.78	2.32	4.26	37.75		
16	37.25	41.50	25.40	63.45	215.00	131.49	22.00	11.19	5.30	2.32	6.03	35.75		
17	46.32	45.78	25.00	73.88	269.25	99.76	21.80	10.34	5.18	2.25	7.98	34.25		
18	56.48	67.17	32.75	88.50	242.30	108.50	21.00	10.00	5.06	2.18	14.48	33.00		
19	56.48	52.71	160.38	81.02	192.18	264.30	20.20	9.70	6.42	1.60	23.60	33.75		
20	47.94	51.55	188.34	56.19	191.22	249.45	19.60	9.40	6.81	1.72	33.50	37.25		
21	44.97	200.34	122.60	50.68	224.50	195.06	19.40	9.10	6.03	1.66	38.75	42.27		
22	43.89	127.80	80.68	49.29	214.00	186.42	27.00	8.80	6.16	1.66	39.50	44.70		
23	40.00	62.21	182.10	57.06	159.92	191.22	22.40	8.37	6.55	1.97	38.25	44.43		
24	12.21	47.67	148.05	55.61	123.00	159.46	20.00	9.55	6.16	1.66	40.50	42.81		
25	8.95	52.13	173.72	44.97	190.26	152.56	18.00	10.51	5.66	1.60	41.50	39.75		
26	7.46	45.24	115.00	43.08	133.64	120.20	21.80	8.95	4.94	1.66	40.25	37.50		
27	7.59	58.80	160.38	37.75	100.52	96.90	78.30	8.11	4.82	1.66	40.75	36.75		
28	8.37	59.11	182.58	42.27	84.08	81.70	33.50	7.72	4.26	1.60	40.00	37.25		
29	8.37	124.60	144.45	63.14	60.66	88.16	26.00	7.59	4.48	1.60		40.00		
30	10.34	99.38	120.60	243.40	76.94	68.10	30.00	7.33	4.04	1.60		38.25		
31		77.62		204.18	119.40		32.25		3.82	1.42		36.75		
Total	915.30	1553.38	2486.32	2275.23	5884.09	4914.92	1126.82	391.47	207.00	71.78	430.96	1189.70	21446.97	CMSDAY
Mean	30.51	50.11	82.88	73.39	189.81	163.83	36.35	13.05	6.68	2.32	15.39	38.38	58.76	CMS
Max	56.48	200.34	188.34	243.40	363.69	324.18	107.74	30.00	12.72	4.04	41.50	44.70	363.69	CMS
Min	7.46	5.06	25.00	36.00	60.66	68.10	18.00	7.33	3.82	1.42	1.10	33.00	1.10	CMS
Runoff	79.08	134.21	214.82	196.58	508.39	424.65	97.36	33.82	17.88	6.20	37.23	102.79	1853.02	MCM

Momentary Peak 366.45 CMS, at 10.55 m. (A.D.), at 06.00 Hours, on Aug 13, 2002

Runoff Yield 75.43 Liters/Second/Square KM. Momentary Peak Yield 470.410 Liters/Second/Square KM.

WATER YEAR : 2002

EAST COAST - GULF BASIN

Khlong Prasae at Ban Khao Chik , Rayong (Z.11)

Lat 12 - 51 - 20 N Long 101 - 37 - 09 E

Location : on left bank near the Meteorological Station.

Ban Khao Chik **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 mean 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	Stable.
Overbank Flow Conditions	No overbank flow
General Description	Records fair. Flow effected by the concrete weir about 7 kilometers downstream and 5 kilometers above gage site. Stage-discharge relation defined by 76 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

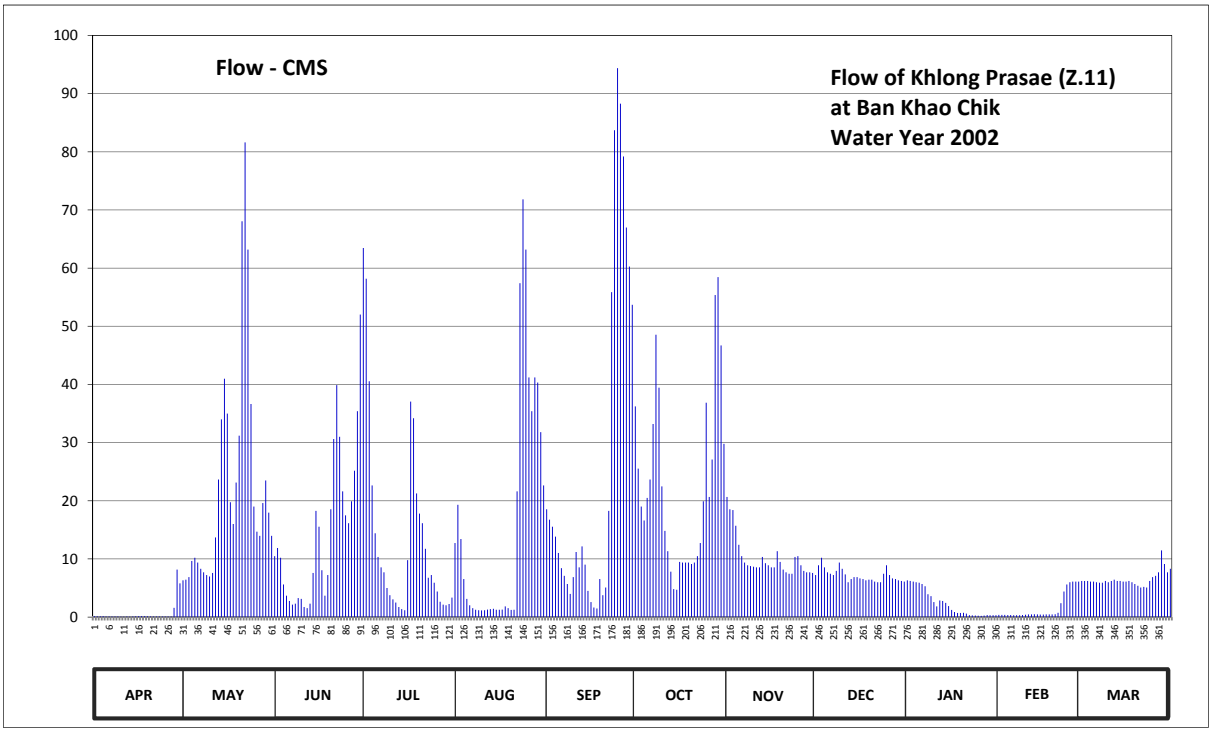
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	3.55	4.63	4.97	7.68	5.13	5.53	6.52	5.67	4.71	4.63	3.69	4.62	
2	3.54	4.64	5.07	7.48	5.58	5.41	5.96	5.53	4.85	4.62	3.69	4.62	
3	3.54	4.68	4.95	6.72	5.18	5.33	5.56	5.52	4.95	4.61	3.69	4.62	
4	3.55	4.91	4.56	5.79	4.65	5.21	5.40	5.34	4.82	4.60	3.68	4.61	
5	3.52	4.95	4.36	5.25	4.29	5.01	5.66	5.11	4.75	4.59	3.68	4.61	
6	3.51	4.89	4.24	4.96	4.12	4.81	5.85	4.97	4.73	4.57	3.67	4.60	
7	3.51	4.80	4.14	4.82	4.04	4.70	6.37	4.89	4.71	4.53	3.67	4.59	
8	3.50	4.75	4.17	4.75	3.99	4.57	7.08	4.85	4.77	4.39	3.67	4.59	
9	3.50	4.71	4.31	4.50	3.96	4.40	6.67	4.84	4.89	4.35	3.68	4.62	
10	3.49	4.69	4.29	4.37	3.95	4.68	5.78	4.83	4.80	4.21	3.70	4.60	
11	3.48	4.74	4.07	4.28	3.96	5.02	5.28	4.82	4.72	4.09	3.72	4.62	
12	3.50	5.20	4.04	4.20	4.00	4.82	5.03	4.82	4.60	4.25	3.72	4.64	
13	3.47	5.85	4.17	4.07	4.01	5.09	4.76	4.96	4.65	4.24	3.73	4.62	
14	3.50	6.41	4.74	4.01	4.02	4.86	4.48	4.88	4.68	4.19	3.72	4.62	
15	3.54	6.74	5.51	3.96	3.99	4.45	4.47	4.85	4.68	4.10	3.71	4.61	
16	3.56	6.46	5.33	4.92	3.99	4.21	4.90	4.82	4.66	3.98	3.71	4.61	
17	3.55	5.61	4.78	6.56	4.00	4.06	4.89	4.82	4.65	3.86	3.72	4.62	
18	3.55	5.36	4.36	6.42	4.09	4.03	4.89	5.03	4.63	3.80	3.72	4.60	
19	3.54	5.82	4.71	5.71	4.04	4.65	4.89	4.90	4.64	3.80	3.72	4.57	
20	3.52	6.27	5.53	5.48	3.98	4.37	4.87	4.79	4.64	3.81	3.73	4.54	
21	3.51	7.85	6.24	5.37	3.99	4.51	4.89	4.75	4.61	3.77	3.81	4.51	
22	3.51	8.32	6.69	5.06	5.73	5.51	4.97	4.73	4.60	3.66	4.18	4.52	
23	3.51	7.67	6.26	4.67	7.45	7.39	5.13	4.73	4.60	3.65	4.44	4.51	
24	3.51	6.54	5.73	4.71	7.99	8.39	5.62	4.96	4.73	3.64	4.56	4.62	
25	3.51	5.56	5.46	4.59	7.67	8.73	6.55	4.97	4.85	3.62	4.60	4.68	
26	3.51	5.27	5.37	4.44	6.75	8.54	5.67	4.85	4.71	3.61	4.61	4.70	
27	3.51	5.22	5.62	4.22	6.48	8.24	6.05	4.77	4.66	3.64	4.61	4.75	
28	4.05	5.60	5.94	4.14	6.75	7.81	7.37	4.75	4.65	3.68	4.61	5.04	
29	4.79	5.84	6.48	4.12	6.71	7.56	7.49	4.75	4.63	3.67		4.87	
30	4.58	5.49	7.23	4.16	6.30	7.30	7.00	4.74	4.62	3.67		4.75	
31		5.22		4.32	5.79		6.20		4.61	3.67		4.80	
Mean	3.61	5.64	5.11	5.02	5.05	5.64	5.69	4.94	4.70	4.05	3.91	4.64	
Max	4.79	8.32	7.23	7.68	7.99	8.73	7.49	5.67	4.95	4.63	4.61	5.04	8.73
Min	3.47	4.63	4.04	3.96	3.95	4.03	4.47	4.73	4.60	3.61	3.67	4.51	3.47

Annual Max Momentary Gage Height 8.79 m. (MSL.) , at 13.00 Hours, on Sep 25, 2002

Zero Gage at Bottom Elevation 2.63 m. (MSL.) , River Bed 3.27 m. (MSL.)

Left Bank Elevation 10.79 m. (MSL.) ,

Right Bank Elevation 10.91 m. (MSL.) , Drainage Are 1,236 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.15	6.33	10.48	63.46	12.72	18.55	36.22	20.65	7.22	6.33	0.38	6.22		
2	0.14	6.44	11.88	58.18	19.30	16.75	25.52	18.55	8.90	6.22	0.38	6.22		
3	0.14	6.88	10.20	40.54	13.42	15.55	19.00	18.40	10.20	6.11	0.38	6.22		
4	0.15	9.64	5.60	22.63	6.55	13.84	16.60	15.70	8.54	6.00	0.36	6.11		
5	0.12	10.20	3.68	14.40	3.13	11.04	20.50	12.44	7.70	5.90	0.36	6.11		
6	0.11	9.38	2.78	10.34	2.02	8.42	23.65	10.48	7.46	5.70	0.34	6.00		
7	0.11	8.30	2.14	8.54	1.54	7.10	33.20	9.38	7.22	5.30	0.34	5.90		
8	0.10	7.70	2.32	7.70	1.27	5.70	48.54	8.90	7.94	3.92	0.34	5.90		
9	0.10	7.22	3.28	5.00	1.18	4.00	39.44	8.78	9.38	3.60	0.36	6.22		
10	0.09	6.99	3.13	3.76	1.15	6.88	22.46	8.66	8.30	2.57	0.40	6.00		
11	0.08	7.58	1.72	3.06	1.18	11.18	14.82	8.54	7.34	1.84	0.46	6.22		
12	0.10	13.70	1.54	2.50	1.30	8.54	11.32	8.54	6.00	2.85	0.46	6.44		
13	0.07	23.65	2.32	1.72	1.36	12.16	7.82	10.34	6.55	2.78	0.49	6.22		
14	0.10	34.00	7.58	1.36	1.42	9.02	4.80	9.26	6.88	2.44	0.46	6.22		
15	0.14	40.98	18.25	1.18	1.27	4.50	4.70	8.90	6.88	1.90	0.43	6.11		
16	0.16	35.00	15.55	9.78	1.27	2.57	9.50	8.54	6.66	1.24	0.43	6.11		
17	0.15	19.75	8.06	37.06	1.30	1.66	9.38	8.54	6.55	0.88	0.46	6.22		
18	0.15	16.00	3.68	34.20	1.84	1.48	9.38	11.32	6.33	0.70	0.46	6.00		
19	0.14	23.14	7.22	21.27	1.54	6.55	9.38	9.50	6.44	0.70	0.46	5.70		
20	0.12	31.20	18.55	17.80	1.24	3.76	9.14	8.18	6.44	0.73	0.49	5.40		
21	0.11	68.05	30.60	16.15	1.27	5.10	9.38	7.70	6.11	0.61	0.73	5.10		
22	0.11	81.60	39.88	11.74	21.61	18.25	10.48	7.46	6.00	0.32	2.38	5.20		
23	0.11	63.19	31.00	6.77	57.40	55.86	12.72	7.46	6.00	0.30	4.40	5.10		
24	0.11	36.64	21.61	7.22	71.83	83.70	19.90	10.34	7.46	0.28	5.60	6.22		
25	0.11	19.00	17.50	5.90	63.19	94.36	36.85	10.48	8.90	0.24	6.00	6.88		
26	0.11	14.68	16.15	4.40	41.20	88.28	20.65	8.90	7.22	0.22	6.11	7.10		
27	0.11	13.98	19.90	2.64	35.40	79.20	27.10	7.94	6.66	0.28	6.11	7.70		
28	1.60	19.60	25.18	2.14	41.20	66.97	55.38	7.70	6.55	0.36	6.11	11.46		
29	8.18	23.48	35.40	2.02	40.32	60.26	58.44	7.70	6.33	0.34		9.14		
30	5.80	17.95	52.02	2.26	31.80	53.70	46.70	7.58	6.22	0.34		7.70		
31		13.98		3.36	22.63		29.80		6.11	0.34		8.30		
Total	18.77	696.23	429.20	429.08	503.85	774.93	702.77	306.86	222.49	71.34	45.68	201.44	4402.64	CMSDAY
Mean	0.63	22.46	14.31	13.84	16.25	25.83	22.67	10.23	7.18	2.30	1.63	6.50	12.06	CMS
Max	8.18	81.60	52.02	63.46	71.83	94.36	58.44	20.65	10.20	6.33	6.11	11.46	94.36	CMS
Min	0.07	6.33	1.54	1.18	1.15	1.48	4.70	7.46	6.00	0.22	0.34	5.10	0.07	CMS
Runoff	1.62	60.15	37.08	37.07	43.53	66.95	60.72	26.51	19.22	6.16	3.95	17.40	380.39	MCM

Momentary Peak 96.28 CMS, at 8.79 m. (MSL.), at 13.00 Hours, on Sep 25, 2002

Runoff Yield 9.76 Liters/Second/Square KM. Momentary Peak Yield 77.900 Liters/Second/Square KM.

WATER YEAR : 2002

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	Staff gage.		
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	5-time daily readings at 06.00, 09.00, 12.00, 15.00 and 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 5 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 because of backwater effect.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 58 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

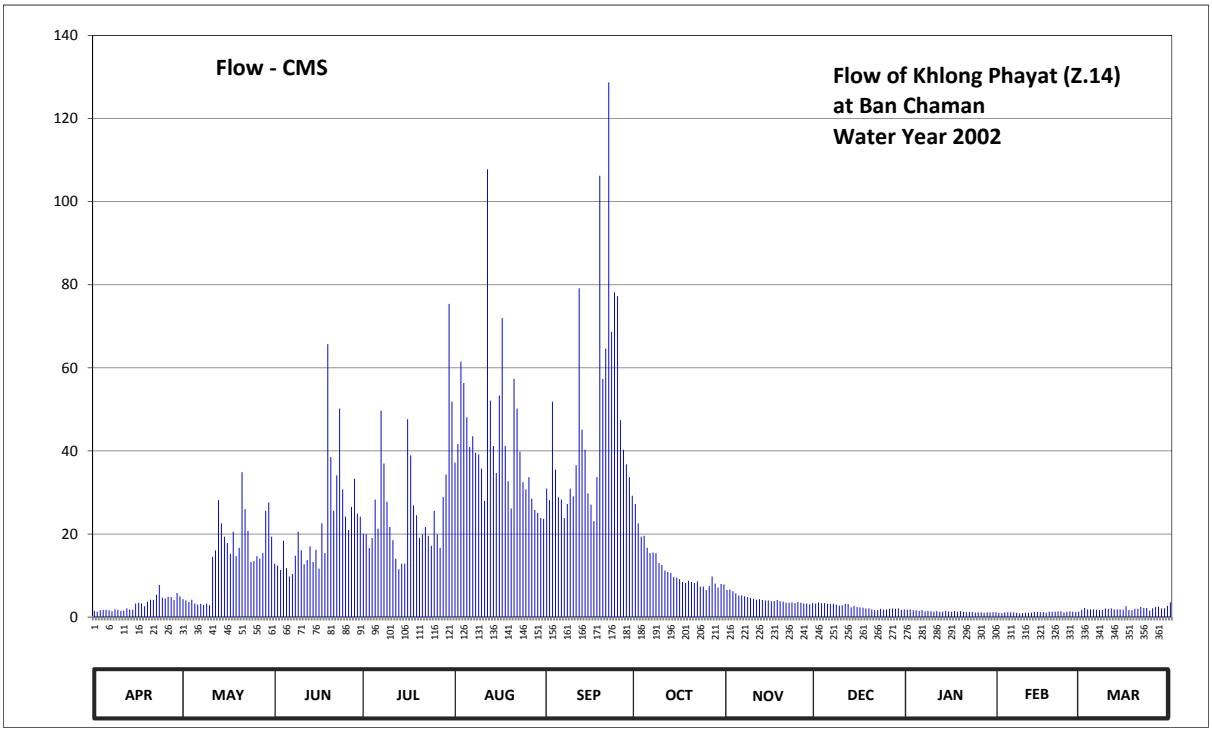
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	6.30	6.64	7.33	7.78	8.69	8.38	8.18	6.86	6.53	6.34	6.22	6.34	
2	6.27	6.61	7.30	7.77	8.89	8.23	7.92	6.87	6.56	6.35	6.21	6.40	
3	6.32	6.57	7.23	7.58	9.71	9.33	7.74	6.83	6.54	6.32	6.24	6.35	
4	6.34	6.63	7.68	7.72	9.51	8.61	7.75	6.78	6.54	6.32	6.24	6.35	
5	6.34	6.53	7.26	8.24	9.17	8.27	7.58	6.73	6.52	6.30	6.24	6.35	
6	6.32	6.50	7.12	7.85	8.86	8.24	7.50	6.73	6.52	6.33	6.24	6.34	
7	6.29	6.52	7.16	9.24	8.97	7.99	7.51	6.71	6.52	6.28	6.22	6.33	
8	6.35	6.49	7.46	8.68	8.80	8.18	7.50	6.69	6.50	6.30	6.20	6.34	
9	6.34	6.53	7.81	8.21	8.78	8.38	7.34	6.67	6.47	6.29	6.21	6.38	
10	6.30	6.48	7.54	7.87	8.62	8.28	7.31	6.65	6.48	6.27	6.23	6.37	
11	6.31	7.44	7.32	7.69	8.22	8.66	7.22	6.63	6.52	6.29	6.22	6.38	
12	6.38	7.54	7.39	7.41	11.16	10.32	7.20	6.64	6.52	6.26	6.23	6.35	
13	6.35	8.23	7.60	7.24	9.34	9.04	7.18	6.62	6.42	6.27	6.26	6.35	
14	6.34	7.92	7.36	7.33	8.87	8.83	7.11	6.61	6.46	6.30	6.26	6.35	
15	6.53	7.74	7.55	7.33	8.57	8.32	7.10	6.61	6.43	6.28	6.25	6.34	
16	6.55	7.65	7.25	9.15	9.39	8.17	7.07	6.59	6.42	6.26	6.25	6.45	
17	6.53	7.49	7.92	8.77	10.09	7.95	7.02	6.60	6.41	6.29	6.23	6.33	
18	6.45	7.81	7.50	8.16	8.87	8.52	7.00	6.62	6.38	6.27	6.27	6.32	
19	6.58	7.45	9.87	8.03	8.47	11.12	7.04	6.59	6.39	6.29	6.27	6.37	
20	6.63	7.58	8.75	7.72	8.12	9.55	7.02	6.58	6.35	6.26	6.27	6.37	
21	6.62	8.58	8.09	7.77	9.55	9.83	7.00	6.55	6.33	6.25	6.28	6.43	
22	6.75	8.11	8.54	7.87	9.26	11.65	7.03	6.55	6.33	6.26	6.28	6.40	
23	6.96	7.82	9.26	7.75	8.81	9.98	6.93	6.56	6.37	6.26	6.24	6.40	
24	6.68	7.36	8.37	7.61	8.46	10.29	6.93	6.54	6.35	6.23	6.26	6.31	
25	6.66	7.37	8.01	8.09	8.37	10.26	6.85	6.57	6.35	6.24	6.28	6.39	
26	6.70	7.45	7.83	7.77	8.52	9.14	6.94	6.55	6.37	6.24	6.27	6.43	
27	6.69	7.41	8.14	7.58	8.25	8.83	7.12	6.53	6.38	6.22	6.26	6.44	
28	6.62	7.50	8.50	8.27	8.10	8.67	6.99	6.53	6.37	6.24	6.27	6.38	
29	6.79	8.09	8.05	8.55	8.06	8.52	6.91	6.51	6.38	6.24		6.39	
30	6.71	8.20	8.01	10.20	7.99	8.29	6.98	6.54	6.34	6.25		6.46	
31		7.74		9.33	7.98		6.97		6.35	6.25		6.56	
Mean	6.50	7.35	7.84	8.08	8.85	8.99	7.22	6.63	6.43	6.28	6.25	6.38	
Max	6.96	8.58	9.87	10.20	11.16	11.65	8.18	6.87	6.56	6.35	6.28	6.56	11.65
Min	6.27	6.48	7.12	7.24	7.98	7.95	6.85	6.51	6.33	6.22	6.20	6.31	6.20

Annual Max Momentary Gage Height 12.42 m. (MSL.) , at 09.00 Hours, on Sep 19, 2002

Zero Gage at Bottom Elevation 5.40 m. (MSL.) , River Bed 5.13 m. (MSL.)

Left Bank Elevation 13.43 m. (MSL.) ,

Right Bank Elevation 13.34 m. (MSL.) , Drainage Are 229 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.50	4.30	12.85	20.06	37.19	30.92	27.24	6.56	3.27	1.78	1.02	1.78		
2	1.32	4.00	12.40	19.89	41.67	28.14	22.56	6.67	3.54	1.85	0.96	2.20		
3	1.64	3.63	11.35	16.68	61.46	51.85	19.38	6.23	3.36	1.64	1.14	1.85		
4	1.78	4.20	18.36	19.04	56.35	35.51	19.55	5.70	3.36	1.64	1.14	1.85		
5	1.78	3.27	11.80	28.32	48.11	28.86	16.68	5.20	3.18	1.50	1.14	1.85		
6	1.64	3.00	9.78	21.30	40.98	28.32	15.40	5.20	3.18	1.71	1.14	1.78		
7	1.44	3.18	10.34	49.72	43.51	23.82	15.56	5.00	3.18	1.38	1.02	1.71		
8	1.85	2.92	14.80	36.98	39.60	27.24	15.40	4.80	3.00	1.50	0.90	1.78		
9	1.78	3.27	20.58	27.78	39.16	30.92	13.00	4.60	2.76	1.44	0.96	2.06		
10	1.50	2.84	16.04	21.66	35.72	29.04	12.55	4.40	2.84	1.32	1.08	1.99		
11	1.57	14.50	12.70	18.53	27.96	36.56	11.20	4.20	3.18	1.44	1.02	2.06		
12	2.06	16.04	13.75	14.05	107.78	79.12	10.90	4.30	3.18	1.26	1.08	1.85		
13	1.85	28.14	17.00	11.50	52.10	45.12	10.62	4.10	2.36	1.32	1.26	1.85		
14	1.78	22.56	13.30	12.85	41.21	40.29	9.64	4.00	2.68	1.50	1.26	1.85		
15	3.27	19.38	16.20	12.85	34.70	29.78	9.50	4.00	2.44	1.38	1.20	1.78		
16	3.45	17.85	11.65	47.65	53.35	27.06	9.11	3.81	2.36	1.26	1.20	2.60		
17	3.27	15.25	22.56	38.94	71.99	23.10	8.46	3.90	2.28	1.44	1.08	1.71		
18	2.60	20.58	15.40	26.88	41.21	33.70	8.20	4.10	2.06	1.32	1.32	1.64		
19	3.72	14.65	65.69	24.54	32.70	106.26	8.72	3.81	2.13	1.44	1.32	1.99		
20	4.20	16.68	38.50	19.04	26.16	57.35	8.46	3.72	1.85	1.26	1.32	1.99		
21	4.10	34.90	25.62	19.89	57.35	64.61	8.20	3.45	1.71	1.20	1.38	2.44		
22	5.40	25.98	34.10	21.66	50.18	128.70	8.59	3.45	1.71	1.26	1.38	2.20		
23	7.72	20.76	50.18	19.55	39.83	68.66	7.36	3.54	1.99	1.26	1.14	2.20		
24	4.70	13.30	30.73	17.17	32.50	78.19	7.36	3.36	1.85	1.08	1.26	1.57		
25	4.50	13.45	24.18	25.62	30.73	77.26	6.45	3.63	1.85	1.14	1.38	2.13		
26	4.90	14.65	20.94	19.89	33.70	47.42	7.48	3.45	1.99	1.14	1.32	2.44		
27	4.80	14.05	26.52	16.68	28.50	40.29	9.78	3.27	2.06	1.02	1.26	2.52		
28	4.10	15.40	33.30	28.86	25.80	36.77	8.08	3.27	1.99	1.14	1.32	2.06		
29	5.80	25.62	24.90	34.30	25.08	33.70	7.12	3.09	2.06	1.14		2.13		
30	5.00	27.60	24.18	75.40	23.82	29.22	7.96	3.36	1.78	1.20		2.68		
31		19.38		51.85	23.64		7.84		1.85	1.20		3.54		
Total	95.02	445.33	659.70	819.13	1304.04	1397.78	358.35	128.17	77.03	42.16	33.00	64.08	5423.79	CMSDAY
Mean	3.17	14.37	21.99	26.42	42.07	46.59	11.56	4.27	2.48	1.36	1.18	2.07	14.86	CMS
Max	7.72	34.90	65.69	75.40	107.78	128.70	27.24	6.67	3.54	1.85	1.38	3.54	128.70	CMS
Min	1.32	2.84	9.78	11.50	23.64	23.10	6.45	3.09	1.71	1.02	0.90	1.57	0.90	CMS
Runoff	8.21	38.48	57.00	70.77	112.67	120.77	30.96	11.07	6.66	3.64	2.85	5.54	468.62	MCM

Momentary Peak 165.00 CMS, at 12.42 m. (MSL.), at 09.00 Hours, on Sep 19, 2002

Runoff Yield 64.89 Liters/Second/Square KM. Momentary Peak Yield 720.520 Liters/Second/Square KM.

WATER YEAR : 2002

EAST COAST - GULF BASIN

Khlong Yai at Ban Pak Phraek, Rayong (Z.15)

Lat 12 - 55 - 41 N Long 101 - 19 - 30 E

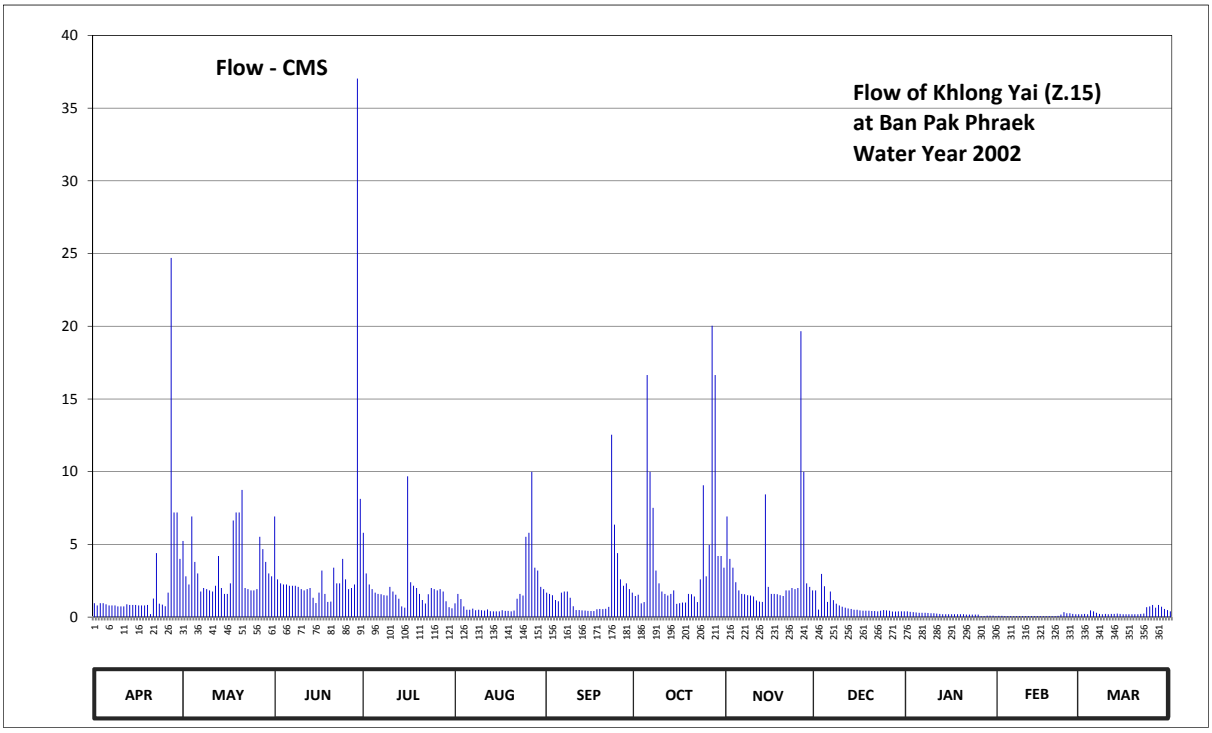
Location : on right bank at Ban Pak Phraek.

	Ban Pak Phraek	**Amphoe** Pluak Daeng	**Changwat** Rayong
Drainge Area	242 sq.km.		
Type of Gage	Staff gage.		
Zero Gage at Bottom	+29.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	Near the Meteorological Station.	**Elevation**	+33.743 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 mean 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 because of backwater effect.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 43 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	29.14	31.23	31.29	31.25	30.59	31.01	30.95	31.29	31.03	28.95	28.79	28.85	
2	29.10	31.12	31.11	31.13	31.00	31.00	30.98	31.18	29.74	28.93	28.79	28.86	
3	29.14	31.08	31.09	31.08	30.87	30.97	30.59	31.15	29.51	28.92	28.77	28.85	
4	29.14	31.29	31.08	31.04	30.18	30.84	30.73	31.10	29.37	28.91	28.76	28.98	
5	29.12	31.17	31.08	31.01	29.73	30.79	31.59	31.03	29.16	28.90	28.76	28.95	
6	29.10	31.13	31.07	31.00	29.73	31.01	31.39	31.00	29.31	28.90	28.76	28.90	
7	29.10	31.02	31.07	30.99	29.86	31.02	31.31	30.99	29.19	28.90	28.76	28.86	
8	29.10	31.05	31.07	30.97	29.64	31.02	31.14	30.97	29.13	28.89	28.76	28.85	
9	29.08	31.04	31.06	30.96	29.72	30.91	31.09	30.96	29.10	28.88	28.76	28.86	
10	29.08	31.03	31.04	31.06	29.64	30.20	31.02	30.94	29.07	28.88	28.77	28.85	
11	29.08	31.02	31.03	31.02	29.60	29.67	31.00	30.82	29.05	28.87	28.77	28.86	
12	29.12	31.07	31.04	30.98	29.76	29.66	30.96	30.77	29.03	28.86	28.77	28.86	
13	29.11	31.19	31.05	30.88	29.53	29.63	31.00	30.74	29.02	28.85	28.77	28.87	
14	29.11	31.05	30.91	30.19	29.49	29.61	31.03	31.34	29.00	28.85	28.77	28.86	
15	29.11	31.00	30.64	30.00	29.49	29.57	30.52	31.06	29.00	28.85	28.77	28.85	
16	29.10	31.00	31.01	31.38	29.50	29.54	30.63	31.00	28.98	28.85	28.76	28.85	
17	29.10	31.09	31.14	31.10	29.65	29.54	30.70	31.00	28.97	28.85	28.76	28.85	
18	29.10	31.28	31.00	31.07	29.56	29.79	30.70	30.99	28.97	28.85	28.77	28.85	
19	29.11	31.30	30.74	31.05	29.57	29.83	31.00	30.97	28.97	28.85	28.77	28.85	
20	29.12	31.30	30.77	31.00	29.48	29.80	30.99	30.95	28.96	28.85	28.77	28.85	
21	30.89	31.35	31.15	30.84	29.60	29.84	30.94	31.03	28.96	28.84	28.79	28.86	
22	31.20	31.05	31.09	30.56	30.88	30.11	30.73	31.03	28.95	28.84	28.84	28.87	
23	30.55	31.04	31.09	30.99	31.00	31.47	31.11	31.05	28.97	28.84	28.92	29.06	
24	30.42	31.03	31.18	31.05	30.96	31.27	31.36	31.04	28.99	28.84	28.88	29.08	
25	30.20	31.03	31.11	31.04	31.24	31.20	31.12	31.05	28.98	28.84	28.88	29.11	
26	31.01	31.04	31.04	31.03	31.25	31.11	31.22	31.67	28.97	28.77	28.86	29.05	
27	31.80	31.24	31.05	31.04	31.39	31.07	31.68	31.39	28.94	28.78	28.85	29.11	
28	31.30	31.21	31.08	31.02	31.15	31.09	31.59	31.09	28.94	28.80	28.85	29.07	
29	31.30	31.17	32.07	30.79	31.14	31.04	31.19	31.06	28.95	28.80		29.02	
30	31.18	31.13	31.33	30.06	31.06	31.01	31.19	31.03	28.95	28.80		28.99	
31		31.12		29.90	31.04		31.15		28.95	28.76		28.95	
Mean	29.73	31.12	31.08	30.89	30.24	30.49	31.05	31.06	29.13	28.85	28.79	28.92	
Max	31.80	31.35	32.07	31.38	31.39	31.47	31.68	31.67	31.03	28.95	28.92	29.11	32.07
Min	29.08	31.00	30.64	29.90	29.48	29.54	30.52	30.74	28.94	28.76	28.76	28.85	28.76

Annual Max Momentary Gage Height	32.35	m. (MSL.) ,	at 06.00 Hours, on Jun 29, 2002		
Zero Gage at Bottom Elevation	29.00	m. (MSL.) ,	River Bed	28.61	m. (MSL.)
Left Bank Elevation	33.15	m. (MSL.) ,			
Right Bank Elevation	33.14	m. (MSL.) ,	Drainage Are	242	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.96	5.24	6.92	5.80	0.94	1.68	1.45	6.92	1.84	0.40	0.09	0.20		
2	0.80	2.80	2.60	3.00	1.60	1.60	1.54	4.00	0.52	0.36	0.09	0.22		
3	0.96	2.24	2.32	2.24	1.24	1.51	0.94	3.40	2.97	0.34	0.07	0.20		
4	0.96	6.92	2.24	1.92	0.74	1.18	1.03	2.40	2.12	0.32	0.06	0.46		
5	0.88	3.80	2.24	1.68	0.51	1.09	16.65	1.84	1.04	0.30	0.06	0.40		
6	0.80	3.00	2.16	1.60	0.51	1.68	9.99	1.60	1.76	0.30	0.06	0.30		
7	0.80	1.76	2.16	1.57	0.58	1.76	7.51	1.57	1.16	0.30	0.06	0.22		
8	0.80	2.00	2.16	1.51	0.47	1.76	3.20	1.51	0.92	0.28	0.06	0.20		
9	0.74	1.92	2.08	1.48	0.51	1.33	2.32	1.48	0.80	0.26	0.06	0.22		
10	0.74	1.84	1.92	2.08	0.47	0.75	1.76	1.42	0.71	0.26	0.07	0.20		
11	0.74	1.76	1.84	1.76	0.45	0.48	1.60	1.14	0.65	0.24	0.07	0.22		
12	0.88	2.16	1.92	1.54	0.53	0.48	1.48	1.07	0.59	0.22	0.07	0.22		
13	0.84	4.20	2.00	1.26	0.41	0.46	1.60	1.04	0.56	0.20	0.07	0.24		
14	0.84	2.00	1.33	0.74	0.39	0.45	1.84	8.44	0.50	0.20	0.07	0.22		
15	0.84	1.60	0.97	0.65	0.39	0.43	0.91	2.08	0.50	0.20	0.07	0.20		
16	0.80	1.60	1.68	9.68	0.40	0.42	0.96	1.60	0.46	0.20	0.06	0.20		
17	0.80	2.32	3.20	2.40	0.47	0.42	1.00	1.60	0.44	0.20	0.06	0.20		
18	0.80	6.64	1.60	2.16	0.43	0.54	1.00	1.57	0.44	0.20	0.07	0.20		
19	0.84	7.20	1.04	2.00	0.43	0.56	1.60	1.51	0.44	0.20	0.07	0.20		
20	0.21	7.20	1.07	1.60	0.39	0.55	1.57	1.45	0.42	0.20	0.07	0.20		
21	1.28	8.75	3.40	1.18	0.45	0.57	1.42	1.84	0.42	0.18	0.09	0.22		
22	4.40	2.00	2.32	0.93	1.26	0.70	1.03	1.84	0.40	0.18	0.18	0.24		
23	0.92	1.92	2.32	1.57	1.60	12.54	2.60	2.00	0.44	0.18	0.34	0.68		
24	0.86	1.84	4.00	2.00	1.48	6.36	9.06	1.92	0.48	0.18	0.26	0.74		
25	0.75	1.84	2.60	1.92	5.52	4.40	2.80	2.00	0.46	0.18	0.26	0.84		
26	1.68	1.92	1.92	1.84	5.80	2.60	4.96	19.66	0.44	0.07	0.22	0.65		
27	24.70	5.52	2.00	1.92	9.99	2.16	20.04	9.99	0.38	0.08	0.20	0.84		
28	7.20	4.68	2.24	1.76	3.40	2.32	16.65	2.32	0.38	0.10	0.20	0.71		
29	7.20	3.80	37.03	1.09	3.20	1.92	4.20	2.08	0.40	0.10		0.56		
30	4.00	3.00	8.13	0.68	2.08	1.68	4.20	1.84	0.40	0.10		0.48		
31		2.80		0.60	1.92		3.40		0.40	0.06		0.40		
Total	69.02	106.27	109.41	62.16	48.56	54.38	130.31	93.13	23.44	6.59	3.11	11.08	717.46	CMSDAY
Mean	2.30	3.43	3.65	2.01	1.57	1.81	4.20	3.10	0.76	0.21	0.11	0.36	1.97	CMS
Max	24.70	8.75	37.03	9.68	9.99	12.54	20.04	19.66	2.97	0.40	0.34	0.84	37.03	CMS
Min	0.21	1.60	0.97	0.60	0.39	0.42	0.91	1.04	0.38	0.06	0.06	0.20	0.06	CMS
Runoff	5.96	9.18	9.45	5.37	4.20	4.70	11.26	8.05	2.03	0.57	0.27	0.96	61.99	MCM

Momentary Peak 50.75 CMS, at 32.35 m. (MSL.), at 06.00 Hours, on Jun 29, 2002

Runoff Yield 8.12 Liters/Second/Square KM. Momentary Peak Yield 209.710 Liters/Second/Square KM.

WATER YEAR : 2002

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 mean 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	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 106 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

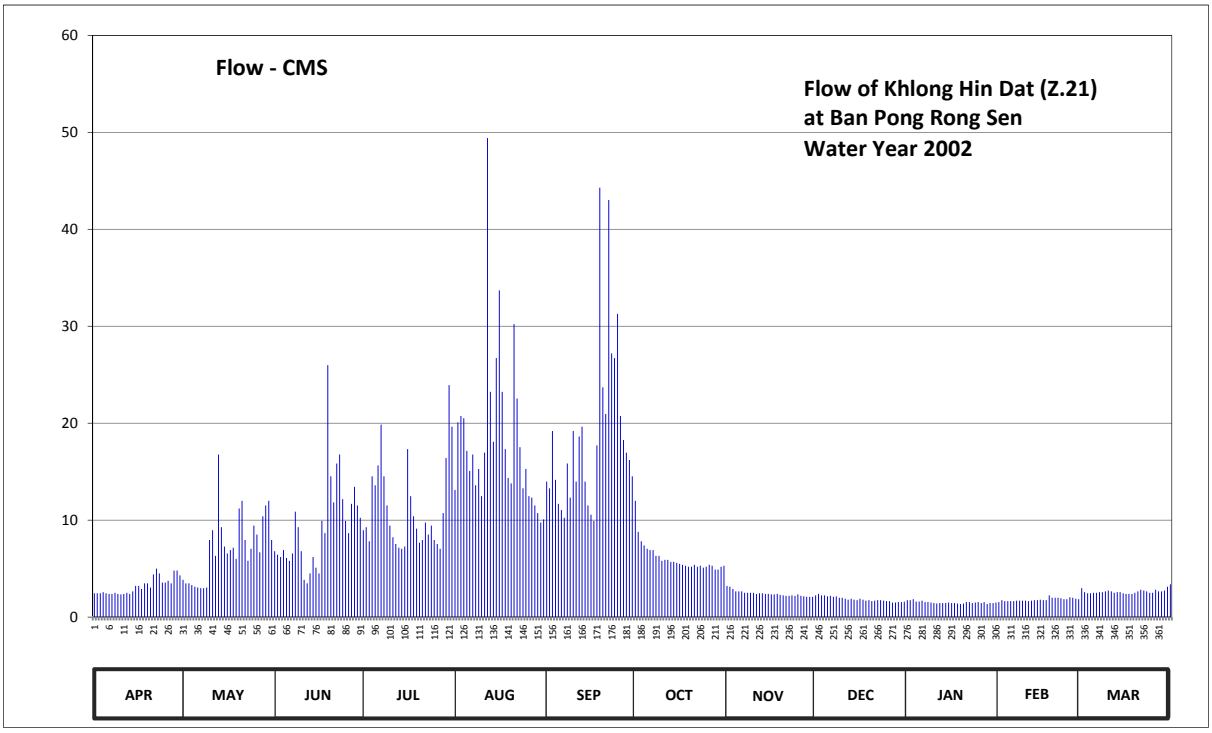
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	22.09	22.26	22.55	22.71	22.97	23.02	22.90	22.19	22.05	21.95	21.91	22.16	
2	22.09	22.22	22.52	22.73	23.34	22.98	22.70	22.18	22.08	21.95	21.95	22.11	
3	22.09	22.22	22.50	22.63	23.37	23.30	22.63	22.15	22.05	21.97	21.93	22.09	
4	22.11	22.20	22.56	23.05	23.36	23.03	22.60	22.12	22.05	21.92	21.93	22.09	
5	22.09	22.18	22.49	23.00	23.19	22.88	22.57	22.12	22.03	21.92	21.93	22.10	
6	22.08	22.17	22.46	23.11	23.08	22.84	22.56	22.12	22.04	21.94	21.93	22.10	
7	22.08	22.16	22.53	23.33	23.17	22.79	22.56	22.10	22.02	21.91	21.94	22.11	
8	22.10	22.16	22.83	23.05	23.00	23.12	22.51	22.10	22.03	21.91	21.94	22.11	
9	22.08	22.17	22.73	22.87	23.09	22.92	22.51	22.10	22.00	21.90	21.94	22.12	
10	22.07	22.64	22.55	22.74	22.93	23.30	22.46	22.10	22.00	21.89	21.94	22.13	
11	22.08	22.71	22.26	22.66	23.18	23.02	22.47	22.08	21.98	21.88	21.93	22.12	
12	22.10	22.51	22.22	22.61	24.41	23.27	22.47	22.09	21.96	21.89	21.94	22.10	
13	22.08	23.17	22.33	22.58	23.48	23.32	22.45	22.09	21.98	21.89	21.95	22.11	
14	22.12	22.73	22.50	22.57	23.24	23.02	22.45	22.08	21.96	21.89	21.95	22.11	
15	22.19	22.59	22.39	22.59	23.63	22.87	22.44	22.08	21.95	21.90	21.96	22.09	
16	22.19	22.53	22.33	23.20	23.90	22.81	22.43	22.07	21.98	21.89	21.95	22.08	
17	22.15	22.56	22.77	22.93	23.48	22.77	22.42	22.07	21.96	21.89	21.95	22.08	
18	22.22	22.58	22.69	22.80	23.20	23.22	22.41	22.08	21.94	21.88	22.05	22.08	
19	22.22	22.48	23.60	22.72	23.04	24.25	22.40	22.06	21.95	21.87	22.00	22.10	
20	22.17	22.85	23.05	22.62	23.01	23.50	22.40	22.05	21.93	21.88	22.00	22.12	
21	22.32	22.90	22.89	22.64	23.77	23.38	22.42	22.04	21.94	21.91	22.00	22.14	
22	22.38	22.64	23.12	22.76	23.45	24.21	22.40	22.04	21.95	21.91	21.99	22.13	
23	22.33	22.46	23.17	22.68	23.21	23.65	22.41	22.05	21.95	21.89	21.97	22.12	
24	22.23	22.57	22.91	22.74	22.98	23.63	22.39	22.04	21.94	21.90	21.97	22.10	
25	22.23	22.74	22.77	22.64	23.09	23.81	22.40	22.07	21.93	21.91	22.01	22.10	
26	22.25	22.68	22.69	22.61	22.93	23.37	22.42	22.04	21.93	21.89	22.00	22.14	
27	22.22	22.54	22.88	22.57	22.92	23.25	22.41	22.03	21.90	21.91	21.98	22.12	
28	22.36	22.80	22.99	22.82	22.87	23.18	22.37	22.02	21.90	21.87	21.97	22.12	
29	22.36	22.87	22.87	23.15	22.82	23.14	22.37	22.02	21.91	21.89		22.13	
30	22.31	22.90	22.79	23.51	22.76	23.05	22.40	22.02	21.91	21.89		22.18	
31		22.64		23.32	22.78		22.41		21.92	21.90		22.21	
Mean	22.18	22.54	22.70	22.84	23.21	23.23	22.48	22.08	21.97	21.90	21.96	22.12	
Max	22.38	23.17	23.60	23.51	24.41	24.25	22.90	22.19	22.08	21.97	22.05	22.21	24.41
Min	22.07	22.16	22.22	22.57	22.76	22.77	22.37	22.02	21.90	21.87	21.91	22.08	21.87

Annual Max Momentary Gage Height 26.13 m. (MSL.) , at 06.00 Hours, on Aug 12, 2002

Zero Gage at Bottom Elevation 21.20 m. (MSL.) , River Bed 21.13 m. (MSL.)

Left Bank Elevation 29.69 m. (MSL.) ,

Right Bank Elevation 29.66 m. (MSL.) , Drainage Are 78 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.45	3.84	6.80	8.96	13.12	13.97	12.00	3.22	2.25	1.75	1.55	2.98		
2	2.45	3.48	6.44	9.28	20.08	13.28	8.80	3.14	2.40	1.75	1.75	2.58		
3	2.45	3.48	6.20	7.82	20.74	19.20	7.82	2.90	2.25	1.85	1.65	2.45		
4	2.58	3.30	6.92	14.53	20.52	14.16	7.40	2.66	2.25	1.60	1.65	2.45		
5	2.45	3.14	6.10	13.60	17.15	11.68	7.04	2.66	2.15	1.60	1.65	2.50		
6	2.40	3.06	5.80	15.65	15.09	11.04	6.92	2.66	2.20	1.70	1.65	2.50		
7	2.40	2.98	6.56	19.86	16.77	10.24	6.92	2.50	2.10	1.55	1.70	2.58		
8	2.50	2.98	10.88	14.53	13.60	15.84	6.32	2.50	2.15	1.55	1.70	2.58		
9	2.40	3.06	9.28	11.52	15.28	12.32	6.32	2.50	2.00	1.50	1.70	2.66		
10	2.35	7.96	6.80	9.44	12.48	19.20	5.80	2.50	2.00	1.45	1.70	2.74		
11	2.40	8.96	3.84	8.24	16.96	13.97	5.90	2.40	1.90	1.40	1.65	2.66		
12	2.50	6.32	3.48	7.54	49.42	18.64	5.90	2.45	1.80	1.45	1.70	2.50		
13	2.40	16.77	4.50	7.16	23.24	19.64	5.70	2.45	1.90	1.45	1.75	2.58		
14	2.66	9.28	6.20	7.04	18.08	13.97	5.70	2.40	1.80	1.45	1.75	2.58		
15	3.22	7.28	5.10	7.28	26.72	11.52	5.60	2.40	1.75	1.50	1.80	2.45		
16	3.22	6.56	4.50	17.33	33.70	10.56	5.50	2.35	1.90	1.45	1.75	2.40		
17	2.90	6.92	9.92	12.48	23.24	9.92	5.40	2.35	1.80	1.45	1.75	2.40		
18	3.48	7.16	8.66	10.40	17.33	17.71	5.30	2.40	1.70	1.40	2.25	2.40		
19	3.48	6.00	26.00	9.12	14.35	44.30	5.20	2.30	1.75	1.35	2.00	2.50		
20	3.06	11.20	14.53	7.68	13.79	23.70	5.20	2.25	1.65	1.40	2.00	2.66		
21	4.40	12.00	11.84	7.96	30.22	20.96	5.40	2.20	1.70	1.55	2.00	2.82		
22	5.00	7.96	15.84	9.76	22.55	43.02	5.20	2.20	1.75	1.55	1.95	2.74		
23	4.50	5.80	16.77	8.52	17.52	27.20	5.30	2.25	1.75	1.45	1.85	2.66		
24	3.57	7.04	12.16	9.44	13.28	26.72	5.10	2.20	1.70	1.50	1.85	2.50		
25	3.57	9.44	9.92	7.96	15.28	31.27	5.20	2.35	1.65	1.55	2.05	2.50		
26	3.75	8.52	8.66	7.54	12.48	20.74	5.40	2.20	1.65	1.45	2.00	2.82		
27	3.48	6.68	11.68	7.04	12.32	18.27	5.30	2.15	1.50	1.55	1.90	2.66		
28	4.80	10.40	13.44	10.72	11.52	16.96	4.90	2.10	1.50	1.35	1.85	2.66		
29	4.80	11.52	11.52	16.40	10.72	16.21	4.90	2.10	1.55	1.45		2.74		
30	4.30	12.00	10.24	23.93	9.76	14.53	5.20	2.10	1.55	1.45		3.14		
31		7.96		19.64	10.08		5.30		1.60	1.50		3.39		
Total	95.92	223.05	280.58	348.37	567.39	560.74	187.94	72.84	57.60	46.95	50.55	81.78	2573.71	CMSDAY
Mean	3.20	7.20	9.35	11.24	18.30	18.69	6.06	2.43	1.86	1.51	1.81	2.64	7.05	CMS
Max	5.00	16.77	26.00	23.93	49.42	44.30	12.00	3.22	2.40	1.85	2.25	3.39	49.42	CMS
Min	2.35	2.98	3.48	7.04	9.76	9.92	4.90	2.10	1.50	1.35	1.55	2.40	1.35	CMS
Runoff	8.29	19.27	24.24	30.10	49.02	48.45	16.24	6.29	4.98	4.06	4.37	7.07	222.37	MCM

Momentary Peak 123.05 CMS, at 26.13 m. (MSL.), at 06.00 Hours, on Aug 12, 2002

Runoff Yield 90.40 Liters/Second/Square KM. Momentary Peak Yield 1577.560 Liters/Second/Square KM.

WATER YEAR : 2002

EAST COAST - GULF BASIN

Upper Khlong Tanot at Ban Khun Song , Chanthaburi (Z.28)

Lat 13 - 04 - 31 N Long 101 - 56 - 55 E

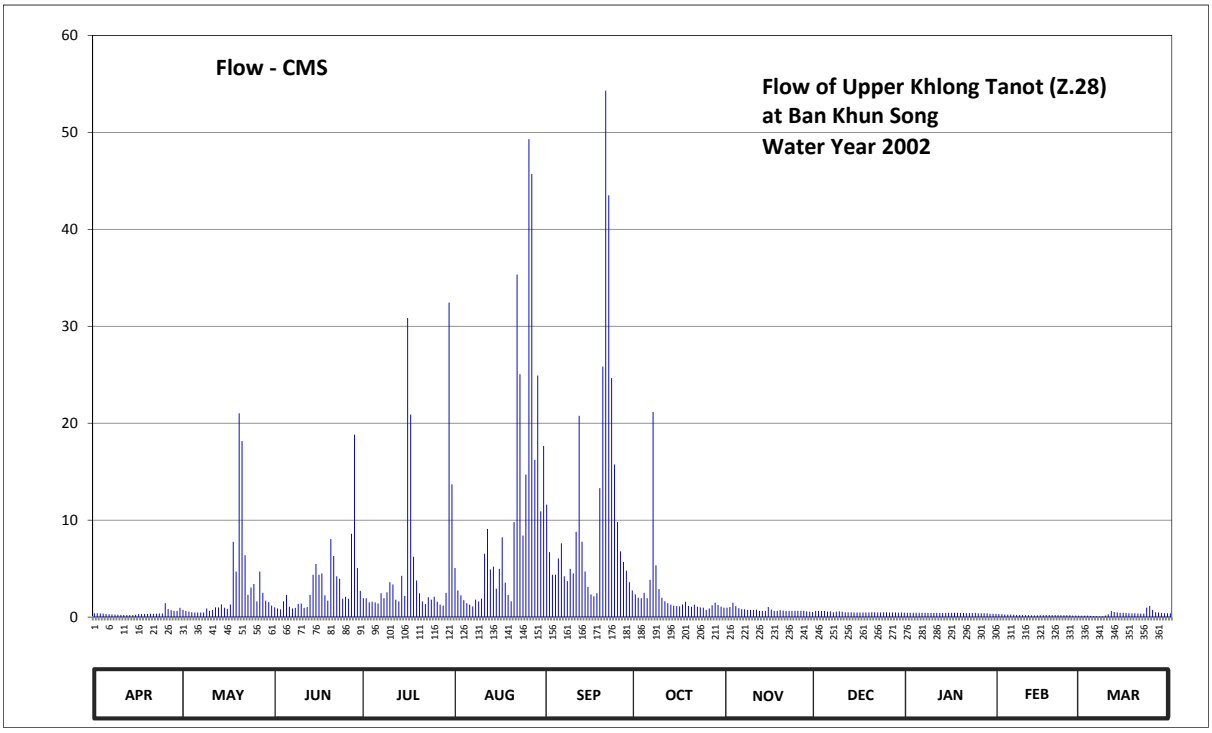
Location : on right bank near Wat Khun Song.

	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 mean 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 fair. Stage-discharge relation defined by 61 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	33.10	33.28	33.37	33.65	34.18	34.91	33.73	33.36	33.25	33.15	33.02	32.85	
2	33.09	33.24	33.33	33.65	33.81	34.40	33.66	33.38	33.25	33.15	33.00	32.84	
3	33.08	33.22	33.30	33.54	33.71	34.08	33.65	33.53	33.24	33.14	32.96	32.85	
4	33.06	33.19	33.58	33.56	33.61	34.08	33.76	33.41	33.24	33.15	32.96	32.83	
5	33.03	33.18	33.72	33.54	33.51	34.32	33.65	33.34	33.22	33.14	32.96	32.80	
6	33.00	33.18	33.39	33.50	33.46	34.50	33.99	33.31	33.23	33.15	32.95	32.79	
7	32.98	33.18	33.33	33.75	33.40	34.05	35.75	33.30	33.20	33.15	32.93	32.77	
8	32.97	33.18	33.35	33.65	33.62	33.97	34.22	33.28	33.22	33.13	32.92	32.78	
9	32.95	33.33	33.49	33.77	33.57	34.17	33.83	33.28	33.23	33.12	32.90	32.87	
10	32.93	33.25	33.50	33.95	33.64	34.10	33.66	33.28	33.22	33.12	32.89	32.98	
11	32.92	33.28	33.35	33.91	34.38	34.63	33.58	33.29	33.20	33.12	32.89	33.24	
12	32.92	33.37	33.38	33.62	34.66	35.72	33.51	33.25	33.20	33.12	32.88	33.21	
13	32.92	33.37	33.72	33.57	34.16	34.52	33.46	33.25	33.20	33.13	32.88	33.18	
14	32.92	33.47	34.08	34.06	34.20	34.13	33.43	33.25	33.18	33.13	32.88	33.15	
15	32.94	33.36	34.24	33.70	33.84	33.87	33.41	33.38	33.18	33.14	32.89	33.14	
16	33.02	33.32	34.08	36.44	34.17	33.73	33.40	33.29	33.17	33.14	32.90	33.12	
17	33.02	33.47	34.10	35.73	34.57	33.69	33.47	33.25	33.18	33.15	32.91	33.10	
18	33.03	34.52	33.71	34.34	33.94	33.75	33.56	33.25	33.18	33.14	32.91	33.08	
19	33.03	34.13	33.60	33.98	33.72	35.08	33.42	33.27	33.18	33.13	32.91	33.09	
20	33.04	35.74	34.55	33.75	33.58	36.11	33.39	33.26	33.20	33.13	32.91	33.08	
21	33.05	35.52	34.35	33.57	34.73	37.69	33.46	33.24	33.20	33.11	32.90	33.07	
22	33.05	34.36	34.05	33.48	36.72	37.15	33.39	33.25	33.18	33.11	32.90	33.07	
23	33.08	33.72	34.01	33.67	36.05	36.02	33.37	33.25	33.17	33.12	32.90	33.36	
24	33.08	33.86	33.64	33.62	34.59	35.32	33.36	33.25	33.19	33.12	32.90	33.41	
25	33.51	33.92	33.68	33.68	35.22	34.73	33.28	33.25	33.20	33.09	32.89	33.28	
26	33.31	33.57	33.64	33.56	37.44	34.41	33.33	33.25	33.18	33.09	32.87	33.20	
27	33.27	34.13	34.61	33.46	37.26	34.27	33.44	33.25	33.18	33.09	32.86	33.17	
28	33.25	33.76	35.57	33.43	35.36	34.14	33.53	33.23	33.18	33.09	32.85	33.12	
29	33.25	33.60	34.18	33.76	36.04	33.95	33.45	33.22	33.16	33.05		33.10	
30	33.35	33.55	33.80	36.54	34.84	33.81	33.39	33.21	33.17	33.04		33.09	
31		33.43		35.12	35.48		33.36		33.16	33.04		33.09	
Mean	33.07	33.67	33.82	33.99	34.56	34.64	33.61	33.29	33.20	33.12	32.91	33.06	
Max	33.51	35.74	35.57	36.54	37.44	37.69	35.75	33.53	33.25	33.15	33.02	33.41	37.69
Min	32.92	33.18	33.30	33.43	33.40	33.69	33.28	33.21	33.16	33.04	32.85	32.77	32.77

Annual Max Momentary Gage Height	37.99	m. (MSL.) ,	at 19.00 Hours, on Sep 21, 2002		
Zero Gage at Bottom Elevation	32.60	m. (MSL.) ,	River Bed	32.36	m. (MSL.)
Left Bank Elevation	41.01	m. (MSL.) ,			
Right Bank Elevation	39.30	m. (MSL.) ,	Drainage Are	280	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.40	0.74	1.01	1.95	5.06	11.60	2.35	0.98	0.65	0.45	0.32	0.15		
2	0.39	0.62	0.89	1.95	2.76	6.70	2.00	1.04	0.65	0.45	0.30	0.14		
3	0.38	0.56	0.80	1.52	2.25	4.38	1.95	1.49	0.62	0.44	0.26	0.15		
4	0.36	0.49	1.64	1.58	1.75	4.38	2.50	1.13	0.62	0.45	0.26	0.13		
5	0.33	0.48	2.30	1.52	1.43	6.06	1.95	0.92	0.56	0.44	0.26	0.10		
6	0.30	0.48	1.07	1.40	1.28	7.60	3.84	0.83	0.59	0.45	0.25	0.09		
7	0.28	0.48	0.89	2.45	1.10	4.20	21.15	0.80	0.50	0.45	0.23	0.07		
8	0.27	0.48	0.95	1.95	1.80	3.72	5.34	0.74	0.56	0.43	0.22	0.08		
9	0.25	0.89	1.37	2.55	1.61	4.99	2.88	0.74	0.59	0.42	0.20	0.17		
10	0.23	0.65	1.40	3.60	1.90	4.50	2.00	0.74	0.56	0.42	0.19	0.28		
11	0.22	0.74	0.95	3.36	6.54	8.80	1.64	0.77	0.50	0.42	0.19	0.62		
12	0.22	1.01	1.04	1.80	9.10	20.76	1.43	0.65	0.50	0.42	0.18	0.53		
13	0.22	1.01	2.30	1.61	4.92	7.78	1.28	0.65	0.50	0.43	0.18	0.48		
14	0.22	1.31	4.38	4.26	5.20	4.71	1.19	0.65	0.48	0.43	0.18	0.45		
15	0.24	0.98	5.48	2.20	2.94	3.12	1.13	1.04	0.48	0.44	0.19	0.44		
16	0.32	0.86	4.38	30.84	4.99	2.35	1.10	0.77	0.47	0.44	0.20	0.42		
17	0.32	1.31	4.50	20.89	8.23	2.15	1.31	0.65	0.48	0.45	0.21	0.40		
18	0.33	7.78	2.25	6.22	3.54	2.45	1.58	0.65	0.48	0.44	0.21	0.38		
19	0.33	4.71	1.70	3.78	2.30	13.30	1.16	0.71	0.48	0.43	0.21	0.39		
20	0.34	21.02	8.05	2.45	1.64	25.85	1.07	0.68	0.50	0.43	0.21	0.38		
21	0.35	18.16	6.30	1.61	9.80	54.30	1.28	0.62	0.50	0.41	0.20	0.37		
22	0.35	6.38	4.20	1.34	35.34	43.50	1.07	0.65	0.48	0.41	0.20	0.37		
23	0.38	2.30	3.96	2.05	25.05	24.66	1.01	0.65	0.47	0.42	0.20	0.98		
24	0.38	3.06	1.90	1.80	8.41	15.74	0.98	0.65	0.49	0.42	0.20	1.13		
25	1.43	3.42	2.10	2.10	14.70	9.80	0.74	0.65	0.50	0.39	0.19	0.74		
26	0.83	1.61	1.90	1.58	49.30	6.79	0.89	0.65	0.48	0.39	0.17	0.50		
27	0.71	4.71	8.60	1.28	45.70	5.69	1.22	0.65	0.48	0.39	0.16	0.47		
28	0.65	2.50	18.81	1.19	16.22	4.78	1.49	0.59	0.48	0.39	0.15	0.42		
29	0.65	1.70	5.06	2.50	24.92	3.60	1.25	0.56	0.46	0.35		0.40		
30	0.95	1.55	2.70	32.44	10.90	2.76	1.07	0.53	0.47	0.34		0.39		
31		1.19		13.70	17.66		0.98		0.46	0.34		0.39		
Total	12.63	93.18	102.88	159.47	328.34	321.02	70.83	22.83	16.04	12.98	5.92	12.01	1158.13	CMSDAY
Mean	0.42	3.01	3.43	5.14	10.59	10.70	2.28	0.76	0.52	0.42	0.21	0.39	3.17	CMS
Max	1.43	21.02	18.81	32.44	49.30	54.30	21.15	1.49	0.65	0.45	0.32	1.13	54.30	CMS
Min	0.22	0.48	0.80	1.19	1.10	2.15	0.74	0.53	0.46	0.34	0.15	0.07	0.07	CMS
Runoff	1.09	8.05	8.89	13.78	28.37	27.74	6.12	1.97	1.39	1.12	0.51	1.04	100.06	MCM

Momentary Peak 61.25 CMS, at 37.99 m. (MSL.), at 19.00 Hours, on Sep 21, 2002

Runoff Yield 11.33 Liters/Second/Square KM. Momentary Peak Yield 218.750 Liters/Second/Square KM.

WATER YEAR : 2002

EAST COAST - GULF BASIN

Khlong Thapma at Ban Khao Bot , Rayong (Z.38)

Lat 12 - 44 - 09 N Long 101 - 13 - 54 E

Location : on left bank at Ban Khao Bot.

Ban Khao Bot **Amphoe** Mueang **Changwat** Rayong

Drainge Area	150 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 next tall pole for eletric cable near dwelling. **Elevation** +3.200 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	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 fair. Stage-discharge relation defined by 34 discharge measurements made in 2002.

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

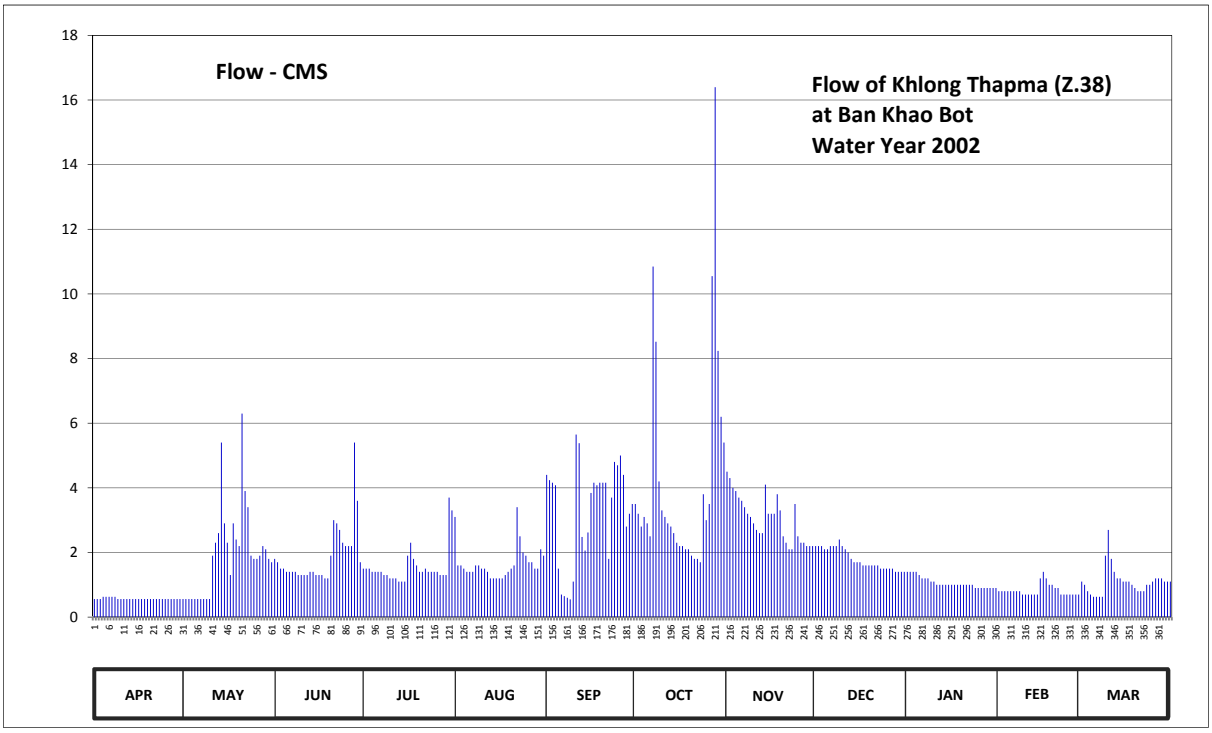
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.58	0.58	0.71	0.68	0.84	0.70	0.88	0.98	0.75	0.67	0.61	0.64	
2	0.58	0.58	0.70	0.68	0.69	0.68	0.85	0.96	0.75	0.67	0.61	0.63	
3	0.58	0.58	0.68	0.68	0.69	0.67	0.81	0.93	0.75	0.67	0.61	0.61	
4	0.59	0.58	0.68	0.67	0.68	0.66	0.84	0.92	0.74	0.67	0.61	0.60	
5	0.59	0.58	0.67	0.67	0.67	0.30	0.82	0.90	0.74	0.66	0.61	0.59	
6	0.59	0.58	0.67	0.67	0.67	0.14	0.78	0.89	0.75	0.65	0.61	0.59	
7	0.59	0.58	0.67	0.67	0.67	0.13	1.49	0.87	0.75	0.65	0.61	0.59	
8	0.59	0.58	0.67	0.66	0.69	0.12	1.33	0.85	0.75	0.65	0.61	0.59	
9	0.58	0.58	0.66	0.66	0.69	0.11	0.95	0.84	0.77	0.64	0.60	0.72	
10	0.58	0.58	0.66	0.65	0.68	0.22	0.86	0.82	0.75	0.64	0.60	0.80	
11	0.58	0.72	0.66	0.65	0.68	0.85	0.84	0.80	0.74	0.63	0.60	0.71	
12	0.58	0.76	0.66	0.65	0.67	0.82	0.82	0.79	0.73	0.63	0.60	0.67	
13	0.58	0.79	0.67	0.64	0.65	0.44	0.81	0.79	0.71	0.63	0.60	0.65	
14	0.58	1.07	0.67	0.64	0.65	0.38	0.79	0.94	0.70	0.63	0.60	0.65	
15	0.58	0.82	0.66	0.64	0.65	0.46	0.76	0.85	0.70	0.63	0.65	0.64	
16	0.58	0.76	0.66	0.72	0.65	0.63	0.75	0.85	0.70	0.63	0.67	0.64	
17	0.58	0.66	0.66	0.76	0.65	0.67	0.75	0.85	0.69	0.63	0.65	0.64	
18	0.58	0.82	0.65	0.71	0.66	0.66	0.74	0.91	0.69	0.63	0.63	0.63	
19	0.58	0.77	0.65	0.69	0.67	0.67	0.74	0.86	0.69	0.63	0.63	0.62	
20	0.58	0.75	0.72	0.67	0.68	0.67	0.72	0.78	0.69	0.63	0.62	0.61	
21	0.58	1.16	0.83	0.67	0.69	0.67	0.71	0.76	0.69	0.63	0.62	0.61	
22	0.58	0.92	0.82	0.68	0.87	0.71	0.71	0.74	0.69	0.63	0.60	0.61	
23	0.58	0.87	0.80	0.67	0.78	0.90	0.70	0.74	0.68	0.63	0.60	0.63	
24	0.58	0.72	0.76	0.67	0.73	1.01	0.91	0.88	0.68	0.62	0.60	0.63	
25	0.58	0.71	0.75	0.67	0.72	1.00	0.83	0.78	0.68	0.62	0.60	0.64	
26	0.58	0.71	0.75	0.67	0.70	1.03	0.88	0.76	0.68	0.62	0.60	0.65	
27	0.58	0.72	0.75	0.66	0.70	0.97	1.47	0.76	0.68	0.62	0.60	0.65	
28	0.58	0.75	1.07	0.66	0.68	0.81	1.82	0.75	0.67	0.62	0.60	0.65	
29	0.58	0.74	0.89	0.66	0.68	0.85	1.31	0.75	0.67	0.62		0.64	
30	0.58	0.71	0.70	0.90	0.74	0.88	1.15	0.75	0.67	0.62		0.64	
31		0.70		0.86	0.72		1.07		0.67	0.62		0.64	
Mean	0.58	0.72	0.72	0.68	0.70	0.63	0.93	0.84	0.71	0.64	0.61	0.64	
Max	0.59	1.16	1.07	0.90	0.87	1.03	1.82	0.98	0.77	0.67	0.67	0.80	1.82
Min	0.58	0.58	0.65	0.64	0.65	0.11	0.70	0.74	0.67	0.62	0.60	0.59	0.11

Annual Max Momentary Gage Height 1.91 m. (A.D.) , at 06.00 Hours, on Oct 28, 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed -0.41 m. (A.D.)

Left Bank Elevation 4.69 m. (A.D.) ,

Right Bank Elevation 4.72 m. (A.D.) , Drainage Are 150 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.56	0.56	1.80	1.50	3.10	4.40	3.50	4.50	2.20	1.40	0.80	1.10		
2	0.56	0.56	1.70	1.50	1.60	4.24	3.20	4.30	2.20	1.40	0.80	1.00		
3	0.56	0.56	1.50	1.50	1.60	4.16	2.80	4.00	2.20	1.40	0.80	0.80		
4	0.63	0.56	1.50	1.40	1.50	4.08	3.10	3.90	2.10	1.40	0.80	0.70		
5	0.63	0.56	1.40	1.40	1.40	1.50	2.90	3.70	2.10	1.30	0.80	0.63		
6	0.63	0.56	1.40	1.40	1.40	0.70	2.50	3.60	2.20	1.20	0.80	0.63		
7	0.63	0.56	1.40	1.40	1.40	0.65	10.85	3.40	2.20	1.20	0.80	0.63		
8	0.63	0.56	1.40	1.30	1.60	0.60	8.52	3.20	2.20	1.20	0.80	0.63		
9	0.56	0.56	1.30	1.30	1.60	0.55	4.20	3.10	2.40	1.10	0.70	1.90		
10	0.56	0.56	1.30	1.20	1.50	1.10	3.30	2.90	2.20	1.10	0.70	2.70		
11	0.56	1.90	1.30	1.20	1.50	5.65	3.10	2.70	2.10	1.00	0.70	1.80		
12	0.56	2.30	1.30	1.20	1.40	5.38	2.90	2.60	2.00	1.00	0.70	1.40		
13	0.56	2.60	1.40	1.10	1.20	2.48	2.80	2.60	1.80	1.00	0.70	1.20		
14	0.56	5.40	1.40	1.10	1.20	2.06	2.60	4.10	1.70	1.00	0.70	1.20		
15	0.56	2.90	1.30	1.10	1.20	2.62	2.30	3.20	1.70	1.00	1.20	1.10		
16	0.56	2.30	1.30	1.90	1.20	3.84	2.20	3.20	1.70	1.00	1.40	1.10		
17	0.56	1.30	1.30	2.30	1.20	4.16	2.20	3.20	1.60	1.00	1.20	1.10		
18	0.56	2.90	1.20	1.80	1.30	4.08	2.10	3.80	1.60	1.00	1.00	1.00		
19	0.56	2.40	1.20	1.60	1.40	4.16	2.10	3.30	1.60	1.00	1.00	0.90		
20	0.56	2.20	1.90	1.40	1.50	4.16	1.90	2.50	1.60	1.00	0.90	0.80		
21	0.56	6.30	3.00	1.40	1.60	4.16	1.80	2.30	1.60	1.00	0.90	0.80		
22	0.56	3.90	2.90	1.50	3.40	1.80	1.80	2.10	1.60	1.00	0.70	0.80		
23	0.56	3.40	2.70	1.40	2.50	3.70	1.70	2.10	1.50	1.00	0.70	1.00		
24	0.56	1.90	2.30	1.40	2.00	4.80	3.80	3.50	1.50	0.90	0.70	1.00		
25	0.56	1.80	2.20	1.40	1.90	4.70	3.00	2.50	1.50	0.90	0.70	1.10		
26	0.56	1.80	2.20	1.40	1.70	5.00	3.50	2.30	1.50	0.90	0.70	1.20		
27	0.56	1.90	2.20	1.30	1.70	4.40	10.55	2.30	1.50	0.90	0.70	1.20		
28	0.56	2.20	5.40	1.30	1.50	2.80	16.40	2.20	1.40	0.90	0.70	1.20		
29	0.56	2.10	3.60	1.30	1.50	3.20	8.24	2.20	1.40	0.90		1.10		
30	0.56	1.80	1.70	3.70	2.10	3.50	6.20	2.20	1.40	0.90		1.10		
31		1.70		3.30	1.90		5.40		1.40	0.90		1.10		
Total	17.15	60.60	56.50	48.00	51.60	98.63	131.46	91.50	55.70	32.90	23.10	33.92	701.06	CMSDAY
Mean	0.57	1.95	1.88	1.55	1.66	3.29	4.24	3.05	1.80	1.06	0.82	1.09	1.92	CMS
Max	0.63	6.30	5.40	3.70	3.40	5.65	16.40	4.50	2.40	1.40	1.40	2.70	16.40	CMS
Min	0.56	0.56	1.20	1.10	1.20	0.55	1.70	2.10	1.40	0.90	0.70	0.63	0.55	CMS
Runoff	1.48	5.24	4.88	4.15	4.46	8.52	11.36	7.91	4.81	2.84	2.00	2.93	60.57	MCM

Momentary Peak 18.20 CMS, at 1.91 m. (A.D.), at 06.00 Hours, on Oct 28, 2002

Runoff Yield 14.28 Liters/Second/Square KM. Momentary Peak Yield 121.330 Liters/Second/Square KM.

WATER YEAR : 2002

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	+0.000 m. (A.D.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank about 50 meters from the top staff gage.	**Elevation**	+7.800 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 mean 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	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records good. Stage-discharge relation defined by 63 discharge measurements made in 2002.		

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

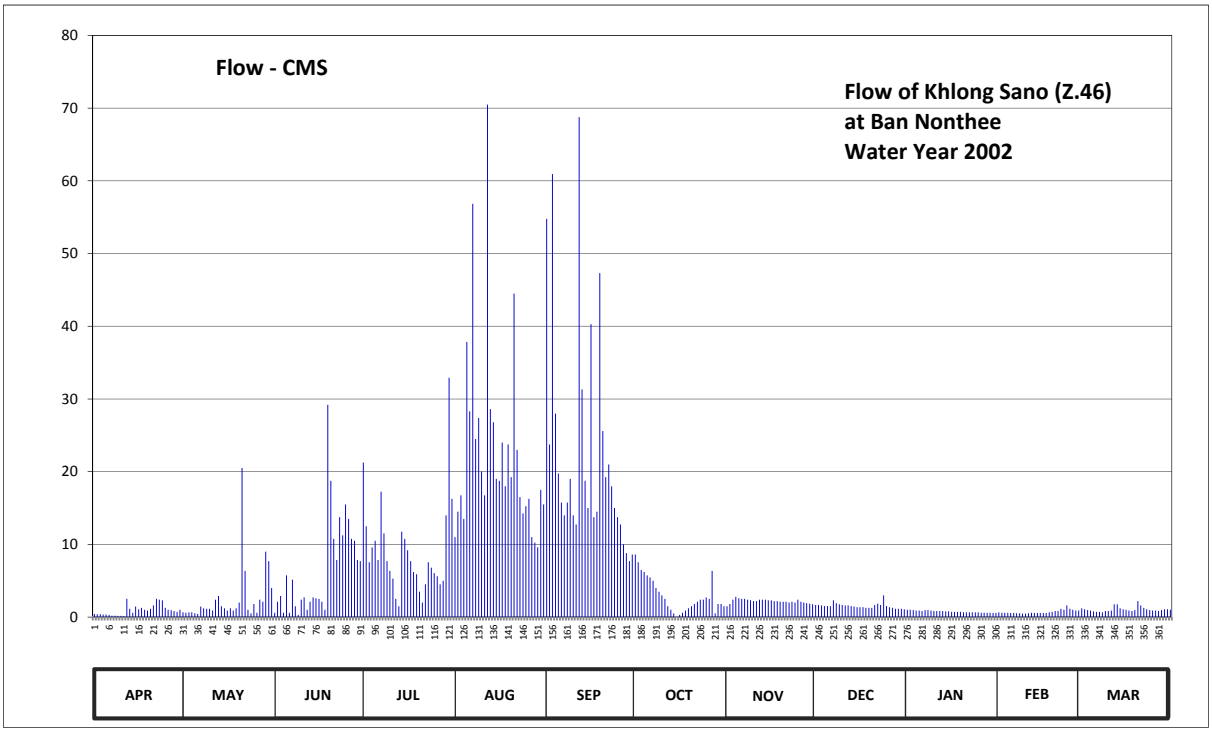
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	-0.44	-0.39	-0.02	0.85	0.44	1.88	0.33	-0.05	-0.24	-0.33	-0.39	-0.30	
2	-0.45	-0.40	-0.07	0.50	0.58	0.95	0.27	-0.06	-0.24	-0.33	-0.40	-0.32	
3	-0.45	-0.39	-0.11	0.27	0.67	2.03	0.20	-0.08	-0.25	-0.34	-0.40	-0.34	
4	-0.46	-0.39	-0.02	0.38	0.54	1.10	0.18	-0.12	-0.26	-0.35	-0.40	-0.35	
5	-0.46	-0.42	0.15	0.42	1.41	0.79	0.15	-0.14	-0.26	-0.35	-0.41	-0.37	
6	-0.48	-0.44	-0.02	0.29	1.11	0.63	0.13	-0.15	-0.05	-0.36	-0.41	-0.38	
7	-0.50	-0.27	0.11	0.69	1.93	0.56	0.10	-0.15	-0.17	-0.34	-0.42	-0.38	
8	-0.50	-0.30	0.03	0.46	0.98	0.63	0.08	-0.16	-0.21	-0.34	-0.42	-0.39	
9	-0.51	-0.31	-0.01	0.28	1.08	0.76	0.07	-0.17	-0.23	-0.35	-0.43	-0.36	
10	-0.51	-0.31	-0.08	0.19	0.80	0.56	0.06	-0.18	-0.24	-0.36	-0.43	-0.36	
11	-0.52	-0.03	-0.09	0.12	0.67	0.51	0.05	-0.18	-0.25	-0.36	-0.42	-0.35	
12	0.05	-0.16	0.02	0.05	2.26	2.22	0.03	-0.16	-0.25	-0.36	-0.40	-0.23	
13	-0.31	-0.11	-0.07	0.03	1.12	1.21	0.02	-0.16	-0.26	-0.36	-0.41	-0.23	
14	-0.40	-0.05	-0.09	0.47	1.06	0.75	0.01	-0.16	-0.27	-0.37	-0.41	-0.30	
15	-0.27	-0.04	-0.14	0.43	0.76	0.60	0.00	-0.17	-0.28	-0.37	-0.41	-0.32	
16	-0.32	-0.03	-0.15	0.36	0.75	1.48	-0.01	-0.17	-0.28	-0.38	-0.41	-0.33	
17	-0.29	-0.04	-0.07	0.28	0.96	0.55	-0.02	-0.18	-0.28	-0.38	-0.41	-0.35	
18	-0.33	-0.03	0.02	0.18	0.72	0.58	-0.03	-0.18	-0.29	-0.38	-0.39	-0.36	
19	-0.35	-0.04	1.14	0.16	0.95	1.68	-0.04	-0.19	-0.29	-0.38	-0.38	-0.34	
20	-0.31	0.04	0.75	0.07	0.77	1.02	-0.05	-0.19	-0.29	-0.39	-0.36	-0.18	
21	-0.25	0.82	0.43	0.04	1.60	0.77	-0.06	-0.19	-0.24	-0.39	-0.36	-0.25	
22	-0.15	0.19	0.29	0.09	0.92	0.84	-0.07	-0.20	-0.22	-0.39	-0.31	-0.29	
23	-0.08	0.02	0.55	0.27	0.66	0.72	-0.08	-0.19	-0.24	-0.39	-0.33	-0.32	
24	-0.17	0.01	0.45	0.22	0.57	0.60	-0.08	-0.20	-0.10	-0.39	-0.25	-0.34	
25	-0.29	-0.06	0.62	0.17	0.61	0.55	-0.09	-0.16	-0.26	-0.39	-0.31	-0.35	
26	-0.33	-0.02	0.54	0.14	0.65	0.51	0.05	-0.19	-0.28	-0.40	-0.33	-0.35	
27	-0.34	-0.08	0.43	0.09	0.44	0.40	0.19	-0.20	-0.29	-0.40	-0.35	-0.36	
28	-0.36	-0.07	0.42	0.10	0.41	0.34	0.01	-0.21	-0.31	-0.40	-0.35	-0.34	
29	-0.38	0.35	0.29	0.56	0.38	0.28	-0.06	-0.22	-0.31	-0.40		-0.32	
30	-0.33	0.28	0.28	1.26	0.70	0.33	-0.06	-0.23	-0.31	-0.41		-0.32	
31		0.08		0.65	0.62		-0.05		-0.32	-0.41		-0.33	
Mean	-0.35	-0.08	0.19	0.32	0.87	0.86	0.04	-0.17	-0.25	-0.37	-0.38	-0.33	
Max	0.05	0.82	1.14	1.26	2.26	2.22	0.33	-0.05	-0.05	-0.33	-0.25	-0.18	2.26
Min	-0.52	-0.44	-0.15	0.03	0.38	0.28	-0.09	-0.23	-0.32	-0.41	-0.43	-0.39	-0.52

Annual Max Momentary Gage Height 3.34 m. (A.D.) , at 06.00 Hours, on Sep 12, 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed -0.93 m. (A.D.)

Left Bank Elevation 7.88 m. (A.D.) ,

Right Bank Elevation 7.73 m. (A.D.) , Drainage Are 92 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.44	0.66	0.60	21.25	11.00	54.78	8.60	1.50	1.68	1.02	0.66	1.20		
2	0.40	0.60	2.10	12.50	14.50	23.75	7.55	1.80	1.68	1.02	0.60	1.08		
3	0.40	0.66	2.90	7.55	16.75	60.93	6.50	2.40	1.60	0.96	0.60	0.96		
4	0.36	0.66	0.60	9.60	13.50	28.00	6.20	2.80	1.52	0.90	0.60	0.90		
5	0.36	0.52	5.75	10.50	37.85	19.75	5.75	2.60	1.52	0.90	0.56	0.78		
6	0.28	0.44	0.60	7.85	28.30	15.75	5.45	2.50	1.50	0.84	0.56	0.72		
7	0.20	1.44	5.15	17.25	56.83	14.00	5.00	2.50	2.30	0.96	0.52	0.72		
8	0.20	1.20	1.50	11.50	24.50	15.75	4.00	2.40	1.92	0.96	0.52	0.66		
9	0.18	1.14	0.30	7.70	27.40	19.00	3.50	2.30	1.76	0.90	0.48	0.84		
10	0.18	1.14	2.40	6.35	20.00	14.00	3.00	2.20	1.68	0.84	0.48	0.84		
11	0.16	0.90	2.70	5.30	16.75	12.75	2.50	2.20	1.60	0.84	0.52	0.90		
12	2.50	2.40	1.00	2.50	70.48	68.76	1.50	2.40	1.60	0.84	0.60	1.76		
13	1.14	2.90	2.10	1.50	28.60	31.32	1.00	2.40	1.52	0.84	0.56	1.76		
14	0.60	1.50	2.70	11.75	26.80	18.75	0.50	2.40	1.44	0.78	0.56	1.20		
15	1.44	1.20	2.60	10.75	19.00	15.00	0.00	2.30	1.36	0.78	0.56	1.08		
16	1.08	0.90	2.50	9.20	18.75	40.30	0.30	2.30	1.36	0.72	0.56	1.02		
17	1.28	1.20	2.10	7.70	24.00	13.75	0.60	2.20	1.36	0.72	0.56	0.90		
18	1.02	0.90	1.00	6.20	18.00	14.50	0.90	2.20	1.28	0.72	0.66	0.84		
19	0.90	1.20	29.20	5.90	23.75	47.30	1.20	2.10	1.28	0.72	0.72	0.96		
20	1.14	2.00	18.75	3.50	19.25	25.60	1.50	2.10	1.28	0.66	0.84	2.20		
21	1.60	20.50	10.75	2.00	44.50	19.25	1.80	2.10	1.68	0.66	0.84	1.60		
22	2.50	6.35	7.85	4.50	23.00	21.00	2.10	2.00	1.84	0.66	1.14	1.28		
23	2.40	1.00	13.75	7.55	16.50	18.00	2.40	2.10	1.68	0.66	1.02	1.08		
24	2.30	0.50	11.25	6.80	14.25	15.00	2.40	2.00	3.00	0.66	1.60	0.96		
25	1.28	1.80	15.50	6.05	15.25	13.75	2.70	2.40	1.52	0.66	1.14	0.90		
26	1.02	0.60	13.50	5.60	16.25	12.75	2.50	2.10	1.36	0.60	1.02	0.90		
27	0.96	2.40	10.75	4.50	11.00	10.00	6.35	2.00	1.28	0.60	0.90	0.84		
28	0.84	2.10	10.50	5.00	10.25	8.80	0.50	1.92	1.14	0.60	0.90	0.96		
29	0.72	9.00	7.85	14.00	9.60	7.70	1.80	1.84	1.14	0.60		1.08		
30	1.02	7.70	7.70	32.92	17.50	8.60	1.80	1.76	1.14	0.56		1.08		
31		4.00		16.25	15.50		1.50		1.08	0.56		1.02		
Total	28.90	79.51	195.95	281.52	709.61	688.59	91.40	65.82	48.10	23.74	20.28	33.02	2266.44	CMSDAY
Mean	0.96	2.56	6.53	9.08	22.89	22.95	2.95	2.19	1.55	0.77	0.72	1.07	6.21	CMS
Max	2.50	20.50	29.20	32.92	70.48	68.76	8.60	2.80	3.00	1.02	1.60	2.20	70.48	CMS
Min	0.16	0.44	0.30	1.50	9.60	7.70	0.00	1.50	1.08	0.56	0.48	0.66	0.00	CMS
Runoff	2.50	6.87	16.93	24.32	61.31	59.49	7.90	5.69	4.16	2.05	1.75	2.85	195.82	MCM

Momentary Peak 123.97 CMS, at 3.34 m. (A.D.), at 06.00 Hours, on Sep 12, 2002

Runoff Yield 67.49 Liters/Second/Square KM. Momentary Peak Yield 1347.500 Liters/Second/Square KM.

WATER YEAR : 2002

EAST COAST - GULF BASIN

Khlong Chanthi at Ban Khlong Khwang , Trat (Z.47)

Lat 12 - 20 - 00 N Long 102 - 38 - 37 E

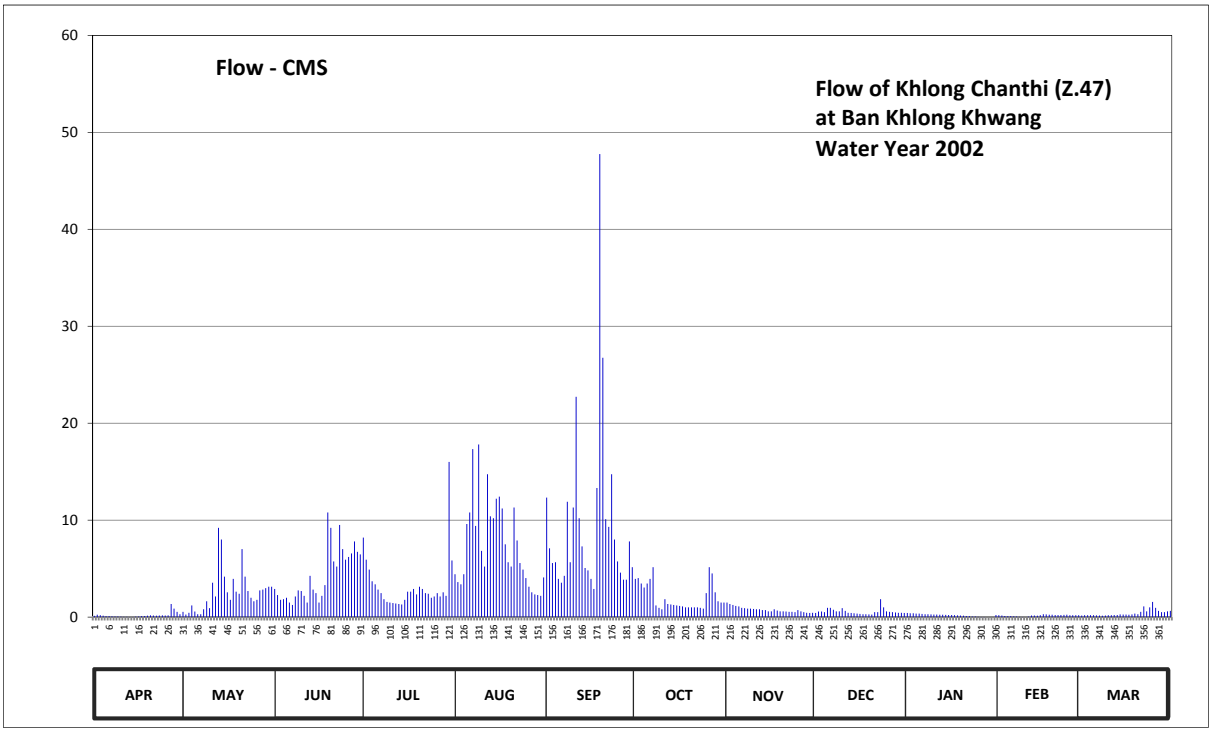
Location : on left bank at Ban Khlong Khwang, Tambon Tha Kum.

	Ban Khlong Khwang	**Amphoe** Mueang	**Changwat** Trat
Drainge Area	27 sq.km.		
Type of Gage	Staff gage.		
Zero Gage at Bottom	+0.000 m. (A.D.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank about 20 meters from the top staff gage.	**Elevation**	+4.936 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 mean 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	Stable.		
Overbank Flow Conditions	Overbank flow starts at elevation +4.940 m.(A.D.) and is including overbank flow.		
General Description	Records good. Stage-discharge relation defined by 42 discharge measurements made in 2002.		

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.63	0.88	1.30	1.91	1.49	2.32	1.43	1.10	0.84	0.84	0.69	0.67	
2	0.75	0.76	1.21	1.67	1.39	1.80	1.44	1.07	0.89	0.83	0.66	0.70	
3	0.70	0.85	1.14	1.55	1.36	1.63	1.37	1.05	0.89	0.83	0.61	0.70	
4	0.65	1.04	1.15	1.40	1.49	1.64	1.32	1.03	0.87	0.82	0.60	0.69	
5	0.60	0.89	1.17	1.36	2.05	1.43	1.37	1.02	0.99	0.82	0.59	0.69	
6	0.59	0.80	1.10	1.29	2.17	1.38	1.43	0.99	0.99	0.81	0.58	0.68	
7	0.58	0.80	1.05	1.24	2.76	1.47	1.58	0.98	0.94	0.80	0.56	0.67	
8	0.57	0.95	1.19	1.15	2.03	2.28	1.04	0.97	0.90	0.79	0.54	0.65	
9	0.56	1.12	1.28	1.11	2.80	1.64	0.99	0.97	0.90	0.78	0.52	0.67	
10	0.55	0.98	1.27	1.10	1.77	2.22	0.95	0.96	0.98	0.77	0.50	0.69	
11	0.54	1.38	1.20	1.09	1.59	3.21	1.15	0.95	0.91	0.76	0.55	0.70	
12	0.53	1.19	1.10	1.08	2.54	2.11	1.07	0.95	0.85	0.75	0.67	0.72	
13	0.52	2.01	1.47	1.07	2.13	1.82	1.06	0.93	0.84	0.74	0.67	0.72	
14	0.51	1.89	1.29	1.06	2.11	1.57	1.05	0.93	0.83	0.73	0.65	0.78	
15	0.55	1.46	1.24	1.14	2.31	1.54	1.04	0.90	0.82	0.72	0.70	0.77	
16	0.57	1.25	1.10	1.26	2.33	1.43	1.03	0.90	0.81	0.71	0.80	0.76	
17	0.60	1.14	1.20	1.26	2.21	1.30	1.02	0.95	0.80	0.70	0.78	0.75	
18	0.62	1.43	1.35	1.30	1.84	2.41	1.00	0.92	0.79	0.68	0.74	0.78	
19	0.65	1.26	2.17	1.22	1.64	4.96	1.00	0.90	0.78	0.66	0.74	0.82	
20	0.68	1.23	2.01	1.33	1.59	3.52	1.00	0.90	0.76	0.64	0.72	0.80	
21	0.67	1.79	1.65	1.30	2.22	2.10	1.00	0.89	0.87	0.62	0.71	0.88	
22	0.65	1.46	1.59	1.24	1.88	2.02	1.00	0.88	0.87	0.60	0.72	1.02	
23	0.67	1.27	2.04	1.23	1.63	2.54	0.99	0.88	1.15	0.56	0.73	0.90	
24	0.68	1.17	1.79	1.17	1.55	1.89	0.97	0.87	1.00	0.56	0.75	1.00	
25	0.67	1.12	1.67	1.19	1.44	1.65	1.24	0.93	0.90	0.53	0.70	1.11	
26	0.68	1.14	1.70	1.24	1.33	1.51	1.58	0.90	0.88	0.52	0.70	0.99	
27	1.07	1.28	1.74	1.19	1.25	1.42	1.50	0.87	0.87	0.51	0.70	0.91	
28	0.97	1.29	1.87	1.25	1.22	1.42	1.25	0.85	0.86	0.50	0.70	0.87	
29	0.88	1.31	1.76	1.20	1.21	1.87	1.12	0.84	0.85	0.49		0.87	
30	0.80	1.33	1.73	2.65	1.20	1.58	1.10	0.85	0.85	0.49		0.90	
31		1.33		1.66	1.45		1.10		0.84	0.72		0.91	
Mean	0.66	1.22	1.45	1.32	1.81	1.99	1.17	0.94	0.88	0.69	0.66	0.80	
Max	1.07	2.01	2.17	2.65	2.80	4.96	1.58	1.10	1.15	0.84	0.80	1.11	4.96
Min	0.51	0.76	1.05	1.06	1.20	1.30	0.95	0.84	0.76	0.49	0.50	0.65	0.49

Annual Max Momentary Gage Height	5.80	m. (A.D.) ,	at 06.00 Hours, on Sep 18, 2002		
Zero Gage at Bottom Elevation	0.00	m. (A.D.) ,	River Bed	0.34	m. (A.D.)
Left Bank Elevation	4.95	m. (A.D.) ,			
Right Bank Elevation	4.93	m. (A.D.) ,	Drainage Are	27	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.13	0.54	2.90	8.20	4.42	12.32	3.94	1.50	0.42	0.42	0.19	0.17		
2	0.25	0.26	2.27	5.93	3.62	7.10	4.02	1.35	0.57	0.39	0.16	0.20		
3	0.20	0.45	1.78	4.90	3.38	5.57	3.46	1.25	0.57	0.39	0.11	0.20		
4	0.15	1.20	1.85	3.70	4.42	5.66	3.06	1.15	0.51	0.36	0.10	0.19		
5	0.10	0.57	1.99	3.38	9.60	3.94	3.46	1.10	0.96	0.36	0.09	0.19		
6	0.09	0.30	1.50	2.83	10.80	3.54	3.94	0.96	0.96	0.33	0.08	0.18		
7	0.08	0.30	1.25	2.48	17.32	4.26	5.14	0.92	0.76	0.30	0.06	0.17		
8	0.07	0.80	2.13	1.85	9.40	11.90	1.20	0.88	0.60	0.29	0.04	0.15		
9	0.06	1.64	2.76	1.57	17.80	5.66	0.96	0.88	0.60	0.28	0.02	0.17		
10	0.05	0.92	2.69	1.50	6.83	11.30	0.80	0.84	0.92	0.27	0.00	0.19		
11	0.04	3.54	2.20	1.45	5.22	22.73	1.85	0.80	0.64	0.26	0.05	0.20		
12	0.03	2.13	1.50	1.40	14.74	10.20	1.35	0.80	0.45	0.25	0.17	0.22		
13	0.02	9.20	4.26	1.35	10.40	7.30	1.30	0.72	0.42	0.24	0.17	0.22		
14	0.01	8.00	2.83	1.30	10.20	5.06	1.25	0.72	0.39	0.23	0.15	0.28		
15	0.05	4.18	2.48	1.78	12.21	4.82	1.20	0.60	0.36	0.22	0.20	0.27		
16	0.07	2.55	1.50	2.62	12.43	3.94	1.15	0.60	0.33	0.21	0.30	0.26		
17	0.10	1.78	2.20	2.62	11.20	2.90	1.10	0.80	0.30	0.20	0.28	0.25		
18	0.12	3.94	3.30	2.90	7.50	13.31	1.00	0.68	0.29	0.18	0.24	0.28		
19	0.15	2.62	10.80	2.34	5.66	47.76	1.00	0.60	0.28	0.16	0.24	0.36		
20	0.18	2.41	9.20	3.14	5.22	26.76	1.00	0.60	0.26	0.14	0.22	0.30		
21	0.17	7.01	5.75	2.90	11.30	10.10	1.00	0.57	0.51	0.12	0.21	0.54		
22	0.15	4.18	5.22	2.48	7.90	9.30	1.00	0.54	0.51	0.10	0.22	1.10		
23	0.17	2.69	9.50	2.41	5.57	14.74	0.96	0.54	1.85	0.06	0.23	0.60		
24	0.18	1.99	7.01	1.99	4.90	8.00	0.88	0.51	1.00	0.06	0.25	1.00		
25	0.17	1.64	5.93	2.13	4.02	5.75	2.48	0.72	0.60	0.03	0.20	1.57		
26	0.18	1.78	6.20	2.48	3.14	4.58	5.14	0.60	0.54	0.02	0.20	0.96		
27	1.35	2.76	6.56	2.13	2.55	3.86	4.50	0.51	0.51	0.01	0.20	0.64		
28	0.88	2.83	7.80	2.55	2.34	3.86	2.55	0.45	0.48	0.00	0.20	0.51		
29	0.54	2.98	6.74	2.20	2.27	7.80	1.64	0.42	0.45	0.00		0.51		
30	0.30	3.14	6.47	16.00	2.20	5.14	1.50	0.45	0.45	0.00		0.60		
31		3.14		5.84	4.10		1.50		0.42	0.22		0.64		
Total	6.04	81.47	128.57	100.35	232.66	289.16	65.33	23.06	17.91	6.10	4.58	13.12	968.35	CMSDAY
Mean	0.20	2.63	4.29	3.24	7.51	9.64	2.11	0.77	0.58	0.20	0.16	0.42	2.65	CMS
Max	1.35	9.20	10.80	16.00	17.80	47.76	5.14	1.50	1.85	0.42	0.30	1.57	47.76	CMS
Min	0.01	0.26	1.25	1.30	2.20	2.90	0.80	0.42	0.26	0.00	0.00	0.15	0.00	CMS
Runoff	0.52	7.04	11.11	8.67	20.10	24.98	5.64	1.99	1.55	0.53	0.40	1.13	83.67	MCM

Momentary Peak 61.20 CMS, at 5.80 m. (A.D.), at 06.00 Hours, on Sep 18, 2002

Runoff Yield 98.26 Liters/Second/Square KM. Momentary Peak Yield 2266.670 Liters/Second/Square KM.

WATER YEAR : 2002

PHETCHABURI RIVER BASIN

Huai Mae Prachan at Ban Sa Yai Non, Phetchaburi (B.6)

Lat 12 - 56 - 00 N Long 99 - 46 - 59 E

Location : on left bank about 250 meters upstream from the bridge of Khuan Phet-Kaeng Krachan Reservoir Road.

Ban Sa Yai Non **Amphoe** Kaeng Krachan **Changwat** Phetchaburi

Drainge Area	1,003 sq.km.
Type of Gage	Water - stage recorder
Zero Gage at Bottom	+22.710 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	Near the automatic gage building. **Elevation** +30.274 m. (MSL.)
Gage Reading Frequency	Recording
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1941 - 1942, 1961 to date.
Rating Operation	
Period of Rating	1961 - 1962, 1964 to date.
Rated by Flot	-
Rated by Current Meter	1961 - 1962, 1964 to date.
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 71 diacharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

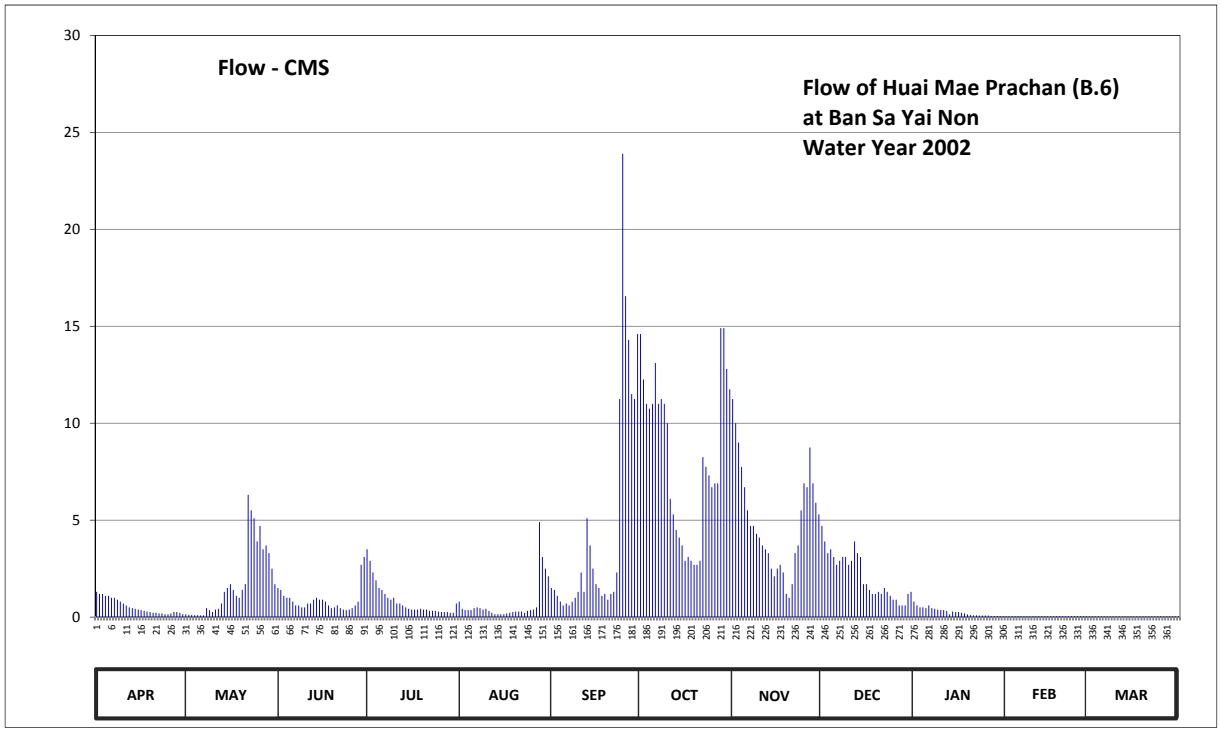
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	22.68	22.49	22.70	22.80	22.63	22.70	23.27	23.15	22.86	22.63	22.42	22.41	
2	22.67	22.48	22.69	22.77	22.58	22.69	23.19	23.10	22.82	22.61	22.42	22.41	
3	22.67	22.47	22.66	22.74	22.56	22.66	23.14	23.06	22.79	22.60	22.42	22.41	
4	22.66	22.46	22.65	22.72	22.56	22.63	23.13	23.01	22.80	22.60	22.42	22.41	
5	22.66	22.46	22.65	22.70	22.56	22.61	23.14	22.96	22.78	22.59	22.42	22.41	
6	22.65	22.45	22.63	22.69	22.59	22.62	23.22	22.90	22.76	22.61	22.42	22.41	
7	22.65	22.45	22.61	22.67	22.60	22.61	23.14	22.86	22.77	22.59	22.42	22.41	
8	22.64	22.59	22.61	22.65	22.59	22.63	23.15	22.86	22.78	22.58	22.42	22.41	
9	22.63	22.56	22.60	22.64	22.57	22.65	23.14	22.84	22.78	22.57	22.42	22.41	
10	22.62	22.53	22.60	22.65	22.58	22.68	23.10	22.83	22.76	22.56	22.42	22.41	
11	22.61	22.57	22.62	22.62	22.55	22.74	22.93	22.81	22.77	22.56	22.42	22.41	
12	22.60	22.58	22.62	22.62	22.52	22.68	22.89	22.80	22.82	22.55	22.42	22.41	
13	22.59	22.62	22.64	22.61	22.50	22.88	22.85	22.79	22.79	22.49	22.42	22.41	
14	22.58	22.68	22.65	22.60	22.50	22.81	22.83	22.75	22.78	22.54	22.42	22.41	
15	22.57	22.70	22.64	22.58	22.49	22.75	22.81	22.73	22.71	22.53	22.42	22.41	
16	22.56	22.71	22.64	22.57	22.50	22.71	22.77	22.75	22.71	22.53	22.42	22.41	
17	22.55	22.69	22.63	22.57	22.51	22.70	22.78	22.76	22.69	22.52	22.42	22.41	
18	22.54	22.66	22.61	22.57	22.52	22.66	22.77	22.74	22.67	22.51	22.42	22.41	
19	22.53	22.65	22.59	22.58	22.53	22.67	22.76	22.67	22.67	22.49	22.42	22.41	
20	22.52	22.69	22.60	22.57	22.54	22.64	22.76	22.65	22.68	22.47	22.42	22.41	
21	22.52	22.71	22.61	22.57	22.54	22.67	22.77	22.71	22.67	22.45	22.42	22.41	
22	22.51	22.94	22.59	22.55	22.54	22.68	23.03	22.79	22.70	22.45	22.42	22.41	
23	22.51	22.90	22.57	22.55	22.52	22.74	23.01	22.81	22.68	22.44	22.42	22.41	
24	22.50	22.88	22.56	22.55	22.55	23.15	22.99	22.90	22.66	22.44	22.42	22.41	
25	22.50	22.82	22.57	22.54	22.56	23.54	22.96	22.97	22.64	22.44	22.42	22.41	
26	22.51	22.86	22.59	22.53	22.57	23.33	22.97	22.96	22.64	22.44	22.42	22.41	
27	22.53	22.80	22.61	22.53	22.60	23.26	22.97	23.05	22.61	22.43	22.42	22.41	
28	22.53	22.81	22.63	22.53	22.87	23.16	23.28	22.97	22.61	22.43	22.42	22.41	
29	22.52	22.79	22.76	22.52	22.78	23.15	23.28	22.92	22.61	22.43		22.41	
30	22.50	22.75	22.78	22.52	22.75	23.27	23.21	22.89	22.67	22.43		22.41	
31		22.71		22.62	22.73		23.17		22.68	22.42		22.41	
Mean	22.58	22.66	22.63	22.61	22.58	22.82	23.01	22.87	22.72	22.51	22.42	22.41	
Max	22.68	22.94	22.78	22.80	22.87	23.54	23.28	23.15	22.86	22.63	22.42	22.41	23.54
Min	22.50	22.45	22.56	22.52	22.49	22.61	22.76	22.65	22.61	22.42	22.42	22.41	22.41

Annual Max Momentary Gage Height 23.65 m. (MSL.) , at 09.00 Hours , on Sep 25 , 2002

Zero Gage at Bottom Elevation 22.71 m. (MSL.) , River Bed 21.18 m. (MSL.)

Left Bank Elevation 29.93 m. (MSL.) ,

Right Bank Elevation 29.07 m. (MSL.) , Drainage Are 1,003 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.30	0.14	1.50	3.50	0.80	1.50	14.60	11.25	4.70	0.80	0.05	0.04		
2	1.20	0.12	1.40	2.90	0.43	1.40	12.25	10.00	3.90	0.60	0.05	0.04		
3	1.20	0.11	1.10	2.30	0.36	1.10	11.00	9.00	3.30	0.50	0.05	0.04		
4	1.10	0.10	1.00	1.90	0.36	0.80	10.75	7.75	3.50	0.50	0.05	0.04		
5	1.10	0.10	1.00	1.50	0.36	0.60	11.00	6.70	3.10	0.46	0.05	0.04		
6	1.00	0.09	0.80	1.40	0.46	0.70	13.10	5.50	2.70	0.60	0.05	0.04		
7	1.00	0.09	0.60	1.20	0.50	0.60	11.00	4.70	2.90	0.46	0.05	0.04		
8	0.90	0.46	0.60	1.00	0.46	0.80	11.25	4.70	3.10	0.43	0.05	0.04		
9	0.80	0.36	0.50	0.90	0.39	1.00	11.00	4.30	3.10	0.39	0.05	0.04		
10	0.70	0.26	0.50	1.00	0.43	1.30	10.00	4.10	2.70	0.36	0.05	0.04		
11	0.60	0.39	0.70	0.70	0.32	2.30	6.10	3.70	2.90	0.36	0.05	0.04		
12	0.50	0.43	0.70	0.70	0.22	1.30	5.30	3.50	3.90	0.32	0.05	0.04		
13	0.46	0.70	0.90	0.60	0.15	5.10	4.50	3.30	3.30	0.14	0.05	0.04		
14	0.43	1.30	1.00	0.50	0.15	3.70	4.10	2.50	3.10	0.29	0.05	0.04		
15	0.39	1.50	0.90	0.43	0.14	2.50	3.70	2.10	1.70	0.26	0.05	0.04		
16	0.36	1.70	0.90	0.39	0.15	1.70	2.90	2.50	1.70	0.26	0.05	0.04		
17	0.32	1.40	0.80	0.39	0.19	1.50	3.10	2.70	1.40	0.22	0.05	0.04		
18	0.29	1.10	0.60	0.39	0.22	1.10	2.90	2.30	1.20	0.19	0.05	0.04		
19	0.26	1.00	0.46	0.43	0.26	1.20	2.70	1.20	1.20	0.14	0.05	0.04		
20	0.22	1.40	0.50	0.39	0.29	0.90	2.70	1.00	1.30	0.11	0.05	0.04		
21	0.22	1.70	0.60	0.39	0.29	1.20	2.90	1.70	1.20	0.09	0.05	0.04		
22	0.19	6.30	0.46	0.32	0.29	1.30	8.25	3.30	1.50	0.09	0.05	0.04		
23	0.19	5.50	0.39	0.32	0.22	2.30	7.75	3.70	1.30	0.08	0.05	0.04		
24	0.15	5.10	0.36	0.32	0.32	11.25	7.30	5.50	1.10	0.08	0.05	0.04		
25	0.15	3.90	0.39	0.29	0.36	23.90	6.70	6.90	0.90	0.08	0.05	0.04		
26	0.19	4.70	0.46	0.26	0.39	16.55	6.90	6.70	0.90	0.08	0.05	0.04		
27	0.26	3.50	0.60	0.26	0.50	14.30	6.90	8.75	0.60	0.06	0.05	0.04		
28	0.26	3.70	0.80	0.26	4.90	11.50	14.90	6.90	0.60	0.06	0.05	0.04		
29	0.22	3.30	2.70	0.22	3.10	11.25	14.90	5.90	0.60	0.06		0.04		
30	0.15	2.50	3.10	0.22	2.50	14.60	12.80	5.30	1.20	0.06		0.04		
31		1.70		0.70	2.10		11.75		1.30	0.05		0.04		
Total	16.11	54.65	26.32	26.08	21.61	139.25	255.00	147.45	65.90	8.18	1.40	1.24	763.19	CMSDAY
Mean	0.54	1.76	0.88	0.84	0.70	4.64	8.23	4.91	2.13	0.26	0.05	0.04	2.09	CMS
Max	1.30	6.30	3.10	3.50	4.90	23.90	14.90	11.25	4.70	0.80	0.05	0.04	23.90	CMS
Min	0.15	0.09	0.36	0.22	0.14	0.60	2.70	1.00	0.60	0.05	0.05	0.04	0.04	CMS
Runoff	1.39	4.72	2.27	2.25	1.87	12.03	22.03	12.74	5.69	0.71	0.12	0.11	65.94	MCM

Momentary Peak 28.00 CMS. at 23.65 m. (MSL.) at 09.00 Hours , on Sep 25 , 2002

Runoff Yield 2.08 Liters/Second/Square KM. Momentary Peak Yield 27.916 Liters/Second/Square KM.

WATER YEAR : 2002

PHETCHABURI RIVER BASIN

Huai Phak at Ban Kariang, Phetchaburi (B.8)

Lat 12 - 48 - 49 N Long 99 - 41 - 32 E

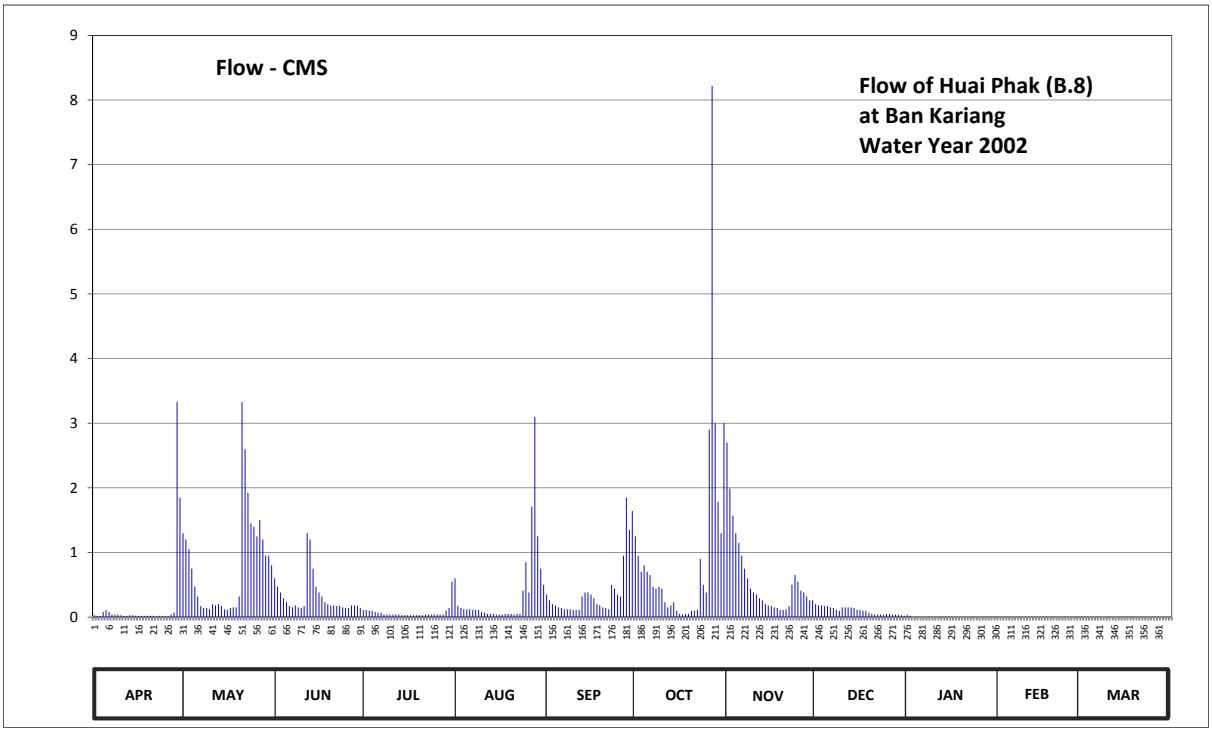
Location : on left bank at Ban Kariang.

	Ban Kariang	**Amphoe** Tha Yang	**Changwat** Phetchaburi
Drainge Area	264 sq.km.		
Type of Gage	Water - stage recorder		
Zero Gage at Bottom	+42.315 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	In front of gage observer's house.		**Elevation** +51.185 m. (MSL.)
Gage Reading Frequency	Recording		
Basis of Mean Daily Gage Height	Arithmetic mean 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. Stage-discharge relation defined by 60 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	43.72	44.16	44.02	43.84	44.02	43.95	44.15	44.35	43.90	43.73	43.63	43.63	
2	43.71	44.14	43.99	43.84	43.88	43.92	44.09	44.27	43.89	43.70	43.63	43.63	
3	43.70	44.11	43.96	43.83	43.86	43.90	44.04	44.21	43.89	43.63	43.63	43.63	
4	43.82	44.05	43.93	43.83	43.85	43.89	44.06	44.16	43.88	43.63	43.63	43.63	
5	43.84	43.99	43.91	43.82	43.85	43.87	44.04	44.13	43.88	43.63	43.63	43.63	
6	43.82	43.94	43.88	43.81	43.85	43.86	44.03	44.09	43.87	43.63	43.63	43.63	
7	43.78	43.88	43.87	43.81	43.84	43.85	43.99	44.05	43.86	43.63	43.63	43.63	
8	43.75	43.86	43.89	43.77	43.84	43.85	43.98	44.02	43.84	43.63	43.63	43.63	
9	43.75	43.86	43.87	43.76	43.84	43.85	43.99	43.98	43.83	43.63	43.63	43.63	
10	43.73	43.85	43.86	43.76	43.82	43.84	43.98	43.96	43.87	43.63	43.63	43.63	
11	43.71	43.90	43.88	43.75	43.81	43.84	43.91	43.95	43.87	43.63	43.63	43.63	
12	43.71	43.89	44.16	43.75	43.80	43.84	43.87	43.93	43.87	43.63	43.63	43.63	
13	43.72	43.90	44.14	43.75	43.80	43.94	43.89	43.92	43.87	43.63	43.63	43.63	
14	43.72	43.88	44.05	43.74	43.79	43.96	43.91	43.90	43.86	43.63	43.63	43.63	
15	43.71	43.85	43.99	43.73	43.78	43.96	43.83	43.89	43.84	43.63	43.63	43.63	
16	43.70	43.84	43.96	43.73	43.77	43.95	43.79	43.88	43.84	43.63	43.63	43.63	
17	43.69	43.86	43.94	43.73	43.78	43.93	43.78	43.87	43.83	43.63	43.63	43.63	
18	43.70	43.87	43.91	43.74	43.79	43.90	43.79	43.86	43.83	43.63	43.63	43.63	
19	43.70	43.87	43.90	43.74	43.79	43.89	43.79	43.84	43.81	43.63	43.63	43.63	
20	43.70	43.94	43.89	43.74	43.79	43.87	43.83	43.84	43.79	43.63	43.63	43.63	
21	43.69	44.41	43.89	43.74	43.78	43.86	43.83	43.85	43.78	43.63	43.63	43.63	
22	43.68	44.34	43.88	43.75	43.79	43.85	43.84	43.88	43.77	43.63	43.63	43.63	
23	43.69	44.26	43.88	43.75	43.79	44.00	44.08	44.00	43.76	43.63	43.63	43.63	
24	43.69	44.19	43.87	43.76	43.97	43.98	44.00	44.03	43.77	43.63	43.63	43.63	
25	43.68	44.18	43.86	43.76	44.07	43.95	43.96	44.01	43.79	43.63	43.63	43.63	
26	43.68	44.15	43.86	43.76	43.96	43.94	44.37	43.97	43.80	43.63	43.63	43.63	
27	43.77	44.20	43.89	43.76	44.23	44.09	44.78	43.96	43.78	43.63	43.63	43.63	
28	43.81	44.14	43.89	43.76	44.39	44.25	44.38	43.94	43.77	43.63	43.63	43.63	
29	44.41	44.09	43.88	43.83	44.15	44.17	44.24	43.92	43.75	43.63		43.63	
30	44.25	44.09	43.86	43.86	44.05	44.22	44.16	43.92	43.72	43.63		43.63	
31		44.06		44.01	44.00		44.38		43.69	43.63		43.63	
Mean	43.77	44.02	43.93	43.78	43.89	43.94	44.02	43.99	43.82	43.64	43.63	43.63	
Max	44.41	44.41	44.16	44.01	44.39	44.25	44.78	44.35	43.90	43.73	43.63	43.63	44.78
Min	43.68	43.84	43.86	43.73	43.77	43.84	43.78	43.84	43.69	43.63	43.63	43.63	43.63

Annual Max Momentary Gage Height	45.28	m. (MSL.) ,	at 23.00 Hours , on Oct 26 , 2002		
Zero Gage at Bottom Elevation	42.32	m. (MSL.) ,	River Bed	42.75	m. (MSL.)
Left Bank Elevation	48.82	m. (MSL.) ,			
Right Bank Elevation	51.02	m. (MSL.) ,	Drainage Are	264	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.03	1.30	0.60	0.11	0.60	0.35	1.25	2.70	0.20	0.03	0.00	0.00		
2	0.02	1.20	0.47	0.11	0.17	0.26	0.95	1.99	0.18	0.02	0.00	0.00		
3	0.02	1.05	0.38	0.10	0.14	0.20	0.70	1.57	0.18	0.00	0.00	0.00		
4	0.08	0.75	0.29	0.10	0.12	0.18	0.80	1.30	0.17	0.00	0.00	0.00		
5	0.11	0.47	0.23	0.08	0.12	0.15	0.70	1.15	0.17	0.00	0.00	0.00		
6	0.08	0.32	0.17	0.07	0.12	0.14	0.65	0.95	0.15	0.00	0.00	0.00		
7	0.04	0.17	0.15	0.07	0.11	0.12	0.47	0.75	0.14	0.00	0.00	0.00		
8	0.04	0.14	0.18	0.04	0.11	0.12	0.44	0.60	0.11	0.00	0.00	0.00		
9	0.04	0.14	0.15	0.04	0.11	0.12	0.47	0.44	0.10	0.00	0.00	0.00		
10	0.03	0.12	0.14	0.04	0.08	0.11	0.44	0.38	0.15	0.00	0.00	0.00		
11	0.02	0.20	0.17	0.04	0.07	0.11	0.23	0.35	0.15	0.00	0.00	0.00		
12	0.02	0.18	1.30	0.04	0.05	0.11	0.15	0.29	0.15	0.00	0.00	0.00		
13	0.03	0.20	1.20	0.04	0.05	0.32	0.18	0.26	0.15	0.00	0.00	0.00		
14	0.03	0.17	0.75	0.03	0.05	0.38	0.23	0.20	0.14	0.00	0.00	0.00		
15	0.02	0.12	0.47	0.03	0.04	0.38	0.10	0.18	0.11	0.00	0.00	0.00		
16	0.02	0.11	0.38	0.03	0.04	0.35	0.05	0.17	0.11	0.00	0.00	0.00		
17	0.02	0.14	0.32	0.03	0.04	0.29	0.04	0.15	0.10	0.00	0.00	0.00		
18	0.02	0.15	0.23	0.03	0.05	0.20	0.05	0.14	0.10	0.00	0.00	0.00		
19	0.02	0.15	0.20	0.03	0.05	0.18	0.05	0.11	0.07	0.00	0.00	0.00		
20	0.02	0.32	0.18	0.03	0.05	0.15	0.10	0.11	0.05	0.00	0.00	0.00		
21	0.02	3.33	0.18	0.03	0.04	0.14	0.10	0.12	0.04	0.00	0.00	0.00		
22	0.01	2.60	0.17	0.04	0.05	0.12	0.11	0.17	0.04	0.00	0.00	0.00		
23	0.02	1.92	0.17	0.04	0.05	0.50	0.90	0.50	0.04	0.00	0.00	0.00		
24	0.02	1.45	0.15	0.04	0.41	0.44	0.50	0.65	0.04	0.00	0.00	0.00		
25	0.01	1.40	0.14	0.04	0.85	0.35	0.38	0.55	0.05	0.00	0.00	0.00		
26	0.01	1.25	0.14	0.04	0.38	0.32	2.90	0.41	0.05	0.00	0.00	0.00		
27	0.04	1.50	0.18	0.04	1.71	0.95	8.22	0.38	0.04	0.00	0.00	0.00		
28	0.07	1.20	0.18	0.04	3.10	1.85	3.00	0.32	0.04	0.00	0.00	0.00		
29	3.33	0.95	0.17	0.10	1.25	1.35	1.78	0.26	0.04	0.00		0.00		
30	1.85	0.95	0.14	0.14	0.75	1.64	1.30	0.26	0.03	0.00		0.00		
31		0.80		0.55	0.50		3.00		0.02	0.00		0.00		
Total	6.09	24.75	9.58	2.19	11.26	11.88	30.24	17.41	3.11	0.05	0.00	0.00	116.56	CMSDAY
Mean	0.20	0.80	0.32	0.07	0.36	0.40	0.98	0.58	0.10	0.00	0.00	0.00	0.32	CMS
Max	3.33	3.33	1.30	0.55	3.10	1.85	8.22	2.70	0.20	0.03	0.00	0.00	8.22	CMS
Min	0.01	0.11	0.14	0.03	0.04	0.11	0.04	0.11	0.02	0.00	0.00	0.00	0.00	CMS
Runoff	0.53	2.14	0.83	0.19	0.97	1.03	2.61	1.50	0.27	0.00	0.00	0.00	10.07	MCM

Momentary Peak 18.50 CMS. at 45.28 m. (MSL.) at 23.00 Hours , on Oct 26 , 2002

Runoff Yield 1.21 Liters/Second/Square KM. Momentary Peak Yield 70.076 Liters/Second/Square KM.

WATER YEAR : 2002

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 mean 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 74 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

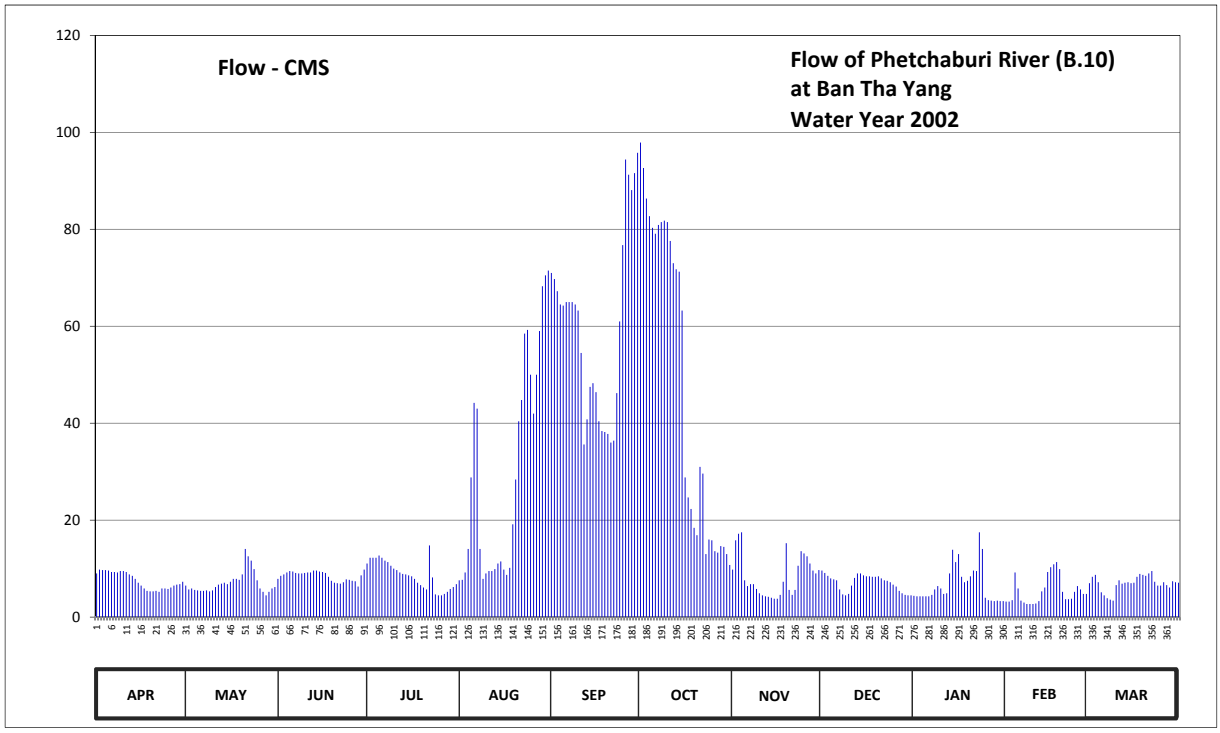
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	7.00	6.75	6.89	7.17	6.86	10.16	11.04	7.08	7.06	6.54	6.42	6.80	
2	7.08	6.67	6.95	7.25	6.87	10.11	10.89	7.49	7.01	6.53	6.42	6.93	
3	7.07	6.69	6.98	7.25	7.02	10.01	10.71	7.58	6.95	6.53	6.45	6.97	
4	7.07	6.66	7.02	7.25	7.37	9.90	10.59	7.60	6.90	6.53	7.02	6.82	
5	7.06	6.65	7.05	7.28	8.29	9.89	10.51	6.86	6.88	6.53	6.69	6.61	
6	7.03	6.64	7.04	7.25	9.06	9.92	10.47	6.74	6.86	6.53	6.44	6.55	
7	7.03	6.64	7.01	7.21	9.00	9.92	10.53	6.78	6.67	6.56	6.40	6.49	
8	7.02	6.65	7.00	7.19	7.37	9.92	10.55	6.78	6.57	6.67	6.37	6.46	
9	7.05	6.63	7.00	7.14	6.89	9.90	10.56	6.68	6.55	6.74	6.37	6.44	
10	7.05	6.65	7.01	7.10	7.00	9.85	10.55	6.59	6.58	6.69	6.37	6.76	
11	7.03	6.72	7.02	7.07	7.05	9.50	10.42	6.55	6.75	6.58	6.38	6.86	
12	6.98	6.77	7.02	7.02	7.05	8.63	10.24	6.53	6.91	6.59	6.43	6.79	
13	6.95	6.79	7.06	6.99	7.09	8.89	10.19	6.52	7.00	7.00	6.63	6.81	
14	6.89	6.81	7.06	6.98	7.17	9.22	10.17	6.50	7.00	7.36	6.71	6.82	
15	6.81	6.78	7.04	6.96	7.20	9.25	9.85	6.48	6.96	7.19	7.03	6.80	
16	6.75	6.83	7.03	6.94	7.08	9.17	8.29	6.48	6.94	7.30	7.12	6.81	
17	6.69	6.89	7.01	6.89	6.97	8.87	8.08	6.56	6.94	6.93	7.16	6.93	
18	6.64	6.89	6.93	6.81	7.11	8.77	7.92	6.83	6.93	6.82	7.19	6.99	
19	6.63	6.87	6.85	6.76	7.71	8.76	7.66	7.45	6.93	6.85	7.09	6.97	
20	6.63	6.98	6.81	6.71	8.27	8.74	7.56	6.66	6.94	6.94	6.62	6.95	
21	6.64	7.37	6.80	6.67	8.87	8.65	8.40	6.56	6.90	7.06	6.47	7.00	
22	6.62	7.27	6.79	7.42	9.09	8.67	8.33	6.66	6.86	7.05	6.47	7.05	
23	6.69	7.21	6.82	6.92	9.66	9.16	7.30	7.14	6.85	7.60	6.48	6.83	
24	6.69	7.09	6.88	6.57	9.69	9.76	7.50	7.34	6.82	7.37	6.62	6.75	
25	6.68	6.86	6.87	6.55	9.32	10.39	7.49	7.31	6.77	6.50	6.74	6.75	
26	6.71	6.69	6.85	6.55	8.95	10.94	7.34	7.27	6.73	6.45	6.67	6.82	
27	6.75	6.62	6.84	6.58	9.32	10.85	7.32	7.17	6.64	6.44	6.58	6.76	
28	6.77	6.55	6.73	6.62	9.68	10.76	7.41	7.06	6.59	6.43	6.58	6.71	
29	6.78	6.62	6.96	6.68	10.05	10.86	7.40	7.00	6.56	6.44		6.84	
30	6.83	6.69	7.08	6.72	10.14	10.98	7.30	7.07	6.55	6.43		6.82	
31		6.72		6.78	10.18		7.15		6.55	6.43		6.81	
Mean	6.85	6.80	6.95	6.94	8.17	9.68	9.02	6.91	6.81	6.76	6.64	6.80	
Max	7.08	7.37	7.08	7.42	10.18	10.98	11.04	7.60	7.06	7.60	7.19	7.05	11.04
Min	6.62	6.55	6.73	6.55	6.86	8.63	7.15	6.48	6.55	6.43	6.37	6.44	6.37

Annual Max Momentary Gage Height 11.09 m. (MSL.) , at 10.00 Hours , on Oct 1 , 2002

Zero Gage at Bottom Elevation 5.63 m. (MSL.) , River Bed 5.64 m. (MSL.)

Left Bank Elevation 13.00 m. (MSL.) ,

Right Bank Elevation 13.00 m. (MSL.) , Drainage Are 4,076 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	9.00	6.50	7.90	11.05	7.60	71.00	97.90	9.80	9.60	4.40	3.20	7.00		
2	9.80	5.70	8.50	12.25	7.70	69.75	92.65	15.85	9.10	4.30	3.20	8.30		
3	9.70	5.90	8.80	12.25	9.20	67.25	86.35	17.20	8.50	4.30	3.50	8.70		
4	9.70	5.60	9.20	12.25	14.05	64.50	82.70	17.50	8.00	4.30	9.20	7.20		
5	9.60	5.50	9.50	12.70	28.80	64.25	80.30	7.60	7.80	4.30	5.90	5.10		
6	9.30	5.40	9.40	12.25	44.20	65.00	79.10	6.40	7.60	4.30	3.40	4.50		
7	9.30	5.40	9.10	11.65	43.00	65.00	80.90	6.80	5.70	4.60	3.00	3.90		
8	9.20	5.50	9.00	11.35	14.05	65.00	81.50	6.80	4.70	5.70	2.70	3.60		
9	9.50	5.30	9.00	10.60	7.90	64.50	81.80	5.80	4.50	6.40	2.70	3.40		
10	9.50	5.50	9.10	10.00	9.00	63.25	81.50	4.90	4.80	5.90	2.70	6.60		
11	9.30	6.20	9.20	9.70	9.50	54.50	77.60	4.50	6.50	4.80	2.80	7.60		
12	8.80	6.70	9.20	9.20	9.50	35.60	73.00	4.30	8.10	4.90	3.30	6.90		
13	8.50	6.90	9.60	8.90	9.90	40.80	71.75	4.20	9.00	9.00	5.30	7.10		
14	7.90	7.10	9.60	8.80	11.05	47.50	71.25	4.00	9.00	13.90	6.10	7.20		
15	7.10	6.80	9.40	8.60	11.50	48.25	63.25	3.80	8.60	11.35	9.30	7.00		
16	6.50	7.30	9.30	8.40	9.80	46.40	28.80	3.80	8.40	13.00	10.30	7.10		
17	5.90	7.90	9.10	7.90	8.70	40.40	24.70	4.60	8.40	8.30	10.90	8.30		
18	5.40	7.90	8.30	7.10	10.15	38.40	22.30	7.30	8.30	7.20	11.35	8.90		
19	5.30	7.70	7.50	6.60	19.15	38.20	18.40	15.25	8.30	7.50	9.90	8.70		
20	5.30	8.80	7.10	6.10	28.40	37.80	16.90	5.60	8.40	8.40	5.20	8.50		
21	5.40	14.05	7.00	5.70	40.40	36.00	31.00	4.60	8.00	9.60	3.70	9.00		
22	5.20	12.55	6.90	14.80	44.80	36.40	29.60	5.60	7.60	9.50	3.70	9.50		
23	5.90	11.65	7.20	8.20	58.50	46.20	13.00	10.60	7.50	17.50	3.80	7.30		
24	5.90	9.90	7.80	4.70	59.25	61.00	16.00	13.60	7.20	14.05	5.20	6.50		
25	5.80	7.60	7.70	4.50	50.00	76.75	15.85	13.15	6.70	4.00	6.40	6.50		
26	6.10	5.90	7.50	4.50	42.00	94.40	13.60	12.55	6.30	3.50	5.70	7.20		
27	6.50	5.20	7.40	4.80	50.00	91.25	13.30	11.05	5.40	3.40	4.80	6.60		
28	6.70	4.50	6.30	5.20	59.00	88.10	14.65	9.60	4.90	3.30	4.80	6.10		
29	6.80	5.20	8.60	5.80	68.25	91.60	14.50	9.00	4.60	3.40		7.40		
30	7.30	5.90	9.80	6.20	70.50	95.80	13.00	9.70	4.50	3.30		7.20		
31		6.20		6.80	71.50		10.75		4.50	3.30		7.10		
Total	226.20	218.25	254.00	268.85	927.35	1804.85	1497.90	255.45	220.50	211.70	152.05	216.00	6253.10	CMSDAY
Mean	7.54	7.04	8.47	8.67	29.91	60.16	48.32	8.52	7.11	6.83	5.43	6.97	17.13	CMS
Max	9.80	14.05	9.80	14.80	71.50	95.80	97.90	17.50	9.60	17.50	11.35	9.50	97.90	CMS
Min	5.20	4.50	6.30	4.50	7.60	35.60	10.75	3.80	4.50	3.30	2.70	3.40	2.70	CMS
Runoff	19.54	18.86	21.95	23.23	80.12	155.94	129.42	22.07	19.05	18.29	13.14	18.66	540.27	MCM

Momentary Peak 99.65 CMS. at 11.09 m. (MSL.) at 10.00 Hours , on Oct 1 , 2002

Runoff Yield 4.20 Liters/Second/Square KM. Momentary Peak Yield 24.448 Liters/Second/Square KM.

WATER YEAR : 2002

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	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 71 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

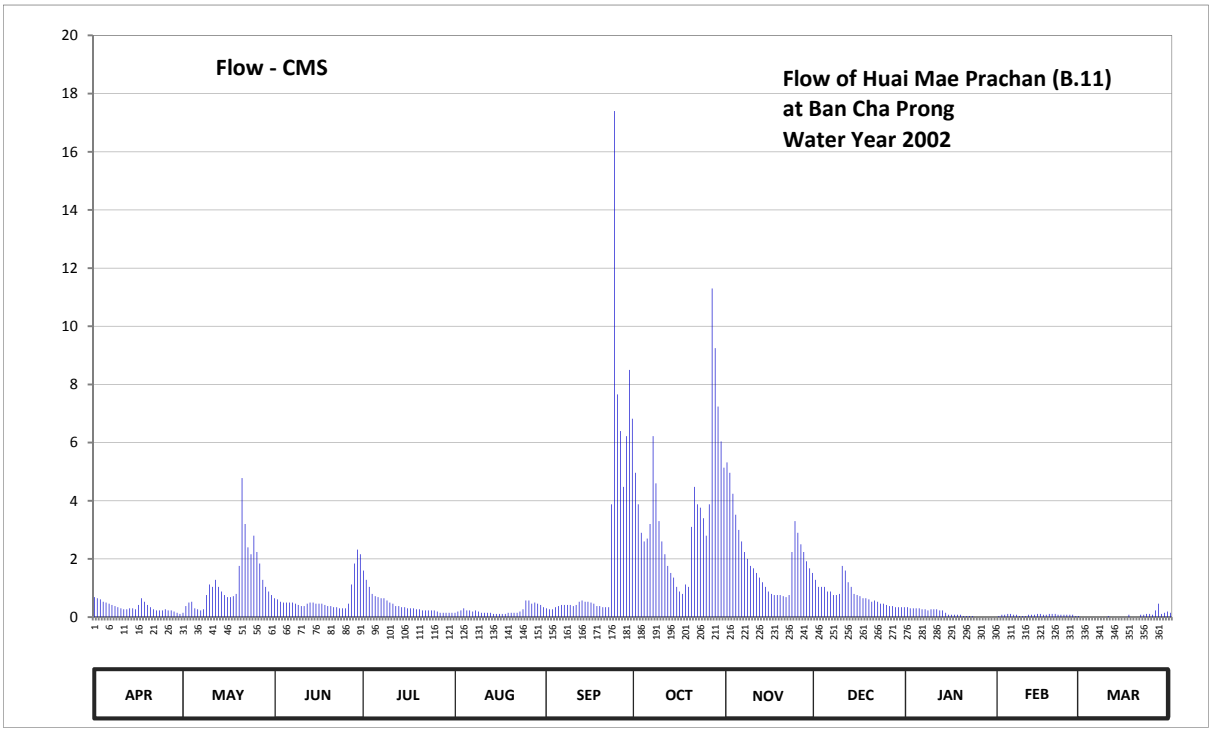
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	72.77	72.63	72.76	72.90	72.63	72.67	73.22	73.24	72.86	72.68	72.60	72.59	
2	72.76	72.69	72.75	72.86	72.64	72.66	73.14	73.22	72.83	72.67	72.61	72.58	
3	72.75	72.72	72.73	72.83	72.65	72.66	73.05	73.17	72.83	72.67	72.61	72.57	
4	72.73	72.73	72.72	72.80	72.67	72.68	73.02	73.11	72.83	72.67	72.62	72.57	
5	72.72	72.67	72.72	72.78	72.65	72.69	73.03	73.06	72.81	72.67	72.62	72.57	
6	72.71	72.66	72.72	72.77	72.65	72.70	73.08	73.02	72.81	72.66	72.61	72.57	
7	72.70	72.65	72.72	72.76	72.64	72.70	73.29	72.98	72.79	72.66	72.61	72.56	
8	72.69	72.66	72.71	72.76	72.65	72.70	73.20	72.95	72.79	72.65	72.60	72.56	
9	72.68	72.79	72.70	72.74	72.64	72.70	73.09	72.92	72.80	72.66	72.60	72.57	
10	72.67	72.84	72.69	72.72	72.63	72.69	73.02	72.91	72.92	72.66	72.60	72.60	
11	72.66	72.83	72.69	72.71	72.63	72.70	72.97	72.89	72.90	72.66	72.61	72.58	
12	72.66	72.86	72.71	72.69	72.63	72.73	72.92	72.87	72.85	72.65	72.61	72.57	
13	72.67	72.83	72.72	72.69	72.63	72.74	72.89	72.85	72.83	72.65	72.61	72.57	
14	72.67	72.81	72.72	72.68	72.62	72.73	72.87	72.83	72.80	72.63	72.62	72.57	
15	72.66	72.79	72.71	72.68	72.62	72.73	72.83	72.81	72.79	72.61	72.62	72.58	
16	72.70	72.77	72.71	72.67	72.62	72.72	72.81	72.80	72.78	72.61	72.61	72.58	
17	72.76	72.77	72.71	72.67	72.62	72.71	72.80	72.79	72.76	72.61	72.61	72.61	
18	72.73	72.78	72.70	72.67	72.62	72.69	72.84	72.79	72.76	72.61	72.62	72.59	
19	72.70	72.80	72.69	72.66	72.63	72.69	72.83	72.79	72.75	72.61	72.62	72.58	
20	72.68	72.92	72.69	72.66	72.63	72.68	73.07	72.78	72.73	72.60	72.62	72.59	
21	72.66	73.21	72.68	72.65	72.63	72.68	73.19	72.77	72.74	72.60	72.61	72.61	
22	72.65	73.08	72.68	72.65	72.63	72.68	73.14	72.79	72.73	72.60	72.61	72.61	
23	72.65	73.00	72.67	72.65	72.64	73.14	73.13	72.98	72.71	72.60	72.61	72.62	
24	72.65	72.97	72.67	72.65	72.66	73.71	73.10	73.09	72.71	72.59	72.61	72.62	
25	72.66	73.04	72.67	72.65	72.74	73.36	73.04	73.05	72.70	72.59	72.61	72.61	
26	72.65	72.98	72.71	72.64	72.74	73.30	73.14	73.01	72.69	72.59	72.61	72.65	
27	72.65	72.93	72.84	72.63	72.71	73.19	73.51	72.98	72.69	72.59	72.60	72.71	
28	72.64	72.86	72.93	72.63	72.72	73.29	73.43	72.94	72.68	72.59	72.60	72.62	
29	72.63	72.83	72.99	72.63	72.71	73.40	73.34	72.91	72.68	72.59		72.63	
30	72.62	72.81	72.97	72.63	72.70	73.32	73.28	72.89	72.68	72.59		72.64	
31		72.79		72.63	72.68		73.23		72.68	72.59		72.63	
Mean	72.68	72.83	72.74	72.70	72.65	72.87	73.08	72.94	72.77	72.63	72.61	72.60	
Max	72.77	73.21	72.99	72.90	72.74	73.71	73.51	73.24	72.92	72.68	72.62	72.71	73.71
Min	72.62	72.63	72.67	72.63	72.62	72.66	72.80	72.77	72.68	72.59	72.60	72.56	72.56

Annual Max Momentary Gage Height 73.91 m. (MSL.) , at 05.00 Hours , on Sep 24 , 2002

Zero Gage at Bottom Elevation 72.27 m. (MSL.) , River Bed 69.88 m. (MSL)

Left Bank Elevation 79.55 m. (MSL.) ,

Right Bank Elevation 79.53 m. (MSL.) , Drainage Are 460 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.69	0.15	0.65	1.60	0.15	0.30	4.96	5.32	1.28	0.34	0.04	0.00		
2	0.65	0.38	0.61	1.28	0.19	0.27	3.88	4.96	1.04	0.30	0.08	0.00		
3	0.61	0.50	0.53	1.04	0.23	0.27	2.90	4.24	1.04	0.30	0.08	0.00		
4	0.53	0.53	0.50	0.80	0.30	0.34	2.60	3.52	1.04	0.30	0.11	0.00		
5	0.50	0.30	0.50	0.72	0.23	0.38	2.70	3.00	0.88	0.30	0.11	0.00		
6	0.46	0.27	0.50	0.69	0.23	0.42	3.20	2.60	0.88	0.27	0.08	0.00		
7	0.42	0.23	0.50	0.65	0.19	0.42	6.22	2.24	0.76	0.27	0.08	0.00		
8	0.38	0.27	0.46	0.65	0.23	0.42	4.60	2.00	0.76	0.23	0.04	0.00		
9	0.34	0.76	0.42	0.57	0.19	0.42	3.30	1.76	0.80	0.27	0.04	0.00		
10	0.30	1.12	0.38	0.50	0.15	0.38	2.60	1.68	1.76	0.27	0.04	0.04		
11	0.27	1.04	0.38	0.46	0.15	0.42	2.16	1.52	1.60	0.27	0.08	0.00		
12	0.27	1.28	0.46	0.38	0.15	0.53	1.76	1.36	1.20	0.23	0.08	0.00		
13	0.30	1.04	0.50	0.38	0.15	0.57	1.52	1.20	1.04	0.23	0.08	0.00		
14	0.30	0.88	0.50	0.34	0.11	0.53	1.36	1.04	0.80	0.15	0.11	0.00		
15	0.27	0.76	0.46	0.34	0.11	0.53	1.04	0.88	0.76	0.08	0.11	0.00		
16	0.42	0.69	0.46	0.30	0.11	0.50	0.88	0.80	0.72	0.08	0.08	0.00		
17	0.65	0.69	0.46	0.30	0.11	0.46	0.80	0.76	0.65	0.08	0.08	0.08		
18	0.53	0.72	0.42	0.30	0.11	0.38	1.12	0.76	0.65	0.08	0.11	0.00		
19	0.42	0.80	0.38	0.27	0.15	0.38	1.04	0.76	0.61	0.08	0.11	0.00		
20	0.34	1.76	0.38	0.27	0.15	0.34	3.10	0.72	0.53	0.04	0.11	0.00		
21	0.27	4.78	0.34	0.23	0.15	0.34	4.48	0.69	0.57	0.04	0.08	0.08		
22	0.23	3.20	0.34	0.23	0.15	0.34	3.88	0.76	0.53	0.04	0.08	0.08		
23	0.23	2.40	0.30	0.23	0.19	3.88	3.76	2.24	0.46	0.04	0.08	0.11		
24	0.23	2.16	0.30	0.23	0.27	17.40	3.40	3.30	0.46	0.00	0.08	0.11		
25	0.27	2.80	0.30	0.23	0.57	7.66	2.80	2.90	0.42	0.00	0.08	0.08		
26	0.23	2.24	0.46	0.19	0.57	6.40	3.88	2.50	0.38	0.00	0.08	0.23		
27	0.23	1.84	1.12	0.15	0.46	4.48	11.30	2.24	0.38	0.00	0.04	0.46		
28	0.19	1.28	1.84	0.15	0.50	6.22	9.25	1.92	0.34	0.00	0.04	0.11		
29	0.15	1.04	2.32	0.15	0.46	8.50	7.24	1.68	0.34	0.00		0.15		
30	0.11	0.88	2.16	0.15	0.42	6.82	6.04	1.52	0.34	0.00		0.19		
31		0.76		0.15	0.34		5.14		0.34	0.00		0.15		
Total	10.79	37.55	18.93	13.93	7.47	70.30	112.91	60.87	23.36	4.29	2.21	1.87	364.48	CMSDAY
Mean	0.36	1.21	0.63	0.45	0.24	2.34	3.64	2.03	0.75	0.14	0.08	0.06	1.00	CMS
Max	0.69	4.78	2.32	1.60	0.57	17.40	11.30	5.32	1.76	0.34	0.11	0.46	17.40	CMS
Min	0.11	0.15	0.30	0.15	0.11	0.27	0.80	0.69	0.34	0.00	0.04	0.00	0.00	CMS
Runoff	0.93	3.24	1.64	1.20	0.65	6.07	9.76	5.26	2.02	0.37	0.19	0.16	31.49	MCM

Momentary Peak 25.55 CMS. at 73.91 m. (MSL.) at 05.00 Hours , on Sep 24 , 2002

Runoff Yield 2.17 Liters/Second/Square KM. Momentary Peak Yield 55.543 Liters/Second/Square KM.

WATER YEAR : 2002

WEST COAST - GULF BASIN

Khlong Bang Saphan Yai at Ban Wang Yao, Prachuap Khiri Khan (Gt.7)

Lat 11 - 14 - 02 N Long 99 - 26 - 35 E

Location : on left bank near the bridge of Phet Kasem Highway at Ban Wang Yao.

Ban Wang Yao **Amphoe** Bang Saphan **Changwat** Prachuap Khiri Khan

Drainge Area	346 sq.km.
Type of Gage	Water - stage recorder.
Zero Gage at Bottom	+11.824 m. (MSL.)
Bench Mark	B.M.- Highways Dept.
Location BM	on left bank at the abutment of the bridge. **Elevation** +19.908 m. (MSL.)
Gage Reading Frequency	Recordings.
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings
Period of Available Gage Records	1978 to date
Rating Operation	
Period of Rating	1980 to date
Rated by Flot	-
Rated by Current Meter	1980 to date
Stability of Channel Regimes	Rather unstable because of backwater effect.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Flow regulated by the concrete weir about 2 kilometer downstream from the gage site. Stage-discharge relation defined by 89 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

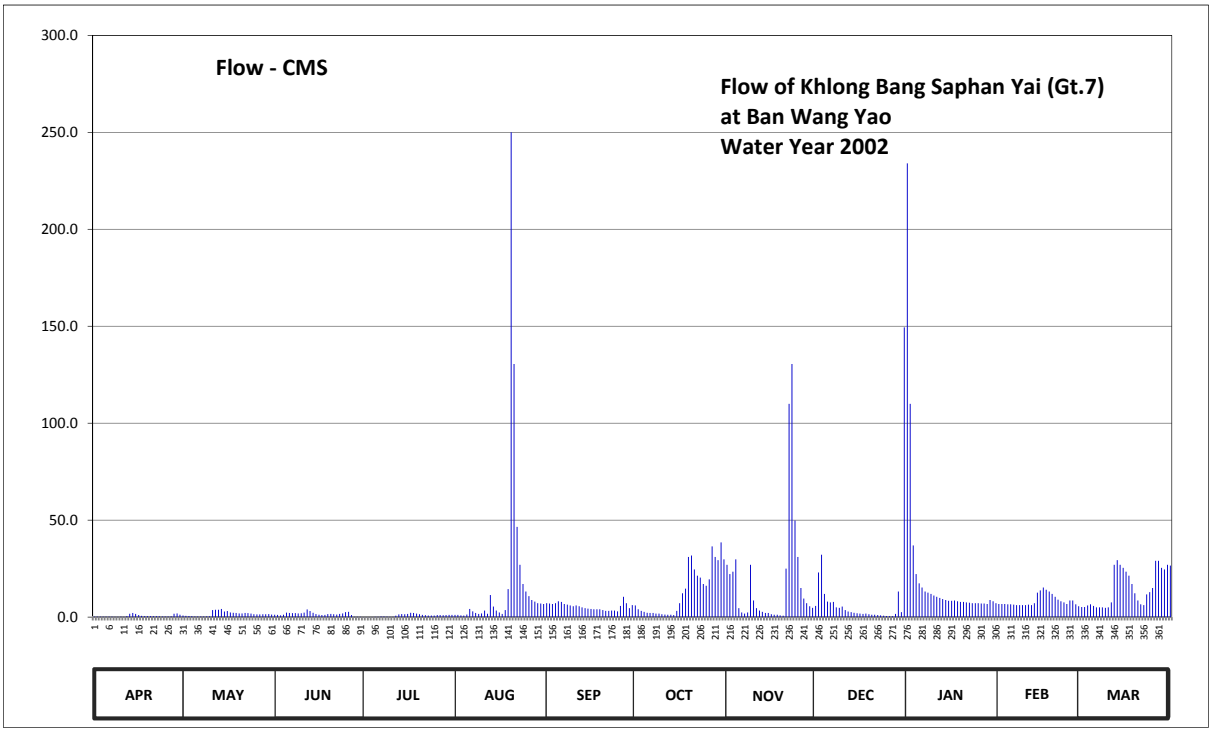
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	12.68	13.22	13.41	12.43	13.38	13.01	12.95	13.65	12.94	16.32	12.99	12.91	
2	12.66	13.10	13.36	12.39	13.37	13.00	12.85	13.53	13.55	15.00	12.99	12.91	
3	12.61	13.00	13.27	12.37	13.26	12.99	12.81	13.56	13.78	13.88	12.99	12.95	
4	12.64	12.91	13.40	12.41	13.22	13.01	12.78	13.72	13.20	13.53	12.98	12.98	
5	12.64	12.81	13.72	12.50	13.44	13.06	12.75	12.88	13.05	13.38	12.98	12.94	
6	12.63	12.79	13.68	12.50	14.08	13.04	12.74	12.76	13.03	13.31	12.97	12.90	
7	12.61	12.76	13.66	12.76	13.87	12.99	12.74	12.72	13.04	13.24	12.96	12.90	
8	12.58	12.78	13.66	12.81	13.68	12.97	12.72	12.76	12.90	13.22	12.96	12.90	
9	12.56	12.83	13.62	12.64	13.56	12.95	12.72	13.65	12.89	13.20	12.96	12.89	
10	12.61	12.86	13.65	12.56	13.63	12.93	12.70	13.08	12.92	13.17	12.96	12.90	
11	12.59	13.99	13.73	12.54	13.94	12.95	12.69	12.88	12.83	13.15	12.97	13.03	
12	12.93	14.01	14.04	13.18	13.58	12.93	12.68	12.82	12.79	13.13	12.96	13.65	
13	13.58	14.02	13.89	13.46	13.18	12.90	12.68	12.78	12.77	13.11	13.01	13.71	
14	13.68	14.08	13.71	13.51	12.92	12.88	12.67	12.74	12.75	13.09	13.22	13.65	
15	13.54	13.85	13.51	13.49	12.82	12.87	12.81	12.74	12.73	13.07	13.26	13.61	
16	13.33	13.90	13.40	13.54	12.76	12.86	13.01	12.70	12.72	13.07	13.31	13.56	
17	13.12	13.74	13.35	13.70	12.71	12.85	13.21	12.68	12.71	13.08	13.27	13.51	
18	12.98	13.70	13.38	13.68	12.83	12.85	13.29	12.68	12.72	13.06	13.24	13.37	
19	12.90	13.69	13.52	13.60	13.28	12.85	13.75	12.66	12.70	13.04	13.20	13.21	
20	12.92	13.62	13.55	13.48	16.48	12.83	13.77	12.65	12.68	13.04	13.15	13.08	
21	12.93	13.63	13.48	13.36	15.25	12.81	13.59	13.60	12.68	13.03	13.10	12.98	
22	12.91	13.69	13.45	13.29	14.07	12.81	13.51	15.00	12.67	13.02	13.06	12.96	
23	12.86	13.66	13.55	13.23	13.65	12.82	13.48	15.25	12.66	13.01	13.03	13.19	
24	12.81	13.59	13.62	13.21	13.37	12.82	13.37	14.13	12.65	13.01	12.99	13.23	
25	12.76	13.49	13.78	13.23	13.24	12.80	13.34	13.75	12.64	13.01	13.08	13.30	
26	12.74	13.46	13.82	13.32	13.16	12.94	13.45	13.30	12.63	13.00	13.08	13.70	
27	12.86	13.47	13.32	13.34	13.09	13.15	13.87	13.12	12.63	13.00	12.98	13.70	
28	13.58	13.48	12.53	13.29	13.05	13.01	13.75	13.01	12.71	12.99	12.93	13.61	
29	13.63	13.50	12.46	13.32	13.01	12.88	13.71	12.93	13.24	13.09		13.59	
30	13.42	13.52	12.46	13.37	13.00	12.96	13.91	12.89	12.77	13.06		13.65	
31		13.45		13.38	12.99		13.72		15.46	13.01		13.64	
Mean	12.94	13.44	13.47	13.09	13.48	12.92	13.16	13.22	12.95	13.30	13.06	13.26	
Max	13.68	14.08	14.04	13.70	16.48	13.15	13.91	15.25	15.46	16.32	13.31	13.71	16.48
Min	12.56	12.76	12.46	12.37	12.71	12.80	12.67	12.65	12.63	12.99	12.93	12.89	12.37

Annual Max Momentary Gage Height 18.30 m. (MSL.) , at 21.00 Hours , on Jan 1, 2002

Zero Gage at Bottom Elevation 11.82 m. (MSL.) , River Bed 11.69 m. (MSL.)

Left Bank Elevation 19.91 m. (MSL.) ,

Right Bank Elevation 19.52 m. (MSL.) , Drainage Are 346 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.24	0.84	1.23	0.11	1.16	7.20	6.00	27.00	5.80	234.00	6.80	5.20		
2	0.23	0.65	1.12	0.09	1.14	7.00	4.00	22.20	23.00	110.00	6.80	5.20		
3	0.21	0.55	0.94	0.08	0.92	6.80	3.20	23.40	32.20	37.00	6.80	6.00		
4	0.22	0.46	1.20	0.10	0.84	7.20	2.70	29.80	12.00	22.20	6.60	6.60		
5	0.22	0.36	2.28	0.15	1.32	8.20	2.25	4.60	8.00	17.40	6.60	5.80		
6	0.22	0.34	2.12	0.15	4.18	7.80	2.10	2.40	7.60	15.30	6.40	5.00		
7	0.21	0.31	2.04	0.31	2.98	6.80	2.10	1.80	7.80	13.20	6.20	5.00		
8	0.19	0.33	2.04	0.36	2.12	6.40	1.80	2.40	5.00	12.60	6.20	5.00		
9	0.18	0.38	1.88	0.22	1.68	6.00	1.80	27.00	4.80	12.00	6.20	4.80		
10	0.21	0.41	2.00	0.18	1.92	5.60	1.50	8.60	5.40	11.10	6.20	5.00		
11	0.20	3.64	2.32	0.17	3.37	6.00	1.35	4.60	3.60	10.50	6.40	7.60		
12	0.48	3.76	3.94	0.77	1.74	5.60	1.20	3.40	2.85	9.90	6.20	27.00		
13	1.74	3.82	3.09	1.38	11.40	5.00	1.20	2.70	2.55	9.30	7.20	29.40		
14	2.12	4.18	2.24	1.53	5.40	4.60	1.05	2.10	2.25	8.80	12.60	27.00		
15	1.62	2.87	1.53	1.47	3.40	4.40	3.20	2.10	1.95	8.40	13.80	25.40		
16	1.06	3.15	1.20	1.62	2.40	4.20	7.20	1.50	1.80	8.40	15.30	23.40		
17	0.68	2.36	1.10	2.20	1.65	4.00	12.30	1.20	1.65	8.60	14.10	21.40		
18	0.53	2.20	1.16	2.12	3.60	4.00	14.70	1.20	1.80	8.20	13.20	17.10		
19	0.45	2.16	1.56	1.80	14.40	4.00	31.00	0.90	1.50	7.80	12.00	12.30		
20	0.47	1.88	1.65	1.44	250.00	3.60	31.80	0.75	1.20	7.80	10.50	8.60		
21	0.48	1.92	1.44	1.12	130.50	3.20	24.60	25.00	1.20	7.60	9.00	6.60		
22	0.46	2.16	1.35	0.98	46.50	3.20	21.40	110.00	1.05	7.40	8.20	6.20		
23	0.41	2.04	1.65	0.86	27.00	3.40	20.40	130.50	0.90	7.20	7.60	11.70		
24	0.36	1.77	1.88	0.82	17.10	3.40	17.10	49.80	0.75	7.20	6.80	12.90		
25	0.31	1.47	2.52	0.86	13.20	3.00	16.20	31.00	0.60	7.20	8.60	15.00		
26	0.29	1.38	2.71	1.04	10.80	5.80	19.50	15.00	0.45	7.00	8.60	29.00		
27	0.41	1.41	1.04	1.08	8.80	10.50	36.50	9.60	0.45	7.00	6.60	29.00		
28	1.74	1.44	0.17	0.98	8.00	7.20	31.00	7.20	1.65	6.80	5.60	25.40		
29	1.92	1.50	0.13	1.04	7.20	4.60	29.40	5.60	13.20	8.80		24.60		
30	1.26	1.56	0.13	1.14	7.00	6.20	38.50	4.80	2.55	8.20		27.00		
31		1.35		1.16	6.80		29.80		149.40	7.20		26.60		
Total	19.12	52.65	49.66	27.33	598.52	164.90	416.85	558.15	304.95	654.10	237.10	466.80	3550.13	CMSDAY
Mean	0.64	1.70	1.66	0.88	19.31	5.50	13.45	18.61	9.84	21.10	8.47	15.06	9.73	CMS
Max	2.12	4.18	3.94	2.20	250.00	10.50	38.50	130.50	149.40	234.00	15.30	29.40	250.00	CMS
Min	0.18	0.31	0.13	0.08	0.84	3.00	1.05	0.75	0.45	6.80	5.60	4.80	0.08	CMS
Runoff	1.65	4.55	4.29	2.36	51.71	14.25	36.02	48.22	26.35	56.51	20.49	40.33	306.73	MCM

Momentary Peak 453.00 CMS. at 18.30 m. (MSL.) at 21.00 Hours , on Jun 1, 2002

Runoff Yield 28.11 Liters/Second/Square KM. Momentary Peak Yield 1309.250 Liters/Second/Square KM.

WATER YEAR : 2002

WEST COAST - GULF BASIN

Khlong Wa Thon at Ban Rai Khlong, Prachuap Khiri Khan (Gt.8)

Lat 11 - 43 - 29 N Long 99 - 43 - 51 E

Location : on right bank at the bridge of Phet Kasem Highway near the guidepost 335 - 336.

Ban Rai Khlong **Amphoe** Mueang **Changwat** Prachuap Khiri Khan

Drainge Area	44 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+8.865 m. (MSL.)
Bench Mark	B.M.- H.D.
Location BM	On right bank at the abutment of the bridge. **Elevation** +14.354 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 mean of 5 readings
Period of Available Gage Records	1979 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. Stage-discharge relation defined by 90 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

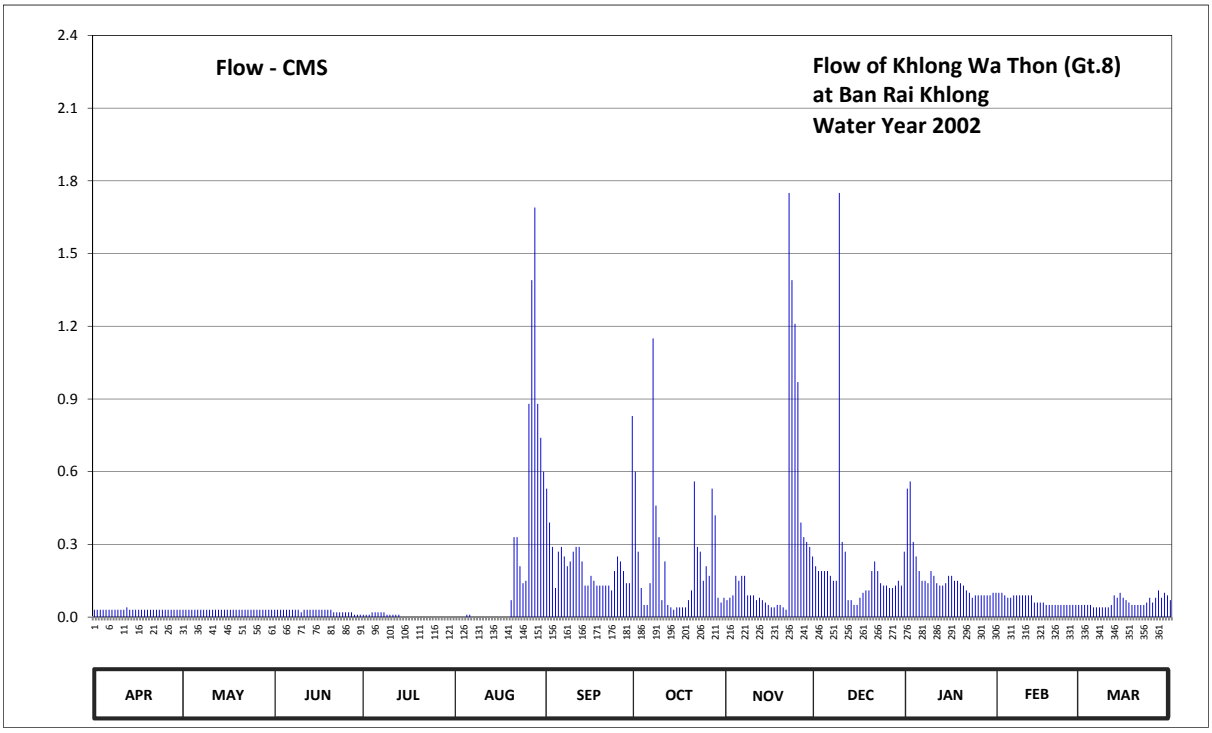
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	9.16	9.15	9.15	9.12	9.10	9.45	9.47	9.22	9.33	9.45	9.25	9.19	
2	9.16	9.15	9.15	9.12	9.10	9.41	9.36	9.23	9.32	9.46	9.25	9.19	
3	9.16	9.15	9.15	9.12	9.10	9.37	9.27	9.24	9.32	9.38	9.24	9.19	
4	9.16	9.15	9.15	9.13	9.10	9.27	9.19	9.31	9.32	9.35	9.23	9.19	
5	9.16	9.15	9.15	9.13	9.11	9.36	9.19	9.30	9.32	9.32	9.23	9.18	
6	9.16	9.15	9.15	9.13	9.11	9.37	9.29	9.31	9.31	9.30	9.24	9.18	
7	9.16	9.15	9.15	9.13	9.10	9.35	9.60	9.31	9.30	9.30	9.24	9.18	
8	9.15	9.15	9.15	9.13	9.10	9.33	9.43	9.24	9.30	9.29	9.24	9.18	
9	9.15	9.15	9.15	9.12	9.10	9.34	9.39	9.24	9.70	9.32	9.24	9.18	
10	9.15	9.16	9.14	9.12	9.10	9.36	9.22	9.24	9.38	9.31	9.24	9.18	
11	9.15	9.15	9.15	9.11	9.10	9.37	9.34	9.22	9.36	9.29	9.24	9.19	
12	9.17	9.16	9.15	9.11	9.10	9.37	9.20	9.23	9.22	9.28	9.24	9.24	
13	9.16	9.15	9.15	9.11	9.09	9.34	9.17	9.22	9.22	9.28	9.21	9.23	
14	9.16	9.15	9.15	9.10	9.10	9.28	9.15	9.21	9.20	9.29	9.21	9.25	
15	9.16	9.15	9.15	9.10	9.09	9.28	9.18	9.19	9.20	9.31	9.21	9.23	
16	9.16	9.15	9.15	9.10	9.09	9.31	9.18	9.18	9.23	9.31	9.21	9.22	
17	9.15	9.15	9.15	9.10	9.10	9.30	9.18	9.18	9.25	9.30	9.20	9.21	
18	9.15	9.15	9.15	9.10	9.10	9.28	9.18	9.20	9.26	9.30	9.20	9.20	
19	9.15	9.15	9.15	9.10	9.10	9.28	9.22	9.19	9.26	9.29	9.20	9.20	
20	9.15	9.15	9.15	9.10	9.22	9.28	9.26	9.18	9.32	9.28	9.19	9.20	
21	9.15	9.15	9.14	9.10	9.39	9.28	9.46	9.16	9.34	9.26	9.19	9.20	
22	9.15	9.15	9.13	9.10	9.39	9.28	9.37	9.70	9.32	9.25	9.19	9.20	
23	9.15	9.15	9.13	9.10	9.33	9.26	9.36	9.64	9.29	9.23	9.19	9.21	
24	9.15	9.15	9.13	9.10	9.29	9.32	9.30	9.61	9.28	9.24	9.19	9.23	
25	9.15	9.15	9.13	9.10	9.30	9.35	9.33	9.56	9.28	9.24	9.19	9.21	
26	9.15	9.15	9.13	9.10	9.54	9.34	9.31	9.41	9.27	9.24	9.19	9.23	
27	9.16	9.15	9.13	9.10	9.64	9.32	9.45	9.39	9.27	9.24	9.19	9.26	
28	9.15	9.15	9.12	9.10	9.69	9.29	9.42	9.38	9.28	9.24	9.19	9.23	
29	9.15	9.15	9.12	9.10	9.54	9.29	9.23	9.37	9.30	9.24		9.25	
30	9.15	9.15	9.12	9.10	9.51	9.53	9.21	9.35	9.28	9.25		9.24	
31		9.15		9.10	9.47		9.23		9.36	9.25		9.22	
Mean	9.15	9.15	9.14	9.11	9.23	9.33	9.29	9.31	9.30	9.29	9.22	9.21	
Max	9.17	9.16	9.15	9.13	9.69	9.53	9.60	9.70	9.70	9.46	9.25	9.26	9.70
Min	9.15	9.15	9.12	9.10	9.09	9.26	9.15	9.16	9.20	9.23	9.19	9.18	9.09

Annual Max Momentary Gage Height 9.85 m. (MSL.) , at 18.00 Hours , on Nov 22, 2002

Zero Gage at Bottom Elevation 8.87 m. (MSL.) , River Bed 8.82 m. (MSL.)

Left Bank Elevation 13.10 m. (MSL.) ,

Right Bank Elevation 12.87 m. (MSL.) , Drainage Are 44 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.03	0.03	0.03	0.01	0.00	0.53	0.60	0.07	0.21	0.53	0.10	0.05		
2	0.03	0.03	0.03	0.01	0.00	0.39	0.27	0.08	0.19	0.56	0.10	0.05		
3	0.03	0.03	0.03	0.01	0.00	0.29	0.12	0.09	0.19	0.31	0.09	0.05		
4	0.03	0.03	0.03	0.02	0.00	0.12	0.05	0.17	0.19	0.25	0.08	0.05		
5	0.03	0.03	0.03	0.02	0.01	0.27	0.05	0.15	0.19	0.19	0.08	0.04		
6	0.03	0.03	0.03	0.02	0.01	0.29	0.14	0.17	0.17	0.15	0.09	0.04		
7	0.03	0.03	0.03	0.02	0.00	0.25	1.15	0.17	0.15	0.15	0.09	0.04		
8	0.03	0.03	0.03	0.02	0.00	0.21	0.46	0.09	0.15	0.14	0.09	0.04		
9	0.03	0.03	0.03	0.01	0.00	0.23	0.33	0.09	1.75	0.19	0.09	0.04		
10	0.03	0.03	0.02	0.01	0.00	0.27	0.07	0.09	0.31	0.17	0.09	0.04		
11	0.03	0.03	0.03	0.01	0.00	0.29	0.23	0.07	0.27	0.14	0.09	0.05		
12	0.04	0.03	0.03	0.01	0.00	0.29	0.05	0.08	0.07	0.13	0.09	0.09		
13	0.03	0.03	0.03	0.01	0.00	0.23	0.04	0.07	0.07	0.13	0.06	0.08		
14	0.03	0.03	0.03	0.00	0.00	0.13	0.03	0.06	0.05	0.14	0.06	0.10		
15	0.03	0.03	0.03	0.00	0.00	0.13	0.04	0.05	0.05	0.17	0.06	0.08		
16	0.03	0.03	0.03	0.00	0.00	0.17	0.04	0.04	0.08	0.17	0.06	0.07		
17	0.03	0.03	0.03	0.00	0.00	0.15	0.04	0.04	0.10	0.15	0.05	0.06		
18	0.03	0.03	0.03	0.00	0.00	0.13	0.04	0.05	0.11	0.15	0.05	0.05		
19	0.03	0.03	0.03	0.00	0.00	0.13	0.07	0.05	0.11	0.14	0.05	0.05		
20	0.03	0.03	0.03	0.00	0.07	0.13	0.11	0.04	0.19	0.13	0.05	0.05		
21	0.03	0.03	0.02	0.00	0.33	0.13	0.56	0.03	0.23	0.11	0.05	0.05		
22	0.03	0.03	0.02	0.00	0.33	0.13	0.29	1.75	0.19	0.10	0.05	0.05		
23	0.03	0.03	0.02	0.00	0.21	0.11	0.27	1.39	0.14	0.08	0.05	0.06		
24	0.03	0.03	0.02	0.00	0.14	0.19	0.15	1.21	0.13	0.09	0.05	0.08		
25	0.03	0.03	0.02	0.00	0.15	0.25	0.21	0.97	0.13	0.09	0.05	0.06		
26	0.03	0.03	0.02	0.00	0.88	0.23	0.17	0.39	0.12	0.09	0.05	0.08		
27	0.03	0.03	0.02	0.00	1.39	0.19	0.53	0.33	0.12	0.09	0.05	0.11		
28	0.03	0.03	0.01	0.00	1.69	0.14	0.42	0.31	0.13	0.09	0.05	0.08		
29	0.03	0.03	0.01	0.00	0.88	0.14	0.08	0.29	0.15	0.09		0.10		
30	0.03	0.03	0.01	0.00	0.74	0.83	0.06	0.25	0.13	0.10		0.09		
31		0.03		0.00	0.60		0.08		0.27	0.10		0.07		
Total	0.91	0.93	0.76	0.18	7.43	6.97	6.75	8.64	6.34	5.12	1.92	1.95	47.90	CMSDAY
Mean	0.03	0.03	0.03	0.01	0.24	0.23	0.22	0.29	0.20	0.17	0.07	0.06	0.13	CMS
Max	0.04	0.03	0.03	0.02	1.69	0.83	1.15	1.75	1.75	0.56	0.10	0.11	1.75	CMS
Min	0.03	0.03	0.01	0.00	0.00	0.11	0.03	0.03	0.05	0.08	0.05	0.04	0.00	CMS
Runoff	0.08	0.08	0.07	0.02	0.64	0.60	0.58	0.75	0.55	0.44	0.17	0.17	4.14	MCM

Momentary Peak 3.00 CMS. at 9.85 m. (MSL.) at 18.00 Hours , on Nov 22, 2002

Runoff Yield 2.98 Liters/Second/Square KM. Momentary Peak Yield 68.180 Liters/Second/Square KM.

WATER YEAR : 2002

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	+6.840 m. (MSL.)		
Bench Mark	B.M.- Highways Dept.		
Location BM	On right bank at the abutment of the bridge.	**Elevation**	+12.200 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 mean 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 97 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

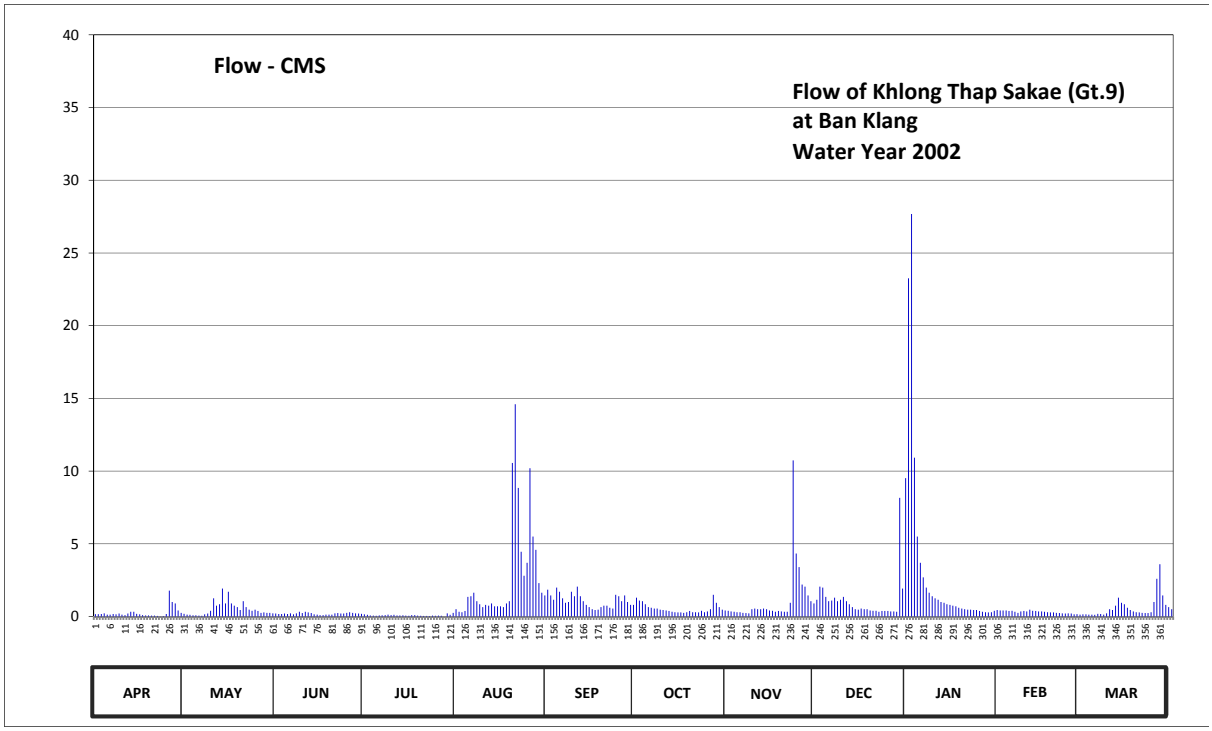
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	7.64	7.66	7.67	7.63	7.80	8.05	7.96	7.76	7.93	9.31	7.77	7.63	
2	7.64	7.62	7.65	7.61	7.73	7.99	7.92	7.74	8.08	9.48	7.77	7.63	
3	7.65	7.61	7.65	7.58	7.72	7.93	7.91	7.73	8.07	8.74	7.77	7.62	
4	7.68	7.59	7.67	7.57	7.75	8.07	7.87	7.72	7.97	8.40	7.75	7.62	
5	7.62	7.59	7.65	7.56	7.97	8.03	7.83	7.72	7.91	8.25	7.76	7.61	
6	7.62	7.57	7.68	7.58	7.98	7.95	7.82	7.70	7.92	8.15	7.73	7.66	
7	7.65	7.56	7.63	7.59	8.02	7.89	7.81	7.69	7.96	8.07	7.70	7.65	
8	7.63	7.63	7.68	7.60	7.91	7.90	7.81	7.68	7.91	8.02	7.74	7.62	
9	7.67	7.67	7.73	7.62	7.87	8.03	7.79	7.80	7.93	7.98	7.75	7.68	
10	7.62	7.76	7.69	7.60	7.83	7.98	7.78	7.81	7.97	7.95	7.74	7.80	
11	7.60	7.95	7.73	7.61	7.86	8.08	7.77	7.80	7.91	7.93	7.79	7.78	
12	7.67	7.85	7.71	7.58	7.85	7.98	7.75	7.80	7.87	7.90	7.76	7.85	
13	7.73	7.87	7.69	7.58	7.88	7.91	7.73	7.81	7.83	7.89	7.75	7.96	
14	7.73	8.06	7.63	7.59	7.84	7.86	7.72	7.80	7.80	7.87	7.74	7.89	
15	7.66	7.88	7.62	7.57	7.84	7.83	7.71	7.77	7.79	7.86	7.74	7.87	
16	7.63	8.03	7.60	7.56	7.84	7.80	7.71	7.76	7.81	7.85	7.73	7.82	
17	7.60	7.88	7.60	7.60	7.83	7.78	7.70	7.73	7.80	7.84	7.72	7.78	
18	7.58	7.85	7.62	7.60	7.88	7.79	7.72	7.75	7.80	7.82	7.71	7.74	
19	7.58	7.83	7.62	7.57	7.91	7.83	7.75	7.74	7.77	7.81	7.71	7.72	
20	7.57	7.78	7.62	7.56	8.72	7.85	7.72	7.73	7.76	7.80	7.70	7.71	
21	7.57	7.91	7.68	7.55	8.93	7.85	7.72	7.73	7.76	7.79	7.69	7.70	
22	7.55	7.83	7.69	7.55	8.62	7.82	7.71	7.89	7.73	7.79	7.68	7.69	
23	7.53	7.79	7.67	7.54	8.32	7.81	7.76	8.73	7.75	7.78	7.67	7.69	
24	7.54	7.76	7.67	7.57	8.16	8.00	7.72	8.31	7.75	7.78	7.68	7.72	
25	7.65	7.79	7.70	7.56	8.25	7.98	7.74	8.22	7.75	7.75	7.67	7.90	
26	8.04	7.75	7.72	7.57	8.70	7.91	7.80	8.10	7.74	7.73	7.63	8.14	
27	7.90	7.70	7.70	7.56	8.40	7.99	8.00	8.08	7.74	7.72	7.64	8.24	
28	7.88	7.71	7.68	7.52	8.33	7.90	7.89	7.99	7.73	7.71	7.62	7.99	
29	7.77	7.70	7.67	7.68	8.11	7.86	7.83	7.91	8.58	7.72		7.86	
30	7.70	7.70	7.66	7.61	8.02	7.86	7.79	7.88	8.06	7.76		7.83	
31		7.68		7.70	7.99		7.77		8.66	7.78		7.80	
Mean	7.66	7.76	7.67	7.59	8.06	7.92	7.79	7.86	7.90	8.01	7.72	7.78	
Max	8.04	8.06	7.73	7.70	8.93	8.08	8.00	8.73	8.66	9.48	7.79	8.24	9.48
Min	7.53	7.56	7.60	7.52	7.72	7.78	7.70	7.68	7.73	7.71	7.62	7.61	7.52

Annual Max Momentary Gage Height 9.89 m. (MSL.) , at 06.00 Hours , on Jan 2, 2002

Zero Gage at Bottom Elevation 6.84 m. (MSL.) , River Bed 7.09 m. (MSL.)

Left Bank Elevation 12.22 m. (MSL.) ,

Right Bank Elevation 11.64 m. (MSL.) , Drainage Are 125 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.16	0.19	0.21	0.15	0.50	1.85	1.30	0.40	1.15	23.26	0.42	0.15		
2	0.16	0.13	0.18	0.12	0.33	1.45	1.10	0.35	2.06	27.68	0.42	0.15		
3	0.18	0.12	0.18	0.08	0.30	1.15	1.05	0.33	1.99	10.92	0.42	0.13		
4	0.22	0.09	0.21	0.06	0.38	1.99	0.85	0.30	1.35	5.50	0.38	0.13		
5	0.13	0.09	0.18	0.05	1.35	1.71	0.65	0.30	1.05	3.70	0.40	0.12		
6	0.13	0.06	0.22	0.08	1.40	1.25	0.60	0.25	1.10	2.70	0.33	0.19		
7	0.18	0.05	0.15	0.09	1.64	0.95	0.55	0.24	1.30	1.99	0.25	0.18		
8	0.15	0.15	0.22	0.10	1.05	1.00	0.55	0.22	1.05	1.64	0.35	0.13		
9	0.21	0.21	0.33	0.13	0.85	1.71	0.47	0.50	1.15	1.40	0.38	0.22		
10	0.13	0.40	0.24	0.10	0.65	1.40	0.45	0.55	1.35	1.25	0.35	0.50		
11	0.10	1.25	0.33	0.12	0.80	2.06	0.42	0.50	1.05	1.15	0.47	0.45		
12	0.21	0.75	0.28	0.08	0.75	1.40	0.38	0.50	0.85	1.00	0.40	0.75		
13	0.33	0.85	0.24	0.08	0.90	1.05	0.33	0.55	0.65	0.95	0.38	1.30		
14	0.33	1.92	0.15	0.09	0.70	0.80	0.30	0.50	0.50	0.85	0.35	0.95		
15	0.19	0.90	0.13	0.06	0.70	0.65	0.28	0.42	0.47	0.80	0.35	0.85		
16	0.15	1.71	0.10	0.05	0.70	0.50	0.28	0.40	0.55	0.75	0.33	0.60		
17	0.10	0.90	0.10	0.10	0.65	0.45	0.25	0.33	0.50	0.70	0.30	0.45		
18	0.08	0.75	0.13	0.10	0.90	0.47	0.30	0.38	0.50	0.60	0.28	0.35		
19	0.08	0.65	0.13	0.06	1.05	0.65	0.38	0.35	0.42	0.55	0.28	0.30		
20	0.06	0.45	0.13	0.05	10.56	0.75	0.30	0.33	0.40	0.50	0.25	0.28		
21	0.06	1.05	0.22	0.04	14.60	0.75	0.30	0.33	0.40	0.47	0.24	0.25		
22	0.04	0.65	0.24	0.04	8.84	0.60	0.28	0.95	0.33	0.47	0.22	0.24		
23	0.01	0.47	0.21	0.03	4.46	0.55	0.40	10.74	0.38	0.45	0.21	0.24		
24	0.03	0.40	0.21	0.06	2.80	1.50	0.30	4.33	0.38	0.45	0.22	0.30		
25	0.18	0.47	0.25	0.05	3.70	1.40	0.35	3.40	0.38	0.38	0.21	1.00		
26	1.78	0.38	0.30	0.06	10.20	1.05	0.50	2.20	0.35	0.33	0.15	2.60		
27	1.00	0.25	0.25	0.05	5.50	1.45	1.50	2.06	0.35	0.30	0.16	3.60		
28	0.90	0.28	0.22	0.00	4.59	1.00	0.95	1.45	0.33	0.28	0.13	1.45		
29	0.42	0.25	0.21	0.22	2.30	0.80	0.65	1.05	8.16	0.30		0.80		
30	0.25	0.25	0.19	0.12	1.64	0.80	0.47	0.90	1.92	0.40		0.65		
31		0.22		0.25	1.45		0.42		9.52	0.45		0.50		
Total	7.95	16.29	6.14	2.67	86.24	33.14	16.91	35.11	41.94	92.17	8.63	19.81	367.00	CMSDAY
Mean	0.27	0.53	0.20	0.09	2.78	1.10	0.55	1.17	1.35	2.97	0.31	0.64	1.01	CMS
Max	1.78	1.92	0.33	0.25	14.60	2.06	1.50	10.74	9.52	27.68	0.47	3.60	27.68	CMS
Min	0.01	0.05	0.10	0.00	0.30	0.45	0.25	0.22	0.33	0.28	0.13	0.12	0.00	CMS
Runoff	0.69	1.41	0.53	0.23	7.45	2.86	1.46	3.03	3.62	7.96	0.75	1.71	31.71	MCM

Momentary Peak 40.47 CMS. at 9.89 m. (MSL.) at 06.00 Hours , on Jan 2, 2005

Runoff Yield 8.04 Liters/Second/Square KM. Momentary Peak Yield 323.760 Liters/Second/Square KM.

WATER YEAR : 2002

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	+25.360 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank at the abutment of the bridge. **Elevation** +30.539 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 mean 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	Overbank flow starts at elevation +28.70 m.(M.S.L.), records are channel flow only.
General Description	Records good. Stage-discharge relation defined by 98 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

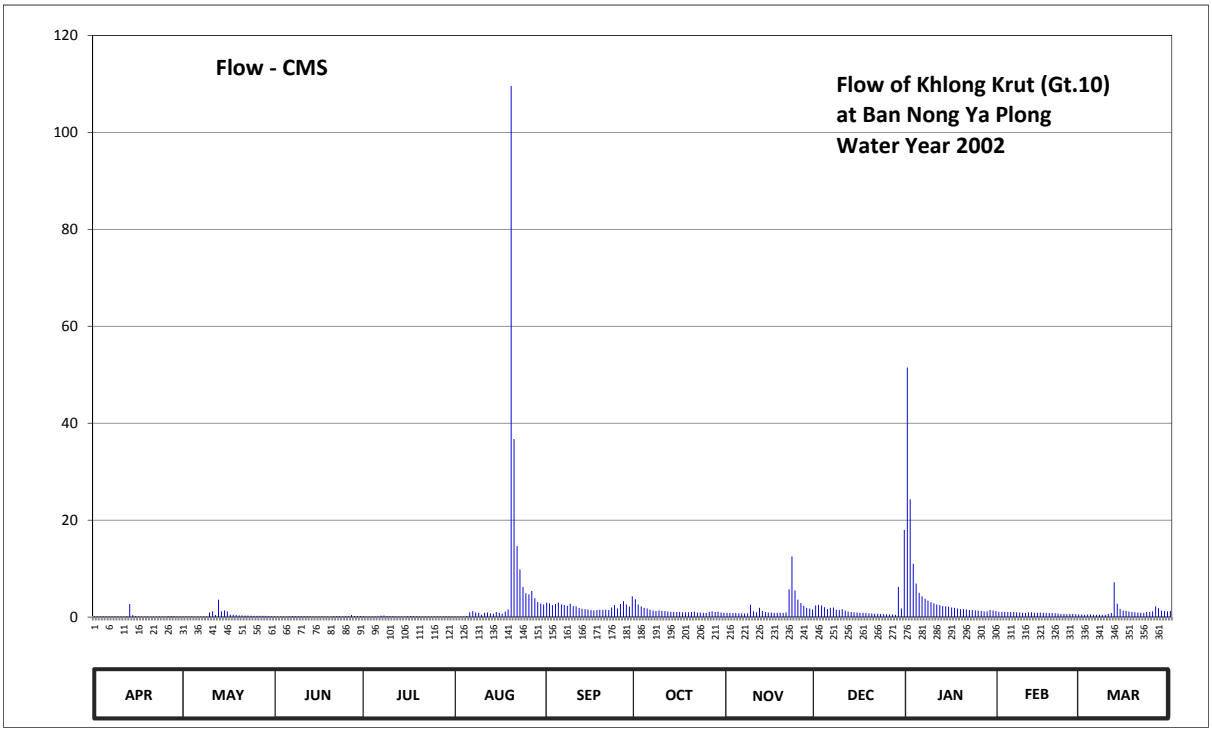
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	24.44	24.41	24.43	24.44	24.42	25.01	25.08	24.68	24.93	27.05	24.72	24.61	
2	24.43	24.41	24.42	24.42	24.42	24.99	24.96	24.68	24.95	26.26	24.72	24.60	
3	24.43	24.41	24.42	24.42	24.42	24.94	24.90	24.67	24.93	25.64	24.72	24.61	
4	24.43	24.41	24.42	24.42	24.42	24.97	24.86	24.67	24.88	25.37	24.71	24.61	
5	24.43	24.40	24.42	24.42	24.46	25.01	24.84	24.66	24.82	25.21	24.71	24.60	
6	24.42	24.40	24.43	24.43	24.70	24.96	24.80	24.65	24.86	25.14	24.71	24.60	
7	24.41	24.40	24.46	24.50	24.75	24.94	24.77	24.65	24.87	25.09	24.70	24.60	
8	24.41	24.40	24.45	24.52	24.69	24.92	24.76	24.66	24.80	25.05	24.69	24.59	
9	24.41	24.41	24.44	24.47	24.68	24.98	24.77	24.95	24.79	25.02	24.68	24.59	
10	24.41	24.69	24.44	24.45	24.59	24.91	24.76	24.74	24.82	24.99	24.67	24.64	
11	24.40	24.74	24.45	24.45	24.68	24.90	24.75	24.70	24.77	24.96	24.70	24.67	
12	24.43	24.57	24.44	24.43	24.69	24.86	24.73	24.86	24.73	24.94	24.70	25.39	
13	24.97	25.07	24.43	24.42	24.66	24.83	24.72	24.75	24.71	24.91	24.68	24.98	
14	24.55	24.74	24.42	24.42	24.64	24.82	24.71	24.71	24.70	24.90	24.68	24.82	
15	24.44	24.78	24.41	24.42	24.71	24.81	24.71	24.69	24.69	24.89	24.69	24.77	
16	24.41	24.74	24.41	24.44	24.68	24.79	24.71	24.69	24.68	24.87	24.68	24.76	
17	24.40	24.59	24.41	24.46	24.64	24.78	24.70	24.68	24.68	24.86	24.68	24.73	
18	24.40	24.59	24.41	24.45	24.73	24.79	24.70	24.68	24.67	24.84	24.67	24.71	
19	24.40	24.56	24.41	24.43	24.81	24.80	24.70	24.68	24.66	24.82	24.67	24.70	
20	24.40	24.53	24.40	24.42	28.32	24.80	24.71	24.67	24.65	24.82	24.66	24.69	
21	24.40	24.53	24.44	24.42	26.65	24.80	24.73	24.69	24.64	24.81	24.65	24.68	
22	24.40	24.52	24.46	24.42	25.85	24.79	24.69	25.27	24.64	24.79	24.63	24.68	
23	24.41	24.51	24.44	24.42	25.57	24.87	24.69	25.73	24.63	24.79	24.63	24.72	
24	24.42	24.49	24.43	24.42	25.31	24.94	24.68	25.25	24.62	24.78	24.62	24.71	
25	24.40	24.48	24.44	24.42	25.20	24.84	24.67	25.07	24.61	24.77	24.63	24.74	
26	24.44	24.48	24.44	24.41	25.18	24.97	24.71	25.00	24.61	24.76	24.63	24.90	
27	24.46	24.48	24.56	24.42	25.24	25.04	24.74	24.92	24.61	24.74	24.62	24.85	
28	24.44	24.48	24.47	24.42	25.10	24.96	24.71	24.86	24.60	24.74	24.61	24.77	
29	24.42	24.48	24.45	24.43	25.02	24.90	24.72	24.84	25.31	24.79		24.75	
30	24.41	24.45	24.47	24.43	24.98	25.14	24.69	24.81	24.84	24.77		24.74	
31		24.43		24.42	24.96		24.68		26.02	24.75		24.75	
Mean	24.44	24.53	24.44	24.43	25.01	24.90	24.75	24.82	24.80	25.04	24.67	24.73	
Max	24.97	25.07	24.56	24.52	28.32	25.14	25.08	25.73	26.02	27.05	24.72	25.39	28.32
Min	24.40	24.40	24.40	24.41	24.42	24.78	24.67	24.65	24.60	24.74	24.61	24.59	24.40

Annual Max Momentary Gage Height 28.86 m. (MSL.) , at 18.00 Hours , on Aug 20 , 2002

Zero Gage at Bottom Elevation 25.36 m. (MSL.) , River Bed 23.82 m. (MSL.)

Left Bank Elevation 28.66 m. (MSL.) ,

Right Bank Elevation 28.66 m. (MSL.) , Drainage Are 113 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.18	0.12	0.16	0.18	0.14	3.00	3.70	0.90	2.41	51.50	1.10	0.55		
2	0.16	0.12	0.14	0.14	0.14	2.83	2.62	0.90	2.55	24.30	1.10	0.50		
3	0.16	0.12	0.14	0.14	0.14	2.48	2.20	0.85	2.41	10.98	1.10	0.55		
4	0.16	0.12	0.14	0.14	0.14	2.69	1.92	0.85	2.06	6.94	1.05	0.55		
5	0.16	0.10	0.14	0.14	0.22	3.00	1.78	0.80	1.64	5.02	1.05	0.50		
6	0.14	0.10	0.16	0.16	1.00	2.62	1.50	0.75	1.92	4.30	1.05	0.50		
7	0.12	0.10	0.22	0.30	1.25	2.48	1.35	0.75	1.99	3.80	1.00	0.50		
8	0.12	0.10	0.20	0.34	0.95	2.34	1.30	0.80	1.50	3.40	0.95	0.48		
9	0.12	0.12	0.18	0.24	0.90	2.76	1.35	2.55	1.45	3.10	0.90	0.48		
10	0.12	0.95	0.18	0.20	0.48	2.27	1.30	1.20	1.64	2.83	0.85	0.70		
11	0.10	1.20	0.20	0.20	0.90	2.20	1.25	1.00	1.35	2.62	1.00	0.85		
12	0.16	0.44	0.18	0.16	0.95	1.92	1.15	1.92	1.15	2.48	1.00	7.18		
13	2.69	3.60	0.16	0.14	0.80	1.71	1.10	1.25	1.05	2.27	0.90	2.76		
14	0.40	1.20	0.14	0.14	0.70	1.64	1.05	1.05	1.00	2.20	0.90	1.64		
15	0.18	1.40	0.12	0.14	1.05	1.57	1.05	0.95	0.95	2.13	0.95	1.35		
16	0.12	1.20	0.12	0.18	0.90	1.45	1.05	0.95	0.90	1.99	0.90	1.30		
17	0.10	0.48	0.12	0.22	0.70	1.40	1.00	0.90	0.90	1.92	0.90	1.15		
18	0.10	0.48	0.12	0.20	1.15	1.45	1.00	0.90	0.85	1.78	0.85	1.05		
19	0.10	0.42	0.12	0.16	1.57	1.50	1.00	0.90	0.80	1.64	0.85	1.00		
20	0.10	0.36	0.10	0.14	109.60	1.50	1.05	0.85	0.75	1.64	0.80	0.95		
21	0.10	0.36	0.18	0.14	36.75	1.50	1.15	0.95	0.70	1.57	0.75	0.90		
22	0.10	0.34	0.22	0.14	14.65	1.45	0.95	5.74	0.70	1.45	0.65	0.90		
23	0.12	0.32	0.18	0.14	9.85	1.99	0.95	12.51	0.65	1.45	0.65	1.10		
24	0.14	0.28	0.16	0.14	6.22	2.48	0.90	5.50	0.60	1.40	0.60	1.05		
25	0.10	0.26	0.18	0.14	4.90	1.78	0.85	3.60	0.55	1.35	0.65	1.20		
26	0.18	0.26	0.18	0.12	4.70	2.69	1.05	2.90	0.55	1.30	0.65	2.20		
27	0.22	0.26	0.42	0.14	5.38	3.30	1.20	2.34	0.55	1.20	0.60	1.85		
28	0.18	0.26	0.24	0.14	3.90	2.62	1.05	1.92	0.50	1.20	0.55	1.35		
29	0.14	0.26	0.20	0.16	3.10	2.20	1.10	1.78	6.22	1.45		1.25		
30	0.12	0.20	0.24	0.16	2.76	4.30	0.95	1.57	1.78	1.35		1.20		
31		0.16		0.14	2.62		0.90		18.00	1.25		1.25		
Total	6.89	15.69	5.24	5.22	218.51	67.12	40.77	59.83	60.07	151.81	24.30	38.79	694.24	CMSDAY
Mean	0.23	0.51	0.17	0.17	7.05	2.24	1.32	1.99	1.94	4.90	0.87	1.25	1.90	CMS
Max	2.69	3.60	0.42	0.34	109.60	4.30	3.70	12.51	18.00	51.50	1.10	7.18	109.60	CMS
Min	0.10	0.10	0.10	0.12	0.14	1.40	0.85	0.75	0.50	1.20	0.55	0.48	0.10	CMS
Runoff	0.60	1.36	0.45	0.45	18.88	5.80	3.52	5.17	5.19	13.12	2.10	3.35	59.98	MCM

Momentary Peak 141.10 CMS. at 28.86 m. (MSL.) at 18.00 Hours , on Aug 20, 2002

Runoff Yield 16.83 Liters/Second/Square KM. Momentary Peak Yield 1248.670 Liters/Second/Square KM.

WATER YEAR : 2002

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.

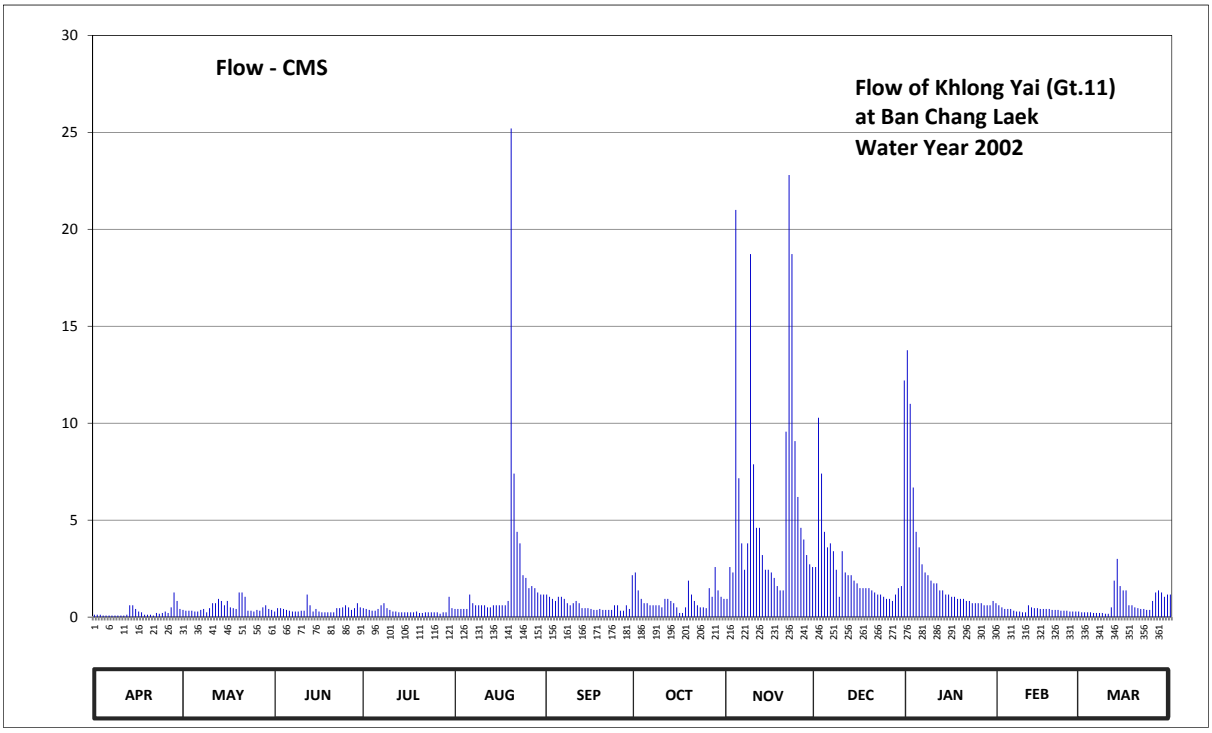
Ban Chang Laek **Amphoe** Bang Saphan Noi **Changwat** Prachuap Khiri Khan

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 mean 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 95 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	37.41	37.47	37.45	37.49	37.48	37.56	37.65	37.54	37.67	38.16	37.51	37.44	
2	37.41	37.46	37.49	37.48	37.48	37.55	37.58	37.67	38.02	38.05	37.50	37.44	
3	37.41	37.46	37.49	37.47	37.48	37.54	37.54	37.65	37.90	37.87	37.48	37.44	
4	37.40	37.46	37.48	37.46	37.48	37.53	37.52	38.42	37.77	37.77	37.48	37.44	
5	37.40	37.45	37.47	37.46	37.48	37.55	37.52	37.89	37.73	37.73	37.48	37.43	
6	37.40	37.45	37.46	37.48	37.56	37.55	37.51	37.74	37.74	37.68	37.46	37.43	
7	37.40	37.47	37.45	37.51	37.52	37.54	37.51	37.66	37.72	37.65	37.45	37.43	
8	37.40	37.48	37.45	37.52	37.51	37.52	37.51	37.74	37.66	37.64	37.45	37.43	
9	37.40	37.44	37.45	37.49	37.51	37.51	37.51	38.34	37.55	37.62	37.44	37.42	
10	37.40	37.49	37.46	37.47	37.51	37.52	37.50	37.92	37.72	37.61	37.44	37.42	
11	37.40	37.52	37.46	37.45	37.51	37.53	37.54	37.78	37.65	37.61	37.51	37.50	
12	37.41	37.52	37.56	37.45	37.50	37.52	37.54	37.78	37.64	37.58	37.50	37.62	
13	37.51	37.54	37.51	37.44	37.50	37.49	37.53	37.71	37.64	37.58	37.49	37.70	
14	37.51	37.53	37.45	37.44	37.51	37.49	37.52	37.66	37.62	37.56	37.49	37.60	
15	37.48	37.51	37.48	37.44	37.51	37.49	37.50	37.66	37.61	37.56	37.48	37.58	
16	37.45	37.53	37.45	37.44	37.51	37.48	37.43	37.65	37.59	37.55	37.48	37.58	
17	37.44	37.50	37.44	37.44	37.51	37.47	37.43	37.63	37.59	37.55	37.48	37.51	
18	37.41	37.49	37.44	37.44	37.51	37.47	37.50	37.60	37.59	37.54	37.48	37.51	
19	37.41	37.48	37.44	37.45	37.53	37.48	37.62	37.58	37.59	37.54	37.47	37.50	
20	37.41	37.57	37.44	37.43	38.56	37.47	37.56	37.58	37.58	37.54	37.47	37.49	
21	37.40	37.57	37.44	37.43	37.90	37.47	37.53	37.99	37.57	37.53	37.47	37.48	
22	37.43	37.55	37.49	37.44	37.77	37.47	37.51	38.48	37.56	37.53	37.46	37.48	
23	37.42	37.46	37.49	37.44	37.74	37.47	37.50	38.34	37.56	37.52	37.46	37.47	
24	37.43	37.46	37.50	37.44	37.64	37.51	37.50	37.97	37.55	37.52	37.46	37.47	
25	37.45	37.45	37.51	37.44	37.63	37.51	37.49	37.85	37.54	37.52	37.45	37.53	
26	37.43	37.47	37.50	37.44	37.59	37.46	37.59	37.78	37.54	37.52	37.45	37.57	
27	37.50	37.46	37.47	37.42	37.60	37.46	37.55	37.75	37.53	37.51	37.45	37.58	
28	37.57	37.50	37.49	37.44	37.59	37.51	37.67	37.71	37.56	37.51	37.45	37.57	
29	37.53	37.51	37.52	37.44	37.57	37.48	37.58	37.68	37.59	37.51		37.55	
30	37.48	37.48	37.50	37.55	37.56	37.64	37.55	37.67	37.60	37.53		37.56	
31		37.47		37.49	37.56		37.54		38.10	37.52		37.56	
Mean	37.44	37.49	37.47	37.46	37.59	37.51	37.53	37.81	37.65	37.62	37.47	37.51	
Max	37.57	37.57	37.56	37.55	38.56	37.64	37.67	38.48	38.10	38.16	37.51	37.70	38.56
Min	37.40	37.44	37.44	37.42	37.48	37.46	37.43	37.54	37.53	37.51	37.44	37.42	37.40

Annual Max Momentary Gage Height	39.16	m. (MSL.) ,	at 12.00 Hours , on Nov 4, 2002		
Zero Gage at Bottom Elevation	36.38	m. (MSL.) ,	River Bed	36.80	m. (MSL.)
Left Bank Elevation	44.24	m. (MSL.) ,			
Right Bank Elevation	45.35	m. (MSL.) ,	Drainage Are	61	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.12	0.37	0.29	0.46	0.42	1.16	2.30	0.94	2.58	13.76	0.61	0.25		
2	0.12	0.33	0.46	0.42	0.42	1.05	1.38	2.58	10.28	11.00	0.50	0.25		
3	0.12	0.33	0.46	0.37	0.42	0.94	0.94	2.30	7.40	6.68	0.42	0.25		
4	0.08	0.33	0.42	0.33	0.42	0.83	0.72	21.00	4.40	4.40	0.42	0.25		
5	0.08	0.29	0.37	0.33	0.42	1.05	0.72	7.16	3.60	3.60	0.42	0.21		
6	0.08	0.29	0.33	0.42	1.16	1.05	0.61	3.80	3.80	2.72	0.33	0.21		
7	0.08	0.37	0.29	0.61	0.72	0.94	0.61	2.44	3.40	2.30	0.29	0.21		
8	0.08	0.42	0.29	0.72	0.61	0.72	0.61	3.80	2.44	2.16	0.29	0.21		
9	0.08	0.25	0.29	0.46	0.61	0.61	0.61	18.72	1.05	1.88	0.25	0.17		
10	0.08	0.46	0.33	0.37	0.61	0.72	0.50	7.88	3.40	1.74	0.25	0.17		
11	0.08	0.72	0.33	0.29	0.61	0.83	0.94	4.60	2.30	1.74	0.61	0.50		
12	0.12	0.72	1.16	0.29	0.50	0.72	0.94	4.60	2.16	1.38	0.50	1.88		
13	0.61	0.94	0.61	0.25	0.50	0.46	0.83	3.20	2.16	1.38	0.46	3.00		
14	0.61	0.83	0.29	0.25	0.61	0.46	0.72	2.44	1.88	1.16	0.46	1.60		
15	0.42	0.61	0.42	0.25	0.61	0.46	0.50	2.44	1.74	1.16	0.42	1.38		
16	0.29	0.83	0.29	0.25	0.61	0.42	0.21	2.30	1.49	1.05	0.42	1.38		
17	0.25	0.50	0.25	0.25	0.61	0.37	0.21	2.02	1.49	1.05	0.42	0.61		
18	0.12	0.46	0.25	0.25	0.61	0.37	0.50	1.60	1.49	0.94	0.42	0.61		
19	0.12	0.42	0.25	0.29	0.83	0.42	1.88	1.38	1.49	0.94	0.37	0.50		
20	0.12	1.27	0.25	0.21	25.20	0.37	1.16	1.38	1.38	0.94	0.37	0.46		
21	0.08	1.27	0.25	0.21	7.40	0.37	0.83	9.56	1.27	0.83	0.37	0.42		
22	0.21	1.05	0.46	0.25	4.40	0.37	0.61	22.80	1.16	0.83	0.33	0.42		
23	0.17	0.33	0.46	0.25	3.80	0.37	0.50	18.72	1.16	0.72	0.33	0.37		
24	0.21	0.33	0.50	0.25	2.16	0.61	0.50	9.08	1.05	0.72	0.33	0.37		
25	0.29	0.29	0.61	0.25	2.02	0.61	0.46	6.20	0.94	0.72	0.29	0.83		
26	0.21	0.37	0.50	0.25	1.49	0.33	1.49	4.60	0.94	0.72	0.29	1.27		
27	0.50	0.33	0.37	0.17	1.60	0.33	1.05	4.00	0.83	0.61	0.29	1.38		
28	1.27	0.50	0.46	0.25	1.49	0.61	2.58	3.20	1.16	0.61	0.29	1.27		
29	0.83	0.61	0.72	0.25	1.27	0.42	1.38	2.72	1.49	0.61		1.05		
30	0.42	0.42	0.50	1.05	1.16	2.16	1.05	2.58	1.60	0.83		1.16		
31		0.37		0.46	1.16		0.94		12.20	0.72		1.16		
Total	7.85	16.61	12.46	10.71	64.45	20.13	28.28	180.04	83.73	69.90	10.75	23.80	528.71	CMSDAY
Mean	0.26	0.54	0.42	0.35	2.08	0.67	0.91	6.00	2.70	2.25	0.38	0.77	1.45	CMS
Max	1.27	1.27	1.16	1.05	25.20	2.16	2.58	22.80	12.20	13.76	0.61	3.00	25.20	CMS
Min	0.08	0.25	0.25	0.17	0.42	0.33	0.21	0.94	0.83	0.61	0.25	0.17	0.08	CMS
Runoff	0.68	1.44	1.08	0.93	5.57	1.74	2.44	15.56	7.23	6.04	0.93	2.06	45.68	MCM

Momentary Peak 49.68 CMS. at 39.16 m. (MSL.) at 12.00 Hours , on Nov 4, 2002

Runoff Yield 23.75 Liters/Second/Square KM. Momentary Peak Yield 814.430 Liters/Second/Square KM.

WATER YEAR : 2002

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	+10.870 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 mean 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 90 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

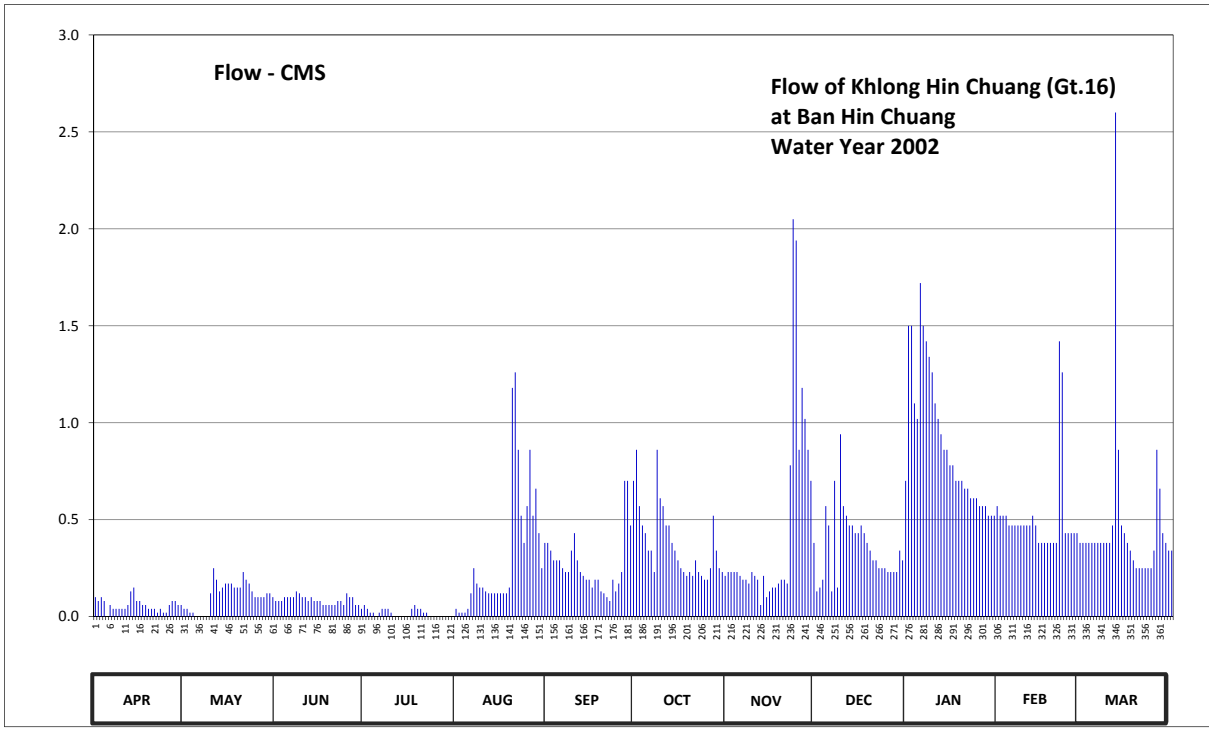
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	11.52	11.49	11.51	11.50	11.49	11.63	11.72	11.59	11.54	11.80	11.66	11.63	
2	11.51	11.49	11.51	11.49	11.48	11.62	11.67	11.59	11.55	11.80	11.66	11.63	
3	11.52	11.48	11.51	11.48	11.48	11.61	11.65	11.59	11.57	11.75	11.66	11.63	
4	11.51	11.48	11.52	11.48	11.48	11.61	11.64	11.59	11.67	11.74	11.65	11.63	
5	11.47	11.47	11.52	11.47	11.49	11.61	11.62	11.58	11.65	11.82	11.65	11.63	
6	11.50	11.47	11.52	11.48	11.53	11.60	11.62	11.57	11.54	11.80	11.65	11.63	
7	11.49	11.47	11.52	11.49	11.60	11.59	11.59	11.57	11.70	11.79	11.65	11.63	
8	11.49	11.46	11.54	11.49	11.56	11.59	11.72	11.56	11.55	11.78	11.65	11.63	
9	11.49	11.46	11.53	11.49	11.55	11.62	11.68	11.59	11.73	11.77	11.65	11.63	
10	11.49	11.53	11.52	11.48	11.55	11.64	11.67	11.58	11.67	11.75	11.65	11.63	
11	11.49	11.60	11.52	11.47	11.54	11.61	11.65	11.57	11.66	11.74	11.65	11.65	
12	11.50	11.57	11.51	11.47	11.53	11.59	11.65	11.50	11.65	11.73	11.66	11.90	
13	11.54	11.54	11.52	11.47	11.53	11.58	11.63	11.58	11.65	11.72	11.65	11.72	
14	11.55	11.55	11.51	11.47	11.53	11.57	11.62	11.52	11.64	11.72	11.63	11.65	
15	11.51	11.56	11.51	11.47	11.53	11.57	11.61	11.54	11.64	11.71	11.63	11.64	
16	11.51	11.56	11.51	11.47	11.53	11.55	11.60	11.55	11.65	11.71	11.63	11.63	
17	11.50	11.56	11.50	11.49	11.53	11.57	11.59	11.55	11.64	11.70	11.63	11.62	
18	11.50	11.55	11.50	11.50	11.53	11.57	11.58	11.56	11.63	11.70	11.63	11.61	
19	11.49	11.55	11.50	11.49	11.55	11.54	11.59	11.57	11.62	11.70	11.63	11.60	
20	11.49	11.55	11.50	11.49	11.76	11.53	11.58	11.57	11.61	11.69	11.63	11.60	
21	11.49	11.59	11.50	11.48	11.77	11.52	11.61	11.56	11.61	11.69	11.79	11.60	
22	11.48	11.57	11.51	11.48	11.72	11.51	11.59	11.71	11.60	11.68	11.77	11.60	
23	11.49	11.56	11.51	11.47	11.66	11.57	11.58	11.85	11.60	11.68	11.64	11.60	
24	11.48	11.54	11.50	11.47	11.63	11.54	11.57	11.84	11.60	11.68	11.64	11.60	
25	11.48	11.52	11.53	11.47	11.67	11.56	11.57	11.72	11.59	11.67	11.64	11.62	
26	11.50	11.52	11.52	11.47	11.72	11.59	11.60	11.76	11.59	11.67	11.64	11.72	
27	11.51	11.52	11.52	11.47	11.66	11.70	11.66	11.74	11.59	11.67	11.64	11.69	
28	11.51	11.52	11.50	11.47	11.69	11.70	11.62	11.72	11.59	11.66	11.63	11.64	
29	11.50	11.53	11.50	11.47	11.64	11.65	11.60	11.70	11.62	11.66		11.63	
30	11.50	11.53	11.49	11.47	11.60	11.70	11.59	11.63	11.61	11.66		11.62	
31		11.52		11.47	11.63		11.58		11.70	11.67		11.62	
Mean	11.50	11.53	11.51	11.48	11.59	11.59	11.62	11.62	11.62	11.72	11.65	11.64	
Max	11.55	11.60	11.54	11.50	11.77	11.70	11.72	11.85	11.73	11.82	11.79	11.90	11.90
Min	11.47	11.46	11.49	11.47	11.48	11.51	11.57	11.50	11.54	11.66	11.63	11.60	11.46

Annual Max Momentary Gage Height 11.99 m. (MSL.) , at 13.00 Hours , on Nov 23 , 2002

Zero Gage at Bottom Elevation 10.87 m. (MSL.) , River Bed 11.25 m. (MSL.)

Left Bank Elevation 14.37 m. (MSL.) ,

Right Bank Elevation 14.37 m. (MSL.) , Drainage Are 48 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.10	0.04	0.08	0.06	0.04	0.38	0.86	0.23	0.13	1.50	0.52	0.38		
2	0.08	0.04	0.08	0.04	0.02	0.34	0.57	0.23	0.15	1.50	0.52	0.38		
3	0.10	0.02	0.08	0.02	0.02	0.29	0.47	0.23	0.19	1.10	0.52	0.38		
4	0.08	0.02	0.10	0.02	0.02	0.29	0.43	0.23	0.57	1.02	0.47	0.38		
5	0.00	0.00	0.10	0.00	0.04	0.29	0.34	0.21	0.47	1.72	0.47	0.38		
6	0.06	0.00	0.10	0.02	0.12	0.25	0.34	0.19	0.13	1.50	0.47	0.38		
7	0.04	0.00	0.10	0.04	0.25	0.23	0.23	0.19	0.70	1.42	0.47	0.38		
8	0.04	0.00	0.13	0.04	0.17	0.23	0.86	0.17	0.15	1.34	0.47	0.38		
9	0.04	0.00	0.12	0.04	0.15	0.34	0.61	0.23	0.94	1.26	0.47	0.38		
10	0.04	0.12	0.10	0.02	0.15	0.43	0.57	0.21	0.57	1.10	0.47	0.38		
11	0.04	0.25	0.10	0.00	0.13	0.29	0.47	0.19	0.52	1.02	0.47	0.47		
12	0.06	0.19	0.08	0.00	0.12	0.23	0.47	0.06	0.47	0.94	0.52	2.60		
13	0.13	0.13	0.10	0.00	0.12	0.21	0.38	0.21	0.47	0.86	0.47	0.86		
14	0.15	0.15	0.08	0.00	0.12	0.19	0.34	0.10	0.43	0.86	0.38	0.47		
15	0.08	0.17	0.08	0.00	0.12	0.19	0.29	0.13	0.43	0.78	0.38	0.43		
16	0.08	0.17	0.08	0.00	0.12	0.15	0.25	0.15	0.47	0.78	0.38	0.38		
17	0.06	0.17	0.06	0.04	0.12	0.19	0.23	0.15	0.43	0.70	0.38	0.34		
18	0.06	0.15	0.06	0.06	0.12	0.19	0.21	0.17	0.38	0.70	0.38	0.29		
19	0.04	0.15	0.06	0.04	0.15	0.13	0.23	0.19	0.34	0.70	0.38	0.25		
20	0.04	0.15	0.06	0.04	1.18	0.12	0.21	0.19	0.29	0.66	0.38	0.25		
21	0.04	0.23	0.06	0.02	1.26	0.10	0.29	0.17	0.29	0.66	1.42	0.25		
22	0.02	0.19	0.08	0.02	0.86	0.08	0.23	0.78	0.25	0.61	1.26	0.25		
23	0.04	0.17	0.08	0.00	0.52	0.19	0.21	2.05	0.25	0.61	0.43	0.25		
24	0.02	0.13	0.06	0.00	0.38	0.13	0.19	1.94	0.25	0.61	0.43	0.25		
25	0.02	0.10	0.12	0.00	0.57	0.17	0.19	0.86	0.23	0.57	0.43	0.34		
26	0.06	0.10	0.10	0.00	0.86	0.23	0.25	1.18	0.23	0.57	0.43	0.86		
27	0.08	0.10	0.10	0.00	0.52	0.70	0.52	1.02	0.23	0.57	0.43	0.66		
28	0.08	0.10	0.06	0.00	0.66	0.70	0.34	0.86	0.23	0.52	0.38	0.43		
29	0.06	0.12	0.06	0.00	0.43	0.47	0.25	0.70	0.34	0.52		0.38		
30	0.06	0.12	0.04	0.00	0.25	0.70	0.23	0.38	0.29	0.52		0.34		
31		0.10		0.00	0.38		0.21		0.70	0.57		0.34		
Total	1.80	3.38	2.51	0.52	9.97	8.43	11.27	13.60	11.52	27.79	14.18	14.49	119.46	CMSDAY
Mean	0.06	0.11	0.08	0.02	0.32	0.28	0.36	0.45	0.37	0.90	0.51	0.47	0.33	CMS
Max	0.15	0.25	0.13	0.06	1.26	0.70	0.86	2.05	0.94	1.72	1.42	2.60	2.60	CMS
Min	0.00	0.00	0.04	0.00	0.02	0.08	0.19	0.06	0.13	0.52	0.38	0.25	0.00	CMS
Runoff	0.16	0.29	0.22	0.04	0.86	0.73	0.97	1.18	1.00	2.40	1.23	1.25	10.32	MCM

Momentary Peak 4.31 CMS. at 11.99 m. (MSL.) at 13.00 Hours , on Nov 23, 2002

Runoff Yield 6.82 Liters/Second/Square KM. Momentary Peak Yield 89.790 Liters/Second/Square KM.

WATER YEAR : 2002

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	+0.620 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 mean 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 91 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

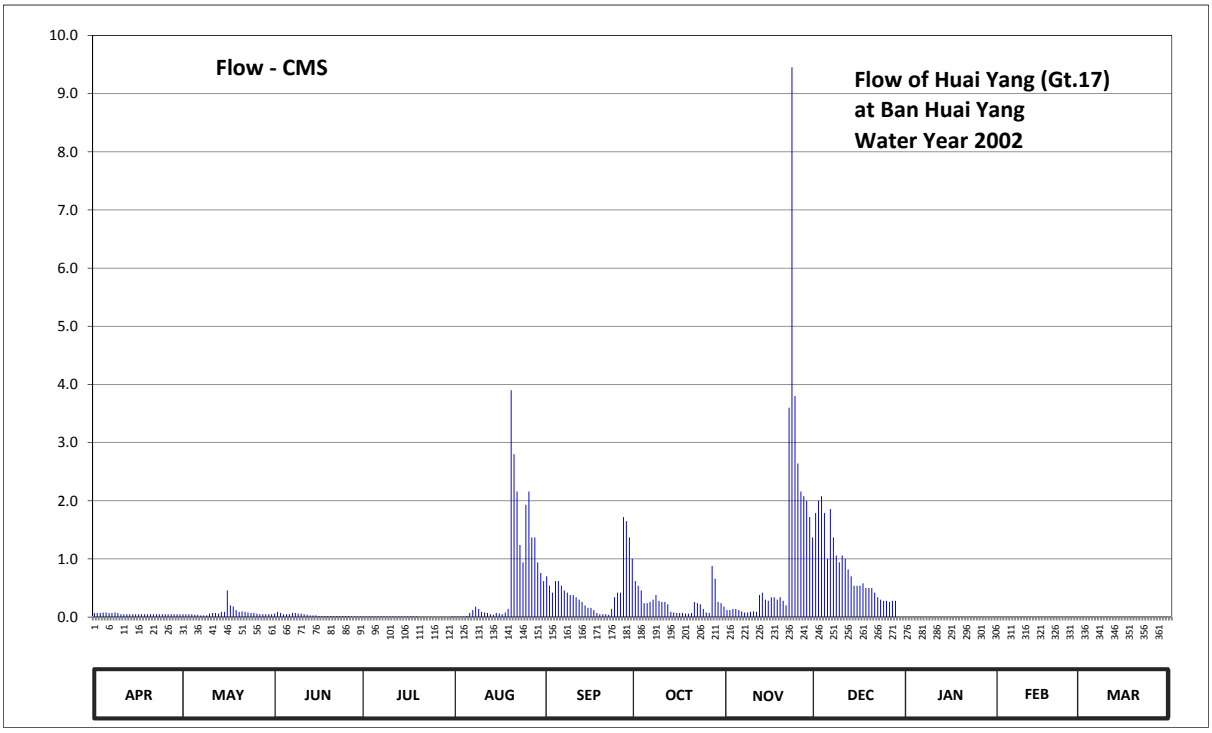
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.86	0.82	0.84	0.77	0.77	1.10	1.08	0.91	1.27	1.69	1.65	1.52	
2	0.86	0.82	0.88	0.77	0.77	1.06	1.06	0.91	1.30	1.72	1.65	1.51	
3	0.86	0.82	0.85	0.77	0.76	1.03	1.04	0.92	1.31	1.55	1.65	1.51	
4	0.87	0.82	0.83	0.77	0.76	1.08	0.97	0.92	1.27	1.42	1.65	1.50	
5	0.87	0.81	0.83	0.77	0.78	1.08	0.97	0.91	1.15	1.38	1.64	1.50	
6	0.86	0.81	0.83	0.76	0.85	1.06	0.98	0.90	1.28	1.32	1.63	1.50	
7	0.86	0.80	0.85	0.76	0.91	1.04	1.00	0.87	1.21	1.33	1.63	1.49	
8	0.87	0.79	0.85	0.76	0.94	1.03	1.02	0.87	1.16	1.88	1.62	1.49	
9	0.86	0.80	0.84	0.76	0.92	1.02	0.99	0.88	1.14	1.90	1.62	1.48	
10	0.82	0.84	0.84	0.76	0.89	1.02	0.98	0.90	1.16	1.89	1.61	1.48	
11	0.82	0.85	0.82	0.76	0.87	1.01	0.98	0.89	1.15	1.81	1.61	1.48	
12	0.83	0.86	0.81	0.76	0.86	1.00	0.96	1.02	1.12	1.81	1.60	1.75	
13	0.83	0.84	0.80	0.76	0.82	0.98	0.88	1.03	1.10	1.76	1.60	1.74	
14	0.83	0.89	0.80	0.76	0.81	0.95	0.87	1.00	1.06	1.74	1.58	1.65	
15	0.83	0.89	0.79	0.76	0.86	0.93	0.86	0.99	1.06	1.72	1.57	1.64	
16	0.83	1.04	0.78	0.76	0.84	0.93	0.86	1.01	1.06	1.73	1.57	1.57	
17	0.83	0.95	0.78	0.76	0.83	0.91	0.85	1.01	1.07	1.74	1.57	1.56	
18	0.83	0.94	0.78	0.76	0.87	0.86	0.84	1.00	1.05	1.72	1.57	1.55	
19	0.83	0.91	0.78	0.76	0.92	0.83	0.84	1.01	1.05	1.72	1.57	1.56	
20	0.83	0.89	0.78	0.75	1.51	0.83	0.86	0.99	1.05	1.72	1.57	1.55	
21	0.83	0.90	0.78	0.75	1.40	0.82	0.98	0.95	1.03	1.71	1.54	1.56	
22	0.83	0.89	0.78	0.75	1.32	0.81	0.97	1.48	1.01	1.70	1.52	1.55	
23	0.82	0.87	0.78	0.75	1.19	0.92	0.96	1.95	1.00	1.69	1.54	1.54	
24	0.82	0.86	0.78	0.75	1.14	1.01	0.92	1.50	0.99	1.69	1.53	1.56	
25	0.82	0.85	0.78	0.75	1.29	1.03	0.87	1.38	0.99	1.69	1.54	1.57	
26	0.82	0.84	0.78	0.75	1.32	1.03	0.85	1.32	0.98	1.68	1.53	1.76	
27	0.82	0.83	0.77	0.75	1.21	1.26	1.13	1.31	0.99	1.68	1.53	1.78	
28	0.82	0.83	0.77	0.75	1.21	1.25	1.09	1.30	0.99	1.68	1.53	1.75	
29	0.82	0.82	0.77	0.75	1.14	1.21	0.98	1.26	1.16	1.68		1.66	
30	0.82	0.82	0.77	0.75	1.11	1.15	0.97	1.21	1.32	1.68		1.64	
31		0.83		0.76	1.08		0.94		1.58	1.67		1.59	
Mean	0.84	0.86	0.80	0.76	1.00	1.01	0.95	1.09	1.13	1.68	1.59	1.58	
Max	0.87	1.04	0.88	0.77	1.51	1.26	1.13	1.95	1.58	1.90	1.65	1.78	1.95
Min	0.82	0.79	0.77	0.75	0.76	0.81	0.84	0.87	0.98	1.32	1.52	1.48	0.75

Annual Max Momentary Gage Height 2.23 m. (MSL.) , at 12.00 Hours , on Nov 8, 2002

Zero Gage at Bottom Elevation 0.62 m. (MSL.) , River Bed 0.66 m. (MSL.)

Left Bank Elevation 3.03 m. (MSL.) ,

Right Bank Elevation 3.78 m. (MSL.) , Drainage Are 48 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.07	0.05	0.06	0.01	0.01	0.70	0.62	0.12	1.79	0.00	0.00	0.00		
2	0.07	0.05	0.09	0.01	0.01	0.54	0.54	0.12	2.00	0.00	0.00	0.00		
3	0.07	0.05	0.07	0.01	0.01	0.42	0.46	0.14	2.08	0.00	0.00	0.00		
4	0.08	0.05	0.05	0.01	0.01	0.62	0.24	0.14	1.79	0.00	0.00	0.00		
5	0.08	0.04	0.05	0.01	0.02	0.62	0.24	0.12	1.00	0.00	0.00	0.00		
6	0.07	0.04	0.05	0.01	0.07	0.54	0.26	0.10	1.86	0.00	0.00	0.00		
7	0.07	0.03	0.07	0.01	0.12	0.46	0.30	0.08	1.37	0.00	0.00	0.00		
8	0.08	0.03	0.07	0.01	0.18	0.42	0.38	0.08	1.06	0.00	0.00	0.00		
9	0.07	0.03	0.06	0.01	0.14	0.38	0.28	0.09	0.94	0.00	0.00	0.00		
10	0.05	0.06	0.06	0.01	0.09	0.38	0.26	0.10	1.06	0.00	0.00	0.00		
11	0.05	0.07	0.05	0.01	0.08	0.34	0.26	0.09	1.00	0.00	0.00	0.00		
12	0.05	0.07	0.04	0.01	0.07	0.30	0.22	0.38	0.82	0.00	0.00	0.00		
13	0.05	0.06	0.03	0.01	0.05	0.26	0.09	0.42	0.70	0.00	0.00	0.00		
14	0.05	0.09	0.03	0.01	0.04	0.20	0.08	0.30	0.54	0.00	0.00	0.00		
15	0.05	0.09	0.03	0.01	0.07	0.16	0.07	0.28	0.54	0.00	0.00	0.00		
16	0.05	0.46	0.02	0.01	0.06	0.16	0.07	0.34	0.54	0.00	0.00	0.00		
17	0.05	0.20	0.02	0.01	0.05	0.12	0.07	0.34	0.58	0.00	0.00	0.00		
18	0.05	0.18	0.02	0.01	0.08	0.07	0.06	0.30	0.50	0.00	0.00	0.00		
19	0.05	0.12	0.02	0.01	0.14	0.05	0.06	0.34	0.50	0.00	0.00	0.00		
20	0.05	0.09	0.02	0.00	3.90	0.05	0.07	0.28	0.50	0.00	0.00	0.00		
21	0.05	0.10	0.02	0.00	2.80	0.05	0.26	0.20	0.42	0.00	0.00	0.00		
22	0.05	0.09	0.02	0.00	2.16	0.04	0.24	3.60	0.34	0.00	0.00	0.00		
23	0.05	0.08	0.02	0.00	1.24	0.14	0.22	9.45	0.30	0.00	0.00	0.00		
24	0.05	0.07	0.02	0.00	0.94	0.34	0.14	3.80	0.28	0.00	0.00	0.00		
25	0.05	0.07	0.02	0.00	1.93	0.42	0.08	2.64	0.28	0.00	0.00	0.00		
26	0.05	0.06	0.02	0.00	2.16	0.42	0.07	2.16	0.26	0.00	0.00	0.00		
27	0.05	0.05	0.01	0.00	1.37	1.72	0.88	2.08	0.28	0.00	0.00	0.00		
28	0.05	0.05	0.01	0.00	1.37	1.65	0.66	2.00	0.28	0.00	0.00	0.00		
29	0.05	0.05	0.01	0.00	0.94	1.37	0.26	1.72	0.00	0.00		0.00		
30	0.05	0.05	0.01	0.00	0.76	1.00	0.24	1.37	0.00	0.00		0.00		
31		0.05		0.01	0.62		0.18		0.00	0.00		0.00		
Total	1.71	2.58	1.07	0.20	21.49	13.94	7.86	33.18	23.61	0.00	0.00	0.00	105.64	CMSDAY
Mean	0.06	0.08	0.04	0.01	0.69	0.46	0.25	1.11	0.76	0.00	0.00	0.00	0.29	CMS
Max	0.08	0.46	0.09	0.01	3.90	1.72	0.88	9.45	2.08	0.00	0.00	0.00	9.45	CMS
Min	0.05	0.03	0.01	0.00	0.01	0.04	0.06	0.08	0.00	0.00	0.00	0.00	0.00	CMS
Runoff	0.15	0.22	0.09	0.02	1.86	1.20	0.68	2.87	2.04	0.00	0.00	0.00	9.13	MCM

Momentary Peak 14.40 CMS. at 2.23 m. (MSL.) at 12.00 Hours , on Nov 8, 2002

Runoff Yield 6.03 Liters/Second/Square KM. Momentary Peak Yield 300.000 Liters/Second/Square KM.

WATER YEAR : 2002

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	+11.720 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank at the abutment of the bridge. **Elevation** +17.588 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 mean 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	Overbank flow starts at elevation +15.680 m.(M.S.L.), records are channel flow only.
General Description	Records good. Stage-discharge relation defined by 97 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

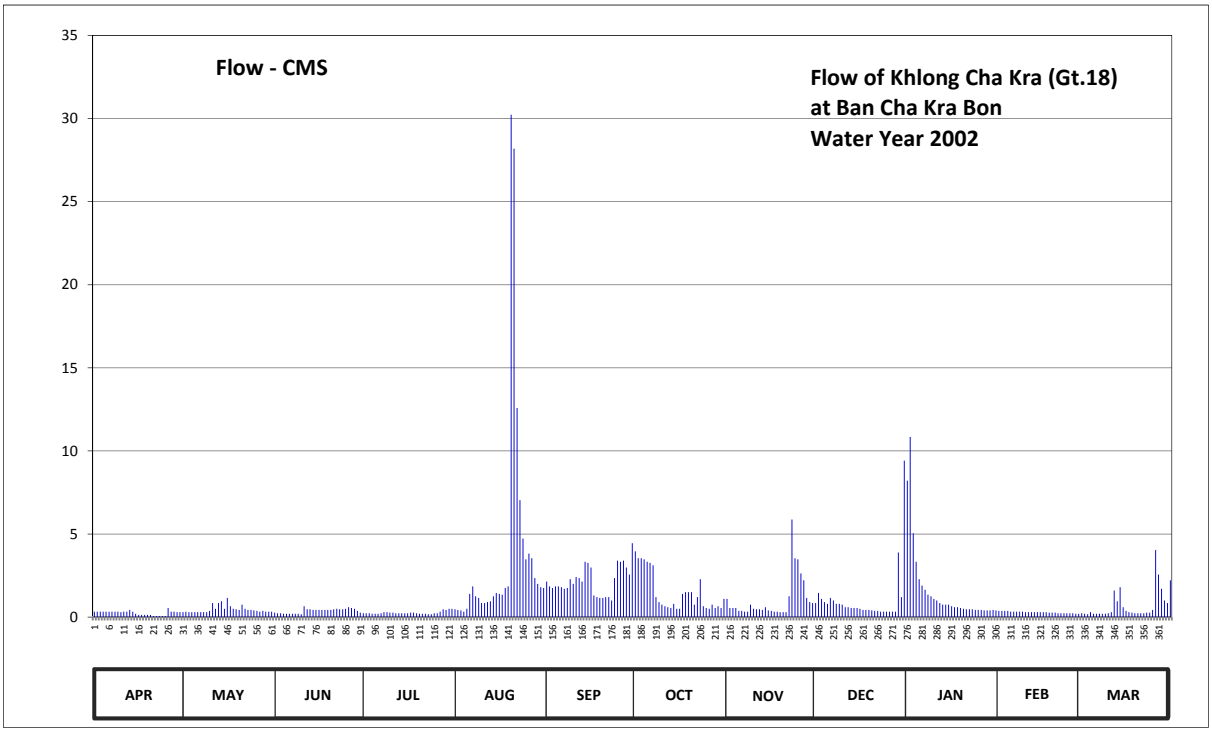
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	12.95	12.94	12.93	12.92	12.99	13.32	13.58	13.12	13.07	14.09	12.96	12.92	
2	12.95	12.95	12.92	12.92	12.98	13.27	13.52	13.01	13.19	14.34	12.96	12.91	
3	12.95	12.94	12.92	12.92	12.97	13.25	13.52	13.01	13.12	13.73	12.96	12.90	
4	12.95	12.94	12.91	12.91	12.95	13.27	13.51	13.01	13.08	13.49	12.96	12.94	
5	12.95	12.94	12.91	12.91	13.00	13.27	13.49	12.96	13.06	13.34	12.95	12.91	
6	12.95	12.94	12.91	12.91	13.18	13.26	13.48	12.96	13.13	13.28	12.95	12.91	
7	12.95	12.94	12.91	12.92	13.27	13.24	13.46	12.95	13.10	13.23	12.95	12.91	
8	12.95	12.94	12.91	12.94	13.15	13.25	13.14	12.95	13.06	13.17	12.95	12.91	
9	12.95	12.94	12.91	12.94	13.13	13.34	13.08	13.05	13.06	13.15	12.95	12.91	
10	12.94	12.96	12.90	12.93	13.07	13.30	13.05	13.00	13.05	13.12	12.94	12.92	
11	12.95	13.07	13.03	12.93	13.07	13.36	13.03	12.99	13.02	13.10	12.94	12.94	
12	12.95	13.00	12.99	12.92	13.08	13.35	13.02	12.99	13.02	13.07	12.94	13.22	
13	12.98	13.07	12.99	12.92	13.09	13.32	13.01	12.98	13.01	13.05	12.94	13.09	
14	12.95	13.09	12.98	12.92	13.15	13.49	13.06	13.02	13.01	13.05	12.94	13.26	
15	12.91	13.00	12.98	12.92	13.19	13.48	13.00	12.97	13.01	13.05	12.94	13.02	
16	12.89	13.13	12.98	12.92	13.18	13.44	13.00	12.96	13.00	13.03	12.94	12.96	
17	12.89	13.03	12.98	12.93	13.17	13.16	13.18	12.95	12.98	13.02	12.94	12.94	
18	12.89	13.00	12.98	12.93	13.25	13.14	13.20	12.95	12.98	13.02	12.93	12.93	
19	12.89	12.99	12.98	12.92	13.27	13.13	13.20	12.94	12.98	13.01	12.93	12.92	
20	12.89	12.98	12.98	12.91	15.69	13.13	13.20	12.94	12.97	13.00	12.93	12.92	
21	12.87	13.05	12.99	12.91	15.57	13.14	13.05	12.94	12.96	12.99	12.92	12.92	
22	12.87	13.00	13.00	12.91	14.49	13.14	13.14	13.15	12.96	12.99	12.92	12.92	
23	12.87	12.98	12.99	12.90	13.96	13.10	13.34	13.83	12.95	12.99	12.92	12.93	
24	12.87	12.98	12.99	12.90	13.69	13.35	13.03	13.52	12.95	12.98	12.92	12.93	
25	12.87	12.97	13.00	12.92	13.51	13.50	13.01	13.51	12.95	12.98	12.92	12.98	
26	13.01	12.96	13.02	12.92	13.56	13.49	13.00	13.39	12.95	12.98	12.92	13.59	
27	12.95	12.95	13.01	12.95	13.52	13.50	13.05	13.33	12.95	12.97	12.91	13.38	
28	12.95	12.96	13.00	12.99	13.35	13.44	13.01	13.13	12.95	12.97	12.91	13.24	
29	12.94	12.95	12.96	12.98	13.30	13.38	13.03	13.08	13.57	12.97		13.10	
30	12.94	12.95	12.93	13.00	13.26	13.65	13.01	13.07	13.14	12.98		13.07	
31		12.95		13.00	13.25		13.12		14.21	12.97		13.33	
Mean	12.93	12.98	12.96	12.93	13.43	13.32	13.18	13.09	13.08	13.16	12.94	13.02	
Max	13.01	13.13	13.03	13.00	15.69	13.65	13.58	13.83	14.21	14.34	12.96	13.59	15.69
Min	13.01	13.13	13.03	13.00	15.69	13.65	13.58	13.83	14.21	14.34	12.96	13.59	12.96

Annual Max Momentary Gage Height 16.07 m. (MSL.) , at 18.00 Hours , on Nov 20, 2002

Zero Gage at Bottom Elevation 11.72 m. (MSL.) , River Bed 12.73 m. (MSL.)

Left Bank Elevation 15.79 m. (MSL.) ,

Right Bank Elevation 15.67 m. (MSL.) , Drainage Are 88 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.33	0.30	0.27	0.23	0.47	2.14	3.96	1.10	0.85	8.21	0.37	0.23		
2	0.33	0.33	0.23	0.23	0.43	1.85	3.54	0.55	1.45	10.84	0.37	0.20		
3	0.33	0.30	0.23	0.23	0.40	1.75	3.54	0.55	1.10	5.04	0.37	0.17		
4	0.33	0.30	0.20	0.20	0.33	1.85	3.47	0.55	0.90	3.33	0.37	0.30		
5	0.33	0.30	0.20	0.20	0.50	1.85	3.33	0.37	0.80	2.28	0.33	0.20		
6	0.33	0.30	0.20	0.20	1.40	1.80	3.26	0.37	1.15	1.90	0.33	0.20		
7	0.33	0.30	0.20	0.23	1.85	1.70	3.12	0.33	1.00	1.65	0.33	0.20		
8	0.33	0.30	0.20	0.30	1.25	1.75	1.20	0.33	0.80	1.35	0.33	0.20		
9	0.33	0.30	0.20	0.30	1.15	2.28	0.90	0.75	0.80	1.25	0.33	0.20		
10	0.30	0.37	0.17	0.27	0.85	2.00	0.75	0.50	0.75	1.10	0.30	0.23		
11	0.33	0.85	0.65	0.27	0.85	2.42	0.65	0.47	0.60	1.00	0.30	0.30		
12	0.33	0.50	0.47	0.23	0.90	2.35	0.60	0.47	0.60	0.85	0.30	1.60		
13	0.43	0.85	0.47	0.23	0.95	2.14	0.55	0.43	0.55	0.75	0.30	0.95		
14	0.33	0.95	0.43	0.23	1.25	3.33	0.80	0.60	0.55	0.75	0.30	1.80		
15	0.20	0.50	0.43	0.23	1.45	3.26	0.50	0.40	0.55	0.75	0.30	0.60		
16	0.13	1.15	0.43	0.23	1.40	2.98	0.50	0.37	0.50	0.65	0.30	0.37		
17	0.13	0.65	0.43	0.27	1.35	1.30	1.40	0.33	0.43	0.60	0.30	0.30		
18	0.13	0.50	0.43	0.27	1.75	1.20	1.50	0.33	0.43	0.60	0.27	0.27		
19	0.13	0.47	0.43	0.23	1.85	1.15	1.50	0.30	0.43	0.55	0.27	0.23		
20	0.13	0.43	0.43	0.20	30.23	1.15	1.50	0.30	0.40	0.50	0.27	0.23		
21	0.07	0.75	0.47	0.20	28.19	1.20	0.75	0.30	0.37	0.47	0.23	0.23		
22	0.07	0.50	0.50	0.20	12.58	1.20	1.20	1.25	0.37	0.47	0.23	0.23		
23	0.07	0.43	0.47	0.17	7.04	1.00	2.28	5.87	0.33	0.47	0.23	0.27		
24	0.07	0.43	0.47	0.17	4.73	2.35	0.65	3.54	0.33	0.43	0.23	0.27		
25	0.07	0.40	0.50	0.23	3.47	3.40	0.55	3.47	0.33	0.43	0.23	0.43		
26	0.55	0.37	0.60	0.23	3.82	3.33	0.50	2.63	0.33	0.43	0.23	4.03		
27	0.33	0.33	0.55	0.33	3.54	3.40	0.75	2.21	0.33	0.40	0.20	2.56		
28	0.33	0.37	0.50	0.47	2.35	2.98	0.55	1.15	0.33	0.40	0.20	1.70		
29	0.30	0.33	0.37	0.43	2.00	2.56	0.65	0.90	3.89	0.40		1.00		
30	0.30	0.33	0.27	0.50	1.80	4.45	0.55	0.85	1.20	0.43		0.85		
31		0.33		0.50	1.75		1.10		9.41	0.40		2.21		
Total	7.70	14.52	11.40	8.21	121.88	66.12	46.10	31.57	31.86	48.68	8.12	22.56	418.72	CMSDAY
Mean	0.26	0.47	0.38	0.26	3.93	2.20	1.49	1.05	1.03	1.57	0.29	0.73	1.15	CMS
Max	0.55	1.15	0.65	0.50	30.23	4.45	3.96	5.87	9.41	10.84	0.37	4.03	30.23	CMS
Min	0.07	0.30	0.17	0.17	0.33	1.00	0.50	0.30	0.33	0.40	0.20	0.17	0.07	CMS
Runoff	0.67	1.25	0.98	0.71	10.53	5.71	3.98	2.73	2.75	4.21	0.70	1.95	36.18	MCM

Momentary Peak 36.69 CMS. at 16.07 m. (MSL.) at 18.00 Hours , on Nov 20, 2002

Runoff Yield 13.04 Liters/Second/Square KM. Momentary Peak Yield 416.930 Liters/Second/Square KM.

WATER YEAR : 2002

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	+12.450 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank at the abutment of the bridge. **Elevation** +17.599 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 mean 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	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 93 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

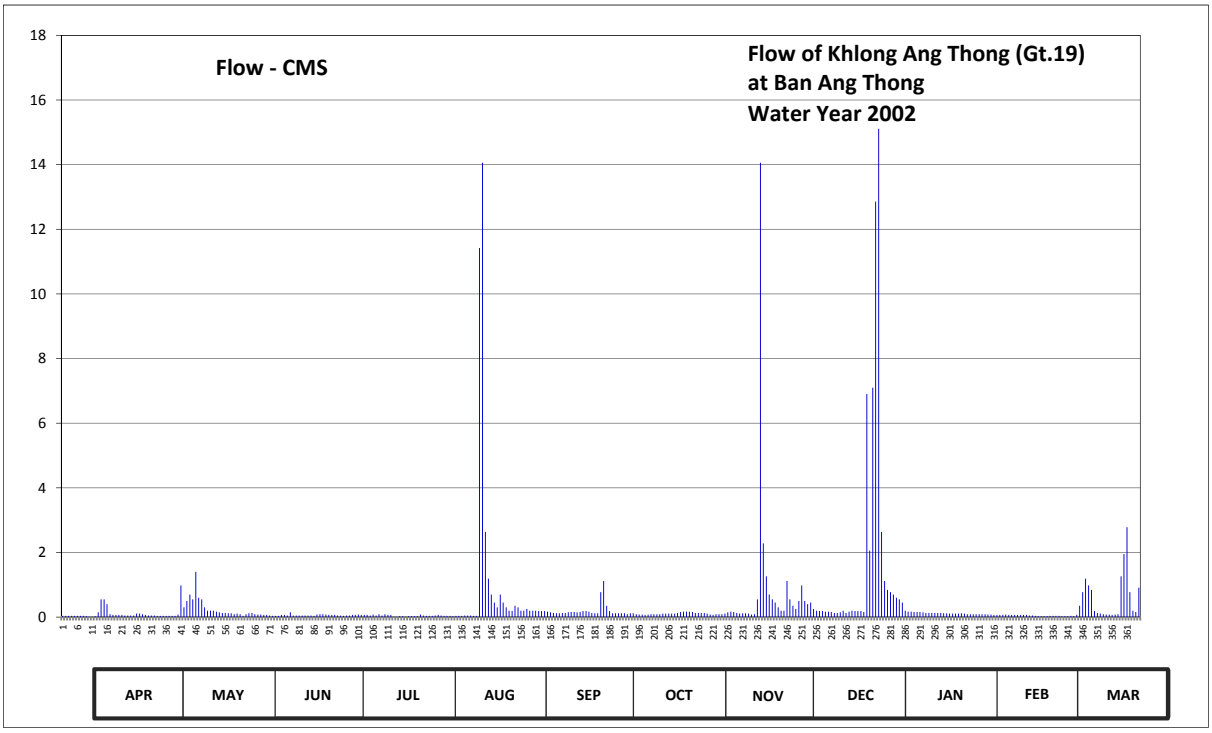
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	13.48	13.49	13.48	13.50	13.49	13.63	13.76	13.55	13.60	14.44	13.52	13.48	
2	13.48	13.49	13.52	13.50	13.48	13.62	13.63	13.55	13.76	14.53	13.52	13.48	
3	13.48	13.48	13.54	13.49	13.48	13.60	13.59	13.55	13.67	13.91	13.52	13.48	
4	13.48	13.48	13.55	13.49	13.48	13.60	13.54	13.55	13.63	13.76	13.52	13.48	
5	13.48	13.48	13.52	13.48	13.49	13.61	13.54	13.53	13.61	13.72	13.52	13.47	
6	13.48	13.48	13.51	13.49	13.50	13.60	13.54	13.51	13.66	13.71	13.52	13.47	
7	13.48	13.48	13.51	13.49	13.49	13.60	13.54	13.50	13.74	13.70	13.52	13.47	
8	13.48	13.48	13.50	13.50	13.48	13.60	13.54	13.52	13.66	13.68	13.51	13.48	
9	13.47	13.48	13.50	13.50	13.48	13.59	13.52	13.52	13.64	13.67	13.51	13.47	
10	13.46	13.51	13.49	13.51	13.48	13.59	13.54	13.52	13.65	13.65	13.50	13.50	
11	13.46	13.74	13.48	13.50	13.47	13.59	13.54	13.53	13.61	13.60	13.50	13.63	
12	13.47	13.62	13.48	13.50	13.48	13.58	13.52	13.56	13.60	13.58	13.50	13.71	
13	13.56	13.66	13.48	13.50	13.48	13.56	13.51	13.58	13.59	13.58	13.50	13.77	
14	13.67	13.70	13.50	13.49	13.48	13.55	13.51	13.57	13.59	13.57	13.51	13.74	
15	13.67	13.67	13.50	13.51	13.49	13.54	13.50	13.55	13.58	13.57	13.50	13.72	
16	13.64	13.80	13.49	13.49	13.49	13.54	13.51	13.53	13.58	13.57	13.50	13.59	
17	13.52	13.68	13.56	13.52	13.49	13.55	13.52	13.54	13.57	13.56	13.50	13.55	
18	13.50	13.67	13.49	13.49	13.48	13.55	13.52	13.54	13.55	13.55	13.50	13.53	
19	13.50	13.62	13.49	13.52	13.48	13.56	13.52	13.53	13.55	13.55	13.50	13.52	
20	13.50	13.60	13.49	13.50	14.38	13.57	13.52	13.51	13.56	13.55	13.50	13.51	
21	13.50	13.60	13.49	13.50	14.49	13.57	13.53	13.52	13.60	13.55	13.50	13.51	
22	13.49	13.60	13.49	13.46	13.91	13.56	13.53	13.67	13.55	13.55	13.49	13.50	
23	13.49	13.58	13.49	13.46	13.77	13.57	13.53	14.49	13.58	13.55	13.49	13.51	
24	13.49	13.56	13.49	13.47	13.70	13.59	13.53	13.88	13.60	13.54	13.48	13.52	
25	13.49	13.55	13.48	13.47	13.65	13.59	13.53	13.78	13.59	13.54	13.47	13.78	
26	13.53	13.55	13.51	13.46	13.62	13.58	13.55	13.70	13.59	13.53	13.47	13.85	
27	13.53	13.54	13.52	13.47	13.70	13.55	13.57	13.67	13.59	13.53	13.47	13.92	
28	13.52	13.54	13.52	13.47	13.65	13.54	13.58	13.65	13.57	13.53	13.47	13.71	
29	13.50	13.52	13.51	13.47	13.62	13.54	13.58	13.62	14.17	13.53		13.60	
30	13.49	13.53	13.50	13.47	13.60	13.71	13.58	13.60	13.86	13.54		13.57	
31		13.52		13.51	13.59		13.57		14.18	13.53		13.73	
Mean	13.51	13.57	13.50	13.49	13.61	13.58	13.55	13.61	13.65	13.66	13.50	13.59	
Max	13.67	13.80	13.56	13.52	14.49	13.71	13.76	14.49	14.18	14.53	13.52	13.92	14.53
Min	13.46	13.48	13.48	13.46	13.47	13.54	13.50	13.50	13.55	13.53	13.47	13.47	13.46

Annual Max Momentary Gage Height 14.92 m. (MSL.) , at 06.00 Hours , on Nov 23, 2002

Zero Gage at Bottom Elevation 12.45 m. (MSL.) , River Bed 13.07 m. (MSL.)

Left Bank Elevation 16.15 m. (MSL.) ,

Right Bank Elevation 16.48 m. (MSL.) , Drainage Are 61 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.04	0.05	0.04	0.07	0.05	0.35	1.12	0.13	0.20	12.86	0.09	0.04		
2	0.04	0.05	0.09	0.07	0.04	0.30	0.35	0.13	1.12	15.11	0.09	0.04		
3	0.04	0.04	0.12	0.05	0.04	0.20	0.19	0.13	0.55	2.64	0.09	0.04		
4	0.04	0.04	0.13	0.05	0.04	0.20	0.12	0.13	0.35	1.12	0.09	0.04		
5	0.04	0.04	0.09	0.04	0.05	0.25	0.12	0.11	0.25	0.84	0.09	0.03		
6	0.04	0.04	0.08	0.05	0.07	0.20	0.12	0.08	0.50	0.77	0.09	0.03		
7	0.04	0.04	0.08	0.05	0.05	0.20	0.12	0.07	0.98	0.70	0.09	0.03		
8	0.04	0.04	0.07	0.07	0.04	0.20	0.12	0.09	0.50	0.60	0.08	0.04		
9	0.03	0.04	0.07	0.07	0.04	0.19	0.09	0.09	0.40	0.55	0.08	0.03		
10	0.01	0.08	0.05	0.08	0.04	0.19	0.12	0.09	0.45	0.45	0.07	0.07		
11	0.01	0.98	0.04	0.07	0.03	0.19	0.12	0.11	0.25	0.20	0.07	0.35		
12	0.03	0.30	0.04	0.07	0.04	0.17	0.09	0.15	0.20	0.17	0.07	0.77		
13	0.15	0.50	0.04	0.07	0.04	0.15	0.08	0.17	0.19	0.17	0.07	1.19		
14	0.55	0.70	0.07	0.05	0.04	0.13	0.08	0.16	0.19	0.16	0.08	0.98		
15	0.55	0.55	0.07	0.08	0.05	0.12	0.07	0.13	0.17	0.16	0.07	0.84		
16	0.40	1.40	0.05	0.05	0.05	0.12	0.08	0.11	0.17	0.16	0.07	0.19		
17	0.09	0.60	0.15	0.09	0.05	0.13	0.09	0.12	0.16	0.15	0.07	0.13		
18	0.07	0.55	0.05	0.05	0.04	0.13	0.09	0.12	0.13	0.13	0.07	0.11		
19	0.07	0.30	0.05	0.09	0.04	0.15	0.09	0.11	0.13	0.13	0.07	0.09		
20	0.07	0.20	0.05	0.07	11.42	0.16	0.09	0.08	0.15	0.13	0.07	0.08		
21	0.07	0.20	0.05	0.07	14.06	0.16	0.11	0.09	0.20	0.13	0.07	0.08		
22	0.05	0.20	0.05	0.01	2.64	0.15	0.11	0.55	0.13	0.13	0.05	0.07		
23	0.05	0.17	0.05	0.01	1.19	0.16	0.11	14.06	0.17	0.13	0.05	0.08		
24	0.05	0.15	0.05	0.03	0.70	0.19	0.11	2.28	0.20	0.12	0.04	0.09		
25	0.05	0.13	0.04	0.03	0.45	0.19	0.11	1.26	0.19	0.12	0.03	1.26		
26	0.11	0.13	0.08	0.01	0.30	0.17	0.13	0.70	0.19	0.11	0.03	1.95		
27	0.11	0.12	0.09	0.03	0.70	0.13	0.16	0.55	0.19	0.11	0.03	2.78		
28	0.09	0.12	0.09	0.03	0.45	0.12	0.17	0.45	0.16	0.11	0.03	0.77		
29	0.07	0.09	0.08	0.03	0.30	0.12	0.17	0.30	6.90	0.11		0.20		
30	0.05	0.11	0.07	0.03	0.20	0.77	0.17	0.20	2.06	0.12		0.16		
31		0.09		0.08	0.19		0.16		7.10	0.11		0.91		
Total	3.05	8.05	2.08	1.65	33.44	5.89	4.86	22.75	24.53	38.50	1.90	13.47	160.17	CMSDAY
Mean	0.10	0.26	0.07	0.05	1.08	0.20	0.16	0.76	0.79	1.24	0.07	0.43	0.44	CMS
Max	0.55	1.40	0.15	0.09	14.06	0.77	1.12	14.06	7.10	15.11	0.09	2.78	15.11	CMS
Min	0.01	0.04	0.04	0.01	0.03	0.12	0.07	0.07	0.13	0.11	0.03	0.03	0.01	CMS
Runoff	0.26	0.70	0.18	0.14	2.89	0.51	0.42	1.97	2.12	3.33	0.16	1.16	13.84	MCM

Momentary Peak 28.80 CMS. at 14.92 m. (MSL.) at 06.00 Hours , on Nov 23, 2005

Runoff Yield 7.19 Liters/Second/Square KM. Momentary Peak Yield 472.130 Liters/Second/Square KM.

WATER YEAR : 2002

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	+0.000 m. (A.D.)
Bench Mark	B.M.-H.D.
Location BM	On left bank about 1 meter from the top staff gage. **Elevation** +6.136 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 mean 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	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 88 discharge measurements made in 2002.

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

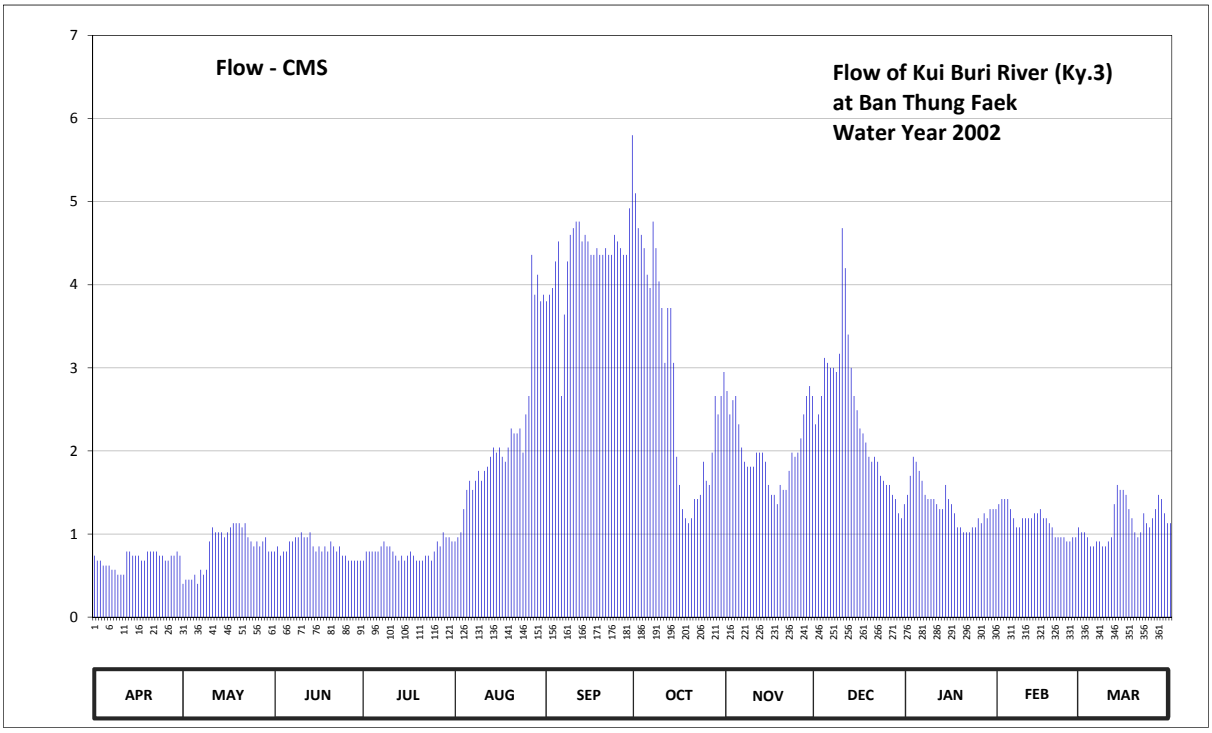
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	21.23	21.17	21.24	21.22	21.26	21.75	21.91	21.58	21.51	21.36	21.34	21.28	
2	21.22	21.18	21.25	21.24	21.27	21.76	21.86	21.53	21.53	21.40	21.35	21.28	
3	21.22	21.18	21.23	21.24	21.28	21.77	21.85	21.56	21.57	21.44	21.35	21.27	
4	21.21	21.18	21.24	21.24	21.33	21.81	21.83	21.57	21.65	21.43	21.35	21.25	
5	21.21	21.19	21.24	21.24	21.37	21.84	21.79	21.51	21.64	21.41	21.33	21.25	
6	21.21	21.17	21.26	21.24	21.39	21.57	21.77	21.46	21.63	21.39	21.31	21.26	
7	21.20	21.20	21.26	21.25	21.37	21.73	21.87	21.43	21.63	21.36	21.29	21.26	
8	21.20	21.19	21.27	21.26	21.39	21.81	21.83	21.42	21.62	21.35	21.29	21.25	
9	21.19	21.20	21.27	21.25	21.41	21.85	21.78	21.42	21.66	21.35	21.31	21.25	
10	21.19	21.26	21.28	21.25	21.39	21.86	21.74	21.42	21.86	21.35	21.31	21.26	
11	21.19	21.29	21.27	21.24	21.41	21.87	21.64	21.45	21.80	21.34	21.31	21.27	
12	21.24	21.28	21.27	21.23	21.42	21.87	21.74	21.45	21.70	21.33	21.31	21.34	
13	21.24	21.28	21.28	21.22	21.44	21.84	21.74	21.45	21.63	21.33	21.32	21.38	
14	21.23	21.28	21.25	21.23	21.46	21.85	21.64	21.43	21.57	21.38	21.32	21.37	
15	21.23	21.27	21.24	21.22	21.45	21.84	21.44	21.38	21.54	21.35	21.33	21.37	
16	21.23	21.28	21.25	21.23	21.46	21.82	21.38	21.36	21.50	21.34	21.31	21.36	
17	21.22	21.29	21.24	21.24	21.44	21.82	21.33	21.36	21.49	21.32	21.31	21.33	
18	21.22	21.30	21.25	21.23	21.43	21.83	21.31	21.34	21.47	21.29	21.30	21.31	
19	21.24	21.30	21.24	21.22	21.46	21.82	21.30	21.38	21.44	21.29	21.29	21.28	
20	21.24	21.30	21.26	21.22	21.50	21.82	21.31	21.37	21.43	21.28	21.27	21.27	
21	21.24	21.29	21.25	21.22	21.49	21.83	21.35	21.37	21.44	21.28	21.27	21.28	
22	21.24	21.30	21.24	21.23	21.49	21.82	21.35	21.41	21.43	21.28	21.27	21.32	
23	21.23	21.27	21.25	21.23	21.50	21.82	21.36	21.45	21.40	21.29	21.27	21.30	
24	21.23	21.26	21.23	21.22	21.45	21.85	21.43	21.44	21.39	21.29	21.26	21.29	
25	21.22	21.25	21.23	21.24	21.53	21.84	21.39	21.45	21.38	21.31	21.26	21.31	
26	21.22	21.26	21.22	21.26	21.57	21.83	21.38	21.48	21.38	21.30	21.27	21.33	
27	21.23	21.25	21.22	21.25	21.82	21.82	21.45	21.53	21.36	21.32	21.27	21.36	
28	21.23	21.26	21.22	21.28	21.76	21.82	21.57	21.57	21.35	21.31	21.29	21.35	
29	21.24	21.27	21.22	21.27	21.79	21.89	21.53	21.59	21.32	21.33		21.32	
30	21.23	21.24	21.22	21.27	21.75	21.98	21.57	21.57	21.31	21.33		21.30	
31		21.24		21.26	21.76		21.62		21.34	21.33		21.30	
Mean	21.22	21.25	21.25	21.24	21.48	21.82	21.58	21.46	21.52	21.34	21.30	21.30	
Max	21.24	21.30	21.28	21.28	21.82	21.98	21.91	21.59	21.86	21.44	21.35	21.38	21.98
Min	21.19	21.17	21.22	21.22	21.26	21.57	21.30	21.34	21.31	21.28	21.26	21.25	21.17

Annual Max Momentary Gage Height 22.02 m. (MSL.) , at 06.00 Hours , on Sep 30 , 2002

Zero Gage at Bottom Elevation 19.79 m. (MSL.) , River Bed 19.32 m. (MSL.)

Left Bank Elevation 24.25 m. (MSL.) ,

Right Bank Elevation 24.56 m. (MSL.) , Drainage Are 537 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.74	0.40	0.79	0.68	0.91	3.80	5.10	2.72	2.32	1.47	1.36	1.02		
2	0.68	0.45	0.85	0.79	0.96	3.88	4.68	2.44	2.44	1.70	1.42	1.02		
3	0.68	0.45	0.74	0.79	1.02	3.96	4.60	2.61	2.66	1.93	1.42	0.96		
4	0.62	0.45	0.79	0.79	1.30	4.28	4.44	2.66	3.12	1.87	1.42	0.85		
5	0.62	0.51	0.79	0.79	1.53	4.52	4.12	2.32	3.06	1.76	1.30	0.85		
6	0.62	0.40	0.91	0.79	1.64	2.66	3.96	2.04	3.00	1.64	1.19	0.91		
7	0.57	0.57	0.91	0.85	1.53	3.64	4.76	1.87	3.00	1.47	1.08	0.91		
8	0.57	0.51	0.96	0.91	1.64	4.28	4.44	1.81	2.95	1.42	1.08	0.85		
9	0.51	0.57	0.96	0.85	1.76	4.60	4.04	1.81	3.17	1.42	1.19	0.85		
10	0.51	0.91	1.02	0.85	1.64	4.68	3.72	1.81	4.68	1.42	1.19	0.91		
11	0.51	1.08	0.96	0.79	1.76	4.76	3.06	1.98	4.20	1.36	1.19	0.96		
12	0.79	1.02	0.96	0.74	1.81	4.76	3.72	1.98	3.40	1.30	1.19	1.36		
13	0.79	1.02	1.02	0.68	1.93	4.52	3.72	1.98	3.00	1.30	1.25	1.59		
14	0.74	1.02	0.85	0.74	2.04	4.60	3.06	1.87	2.66	1.59	1.25	1.53		
15	0.74	0.96	0.79	0.68	1.98	4.52	1.93	1.59	2.49	1.42	1.30	1.53		
16	0.74	1.02	0.85	0.74	2.04	4.36	1.59	1.47	2.27	1.36	1.19	1.47		
17	0.68	1.08	0.79	0.79	1.93	4.36	1.30	1.47	2.21	1.25	1.19	1.30		
18	0.68	1.13	0.85	0.74	1.87	4.44	1.19	1.36	2.10	1.08	1.13	1.19		
19	0.79	1.13	0.79	0.68	2.04	4.36	1.13	1.59	1.93	1.08	1.08	1.02		
20	0.79	1.13	0.91	0.68	2.27	4.36	1.19	1.53	1.87	1.02	0.96	0.96		
21	0.79	1.08	0.85	0.68	2.21	4.44	1.42	1.53	1.93	1.02	0.96	1.02		
22	0.79	1.13	0.79	0.74	2.21	4.36	1.42	1.76	1.87	1.02	0.96	1.25		
23	0.74	0.96	0.85	0.74	2.27	4.36	1.47	1.98	1.70	1.08	0.96	1.13		
24	0.74	0.91	0.74	0.68	1.98	4.60	1.87	1.93	1.64	1.08	0.91	1.08		
25	0.68	0.85	0.74	0.79	2.44	4.52	1.64	1.98	1.59	1.19	0.91	1.19		
26	0.68	0.91	0.68	0.91	2.66	4.44	1.59	2.15	1.59	1.13	0.96	1.30		
27	0.74	0.85	0.68	0.85	4.36	4.36	1.98	2.44	1.47	1.25	0.96	1.47		
28	0.74	0.91	0.68	1.02	3.88	4.36	2.66	2.66	1.42	1.19	1.08	1.42		
29	0.79	0.96	0.68	0.96	4.12	4.92	2.44	2.78	1.25	1.30		1.25		
30	0.74	0.79	0.68	0.96	3.80	5.80	2.66	2.66	1.19	1.30		1.13		
31		0.79		0.91	3.88		2.95		1.36	1.30		1.13		
Total	20.80	25.95	24.86	24.59	67.41	131.50	87.85	60.78	73.54	41.72	32.08	35.41	626.49	CMSDAY
Mean	0.69	0.84	0.83	0.79	2.17	4.38	2.83	2.03	2.37	1.35	1.15	1.14	1.72	CMS
Max	0.79	1.13	1.02	1.02	4.36	5.80	5.10	2.78	4.68	1.93	1.42	1.59	5.80	CMS
Min	0.51	0.40	0.68	0.68	0.91	2.66	1.13	1.36	1.19	1.02	0.91	0.85	0.40	CMS
Runoff	1.80	2.24	2.15	2.12	5.82	11.36	7.59	5.25	6.35	3.60	2.77	3.06	54.13	MCM

Momentary Peak 6.20 CMS. at 22.02 m. (MSL.) at 06.00 Hours , on Sep 30 , 2002

Runoff Yield 3.2 Liters/Second/Square KM. Momentary Peak Yield 11.550 Liters/Second/Square KM.

WATER YEAR : 2002

SOUTHERN PENINSULA EAST COAST

Khlong Rap Ro at Ban Tha Kham, Chumphon (X.46)

Lat 10 - 36 - 53 N Long 99 - 07 - 07 E

Location : on left bank about 10 kilometers downstream from X.46A station at Ban Hat Taeng.

	Ban Tha Kham **Amphoe** Tha Sae **Changwat** Chumphon
Drainge Area	766 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 automatic gage building. **Elevation** +18.921 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 mean of 5 readings
Period of Available Gage Records	1971 to date.
Rating Operation	
Period of Rating	1976, 1985 to date.
Rated by Flot	-
Rated by Current Meter	1976, 1985 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 37 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

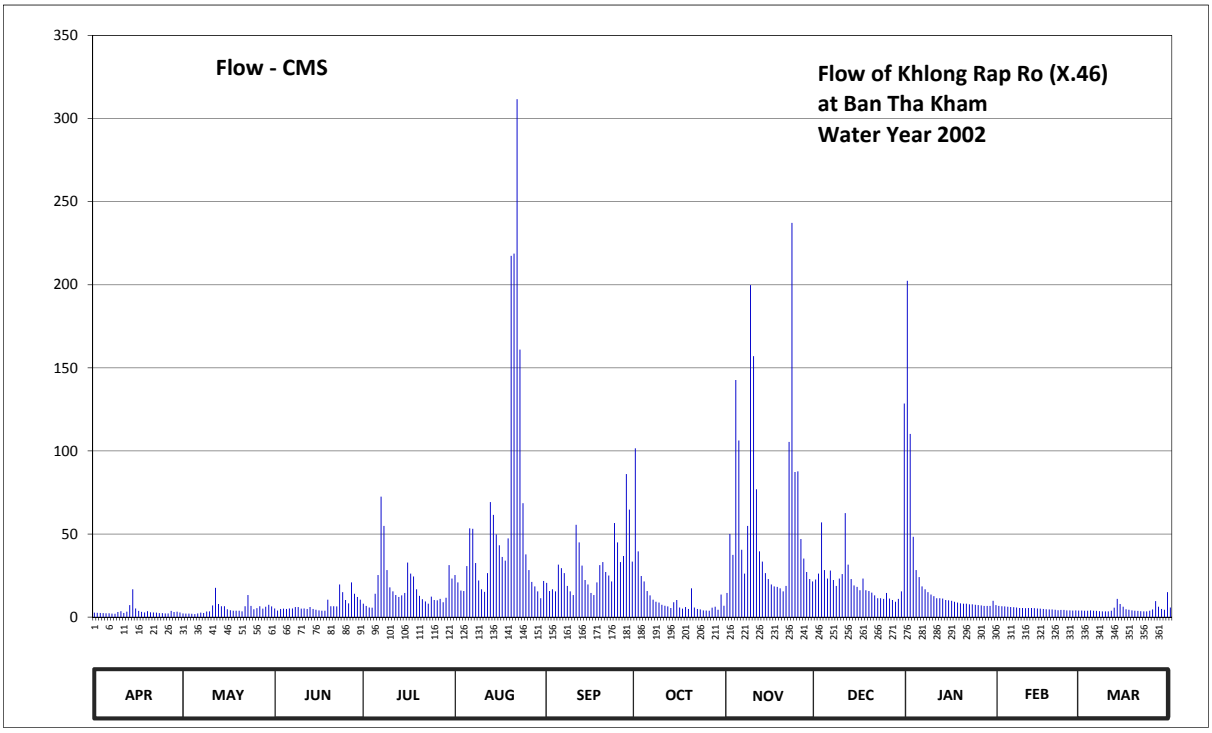
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	6.47	6.42	6.68	6.85	7.51	7.35	9.65	7.13	7.42	11.56	6.78	6.59	
2	6.46	6.41	6.59	6.78	7.36	7.18	7.98	8.29	7.54	9.85	6.77	6.58	
3	6.45	6.41	6.66	6.72	7.19	7.22	7.49	7.91	8.49	8.24	6.76	6.58	
4	6.44	6.40	6.67	6.71	7.18	7.17	7.38	10.53	7.61	7.61	6.75	6.60	
5	6.43	6.38	6.66	7.11	7.69	7.72	7.18	9.76	7.44	7.47	6.74	6.58	
6	6.43	6.42	6.68	7.51	8.39	7.65	7.07	8.01	7.60	7.28	6.73	6.57	
7	6.41	6.47	6.68	8.93	8.38	7.55	6.96	7.54	7.41	7.22	6.72	6.56	
8	6.40	6.45	6.74	8.43	7.75	7.29	6.90	8.43	7.29	7.15	6.70	6.55	
9	6.51	6.54	6.74	7.61	7.40	7.17	6.88	11.52	7.44	7.09	6.70	6.55	
10	6.56	6.55	6.67	7.26	7.22	7.08	6.82	10.80	7.53	7.05	6.69	6.55	
11	6.45	6.80	6.68	7.17	7.16	8.45	6.79	9.05	8.65	7.00	6.70	6.58	
12	6.53	7.25	6.66	7.08	7.55	8.14	6.76	7.98	7.72	7.00	6.70	6.71	
13	6.81	6.84	6.74	7.03	8.84	7.70	6.70	7.78	7.43	6.99	6.69	6.98	
14	7.22	6.77	6.66	7.07	8.62	7.41	6.89	7.55	7.30	6.95	6.68	6.84	
15	6.68	6.77	6.63	7.13	8.28	7.32	6.95	7.43	7.27	6.94	6.67	6.75	
16	6.57	6.65	6.60	7.76	8.09	7.13	6.72	7.32	7.20	6.93	6.66	6.65	
17	6.52	6.61	6.58	7.54	7.87	7.08	6.67	7.28	7.44	6.90	6.65	6.63	
18	6.48	6.58	6.58	7.48	7.80	7.36	6.74	7.27	7.20	6.88	6.64	6.60	
19	6.56	6.58	6.96	7.22	8.21	7.71	6.66	7.24	7.18	6.86	6.64	6.58	
20	6.49	6.58	6.77	7.06	11.79	7.77	7.24	7.17	7.14	6.85	6.63	6.57	
21	6.48	6.55	6.77	6.97	11.81	7.57	6.72	7.29	7.07	6.85	6.61	6.56	
22	6.47	6.77	6.76	6.91	13.02	7.50	6.66	9.74	7.00	6.83	6.62	6.55	
23	6.44	7.08	7.32	6.85	10.87	7.38	6.64	12.07	7.00	6.83	6.62	6.55	
24	6.44	6.78	7.15	7.04	8.82	8.48	6.60	9.31	6.98	6.82	6.60	6.58	
25	6.42	6.65	6.95	6.95	7.92	8.14	6.59	9.32	7.13	6.81	6.60	6.64	
26	6.42	6.69	6.86	6.94	7.61	7.77	6.58	8.20	6.99	6.80	6.59	6.92	
27	6.57	6.77	7.36	6.98	7.37	7.89	6.71	7.84	6.95	6.78	6.60	6.75	
28	6.51	6.67	7.11	6.89	7.28	9.28	6.75	7.57	6.90	6.78	6.59	6.66	
29	6.53	6.75	7.03	7.01	7.17	8.71	6.63	7.43	6.98	6.78		6.63	
30	6.48	6.82	6.96	7.71	7.00	7.78	7.09	7.38	7.17	6.93		7.15	
31		6.76		7.44	7.39		6.79		10.25	6.81		6.72	
Mean	6.52	6.65	6.80	7.23	8.28	7.67	6.97	8.40	7.44	7.25	6.67	6.66	
Max	7.22	7.25	7.36	8.93	13.02	9.28	9.65	12.07	10.25	11.56	6.78	7.15	13.02
Min	6.40	6.38	6.58	6.71	7.00	7.08	6.58	7.13	6.90	6.78	6.59	6.55	6.38

Annual Max Momentary Gage Height 13.33 m. (MSL.) , at 12.00 Hours , on Aug 22 , 2002

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed 4.36 m. (MSL.)

Left Bank Elevation 18.79 m. (MSL.) ,

Right Bank Elevation 18.80 m. (MSL.) , Drainage Are 766 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.70	2.20	5.20	8.10	25.30	20.55	101.55	14.52	22.60	202.40	6.70	3.90		
2	2.60	2.10	3.90	6.70	20.84	15.72	39.58	50.06	26.20	110.25	6.55	3.80		
3	2.50	2.10	4.90	5.80	15.96	16.78	24.70	37.41	56.95	48.36	6.40	3.80		
4	2.40	2.00	5.05	5.65	15.72	15.48	21.42	142.63	28.30	28.30	6.25	4.00		
5	2.30	1.80	4.90	14.04	30.70	31.60	15.72	106.28	23.20	24.10	6.10	3.80		
6	2.30	2.20	5.20	25.30	53.46	29.50	13.08	40.54	28.00	18.52	5.95	3.70		
7	2.10	2.70	5.20	72.48	53.12	26.50	10.52	26.20	22.30	16.78	5.80	3.60		
8	2.00	2.50	6.10	54.85	32.50	18.81	9.20	54.85	18.81	15.00	5.50	3.50		
9	3.10	3.40	6.10	28.30	22.00	15.48	8.76	199.80	23.20	13.56	5.50	3.50		
10	3.60	3.50	5.05	17.94	16.78	13.32	7.44	157.00	25.90	12.60	5.35	3.50		
11	2.50	7.00	5.20	15.48	15.24	55.55	6.85	76.95	62.55	11.40	5.50	3.80		
12	3.30	17.65	4.90	13.32	26.50	44.96	6.40	39.58	31.60	11.40	5.50	5.65		
13	7.22	7.88	6.10	12.12	69.24	31.00	5.50	33.40	22.90	11.18	5.35	10.96		
14	16.78	6.55	4.90	13.08	61.50	22.30	8.98	26.50	19.10	10.30	5.20	7.88		
15	5.20	6.55	4.45	14.52	49.72	19.68	10.30	22.90	18.23	10.08	5.05	6.25		
16	3.70	4.75	4.00	32.80	43.26	14.52	5.80	19.68	16.20	9.86	4.90	4.75		
17	3.20	4.15	3.80	26.20	36.17	13.32	5.05	18.52	23.20	9.20	4.75	4.45		
18	2.80	3.80	3.80	24.40	34.00	20.84	6.10	18.23	16.20	8.76	4.60	4.00		
19	3.60	3.80	10.52	16.78	47.34	31.30	4.90	17.36	15.72	8.32	4.60	3.80		
20	2.90	3.80	6.55	12.84	217.35	33.10	17.36	15.48	14.76	8.10	4.45	3.70		
21	2.80	3.50	6.55	10.74	218.70	27.10	5.80	18.81	13.08	8.10	4.15	3.60		
22	2.70	6.55	6.40	9.42	311.60	25.00	4.90	105.42	11.40	7.66	4.30	3.50		
23	2.40	13.32	19.68	8.10	160.92	21.42	4.60	237.25	11.40	7.66	4.30	3.50		
24	2.40	6.70	15.00	12.36	68.52	56.60	4.00	87.31	10.96	7.44	4.00	3.80		
25	2.20	4.75	10.30	10.30	37.72	44.96	3.90	87.72	14.52	7.22	4.00	4.60		
26	2.20	5.35	8.32	10.08	28.30	33.10	3.80	47.00	11.18	7.00	3.90	9.64		
27	3.70	6.55	20.84	10.96	21.13	36.79	5.65	35.24	10.30	6.70	4.00	6.25		
28	3.10	5.05	14.04	8.98	18.52	86.08	6.25	27.10	9.20	6.70	3.90	4.90		
29	3.30	6.25	12.12	11.64	15.48	64.65	4.45	22.90	10.96	6.70		4.45		
30	2.80	7.44	10.52	31.30	11.40	33.40	13.56	21.42	15.48	9.86		15.00		
31		6.40		23.20	21.71		6.85		128.50	7.22		5.80		
Total	104.40	162.29	229.59	567.78	1800.70	919.41	392.97	1808.06	762.90	670.73	142.55	157.38	7718.76	CMSDAY
Mean	3.48	5.24	7.65	18.32	58.09	30.65	12.68	60.27	24.61	21.64	5.09	5.08	21.15	CMS
Max	16.78	17.65	20.84	72.48	311.60	86.08	101.55	237.25	128.50	202.40	6.70	15.00	311.60	CMS
Min	2.00	1.80	3.80	5.65	11.40	13.32	3.80	14.52	9.20	6.70	3.90	3.50	1.80	CMS
Runoff	9.02	14.02	19.84	49.06	155.58	79.44	33.95	156.22	65.91	57.95	12.32	13.60	666.90	MCM

Momentary Peak 337.05 CMS. at 13.33 m. (MSL.) at 12.00 Hours , on Aug 22 , 2002

Runoff Yield 27.61 Liters/Second/Square KM. Momentary Peak Yield 440.010 Liters/Second/Square KM.

WATER YEAR : 2002

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	Staff gage.
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** +10.538 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 mean of 5 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 fair. Stage-discharge relation defined by 38 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

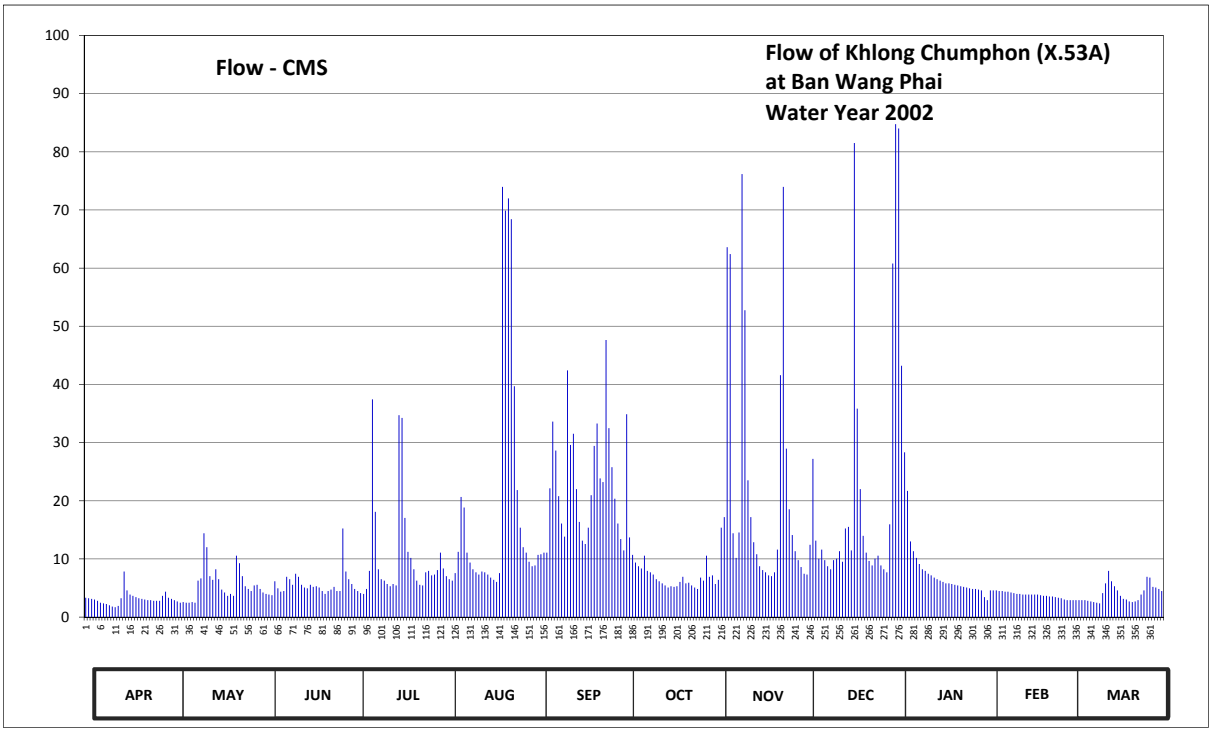
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	2.54	2.50	2.60	2.67	2.85	3.13	4.73	2.80	2.87	7.32	2.65	2.50	
2	2.53	2.48	2.59	2.64	2.81	3.14	3.35	3.47	3.26	5.25	2.65	2.50	
3	2.52	2.46	2.58	2.61	2.79	3.16	3.13	3.60	4.25	4.32	2.65	2.50	
4	2.51	2.47	2.78	2.60	2.89	3.16	3.03	6.38	3.31	3.90	2.64	2.50	
5	2.49	2.46	2.68	2.67	3.17	3.93	2.98	6.32	3.08	3.30	2.64	2.50	
6	2.46	2.46	2.63	2.92	3.83	4.65	2.95	3.40	3.20	3.18	2.63	2.49	
7	2.45	2.47	2.64	4.89	3.71	4.34	3.12	3.09	3.06	3.09	2.63	2.48	
8	2.44	2.46	2.84	3.66	3.16	3.84	2.92	3.41	2.98	3.01	2.62	2.47	
9	2.42	2.79	2.81	2.94	3.03	3.52	2.90	6.98	2.94	2.94	2.61	2.46	
10	2.40	2.82	2.73	2.81	2.94	3.36	2.87	5.82	3.06	2.92	2.60	2.45	
11	2.39	3.40	2.88	2.79	2.90	5.20	2.81	4.02	3.08	2.88	2.60	2.61	
12	2.41	3.23	2.84	2.74	2.87	4.40	2.78	3.60	3.18	2.86	2.59	2.75	
13	2.53	2.85	2.73	2.71	2.91	4.52	2.75	3.29	3.04	2.83	2.59	2.92	
14	2.91	2.80	2.69	2.74	2.90	3.92	2.72	3.14	3.46	2.81	2.59	2.78	
15	2.65	2.94	2.68	2.72	2.87	3.54	2.69	2.98	3.48	2.79	2.59	2.71	
16	2.59	2.81	2.73	4.72	2.83	3.31	2.71	2.93	3.19	2.77	2.59	2.65	
17	2.57	2.66	2.70	4.69	2.80	3.27	2.70	2.90	7.22	2.75	2.59	2.57	
18	2.55	2.62	2.71	3.59	2.77	3.47	2.71	2.86	4.79	2.75	2.58	2.52	
19	2.53	2.57	2.69	3.17	2.89	3.85	2.77	2.85	3.92	2.74	2.57	2.51	
20	2.52	2.60	2.64	3.09	6.88	4.39	2.84	2.90	3.37	2.73	2.57	2.48	
21	2.51	2.57	2.60	2.94	6.69	4.63	2.75	3.20	3.16	2.72	2.56	2.47	
22	2.50	3.12	2.64	2.79	6.79	4.04	2.76	5.15	3.05	2.71	2.56	2.48	
23	2.50	3.02	2.66	2.73	6.62	4.00	2.72	6.88	2.99	2.70	2.55	2.50	
24	2.49	2.85	2.70	2.72	5.03	5.52	2.69	4.36	3.08	2.69	2.54	2.59	
25	2.49	2.71	2.64	2.90	3.91	4.58	2.67	3.69	3.12	2.68	2.53	2.65	
26	2.49	2.67	2.64	2.92	3.47	4.16	2.83	3.38	2.99	2.67	2.51	2.84	
27	2.57	2.64	3.46	2.86	3.23	3.81	2.79	3.18	2.94	2.67	2.50	2.83	
28	2.63	2.72	2.91	2.87	3.16	3.52	3.12	3.06	2.90	2.66	2.50	2.70	
29	2.54	2.73	2.81	2.93	3.04	3.33	2.84	2.97	3.51	2.65		2.69	
30	2.52	2.67	2.74	3.16	2.98	3.19	2.86	2.88	6.24	2.55		2.67	
31		2.62		2.95	2.99		2.74		7.35	2.50		2.64	
Mean	2.52	2.72	2.73	3.07	3.60	3.90	2.91	3.85	3.62	3.11	2.59	2.59	
Max	2.91	3.40	3.46	4.89	6.88	5.52	4.73	6.98	7.35	7.32	2.65	2.92	7.35
Min	2.39	2.46	2.58	2.60	2.77	3.13	2.67	2.80	2.87	2.50	2.50	2.45	2.39

Annual Max Momentary Gage Height 7.89 m. (MSL.) , at 06.00 Hours , on Jan 1 , 2002

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed 2.11 m. (MSL.)

Left Bank Elevation 10.40 m. (MSL.) ,

Right Bank Elevation 10.41 m. (MSL.) , Drainage Are 296 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.34	2.90	4.00	4.84	7.05	10.69	34.88	6.40	7.31	84.00	4.60	2.90		
2	3.23	2.68	3.89	4.48	6.53	10.82	13.70	15.38	12.44	43.20	4.60	2.90		
3	3.12	2.46	3.78	4.12	6.28	11.08	10.69	17.20	27.20	28.32	4.60	2.90		
4	3.01	2.57	6.16	4.00	7.57	11.08	9.39	63.60	13.14	21.70	4.48	2.90		
5	2.79	2.46	4.96	4.84	11.21	22.15	8.74	62.40	10.04	13.00	4.48	2.90		
6	2.46	2.46	4.36	7.96	20.65	33.60	8.35	14.40	11.60	11.34	4.36	2.79		
7	2.35	2.57	4.48	37.44	18.85	28.64	10.56	10.17	9.78	10.17	4.36	2.68		
8	2.24	2.46	6.92	18.10	11.08	20.80	7.96	14.54	8.74	9.13	4.24	2.57		
9	2.02	6.28	6.53	8.22	9.39	16.08	7.70	76.16	8.22	8.22	4.12	2.46		
10	1.80	6.66	5.56	6.53	8.22	13.84	7.31	52.76	9.78	7.96	4.00	2.35		
11	1.71	14.40	7.44	6.28	7.70	42.40	6.53	23.52	10.04	7.44	4.00	4.12		
12	1.91	12.02	6.92	5.68	7.31	29.60	6.16	17.20	11.34	7.18	3.89	5.80		
13	3.23	7.05	5.56	5.32	7.83	31.52	5.80	12.86	9.52	6.79	3.89	7.96		
14	7.83	6.40	5.08	5.68	7.70	22.00	5.44	10.82	15.24	6.53	3.89	6.16		
15	4.60	8.22	4.96	5.44	7.31	16.36	5.08	8.74	15.52	6.28	3.89	5.32		
16	3.89	6.53	5.56	34.72	6.79	13.14	5.32	8.09	11.47	6.04	3.89	4.60		
17	3.67	4.72	5.20	34.24	6.40	12.58	5.20	7.70	81.50	5.80	3.89	3.67		
18	3.45	4.24	5.32	17.06	6.04	15.38	5.32	7.18	35.84	5.80	3.78	3.12		
19	3.23	3.67	5.08	11.21	7.57	20.95	6.04	7.05	22.00	5.68	3.67	3.01		
20	3.12	4.00	4.48	10.17	73.96	29.44	6.92	7.70	13.98	5.56	3.67	2.68		
21	3.01	3.67	4.00	8.22	69.89	33.28	5.80	11.60	11.08	5.44	3.56	2.57		
22	2.90	10.56	4.48	6.28	71.99	23.84	5.92	41.60	9.65	5.32	3.56	2.68		
23	2.90	9.26	4.72	5.56	68.42	23.20	5.44	73.96	8.87	5.20	3.45	2.90		
24	2.79	7.05	5.20	5.44	39.68	47.64	5.08	28.96	10.04	5.08	3.34	3.89		
25	2.79	5.32	4.48	7.70	21.85	32.48	4.84	18.55	10.56	4.96	3.23	4.60		
26	2.79	4.84	4.48	7.96	15.38	25.76	6.79	14.12	8.87	4.84	3.01	6.92		
27	3.67	4.48	15.24	7.18	12.02	20.35	6.28	11.34	8.22	4.84	2.90	6.79		
28	4.36	5.44	7.83	7.31	11.08	16.08	10.56	9.78	7.70	4.72	2.90	5.20		
29	3.34	5.56	6.53	8.09	9.52	13.42	6.92	8.61	15.94	4.60		5.08		
30	3.12	4.84	5.68	11.08	8.74	11.47	7.18	7.44	60.80	3.45		4.84		
31		4.24		8.35	8.87		5.68		84.75	2.90		4.48		
Total	94.67	170.01	168.88	319.50	582.88	659.67	247.58	669.83	581.18	351.49	108.25	123.74	4077.68	CMSDAY
Mean	3.16	5.48	5.63	10.31	18.80	21.99	7.99	22.33	18.75	11.34	3.87	3.99	11.17	CMS
Max	7.83	14.40	15.24	37.44	73.96	47.64	34.88	76.16	84.75	84.00	4.60	7.96	84.75	CMS
Min	1.71	2.46	3.78	4.00	6.04	10.69	4.84	6.40	7.31	2.90	2.90	2.35	1.71	CMS
Runoff	8.18	14.69	14.59	27.60	50.36	57.00	21.39	57.87	50.21	30.37	9.35	10.69	352.31	MCM

Momentary Peak 98.25 CMS. at 7.89 m. (MSL.) at 06.00 Hours , on Jan 1 , 2002

Runoff Yield 37.74 Liters/Second/Square KM. Momentary Peak Yield 331.930 Liters/Second/Square KM.

WATER YEAR : 2002

SOUTHERN PENINSULA EAST COAST

Khlong Tha Di at Ban Tha Yai , Nakhon Si Thammarat (X.55)

Lat 08 - 23 - 52 N Long 99 - 50 - 14 E

Location : on left bank at the bridge.

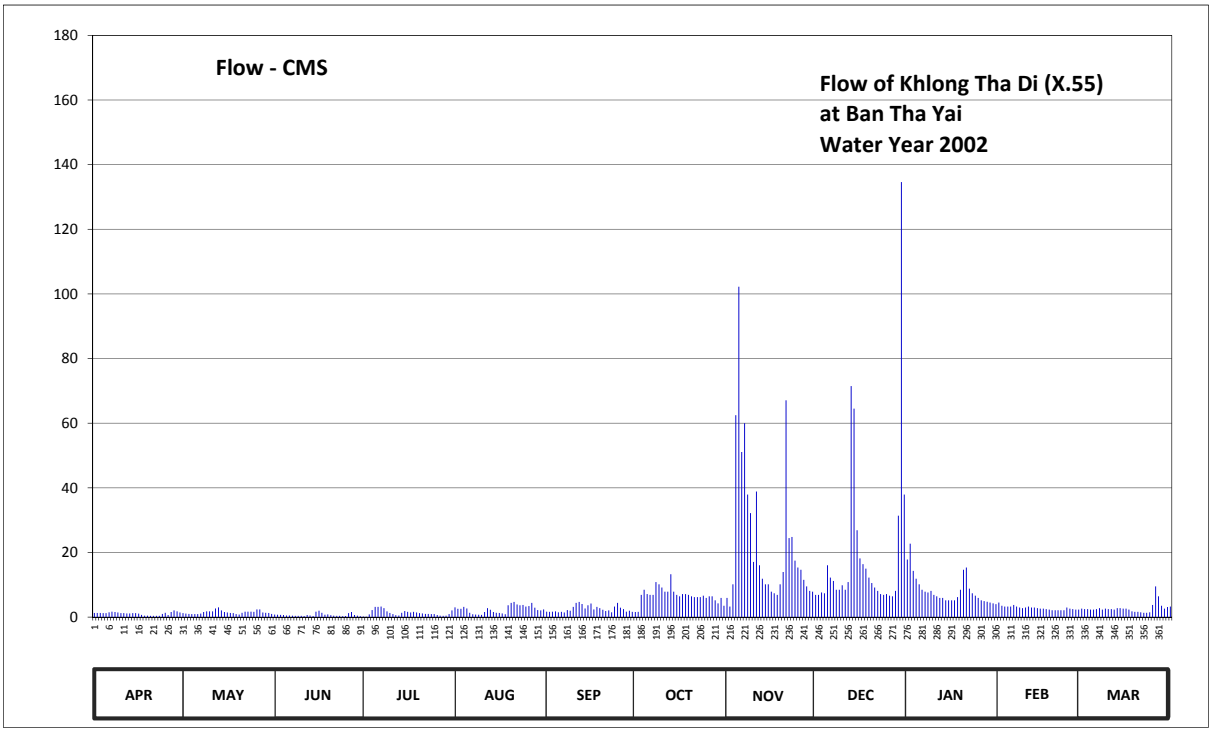
Ban Tha Yai **Amphoe** Lan Saka **Changwat** Nakhon Si Thammar

Drainge Area	105 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+17.343 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank about 63.60 meters from fourth staff gage. **Elevation** +24.176 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 mean of 5 readings
Period of Available Gage Records	1967 to date
Rating Operation	
Period of Rating	1967 - 1971 , 1989 to date
Rated by Flot	-
Rated by Current Meter	1967 - 1971 , 1989 to date
Stability of Channel Regimes	Rather unstable with variable water surface slope.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Stage-discharge relation defined by 32 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	18.34	18.33	18.26	18.11	18.53	18.40	18.38	18.31	18.35	18.68	18.25	18.16	
2	18.34	18.31	18.25	18.08	18.49	18.39	18.39	18.20	18.35	18.82	18.21	18.15	
3	18.34	18.30	18.24	18.27	18.49	18.40	18.35	18.46	18.38	18.58	18.20	18.15	
4	18.33	18.29	18.23	18.45	18.54	18.41	18.41	19.73	18.37	18.51	18.20	18.14	
5	18.33	18.29	18.20	18.54	18.50	18.37	18.36	20.42	18.63	18.46	18.20	18.14	
6	18.37	18.29	18.19	18.54	18.35	18.39	18.35	19.50	18.52	18.41	18.22	18.15	
7	18.40	18.31	18.18	18.55	18.28	18.36	18.35	19.68	18.49	18.39	18.20	18.17	
8	18.38	18.38	18.17	18.51	18.26	18.45	18.48	19.22	18.41	18.38	18.18	18.14	
9	18.36	18.41	18.16	18.41	18.25	18.43	18.46	19.08	18.41	18.40	18.17	18.16	
10	18.33	18.41	18.16	18.34	18.24	18.54	18.43	18.66	18.45	18.35	18.18	18.15	
11	18.33	18.41	18.15	18.29	18.38	18.63	18.39	19.24	18.41	18.33	18.20	18.15	
12	18.32	18.50	18.23	18.22	18.51	18.65	18.39	18.63	18.48	18.31	18.18	18.14	
13	18.32	18.53	18.20	18.19	18.46	18.61	18.55	18.51	19.90	18.31	18.18	18.17	
14	18.33	18.44	18.15	18.35	18.38	18.50	18.39	18.46	19.77	18.28	18.17	18.17	
15	18.33	18.38	18.40	18.42	18.35	18.58	18.35	18.46	18.94	18.28	18.16	18.16	
16	18.31	18.36	18.43	18.39	18.34	18.62	18.33	18.39	18.69	18.28	18.16	18.16	
17	18.24	18.34	18.35	18.36	18.32	18.47	18.36	18.37	18.64	18.28	18.15	18.14	
18	18.18	18.33	18.25	18.39	18.28	18.54	18.36	18.35	18.60	18.32	18.14	18.11	
19	18.18	18.29	18.27	18.36	18.58	18.51	18.35	18.46	18.52	18.41	18.13	18.10	
20	18.17	18.26	18.22	18.33	18.63	18.46	18.33	18.57	18.47	18.59	18.13	18.10	
21	18.17	18.35	18.18	18.32	18.65	18.42	18.32	19.82	18.43	18.61	18.13	18.09	
22	18.16	18.40	18.17	18.30	18.60	18.44	18.32	18.87	18.40	18.42	18.13	18.08	
23	18.16	18.40	18.16	18.30	18.58	18.37	18.32	18.88	18.36	18.37	18.13	18.08	
24	18.30	18.40	18.13	18.29	18.59	18.55	18.34	18.67	18.35	18.34	18.18	18.09	
25	18.35	18.39	18.15	18.29	18.55	18.63	18.31	18.61	18.36	18.31	18.16	18.22	
26	18.23	18.47	18.33	18.23	18.56	18.52	18.33	18.59	18.34	18.28	18.15	18.44	
27	18.38	18.47	18.38	18.18	18.63	18.48	18.33	18.50	18.33	18.27	18.14	18.33	
28	18.44	18.36	18.23	18.17	18.52	18.40	18.28	18.44	18.40	18.26	18.14	18.21	
29	18.41	18.35	18.18	18.18	18.45	18.43	18.24	18.40	19.06	18.25		18.16	
30	18.36	18.34	18.14	18.29	18.44	18.39	18.31	18.39	20.92	18.24		18.19	
31		18.30		18.44	18.47		18.21		19.22	18.23		18.20	
Mean	18.31	18.37	18.22	18.33	18.46	18.48	18.36	18.80	18.68	18.39	18.17	18.16	
Max	18.44	18.53	18.43	18.55	18.65	18.65	18.55	20.42	20.92	18.82	18.25	18.44	20.92
Min	18.16	18.26	18.13	18.08	18.24	18.36	18.21	18.20	18.33	18.23	18.13	18.08	18.08

Annual Max Momentary Gage Height	21.44	m. (MSL.) ,	at 09.00 Hours , on Dec 30 , 2002		
Zero Gage at Bottom Elevation	17.34	m. (MSL.) ,	River Bed	17.40	m. (MSL.)
Left Bank Elevation	23.81	m. (MSL.) ,			
Right Bank Elevation	23.85	m. (MSL.) ,	Drainage Are	105	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.28	1.21	0.80	0.21	3.03	1.70	1.56	5.93	6.90	17.80	4.48	2.62		
2	1.28	1.07	0.75	0.14	2.56	1.63	1.63	3.28	6.90	22.70	3.52	2.46		
3	1.28	1.00	0.70	0.85	2.56	1.70	6.90	10.17	7.62	14.31	3.28	2.46		
4	1.21	0.95	0.65	2.18	3.16	1.80	8.45	62.50	7.38	11.89	3.28	2.30		
5	1.21	0.95	0.50	3.16	2.66	1.49	7.14	102.26	16.05	10.17	3.28	2.30		
6	1.49	0.95	0.47	3.16	1.35	1.63	6.90	51.10	12.24	8.45	3.76	2.46		
7	1.70	1.07	0.44	3.28	0.90	1.42	6.90	60.00	11.21	7.86	3.28	2.79		
8	1.56	1.56	0.40	2.78	0.80	2.18	10.86	37.92	8.45	7.62	2.95	2.30		
9	1.42	1.80	0.37	1.80	0.75	1.99	10.17	32.20	8.45	8.10	2.79	2.62		
10	1.21	1.80	0.37	1.28	0.70	3.16	9.14	17.10	9.83	6.90	2.95	2.46		
11	1.21	1.80	0.34	0.95	1.56	4.38	7.86	38.84	8.45	6.41	3.28	2.46		
12	1.14	2.66	0.65	0.60	2.78	4.70	7.86	16.05	10.86	5.93	2.95	2.30		
13	1.14	3.03	0.50	0.47	2.28	4.06	13.27	11.89	71.50	5.93	2.95	2.79		
14	1.21	2.08	0.34	1.35	1.56	2.66	7.86	10.17	64.50	5.21	2.79	2.79		
15	1.21	1.56	1.70	1.89	1.35	3.65	6.90	10.17	26.90	5.21	2.62	2.62		
16	1.07	1.42	1.99	1.63	1.28	4.22	6.41	7.86	18.15	5.21	2.62	2.62		
17	0.70	1.28	1.35	1.42	1.14	2.37	7.14	7.38	16.40	5.21	2.46	2.30		
18	0.44	1.21	0.75	1.63	0.90	3.16	7.14	6.90	15.00	6.17	2.30	1.80		
19	0.44	0.95	0.85	1.42	3.65	2.78	6.90	10.17	12.24	8.45	2.13	1.64		
20	0.40	0.80	0.60	1.21	4.38	2.28	6.41	13.96	10.52	14.65	2.13	1.64		
21	0.40	1.35	0.44	1.14	4.70	1.89	6.17	67.10	9.14	15.35	2.13	1.48		
22	0.37	1.70	0.40	1.00	3.90	2.08	6.17	24.45	8.10	8.79	2.13	1.31		
23	0.37	1.70	0.37	1.00	3.65	1.49	6.17	24.80	7.14	7.38	2.13	1.31		
24	1.00	1.70	0.28	0.95	3.78	3.28	6.65	17.45	6.90	6.65	2.95	1.48		
25	1.35	1.63	0.34	0.95	3.28	4.38	5.93	15.35	7.14	5.93	2.62	3.76		
26	0.65	2.37	1.21	0.65	3.40	2.91	6.41	14.65	6.65	5.21	2.46	9.48		
27	1.56	2.37	1.56	0.44	4.38	2.47	6.41	11.55	6.41	4.97	2.30	6.41		
28	2.08	1.42	0.65	0.40	2.91	1.70	5.21	9.48	8.10	4.73	2.30	3.52		
29	1.80	1.35	0.44	0.44	2.18	1.99	4.24	8.10	31.40	4.48		2.62		
30	1.42	1.28	0.31	0.95	2.08	1.63	5.93	7.86	134.64	4.24		3.12		
31		1.00		2.08	2.37		3.52		37.92	4.00		3.28		
Total	33.60	47.02	20.52	41.41	75.98	76.78	210.21	716.64	613.09	255.91	78.82	85.50	2255.48	CMSDAY
Mean	1.12	1.52	0.68	1.34	2.45	2.56	6.78	23.89	19.78	8.26	2.81	2.76	6.18	CMS
Max	2.08	3.03	1.99	3.28	4.70	4.70	13.27	102.26	134.64	22.70	4.48	9.48	134.64	CMS
Min	0.37	0.80	0.28	0.14	0.70	1.42	1.56	3.28	6.41	4.00	2.13	1.31	0.14	CMS
Runoff	2.90	4.06	1.77	3.58	6.56	6.63	18.16	61.92	52.97	22.11	6.81	7.39	194.87	MCM

Momentary Peak 170.36 CMS. at 21.44 m. (MSL.) at 09.00 Hours , on Dec 30 , 2002

Runoff Yield 58.85 Liters/Second/Square KM. Momentary Peak Yield 1622.480 Liters/Second/Square KM.

WATER YEAR : 2002

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	Water - stage recorder.		
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	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	1974 - 1975 , 1982 to date		
Rated by Flot	-		
Rated by Current Meter	1974 - 1975 , 1982 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 36 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2015 to March 31, 2016

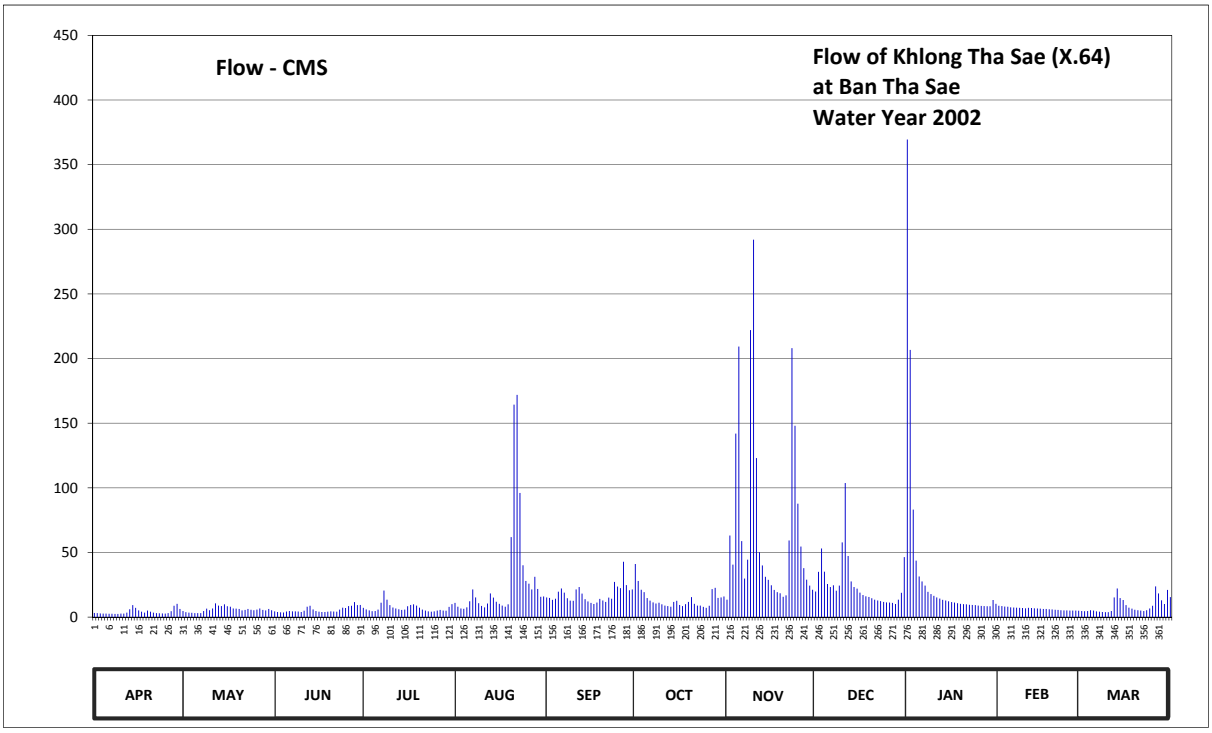
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	8.14	8.25	8.23	8.41	8.66	8.92	10.22	8.82	9.19	16.21	8.52	8.25	
2	8.13	8.19	8.20	8.33	8.47	8.90	9.60	11.12	9.95	14.55	8.50	8.24	
3	8.11	8.16	8.18	8.28	8.38	8.81	9.26	10.20	10.72	11.84	8.48	8.25	
4	8.10	8.15	8.17	8.24	8.36	8.86	9.16	13.40	9.96	10.33	8.47	8.29	
5	8.10	8.13	8.22	8.25	8.44	9.18	8.89	14.59	9.48	9.77	8.44	8.27	
6	8.09	8.13	8.25	8.32	8.74	9.31	8.77	10.95	9.36	9.58	8.43	8.23	
7	8.09	8.13	8.23	8.67	9.27	9.14	8.69	9.69	9.43	9.42	8.42	8.21	
8	8.08	8.25	8.23	9.23	8.92	8.88	8.63	10.36	9.22	9.17	8.41	8.20	
9	8.08	8.37	8.22	8.82	8.65	8.77	8.67	14.76	9.42	9.07	8.40	8.19	
10	8.10	8.29	8.20	8.55	8.51	8.76	8.59	15.57	10.91	8.99	8.39	8.19	
11	8.10	8.38	8.26	8.43	8.44	9.27	8.53	12.97	12.45	8.92	8.41	8.25	
12	8.16	8.64	8.47	8.38	8.63	9.36	8.50	10.60	10.48	8.87	8.40	8.92	
13	8.34	8.53	8.52	8.34	9.10	9.09	8.47	10.17	9.58	8.81	8.39	9.31	
14	8.55	8.50	8.33	8.30	8.91	8.84	8.71	9.76	9.36	8.78	8.38	8.89	
15	8.41	8.59	8.25	8.32	8.72	8.73	8.76	9.64	9.30	8.74	8.37	8.80	
16	8.28	8.49	8.21	8.49	8.62	8.66	8.56	9.43	9.14	8.70	8.35	8.55	
17	8.21	8.47	8.20	8.56	8.53	8.61	8.50	9.25	9.03	8.68	8.35	8.42	
18	8.16	8.38	8.20	8.59	8.47	8.68	8.60	9.16	8.97	8.65	8.34	8.37	
19	8.27	8.37	8.21	8.53	8.59	8.85	8.71	9.11	8.94	8.62	8.33	8.31	
20	8.21	8.35	8.23	8.42	11.07	8.78	8.93	8.95	8.88	8.60	8.31	8.29	
21	8.16	8.28	8.22	8.32	13.84	8.71	8.62	9.01	8.82	8.59	8.30	8.27	
22	8.13	8.30	8.21	8.27	13.98	8.91	8.53	10.97	8.78	8.57	8.29	8.25	
23	8.12	8.35	8.32	8.23	12.23	8.86	8.53	14.57	8.75	8.56	8.28	8.29	
24	8.11	8.31	8.42	8.21	10.18	9.56	8.46	13.52	8.71	8.55	8.28	8.38	
25	8.10	8.29	8.40	8.23	9.60	9.38	8.41	11.99	8.69	8.53	8.27	8.52	
26	8.13	8.32	8.50	8.27	9.49	9.32	8.52	10.78	8.68	8.51	8.27	9.39	
27	8.24	8.38	8.52	8.30	9.27	10.29	9.28	10.08	8.66	8.50	8.27	9.10	
28	8.52	8.30	8.70	8.27	9.76	9.44	9.33	9.65	8.61	8.49	8.26	8.79	
29	8.62	8.28	8.55	8.26	9.29	9.24	8.90	9.42	8.82	8.49		8.61	
30	8.35	8.35	8.56	8.46	8.95	9.27	8.92	9.26	9.13	8.80		9.25	
31		8.29		8.60	8.96		8.96		10.44	8.62		8.93	
Mean	8.21	8.33	8.31	8.42	9.39	9.05	8.81	10.92	9.41	9.37	8.37	8.52	
Max	8.62	8.64	8.70	9.23	13.98	10.29	10.22	15.57	12.45	16.21	8.52	9.39	16.21
Min	8.08	8.13	8.17	8.21	8.36	8.61	8.41	8.82	8.61	8.49	8.26	8.19	8.08

Annual Max Momentary Gage Height 16.42 m. (MSL.) , at 12.00 Hours , on Jan 1 , 2002

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed 7.28 m. (MSL.)

Left Bank Elevation 19.24 m. (MSL.) ,

Right Bank Elevation 18.88 m. (MSL.) , Drainage Are 946 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.22	4.75	4.45	7.15	10.96	15.24	41.08	13.54	19.83	369.50	8.80	4.75		
2	3.09	3.87	4.00	5.95	8.05	14.90	28.00	63.12	35.00	206.75	8.50	4.60		
3	2.83	3.48	3.74	5.20	6.70	13.37	21.20	40.60	53.08	83.20	8.20	4.75		
4	2.70	3.35	3.61	4.60	6.40	14.22	19.32	142.00	35.20	43.72	8.05	5.35		
5	2.70	3.09	4.30	4.75	7.60	19.66	14.73	209.35	25.60	31.40	7.60	5.05		
6	2.57	3.09	4.75	5.80	12.24	22.20	12.72	58.75	23.20	27.60	7.45	4.45		
7	2.57	3.09	4.45	11.12	21.40	18.98	11.44	29.80	24.60	24.40	7.30	4.15		
8	2.44	4.75	4.45	20.60	15.24	14.56	10.48	44.44	20.40	19.49	7.15	4.00		
9	2.44	6.55	4.30	13.54	10.80	12.72	11.12	222.00	24.40	17.79	7.00	3.87		
10	2.70	5.35	4.00	9.25	8.65	12.56	9.85	292.00	57.75	16.43	6.85	3.87		
11	2.70	6.70	4.90	7.45	7.60	21.40	8.95	123.00	103.75	15.24	7.15	4.75		
12	3.48	10.64	8.05	6.70	10.48	23.20	8.50	50.20	47.32	14.39	7.00	15.24		
13	6.10	8.95	8.80	6.10	18.30	18.13	8.05	39.91	27.60	13.37	6.85	22.20		
14	9.25	8.50	5.95	5.50	15.07	13.88	11.76	31.20	23.20	12.88	6.70	14.73		
15	7.15	9.85	4.75	5.80	11.92	12.08	12.56	28.80	22.00	12.24	6.55	13.20		
16	5.20	8.35	4.15	8.35	10.32	10.96	9.40	24.60	18.98	11.60	6.25	9.25		
17	4.15	8.05	4.00	9.40	8.95	10.16	8.50	21.00	17.11	11.28	6.25	7.30		
18	3.48	6.70	4.00	9.85	8.05	11.28	10.00	19.32	16.09	10.80	6.10	6.55		
19	5.05	6.55	4.15	8.95	9.85	14.05	11.76	18.47	15.58	10.32	5.95	5.65		
20	4.15	6.25	4.45	7.30	61.82	12.88	15.41	15.75	14.56	10.00	5.65	5.35		
21	3.48	5.20	4.30	5.80	164.36	11.76	10.32	16.77	13.54	9.85	5.50	5.05		
22	3.09	5.50	4.15	5.05	171.92	15.07	8.95	59.25	12.88	9.55	5.35	4.75		
23	2.96	6.25	5.80	4.45	96.05	14.22	8.95	208.05	12.40	9.40	5.20	5.35		
24	2.83	5.65	7.30	4.15	40.14	27.20	7.90	148.00	11.76	9.25	5.20	6.70		
25	2.70	5.35	7.00	4.45	28.00	23.60	7.15	87.70	11.44	8.95	5.05	8.80		
26	3.09	5.80	8.50	5.05	25.80	22.40	8.80	54.52	11.28	8.65	5.05	23.80		
27	4.60	6.70	8.80	5.50	21.40	42.76	21.60	37.84	10.96	8.50	5.05	18.30		
28	8.80	5.50	11.60	5.05	31.20	24.80	22.60	29.00	10.16	8.35	4.90	13.04		
29	10.32	5.20	9.25	4.90	21.80	20.80	14.90	24.40	13.54	8.35		10.16		
30	6.25	6.25	9.40	7.90	15.75	21.40	15.24	21.20	18.81	13.20		21.00		
31		5.35		10.00	15.92		15.92		46.36	10.32		15.41		
Total	126.09	184.66	171.35	225.66	902.74	530.44	427.16	2174.58	798.38	1066.77	182.65	281.42	7071.90	CMSDAY
Mean	4.20	5.96	5.71	7.28	29.12	17.68	13.78	72.49	25.75	34.41	6.52	9.08	19.38	CMS
Max	10.32	10.64	11.60	20.60	171.92	42.76	41.08	292.00	103.75	369.50	8.80	23.80	369.50	CMS
Min	2.44	3.09	3.61	4.15	6.40	10.16	7.15	13.54	10.16	8.35	4.90	3.87	2.44	CMS
Runoff	10.89	15.95	14.80	19.50	78.00	45.83	36.91	187.88	68.98	92.17	15.78	24.31	611.01	MCM

Momentary Peak 401.30 CMS. at 16.42 m. (MSL.) at 12.00 Hours , on Jan 1 , 2002

Runoff Yield 20.48 Liters/Second/Square KM. Momentary Peak Yield 424.210 Liters/Second/Square KM.

WATER YEAR : 2002

SOUTHERN PENINSULA EAST COAST

Khlong Ban Tan at Ban Wang Kong , Nakhon Si Thammarat (X.70)

Lat 08 - 25 - 34 N Long 99 - 51 - 47 E

Location : on left bank upstream side of the bridge.

Ban Wang Kong **Amphoe** Mueang **Changwat** Nakhon Si Thammar

Drainge Area	36 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 about 10 meters from the top staff gage. **Elevation** +7.247 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 mean of 5 readings
Period of Available Gage Records	1967 to date
Rating Operation	
Period of Rating	1967 - 1971 , 1980 , 1989 to date
Rated by Flot	-
Rated by Current Meter	1967 - 1971 , 1980 , 1989 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 22 discharge measurements made in 2002.

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

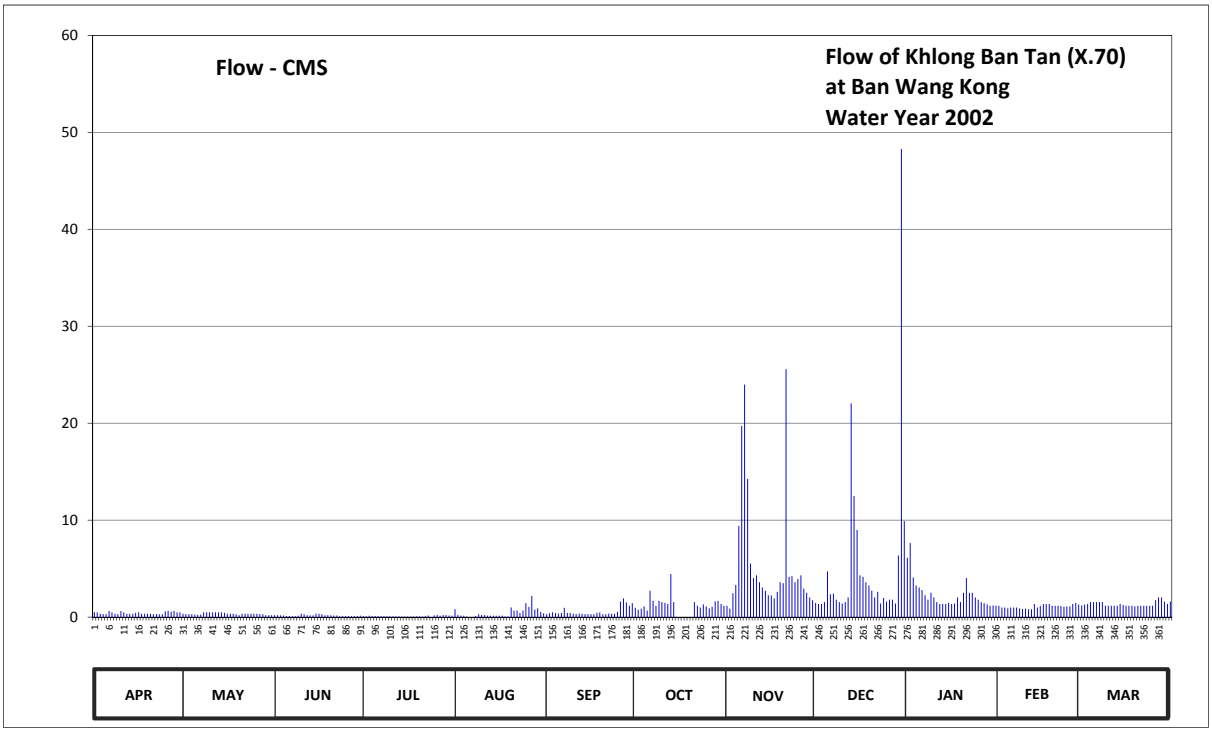
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.70	0.65	0.60	0.56	1.40	1.21	1.44	1.50	1.58	2.35	1.50	1.51	
2	0.70	0.64	0.60	0.55	1.15	1.24	1.38	1.42	1.55	2.52	1.45	1.53	
3	0.65	0.64	0.59	0.57	1.10	1.28	1.42	1.79	1.55	2.07	1.45	1.55	
4	0.64	0.63	0.58	0.56	1.10	1.25	1.48	1.95	1.60	1.94	1.43	1.60	
5	0.64	0.62	0.56	0.56	1.05	1.23	1.35	2.70	2.16	1.90	1.45	1.60	
6	0.75	0.61	0.56	0.56	1.00	1.25	1.84	3.52	1.77	1.85	1.45	1.60	
7	0.70	0.62	0.55	0.55	1.00	1.44	1.63	3.77	1.78	1.75	1.45	1.60	
8	0.65	0.70	0.55	0.55	1.08	1.25	1.50	3.14	1.65	1.65	1.43	1.60	
9	0.64	0.70	0.57	0.55	1.20	1.25	1.63	2.27	1.60	1.80	1.41	1.50	
10	0.74	0.70	0.65	0.55	1.15	1.22	1.60	2.06	1.56	1.70	1.42	1.50	
11	0.70	0.70	0.63	0.54	1.15	1.21	1.58	2.10	1.60	1.60	1.40	1.50	
12	0.65	0.70	0.60	0.54	1.10	1.23	1.55	2.00	1.70	1.55	1.40	1.50	
13	0.65	0.70	0.59	0.54	1.10	1.22	2.12	1.90	3.66	1.55	1.55	1.50	
14	0.65	0.70	0.59	0.53	1.10	1.21	1.60	1.84	3.00	1.55	1.45	1.55	
15	0.68	0.68	0.65	0.53	1.10	1.20	0.63	1.75	2.66	1.58	1.50	1.52	
16	0.70	0.65	0.65	0.53	1.10	1.20	0.55	1.74	2.10	1.55	1.55	1.50	
17	0.65	0.65	0.63	0.53	1.10	1.20	0.51	1.68	2.08	1.56	1.55	1.50	
18	0.65	0.65	0.60	0.53	1.05	1.26	0.60	1.82	2.00	1.70	1.55	1.50	
19	0.65	0.63	0.60	0.54	1.05	1.27	0.50	2.00	1.94	1.60	1.50	1.48	
20	0.65	0.60	0.59	0.54	1.45	1.20	0.48	1.98	1.84	1.80	1.50	1.50	
21	0.64	0.65	0.58	0.53	1.35	1.20	1.60	3.86	1.70	2.06	1.50	1.50	
22	0.64	0.65	0.58	0.55	1.35	1.23	1.50	2.08	1.82	1.80	1.49	1.50	
23	0.63	0.65	0.55	0.58	1.25	1.22	1.45	2.09	1.56	1.80	1.47	1.50	
24	0.63	0.65	0.55	1.00	1.36	1.22	1.54	2.00	1.69	1.70	1.48	1.50	
25	0.73	0.65	0.55	1.12	1.57	1.30	1.48	2.05	1.61	1.65	1.48	1.50	
26	0.75	0.65	0.55	1.15	1.47	1.61	1.43	2.10	1.65	1.60	1.55	1.64	
27	0.72	0.64	0.55	1.10	1.73	1.68	1.47	1.88	1.65	1.57	1.58	1.70	
28	0.75	0.63	0.55	1.15	1.39	1.59	1.62	1.80	1.56	1.54	1.53	1.70	
29	0.70	0.60	0.56	1.15	1.43	1.50	1.63	1.70	2.38	1.50		1.61	
30	0.70	0.60	0.57	1.11	1.30	1.57	1.55	1.64	4.87	1.51		1.55	
31		0.60		1.10	1.24		1.50		2.75	1.50		1.61	
Mean	0.68	0.65	0.58	0.69	1.22	1.30	1.36	2.14	2.02	1.74	1.48	1.55	
Max	0.75	0.70	0.65	1.15	1.73	1.68	2.12	3.86	4.87	2.52	1.58	1.70	4.87
Min	0.63	0.60	0.55	0.53	1.00	1.20	0.48	1.42	1.55	1.50	1.40	1.48	0.48

Annual Max Momentary Gage Height 5.60 m. (A.D.) , at 09.00 Hours , on Dec 30 , 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed 0.43 m. (A.D.)

Left Bank Elevation 7.39 m. (A.D.) ,

Right Bank Elevation 7.40 m. (A.D.) , Drainage Are 36 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.50	0.35	0.20	0.12	0.80	0.32	0.95	1.17	1.47	6.12	1.17	1.21		
2	0.50	0.32	0.20	0.10	0.22	0.40	0.75	0.88	1.36	7.64	0.99	1.29		
3	0.35	0.32	0.18	0.14	0.15	0.50	0.88	2.45	1.36	4.09	0.99	1.36		
4	0.32	0.29	0.16	0.12	0.15	0.42	1.10	3.32	1.55	3.27	0.91	1.55		
5	0.32	0.26	0.12	0.12	0.07	0.37	0.68	9.40	4.72	3.05	0.99	1.55		
6	0.65	0.23	0.12	0.12	0.00	0.42	2.72	19.72	2.36	2.78	0.99	1.55		
7	0.50	0.26	0.10	0.10	0.00	0.95	1.69	23.98	2.41	2.26	0.99	1.55		
8	0.35	0.50	0.10	0.10	0.12	0.42	1.17	14.25	1.79	1.79	0.91	1.55		
9	0.32	0.50	0.14	0.10	0.30	0.42	1.69	5.52	1.55	2.50	0.84	1.17		
10	0.62	0.50	0.35	0.10	0.22	0.35	1.55	4.02	1.40	2.03	0.88	1.17		
11	0.50	0.50	0.29	0.08	0.22	0.32	1.47	4.30	1.55	1.55	0.80	1.17		
12	0.35	0.50	0.20	0.08	0.15	0.37	1.36	3.60	2.03	1.36	0.80	1.17		
13	0.35	0.50	0.18	0.08	0.15	0.35	4.44	3.05	22.05	1.36	1.36	1.17		
14	0.35	0.50	0.18	0.06	0.15	0.32	1.55	2.72	12.50	1.36	0.99	1.36		
15	0.44	0.44	0.35	0.06	0.15	0.30	0.00	2.26	9.00	1.47	1.17	1.25		
16	0.50	0.35	0.35	0.06	0.15	0.30	0.00	2.22	4.30	1.36	1.36	1.17		
17	0.35	0.35	0.29	0.06	0.15	0.30	0.00	1.93	4.16	1.40	1.36	1.17		
18	0.35	0.35	0.20	0.06	0.07	0.45	0.00	2.61	3.60	2.03	1.36	1.17		
19	0.35	0.29	0.20	0.08	0.07	0.47	0.00	3.60	3.27	1.55	1.17	1.10		
20	0.35	0.20	0.18	0.08	0.99	0.30	0.00	3.49	2.72	2.50	1.17	1.17		
21	0.32	0.35	0.16	0.06	0.68	0.30	1.55	25.58	2.03	4.02	1.17	1.17		
22	0.32	0.35	0.16	0.10	0.68	0.37	1.17	4.16	2.61	2.50	1.14	1.17		
23	0.29	0.35	0.10	0.16	0.42	0.35	0.99	4.23	1.40	2.50	1.06	1.17		
24	0.29	0.35	0.10	0.00	0.70	0.35	1.32	3.60	1.98	2.03	1.10	1.17		
25	0.59	0.35	0.10	0.18	1.44	0.55	1.10	3.95	1.60	1.79	1.10	1.17		
26	0.65	0.35	0.10	0.22	1.06	1.60	0.91	4.30	1.79	1.55	1.36	1.74		
27	0.56	0.32	0.10	0.15	2.17	1.93	1.06	2.94	1.79	1.44	1.47	2.03		
28	0.65	0.29	0.10	0.22	0.78	1.51	1.64	2.50	1.40	1.32	1.29	2.03		
29	0.50	0.20	0.12	0.22	0.91	1.17	1.69	2.03	6.35	1.17		1.60		
30	0.50	0.20	0.14	0.16	0.55	1.44	1.36	1.74	48.29	1.21		1.36		
31		0.20		0.15	0.40		1.17		9.90	1.17		1.60		
Total	12.99	10.82	5.27	3.44	14.07	17.62	35.96	169.52	164.29	72.17	30.89	42.06	579.10	CMSDAY
Mean	0.43	0.35	0.18	0.11	0.45	0.59	1.16	5.65	5.30	2.33	1.10	1.36	1.59	CMS
Max	0.65	0.50	0.35	0.22	2.17	1.93	4.44	25.58	48.29	7.64	1.47	2.03	48.29	CMS
Min	0.29	0.20	0.10	0.00	0.00	0.30	0.00	0.88	1.36	1.17	0.80	1.10	0.00	CMS
Runoff	1.12	0.93	0.46	0.30	1.22	1.52	3.11	14.65	14.19	6.24	2.67	3.63	50.03	MCM

Momentary Peak 73.00 CMS. at 5.60 m. (A.D.) at 09.00 Hours , on Dec 30 , 2002

Runoff Yield 44.07 Liters/Second/Square KM. Momentary Peak Yield 2027.780 Liters/Second/Square KM.

WATER YEAR : 2002

SOUTHERN PENINSULA EAST COAST

Khlong Chawang at Ban Na San, Surat Thani (X.81A)

Lat 08 - 48 - 23 N Long 99 - 22 - 18 E

Location : on right bank at Wat Ban Na San.

	Ban Na San	**Amphoe** Ban Na San	**Changwat** Surat Thani
Drainge Area	220 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 at Wat Ban Na San's wall.		**Elevation** +5.539 m. (A.D.)
Gage Reading Frequency	13-time daily readings at 06.00 - 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 13 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 by some scouring.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 65 discharge measurements made in 2002.		

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

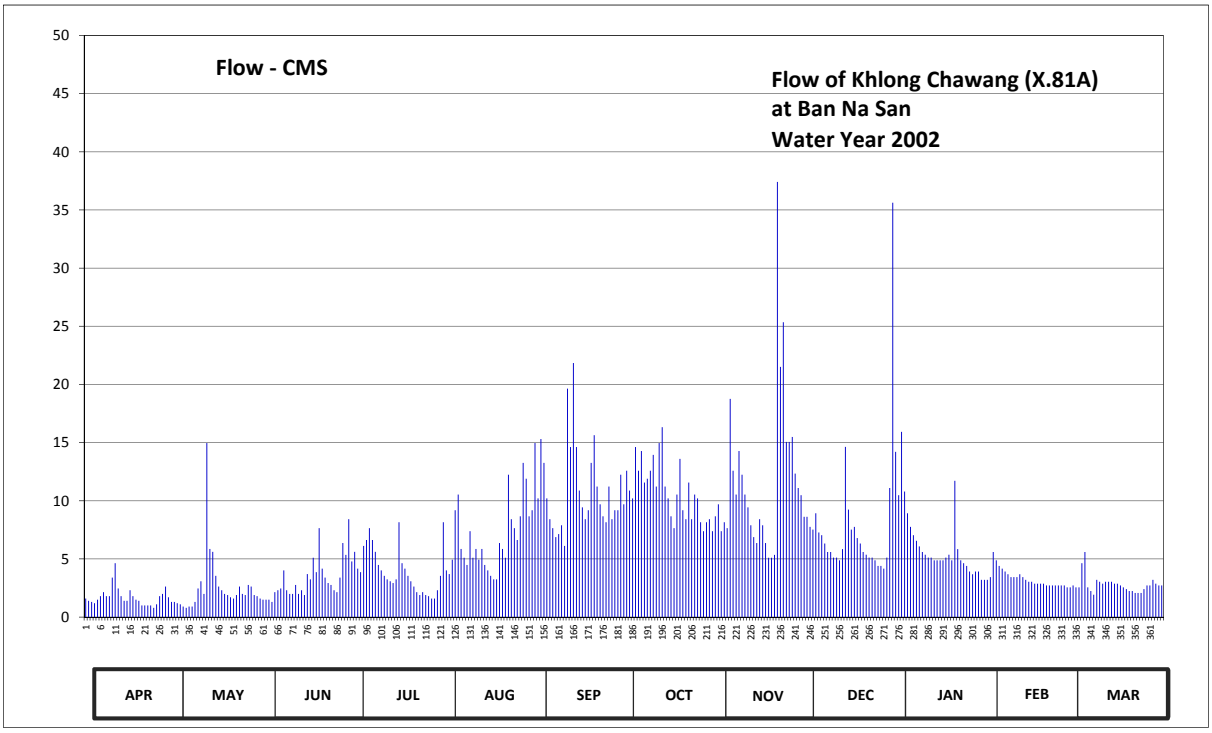
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.56	0.53	0.55	0.82	0.73	1.00	1.07	0.98	0.82	0.88	0.61	0.57	
2	0.54	0.52	0.55	0.74	0.71	1.15	1.02	0.89	0.79	1.04	0.70	0.56	
3	0.53	0.51	0.53	0.72	0.79	1.09	1.00	0.92	0.78	0.89	0.67	0.56	
4	0.52	0.49	0.61	0.84	0.96	1.00	1.13	0.90	0.83	0.83	0.65	0.66	
5	0.55	0.48	0.62	0.86	1.01	0.93	1.07	1.24	0.77	0.79	0.64	0.70	
6	0.58	0.49	0.63	0.90	0.83	0.90	1.12	1.07	0.76	0.76	0.63	0.56	
7	0.61	0.49	0.73	0.86	0.80	0.87	1.04	1.01	0.73	0.74	0.62	0.54	
8	0.58	0.53	0.62	0.82	0.76	0.88	1.05	1.12	0.70	0.72	0.61	0.52	
9	0.58	0.63	0.60	0.76	0.89	0.91	1.07	1.06	0.70	0.70	0.61	0.60	
10	0.69	0.67	0.60	0.73	0.80	0.84	1.11	1.01	0.68	0.69	0.61	0.59	
11	0.77	0.60	0.65	0.70	0.83	1.26	1.03	0.97	0.68	0.68	0.62	0.58	
12	0.63	1.14	0.60	0.68	0.79	1.13	1.14	0.91	0.67	0.68	0.61	0.59	
13	0.58	0.83	0.62	0.67	0.83	1.31	1.18	0.87	0.71	0.67	0.60	0.59	
14	0.54	0.82	0.59	0.66	0.76	1.13	1.03	0.85	1.01	0.67	0.59	0.59	
15	0.54	0.70	0.71	0.68	0.73	1.02	1.00	0.93	0.84	0.67	0.59	0.58	
16	0.62	0.64	0.68	0.92	0.70	0.97	0.94	0.91	0.78	0.67	0.58	0.58	
17	0.58	0.62	0.80	0.77	0.68	0.93	0.90	0.85	0.79	0.68	0.58	0.57	
18	0.55	0.60	0.72	0.74	0.68	0.96	1.01	0.80	0.75	0.69	0.58	0.56	
19	0.54	0.59	0.90	0.70	0.85	1.09	1.10	0.80	0.73	0.67	0.58	0.55	
20	0.50	0.57	0.74	0.67	0.83	1.16	0.96	0.81	0.70	0.92	0.57	0.54	
21	0.50	0.56	0.69	0.64	0.80	1.03	0.93	1.62	0.69	0.71	0.57	0.54	
22	0.50	0.59	0.66	0.61	1.06	0.98	1.04	1.17	0.68	0.67	0.57	0.53	
23	0.50	0.64	0.65	0.59	0.93	0.94	0.93	1.25	0.68	0.66	0.57	0.53	
24	0.48	0.60	0.62	0.61	0.90	0.92	1.01	1.02	0.67	0.65	0.57	0.53	
25	0.51	0.59	0.61	0.59	0.86	1.03	1.00	1.02	0.65	0.63	0.57	0.55	
26	0.58	0.65	0.69	0.58	0.94	0.93	0.92	1.03	0.65	0.62	0.57	0.57	
27	0.60	0.64	0.85	0.56	1.09	0.96	0.89	0.94	0.64	0.63	0.56	0.57	
28	0.64	0.59	0.81	0.56	1.05	0.96	0.92	0.90	0.68	0.63	0.56	0.60	
29	0.57	0.58	0.93	0.62	0.94	1.06	0.93	0.88	0.90	0.60		0.58	
30	0.53	0.56	0.78	0.70	0.96	0.98	0.89	0.82	1.44	0.60		0.57	
31		0.55		0.92	1.14		0.94		1.00	0.60		0.57	
Mean	0.57	0.61	0.68	0.72	0.86	1.01	1.01	0.98	0.77	0.71	0.60	0.57	
Max	0.77	1.14	0.93	0.92	1.14	1.31	1.18	1.62	1.44	1.04	0.70	0.70	1.62
Min	0.48	0.48	0.53	0.56	0.68	0.84	0.89	0.80	0.64	0.60	0.56	0.52	0.48

Annual Max Momentary Gage Height 1.73 m. (A.D.) , at 15.00 Hours , on Nov 21 , 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed 0.33 m. (A.D.)

Left Bank Elevation 7.86 m. (A.D.) ,

Right Bank Elevation 7.85 m. (A.D.) , Drainage Are 220 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.60	1.30	1.50	5.61	4.01	10.20	12.58	9.69	8.62	10.48	3.44	2.72		
2	1.40	1.20	1.50	4.17	3.70	15.30	10.88	7.39	7.76	15.92	5.60	2.56		
3	1.30	1.10	1.30	3.86	4.94	13.26	10.20	8.16	7.52	10.79	4.88	2.56		
4	1.20	0.90	2.15	6.12	9.18	10.20	14.62	7.65	8.93	8.93	4.40	4.64		
5	1.50	0.80	2.31	6.63	10.54	8.41	12.58	18.76	7.28	7.76	4.16	5.60		
6	1.80	0.90	2.46	7.65	5.86	7.65	14.28	12.58	7.04	7.04	3.92	2.56		
7	2.15	0.90	4.01	6.63	5.10	6.88	11.56	10.54	6.32	6.56	3.68	2.24		
8	1.80	1.30	2.31	5.61	4.48	7.14	11.90	14.28	5.60	6.08	3.44	1.92		
9	1.80	2.46	2.00	4.48	7.39	7.90	12.58	12.24	5.60	5.60	3.44	3.20		
10	3.39	3.08	2.00	4.01	5.10	6.12	13.94	10.54	5.12	5.36	3.44	3.04		
11	4.63	2.00	2.77	3.55	5.86	19.64	11.22	9.43	5.12	5.12	3.68	2.88		
12	2.46	14.96	2.00	3.24	4.94	14.62	14.96	7.90	4.88	5.12	3.44	3.04		
13	1.80	5.86	2.31	3.08	5.86	21.84	16.32	6.88	5.84	4.88	3.20	3.04		
14	1.40	5.61	1.90	2.93	4.48	14.62	11.22	6.37	14.63	4.88	3.04	3.04		
15	1.40	3.55	3.70	3.24	4.01	10.88	10.20	8.41	9.24	4.88	3.04	2.88		
16	2.31	2.62	3.24	8.16	3.55	9.43	8.67	7.90	7.52	4.88	2.88	2.88		
17	1.80	2.31	5.10	4.63	3.24	8.41	7.65	6.37	7.76	5.12	2.88	2.72		
18	1.50	2.00	3.86	4.17	3.24	9.18	10.54	5.10	6.80	5.36	2.88	2.56		
19	1.40	1.90	7.65	3.55	6.37	13.26	13.60	5.10	6.32	4.88	2.88	2.40		
20	1.00	1.70	4.17	3.08	5.86	15.64	9.18	5.35	5.60	11.72	2.72	2.24		
21	1.00	1.60	3.39	2.62	5.10	11.22	8.41	37.41	5.36	5.84	2.72	2.24		
22	1.00	1.90	2.93	2.15	12.24	9.69	11.56	21.51	5.12	4.88	2.72	2.08		
23	1.00	2.62	2.77	1.90	8.41	8.67	8.41	25.35	5.12	4.64	2.72	2.08		
24	0.80	2.00	2.31	2.15	7.65	8.16	10.54	15.06	4.88	4.40	2.72	2.08		
25	1.10	1.90	2.15	1.90	6.63	11.22	10.20	15.06	4.40	3.92	2.72	2.40		
26	1.80	2.77	3.39	1.80	8.67	8.41	8.16	15.49	4.40	3.68	2.72	2.72		
27	2.00	2.62	6.37	1.60	13.26	9.18	7.39	12.34	4.16	3.92	2.56	2.72		
28	2.62	1.90	5.35	1.60	11.90	9.18	8.16	11.10	5.12	3.92	2.56	3.20		
29	1.70	1.80	8.41	2.31	8.67	12.24	8.41	10.48	11.10	3.20		2.88		
30	1.30	1.60	4.79	3.55	9.18	9.69	7.39	8.62	35.62	3.20		2.72		
31		1.50		8.16	14.96		8.67		14.20	3.20		2.72		
Total	51.96	78.66	100.10	124.14	214.38	328.24	335.98	353.06	242.98	186.16	92.48	86.56	2194.70	CMSDAY
Mean	1.73	2.54	3.34	4.00	6.92	10.94	10.84	11.77	7.84	6.01	3.30	2.79	6.01	CMS
Max	4.63	14.96	8.41	8.16	14.96	21.84	16.32	37.41	35.62	15.92	5.60	5.60	37.41	CMS
Min	0.80	0.80	1.30	1.60	3.24	6.12	7.39	5.10	4.16	3.20	2.56	1.92	0.80	CMS
Runoff	4.49	6.80	8.65	10.73	18.52	28.36	29.03	30.50	20.99	16.08	7.99	7.48	189.62	MCM

Momentary Peak 44.62 CMS. at 1.73 m. (A.D.) at 15.00 Hours , on Nov 21 , 2002

Runoff Yield 27.33 Liters/Second/Square KM. Momentary Peak Yield 202.820 Liters/Second/Square KM.

WATER YEAR : 2002

SOUTHERN PENINSULA EAST COAST

Khlong Takhian at Ban Nai Thon, Surat Thani (X.103)

Lat 09 - 25 - 31 N Long 99 - 09 - 42 E

Location : on left bank Ban Rim Khlong.

	Ban Nai Thon	**Amphoe** Chaiya	**Changwat** Surat Thani
Drainge Area	179 sq.km.		
Type of Gage	Staff gage.		
Zero Gage at Bottom	+7.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank about 35 meters from the top staff gage.		**Elevation** +14.745 m. (MSL.)
Gage Reading Frequency	13-time daily readings at 06.00 - 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 13 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. Stage-discharge relation defined by 44 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

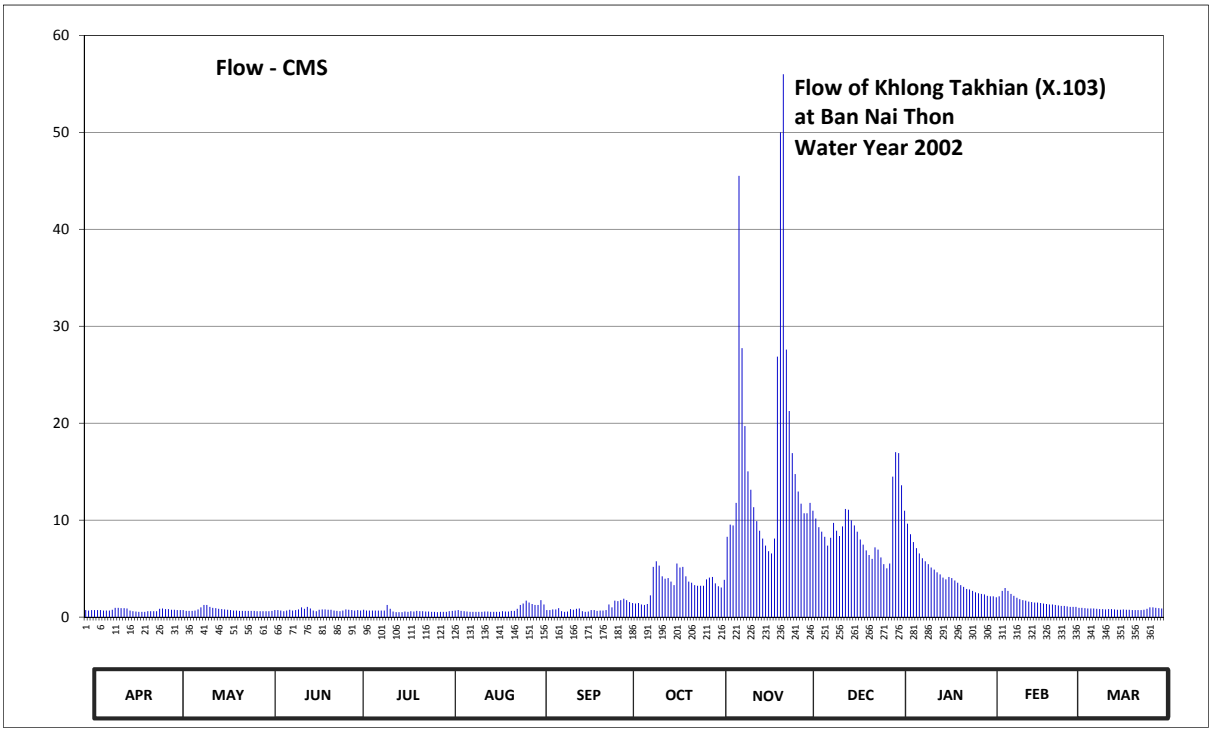
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	7.72	7.73	7.69	7.71	7.67	7.85	7.95	8.23	9.19	9.88	8.03	7.81	
2	7.71	7.72	7.69	7.72	7.69	7.95	7.91	8.21	9.31	9.51	8.03	7.81	
3	7.72	7.72	7.70	7.71	7.70	7.86	7.89	8.34	9.22	9.22	8.01	7.79	
4	7.72	7.72	7.72	7.73	7.71	7.72	7.88	8.92	9.13	9.07	8.03	7.79	
5	7.72	7.70	7.72	7.71	7.72	7.72	7.89	9.06	9.03	8.95	8.14	7.78	
6	7.72	7.70	7.71	7.71	7.70	7.74	7.86	9.05	8.98	8.86	8.20	7.77	
7	7.71	7.70	7.69	7.71	7.69	7.74	7.85	9.31	8.92	8.79	8.14	7.77	
8	7.71	7.71	7.71	7.71	7.68	7.78	7.87	11.66	8.82	8.72	8.08	7.77	
9	7.71	7.74	7.73	7.71	7.67	7.69	8.05	10.85	8.91	8.66	8.04	7.76	
10	7.73	7.80	7.71	7.71	7.67	7.67	8.54	10.17	9.08	8.62	8.00	7.75	
11	7.79	7.85	7.72	7.71	7.67	7.68	8.62	9.67	8.99	8.58	7.97	7.75	
12	7.79	7.85	7.74	7.85	7.67	7.75	8.56	9.46	8.93	8.53	7.95	7.74	
13	7.78	7.81	7.80	7.76	7.67	7.73	8.40	9.26	9.04	8.50	7.94	7.75	
14	7.78	7.79	7.76	7.68	7.68	7.76	8.36	9.10	9.24	8.46	7.92	7.75	
15	7.77	7.78	7.81	7.66	7.68	7.77	8.37	8.99	9.23	8.43	7.91	7.74	
16	7.71	7.76	7.77	7.66	7.67	7.69	8.31	8.90	9.11	8.38	7.90	7.73	
17	7.69	7.75	7.71	7.66	7.67	7.67	8.25	8.82	9.05	8.35	7.90	7.73	
18	7.68	7.74	7.69	7.68	7.67	7.68	8.59	8.75	8.98	8.39	7.89	7.74	
19	7.67	7.73	7.73	7.67	7.67	7.72	8.53	8.72	8.89	8.37	7.88	7.73	
20	7.67	7.72	7.74	7.69	7.69	7.72	8.54	8.90	8.83	8.33	7.87	7.73	
21	7.67	7.71	7.74	7.68	7.68	7.70	8.40	10.79	8.76	8.29	7.86	7.72	
22	7.69	7.71	7.73	7.70	7.68	7.71	8.31	11.80	8.70	8.25	7.86	7.72	
23	7.69	7.70	7.73	7.69	7.70	7.71	8.29	11.95	8.65	8.22	7.85	7.72	
24	7.69	7.70	7.71	7.69	7.70	7.72	8.25	10.84	8.80	8.18	7.84	7.72	
25	7.69	7.70	7.70	7.68	7.76	7.86	8.24	10.32	8.77	8.17	7.83	7.73	
26	7.76	7.70	7.69	7.68	7.85	7.80	8.24	9.88	8.67	8.14	7.83	7.76	
27	7.77	7.70	7.71	7.67	7.88	7.94	8.24	9.64	8.58	8.11	7.82	7.80	
28	7.75	7.70	7.74	7.67	7.94	7.93	8.35	9.44	8.52	8.09	7.81	7.80	
29	7.75	7.69	7.73	7.66	7.90	7.95	8.38	9.30	8.59	8.08		7.79	
30	7.73	7.69	7.72	7.67	7.87	7.98	8.39	9.19	9.61	8.07		7.78	
31		7.69		7.67	7.85		8.28		9.89	8.04		7.77	
Mean	7.72	7.73	7.72	7.70	7.72	7.77	8.24	9.58	8.98	8.52	7.95	7.76	
Max	7.79	7.85	7.81	7.85	7.94	7.98	8.62	11.95	9.89	9.88	8.20	7.81	11.95
Min	7.67	7.69	7.69	7.66	7.67	7.67	7.85	8.21	8.52	8.04	7.81	7.72	7.66

Annual Max Momentary Gage Height 12.11 m. (MSL.) , at 07.00 Hours , on Nov 23 , 2002

Zero Gage at Bottom Elevation 7.00 m. (MSL.) , River Bed 6.75 m. (MSL.)

Left Bank Elevation 16.42 m. (MSL.) ,

Right Bank Elevation 16.40 m. (MSL.) , Drainage Are 179 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.72	0.75	0.61	0.68	0.54	1.25	1.75	3.18	10.71	16.92	2.15	1.05		
2	0.68	0.72	0.61	0.72	0.61	1.75	1.55	3.06	11.79	13.59	2.15	1.05		
3	0.72	0.72	0.65	0.68	0.65	1.30	1.45	3.84	10.98	10.98	2.05	0.96		
4	0.72	0.72	0.72	0.75	0.68	0.72	1.40	8.28	10.17	9.63	2.15	0.96		
5	0.72	0.65	0.72	0.68	0.72	0.72	1.45	9.54	9.27	8.55	2.70	0.93		
6	0.72	0.65	0.68	0.68	0.65	0.79	1.30	9.45	8.82	7.74	3.00	0.89		
7	0.68	0.65	0.61	0.68	0.61	0.79	1.25	11.79	8.28	7.12	2.70	0.89		
8	0.68	0.68	0.68	0.68	0.58	0.93	1.35	45.52	7.38	6.56	2.40	0.89		
9	0.68	0.79	0.75	0.68	0.54	0.61	2.25	27.75	8.19	6.08	2.20	0.86		
10	0.75	1.00	0.68	0.68	0.54	0.54	5.18	19.70	9.72	5.76	2.00	0.82		
11	0.96	1.25	0.72	0.68	0.54	0.58	5.76	15.03	8.91	5.46	1.85	0.82		
12	0.96	1.25	0.79	1.25	0.54	0.82	5.32	13.14	8.37	5.11	1.75	0.79		
13	0.93	1.05	1.00	0.86	0.54	0.75	4.20	11.34	9.36	4.90	1.70	0.82		
14	0.93	0.96	0.86	0.58	0.58	0.86	3.96	9.90	11.16	4.62	1.60	0.82		
15	0.89	0.93	1.05	0.51	0.58	0.89	4.02	8.91	11.07	4.41	1.55	0.79		
16	0.68	0.86	0.89	0.51	0.54	0.61	3.66	8.10	9.99	4.08	1.50	0.75		
17	0.61	0.82	0.68	0.51	0.54	0.54	3.30	7.38	9.45	3.90	1.50	0.75		
18	0.58	0.79	0.61	0.58	0.54	0.58	5.53	6.80	8.82	4.14	1.45	0.79		
19	0.54	0.75	0.75	0.54	0.54	0.72	5.11	6.56	8.01	4.02	1.40	0.75		
20	0.54	0.72	0.79	0.61	0.61	0.72	5.18	8.10	7.47	3.78	1.35	0.75		
21	0.54	0.68	0.79	0.58	0.58	0.65	4.20	26.87	6.88	3.54	1.30	0.72		
22	0.61	0.68	0.75	0.65	0.58	0.68	3.66	50.00	6.40	3.30	1.30	0.72		
23	0.61	0.65	0.75	0.61	0.65	0.68	3.54	56.00	6.00	3.12	1.25	0.72		
24	0.61	0.65	0.68	0.61	0.65	0.72	3.30	27.60	7.20	2.90	1.20	0.72		
25	0.61	0.65	0.65	0.58	0.86	1.30	3.24	21.26	6.96	2.85	1.15	0.75		
26	0.86	0.65	0.61	0.58	1.25	1.00	3.24	16.92	6.16	2.70	1.15	0.86		
27	0.89	0.65	0.68	0.54	1.40	1.70	3.24	14.76	5.46	2.55	1.10	1.00		
28	0.82	0.65	0.79	0.54	1.70	1.65	3.90	12.96	5.04	2.45	1.05	1.00		
29	0.82	0.61	0.75	0.51	1.50	1.75	4.08	11.70	5.53	2.40		0.96		
30	0.75	0.61	0.72	0.54	1.35	1.90	4.14	10.71	14.49	2.35		0.93		
31		0.61		0.54	1.25		3.48		17.01	2.20		0.89		
Total	21.81	23.80	22.02	19.82	23.44	28.50	104.99	486.15	275.05	167.71	48.65	26.40	1248.34	CMSDAY
Mean	0.73	0.77	0.73	0.64	0.76	0.95	3.39	16.20	8.87	5.41	1.74	0.85	3.42	CMS
Max	0.96	1.25	1.05	1.25	1.70	1.90	5.76	56.00	17.01	16.92	3.00	1.05	56.00	CMS
Min	0.54	0.61	0.61	0.51	0.54	0.54	1.25	3.06	5.04	2.20	1.05	0.72	0.51	CMS
Runoff	1.88	2.06	1.90	1.71	2.03	2.46	9.07	42.00	23.76	14.49	4.20	2.28	107.86	MCM

Momentary Peak 63.50 CMS. at 12.11 m. (MSL.) at 07.00 Hours , on Nov 23 , 2002

Runoff Yield 19.11 Liters/Second/Square KM. Momentary Peak Yield 354.750 Liters/Second/Square KM.

WATER YEAR : 2002

SOUTHERN PENINSULA EAST COAST

Khlong Tha Krachai at Ban Tha Kham, Surat Thani (X.104)

Lat 09 - 34 - 39 N Long 99 - 08 - 14 E

Location : on left bank at Ban Samo Thong.

Ban Tha Kham **Amphoe** Tha Chana **Changwat** Surat Thani

Drainge Area	366 sq.km.
Type of Gage	Staff gage.
Zero Gage at Bottom	+6.000 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank about 10 meters downstream from the top staff gage. **Elevation** +15.446 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 mean of 5 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. Stage-discharge relation defined by 43 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

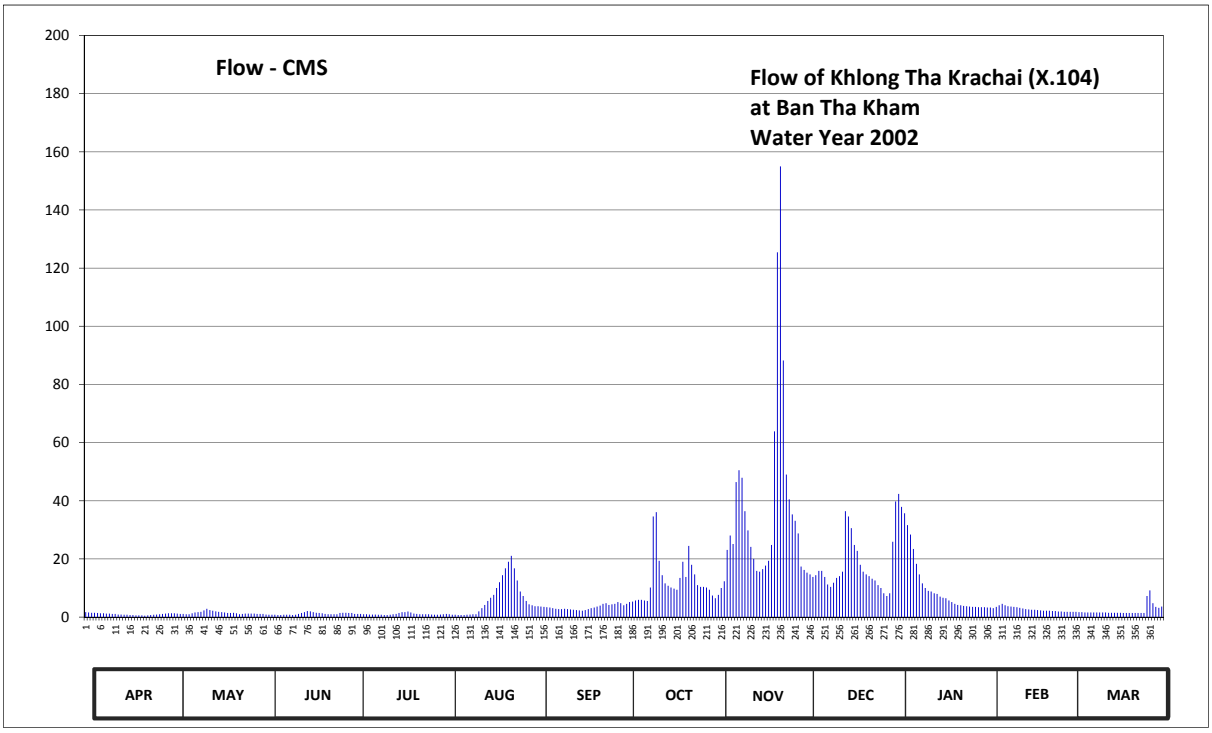
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	6.57	6.53	6.49	6.51	6.51	6.76	6.82	6.98	7.31	8.08	6.72	6.58	
2	6.56	6.52	6.48	6.51	6.50	6.75	6.85	7.10	7.29	7.96	6.70	6.58	
3	6.55	6.51	6.48	6.51	6.48	6.74	6.86	7.21	7.26	7.90	6.74	6.57	
4	6.55	6.51	6.48	6.50	6.48	6.73	6.88	7.55	7.28	7.79	6.79	6.57	
5	6.54	6.50	6.47	6.50	6.47	6.72	6.89	7.69	7.33	7.70	6.82	6.56	
6	6.53	6.50	6.47	6.49	6.47	6.70	6.89	7.61	7.33	7.56	6.79	6.56	
7	6.53	6.53	6.48	6.49	6.47	6.68	6.88	8.19	7.26	7.41	6.76	6.56	
8	6.52	6.56	6.48	6.49	6.48	6.67	6.87	8.30	7.16	7.29	6.75	6.56	
9	6.52	6.57	6.48	6.48	6.49	6.67	7.11	8.23	7.12	7.18	6.74	6.56	
10	6.51	6.58	6.47	6.48	6.50	6.68	7.87	7.92	7.19	7.10	6.73	6.56	
11	6.51	6.63	6.48	6.47	6.50	6.67	7.91	7.74	7.25	7.05	6.71	6.56	
12	6.49	6.68	6.51	6.47	6.60	6.66	7.44	7.58	7.27	7.04	6.69	6.56	
13	6.49	6.64	6.54	6.48	6.70	6.65	7.28	7.46	7.32	7.01	6.67	6.55	
14	6.48	6.62	6.57	6.50	6.80	6.64	7.18	7.33	7.92	7.00	6.66	6.55	
15	6.48	6.60	6.61	6.51	6.87	6.63	7.14	7.32	7.87	6.95	6.65	6.55	
16	6.47	6.58	6.60	6.54	6.93	6.62	7.11	7.35	7.76	6.93	6.65	6.55	
17	6.47	6.57	6.57	6.57	6.98	6.64	7.09	7.39	7.60	6.92	6.64	6.55	
18	6.46	6.56	6.55	6.57	7.10	6.67	7.07	7.44	7.54	6.88	6.63	6.54	
19	6.46	6.54	6.54	6.59	7.20	6.70	7.25	7.60	7.40	6.85	6.62	6.54	
20	6.46	6.54	6.53	6.56	7.28	6.72	7.43	8.61	7.32	6.82	6.62	6.54	
21	6.45	6.55	6.51	6.52	7.36	6.75	7.26	9.79	7.29	6.80	6.62	6.54	
22	6.46	6.53	6.50	6.51	7.43	6.78	7.59	10.26	7.27	6.79	6.61	6.54	
23	6.47	6.50	6.50	6.50	7.49	6.82	7.40	9.11	7.24	6.77	6.61	6.54	
24	6.48	6.51	6.50	6.50	7.36	6.83	7.29	8.26	7.22	6.76	6.59	6.54	
25	6.49	6.52	6.50	6.50	7.22	6.80	7.15	8.03	7.15	6.75	6.59	6.54	
26	6.50	6.52	6.54	6.50	7.04	6.81	7.12	7.89	7.10	6.74	6.58	6.96	
27	6.51	6.52	6.55	6.49	6.96	6.82	7.12	7.83	7.01	6.74	6.58	7.06	
28	6.52	6.52	6.55	6.48	6.87	6.85	7.11	7.71	6.96	6.73	6.58	6.83	
29	6.53	6.51	6.54	6.48	6.81	6.83	7.07	7.38	7.01	6.73		6.74	
30	6.53	6.51	6.54	6.49	6.79	6.79	6.97	7.34	7.63	6.73		6.71	
31		6.51		6.50	6.76		6.92		8.01	6.72		6.75	
Mean	6.50	6.55	6.52	6.51	6.84	6.73	7.16	7.87	7.34	7.09	6.67	6.61	
Max	6.57	6.68	6.61	6.59	7.49	6.85	7.91	10.26	8.01	8.08	6.82	7.06	10.26
Min	6.45	6.50	6.47	6.47	6.47	6.62	6.82	6.98	6.96	6.72	6.58	6.54	6.45

Annual Max Momentary Gage Height 10.85 m. (MSL.) , at 09.00 Hours , on Nov 22 , 2002

Zero Gage at Bottom Elevation 6.00 m. (MSL.) , River Bed 6.32 m. (MSL.)

Left Bank Elevation 17.60 m. (MSL.) ,

Right Bank Elevation 17.51 m. (MSL.) , Drainage Are 366 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.70	1.30	0.90	1.10	1.10	3.76	4.58	7.62	15.30	42.36	3.32	1.80		
2	1.60	1.20	0.80	1.10	1.00	3.65	5.15	10.00	14.70	37.92	3.10	1.80		
3	1.50	1.10	0.80	1.10	0.80	3.54	5.34	12.30	13.80	35.70	3.54	1.70		
4	1.50	1.10	0.80	1.00	0.80	3.43	5.72	23.10	14.40	31.64	4.09	1.70		
5	1.40	1.00	0.70	1.00	0.70	3.32	5.91	28.04	15.90	28.40	4.58	1.60		
6	1.30	1.00	0.70	0.90	0.70	3.10	5.91	25.16	15.90	23.44	4.09	1.60		
7	1.30	1.30	0.80	0.90	0.70	2.88	5.72	46.43	13.80	18.34	3.76	1.60		
8	1.20	1.60	0.80	0.90	0.80	2.77	5.53	50.50	11.20	14.70	3.65	1.60		
9	1.20	1.70	0.80	0.80	0.90	2.77	10.20	47.91	10.40	11.60	3.54	1.60		
10	1.10	1.80	0.70	0.80	1.00	2.88	34.59	36.44	11.80	10.00	3.43	1.60		
11	1.10	2.33	0.80	0.70	1.00	2.77	36.07	29.84	13.50	9.00	3.21	1.60		
12	0.90	2.88	1.10	0.70	2.00	2.66	19.36	24.12	14.10	8.80	2.99	1.60		
13	0.90	2.44	1.40	0.80	3.10	2.55	14.40	20.04	15.60	8.20	2.77	1.50		
14	0.80	2.22	1.70	1.00	4.20	2.44	11.60	15.90	36.44	8.00	2.66	1.50		
15	0.80	2.00	2.11	1.10	5.53	2.33	10.80	15.60	34.59	7.05	2.55	1.50		
16	0.70	1.80	2.00	1.40	6.67	2.22	10.20	16.50	30.56	6.67	2.55	1.50		
17	0.70	1.70	1.70	1.70	7.62	2.44	9.80	17.70	24.80	6.48	2.44	1.50		
18	0.60	1.60	1.50	1.70	10.00	2.77	9.40	19.36	22.76	5.72	2.33	1.40		
19	0.60	1.40	1.40	1.90	12.00	3.10	13.50	24.80	18.00	5.15	2.22	1.40		
20	0.60	1.40	1.30	1.60	14.40	3.32	19.02	63.88	15.60	4.58	2.22	1.40		
21	0.50	1.50	1.10	1.20	16.80	3.65	13.80	125.40	14.70	4.20	2.22	1.40		
22	0.60	1.30	1.00	1.10	19.02	3.98	24.46	154.96	14.10	4.09	2.11	1.40		
23	0.70	1.00	1.00	1.00	21.06	4.58	18.00	88.21	13.20	3.87	2.11	1.40		
24	0.80	1.10	1.00	1.00	16.80	4.77	14.70	49.02	12.60	3.76	1.90	1.40		
25	0.90	1.20	1.00	1.00	12.60	4.20	11.00	40.51	11.00	3.65	1.90	1.40		
26	1.00	1.20	1.40	1.00	8.80	4.39	10.40	35.33	10.00	3.54	1.80	7.24		
27	1.10	1.20	1.50	0.90	7.24	4.58	10.40	33.11	8.20	3.54	1.80	9.20		
28	1.20	1.20	1.50	0.80	5.53	5.15	10.20	28.76	7.24	3.43	1.80	4.77		
29	1.30	1.10	1.40	0.80	4.39	4.77	9.40	17.40	8.20	3.43		3.54		
30	1.30	1.10	1.40	0.90	4.09	4.09	7.43	16.20	25.88	3.43		3.21		
31		1.10		1.00	3.76		6.48		39.77	3.32		3.65		
Total	30.90	45.87	35.11	32.90	195.11	102.86	379.07	1124.14	528.04	364.01	78.68	70.11	2986.80	CMSDAY
Mean	1.03	1.48	1.17	1.06	6.29	3.43	12.23	37.47	17.03	11.74	2.81	2.26	8.18	CMS
Max	1.70	2.88	2.11	1.90	21.06	5.15	36.07	154.96	39.77	42.36	4.58	9.20	154.96	CMS
Min	0.50	1.00	0.70	0.70	0.70	2.22	4.58	7.62	7.24	3.32	1.80	1.40	0.50	CMS
Runoff	2.67	3.96	3.03	2.84	16.86	8.89	32.75	97.13	45.62	31.45	6.80	6.06	258.06	MCM

Momentary Peak 197.90 CMS. at 10.85 m. (MSL.) at 09.00 Hours , on Nov 22 , 2002

Runoff Yield 22.36 Liters/Second/Square KM. Momentary Peak Yield 540.710 Liters/Second/Square KM.

WATER YEAR : 2002

SOUTHERN PENINSULA EAST COAST

Khlong Mai Siap at Ban Mai Siap, Nakhon Si Thammarat (X.105)

Lat 07 - 51 - 01 N Long 99 - 55 - 53 E

Location : on left bank at the bridge of Nakhon Si Thammarat - Phatthalung Highway.

Ban Mai Siap **Amphoe** Cha - uat **Changwat** Nakhon Si Thammar

Drainge Area	155 sq.km.
Type of Gage	Staff gage.
Zero Gage at Bottom	+10.488 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	In front of the station office. **Elevation** +20.279 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 mean of 5 readings
Period of Available Gage Records	1978 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 7 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

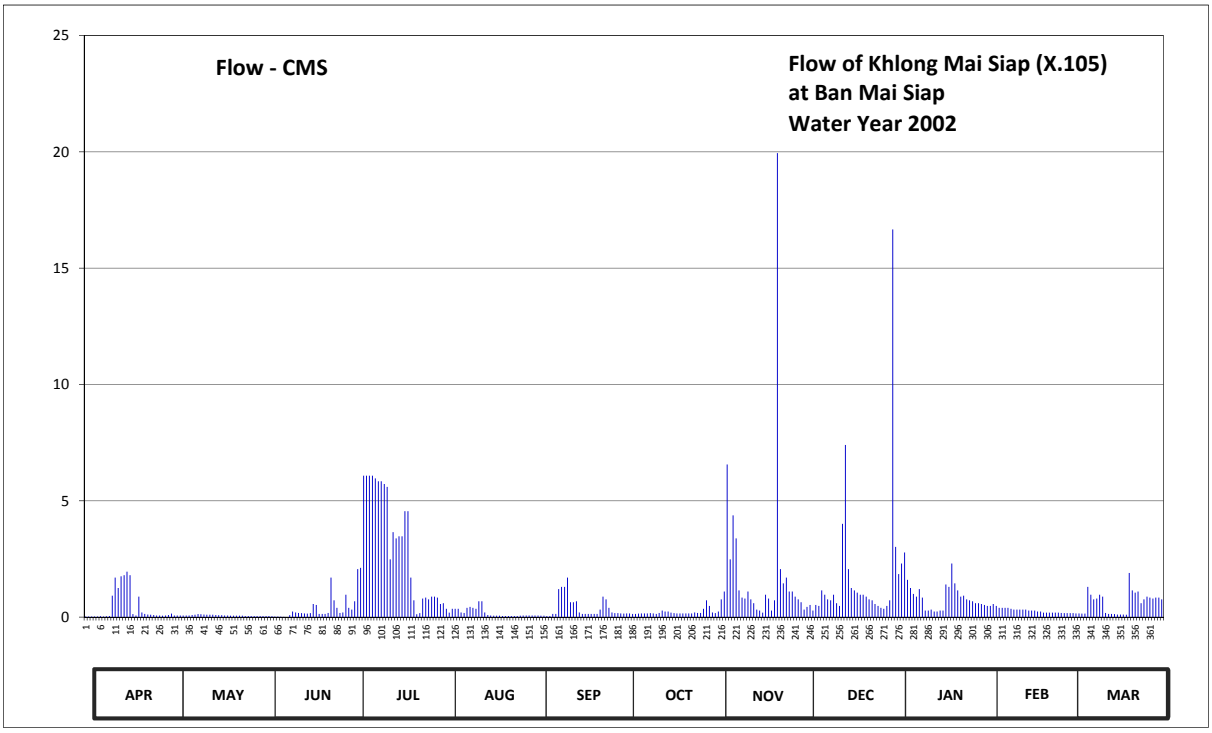
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	11.03	11.07	11.05	11.32	11.24	11.07	11.16	11.21	11.26	11.57	11.27	11.17	
2	11.03	11.07	11.05	11.61	11.19	11.06	11.16	11.34	11.28	11.65	11.29	11.16	
3	11.03	11.07	11.04	11.62	11.24	11.06	11.14	11.42	11.22	11.73	11.27	11.16	
4	11.03	11.07	11.03	12.09	11.24	11.05	11.14	12.13	11.28	11.52	11.25	11.15	
5	11.03	11.07	11.03	12.09	11.24	11.05	11.15	11.68	11.27	11.45	11.25	11.15	
6	11.04	11.07	11.02	12.09	11.20	11.14	11.16	11.93	11.43	11.40	11.25	11.46	
7	11.03	11.09	11.01	12.09	11.18	11.14	11.16	11.82	11.39	11.37	11.25	11.39	
8	11.04	11.10	11.00	12.08	11.25	11.44	11.16	11.43	11.34	11.44	11.24	11.34	
9	11.05	11.13	11.08	12.07	11.26	11.46	11.17	11.36	11.33	11.36	11.23	11.35	
10	11.38	11.12	11.21	12.07	11.25	11.46	11.16	11.35	11.39	11.22	11.23	11.39	
11	11.54	11.11	11.20	12.06	11.24	11.54	11.14	11.42	11.30	11.22	11.23	11.37	
12	11.45	11.10	11.18	12.05	11.32	11.31	11.18	11.34	11.27	11.23	11.23	11.18	
13	11.55	11.10	11.17	11.68	11.32	11.31	11.22	11.30	11.89	11.21	11.23	11.14	
14	11.56	11.10	11.16	11.85	11.20	11.32	11.21	11.23	12.20	11.21	11.22	11.14	
15	11.59	11.09	11.15	11.82	11.09	11.20	11.21	11.22	11.61	11.22	11.22	11.13	
16	11.56	11.08	11.17	11.83	11.07	11.14	11.19	11.19	11.45	11.22	11.22	11.11	
17	11.13	11.08	11.29	11.83	11.06	11.14	11.17	11.39	11.43	11.48	11.21	11.11	
18	11.07	11.07	11.28	11.95	11.06	11.14	11.16	11.35	11.41	11.46	11.21	11.11	
19	11.37	11.07	11.14	11.95	11.06	11.14	11.16	11.22	11.39	11.65	11.19	11.10	
20	11.20	11.06	11.14	11.54	11.05	11.14	11.16	11.33	11.39	11.49	11.19	11.58	
21	11.14	11.06	11.14	11.33	11.05	11.14	11.16	12.94	11.37	11.43	11.19	11.43	
22	11.11	11.06	11.18	11.12	11.05	11.23	11.16	11.61	11.34	11.37	11.19	11.41	
23	11.10	11.06	11.54	11.17	11.05	11.37	11.16	11.49	11.33	11.38	11.19	11.42	
24	11.09	11.06	11.33	11.35	11.05	11.34	11.20	11.54	11.29	11.34	11.19	11.30	
25	11.07	11.05	11.25	11.36	11.05	11.25	11.18	11.42	11.27	11.33	11.18	11.34	
26	11.07	11.05	11.18	11.34	11.06	11.20	11.18	11.42	11.25	11.32	11.17	11.37	
27	11.06	11.05	11.20	11.37	11.07	11.17	11.24	11.37	11.24	11.30	11.17	11.36	
28	11.07	11.05	11.39	11.37	11.07	11.17	11.33	11.34	11.27	11.30	11.17	11.35	
29	11.09	11.05	11.25	11.36	11.07	11.16	11.27	11.31	11.33	11.29		11.36	
30	11.15	11.05	11.23	11.29	11.07	11.15	11.20	11.23	12.78	11.28		11.36	
31		11.05		11.30	11.07		11.17		11.77	11.27		11.34	
Mean	11.19	11.07	11.17	11.68	11.14	11.22	11.18	11.48	11.44	11.38	11.22	11.28	
Max	11.59	11.13	11.54	12.09	11.32	11.54	11.33	12.94	12.78	11.73	11.29	11.58	12.94
Min	11.03	11.05	11.00	11.12	11.05	11.05	11.14	11.19	11.22	11.21	11.17	11.10	11.00

Annual Max Momentary Gage Height 13.99 m. (MSL.) , at 06.00 Hours , on Nov 21 , 2002

Zero Gage at Bottom Elevation 10.49 m. (MSL.) , River Bed 10.58 m. (MSL.)

Left Bank Elevation 22.07 m. (MSL.) ,

Right Bank Elevation 22.17 m. (MSL.) , Drainage Are 155 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.03	0.07	0.05	0.68	0.36	0.07	0.16	0.24	0.44	1.85	0.48	0.17		
2	0.03	0.07	0.05	2.06	0.19	0.06	0.16	0.76	0.52	2.30	0.56	0.16		
3	0.03	0.07	0.04	2.12	0.36	0.06	0.14	1.10	0.28	2.78	0.48	0.16		
4	0.03	0.07	0.03	6.08	0.36	0.05	0.14	6.56	0.52	1.60	0.40	0.15		
5	0.03	0.07	0.03	6.08	0.36	0.05	0.15	2.48	0.48	1.25	0.40	0.15		
6	0.04	0.07	0.02	6.08	0.20	0.14	0.16	4.37	1.15	1.00	0.40	1.30		
7	0.03	0.09	0.01	6.08	0.18	0.14	0.16	3.38	0.96	0.88	0.40	0.96		
8	0.04	0.10	0.00	5.96	0.40	1.20	0.16	1.15	0.76	1.20	0.36	0.76		
9	0.05	0.13	0.08	5.84	0.44	1.30	0.17	0.84	0.72	0.84	0.32	0.80		
10	0.92	0.12	0.24	5.84	0.40	1.30	0.16	0.80	0.96	0.28	0.32	0.96		
11	1.70	0.11	0.20	5.72	0.36	1.70	0.14	1.10	0.60	0.28	0.32	0.88		
12	1.25	0.10	0.18	5.60	0.68	0.64	0.18	0.76	0.48	0.32	0.32	0.18		
13	1.75	0.10	0.17	2.48	0.68	0.64	0.28	0.60	4.01	0.24	0.32	0.14		
14	1.80	0.10	0.16	3.65	0.20	0.68	0.24	0.32	7.40	0.24	0.28	0.14		
15	1.95	0.09	0.15	3.38	0.09	0.20	0.24	0.28	2.06	0.28	0.28	0.13		
16	1.80	0.08	0.17	3.47	0.07	0.14	0.19	0.19	1.25	0.28	0.28	0.11		
17	0.13	0.08	0.56	3.47	0.06	0.14	0.17	0.96	1.15	1.40	0.24	0.11		
18	0.07	0.07	0.52	4.55	0.06	0.14	0.16	0.80	1.05	1.30	0.24	0.11		
19	0.88	0.07	0.14	4.55	0.06	0.14	0.16	0.28	0.96	2.30	0.19	0.10		
20	0.20	0.06	0.14	1.70	0.05	0.14	0.16	0.72	0.96	1.45	0.19	1.90		
21	0.14	0.06	0.14	0.72	0.05	0.14	0.16	19.94	0.88	1.15	0.19	1.15		
22	0.11	0.06	0.18	0.12	0.05	0.32	0.16	2.06	0.76	0.88	0.19	1.05		
23	0.10	0.06	1.70	0.17	0.05	0.88	0.16	1.45	0.72	0.92	0.19	1.10		
24	0.09	0.06	0.72	0.80	0.05	0.76	0.20	1.70	0.56	0.76	0.19	0.60		
25	0.07	0.05	0.40	0.84	0.05	0.40	0.18	1.10	0.48	0.72	0.18	0.76		
26	0.07	0.05	0.18	0.76	0.06	0.20	0.18	1.10	0.40	0.68	0.17	0.88		
27	0.06	0.05	0.20	0.88	0.07	0.17	0.36	0.88	0.36	0.60	0.17	0.84		
28	0.07	0.05	0.96	0.88	0.07	0.17	0.72	0.76	0.48	0.60	0.17	0.80		
29	0.09	0.05	0.40	0.84	0.07	0.16	0.48	0.64	0.72	0.56		0.84		
30	0.15	0.05	0.32	0.56	0.07	0.15	0.20	0.32	16.66	0.52		0.84		
31		0.05		0.60	0.07		0.17		3.02	0.48		0.76		
Total	13.71	2.31	8.14	92.56	6.22	12.28	6.45	57.64	51.75	29.94	8.23	18.99	308.22	CMSDAY
Mean	0.46	0.07	0.27	2.99	0.20	0.41	0.21	1.92	1.67	0.97	0.29	0.61	0.84	CMS
Max	1.95	0.13	1.70	6.08	0.68	1.70	0.72	19.94	16.66	2.78	0.56	1.90	19.94	CMS
Min	0.03	0.05	0.00	0.12	0.05	0.05	0.14	0.19	0.28	0.24	0.17	0.10	0.00	CMS
Runoff	1.18	0.20	0.70	8.00	0.54	1.06	0.56	4.98	4.47	2.59	0.71	1.64	26.63	MCM

Momentary Peak 54.56 CMS. at 13.99 m. (MSL.) at 06.00 Hours , on Nov 21 , 2002

Runoff Yield 5.45 Liters/Second/Square KM. Momentary Peak Yield 352.000 Liters/Second/Square KM.

WATER YEAR : 2002

SOUTHERN PENINSULA EAST COAST

Khlong Chaiya at Ban Phanang, Surat Thani (X.106)

Lat 09 - 23 - 46 N Long 99 - 10 - 32 E

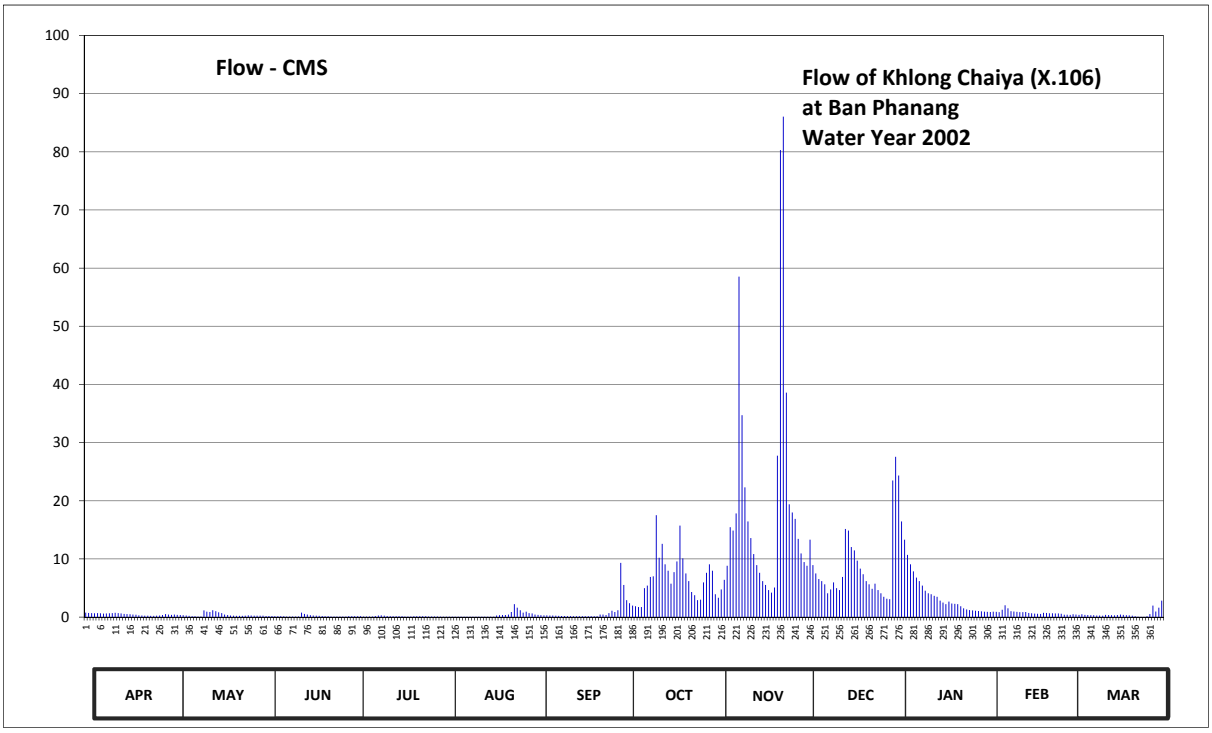
Location : on left bank at Ban Phanang.

	Ban Phanang	**Amphoe** Chaiya	**Changwat** Surat Thani
Drainge Area	290 sq.km.		
Type of Gage	Staff gage.		
Zero Gage at Bottom	+7.000 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank in front of the gage observer's house.	**Elevation**	+10.247 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 mean of 5 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 fair. Flow effected by Chaiya weir about 4 kilometers above gage site. Stage-discharge relation defined by 36 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	7.26	7.15	7.06	7.05	7.03	7.13	7.66	7.71	8.21	9.26	7.29	7.16	
2	7.24	7.13	7.06	7.05	7.03	7.11	7.60	7.86	8.55	8.77	7.31	7.15	
3	7.23	7.12	7.06	7.05	7.03	7.10	7.53	8.01	8.22	8.55	7.30	7.13	
4	7.22	7.11	7.05	7.04	7.03	7.10	7.51	8.21	8.10	8.36	7.28	7.16	
5	7.23	7.09	7.05	7.04	7.03	7.09	7.49	8.70	8.02	8.23	7.41	7.13	
6	7.22	7.07	7.05	7.04	7.03	7.09	7.49	8.66	7.99	8.13	7.54	7.12	
7	7.20	7.05	7.05	7.04	7.03	7.08	7.88	8.86	7.94	8.04	7.45	7.11	
8	7.21	7.05	7.04	7.06	7.03	7.07	7.92	10.59	7.80	7.99	7.34	7.11	
9	7.22	7.04	7.04	7.09	7.03	7.06	8.05	9.81	7.86	7.92	7.32	7.09	
10	7.23	7.04	7.04	7.10	7.03	7.06	8.06	9.14	7.97	7.84	7.30	7.09	
11	7.25	7.38	7.04	7.08	7.03	7.05	8.84	8.77	7.88	7.80	7.28	7.08	
12	7.23	7.31	7.04	7.06	7.03	7.05	8.32	8.57	7.85	7.78	7.28	7.13	
13	7.21	7.29	7.26	7.05	7.03	7.05	8.50	8.37	8.05	7.75	7.29	7.12	
14	7.18	7.39	7.18	7.05	7.03	7.05	8.23	8.22	8.68	7.73	7.24	7.11	
15	7.17	7.34	7.15	7.05	7.03	7.05	8.14	8.11	8.66	7.65	7.22	7.10	
16	7.16	7.27	7.11	7.05	7.03	7.05	7.95	7.99	8.46	7.61	7.20	7.12	
17	7.15	7.23	7.09	7.05	7.03	7.05	8.12	7.93	8.42	7.57	7.19	7.15	
18	7.14	7.15	7.08	7.04	7.09	7.05	8.27	7.85	8.28	7.63	7.18	7.13	
19	7.10	7.12	7.07	7.04	7.11	7.05	8.72	7.81	8.17	7.59	7.25	7.11	
20	7.09	7.09	7.06	7.04	7.12	7.05	8.31	7.89	8.09	7.58	7.24	7.10	
21	7.08	7.08	7.05	7.05	7.12	7.05	8.10	9.45	7.99	7.57	7.22	7.08	
22	7.08	7.07	7.05	7.05	7.15	7.15	7.99	10.88	7.94	7.51	7.22	7.05	
23	7.07	7.07	7.04	7.05	7.29	7.15	7.82	10.94	7.87	7.45	7.21	7.03	
24	7.07	7.07	7.04	7.05	7.57	7.12	7.76	9.99	7.95	7.42	7.21	7.02	
25	7.08	7.08	7.04	7.05	7.47	7.23	7.66	8.96	7.85	7.40	7.19	7.02	
26	7.09	7.10	7.04	7.04	7.39	7.37	7.67	8.87	7.80	7.38	7.14	7.05	
27	7.12	7.09	7.04	7.04	7.26	7.29	7.97	8.80	7.73	7.37	7.14	7.17	
28	7.17	7.08	7.04	7.04	7.31	7.39	8.11	8.56	7.69	7.35	7.13	7.53	
29	7.15	7.08	7.05	7.04	7.23	8.25	8.23	8.38	7.68	7.33		7.32	
30	7.13	7.08	7.05	7.03	7.21	7.93	8.14	8.26	9.21	7.31		7.47	
31		7.08		7.03	7.15		7.78		9.44	7.30		7.65	
Mean	7.17	7.14	7.07	7.05	7.13	7.18	7.99	8.74	8.14	7.78	7.26	7.15	
Max	7.26	7.39	7.26	7.10	7.57	8.25	8.84	10.94	9.44	9.26	7.54	7.65	10.94
Min	7.07	7.04	7.04	7.03	7.03	7.05	7.49	7.71	7.68	7.30	7.13	7.02	7.02

Annual Max Momentary Gage Height	11.16	m. (MSL.) ,	at 06.00 Hours , on Nov 23 , 2002		
Zero Gage at Bottom Elevation	7.00	m. (MSL.) ,	River Bed	6.82	m. (MSL.)
Left Bank Elevation	12.22	m. (MSL.) ,			
Right Bank Elevation	12.17	m. (MSL.) ,	Drainage Are	290	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.78	0.45	0.18	0.15	0.09	0.39	2.91	3.33	8.83	24.35	0.87	0.48		
2	0.72	0.39	0.18	0.15	0.09	0.33	2.40	4.76	13.30	16.46	0.93	0.45		
3	0.69	0.36	0.18	0.15	0.09	0.30	1.98	6.42	8.95	13.30	0.90	0.39		
4	0.66	0.33	0.15	0.12	0.09	0.30	1.86	8.83	7.50	10.70	0.84	0.48		
5	0.69	0.27	0.15	0.12	0.09	0.27	1.74	15.45	6.54	9.08	1.26	0.39		
6	0.66	0.21	0.15	0.12	0.09	0.27	1.74	14.87	6.19	7.86	2.04	0.36		
7	0.60	0.15	0.15	0.12	0.09	0.24	4.98	17.83	5.64	6.78	1.50	0.33		
8	0.63	0.15	0.12	0.18	0.09	0.21	5.42	58.53	4.10	6.19	1.02	0.33		
9	0.66	0.12	0.12	0.27	0.09	0.18	6.90	34.71	4.76	5.42	0.96	0.27		
10	0.69	0.12	0.12	0.30	0.09	0.18	7.02	22.31	5.97	4.54	0.90	0.27		
11	0.75	1.14	0.12	0.24	0.09	0.15	17.52	16.46	4.98	4.10	0.84	0.24		
12	0.69	0.93	0.12	0.18	0.09	0.15	10.20	13.58	4.65	3.93	0.84	0.39		
13	0.63	0.87	0.78	0.15	0.09	0.15	12.60	10.83	6.90	3.67	0.87	0.36		
14	0.54	1.17	0.54	0.15	0.09	0.15	9.08	8.95	15.16	3.50	0.72	0.33		
15	0.51	1.02	0.45	0.15	0.09	0.15	7.98	7.62	14.87	2.83	0.66	0.30		
16	0.48	0.81	0.33	0.15	0.09	0.15	5.75	6.19	12.04	2.49	0.60	0.36		
17	0.45	0.69	0.27	0.15	0.09	0.15	7.74	5.53	11.48	2.22	0.57	0.45		
18	0.42	0.45	0.24	0.12	0.27	0.15	9.58	4.65	9.70	2.66	0.54	0.39		
19	0.30	0.36	0.21	0.12	0.33	0.15	15.74	4.21	8.34	2.34	0.75	0.33		
20	0.27	0.27	0.18	0.12	0.36	0.15	10.08	5.09	7.38	2.28	0.72	0.30		
21	0.24	0.24	0.15	0.15	0.36	0.15	7.50	27.75	6.19	2.22	0.66	0.24		
22	0.24	0.21	0.15	0.15	0.45	0.45	6.19	80.28	5.64	1.86	0.66	0.15		
23	0.21	0.21	0.12	0.15	0.87	0.45	4.32	86.04	4.87	1.50	0.63	0.09		
24	0.21	0.21	0.12	0.15	2.22	0.36	3.76	38.58	5.75	1.32	0.63	0.06		
25	0.24	0.24	0.12	0.15	1.62	0.69	2.91	19.38	4.65	1.20	0.57	0.06		
26	0.27	0.30	0.12	0.12	1.17	1.11	2.99	17.98	4.10	1.14	0.42	0.15		
27	0.36	0.27	0.12	0.12	0.78	0.87	5.97	16.90	3.50	1.11	0.42	0.51		
28	0.51	0.24	0.12	0.12	0.93	1.17	7.62	13.44	3.16	1.05	0.39	1.98		
29	0.45	0.24	0.15	0.12	0.69	9.33	9.08	10.95	3.08	0.99		0.96		
30	0.39	0.24	0.15	0.09	0.63	5.53	7.98	9.45	23.48	0.93		1.62		
31		0.24		0.09	0.45		3.93		27.56	0.90		2.83		
Total	14.94	12.90	6.06	4.62	12.66	24.28	205.47	590.90	259.26	148.92	22.71	15.85	1318.57	CMSDAY
Mean	0.50	0.42	0.20	0.15	0.41	0.81	6.63	19.70	8.36	4.80	0.81	0.51	3.61	CMS
Max	0.78	1.17	0.78	0.30	2.22	9.33	17.52	86.04	27.56	24.35	2.04	2.83	86.04	CMS
Min	0.21	0.12	0.12	0.09	0.09	0.15	1.74	3.33	3.08	0.90	0.39	0.06	0.06	CMS
Runoff	1.29	1.11	0.52	0.40	1.09	2.10	17.75	51.05	22.40	12.87	1.96	1.37	113.92	MCM

Momentary Peak 115.32 CMS. at 11.16 m. (MSL.) at 06.00 Hours , on Nov 23 , 2002

Runoff Yield 12.46 Liters/Second/Square KM. Momentary Peak Yield 397.660 Liters/Second/Square KM.

WATER YEAR : 2002

SOUTHERN PENINSULA EAST COAST

Khlong Sadao at Ban Sai, Songkhla (X.111)

Lat 06 - 39 - 37 N Long 100 - 26 - 08 E

Location : on left bank at Ban Sai.

Ban Sai **Amphoe** Sadao **Changwat** Songkhla

Drainge Area	245 sq.km.
Type of Gage	Staff gage.
Zero Gage at Bottom	+26.160 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	Near the top staff gage. **Elevation** +32.252 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 mean 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	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair Stage-discharge relation defined by 36 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

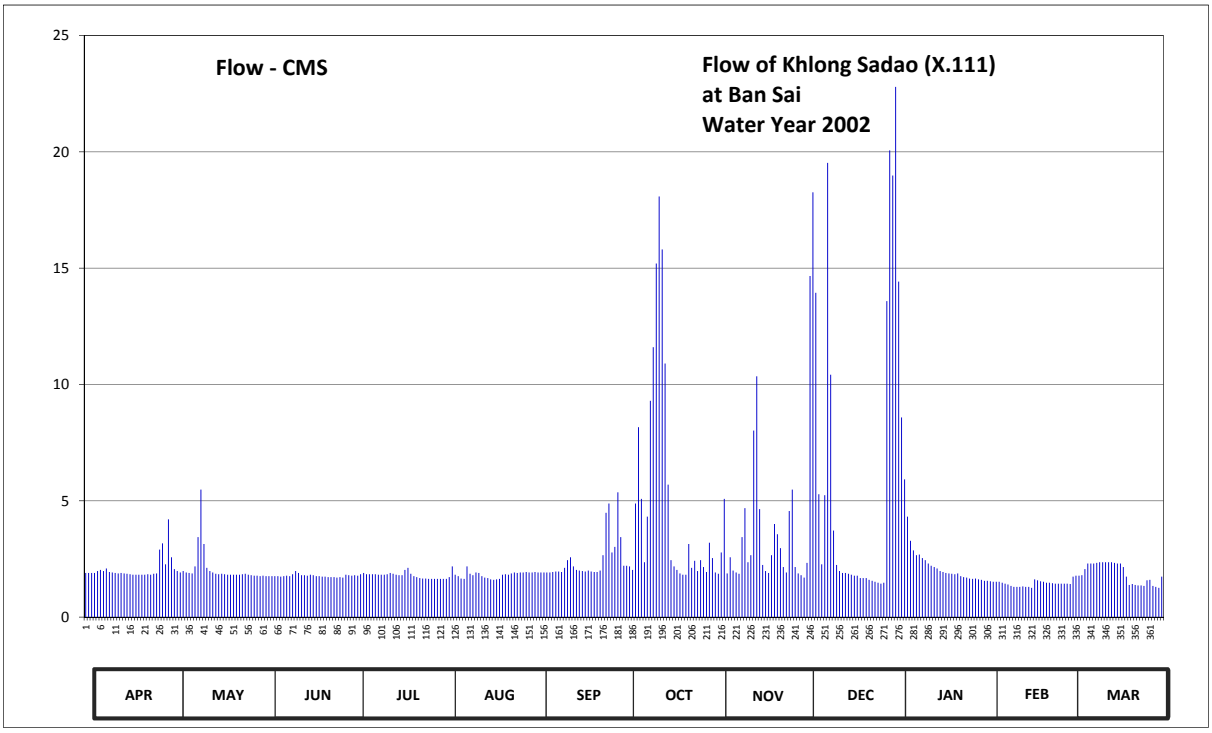
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	27.35	27.42	27.28	27.30	27.22	27.36	27.47	27.33	27.51	29.56	27.17	27.27	
2	27.35	27.39	27.28	27.29	27.26	27.36	27.46	27.66	29.58	28.94	27.16	27.29	
3	27.35	27.36	27.28	27.32	27.46	27.36	27.41	28.27	29.82	28.47	27.16	27.29	
4	27.35	27.39	27.28	27.35	27.31	27.36	28.22	27.34	29.52	28.08	27.16	27.30	
5	27.39	27.36	27.28	27.32	27.28	27.36	28.88	27.59	28.32	27.82	27.14	27.42	
6	27.41	27.35	27.27	27.32	27.23	27.37	28.27	27.40	27.49	27.69	27.12	27.50	
7	27.39	27.34	27.28	27.32	27.22	27.38	27.52	27.36	28.31	27.62	27.10	27.50	
8	27.43	27.46	27.29	27.32	27.46	27.38	28.08	27.33	29.89	27.63	27.07	27.50	
9	27.37	27.86	27.28	27.31	27.33	27.37	29.04	27.86	29.19	27.58	27.05	27.51	
10	27.36	28.37	27.32	27.31	27.30	27.44	29.31	28.17	27.93	27.55	27.05	27.52	
11	27.35	27.78	27.39	27.31	27.36	27.55	29.62	27.52	27.48	27.50	27.05	27.52	
12	27.34	27.44	27.35	27.32	27.35	27.59	29.81	27.62	27.39	27.47	27.06	27.52	
13	27.35	27.39	27.30	27.35	27.28	27.46	29.66	28.86	27.35	27.45	27.05	27.52	
14	27.34	27.36	27.30	27.33	27.25	27.41	29.24	29.18	27.35	27.43	27.05	27.52	
15	27.33	27.33	27.29	27.31	27.24	27.40	28.42	28.16	27.33	27.39	27.03	27.51	
16	27.32	27.32	27.31	27.30	27.21	27.39	27.55	27.48	27.31	27.37	27.21	27.50	
17	27.31	27.33	27.30	27.30	27.20	27.38	27.46	27.39	27.29	27.35	27.19	27.50	
18	27.31	27.32	27.28	27.41	27.21	27.40	27.41	27.35	27.29	27.34	27.17	27.45	
19	27.31	27.31	27.28	27.44	27.22	27.38	27.34	27.62	27.24	27.33	27.16	27.27	
20	27.31	27.31	27.27	27.33	27.31	27.37	27.31	28.00	27.24	27.32	27.14	27.09	
21	27.31	27.31	27.27	27.28	27.32	27.37	27.31	27.89	27.24	27.34	27.14	27.11	
22	27.32	27.31	27.26	27.26	27.31	27.40	27.78	27.72	27.20	27.28	27.13	27.09	
23	27.31	27.31	27.26	27.24	27.34	27.62	27.44	27.45	27.18	27.26	27.12	27.08	
24	27.33	27.32	27.26	27.23	27.36	28.12	27.54	27.36	27.16	27.25	27.12	27.08	
25	27.34	27.33	27.25	27.23	27.35	28.22	27.39	28.14	27.14	27.23	27.12	27.07	
26	27.70	27.31	27.26	27.22	27.36	27.66	27.55	28.37	27.12	27.22	27.12	27.19	
27	27.79	27.30	27.25	27.22	27.36	27.74	27.45	27.45	27.14	27.23	27.12	27.20	
28	27.49	27.29	27.31	27.22	27.37	28.34	27.37	27.34	29.49	27.21	27.11	27.07	
29	28.05	27.29	27.30	27.22	27.36	27.86	27.80	27.30	29.92	27.20		27.05	
30	27.59	27.28	27.29	27.22	27.36	27.47	27.58	27.25	29.86	27.18		27.03	
31		27.29		27.22	27.37		27.36		30.06	27.18		27.27	
Mean	27.41	27.40	27.29	27.29	27.31	27.53	28.00	27.73	28.08	27.56	27.12	27.31	
Max	28.05	28.37	27.39	27.44	27.46	28.34	29.81	29.18	30.06	29.56	27.21	27.52	30.06
Min	27.31	27.28	27.25	27.22	27.20	27.36	27.31	27.25	27.12	27.18	27.03	27.03	27.03

Annual Max Momentary Gage Height 30.13 m. (MSL.) , at 09.00 Hours , on Dec 31 , 2002

Zero Gage at Bottom Elevation 26.16 m. (MSL.) , River Bed 25.55 m. (MSL.)

Left Bank Elevation 33.36 m. (MSL.) ,

Right Bank Elevation 33.35 m. (MSL.) , Drainage Are 245 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.90	2.06	1.76	1.80	1.64	1.92	2.21	1.86	2.33	14.42	1.54	1.74		
2	1.90	1.98	1.76	1.78	1.72	1.92	2.18	2.78	14.66	8.58	1.52	1.78		
3	1.90	1.92	1.76	1.84	2.18	1.92	2.03	5.08	18.26	5.92	1.52	1.78		
4	1.90	1.98	1.76	1.90	1.82	1.92	4.88	1.88	13.94	4.32	1.52	1.80		
5	1.98	1.92	1.76	1.84	1.76	1.92	8.16	2.57	5.28	3.28	1.48	2.06		
6	2.03	1.90	1.74	1.84	1.66	1.94	5.08	2.00	2.27	2.87	1.44	2.30		
7	1.98	1.88	1.76	1.84	1.64	1.96	2.36	1.92	5.24	2.66	1.40	2.30		
8	2.09	2.18	1.78	1.84	2.18	1.96	4.32	1.86	19.52	2.69	1.34	2.30		
9	1.94	3.44	1.76	1.82	1.86	1.94	9.30	3.44	10.42	2.54	1.30	2.33		
10	1.92	5.48	1.84	1.82	1.80	2.12	11.60	4.68	3.72	2.45	1.30	2.36		
11	1.90	3.14	1.98	1.82	1.92	2.45	15.20	2.36	2.24	2.30	1.30	2.36		
12	1.88	2.12	1.90	1.84	1.90	2.57	18.08	2.66	1.98	2.21	1.32	2.36		
13	1.90	1.98	1.80	1.90	1.76	2.18	15.80	8.02	1.90	2.15	1.30	2.36		
14	1.88	1.92	1.80	1.86	1.70	2.03	10.90	10.35	1.90	2.09	1.30	2.36		
15	1.86	1.86	1.78	1.82	1.68	2.00	5.69	4.64	1.86	1.98	1.26	2.33		
16	1.84	1.84	1.82	1.80	1.62	1.98	2.45	2.24	1.82	1.94	1.62	2.30		
17	1.82	1.86	1.80	1.80	1.60	1.96	2.18	1.98	1.78	1.90	1.58	2.30		
18	1.82	1.84	1.76	2.03	1.62	2.00	2.03	1.90	1.78	1.88	1.54	2.15		
19	1.82	1.82	1.76	2.12	1.64	1.96	1.88	2.66	1.68	1.86	1.52	1.74		
20	1.82	1.82	1.74	1.86	1.82	1.94	1.82	4.00	1.68	1.84	1.48	1.38		
21	1.82	1.82	1.74	1.76	1.84	1.94	1.82	3.56	1.68	1.88	1.48	1.42		
22	1.84	1.82	1.72	1.72	1.82	2.00	3.14	2.96	1.60	1.76	1.46	1.38		
23	1.82	1.82	1.72	1.68	1.88	2.66	2.12	2.15	1.56	1.72	1.44	1.36		
24	1.86	1.84	1.72	1.66	1.92	4.48	2.42	1.92	1.52	1.70	1.44	1.36		
25	1.88	1.86	1.70	1.66	1.90	4.88	1.98	4.56	1.48	1.66	1.44	1.34		
26	2.90	1.82	1.72	1.64	1.92	2.78	2.45	5.48	1.44	1.64	1.44	1.58		
27	3.17	1.80	1.70	1.64	1.92	3.02	2.15	2.15	1.48	1.66	1.44	1.60		
28	2.27	1.78	1.82	1.64	1.94	5.36	1.94	1.88	13.58	1.62	1.42	1.34		
29	4.20	1.78	1.80	1.64	1.92	3.44	3.20	1.80	20.06	1.60		1.30		
30	2.57	1.76	1.78	1.64	1.92	2.21	2.54	1.70	18.98	1.56		1.26		
31		1.78		1.64	1.94		1.92		22.79	1.56		1.74		
Total	62.41	64.82	53.24	55.49	56.44	73.36	153.83	97.04	200.43	88.24	40.14	58.07	1003.51	CMSDAY
Mean	2.08	2.09	1.77	1.79	1.82	2.45	4.96	3.23	6.47	2.85	1.43	1.87	2.75	CMS
Max	4.20	5.48	1.98	2.12	2.18	5.36	18.08	10.35	22.79	14.42	1.62	2.36	22.79	CMS
Min	1.82	1.76	1.70	1.64	1.60	1.92	1.82	1.70	1.44	1.56	1.26	1.26	1.26	CMS
Runoff	5.39	5.60	4.60	4.79	4.88	6.34	13.29	8.38	17.32	7.62	3.47	5.02	86.70	MCM

Momentary Peak 24.29 CMS. at 30.13 m. (MSL.) at 09.00 Hours , on Dec 31 , 2002

Runoff Yield 11.22 Liters/Second/Square KM. Momentary Peak Yield 99.140 Liters/Second/Square KM.

WATER YEAR : 2002

SOUTHERN PENINSULA EAST COAST

Khlong Waeng at Ban Kho Lo, Narathiwat (X.121)

Lat 05 - 55 - 28 N Long 101 - 53 - 13 E

Location : on right bank at the bridge of Sungai Kolok - Malasia Highway.

	Ban Kho Lo	**Amphoe** Waeng	**Changwat** Narathiwat
Drainge Area	43 sq.km.		
Type of Gage	Water - stage recorder.		
Zero Gage at Bottom	+15.853 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On right bank at the abutment of the bridge.		**Elevation** +20.347 m. (MSL.)
Gage Reading Frequency	Recording.		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 readings		
Period of Available Gage Records	1978 to date		
Rating Operation			
Period of Rating	1981 to date		
Rated by Flot	-		
Rated by Current Meter	1981 to date		
Stability of Channel Regimes	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 42 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

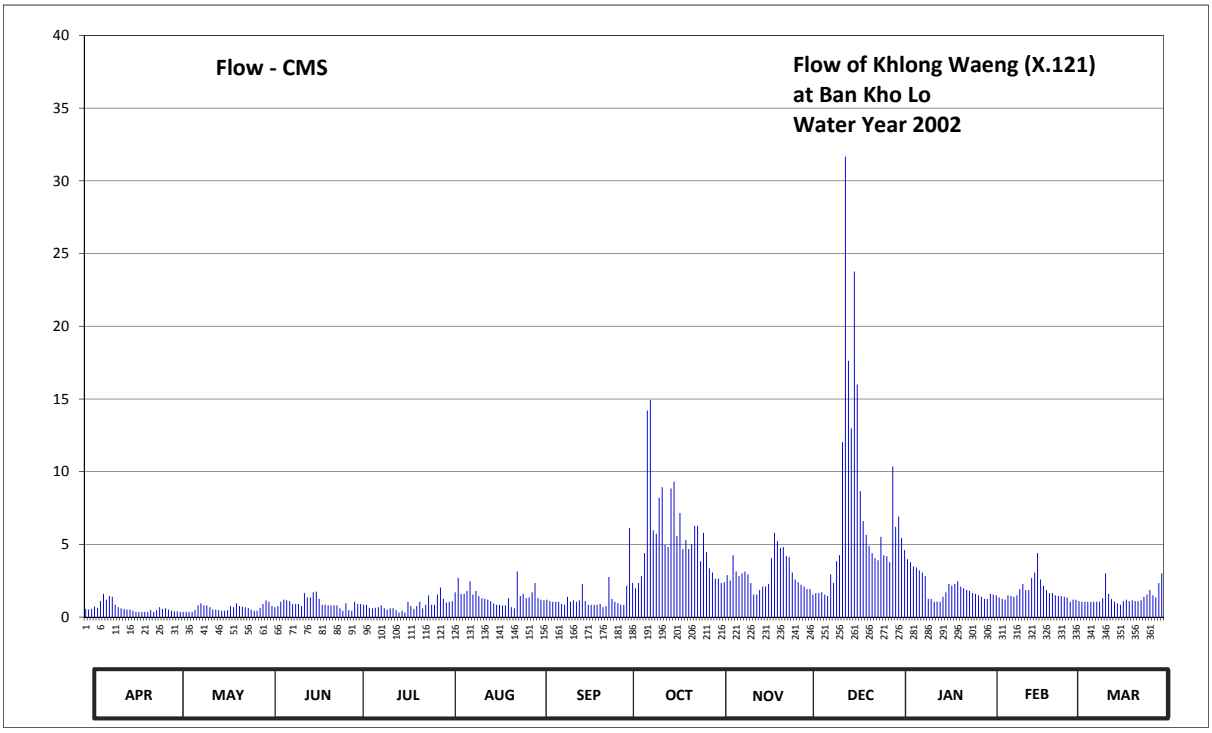
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	17.74	17.70	17.87	17.85	17.84	17.90	18.06	18.14	18.02	18.74	17.96	17.88	
2	17.73	17.70	17.85	17.82	17.85	17.88	18.64	18.09	18.02	18.55	17.95	17.88	
3	17.74	17.69	17.79	17.82	17.86	17.87	18.09	18.10	17.95	18.43	17.94	17.86	
4	17.78	17.69	17.77	17.81	17.98	17.88	18.03	18.18	17.97	18.34	17.91	17.85	
5	17.76	17.69	17.79	17.81	18.15	17.86	18.09	18.12	17.97	18.31	17.89	17.85	
6	17.86	17.69	17.85	17.76	17.96	17.85	18.17	18.38	17.98	18.27	17.88	17.85	
7	17.96	17.69	17.88	17.75	17.96	17.85	18.40	18.22	17.95	18.26	17.94	17.85	
8	17.88	17.72	17.87	17.76	18.00	17.85	19.40	18.17	17.93	18.23	17.93	17.85	
9	17.93	17.80	17.86	17.77	18.11	17.82	19.44	18.20	18.19	18.21	17.92	17.85	
10	17.92	17.83	17.82	17.80	17.95	17.81	18.62	18.22	18.09	18.17	17.94	17.85	
11	17.81	17.80	17.82	17.75	18.00	17.92	18.59	18.19	18.32	17.89	18.02	17.90	
12	17.77	17.80	17.82	17.73	17.93	17.85	18.89	18.09	18.38	17.89	18.08	18.20	
13	17.75	17.77	17.79	17.75	17.90	17.87	18.97	17.95	19.24	17.85	18.01	17.96	
14	17.74	17.73	17.97	17.75	17.89	17.85	18.48	17.95	20.07	17.85	18.01	17.89	
15	17.73	17.73	17.91	17.72	17.88	17.87	18.46	18.01	19.59	17.85	18.15	17.85	
16	17.73	17.72	17.91	17.68	17.86	18.08	18.96	18.05	19.31	17.92	18.21	17.83	
17	17.71	17.71	17.98	17.71	17.83	17.86	19.01	18.05	19.84	17.98	18.40	17.81	
18	17.69	17.71	17.99	17.68	17.81	17.81	18.57	18.08	19.50	18.08	18.13	17.86	
19	17.69	17.72	17.89	17.85	17.81	17.81	18.77	18.35	18.94	18.06	18.06	17.88	
20	17.69	17.79	17.81	17.79	17.80	17.81	18.44	18.60	18.70	18.08	18.01	17.86	
21	17.69	17.77	17.81	17.74	17.80	17.81	18.53	18.52	18.58	18.11	17.97	17.87	
22	17.69	17.83	17.80	17.79	17.90	17.82	18.44	18.45	18.47	18.05	17.97	17.86	
23	17.72	17.79	17.80	17.85	17.77	17.77	18.49	18.46	18.40	18.03	17.94	17.86	
24	17.69	17.78	17.80	17.75	17.75	17.79	18.66	18.37	18.35	18.01	17.93	17.87	
25	17.72	17.77	17.80	17.81	18.22	18.16	18.66	18.36	18.33	18.00	17.93	17.92	
26	17.77	17.76	17.75	17.94	17.93	17.89	18.32	18.21	18.56	17.97	17.92	17.95	
27	17.74	17.73	17.71	17.81	17.96	17.85	18.60	18.13	18.38	17.96	17.91	18.01	
28	17.75	17.71	17.83	17.81	17.90	17.83	18.41	18.10	18.37	17.94	17.85	17.94	
29	17.73	17.71	17.72	17.95	17.91	17.81	18.25	18.07	18.31	17.92		17.91	
30	17.71	17.76	17.71	18.04	17.98	17.81	18.21	18.05	19.10	17.89		18.09	
31		17.82		17.89	18.09		18.14		18.65	17.89		18.20	
Mean	17.76	17.75	17.83	17.80	17.92	17.86	18.54	18.20	18.56	18.09	17.99	17.91	
Max	17.96	17.83	17.99	18.04	18.22	18.16	19.44	18.60	20.07	18.74	18.40	18.20	20.07
Min	17.69	17.69	17.71	17.68	17.75	17.77	18.03	17.95	17.93	17.85	17.85	17.81	17.68

Annual Max Momentary Gage Height 20.36 m. (MSL.) , at 24.00 Hours , on Oct 8 , 2002

Zero Gage at Bottom Elevation 15.85 m. (MSL.) , River Bed 17.50 m. (MSL.)

Left Bank Elevation 21.81 m. (MSL.) ,

Right Bank Elevation 21.85 m. (MSL.) , Drainage Are 43 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.56	0.40	1.15	1.05	1.00	1.30	2.16	2.64	1.92	6.92	1.60	1.20		
2	0.52	0.40	1.05	0.90	1.05	1.20	6.12	2.34	1.92	5.45	1.55	1.20		
3	0.56	0.36	0.76	0.90	1.10	1.15	2.34	2.40	1.55	4.61	1.50	1.10		
4	0.72	0.36	0.68	0.85	1.70	1.20	1.98	2.88	1.65	3.98	1.35	1.05		
5	0.64	0.36	0.76	0.85	2.70	1.10	2.34	2.52	1.65	3.77	1.25	1.05		
6	1.10	0.36	1.05	0.64	1.60	1.05	2.82	4.26	1.70	3.49	1.20	1.05		
7	1.60	0.36	1.20	0.60	1.60	1.05	4.40	3.14	1.55	3.42	1.50	1.05		
8	1.20	0.48	1.15	0.64	1.80	1.05	14.20	2.82	1.45	3.21	1.45	1.05		
9	1.45	0.80	1.10	0.68	2.46	0.90	14.92	3.00	2.94	3.07	1.40	1.05		
10	1.40	0.95	0.90	0.80	1.55	0.85	5.96	3.14	2.34	2.82	1.50	1.05		
11	0.85	0.80	0.90	0.60	1.80	1.40	5.73	2.94	3.84	1.25	1.92	1.30		
12	0.68	0.80	0.90	0.52	1.45	1.05	8.21	2.34	4.26	1.25	2.28	3.00		
13	0.60	0.68	0.76	0.60	1.30	1.15	8.93	1.55	12.04	1.05	1.86	1.60		
14	0.56	0.52	1.65	0.60	1.25	1.05	4.96	1.55	31.67	1.05	1.86	1.25		
15	0.52	0.52	1.35	0.48	1.20	1.15	4.82	1.86	17.62	1.05	2.70	1.05		
16	0.52	0.48	1.35	0.32	1.10	2.28	8.84	2.10	12.98	1.40	3.07	0.95		
17	0.44	0.44	1.70	0.44	0.95	1.10	9.31	2.10	23.76	1.70	4.40	0.85		
18	0.36	0.44	1.75	0.32	0.85	0.85	5.59	2.28	16.00	2.28	2.58	1.10		
19	0.36	0.48	1.25	1.05	0.85	0.85	7.16	4.05	8.66	2.16	2.16	1.20		
20	0.36	0.76	0.85	0.76	0.80	0.85	4.68	5.80	6.60	2.28	1.86	1.10		
21	0.36	0.68	0.85	0.56	0.80	0.85	5.31	5.24	5.66	2.46	1.65	1.15		
22	0.36	0.95	0.80	0.76	1.30	0.90	4.68	4.75	4.89	2.10	1.65	1.10		
23	0.48	0.76	0.80	1.05	0.68	0.68	5.03	4.82	4.40	1.98	1.50	1.10		
24	0.36	0.72	0.80	0.60	0.60	0.76	6.28	4.19	4.05	1.86	1.45	1.15		
25	0.48	0.68	0.80	0.85	3.14	2.76	6.28	4.12	3.91	1.80	1.45	1.40		
26	0.68	0.64	0.60	1.50	1.45	1.25	3.84	3.07	5.52	1.65	1.40	1.55		
27	0.56	0.52	0.44	0.85	1.60	1.05	5.80	2.58	4.26	1.60	1.35	1.86		
28	0.60	0.44	0.95	0.85	1.30	0.95	4.47	2.40	4.19	1.50	1.05	1.50		
29	0.52	0.44	0.48	1.55	1.35	0.85	3.35	2.22	3.77	1.40		1.35		
30	0.44	0.64	0.44	2.04	1.70	0.85	3.07	2.10	10.35	1.25		2.34		
31		0.90		1.25	2.34		2.64		6.20	1.25		3.00		
Total	19.84	18.12	29.22	25.46	44.37	33.48	176.22	91.20	213.30	75.06	50.49	41.75	818.51	CMSDAY
Mean	0.66	0.58	0.97	0.82	1.43	1.12	5.68	3.04	6.88	2.42	1.80	1.35	2.24	CMS
Max	1.60	0.95	1.75	2.04	3.14	2.76	14.92	5.80	31.67	6.92	4.40	3.00	31.67	CMS
Min	0.36	0.36	0.44	0.32	0.60	0.68	1.98	1.55	1.45	1.05	1.05	0.85	0.32	CMS
Runoff	1.71	1.57	2.52	2.20	3.83	2.89	15.23	7.88	18.43	6.49	4.36	3.61	70.72	MCM

Momentary Peak 44.68 CMS. at 20.36 m. (MSL.) at 24.00 Hours , on Oct 8 , 2002

Runoff Yield 52.15 Liters/Second/Square KM. Momentary Peak Yield 1039.070 Liters/Second/Square KM.

WATER YEAR : 2002

SOUTHERN PENINSULA EAST COAST

Khlong Ai To at Ban Ai To, Phatthalung (X.129)

Lat 07 - 23 - 19 N Long 100 - 06 - 44 E

Location : on right bank near Wat Ban Ai To.

Ban Ai To **Amphoe** Bang Kaeo **Changwat** Phatthalung

Drainge Area	325 sq.km.
Type of Gage	Staff gage.
Zero Gage at Bottom	+13.000 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank about 20 meters from the top staff gage. **Elevation** +20.510 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 mean 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	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records good. Flow regulated by Tha Chiat weir about 4 kilometers above gage site. Stage-discharge relation defined by 20 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

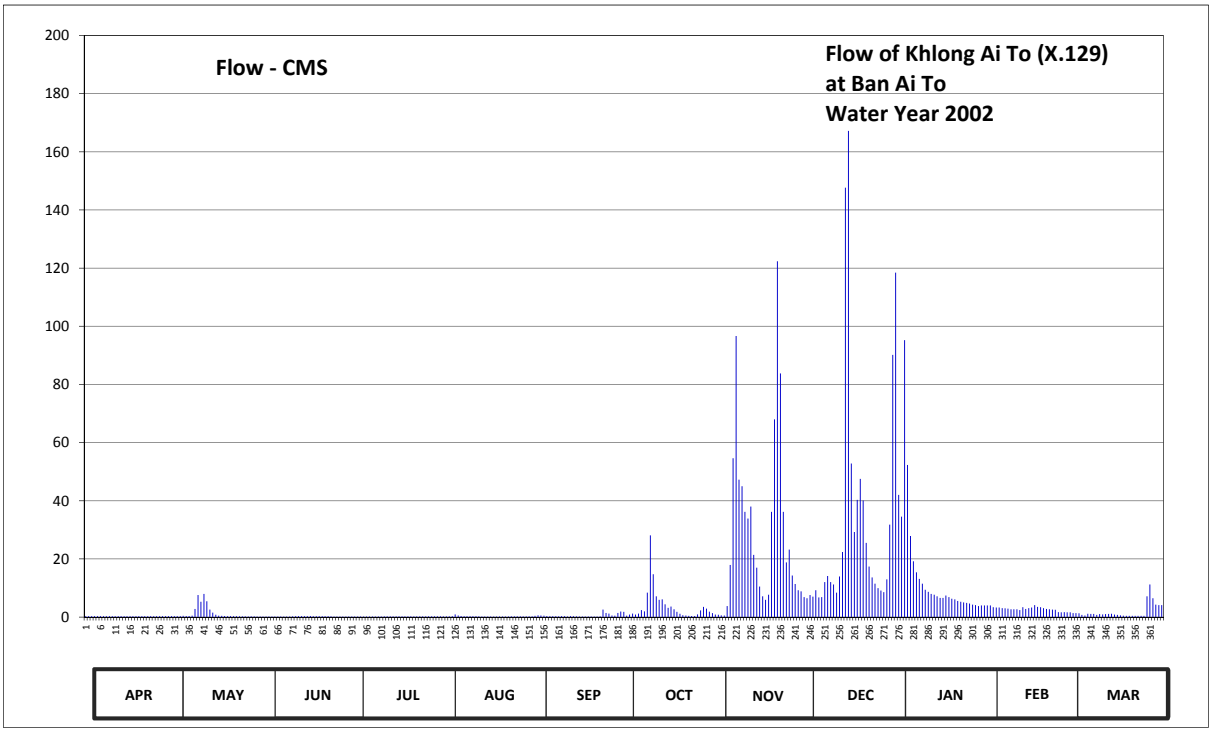
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	13.51	13.51	13.48	13.48	13.49	13.60	13.57	13.63	14.19	16.04	14.00	13.71	
2	13.50	13.51	13.48	13.48	13.49	13.59	13.64	13.60	14.27	15.72	13.94	13.71	
3	13.50	13.51	13.48	13.48	13.50	13.56	13.69	13.59	14.23	17.89	13.93	13.70	
4	13.50	13.55	13.48	13.48	13.65	13.53	13.64	13.98	14.39	16.45	13.93	13.62	
5	13.50	13.52	13.48	13.48	13.59	13.51	13.69	14.94	14.21	15.43	13.91	13.59	
6	13.50	13.52	13.48	13.48	13.53	13.50	13.84	16.54	14.22	15.01	13.90	13.68	
7	13.50	13.56	13.48	13.48	13.51	13.50	13.80	17.93	14.59	14.80	13.89	13.67	
8	13.50	13.88	13.48	13.48	13.51	13.49	14.33	16.25	14.72	14.66	13.87	13.67	
9	13.50	14.27	13.48	13.48	13.50	13.50	15.44	16.16	14.59	14.55	13.87	13.62	
10	13.50	14.10	13.49	13.48	13.51	13.50	14.76	15.79	14.53	14.40	13.87	13.66	
11	13.50	14.30	13.50	13.49	13.50	13.48	14.24	15.69	14.33	14.35	13.84	13.65	
12	13.50	14.11	13.50	13.49	13.49	13.50	14.15	15.87	14.71	14.30	13.94	13.66	
13	13.50	13.86	13.50	13.49	13.48	13.50	14.16	15.12	15.17	14.28	13.88	13.67	
14	13.50	13.73	13.51	13.49	13.48	13.49	14.03	14.89	19.34	14.24	13.91	13.68	
15	13.50	13.63	13.51	13.49	13.48	13.48	13.92	14.48	19.84	14.20	13.93	13.64	
16	13.50	13.57	13.52	13.49	13.48	13.48	13.96	14.24	16.47	14.20	14.01	13.62	
17	13.50	13.54	13.51	13.49	13.48	13.48	13.87	14.15	15.49	14.26	13.95	13.60	
18	13.50	13.53	13.51	13.49	13.48	13.48	13.77	14.28	15.97	14.22	13.94	13.56	
19	13.50	13.51	13.51	13.49	13.48	13.48	13.68	15.79	16.26	14.18	13.91	13.55	
20	13.50	13.51	13.50	13.49	13.48	13.48	13.61	17.03	15.96	14.16	13.88	13.54	
21	13.50	13.51	13.50	13.49	13.48	13.48	13.58	18.66	15.32	14.12	13.87	13.54	
22	13.50	13.50	13.50	13.49	13.48	13.49	13.54	17.54	14.91	14.10	13.86	13.54	
23	13.50	13.49	13.49	13.49	13.49	13.86	13.53	15.79	14.69	14.08	13.85	13.54	
24	13.50	13.49	13.48	13.49	13.49	13.72	13.53	14.99	14.55	14.07	13.76	13.55	
25	13.50	13.49	13.48	13.49	13.49	13.69	13.65	15.21	14.44	14.05	13.75	13.55	
26	13.50	13.48	13.48	13.49	13.49	13.59	13.83	14.73	14.38	14.02	13.76	14.24	
27	13.50	13.49	13.48	13.49	13.49	13.56	13.95	14.54	14.34	14.01	13.75	14.53	
28	13.50	13.49	13.48	13.49	13.49	13.72	13.89	14.39	14.65	13.98	13.75	14.19	
29	13.51	13.48	13.48	13.49	13.49	13.79	13.78	14.36	15.60	14.00		14.02	
30	13.51	13.48	13.48	13.49	13.49	13.77	13.71	14.22	17.74	14.00		14.01	
31		13.48		13.49	13.54		13.64		18.55	14.00		14.01	
Mean	13.50	13.63	13.49	13.49	13.50	13.56	13.88	15.28	15.38	14.57	13.88	13.73	
Max	13.51	14.30	13.52	13.49	13.65	13.86	15.44	18.66	19.84	17.89	14.01	14.53	19.84
Min	13.50	13.48	13.48	13.48	13.48	13.48	13.53	13.59	14.19	13.98	13.75	13.54	13.48

Annual Max Momentary Gage Height 20.38 m. (MSL.) , at 18.00 Hours , on Dec 14 , 2002

Zero Gage at Bottom Elevation 13.00 m. (MSL.) , River Bed 12.73 m. (MSL.)

Left Bank Elevation 22.44 m. (MSL.) ,

Right Bank Elevation 22.43 m. (MSL.) , Drainage Are 325 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.33	0.33	0.24	0.24	0.27	0.60	0.51	0.81	6.47	42.00	4.00	1.37		
2	0.30	0.33	0.24	0.24	0.27	0.57	0.88	0.60	7.58	34.56	3.40	1.37		
3	0.30	0.33	0.24	0.24	0.30	0.48	1.23	0.57	7.02	95.25	3.30	1.30		
4	0.30	0.45	0.24	0.24	0.95	0.39	0.88	3.80	9.26	52.30	3.30	0.74		
5	0.30	0.36	0.24	0.24	0.57	0.33	1.23	17.92	6.74	27.89	3.10	0.57		
6	0.30	0.36	0.24	0.24	0.39	0.30	2.40	54.64	6.88	19.20	3.00	1.16		
7	0.30	0.48	0.24	0.24	0.33	0.30	2.00	96.65	12.06	15.40	2.90	1.09		
8	0.30	2.80	0.24	0.24	0.33	0.27	8.42	47.25	14.12	13.16	2.70	1.09		
9	0.30	7.58	0.24	0.24	0.30	0.30	28.12	45.00	12.06	11.50	2.70	0.74		
10	0.30	5.30	0.27	0.24	0.33	0.30	14.76	36.17	11.22	9.40	2.70	1.02		
11	0.30	8.00	0.30	0.27	0.30	0.24	7.16	33.87	8.42	8.70	2.40	0.95		
12	0.30	5.43	0.30	0.27	0.27	0.30	5.95	38.01	13.96	8.00	3.40	1.02		
13	0.30	2.60	0.30	0.27	0.24	0.30	6.08	21.40	22.40	7.72	2.80	1.09		
14	0.30	1.51	0.33	0.27	0.24	0.27	4.39	17.02	147.66	7.16	3.10	1.16		
15	0.30	0.81	0.33	0.27	0.24	0.24	3.20	10.52	167.18	6.60	3.30	0.88		
16	0.30	0.51	0.36	0.27	0.24	0.24	3.60	7.16	52.82	6.60	4.13	0.74		
17	0.30	0.42	0.33	0.27	0.24	0.24	2.70	5.95	29.27	7.44	3.50	0.60		
18	0.30	0.39	0.33	0.27	0.24	0.24	1.79	7.72	40.31	6.88	3.40	0.48		
19	0.30	0.33	0.33	0.27	0.24	0.24	1.16	36.17	47.50	6.34	3.10	0.45		
20	0.30	0.33	0.30	0.27	0.24	0.24	0.67	68.00	40.08	6.08	2.80	0.42		
21	0.30	0.33	0.30	0.27	0.24	0.24	0.54	122.36	25.52	5.56	2.70	0.42		
22	0.30	0.30	0.30	0.27	0.24	0.27	0.42	83.78	17.38	5.30	2.60	0.42		
23	0.30	0.27	0.27	0.27	0.27	2.60	0.39	36.17	13.64	5.04	2.50	0.42		
24	0.30	0.27	0.24	0.27	0.27	1.44	0.39	18.82	11.50	4.91	1.72	0.45		
25	0.30	0.27	0.24	0.27	0.27	1.23	0.95	23.21	9.96	4.65	1.65	0.45		
26	0.30	0.24	0.24	0.27	0.27	0.57	2.30	14.28	9.12	4.26	1.72	7.16		
27	0.30	0.27	0.24	0.27	0.27	0.48	3.50	11.36	8.56	4.13	1.65	11.22		
28	0.30	0.27	0.24	0.27	0.27	1.44	2.90	9.26	13.00	3.80	1.65	6.47		
29	0.33	0.24	0.24	0.27	0.27	1.93	1.86	8.84	31.80	4.00		4.26		
30	0.33	0.24	0.24	0.27	0.27	1.79	1.37	6.88	90.18	4.00		4.13		
31		0.24		0.27	0.42		0.88		118.42	4.00		4.13		
Total	9.09	41.59	8.19	8.07	9.59	18.38	112.63	884.19	1012.09	441.83	79.22	57.77	2682.64	CMSDAY
Mean	0.30	1.34	0.27	0.26	0.31	0.61	3.63	29.47	32.65	14.25	2.83	1.86	7.35	CMS
Max	0.33	8.00	0.36	0.27	0.95	2.60	28.12	122.36	167.18	95.25	4.13	11.22	167.18	CMS
Min	0.30	0.24	0.24	0.24	0.24	0.24	0.39	0.57	6.47	3.80	1.65	0.42	0.24	CMS
Runoff	0.79	3.59	0.71	0.70	0.83	1.59	9.73	76.39	87.44	38.17	6.84	4.99	231.78	MCM

Momentary Peak 188.88 CMS. at 20.38 m. (MSL.) at 18.00 Hours , on Dec 14 , 2002

Runoff Yield 22.61 Liters/Second/Square KM. Momentary Peak Yield 581.170 Liters/Second/Square KM.

WATER YEAR : 2002

SOUTHERN PENINSULA EAST COAST

Khlong Klai at Ban Hua Na , Nakhon Si Thammarat (X.149)

Lat 08 - 43 - 46 N Long 99 - 44 - 53 E

Location : on left bank at Ban Hua Na.

Ban Hua Na **Amphoe** Nopphitam **Changwat** Nakhon Si Thammar

Drainge Area	475 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+28.300 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank near the station office. **Elevation** +34.588 m. (MSL.)
Gage Reading Frequency	13-time daily readings at 06.00 - 18.00 hours.
Basis of Mean Daily Gage Height	Arithmetic mean of 13 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 58 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

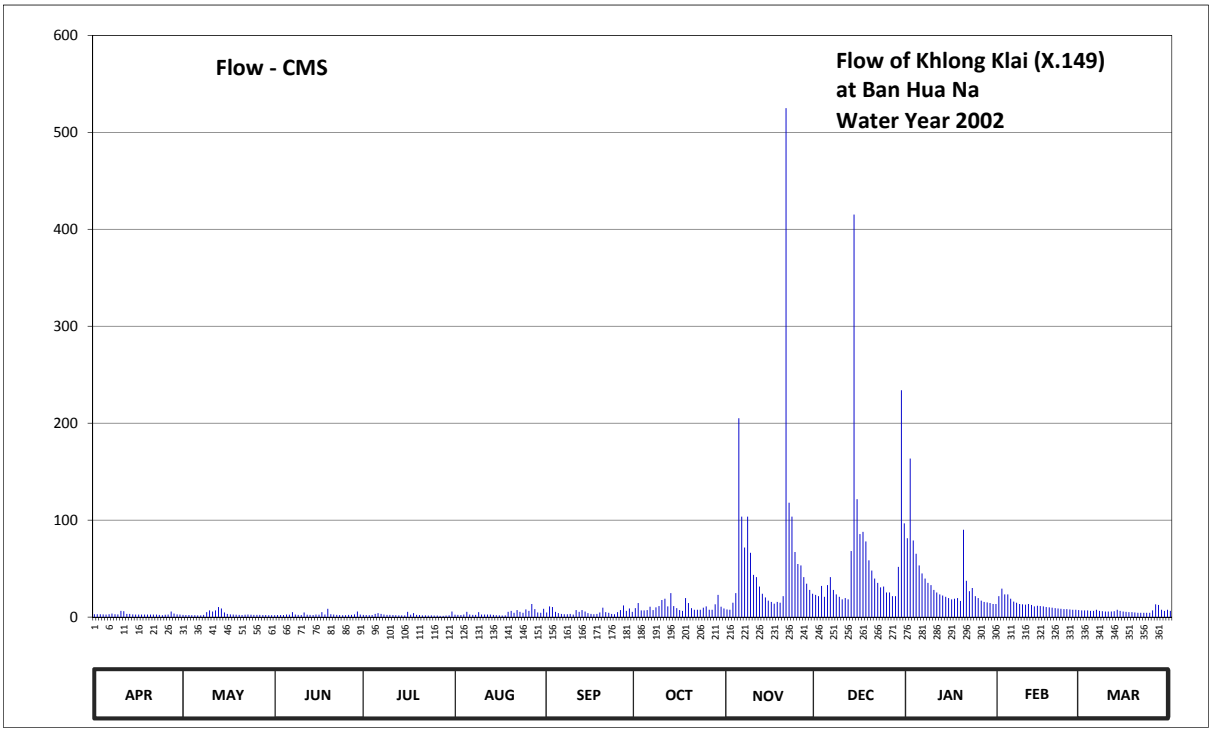
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	28.60	28.55	28.53	28.55	28.56	28.65	28.78	28.74	29.09	29.83	29.07	28.71	
2	28.60	28.54	28.54	28.54	28.55	28.83	28.93	28.73	29.07	30.50	29.19	28.71	
3	28.60	28.54	28.54	28.53	28.54	28.81	28.71	28.94	29.23	29.81	29.10	28.71	
4	28.59	28.53	28.54	28.54	28.58	28.67	28.71	29.12	29.06	29.66	29.10	28.70	
5	28.58	28.53	28.57	28.61	28.67	28.63	28.72	30.77	29.24	29.51	29.03	28.70	
6	28.60	28.52	28.56	28.63	28.57	28.61	28.82	30.03	29.35	29.40	28.97	28.73	
7	28.62	28.52	28.66	28.61	28.55	28.60	28.72	29.73	29.17	29.33	28.94	28.70	
8	28.60	28.55	28.57	28.58	28.55	28.60	28.80	30.03	29.10	29.27	28.90	28.69	
9	28.59	28.66	28.55	28.55	28.66	28.61	28.84	29.67	29.06	29.24	28.89	28.68	
10	28.70	28.71	28.54	28.55	28.57	28.58	29.01	29.38	29.02	29.17	28.88	28.68	
11	28.69	28.68	28.65	28.54	28.57	28.72	29.03	29.35	29.04	29.13	28.90	28.68	
12	28.61	28.71	28.56	28.53	28.57	28.67	28.83	29.22	29.02	29.10	28.87	28.69	
13	28.61	28.81	28.55	28.52	28.58	28.72	29.12	29.11	29.69	29.08	28.83	28.73	
14	28.59	28.77	28.54	28.52	28.55	28.68	28.84	29.05	31.65	29.06	28.85	28.70	
15	28.58	28.65	28.57	28.52	28.53	28.63	28.78	29.00	30.18	29.04	28.84	28.68	
16	28.58	28.61	28.56	28.67	28.52	28.61	28.72	28.96	29.87	29.02	28.83	28.67	
17	28.58	28.59	28.66	28.56	28.51	28.60	28.70	28.91	29.89	29.03	28.81	28.66	
18	28.57	28.57	28.57	28.63	28.52	28.61	29.04	28.96	29.80	29.04	28.80	28.66	
19	28.57	28.56	28.76	28.55	28.67	28.65	28.93	28.94	29.58	28.99	28.79	28.65	
20	28.57	28.55	28.60	28.54	28.70	28.79	28.78	29.07	29.44	29.91	28.78	28.64	
21	28.57	28.54	28.57	28.52	28.64	28.66	28.73	32.00	29.33	29.30	28.77	28.64	
22	28.57	28.56	28.55	28.52	28.72	28.64	28.73	30.15	29.27	29.15	28.76	28.64	
23	28.55	28.58	28.54	28.51	28.67	28.61	28.73	30.03	29.21	29.20	28.75	28.64	
24	28.53	28.56	28.53	28.52	28.64	28.60	28.79	29.68	29.22	29.07	28.75	28.64	
25	28.56	28.55	28.53	28.51	28.74	28.66	28.83	29.53	29.13	29.04	28.74	28.71	
26	28.58	28.55	28.55	28.51	28.70	28.72	28.73	29.51	29.13	29.00	28.73	28.89	
27	28.68	28.55	28.55	28.49	28.90	28.86	28.73	29.35	29.07	28.96	28.73	28.87	
28	28.62	28.54	28.59	28.49	28.75	28.70	28.89	29.26	29.07	28.95	28.72	28.73	
29	28.59	28.54	28.68	28.51	28.65	28.77	29.09	29.17	29.49	28.93		28.70	
30	28.57	28.53	28.57	28.52	28.64	28.67	28.82	29.11	30.92	28.90		28.73	
31		28.53		28.68	28.76		28.77		29.97	28.90		28.70	
Mean	28.60	28.59	28.58	28.55	28.62	28.67	28.83	29.45	29.46	29.24	28.87	28.70	
Max	28.70	28.81	28.76	28.68	28.90	28.86	29.12	32.00	31.65	30.50	29.19	28.89	32.00
Min	28.53	28.52	28.53	28.49	28.51	28.58	28.70	28.73	29.02	28.90	28.72	28.64	28.49

Annual Max Momentary Gage Height 32.37 m. (MSL.) , at 09.00 Hours , on Dec 14 , 2002

Zero Gage at Bottom Elevation 28.30 m. (MSL.) , River Bed 27.94 m. (MSL.)

Left Bank Elevation 35.96 m. (MSL.) ,

Right Bank Elevation 35.99 m. (MSL.) , Drainage Are 475 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.00	2.25	1.95	2.25	2.40	4.75	9.30	7.90	22.85	81.30	21.55	6.85		
2	3.00	2.10	2.10	2.10	2.25	11.05	14.55	7.55	21.55	163.50	29.35	6.85		
3	3.00	2.10	2.10	1.95	2.10	10.35	6.85	14.90	32.25	79.10	23.50	6.85		
4	2.85	1.95	2.10	2.10	2.70	5.45	6.85	24.80	20.90	65.40	23.50	6.50		
5	2.70	1.95	2.55	3.35	5.45	4.05	7.20	205.05	33.00	53.25	18.95	6.50		
6	3.00	1.80	2.40	4.05	2.55	3.35	10.70	103.60	41.25	45.00	15.95	7.55		
7	3.70	1.80	5.10	3.35	2.25	3.00	7.20	71.70	28.05	39.75	14.90	6.50		
8	3.00	2.25	2.55	2.70	2.25	3.00	10.00	103.60	23.50	35.25	13.50	6.15		
9	2.85	5.10	2.25	2.25	5.10	3.35	11.40	66.30	20.90	33.00	13.15	5.80		
10	6.50	6.85	2.10	2.25	2.55	2.70	17.65	43.50	18.30	28.05	12.80	5.80		
11	6.15	5.80	4.75	2.10	2.55	7.20	18.95	41.25	19.60	25.45	13.50	5.80		
12	3.35	6.85	2.40	1.95	2.55	5.45	11.05	31.50	18.30	23.50	12.45	6.15		
13	3.35	10.35	2.25	1.80	2.70	7.20	24.80	24.15	68.10	22.20	11.05	7.55		
14	2.85	8.95	2.10	1.80	2.25	5.80	11.40	20.25	415.25	20.90	11.75	6.50		
15	2.70	4.75	2.55	1.80	1.95	4.05	9.30	17.00	121.60	19.60	11.40	5.80		
16	2.70	3.35	2.40	5.45	1.80	3.35	7.20	15.60	85.70	18.30	11.05	5.45		
17	2.70	2.85	5.10	2.40	1.65	3.00	6.50	13.85	87.90	18.95	10.35	5.10		
18	2.55	2.55	2.55	4.05	1.80	3.35	19.60	15.60	78.00	19.60	10.00	5.10		
19	2.55	2.40	8.60	2.25	5.45	4.75	14.55	14.90	58.50	16.65	9.65	4.75		
20	2.55	2.25	3.00	2.10	6.50	9.65	9.30	21.55	48.00	90.10	9.30	4.40		
21	2.55	2.10	2.55	1.80	4.40	5.10	7.55	525.00	39.75	37.50	8.95	4.40		
22	2.55	2.40	2.25	1.80	7.20	4.40	7.55	118.00	35.25	26.75	8.60	4.40		
23	2.25	2.70	2.10	1.65	5.45	3.35	7.55	103.60	30.75	30.00	8.25	4.40		
24	1.95	2.40	1.95	1.80	4.40	3.00	9.65	67.20	31.50	21.55	8.25	4.40		
25	2.40	2.25	1.95	1.65	7.90	5.10	11.05	54.75	25.45	19.60	7.90	6.85		
26	2.70	2.25	2.25	1.65	6.50	7.20	7.55	53.25	25.45	17.00	7.55	13.15		
27	5.80	2.25	2.25	1.35	13.50	12.10	7.55	41.25	21.55	15.60	7.55	12.45		
28	3.70	2.10	2.85	1.35	8.25	6.50	13.15	34.50	21.55	15.25	7.20	7.55		
29	2.85	2.10	5.80	1.65	4.75	8.95	22.85	28.05	51.75	14.55		6.50		
30	2.55	1.95	2.55	1.80	4.40	5.45	10.70	24.15	234.00	13.50		7.55		
31		1.95		5.80	8.60		8.95		96.70	13.50		6.50		
Total	94.35	102.70	87.40	74.35	134.15	166.00	348.45	1914.30	1877.20	1123.65	361.90	200.10	6484.55	CMSDAY
Mean	3.15	3.31	2.91	2.40	4.33	5.53	11.24	63.81	60.55	36.25	12.93	6.45	17.77	CMS
Max	6.50	10.35	8.60	5.80	13.50	12.10	24.80	525.00	415.25	163.50	29.35	13.15	525.00	CMS
Min	1.95	1.80	1.95	1.35	1.65	2.70	6.50	7.55	18.30	13.50	7.20	4.40	1.35	CMS
Runoff	8.15	8.87	7.55	6.42	11.59	14.34	30.11	165.40	162.19	97.08	31.27	17.29	560.27	MCM

Momentary Peak 678.95 CMS. at 32.37 m. (MSL.) at 09.00 Hours , on Dec 14 , 2002

Runoff Yield 37.40 Liters/Second/Square KM. Momentary Peak Yield 1429.370 Liters/Second/Square KM.

WATER YEAR : 2002

SOUTHERN PENINSULA EAST COAST

Khlong Tha Taphao at Ban Wang Khrok , Chumphon (X.158)

Lat 10 - 35 - 34 N Long 99 - 08 - 43 E

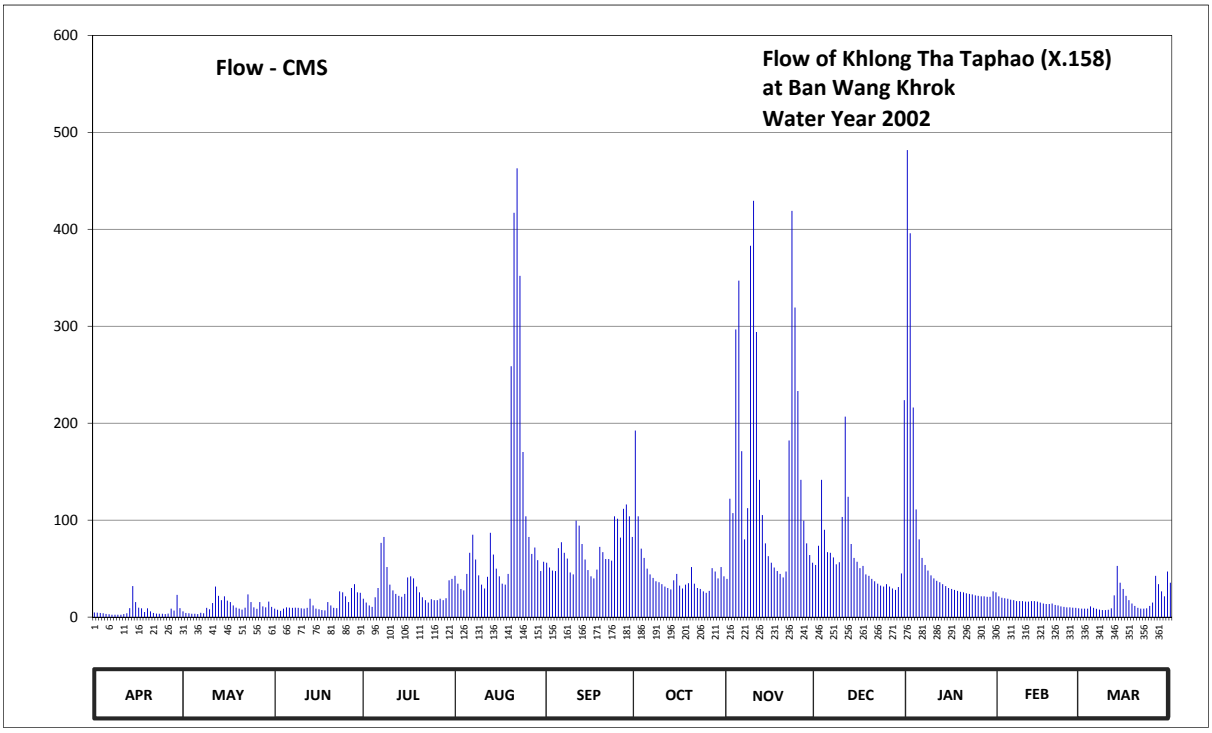
Location : on right bank at the bridge on Chumphon - Prachuap Khiri Khan Highway.

	Ban Wang Khrok	**Amphoe** Tha Sae	**Changwat** Chumphon
Drainge Area	1,814 sq.km.		
Type of Gage	Water - stage recorder.		
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	Recording.		
Basis of Mean Daily Gage Height	Arithmetic mean of 24 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	Stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 36 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	3.18	3.24	3.35	3.58	4.05	4.31	6.31	3.99	4.27	9.37	3.63	3.35	
2	3.17	3.15	3.30	3.50	3.89	4.22	5.10	5.38	4.61	8.56	3.60	3.35	
3	3.15	3.13	3.26	3.44	3.78	4.16	4.56	5.15	5.67	6.59	3.59	3.35	
4	3.13	3.10	3.35	3.41	3.75	4.15	4.40	7.52	4.88	5.21	3.58	3.42	
5	3.09	3.10	3.40	3.61	4.09	4.57	4.20	8.07	4.50	4.72	3.56	3.38	
6	3.06	3.08	3.39	3.80	4.49	4.67	4.08	6.06	4.49	4.40	3.55	3.34	
7	3.03	3.16	3.38	4.66	4.80	4.49	4.01	4.72	4.41	4.27	3.53	3.31	
8	3.03	3.13	3.39	4.76	4.37	4.39	3.94	5.23	4.28	4.16	3.53	3.29	
9	3.03	3.38	3.38	4.23	4.06	4.12	3.92	8.43	4.32	4.06	3.53	3.29	
10	3.03	3.32	3.36	3.87	3.87	4.08	3.88	8.89	5.09	4.00	3.52	3.30	
11	3.08	3.49	3.35	3.75	3.79	5.03	3.83	7.49	6.48	3.95	3.52	3.36	
12	3.13	3.83	3.38	3.68	4.03	4.95	3.80	5.67	5.41	3.92	3.53	3.65	
13	3.37	3.64	3.58	3.64	4.83	4.64	3.77	5.12	4.64	3.88	3.53	4.25	
14	3.84	3.55	3.44	3.62	4.46	4.37	3.96	4.65	4.40	3.84	3.52	3.91	
15	3.51	3.63	3.35	3.68	4.20	4.17	4.09	4.43	4.33	3.80	3.50	3.78	
16	3.39	3.54	3.32	4.02	4.04	4.04	3.85	4.31	4.21	3.78	3.48	3.64	
17	3.36	3.51	3.29	4.04	3.89	4.00	3.79	4.22	4.25	3.76	3.47	3.55	
18	3.21	3.44	3.28	4.00	3.87	4.18	3.87	4.15	4.08	3.74	3.47	3.48	
19	3.36	3.39	3.51	3.83	4.09	4.59	3.90	4.09	4.05	3.72	3.48	3.43	
20	3.24	3.35	3.44	3.71	7.09	4.50	4.23	4.02	3.99	3.71	3.45	3.38	
21	3.15	3.31	3.38	3.61	8.77	4.38	3.89	4.14	3.94	3.69	3.44	3.35	
22	3.11	3.39	3.37	3.55	9.20	4.38	3.80	6.19	3.89	3.68	3.42	3.35	
23	3.10	3.67	3.73	3.50	8.12	4.35	3.78	8.79	3.85	3.67	3.41	3.36	
24	3.10	3.51	3.71	3.57	6.05	5.10	3.73	7.77	3.83	3.65	3.40	3.43	
25	3.08	3.40	3.63	3.55	5.10	5.06	3.70	6.79	3.88	3.64	3.40	3.50	
26	3.11	3.34	3.51	3.55	4.76	4.75	3.74	5.67	3.83	3.63	3.39	4.05	
27	3.35	3.51	3.80	3.58	4.47	5.22	4.21	5.03	3.79	3.63	3.38	3.88	
28	3.27	3.42	3.88	3.55	4.58	5.29	4.14	4.65	3.76	3.62	3.36	3.73	
29	3.66	3.40	3.71	3.59	4.36	5.10	4.00	4.45	3.82	3.62		3.63	
30	3.37	3.52	3.70	3.96	4.15	4.76	4.23	4.31	4.10	3.73		4.14	
31		3.41		3.99	4.33		4.04		6.68	3.71		3.91	
Mean	3.22	3.39	3.46	3.77	4.82	4.53	4.09	5.65	4.44	4.31	3.49	3.55	
Max	3.84	3.83	3.88	4.76	9.20	5.29	6.31	8.89	6.68	9.37	3.63	4.25	9.37
Min	3.03	3.08	3.26	3.41	3.75	4.00	3.70	3.99	3.76	3.62	3.36	3.29	3.03

Annual Max Momentary Gage Height	9.58	m. (MSL.) ,	at 05.00 Hours , on Jan 1 , 2002		
Zero Gage at Bottom Elevation	0.00	m. (MSL.) ,	River Bed	1.61	m. (MSL.)
Left Bank Elevation	14.50	m. (MSL.) ,			
Right Bank Elevation	14.45	m. (MSL.) ,	Drainage Are	1,814	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	4.70	6.00	8.75	19.00	42.50	56.05	192.39	39.50	53.85	481.70	21.50	8.75		
2	4.55	4.25	7.50	15.00	34.50	51.10	104.00	122.10	73.60	396.00	20.00	8.75		
3	4.25	3.95	6.50	12.00	29.00	48.00	70.60	107.20	141.64	216.17	19.50	8.75		
4	3.95	3.50	8.75	10.50	27.50	47.50	61.00	296.80	90.04	111.05	19.00	11.00		
5	3.35	3.50	10.00	20.50	44.50	71.20	50.00	347.00	67.00	80.20	18.00	9.50		
6	2.90	3.20	9.75	30.00	66.40	77.20	44.00	171.16	66.40	61.00	17.50	8.50		
7	2.45	4.40	9.50	76.60	85.00	66.40	40.50	80.20	61.60	53.85	16.50	7.75		
8	2.45	3.95	9.75	82.60	59.35	60.45	37.00	112.35	54.40	48.00	16.50	7.25		
9	2.45	9.50	9.50	51.65	43.00	46.00	36.00	383.00	56.60	43.00	16.50	7.25		
10	2.45	8.00	9.00	33.50	33.50	44.00	34.00	429.45	103.36	40.00	16.00	7.50		
11	3.20	14.50	8.75	27.50	29.50	99.52	31.50	294.10	206.83	37.50	16.00	9.00		
12	3.95	31.50	9.50	24.00	41.50	94.45	30.00	141.64	124.06	36.00	16.50	22.50		
13	9.25	22.00	19.00	22.00	86.89	75.40	28.50	105.28	75.40	34.00	16.50	52.75		
14	32.00	17.50	12.00	21.00	64.60	59.35	38.00	76.00	61.00	32.00	16.00	35.50		
15	15.50	21.50	8.75	24.00	50.00	48.50	44.50	62.80	57.15	30.00	15.00	29.00		
16	9.75	17.00	8.00	41.00	42.00	42.00	32.50	56.05	50.55	29.00	14.00	22.00		
17	9.00	15.50	7.25	42.00	34.50	40.00	29.50	51.10	52.75	28.00	13.50	17.50		
18	5.25	12.00	7.00	40.00	33.50	49.00	33.50	47.50	44.00	27.00	13.50	14.00		
19	9.00	9.75	15.50	31.50	44.50	72.40	35.00	44.50	42.50	26.00	14.00	11.50		
20	6.00	8.75	12.00	25.50	258.83	67.00	51.65	41.00	39.50	25.50	12.50	9.50		
21	4.25	7.75	9.50	20.50	417.00	59.90	34.50	47.00	37.00	24.50	12.00	8.75		
22	3.65	9.75	9.25	17.50	463.00	59.90	30.00	182.20	34.50	24.00	11.00	8.75		
23	3.50	23.50	26.50	15.00	352.00	58.25	29.00	419.00	32.50	23.50	10.50	9.00		
24	3.50	15.50	25.50	18.50	170.31	104.00	26.50	319.30	31.50	22.50	10.00	11.50		
25	3.20	10.00	21.50	17.50	104.00	101.44	25.00	233.16	34.00	22.00	10.00	15.00		
26	3.65	8.50	15.50	17.50	82.60	82.00	27.00	141.64	31.50	21.50	9.75	42.50		
27	8.75	15.50	30.00	19.00	65.20	111.70	50.55	99.52	29.50	21.50	9.50	34.00		
28	6.75	11.00	34.00	17.50	71.80	116.25	47.00	76.00	28.00	21.00	9.00	26.50		
29	23.00	10.00	25.50	19.50	58.80	104.00	40.00	64.00	31.00	21.00		21.50		
30	9.25	16.00	25.00	38.00	47.50	82.60	51.65	56.05	45.00	26.50		47.00		
31		10.50		39.50	57.15		42.00		223.82	25.50		35.50		
Total	205.90	358.25	419.00	889.85	3040.43	2095.56	1427.34	4646.60	2080.55	2089.47	410.25	568.25	18231.45	CMSDAY
Mean	6.86	11.56	13.97	28.70	98.08	69.85	46.04	154.89	67.11	67.40	14.65	18.33	49.95	CMS
Max	32.00	31.50	34.00	82.60	463.00	116.25	192.39	429.45	223.82	481.70	21.50	52.75	481.70	CMS
Min	2.45	3.20	6.50	10.50	27.50	40.00	25.00	39.50	28.00	21.00	9.00	7.25	2.45	CMS
Runoff	17.79	30.95	36.20	76.88	262.69	181.06	123.32	401.47	179.76	180.53	35.45	49.10	1575.20	MCM

Momentary Peak 504.80 CMS. at 9.58 m. (MSL.) at 05.00 Hours , on Jan 1 , 2002

Runoff Yield 27.54 Liters/Second/Square KM. Momentary Peak Yield 278.280 Liters/Second/Square KM.

WATER YEAR : 2002

SOUTHERN PENINSULA EAST COAST

Khlong To Daeng at Ban Kwa Ro Krung, Narathiwat (X.159)

Lat 06 - 05 - 08 N Long 102 - 01 - 20 E

Location : on right bank downstream from the bridge of Ban Lu Bo Lu Song - Ban Khlong Chang Road.

Ban Kwa Ro Krung **Amphoe** Sungai Kolok **Changwat** Narathiwat

Drainge Area	Flood plain.
Type of Gage	Staff gage.
Zero Gage at Bottom	+2.100 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank at the abutment of the bridge. **Elevation** +4.630 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 mean of 5 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 with variable water surface slope.
Overbank Flow Conditions	No overbank flow.
General Description	Records poor. Stage-discharge relation defined by 35 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

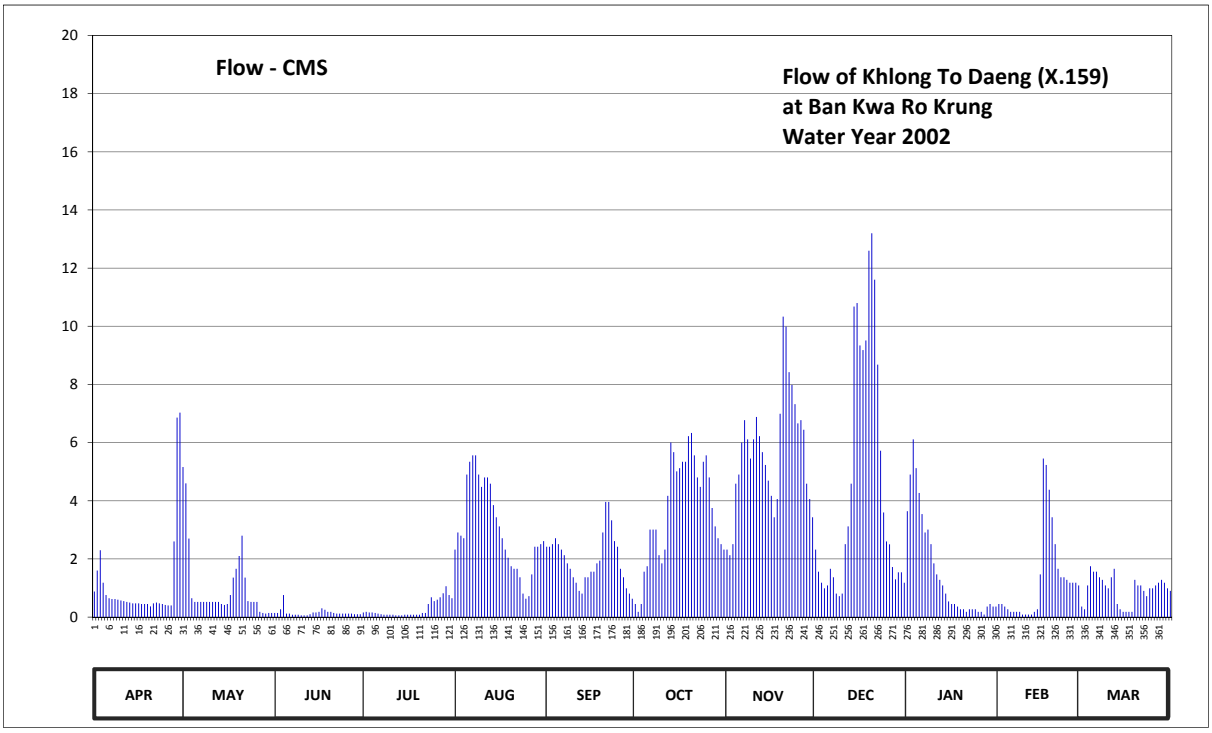
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	2.43	2.89	2.17	2.18	2.35	2.36	2.15	2.35	2.35	2.48	2.15	2.14	
2	2.55	2.85	2.17	2.19	2.41	2.36	2.12	2.33	2.27	2.60	2.15	2.13	
3	2.64	2.68	2.23	2.18	2.40	2.37	2.15	2.37	2.23	2.71	2.14	2.22	
4	2.48	2.38	2.41	2.18	2.39	2.39	2.27	2.57	2.21	2.62	2.13	2.29	
5	2.41	2.33	2.16	2.17	2.60	2.37	2.29	2.60	2.22	2.54	2.12	2.27	
6	2.38	2.33	2.16	2.16	2.64	2.35	2.42	2.70	2.28	2.47	2.12	2.27	
7	2.37	2.33	2.14	2.15	2.66	2.33	2.42	2.77	2.25	2.41	2.12	2.25	
8	2.37	2.33	2.14	2.14	2.66	2.30	2.42	2.71	2.19	2.42	2.12	2.24	
9	2.36	2.33	2.14	2.14	2.60	2.28	2.33	2.65	2.18	2.37	2.11	2.22	
10	2.35	2.33	2.13	2.14	2.56	2.25	2.30	2.71	2.19	2.30	2.11	2.21	
11	2.34	2.33	2.13	2.14	2.59	2.23	2.35	2.78	2.37	2.26	2.11	2.25	
12	2.33	2.33	2.13	2.13	2.59	2.20	2.53	2.72	2.43	2.24	2.11	2.28	
13	2.32	2.33	2.15	2.13	2.57	2.19	2.70	2.67	2.57	2.22	2.12	2.15	
14	2.31	2.30	2.18	2.13	2.50	2.25	2.67	2.63	3.12	2.19	2.13	2.13	
15	2.31	2.29	2.18	2.14	2.46	2.25	2.61	2.58	3.24	2.16	2.26	2.12	
16	2.31	2.30	2.19	2.14	2.43	2.27	2.62	2.53	3.16	2.15	2.65	2.12	
17	2.30	2.41	2.24	2.14	2.39	2.27	2.64	2.46	3.15	2.15	2.63	2.12	
18	2.30	2.51	2.22	2.14	2.35	2.30	2.64	2.52	3.17	2.14	2.55	2.12	
19	2.30	2.56	2.19	2.14	2.32	2.31	2.72	2.79	3.33	2.13	2.46	2.24	
20	2.27	2.62	2.19	2.14	2.29	2.41	2.73	3.09	3.36	2.13	2.37	2.22	
21	2.31	2.69	2.17	2.17	2.28	2.51	2.66	3.06	3.28	2.12	2.28	2.22	
22	2.32	2.51	2.16	2.17	2.28	2.51	2.59	2.92	3.12	2.13	2.25	2.20	
23	2.31	2.34	2.16	2.30	2.25	2.45	2.56	2.88	2.93	2.13	2.25	2.18	
24	2.30	2.33	2.16	2.39	2.19	2.38	2.64	2.82	2.77	2.13	2.24	2.21	
25	2.29	2.33	2.16	2.34	2.17	2.36	2.66	2.76	2.67	2.12	2.23	2.21	
26	2.28	2.33	2.16	2.36	2.18	2.28	2.59	2.77	2.66	2.12	2.23	2.22	
27	2.28	2.19	2.16	2.39	2.26	2.25	2.49	2.74	2.57	2.11	2.23	2.23	
28	2.67	2.17	2.15	2.42	2.36	2.21	2.43	2.57	2.50	2.14	2.22	2.24	
29	3.01	2.16	2.15	2.46	2.36	2.19	2.39	2.52	2.54	2.15		2.23	
30	3.02	2.17	2.15	2.41	2.37	2.17	2.37	2.46	2.54	2.14		2.21	
31		2.17		2.38	2.38		2.35		2.48	2.14		2.20	
Mean	2.41	2.39	2.17	2.22	2.41	2.31	2.48	2.67	2.66	2.26	2.24	2.20	
Max	3.02	2.89	2.41	2.46	2.66	2.51	2.73	3.09	3.36	2.71	2.65	2.29	3.36
Min	2.27	2.16	2.13	2.13	2.17	2.17	2.12	2.33	2.18	2.11	2.11	2.12	2.11

Annual Max Momentary Gage Height 3.38 m. (MSL.) , at 22.00 Hours , on Dec 19 , 2002

Zero Gage at Bottom Elevation 2.10 m. (MSL.) , River Bed 2.11 m. (MSL.)

Left Bank Elevation 5.79 m. (MSL.) ,

Right Bank Elevation 5.77 m. (MSL.) , Drainage Area Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.88	5.16	0.14	0.16	2.32	2.42	0.45	2.32	2.32	3.64	0.45	0.36		
2	1.60	4.60	0.14	0.18	2.91	2.42	0.18	2.13	1.56	4.90	0.45	0.27		
3	2.30	2.70	0.27	0.16	2.80	2.51	0.45	2.51	1.18	6.11	0.36	1.09		
4	1.18	0.65	0.76	0.16	2.71	2.71	1.56	4.59	0.99	5.12	0.27	1.75		
5	0.76	0.52	0.12	0.14	4.90	2.51	1.75	4.90	1.09	4.27	0.18	1.56		
6	0.65	0.52	0.12	0.12	5.34	2.32	3.01	6.00	1.66	3.54	0.18	1.56		
7	0.62	0.52	0.08	0.10	5.56	2.13	3.01	6.77	1.37	2.91	0.18	1.37		
8	0.62	0.52	0.08	0.08	5.56	1.85	3.01	6.11	0.81	3.01	0.18	1.28		
9	0.60	0.52	0.08	0.08	4.90	1.66	2.13	5.45	0.72	2.51	0.09	1.09		
10	0.57	0.52	0.06	0.08	4.48	1.37	1.85	6.11	0.81	1.85	0.09	0.99		
11	0.55	0.52	0.06	0.08	4.80	1.18	2.32	6.88	2.51	1.47	0.09	1.37		
12	0.52	0.52	0.06	0.06	4.80	0.90	4.17	6.22	3.12	1.28	0.09	1.66		
13	0.50	0.52	0.10	0.06	4.59	0.81	6.00	5.67	4.59	1.09	0.18	0.45		
14	0.47	0.45	0.16	0.06	3.85	1.37	5.67	5.23	10.68	0.81	0.27	0.27		
15	0.47	0.42	0.16	0.08	3.43	1.37	5.01	4.69	10.80	0.54	1.47	0.18		
16	0.47	0.45	0.18	0.08	3.12	1.56	5.12	4.17	9.34	0.45	5.45	0.18		
17	0.45	0.76	0.30	0.08	2.71	1.56	5.34	3.43	9.18	0.45	5.23	0.18		
18	0.45	1.36	0.25	0.08	2.32	1.85	5.34	4.06	9.51	0.36	4.38	0.18		
19	0.45	1.66	0.18	0.08	2.04	1.94	6.22	6.99	12.60	0.27	3.43	1.28		
20	0.37	2.10	0.18	0.08	1.75	2.91	6.33	10.33	13.20	0.27	2.51	1.09		
21	0.47	2.80	0.14	0.14	1.66	3.96	5.56	9.99	11.60	0.18	1.66	1.09		
22	0.50	1.36	0.12	0.14	1.66	3.96	4.80	8.42	8.68	0.27	1.37	0.90		
23	0.47	0.55	0.12	0.45	1.37	3.33	4.48	7.98	5.72	0.27	1.37	0.72		
24	0.45	0.52	0.12	0.68	0.81	2.61	5.34	7.32	3.60	0.27	1.28	0.99		
25	0.42	0.52	0.12	0.55	0.63	2.42	5.56	6.66	2.60	0.18	1.18	0.99		
26	0.40	0.52	0.12	0.60	0.72	1.66	4.80	6.77	2.50	0.18	1.18	1.09		
27	0.40	0.18	0.12	0.68	1.47	1.37	3.75	6.44	1.72	0.09	1.18	1.18		
28	2.60	0.14	0.10	0.82	2.42	0.99	3.12	4.59	1.30	0.36	1.09	1.28		
29	6.86	0.12	0.10	1.06	2.42	0.81	2.71	4.06	1.54	0.45		1.18		
30	7.03	0.14	0.10	0.76	2.51	0.63	2.51	3.43	1.54	0.36		0.99		
31		0.14		0.65	2.61		2.32		1.18	0.36		0.90		
Total	34.08	31.98	4.64	8.53	93.17	59.09	113.87	170.22	140.02	47.82	35.84	29.47	768.73	CMSDAY
Mean	1.14	1.03	0.15	0.28	3.01	1.97	3.67	5.67	4.52	1.54	1.28	0.95	2.11	CMS
Max	7.03	5.16	0.76	1.06	5.56	3.96	6.33	10.33	13.20	6.11	5.45	1.75	13.20	CMS
Min	0.37	0.12	0.06	0.06	0.63	0.63	0.18	2.13	0.72	0.09	0.09	0.18	0.06	CMS
Runoff	2.95	2.76	0.40	0.74	8.05	5.11	9.84	14.71	12.10	4.13	3.10	2.55	66.42	MCM

Momentary Peak 13.60 CMS. at 3.38 m. (MSL.) at 22.00 Hours , on Dec 19 , 2002

Runoff Yield ***** Liters/Second/Square KM. Momentary Peak Yield ***** Liters/Second/Square KM.

WATER YEAR : 2002

SOUTHERN PENINSULA EAST COAST

Khlong Chandi at Ban Manao Wan, Nakhon Si Thammarat (X.163)

Lat 08 - 20 - 34 N Long 99 - 37 - 12 E

Location : on left bank at the bridge near Wat Manao Wan.

Ban Manao Wan **Amphoe** Chawang **Changwat** Nakhon Si Thammar

Drainge Area	97 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 about 5.80 meters from the top staff gage. **Elevation** +6.000 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 mean of 5 readings
Period of Available Gage Records	1986 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. Stage-discharge relation defined by 35 discharge measurements made in 2002.

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

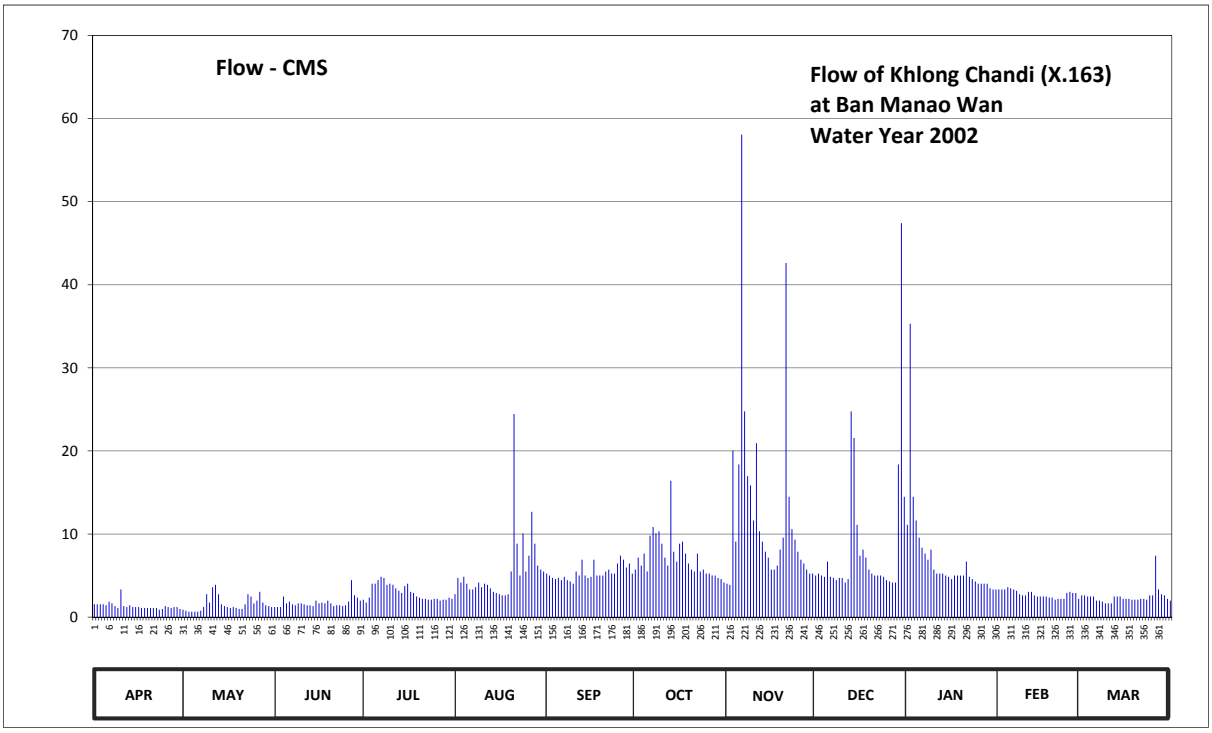
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.74	0.68	0.71	0.79	0.84	1.01	1.03	0.93	1.00	1.25	0.88	0.83	
2	0.74	0.67	0.71	0.76	0.98	1.00	1.09	0.92	1.01	2.04	0.88	0.83	
3	0.74	0.66	0.71	0.81	0.94	0.98	1.05	1.58	1.00	1.38	0.88	0.82	
4	0.74	0.66	0.82	0.93	0.99	0.97	1.11	1.17	0.99	1.27	0.90	0.82	
5	0.73	0.66	0.75	0.93	0.93	0.98	1.02	1.52	1.07	1.19	0.89	0.82	
6	0.77	0.66	0.77	0.96	0.88	0.96	1.20	2.62	0.99	1.14	0.88	0.78	
7	0.75	0.67	0.74	0.99	0.88	0.99	1.24	1.73	0.98	1.11	0.87	0.78	
8	0.72	0.71	0.73	0.98	0.90	0.96	1.21	1.47	0.96	1.08	0.84	0.77	
9	0.70	0.85	0.75	0.92	0.94	0.95	1.22	1.43	0.98	1.13	0.83	0.75	
10	0.88	0.76	0.75	0.93	0.90	0.93	1.16	1.27	0.98	1.03	0.83	0.75	
11	0.72	0.90	0.74	0.92	0.93	1.02	1.09	1.61	0.94	1.01	0.86	0.75	
12	0.71	0.92	0.73	0.89	0.92	1.00	1.05	1.22	0.97	1.01	0.86	0.82	
13	0.73	0.84	0.73	0.87	0.89	1.00	1.45	1.17	1.73	1.01	0.83	0.82	
14	0.71	0.74	0.72	0.85	0.86	1.00	1.12	1.12	1.63	1.00	0.82	0.82	
15	0.71	0.72	0.78	0.91	0.85	0.98	1.07	1.09	1.25	0.99	0.82	0.80	
16	0.71	0.71	0.75	0.93	0.84	0.99	1.16	1.03	1.10	0.97	0.82	0.80	
17	0.70	0.70	0.76	0.86	0.83	1.00	1.17	1.03	1.13	1.00	0.82	0.80	
18	0.70	0.71	0.75	0.85	0.83	1.00	1.11	1.05	1.09	1.00	0.81	0.79	
19	0.70	0.70	0.78	0.82	0.84	1.00	1.06	1.13	1.03	1.00	0.81	0.79	
20	0.70	0.69	0.75	0.81	1.02	1.00	1.03	1.19	1.01	1.00	0.80	0.79	
21	0.70	0.69	0.75	0.80	1.72	1.00	1.02	2.24	1.00	1.07	0.80	0.80	
22	0.70	0.74	0.73	0.80	1.16	1.03	1.11	1.38	1.00	0.99	0.80	0.80	
23	0.68	0.84	0.73	0.79	1.00	1.01	1.02	1.23	1.00	0.97	0.80	0.79	
24	0.69	0.82	0.72	0.79	1.21	1.01	1.03	1.18	0.99	0.95	0.85	0.79	
25	0.72	0.75	0.73	0.80	1.02	1.06	1.01	1.12	0.96	0.93	0.85	0.83	
26	0.71	0.78	0.77	0.80	1.10	1.10	1.01	1.08	0.95	0.93	0.85	1.07	
27	0.70	0.86	0.96	0.78	1.31	1.08	1.00	1.06	0.94	0.93	0.85	0.88	
28	0.71	0.76	0.83	0.79	1.16	1.04	1.00	1.03	0.94	0.93	0.80	0.84	
29	0.71	0.73	0.81	0.79	1.05	1.06	0.98	1.01	1.52	0.89		0.83	
30	0.69	0.72	0.78	0.81	1.03	1.01	0.97	1.01	2.36	0.88		0.80	
31		0.71		0.80	1.02		0.94		1.38	0.88		0.78	
Mean	0.72	0.74	0.76	0.85	0.99	1.00	1.09	1.29	1.13	1.06	0.84	0.81	
Max	0.88	0.92	0.96	0.99	1.72	1.10	1.45	2.62	2.36	2.04	0.90	1.07	2.62
Min	0.68	0.66	0.71	0.76	0.83	0.93	0.94	0.92	0.94	0.88	0.80	0.75	0.66

Annual Max Momentary Gage Height 3.10 m. (A.D.) , at 06.00 Hours , on Dec 30 , 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed 0.48 m. (A.D.)

Left Bank Elevation 7.07 m. (A.D.) ,

Right Bank Elevation 7.04 m. (A.D.) , Drainage Are 97 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.54	0.88	1.21	2.09	2.76	5.24	5.72	4.02	5.00	11.10	3.32	2.62		
2	1.54	0.77	1.21	1.76	4.72	5.00	7.16	3.88	5.24	35.32	3.32	2.62		
3	1.54	0.66	1.21	2.34	4.16	4.72	6.20	20.04	5.00	14.48	3.32	2.48		
4	1.54	0.66	2.48	4.02	4.86	4.58	7.64	9.08	4.86	11.62	3.60	2.48		
5	1.43	0.66	1.65	4.02	4.02	4.72	5.48	18.36	6.68	9.56	3.46	2.48		
6	1.87	0.66	1.87	4.44	3.32	4.44	9.80	58.08	4.86	8.36	3.32	1.98		
7	1.65	0.77	1.54	4.86	3.32	4.86	10.84	24.76	4.72	7.64	3.18	1.98		
8	1.32	1.21	1.43	4.72	3.60	4.44	10.06	16.96	4.44	6.92	2.76	1.87		
9	1.10	2.76	1.65	3.88	4.16	4.30	10.32	15.84	4.72	8.12	2.62	1.65		
10	3.32	1.76	1.65	4.02	3.60	4.02	8.84	11.62	4.72	5.72	2.62	1.65		
11	1.32	3.60	1.54	3.88	4.02	5.48	7.16	20.92	4.16	5.24	3.04	1.65		
12	1.21	3.88	1.43	3.46	3.88	5.00	6.20	10.32	4.58	5.24	3.04	2.48		
13	1.43	2.76	1.43	3.18	3.46	6.92	16.40	9.08	24.76	5.24	2.62	2.48		
14	1.21	1.54	1.32	2.90	3.04	5.00	7.88	7.88	21.56	5.00	2.48	2.48		
15	1.21	1.32	1.98	3.74	2.90	4.72	6.68	7.16	11.10	4.86	2.48	2.20		
16	1.21	1.21	1.65	4.02	2.76	4.86	8.84	5.72	7.40	4.58	2.48	2.20		
17	1.10	1.10	1.76	3.04	2.62	6.92	9.08	5.72	8.12	5.00	2.48	2.20		
18	1.10	1.21	1.65	2.90	2.62	5.00	7.64	6.20	7.16	5.00	2.34	2.09		
19	1.10	1.10	1.98	2.48	2.76	5.00	6.44	8.12	5.72	5.00	2.34	2.09		
20	1.10	0.99	1.65	2.34	5.48	5.00	5.72	9.56	5.24	5.00	2.09	2.09		
21	1.10	0.99	1.32	2.20	24.44	5.48	5.48	42.60	5.00	6.68	2.20	2.20		
22	1.10	1.54	1.43	2.20	8.84	5.72	7.64	14.48	5.00	4.86	2.20	2.20		
23	0.88	2.76	1.43	2.09	5.00	5.24	5.48	10.58	5.00	4.58	2.20	2.09		
24	0.99	2.48	1.32	2.09	10.06	5.24	5.72	9.32	4.86	4.30	2.90	2.62		
25	1.32	1.65	1.43	2.20	5.48	6.44	5.24	7.88	4.44	4.02	3.04	2.62		
26	1.21	1.98	1.87	2.20	7.40	7.40	5.24	6.92	4.30	4.02	2.90	7.40		
27	1.10	3.04	4.44	1.98	12.66	6.92	5.00	6.44	4.16	4.02	2.90	3.32		
28	1.21	1.76	2.62	2.09	8.84	5.96	5.00	5.72	4.16	4.02	2.20	2.76		
29	1.21	1.43	2.34	2.09	6.20	6.44	4.72	5.24	18.36	3.46		2.62		
30	0.99	1.32	1.98	2.34	5.72	5.24	4.58	5.24	47.40	3.32		2.20		
31		1.21		2.20	5.48		4.16		14.48	3.32		1.98		
Total	39.95	49.66	52.47	91.77	172.18	160.30	222.36	387.74	267.20	215.60	77.45	75.78	1812.46	CMSDAY
Mean	1.33	1.60	1.75	2.96	5.55	5.34	7.17	12.92	8.62	6.95	2.77	2.44	4.97	CMS
Max	3.32	3.88	4.44	4.86	24.44	7.40	16.40	58.08	47.40	35.32	3.60	7.40	58.08	CMS
Min	0.88	0.66	1.21	1.76	2.62	4.02	4.16	3.88	4.16	3.32	2.09	1.65	0.66	CMS
Runoff	3.45	4.29	4.53	7.93	14.88	13.85	19.21	33.50	23.09	18.63	6.69	6.55	156.60	MCM

Momentary Peak 79.90 CMS. at 3.10 m. (A.D.) at 06.00 Hours , on Dec 30 , 2002

Runoff Yield 51.19 Liters/Second/Square KM. Momentary Peak Yield 823.711 Liters/Second/Square KM.

WATER YEAR : 2002

SOUTHERN PENINSULA EAST COAST

Khlong Nai Khieo at Ban Thon Hong, Nakhon Si Thammarat (X.165)

Lat 08 - 33 - 47 N Long 99 - 48 - 59 E

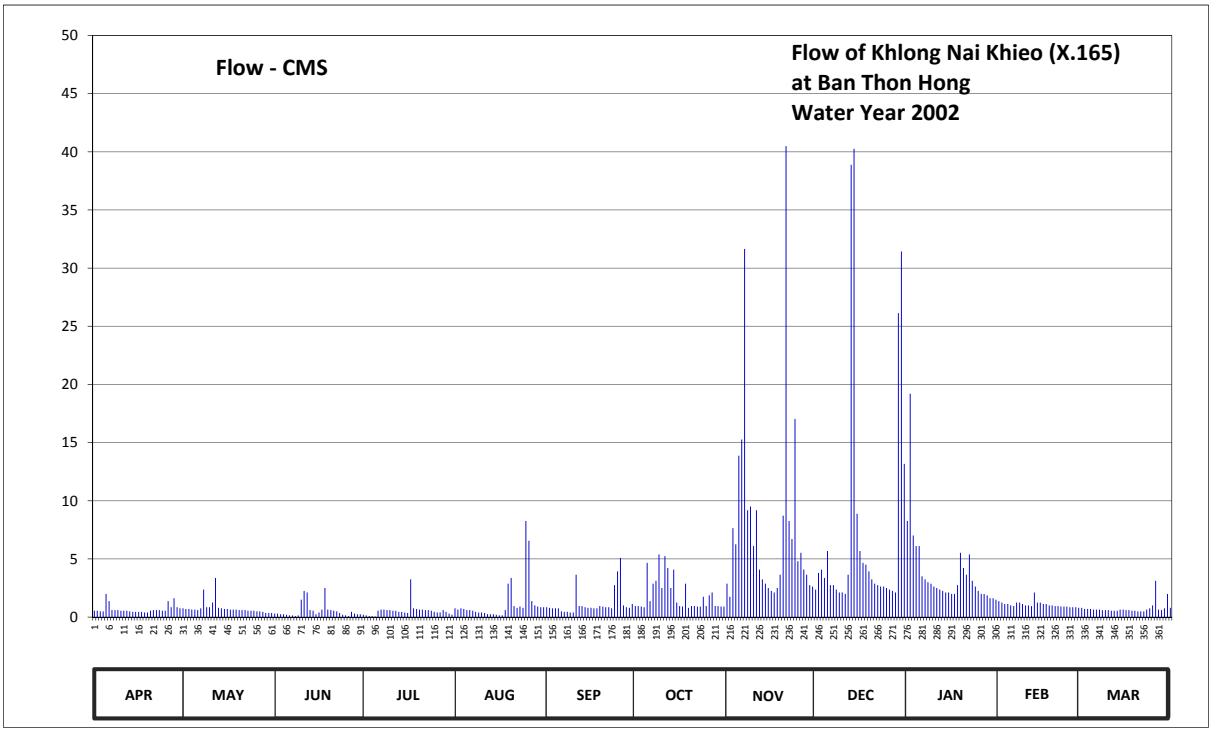
Location : on right bank at Ban Thon Hong.

	Ban Thon Hong	**Amphoe** Phrom Khiri	**Changwat** Nakhon Si Thammar
Drainge Area	25 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 about 9 meters from the top staff gage.	**Elevation**	+9.738 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 mean of 5 readings		
Period of Available Gage Records	1986 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. Stage-discharge relation defined by 36 discharge measurements made in 2002.		

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.51	0.55	0.46	0.44	0.55	0.57	0.59	0.75	0.71	1.12	0.63	0.56	
2	0.51	0.54	0.46	0.43	0.53	0.56	0.59	0.66	0.82	1.75	0.62	0.54	
3	0.50	0.54	0.45	0.42	0.55	0.55	0.58	1.08	0.84	1.04	0.61	0.54	
4	0.50	0.53	0.45	0.42	0.54	0.55	0.57	0.99	0.79	0.98	0.61	0.54	
5	0.68	0.53	0.44	0.41	0.52	0.55	0.88	1.45	0.95	0.98	0.60	0.53	
6	0.63	0.52	0.43	0.51	0.52	0.50	0.63	1.53	0.74	0.80	0.59	0.53	
7	0.52	0.55	0.43	0.53	0.51	0.49	0.75	2.34	0.74	0.78	0.62	0.53	
8	0.52	0.71	0.42	0.53	0.49	0.49	0.77	1.18	0.71	0.76	0.62	0.52	
9	0.52	0.57	0.43	0.52	0.48	0.48	0.93	1.20	0.69	0.75	0.61	0.52	
10	0.51	0.57	0.64	0.52	0.48	0.48	0.72	0.98	0.69	0.73	0.60	0.52	
11	0.51	0.62	0.70	0.51	0.47	0.81	0.92	1.18	0.68	0.72	0.60	0.51	
12	0.51	0.79	0.69	0.51	0.45	0.59	0.85	0.84	0.81	0.71	0.59	0.51	
13	0.50	0.56	0.52	0.49	0.45	0.59	0.72	0.78	2.66	0.70	0.69	0.51	
14	0.49	0.55	0.51	0.49	0.45	0.57	0.84	0.75	2.72	0.69	0.62	0.53	
15	0.49	0.54	0.45	0.48	0.44	0.56	0.62	0.72	1.16	0.69	0.62	0.53	
16	0.49	0.54	0.48	0.47	0.43	0.56	0.59	0.70	0.95	0.68	0.61	0.52	
17	0.49	0.53	0.53	0.78	0.43	0.55	0.58	0.69	0.88	0.68	0.61	0.52	
18	0.48	0.53	0.72	0.55	0.52	0.55	0.75	0.72	0.87	0.74	0.60	0.51	
19	0.48	0.53	0.53	0.54	0.75	0.59	0.56	0.81	0.83	0.94	0.60	0.51	
20	0.51	0.52	0.52	0.53	0.79	0.58	0.59	1.15	0.78	0.85	0.59	0.50	
21	0.52	0.52	0.51	0.53	0.59	0.57	0.59	2.73	0.75	0.81	0.59	0.50	
22	0.52	0.52	0.50	0.52	0.56	0.57	0.58	1.12	0.74	0.93	0.58	0.50	
23	0.52	0.51	0.47	0.52	0.58	0.55	0.58	1.02	0.73	0.77	0.58	0.53	
24	0.51	0.51	0.44	0.51	0.56	0.74	0.66	1.63	0.73	0.73	0.58	0.55	
25	0.51	0.51	0.43	0.49	1.12	0.83	0.59	0.89	0.72	0.70	0.57	0.60	
26	0.63	0.50	0.42	0.48	1.01	0.91	0.67	0.94	0.71	0.68	0.57	0.77	
27	0.57	0.50	0.49	0.48	0.63	0.60	0.69	0.84	0.70	0.68	0.57	0.53	
28	0.65	0.49	0.46	0.52	0.60	0.57	0.59	0.81	0.69	0.67	0.56	0.52	
29	0.57	0.47	0.45	0.49	0.58	0.56	0.59	0.74	2.09	0.65		0.55	
30	0.55	0.47	0.45	0.46	0.57	0.61	0.58	0.73	2.33	0.65		0.68	
31		0.47		0.44	0.57		0.58		1.41	0.64		0.56	
Mean	0.53	0.54	0.50	0.50	0.57	0.59	0.67	1.06	1.02	0.81	0.60	0.54	
Max	0.68	0.79	0.72	0.78	1.12	0.91	0.93	2.73	2.72	1.75	0.69	0.77	2.73
Min	0.48	0.47	0.42	0.41	0.43	0.48	0.56	0.66	0.68	0.64	0.56	0.50	0.41

Annual Max Momentary Gage Height	3.85	m. (A.D.) ,	at 09.00 Hours , on Dec 14 , 2002		
Zero Gage at Bottom Elevation	0.00	m. (A.D.) ,	River Bed	0.36	m. (A.D.)
Left Bank Elevation	11.24	m. (A.D.) ,			
Right Bank Elevation	11.25	m. (A.D.) ,	Drainage Are	25	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.55	0.75	0.30	0.20	0.75	0.85	0.95	2.87	2.37	8.26	1.37	0.80		
2	0.55	0.70	0.30	0.15	0.65	0.80	0.95	1.75	3.79	19.20	1.25	0.70		
3	0.50	0.70	0.25	0.10	0.75	0.75	0.90	7.64	4.08	7.02	1.12	0.70		
4	0.50	0.65	0.25	0.10	0.70	0.75	0.85	6.26	3.37	6.11	1.12	0.70		
5	2.00	0.65	0.20	0.05	0.60	0.75	4.66	13.87	5.68	6.11	1.00	0.65		
6	1.37	0.60	0.15	0.55	0.60	0.50	1.37	15.27	2.75	3.50	0.95	0.65		
7	0.60	0.75	0.15	0.65	0.55	0.45	2.87	31.65	2.75	3.25	1.25	0.65		
8	0.60	2.37	0.10	0.65	0.45	0.45	3.12	9.19	2.37	3.00	1.25	0.60		
9	0.60	0.85	0.15	0.60	0.40	0.40	5.39	9.50	2.12	2.87	1.12	0.60		
10	0.55	0.85	1.50	0.60	0.40	0.40	2.50	6.11	2.12	2.62	1.00	0.60		
11	0.55	1.25	2.25	0.55	0.35	3.64	5.24	9.19	2.00	2.50	1.00	0.55		
12	0.55	3.37	2.12	0.55	0.25	0.95	4.22	4.08	3.64	2.37	0.95	0.55		
13	0.50	0.80	0.60	0.45	0.25	0.95	2.50	3.25	38.88	2.25	2.12	0.55		
14	0.45	0.75	0.55	0.45	0.25	0.85	4.08	2.87	40.26	2.12	1.25	0.65		
15	0.45	0.70	0.25	0.40	0.20	0.80	1.25	2.50	8.88	2.12	1.25	0.65		
16	0.45	0.70	0.40	0.35	0.15	0.80	0.95	2.25	5.68	2.00	1.12	0.60		
17	0.45	0.65	0.65	3.25	0.15	0.75	0.90	2.12	4.66	2.00	1.12	0.60		
18	0.40	0.65	2.50	0.75	0.60	0.75	2.87	2.50	4.51	2.75	1.00	0.55		
19	0.40	0.65	0.65	0.70	2.87	0.95	0.80	3.64	3.93	5.53	1.00	0.55		
20	0.55	0.60	0.60	0.65	3.37	0.90	0.95	8.72	3.25	4.22	0.95	0.50		
21	0.60	0.60	0.55	0.65	0.95	0.85	0.95	40.49	2.87	3.64	0.95	0.50		
22	0.60	0.60	0.50	0.60	0.80	0.85	0.90	8.26	2.75	5.39	0.90	0.50		
23	0.60	0.55	0.35	0.60	0.90	0.75	0.90	6.71	2.62	3.12	0.90	0.65		
24	0.55	0.55	0.20	0.55	0.80	2.75	1.75	17.04	2.62	2.62	0.90	0.75		
25	0.55	0.55	0.15	0.45	8.26	3.93	0.95	4.80	2.50	2.25	0.85	1.00		
26	1.37	0.50	0.10	0.40	6.56	5.09	1.87	5.53	2.37	2.00	0.85	3.12		
27	0.85	0.50	0.45	0.40	1.37	1.00	2.12	4.08	2.25	2.00	0.85	0.65		
28	1.62	0.45	0.30	0.60	1.00	0.85	0.95	3.64	2.12	1.87	0.80	0.60		
29	0.85	0.35	0.25	0.45	0.90	0.80	0.95	2.75	26.13	1.62		0.75		
30	0.75	0.35	0.25	0.30	0.85	1.12	0.90	2.62	31.42	1.62		2.00		
31		0.35		0.20	0.85		0.90		13.17	1.50		0.80		
Total	20.91	24.34	17.02	16.95	37.53	35.43	60.46	241.15	237.91	117.43	30.19	23.72	863.04	CMSDAY
Mean	0.70	0.79	0.57	0.55	1.21	1.18	1.95	8.04	7.67	3.79	1.08	0.77	2.36	CMS
Max	2.00	3.37	2.50	3.25	8.26	5.09	5.39	40.49	40.26	19.20	2.12	3.12	40.49	CMS
Min	0.40	0.35	0.10	0.05	0.15	0.40	0.80	1.75	2.00	1.50	0.80	0.50	0.05	CMS
Runoff	1.81	2.10	1.47	1.46	3.24	3.06	5.22	20.84	20.56	10.15	2.61	2.05	74.57	MCM

Momentary Peak 67.90 CMS. at 3.85 m. (A.D.) at 09.00 Hours , on Dec 14 , 2002

Runoff Yield 94.58 Liters/Second/Square KM. Momentary Peak Yield 2716.000 Liters/Second/Square KM.

WATER YEAR : 2002

SOUTHERN PENINSULA EAST COAST

Khlong Sao Thong at Ban Sao Thong , Nakhon Si Thammarat (X.167)

Lat 08 - 16 - 44 N Long 99 - 54 - 30 E

Location : on right bank at the bridge.

	Ban Sao Thong **Amphoe** Ron Phibun **Changwat** Nakhon Si Thammar
Drainge Area	252 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 about 4.50 meters from the top staff gage. **Elevation** +4.030 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 mean of 5 readings
Period of Available Gage Records	1986 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 because of backwater effect.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Stage-discharge relation defined by 40 discharge measurements made in 2002.

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

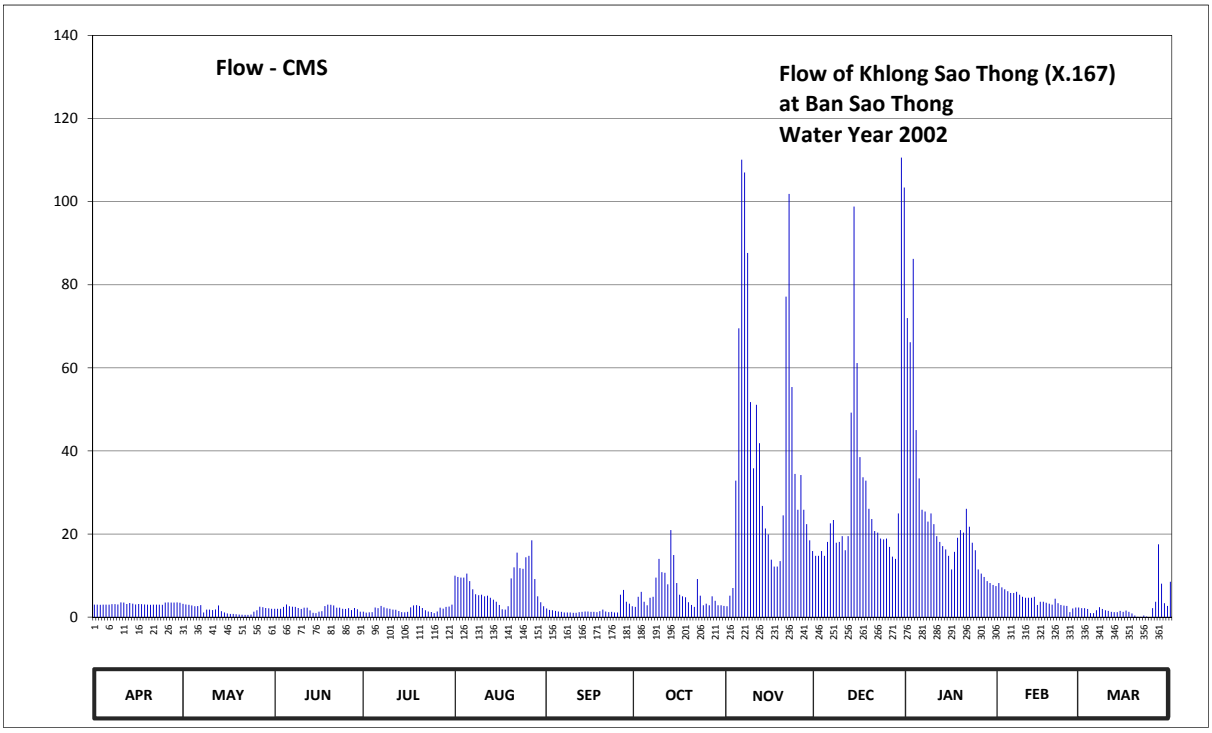
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.90	0.94	0.70	0.55	0.89	0.27	0.32	0.34	1.16	3.19	0.78	0.28	
2	0.90	0.91	0.70	0.48	0.87	0.23	0.55	0.57	1.16	3.05	0.71	0.28	
3	0.89	0.89	0.70	0.50	0.86	0.22	0.64	0.70	1.22	3.51	0.68	0.26	
4	0.90	0.86	0.79	0.51	0.86	0.20	0.45	1.99	1.16	2.43	0.65	0.13	
5	0.90	0.82	0.91	0.76	0.92	0.18	0.37	3.13	1.33	2.01	0.62	0.13	
6	0.90	0.83	0.82	0.73	0.81	0.17	0.53	3.99	1.55	1.70	0.62	0.22	
7	0.92	0.88	0.80	0.84	0.68	0.15	0.55	3.93	1.59	1.68	0.64	0.31	
8	0.92	0.49	0.79	0.77	0.60	0.15	0.86	3.54	1.32	1.57	0.59	0.26	
9	0.91	0.66	0.74	0.72	0.58	0.15	1.12	2.65	1.33	1.66	0.55	0.22	
10	1.04	0.66	0.69	0.70	0.59	0.14	0.94	2.10	1.40	1.54	0.53	0.20	
11	1.00	0.64	0.75	0.66	0.56	0.14	0.93	2.63	1.23	1.40	0.53	0.17	
12	0.93	0.67	0.75	0.65	0.57	0.16	0.76	2.32	1.40	1.33	0.53	0.16	
13	0.98	0.86	0.62	0.59	0.53	0.17	1.47	1.74	2.57	1.28	0.55	0.16	
14	0.95	0.58	0.47	0.51	0.49	0.18	1.17	1.49	3.77	1.24	0.38	0.20	
15	0.91	0.49	0.45	0.50	0.45	0.18	0.78	1.42	2.92	1.16	0.45	0.17	
16	0.93	0.42	0.54	0.53	0.38	0.17	0.59	1.11	2.20	0.98	0.45	0.21	
17	0.92	0.39	0.58	0.77	0.25	0.17	0.56	1.02	2.02	1.21	0.43	0.17	
18	0.91	0.38	0.83	0.86	0.24	0.16	0.54	1.02	1.99	1.38	0.41	0.12	
19	0.90	0.36	0.90	0.88	0.34	0.19	0.44	1.09	1.71	1.47	0.39	0.05	
20	0.89	0.33	0.89	0.84	0.85	0.24	0.38	1.64	1.60	1.44	0.51	0.01	
21	0.90	0.31	0.86	0.74	1.01	0.18	0.32	3.31	1.46	1.71	0.42	0.01	
22	0.90	0.30	0.75	0.63	1.20	0.16	0.84	3.83	1.44	1.51	0.38	0.05	
23	0.90	0.30	0.75	0.56	1.00	0.17	0.57	2.76	1.37	1.32	0.36	0.02	
24	0.89	0.32	0.70	0.52	0.99	0.15	0.37	2.05	1.36	1.23	0.35	-0.01	
25	1.00	0.54	0.69	0.45	1.14	0.15	0.41	1.70	1.37	0.98	0.16	0.28	
26	1.05	0.63	0.73	0.56	1.16	0.59	0.37	2.04	1.27	0.92	0.27	0.45	
27	1.01	0.80	0.64	0.75	1.35	0.67	0.56	1.70	1.15	0.87	0.30	1.30	
28	1.01	0.78	0.74	0.71	0.84	0.45	0.47	1.54	1.12	0.81	0.30	0.77	
29	1.05	0.74	0.68	0.79	0.56	0.41	0.37	1.35	1.66	0.78		0.42	
30	0.99	0.72	0.54	0.81	0.44	0.34	0.37	1.22	4.00	0.75		0.35	
31		0.70		0.90	0.34		0.35		3.86	0.73		0.80	
Mean	0.94	0.62	0.72	0.67	0.72	0.23	0.61	2.00	1.76	1.51	0.48	0.26	
Max	1.05	0.94	0.91	0.90	1.35	0.67	1.47	3.99	4.00	3.51	0.78	1.30	4.00
Min	0.89	0.30	0.45	0.45	0.24	0.14	0.32	0.34	1.12	0.73	0.16	-0.01	-0.01

Annual Max Momentary Gage Height 4.01 m. (A.D.) , at 18.00 Hours , on Nov 6 , 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed -0.53 m. (A.D.)

Left Bank Elevation 6.39 m. (A.D.) ,

Right Bank Elevation 6.38 m. (A.D.) , Drainage Are 252 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.00	3.20	2.00	1.32	9.98	2.06	2.46	2.62	14.76	71.98	8.20	2.14		
2	3.00	3.05	2.00	1.08	9.65	1.74	4.90	5.14	14.76	66.17	7.15	2.14		
3	2.95	2.95	2.00	1.15	9.49	1.66	6.10	7.00	15.90	86.23	6.70	1.98		
4	3.00	2.80	2.45	1.18	9.49	1.50	3.70	32.85	14.76	45.00	6.25	0.97		
5	3.00	2.60	3.05	2.30	10.48	1.35	2.86	69.49	18.10	33.37	5.80	0.97		
6	3.00	2.65	2.60	2.15	8.66	1.27	4.66	110.08	22.58	25.85	5.80	1.66		
7	3.10	2.90	2.50	2.70	6.70	1.12	4.90	107.00	23.39	25.40	6.10	2.38		
8	3.10	1.11	2.45	2.35	5.50	1.12	9.49	87.65	17.90	22.98	5.38	1.98		
9	3.05	1.80	2.20	2.10	5.26	1.12	14.02	51.75	18.10	24.95	4.90	1.66		
10	3.53	1.80	1.95	2.00	5.38	1.05	10.81	35.80	19.50	22.37	4.66	1.50		
11	3.50	1.70	2.25	1.80	5.02	1.05	10.65	51.09	16.10	19.50	4.66	1.27		
12	3.15	1.85	2.25	1.75	5.14	1.20	7.90	41.86	19.50	18.10	4.66	1.20		
13	3.40	2.80	1.60	1.46	4.66	1.27	20.94	26.75	49.20	17.10	4.90	1.20		
14	3.25	1.43	1.04	1.18	4.18	1.35	14.94	21.35	98.83	16.30	2.94	1.50		
15	3.05	1.11	0.97	1.15	3.70	1.35	8.20	19.91	61.14	14.76	3.70	1.27		
16	3.15	0.87	1.29	1.25	2.94	1.27	5.38	13.83	38.50	11.47	3.70	1.58		
17	3.10	0.77	1.43	2.35	1.90	1.27	5.02	12.17	33.64	15.70	3.46	1.27		
18	3.05	0.75	2.65	2.80	1.82	1.20	4.78	12.17	32.85	19.10	3.22	0.90		
19	3.00	0.70	3.00	2.90	2.62	1.42	3.58	13.46	26.08	20.94	3.02	0.37		
20	2.95	0.62	2.95	2.70	9.32	1.82	2.94	24.50	23.60	20.32	4.42	0.07		
21	3.00	0.58	2.80	2.20	11.99	1.35	2.46	77.13	20.73	26.08	3.34	0.07		
22	3.00	0.55	2.25	1.65	15.50	1.20	9.16	101.85	20.32	21.76	2.94	0.37		
23	3.00	0.55	2.25	1.36	11.80	1.27	5.14	55.38	18.90	17.90	2.78	0.15		
24	2.95	0.60	2.00	1.22	11.64	1.12	2.86	34.45	18.70	16.10	2.70	0.00		
25	3.50	1.29	1.95	0.97	14.39	1.12	3.22	25.85	18.90	11.47	1.20	2.14		
26	3.54	1.65	2.15	1.36	14.76	5.38	2.86	34.18	16.90	10.48	2.06	3.70		
27	3.51	2.50	1.70	2.25	18.50	6.55	5.02	25.85	14.57	9.65	2.30	17.50		
28	3.51	2.40	2.20	2.05	9.16	3.70	3.94	22.37	14.02	8.66	2.30	8.05		
29	3.54	2.20	1.90	2.45	5.02	3.22	2.86	18.50	24.95	8.20		3.34		
30	3.45	2.10	1.29	2.55	3.58	2.62	2.86	15.90	110.60	7.75		2.70		
31		2.00		3.00	2.62		2.70		103.39	7.45		8.50		
Total	95.33	53.88	63.12	58.73	240.85	54.72	191.31	1157.93	961.17	743.09	119.24	74.53	3813.90	CMSDAY
Mean	3.18	1.74	2.10	1.89	7.77	1.82	6.17	38.60	31.01	23.97	4.26	2.40	10.45	CMS
Max	3.54	3.20	3.05	3.00	18.50	6.55	20.94	110.08	110.60	86.23	8.20	17.50	110.60	CMS
Min	2.95	0.55	0.97	0.97	1.82	1.05	2.46	2.62	14.02	7.45	1.20	0.00	0.00	CMS
Runoff	8.24	4.66	5.45	5.07	20.81	4.73	16.53	100.05	83.05	64.20	10.30	6.44	329.52	MCM

Momentary Peak 111.15 CMS. at 4.01 m. (A.D.) at 18.00 Hours , on Nov 6 , 2002

Runoff Yield 41.46 Liters/Second/Square KM. Momentary Peak Yield 441.070 Liters/Second/Square KM.

WATER YEAR : 2002

SOUTHERN PENINSULA EAST COAST

Khlong The Pha at Ban Kabang, Yala (X.168)

Lat 06 - 25 - 40 N Long 100 - 55 - 41 E

Location : on right bank at the bridge near Wat Ba Hoi from Tambon Ba Hoi.

	Ban Kabang	**Amphoe** Kabang	**Changwat** Yala
Drainge Area	316 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 bankabout 5 meters from the station office.		**Elevation** +8.991 m. (A.D.)
Gage Reading Frequency	13-time daily readings at 06.00 - 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 13 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 fair. Stage-discharge relation defined by 63 discharge measurements made in 2002.		

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

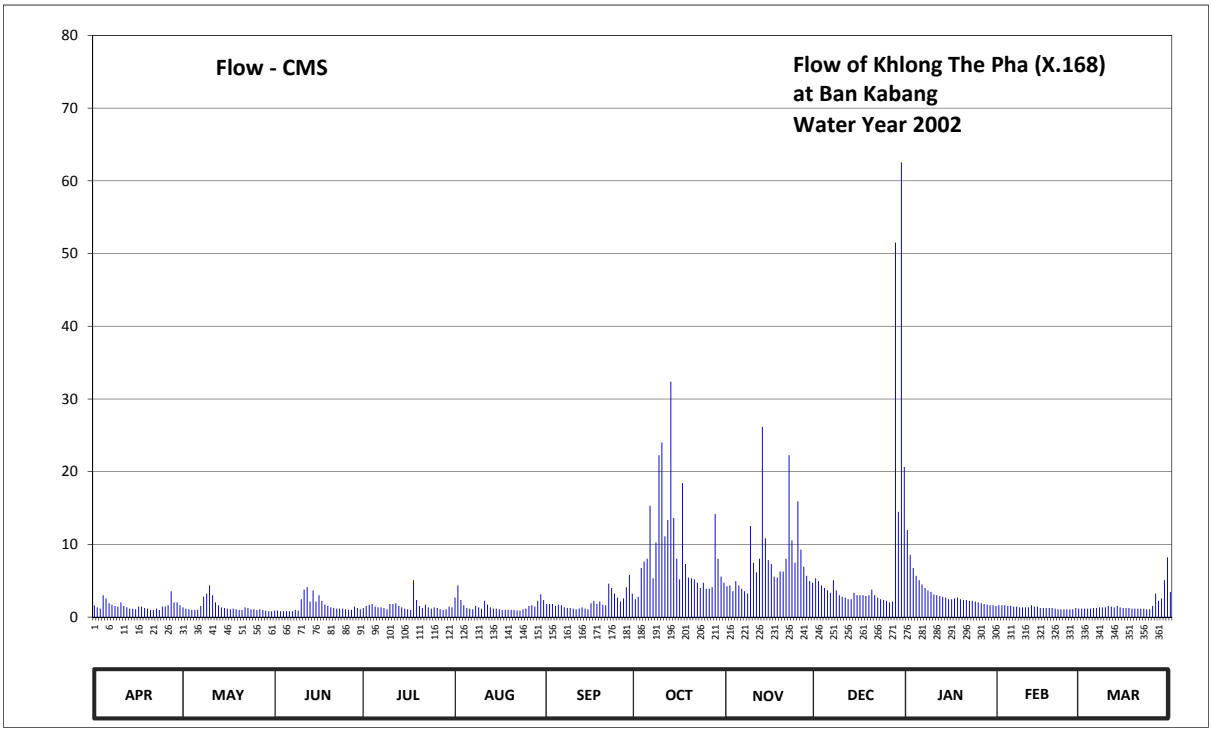
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.38	0.35	0.30	0.34	0.48	0.40	0.46	0.62	0.71	1.07	0.38	0.33	
2	0.35	0.33	0.30	0.37	0.63	0.40	0.49	0.63	0.68	0.92	0.38	0.33	
3	0.33	0.32	0.29	0.39	0.45	0.40	0.82	0.56	0.63	0.82	0.38	0.33	
4	0.51	0.31	0.29	0.40	0.38	0.37	0.87	0.68	0.60	0.74	0.37	0.33	
5	0.47	0.31	0.29	0.36	0.34	0.39	0.89	0.63	0.57	0.69	0.37	0.34	
6	0.41	0.31	0.29	0.35	0.33	0.38	1.19	0.59	0.54	0.64	0.36	0.34	
7	0.39	0.37	0.29	0.35	0.32	0.35	0.71	0.56	0.69	0.60	0.36	0.35	
8	0.37	0.49	0.31	0.34	0.37	0.34	1.01	0.53	0.57	0.57	0.35	0.35	
9	0.36	0.53	0.30	0.32	0.35	0.34	1.41	1.09	0.51	0.55	0.35	0.35	
10	0.42	0.63	0.46	0.40	0.33	0.33	1.46	0.86	0.49	0.52	0.35	0.37	
11	0.37	0.51	0.58	0.40	0.44	0.32	1.04	0.78	0.48	0.51	0.35	0.36	
12	0.35	0.42	0.61	0.41	0.39	0.33	1.12	0.89	0.46	0.50	0.38	0.35	
13	0.33	0.38	0.43	0.37	0.35	0.35	1.68	1.52	0.46	0.49	0.36	0.37	
14	0.33	0.35	0.57	0.35	0.33	0.33	1.13	1.03	0.54	0.48	0.36	0.35	
15	0.32	0.34	0.43	0.33	0.33	0.32	0.89	0.88	0.51	0.46	0.34	0.34	
16	0.36	0.33	0.51	0.32	0.32	0.41	0.70	0.85	0.51	0.46	0.34	0.34	
17	0.36	0.32	0.44	0.31	0.31	0.44	1.29	0.73	0.51	0.47	0.34	0.34	
18	0.34	0.33	0.39	0.69	0.31	0.40	0.85	0.72	0.50	0.48	0.34	0.33	
19	0.33	0.32	0.37	0.45	0.31	0.43	0.72	0.79	0.51	0.46	0.34	0.33	
20	0.31	0.31	0.35	0.37	0.31	0.39	0.71	0.79	0.58	0.45	0.33	0.33	
21	0.31	0.31	0.34	0.34	0.31	0.38	0.70	0.89	0.51	0.45	0.32	0.33	
22	0.33	0.35	0.33	0.39	0.30	0.65	0.66	1.41	0.48	0.44	0.32	0.33	
23	0.31	0.34	0.33	0.35	0.30	0.60	0.60	1.02	0.46	0.44	0.32	0.32	
24	0.36	0.32	0.33	0.33	0.32	0.53	0.66	0.86	0.45	0.43	0.32	0.32	
25	0.36	0.32	0.32	0.35	0.33	0.48	0.59	1.21	0.44	0.42	0.32	0.37	
26	0.38	0.31	0.31	0.34	0.37	0.43	0.59	0.96	0.42	0.41	0.32	0.53	
27	0.56	0.32	0.31	0.32	0.38	0.47	0.61	0.83	0.43	0.40	0.34	0.44	
28	0.42	0.31	0.36	0.31	0.36	0.61	1.15	0.74	2.07	0.39	0.33	0.47	
29	0.42	0.30	0.34	0.32	0.44	0.75	0.89	0.68	1.16	0.38		0.69	
30	0.38	0.29	0.32	0.36	0.52	0.53	0.73	0.66	2.26	0.38		0.90	
31		0.29		0.35	0.45		0.66		1.36	0.37		0.55	
Mean	0.37	0.36	0.37	0.37	0.37	0.43	0.88	0.83	0.68	0.53	0.35	0.39	
Max	0.56	0.63	0.61	0.69	0.63	0.75	1.68	1.52	2.26	1.07	0.38	0.90	2.26
Min	0.31	0.29	0.29	0.31	0.30	0.32	0.46	0.53	0.42	0.37	0.32	0.32	0.29

Annual Max Momentary Gage Height 2.94 m. (A.D.) , at 06.00 Hours , on Dec 30 , 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed 0.02 m. (A.D.)

Left Bank Elevation 9.59 m. (A.D.) ,

Right Bank Elevation 9.51 m. (A.D.) , Drainage Are 316 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.62	1.35	0.90	1.26	2.68	1.80	2.46	4.24	5.32	11.96	1.62	1.17		
2	1.35	1.17	0.90	1.53	4.36	1.80	2.79	4.36	4.96	8.56	1.62	1.17		
3	1.17	1.08	0.81	1.71	2.35	1.80	6.76	3.56	4.36	6.76	1.62	1.17		
4	3.01	0.99	0.81	1.80	1.62	1.53	7.66	4.96	4.00	5.68	1.53	1.17		
5	2.57	0.99	0.81	1.44	1.26	1.71	8.02	4.36	3.67	5.08	1.53	1.26		
6	1.91	0.99	0.81	1.35	1.17	1.62	15.32	3.89	3.34	4.48	1.44	1.26		
7	1.71	1.53	0.81	1.35	1.08	1.35	5.32	3.56	5.08	4.00	1.44	1.35		
8	1.53	2.79	0.99	1.26	1.53	1.26	10.28	3.23	3.67	3.67	1.35	1.35		
9	1.44	3.23	0.90	1.08	1.35	1.26	22.26	12.52	3.01	3.45	1.35	1.35		
10	2.02	4.36	2.46	1.80	1.17	1.17	24.03	7.48	2.79	3.12	1.35	1.53		
11	1.53	3.01	3.78	1.80	2.24	1.08	11.12	6.16	2.68	3.01	1.35	1.44		
12	1.35	2.02	4.12	1.91	1.71	1.17	13.36	8.02	2.46	2.90	1.62	1.35		
13	1.17	1.62	2.13	1.53	1.35	1.35	32.36	26.16	2.46	2.79	1.44	1.53		
14	1.17	1.35	3.67	1.35	1.17	1.17	13.64	10.84	3.34	2.68	1.44	1.35		
15	1.08	1.26	2.13	1.17	1.17	1.08	8.02	7.84	3.01	2.46	1.26	1.26		
16	1.44	1.17	3.01	1.08	1.08	1.91	5.20	7.30	3.01	2.46	1.26	1.26		
17	1.44	1.08	2.24	0.99	0.99	2.24	18.43	5.56	3.01	2.57	1.26	1.26		
18	1.26	1.17	1.71	5.08	0.99	1.80	7.30	5.44	2.90	2.68	1.26	1.17		
19	1.17	1.08	1.53	2.35	0.99	2.13	5.44	6.28	3.01	2.46	1.26	1.17		
20	0.99	0.99	1.35	1.53	0.99	1.71	5.32	6.28	3.78	2.35	1.17	1.17		
21	0.99	0.99	1.26	1.26	0.99	1.62	5.20	8.02	3.01	2.35	1.08	1.17		
22	1.17	1.35	1.17	1.71	0.90	4.60	4.72	22.26	2.68	2.24	1.08	1.17		
23	0.99	1.26	1.17	1.35	0.90	4.00	4.00	10.56	2.46	2.24	1.08	1.08		
24	1.44	1.08	1.17	1.17	1.08	3.23	4.72	7.48	2.35	2.13	1.08	1.08		
25	1.44	1.08	1.08	1.35	1.17	2.68	3.89	15.91	2.24	2.02	1.08	1.53		
26	1.62	0.99	0.99	1.26	1.53	2.13	3.89	9.28	2.02	1.91	1.08	3.23		
27	3.56	1.08	0.99	1.08	1.62	2.57	4.12	6.94	2.13	1.80	1.26	2.24		
28	2.02	0.99	1.44	0.99	1.44	4.12	14.20	5.68	51.51	1.71	1.17	2.57		
29	2.02	0.90	1.26	1.08	2.24	5.80	8.02	4.96	14.48	1.62		5.08		
30	1.62	0.81	1.08	1.44	3.12	3.23	5.56	4.72	62.54	1.62		8.20		
31		0.81		1.35	2.35		4.72		20.64	1.53		3.45		
Total	47.80	44.57	47.48	47.41	48.59	64.92	288.13	237.85	235.92	104.29	37.08	56.54	1260.58	CMSDAY
Mean	1.59	1.44	1.58	1.53	1.57	2.16	9.29	7.93	7.61	3.36	1.32	1.82	3.45	CMS
Max	3.56	4.36	4.12	5.08	4.36	5.80	32.36	26.16	62.54	11.96	1.62	8.20	62.54	CMS
Min	0.99	0.81	0.81	0.99	0.90	1.08	2.46	3.23	2.02	1.53	1.08	1.08	0.81	CMS
Runoff	4.13	3.85	4.10	4.10	4.20	5.61	24.89	20.55	20.38	9.01	3.20	4.89	108.91	MCM

Momentary Peak 131.30 CMS. at 2.94 m. (A.D.) at 06.00 Hours , on Dec 30 , 2002

Runoff Yield 10.93 Liters/Second/Square KM. Momentary Peak Yield 415.510 Liters/Second/Square KM.

WATER YEAR : 2002

SOUTHERN PENINSULA EAST COAST

Khlong Wang Muang Yang at Ban Pa Ye, Narathiwat (X.171)

Lat 06 - 05 - 28 N Long 101 - 57 - 24 E

Location : on left bank at the bridge.

	Ban Pa Ye	**Amphoe** Sungai Kolok	**Changwat** Narathiwat
Drainge Area	839 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+6.030 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank about 12.00 meters from the top staff gage.	**Elevation**	+8.492 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 mean 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	1996 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 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

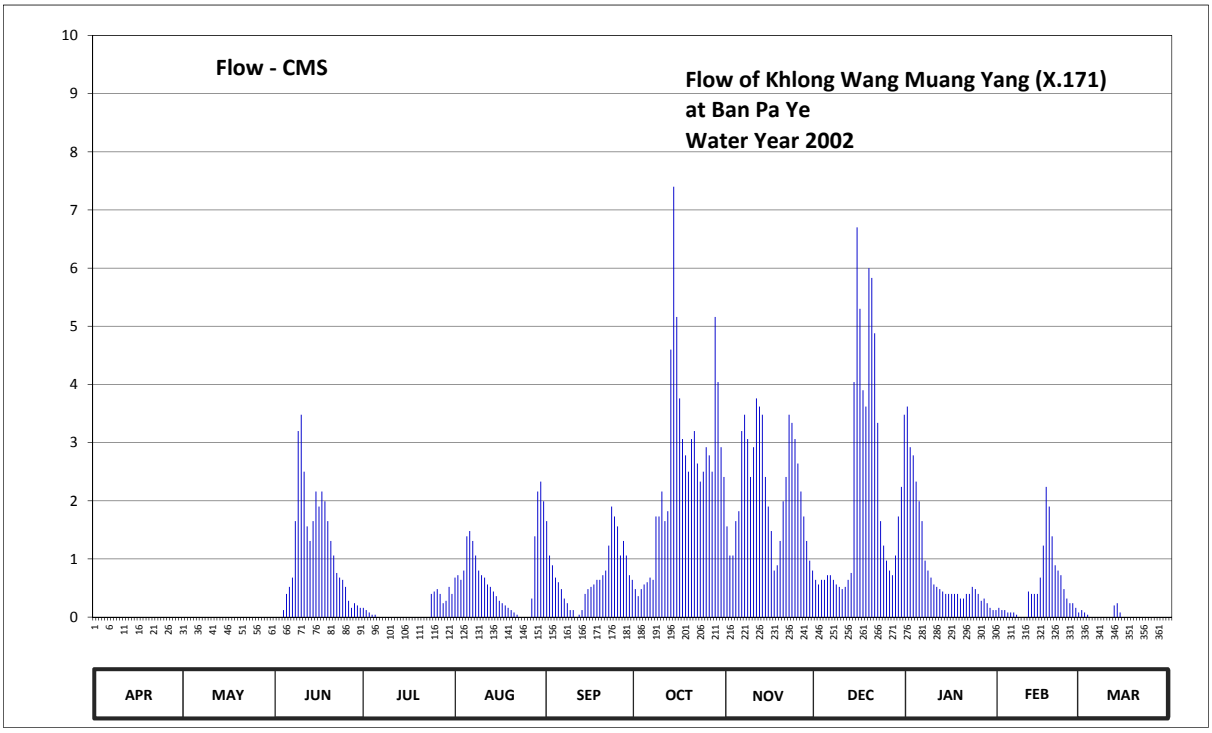
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	6.28	6.14	6.32	6.44	6.57	6.70	6.52	6.69	6.56	6.88	6.44	6.43	
2	6.28	6.14	6.33	6.43	6.58	6.63	6.49	6.63	6.54	6.83	6.43	6.42	
3	6.28	6.13	6.36	6.42	6.56	6.61	6.52	6.63	6.56	6.82	6.43	6.41	
4	6.27	6.13	6.43	6.41	6.60	6.57	6.54	6.70	6.56	6.78	6.42	6.40	
5	6.26	6.13	6.50	6.41	6.67	6.55	6.55	6.72	6.58	6.74	6.42	6.40	
6	6.26	6.14	6.53	6.40	6.68	6.52	6.57	6.85	6.58	6.70	6.42	6.39	
7	6.25	6.16	6.57	6.40	6.66	6.48	6.56	6.87	6.56	6.62	6.41	6.38	
8	6.24	6.20	6.70	6.38	6.63	6.46	6.71	6.84	6.54	6.60	6.40	6.38	
9	6.24	6.20	6.85	6.38	6.60	6.43	6.71	6.79	6.53	6.57	6.40	6.38	
10	6.24	6.20	6.87	6.37	6.58	6.43	6.76	6.83	6.52	6.54	6.40	6.38	
11	6.24	6.19	6.80	6.36	6.57	6.40	6.70	6.89	6.53	6.53	6.51	6.39	
12	6.23	6.18	6.69	6.36	6.54	6.41	6.72	6.88	6.56	6.52	6.50	6.45	
13	6.22	6.17	6.66	6.35	6.53	6.43	6.95	6.87	6.59	6.51	6.50	6.46	
14	6.21	6.16	6.70	6.38	6.51	6.50	7.12	6.79	6.91	6.50	6.50	6.42	
15	6.20	6.13	6.76	6.40	6.49	6.52	6.99	6.73	7.08	6.50	6.57	6.40	
16	6.18	6.11	6.73	6.38	6.47	6.53	6.89	6.68	7.00	6.50	6.65	6.38	
17	6.17	6.10	6.76	6.36	6.46	6.54	6.84	6.60	6.90	6.50	6.77	6.38	
18	6.16	6.12	6.74	6.35	6.45	6.56	6.82	6.61	6.88	6.50	6.73	6.38	
19	6.14	6.15	6.70	6.34	6.44	6.56	6.80	6.66	7.04	6.48	6.67	6.37	
20	6.12	6.18	6.66	6.33	6.43	6.58	6.84	6.74	7.03	6.48	6.61	6.36	
21	6.11	6.18	6.63	6.33	6.42	6.60	6.85	6.79	6.97	6.50	6.60	6.36	
22	6.10	6.18	6.59	6.38	6.41	6.65	6.81	6.87	6.86	6.50	6.58	6.36	
23	6.09	6.19	6.57	6.40	6.39	6.73	6.78	6.86	6.70	6.53	6.52	6.36	
24	6.08	6.26	6.56	6.50	6.38	6.71	6.80	6.84	6.65	6.52	6.48	6.36	
25	6.07	6.26	6.53	6.51	6.38	6.69	6.83	6.81	6.62	6.50	6.46	6.36	
26	6.08	6.26	6.47	6.52	6.39	6.63	6.82	6.76	6.60	6.47	6.46	6.36	
27	6.10	6.26	6.44	6.50	6.48	6.66	6.80	6.71	6.58	6.48	6.44	6.36	
28	6.12	6.26	6.46	6.46	6.67	6.63	6.99	6.66	6.63	6.46	6.42	6.36	
29	6.13	6.24	6.45	6.47	6.76	6.58	6.91	6.62	6.71	6.44		6.36	
30	6.15	6.32	6.44	6.53	6.78	6.56	6.83	6.60	6.77	6.43		6.36	
31		6.31		6.50	6.74		6.79		6.87	6.43		6.35	
Mean	6.18	6.19	6.59	6.41	6.54	6.56	6.77	6.75	6.71	6.56	6.51	6.38	
Max	6.28	6.32	6.87	6.53	6.78	6.73	7.12	6.89	7.08	6.88	6.77	6.46	7.12
Min	6.07	6.10	6.32	6.33	6.38	6.40	6.49	6.60	6.52	6.43	6.40	6.35	6.07

Annual Max Momentary Gage Height 7.12 m. (MSL.) , at 06.00 Hours , on Oct 14 , 2002

Zero Gage at Bottom Elevation 6.03 m. (MSL.) , River Bed 5.76 m. (MSL.)

Left Bank Elevation 9.31 m. (MSL.) ,

Right Bank Elevation 9.32 m. (MSL.) , Drainage Are 839 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	0.00	0.16	0.68	1.65	0.48	1.56	0.64	3.62	0.16	0.12		
2	0.00	0.00	0.00	0.12	0.72	1.06	0.36	1.06	0.56	2.92	0.12	0.08		
3	0.00	0.00	0.00	0.08	0.64	0.89	0.48	1.06	0.64	2.78	0.12	0.04		
4	0.00	0.00	0.12	0.04	0.80	0.68	0.56	1.65	0.64	2.33	0.08	0.00		
5	0.00	0.00	0.40	0.04	1.39	0.60	0.60	1.82	0.72	1.99	0.08	0.00		
6	0.00	0.00	0.52	0.00	1.48	0.48	0.68	3.20	0.72	1.65	0.08	0.00		
7	0.00	0.00	0.68	0.00	1.31	0.32	0.64	3.48	0.64	0.97	0.04	0.00		
8	0.00	0.00	1.65	0.00	1.06	0.24	1.73	3.06	0.56	0.80	0.00	0.00		
9	0.00	0.00	3.20	0.00	0.80	0.12	1.73	2.41	0.52	0.68	0.00	0.00		
10	0.00	0.00	3.48	0.00	0.72	0.12	2.16	2.92	0.48	0.56	0.00	0.00		
11	0.00	0.00	2.50	0.00	0.68	0.00	1.65	3.76	0.52	0.52	0.44	0.00		
12	0.00	0.00	1.56	0.00	0.56	0.04	1.82	3.62	0.64	0.48	0.40	0.20		
13	0.00	0.00	1.31	0.00	0.52	0.12	4.60	3.48	0.76	0.44	0.40	0.24		
14	0.00	0.00	1.65	0.00	0.44	0.40	7.40	2.41	4.04	0.40	0.40	0.08		
15	0.00	0.00	2.16	0.00	0.36	0.48	5.16	1.90	6.70	0.40	0.68	0.00		
16	0.00	0.00	1.90	0.00	0.28	0.52	3.76	1.48	5.30	0.40	1.23	0.00		
17	0.00	0.00	2.16	0.00	0.24	0.56	3.06	0.80	3.90	0.40	2.24	0.00		
18	0.00	0.00	1.99	0.00	0.20	0.64	2.78	0.89	3.62	0.40	1.90	0.00		
19	0.00	0.00	1.65	0.00	0.16	0.64	2.50	1.31	6.00	0.32	1.39	0.00		
20	0.00	0.00	1.31	0.00	0.12	0.72	3.06	1.99	5.83	0.32	0.89	0.00		
21	0.00	0.00	1.06	0.00	0.08	0.80	3.20	2.41	4.88	0.40	0.80	0.00		
22	0.00	0.00	0.76	0.00	0.04	1.23	2.64	3.48	3.34	0.40	0.72	0.00		
23	0.00	0.00	0.68	0.00	0.00	1.90	2.33	3.34	1.65	0.52	0.48	0.00		
24	0.00	0.00	0.64	0.40	0.00	1.73	2.50	3.06	1.23	0.48	0.32	0.00		
25	0.00	0.00	0.52	0.44	0.00	1.56	2.92	2.64	0.97	0.40	0.24	0.00		
26	0.00	0.00	0.28	0.48	0.00	1.06	2.78	2.16	0.80	0.28	0.24	0.00		
27	0.00	0.00	0.16	0.40	0.32	1.31	2.50	1.73	0.72	0.32	0.16	0.00		
28	0.00	0.00	0.24	0.24	1.39	1.06	5.16	1.31	1.06	0.24	0.08	0.00		
29	0.00	0.00	0.20	0.28	2.16	0.72	4.04	0.97	1.73	0.16		0.00		
30	0.00	0.00	0.16	0.52	2.33	0.64	2.92	0.80	2.24	0.12		0.00		
31		0.00		0.40	1.99		2.41		3.48	0.12		0.00		
Total	0.00	0.00	32.94	3.60	21.47	22.29	78.61	65.76	65.53	25.82	13.69	0.76	330.47	CMSDAY
Mean	0.00	0.00	1.10	0.12	0.69	0.74	2.54	2.19	2.11	0.83	0.49	0.02	0.91	CMS
Max	0.00	0.00	3.48	0.52	2.33	1.90	7.40	3.76	6.70	3.62	2.24	0.24	7.40	CMS
Min	0.00	0.00	0.00	0.00	0.00	0.00	0.36	0.80	0.48	0.12	0.00	0.00	0.00	CMS
Runoff	0.00	0.00	2.85	0.31	1.86	1.93	6.79	5.68	5.66	2.23	1.18	0.07	28.55	MCM

Momentary Peak 7.40 CMS. at 7.12 m. (MSL.) at 06.00 Hours , on Oct 14 , 2002

Runoff Yield 1.08 Liters/Second/Square KM. Momentary Peak Yield 8.820 Liters/Second/Square KM.

WATER YEAR : 2002

SOUTHERN PENINSULA EAST COAST

Khlong Sadao at Ban Huai Khu, Songkhla (X.172)

Lat 06 - 35 - 38 N Long 100 - 29 - 25 E

Location : on right at the bridge on road near Wat Huai Khu, Tambon Samnak Taeo.

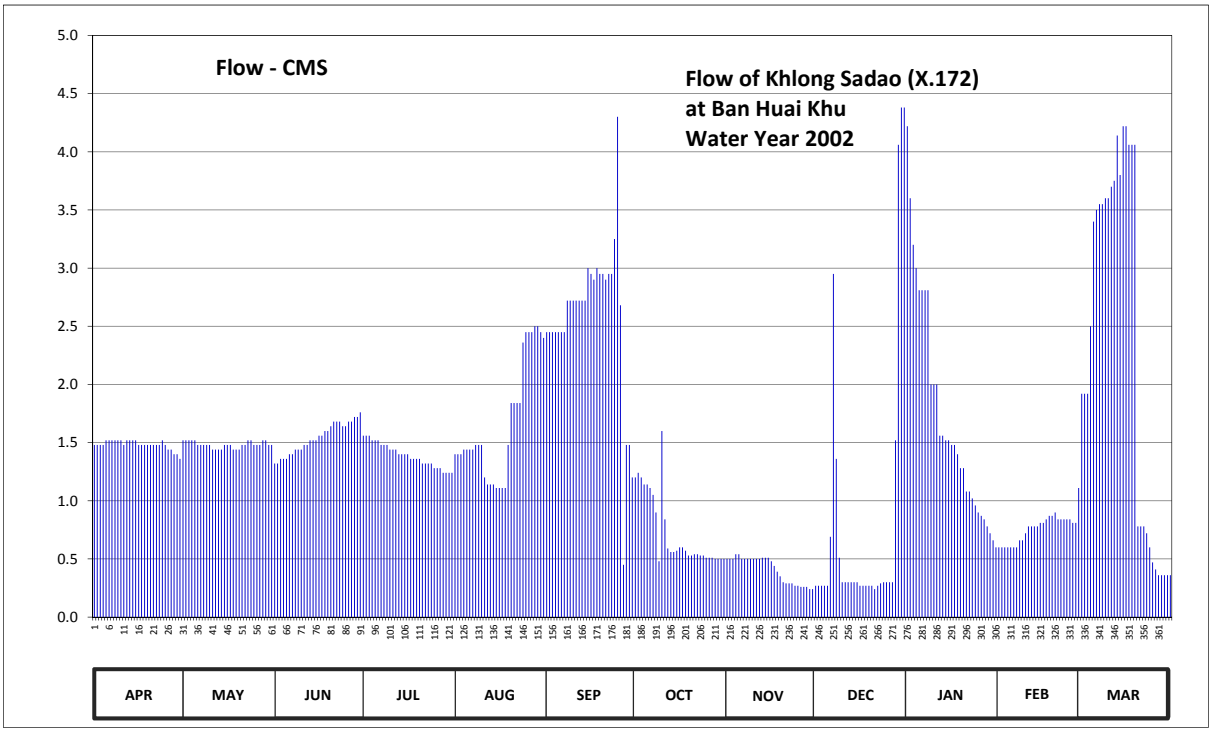
Ban Huai Khu **Amphoe** Sadao **Changwat** Songkhla

Drainge Area	94 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+40.300 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	on right bank about 5.30 meters from the top staff gage. **Elevation** +46.290 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 mean of 5 readings
Period of Available Gage Records	1988 to date
Rating Operation	
Period of Rating	1988 - 1991, 2000 to date.
Rated by Flot	-
Rated by Current Meter	1988 - 1991, 2000 to date.
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records poor. Flow regulated by Sadao Resservior. Stage-discharge relation defined by 28 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	41.27	41.28	41.23	41.29	41.25	41.50	41.20	40.93	40.78	41.84	41.00	41.38	
2	41.27	41.28	41.23	41.29	41.25	41.50	41.21	40.93	40.78	41.74	41.00	41.38	
3	41.27	41.28	41.24	41.29	41.25	41.50	41.20	40.93	40.78	41.66	41.00	41.38	
4	41.27	41.28	41.24	41.28	41.26	41.50	41.18	40.96	40.78	41.62	41.00	41.51	
5	41.28	41.28	41.24	41.28	41.26	41.50	41.18	40.96	40.78	41.58	41.00	41.70	
6	41.28	41.27	41.25	41.28	41.26	41.50	41.17	40.93	41.03	41.58	41.00	41.72	
7	41.28	41.27	41.25	41.27	41.26	41.50	41.15	40.93	41.61	41.58	41.00	41.73	
8	41.28	41.27	41.26	41.27	41.27	41.56	41.10	40.93	41.24	41.58	41.02	41.73	
9	41.28	41.27	41.26	41.27	41.27	41.56	40.92	40.93	40.94	41.40	41.02	41.74	
10	41.28	41.27	41.26	41.26	41.27	41.56	41.30	40.93	40.80	41.40	41.04	41.74	
11	41.27	41.26	41.27	41.26	41.20	41.56	41.08	40.93	40.80	41.40	41.06	41.76	
12	41.28	41.26	41.27	41.26	41.18	41.56	40.99	40.93	40.80	41.29	41.06	41.77	
13	41.28	41.26	41.28	41.25	41.18	41.56	40.97	40.94	40.80	41.29	41.06	41.83	
14	41.28	41.26	41.28	41.25	41.18	41.56	40.97	40.94	40.80	41.28	41.06	41.78	
15	41.28	41.27	41.28	41.25	41.17	41.62	40.98	40.94	40.80	41.28	41.07	41.84	
16	41.27	41.27	41.29	41.25	41.17	41.61	41.00	40.92	40.78	41.27	41.07	41.84	
17	41.27	41.27	41.29	41.24	41.17	41.60	41.00	40.89	40.78	41.27	41.08	41.82	
18	41.27	41.26	41.30	41.24	41.17	41.62	40.98	40.86	40.78	41.25	41.09	41.82	
19	41.27	41.26	41.30	41.24	41.27	41.61	40.95	40.83	40.78	41.22	41.09	41.82	
20	41.27	41.26	41.31	41.24	41.36	41.61	40.95	40.80	40.78	41.22	41.10	41.06	
21	41.27	41.27	41.32	41.23	41.36	41.60	40.96	40.79	40.76	41.16	41.08	41.06	
22	41.27	41.27	41.32	41.23	41.36	41.61	40.96	40.79	40.78	41.16	41.08	41.06	
23	41.27	41.28	41.32	41.23	41.36	41.61	40.95	40.79	40.79	41.14	41.08	41.04	
24	41.28	41.28	41.31	41.23	41.48	41.67	40.95	40.78	40.80	41.12	41.08	41.00	
25	41.27	41.27	41.31	41.22	41.50	41.85	40.94	40.78	40.80	41.10	41.08	40.91	
26	41.26	41.27	41.32	41.22	41.50	41.55	40.94	40.77	40.80	41.09	41.07	40.87	
27	41.26	41.27	41.32	41.22	41.50	40.90	40.94	40.77	40.80	41.08	41.07	40.84	
28	41.25	41.28	41.33	41.21	41.51	41.27	40.93	40.77	41.28	41.06	41.17	40.84	
29	41.25	41.28	41.33	41.21	41.51	41.27	40.93	40.76	41.82	41.04		40.84	
30	41.24	41.27	41.34	41.21	41.50	41.20	40.93	40.76	41.86	41.02		40.84	
31		41.27		41.21	41.49		40.93		41.86	41.00		40.84	
Mean	41.27	41.27	41.28	41.25	41.31	41.52	41.03	40.87	40.96	41.31	41.05	41.40	
Max	41.28	41.28	41.34	41.29	41.51	41.85	41.30	40.96	41.86	41.84	41.17	41.84	41.86
Min	41.24	41.26	41.23	41.21	41.17	40.90	40.92	40.76	40.76	41.00	41.00	40.84	40.76

Annual Max Momentary Gage Height	41.86	m. (MSL.) ,	at 18.00 Hours , on Apr 25 , 2002		
Zero Gage at Bottom Elevation	40.30	m. (MSL.) ,	River Bed	10.45	m. (MSL.)
Left Bank Elevation	46.02	m. (MSL.) ,			
Right Bank Elevation	46.01	m. (MSL.) ,	Drainage Are	94	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.48	1.52	1.32	1.56	1.40	2.45	1.20	0.50	0.27	4.22	0.60	1.92		
2	1.48	1.52	1.32	1.56	1.40	2.45	1.24	0.50	0.27	3.60	0.60	1.92		
3	1.48	1.52	1.36	1.56	1.40	2.45	1.20	0.50	0.27	3.20	0.60	1.92		
4	1.48	1.52	1.36	1.52	1.44	2.45	1.14	0.54	0.27	3.00	0.60	2.50		
5	1.52	1.52	1.36	1.52	1.44	2.45	1.14	0.54	0.27	2.81	0.60	3.40		
6	1.52	1.48	1.40	1.52	1.44	2.45	1.11	0.50	0.69	2.81	0.60	3.50		
7	1.52	1.48	1.40	1.48	1.44	2.45	1.05	0.50	2.95	2.81	0.60	3.55		
8	1.52	1.48	1.44	1.48	1.48	2.72	0.90	0.50	1.36	2.81	0.66	3.55		
9	1.52	1.48	1.44	1.48	1.48	2.72	0.48	0.50	0.51	2.00	0.66	3.60		
10	1.52	1.48	1.44	1.44	1.48	2.72	1.60	0.50	0.30	2.00	0.72	3.60		
11	1.48	1.44	1.48	1.44	1.20	2.72	0.84	0.50	0.30	2.00	0.78	3.70		
12	1.52	1.44	1.48	1.44	1.14	2.72	0.59	0.50	0.30	1.56	0.78	3.75		
13	1.52	1.44	1.52	1.40	1.14	2.72	0.56	0.51	0.30	1.56	0.78	4.14		
14	1.52	1.44	1.52	1.40	1.14	2.72	0.56	0.51	0.30	1.52	0.78	3.80		
15	1.52	1.48	1.52	1.40	1.11	3.00	0.57	0.51	0.30	1.52	0.81	4.22		
16	1.48	1.48	1.56	1.40	1.11	2.95	0.60	0.48	0.27	1.48	0.81	4.22		
17	1.48	1.48	1.56	1.36	1.11	2.90	0.60	0.44	0.27	1.48	0.84	4.06		
18	1.48	1.44	1.60	1.36	1.11	3.00	0.57	0.39	0.27	1.40	0.87	4.06		
19	1.48	1.44	1.60	1.36	1.48	2.95	0.53	0.35	0.27	1.28	0.87	4.06		
20	1.48	1.44	1.64	1.36	1.84	2.95	0.53	0.30	0.27	1.28	0.90	0.78		
21	1.48	1.48	1.68	1.32	1.84	2.90	0.54	0.29	0.24	1.08	0.84	0.78		
22	1.48	1.48	1.68	1.32	1.84	2.95	0.54	0.29	0.27	1.08	0.84	0.78		
23	1.48	1.52	1.68	1.32	1.84	2.95	0.53	0.29	0.29	1.02	0.84	0.72		
24	1.52	1.52	1.64	1.32	2.36	3.25	0.53	0.27	0.30	0.96	0.84	0.60		
25	1.48	1.48	1.64	1.28	2.45	4.30	0.51	0.27	0.30	0.90	0.84	0.47		
26	1.44	1.48	1.68	1.28	2.45	2.68	0.51	0.26	0.30	0.87	0.81	0.41		
27	1.44	1.48	1.68	1.28	2.45	0.45	0.51	0.26	0.30	0.84	0.81	0.36		
28	1.40	1.52	1.72	1.24	2.50	1.48	0.50	0.26	1.52	0.78	1.11	0.36		
29	1.40	1.52	1.72	1.24	2.50	1.48	0.50	0.24	4.06	0.72		0.36		
30	1.36	1.48	1.76	1.24	2.45	1.20	0.50	0.24	4.38	0.66		0.36		
31		1.48		1.24	2.40		0.50		4.38	0.60		0.36		
Total	44.48	45.96	46.20	43.12	51.86	77.58	22.68	12.24	26.35	53.85	21.39	71.81	517.52	CMSDAY
Mean	1.48	1.48	1.54	1.39	1.67	2.59	0.73	0.41	0.85	1.74	0.76	2.32	1.42	CMS
Max	1.52	1.52	1.76	1.56	2.50	4.30	1.60	0.54	4.38	4.22	1.11	4.22	4.38	CMS
Min	1.36	1.44	1.32	1.24	1.11	0.45	0.48	0.24	0.24	0.60	0.60	0.36	0.24	CMS
Runoff	3.84	3.97	3.99	3.73	4.48	6.70	1.96	1.06	2.28	4.65	1.85	6.20	44.71	MCM

Momentary Peak 4.38 CMS. at 41.86 m. (MSL.) at 18.00 Hours , on Apr 25 , 2002

Runoff Yield 15.08 Liters/Second/Square KM. Momentary Peak Yield 46.600 Liters/Second/Square KM.

WATER YEAR : 2002

SOUTHERN PENINSULA EAST COAST

Khlong Yaha at Yaha, Yala (X.175)

Lat 06 - 28 - 25 N Long 101 - 08 - 32 E

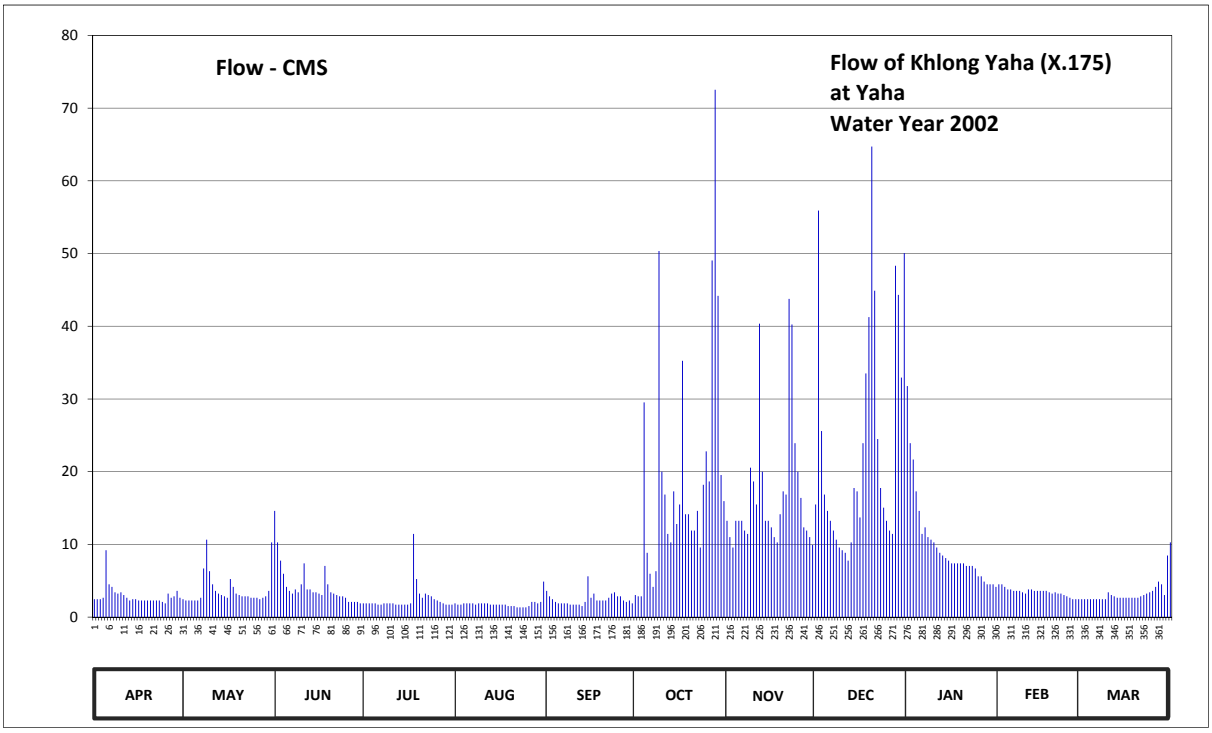
Location : on left bank on the bridge on Yala - Yaha Road.

	Ban -	**Amphoe** Yaha	**Changwat** Yala
Drainge Area	350 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 about 17.80 meters from the third staff gage.	**Elevation**	+5.670 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 mean of 5 readings		
Period of Available Gage Records	1989 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 poor. Stage-discharge relation defined by 28 discharge measurements made in 2002.		

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	2.13	2.13	2.48	2.10	2.10	2.19	2.16	2.45	2.50	2.81	2.22	2.13	
2	2.13	2.12	2.38	2.10	2.09	2.15	2.15	2.40	4.07	2.67	2.22	2.13	
3	2.13	2.12	2.31	2.10	2.09	2.13	2.15	2.36	2.70	2.63	2.21	2.13	
4	2.14	2.12	2.26	2.10	2.10	2.11	2.77	2.45	2.53	2.54	2.20	2.13	
5	2.35	2.12	2.21	2.10	2.10	2.10	2.34	2.45	2.48	2.48	2.20	2.13	
6	2.22	2.12	2.19	2.09	2.10	2.10	2.26	2.45	2.45	2.41	2.19	2.13	
7	2.21	2.14	2.17	2.09	2.10	2.10	2.21	2.42	2.42	2.43	2.19	2.13	
8	2.18	2.28	2.20	2.10	2.09	2.10	2.27	2.41	2.39	2.40	2.19	2.13	
9	2.17	2.39	2.18	2.10	2.10	2.09	3.70	2.61	2.36	2.39	2.18	2.13	
10	2.18	2.27	2.22	2.10	2.10	2.09	2.60	2.57	2.35	2.38	2.17	2.18	
11	2.16	2.22	2.30	2.10	2.10	2.09	2.53	2.50	2.34	2.36	2.20	2.16	
12	2.14	2.19	2.20	2.09	2.10	2.09	2.41	2.98	2.31	2.34	2.20	2.15	
13	2.12	2.17	2.20	2.09	2.09	2.08	2.38	2.60	2.38	2.33	2.19	2.14	
14	2.13	2.16	2.18	2.09	2.09	2.11	2.54	2.45	2.55	2.32	2.19	2.14	
15	2.13	2.15	2.18	2.09	2.09	2.25	2.44	2.45	2.54	2.31	2.19	2.14	
16	2.12	2.14	2.17	2.09	2.09	2.14	2.50	2.43	2.46	2.30	2.19	2.14	
17	2.12	2.24	2.16	2.10	2.09	2.17	2.87	2.40	2.67	2.30	2.19	2.14	
18	2.12	2.21	2.29	2.41	2.09	2.12	2.47	2.38	2.84	2.30	2.18	2.14	
19	2.12	2.17	2.22	2.24	2.08	2.12	2.47	2.47	3.05	2.30	2.17	2.14	
20	2.12	2.16	2.18	2.17	2.08	2.12	2.42	2.54	4.62	2.30	2.18	2.14	
21	2.12	2.15	2.17	2.14	2.08	2.12	2.42	2.53	3.32	2.29	2.17	2.15	
22	2.12	2.15	2.16	2.17	2.07	2.14	2.48	3.24	2.68	2.29	2.17	2.16	
23	2.12	2.15	2.15	2.16	2.07	2.17	2.36	2.97	2.55	2.29	2.16	2.17	
24	2.11	2.14	2.15	2.15	2.07	2.18	2.56	2.67	2.49	2.28	2.15	2.18	
25	2.10	2.14	2.14	2.13	2.07	2.15	2.65	2.60	2.45	2.25	2.14	2.19	
26	2.17	2.14	2.11	2.12	2.08	2.15	2.57	2.52	2.42	2.25	2.13	2.21	
27	2.14	2.13	2.11	2.11	2.11	2.12	3.61	2.43	2.41	2.23	2.13	2.23	
28	2.15	2.14	2.11	2.10	2.11	2.11	5.09	2.42	3.56	2.22	2.13	2.22	
29	2.19	2.15	2.11	2.09	2.10	2.12	3.27	2.40	3.28	2.22		2.16	
30	2.14	2.19	2.10	2.09	2.11	2.10	2.59	2.37	2.83	2.22		2.33	
31		2.38		2.09	2.23		2.51		3.68	2.21		2.38	
Mean	2.15	2.18	2.20	2.12	2.10	2.13	2.64	2.53	2.76	2.36	2.18	2.17	
Max	2.35	2.39	2.48	2.41	2.23	2.25	5.09	3.24	4.62	2.81	2.22	2.38	5.09
Min	2.10	2.12	2.10	2.09	2.07	2.08	2.15	2.36	2.31	2.21	2.13	2.13	2.07

Annual Max Momentary Gage Height	5.26	m. (A.D.) ,	at 12.00 Hours , on Oct 28 , 2002		
Zero Gage at Bottom Elevation	0.00	m. (A.D.) ,	River Bed	0.41	m. (A.D.)
Left Bank Elevation	10.33	m. (A.D.) ,			
Right Bank Elevation	10.40	m. (A.D.) ,	Drainage Are	350	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.47	2.47	14.60	1.90	1.90	3.61	3.04	13.25	15.50	31.78	4.52	2.47		
2	2.47	2.28	10.28	1.90	1.71	2.85	2.85	11.00	55.92	23.92	4.52	2.47		
3	2.47	2.28	7.76	1.90	1.71	2.47	2.85	9.56	25.60	21.68	4.16	2.47		
4	2.66	2.28	5.96	1.90	1.90	2.09	29.52	13.25	16.85	17.30	3.80	2.47		
5	9.20	2.28	4.16	1.90	1.90	1.90	8.84	13.25	14.60	14.60	3.80	2.47		
6	4.52	2.28	3.61	1.71	1.90	1.90	5.96	13.25	13.25	11.45	3.61	2.47		
7	4.16	2.66	3.23	1.71	1.90	1.90	4.16	11.90	11.90	12.35	3.61	2.47		
8	3.42	6.68	3.80	1.90	1.71	1.90	6.32	11.45	10.64	11.00	3.61	2.47		
9	3.23	10.64	3.42	1.90	1.90	1.71	50.35	20.56	9.56	10.64	3.42	2.47		
10	3.42	6.32	4.52	1.90	1.90	1.71	20.00	18.65	9.20	10.28	3.23	3.42		
11	3.04	4.52	7.40	1.90	1.90	1.71	16.85	15.50	8.84	9.56	3.80	3.04		
12	2.66	3.61	3.80	1.71	1.90	1.71	11.45	40.36	7.76	8.84	3.80	2.85		
13	2.28	3.23	3.80	1.71	1.71	1.52	10.28	20.00	10.28	8.48	3.61	2.66		
14	2.47	3.04	3.42	1.71	1.71	2.09	17.30	13.25	17.75	8.12	3.61	2.66		
15	2.47	2.85	3.42	1.71	1.71	5.60	12.80	13.25	17.30	7.76	3.61	2.66		
16	2.28	2.66	3.23	1.71	1.71	2.66	15.50	12.35	13.70	7.40	3.61	2.66		
17	2.28	5.24	3.04	1.90	1.71	3.23	35.26	11.00	23.92	7.40	3.61	2.66		
18	2.28	4.16	7.04	11.45	1.71	2.28	14.15	10.28	33.52	7.40	3.42	2.66		
19	2.28	3.23	4.52	5.24	1.52	2.28	14.15	14.15	41.25	7.40	3.23	2.66		
20	2.28	3.04	3.42	3.23	1.52	2.28	11.90	17.30	64.72	7.40	3.42	2.66		
21	2.28	2.85	3.23	2.66	1.52	2.28	11.90	16.85	44.88	7.04	3.23	2.85		
22	2.28	2.85	3.04	3.23	1.33	2.66	14.60	43.76	24.48	7.04	3.23	3.04		
23	2.28	2.85	2.85	3.04	1.33	3.23	9.56	40.24	17.75	7.04	3.04	3.23		
24	2.09	2.66	2.85	2.85	1.33	3.42	18.20	23.92	15.05	6.68	2.85	3.42		
25	1.90	2.66	2.66	2.47	1.33	2.85	22.80	20.00	13.25	5.60	2.66	3.61		
26	3.23	2.66	2.09	2.28	1.52	2.85	18.65	16.40	11.90	5.60	2.47	4.16		
27	2.66	2.47	2.09	2.09	2.09	2.28	49.04	12.35	11.45	4.88	2.47	4.88		
28	2.85	2.66	2.09	1.90	2.09	2.09	72.53	11.90	48.32	4.52	2.47	4.52		
29	3.61	2.85	2.09	1.71	1.90	2.28	44.18	11.00	44.32	4.52		3.04		
30	2.66	3.61	1.90	1.71	2.09	1.90	19.55	9.92	32.94	4.52		8.48		
31		10.28		1.71	4.88		15.95		50.06	4.16		10.28		
Total	88.18	114.15	129.32	76.54	56.94	73.24	590.49	509.90	736.46	306.36	96.42	104.33	2882.33	CMSDAY
Mean	2.94	3.68	4.31	2.47	1.84	2.44	19.05	17.00	23.76	9.88	3.44	3.37	7.90	CMS
Max	9.20	10.64	14.60	11.45	4.88	5.60	72.53	43.76	64.72	31.78	4.52	10.28	72.53	CMS
Min	1.90	2.28	1.90	1.71	1.33	1.52	2.85	9.56	7.76	4.16	2.47	2.47	1.33	CMS
Runoff	7.62	9.86	11.17	6.61	4.92	6.33	51.02	44.06	63.63	26.47	8.33	9.01	249.03	MCM

Momentary Peak 75.42 CMS. at 5.26 m. (A.D.) at 12.00 Hours , on Oct 28 , 2002

Runoff Yield 22.56 Liters/Second/Square KM. Momentary Peak Yield 215.490 Liters/Second/Square KM.

WATER YEAR : 2002

SOUTHERN PENINSULA EAST COAST

Khlong To Daeng at Ban To Daeng, Narathiwat (X.182)

Lat 06 - 04 - 28 N Long 101 - 58 - 08 E

Location : on right bank at the bridge.

	Ban To Daeng	**Amphoe** Sungai Kolok		**Changwat** Narathiwat	
Drainge Area	Flood plain.				
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 at the abutment of the bridge.			**Elevation**	+3.000 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 mean 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	Fairly stable.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records poor. Stage-discharge relation defined by 8 discharge measurements made in 2002.				

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

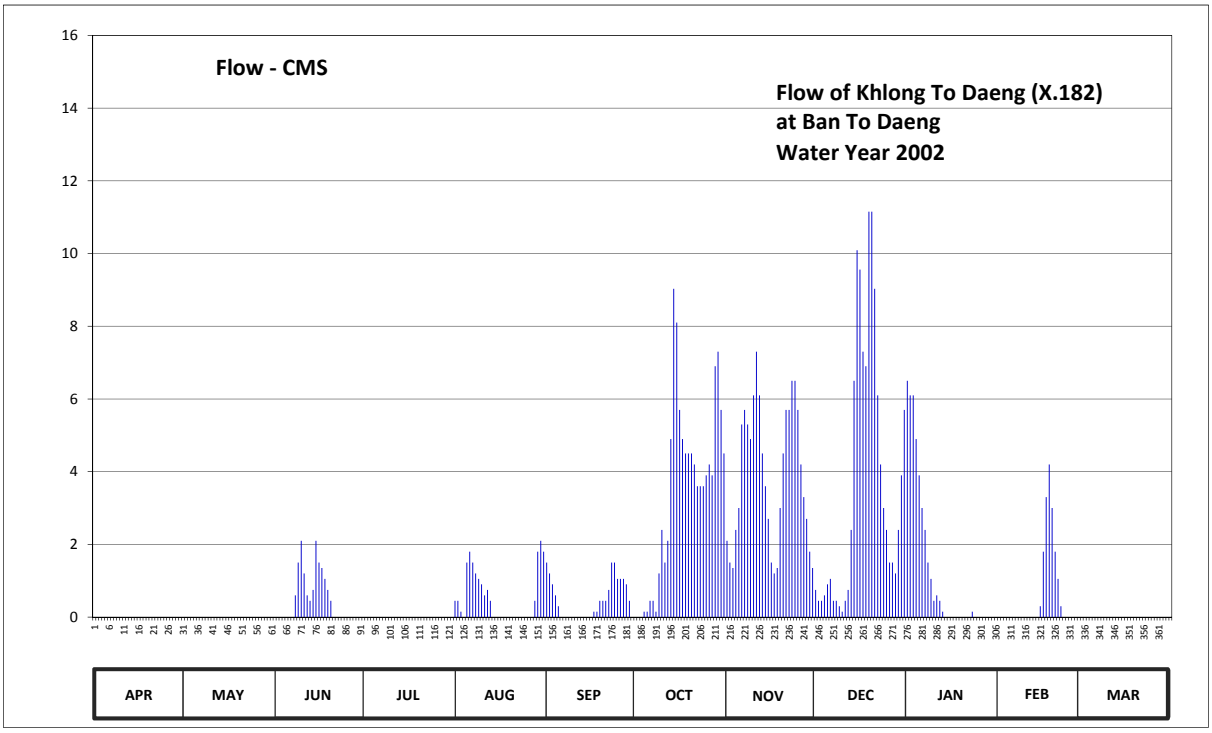
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.83	0.76	0.88	1.01	1.13	1.20	1.08	1.22	1.15	1.35	1.01	1.00	
2	0.82	0.75	0.91	1.00	1.13	1.18	1.05	1.20	1.13	1.34	1.01	0.99	
3	0.81	0.75	0.93	1.00	1.11	1.16	1.08	1.19	1.13	1.34	1.01	0.98	
4	0.81	0.75	0.98	0.99	1.10	1.14	1.11	1.23	1.14	1.31	1.00	0.97	
5	0.80	0.75	1.00	0.98	1.20	1.12	1.11	1.25	1.16	1.28	0.99	0.95	
6	0.80	0.75	1.04	0.97	1.21	1.09	1.13	1.32	1.17	1.25	0.99	0.95	
7	0.79	0.75	1.08	0.97	1.20	1.07	1.13	1.33	1.13	1.23	0.98	0.94	
8	0.78	0.76	1.14	0.95	1.18	1.03	1.11	1.32	1.13	1.20	0.97	0.93	
9	0.78	0.75	1.20	0.95	1.17	1.01	1.18	1.31	1.12	1.17	0.97	0.93	
10	0.77	0.77	1.22	0.93	1.16	1.00	1.23	1.34	1.11	1.13	0.97	0.93	
11	0.77	0.77	1.18	0.91	1.14	0.99	1.20	1.37	1.13	1.14	1.02	0.94	
12	0.77	0.78	1.14	0.90	1.15	0.98	1.22	1.34	1.15	1.13	1.04	0.98	
13	0.77	0.77	1.13	0.89	1.13	0.99	1.31	1.30	1.23	1.11	1.05	0.97	
14	0.76	0.77	1.15	0.91	1.10	1.03	1.41	1.27	1.35	1.10	1.07	0.97	
15	0.76	0.76	1.22	0.93	1.08	1.07	1.39	1.24	1.43	1.09	1.12	0.96	
16	0.75	0.76	1.20	0.93	1.07	1.09	1.33	1.20	1.42	1.10	1.21	0.95	
17	0.75	0.75	1.19	0.92	1.04	1.11	1.31	1.18	1.37	1.09	1.26	0.95	
18	0.73	0.75	1.17	0.92	1.03	1.11	1.30	1.19	1.36	1.08	1.29	0.93	
19	0.73	0.75	1.15	0.93	1.01	1.13	1.30	1.25	1.45	1.09	1.25	0.91	
20	0.73	0.75	1.13	0.93	1.00	1.13	1.30	1.30	1.45	1.07	1.21	0.91	
21	0.72	0.77	1.10	0.91	0.99	1.13	1.29	1.33	1.41	1.10	1.17	0.90	
22	0.72	0.78	1.07	0.92	0.99	1.15	1.27	1.33	1.34	1.10	1.12	0.90	
23	0.71	0.77	1.05	1.00	0.98	1.20	1.27	1.35	1.29	1.11	1.10	0.90	
24	0.71	0.77	1.03	1.04	0.97	1.20	1.27	1.35	1.25	1.09	1.07	0.91	
25	0.72	0.80	1.02	1.06	0.95	1.17	1.28	1.33	1.23	1.07	1.05	0.90	
26	0.75	0.80	1.01	1.06	0.95	1.17	1.29	1.29	1.20	1.07	1.03	0.90	
27	0.74	0.79	1.00	1.03	1.02	1.17	1.28	1.26	1.20	1.05	1.02	0.92	
28	0.75	0.79	1.00	1.03	1.13	1.16	1.36	1.24	1.18	1.04	1.01	0.91	
29	0.77	0.80	1.00	1.05	1.21	1.13	1.37	1.21	1.23	1.03		0.91	
30	0.77	0.87	1.01	1.09	1.22	1.10	1.33	1.19	1.28	1.03		0.90	
31		0.89		1.09	1.21		1.30		1.33	1.02		0.90	
Mean	0.76	0.77	1.08	0.97	1.10	1.11	1.24	1.27	1.25	1.14	1.07	0.94	
Max	0.83	0.89	1.22	1.09	1.22	1.20	1.41	1.37	1.45	1.35	1.29	1.00	1.45
Min	0.71	0.75	0.88	0.89	0.95	0.98	1.05	1.18	1.11	1.02	0.97	0.90	0.71

Annual Max Momentary Gage Height 1.45 m. (A.D.) , at 18.00 Hours , on Dec 15 , 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed -2.24 m. (A.D.)

Left Bank Elevation 3.97 m. (A.D.) ,

Right Bank Elevation 3.92 m. (A.D.) , Drainage Area Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	0.00	0.00	0.45	1.50	0.00	2.10	0.75	6.50	0.00	0.00		
2	0.00	0.00	0.00	0.00	0.45	1.20	0.00	1.50	0.45	6.10	0.00	0.00		
3	0.00	0.00	0.00	0.00	0.15	0.90	0.00	1.35	0.45	6.10	0.00	0.00		
4	0.00	0.00	0.00	0.00	0.00	0.60	0.15	2.40	0.60	4.90	0.00	0.00		
5	0.00	0.00	0.00	0.00	1.50	0.30	0.15	3.00	0.90	3.90	0.00	0.00		
6	0.00	0.00	0.00	0.00	1.80	0.00	0.45	5.30	1.05	3.00	0.00	0.00		
7	0.00	0.00	0.00	0.00	1.50	0.00	0.45	5.70	0.45	2.40	0.00	0.00		
8	0.00	0.00	0.60	0.00	1.20	0.00	0.15	5.30	0.45	1.50	0.00	0.00		
9	0.00	0.00	1.50	0.00	1.05	0.00	1.20	4.90	0.30	1.05	0.00	0.00		
10	0.00	0.00	2.10	0.00	0.90	0.00	2.40	6.10	0.15	0.45	0.00	0.00		
11	0.00	0.00	1.20	0.00	0.60	0.00	1.50	7.30	0.45	0.60	0.00	0.00		
12	0.00	0.00	0.60	0.00	0.75	0.00	2.10	6.10	0.75	0.45	0.00	0.00		
13	0.00	0.00	0.45	0.00	0.45	0.00	4.90	4.50	2.40	0.15	0.00	0.00		
14	0.00	0.00	0.75	0.00	0.00	0.00	9.03	3.60	6.50	0.00	0.00	0.00		
15	0.00	0.00	2.10	0.00	0.00	0.00	8.10	2.70	10.09	0.00	0.30	0.00		
16	0.00	0.00	1.50	0.00	0.00	0.00	5.70	1.50	9.56	0.00	1.80	0.00		
17	0.00	0.00	1.35	0.00	0.00	0.15	4.90	1.20	7.30	0.00	3.30	0.00		
18	0.00	0.00	1.05	0.00	0.00	0.15	4.50	1.35	6.90	0.00	4.20	0.00		
19	0.00	0.00	0.75	0.00	0.00	0.45	4.50	3.00	11.15	0.00	3.00	0.00		
20	0.00	0.00	0.45	0.00	0.00	0.45	4.50	4.50	11.15	0.00	1.80	0.00		
21	0.00	0.00	0.00	0.00	0.00	0.45	4.20	5.70	9.03	0.00	1.05	0.00		
22	0.00	0.00	0.00	0.00	0.00	0.75	3.60	5.70	6.10	0.00	0.30	0.00		
23	0.00	0.00	0.00	0.00	0.00	1.50	3.60	6.50	4.20	0.15	0.00	0.00		
24	0.00	0.00	0.00	0.00	0.00	1.50	3.60	6.50	3.00	0.00	0.00	0.00		
25	0.00	0.00	0.00	0.00	0.00	1.05	3.90	5.70	2.40	0.00	0.00	0.00		
26	0.00	0.00	0.00	0.00	0.00	1.05	4.20	4.20	1.50	0.00	0.00	0.00		
27	0.00	0.00	0.00	0.00	0.00	1.05	3.90	3.30	1.50	0.00	0.00	0.00		
28	0.00	0.00	0.00	0.00	0.45	0.90	6.90	2.70	1.20	0.00	0.00	0.00		
29	0.00	0.00	0.00	0.00	1.80	0.45	7.30	1.80	2.40	0.00		0.00		
30	0.00	0.00	0.00	0.00	2.10	0.00	5.70	1.35	3.90	0.00		0.00		
31		0.00		0.00	1.80		4.50		5.70	0.00		0.00		
Total	0.00	0.00	14.40	0.00	16.95	14.40	106.08	116.85	112.73	37.25	15.75	0.00	434.41	CMSDAY
Mean	0.00	0.00	0.48	0.00	0.55	0.48	3.42	3.90	3.64	1.20	0.56	0.00	1.19	CMS
Max	0.00	0.00	2.10	0.00	2.10	1.50	9.03	7.30	11.15	6.50	4.20	0.00	11.15	CMS
Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.20	0.15	0.00	0.00	0.00	0.00	CMS
Runoff	0.00	0.00	1.24	0.00	1.46	1.24	9.17	10.10	9.74	3.22	1.36	0.00	37.53	MCM

Momentary Peak 11.15 CMS. at 1.45 m. (A.D.) at 18.00 Hours , on Dec 15 , 2002

Runoff Yield ***** Liters/Second/Square KM. Momentary Peak Yield ***** Liters/Second/Square KM.

WATER YEAR : 2002

SOUTHERN PENINSULA EAST COAST

Khlong Pa Se Mat at Ban Ko Ti Mung, Narathiwat (X.183)

Lat 06 - 04 - 39 N Long 102 - 00 - 23 E

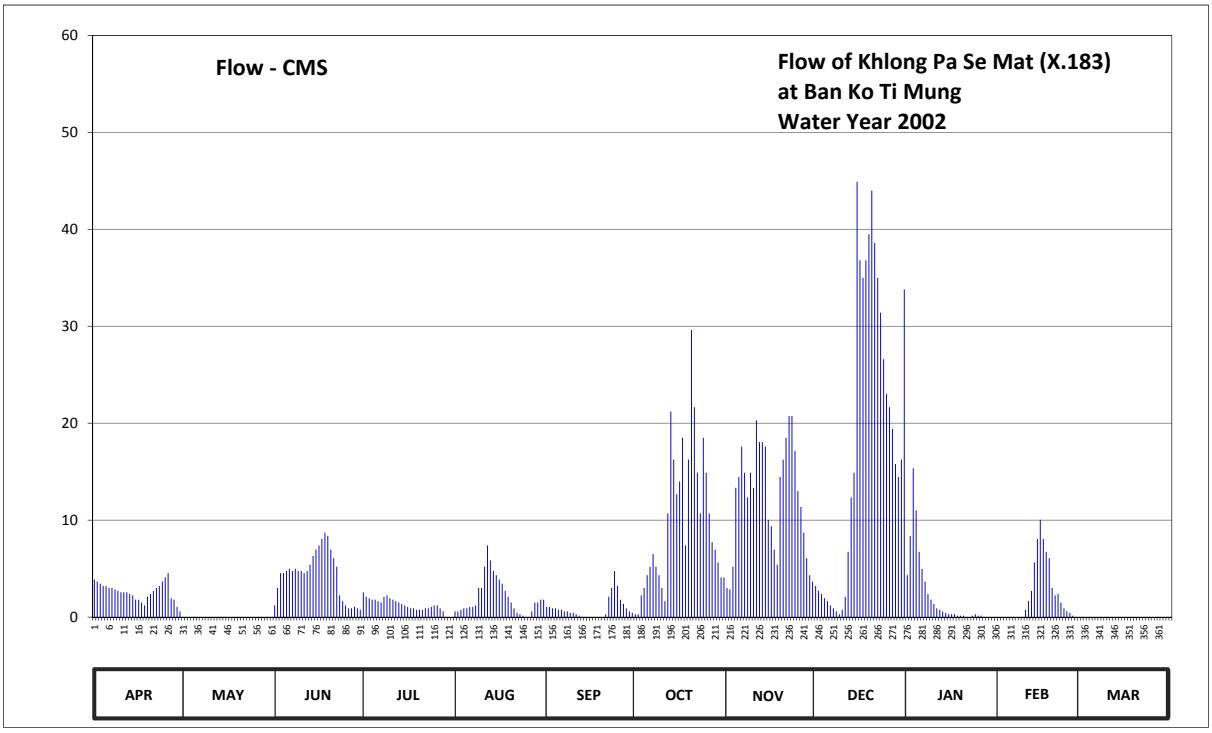
Location : on left bank at the bridge.

	Ban Ko Ti Mung	**Amphoe** Sungai Kolok	**Changwat** Narathiwat
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	On left bank about 5.00 meters from the top staff gage.	**Elevation**	+3.366 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 mean 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	Rather unstable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 21 discharge measurements made in 2002.		

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	1.04	0.64	0.88	0.97	0.84	0.87	0.82	1.00	1.01	1.06	0.77	0.77	
2	1.03	0.64	1.00	0.94	0.84	0.87	0.82	0.99	0.98	1.23	0.77	0.76	
3	1.02	0.64	1.07	0.93	0.85	0.86	0.95	1.10	0.96	1.43	0.77	0.75	
4	1.01	0.64	1.07	0.92	0.86	0.86	1.00	1.38	0.93	1.31	0.76	0.74	
5	1.01	0.64	1.08	0.92	0.86	0.85	1.06	1.41	0.91	1.17	0.76	0.73	
6	1.00	0.64	1.09	0.91	0.87	0.85	1.10	1.48	0.88	1.09	0.75	0.72	
7	1.00	0.64	1.08	0.90	0.87	0.84	1.16	1.42	0.86	1.03	0.75	0.71	
8	0.99	0.64	1.09	0.94	0.88	0.84	1.10	1.35	0.84	0.96	0.75	0.71	
9	0.98	0.64	1.08	0.95	1.00	0.83	1.06	1.42	0.82	0.92	0.79	0.71	
10	0.97	0.64	1.08	0.93	1.00	0.83	1.00	1.38	0.85	0.89	0.85	0.73	
11	0.97	0.64	1.07	0.92	1.10	0.82	0.91	1.54	0.94	0.86	0.91	0.74	
12	0.97	0.64	1.08	0.91	1.20	0.81	1.30	1.49	1.17	0.85	0.98	0.74	
13	0.96	0.64	1.11	0.90	1.13	0.80	1.56	1.49	1.35	0.84	1.12	0.75	
14	0.95	0.64	1.15	0.89	1.08	0.80	1.45	1.48	1.42	0.83	1.22	0.76	
15	0.92	0.64	1.18	0.88	1.06	0.80	1.36	1.28	1.91	0.82	1.28	0.77	
16	0.92	0.64	1.20	0.87	1.04	0.79	1.40	1.26	1.82	0.82	1.22	0.78	
17	0.90	0.64	1.22	0.86	1.02	0.78	1.50	1.18	1.80	0.82	1.17	0.78	
18	0.88	0.64	1.24	0.86	0.98	0.78	1.20	1.11	1.82	0.81	1.14	0.76	
19	0.94	0.64	1.23	0.85	0.94	0.77	1.45	1.41	1.85	0.81	1.00	0.74	
20	0.96	0.64	1.18	0.85	0.90	0.76	1.71	1.45	1.90	0.81	0.95	0.72	
21	0.98	0.64	1.14	0.85	0.86	0.82	1.57	1.50	1.84	0.80	0.96	0.72	
22	1.00	0.64	1.10	0.86	0.83	0.94	1.42	1.55	1.80	0.80	0.90	0.71	
23	1.01	0.64	0.95	0.86	0.82	1.00	1.30	1.55	1.74	0.81	0.86	0.70	
24	1.03	0.64	0.91	0.87	0.81	1.08	1.50	1.47	1.66	0.82	0.84	0.70	
25	1.05	0.64	0.88	0.88	0.80	1.01	1.42	1.37	1.60	0.81	0.83	0.69	
26	1.07	0.64	0.86	0.88	0.79	0.92	1.30	1.32	1.57	0.81	0.81	0.68	
27	0.93	0.66	0.86	0.86	0.84	0.89	1.21	1.24	1.52	0.80	0.80	0.68	
28	0.92	0.65	0.87	0.84	0.90	0.86	1.18	1.14	1.44	0.79	0.78	0.68	
29	0.87	0.65	0.86	0.80	0.90	0.84	1.12	1.06	1.41	0.78		0.68	
30	0.84	0.65	0.85	0.80	0.92	0.83	1.05	1.03	1.45	0.78		0.67	
31		0.65		0.79	0.92		1.05		1.78	0.78		0.66	
Mean	0.97	0.64	1.05	0.88	0.93	0.85	1.23	1.33	1.38	0.91	0.91	0.72	
Max	1.07	0.66	1.24	0.97	1.20	1.08	1.71	1.55	1.91	1.43	1.28	0.78	1.91
Min	0.84	0.64	0.85	0.79	0.79	0.76	0.82	0.99	0.82	0.78	0.75	0.66	0.64

Annual Max Momentary Gage Height	1.92	m. (A.D.) ,	at 06.00 Hours , on Dec 15 , 2002		
Zero Gage at Bottom Elevation	0.00	m. (A.D.) ,	River Bed	0.79	m. (A.D.)
Left Bank Elevation	3.29	m. (A.D.) ,			
Right Bank Elevation	3.28	m. (A.D.) ,	Drainage Area	Square Kilometers	



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.88	0.00	1.20	2.55	0.60	1.05	0.30	3.00	3.22	4.32	0.00	0.00		
2	3.66	0.00	3.00	2.10	0.60	1.05	0.30	2.85	2.70	8.39	0.00	0.00		
3	3.44	0.00	4.54	1.95	0.75	0.90	2.25	5.20	2.40	15.35	0.00	0.00		
4	3.22	0.00	4.54	1.80	0.90	0.90	3.00	13.34	1.95	11.03	0.00	0.00		
5	3.22	0.00	4.76	1.80	0.90	0.75	4.32	14.45	1.65	6.74	0.00	0.00		
6	3.00	0.00	4.98	1.65	1.05	0.75	5.20	17.60	1.20	4.98	0.00	0.00		
7	3.00	0.00	4.76	1.50	1.05	0.60	6.52	14.90	0.90	3.66	0.00	0.00		
8	2.85	0.00	4.98	2.10	1.20	0.60	5.20	12.35	0.60	2.40	0.00	0.00		
9	2.70	0.00	4.76	2.25	3.00	0.45	4.32	14.90	0.30	1.80	0.00	0.00		
10	2.55	0.00	4.76	1.95	3.00	0.45	3.00	13.34	0.75	1.35	0.75	0.00		
11	2.55	0.00	4.54	1.80	5.20	0.30	1.65	20.30	2.10	0.90	1.65	0.00		
12	2.55	0.00	4.76	1.65	7.40	0.15	10.70	18.05	6.74	0.75	2.70	0.00		
13	2.40	0.00	5.42	1.50	5.86	0.00	21.20	18.05	12.35	0.60	5.64	0.00		
14	2.25	0.00	6.30	1.35	4.76	0.00	16.25	17.60	14.90	0.45	8.06	0.00		
15	1.80	0.00	6.96	1.20	4.32	0.00	12.68	10.04	44.90	0.30	10.04	0.00		
16	1.80	0.00	7.40	1.05	3.88	0.00	14.00	9.38	36.80	0.30	8.06	0.00		
17	1.50	0.00	8.06	0.90	3.44	0.00	18.50	6.96	35.00	0.30	6.74	0.00		
18	1.20	0.00	8.72	0.90	2.70	0.00	7.40	5.42	36.80	0.15	6.08	0.00		
19	2.10	0.00	8.39	0.75	2.10	0.00	16.25	14.45	39.50	0.15	3.00	0.00		
20	2.40	0.00	6.96	0.75	1.50	0.00	29.60	16.25	44.00	0.15	2.25	0.00		
21	2.70	0.00	6.08	0.75	0.90	0.30	21.65	18.50	38.60	0.00	2.40	0.00		
22	3.00	0.00	5.20	0.90	0.45	2.10	14.90	20.75	35.00	0.00	1.50	0.00		
23	3.22	0.00	2.25	0.90	0.30	3.00	10.70	20.75	31.40	0.15	0.90	0.00		
24	3.66	0.00	1.65	1.05	0.15	4.76	18.50	17.15	26.60	0.30	0.60	0.00		
25	4.10	0.00	1.20	1.20	0.00	3.22	14.90	13.01	23.00	0.15	0.45	0.00		
26	4.54	0.00	0.90	1.20	0.00	1.80	10.70	11.36	21.65	0.15	0.15	0.00		
27	1.95	0.00	0.90	0.90	0.60	1.35	7.73	8.72	19.40	0.00	0.00	0.00		
28	1.80	0.00	1.05	0.60	1.50	0.90	6.96	6.08	15.80	0.00	0.00	0.00		
29	1.05	0.00	0.90	0.00	1.50	0.60	5.64	4.32	14.45	0.00		0.00		
30	0.60	0.00	0.75	0.00	1.80	0.45	4.10	3.66	16.25	0.00		0.00		
31		0.00		0.00	1.80		4.10		33.80	0.00		0.00		
Total	78.69	0.00	130.67	39.00	63.21	26.43	302.52	372.73	564.71	64.82	60.97	0.00	1703.75	CMSDAY
Mean	2.62	0.00	4.36	1.26	2.04	0.88	9.76	12.42	18.22	2.09	2.18	0.00	4.67	CMS
Max	4.54	0.00	8.72	2.55	7.40	4.76	29.60	20.75	44.90	15.35	10.04	0.00	44.90	CMS
Min	0.60	0.00	0.75	0.00	0.00	0.00	0.30	2.85	0.30	0.00	0.00	0.00	0.00	CMS
Runoff	6.80	0.00	11.29	3.37	5.46	2.28	26.14	32.20	48.79	5.60	5.27	0.00	147.20	MCM

Momentary Peak 45.80 CMS. at 1.92 m. (A.D.) at 06.00 Hours , on Dec 15 , 2002

Runoff Yield ***** Liters/Second/Square KM. Momentary Peak Yield ***** Liters/Second/Square KM.

WATER YEAR : 2002

SOUTHERN PENINSULA EAST COAST

Sai Buri River at Ban Sakor, Narathiwat (X.184)

Lat 06 - 13 - 32 N Long 101 - 30 - 00 E

Location : on right bank at the bridge.

	Ban Sakor	**Amphoe** Si Sakhon	**Changwat** Narathiwat
Drainge Area	1,186 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 about 30 meters from the top staff gage.		**Elevation** +10.578 m. (A.D.)
Gage Reading Frequency	13-time daily readings at 06.00 - 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 13 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 backwater effect.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 41 discharge measurements made in 2002.		

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

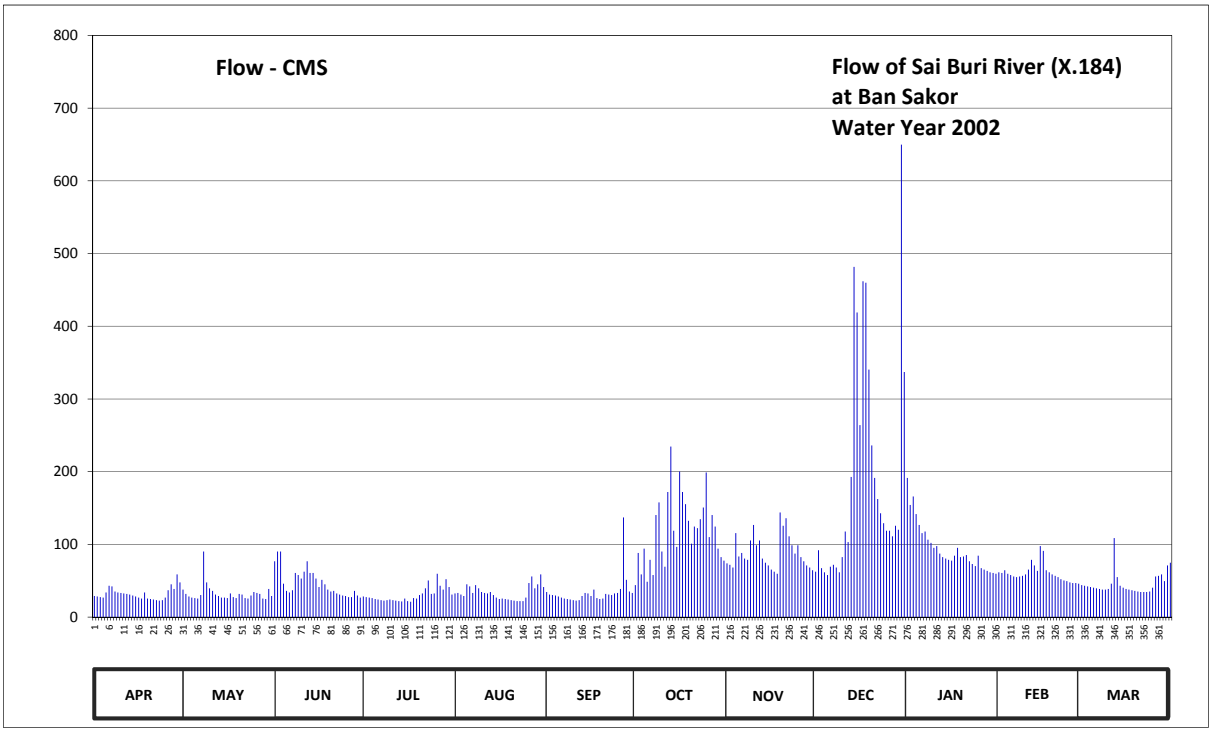
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.30	0.42	0.84	0.29	0.35	0.38	0.49	0.81	0.69	1.86	0.68	0.49	
2	0.29	0.34	0.98	0.28	0.36	0.33	0.96	0.79	1.00	1.55	0.67	0.48	
3	0.28	0.29	0.98	0.27	0.33	0.32	0.65	0.75	0.74	1.65	0.71	0.47	
4	0.27	0.27	0.51	0.26	0.30	0.31	1.02	1.21	0.68	1.44	0.66	0.46	
5	0.37	0.26	0.40	0.24	0.50	0.29	0.54	0.91	0.64	1.31	0.64	0.45	
6	0.48	0.25	0.37	0.23	0.47	0.27	0.86	0.96	0.76	1.21	0.62	0.44	
7	0.47	0.32	0.41	0.22	0.36	0.25	0.64	0.88	0.79	1.23	0.61	0.43	
8	0.39	0.98	0.67	0.21	0.49	0.24	1.43	0.86	0.75	1.13	0.62	0.42	
9	0.37	0.53	0.64	0.22	0.44	0.23	1.58	1.12	0.68	1.09	0.63	0.42	
10	0.36	0.44	0.59	0.23	0.38	0.22	0.98	1.31	0.90	1.03	0.65	0.43	
11	0.35	0.40	0.69	0.22	0.36	0.21	0.76	1.06	1.23	1.05	0.72	0.51	
12	0.34	0.33	0.84	0.21	0.35	0.22	1.70	1.12	1.10	0.95	0.86	1.15	
13	0.33	0.30	0.67	0.20	0.38	0.30	2.19	0.88	1.87	0.90	0.78	0.61	
14	0.31	0.27	0.67	0.19	0.32	0.36	1.24	0.82	3.72	0.88	0.70	0.48	
15	0.29	0.27	0.59	0.25	0.27	0.35	1.04	0.78	3.37	0.86	1.05	0.45	
16	0.27	0.26	0.46	0.20	0.24	0.30	1.93	0.72	2.40	0.85	0.99	0.43	
17	0.25	0.35	0.57	0.18	0.25	0.42	1.70	0.69	3.61	0.92	0.71	0.42	
18	0.37	0.28	0.50	0.26	0.24	0.26	1.56	0.66	3.60	1.03	0.68	0.41	
19	0.25	0.26	0.42	0.25	0.23	0.24	1.36	1.46	2.89	0.90	0.65	0.40	
20	0.24	0.34	0.39	0.32	0.22	0.25	1.08	1.30	2.20	0.91	0.63	0.39	
21	0.23	0.33	0.40	0.35	0.21	0.34	1.29	1.39	1.86	0.93	0.61	0.38	
22	0.22	0.26	0.35	0.44	0.20	0.33	1.27	1.17	1.62	0.84	0.58	0.38	
23	0.21	0.25	0.33	0.56	0.20	0.32	1.38	1.06	1.45	0.80	0.56	0.38	
24	0.22	0.31	0.31	0.34	0.20	0.35	1.52	0.95	1.33	0.77	0.55	0.39	
25	0.27	0.38	0.30	0.35	0.27	0.36	1.92	1.06	1.24	0.92	0.53	0.45	
26	0.41	0.36	0.28	0.66	0.52	0.43	1.16	0.90	1.24	0.74	0.52	0.62	
27	0.50	0.34	0.28	0.48	0.62	1.40	1.43	0.84	1.17	0.72	0.52	0.63	
28	0.43	0.25	0.40	0.42	0.44	0.57	1.29	0.78	1.30	0.70	0.51	0.65	
29	0.65	0.24	0.31	0.58	0.50	0.39	1.02	0.75	1.25	0.68		0.55	
30	0.53	0.43	0.27	0.46	0.65	0.36	0.90	0.71	4.62	0.67		0.78	
31		0.30		0.33	0.46		0.85		2.87	0.66		0.82	
Mean	0.34	0.34	0.51	0.31	0.36	0.35	1.22	0.96	1.73	1.01	0.67	0.51	
Max	0.65	0.98	0.98	0.66	0.65	1.40	2.19	1.46	4.62	1.86	1.05	1.15	4.62
Min	0.21	0.24	0.27	0.18	0.20	0.21	0.49	0.66	0.64	0.66	0.51	0.38	0.18

Annual Max Momentary Gage Height 4.81 m. (A.D.) , at 18.00 Hours , on Dec 30 , 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed -0.77 m. (A.D.)

Left Bank Elevation 11.91 m. (A.D.) ,

Right Bank Elevation 11.90 m. (A.D.) , Drainage Are 1,186 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	29.00	37.80	76.80	28.30	32.50	34.60	44.10	73.95	62.55	191.50	61.60	44.10		
2	28.30	31.80	90.10	27.60	33.20	31.10	88.20	72.05	92.00	154.25	60.65	43.20		
3	27.60	28.30	90.10	26.90	31.10	30.40	58.75	68.25	67.30	166.00	64.45	42.30		
4	26.90	26.90	45.90	26.20	29.00	29.70	94.24	115.53	61.60	141.60	59.70	41.40		
5	33.90	26.20	36.00	24.80	45.00	28.30	48.60	83.45	57.80	126.83	57.80	40.50		
6	43.20	25.50	33.90	24.10	42.30	26.90	78.70	88.20	69.20	115.53	55.90	39.60		
7	42.30	30.40	36.90	23.40	33.20	25.50	57.80	80.60	72.05	117.79	54.95	38.70		
8	35.30	90.10	60.65	22.70	44.10	24.80	140.45	78.70	68.25	106.56	55.90	37.80		
9	33.90	47.70	57.80	23.40	39.60	24.10	157.70	105.44	61.60	102.08	56.85	37.80		
10	33.20	39.60	53.10	24.10	34.60	23.40	90.10	126.83	82.50	95.36	58.75	38.70		
11	32.50	36.00	62.55	23.40	33.20	22.70	69.20	98.72	117.79	97.60	65.40	45.90		
12	31.80	31.10	76.80	22.70	32.50	23.40	172.00	105.44	103.20	87.25	78.70	108.80		
13	31.10	29.00	60.65	22.00	34.60	29.00	234.65	80.60	192.75	82.50	71.10	54.95		
14	29.70	26.90	60.65	21.50	30.40	33.20	118.92	74.90	481.60	80.60	63.50	43.20		
15	28.30	26.90	53.10	25.50	26.90	32.50	96.48	71.10	419.05	78.70	97.60	40.50		
16	26.90	26.20	41.40	22.00	24.80	29.00	200.25	65.40	264.00	77.75	91.05	38.70		
17	25.50	32.50	51.30	21.00	25.50	37.80	172.00	62.55	461.80	84.40	64.45	37.80		
18	33.90	27.60	45.00	26.20	24.80	26.20	155.40	59.70	460.00	95.36	61.60	36.90		
19	25.50	26.20	37.80	25.50	24.10	24.80	132.48	143.90	340.40	82.50	58.75	36.00		
20	24.80	31.80	35.30	30.40	23.40	25.50	100.96	125.70	236.00	83.45	56.85	35.30		
21	24.10	31.10	36.00	32.50	22.70	31.80	124.57	135.87	191.50	85.35	54.95	34.60		
22	23.40	26.20	32.50	39.60	22.00	31.10	122.31	111.04	162.40	76.80	52.20	34.60		
23	22.70	25.50	31.10	50.40	22.00	30.40	134.74	98.72	142.75	73.00	50.40	34.60		
24	23.40	29.70	29.70	31.80	22.00	32.50	150.80	87.25	129.09	70.15	49.50	35.30		
25	26.90	34.60	29.00	32.50	26.90	33.20	199.00	98.72	118.92	84.40	47.70	40.50		
26	36.90	33.20	27.60	59.70	46.80	38.70	109.92	82.50	118.92	67.30	46.80	55.90		
27	45.00	31.80	27.60	43.20	55.90	137.00	140.45	76.80	111.04	65.40	46.80	56.85		
28	38.70	25.50	36.00	37.80	39.60	51.30	124.57	71.10	125.70	63.50	45.90	58.75		
29	58.75	24.80	29.70	52.20	45.00	35.30	94.24	68.25	120.05	61.60		49.50		
30	47.70	38.70	26.90	41.40	58.75	33.20	82.50	64.45	649.90	60.65		71.10		
31		29.00		31.10	41.40		77.75		337.20	59.70		74.90		
Total	971.15	1008.60	1411.90	943.90	1047.85	1017.40	3671.83	2675.71	5978.91	2935.46	1689.80	1428.75	24781.26	CMSDAY
Mean	32.37	32.54	47.06	30.45	33.80	33.91	118.45	89.19	192.87	94.69	60.35	46.09	67.89	CMS
Max	58.75	90.10	90.10	59.70	58.75	137.00	234.65	143.90	649.90	191.50	97.60	108.80	649.90	CMS
Min	22.70	24.80	26.90	21.00	22.00	22.70	44.10	59.70	57.80	59.70	45.90	34.60	21.00	CMS
Runoff	83.91	87.14	121.99	81.55	90.53	87.90	317.25	231.18	516.58	253.62	146.00	123.44	2141.10	MCM

Momentary Peak 686.95 CMS. at 4.81 m. (A.D.) at 18.00 Hours , on Dec 30 , 2002

Runoff Yield 57.25 Liters/Second/Square KM. Momentary Peak Yield 579.220 Liters/Second/Square KM.

WATER YEAR : 2002

SOUTHERN PENINSULA EAST COAST

Sai Buri River at Ban Tha Rua, Narathiwat (X.199)

Lat 06 - 21 - 04 N Long 101 - 29 - 41 E

Location : on right bank at the highway bridge, Tambon Tha Rua.

Ban Tha Rua **Amphoe** Ruso **Changwat** Narathiwat

Drainge Area	1,622 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 about 20.00 meters from the top staff gage. **Elevation** +12.859 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 mean 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	No overbank flow.
General Description	Records good. Stage-discharge relation defined by 36 discharge measurements made in 2002.

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

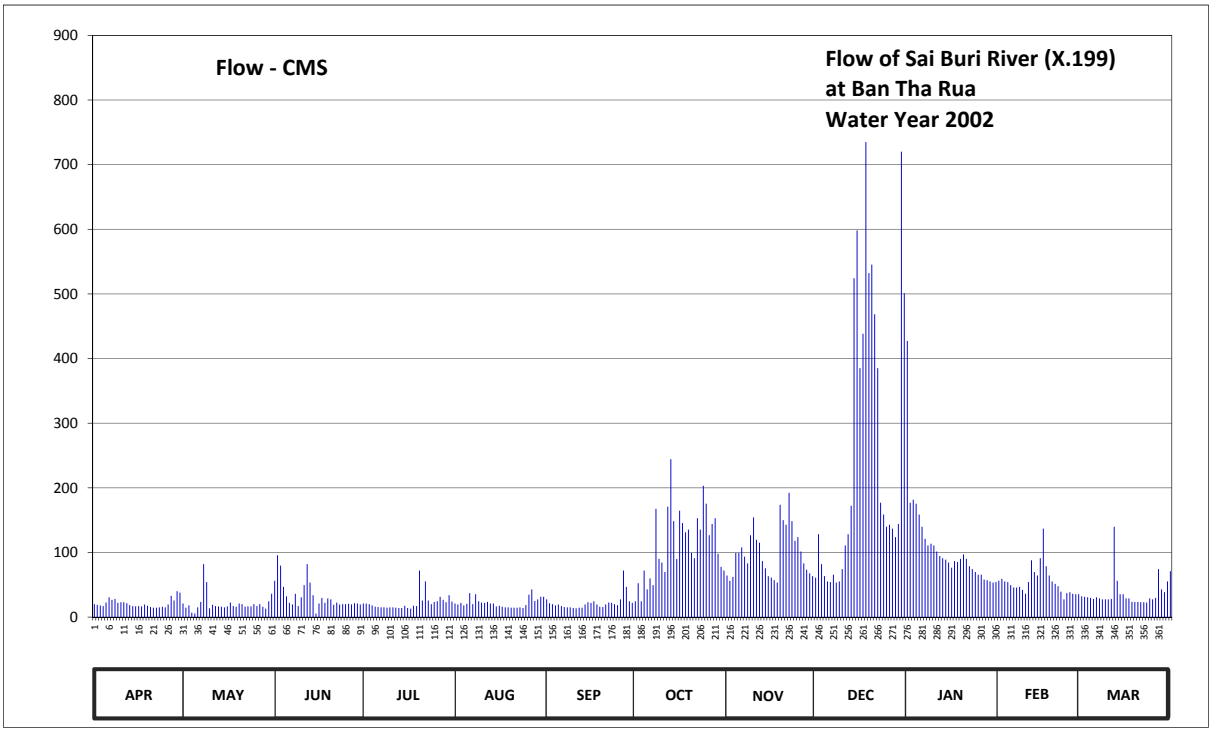
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	2.70	2.72	3.16	2.72	2.72	2.83	2.79	3.24	3.21	5.45	3.16	2.89	
2	2.68	2.59	3.52	2.72	2.69	2.73	3.12	3.16	3.76	4.09	3.19	2.88	
3	2.66	2.66	3.38	2.70	2.74	2.70	2.79	3.22	3.40	4.12	3.15	2.87	
4	2.64	2.42	3.06	2.66	2.66	2.66	3.31	3.55	3.23	4.08	3.14	2.86	
5	2.75	2.39	2.89	2.62	2.71	2.69	3.02	3.55	3.15	3.97	3.09	2.84	
6	2.87	2.60	2.74	2.61	2.95	2.64	3.20	3.62	3.14	3.84	3.05	2.87	
7	2.82	2.77	2.69	2.60	2.70	2.61	3.09	3.50	3.25	3.71	3.05	2.85	
8	2.84	3.40	2.94	2.60	2.93	2.60	4.03	3.41	3.13	3.64	3.06	2.83	
9	2.74	3.14	2.64	2.59	2.79	2.60	3.47	3.75	3.15	3.66	3.01	2.83	
10	2.76	2.57	2.87	2.60	2.75	2.58	3.42	3.94	3.33	3.64	2.94	2.83	
11	2.76	2.68	3.09	2.60	2.74	2.57	3.29	3.70	3.64	3.57	3.14	2.84	
12	2.73	2.64	3.40	2.59	2.77	2.59	4.05	3.67	3.76	3.51	3.45	3.84	
13	2.67	2.63	3.13	2.58	2.72	2.59	4.51	3.44	4.06	3.48	3.29	3.16	
14	2.64	2.62	2.91	2.58	2.72	2.69	3.90	3.34	5.85	3.46	3.24	2.93	
15	2.63	2.60	2.38	2.65	2.63	2.76	3.47	3.23	6.13	3.42	3.48	2.93	
16	2.64	2.63	2.72	2.58	2.65	2.74	4.01	3.21	5.25	3.35	3.82	2.85	
17	2.63	2.75	2.86	2.56	2.62	2.79	3.88	3.17	5.50	3.44	3.37	2.85	
18	2.69	2.64	2.74	2.65	2.60	2.69	3.78	3.13	6.61	3.43	3.24	2.77	
19	2.65	2.62	2.85	2.64	2.60	2.62	3.81	4.07	5.88	3.47	3.15	2.77	
20	2.61	2.72	2.83	3.31	2.59	2.61	3.55	3.91	5.93	3.53	3.11	2.77	
21	2.59	2.70	2.68	2.81	2.59	2.69	3.48	3.86	5.63	3.47	3.07	2.76	
22	2.59	2.62	2.75	3.15	2.59	2.75	3.93	4.19	5.25	3.37	2.98	2.76	
23	2.60	2.63	2.69	2.81	2.60	2.74	3.81	3.90	4.09	3.33	2.83	2.75	
24	2.62	2.63	2.70	2.70	2.58	2.70	4.26	3.69	3.97	3.29	2.95	2.85	
25	2.60	2.70	2.70	2.77	2.67	2.67	4.08	3.73	3.84	3.25	2.97	2.83	
26	2.69	2.64	2.71	2.79	2.92	2.83	3.75	3.57	3.86	3.25	2.94	2.86	
27	2.90	2.70	2.69	2.88	3.02	3.31	3.87	3.41	3.82	3.18	2.93	3.33	
28	2.81	2.62	2.73	2.82	2.80	3.06	3.93	3.32	3.73	3.17	2.93	3.02	
29	2.99	2.56	2.72	2.76	2.83	2.79	3.54	3.27	3.87	3.15		2.97	
30	2.96	2.79	2.69	2.91	2.88	2.74	3.36	3.23	6.56	3.13		3.15	
31		2.94		2.78	2.88		3.31		5.76	3.14		3.30	
Mean	2.72	2.69	2.86	2.72	2.73	2.72	3.61	3.53	4.38	3.57	3.13	2.93	
Max	2.99	3.40	3.52	3.31	3.02	3.31	4.51	4.19	6.61	5.45	3.82	3.84	6.61
Min	2.59	2.39	2.38	2.56	2.58	2.57	2.79	3.13	3.13	3.13	2.83	2.75	2.38

Annual Max Momentary Gage Height 6.70 m. (A.D.) , at 06.00 Hours , on Dec 18 , 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed 0.27 m. (A.D.)

Left Bank Elevation 14.22 m. (A.D.) ,

Right Bank Elevation 13.26 m. (A.D.) , Drainage Are 1,622 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	20.00	21.00	56.20	21.00	21.00	27.40	24.50	64.40	61.10	427.25	56.20	32.20		
2	19.00	14.55	95.80	21.00	19.50	21.50	52.40	56.20	128.20	176.95	59.05	31.40		
3	18.00	18.00	79.80	20.00	22.00	20.00	24.50	62.20	82.00	181.60	55.25	30.60		
4	17.00	6.90	46.70	18.00	18.00	18.00	72.10	99.25	63.30	175.40	54.30	29.80		
5	22.50	5.70	32.20	16.00	20.50	19.50	42.90	99.25	55.25	158.65	49.55	28.20		
6	30.60	15.00	22.00	15.50	37.00	17.00	60.00	107.90	54.30	139.80	45.75	30.60		
7	26.60	23.50	19.50	15.00	20.00	15.50	49.55	93.50	65.50	120.95	45.75	29.00		
8	28.20	82.00	36.20	15.00	35.40	15.00	167.65	83.15	53.35	110.80	46.70	27.40		
9	22.00	54.30	17.00	14.55	24.50	15.00	90.05	126.75	55.25	113.70	41.95	27.40		
10	23.00	13.65	30.60	15.00	22.50	14.10	84.30	154.30	74.30	110.80	36.20	27.40		
11	23.00	19.00	49.55	15.00	22.00	13.65	69.90	119.50	110.80	101.55	54.30	28.20		
12	21.50	17.00	82.00	14.55	23.50	14.55	170.75	115.15	128.20	94.65	87.75	139.80		
13	18.50	16.50	53.35	14.10	21.00	14.55	244.25	86.60	172.30	91.20	69.90	56.20		
14	17.00	16.00	33.80	14.10	21.00	19.50	148.50	75.40	524.25	88.90	64.40	35.40		
15	16.50	15.00	5.40	17.50	16.50	23.00	90.05	63.30	598.45	84.30	91.20	35.40		
16	17.00	16.50	21.00	14.10	17.50	22.00	164.55	61.10	385.25	76.50	136.90	29.00		
17	16.50	22.50	29.80	13.20	16.00	24.50	145.60	57.15	438.50	86.60	78.70	29.00		
18	19.50	17.00	22.00	17.50	15.00	19.50	131.10	53.35	734.95	85.45	64.40	23.50		
19	17.50	16.00	29.00	17.00	15.00	16.00	135.45	173.85	532.20	90.05	55.25	23.50		
20	15.50	21.00	27.40	72.10	14.55	15.50	99.25	149.95	545.45	96.95	51.45	23.50		
21	14.55	20.00	19.00	25.80	14.55	19.50	91.20	142.70	468.50	90.05	47.65	23.00		
22	14.55	16.00	22.50	55.25	14.55	22.50	152.85	192.45	385.25	78.70	39.40	23.00		
23	15.00	16.50	19.50	25.80	15.00	22.00	135.45	148.50	176.95	74.30	27.40	22.50		
24	16.00	16.50	20.00	20.00	14.10	20.00	203.30	118.05	158.65	69.90	37.00	29.00		
25	15.00	20.00	20.00	23.50	18.50	18.50	175.40	123.85	139.80	65.50	38.60	27.40		
26	19.50	17.00	20.50	24.50	34.60	27.40	126.75	101.55	142.70	65.50	36.20	29.80		
27	33.00	20.00	19.50	31.40	42.90	72.10	144.15	83.15	136.90	58.10	35.40	74.30		
28	25.80	16.00	21.50	26.60	25.00	46.70	152.85	73.20	123.85	57.15	35.40	42.90		
29	40.20	13.20	21.00	23.00	27.40	24.50	98.10	67.70	144.15	55.25		38.60		
30	37.80	24.50	19.50	33.80	31.40	22.00	77.60	63.30	720.20	53.35		55.25		
31		36.20		24.00	31.40		72.10		501.00	54.30		71.00		
Total	640.80	647.00	992.30	693.85	691.85	660.95	3497.10	3016.70	7960.85	3334.15	1542.00	1154.25	24831.80	CMSDAY
Mean	21.36	20.87	33.08	22.38	22.32	22.03	112.81	100.56	256.80	107.55	55.07	37.23	68.03	CMS
Max	40.20	82.00	95.80	72.10	42.90	72.10	244.25	192.45	734.95	427.25	136.90	139.80	734.95	CMS
Min	14.55	5.70	5.40	13.20	14.10	13.65	24.50	53.35	53.35	53.35	27.40	22.50	5.40	CMS
Runoff	55.37	55.90	85.73	59.95	59.78	57.11	302.15	260.64	687.82	288.07	133.23	99.73	2145.47	MCM

Momentary Peak 761.50 CMS. at 6.70 m. (A.D.) at 06.00 Hours , on Dec 18 , 2002

Runoff Yield 41.94 Liters/Second/Square KM. Momentary Peak Yield 469.480 Liters/Second/Square KM.

WATER YEAR : 2002

SOUTHERN PENINSULA EAST COAST

Khlong Thadee at Ban Na Pa , Nakhon Si Thammarat (X.203)

Lat 08 - 23 - 39 N Long 99 - 54 - 55 E

Location : on left bank at Ban Na Pa.

	Ban Na Pa	**Amphoe** Mueang	**Changwat** Nakhon Si Thammar
Drainge Area	120 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** +12.303 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 mean 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 33 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

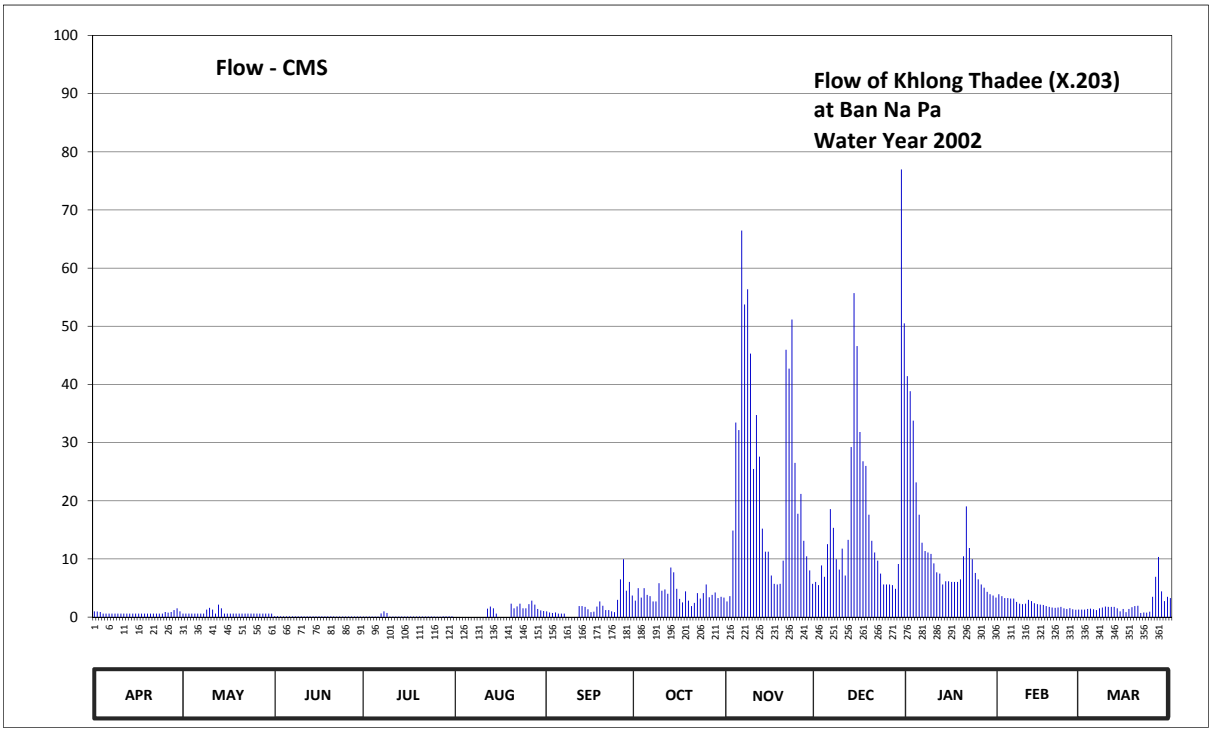
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	8.20	8.10	7.98	7.96	7.79	8.20	8.51	8.49	8.84	10.54	8.64	8.26	
2	8.19	8.10	7.98	7.96	7.79	8.15	8.74	8.61	8.79	10.48	8.61	8.26	
3	8.17	8.10	7.97	7.96	7.79	8.13	8.58	9.53	9.09	10.35	8.57	8.28	
4	8.10	8.10	7.97	7.96	7.79	8.15	8.74	10.34	8.92	9.98	8.57	8.29	
5	8.10	8.10	7.97	7.96	7.79	8.10	8.63	10.30	9.38	9.70	8.56	8.27	
6	8.10	8.10	7.97	7.96	7.79	8.10	8.61	10.89	9.76	9.40	8.56	8.24	
7	8.10	8.10	7.97	8.11	7.79	8.10	8.49	10.75	9.56	9.29	8.48	8.30	
8	8.10	8.10	7.97	8.20	7.79	7.79	8.49	10.79	9.18	9.27	8.44	8.33	
9	8.10	8.26	7.97	8.13	7.79	7.79	8.82	10.62	9.03	9.25	8.43	8.36	
10	8.10	8.32	7.97	7.95	7.79	7.79	8.70	10.07	9.32	9.12	8.44	8.35	
11	8.10	8.26	7.97	7.95	7.79	7.79	8.72	10.38	8.94	8.99	8.53	8.35	
12	8.10	8.10	7.97	7.96	8.29	8.38	8.65	10.15	9.43	8.97	8.50	8.35	
13	8.10	8.42	7.97	7.96	8.36	8.38	9.06	9.55	10.21	8.80	8.45	8.30	
14	8.10	8.30	7.97	7.96	8.30	8.35	8.99	9.28	10.78	8.85	8.43	8.20	
15	8.10	8.10	7.97	7.96	8.10	8.27	8.73	9.28	10.64	8.85	8.42	8.28	
16	8.10	8.10	7.97	7.96	7.79	8.16	8.55	8.94	10.29	8.84	8.41	8.16	
17	8.10	8.10	7.97	7.96	7.79	8.18	8.47	8.81	10.12	8.84	8.38	8.28	
18	8.10	8.10	7.97	7.95	7.79	8.36	8.69	8.80	10.09	8.84	8.35	8.34	
19	8.10	8.10	7.97	7.95	7.79	8.49	8.51	8.81	9.70	8.88	8.33	8.38	
20	8.10	8.10	7.97	7.95	8.44	8.39	8.38	9.16	9.42	9.22	8.32	8.39	
21	8.10	8.10	7.97	7.96	8.30	8.24	8.46	10.63	9.27	9.79	8.33	8.13	
22	8.10	8.10	7.96	7.96	8.37	8.24	8.66	10.57	9.16	9.33	8.35	8.15	
23	8.10	8.10	7.96	7.96	8.44	8.20	8.56	10.71	8.97	9.18	8.30	8.14	
24	8.10	8.10	7.96	7.96	8.30	8.16	8.66	10.11	8.80	8.98	8.28	8.18	
25	8.17	8.10	7.96	7.96	8.30	8.53	8.80	9.71	8.80	8.88	8.31	8.60	
26	8.14	8.10	7.96	7.94	8.43	8.88	8.59	9.89	8.80	8.80	8.27	8.92	
27	8.17	8.10	7.96	7.94	8.51	9.18	8.63	9.42	8.79	8.75	8.25	9.21	
28	8.24	8.10	7.96	7.97	8.42	8.70	8.67	9.22	8.73	8.68	8.26	8.69	
29	8.30	8.10	7.96	7.97	8.28	8.84	8.57	9.02	9.11	8.64		8.50	
30	8.20	8.10	7.96	7.97	8.23	8.62	8.60	8.81	10.99	8.62		8.60	
31		8.10		7.97	8.21		8.58		10.70	8.58		8.57	
Mean	8.13	8.13	7.97	7.98	8.07	8.29	8.64	9.72	9.47	9.18	8.42	8.38	
Max	8.30	8.42	7.98	8.20	8.51	9.18	9.06	10.89	10.99	10.54	8.64	9.21	10.99
Min	8.10	8.10	7.96	7.94	7.79	7.79	8.38	8.49	8.73	8.58	8.25	8.13	7.79

Annual Max Momentary Gage Height 10.99 m. (MSL.) , at 06.00 Hours , on Dec 30 , 2002

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed 7.44 m. (MSL.)

Left Bank Elevation 12.50 m. (MSL.) ,

Right Bank Elevation 12.44 m. (MSL.) , Drainage Are 120 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.00	0.60	0.16	0.12	0.00	1.00	2.82	2.68	6.04	41.42	3.92	1.30		
2	0.96	0.60	0.16	0.12	0.00	0.80	4.97	3.60	5.49	38.84	3.60	1.30		
3	0.88	0.60	0.14	0.12	0.00	0.72	3.35	14.88	8.88	33.78	3.27	1.40		
4	0.60	0.60	0.14	0.12	0.00	0.80	4.97	33.45	6.92	23.16	3.27	1.45		
5	0.60	0.60	0.14	0.12	0.00	0.60	3.81	32.15	12.54	17.60	3.20	1.35		
6	0.60	0.60	0.14	0.12	0.00	0.60	3.60	66.45	18.56	12.80	3.20	1.20		
7	0.60	0.60	0.14	0.64	0.00	0.60	2.68	53.75	15.36	11.37	2.60	1.50		
8	0.60	0.60	0.14	1.00	0.00	0.00	2.68	56.35	9.96	11.11	2.30	1.65		
9	0.60	1.30	0.14	0.72	0.00	0.00	5.82	45.30	8.16	10.85	2.23	1.80		
10	0.60	1.60	0.14	0.10	0.00	0.00	4.55	25.46	11.76	9.24	2.30	1.75		
11	0.60	1.30	0.14	0.10	0.00	0.00	4.76	34.75	7.14	7.69	2.97	1.75		
12	0.60	0.60	0.14	0.12	1.45	1.90	4.02	27.58	13.28	7.47	2.75	1.75		
13	0.60	2.15	0.14	0.12	1.80	1.90	8.52	15.20	29.23	5.60	2.38	1.50		
14	0.60	1.50	0.14	0.12	1.50	1.75	7.69	11.24	55.70	6.15	2.23	1.00		
15	0.60	0.60	0.14	0.12	0.60	1.35	4.86	11.24	46.60	6.15	2.15	1.40		
16	0.60	0.60	0.14	0.12	0.00	0.84	3.12	7.14	31.83	6.04	2.08	0.84		
17	0.60	0.60	0.14	0.12	0.00	0.92	2.53	5.71	26.78	6.04	1.90	1.40		
18	0.60	0.60	0.14	0.10	0.00	1.80	4.44	5.60	25.99	6.04	1.75	1.70		
19	0.60	0.60	0.14	0.10	0.00	2.68	2.82	5.71	17.60	6.48	1.65	1.90		
20	0.60	0.60	0.14	0.10	2.30	1.95	1.90	9.72	13.12	10.46	1.60	1.95		
21	0.60	0.60	0.14	0.12	1.50	1.20	2.45	45.95	11.11	19.04	1.65	0.72		
22	0.60	0.60	0.12	0.12	1.85	1.20	4.13	42.71	9.72	11.89	1.75	0.80		
23	0.60	0.60	0.12	0.12	2.30	1.00	3.20	51.15	7.47	9.96	1.50	0.76		
24	0.60	0.60	0.12	0.12	1.50	0.84	4.13	26.52	5.60	7.58	1.40	0.92		
25	0.88	0.60	0.12	0.12	1.50	2.97	5.60	17.76	5.60	6.48	1.55	3.50		
26	0.76	0.60	0.12	0.08	2.23	6.48	3.42	21.18	5.60	5.60	1.35	6.92		
27	0.88	0.60	0.12	0.08	2.82	9.96	3.81	13.12	5.49	5.07	1.25	10.33		
28	1.20	0.60	0.12	0.14	2.15	4.55	4.23	10.46	4.86	4.34	1.30	4.44		
29	1.50	0.60	0.12	0.14	1.40	6.04	3.27	8.04	9.12	3.92		2.75		
30	1.00	0.60	0.12	0.14	1.15	3.71	3.50	5.71	76.95	3.71		3.50		
31		0.60		0.14	1.05		3.35		50.50	3.35		3.27		
Total	21.66	23.45	4.06	5.62	27.10	58.16	125.00	710.56	562.96	359.23	63.10	67.80	2028.70	CMSDAY
Mean	0.72	0.76	0.14	0.18	0.87	1.94	4.03	23.69	18.16	11.59	2.25	2.19	5.56	CMS
Max	1.50	2.15	0.16	1.00	2.82	9.96	8.52	66.45	76.95	41.42	3.92	10.33	76.95	CMS
Min	0.60	0.60	0.12	0.08	0.00	0.00	1.90	2.68	4.86	3.35	1.25	0.72	0.00	CMS
Runoff	1.87	2.03	0.35	0.49	2.34	5.03	10.80	61.39	48.64	31.04	5.45	5.86	175.28	MCM

Momentary Peak 76.95 CMS. at 10.99 m. (MSL.) at 06.00 Hours , on Dec 30 , 2002

Runoff Yield 46.32 Liters/Second/Square KM. Momentary Peak Yield 641.250 Liters/Second/Square KM.

WATER YEAR : 2002

SOUTHERN PENINSULA EAST COAST

Lower Khlong Lamae at Ban Thung Luang, Chumphon (X.214)

Lat 09 - 46 - 07 N Long 99 - 05 - 00 E

Location : on left bank at the highway bridge, Tambon Thung Luang.

Ban Thung Luang **Amphoe** Lamae **Changwat** Chumphon

Drainge Area	144 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 about 2.00 meters from the top staff gage. **Elevation** +11.021 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 mean 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 40 discharge measurements made in 2002.

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

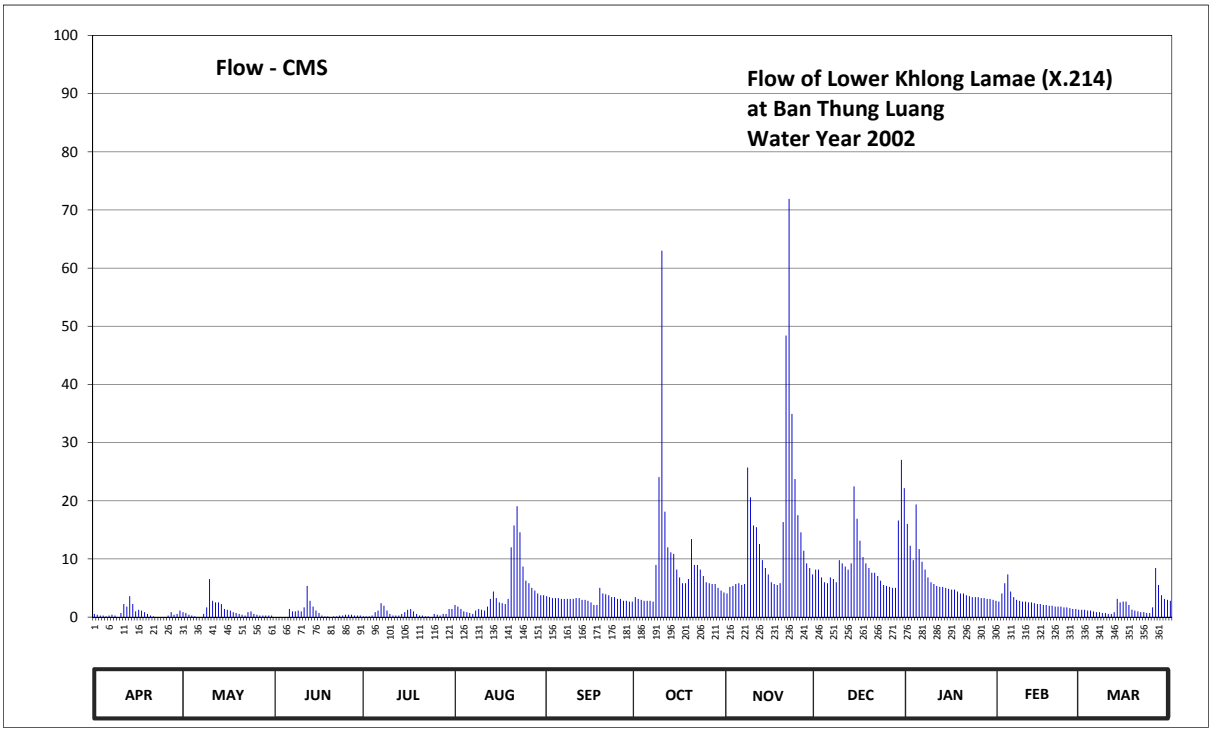
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.04	0.06	-0.05	0.01	0.15	0.25	0.24	0.28	0.48	0.76	0.19	0.09	
2	0.03	0.05	-0.06	0.01	0.13	0.24	0.22	0.35	0.48	0.63	0.28	0.09	
3	0.02	0.03	-0.05	0.01	0.10	0.23	0.21	0.36	0.43	0.54	0.39	0.08	
4	0.02	0.02	-0.04	0.02	0.07	0.23	0.20	0.38	0.40	0.87	0.45	0.08	
5	0.01	0.01	-0.04	0.06	0.06	0.23	0.20	0.39	0.39	0.61	0.30	0.07	
6	0.02	0.00	0.10	0.08	0.05	0.22	0.20	0.37	0.43	0.53	0.24	0.06	
7	0.03	-0.01	0.07	0.17	0.04	0.22	0.19	0.38	0.42	0.48	0.21	0.06	
8	0.02	0.04	0.07	0.14	0.08	0.22	0.51	1.07	0.40	0.43	0.20	0.05	
9	0.00	0.12	0.08	0.08	0.10	0.22	1.02	0.91	0.54	0.40	0.19	0.05	
10	0.05	0.42	0.07	0.04	0.09	0.22	2.02	0.75	0.52	0.38	0.19	0.04	
11	0.16	0.20	0.12	0.02	0.08	0.23	0.83	0.74	0.50	0.36	0.18	0.04	
12	0.13	0.18	0.36	0.02	0.13	0.23	0.62	0.64	0.48	0.35	0.18	0.06	
13	0.25	0.18	0.20	0.02	0.22	0.21	0.59	0.54	0.52	0.35	0.17	0.22	
14	0.16	0.16	0.13	0.04	0.30	0.21	0.58	0.49	0.97	0.34	0.16	0.18	
15	0.07	0.10	0.08	0.06	0.23	0.20	0.48	0.45	0.79	0.33	0.16	0.19	
16	0.09	0.09	0.05	0.09	0.18	0.18	0.43	0.40	0.66	0.32	0.15	0.19	
17	0.08	0.08	0.02	0.10	0.17	0.15	0.39	0.38	0.56	0.32	0.15	0.15	
18	0.06	0.06	0.01	0.07	0.16	0.15	0.39	0.37	0.52	0.30	0.14	0.09	
19	0.04	0.05	0.01	0.04	0.22	0.34	0.42	0.39	0.49	0.28	0.14	0.08	
20	0.02	0.04	0.00	0.02	0.62	0.28	0.67	0.77	0.46	0.28	0.13	0.07	
21	0.01	0.03	0.01	0.02	0.75	0.27	0.51	1.67	0.46	0.26	0.13	0.06	
22	0.00	0.02	0.01	0.01	0.86	0.26	0.51	2.22	0.44	0.25	0.13	0.06	
23	-0.02	0.06	0.02	0.01	0.71	0.24	0.48	1.33	0.41	0.24	0.12	0.05	
24	-0.01	0.07	0.02	0.00	0.50	0.24	0.44	1.01	0.37	0.24	0.12	0.05	
25	0.00	0.04	0.03	0.04	0.41	0.22	0.40	0.81	0.36	0.24	0.11	0.12	
26	0.02	0.03	0.03	0.03	0.39	0.22	0.39	0.71	0.35	0.23	0.10	0.49	
27	0.06	0.02	0.03	0.02	0.34	0.20	0.38	0.60	0.34	0.23	0.10	0.37	
28	0.03	0.02	0.02	0.04	0.31	0.20	0.38	0.52	0.34	0.22	0.09	0.26	
29	0.04	0.02	0.02	0.04	0.28	0.19	0.34	0.49	0.78	0.22		0.22	
30	0.08	0.02	0.02	0.10	0.26	0.19	0.31	0.45	1.11	0.21		0.21	
31		0.02		0.10	0.26		0.29		0.96	0.20		0.20	
Mean	0.05	0.07	0.04	0.05	0.27	0.22	0.48	0.67	0.53	0.37	0.18	0.13	
Max	0.25	0.42	0.36	0.17	0.86	0.34	2.02	2.22	1.11	0.87	0.45	0.49	2.22
Min	-0.02	-0.01	-0.06	0.00	0.04	0.15	0.19	0.28	0.34	0.20	0.09	0.04	-0.06

Annual Max Momentary Gage Height 2.55 m. (A.D.) , at 09.00 Hours , on Nov 22 , 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed -0.44 m. (A.D.)

Left Bank Elevation 11.18 m. (A.D.) ,

Right Bank Elevation 11.21 m. (A.D.) , Drainage Are 144 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.56	0.84	0.00	0.14	2.10	3.60	3.44	4.08	8.16	16.04	2.66	1.26		
2	0.42	0.70	0.00	0.14	1.82	3.44	3.12	5.20	8.16	12.27	4.08	1.26		
3	0.28	0.42	0.00	0.14	1.40	3.28	2.96	5.36	6.81	9.78	5.84	1.12		
4	0.28	0.28	0.00	0.28	0.98	3.28	2.80	5.68	6.00	19.37	7.35	1.12		
5	0.14	0.14	0.00	0.84	0.84	3.28	2.80	5.84	5.84	11.69	4.40	0.98		
6	0.28	0.00	1.40	1.12	0.70	3.12	2.80	5.52	6.81	9.51	3.44	0.84		
7	0.42	0.00	0.98	2.38	0.56	3.12	2.66	5.68	6.54	8.16	2.96	0.84		
8	0.28	0.56	0.98	1.96	1.12	3.12	8.97	25.71	6.00	6.81	2.80	0.70		
9	0.00	1.68	1.12	1.12	1.40	3.12	24.06	20.61	9.78	6.00	2.66	0.70		
10	0.70	6.54	0.98	0.56	1.26	3.12	62.99	15.75	9.24	5.68	2.66	0.56		
11	2.24	2.80	1.68	0.28	1.12	3.28	18.13	15.46	8.70	5.36	2.52	0.56		
12	1.82	2.52	5.36	0.28	1.82	3.28	11.98	12.56	8.16	5.20	2.52	0.84		
13	3.60	2.52	2.80	0.28	3.12	2.96	11.13	9.78	9.24	5.20	2.38	3.12		
14	2.24	2.24	1.82	0.56	4.40	2.96	10.86	8.43	22.47	5.04	2.24	2.52		
15	0.98	1.40	1.12	0.84	3.28	2.80	8.16	7.35	16.91	4.88	2.24	2.66		
16	1.26	1.26	0.70	1.26	2.52	2.52	6.81	6.00	13.14	4.72	2.10	2.66		
17	1.12	1.12	0.28	1.40	2.38	2.10	5.84	5.68	10.32	4.72	2.10	2.10		
18	0.84	0.84	0.14	0.98	2.24	2.10	5.84	5.52	9.24	4.40	1.96	1.26		
19	0.56	0.70	0.14	0.56	3.12	5.04	6.54	5.84	8.43	4.08	1.96	1.12		
20	0.28	0.56	0.00	0.28	11.98	4.08	13.43	16.33	7.62	4.08	1.82	0.98		
21	0.14	0.42	0.14	0.28	15.75	3.92	8.97	48.40	7.62	3.76	1.82	0.84		
22	0.00	0.28	0.14	0.14	19.06	3.76	8.97	71.90	7.08	3.60	1.82	0.84		
23	0.00	0.84	0.28	0.14	14.59	3.44	8.16	34.94	6.27	3.44	1.68	0.70		
24	0.00	0.98	0.28	0.00	8.70	3.44	7.08	23.73	5.52	3.44	1.68	0.70		
25	0.00	0.56	0.42	0.56	6.27	3.12	6.00	17.51	5.36	3.44	1.54	1.68		
26	0.28	0.42	0.42	0.42	5.84	3.12	5.84	14.59	5.20	3.28	1.40	8.43		
27	0.84	0.28	0.42	0.28	5.04	2.80	5.68	11.40	5.04	3.28	1.40	5.52		
28	0.42	0.28	0.28	0.56	4.56	2.80	5.68	9.24	5.04	3.12	1.26	3.76		
29	0.56	0.28	0.28	0.56	4.08	2.66	5.04	8.43	16.62	3.12		3.12		
30	1.12	0.28	0.28	1.40	3.76	2.66	4.56	7.35	27.03	2.96		2.96		
31		0.28		1.40	3.76		4.24		22.16	2.80		2.80		
Total	21.66	32.02	22.44	21.14	139.57	95.32	285.54	439.87	300.51	189.23	73.29	58.55	1679.14	CMSDAY
Mean	0.72	1.03	0.75	0.68	4.50	3.18	9.21	14.66	9.69	6.10	2.62	1.89	4.60	CMS
Max	3.60	6.54	5.36	2.38	19.06	5.04	62.99	71.90	27.03	19.37	7.35	8.43	71.90	CMS
Min	0.00	0.00	0.00	0.00	0.56	2.10	2.66	4.08	5.04	2.80	1.26	0.56	0.00	CMS
Runoff	1.87	2.77	1.94	1.83	12.06	8.24	24.67	38.00	25.96	16.35	6.33	5.06	145.08	MCM

Momentary Peak 89.00 CMS. at 2.55 m. (A.D.) at 09.00 Hours , on Nov 22 , 2002

Runoff Yield 31.95 Liters/Second/Square KM. Momentary Peak Yield 618.060 Liters/Second/Square KM.

WATER YEAR : 2002

SOUTHERN PENINSULA EAST COAST

Upper Khlong Lamae at Ban Yan Sai, Chumphon (X.215)

Lat 09 - 44 - 06 N Long 98 - 59 - 30 E

Location : on right bank at the highway bridge.

	Ban Yan Sai	**Amphoe** Lamae	**Changwat** Chumphon
Drainge Area	97 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 about 1.00 meter from the top staff gage.	**Elevation**	+4.818 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 mean 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	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 40 discharge measurements made in 2002.		

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

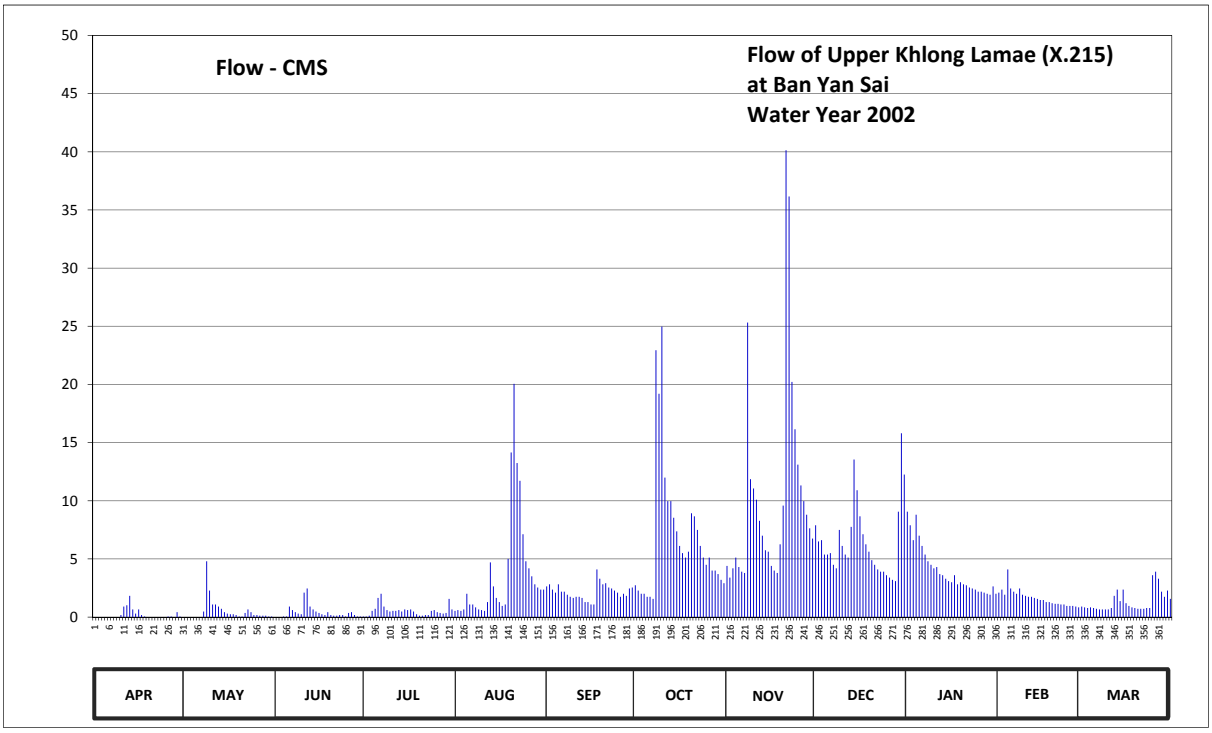
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	-0.01	0.00	0.00	0.01	0.09	0.36	0.37	0.54	0.83	0.92	0.30	0.15	
2	-0.01	-0.02	-0.01	0.01	0.10	0.38	0.32	0.44	0.72	0.83	0.33	0.14	
3	-0.02	-0.03	0.00	0.02	0.09	0.33	0.29	0.52	0.73	0.73	0.28	0.13	
4	-0.03	-0.02	0.01	0.09	0.11	0.30	0.29	0.61	0.63	0.90	0.51	0.14	
5	-0.03	-0.03	0.01	0.12	0.29	0.38	0.26	0.53	0.63	0.76	0.34	0.13	
6	-0.04	-0.03	0.15	0.25	0.18	0.31	0.26	0.49	0.64	0.69	0.31	0.12	
7	-0.02	-0.01	0.10	0.29	0.18	0.31	0.24	0.48	0.55	0.63	0.29	0.11	
8	-0.04	0.08	0.07	0.15	0.14	0.28	1.82	1.96	0.52	0.58	0.34	0.11	
9	-0.02	0.58	0.05	0.10	0.11	0.26	1.60	1.13	0.80	0.55	0.28	0.11	
10	0.03	0.32	0.04	0.08	0.10	0.25	1.94	1.07	0.69	0.52	0.27	0.11	
11	0.15	0.18	0.30	0.09	0.09	0.26	1.14	1.00	0.63	0.53	0.26	0.13	
12	0.17	0.18	0.34	0.09	0.21	0.26	0.99	0.86	0.61	0.47	0.26	0.27	
13	0.27	0.15	0.15	0.10	0.57	0.25	0.99	0.76	0.82	0.46	0.25	0.33	
14	0.11	0.12	0.11	0.08	0.36	0.21	0.88	0.66	1.25	0.43	0.24	0.22	
15	0.05	0.07	0.08	0.11	0.25	0.21	0.79	0.65	1.06	0.41	0.23	0.33	
16	0.11	0.05	0.06	0.10	0.21	0.18	0.69	0.54	0.89	0.40	0.23	0.20	
17	0.03	0.04	0.04	0.11	0.16	0.18	0.64	0.50	0.77	0.46	0.21	0.16	
18	0.01	0.04	0.03	0.08	0.18	0.51	0.61	0.48	0.70	0.38	0.21	0.14	
19	0.00	0.03	0.07	0.04	0.60	0.43	0.65	0.70	0.65	0.40	0.20	0.13	
20	-0.02	0.01	0.03	0.02	1.29	0.38	0.91	0.96	0.59	0.38	0.19	0.12	
21	-0.02	0.01	0.02	0.02	1.65	0.39	0.89	2.71	0.55	0.37	0.19	0.12	
22	-0.03	0.06	0.02	0.03	1.23	0.35	0.80	2.53	0.51	0.35	0.18	0.12	
23	-0.03	0.11	0.03	0.03	1.12	0.34	0.69	1.66	0.49	0.34	0.18	0.13	
24	-0.03	0.07	0.03	0.09	0.77	0.32	0.61	1.42	0.49	0.33	0.16	0.13	
25	-0.04	0.03	0.01	0.10	0.58	0.30	0.55	1.22	0.46	0.31	0.16	0.46	
26	0.01	0.03	0.06	0.07	0.52	0.26	0.61	1.09	0.44	0.31	0.16	0.49	
27	0.01	0.02	0.07	0.06	0.45	0.29	0.50	0.99	0.42	0.30	0.15	0.43	
28	0.00	0.02	0.03	0.05	0.38	0.27	0.50	0.90	0.41	0.29	0.14	0.31	
29	0.07	0.02	0.01	0.06	0.35	0.34	0.47	0.81	0.92	0.28		0.26	
30	0.01	0.01	0.01	0.24	0.33	0.35	0.42	0.74	1.40	0.36		0.32	
31		0.01		0.11	0.33		0.39		1.16	0.29		0.24	
Mean	0.02	0.07	0.06	0.09	0.42	0.31	0.71	0.96	0.71	0.48	0.24	0.20	
Max	0.27	0.58	0.34	0.29	1.65	0.51	1.94	2.71	1.40	0.92	0.51	0.49	2.71
Min	-0.04	-0.03	-0.01	0.01	0.09	0.18	0.24	0.44	0.41	0.28	0.14	0.11	-0.04

Annual Max Momentary Gage Height 3.24 m. (A.D.) , at 18.00 Hours , on Nov 21 , 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed -0.38 m. (A.D.)

Left Bank Elevation 4.44 m. (A.D.) ,

Right Bank Elevation 4.33 m. (A.D.) , Drainage Are 97 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	0.00	0.06	0.54	2.64	2.73	4.40	7.89	9.06	2.10	0.90		
2	0.00	0.00	0.00	0.06	0.60	2.82	2.28	3.40	6.50	7.89	2.37	0.84		
3	0.00	0.00	0.00	0.12	0.54	2.37	2.01	4.20	6.62	6.62	1.92	0.78		
4	0.00	0.00	0.06	0.54	0.66	2.10	2.01	5.12	5.37	8.80	4.10	0.84		
5	0.00	0.00	0.06	0.72	2.01	2.82	1.74	4.30	5.37	7.00	2.46	0.78		
6	0.00	0.00	0.90	1.65	1.08	2.19	1.74	3.90	5.50	6.12	2.19	0.72		
7	0.00	0.00	0.60	2.01	1.08	2.19	1.56	3.80	4.50	5.37	2.01	0.66		
8	0.00	0.48	0.42	0.90	0.84	1.92	22.94	25.32	4.20	4.80	2.46	0.66		
9	0.00	4.80	0.30	0.60	0.66	1.74	19.20	11.85	7.50	4.50	1.92	0.66		
10	0.18	2.28	0.24	0.48	0.60	1.65	24.98	11.05	6.12	4.20	1.83	0.66		
11	0.90	1.08	2.10	0.54	0.54	1.74	11.99	10.10	5.37	4.30	1.74	0.78		
12	1.02	1.08	2.46	0.54	1.29	1.74	9.97	8.28	5.12	3.70	1.74	1.83		
13	1.83	0.90	0.90	0.60	4.70	1.65	9.97	7.00	7.76	3.60	1.65	2.37		
14	0.66	0.72	0.66	0.48	2.64	1.29	8.54	5.75	13.55	3.30	1.56	1.38		
15	0.30	0.42	0.48	0.66	1.65	1.29	7.37	5.62	10.91	3.10	1.47	2.37		
16	0.66	0.30	0.36	0.60	1.29	1.08	6.12	4.40	8.67	3.00	1.47	1.20		
17	0.18	0.24	0.24	0.66	0.96	1.08	5.50	4.00	7.12	3.60	1.29	0.96		
18	0.06	0.24	0.18	0.48	1.08	4.10	5.12	3.80	6.25	2.82	1.29	0.84		
19	0.00	0.18	0.42	0.24	5.00	3.30	5.62	6.25	5.62	3.00	1.20	0.78		
20	0.00	0.06	0.18	0.12	14.15	2.82	8.93	9.58	4.90	2.82	1.14	0.72		
21	0.00	0.06	0.12	0.12	20.05	2.91	8.67	40.13	4.50	2.73	1.14	0.72		
22	0.00	0.36	0.12	0.18	13.25	2.55	7.50	36.16	4.10	2.55	1.08	0.72		
23	0.00	0.66	0.18	0.18	11.72	2.46	6.12	20.22	3.90	2.46	1.08	0.78		
24	0.00	0.42	0.18	0.54	7.12	2.28	5.12	16.14	3.90	2.37	0.96	0.78		
25	0.00	0.18	0.06	0.60	4.80	2.10	4.50	13.10	3.60	2.19	0.96	3.60		
26	0.06	0.18	0.36	0.42	4.20	1.74	5.12	11.32	3.40	2.19	0.96	3.90		
27	0.06	0.12	0.42	0.36	3.50	2.01	4.00	9.97	3.20	2.10	0.90	3.30		
28	0.00	0.12	0.18	0.30	2.82	1.83	4.00	8.80	3.10	2.01	0.84	2.19		
29	0.42	0.12	0.06	0.36	2.55	2.46	3.70	7.63	9.06	1.92		1.74		
30	0.06	0.06	0.06	1.56	2.37	2.55	3.20	6.75	15.80	2.64		2.28		
31		0.06		0.66	2.37		2.91		12.26	2.01		1.56		
Total	6.39	15.12	12.30	17.34	116.66	65.42	215.16	312.34	201.66	122.77	45.83	42.30	1173.29	CMSDAY
Mean	0.21	0.49	0.41	0.56	3.76	2.18	6.94	10.41	6.51	3.96	1.64	1.36	3.21	CMS
Max	1.83	4.80	2.46	2.01	20.05	4.10	24.98	40.13	15.80	9.06	4.10	3.90	40.13	CMS
Min	0.00	0.00	0.00	0.06	0.54	1.08	1.56	3.40	3.10	1.92	0.84	0.66	0.00	CMS
Runoff	0.55	1.31	1.06	1.50	10.08	5.65	18.59	26.99	17.42	10.61	3.96	3.65	101.37	MCM

Momentary Peak 52.76 CMS. at 3.24 m. (A.D.) at 18.00 Hours , on Nov 21 , 2002

Runoff Yield 33.14 Liters/Second/Square KM. Momentary Peak Yield 543.920 Liters/Second/Square KM.

WATER YEAR : 2002

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	13-time daily readings at 06.00 - 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 13 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	No overbank flow.		
General Description	Records fair. Flow regulated by Ratcha Prapha Dam.		
	Stage-discharge relation defined by 56 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

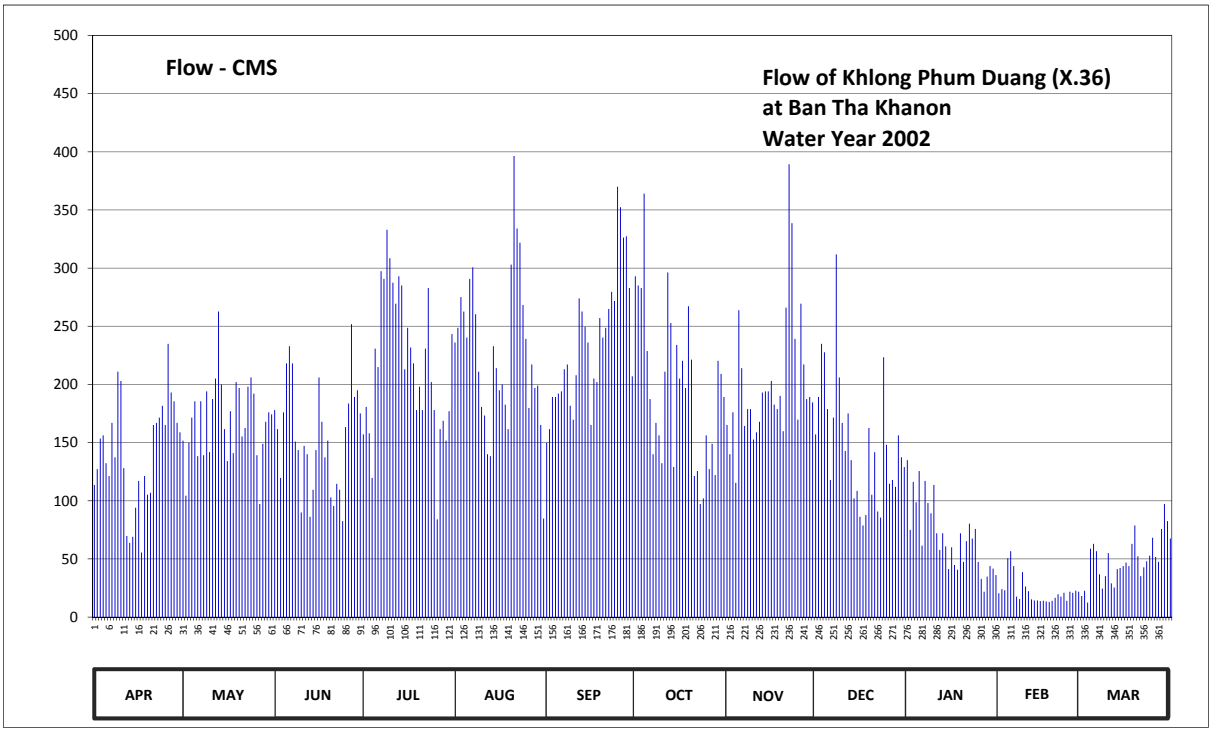
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	2.29	2.73	3.02	2.79	3.60	2.71	4.12	2.88	2.79	2.54	0.81	0.74	
2	2.45	2.18	2.84	3.05	3.72	2.84	4.05	2.60	3.14	1.80	0.89	0.86	
3	2.75	2.71	2.36	2.80	3.96	3.14	4.03	3.00	3.59	2.32	0.87	0.55	
4	2.78	2.95	3.00	2.36	3.85	3.14	4.75	2.31	3.52	2.11	1.43	1.58	
5	2.51	3.10	3.43	3.55	3.64	3.17	3.53	3.86	3.03	2.43	1.54	1.64	
6	2.38	2.58	3.57	3.40	4.10	3.19	3.12	3.39	2.34	1.62	1.30	1.54	
7	2.90	3.10	3.43	4.16	4.19	3.38	2.60	2.87	2.95	2.33	0.72	1.16	
8	2.57	2.59	2.72	4.10	3.83	3.42	2.90	3.03	4.29	2.10	0.65	0.90	
9	3.36	3.19	2.64	4.48	3.36	3.06	2.78	3.03	3.31	1.99	1.20	1.13	
10	3.28	2.62	2.00	4.26	3.05	2.93	2.51	2.74	2.90	2.29	0.94	1.51	
11	2.46	3.12	2.68	4.07	2.97	3.33	3.36	2.81	2.63	1.76	0.85	1.00	
12	1.73	3.30	2.60	3.91	2.60	3.95	4.15	2.91	2.99	1.56	0.64	0.92	
13	1.65	3.85	1.95	4.12	2.58	3.85	3.76	3.18	2.54	1.76	0.61	1.25	
14	1.72	3.25	2.24	4.05	3.57	3.73	2.47	3.19	2.15	1.61	0.61	1.27	
15	2.05	2.84	2.64	3.38	3.39	3.60	3.58	3.19	2.23	1.25	0.59	1.30	
16	2.33	2.53	3.31	3.72	3.20	2.88	3.30	3.28	1.95	1.60	0.60	1.36	
17	1.52	3.01	2.91	3.56	3.25	3.30	3.45	3.07	1.85	1.32	0.58	1.30	
18	2.38	2.61	2.57	3.43	3.07	3.27	3.22	3.03	1.97	1.24	0.57	1.64	
19	2.19	3.27	2.73	3.02	2.84	3.80	3.89	3.15	2.85	1.76	0.60	1.85	
20	2.21	3.22	2.16	3.23	4.21	3.64	3.46	2.82	2.19	1.37	0.69	1.46	
21	2.88	2.77	2.07	3.02	5.02	3.72	2.38	3.88	2.62	1.67	0.79	1.13	
22	2.90	2.85	2.30	3.55	4.49	3.87	2.43	4.96	2.01	1.87	0.72	1.28	
23	2.95	3.23	2.24	4.03	4.38	4.00	2.09	4.53	1.94	1.70	0.82	1.38	
24	3.06	3.31	1.90	3.27	3.90	3.93	2.15	3.63	3.48	1.81	0.60	1.47	
25	2.88	3.17	2.86	3.02	3.63	4.80	2.78	2.93	2.69	1.37	0.84	1.71	
26	3.59	2.59	3.08	1.92	3.04	4.65	2.45	3.91	2.30	1.08	0.82	1.45	
27	3.18	2.09	3.75	2.84	3.42	4.42	2.70	3.42	2.34	0.84	0.86	1.37	
28	3.10	2.70	3.14	2.92	3.22	4.43	2.39	3.12	2.27	1.12	0.84	1.81	
29	2.90	2.91	3.20	2.73	3.24	4.03	3.45	3.14	2.78	1.30		2.09	
30	2.81	3.00	2.99	3.01	2.88	3.32	3.34	3.09	2.57	1.26		1.90	
31		2.98		3.67	1.93		3.14		2.47	1.15		1.70	
Mean	2.59	2.91	2.74	3.40	3.49	3.58	3.17	3.23	2.67	1.68	0.82	1.36	
Max	3.59	3.85	3.75	4.48	5.02	4.80	4.75	4.96	4.29	2.54	1.54	2.09	5.02
Min	1.52	2.09	1.90	1.92	1.93	2.71	2.09	2.31	1.85	0.84	0.57	0.55	0.55

Annual Max Momentary Gage Height 5.27 m. (MSL.) , at 06.00 Hours , on Nov 22 , 2002

Zero Gage at Bottom Elevation 0.00 m. (MSL.) , River Bed -0.71 m. (MSL.)

Left Bank Elevation 12.09 m. (MSL.) ,

Right Bank Elevation 12.11 m. (MSL.) , Drainage Are 2,968 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	113.65	151.70	177.90	157.10	236.00	149.90	292.92	165.20	157.10	134.90	20.45	18.20		
2	127.25	104.40	161.60	180.75	248.60	161.60	285.15	140.00	189.30	75.00	24.05	22.70		
3	153.50	149.90	119.60	158.00	275.08	189.30	282.93	176.00	234.95	116.20	23.15	12.50		
4	156.20	171.50	176.00	119.60	262.65	189.30	364.10	115.35	227.60	98.80	50.65	58.90		
5	132.35	185.50	218.15	230.75	240.20	192.15	228.65	263.78	178.85	125.55	56.70	63.00		
6	121.30	138.30	232.85	215.00	290.70	194.05	187.40	214.00	117.90	61.50	43.80	56.70		
7	167.00	185.50	218.15	297.36	300.69	213.00	140.00	164.30	171.50	117.05	17.60	36.68		
8	137.45	139.15	150.80	290.70	260.39	217.10	167.00	178.85	311.79	98.00	15.50	24.50		
9	211.00	194.05	143.60	332.96	211.00	181.70	156.20	178.85	206.00	89.25	38.60	35.24		
10	203.00	141.80	90.00	308.46	180.75	169.70	132.35	152.60	167.00	113.65	26.30	55.05		
11	128.10	187.40	147.20	287.37	173.30	208.00	211.00	158.90	142.70	72.00	22.25	29.00		
12	69.75	205.00	140.00	269.43	140.00	273.95	296.25	167.90	175.10	57.80	15.20	25.40		
13	63.75	262.65	86.25	292.92	138.30	262.65	252.80	193.10	134.90	72.00	14.30	41.20		
14	69.00	200.00	109.40	285.15	232.85	249.65	128.95	194.05	102.00	60.75	14.30	42.24		
15	94.00	161.60	143.60	213.00	214.00	236.00	233.90	194.05	108.55	41.20	13.70	43.80		
16	117.05	134.05	206.00	248.60	195.00	165.20	205.00	203.00	86.25	60.00	14.00	46.92		
17	55.60	176.95	167.90	231.80	200.00	205.00	220.25	182.65	78.75	44.84	13.40	43.80		
18	121.30	140.90	137.45	218.15	182.65	202.00	197.00	178.85	87.75	40.68	13.10	63.00		
19	105.20	202.00	151.70	177.90	161.60	257.00	267.17	190.25	162.50	72.00	14.00	78.75		
20	106.85	197.00	102.80	198.00	302.91	240.20	221.30	159.80	105.20	47.44	16.70	52.30		
21	165.20	155.30	95.60	177.90	396.40	248.60	121.30	266.04	141.80	65.25	19.70	35.24		
22	167.00	162.50	114.50	230.75	334.08	264.91	125.55	389.20	90.80	80.25	17.60	42.76		
23	171.50	198.00	109.40	282.93	321.78	279.60	97.20	338.56	85.50	67.50	20.90	47.96		
24	181.70	206.00	82.50	202.00	268.30	271.69	102.00	239.15	223.40	75.75	14.00	52.85		
25	165.20	192.15	163.40	177.90	239.15	370.00	156.20	169.70	148.10	47.44	21.80	68.25		
26	234.95	139.15	183.60	84.00	179.80	352.30	127.25	269.43	114.50	32.84	20.90	51.75		
27	193.10	97.20	251.75	161.60	217.10	326.24	149.00	217.10	117.90	21.80	22.70	47.44		
28	185.50	149.00	189.30	168.80	197.00	327.36	122.15	187.40	111.95	34.76	21.80	75.75		
29	167.00	167.90	195.00	151.70	199.00	282.93	220.25	189.30	156.20	43.80		97.20		
30	158.90	176.00	175.10	176.95	165.20	207.00	209.00	184.55	137.45	41.72		82.50		
31		174.20		243.35	84.75		189.30		128.95	36.20		67.50		
Total	4243.35	5246.75	4641.10	6770.88	7049.23	7088.08	6089.52	6021.91	4602.24	2145.92	627.15	1519.08	56045.21	CMSDAY
Mean	141.44	169.25	154.70	218.42	227.39	236.27	196.44	200.73	148.46	69.22	22.40	49.00	153.55	CMS
Max	234.95	262.65	251.75	332.96	396.40	370.00	364.10	389.20	311.79	134.90	56.70	97.20	396.40	CMS
Min	55.60	97.20	82.50	84.00	84.75	149.90	97.20	115.35	78.75	21.80	13.10	12.50	12.50	CMS
Runoff	366.63	453.32	400.99	585.00	609.05	612.41	526.13	520.29	397.63	185.41	54.19	131.25	4842.31	MCM

Momentary Peak 426.40 CMS. at 5.27 m. (MSL.) at 06.00 Hours , on Nov 22 , 2002

Runoff Yield 51.73 Liters/Second/Square KM. Momentary Peak Yield 143.670 Liters/Second/Square KM.

WATER YEAR : 2002

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	+4.800 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 mean 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	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 33 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

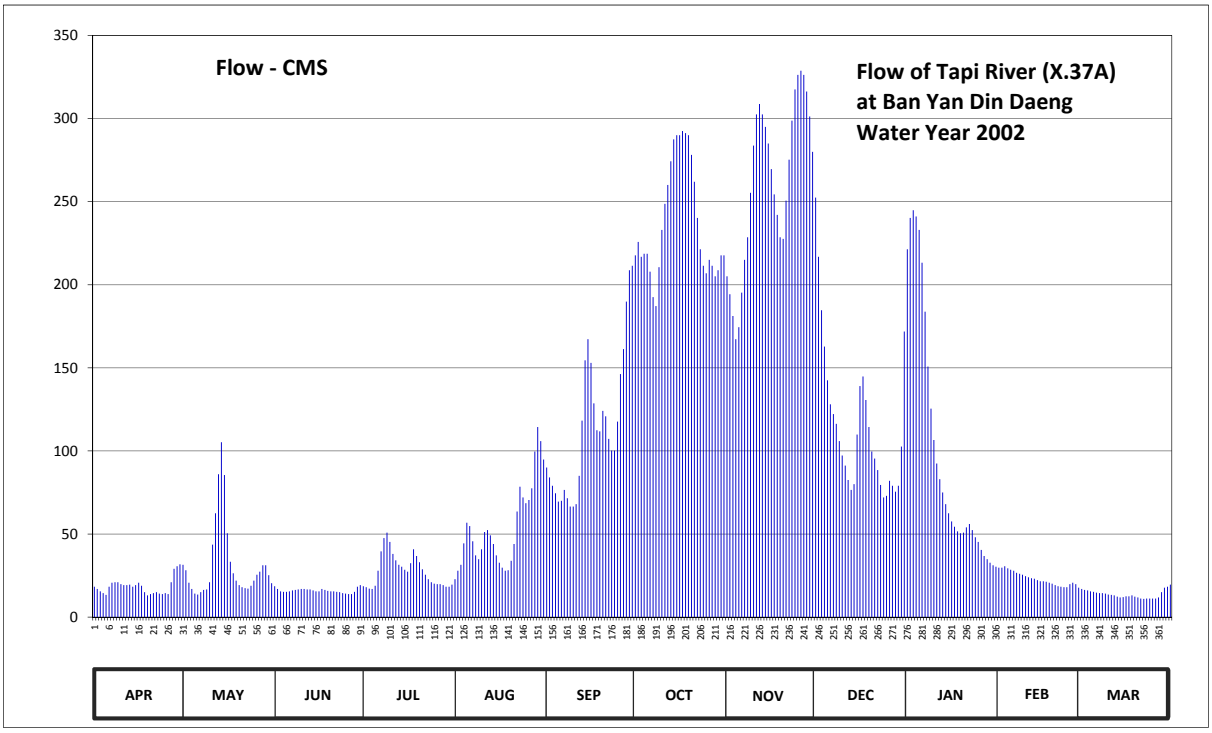
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	5.41	5.85	5.42	5.42	5.56	7.20	8.93	8.79	9.31	8.97	5.79	5.36	
2	5.36	5.74	5.36	5.40	5.73	7.08	9.02	8.67	8.92	9.18	5.79	5.34	
3	5.31	5.49	5.31	5.37	5.85	6.98	8.92	8.52	8.56	9.23	5.82	5.33	
4	5.27	5.36	5.30	5.36	6.21	6.89	8.94	8.35	8.29	9.19	5.78	5.31	
5	5.23	5.26	5.30	5.43	6.52	6.79	8.94	8.44	8.02	9.10	5.75	5.30	
6	5.41	5.24	5.31	5.73	6.47	6.80	8.82	8.68	7.80	8.88	5.73	5.28	
7	5.49	5.29	5.33	6.09	6.24	6.93	8.65	8.90	7.71	8.55	5.69	5.27	
8	5.50	5.34	5.34	6.29	6.03	6.83	8.59	9.05	7.62	8.13	5.67	5.27	
9	5.50	5.35	5.35	6.37	5.96	6.73	8.85	9.34	7.46	7.76	5.65	5.26	
10	5.46	5.50	5.36	6.23	6.12	6.73	9.10	9.63	7.32	7.47	5.62	5.24	
11	5.44	6.19	5.36	6.05	6.38	6.76	9.27	9.78	7.22	7.24	5.60	5.23	
12	5.44	6.65	5.35	5.94	6.41	7.10	9.39	9.83	7.05	7.06	5.58	5.22	
13	5.45	7.12	5.35	5.85	6.33	7.65	9.54	9.78	6.93	6.90	5.57	5.19	
14	5.41	7.45	5.33	5.81	6.20	8.18	9.66	9.72	7.00	6.76	5.54	5.17	
15	5.44	7.11	5.31	5.75	6.03	8.35	9.68	9.64	7.52	6.65	5.52	5.18	
16	5.49	6.36	5.31	5.71	5.89	8.16	9.68	9.49	7.97	6.54	5.52	5.20	
17	5.43	5.91	5.36	5.88	5.79	7.81	9.70	9.33	8.05	6.46	5.51	5.20	
18	5.29	5.68	5.34	6.12	5.73	7.56	9.69	9.20	7.84	6.39	5.49	5.22	
19	5.22	5.53	5.32	6.02	5.74	7.55	9.68	9.05	7.59	6.36	5.47	5.19	
20	5.25	5.44	5.31	5.90	5.93	7.74	9.58	9.04	7.36	6.37	5.44	5.17	
21	5.27	5.40	5.31	5.76	6.20	7.69	9.41	9.29	7.29	6.45	5.42	5.14	
22	5.29	5.38	5.30	5.65	6.67	7.48	9.18	9.55	7.17	6.50	5.41	5.13	
23	5.26	5.37	5.29	5.56	6.97	7.37	8.97	9.75	6.99	6.41	5.40	5.14	
24	5.25	5.43	5.27	5.50	6.84	7.37	8.86	9.90	6.84	6.30	5.40	5.14	
25	5.27	5.53	5.26	5.47	6.77	7.64	8.81	9.97	6.86	6.23	5.46	5.14	
26	5.25	5.65	5.25	5.46	6.81	8.07	8.90	9.99	7.04	6.11	5.49	5.14	
27	5.50	5.71	5.25	5.46	6.95	8.27	8.86	9.97	6.98	6.02	5.46	5.17	
28	5.77	5.84	5.30	5.44	7.36	8.62	8.79	9.89	6.91	5.96	5.39	5.29	
29	5.82	5.84	5.41	5.41	7.59	8.83	8.83	9.77	6.98	5.89		5.39	
30	5.86	5.64	5.44	5.41	7.46	8.86	8.93	9.60	7.41	5.84		5.41	
31		5.48		5.45	7.28		8.93		8.41	5.81		5.45	
Mean	5.41	5.78	5.33	5.72	6.39	7.53	9.13	9.36	7.56	7.12	5.57	5.24	
Max	5.86	7.45	5.44	6.37	7.59	8.86	9.70	9.99	9.31	9.23	5.82	5.45	9.99
Min	5.22	5.24	5.25	5.36	5.56	6.73	8.59	8.35	6.84	5.81	5.39	5.13	5.13

Annual Max Momentary Gage Height 10.00 m. (MSL.) , at 16.00 Hours , on Nov 26 , 2002

Zero Gage at Bottom Elevation 4.80 m. (MSL.) , River Bed 2.80 m. (MSL.)

Left Bank Elevation 12.43 m. (MSL.) ,

Right Bank Elevation 12.59 m. (MSL.) , Drainage Are 5,383 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	18.30	31.50	18.60	18.60	22.80	90.00	217.70	205.10	252.45	221.30	29.70	16.90		
2	16.90	28.20	16.90	18.00	27.90	84.00	225.80	194.30	216.80	240.20	29.70	16.35		
3	15.53	20.70	15.53	17.17	31.50	79.00	216.80	181.20	184.60	244.85	30.60	16.08		
4	14.43	16.90	15.25	16.90	44.40	74.50	218.60	167.25	162.75	241.10	29.40	15.53		
5	13.33	14.15	15.25	18.90	56.80	69.50	218.60	174.40	142.50	233.00	28.50	15.25		
6	18.30	13.60	15.53	27.90	54.80	70.00	207.80	195.20	128.00	213.20	27.90	14.70		
7	20.70	14.98	16.08	39.60	45.60	76.50	192.50	215.00	122.15	183.75	26.70	14.43		
8	21.00	16.35	16.35	47.60	37.20	71.50	187.15	228.50	116.30	150.75	26.10	14.43		
9	21.00	16.62	16.62	50.80	34.80	66.50	210.50	255.30	105.90	125.40	25.50	14.15		
10	19.80	21.00	16.90	45.20	40.80	66.50	233.00	283.75	97.20	106.55	24.60	13.60		
11	19.20	43.60	16.90	38.00	51.20	68.00	248.65	302.50	91.20	92.40	24.00	13.33		
12	19.20	62.50	16.62	34.20	52.40	85.00	260.05	308.75	82.50	83.00	23.40	13.05		
13	19.50	86.00	16.62	31.50	49.20	118.25	274.30	302.50	76.50	75.00	23.10	12.28		
14	18.30	105.25	16.08	30.30	44.00	154.50	287.50	295.00	80.00	68.00	22.20	11.83		
15	19.20	85.50	15.53	28.50	37.20	167.25	290.00	285.00	109.80	62.50	21.60	12.05		
16	20.70	50.40	15.53	27.30	32.70	153.00	290.00	269.55	139.05	57.60	21.60	12.50		
17	18.90	33.30	16.90	32.40	29.70	128.65	292.50	254.35	144.75	54.40	21.30	12.50		
18	14.98	26.40	16.35	40.80	27.90	112.40	291.25	242.00	130.60	51.60	20.70	13.05		
19	13.05	21.90	15.80	36.80	28.20	111.75	290.00	228.50	114.35	50.40	20.10	12.28		
20	13.88	19.20	15.53	33.00	33.90	124.10	278.10	227.60	99.60	50.80	19.20	11.83		
21	14.43	18.00	15.53	28.80	44.00	120.85	261.95	250.55	95.40	54.00	18.60	11.15		
22	14.98	17.45	15.25	25.50	63.50	107.20	240.20	275.25	88.50	56.00	18.30	10.93		
23	14.15	17.17	14.98	22.80	78.50	100.20	221.30	298.75	79.50	52.40	18.00	11.15		
24	13.88	18.90	14.43	21.00	72.00	100.20	211.40	317.50	72.00	48.00	18.00	11.15		
25	14.43	21.90	14.15	20.10	68.50	117.60	206.90	326.25	73.00	45.20	19.80	11.15		
26	13.88	25.50	13.88	19.80	70.50	146.25	215.00	328.75	82.00	40.40	20.70	11.15		
27	21.00	27.30	13.88	19.80	77.50	161.25	211.40	326.25	79.00	36.80	19.80	11.83		
28	29.10	31.20	15.25	19.20	99.60	189.80	205.10	316.25	75.50	34.80	17.72	14.98		
29	30.60	31.20	18.30	18.30	114.35	208.70	208.70	301.25	79.00	32.70		17.72		
30	31.80	25.20	19.20	18.30	105.90	211.40	217.70	280.00	102.65	31.20		18.30		
31		20.40		19.50	94.80		217.70		171.85	30.30		19.50		
Total	554.45	982.27	479.72	866.57	1672.15	3434.35	7348.15	7836.55	3595.40	3067.60	646.82	425.13	30909.16	CMSDAY
Mean	18.48	31.69	15.99	27.95	53.94	114.48	237.04	261.22	115.98	98.95	23.10	13.71	84.68	CMS
Max	31.80	105.25	19.20	50.80	114.35	211.40	292.50	328.75	252.45	244.85	30.60	19.50	328.75	CMS
Min	13.05	13.60	13.88	16.90	22.80	66.50	187.15	167.25	72.00	30.30	17.72	10.93	10.93	CMS
Runoff	47.90	84.87	41.45	74.87	144.47	296.73	634.88	677.08	310.64	265.04	55.89	36.73	2670.55	MCM

Momentary Peak 330.00 CMS, at 10.00 m. (MSL), at 16.00 Hours, on Nov 26, 2002

Runoff Yield 15.73 Liters/Second/Square KM. Momentary Peak Yield 61.300 Liters/Second/Square KM.

WATER YEAR : 2002

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 Thammar
Drainge Area	488 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 top staff gage.		**Elevation** +8.277 m. (A.D.)
Gage Reading Frequency	13-time daily readings at 06.00 - 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 13 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 43 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

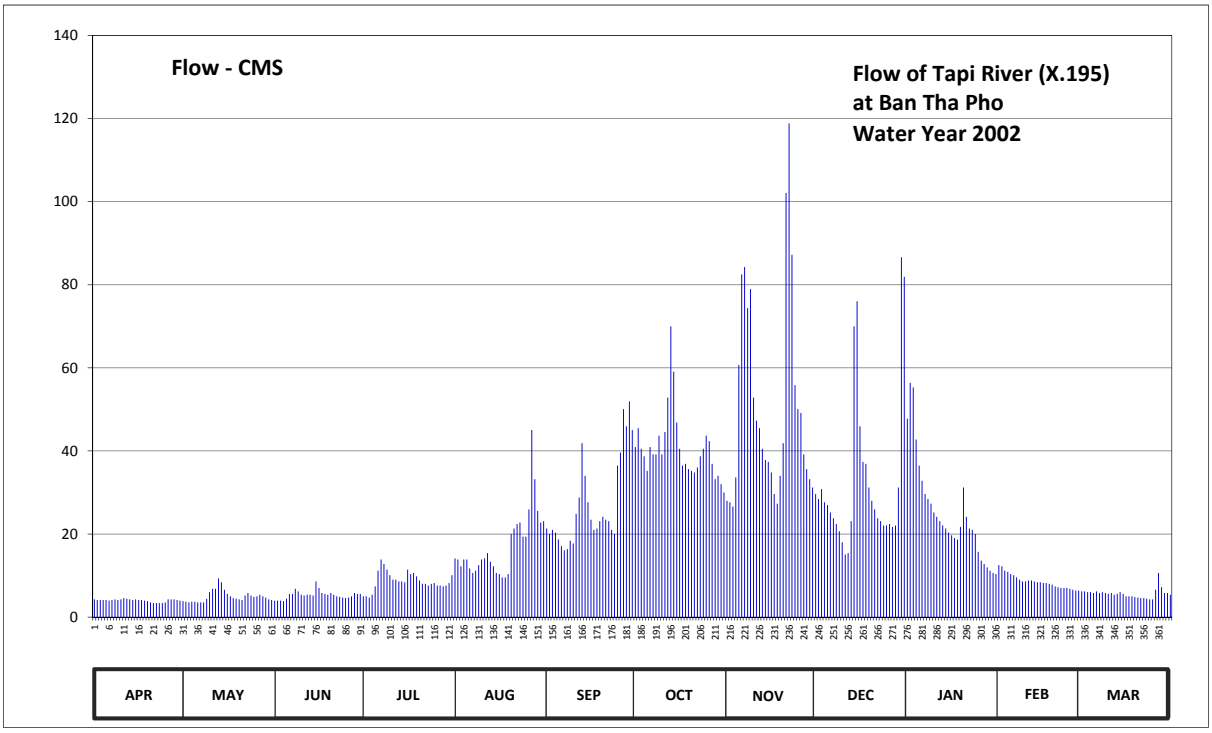
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	1.35	1.32	1.33	1.40	1.79	2.01	2.51	2.20	2.24	2.66	1.73	1.46	
2	1.34	1.31	1.33	1.40	1.78	1.97	2.61	2.19	2.21	2.84	1.72	1.46	
3	1.34	1.30	1.33	1.38	1.72	2.00	2.50	2.16	2.27	2.82	1.68	1.45	
4	1.34	1.31	1.32	1.42	1.78	1.98	2.46	2.34	2.19	2.55	1.67	1.45	
5	1.34	1.31	1.36	1.52	1.78	1.93	2.38	2.92	2.17	2.41	1.65	1.44	
6	1.33	1.30	1.43	1.68	1.70	1.88	2.51	3.31	2.12	2.32	1.64	1.46	
7	1.34	1.30	1.43	1.78	1.66	1.85	2.47	3.34	2.08	2.24	1.62	1.44	
8	1.35	1.30	1.49	1.74	1.68	1.86	2.47	3.17	2.04	2.21	1.60	1.45	
9	1.34	1.36	1.46	1.69	1.73	1.92	2.57	3.25	1.99	2.18	1.58	1.44	
10	1.35	1.45	1.42	1.64	1.78	1.90	2.47	2.77	1.91	2.12	1.58	1.43	
11	1.37	1.49	1.41	1.60	1.79	2.11	2.59	2.65	1.82	2.09	1.59	1.44	
12	1.36	1.49	1.42	1.60	1.83	2.22	2.77	2.61	1.83	2.06	1.59	1.42	
13	1.35	1.61	1.42	1.58	1.76	2.53	3.09	2.50	2.06	2.03	1.58	1.43	
14	1.34	1.57	1.41	1.58	1.72	2.35	2.89	2.44	3.09	2.01	1.57	1.45	
15	1.35	1.48	1.58	1.57	1.66	2.19	2.64	2.43	3.20	1.98	1.57	1.43	
16	1.34	1.43	1.50	1.69	1.65	2.07	2.50	2.37	2.62	1.96	1.56	1.40	
17	1.34	1.40	1.44	1.65	1.62	2.00	2.41	2.24	2.43	1.94	1.56	1.40	
18	1.33	1.37	1.43	1.66	1.62	2.01	2.42	2.18	2.42	1.93	1.55	1.40	
19	1.32	1.36	1.42	1.63	1.65	2.06	2.39	2.35	2.28	2.02	1.54	1.39	
20	1.30	1.35	1.44	1.59	1.97	2.09	2.38	2.53	2.20	2.28	1.52	1.38	
21	1.29	1.34	1.42	1.55	2.01	2.07	2.37	3.64	2.14	2.09	1.51	1.37	
22	1.29	1.41	1.40	1.55	2.04	2.06	2.40	3.91	2.08	2.01	1.50	1.37	
23	1.29	1.44	1.39	1.53	2.05	2.00	2.46	3.39	2.06	2.00	1.50	1.36	
24	1.29	1.41	1.38	1.55	1.95	1.97	2.50	2.83	2.03	1.97	1.50	1.35	
25	1.30	1.39	1.37	1.56	1.95	2.41	2.57	2.71	2.03	1.84	1.49	1.35	
26	1.35	1.40	1.38	1.53	2.14	2.48	2.54	2.69	2.04	1.77	1.48	1.48	
27	1.35	1.42	1.40	1.53	2.60	2.71	2.42	2.47	2.02	1.74	1.47	1.66	
28	1.35	1.40	1.44	1.52	2.33	2.62	2.33	2.39	2.03	1.71	1.47	1.51	
29	1.34	1.38	1.43	1.53	2.13	2.75	2.35	2.33	2.28	1.68		1.44	
30	1.33	1.35	1.43	1.56	2.05	2.60	2.30	2.28	3.38	1.66		1.44	
31		1.34		1.64	2.06		2.25		3.30	1.65		1.42	
Mean	1.33	1.39	1.41	1.58	1.87	2.15	2.50	2.69	2.28	2.09	1.57	1.43	
Max	1.37	1.61	1.58	1.78	2.60	2.75	3.09	3.91	3.38	2.84	1.73	1.66	3.91
Min	1.29	1.30	1.32	1.38	1.62	1.85	2.25	2.16	1.82	1.65	1.47	1.35	1.29

Annual Max Momentary Gage Height 4.36 m. (A.D.) , at 06.00 Hours , on Nov 22 , 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed 1.12 m. (A.D.)

Left Bank Elevation 8.68 m. (A.D.) ,

Right Bank Elevation 8.67 m. (A.D.) , Drainage Are 488 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	4.28	3.84	3.98	5.00	14.13	21.35	40.95	28.00	29.60	47.76	12.51	6.20		
2	4.13	3.69	3.98	5.00	13.86	20.01	45.46	27.65	28.40	56.36	12.24	6.20		
3	4.13	3.55	3.98	4.71	12.24	21.00	40.50	26.60	30.80	55.28	11.16	6.00		
4	4.13	3.69	3.84	5.40	13.86	20.34	38.70	33.60	27.65	42.75	10.89	6.00		
5	4.13	3.69	4.42	7.40	13.86	18.69	35.20	60.68	26.95	36.45	10.35	5.80		
6	3.98	3.55	5.60	11.16	11.70	17.04	40.95	82.49	25.20	32.80	10.08	6.20		
7	4.13	3.55	5.60	13.86	10.62	16.05	39.15	84.26	23.80	29.60	9.54	5.80		
8	4.28	3.55	6.80	12.78	11.16	16.38	39.15	74.35	22.40	28.40	9.00	6.00		
9	4.13	4.42	6.20	11.43	12.51	18.36	43.65	78.95	20.67	27.30	8.60	5.80		
10	4.28	6.00	5.40	10.08	13.86	17.70	39.15	52.82	18.03	25.20	8.60	5.60		
11	4.57	6.80	5.20	9.00	14.13	24.85	44.55	47.30	15.06	24.15	8.80	5.80		
12	4.42	6.80	5.40	9.00	15.39	28.80	52.82	45.46	15.39	23.10	8.80	5.40		
13	4.28	9.27	5.40	8.60	13.32	41.85	69.95	40.50	23.10	22.05	8.60	5.60		
14	4.13	8.40	5.20	8.60	12.24	34.00	59.06	37.80	69.95	21.35	8.40	6.00		
15	4.28	6.60	8.60	8.40	10.62	27.65	46.84	37.35	76.00	20.34	8.40	5.60		
16	4.13	5.60	7.00	11.43	10.35	23.45	40.50	34.80	45.92	19.68	8.20	5.00		
17	4.13	5.00	5.80	10.35	9.54	21.00	36.45	29.60	37.35	19.02	8.20	5.00		
18	3.98	4.57	5.60	10.62	9.54	21.35	36.90	27.30	36.90	18.69	8.00	5.00		
19	3.84	4.42	5.40	9.81	10.35	23.10	35.60	34.00	31.20	21.70	7.80	4.86		
20	3.55	4.28	5.80	8.80	20.01	24.15	35.20	41.85	28.00	31.20	7.40	4.71		
21	3.40	4.13	5.40	8.00	21.35	23.45	34.80	102.08	25.90	24.15	7.20	4.57		
22	3.40	5.20	5.00	8.00	22.40	23.10	36.00	118.82	23.80	21.35	7.00	4.57		
23	3.40	5.80	4.86	7.60	22.75	21.00	38.70	87.21	23.10	21.00	7.00	4.42		
24	3.40	5.20	4.71	8.00	19.35	20.01	40.50	55.82	22.05	20.01	7.00	4.28		
25	3.55	4.86	4.57	8.20	19.35	36.45	43.65	50.06	22.05	15.72	6.80	4.28		
26	4.28	5.00	4.71	7.60	25.90	39.60	42.30	49.14	22.40	13.59	6.60	6.60		
27	4.28	5.40	5.00	7.60	45.00	50.06	36.90	39.15	21.70	12.78	6.40	10.62		
28	4.28	5.00	5.80	7.40	33.20	45.92	33.20	35.60	22.05	11.97	6.40	7.20		
29	4.13	4.71	5.60	7.60	25.55	51.90	34.00	33.20	31.20	11.16		5.80		
30	3.98	4.28	5.60	8.20	22.75	45.00	32.00	31.20	86.62	10.62		5.80		
31		4.13		10.08	23.10		30.00		81.90	10.35		5.40		
Total	121.01	154.98	160.45	269.71	533.99	813.61	1262.78	1527.64	1015.14	775.88	239.97	176.11	7051.27	CMSDAY
Mean	4.03	5.00	5.35	8.70	17.23	27.12	40.73	50.92	32.75	25.03	8.57	5.68	19.32	CMS
Max	4.57	9.27	8.60	13.86	45.00	51.90	69.95	118.82	86.62	56.36	12.51	10.62	118.82	CMS
Min	3.40	3.55	3.84	4.71	9.54	16.05	30.00	26.60	15.06	10.35	6.40	4.28	3.40	CMS
Runoff	10.46	13.39	13.86	23.30	46.14	70.30	109.10	131.99	87.71	67.04	20.73	15.22	609.23	MCM

Momentary Peak 150.00 CMS, at 4.36 m. (A.D.), at 06.00 Hours, on Nov 22, 2002

Runoff Yield 39.59 Liters/Second/Square KM. Momentary Peak Yield 307.380 Liters/Second/Square KM.

WATER YEAR : 2002

THALE SAP SONGKHLA

Khlong U - Taphao at Ban Hat Yai Nai , Songkhla (X.44)

Lat 07 - 00 - 02 N Long 100 - 27 - 32 E

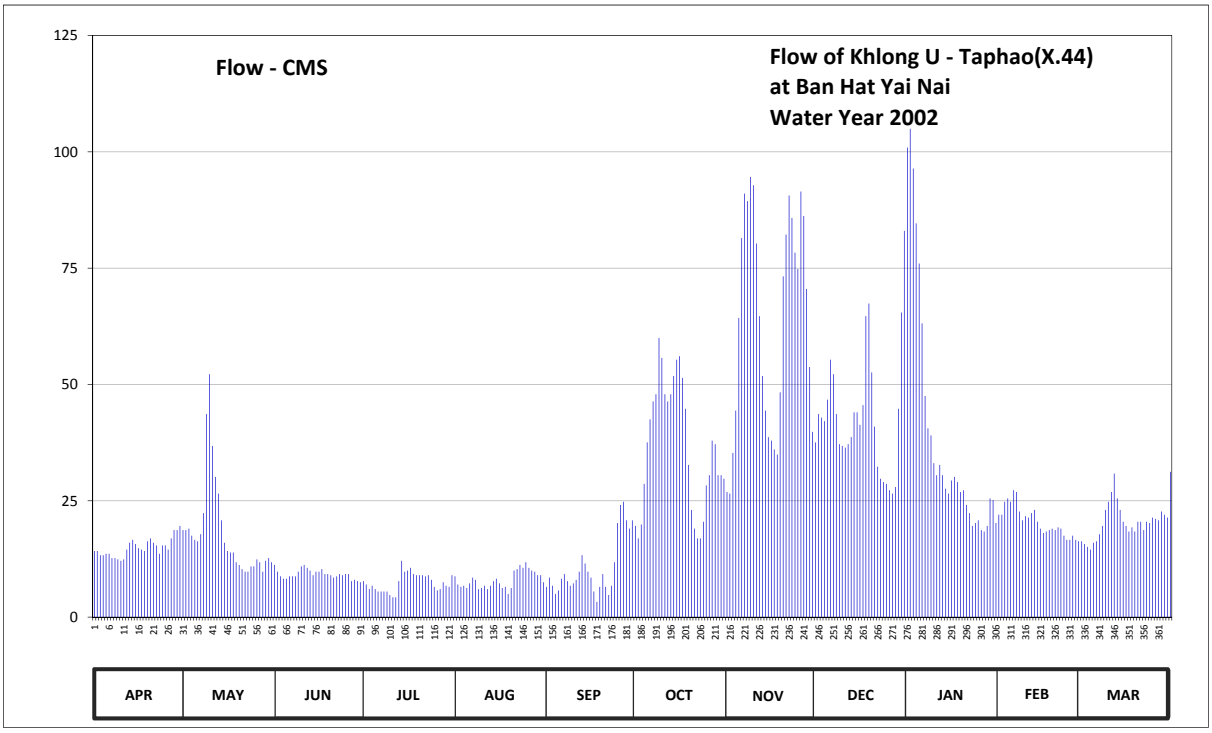
Location : on left bank at the bridge of Hat Yai - Rattaphum Highway.

	Ban Hat Yai Nai	**Amphoe** Hat Yai	**Changwat** Songkhla		
Drainge Area	1,720 sq.km.				
Type of Gage	Water - stage recorder.				
Zero Gage at Bottom	-0.730 m. (MSL.)				
Bench Mark	B.M.-H.D.				
Location BM	On left bank about 200 meters from the top staff gage.	**Elevation** +7.294 m. (MSL.)			
Gage Reading Frequency	Recording.				
Basis of Mean Daily Gage Height	Arithmetic mean of 24 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	Fairly stable because of backwater effect.				
Overbank Flow Conditions	No overbank flow.				
General Description	Records fair. Stage-discharge relation defined by 31 discharge measurements made in 2002.				

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.14	0.29	0.04	-0.09	-0.05	-0.14	0.32	0.54	0.83	2.42	0.40	0.21	
2	0.14	0.29	-0.01	-0.12	-0.12	-0.06	0.23	0.53	0.99	2.51	0.40	0.19	
3	0.11	0.30	-0.05	-0.16	-0.14	-0.13	0.33	0.77	0.97	2.32	0.48	0.17	
4	0.11	0.25	-0.07	-0.13	-0.13	-0.20	0.59	1.01	0.95	2.04	0.50	0.15	
5	0.12	0.22	-0.07	-0.16	-0.15	-0.17	0.83	1.52	1.07	1.82	0.48	0.20	
6	0.12	0.21	-0.05	-0.18	-0.11	-0.07	0.96	1.96	1.29	1.49	0.55	0.21	
7	0.09	0.26	-0.05	-0.18	-0.06	-0.03	1.06	2.20	1.21	1.09	0.54	0.26	
8	0.09	0.41	-0.05	-0.18	-0.08	-0.09	1.10	2.16	0.99	0.91	0.42	0.32	
9	0.08	0.99	-0.01	-0.18	-0.16	-0.13	1.41	2.28	0.82	0.87	0.36	0.43	
10	0.07	1.21	0.03	-0.21	-0.15	-0.11	1.30	2.24	0.81	0.71	0.39	0.48	
11	0.08	0.81	0.04	-0.23	-0.13	-0.08	1.10	1.93	0.80	0.64	0.38	0.54	
12	0.15	0.63	0.02	-0.23	-0.16	-0.01	1.06	1.53	0.82	0.70	0.41	0.65	
13	0.20	0.53	0.00	-0.09	-0.13	0.11	1.10	1.20	0.86	0.64	0.43	0.50	
14	0.22	0.36	-0.04	0.07	-0.09	0.05	1.20	1.01	1.00	0.56	0.35	0.43	
15	0.19	0.20	-0.01	-0.01	-0.07	-0.01	1.29	0.86	1.00	0.53	0.30	0.35	
16	0.16	0.14	-0.01	0.00	-0.11	-0.06	1.31	0.84	0.93	0.61	0.27	0.32	
17	0.15	0.13	0.01	0.02	-0.15	-0.18	1.19	0.79	1.04	0.63	0.28	0.28	
18	0.14	0.13	-0.03	-0.03	-0.14	-0.27	1.02	0.76	1.53	0.60	0.29	0.31	
19	0.21	0.06	-0.03	-0.04	-0.20	-0.14	0.70	1.11	1.60	0.54	0.30	0.28	
20	0.23	0.04	-0.04	-0.04	-0.15	-0.03	0.43	1.75	1.22	0.55	0.29	0.35	
21	0.20	0.01	-0.06	-0.04	0.00	-0.14	0.30	1.98	0.92	0.46	0.31	0.35	
22	0.18	-0.01	-0.05	-0.05	0.01	-0.21	0.23	2.19	0.69	0.41	0.30	0.29	
23	0.12	-0.01	-0.03	-0.04	0.04	-0.13	0.23	2.07	0.62	0.32	0.25	0.35	
24	0.18	0.03	-0.04	-0.08	0.02	0.06	0.35	1.88	0.60	0.34	0.22	0.34	
25	0.18	0.03	-0.03	-0.14	0.06	0.34	0.58	1.79	0.59	0.36	0.22	0.38	
26	0.15	0.08	-0.03	-0.17	0.02	0.46	0.64	2.21	0.55	0.29	0.25	0.37	
27	0.23	0.06	-0.09	-0.16	0.00	0.48	0.84	2.08	0.53	0.28	0.22	0.36	
28	0.29	-0.01	-0.08	-0.10	-0.01	0.36	0.82	1.68	0.57	0.32	0.21	0.42	
29	0.29	0.07	-0.09	-0.13	-0.04	0.30	0.64	1.25	1.02	0.50		0.40	
30	0.32	0.09	-0.10	-0.14	-0.04	0.36	0.64	0.89	1.55	0.49		0.38	
31		0.06		-0.04	-0.10		0.62		2.00	0.34		0.66	
Mean	0.16	0.25	-0.03	-0.11	-0.08	0.00	0.79	1.50	0.98	0.85	0.35	0.35	
Max	0.32	1.21	0.04	0.07	0.06	0.48	1.41	2.28	2.00	2.51	0.55	0.66	2.51
Min	0.07	-0.01	-0.10	-0.23	-0.20	-0.27	0.23	0.53	0.53	0.28	0.21	0.15	-0.27

Annual Max Momentary Gage Height	2.56	m. (MSL.) ,	at 02.00 Hours , on Jan 2 , 2002			
Zero Gage at Bottom Elevation	-0.73	m. (MSL.) ,	River Bed	-2.67	m. (MSL.)	
Left Bank Elevation	8.73	m. (MSL.) ,				
Right Bank Elevation	8.73	m. (MSL.) ,	Drainage Are	1,720	Square Kilometers	



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	14.20	18.70	11.20	7.75	8.75	6.50	19.60	26.90	37.54	100.90	22.00	16.30		
2	14.20	18.70	9.75	7.00	7.00	8.50	16.90	26.55	43.62	104.95	22.00	15.70		
3	13.30	19.00	8.75	6.00	6.50	6.75	19.90	35.29	42.86	96.40	24.80	15.10		
4	13.30	17.50	8.25	6.75	6.75	5.00	28.65	44.39	42.10	84.60	25.50	14.50		
5	13.60	16.60	8.25	6.00	6.25	5.75	37.54	64.28	46.73	75.98	24.80	16.00		
6	13.60	16.30	8.75	5.50	7.25	8.25	42.48	81.44	55.31	63.11	27.25	16.30		
7	12.70	17.80	8.75	5.50	8.50	9.25	46.34	91.00	52.19	47.51	26.90	17.80		
8	12.70	22.35	8.75	5.50	8.00	7.75	47.90	89.40	43.62	40.58	22.70	19.60		
9	12.40	43.62	9.75	5.50	6.00	6.75	59.99	94.60	37.16	39.06	20.80	23.05		
10	12.10	52.19	10.90	4.75	6.25	7.25	55.70	92.80	36.78	33.07	21.70	24.80		
11	12.40	36.78	11.20	4.25	6.75	8.00	47.90	80.27	36.40	30.48	21.40	26.90		
12	14.50	30.11	10.60	4.25	6.00	9.75	46.34	64.67	37.16	32.70	22.35	30.85		
13	16.00	26.55	10.00	7.75	6.75	13.30	47.90	51.80	38.68	30.48	23.05	25.50		
14	16.60	20.80	9.00	12.10	7.75	11.50	51.80	44.39	44.00	27.60	20.50	23.05		
15	15.70	16.00	9.75	9.75	8.25	9.75	55.31	38.68	44.00	26.55	19.00	20.50		
16	14.80	14.20	9.75	10.00	7.25	8.50	56.09	37.92	41.34	29.37	18.10	19.60		
17	14.50	13.90	10.30	10.60	6.25	5.50	51.41	36.03	45.56	30.11	18.40	18.40		
18	14.20	13.90	9.25	9.25	6.50	3.25	44.78	34.92	64.67	29.00	18.70	19.30		
19	16.30	11.80	9.25	9.00	5.00	6.50	32.70	48.29	67.40	26.90	19.00	18.40		
20	16.90	11.20	9.00	9.00	6.25	9.25	23.05	73.25	52.58	27.25	18.70	20.50		
21	16.00	10.30	8.50	9.00	10.00	6.50	19.00	82.22	40.96	24.10	19.30	20.50		
22	15.40	9.75	8.75	8.75	10.30	4.75	16.90	90.60	32.33	22.35	19.00	18.70		
23	13.60	9.75	9.25	9.00	11.20	6.75	16.90	85.80	29.74	19.60	17.50	20.50		
24	15.40	10.90	9.00	8.00	10.60	11.80	20.50	78.32	29.00	20.20	16.60	20.20		
25	15.40	10.90	9.25	6.50	11.80	20.20	28.30	74.81	28.65	20.80	16.60	21.40		
26	14.50	12.40	9.25	5.75	10.60	24.10	30.48	91.45	27.25	18.70	17.50	21.10		
27	16.90	11.80	7.75	6.00	10.00	24.80	37.92	86.20	26.55	18.40	16.60	20.80		
28	18.70	9.75	8.00	7.50	9.75	20.80	37.16	70.52	27.95	19.60	16.30	22.70		
29	18.70	12.10	7.75	6.75	9.00	19.00	30.48	53.75	44.78	25.50		22.00		
30	19.60	12.70	7.50	6.50	9.00	20.80	30.48	39.82	65.45	25.15		21.40		
31		11.80		9.00	7.50		29.74		83.00	20.20		31.22		
Total	448.20	560.15	276.20	228.95	247.75	316.55	1130.14	1910.36	1345.36	1211.20	577.05	642.67	8894.58	CMSDAY
Mean	14.94	18.07	9.21	7.39	7.99	10.55	36.46	63.68	43.40	39.07	20.61	20.73	24.37	CMS
Max	19.60	52.19	11.20	12.10	11.80	24.80	59.99	94.60	83.00	104.95	27.25	31.22	104.95	CMS
Min	12.10	9.75	7.50	4.25	5.00	3.25	16.90	26.55	26.55	18.40	16.30	14.50	3.25	CMS
Runoff	38.72	48.40	23.86	19.78	21.41	27.35	97.64	165.06	116.24	104.65	49.86	55.53	768.49	MCM

Momentary Peak 107.20 CMS. at 2.56 m. (MSL.) at 02.00 Hours , on Jan 2, 2002

Runoff Yield 14.17 Liters/Second/Square KM. Momentary Peak Yield 62.330 Liters/Second/Square KM.

WATER YEAR : 2002

THALE SAP SONGKHLA

Khlong Ratthaphum at Ban Kamphaeng Phet, Songkhla (X.67)

Lat 07 - 08 - 35 N Long 100 - 17 - 20 E

Location : on rigth bank about 3 meters upstream from the bridge of Phatthalung-Songkhla Highway.

Ban Kamphaeng Phet **Amphoe** Ratthaphum **Changwat** Songkhla

Drainge Area	272 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+16.000 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank under the santal tree. **Elevation** +20.413 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 mean of 5 readings
Period of Available Gage Records	1967 to date.
Rating Operation	
Period of Rating	1967 - 1970, 1972, 1983 to date.
Rated by Flot	-
Rated by Current Meter	1967 - 1970, 1972, 1983 to date.
Stability of Channel Regimes	Stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Flow regulated by Rattaphum weir. Stage-discharge relation defined by 27 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

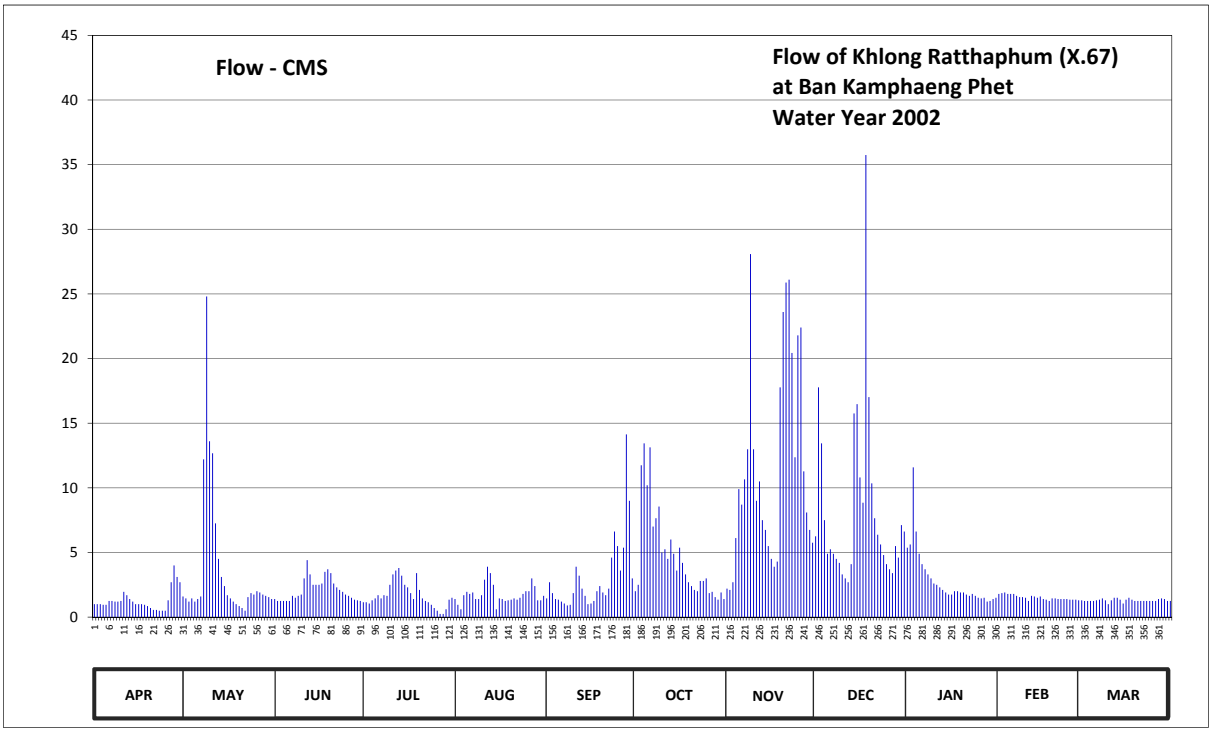
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	17.50	17.62	17.58	17.53	17.58	17.59	17.70	17.72	18.10	18.03	17.66	17.56	
2	17.50	17.59	17.55	17.53	17.49	17.77	17.75	17.71	18.83	18.05	17.67	17.55	
3	17.50	17.54	17.55	17.51	17.42	17.67	18.48	17.77	18.59	18.47	17.68	17.55	
4	17.49	17.59	17.55	17.56	17.64	17.58	18.59	18.09	18.20	18.13	17.66	17.55	
5	17.49	17.54	17.55	17.59	17.69	17.57	18.38	18.36	17.99	17.99	17.66	17.55	
6	17.55	17.58	17.55	17.64	17.66	17.54	18.57	18.28	18.02	17.91	17.66	17.56	
7	17.55	17.62	17.63	17.59	17.68	17.51	18.16	18.41	17.99	17.87	17.63	17.57	
8	17.54	18.51	17.60	17.64	17.58	17.48	18.21	18.56	17.95	17.83	17.61	17.59	
9	17.54	19.19	17.63	17.63	17.58	17.49	18.27	19.34	17.92	17.80	17.61	17.56	
10	17.55	18.60	17.65	17.75	17.64	17.67	18.00	18.56	17.83	17.76	17.60	17.50	
11	17.69	18.54	17.80	17.83	17.79	17.89	18.02	18.30	17.80	17.75	17.55	17.56	
12	17.64	18.18	17.94	17.86	17.89	17.82	17.95	18.40	17.77	17.73	17.63	17.60	
13	17.58	17.95	17.83	17.88	17.84	17.72	18.08	18.20	17.91	17.71	17.62	17.60	
14	17.54	17.81	17.75	17.82	17.75	17.63	17.99	18.14	18.72	17.68	17.60	17.57	
15	17.50	17.74	17.75	17.75	17.42	17.50	17.86	18.04	18.76	17.65	17.62	17.51	
16	17.50	17.64	17.75	17.73	17.59	17.51	18.03	17.95	18.42	17.65	17.58	17.57	
17	17.50	17.59	17.76	17.67	17.58	17.55	17.92	17.89	18.29	17.70	17.57	17.60	
18	17.49	17.54	17.85	17.58	17.55	17.70	17.83	17.93	19.67	17.70	17.55	17.57	
19	17.47	17.50	17.87	17.84	17.56	17.74	17.77	18.83	18.79	17.68	17.59	17.55	
20	17.44	17.47	17.84	17.71	17.57	17.68	17.74	19.13	18.39	17.68	17.59	17.55	
21	17.41	17.44	17.76	17.59	17.59	17.64	17.71	19.24	18.21	17.65	17.58	17.55	
22	17.41	17.40	17.73	17.55	17.57	17.72	17.70	19.25	18.11	17.63	17.58	17.55	
23	17.40	17.61	17.71	17.53	17.60	17.96	17.78	18.97	18.05	17.66	17.58	17.55	
24	17.40	17.67	17.69	17.49	17.66	18.13	17.78	18.52	17.98	17.63	17.58	17.55	
25	17.40	17.65	17.65	17.44	17.70	18.04	17.80	19.04	17.91	17.60	17.57	17.55	
26	17.56	17.70	17.63	17.40	17.70	17.86	17.67	19.07	17.87	17.59	17.57	17.55	
27	17.77	17.68	17.60	17.35	17.80	18.03	17.69	18.45	17.84	17.60	17.57	17.58	
28	17.90	17.65	17.57	17.35	17.74	18.63	17.61	18.24	18.04	17.54	17.56	17.59	
29	17.81	17.63	17.56	17.42	17.56	18.30	17.57	18.14	17.96	17.55		17.58	
30	17.77	17.61	17.55	17.57	17.56	17.80	17.68	18.06	18.17	17.58		17.55	
31		17.58		17.60	17.63		17.58		18.13	17.60		17.55	
Mean	17.55	17.77	17.68	17.61	17.63	17.76	17.93	18.42	18.20	17.75	17.60	17.56	
Max	17.90	19.19	17.94	17.88	17.89	18.63	18.59	19.34	19.67	18.47	17.68	17.60	19.67
Min	17.40	17.40	17.55	17.35	17.42	17.48	17.57	17.71	17.77	17.54	17.55	17.50	17.35

Annual Max Momentary Gage Height 19.75 m. (MSL.) , at 06.00 Hours , on Dec 18 , 2002

Zero Gage at Bottom Elevation 16.00 m. (MSL.) , River Bed 17.20 m. (MSL.)

Left Bank Elevation 22.62 m. (MSL.) ,

Right Bank Elevation 22.64 m. (MSL.) , Drainage Are 272 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.00	1.60	1.40	1.15	1.40	1.45	2.00	2.20	6.25	5.37	1.80	1.30		
2	1.00	1.45	1.25	1.15	0.95	2.70	2.50	2.10	17.77	5.62	1.85	1.25		
3	1.00	1.20	1.25	1.05	0.60	1.85	11.74	2.70	13.44	11.59	1.90	1.25		
4	0.95	1.45	1.25	1.30	1.70	1.40	13.44	6.12	7.50	6.62	1.80	1.25		
5	0.95	1.20	1.25	1.45	1.95	1.35	10.20	9.90	4.90	4.90	1.80	1.25		
6	1.25	1.40	1.25	1.70	1.80	1.20	13.13	8.70	5.25	4.10	1.80	1.30		
7	1.25	1.60	1.65	1.45	1.90	1.05	7.00	10.66	4.90	3.70	1.65	1.35		
8	1.20	12.20	1.50	1.70	1.40	0.90	7.65	12.98	4.50	3.30	1.55	1.45		
9	1.20	24.80	1.65	1.65	1.40	0.95	8.55	28.08	4.20	3.00	1.55	1.30		
10	1.25	13.60	1.75	2.50	1.70	1.85	5.00	12.98	3.30	2.60	1.50	1.00		
11	1.95	12.67	3.00	3.30	2.90	3.90	5.25	9.00	3.00	2.50	1.25	1.30		
12	1.70	7.25	4.40	3.60	3.90	3.20	4.50	10.50	2.70	2.30	1.65	1.50		
13	1.40	4.50	3.30	3.80	3.40	2.20	6.00	7.50	4.10	2.10	1.60	1.50		
14	1.20	3.10	2.50	3.20	2.50	1.65	4.90	6.75	15.76	1.90	1.50	1.35		
15	1.00	2.40	2.50	2.50	0.60	1.00	3.60	5.50	16.48	1.75	1.60	1.05		
16	1.00	1.70	2.50	2.30	1.45	1.05	5.37	4.50	10.81	1.75	1.40	1.35		
17	1.00	1.45	2.60	1.85	1.40	1.25	4.20	3.90	8.85	2.00	1.35	1.50		
18	0.95	1.20	3.50	1.40	1.25	2.00	3.30	4.30	35.75	2.00	1.25	1.35		
19	0.85	1.00	3.70	3.40	1.30	2.40	2.70	17.77	17.02	1.90	1.45	1.25		
20	0.70	0.85	3.40	2.10	1.35	1.90	2.40	23.60	10.35	1.90	1.45	1.25		
21	0.55	0.70	2.60	1.45	1.45	1.70	2.10	25.88	7.65	1.75	1.40	1.25		
22	0.55	0.50	2.30	1.25	1.35	2.20	2.00	26.10	6.37	1.65	1.40	1.25		
23	0.50	1.55	2.10	1.15	1.50	4.60	2.80	20.43	5.62	1.80	1.40	1.25		
24	0.50	1.85	1.95	0.95	1.80	6.62	2.80	12.36	4.80	1.65	1.40	1.25		
25	0.50	1.75	1.75	0.70	2.00	5.50	3.00	21.80	4.10	1.50	1.35	1.25		
26	1.30	2.00	1.65	0.50	2.00	3.60	1.85	22.40	3.70	1.45	1.35	1.25		
27	2.70	1.90	1.50	0.25	3.00	5.37	1.95	11.28	3.40	1.50	1.35	1.40		
28	4.00	1.75	1.35	0.25	2.40	14.14	1.55	8.10	5.50	1.20	1.30	1.45		
29	3.10	1.65	1.30	0.60	1.30	9.00	1.35	6.75	4.60	1.25		1.40		
30	2.70	1.55	1.25	1.35	1.30	3.00	1.90	5.75	7.12	1.40		1.25		
31		1.40		1.50	1.65		1.40		6.62	1.50		1.25		
Total	39.20	113.22	63.35	52.50	54.60	90.98	146.13	350.59	256.31	87.55	42.65	40.35	1337.43	CMSDAY
Mean	1.31	3.65	2.11	1.69	1.76	3.03	4.71	11.69	8.27	2.82	1.52	1.30	3.66	CMS
Max	4.00	24.80	4.40	3.80	3.90	14.14	13.44	28.08	35.75	11.59	1.90	1.50	35.75	CMS
Min	0.50	0.50	1.25	0.25	0.60	0.90	1.35	2.10	2.70	1.20	1.25	1.00	0.25	CMS
Runoff	3.39	9.78	5.47	4.54	4.72	7.86	12.63	30.29	22.15	7.56	3.68	3.49	115.55	MCM

Momentary Peak 37.75 CMS. at 19.75 m. (MSL.) at 06.00 Hours , on Dec 18 , 2002

Runoff Yield 13.47 Liters/Second/Square KM. Momentary Peak Yield 138.790 Liters/Second/Square KM.

WATER YEAR : 2002

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	+11.000 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 mean 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 fair. Flow regulated by Tha Khae Weir. Stage-discharge relation defined by 31 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

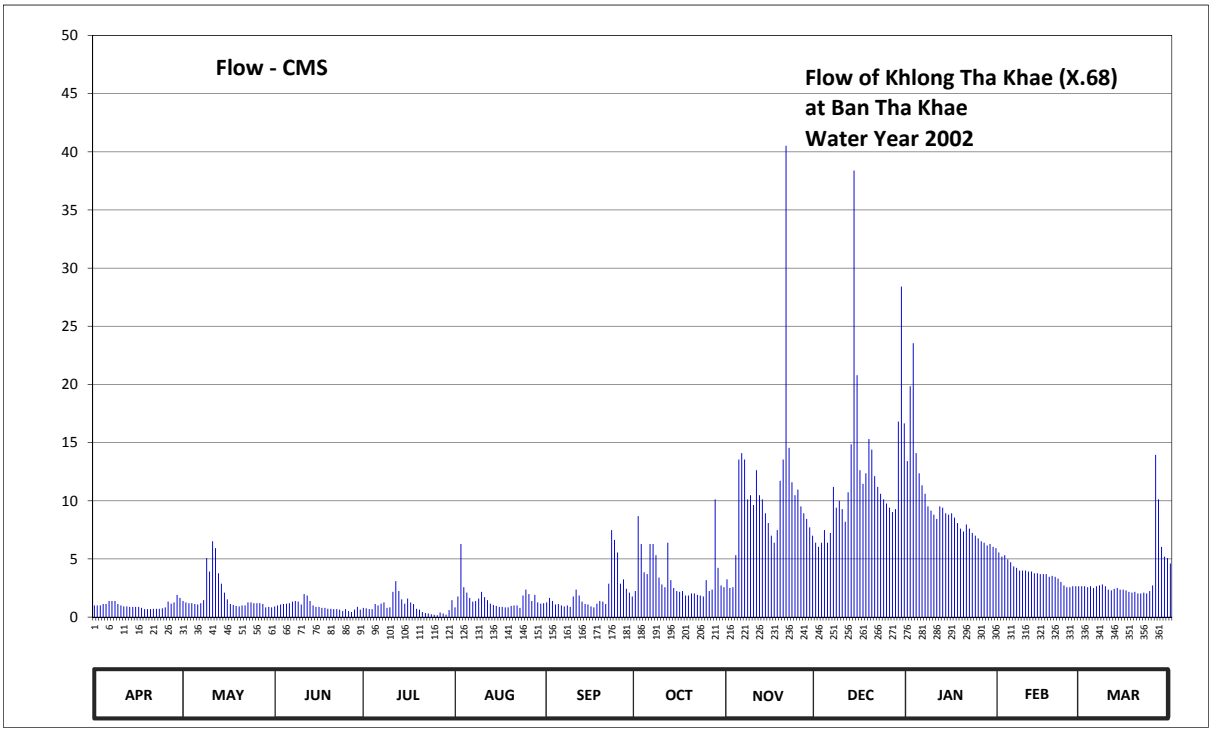
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	12.55	12.63	12.53	12.50	12.51	12.61	12.76	12.90	13.20	13.77	13.13	12.82	
2	12.55	12.61	12.55	12.49	12.69	12.67	13.39	12.80	13.17	14.19	13.10	12.82	
3	12.55	12.60	12.57	12.47	13.19	12.63	13.19	12.81	13.20	14.42	13.11	12.81	
4	12.58	12.60	12.58	12.47	12.81	12.57	12.98	13.11	13.29	13.82	13.08	12.82	
5	12.58	12.58	12.59	12.58	12.74	12.58	12.96	13.78	13.20	13.69	13.06	12.80	
6	12.63	12.57	12.60	12.55	12.67	12.55	13.19	13.82	13.27	13.61	13.03	12.82	
7	12.63	12.60	12.62	12.59	12.62	12.53	13.19	13.78	13.60	13.55	13.02	12.83	
8	12.63	12.64	12.63	12.61	12.63	12.55	13.11	13.51	13.45	13.46	13.00	12.84	
9	12.58	13.09	12.62	12.50	12.66	12.52	12.92	13.54	13.50	13.43	13.00	12.82	
10	12.55	12.99	12.57	12.51	12.75	12.69	12.84	13.47	13.44	13.40	13.00	12.78	
11	12.53	13.21	12.72	12.75	12.68	12.78	12.81	13.71	13.35	13.37	12.99	12.77	
12	12.53	13.16	12.70	12.88	12.64	12.70	13.20	13.54	13.56	13.46	12.99	12.79	
13	12.52	12.97	12.63	12.76	12.59	12.62	12.89	13.51	13.87	13.45	12.97	12.80	
14	12.52	12.85	12.55	12.65	12.56	12.58	12.80	13.41	15.13	13.41	12.97	12.78	
15	12.52	12.74	12.52	12.59	12.54	12.57	12.76	13.34	14.25	13.40	12.96	12.78	
16	12.52	12.65	12.52	12.66	12.52	12.53	12.75	13.25	13.71	13.41	12.96	12.77	
17	12.50	12.58	12.50	12.61	12.52	12.51	12.76	13.20	13.62	13.38	12.96	12.75	
18	12.47	12.56	12.50	12.58	12.51	12.59	12.70	13.29	13.69	13.34	12.93	12.74	
19	12.47	12.54	12.48	12.48	12.51	12.63	12.70	13.64	13.90	13.30	12.94	12.75	
20	12.47	12.53	12.48	12.46	12.54	12.62	12.73	13.78	13.84	13.28	12.93	12.73	
21	12.48	12.55	12.47	12.41	12.55	12.58	12.73	15.21	13.67	13.33	12.91	12.73	
22	12.48	12.55	12.47	12.39	12.55	12.85	12.71	13.85	13.60	13.30	12.87	12.74	
23	12.48	12.61	12.46	12.38	12.50	13.29	12.70	13.63	13.55	13.27	12.83	12.73	
24	12.49	12.61	12.43	12.36	12.70	13.22	12.69	13.54	13.51	13.25	12.81	12.76	
25	12.51	12.60	12.47	12.35	12.78	13.13	12.89	13.58	13.48	13.23	12.81	12.83	
26	12.62	12.60	12.43	12.34	12.72	12.85	12.76	13.46	13.45	13.21	12.82	13.81	
27	12.59	12.60	12.41	12.40	12.63	12.90	12.78	13.41	13.42	13.20	12.82	13.51	
28	12.61	12.58	12.46	12.38	12.71	12.79	13.51	13.37	13.44	13.18	12.82	13.17	
29	12.71	12.51	12.52	12.35	12.61	12.74	13.02	13.31	14.00	13.19		13.10	
30	12.67	12.52	12.46	12.45	12.59	12.69	12.83	13.25	14.69	13.17		13.09	
31		12.51		12.64	12.60		12.81		13.99	13.16		13.05	
Mean	12.55	12.68	12.53	12.52	12.64	12.70	12.91	13.49	13.65	13.44	12.96	12.88	
Max	12.71	13.21	12.72	12.88	13.19	13.29	13.51	15.21	15.13	14.42	13.13	13.81	15.21
Min	12.47	12.51	12.41	12.34	12.50	12.51	12.69	12.80	13.17	13.16	12.81	12.73	12.34

Annual Max Momentary Gage Height 15.59 m. (MSL.) , at 12.00 Hours , on Nov 21 , 2002

Zero Gage at Bottom Elevation 11.00 m. (MSL.) , River Bed 11.87 m. (MSL.)

Left Bank Elevation 18.34 m. (MSL.) ,

Right Bank Elevation 18.58 m. (MSL.) , Drainage Are 302 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.00	1.39	0.92	0.80	0.84	1.26	2.24	3.25	6.40	13.41	5.56	2.65		
2	1.00	1.26	1.00	0.76	1.78	1.65	8.68	2.50	6.04	19.84	5.20	2.65		
3	1.00	1.20	1.08	0.68	6.28	1.39	6.28	2.57	6.40	23.55	5.32	2.57		
4	1.12	1.20	1.12	0.68	2.57	1.08	3.85	5.32	7.48	14.10	4.96	2.65		
5	1.12	1.12	1.16	1.12	2.11	1.12	3.70	13.54	6.40	12.37	4.72	2.50		
6	1.39	1.08	1.20	1.00	1.65	1.00	6.28	14.10	7.24	11.33	4.36	2.65		
7	1.39	1.20	1.33	1.16	1.33	0.92	6.28	13.54	11.20	10.60	4.24	2.72		
8	1.39	1.46	1.39	1.26	1.39	1.00	5.32	10.12	9.40	9.52	4.00	2.80		
9	1.12	5.08	1.33	0.80	1.59	0.88	3.40	10.48	10.00	9.16	4.00	2.65		
10	1.00	3.92	1.08	0.84	2.17	1.78	2.80	9.64	9.28	8.80	4.00	2.37		
11	0.92	6.52	1.98	2.17	1.72	2.37	2.57	12.63	8.20	8.44	3.92	2.30		
12	0.92	5.92	1.85	3.10	1.46	1.85	6.40	10.48	10.72	9.52	3.92	2.43		
13	0.88	3.77	1.39	2.24	1.16	1.33	3.17	10.12	14.85	9.40	3.77	2.50		
14	0.88	2.87	1.00	1.52	1.04	1.12	2.50	8.92	38.38	8.92	3.77	2.37		
15	0.88	2.11	0.88	1.16	0.96	1.08	2.24	8.08	20.80	8.80	3.70	2.37		
16	0.88	1.52	0.88	1.59	0.88	0.92	2.17	7.00	12.63	8.92	3.70	2.30		
17	0.80	1.12	0.80	1.26	0.88	0.84	2.24	6.40	11.46	8.56	3.70	2.17		
18	0.68	1.04	0.80	1.12	0.84	1.16	1.85	7.48	12.37	8.08	3.47	2.11		
19	0.68	0.96	0.72	0.72	0.84	1.39	1.85	11.72	15.30	7.60	3.55	2.17		
20	0.68	0.92	0.72	0.64	0.96	1.33	2.04	13.54	14.40	7.36	3.47	2.04		
21	0.72	1.00	0.68	0.44	1.00	1.12	2.04	40.52	12.11	7.96	3.32	2.04		
22	0.72	1.00	0.68	0.36	1.00	2.87	1.91	14.55	11.20	7.60	3.02	2.11		
23	0.72	1.26	0.64	0.32	0.80	7.48	1.85	11.59	10.60	7.24	2.72	2.04		
24	0.76	1.26	0.52	0.24	1.85	6.64	1.78	10.48	10.12	7.00	2.57	2.24		
25	0.84	1.20	0.68	0.20	2.37	5.56	3.17	10.96	9.76	6.76	2.57	2.72		
26	1.33	1.20	0.52	0.16	1.98	2.87	2.24	9.52	9.40	6.52	2.65	13.95		
27	1.16	1.20	0.44	0.40	1.39	3.25	2.37	8.92	9.04	6.40	2.65	10.12		
28	1.26	1.12	0.64	0.32	1.91	2.43	10.12	8.44	9.28	6.16	2.65	6.04		
29	1.91	0.84	0.88	0.20	1.26	2.11	4.24	7.72	16.80	6.28		5.20		
30	1.65	0.88	0.64	0.60	1.16	1.78	2.72	7.00	28.41	6.04		5.08		
31		0.84		1.46	1.20		2.57		16.65	5.92		4.60		
Total	30.80	57.46	28.95	29.32	48.37	61.58	110.87	311.13	382.32	292.16	105.48	105.11	1563.55	CMSDAY
Mean	1.03	1.85	0.96	0.95	1.56	2.05	3.58	10.37	12.33	9.42	3.77	3.39	4.28	CMS
Max	1.91	6.52	1.98	3.10	6.28	7.48	10.12	40.52	38.38	23.55	5.56	13.95	40.52	CMS
Min	0.68	0.84	0.44	0.16	0.80	0.84	1.78	2.50	6.04	5.92	2.57	2.04	0.16	CMS
Runoff	2.66	4.96	2.50	2.53	4.18	5.32	9.58	26.88	33.03	25.24	9.11	9.08	135.09	MCM

Momentary Peak 54.58 CMS. at 15.59 m. (MSL.) at 12.00 Hours , on Nov 21 , 2002

Runoff Yield 14.18 Liters/Second/Square KM. Momentary Peak Yield 180.730 Liters/Second/Square KM.

WATER YEAR : 2002

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.

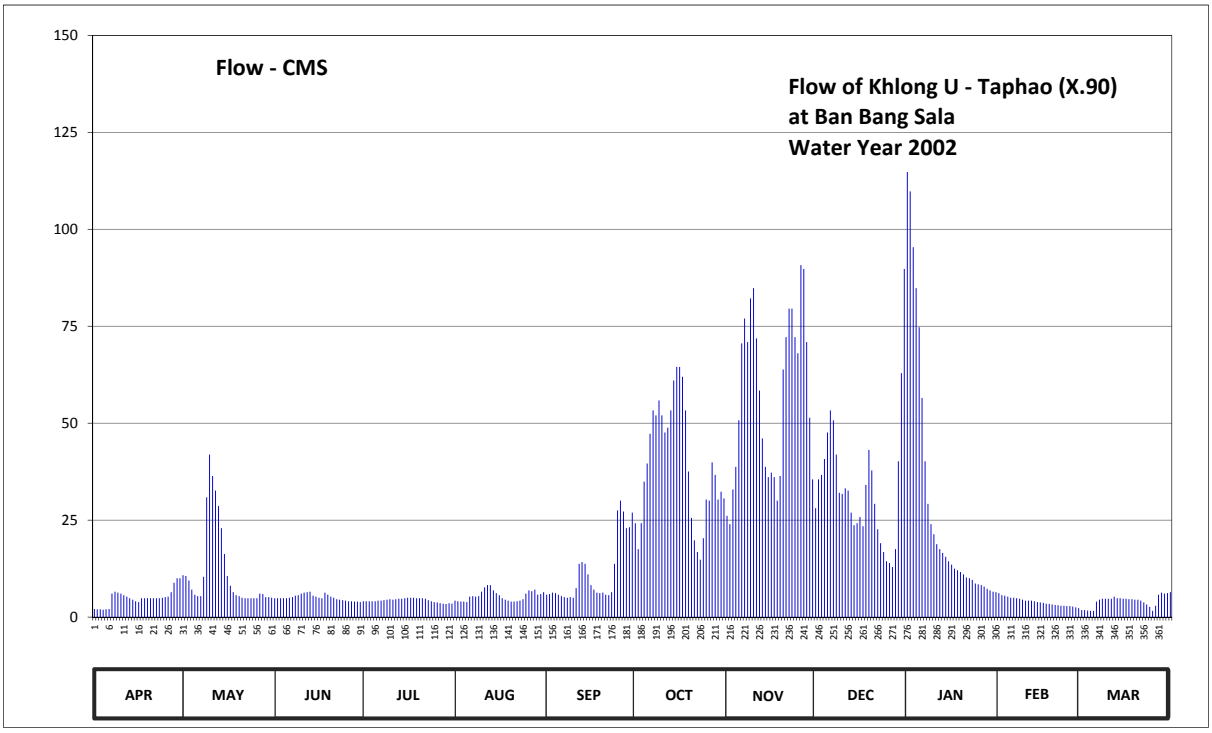
Ban Bang Sala **Amphoe** Khlong Hoi Khong **Changwat** Songkhla

Drainge Area	1,547 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+0.680 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank about 20 meters from the top staff gage. **Elevation** +8.335 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 mean 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.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Stage-discharge relation defined by 31 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	1.21	1.81	1.46	1.40	1.41	1.53	2.37	2.44	2.51	5.22	1.56	1.18	
2	1.20	1.80	1.46	1.40	1.40	1.54	2.11	2.36	2.77	5.08	1.52	1.18	
3	1.20	1.74	1.46	1.40	1.39	1.57	2.37	2.68	2.81	4.66	1.51	1.17	
4	1.19	1.62	1.46	1.40	1.39	1.56	2.75	2.88	2.95	4.34	1.49	1.16	
5	1.20	1.53	1.46	1.40	1.38	1.53	2.91	3.28	3.18	4.03	1.47	1.16	
6	1.21	1.50	1.47	1.41	1.49	1.50	3.17	3.90	3.36	3.46	1.47	1.39	
7	1.55	1.50	1.48	1.41	1.50	1.48	3.36	4.10	3.28	2.93	1.46	1.43	
8	1.59	1.79	1.51	1.42	1.49	1.47	3.32	3.91	2.99	2.55	1.45	1.45	
9	1.57	2.61	1.52	1.43	1.50	1.48	3.44	4.26	2.65	2.36	1.43	1.45	
10	1.55	2.99	1.55	1.44	1.59	1.47	3.32	4.34	2.64	2.26	1.41	1.45	
11	1.52	2.80	1.57	1.43	1.65	1.64	3.18	3.94	2.69	2.16	1.41	1.45	
12	1.49	2.67	1.58	1.44	1.68	1.95	3.22	3.52	2.67	2.11	1.41	1.49	
13	1.46	2.53	1.59	1.45	1.68	1.97	3.36	3.13	2.47	2.07	1.40	1.46	
14	1.43	2.32	1.51	1.45	1.61	1.95	3.60	2.88	2.35	2.03	1.38	1.46	
15	1.40	2.06	1.49	1.46	1.56	1.82	3.71	2.79	2.37	1.98	1.37	1.45	
16	1.38	1.80	1.47	1.47	1.52	1.68	3.71	2.83	2.43	1.94	1.36	1.45	
17	1.46	1.67	1.46	1.47	1.46	1.62	3.63	2.79	2.34	1.89	1.34	1.44	
18	1.46	1.58	1.57	1.47	1.43	1.57	3.36	2.58	2.72	1.87	1.33	1.44	
19	1.46	1.52	1.53	1.46	1.41	1.56	2.84	2.80	3.03	1.85	1.32	1.43	
20	1.46	1.50	1.49	1.46	1.39	1.57	2.42	3.69	2.85	1.82	1.31	1.43	
21	1.46	1.47	1.47	1.46	1.39	1.53	2.20	3.95	2.55	1.78	1.30	1.41	
22	1.46	1.46	1.44	1.45	1.40	1.52	2.08	4.18	2.31	1.77	1.29	1.37	
23	1.46	1.46	1.43	1.42	1.41	1.58	2.00	4.18	2.17	1.75	1.29	1.32	
24	1.47	1.46	1.42	1.40	1.44	1.95	2.22	3.95	2.08	1.70	1.28	1.26	
25	1.48	1.46	1.41	1.38	1.55	2.49	2.59	3.82	1.98	1.69	1.28	1.16	
26	1.49	1.46	1.40	1.37	1.61	2.58	2.58	4.52	1.96	1.68	1.27	1.29	
27	1.58	1.55	1.40	1.35	1.60	2.48	2.92	4.49	1.91	1.66	1.25	1.53	
28	1.71	1.54	1.39	1.34	1.62	2.32	2.81	3.91	2.11	1.63	1.23	1.57	
29	1.77	1.48	1.39	1.33	1.53	2.33	2.59	3.30	2.93	1.61		1.55	
30	1.77	1.48	1.38	1.35	1.54	2.47	2.66	2.77	3.66	1.59		1.56	
31		1.47		1.34	1.58		2.60		4.49	1.58		1.58	
Mean	1.45	1.79	1.47	1.41	1.50	1.79	2.88	3.47	2.68	2.42	1.38	1.39	
Max	1.77	2.99	1.59	1.47	1.68	2.58	3.71	4.52	4.49	5.22	1.56	1.58	5.22
Min	1.19	1.46	1.38	1.33	1.38	1.47	2.00	2.36	1.91	1.58	1.23	1.16	1.16

Annual Max Momentary Gage Height	5.63	m. (MSL.) ,	at 18.00 Hours , on Jan 1 , 2002	
Zero Gage at Bottom Elevation	0.68	m. (MSL.) ,	River Bed -0.24	m. (MSL.)
Left Bank Elevation	8.09	m. (MSL.) ,		
Right Bank Elevation	7.18	m. (MSL.) ,	Drainage Are 1,547	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.10	10.81	4.88	4.10	4.23	5.79	24.22	26.12	28.08	114.78	6.18	1.80		
2	2.00	10.60	4.88	4.10	4.10	5.92	17.55	23.96	35.53	109.80	5.66	1.80		
3	2.00	9.43	4.88	4.10	4.00	6.31	24.22	32.92	36.69	95.38	5.53	1.70		
4	1.90	7.09	4.88	4.10	4.00	6.18	34.95	38.72	40.75	84.82	5.27	1.60		
5	2.00	5.79	4.88	4.10	3.89	5.79	39.59	50.76	47.60	74.76	5.01	1.60		
6	2.10	5.40	5.01	4.23	5.27	5.40	47.30	70.60	53.32	56.52	5.01	4.00		
7	6.05	5.40	5.14	4.23	5.40	5.14	53.32	77.00	50.76	40.17	4.88	4.49		
8	6.57	10.41	5.53	4.36	5.27	5.01	52.04	70.92	41.91	29.20	4.75	4.75		
9	6.31	30.89	5.66	4.49	5.40	5.14	55.88	82.18	32.05	23.96	4.49	4.75		
10	6.05	41.91	6.05	4.62	6.57	5.01	52.04	84.82	31.76	21.36	4.23	4.75		
11	5.66	36.40	6.31	4.49	7.67	7.48	47.60	71.88	33.21	18.80	4.23	4.75		
12	5.27	32.63	6.44	4.62	8.26	13.75	48.84	58.44	32.63	17.55	4.23	5.27		
13	4.88	28.64	6.57	4.75	8.26	14.17	53.32	46.10	26.96	16.55	4.10	4.88		
14	4.49	22.92	5.53	4.75	6.89	13.75	61.00	38.72	23.70	15.55	3.89	4.88		
15	4.10	16.30	5.27	4.88	6.18	11.02	64.52	36.11	24.22	14.38	3.79	4.75		
16	3.89	10.60	5.01	5.01	5.66	8.26	64.52	37.27	25.84	13.54	3.68	4.75		
17	4.88	8.07	4.88	5.01	4.88	7.09	61.96	36.11	23.44	12.49	3.47	4.62		
18	4.88	6.44	6.31	5.01	4.49	6.31	53.32	30.04	34.08	12.07	3.36	4.62		
19	4.88	5.66	5.79	4.88	4.23	6.18	37.56	36.40	43.10	11.65	3.26	4.49		
20	4.88	5.40	5.27	4.88	4.00	6.31	25.56	63.88	37.85	11.02	3.15	4.49		
21	4.88	5.01	5.01	4.88	4.00	5.79	19.80	72.20	29.20	10.21	3.05	4.23		
22	4.88	4.88	4.62	4.75	4.10	5.66	16.80	79.56	22.66	10.02	2.94	3.79		
23	4.88	4.88	4.49	4.36	4.23	6.44	14.80	79.56	19.05	9.63	2.94	3.26		
24	5.01	4.88	4.36	4.10	4.62	13.75	20.32	72.20	16.80	8.65	2.84	2.63		
25	5.14	4.88	4.23	3.89	6.05	27.52	30.32	68.04	14.38	8.46	2.84	1.60		
26	5.27	4.88	4.10	3.79	6.89	30.04	30.04	90.76	13.96	8.26	2.73	2.94		
27	6.44	6.05	4.10	3.57	6.70	27.24	39.88	89.77	12.91	7.87	2.52	5.79		
28	8.85	5.92	4.00	3.47	7.09	22.92	36.69	70.92	17.55	7.28	2.31	6.31		
29	10.02	5.14	4.00	3.36	5.79	23.18	30.32	51.40	40.17	6.89		6.05		
30	10.02	5.14	3.89	3.57	5.92	26.96	32.34	35.53	62.92	6.57		6.18		
31		5.01		3.47	6.44		30.60		89.77	6.44		6.44		
Total	150.28	367.46	151.97	133.92	170.48	339.51	1221.22	1722.89	1042.85	884.63	110.34	127.96	6423.51	CMSDAY
Mean	5.01	11.85	5.07	4.32	5.50	11.32	39.39	57.43	33.64	28.54	3.94	4.13	17.60	CMS
Max	10.02	41.91	6.57	5.01	8.26	30.04	64.52	90.76	89.77	114.78	6.18	6.44	114.78	CMS
Min	1.90	4.88	3.89	3.36	3.89	5.01	14.80	23.96	12.91	6.44	2.31	1.60	1.60	CMS
Runoff	12.98	31.75	13.13	11.57	14.73	29.33	105.51	148.86	90.10	76.43	9.53	11.06	554.99	MCM

Momentary Peak 130.80 CMS. at 5.63 m. (MSL.) at 18.00 Hours , on Jan 1 , 2002

Runoff Yield 11.38 Liters/Second/Square KM. Momentary Peak Yield 84.550 Liters/Second/Square KM.

WATER YEAR : 2002

THALE SAP SONGKHLA

Khlong Bang Kaeo at Ban Khuan In No Mo , Phutthalung (X.109)

Lat 07 - 20 - 29 N Long 100 - 03 - 35 E

Location : on left bank at Ban Khuan In No Mo.

	Ban Khuan In No Mo	**Amphoe** Ta Mot	**Changwat** Phatthalung
Drainge Area	131 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 Meteorological Station.	**Elevation**	+9.575 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 mean 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 because of backwater effect.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 33 discharge measurements made in 2002.		

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

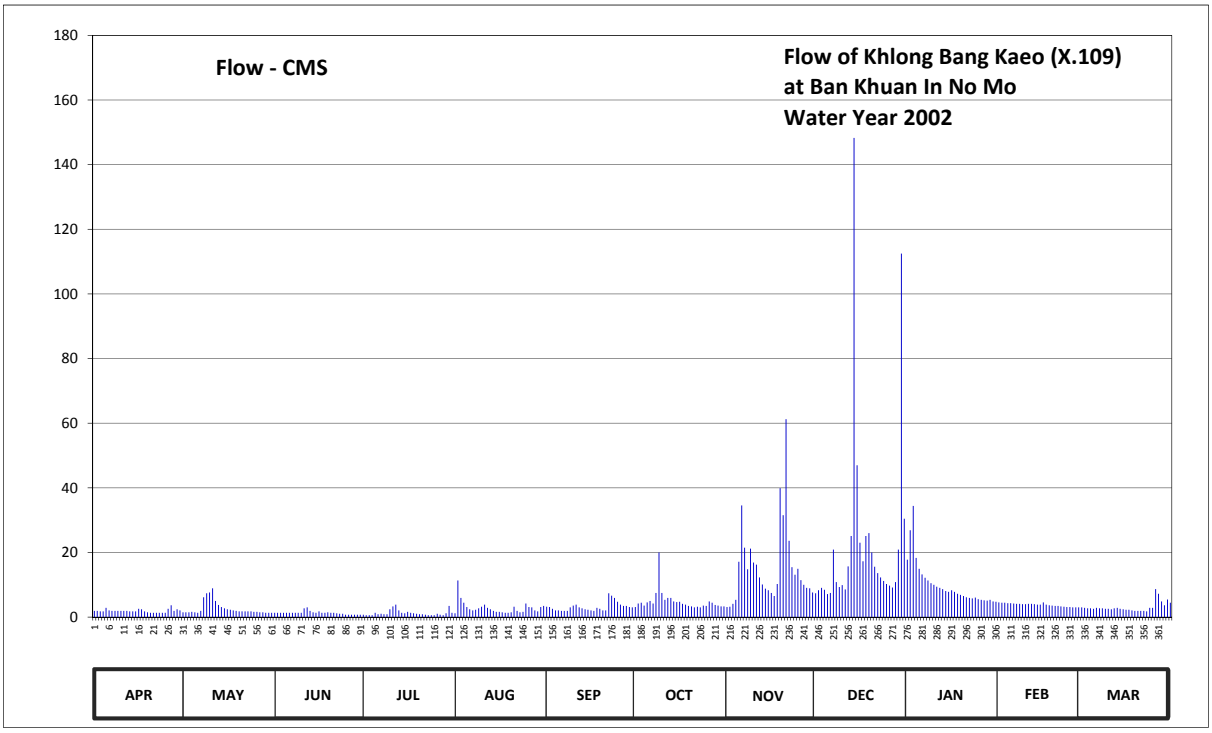
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.13	0.10	0.09	0.05	0.08	0.22	0.21	0.21	0.58	1.43	0.34	0.20	
2	0.13	0.10	0.09	0.04	0.91	0.21	0.31	0.22	0.66	2.06	0.33	0.19	
3	0.12	0.10	0.09	0.04	0.46	0.17	0.33	0.30	0.72	2.53	0.33	0.18	
4	0.12	0.11	0.09	0.04	0.33	0.14	0.25	0.41	0.67	1.47	0.32	0.18	
5	0.19	0.10	0.09	0.09	0.21	0.14	0.34	1.38	0.56	1.21	0.32	0.17	
6	0.14	0.09	0.09	0.06	0.16	0.13	0.38	2.54	0.59	1.07	0.31	0.19	
7	0.13	0.13	0.09	0.07	0.14	0.13	0.31	1.70	1.66	0.98	0.30	0.18	
8	0.13	0.48	0.09	0.06	0.15	0.13	0.59	1.20	0.87	0.91	0.30	0.18	
9	0.13	0.58	0.09	0.06	0.18	0.20	1.60	1.68	0.74	0.84	0.29	0.17	
10	0.13	0.60	0.09	0.16	0.22	0.25	0.59	1.36	0.79	0.80	0.29	0.17	
11	0.13	0.71	0.18	0.23	0.28	0.28	0.41	1.31	0.68	0.75	0.30	0.16	
12	0.13	0.38	0.20	0.28	0.19	0.20	0.46	0.99	1.27	0.72	0.30	0.18	
13	0.12	0.27	0.13	0.14	0.16	0.18	0.46	0.81	1.94	0.69	0.29	0.19	
14	0.12	0.21	0.10	0.09	0.13	0.16	0.37	0.70	5.46	0.64	0.28	0.17	
15	0.12	0.18	0.09	0.08	0.11	0.15	0.35	0.66	3.23	0.62	0.28	0.16	
16	0.17	0.16	0.12	0.11	0.11	0.14	0.36	0.59	1.80	0.66	0.34	0.15	
17	0.16	0.15	0.09	0.09	0.10	0.13	0.30	0.51	1.39	0.62	0.28	0.15	
18	0.12	0.14	0.09	0.08	0.09	0.19	0.28	0.82	1.94	0.57	0.26	0.14	
19	0.10	0.13	0.10	0.07	0.09	0.17	0.24	2.84	2.00	0.54	0.25	0.13	
20	0.09	0.12	0.09	0.06	0.10	0.14	0.23	2.36	1.60	0.51	0.24	0.13	
21	0.09	0.12	0.09	0.06	0.22	0.14	0.20	3.85	1.26	0.48	0.24	0.13	
22	0.09	0.12	0.08	0.05	0.13	0.58	0.22	1.84	1.10	0.46	0.23	0.13	
23	0.09	0.12	0.07	0.04	0.10	0.52	0.20	1.25	0.99	0.45	0.22	0.12	
24	0.09	0.12	0.07	0.04	0.11	0.46	0.25	1.06	0.90	0.47	0.21	0.19	
25	0.09	0.11	0.05	0.04	0.31	0.36	0.24	1.21	0.82	0.43	0.21	0.19	
26	0.17	0.11	0.05	0.07	0.21	0.28	0.37	0.92	0.78	0.41	0.20	0.69	
27	0.26	0.10	0.05	0.05	0.20	0.24	0.33	0.80	0.73	0.40	0.20	0.57	
28	0.13	0.10	0.05	0.04	0.14	0.24	0.27	0.72	0.87	0.39	0.20	0.37	
29	0.16	0.09	0.05	0.08	0.12	0.21	0.25	0.71	1.66	0.41		0.26	
30	0.14	0.09	0.05	0.24	0.21	0.20	0.23	0.60	5.02	0.37		0.42	
31		0.09		0.09	0.24		0.23		2.29	0.36		0.33	
Mean	0.13	0.19	0.09	0.09	0.20	0.22	0.36	1.19	1.47	0.78	0.27	0.22	
Max	0.26	0.71	0.20	0.28	0.91	0.58	1.60	3.85	5.46	2.53	0.34	0.69	5.46
Min	0.09	0.09	0.05	0.04	0.08	0.13	0.20	0.21	0.56	0.36	0.20	0.12	0.04

Annual Max Momentary Gage Height 5.62 m. (A.D.) , at 10.00 Hours , on Dec 14 , 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed -0.22 m. (A.D.)

Left Bank Elevation 9.45 m. (A.D.) ,

Right Bank Elevation 10.14 m. (A.D.) , Drainage Are 131 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.95	1.50	1.35	0.75	1.20	3.22	3.11	3.11	7.36	17.79	4.54	3.00		
2	1.95	1.50	1.35	0.60	11.32	3.11	4.21	3.22	8.32	26.90	4.43	2.85		
3	1.80	1.50	1.35	0.60	5.92	2.55	4.43	4.10	9.04	34.41	4.43	2.70		
4	1.80	1.65	1.35	0.60	4.43	2.10	3.55	5.32	8.44	18.31	4.32	2.70		
5	2.85	1.50	1.35	1.35	3.11	2.10	4.54	17.14	7.12	14.93	4.32	2.55		
6	2.10	1.35	1.35	0.90	2.40	1.95	4.98	34.58	7.48	13.24	4.21	2.85		
7	1.95	1.95	1.35	1.05	2.10	1.95	4.21	21.50	20.90	12.16	4.10	2.70		
8	1.95	6.16	1.35	0.90	2.25	1.95	7.48	14.80	10.84	11.32	4.10	2.70		
9	1.95	7.36	1.35	0.90	2.70	3.00	20.00	21.20	9.28	10.48	3.99	2.55		
10	1.95	7.60	1.35	2.40	3.22	3.55	7.48	16.88	9.88	10.00	3.99	2.55		
11	1.95	8.92	2.70	3.33	3.88	3.88	5.32	16.23	8.56	9.40	4.10	2.40		
12	1.95	4.98	3.00	3.88	2.85	3.00	5.92	12.28	15.71	9.04	4.10	2.70		
13	1.80	3.77	1.95	2.10	2.40	2.70	5.92	10.12	25.10	8.68	3.99	2.85		
14	1.80	3.11	1.50	1.35	1.95	2.40	4.87	8.80	148.30	8.08	3.88	2.55		
15	1.80	2.70	1.35	1.20	1.65	2.25	4.65	8.32	46.97	7.84	3.88	2.40		
16	2.55	2.40	1.80	1.65	1.65	2.10	4.76	7.48	23.00	8.32	4.54	2.25		
17	2.40	2.25	1.35	1.35	1.50	1.95	4.10	6.52	17.27	7.84	3.88	2.25		
18	1.80	2.10	1.35	1.20	1.35	2.85	3.88	10.24	25.10	7.24	3.66	2.10		
19	1.50	1.95	1.50	1.05	1.35	2.55	3.44	39.92	26.00	6.88	3.55	1.95		
20	1.35	1.80	1.35	0.90	1.50	2.10	3.33	31.56	20.00	6.52	3.44	1.95		
21	1.35	1.80	1.35	0.90	3.22	2.10	3.00	61.25	15.58	6.16	3.44	1.95		
22	1.35	1.80	1.20	0.75	1.95	7.36	3.22	23.60	13.60	5.92	3.33	1.95		
23	1.35	1.80	1.05	0.60	1.50	6.64	3.00	15.45	12.28	5.80	3.22	1.80		
24	1.35	1.80	1.05	0.60	1.65	5.92	3.55	13.12	11.20	6.04	3.11	2.85		
25	1.35	1.65	0.75	0.60	4.21	4.76	3.44	14.93	10.24	5.56	3.11	2.85		
26	2.55	1.65	0.75	1.05	3.11	3.88	4.87	11.44	9.76	5.32	3.00	8.68		
27	3.66	1.50	0.75	0.75	3.00	3.44	4.43	10.00	9.16	5.20	3.00	7.24		
28	1.95	1.50	0.75	0.60	2.10	3.44	3.77	9.04	10.84	5.09	3.00	4.87		
29	2.40	1.35	0.75	1.20	1.80	3.11	3.55	8.92	20.90	5.32		3.66		
30	2.10	1.35	0.75	3.44	3.11	3.00	3.33	7.60	112.50	4.87		5.44		
31		1.35		1.35	3.44		3.33		30.44	4.76		4.43		
Total	58.56	83.60	40.50	39.90	87.82	94.91	149.67	468.67	711.17	309.42	106.66	96.27	2247.15	CMSDAY
Mean	1.95	2.70	1.35	1.29	2.83	3.16	4.83	15.62	22.94	9.98	3.81	3.11	6.16	CMS
Max	3.66	8.92	3.00	3.88	11.32	7.36	20.00	61.25	148.30	34.41	4.54	8.68	148.30	CMS
Min	1.35	1.35	0.75	0.60	1.20	1.95	3.00	3.11	7.12	4.76	3.00	1.80	0.60	CMS
Runoff	5.06	7.22	3.50	3.45	7.59	8.20	12.93	40.49	61.45	26.73	9.22	8.32	194.15	MCM

Momentary Peak 166.30 CMS. at 5.62 m. (A.D.) at 10.00 Hours , on Dec 14 , 2002

Runoff Yield 47.00 Liters/Second/Square KM. Momentary Peak Yield 1269.470 Liters/Second/Square KM.

WATER YEAR : 2002

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	+29.780 m. (MSL.)		
Bench Mark	B.M.-H.D.		
Location BM	About 15 meters from the gage observer's house.		**Elevation** +36.920 m. (MSL.)
Gage Reading Frequency	13-time daily readings at 06.00 - 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean 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	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 39 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

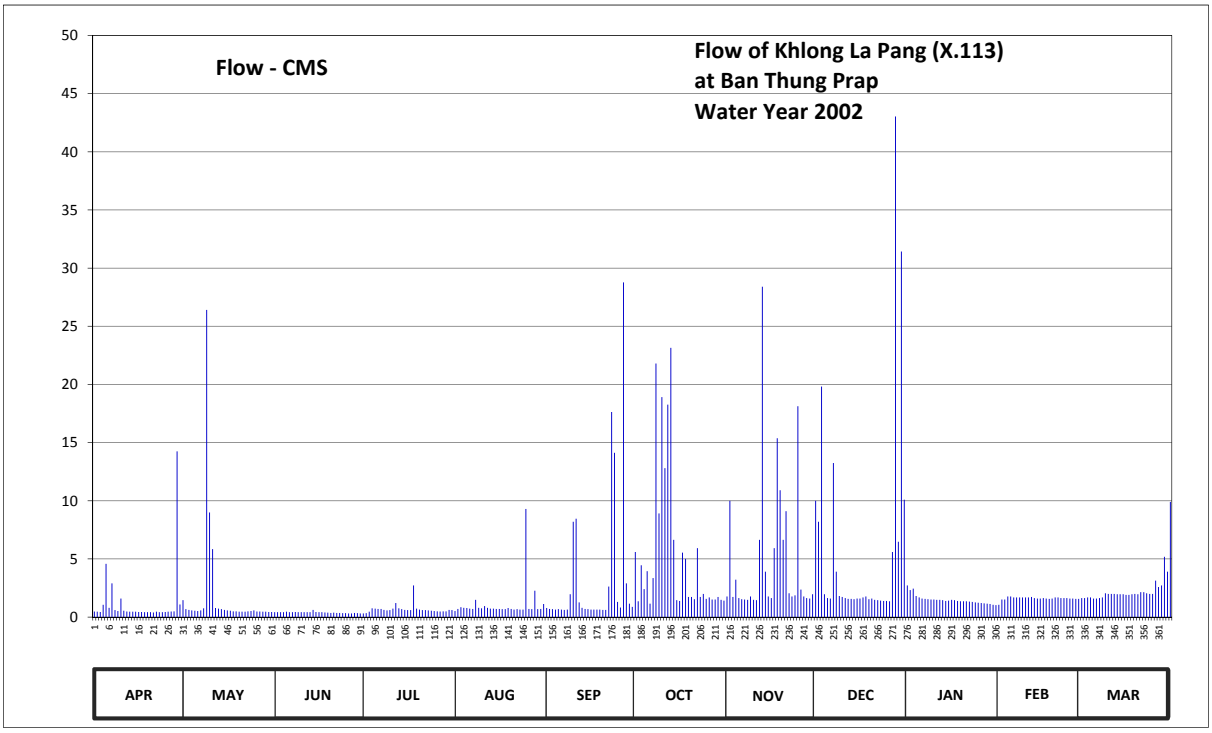
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	31.59	31.95	31.56	31.51	31.61	31.71	32.80	32.04	33.30	32.25	31.82	32.01	
2	31.58	31.67	31.56	31.52	31.68	31.68	31.92	33.30	33.11	32.16	31.97	32.01	
3	31.57	31.65	31.56	31.58	31.74	31.67	32.61	32.03	34.14	32.19	31.97	32.02	
4	31.82	31.63	31.56	31.70	31.72	31.66	32.18	32.36	32.08	32.05	32.04	32.02	
5	32.63	31.62	31.58	31.69	31.71	31.67	32.51	32.01	32.01	32.02	32.04	32.00	
6	31.72	31.61	31.56	31.68	31.69	31.66	31.85	31.98	32.00	32.00	32.02	32.00	
7	32.29	31.63	31.56	31.68	31.68	31.65	32.39	31.97	33.62	31.99	32.02	32.01	
8	31.64	31.70	31.57	31.65	31.96	31.66	34.28	31.96	32.50	31.98	32.02	32.02	
9	31.61	34.56	31.56	31.63	31.72	32.08	33.19	32.04	32.05	31.97	32.02	32.10	
10	32.00	33.20	31.56	31.64	31.70	33.11	34.07	31.96	32.03	31.97	32.02	32.09	
11	31.62	32.83	31.56	31.69	31.78	33.14	33.58	31.95	32.01	31.96	32.02	32.09	
12	31.59	31.71	31.56	31.87	31.72	31.89	34.02	32.93	31.99	31.96	32.03	32.09	
13	31.58	31.69	31.56	31.70	31.69	31.72	34.37	34.67	31.99	31.95	32.01	32.08	
14	31.58	31.67	31.65	31.67	31.69	31.68	32.93	32.50	31.98	31.93	32.00	32.08	
15	31.58	31.65	31.57	31.65	31.68	31.67	31.95	32.04	32.00	31.94	32.00	32.08	
16	31.57	31.63	31.56	31.64	31.68	31.66	31.93	32.01	32.00	31.96	32.01	32.07	
17	31.57	31.62	31.56	31.64	31.67	31.66	32.79	32.84	32.02	31.95	32.00	32.07	
18	31.56	31.60	31.55	32.25	31.67	31.66	32.70	33.79	32.04	31.93	31.99	32.08	
19	31.56	31.60	31.54	31.69	31.71	31.66	32.03	33.39	31.98	31.92	32.00	32.09	
20	31.56	31.58	31.53	31.66	31.68	31.65	32.03	32.93	32.00	31.92	32.02	32.08	
21	31.55	31.58	31.54	31.64	31.66	31.65	31.98	33.21	31.96	31.92	32.02	32.12	
22	31.58	31.58	31.53	31.64	31.67	32.23	32.84	32.10	31.95	31.91	32.01	32.12	
23	31.56	31.60	31.53	31.63	31.66	33.97	32.03	32.04	31.94	31.90	32.01	32.10	
24	31.56	31.61	31.52	31.62	31.66	33.69	32.09	32.06	31.93	31.89	32.01	32.09	
25	31.57	31.63	31.52	31.61	33.23	31.90	31.99	34.01	31.93	31.88	32.00	32.09	
26	31.58	31.59	31.51	31.60	31.68	31.73	32.02	32.17	31.92	31.87	32.00	32.34	
27	31.59	31.59	31.51	31.59	31.67	34.69	31.97	32.04	32.80	31.86	31.99	32.22	
28	31.60	31.58	31.53	31.60	32.15	32.29	31.97	32.01	35.32	31.85	31.99	32.25	
29	33.70	31.58	31.52	31.60	31.67	31.85	32.03	32.00	32.91	31.84		32.73	
30	31.83	31.57	31.51	31.65	31.68	31.75	31.96	32.08	34.83	31.82		32.50	
31		31.57		31.64	31.84		31.94		33.31	31.81		33.29	
Mean	31.74	31.82	31.55	31.66	31.77	32.09	32.55	32.48	32.50	31.95	32.00	32.16	
Max	33.70	34.56	31.65	32.25	33.23	34.69	34.37	34.67	35.32	32.25	32.04	33.29	35.32
Min	31.55	31.57	31.51	31.51	31.61	31.65	31.85	31.95	31.92	31.81	31.82	32.00	31.51

Annual Max Momentary Gage Height 35.66 m. (MSL.) , at 06.00 Hours , on Dec 28 , 2002

Zero Gage at Bottom Elevation 29.78 m. (MSL.) , River Bed 31.22 m. (MSL.)

Left Bank Elevation 37.96 m. (MSL.) ,

Right Bank Elevation 38.01 m. (MSL.) , Drainage Are 118 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.48	1.45	0.42	0.32	0.52	0.78	5.60	1.78	10.00	2.72	1.06	1.64		
2	0.46	0.68	0.42	0.34	0.70	0.70	1.36	10.00	8.19	2.32	1.51	1.64		
3	0.44	0.62	0.42	0.46	0.85	0.68	4.46	1.73	19.82	2.45	1.51	1.69		
4	1.06	0.57	0.42	0.75	0.80	0.65	2.41	3.22	1.96	1.82	1.78	1.69		
5	4.58	0.55	0.46	0.73	0.78	0.68	3.95	1.64	1.64	1.69	1.78	1.60		
6	0.80	0.52	0.42	0.70	0.73	0.65	1.15	1.54	1.60	1.60	1.69	1.60		
7	2.90	0.57	0.42	0.70	0.70	0.62	3.35	1.51	13.25	1.57	1.69	1.64		
8	0.60	0.75	0.44	0.62	1.48	0.65	21.80	1.48	3.90	1.54	1.69	1.69		
9	0.52	26.40	0.42	0.57	0.80	1.96	8.91	1.78	1.82	1.51	1.69	2.05		
10	1.60	9.00	0.42	0.60	0.75	8.19	18.91	1.48	1.73	1.51	1.69	2.00		
11	0.55	5.84	0.42	0.73	0.95	8.46	12.80	1.45	1.64	1.48	1.69	2.00		
12	0.48	0.78	0.42	1.21	0.80	1.27	18.26	6.64	1.57	1.48	1.73	2.00		
13	0.46	0.73	0.42	0.75	0.73	0.80	23.15	28.40	1.57	1.45	1.64	1.96		
14	0.46	0.68	0.62	0.68	0.73	0.70	6.64	3.90	1.54	1.39	1.60	1.96		
15	0.46	0.62	0.44	0.62	0.70	0.68	1.45	1.78	1.60	1.42	1.60	1.96		
16	0.44	0.57	0.42	0.60	0.70	0.65	1.39	1.64	1.60	1.48	1.64	1.91		
17	0.44	0.55	0.42	0.60	0.68	0.65	5.54	5.92	1.69	1.45	1.60	1.91		
18	0.42	0.50	0.40	2.72	0.68	0.65	5.00	15.38	1.78	1.39	1.57	1.96		
19	0.42	0.50	0.38	0.73	0.78	0.65	1.73	10.90	1.54	1.36	1.60	2.00		
20	0.42	0.46	0.36	0.65	0.70	0.62	1.73	6.64	1.60	1.36	1.69	1.96		
21	0.40	0.46	0.38	0.60	0.65	0.62	1.54	9.10	1.48	1.36	1.69	2.14		
22	0.46	0.46	0.36	0.60	0.68	2.63	5.92	2.05	1.45	1.33	1.64	2.14		
23	0.42	0.50	0.36	0.57	0.65	17.63	1.73	1.78	1.42	1.30	1.64	2.05		
24	0.42	0.52	0.34	0.55	0.65	14.13	2.00	1.87	1.39	1.27	1.64	2.00		
25	0.44	0.57	0.34	0.52	9.30	1.30	1.57	18.13	1.39	1.24	1.60	2.00		
26	0.46	0.48	0.32	0.50	0.70	0.83	1.69	2.36	1.36	1.21	1.60	3.13		
27	0.48	0.48	0.32	0.48	0.68	28.77	1.51	1.78	5.60	1.18	1.57	2.59		
28	0.50	0.46	0.36	0.50	2.27	2.90	1.51	1.64	43.04	1.15	1.57	2.72		
29	14.25	0.46	0.34	0.50	0.68	1.15	1.73	1.60	6.48	1.12		5.18		
30	1.09	0.44	0.32	0.62	0.70	0.88	1.48	1.96	31.43	1.06		3.90		
31		0.44		0.60	1.12		1.42		10.10	1.03		9.90		
Total	36.91	57.61	12.00	21.12	33.64	101.53	171.69	151.08	185.18	46.24	45.40	74.61	937.01	CMSDAY
Mean	1.23	1.86	0.40	0.68	1.09	3.38	5.54	5.04	5.97	1.49	1.62	2.41	2.57	CMS
Max	14.25	26.40	0.62	2.72	9.30	28.77	23.15	28.40	43.04	2.72	1.78	9.90	43.04	CMS
Min	0.40	0.44	0.32	0.32	0.52	0.62	1.15	1.45	1.36	1.03	1.06	1.60	0.32	CMS
Runoff	3.19	4.98	1.04	1.82	2.91	8.77	14.83	13.05	16.00	4.00	3.92	6.45	80.96	MCM

Momentary Peak 53.67 CMS. at 35.66 m. (MSL.) at 06.00 Hours , on Dec 28 , 2002

Runoff Yield 21.76 Liters/Second/Square KM. Momentary Peak Yield 454.830 Liters/Second/Square KM.

WATER YEAR : 2002

THALE SAP SONGKHLA

Khlong Lam at Ban Khlong Lam , Phatthalung (X.170)

Lat 07 - 33 - 22 N Long 99 - 59 - 31 E

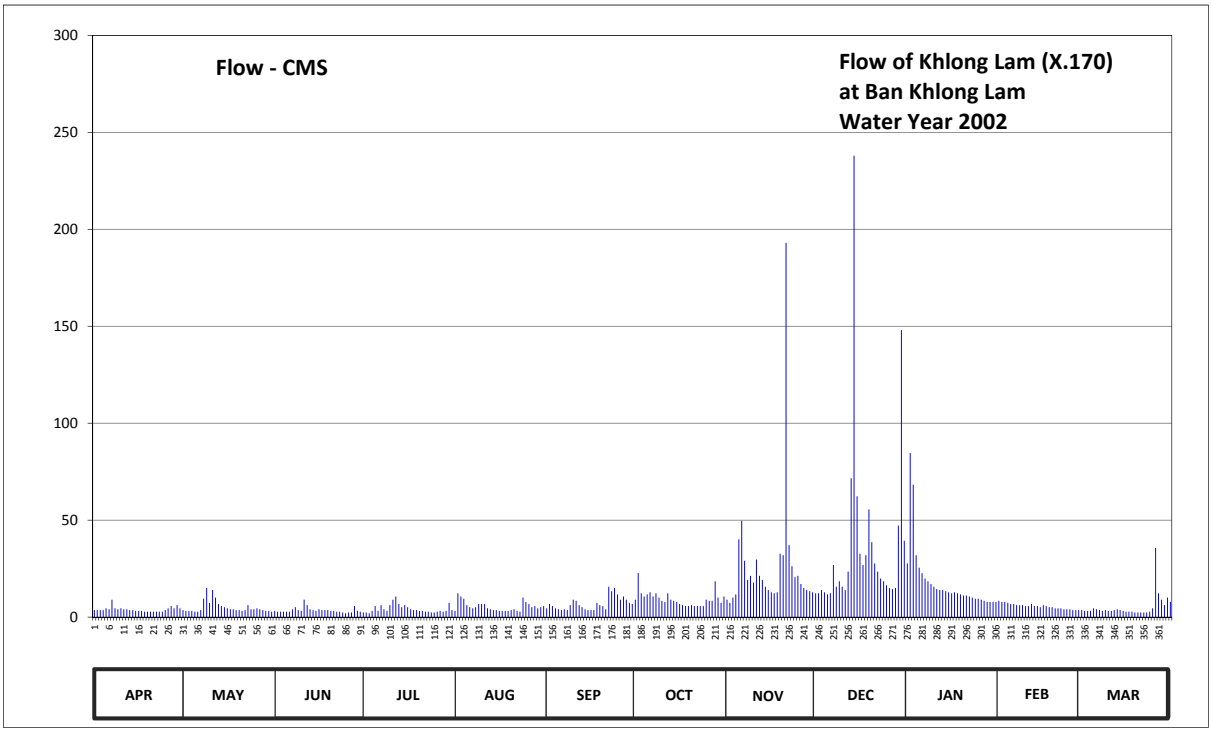
Location : on left bank at the bridge.

	Ban Khlong Lam	**Amphoe** Srinagarindra	**Changwat** Phatthalung
Drainge Area	258 sq.km.		
Type of Gage	Staff gage		
Zero Gage at Bottom	+0.000 m. (A.D.)		
Bench Mark	B.M.-H.D.		
Location BM	On left bank about 21 meters from the top staff gage.	**Elevation**	+6.957 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 mean of 5 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	Fairly stable.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 26 discharge measurements made in 2002.		

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	-0.01	-0.01	-0.02	-0.04	-0.02	0.01	0.09	0.09	0.15	0.38	0.08	-0.01	
2	-0.01	-0.02	-0.03	-0.04	0.15	0.05	0.31	0.06	0.15	1.08	0.07	-0.02	
3	-0.01	-0.02	-0.03	-0.05	0.12	0.03	0.15	0.11	0.18	0.89	0.07	-0.02	
4	-0.01	-0.02	-0.03	-0.02	0.10	0.01	0.12	0.14	0.16	0.44	0.06	-0.02	
5	0.01	-0.03	-0.03	0.03	0.04	0.00	0.14	0.55	0.14	0.35	0.05	0.01	
6	0.00	-0.03	-0.03	-0.02	0.02	-0.01	0.16	0.67	0.15	0.31	0.05	0.00	
7	0.09	-0.01	0.00	0.04	0.01	0.00	0.12	0.40	0.37	0.27	0.04	-0.01	
8	0.01	0.10	0.02	0.00	0.02	-0.01	0.15	0.26	0.21	0.25	0.04	-0.02	
9	0.00	0.20	-0.01	-0.02	0.05	0.04	0.11	0.29	0.25	0.23	0.04	-0.01	
10	0.01	0.06	-0.02	0.04	0.05	0.09	0.08	0.24	0.21	0.21	0.03	-0.02	
11	0.00	0.18	0.09	0.09	0.05	0.08	0.07	0.41	0.18	0.19	0.03	-0.02	
12	0.00	0.11	0.04	0.12	0.01	0.04	0.15	0.29	0.32	0.18	0.05	-0.01	
13	-0.01	0.05	0.00	0.05	0.00	0.02	0.09	0.26	0.93	0.18	0.03	0.00	
14	-0.01	0.03	-0.01	0.02	-0.01	0.00	0.08	0.21	2.73	0.17	0.03	-0.01	
15	-0.02	0.02	-0.02	0.04	-0.01	-0.01	0.07	0.18	0.82	0.16	0.02	-0.02	
16	-0.02	0.01	0.00	0.02	-0.02	-0.01	0.05	0.16	0.45	0.15	0.04	-0.03	
17	-0.02	0.00	-0.01	0.00	-0.02	-0.01	0.04	0.15	0.37	0.16	0.03	-0.03	
18	-0.03	0.00	-0.01	-0.01	-0.02	0.06	0.03	0.16	0.44	0.15	0.02	-0.03	
19	-0.03	-0.01	-0.01	-0.01	-0.02	0.04	0.03	0.45	0.74	0.14	0.02	-0.04	
20	-0.03	-0.01	-0.02	-0.02	-0.01	0.03	0.04	0.44	0.53	0.13	0.01	-0.04	
21	-0.03	-0.02	-0.02	-0.02	0.00	0.00	0.03	2.28	0.38	0.13	0.01	-0.04	
22	-0.03	-0.01	-0.03	-0.03	-0.02	0.21	0.03	0.51	0.32	0.12	0.01	-0.04	
23	-0.03	0.04	-0.03	-0.03	-0.03	0.17	0.03	0.36	0.27	0.11	0.00	-0.04	
24	-0.03	0.00	-0.04	-0.04	0.11	0.20	0.03	0.28	0.25	0.10	0.00	-0.03	
25	-0.01	0.00	-0.05	-0.04	0.07	0.14	0.09	0.29	0.22	0.10	0.00	0.01	
26	0.01	0.01	-0.04	-0.03	0.05	0.09	0.08	0.23	0.20	0.09	-0.01	0.49	
27	0.03	0.00	-0.04	-0.02	0.02	0.12	0.08	0.20	0.19	0.08	-0.01	0.15	
28	0.01	-0.01	0.03	-0.03	0.03	0.09	0.25	0.18	0.20	0.07	-0.01	0.09	
29	0.04	-0.02	-0.02	-0.02	0.01	0.06	0.11	0.17	0.64	0.07		0.04	
30	0.01	-0.02	-0.03	0.06	0.02	0.05	0.06	0.16	1.80	0.07		0.11	
31		-0.03		-0.01	0.03		0.12		0.54	0.07		0.07	
Mean	0.00	0.02	-0.01	0.00	0.03	0.05	0.10	0.34	0.47	0.23	0.03	0.01	
Max	0.09	0.20	0.09	0.12	0.15	0.21	0.31	2.28	2.73	1.08	0.08	0.49	2.73
Min	-0.03	-0.03	-0.05	-0.05	-0.03	-0.01	0.03	0.06	0.14	0.07	-0.01	-0.04	-0.05

Annual Max Momentary Gage Height	3.20	m. (A.D.) ,	at 14.00 Hours , on Dec 14 , 2002		
Zero Gage at Bottom Elevation	0.00	m. (A.D.) ,	River Bed	-1.97	m. (A.D.)
Left Bank Elevation	8.18	m. (A.D.) ,			
Right Bank Elevation	8.39	m. (A.D.) ,	Drainage Are	258	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.60	3.60	3.20	2.40	3.20	4.55	8.95	8.95	12.25	27.60	8.40	3.60		
2	3.60	3.20	2.80	2.40	12.25	6.75	22.70	7.30	12.25	84.56	7.85	3.20		
3	3.60	3.20	2.80	2.00	10.60	5.65	12.25	10.05	13.90	68.25	7.85	3.20		
4	3.60	3.20	2.80	3.20	9.50	4.55	10.60	11.70	12.80	31.96	7.30	3.20		
5	4.55	2.80	2.80	5.65	6.20	4.00	11.70	40.10	11.70	25.50	6.75	4.55		
6	4.00	2.80	2.80	3.20	5.10	3.60	12.80	49.68	12.25	22.70	6.75	4.00		
7	8.95	3.60	4.00	6.20	4.55	4.00	10.60	29.00	26.90	19.90	6.20	3.60		
8	4.55	9.50	5.10	4.00	5.10	3.60	12.25	19.20	15.70	18.50	6.20	3.20		
9	4.00	15.00	3.60	3.20	6.75	6.20	10.05	21.30	18.50	17.10	6.20	3.60		
10	4.55	7.30	3.20	6.20	6.75	8.95	8.40	17.80	15.70	15.70	5.65	3.20		
11	4.00	13.90	8.95	8.95	6.75	8.40	7.85	29.74	13.90	14.45	5.65	3.20		
12	4.00	10.05	6.20	10.60	4.55	6.20	12.25	21.30	23.40	13.90	6.75	3.60		
13	3.60	6.75	4.00	6.75	4.00	5.10	8.95	19.20	71.65	13.90	5.65	4.00		
14	3.60	5.65	3.60	5.10	3.60	4.00	8.40	15.70	238.00	13.35	5.65	3.60		
15	3.20	5.10	3.20	6.20	3.60	3.60	7.85	13.90	62.30	12.80	5.10	3.20		
16	3.20	4.55	4.00	5.10	3.20	3.60	6.75	12.80	32.70	12.25	6.20	2.80		
17	3.20	4.00	3.60	4.00	3.20	3.60	6.20	12.25	26.90	12.80	5.65	2.80		
18	2.80	4.00	3.60	3.60	3.20	7.30	5.65	12.80	31.96	12.25	5.10	2.80		
19	2.80	3.60	3.60	3.60	3.20	6.20	5.65	32.70	55.56	11.70	5.10	2.40		
20	2.80	3.60	3.20	3.20	3.60	5.65	6.20	31.96	38.62	11.15	4.55	2.40		
21	2.80	3.20	3.20	3.20	4.00	4.00	5.65	193.00	27.60	11.15	4.55	2.40		
22	2.80	3.60	2.80	2.80	3.20	15.70	5.65	37.14	23.40	10.60	4.55	2.40		
23	2.80	6.20	2.80	2.80	2.80	13.35	5.65	26.20	19.90	10.05	4.00	2.40		
24	2.80	4.00	2.40	2.40	10.05	15.00	5.65	20.60	18.50	9.50	4.00	2.80		
25	3.60	4.00	2.00	2.40	7.85	11.70	8.95	21.30	16.40	9.50	4.00	4.55		
26	4.55	4.55	2.40	2.80	6.75	8.95	8.40	17.10	15.00	8.95	3.60	35.66		
27	5.65	4.00	2.40	3.20	5.10	10.60	8.40	15.00	14.45	8.40	3.60	12.25		
28	4.55	3.60	5.65	2.80	5.65	8.95	18.50	13.90	15.00	7.85	3.60	8.95		
29	6.20	3.20	3.20	3.20	4.55	7.30	10.05	13.35	47.16	7.85		6.20		
30	4.55	3.20	2.80	7.30	5.10	6.75	7.30	12.80	148.00	7.85		10.05		
31		2.80		3.60	5.65		10.60		39.36	7.85		7.85		
Total	118.50	157.75	106.70	132.05	169.60	207.80	290.85	787.82	1131.71	559.87	156.45	161.66	3980.76	CMSDAY
Mean	3.95	5.09	3.56	4.26	5.47	6.93	9.38	26.26	36.51	18.06	5.59	5.21	10.91	CMS
Max	8.95	15.00	8.95	10.60	12.25	15.70	22.70	193.00	238.00	84.56	8.40	35.66	238.00	CMS
Min	2.80	2.80	2.00	2.00	2.80	3.60	5.65	7.30	11.70	7.85	3.60	2.40	2.00	CMS
Runoff	10.24	13.63	9.22	11.41	14.65	17.95	25.13	68.07	97.78	48.37	13.52	13.97	343.94	MCM

Momentary Peak 285.00 CMS. at 3.20 m. (A.D.) at 14.00 Hours , on Dec 14 , 2002

Runoff Yield 42.27 Liters/Second/Square KM. Momentary Peak Yield 1104.650 Liters/Second/Square KM.

WATER YEAR : 2002

THALE SAP SONGKHLA

Khlong U - Taphao at Ban Khlong Ngae, Songkhla (X.173)

Lat 06 - 47 - 40 N Long 100 - 26 - 42 E

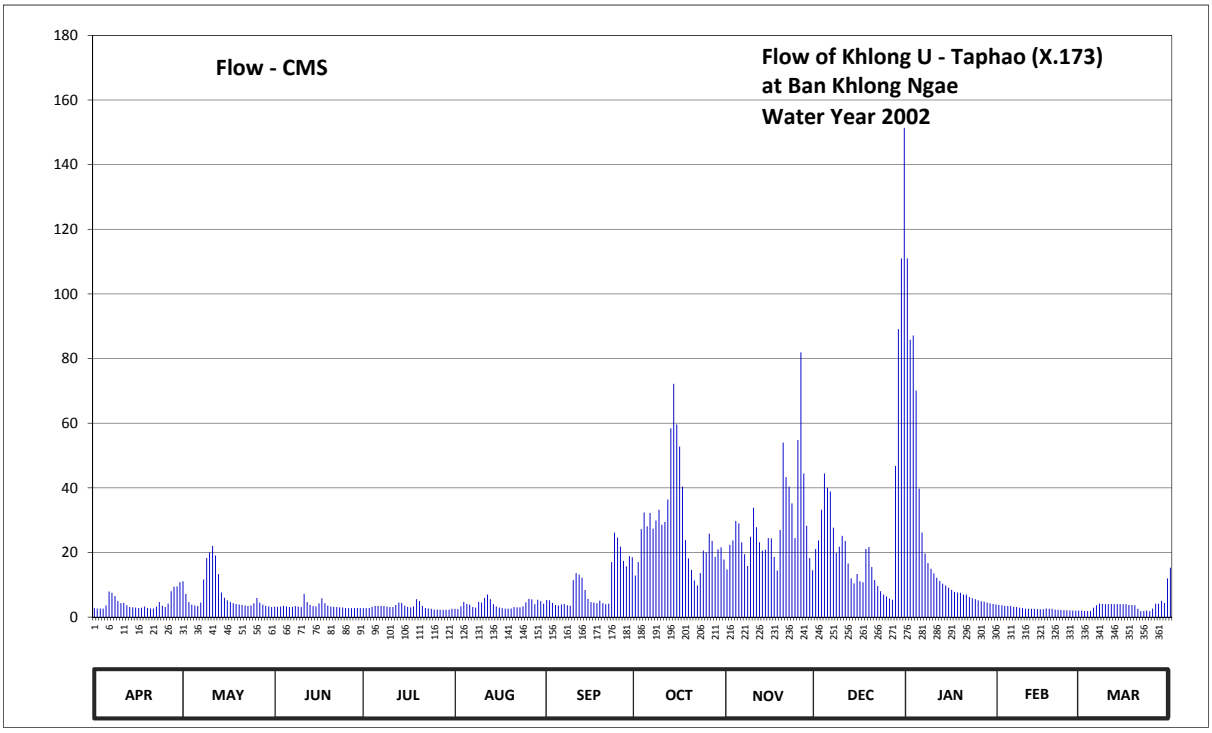
Location : on right bank at the bridge on Hat Yai - Sadao Highway.

	Ban Khlong Ngae **Amphoe** Sadao **Changwat** Songkhla
Drainge Area	969 sq.km.
Type of Gage	Staff gage
Zero Gage at Bottom	+11.730 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank about 1.13 meters from the top staff gage. **Elevation** +17.662 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 mean of 5 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	Fairly stable.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Stage-discharge relation defined by 35 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	12.48	13.40	12.55	12.48	12.45	12.81	13.56	13.73	14.29	17.02	12.62	12.36	
2	12.47	13.02	12.54	12.48	12.44	12.80	13.94	14.40	14.50	16.69	12.61	12.35	
3	12.47	12.73	12.55	12.49	12.56	12.70	14.76	14.50	15.15	16.71	12.59	12.35	
4	12.46	12.63	12.58	12.54	12.74	12.62	15.10	14.93	15.69	16.41	12.58	12.35	
5	12.60	12.60	12.56	12.58	12.66	12.60	14.82	14.88	15.49	15.48	12.57	12.50	
6	13.09	12.57	12.53	12.58	12.63	12.64	15.09	14.46	15.44	14.68	12.54	12.61	
7	13.05	12.71	12.54	12.58	12.53	12.66	14.77	14.15	14.79	14.17	12.53	12.67	
8	12.95	13.45	12.57	12.57	12.50	12.61	14.94	13.83	14.19	13.91	12.50	12.66	
9	12.77	14.05	12.55	12.55	12.74	12.59	15.15	14.59	14.35	13.75	12.48	12.65	
10	12.69	14.20	12.53	12.53	12.71	13.43	14.85	15.19	14.61	13.62	12.46	12.65	
11	12.70	14.37	13.02	12.53	12.88	13.63	14.91	14.80	14.49	13.50	12.45	12.66	
12	12.61	14.12	12.73	12.62	13.00	13.59	15.32	14.46	13.90	13.41	12.45	12.65	
13	12.53	13.60	12.62	12.71	12.84	13.50	16.16	14.25	13.48	13.33	12.45	12.65	
14	12.52	13.06	12.57	12.70	12.65	13.14	16.45	14.27	13.34	13.28	12.44	12.65	
15	12.50	12.89	12.56	12.59	12.56	12.85	16.19	14.56	13.60	13.21	12.43	12.65	
16	12.49	12.80	12.68	12.54	12.51	12.73	16.02	14.55	13.40	13.14	12.43	12.65	
17	12.50	12.73	12.87	12.52	12.48	12.71	15.51	14.08	13.37	13.08	12.47	12.62	
18	12.55	12.69	12.69	12.56	12.46	12.69	14.51	13.70	14.29	13.06	12.45	12.62	
19	12.49	12.66	12.59	12.84	12.46	12.79	14.04	14.74	14.34	13.05	12.45	12.61	
20	12.47	12.64	12.55	12.77	12.47	12.69	13.72	16.05	13.80	13.00	12.42	12.45	
21	12.47	12.62	12.54	12.59	12.53	12.65	13.42	15.64	13.43	13.00	12.41	12.34	
22	12.55	12.60	12.53	12.49	12.52	12.67	13.28	15.51	13.26	12.91	12.40	12.35	
23	12.73	12.58	12.52	12.47	12.52	13.94	13.63	15.26	13.10	12.87	12.39	12.37	
24	12.59	12.60	12.51	12.45	12.56	14.68	14.25	14.56	13.00	12.84	12.39	12.34	
25	12.53	12.68	12.49	12.42	12.72	14.57	14.20	16.07	12.93	12.80	12.38	12.46	
26	12.67	12.88	12.48	12.42	12.85	14.35	14.66	16.63	12.86	12.76	12.37	12.67	
27	13.10	12.71	12.48	12.41	12.83	13.97	14.49	15.69	12.82	12.75	12.37	12.67	
28	13.24	12.63	12.48	12.41	12.65	13.82	14.08	14.83	15.79	12.71	12.37	12.78	
29	13.25	12.58	12.49	12.41	12.82	14.10	14.28	14.05	16.74	12.68		12.70	
30	13.37	12.56	12.49	12.41	12.77	14.07	14.33	13.71	17.02	12.66		13.48	
31		12.53		12.45	12.67		14.01		17.36	12.64		13.78	
Mean	12.70	12.96	12.58	12.54	12.64	13.22	14.66	14.74	14.35	13.71	12.46	12.62	
Max	13.37	14.37	13.02	12.84	13.00	14.68	16.45	16.63	17.36	17.02	12.62	13.78	17.36
Min	12.46	12.53	12.48	12.41	12.44	12.59	13.28	13.70	12.82	12.64	12.37	12.34	12.34

Annual Max Momentary Gage Height	17.41	m. (MSL.) ,	at 04.00 Hours , on Dec 31 , 2002		
Zero Gage at Bottom Elevation	11.73	m. (MSL.) ,	River Bed	8.24	m. (MSL.)
Left Bank Elevation	19.87	m. (MSL.) ,			
Right Bank Elevation	19.88	m. (MSL.) ,	Drainage Are	969	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.76	11.10	3.25	2.76	2.55	5.29	12.86	14.73	21.08	111.00	3.76	1.96		
2	2.69	7.20	3.18	2.76	2.48	5.20	17.04	22.40	23.70	85.85	3.68	1.90		
3	2.69	4.64	3.25	2.83	3.32	4.40	27.24	23.70	33.20	87.15	3.53	1.90		
4	2.62	3.84	3.46	3.18	4.72	3.76	32.40	29.75	44.47	70.12	3.46	1.90		
5	3.60	3.60	3.32	3.46	4.08	3.60	28.10	29.00	39.98	39.76	3.39	2.90		
6	7.90	3.39	3.11	3.46	3.84	3.92	32.24	23.18	38.88	26.12	3.18	3.68		
7	7.50	4.48	3.18	3.46	3.11	4.08	27.38	19.43	27.66	19.66	3.11	4.16		
8	6.55	11.65	3.39	3.39	2.90	3.68	29.90	15.83	19.89	16.71	2.90	4.08		
9	4.96	18.28	3.25	3.25	4.72	3.53	33.20	24.87	21.80	14.95	2.76	4.00		
10	4.32	20.00	3.11	3.11	4.48	11.43	28.55	33.84	25.14	13.52	2.62	4.00		
11	4.40	22.04	7.20	3.11	5.92	13.63	29.45	27.80	23.57	12.20	2.55	4.08		
12	3.68	19.08	4.64	3.76	7.00	13.19	36.40	23.18	16.60	11.21	2.55	4.00		
13	3.11	13.30	3.76	4.48	5.56	12.20	58.40	20.60	11.98	10.33	2.55	4.00		
14	3.04	7.60	3.39	4.40	4.00	8.40	72.20	20.84	10.44	9.80	2.48	4.00		
15	2.90	6.01	3.32	3.53	3.32	5.65	59.60	24.48	13.30	9.10	2.41	4.00		
16	2.83	5.20	4.24	3.18	2.97	4.64	52.80	24.35	11.10	8.40	2.41	4.00		
17	2.90	4.64	5.83	3.04	2.76	4.48	40.42	18.62	10.77	7.80	2.69	3.76		
18	3.25	4.32	4.32	3.32	2.62	4.32	23.83	14.40	21.08	7.60	2.55	3.76		
19	2.83	4.08	3.53	5.56	2.62	5.12	18.16	26.96	21.68	7.50	2.55	3.68		
20	2.69	3.92	3.25	4.96	2.69	4.32	14.62	54.00	15.50	7.00	2.34	2.55		
21	2.69	3.76	3.18	3.53	3.11	4.00	11.32	43.32	11.43	7.00	2.27	1.84		
22	3.25	3.60	3.11	2.83	3.04	4.16	9.80	40.42	9.60	6.19	2.20	1.90		
23	4.64	3.46	3.04	2.69	3.04	17.04	13.63	35.20	8.00	5.83	2.14	2.02		
24	3.53	3.60	2.97	2.55	3.32	26.12	20.60	24.48	7.00	5.56	2.14	1.84		
25	3.11	4.24	2.83	2.34	4.56	24.61	20.00	54.80	6.37	5.20	2.08	2.62		
26	4.16	5.92	2.76	2.34	5.65	21.80	25.84	81.95	5.74	4.88	2.02	4.16		
27	8.00	4.48	2.76	2.27	5.47	17.37	23.57	44.47	5.38	4.80	2.02	4.16		
28	9.40	3.84	2.76	2.27	4.00	15.72	18.62	28.25	46.77	4.48	2.02	5.04		
29	9.50	3.46	2.83	2.27	5.38	18.85	20.96	18.28	89.10	4.24		4.40		
30	10.77	3.32	2.83	2.27	4.96	18.51	21.56	14.51	111.00	4.08		11.98		
31		3.11		2.55	4.16		17.82		151.40	3.92		15.28		
Total	136.27	221.16	105.05	98.91	122.35	293.02	878.51	877.64	903.61	631.96	74.36	123.55	4466.39	CMSDAY
Mean	4.54	7.13	3.50	3.19	3.95	9.77	28.34	29.25	29.15	20.39	2.66	3.99	12.24	CMS
Max	10.77	22.04	7.20	5.56	7.00	26.12	72.20	81.95	151.40	111.00	3.76	15.28	151.40	CMS
Min	2.62	3.11	2.76	2.27	2.48	3.53	9.80	14.40	5.38	3.92	2.02	1.84	1.84	CMS
Runoff	11.77	19.11	9.08	8.55	10.57	25.32	75.90	75.83	78.07	54.60	6.42	10.67	385.90	MCM

Momentary Peak 158.80 CMS. at 17.41 m. (MSL.) at 04.00 Hours , on Dec 31 , 2002

Runoff Yield 12.63 Liters/Second/Square KM. Momentary Peak Yield 163.880 Liters/Second/Square KM.

WATER YEAR : 2002

PATTANI RIVER BASIN

Pattani River at Ban Tha Sap, Yala (X.40A)

Lat 06 - 33 - 03 N Long 101 - 16 - 10 E

Location : on left bank at the bridge of Yala - Ban Niang Road.

Ban Tha Sap **Amphoe** Mueang **Changwat** Yala

Drainge Area	3,259 sq.km.
Type of Gage	Staff gage.
Zero Gage at Bottom	+10.154 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank between the fourth and the fifth staff gage. **Elevation** +18.160 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 mean of 5 readings
Period of Available Gage Records	1988 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 fair. Flow regulated by Bang Lang Dam upstream. Stage-discharge relation defined by 36 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

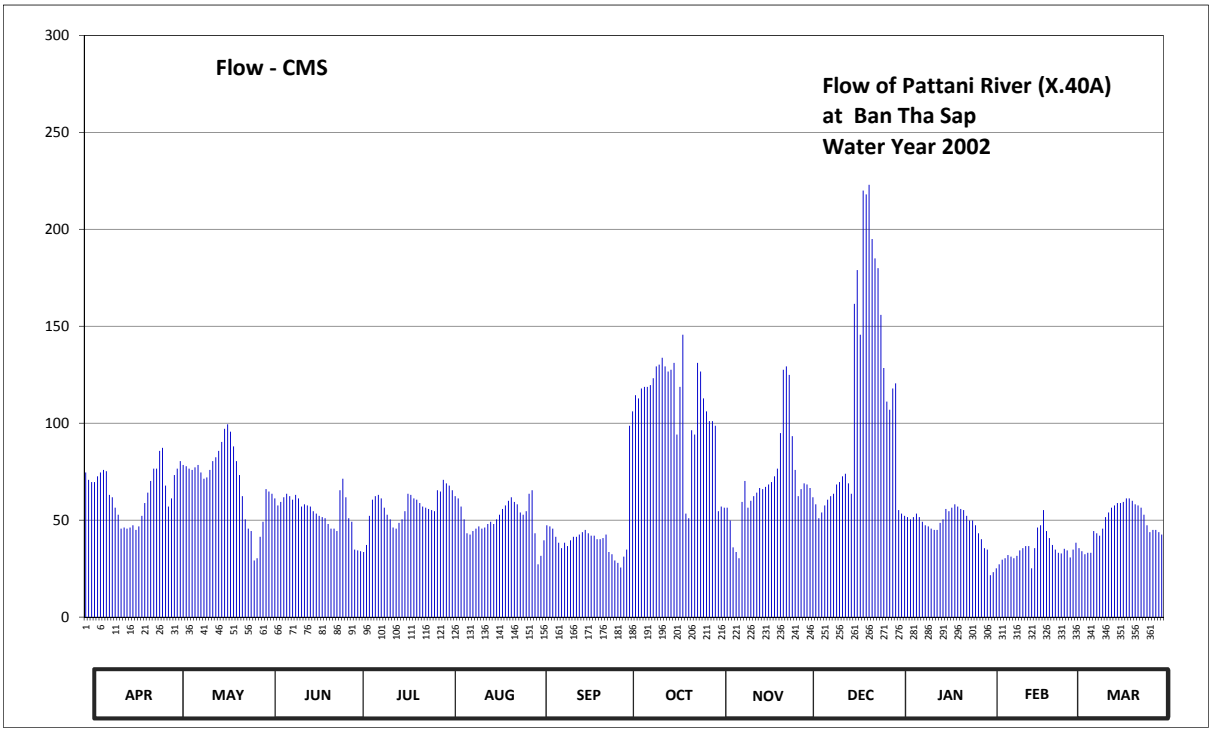
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	12.84	12.82	12.70	12.17	12.75	11.98	12.17	12.51	12.74	12.52	11.84	12.17	
2	12.78	12.87	12.68	12.16	12.73	12.09	13.18	12.55	12.71	12.49	11.88	12.24	
3	12.76	12.93	12.66	12.15	12.69	12.26	13.27	12.54	12.63	12.47	11.93	12.19	
4	12.76	12.90	12.62	12.14	12.64	12.39	13.37	12.54	12.57	12.46	11.98	12.15	
5	12.81	12.89	12.56	12.22	12.62	12.38	13.35	12.43	12.45	12.44	12.04	12.11	
6	12.84	12.87	12.59	12.47	12.55	12.36	13.41	12.20	12.50	12.46	12.06	12.13	
7	12.86	12.86	12.63	12.61	12.44	12.29	13.42	12.14	12.56	12.49	12.10	12.13	
8	12.85	12.88	12.66	12.64	12.32	12.24	13.42	12.06	12.61	12.46	12.08	12.34	
9	12.65	12.90	12.64	12.65	12.31	12.19	13.43	12.59	12.64	12.42	12.06	12.32	
10	12.63	12.84	12.61	12.62	12.34	12.24	13.47	12.77	12.66	12.39	12.09	12.30	
11	12.54	12.79	12.65	12.54	12.36	12.21	13.54	12.54	12.74	12.38	12.16	12.36	
12	12.48	12.80	12.62	12.48	12.38	12.26	13.55	12.60	12.76	12.36	12.19	12.46	
13	12.36	12.86	12.55	12.44	12.36	12.29	13.59	12.64	12.81	12.35	12.21	12.50	
14	12.37	12.93	12.57	12.37	12.37	12.29	13.54	12.67	12.83	12.35	12.21	12.54	
15	12.36	12.96	12.56	12.36	12.40	12.31	13.51	12.71	12.75	12.41	11.93	12.56	
16	12.37	13.01	12.55	12.41	12.42	12.33	13.52	12.70	12.66	12.44	12.19	12.58	
17	12.39	13.07	12.51	12.44	12.40	12.35	13.56	12.72	13.89	12.53	12.37	12.58	
18	12.35	13.16	12.49	12.51	12.44	12.32	13.12	12.74	14.07	12.51	12.39	12.59	
19	12.38	13.19	12.47	12.66	12.48	12.30	13.42	12.76	13.72	12.54	12.52	12.62	
20	12.47	13.14	12.46	12.65	12.53	12.30	13.72	12.81	14.48	12.57	12.34	12.62	
21	12.58	13.04	12.45	12.62	12.56	12.27	12.49	12.87	14.46	12.55	12.28	12.60	
22	12.67	12.93	12.40	12.61	12.60	12.27	12.45	13.13	14.51	12.53	12.22	12.57	
23	12.77	12.82	12.36	12.58	12.63	12.28	13.15	13.52	14.23	12.52	12.17	12.56	
24	12.87	12.64	12.36	12.55	12.59	12.31	13.12	13.54	14.13	12.47	12.13	12.54	
25	12.87	12.44	12.34	12.54	12.57	12.14	13.56	13.49	14.08	12.43	12.12	12.48	
26	13.01	12.36	12.69	12.53	12.50	12.11	13.51	13.11	13.83	12.43	12.18	12.39	
27	13.03	12.34	12.79	12.52	12.48	12.03	13.35	12.86	13.53	12.39	12.16	12.33	
28	12.73	12.03	12.63	12.51	12.51	12.00	13.27	12.64	13.33	12.32	12.07	12.35	
29	12.55	12.06	12.45	12.69	12.66	11.94	13.21	12.70	13.28	12.27		12.35	
30	12.62	12.29	12.42	12.68	12.69	12.08	13.21	12.75	13.41	12.19		12.33	
31		12.42		12.78	12.32		13.18		13.44	12.17		12.31	
Mean	12.65	12.78	12.56	12.49	12.50	12.23	13.29	12.73	13.26	12.43	12.14	12.40	
Max	13.03	13.19	12.79	12.78	12.75	12.39	13.72	13.54	14.51	12.57	12.52	12.62	14.51
Min	12.35	12.03	12.34	12.14	12.31	11.94	12.17	12.06	12.45	12.17	11.84	12.11	11.84

Annual Max Momentary Gage Height 14.52 m. (MSL.) , at 15.00 Hours , on Dec 22 , 2002

Zero Gage at Bottom Elevation 10.15 m. (MSL.) , River Bed 9.51 m. (MSL.)

Left Bank Elevation 21.07 m. (MSL.) ,

Right Bank Elevation 20.89 m. (MSL.) , Drainage Are 3,259 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	74.60	73.30	66.00	34.80	69.00	27.20	34.80	54.60	68.40	55.20	21.60	34.80		
2	70.80	76.55	64.80	34.40	67.80	31.60	98.68	57.00	66.60	53.40	23.20	38.40		
3	69.60	80.45	63.60	34.00	65.40	39.60	106.08	56.40	61.80	52.20	25.20	35.60		
4	69.60	78.50	61.20	33.60	62.40	47.40	114.48	56.40	58.20	51.60	27.20	34.00		
5	72.65	77.85	57.60	37.20	61.20	46.80	112.80	49.80	51.00	50.40	29.60	32.40		
6	74.60	76.55	59.40	52.20	57.00	45.60	117.88	36.00	54.00	51.60	30.40	33.20		
7	75.90	75.90	61.80	60.60	50.40	41.40	118.76	33.60	57.60	53.40	32.00	33.20		
8	75.25	77.20	63.60	62.40	43.20	38.40	118.76	30.40	60.60	51.60	31.20	44.40		
9	63.00	78.50	62.40	63.00	42.60	35.60	119.64	59.40	62.40	49.20	30.40	43.20		
10	61.80	74.60	60.60	61.20	44.40	38.40	123.16	70.20	63.60	47.40	31.60	42.00		
11	56.40	71.40	63.00	56.40	45.60	36.60	129.32	56.40	68.40	46.80	34.40	45.60		
12	52.80	72.00	61.20	52.80	46.80	39.60	130.20	60.00	69.60	45.60	35.60	51.60		
13	45.60	75.90	57.00	50.40	45.60	41.40	133.72	62.40	72.65	45.00	36.60	54.00		
14	46.20	80.45	58.20	46.20	46.20	41.40	129.32	64.20	73.95	45.00	36.60	56.40		
15	45.60	82.40	57.60	45.60	48.00	42.60	126.68	66.60	69.00	48.60	25.20	57.60		
16	46.20	85.76	57.00	48.60	49.20	43.80	127.56	66.00	63.60	50.40	35.60	58.80		
17	47.40	90.32	54.60	50.40	48.00	45.00	131.08	67.20	161.55	55.80	46.20	58.80		
18	45.00	97.16	53.40	54.60	50.40	43.20	94.12	68.40	179.00	54.60	47.40	59.40		
19	46.80	99.44	52.20	63.60	52.80	42.00	118.76	69.60	145.64	56.40	55.20	61.20		
20	52.20	95.64	51.60	63.00	55.80	42.00	145.64	72.65	220.00	58.20	44.40	61.20		
21	58.80	88.04	51.00	61.20	57.60	40.20	53.40	76.55	218.00	57.00	40.80	60.00		
22	64.20	80.45	48.00	60.60	60.00	40.20	51.00	94.88	223.00	55.80	37.20	58.20		
23	70.20	73.30	45.60	58.80	61.80	40.80	96.40	127.56	195.00	55.20	34.80	57.60		
24	76.55	62.40	45.60	57.00	59.40	42.60	94.12	129.32	185.00	52.20	33.20	56.40		
25	76.55	50.40	44.40	56.40	58.20	33.60	131.08	124.92	180.00	49.80	32.80	52.80		
26	85.76	45.60	65.40	55.80	54.00	32.40	126.68	93.36	155.85	49.80	35.20	47.40		
27	87.28	44.40	71.40	55.20	52.80	29.20	112.80	75.90	128.44	47.40	34.40	43.80		
28	67.80	29.20	61.80	54.60	54.60	28.00	106.08	62.40	111.12	43.20	30.80	45.00		
29	57.00	30.40	51.00	65.40	63.60	25.60	101.04	66.00	106.92	40.20		45.00		
30	61.20	41.40	49.20	64.80	65.40	31.20	101.04	69.00	117.88	35.60		43.80		
31		49.20		70.80	43.20		98.68		120.52	34.80		42.60		
Total	1897.34	2214.66	1720.20	1665.60	1682.40	1153.40	3403.76	2077.14	3469.32	1543.40	958.80	1488.40	23274.42	CMSDAY
Mean	63.24	71.44	57.34	53.73	54.27	38.45	109.80	69.24	111.91	49.79	34.24	48.01	63.77	CMS
Max	87.28	99.44	71.40	70.80	69.00	47.40	145.64	129.32	223.00	58.20	55.20	61.20	223.00	CMS
Min	45.00	29.20	44.40	33.60	42.60	25.60	34.80	30.40	51.00	34.80	21.60	32.40	21.60	CMS
Runoff	163.93	191.35	148.63	143.91	145.36	99.65	294.08	179.46	299.75	133.35	82.84	128.60	2010.91	MCM

Momentary Peak 224.00 CMS. at 14.52 m. (MSL.) at 15.00 Hours , on Dec 22 , 2002

Runoff Yield 19.57 Liters/Second/Square KM. Momentary Peak Yield 68.730 Liters/Second/Square KM.

WATER YEAR : 2002

PATTANI RIVER BASIN

Pattani River at Ban Yu Ra Pan, Yala (X.77A)

Lat 06 - 16 - 35 N Long 101 - 17 - 33 E

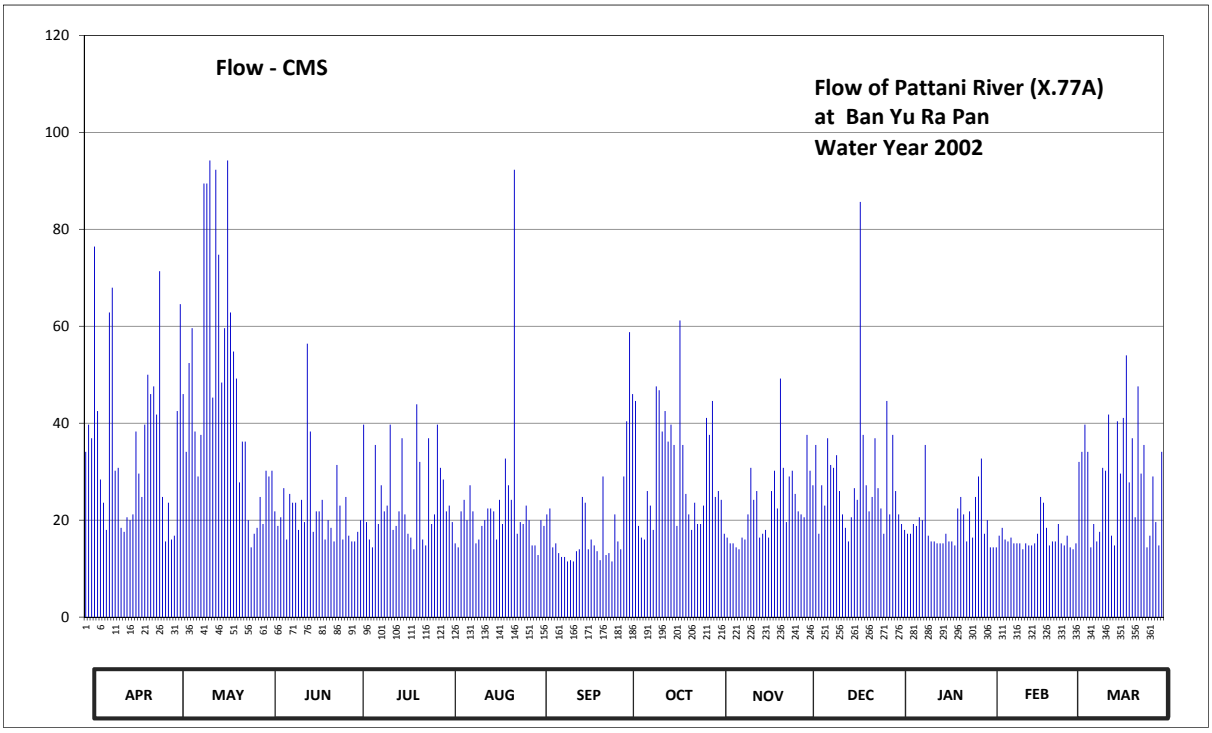
Location : on right bank at the bridge of Yala - Be Thong Highway.

	Ban Yu Ra Pan	**Amphoe** Ban Nang Sata	**Changwat** Yala		
Drainge Area	2,308 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 about 7.00 meters from the top staff gage.	**Elevation** +6.500 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 mean 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 fair. Stage-discharge relation defined by 35 discharge measurements made in 2002.				

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.63	0.32	0.57	0.29	0.43	0.22	0.72	0.50	0.68	0.42	0.26	0.25	
2	0.71	0.75	0.55	0.34	0.45	0.40	0.96	0.47	0.57	0.38	0.26	0.28	
3	0.67	1.03	0.57	0.40	0.39	0.37	0.80	0.33	0.52	0.35	0.26	0.60	
4	1.17	0.80	0.43	0.71	0.28	0.42	0.78	0.31	0.65	0.33	0.32	0.63	
5	0.75	0.63	0.37	0.39	0.26	0.44	0.37	0.28	0.33	0.33	0.36	0.71	
6	0.54	0.88	0.41	0.30	0.43	0.26	0.31	0.28	0.52	0.38	0.30	0.63	
7	0.46	0.97	0.51	0.26	0.47	0.28	0.30	0.26	0.45	0.37	0.29	0.26	
8	0.35	0.69	0.30	0.65	0.40	0.23	0.50	0.25	0.67	0.41	0.31	0.38	
9	1.01	0.55	0.49	0.38	0.52	0.21	0.45	0.31	0.59	0.40	0.28	0.29	
10	1.07	0.68	0.46	0.52	0.43	0.21	0.35	0.30	0.58	0.65	0.28	0.34	
11	0.57	1.31	0.46	0.43	0.28	0.18	0.82	0.42	0.62	0.32	0.28	0.58	
12	0.58	1.31	0.35	0.45	0.30	0.19	0.81	0.58	0.50	0.29	0.25	0.57	
13	0.36	1.36	0.47	0.71	0.37	0.18	0.69	0.47	0.42	0.29	0.28	0.74	
14	0.34	0.79	0.39	0.35	0.40	0.24	0.75	0.50	0.36	0.28	0.27	0.32	
15	0.41	1.34	0.93	0.37	0.44	0.25	0.66	0.31	0.29	0.28	0.27	0.27	
16	0.40	1.15	0.69	0.43	0.44	0.48	0.71	0.33	0.41	0.28	0.28	0.72	
17	0.42	0.83	0.34	0.67	0.43	0.46	0.65	0.35	0.51	0.33	0.33	0.56	
18	0.69	0.97	0.43	0.42	0.30	0.25	0.37	0.31	0.47	0.29	0.48	0.73	
19	0.56	1.36	0.43	0.33	0.47	0.30	0.99	0.50	1.27	0.29	0.46	0.90	
20	0.48	1.01	0.47	0.31	0.38	0.27	0.65	0.57	0.68	0.27	0.36	0.53	
21	0.71	0.91	0.30	0.25	0.61	0.24	0.49	0.44	0.52	0.44	0.27	0.67	
22	0.85	0.84	0.40	0.77	0.52	0.19	0.42	0.84	0.43	0.48	0.29	0.41	
23	0.80	0.53	0.36	0.60	0.47	0.55	0.35	0.58	0.48	0.42	0.29	0.82	
24	0.82	0.66	0.29	0.30	1.34	0.22	0.46	0.39	0.67	0.29	0.38	0.56	
25	0.74	0.66	0.59	0.27	0.33	0.23	0.38	0.55	0.51	0.43	0.28	0.65	
26	1.11	0.40	0.45	0.67	0.39	0.18	0.38	0.57	0.44	0.31	0.27	0.26	
27	0.48	0.26	0.30	0.38	0.38	0.42	0.45	0.49	0.33	0.48	0.32	0.32	
28	0.29	0.33	0.48	0.42	0.45	0.29	0.73	0.43	0.78	0.55	0.26	0.55	
29	0.46	0.36	0.32	0.71	0.40	0.25	0.68	0.42	0.42	0.61		0.39	
30	0.30	0.48	0.29	0.58	0.27	0.55	0.78	0.41	0.68	0.33		0.27	
31		0.38		0.54	0.27		0.48		0.50	0.40		0.63	
Mean	0.62	0.79	0.45	0.46	0.43	0.30	0.59	0.42	0.54	0.38	0.30	0.51	
Max	1.17	1.36	0.93	0.77	1.34	0.55	0.99	0.84	1.27	0.65	0.48	0.90	1.36
Min	0.29	0.26	0.29	0.25	0.26	0.18	0.30	0.25	0.29	0.27	0.25	0.25	0.18

Annual Max Momentary Gage Height	2.15	m. (A.D.) ,	at 18.00 Hours , on May 13 , 2002		
Zero Gage at Bottom Elevation	0.00	m. (A.D.) ,	River Bed	-0.99	m. (A.D.)
Left Bank Elevation	10.33	m. (A.D.) ,			
Right Bank Elevation	10.45	m. (A.D.) ,	Drainage Are	2,308	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	34.10	16.80	30.20	15.60	21.80	12.80	40.40	26.00	37.60	21.20	14.40	14.00		
2	39.70	42.50	29.00	17.60	23.00	20.00	58.80	24.20	30.20	19.20	14.40	15.20		
3	36.90	64.55	30.20	20.00	19.60	18.80	46.00	17.20	27.20	18.00	14.40	32.00		
4	76.45	46.00	21.80	39.70	15.20	21.20	44.60	16.40	35.50	17.20	16.80	34.10		
5	42.50	34.10	18.80	19.60	14.40	22.40	18.80	15.20	17.20	17.20	18.40	39.70		
6	28.40	52.40	20.60	16.00	21.80	14.40	16.40	15.20	27.20	19.20	16.00	34.10		
7	23.60	59.60	26.60	14.40	24.20	15.20	16.00	14.40	23.00	18.80	15.60	14.40		
8	18.00	38.30	16.00	35.50	20.00	13.20	26.00	14.00	36.90	20.60	16.40	19.20		
9	62.85	29.00	25.40	19.20	27.20	12.40	23.00	16.40	31.40	20.00	15.20	15.60		
10	67.95	37.60	23.60	27.20	21.80	12.40	18.00	16.00	30.80	35.50	15.20	17.60		
11	30.20	89.45	23.60	21.80	15.20	11.50	47.60	21.20	33.40	16.80	15.20	30.80		
12	30.80	89.45	18.00	23.00	16.00	11.75	46.80	30.80	26.00	15.60	14.00	30.20		
13	18.40	94.20	24.20	39.70	18.80	11.50	38.30	24.20	21.20	15.60	15.20	41.80		
14	17.60	45.30	19.60	18.00	20.00	13.60	42.50	26.00	18.40	15.20	14.80	16.80		
15	20.60	92.30	56.40	18.80	22.40	14.00	36.20	16.40	15.60	15.20	14.80	14.80		
16	20.00	74.75	38.30	21.80	22.40	24.80	39.70	17.20	20.60	15.20	15.20	40.40		
17	21.20	48.40	17.60	36.90	21.80	23.60	35.50	18.00	26.60	17.20	17.20	29.60		
18	38.30	59.60	21.80	21.20	16.00	14.00	18.80	16.40	24.20	15.60	24.80	41.10		
19	29.60	94.20	21.80	17.20	24.20	16.00	61.20	26.00	85.65	15.60	23.60	54.00		
20	24.80	62.85	24.20	16.40	19.20	14.80	35.50	30.20	37.60	14.80	18.40	27.80		
21	39.70	54.80	16.00	14.00	32.70	13.60	25.40	22.40	27.20	22.40	14.80	36.90		
22	50.00	49.20	20.00	43.90	27.20	11.75	21.20	49.20	21.80	24.80	15.60	20.60		
23	46.00	27.80	18.40	32.00	24.20	29.00	18.00	30.80	24.80	21.20	15.60	47.60		
24	47.60	36.20	15.60	16.00	92.30	12.80	23.60	19.60	36.90	15.60	19.20	29.60		
25	41.80	36.20	31.40	14.80	17.20	13.20	19.20	29.00	26.60	21.80	15.20	35.50		
26	71.35	20.00	23.00	36.90	19.60	11.50	19.20	30.20	22.40	16.40	14.80	14.40		
27	24.80	14.40	16.00	19.20	19.20	21.20	23.00	25.40	17.20	24.80	16.80	16.80		
28	15.60	17.20	24.80	21.20	23.00	15.60	41.10	21.80	44.60	29.00	14.40	29.00		
29	23.60	18.40	16.80	39.70	20.00	14.00	37.60	21.20	21.20	32.70		19.60		
30	16.00	24.80	15.60	30.80	14.80	29.00	44.60	20.60	37.60	17.20		14.80		
31		19.20		28.40	14.80		24.80		26.00	20.00		34.10		
Total	1058.40	1489.55	705.30	756.50	710.00	490.00	1007.80	671.60	912.55	609.60	456.40	862.10	9729.80	CMSDAY
Mean	35.28	48.05	23.51	24.40	22.90	16.33	32.51	22.39	29.44	19.66	16.30	27.81	26.66	CMS
Max	76.45	94.20	56.40	43.90	92.30	29.00	61.20	49.20	85.65	35.50	24.80	54.00	94.20	CMS
Min	15.60	14.40	15.60	14.00	14.40	11.50	16.00	14.00	15.60	14.80	14.00	14.00	11.50	CMS
Runoff	91.45	128.70	60.94	65.36	61.34	42.34	87.07	58.03	78.84	52.67	39.43	74.49	840.65	MCM

Momentary Peak 180.00 CMS. at 2.15 m. (A.D.) at 18.00 Hours , on May 13 , 2002

Runoff Yield 11.55 Liters/Second/Square KM. Momentary Peak Yield 77.990 Liters/Second/Square KM.

WATER YEAR : 2002

SOUTHERN PENINSULA WEST COAST

Khlong Palian at Ban Lam Khlaeng, Trang (X.139)

Lat 07 - 19 - 10 N Long 99 - 49 - 06 E

Location : on right bank at Ban Lam Khlaeng.

	Ban Lam Khlaeng	**Amphoe** Palian	**Changwat** Trang
Drainge Area	152 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 about 11 meters from the top staff gage.		**Elevation** +5.106 m. (A.D.)
Gage Reading Frequency	13-time daily readings at 06.00 - 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 13 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	Fairly stable.		
Overbank Flow Conditions	Overbank flow starts at elevation +4.160 m.(A.D.) and is including overbank flow.No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 76 discharge measurements made in 2002.		

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

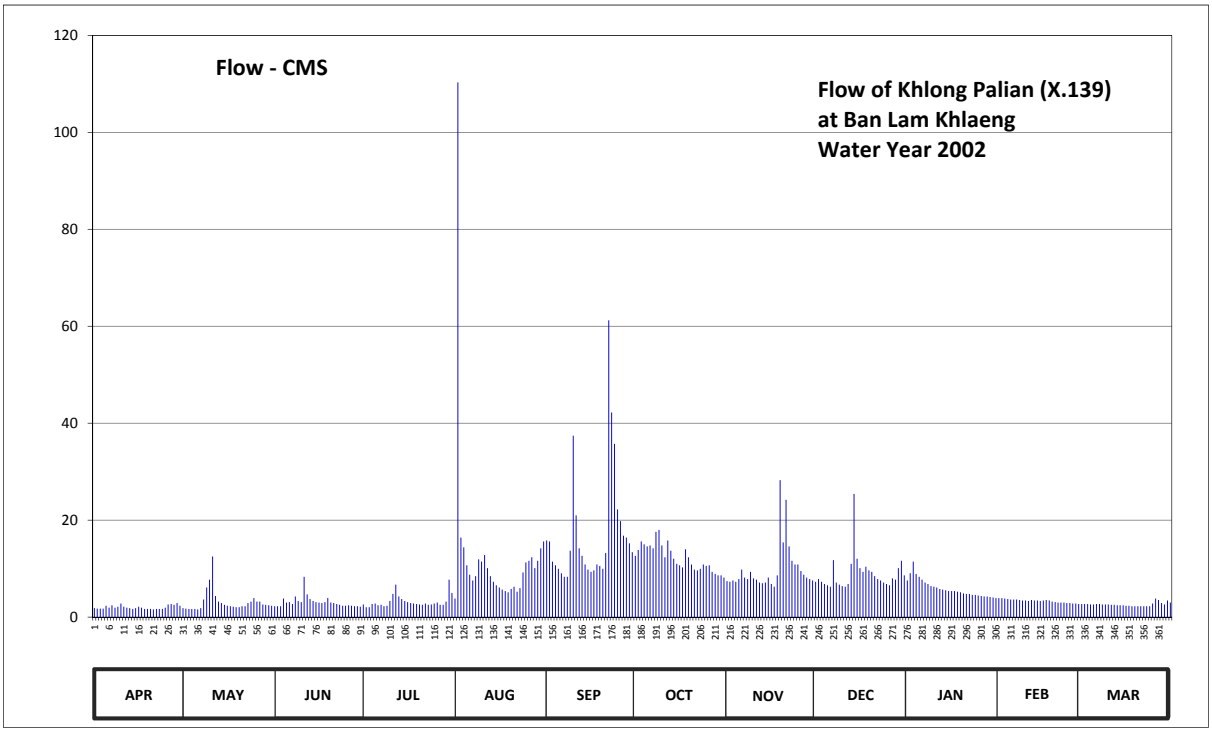
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	1.28	1.28	1.32	1.36	1.48	2.29	2.11	1.76	1.75	1.77	1.49	1.37	
2	1.27	1.27	1.32	1.30	5.23	2.28	2.19	1.75	1.79	1.87	1.49	1.37	
3	1.27	1.26	1.32	1.30	2.32	2.03	2.28	1.77	1.75	2.03	1.48	1.37	
4	1.27	1.26	1.48	1.37	2.22	1.98	2.25	1.75	1.72	1.86	1.47	1.36	
5	1.33	1.26	1.40	1.38	1.98	1.93	2.23	1.79	1.70	1.82	1.46	1.36	
6	1.29	1.25	1.41	1.34	1.85	1.87	2.24	1.92	1.68	1.78	1.46	1.37	
7	1.34	1.28	1.37	1.35	1.77	1.82	2.21	1.81	2.05	1.74	1.46	1.37	
8	1.29	1.46	1.52	1.32	1.83	1.82	2.38	1.79	1.74	1.72	1.45	1.36	
9	1.31	1.67	1.43	1.33	2.06	2.18	2.40	1.89	1.71	1.69	1.44	1.36	
10	1.38	1.78	1.41	1.43	2.03	3.23	2.24	1.80	1.69	1.68	1.44	1.36	
11	1.31	2.10	1.82	1.57	2.12	2.55	2.09	1.78	1.68	1.67	1.43	1.35	
12	1.29	1.53	1.56	1.71	1.94	2.21	2.29	1.74	1.72	1.65	1.45	1.35	
13	1.28	1.42	1.47	1.52	1.83	2.11	2.18	1.73	2.00	1.64	1.44	1.34	
14	1.26	1.39	1.43	1.47	1.75	1.99	2.07	1.74	2.77	1.63	1.44	1.34	
15	1.28	1.35	1.41	1.43	1.70	1.92	2.00	1.81	2.07	1.62	1.43	1.34	
16	1.31	1.33	1.40	1.41	1.67	1.89	1.98	1.72	1.94	1.62	1.44	1.33	
17	1.29	1.32	1.39	1.39	1.64	1.91	1.95	1.68	1.89	1.62	1.45	1.33	
18	1.26	1.31	1.41	1.38	1.62	1.99	2.20	1.84	1.96	1.61	1.44	1.32	
19	1.26	1.30	1.49	1.37	1.60	1.97	2.09	2.89	1.91	1.60	1.42	1.32	
20	1.26	1.30	1.40	1.36	1.65	1.93	1.99	2.27	1.89	1.58	1.41	1.32	
21	1.25	1.32	1.39	1.35	1.68	2.15	1.92	2.71	1.83	1.57	1.40	1.32	
22	1.26	1.32	1.37	1.38	1.61	4.03	1.91	2.23	1.79	1.57	1.40	1.32	
23	1.26	1.39	1.35	1.35	1.66	3.40	1.93	2.04	1.77	1.55	1.40	1.32	
24	1.26	1.42	1.33	1.36	1.88	3.17	1.99	1.99	1.74	1.55	1.39	1.32	
25	1.29	1.49	1.33	1.38	2.02	2.61	1.97	1.99	1.72	1.54	1.39	1.38	
26	1.36	1.42	1.34	1.40	2.04	2.49	1.98	1.90	1.70	1.53	1.38	1.48	
27	1.37	1.42	1.33	1.35	2.09	2.34	1.89	1.85	1.80	1.52	1.38	1.45	
28	1.35	1.36	1.32	1.35	1.94	2.32	1.86	1.81	1.78	1.52	1.37	1.39	
29	1.39	1.35	1.32	1.42	2.04	2.26	1.84	1.79	1.94	1.51		1.36	
30	1.33	1.34	1.31	1.78	2.21	2.16	1.84	1.77	2.04	1.50		1.44	
31		1.33		1.59	2.28		1.81		1.84	1.49		1.40	
Mean	1.30	1.40	1.41	1.41	1.99	2.29	2.07	1.91	1.85	1.65	1.43	1.36	
Max	1.39	2.10	1.82	1.78	5.23	4.03	2.40	2.89	2.77	2.03	1.49	1.48	5.23
Min	1.25	1.25	1.31	1.30	1.48	1.82	1.81	1.68	1.68	1.49	1.37	1.32	1.25

Annual Max Momentary Gage Height 6.06 m. (A.D.) , at 10.00 Hours , on Aug 2 , 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed 1.00 m. (A.D.)

Left Bank Elevation 4.15 m. (A.D.) ,

Right Bank Elevation 4.18 m. (A.D.) , Drainage Are 152 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.86	1.86	2.24	2.62	3.84	15.80	12.65	7.42	7.28	7.57	3.94	2.72		
2	1.76	1.76	2.24	2.05	110.30	15.60	13.85	7.28	7.86	9.05	3.94	2.72		
3	1.76	1.67	2.24	2.05	16.40	11.45	15.60	7.57	7.28	11.45	3.84	2.72		
4	1.76	1.67	3.84	2.72	14.40	10.70	15.00	7.28	6.84	8.90	3.74	2.62		
5	2.33	1.67	3.00	2.81	10.70	9.95	14.60	7.86	6.55	8.30	3.63	2.62		
6	1.95	1.57	3.11	2.43	8.75	9.05	14.80	9.80	6.26	7.71	3.63	2.72		
7	2.43	1.86	2.72	2.53	7.57	8.30	14.20	8.15	11.75	7.13	3.63	2.72		
8	1.95	3.63	4.26	2.24	8.45	8.30	17.60	7.86	7.13	6.84	3.53	2.62		
9	2.14	6.11	3.32	2.33	11.90	13.70	18.00	9.35	6.70	6.41	3.42	2.62		
10	2.81	7.71	3.11	3.32	11.45	37.44	14.80	8.00	6.41	6.26	3.42	2.62		
11	2.14	12.50	8.30	4.78	12.80	21.00	12.35	7.71	6.26	6.11	3.32	2.53		
12	1.95	4.36	4.68	6.70	10.10	14.20	15.80	7.13	6.84	5.82	3.53	2.53		
13	1.86	3.21	3.74	4.26	8.45	12.65	13.70	6.99	11.00	5.68	3.42	2.43		
14	1.67	2.91	3.32	3.74	7.28	10.85	12.05	7.13	25.40	5.53	3.42	2.43		
15	1.86	2.53	3.11	3.32	6.55	9.80	11.00	8.15	12.05	5.39	3.32	2.43		
16	2.14	2.33	3.00	3.11	6.11	9.35	10.70	6.84	10.10	5.39	3.42	2.33		
17	1.95	2.24	2.91	2.91	5.68	9.65	10.25	6.26	9.35	5.39	3.53	2.33		
18	1.67	2.14	3.11	2.81	5.39	10.85	14.00	8.60	10.40	5.24	3.42	2.24		
19	1.67	2.05	3.94	2.72	5.10	10.55	12.35	28.25	9.65	5.10	3.21	2.24		
20	1.67	2.05	3.00	2.62	5.82	9.95	10.85	15.40	9.35	4.89	3.11	2.24		
21	1.57	2.24	2.91	2.53	6.26	13.25	9.80	24.20	8.45	4.78	3.00	2.24		
22	1.67	2.24	2.72	2.81	5.24	61.22	9.65	14.60	7.86	4.78	3.00	2.24		
23	1.67	2.91	2.53	2.53	5.97	42.20	9.95	11.60	7.57	4.57	3.00	2.24		
24	1.67	3.21	2.33	2.62	9.20	35.76	10.85	10.85	7.13	4.57	2.91	2.24		
25	1.95	3.94	2.33	2.81	11.30	22.20	10.55	10.85	6.84	4.47	2.91	2.81		
26	2.62	3.21	2.43	3.00	11.60	19.80	10.70	9.50	6.55	4.36	2.81	3.84		
27	2.72	3.21	2.33	2.53	12.35	16.80	9.35	8.75	8.00	4.26	2.81	3.53		
28	2.53	2.62	2.24	2.53	10.10	16.40	8.90	8.15	7.71	4.26	2.72	2.91		
29	2.91	2.53	2.24	3.21	11.60	15.20	8.60	7.86	10.10	4.15		2.62		
30	2.33	2.43	2.14	7.71	14.20	13.40	8.60	7.57	11.60	4.05		3.42		
31		2.33		4.99	15.60		8.15		8.60	3.94		3.00		
Total	60.97	96.70	93.39	99.34	390.46	515.37	379.25	296.96	274.87	182.35	93.58	81.52	2564.76	CMSDAY
Mean	2.03	3.12	3.11	3.20	12.60	17.18	12.23	9.90	8.87	5.88	3.34	2.63	7.03	CMS
Max	2.91	12.50	8.30	7.71	110.30	61.22	18.00	28.25	25.40	11.45	3.94	3.84	110.30	CMS
Min	1.57	1.57	2.14	2.05	3.84	8.30	8.15	6.26	6.26	3.94	2.72	2.24	1.57	CMS
Runoff	5.27	8.35	8.07	8.58	33.74	44.53	32.77	25.66	23.75	15.76	8.09	7.04	221.60	MCM

Momentary Peak 273.50 CMS. at 6.06 m. (A.D.) at 10.00 Hours , on Aug 2 , 2002

Runoff Yield 46.23 Liters/Second/Square KM. Momentary Peak Yield 1799.340 Liters/Second/Square KM.

WATER YEAR : 2002

SOUTHERN PENINSULA WEST COAST

Khlong Langu at Ban Wang Pa Khian , Satun (X.150)

Lat 06 - 56 - 30 N Long 99 - 52 - 33 E

Location : on right bank at Ban Wang Pa Khian.

	Ban Wang Pa Khian	**Amphoe** Langu	**Changwat** Satun
Drainge Area	480 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 about 5 meters from the top staff gage.		**Elevation** +8.520 m. (A.D.)
Gage Reading Frequency	13-time daily readings at 06.00 - 18.00 hours.		
Basis of Mean Daily Gage Height	Arithmetic mean of 13 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 because of backwater effect.		
Overbank Flow Conditions	No overbank flow.		
General Description	Records fair. Stage-discharge relation defined by 45 discharge measurements made in 2002.		

Gage Height in Meter (A.D.) Water Year April 1, 2002 to March 31, 2003

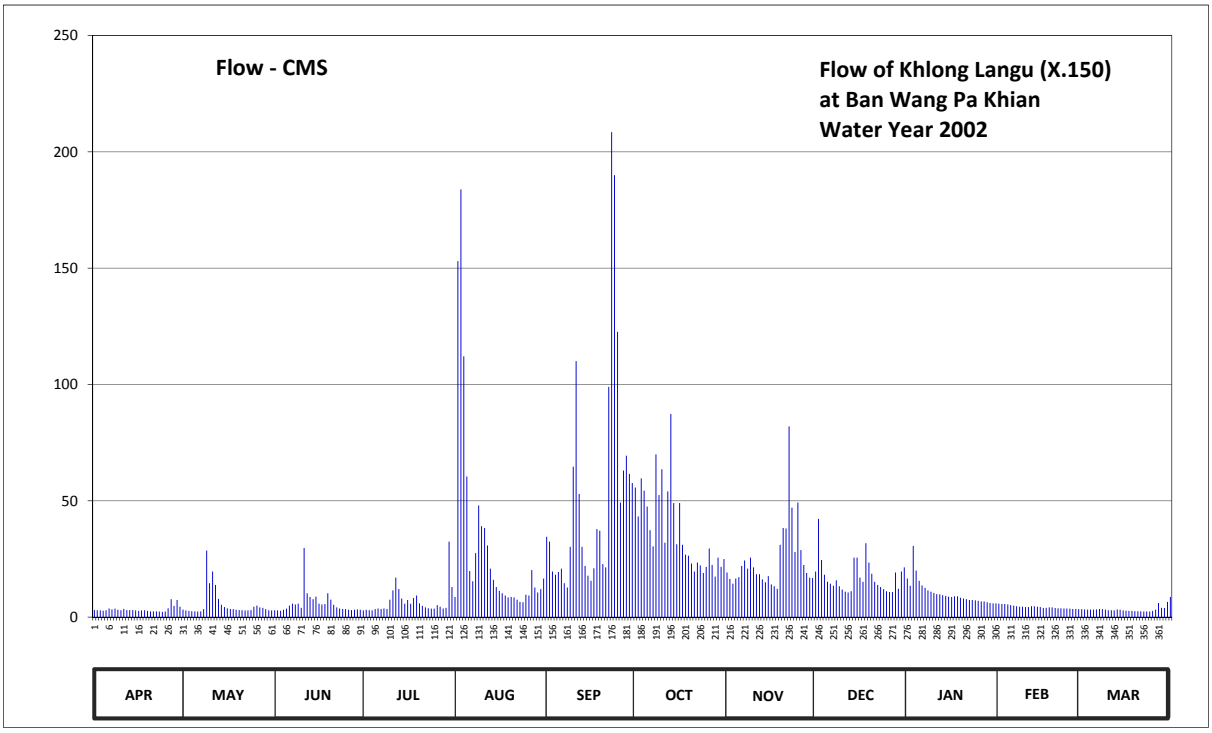
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	0.70	0.72	0.69	0.68	1.09	2.37	3.21	1.66	1.68	1.53	0.91	0.74	
2	0.69	0.68	0.68	0.71	6.15	2.28	2.73	1.52	2.69	1.37	0.90	0.73	
3	0.68	0.66	0.67	0.69	6.86	1.68	3.35	1.42	1.92	2.20	0.90	0.72	
4	0.67	0.65	0.71	0.68	5.06	1.61	3.16	1.53	1.61	1.70	0.89	0.72	
5	0.69	0.64	0.76	0.74	3.38	1.67	2.90	1.56	1.46	1.48	0.87	0.72	
6	0.77	0.63	0.86	0.77	1.69	1.74	2.49	1.80	1.42	1.38	0.86	0.73	
7	0.73	0.64	0.91	0.75	1.47	1.43	2.19	1.91	1.37	1.32	0.84	0.75	
8	0.76	0.74	0.89	0.77	2.06	1.33	3.72	1.74	1.49	1.26	0.83	0.74	
9	0.71	2.11	0.91	0.75	2.92	2.18	3.09	1.97	1.36	1.23	0.83	0.72	
10	0.69	1.43	0.80	1.02	2.56	3.53	3.49	1.77	1.28	1.20	0.82	0.69	
11	0.75	1.68	2.16	1.26	2.53	5.00	2.26	1.62	1.23	1.17	0.82	0.69	
12	0.70	1.39	1.19	1.55	2.21	3.11	3.15	1.62	1.21	1.16	0.84	0.68	
13	0.70	1.04	1.09	1.29	1.74	2.18	4.31	1.51	1.24	1.14	0.84	0.73	
14	0.70	0.88	1.03	1.05	1.50	1.80	2.96	1.45	1.97	1.12	0.83	0.71	
15	0.68	0.82	1.10	0.91	1.34	1.59	2.23	1.58	1.97	1.10	0.82	0.68	
16	0.66	0.78	0.91	1.01	1.25	1.48	2.96	1.40	1.55	1.09	0.79	0.67	
17	0.68	0.75	0.89	0.91	1.19	1.75	2.22	1.36	1.46	1.11	0.80	0.66	
18	0.69	0.74	0.90	1.06	1.13	2.51	2.03	1.30	2.25	1.11	0.81	0.66	
19	0.66	0.71	1.19	1.13	1.08	2.48	2.01	2.22	1.87	1.07	0.81	0.65	
20	0.64	0.70	1.02	0.92	1.09	1.84	1.85	2.53	1.63	1.05	0.79	0.65	
21	0.64	0.69	0.88	0.85	1.08	1.77	1.68	2.52	1.46	1.03	0.78	0.64	
22	0.64	0.68	0.81	0.81	1.02	4.68	1.87	4.13	1.39	1.01	0.78	0.63	
23	0.63	0.68	0.77	0.78	0.96	7.34	1.81	2.88	1.34	1.01	0.77	0.63	
24	0.62	0.70	0.75	0.76	0.95	6.99	1.65	2.08	1.29	1.00	0.77	0.63	
25	0.63	0.83	0.74	0.76	1.15	5.36	1.78	2.97	1.24	0.99	0.76	0.66	
26	0.78	0.86	0.71	0.87	1.13	2.97	2.15	2.12	1.22	0.97	0.75	0.72	
27	1.03	0.81	0.70	0.83	1.71	3.47	1.82	1.82	1.22	0.97	0.75	0.93	
28	0.85	0.80	0.71	0.77	1.33	3.70	1.57	1.65	1.66	0.95	0.74	0.80	
29	1.01	0.74	0.73	0.80	1.21	3.42	1.97	1.55	1.30	0.93		0.79	
30	0.83	0.69	0.71	2.28	1.29	3.28	1.78	1.54	1.68	0.92		0.96	
31		0.68		1.34	1.53		1.94		1.77	0.92		1.09	
Mean	0.72	0.86	0.90	0.95	1.99	2.88	2.46	1.89	1.56	1.18	0.82	0.73	
Max	1.03	2.11	2.16	2.28	6.86	7.34	4.31	4.13	2.69	2.20	0.91	1.09	7.34
Min	0.62	0.63	0.67	0.68	0.95	1.33	1.57	1.30	1.21	0.92	0.74	0.63	0.62

Annual Max Momentary Gage Height 7.44 m. (A.D.) , at 17.00 Hours , on Sep 23 , 2002

Zero Gage at Bottom Elevation 0.00 m. (A.D.) , River Bed 0.07 m. (A.D.)

Left Bank Elevation 11.38 m. (A.D.) ,

Right Bank Elevation 11.33 m. (A.D.) , Drainage Are 480 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.05	3.24	2.95	2.86	8.64	34.51	55.68	19.20	19.60	16.60	5.76	3.43		
2	2.95	2.86	2.86	3.14	153.00	32.44	43.25	16.40	42.25	13.46	5.60	3.33		
3	2.86	2.67	2.76	2.95	183.82	19.60	59.60	14.40	24.52	30.60	5.60	3.24		
4	2.76	2.57	3.14	2.86	112.10	18.20	54.32	16.60	18.20	20.00	5.44	3.24		
5	2.95	2.48	3.62	3.43	60.44	19.40	47.50	17.20	15.20	15.60	5.12	3.24		
6	3.71	2.38	4.96	3.71	19.80	20.80	37.36	22.00	14.40	13.64	4.96	3.33		
7	3.33	2.48	5.76	3.52	15.40	14.60	30.38	24.31	13.46	12.56	4.64	3.52		
8	3.62	3.43	5.44	3.71	27.52	12.74	69.96	20.80	15.80	11.48	4.48	3.43		
9	3.14	28.62	5.76	3.52	48.00	30.16	52.43	25.57	13.28	10.94	4.48	3.24		
10	2.95	14.60	4.00	7.52	39.04	64.64	63.52	21.40	11.84	10.40	4.32	2.95		
11	3.52	19.60	29.72	11.48	38.32	110.00	31.98	18.40	10.94	9.92	4.32	2.95		
12	3.05	13.82	10.24	17.00	30.83	52.97	54.05	18.40	10.58	9.76	4.64	2.86		
13	3.05	7.84	8.64	12.02	20.80	30.16	87.30	16.20	11.12	9.44	4.64	3.33		
14	3.05	5.28	7.68	8.00	16.00	22.00	49.00	15.00	25.57	9.12	4.48	3.14		
15	2.86	4.32	8.80	5.76	12.92	17.80	31.29	17.60	25.57	8.80	4.32	2.86		
16	2.67	3.81	5.76	7.36	11.30	15.60	49.00	14.00	17.00	8.64	3.90	2.76		
17	2.86	3.52	5.44	5.76	10.24	21.00	31.06	13.28	15.20	8.96	4.00	2.67		
18	2.95	3.43	5.60	8.16	9.28	37.84	26.86	12.20	31.75	8.96	4.16	2.67		
19	2.67	3.14	10.24	9.28	8.48	37.12	26.42	31.06	23.47	8.32	4.16	2.57		
20	2.48	3.05	7.52	5.92	8.64	22.84	23.05	38.32	18.60	8.00	3.90	2.57		
21	2.48	2.95	5.28	4.80	8.48	21.40	19.60	38.08	15.20	7.68	3.81	2.48		
22	2.48	2.86	4.16	4.16	7.52	98.92	23.47	81.94	13.82	7.36	3.81	2.38		
23	2.38	2.86	3.71	3.81	6.56	208.46	22.21	47.00	12.92	7.36	3.71	2.38		
24	2.29	3.05	3.52	3.62	6.40	189.93	19.00	27.96	12.02	7.20	3.71	2.38		
25	2.38	4.48	3.43	3.62	9.60	122.60	21.60	49.25	11.12	7.04	3.62	2.67		
26	3.81	4.96	3.14	5.12	9.28	49.25	29.50	28.84	10.76	6.72	3.52	3.24		
27	7.68	4.16	3.05	4.48	20.20	62.96	22.42	22.42	10.76	6.72	3.52	6.08		
28	4.80	4.00	3.14	3.71	12.74	69.40	17.40	19.00	19.20	6.40	3.43	4.00		
29	7.36	3.43	3.33	4.00	10.58	61.56	25.57	17.00	12.20	6.08		3.90		
30	4.48	2.95	3.14	32.44	12.02	57.64	21.60	16.80	19.60	5.92		6.56		
31		2.86		12.92	16.60		24.94		21.40	5.92		8.64		
Total	100.62	171.70	176.79	210.64	954.55	1576.54	1171.32	740.63	537.35	319.60	122.05	106.04	6187.83	CMSDAY
Mean	3.35	5.54	5.89	6.79	30.79	52.55	37.78	24.69	17.33	10.31	4.36	3.42	16.95	CMS
Max	7.68	28.62	29.72	32.44	183.82	208.46	87.30	81.94	42.25	30.60	5.76	8.64	208.46	CMS
Min	2.29	2.38	2.76	2.86	6.40	12.74	17.40	12.20	10.58	5.92	3.43	2.38	2.29	CMS
Runoff	8.69	14.83	15.27	18.20	82.47	136.21	101.20	63.99	46.43	27.61	10.55	9.16	534.63	MCM

Momentary Peak 214.60 CMS. at 7.44 m. (A.D.) at 17.00 Hours , on Sep 23 , 2002

Runoff Yield 35.32 Liters/Second/Square KM. Momentary Peak Yield 447.080 Liters/Second/Square KM.

WATER YEAR : 2002

SOUTHERN PENINSULA WEST COAST

Khlong Ta Kuaw Pa at Ban Hin Dan , Phangnga (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** Phangnga

Drainge Area	546 sq.km.
Type of Gage	Water - stage recorder.
Zero Gage at Bottom	+5.000 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On left bank about 4 meters from the top staff gage. **Elevation** +11.405m. (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.
Overbank Flow Conditions	No overbank flow.
General Description	Records fair. Stage-discharge relation defined by 20 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

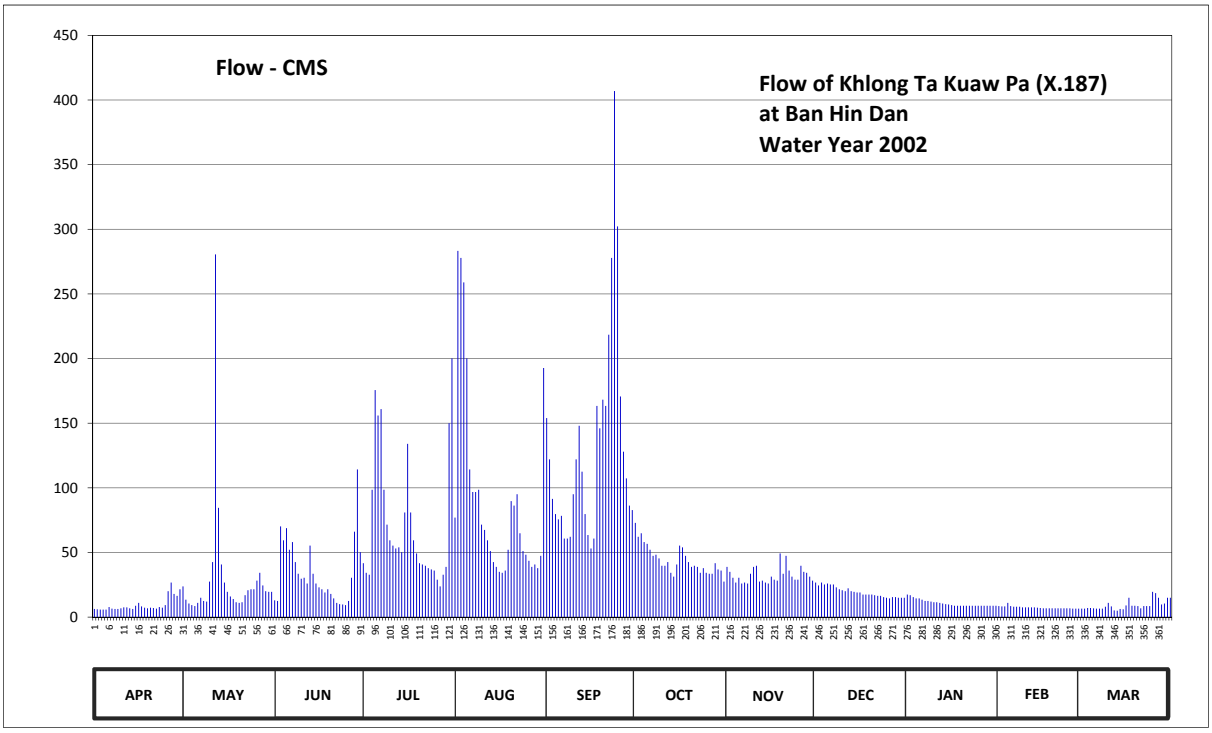
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	5.85	6.25	6.06	6.47	6.77	7.19	6.74	6.44	6.29	6.15	5.94	5.86	
2	5.84	6.07	6.05	6.39	7.69	7.03	6.66	6.40	6.26	6.14	5.93	5.86	
3	5.83	6.01	6.72	6.37	7.67	6.86	6.68	6.34	6.29	6.11	5.93	5.88	
4	5.83	5.97	6.64	6.90	7.60	6.79	6.63	6.29	6.27	6.09	6.02	5.88	
5	5.83	5.94	6.71	7.28	7.38	6.76	6.62	6.34	6.28	6.09	5.94	5.87	
6	5.91	6.02	6.58	7.20	6.99	6.78	6.58	6.28	6.27	6.07	5.92	5.86	
7	5.86	6.10	6.63	7.22	6.89	6.65	6.53	6.29	6.27	6.05	5.92	5.86	
8	5.85	6.05	6.48	6.90	6.89	6.65	6.54	6.28	6.24	6.05	5.92	5.86	
9	5.85	6.04	6.38	6.73	6.90	6.66	6.51	6.38	6.22	6.04	5.90	5.92	
10	5.87	6.30	6.33	6.64	6.73	6.88	6.45	6.44	6.21	6.03	5.90	6.02	
11	5.90	6.48	6.34	6.61	6.70	7.03	6.45	6.45	6.20	6.03	5.90	5.93	
12	5.90	7.68	6.28	6.59	6.64	7.16	6.48	6.30	6.23	6.02	5.90	5.81	
13	5.87	6.82	6.61	6.60	6.57	6.98	6.39	6.31	6.20	6.01	5.90	5.80	
14	5.85	6.46	6.38	6.56	6.48	6.79	6.35	6.29	6.19	6.00	5.89	5.85	
15	5.95	6.29	6.28	6.80	6.44	6.67	6.46	6.28	6.18	5.99	5.88	5.84	
16	6.02	6.19	6.24	7.09	6.40	6.59	6.61	6.35	6.18	5.97	5.87	5.96	
17	5.93	6.12	6.22	6.80	6.39	6.65	6.60	6.32	6.15	5.95	5.87	6.10	
18	5.89	6.08	6.18	6.64	6.41	7.23	6.53	6.31	6.15	5.95	5.87	5.95	
19	5.87	6.03	6.22	6.55	6.58	7.15	6.48	6.55	6.15	5.95	5.87	5.95	
20	5.89	6.02	6.16	6.47	6.85	7.25	6.44	6.38	6.15	5.95	5.87	5.94	
21	5.88	6.03	6.09	6.46	6.83	7.23	6.45	6.53	6.14	5.95	5.87	5.87	
22	5.86	6.14	6.02	6.45	6.88	7.45	6.44	6.41	6.13	5.95	5.87	5.94	
23	5.91	6.21	6.00	6.43	6.68	7.67	6.39	6.35	6.13	5.95	5.87	5.94	
24	5.89	6.22	5.99	6.42	6.57	8.10	6.43	6.32	6.11	5.95	5.87	5.94	
25	5.97	6.22	5.97	6.41	6.54	7.76	6.39	6.32	6.10	5.95	5.87	6.19	
26	6.20	6.31	6.05	6.32	6.49	7.26	6.38	6.45	6.09	5.95	5.86	6.17	
27	6.29	6.39	6.34	6.25	6.44	7.06	6.38	6.40	6.11	5.95	5.86	6.10	
28	6.16	6.26	6.69	6.37	6.46	6.95	6.47	6.39	6.11	5.95	5.86	5.99	
29	6.13	6.20	6.99	6.44	6.43	6.83	6.42	6.35	6.10	5.95		6.01	
30	6.22	6.19	6.56	7.17	6.53	6.81	6.41	6.31	6.10	5.95		6.10	
31		6.19		7.38	7.35		6.30		6.10	5.95		6.10	
Mean	5.94	6.23	6.34	6.67	6.78	7.03	6.49	6.36	6.18	6.00	5.90	5.95	
Max	6.29	7.68	6.99	7.38	7.69	8.10	6.74	6.55	6.29	6.15	6.02	6.19	8.10
Min	5.83	5.94	5.97	6.25	6.39	6.59	6.30	6.28	6.09	5.95	5.86	5.80	5.80

Annual Max Momentary Gage Height 8.58 m. (MSL.) , at 12.00 Hours , on Oct 24 , 2002

Zero Gage at Bottom Elevation 5.00 m. (MSL.) , River Bed 4.90 m. (MSL.)

Left Bank Elevation 11.70 m. (MSL.) ,

Right Bank Elevation 11.72 m. (MSL.) , Drainage Are 546 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	6.25	23.75	13.00	41.65	76.95	154.00	72.90	38.80	26.75	17.50	8.50	6.50		
2	6.00	13.50	12.50	34.25	283.30	122.00	62.10	35.00	24.50	17.00	8.25	6.50		
3	5.75	10.50	70.20	32.75	277.90	91.50	64.80	30.50	26.75	15.50	8.25	7.00		
4	5.75	9.25	59.40	98.50	259.00	79.65	58.05	26.75	25.25	14.50	11.00	7.00		
5	5.75	8.50	68.85	175.60	200.10	75.60	56.70	30.50	26.00	14.50	8.50	6.75		
6	7.75	11.00	52.10	156.00	114.25	78.30	52.10	26.00	25.25	13.50	8.00	6.50		
7	6.50	15.00	58.05	160.90	96.75	60.75	47.35	26.75	25.25	12.50	8.00	6.50		
8	6.25	12.50	42.60	98.50	96.75	60.75	48.30	26.00	23.00	12.50	8.00	6.50		
9	6.25	12.00	33.50	71.55	98.50	62.10	45.45	33.50	21.50	12.00	7.50	8.00		
10	6.75	27.50	29.75	59.40	71.55	95.00	39.75	38.80	20.75	11.50	7.50	11.00		
11	7.50	42.60	30.50	55.35	67.50	122.00	39.75	39.75	20.00	11.50	7.50	8.25		
12	7.50	280.60	26.00	53.05	59.40	148.00	42.60	27.50	22.25	11.00	7.50	5.25		
13	6.75	84.50	55.35	54.00	51.15	112.50	34.25	28.25	20.00	10.50	7.50	5.00		
14	6.25	40.70	33.50	50.20	42.60	79.65	31.25	26.75	19.50	10.00	7.25	6.25		
15	8.75	26.75	26.00	81.00	38.80	63.45	40.70	26.00	19.00	9.75	7.00	6.00		
16	11.00	19.50	23.00	134.00	35.00	53.05	55.35	31.25	19.00	9.25	6.75	9.00		
17	8.25	16.00	21.50	81.00	34.25	60.75	54.00	29.00	17.50	8.75	6.75	15.00		
18	7.25	14.00	19.00	59.40	35.95	163.35	47.35	28.25	17.50	8.75	6.75	8.75		
19	6.75	11.50	21.50	49.25	52.10	146.00	42.60	49.25	17.50	8.75	6.75	8.75		
20	7.25	11.00	18.00	41.65	89.75	168.25	38.80	33.50	17.50	8.75	6.75	8.50		
21	7.00	11.50	14.50	40.70	86.25	163.35	39.75	47.35	17.00	8.75	6.75	6.75		
22	6.50	17.00	11.00	39.75	95.00	218.50	38.80	35.95	16.50	8.75	6.75	8.50		
23	7.75	20.75	10.00	37.85	64.80	277.90	34.25	31.25	16.50	8.75	6.75	8.50		
24	7.25	21.50	9.75	36.90	51.15	407.00	37.85	29.00	15.50	8.75	6.75	8.50		
25	9.25	21.50	9.25	35.95	48.30	302.20	34.25	29.00	15.00	8.75	6.75	19.50		
26	20.00	28.25	12.50	29.00	43.55	170.70	33.50	39.75	14.50	8.75	6.50	18.50		
27	26.75	34.25	30.50	23.75	38.80	128.00	33.50	35.00	15.50	8.75	6.50	15.00		
28	18.00	24.50	66.15	32.75	40.70	107.25	41.65	34.25	15.50	8.75	6.50	9.75		
29	16.50	20.00	114.25	38.80	37.85	86.25	36.90	31.25	15.00	8.75		10.50		
30	21.50	19.50	50.20	150.00	47.35	82.75	35.95	28.25	15.00	8.75		15.00		
31		19.50		200.10	192.75		27.50		15.00	8.75		15.00		
Total	280.75	928.90	1042.40	2253.55	2828.05	3940.55	1368.05	973.15	605.75	334.25	207.25	288.50	15051.15	CMSDAY
Mean	9.36	29.96	34.75	72.70	91.23	131.35	44.13	32.44	19.54	10.78	7.40	9.31	41.24	CMS
Max	26.75	280.60	114.25	200.10	283.30	407.00	72.90	49.25	26.75	17.50	11.00	19.50	407.00	CMS
Min	5.75	8.50	9.25	23.75	34.25	53.05	27.50	26.00	14.50	8.75	6.50	5.00	5.00	CMS
Runoff	24.26	80.26	90.06	194.71	244.34	340.46	118.20	84.08	52.34	28.88	17.91	24.93	1300.42	MCM

Momentary Peak 597.80 CMS. at 8.58 m. (MSL.) at 12.00 Hours , on Oct 24 , 2002

Runoff Yield 75.52 Liters/Second/Square KM. Momentary Peak Yield 1094.870 Liters/Second/Square KM.

WATER YEAR : 2002

SOUTHERN PENINSULA WEST COAST

Khlong Thalang at Ban Don, Phuket (X.189)

Lat 08 - 00 - 56 N Long 98 - 19 - 05 E

Location : on right bank at the bridge about 3 kilometers from Thalang crossroad.

Ban Don **Amphoe** Thalang **Changwat** Phuket

Drainge Area	45 sq.km.
Type of Gage	Staff gage.
Zero Gage at Bottom	+0.020 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank about 4.00 meters from the top staff gage. **Elevation** +3.487 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 poor. Stage-discharge relation defined by 13 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

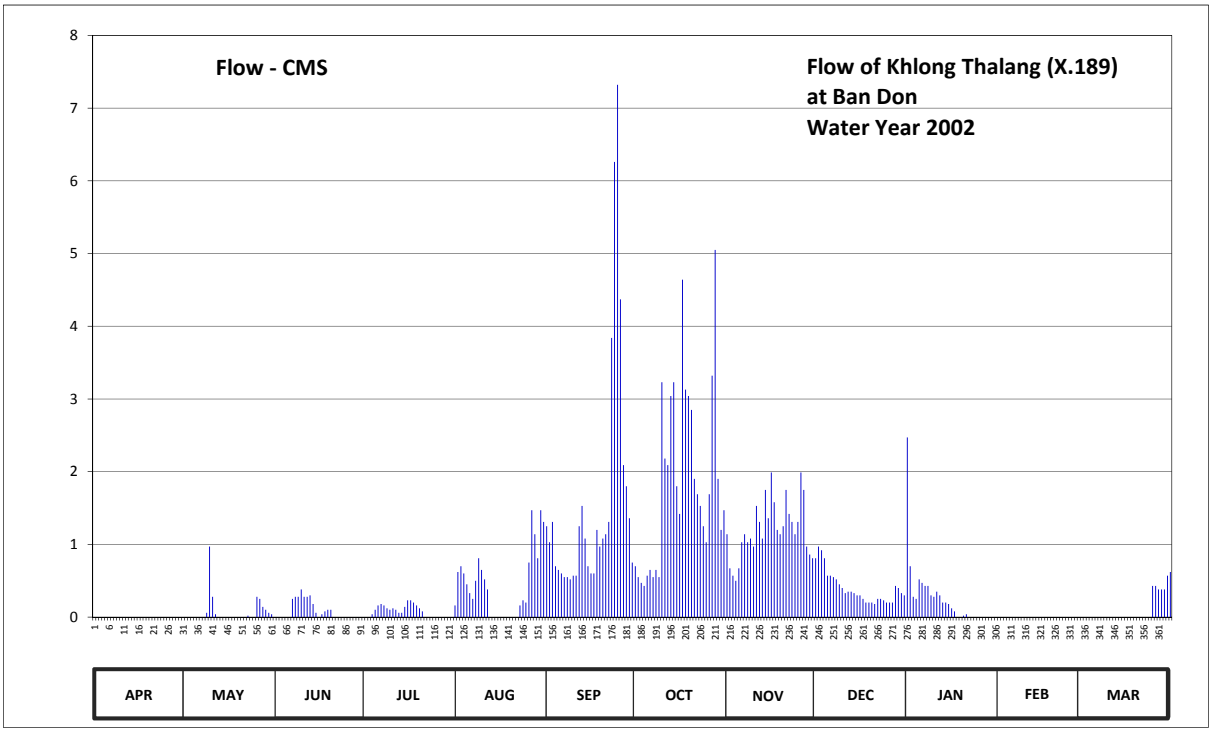
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	1.10	1.17	1.29	1.26	1.38	1.70	1.60	1.68	1.62	1.87	1.16	1.11	
2	1.09	1.16	1.24	1.25	1.57	1.66	1.54	1.59	1.65	1.60	1.14	1.09	
3	1.08	1.15	1.23	1.27	1.60	1.71	1.51	1.55	1.64	1.43	1.15	1.08	
4	1.07	1.14	1.26	1.32	1.56	1.60	1.49	1.52	1.62	1.42	1.20	1.07	
5	1.07	1.13	1.29	1.35	1.50	1.58	1.55	1.59	1.55	1.53	1.20	1.06	
6	1.06	1.13	1.29	1.38	1.45	1.56	1.58	1.66	1.55	1.51	1.20	1.05	
7	1.06	1.16	1.42	1.39	1.42	1.54	1.54	1.68	1.54	1.49	1.18	1.10	
8	1.11	1.18	1.43	1.38	1.52	1.54	1.58	1.66	1.53	1.49	1.20	1.09	
9	1.10	1.33	1.43	1.36	1.62	1.53	1.54	1.67	1.50	1.44	1.18	1.06	
10	1.10	1.65	1.47	1.35	1.58	1.55	1.95	1.65	1.48	1.43	1.16	1.04	
11	1.09	1.43	1.43	1.36	1.53	1.55	1.84	1.75	1.45	1.46	1.15	1.04	
12	1.09	1.32	1.43	1.35	1.47	1.70	1.83	1.71	1.46	1.44	1.15	1.03	
13	1.10	1.17	1.44	1.33	1.03	1.75	1.93	1.67	1.46	1.40	1.15	1.04	
14	1.10	1.17	1.39	1.33	0.94	1.67	1.95	1.79	1.45	1.40	1.15	1.09	
15	1.11	1.20	1.33	1.37	0.88	1.60	1.80	1.72	1.44	1.39	1.15	1.10	
16	1.10	1.22	1.29	1.41	0.86	1.56	1.73	1.82	1.44	1.36	1.22	1.12	
17	1.09	1.22	1.32	1.41	0.82	1.56	2.07	1.76	1.42	1.34	1.18	1.20	
18	1.08	1.24	1.34	1.40	0.82	1.69	1.94	1.69	1.40	1.28	1.26	1.22	
19	1.08	1.26	1.35	1.38	0.82	1.65	1.93	1.68	1.40	1.30	1.26	1.22	
20	1.07	1.26	1.35	1.36	0.82	1.67	1.91	1.70	1.40	1.31	1.28	1.24	
21	1.07	1.26	1.24	1.34	0.86	1.68	1.81	1.79	1.39	1.32	1.27	1.24	
22	1.07	1.26	1.27	1.29	1.22	1.71	1.78	1.73	1.42	1.30	1.29	1.24	
23	1.07	1.31	1.20	1.28	1.38	2.01	1.75	1.71	1.42	1.30	1.26	1.24	
24	1.10	1.27	1.24	1.28	1.41	2.19	1.70	1.68	1.41	1.28	1.24	1.24	
25	1.12	1.15	1.25	1.27	1.40	2.24	1.66	1.71	1.40	1.27	1.23	1.49	
26	1.14	1.43	1.23	1.26	1.61	2.05	1.78	1.82	1.40	1.19	1.20	1.49	
27	1.14	1.42	1.24	1.28	1.74	1.83	1.96	1.79	1.40	1.22	1.17	1.47	
28	1.14	1.37	1.25	1.28	1.68	1.80	2.10	1.65	1.49	1.22	1.15	1.47	
29	1.18	1.35	1.25	1.27	1.62	1.72	1.81	1.63	1.48	1.20		1.47	
30	1.17	1.33	1.27	1.27	1.74	1.61	1.69	1.62	1.45	1.19		1.55	
31		1.32		1.28	1.71		1.74		1.44	1.16		1.57	
Mean	1.10	1.26	1.32	1.33	1.34	1.71	1.76	1.69	1.47	1.37	1.20	1.21	
Max	1.18	1.65	1.47	1.41	1.74	2.24	2.10	1.82	1.65	1.87	1.29	1.57	2.24
Min	1.06	1.13	1.20	1.25	0.82	1.53	1.49	1.52	1.39	1.16	1.14	1.03	0.82

Annual Max Momentary Gage Height 2.25 m. (MSL.) , at 12.00 Hours , on Sep 25 , 2002

Zero Gage at Bottom Elevation 0.02 m. (MSL.) , River Bed 0.46 m. (MSL.)

Left Bank Elevation 3.63 m. (MSL.) ,

Right Bank Elevation 3.61 m. (MSL.) , Drainage Are 45 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	0.00	0.00	0.16	1.25	0.70	1.14	0.81	2.47	0.00	0.00		
2	0.00	0.00	0.00	0.00	0.62	1.03	0.55	0.67	0.97	0.70	0.00	0.00		
3	0.00	0.00	0.00	0.00	0.70	1.31	0.47	0.57	0.92	0.28	0.00	0.00		
4	0.00	0.00	0.00	0.04	0.60	0.70	0.43	0.50	0.81	0.25	0.00	0.00		
5	0.00	0.00	0.00	0.10	0.45	0.65	0.57	0.67	0.57	0.52	0.00	0.00		
6	0.00	0.00	0.00	0.16	0.33	0.60	0.65	1.03	0.57	0.47	0.00	0.00		
7	0.00	0.00	0.25	0.18	0.25	0.55	0.55	1.14	0.55	0.43	0.00	0.00		
8	0.00	0.00	0.28	0.16	0.50	0.55	0.65	1.03	0.52	0.43	0.00	0.00		
9	0.00	0.06	0.28	0.12	0.81	0.52	0.55	1.08	0.45	0.30	0.00	0.00		
10	0.00	0.97	0.38	0.10	0.65	0.57	3.23	0.97	0.40	0.28	0.00	0.00		
11	0.00	0.28	0.28	0.12	0.52	0.57	2.18	1.53	0.33	0.35	0.00	0.00		
12	0.00	0.04	0.28	0.10	0.38	1.25	2.09	1.31	0.35	0.30	0.00	0.00		
13	0.00	0.00	0.30	0.06	0.00	1.53	3.04	1.08	0.35	0.20	0.00	0.00		
14	0.00	0.00	0.18	0.06	0.00	1.08	3.23	1.75	0.33	0.20	0.00	0.00		
15	0.00	0.00	0.06	0.14	0.00	0.70	1.80	1.36	0.30	0.18	0.00	0.00		
16	0.00	0.00	0.00	0.23	0.00	0.60	1.42	1.99	0.30	0.12	0.00	0.00		
17	0.00	0.00	0.04	0.23	0.00	0.60	4.64	1.58	0.25	0.08	0.00	0.00		
18	0.00	0.00	0.08	0.20	0.00	1.20	3.13	1.20	0.20	0.00	0.00	0.00		
19	0.00	0.00	0.10	0.16	0.00	0.97	3.04	1.14	0.20	0.00	0.00	0.00		
20	0.00	0.00	0.10	0.12	0.00	1.08	2.85	1.25	0.20	0.02	0.00	0.00		
21	0.00	0.00	0.00	0.08	0.00	1.14	1.90	1.75	0.18	0.04	0.00	0.00		
22	0.00	0.00	0.00	0.00	0.00	1.31	1.69	1.42	0.25	0.00	0.00	0.00		
23	0.00	0.02	0.00	0.00	0.16	3.84	1.53	1.31	0.25	0.00	0.00	0.00		
24	0.00	0.00	0.00	0.00	0.23	6.26	1.25	1.14	0.23	0.00	0.00	0.00		
25	0.00	0.00	0.00	0.00	0.20	7.32	1.03	1.31	0.20	0.00	0.00	0.43		
26	0.00	0.28	0.00	0.00	0.75	4.37	1.69	1.99	0.20	0.00	0.00	0.43		
27	0.00	0.25	0.00	0.00	1.47	2.09	3.32	1.75	0.20	0.00	0.00	0.38		
28	0.00	0.14	0.00	0.00	1.14	1.80	5.05	0.97	0.43	0.00	0.00	0.38		
29	0.00	0.10	0.00	0.00	0.81	1.36	1.90	0.86	0.40	0.00		0.38		
30	0.00	0.06	0.00	0.00	1.47	0.75	1.20	0.81	0.33	0.00		0.57		
31		0.04		0.00	1.31		1.47		0.30	0.00		0.62		
Total	0.00	2.24	2.61	2.36	13.51	47.55	57.80	36.30	12.35	7.62	0.00	3.19	185.53	CMSDAY
Mean	0.00	0.07	0.09	0.08	0.44	1.58	1.86	1.21	0.40	0.25	0.00	0.10	0.51	CMS
Max	0.00	0.97	0.38	0.23	1.47	7.32	5.05	1.99	0.97	2.47	0.00	0.62	7.32	CMS
Min	0.00	0.00	0.00	0.00	0.00	0.52	0.43	0.50	0.18	0.00	0.00	0.00	0.00	CMS
Runoff	0.00	0.19	0.23	0.20	1.17	4.11	4.99	3.14	1.07	0.66	0.00	0.28	16.03	MCM

Momentary Peak 7.55 CMS. at 2.25 m. (MSL.) at 12.00 Hours , on Sep 25 , 2002

Runoff Yield 11.30 Liters/Second/Square KM. Momentary Peak Yield 167.780 Liters/Second/Square KM.

WATER YEAR : 2002

SOUTHERN PENINSULA WEST COAST

Khlong Bang Yai at Satree Phuket School , Phuket (X.191)

Lat 07 - 53 - 20 N Long 98 - 23 - 40 E

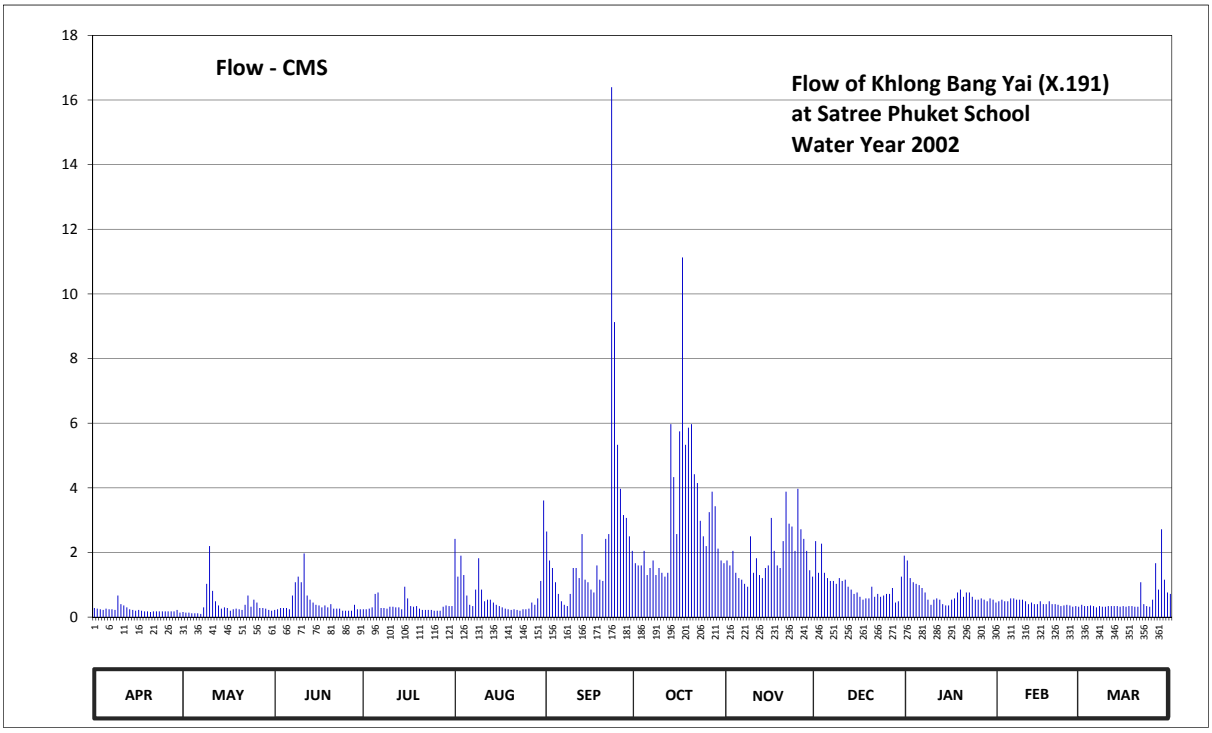
Location : on left bank at Satree Phuket School.

	Ban -		**Amphoe** Mueang	**Changwat** Phuket	
Drainge Area	54	sq.km.			
Type of Gage	Staff gage.				
Zero Gage at Bottom	+1.417	m. (MSL.)			
Bench Mark	B.M.-H.D.				
Location BM	On left bank about 8 meters from the top staff gage.			**Elevation**	+4.830 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 fair. Stage-discharge relation defined by 31 discharge measurements made in 2002.				

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	1.74	1.68	1.71	1.72	2.15	2.18	2.05	2.06	2.14	2.06	1.82	1.79	
2	1.73	1.67	1.72	1.72	1.99	2.06	2.04	2.04	2.01	1.98	1.83	1.77	
3	1.72	1.67	1.74	1.73	2.08	2.03	2.04	2.10	2.13	1.95	1.82	1.77	
4	1.71	1.66	1.74	1.75	2.00	1.95	2.10	2.01	2.01	1.94	1.82	1.78	
5	1.73	1.66	1.74	1.87	1.86	1.87	2.00	1.98	1.98	1.93	1.84	1.77	
6	1.72	1.66	1.72	1.88	1.79	1.82	2.03	1.97	1.96	1.91	1.84	1.75	
7	1.72	1.65	1.86	1.74	1.77	1.79	2.06	1.94	1.96	1.88	1.83	1.77	
8	1.71	1.75	1.95	1.74	1.90	1.77	2.00	1.92	1.94	1.83	1.83	1.76	
9	1.86	1.94	1.99	1.73	2.07	1.87	2.03	2.16	1.98	1.79	1.83	1.76	
10	1.80	2.12	1.95	1.76	1.90	2.03	2.01	2.01	1.96	1.83	1.82	1.77	
11	1.78	1.89	2.09	1.76	1.82	2.03	1.99	2.07	1.97	1.84	1.80	1.77	
12	1.75	1.82	1.86	1.75	1.83	1.98	2.01	2.00	1.92	1.83	1.81	1.77	
13	1.72	1.78	1.83	1.75	1.83	2.17	2.53	1.98	1.90	1.80	1.80	1.77	
14	1.71	1.73	1.81	1.72	1.81	1.97	2.37	2.03	1.87	1.78	1.80	1.76	
15	1.70	1.75	1.79	1.92	1.79	1.95	2.17	2.04	1.88	1.78	1.82	1.77	
16	1.71	1.74	1.78	1.84	1.77	1.90	2.51	2.23	1.85	1.83	1.80	1.76	
17	1.70	1.70	1.75	1.77	1.75	1.88	2.97	2.10	1.83	1.84	1.80	1.77	
18	1.69	1.72	1.78	1.76	1.73	2.04	2.47	2.04	1.84	1.88	1.82	1.77	
19	1.69	1.73	1.75	1.77	1.72	1.97	2.52	2.03	1.84	1.90	1.80	1.76	
20	1.68	1.72	1.80	1.73	1.71	1.96	2.53	2.14	1.92	1.85	1.80	1.76	
21	1.69	1.71	1.73	1.71	1.72	2.15	2.38	2.32	1.85	1.88	1.79	1.95	
22	1.69	1.79	1.73	1.71	1.71	2.17	2.35	2.21	1.87	1.88	1.77	1.80	
23	1.69	1.86	1.73	1.71	1.70	3.34	2.22	2.20	1.85	1.85	1.78	1.77	
24	1.69	1.76	1.70	1.71	1.72	2.81	2.16	2.10	1.86	1.83	1.79	1.76	
25	1.69	1.83	1.70	1.70	1.72	2.47	2.12	2.33	1.87	1.83	1.78	1.83	
26	1.69	1.81	1.70	1.70	1.73	2.33	2.25	2.19	1.87	1.84	1.76	2.05	
27	1.69	1.74	1.70	1.70	1.81	2.24	2.32	2.15	1.91	1.83	1.77	1.90	
28	1.69	1.74	1.79	1.76	1.79	2.23	2.27	2.10	1.81	1.82	1.76	2.19	
29	1.71	1.73	1.72	1.78	1.84	2.16	2.11	2.02	1.82	1.84		1.97	
30	1.67	1.71	1.72	1.77	1.96	2.10	2.06	1.99	1.99	1.83		1.88	
31		1.70		1.77	2.29		2.05		2.08	1.81		1.87	
Mean	1.72	1.76	1.79	1.76	1.85	2.11	2.22	2.08	1.92	1.86	1.80	1.82	
Max	1.86	2.12	2.09	1.92	2.29	3.34	2.97	2.33	2.14	2.06	1.84	2.19	3.34
Min	1.67	1.65	1.70	1.70	1.70	1.77	1.99	1.92	1.81	1.78	1.76	1.75	1.65

Annual Max Momentary Gage Height	3.75	m. (MSL.) ,	at 15.00 Hours , on Sep 23 , 2002		
Zero Gage at Bottom Elevation	1.42	m. (MSL.) ,	River Bed	1.37	m. (MSL.)
Left Bank Elevation	4.92	m. (MSL.) ,			
Right Bank Elevation	4.92	m. (MSL.) ,	Drainage Are	54	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.28	0.16	0.22	0.24	2.42	2.65	1.67	1.75	2.35	1.75	0.49	0.38		
2	0.26	0.14	0.24	0.24	1.25	1.75	1.60	1.60	1.37	1.21	0.54	0.34		
3	0.24	0.14	0.28	0.26	1.90	1.52	1.60	2.05	2.27	1.08	0.49	0.34		
4	0.22	0.12	0.28	0.30	1.30	1.08	2.05	1.37	1.37	1.03	0.49	0.36		
5	0.26	0.12	0.28	0.72	0.67	0.72	1.30	1.21	1.21	0.99	0.58	0.34		
6	0.24	0.12	0.24	0.76	0.38	0.49	1.52	1.16	1.12	0.90	0.58	0.30		
7	0.24	0.10	0.67	0.28	0.34	0.38	1.75	1.03	1.12	0.76	0.54	0.34		
8	0.22	0.30	1.08	0.28	0.85	0.34	1.30	0.94	1.03	0.54	0.54	0.32		
9	0.67	1.03	1.25	0.26	1.82	0.72	1.52	2.50	1.21	0.38	0.54	0.32		
10	0.40	2.20	1.08	0.32	0.85	1.52	1.37	1.37	1.12	0.54	0.49	0.34		
11	0.36	0.81	1.97	0.32	0.49	1.52	1.25	1.82	1.16	0.58	0.40	0.34		
12	0.30	0.49	0.67	0.30	0.54	1.21	1.37	1.30	0.94	0.54	0.45	0.34		
13	0.24	0.36	0.54	0.30	0.54	2.57	5.97	1.21	0.85	0.40	0.40	0.34		
14	0.22	0.26	0.45	0.24	0.45	1.16	4.33	1.52	0.72	0.36	0.40	0.32		
15	0.20	0.30	0.38	0.94	0.38	1.08	2.57	1.60	0.76	0.36	0.49	0.34		
16	0.22	0.28	0.36	0.58	0.34	0.85	5.75	3.07	0.63	0.54	0.40	0.32		
17	0.20	0.20	0.30	0.34	0.30	0.76	11.13	2.05	0.54	0.58	0.40	0.34		
18	0.18	0.24	0.36	0.32	0.26	1.60	5.33	1.60	0.58	0.76	0.49	0.34		
19	0.18	0.26	0.30	0.34	0.24	1.16	5.86	1.52	0.58	0.85	0.40	0.32		
20	0.16	0.24	0.40	0.26	0.22	1.12	5.97	2.35	0.94	0.63	0.40	0.32		
21	0.18	0.22	0.26	0.22	0.24	2.42	4.42	3.88	0.63	0.76	0.38	1.08		
22	0.18	0.38	0.26	0.22	0.22	2.57	4.15	2.89	0.72	0.76	0.34	0.40		
23	0.18	0.67	0.26	0.22	0.20	16.40	2.98	2.80	0.63	0.63	0.36	0.34		
24	0.18	0.32	0.20	0.22	0.24	9.13	2.50	2.05	0.67	0.54	0.38	0.32		
25	0.18	0.54	0.20	0.20	0.24	5.33	2.20	3.97	0.72	0.54	0.36	0.54		
26	0.18	0.45	0.20	0.20	0.26	3.97	3.25	2.72	0.72	0.58	0.32	1.67		
27	0.18	0.28	0.20	0.20	0.45	3.16	3.88	2.42	0.90	0.54	0.34	0.85		
28	0.18	0.28	0.38	0.32	0.38	3.07	3.43	2.05	0.45	0.49	0.32	2.72		
29	0.22	0.26	0.24	0.36	0.58	2.50	2.12	1.45	0.49	0.58		1.16		
30	0.14	0.22	0.24	0.34	1.12	2.05	1.75	1.25	1.25	0.54		0.76		
31		0.20		0.34	3.61		1.67		1.90	0.45		0.72		
Total	7.09	11.69	13.79	10.44	23.08	74.80	97.56	58.50	30.95	21.19	12.31	17.26	378.66	CMSDAY
Mean	0.24	0.38	0.46	0.34	0.74	2.49	3.15	1.95	1.00	0.68	0.44	0.56	1.04	CMS
Max	0.67	2.20	1.97	0.94	3.61	16.40	11.13	3.97	2.35	1.75	0.58	2.72	16.40	CMS
Min	0.14	0.10	0.20	0.20	0.20	0.34	1.25	0.94	0.45	0.36	0.32	0.30	0.10	CMS
Runoff	0.61	1.01	1.19	0.90	1.99	6.46	8.43	5.05	2.67	1.83	1.06	1.49	32.72	MCM

Momentary Peak 23.15 CMS. at 3.75 m. (MSL.) at 15.00 Hours , on Sep 23 , 2002

Runoff Yield 18.90 Liters/Second/Square KM. Momentary Peak Yield 421.680 Liters/Second/Square KM.

WATER YEAR : 2002

SOUTHERN PENINSULA WEST COAST

Khlong Bang Tha at Mueang, Phuket (X.192)

Lat 07 - 50 - 16 N Long 98 - 21 - 05 E

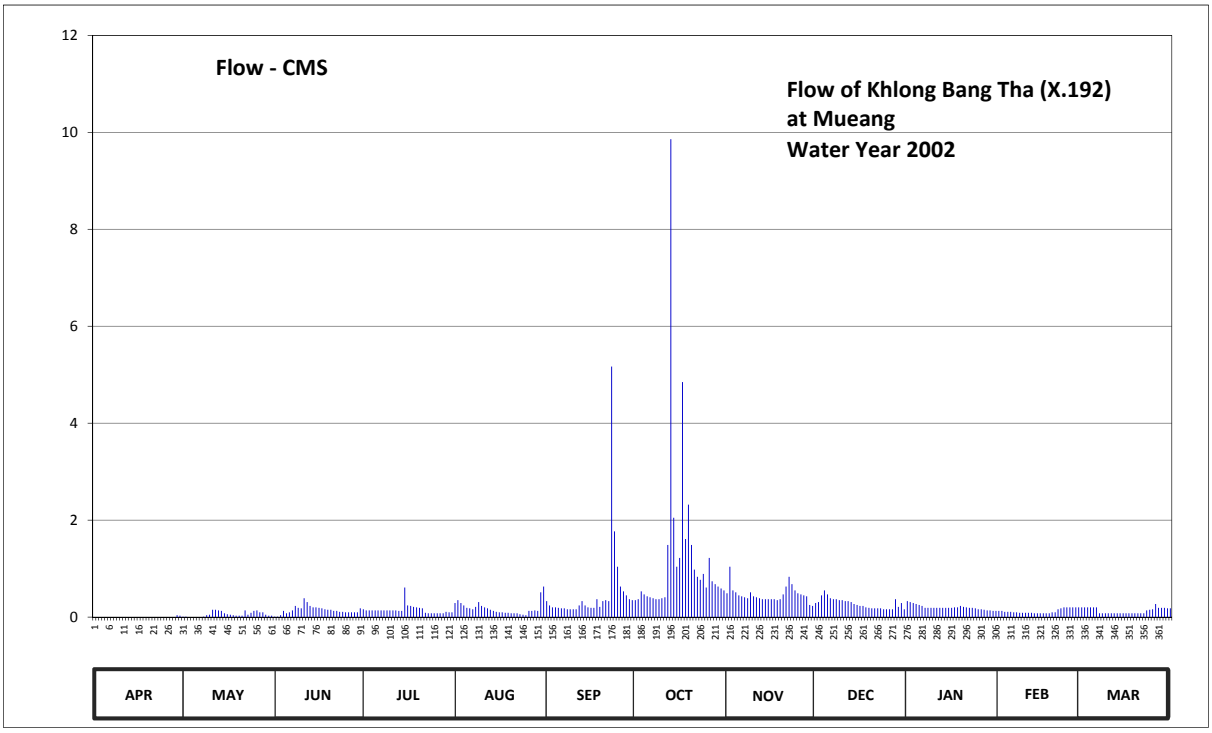
Location : on left bank at the bridge.

	Ban -		**Amphoe**	Mueang	**Changwat**	Phuket
Drainge Area	6	sq.km.				
Type of Gage	Staff gage.					
Zero Gage at Bottom	+2.658	m. (MSL.)				
Bench Mark	B.M.-H.D.					
Location BM	On left bank about 8.00 meters from the top staff gage.				**Elevation**	+4.221 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 fair. Stage-discharge relation defined by 31 discharge measurements made in 2002.					

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	2.58	2.61	2.61	2.73	2.82	2.84	2.85	2.92	2.82	2.84	2.70	2.76	
2	2.58	2.61	2.61	2.71	2.85	2.79	2.86	3.13	2.83	2.83	2.70	2.76	
3	2.58	2.60	2.63	2.71	2.82	2.76	2.94	2.95	2.90	2.82	2.69	2.76	
4	2.58	2.60	2.70	2.71	2.79	2.76	2.91	2.93	2.95	2.81	2.69	2.76	
5	2.58	2.59	2.66	2.71	2.75	2.75	2.89	2.90	2.91	2.80	2.69	2.76	
6	2.58	2.60	2.68	2.71	2.74	2.74	2.88	2.89	2.87	2.78	2.68	2.76	
7	2.58	2.60	2.71	2.71	2.73	2.74	2.87	2.88	2.86	2.75	2.68	2.66	
8	2.58	2.61	2.78	2.71	2.77	2.73	2.86	2.87	2.86	2.75	2.67	2.66	
9	2.57	2.63	2.75	2.71	2.83	2.73	2.86	2.93	2.85	2.75	2.67	2.66	
10	2.57	2.64	2.74	2.71	2.78	2.73	2.87	2.89	2.85	2.75	2.67	2.66	
11	2.57	2.72	2.87	2.71	2.76	2.73	2.88	2.88	2.84	2.75	2.67	2.66	
12	2.57	2.72	2.83	2.71	2.74	2.79	3.26	2.87	2.84	2.75	2.67	2.66	
13	2.57	2.71	2.78	2.70	2.72	2.84	4.37	2.86	2.83	2.75	2.66	2.66	
14	2.56	2.70	2.76	2.70	2.70	2.79	3.40	2.86	2.81	2.75	2.66	2.66	
15	2.56	2.66	2.76	2.98	2.69	2.76	3.13	2.86	2.80	2.75	2.66	2.66	
16	2.56	2.65	2.75	2.79	2.68	2.75	3.19	2.86	2.78	2.75	2.66	2.66	
17	2.56	2.64	2.74	2.78	2.68	2.75	3.85	2.86	2.78	2.76	2.66	2.66	
18	2.56	2.63	2.73	2.77	2.67	2.86	3.29	2.85	2.76	2.76	2.66	2.66	
19	2.56	2.62	2.72	2.76	2.67	2.77	3.45	2.86	2.75	2.78	2.68	2.66	
20	2.56	2.62	2.72	2.75	2.66	2.84	3.26	2.91	2.74	2.77	2.68	2.66	
21	2.56	2.62	2.70	2.74	2.66	2.85	3.11	2.99	2.74	2.76	2.73	2.66	
22	2.56	2.71	2.70	2.67	2.66	2.84	3.06	3.06	2.74	2.75	2.74	2.66	
23	2.56	2.64	2.69	2.66	2.65	3.89	3.04	3.01	2.74	2.75	2.76	2.71	
24	2.56	2.67	2.69	2.66	2.64	3.33	3.08	2.95	2.73	2.74	2.76	2.72	
25	2.56	2.70	2.68	2.66	2.63	3.13	2.98	2.92	2.73	2.73	2.76	2.73	
26	2.56	2.71	2.68	2.66	2.70	2.99	3.19	2.91	2.73	2.73	2.76	2.81	
27	2.56	2.68	2.68	2.66	2.70	2.94	3.03	2.90	2.73	2.72	2.76	2.75	
28	2.56	2.68	2.68	2.66	2.71	2.90	3.01	2.89	2.86	2.71	2.76	2.75	
29	2.63	2.64	2.68	2.69	2.70	2.86	2.99	2.80	2.77	2.71		2.75	
30	2.62	2.62	2.74	2.68	2.93	2.85	2.97	2.78	2.82	2.70		2.74	
31		2.62		2.68	2.99		2.95		2.73	2.70		2.74	
Mean	2.57	2.65	2.72	2.72	2.74	2.87	3.11	2.91	2.80	2.76	2.70	2.70	
Max	2.63	2.72	2.87	2.98	2.99	3.89	4.37	3.13	2.95	2.84	2.76	2.81	4.37
Min	2.56	2.59	2.61	2.66	2.63	2.73	2.85	2.78	2.73	2.70	2.66	2.66	2.56

Annual Max Momentary Gage Height	4.43	m. (MSL.) ,	at 06.00 Hours , on Oct 13 , 2002		
Zero Gage at Bottom Elevation	2.66	m. (MSL.) ,	River Bed	2.47	m. (MSL.)
Left Bank Elevation	5.97	m. (MSL.) ,			
Right Bank Elevation	5.95	m. (MSL.) ,	Drainage Are	6	Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.01	0.01	0.16	0.29	0.33	0.35	0.49	0.29	0.33	0.13	0.20		
2	0.00	0.01	0.01	0.14	0.35	0.24	0.37	1.04	0.31	0.31	0.13	0.20		
3	0.00	0.00	0.04	0.14	0.29	0.20	0.53	0.55	0.45	0.29	0.11	0.20		
4	0.00	0.00	0.13	0.14	0.24	0.20	0.47	0.51	0.55	0.27	0.11	0.20		
5	0.00	0.00	0.08	0.14	0.19	0.19	0.43	0.45	0.47	0.25	0.11	0.20		
6	0.00	0.00	0.10	0.14	0.18	0.18	0.41	0.43	0.39	0.23	0.10	0.20		
7	0.00	0.00	0.14	0.14	0.16	0.18	0.39	0.41	0.37	0.19	0.10	0.08		
8	0.00	0.01	0.23	0.14	0.21	0.16	0.37	0.39	0.37	0.19	0.09	0.08		
9	0.00	0.04	0.19	0.14	0.31	0.16	0.37	0.51	0.35	0.19	0.09	0.08		
10	0.00	0.05	0.18	0.14	0.23	0.16	0.39	0.43	0.35	0.19	0.09	0.08		
11	0.00	0.15	0.39	0.14	0.20	0.16	0.41	0.41	0.33	0.19	0.09	0.08		
12	0.00	0.15	0.31	0.14	0.18	0.24	1.49	0.39	0.33	0.19	0.09	0.08		
13	0.00	0.14	0.23	0.13	0.15	0.33	9.86	0.37	0.31	0.19	0.08	0.08		
14	0.00	0.13	0.20	0.13	0.13	0.24	2.05	0.37	0.27	0.19	0.08	0.08		
15	0.00	0.08	0.20	0.61	0.11	0.20	1.04	0.37	0.25	0.19	0.08	0.08		
16	0.00	0.06	0.19	0.24	0.10	0.19	1.22	0.37	0.23	0.19	0.08	0.08		
17	0.00	0.05	0.18	0.23	0.10	0.19	4.85	0.37	0.23	0.20	0.08	0.08		
18	0.00	0.04	0.16	0.21	0.09	0.37	1.61	0.35	0.20	0.20	0.08	0.08		
19	0.00	0.03	0.15	0.20	0.09	0.21	2.32	0.37	0.19	0.23	0.10	0.08		
20	0.00	0.03	0.15	0.19	0.08	0.33	1.49	0.47	0.18	0.21	0.10	0.08		
21	0.00	0.03	0.13	0.18	0.08	0.35	0.98	0.63	0.18	0.20	0.16	0.08		
22	0.00	0.14	0.13	0.09	0.08	0.33	0.83	0.83	0.18	0.19	0.18	0.08		
23	0.00	0.05	0.11	0.08	0.06	5.17	0.77	0.68	0.18	0.19	0.20	0.14		
24	0.00	0.09	0.11	0.08	0.05	1.77	0.89	0.55	0.16	0.18	0.20	0.15		
25	0.00	0.13	0.10	0.08	0.04	1.04	0.61	0.49	0.16	0.16	0.20	0.16		
26	0.00	0.14	0.10	0.08	0.13	0.63	1.22	0.47	0.16	0.16	0.20	0.27		
27	0.00	0.10	0.10	0.08	0.13	0.53	0.74	0.45	0.16	0.15	0.20	0.19		
28	0.00	0.10	0.10	0.08	0.14	0.45	0.68	0.43	0.37	0.14	0.20	0.19		
29	0.04	0.05	0.10	0.11	0.13	0.37	0.63	0.25	0.21	0.14		0.19		
30	0.03	0.03	0.18	0.10	0.51	0.35	0.59	0.23	0.29	0.13		0.18		
31		0.03		0.10	0.63		0.55		0.16	0.13		0.18		
Total	0.07	1.87	4.43	4.70	5.66	15.45	38.91	14.06	8.63	6.19	3.46	4.13	107.56	CMSDAY
Mean	0.00	0.06	0.15	0.15	0.18	0.51	1.26	0.47	0.28	0.20	0.12	0.13	0.29	CMS
Max	0.04	0.15	0.39	0.61	0.63	5.17	9.86	1.04	0.55	0.33	0.20	0.27	9.86	CMS
Min	0.00	0.00	0.01	0.08	0.04	0.16	0.35	0.23	0.16	0.13	0.08	0.08	0.00	CMS
Runoff	0.01	0.16	0.38	0.41	0.49	1.33	3.36	1.21	0.75	0.53	0.30	0.36	9.29	MCM

Momentary Peak 10.58 CMS. at 4.43 m. (MSL.) at 06.00 Hours , on Oct 13 , 2002

Runoff Yield 49.11 Liters/Second/Square KM. Momentary Peak Yield 1763.330 Liters/Second/Square KM.

WATER YEAR : 2002

SOUTHERN PENINSULA WEST COAST

Khlong Tha Yang at Ban Don, Phuket (X.193)

Lat 08 - 00 - 42 N Long 98 - 19 - 12 E

Location : on left bank at the bridge.

	Ban Don **Amphoe** Thalang **Changwat** Phuket
Drainge Area	15 sq.km.
Type of Gage	Staff gage.
Zero Gage at Bottom	-0.369 m. (MSL.)
Bench Mark	B.M.-H.D.
Location BM	On right bank about 6.00 meters from the top staff gage. **Elevation** +3.524 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 fair. Stage-discharge relation defined by 31 discharge measurements made in 2002.

Gage Height in Meter (MSL.) Water Year April 1, 2002 to March 31, 2003

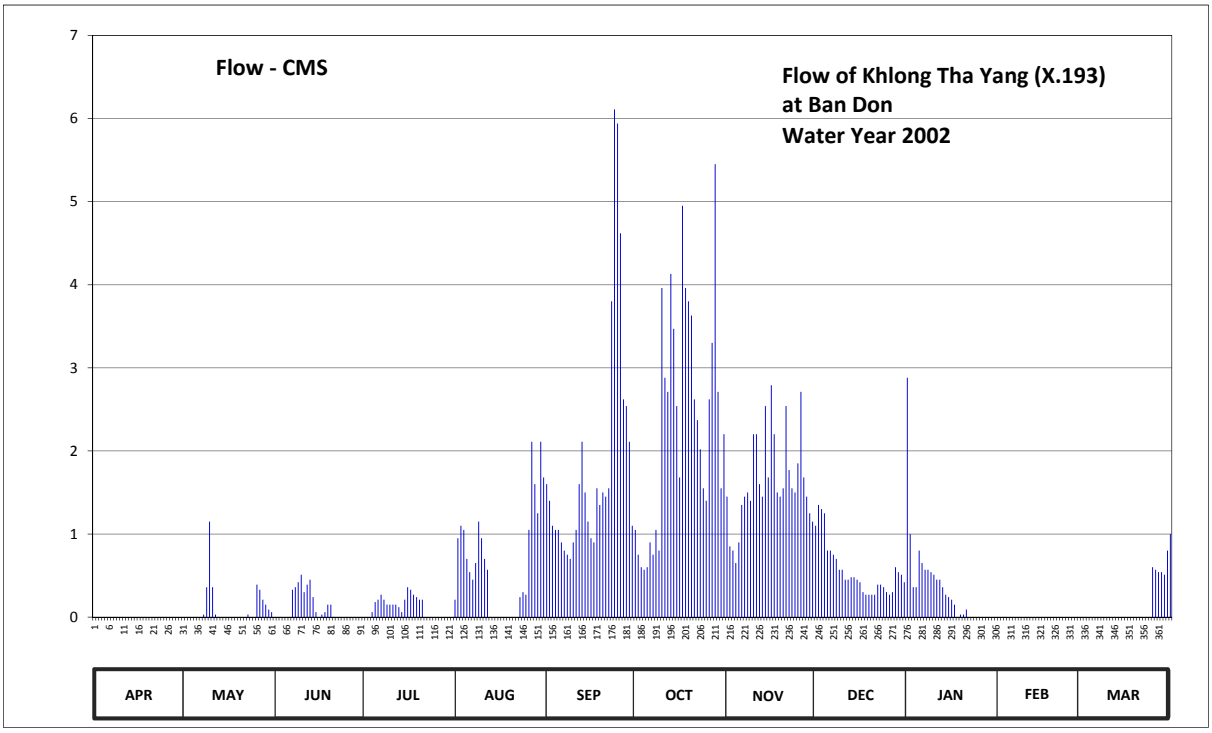
Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	1.00	1.07	1.16	1.15	1.27	1.60	1.49	1.57	1.50	1.75	1.06	0.82	
2	0.99	1.06	1.15	1.16	1.47	1.56	1.43	1.45	1.55	1.48	1.03	0.80	
3	0.99	1.04	1.12	1.16	1.50	1.50	1.40	1.44	1.54	1.32	1.05	0.79	
4	0.99	1.04	1.06	1.22	1.49	1.49	1.39	1.41	1.53	1.32	1.09	0.80	
5	0.97	1.04	1.06	1.26	1.42	1.49	1.40	1.46	1.44	1.44	1.09	0.97	
6	0.97	1.06	1.18	1.27	1.38	1.46	1.46	1.55	1.44	1.41	1.08	0.95	
7	0.97	1.09	1.31	1.29	1.35	1.44	1.43	1.57	1.43	1.39	1.05	1.00	
8	1.01	1.21	1.32	1.27	1.41	1.43	1.49	1.58	1.42	1.39	1.07	0.99	
9	1.01	1.32	1.34	1.25	1.51	1.42	1.44	1.56	1.39	1.38	1.06	0.97	
10	1.00	1.51	1.37	1.25	1.47	1.46	1.84	1.67	1.39	1.37	1.04	0.96	
11	0.99	1.32	1.30	1.25	1.42	1.49	1.75	1.67	1.35	1.35	1.04	0.94	
12	0.99	1.21	1.33	1.25	1.39	1.60	1.73	1.60	1.35	1.35	1.04	0.94	
13	1.00	1.06	1.35	1.24	0.91	1.66	1.85	1.57	1.36	1.32	1.04	0.97	
14	1.01	1.07	1.28	1.22	0.84	1.58	1.81	1.71	1.36	1.29	1.04	0.99	
15	1.01	1.11	1.22	1.27	0.78	1.51	1.71	1.61	1.35	1.28	1.05	1.01	
16	0.99	1.12	1.19	1.32	0.74	1.47	1.61	1.74	1.34	1.27	1.11	1.04	
17	0.97	1.11	1.21	1.31	0.72	1.46	1.90	1.67	1.30	1.25	1.17	1.09	
18	0.98	1.13	1.22	1.29	0.70	1.59	1.84	1.58	1.29	1.19	1.15	1.11	
19	0.98	1.16	1.25	1.28	0.71	1.55	1.83	1.57	1.29	1.21	1.17	1.11	
20	0.98	1.16	1.25	1.27	0.71	1.58	1.82	1.59	1.29	1.21	1.18	1.14	
21	0.98	1.16	1.14	1.27	0.75	1.57	1.72	1.71	1.29	1.23	1.17	1.14	
22	0.98	1.17	1.18	1.20	1.12	1.59	1.69	1.62	1.33	1.20	1.19	1.14	
23	0.98	1.21	1.10	1.19	1.28	1.83	1.65	1.59	1.33	1.19	1.16	1.14	
24	0.99	1.08	1.14	1.19	1.30	1.97	1.59	1.58	1.32	1.19	1.14	1.16	
25	1.01	0.97	1.15	1.18	1.29	1.96	1.56	1.63	1.30	1.19	1.14	1.40	
26	1.03	1.33	1.15	1.17	1.49	1.88	1.72	1.73	1.29	1.09	1.05	1.39	
27	1.05	1.31	1.15	1.17	1.66	1.72	1.80	1.61	1.30	1.13	0.97	1.38	
28	1.04	1.27	1.15	1.17	1.60	1.71	1.93	1.57	1.40	1.13	0.85	1.38	
29	1.08	1.25	1.14	1.17	1.53	1.66	1.73	1.53	1.38	1.10		1.37	
30	1.07	1.23	1.17	1.18	1.66	1.50	1.59	1.51	1.37	1.09		1.44	
31		1.22		1.18	1.61		1.67		1.34	1.06		1.48	
Mean	1.00	1.16	1.20	1.23	1.24	1.59	1.65	1.59	1.37	1.28	1.08	1.09	
Max	1.08	1.51	1.37	1.32	1.66	1.97	1.93	1.74	1.55	1.75	1.19	1.48	1.97
Min	0.97	0.97	1.06	1.15	0.70	1.42	1.39	1.41	1.29	1.06	0.85	0.79	0.70

Annual Max Momentary Gage Height 2.03 m. (MSL.) , at 18.00 Hours , on Sep 23 , 2002

Zero Gage at Bottom Elevation -0.37 m. (MSL.) , River Bed 0.14 m. (MSL.)

Left Bank Elevation 3.55 m. (MSL.) ,

Right Bank Elevation 3.56 m. (MSL.) , Drainage Are 15 Square Kilometers



Discharge in Cubic Meter per Second , Water Year April 1, 2002 to March 31, 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	0.00	0.00	0.21	1.60	1.05	1.45	1.10	2.88	0.00	0.00		
2	0.00	0.00	0.00	0.00	0.95	1.40	0.75	0.85	1.35	1.00	0.00	0.00		
3	0.00	0.00	0.00	0.00	1.10	1.10	0.60	0.80	1.30	0.36	0.00	0.00		
4	0.00	0.00	0.00	0.06	1.05	1.05	0.57	0.65	1.25	0.36	0.00	0.00		
5	0.00	0.00	0.00	0.18	0.70	1.05	0.60	0.90	0.80	0.80	0.00	0.00		
6	0.00	0.00	0.00	0.21	0.54	0.90	0.90	1.35	0.80	0.65	0.00	0.00		
7	0.00	0.00	0.33	0.27	0.45	0.80	0.75	1.45	0.75	0.57	0.00	0.00		
8	0.00	0.03	0.36	0.21	0.65	0.75	1.05	1.50	0.70	0.57	0.00	0.00		
9	0.00	0.36	0.42	0.15	1.15	0.70	0.80	1.40	0.57	0.54	0.00	0.00		
10	0.00	1.15	0.51	0.15	0.95	0.90	3.96	2.20	0.57	0.51	0.00	0.00		
11	0.00	0.36	0.30	0.15	0.70	1.05	2.88	2.20	0.45	0.45	0.00	0.00		
12	0.00	0.03	0.39	0.15	0.57	1.60	2.71	1.60	0.45	0.45	0.00	0.00		
13	0.00	0.00	0.45	0.12	0.00	2.11	4.13	1.45	0.48	0.36	0.00	0.00		
14	0.00	0.00	0.24	0.06	0.00	1.50	3.47	2.54	0.48	0.27	0.00	0.00		
15	0.00	0.00	0.06	0.21	0.00	1.15	2.54	1.68	0.45	0.24	0.00	0.00		
16	0.00	0.00	0.00	0.36	0.00	0.95	1.68	2.79	0.42	0.21	0.00	0.00		
17	0.00	0.00	0.03	0.33	0.00	0.90	4.95	2.20	0.30	0.15	0.00	0.00		
18	0.00	0.00	0.06	0.27	0.00	1.55	3.96	1.50	0.27	0.00	0.00	0.00		
19	0.00	0.00	0.15	0.24	0.00	1.35	3.80	1.45	0.27	0.03	0.00	0.00		
20	0.00	0.00	0.15	0.21	0.00	1.50	3.63	1.55	0.27	0.03	0.00	0.00		
21	0.00	0.00	0.00	0.21	0.00	1.45	2.62	2.54	0.27	0.09	0.00	0.00		
22	0.00	0.00	0.00	0.00	0.00	1.55	2.37	1.77	0.39	0.00	0.00	0.00		
23	0.00	0.03	0.00	0.00	0.24	3.80	2.02	1.55	0.39	0.00	0.00	0.00		
24	0.00	0.00	0.00	0.00	0.30	6.11	1.55	1.50	0.36	0.00	0.00	0.00		
25	0.00	0.00	0.00	0.00	0.27	5.94	1.40	1.85	0.30	0.00	0.00	0.60		
26	0.00	0.39	0.00	0.00	1.05	4.62	2.62	2.71	0.27	0.00	0.00	0.57		
27	0.00	0.33	0.00	0.00	2.11	2.62	3.30	1.68	0.30	0.00	0.00	0.54		
28	0.00	0.21	0.00	0.00	1.60	2.54	5.45	1.45	0.60	0.00	0.00	0.54		
29	0.00	0.15	0.00	0.00	1.25	2.11	2.71	1.25	0.54	0.00		0.51		
30	0.00	0.09	0.00	0.00	2.11	1.10	1.55	1.15	0.51	0.00		0.80		
31		0.06		0.00	1.68		2.20		0.42	0.00		1.00		
Total	0.00	3.19	3.45	3.54	19.63	55.75	72.57	48.96	17.38	10.52	0.00	4.56	239.55	CMSDAY
Mean	0.00	0.10	0.11	0.11	0.63	1.86	2.34	1.63	0.56	0.34	0.00	0.15	0.66	CMS
Max	0.00	1.15	0.51	0.36	2.11	6.11	5.45	2.79	1.35	2.88	0.00	1.00	6.11	CMS
Min	0.00	0.00	0.00	0.00	0.00	0.70	0.57	0.65	0.27	0.00	0.00	0.00	0.00	CMS
Runoff	0.00	0.28	0.30	0.31	1.70	4.82	6.27	4.23	1.50	0.91	0.00	0.39	20.70	MCM

Momentary Peak 7.41 CMS. at 2.03 m. (MSL.) at 18.00 Hours , on Sep 23 , 2002

Runoff Yield 43.35 Liters/Second/Square KM. Momentary Peak Yield 489.430 Liters/Second/Square KM.

Suspended Sediment Station

Water Year 2002

WATER YEAR : 2002

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	1999-2002
Number of observation	66
R-Square	0.8040
Remarks	Continued Sediment Station

$$QS = 5.9537\ QW^{1.05610}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.70	2.90	116.40	357.40	15.00	292.90	171.50	224.50	6.60	8.50	7.20	9.10		
2	1.70	3.50	54.90	186.60	11.70	461.30	183.60	229.90	6.60	7.90	7.20	8.50		
3	1.70	2.90	21.70	101.80	25.10	1425.70	210.80	158.00	6.60	7.90	6.60	8.50		
4	1.10	2.90	15.00	55.60	56.40	2317.90	197.20	87.90	6.00	7.90	6.60	7.90		
5	1.10	2.90	55.60	25.70	40.20	2263.50	160.30	52.80	6.00	7.90	6.00	7.90		
6	0.50	2.90	104.70	11.70	24.40	1888.60	109.10	34.00	6.00	7.90	6.00	7.90		
7	0.50	2.90	93.70	9.80	13.00	1487.20	123.10	27.10	5.30	7.90	6.00	6.60		
8	0.50	2.30	60.60	9.10	9.80	1193.80	120.10	21.00	4.70	7.90	5.30	6.60		
9	0.50	2.30	57.80	9.10	8.50	1106.40	80.00	18.30	5.30	7.20	5.30	7.20		
10	0.50	1.70	74.90	9.10	7.20	1328.30	46.50	15.00	4.70	7.20	4.70	6.60		
11	0.50	2.30	59.20	9.10	6.00	1025.30	27.10	13.70	4.10	7.20	4.70	6.60		
12	1.10	2.90	31.20	8.50	6.60	777.40	17.00	12.40	3.50	7.20	4.70	6.60		
13	1.70	2.90	33.30	7.90	7.90	601.00	15.00	11.10	3.50	6.60	4.10	6.60		
14	1.10	2.90	134.90	6.00	13.70	463.70	12.40	14.30	3.50	6.00	4.10	7.20		
15	1.10	3.50	312.30	4.70	18.30	382.50	10.40	13.00	2.30	6.00	4.70	7.20		
16	1.70	16.30	394.30	4.10	13.70	341.00	9.10	12.40	2.30	5.30	4.70	7.20		
17	1.10	130.50	325.50	4.10	12.40	408.40	8.50	57.10	1.70	5.30	4.70	7.20		
18	1.10	151.30	99.60	4.70	13.70	667.10	8.50	116.40	1.10	5.30	4.70	7.90		
19	2.30	108.40	64.20	4.10	69.90	768.40	9.10	52.10	0.50	5.30	6.60	7.90		
20	2.30	57.80	111.30	4.10	326.30	689.70	10.40	22.40	1.10	4.10	6.60	8.50		
21	1.10	22.40	100.30	4.10	399.80	654.10	9.80	15.00	3.50	4.10	6.00	9.10		
22	0.50	10.40	64.90	4.70	347.30	561.70	12.40	11.70	4.70	5.30	6.00	9.80		
23	1.10	6.60	36.00	7.90	319.30	425.80	37.40	9.80	4.70	6.00	5.30	9.80		
24	1.10	5.30	18.30	9.10	302.20	299.10	47.20	8.50	6.00	6.00	5.30	9.10		
25	1.10	6.00	14.30	7.20	282.90	145.30	42.30	8.50	6.60	7.20	5.30	8.50		
26	1.10	13.70	16.30	6.00	236.00	77.80	35.30	7.90	6.60	7.20	7.20	8.50		
27	1.70	50.70	134.20	4.70	150.60	52.10	64.90	7.20	7.20	7.20	6.60	8.50		
28	1.10	66.30	640.40	4.10	101.80	36.00	220.00	7.20	8.50	7.20	9.10	8.50		
29	0.00	41.60	698.60	7.20	77.10	109.80	298.30	7.20	8.50	7.20		8.50		
30	0.00	24.40	543.30	12.40	87.20	171.50	306.10	6.60	8.50	7.20		8.50		
31		88.70		19.70	182.10		265.90		8.50	7.20		8.50		
Total	32.60	842.10	4487.70	920.30	3186.10	22423.30	2869.30	1283.00	154.70	208.30	161.30	247.00	36815.70	Tonday
Mean	1.16	27.16	149.59	29.69	102.78	747.44	92.56	42.77	4.99	6.72	5.76	7.97		Ton/day
Max	2.30	151.30	698.60	357.40	399.80	2317.90	306.10	229.90	8.50	8.50	9.10	9.80	2317.90	Ton/day
Min	0.00	1.70	14.30	4.10	6.00	36.00	8.50	6.60	0.50	4.10	4.10	6.60	0.00	Ton/day

WATER YEAR : 2002

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	1998-2002
Number of observation	81
R-Square	0.8266
Remarks	Continued Sediment Station

$$QS = 2.8648\ QW^{1.49840}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	30.10	24.60	296.20	99.90	232.40	2380.10	709.70	574.70	50.60	13.40	8.10	8.10		
2	10.60	24.60	260.80	75.80	164.10	61746.00	935.00	1684.30	33.90	8.10	9.30	9.30		
3	7.50	26.40	75.80	64.60	205.20	73174.00	865.30	677.70	31.90	9.30	10.60	12.00		
4	6.30	24.60	57.50	57.50	290.20	69539.90	584.80	397.60	30.10	8.10	12.00	12.00		
5	6.30	22.90	52.90	50.60	221.40	92512.60	384.40	302.20	30.10	8.10	10.60	12.00		
6	5.30	22.90	169.00	57.50	333.00	79977.20	333.00	249.30	31.90	8.10	12.00	12.00		
7	4.20	21.20	525.40	72.00	1339.30	46358.70	2675.00	216.00	30.10	7.50	12.00	12.00		
8	4.20	21.20	397.60	72.00	899.90	18045.10	1117.10	112.70	28.20	7.50	12.00	12.00		
9	3.30	19.50	296.20	46.20	508.50	11251.40	465.80	99.90	26.40	6.30	12.00	12.00		
10	2.90	99.90	260.80	50.60	284.20	12290.20	333.00	126.10	30.10	5.80	9.30	9.30		
11	2.90	57.50	424.50	79.70	205.20	7434.20	278.30	174.10	30.10	5.80	6.30	6.30		
12	2.90	35.90	345.60	144.70	411.00	2404.20	238.00	194.60	33.90	6.90	4.70	4.70		
13	46.20	28.20	397.60	189.40	865.30	1866.40	210.60	139.90	26.40	7.50	3.80	4.70		
14	35.90	99.90	1567.60	159.10	1616.70	2054.70	169.00	104.10	22.90	7.50	3.80	5.30		
15	24.60	46.20	1792.80	135.30	1167.40	1978.60	174.10	243.60	21.20	12.00	3.30	5.80		
16	42.00	83.60	635.90	112.70	1092.20	1599.10	205.20	958.70	19.50	7.50	3.80	5.30		
17	44.10	646.20	205.20	104.10	1339.30	1585.10	159.10	2016.50	19.50	7.50	4.20	2.90		
18	30.10	194.60	184.20	126.10	1429.80	5044.60	144.70	584.80	17.90	6.90	2.90	2.40		
19	26.40	164.10	174.10	174.10	1352.60	2284.40	144.70	278.30	16.40	5.80	3.80	2.40		
20	26.40	117.10	144.70	194.60	1309.60	9369.10	126.10	194.60	16.40	5.30	2.40	2.40		
21	26.40	59.80	99.90	135.30	1180.10	8656.20	112.70	149.40	14.90	4.70	2.40	4.20		
22	31.90	39.90	345.60	95.70	1648.60	19870.80	95.70	95.70	13.40	5.30	2.40	5.30		
23	28.20	28.20	194.60	68.30	3963.30	6237.00	87.60	68.30	13.40	5.80	2.40	5.30		
24	30.10	104.10	99.90	55.20	3653.50	2054.70	91.60	55.20	14.90	6.30	2.40	5.30		
25	28.20	371.30	112.70	59.80	1030.80	1167.40	205.20	59.80	16.40	9.30	2.40	4.20		
26	30.10	169.00	179.10	75.80	1847.90	819.80	1365.90	75.80	17.90	13.40	2.40	2.90		
27	30.10	79.70	154.30	95.70	2877.90	656.70	3433.40	95.70	14.90	16.40	3.80	5.80		
28	26.40	159.10	99.90	121.60	865.30	946.80	9267.90	121.60	12.00	14.90	2.40	3.80		
29	26.40	445.00	159.10	139.90	584.80	1792.80	3164.80	95.70	12.00	13.40		3.80		
30	24.60	501.30	87.60	149.40	1847.90	911.60	1067.50	75.80	13.40	10.60		4.70		
31		515.70		272.40	4880.50		574.70		13.40	9.30		17.90		
Total	644.60	4254.20	9797.10	3335.60	39647.90	546009.40	29719.90	10222.70	704.10	264.30	167.50	216.10	644983.40	Tonday
Mean	21.49	137.23	326.57	107.60	1278.96	18200.31	958.71	340.76	22.71	8.53	5.98	6.97		Ton/day
Max	46.20	646.20	1792.80	272.40	4880.50	92512.60	9267.90	2016.50	50.60	16.40	12.00	17.90	92512.60	Ton/day
Min	2.90	19.50	52.90	46.20	164.10	656.70	87.60	55.20	12.00	4.70	2.40	2.40	2.40	Ton/day

WATER YEAR : 2002

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.
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	1999-2002
Number of observation	18
R-Square	0.8436
Remarks	Continued Sediment Station

$$QS = 2.3891\ QW^{1.49310}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.20	6.70	9.40	21.80	0.10	58.30	36.40	14.90	0.10	0.00	0.60	0.20		
2	0.20	0.10	11.10	23.30	0.10	102.50	31.30	12.30	0.00	0.00	0.00	0.10		
3	0.20	2.80	7.20	10.50	0.10	368.30	23.30	11.10	0.00	0.00	0.00	0.10		
4	0.20	2.80	7.20	4.40	0.10	1063.30	18.90	8.30	0.00	0.00	0.00	0.10		
5	0.00	1.10	28.00	2.00	0.10	2060.10	14.90	7.20	0.00	0.00	0.00	1.10		
6	0.00	0.80	28.00	1.10	0.40	2873.70	13.60	5.30	0.00	0.00	0.00	2.40		
7	0.00	0.40	41.80	0.60	0.40	2187.70	26.40	4.80	0.00	0.00	0.00	3.50		
8	0.00	0.40	34.70	0.40	0.20	1768.10	21.80	3.50	0.00	0.00	0.00	2.00		
9	0.00	0.40	49.40	0.10	0.40	4320.30	17.50	3.10	0.00	0.00	0.00	1.10		
10	0.00	0.00	61.40	0.10	0.10	3507.20	12.30	2.00	0.00	0.00	0.00	0.60		
11	0.00	0.00	29.60	0.00	13.60	1970.90	10.00	1.40	0.00	0.00	0.00	0.10		
12	0.00	0.00	13.60	0.00	33.00	1161.00	7.80	1.40	0.00	0.00	0.00	0.10		
13	0.00	0.00	7.80	0.00	23.30	516.00	5.70	1.10	0.00	0.00	0.00	0.20		
14	0.00	0.00	5.70	0.00	38.20	225.10	4.40	1.10	0.00	0.00	0.00	0.00		
15	0.00	0.00	4.80	0.00	77.70	102.50	3.50	0.80	0.00	0.00	0.00	0.00		
16	0.00	0.00	3.50	0.00	81.10	77.70	2.80	0.80	0.00	0.00	0.00	0.00		
17	0.00	0.00	3.50	0.00	91.60	84.60	2.80	2.00	0.00	0.00	0.00	0.00		
18	0.00	0.00	3.10	0.00	102.50	130.80	2.80	1.40	0.00	0.00	0.00	0.00		
19	0.00	0.00	1.10	0.00	74.40	181.80	3.90	1.10	0.00	0.00	0.00	0.00		
20	0.00	0.00	0.80	0.00	67.80	241.30	6.20	0.80	0.00	0.00	0.00	0.00		
21	0.00	0.00	0.40	0.00	67.80	249.60	5.30	0.60	0.00	0.00	0.00	0.00		
22	0.00	0.00	0.40	0.00	46.50	170.00	12.30	0.60	0.00	0.00	0.00	0.00		
23	0.00	0.00	2.80	0.00	43.70	84.60	43.70	0.60	0.00	0.00	0.00	0.00		
24	0.00	0.00	13.60	0.00	0.00	36.40	43.70	0.20	0.00	0.00	0.00	0.00		
25	0.00	0.00	17.50	0.00	0.00	16.20	38.20	0.10	0.00	0.00	0.00	0.00		
26	0.00	0.00	0.00	0.00	0.00	8.80	33.00	0.10	0.00	0.00	0.00	0.00		
27	0.00	0.00	0.00	0.00	0.00	8.30	40.00	0.10	0.00	0.00	0.00	0.00		
28	0.00	0.00	0.00	0.00	0.00	5.70	46.50	0.10	0.00	0.00	0.00	0.00		
29	0.00	0.00	0.00	0.00	0.00	71.10	38.20	0.10	0.00	0.00		0.00		
30	0.00	0.00	0.00	0.00	0.00	61.40	28.00	0.10	0.00	0.00		0.00		
31		0.00		0.00	0.00		23.30		0.00	0.00		0.00		
Total	0.80	15.50	386.40	64.30	763.20	23713.30	618.50	87.00	0.10	0.00	0.60	11.60	25661.30	Tonday
Mean	0.20	1.72	15.46	6.43	33.18	790.44	19.95	2.90	0.10	0.00	0.60	0.89		Ton/day
Max	0.20	6.70	61.40	23.30	102.50	4320.30	46.50	14.90	0.10	0.00	0.60	3.50	4320.30	Ton/day
Min	0.20	0.10	0.40	0.10	0.10	5.70	2.80	0.10	0.10	0.00	0.60	0.10	0.00	Ton/day

WATER YEAR : 2002

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	1998-2002
Number of observation	87
R-Square	0.8435
Remarks	Continued Sediment Station

$$QS = 2.6835\ QW^{1.42460}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	39.50	1.50	1689.10	142.50	148.70	4194.90	1474.20	898.60	106.50	65.30	22.10	41.20		
2	25.10	1.00	499.50	148.70	100.80	24128.20	1489.30	1058.20	86.00	67.30	28.10	46.50		
3	16.60	2.50	187.40	88.10	95.20	57253.60	2104.90	1616.50	90.30	46.50	55.60	44.70		
4	11.60	9.30	95.20	67.30	155.70	86847.70	1762.70	859.90	88.10	44.70	46.50	39.50		
5	7.20	16.60	208.10	55.60	142.50	93680.50	1211.10	569.80	106.50	44.70	32.80	28.10		
6	6.40	22.10	334.70	46.50	127.10	97155.50	872.70	449.40	95.20	44.70	32.80	26.60		
7	5.70	32.80	463.60	44.70	145.60	77176.90	2567.40	380.70	90.30	42.90	31.20	25.10		
8	2.50	34.50	251.20	42.90	859.90	41139.70	3615.40	273.70	83.80	46.50	29.70	23.60		
9	0.90	28.10	163.50	41.20	456.50	29328.90	1549.90	269.20	79.60	46.50	29.70	22.10		
10	1.00	28.10	290.60	36.10	203.90	23336.50	924.60	225.00	73.40	44.70	29.70	18.00		
11	0.90	83.80	334.70	29.70	130.10	15938.90	499.50	208.10	69.30	42.90	36.10	19.30		
12	0.80	44.70	360.80	46.50	100.80	8248.20	492.20	191.50	63.30	44.70	41.20	19.30		
13	2.50	39.50	203.90	212.30	477.80	4924.40	401.00	187.40	61.40	39.50	41.20	22.10		
14	7.20	46.50	1071.80	124.10	401.00	4222.30	278.30	171.40	57.50	29.70	34.50	22.10		
15	18.00	48.30	3456.10	83.80	394.20	3823.50	251.20	155.70	57.50	28.10	36.10	20.70		
16	12.80	92.50	809.10	75.40	225.00	3478.70	233.70	151.90	51.90	26.60	50.10	18.00		
17	9.30	290.60	380.70	63.30	139.30	2671.50	229.30	216.50	50.10	28.10	61.40	28.10		
18	9.30	229.30	309.30	71.30	103.70	6727.80	229.30	588.80	50.10	28.10	55.60	32.80		
19	10.50	121.10	421.50	83.80	95.20	5714.00	233.70	442.40	50.10	20.70	48.30	31.20		
20	5.70	95.20	598.30	95.20	191.50	9678.90	315.60	296.70	48.30	23.60	39.50	31.20		
21	3.70	71.30	456.50	86.00	834.40	11022.60	264.70	242.40	46.50	25.10	39.50	42.90		
22	2.50	48.30	435.40	63.30	1253.90	14514.20	543.60	203.90	44.70	25.10	37.80	42.90		
23	2.50	34.50	191.50	57.50	2567.40	13842.60	273.70	183.40	41.20	26.60	36.10	90.30		
24	2.50	28.10	124.10	55.60	3977.50	4809.90	260.20	155.70	42.90	28.10	34.50	65.30		
25	5.00	28.10	83.80	41.20	1837.10	2526.10	246.80	139.30	42.90	25.10	32.80	53.80		
26	7.20	112.30	136.30	44.70	2046.60	1634.60	203.90	148.70	39.50	20.70	29.70	46.50		
27	5.00	100.80	167.40	55.60	4058.60	1211.10	477.80	139.30	42.90	19.30	31.20	41.20		
28	4.30	81.70	736.80	61.40	1616.50	1099.30	6100.50	159.60	44.70	18.00	50.10	36.10		
29	3.10	911.60	964.10	83.80	1113.10	1182.90	5650.30	139.30	48.30	18.00		41.20		
30	3.10	1874.70	284.40	88.10	1874.70	1565.20	2947.80	130.10	50.10	18.00		42.90		
31		1670.90		92.50	6828.50		1474.20		48.30	19.30		39.50		
Total	232.40	6230.30	15709.40	2328.70	32702.80	653079.10	39179.50	10853.10	1951.20	1049.10	1073.90	1102.80	765492.30	Tonday
Mean	7.75	200.98	523.65	75.12	1054.93	21769.30	1263.85	361.77	62.94	33.84	38.35	35.57		Ton/day
Max	39.50	1874.70	3456.10	212.30	6828.50	97155.50	6100.50	1616.50	106.50	67.30	61.40	90.30	97155.50	Ton/day
Min	0.80	1.00	83.80	29.70	95.20	1099.30	203.90	130.10	39.50	18.00	22.10	18.00	0.80	Ton/day

WATER YEAR : 2002

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	1998-2002
Number of observation	81
R-Square	0.8136
Remarks	Continued Sediment Station

$$QS = 3.3140\ QW^{1.64720}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	17.50	0.70	78.30	17.50	83.30	21945.40	864.10	251.20	17.50	7.20	7.20	8.30		
2	1.10	0.70	39.50	17.50	64.10	68993.70	901.40	342.30	17.50	7.20	6.10	7.20		
3	1.10	0.70	29.20	17.50	73.40	43434.70	651.40	251.20	17.50	6.10	6.10	6.10		
4	1.10	4.20	15.00	32.50	88.40	45777.40	579.10	243.50	15.00	6.10	6.10	6.10		
5	1.10	7.20	26.10	29.20	68.70	80609.30	463.70	192.10	13.50	6.10	6.10	6.10		
6	1.10	6.10	73.40	26.10	64.10	34258.60	901.40	158.40	12.10	6.10	6.10	6.10		
7	1.10	6.10	78.30	26.10	3251.40	13725.50	3843.30	164.90	12.10	6.10	6.10	5.10		
8	1.10	5.10	64.10	23.10	551.20	7728.90	681.20	88.40	10.80	6.10	6.10	5.10		
9	0.90	4.20	29.20	20.20	220.90	13838.00	299.50	78.30	10.80	6.10	6.10	5.10		
10	0.90	20.20	32.50	20.20	206.30	8886.80	275.00	73.40	10.80	6.10	6.10	5.10		
11	0.70	7.20	51.00	17.50	93.60	4289.50	251.20	73.40	10.80	6.10	5.10	2.80		
12	0.70	4.20	104.40	145.60	1384.10	2153.10	220.90	68.70	12.10	6.10	5.10	2.80		
13	0.70	51.00	444.10	93.60	324.90	2474.90	164.90	64.10	12.10	6.10	5.10	2.80		
14	2.10	9.50	1096.60	73.40	473.70	1688.30	145.60	64.10	10.80	6.10	104.40	2.80		
15	5.10	8.30	510.30	59.60	275.00	2084.00	127.30	59.60	9.50	6.10	12.10	2.80		
16	2.50	78.30	259.00	55.30	121.40	1882.10	127.30	59.60	8.30	6.10	8.30	2.80		
17	1.10	213.50	152.00	51.00	109.90	1533.20	109.90	78.30	8.30	7.20	8.30	2.80		
18	1.20	32.50	109.90	64.10	93.60	1915.10	121.40	83.30	8.30	7.20	7.20	2.80		
19	1.20	26.10	68.70	98.90	88.40	1982.00	220.90	68.70	8.30	7.20	7.20	2.50		
20	1.20	17.50	43.20	93.60	1036.50	7591.50	259.00	68.70	8.30	7.20	6.10	2.50		
21	1.10	17.50	35.90	93.60	3292.30	12147.70	158.40	68.70	8.30	7.20	5.10	12.10		
22	1.10	13.50	29.20	43.20	2814.00	20043.50	127.30	64.10	8.30	7.20	5.10	10.80		
23	1.10	8.30	17.50	39.50	3799.70	3009.70	127.30	64.10	8.30	7.20	5.10	10.80		
24	1.10	7.20	17.50	39.50	1784.10	1720.00	127.30	64.10	9.50	7.20	5.10	9.50		
25	1.10	213.50	83.30	35.90	666.20	939.20	121.40	39.50	9.50	7.20	5.10	9.50		
26	1.10	20.20	59.60	39.50	6985.30	726.90	115.60	10.80	9.50	7.20	5.10	9.50		
27	1.10	35.90	68.70	35.90	3713.20	636.60	1472.80	9.50	8.30	7.20	5.10	8.30		
28	1.10	283.10	39.50	55.30	444.10	1056.40	7051.70	9.50	8.30	7.20	5.10	8.30		
29	0.70	593.30	26.10	83.30	510.30	3129.60	2329.70	9.50	7.20	7.20		10.80		
30	0.70	51.00	20.20	133.30	7252.30	1056.40	307.90	9.50	7.20	7.20		23.10		
31		228.30		199.10	1915.10		266.90		7.20	7.20		17.50		
Total	53.70	1975.10	3702.30	1780.60	41849.50	411258.00	23414.80	2881.50	326.00	207.80	271.80	217.90	487939.00	Tonday
Mean	1.79	63.71	123.41	57.44	1349.98	13708.60	755.32	96.05	10.52	6.70	9.71	7.03		Ton/day
Max	17.50	593.30	1096.60	199.10	7252.30	80609.30	7051.70	342.30	17.50	7.20	104.40	23.10	80609.30	Ton/day
Min	0.70	0.70	15.00	17.50	64.10	636.60	109.90	9.50	7.20	6.10	5.10	2.50	0.70	Ton/day

WATER YEAR : 2002

KHONG RIVER BASIN

Huai Nam Kam at Ban Dan Muang Kham, Sakon Nakhon (Kh.63)

Lat 17 - 06 - 08 N Long 104 - 21 - 28 E

Location : on left bank at the bridge on road.

Ban Dan Muang Kham **Amphoe** Khok Si Suphan **Changwat** Sakon Nakhon

Drainge Area	1,820 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.DH-48
Period of Available Records	1983 - Cont'd
Actual Measurement	1983 - Cont'd
Using Rating Curve Water Year	1983-2002
Number of observation	136
R-Square	0.8222
Remarks	Continued Sediment Station

$$QS = 7.8056\ QW^{0.79670}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	93.90	66.80	138.30	299.20	290.30	310.90	209.40	82.90	124.40	115.40	112.60	116.00		
2	96.20	70.70	166.00	298.00	280.70	319.60	199.70	79.10	127.80	114.80	112.60	115.40		
3	99.80	74.60	162.30	294.80	277.40	330.40	180.90	77.40	131.10	114.20	113.20	114.80		
4	108.50	79.10	157.70	310.00	271.90	343.30	169.10	76.00	132.60	114.20	113.50	114.20		
5	110.40	81.80	143.70	321.80	268.40	347.50	148.10	75.30	133.20	114.20	113.50	114.80		
6	110.70	86.90	138.30	310.00	259.50	351.80	72.50	75.30	133.20	114.20	113.50	114.80		
7	112.60	91.60	136.50	356.50	251.60	374.40	23.60	73.20	134.40	114.20	113.50	113.50		
8	114.20	93.90	146.30	356.50	250.10	389.60	19.70	50.80	131.10	101.70	113.50	113.50		
9	114.80	97.50	139.20	356.50	249.30	397.20	46.50	31.20	128.40	81.80	113.50	113.50		
10	115.40	104.00	149.50	356.50	247.80	394.70	52.00	29.50	125.90	61.30	113.50	113.50		
11	116.00	106.20	177.90	349.70	243.90	384.60	44.10	28.10	121.60	45.30	113.50	114.20		
12	117.60	108.50	181.50	345.40	240.80	379.50	35.10	84.60	120.40	31.20	114.20	113.50		
13	117.00	109.10	180.90	324.00	235.30	371.90	28.10	112.60	119.10	39.30	114.20	113.50		
14	117.60	110.40	189.30	317.50	226.70	369.30	32.50	112.60	118.80	48.10	114.80	113.50		
15	120.40	113.20	193.90	305.60	199.70	361.60	85.20	98.80	118.20	56.50	114.20	113.50		
16	121.00	110.70	195.00	298.00	181.50	379.50	121.00	81.50	118.20	61.00	114.20	114.20		
17	121.60	109.10	197.80	290.30	174.20	377.00	131.10	79.80	117.00	61.70	114.80	114.20		
18	121.00	97.50	202.40	287.10	164.90	364.20	129.90	72.50	117.60	72.50	115.40	114.80		
19	121.60	88.90	201.60	283.90	149.00	366.80	121.00	42.90	117.60	77.00	114.80	117.00		
20	121.60	100.50	202.40	278.40	166.00	377.00	127.80	42.10	117.00	81.50	114.80	109.10		
21	121.00	106.20	201.00	271.90	189.30	369.30	131.70	39.30	117.00	85.60	115.40	116.00		
22	121.60	106.20	201.60	270.70	218.70	359.10	124.40	19.20	117.00	89.90	115.40	102.10		
23	114.80	94.60	197.80	265.10	298.00	351.80	96.20	17.70	117.00	94.60	115.40	77.00		
24	48.10	114.80	191.70	261.80	307.80	343.30	96.20	24.00	115.40	96.90	115.40	101.70		
25	20.70	120.40	203.70	255.40	317.50	336.90	92.90	79.10	115.40	101.10	115.40	106.90		
26	31.70	122.50	201.60	253.90	315.30	308.70	120.40	98.20	115.40	104.00	118.20	85.60		
27	38.50	121.60	204.30	249.30	304.60	288.40	126.50	107.50	115.40	106.20	117.60	73.50		
28	45.70	120.40	198.30	243.10	307.80	262.80	107.80	113.50	115.40	107.80	117.00	85.20		
29	53.90	123.20	212.10	251.60	313.10	235.30	95.90	117.60	115.40	110.70		121.60		
30	59.90	123.20	212.60	272.90	307.80	222.70	97.50	121.00	115.40	111.30		114.20		
31		141.00		289.40	305.60		91.60		115.40	113.20		111.30		
Total	2927.80	3195.10	5425.20	9224.80	7814.50	10369.10	3158.40	2143.30	3761.80	2741.40	3207.60	3376.60	57345.60	Tonday
Mean	97.59	103.07	180.84	297.57	252.08	345.64	101.88	71.44	121.35	88.43	114.56	108.92		Ton/day
Max	121.60	141.00	212.60	356.50	317.50	397.20	209.40	121.00	134.40	115.40	118.20	121.60	397.20	Ton/day
Min	20.70	66.80	136.50	243.10	149.00	222.70	19.70	17.70	115.40	31.20	112.60	73.50	17.70	Ton/day

WATER YEAR : 2002

KHONG RIVER BASIN

Lam Nam Kam at Ban Nong Rua Thong, Nakhon Phanom (Kh.69A)

Lat 16 - 57 - 32 N Long 104 - 28 - 02 E

Location : on right bank at the bridge on highway.

Ban Nong Rua Thong **Amphoe** Na Kae **Changwat** Nakhon Phanom

Drainge Area	2,288 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	1998-2002
Number of observation	78
R-Square	0.8198
Remarks	Continued Sediment Station

$$QS = 4.4375\ QW^{1.12320}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	379.50	165.30	142.10	1144.60	1030.80	1405.30	857.50	547.90	414.60	578.40	450.80	510.80		
2	331.10	165.30	137.00	1154.10	1212.60	1515.60	751.70	547.90	417.90	578.40	454.10	510.80		
3	331.10	147.30	173.10	1182.80	1379.10	1586.50	681.40	551.30	421.20	578.40	460.80	500.80		
4	331.10	116.90	52.40	1228.10	1347.70	1625.30	664.10	547.90	431.00	578.40	464.10	497.40		
5	379.50	102.00	36.30	1295.50	1254.00	1690.20	571.60	547.90	437.60	578.40	470.70	510.80		
6	428.60	87.40	157.50	1321.60	1163.70	1840.10	840.50	554.60	447.50	585.20	470.70	510.80		
7	428.60	77.80	212.70	1379.10	1049.70	1950.50	969.80	554.60	454.10	585.20	470.70	507.50		
8	457.50	77.80	343.20	1464.30	930.30	2180.90	810.80	551.30	457.50	585.20	470.70	500.80		
9	490.70	82.60	609.10	1560.70	840.50	2233.30	371.60	551.30	457.50	585.20	470.70	510.80		
10	541.10	102.00	684.90	1625.30	866.00	2240.80	421.20	547.90	467.40	585.20	470.70	517.50		
11	592.00	137.00	705.70	1703.20	751.70	2240.80	384.50	537.70	477.40	592.00	470.70	520.90		
12	592.00	204.70	926.00	1696.70	740.50	2225.80	343.20	517.50	477.40	592.00	470.70	524.30		
13	612.50	253.10	979.20	1696.70	712.60	2180.90	440.90	537.70	487.40	592.00	470.70	510.80		
14	615.90	269.40	1030.80	1631.80	716.10	2143.50	464.10	527.60	487.40	592.00	464.10	510.80		
15	622.80	294.20	1097.00	1502.80	684.90	2121.10	537.70	510.80	490.70	602.30	470.70	510.80		
16	629.70	188.80	1054.40	1358.10	612.50	2233.30	544.50	490.70	507.50	605.70	464.10	500.80		
17	640.00	180.90	1026.10	1202.30	457.50	2285.80	444.20	477.40	524.30	605.70	464.10	500.80		
18	640.00	142.10	1030.80	1111.30	302.50	2263.30	437.60	470.70	537.70	605.70	470.70	500.80		
19	640.00	42.70	988.50	1016.70	619.40	2240.80	411.30	464.10	537.70	605.70	470.70	497.40		
20	640.00	73.00	926.00	951.80	836.20	2233.30	400.20	464.10	537.70	605.70	477.40	497.40		
21	633.10	87.40	926.00	921.70	1012.00	2225.80	392.40	454.10	544.50	598.80	484.10	500.80		
22	615.90	102.00	934.60	900.30	1026.10	2188.30	374.20	431.00	544.50	595.40	490.70	500.80		
23	474.10	102.00	960.50	870.30	1002.60	2136.10	369.00	408.00	547.90	592.00	500.80	510.80		
24	42.70	111.90	1030.80	840.50	1082.80	2069.10	358.60	427.70	551.30	592.00	500.80	527.60		
25	58.90	121.90	1111.30	772.80	1192.30	1965.30	345.70	424.40	558.00	578.40	507.50	541.10		
26	92.20	147.30	1120.80	723.10	1306.00	1862.10	338.00	405.40	564.80	534.40	507.50	514.20		
27	111.90	228.70	1087.50	674.50	1373.80	1690.20	356.00	395.00	568.20	510.80	500.80	527.60		
28	121.90	212.70	1149.30	664.10	1405.30	1431.60	402.80	389.80	571.60	490.70	507.50	547.90		
29	142.10	87.40	1173.20	705.70	1452.60	1238.50	474.10	392.40	571.60	477.40		602.30		
30	157.50	12.40	1173.20	951.80	1470.70	1054.40	544.50	397.60	571.60	457.50		622.80		
31		0.00		1030.80	1405.30		547.90		575.00	450.80		646.90		
Total	12774.00	4124.00	22980.00	36283.10	31237.80	58298.50	15851.60	14626.30	15640.50	17695.00	13347.60	16195.60	259054.00	Tonday
Mean	425.80	137.47	766.00	1170.42	1007.67	1943.28	511.34	487.54	504.53	570.81	476.70	522.44		Ton/day
Max	640.00	294.20	1173.20	1703.20	1470.70	2285.80	969.80	554.60	575.00	605.70	507.50	646.90	2285.80	Ton/day
Min	42.70	0.00	36.30	664.10	302.50	1054.40	338.00	389.80	414.60	450.80	450.80	497.40	0.00	Ton/day

WATER YEAR : 2002

KHONG RIVER BASIN

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

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

Location : on right bank at Ban Kok So.

Ban Kok So **Amphoe** Wang Saphung **Changwat** Loei

Drainge Area	156 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	1998-2002
Number of observation	81
R-Square	0.8187
Remarks	Continued Sediment Station

$$QS = 2.4098\ QW^{1.32980}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.50	0.30	10.80	11.80	10.80	1174.20	32.00	89.90	10.80	3.10	2.40	1.80		
2	0.50	0.30	6.90	10.80	32.00	2638.20	30.80	56.30	10.80	3.10	2.40	1.80		
3	0.50	0.30	5.30	10.80	81.30	4267.80	29.60	41.50	10.80	3.10	2.40	1.80		
4	0.50	0.30	0.70	10.80	35.80	4273.90	25.00	28.40	10.40	2.70	2.40	1.80		
5	0.50	0.30	1.00	10.40	17.30	2362.10	29.60	25.00	10.40	2.40	2.40	1.80		
6	0.50	0.50	107.60	10.40	73.70	1129.80	29.60	22.70	10.40	2.40	2.40	1.80		
7	0.50	0.50	15.20	8.60	81.30	314.60	110.00	21.60	9.50	2.40	2.40	2.10		
8	0.30	0.50	11.80	6.50	40.20	188.20	34.50	21.60	8.60	2.40	2.40	2.10		
9	0.30	0.50	12.70	6.10	20.50	259.10	26.10	17.30	8.60	2.40	2.40	1.80		
10	0.30	0.70	67.80	3.40	14.20	259.10	23.80	16.20	8.60	2.40	2.40	1.80		
11	0.30	0.70	46.80	5.30	15.20	194.80	18.30	15.20	7.30	2.70	2.70	1.80		
12	0.30	0.70	40.20	45.40	101.80	46.80	16.20	15.20	6.90	2.70	2.70	2.10		
13	0.30	0.70	46.80	12.70	65.60	69.30	13.70	14.20	7.30	3.10	3.10	2.40		
14	0.30	1.20	45.40	12.70	16.20	65.60	11.80	13.70	7.30	3.10	3.40	2.10		
15	0.30	1.20	28.40	12.70	16.20	48.80	11.80	12.70	7.30	3.10	3.10	2.10		
16	0.30	15.20	40.20	11.80	12.70	35.80	11.80	8.60	7.30	3.10	2.70	2.10		
17	0.30	11.80	34.50	8.60	11.80	65.60	11.80	601.60	6.90	3.10	2.40	2.10		
18	0.30	8.20	28.40	8.60	10.40	96.20	19.40	63.50	6.90	3.10	2.40	2.10		
19	0.30	6.50	17.30	8.60	10.40	144.30	15.20	41.50	6.90	3.10	2.40	2.10		
20	0.30	5.30	10.40	8.60	32.00	267.30	14.20	34.50	6.10	3.10	2.40	2.40		
21	0.30	2.70	11.80	8.60	86.00	282.80	12.70	32.00	6.10	3.10	1.80	2.40		
22	0.30	1.80	11.80	8.20	174.20	254.00	11.80	26.10	6.10	3.10	1.80	2.40		
23	0.30	1.20	10.40	8.60	298.60	105.10	10.80	20.50	6.10	3.10	1.80	2.40		
24	0.30	1.20	10.80	8.60	93.80	65.60	15.20	18.30	5.30	3.10	1.50	2.40		
25	0.30	1.20	27.30	12.70	43.40	45.40	11.80	35.80	5.30	3.10	1.50	2.40		
26	0.30	4.90	13.70	7.30	220.00	37.00	11.80	20.50	4.90	2.70	1.50	1.80		
27	0.30	2.10	10.40	15.20	71.50	30.80	733.40	28.40	4.90	2.70	1.50	1.80		
28	0.30	73.70	12.70	23.80	57.70	29.60	174.20	28.40	4.50	2.40	1.50	1.80		
29	0.30	19.40	11.80	26.10	56.30	25.00	56.30	21.60	4.50	2.40		2.10		
30	0.30	10.40	11.80	28.40	96.20	21.60	41.50	18.30	4.50	2.40		2.10		
31		10.80		17.30	59.90		34.50		4.50	2.40		2.10		
Total	10.40	185.10	710.70	389.40	1957.00	18798.40	1629.20	1411.10	225.80	87.10	64.20	63.60	25532.00	Tonday
Mean	0.35	5.97	23.69	12.56	63.13	626.61	52.55	47.04	7.28	2.81	2.29	2.05		Ton/day
Max	0.50	73.70	107.60	45.40	298.60	4273.90	733.40	601.60	10.80	3.10	3.40	2.40	4273.90	Ton/day
Min	0.30	0.30	0.70	3.40	10.40	21.60	10.80	8.60	4.50	2.40	1.50	1.80	0.30	Ton/day

WATER YEAR : 2002

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.DH-48
Period of Available Records	1998-Cont'd
Actual Measurement	1998-Cont'd
Using Rating Curve Water Year	1998-2002
Number of observation	81
R-Square	0.8961
Remarks	Continued Sediment Station

$$QS = 3.1086\ QW^{1.44990}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	15.30	7.90	63.40	179.50	929.80	1465.40	361.80	103.20	39.80	7.90	33.90	32.10		
2	12.40	5.10	30.20	189.10	627.80	1857.50	287.50	97.90	43.80	8.50	33.90	32.10		
3	12.40	3.10	15.30	225.50	518.70	2111.60	235.80	90.10	28.40	7.90	33.90	30.20		
4	12.40	3.10	16.80	350.10	361.80	2067.50	215.40	85.10	9.80	7.90	33.90	30.20		
5	12.40	3.60	23.20	810.70	656.10	3966.10	182.60	75.20	6.10	7.90	33.90	28.40		
6	12.40	3.10	19.90	593.00	255.10	6245.00	185.80	77.60	11.10	7.30	32.10	28.40		
7	7.90	3.10	61.10	410.10	304.20	5003.10	166.90	72.80	12.40	7.30	30.20	28.40		
8	7.90	6.10	30.20	321.20	222.10	4082.70	151.60	72.80	8.50	7.90	32.10	30.20		
9	11.10	6.10	119.70	205.40	198.80	2496.80	139.70	70.40	6.10	8.50	32.10	30.20		
10	12.40	7.30	1766.50	309.80	176.30	1715.10	131.00	72.80	6.70	8.50	32.10	30.20		
11	12.40	11.10	649.00	453.90	170.00	1134.40	128.10	68.00	7.30	8.50	32.10	32.10		
12	11.10	13.80	361.80	282.00	166.90	728.40	128.10	65.70	4.00	12.40	33.90	30.20		
13	12.40	13.80	166.90	202.10	151.60	1095.20	122.50	63.40	2.20	18.30	32.10	30.20		
14	12.40	13.80	189.10	160.70	173.10	743.20	119.70	63.40	1.50	28.40	32.10	30.20		
15	13.80	18.30	119.70	128.10	321.20	795.50	108.60	63.40	1.10	30.20	30.20	30.20		
16	13.80	19.90	65.70	114.10	189.10	3099.00	95.30	63.40	1.90	32.10	30.20	30.20		
17	13.80	19.90	65.70	108.60	173.10	4417.30	87.60	63.40	2.70	32.10	32.10	30.20		
18	6.70	26.60	87.60	103.20	249.80	2111.60	95.30	63.40	1.90	32.10	32.10	30.20		
19	9.80	52.20	70.40	119.70	1015.50	1301.00	114.10	63.40	2.70	32.10	32.10	30.20		
20	5.10	63.40	119.70	185.80	5482.30	1333.40	105.90	48.00	1.10	30.20	32.10	32.10		
21	3.60	52.20	212.00	166.90	6412.80	1248.60	103.20	45.90	3.60	32.10	32.10	41.80		
22	3.60	26.60	128.10	131.00	3430.70	908.70	114.10	45.90	6.10	32.10	32.10	41.80		
23	3.10	8.50	87.60	122.50	1477.60	670.40	119.70	41.80	6.10	32.10	32.10	32.10		
24	3.10	7.30	3214.90	103.20	1381.00	473.00	103.20	41.80	8.50	32.10	33.90	32.10		
25	3.60	13.80	1405.00	97.90	854.10	361.80	95.30	41.80	7.30	32.10	33.90	32.10		
26	3.10	18.30	620.80	90.10	735.80	315.50	87.60	41.80	8.50	30.20	35.80	32.10		
27	3.10	244.50	265.70	87.60	512.10	271.10	92.70	39.80	7.30	30.20	32.10	32.10		
28	2.70	293.00	545.40	90.10	525.30	298.60	142.70	39.80	7.90	33.90	32.10	32.10		
29	2.70	105.90	304.20	890.40	1165.50	338.40	136.80	39.80	7.90	33.90		37.80		
30	12.40	63.40	198.80	4225.70	410.10	391.80	128.10	39.80	8.50	33.90		45.90		
31		63.40		3630.70	416.30		128.10		7.90	33.90		39.80		
Total	268.90	1198.20	11024.40	15088.70	29664.60	53047.70	4414.80	1861.60	278.70	692.50	911.20	1005.90	119457.20	Tonday
Mean	8.96	38.65	367.48	486.73	956.92	1768.26	142.41	62.05	8.99	22.34	32.54	32.45		Ton/day
Max	15.30	293.00	3214.90	4225.70	6412.80	6245.00	361.80	103.20	43.80	33.90	35.80	45.90	6412.80	Ton/day
Min	2.70	3.10	15.30	87.60	151.60	271.10	87.60	39.80	1.10	7.30	30.20	28.40	1.10	Ton/day

WATER YEAR : 2002

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.
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	1998-2002
Number of observation	78
R-Square	0.8163
Remarks	Continued Sediment Station

$$QS = 3.8902\ QW^{1.17010}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	6.30	1.00	3.40	7.70	36.70	99.70	21.40	7.70	1.70	1.30	1.30	1.70		
2	3.90	0.60	3.00	5.80	31.00	147.10	16.30	5.80	1.70	1.30	1.30	1.30		
3	2.60	0.60	3.00	6.30	25.60	129.50	13.00	5.80	1.70	1.30	1.30	3.00		
4	1.70	0.60	2.60	15.70	25.60	98.30	9.30	4.30	1.70	1.30	1.30	2.60		
5	1.70	0.60	2.60	36.00	34.10	91.80	6.70	4.30	2.60	1.70	1.30	1.70		
6	1.30	0.60	3.40	46.90	46.90	119.00	6.30	4.30	2.10	2.10	1.00	1.30		
7	1.30	0.60	3.40	29.20	43.00	164.20	6.30	4.30	2.60	1.70	1.30	1.00		
8	1.30	0.60	3.00	19.70	28.00	189.60	7.70	3.90	2.10	1.70	1.30	1.00		
9	1.30	0.60	6.30	26.80	23.80	157.20	6.30	3.90	1.70	1.30	1.70	1.00		
10	1.00	0.60	12.40	36.70	14.60	115.20	6.30	3.90	1.70	1.30	1.30	1.00		
11	1.70	1.70	10.30	38.60	12.40	83.90	6.30	3.40	1.70	1.30	1.70	1.00		
12	1.70	1.30	8.20	39.20	5.80	43.00	5.80	3.90	1.70	1.30	1.30	1.00		
13	1.30	1.30	6.30	26.80	6.30	34.80	5.30	3.90	2.10	1.30	1.30	1.00		
14	1.00	1.30	5.30	16.80	6.70	34.80	5.30	3.40	2.10	1.30	1.00	1.00		
15	1.00	1.30	3.90	8.80	11.90	43.70	5.80	3.40	1.70	1.70	1.00	1.00		
16	1.30	1.70	3.90	5.80	11.90	74.00	5.30	3.00	1.70	1.70	1.00	1.00		
17	1.30	2.60	2.60	5.30	9.80	112.30	5.30	3.00	1.70	2.60	1.70	1.00		
18	1.00	3.90	2.60	6.30	8.80	104.10	5.30	2.60	1.70	1.30	1.70	1.00		
19	1.00	3.90	3.40	5.80	15.70	80.40	5.80	2.60	1.70	1.30	3.00	4.80		
20	1.00	3.00	3.00	6.30	96.80	54.20	5.30	2.60	2.60	1.30	3.00	3.40		
21	1.00	2.60	6.30	5.80	217.90	46.90	6.30	2.60	3.40	1.30	2.10	2.60		
22	1.00	1.70	6.30	4.80	166.60	36.00	9.80	2.60	2.60	1.30	1.70	2.10		
23	0.60	1.30	5.30	4.80	113.00	29.80	9.30	2.60	2.10	1.30	2.10	1.70		
24	0.60	1.30	32.30	4.30	62.30	22.60	7.20	2.60	2.10	2.10	1.70	1.30		
25	0.60	1.30	68.50	3.90	60.90	18.00	5.80	2.60	2.10	2.60	2.10	1.00		
26	2.60	1.30	40.50	3.00	60.30	15.20	5.30	2.10	2.10	2.10	2.60	1.00		
27	2.10	2.60	20.90	3.00	39.80	13.50	4.80	2.60	2.10	1.70	3.00	0.60		
28	1.70	3.40	15.70	4.30	46.30	15.70	27.40	2.60	2.10	1.30	2.10	1.00		
29	1.30	4.80	20.90	20.30	43.70	16.80	22.60	2.10	2.10	1.30		1.00		
30	1.00	4.80	13.00	48.90	71.90	19.10	13.50	2.10	1.70	1.00		1.70		
31		4.80		71.90	69.90		10.30		1.70	1.30		1.70		
Total	47.20	58.30	322.30	565.50	1448.00	2210.40	277.40	104.50	62.40	47.40	47.20	47.50	5238.10	Tonday
Mean	1.57	1.88	10.74	18.24	46.71	73.68	8.95	3.48	2.01	1.53	1.69	1.53		Ton/day
Max	6.30	4.80	68.50	71.90	217.90	189.60	27.40	7.70	3.40	2.60	3.00	4.80	217.90	Ton/day
Min	0.60	0.60	2.60	3.00	5.80	13.50	4.80	2.10	1.70	1.00	1.00	0.60	0.60	Ton/day

WATER YEAR : 2002

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.DH-48
Period of Available Records	1998-Cont'd
Actual Measurement	1998-Cont'd
Using Rating Curve Water Year	1998-2002
Number of observation	78
R-Square	0.9058
Remarks	Continued Sediment Station

$$QS = 2.6453\ QW^{1.41750}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	30.40	0.70	57.70	166.70	1424.90	5964.20	333.00	43.40	8.10	0.10	0.10	0.10		
2	16.90	3.40	27.40	156.70	1936.10	7492.20	303.80	35.90	8.10	0.10	0.10	0.10		
3	12.00	5.60	23.70	361.40	1408.20	4604.80	243.50	35.90	8.10	0.10	0.10	0.10		
4	4.30	8.10	23.70	383.90	574.10	5898.70	218.40	36.70	7.10	0.10	0.10	0.10		
5	3.40	0.70	22.30	8871.40	1607.50	8412.10	200.70	36.70	7.10	0.10	0.10	0.10		
6	1.60	5.60	83.30	1297.60	1408.20	9300.40	182.20	34.30	7.10	0.10	0.10	0.10		
7	1.30	3.40	32.70	902.00	650.60	6029.90	174.40	34.30	6.10	0.10	0.10	0.10		
8	0.70	3.40	32.00	436.90	452.20	5739.60	166.70	32.00	6.10	0.10	0.10	0.10		
9	0.70	2.30	211.50	355.00	339.20	2698.90	160.40	16.90	6.10	0.10	0.10	0.10		
10	0.70	0.70	803.40	978.10	256.40	5931.50	152.90	19.50	6.10	0.10	0.10	0.10		
11	0.70	1.30	256.40	566.80	218.40	1865.80	126.40	19.50	6.10	0.10	0.10	0.10		
12	2.60	4.70	100.30	662.00	243.50	1219.30	98.20	20.20	5.60	0.10	0.10	0.10		
13	2.30	27.40	1475.40	276.90	303.80	1674.80	94.90	20.20	4.70	0.10	0.10	0.10		
14	1.30	24.40	398.60	184.80	469.30	1162.60	83.30	18.20	4.30	0.10	0.10	0.10		
15	0.50	20.20	116.00	166.70	290.20	1829.70	77.20	18.20	4.30	0.10	0.10	0.10		
16	0.70	20.20	77.20	156.70	200.70	12422.30	69.20	16.30	4.30	0.10	0.10	0.10		
17	0.70	2.30	50.40	98.20	178.30	5425.10	53.10	15.00	4.30	0.10	0.10	0.10		
18	1.60	29.60	40.90	160.40	211.50	1902.20	55.90	14.40	3.40	0.10	1.60	0.10		
19	1.30	20.20	74.10	139.50	5025.60	1249.00	91.70	13.20	3.40	0.10	1.60	0.10		
20	0.70	20.20	55.90	160.40	19412.10	1475.40	74.10	13.20	3.40	0.10	1.60	0.10		
21	0.70	19.50	188.70	160.40	25904.10	1441.70	63.40	12.00	3.40	0.10	0.10	2.30		
22	0.70	1.60	77.20	164.20	12102.40	902.00	196.70	12.00	3.40	0.00	0.10	0.70		
23	0.70	3.40	47.80	126.40	2965.10	650.60	126.40	11.40	2.60	0.00	0.10	0.50		
24	0.70	9.70	3078.50	77.20	2589.90	541.50	63.40	11.40	2.60	0.00	0.10	0.10		
25	2.60	14.40	2146.00	135.90	1642.30	476.20	47.80	11.40	2.30	0.00	0.10	0.10		
26	3.40	4.70	383.90	69.20	2853.00	406.80	45.10	11.40	2.30	0.00	0.50	0.10		
27	2.30	767.30	290.20	77.20	1541.00	355.00	42.60	9.70	2.30	0.00	0.10	0.10		
28	1.30	383.90	1902.20	297.70	1135.60	557.80	50.40	8.60	2.30	0.00	0.10	0.10		
29	0.70	63.40	583.30	1814.30	2809.10	1327.90	53.10	8.60	0.70	0.00		0.10		
30	0.70	32.00	218.40	6383.90	1408.20	1265.20	46.00	8.10	0.10	0.00		42.60		
31		48.60		6484.50	1458.50		48.60		0.10	0.00		182.20		
Total	98.20	1552.90	12879.10	32273.00	93020.00	100223.20	3743.50	598.60	135.90	2.10	7.70	230.90	244765.10	Tonday
Mean	3.27	50.09	429.30	1041.06	3000.65	3340.77	120.76	19.95	4.38	0.10	0.27	7.45		Ton/day
Max	30.40	767.30	3078.50	8871.40	25904.10	12422.30	333.00	43.40	8.10	0.10	1.60	182.20	25904.10	Ton/day
Min	0.50	0.70	22.30	69.20	178.30	355.00	42.60	8.10	0.10	0.00	0.10	0.10	0.00	Ton/day

WATER YEAR : 2002

KHONG RIVER BASIN

Songkhram River at Ban Khok Kham Lai, Udon Thani (Kh.93)

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

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

Ban Khok Kham Lai **Amphoe** Ban Dung **Changwat** Udon Thani

Drainge Area	760 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	1999-2002
Number of observation	51
R-Square	0.8687
Remarks	Continued Sediment Station

$$QS = 10.5220\ QW^{0.87770}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	2.60	192.30	437.00	250.30	601.70	198.50	123.20	3.70	2.60	6.70	15.00		
2	0.00	6.70	114.00	458.30	250.30	688.60	228.80	95.20	5.70	2.60	6.70	12.30		
3	0.00	9.60	63.10	454.50	231.20	882.60	255.10	64.60	5.70	2.60	6.70	3.70		
4	0.00	9.60	46.20	440.80	213.10	947.10	261.00	44.70	3.70	3.70	6.70	6.70		
5	0.00	9.60	98.60	423.20	200.90	1069.30	252.70	32.40	2.60	3.70	6.70	6.70		
6	0.00	13.20	159.90	408.80	181.20	1096.90	219.20	26.00	3.70	3.70	6.70	4.70		
7	0.00	34.00	391.00	387.70	150.40	1076.10	233.60	20.20	3.70	3.70	6.70	3.70		
8	0.00	11.40	513.00	365.80	107.30	993.30	286.80	18.50	3.70	3.70	6.70	1.40		
9	0.00	87.70	479.00	340.90	61.00	917.90	319.70	14.10	3.70	3.70	6.70	0.00		
10	0.00	68.80	468.70	322.00	44.00	853.20	336.90	12.30	3.70	3.70	6.70	0.00		
11	0.00	33.20	444.10	311.70	31.60	787.70	333.50	10.50	2.60	3.70	6.70	0.00		
12	0.00	21.90	412.70	309.40	33.20	684.00	311.70	7.70	3.70	4.70	6.70	0.00		
13	0.00	12.30	405.50	307.70	43.20	601.70	250.30	6.70	4.70	4.70	6.70	0.00		
14	0.00	28.40	391.00	288.50	41.70	555.20	187.40	6.70	5.70	4.70	3.70	0.00		
15	0.00	100.00	391.00	237.80	35.50	540.90	111.30	6.70	2.60	4.70	3.70	0.00		
16	0.00	401.60	369.70	159.90	30.00	555.20	41.70	6.70	3.70	3.70	3.70	0.00		
17	0.00	309.40	333.50	79.40	26.80	527.00	32.40	6.70	3.70	4.70	3.70	0.00		
18	0.00	377.00	323.80	55.10	53.70	536.60	26.00	6.70	3.70	5.70	3.70	0.00		
19	0.00	362.40	322.00	47.70	134.90	545.60	26.00	9.60	3.70	5.70	3.70	0.00		
20	0.00	322.00	365.80	37.10	205.80	437.00	32.40	6.70	3.70	5.70	3.70	0.00		
21	0.00	303.00	398.30	37.10	284.50	430.40	33.20	5.70	0.00	5.70	3.70	0.00		
22	0.00	0.00	401.60	31.60	412.70	387.70	48.50	3.70	0.00	5.70	3.70	0.00		
23	0.00	0.00	416.00	21.90	493.10	391.00	93.90	3.70	0.00	5.70	3.70	0.00		
24	0.00	0.00	416.00	15.00	522.10	315.70	154.80	2.60	0.00	5.70	3.70	0.00		
25	0.00	0.00	401.60	15.00	500.10	256.80	193.50	2.60	0.00	6.70	3.70	0.00		
26	0.00	0.00	377.00	12.30	500.10	197.20	209.50	2.60	0.00	6.70	3.70	0.00		
27	0.00	0.00	362.40	9.60	517.30	160.50	205.80	2.60	0.00	6.70	3.70	0.00		
28	0.00	0.00	369.70	9.60	454.50	71.70	187.40	1.40	0.00	6.70	3.70	0.00		
29	0.00	0.00	394.90	30.00	447.90	40.90	171.20	1.40	0.00	5.70		0.00		
30	0.00	0.00	408.80	80.80	465.40	89.10	154.20	1.40	0.00	5.70		0.00		
31		0.00		194.80	531.80		138.80		0.00	5.70		0.00		
Total	0.00	2524.40	10231.20	6331.00	7455.60	17238.60	5535.80	553.60	77.70	148.40	142.60	54.20	50293.10	Tonday
Mean	0.00	120.21	341.04	204.23	240.50	574.62	178.57	18.45	3.89	4.79	5.09	6.78		Ton/day
Max	0.00	401.60	513.00	458.30	531.80	1096.90	336.90	123.20	5.70	6.70	6.70	15.00	1096.90	Ton/day
Min	0.00	2.60	46.20	9.60	26.80	40.90	26.00	1.40	0.00	2.60	3.70	0.00	0.00	Ton/day

WATER YEAR : 2002

KHONG RIVER BASIN

Nam Som at Ban Wang Lao, Udon Thani (Kh.94)

Lat 17 - 58 - 03 N Long 102 - 14 - 46 E

Location : on right bank at the bridge on road.

Ban Wang Lao **Amphoe** Na Yung **Changwat** Udon Thani

Drainge Area	854 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	1999-2002
Number of observation	69
R-Square	0.8855
Remarks	Continued Sediment Station

$$QS = 4.3755\ QW^{1.20390}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.40	1.00	107.60	261.60	205.80	1643.30	179.80	66.60	28.20	14.50	6.60	6.00		
2	1.90	1.00	94.20	112.20	284.90	2024.00	189.70	79.30	28.20	15.80	6.60	6.60		
3	2.40	1.00	55.10	68.30	318.40	1610.30	189.70	153.50	28.20	16.40	6.60	2.80		
4	3.30	1.90	52.70	64.10	359.10	1769.20	200.80	208.80	26.00	15.80	4.90	2.80		
5	3.90	1.90	60.00	37.10	392.70	2158.70	228.20	135.40	26.00	14.50	3.90	2.40		
6	2.80	2.80	70.80	34.10	390.40	2622.80	354.60	64.90	24.60	14.50	3.30	3.30		
7	2.80	2.40	160.20	31.80	354.60	2349.90	422.20	44.00	21.80	14.50	3.90	3.90		
8	2.80	2.40	132.50	30.40	292.40	2046.30	426.70	45.50	20.50	14.50	3.30	4.90		
9	2.80	1.90	236.50	26.80	165.10	1899.50	318.40	44.00	20.50	15.80	3.90	4.40		
10	1.90	1.00	486.90	25.30	72.50	1556.00	162.20	37.80	21.10	16.40	3.90	4.40		
11	2.40	1.50	379.20	21.10	31.80	1306.00	118.60	34.10	20.50	15.80	3.30	3.30		
12	1.90	7.10	195.70	19.10	34.10	989.60	95.10	33.30	15.80	15.10	3.90	2.80		
13	2.80	14.50	138.20	16.40	39.40	737.10	69.10	34.10	14.50	15.80	4.40	2.80		
14	3.30	17.10	81.90	15.80	60.80	381.40	58.40	35.60	12.60	14.50	11.90	3.90		
15	3.30	279.60	52.70	21.10	65.80	299.90	61.60	36.30	11.30	15.10	7.70	6.60		
16	3.30	173.90	51.90	28.90	84.50	482.20	66.60	39.40	11.30	15.80	13.80	6.60		
17	2.80	363.50	48.70	61.60	236.50	767.40	54.30	47.10	11.30	14.50	14.50	6.60		
18	1.90	449.70	37.80	109.40	534.10	887.70	51.90	61.60	12.60	14.50	13.20	4.90		
19	2.40	294.60	37.80	97.70	743.40	1052.00	46.30	96.90	13.20	15.80	7.10	6.60		
20	2.80	39.40	41.70	80.20	1090.80	1108.20	45.50	73.40	14.50	15.10	5.40	8.30		
21	3.30	31.10	44.80	83.70	1156.80	989.60	51.90	54.30	15.10	13.80	4.90	8.90		
22	1.50	24.60	40.10	76.80	1093.40	707.10	52.70	52.70	15.80	12.60	4.90	5.40		
23	1.50	17.10	29.60	86.30	1056.00	397.20	55.10	44.00	15.80	5.40	4.90	5.40		
24	1.00	13.20	17.10	77.60	959.40	279.60	51.90	34.10	15.80	6.00	4.40	5.40		
25	0.60	8.30	21.80	81.10	1288.10	173.90	47.90	28.20	15.80	4.90	4.40	5.40		
26	1.00	11.30	112.20	40.90	1163.60	155.40	52.70	28.20	16.40	5.40	4.40	6.00		
27	1.50	15.10	361.30	26.80	819.50	132.50	59.20	28.90	17.10	6.00	5.40	5.40		
28	1.00	100.40	656.30	18.40	570.00	175.90	74.20	29.60	19.10	5.40	5.40	5.40		
29	1.90	21.10	780.00	289.20	429.00	203.80	92.40	34.10	21.10	4.90		4.90		
30	1.00	79.30	704.60	963.30	1328.20	202.80	139.10	34.10	21.80	3.90		5.40		
31		110.40		560.40	1594.50		95.10		21.80	6.60		4.90		
Total	68.20	2090.10	5289.90	3467.50	17215.60	31109.30	4111.90	1739.80	578.30	379.60	170.80	156.40	66377.40	Tonday
Mean	2.27	67.42	176.33	111.85	555.34	1036.98	132.64	57.99	18.65	12.25	6.10	5.05		Ton/day
Max	3.90	449.70	780.00	963.30	1594.50	2622.80	426.70	208.80	28.20	16.40	14.50	8.90	2622.80	Ton/day
Min	0.60	1.00	17.10	15.80	31.80	132.50	45.50	28.20	11.30	3.90	3.30	2.40	0.60	Ton/day

WATER YEAR : 2002

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.
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	2001-2002
Number of observation	30
R-Square	0.9236
Remarks	Continued Sediment Station

$$QS = 6.4077\ QW^{1.31760}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.30	0.30	42.50	84.80	169.30	2014.20	122.70	10.90	0.30	0.00	0.30	0.80		
2	0.30	0.30	16.00	165.60	1151.00	2913.00	60.60	9.10	0.30	0.00	0.30	1.30		
3	0.30	0.30	9.10	251.40	1635.30	3536.80	19.20	7.30	0.30	0.00	0.30	0.00		
4	0.30	0.30	4.80	221.20	563.70	3382.90	35.90	6.40	0.30	0.00	0.00	0.00		
5	0.30	0.30	46.50	2285.10	389.80	2950.00	32.10	5.60	0.30	0.00	0.00	0.00		
6	0.30	4.00	219.20	3136.50	483.20	4670.10	24.90	4.80	0.30	0.00	0.00	0.00		
7	0.30	3.30	131.40	3136.50	239.20	4148.10	16.00	4.80	0.30	0.00	0.00	0.00		
8	3.30	4.00	97.60	1654.60	46.50	3382.90	10.90	2.60	0.30	0.00	0.00	0.00		
9	0.30	1.30	297.30	417.30	4.00	1950.30	11.90	2.60	0.30	0.00	0.00	0.00		
10	0.30	1.30	235.20	259.60	65.00	1755.10	9.10	1.90	0.30	0.00	0.00	0.00		
11	0.30	1.30	243.20	203.50	39.80	1095.30	9.10	1.90	0.30	0.00	0.00	0.00		
12	0.30	1.90	483.20	136.70	37.20	342.80	9.10	1.90	0.30	0.00	0.00	0.00		
13	0.00	2.60	356.10	50.60	115.90	231.20	9.10	1.90	0.30	0.00	0.00	0.00		
14	0.00	5.60	215.30	35.90	149.10	571.20	9.10	1.30	0.30	0.00	0.00	0.00		
15	0.00	2.60	112.50	22.60	207.40	838.10	9.10	1.30	0.30	0.00	0.00	0.00		
16	0.00	1.30	57.70	13.90	257.50	3268.60	8.10	0.80	0.30	0.00	0.00	0.00		
17	0.00	0.80	17.00	10.90	126.20	3869.10	7.30	0.80	0.30	0.00	0.00	0.00		
18	0.00	0.30	9.10	4.80	176.80	3042.90	6.40	0.80	0.30	0.00	0.00	0.00		
19	0.00	0.30	5.60	8.10	1306.80	1536.50	10.90	0.30	0.30	0.00	0.00	0.00		
20	0.00	0.30	3.30	10.00	4088.00	805.40	9.10	0.80	0.30	0.00	0.00	0.00		
21	0.00	0.30	2.60	70.90	5826.30	278.30	7.30	0.80	0.30	0.00	0.00	0.00		
22	0.00	227.20	4.00	60.60	4212.60	203.50	11.90	0.80	0.30	0.00	0.00	0.00		
23	0.00	433.60	8.10	37.20	3136.50	147.30	12.90	0.80	0.30	0.00	0.00	0.00		
24	0.00	154.60	428.90	19.20	1429.80	83.20	10.90	0.30	0.00	0.00	0.00	0.00		
25	0.00	72.40	1201.40	11.90	548.80	83.20	10.90	0.30	0.00	0.00	0.00	0.00		
26	0.00	34.60	816.30	6.40	1011.50	65.00	12.90	0.30	0.00	0.00	0.00	0.00		
27	0.00	0.00	356.10	4.00	735.80	60.60	10.90	0.30	0.00	0.00	0.00	0.00		
28	0.00	0.00	794.60	3.30	909.80	72.40	17.00	0.30	0.00	0.00	0.00	0.00		
29	0.00	0.00	591.20	621.50	706.80	109.10	12.90	0.30	0.00	0.00		0.00		
30	0.00	0.00	241.20	624.10	561.20	163.70	10.90	0.30	0.00	0.00		0.00		
31		0.00		440.60	454.70		12.90		0.00	0.00		0.00		
Total	6.60	955.10	7047.00	14009.30	30785.50	47570.80	562.00	72.30	6.90	0.00	0.90	2.10	101018.50	Tonday
Mean	0.55	36.73	234.90	451.91	993.08	1585.69	18.13	2.41	0.30	0.00	0.30	1.05		Ton/day
Max	3.30	433.60	1201.40	3136.50	5826.30	4670.10	122.70	10.90	0.30	0.00	0.30	1.30	5826.30	Ton/day
Min	0.30	0.30	2.60	3.30	4.00	60.60	6.40	0.30	0.30	0.00	0.30	0.80	0.00	Ton/day

WATER YEAR : 2002

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.
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	2002
Number of observation	36
R-Square	0.9266
Remarks	Continued Sediment Station

$$QS = 9.4817\ QW^{1.06250}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	18.75	17.71	2574.88	1277.84	2912.32	4714.69	4891.97	1559.14	1492.59	1167.90	142.33	41.36		
2	19.80	16.66	2262.26	1289.95	2671.64	4695.82	4714.69	1640.87	1453.27	1077.19	158.93	39.17		
3	21.91	16.66	1895.72	1303.40	2416.88	4539.24	4432.14	1952.17	1395.10	1022.71	151.80	38.07		
4	22.97	19.80	1565.95	1167.90	2345.77	4330.97	4173.70	2376.43	1323.60	998.84	148.24	36.98		
5	21.91	22.97	1328.99	986.92	2231.69	4188.12	3929.13	2520.28	1296.67	939.32	145.88	31.55		
6	19.80	21.91	1065.21	801.34	2180.33	4058.50	3543.97	2361.09	1257.69	835.38	148.24	29.39		
7	18.75	24.04	876.09	727.00	2306.78	4274.66	3213.76	2158.14	1209.40	760.86	142.33	26.17		
8	16.66	30.47	755.64	1191.98	2173.40	4446.60	2874.24	2135.97	1125.16	708.81	138.79	24.04		
9	15.62	41.36	698.42	1240.24	2004.59	4950.18	2623.94	2122.12	922.17	607.97	136.43	22.97		
10	14.59	53.54	636.32	1185.29	1696.86	5506.58	2276.17	2113.81	887.92	552.79	127.02	21.91		
11	12.53	60.26	732.20	1149.19	1506.15	5930.87	2055.70	2113.81	830.14	542.56	130.55	19.80		
12	8.48	107.17	542.56	1082.51	1427.55	6193.10	1873.71	2135.97	732.20	509.39	136.43	45.77		
13	7.48	123.50	619.56	986.92	1407.27	6061.90	1669.54	2173.40	669.92	466.20	132.90	58.01		
14	12.53	198.43	986.92	899.77	1414.03	5832.34	1487.16	2217.80	703.62	416.95	130.55	58.01		
15	30.47	328.20	1077.19	766.07	1296.67	5767.69	1355.95	2240.03	732.20	411.92	127.02	74.96		
16	38.07	1113.15	1041.29	619.56	1335.72	5832.34	1233.53	2253.92	708.81	388.07	123.50	86.38		
17	60.26	2291.47	893.19	624.71	1612.24	6029.50	1119.82	2231.69	669.92	340.62	121.16	127.02		
18	45.77	3008.37	772.60	749.13	1711.90	6454.50	1034.65	2173.40	636.32	308.38	117.65	90.98		
19	41.36	3008.37	737.41	720.50	1952.17	7047.51	951.21	2400.14	575.85	300.97	115.32	65.89		
20	38.07	2432.23	818.35	614.41	2091.66	7522.56	830.14	2352.73	531.06	293.56	115.32	58.01		
21	39.17	1952.17	766.07	1082.51	2062.61	7683.79	749.13	2217.80	504.30	286.17	107.17	53.54		
22	36.98	1676.37	680.28	2345.77	2269.22	7562.85	680.28	2077.82	482.69	275.11	104.85	51.31		
23	29.39	1487.16	559.19	2796.76	2583.29	7321.29	631.16	1952.17	427.03	267.74	102.53	44.66		
24	15.62	1420.79	471.27	2778.46	3104.59	7080.21	636.32	1839.36	388.07	260.39	97.90	33.71		
25	15.62	1414.03	379.30	2313.74	3499.74	6815.87	653.11	1705.06	348.09	225.04	97.90	39.17		
26	19.80	1696.86	312.09	1803.67	3533.98	6618.75	680.28	1565.95	421.99	222.61	86.38	45.77		
27	19.80	1945.28	260.39	1460.05	3311.77	6159.18	749.13	1487.16	1137.17	215.34	77.23	50.20		
28	18.75	2960.32	257.94	1204.04	3066.36	5832.34	905.04	1620.42	1368.09	191.21	61.38	53.54		
29	15.62	3390.02	271.42	1058.56	3311.77	5423.12	1161.22	1654.52	1349.20	181.61		51.31		
30	12.53	3223.69	835.38	1526.52	3943.49	5146.93	1323.60	1552.35	1277.84	164.88		50.20		
31		2844.64		3104.59	4446.60		1447.86		1252.32	145.88		47.98		
Total	709.06	36947.60	26674.08	40859.30	73829.04	174022.00	59902.25	60905.52	28110.40	15086.37	3425.73	1517.83	521989.18	Tonday
Mean	23.64	1191.86	889.14	1318.04	2381.58	5800.73	1932.33	2030.18	906.79	486.66	122.35	48.96		Ton/day
Max	60.26	3390.02	2574.88	3104.59	4446.60	7683.79	4891.97	2520.28	1492.59	1167.90	158.93	127.02	7683.79	Ton/day
Min	7.48	16.66	257.94	614.41	1296.67	4058.50	631.16	1487.16	348.09	145.88	61.38	19.80	7.48	Ton/day

WATER YEAR : 2002

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	1997-2002
Number of observation	170
R-Square	0.9208
Remarks	Continued Sediment Station

$$QS = 5.3067\ QW^{1.33330}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	16.40	28.00	875.80	172.10	41.90	1068.60	2005.40	898.70	1017.70	558.00	135.50	39.40		
2	18.10	24.40	670.30	213.60	39.40	701.80	1565.80	701.80	887.20	528.30	140.30	39.40		
3	18.10	20.90	508.70	227.20	77.20	712.30	1213.80	1973.70	701.80	588.10	121.70	49.80		
4	6.80	52.40	451.10	112.60	84.60	798.30	1227.30	3982.50	691.20	538.20	121.70	44.50		
5	8.40	49.80	342.20	47.20	73.50	887.20	1281.60	4394.90	659.90	518.50	126.40	41.90		
6	4.00	70.00	300.80	37.50	77.20	2053.30	1133.60	4417.30	628.90	755.00	292.70	47.20		
7	2.70	60.70	317.20	33.60	135.50	3325.00	1055.80	3881.00	608.40	765.80	248.10	47.20		
8	4.00	88.30	441.70	37.50	201.00	5060.30	898.70	2296.70	598.20	639.20	195.10	39.40		
9	4.00	70.00	578.00	39.40	145.00	6464.30	809.30	1789.50	558.00	548.10	160.90	33.60		
10	9.20	73.50	765.80	39.40	99.90	7921.30	680.70	1565.80	608.40	499.00	130.90	19.50		
11	3.40	227.20	1055.80	35.50	60.70	8276.80	508.70	1435.30	628.90	470.20	126.40	18.00		
12	2.70	276.60	776.60	31.70	60.70	6233.80	386.20	1254.40	691.20	460.60	121.70	41.90		
13	9.90	386.20	538.20	22.70	166.40	5188.80	309.00	1160.10	659.90	451.10	121.70	39.40		
14	52.40	386.20	413.70	18.00	508.70	4084.60	284.60	1094.20	598.20	423.00	117.10	52.40		
15	140.30	432.30	333.90	18.00	368.10	3151.70	255.10	1043.10	568.00	395.30	121.70	44.50		
16	140.30	649.50	121.70	29.80	206.80	2709.40	227.20	992.50	528.30	368.10	99.90	60.70		
17	103.80	1378.20	63.40	33.60	160.90	2280.30	213.60	956.60	499.00	292.70	96.00	60.70		
18	66.40	2585.30	84.60	29.80	680.70	2691.60	213.60	1055.80	470.20	255.10	172.10	96.00		
19	33.60	2362.80	58.00	22.70	451.10	3039.00	189.30	1295.30	460.60	220.40	126.40	70.00		
20	29.80	1881.00	58.00	18.00	359.20	2835.20	135.50	1200.30	423.00	220.40	92.20	33.60		
21	24.40	1268.00	41.90	33.60	386.20	2964.50	99.90	1043.10	404.50	234.10	80.80	26.20		
22	20.90	820.20	44.50	44.50	183.50	2603.00	73.50	944.90	395.30	160.90	77.20	15.20		
23	18.00	608.40	39.40	47.20	333.90	2101.40	103.80	887.20	359.20	166.40	77.20	18.00		
24	16.60	470.20	37.50	37.50	1068.60	1989.50	112.60	875.80	342.20	166.40	77.20	20.90		
25	15.20	404.50	39.40	33.60	1595.20	2069.30	234.10	831.20	333.90	166.40	73.50	20.90		
26	18.00	910.20	39.40	31.70	2231.20	1654.40	284.60	956.60	548.10	166.40	84.60	26.20		
27	24.40	980.00	41.90	29.80	1699.10	1017.70	1081.40	1227.30	712.30	160.90	66.40	22.70		
28	52.40	898.70	47.20	20.90	1120.30	787.50	1240.80	1378.20	798.30	149.80	60.70	22.70		
29	37.50	864.40	41.90	99.90	2182.30	755.00	2550.20	1309.00	887.20	145.00		24.40		
30	35.50	809.30	96.00	126.40	2709.40	1213.80	1989.50	1254.40	628.90	149.80		58.00		
31		933.30		73.50	1744.20		1186.90		588.10	145.00		66.40		
Total	937.20	20070.50	9224.60	1798.50	19252.40	86639.70	23552.10	48097.20	18485.00	11306.20	3466.10	1240.70	244070.20	Tonday
Mean	31.24	647.44	307.49	58.02	621.05	2887.99	759.75	1603.24	596.29	364.72	123.79	40.02		Ton/day
Max	140.30	2585.30	1055.80	227.20	2709.40	8276.80	2550.20	4417.30	1017.70	765.80	292.70	96.00	8276.80	Ton/day
Min	2.70	20.90	37.50	18.00	39.40	701.80	73.50	701.80	333.90	145.00	60.70	15.20	2.70	Ton/day

WATER YEAR : 2002

CHI RIVER BASIN

Chi River at Ban Kum Wat Tai Kosum, Maha Sarakham (E.1)

Lat 16 - 15 - 00 N Long 103 - 24 - 09 E

Location : on right bank at Wat Tai Kosum about 800 meters north - east of Amphoe Kosum Phisai ,Tambon Mae Lay.

Ban Kum Wat Tai Kosum **Amphoe** Kosum Phisai **Changwat** Maha Sarakham

Drainge Area	29,438 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 - 2002
Number of observation	90
R-Square	0.8223
Remarks	Continued Sediment Station

$$QS = 6.3120\ QW^{1.08700}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	613.60	387.90	1358.30	340.50	445.50	2105.20	16854.10	8675.10	2773.70	478.40	519.30	501.70		
2	709.20	409.00	1226.00	367.00	721.20	2887.80	16338.60	8646.90	2365.30	419.50	501.70	542.70		
3	685.20	501.70	1132.10	430.10	440.70	3430.50	15824.50	8604.10	2113.90	392.70	490.00	548.60		
4	589.90	637.40	1132.10	457.10	601.80	5008.30	15567.90	8562.60	1899.60	387.90	472.60	525.10		
5	461.90	745.30	1157.10	419.50	548.60	5917.10	15055.80	8506.40	1606.80	398.40	466.70	513.40		
6	425.30	769.50	1182.10	336.70	507.50	7181.30	15567.90	8436.80	1307.80	398.40	466.70	490.00		
7	363.20	763.40	1213.40	371.70	578.10	7876.80	15696.20	8380.60	1301.50	387.90	472.60	513.40		
8	336.70	703.20	1251.10	363.20	495.90	8253.80	15183.70	8268.50	1263.70	359.40	461.90	536.90		
9	367.00	613.60	1175.90	325.40	348.00	8577.20	14596.10	8169.80	1200.90	344.20	445.50	560.40		
10	392.70	560.40	1213.40	314.10	247.20	8915.10	14392.10	8029.90	1088.60	359.40	434.90	601.80		
11	419.50	566.30	1257.40	317.90	171.00	9512.50	14086.70	7932.70	1020.30	387.90	377.40	613.60		
12	413.70	637.40	1326.70	299.10	196.10	9709.90	13629.40	7778.50	946.30	392.70	409.00	613.60		
13	382.20	703.20	1453.50	239.80	276.80	9850.70	13325.30	7681.50	915.70	382.20	392.70	739.30		
14	363.20	667.30	1517.30	196.10	291.70	9994.10	12839.80	7570.10	927.90	398.40	382.20	842.30		
15	387.90	679.20	1542.80	181.70	299.10	10068.40	12320.50	7444.40	934.10	430.10	398.40	878.90		
16	413.70	860.60	1555.60	185.30	250.90	10222.00	11938.50	7291.00	903.40	461.90	440.70	897.30		
17	413.70	983.30	1536.40	196.10	250.90	10579.50	11667.70	7111.40	811.90	495.90	525.10	860.60		
18	392.70	1244.80	1390.00	228.80	262.00	11080.10	11224.90	6724.60	745.30	513.40	560.40	787.70		
19	367.00	1352.00	1219.70	276.80	291.70	11150.00	11080.10	6362.20	619.60	495.90	589.90	745.30		
20	363.20	1339.40	1333.00	273.10	525.10	11299.90	10758.60	5969.40	548.60	490.00	595.90	721.20		
21	355.60	1371.00	1276.30	287.90	903.40	12033.90	10549.70	5637.70	727.30	560.40	589.90	757.40		
22	332.90	1345.70	1132.10	291.70	1683.90	12779.20	10222.00	5231.10	721.20	542.70	578.10	775.50		
23	317.90	1333.00	763.40	284.20	2032.10	13705.50	9921.20	4774.60	715.20	554.50	560.40	793.70		
24	325.40	1333.00	377.40	243.50	1892.00	14494.10	9756.80	4321.50	679.20	542.70	306.60	799.80		
25	348.00	1352.00	355.60	185.30	1703.30	16596.20	9433.70	3884.80	625.50	554.50	419.50	781.60		
26	355.60	1307.80	287.90	174.50	1440.80	17370.80	9297.10	3580.70	578.10	572.20	501.70	769.50		
27	329.10	1326.70	284.20	163.80	1600.40	17629.60	9168.00	3526.00	542.70	584.00	490.00	775.50		
28	314.10	1314.10	295.40	167.40	1690.40	17370.80	9020.60	3369.20	531.00	554.50	484.20	818.00		
29	325.40	1383.70	314.10	280.50	1251.10	17370.80	8883.20	3097.90	519.30	531.00		878.90		
30	344.20	1288.90	325.40	207.00	1479.00	17370.80	8819.50	2820.60	507.50	507.50		971.00		
31		1320.40		484.20	1581.20		8731.40		495.90	519.30		977.10		
Total	12209.70	29801.20	31585.70	8890.00	25007.40	320341.90	381751.60	196390.60	31937.80	14397.90	13334.00	22131.80	1087779.60	Tonday
Mean	406.99	961.33	1052.86	286.77	806.69	10678.06	12314.57	6546.35	1030.25	464.45	476.21	713.93		Ton/day
Max	709.20	1383.70	1555.60	484.20	2032.10	17629.60	16854.10	8675.10	2773.70	584.00	595.90	977.10	17629.60	Ton/day
Min	314.10	387.90	284.20	163.80	171.00	2105.20	8731.40	2820.60	495.90	344.20	306.60	490.00	163.80	Ton/day

WATER YEAR : 2002

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	2002
Number of observation	78
R-Square	0.9137
Remarks	Continued Sediment Station

$$QS = 2.2704\ QW^{1.42830}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	7.00	10.90	75.20	35.10	41.10	3374.40	3835.50	4360.70	75.20	29.30	9.90	9.90		
2	17.60	14.10	57.40	35.10	54.00	4847.30	3808.40	2823.80	71.60	28.00	9.90	9.90		
3	18.80	15.30	82.80	29.30	64.40	6529.50	3617.50	2595.90	71.60	26.60	8.90	8.90		
4	15.30	44.30	50.70	26.60	90.50	8300.40	2912.10	1967.80	67.90	22.60	8.90	7.00		
5	23.90	22.60	32.20	23.90	156.80	9967.70	2270.20	1482.60	67.90	22.60	8.90	7.00		
6	17.60	18.80	29.30	25.20	86.60	12381.20	1997.40	964.60	67.90	22.60	8.90	6.10		
7	9.90	71.60	47.50	25.20	64.40	15932.90	1618.00	749.60	67.90	21.30	8.90	5.70		
8	7.90	82.80	26.60	25.20	54.00	18938.20	2067.10	620.30	60.90	21.30	7.00	5.30		
9	6.10	44.30	25.20	25.20	54.00	18357.50	1733.10	518.30	60.90	21.30	6.10	5.30		
10	6.10	41.10	23.90	25.20	47.50	15748.60	1028.90	309.20	67.90	21.30	6.10	4.40		
11	4.40	67.90	35.10	28.00	41.10	13246.00	558.50	260.90	64.40	20.10	6.10	4.40		
12	2.90	86.60	82.80	38.10	35.10	11308.70	599.50	224.00	57.40	18.80	6.10	3.70		
13	21.30	150.00	117.00	29.30	28.00	9668.30	498.60	224.00	50.70	18.80	7.90	4.10		
14	172.10	136.50	498.60	25.20	25.20	8009.70	403.60	197.50	47.50	18.80	7.00	4.10		
15	32.20	104.50	498.60	23.90	28.00	5415.70	329.20	197.50	41.10	16.40	7.90	4.10		
16	16.40	75.20	1412.90	22.60	41.10	3441.30	270.30	224.00	41.10	16.40	7.00	5.70		
17	12.00	64.40	620.30	23.90	32.20	2342.60	299.30	215.10	38.10	15.30	7.90	9.90		
18	8.90	98.40	251.50	21.30	26.60	2270.20	349.60	270.30	38.10	15.30	7.90	8.90		
19	9.90	224.00	150.00	23.90	26.60	3865.60	479.10	251.50	35.10	14.10	7.00	5.70		
20	9.90	206.30	104.50	29.30	25.20	5634.10	385.30	215.10	32.20	13.00	6.10	3.30		
21	7.00	156.80	94.40	29.30	28.00	8487.00	289.60	172.10	29.30	13.00	8.90	5.30		
22	5.70	129.90	79.00	25.20	270.30	10330.60	242.20	150.00	29.30	13.00	7.00	5.70		
23	5.30	86.60	71.60	21.30	1412.90	10972.80	233.10	129.90	29.30	12.00	7.00	9.90		
24	7.00	57.40	75.20	16.40	2301.10	11308.70	251.50	110.70	29.30	12.00	6.10	18.80		
25	5.30	47.50	60.90	16.40	2553.10	10371.10	251.50	110.70	29.30	12.00	6.10	25.20		
26	3.70	44.30	50.70	18.80	2638.90	7437.60	299.30	90.50	26.60	12.00	6.10	25.20		
27	3.70	35.10	47.50	20.10	2280.50	4505.40	299.30	90.50	26.60	12.00	6.10	25.20		
28	4.10	41.10	47.50	16.40	1667.00	3204.80	1809.50	86.60	26.60	10.90	5.70	25.20		
29	14.10	67.90	38.10	17.60	1094.40	2834.80	4866.70	86.60	26.60	8.90		21.30		
30	14.10	98.40	41.10	28.00	1523.50	3374.40	7004.30	82.80	29.30	9.90		71.60		
31		90.50		50.70	2127.50		7004.30		29.30	9.90		60.90		
Total	490.20	2435.10	4828.10	801.70	18919.60	252407.10	51612.50	19783.10	1436.90	529.50	207.40	417.70	353868.90	Tonday
Mean	16.34	78.55	160.94	25.86	610.31	8413.57	1664.92	659.44	46.35	17.08	7.41	13.47		Ton/day
Max	172.10	224.00	1412.90	50.70	2638.90	18938.20	7004.30	4360.70	75.20	29.30	9.90	71.60	18938.20	Ton/day
Min	2.90	10.90	23.90	16.40	25.20	2270.20	233.10	82.80	26.60	8.90	5.70	3.30	2.90	Ton/day

WATER YEAR : 2002

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.
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	1998-2002
Number of observation	72
R-Square	0.7692
Remarks	Continued Sediment Station

$$QS = 3.6933\ QW^{1.19840}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.40	2.80	3.30	3.30	4.10	258.10	120.30	127.40	10.50	4.60	3.30	3.30		
2	2.40	2.80	2.80	3.30	4.10	504.30	94.80	106.30	10.00	4.60	3.30	3.30		
3	2.40	2.80	2.80	4.60	5.10	433.20	77.70	88.80	9.50	4.10	3.30	3.30		
4	2.40	2.80	2.80	4.60	5.10	534.40	73.30	74.70	9.50	4.10	3.30	3.30		
5	2.40	2.40	2.80	4.60	4.60	436.20	72.60	58.30	9.00	4.10	3.30	3.30		
6	2.40	2.40	2.80	4.60	5.10	923.10	56.90	49.40	8.50	4.10	3.30	3.30		
7	2.40	2.40	2.80	4.60	4.60	519.30	49.40	44.60	8.50	4.10	3.30	3.30		
8	2.40	2.40	2.80	4.60	4.60	300.70	41.30	40.70	8.00	4.10	3.30	3.30		
9	2.40	2.40	2.80	4.60	5.10	271.60	36.10	36.10	10.00	4.10	3.30	3.30		
10	2.40	2.40	2.80	4.60	5.10	427.40	31.00	33.50	11.60	4.10	3.30	3.30		
11	2.40	3.70	2.80	4.60	5.10	387.90	28.50	32.30	11.10	4.10	3.30	3.30		
12	4.60	3.30	2.80	4.60	5.10	321.00	24.80	31.60	10.00	4.60	3.30	3.30		
13	4.60	2.80	3.30	4.60	5.10	273.40	20.00	31.00	8.50	4.60	3.30	3.30		
14	4.60	2.40	3.30	4.60	5.10	235.10	20.00	29.10	8.00	4.60	3.30	3.30		
15	4.60	2.40	3.30	4.60	5.10	179.90	20.00	26.00	6.50	4.60	3.30	3.30		
16	4.60	2.40	3.30	5.10	5.10	144.30	23.00	24.20	6.00	4.60	3.30	3.30		
17	4.60	2.40	3.30	4.60	5.10	125.10	23.60	23.00	6.00	4.60	3.30	3.30		
18	3.70	2.40	3.30	4.60	5.10	150.80	22.40	49.40	5.50	4.60	3.30	3.30		
19	2.40	2.80	2.00	4.60	5.10	145.10	21.20	30.40	5.50	4.60	3.30	3.30		
20	2.40	2.80	2.40	4.60	5.10	229.80	19.50	22.40	5.10	4.60	3.30	3.30		
21	2.40	2.40	2.00	4.60	9.50	202.90	25.40	21.20	5.10	4.60	3.30	3.70		
22	2.40	2.40	2.40	4.60	82.10	219.30	24.20	20.00	4.60	3.30	3.30	3.30		
23	2.40	2.40	2.40	4.60	118.70	192.60	20.60	18.30	4.60	3.30	3.30	3.30		
24	2.40	2.40	2.40	4.60	20.60	154.90	23.60	17.10	3.30	3.30	3.30	3.30		
25	2.40	2.40	2.40	4.60	14.30	124.30	20.60	14.30	3.30	3.30	3.30	3.30		
26	3.70	3.30	2.40	4.10	12.70	100.90	20.60	13.80	3.30	3.30	3.30	3.30		
27	2.80	3.30	2.40	4.10	12.10	91.80	180.80	13.80	3.30	3.30	3.30	3.30		
28	2.40	3.30	3.30	4.10	12.10	86.50	539.40	13.20	3.30	3.30	3.30	3.70		
29	2.40	3.30	3.30	4.60	18.30	112.50	331.20	12.70	4.60	3.30		3.30		
30	2.40	3.30	3.30	4.10	63.20	119.50	233.30	11.10	4.60	3.30		3.30		
31		3.30		4.10	110.20		164.90		4.60	3.30		6.00		
Total	88.20	84.80	84.60	138.00	572.30	8205.90	2461.00	1114.70	211.90	125.10	92.40	105.80	13284.70	Tonday
Mean	2.94	2.74	2.82	4.45	18.46	273.53	79.39	37.16	6.84	4.04	3.30	3.41		Ton/day
Max	4.60	3.70	3.30	5.10	118.70	923.10	539.40	127.40	11.60	4.60	3.30	6.00	923.10	Ton/day
Min	2.40	2.40	2.00	3.30	4.10	86.50	19.50	11.10	3.30	3.30	3.30	3.30	2.00	Ton/day

WATER YEAR : 2002

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.
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	1998-2002
Number of observation	65
R-Square	0.7271
Remarks	Continued Sediment Station

$$QS = 6.9228\ QW^{1.06350}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	5.50	27.80	59.80	27.80	0.60	548.30	4402.00	1677.60	317.50	59.80	0.60	30.20		
2	5.50	27.80	59.80	27.80	3.30	686.90	4375.00	1902.30	312.90	59.80	0.60	30.20		
3	5.50	27.80	49.80	27.00	3.30	660.70	4212.90	2036.40	296.30	56.50	0.60	30.20		
4	5.50	27.80	46.50	25.40	1.90	669.40	4078.00	2093.30	282.50	40.00	1.90	30.20		
5	4.70	27.80	49.80	25.40	0.60	868.40	3898.30	2119.20	277.90	40.00	2.60	30.20		
6	4.00	27.80	40.00	25.40	1.30	1046.20	3718.00	2139.90	277.90	36.70	3.30	30.20		
7	4.00	27.80	33.50	25.40	0.60	1350.60	3628.10	2145.10	277.90	40.00	5.50	30.20		
8	3.30	27.80	29.40	25.40	0.60	1840.60	3515.80	2124.40	1.30	36.70	6.20	30.20		
9	3.30	46.50	30.20	25.40	165.70	2124.40	3301.60	2082.90	155.00	36.70	8.40	30.20		
10	3.30	53.20	29.40	24.60	449.40	2340.60	3057.40	1989.90	181.70	28.60	12.20	30.20		
11	3.30	46.50	27.80	24.60	510.10	2497.20	2803.90	1856.00	181.70	29.40	14.50	29.40		
12	3.30	40.00	26.20	20.70	574.10	2962.20	2592.60	1687.80	181.70	29.40	16.80	28.60		
13	3.30	49.80	28.60	19.90	591.40	3853.20	2454.40	1486.20	181.70	27.80	19.90	28.60		
14	3.30	63.20	43.20	25.40	600.00	5087.00	2329.10	1278.10	155.00	27.80	23.90	28.60		
15	4.00	84.40	80.10	26.20	517.70	6109.20	2165.80	1094.00	140.90	28.60	28.60	28.60		
16	105.90	84.40	209.60	23.10	0.00	6154.50	1928.00	931.40	119.00	28.60	30.20	27.80		
17	101.60	67.40	260.50	12.90	0.00	5838.00	1612.30	795.90	110.30	28.60	33.50	27.80		
18	40.00	67.40	357.50	3.30	0.00	5431.60	1286.20	714.00	110.30	27.00	40.00	27.80		
19	30.20	93.00	312.00	2.60	0.00	5125.20	1014.50	659.80	114.60	27.00	33.50	27.80		
20	33.50	88.70	155.00	1.90	0.00	4931.00	868.40	626.00	119.00	27.00	33.50	27.80		
21	29.40	119.00	84.40	0.60	0.00	4700.30	757.80	597.10	110.30	27.00	33.50	28.60		
22	28.60	123.30	59.80	0.60	0.00	4537.50	650.10	554.00	97.30	26.20	33.50	27.80		
23	27.80	114.60	46.50	0.00	0.00	4347.90	571.20	502.50	88.70	25.40	30.20	27.80		
24	27.00	105.90	43.20	0.00	0.00	4239.80	542.50	457.00	88.70	24.60	0.00	27.80		
25	27.00	80.10	40.00	0.00	0.00	3997.30	612.50	414.50	80.10	24.60	0.00	27.80		
26	27.00	59.80	36.70	0.00	0.00	3970.40	757.80	389.20	75.90	24.60	0.00	29.40		
27	26.20	46.50	33.50	0.00	0.00	4024.20	837.00	358.40	53.20	23.90	0.00	33.50		
28	25.40	36.70	29.40	0.00	0.00	4158.90	990.70	347.20	67.40	23.90	0.00	36.70		
29	26.20	36.70	29.40	0.00	0.00	4320.90	1074.10	333.30	80.10	6.20		43.20		
30	27.00	28.60	29.40	0.00	0.00	4456.20	1229.90	324.90	63.20	0.00		40.00		
31		40.00		0.00	0.00		1477.10		59.80	0.00		43.20		
Total	644.60	1798.10	2361.00	421.40	3420.60	102878.60	66743.00	35718.30	4659.80	922.40	413.50	950.60	220931.90	Tonday
Mean	21.49	58.00	78.70	19.15	228.04	3429.29	2153.00	1190.61	150.32	31.81	17.98	30.66		Ton/day
Max	105.90	123.30	357.50	27.80	600.00	6154.50	4402.00	2145.10	317.50	59.80	40.00	43.20	6154.50	Ton/day
Min	3.30	27.80	26.20	0.60	0.60	548.30	542.50	324.90	1.30	6.20	0.60	27.80	0.60	Ton/day

WATER YEAR : 2002

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	1998-2002
Number of observation	54
R-Square	0.8853
Remarks	Continued Sediment Station

$$QS = 2.3246\ QW^{1.42120}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	8.10	7.60	34.00	17.90	4.90	1548.60	8073.70	2989.90	41.50	19.70	7.10	5.80		
2	7.60	8.10	25.50	13.80	5.80	1799.30	7524.20	3125.90	36.90	14.90	7.60	7.10		
3	7.60	8.10	23.50	12.70	11.10	2026.30	6564.70	3109.10	28.30	6.70	8.10	8.10		
4	7.60	8.10	26.90	12.70	16.10	2386.50	6443.20	3003.70	27.60	13.80	8.10	7.10		
5	10.60	8.10	20.30	12.70	24.90	2734.00	5845.90	2853.00	29.00	14.90	7.60	6.20		
6	11.10	8.10	15.50	12.10	28.30	2943.10	4927.10	2513.90	32.50	13.20	7.10	5.80		
7	10.60	8.50	14.40	12.70	19.70	3283.50	4454.50	2218.10	35.40	11.10	6.70	5.80		
8	10.00	32.50	19.70	13.80	19.10	4147.40	3900.50	1851.70	34.00	12.70	6.20	5.80		
9	9.00	24.20	16.10	12.10	12.70	6322.30	3559.00	1587.30	32.50	12.70	6.20	5.80		
10	8.10	18.50	12.70	11.60	11.10	9496.30	3125.90	1298.70	32.50	12.10	6.20	6.20		
11	8.10	18.50	12.10	12.70	13.80	12853.90	2688.50	1017.90	35.40	11.10	5.80	6.20		
12	7.60	25.50	12.70	13.20	13.80	18236.90	2233.30	786.20	32.50	10.00	5.80	4.90		
13	7.60	29.70	35.40	18.50	12.70	19666.70	1756.80	635.00	28.30	10.60	4.90	4.10		
14	8.10	72.00	70.20	15.50	11.10	19666.70	1407.70	529.70	25.50	10.60	4.90	4.10		
15	77.60	72.00	461.80	12.10	5.80	16839.60	1249.40	427.30	20.30	10.60	4.90	4.10		
16	20.30	32.50	551.30	10.00	7.10	12853.90	1099.00	359.30	20.30	10.60	5.40	4.50		
17	12.70	26.90	1009.90	10.00	7.10	9788.90	551.30	346.10	22.90	10.00	5.80	6.20		
18	10.00	70.20	642.00	18.50	6.70	7706.10	511.70	359.30	26.20	9.50	6.20	7.10		
19	6.70	56.20	98.90	3.70	6.70	6322.30	529.70	363.70	22.90	9.50	6.20	7.60		
20	8.10	139.10	38.40	3.70	6.70	5963.90	629.80	341.80	19.70	9.50	6.20	6.70		
21	8.10	132.50	38.40	11.10	7.10	6082.70	461.80	268.90	19.70	9.00	6.20	6.20		
22	8.10	111.20	26.20	14.40	8.10	6809.70	299.10	173.60	19.10	7.60	6.70	5.40		
23	8.10	87.10	24.90	2.70	81.30	8259.40	215.30	143.60	19.10	8.10	8.10	6.70		
24	8.10	49.50	23.50	6.20	593.60	10381.90	274.30	117.50	20.30	9.00	7.60	9.50		
25	7.60	26.90	24.20	6.20	1249.40	15475.90	286.60	64.80	16.10	8.50	6.20	11.10		
26	7.60	21.60	21.00	6.20	1407.70	18236.90	271.60	51.10	9.00	8.10	6.20	13.20		
27	7.60	17.30	19.10	4.50	1376.90	16839.60	341.80	49.50	13.20	9.00	6.20	14.40		
28	7.60	17.30	18.50	9.00	1279.30	12853.90	617.60	47.90	21.60	8.50	5.80	7.10		
29	7.60	13.80	18.50	3.70	1115.40	10381.90	1445.30	43.10	20.30	6.70		16.70		
30	7.60	19.70	16.70	6.70	892.10	8919.10	2122.80	41.50	19.70	7.60		15.50		
31		40.00		5.40	1215.50		2661.80		19.70	7.60		20.30		
Total	335.10	1211.30	3372.30	326.10	9471.60	280827.20	76073.90	30719.10	782.00	323.50	180.00	245.30	403867.40	Tonday
Mean	11.17	39.07	112.41	10.52	305.54	9360.91	2454.00	1023.97	25.23	10.44	6.43	7.91		Ton/day
Max	77.60	139.10	1009.90	18.50	1407.70	19666.70	8073.70	3125.90	41.50	19.70	8.10	20.30	19666.70	Ton/day
Min	6.70	7.60	12.10	2.70	4.90	1548.60	215.30	41.50	9.00	6.70	4.90	4.10	2.70	Ton/day

WATER YEAR : 2002

CHI RIVER BASIN

Nam Yang at Ban Kut Chim Khum Mai, 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 Mai.

Ban Kut Chim Khum Mai **Amphoe** Khao Wong **Changwat** Kalasin

Drainge Area	103 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	1998-2002
Number of observation	54
R-Square	0.9152
Remarks	Continued Sediment Station

$$QS = 6.2223\ QW^{1.27480}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	85.30	5.40	8.70	66.30	106.80	0.80	0.30	0.00	0.00	0.00	0.00		
2	0.00	48.40	1.30	15.10	46.00	196.40	0.80	0.30	0.00	0.00	0.00	0.00		
3	0.00	23.10	0.80	24.20	42.30	151.00	0.30	0.00	0.00	0.00	0.00	0.00		
4	0.00	8.70	0.80	49.70	42.30	105.30	0.30	0.00	0.00	0.00	0.00	0.00		
5	0.00	13.20	4.70	81.20	36.40	1991.50	0.30	0.00	0.00	0.00	0.00	0.00		
6	0.00	0.00	18.00	74.40	30.70	649.00	0.30	0.00	0.00	0.00	0.00	0.00		
7	0.00	0.00	28.50	67.60	20.00	463.20	0.30	0.00	0.00	0.00	0.00	0.00		
8	0.00	0.00	48.40	50.90	8.70	184.80	0.30	0.00	0.00	0.00	0.00	0.00		
9	0.00	0.00	233.90	52.20	1.90	75.70	0.30	0.00	0.00	0.00	0.00	0.00		
10	0.00	0.00	138.50	44.70	1.30	50.90	0.30	0.00	0.00	0.00	0.00	0.00		
11	0.00	0.00	75.70	30.70	0.80	31.90	0.00	0.00	0.00	0.00	0.00	0.00		
12	0.00	0.00	69.00	21.00	58.50	14.10	0.00	0.00	0.00	0.00	0.00	0.00		
13	0.00	0.00	463.20	11.30	58.50	3.90	0.00	0.00	0.00	0.00	0.00	0.00		
14	0.00	0.00	115.70	0.80	49.70	1.30	0.00	0.00	0.00	0.00	0.00	0.00		
15	0.00	0.00	57.20	0.30	42.30	3.20	0.00	0.00	0.00	0.00	0.00	0.00		
16	0.00	0.00	25.20	0.30	21.00	34.10	0.00	0.00	0.00	0.00	0.00	0.00		
17	0.00	0.00	24.20	0.30	8.70	61.10	0.00	0.00	0.00	0.00	0.00	0.00		
18	0.00	0.00	13.20	20.00	28.50	42.30	0.00	0.00	0.00	0.00	0.00	0.00		
19	0.00	0.00	3.90	4.70	84.00	23.10	0.00	0.00	0.00	0.00	0.00	0.00		
20	0.00	0.00	1.30	3.20	3301.00	34.10	0.00	0.00	0.00	0.00	0.00	0.00		
21	0.00	0.00	1.30	3.90	642.50	34.10	0.00	0.00	0.00	0.00	0.00	0.00		
22	0.00	0.00	0.80	1.90	102.40	25.20	0.00	0.00	0.00	0.00	0.00	0.00		
23	0.00	0.00	1.30	0.80	61.10	9.60	0.00	0.00	0.00	0.00	0.00	0.00		
24	0.00	0.00	540.90	0.80	42.30	2.60	0.00	0.00	0.00	0.00	0.00	0.00		
25	0.00	0.00	344.40	0.30	22.10	0.80	0.00	0.00	0.00	0.00	0.00	0.00		
26	0.00	0.00	127.70	0.30	4.70	0.30	0.00	0.00	0.00	0.00	0.00	0.00		
27	0.00	0.00	59.80	38.80	27.40	0.30	0.00	0.00	0.00	0.00	0.00	0.00		
28	0.00	0.00	42.30	325.70	6.20	0.80	0.00	0.00	0.00	0.00	0.00	0.00		
29	0.00	0.00	38.80	316.40	1.90	3.20	0.00	0.00	0.00	0.00		0.00		
30	0.00	0.00	25.20	209.90	7.90	1.30	0.00	0.00	0.00	0.00		0.00		
31		0.00		0.00	49.70		0.00		0.00	0.00		0.00		
Total	0.00	178.70	2511.40	1460.10	4917.10	4301.90	4.00	0.60	0.00	0.00	0.00	0.00	13373.80	Tonday
Mean	0.00	35.74	83.71	48.67	158.62	143.40	0.40	0.30	0.00	0.00	0.00	0.00		Ton/day
Max	0.00	85.30	540.90	325.70	3301.00	1991.50	0.80	0.30	0.00	0.00	0.00	0.00	3301.00	Ton/day
Min	0.00	8.70	0.80	0.30	0.80	0.30	0.30	0.30	0.00	0.00	0.00	0.00	0.00	Ton/day

WATER YEAR : 2002

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.
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	2002
Number of observation	18
R-Square	0.9381
Remarks	Continued Sediment Station

$$QS = 7.8309\ QW^{0.97140}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	18.50	34.90	234.00	19.50	104.90	155.90	286.10	6.30	0.80	6.30	2.40		
2	0.00	38.00	34.90	249.60	20.60	163.00	178.80	305.10	7.10	4.00	6.30	2.40		
3	0.00	38.00	37.00	278.30	25.70	270.50	192.00	278.30	6.30	8.60	6.30	2.40		
4	0.00	0.00	30.80	252.30	26.70	475.30	192.00	160.30	6.30	9.30	6.30	1.60		
5	0.00	0.00	26.70	137.70	27.80	1332.90	163.00	119.50	6.30	10.10	5.50	2.40		
6	0.00	0.00	21.60	56.20	30.80	3707.60	135.90	81.00	5.50	9.30	4.80	3.20		
7	0.00	0.00	40.00	37.00	26.70	3276.60	112.20	65.20	5.50	8.60	4.00	4.80		
8	0.00	0.00	60.20	29.80	24.70	2315.50	97.60	53.10	6.30	8.60	3.20	4.80		
9	0.00	0.00	79.20	27.80	22.60	2015.00	86.50	42.00	8.60	9.30	3.20	4.00		
10	0.00	0.00	77.30	27.80	19.50	1830.00	77.30	31.90	7.10	7.80	2.40	3.20		
11	0.00	0.00	60.20	26.70	13.10	1332.90	61.20	24.70	6.30	7.10	0.80	3.20		
12	0.00	0.00	35.90	21.60	12.40	1092.20	52.10	20.60	6.30	7.10	0.80	1.60		
13	0.00	0.00	24.70	13.10	18.50	908.20	47.10	18.50	5.50	7.10	1.60	1.60		
14	0.00	0.00	30.80	6.30	24.70	777.00	43.00	16.40	4.80	7.10	2.40	0.80		
15	0.00	0.00	77.30	12.40	32.90	705.10	34.90	14.60	3.20	7.10	1.60	0.80		
16	0.00	0.00	145.00	22.60	47.10	621.00	26.70	13.90	3.20	6.30	0.80	0.80		
17	0.00	0.00	176.20	15.40	53.10	508.30	25.70	13.90	3.20	5.50	0.80	0.80		
18	0.00	0.00	197.30	20.60	57.20	412.80	25.70	13.10	2.40	4.80	0.80	7.80		
19	0.00	0.00	223.50	15.40	77.30	370.50	26.70	12.40	2.40	4.00	1.60	8.60		
20	0.00	0.00	254.90	13.10	148.60	354.20	28.80	11.60	1.60	3.20	3.20	7.80		
21	0.00	0.00	249.60	10.10	218.30	337.80	28.80	11.60	1.60	4.00	8.60	14.60		
22	0.00	0.00	218.30	12.40	260.10	337.80	50.10	10.10	1.60	4.00	7.80	17.40		
23	0.00	0.00	170.90	13.10	273.10	354.20	55.20	10.10	1.60	5.50	5.50	16.40		
24	0.00	0.00	104.90	11.60	270.50	377.00	55.20	10.90	1.60	7.10	5.50	14.60		
25	0.00	0.00	68.00	10.90	273.10	354.20	63.20	10.90	1.60	7.80	6.30	13.90		
26	0.00	0.00	51.10	12.40	275.70	321.50	71.80	9.30	1.60	8.60	6.30	12.40		
27	0.00	0.00	54.10	13.10	244.40	199.90	84.70	8.60	2.40	7.80	4.80	10.10		
28	0.00	0.00	77.30	13.10	170.90	106.70	132.30	7.80	1.60	7.10	4.00	9.30		
29	0.00	0.00	130.50	14.60	135.90	88.40	205.10	7.80	1.60	6.30		7.80		
30	0.00	0.00	205.10	22.60	114.10	128.70	254.90	6.30	1.60	0.00		7.10		
31		0.00		21.60	97.60		273.10		0.80	0.00		7.10		
Total	0.00	94.50	2998.20	1653.20	3063.20	25179.70	3037.50	1675.60	121.80	193.90	111.50	195.70	38324.80	Tonday
Mean	0.00	31.50	99.94	53.33	98.81	839.32	97.98	55.85	3.93	6.69	3.98	6.31		Ton/day
Max	0.00	38.00	254.90	278.30	275.70	3707.60	273.10	305.10	8.60	10.10	8.60	17.40	3707.60	Ton/day
Min	0.00	18.50	21.60	6.30	12.40	88.40	25.70	6.30	0.80	0.80	0.80	0.80	0.00	Ton/day

WATER YEAR : 2002

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.
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	1998-2002
Number of observation	83
R-Square	0.9383
Remarks	Continued Sediment Station

$$QS = 3.8074\ QW^{1.39980}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.80	19.40	262.90	1108.80	10896.00	11982.20	1589.50	340.90	22.90	8.70	1.90	8.00		
2	0.20	16.90	180.50	819.30	10756.50	20961.30	1257.00	346.70	22.00	7.40	3.00	8.00		
3	0.10	16.10	141.70	940.30	7814.20	24432.00	919.80	252.20	22.00	7.40	2.80	6.70		
4	0.90	16.10	98.30	839.10	6244.50	25152.00	760.60	381.90	21.10	7.40	2.50	6.70		
5	2.30	13.70	273.70	899.40	5169.50	25732.30	583.30	164.70	19.40	7.40	2.30	5.50		
6	3.50	13.00	538.90	992.10	3607.80	28165.20	442.90	127.00	18.60	7.40	2.30	3.50		
7	4.40	14.50	455.40	1098.10	2501.50	29897.40	455.40	114.80	16.90	6.70	2.10	3.00		
8	3.00	10.80	442.90	1201.50	1756.20	29745.60	480.60	101.00	16.10	6.10	2.10	2.80		
9	2.80	8.70	487.00	1271.00	1187.80	28165.20	406.00	87.70	20.30	6.10	2.10	2.50		
10	2.10	13.00	819.30	1087.30	799.60	25586.90	352.50	92.90	21.10	6.10	1.90	1.90		
11	1.90	34.20	1299.10	849.10	556.50	20569.30	279.10	90.30	17.70	4.90	1.90	2.30		
12	1.30	74.90	1864.70	703.10	418.20	12463.50	257.50	82.50	15.30	4.40	1.90	2.10		
13	0.90	69.90	3155.90	530.10	504.10	5674.00	200.90	69.90	13.70	3.80	1.60	1.60		
14	1.30	42.50	3713.90	335.10	899.40	3660.70	153.10	67.50	13.70	3.50	1.60	1.40		
15	0.80	40.30	3687.30	205.90	1442.20	3199.50	141.70	65.10	13.70	4.40	1.60	1.30		
16	0.90	42.50	2383.30	112.00	1442.20	2135.70	134.30	65.10	13.00	4.40	1.60	1.10		
17	1.40	34.20	1530.10	85.10	1023.60	3090.70	138.00	65.10	12.20	3.80	1.60	1.10		
18	2.10	38.30	799.60	72.40	919.80	3555.10	134.30	65.10	19.40	3.80	1.60	0.90		
19	1.60	34.20	418.20	85.10	4424.60	4010.20	184.60	85.10	26.50	3.80	1.60	1.90		
20	3.80	28.40	335.10	77.40	12270.30	3901.70	226.20	77.40	22.00	4.40	1.60	1.60		
21	6.70	25.60	279.10	101.00	23860.40	5434.90	273.70	60.40	18.60	4.40	1.60	2.10		
22	8.00	20.30	241.70	160.80	25732.30	5494.40	449.10	49.00	16.10	4.40	1.40	2.50		
23	9.40	14.50	340.90	180.50	26169.90	3767.30	829.20	46.80	12.20	4.40	1.30	1.90		
24	10.00	13.00	1108.80	138.00	24575.60	2562.90	909.60	42.50	12.20	4.40	0.90	1.60		
25	13.00	12.20	3243.40	145.50	18792.50	1695.00	693.70	34.20	10.80	3.80	1.10	1.40		
26	38.30	11.50	4452.60	101.00	11459.00	1174.00	480.60	28.40	10.00	3.50	1.10	0.50		
27	36.20	329.40	4850.30	82.50	7626.60	940.30	340.90	23.80	8.00	3.30	2.30	0.60		
28	25.60	940.30	4010.20	85.10	6636.50	981.70	335.10	25.60	8.00	3.00	6.70	0.80		
29	19.40	565.40	2749.60	180.50	6068.70	1141.30	318.00	25.60	12.20	3.00		0.60		
30	19.40	449.10	1604.50	1589.50	6007.50	1589.50	279.10	28.40	10.80	3.00		46.80		
31		323.70		6457.50	5434.90		312.40		10.00	3.00		145.50		
Total	224.10	3286.60	45768.90	22534.10	236998.40	336861.80	14318.70	3107.60	496.50	152.10	56.00	268.20	664073.00	Tonday
Mean	7.47	106.02	1525.63	726.91	7645.11	11228.73	461.89	103.59	16.02	4.91	2.00	8.65		Ton/day
Max	38.30	940.30	4850.30	6457.50	26169.90	29897.40	1589.50	381.90	26.50	8.70	6.70	145.50	29897.40	Ton/day
Min	0.10	8.70	98.30	72.40	418.20	940.30	134.30	23.80	8.00	3.00	0.90	0.50	0.10	Ton/day

WATER YEAR : 2002

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	2002
Number of observation	22
R-Square	0.9022
Remarks	Continued Sediment Station

$$QS = 13.0180\ QW^{0.86070}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	20.60	52.00	22.60	277.70	224.90	2391.80	12131.30	4149.30	1318.70	264.00	137.00	86.30		
2	21.60	55.60	22.60	267.40	205.00	2646.50	11815.70	4007.80	1217.30	257.10	133.90	86.30		
3	23.60	46.60	22.60	267.40	210.70	2885.20	11371.50	3871.80	1158.40	257.10	133.90	86.30		
4	26.70	38.30	21.60	260.50	294.70	3100.80	10962.20	3746.60	1083.30	257.10	133.90	83.00		
5	23.60	29.60	21.60	239.70	520.90	3320.90	10565.60	3624.40	1012.80	246.70	130.80	83.00		
6	21.60	29.60	20.60	253.60	681.30	3523.30	10223.60	3494.30	950.40	236.20	127.70	83.00		
7	21.60	29.60	19.50	257.10	751.00	3674.80	9925.80	3389.30	896.50	227.70	124.60	79.60		
8	22.60	32.50	18.50	239.70	783.40	3818.70	9480.20	3286.60	851.60	219.30	121.50	79.60		
9	22.60	41.10	19.50	239.70	831.70	3985.20	9050.50	3190.30	799.60	213.60	118.40	79.60		
10	21.60	35.40	21.60	264.00	827.70	4196.80	8681.00	3094.40	742.80	207.90	118.40	79.60		
11	21.60	32.50	26.70	281.10	803.60	4412.80	8318.30	3018.40	693.70	199.20	118.40	79.60		
12	21.60	35.40	35.40	291.30	775.30	4628.90	8058.10	2927.70	639.70	190.60	115.20	79.60		
13	21.60	46.60	49.30	318.20	746.90	4879.00	7720.80	2836.50	606.20	187.70	108.90	76.30		
14	21.60	43.80	43.80	344.70	730.60	5095.50	7515.90	2738.70	568.10	187.70	105.70	76.30		
15	21.60	35.40	38.30	370.90	722.40	5274.90	7264.20	2640.40	538.10	187.70	99.30	76.30		
16	21.60	32.50	35.40	380.70	677.10	5444.10	7012.20	2541.40	486.20	184.70	96.10	72.90		
17	21.60	26.70	41.10	380.70	631.40	5659.40	6786.10	2448.10	439.00	181.80	92.80	72.90		
18	21.60	26.70	55.60	374.20	555.30	5930.80	6580.00	2320.30	416.10	178.90	92.80	72.90		
19	26.70	26.70	72.90	357.90	529.50	6158.10	6368.40	2215.30	409.70	173.00	92.80	72.90		
20	23.60	23.60	92.80	334.80	639.70	6544.00	6142.40	2122.30	409.70	167.10	92.80	72.90		
21	21.60	22.60	112.10	311.50	815.60	7222.30	5930.80	2046.90	409.70	164.10	92.80	72.90		
22	19.50	22.60	146.10	291.30	990.60	7796.10	5709.60	1998.40	400.10	158.20	92.80	72.90		
23	16.30	21.60	161.10	277.70	1158.40	8463.80	5525.00	1949.70	380.70	158.20	92.80	72.90		
24	16.30	22.60	230.60	267.40	1283.60	9085.50	5335.90	1906.80	354.60	158.20	89.60	72.90		
25	16.30	26.70	199.20	250.10	1399.00	9695.70	5170.40	1836.10	344.70	158.20	89.60	72.90		
26	18.50	52.00	155.20	213.60	1498.30	10508.70	5010.90	1745.20	344.70	158.20	86.30	72.90		
27	18.50	46.60	161.10	190.60	1601.70	11187.80	4841.20	1653.00	334.80	155.20	86.30	72.90		
28	18.50	38.30	181.80	149.10	1709.10	11689.10	4672.20	1575.40	328.20	149.10	86.30	72.90		
29	20.60	32.50	216.40	155.20	1846.10	11942.10	4545.20	1473.80	314.80	143.10		96.10		
30	29.60	29.60	274.20	199.20	1987.50	12068.30	4404.50	1409.00	287.90	143.10		124.60		
31		23.60		236.20	2227.00		4260.10		284.50	140.00		127.70		
Total	644.90	1058.90	2539.80	8543.20	28660.00	187230.90	231379.60	79258.20	19022.60	5910.70	3011.40	2510.50	569770.70	Tonday
Mean	21.50	34.16	84.66	275.59	924.52	6241.03	7463.86	2641.94	613.63	190.67	107.55	80.98		Ton/day
Max	29.60	55.60	274.20	380.70	2227.00	12068.30	12131.30	4149.30	1318.70	264.00	137.00	127.70	12131.30	Ton/day
Min	16.30	21.60	18.50	149.10	205.00	2391.80	4260.10	1409.00	284.50	140.00	86.30	72.90	16.30	Ton/day

WATER YEAR : 2002

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.
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	1998-2002
Number of observation	123
R-Square	0.9489
Remarks	Continued Sediment Station

$$QS = 3.6275\ QW^{1.05040}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.50	1.10	1.20	138.70	31.60	631.40	1733.30	179.00	26.10	3.00	1.80	1.70		
2	1.50	1.10	1.20	93.50	28.30	694.60	1533.10	169.50	24.90	2.90	1.80	1.70		
3	1.50	1.20	1.50	83.70	50.50	764.50	1354.30	160.00	22.90	2.80	1.80	1.70		
4	1.60	1.50	1.50	68.80	95.70	823.00	1199.40	148.90	20.40	2.80	1.80	1.70		
5	1.50	1.50	1.20	56.60	134.20	866.20	1096.90	139.10	19.20	2.70	1.70	1.80		
6	1.40	1.50	1.20	71.30	163.30	868.10	998.40	129.60	17.70	2.60	1.70	1.80		
7	1.40	1.50	1.20	67.00	151.40	841.80	935.60	120.10	16.00	2.60	1.70	1.70		
8	1.20	1.50	1.20	64.60	133.20	821.10	861.20	112.00	14.30	2.50	1.70	1.70		
9	1.20	1.50	1.20	63.30	117.90	824.80	791.50	104.00	12.40	2.40	1.90	1.70		
10	1.20	1.50	1.20	65.80	83.70	858.70	729.40	95.90	10.90	2.30	2.10	1.70		
11	1.20	1.50	2.00	57.80	73.20	960.60	673.00	89.20	8.90	2.30	1.80	1.70		
12	1.20	1.50	1.40	51.80	67.60	1113.20	630.00	83.20	7.60	2.10	1.80	1.70		
13	1.20	1.50	1.40	47.50	66.40	1180.20	589.10	77.20	6.90	2.00	1.80	1.70		
14	1.20	1.50	1.20	43.30	98.00	1147.60	558.90	71.50	6.90	1.90	1.80	1.70		
15	1.20	1.50	1.10	35.50	136.90	1093.90	535.70	68.80	5.40	1.90	1.80	1.70		
16	1.20	1.50	1.00	34.90	151.40	1055.30	508.60	65.20	4.20	1.90	1.40	1.70		
17	1.20	1.50	1.00	34.90	136.90	1102.20	482.50	61.50	5.60	1.80	1.40	1.70		
18	1.30	1.50	1.20	33.80	122.40	1166.20	447.40	58.00	5.20	1.80	1.60	1.70		
19	1.20	1.50	1.20	23.80	128.70	1257.80	399.60	53.90	5.00	1.80	1.70	1.80		
20	1.20	1.50	1.20	19.30	145.00	1496.20	359.10	51.10	4.90	1.80	1.70	1.80		
21	1.20	1.40	1.10	16.40	198.20	2173.30	335.40	48.50	4.70	1.80	1.80	1.80		
22	1.20	1.40	1.70	14.40	274.60	2926.70	315.20	46.50	4.60	1.80	1.80	1.80		
23	1.20	1.40	5.70	13.10	327.30	3210.00	300.80	44.60	4.50	1.80	1.80	1.70		
24	1.20	1.40	2.50	11.30	373.40	3283.90	278.80	42.50	3.90	1.80	1.70	1.70		
25	1.60	1.50	1.70	9.90	434.90	3062.40	263.30	40.50	3.60	1.80	1.70	1.70		
26	1.40	1.50	1.50	9.10	464.70	2851.10	249.30	37.50	3.50	1.80	1.70	1.70		
27	1.30	1.50	63.30	8.90	494.30	2700.20	233.90	35.60	3.30	1.80	1.70	1.80		
28	1.20	1.40	198.20	15.80	519.80	2216.70	220.70	32.40	3.30	1.80	1.70	1.80		
29	1.20	1.30	198.20	15.20	552.30	1987.80	207.90	30.10	3.30	1.80		1.80		
30	1.10	1.20	175.20	23.80	586.30	1895.10	196.90	28.40	3.30	1.80		1.70		
31		1.20		31.00	600.00		186.10		3.20	1.80		1.60		
Total	38.70	44.10	674.40	1324.80	6942.10	45874.60	19205.30	2424.30	286.60	65.70	48.70	53.50	76982.80	Tonday
Mean	1.29	1.42	22.48	42.74	223.94	1529.15	619.53	80.81	9.25	2.12	1.74	1.73		Ton/day
Max	1.60	1.50	198.20	138.70	600.00	3283.90	1733.30	179.00	26.10	3.00	2.10	1.80	3283.90	Ton/day
Min	1.10	1.10	1.00	8.90	28.30	631.40	186.10	28.40	3.20	1.80	1.40	1.60	1.00	Ton/day

WATER YEAR : 2002

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	2002
Number of observation	21
R-Square	0.8958
Remarks	Continued Sediment Station

$$QS = 4.8958\ QW^{0.95930}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	0.00	0.50	15.80	514.40	1155.20	179.80	4.00	2.50	1.00	0.00		
2	0.00	0.00	0.00	3.50	22.90	560.50	1011.40	175.00	4.00	2.50	1.00	0.00		
3	0.00	0.00	0.00	10.40	40.30	589.30	868.60	169.30	3.50	2.50	1.00	0.00		
4	0.00	0.00	0.00	20.70	84.60	593.10	766.50	164.50	2.00	2.50	1.00	0.00		
5	0.00	0.00	0.00	27.30	138.90	583.60	643.30	166.10	1.50	2.50	1.00	0.00		
6	0.00	0.00	0.00	27.30	214.40	593.10	583.60	166.10	2.00	2.50	1.00	0.00		
7	0.00	0.00	0.00	36.00	191.90	616.10	531.30	165.30	2.00	2.50	1.00	0.00		
8	0.00	0.00	0.00	42.90	196.70	631.80	486.60	152.30	2.00	2.50	1.00	0.00		
9	0.00	0.00	0.00	53.10	210.40	650.10	461.80	135.60	2.00	2.50	1.00	0.00		
10	0.00	0.00	0.00	53.10	216.80	681.00	449.40	123.00	2.00	2.50	1.00	0.00		
11	0.00	0.00	0.00	50.50	216.80	711.80	443.20	111.90	4.00	2.50	1.00	0.00		
12	0.00	0.00	0.00	48.00	208.80	736.20	437.00	106.10	4.90	2.50	1.00	0.00		
13	0.00	0.00	0.00	42.90	197.50	755.10	427.70	80.80	4.90	2.50	1.00	0.00		
14	0.00	0.00	0.00	42.90	167.70	783.90	418.40	63.20	4.00	2.50	1.00	0.00		
15	0.00	0.00	0.00	31.70	123.40	826.30	405.90	45.40	4.00	2.50	1.00	0.00		
16	0.00	0.00	0.00	18.50	73.30	831.60	382.50	31.70	4.00	2.50	1.00	0.00		
17	0.00	0.00	0.00	15.80	63.20	863.30	348.90	27.30	4.00	2.50	1.00	0.00		
18	0.00	0.00	0.00	11.80	53.10	921.30	289.90	25.10	4.00	2.50	0.50	0.00		
19	0.00	0.00	0.00	10.40	50.50	968.60	241.50	22.90	4.00	2.50	0.50	0.00		
20	0.00	0.00	0.00	11.80	53.10	1220.30	200.70	15.80	4.00	2.50	0.50	0.00		
21	0.00	0.00	0.00	11.80	104.90	1486.70	163.70	14.50	4.00	2.50	0.50	0.00		
22	0.00	0.00	0.00	17.20	124.20	1707.10	145.80	14.50	4.00	2.50	0.50	0.00		
23	0.00	0.00	0.00	0.00	137.70	2266.00	133.60	14.50	4.00	2.50	0.50	0.00		
24	0.00	0.00	0.00	0.00	156.40	3008.80	130.30	13.10	3.50	2.50	0.50	0.00		
25	0.00	0.00	0.00	0.00	172.60	2777.70	128.30	10.40	3.00	2.50	0.50	0.00		
26	0.00	0.00	0.00	0.00	196.70	2412.40	122.20	4.40	3.00	2.00	0.50	0.00		
27	0.00	0.00	0.00	0.00	230.30	1973.70	124.60	4.90	3.00	1.50	0.50	0.00		
28	0.00	0.00	0.00	0.00	276.40	1721.80	135.60	4.90	2.50	1.50	0.50	0.00		
29	0.00	0.00	0.00	0.00	333.60	1473.80	147.50	4.90	2.50	1.50		0.00		
30	0.00	0.00	0.00	0.00	395.00	1318.90	164.50	4.40	3.00	1.50		0.00		
31		0.00		0.00	444.80		177.40		3.00	1.00		0.00		
Total	0.00	0.00	0.00	588.10	5112.70	34778.30	12126.90	2217.70	102.30	71.50	22.50	0.00	55020.00	Tonday
Mean	0.00	0.00	0.00	19.00	164.93	1159.28	391.19	73.92	3.30	2.31	0.80	0.00		Ton/day
Max	0.00	0.00	0.00	53.10	444.80	3008.80	1155.20	179.80	4.90	2.50	1.00	0.00	3008.80	Ton/day
Min	0.00	0.00	0.00	0.50	15.80	514.40	122.20	4.40	1.50	1.00	0.50	0.00	0.00	Ton/day

WATER YEAR : 2002

MUN RIVER BASIN

Huai Khayung at Ban Wang Chom Pu, Si Sa Ket (M.66)

Lat 14 - 38 - 27 N Long 104 - 39 - 50 E

Location : on right bank about 50 meters upstream from the bridge of Kantharalak - Det Udom Road.

Ban Wang Chom Pu **Amphoe** Kantharalak **Changwat** Si Sa Ket

Drainge Area	562 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
Number of observation	24
R-Square	0.9218
Remarks	Continued Sediment Station

$$QS = 5.2279\ QW^{1.27230}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.60	3.90	24.30	54.40	47.90	253.10	639.90	130.00	5.20	2.20	0.50	0.70		
2	2.70	4.10	18.90	33.40	56.60	293.40	668.00	106.70	5.20	1.90	0.70	0.70		
3	2.70	4.30	20.30	33.40	127.40	284.00	1525.60	99.10	5.20	1.60	0.70	0.50		
4	2.60	4.60	11.00	37.40	99.10	265.30	1837.80	84.40	5.20	1.40	0.70	0.50		
5	2.40	6.60	8.00	25.70	72.50	259.20	1438.70	74.90	5.20	1.40	0.80	0.50		
6	2.30	18.90	5.20	18.90	79.60	293.40	960.50	65.60	5.00	1.30	0.80	0.50		
7	2.20	33.40	4.30	16.30	82.00	455.70	984.90	54.40	5.00	1.10	0.80	0.50		
8	2.30	82.00	2.90	18.90	50.00	548.40	723.90	47.90	4.90	1.00	0.80	0.50		
9	2.40	96.60	3.20	50.00	37.40	1172.20	530.40	47.90	4.90	1.00	0.80	0.50		
10	2.60	86.80	5.20	74.90	27.60	1813.40	438.40	45.70	4.90	1.10	0.70	0.50		
11	2.40	61.00	18.90	72.50	35.40	2020.50	299.70	33.40	4.70	1.30	0.50	0.40		
12	2.70	35.40	33.40	56.60	58.80	1944.60	250.00	35.40	4.60	1.40	0.50	0.40		
13	2.70	15.10	37.40	45.70	65.60	1307.20	208.20	31.50	4.40	1.60	0.40	0.40		
14	2.70	11.00	33.40	27.60	548.40	942.30	173.70	29.50	4.30	1.60	0.30	0.40		
15	2.60	9.50	13.80	16.30	271.50	630.70	165.30	25.70	4.10	1.60	0.30	0.40		
16	2.60	8.00	5.90	16.30	196.60	447.00	222.90	25.70	3.90	1.60	0.30	0.40		
17	2.60	7.30	4.10	15.10	151.50	508.20	225.90	24.30	3.60	1.50	0.30	0.40		
18	2.60	5.00	3.90	15.10	157.00	663.30	225.90	21.60	3.20	1.40	0.40	0.40		
19	2.60	4.90	4.10	15.10	296.50	1102.70	170.90	18.90	3.20	1.30	0.40	0.40		
20	2.60	4.90	5.20	12.60	626.00	2428.50	157.00	17.60	3.00	1.10	0.40	0.40		
21	2.60	5.20	15.10	10.30	1223.30	2145.00	138.00	15.10	2.60	1.00	0.50	0.40		
22	2.40	8.00	58.80	8.80	1935.20	2864.70	143.40	13.80	2.30	0.90	0.50	0.40		
23	2.30	10.30	271.50	9.50	984.90	4173.40	154.30	12.60	2.30	0.80	0.50	0.50		
24	2.20	9.50	344.70	8.80	718.20	3121.00	262.20	11.80	2.30	0.50	0.50	0.50		
25	2.00	8.00	243.90	8.80	539.40	2468.20	347.90	9.50	2.20	0.50	0.50	0.50		
26	2.40	16.30	185.10	6.60	603.00	1405.60	328.40	7.30	2.20	0.50	0.70	0.50		
27	3.30	50.00	179.40	5.20	718.20	1102.70	243.90	6.60	2.20	0.50	0.70	0.50		
28	3.60	41.50	157.00	5.00	481.80	1566.00	179.40	4.90	2.20	0.50	0.70	0.50		
29	3.70	45.70	104.10	8.80	396.00	1379.20	154.30	3.60	2.20	0.50		0.50		
30	3.70	37.40	77.20	21.60	287.10	954.40	162.50	5.90	2.20	0.50		0.50		
31		31.50		79.60	247.00		168.10		2.20	0.50		0.50		
Total	79.10	766.70	1900.20	829.20	11221.50	38813.30	14130.00	1111.30	114.60	35.10	15.70	14.70	69031.40	Tonday
Mean	2.64	24.73	63.34	26.75	361.98	1293.78	455.81	37.04	3.70	1.13	0.56	0.47		Ton/day
Max	3.70	96.60	344.70	79.60	1935.20	4173.40	1837.80	130.00	5.20	2.20	0.80	0.70	4173.40	Ton/day
Min	2.00	3.90	2.90	5.00	27.60	253.10	138.00	3.60	2.20	0.50	0.30	0.40	0.30	Ton/day

WATER YEAR : 2002

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	2002
Number of observation	36
R-Square	0.9183
Remarks	Continued Sediment Station

$$QS = 1.9963\ QW^{1.64420}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	8.40	13.00	21.10	13.80	28.50	138.90	438.70	112.00	24.20	18.20	14.60	14.60		
2	7.70	16.40	40.50	13.80	24.20	248.40	312.10	98.00	23.20	18.20	13.80	14.60		
3	7.70	17.30	26.30	13.80	39.20	361.80	206.50	75.60	24.20	18.20	13.80	16.40		
4	9.10	15.50	22.10	14.60	316.90	142.00	171.40	63.00	24.20	18.20	13.80	13.80		
5	7.70	12.20	27.40	14.60	302.70	142.00	154.80	54.10	25.20	17.30	13.80	13.80		
6	7.70	13.00	44.40	31.90	405.10	405.10	151.60	47.60	25.20	17.30	13.80	13.80		
7	7.70	11.40	28.50	30.80	182.80	361.80	617.20	44.40	26.30	17.30	13.80	13.80		
8	7.10	12.20	24.20	22.10	95.30	151.60	190.60	41.80	26.30	17.30	13.80	13.80		
9	7.10	14.60	23.20	21.10	65.00	158.10	120.70	38.00	26.30	16.40	13.80	13.80		
10	7.10	14.60	270.50	59.20	47.60	210.50	98.00	36.70	26.30	16.40	13.80	13.80		
11	6.40	20.10	168.00	36.70	39.20	302.70	82.30	35.50	25.20	16.40	13.80	13.80		
12	6.40	26.30	77.80	40.50	33.10	372.40	69.20	35.50	23.20	16.40	13.80	13.00		
13	6.40	43.10	47.60	67.10	30.80	235.50	61.00	35.50	23.20	16.40	13.80	13.80		
14	6.40	47.60	36.70	55.80	27.40	135.80	54.10	39.20	23.20	16.40	15.50	25.20		
15	7.70	39.20	29.60	38.00	24.20	112.00	50.80	77.80	22.10	16.40	16.40	17.30		
16	9.10	33.10	27.40	90.00	23.20	82.30	190.60	49.20	21.10	15.50	15.50	17.30		
17	7.10	24.20	23.20	252.80	23.20	61.00	492.90	39.20	21.10	16.40	16.40	17.30		
18	7.70	109.10	22.10	109.10	21.10	129.70	326.50	35.50	21.10	16.40	17.30	17.30		
19	7.10	77.80	20.10	112.00	21.10	109.10	164.70	33.10	21.10	15.50	20.10	18.20		
20	7.10	284.10	18.20	92.70	22.10	129.70	112.00	31.90	21.10	15.50	18.20	15.50		
21	6.40	1116.80	17.30	52.40	23.20	135.80	158.10	29.60	21.10	16.40	17.30	14.60		
22	8.40	175.20	17.30	39.20	27.40	901.80	239.80	29.60	21.10	16.40	17.30	13.80		
23	8.40	71.30	16.40	33.10	39.20	3375.30	244.10	28.50	21.10	15.50	18.20	13.80		
24	8.40	44.40	15.50	28.50	29.60	3558.30	218.70	27.40	21.10	15.50	17.30	13.80		
25	9.10	34.30	15.50	26.30	30.80	1654.30	151.60	27.40	21.10	15.50	15.50	18.20		
26	9.10	31.90	14.60	24.20	33.10	3339.10	106.30	26.30	20.10	14.60	14.60	16.40		
27	11.40	30.80	13.80	22.10	28.50	1106.60	126.70	25.20	21.10	14.60	14.60	18.20		
28	11.40	29.60	13.80	21.10	24.20	474.30	120.70	24.20	21.10	14.60	14.60	26.30		
29	9.80	28.50	13.80	23.20	23.20	416.20	103.50	24.20	19.20	14.60		26.30		
30	12.20	27.40	13.80	40.50	24.20	367.10	87.40	23.20	19.20	14.60		26.30		
31		24.20		43.10	50.80		75.60		19.20	14.60		49.20		
Total	243.30	2459.20	1150.70	1484.10	2106.90	19319.20	5698.20	1289.20	699.20	503.00	429.00	547.80	35929.80	Tonday
Mean	8.11	79.33	38.36	47.87	67.96	643.97	183.81	42.97	22.55	16.23	15.32	17.67		Ton/day
Max	12.20	1116.80	270.50	252.80	405.10	3558.30	617.20	112.00	26.30	18.20	20.10	49.20	3558.30	Ton/day
Min	6.40	11.40	13.80	13.80	21.10	61.00	50.80	23.20	19.20	14.60	13.80	13.00	6.40	Ton/day

WATER YEAR : 2002

MUN RIVER BASIN

Huai Samran at Ban Thai Thaworn, Si Sa Ket (M.91)

Lat 14 - 29 - 40 N Long 104 - 03 - 34 E

Location : on right bank about 15 kilometers, the highway at Ban Thai Thaworn.

Ban Thai Thaworn **Amphoe** Phu Sing **Changwat** Si Sa Ket

Drainge Area	141 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1986 - 1991,2002 - Cont'd
Actual Measurement	1986 - 1991,2002 - Cont'd
Using Rating Curve Water Year	2002
Number of observation	39
R-Square	0.8261
Remarks	Continued Sediment Station

$$QS = 4.1823\ QW^{1.12360}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.50	0.70	2.40	4.80	4.50	37.70	40.70	7.50	2.60	1.70	1.40	1.10		
2	1.40	1.40	2.40	4.70	4.50	91.50	31.10	8.10	2.60	1.70	1.40	1.00		
3	0.80	1.40	2.90	4.50	5.10	37.20	65.00	6.10	3.20	1.70	1.40	1.00		
4	1.20	1.40	2.60	4.30	4.80	40.20	81.20	5.50	2.90	1.70	1.40	1.00		
5	1.00	1.50	2.30	4.50	4.80	25.50	152.90	5.00	2.60	1.70	1.40	1.00		
6	0.70	2.10	2.30	4.30	4.30	21.90	148.70	4.70	2.60	1.70	1.40	1.00		
7	0.60	2.00	2.10	4.10	3.70	26.90	94.50	4.50	2.40	1.70	1.40	2.00		
8	0.50	1.80	2.00	4.00	3.70	37.70	51.90	4.30	2.60	1.70	1.40	2.10		
9	0.70	1.70	1.70	4.80	3.70	63.10	34.90	4.10	3.00	1.70	1.40	2.10		
10	1.10	1.70	1.80	5.00	4.00	96.90	24.70	4.10	2.80	1.70	1.40	2.10		
11	0.80	1.70	1.80	5.00	4.10	77.20	19.20	4.00	2.80	1.70	1.40	2.10		
12	0.70	1.40	1.70	4.70	3.00	92.10	15.70	4.10	2.60	1.70	1.40	2.10		
13	0.70	0.80	3.00	4.50	6.30	41.30	13.30	4.30	2.30	1.50	1.40	2.10		
14	0.60	0.50	3.20	3.70	7.90	29.20	11.70	4.00	2.10	1.50	1.20	2.00		
15	0.50	0.20	2.80	2.40	7.30	22.30	10.70	3.70	2.10	1.50	1.20	2.00		
16	0.30	0.10	3.30	2.30	6.70	16.70	19.60	4.30	2.00	1.50	1.20	2.00		
17	0.30	0.60	3.20	2.10	6.30	23.50	17.00	3.70	2.00	1.50	1.20	2.30		
18	0.20	0.70	3.90	2.10	6.50	57.50	23.50	3.50	1.80	1.50	1.20	2.30		
19	0.10	3.20	3.50	4.70	7.30	100.40	15.70	3.00	1.80	1.50	1.20	2.30		
20	0.00	27.40	3.70	4.70	7.30	173.20	11.40	2.90	1.80	1.50	1.20	2.30		
21	0.00	5.90	3.30	4.50	35.80	99.20	9.90	2.90	1.70	1.40	1.40	2.30		
22	0.00	6.70	3.90	4.50	18.40	245.20	7.90	2.80	1.70	1.40	1.40	2.30		
23	0.00	3.70	13.80	4.50	15.70	376.90	8.90	2.60	1.70	1.40	1.40	2.30		
24	0.00	2.90	9.90	4.80	14.70	171.00	12.00	2.60	1.70	1.40	1.40	2.30		
25	0.00	2.40	7.70	4.80	10.70	107.10	11.40	2.60	1.70	1.40	1.50	2.30		
26	0.00	0.00	8.70	4.70	49.40	93.90	8.90	2.60	1.70	1.40	1.50	2.30		
27	0.00	0.00	6.70	4.70	20.40	59.40	13.80	2.40	1.70	1.40	1.40	2.30		
28	0.00	0.00	6.90	4.70	11.40	58.10	10.90	2.40	1.70	1.40	1.10	2.30		
29	0.00	0.00	6.30	4.80	12.80	55.60	7.90	2.40	1.70	1.40		2.40		
30	0.00	0.00	5.10	4.50	9.90	50.00	7.10	2.40	1.70	1.40		2.30		
31		0.00		4.50	8.90		6.50		1.70	1.40		2.10		
Total	12.70	73.90	124.90	132.20	313.90	2428.40	988.60	117.10	67.30	47.80	37.70	61.10	4405.60	Tonday
Mean	0.40	2.40	4.16	4.26	10.13	80.95	31.89	3.90	2.17	1.54	1.35	1.97		Ton/day
Max	1.40	27.40	13.80	5.00	49.40	376.90	152.90	8.10	3.20	1.70	1.50	2.40	376.90	Ton/day
Min	0.00	0.00	1.70	2.10	3.00	16.70	6.50	2.40	1.70	1.40	1.10	1.00	0.10	Ton/day

WATER YEAR : 2002

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	2002
Number of observation	27
R-Square	0.9235
Remarks	Continued Sediment Station

$$QS = 1.4078\ QW^{1.49790}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.20	13.00	8.80	28.20	396.60	207.10	110.40	22.70	3.00	1.40	0.60	0.80		
2	0.20	1.90	6.80	27.10	181.10	176.90	81.30	21.70	3.40	1.40	0.50	0.50		
3	0.10	1.40	5.70	380.20	694.60	144.30	71.80	18.60	3.40	1.30	0.50	0.50		
4	0.10	0.70	5.70	201.60	447.10	2427.50	49.70	16.60	3.40	1.10	0.50	0.50		
5	0.10	0.60	295.50	117.70	1674.40	2566.90	39.70	14.80	3.00	1.10	0.50	0.50		
6	0.10	0.60	62.60	635.80	404.90	1696.60	39.70	12.10	3.40	1.00	0.50	0.50		
7	0.10	0.70	49.70	833.00	196.10	1169.00	69.40	10.40	2.60	1.00	0.50	0.30		
8	0.10	0.40	24.90	2482.90	121.40	380.20	43.60	9.60	3.40	1.00	0.50	0.30		
9	0.10	0.30	15.70	3595.00	83.80	3357.30	35.30	9.60	3.80	1.00	0.50	0.40		
10	0.10	0.30	91.30	1151.30	67.20	2236.70	29.40	8.80	2.60	0.90	0.60	0.30		
11	0.10	1.70	106.90	669.90	49.70	913.40	24.90	8.00	2.40	1.00	0.40	0.30		
12	0.60	3.80	56.10	271.00	43.60	324.70	23.80	8.00	2.20	1.00	0.40	0.30		
13	0.30	1.70	47.70	128.90	39.70	190.70	20.60	8.00	2.10	1.00	0.40	0.40		
14	0.10	1.10	28.20	81.30	99.00	132.70	21.70	22.70	1.90	1.00	0.40	0.30		
15	0.10	2.10	18.60	67.20	136.50	101.60	19.60	14.80	1.90	1.00	0.40	0.30		
16	0.10	1.00	11.20	99.00	110.40	121.40	17.60	10.40	1.90	0.90	0.30	0.30		
17	0.10	21.70	7.30	74.10	69.40	258.90	20.60	8.00	1.70	0.90	0.30	0.30		
18	0.10	14.80	11.20	71.80	4988.20	309.40	27.10	8.00	1.70	0.80	0.30	0.30		
19	0.10	3.00	7.30	56.10	1786.50	152.30	22.70	7.30	1.70	0.80	0.30	4.30		
20	0.10	2.20	8.80	47.70	5537.00	218.30	21.70	6.20	1.70	0.80	0.30	1.60		
21	0.10	71.80	7.30	32.90	3323.80	340.20	21.70	5.70	11.20	0.70	0.50	1.10		
22	0.10	11.20	30.50	26.00	1543.00	172.70	20.60	5.20	8.00	0.70	0.70	0.80		
23	0.10	3.40	91.30	37.80	803.20	125.10	19.60	4.70	4.30	0.70	0.80	0.70		
24	0.10	156.30	388.40	27.10	396.60	83.80	23.80	4.30	2.40	0.70	0.70	0.60		
25	0.10	190.70	264.90	218.30	218.30	69.40	20.60	3.80	2.20	0.30	0.80	0.40		
26	0.60	372.10	136.50	64.90	1763.90	58.20	19.60	3.00	2.10	0.40	1.00	0.40		
27	0.20	106.90	62.60	35.30	526.50	53.90	18.60	2.60	1.90	0.70	0.70	0.40		
28	0.10	39.70	168.50	569.40	1240.60	253.00	17.60	3.40	1.60	0.70	1.00	0.80		
29	0.10	47.70	64.90	495.10	364.00	372.10	22.70	3.00	1.60	0.60		0.70		
30	0.10	26.00	41.70	5366.10	277.00	212.70	28.20	3.00	1.60	0.60		0.60		
31		13.80		1608.20	264.90		26.00		1.40	0.60		0.70		
Total	4.50	1112.60	2126.60	19500.90	27849.00	18827.00	1029.60	285.00	89.50	27.10	14.90	20.20	70886.90	Tonday
Mean	0.15	35.89	70.89	629.06	898.35	627.57	33.21	9.50	2.89	0.87	0.53	0.65		Ton/day
Max	0.60	372.10	388.40	5366.10	5537.00	3357.30	110.40	22.70	11.20	1.40	1.00	4.30	5537.00	Ton/day
Min	0.10	0.30	5.70	26.00	39.70	53.90	17.60	2.60	1.40	0.30	0.30	0.30	0.10	Ton/day

WATER YEAR : 2002

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	2002
Number of observation	27
R-Square	0.9276
Remarks	Continued Sediment Station

$$QS = 4.5261\ QW^{1.20850}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	0.90	5.10	732.60	561.50	291.60	2.30	0.60	0.20	0.00	0.00		
2	0.00	0.00	3.50	9.50	258.80	561.50	110.30	2.00	0.50	0.20	0.00	0.00		
3	0.00	0.00	13.00	115.00	311.90	804.20	55.20	1.80	0.50	0.20	0.00	0.00		
4	0.00	0.00	9.50	149.10	228.90	1453.00	31.70	1.80	0.30	0.20	0.00	0.00		
5	0.00	0.00	5.40	124.60	278.20	1470.80	13.00	1.80	0.30	0.20	0.00	0.00		
6	0.00	0.00	4.80	110.30	342.80	1126.80	10.50	1.60	0.50	0.20	0.00	0.00		
7	0.00	0.00	4.00	119.80	258.80	868.90	13.70	1.40	0.50	0.10	0.00	0.00		
8	0.00	0.00	2.50	205.40	154.10	740.50	12.40	1.20	0.60	0.10	0.00	0.00		
9	0.00	0.00	2.00	548.90	94.30	406.10	7.50	1.20	0.60	0.10	0.00	0.00		
10	0.00	0.00	1.60	561.50	48.40	776.30	5.60	1.20	0.60	0.10	0.00	0.00		
11	0.00	0.00	1.10	599.40	24.20	474.70	5.10	1.20	0.60	0.00	0.00	0.00		
12	0.00	0.00	1.10	732.60	15.00	217.10	4.50	1.10	0.50	0.00	0.00	0.00		
13	0.00	0.00	0.80	474.70	15.70	134.30	4.30	1.10	0.50	0.00	0.00	0.00		
14	0.00	0.00	0.30	174.40	69.00	79.70	4.30	1.10	0.50	0.00	0.00	0.00		
15	0.00	0.00	2.00	79.70	90.60	48.40	3.70	1.10	0.50	0.00	0.00	0.00		
16	0.00	0.00	14.40	45.20	65.40	51.80	3.50	1.10	0.30	0.00	0.00	0.00		
17	0.00	0.00	101.80	33.60	41.90	101.80	2.90	1.10	0.30	0.00	0.00	0.00		
18	0.00	0.00	144.20	27.90	144.20	98.10	2.70	1.10	0.30	0.00	0.00	0.00		
19	0.00	0.00	83.30	14.40	311.90	58.60	2.90	0.90	0.30	0.00	0.00	0.00		
20	0.00	0.00	27.90	9.00	1936.90	291.60	2.90	0.80	0.20	0.00	0.00	0.00		
21	0.00	0.00	14.40	6.10	2567.20	820.30	2.50	0.80	0.20	0.00	0.00	0.00		
22	0.00	0.00	12.40	4.50	1202.30	474.70	3.20	0.80	0.20	0.00	0.00	0.00		
23	0.00	0.00	7.50	5.60	772.30	228.90	4.00	0.80	0.20	0.00	0.00	0.00		
24	0.00	0.00	0.00	4.80	342.80	115.00	2.90	0.70	0.20	0.00	0.00	0.00		
25	0.00	0.00	0.00	105.60	264.90	62.00	2.50	0.70	0.20	0.00	0.00	0.00		
26	0.00	0.00	0.00	94.30	804.20	35.50	2.50	0.70	0.20	0.00	0.00	0.00		
27	0.00	0.00	0.00	51.80	450.40	26.00	2.50	0.60	0.20	0.00	0.00	0.00		
28	0.00	0.00	0.00	800.20	184.60	26.00	2.50	0.60	0.20	0.00	0.00	0.00		
29	0.00	0.00	0.00	988.10	205.40	110.30	2.90	0.60	0.20	0.00		0.00		
30	0.00	0.00	0.00	2780.20	599.40	524.00	2.70	0.60	0.20	0.00		0.00		
31		0.00		1602.30	728.70		2.70		0.20	0.00		0.00		
Total	0.00	0.00	458.40	10583.60	13545.80	12748.40	619.20	33.80	11.20	1.60	0.00	0.00	38002.00	Tonday
Mean	0.00	0.00	19.93	341.41	436.96	424.95	19.97	1.13	0.36	0.16	0.00	0.00		Ton/day
Max	0.00	0.00	144.20	2780.20	2567.20	1470.80	291.60	2.30	0.60	0.20	0.00	0.00	2780.20	Ton/day
Min	0.00	0.00	0.30	4.50	15.00	26.00	2.50	0.60	0.20	0.00	0.00	0.00	0.00	Ton/day

WATER YEAR : 2002

MUN RIVER BASIN

Huai Hin Lap at Ban Hin Lap, Nakhon Ratchasima (M.134)

Lat 14 - 43 - 29 N Long 101 - 34 - 21 E

Location : on left bank at Ban Hin Lap.

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	2001-Cont'd
Actual Measurement	2001-Cont'd
Using Rating Curve Water Year	2002
Number of observation	36
R-Square	0.9512
Remarks	Continued Sediment Station

$$QS = 14.0390\ QW^{1.48030}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.00	2.10	1.20	0.60	0.60	9.70	150.30	180.80	11.20	4.20	2.80	10.10		
2	1.00	1.90	1.10	0.60	0.60	9.70	153.00	147.60	10.10	4.20	2.80	9.70		
3	0.90	1.50	1.00	0.50	0.80	6.00	172.30	105.30	10.10	4.20	2.80	8.30		
4	0.90	1.50	0.90	0.50	0.80	3.10	288.10	62.80	8.30	3.60	2.40	6.00		
5	0.90	1.50	0.80	0.60	0.70	1.10	144.90	40.30	8.30	3.60	2.40	3.60		
6	1.30	1.90	0.80	0.60	0.70	0.70	166.70	30.30	7.60	3.60	2.40	3.40		
7	1.30	1.90	0.80	0.60	0.80	0.70	3810.80	23.30	7.90	3.60	2.40	2.80		
8	1.30	4.20	0.70	0.60	0.70	0.70	225.30	18.40	10.50	3.60	1.90	2.80		
9	1.30	14.00	0.70	0.70	0.70	0.70	62.80	18.40	12.40	3.10	1.90	2.60		
10	1.10	11.20	0.70	0.70	0.70	3.10	54.50	17.50	11.60	3.10	1.90	2.60		
11	1.10	7.90	0.70	0.70	0.70	577.80	33.50	14.00	11.20	3.10	1.70	2.60		
12	1.10	7.90	0.60	0.70	0.70	240.80	36.90	12.80	10.10	3.10	1.30	2.40		
13	1.10	7.30	0.60	0.70	0.70	38.60	21.90	12.00	9.40	2.80	1.50	2.40		
14	1.20	2.40	0.70	0.70	0.70	11.60	20.50	21.20	9.40	5.00	1.50	2.80		
15	1.30	2.40	0.80	0.70	0.60	9.70	27.90	292.00	9.40	4.40	1.50	3.10		
16	1.30	1.90	0.80	0.70	0.60	4.40	175.10	222.20	8.30	4.40	1.70	3.10		
17	1.10	2.60	0.80	0.70	0.60	4.20	207.10	139.60	8.30	4.40	2.40	2.60		
18	1.10	2.60	0.80	0.70	0.60	19.80	501.80	23.30	8.30	4.40	4.40	2.60		
19	1.10	2.60	0.80	0.70	0.60	364.80	234.50	17.90	8.30	3.60	4.20	2.40		
20	1.20	2.60	0.70	0.70	0.70	1299.40	64.50	16.60	8.30	3.60	4.20	2.40		
21	1.20	3.60	0.70	0.70	0.70	1131.50	45.70	15.70	7.60	3.40	4.40	2.80		
22	1.10	3.60	0.70	0.60	0.70	6611.80	42.10	14.00	8.60	3.40	4.70	2.10		
23	1.10	1.90	0.70	0.60	0.60	3001.80	38.60	14.00	9.40	3.40	5.00	2.10		
24	1.00	1.90	0.60	0.60	0.70	605.80	34.30	14.00	8.60	3.40	5.00	2.10		
25	1.00	1.70	0.70	0.60	0.70	103.30	91.60	14.00	8.60	3.40	5.00	2.10		
26	1.00	1.70	0.80	0.60	0.70	71.40	189.40	14.00	8.60	3.40	5.00	2.40		
27	1.20	1.90	0.80	0.60	0.70	67.90	377.40	14.00	8.30	2.80	13.60	2.40		
28	2.10	3.60	0.80	0.60	0.70	50.70	356.40	12.80	7.60	3.40	51.90	2.80		
29	2.40	3.60	0.80	0.60	0.80	39.50	483.30	12.80	7.30	3.40		3.40		
30	2.40	3.40	0.70	0.60	0.80	38.60	74.90	12.00	5.60	2.80		3.60		
31		2.40		0.60	0.80		49.40		4.70	2.80		4.40		
Total	37.10	111.20	23.30	19.70	21.50	14328.90	8335.50	1553.60	273.90	111.20	142.70	108.50	25067.10	Tonday
Mean	1.24	3.59	0.78	0.64	0.69	477.63	268.89	51.79	8.84	3.59	5.10	3.50		Ton/day
Max	2.40	14.00	1.20	0.70	0.80	6611.80	3810.80	292.00	12.40	5.00	51.90	10.10	6611.80	Ton/day
Min	0.90	1.50	0.60	0.50	0.60	0.70	20.50	12.00	4.70	2.80	1.30	2.10	0.50	Ton/day

WATER YEAR : 2002

MUN RIVER BASIN

Huai Khayung at Ban Don - ao, Si Sa Ket (M.142)

Lat 14 - 30 - 33 N Long 104 - 37 - 27 E

Location : on left bank at the bridge on road.

Ban Don - ao **Amphoe** Kantharalak **Changwat** Si Sa Ket

Drainge Area	241 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1998-Cont'd
Actual Measurement	1997-Cont'd
Using Rating Curve Water Year	2002
Number of observation	24
R-Square	0.9241
Remarks	Continued Sediment Station

$$QS = 3.5072\ QW^{1.24100}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.20	2.90	11.30	10.80	17.70	64.90	112.50	26.60	5.00	2.10	1.40	1.40		
2	2.70	2.90	10.80	9.10	11.70	88.40	99.30	25.10	5.00	2.10	1.40	1.40		
3	2.70	2.70	11.30	14.90	42.30	77.40	358.50	22.10	5.00	2.10	1.40	1.40		
4	2.30	2.70	10.40	11.30	29.20	67.20	302.60	21.10	5.00	2.10	1.40	1.40		
5	2.30	2.70	5.00	8.70	23.10	57.30	212.00	16.20	4.80	2.10	1.40	1.40		
6	2.10	14.40	3.20	7.10	31.90	92.00	170.80	14.40	4.50	1.90	1.40	1.40		
7	1.90	56.60	2.50	6.50	21.60	124.90	140.80	13.50	4.20	1.90	1.40	1.30		
8	1.90	26.10	2.30	6.20	15.80	157.00	93.80	12.60	3.40	1.90	1.30	1.30		
9	1.90	15.80	2.30	19.60	13.50	203.30	74.20	12.10	3.20	1.80	1.30	1.30		
10	1.90	10.00	2.10	19.10	11.70	175.00	57.30	11.70	3.20	1.80	1.30	1.50		
11	2.70	8.30	14.40	18.60	14.40	157.00	46.30	11.30	3.90	1.80	1.30	1.50		
12	3.40	11.30	15.30	14.40	18.60	271.80	41.00	11.70	3.90	1.80	1.30	1.50		
13	3.90	10.00	13.90	10.40	87.50	151.60	36.80	11.70	3.70	1.70	1.30	1.50		
14	3.20	8.30	20.60	8.30	227.40	113.60	33.50	11.70	3.40	1.70	1.30	1.40		
15	2.90	7.70	9.10	8.00	82.20	84.80	32.40	11.30	3.20	1.70	1.20	1.40		
16	2.70	6.80	6.50	8.30	49.90	63.40	37.90	10.40	3.20	1.70	1.20	1.40		
17	2.70	7.70	5.00	8.70	35.70	62.60	37.30	9.10	2.70	1.70	1.20	1.40		
18	2.70	7.40	3.90	9.10	36.80	146.20	46.30	8.70	2.70	1.70	1.20	1.30		
19	2.50	7.10	3.90	13.90	91.10	432.60	34.60	8.00	2.70	1.60	1.20	1.20		
20	2.50	6.80	4.80	9.50	200.40	732.90	31.90	6.80	2.70	1.60	1.20	1.20		
21	2.50	8.00	3.90	8.30	582.40	325.50	28.20	6.80	2.70	1.60	1.30	1.20		
22	2.50	12.10	36.20	7.70	354.00	593.20	27.70	6.80	2.70	1.60	1.30	1.10		
23	2.50	8.70	183.40	8.30	200.40	1063.00	28.20	6.50	2.70	1.60	1.30	1.10		
24	2.50	8.30	75.80	7.70	120.80	555.50	41.00	6.20	2.50	1.60	1.30	1.10		
25	2.40	7.40	48.50	6.80	91.10	236.50	40.40	6.20	2.50	1.50	1.30	1.10		
26	5.60	12.10	33.50	6.50	131.50	203.30	36.80	5.90	2.40	1.50	1.30	1.10		
27	5.30	24.10	49.90	5.90	102.00	134.20	30.80	5.60	2.30	1.50	1.30	1.10		
28	4.20	26.60	24.60	5.90	78.20	263.80	26.60	5.00	2.30	1.50	1.30	1.20		
29	3.70	13.50	18.10	6.80	68.80	230.90	25.60	4.80	2.20	1.50		1.20		
30	3.20	10.80	13.50	13.90	61.80	144.80	50.70	4.50	2.10	1.50		1.20		
31		12.60		32.90	64.10		30.30		2.10	1.50		1.20		
Total	85.50	362.40	646.00	333.20	2917.60	7074.60	2366.10	334.40	101.90	53.70	36.50	40.20	14352.10	Tonday
Mean	2.85	11.69	21.53	10.75	94.12	235.82	76.33	11.15	3.29	1.73	1.30	1.30		Ton/day
Max	5.60	56.60	183.40	32.90	582.40	1063.00	358.50	26.60	5.00	2.10	1.40	1.50	1063.00	Ton/day
Min	1.90	2.70	2.10	5.90	11.70	57.30	25.60	4.50	2.10	1.50	1.20	1.10	1.10	Ton/day

WATER YEAR : 2002

MUN RIVER BASIN

Huai Sang Kot at Ban Nong Yai, Si Sa Ket (M.143)

Lat 14 - 29 - 01 N Long 104 - 39 - 52 E

Location : on left bank at the bridge on road.

Ban Nong Yai **Amphoe** Kantharalak **Changwat** Si Sa Ket

Drainge Area	47 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1998-Cont'd
Actual Measurement	1997-Cont'd
Using Rating Curve Water Year	2002
Number of observation	21
R-Square	0.9424
Remarks	Continued Sediment Station

$$QS = 2.4236\ QW^{1.29320}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.10	0.20	0.30	0.40	7.50	11.60	1.40	0.20	0.10	0.10	0.00		
2	0.00	0.30	0.20	0.30	0.30	5.80	8.70	1.40	0.20	0.10	0.10	0.00		
3	0.00	0.60	0.20	0.30	0.50	5.60	73.20	1.30	0.20	0.10	0.00	0.00		
4	0.00	0.20	0.30	0.30	0.40	7.60	47.30	1.00	0.20	0.10	0.00	0.00		
5	0.00	0.20	0.20	0.30	0.30	3.70	20.20	0.90	0.20	0.10	0.00	0.00		
6	0.00	0.10	0.20	0.30	0.80	17.00	12.40	0.80	0.20	0.10	0.00	0.00		
7	0.00	0.10	0.20	0.30	0.40	10.70	11.10	0.70	0.20	0.10	0.00	0.00		
8	0.00	0.10	0.10	0.30	0.30	11.40	6.80	0.60	0.20	0.10	0.00	0.00		
9	0.00	0.10	0.10	0.40	0.30	65.50	6.00	0.60	0.20	0.10	0.00	0.00		
10	0.00	0.10	0.10	0.30	0.30	76.20	4.70	0.60	0.20	0.10	0.00	0.00		
11	0.00	0.10	2.80	0.30	1.60	139.80	3.70	0.60	0.20	0.10	0.00	0.00		
12	0.00	0.10	0.60	0.30	0.60	50.30	3.20	0.50	0.20	0.10	0.00	0.00		
13	0.00	0.10	3.20	0.30	8.20	20.90	2.60	0.50	0.20	0.10	0.00	0.00		
14	0.00	0.10	0.60	0.20	5.40	12.80	2.40	0.50	0.20	0.10	0.00	0.00		
15	0.00	0.10	0.30	0.20	4.00	8.50	2.00	0.50	0.20	0.10	0.00	0.00		
16	0.00	0.90	0.40	0.20	2.10	6.40	2.90	0.40	0.20	0.10	0.00	0.00		
17	0.00	0.40	0.30	0.20	1.30	21.30	2.40	0.40	0.10	0.10	0.00	0.00		
18	0.00	0.20	0.20	0.30	1.80	8.70	2.00	0.40	0.10	0.10	0.00	0.00		
19	0.00	0.20	0.20	0.20	15.10	202.40	1.70	0.40	0.10	0.10	0.00	0.00		
20	0.00	0.10	0.20	0.20	18.40	61.20	1.50	0.40	0.10	0.10	0.00	0.00		
21	0.00	0.10	0.30	0.20	83.50	27.90	1.50	0.30	0.10	0.10	0.00	0.00		
22	0.00	0.60	1.60	0.30	12.60	138.20	1.70	0.30	0.10	0.10	0.00	0.00		
23	0.00	1.10	28.30	0.20	9.20	163.80	1.30	0.30	0.10	0.10	0.00	0.00		
24	0.00	0.50	4.60	0.20	6.90	64.80	1.60	0.30	0.10	0.10	0.00	0.00		
25	0.00	0.40	5.10	0.20	4.50	26.00	7.80	0.30	0.10	0.10	0.00	0.00		
26	0.00	0.20	1.90	0.20	12.00	28.60	3.00	0.30	0.10	0.10	0.00	0.00		
27	0.00	0.00	1.50	0.20	5.40	26.00	2.30	0.30	0.20	0.10	0.00	0.00		
28	0.00	0.00	0.90	0.20	5.70	64.20	1.80	0.30	0.10	0.10	0.00	0.00		
29	0.00	0.00	0.60	0.20	4.80	25.30	1.60	0.30	0.10	0.10	0.00	0.00		
30	0.00	0.00	0.50	2.60	3.20	15.60	3.30	0.20	0.10	0.10	0.00	0.00		
31	0.00	0.00	0.00	0.50	3.60	0.00	1.60	0.00	0.10	0.10	0.00	0.00		
Total	0.00	7.10	55.90	10.50	213.90	1323.70	253.90	16.80	4.80	3.10	0.20	0.00	1889.90	Tonday
Mean	0.00	0.27	1.86	0.34	6.90	44.12	8.19	0.56	0.15	0.10	0.00	0.00		Ton/day
Max	0.00	1.10	28.30	2.60	83.50	202.40	73.20	1.40	0.20	0.10	0.10	0.00	202.40	Ton/day
Min	0.00	0.00	0.10	0.20	0.30	3.70	1.30	0.20	0.10	0.10	0.00	0.00	0.00	Ton/day

WATER YEAR : 2002

MUN RIVER BASIN

Huai Bon at Ban Phon Thong, Ubon Ratchathani (M.152)

Lat 14 - 27 - 47 N Long 105 - 06 - 19 E

Location : on left bank at the bridge on road.

Ban Phon Thong **Amphoe** Nam Yuen **Changwat** Ubon Ratchathani

Drainge Area	214 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	2002
Number of observation	30
R-Square	0.9772
Remarks	Continued Sediment Station

$$QS = 2.4509\ QW^{1.20800}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.80	1.50	1.00	6.40	26.40	62.80	100.90	12.80	2.80	1.30	1.20	1.10		
2	1.10	1.00	0.90	5.10	17.10	67.40	78.60	16.10	2.50	1.30	1.20	1.20		
3	0.90	1.30	0.90	4.90	13.70	61.20	52.80	12.30	2.50	1.30	1.20	1.20		
4	0.80	0.90	1.40	5.10	10.90	52.80	93.30	10.70	2.50	1.30	1.20	1.20		
5	0.80	0.90	1.20	5.70	32.60	53.60	148.10	9.90	2.40	1.30	1.20	1.10		
6	0.80	0.90	0.90	5.50	25.40	48.30	136.70	9.20	2.40	1.30	1.10	1.20		
7	0.70	1.30	0.90	4.90	20.10	45.40	151.00	8.10	2.80	1.30	1.10	1.20		
8	0.70	7.00	0.80	4.50	14.70	66.70	89.20	7.60	2.70	1.30	1.20	1.20		
9	0.70	3.90	0.80	6.60	11.20	128.20	63.50	7.80	2.80	1.30	1.20	1.30		
10	0.70	1.70	0.80	8.50	9.90	167.50	43.90	7.80	2.80	1.20	1.40	1.20		
11	0.70	1.60	3.90	7.60	8.90	232.90	34.60	7.40	2.50	1.20	1.30	1.20		
12	0.80	1.30	5.70	7.00	8.10	154.80	29.40	7.00	2.40	1.20	1.20	1.20		
13	0.80	0.90	2.80	5.50	7.40	109.70	24.30	6.60	2.20	1.20	1.40	1.40		
14	0.80	0.90	2.80	4.30	49.80	77.80	22.20	7.60	2.00	1.20	1.30	1.40		
15	0.70	0.80	1.70	4.10	49.10	53.60	19.60	7.00	1.70	1.20	1.40	1.20		
16	0.80	0.80	1.30	3.70	36.00	40.30	21.70	6.40	1.70	1.20	1.30	1.20		
17	0.80	0.80	1.90	4.10	28.10	150.00	20.70	6.60	1.70	1.20	1.40	1.20		
18	0.80	0.80	1.40	5.10	26.40	131.90	33.30	5.90	1.70	1.20	1.20	1.20		
19	0.80	0.80	1.30	3.90	119.80	113.40	25.90	5.30	1.60	1.20	1.20	1.20		
20	0.80	0.90	3.00	3.60	222.40	210.90	19.60	4.90	1.60	1.20	1.20	1.20		
21	0.70	0.90	2.70	2.80	236.40	184.10	25.90	5.10	1.60	1.20	1.20	1.60		
22	0.70	0.90	8.70	2.70	172.50	964.00	37.40	4.70	1.60	1.20	1.20	1.40		
23	0.70	0.90	17.60	5.70	107.00	744.30	33.90	4.50	1.60	1.20	1.10	1.30		
24	0.70	0.80	16.60	7.00	65.10	324.10	24.80	4.10	1.60	1.30	1.10	1.20		
25	0.80	0.90	23.30	12.80	46.80	205.20	19.10	3.70	1.60	1.20	1.20	1.30		
26	1.10	1.60	16.60	17.10	118.90	98.40	29.40	3.60	1.60	1.30	1.20	1.20		
27	0.90	2.50	10.10	12.30	112.40	77.00	20.70	3.40	1.60	1.30	1.10	1.30		
28	0.80	1.50	8.90	10.70	85.10	95.80	16.10	3.40	1.60	1.30	1.10	1.40		
29	0.90	1.20	8.50	19.10	85.10	99.20	14.70	3.20	1.60	1.30		1.30		
30	1.70	1.20	7.60	49.80	60.40	118.00	13.70	3.00	1.60	1.20		1.20		
31		1.10		41.00	82.60		13.70		1.60	1.20		1.30		
Total	24.80	43.50	156.00	287.10	1910.30	4939.30	1458.70	205.70	62.90	38.60	34.10	38.80	9199.80	Tonday
Mean	0.83	1.40	5.20	9.26	61.62	164.64	47.05	6.86	2.03	1.25	1.22	1.25		Ton/day
Max	1.70	7.00	23.30	49.80	236.40	964.00	151.00	16.10	2.80	1.30	1.40	1.60	964.00	Ton/day
Min	0.70	0.80	0.80	2.70	7.40	40.30	13.70	3.00	1.60	1.20	1.10	1.10	0.70	Ton/day

WATER YEAR : 2002

MUN RIVER BASIN

Lam Dom Yai at Ban Kut Chiang Mun, Ubon Ratchathani (M.153)

Lat 14 - 26 - 41 N Long 105 - 07 - 30 E

Location : on right bank at the bridge on road.

Ban Kut Chiang Mun **Amphoe** Nam Yuen **Changwat** Ubon Ratchathani

Drainge Area	373 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	1999-2002
Number of observation	107
R-Square	0.9178
Remarks	Continued Sediment Station

$$QS = 3.7638\ QW^{1.02910}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.40	1.20	7.80	25.80	54.40	145.80	151.80	35.30	6.70	2.10	2.20	0.40		
2	0.50	0.90	7.80	21.30	85.50	128.10	133.60	53.60	6.40	2.10	0.70	0.40		
3	0.50	0.70	23.30	18.90	51.90	105.90	120.40	13.10	6.20	2.10	0.60	0.40		
4	0.50	0.60	27.20	18.30	44.40	115.30	397.30	25.30	5.90	1.90	0.60	0.50		
5	0.40	0.50	16.00	17.30	136.40	115.30	209.80	25.30	5.70	1.90	0.60	0.50		
6	0.40	0.60	12.80	17.00	128.10	90.60	195.30	21.30	5.50	1.80	0.60	0.40		
7	0.40	1.00	7.40	18.60	91.40	84.70	156.90	18.90	5.50	1.80	0.60	0.40		
8	0.40	3.60	6.20	18.60	81.30	144.90	124.70	18.30	5.20	1.60	2.50	0.40		
9	0.40	5.20	6.40	21.80	69.50	543.70	95.70	17.60	5.20	1.80	2.10	0.40		
10	0.50	3.10	8.60	21.30	59.40	639.80	84.70	17.00	5.20	3.10	1.90	1.20		
11	0.40	2.20	8.60	28.70	68.60	449.10	73.70	16.60	5.00	2.90	1.20	0.40		
12	0.40	1.30	23.30	22.30	63.60	379.80	66.10	16.30	4.80	2.20	0.40	0.40		
13	0.40	5.00	32.00	18.30	85.50	192.80	57.70	15.40	4.50	1.90	0.40	0.20		
14	0.40	3.40	19.90	16.60	379.80	138.30	52.70	14.40	6.20	3.10	0.40	0.10		
15	0.40	4.50	14.40	17.00	141.10	108.40	45.20	13.40	5.50	1.50	0.60	0.10		
16	0.40	2.20	15.00	17.00	103.30	97.40	91.40	13.10	5.20	1.30	1.80	0.30		
17	0.40	2.20	22.80	92.30	103.30	402.00	53.60	12.80	3.80	2.90	1.20	0.20		
18	0.40	1.60	18.30	46.90	151.80	333.80	51.10	12.10	3.40	1.30	0.40	0.20		
19	0.40	5.00	12.50	39.40	504.00	502.30	40.20	11.50	3.60	1.20	0.40	0.20		
20	0.30	5.20	23.80	26.70	680.10	617.40	36.10	10.50	3.60	1.20	0.40	0.20		
21	0.30	4.30	20.90	21.80	434.00	292.40	49.40	10.20	3.40	1.00	0.40	0.20		
22	0.40	7.80	276.90	27.20	219.60	689.10	41.90	9.30	3.10	1.00	0.40	0.20		
23	0.40	6.70	233.00	28.70	175.90	785.30	82.10	9.00	2.90	2.70	0.40	0.20		
24	0.40	3.40	195.30	23.30	138.30	457.80	58.60	8.80	2.90	2.70	0.40	0.30		
25	0.40	5.70	107.60	22.80	117.80	268.40	50.20	8.60	2.90	1.00	0.40	0.10		
26	0.60	10.50	95.70	20.40	498.70	183.20	69.50	8.10	2.70	0.70	0.40	0.10		
27	0.50	17.00	67.00	15.70	461.40	141.10	47.70	8.10	2.50	0.70	0.40	0.10		
28	1.90	11.80	10.50	15.70	198.90	240.30	42.70	7.60	2.20	0.60	0.40	0.10		
29	1.80	10.50	46.90	29.50	145.80	219.60	39.40	7.40	2.20	0.70		0.10		
30	1.50	9.90	36.90	120.40	109.30	209.80	34.50	7.10	2.20	2.20		0.20		
31		10.50		80.40	110.10		41.10		2.20	1.50		0.20		
Total	16.50	148.10	1404.80	930.00	5693.20	8822.40	2795.10	466.00	132.30	54.50	22.80	9.10	20494.80	Tonday
Mean	0.55	4.78	46.83	30.00	183.65	294.08	90.16	15.53	4.27	1.76	0.81	0.29		Ton/day
Max	1.90	17.00	276.90	120.40	680.10	785.30	397.30	53.60	6.70	3.10	2.50	1.20	785.30	Ton/day
Min	0.30	0.50	6.20	15.70	44.40	84.70	34.50	7.10	2.20	0.60	0.40	0.10	0.10	Ton/day

WATER YEAR : 2002

MUN RIVER BASIN

Huai Luang at Ban Na Chaluai, Ubon Ratchathani (M.154)

Lat 14 - 27 - 06 N Long 105 - 11 - 34 E

Location : on left bank at the bridge on road.

Ban Na Chaluai **Amphoe** Na Chaluai **Changwat** Ubon Ratchathani

Drainge Area	210 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	2002
Number of observation	30
R-Square	0.9591
Remarks	Continued Sediment Station

$$QS = 2.2258\ QW^{1.09290}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.60	0.50	0.70	1.20	3.20	29.10	52.30	10.10	1.50	0.90	0.70	0.60		
2	0.60	0.50	0.70	1.10	2.60	24.60	45.00	10.80	1.40	0.90	0.70	0.60		
3	0.60	0.50	0.70	1.00	2.10	20.50	42.60	9.50	1.40	0.90	0.70	0.60		
4	0.60	0.50	0.70	1.10	2.10	28.80	80.20	8.80	1.40	0.90	0.70	0.60		
5	0.60	0.50	0.70	1.00	2.20	30.90	63.80	9.00	1.40	0.80	0.70	0.60		
6	0.60	0.50	0.70	1.00	2.00	38.90	52.30	6.70	1.40	0.80	0.70	0.60		
7	0.60	0.50	0.70	0.90	1.90	27.00	44.30	6.70	1.30	0.80	0.70	0.60		
8	0.60	0.50	0.70	0.90	1.70	23.30	35.20	6.20	1.30	0.80	0.70	0.60		
9	0.60	0.50	0.70	1.70	1.70	50.20	29.70	5.70	1.30	0.80	0.70	0.50		
10	0.60	0.50	0.70	1.60	1.60	68.30	25.20	5.30	1.30	0.80	0.70	0.50		
11	0.60	0.50	0.80	1.40	1.70	50.90	22.10	5.10	1.20	0.80	0.60	0.50		
12	0.60	0.50	0.70	1.20	1.60	50.60	19.80	4.80	1.20	0.80	0.60	0.50		
13	0.60	0.50	1.10	0.90	1.60	38.00	17.90	4.20	1.10	0.70	0.60	0.50		
14	0.60	0.50	0.90	1.10	4.10	39.90	15.40	3.70	1.10	0.70	0.60	0.50		
15	0.60	0.60	0.90	1.00	3.80	31.20	12.60	3.60	1.10	0.70	0.60	0.50		
16	0.60	0.50	0.90	0.90	2.80	26.70	12.80	4.00	1.10	0.70	0.60	0.50		
17	0.60	0.50	0.80	1.90	2.10	120.20	12.20	4.00	1.10	0.70	0.60	0.50		
18	0.60	0.60	0.70	1.30	3.70	79.00	11.20	3.30	1.10	0.70	0.60	0.50		
19	0.60	0.60	0.70	1.10	15.80	65.80	10.30	3.00	1.10	0.70	0.60	0.50		
20	0.60	0.60	0.80	1.10	91.40	70.00	9.70	2.80	1.10	0.70	0.60	0.50		
21	0.60	0.60	0.90	0.90	67.90	79.00	12.60	2.40	1.10	0.70	0.60	0.50		
22	0.60	0.60	8.20	0.70	40.50	193.90	13.00	1.90	1.00	0.70	0.60	0.50		
23	0.60	0.60	8.60	1.40	34.90	230.80	12.20	1.60	1.00	0.70	0.60	0.50		
24	0.60	0.60	4.10	1.40	30.00	181.80	10.30	1.70	0.90	0.70	0.60	0.50		
25	0.60	0.60	2.50	2.90	23.60	111.40	10.50	1.70	0.90	0.70	0.60	0.50		
26	0.60	0.60	2.20	2.00	86.40	114.60	11.00	1.70	0.90	0.70	0.60	0.50		
27	0.60	0.70	2.50	1.60	48.10	58.70	9.70	1.60	0.90	0.70	0.60	0.50		
28	0.50	0.70	1.70	1.80	34.60	58.00	10.30	1.60	0.90	0.70	0.60	0.50		
29	0.50	0.70	1.60	7.50	26.70	102.50	9.50	1.60	0.90	0.70		0.50		
30	0.50	0.90	1.30	6.20	21.40	81.10	9.30	1.50	0.90	0.70		0.50		
31		0.80		5.40	20.70		9.00		0.90	0.70		0.50		
Total	17.70	17.80	48.90	55.20	584.50	2125.70	732.00	134.60	35.20	23.30	17.80	16.30	3809.00	Tonday
Mean	0.59	0.57	1.63	1.78	18.85	70.86	23.61	4.49	1.14	0.75	0.64	0.53		Ton/day
Max	0.60	0.90	8.60	7.50	91.40	230.80	80.20	10.80	1.50	0.90	0.70	0.60	230.80	Ton/day
Min	0.50	0.50	0.70	0.70	1.60	20.50	9.00	1.50	0.90	0.70	0.60	0.50	0.50	Ton/day

WATER YEAR : 2002

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.
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	2002
Number of observation	27
R-Square	0.9549
Remarks	Continued Sediment Station

$$QS = 7.4307\ QW^{1.31280}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	19.40	5.70	137.80	297.00	3185.30	283.00	25.30	0.00	0.00	3.80	3.80		
2	0.00	10.50	19.40	521.80	231.90	3705.30	109.80	25.30	0.00	0.00	1.50	3.80		
3	0.00	8.60	16.10	1482.90	457.00	1787.90	90.30	25.30	0.00	0.00	1.50	3.80		
4	0.00	7.40	1.50	1127.30	204.70	3761.20	27.00	25.30	0.00	0.00	16.10	3.80		
5	0.00	6.90	4.70	540.70	173.00	1604.70	10.50	25.30	0.00	0.00	3.80	3.80		
6	0.00	0.00	83.90	283.00	162.80	667.20	14.00	25.30	0.00	0.00	1.50	3.80		
7	0.00	0.00	90.30	271.50	118.80	414.60	14.00	28.30	0.00	0.00	6.50	1.50		
8	0.00	0.00	34.80	231.90	96.70	283.00	9.90	28.30	0.00	0.00	0.00	1.50		
9	0.00	0.00	12.20	1185.70	40.20	210.10	6.30	28.30	0.00	0.00	0.00	1.50		
10	0.00	0.00	14.00	1534.80	16.80	569.30	6.80	31.40	0.00	0.00	0.00	1.50		
11	0.00	0.00	34.80	1657.50	11.30	231.90	4.70	31.40	0.00	0.00	0.00	1.50		
12	0.00	0.00	83.90	559.80	8.60	414.60	6.90	27.40	0.00	0.00	0.00	1.50		
13	0.00	0.00	81.90	162.80	8.60	199.30	9.00	27.40	0.00	0.00	0.00	3.80		
14	0.00	0.00	81.90	101.00	37.50	112.10	19.40	23.50	0.00	0.00	0.00	0.00		
15	0.00	0.00	22.10	24.50	92.40	32.10	22.30	0.00	0.00	0.00	0.00	0.00		
16	0.00	0.00	9.20	14.00	92.40	88.10	22.30	0.00	0.00	0.00	0.00	0.00		
17	0.00	0.00	6.30	11.30	34.80	92.40	22.30	0.00	0.00	0.00	0.00	0.00		
18	0.00	0.00	9.00	8.60	98.80	103.20	25.30	0.00	0.00	0.00	0.00	0.00		
19	0.00	0.00	16.70	6.90	204.70	83.90	22.30	0.00	0.00	0.00	0.00	0.00		
20	0.00	0.00	19.40	14.00	2531.00	34.80	5.70	0.00	0.00	0.00	0.00	0.00		
21	0.00	0.00	22.30	27.00	2582.00	103.20	9.00	0.00	0.00	0.00	0.00	0.00		
22	0.00	0.00	16.70	17.70	884.00	123.40	4.70	0.00	0.00	0.00	0.00	0.00		
23	0.00	0.00	32.10	12.20	677.20	105.40	9.20	0.00	0.00	0.00	0.00	0.00		
24	0.00	0.00	579.00	8.00	231.90	90.30	22.30	0.00	0.00	0.00	0.00	0.00		
25	0.00	0.00	787.90	9.90	147.70	32.10	22.30	0.00	0.00	0.00	0.00	0.00		
26	0.00	0.00	391.80	10.50	1289.70	17.70	14.00	0.00	0.00	0.00	0.00	0.00		
27	0.00	0.00	311.20	6.90	493.80	14.90	22.30	0.00	0.00	0.00	0.00	0.00		
28	0.00	0.00	2083.30	1071.10	183.40	22.10	22.30	0.00	0.00	0.00	0.00	0.00		
29	0.00	0.00	776.00	2038.60	173.00	399.40	16.70	0.00	0.00	0.00		0.00		
30	0.00	0.00	243.10	1071.10	277.20	466.20	7.40	0.00	0.00	0.00		0.00		
31		0.00		945.40	215.50		19.40		0.00	0.00		0.00		
Total	0.00	52.80	5891.20	15096.20	12074.40	18955.70	901.40	377.80	0.00	0.00	34.70	35.60	53419.80	Tonday
Mean	0.00	10.56	196.37	486.97	389.50	631.86	29.08	26.99	0.00	0.00	4.96	2.74		Ton/day
Max	0.00	19.40	2083.30	2038.60	2582.00	3761.20	283.00	31.40	0.00	0.00	16.10	3.80	3761.20	Ton/day
Min	0.00	0.00	1.50	6.90	8.60	14.90	4.70	0.00	0.00	0.00	0.00	1.50	0.00	Ton/day

WATER YEAR : 2002

MUN RIVER BASIN

Huai Lam Phong at Ban Nikhom, Yasothon (M.157)

Lat 15 - 48 - 17 N Long 104 - 19 - 52 E

Location : on right bank at the bridge of Arun Prasoet road.

Ban Nikhom **Amphoe** Pa Tio **Changwat** Yasothon

Drainge Area	729 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1997, 2002 - Cont'd
Actual Measurement	1997 – 1998,2000 - Cont'd
Using Rating Curve Water Year	1997-2002
Number of observation	36
R-Square	0.8885
Remarks	Continued Sediment Station

$$QS = 2.2522\ QW^{1.20540}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	19.10	15.70	307.40	457.90	20.30	10.20	6.00	1.00	0.00	0.00		
2	0.00	0.00	18.00	14.70	366.30	751.70	20.30	10.20	5.20	1.00	0.00	0.00		
3	0.00	0.00	0.00	18.00	366.30	817.90	19.10	9.30	4.40	1.00	0.00	0.00		
4	0.00	0.00	0.00	32.70	359.20	803.10	18.00	9.30	4.40	0.40	0.00	0.00		
5	0.00	0.00	0.00	65.60	348.60	744.40	14.70	9.30	4.40	0.40	0.00	0.00		
6	0.00	0.00	0.00	120.70	331.00	686.40	14.70	9.30	3.70	0.40	0.00	0.00		
7	0.00	0.00	0.00	153.50	307.40	700.80	14.70	9.30	3.70	2.90	0.00	0.00		
8	0.00	0.00	0.00	147.70	282.10	700.80	13.80	8.50	3.70	2.90	0.00	0.00		
9	0.00	0.00	0.00	132.30	226.30	693.60	12.00	8.50	2.90	2.30	0.00	0.00		
10	0.00	0.00	0.00	119.10	84.90	729.80	8.50	8.50	2.90	1.60	0.00	0.00		
11	0.00	0.00	0.00	119.10	19.10	686.40	8.50	6.80	2.30	1.00	0.00	0.00		
12	0.00	0.00	0.00	124.00	19.10	629.30	7.60	6.80	2.30	0.40	0.00	0.00		
13	0.00	0.00	0.00	147.70	19.10	577.20	6.80	6.80	1.60	0.00	0.00	0.00		
14	0.00	0.00	0.00	167.30	19.10	524.50	6.80	6.80	1.60	0.00	0.00	0.00		
15	0.00	0.00	0.00	171.30	34.00	444.90	6.80	6.00	1.60	0.00	0.00	0.00		
16	0.00	0.00	0.00	120.70	70.00	373.40	6.00	6.00	1.60	0.00	0.00	0.00		
17	0.00	0.00	0.00	32.70	122.30	287.70	6.00	6.00	1.60	0.00	0.00	0.00		
18	0.00	0.00	0.00	19.10	163.30	223.90	6.00	5.20	1.60	0.00	0.00	0.00		
19	0.00	0.00	0.00	14.70	233.40	189.30	6.00	5.20	1.60	0.00	0.00	0.00		
20	0.00	0.00	0.00	14.70	341.50	175.20	7.60	5.20	1.60	0.00	0.00	0.00		
21	0.00	0.00	0.00	16.80	414.60	169.30	7.60	5.20	1.60	0.00	0.00	0.00		
22	0.00	0.00	0.00	37.90	462.30	181.20	7.60	5.20	2.30	0.00	0.00	0.00		
23	0.00	0.00	0.00	80.30	582.80	181.20	9.30	5.20	2.30	0.00	0.00	0.00		
24	0.00	0.00	0.00	130.40	679.20	175.20	12.00	5.20	2.30	0.00	0.00	0.00		
25	0.00	0.00	0.00	173.20	622.20	145.80	13.80	4.40	2.30	0.00	0.00	0.00		
26	0.00	0.00	0.00	197.40	571.60	90.90	12.00	4.40	2.30	0.00	0.00	0.00		
27	0.00	0.00	0.00	177.20	480.90	26.40	12.00	4.40	2.30	0.00	0.00	0.00		
28	0.00	0.00	0.00	92.50	410.40	25.10	11.10	4.40	1.60	0.00	0.00	0.00		
29	0.00	0.00	0.00	87.90	359.20	21.50	11.10	4.40	1.60	0.00		0.00		
30	0.00	0.00	0.00	167.30	338.00	21.50	11.10	6.00	1.60	0.00		0.00		
31		0.00		238.20	359.20		10.20		1.60	0.00		0.00		
Total	0.00	0.00	37.10	3150.40	9300.80	12236.30	342.00	202.00	80.50	15.30	0.00	0.00	25364.40	Tonday
Mean	0.00	0.00	1.20	101.63	300.03	407.88	11.03	6.73	2.60	0.50	0.00	0.00		Ton/day
Max	0.00	0.00	19.10	238.20	679.20	817.90	20.30	10.20	6.00	2.90	0.00	0.00	817.90	Ton/day
Min	0.00	0.00	0.00	14.70	19.10	21.50	6.00	4.40	1.60	0.00	0.00	0.00	0.00	Ton/day

WATER YEAR : 2002

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	2002
Number of observation	35
R-Square	0.8681
Remarks	Continued Sediment Station

$$QS = 0.7012\ QW^{1.70590}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	99.70	22.00	265.20	385.00	166.40	3177.10	4415.60	1061.70	1445.70	641.40	196.90	73.90		
2	88.10	28.10	181.30	283.90	166.40	1973.60	4284.20	1487.00	1286.10	700.00	181.30	124.70		
3	88.10	43.20	196.90	196.90	151.90	1657.00	2730.50	6346.00	1097.90	730.20	181.30	151.90		
4	67.20	32.80	504.50	138.00	247.10	1445.70	2730.50	12196.50	1061.70	641.40	166.40	138.00		
5	26.00	26.00	453.50	124.70	303.10	1880.50	2838.90	10405.60	1061.70	585.00	166.40	111.90		
6	37.80	54.60	303.10	138.00	428.90	2623.70	2364.70	5597.50	956.80	1657.00	151.90	99.70		
7	48.80	54.60	283.90	196.90	612.90	6893.00	1926.80	3177.10	956.80	1528.80	166.40	111.90		
8	60.80	60.80	303.10	343.00	670.40	9801.80	1364.80	2264.20	889.50	956.80	166.40	88.10		
9	60.80	54.60	303.10	181.30	557.60	12524.60	1134.50	1880.50	856.60	761.00	166.40	54.60		
10	54.60	54.60	612.90	212.90	322.80	17568.80	956.80	1657.00	991.20	641.40	151.90	48.80		
11	88.10	54.60	922.90	283.90	322.80	15759.00	889.50	1487.00	792.40	585.00	138.00	48.80		
12	111.90	67.20	585.00	265.20	322.80	12196.50	792.40	1325.20	824.20	504.50	111.90	43.20		
13	124.70	151.90	363.70	196.90	343.00	7549.70	761.00	1286.10	792.40	478.70	111.90	67.20		
14	138.00	530.80	303.10	166.40	363.70	4819.50	670.40	1061.70	730.20	406.70	99.70	73.90		
15	124.70	428.90	229.50	138.00	363.70	3591.40	585.00	1061.70	641.40	385.00	111.90	88.10		
16	151.90	247.10	181.30	124.70	363.70	3470.90	504.50	956.80	612.90	343.00	111.90	124.70		
17	60.80	428.90	151.90	181.30	363.70	4026.50	453.50	991.20	612.90	343.00	88.10	138.00		
18	60.80	1286.10	196.90	229.50	265.20	5167.10	557.60	1445.70	557.60	283.90	111.90	111.90		
19	73.90	1209.30	151.90	229.50	322.80	7633.50	730.20	1613.80	530.80	283.90	80.90	88.10		
20	80.90	1325.20	124.70	212.90	363.70	11128.80	670.40	1613.80	557.60	265.20	73.90	80.90		
21	80.90	991.20	99.70	283.90	303.10	7300.50	530.80	1404.80	530.80	196.90	73.90	99.70		
22	73.90	612.90	88.10	322.80	283.90	5452.40	406.70	1247.40	504.50	181.30	80.90	88.10		
23	73.90	363.70	67.20	283.90	856.60	3652.30	428.90	1171.70	478.70	181.30	80.90	43.20		
24	88.10	283.90	67.20	229.50	2264.20	3411.30	824.20	1097.90	478.70	229.50	73.90	43.20		
25	60.80	229.50	60.80	196.90	2264.20	2623.70	889.50	1097.90	478.70	212.90	67.20	67.20		
26	37.80	212.90	60.80	124.70	2571.00	1834.60	856.60	1487.00	1171.70	212.90	67.20	54.60		
27	37.80	303.10	60.80	138.00	2364.70	1700.70	1404.80	2214.60	1789.50	212.90	60.80	60.80		
28	43.20	889.50	73.90	196.90	3837.50	1487.00	1744.90	2571.00	991.20	229.50	54.60	99.70		
29	37.80	530.80	88.10	196.90	8265.60	1789.50	3177.10	2020.90	824.20	196.90		166.40		
30	32.80	406.70	283.90	181.30	8924.40	5096.80	2165.50	1571.00	730.20	181.30		265.20		
31		343.00		166.40	5744.10		1404.80		670.40	212.90		322.80		
Total	2214.60	11328.50	7568.90	6550.10	44701.90	169237.50	45195.60	74800.30	25905.00	14970.20	3294.80	3179.20	408946.60	Tonday
Mean	73.82	365.44	252.30	211.29	1442.00	5641.25	1457.92	2493.34	835.65	482.91	117.67	102.55		Ton/day
Max	151.90	1325.20	922.90	385.00	8924.40	17568.80	4415.60	12196.50	1789.50	1657.00	196.90	322.80	17568.80	Ton/day
Min	26.00	22.00	60.80	124.70	151.90	1445.70	406.70	956.80	478.70	181.30	54.60	43.20	22.00	Ton/day

WATER YEAR : 2002

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.
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	2002
Number of observation	35
R-Square	0.9252
Remarks	Continued Sediment Station

$$QS = 6.0050\ QW^{1.33850}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.80	37.10	51.80	3.00	1.00	645.10	2527.00	429.20	469.90	231.30	6.00	6.00		
2	1.80	37.10	54.60	1.30	1.00	550.00	1654.70	503.90	437.30	255.90	5.20	5.20		
3	1.80	37.10	171.60	1.40	1.10	540.70	1044.60	1886.20	358.40	283.70	6.80	5.20		
4	1.80	49.00	305.60	1.40	0.90	478.20	1472.90	2219.70	366.10	249.70	14.00	3.70		
5	1.80	30.40	131.80	1.30	39.40	597.10	1318.90	1757.30	366.10	231.30	14.00	3.70		
6	1.80	66.10	135.90	1.20	24.30	946.90	825.50	958.70	373.90	1044.60	22.50	2.40		
7	1.80	60.30	176.50	1.20	148.20	2332.60	635.40	784.50	366.10	513.00	39.40	4.50		
8	1.80	49.00	148.20	1.10	161.90	3493.70	522.20	684.20	358.40	366.10	28.20	1.80		
9	1.10	49.00	335.50	1.40	34.80	5292.00	513.00	694.10	350.70	283.70	17.30	3.00		
10	1.10	44.20	835.90	3.00	1.50	4692.70	405.20	645.10	503.90	196.40	12.40	3.70		
11	1.10	44.20	877.60	2.40	1.40	4427.80	405.20	587.60	413.20	171.60	9.40	3.00		
12	1.10	44.20	320.50	1.40	14.00	3493.70	358.40	625.80	421.20	161.90	7.70	4.50		
13	1.10	694.10	181.40	1.30	5.20	2152.90	320.50	568.70	373.90	135.90	7.70	3.00		
14	1.10	606.60	186.40	1.20	1.50	1304.20	255.90	413.20	343.10	119.80	7.70	4.50		
15	1.10	105.00	91.30	1.20	1.20	1289.20	108.50	453.50	305.60	94.70	8.50	6.00		
16	1.10	69.00	98.10	1.40	1.00	1409.30	72.00	437.30	320.50	84.70	10.90	4.50		
17	1.10	958.70	78.10	1.30	0.80	1740.10	37.10	405.20	305.60	63.10	10.90	3.70		
18	1.10	877.60	166.70	1.50	0.70	2046.80	24.30	559.30	298.30	30.40	9.40	3.00		
19	1.10	935.00	30.40	1.30	0.80	2067.90	39.40	453.50	298.30	22.50	8.50	2.40		
20	1.10	744.00	1.80	2.40	1.80	2219.70	57.40	421.20	283.70	14.00	7.70	3.70		
21	1.00	494.80	2.40	1.60	0.80	1409.30	30.40	445.40	269.30	8.50	6.00	3.00		
22	0.90	186.40	1.10	1.80	4.50	1121.80	19.00	437.30	262.20	6.80	4.50	3.00		
23	0.90	105.00	1.40	1.30	587.60	911.50	9.40	421.20	262.20	6.80	5.20	1.80		
24	0.80	78.10	1.00	1.40	1006.60	794.70	453.50	405.20	255.90	6.00	6.00	6.00		
25	0.70	78.10	1.00	1.20	1521.60	723.90	298.30	429.20	269.30	22.50	4.50	4.50		
26	0.70	78.10	1.10	1.20	1246.20	550.00	373.90	522.20	494.80	20.70	4.50	2.40		
27	0.70	935.00	1.20	1.10	1019.20	461.70	587.60	694.10	405.20	14.00	4.50	4.50		
28	0.70	249.70	1.20	0.90	3493.70	486.40	635.40	664.60	320.50	10.90	4.50	4.50		
29	0.70	225.30	37.10	1.20	3425.60	2197.50	923.20	625.80	298.30	7.70		5.20		
30	0.70	127.80	22.50	1.10	2527.00	1757.30	664.60	513.00	283.70	6.80		2.40		
31		98.10		1.10	1162.40		513.00		269.30	8.50		5.20		
Total	35.40	8194.10	4449.70	45.60	16437.70	52134.70	17106.40	20646.20	10704.90	4673.50	293.90	120.00	134842.10	Tonday
Mean	1.18	264.33	148.32	1.47	530.25	1737.82	551.82	688.21	345.32	150.76	10.50	3.87		Ton/day
Max	1.80	958.70	877.60	3.00	3493.70	5292.00	2527.00	2219.70	503.90	1044.60	39.40	6.00	5292.00	Ton/day
Min	0.70	30.40	1.00	0.90	0.70	461.70	9.40	405.20	255.90	6.00	4.50	1.80	0.70	Ton/day

WATER YEAR : 2002

PING RIVER BASIN

Nam Mae Chaem at Kaeng Ob Luang, Chiang Mai (P.14)

Lat 18 - 13 - 50 N Long 98 - 33 - 38 E

Location : on right bank near the bridge of Hot - Mae Sariang Highway at guidepost 7+500.

Ban - **Amphoe** Hot **Changwat** Chiang Mai

Drainge Area	3,836 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1970 - 1972,1983,1985 - 1993,2000 - Cont'd
Actual Measurement	1970 - 1972,1983,1985 - 1993,2000 - Cont'd
Using Rating Curve Water Year	2002
Number of observation	36
R-Square	0.7999
Remarks	Continued Sediment Station

$$QS = 2.8430\ QW^{1.64160}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	46.70	235.80	110.60	494.10	456.20	7665.90	12914.40	1677.90	1192.80	560.60	280.60	128.70	
2	46.70	59.90	89.90	365.00	614.90	6005.10	20403.90	1906.80	1097.90	628.40	268.10	122.50	
3	46.70	89.90	143.50	297.60	707.20	6286.60	11443.70	2493.10	1010.70	798.00	255.80	122.50	
4	42.60	64.50	170.30	284.80	884.20	5368.00	10271.80	5105.30	983.10	747.90	246.30	122.50	
5	38.60	201.40	422.70	284.80	2231.60	10271.80	9370.20	2897.50	901.90	651.60	246.30	116.50	
6	38.60	170.30	310.70	247.70	1076.40	28216.00	12789.20	2112.90	849.30	1763.40	246.30	116.50	
7	38.60	102.90	832.10	323.90	1105.10	30603.70	9370.20	1957.50	823.50	1391.60	346.50	110.60	
8	31.20	74.30	1252.70	323.90	1163.20	16603.20	6477.10	1635.70	798.00	928.70	319.50	104.80	
9	31.20	55.30	475.00	310.70	1163.20	12540.30	4125.40	1511.70	798.00	747.90	268.10	104.80	
10	31.20	55.30	533.20	284.80	937.60	7768.50	3306.80	1391.60	1552.60	651.60	237.10	104.80	
11	31.20	50.90	379.10	272.20	858.00	10734.60	2721.30	1324.00	1806.90	582.80	227.90	104.80	
12	27.70	50.90	533.20	310.70	910.80	9592.60	2549.40	1324.00	1097.90	524.20	218.90	104.80	
13	69.40	190.40	297.60	337.40	1076.40	10734.60	2437.30	1257.70	955.70	506.40	210.10	110.60	
14	161.20	553.20	272.20	393.40	1252.70	8931.70	2219.00	1290.70	849.30	471.50	210.10	122.50	
15	89.90	636.10	201.40	475.00	1252.70	6573.10	2219.00	1225.10	772.80	454.50	201.40	147.80	
16	64.50	284.80	190.40	494.10	1509.00	4362.50	1957.50	1192.80	747.90	437.60	192.80	154.50	
17	50.90	297.60	161.20	422.70	2137.70	17988.10	2165.70	1160.80	723.40	421.00	184.40	147.80	
18	42.60	659.40	152.20	379.10	1594.00	13547.60	2663.50	2437.30	675.20	404.70	176.10	116.50	
19	31.20	6553.90	143.50	379.10	4769.40	10043.30	3099.50	1552.60	628.40	404.70	168.00	104.80	
20	27.70	2752.10	152.20	379.10	21235.40	12170.40	2219.00	1257.70	582.80	404.70	154.50	93.60	
21	27.70	858.00	179.70	437.60	12789.20	17988.10	1856.60	1129.20	542.30	388.60	154.50	82.80	
22	27.70	393.40	179.70	1105.10	6192.20	14895.60	1763.40	1097.90	506.40	374.40	154.50	77.70	
23	24.40	247.70	179.70	1163.20	6669.80	9592.60	1720.40	1066.90	506.40	360.30	154.50	82.80	
24	27.70	170.30	247.70	858.00	8501.40	6766.90	3168.00	1066.90	506.40	360.30	154.50	93.60	
25	46.70	170.30	235.80	707.20	7361.40	5457.30	3031.60	1038.70	524.20	346.50	154.50	93.60	
26	38.60	143.50	190.40	683.10	7871.60	4203.60	2493.10	1290.70	1594.00	319.50	141.30	99.10	
27	38.60	118.50	190.40	659.40	5368.00	3816.10	2219.00	2165.70	2838.30	293.30	141.30	93.60	
28	34.80	95.40	161.20	1344.70	4769.40	3237.10	2606.20	2897.50	955.70	280.60	141.30	88.10	
29	118.50	272.20	351.10	1048.10	10851.50	8079.40	3031.60	1806.90	699.10	268.10		93.60	
30	89.90	235.80	533.20	731.50	11804.80	8715.50	2327.10	1324.00	628.40	268.10		110.60	
31		134.90		553.20	9592.60		1906.80		560.60	293.30		104.80	
Total	1463.00	15978.90	9272.60	16351.20	138707.60	318759.80	150847.70	51597.10	28709.90	17034.80	5855.20	3382.20	757960.00
Mean	48.77	515.45	309.09	527.46	4474.44	10625.33	4866.05	1719.90	926.13	549.51	209.11	109.10	
Max	161.20	6553.90	1252.70	1344.70	21235.40	30603.70	20403.90	5105.30	2838.30	1763.40	346.50	154.50	30603.70
Min	24.40	50.90	89.90	247.70	456.20	3237.10	1720.40	1038.70	506.40	268.10	141.30	77.70	24.40

WATER YEAR : 2002

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.
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	2002
Number of observation	30
R-Square	0.8057
Remarks	Continued Sediment Station

$$QS = 1.9343\ QW^{1.18620}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
1	1687.00	1065.30	812.80	653.80	653.80	1416.30	6502.60	5446.60	4715.50	1290.60	2351.90	2076.00	
2	1470.80	1849.60	1015.40	617.90	437.10	1149.20	5150.10	4715.50	4623.50	1082.00	2117.90	2187.60	
3	1290.60	2013.70	909.60	538.20	400.80	1326.30	4195.70	5380.40	4015.50	953.20	1380.20	2034.90	
4	1606.90	1470.80	837.70	1015.40	665.80	2141.40	3412.00	6537.00	4226.40	1082.00	1201.90	1747.60	
5	1626.70	2211.20	702.10	1015.40	800.40	3383.80	3329.00	5446.60	4015.50	1219.60	1255.00	1869.80	
6	1606.90	2257.70	1166.70	571.60	617.90	6156.00	3440.20	4839.00	4195.70	1507.20	1767.70	2469.90	
7	1566.80	2013.70	852.00	677.90	516.00	10942.70	3383.80	10061.30	3781.40	2117.90	1951.70	2351.90	
8	1566.80	1326.30	726.50	653.80	464.60	10942.70	4195.70	10853.70	2881.80	1380.20	2055.50	2469.90	
9	1416.30	1706.90	726.50	494.10	473.90	9669.60	4715.50	10809.30	3553.40	1606.90	1869.80	2469.90	
10	1566.80	1362.20	702.10	400.80	953.20	8555.00	4745.90	10676.90	2805.40	1308.40	1911.00	2328.10	
11	1808.50	1566.80	629.80	483.10	788.00	7572.00	5087.60	9974.40	2281.40	1489.00	1489.00	1380.20	
12	1767.70	1308.40	494.10	571.60	714.30	6925.70	3925.10	8515.60	2234.10	1526.80	1526.80	1727.60	
13	1606.90	1507.20	653.80	505.00	483.10	6467.30	3064.70	7689.00	2422.70	1767.70	2013.70	2398.80	
14	1566.80	1398.30	702.10	617.90	366.60	5915.90	2234.10	6467.30	2445.90	1747.60	2141.40	2588.80	
15	1434.40	1184.30	653.80	629.80	366.60	6052.80	1849.60	4963.10	2517.20	1489.00	2234.10	2541.20	
16	1416.30	1308.40	763.30	653.80	505.00	6156.00	1667.10	4623.50	2422.70	1767.70	1972.80	2588.80	
17	1398.30	1255.00	690.00	726.50	494.10	5847.20	1667.10	3955.40	2055.50	1727.60	2141.40	2517.20	
18	1398.30	1326.30	714.30	1032.00	464.60	5779.40	1507.20	4015.50	2013.70	1993.30	1606.90	1828.70	
19	1526.80	1115.50	677.90	1398.30	400.80	5679.70	1489.00	3810.10	2076.00	1890.10	1788.40	2034.90	
20	1470.80	1272.80	895.20	1646.60	391.80	5056.90	1132.40	3553.40	1931.40	2034.90	2211.20	2517.20	
21	1434.40	1380.20	788.00	1547.10	455.40	4963.10	1048.60	3724.20	2304.30	1184.30	2117.90	2565.30	
22	1470.80	1706.90	825.30	953.20	538.20	5915.90	938.60	3383.80	2141.40	1048.60	2351.90	2588.80	
23	1667.10	1434.40	582.90	653.80	505.00	6328.90	938.60	3143.70	1687.00	1489.00	2211.20	2493.90	
24	1626.70	1308.40	690.00	582.90	594.10	8159.70	1166.70	3355.70	1380.20	1526.80	2164.10	2588.80	
25	1380.20	2141.40	516.00	880.80	1201.90	7884.00	1065.30	3091.00	1362.20	1344.30	1788.40	1849.60	
26	1566.80	1869.80	505.00	726.50	1626.70	7962.70	1255.00	2588.80	1706.90	1398.30	1972.80	1416.30	
27	1434.40	1048.60	516.00	653.80	800.40	9208.40	1344.30	2612.90	1788.40	1326.30	2076.00	1586.50	
28	1547.10	953.20	751.00	617.90	571.60	10456.30	1526.80	3222.90	1808.50	1166.70	1828.70	1727.60	
29	1452.60	763.30	852.00	665.80	751.00	9500.40	3867.50	3412.00	1115.50	1048.60		1890.10	
30	1452.60	812.80	617.90	617.90	1416.30	7884.00	6018.70	3752.80	1098.70	1272.80		2398.80	
31		812.80		527.10	1747.60		5779.40		1416.30	1255.00		2517.20	
Total	45833.10	44752.20	21969.80	23330.30	21166.60	195399.30	91643.90	164621.40	79024.10	45042.40	53499.30	67751.90	854034.30
Mean	1527.77	1443.62	732.33	752.59	682.79	6513.31	2956.25	5487.38	2549.16	1452.98	1910.69	2185.55	
Max	1808.50	2257.70	1166.70	1646.60	1747.60	10942.70	6502.60	10853.70	4715.50	2117.90	2351.90	2588.80	10942.70
Min	1290.60	763.30	494.10	400.80	366.60	1149.20	938.60	2588.80	1098.70	953.20	1201.90	1380.20	366.60

WATER YEAR : 2002

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	2002
Number of observation	33
R-Square	0.9315
Remarks	Continued Sediment Station

$$QS = 5.2872\ QW^{1.39040}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.40	1.80	26.30	53.20	26.30	108.90	207.40	72.10	89.80	36.00	15.10	7.60		
2	1.60	1.80	22.80	36.00	25.40	89.80	172.30	69.10	78.80	76.90	14.40	5.70		
3	1.80	1.40	16.40	28.20	49.10	111.20	111.20	1334.10	61.60	75.20	14.40	9.70		
4	1.80	1.40	15.70	20.30	91.80	97.90	283.10	1220.90	60.20	58.70	14.40	11.40		
5	2.20	1.60	23.70	17.90	66.10	196.80	113.40	592.30	50.50	64.60	13.90	9.20		
6	2.00	2.40	27.20	17.90	72.10	485.20	189.50	163.30	51.90	291.60	14.40	9.70		
7	2.00	6.70	31.90	33.80	148.50	1988.70	126.30	106.70	51.90	121.00	13.90	5.30		
8	2.00	6.10	30.10	145.70	129.00	1418.20	93.60	86.10	47.90	78.80	13.30	7.60		
9	1.80	4.10	54.60	45.30	64.60	640.40	60.20	75.20	45.30	63.10	12.10	6.10		
10	1.80	3.20	137.20	126.30	41.70	503.40	57.40	70.60	102.30	58.70	11.40	3.70		
11	1.80	2.90	72.10	108.90	66.10	640.40	56.00	67.60	76.90	49.10	10.90	5.70		
12	2.00	8.10	40.60	60.20	80.70	354.80	51.90	63.10	63.10	44.10	12.10	5.70		
13	2.00	80.70	39.40	36.00	91.80	179.10	51.90	57.40	61.60	38.20	11.40	17.90		
14	2.60	148.50	30.10	29.10	76.90	163.30	42.90	64.60	56.00	37.10	10.90	10.30		
15	2.90	51.90	38.20	27.20	61.60	134.40	37.10	56.00	46.50	37.10	10.90	8.10		
16	2.60	39.40	39.40	26.30	50.50	129.00	36.00	54.60	46.50	36.00	8.70	6.70		
17	2.40	111.20	37.10	39.40	64.60	241.50	37.10	57.40	44.10	34.80	8.70	4.40		
18	1.80	104.50	61.60	32.80	46.50	579.10	73.70	115.70	42.90	33.80	8.10	3.40		
19	1.60	102.30	51.90	29.10	53.20	1251.50	75.20	70.60	38.20	31.90	8.10	2.40		
20	1.40	121.00	45.30	32.80	41.70	1493.00	54.60	58.70	38.20	30.10	6.70	3.40		
21	1.60	51.90	31.90	41.70	36.00	640.40	47.90	54.60	37.10	27.20	5.30	2.90		
22	2.00	34.80	29.10	46.50	37.10	527.80	42.90	50.50	31.90	25.40	5.00	1.20		
23	1.60	26.30	23.70	38.20	654.60	222.40	45.30	50.50	32.80	25.40	5.00	1.80		
24	1.80	17.90	19.40	37.10	640.40	384.10	129.00	46.50	32.80	21.90	4.70	1.40		
25	1.40	16.40	17.90	30.90	207.40	230.00	56.00	54.60	291.60	20.30	5.70	1.20		
26	1.40	16.40	16.40	34.80	218.60	121.00	95.80	106.70	322.20	19.40	9.20	0.90		
27	1.60	28.20	15.70	37.10	134.40	102.30	359.60	211.10	97.90	19.40	6.10	20.30		
28	2.20	41.70	14.40	78.80	552.90	104.50	283.10	261.90	86.10	19.40	9.20	6.10		
29	2.20	38.20	61.60	54.60	878.80	134.40	354.80	145.70	64.60	16.40	0.00	31.90		
30	2.20	36.00	91.80	38.20	521.70	196.80	131.70	89.80	57.40	14.40	0.00	38.20		
31	0.00	33.80	0.00	31.90	175.60	0.00	87.90	0.00	40.60	14.40	0.00	17.00		
Total	57.50	1142.60	1163.50	1416.20	5405.70	13470.30	3564.80	5528.00	2249.20	1520.40	284.00	266.90	36069.10	Tonday
Mean	1.92	36.86	38.78	45.68	174.38	449.01	114.99	184.27	72.55	49.05	10.14	8.61		Ton/day
Max	2.90	148.50	137.20	145.70	878.80	1988.70	359.60	1334.10	322.20	291.60	15.10	38.20	1988.70	Ton/day
Min	1.40	1.40	14.40	17.90	25.40	89.80	36.00	46.50	31.90	14.40	4.70	0.90	0.90	Ton/day

WATER YEAR : 2002

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.
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	2002
Number of observation	36
R-Square	0.9499
Remarks	Continued Sediment Station

$$QS = 3.8379\ QW^{1.28720}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.30	0.30	4.40	1.70	3.30	91.20	128.60	38.50	54.80	21.00	5.10	1.00		
2	0.30	0.20	3.30	2.70	18.90	160.30	767.50	113.90	50.10	36.10	5.70	1.00		
3	0.30	0.20	2.20	2.70	14.80	255.90	171.20	542.80	44.20	31.30	10.30	1.00		
4	0.40	0.10	3.80	3.80	15.80	144.10	146.80	434.30	42.80	25.50	6.40	1.00		
5	0.30	0.20	3.30	1.10	15.80	275.70	95.60	144.10	38.50	25.50	7.00	1.00		
6	0.30	0.20	7.80	1.00	12.10	1459.00	83.40	97.90	37.30	36.10	7.80	1.00		
7	0.30	0.20	30.10	2.20	10.30	659.50	91.20	79.70	34.80	27.70	7.80	1.00		
8	0.30	0.20	10.30	3.30	10.30	371.60	74.20	63.40	34.80	25.50	7.80	0.90		
9	0.30	0.40	13.90	2.20	11.20	240.30	60.00	54.80	33.60	23.20	7.00	0.70		
10	0.30	0.30	13.00	2.20	8.60	219.70	50.10	45.70	47.20	20.00	6.40	1.00		
11	0.50	0.30	7.80	4.40	9.50	262.40	42.80	42.80	61.70	17.80	5.70	1.00		
12	0.40	2.00	4.40	2.70	9.50	133.60	41.40	44.20	41.40	22.10	5.10	1.10		
13	0.60	2.70	7.00	3.80	9.50	104.60	41.40	39.90	38.50	21.00	2.70	9.50		
14	0.30	0.70	3.30	5.10	13.90	102.40	37.30	39.90	36.10	13.90	1.70	5.70		
15	0.30	0.50	1.20	7.00	10.30	97.90	36.10	37.30	33.60	13.90	1.10	13.00		
16	0.30	0.50	1.00	5.10	18.90	70.50	33.60	36.10	32.40	13.90	1.20	12.10		
17	0.20	1.70	1.00	2.70	25.50	275.70	34.80	38.50	27.70	12.10	1.20	7.80		
18	0.20	2.10	1.00	2.20	21.00	205.10	33.60	50.10	25.50	11.20	1.20	5.70		
19	0.30	12.50	0.80	1.70	234.40	367.40	39.90	41.40	24.30	10.30	1.10	1.20		
20	0.20	3.80	0.80	1.20	93.40	315.30	34.80	39.90	22.10	11.20	1.10	1.20		
21	0.20	1.30	1.00	3.80	97.90	363.30	30.10	38.50	21.00	9.50	1.10	14.80		
22	0.20	0.70	1.00	13.90	76.00	343.00	31.30	37.30	17.80	5.10	1.10	15.80		
23	0.20	0.60	0.90	10.30	168.50	199.40	38.50	36.10	15.80	5.10	1.10	10.30		
24	0.10	7.80	3.30	7.00	116.30	237.40	44.20	36.10	14.80	6.40	1.10	1.00		
25	0.10	5.10	3.80	5.70	168.50	144.10	37.30	34.80	18.90	7.00	1.10	13.90		
26	0.10	3.80	12.10	6.40	104.60	123.70	34.80	58.20	28.90	11.20	1.10	13.90		
27	0.30	3.80	5.10	7.80	68.80	106.90	51.60	123.70	31.30	8.60	1.10	1.70		
28	0.30	3.80	1.10	16.80	63.40	104.60	65.20	149.40	26.60	7.00	1.00	11.20		
29	0.30	10.30	5.70	5.70	87.10	133.60	85.20	77.80	25.50	3.30		6.40		
30	0.30	7.00	2.70	5.10	138.80	121.20	51.60	61.70	25.50	3.80		3.80		
31		4.40		3.30	67.00		44.20		24.30	4.40		3.30		
Total	8.50	77.70	157.10	144.60	1723.90	7689.40	2558.30	2678.80	1011.80	490.70	102.10	164.00	16806.90	Tonday
Mean	0.28	2.51	5.24	4.66	55.61	256.31	82.53	89.29	32.64	15.83	3.65	5.29		Ton/day
Max	0.60	12.50	30.10	16.80	234.40	1459.00	767.50	542.80	61.70	36.10	10.30	15.80	1459.00	Ton/day
Min	0.10	0.10	0.80	1.00	3.30	70.50	30.10	34.80	14.80	3.30	1.00	0.70	0.10	Ton/day

WATER YEAR : 2002

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	2000-Cont'd
Actual Measurement	2000-Cont'd
Using Rating Curve Water Year	2002
Number of observation	36
R-Square	0.9239
Remarks	Continued Sediment Station

$$QS = 4.8942\ QW^{1.37480}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.30	0.30	25.30	100.10	15.40	62.70	373.30	80.30	89.00	26.90	8.50	1.80		
2	0.20	0.30	18.00	42.00	13.50	42.00	225.20	161.10	71.90	40.00	8.10	1.60		
3	0.20	0.50	12.90	22.20	19.40	34.40	139.40	911.20	63.90	56.60	7.20	1.80		
4	0.20	0.30	10.00	16.00	73.10	41.10	137.60	1309.60	58.90	40.00	7.70	1.60		
5	0.30	0.30	8.90	10.60	360.20	62.70	133.70	575.10	54.30	46.50	7.70	1.40		
6	0.30	1.20	8.10	8.10	368.90	115.40	103.40	214.90	53.20	115.40	7.70	1.30		
7	0.20	1.40	10.00	8.10	137.60	292.60	71.90	133.70	49.70	65.20	8.90	1.20		
8	0.20	1.40	15.40	9.40	83.20	727.60	55.50	105.00	45.30	45.30	8.10	1.00		
9	0.20	1.20	23.70	8.90	38.00	860.60	48.60	90.50	45.30	37.20	7.20	0.90		
10	0.20	2.90	20.80	9.40	21.50	680.10	44.20	77.40	62.70	31.80	6.80	0.90		
11	0.20	2.60	16.00	9.40	17.30	555.90	40.00	70.50	62.70	26.90	6.40	1.30		
12	0.30	3.10	11.70	8.90	21.50	253.10	38.00	66.50	49.70	22.90	6.80	1.30		
13	1.10	10.60	10.00	8.50	33.60	145.30	32.70	65.20	45.30	20.80	6.80	1.40		
14	3.90	42.00	8.50	7.70	35.30	100.10	31.80	61.30	41.10	18.00	5.20	1.60		
15	3.10	44.20	8.90	7.70	30.10	111.90	30.10	56.60	38.00	16.70	4.90	1.60		
16	2.40	28.50	8.10	7.20	30.10	201.50	25.30	54.30	36.20	15.40	5.20	1.60		
17	1.60	113.60	7.20	7.20	27.70	782.90	22.90	70.50	32.70	15.40	4.40	1.60		
18	1.40	368.90	7.20	7.70	27.70	1229.30	20.80	446.60	31.80	14.10	3.50	1.30		
19	0.80	225.20	6.80	12.90	111.90	693.60	20.80	272.30	31.00	12.30	3.50	1.20		
20	0.70	135.70	6.80	20.10	78.80	396.30	19.40	115.40	29.40	12.30	3.50	0.90		
21	0.30	65.20	6.40	37.20	49.70	228.60	19.40	80.30	28.50	12.30	3.70	0.90		
22	0.30	35.30	8.10	81.70	49.70	137.60	18.00	67.90	26.90	11.70	4.00	0.90		
23	0.20	22.90	8.90	67.90	157.10	103.40	16.70	71.90	24.40	12.30	3.20	0.90		
24	0.30	16.70	7.20	35.30	191.50	115.40	26.90	66.50	22.20	11.70	3.20	0.90		
25	0.20	46.50	6.00	18.70	155.20	106.70	29.40	62.70	25.30	12.30	3.50	0.90		
26	0.70	139.40	5.20	19.40	98.50	76.00	65.20	100.10	137.60	10.60	3.50	0.90		
27	1.10	242.60	11.10	20.80	155.20	66.50	83.20	268.30	71.90	11.10	2.90	0.80		
28	0.90	151.30	15.40	36.20	179.20	54.30	133.70	501.40	45.30	10.60	1.90	0.80		
29	0.90	111.90	18.70	40.00	208.20	549.50	537.40	235.60	37.20	9.40		0.60		
30	0.50	90.50	194.80	30.10	272.30	693.60	436.10	126.20	32.70	9.40		0.80		
31		44.20		22.20	122.40		153.20		27.70	9.40		1.40		
Total	23.20	1950.70	526.10	741.60	3183.80	9520.70	3133.80	6518.90	1471.80	800.50	154.00	37.10	28062.20	Tonday
Mean	0.77	62.93	17.54	23.92	102.70	317.36	101.09	217.30	47.48	25.82	5.50	1.20		Ton/day
Max	3.90	368.90	194.80	100.10	368.90	1229.30	537.40	1309.60	137.60	115.40	8.90	1.80	1309.60	Ton/day
Min	0.20	0.30	5.20	7.20	13.50	34.40	16.70	54.30	22.20	9.40	1.90	0.60	0.20	Ton/day

WATER YEAR : 2002

PING RIVER BASIN

Nam Mae Tun at Ban Luang, Chiang Mai (P.64)

Lat 17 - 46 - 56 N Long 98 - 22 - 29 E

Location : on rigth bank at the bridge on Highway.

Ban Luang **Amphoe** Omkoi **Changwat** Chiang Mai

Drainge Area	502 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.DH-59
Period of Available Records	1997-Cont'd
Actual Measurement	1997-Cont'd
Using Rating Curve Water Year	2002
Number of observation	18
R-Square	0.8905
Remarks	Continued Sediment Station

$$QS = 3.5011\ QW^{1.50500}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.90	4.20	5.50	67.60	138.80	561.80	611.80	159.20	143.70	49.30	23.10	11.90		
2	1.90	58.20	5.50	84.30	124.00	282.70	471.80	175.00	128.70	46.40	23.10	10.80		
3	1.90	10.80	5.00	84.30	119.30	919.20	1146.40	138.80	119.30	46.40	23.10	11.90		
4	1.90	20.60	3.80	119.30	180.50	903.90	586.60	296.60	159.20	43.70	23.10	11.90		
5	1.90	18.30	91.90	74.10	138.80	4932.40	373.20	191.90	392.30	49.30	21.90	11.90		
6	1.90	5.50	26.80	77.40	185.80	2504.50	1967.50	169.70	164.30	64.50	21.90	11.90		
7	1.90	4.60	35.60	119.30	204.10	997.20	888.70	148.70	114.50	52.20	23.10	11.90		
8	1.90	3.80	17.10	114.50	289.60	676.00	513.30	124.00	91.90	49.30	21.90	9.90		
9	1.90	3.40	87.70	124.00	242.30	471.80	354.40	119.30	96.40	46.40	20.60	9.90		
10	1.90	3.40	87.70	229.30	242.30	451.40	282.70	114.50	119.30	43.70	20.60	10.80		
11	1.60	3.40	52.20	229.30	262.20	492.40	229.30	114.50	175.00	43.70	20.60	10.80		
12	23.10	4.60	24.30	345.00	262.20	624.30	198.00	105.30	105.30	40.90	19.40	11.90		
13	4.60	138.80	30.70	317.90	289.60	492.40	169.70	96.40	91.90	38.30	19.40	9.90		
14	3.00	43.70	19.40	482.20	326.80	471.80	143.70	96.40	80.80	38.30	19.40	10.80		
15	2.60	153.90	16.00	431.40	471.80	303.60	128.70	87.70	77.40	38.30	19.40	10.80		
16	2.30	20.60	16.00	296.60	482.20	255.50	124.00	84.30	74.10	38.30	19.40	9.90		
17	1.90	80.80	15.00	242.30	549.40	382.60	164.30	80.80	74.10	33.10	19.40	9.90		
18	1.90	180.50	21.90	204.10	411.70	317.90	191.90	204.10	67.60	33.10	19.40	9.10		
19	1.90	4592.00	16.00	164.30	317.90	411.70	185.80	105.30	64.50	33.10	19.40	9.10		
20	1.60	1181.50	18.30	159.20	1898.20	919.20	164.30	87.70	58.20	33.10	15.00	8.10		
21	1.90	175.00	24.30	148.70	2556.80	2014.00	858.40	84.30	55.20	33.10	15.00	8.10		
22	1.90	52.20	55.20	148.70	1270.60	1199.40	229.30	77.40	55.20	33.10	13.90	8.10		
23	2.60	33.10	80.80	185.80	742.70	624.30	159.20	70.90	55.20	33.10	13.90	8.10		
24	1.90	16.00	77.40	185.80	451.40	451.40	143.70	74.10	58.20	28.20	13.90	8.10		
25	2.30	9.90	52.20	262.20	441.50	373.20	169.70	119.30	55.20	26.80	13.90	8.10		
26	2.30	6.40	46.40	303.60	345.00	513.30	143.70	185.80	222.90	24.30	13.90	20.60		
27	2.30	8.10	35.60	310.70	296.60	599.30	289.60	502.70	70.90	24.30	13.90	11.90		
28	2.30	9.90	28.20	242.30	269.00	1217.00	289.60	431.40	55.20	24.30	12.80	15.00		
29	2.30	17.10	49.30	210.30	235.80	91.90	216.60	216.60	55.20	23.10		13.90		
30	1.90	12.80	46.40	180.50	282.70	38.30	175.00	180.50	52.20	24.30		15.00		
31		9.10		148.70	317.90		269.00		52.20	23.10		13.90		
Total	85.20	6882.20	1092.20	6293.70	14347.50	24494.40	11839.90	4643.20	3186.10	1159.10	524.40	343.90	74891.80	Tonday
Mean	2.84	222.01	36.41	203.02	462.82	816.48	381.93	154.77	102.78	37.39	18.73	11.09		Ton/day
Max	23.10	4592.00	91.90	482.20	2556.80	4932.40	1967.50	502.70	392.30	64.50	23.10	20.60	4932.40	Ton/day
Min	1.60	3.40	3.80	67.60	119.30	38.30	124.00	70.90	52.20	23.10	12.80	8.10	1.60	Ton/day

WATER YEAR : 2002

PING RIVER BASIN

Nam Mae Khan at Ban Klang , Chiang Mai (P.71)

Lat 18 - 32 - 13 N Long 98 - 51 - 45 E

Location : on left bank at the bridge on highway.

Ban Klang **Amphoe** San Pa Tong **Changwat** Chiang Mai

Drainge Area	1,758 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.DH-59
Period of Available Records	2001-Cont'd
Actual Measurement	2001-Cont'd
Using Rating Curve Water Year	2002
Number of observation	36
R-Square	0.9509
Remarks	Continued Sediment Station

$$QS = 5.0471\ QW^{1.30230}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.20	0.20	66.70	62.40	2.00	221.60	917.90	322.60	241.60	77.70	73.30	2.00		
2	0.20	0.20	44.90	25.20	10.20	390.60	1297.60	529.60	190.50	103.10	64.60	0.50		
3	0.20	0.20	34.80	18.00	5.70	385.50	627.40	2025.40	162.00	122.50	68.90	0.50		
4	0.20	0.20	34.80	6.70	5.70	341.70	1027.10	3010.40	162.00	98.30	56.20	0.50		
5	0.20	0.20	41.50	4.70	22.20	775.10	677.60	1433.90	179.10	98.30	52.10	0.40		
6	0.20	0.20	39.80	2.90	29.90	2163.90	890.50	599.80	132.60	461.40	54.10	0.40		
7	0.20	0.20	96.00	4.20	16.60	5875.50	529.60	451.10	130.00	266.90	56.20	0.40		
8	0.20	0.20	91.30	4.70	12.70	4328.10	356.10	346.40	130.00	130.00	66.70	0.40		
9	0.20	0.20	73.30	4.70	15.20	1603.20	233.50	280.50	132.60	105.50	64.60	0.40		
10	0.20	0.20	285.20	4.20	5.70	2880.70	175.70	245.60	257.80	89.00	58.20	0.40		
11	0.20	0.20	110.30	16.60	9.00	2111.70	125.00	221.60	209.80	89.00	38.10	0.50		
12	0.20	28.30	82.20	9.00	12.70	964.30	115.20	198.20	148.60	86.70	28.30	0.50		
13	0.20	50.30	52.10	7.80	12.70	644.00	77.70	165.40	135.10	62.40	23.70	0.40		
14	0.20	43.20	39.80	5.70	9.00	545.60	84.40	125.00	122.50	62.40	25.20	0.40		
15	0.20	39.80	38.10	4.20	5.70	415.50	77.70	152.00	107.90	68.90	33.10	0.40		
16	0.20	43.20	34.80	4.20	5.20	245.60	77.70	155.30	103.10	64.60	23.70	1.80		
17	0.20	82.20	29.90	2.50	3.80	677.60	77.70	179.10	93.70	82.20	15.20	2.50		
18	0.20	140.20	26.80	1.80	4.70	1674.90	73.30	838.40	79.90	68.90	13.90	1.30		
19	0.20	257.80	22.20	1.80	23.70	1876.60	84.40	341.70	142.80	66.70	11.40	0.30		
20	0.20	165.40	19.30	1.50	31.50	4071.40	112.70	198.20	93.70	91.30	4.70	0.30		
21	0.20	52.10	19.30	2.00	98.30	3984.60	84.40	179.10	84.40	91.30	6.30	0.30		
22	0.20	50.30	16.60	3.30	89.00	3525.70	96.00	152.00	77.70	100.70	11.40	0.40		
23	0.20	43.20	16.60	5.70	445.90	1346.70	103.10	145.30	77.70	120.10	13.90	0.40		
24	0.20	38.10	4.70	2.00	660.60	877.40	385.50	115.20	52.10	103.10	15.20	0.40		
25	0.20	52.10	3.80	2.00	751.90	534.90	142.80	112.70	48.50	82.20	3.80	1.50		
26	0.20	38.10	2.00	1.70	649.60	346.40	115.20	229.50	233.50	60.30	2.00	0.30		
27	0.20	64.60	2.50	1.70	440.90	271.30	503.10	503.10	327.30	73.30	2.00	0.40		
28	0.20	125.00	2.50	33.10	660.60	313.20	688.90	763.40	155.30	73.30	2.00	0.40		
29	0.20	105.50	15.20	28.30	1544.60	583.30	1335.90	477.00	110.30	60.30		0.40		
30	0.20	68.90	29.90	12.70	890.50	688.90	683.30	313.20	107.90	71.10		0.40		
31		71.10		4.20	487.40		400.50		91.30	66.70		0.40		
Total	6.00	1561.60	1376.90	289.50	6963.20	44665.50	12177.50	14810.70	4321.30	3198.20	888.80	19.60	90278.80	Tonday
Mean	0.20	50.37	45.90	9.34	224.62	1488.85	392.82	493.69	139.40	103.17	31.74	0.63		Ton/day
Max	0.20	257.80	285.20	62.40	1544.60	5875.50	1335.90	3010.40	327.30	461.40	73.30	2.50	5875.50	Ton/day
Min	0.20	0.20	2.00	1.50	2.00	221.60	73.30	112.70	48.50	60.30	2.00	0.30	0.20	Ton/day

WATER YEAR : 2002

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.
Method of sampling	Depth Integrating
Instrument Used	US.DH-59
Period of Available Records	2001-Cont'd
Actual Measurement	2001-Cont'd
Using Rating Curve Water Year	2002
Number of observation	36
R-Square	0.9191
Remarks	Continued Sediment Station

$$QS = 1.7960\ QW^{1.30960}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	61.20	6.00	1019.90	348.10	295.20	6632.80	6595.10	3569.00	2824.40	781.80	278.00	48.60		
2	61.20	10.30	723.90	409.80	357.10	5168.00	8171.90	3177.80	2299.50	767.00	286.60	36.60		
3	36.60	9.30	552.50	357.10	398.80	5134.00	7557.30	5524.80	1959.90	856.80	303.90	48.60		
4	34.30	11.00	443.20	286.60	387.80	6332.70	6332.70	14945.50	1720.10	872.00	269.50	56.90		
5	20.80	36.60	578.10	228.00	502.00	7319.80	6109.80	16636.30	1592.60	781.80	236.20	40.50		
6	10.30	40.50	604.10	189.70	696.80	13125.10	6035.90	14826.40	1426.20	936.50	236.20	34.30		
7	3.60	61.20	630.20	189.70	841.60	18556.70	5779.00	11373.90	1279.80	1571.50	236.20	40.50		
8	1.10	79.10	811.60	252.70	887.20	17994.00	4334.80	8645.40	1191.60	1279.80	244.40	84.30		
9	1.30	74.50	696.80	398.80	856.80	15064.80	3288.50	6221.00	1139.40	969.60	236.20	74.50		
10	2.00	27.40	752.20	321.40	683.40	14648.10	2545.00	4498.60	2695.10	811.60	228.00	36.60		
11	1.30	18.80	1036.80	348.10	539.80	16392.10	2116.20	3484.30	3316.30	670.00	244.40	31.90		
12	3.10	52.70	1105.00	357.10	514.50	14885.90	1871.80	2770.90	2470.70	591.10	236.20	36.60		
13	56.90	357.10	811.60	339.10	539.80	12109.60	1613.70	2323.80	1982.00	527.10	204.00	29.60		
14	106.00	387.80	565.30	303.90	552.50	9040.30	1467.40	2026.50	1656.10	489.60	183.30	29.60		
15	158.50	986.30	489.60	278.00	527.10	6822.00	1369.40	1871.80	1351.40	489.60	177.10	74.50		
16	89.60	767.00	420.80	219.90	489.60	5524.80	1191.60	1741.60	1156.80	454.50	177.10	106.00		
17	128.70	696.80	339.10	204.00	477.20	5488.70	1105.00	1720.10	1036.80	443.20	140.40	140.40		
18	106.00	1508.80	303.90	236.20	502.00	7679.30	1053.70	3150.20	936.50	432.00	122.90	117.20		
19	65.60	2905.00	366.20	269.50	856.80	13473.10	1262.00	3979.50	796.60	420.80	122.90	95.00		
20	52.70	3344.10	295.20	269.50	1209.10	17497.40	1571.50	3569.00	737.50	443.20	95.00	65.60		
21	56.90	2594.80	244.40	303.90	1613.70	22050.50	1405.70	2959.10	696.80	454.50	95.00	56.90		
22	44.50	1850.00	219.90	420.80	1720.10	25238.90	1226.70	2421.50	656.70	398.80	100.40	56.90		
23	34.30	1209.10	211.90	514.50	2397.00	22820.40	1226.70	1982.00	630.20	357.10	106.00	44.50		
24	25.10	841.60	170.80	477.20	5237.70	16758.60	1915.70	1698.70	617.10	330.20	134.50	23.00		
25	23.00	617.10	152.40	420.80	6557.50	11740.40	2275.30	1550.60	591.10	330.20	134.50	31.90		
26	18.80	565.30	128.70	339.10	6632.80	8341.10	2206.70	1828.20	841.60	303.90	117.20	16.70		
27	12.90	767.00	106.00	295.20	6109.80	6295.40	2093.70	2770.90	2004.20	286.60	100.40	18.80		
28	8.20	1279.80	95.00	366.20	5066.20	5134.00	3040.70	4763.70	1720.10	295.20	79.10	14.00		
29	5.70	1720.10	117.20	465.80	6295.40	4531.60	5452.70	4797.10	1209.10	278.00		12.90		
30	5.70	1467.40	177.10	387.80	8558.20	5888.80	6519.90	3597.40	1003.10	286.60		36.60		
31		1333.40		330.20	8254.70		4931.20		841.60	295.20		100.40		
Total	1235.90	25625.90	14169.40	10128.70	70558.20	347688.90	103667.30	144425.60	44380.90	18205.80	5125.60	1640.40	786852.60	Tonday
Mean	41.20	826.64	472.31	326.73	2276.07	11589.63	3344.11	4814.19	1431.64	587.28	183.06	52.92		Ton/day
Max	158.50	3344.10	1105.00	514.50	8558.20	25238.90	8171.90	16636.30	3316.30	1571.50	303.90	140.40	25238.90	Ton/day
Min	1.10	6.00	95.00	189.70	295.20	4531.60	1053.70	1550.60	591.10	278.00	79.10	12.90	1.10	Ton/day

WATER YEAR : 2002

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.DH-59
Period of Available Records	2001-Cont'd
Actual Measurement	2001-Cont'd
Using Rating Curve Water Year	2001-2002
Number of observation	73
R-Square	0.8528
Remarks	Continued Sediment Station

$$QS = 1.5677\ QW^{1.45630}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	60.50	29.40	108.80	53.70	40.50	424.10	546.00	168.90	455.80	212.80	90.80	55.90		
2	60.50	37.00	80.00	40.50	33.60	309.10	475.40	319.90	430.40	246.70	90.80	60.50		
3	62.80	38.70	72.30	30.80	38.70	251.70	411.80	861.60	430.40	203.70	90.80	47.70		
4	65.10	38.70	65.10	25.30	65.10	236.70	375.70	1588.10	418.00	181.60	173.00	47.70		
5	119.00	40.50	45.90	21.50	126.00	272.10	336.30	1273.40	393.50	190.30	99.30	49.60		
6	122.50	42.20	29.40	18.20	199.20	399.60	314.50	674.80	370.00	298.40	77.30	42.20		
7	119.00	69.90	25.30	18.20	160.60	926.90	287.80	436.60	358.70	261.90	82.60	44.00		
8	119.00	93.60	33.60	19.20	160.60	2283.20	241.70	353.00	341.90	222.00	74.70	42.20		
9	133.10	96.40	38.70	16.10	108.80	3002.70	212.80	309.10	251.70	212.80	60.50	51.50		
10	222.00	99.30	51.50	37.00	85.30	2783.50	185.90	287.80	194.80	190.30	72.30	55.90		
11	217.40	102.10	45.90	45.90	69.90	2222.60	177.20	319.90	199.20	164.70	65.10	47.70		
12	208.30	96.40	35.30	60.50	69.90	1488.40	164.70	347.40	199.20	156.50	60.50	49.60		
13	217.40	90.80	29.40	29.40	82.60	1048.20	144.50	314.50	199.20	144.50	65.10	51.50		
14	144.50	168.90	24.00	26.70	99.30	788.70	140.60	298.40	203.70	136.70	72.30	60.50		
15	133.10	119.00	20.30	26.70	115.60	744.20	136.70	287.80	190.30	136.70	69.90	62.80		
16	122.50	96.40	18.20	30.80	93.60	683.30	136.70	272.10	173.00	140.60	62.80	65.10		
17	80.00	298.40	18.20	58.20	82.60	824.90	129.50	267.00	168.90	140.60	60.50	74.70		
18	69.90	411.80	18.20	45.90	69.90	717.90	126.00	568.90	164.70	136.70	58.20	47.70		
19	55.90	364.30	22.80	42.20	99.30	824.90	129.50	779.80	164.70	115.60	55.90	42.20		
20	51.50	370.00	19.20	42.20	80.00	779.80	129.50	608.50	156.50	93.60	58.20	33.60		
21	53.70	236.70	19.20	51.50	62.80	553.60	122.50	481.90	160.60	99.30	60.50	44.00		
22	49.60	156.50	17.20	58.20	74.70	468.80	122.50	418.00	160.60	99.30	60.50	47.70		
23	88.10	90.80	16.10	47.70	212.80	411.80	129.50	399.60	168.90	102.10	62.80	49.60		
24	90.80	77.30	17.20	32.20	287.80	375.70	231.80	387.40	168.90	102.10	55.90	99.30		
25	93.60	67.50	18.20	30.80	430.40	375.70	173.00	387.40	168.90	99.30	53.70	96.40		
26	93.60	69.90	17.20	35.30	411.80	309.10	168.90	468.80	347.40	96.40	53.70	93.60		
27	96.40	246.70	16.10	29.40	468.80	267.00	226.90	600.40	293.10	88.10	55.90	99.30		
28	96.40	173.00	18.20	40.50	1121.40	246.70	199.20	616.70	231.80	82.60	58.20	105.40		
29	96.40	148.50	32.20	40.50	2002.80	788.70	325.30	546.00	236.70	80.00		115.60		
30	37.00	144.50	105.40	42.20	1273.40	917.50	282.50	501.90	199.20	88.10		136.70		
31		136.70		65.10	779.80		212.80		190.30	90.80		129.50		
Total	3179.60	4251.90	1079.10	1162.40	9007.60	25727.10	6997.70	15145.60	7791.00	4614.80	2001.80	2049.70	83008.30	Tonday
Mean	105.99	137.16	35.97	37.50	290.57	857.57	225.73	504.85	251.32	148.86	71.49	66.12		Ton/day
Max	222.00	411.80	108.80	65.10	2002.80	3002.70	546.00	1588.10	455.80	298.40	173.00	136.70	3002.70	Ton/day
Min	37.00	29.40	16.10	16.10	33.60	236.70	122.50	168.90	156.50	80.00	53.70	33.60	16.10	Ton/day

WATER YEAR : 2002

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.DH - 59
Period of Available Records	2001-Cont'd
Actual Measurement	2001-Cont'd
Using Rating Curve Water Year	2002
Number of observation	36
R-Square	0.9012
Remarks	Continued Sediment Station

$$QS = 4.0320\ QW^{1.16450}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.30	0.20	15.20	8.50	6.20	240.70	365.90	131.20	99.90	21.40	9.90	2.70		
2	1.20	0.20	11.70	7.70	7.50	312.30	451.50	156.10	79.60	21.40	9.90	3.50		
3	1.10	0.20	12.50	7.00	13.30	373.00	325.40	294.20	69.60	21.40	9.90	3.50		
4	1.10	0.30	14.00	7.50	65.80	362.30	397.10	569.10	62.30	22.60	9.10	3.50		
5	1.00	0.50	17.00	7.20	85.30	1106.90	388.20	632.00	58.10	21.40	9.10	2.70		
6	0.80	0.50	17.90	5.70	57.50	2360.70	379.20	357.00	55.90	20.30	9.10	2.70		
7	0.80	0.50	46.70	5.20	48.10	1325.70	374.80	329.30	53.80	20.30	8.40	2.40		
8	0.70	0.40	22.00	5.20	28.00	450.60	365.90	286.40	51.80	19.10	8.40	2.40		
9	0.60	0.50	20.30	5.00	25.10	653.60	237.30	244.40	47.60	19.10	7.00	2.40		
10	0.60	0.40	16.10	6.70	17.00	603.80	227.30	184.80	41.50	17.90	7.00	2.40		
11	0.40	0.40	13.70	7.50	12.50	967.10	207.60	113.00	47.60	16.80	6.10	3.10		
12	0.30	5.00	11.40	6.70	13.70	565.80	165.60	74.60	47.60	16.80	6.10	3.10		
13	0.30	276.20	10.40	6.70	10.10	450.60	153.00	79.60	45.50	15.60	5.60	3.10		
14	0.30	120.50	10.70	7.00	10.10	427.80	134.30	92.20	39.90	12.90	5.60	3.10		
15	0.30	60.60	21.40	7.50	8.50	461.60	89.70	87.10	36.80	11.40	5.20	3.10		
16	0.30	28.00	26.30	7.00	8.50	440.50	72.10	87.10	33.70	11.40	5.20	4.30		
17	0.30	12.90	42.30	5.50	8.00	961.00	60.20	84.60	32.20	10.60	7.00	5.20		
18	0.30	8.30	98.10	6.00	8.50	1350.70	62.30	125.10	29.20	10.60	8.40	5.60		
19	0.20	37.10	71.10	4.50	8.30	1810.50	113.00	146.70	27.70	10.60	7.00	4.30		
20	0.20	98.10	19.30	5.00	11.70	3326.40	77.10	99.90	26.30	9.90	6.10	3.90		
21	0.20	46.70	18.40	6.00	18.90	2878.70	62.30	84.60	25.10	9.90	5.20	3.90		
22	0.20	41.20	13.30	6.50	22.60	2483.60	110.40	69.60	25.10	9.10	4.70	3.90		
23	0.20	27.10	11.70	7.20	56.20	1716.30	388.20	58.10	23.80	9.10	4.30	3.90		
24	0.20	20.30	10.70	6.70	38.10	916.40	252.00	62.30	22.60	9.10	3.90	4.70		
25	0.10	5.50	9.80	6.20	307.10	605.70	365.90	58.10	22.60	8.40	3.90	4.70		
26	0.04	8.80	9.50	5.50	191.30	497.10	172.00	92.20	22.60	8.40	3.50	6.10		
27	0.20	12.50	9.10	6.00	148.30	436.40	143.60	131.20	23.80	8.40	3.50	7.00		
28	0.30	49.40	8.50	8.80	145.90	337.20	149.80	134.30	23.80	8.40	2.70	12.20		
29	0.20	32.40	9.10	7.20	148.30	383.70	184.80	134.30	22.60	9.10		12.20		
30	0.20	34.10	8.50	6.50	245.70	476.70	204.30	116.00	22.60	9.10		12.90		
31		0.00		6.00	312.30		159.30		21.40	9.90		12.90		
Total	13.94	928.80	626.70	201.70	2088.40	29283.40	6840.10	5115.10	1242.60	430.40	181.80	151.40	47104.34	Tonday
Mean	0.46	30.96	20.89	6.51	67.37	976.11	220.65	170.50	40.08	13.88	6.49	4.88		Ton/day
Max	1.30	276.20	98.10	8.80	312.30	3326.40	451.50	632.00	99.90	22.60	9.90	12.90	3326.40	Ton/day
Min	0.04	0.00	8.50	4.50	6.20	240.70	60.20	58.10	21.40	8.40	2.70	2.40	0.00	Ton/day

WATER YEAR : 2002

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.DH - 59
Period of Available Records	2000-Cont'd
Actual Measurement	2000-Cont'd
Using Rating Curve Water Year	2002
Number of observation	36
R-Square	0.9422
Remarks	Continued Sediment Station

$$QS = 4.1439\ QW^{1.23660}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.01	0.01	0.20	0.20	0.30	24.90	23.10	8.50	38.50	17.50	9.50	7.10		
2	0.01	0.01	0.20	0.20	1.10	82.20	11.10	58.60	33.20	17.50	9.50	7.10		
3	0.01	0.01	0.10	0.10	1.70	249.60	43.30	500.90	29.30	16.40	9.80	7.10		
4	0.01	0.01	0.20	0.10	1.00	151.90	104.50	783.10	25.20	14.30	9.50	7.10		
5	0.01	0.01	0.20	0.10	40.40	97.00	28.70	244.00	23.00	15.90	9.50	7.10		
6	0.01	0.01	0.10	0.10	12.50	198.00	23.10	112.20	20.90	15.90	9.20	7.10		
7	0.01	0.01	25.90	0.10	6.50	139.70	17.70	58.60	19.60	15.30	9.20	6.80		
8	0.01	0.01	14.60	0.10	2.00	112.20	9.30	35.90	18.50	14.30	9.50	7.10		
9	0.01	0.01	2.00	0.10	1.00	127.80	5.10	25.90	17.50	14.30	9.50	7.10		
10	0.01	0.01	3.50	0.10	0.50	809.00	2.70	16.80	21.60	13.90	9.50	7.10		
11	0.01	0.01	1.20	0.20	2.00	283.70	1.10	13.20	19.10	12.60	9.50	7.10		
12	0.01	0.01	0.50	0.20	46.30	143.80	1.00	11.80	17.50	12.60	9.50	6.80		
13	0.01	0.01	0.40	0.20	19.40	52.40	1.00	9.30	17.50	12.60	9.50	6.80		
14	0.01	0.01	0.30	0.20	8.10	22.20	0.90	7.30	16.90	11.70	8.90	6.80		
15	0.01	0.01	0.20	0.20	3.20	9.30	0.60	6.10	15.90	11.20	8.30	7.10		
16	0.01	0.01	0.90	0.20	1.20	4.10	0.50	6.90	12.60	10.80	8.30	7.10		
17	0.01	0.01	0.40	0.20	0.50	5.40	0.60	5.10	12.60	10.10	8.30	7.10		
18	0.01	0.01	1.60	0.20	0.40	628.20	0.60	7.30	15.90	10.40	8.00	7.10		
19	0.01	0.10	0.60	0.20	127.80	416.50	0.50	7.70	12.10	12.10	8.00	7.10		
20	0.01	0.20	0.50	0.20	10.40	861.30	1.60	5.70	11.20	11.70	8.00	6.60		
21	0.01	0.20	0.20	0.20	8.90	648.30	1.10	5.70	10.80	11.20	8.00	6.80		
22	0.01	0.10	0.20	0.20	3.80	360.30	0.80	5.40	9.80	10.80	8.00	6.60		
23	0.01	0.10	0.20	0.20	168.40	112.20	24.00	4.10	12.10	10.40	8.00	6.80		
24	0.01	0.10	0.10	0.20	168.40	43.30	15.30	4.10	11.20	11.70	7.40	6.80		
25	0.01	0.10	0.10	0.20	34.40	85.80	6.90	5.10	10.10	10.80	7.40	6.60		
26	0.01	8.10	0.10	0.30	38.90	14.60	5.10	10.40	28.30	10.10	7.40	6.60		
27	0.01	25.90	0.20	0.50	11.80	8.10	8.50	16.80	39.70	10.10	7.40	6.60		
28	0.00	1.70	0.20	3.80	12.50	5.10	75.00	180.90	24.40	10.10	7.40	6.60		
29	0.00	0.60	0.20	0.60	193.70	6.10	85.80	82.70	20.90	10.10		6.60		
30	0.00	0.40	0.20	0.30	278.00	11.10	71.50	51.70	20.20	10.10		6.60		
31		0.00		0.20	85.80		15.30		18.50	10.10		6.60		
Total	0.27	37.78	55.30	9.90	1290.90	5714.10	586.30	2291.80	604.60	386.60	242.00	213.50	11433.05	Tonday
Mean	0.01	1.26	1.84	0.32	41.64	190.47	18.91	76.39	19.50	12.47	8.64	6.89		Ton/day
Max	0.01	25.90	25.90	3.80	278.00	861.30	104.50	783.10	39.70	17.50	9.80	7.10	861.30	Ton/day
Min	0.00	0.00	0.10	0.10	0.30	4.10	0.50	4.10	9.80	10.10	7.40	6.60	0.00	Ton/day

WATER YEAR : 2002

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	1997-2002
Number of observation	150
R-Square	0.9398
Remarks	Continued Sediment Station

$$QS = 1.3855\ QW^{1.46340}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	4.40	3.00	678.70	46.90	102.20	3539.60	2356.50	860.00	1680.00	288.50	38.50	12.90		
2	4.40	2.80	760.90	36.20	81.60	3785.40	2880.00	1101.00	1427.10	149.50	31.70	10.90		
3	4.10	2.50	668.60	29.10	99.10	6269.50	2811.90	1945.50	1271.30	115.10	57.80	10.50		
4	6.60	3.00	668.60	29.10	145.90	10810.60	3686.50	4813.80	803.10	138.00	69.40	15.90		
5	4.40	3.30	609.20	25.40	544.90	15255.00	3735.90	4717.60	493.20	133.70	76.50	38.50		
6	3.50	3.80	357.90	16.80	884.90	10315.50	3064.00	4401.40	385.30	121.80	69.40	36.20		
7	3.00	3.30	288.50	13.30	740.10	8257.80	2971.50	4401.40	385.30	162.10	48.80	50.70		
8	2.80	3.00	221.90	16.80	535.50	7471.90	2632.90	2834.50	414.60	166.70	37.40	50.70		
9	2.80	3.00	485.40	12.90	385.30	8137.20	1927.40	1927.40	437.00	145.90	31.70	48.80		
10	3.80	3.00	444.50	27.50	306.20	12353.40	1493.30	1285.40	453.40	138.00	27.50	48.80		
11	3.80	2.80	363.80	21.40	227.00	17627.10	1008.20	1008.20	628.80	121.80	23.90	48.80		
12	3.30	3.30	325.50	36.20	153.90	17951.50	729.70	895.90	572.00	111.10	19.10	52.60		
13	3.00	3.50	271.10	53.90	133.70	13363.20	599.50	750.40	485.40	115.10	17.70	55.80		
14	5.30	3.50	271.10	53.90	149.50	7315.30	518.20	658.60	429.50	126.00	33.40	34.50		
15	3.80	3.30	283.00	59.80	232.10	5276.20	444.50	638.70	363.80	126.00	43.90	27.50		
16	5.00	3.00	232.10	69.40	212.90	3564.00	407.20	510.30	357.90	104.60	64.50	30.10		
17	4.40	153.90	138.00	138.00	162.10	2414.40	385.30	581.60	357.90	62.50	67.30	34.50		
18	4.40	145.90	99.10	166.70	115.10	2632.90	371.00	792.50	343.90	52.60	57.80	31.70		
19	4.10	461.00	79.40	107.80	102.20	4813.80	357.90	1087.60	265.70	89.80	52.60	27.50		
20	5.90	371.00	81.60	81.60	227.00	8577.70	325.50	1225.80	170.40	79.40	53.90	26.40		
21	4.70	271.10	71.50	64.50	628.80	16380.10	332.30	908.60	188.40	64.50	50.70	17.70		
22	4.10	216.90	62.50	92.90	453.40	34145.20	338.10	1021.30	207.90	67.30	33.40	17.70		
23	3.50	126.00	45.10	184.60	288.50	25832.10	350.90	781.90	193.20	69.40	27.50	21.40		
24	3.50	62.50	37.40	198.10	803.10	8194.20	535.50	581.60	193.20	79.40	23.90	27.50		
25	4.10	48.80	37.40	162.10	2699.50	5084.20	638.70	535.50	193.20	52.60	19.10	48.80		
26	3.30	17.70	45.10	138.00	2110.60	3711.10	535.50	638.70	193.20	40.30	16.80	69.40		
27	3.00	37.40	43.90	104.60	1225.80	2994.60	468.70	996.80	198.10	40.30	14.60	52.60		
28	3.30	392.60	36.20	76.50	1021.30	2279.90	527.50	1410.70	221.90	37.40	13.30	34.50		
29	5.00	1315.50	37.40	145.90	1141.60	1680.00	1034.50	1837.80	319.80	36.20		25.40		
30	3.80	510.30	45.10	212.90	1285.40	1476.60	1526.70	2000.00	477.70	31.70		22.90		
31		501.10		157.60	2279.90		1225.80		485.40	29.10		21.40		
Total	121.10	4681.80	7790.50	2580.40	19479.10	271510.00	40221.10	47150.50	14597.60	3096.40	1122.10	1052.60	413403.20	Tonday
Mean	4.04	151.03	259.68	83.24	628.36	9050.33	1297.45	1571.68	470.89	99.88	40.07	33.95		Ton/day
Max	6.60	1315.50	760.90	212.90	2699.50	34145.20	3735.90	4813.80	1680.00	288.50	76.50	69.40	34145.20	Ton/day
Min	2.80	2.50	36.20	12.90	81.60	1476.60	325.50	510.30	170.40	29.10	13.30	10.50	2.50	Ton/day

WATER YEAR : 2002

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	2002
Number of observation	30
R-Square	0.8981
Remarks	Continued Sediment Station

$$QS = 2.5530\ QW^{1.37790}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	28.80	10.50	444.60	60.10	147.60	1515.40	2806.80	1732.30	2508.80	553.70	96.90	63.50		
2	24.10	10.50	527.70	89.30	120.50	2656.70	3285.40	1444.90	2242.90	425.90	118.50	63.50		
3	15.50	7.10	592.50	61.80	98.80	3669.70	3844.00	1827.70	1838.30	305.30	100.70	47.90		
4	12.10	6.60	580.00	31.50	96.90	5304.70	3742.30	2993.30	1690.40	268.10	89.30	40.20		
5	12.10	15.50	575.30	35.10	116.50	6687.20	4469.40	5032.30	1365.50	292.30	112.50	37.30		
6	8.50	13.80	549.10	38.80	215.40	7350.70	4526.80	5227.70	808.80	280.80	122.50	51.10		
7	9.00	10.50	421.60	37.30	506.60	7855.50	4017.70	5227.70	624.10	264.30	126.60	70.40		
8	11.60	10.50	292.30	33.70	624.10	9156.60	3768.30	5193.60	553.70	264.30	112.50	79.30		
9	29.50	10.50	288.40	29.50	453.30	9742.70	3393.60	3943.70	597.20	264.30	95.00	91.20		
10	10.50	8.00	314.50	32.20	367.00	9658.30	2656.70	2756.50	592.50	251.80	84.70	85.60		
11	3.70	8.50	375.20	56.80	284.60	9490.30	1950.40	1950.40	624.10	237.10	79.30	78.40		
12	2.20	16.10	349.20	40.20	240.70	9742.70	1576.60	1535.80	686.90	226.20	79.30	70.40		
13	1.90	14.30	310.50	36.60	169.40	10545.10	1134.90	1336.10	744.60	208.30	82.90	74.80		
14	1.90	29.50	314.50	34.40	137.00	11382.20	898.80	1163.00	630.40	201.30	76.60	87.50		
15	1.90	20.90	255.50	61.80	129.70	11700.60	779.90	934.10	549.10	208.30	67.80	85.60		
16	1.90	16.70	251.80	65.20	160.60	11276.60	693.40	867.30	482.70	204.80	61.80	72.10		
17	1.00	16.10	215.40	70.40	180.60	8991.00	630.40	779.90	453.30	187.40	87.50	63.50		
18	8.50	20.30	163.90	91.20	150.80	5970.20	586.20	709.80	468.00	158.40	106.60	66.00		
19	8.50	55.10	133.90	114.50	120.50	5097.20	559.80	969.80	473.80	142.30	104.60	91.20		
20	7.10	331.70	108.50	122.50	108.50	6414.60	532.30	1191.40	415.90	142.30	98.80	72.10		
21	7.10	721.40	98.80	96.90	158.40	7163.80	487.20	1475.00	367.00	166.10	96.90	41.80		
22	8.50	415.90	91.20	79.30	361.50	8744.20	512.60	1210.40	326.40	147.60	95.00	32.20		
23	10.00	314.50	78.40	84.70	463.60	10441.70	502.10	1229.50	318.40	142.30	84.70	45.60		
24	8.50	197.80	70.40	120.50	318.40	11700.60	497.60	1134.90	310.50	139.10	79.30	45.60		
25	7.10	126.60	66.00	184.00	468.00	11914.20	592.50	815.60	297.50	150.80	73.90	48.70		
26	5.70	82.90	59.30	150.80	1210.40	10441.70	795.10	837.90	292.30	137.00	67.80	61.80		
27	7.10	63.50	61.80	137.00	1965.60	8662.30	714.80	1444.90	301.40	120.50	67.80	78.40		
28	6.60	52.70	63.50	116.50	1525.60	6732.90	675.50	1638.40	305.30	110.50	65.20	82.90		
29	6.60	73.90	60.10	96.90	978.80	4903.10	860.40	1937.40	305.30	106.60		72.10		
30	8.50	614.50	59.30	102.70	943.00	3413.90	1405.10	2227.10	361.50	102.70		63.50		
31		652.80		153.00	987.80		1911.40		473.80	100.70		52.70		
Total	276.00	3949.20	7773.20	2465.20	13810.20	238326.40	54808.00	60768.40	22010.40	6511.10	2535.00	2016.90	415250.00	Tonday
Mean	9.20	127.39	259.11	79.52	445.49	7944.21	1768.00	2025.61	710.01	210.04	90.54	65.06		Ton/day
Max	29.50	721.40	592.50	184.00	1965.60	11914.20	4526.80	5227.70	2508.80	553.70	126.60	91.20	11914.20	Ton/day
Min	1.00	6.60	59.30	29.50	96.90	1515.40	487.20	709.80	292.30	100.70	61.80	32.20	1.00	Ton/day

WATER YEAR : 2002

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.
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	2000-2002
Number of observation	78
R-Square	0.9637
Remarks	Continued Sediment Station

$$QS = 3.2050\ QW^{1.48910}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.00	0.80	136.80	24.20	48.40	277.50	641.70	178.40	203.10	62.50	7.20	1.90		
2	1.00	0.70	104.80	50.10	36.50	487.40	790.50	335.00	161.00	53.80	7.80	2.20		
3	0.90	0.70	67.00	41.50	36.50	612.50	530.30	1210.30	136.80	50.10	7.20	2.40		
4	0.80	1.90	50.10	19.10	30.80	385.40	495.90	3631.50	120.10	46.70	6.80	2.20		
5	0.80	2.20	52.00	14.50	28.10	556.60	439.10	2644.80	110.80	43.10	6.30	2.20		
6	0.80	1.10	36.50	10.90	123.30	1371.80	415.50	1225.80	101.80	50.10	6.80	2.20		
7	0.80	1.00	69.30	10.90	78.70	4525.70	356.30	724.40	93.90	58.10	6.30	1.90		
8	0.90	1.10	41.50	15.40	69.30	13709.30	266.40	487.40	88.70	52.00	7.20	1.90		
9	0.90	1.00	38.10	36.50	52.00	10196.80	198.10	349.20	86.20	43.10	7.20	1.70		
10	0.80	0.90	56.00	30.80	35.00	4978.30	161.00	277.50	120.10	39.80	6.30	1.70		
11	0.70	0.90	120.10	25.40	29.40	2674.80	136.80	234.00	93.90	32.20	5.90	1.70		
12	0.80	1.10	78.70	18.10	29.40	1534.10	120.10	198.10	86.20	29.40	5.40	1.50		
13	1.00	3.20	50.10	15.40	29.40	1093.90	107.80	178.40	86.20	21.90	5.00	1.70		
14	1.60	24.60	35.00	14.50	28.10	756.90	96.50	161.00	81.20	20.00	5.00	1.90		
15	1.90	9.70	28.10	15.40	26.80	622.20	86.20	152.80	71.60	18.10	5.40	1.90		
16	1.40	183.30	21.90	14.50	22.90	602.90	78.70	140.80	60.40	17.20	5.00	2.40		
17	1.00	1442.20	17.20	17.20	25.40	631.90	76.20	140.80	52.00	15.40	5.00	2.90		
18	1.00	910.10	16.30	41.50	25.40	631.90	67.00	323.20	50.10	14.50	5.40	2.40		
19	0.80	947.90	18.10	26.80	28.10	1066.20	67.00	681.80	44.80	15.40	4.60	2.40		
20	0.80	837.50	15.40	21.00	58.10	1964.00	64.80	266.40	39.80	14.50	3.40	2.20		
21	0.60	277.50	18.10	24.20	86.20	1066.20	69.30	183.30	36.50	13.00	3.10	2.20		
22	0.60	140.80	18.10	41.50	67.00	724.40	76.20	152.80	33.60	13.70	2.90	1.90		
23	0.60	88.70	13.70	44.80	136.80	439.10	123.30	132.90	30.80	13.00	2.60	1.70		
24	0.60	62.50	10.90	32.20	300.10	329.10	277.50	120.10	29.40	12.20	2.40	2.20		
25	0.60	60.40	9.00	22.90	1038.60	283.10	300.10	123.30	26.80	12.20	2.90	1.90		
26	0.60	602.90	7.20	18.10	415.50	283.10	156.90	223.60	86.20	11.60	2.60	1.90		
27	0.50	593.30	6.80	16.30	1179.60	239.30	244.70	294.40	415.50	10.30	2.60	1.90		
28	0.50	277.50	10.30	15.40	1477.90	188.20	385.40	612.50	234.00	9.00	2.20	1.90		
29	0.60	183.30	10.90	17.20	1288.20	239.30	487.40	547.80	110.80	8.40	0.00	2.40		
30	0.90	140.80	16.30	20.00	661.40	323.20	521.60	294.40	83.60	7.20	0.00	6.30		
31	0.00	165.20	0.00	69.30	356.30	0.00	311.60	0.00	73.80	6.80	0.00	8.40		
Total	25.80	6964.80	1174.30	785.60	7849.20	52795.10	8149.90	16226.70	3049.70	815.30	140.50	74.00	98050.90	Tonday
Mean	0.86	224.67	39.14	25.34	253.20	1759.84	262.90	540.89	98.38	26.30	5.02	2.39		Ton/day
Max	1.90	1442.20	136.80	69.30	1477.90	13709.30	790.50	3631.50	415.50	62.50	7.80	8.40	13709.30	Ton/day
Min	0.50	0.70	6.80	10.90	22.90	188.20	64.80	120.10	26.80	6.80	2.20	1.50	0.50	Ton/day

WATER YEAR : 2002

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	1996-2002
Number of observation	191
R-Square	0.8668
Remarks	Continued Sediment Station

$$QS = 3.3707\ QW^{1.43440}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.40	2.20	23.70	28.50	17.20	130.00	215.70	44.60	101.30	39.40	22.40	9.40		
2	2.40	2.80	18.50	10.90	83.00	315.00	201.50	136.50	82.10	36.90	22.40	9.40		
3	2.40	45.70	11.70	8.60	43.20	348.40	320.20	302.30	78.50	29.70	18.50	10.90		
4	2.30	22.40	19.80	7.90	108.00	181.50	329.30	426.70	75.10	36.90	19.80	7.90		
5	2.30	22.40	28.50	6.50	134.60	245.90	153.20	356.90	71.60	36.90	18.50	8.60		
6	2.10	28.50	23.70	5.90	153.90	500.30	131.90	164.70	68.20	97.10	21.10	10.20		
7	2.00	25.20	170.30	7.20	69.90	3728.60	105.50	176.50	68.20	55.50	18.50	7.90		
8	2.10	11.70	67.00	13.70	45.70	5216.80	58.40	89.30	61.60	42.00	22.40	9.40		
9	2.00	7.90	37.50	21.10	22.40	1132.80	52.70	101.30	71.60	39.40	18.50	7.90		
10	2.00	8.60	61.50	23.70	11.70	1073.60	29.70	93.00	114.10	32.00	16.10	8.60		
11	1.60	17.20	35.70	13.70	18.50	750.10	42.00	78.50	71.60	34.40	17.20	8.60		
12	1.60	41.20	23.70	22.40	23.70	311.20	39.40	71.60	93.00	25.30	16.10	8.60		
13	1.70	96.70	18.50	12.50	41.20	230.10	36.90	75.10	78.50	21.20	21.10	12.50		
14	1.70	411.70	14.80	12.50	45.70	188.50	27.50	75.10	71.60	21.20	18.50	17.20		
15	1.70	83.00	30.30	12.50	41.20	208.60	27.50	68.20	61.60	25.30	16.10	19.80		
16	1.70	192.90	18.50	10.20	19.80	170.60	29.70	61.60	55.50	21.20	17.20	18.50		
17	1.70	859.20	10.20	14.80	17.20	215.70	27.50	64.90	52.70	21.20	14.80	14.80		
18	2.20	510.70	9.40	19.80	16.10	222.90	29.70	230.10	50.00	21.20	16.10	12.50		
19	2.20	348.40	11.70	12.50	37.50	379.70	34.40	105.50	39.40	23.20	14.80	10.20		
20	2.10	479.80	7.90	14.80	28.50	647.90	19.40	68.20	44.60	23.20	12.50	7.90		
21	2.00	86.30	7.20	50.80	170.30	215.70	13.60	68.20	44.60	23.20	10.90	6.50		
22	1.90	45.70	5.20	61.50	130.00	293.50	25.30	58.40	44.60	19.20	10.90	4.70		
23	1.90	35.70	4.70	39.40	449.50	164.70	47.20	58.40	25.30	23.70	12.50	7.20		
24	1.90	32.00	4.70	23.70	421.00	222.90	58.40	55.50	29.70	25.20	10.90	16.10		
25	1.90	22.40	4.40	18.50	245.90	118.50	55.50	71.60	36.90	22.40	12.50	11.70		
26	1.90	25.20	4.00	14.80	139.20	89.30	32.00	215.70	188.50	23.70	10.90	8.60		
27	2.10	79.70	3.20	16.10	121.00	82.10	75.10	293.50	147.60	21.10	10.20	7.90		
28	1.60	50.80	7.20	17.20	1003.40	82.10	136.50	450.70	64.90	22.40	9.40	7.90		
29	1.60	50.80	10.90	14.80	718.50	208.60	127.40	526.20	64.90	22.40		10.20		
30	2.30	43.20	86.30	45.70	348.40	592.10	85.70	122.90	50.00	25.20		17.20		
31		33.80		33.80	143.80		55.50		44.60	23.70		14.80		
Total	59.30	3723.80	780.70	616.00	4870.00	18267.70	2624.30	4711.70	2152.40	935.40	450.80	333.60	39525.70	Tonday
Mean	1.98	120.12	26.02	19.87	157.10	608.92	84.65	157.06	69.43	30.17	16.10	10.76		Ton/day
Max	2.40	859.20	170.30	61.50	1003.40	5216.80	329.30	526.20	188.50	97.10	22.40	19.80	5216.80	Ton/day
Min	1.60	2.20	3.20	5.90	11.70	82.10	13.60	44.60	25.30	19.20	9.40	4.70	1.60	Ton/day

WATER YEAR : 2002

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.
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	1996-2002
Number of observation	190
R-Square	0.9354
Remarks	Continued Sediment Station

$$QS = 4.1115\ QW^{1.36930}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.20	0.20	56.70	4.10	21.10	248.80	431.90	58.90	137.10	29.60	16.70	3.60		
2	0.20	0.10	48.20	1.80	21.10	151.80	387.90	110.30	104.10	29.60	24.90	5.00		
3	0.30	0.10	92.00	2.40	28.40	312.00	201.10	334.70	86.60	27.10	41.90	11.10		
4	0.50	0.10	73.10	1.60	148.10	329.00	188.20	593.10	78.40	29.60	38.30	22.10		
5	0.30	0.10	50.30	1.50	229.20	224.40	137.10	381.80	78.40	39.30	24.90	27.90		
6	0.50	0.20	31.20	0.50	329.00	163.10	119.90	234.10	75.70	42.80	12.10	31.30		
7	0.30	0.10	412.70	1.20	387.90	719.10	113.50	175.50	65.60	52.50	8.40	32.90		
8	0.30	0.10	445.40	2.80	179.70	1569.00	92.00	107.20	54.60	54.60	6.60	32.90		
9	0.30	0.10	133.50	1.90	155.50	651.10	78.40	86.60	46.20	44.50	5.80	31.30		
10	0.50	0.10	123.10	3.80	61.10	394.10	63.40	75.70	159.30	37.70	4.30	29.60		
11	0.30	0.10	86.60	17.70	41.00	793.00	54.60	63.40	75.70	37.70	3.60	22.10		
12	0.30	0.50	44.50	15.90	67.90	334.70	48.20	58.90	56.70	56.70	3.60	6.60		
13	0.50	0.30	29.60	11.80	94.90	196.80	34.40	52.50	52.50	58.90	5.00	3.60		
14	0.40	234.10	39.30	8.40	123.10	253.70	29.60	50.30	46.20	36.00	43.80	4.60		
15	0.10	196.80	23.50	22.20	94.90	192.50	29.60	46.20	41.00	17.70	43.80	5.00		
16	0.30	32.70	28.40	28.40	44.50	133.50	29.60	44.50	36.00	16.80	31.30	5.00		
17	0.20	351.90	15.90	13.40	27.10	97.90	29.60	44.50	34.40	29.60	26.40	4.30		
18	0.30	545.80	9.50	11.80	23.50	133.50	29.60	351.90	29.60	50.30	23.50	3.90		
19	0.20	155.50	15.10	9.50	196.80	295.70	39.30	253.70	29.60	27.10	15.40	3.20		
20	0.20	140.70	12.60	8.90	116.70	862.00	46.20	113.50	28.40	27.10	5.00	5.00		
21	0.20	70.40	8.90	22.20	44.50	693.30	34.40	70.40	25.90	27.10	4.30	4.60		
22	0.20	29.60	7.80	48.20	36.00	626.00	34.40	56.70	24.70	25.90	3.60	6.60		
23	0.20	21.10	7.80	42.80	285.00	357.70	37.70	52.50	23.50	17.70	3.20	19.40		
24	0.20	7.80	8.40	32.70	545.80	357.70	81.00	44.50	21.10	13.40	2.80	29.60		
25	0.20	8.90	11.80	29.60	214.90	258.90	67.90	44.50	21.10	13.40	2.50	14.10		
26	0.20	159.30	9.50	17.70	155.50	175.50	65.60	238.90	34.40	12.60	1.90	10.20		
27	0.10	1844.50	8.90	20.00	151.80	133.50	61.10	274.50	67.90	11.80	1.90	5.80		
28	0.10	445.40	6.80	37.70	301.00	107.20	107.20	609.50	54.60	10.30	3.20	3.60		
29	0.10	116.70	7.80	37.70	351.90	192.50	171.30	317.60	44.50	9.50		2.50		
30	0.10	81.00	2.80	28.40	651.10	793.00	116.70	179.70	34.40	11.00		1.60		
31		75.70		17.70	301.00		81.00		34.40	11.10		1.50		
Total	7.80	4520.00	1851.70	504.30	5430.00	11751.00	3042.40	5126.10	1702.60	909.00	408.70	390.50	35644.10	Tonday
Mean	0.26	145.81	61.72	16.27	175.16	391.70	98.14	170.87	54.92	29.32	14.60	12.60		Ton/day
Max	0.50	1844.50	445.40	48.20	651.10	1569.00	431.90	609.50	159.30	58.90	43.80	32.90	1844.50	Ton/day
Min	0.10	0.10	2.80	0.50	21.10	97.90	29.60	44.50	21.10	9.50	1.90	1.50	0.10	Ton/day

WATER YEAR : 2002

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	1997-Cont'd
Actual Measurement	1997-Cont'd
Using Rating Curve Water Year	2002
Number of observation	21
R-Square	0.9608
Remarks	Continued Sediment Station

$$QS = 1.2757\ QW^{1.47320}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	7.40	3.30	409.70	112.40	117.90	2261.80	2083.40	1323.70	2295.10	458.60	88.00	58.40		
2	4.40	1.70	551.00	56.50	88.00	3797.20	3314.50	1122.60	1915.70	288.10	82.90	35.20		
3	2.80	0.80	577.60	13.70	78.60	5004.60	3420.70	2345.40	1646.50	210.40	74.40	27.30		
4	3.30	22.40	544.40	28.30	101.40	8077.80	3356.80	4633.90	1415.70	218.20	70.30	22.40		
5	3.80	12.90	531.30	33.50	169.20	11611.40	5220.60	6494.20	749.70	246.20	126.10	45.40		
6	4.40	11.30	430.30	31.40	476.10	13609.10	4196.20	6247.90	487.50	214.30	103.80	72.30		
7	4.90	12.90	283.80	28.30	679.40	13557.40	3636.30	5801.20	393.00	206.60	114.70	76.50		
8	3.30	10.60	230.10	24.80	537.80	12024.80	3506.40	5139.30	430.30	226.10	88.00	90.20		
9	1.70	6.10	234.10	25.80	382.40	10593.40	2831.00	2941.10	430.30	226.10	76.50	93.10		
10	0.20	10.60	397.80	21.00	271.10	10936.30	1957.20	1999.00	492.60	206.60	76.50	90.20		
11	2.10	6.80	331.90	32.50	234.10	12536.30	1478.60	1323.70	499.00	195.10	76.50	88.00		
12	4.90	14.50	283.80	29.90	169.20	13705.40	844.80	1091.20	695.00	183.90	62.30	78.60		
13	4.40	29.90	262.70	42.50	129.40	14107.40	611.40	946.60	564.20	169.20	72.30	101.40		
14	2.50	24.80	230.10	54.60	112.40	14159.80	511.80	725.00	487.50	183.90	37.90	103.80		
15	3.30	12.10	226.10	58.40	126.10	12071.00	420.60	647.20	420.60	187.60	23.90	78.60		
16	7.40	11.30	226.10	56.50	155.00	7496.90	368.40	591.00	359.20	180.20	74.40	62.30		
17	4.90	13.70	176.50	66.20	162.10	4374.70	340.90	458.60	363.80	144.60	109.20	66.20		
18	2.80	85.80	117.90	117.90	120.40	3018.30	323.00	686.50	397.80	114.70	109.20	82.90		
19	2.10	183.90	101.40	120.40	106.10	4297.90	327.40	853.90	354.60	109.20	98.40	96.10		
20	2.10	782.00	80.70	85.80	109.20	8813.60	305.40	1266.40	279.50	151.50	96.10	37.90		
21	3.30	487.50	82.90	66.20	238.10	11429.20	314.10	1221.80	187.60	129.40	93.10	24.80		
22	1.70	314.10	72.30	64.20	499.00	13406.30	336.40	946.60	266.90	117.90	85.80	47.20		
23	1.30	226.10	62.30	98.40	327.40	15033.20	331.90	1145.90	254.40	120.40	76.50	49.00		
24	3.30	141.10	56.50	155.00	296.70	16596.50	387.10	702.10	238.10	129.40	68.20	50.80		
25	6.80	78.60	50.80	148.00	765.80	14159.80	655.50	577.60	246.20	129.40	60.30	62.30		
26	0.00	54.60	47.20	123.60	2379.10	9094.80	570.90	918.40	238.10	109.20	62.30	90.20		
27	0.00	36.30	52.70	112.40	1792.90	5302.30	492.60	1323.70	246.20	93.10	58.40	103.80		
28	0.00	52.70	49.00	90.20	1018.10	3895.70	511.80	1633.40	242.20	90.20	56.50	88.00		
29	0.00	283.80	47.20	70.30	881.40	2759.90	946.60	1985.00	288.10	85.80		68.20		
30	0.00	937.20	42.50	148.00	946.60	2055.20	1672.80	2379.10	382.40	90.20		54.60		
31		387.10		155.00	1177.80		1792.90		537.80	85.80		54.60		
Total	89.10	4256.50	6790.70	2271.70	14648.80	279788.00	47068.00	59472.00	17805.60	5301.90	2222.50	2100.30	441815.10	Tonday
Mean	3.56	137.31	226.36	73.28	472.54	9326.27	1518.32	1982.40	574.37	171.03	79.38	67.75		Ton/day
Max	7.40	937.20	577.60	155.00	2379.10	16596.50	5220.60	6494.20	2295.10	458.60	126.10	103.80	16596.50	Ton/day
Min	0.00	0.80	42.50	13.70	78.60	2055.20	305.40	458.60	187.60	85.80	23.90	22.40	0.00	Ton/day

WATER YEAR : 2002

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	2002
Number of observation	37
R-Square	0.9573
Remarks	Continued Sediment Station

$$QS = 1.1363\ QW^{1.64070}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	25.80	39.50	3955.60	113.00	3597.40	27902.50	10129.30	1663.80	1715.50	113.00	24.50	12.00		
2	25.80	39.50	2073.30	136.30	1820.70	16616.20	13960.70	1296.10	1249.80	96.60	23.30	12.00		
3	27.70	39.50	1366.80	136.30	2505.80	19988.60	12236.10	1296.10	978.40	74.50	23.30	12.00		
4	27.70	41.80	692.00	118.70	2937.60	21519.90	13872.40	1741.50	843.90	86.30	23.30	12.90		
5	27.70	45.70	259.70	136.30	3075.20	16616.20	13087.30	4285.00	757.00	78.30	21.50	12.90		
6	25.80	96.60	569.00	124.40	5063.30	14675.20	8109.50	2635.20	660.40	78.30	19.80	12.90		
7	19.80	86.30	644.80	102.00	4974.30	19114.40	10840.90	1612.70	614.10	96.60	19.80	12.90		
8	19.80	78.30	1537.20	96.60	3182.00	50709.80	7166.50	1249.80	569.00	96.60	18.60	12.00		
9	19.80	70.70	1767.80	96.60	3558.40	90923.30	4119.00	1036.40	511.10	102.00	19.80	10.20		
10	18.60	59.80	1587.40	96.60	2133.10	108474.70	2669.90	939.50	660.40	82.30	19.80	10.20		
11	12.90	39.50	978.40	151.10	1366.80	112275.10	1794.10	826.70	1226.90	56.40	19.80	11.00		
12	38.10	39.50	1463.20	151.10	1057.90	62116.50	1820.70	773.60	724.30	48.10	17.00	10.20		
13	34.50	41.80	957.60	124.40	901.30	28047.50	1537.20	692.00	583.90	48.10	17.00	11.00		
14	35.90	41.80	554.30	96.60	790.40	15587.70	1319.50	644.80	583.90	41.80	17.00	12.90		
15	35.90	130.30	428.80	86.30	901.30	18157.50	1159.30	614.10	757.00	41.80	21.50	29.00		
16	39.50	939.50	614.10	78.30	1181.70	22257.80	1036.40	614.10	511.10	35.90	21.50	19.80		
17	39.50	957.60	644.80	78.30	1036.40	32134.00	919.10	614.10	352.30	34.50	18.60	18.60		
18	39.50	9973.70	124.40	78.30	1249.80	25435.80	826.70	881.20	187.90	29.00	19.80	18.60		
19	38.10	9588.90	96.60	67.00	2905.60	29513.80	843.90	3558.40	113.00	33.00	18.60	12.00		
20	49.70	4119.00	96.60	74.50	10207.40	31160.10	843.90	3636.60	86.30	33.00	17.00	23.30		
21	48.10	1928.30	102.00	160.00	5854.60	20671.40	901.30	1587.40	70.70	31.00	14.90	21.50		
22	41.80	1487.70	227.80	483.10	10207.40	19114.40	724.30	1076.80	63.40	29.00	13.90	27.70		
23	38.10	999.30	118.70	773.60	25828.20	17767.20	863.70	843.90	63.40	31.00	11.00	27.70		
24	35.90	402.70	96.60	3715.30	25045.70	10681.20	2165.00	724.30	59.80	29.00	12.00	31.00		
25	35.90	113.00	86.30	3006.10	46606.20	8985.50	3006.10	1181.70	49.70	27.70	15.90	27.70		
26	35.90	377.20	78.30	978.40	37697.00	9512.60	1689.50	1741.50	53.00	27.70	13.90	29.00		
27	34.50	9210.00	67.00	614.10	14405.60	7684.80	1249.80	1438.90	483.10	27.70	12.90	27.70		
28	38.10	9285.30	70.70	554.30	6226.50	4037.00	1715.50	1390.60	1076.80	27.70	12.00	31.00		
29	41.80	6497.60	74.50	598.90	24916.20	7801.90	6996.90	4119.00	511.10	25.80		21.50		
30	39.50	3328.10	78.30	483.10	64242.70	11653.60	8616.30	3215.20	238.30	25.80		23.30		
31		4538.80		2937.60	45548.90		2704.80		160.00	25.80		27.70		
Total	991.70	64637.30	21412.60	16447.20	361025.40	881136.20	138925.60	47931.00	16515.50	1614.30	508.00	582.20	1551727.00	Tonday
Mean	33.06	2085.07	713.75	530.55	11645.98	29371.21	4481.47	1597.70	532.76	52.07	18.14	18.78		Ton/day
Max	49.70	9973.70	3955.60	3715.30	64242.70	112275.10	13960.70	4285.00	1715.50	113.00	24.50	31.00	112275.10	Ton/day
Min	12.90	39.50	67.00	67.00	790.40	4037.00	724.30	614.10	49.70	25.80	11.00	10.20	10.20	Ton/day

WATER YEAR : 2002

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	2002
Number of observation	40
R-Square	0.9619
Remarks	Continued Sediment Station

$$QS = 1.3864\ QW^{1.44510}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	53.30	22.10	2196.80	296.80	427.80	23241.70	5430.30	3849.80	2150.50	376.10	91.80	44.30		
2	52.10	19.40	2535.80	228.40	1086.00	19577.90	5471.30	2483.30	1854.80	312.70	90.30	44.30		
3	52.10	19.40	2013.20	205.60	1776.20	18403.00	5553.70	2314.00	1301.10	281.30	88.20	46.10		
4	36.40	26.00	1301.10	209.40	1664.80	16100.10	7207.10	2127.40	1027.30	281.30	86.70	43.20		
5	33.20	32.10	942.50	209.40	2857.80	15332.70	6868.70	1796.20	862.90	276.10	81.80	39.80		
6	30.00	39.80	699.50	187.20	2857.80	18694.60	6324.90	1873.30	735.20	241.10	72.80	28.00		
7	29.00	34.20	436.00	180.00	2361.50	20895.20	5595.00	2314.00	664.40	220.70	72.80	39.80		
8	30.00	31.10	382.90	187.20	2588.60	19978.40	5307.80	1776.20	585.50	213.10	72.80	36.40		
9	29.00	31.10	404.60	165.80	2457.20	20281.30	4681.50	1334.20	542.10	228.40	72.80	37.50		
10	28.00	44.30	849.90	149.40	1873.30	32254.20	3329.20	1086.00	597.10	228.40	69.40	33.20		
11	26.00	53.30	983.10	146.90	1834.60	45464.70	2385.30	956.00	722.80	220.70	69.40	33.20		
12	25.00	56.40	876.00	141.90	1384.40	42890.60	1834.60	862.90	798.30	198.20	62.80	33.20		
13	23.10	64.80	585.50	154.60	1027.30	33848.80	1452.10	785.60	902.40	180.00	64.80	30.00		
14	23.10	74.80	687.30	172.80	849.90	14410.60	1334.20	722.80	676.50	162.30	71.40	33.20		
15	23.10	68.10	563.70	165.80	747.70	8272.20	1176.10	687.30	522.10	152.00	88.20	37.50		
16	22.10	57.70	443.10	159.70	631.10	6772.50	1056.50	653.70	467.00	144.40	88.20	38.60		
17	20.70	62.80	389.70	157.10	699.50	7809.80	942.50	597.10	532.10	134.40	86.70	44.30		
18	20.70	201.90	347.20	154.60	1145.80	12168.00	876.00	608.80	427.80	127.10	96.20	54.60		
19	19.40	735.20	382.90	159.70	942.50	16820.90	798.30	1221.10	361.60	124.70	84.60	69.40		
20	19.40	3919.10	281.30	176.40	1367.60	18016.30	772.90	1590.60	312.70	115.20	76.20	61.50		
21	20.30	4058.90	190.80	152.00	2749.10	17184.90	811.10	2314.00	271.00	111.30	72.80	57.70		
22	20.30	2457.20	169.30	144.40	5105.60	16189.70	785.60	1951.20	250.90	111.30	69.40	61.50		
23	19.40	1384.40	172.80	176.40	4419.50	10930.60	798.30	1237.30	236.20	112.90	66.10	74.80		
24	20.30	889.20	183.60	286.40	9281.60	8683.50	862.90	929.10	213.10	112.90	61.50	72.80		
25	22.10	641.70	190.80	361.60	12095.80	6459.50	969.50	785.60	201.90	111.30	54.60	78.30		
26	26.00	376.10	180.00	1145.80	12095.80	5677.90	1520.90	889.20	194.50	109.00	49.10	162.30		
27	23.10	376.10	194.50	1384.40	14255.20	6060.80	1776.20	2104.40	201.90	107.50	46.10	141.90		
28	20.70	915.70	180.00	747.70	8742.80	5348.50	1932.60	2266.90	194.50	105.20	42.00	103.70		
29	20.30	3644.20	172.80	510.90	5307.80	4494.20	5636.40	1702.30	250.90	99.90		86.70		
30	19.40	3849.80	224.60	382.90	8506.50	3644.20	5348.50	1452.10	631.10	94.00		86.70		
31		3085.30		451.40	22147.60		5802.90		501.10	94.00		94.00		
Total	807.60	27272.20	19161.30	9352.60	135288.70	495907.30	94642.90	45272.40	19191.30	5387.50	2049.50	1848.50	856181.80	Tonday
Mean	26.92	879.75	638.71	301.70	4364.15	16530.24	3053.00	1509.08	619.07	173.79	73.20	59.63		Ton/day
Max	53.30	4058.90	2535.80	1384.40	22147.60	45464.70	7207.10	3849.80	2150.50	376.10	96.20	162.30	45464.70	Ton/day
Min	19.40	19.40	169.30	141.90	427.80	3644.20	772.90	597.10	194.50	94.00	42.00	28.00	19.40	Ton/day

WATER YEAR : 2002

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	2002
Number of observation	40
R-Square	0.9745
Remarks	Continued Sediment Station

$$QS = 0.6873\ QW^{1.61670}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	40.80	26.60	3061.80	203.70	407.40	31242.30	7419.00	7944.20	2121.10	225.50	49.00	32.20		
2	37.20	26.20	3377.20	178.00	1670.00	24969.80	7167.30	3979.10	1350.20	193.10	47.90	32.20		
3	35.10	26.20	2314.90	162.60	1987.10	24163.60	7677.90	2439.30	995.70	167.10	46.20	31.70		
4	33.70	31.70	1314.30	162.60	1709.30	22934.90	10885.30	2078.40	803.60	178.00	46.20	30.80		
5	33.20	38.20	953.20	152.80	1199.30	24507.90	9347.60	1879.00	641.10	167.10	45.10	29.80		
6	33.20	36.70	620.20	138.30	1368.30	29260.40	8539.60	1899.60	529.00	143.40	43.50	29.80		
7	33.20	33.70	391.10	138.30	3122.20	28872.60	7118.10	2364.30	440.90	130.00	43.50	28.90		
8	32.20	32.20	359.10	130.00	3208.20	27733.70	6971.30	1535.20	407.40	121.90	43.50	28.90		
9	31.70	36.10	382.40	112.40	2671.90	32224.80	5599.50	1086.40	374.90	147.60	41.80	28.90		
10	30.80	38.20	641.10	103.20	2121.10	51652.90	3725.00	843.40	424.10	138.30	40.80	28.90		
11	29.80	40.80	1040.70	100.20	2010.40	65431.30	2414.20	705.70	558.80	130.00	39.70	28.90		
12	29.80	46.20	870.40	112.40	1265.10	60792.30	1592.40	641.10	620.20	112.40	38.20	28.90		
13	29.40	49.00	764.50	118.70	911.50	45039.50	1332.20	558.80	683.90	100.20	38.20	28.00		
14	29.40	53.60	673.10	121.90	683.90	23821.20	1214.60	519.30	466.10	94.40	46.20	28.00		
15	28.90	47.90	502.70	121.90	651.70	10818.70	995.70	483.50	366.40	85.80	49.00	29.40		
16	28.90	43.50	366.40	112.40	651.70	9406.40	884.00	450.10	323.50	80.30	50.10	35.10		
17	28.00	53.60	316.60	109.30	870.40	12916.20	777.50	407.40	302.90	74.90	53.60	37.20		
18	28.00	466.10	316.60	115.50	1071.70	18797.40	705.70	424.10	282.70	69.60	51.80	39.70		
19	27.10	1404.80	330.50	118.70	1368.30	25202.00	641.10	1265.10	237.80	67.10	43.50	38.20		
20	27.10	6585.50	187.40	121.90	1650.50	25085.80	579.00	1573.30	198.80	63.90	40.80	36.70		
21	27.10	5051.60	125.10	109.30	4560.40	24738.40	641.10	2697.90	158.10	60.80	40.80	36.70		
22	27.10	2671.90	118.70	109.30	7732.50	21962.60	630.60	1460.10	147.60	60.80	38.20	36.70		
23	27.10	1282.70	125.10	143.40	7020.10	14906.30	641.10	953.20	134.10	62.60	36.70	53.60		
24	28.00	843.40	152.80	276.10	17251.70	11234.00	630.60	830.10	118.70	60.80	35.10	47.90		
25	29.80	548.80	134.10	416.40	18404.90	7944.20	830.10	777.50	112.40	60.80	34.20	40.80		
26	29.40	276.10	138.30	1689.60	20602.60	7020.10	1689.60	716.70	109.30	59.60	33.70	121.90		
27	28.00	548.80	143.40	1350.20	21012.20	6490.40	1631.00	2290.30	118.70	57.80	33.20	67.10		
28	27.10	1966.20	143.40	641.10	10885.30	5818.40	1899.60	2121.10	112.40	56.00	31.70	53.60		
29	27.10	6036.90	182.70	398.60	6825.60	5558.20	7266.00	1478.80	178.00	53.60		50.10		
30	26.60	5051.60	214.50	337.60	19792.50	4682.20	6352.30	1332.20	483.50	51.80		49.00		
31		3831.80		344.70	35157.90		9113.90		289.40	50.10		51.80		
Total	904.80	37226.60	20262.30	8451.10	199845.70	705228.50	116912.90	47735.20	14091.30	3125.30	1182.20	1241.40	1156207.30	Tonday
Mean	30.16	1200.86	675.41	272.62	6446.64	23507.62	3771.38	1591.17	454.56	100.82	42.22	40.05		Ton/day
Max	40.80	6585.50	3377.20	1689.60	35157.90	65431.30	10885.30	7944.20	2121.10	225.50	53.60	121.90	65431.30	Ton/day
Min	26.60	26.20	118.70	100.20	407.40	4682.20	579.00	407.40	109.30	50.10	31.70	28.00	26.20	Ton/day

WATER YEAR : 2002

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.
Method of sampling	Depth Integrating
Instrument Used	US.DH-59
Period of Available Records	2002-Cont'd
Actual Measurement	2002-Cont'd
Using Rating Curve Water Year	2002
Number of observation	19
R-Square	0.7068
Remarks	Continued Sediment Station

$$QS = 11.9850\ QW^{0.85230}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	163.10	112.20	624.10	472.40	797.40	1383.20	5252.30	1831.00	1470.70	472.40	131.40	131.40		
2	152.70	242.10	661.00	461.50	726.70	1438.60	5118.50	1723.60	1449.30	469.70	115.00	134.10		
3	136.80	301.00	693.50	445.20	683.90	1540.90	4984.10	1781.30	1438.60	469.70	98.90	136.80		
4	112.20	364.70	710.10	431.50	650.80	1661.20	4894.10	1768.80	1431.50	469.70	96.80	142.10		
5	94.70	453.40	723.20	417.80	650.80	1756.40	4758.70	1768.80	1396.20	467.00	94.70	147.40		
6	86.70	494.40	732.70	403.90	683.90	1905.10	4668.00	1768.80	1376.50	467.00	91.80	152.70		
7	78.70	523.80	723.20	390.00	739.20	2046.80	4531.40	1781.30	1366.10	456.10	86.70	157.90		
8	66.00	553.40	710.10	387.20	851.80	2315.40	4319.10	1806.20	1349.00	439.70	78.70	163.10		
9	55.20	583.70	697.00	376.00	892.60	2586.00	4206.10	1831.00	1332.30	420.50	68.30	169.00		
10	45.60	583.70	677.30	361.90	924.50	2797.10	4054.70	1855.70	1315.60	401.10	57.50	174.80		
11	35.70	583.70	650.80	350.50	942.70	3057.10	3940.50	1855.70	1298.40	381.60	48.10	180.50		
12	25.30	594.10	610.70	353.40	964.70	3330.30	3825.70	1892.80	1281.20	361.90	45.60	212.00		
13	16.90	0.00	590.50	356.20	983.30	3532.60	3710.30	1941.90	1250.60	350.50	81.60	239.60		
14	7.80	0.00	583.70	359.10	986.70	3825.70	3599.60	1905.10	1223.20	344.80	112.20	266.70		
15	0.00	0.00	563.30	364.70	992.40	4281.50	3499.00	1905.10	1192.40	336.30	112.20	293.30		
16	0.00	0.00	541.20	387.20	1008.50	4622.50	3398.00	1905.10	1157.30	319.60	115.00	282.80		
17	0.00	0.00	526.40	412.20	1008.50	4894.10	3296.30	1892.80	1126.70	295.70	115.00	269.70		
18	0.00	0.00	517.40	442.50	989.50	5207.80	3125.80	1892.80	1100.70	290.40	117.80	250.50		
19	0.00	0.00	520.60	541.20	964.70	5570.70	2953.60	1880.40	1048.20	288.10	117.80	231.70		
20	0.00	0.00	514.70	590.50	949.00	5797.20	2770.80	1843.40	1005.20	288.10	117.80	212.00		
21	0.00	0.00	503.00	644.10	958.50	5932.30	2639.00	1806.20	961.40	247.50	117.80	195.10		
22	0.00	0.00	485.80	690.40	992.40	5932.30	2506.10	1768.80	918.20	234.10	117.80	200.80		
23	0.00	0.00	475.10	686.90	1054.80	5932.30	2381.70	1723.60	880.50	228.60	117.80	206.40		
24	0.00	0.00	458.80	664.00	1107.20	5887.30	2271.00	1692.50	813.60	206.40	117.80	212.00		
25	0.00	0.00	437.00	610.70	1161.00	5842.30	2159.40	1653.40	729.70	192.00	117.80	223.10		
26	0.00	0.00	445.20	583.70	1223.20	5797.20	2069.40	1614.20	683.90	160.50	120.50	236.60		
27	0.00	0.00	450.70	600.90	1254.30	5842.30	2024.10	1582.70	647.70	144.80	123.20	250.50		
28	0.00	0.00	453.40	617.40	1274.30	5706.80	1954.20	1560.30	604.00	142.10	126.00	263.70		
29	0.00	0.00	458.80	647.70	1308.80	5570.70	1954.20	1536.10	560.20	134.10		277.40		
30	0.00	0.00	467.00	732.70	1332.30	5388.30	1905.10	1502.10	520.60	134.10		290.40		
31		0.00		781.50	1345.90		1868.10		485.80	134.10		301.00		
Total	1077.40	5390.20	17206.30	15564.90	30404.30	121382.00	104638.90	53271.50	33415.30	9748.20	2861.60	6605.10	401565.70	Tonday
Mean	76.96	449.18	573.54	502.09	980.78	4046.07	3375.45	1775.72	1077.91	314.46	102.20	213.07		Ton/day
Max	163.10	594.10	732.70	781.50	1345.90	5932.30	5252.30	1941.90	1470.70	472.40	131.40	301.00	5932.30	Ton/day
Min	0.00	0.00	437.00	350.50	650.80	1383.20	1868.10	1502.10	485.80	134.10	45.60	131.40	0.00	Ton/day

WATER YEAR : 2002

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.
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	1997-2002
Number of observation	166
R-Square	0.9256
Remarks	Continued Sediment Station

$$QS = 4.2029\ QW^{1.20910}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.30	0.30	25.10	2.80	19.10	64.30	91.00	15.90	14.30	7.40	0.80	0.80		
2	0.30	0.30	19.10	2.80	19.10	125.50	71.20	14.30	14.30	7.40	0.30	0.60		
3	0.30	0.30	15.20	3.20	19.10	112.90	64.30	16.70	12.80	7.40	1.20	0.60		
4	0.30	0.30	13.60	2.80	181.10	88.90	59.20	22.10	12.10	6.30	1.60	0.80		
5	0.30	0.30	14.30	4.30	122.80	76.70	52.60	19.10	11.30	6.30	2.10	0.60		
6	0.20	0.30	15.90	4.30	49.30	237.00	49.30	17.50	9.60	6.30	2.10	0.60		
7	0.10	0.20	15.20	4.30	29.30	128.30	47.70	17.50	9.60	6.30	1.70	1.00		
8	0.10	0.20	15.20	3.80	25.10	84.80	38.80	15.20	9.00	6.30	1.70	0.30		
9	0.04	0.20	17.50	3.80	22.10	857.10	31.60	15.20	9.00	6.30	1.70	0.30		
10	0.04	0.20	19.10	3.80	19.10	569.70	28.20	15.20	8.40	5.80	1.60	0.20		
11	0.20	0.20	28.20	5.00	15.20	171.50	26.20	13.60	8.40	5.00	0.80	0.20		
12	0.20	0.20	34.00	4.60	12.80	168.50	21.10	12.10	7.40	4.60	1.30	0.30		
13	0.30	19.10	22.10	4.60	11.30	133.80	18.30	12.10	7.40	3.80	1.30	0.20		
14	0.30	40.10	15.90	4.30	10.70	120.10	19.10	11.30	6.30	3.20	1.30	1.20		
15	0.20	20.10	14.30	3.80	9.60	112.90	16.70	11.30	6.30	3.20	1.60	6.30		
16	0.20	40.10	14.30	3.80	8.40	388.00	16.70	11.30	5.00	3.20	1.60	8.40		
17	0.20	422.30	10.70	3.80	5.80	204.60	16.70	13.60	4.60	4.60	2.50	2.80		
18	0.20	76.70	10.20	3.80	19.10	187.80	16.70	13.60	4.60	4.60	2.00	2.80		
19	0.20	44.50	9.00	3.80	34.00	248.50	15.90	19.10	4.30	0.80	2.10	2.10		
20	0.20	42.90	8.40	4.60	36.40	177.80	15.90	15.20	4.30	0.50	2.10	2.00		
21	0.20	25.10	7.40	6.80	24.10	171.50	15.20	13.60	3.80	0.80	1.00	1.60		
22	0.20	17.50	6.30	41.30	52.60	233.40	15.20	11.30	3.20	0.60	0.30	1.20		
23	0.30	15.20	5.40	32.80	446.10	44.50	15.20	11.30	3.20	0.60	0.30	1.20		
24	0.30	10.70	4.60	18.30	300.00	204.60	103.90	15.20	3.20	0.60	0.20	6.80		
25	0.30	7.40	3.50	5.80	142.20	80.70	37.60	17.50	3.80	0.80	0.20	2.50		
26	0.30	304.70	3.20	7.40	128.30	60.90	40.10	15.20	66.00	0.80	0.30	3.20		
27	0.10	576.90	3.80	8.40	52.60	41.30	36.40	24.10	41.30	0.60	0.30	2.10		
28	0.20	82.80	3.20	8.40	237.00	41.30	35.20	44.50	17.50	0.30	0.60	2.10		
29	0.30	64.30	3.80	9.00	115.10	244.40	29.30	25.10	12.10	0.60		1.70		
30	0.30	44.50	3.20	233.40	99.50	69.40	24.10	18.30	10.20	0.30		3.50		
31		38.80		40.10	95.20		22.10		8.40	0.30		1.70		
Total	6.68	1896.70	381.70	489.70	2362.10	5450.70	1091.50	498.00	341.70	105.60	34.60	59.70	12718.68	Tonday
Mean	0.22	61.18	12.72	15.80	76.20	181.69	35.21	16.60	11.02	3.41	1.24	1.93		Ton/day
Max	0.30	576.90	34.00	233.40	446.10	857.10	103.90	44.50	66.00	7.40	2.50	8.40	857.10	Ton/day
Min	0.04	0.20	3.20	2.80	5.80	41.30	15.20	11.30	3.20	0.30	0.20	0.20	0.04	Ton/day

WATER YEAR : 2002

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.
Method of sampling	Depth Integrating
Instrument Used	US.DH-48
Period of Available Records	1997-Cont'd
Actual Measurement	1997-Cont'd
Using Rating Curve Water Year	1997-2002
Number of observation	105
R-Square	0.7044
Remarks	Continued Sediment Station

$$QS = 3.0417\ QW^{1.08610}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	20.80	2.70	3.90	11.60	4.90	30.90	98.60	74.70	21.80	6.50	21.80	25.20		
2	20.80	2.90	3.70	12.60	5.10	18.20	74.70	171.70	18.20	6.30	21.80	25.20		
3	20.80	3.20	3.70	17.80	5.10	10.00	62.30	369.30	15.60	6.30	21.80	25.20		
4	20.80	3.50	3.70	17.80	7.80	8.90	62.30	304.60	13.70	8.90	21.80	24.70		
5	20.80	3.40	3.90	17.80	5.60	27.10	55.90	184.50	12.20	6.50	21.80	24.70		
6	20.80	3.20	3.90	18.20	5.10	14.10	72.80	111.00	12.20	9.70	21.80	24.70		
7	20.30	3.20	3.70	18.20	5.40	25.20	199.20	70.90	11.90	15.60	21.80	24.70		
8	20.30	2.70	3.90	18.20	5.40	234.60	145.30	50.10	10.80	17.10	22.30	24.70		
9	20.30	2.90	3.90	18.20	5.40	245.10	88.20	36.30	9.70	21.80	22.30	25.20		
10	20.30	3.20	3.90	19.00	5.20	369.30	55.90	28.10	11.10	21.30	22.30	25.20		
11	17.50	3.40	5.10	26.60	5.20	804.60	37.50	23.20	10.00	21.30	24.20	24.70		
12	48.50	5.40	7.00	27.10	5.10	531.30	27.60	19.00	9.40	21.30	24.70	24.70		
13	4.40	3.90	8.00	27.10	5.10	293.90	21.30	16.70	8.60	21.30	25.70	26.60		
14	4.20	3.20	11.10	26.60	5.80	186.30	16.70	14.80	8.00	21.30	25.70	24.70		
15	4.20	5.80	11.30	26.20	5.40	113.90	14.10	13.30	7.30	21.30	25.70	6.70		
16	4.00	5.60	11.30	26.60	5.20	84.30	11.90	12.20	7.00	20.80	25.70	5.90		
17	4.00	6.70	11.30	28.60	5.20	66.10	11.10	12.60	7.00	20.80	25.70	4.60		
18	4.00	6.30	11.30	27.60	5.20	168.10	10.20	17.50	6.70	20.80	25.70	4.40		
19	3.90	35.70	11.30	27.10	5.40	479.50	9.70	16.30	6.50	21.30	25.70	4.20		
20	3.70	7.50	11.30	27.10	6.10	436.20	9.10	16.70	6.50	21.30	25.70	4.20		
21	3.70	4.90	11.30	27.60	9.70	580.00	8.90	13.70	6.30	21.80	25.70	4.20		
22	3.50	4.40	11.10	28.10	6.70	544.20	8.00	12.20	6.30	22.30	25.70	4.20		
23	3.50	4.00	11.10	27.10	8.00	341.20	7.80	10.80	6.10	22.30	25.70	4.20		
24	4.20	3.70	11.10	26.20	5.80	191.80	10.20	10.20	6.50	22.30	25.70	4.20		
25	3.50	3.70	11.30	25.70	5.60	169.90	9.10	9.40	6.70	22.30	25.70	4.20		
26	3.00	3.50	12.20	26.20	5.60	150.00	8.60	23.20	7.00	22.30	25.70	4.70		
27	2.70	3.70	13.70	17.50	6.70	115.40	10.20	49.30	6.50	21.80	25.70	6.50		
28	3.40	3.90	12.60	8.00	5.40	83.00	85.60	46.80	6.30	21.80	25.20	8.00		
29	3.50	4.00	11.90	5.80	6.10	90.80	253.50	38.70	6.30	21.80		8.00		
30	2.70	4.00	11.60	5.10	5.80	116.80	215.80	27.10	6.50	21.80		7.50		
31		3.90		5.10	5.60		122.50		6.50	21.80		7.80		
Total	338.10	158.10	255.10	642.40	179.70	6530.70	1824.60	1804.90	285.20	573.80	679.10	443.70	13715.40	Tonday
Mean	11.27	5.10	8.50	20.72	5.80	217.69	58.86	60.16	9.20	18.51	24.25	14.31		Ton/day
Max	48.50	35.70	13.70	28.60	9.70	804.60	253.50	369.30	21.80	22.30	25.70	26.60	804.60	Ton/day
Min	2.70	2.70	3.70	5.10	4.90	8.90	7.80	9.40	6.10	6.30	21.80	4.20	2.70	Ton/day

WATER YEAR : 2002

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	2001-Cont'd
Actual Measurement	2001-Cont'd
Using Rating Curve Water Year	2001-2002
Number of observation	48
R-Square	0.8699
Remarks	Continued Sediment Station

$$QS = 5.4016\ QW^{1.18560}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.80	1.70	25.10	1.70	7.00	48.40	178.70	30.70	40.10	15.60	4.10	1.90		
2	0.80	1.70	11.20	1.60	5.50	53.30	105.50	29.60	35.30	14.70	4.60	3.20		
3	0.90	1.40	6.00	1.70	9.60	63.40	268.40	44.70	31.90	13.10	4.60	3.70		
4	0.70	1.40	15.60	1.80	62.00	72.30	175.90	127.40	29.60	12.30	4.60	3.20		
5	0.40	1.70	20.70	2.10	259.20	87.90	89.70	57.60	27.80	12.30	4.60	2.20		
6	0.80	1.40	22.40	1.90	53.30	98.50	95.00	40.10	27.80	13.10	4.60	2.10		
7	1.30	1.10	26.00	2.10	22.40	456.20	100.30	35.30	24.20	13.90	4.10	1.90		
8	1.40	1.00	53.30	2.20	11.20	417.10	76.80	31.90	23.30	15.60	4.60	2.10		
9	1.40	0.70	31.90	2.10	10.60	316.70	56.20	29.60	24.20	8.60	4.10	2.20		
10	1.40	0.70	29.60	2.10	8.60	409.50	47.20	29.60	43.60	10.10	4.10	2.40		
11	1.40	0.60	26.00	2.20	20.70	186.80	56.20	29.60	29.60	9.10	3.20	2.20		
12	1.90	0.60	10.10	2.10	9.60	112.80	49.60	26.00	27.80	8.00	3.70	2.10		
13	2.20	1.10	10.10	1.90	4.60	78.30	43.60	23.30	29.60	8.00	3.20	2.20		
14	1.90	0.70	7.50	2.20	5.50	75.30	46.00	15.60	25.10	7.50	2.80	2.10		
15	1.90	0.60	5.50	3.20	5.10	96.70	38.80	24.20	24.20	7.50	2.40	2.80		
16	1.70	1.60	5.50	2.20	5.10	112.80	34.20	20.70	21.50	7.00	2.10	2.20		
17	1.70	1.60	2.80	2.20	4.60	129.70	33.00	18.90	20.70	6.50	2.10	2.80		
18	1.80	2.10	1.90	2.20	5.10	96.70	29.60	226.00	20.70	8.00	2.20	2.20		
19	1.40	3.20	1.80	2.10	53.30	129.70	30.70	70.80	20.70	7.50	2.10	2.10		
20	1.80	2.40	3.20	2.20	16.40	96.70	38.80	35.30	18.10	6.50	1.90	2.10		
21	0.40	2.10	9.60	3.70	129.70	75.30	34.20	29.60	13.10	6.00	1.90	2.10		
22	0.90	1.40	5.50	5.50	280.70	127.40	34.20	24.20	10.60	7.50	2.10	2.20		
23	2.40	1.00	1.60	9.10	150.80	67.80	29.60	25.10	13.90	6.50	1.90	2.20		
24	1.70	1.30	1.60	6.00	72.30	70.80	43.60	22.40	14.70	6.50	2.20	2.20		
25	1.80	1.30	1.40	3.70	52.20	49.60	46.00	24.20	13.90	6.00	1.90	2.10		
26	1.90	6.50	1.60	4.60	38.80	54.70	34.20	28.70	24.20	6.00	2.20	2.10		
27	2.10	47.20	1.30	3.70	31.90	37.70	35.30	35.30	28.70	6.50	2.20	2.10		
28	1.80	25.10	11.20	4.10	56.20	35.30	118.20	158.00	22.40	6.00	2.80	2.20		
29	1.80	21.50	7.00	2.80	175.90	109.10	76.80	86.30	18.90	5.50		3.70		
30	1.70	38.80	1.90	18.10	96.70	129.70	44.70	49.60	17.20	5.50		29.60		
31		29.60		18.10	44.70		35.30		15.60	5.10		20.70		
Total	44.10	203.10	358.90	121.20	1709.30	3896.20	2126.30	1430.30	739.00	272.00	86.90	118.90	11106.20	Tonday
Mean	1.47	6.55	11.96	3.91	55.14	129.87	68.59	47.68	23.84	8.77	3.10	3.84		Ton/day
Max	2.40	47.20	53.30	18.10	280.70	456.20	268.40	226.00	43.60	15.60	4.60	29.60	456.20	Ton/day
Min	0.40	0.60	1.30	1.60	4.60	35.30	29.60	15.60	10.60	5.10	1.90	1.90	0.40	Ton/day

WATER YEAR : 2002

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.
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	2002
Number of observation	30
R-Square	0.8904
Remarks	Continued Sediment Station

$$QS = 5.1821\ QW^{1.44410}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.00	1.50	14.10	4.80	7.20	348.10	105.00	41.70	65.80	1.60	3.40	3.40		
2	1.00	1.50	3.00	3.00	5.60	171.90	138.30	41.70	57.10	1.60	1.60	3.00		
3	1.00	1.50	3.00	3.00	15.30	199.30	78.40	48.90	57.10	2.50	1.60	3.00		
4	0.90	1.50	2.00	4.80	14.10	118.00	171.90	97.10	54.30	3.40	3.40	3.00		
5	0.90	2.00	2.00	6.30	11.60	89.50	143.70	89.50	11.60	14.10	3.40	3.00		
6	0.60	1.70	1.20	7.20	10.70	113.00	277.10	82.00	9.80	10.70	2.50	3.00		
7	0.60	1.50	1.20	8.00	9.80	213.50	366.80	74.80	8.00	10.70	2.50	4.10		
8	0.60	1.50	0.60	8.90	11.60	1907.00	93.30	71.70	8.00	54.30	3.00	4.10		
9	0.60	1.50	0.60	9.80	14.10	1117.90	62.90	71.70	8.00	54.30	3.00	4.80		
10	0.60	1.50	6.30	9.80	14.10	626.80	37.40	62.90	6.30	48.90	3.00	4.80		
11	0.60	1.50	5.60	8.00	18.00	701.00	29.20	68.70	6.30	14.10	3.40	4.80		
12	0.70	1.50	5.60	3.00	18.00	798.40	29.20	68.70	6.30	11.60	3.40	4.80		
13	0.70	1.50	1.60	2.00	14.10	366.80	39.60	62.90	9.80	9.80	3.40	4.80		
14	0.70	1.50	3.00	2.00	12.80	285.60	51.60	78.40	11.60	9.80	3.40	6.30		
15	1.10	1.50	3.00	2.00	11.60	243.70	54.30	46.20	14.10	4.80	3.40	6.30		
16	1.10	1.70	2.50	3.00	68.70	268.50	48.90	57.10	11.60	4.80	4.80	6.30		
17	1.10	1.70	1.60	2.00	51.60	320.60	51.60	143.70	3.00	3.40	3.40	2.50		
18	1.10	1.50	1.20	3.40	54.30	600.20	51.60	206.50	3.00	3.40	3.40	2.50		
19	1.00	1.90	1.20	9.80	105.00	294.10	51.60	97.10	2.50	3.40	3.40	2.50		
20	1.00	2.20	2.00	10.70	82.00	199.30	57.10	93.30	1.60	5.60	4.10	3.40		
21	1.00	2.00	2.50	8.00	93.30	192.50	46.20	35.40	1.60	5.60	4.10	0.10		
22	1.50	1.50	3.00	8.00	385.80	228.20	33.20	48.90	1.20	5.60	4.10	0.20		
23	1.50	1.50	4.10	5.60	123.00	268.50	29.20	65.80	2.50	3.40	3.40	0.70		
24	1.50	1.50	4.10	4.80	127.90	154.40	25.30	165.30	3.40	3.40	3.40	1.00		
25	1.50	2.30	4.80	4.80	78.40	89.50	29.20	171.90	7.20	5.60	3.40	1.10		
26	1.50	2.30	0.00	3.40	23.90	57.10	27.20	165.30	12.80	5.60	3.40	1.20		
27	1.50	2.20	0.00	3.40	22.30	68.70	25.30	51.60	14.10	3.40	4.80	1.20		
28	1.50	2.20	0.00	4.80	18.00	35.40	97.10	39.60	14.10	4.10	5.60	0.80		
29	1.50	1.90	0.00	4.80	1693.50	1934.20	118.00	35.40	14.10	4.80		1.00		
30	1.50	2.80	0.00	0.00	320.60	260.30	82.00	29.20	12.80	6.30		1.00		
31		2.80		0.00	685.20		54.30		12.80	8.00		1.00		
Total	31.40	55.20	79.80	159.10	4122.10	12272.00	2506.50	2413.00	452.40	328.60	95.70	89.70	22605.50	Tonday
Mean	1.05	1.78	3.19	5.49	132.97	409.07	80.85	80.43	14.59	10.60	3.42	2.89		Ton/day
Max	1.50	2.80	14.10	10.70	1693.50	1934.20	366.80	206.50	65.80	54.30	5.60	6.30	1934.20	Ton/day
Min	0.60	1.50	0.00	0.00	5.60	35.40	25.30	29.20	1.20	1.60	1.60	0.10	0.00	Ton/day

WATER YEAR : 2002

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.
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	2000-2002
Number of observation	112
R-Square	0.9116
Remarks	Continued Sediment Station

$$QS = 1.9090\ QW^{1.58030}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	4.80	4.80	3.40	15.20	155.40	349.20	418.70	123.90	34.10	18.10	7.10	3.00		
2	4.30	4.30	1.10	15.20	139.30	552.20	327.60	127.70	32.40	18.10	7.10	2.50		
3	4.80	4.30	0.70	15.20	212.10	522.10	356.80	139.30	32.40	18.10	9.00	2.50		
4	5.30	9.10	0.90	13.60	313.50	512.20	948.10	185.20	30.60	16.90	7.10	2.50		
5	5.30	10.50	0.90	10.50	313.50	798.30	418.70	151.30	30.60	15.60	7.10	2.50		
6	3.80	6.40	1.00	6.40	217.90	459.80	476.70	120.10	30.60	18.10	5.60	2.50		
7	3.80	4.80	1.20	13.60	235.60	1162.60	334.60	120.10	28.90	18.10	5.60	2.50		
8	3.40	6.40	1.10	13.60	279.30	625.50	272.70	120.10	27.30	16.90	5.60	2.50		
9	4.30	10.50	1.10	13.60	201.10	1702.30	260.10	692.00	27.30	16.90	7.10	1.50		
10	4.30	0.10	15.20	15.20	143.30	3887.80	223.70	127.70	25.60	15.60	7.10	2.00		
11	2.60	0.04	9.10	15.20	143.30	1419.60	195.80	46.90	21.00	13.30	7.10	1.10		
12	1.20	0.20	7.70	13.60	120.10	962.60	159.50	44.60	21.00	13.30	6.40	2.00		
13	2.20	2.60	2.20	12.00	120.10	933.70	151.30	44.60	24.10	13.30	5.60	3.00		
14	4.80	1.10	2.20	10.50	135.40	862.90	139.30	44.60	22.50	12.10	8.00	7.10		
15	6.40	60.40	18.70	10.50	127.70	542.10	123.90	44.60	21.00	12.10	7.10	7.10		
16	5.30	67.60	5.30	10.50	112.80	1052.70	120.10	44.60	21.00	12.10	7.10	11.10		
17	5.30	50.10	2.60	12.00	112.80	3277.20	127.70	51.40	21.00	12.10	6.40	7.10		
18	5.30	12.00	2.60	13.60	241.70	2290.30	127.70	56.20	21.00	12.10	5.60	6.40		
19	4.30	7.70	4.30	13.60	206.60	1576.10	120.10	58.90	21.00	11.10	5.60	4.30		
20	4.30	3.00	3.00	13.60	151.30	919.40	120.10	44.60	18.10	11.10	5.60	2.50		
21	4.30	1.20	1.20	109.10	139.30	669.60	120.10	42.50	18.10	11.10	4.90	2.50		
22	3.40	1.00	1.00	552.20	774.10	562.40	120.10	40.30	18.10	11.10	4.30	2.50		
23	4.30	0.70	0.90	379.50	669.60	468.20	151.30	32.40	16.90	10.00	4.30	2.00		
24	71.40	0.20	0.70	164.40	636.40	726.50	131.50	32.40	16.90	10.00	4.30	4.30		
25	6.40	111.30	0.90	147.30	762.10	349.20	120.10	32.40	16.90	10.00	3.60	5.60		
26	5.30	97.00	3.40	102.00	593.40	320.40	139.30	32.40	42.50	10.00	2.50	3.60		
27	4.30	22.50	13.60	85.00	402.90	272.70	247.80	36.10	56.20	10.00	1.50	4.90		
28	4.30	4.80	15.20	85.00	395.00	260.10	169.60	44.60	30.60	9.00	1.50	28.90		
29	4.80	7.70	20.60	143.30	485.20	260.10	151.30	44.60	24.10	9.00		18.10		
30	4.80	26.90	20.60	493.70	738.30	272.70	135.40	36.10	21.00	9.00		11.10		
31		0.00		217.90	459.80		120.10		18.10	8.00		7.10		
Total	199.10	539.24	162.40	2736.60	9738.90	28570.50	7029.80	2762.20	790.90	402.20	159.80	166.30	53257.94	Tonday
Mean	6.64	17.97	5.41	88.28	314.16	952.35	226.77	92.07	25.51	12.97	5.71	5.36		Ton/day
Max	71.40	111.30	20.60	552.20	774.10	3887.80	948.10	692.00	56.20	18.10	9.00	28.90	3887.80	Ton/day
Min	1.20	0.00	0.70	6.40	112.80	260.10	120.10	32.40	16.90	8.00	1.50	1.10	0.00	Ton/day

WATER YEAR : 2002

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	1997-Cont'd
Actual Measurement	1997-Cont'd
Using Rating Curve Water Year	2002
Number of observation	29
R-Square	0.8135
Remarks	Continued Sediment Station

$$QS = 0.4702\ QW^{1.56180}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	5784.90	2676.80	4800.40	2894.00	5869.90	36778.60	34856.60	17958.80	4642.90	347.70	4513.00	3882.00		
2	4669.00	4179.70	4959.90	2340.60	5672.20	36453.60	34327.30	17704.60	4249.50	359.70	4202.90	3995.50		
3	4319.70	5394.20	5067.20	1932.30	4800.40	36024.60	34645.40	15971.80	3836.90	384.80	3225.80	3972.70		
4	5175.40	4296.30	4296.30	2753.00	5366.70	36563.20	35280.50	14373.40	3504.80	371.70	2604.70	3636.30		
5	5257.10	4343.20	3079.00	2392.60	5532.60	39524.20	34645.40	12906.20	3680.50	454.90	2658.70	3792.00		
6	5449.40	3592.30	3183.60	1661.30	4879.90	42558.30	33098.10	11377.20	3950.00	858.10	3268.20	4319.70		
7	5784.90	3141.60	1961.70	1759.40	5257.10	46810.70	31612.50	9753.00	3927.30	756.50	3418.00	4366.80		
8	5926.80	3141.60	1484.50	1717.10	7600.70	52719.60	30190.90	8528.70	2914.40	619.20	2996.30	4366.80		
9	4461.40	3439.60	1661.30	975.70	8596.30	55194.40	29111.20	7961.00	2894.00	1080.80	3332.10	4642.90		
10	4202.90	3439.60	1773.60	747.10	8493.80	56077.50	27815.80	8061.10	2934.80	1773.60	3592.30	4721.40		
11	5813.10	3814.40	1633.60	858.10	8359.40	56373.00	25659.90	7926.90	2640.70	1976.50	2773.00	3658.40		
12	6389.00	3747.30	1264.30	1226.70	7634.30	56373.00	23072.10	6776.10	2427.50	1947.00	2551.10	2375.20		
13	6127.50	3548.40	1703.10	1619.90	6477.10	55488.20	21046.40	5841.50	2392.60	1830.80	3120.70	2170.30		
14	6214.20	2914.40	2136.70	1773.60	5477.10	53879.10	19135.20	6447.70	2020.90	1497.80	3396.50	3268.20		
15	4319.70	2733.00	3246.90	2515.50	4616.80	51569.30	17403.30	6595.20	1524.60	1340.50	3614.30	3836.90		
16	3769.60	4133.40	4564.80	2955.20	5013.50	49296.00	15634.90	6330.60	1379.30	1327.70	3927.30	3882.00		
17	3836.90	4669.00	5013.50	2622.70	5121.20	47360.50	13798.70	5983.90	1392.30	1392.30	4133.40	4041.30		
18	3526.60	4296.30	6214.20	3058.30	4414.00	45343.60	12695.00	6041.20	1177.30	1675.20	4179.70	3332.10		
19	3950.00	4774.00	5926.80	4800.40	3769.60	44308.60	12402.10	6041.20	1128.70	1551.60	3353.50	3162.60		
20	3814.40	5013.50	5560.40	8260.40	3769.60	44566.60	12202.60	6965.70	964.30	1578.80	3504.80	3289.40		
21	3725.00	4064.20	5121.20	9316.00	5700.30	46001.70	12822.10	6870.60	712.00	1703.10	3769.60	3246.90		
22	4064.20	3225.80	4461.40	9826.60	12738.30	45864.30	12528.20	6746.20	497.40	1816.40	3483.00	3526.60		
23	3836.90	2914.40	4156.50	10271.90	19393.20	45343.60	11806.90	6900.70	476.00	2955.20	3353.50	3268.20		
24	2773.00	2813.10	3814.40	9460.90	24591.00	44439.80	10876.70	6359.80	461.90	3396.50	3526.60	3120.70		
25	3099.90	4414.00	3141.60	9789.80	30100.40	43282.30	10234.50	5532.60	408.80	3526.60	3570.30	3353.50		
26	3183.60	4041.30	2695.00	8260.40	34018.50	41599.80	10421.90	4616.80	366.10	3769.60	3396.50	3375.00		
27	3289.40	2676.80	2894.00	5784.90	35280.50	39863.10	10686.40	4249.50	359.70	3526.60	3836.90	3904.60		
28	2480.20	2427.50	4272.80	5013.50	35810.90	38406.20	10384.40	4642.90	347.70	3332.10	4133.40	4249.50		
29	2551.10	3680.50	4156.50	6746.20	36778.60	37206.50	10421.90	4721.40	336.70	2873.70	0.00	4249.50		
30	2695.00	4590.80	3332.10	6808.30	36563.20	36133.80	11610.90	5013.50	330.50	3268.20	0.00	4461.40		
31	0.00	4959.90	0.00	6012.50	36348.30	0.00	15202.00	0.00	336.70	4156.50	0.00	4642.90		
Total	130490.80	117096.90	107577.30	136154.90	424045.40	1361403.70	625629.80	245199.80	58216.80	57449.70	97436.10	116111.30	3476812.50	Tonday
Mean	4349.69	3777.32	3585.91	4392.09	13678.88	45380.12	20181.61	8173.33	1877.96	1853.22	3479.86	3745.53		Ton/day
Max	6389.00	5394.20	6214.20	10271.90	36778.60	56373.00	35280.50	17958.80	4642.90	4156.50	4513.00	4721.40	56373.00	Ton/day
Min	2480.20	2427.50	1264.30	747.10	3769.60	36024.60	10234.50	4249.50	330.50	347.70	2551.10	2170.30	330.50	Ton/day

WATER YEAR : 2002

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	1997-Cont'd
Actual Measurement	1997-Cont'd
Using Rating Curve Water Year	2002
Number of observation	27
R-Square	0.8531
Remarks	Continued Sediment Station

$$QS = 0.4722\ QW^{1.59180}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	5342.10	2437.30	4590.10	3262.00	5758.60	30935.70	42203.50	19181.50	7103.30	476.40	3646.00	4043.50		
2	4631.30	2764.30	4654.20	2959.70	5684.30	31775.30	41083.80	15891.80	6836.60	465.60	3830.00	3810.80		
3	3926.50	3984.90	4610.70	2451.70	5055.10	33221.70	40713.10	16044.20	6443.70	476.40	3521.00	3830.00		
4	4063.10	4332.60	4524.10	2466.20	4720.90	35382.20	40159.40	16248.30	5908.40	520.40	2844.20	3753.50		
5	4458.40	3646.00	3681.70	2732.30	5318.00	39070.60	39608.50	20098.80	5833.30	577.40	2437.30	3365.10		
6	4654.20	3485.90	3209.80	2238.30	5245.80	43166.00	38898.60	18863.90	5958.60	661.90	2657.30	3681.70		
7	4248.00	3025.90	2811.80	1692.80	4764.90	47009.50	38384.40	17489.20	5833.30	906.50	3160.00	3965.40		
8	4288.00	2828.90	1777.10	880.40	5933.50	50226.70	37194.50	16299.50	5366.30	897.70	3092.70	3945.90		
9	4546.80	2909.40	1751.50	1634.90	7211.00	52118.20	36520.80	15423.40	4654.20	769.40	3059.20	4043.50		
10	4785.70	2992.80	1861.30	1125.20	7592.80	54619.20	35694.90	14523.30	4417.80	1270.60	3126.30	4205.90		
11	4986.70	3108.50	1951.80	959.50	7758.60	54367.10	34450.10	14804.60	4122.20	1777.10	3059.20	3887.80		
12	5269.80	3434.50	1751.50	1068.90	7730.90	53613.60	33069.30	13252.00	3887.80	1898.90	2612.80	3108.50		
13	5318.00	3416.10	1836.80	1361.00	6889.60	53113.40	31634.80	12481.60	3681.70	1872.70	2687.20	2210.40		
14	4897.50	2959.70	2394.10	1645.80	6034.30	52366.30	29254.40	11790.10	3296.20	1777.10	3177.90	2308.60		
15	4590.10	2779.50	2909.40	1898.90	5245.80	51634.50	27310.80	12514.80	3025.90	1548.60	3521.00	3193.80		
16	4043.50	3193.80	3984.90	2524.40	4963.20	50928.80	25698.40	15201.80	2553.80	1371.20	3698.50	3504.50		
17	3610.40	4205.90	5150.10	2612.80	5245.80	49993.50	24000.10	14400.90	2365.50	1412.20	4063.10	3627.10		
18	3227.80	4524.10	5758.60	2642.50	5150.10	49296.30	22226.30	14042.80	2127.50	1474.60	4142.00	3556.30		
19	3278.10	4610.70	6110.30	3227.80	4438.10	48602.70	21213.00	13476.20	1898.90	1548.60	3868.50	2992.80		
20	3262.00	4720.90	6009.00	5414.80	4023.90	48372.30	20679.10	12617.70	1681.80	1580.80	5366.30	3059.20		
21	3262.00	4102.50	5512.20	7675.50	4503.70	48142.40	19814.80	10688.20	1422.60	1613.20	3434.50	3059.20		
22	3365.10	3399.80	5197.90	8349.50	8150.80	47912.80	19321.60	10069.80	1201.90	1669.20	3434.50	3108.50		
23	3453.00	3075.00	4438.10	8694.40	13438.70	47683.60	18678.90	9627.10	968.40	1885.80	3278.10	3296.20		
24	3142.10	2828.90	4004.40	8723.40	17545.50	47226.60	17885.00	9015.00	808.60	2764.30	3330.60	3126.30		
25	2657.30	2975.20	3575.00	8550.10	22390.70	46792.80	17376.70	8406.70	724.10	2975.20	3556.30	3177.90		
26	2811.80	4043.50	3142.10	7869.90	26701.90	46576.40	16044.20	7981.80	622.40	3142.10	3469.50	3262.00		
27	2861.40	3278.10	2992.80	6731.00	28431.40	46360.50	16095.20	7647.90	565.80	3312.40	3849.30	3296.20		
28	2811.80	2732.30	3330.60	5269.80	29254.40	45500.30	17489.20	7346.50	542.90	3075.00	4164.00	3591.60		
29	2351.20	2894.00	4122.20	5610.30	30104.50	44433.60	16929.40	7401.00	520.40	2909.40		3907.20		
30	2437.30	3868.50	3753.50	6314.70	30519.00	43166.00	16711.00	7373.70	503.20	2642.50		4082.80		
31		4395.30		6009.00	30242.40		18127.90		493.20	3059.20		4267.90		
Total	116581.00	106954.80	111397.60	124597.50	356048.20	1393608.60	854471.70	390204.10	95370.30	52332.40	96087.30	108270.10	3805923.60	Tonday
Mean	3886.03	3450.15	3713.25	4019.27	11485.43	46453.62	27563.60	13006.80	3076.46	1688.14	3431.69	3492.58		Ton/day
Max	5342.10	4720.90	6110.30	8723.40	30519.00	54619.20	42203.50	20098.80	7103.30	3312.40	5366.30	4267.90	54619.20	Ton/day
Min	2351.20	2437.30	1751.50	880.40	4023.90	30935.70	16044.20	7346.50	493.20	465.60	2437.30	2210.40	465.60	Ton/day

WATER YEAR : 2002

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.
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	1994-2002
Number of observation	249
R-Square	0.8813
Remarks	Continued Sediment Station

$$QS = 0.8867\ QW^{1.44340}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	87.10	97.80	3481.60	2202.50	28098.30	18285.50	7960.40	2374.00	1226.70	763.50	319.00	162.70		
2	97.80	76.80	2202.50	2035.00	18393.80	17961.50	8276.80	2245.00	1156.50	733.10	295.90	150.10		
3	87.10	76.80	1634.60	2287.80	20602.10	24883.60	8511.20	2461.30	1087.60	703.10	295.90	137.90		
4	87.10	97.80	1370.90	2035.00	21166.10	22654.00	8340.50	2593.90	1020.00	703.10	273.30	137.90		
5	87.10	103.20	1370.90	1751.80	25901.60	19488.40	7960.40	2461.30	953.80	644.20	273.30	137.90		
6	76.80	150.10	1444.70	1712.50	23263.60	18502.40	8596.90	2076.50	921.20	615.30	258.50	126.00		
7	71.80	126.00	1596.00	1673.40	23497.20	26810.20	7318.60	1831.40	888.90	703.10	258.50	126.00		
8	57.50	114.40	2202.50	1712.50	20602.10	39485.30	5422.20	1712.50	857.00	703.10	258.50	126.00		
9	62.20	114.40	4800.20	2245.00	18611.20	52888.20	4340.50	1634.60	825.50	644.20	258.50	114.40		
10	57.50	162.70	3728.20	2118.20	15127.80	61178.00	3778.10	1557.80	794.30	586.90	258.50	114.40		
11	52.90	162.70	11451.30	2118.20	11639.30	46342.50	3416.80	1557.80	763.50	531.20	236.90	114.40		
12	52.90	358.80	33366.40	2076.50	10846.70	28500.70	3192.70	1444.70	794.30	504.10	236.90	126.00		
13	57.50	703.10	20266.00	2287.80	9248.30	22769.70	3035.60	1370.90	763.50	477.30	222.70	137.90		
14	71.80	763.50	12065.80	2076.50	9735.20	19158.00	2835.00	1334.40	794.30	477.30	258.50	236.90		
15	150.10	1334.40	33236.20	1952.80	15332.60	17425.60	2638.60	1334.40	733.10	451.10	319.00	857.00		
16	162.70	1191.50	22078.00	2593.90	17319.00	28098.30	2505.30	1298.20	733.10	425.30	319.00	673.40		
17	114.40	20377.80	10502.50	3035.60	17961.50	36872.20	2417.50	1226.70	673.40	425.30	295.90	504.10		
18	87.10	35205.10	7876.60	3962.90	28376.70	45588.00	2549.50	1226.70	644.20	408.30	236.90	319.00		
19	76.80	14822.30	10594.00	3546.90	33790.50	28780.40	2683.50	4081.90	615.30	408.30	222.70	236.90		
20	62.20	9402.40	6358.40	3035.60	33366.40	22307.90	2461.30	2330.80	586.90	383.30	208.90	195.30		
21	57.50	6713.60	4675.00	10846.70	21506.70	17425.60	2202.50	1712.50	586.90	383.30	195.30	162.70		
22	52.90	3192.70	3546.90	46992.30	20602.10	15538.10	2160.20	1482.10	558.80	358.80	195.30	150.10		
23	52.90	1952.80	2835.00	59965.70	24883.60	12256.80	2245.00	1370.90	558.80	358.80	182.00	195.30		
24	71.80	1407.60	2374.00	37309.50	26932.10	10939.10	2880.90	1298.20	531.20	358.80	182.00	425.30		
25	97.80	2789.30	2160.20	18829.30	26294.20	10662.70	2683.50	1226.70	531.20	342.70	162.70	531.20		
26	126.00	4081.90	2035.00	12738.50	20939.90	9248.30	2287.80	1191.50	733.10	342.70	150.10	358.80		
27	103.20	8661.40	1791.50	9490.80	15538.10	8023.30	2287.80	1191.50	2638.60	342.70	150.10	208.90		
28	97.80	6436.80	2461.30	7876.60	14720.90	7034.30	2593.90	1262.30	2549.50	319.00	162.70	182.00		
29	137.90	4081.90	3240.30	9490.80	22885.60	7793.20	3481.60	1712.50	1262.30	319.00		150.10		
30	114.40	3778.10	2374.00	20377.80	35902.40	8276.80	5273.70	1407.60	986.70	319.00		195.30		
31		4480.40		34216.30	24883.60		3192.70		857.00	319.00		195.30		
Total	2572.60	133018.10	219120.50	314594.70	657969.20	705178.60	129531.00	52010.60	28627.20	15054.90	6687.50	7489.20	2271854.10	Tonday
Mean	85.75	4290.91	7304.02	10148.22	21224.81	23505.95	4178.42	1733.69	923.46	485.64	238.84	241.59		Ton/day
Max	162.70	35205.10	33366.40	59965.70	35902.40	61178.00	8596.90	4081.90	2638.60	763.50	319.00	857.00	61178.00	Ton/day
Min	52.90	76.80	1370.90	1673.40	9248.30	7034.30	2160.20	1191.50	531.20	319.00	150.10	114.40	52.90	Ton/day

WATER YEAR : 2002

NAN RIVER BASIN

Khwae Noi River at Ban Yang, Phitsanulok (N.22)

Lat 17 - 01 - 56 N Long 100 - 22 - 20 E

Location : on left bank about 1 kilometer downstream from District Forestry Office.

Ban Yang **Amphoe** Wat Bot **Changwat** Phitsanulok

Drainge Area	4,764 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1963 - 1971,1997 - Cont'd
Actual Measurement	1963 - 1971,1997 - Cont'd
Using Rating Curve Water Year	1996-2002
Number of observation	127
R-Square	0.8379
Remarks	Continued Sediment Station

$$QS = 2.2045\ QW^{1.44850}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	5.60	54.90	622.50	441.30	652.00	19958.70	5069.30	3435.40	288.00	119.00	52.30	42.40		
2	5.20	67.40	674.40	346.00	474.60	18679.40	5640.10	2322.30	276.50	119.00	50.60	40.80		
3	4.80	80.60	346.00	213.50	712.30	19819.50	6729.00	1912.90	276.50	115.70	49.80	38.50		
4	5.60	96.70	129.00	182.60	845.90	19276.00	6473.90	1409.50	266.60	119.00	48.10	36.90		
5	7.40	119.00	76.80	153.30	929.70	19143.50	5640.10	1146.40	339.90	122.30	45.60	36.90		
6	6.00	80.60	54.90	129.00	1281.60	21483.10	5291.80	986.30	395.90	125.70	42.40	33.90		
7	5.60	80.60	69.20	167.80	1941.50	26025.00	4898.30	886.50	447.90	129.00	40.80	31.70		
8	5.20	80.60	149.80	175.10	2385.90	32136.40	4681.10	813.80	428.20	135.80	39.20	29.50		
9	4.80	73.00	132.40	213.50	2175.00	36363.20	4302.70	797.90	383.20	132.40	38.50	31.00		
10	4.80	60.10	78.70	238.90	2070.50	37622.60	3336.30	743.10	358.30	129.00	38.50	31.00		
11	4.00	82.60	63.70	461.20	1954.60	34524.70	2848.80	704.70	323.30	129.00	36.90	31.70		
12	4.00	160.50	93.60	689.50	1504.90	29317.40	2308.50	659.50	288.00	129.00	36.90	31.70		
13	2.90	171.40	213.50	958.90	902.90	24302.40	2012.30	845.90	266.60	125.70	39.20	33.20		
14	3.20	266.60	929.70	948.40	1063.20	20378.40	1744.10	637.20	248.50	82.60	43.20	33.90		
15	5.20	474.60	1005.30	837.80	1659.00	16970.90	1397.80	607.90	229.40	78.70	47.30	53.20		
16	6.90	536.50	1409.50	652.00	1825.30	13420.70	1281.60	571.80	221.40	76.80	119.00	74.90		
17	6.00	467.90	2113.20	593.40	1769.40	10394.00	1270.20	529.50	209.50	74.90	194.00	74.90		
18	7.40	488.20	1541.20	1592.40	1631.80	8787.70	1316.10	1168.60	186.40	74.90	99.80	74.90		
19	6.90	428.20	902.90	2248.30	1063.20	7205.10	1631.80	911.10	175.10	73.00	82.60	65.50		
20	7.40	178.90	586.20	2352.70	4209.60	9088.80	1604.70	829.80	171.40	71.10	71.10	54.90		
21	9.30	106.10	622.50	2665.80	12622.00	10149.50	1468.90	758.60	167.80	69.20	54.90	47.30		
22	7.80	56.60	1074.10	2729.30	14495.90	10324.00	1304.60	674.40	164.10	67.40	48.10	40.80		
23	9.80	48.10	878.30	2352.70	15690.90	8721.30	1304.60	600.60	164.10	67.40	45.60	36.90		
24	29.50	45.60	797.90	1565.50	19074.70	6786.50	1433.20	515.60	156.90	65.50	45.60	47.30		
25	54.90	43.20	501.80	829.80	23148.30	6106.40	1688.90	461.20	146.20	63.70	45.60	84.60		
26	54.90	44.80	364.50	644.60	28955.60	5585.80	2054.60	402.30	139.30	61.90	44.80	84.60		
27	33.20	112.50	501.80	967.30	35008.60	5069.30	1504.90	370.70	135.80	60.10	44.80	73.00		
28	36.90	221.40	515.60	1082.80	37936.20	4514.30	1577.70	346.00	129.00	61.90	43.20	84.60		
29	36.20	252.60	421.70	1190.90	34283.50	4633.30	3026.60	323.30	129.00	63.70		106.10		
30	43.20	282.30	329.30	1074.10	31900.50	4514.30	5242.10	308.40	125.70	56.60		115.70		
31		302.60		870.10	23463.40		4002.50		125.70	53.20		122.30		
Total	424.60	5564.70	17200.00	29568.50	307632.50	491302.20	94087.10	26681.20	7364.20	2853.20	1588.40	1724.60	985991.20	Tonday
Mean	14.15	179.51	573.33	953.82	9923.63	16376.74	3035.07	889.37	237.55	92.04	56.73	55.63		Ton/day
Max	54.90	536.50	2113.20	2729.30	37936.20	37622.60	6729.00	3435.40	447.90	135.80	194.00	122.30	37936.20	Ton/day
Min	2.90	43.20	54.90	129.00	474.60	4514.30	1270.20	308.40	125.70	53.20	36.90	29.50	2.90	Ton/day

WATER YEAR : 2002

NAN RIVER BASIN

Khek River at Ban Wang Nok Aen , Phitsanulok (N.24)

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	1996-2002
Number of observation	96
R-Square	0.8385
Remarks	Continued Sediment Station

$$QS = 2.1406\ QW^{1.60800}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	9.00	39.20	193.30	237.50	165.70	9846.90	3633.80	1099.50	142.30	65.60	34.20	27.60		
2	27.60	39.20	108.70	225.40	132.40	25663.80	2971.40	813.10	142.30	64.30	34.20	27.60		
3	14.60	37.20	74.60	196.10	966.10	48798.30	3582.40	699.20	139.80	64.30	34.20	27.60		
4	11.50	34.20	63.10	144.90	1210.90	79330.80	3463.50	580.50	142.30	65.60	32.20	27.60		
5	8.50	32.20	52.30	277.50	609.40	123248.40	2613.70	491.60	155.20	65.60	31.30	26.70		
6	7.60	16.80	48.90	210.50	742.70	53515.50	3035.30	433.80	184.80	64.30	29.40	26.70		
7	6.80	14.60	55.80	134.80	3824.70	26806.90	8446.70	393.50	168.40	64.30	28.50	25.80		
8	6.30	13.90	38.20	129.10	3164.80	17826.90	4757.10	345.30	152.60	64.30	27.60	24.90		
9	5.80	13.20	40.20	193.30	2228.20	11578.90	2538.20	369.10	142.30	64.30	26.70	28.50		
10	5.30	12.50	85.40	228.40	1600.30	15090.30	2216.30	286.20	130.70	63.10	25.80	24.00		
11	5.00	19.10	168.40	234.40	793.70	13754.40	1455.80	264.60	127.50	58.20	24.90	23.20		
12	4.80	88.20	286.20	219.40	1425.50	10894.20	1258.50	247.80	125.90	55.80	23.20	22.30		
13	4.80	79.90	2720.70	190.40	8490.00	8145.30	1099.50	252.00	124.30	53.50	23.20	21.50		
14	6.30	63.10	7848.10	228.40	8231.00	5291.20	940.20	256.10	122.70	51.20	163.00	20.70		
15	6.00	39.20	3754.90	201.80	3737.50	4656.00	826.10	303.90	117.90	50.00	147.40	38.20		
16	5.50	66.80	3067.50	176.50	3003.30	3633.80	774.40	268.90	114.80	47.80	63.10	33.20		
17	4.60	107.20	1375.60	1915.70	1882.10	4456.30	983.50	231.40	108.70	46.70	52.30	31.30		
18	3.90	190.40	609.40	1870.90	1717.40	7225.50	1117.80	216.40	105.70	45.60	44.50	29.40		
19	3.90	187.60	331.30	885.80	865.70	8624.70	1435.60	213.50	102.70	44.50	39.20	26.70		
20	3.90	157.80	906.10	662.70	24005.20	11636.60	1090.40	201.80	98.20	42.40	31.30	24.00		
21	3.90	98.20	326.70	364.30	45298.70	18004.90	1099.50	193.30	95.30	41.30	28.50	22.30		
22	3.90	95.30	699.20	237.50	30616.70	12388.30	872.40	168.40	93.90	41.30	31.30	20.70		
23	6.00	84.00	281.80	199.00	28885.20	7764.00	1306.80	160.40	92.50	40.20	30.30	20.70		
24	6.50	61.90	247.80	199.00	22542.90	4757.10	1316.60	157.80	89.60	39.20	29.40	86.80		
25	6.00	39.20	256.10	231.40	18814.30	3548.30	859.10	155.20	85.40	38.20	28.50	68.10		
26	6.80	35.20	308.40	184.80	11291.70	3514.30	787.20	152.60	84.00	38.20	27.60	52.30		
27	6.80	364.30	1859.80	171.10	11120.70	2987.30	662.70	150.00	79.90	38.20	26.70	50.00		
28	6.80	335.90	693.10	277.50	13162.30	2907.90	2204.50	147.40	75.90	38.20	27.60	59.40		
29	6.30	480.90	497.00	470.30	14020.70	3379.50	1674.50	147.40	72.00	36.20		72.00		
30	9.60	150.00	345.30	247.80	11819.50	3582.40	1336.20	144.90	68.10	35.20		43.40		
31		449.30		219.40	9647.20		1001.00		66.80	34.20		89.60		
Total	214.30	3446.50	27343.90	11365.60	286016.50	552858.70	61360.70	9545.60	3552.50	1561.80	1146.10	1122.80	959535.00	Tonday
Mean	7.14	111.18	911.46	366.63	9226.34	18428.62	1979.38	318.19	114.60	50.38	40.93	36.22		Ton/day
Max	27.60	480.90	7848.10	1915.70	45298.70	123248.40	8446.70	1099.50	184.80	65.60	163.00	89.60	123248.40	Ton/day
Min	3.90	12.50	38.20	129.10	132.40	2907.90	662.70	144.90	66.80	34.20	23.20	20.70	3.90	Ton/day

WATER YEAR : 2002

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	2000-2002
Number of observation	64
R-Square	0.8258
Remarks	Continued Sediment Station

$$QS = 3.8940\ QW^{1.44820}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	27.90	87.80	528.70	170.60	337.90	4033.20	2688.70	767.10	59.90	31.10	18.20	19.10		
2	29.00	50.90	82.00	130.50	258.10	4696.90	2403.60	621.30	79.10	31.10	18.20	17.30		
3	27.90	44.80	40.10	99.90	463.00	8952.30	2646.20	605.10	62.50	30.00	17.30	16.40		
4	26.90	32.20	26.90	77.70	621.30	8952.30	2081.20	581.10	62.50	30.00	17.30	14.70		
5	24.90	35.50	43.60	202.30	510.80	17339.70	1651.20	458.10	122.20	29.00	16.40	14.70		
6	24.90	29.00	58.60	158.00	1506.50	30038.50	1386.80	233.70	96.90	29.00	16.40	13.00		
7	24.90	24.90	57.30	114.10	2667.40	15709.10	1940.90	212.00	80.50	29.00	16.40	13.00		
8	24.90	21.90	46.00	120.50	2753.00	10834.10	1499.40	196.60	59.90	29.00	16.40	13.00		
9	24.90	19.10	40.10	324.50	2061.50	7064.80	1015.20	187.20	54.70	27.90	15.50	12.20		
10	23.90	70.70	42.40	455.60	1621.90	6570.00	802.00	170.60	57.30	26.90	15.50	13.00		
11	23.90	38.90	260.20	1008.90	915.80	8589.50	676.20	158.00	57.30	25.90	15.50	13.80		
12	24.90	30.00	154.50	1008.90	732.60	6694.10	605.10	154.50	50.90	24.90	15.50	18.20		
13	25.90	34.40	1111.20	837.40	1871.90	5630.60	583.70	149.20	48.40	24.90	16.40	29.00		
14	24.90	26.90	2362.60	665.10	3255.90	4361.10	581.10	145.80	44.80	23.90	36.60	33.30		
15	24.90	304.70	2200.40	433.60	2765.90	3255.90	575.80	140.60	43.60	23.90	196.60	35.50		
16	25.90	693.00	1203.20	715.50	1725.00	2582.80	567.80	130.50	42.40	23.90	44.80	32.20		
17	26.90	369.70	778.60	2436.70	1034.20	2753.00	557.30	128.80	42.40	23.90	27.90	29.00		
18	26.90	114.10	546.90	3642.80	738.30	3365.10	744.00	135.50	40.10	22.90	21.90	26.90		
19	24.90	48.40	365.10	4267.30	1492.30	3365.10	772.80	118.90	38.90	21.90	20.00	24.90		
20	26.90	34.40	296.10	2882.80	5857.20	3152.30	594.40	107.70	37.80	21.90	19.10	24.90		
21	29.00	30.00	891.50	1680.60	33025.90	3076.50	637.60	95.30	36.60	21.90	19.10	26.90		
22	26.90	23.90	1163.50	1021.50	39432.40	3699.10	885.40	90.80	35.50	21.90	19.10	33.30		
23	24.90	21.90	433.60	613.20	41644.50	3255.90	613.20	82.00	34.40	21.90	20.00	34.40		
24	24.90	19.10	200.40	438.50	25259.60	2436.70	761.30	77.70	33.30	21.00	19.10	36.60		
25	27.90	20.00	372.00	552.10	13647.20	1887.10	715.50	74.90	33.30	21.00	19.10	47.20		
26	36.60	24.90	428.80	693.00	8952.30	1673.20	613.20	70.70	32.20	20.00	18.20	41.20		
27	30.00	179.80	443.40	1066.10	6213.20	1717.60	599.70	70.70	32.20	20.00	17.30	32.20		
28	26.90	424.00	291.80	903.60	4839.40	1766.10	1008.90	69.30	32.20	20.00	18.20	30.00		
29	31.10	262.20	397.80	873.30	6213.20	2120.70	749.80	65.20	32.20	19.10		44.80		
30	40.10	515.90	296.10	687.40	6694.10	3337.70	767.10	62.50	31.10	19.10		48.40		
31		1209.80		463.00	5401.60		640.40		31.10	18.20		34.40		
Total	814.40	4842.80	15163.40	28745.00	224513.90	182911.00	32365.50	6161.40	1546.20	755.10	732.00	823.50	499374.20	Tonday
Mean	27.15	156.22	505.45	927.26	7242.38	6097.03	1044.05	205.38	49.88	24.36	26.14	26.56		Ton/day
Max	40.10	1209.80	2362.60	4267.30	41644.50	30038.50	2688.70	767.10	122.20	31.10	196.60	48.40	41644.50	Ton/day
Min	23.90	19.10	26.90	77.70	258.10	1673.20	557.30	62.50	31.10	18.20	15.50	12.20	12.20	Ton/day

WATER YEAR : 2002

NAN RIVER BASIN

Nam Wa at Ban Hat Khao San, Nan (N.42)

Lat 18 - 34 - 05 N Long 100 - 52 - 28 E

Location : on right bank at Ban Hat Khao San, Tambon Lai Nan.

Ban Hat Khao San **Amphoe** Wiang Sa **Changwat** Nan

Drainge Area	2,099 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	2002
Number of observation	30
R-Square	0.8947
Remarks	Continued Sediment Station

$$QS = 0.2346\ QW^{1.87300}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	28.00	23.10	282.10	305.90	3570.50	2727.60	1533.50	411.10	133.50	73.60	36.00	23.10		
2	25.50	17.10	196.90	252.00	4707.60	4087.40	1723.30	365.20	123.20	69.70	36.00	21.00		
3	23.10	17.10	160.90	259.30	5218.20	3601.90	1964.60	374.20	118.20	69.70	36.00	21.00		
4	21.00	45.00	149.70	237.60	6230.90	3387.00	1515.10	365.20	113.30	69.70	33.20	21.00		
5	19.00	36.00	184.50	230.60	5910.40	3358.40	1319.40	330.60	108.50	65.80	33.20	19.00		
6	17.10	45.00	172.50	237.60	7868.90	3728.50	2242.60	297.80	103.80	65.80	33.20	19.00		
7	17.10	25.50	223.60	237.60	7602.60	7228.70	1218.00	259.30	99.20	65.80	33.20	19.00		
8	17.10	21.00	305.90	305.90	5989.80	6684.50	954.40	252.00	99.20	69.70	30.60	19.00		
9	17.10	51.60	1251.40	374.20	4255.60	10586.50	803.90	237.60	99.20	65.80	30.60	19.00		
10	17.10	36.00	752.40	314.00	3002.80	10450.60	714.80	230.60	94.70	62.10	30.60	19.00		
11	15.20	55.00	16509.80	289.90	2422.10	6271.50	654.10	216.80	94.70	62.10	30.60	19.00		
12	15.20	123.20	7868.90	449.60	2309.10	5033.00	596.90	203.40	94.70	58.50	30.60	19.00		
13	15.20	184.50	4323.80	449.60	2220.60	5255.60	552.80	196.90	94.70	55.00	28.00	19.00		
14	19.00	103.80	9417.60	347.60	2703.50	4087.40	499.90	184.50	90.30	55.00	38.90	73.60		
15	23.10	196.90	5368.50	365.20	4531.30	4221.70	469.40	178.50	90.30	51.60	33.20	85.90		
16	21.00	90.30	2703.50	479.50	3922.40	11138.30	449.60	178.50	85.90	51.60	30.60	62.10		
17	17.10	5675.20	1570.60	585.70	5106.70	22897.70	439.80	172.50	81.70	48.30	30.60	33.20		
18	15.20	2491.10	2264.70	765.10	16718.00	10654.80	531.30	184.50	81.70	48.30	28.00	25.50		
19	13.50	925.80	1268.30	596.90	16026.10	7275.00	563.70	297.80	77.60	48.30	28.00	21.00		
20	13.50	1185.10	843.60	608.10	8992.00	6029.70	411.10	190.70	77.60	48.30	25.50	19.00		
21	13.50	520.80	642.50	5870.90	5406.40	4255.60	365.20	166.70	73.60	48.30	25.50	19.00		
22	13.50	244.70	520.80	27954.90	5293.10	3696.70	411.10	160.90	73.60	45.00	25.50	19.00		
23	25.50	155.20	411.10	11138.30	4021.00	2751.80	449.60	155.20	69.70	45.00	23.10	62.10		
24	25.50	118.20	330.60	5559.30	3922.40	2703.50	619.50	144.20	69.70	45.00	23.10	160.90		
25	25.50	765.10	347.60	3539.30	6069.70	2198.70	459.40	144.20	69.70	41.90	21.00	69.70		
26	19.00	619.50	266.70	2399.30	3301.60	1923.40	365.20	144.20	85.90	41.90	23.10	33.20		
27	28.00	843.60	244.70	1742.80	2631.80	1862.30	401.70	144.20	552.80	41.90	23.10	23.10		
28	21.00	884.10	469.40	1336.70	3002.80	1515.10	392.40	155.20	113.30	38.90	23.10	21.00		
29	28.00	619.50	289.90	3696.70	6517.80	2112.10	727.20	172.50	85.90	38.90		21.00		
30	38.90	714.80	244.70	6353.10	5444.40	1608.20	857.00	144.20	81.70	36.00		23.10		
31		563.70		6029.70	3330.00		459.40		77.60	36.00		28.00		
Total	608.50	17397.50	59587.20	83312.90	168250.10	163333.20	24665.90	6659.20	3315.50	1663.50	824.10	1057.50	530675.10	Tonday
Mean	20.28	561.21	1986.24	2687.51	5427.42	5444.44	795.67	221.97	106.95	53.66	29.43	34.11		Ton/day
Max	38.90	5675.20	16509.80	27954.90	16718.00	22897.70	2242.60	411.10	552.80	73.60	38.90	160.90	27954.90	Ton/day
Min	13.50	17.10	149.70	230.60	2220.60	1515.10	365.20	144.20	69.70	36.00	21.00	19.00	13.50	Ton/day

WATER YEAR : 2002

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.
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	2000-2002
Number of observation	105
R-Square	0.7433
Remarks	Continued Sediment Station

$$QS = 5.4220\ QW^{0.92100}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	5.50	3.00	22.30	35.30	145.90	80.10	36.80	24.50	13.30	9.30	6.90	6.20		
2	5.50	2.90	16.70	35.30	116.60	92.80	38.30	24.50	13.30	9.30	6.90	6.20		
3	5.40	2.90	14.70	33.80	107.90	82.20	44.50	23.40	13.30	9.10	6.90	6.20		
4	5.40	23.40	13.30	32.30	220.20	78.10	42.70	22.30	13.30	9.10	6.70	6.20		
5	5.40	21.20	13.30	30.80	266.90	68.10	42.70	21.20	13.30	9.10	6.70	6.20		
6	5.40	19.00	14.70	36.80	199.80	60.00	38.30	21.20	23.40	9.60	6.70	6.20		
7	5.40	15.40	14.00	32.30	188.70	101.20	36.80	21.20	23.40	9.10	6.40	6.20		
8	5.20	16.70	32.30	41.20	156.40	112.30	33.80	21.20	21.20	8.80	6.40	6.20		
9	5.20	16.70	27.80	38.30	127.80	252.30	32.30	21.20	21.20	8.80	6.40	6.20		
10	5.20	16.70	123.20	35.30	110.10	188.70	32.30	21.20	20.10	8.80	6.40	6.20		
11	5.20	20.10	240.60	35.30	97.00	127.80	32.30	20.10	20.10	8.60	6.40	6.20		
12	5.20	21.20	191.50	35.30	80.10	101.20	30.80	19.00	20.10	8.40	6.40	6.20		
13	5.20	24.50	180.40	35.30	76.10	86.50	27.80	19.00	16.70	8.40	6.40	6.20		
14	5.10	32.30	528.10	35.30	70.10	76.10	27.80	17.90	16.70	8.10	6.40	8.80		
15	4.90	23.40	161.70	36.80	134.60	478.50	26.70	17.90	12.60	8.10	6.40	9.30		
16	4.90	80.10	101.20	38.30	139.10	264.00	26.70	16.70	16.10	8.10	6.40	7.10		
17	4.90	78.10	74.10	56.60	132.30	186.00	25.60	17.90	15.40	7.90	6.40	6.20		
18	4.90	123.20	107.90	46.20	159.10	141.40	25.60	19.00	15.40	7.90	6.40	5.90		
19	4.90	49.70	70.10	41.20	130.00	114.50	25.60	16.70	14.70	7.90	6.40	5.90		
20	4.90	46.20	56.60	56.60	112.30	94.90	24.50	16.10	14.70	7.90	6.40	5.90		
21	4.90	30.80	53.10	370.20	107.90	82.20	23.40	16.10	14.70	7.90	6.20	5.70		
22	4.90	23.40	46.20	418.30	97.00	70.10	23.40	15.40	14.00	7.60	6.20	5.70		
23	4.90	17.90	38.30	220.20	84.30	64.10	23.40	15.40	14.00	7.60	6.20	5.70		
24	4.90	33.80	36.80	145.90	74.10	56.60	30.80	15.40	14.00	7.60	6.20	7.40		
25	4.90	32.30	36.80	110.10	64.10	53.10	27.80	15.40	14.00	7.40	6.20	6.90		
26	4.90	46.20	47.90	82.20	64.10	49.70	25.60	15.40	14.00	7.40	6.20	6.20		
27	4.70	44.50	35.30	70.10	64.10	46.20	25.60	16.10	16.70	7.10	6.20	5.90		
28	4.40	36.80	35.30	60.00	70.10	42.70	25.60	17.90	15.40	7.10	6.20	5.90		
29	4.40	32.30	35.30	134.60	318.80	42.70	33.80	15.40	13.30	7.10		5.90		
30	3.60	25.60	35.30	414.20	130.00	42.70	26.70	14.70	9.80	7.10		5.90		
31		30.80		177.70	103.40		24.50		9.60	7.10		5.90		
Total	150.20	991.10	2404.80	2971.80	3948.90	3336.80	942.50	559.40	487.80	253.30	180.00	196.80	16423.40	Tonday
Mean	5.01	31.97	80.16	95.86	127.38	111.23	30.40	18.65	15.74	8.17	6.43	6.35		Ton/day
Max	5.50	123.20	528.10	418.30	318.80	478.50	44.50	24.50	23.40	9.60	6.90	9.30	528.10	Ton/day
Min	3.60	2.90	13.30	30.80	64.10	42.70	23.40	14.70	9.60	7.10	6.20	5.70	2.90	Ton/day

WATER YEAR : 2002

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	1983 - Cont'd,1994 - Cont'd
Actual Measurement	1983 - Cont'd,1994 - Cont'd
Using Rating Curve Water Year	1997-2002
Number of observation	69
R-Square	0.7324
Remarks	Continued Sediment Station

$$QS = 6.4345\ QW^{1.33700}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	12.50	43.30	139.80	47.60	71.60	2940.40	1457.80	798.10	123.80	52.30	25.40	15.70		
2	12.50	40.40	130.50	37.40	64.10	2492.40	1340.90	684.30	121.40	50.70	25.40	16.80		
3	12.50	22.80	46.10	30.60	489.20	2453.90	1542.80	567.10	119.30	50.70	25.40	15.70		
4	11.40	13.50	32.00	28.00	213.00	2492.40	1365.80	489.20	142.20	50.70	24.20	15.70		
5	11.40	14.60	60.40	24.20	216.10	4282.70	1154.40	401.70	126.00	50.70	22.80	15.70		
6	11.40	19.30	55.20	47.60	480.50	5102.70	1069.30	360.30	121.40	50.70	21.70	14.60		
7	11.40	43.30	75.40	36.10	314.80	5741.70	1517.20	342.60	110.40	50.70	21.70	14.60		
8	11.40	15.70	60.40	50.70	216.10	5608.60	982.80	321.70	99.40	50.70	21.70	13.50		
9	11.40	3.90	55.20	36.10	166.20	5010.30	833.10	297.70	91.10	49.10	21.70	13.50		
10	10.40	5.20	50.70	44.70	132.90	4486.80	746.30	274.20	91.10	47.60	21.70	13.50		
11	9.30	15.70	56.80	37.40	110.40	4520.00	618.70	254.40	85.10	46.10	21.70	20.40		
12	8.30	24.20	62.30	123.80	89.10	4128.50	562.30	244.70	83.20	43.30	24.20	22.80		
13	9.30	19.30	119.30	116.90	65.90	3604.20	525.40	235.10	81.20	40.40	24.20	33.30		
14	11.40	244.70	116.90	62.30	161.10	2868.10	458.20	228.70	77.30	37.40	55.20	87.10		
15	14.60	181.00	110.40	49.10	142.20	2254.00	414.60	222.40	75.40	37.40	62.30	99.40		
16	24.20	81.20	406.10	44.70	101.50	1760.50	389.00	219.20	71.60	36.10	52.30	41.80		
17	24.20	73.50	238.30	235.10	87.10	2003.40	507.50	216.10	71.60	34.60	38.90	30.60		
18	15.70	38.90	137.60	197.50	71.60	1930.60	431.90	213.00	67.80	34.60	24.20	21.70		
19	13.50	44.70	91.10	151.70	502.90	1894.40	471.60	209.90	65.90	33.30	21.70	19.30		
20	19.30	44.70	64.10	151.70	1894.40	1930.60	363.80	206.80	64.10	32.00	21.70	18.00		
21	37.40	44.70	64.10	103.70	3399.20	1716.40	332.10	194.50	62.30	32.00	20.40	43.30		
22	24.20	34.60	55.20	91.10	4391.60	1707.60	397.50	171.10	62.30	30.60	20.40	29.30		
23	67.80	24.20	58.60	95.20	5195.40	1500.20	385.40	158.80	60.40	29.30	19.30	123.80		
24	47.60	16.80	56.80	93.10	5401.00	1081.80	427.50	154.00	60.40	28.00	18.00	58.60		
25	43.30	20.40	52.30	79.20	5270.00	970.60	838.90	146.80	58.60	26.60	18.00	43.30		
26	33.30	112.50	99.40	65.90	4520.00	792.30	449.40	142.20	56.80	26.60	16.80	25.40		
27	36.10	257.70	53.70	71.60	3990.80	769.20	353.20	139.80	58.60	25.40	16.80	19.30		
28	22.80	176.00	46.10	116.90	3618.20	1032.00	530.10	132.90	65.90	25.40	16.80	21.70		
29	49.10	137.60	53.70	142.20	4067.10	958.40	2021.70	130.50	58.60	24.20	0.00	112.50		
30	81.20	119.30	47.60	103.70	3826.40	1210.40	1804.80	128.20	56.80	24.20	0.00	37.40		
31	0.00	194.50	0.00	81.20	3358.40	0.00	1088.10	0.00	53.70	22.80	0.00	55.20		
Total	708.90	2128.20	2696.10	2597.00	52628.80	79245.10	25382.10	8286.00	2543.70	1174.20	724.60	1113.50	179228.20	Tonday
Mean	23.63	68.65	89.87	83.77	1697.70	2641.50	818.78	276.20	82.05	37.88	25.88	35.92		Ton/day
Max	81.20	257.70	406.10	235.10	5401.00	5741.70	2021.70	798.10	142.20	52.30	62.30	123.80	5741.70	Ton/day
Min	8.30	3.90	32.00	24.20	64.10	769.20	332.10	128.20	53.70	22.80	16.80	13.50	3.90	Ton/day

WATER YEAR : 2002

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	2001-2002
Number of observation	42
R-Square	0.7887
Remarks	Continued Sediment Station

$$QS = 9.6133\ QW^{1.65100}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.10	76.10	38.00	20.90	46.60	831.40	672.20	170.10	83.40	83.40	69.00	65.60		
2	2.10	6.70	16.80	14.80	40.80	1727.00	715.10	137.00	83.40	83.40	69.00	65.60		
3	2.10	4.10	9.60	13.00	111.00	1558.30	466.50	128.10	87.10	83.40	69.00	65.60		
4	2.10	46.60	5.30	11.30	111.00	3502.00	388.60	111.00	98.80	83.40	69.00	65.60		
5	1.30	5.30	18.80	13.00	423.30	11590.80	402.30	106.80	141.60	79.70	69.00	65.60		
6	1.30	6.70	5.30	32.70	672.20	6587.90	303.90	106.80	102.80	79.70	69.00	65.60		
7	1.30	3.10	79.70	13.00	409.30	3277.60	316.40	106.80	94.80	79.70	65.60	65.60		
8	1.30	2.10	27.70	18.80	267.70	2496.30	261.80	106.80	90.90	76.10	65.60	65.60		
9	1.30	18.80	18.80	55.80	111.00	1629.80	227.70	106.80	87.10	76.10	65.60	65.60		
10	1.30	5.30	30.20	40.80	69.00	3934.20	206.00	106.80	83.40	76.10	65.60	65.60		
11	1.30	4.10	18.80	115.20	65.60	1776.40	200.70	106.80	83.40	76.10	65.60	65.60		
12	8.10	46.60	303.90	102.80	79.70	1188.40	190.30	106.80	83.40	76.10	65.60	65.60		
13	2.10	5.30	750.10	94.80	335.50	993.70	180.10	106.80	83.40	76.10	83.40	65.60		
14	2.10	13.00	496.20	52.60	206.00	785.80	175.10	102.80	83.40	76.10	267.70	79.70		
15	2.10	160.40	52.60	52.60	106.80	706.40	175.10	102.80	83.40	76.10	115.20	72.50		
16	2.10	335.50	466.50	1125.50	69.00	655.30	170.10	102.80	83.40	76.10	106.80	69.00		
17	1.30	18.80	52.60	2482.10	59.00	813.00	170.10	98.80	83.40	76.10	87.10	65.60		
18	1.30	13.00	52.60	1499.80	69.00	605.80	322.70	98.80	83.40	76.10	76.10	65.60		
19	1.30	6.70	30.20	402.30	1476.60	597.70	200.70	98.80	83.40	72.50	72.50	62.20		
20	1.30	5.30	83.40	211.30	7420.10	638.60	175.10	94.80	83.40	72.50	72.50	119.40		
21	1.30	4.10	1263.60	119.40	7728.30	750.10	165.20	94.80	83.40	72.50	69.00	87.10		
22	1.30	3.10	90.90	102.80	13802.30	822.20	146.20	94.80	83.40	72.50	69.00	65.60		
23	1.30	3.10	32.70	79.70	6650.50	589.60	141.60	90.90	79.70	72.50	123.70	111.00		
24	1.30	3.10	18.80	72.50	2314.20	519.00	137.00	90.90	79.70	72.50	87.10	90.90		
25	32.70	3.10	13.00	132.60	1714.70	459.20	128.10	90.90	79.70	69.00	83.40	83.40		
26	23.10	348.50	732.50	297.80	1582.00	459.20	128.10	90.90	79.70	69.00	79.70	76.10		
27	5.30	55.80	49.60	451.90	859.20	689.20	137.00	87.10	79.70	69.00	76.10	72.50		
28	2.10	111.00	30.20	195.50	1476.60	430.40	175.10	87.10	79.70	69.00	72.50	69.00		
29	25.40	76.10	128.10	297.80	3815.90	488.70	175.10	87.10	79.70	69.00		69.00		
30	6.70	1340.50	30.20	102.80	1558.30	706.40	165.20	87.10	79.70	69.00		72.50		
31		146.20		65.60	944.80		141.60		79.70	69.00		69.00		
Total	140.70	2878.10	4946.70	8291.50	54596.00	51810.40	7560.70	3108.60	2671.40	2327.80	2349.40	2252.90	142934.20	Tonday
Mean	4.69	92.84	164.89	267.47	1761.16	1727.01	243.89	103.62	86.17	75.09	83.91	72.67		Ton/day
Max	32.70	1340.50	1263.60	2482.10	13802.30	11590.80	715.10	170.10	141.60	83.40	267.70	119.40	13802.30	Ton/day
Min	1.30	2.10	5.30	11.30	40.80	430.40	128.10	87.10	79.70	69.00	65.60	62.20	1.30	Ton/day

WATER YEAR : 2002

NAN RIVER BASIN

Lam Nam Khan at Ban Na Pho Na Chan , Phitsanulok (N.59)

Lat 17 - 01 - 49 N Long 100 - 50 - 35 E

Location : on left bank at Ban Na Chan.

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	2001-2002
Number of observation	42
R-Square	0.8122
Remarks	Continued Sediment Station

$$QS = 6.8690\ QW^{1.51800}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.60	86.40	50.10	76.70	62.90	693.20	580.80	196.20	31.00	15.40	4.90	9.10		
2	4.90	11.40	24.30	101.60	58.50	4418.20	543.30	173.80	42.10	14.00	4.90	7.90		
3	2.40	36.40	15.40	62.90	131.80	6992.10	658.30	115.00	40.20	14.00	4.90	5.90		
4	1.10	6.90	10.20	62.90	88.90	4109.40	393.80	99.00	32.80	14.00	4.00	4.90		
5	0.60	4.00	15.40	268.90	79.10	6684.20	276.20	86.40	32.80	14.00	4.00	4.00		
6	0.60	2.40	9.10	72.00	161.40	6727.90	272.60	79.10	67.40	14.00	4.00	4.00		
7	0.20	1.10	11.40	72.00	1913.70	3103.30	633.70	74.30	36.40	12.70	4.00	3.20		
8	0.20	1.10	14.00	88.90	599.80	2146.10	268.90	69.70	32.80	12.70	4.00	2.40		
9	0.20	0.60	7.90	345.10	1317.20	1261.20	219.60	65.10	31.00	11.40	3.20	2.40		
10	0.20	96.50	14.00	302.40	361.10	1857.00	186.50	60.70	52.10	11.40	3.20	4.00		
11	0.20	14.00	226.40	703.30	189.70	1942.30	170.60	60.70	32.80	10.20	3.20	2.40		
12	0.20	5.90	32.80	398.00	321.60	1814.90	158.30	58.50	31.00	10.20	3.20	2.40		
13	0.20	4.00	1163.70	199.50	2806.00	1298.40	146.30	58.50	27.60	10.20	9.10	2.40		
14	0.20	2.40	1555.90	385.50	2349.20	754.50	134.60	69.70	25.90	9.10	36.40	5.90		
15	0.20	24.30	822.90	126.10	807.00	529.50	126.10	58.50	24.30	9.10	54.20	6.90		
16	0.20	189.70	243.80	180.10	381.40	419.00	120.50	52.10	24.30	9.10	15.40	3.20		
17	0.20	44.00	134.60	915.40	261.70	785.90	146.30	56.30	24.30	7.90	7.90	2.40		
18	0.20	16.80	180.10	822.90	199.50	1348.70	196.20	52.10	22.70	7.90	5.90	1.70		
19	0.60	11.40	91.40	876.90	520.30	1163.70	261.70	48.00	21.20	7.90	4.90	1.70		
20	1.70	7.90	183.30	317.70	10079.70	977.00	146.30	44.00	21.20	7.90	4.90	1.70		
21	2.40	4.90	265.30	167.50	9917.00	1005.40	313.80	44.00	19.70	7.90	10.20	2.40		
22	1.10	4.00	321.60	126.10	6727.90	1116.00	377.30	42.10	18.20	6.90	9.10	2.40		
23	0.60	2.40	117.70	96.50	13158.70	590.30	236.80	40.20	16.80	6.90	9.10	1.70		
24	0.60	2.40	93.90	120.50	6114.60	436.10	183.30	38.30	16.80	6.90	7.90	2.40		
25	0.60	4.90	276.20	216.20	2426.00	345.10	164.40	36.40	16.80	6.90	7.90	29.30		
26	0.20	11.40	79.10	99.00	1386.70	515.70	120.50	36.40	15.40	5.90	6.90	7.90		
27	0.20	38.30	79.10	69.70	791.10	419.00	128.90	34.60	16.80	5.90	6.90	4.90		
28	0.20	149.30	155.30	243.80	822.90	377.30	590.30	34.60	16.80	5.90	10.20	5.90		
29	0.60	48.00	427.50	180.10	943.20	1801.00	180.10	34.60	16.80	5.90	0.00	29.30		
30	10.20	377.30	123.30	115.00	871.50	2495.80	158.30	32.80	16.80	4.90	0.00	4.90		
31	0.00	104.30	0.00	88.90	796.40	0.00	126.10	0.00	15.40	4.90	0.00	4.00		
Total	31.60	1314.40	6745.70	7902.10	66646.50	58128.20	8220.40	1951.70	840.20	292.00	254.40	173.60	152500.80	Tonday
Mean	1.05	42.40	224.86	254.91	2149.89	1937.61	265.17	65.06	27.10	9.42	9.09	5.60		Ton/day
Max	10.20	377.30	1555.90	915.40	13158.70	6992.10	658.30	196.20	67.40	15.40	54.20	29.30	13158.70	Ton/day
Min	0.20	0.60	7.90	62.90	58.50	345.10	120.50	32.80	15.40	4.90	3.20	1.70	0.20	Ton/day

WATER YEAR : 2002

NAN RIVER BASIN

Nam Haeng at Ban Hua Mueang, Nan (N.63)

Lat 18 - 21 - 47 N Long 100 - 43 - 40 E

Location : on left bank at the bridge on road, tambon Si Sa Ket.

Ban Hua Mueang **Amphoe** Na Noi **Changwat** Nan

Drainge Area	795 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	2002
Number of observation	34
R-Square	0.9119
Remarks	Continued Sediment Station

$$QS = 4.4203\ QW^{1.59810}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.90	0.20	28.10	15.80	20.40	184.00	406.00	86.90	20.40	9.80	4.80	3.70		
2	0.90	0.30	18.00	19.20	21.70	554.40	378.80	69.00	20.40	9.80	4.80	3.10		
3	0.90	24.90	14.80	20.40	83.70	2210.20	406.00	53.30	20.40	6.50	4.80	3.10		
4	0.90	3.70	13.70	20.40	53.30	484.60	715.50	46.80	20.40	6.50	3.70	3.70		
5	0.90	3.10	14.80	18.00	46.80	345.70	256.70	46.80	18.00	4.80	3.70	4.20		
6	0.90	2.20	15.80	21.70	23.30	365.40	284.70	42.50	18.00	4.80	4.80	4.20		
7	0.90	3.40	24.90	21.70	20.40	1256.60	231.40	36.50	14.80	4.80	4.80	3.70		
8	0.90	2.00	279.00	20.40	20.40	2872.80	184.00	36.50	14.80	4.80	4.80	3.10		
9	0.90	2.00	77.90	23.30	24.90	1442.30	90.20	34.80	14.80	4.80	4.80	3.10		
10	0.90	1.50	114.70	23.30	28.10	2688.40	74.80	31.40	13.70	4.80	4.80	3.10		
11	0.80	1.00	60.70	20.40	23.30	833.70	66.00	31.40	13.70	4.80	4.80	3.70		
12	0.80	5.90	38.40	20.40	28.10	392.30	57.90	31.40	13.70	4.80	4.80	3.70		
13	0.60	36.50	36.50	20.40	28.10	352.20	57.90	33.00	11.70	3.70	4.80	3.70		
14	0.60	12.60	21.70	20.40	34.80	313.80	55.70	33.00	10.80	3.70	6.50	125.90		
15	0.60	103.90	24.90	20.40	36.50	1501.90	53.30	33.00	9.80	3.70	6.50	14.80		
16	0.50	614.10	12.60	20.40	71.80	1517.00	46.80	31.40	18.00	3.70	6.50	9.80		
17	0.50	684.50	12.60	18.00	33.00	1501.90	46.80	36.50	6.50	3.70	4.80	7.70		
18	0.50	2085.00	12.60	17.00	28.10	624.00	53.30	216.60	6.50	3.70	6.50	6.50		
19	0.40	365.40	12.60	14.80	80.80	530.00	74.80	118.50	6.50	4.80	6.50	6.50		
20	0.40	789.90	11.70	34.80	129.80	499.40	51.20	83.70	6.50	4.80	4.80	6.50		
21	0.30	107.60	9.80	36.50	145.40	844.70	42.50	36.50	5.30	4.80	3.70	5.90		
22	0.30	33.00	9.80	48.90	207.00	2998.20	36.50	29.60	5.30	4.80	3.70	5.90		
23	0.30	23.30	11.70	42.50	174.90	448.20	40.50	24.90	6.50	4.80	4.80	5.30		
24	0.30	18.00	11.70	55.70	236.30	256.70	236.30	24.90	6.50	3.70	4.20	5.30		
25	0.30	14.80	10.80	36.50	193.20	166.30	93.70	28.10	6.50	3.70	4.20	5.30		
26	0.40	345.70	9.80	31.40	66.00	141.50	57.90	33.00	6.50	3.70	4.80	4.80		
27	0.50	935.20	9.80	28.10	46.80	162.00	93.70	29.60	9.80	4.80	3.70	4.80		
28	0.40	562.60	23.30	20.40	57.90	174.90	86.90	29.60	9.80	5.30	3.70	3.70		
29	0.30	100.40	18.00	20.40	256.70	174.90	2508.70	23.30	9.80	5.30		3.70		
30	0.20	34.80	14.80	20.40	256.70	122.20	358.80	20.40	9.80	4.80		3.70		
31		46.80		20.40	267.80		145.40		9.80	4.80		4.20		
Total	18.00	6964.30	975.50	772.40	2746.00	25960.20	7292.70	1412.90	365.00	153.30	135.10	276.40	47071.80	Tonday
Mean	0.60	224.65	32.52	24.92	88.58	865.34	235.25	47.10	11.77	4.95	4.82	8.92		Ton/day
Max	0.90	2085.00	279.00	55.70	267.80	2998.20	2508.70	216.60	20.40	9.80	6.50	125.90	2998.20	Ton/day
Min	0.20	0.20	9.80	14.80	20.40	122.20	36.50	20.40	5.30	3.70	3.70	3.10	0.20	Ton/day

WATER YEAR : 2002

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.
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	2002
Number of observation	36
R-Square	0.8734
Remarks	Continued Sediment Station

$$QS = 0.9803\ QW^{1.68880}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.40	5.20	79.50	139.00	397.20	696.20	289.10	58.90	26.90	20.80	10.60	5.20		
2	4.00	5.20	58.90	334.20	1983.20	672.30	210.00	70.70	34.20	20.80	10.60	5.20		
3	3.40	4.60	42.40	166.30	1174.20	464.50	195.50	88.60	31.50	20.80	9.80	5.20		
4	3.40	6.60	37.10	120.80	708.30	422.40	238.90	70.70	26.90	20.80	8.50	5.20		
5	3.40	6.60	55.40	104.80	672.30	345.00	186.90	67.00	31.50	22.50	8.50	5.20		
6	3.40	4.60	44.70	88.60	1268.10	357.80	166.30	58.90	26.90	26.90	8.50	4.60		
7	3.40	4.60	34.20	88.60	755.00	841.60	159.60	52.00	25.00	22.50	8.50	4.60		
8	3.40	4.60	408.70	99.30	918.50	742.60	132.90	44.70	25.00	20.80	7.40	4.60		
9	3.40	4.60	109.30	74.60	696.20	1530.50	120.80	44.70	25.00	20.80	7.40	4.60		
10	3.40	4.60	708.30	99.30	553.50	2221.40	109.30	37.10	25.00	20.80	7.40	4.60		
11	19.10	9.80	3882.10	83.50	538.20	1112.30	104.80	37.10	22.50	17.40	7.40	4.60		
12	17.40	8.50	383.90	83.50	464.50	780.10	99.30	37.10	20.80	16.40	7.40	4.60		
13	4.60	16.40	202.70	74.60	370.70	696.20	99.30	37.10	19.10	16.40	9.80	5.90		
14	4.60	44.70	4004.30	74.60	790.20	568.90	99.30	39.30	16.40	17.40	9.80	26.90		
15	4.00	13.40	841.60	115.00	815.80	755.00	93.90	39.30	16.40	16.40	9.80	14.90		
16	3.40	464.50	267.60	120.80	945.70	684.20	79.50	37.10	17.40	16.40	9.80	19.10		
17	3.40	1514.00	238.90	334.20	767.50	2713.40	79.50	37.10	14.90	16.40	7.40	13.40		
18	3.40	228.10	918.50	210.00	450.30	1302.10	79.50	219.00	17.40	16.40	7.40	8.50		
19	3.40	99.30	299.30	202.70	357.80	780.10	74.60	79.50	17.40	14.90	7.40	6.60		
20	3.40	159.60	202.70	210.00	219.00	616.30	74.60	55.40	17.40	13.40	7.40	5.90		
21	3.40	104.80	151.80	651.10	248.30	493.40	74.60	39.30	17.40	12.00	7.40	5.20		
22	2.90	58.90	120.80	3824.00	321.80	553.50	79.50	39.30	17.40	12.00	7.40	5.20		
23	29.50	42.40	104.80	1406.40	720.50	345.00	79.50	37.10	17.40	12.00	7.40	5.20		
24	12.00	31.50	88.60	696.20	1683.00	345.00	79.50	37.10	17.40	12.00	7.40	7.40		
25	5.90	44.70	83.50	584.60	1014.90	309.60	79.50	37.10	16.40	12.00	6.60	7.40		
26	4.00	219.00	70.70	277.40	730.30	257.80	79.50	37.10	62.40	12.00	6.60	6.60		
27	3.40	93.90	120.80	309.60	595.80	248.30	83.50	39.30	74.60	12.00	6.60	5.90		
28	3.40	79.50	195.50	257.80	742.60	210.00	83.50	39.30	62.40	10.60	6.60	5.20		
29	4.00	74.60	145.30	1219.30	3217.80	321.80	74.60	39.30	42.40	10.60		7.40		
30	3.40	99.30	109.30	357.80	1371.30	202.70	74.60	37.10	25.00	10.60		7.40		
31		151.80		584.60	891.70		70.70		20.80	10.60		7.40		
Total	173.20	3609.90	14011.20	12993.20	26384.20	21590.00	3552.60	1593.30	831.20	505.40	226.80	229.70	85700.70	Tonday
Mean	5.77	116.45	467.04	419.14	851.10	719.67	114.60	53.11	26.81	16.30	8.10	7.41		Ton/day
Max	29.50	1514.00	4004.30	3824.00	3217.80	2713.40	289.10	219.00	74.60	26.90	10.60	26.90	4004.30	Ton/day
Min	2.90	4.60	34.20	74.60	219.00	202.70	70.70	37.10	14.90	10.60	6.60	4.60	2.90	Ton/day

WATER YEAR : 2002

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	2001-2002
Number of observation	42
R-Square	0.7626
Remarks	Continued Sediment Station

$$QS = 9.3857\ QW^{1.45560}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	4.50	1.00	6.20	3.70	14.80	242.60	79.50	24.10	3.10	1.10	0.40	0.50		
2	1.50	0.80	2.50	3.10	25.20	622.30	74.80	17.30	3.10	1.10	0.30	0.40		
3	0.80	0.50	1.50	2.70	58.60	642.20	71.40	13.90	3.10	1.00	0.30	0.20		
4	0.70	0.50	1.20	2.00	16.80	1077.90	53.80	12.10	21.40	1.00	0.20	0.10		
5	0.50	0.40	1.00	3.20	33.00	3854.30	49.20	10.50	10.10	1.00	0.20	0.10		
6	0.30	0.50	1.80	5.90	197.20	1942.80	46.40	9.80	3.70	1.00	0.20	0.03		
7	0.20	0.40	11.20	3.40	218.10	1088.80	54.80	9.40	3.10	1.00	0.20	0.10		
8	0.30	0.50	2.20	3.40	144.40	824.30	38.80	8.70	2.70	1.00	0.20	0.03		
9	0.30	0.40	2.20	8.70	53.80	462.50	33.60	7.80	2.70	1.00	0.10	0.10		
10	0.30	0.30	4.20	28.00	37.30	1067.10	30.40	7.40	2.50	1.00	0.40	0.10		
11	0.20	1.50	3.60	112.50	29.20	622.30	28.00	7.40	2.50	1.00	0.20	0.40		
12	0.20	0.70	7.00	42.70	35.80	333.40	26.30	7.00	2.20	0.80	0.20	0.30		
13	0.20	0.50	148.90	38.80	321.00	321.00	24.60	6.80	2.20	0.70	0.80	0.20		
14	0.20	0.40	83.00	31.00	74.80	202.50	23.00	6.40	2.00	0.70	9.40	0.30		
15	0.10	1.00	17.80	15.30	40.90	168.50	20.80	6.20	2.00	0.50	4.50	0.40		
16	2.00	36.70	34.40	99.40	29.80	165.10	20.30	5.90	1.80	0.70	1.40	0.50		
17	0.80	5.90	12.10	503.80	26.30	328.40	38.10	5.20	1.60	0.70	0.80	0.30		
18	0.50	2.50	25.20	250.60	40.30	209.70	59.60	5.20	1.60	0.70	0.70	0.20		
19	0.40	2.00	12.50	213.70	451.90	137.40	31.50	5.20	1.60	0.50	0.50	0.10		
20	0.40	1.20	20.80	90.40	3323.80	150.20	24.10	4.70	1.50	0.70	0.40	0.20		
21	0.40	0.80	36.70	39.40	3375.30	246.80	25.20	4.50	1.40	0.70	0.40	0.20		
22	0.20	0.70	7.80	30.40	2740.70	395.20	28.00	4.10	1.40	0.50	0.40	0.40		
23	0.20	0.50	4.10	23.00	2070.90	166.80	26.30	3.90	1.30	0.50	0.40	2.00		
24	0.20	0.50	2.70	18.30	806.60	131.70	24.60	3.90	1.20	0.50	0.30	0.50		
25	2.00	0.40	2.40	39.40	570.20	109.90	19.80	3.90	1.20	0.50	0.20	0.20		
26	0.80	0.70	3.10	112.50	519.10	96.80	16.30	3.70	1.20	0.50	0.20	0.20		
27	1.00	0.80	2.90	128.90	278.60	98.30	20.30	3.40	1.30	0.50	0.20	0.50		
28	0.70	3.20	2.00	52.90	373.80	86.80	28.60	3.70	1.40	0.40	0.20	0.20		
29	2.00	7.40	12.10	35.20	869.00	150.20	33.00	3.40	1.40	0.40		0.20		
30	1.30	159.10	5.90	26.90	389.10	169.80	22.40	3.20	1.20	0.40		0.40		
31		58.60		20.30	215.90		19.80		1.10	0.40		0.50		
Total	23.20	290.40	479.00	1989.50	17382.20	16115.60	1093.30	218.70	88.60	22.50	23.70	9.86	37736.56	Tonday
Mean	0.77	9.37	15.97	64.18	560.72	537.19	35.27	7.29	2.86	0.73	0.85	0.32		Ton/day
Max	4.50	159.10	148.90	503.80	3375.30	3854.30	79.50	24.10	21.40	1.10	9.40	2.00	3854.30	Ton/day
Min	0.10	0.30	1.00	2.00	14.80	86.80	16.30	3.20	1.10	0.40	0.10	0.03	0.03	Ton/day

WATER YEAR : 2002

NAN RIVER BASIN

Khwae Noi River at Ban Na Thung Yai, Phitsanulok (N.69)

Lat 17 - 18 - 52 N Long 100 - 51 - 08 E

Location : on right bank at Ban Na Thung Yai.

Ban Na Thung Yai **Amphoe** Nakhon Thai **Changwat** Phitsanulok

Drainge Area	176 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	2001-2002
Number of observation	42
R-Square	0.7507
Remarks	Continued Sediment Station

$$QS = 5.6682\ QW^{1.36830}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.20	9.20	19.90	7.50	10.60	166.00	249.60	44.30	14.80	9.50	5.30	4.50		
2	0.20	7.90	14.80	6.40	13.60	234.70	131.60	42.10	14.40	9.20	5.30	4.20		
3	0.20	9.20	8.80	5.30	67.60	237.70	119.70	41.40	13.30	9.20	5.30	4.20		
4	3.50	10.60	17.00	5.10	35.20	237.70	90.90	40.60	21.40	9.50	5.10	4.20		
5	2.20	11.70	20.80	5.30	27.80	850.90	71.40	39.90	19.40	9.50	5.10	4.20		
6	0.60	10.20	13.30	6.40	111.10	1002.50	68.50	38.60	16.20	9.50	5.10	4.20		
7	0.60	2.80	10.60	6.10	63.10	1119.20	61.30	37.80	14.40	9.50	5.10	4.50		
8	0.20	1.10	9.90	6.10	34.00	830.40	49.60	36.50	13.60	9.20	5.10	4.50		
9	0.20	32.70	6.70	5.30	26.70	344.00	43.60	35.90	13.30	9.20	4.80	4.50		
10	0.20	9.20	5.80	5.10	22.40	733.10	39.90	35.20	12.50	8.80	4.80	4.50		
11	0.60	11.70	7.50	5.30	19.00	667.60	36.50	34.00	11.70	8.50	4.80	4.20		
12	12.90	11.30	8.80	9.90	17.50	286.40	32.10	32.70	11.30	8.10	4.80	4.20		
13	5.30	11.70	49.60	14.40	25.50	198.40	32.10	31.50	11.30	7.50	5.50	4.20		
14	4.00	381.60	23.40	11.00	37.80	126.40	29.60	29.60	11.00	7.20	13.60	11.30		
15	2.80	57.80	11.30	8.10	25.50	98.40	29.00	28.40	11.00	6.90	9.50	8.50		
16	2.80	18.50	35.20	42.90	19.00	90.90	28.40	27.20	11.00	6.70	6.40	5.30		
17	1.10	10.20	25.50	116.30	16.60	123.00	31.50	26.10	10.60	6.70	5.50	4.20		
18	15.60	10.60	12.50	45.90	16.20	193.90	29.00	24.40	10.60	6.70	5.30	4.20		
19	8.10	9.50	9.50	24.40	150.80	302.60	29.60	24.00	10.20	6.40	5.30	4.00		
20	0.00	7.50	7.50	17.50	1143.40	183.60	26.70	23.40	10.20	6.10	5.30	4.20		
21	0.00	5.30	19.40	18.50	1047.80	207.30	25.50	22.40	10.20	5.80	5.30	6.40		
22	0.00	4.50	8.10	14.80	2077.30	232.40	26.70	21.40	9.90	5.80	5.10	6.10		
23	0.00	4.80	7.20	14.80	1352.00	123.00	85.70	19.90	9.90	5.50	5.10	12.90		
24	0.00	5.10	6.70	12.10	673.50	97.00	68.50	19.00	9.90	5.50	5.10	10.20		
25	0.00	7.20	6.70	13.30	715.10	86.70	32.10	17.90	9.20	5.50	4.50	5.80		
26	0.00	77.50	42.90	11.00	299.20	74.30	26.10	17.50	8.50	5.50	4.50	5.50		
27	0.00	67.60	11.70	10.20	440.00	104.60	34.00	17.00	11.70	5.50	4.50	5.30		
28	0.00	19.90	7.90	13.60	532.00	104.60	59.60	16.60	11.00	5.50	4.50	8.80		
29	0.00	152.70	7.20	16.20	286.40	104.60	189.50	15.60	10.60	5.50		17.50		
30	0.00	65.80	11.70	15.20	249.60	87.80	71.40	15.20	10.20	5.30		11.70		
31		68.50		14.40	183.60		73.30		9.90	5.30		9.90		
Total	61.30	1113.90	447.90	508.40	9739.90	9249.70	1923.00	856.10	373.20	224.60	155.60	197.90	24851.50	Tonday
Mean	3.23	35.93	14.93	16.40	314.19	308.32	62.03	28.54	12.04	7.25	5.56	6.38		Ton/day
Max	15.60	381.60	49.60	116.30	2077.30	1119.20	249.60	44.30	21.40	9.50	13.60	17.50	2077.30	Ton/day
Min	0.00	1.10	5.80	5.10	10.60	74.30	25.50	15.20	8.50	5.30	4.50	4.00	0.00	Ton/day

WATER YEAR : 2002

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	2002
Number of observation	21
R-Square	0.7963
Remarks	Continued Sediment Station

$$QS = 4.0534\ QW^{1.29280}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	7.40	13.30	30.80	11.20	21.20	34.20	488.30	533.80	83.70	17.50	4.10	2.60		
2	7.40	15.30	23.50	9.90	27.50	91.00	357.80	933.80	70.40	16.10	4.10	2.60		
3	6.80	11.20	19.00	9.90	19.00	124.00	385.50	923.00	65.50	13.30	4.10	2.10		
4	6.80	11.90	16.10	9.90	252.00	347.70	347.70	522.70	96.40	11.90	3.50	2.10		
5	6.30	17.50	27.50	9.90	118.40	657.00	303.90	373.80	79.50	15.30	3.50	2.10		
6	6.30	13.30	16.10	9.30	56.70	369.40	206.30	287.30	63.50	13.90	3.00	2.10		
7	6.30	13.90	15.30	9.90	48.30	240.10	373.80	215.30	54.80	13.30	3.00	2.10		
8	5.70	13.30	13.30	13.90	48.30	191.10	687.00	181.10	77.50	13.30	2.60	2.10		
9	5.70	11.20	13.30	15.30	50.20	168.90	337.70	159.20	77.50	11.90	2.60	2.60		
10	5.70	9.90	13.30	17.50	42.00	283.10	230.90	136.70	140.20	11.20	2.10	2.10		
11	5.70	11.90	13.30	19.70	35.00	400.30	178.70	121.80	106.10	10.60	2.10	2.10		
12	8.70	13.30	17.50	19.70	32.50	198.70	161.60	109.50	81.60	10.60	2.10	3.00		
13	13.90	74.40	19.70	23.50	27.50	206.30	133.20	100.70	67.40	9.90	3.00	4.60		
14	9.90	40.20	27.50	19.70	25.10	223.00	118.40	96.40	58.70	9.30	9.30	4.10		
15	6.30	27.50	22.00	17.50	25.10	127.50	106.10	88.90	53.00	9.30	2.60	3.50		
16	6.80	42.90	27.50	30.80	23.50	72.40	96.40	83.70	46.50	8.70	3.00	2.60		
17	10.60	29.10	23.50	21.20	29.10	70.40	93.20	83.70	42.90	7.40	3.00	2.10		
18	8.70	23.50	17.50	21.20	35.00	58.70	83.70	198.70	40.20	7.40	2.60	2.10		
19	6.80	30.80	35.00	19.00	79.50	81.60	79.50	347.70	35.00	7.40	2.60	2.10		
20	11.20	42.00	23.50	19.70	63.50	588.20	70.40	194.90	32.50	6.80	2.60	1.70		
21	11.90	72.40	16.10	13.90	72.40	291.40	56.70	146.10	30.80	6.80	3.00	1.20		
22	17.50	42.90	13.30	13.30	79.50	369.40	161.60	118.40	27.50	6.30	2.60	1.20		
23	11.20	29.10	13.30	13.30	86.80	1435.10	161.60	98.50	26.70	5.70	2.60	5.70		
24	8.70	26.70	15.30	15.30	98.50	1278.70	678.60	91.00	25.10	5.10	2.60	32.50		
25	11.20	23.50	15.30	15.30	50.20	1145.30	353.50	88.90	23.50	4.60	2.60	9.30		
26	35.00	21.20	16.10	13.30	42.90	1589.40	202.50	118.40	22.00	4.60	3.00	3.50		
27	36.70	19.00	13.90	13.90	42.00	734.30	1498.80	198.70	21.20	4.60	4.10	3.00		
28	23.50	17.50	16.10	21.20	29.10	628.90	2443.00	140.20	21.20	4.60	2.10	2.60		
29	51.10	26.70	13.90	27.50	27.50	980.70	859.00	112.80	23.50	4.10		2.60		
30	30.80	44.70	13.30	23.50	44.70	923.00	494.50	96.40	22.00	4.10		2.60		
31		42.90		21.20	48.30		357.80		19.70	4.10		373.80		
Total	390.60	833.00	561.80	520.40	1681.30	13909.80	12107.70	6902.10	1636.10	279.70	88.10	488.40	39399.00	Tonday
Mean	13.02	26.87	18.73	16.79	54.24	463.66	390.57	230.07	52.78	9.02	3.15	15.75		Ton/day
Max	51.10	74.40	35.00	30.80	252.00	1589.40	2443.00	933.80	140.20	17.50	9.30	373.80	2443.00	Ton/day
Min	5.70	9.90	13.30	9.30	19.00	34.20	56.70	83.70	19.70	4.10	2.10	1.20	1.20	Ton/day

WATER YEAR : 2002

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.DH-48
Period of Available Records	1998-Cont'd
Actual Measurement	1998-Cont'd
Using Rating Curve Water Year	2002
Number of observation	18
R-Square	0.9589
Remarks	Continued Sediment Station

$$QS = 8.8108\ QW^{1.16680}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.20	5.80	5.80	2.20	0.60	8.80	350.60	787.10	45.70	16.40	10.90	9.80		
2	2.20	3.90	4.90	2.20	1.30	7.80	661.60	1950.50	39.30	16.40	10.90	9.80		
3	2.20	3.00	4.90	2.20	1.30	6.80	1153.10	777.30	34.20	16.40	9.80	9.80		
4	2.20	3.00	3.90	2.20	3.00	30.50	846.00	380.30	41.80	15.20	9.80	9.80		
5	2.20	2.20	3.90	1.30	3.90	34.20	495.30	256.80	39.30	15.20	9.80	8.80		
6	2.20	3.00	3.90	1.30	3.00	38.00	237.00	160.00	34.20	15.20	9.80	8.80		
7	2.20	2.20	3.90	1.30	2.20	28.10	629.30	118.90	33.00	14.10	9.80	8.80		
8	2.20	1.30	3.00	1.30	2.20	22.10	2937.30	85.30	146.10	14.10	9.80	8.80		
9	2.20	1.30	3.00	1.30	1.30	49.60	629.30	60.30	105.60	14.10	9.80	8.80		
10	2.20	1.30	3.00	1.30	1.30	160.00	212.50	60.30	217.30	14.10	9.80	8.80		
11	2.20	3.00	3.90	1.30	1.30	178.90	143.00	56.30	88.20	13.00	9.80	8.80		
12	2.20	3.90	3.00	0.60	1.30	126.40	92.50	49.60	56.30	13.00	9.80	8.80		
13	2.20	3.90	3.90	0.60	1.30	709.50	69.90	44.40	44.40	13.00	9.80	28.10		
14	2.20	3.90	3.00	0.60	0.60	256.80	56.30	40.60	38.00	13.00	10.90	45.70		
15	2.20	4.90	3.90	0.60	0.60	112.90	47.00	38.00	34.20	13.00	10.90	36.70		
16	2.20	6.80	3.90	0.60	0.60	60.30	41.80	63.00	31.70	13.00	10.90	24.50		
17	2.20	5.80	3.90	0.60	0.60	38.00	95.40	115.90	28.10	12.00	10.90	18.60		
18	2.20	4.90	5.80	0.60	0.60	28.10	61.70	355.80	28.10	12.00	9.80	16.40		
19	2.20	3.90	4.90	0.60	0.60	23.30	63.00	167.80	25.70	12.00	9.80	14.10		
20	2.20	3.90	6.80	0.60	0.60	132.40	45.70	115.90	24.50	12.00	9.80	13.00		
21	2.20	3.90	5.80	0.60	0.60	448.10	44.40	92.50	22.10	12.00	9.80	13.00		
22	2.20	4.90	4.90	1.30	1.30	644.50	40.60	61.70	20.90	12.00	9.80	14.10		
23	2.20	3.90	3.90	0.60	1.30	1470.40	44.40	53.60	19.80	10.90	9.80	14.10		
24	2.20	3.90	3.90	0.60	1.30	2039.70	78.30	47.00	18.60	10.90	9.80	68.50		
25	2.20	3.90	3.00	0.60	14.10	1515.40	99.70	44.40	18.60	10.90	9.80	102.60		
26	19.80	4.90	3.00	0.60	7.80	2512.70	74.10	57.60	17.50	10.90	9.80	47.00		
27	7.80	3.90	3.00	0.60	6.80	915.50	644.50	132.40	17.50	10.90	10.90	29.30		
28	6.80	3.90	3.00	0.60	5.80	340.20	3241.40	85.30	17.50	10.90	10.90	22.10		
29	6.80	3.90	3.00	0.60	10.90	1097.60	903.50	65.80	17.50	10.90		17.50		
30	0.00	5.80	3.00	0.60	7.80	867.80	380.30	51.00	17.50	10.90		17.50		
31		5.80		0.00	8.80		261.80		16.40	10.90		153.80		
Total	96.20	120.60	119.70	30.00	94.70	13904.40	14681.30	6375.40	1339.60	399.30	283.20	806.20	38250.60	Tonday
Mean	3.32	3.89	3.99	1.00	3.05	463.48	473.59	212.51	43.21	12.88	10.11	26.01		Ton/day
Max	19.80	6.80	6.80	2.20	14.10	2512.70	3241.40	1950.50	217.30	16.40	10.90	153.80	3241.40	Ton/day
Min	2.20	1.30	3.00	0.60	0.60	6.80	40.60	38.00	16.40	10.90	9.80	8.80	0.60	Ton/day

WATER YEAR : 2002

SAKAE KRANG RIVER BASIN

Khwae Tak Daet 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.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2002
Actual Measurement	2002
Using Rating Curve Water Year	2002
Number of observation	16
R-Square	0.8727
Remarks	Continued Sediment Station

$$QS = 3.9087\ QW^{1.26350}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	108.70	94.10	80.90	172.10	2675.20	3778.00	104.80	28.40	0.00	0.00		
2	0.00	0.00	132.90	89.30	108.70	209.90	2165.90	3036.60	134.00	25.40	0.00	0.00		
3	0.00	0.00	117.70	89.30	96.00	221.30	2039.40	2692.60	99.90	24.00	0.00	0.00		
4	0.00	0.00	121.70	81.80	113.70	315.40	2206.60	2569.70	121.70	20.40	0.00	0.00		
5	0.00	0.00	92.20	75.30	126.80	436.90	2533.40	2151.20	104.80	19.00	0.00	0.00		
6	0.00	0.00	89.30	71.70	115.70	426.40	2414.00	900.60	104.80	16.30	0.00	0.00		
7	0.00	0.00	77.20	71.70	106.70	387.30	2586.90	552.00	96.00	15.70	0.00	0.00		
8	0.00	0.00	75.30	69.00	94.10	336.60	3165.80	351.60	96.00	11.80	0.00	0.00		
9	0.00	0.00	75.30	64.50	91.20	299.50	3320.20	221.30	97.90	8.20	0.00	0.00		
10	0.00	0.00	85.60	60.10	89.30	291.00	3443.70	219.00	104.80	5.40	0.00	0.00		
11	0.00	0.00	91.20	52.40	79.00	308.00	3320.20	188.60	100.90	3.90	0.00	0.00		
12	0.00	0.00	94.10	48.20	77.20	599.60	2012.20	174.30	96.00	2.00	0.00	0.00		
13	0.00	0.00	0.00	40.80	77.20	464.80	669.50	151.70	92.20	1.20	0.00	0.00		
14	0.00	0.00	0.00	39.20	67.20	377.10	426.40	160.30	87.40	0.50	0.00	0.00		
15	0.00	0.00	0.00	29.10	58.40	341.60	270.50	151.70	80.90	0.00	0.00	0.00		
16	0.00	0.00	0.00	18.30	49.00	278.90	149.60	115.70	77.20	0.00	0.00	0.00		
17	0.00	0.00	0.00	14.40	39.20	186.40	200.90	111.70	77.20	0.00	0.00	0.00		
18	0.00	0.00	0.00	11.80	32.10	212.20	138.10	143.30	80.90	0.00	0.00	0.00		
19	0.00	0.00	0.00	16.30	24.70	177.60	124.70	188.60	80.90	0.00	0.00	0.00		
20	0.00	0.00	0.00	29.10	23.20	172.10	121.70	197.50	80.90	0.00	0.00	0.00		
21	0.00	0.00	0.00	87.40	24.00	200.90	106.70	236.30	77.20	0.00	0.00	0.00		
22	0.00	0.00	0.00	80.90	24.70	838.10	104.80	179.80	77.20	0.00	0.00	0.00		
23	0.00	0.00	0.00	79.00	25.40	1902.00	104.80	146.50	75.30	0.00	0.00	0.00		
24	0.00	0.00	0.00	77.20	26.10	2569.70	174.30	136.00	71.70	0.00	0.00	0.00		
25	0.00	0.00	0.00	71.70	28.40	2981.30	230.50	117.70	64.50	0.00	0.00	0.00		
26	0.00	0.00	0.00	69.00	48.20	3201.70	243.30	143.30	52.40	0.00	0.00	0.00		
27	0.00	0.00	0.00	63.60	70.80	3380.80	632.20	154.90	42.40	0.00	0.00	0.00		
28	0.00	0.00	0.00	60.10	85.60	3443.70	1821.60	174.30	38.40	0.00	0.00	0.00		
29	0.00	0.00	0.00	55.80	110.70	3401.10	2569.70	157.10	34.50	0.00		0.00		
30	0.00	0.00	0.00	51.50	165.60	3072.30	3320.20	146.50	32.10	0.00		0.00		
31		0.00		77.20	179.80		4097.60		30.60	0.00		0.00		
Total	0.00	0.00	1161.20	1839.80	2339.60	31206.30	47390.60	19648.40	2515.50	182.20	0.00	0.00	106283.60	Tonday
Mean	0.00	0.00	96.77	59.35	75.47	1040.21	1528.73	654.95	81.15	13.01	0.00	0.00		Ton/day
Max	0.00	0.00	132.90	94.10	179.80	3443.70	4097.60	3778.00	134.00	28.40	0.00	0.00	4097.60	Ton/day
Min	0.00	0.00	75.30	11.80	23.20	172.10	104.80	111.70	30.60	0.50	0.00	0.00	0.00	Ton/day

WATER YEAR : 2002

SAKAE KRANG RIVER BASIN

Huai Tak Daet at Ban Tak Daet, Uthai Thani (Ct.19)

Lat 15 - 27 - 07 N Long 100 - 02 - 00 E

Location : on left bank near Ban Tak Daet.

Ban Tak Daet **Amphoe** Mueangi **Changwat** Uthai Thani

Drainge Area	3,454 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	1999-2002
Number of observation	72
R-Square	0.9149
Remarks	Continued Sediment Station

$$QS = 5.6870\ QW^{1.24770}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	0.30	67.90	1.80	249.40	3566.80	3888.20	37.10	0.00	0.00	0.00		
2	0.00	0.00	0.80	121.10	1.80	246.40	3444.90	3638.30	37.10	0.00	0.00	0.00		
3	0.00	0.00	18.70	249.40	17.80	252.40	3374.20	3328.90	39.20	0.00	0.00	0.00		
4	0.00	0.00	63.30	210.90	45.60	606.40	3328.90	3206.10	41.30	0.00	0.00	0.00		
5	0.00	0.00	85.80	17.00	18.70	950.60	3467.70	3042.30	42.40	0.00	0.00	0.00		
6	0.00	0.00	42.40	5.00	16.10	844.00	3518.50	2722.20	43.40	0.00	0.00	0.00		
7	0.00	0.00	31.10	0.80	9.40	790.70	3541.40	2428.40	43.40	0.00	0.00	0.00		
8	0.00	0.00	22.40	1.80	1.30	693.70	3687.00	1777.20	42.40	0.00	0.00	0.00		
9	0.00	0.00	16.10	1.80	0.00	628.00	3810.60	960.40	36.10	0.00	0.00	0.00		
10	0.00	0.00	15.20	1.80	0.00	471.70	3761.60	263.00	25.20	0.00	0.00	0.00		
11	0.00	0.00	15.20	1.80	0.00	512.90	3419.60	235.90	6.40	0.00	0.00	0.00		
12	0.00	0.00	29.10	1.30	0.00	798.30	3226.10	182.20	0.00	0.00	0.00	0.00		
13	0.00	0.00	67.90	0.30	0.00	1571.10	2760.90	47.70	0.00	0.00	0.00	0.00		
14	0.00	0.00	0.00	0.00	0.00	556.70	1651.60	51.00	0.00	0.00	0.00	0.00		
15	0.00	0.00	0.00	0.00	0.00	379.80	1328.10	115.90	0.00	0.00	0.00	0.00		
16	0.00	0.00	0.00	0.00	0.00	355.40	1571.10	123.70	0.00	0.00	0.00	0.00		
17	0.00	0.00	0.00	0.00	0.00	341.00	1179.00	110.70	0.00	0.00	0.00	0.00		
18	0.00	0.00	0.00	0.00	0.00	296.80	360.30	80.90	0.00	0.00	0.00	0.00		
19	0.00	0.00	0.00	0.00	0.00	296.80	350.60	11.80	0.00	0.00	0.00	0.00		
20	0.00	0.00	0.00	0.00	0.00	296.80	314.00	11.80	0.00	0.00	0.00	0.00		
21	0.00	0.00	0.00	0.00	0.00	331.40	178.00	14.40	0.00	0.00	0.00	0.00		
22	0.00	0.00	0.00	0.00	0.00	1189.30	118.50	16.10	0.00	0.00	0.00	0.00		
23	0.00	0.00	0.00	0.00	0.00	3862.30	62.20	12.70	0.00	0.00	0.00	0.00		
24	0.00	0.00	0.00	0.00	0.00	4136.10	54.30	11.00	0.00	0.00	0.00	0.00		
25	0.00	0.00	0.00	0.00	0.00	4678.30	738.20	10.20	0.00	0.00	0.00	0.00		
26	0.00	0.00	0.00	0.00	0.00	4442.70	296.80	11.00	0.00	0.00	0.00	0.00		
27	0.00	0.00	0.00	0.00	0.00	4442.70	314.00	38.20	0.00	0.00	0.00	0.00		
28	0.00	0.00	0.00	0.00	0.00	4442.70	1033.60	157.20	0.00	0.00	0.00	0.00		
29	0.00	0.00	0.00	0.00	0.00	4384.20	1504.20	150.40	0.00	0.00		0.00		
30	0.00	0.00	0.00	0.00	0.00	3833.80	3396.90	41.30	0.00	0.00		0.00		
31		0.00		0.00	0.00		3638.30		0.00	0.00		0.00		
Total	0.00	0.00	408.30	680.90	112.50	46882.40	62997.90	26689.10	394.00	0.00	0.00	0.00	138165.10	Tonday
Mean	0.00	0.00	31.41	52.38	14.06	1562.75	2032.19	889.64	35.82	0.00	0.00	0.00		Ton/day
Max	0.00	0.00	85.80	249.40	45.60	4678.30	3810.60	3888.20	43.40	0.00	0.00	0.00	4678.30	Ton/day
Min	0.00	0.00	0.30	0.30	1.30	246.40	54.30	10.20	6.40	0.00	0.00	0.00	0.00	Ton/day

WATER YEAR : 2002

SAKAE KRANG RIVER BASIN

Huai Thap Salao at Ban Saphan Leak, Uthai Thani (Ct.20)

Lat 15 - 26 - 45 N Long 99 - 35 - 22 E

Location : on right bank at Ban Saphan Leak.

Ban Saphan Leak **Amphoe** Lan Sak **Changwat** Uthai Thani

Drainge Area	691 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	2002
Actual Measurement	2002
Using Rating Curve Water Year	2002
Number of observation	18
R-Square	0.9203
Remarks	Continued Sediment Station

$$QS = 6.3205\ QW^{1.40030}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.30	0.70	0.70	246.90	0.30	170.10	74.10	65.30	1.80	3.10	612.10	1.20		
2	0.30	1.20	0.30	259.60	0.70	150.00	41.00	342.30	1.80	3.10	288.20	1.20		
3	0.70	0.70	0.30	246.90	0.30	24.10	22.80	306.80	1.80	2.40	158.90	1.20		
4	0.30	0.70	1.80	246.90	51.90	6.30	20.30	61.90	1.80	1.80	8.20	1.20		
5	0.70	6.30	1.80	222.00	24.10	10.10	26.70	51.90	1.80	1.80	6.30	1.20		
6	0.70	7.20	1.20	183.90	3.80	6.30	16.70	65.30	1.80	1.80	4.60	1.20		
7	0.30	7.20	0.70	2.40	1.80	3.80	70.50	14.40	1.80	1.20	4.60	1.20		
8	0.70	7.20	0.70	1.80	1.20	2.40	234.40	11.20	1.80	1.20	3.10	1.20		
9	0.70	8.20	0.30	3.10	0.30	102.20	102.20	8.20	2.40	1.20	1.80	1.80		
10	0.70	8.20	0.30	3.10	0.30	132.80	51.90	6.30	3.10	1.20	1.80	1.80		
11	0.30	3.80	2.40	3.10	0.30	132.80	24.10	6.30	2.40	0.70	1.80	1.80		
12	0.30	1.80	3.10	1.80	0.30	41.00	16.70	4.60	2.40	0.70	1.80	1.20		
13	0.30	0.70	11.20	1.80	0.30	32.20	11.20	3.80	1.80	0.70	1.80	726.10		
14	0.30	1.20	17.90	1.80	0.30	13.30	10.10	3.80	1.80	0.70	2.40	1026.40		
15	0.30	0.70	26.70	0.70	0.30	9.10	10.10	4.60	1.80	1.20	2.40	698.80		
16	0.30	0.70	51.90	1.20	0.30	5.50	6.30	3.10	1.80	1.20	1.80	726.10		
17	0.30	0.30	102.20	1.20	0.30	3.80	5.50	3.80	1.80	1.80	1.80	698.80		
18	0.30	0.30	207.50	0.70	0.30	3.10	4.60	32.20	795.70	1.80	1.20	671.70		
19	0.30	0.30	246.90	0.70	1.20	4.60	4.60	13.30	831.20	86.90	1.20	698.80		
20	0.30	0.70	246.90	0.30	1.80	4.60	4.60	4.60	831.20	132.80	1.20	726.10		
21	0.30	0.30	0.00	0.30	1.80	33.60	5.50	4.60	795.70	288.20	1.80	110.20		
22	0.30	0.30	0.00	0.30	3.10	207.50	6.30	2.40	831.20	795.70	1.80	6.30		
23	0.30	0.70	0.00	0.30	3.80	306.80	6.30	2.40	831.20	1293.20	1.80	5.50		
24	0.30	0.70	0.00	0.30	3.80	1064.50	24.10	1.80	831.20	1449.80	2.40	3.80		
25	1.80	0.30	0.00	0.30	8.20	1244.90	10.10	2.40	557.20	1504.50	1.80	3.10		
26	1.80	0.30	0.00	0.30	22.80	323.00	6.30	2.40	323.00	1399.80	1.80	3.10		
27	1.20	0.30	0.00	0.30	8.20	118.30	26.70	6.30	22.80	831.20	1.80	3.10		
28	0.00	0.30	0.00	0.30	6.30	110.20	1064.50	3.10	6.30	795.70	1.20	2.40		
29	0.00	0.70	0.00	0.30	118.30	170.10	207.50	3.10	3.10	378.80		2.40		
30	0.00	1.80	0.00	0.30	0.00	150.00	170.10	3.10	3.10	867.10		3.10		
31		1.20		0.30	0.00		141.40		3.10	947.70		3.10		
Total	14.40	65.00	924.80	1433.20	266.40	4587.00	2427.20	1045.30	6699.70	10799.00	1121.40	6135.10	35518.50	Tonday
Mean	0.53	2.10	46.24	46.23	9.19	152.90	78.30	34.84	216.12	348.35	40.05	197.91		Ton/day
Max	1.80	8.20	246.90	259.60	118.30	1244.90	1064.50	342.30	831.20	1504.50	612.10	1026.40	1504.50	Ton/day
Min	0.30	0.30	0.30	0.30	0.30	2.40	4.60	1.80	1.80	0.70	1.20	1.20	0.30	Ton/day

WATER YEAR : 2002

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	2002
Number of observation	18
R-Square	0.9615
Remarks	Continued Sediment Station

$$QS = 1.8496\ QW^{1.26060}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	44.20	313.80	9.00	61.40	66.30	154.70	11324.00	179.60	511.50	22.70	93.70	66.30		
2	58.60	266.10	9.00	61.40	48.30	126.20	10395.90	390.30	133.50	22.70	93.70	109.70		
3	124.00	259.60	9.00	61.40	48.30	54.30	9598.00	567.30	38.40	22.70	93.70	109.70		
4	161.20	270.00	9.00	67.80	48.30	39.80	7035.80	558.20	32.90	31.60	93.70	109.70		
5	161.20	259.60	9.00	77.70	58.60	54.30	4255.60	230.10	30.30	66.30	91.10	109.70		
6	154.70	262.80	9.00	114.60	48.30	140.90	3006.30	64.80	32.90	66.30	91.10	104.80		
7	154.70	259.60	9.00	140.90	25.00	297.00	2696.80	63.40	30.30	66.30	104.80	71.20		
8	154.70	249.90	9.00	143.70	15.50	543.80	2571.30	74.20	30.30	66.30	129.00	100.60		
9	154.70	223.80	9.00	143.70	13.40	1505.90	2327.10	213.80	30.30	75.70	131.20	100.60		
10	154.70	197.80	9.00	143.70	12.00	4565.10	2093.10	443.20	30.30	100.60	131.20	100.60		
11	158.20	173.00	9.00	143.70	11.00	7949.80	2022.50	479.70	30.30	100.60	158.20	104.80		
12	170.00	154.70	37.10	204.50	11.00	10095.30	2001.70	648.40	30.30	100.60	188.60	102.70		
13	223.80	158.20	26.20	230.10	10.00	14757.90	1882.90	714.90	30.30	100.60	286.40	100.60		
14	236.50	126.20	11.00	223.80	9.00	18116.80	1843.00	511.50	30.30	100.60	321.20	104.80		
15	236.50	114.60	9.00	223.80	9.00	19952.50	1823.50	370.70	29.10	100.60	321.20	107.50		
16	236.50	86.90	9.00	249.90	9.00	20232.70	1794.50	352.70	29.10	124.00	321.20	104.80		
17	236.50	66.30	9.00	239.60	23.80	17263.90	1794.50	303.70	29.10	154.70	321.20	102.70		
18	236.50	61.40	9.00	233.30	37.10	12782.10	1902.40	170.00	29.10	154.70	321.20	102.70		
19	242.80	60.00	5.90	236.50	38.40	10818.70	2123.10	262.80	27.90	154.70	321.20	95.80		
20	242.80	91.10	5.90	230.10	38.40	10344.50	2133.10	421.60	27.90	129.00	246.70	95.80		
21	242.80	80.20	5.90	220.10	41.10	10170.00	1523.60	129.00	30.30	109.70	136.30	100.60		
22	242.80	61.40	5.90	220.10	46.90	9722.50	498.20	67.80	29.10	95.80	114.60	104.80		
23	249.90	37.10	5.90	216.90	46.90	10420.90	188.60	58.60	29.10	95.80	111.90	102.70		
24	270.00	12.00	5.90	167.00	44.20	10600.60	131.20	58.60	27.90	95.80	109.70	102.70		
25	270.00	12.00	5.90	154.70	46.90	10956.10	86.90	61.40	27.90	95.80	104.80	102.70		
26	270.00	9.00	5.90	154.70	63.40	11673.00	63.40	194.70	27.90	95.80	63.40	100.60		
27	321.20	9.00	5.90	136.30	46.90	11764.10	48.30	425.90	26.20	95.80	52.90	100.60		
28	374.20	9.00	9.00	119.00	30.30	11469.90	49.70	475.30	25.00	95.80	52.90	100.60		
29	374.20	9.00	52.90	116.80	22.70	11411.80	54.30	310.40	25.00	93.70		100.60		
30	386.10	9.00	61.40	116.80	17.70	11526.60	129.00	484.10	21.50	93.70		100.60		
31		9.00		116.80	29.10		109.70		20.00	93.70		100.60		
Total	6544.00	3912.10	385.70	4970.80	1016.80	259511.70	77508.00	9286.70	1484.00	2822.70	4606.80	3122.20	375171.50	Tonday
Mean	218.13	126.20	12.86	160.35	32.80	8650.39	2500.26	309.56	47.87	91.05	164.53	100.72		Ton/day
Max	386.10	313.80	61.40	249.90	66.30	20232.70	11324.00	714.90	511.50	154.70	321.20	109.70	20232.70	Ton/day
Min	44.20	9.00	5.90	61.40	9.00	39.80	48.30	58.60	20.00	22.70	52.90	66.30	5.90	Ton/day

WATER YEAR : 2002

PASAK RIVER BASIN

Lam Kong at Ban Tha Lao, Phetchabun (S.12)

Lat 15 - 59 - 50 N Long 101 - 14 - 31 E

Location : on left bank at Ban Tha Lao.

Ban Tha Lao **Amphoe** Nong Phai **Changwat** Phetchabun

Drainge Area	477 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	1996-2002
Number of observation	257
R-Square	0.7639
Remarks	Continued Sediment Station

$$QS = 6.0125\ QW^{1.81650}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	8.40	23.10	64.70	11.10	27.30	2314.10	1089.00	71.20	17.50	14.10	9.70	7.10		
2	9.70	7.10	15.80	12.60	19.30	8574.70	625.80	52.60	17.50	14.10	9.70	7.10		
3	8.40	12.60	11.10	12.60	23.10	2557.50	325.40	46.90	19.30	12.60	9.70	7.10		
4	7.10	49.70	9.70	11.10	49.70	4016.80	274.80	36.50	19.30	12.60	9.70	7.10		
5	7.10	11.10	175.20	11.10	23.10	6654.40	211.50	34.10	19.30	12.60	8.40	7.10		
6	6.00	12.60	23.10	11.10	19.30	2173.30	338.70	31.80	17.50	12.60	8.40	7.10		
7	6.00	9.70	11.10	9.70	15.80	625.80	573.90	29.50	17.50	12.60	8.40	7.10		
8	6.00	12.60	11.10	9.70	12.60	4285.00	185.20	27.30	19.30	12.60	8.40	7.10		
9	6.00	27.30	9.70	9.70	12.60	843.10	137.40	25.20	23.10	12.60	8.40	6.00		
10	6.00	74.60	19.30	9.70	11.10	516.00	111.90	23.10	19.30	11.10	8.40	6.00		
11	12.60	19.30	15.80	11.10	11.10	679.70	96.20	25.20	17.50	11.10	8.40	6.00		
12	7.10	58.50	61.60	11.10	11.10	359.00	88.70	23.10	17.50	11.10	8.40	6.00		
13	6.00	12.60	3390.20	9.70	11.10	423.20	78.00	23.10	15.80	11.10	9.70	6.00		
14	6.00	34.10	735.50	14.10	11.10	206.10	74.60	25.20	15.80	11.10	9.70	12.60		
15	6.00	128.70	967.90	11.10	9.70	137.40	71.20	23.10	15.80	11.10	9.70	7.10		
16	6.00	36.50	85.10	8.40	8.40	160.50	81.50	23.10	15.80	11.10	9.70	7.10		
17	6.00	754.60	55.50	8.40	9.70	4734.40	71.20	23.10	15.80	11.10	9.70	7.10		
18	6.00	49.70	25.20	12.60	8.40	873.60	103.90	23.10	15.80	11.10	9.70	6.00		
19	7.10	23.10	41.60	52.60	15.80	2916.60	71.20	23.10	15.80	11.10	9.70	5.00		
20	9.70	23.10	21.20	14.10	306.00	9154.80	61.60	21.20	14.10	11.10	9.70	19.30		
21	7.10	12.60	17.50	9.70	359.00	6756.70	55.50	21.20	14.10	11.10	9.70	21.20		
22	6.00	11.10	71.20	11.10	1677.70	8574.70	49.70	19.30	12.60	11.10	9.70	15.80		
23	6.00	9.70	19.30	12.60	643.50	1636.70	49.70	19.30	12.60	11.10	8.40	14.10		
24	6.00	8.40	21.20	23.10	141.90	735.50	64.70	19.30	12.60	11.10	8.40	12.60		
25	6.00	9.70	25.20	14.10	96.20	573.90	49.70	19.30	12.60	11.10	7.10	8.40		
26	7.10	15.80	15.80	11.10	111.90	643.50	44.20	19.30	12.60	9.70	7.10	8.40		
27	6.00	19.30	12.60	12.60	103.90	359.00	111.90	17.50	19.30	9.70	7.10	9.70		
28	7.10	11.10	21.20	103.90	116.00	516.00	206.10	17.50	19.30	9.70	7.10	55.50		
29	11.10	58.50	12.60	19.30	137.40	1556.20	116.00	17.50	15.80	9.70		325.40		
30	8.40	12.60	11.10	19.30	967.90	803.20	78.00	17.50	15.80	9.70		12.60		
31		64.70		160.50	716.70		64.70		15.80	9.70		15.80		
Total	214.00	1614.10	5978.10	658.90	5688.40	74361.40	5561.90	799.20	512.40	352.20	248.20	650.50	96639.30	Tonday
Mean	7.13	52.07	199.27	21.25	183.50	2478.71	179.42	26.64	16.53	11.36	8.86	20.98		Ton/day
Max	12.60	754.60	3390.20	160.50	1677.70	9154.80	1089.00	71.20	23.10	14.10	9.70	325.40	9154.80	Ton/day
Min	6.00	7.10	9.70	8.40	8.40	137.40	44.20	17.50	12.60	9.70	7.10	5.00	5.00	Ton/day

WATER YEAR : 2002

PASAK RIVER BASIN

Lam Sonthi at Ban Tha Yiam, Lop Buri (S.13)

Lat 15 - 20 - 21 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	2002
Number of observation	24
R-Square	0.8848
Remarks	Continued Sediment Station

$$QS = 19.2930\ QW^{1.29390}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	7.90	14.50	5.90	16.80	14.50	2819.20	142.90	213.10	12.20	5.90	1.00	1.00		
2	7.90	12.20	5.90	7.90	16.80	1559.20	135.10	94.00	12.20	4.10	1.00	1.00		
3	7.90	10.00	5.90	10.00	16.80	485.80	119.80	69.70	12.20	4.10	1.00	1.00		
4	7.90	7.90	4.10	21.80	131.20	2370.90	83.40	56.70	12.20	4.10	1.00	1.00		
5	7.90	12.20	4.10	7.90	86.90	3872.80	69.70	44.30	12.20	2.40	1.00	1.00		
6	7.90	63.10	4.10	131.20	56.70	449.70	73.10	38.30	12.20	2.40	1.00	1.00		
7	5.90	19.30	2.40	73.10	38.30	226.10	108.50	32.60	12.20	1.00	1.00	1.00		
8	5.90	21.80	2.40	41.30	29.80	123.50	119.80	29.80	32.60	1.00	1.00	1.00		
9	4.10	19.30	1.00	38.30	21.80	312.30	76.50	29.80	16.80	1.00	1.00	1.00		
10	4.10	10.00	1.00	35.40	19.30	116.00	59.90	24.40	14.50	1.00	1.00	1.00		
11	4.10	27.10	79.90	24.40	16.80	234.80	53.50	24.40	12.20	1.00	1.00	1.00		
12	409.30	47.30	53.50	38.30	10.00	131.20	47.30	21.80	12.20	1.00	1.00	1.00		
13	16.80	38.30	154.80	29.80	12.20	86.90	38.30	21.80	12.20	1.00	1.00	1.00		
14	21.80	24.40	76.50	21.80	10.00	76.50	38.30	21.80	12.20	1.00	1.00	1.00		
15	35.40	24.40	59.90	16.80	12.20	63.10	38.30	21.80	12.20	1.00	1.00	1.00		
16	50.40	44.30	38.30	14.50	10.00	56.70	38.30	21.80	12.20	1.00	1.00	1.00		
17	66.40	41.30	24.40	14.50	10.00	53.50	38.30	21.80	12.20	1.00	1.00	1.00		
18	53.50	53.50	19.30	50.40	14.50	139.00	35.40	21.80	12.20	1.00	1.00	1.00		
19	41.30	50.40	14.50	29.80	14.50	439.50	29.80	21.80	12.20	1.00	1.00	1.00		
20	41.30	50.40	7.90	19.30	14.50	1365.70	29.80	21.80	12.20	1.00	1.00	1.00		
21	56.70	29.80	14.50	21.80	21.80	326.40	38.30	16.80	12.20	1.00	1.00	1.00		
22	32.60	19.30	14.50	19.30	47.30	5923.00	32.60	16.80	12.20	1.00	1.00	1.00		
23	21.80	16.80	16.80	24.40	47.30	2341.20	29.80	16.80	12.20	1.00	1.00	1.00		
24	16.80	14.50	14.50	16.80	196.00	543.60	38.30	16.80	12.20	1.00	1.00	1.00		
25	14.50	16.80	29.80	14.50	69.70	217.40	32.60	14.50	12.20	1.00	1.00	1.00		
26	10.00	27.10	38.30	12.20	41.30	166.90	32.60	14.50	10.00	1.00	1.00	1.00		
27	7.90	14.50	24.40	10.00	32.60	131.20	41.30	14.50	10.00	1.00	1.00	32.60		
28	10.00	7.90	24.40	10.00	29.80	104.90	97.60	12.20	7.90	1.00	1.00	16.80		
29	16.80	7.90	27.10	7.90	53.50	302.90	79.90	12.20	7.90	1.00		7.90		
30	16.80	4.10	16.80	10.00	35.40	154.80	86.90	12.20	7.90	1.00		50.40		
31		5.90		10.00	50.40		66.40		5.90	1.00		16.80		
Total	1011.60	756.30	786.90	800.20	1181.90	25194.70	1952.30	1000.60	381.90	48.00	28.00	150.50	33292.90	Tonday
Mean	33.72	24.40	26.23	25.81	38.13	839.82	62.98	33.35	12.32	1.55	1.00	4.85		Ton/day
Max	409.30	63.10	154.80	131.20	196.00	5923.00	142.90	213.10	32.60	5.90	1.00	50.40	5923.00	Ton/day
Min	4.10	4.10	1.00	7.90	10.00	53.50	29.80	12.20	5.90	1.00	1.00	1.00	1.00	Ton/day

WATER YEAR : 2002

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	2001-2002
Number of observation	146
R-Square	0.7242
Remarks	Continued Sediment Station

$$QS = 2.3350\ QW^{1.85640}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	5.00	5.60	30.60	36.50	36.50	10241.20	712.80	138.00	49.80	27.80	17.90	16.90		
2	5.00	5.00	20.20	27.80	77.60	21592.70	1082.40	116.10	105.80	27.80	17.90	14.80		
3	5.60	5.60	14.80	25.20	53.40	11390.20	1790.30	100.80	53.40	27.80	17.90	14.80		
4	5.00	17.90	12.80	22.60	161.60	23352.00	665.10	95.90	46.30	27.80	17.90	13.80		
5	9.30	8.50	25.20	22.60	69.10	66533.60	474.10	91.20	53.40	27.80	17.90	13.80		
6	5.60	16.90	36.50	25.20	636.00	50432.80	676.90	86.50	49.80	27.80	17.90	13.80		
7	4.40	12.80	36.50	17.90	378.50	12801.60	819.50	82.00	49.80	27.80	16.90	13.80		
8	4.40	14.80	16.90	17.90	280.90	7744.60	401.40	77.60	46.30	27.80	16.90	13.80		
9	4.40	6.30	57.20	20.20	116.10	9506.60	313.30	73.30	42.90	27.80	16.90	14.80		
10	4.40	5.60	155.50	22.60	77.60	8376.40	265.30	73.30	42.90	25.20	16.90	14.80		
11	3.80	5.60	116.10	36.50	73.30	4770.90	257.60	73.30	39.70	25.20	16.90	13.80		
12	3.80	22.60	86.50	86.50	2816.80	3267.00	235.30	69.10	39.70	25.20	16.90	14.80		
13	3.80	17.90	439.50	95.90	1716.70	2483.20	214.00	69.10	39.70	25.20	16.90	13.80		
14	3.80	16.90	9993.50	46.30	1149.60	2570.30	193.50	77.60	36.50	25.20	25.20	14.80		
15	5.00	53.40	459.10	30.60	313.30	1539.10	186.90	69.10	36.50	25.20	20.20	13.80		
16	7.70	839.00	116.10	69.10	180.40	1289.50	174.00	65.00	36.50	22.60	17.90	13.80		
17	5.60	53.40	53.40	132.30	126.80	3145.60	167.80	61.00	36.50	22.60	16.90	13.80		
18	4.40	86.50	77.60	200.20	100.80	1521.80	250.10	61.00	36.50	22.60	16.90	12.80		
19	4.40	25.20	49.80	86.50	321.70	1411.70	296.90	61.00	33.50	22.60	16.90	12.80		
20	16.90	16.90	42.90	57.20	2625.40	2251.00	174.00	65.00	33.50	22.60	14.80	12.80		
21	6.30	12.80	73.30	46.30	9267.30	4597.30	149.60	61.00	33.50	22.60	14.80	22.60		
22	4.40	10.10	167.80	36.50	24085.80	2874.30	143.70	61.00	30.60	22.60	14.80	16.90		
23	3.80	9.30	53.40	33.50	7473.10	1265.60	132.30	61.00	30.60	20.20	14.80	13.80		
24	3.80	7.70	33.50	30.60	1479.00	872.00	126.80	61.00	30.60	20.20	14.80	17.90		
25	20.20	17.90	82.00	33.50	1195.40	676.90	121.40	61.00	30.60	20.20	14.80	25.20		
26	9.30	14.80	425.00	27.80	3541.70	665.10	110.90	57.20	30.60	20.20	13.80	14.80		
27	42.90	22.60	82.00	57.20	787.40	515.10	221.00	57.20	30.60	20.20	22.60	22.60		
28	6.30	65.00	100.80	82.00	647.50	439.50	250.10	53.40	30.60	20.20	25.20	14.80		
29	36.50	36.50	69.10	57.20	806.60	665.10	235.30	53.40	30.60	20.20		13.80		
30	8.50	132.30	53.40	49.80	4148.90	1354.00	143.70	49.80	30.60	20.20		16.90		
31		105.80		46.30	579.60		121.40		30.60	20.20		14.80		
Total	254.30	1671.20	12981.00	1580.30	65324.40	260146.70	11107.40	2181.90	1248.50	741.40	490.10	476.20	358203.40	Tonday
Mean	8.48	53.91	432.70	50.98	2107.24	8671.56	358.30	72.73	40.27	23.92	17.50	15.36		Ton/day
Max	42.90	839.00	9993.50	200.20	24085.80	66533.60	1790.30	138.00	105.80	27.80	25.20	25.20	66533.60	Ton/day
Min	3.80	5.00	12.80	17.90	36.50	439.50	110.90	49.80	30.60	20.20	13.80	12.80	3.80	Ton/day

WATER YEAR : 2002

PASAK RIVER BASIN

Pasak River at Ban Lam Takhro, Phetchabun (S.34)

Lat 15 - 50 - 01 N Long 101 - 03 - 01 E

Location : on left bank at Ban Lam Takhro, Tambon Lam Takhro.

Ban Lam Takhro **Amphoe** Bung Sam Pun **Changwat** Phetchabun

Drainge Area	6,626 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	2001-2002
Number of observation	24
R-Square	0.7635
Remarks	Continued Sediment Station

$$QS = 19.2640\ QW^{1.02670}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	13.40	458.10	329.80	94.40	17630.90	5883.70	1554.80	110.90	15.30	13.40	13.40		
2	0.00	31.20	225.90	308.50	325.50	17017.20	5558.10	1634.70	106.70	13.40	13.40	13.40		
3	0.00	27.20	129.60	200.60	259.70	17630.90	5283.20	1681.30	98.50	17.30	13.40	13.40		
4	0.00	35.20	158.70	142.00	285.10	19191.30	4826.00	1690.20	94.40	17.30	13.40	13.40		
5	0.00	43.30	88.20	110.90	460.30	25070.50	4483.80	1648.00	98.50	15.30	11.40	13.40		
6	0.00	43.30	129.60	84.10	518.40	36185.20	4187.80	1541.50	115.00	19.30	9.50	13.40		
7	0.00	82.00	61.50	63.60	383.10	36883.10	4053.70	1293.80	108.80	17.30	5.60	13.40		
8	0.00	150.40	45.30	53.40	353.20	34790.30	3917.40	931.20	102.60	17.30	3.70	13.40		
9	0.00	514.00	37.20	49.40	503.30	27839.00	3733.50	706.60	96.40	17.30	7.50	13.40		
10	0.00	404.50	35.20	53.40	656.70	21146.50	3382.40	524.80	82.00	15.30	11.40	13.40		
11	0.00	507.60	41.30	43.30	776.20	17241.40	3045.80	423.80	71.80	17.30	13.40	13.40		
12	0.00	363.90	154.60	37.20	802.30	14779.70	2766.30	363.90	59.50	17.30	13.40	13.40		
13	0.00	207.00	261.80	57.50	645.90	12232.90	2357.60	308.50	49.40	17.30	13.40	11.40		
14	0.00	137.90	793.60	96.40	404.50	10794.20	1926.10	295.80	39.20	17.30	13.40	13.40		
15	0.00	84.10	1302.60	110.90	600.40	9539.40	1523.80	283.00	31.20	17.30	13.40	13.40		
16	0.00	63.60	1594.70	131.60	859.00	8736.10	1042.90	283.00	21.20	17.30	13.40	13.40		
17	0.00	49.40	1694.60	113.00	1038.50	8513.60	700.10	300.00	19.30	15.30	13.40	13.40		
18	0.00	57.50	1730.20	75.90	1183.60	9360.50	654.50	283.00	17.30	15.30	15.30	13.40		
19	0.00	71.80	1761.30	69.70	1293.80	9718.40	687.10	255.50	15.30	15.30	15.30	13.40		
20	0.00	73.80	1774.70	127.50	1373.30	8736.10	671.90	232.20	17.30	15.30	17.30	13.40		
21	0.00	69.70	1750.20	140.00	1426.30	8736.10	589.60	213.30	17.30	15.30	17.30	13.40		
22	0.00	73.80	1648.00	177.60	1470.60	10614.70	570.10	215.40	17.30	15.30	17.30	13.40		
23	0.00	0.00	1302.60	129.60	1781.30	10614.70	555.00	204.90	15.30	15.30	15.30	13.40		
24	0.00	0.00	691.40	90.20	2095.70	8958.80	499.00	185.90	15.30	15.30	15.30	37.20		
25	0.00	0.00	518.40	75.90	2229.90	7957.90	509.70	175.50	13.40	15.30	15.30	45.30		
26	0.00	0.00	524.80	55.40	2317.20	7071.00	473.20	162.90	13.40	15.30	15.30	53.40		
27	0.00	0.00	325.50	47.30	2344.10	6580.20	464.60	160.80	13.40	15.30	15.30	47.30		
28	0.00	0.00	349.00	43.30	2467.40	6391.50	596.10	148.30	13.40	15.30	15.30	57.50		
29	0.00	0.00	372.40	59.50	2847.40	6074.30	977.10	131.60	13.40	15.30	0.00	69.70		
30	0.00	0.00	383.10	57.50	4543.10	6010.00	1262.90	121.20	13.40	15.30	0.00	73.80		
31	0.00	0.00	0.00	57.50	15897.40	0.00	1448.50	0.00	13.40	15.30	0.00	71.80		
Total	0.00	3104.60	20344.10	3192.50	52237.60	442046.40	68631.50	17955.40	1514.30	498.40	370.80	762.20	610657.80	Tonday
Mean	0.00	141.12	678.14	102.98	1685.08	14734.88	2213.92	598.51	48.85	16.08	13.24	24.59		Ton/day
Max	0.00	514.00	1774.70	329.80	15897.40	36883.10	5883.70	1690.20	115.00	19.30	17.30	73.80	36883.10	Ton/day
Min	0.00	0.00	35.20	37.20	94.40	6010.00	464.60	121.20	13.40	13.40	3.70	11.40	0.00	Ton/day

WATER YEAR : 2002

PASAK RIVER BASIN

Pasak River at Ban Bua Chum, Lop Buri (S.39)

Lat 15 - 15 - 48 N Long 101 - 11 - 30 E

Location : on right bank at Ban Bua Chum.

Ban Bua Chum **Amphoe** Chai Badan **Changwat** Lop Buri

Drainge Area	9,505 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.DH-59
Period of Available Records	2001-Cont'd
Actual Measurement	2001-Cont'd
Using Rating Curve Water Year	2002
Number of observation	17
R-Square	0.8022
Remarks	Continued Sediment Station

$$QS = 21.6460\ QW^{0.84960}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	811.40	423.30	310.70	491.90	253.50	1214.00	4699.80	1989.40	1646.90	1552.40	1241.90	910.10		
2	805.60	412.40	319.80	504.50	245.10	1583.40	4388.60	2140.40	1641.70	1552.40	1241.90	902.50		
3	791.00	402.50	336.90	495.00	247.50	1906.50	4148.30	2088.10	1641.70	1552.40	1228.40	890.20		
4	785.20	393.80	339.10	485.50	265.30	2117.60	3937.00	2047.90	1641.70	1546.40	1228.40	882.50		
5	772.50	380.50	324.40	471.70	286.40	3029.10	3758.30	2076.60	1641.70	1530.80	1205.00	878.70		
6	766.70	366.10	319.80	463.20	284.10	4090.90	3623.60	2099.60	1641.70	1530.80	1195.90	866.30		
7	754.90	373.90	319.80	481.30	296.80	6791.20	3570.80	2111.80	1641.70	1515.20	1186.00	862.50		
8	745.10	352.60	319.80	454.60	310.70	11625.80	3526.00	2117.60	1641.70	1510.00	1176.90	850.00		
9	730.30	348.20	322.10	440.60	313.00	14164.40	3458.00	2099.60	1636.60	1493.50	1158.80	842.30		
10	721.40	339.10	319.80	434.10	301.50	13549.20	3189.40	2053.70	1641.70	1472.60	1153.30	826.90		
11	711.50	334.60	319.80	425.40	301.50	11682.60	3053.60	2006.70	1641.70	1467.40	1139.70	820.10		
12	693.70	328.90	332.30	418.90	319.80	9341.50	2954.60	1959.60	1636.60	1456.10	1120.50	817.20		
13	711.50	324.40	328.90	402.50	339.10	8213.90	2841.70	1912.30	1630.60	1440.30	1097.60	811.40		
14	671.70	315.30	343.70	391.60	348.20	7358.70	2715.60	1889.00	1630.60	1440.30	1078.30	814.30		
15	659.70	308.40	343.70	389.30	357.10	6634.00	2589.20	1871.50	1630.60	1419.30	1058.00	805.60		
16	647.60	303.80	376.10	376.10	341.40	6220.50	2437.80	1853.90	1620.30	1397.40	1038.60	799.80		
17	634.50	303.80	421.10	371.60	328.90	5871.00	2295.20	1829.60	1620.30	1388.60	1020.00	794.00		
18	622.30	303.80	474.90	366.10	350.40	5634.20	2151.80	1829.60	1620.30	1378.90	1004.20	791.00		
19	613.20	301.50	558.80	357.10	373.90	5349.10	2006.70	1817.90	1620.30	1356.80	988.30	785.20		
20	599.90	301.50	613.20	350.40	396.00	5372.00	1877.30	1786.80	1615.20	1352.40	968.60	781.30		
21	587.60	339.10	647.60	332.30	418.90	5778.10	1823.80	1776.70	1615.20	1347.10	961.10	760.80		
22	566.00	328.90	684.70	324.40	448.10	6269.70	1796.90	1776.70	1615.20	1333.80	953.60	757.80		
23	552.60	334.60	721.40	319.80	474.90	6540.40	1796.90	1776.70	1610.10	1329.40	941.30	745.10		
24	533.90	326.70	733.30	319.80	517.10	6976.80	1802.80	1776.70	1594.60	1320.50	930.00	745.10		
25	514.00	315.30	724.40	306.10	587.60	7275.40	1812.80	1771.60	1589.50	1315.10	926.20	736.20		
26	498.20	315.30	668.70	292.20	687.70	6615.30	1817.90	1766.60	1589.50	1310.70	921.50	730.30		
27	478.10	324.40	578.40	260.60	794.00	6104.20	1829.60	1740.40	1567.90	1292.90	921.50	718.50		
28	461.00	310.70	537.00	255.80	846.10	5677.40	1865.60	1714.10	1567.90	1265.20	913.90	718.50		
29	448.10	310.70	504.50	272.40	917.70	5258.10	1924.80	1703.90	1567.90	1265.20		715.50		
30	436.30	310.70	491.90	265.30	993.00	4948.40	1953.80	1678.40	1562.80	1260.70		705.60		
31		308.40		255.80	1106.70		1948.00		1562.80	1256.20		727.40		
Total	19325.50	10443.20	13636.60	11775.90	14052.00	193193.40	83596.20	57063.40	50127.00	43650.80	29999.40	24792.70	551656.10	Tonday
Mean	644.18	336.88	454.55	379.87	453.29	6439.78	2696.65	1902.11	1617.00	1408.09	1071.41	799.76		Ton/day
Max	811.40	423.30	733.30	504.50	1106.70	14164.40	4699.80	2140.40	1646.90	1552.40	1241.90	910.10	14164.40	Ton/day
Min	436.30	301.50	310.70	255.80	245.10	1214.00	1796.90	1678.40	1562.80	1256.20	913.90	705.60	245.10	Ton/day

WATER YEAR : 2002

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	1997-Cont'd
Actual Measurement	1997-Cont'd
Using Rating Curve Water Year	2002
Number of observation	21
R-Square	0.9539
Remarks	Continued Sediment Station

$$QS = 8.3072\ QW^{1.37770}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.40	0.50	81.40	26.50	20.40	7.20	661.40	1818.20	607.30	56.90	18.10	5.30		
2	0.20	0.40	73.80	24.00	18.10	3.40	755.50	1557.00	482.00	59.20	12.70	5.30		
3	0.50	0.40	64.00	24.00	19.20	2.00	847.20	1613.00	384.30	54.60	3.70	4.70		
4	0.30	0.40	59.20	21.60	19.20	1.40	770.50	2440.50	321.30	52.30	6.50	18.10		
5	0.10	0.40	54.60	19.20	18.10	1.20	587.40	5130.60	276.10	52.30	17.00	41.20		
6	0.10	0.50	48.50	19.20	18.10	0.90	600.70	6868.70	255.40	39.50	14.80	44.80		
7	0.40	0.50	44.80	20.40	11.70	0.70	1080.80	4435.40	247.30	24.00	10.70	46.70		
8	0.30	0.90	41.20	20.40	6.50	0.60	1529.20	2212.00	219.30	30.30	10.70	37.70		
9	0.20	6.50	39.50	24.00	1.40	6.50	1738.50	1322.80	235.10	36.00	10.00	21.60		
10	0.10	12.70	36.00	24.00	0.40	12.70	1584.90	946.30	259.50	37.70	10.70	13.70		
11	0.10	29.00	36.00	26.50	0.30	8.50	1818.20	725.70	326.00	37.70	9.20	10.00		
12	0.40	36.00	37.70	25.20	0.10	9.20	1882.70	647.80	316.70	37.70	3.70	9.20		
13	0.40	21.60	37.70	24.00	0.20	12.70	1191.00	548.40	263.60	37.70	2.70	7.90		
14	0.50	31.60	37.70	24.00	0.10	10.00	703.60	524.00	223.20	36.00	3.00	10.70		
15	0.70	31.60	39.50	22.80	0.10	12.70	470.20	607.30	192.20	33.00	3.40	18.10		
16	0.70	41.20	41.20	22.80	0.30	12.70	340.20	567.60	173.50	30.30	3.40	18.10		
17	0.50	64.00	46.70	21.60	0.40	12.70	137.80	452.70	162.60	25.20	7.90	13.70		
18	0.60	56.90	48.50	26.50	0.30	9.20	196.00	488.00	151.80	17.00	3.70	7.20		
19	0.60	54.60	41.20	26.50	0.10	7.20	276.10	446.90	141.30	11.70	5.30	7.90		
20	0.60	41.20	39.50	29.00	0.20	5.90	276.10	627.50	137.80	10.00	12.70	8.50		
21	0.50	52.30	36.00	27.80	0.10	5.30	231.10	997.00	119.40	7.90	11.70	7.90		
22	0.30	68.80	33.00	27.80	0.10	11.70	231.10	988.50	84.00	7.90	10.70	7.90		
23	0.10	137.80	31.60	27.80	3.40	22.80	271.90	718.30	48.50	12.70	11.70	10.00		
24	0.10	162.60	31.60	29.00	6.50	36.00	493.90	561.00	66.40	17.00	14.80	5.30		
25	0.30	26.50	21.60	27.80	7.90	56.90	607.30	470.20	59.20	19.20	17.00	12.70		
26	0.70	64.00	21.60	26.50	5.30	196.00	524.00	423.80	44.80	20.40	12.70	43.00		
27	0.40	78.80	29.00	24.00	4.70	682.00	524.00	401.10	59.20	21.60	10.00	148.30		
28	0.40	105.30	30.30	22.80	3.40	1347.70	574.20	452.70	46.70	20.40	7.20	110.90		
29	0.40	116.50	29.00	21.60	10.00	1461.20	580.80	587.40	68.80	15.90		130.90		
30	0.40	97.20	25.20	22.80	0.00	980.00	800.80	654.60	56.90	13.70		125.10		
31		84.00		22.80	0.00		1448.50		56.90	17.00		43.00		
Total	11.30	1424.70	1237.60	752.90	176.60	4937.00	23735.60	40235.00	6087.10	892.80	265.70	995.40	80751.70	Tonday
Mean	0.38	45.96	41.25	24.29	6.09	164.57	765.66	1341.17	196.36	28.80	9.49	32.11		Ton/day
Max	0.70	162.60	81.40	29.00	20.40	1461.20	1882.70	6868.70	607.30	59.20	18.10	148.30	6868.70	Ton/day
Min	0.10	0.40	21.60	19.20	0.10	0.60	137.80	401.10	44.80	7.90	2.70	4.70	0.10	Ton/day

WATER YEAR : 2002

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.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1997-Cont'd
Actual Measurement	1999-Cont'd
Using Rating Curve Water Year	2002
Number of observation	30
R-Square	0.8562
Remarks	Continued Sediment Station

$$QS = 1.1389\ QW^{1.38310}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.70	3.60	12.00	19.50	114.90	87.10	95.00	26.80	12.00	5.40	2.40	0.60		
2	1.70	5.90	14.50	26.80	95.00	150.10	87.10	34.60	11.30	5.40	2.00	0.60		
3	1.70	3.60	13.60	59.70	92.40	357.80	76.80	25.30	11.30	5.40	2.00	0.60		
4	1.70	7.70	13.60	41.50	81.90	762.30	69.30	23.80	11.30	5.40	2.00	0.60		
5	1.50	4.00	14.50	36.20	81.90	594.60	66.90	21.60	10.50	5.00	2.00	0.40		
6	1.50	3.60	12.80	45.30	164.90	448.60	62.00	20.60	10.50	5.00	1.70	0.40		
7	1.50	7.10	13.60	111.50	172.50	396.30	62.00	20.60	9.80	5.00	1.70	0.40		
8	1.50	4.00	12.80	336.30	325.70	310.00	57.60	19.50	12.00	4.50	1.50	0.40		
9	1.50	3.20	17.50	336.30	341.70	524.50	53.40	18.50	12.00	4.50	1.50	0.20		
10	1.50	2.80	17.50	289.30	237.10	418.80	51.30	18.50	12.00	4.50	1.50	5.40		
11	1.50	3.20	14.50	199.60	176.30	341.70	47.30	18.50	10.50	4.00	1.50	1.50		
12	1.20	4.00	14.50	153.80	180.10	264.40	45.30	17.50	9.80	4.00	1.50	0.80		
13	1.20	7.70	13.60	121.70	180.10	294.50	43.40	17.50	9.10	4.00	1.50	2.00		
14	1.20	5.90	12.00	108.70	150.10	203.60	41.50	17.50	9.10	3.60	2.00	5.00		
15	1.70	5.40	11.30	172.50	125.20	168.70	39.60	16.50	8.40	3.60	4.00	2.00		
16	1.50	7.70	10.50	121.70	232.60	150.10	36.20	16.50	8.40	3.60	2.40	1.00		
17	1.50	16.50	10.50	97.70	467.30	228.10	36.20	15.50	8.40	3.60	1.70	0.80		
18	1.50	87.10	10.50	81.90	952.10	161.20	41.50	15.50	8.40	3.20	1.50	0.60		
19	1.50	176.30	10.50	81.90	602.20	142.90	36.20	14.50	7.70	3.20	1.50	0.40		
20	1.70	1490.80	15.50	66.90	418.80	125.20	34.60	14.50	7.10	3.20	1.20	0.20		
21	1.50	195.70	33.00	57.60	363.30	111.50	34.60	13.60	7.10	3.20	1.20	0.20		
22	2.00	57.60	41.50	51.30	289.30	108.70	29.80	13.60	6.40	3.20	1.00	0.20		
23	1.70	37.90	74.30	76.80	215.60	161.20	33.00	13.60	6.40	2.80	0.80	0.80		
24	4.00	22.70	45.30	139.30	168.70	168.70	31.40	14.50	6.40	2.80	0.80	0.80		
25	5.90	20.60	34.60	108.70	161.20	161.20	29.80	15.50	6.40	2.80	0.80	0.60		
26	8.40	17.50	33.00	264.40	125.20	132.20	26.80	26.80	5.90	2.80	0.80	1.70		
27	3.60	16.50	23.80	237.10	111.50	111.50	26.80	15.50	5.90	2.80	0.60	2.80		
28	7.10	15.50	21.60	274.10	111.50	100.40	37.90	13.60	5.90	2.40	0.60	1.70		
29	4.00	16.50	21.60	228.10	111.50	95.00	28.30	12.80	5.90	2.40		1.50		
30	5.00	13.60	21.60	203.60	100.40	87.10	26.80	12.00	5.90	2.40		1.20		
31		12.00		150.10	97.70		33.00		5.90	2.40		1.20		
Total	73.50	2276.20	616.10	4299.90	7048.70	7368.00	1421.40	545.30	267.70	116.10	43.70	36.60	24113.20	Tonday
Mean	2.45	73.43	20.54	138.71	227.38	245.60	45.85	18.18	8.64	3.75	1.56	1.18		Ton/day
Max	8.40	1490.80	74.30	336.30	952.10	762.30	95.00	34.60	12.00	5.40	4.00	5.40	1490.80	Ton/day
Min	1.20	2.80	10.50	19.50	81.90	87.10	26.80	12.00	5.90	2.40	0.60	0.20	0.20	Ton/day

WATER YEAR : 2002

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.
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	2002
Number of observation	27
R-Square	0.9030
Remarks	Continued Sediment Station

$$QS = 1.2648\ QW^{1.55380}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.10	2.60	8.50	10.90	188.00	97.60	178.00	39.30	13.10	5.60	2.40	0.30		
2	0.20	1.70	9.70	26.00	138.10	286.70	142.60	58.20	13.10	5.60	2.10	0.30		
3	0.30	1.70	10.90	86.80	128.80	962.10	127.40	55.50	12.20	5.20	1.80	0.30		
4	0.20	1.50	12.20	79.80	148.70	3225.60	108.00	39.30	12.20	5.20	1.80	0.30		
5	0.10	1.10	9.70	83.20	154.10	1774.00	104.20	33.60	11.40	5.20	1.80	0.20		
6	0.10	4.90	7.90	182.20	224.20	1099.20	100.40	31.80	11.40	4.70	1.80	0.20		
7	0.10	10.90	8.50	583.10	498.00	772.90	295.10	28.30	11.40	4.70	1.80	0.10		
8	0.10	3.70	11.50	1079.60	713.80	591.30	234.00	26.60	11.40	4.70	1.50	0.10		
9	0.04	2.40	16.40	419.40	821.80	819.20	137.50	25.20	33.60	4.30	1.50	0.10		
10	0.04	6.80	14.90	837.70	654.50	706.10	112.70	23.80	17.50	4.30	1.50	30.00		
11	0.04	3.40	10.90	521.40	419.40	566.70	100.40	23.80	12.20	4.30	1.50	2.80		
12	0.04	2.40	9.70	294.90	345.70	438.70	89.40	21.20	11.40	4.30	1.50	1.20		
13	0.04	4.90	7.30	202.20	286.70	384.50	78.90	22.50	9.80	4.30	1.50	31.80		
14	0.04	4.00	6.80	216.80	231.70	295.10	75.50	21.20	9.80	3.90	1.50	10.60		
15	0.04	2.90	6.80	311.50	202.20	241.30	100.40	19.90	9.80	3.90	1.50	3.90		
16	0.10	4.30	5.70	132.90	533.20	212.40	66.40	19.90	9.00	3.90	2.80	2.40		
17	0.70	27.80	5.70	116.80	1518.30	363.40	63.60	19.90	9.00	3.90	2.10	1.50		
18	0.60	209.40	5.30	105.10	4868.70	248.80	69.30	19.90	9.00	3.90	1.80	0.90		
19	0.20	116.80	6.30	90.30	1545.50	212.40	60.90	18.70	8.20	3.50	1.50	0.70		
20	0.10	3145.60	8.50	73.00	821.80	164.90	82.40	18.70	8.20	3.10	1.20	0.50		
21	0.70	224.20	14.90	63.20	611.30	147.90	52.90	17.50	8.20	3.10	1.20	0.30		
22	1.90	86.80	13.50	60.10	486.50	142.60	50.30	17.50	7.50	3.10	1.20	0.30		
23	1.10	52.10	44.60	73.00	355.90	679.90	55.50	18.70	7.50	3.10	1.20	4.70		
24	3.40	33.30	26.00	355.90	294.90	628.70	58.20	19.90	6.80	3.10	0.90	1.20		
25	3.70	27.80	31.40	319.90	247.00	542.70	55.50	23.80	6.80	2.80	0.70	1.20		
26	4.90	17.90	19.40	744.10	195.00	384.50	47.80	21.20	6.10	2.80	0.70	9.00		
27	0.00	14.90	15.70	475.10	165.10	279.40	43.20	17.50	6.10	2.80	0.50	3.90		
28	0.00	12.20	12.90	419.40	138.10	219.50	50.30	16.30	6.10	2.40	0.50	30.00		
29	0.00	10.90	17.10	355.90	143.40	198.40	41.30	15.10	6.10	2.40		6.10		
30	0.00	9.70	11.50	376.70	138.10	171.40	39.30	14.00	5.60	2.40		4.30		
31		9.10		262.60	124.70		39.30		5.60	2.40		16.30		
Total	18.88	4057.70	390.20	8959.50	17343.20	16857.90	2860.70	748.80	316.10	118.90	41.80	165.50	51879.18	Tonday
Mean	0.73	130.89	13.01	289.02	559.46	561.93	92.28	24.96	10.20	3.84	1.49	5.34		Ton/day
Max	4.90	3145.60	44.60	1079.60	4868.70	3225.60	295.10	58.20	33.60	5.60	2.80	31.80	4868.70	Ton/day
Min	0.04	1.10	5.30	10.90	124.70	97.60	39.30	14.00	5.60	2.40	0.50	0.10	0.04	Ton/day

WATER YEAR : 2002

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	2002
Number of observation	30
R-Square	0.8899
Remarks	Continued Sediment Station

$$QS = 1.1443\ QW^{1.49650}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.40	7.80	21.50	49.50	464.00	300.90	420.80	105.10	33.80	16.30	7.80	3.20		
2	0.40	8.40	29.60	112.90	362.60	711.70	362.60	133.10	33.80	15.10	7.80	3.20		
3	0.50	6.50	31.70	214.30	338.60	2454.00	300.90	116.80	33.80	15.10	7.80	3.20		
4	0.40	10.50	35.90	176.60	338.60	5047.40	268.80	97.50	33.80	15.10	7.10	3.20		
5	0.30	7.10	31.70	158.70	330.70	3525.50	268.80	82.90	29.60	15.10	7.10	2.80		
6	0.30	9.10	27.70	275.10	555.90	2358.60	244.10	72.50	29.60	13.90	6.50	2.30		
7	0.20	22.90	29.60	610.10	818.40	1783.90	472.80	69.80	29.60	12.70	6.50	2.80		
8	0.20	11.20	27.70	1945.30	1388.00	1744.80	395.50	67.20	33.80	12.70	6.50	3.70		
9	0.20	7.10	47.20	1112.60	1706.00	2526.40	275.10	67.20	59.40	12.70	6.50	2.30		
10	0.20	12.00	49.50	1319.90	1194.10	1883.00	234.00	64.50	47.20	12.00	6.50	51.90		
11	0.20	8.40	38.10	892.30	842.80	1406.10	214.30	59.40	31.70	12.00	5.90	9.80		
12	0.10	6.50	35.90	632.30	770.40	1046.10	195.10	59.40	29.60	12.00	5.90	5.30		
13	0.10	12.00	29.60	493.20	711.70	1019.90	181.20	59.40	27.70	11.20	5.90	27.70		
14	0.10	15.10	25.70	429.30	599.20	770.40	167.60	59.40	25.70	11.20	7.80	20.20		
15	0.30	10.50	22.90	700.20	524.30	654.60	158.70	56.90	24.30	10.50	11.20	10.50		
16	0.20	25.70	21.50	503.50	1335.90	610.10	150.00	54.40	24.30	10.50	9.80	7.10		
17	0.20	79.40	20.20	338.60	3378.90	892.30	145.70	54.40	22.90	10.50	7.10	5.30		
18	0.10	287.90	18.80	287.90	5727.00	654.60	163.10	54.40	22.90	10.50	5.90	4.20		
19	0.10	677.30	18.80	268.80	3466.60	555.90	154.30	54.40	21.50	9.80	5.30	3.70		
20	0.50	5256.70	29.60	224.10	2057.40	472.80	154.30	49.50	21.50	9.80	5.30	3.20		
21	0.70	700.20	75.90	185.80	1553.60	403.90	133.10	44.80	21.50	9.80	4.80	3.20		
22	1.50	204.60	109.00	172.10	1256.50	420.80	133.10	42.50	21.50	9.10	4.80	3.20		
23	0.70	128.90	172.10	219.20	942.60	993.90	163.10	38.10	20.20	9.10	4.20	5.90		
24	1.10	75.90	124.80	677.30	782.30	1059.30	141.40	42.50	18.80	9.10	4.20	5.30		
25	5.90	64.50	101.30	524.30	711.70	981.00	120.80	51.90	18.80	9.10	4.20	4.80		
26	9.80	49.50	86.50	1099.20	534.80	723.40	105.10	75.90	17.60	8.40	3.70	13.90		
27	4.80	42.50	72.50	1059.30	455.20	566.60	109.00	54.40	17.60	8.40	3.70	11.20		
28	12.00	35.90	61.90	1046.10	403.90	483.00	145.70	42.50	17.60	8.40	3.20	24.30		
29	9.80	35.90	67.20	867.40	420.80	429.30	105.10	38.10	17.60	8.40		12.00		
30	12.00	27.70	56.90	818.40	378.90	387.20	101.30	35.90	17.60	8.40		9.10		
31		24.30		599.20	338.60		112.90		16.30	8.40		17.60		
Total	63.30	7872.00	1521.30	18013.50	34690.00	36867.40	6298.30	1904.80	821.60	345.30	173.00	286.10	108856.60	Tonday
Mean	2.11	253.94	50.71	581.08	1119.03	1228.91	203.17	63.49	26.50	11.14	6.18	9.23		Ton/day
Max	12.00	5256.70	172.10	1945.30	5727.00	5047.40	472.80	133.10	59.40	16.30	11.20	51.90	5727.00	Ton/day
Min	0.10	6.50	18.80	49.50	330.70	300.90	101.30	35.90	16.30	8.40	3.20	2.30	0.10	Ton/day

WATER YEAR : 2002

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	2000-Cont'd
Actual Measurement	2000-Cont'd
Using Rating Curve Water Year	2002
Number of observation	24
R-Square	0.8802
Remarks	Continued Sediment Station

$$QS = 3.9149\ QW^{1.79590}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.30	0.30	1.60	5.00	9.70	17.50	70.50	17.50	4.50	2.60	1.10	0.80		
2	0.30	0.30	1.30	3.60	11.50	22.70	57.40	16.40	4.10	2.30	1.10	0.80		
3	0.30	0.30	1.10	4.10	10.60	130.30	40.00	14.30	4.10	2.30	1.10	0.80		
4	0.30	0.30	1.10	2.60	12.40	205.80	34.90	12.40	5.00	2.30	0.90	0.80		
5	0.30	0.30	0.80	3.60	9.70	163.90	33.20	10.60	4.50	2.30	0.90	0.80		
6	0.30	0.30	1.60	8.10	11.50	96.60	31.60	9.70	4.10	2.30	0.90	0.80		
7	0.30	0.30	4.10	40.00	13.40	76.70	36.60	8.90	4.10	2.30	0.90	0.80		
8	0.30	0.50	2.10	13.40	22.70	68.20	33.20	8.10	3.60	2.10	0.90	0.60		
9	0.30	0.50	3.60	30.00	20.00	126.30	25.50	8.10	5.90	2.10	0.80	0.60		
10	0.30	0.40	2.90	12.40	14.30	96.60	21.30	7.50	4.50	2.10	0.80	1.60		
11	0.30	0.80	2.90	8.10	11.50	73.50	20.00	7.50	3.60	1.80	0.80	0.80		
12	0.20	0.60	2.30	6.40	11.50	83.10	17.50	14.30	3.60	1.80	0.80	0.80		
13	0.20	0.60	2.10	5.00	12.40	96.60	17.50	8.10	3.20	1.80	7.50	1.10		
14	0.20	0.60	1.60	4.50	9.70	76.70	15.40	7.00	3.20	1.80	2.10	2.10		
15	0.20	0.50	1.30	6.40	8.10	66.00	14.30	7.00	3.20	1.60	1.80	1.30		
16	0.30	0.80	1.10	5.00	14.30	66.00	12.40	7.00	3.20	1.60	1.60	1.10		
17	0.30	1.30	1.10	6.40	41.80	53.30	11.50	7.00	3.20	1.60	1.30	0.90		
18	0.30	9.70	1.10	5.40	83.10	45.50	24.10	6.40	3.20	1.60	1.10	0.80		
19	0.30	30.00	2.30	12.40	89.70	40.00	15.40	5.90	3.20	1.60	1.10	0.80		
20	0.30	326.90	1.60	8.10	53.30	34.90	12.40	5.90	3.20	1.60	1.10	0.80		
21	0.30	12.40	1.80	6.40	41.80	31.60	49.30	5.90	2.90	1.60	1.10	0.80		
22	0.30	5.40	2.90	5.90	33.20	45.50	21.30	5.90	2.90	1.60	0.90	0.80		
23	0.30	3.60	5.00	11.50	28.50	100.10	20.00	5.90	2.60	1.60	0.90	0.80		
24	0.20	2.10	2.60	21.30	22.70	96.60	17.50	5.90	2.60	1.60	0.80	1.10		
25	0.20	1.60	2.10	14.30	20.00	73.50	15.40	7.50	2.60	1.60	0.80	2.90		
26	0.20	1.10	2.10	17.50	18.70	63.80	13.40	8.10	2.60	1.30	0.80	1.80		
27	0.10	1.10	1.60	20.00	14.30	51.30	31.60	5.90	2.60	1.30	0.80	5.00		
28	0.10	0.90	4.50	21.30	14.30	43.70	20.00	5.40	2.60	1.30	0.80	3.20		
29	0.10	1.10	4.10	20.00	20.00	41.80	15.40	5.00	2.60	1.30		2.30		
30	0.30	1.10	7.50	14.30	21.30	34.90	13.40	5.00	2.60	1.10		2.10		
31		1.10		11.50	20.00		12.40		2.60	1.10		1.60		
Total	7.70	406.80	71.80	354.50	726.00	2223.00	774.40	250.10	106.40	54.90	35.50	41.30	5052.40	Tonday
Mean	0.26	13.12	2.39	11.44	23.42	74.10	24.98	8.34	3.43	1.77	1.27	1.33		Ton/day
Max	0.30	326.90	7.50	40.00	89.70	205.80	70.50	17.50	5.90	2.60	7.50	5.00	326.90	Ton/day
Min	0.10	0.30	0.80	2.60	8.10	17.50	11.50	5.00	2.60	1.10	0.80	0.60	0.10	Ton/day

WATER YEAR : 2002

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	2002
Number of observation	27
R-Square	0.8802
Remarks	Continued Sediment Station

$$QS = 4.1517\ QW^{1.58280}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.10	0.30	1.10	0.80	8.70	8.10	12.40	6.10	1.10	0.40	0.20	0.10		
2	0.10	0.30	1.30	1.70	6.10	47.30	8.70	4.70	1.10	0.40	0.20	0.10		
3	0.04	0.20	1.00	1.30	23.10	259.70	7.40	3.20	1.10	0.40	0.20	0.10		
4	0.04	0.40	1.10	1.10	10.90	120.60	6.80	2.50	1.50	0.30	0.20	0.10		
5	0.04	0.30	1.00	1.10	7.40	54.70	6.10	2.20	1.10	0.30	0.20	0.10		
6	0.04	0.30	0.70	1.30	18.80	33.20	6.10	2.20	1.10	0.30	0.10	0.10		
7	0.04	0.30	0.80	26.20	16.20	29.60	8.70	2.20	1.00	0.30	0.10	0.10		
8	0.04	0.30	1.10	4.70	11.70	31.40	8.70	1.80	1.00	0.30	0.10	0.10		
9	0.02	0.30	1.00	17.50	8.70	49.70	6.80	1.70	1.00	0.30	0.10	0.10		
10	0.02	0.20	1.30	7.40	7.40	29.60	6.10	1.70	1.10	0.30	0.10	0.10		
11	0.02	0.10	1.10	3.50	6.10	21.70	5.50	1.70	1.00	0.30	0.10	0.20		
12	0.01	0.20	1.00	2.80	10.20	18.80	5.50	1.70	0.80	0.30	0.10	0.10		
13	0.02	0.20	0.80	1.80	6.10	16.20	4.70	1.70	0.80	0.30	0.30	0.20		
14	0.04	0.20	0.70	2.80	6.10	12.40	3.90	1.70	0.80	0.30	0.60	0.20		
15	0.04	0.10	0.60	2.80	4.70	11.70	3.50	1.50	0.70	0.20	0.30	0.10		
16	0.02	1.00	0.70	3.50	18.80	10.90	3.50	1.50	0.70	0.20	0.30	0.10		
17	0.01	1.30	0.30	2.20	18.80	10.90	3.50	1.50	0.70	0.20	0.20	0.10		
18	0.01	6.80	0.30	6.10	90.30	10.20	3.20	1.70	0.70	0.20	0.20	0.10		
19	0.02	62.60	0.40	3.20	44.90	8.70	3.20	1.50	0.70	0.20	0.20	0.10		
20	0.10	40.90	0.60	2.80	27.90	8.10	3.20	1.50	0.60	0.20	0.10	0.04		
21	0.04	4.70	0.60	1.80	24.60	7.40	3.20	1.50	0.60	0.20	0.10	0.10		
22	0.04	2.50	0.70	1.70	23.10	10.90	3.20	1.30	0.60	0.20	0.10	0.10		
23	0.02	2.20	1.10	4.30	14.90	49.70	2.80	1.10	0.60	0.20	0.10	0.30		
24	0.04	1.30	1.00	6.10	11.70	14.90	4.30	1.00	0.40	0.20	0.10	0.30		
25	0.60	1.00	1.00	3.90	10.90	11.70	2.80	1.10	0.30	0.20	0.10	0.20		
26	0.60	0.80	1.10	3.90	8.10	9.40	2.80	2.80	0.30	0.20	0.10	0.30		
27	0.30	1.00	0.80	3.90	8.70	8.70	2.80	1.70	0.30	0.20	0.10	1.10		
28	0.30	1.00	0.80	7.40	9.40	7.40	3.20	1.30	0.80	0.20	0.10	1.10		
29	0.30	2.20	0.80	11.70	17.50	7.40	2.80	1.30	0.40	0.20		0.60		
30	0.30	1.70	1.00	6.80	12.40	12.40	2.50	1.10	0.40	0.20		0.40		
31		1.30		13.60	11.70		2.20		0.40	0.20		0.40		
Total	3.31	136.00	25.80	159.70	505.90	933.40	150.10	58.50	23.70	7.90	4.70	7.14	2016.15	Tonday
Mean	0.11	4.39	0.86	5.15	16.32	31.11	4.84	1.95	0.76	0.25	0.17	0.23		Ton/day
Max	0.60	62.60	1.30	26.20	90.30	259.70	12.40	6.10	1.50	0.40	0.60	1.10	259.70	Ton/day
Min	0.01	0.10	0.30	0.80	4.70	7.40	2.20	1.00	0.30	0.20	0.10	0.04	0.01	Ton/day

WATER YEAR : 2002

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	2002
Number of observation	27
R-Square	0.8960
Remarks	Continued Sediment Station

$$QS = 4.9224\ QW^{1.50140}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.04	0.10	0.40	1.00	38.30	11.40	22.50	7.30	0.80	0.20	0.10	0.03		
2	0.03	0.10	0.50	1.30	16.60	34.40	12.40	4.90	0.40	0.20	0.10	0.03		
3	0.03	0.10	0.40	1.30	17.80	150.60	10.90	2.40	0.40	0.20	0.10	0.03		
4	0.01	0.10	0.40	1.20	34.40	154.30	10.00	1.70	1.70	0.20	0.10	0.01		
5	0.01	0.10	0.90	1.00	19.50	105.10	7.30	1.60	0.90	0.20	0.10	0.01		
6	0.01	0.10	0.50	1.20	20.70	72.70	6.90	1.40	0.40	0.20	0.10	0.01		
7	0.01	0.10	0.80	38.30	36.50	40.90	23.10	1.30	0.40	0.20	0.04	0.01		
8	0.01	0.10	2.90	12.40	30.20	29.60	11.90	1.30	0.40	0.20	0.04	0.01		
9	0.01	0.10	1.70	35.10	21.90	56.80	8.60	1.30	0.40	0.20	0.04	0.01		
10	0.01	0.10	1.30	20.10	11.40	53.30	6.10	1.30	0.90	0.20	0.04	1.40		
11	1.70	0.10	2.20	10.40	10.90	28.90	4.90	1.30	0.40	0.10	0.04	0.30		
12	0.20	0.10	2.60	4.90	15.50	21.30	4.20	1.30	0.30	0.10	0.04	0.10		
13	0.10	0.10	5.70	3.50	12.40	21.90	4.20	1.60	0.30	0.10	0.04	0.10		
14	0.10	0.10	2.10	2.40	10.90	15.50	3.10	1.40	0.30	0.10	0.40	0.10		
15	0.10	0.10	0.90	6.90	8.20	13.40	2.80	1.40	0.30	0.10	0.30	0.10		
16	0.10	0.40	0.80	13.90	18.30	12.90	2.20	1.30	0.30	0.10	0.20	0.10		
17	0.00	1.70	0.40	5.70	61.60	16.10	2.20	1.30	0.30	0.10	0.10	0.10		
18	0.00	42.80	1.20	9.00	175.30	12.90	4.60	1.40	0.30	0.10	0.10	0.10		
19	0.00	45.50	0.90	9.50	127.10	13.90	3.10	1.30	0.30	0.10	0.10	0.10		
20	0.00	154.30	0.50	2.90	65.20	15.00	2.20	1.20	0.30	0.10	0.10	0.04		
21	0.00	26.90	1.00	2.10	35.80	13.40	2.20	1.00	0.30	0.10	0.10	0.04		
22	0.00	6.50	0.80	1.60	43.70	12.40	1.90	1.00	0.30	0.10	0.10	0.04		
23	0.00	6.10	1.20	13.90	20.70	110.00	2.60	0.90	0.30	0.10	0.10	4.90		
24	0.00	3.50	1.40	10.40	15.00	41.80	5.70	0.80	0.20	0.10	0.04	0.20		
25	0.00	1.70	1.00	7.30	11.90	25.00	1.90	1.70	0.20	0.10	0.04	0.10		
26	0.00	0.70	1.30	6.10	10.40	18.90	1.60	8.60	0.20	0.10	0.04	0.30		
27	0.00	0.40	0.80	20.10	6.90	13.90	1.40	1.90	2.40	0.10	0.04	5.30		
28	0.00	0.50	1.20	23.70	2.90	12.90	8.60	1.30	1.30	0.10	0.04	8.60		
29	0.00	1.30	0.90	20.10	31.60	11.40	3.90	1.00	0.30	0.10		1.00		
30	0.00	0.50	1.30	12.40	16.60	10.40	2.20	0.90	0.30	0.10		1.00		
31		0.40		25.60	20.10		2.20		0.20	0.10		1.20		
Total	2.47	294.70	38.00	325.30	968.30	1151.00	187.40	57.10	15.80	4.10	2.68	25.37	3072.22	Tonday
Mean	0.15	9.51	1.27	10.49	31.24	38.37	6.05	1.90	0.51	0.13	0.10	0.82		Ton/day
Max	1.70	154.30	5.70	38.30	175.30	154.30	23.10	8.60	2.40	0.20	0.40	8.60	175.30	Ton/day
Min	0.01	0.10	0.40	1.00	2.90	10.40	1.40	0.80	0.20	0.10	0.04	0.01	0.01	Ton/day

WATER YEAR : 2002

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	2002
Number of observation	21
R-Square	0.8994
Remarks	Continued Sediment Station

$$QS = 8.2710\ QW^{1.65000}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.20	0.20	0.30	0.30	1.10	0.20	45.20	1.10	1.10	0.20	0.10	0.03		
2	0.20	0.20	0.30	0.30	0.30	0.20	32.70	1.50	0.70	0.20	0.40	0.50		
3	0.20	0.20	0.30	0.30	0.20	0.20	21.80	1.50	0.60	0.10	0.10	0.20		
4	0.20	0.20	0.30	0.30	0.20	0.30	21.80	1.30	0.50	0.10	0.03	0.10		
5	0.20	0.20	0.20	0.30	0.20	0.40	15.30	0.90	0.50	0.10	0.00	4.60		
6	0.20	0.20	0.20	0.30	0.20	1.50	13.60	0.60	0.50	0.10	0.00	0.00		
7	0.20	0.20	0.20	0.30	0.20	1.70	156.90	0.60	0.40	0.10	0.00	0.00		
8	0.20	0.20	0.20	0.30	0.20	1.50	113.90	0.50	0.40	0.10	0.00	0.00		
9	0.20	0.20	0.20	0.30	0.20	2.10	65.40	0.50	0.50	0.10	0.00	0.00		
10	0.20	0.20	0.20	0.30	0.20	1.90	42.60	0.50	0.60	0.10	0.00	0.00		
11	0.20	0.40	0.20	0.30	0.20	1.30	30.40	0.40	0.60	0.10	0.00	0.00		
12	0.20	0.20	0.20	0.30	0.20	1.90	19.90	0.40	0.50	0.10	0.00	0.00		
13	0.20	0.20	0.40	0.20	0.20	2.10	14.40	4.10	0.40	0.04	0.00	0.00		
14	0.20	0.20	0.90	0.20	0.20	0.90	12.00	3.60	0.40	0.04	0.00	0.00		
15	0.20	0.20	0.40	0.20	0.10	0.60	9.00	1.30	0.40	0.04	0.00	0.00		
16	0.20	0.20	0.40	0.20	0.20	0.50	6.30	0.70	0.40	0.04	0.00	0.00		
17	0.20	0.30	0.30	0.20	0.20	0.60	5.10	0.50	0.40	0.04	0.00	0.00		
18	0.20	0.30	0.30	0.20	0.20	0.50	3.60	0.50	0.40	0.03	0.00	0.00		
19	0.20	0.20	0.20	0.20	0.20	0.50	2.60	0.50	0.30	0.03	0.00	0.00		
20	0.20	7.60	0.30	0.20	0.20	0.40	2.40	0.40	0.30	0.03	0.00	0.00		
21	0.20	14.40	0.30	0.20	0.20	0.40	3.10	0.40	0.20	0.03	0.00	0.00		
22	0.20	4.60	0.30	0.20	0.20	0.50	9.00	0.40	0.20	0.00	0.00	0.00		
23	0.20	2.10	0.30	0.20	0.20	369.50	2.60	0.40	0.20	0.00	0.00	0.00		
24	0.20	1.10	0.30	0.20	0.20	12255.80	1.90	0.70	0.20	0.00	0.00	0.00		
25	0.20	0.50	0.30	0.20	0.20	2294.90	1.50	1.30	0.20	0.00	0.00	0.00		
26	0.20	0.40	0.40	0.20	0.20	465.30	1.10	16.10	0.20	0.00	0.00	0.00		
27	0.20	0.40	0.40	0.20	0.20	197.90	1.70	8.30	0.20	0.00	0.00	0.00		
28	0.20	0.30	0.50	0.20	0.20	125.60	1.70	4.10	0.20	0.00	0.00	0.00		
29	0.20	0.30	0.40	0.20	0.20	125.60	1.30	2.60	0.20	0.00		0.00		
30	0.20	0.40	0.40	0.20	0.20	62.30	1.10	1.50	0.20	0.00		0.00		
31		0.30		0.20	0.20		1.10		0.20	0.00		0.00		
Total	6.00	36.60	9.60	7.40	7.10	15917.10	661.00	57.20	12.10	1.72	0.63	5.43	16721.88	Tonday
Mean	0.20	1.18	0.32	0.24	0.23	530.57	21.32	1.91	0.39	0.08	0.16	1.09		Ton/day
Max	0.20	14.40	0.90	0.30	1.10	12255.80	156.90	16.10	1.10	0.20	0.40	4.60	12255.80	Ton/day
Min	0.20	0.20	0.20	0.20	0.10	0.20	1.10	0.40	0.20	0.03	0.03	0.03	0.03	Ton/day

WATER YEAR : 2002

MAE KLONG RIVER BASIN

Lam Pha Chi at Ban Chorrakne Phuak, Kanchanaburi (K.59)

Lat 14 - 54 - 26 N Long 99 - 23 - 05 E

Location : on left bank at the bridge on road.

Ban Chorrakne Phuak **Amphoe** Dan Makham Tia **Changwat** Kanchanaburi

Drainge Area	2,435 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	2002
Number of observation	27
R-Square	0.7557
Remarks	Continued Sediment Station

$$QS = 4.4496\ QW^{1.50560}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.60	13.60	34.50	67.70	78.90	1144.80	1830.80	586.90	359.90	74.50	10.80	9.50		
2	4.40	16.60	30.60	45.70	78.90	1110.50	1543.10	539.30	308.50	64.40	10.80	8.20		
3	6.60	23.30	23.30	48.70	131.90	1144.80	1093.40	562.90	267.70	61.10	15.10	8.20		
4	8.20	19.90	23.30	26.90	147.90	2015.90	764.00	623.50	236.60	57.90	13.60	8.20		
5	6.60	16.60	25.00	21.50	64.40	6388.90	711.80	586.90	211.60	51.70	12.20	7.40		
6	4.40	71.10	26.90	19.90	21.50	7856.40	764.00	515.90	199.40	48.70	10.80	8.20		
7	5.10	23.30	23.30	18.20	78.90	5598.30	1899.50	395.60	170.20	48.70	12.20	8.20		
8	6.60	26.90	23.30	16.60	101.90	4133.10	2478.80	359.90	158.90	45.70	10.80	7.40		
9	1.10	30.60	21.50	16.60	137.20	4293.70	2657.20	333.90	158.90	42.80	9.50	6.60		
10	25.00	16.60	21.50	19.90	275.70	6951.00	1564.60	308.50	368.70	40.70	9.50	8.20		
11	8.20	19.90	19.90	19.90	300.20	8121.80	899.70	275.70	316.90	38.60	9.50	13.60		
12	1.60	28.70	40.70	18.20	57.90	8661.50	711.80	259.80	259.80	36.60	9.50	13.60		
13	1.10	23.30	121.60	21.50	42.80	9160.50	648.30	308.50	217.70	34.50	9.50	13.60		
14	0.70	18.20	170.20	18.20	121.60	8798.20	562.90	368.70	187.60	32.60	8.20	12.20		
15	0.40	16.60	57.90	15.10	224.00	4829.60	515.90	300.20	158.90	30.60	8.20	10.80		
16	0.70	15.10	61.10	15.10	181.70	2453.60	635.90	275.70	137.20	26.90	8.20	9.50		
17	1.60	19.90	40.70	12.20	292.00	1969.00	635.90	275.70	121.60	23.30	7.40	9.50		
18	0.70	23.30	32.60	10.80	830.90	2039.40	459.20	325.30	101.90	25.00	8.20	8.20		
19	0.70	28.70	26.90	15.10	2709.00	2015.90	437.10	267.70	92.40	23.30	9.50	7.40		
20	0.40	205.50	23.30	18.20	4133.10	1876.50	504.40	205.50	87.80	23.30	16.60	9.50		
21	0.40	1762.90	19.90	23.30	3670.20	1740.50	648.30	193.50	83.30	21.50	30.60	8.20		
22	2.60	1808.10	21.50	19.90	3053.40	1673.80	611.20	193.50	78.90	21.50	21.50	8.20		
23	0.40	562.90	23.30	16.60	3638.30	1945.80	999.10	648.30	74.50	21.50	18.20	7.40		
24	0.40	283.80	32.60	18.20	2839.80	6388.90	1322.00	1651.80	74.50	18.20	13.60	8.20		
25	0.70	175.90	40.70	40.70	2329.10	13455.40	858.20	1144.80	67.70	16.60	12.20	8.20		
26	1.60	121.60	38.60	121.60	2110.60	11622.50	635.90	803.90	61.10	16.60	9.50	8.20		
27	0.70	83.30	40.70	16.60	1876.50	5753.60	686.20	699.00	57.90	15.10	12.20	12.20		
28	7.40	71.10	45.70	193.50	1673.80	3857.00	1521.70	648.30	64.40	13.60	9.50	13.60		
29	64.40	54.80	51.70	54.80	1340.10	3026.50	1303.90	515.90	71.10	13.60		26.90		
30	0.00	42.80	74.50	13.60	1267.90	3026.50	984.70	448.10	97.10	15.10		78.90		
31		38.60		121.60	1285.80		648.30		87.80	13.60		142.50		
Total	164.30	5663.50	1237.30	1106.40	35095.90	143053.90	31537.80	14623.20	4940.50	1017.80	337.40	510.50	239288.50	Tonday
Mean	5.67	182.69	41.24	35.69	1132.13	4768.46	1017.35	487.44	159.37	32.83	12.05	16.47		Ton/day
Max	64.40	1808.10	170.20	193.50	4133.10	13455.40	2657.20	1651.80	368.70	74.50	30.60	142.50	13455.40	Ton/day
Min	0.40	13.60	19.90	10.80	21.50	1110.50	437.10	193.50	57.90	13.60	7.40	6.60	0.40	Ton/day

WATER YEAR : 2002

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	2000-Cont'd
Actual Measurement	2000-Cont'd
Using Rating Curve Water Year	2002
Number of observation	27
R-Square	0.8413
Remarks	Continued Sediment Station

$$QS = 3.5354\ QW^{1.59910}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.10	0.10	4.00	7.30	25.00	34.50	114.10	29.90	6.30	4.40	2.10	1.90		
2	0.10	0.10	4.40	6.80	18.80	58.90	48.60	17.90	6.30	4.40	2.10	1.90		
3	0.10	0.10	4.40	6.80	23.20	415.40	38.20	13.20	6.30	4.00	2.10	1.90		
4	0.10	0.10	4.00	6.30	38.20	585.20	32.20	10.60	5.80	4.00	2.10	1.90		
5	0.10	0.10	4.40	6.30	21.40	278.40	29.90	9.50	5.80	3.60	2.10	1.90		
6	0.10	0.10	4.40	5.80	20.50	121.60	33.40	8.90	5.80	3.60	1.90	1.90		
7	0.10	0.10	7.30	60.60	23.20	76.90	40.70	8.30	5.80	3.60	1.90	1.90		
8	0.10	0.10	7.30	24.10	21.40	60.60	32.20	7.80	6.30	3.60	1.90	1.70		
9	0.10	0.10	9.50	48.60	19.60	114.10	24.10	7.30	6.30	3.20	1.90	1.70		
10	0.10	0.10	7.80	26.90	16.30	97.10	21.40	6.80	6.30	3.20	1.90	4.90		
11	0.10	0.10	10.60	13.20	14.70	84.50	20.50	7.80	5.80	3.20	1.90	2.50		
12	0.10	0.10	14.00	9.50	19.60	92.50	18.80	7.80	5.80	2.80	1.90	2.30		
13	0.10	0.10	10.60	7.80	16.30	52.70	17.10	7.30	5.30	2.80	14.00	2.10		
14	0.10	0.10	7.30	7.30	14.70	48.60	14.70	6.80	5.30	2.80	4.00	4.90		
15	0.10	0.10	5.80	11.20	12.50	44.60	13.20	6.80	5.30	2.80	3.60	2.80		
16	0.10	0.10	5.30	18.80	24.10	39.50	12.50	6.80	4.90	2.80	3.20	2.30		
17	0.10	0.10	4.90	17.90	78.70	50.00	12.50	6.80	4.90	2.80	2.80	2.30		
18	0.10	2.50	4.90	17.10	408.60	42.00	26.00	6.80	4.90	2.50	2.30	2.10		
19	0.10	28.90	6.80	44.60	168.80	34.50	19.60	6.80	4.90	2.50	2.10	2.10		
20	0.10	611.90	5.30	15.50	71.40	29.90	14.00	6.80	4.40	2.50	1.90	1.90		
21	0.10	24.10	5.80	10.60	55.60	33.40	21.40	6.80	4.40	2.50	1.90	1.90		
22	0.10	8.30	5.80	8.90	65.90	34.50	12.50	6.30	4.40	2.50	1.90	1.90		
23	0.10	10.00	6.80	20.50	38.20	157.40	11.20	5.80	4.00	2.80	1.90	11.20		
24	0.10	6.80	6.30	32.20	28.90	90.40	12.50	5.80	4.00	2.50	1.70	3.20		
25	0.10	6.30	6.80	20.50	23.20	65.90	10.60	5.80	4.00	2.50	1.70	2.80		
26	0.10	4.90	6.30	17.90	20.50	47.30	10.00	5.80	4.00	2.30	1.90	4.90		
27	0.10	4.00	5.30	23.20	17.90	39.50	10.60	7.80	4.00	2.30	2.10	6.80		
28	0.10	4.40	9.50	52.70	18.80	52.70	22.30	6.80	11.80	2.30	2.10	8.30		
29	0.10	5.80	6.30	33.40	67.80	33.40	13.20	6.30	6.30	2.30		6.80		
30	0.10	4.40	6.80	22.30	50.00	27.90	11.20	6.30	4.90	2.10		6.30		
31		5.30		21.40	60.60		10.00		4.90	2.10		5.30		
Total	3.00	729.30	198.70	626.00	1504.40	2943.90	729.20	254.20	169.20	91.30	72.90	106.30	7428.40	Tonday
Mean	0.10	23.53	6.62	20.19	48.53	98.13	23.52	8.47	5.46	2.95	2.60	3.43		Ton/day
Max	0.10	611.90	14.00	60.60	408.60	585.20	114.10	29.90	11.80	4.40	14.00	11.20	611.90	Ton/day
Min	0.10	0.10	4.00	5.80	12.50	27.90	10.00	5.80	4.00	2.10	1.70	1.70	0.10	Ton/day

WATER YEAR : 2002

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	1998-2002
Number of observation	64
R-Square	0.8854
Remarks	Continued Sediment Station

$$QS = 2.0668\ QW^{1.47130}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	31.90	58.90	127.10	119.50	1253.60	595.20	974.80	262.40	44.50	12.40	19.00	14.50		
2	31.90	401.20	112.00	97.40	461.70	249.50	708.00	249.50	62.60	10.40	19.00	16.70		
3	29.10	357.60	90.40	97.40	262.40	249.50	493.00	249.50	55.20	10.40	19.00	16.70		
4	29.10	162.70	70.40	97.40	204.60	183.30	446.30	204.60	44.50	12.40	19.00	16.70		
5	31.90	97.40	70.40	97.40	204.60	215.60	431.10	162.70	37.90	10.40	19.00	34.70		
6	31.90	62.60	62.60	97.40	112.00	249.50	416.00	127.10	37.90	10.40	19.00	37.90		
7	29.10	31.90	41.20	90.40	97.40	204.60	827.00	112.00	37.90	10.40	19.00	37.90		
8	34.70	238.10	34.70	97.40	83.60	152.70	2712.40	76.90	37.90	10.40	16.70	34.70		
9	31.90	847.40	41.20	112.00	70.40	112.00	867.90	70.40	34.70	10.40	14.50	31.90		
10	26.50	193.90	62.60	142.90	76.90	90.40	524.90	55.20	37.90	10.40	12.40	142.90		
11	26.50	127.10	193.90	127.10	90.40	226.70	275.40	55.20	51.50	12.40	12.40	37.90		
12	26.50	142.90	90.40	104.60	142.90	1612.10	142.90	55.20	29.10	16.70	12.40	34.70		
13	26.50	112.00	55.20	83.60	97.40	1505.50	119.50	55.20	26.50	16.70	10.40	14.50		
14	26.50	83.60	21.40	97.40	90.40	1042.30	104.60	51.50	31.90	16.70	10.40	12.40		
15	26.50	83.60	193.90	119.50	83.60	727.40	97.40	51.50	29.10	19.00	19.00	12.40		
16	29.10	70.40	215.60	134.90	76.90	595.20	90.40	51.50	29.10	19.00	16.70	10.40		
17	31.90	90.40	215.60	708.00	70.40	371.90	90.40	48.00	29.10	19.00	16.70	10.40		
18	48.00	119.50	172.90	613.50	127.10	162.70	97.40	41.20	29.10	16.70	14.50	12.40		
19	66.50	83.60	152.70	226.70	127.10	446.30	83.60	37.90	29.10	16.70	14.50	14.50		
20	70.40	104.60	172.90	127.10	104.60	1302.20	66.50	34.70	29.10	16.70	14.50	19.00		
21	70.40	806.70	215.60	90.40	152.70	1888.70	66.50	37.90	29.10	16.70	14.50	26.50		
22	55.20	2316.00	215.60	62.60	461.70	2444.00	83.60	37.90	29.10	16.70	14.50	26.50		
23	31.90	827.00	119.50	226.70	688.80	8928.80	76.90	37.90	31.90	16.70	14.50	26.50		
24	62.60	226.70	112.00	1326.70	477.30	25978.30	90.40	62.60	31.90	16.70	12.40	26.50		
25	66.50	193.90	112.00	1558.50	493.00	23502.50	134.90	204.60	31.90	19.00	12.40	29.10		
26	226.70	193.90	112.00	1666.30	930.50	13061.50	183.30	127.10	31.90	19.00	16.70	31.90		
27	172.90	888.60	112.00	1531.90	909.50	2006.00	262.40	70.40	31.90	19.00	16.70	21.40		
28	162.70	827.00	119.50	1351.40	867.90	1917.10	595.20	66.50	26.50	19.00	14.50	16.70		
29	112.00	329.40	142.90	1401.20	727.40	1531.90	508.90	41.20	14.50	19.00		16.70		
30	26.50	172.90	172.90	2747.40	541.10	974.80	343.40	31.90	14.50	19.00		16.70		
31		127.10		4380.50	888.60		238.10		14.50	19.00		34.70		
Total	1673.80	10378.60	3631.10	19735.20	10976.50	92528.20	12153.10	2770.20	1032.30	477.40	434.30	836.40	156627.10	Tonday
Mean	55.79	334.79	121.04	636.62	354.08	3084.27	392.04	92.34	33.30	15.40	15.51	26.98		Ton/day
Max	226.70	2316.00	215.60	4380.50	1253.60	25978.30	2712.40	262.40	62.60	19.00	19.00	142.90	25978.30	Ton/day
Min	26.50	31.90	21.40	62.60	70.40	90.40	66.50	31.90	14.50	10.40	10.40	10.40	10.40	Ton/day

WATER YEAR : 2002

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	2002
Number of observation	28
R-Square	0.8593
Remarks	Continued Sediment Station

$$QS = 3.4431\ QW^{1.25940}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	21.00	33.60	178.60	202.40	1396.70	1343.90	4997.20	361.40	84.10	10.40	11.50	19.10		
2	23.50	28.10	133.00	281.40	1523.40	1744.80	3478.40	413.00	80.40	10.90	10.90	19.70		
3	10.90	16.10	115.30	188.40	907.40	2011.50	2633.00	352.90	82.90	7.70	10.90	20.40		
4	7.00	22.90	87.90	153.60	592.50	2090.70	2504.30	309.60	75.40	6.70	9.80	19.70		
5	6.50	45.00	71.80	165.00	511.10	1684.80	1960.90	279.30	69.30	4.80	9.80	19.70		
6	6.00	87.90	63.40	228.80	523.30	2176.30	1684.80	228.80	65.70	4.60	9.80	19.70		
7	7.00	73.00	62.20	311.80	492.90	2022.70	1381.10	157.40	59.80	4.60	9.30	19.70		
8	19.10	70.50	61.00	303.10	361.40	1486.20	1454.50	135.80	55.20	4.80	9.30	19.70		
9	11.50	90.50	147.00	322.30	243.30	1233.70	1268.80	131.60	54.00	5.70	9.30	22.90		
10	13.70	90.50	139.90	410.10	188.40	1087.10	1155.60	108.70	49.50	5.00	9.30	24.20		
11	12.00	98.20	130.30	573.80	144.10	1181.50	1015.20	90.50	65.70	5.00	10.90	218.60		
12	3.70	70.50	86.60	707.30	137.20	2079.30	615.10	74.20	56.30	4.60	10.40	142.70		
13	2.20	114.00	74.20	722.90	148.40	3523.60	460.00	70.50	52.90	4.60	10.40	123.40		
14	1.80	134.40	66.90	603.80	127.50	4027.70	344.50	65.70	36.40	3.40	14.90	112.60		
15	3.00	168.90	68.10	445.20	116.70	3916.50	283.60	56.30	35.00	3.40	14.30	36.40		
16	6.20	184.50	126.10	347.30	116.70	3460.40	268.60	64.50	32.90	3.40	15.50	30.80		
17	16.70	200.40	127.50	355.80	106.00	2605.80	298.70	71.80	32.90	2.40	16.70	22.90		
18	15.50	222.70	128.90	834.20	114.00	2303.90	384.20	76.70	32.20	2.00	16.70	22.90		
19	23.50	260.10	110.00	1412.50	135.80	2511.10	279.30	68.10	32.90	4.80	16.70	19.70		
20	29.50	316.80	106.00	1057.40	170.80	3541.60	279.30	86.60	32.20	5.70	17.30	19.70		
21	37.10	364.20	118.00	660.90	147.00	4083.50	157.40	56.30	32.20	25.50	17.30	16.70		
22	23.50	384.20	212.50	649.40	243.30	4346.00	139.90	37.10	32.90	23.50	17.30	16.70		
23	23.50	418.80	247.50	336.10	558.90	4554.70	149.80	50.60	32.20	26.10	16.70	13.70		
24	16.70	410.10	232.90	290.00	798.10	4823.10	153.60	89.20	32.20	22.20	16.70	9.30		
25	21.00	451.10	239.20	272.90	798.10	5094.60	186.50	112.60	28.10	12.60	17.30	8.80		
26	1.80	364.20	285.70	214.50	878.70	5211.80	262.20	224.70	21.00	12.00	17.30	8.80		
27	8.80	398.50	314.00	190.40	1181.50	5290.30	253.80	212.50	18.50	12.60	17.90	59.80		
28	8.20	392.80	381.30	151.70	1386.30	5398.70	350.10	138.60	15.50	11.50	18.50	85.40		
29	5.00	314.00	489.90	134.40	1454.50	5457.90	544.70	112.60	13.70	11.50		39.90		
30	38.50	228.80	526.30	247.50	1417.70	5319.80	551.50	89.20	8.80	10.90		22.90		
31		196.40		551.50	1352.80		448.20		7.20	10.90		18.50		
Total	424.40	6251.70	5132.00	13326.40	18274.50	95613.50	29944.80	4326.80	1328.00	283.80	382.70	1255.00	176543.60	Tonday
Mean	14.10	201.70	171.10	429.90	589.50	3187.10	966.00	144.20	42.80	9.20	13.70	40.50		Ton/day
Max	38.50	451.10	526.30	1412.50	1523.40	5457.90	4997.20	413.00	84.10	26.10	18.50	218.60	5457.90	Ton/day
Min	1.80	16.10	61.00	134.40	106.00	1087.10	139.90	37.10	7.20	2.00	9.30	8.80	1.80	Ton/day

WATER YEAR : 2002

PRACHIN BURI RIVER BASIN

Khlong Luang at Ban Khao Nom Nang, Chon Buri (Kgt.19)

Lat 13 - 23 - 21 N Long 101 - 20 - 52 E

Location : on left bank about 4 kilometers east of Khok Pho Market and about 16 kilometers from Amphoe Phanat Nikhom.

Ban Khao Nom Nang **Amphoe** Phanat Nikhom **Changwat** Chon Buri

Drainge Area	473 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	1998-2002
Number of observation	45
R-Square	0.7009
Remarks	Continued Sediment Station

$$QS = 20.5880\ QW^{1.03630}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.50	2.70	111.40	156.00	140.00	127.30	136.80	165.70	77.20	48.80	15.90	13.00		
2	1.90	2.70	111.40	146.40	124.10	120.90	130.50	149.60	85.00	47.70	15.50	13.00		
3	1.90	6.70	106.40	130.50	111.40	117.70	120.90	124.10	91.50	41.80	13.00	13.40		
4	1.70	101.50	114.60	120.90	108.90	108.90	136.80	114.60	80.30	48.80	8.80	13.40		
5	1.70	101.50	111.40	117.70	103.90	103.90	149.60	114.60	81.90	48.80	6.90	12.50		
6	1.50	194.70	106.40	117.70	101.50	103.90	130.50	106.40	70.90	43.10	6.90	11.90		
7	1.50	149.60	101.50	111.40	101.50	101.50	313.90	103.90	67.80	32.60	7.60	12.10		
8	1.30	111.40	101.50	117.70	101.50	99.00	261.00	96.50	75.60	30.50	7.60	11.10		
9	1.30	111.40	91.50	120.90	117.70	96.50	133.70	94.00	75.60	30.90	7.60	10.70		
10	1.10	96.50	74.10	117.70	124.10	77.20	120.90	91.50	111.40	34.60	8.00	8.80		
11	1.10	400.90	77.20	108.90	111.40	85.00	114.60	91.50	103.90	40.50	7.10	8.20		
12	1.10	506.70	106.40	101.50	106.40	99.00	108.90	140.00	91.50	47.70	6.90	5.70		
13	1.10	253.60	180.10	101.50	101.50	99.00	103.90	143.20	78.80	53.20	7.30	4.30		
14	1.10	162.50	360.50	94.00	101.50	91.50	101.50	120.90	67.80	52.10	7.80	4.30		
15	1.10	130.50	140.00	83.50	101.50	89.10	99.00	106.40	60.10	47.70	8.60	4.30		
16	1.10	117.70	130.50	114.60	96.50	80.30	99.00	101.50	69.40	43.10	8.80	3.50		
17	1.10	143.20	117.70	159.20	101.50	72.50	106.40	103.90	61.60	37.90	8.80	0.20		
18	0.90	209.20	111.40	117.70	103.90	75.60	106.40	96.50	57.00	29.20	9.20	0.20		
19	0.90	313.90	124.10	140.00	101.50	108.90	101.50	75.60	54.30	27.00	9.40	0.40		
20	2.30	189.80	152.80	146.40	91.50	140.00	106.40	89.10	49.90	26.20	9.60	1.70		
21	3.50	199.50	204.40	117.70	89.10	117.70	124.10	81.90	46.60	24.00	10.00	6.50		
22	3.30	156.00	159.20	106.40	91.50	120.90	117.70	61.60	43.80	23.60	10.50	17.60		
23	3.10	127.30	127.30	106.40	117.70	283.50	199.50	66.30	53.20	21.40	10.50	37.90		
24	3.10	117.70	124.10	106.40	117.70	535.40	238.70	75.60	52.10	22.30	10.90	64.70		
25	3.10	111.40	124.10	103.90	111.40	298.40	140.00	114.60	47.70	23.60	11.10	108.90		
26	2.90	124.10	130.50	91.50	124.10	159.20	124.10	103.90	46.60	25.30	11.70	103.90		
27	2.70	223.80	162.50	83.50	117.70	204.40	130.50	106.40	48.80	26.20	12.30	89.10		
28	2.70	159.20	223.80	78.80	117.70	434.10	168.90	99.00	47.70	25.30	13.00	101.50		
29	2.70	165.70	468.60	81.90	127.30	306.20	159.20	80.30	45.50	22.50		108.90		
30	2.70	156.00	409.20	152.80	130.50	156.00	133.70	78.80	43.80	21.00		0.00		
31		124.10		253.60	136.80		124.10		44.40	18.20		0.00		
Total	57.00	4971.50	4664.60	3707.10	3433.30	4613.50	4342.70	3097.90	2031.70	1065.60	271.30	791.70	33047.90	Tonday
Mean	1.90	160.37	155.49	119.58	110.75	153.78	140.09	103.26	65.54	34.37	9.69	27.30		Ton/day
Max	3.50	506.70	468.60	253.60	140.00	535.40	313.90	165.70	111.40	53.20	15.90	108.90	535.40	Ton/day
Min	0.90	2.70	74.10	78.80	89.10	72.50	99.00	61.60	43.80	18.20	6.90	0.20	0.20	Ton/day

WATER YEAR : 2002

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.
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	2002
Number of observation	24
R-Square	0.8630
Remarks	Continued Sediment Station

$$QS = 3.7801\ QW^{1.16450}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.40	1.60	127.70	163.80	209.90	1970.00	361.40	122.70	61.90	56.50	2.00	1.20		
2	0.40	1.00	132.80	127.70	187.70	1518.30	285.60	102.80	74.90	60.10	1.60	1.40		
3	0.50	0.90	95.40	224.30	381.60	712.50	248.20	74.90	87.20	60.10	0.90	1.40		
4	0.50	1.30	348.00	150.80	502.30	616.00	260.40	52.30	85.10	60.10	1.60	1.50		
5	0.60	2.40	209.90	371.50	897.50	655.20	230.20	53.70	115.10	60.10	0.90	1.50		
6	0.60	2.20	143.00	791.30	772.60	1028.20	305.00	48.10	91.30	60.10	1.00	1.20		
7	0.60	5.10	117.60	374.80	438.20	514.40	305.00	41.30	60.10	58.30	1.20	1.00		
8	0.50	2.90	122.70	314.90	318.20	454.10	204.10	50.90	110.20	49.50	1.00	1.00		
9	0.30	2.40	328.10	931.40	254.30	800.70	161.20	60.10	87.20	23.10	1.20	1.00		
10	0.40	2.70	358.00	502.30	195.70	518.50	140.50	73.10	120.20	23.10	1.20	1.50		
11	0.50	6.60	344.70	385.00	161.20	1338.00	145.60	73.10	73.10	22.10	1.20	1.70		
12	0.50	74.90	215.60	629.00	156.00	796.00	130.30	15.50	35.20	22.10	1.30	1.40		
13	0.40	110.20	207.00	514.40	311.60	547.20	115.10	36.40	49.50	21.10	1.40	1.80		
14	0.40	77.00	381.60	494.20	163.80	494.20	73.10	115.10	71.20	16.80	1.50	4.90		
15	0.50	87.20	212.80	470.10	117.60	391.70	127.70	163.80	87.20	13.60	1.50	4.00		
16	0.50	38.90	112.70	988.10	95.40	318.20	135.40	112.70	100.30	12.60	1.50	7.20		
17	0.60	58.30	71.20	510.40	81.00	266.70	87.20	132.80	77.00	12.20	1.50	5.80		
18	0.40	254.30	73.10	490.20	91.30	1511.70	105.20	140.50	50.90	10.80	1.40	4.90		
19	0.40	122.70	67.50	1039.60	1120.50	1033.90	87.20	89.20	60.10	9.90	1.30	3.30		
20	0.60	1097.30	67.50	466.10	288.70	959.70	74.90	105.20	65.60	8.40	1.30	2.40		
21	0.60	381.60	49.50	318.20	215.60	642.10	58.30	125.20	45.30	7.50	1.20	1.40		
22	0.60	105.20	63.80	236.20	408.80	897.50	74.90	112.70	73.10	6.60	1.40	1.20		
23	0.60	71.20	42.60	182.40	341.30	1738.50	87.20	95.40	91.30	6.10	1.30	1.20		
24	0.40	56.50	31.60	166.50	257.30	976.70	100.30	102.80	89.20	5.40	1.30	1.40		
25	0.30	55.10	127.70	143.00	245.20	1260.90	97.90	100.30	95.40	5.60	0.90	2.40		
26	0.40	45.30	137.90	110.20	318.20	791.30	91.30	100.30	91.30	5.40	1.20	2.10		
27	0.90	55.10	179.70	93.40	201.30	547.20	67.50	93.40	36.40	4.40	1.20	5.80		
28	2.60	61.90	156.00	125.20	156.00	391.70	63.80	89.20	43.90	4.00	1.20	35.20		
29	1.40	263.60	174.40	498.20	193.10	348.00	100.30	81.00	50.90	3.60		32.80		
30	1.50	85.10	107.70	426.40	344.70	381.60	107.70	71.20	49.50	3.10		30.50		
31		60.10		282.40	510.40		125.20		53.70	2.10		100.30		
Total	18.90	3190.60	4807.80	12522.00	9937.00	24420.70	4557.70	2635.70	2283.30	714.40	36.20	264.40	65388.70	Tonday
Mean	0.63	102.92	160.26	403.94	320.55	814.02	147.02	87.86	73.65	23.05	1.29	8.53		Ton/day
Max	2.60	1097.30	381.60	1039.60	1120.50	1970.00	361.40	163.80	120.20	60.10	2.00	100.30	1970.00	Ton/day
Min	0.30	0.90	31.60	93.40	81.00	266.70	58.30	15.50	35.20	2.10	0.90	1.00	0.30	Ton/day

WATER YEAR : 2002

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	1999-2002
Number of observation	104
R-Square	0.8871
Remarks	Continued Sediment Station

$$QS = 7.6157\ QW^{0.88710}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.50	1.20	8.40	5.80	14.60	119.30	114.20	15.60	6.70	4.30	1.40	1.40		
2	1.20	1.20	7.60	5.80	13.10	148.90	107.30	17.80	6.70	4.10	1.40	1.30		
3	1.10	1.20	6.20	5.10	12.60	131.60	103.20	19.30	6.80	4.00	1.30	1.20		
4	0.90	1.20	4.40	3.50	11.00	93.60	102.60	16.90	6.70	4.00	1.20	1.20		
5	0.80	1.30	3.20	2.50	20.80	69.00	93.60	14.10	6.80	3.80	1.20	1.00		
6	0.60	1.30	2.30	1.80	28.50	56.20	38.60	12.60	7.10	3.70	1.20	0.90		
7	0.70	1.10	2.30	1.60	39.90	67.50	57.10	11.60	7.50	3.80	1.10	1.00		
8	0.60	1.00	1.40	1.40	42.90	57.10	56.60	10.80	8.40	3.80	1.10	0.80		
9	0.50	1.00	1.20	15.10	29.80	44.60	44.20	10.30	10.50	3.70	1.00	0.60		
10	0.30	0.80	34.70	11.30	23.10	37.00	35.10	10.30	11.00	3.70	1.00	0.60		
11	0.20	0.70	30.80	9.50	19.90	36.30	29.80	10.50	9.70	3.40	1.00	0.60		
12	0.30	0.90	16.90	11.30	16.30	76.70	26.00	12.80	8.70	3.20	1.10	0.80		
13	0.60	1.20	11.30	10.50	13.30	102.00	22.80	6.20	7.50	2.90	1.20	1.20		
14	0.50	1.20	9.50	10.50	11.00	93.60	20.80	5.40	7.10	2.80	1.40	1.20		
15	0.30	1.20	10.30	12.10	14.80	97.90	19.30	8.20	6.70	2.80	1.40	1.00		
16	0.70	1.20	15.90	13.30	17.50	129.80	16.60	11.80	6.40	2.60	1.30	1.40		
17	1.50	1.20	18.40	23.40	14.60	47.20	16.90	12.60	6.20	2.60	1.30	2.00		
18	1.70	1.20	14.80	50.20	13.80	111.90	17.20	10.50	6.20	2.50	1.20	3.20		
19	1.60	1.10	10.50	42.50	13.30	85.50	17.50	10.30	6.00	2.30	1.20	2.60		
20	1.50	1.40	8.40	52.40	10.80	118.80	16.30	13.60	5.80	2.00	1.20	2.50		
21	1.40	1.40	7.90	45.50	13.10	125.00	15.10	14.30	5.70	1.70	1.20	1.80		
22	1.20	1.20	7.50	32.80	6.20	129.20	14.10	11.80	5.70	1.70	1.10	1.70		
23	1.40	1.10	6.70	23.70	5.30	245.40	13.80	10.50	5.70	1.70	1.10	1.50		
24	0.00	0.80	6.10	18.10	5.70	238.30	14.10	9.00	6.10	1.70	1.20	1.50		
25	0.00	0.70	6.40	14.10	7.10	169.10	14.80	9.00	5.80	1.70	1.20	2.10		
26	0.00	0.90	6.20	31.60	9.20	249.30	12.30	8.40	5.40	1.60	1.20	2.50		
27	0.00	0.90	6.40	38.60	38.20	161.10	13.10	7.90	5.00	1.40	1.20	2.90		
28	0.00	1.00	6.70	23.40	52.90	99.10	13.10	7.10	3.40	1.70	1.40	3.80		
29	0.00	33.50	6.10	13.80	47.60	77.80	12.30	6.90	4.60	1.80		3.70		
30	0.00	22.00	5.80	10.00	16.90	114.20	11.80	6.80	4.40	1.60		3.70		
31		12.80		10.30	111.90		12.80		4.30	1.40		3.40		
Total	21.10	98.90	284.30	551.50	695.70	3333.00	1103.00	332.90	204.60	84.00	33.80	55.10	6797.90	Tonday
Mean	0.92	3.19	9.48	17.79	22.44	111.10	35.58	11.10	6.60	2.71	1.21	1.78		Ton/day
Max	1.70	33.50	34.70	52.40	111.90	249.30	114.20	19.30	11.00	4.30	1.40	3.80	249.30	Ton/day
Min	0.00	0.70	1.20	1.40	5.30	36.30	11.80	5.40	3.40	1.40	1.00	0.60	0.00	Ton/day

WATER YEAR : 2002

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	2002
Number of observation	21
R-Square	0.7863
Remarks	Continued Sediment Station

$$QS = 2.7091\ QW^{1.09430}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.20	0.80	43.80	43.80	51.50	260.70	56.90	10.30	2.90	1.70	0.60	0.50		
2	0.20	2.60	24.90	37.20	56.90	233.40	39.40	8.40	3.00	1.70	0.60	0.50		
3	0.20	2.90	46.20	50.20	77.10	119.80	33.10	7.70	3.20	1.60	0.60	0.70		
4	0.20	2.10	65.20	41.60	133.00	107.10	29.40	7.40	3.30	1.60	0.60	0.70		
5	0.20	2.90	58.20	107.10	186.60	124.10	39.40	7.40	3.30	1.50	0.60	0.80		
6	0.20	3.00	43.80	186.60	138.00	135.50	35.10	7.70	3.30	1.50	0.60	0.80		
7	0.20	2.90	51.50	83.60	78.70	73.90	32.20	7.70	3.50	1.50	0.60	0.80		
8	0.20	2.90	48.80	140.50	59.60	75.50	26.70	7.40	3.80	1.40	0.60	0.90		
9	0.20	2.60	73.90	210.90	46.20	130.50	24.30	6.70	3.80	1.40	0.60	1.40		
10	0.20	3.00	77.10	117.70	35.10	130.50	21.10	6.40	4.00	1.40	0.60	1.30		
11	0.20	5.30	68.00	109.10	30.40	234.40	18.50	6.40	3.80	1.30	0.60	1.20		
12	0.20	24.90	50.20	113.40	47.50	160.80	16.00	6.10	3.50	1.30	0.60	1.00		
13	0.20	32.20	44.90	124.10	86.90	124.10	13.60	7.10	3.50	1.30	0.60	0.90		
14	0.20	22.40	58.20	119.80	40.50	102.90	12.00	11.30	3.80	1.20	0.60	6.40		
15	0.20	14.80	37.20	145.50	33.10	70.80	11.00	8.40	3.80	1.20	0.60	6.10		
16	0.20	10.70	27.60	179.10	26.70	54.20	11.00	6.10	3.80	1.00	0.60	5.80		
17	0.20	62.40	23.00	105.00	25.80	46.20	10.70	5.80	4.00	1.00	0.60	5.30		
18	0.20	39.40	23.00	113.40	47.50	66.60	10.70	5.30	4.00	0.90	0.60	4.80		
19	0.30	37.20	21.10	148.00	415.30	59.60	9.70	4.80	4.30	0.90	0.60	4.30		
20	0.30	274.20	21.10	69.40	105.00	102.90	9.30	4.30	4.30	0.80	0.60	3.80		
21	0.40	61.00	20.40	50.20	90.60	62.40	9.00	3.80	4.50	0.80	0.60	3.30		
22	0.50	29.40	20.40	38.30	109.10	119.80	8.40	3.30	4.30	0.70	0.60	3.00		
23	0.50	18.50	16.70	33.10	78.70	153.00	8.00	3.30	4.00	0.70	0.60	2.70		
24	0.50	12.30	16.00	28.50	69.40	102.90	8.70	3.30	3.80	0.70	0.60	2.40		
25	0.50	13.00	41.60	86.90	88.50	153.00	7.70	3.30	3.30	0.70	0.50	2.30		
26	0.60	16.70	29.40	23.00	73.90	92.60	7.40	3.20	3.00	0.70	0.50	6.40		
27	0.60	16.00	24.30	22.40	51.50	66.60	7.40	3.20	2.70	0.70	0.50	10.30		
28	0.60	32.20	23.00	40.50	44.90	51.50	7.40	3.20	2.60	0.60	0.50	6.40		
29	0.60	54.20	20.40	126.20	43.80	43.80	7.10	2.90	2.30	0.60		8.00		
30	0.60	28.50	20.40	98.80	39.40	63.80	8.00	2.90	1.80	0.60		8.40		
31		21.70		70.80	73.90		10.70		1.70	0.60		5.30		
Total	9.60	852.70	1140.30	2864.70	2485.10	3322.90	549.90	175.10	106.90	33.60	16.40	106.50	11663.70	Tonday
Mean	0.32	27.51	38.01	92.41	80.16	110.76	17.74	5.84	3.45	1.08	0.59	3.44		Ton/day
Max	0.60	274.20	77.10	210.90	415.30	260.70	56.90	11.30	4.50	1.70	0.60	10.30	415.30	Ton/day
Min	0.20	0.80	16.00	22.40	25.80	43.80	7.10	2.90	1.70	0.60	0.50	0.50	0.20	Ton/day

WATER YEAR : 2002

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 right 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	1998-2002
Number of observation	111
R-Square	0.8359
Remarks	Continued Sediment Station

$$QS = 2.1327\ QW^{1.16540}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.20	0.30	2.10	1.40	2.10	125.30	9.70	2.70	1.60	0.70	0.30	0.20		
2	0.20	0.20	1.90	1.40	2.00	46.90	10.40	2.70	1.40	0.70	0.30	0.20		
3	0.20	0.20	1.50	1.20	1.80	19.30	9.10	2.10	1.40	0.70	0.30	0.20		
4	0.20	0.20	3.50	1.20	1.60	11.70	8.40	2.00	1.30	0.60	0.30	0.20		
5	0.20	0.20	2.30	1.20	18.30	12.60	9.70	2.00	1.30	0.60	0.30	0.20		
6	0.20	0.20	2.10	1.90	11.70	18.30	15.40	1.90	1.30	0.60	0.30	0.10		
7	0.20	0.20	2.00	1.80	7.20	10.40	12.60	1.80	1.20	0.60	0.30	0.10		
8	0.20	0.20	1.50	2.00	4.40	9.10	9.70	1.80	1.20	0.60	0.30	0.10		
9	0.20	0.20	1.50	4.10	3.80	10.40	9.10	1.60	1.20	0.60	0.30	0.10		
10	0.20	0.20	1.50	3.80	3.50	7.20	5.30	1.60	1.20	0.60	0.30	0.10		
11	0.20	0.20	2.00	3.20	3.20	11.00	4.10	1.50	1.10	0.50	0.30	0.10		
12	0.20	0.20	2.00	3.80	2.40	15.40	3.80	1.50	1.10	0.50	0.30	0.10		
13	0.20	0.20	2.10	3.80	2.10	18.30	3.50	1.60	1.10	0.50	0.30	0.10		
14	0.20	0.20	8.40	3.20	2.00	11.70	3.20	2.00	1.10	0.50	0.30	0.10		
15	0.20	2.30	3.50	9.10	2.10	11.70	2.90	2.00	1.00	0.50	0.20	0.10		
16	0.20	1.80	2.40	35.30	2.00	9.70	3.20	1.90	1.00	0.50	0.20	0.10		
17	0.20	2.00	2.10	11.00	1.90	7.80	3.50	1.90	1.00	0.50	0.20	0.10		
18	0.20	1.80	1.90	7.20	2.00	11.70	3.50	1.90	1.00	0.50	0.20	0.10		
19	0.20	1.60	1.60	12.60	1.80	57.70	3.20	2.00	1.00	0.50	0.20	0.10		
20	0.30	4.10	1.80	8.40	1.80	52.20	3.20	2.00	0.90	0.40	0.20	0.10		
21	0.30	3.80	1.50	4.70	1.80	39.00	2.90	1.80	0.90	0.40	0.20	0.10		
22	0.30	2.30	1.40	3.80	2.00	103.00	2.90	1.80	0.90	0.40	0.20	0.10		
23	0.30	1.90	1.40	3.50	3.20	182.50	2.90	1.80	0.90	0.40	0.20	0.10		
24	0.30	1.50	1.40	3.20	2.90	46.90	2.70	1.90	0.80	0.40	0.20	0.10		
25	0.30	1.50	1.50	2.70	5.00	274.00	2.40	1.90	0.80	0.40	0.20	0.10		
26	0.30	1.40	1.50	2.10	4.70	52.20	2.30	1.80	0.80	0.40	0.20	0.10		
27	0.30	1.40	1.50	1.90	4.10	24.70	2.30	1.80	0.80	0.40	0.20	0.10		
28	0.30	1.10	1.50	1.50	3.80	13.50	2.00	1.60	0.80	0.40	0.20	0.10		
29	0.30	1.50	1.40	2.10	4.40	10.40	2.00	1.60	0.80	0.40	0.00	0.10		
30	0.30	1.40	1.40	2.10	99.30	9.10	2.00	1.60	0.70	0.30	0.00	0.10		
31	0.00	2.10	0.00	2.70	41.60	0.00	3.20	0.00	0.70	0.30	0.00	0.10		
Total	7.10	36.40	62.20	147.90	250.50	1233.70	161.10	56.10	32.30	15.40	7.00	3.60	2013.30	Tonday
Mean	0.24	1.17	2.07	4.77	8.08	41.12	5.20	1.87	1.04	0.50	0.25	0.12		Ton/day
Max	0.30	4.10	8.40	35.30	99.30	274.00	15.40	2.70	1.60	0.70	0.30	0.20	274.00	Ton/day
Min	0.20	0.20	1.40	1.20	1.60	7.20	2.00	1.50	0.70	0.30	0.20	0.10	0.10	Ton/day

WATER YEAR : 2002

EAST COAST - GULF BASIN

Khlong Prasae at Ban Khao Chik , Rayong (Z.11)

Lat 12 - 51 - 20 N Long 101 - 37 - 09 E

Location : on left bank near the Meteorological Station.

Ban Khao Chik **Amphoe** Klaeng **Changwat** Rayong

Drainge Area	1,236 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	2002
Number of observation	26
R-Square	0.8288
Remarks	Continued Sediment Station

$$QS = 12.8540\ QW^{0.94580}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.80	73.30	118.80	651.80	142.20	204.10	383.10	225.80	83.20	73.30	5.40	72.20		
2	1.50	74.40	133.70	600.20	211.30	184.30	275.00	204.10	101.60	72.20	5.40	72.20		
3	1.50	79.90	115.60	426.00	149.60	171.70	208.20	202.00	115.60	71.10	5.40	72.20		
4	2.80	109.20	65.60	245.30	76.60	153.90	183.20	173.80	97.30	70.00	5.40	71.10		
5	1.50	115.60	44.30	160.20	37.50	124.20	223.70	139.10	88.60	68.90	5.40	71.10		
6	1.50	107.00	34.00	116.70	24.80	96.20	256.60	118.80	86.40	66.70	4.10	70.00		
7	1.50	95.10	25.90	97.30	18.90	82.10	353.00	107.00	83.20	62.20	4.10	68.90		
8	1.50	88.60	28.30	88.60	16.50	66.70	505.10	101.60	90.80	46.60	4.10	68.90		
9	1.50	83.20	39.80	58.90	15.30	47.70	415.00	100.50	107.00	43.20	5.40	72.20		
10	1.50	81.00	37.50	45.40	15.30	79.90	244.30	99.50	95.10	31.70	5.40	70.00		
11	1.50	87.50	21.20	37.50	15.30	126.30	164.40	97.30	84.20	22.40	6.70	72.20		
12	1.50	152.80	18.90	30.60	16.50	97.30	127.40	97.30	70.00	35.20	6.70	74.40		
13	1.50	256.60	28.30	21.20	17.70	136.90	89.70	116.70	76.60	34.00	6.70	72.20		
14	1.50	361.00	87.50	17.70	17.70	102.70	56.70	105.90	79.90	29.40	6.70	72.20		
15	1.50	430.90	200.90	15.30	16.50	53.30	55.60	101.60	79.90	23.60	5.40	71.10		
16	2.80	371.00	171.70	111.30	16.50	31.70	108.10	97.30	77.70	15.30	5.40	71.10		
17	2.80	216.50	93.00	392.10	16.50	21.20	107.00	97.30	76.60	11.60	6.70	72.20		
18	2.80	177.00	44.30	363.00	22.40	18.90	107.00	127.40	73.30	9.20	6.70	70.00		
19	1.50	250.50	83.20	232.00	18.90	76.60	107.00	108.10	74.40	9.20	6.70	66.70		
20	1.50	332.80	204.10	195.70	15.30	45.40	103.80	94.00	74.40	9.20	6.70	63.30		
21	1.50	695.40	326.80	178.00	16.50	60.00	107.00	88.60	71.10	7.90	9.20	60.00		
22	1.50	826.30	420.00	131.60	235.10	200.90	118.80	86.40	70.00	4.10	29.40	61.10		
23	1.50	648.90	330.80	78.80	592.40	577.80	142.20	86.40	70.00	4.10	52.20	60.00		
24	1.50	387.10	235.10	83.20	732.10	846.40	217.50	116.70	86.40	4.10	65.60	72.20		
25	1.50	208.20	192.60	68.90	648.90	948.30	390.10	118.80	101.60	2.80	70.00	79.90		
26	1.50	163.30	178.00	52.20	432.90	890.30	225.80	101.60	83.20	2.80	71.10	82.10		
27	1.50	156.00	217.50	31.70	375.00	803.30	291.30	90.80	77.70	4.10	71.10	88.60		
28	20.00	214.40	271.90	25.90	432.90	685.70	572.90	88.60	76.60	5.40	71.10	129.50		
29	94.00	254.60	375.00	24.80	424.00	620.70	602.20	88.60	73.30	4.10		103.80		
30	67.80	196.80	539.60	28.30	338.90	556.20	487.40	87.50	72.20	4.10		88.60		
31		156.00		40.90	245.30		318.70		71.10	4.10		95.10		
Total	228.80	7450.90	4683.90	4651.10	5355.30	8110.70	7547.80	3469.10	2569.00	852.60	554.20	2335.10	47808.50	Tonday
Mean	7.63	240.35	156.13	150.04	172.75	270.36	243.48	115.64	82.87	27.50	19.79	75.33		Ton/day
Max	94.00	826.30	539.60	651.80	732.10	948.30	602.20	225.80	115.60	73.30	71.10	129.50	948.30	Ton/day
Min	1.50	73.30	18.90	15.30	15.30	18.90	55.60	86.40	70.00	2.80	4.10	60.00	1.50	Ton/day

WATER YEAR : 2002

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	2002
Number of observation	37
R-Square	0.7428
Remarks	Continued Sediment Station

$$QS = 1.3284\ QW^{1.25900}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.20	8.30	33.10	57.90	126.00	99.90	85.20	14.20	5.90	2.70	1.40	2.70		
2	1.90	7.60	31.60	57.30	145.40	88.70	67.20	14.50	6.50	2.90	1.30	3.60		
3	2.50	6.70	28.30	45.90	237.20	191.50	55.50	13.30	6.10	2.50	1.60	2.90		
4	2.70	8.10	51.80	54.30	212.70	118.90	56.10	11.90	6.10	2.50	1.60	2.90		
5	2.70	5.90	29.70	89.40	174.30	91.60	45.90	10.60	5.70	2.20	1.60	2.90		
6	2.50	5.30	23.50	62.50	142.40	89.40	41.50	10.60	5.70	2.60	1.60	2.70		
7	2.10	5.70	25.20	181.70	153.60	71.90	42.10	10.10	5.70	2.00	1.40	2.60		
8	2.90	5.10	39.50	125.10	136.40	85.20	41.50	9.60	5.30	2.20	1.20	2.70		
9	2.70	5.90	59.80	87.30	134.50	99.90	33.60	9.10	4.80	2.10	1.30	3.30		
10	2.20	4.90	43.70	63.80	119.80	92.30	32.10	8.60	4.90	1.90	1.50	3.20		
11	2.30	38.50	32.60	52.40	88.00	123.40	27.80	8.10	5.70	2.10	1.40	3.30		
12	3.30	43.70	36.00	37.00	481.20	326.00	26.90	8.30	5.70	1.80	1.50	2.90		
13	2.90	88.70	47.00	28.80	192.70	160.80	26.00	7.80	3.90	1.90	1.80	2.90		
14	2.70	67.20	34.50	33.10	143.40	139.40	23.00	7.60	4.60	2.20	1.80	2.90		
15	5.90	55.50	44.30	33.10	115.50	95.30	22.60	7.60	4.10	2.00	1.70	2.70		
16	6.30	50.00	29.20	172.20	198.50	84.50	21.40	7.20	3.90	1.80	1.70	4.40		
17	5.90	41.00	67.20	133.50	289.50	69.20	19.50	7.40	3.70	2.10	1.50	2.60		
18	4.40	59.80	41.50	83.70	143.40	111.30	18.80	7.80	3.30	1.90	1.90	2.50		
19	6.90	39.00	258.00	74.70	107.20	472.60	20.30	7.20	3.40	2.10	1.90	3.20		
20	8.10	45.90	131.70	54.30	80.90	217.40	19.50	6.90	2.90	1.80	1.90	3.20		
21	7.80	116.30	78.80	57.30	217.40	252.60	18.80	6.30	2.60	1.70	2.00	4.10		
22	11.10	80.20	113.00	63.80	183.80	601.60	19.90	6.30	2.60	1.80	2.00	3.60		
23	17.40	60.50	183.80	56.10	137.40	272.70	16.40	6.50	3.20	1.80	1.60	3.60		
24	9.30	34.50	99.10	47.60	106.40	321.20	16.40	6.10	2.90	1.50	1.80	2.30		
25	8.80	35.00	73.30	78.80	99.10	316.40	13.90	6.70	2.90	1.60	2.00	3.40		
26	9.80	39.00	61.20	57.30	111.30	171.10	16.70	6.30	3.20	1.60	1.90	4.10		
27	9.60	37.00	82.30	45.90	90.20	139.40	23.50	5.90	3.30	1.40	1.80	4.30		
28	7.80	41.50	109.70	91.60	79.50	124.20	18.40	5.90	3.20	1.60	1.90	3.30		
29	12.10	78.80	76.10	113.80	76.80	111.30	15.70	5.50	3.30	1.60		3.40		
30	10.10	86.60	73.30	306.90	71.90	93.00	18.10	6.10	2.70	1.70		4.60		
31		55.50		191.50	71.20		17.80		2.90	1.70		6.50		
Total	176.90	1257.70	2038.80	2638.60	4667.60	5232.70	922.10	250.00	130.70	61.30	46.60	103.30	17526.30	Tonday
Mean	5.90	40.57	67.96	85.12	150.57	174.42	29.75	8.33	4.22	1.98	1.66	3.33		Ton/day
Max	17.40	116.30	258.00	306.90	481.20	601.60	85.20	14.50	6.50	2.90	2.00	6.50	601.60	Ton/day
Min	1.90	4.90	23.50	28.80	71.20	69.20	13.90	5.50	2.60	1.40	1.20	2.30	1.20	Ton/day

WATER YEAR : 2002

EAST COAST - GULF BASIN

Khlong Yai at Ban Pak Phraek, Rayong (Z.15)

Lat 12 - 55 - 41 N Long 101 - 19 - 30 E

Location : on right bank at Ban Pak Phraek.

Ban Pak Phraek **Amphoe** Pluak Daeng **Changwat** Rayong

Drainge Area	242 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	1988-2002
Number of observation	134
R-Square	0.8859
Remarks	Continued Sediment Station

$$QS = 8.1693\ QW^{1.43140}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	7.70	87.50	130.20	101.10	7.50	17.20	13.90	130.20	19.60	2.20	0.30	0.80		
2	5.90	35.70	32.10	39.40	16.00	16.00	15.20	59.40	3.20	1.90	0.30	0.90		
3	7.70	25.90	27.20	25.90	11.10	14.70	7.50	47.10	38.80	1.70	0.20	0.80		
4	7.70	130.20	25.90	20.80	5.30	10.40	8.50	28.60	23.90	1.60	0.10	2.70		
5	6.80	55.20	25.90	17.20	3.10	9.20	457.60	19.60	8.60	1.50	0.10	2.20		
6	5.90	39.40	24.60	16.00	3.10	17.20	220.30	16.00	18.30	1.50	0.10	1.50		
7	5.90	18.30	24.60	15.60	3.70	18.30	146.40	15.60	10.10	1.50	0.10	0.90		
8	5.90	22.00	24.60	14.70	2.80	18.30	43.20	14.70	7.30	1.30	0.10	0.80		
9	5.30	20.80	23.30	14.30	3.10	12.30	27.20	14.30	5.90	1.20	0.10	0.90		
10	5.30	19.60	20.80	23.30	2.80	5.40	18.30	13.50	5.00	1.20	0.20	0.80		
11	5.30	18.30	19.60	18.30	2.60	2.90	16.00	9.90	4.40	1.10	0.20	0.90		
12	6.80	24.60	20.80	15.20	3.30	2.90	14.30	9.00	3.80	0.90	0.20	0.90		
13	6.40	63.70	22.00	11.40	2.30	2.70	16.00	8.60	3.60	0.80	0.20	1.10		
14	6.40	22.00	12.30	5.30	2.10	2.60	19.60	173.00	3.00	0.80	0.20	0.90		
15	6.40	16.00	7.80	4.40	2.10	2.40	7.10	23.30	3.00	0.80	0.20	0.80		
16	5.90	16.00	17.20	210.60	2.20	2.40	7.70	16.00	2.70	0.80	0.10	0.80		
17	5.90	27.20	43.20	28.60	2.80	2.40	8.20	16.00	2.50	0.80	0.10	0.80		
18	5.90	122.80	16.00	24.60	2.40	3.50	8.20	15.60	2.50	0.80	0.20	0.80		
19	6.40	137.80	8.60	22.00	2.40	3.60	16.00	14.70	2.50	0.80	0.20	0.80		
20	0.90	137.80	9.00	16.00	2.10	3.50	15.60	13.90	2.40	0.80	0.20	0.80		
21	11.60	182.20	47.10	10.40	2.60	3.70	13.50	19.60	2.40	0.70	0.30	0.90		
22	68.10	22.00	27.20	7.40	11.40	4.90	8.50	19.60	2.20	0.70	0.70	1.10		
23	7.30	20.80	27.20	15.60	16.00	305.00	32.10	22.00	2.50	0.70	1.70	4.70		
24	6.60	19.60	59.40	22.00	14.30	115.40	191.50	20.80	2.90	0.70	1.20	5.30		
25	5.40	19.60	32.10	20.80	94.20	68.10	35.70	22.00	2.70	0.70	1.20	6.40		
26	17.20	20.80	20.80	19.60	101.10	32.10	80.90	580.50	2.50	0.20	0.90	4.40		
27	804.80	94.20	22.00	20.80	220.30	24.60	596.70	220.30	2.00	0.20	0.80	6.40		
28	137.80	74.40	25.90	18.30	47.10	27.20	457.60	27.20	2.00	0.30	0.80	5.00		
29	137.80	55.20	1436.90	9.20	43.20	20.80	63.70	23.30	2.20	0.30		3.60		
30	59.40	39.40	164.00	4.70	23.30	17.20	63.70	19.60	2.20	0.30		2.90		
31		35.70		3.90	20.80		47.10		2.20	0.10		2.20		
Total	1376.40	1624.70	2398.30	797.40	677.10	786.90	2677.80	1633.90	196.90	28.90	11.00	63.80	12273.10	Tonday
Mean	45.88	52.41	79.94	25.72	21.84	26.23	86.38	54.46	6.35	0.93	0.39	2.06		Ton/day
Max	804.80	182.20	1436.90	210.60	220.30	305.00	596.70	580.50	38.80	2.20	1.70	6.40	1436.90	Ton/day
Min	0.90	16.00	7.80	3.90	2.10	2.40	7.10	8.60	2.00	0.10	0.10	0.80	0.10	Ton/day

WATER YEAR : 2002

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.
Method of sampling	Depth Integrating
Instrument Used	US.D-49
Period of Available Records	1984-Cont'd
Actual Measurement	1984-Cont'd
Using Rating Curve Water Year	2002
Number of observation	37
R-Square	0.9465
Remarks	Continued Sediment Station

$$QS = 1.0065\ QW^{1.70860}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	4.70	10.00	26.60	42.70	81.80	91.10	70.30	7.40	4.00	2.60	2.10	6.50		
2	4.70	8.50	24.30	45.30	169.30	83.50	41.40	7.10	4.50	2.60	2.60	5.10		
3	4.70	8.50	22.70	33.80	178.90	156.80	33.80	6.20	4.00	2.90	2.40	4.70		
4	5.10	7.70	27.40	97.40	175.70	93.20	30.80	5.40	4.00	2.20	2.40	4.70		
5	4.70	7.10	22.10	87.00	129.30	67.10	28.20	5.40	3.70	2.20	2.40	4.80		
6	4.50	6.80	20.30	110.60	103.90	60.90	27.40	5.40	3.90	2.50	2.40	4.80		
7	4.50	6.50	25.00	166.20	124.50	53.60	27.40	4.80	3.60	2.10	2.50	5.10		
8	4.80	6.50	59.40	97.40	87.00	112.90	23.50	4.80	3.70	2.10	2.50	5.10		
9	4.50	6.80	45.30	65.50	106.20	73.50	23.50	4.80	3.30	2.00	2.50	5.40		
10	4.30	34.80	26.60	46.60	75.10	156.80	20.30	4.80	3.30	1.90	2.50	5.60		
11	4.50	42.70	10.00	37.00	126.90	91.10	20.90	4.50	3.00	1.80	2.40	5.40		
12	4.80	23.50	8.50	31.80	788.90	149.10	20.90	4.70	2.70	1.90	2.50	4.80		
13	4.50	124.50	13.10	29.10	217.40	163.00	19.70	4.70	3.00	1.90	2.60	5.10		
14	5.40	45.30	22.70	28.20	141.50	91.10	19.70	4.50	2.70	1.90	2.60	5.10		
15	7.40	29.90	16.30	29.90	275.90	65.50	19.10	4.50	2.60	2.00	2.70	4.70		
16	7.40	25.00	13.10	131.70	410.10	56.50	18.50	4.30	3.00	1.90	2.60	4.50		
17	6.20	27.40	50.80	75.10	217.40	50.80	18.00	4.30	2.70	1.90	2.60	4.50		
18	8.50	29.10	40.20	55.00	131.70	136.60	17.40	4.50	2.50	1.80	4.00	4.50		
19	8.50	21.50	263.30	44.00	95.40	654.40	16.80	4.20	2.60	1.70	3.30	4.80		
20	6.80	62.40	97.40	32.80	89.10	224.80	16.80	4.00	2.40	1.80	3.30	5.40		
21	12.70	70.30	68.70	34.80	340.40	182.20	18.00	3.90	2.50	2.10	3.30	5.90		
22	15.70	34.80	112.90	49.40	206.40	622.40	16.80	3.90	2.60	2.10	3.20	5.60		
23	13.10	20.30	124.50	39.10	134.10	284.40	17.40	4.00	2.60	1.90	2.90	5.40		
24	8.90	28.20	71.90	46.60	83.50	275.90	16.30	3.90	2.50	2.00	2.90	4.80		
25	8.90	46.60	50.80	34.80	106.20	360.90	16.80	4.30	2.40	2.10	3.40	4.80		
26	9.60	39.10	40.20	31.80	75.10	178.90	18.00	3.90	2.40	1.90	3.30	5.90		
27	8.50	25.80	67.10	28.20	73.50	144.10	17.40	3.70	2.00	2.10	3.00	5.40		
28	14.70	55.00	85.30	57.90	65.50	126.90	15.20	3.60	2.00	1.70	2.90	5.40		
29	14.70	65.50	65.50	119.80	57.90	117.40	15.20	3.60	2.10	1.90		5.60		
30	12.20	70.30	53.60	228.50	49.40	97.40	16.80	3.60	2.10	1.90		7.10		
31		34.80		163.00	52.20		17.40		2.20	2.00		8.10		
Total	229.50	1025.20	1575.60	2121.00	4970.20	5022.80	699.70	138.70	90.60	63.40	77.80	164.60	16179.10	Tonday
Mean	7.65	33.07	52.52	68.42	160.33	167.43	22.57	4.62	2.92	2.05	2.78	5.31		Ton/day
Max	15.70	124.50	263.30	228.50	788.90	654.40	70.30	7.40	4.50	2.90	4.00	8.10	788.90	Ton/day
Min	4.30	6.50	8.50	28.20	49.40	50.80	15.20	3.60	2.00	1.70	2.10	4.50	1.70	Ton/day

WATER YEAR : 2002

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.DH-59
Period of Available Records	1997-Cont'd
Actual Measurement	1997-Cont'd
Using Rating Curve Water Year	1997-2002
Number of observation	161
R-Square	0.8649
Remarks	Continued Sediment Station

$$QS = 0.7676\ QW^{1.62720}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	27.40	16.10	22.20	38.30	20.80	789.80	1332.10	31.50	30.40	8.60	5.10	18.20		
2	31.50	13.00	25.00	45.30	21.30	767.30	1217.80	68.80	27.90	8.20	5.10	24.00		
3	31.00	13.80	26.40	45.30	28.40	723.00	1086.00	78.60	25.00	8.20	5.90	25.90		
4	31.00	12.70	28.40	45.30	56.60	675.50	1012.30	80.90	22.60	8.20	28.40	19.10		
5	30.40	12.30	29.90	48.00	181.90	671.30	964.90	20.80	21.70	8.20	13.80	10.90		
6	28.90	11.90	29.40	45.30	365.20	684.10	941.60	15.70	20.80	8.20	5.60	8.90		
7	28.90	11.90	27.90	41.70	349.20	684.10	976.70	17.40	13.00	9.20	4.60	7.00		
8	28.40	12.30	27.40	40.00	56.60	684.10	988.50	17.40	9.50	13.00	3.90	6.20		
9	29.90	11.60	27.40	35.80	22.20	675.50	994.40	13.40	8.90	15.70	3.90	5.60		
10	29.90	12.30	27.90	32.50	27.40	654.40	988.50	10.20	9.90	13.80	3.90	16.50		
11	28.90	14.90	28.40	31.00	29.90	513.60	912.70	8.90	16.10	9.90	4.10	20.80		
12	26.40	17.00	28.40	28.40	29.90	256.80	826.30	8.20	23.10	10.20	5.40	17.80		
13	25.00	17.80	30.40	26.90	32.00	320.60	803.40	7.90	27.40	27.40	11.60	18.60		
14	22.20	18.60	30.40	26.40	38.30	410.60	794.30	7.30	27.40	55.60	14.60	19.10		
15	18.60	17.40	29.40	25.50	40.80	421.20	654.40	6.70	25.50	40.00	28.90	18.20		
16	16.10	19.50	28.90	24.50	31.50	395.30	181.90	6.70	24.50	49.90	34.10	18.60		
17	13.80	22.20	27.90	22.20	25.90	315.50	141.70	9.20	24.50	24.00	37.40	24.00		
18	11.90	22.20	24.00	18.60	33.30	290.50	120.00	19.50	24.00	19.10	40.00	26.90		
19	11.60	21.30	20.40	16.50	93.60	288.10	87.70	64.60	24.00	20.40	32.00	25.90		
20	11.60	26.40	18.60	14.60	177.80	283.20	76.40	12.70	24.50	24.50	11.20	25.00		
21	11.90	56.60	18.20	13.00	315.50	261.50	205.10	9.20	22.60	30.40	6.50	27.40		
22	11.20	47.10	17.80	61.60	373.30	266.30	190.20	12.70	20.80	29.90	6.50	29.90		
23	13.80	41.70	19.10	23.60	576.30	392.50	49.90	35.80	20.40	80.90	6.70	19.50		
24	13.80	32.00	21.70	9.50	588.40	616.90	69.90	53.70	19.10	56.60	11.20	16.10		
25	13.40	20.80	21.30	8.90	446.40	896.50	68.80	50.80	17.00	7.30	15.70	16.10		
26	14.60	13.80	20.40	8.90	336.10	1255.50	53.70	47.10	15.30	5.90	13.00	19.10		
27	16.10	11.20	19.90	9.90	446.40	1188.00	51.70	38.30	11.90	5.60	9.90	16.50		
28	17.00	8.90	15.30	11.20	584.30	1122.00	60.60	30.40	10.20	5.40	9.90	14.60		
29	17.40	11.20	25.50	13.40	740.60	1195.40	59.60	27.40	9.20	5.60		19.90		
30	19.50	13.80	31.50	14.90	780.70	1285.90	49.90	31.00	8.90	5.40		19.10		
31		14.90		17.40	798.80		36.60		8.90	5.40		18.60		
Total	632.10	597.20	749.40	844.40	7649.40	18985.00	15997.60	842.80	595.00	620.70	378.90	574.00	48466.50	Tonday
Mean	21.07	19.26	24.98	27.24	246.75	632.83	516.05	28.09	19.19	20.02	13.53	18.52		Ton/day
Max	31.50	56.60	31.50	61.60	798.80	1285.90	1332.10	80.90	30.40	80.90	40.00	29.90	1332.10	Ton/day
Min	11.20	8.90	15.30	8.90	20.80	256.80	36.60	6.70	8.90	5.40	3.90	5.60	3.90	Ton/day

WATER YEAR : 2002

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.
Method of sampling	Depth Integrating
Instrument Used	US.DH-59
Period of Available Records	2000-Cont'd
Actual Measurement	2000-Cont'd
Using Rating Curve Water Year	2002
Number of observation	61
R-Square	0.8778
Remarks	Continued Sediment Station

$$QS = 3.1859\ QW^{1.14020}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.10	0.40	1.90	5.40	0.40	0.80	19.80	21.40	4.20	0.90	0.10	0.10		
2	1.90	1.10	1.80	4.20	0.50	0.70	14.90	19.80	3.30	0.80	0.20	0.20		
3	1.80	1.40	1.50	3.30	0.60	0.70	10.70	16.50	3.30	0.80	0.20	0.20		
4	1.50	1.50	1.40	2.50	0.80	0.90	9.50	13.40	3.30	0.80	0.30	0.20		
5	1.40	0.80	1.40	2.20	0.60	1.10	9.90	11.10	2.80	0.80	0.30	0.30		
6	1.30	0.70	1.40	2.10	0.60	1.20	12.00	9.50	2.80	0.70	0.20	0.30		
7	1.20	0.60	1.40	1.90	0.50	1.20	25.60	8.00	2.30	0.70	0.20	0.20		
8	1.10	0.70	1.30	1.90	0.60	1.20	18.20	7.00	2.30	0.60	0.10	0.60		
9	0.90	2.30	1.20	1.70	0.50	1.20	12.40	6.10	2.50	0.70	0.10	1.30		
10	0.80	3.60	1.10	1.40	0.40	1.10	9.50	5.80	6.10	0.70	0.10	0.30		
11	0.70	3.30	1.10	1.30	0.40	1.20	7.70	5.10	5.40	0.70	0.20	0.40		
12	0.70	4.20	1.30	1.10	0.40	1.50	6.10	4.50	3.90	0.60	0.20	0.50		
13	0.80	3.30	1.40	1.10	0.40	1.70	5.10	3.90	3.30	0.60	0.20	0.40		
14	0.80	2.80	1.40	0.90	0.30	1.50	4.50	3.30	2.50	0.40	0.30	0.00		
15	0.70	2.30	1.30	0.90	0.30	1.50	3.30	2.80	2.30	0.20	0.30	0.00		
16	1.20	2.10	1.30	0.80	0.30	1.40	2.80	2.50	2.20	0.20	0.20	0.00		
17	1.90	2.10	1.30	0.80	0.30	1.30	2.50	2.30	1.90	0.20	0.20	0.00		
18	1.50	2.20	1.20	0.80	0.30	1.10	3.60	2.30	1.90	0.20	0.30	0.00		
19	1.20	2.50	1.10	0.70	0.40	1.10	3.30	2.30	1.80	0.20	0.30	0.00		
20	0.90	6.10	1.10	0.70	0.40	0.90	11.60	2.20	1.50	0.10	0.30	0.00		
21	0.70	19.00	0.90	0.60	0.40	0.90	17.60	2.10	1.70	0.10	0.20	0.00		
22	0.60	12.00	0.90	0.60	0.40	0.90	14.90	2.30	1.50	0.10	0.20	0.00		
23	0.60	8.60	0.80	0.60	0.50	14.90	14.40	8.00	1.30	0.10	0.20	0.00		
24	0.60	7.70	0.80	0.60	0.70	82.70	12.90	12.40	1.30	0.00	0.20	0.00		
25	0.70	10.30	0.80	0.60	1.70	32.50	10.30	10.70	1.20	0.00	0.20	0.00		
26	0.60	8.00	1.30	0.50	1.70	26.50	14.90	9.10	1.10	0.00	0.20	0.00		
27	0.60	6.40	3.60	0.40	1.30	17.60	50.60	8.00	1.10	0.00	0.10	0.00		
28	0.50	4.20	6.40	0.40	1.40	25.60	40.30	6.70	0.90	0.00	0.10	0.00		
29	0.40	3.30	8.30	0.40	1.30	36.60	30.40	5.80	0.90	0.00		0.00		
30	0.30	2.80	7.70	0.40	1.20	28.40	24.80	5.10	0.90	0.00		0.00		
31		2.30		0.40	0.90		20.60		0.90	0.00		0.00		
Total	30.00	128.60	58.40	41.20	20.50	289.90	444.70	220.00	72.40	11.20	5.70	5.00	1327.60	Tonday
Mean	1.00	4.15	1.95	1.33	0.66	9.66	14.35	7.33	2.34	0.49	0.20	0.38		Ton/day
Max	2.10	19.00	8.30	5.40	1.70	82.70	50.60	21.40	6.10	0.90	0.30	1.30	82.70	Ton/day
Min	0.30	0.40	0.80	0.40	0.30	0.70	2.50	2.10	0.90	0.10	0.10	0.10	0.10	Ton/day

WATER YEAR : 2002

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	2002
Number of observation	27
R-Square	0.8653
Remarks	Continued Sediment Station

$$QS = 3.9471\ QW^{1.46300}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.30	0.20	0.30	0.30	0.20	19.70	26.80	3.40	14.30	1260.80	4.50	1.60		
2	0.30	0.20	0.20	0.20	0.20	18.10	16.20	3.40	15.50	420.20	4.50	1.40		
3	0.30	0.20	0.20	0.20	0.20	14.90	12.50	3.10	14.30	131.40	4.50	1.60		
4	0.30	0.20	0.20	0.20	0.20	16.80	10.30	3.10	11.40	67.20	4.20	1.60		
5	0.30	0.10	0.20	0.20	0.40	19.70	9.20	2.80	8.10	41.80	4.20	1.40		
6	0.20	0.10	0.30	0.30	3.90	16.20	7.10	2.60	10.30	33.30	4.20	1.40		
7	0.20	0.10	0.40	0.70	5.50	14.90	6.10	2.60	10.80	27.80	3.90	1.40		
8	0.20	0.10	0.40	0.80	3.70	13.70	5.80	2.80	7.10	23.70	3.70	1.30		
9	0.20	0.20	0.30	0.50	3.40	17.40	6.10	15.50	6.80	20.70	3.40	1.30		
10	0.20	3.70	0.30	0.40	1.30	13.10	5.80	5.20	8.10	18.10	3.10	2.30		
11	0.10	5.20	0.40	0.40	3.40	12.50	5.50	3.90	6.10	16.20	3.90	3.10		
12	0.30	1.20	0.30	0.30	3.70	10.30	4.80	10.30	4.80	14.90	3.90	70.60		
13	16.80	25.70	0.30	0.20	2.80	8.70	4.50	5.50	4.20	13.10	3.40	17.40		
14	1.00	5.20	0.20	0.20	2.30	8.10	4.20	4.20	3.90	12.50	3.40	8.10		
15	0.30	6.50	0.20	0.20	4.20	7.60	4.20	3.70	3.70	11.90	3.70	6.10		
16	0.20	5.20	0.20	0.30	3.40	6.80	4.20	3.70	3.40	10.80	3.40	5.80		
17	0.10	1.30	0.20	0.40	2.30	6.50	3.90	3.40	3.40	10.30	3.40	4.80		
18	0.10	1.30	0.20	0.40	4.80	6.80	3.90	3.40	3.10	9.20	3.10	4.20		
19	0.10	1.10	0.20	0.30	7.60	7.10	3.90	3.40	2.80	8.10	3.10	3.90		
20	0.10	0.90	0.10	0.20	3806.50	7.10	4.20	3.10	2.60	8.10	2.80	3.70		
21	0.10	0.90	0.30	0.20	769.60	7.10	4.80	3.70	2.30	7.60	2.60	3.40		
22	0.10	0.80	0.40	0.20	200.40	6.80	3.70	50.90	2.30	6.80	2.10	3.40		
23	0.20	0.70	0.30	0.20	112.10	10.80	3.70	159.10	2.10	6.80	2.10	4.50		
24	0.20	0.60	0.30	0.20	57.20	14.90	3.40	47.80	1.90	6.50	1.90	4.20		
25	0.10	0.60	0.30	0.20	40.40	9.20	3.10	25.70	1.60	6.10	2.10	5.20		
26	0.30	0.60	0.30	0.20	38.00	16.80	4.20	18.70	1.60	5.80	2.10	12.50		
27	0.40	0.60	1.10	0.20	46.30	22.60	5.20	13.70	1.60	5.20	1.90	9.70		
28	0.30	0.60	0.50	0.20	28.90	16.20	4.20	10.30	1.40	5.20	1.60	6.10		
29	0.20	0.60	0.40	0.30	20.70	12.50	4.50	9.20	57.20	6.80	0.00	5.50		
30	0.20	0.40	0.50	0.30	17.40	33.30	3.70	7.60	9.20	6.10	0.00	5.20		
31	0.00	0.30	0.00	0.20	16.20	0.00	3.40	0.00	270.90	5.50	0.00	5.50		
Total	23.70	65.40	9.50	9.10	5207.20	396.20	193.10	435.80	496.80	2228.50	90.70	208.20	9364.20	Tonday
Mean	0.79	2.11	0.32	0.29	167.97	13.21	6.23	14.53	16.03	71.89	3.24	6.72		Ton/day
Max	16.80	25.70	1.10	0.80	3806.50	33.30	26.80	159.10	270.90	1260.80	4.50	70.60	3806.50	Ton/day
Min	0.10	0.10	0.10	0.20	0.20	6.50	3.10	2.60	1.40	5.20	1.60	1.30	0.10	Ton/day

WATER YEAR : 2002

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	1998-2002
Number of observation	133
R-Square	0.8962
Remarks	Continued Sediment Station

$$QS = 3.8332\ QW^{1.61080}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.10	0.80	0.50	1.10	0.90	4.90	14.70	3.50	17.60	261.60	1.70	0.40		
2	0.10	0.60	1.10	0.90	0.90	4.10	6.40	17.60	163.60	182.40	1.30	0.40		
3	0.10	0.60	1.10	0.80	0.90	3.50	3.50	14.70	96.30	81.70	0.90	0.40		
4	0.10	0.60	0.90	0.60	0.90	2.80	2.30	516.90	41.70	41.70	0.90	0.40		
5	0.10	0.50	0.80	0.60	0.90	4.10	2.30	91.30	30.20	30.20	0.90	0.30		
6	0.10	0.50	0.60	0.90	4.90	4.10	1.70	32.90	32.90	19.20	0.60	0.30		
7	0.10	0.80	0.50	1.70	2.30	3.50	1.70	16.10	27.50	14.70	0.50	0.30		
8	0.10	0.90	0.50	2.30	1.70	2.30	1.70	32.90	16.10	13.30	0.50	0.30		
9	0.10	0.40	0.50	1.10	1.70	1.70	1.70	429.50	4.10	10.60	0.40	0.20		
10	0.10	1.10	0.60	0.80	1.70	2.30	1.30	106.60	27.50	9.40	0.40	0.20		
11	0.10	2.30	0.60	0.50	1.70	2.80	3.50	44.80	14.70	9.40	1.70	1.30		
12	0.10	2.30	4.90	0.50	1.30	2.30	3.50	44.80	13.30	6.40	1.30	10.60		
13	1.70	3.50	1.70	0.40	1.30	1.10	2.80	25.00	13.30	6.40	1.10	22.50		
14	1.70	2.80	0.50	0.40	1.70	1.10	2.30	16.10	10.60	4.90	1.10	8.20		
15	0.90	1.70	0.90	0.40	1.70	1.10	1.30	16.10	9.40	4.90	0.90	6.40		
16	0.50	2.80	0.50	0.40	1.70	0.90	0.30	14.70	7.30	4.10	0.90	6.40		
17	0.40	1.30	0.40	0.40	1.70	0.80	0.30	11.90	7.30	4.10	0.90	1.70		
18	0.10	1.10	0.40	0.40	1.70	0.80	1.30	8.20	7.30	3.50	0.90	1.70		
19	0.10	0.90	0.40	0.50	2.80	0.90	10.60	6.40	7.30	3.50	0.80	1.30		
20	0.10	5.60	0.40	0.30	693.30	0.80	4.90	6.40	6.40	3.50	0.80	1.10		
21	0.10	5.60	0.40	0.30	96.30	0.80	2.80	145.50	5.60	2.80	0.80	0.90		
22	0.30	4.10	1.10	0.40	41.70	0.80	1.70	590.10	4.90	2.80	0.60	0.90		
23	0.20	0.60	1.10	0.40	32.90	0.80	1.30	429.50	4.90	2.30	0.60	0.80		
24	0.30	0.60	1.30	0.40	13.30	1.70	1.30	133.90	4.10	2.30	0.60	0.80		
25	0.50	0.50	1.70	0.40	11.90	1.70	1.10	72.40	3.50	2.30	0.50	2.80		
26	0.30	0.80	1.30	0.40	7.30	0.60	7.30	44.80	3.50	2.30	0.50	5.60		
27	1.30	0.60	0.80	0.20	8.20	0.60	4.10	35.80	2.80	1.70	0.50	6.40		
28	5.60	1.30	1.10	0.40	7.30	1.70	17.60	25.00	4.90	1.70	0.50	5.60		
29	2.80	1.70	2.30	0.40	5.60	0.90	6.40	19.20	7.30	1.70		4.10		
30	0.90	0.90	1.30	4.10	4.90	13.30	4.10	17.60	8.20	2.80		4.90		
31		0.80		1.10	4.90		3.50		215.50	2.30		4.90		
Total	19.00	48.60	30.20	23.50	960.00	68.80	119.30	2970.20	819.60	740.50	23.10	102.10	5924.90	Tonday
Mean	0.63	1.57	1.01	0.76	30.97	2.29	3.85	99.01	26.44	23.89	0.83	3.29		Ton/day
Max	5.60	5.60	4.90	4.10	693.30	13.30	17.60	590.10	215.50	261.60	1.70	22.50	693.30	Ton/day
Min	0.10	0.40	0.40	0.20	0.90	0.60	0.30	3.50	2.80	1.70	0.40	0.20	0.10	Ton/day

WATER YEAR : 2002

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.
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	1998-2002
Number of observation	122
R-Square	0.9293
Remarks	Continued Sediment Station

$$QS = 7.6932\ QW^{1.20810}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.20	0.20	0.20	0.30	0.20	2.20	8.80	0.70	1.10	168.30	0.40	0.20		
2	0.20	0.20	0.40	0.30	0.20	1.80	2.20	0.70	8.80	204.50	0.40	0.20		
3	0.20	0.20	0.60	0.20	0.20	1.10	1.00	0.70	3.70	24.90	0.40	0.20		
4	0.20	0.20	0.70	0.20	0.20	1.10	0.60	0.70	2.20	8.80	0.40	0.20		
5	0.20	0.20	0.40	0.20	0.20	1.40	0.60	0.50	1.40	6.20	0.40	0.10		
6	0.20	0.20	0.40	0.20	0.30	1.10	0.60	0.40	3.30	5.60	0.40	0.10		
7	0.20	0.20	0.40	0.20	0.20	1.10	0.60	0.30	7.50	5.00	0.40	0.10		
8	0.20	0.20	0.30	0.30	0.20	1.10	0.60	0.40	3.30	4.20	0.40	0.20		
9	0.10	0.20	0.30	0.30	0.20	1.00	0.40	0.40	2.50	3.70	0.40	0.10		
10	0.03	0.40	0.20	0.40	0.20	1.00	0.60	0.40	2.90	2.90	0.30	0.30		
11	0.03	7.50	0.20	0.30	0.10	1.00	0.60	0.50	1.40	1.10	0.30	2.20		
12	0.10	1.80	0.20	0.30	0.20	0.90	0.40	0.80	1.10	0.90	0.30	5.60		
13	0.80	3.30	0.20	0.30	0.20	0.80	0.40	0.90	1.00	0.90	0.30	9.50		
14	3.70	5.00	0.30	0.20	0.20	0.70	0.40	0.80	1.00	0.80	0.40	7.50		
15	3.70	3.70	0.30	0.40	0.20	0.60	0.30	0.70	0.90	0.80	0.30	6.20		
16	2.50	11.60	0.20	0.20	0.20	0.60	0.40	0.50	0.90	0.80	0.30	1.00		
17	0.40	4.20	0.80	0.40	0.20	0.70	0.40	0.60	0.80	0.80	0.30	0.70		
18	0.30	3.70	0.20	0.20	0.20	0.70	0.40	0.60	0.70	0.70	0.30	0.50		
19	0.30	1.80	0.20	0.40	0.20	0.80	0.40	0.50	0.70	0.70	0.30	0.40		
20	0.30	1.10	0.20	0.30	145.80	0.80	0.40	0.40	0.80	0.70	0.30	0.40		
21	0.30	1.10	0.20	0.30	187.50	0.80	0.50	0.40	1.10	0.70	0.30	0.40		
22	0.20	1.10	0.20	0.03	24.90	0.80	0.50	3.70	0.70	0.70	0.20	0.30		
23	0.20	0.90	0.20	0.03	9.50	0.80	0.50	187.50	0.90	0.70	0.20	0.40		
24	0.20	0.80	0.20	0.10	5.00	1.00	0.50	20.80	1.10	0.60	0.20	0.40		
25	0.20	0.70	0.20	0.10	2.90	1.00	0.50	10.20	1.00	0.60	0.10	10.20		
26	0.50	0.70	0.40	0.03	1.80	0.90	0.70	5.00	1.00	0.50	0.10	17.20		
27	0.50	0.60	0.40	0.10	5.00	0.70	0.80	3.70	1.00	0.50	0.10	26.50		
28	0.40	0.60	0.40	0.10	2.90	0.60	0.90	2.90	0.80	0.50	0.10	5.60		
29	0.30	0.40	0.40	0.10	1.80	0.60	0.90	1.80	79.30	0.50		1.10		
30	0.20	0.50	0.30	0.10	1.10	5.60	0.90	1.10	18.40	0.60		0.80		
31		0.40		0.40	1.00		0.80		82.10	0.50		6.90		
Total	16.86	53.70	9.60	6.99	393.00	33.30	27.60	248.60	233.40	448.70	8.30	105.50	1585.55	Tonday
Mean	0.56	1.73	0.32	0.23	12.68	1.11	0.89	8.29	7.53	14.47	0.30	3.40		Ton/day
Max	3.70	11.60	0.80	0.40	187.50	5.60	8.80	187.50	82.10	204.50	0.40	26.50	204.50	Ton/day
Min	0.03	0.20	0.20	0.03	0.10	0.60	0.30	0.30	0.70	0.50	0.10	0.10	0.03	Ton/day

WATER YEAR : 2002

SOUTHERN PENINSULA EAST COAST

Khlong Rap Ro at Ban Tha Kham, Chumphon (X.46)

Lat 10 - 36 - 53 N Long 99 - 07 - 07 E

Location : on left bank about 10 kilometers downstream from X.46A station at Ban Hat Taeng.

Ban Tha Kham **Amphoe** Tha Sae **Changwat** Chumphon

Drainge Area	766 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	1996 - 2002
Number of observation	175
R-Square	0.8637
Remarks	Continued Sediment Station

$$QS = 1.0390\ QW^{1.55560}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	4.90	3.50	13.50	26.90	158.20	114.10	1375.80	66.60	132.80	4019.40	20.00	8.60		
2	4.60	3.30	8.60	20.00	116.70	75.30	317.70	458.00	167.10	1563.30	19.60	8.30		
3	4.30	3.30	12.30	16.00	77.60	83.70	152.40	290.70	559.80	434.10	18.70	8.30		
4	4.10	3.10	13.10	15.60	75.30	73.80	122.00	2331.10	188.40	188.40	18.20	9.00		
5	3.80	2.60	12.30	63.00	213.80	223.60	75.30	1476.00	138.30	146.70	17.30	8.30		
6	3.80	3.50	13.50	158.20	507.30	200.90	56.80	329.00	185.30	97.20	16.90	8.00		
7	3.30	4.90	13.50	813.90	501.40	170.10	40.30	167.10	130.00	83.70	16.00	7.60		
8	3.10	4.30	17.30	526.60	233.60	99.70	32.80	526.60	99.70	70.20	14.70	7.30		
9	6.00	7.00	17.30	188.40	127.30	73.80	30.60	3939.30	138.30	60.20	14.70	7.30		
10	7.60	7.30	13.10	92.40	83.70	58.20	23.40	2707.40	164.10	53.50	14.30	7.30		
11	4.30	21.40	13.50	73.80	71.60	537.10	21.00	893.80	646.10	45.80	14.70	8.30		
12	6.70	90.00	12.30	58.20	170.10	387.60	18.70	317.70	223.60	45.80	14.70	15.60		
13	22.40	25.90	17.30	50.20	757.00	217.10	14.70	243.80	135.50	44.50	14.30	43.30		
14	83.70	19.60	12.30	56.80	630.10	130.00	31.70	170.10	102.20	39.10	13.50	25.90		
15	13.50	19.60	10.80	66.60	452.30	107.20	39.10	135.50	94.80	37.90	13.10	18.20		
16	8.00	11.90	9.00	237.00	365.00	66.60	16.00	107.20	79.10	36.80	12.30	11.90		
17	6.30	9.70	8.30	167.10	276.30	58.20	13.10	97.20	138.30	32.80	11.90	10.80		
18	5.20	8.30	8.30	149.60	250.60	116.70	17.30	94.80	79.10	30.60	11.20	9.00		
19	7.60	9.00	40.30	83.70	418.80	220.30	12.30	88.40	75.30	27.90	11.20	8.30		
20	5.40	8.30	19.60	54.80	4492.20	240.40	88.40	73.80	68.70	26.90	10.80	8.00		
21	5.20	7.30	19.60	41.50	4534.00	176.10	16.00	99.70	56.80	26.90	9.70	7.60		
22	4.90	19.60	18.70	33.90	7864.20	155.30	12.30	1456.60	45.80	24.90	10.00	7.30		
23	4.10	58.20	107.20	26.90	2812.80	122.00	11.20	5147.90	45.80	24.90	10.00	7.30		
24	4.10	20.00	70.20	52.20	745.10	553.70	9.00	1086.60	43.30	23.40	9.00	8.30		
25	3.50	11.90	39.10	39.10	294.30	387.60	8.60	1094.30	66.60	22.40	9.00	11.20		
26	3.50	14.30	27.90	37.90	188.40	240.40	8.30	414.70	44.50	21.40	8.60	35.00		
27	8.00	19.60	116.70	43.30	119.30	283.40	15.60	264.50	39.10	20.00	9.00	18.20		
28	6.00	13.10	63.00	31.70	97.20	1063.40	18.20	176.10	32.80	20.00	8.60	12.30		
29	6.70	18.20	50.20	47.00	73.80	681.80	10.80	135.50	43.30	20.00		10.80		
30	5.20	23.40	40.30	220.30	45.80	243.80	60.20	122.00	73.80	36.80		70.20		
31		18.70		138.30	124.60		21.00		1982.60	22.40		16.00		
Total	259.80	490.80	839.10	3630.90	26878.40	7161.90	2690.60	24512.00	6020.90	7347.90	372.00	443.50	80647.80	Tonday
Mean	8.66	15.83	27.97	117.13	867.05	238.73	86.79	817.07	194.22	237.03	13.29	14.31		Ton/day
Max	83.70	90.00	116.70	813.90	7864.20	1063.40	1375.80	5147.90	1982.60	4019.40	20.00	70.20	7864.20	Ton/day
Min	3.10	2.60	8.30	15.60	45.80	58.20	8.30	66.60	32.80	20.00	8.60	7.30	2.60	Ton/day

WATER YEAR : 2002

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.DH - 59
Period of Available Records	1996-Cont'd
Actual Measurement	1996-Cont'd
Using Rating Curve Water Year	1996-2002
Number of observation	165
R-Square	0.8699
Remarks	Continued Sediment Station

$$QS = 2.9323\ QW^{1.29770}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	14.00	11.70	17.70	22.70	37.00	63.50	294.40	32.60	38.80	921.20	21.20	11.70		
2	13.40	10.50	17.10	20.50	33.50	64.50	87.60	101.70	77.30	388.70	21.20	11.70		
3	12.80	9.40	16.50	18.40	31.80	66.50	63.50	117.60	213.20	224.70	21.20	11.70		
4	12.30	10.00	31.00	17.70	40.60	66.50	53.60	642.00	82.90	159.00	20.50	11.70		
5	11.10	9.40	23.40	22.70	67.50	163.30	48.90	626.40	58.50	81.80	20.50	11.70		
6	9.40	9.40	19.80	43.30	149.10	280.50	46.10	93.40	70.60	68.50	19.80	11.10		
7	8.90	10.00	20.50	322.80	132.50	228.00	62.50	59.50	56.50	59.50	19.80	10.50		
8	8.40	9.40	36.10	125.70	66.50	150.50	43.30	94.60	48.90	51.70	19.10	10.00		
9	7.30	31.80	33.50	45.10	53.60	107.80	41.50	811.20	45.10	45.10	18.40	9.40		
10	6.30	34.30	27.20	33.50	45.10	88.70	38.80	503.80	56.50	43.30	17.70	8.90		
11	5.90	93.40	39.70	31.80	41.50	379.40	33.50	176.60	58.50	39.70	17.70	18.40		
12	6.80	73.90	36.10	27.90	38.80	238.00	31.00	117.60	68.50	37.90	17.10	28.70		
13	13.40	37.00	27.20	25.70	42.40	270.10	28.70	80.70	54.60	35.20	17.10	43.30		
14	42.40	32.60	24.20	27.90	41.50	161.90	26.40	64.50	100.50	33.50	17.10	31.00		
15	21.20	45.10	23.40	26.40	38.80	110.20	24.20	48.90	103.00	31.80	17.10	25.70		
16	17.10	33.50	27.20	266.70	35.20	82.90	25.70	44.20	69.50	30.30	17.10	21.20		
17	15.80	22.00	24.90	287.50	32.60	78.40	24.90	41.50	885.80	28.70	17.10	15.80		
18	14.60	19.10	25.70	116.40	30.30	101.70	25.70	37.90	305.00	28.70	16.50	12.80		
19	13.40	15.80	24.20	67.50	40.60	152.00	30.30	37.00	161.90	27.90	15.80	12.30		
20	12.80	17.70	20.50	59.50	780.90	236.30	36.10	41.50	89.90	27.20	15.80	10.50		
21	12.30	15.80	17.70	45.10	725.60	277.00	28.70	70.60	66.50	26.40	15.20	10.00		
22	11.70	62.50	20.50	31.80	754.00	179.70	29.50	370.10	55.60	25.70	15.20	10.50		
23	11.70	52.70	22.00	27.20	705.90	173.50	26.40	780.90	49.80	24.90	14.60	11.70		
24	11.10	37.00	24.90	26.40	348.10	441.30	24.20	231.30	58.50	24.20	14.00	17.10		
25	11.10	25.70	20.50	41.50	160.50	268.40	22.70	129.80	62.50	23.40	13.40	21.20		
26	11.10	22.70	20.50	43.30	101.70	198.70	35.20	91.10	49.80	22.70	12.30	36.10		
27	15.80	20.50	100.50	37.90	73.90	146.30	31.80	68.50	45.10	22.70	11.70	35.20		
28	19.80	26.40	42.40	38.80	66.50	107.80	62.50	56.50	41.50	22.00	11.70	24.90		
29	14.00	27.20	33.50	44.20	54.60	85.20	36.10	47.90	106.60	21.20		24.20		
30	12.80	22.70	27.90	66.50	48.90	69.50	37.90	39.70	605.60	14.60		22.70		
31		19.10		46.10	49.80		27.90		931.90	11.70		20.50		
Total	398.70	868.30	846.30	2058.50	4869.30	5038.10	1429.60	5659.60	4718.90	2603.90	475.90	562.20	29529.30	Tonday
Mean	13.29	28.01	28.21	66.40	157.07	167.94	46.12	188.65	152.22	84.00	17.00	18.14		Ton/day
Max	42.40	93.40	100.50	322.80	780.90	441.30	294.40	811.20	931.90	921.20	21.20	43.30	931.90	Ton/day
Min	5.90	9.40	16.50	17.70	30.30	63.50	22.70	32.60	38.80	11.70	11.70	8.90	5.90	Ton/day

WATER YEAR : 2002

SOUTHERN PENINSULA EAST COAST

Khlong Tha Di at Ban Tha Yai , Nakhon Si Thammarat (X.55)

Lat 08 - 23 - 52 N Long 99 - 50 - 14 E

Location : on left bank at the bridge.

Ban Tha Yai **Amphoe** Lan Saka **Changwat** Nakhon Si Thammarat

Drainge Area	105 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D - 48
Period of Available Records	1989 - 2009,2012 - Cont' d
Actual Measurement	1990 - 2009,2012 - Cont' d
Using Rating Curve Water Year	2002
Number of observation	24
R-Square	0.8679
Remarks	Continued Sediment Station

$$QS = 3.3660\ QW^{1.16210}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	4.50	4.20	2.60	0.50	12.20	6.20	5.60	26.60	31.80	95.50	19.20	10.30		
2	4.50	3.60	2.40	0.30	10.00	5.90	5.90	13.40	31.80	126.80	14.50	9.60		
3	4.50	3.40	2.20	2.80	10.00	6.20	31.80	49.90	35.60	74.10	13.40	9.60		
4	4.20	3.20	2.00	8.30	12.80	6.70	40.20	411.30	34.30	59.80	13.40	8.90		
5	4.20	3.20	1.50	12.80	10.50	5.40	33.10	728.80	84.70	49.90	13.40	8.90		
6	5.40	3.20	1.40	12.80	4.80	5.90	31.80	325.40	61.80	40.20	15.70	9.60		
7	6.20	3.60	1.30	13.40	3.00	5.10	31.80	392.20	55.80	37.00	13.40	11.10		
8	5.60	5.60	1.20	11.00	2.60	8.30	53.80	230.10	40.20	35.60	11.80	8.90		
9	5.10	6.70	1.10	6.70	2.40	7.50	49.90	190.30	40.20	38.30	11.10	10.30		
10	4.20	6.70	1.10	4.50	2.20	12.80	44.00	91.20	47.90	31.80	11.80	9.60		
11	4.20	6.70	1.00	3.20	5.60	18.70	37.00	236.60	40.20	29.20	13.40	9.60		
12	3.90	10.50	2.00	1.90	11.00	20.30	37.00	84.70	53.80	26.60	11.80	8.90		
13	3.90	12.20	1.50	1.40	8.80	17.20	67.90	59.80	480.80	26.60	11.80	11.10		
14	4.20	7.90	1.00	4.80	5.60	10.50	37.00	49.90	426.60	22.90	11.10	11.10		
15	4.20	5.60	6.20	7.10	4.80	15.20	31.80	49.90	154.40	22.90	10.30	10.30		
16	3.60	5.10	7.50	5.90	4.50	17.90	29.20	37.00	97.70	22.90	10.30	10.30		
17	2.20	4.50	4.80	5.10	3.90	9.20	33.10	34.30	86.90	22.90	9.60	8.90		
18	1.30	4.20	2.40	5.90	3.00	12.80	33.10	31.80	78.30	27.90	8.90	6.70		
19	1.30	3.20	2.80	5.10	15.20	11.00	31.80	49.90	61.80	40.20	8.10	6.00		
20	1.20	2.60	1.90	4.20	18.70	8.80	29.20	72.00	51.80	76.20	8.10	6.00		
21	1.20	4.80	1.30	3.90	20.30	7.10	27.90	446.60	44.00	80.40	8.10	5.30		
22	1.10	6.20	1.20	3.40	16.40	7.90	27.90	138.20	38.30	42.10	8.10	4.60		
23	1.10	6.20	1.10	3.40	15.20	5.40	27.90	140.50	33.10	34.30	8.10	4.60		
24	3.40	6.20	0.80	3.20	15.80	13.40	30.40	93.40	31.80	30.40	11.80	5.30		
25	4.80	5.90	1.00	3.20	13.40	18.70	26.60	80.40	33.10	26.60	10.30	15.70		
26	2.00	9.20	4.20	2.00	14.00	11.60	29.20	76.20	30.40	22.90	9.60	45.90		
27	5.60	9.20	5.60	1.30	18.70	9.60	29.20	57.80	29.20	21.70	8.90	29.20		
28	7.90	5.10	2.00	1.20	11.60	6.20	22.90	45.90	38.30	20.50	8.90	14.50		
29	6.70	4.80	1.30	1.30	8.30	7.50	18.00	38.30	184.80	19.20		10.30		
30	5.10	4.50	0.90	3.20	7.90	5.90	26.60	37.00	1003.30	18.00		12.60		
31		3.40		7.90	9.20		14.50		230.10	16.90		13.40		
Total	117.30	171.40	67.30	151.70	302.40	304.90	976.10	4319.40	3692.80	1240.30	314.90	347.10	12005.60	Tonday
Mean	3.91	5.53	2.24	4.89	9.75	10.16	31.49	143.98	119.12	40.01	11.25	11.20		Ton/day
Max	7.90	12.20	7.50	13.40	20.30	20.30	67.90	728.80	1003.30	126.80	19.20	45.90	1003.30	Ton/day
Min	1.10	2.60	0.80	0.30	2.20	5.10	5.60	13.40	29.20	16.90	8.10	4.60	0.30	Ton/day

WATER YEAR : 2002

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.		
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	2002		
Number of observation	24		
R-Square	0.8688		
Remarks	Continued Sediment Station		

$$QS = 0.4968\ QW^{1.74170}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.80	7.50	6.70	15.30	32.20	57.10	321.10	46.50	90.30	14729.80	21.90	7.50		
2	3.50	5.20	5.60	11.10	18.80	54.90	164.70	678.50	242.90	5357.90	20.70	7.10		
3	3.00	4.40	4.90	8.80	13.60	45.50	101.50	314.60	501.80	1097.60	19.40	7.50		
4	2.80	4.10	4.60	7.10	12.60	50.60	86.30	2785.00	245.40	357.90	18.80	9.20		
5	2.80	3.50	6.30	7.50	17.00	89.00	53.80	5475.80	140.90	201.10	17.00	8.30		
6	2.60	3.50	7.50	10.60	39.00	109.90	41.70	598.80	118.70	160.60	16.40	6.70		
7	2.60	3.50	6.70	33.00	103.10	83.70	34.60	183.60	131.50	129.60	15.80	5.90		
8	2.30	7.50	6.70	96.50	57.10	52.70	29.70	368.20	94.90	87.60	15.30	5.60		
9	2.30	13.10	6.30	46.50	31.30	41.70	33.00	6064.90	129.60	74.80	14.70	5.20		
10	2.80	9.20	5.60	23.90	21.30	40.80	26.70	9775.50	581.10	65.10	14.20	5.20		
11	2.80	13.60	7.90	16.40	17.00	103.10	22.60	2168.60	1612.20	57.10	15.30	7.50		
12	4.40	30.50	18.80	13.60	29.70	118.70	20.70	455.30	410.80	51.70	14.70	57.10		
13	11.60	22.60	21.90	11.60	78.50	77.30	18.80	305.30	160.60	45.50	14.20	109.90		
14	23.90	20.70	11.10	9.70	56.00	48.50	36.40	198.90	118.70	42.60	13.60	53.80		
15	15.30	26.70	7.50	10.60	37.20	38.10	40.80	173.00	108.20	39.00	13.10	44.50		
16	8.80	20.00	5.90	20.00	29.00	32.20	24.60	131.50	83.70	35.50	12.10	23.90		
17	5.90	18.80	5.60	24.60	22.60	28.20	20.70	99.80	69.80	33.80	12.10	15.80		
18	4.40	13.60	5.60	26.70	18.80	33.80	27.40	86.30	62.80	31.30	11.60	13.10		
19	8.30	13.10	5.90	22.60	26.70	49.60	36.40	79.80	59.30	29.00	11.10	10.10		
20	5.90	12.10	6.70	15.80	654.30	42.60	58.20	60.50	52.70	27.40	10.10	9.20		
21	4.40	8.80	6.30	10.60	3592.80	36.40	29.00	67.40	46.50	26.70	9.70	8.30		
22	3.50	9.70	5.90	8.30	3885.50	56.00	22.60	607.70	42.60	25.30	9.20	7.50		
23	3.30	12.10	10.60	6.70	1409.60	50.60	22.60	5416.70	39.90	24.60	8.80	9.20		
24	3.00	10.10	15.80	5.90	308.40	156.60	18.20	2993.10	36.40	23.90	8.80	13.60		
25	2.80	9.20	14.70	6.70	164.70	122.30	15.30	1203.10	34.60	22.60	8.30	21.90		
26	3.50	10.60	20.70	8.30	142.80	111.70	21.90	525.70	33.80	21.30	8.30	124.10		
27	7.10	13.60	21.90	9.70	103.10	344.30	104.80	278.30	32.20	20.70	8.30	78.50		
28	21.90	9.70	35.50	8.30	198.90	133.30	113.40	175.10	28.20	20.00	7.90	43.50		
29	29.00	8.80	23.90	7.90	106.50	98.10	54.90	129.60	46.50	20.00		28.20		
30	12.10	12.10	24.60	18.20	60.50	103.10	57.10	101.50	82.40	44.50		99.80		
31		9.20		27.40	61.60		61.60		396.40	29.00		58.20		
Total	210.40	367.10	337.70	549.90	11350.20	2410.40	1721.10	41548.60	5835.40	22933.50	371.40	905.90	88541.60	Tonday
Mean	7.01	11.84	11.26	17.74	366.14	80.35	55.52	1384.95	188.24	739.79	13.26	29.22		Ton/day
Max	29.00	30.50	35.50	96.50	3885.50	344.30	321.10	9775.50	1612.20	14729.80	21.90	124.10	14729.80	Ton/day
Min	2.30	3.50	4.60	5.90	12.60	28.20	15.30	46.50	28.20	20.00	7.90	5.20	2.30	Ton/day

WATER YEAR : 2002

SOUTHERN PENINSULA EAST COAST

Khlong Ban Tan at Ban Wang Kong , Nakhon Si Thammarat (X.70)

Lat 08 - 25 - 34 N Long 99 - 51 - 47 E

Location : on left bank upstream side of the bridge.

Ban Wang Kong **Amphoe** Mueang **Changwat** Nakhon Si Thammarat

Drainge Area	36 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.DH - 59
Period of Available Records	1989 - 2010,2014 - Cont' d
Actual Measurement	1989 - 2010,2014 - Cont' d
Using Rating Curve Water Year	1998-2002
Number of observation	205
R-Square	0.8755
Remarks	Continued Sediment Station

$$QS = 2.8289\ QW^{1.01620}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.50	1.00	0.60	0.30	2.30	0.90	2.70	3.30	4.20	17.60	3.30	3.40		
2	1.30	0.90	0.50	0.30	0.60	1.10	2.10	2.50	3.90	22.30	2.80	3.70		
3	1.00	0.90	0.50	0.40	0.40	1.40	2.50	7.00	3.90	11.80	2.80	3.90		
4	0.90	0.80	0.40	0.30	0.40	1.20	3.10	9.60	4.40	9.40	2.60	4.40		
5	0.90	0.70	0.30	0.30	0.20	1.00	1.90	27.60	13.70	8.80	2.80	4.40		
6	1.80	0.60	0.30	0.30	0.30	1.20	7.80	58.50	6.80	8.00	2.80	4.60		
7	1.40	0.70	0.30	0.30	0.80	2.70	4.80	71.40	6.90	6.50	2.80	4.70		
8	1.00	1.40	0.30	0.30	0.60	1.20	3.30	42.10	5.10	5.10	2.60	4.40		
9	0.90	1.40	0.40	0.30	0.60	1.20	4.80	15.00	4.40	7.20	2.40	3.30		
10	1.70	1.40	1.00	0.30	0.40	1.00	4.40	11.60	4.00	5.80	2.50	3.30		
11	1.40	1.40	0.80	0.20	0.40	0.90	4.20	12.50	4.40	4.40	2.30	3.30		
12	1.00	1.40	0.60	0.20	0.40	1.00	3.90	10.40	5.80	3.90	2.30	3.30		
13	1.10	1.40	0.50	0.20	0.40	1.00	12.90	8.80	65.60	3.90	3.90	3.30		
14	1.00	1.40	0.50	0.20	0.40	0.90	4.40	7.80	35.60	3.90	2.80	3.90		
15	1.20	1.20	1.00	0.20	0.40	0.80	4.40	6.50	26.40	4.20	3.30	3.50		
16	1.40	1.00	1.00	0.20	0.20	0.80	3.30	6.40	12.50	3.90	3.90	3.30		
17	1.00	1.00	0.80	0.20	0.20	0.80	2.80	5.50	12.00	4.00	3.90	3.30		
18	1.00	1.00	0.60	0.20	2.80	1.30	3.80	7.50	10.40	5.80	3.90	3.30		
19	1.00	0.80	0.60	0.20	1.90	1.30	3.10	10.40	9.40	4.40	3.30	3.10		
20	1.00	0.60	0.50	0.20	1.90	0.80	2.60	10.10	7.80	7.20	3.30	3.30		
21	0.90	1.00	0.40	0.20	1.20	0.80	3.40	76.30	5.80	11.60	3.20	3.30		
22	0.90	1.00	0.40	0.30	2.00	1.00	4.70	12.00	7.50	7.20	3.20	3.30		
23	0.80	1.00	0.30	0.60	4.10	1.00	4.80	12.20	4.00	7.20	3.00	3.30		
24	0.80	1.00	0.30	0.50	3.00	1.00	3.90	10.40	5.70	5.80	3.10	3.30		
25	1.70	1.00	0.30	0.60	6.20	1.50	3.30	11.40	4.60	5.10	3.10	3.30		
26	1.80	1.00	0.30	0.40	2.20	4.60	0.00	12.50	5.10	4.40	3.90	5.00		
27	1.60	0.90	0.30	0.60	2.60	5.50	0.00	8.50	5.10	4.10	4.20	5.80		
28	2.10	0.80	0.30	0.60	1.50	4.30	0.00	7.20	4.00	3.80	3.70	5.80		
29	1.40	0.60	0.30	0.40	1.10	3.30	0.00	5.80	18.10	3.30		4.60		
30	1.40	0.60	0.40	0.40	0.00	4.10	0.00	5.00	145.50	3.40		4.00		
31		0.60		0.00	0.00		0.00		29.10	3.30		4.60		
Total	36.90	30.50	14.80	9.70	39.50	49.60	102.90	495.80	481.70	207.30	87.70	120.00	1676.40	Tonday
Mean	1.23	0.98	0.49	0.32	1.36	1.65	4.12	16.53	15.54	6.69	3.13	3.87	4.66	Ton/day
Max	2.10	1.40	1.00	0.60	6.20	5.50	12.90	76.30	145.50	22.30	4.20	5.80	145.50	Ton/day
Min	0.80	0.60	0.30	0.00	0.00	0.80	0.00	2.50	3.90	3.30	2.30	3.10	0.00	Ton/day

WATER YEAR : 2002

SOUTHERN PENINSULA EAST COAST

Khlong Chawang at Ban Na San, Surat Thani (X.81A)

Lat 08 - 48 - 23 N Long 99 - 22 - 18 E

Location : on right bank at Wat Ban Na San.

Ban Na San **Amphoe** Ban Na San **Changwat** Surat Thani

Drainge Area	220 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	2002
Number of observation	24
R-Square	0.9004
Remarks	Continued Sediment Station

$$QS = 0.9791\ QW^{1.57140}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.00	1.50	1.90	14.70	8.70	37.60	52.30	34.70	28.90	39.30	6.80	4.70		
2	1.70	1.30	1.90	9.20	7.70	71.20	41.70	22.70	24.50	75.80	14.70	4.30		
3	1.50	1.10	1.50	8.20	12.10	56.90	37.60	26.50	23.30	41.10	11.80	4.30		
4	1.30	0.80	3.30	16.90	31.90	37.60	66.30	24.00	30.50	30.50	10.00	10.90		
5	1.90	0.70	3.60	19.10	39.60	27.90	52.30	98.10	22.20	24.50	9.20	14.70		
6	2.50	0.80	4.00	24.00	15.80	24.00	63.90	52.30	21.00	21.00	8.40	4.30		
7	3.30	0.80	8.70	19.10	12.70	20.30	45.80	39.60	17.70	18.80	7.60	3.50		
8	2.50	1.50	3.60	14.70	10.30	21.50	48.00	63.90	14.70	16.70	6.80	2.70		
9	2.50	4.00	2.90	10.30	22.70	25.20	52.30	50.10	14.70	14.70	6.80	6.10		
10	6.70	5.80	2.90	8.70	12.70	16.90	61.50	39.60	12.70	13.70	6.80	5.60		
11	10.90	2.90	4.90	7.20	15.80	105.40	43.70	33.30	12.70	12.70	7.60	5.20		
12	4.00	71.20	2.90	6.20	12.10	66.30	68.70	25.20	11.80	12.70	6.80	5.60		
13	2.50	15.80	3.60	5.80	15.80	124.50	78.80	20.30	15.70	11.80	6.10	5.60		
14	1.70	14.70	2.70	5.30	10.30	66.30	43.70	18.00	66.40	11.80	5.60	5.60		
15	1.70	7.20	7.70	6.20	8.70	41.70	37.60	27.90	32.20	11.80	5.60	5.20		
16	3.60	4.40	6.20	26.50	7.20	33.30	29.20	25.20	23.30	11.80	5.20	5.20		
17	2.50	3.60	12.70	10.90	6.20	27.90	24.00	18.00	24.50	12.70	5.20	4.70		
18	1.90	2.90	8.20	9.20	6.20	31.90	39.60	12.70	19.90	13.70	5.20	4.30		
19	1.70	2.70	24.00	7.20	18.00	56.90	59.20	12.70	17.70	11.80	5.20	3.90		
20	1.00	2.30	9.20	5.80	15.80	73.70	31.90	13.70	14.70	46.80	4.70	3.50		
21	1.00	2.00	6.70	4.40	12.70	43.70	27.90	290.10	13.70	15.70	4.70	3.50		
22	1.00	2.70	5.30	3.30	50.10	34.70	45.80	121.60	12.70	11.80	4.70	3.10		
23	1.00	4.40	4.90	2.70	27.90	29.20	27.90	157.40	12.70	10.90	4.70	3.10		
24	0.70	2.90	3.60	3.30	24.00	26.50	39.60	69.40	11.80	10.00	4.70	3.10		
25	1.10	2.70	3.30	2.70	19.10	43.70	37.60	69.40	10.00	8.40	4.70	3.90		
26	2.50	4.90	6.70	2.50	29.20	27.90	26.50	72.60	10.00	7.60	4.70	4.70		
27	2.90	4.40	18.00	2.00	56.90	31.90	22.70	50.80	9.20	8.40	4.30	4.70		
28	4.40	2.70	13.70	2.00	48.00	31.90	26.50	43.00	12.70	8.40	4.30	6.10		
29	2.30	2.50	27.90	3.60	29.20	50.10	27.90	39.30	43.00	6.10		5.20		
30	1.50	2.00	11.50	7.20	31.90	34.70	22.70	28.90	268.60	6.10		4.70		
31		1.90		26.50	68.70		29.20		63.30	6.10		4.70		
Total	75.80	179.10	218.00	295.40	688.00	1321.30	1312.40	1601.00	916.80	553.20	182.90	156.70	7500.60	Tonday
Mean	2.53	5.78	7.27	9.53	22.19	44.04	42.34	53.37	29.57	17.85	6.53	5.05		Ton/day
Max	10.90	71.20	27.90	26.50	68.70	124.50	78.80	290.10	268.60	75.80	14.70	14.70	290.10	Ton/day
Min	0.70	0.70	1.50	2.00	6.20	16.90	22.70	12.70	9.20	6.10	4.30	2.70	0.70	Ton/day

WATER YEAR : 2002

SOUTHERN PENINSULA EAST COAST

Khlong Takhian at Ban Nai Thon, Surat Thani (X.103)

Lat 09 - 25 - 31 N Long 99 - 09 - 42 E

Location : on left bank Ban Rim Khlong.

Ban Nai Thon **Amphoe** Chaiya **Changwat** Surat Thani

Drainge Area	179 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D - 49
Period of Available Records	1984 - Cont' d
Actual Measurement	1984 - Cont' d
Using Rating Curve Water Year	2002
Number of observation	24
R-Square	0.8660
Remarks	Continued Sediment Station

$$QS = 2.7399\ QW^{1.03640}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.90	2.00	1.70	1.80	1.50	3.50	4.90	9.10	32.00	51.40	6.10	2.90		
2	1.80	1.90	1.70	1.90	1.70	4.90	4.30	8.70	35.30	40.90	6.10	2.90		
3	1.90	1.90	1.80	1.80	1.80	3.60	4.00	11.00	32.80	32.80	5.80	2.60		
4	1.90	1.90	1.90	2.00	1.80	1.90	3.90	24.50	30.30	28.70	6.10	2.60		
5	1.90	1.80	1.90	1.80	1.90	1.90	4.00	28.40	27.50	25.30	7.70	2.50		
6	1.90	1.80	1.80	1.80	1.80	2.10	3.60	28.10	26.20	22.80	8.60	2.40		
7	1.80	1.80	1.70	1.80	1.70	2.10	3.50	35.30	24.50	21.00	7.70	2.40		
8	1.80	1.80	1.80	1.80	1.60	2.50	3.70	143.30	21.70	19.20	6.80	2.40		
9	1.80	2.10	2.00	1.80	1.50	1.70	6.30	85.80	24.20	17.80	6.20	2.30		
10	2.00	2.70	1.80	1.80	1.50	1.50	15.10	60.20	28.90	16.80	5.60	2.20		
11	2.60	3.50	1.90	1.80	1.50	1.60	16.80	45.50	26.40	15.90	5.20	2.20		
12	2.60	3.50	2.10	3.50	1.50	2.20	15.50	39.50	24.80	14.90	4.90	2.10		
13	2.50	2.90	2.70	2.30	1.50	2.00	12.10	33.90	27.80	14.20	4.70	2.20		
14	2.50	2.60	2.30	1.60	1.60	2.30	11.40	29.50	33.40	13.40	4.50	2.20		
15	2.40	2.50	2.90	1.40	1.60	2.40	11.60	26.40	33.10	12.80	4.30	2.10		
16	1.80	2.30	2.40	1.40	1.50	1.70	10.50	23.90	29.80	11.80	4.20	2.00		
17	1.70	2.20	1.80	1.40	1.50	1.50	9.40	21.70	28.10	11.20	4.20	2.00		
18	1.60	2.10	1.70	1.60	1.50	1.60	16.10	20.00	26.20	11.90	4.00	2.10		
19	1.50	2.00	2.00	1.50	1.50	1.90	14.90	19.20	23.70	11.60	3.90	2.00		
20	1.50	1.90	2.10	1.70	1.70	1.90	15.10	23.90	22.00	10.90	3.70	2.00		
21	1.50	1.80	2.10	1.60	1.60	1.80	12.10	83.00	20.20	10.20	3.60	1.90		
22	1.70	1.80	2.00	1.80	1.60	1.80	10.50	158.00	18.80	9.40	3.60	1.90		
23	1.70	1.80	2.00	1.70	1.80	1.80	10.20	177.60	17.50	8.90	3.50	1.90		
24	1.70	1.80	1.80	1.70	1.80	1.90	9.40	85.30	21.20	8.30	3.30	1.90		
25	1.70	1.80	1.80	1.60	2.30	3.60	9.30	65.10	20.50	8.10	3.20	2.00		
26	2.30	1.80	1.70	1.60	3.50	2.70	9.30	51.40	18.00	7.70	3.20	2.30		
27	2.40	1.80	1.80	1.50	3.90	4.70	9.30	44.60	15.90	7.20	3.00	2.70		
28	2.20	1.80	2.10	1.50	4.70	4.60	11.20	39.00	14.60	6.90	2.90	2.70		
29	2.20	1.70	2.00	1.40	4.20	4.90	11.80	35.10	16.10	6.80		2.60		
30	2.00	1.70	1.90	1.50	3.70	5.30	11.90	32.00	43.80	6.60		2.50		
31		1.70		1.50	3.50		10.00		51.70	6.20		2.40		
Total	58.80	64.70	59.20	53.90	64.80	77.90	301.70	1489.00	817.00	491.60	136.60	70.90	3686.10	Tonday
Mean	1.96	2.09	1.97	1.74	2.09	2.60	9.73	49.63	26.35	15.86	4.88	2.29		Ton/day
Max	2.60	3.50	2.90	3.50	4.70	5.30	16.80	177.60	51.70	51.40	8.60	2.90	177.60	Ton/day
Min	1.50	1.70	1.70	1.40	1.50	1.50	3.50	8.70	14.60	6.20	2.90	1.90	1.40	Ton/day

WATER YEAR : 2002

SOUTHERN PENINSULA EAST COAST

Khlong Tha Krachai at Ban Tha Kham, Surat Thani (X.104)

Lat 09 - 34 - 39 N Long 99 - 08 - 14 E

Location : on left bank at Ban Samo Thong.

Ban Tha Kham **Amphoe** Tha Chana **Changwat** Surat Thani

Drainge Area	366 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D - 49
Period of Available Records	1984 - Cont' d
Actual Measurement	1984 - Cont' d
Using Rating Curve Water Year	2002
Number of observation	24
R-Square	0.9472
Remarks	Continued Sediment Station

$$QS = 2.4079\ QW^{1.51390}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	5.40	3.60	2.10	2.80	2.80	17.90	24.10	52.10	149.70	699.30	14.80	5.90		
2	4.90	3.20	1.70	2.80	2.40	17.10	28.80	78.60	140.90	591.40	13.40	5.90		
3	4.40	2.80	1.70	2.80	1.70	16.30	30.40	107.60	128.00	539.80	16.30	5.40		
4	4.40	2.80	1.70	2.40	1.70	15.60	33.70	279.30	136.50	449.60	20.30	5.40		
5	4.00	2.40	1.40	2.40	1.40	14.80	35.50	374.50	158.60	381.80	24.10	4.90		
6	3.60	2.40	1.40	2.10	1.40	13.40	35.50	317.80	158.60	285.50	20.30	4.90		
7	3.60	3.60	1.70	2.10	1.40	11.90	33.70	803.50	128.00	196.90	17.90	4.90		
8	3.20	4.90	1.70	2.10	1.70	11.30	32.10	912.50	93.30	140.90	17.10	4.90		
9	3.20	5.40	1.70	1.70	2.10	11.30	81.00	842.60	83.40	98.40	16.30	4.90		
10	2.80	5.90	1.40	1.70	2.40	11.90	514.60	556.80	101.00	78.60	15.60	4.90		
11	2.80	8.70	1.70	1.40	2.40	11.30	548.30	411.50	123.80	67.00	14.10	4.90		
12	2.10	11.90	2.80	1.40	6.90	10.60	213.70	298.10	132.30	64.80	12.60	4.90		
13	2.10	9.30	4.00	1.70	13.40	9.90	136.50	225.20	154.10	58.20	11.30	4.40		
14	1.70	8.10	5.40	2.40	21.10	9.30	98.40	158.60	556.80	56.10	10.60	4.40		
15	1.70	6.90	7.50	2.80	32.10	8.70	88.30	154.10	514.60	46.30	9.90	4.40		
16	1.40	5.90	6.90	4.00	42.60	8.10	81.00	167.80	426.60	42.60	9.90	4.40		
17	1.40	5.40	5.40	5.40	52.10	9.30	76.30	186.60	311.00	40.80	9.30	4.40		
18	1.10	4.90	4.40	5.40	78.60	11.30	71.60	213.70	273.10	33.70	8.70	4.00		
19	1.10	4.00	4.00	6.40	103.60	13.40	123.80	311.00	191.40	28.80	8.10	4.00		
20	1.10	4.00	3.60	4.90	136.50	14.80	208.10	1302.50	154.10	24.10	8.10	4.00		
21	0.80	4.40	2.80	3.20	172.40	17.10	128.00	3616.20	140.90	21.10	8.10	4.00		
22	1.10	3.60	2.40	2.80	208.10	19.50	304.50	4982.10	132.30	20.30	7.50	4.00		
23	1.40	2.40	2.40	2.40	242.80	24.10	191.40	2123.00	119.70	18.70	7.50	4.00		
24	1.70	2.80	2.40	2.40	172.40	25.60	140.90	872.40	111.60	17.90	6.40	4.00		
25	2.10	3.20	2.40	2.40	111.60	21.10	90.80	653.60	90.80	17.10	6.40	4.00		
26	2.40	3.20	4.00	2.40	64.80	22.60	83.40	531.30	78.60	16.30	5.90	48.20		
27	2.80	3.20	4.40	2.10	48.20	24.10	83.40	481.60	58.20	16.30	5.90	69.30		
28	3.20	3.20	4.40	1.70	32.10	28.80	81.00	389.10	48.20	15.60	5.90	25.60		
29	3.60	2.80	4.00	1.70	22.60	25.60	71.60	181.80	58.20	15.60		16.30		
30	3.60	2.80	4.00	2.10	20.30	20.30	50.10	163.20	331.70	15.60		14.10		
31		2.80		2.40	17.90		40.80		635.60	14.80		17.10		
Total	78.70	140.50	95.40	84.30	1621.50	477.00	3761.30	21748.70	5921.60	4113.90	332.30	306.40	38681.60	Tonday
Mean	2.62	4.53	3.18	2.72	52.31	15.90	121.33	724.96	191.02	132.71	11.87	9.88		Ton/day
Max	5.40	11.90	7.50	6.40	242.80	28.80	548.30	4982.10	635.60	699.30	24.10	69.30	4982.10	Ton/day
Min	0.80	2.40	1.40	1.40	1.40	8.10	24.10	52.10	48.20	14.80	5.90	4.00	0.80	Ton/day

WATER YEAR : 2002

SOUTHERN PENINSULA EAST COAST

Khlong Waeng at Ban Kho Lo, Narathiwat (X.121)

Lat 05 - 55 - 28 N Long 101 - 53 - 13 E

Location : on right bank at the bridge of Sungai Kolok - Malasia Highway.

Ban Kho Lo **Amphoe** Waeng **Changwat** Narathiwat

Drainge Area	43 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.D - 49
Period of Available Records	1985 - Cont' d
Actual Measurement	1985 - Cont' d
Using Rating Curve Water Year	2002
Number of observation	24
R-Square	0.9223
Remarks	Continued Sediment Station

$$QS = 2.8766\ QW^{1.62140}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	1.10	0.70	3.60	3.10	2.90	4.40	10.00	13.90	8.30	66.20	6.20	3.90		
2	1.00	0.70	3.10	2.40	3.10	3.90	54.30	11.40	8.30	45.00	5.90	3.90		
3	1.10	0.50	1.80	2.40	3.40	3.60	11.40	11.90	5.90	34.30	5.60	3.40		
4	1.70	0.50	1.50	2.20	6.80	3.90	8.70	16.00	6.50	27.00	4.70	3.10		
5	1.40	0.50	1.80	2.20	14.40	3.40	11.40	12.90	6.50	24.70	4.10	3.10		
6	3.40	0.50	3.10	1.40	6.20	3.10	15.40	30.20	6.80	21.80	3.90	3.10		
7	6.20	0.50	3.90	1.30	6.20	3.10	31.80	18.40	5.90	21.10	5.60	3.10		
8	3.90	0.90	3.60	1.40	7.50	3.10	212.40	15.40	5.30	19.10	5.30	3.10		
9	5.30	2.00	3.40	1.50	12.40	2.40	230.20	17.10	16.50	17.70	5.00	3.10		
10	5.00	2.60	2.40	2.00	5.90	2.20	52.00	18.40	11.40	15.40	5.60	3.10		
11	2.20	2.00	2.40	1.30	7.50	5.00	48.80	16.50	25.50	4.10	8.30	4.40		
12	1.50	2.00	2.40	1.00	5.30	3.10	87.40	11.40	30.20	4.10	10.90	17.10		
13	1.30	1.50	1.80	1.30	4.40	3.60	100.10	5.90	162.60	3.10	7.90	6.20		
14	1.10	1.00	6.50	1.30	4.10	3.10	38.60	5.90	779.90	3.10	7.90	4.10		
15	1.00	1.00	4.70	0.90	3.90	3.60	36.80	7.90	301.40	3.10	14.40	3.10		
16	1.00	0.90	4.70	0.50	3.40	10.90	98.50	9.60	183.60	5.00	17.70	2.60		
17	0.80	0.80	6.80	0.80	2.60	3.40	107.30	9.60	489.40	6.80	31.80	2.20		
18	0.50	0.80	7.10	0.50	2.20	2.20	46.90	10.90	257.80	10.90	13.40	3.40		
19	0.50	0.90	4.10	3.10	2.20	2.20	70.00	27.80	95.30	10.00	10.00	3.90		
20	0.50	1.80	2.20	1.80	2.00	2.20	35.10	49.70	61.30	10.90	7.90	3.40		
21	0.50	1.50	2.20	1.10	2.00	2.20	43.10	42.20	47.80	12.40	6.50	3.60		
22	0.50	2.60	2.00	1.80	4.40	2.40	35.10	36.00	37.70	9.60	6.50	3.40		
23	0.90	1.80	2.00	3.10	1.50	1.50	39.50	36.80	31.80	8.70	5.60	3.40		
24	0.50	1.70	2.00	1.30	1.30	1.80	56.60	29.40	27.80	7.90	5.30	3.60		
25	0.90	1.50	2.00	2.20	18.40	14.90	56.60	28.60	26.20	7.50	5.30	5.00		
26	1.50	1.40	1.30	5.60	5.30	4.10	25.50	17.70	45.90	6.50	5.00	5.90		
27	1.10	1.00	0.80	2.20	6.20	3.10	49.70	13.40	30.20	6.20	4.70	7.90		
28	1.30	0.80	2.60	2.20	4.40	2.60	32.60	11.90	29.40	5.60	3.10	5.60		
29	1.00	0.80	0.90	5.90	4.70	2.20	20.40	10.50	24.70	5.00		4.70		
30	0.80	1.40	0.80	9.10	6.80	2.20	17.70	9.60	127.20	4.10		11.40		
31		2.40		4.10	11.40		13.90		55.40	4.10		17.10		
Total	49.50	39.00	87.50	71.00	172.80	109.40	1697.80	556.90	2952.50	431.00	224.10	154.90	6546.40	Tonday
Mean	1.65	1.26	2.92	2.29	5.57	3.65	54.77	18.56	95.24	13.90	8.00	5.00		Ton/day
Max	6.20	2.60	7.10	9.10	18.40	14.90	230.20	49.70	779.90	66.20	31.80	17.10	779.90	Ton/day
Min	0.50	0.50	0.80	0.50	1.30	1.50	8.70	5.90	5.30	3.10	3.10	2.20	0.50	Ton/day

WATER YEAR : 2002

SOUTHERN PENINSULA EAST COAST

Khlong Klai at Ban Hua Na , Nakhon Si Thammarat (X.149)

Lat 08 - 43 - 46 N Long 99 - 44 - 53 E

Location : on left bank at Ban Hua Na.

Ban Hua Na **Amphoe** Nopphitam **Changwat** Nakhon Si Thammarat

Drainge Area	475 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.DH - 48
Period of Available Records	1998 - 2006, 2012 - Cont' d
Actual Measurement	1998 - 2006, 2012 - Cont' d
Using Rating Curve Water Year	2002
Number of observation	21
R-Square	0.8653
Remarks	Continued Sediment Station

$$QS = 0.7635\ QW^{1.41840}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.60	2.40	2.00	2.40	2.60	7.00	18.10	14.30	64.60	390.90	59.50	11.70		
2	3.60	2.20	2.20	2.20	2.40	23.10	34.10	13.40	59.50	1053.10	92.10	11.70		
3	3.60	2.20	2.20	2.00	2.20	21.00	11.70	35.20	105.30	376.00	67.20	11.70		
4	3.40	2.00	2.20	2.20	3.10	8.50	11.70	72.60	56.90	287.10	67.20	10.90		
5	3.10	2.00	2.90	4.20	8.50	5.60	12.60	1451.90	108.80	214.50	49.50	10.90		
6	3.60	1.80	2.60	5.60	2.90	4.20	22.00	551.30	149.30	168.90	38.80	13.40		
7	4.90	1.80	7.70	4.20	2.40	3.60	12.60	327.10	86.40	141.70	35.20	10.90		
8	3.60	2.40	2.90	3.10	2.40	3.60	20.00	551.30	67.20	119.50	30.60	10.00		
9	3.40	7.70	2.40	2.40	7.70	4.20	24.10	292.70	56.90	108.80	29.50	9.20		
10	10.90	11.70	2.20	2.40	2.90	3.10	44.80	161.00	47.10	86.40	28.40	9.20		
11	10.00	9.20	7.00	2.20	2.90	12.60	49.50	149.30	52.00	75.30	30.60	9.20		
12	4.20	11.70	2.60	2.00	2.90	8.50	23.10	101.90	47.10	67.20	27.30	10.00		
13	4.20	21.00	2.40	1.80	3.10	12.60	72.60	69.90	304.00	62.00	23.10	13.40		
14	3.40	17.10	2.20	1.80	2.40	9.20	24.10	54.40	3950.20	56.90	25.20	10.90		
15	3.10	7.00	2.90	1.80	2.00	5.60	18.10	42.50	692.00	52.00	24.10	9.20		
16	3.10	4.20	2.60	8.50	1.80	4.20	12.60	37.60	421.30	47.10	23.10	8.50		
17	3.10	3.40	7.70	2.60	1.60	3.60	10.90	31.80	436.70	49.50	21.00	7.70		
18	2.90	2.90	2.90	5.60	1.80	4.20	52.00	37.60	368.60	52.00	20.00	7.70		
19	2.90	2.60	16.20	2.40	8.50	7.00	34.10	35.20	245.10	41.20	19.00	7.00		
20	2.90	2.40	3.60	2.20	10.90	19.00	18.10	59.50	185.10	452.30	18.10	6.20		
21	2.90	2.20	2.90	1.80	6.20	7.70	13.40	5509.10	141.70	130.40	17.10	6.20		
22	2.90	2.60	2.40	1.80	12.60	6.20	13.40	663.10	119.50	80.80	16.20	6.20		
23	2.40	3.10	2.20	1.60	8.50	4.20	13.40	551.30	98.40	95.10	15.20	6.20		
24	2.00	2.60	2.00	1.80	6.20	3.60	19.00	298.40	101.90	59.50	15.20	6.20		
25	2.60	2.40	2.00	1.60	14.30	7.70	23.10	223.10	75.30	52.00	14.30	11.70		
26	3.10	2.40	2.40	1.60	10.90	12.60	13.40	214.50	75.30	42.50	13.40	29.50		
27	9.20	2.40	2.40	1.20	30.60	26.20	13.40	149.30	59.50	37.60	13.40	27.30		
28	4.90	2.20	3.40	1.20	15.20	10.90	29.50	115.90	59.50	36.40	12.60	13.40		
29	3.40	2.20	9.20	1.60	7.00	17.10	64.60	86.40	206.00	34.10		10.90		
30	2.90	2.00	2.90	1.80	6.20	8.50	22.00	69.90	1751.10	30.60		13.40		
31		2.00		9.20	16.20		17.10		500.00	30.60		10.90		
Total	119.80	143.80	111.20	86.80	208.90	275.10	769.10	11971.50	10692.30	4532.00	846.90	341.30	30098.70	Tonday
Mean	3.99	4.64	3.71	2.80	6.74	9.17	24.81	399.05	344.91	146.19	30.25	11.01		Ton/day
Max	10.90	21.00	16.20	9.20	30.60	26.20	72.60	5509.10	3950.20	1053.10	92.10	29.50	5509.10	Ton/day
Min	2.00	1.80	2.00	1.20	1.60	3.10	10.90	13.40	47.10	30.60	12.60	6.20	1.20	Ton/day

WATER YEAR : 2002

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	1996 - 2002
Number of observation	174
R-Square	0.8655
Remarks	Continued Sediment Station

$$QS = 0.5708\ QW^{1.59750}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	6.80	10.00	18.10	63.00	227.90	354.20	2543.90	202.80	333.20	11021.00	76.70	18.10		
2	6.50	5.90	14.30	43.20	163.40	306.00	952.10	1230.30	548.10	8059.40	68.40	18.10		
3	5.90	5.20	11.40	30.20	123.80	276.90	512.80	999.40	1558.90	3064.90	65.70	18.10		
4	5.20	4.20	18.10	24.40	113.70	272.30	406.00	5084.50	755.80	1058.10	63.00	26.30		
5	3.80	4.20	22.60	71.10	245.30	519.80	295.50	6526.20	471.70	628.60	57.80	20.80		
6	3.10	3.70	21.90	130.70	464.90	591.50	240.90	2111.10	464.90	406.00	55.20	17.40		
7	2.30	6.10	20.80	584.20	689.80	464.90	211.10	628.60	412.40	333.20	50.30	14.90		
8	2.30	5.20	21.90	659.00	388.10	399.70	182.70	1077.90	338.10	276.90	50.30	13.40		
9	2.30	20.80	20.80	311.70	232.20	258.70	174.90	7640.90	360.30	232.20	50.30	13.40		
10	2.30	15.80	19.10	155.90	155.90	240.90	159.60	9175.80	943.40	206.90	47.90	14.30		
11	3.70	40.90	18.10	113.70	127.20	887.20	141.30	5010.80	2854.80	186.60	47.90	19.10		
12	5.20	141.30	20.80	91.50	219.40	815.60	130.70	1558.90	1262.70	174.90	50.30	82.50		
13	19.80	79.60	63.00	79.60	714.60	569.60	120.40	971.20	569.60	159.60	50.30	322.40		
14	144.90	55.20	30.20	73.90	445.00	388.10	190.60	576.90	406.00	144.90	47.90	171.00		
15	45.50	76.70	18.10	91.50	295.50	281.50	245.30	425.30	365.40	130.70	43.20	123.80		
16	21.90	52.70	15.80	215.20	223.70	223.70	148.50	354.20	301.20	123.80	38.70	79.60		
17	19.10	45.50	13.40	223.70	163.40	206.90	127.20	306.00	322.40	117.00	36.50	55.20		
18	7.90	30.20	12.80	206.90	155.90	286.10	155.90	272.30	240.90	110.40	36.50	38.70		
19	19.10	21.90	45.50	141.30	245.30	533.80	167.20	245.30	227.90	104.00	38.70	28.20		
20	10.00	18.10	30.20	100.80	4085.00	471.70	311.70	215.20	202.80	100.80	32.30	20.80		
21	5.90	14.90	20.80	71.10	8752.90	394.40	163.40	267.70	182.70	94.60	30.20	18.10		
22	4.40	21.90	19.80	55.20	10345.50	394.40	130.70	2331.90	163.40	91.50	26.30	18.10		
23	4.20	88.50	107.20	43.20	6677.10	376.70	123.80	8820.00	148.50	88.50	24.40	19.10		
24	4.20	45.50	100.80	60.40	2093.40	952.10	107.20	5714.00	141.30	82.50	22.60	28.20		
25	3.70	22.60	76.70	55.20	952.10	914.40	97.70	3458.80	159.60	79.60	22.60	43.20		
26	4.40	17.40	45.50	55.20	659.00	651.30	110.40	1558.90	141.30	76.70	21.90	227.90		
27	18.10	45.50	130.70	63.00	451.60	1067.20	301.20	887.20	127.20	76.70	20.80	159.60		
28	11.90	26.30	159.60	55.20	526.80	1138.30	267.70	576.90	117.00	73.90	19.10	107.20		
29	85.50	22.60	100.80	65.70	382.90	952.10	206.90	438.40	137.70	73.90		76.70		
30	19.80	47.90	97.70	190.60	272.30	659.00	311.70	354.20	249.70	107.20		267.70		
31		24.40		202.80	365.40		223.70		3238.80	100.80		171.00		
Total	499.70	1020.70	1316.50	4329.10	40959.00	15849.00	9462.70	69021.60	17747.70	27585.80	1195.80	2252.90	191240.50	Tonday
Mean	16.66	32.93	43.88	139.65	1321.26	528.30	305.25	2300.72	572.51	889.86	42.71	72.67		Ton/day
Max	144.90	141.30	159.60	659.00	10345.50	1138.30	2543.90	9175.80	3238.80	11021.00	76.70	322.40	11021.00	Ton/day
Min	2.30	3.70	11.40	24.40	113.70	206.90	97.70	202.80	117.00	73.90	19.10	13.40	2.30	Ton/day

WATER YEAR : 2002

SOUTHERN PENINSULA EAST COAST

Khlong Chandi at Ban Manao Wan, Nakhon Si Thammarat (X.163)

Lat 08 - 20 - 34 N Long 99 - 37 - 12 E

Location : on left bank at the bridge near Wat Manao Wan.

Ban Manao Wan **Amphoe** Chawang **Changwat** Nakhon Si Thammarat

Drainge Area	97 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.DH - 59
Period of Available Records	1991 - Cont' d
Actual Measurement	1991 - Cont' d
Using Rating Curve Water Year	1991 - 2002
Number of observation	199
R-Square	0.7835
Remarks	Continued Sediment Station

$$QS = 2.1933\ QW^{1.15390}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	3.60	1.90	2.70	5.10	7.10	14.80	16.40	10.90	14.00	35.30	8.80	6.70		
2	3.60	1.60	2.70	4.20	13.10	14.00	21.30	10.50	14.80	134.10	8.80	6.70		
3	3.60	1.40	2.70	5.80	11.40	13.10	18.00	69.70	14.00	47.90	8.80	6.30		
4	3.60	1.40	6.30	10.90	13.60	12.70	22.90	28.00	13.60	37.20	9.60	6.30		
5	3.30	1.40	3.90	10.90	10.90	13.10	15.60	63.00	19.60	29.70	9.20	6.30		
6	4.50	1.40	4.50	12.20	8.80	12.20	30.50	238.00	13.60	25.40	8.80	4.80		
7	3.90	1.60	3.60	13.60	8.80	13.60	34.30	89.00	13.10	22.90	8.30	4.80		
8	3.00	2.70	3.30	13.10	9.60	12.20	31.50	57.50	12.20	20.40	7.10	4.50		
9	2.40	7.10	3.90	10.50	11.40	11.80	32.40	53.10	13.10	24.60	6.70	3.90		
10	8.80	4.20	3.90	10.90	9.60	10.90	27.10	37.20	13.10	16.40	6.70	3.90		
11	3.00	9.60	3.60	10.50	10.90	15.60	21.30	73.30	11.40	14.80	7.90	3.90		
12	2.70	10.50	3.30	9.20	10.50	14.00	18.00	32.40	12.70	14.80	7.90	6.30		
13	3.30	7.10	3.30	8.30	9.20	20.40	55.30	28.00	89.00	14.80	6.70	6.30		
14	2.70	3.60	3.00	7.50	7.90	14.00	23.70	23.70	75.90	14.00	6.30	6.30		
15	2.70	3.00	4.80	10.00	7.50	13.10	19.60	21.30	35.30	13.60	6.30	5.40		
16	2.70	2.70	3.90	10.90	7.10	13.60	27.10	16.40	22.10	12.70	6.30	5.40		
17	2.40	2.40	4.20	7.90	6.70	20.40	28.00	16.40	24.60	14.00	6.30	5.40		
18	2.40	2.70	3.90	7.50	6.70	14.00	22.90	18.00	21.30	14.00	5.80	5.10		
19	2.40	2.40	4.80	6.30	7.10	14.00	18.80	24.60	16.40	14.00	5.80	5.10		
20	2.40	2.20	3.90	5.80	15.60	14.00	16.40	29.70	14.80	14.00	5.10	5.10		
21	2.40	2.20	3.00	5.40	87.70	15.60	15.60	166.40	14.00	19.60	5.40	5.40		
22	2.40	3.60	3.30	5.40	27.10	16.40	22.90	47.90	14.00	13.60	5.40	5.40		
23	1.90	7.10	3.30	5.10	14.00	14.80	15.60	33.40	14.00	12.70	5.40	5.10		
24	2.20	6.30	3.00	5.10	31.50	14.80	16.40	28.80	13.60	11.80	7.50	6.70		
25	3.00	3.90	3.30	5.40	15.60	18.80	14.80	23.70	12.20	10.90	7.90	6.70		
26	2.70	4.80	4.50	5.40	22.10	22.10	14.80	20.40	11.80	10.90	7.50	22.10		
27	2.40	7.90	12.20	4.80	41.00	20.40	14.00	18.80	11.40	10.90	7.50	8.80		
28	2.70	4.20	6.70	5.10	27.10	17.20	14.00	16.40	11.40	10.90	5.40	7.10		
29	2.70	3.30	5.80	5.10	18.00	18.80	13.10	14.80	63.00	9.20		6.70		
30	2.20	3.00	4.80	5.80	16.40	14.80	12.70	14.80	188.30	8.80		5.40		
31		2.70		5.40	15.60		11.40		47.90	8.80		4.80		
Total	91.60	119.90	126.10	239.10	509.60	455.20	666.40	1326.10	866.20	662.70	199.20	192.70	5454.80	Tonday
Mean	3.05	3.87	4.20	7.71	16.44	15.17	21.50	44.20	27.94	21.38	7.11	6.22		Ton/day
Max	8.80	10.50	12.20	13.60	87.70	22.10	55.30	238.00	188.30	134.10	9.60	22.10	238.00	Ton/day
Min	1.90	1.40	2.70	4.20	6.70	10.90	11.40	10.50	11.40	8.80	5.10	3.90	1.40	Ton/day

WATER YEAR : 2002

SOUTHERN PENINSULA EAST COAST

Khlong Nai Khieo at Ban Thon Hong, Nakhon Si Thammarat (X.165)

Lat 08 - 33 - 47 N Long 99 - 48 - 59 E

Location : on right bank at Ban Thon Hong.

Ban Thon Hong **Amphoe** Phrom Khiri **Changwat** Nakhon Si Thammarat

Drainge Area	25 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.DH - 59
Period of Available Records	1998 - Cont' d
Actual Measurement	1998 - Cont' d
Using Rating Curve Water Year	1998 - 2002
Number of observation	120
R-Square	0.7913
Remarks	Continued Sediment Station

$$QS = 4.1029\ QW^{0.81280}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.50	3.20	1.50	1.10	3.20	3.60	3.90	9.70	8.30	22.80	5.30	3.40		
2	2.50	3.10	1.50	0.90	2.90	3.40	3.90	6.50	12.10	45.30	4.90	3.10		
3	2.30	3.10	1.30	0.60	3.20	3.20	3.80	21.40	12.90	20.00	4.50	3.10		
4	2.30	2.90	1.30	0.60	3.10	3.20	3.60	18.20	11.00	17.90	4.50	3.10		
5	7.20	2.90	1.10	0.40	2.70	3.20	14.30	34.80	16.80	17.90	4.10	2.90		
6	5.30	2.70	0.90	2.50	2.70	2.30	5.30	37.60	9.30	11.40	3.90	2.90		
7	2.70	3.20	0.90	2.90	2.50	2.10	9.70	68.00	9.30	10.70	4.90	2.90		
8	2.70	8.30	0.60	2.90	2.10	2.10	10.30	24.90	8.30	10.00	4.90	2.70		
9	2.70	3.60	0.90	2.70	1.90	1.90	16.10	25.60	7.60	9.70	4.50	2.70		
10	2.50	3.60	5.70	2.70	1.90	1.90	8.60	17.90	7.60	9.00	4.10	2.70		
11	2.50	4.90	7.90	2.50	1.70	11.80	15.80	24.90	7.20	8.60	4.10	2.50		
12	2.50	11.00	7.60	2.50	1.30	3.90	13.20	12.90	11.80	8.30	3.90	2.50		
13	2.30	3.40	2.70	2.10	1.30	3.90	8.60	10.70	80.40	7.90	7.60	2.50		
14	2.10	3.20	2.50	2.10	1.30	3.60	12.90	9.70	82.70	7.60	4.90	2.90		
15	2.10	3.10	1.30	1.90	1.10	3.40	4.90	8.60	24.20	7.60	4.90	2.90		
16	2.10	3.10	1.90	1.70	0.90	3.40	3.90	7.90	16.80	7.20	4.50	2.70		
17	2.10	2.90	2.90	10.70	0.90	3.20	3.80	7.60	14.30	7.20	4.50	2.70		
18	1.90	2.90	8.60	3.20	2.70	3.20	9.70	8.60	14.00	9.30	4.10	2.50		
19	1.90	2.90	2.90	3.10	9.70	3.90	3.40	11.80	12.50	16.50	4.10	2.50		
20	2.50	2.70	2.70	2.90	11.00	3.80	3.90	23.90	10.70	13.20	3.90	2.30		
21	2.70	2.70	2.50	2.90	3.90	3.60	3.90	83.10	9.70	11.80	3.90	2.30		
22	2.70	2.70	2.30	2.70	3.40	3.60	3.80	22.80	9.30	16.10	3.80	2.30		
23	2.70	2.50	1.70	2.70	3.80	3.20	3.80	19.30	9.00	10.30	3.80	2.90		
24	2.50	2.50	1.10	2.50	3.40	9.30	6.50	41.10	9.00	9.00	3.80	3.20		
25	2.50	2.50	0.90	2.10	22.80	12.50	3.90	14.70	8.60	7.90	3.60	4.10		
26	5.30	2.30	0.60	1.90	18.90	15.40	6.90	16.50	8.30	7.20	3.60	10.30		
27	3.60	2.30	2.10	1.90	5.30	4.10	7.60	12.90	7.90	7.20	3.60	2.90		
28	6.10	2.10	1.50	2.70	4.10	3.60	3.90	11.80	7.60	6.90	3.40	2.70		
29	3.60	1.70	1.30	2.10	3.80	3.40	3.90	9.30	58.20	6.10		3.20		
30	3.20	1.70	1.30	1.50	3.60	4.50	3.80	9.00	67.60	6.10		7.20		
31		1.70		1.10	3.60		3.80		33.30	5.70		3.40		
Total	89.60	101.40	72.00	74.10	134.70	134.20	211.40	631.70	606.30	362.40	121.60	100.00	2639.40	Tonday
Mean	2.99	3.27	2.40	2.39	4.35	4.47	6.82	21.06	19.56	11.69	4.34	3.23		Ton/day
Max	7.20	11.00	8.60	10.70	22.80	15.40	16.10	83.10	82.70	45.30	7.60	10.30	83.10	Ton/day
Min	1.90	1.70	0.60	0.40	0.90	1.90	3.40	6.50	7.20	5.70	3.40	2.30	0.40	Ton/day

WATER YEAR : 2002

SOUTHERN PENINSULA EAST COAST

Khlong Sao Thong at Ban Sao Thong , Nakhon Si Thammarat (X.167)

Lat 08 - 16 - 44 N Long 99 - 54 - 30 E

Location : on right bank at the bridge.

Ban Sao Thong **Amphoe** Ron Phibun **Changwat** Nakhon Si Thammarat

Drainge Area	252 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.DH - 59
Period of Available Records	1998 - 2009 , 2012 - Cont'd
Actual Measurement	1998 - 2009 , 2012 - Cont'd
Using Rating Curve Water Year	1998 - 2002
Number of observation	122
R-Square	0.8863
Remarks	Continued Sediment Station

$$QS = 3.0497\ QW^{1.14960}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	10.80	11.60	6.80	4.20	42.90	7.00	8.60	9.20	67.30	416.20	34.30	7.30		
2	10.80	11.00	6.80	3.30	41.30	5.80	19.00	20.00	67.30	377.80	29.30	7.30		
3	10.60	10.60	6.80	3.60	40.50	5.50	24.40	28.60	73.30	512.20	27.20	6.70		
4	10.80	10.00	8.50	3.70	40.50	4.90	13.70	168.90	67.30	242.50	25.10	2.90		
5	10.80	9.10	11.00	7.90	45.40	4.30	10.20	399.80	85.10	172.00	23.00	2.90		
6	10.80	9.40	9.10	7.40	36.50	4.00	17.90	678.30	109.70	128.20	23.00	5.50		
7	11.20	10.40	8.70	9.60	27.20	3.50	19.00	656.50	114.30	125.70	24.40	8.30		
8	11.20	3.50	8.50	8.10	21.60	3.50	40.50	522.00	84.00	112.00	21.10	6.70		
9	11.00	6.00	7.50	7.20	20.60	3.50	63.50	284.80	85.10	123.10	19.00	5.50		
10	13.00	6.00	6.60	6.80	21.10	3.20	47.10	186.50	92.70	108.60	17.90	4.90		
11	12.90	5.60	7.70	6.00	19.50	3.20	46.30	280.60	74.40	92.70	17.90	4.00		
12	11.40	6.20	7.70	5.80	20.00	3.80	32.80	223.20	92.70	85.10	17.90	3.80		
13	12.50	10.00	5.20	4.70	17.90	4.00	100.70	133.40	268.70	79.70	19.00	3.80		
14	11.80	4.60	3.20	3.70	15.80	4.30	68.30	102.90	599.20	75.50	10.50	4.90		
15	11.00	3.50	2.90	3.60	13.70	4.30	34.30	95.00	345.00	67.30	13.70	4.00		
16	11.40	2.60	4.10	3.90	10.50	4.00	21.10	62.50	202.70	50.40	13.70	5.20		
17	11.20	2.30	4.60	8.10	6.40	4.00	19.50	53.90	173.60	72.30	12.70	4.00		
18	11.00	2.20	9.40	10.00	6.10	3.80	18.40	53.90	168.90	90.60	11.70	2.70		
19	10.80	2.00	10.80	10.40	9.20	4.60	13.20	60.60	129.50	100.70	10.90	1.00		
20	10.60	1.80	10.60	9.60	39.70	6.10	10.50	120.60	115.50	97.20	16.80	0.20		
21	10.80	1.60	10.00	7.50	53.00	4.30	8.60	450.60	99.50	129.50	12.20	0.20		
22	10.80	1.50	7.70	5.40	71.20	3.80	38.90	620.20	97.20	105.10	10.50	1.00		
23	10.80	1.50	7.70	4.30	52.10	4.00	20.00	307.90	89.50	84.00	9.90	0.30		
24	10.60	1.70	6.80	3.80	51.20	3.50	10.20	178.40	88.40	74.40	9.60	7.30		
25	12.90	4.10	6.60	2.90	65.40	3.50	11.70	128.20	89.50	50.40	3.80	13.70		
26	13.00	5.40	7.40	4.30	67.30	21.10	10.20	176.80	78.70	45.40	7.00	81.90		
27	12.90	8.70	5.60	7.70	87.30	26.50	19.50	128.20	66.30	41.30	7.90	33.50		
28	12.90	8.30	7.50	7.00	38.90	13.70	14.80	108.60	63.50	36.50	7.90	12.20		
29	13.00	7.50	6.40	8.50	19.50	11.70	10.20	87.30	123.10	34.30		9.60		
30	12.70	7.20	4.10	8.90	13.20	9.20	10.20	73.30	682.00	32.10		35.70		
31		6.80		10.80	9.20		9.60		631.10	30.70		0.00		
Total	346.00	182.70	216.30	198.70	1024.70	188.60	792.90	6400.70	5125.10	3793.50	457.90	287.00	19014.10	Tonday
Mean	11.53	5.89	7.21	6.41	33.05	6.29	25.58	213.36	165.33	122.37	16.35	9.57		Ton/day
Max	13.00	11.60	11.00	10.80	87.30	26.50	100.70	678.30	682.00	512.20	34.30	81.90	682.00	Ton/day
Min	10.60	1.50	2.90	2.90	6.10	3.20	8.60	9.20	63.50	30.70	3.80	0.00	0.00	Ton/day

WATER YEAR : 2002

SOUTHERN PENINSULA EAST COAST

Khlong The Pha at Ban Kabang, Yala (X.168)

Lat 06 - 25 - 40 N Long 100 - 55 - 41 E

Location : on right bank at the bridge near Wat Ba Hoi from Tambon Ba Hoi.

Ban Kabang **Amphoe** Kabang **Changwat** Yala

Drainge Area	316 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.DH - 59
Period of Available Records	1998 - Cont'd
Actual Measurement	1998 - Cont'd
Using Rating Curve Water Year	1998 - 2002
Number of observation	177
R-Square	0.8533
Remarks	Continued Sediment Station

$$QS = 1.4812\ QW^{1.31670}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	2.80	2.20	1.30	2.00	5.40	3.20	4.80	9.90	13.40	38.90	2.80	1.80		
2	2.20	1.80	1.30	2.60	10.30	3.20	5.70	10.30	12.20	25.00	2.80	1.80		
3	1.80	1.60	1.10	3.00	4.60	3.20	18.30	7.90	10.30	18.30	2.80	1.80		
4	6.30	1.50	1.10	3.20	2.80	2.60	21.60	12.20	9.20	14.60	2.60	1.80		
5	5.10	1.50	1.10	2.40	2.00	3.00	23.00	10.30	8.20	12.60	2.60	2.00		
6	3.50	1.50	1.10	2.20	1.80	2.80	53.90	8.90	7.20	10.70	2.40	2.00		
7	3.00	2.60	1.10	2.20	1.60	2.20	13.40	7.90	12.60	9.20	2.40	2.20		
8	2.60	5.70	1.50	2.00	2.60	2.00	31.80	6.90	8.20	8.20	2.20	2.20		
9	2.40	6.90	1.30	1.60	2.20	2.00	88.00	41.30	6.30	7.60	2.20	2.20		
10	3.70	10.30	4.80	3.20	1.80	1.80	97.40	21.00	5.70	6.60	2.20	2.60		
11	2.60	6.30	8.50	3.20	4.30	1.60	35.30	16.20	5.40	6.30	2.20	2.40		
12	2.20	3.70	9.60	3.50	3.00	1.80	45.00	23.00	4.80	6.00	2.80	2.20		
13	1.80	2.80	4.00	2.60	2.20	2.20	144.20	108.90	4.80	5.70	2.40	2.60		
14	1.80	2.20	8.20	2.20	1.80	1.80	46.20	34.20	7.20	5.40	2.40	2.20		
15	1.60	2.00	4.00	1.80	1.80	1.60	23.00	22.30	6.30	4.80	2.00	2.00		
16	2.40	1.80	6.30	1.60	1.60	3.50	13.00	20.30	6.30	4.80	2.00	2.00		
17	2.40	1.60	4.30	1.50	1.50	4.30	68.70	14.20	6.30	5.10	2.00	2.00		
18	2.00	1.80	3.00	12.60	1.50	3.20	20.30	13.80	6.00	5.40	2.00	1.80		
19	1.80	1.60	2.60	4.60	1.50	4.00	13.80	16.60	6.30	4.80	2.00	1.80		
20	1.50	1.50	2.20	2.60	1.50	3.00	13.40	16.60	8.50	4.60	1.80	1.80		
21	1.50	1.50	2.00	2.00	1.50	2.80	13.00	23.00	6.30	4.60	1.60	1.80		
22	1.80	2.20	1.80	3.00	1.30	11.00	11.40	88.00	5.40	4.30	1.60	1.80		
23	1.50	2.00	1.80	2.20	1.30	9.20	9.20	33.00	4.80	4.30	1.60	1.60		
24	2.40	1.60	1.80	1.80	1.60	6.90	11.40	21.00	4.60	4.00	1.60	1.60		
25	2.40	1.60	1.60	2.20	1.80	5.40	8.90	56.70	4.30	3.70	1.60	2.60		
26	2.80	1.50	1.50	2.00	2.60	4.00	8.90	27.80	3.70	3.50	1.60	6.90		
27	7.90	1.60	1.50	1.60	2.80	5.10	9.60	19.00	4.00	3.20	2.00	4.30		
28	3.70	1.50	2.40	1.50	2.40	9.60	48.70	14.60	265.90	3.00	1.80	5.10		
29	3.70	1.30	2.00	1.60	4.30	15.00	23.00	12.20	50.00	2.80		12.60		
30	2.80	1.10	1.60	2.40	6.60	6.90	14.20	11.40	343.30	2.80		23.70		
31		1.10		2.20	4.60		11.40		79.70	2.60		7.60		
Total	84.00	77.90	86.40	83.10	86.60	128.90	950.50	729.40	927.20	243.40	60.00	110.80	3568.20	Tonday
Mean	2.80	2.51	2.88	2.68	2.79	4.30	30.66	24.31	29.91	7.85	2.14	3.57		Ton/day
Max	7.90	10.30	9.60	12.60	10.30	15.00	144.20	108.90	343.30	38.90	2.80	23.70	343.30	Ton/day
Min	1.50	1.10	1.10	1.50	1.30	1.60	4.80	6.90	3.70	2.60	1.60	1.60	1.10	Ton/day

WATER YEAR : 2002

SOUTHERN PENINSULA EAST COAST

Khlong Wang Muang Yang at Ban Pa Ye, Narathiwat (X.171)

Lat 06 - 05 - 28 N Long 101 - 57 - 24 E

Location : on left bank at the bridge.

Ban Pa Ye **Amphoe** Sungai Kolok **Changwat** Narathiwat

Drainge Area	839 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.DH - 59
Period of Available Records	1998 - Cont'd
Actual Measurement	1998 - Cont'd
Using Rating Curve Water Year	1998 - 2002
Number of observation	102
R-Square	0.7779
Remarks	Continued Sediment Station

$$QS = 2.3905\ QW^{1.03630}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	0.00	0.00	0.30	0.40	1.60	4.00	1.10	3.80	1.50	9.10	0.40	0.30		
2	0.00	0.00	0.90	0.30	1.70	2.50	0.80	2.50	1.30	7.30	0.30	0.20		
3	0.00	0.00	1.20	0.20	1.50	2.10	1.10	2.50	1.50	6.90	0.30	0.10		
4	0.00	0.00	1.60	0.10	1.90	1.60	1.30	4.00	1.50	5.70	0.20	0.50		
5	0.00	0.00	4.00	0.10	3.40	1.40	1.40	4.40	1.70	4.90	0.20	0.50		
6	0.00	0.00	8.00	0.90	3.60	1.10	1.60	8.00	1.70	4.00	0.20	0.20		
7	0.00	0.00	8.70	1.00	3.20	0.70	1.50	8.70	1.50	2.30	0.10	0.00		
8	0.00	0.00	6.20	1.10	2.50	0.50	4.20	7.60	1.30	1.90	1.00	0.00		
9	0.00	0.00	3.80	0.90	1.90	0.30	4.20	5.90	1.20	1.60	0.90	0.00		
10	0.00	0.00	3.20	0.50	1.70	0.30	5.30	7.30	1.10	1.30	0.90	0.00		
11	0.00	0.00	4.00	0.60	1.60	0.10	4.00	9.40	1.20	1.20	0.90	0.00		
12	0.00	0.00	5.30	1.20	1.30	0.30	4.40	9.10	1.50	1.10	1.60	0.00		
13	0.00	0.00	4.60	0.90	1.20	0.90	11.60	8.70	1.80	1.00	3.00	0.00		
14	0.00	0.00	5.30	0.00	1.00	1.10	19.00	5.90	10.20	0.90	5.50	0.00		
15	0.00	0.00	4.90	0.00	0.80	1.20	13.10	4.60	17.20	0.90	4.60	0.00		
16	0.00	0.00	4.00	0.00	0.60	1.30	9.40	3.60	13.50	0.90	3.40	0.00		
17	0.00	0.00	3.20	0.00	0.50	1.50	7.60	1.90	9.80	0.90	2.10	0.00		
18	0.00	0.00	2.50	0.00	0.50	1.50	6.90	2.10	9.10	0.90	1.90	0.00		
19	0.00	0.00	1.80	0.00	0.40	1.70	6.20	3.20	15.30	0.70	1.70	0.00		
20	0.00	0.00	1.60	0.00	0.30	1.90	7.60	4.90	14.90	0.70	1.10	0.00		
21	0.00	0.00	1.50	0.00	0.20	3.00	8.00	5.90	12.40	0.90	0.70	0.00		
22	0.00	0.00	1.20	0.00	0.10	4.60	6.50	8.70	8.30	0.90	0.50	0.00		
23	0.00	0.00	0.60	0.00	0.70	4.20	5.70	8.30	4.00	1.20	0.50	0.00		
24	0.00	0.00	0.40	0.00	3.40	3.80	6.20	7.60	3.00	1.10	0.40	0.00		
25	0.00	0.00	0.50	0.00	5.30	2.50	7.30	6.50	2.30	0.90	0.20	0.00		
26	0.00	0.00	0.50	0.00	5.70	3.20	6.90	5.30	1.90	0.60	0.00	0.00		
27	0.00	0.00	0.40	0.00	4.90	2.50	6.20	4.20	1.70	0.70	0.00	0.00		
28	0.00	0.00	0.00	0.00	0.00	1.70	13.10	3.20	2.50	0.50	0.00	0.00		
29	0.00	0.00	0.00	0.00	0.00	1.50	10.20	2.30	4.20	0.40		0.00		
30	0.00	0.00	0.00	0.00	0.00	0.00	7.30	1.90	5.50	0.30		0.00		
31		0.00		0.00	0.00		5.90		8.70	0.30		0.00		
Total	0.00	0.00	80.20	8.20	51.50	53.00	195.60	162.00	163.30	62.00	32.60	1.80	810.20	Tonday
Mean	0.00	0.00	2.97	0.63	1.91	1.83	6.31	5.40	5.27	2.00	1.30	0.30		Ton/day
Max	0.00	0.00	8.70	1.20	5.70	4.60	19.00	9.40	17.20	9.10	5.50	0.50	19.00	Ton/day
Min	0.00	0.00	0.00	0.00	0.00	0.00	0.80	1.90	1.10	0.30	0.00	0.00	0.00	Ton/day

WATER YEAR : 2002

SOUTHERN PENINSULA EAST COAST

Khlong Yaha at Yaha, Yala (X.175)

Lat 06 - 28 - 25 N Long 101 - 08 - 32 E

Location : on left bank on the bridge on Yala - Yaha Road.

Ban - **Amphoe** Yaha **Changwat** Yala

Drainge Area	350 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.DH - 59
Period of Available Records	1998 - Cont'd
Actual Measurement	1998 - Cont'd
Using Rating Curve Water Year	1998 - 2002
Number of observation	117
R-Square	0.8481
Remarks	Continued Sediment Station

$$QS = 2.1109\ QW^{1.22470}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	6.40	6.40	56.30	4.60	4.60	10.20	8.20	50.00	60.60	145.90	13.40	6.40		
2	6.40	5.80	36.60	4.60	4.10	7.60	7.60	39.80	291.60	103.00	13.40	6.40		
3	6.40	5.80	26.00	4.60	4.10	6.40	7.60	33.50	112.00	91.40	12.10	6.40		
4	7.00	5.80	18.80	4.60	4.60	5.20	133.30	50.00	67.10	69.30	10.80	6.40		
5	32.00	5.80	12.10	4.60	4.60	4.60	30.50	50.00	56.30	56.30	10.80	6.40		
6	13.40	5.80	10.20	4.10	4.60	4.60	18.80	50.00	50.00	41.80	10.20	6.40		
7	12.10	7.00	8.90	4.10	4.60	4.60	12.10	43.80	43.80	45.90	10.20	6.40		
8	9.50	21.60	10.80	4.60	4.10	4.60	20.20	41.80	38.20	39.80	10.20	6.40		
9	8.90	38.20	9.50	4.60	4.60	4.10	256.40	85.60	33.50	38.20	9.50	6.40		
10	9.50	20.20	13.40	4.60	4.60	4.10	82.80	76.00	32.00	36.60	8.90	9.50		
11	8.20	13.40	24.50	4.60	4.60	4.10	67.10	60.60	30.50	33.50	10.80	8.20		
12	7.00	10.20	10.80	4.10	4.60	4.10	41.80	195.60	26.00	30.50	10.80	7.60		
13	5.80	8.90	10.80	4.10	4.10	3.50	36.60	82.80	36.60	28.90	10.20	7.00		
14	6.40	8.20	9.50	4.10	4.10	5.20	69.30	50.00	71.50	27.40	10.20	7.00		
15	6.40	7.60	9.50	4.10	4.10	17.40	47.90	50.00	69.30	26.00	10.20	7.00		
16	5.80	7.00	8.90	4.10	4.10	7.00	60.60	45.90	52.10	24.50	10.20	7.00		
17	5.80	16.00	8.20	4.60	4.10	8.90	165.70	39.80	103.00	24.50	10.20	7.00		
18	5.80	12.10	23.00	41.80	4.10	5.80	54.20	36.60	155.80	24.50	9.50	7.00		
19	5.80	8.90	13.40	16.00	3.50	5.80	54.20	54.20	200.90	24.50	8.90	7.00		
20	5.80	8.20	9.50	8.90	3.50	5.80	43.80	69.30	348.70	24.50	9.50	7.00		
21	5.80	7.60	8.90	7.00	3.50	5.80	43.80	67.10	222.70	23.00	8.90	7.60		
22	5.80	7.60	8.20	8.90	3.00	7.00	56.30	215.90	106.00	23.00	8.90	8.20		
23	5.80	7.60	7.60	8.20	3.00	8.90	33.50	194.80	71.50	23.00	8.20	8.90		
24	5.20	7.00	7.60	7.60	3.00	9.50	73.70	103.00	58.40	21.60	7.60	9.50		
25	4.60	7.00	7.00	6.40	3.00	7.60	97.20	82.80	50.00	17.40	7.00	10.20		
26	8.90	7.00	5.20	5.80	3.50	7.60	76.00	64.90	43.80	17.40	6.40	12.10		
27	7.00	6.40	5.20	5.20	5.20	5.80	248.20	45.90	41.80	14.70	6.40	14.70		
28	7.60	7.00	5.20	4.60	5.20	5.20	400.90	43.80	243.80	13.40	6.40	13.40		
29	10.20	7.60	5.20	4.10	4.60	5.80	218.50	39.80	219.30	13.40		8.20		
30	7.00	10.20	4.60	4.10	5.20	4.60	80.50	35.10	152.50	13.40		28.90		
31		36.60		4.10	14.70		62.70		254.60	12.10		36.60		
Total	242.30	334.50	395.40	207.40	139.20	191.40	2610.00	2098.40	3343.90	1129.40	269.80	297.20	11258.90	Tonday
Mean	8.08	10.79	13.18	6.69	4.49	6.38	84.19	69.95	107.87	36.43	9.64	9.59		Ton/day
Max	32.00	38.20	56.30	41.80	14.70	17.40	400.90	215.90	348.70	145.90	13.40	36.60	400.90	Ton/day
Min	4.60	5.80	4.60	4.10	3.00	3.50	7.60	33.50	26.00	12.10	6.40	6.40	3.00	Ton/day

WATER YEAR : 2002

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.
Method of sampling	Depth Integrating
Instrument Used	US.DH - 59
Period of Available Records	1989 - Cont' d
Actual Measurement	1989 - 1999 , 2003-2005, 2012 - Cont' d
Using Rating Curve Water Year	2002
Number of observation	17
R-Square	0.7339
Remarks	Continued Sediment Station

$$QS = 0.7176\ QW^{1.34420}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	415.90	613.10	759.60	642.70	1110.60	603.40	1484.90	687.60	642.70	523.70	41.50	35.50		
2	484.10	371.00	667.50	776.00	1191.00	667.50	1432.20	550.40	825.70	237.90	51.60	47.70		
3	622.90	603.40	445.40	647.60	1364.60	825.70	1417.20	748.70	1103.90	428.50	49.00	21.40		
4	637.70	723.10	748.70	445.40	1282.40	825.70	1989.20	424.30	1057.80	344.50	140.30	171.90		
5	510.40	803.50	999.20	1077.50	1137.20	842.50	1064.30	1289.80	765.00	475.50	163.30	188.20		
6	454.00	541.50	1090.70	979.80	1469.80	853.70	814.60	973.70	436.90	182.20	115.40	163.30		
7	697.70	803.50	999.20	1515.20	1538.00	967.60	550.40	682.60	723.10	432.70	33.90	90.90		
8	537.00	545.90	608.30	1469.80	1267.50	992.70	697.70	765.00	1614.80	340.80	28.60	52.90		
9	955.40	853.70	569.50	1763.90	955.40	781.50	637.70	765.00	925.10	300.50	97.40	86.20		
10	907.00	560.00	303.90	1591.70	776.00	712.90	510.40	618.00	697.70	415.90	58.20	157.00		
11	488.50	814.60	588.80	1447.20	733.30	937.20	955.40	652.60	564.80	225.20	46.40	66.30		
12	215.80	919.10	550.40	1327.10	550.40	1357.10	1507.60	702.70	743.50	167.60	27.80	55.50		
13	191.20	1282.40	287.00	1484.90	541.50	1282.40	1218.10	848.10	523.70	225.20	25.60	106.30		
14	212.60	889.10	395.10	1432.20	1090.70	1197.80	492.80	853.70	359.60	179.20	25.60	109.90		
15	322.20	667.50	569.50	967.60	973.70	1110.60	1097.30	853.70	391.00	106.30	24.20	115.40		
16	432.70	519.20	925.10	1191.00	859.30	687.60	919.10	907.00	287.00	176.20	24.90	126.60		
17	159.10	754.10	702.70	1084.10	889.10	919.10	1012.10	787.00	254.00	119.10	23.50	115.40		
18	454.00	555.20	537.00	999.20	787.00	901.00	871.20	765.00	293.80	104.50	22.80	188.20		
19	374.90	901.00	613.10	759.60	667.50	1245.40	1312.10	831.30	672.50	225.20	24.90	254.00		
20	382.80	871.20	363.40	877.10	1553.30	1137.20	1018.60	657.60	374.90	128.50	31.60	146.50		
21	687.60	632.80	329.60	759.60	2229.90	1191.00	454.00	1304.70	560.00	197.30	39.40	86.20		
22	697.70	672.50	420.10	1077.50	1771.90	1297.20	475.50	2175.70	307.60	260.50	33.90	111.80		
23	723.10	877.10	395.10	1417.20	1684.80	1394.80	337.10	1803.90	283.70	206.50	42.70	130.40		
24	781.50	925.10	270.40	901.00	1319.60	1342.00	359.60	1130.60	1031.60	241.10	24.90	148.60		
25	687.60	842.50	677.50	759.60	1130.60	2032.60	637.70	712.90	593.70	128.50	45.20	209.50		
26	1103.90	545.90	792.50	277.00	770.50	1903.00	484.10	1327.10	420.10	78.40	42.70	144.50		
27	848.10	337.10	1211.30	667.50	992.70	1716.20	598.50	992.70	436.90	45.20	47.70	128.50		
28	803.50	598.50	825.70	707.80	871.20	1724.20	458.20	814.60	407.50	84.60	45.20	241.10		
29	697.70	702.70	859.30	613.10	883.10	1417.20	1012.10	825.70	637.70	115.40		337.10		
30	652.60	748.70	743.50	754.10	687.60	931.10	943.20	798.00	537.00	108.10		270.40		
31		738.40		1157.30	280.30		825.70		492.80	89.40		206.50		
Total	17139.20	22213.40	19249.10	31571.30	33360.50	33797.90	27588.60	27249.70	18966.10	6894.20	1378.20	4313.70	243721.90	Tonday
Mean	571.31	716.56	641.64	1018.43	1076.15	1126.60	889.95	908.32	611.81	222.39	49.22	139.15		Ton/day
Max	1103.90	1282.40	1211.30	1763.90	2229.90	2032.60	1989.20	2175.70	1614.80	523.70	163.30	337.10	2229.90	Ton/day
Min	159.10	337.10	270.40	277.00	280.30	603.40	337.10	424.30	254.00	45.20	22.80	21.40	21.40	Ton/day

WATER YEAR : 2002

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.DH - 59
Period of Available Records	1990 - Cont'd
Actual Measurement	1990 - Cont'd
Using Rating Curve Water Year	2002
Number of observation	18
R-Square	0.8001
Remarks	Continued Sediment Station

$$QS = 7.2839\ QW^{0.90580}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	101.40	165.80	102.90	102.90	123.70	429.10	955.00	904.80	1092.10	969.30	157.20	94.30		
2	94.30	150.00	94.30	99.90	148.50	403.10	987.10	861.50	951.40	1044.00	157.20	91.50		
3	87.30	113.30	87.30	95.70	165.80	381.30	951.40	808.70	822.50	1062.30	161.50	90.10		
4	81.70	94.30	85.90	94.30	226.20	361.50	958.60	752.10	733.80	1047.50	155.70	87.30		
5	76.10	80.30	85.90	104.40	282.80	339.50	958.60	781.20	650.60	1015.60	151.40	85.90		
6	101.40	77.50	87.30	148.50	273.70	341.70	915.60	865.10	590.30	937.10	148.50	83.10		
7	113.30	84.60	90.10	204.00	231.80	370.30	854.30	944.20	565.80	819.00	142.70	81.70		
8	114.80	91.50	91.50	241.00	192.70	348.30	832.70	997.80	541.20	684.60	139.80	81.70		
9	114.80	92.90	92.90	255.60	181.40	326.20	926.30	1103.20	497.20	579.40	136.90	80.30		
10	108.90	114.80	94.30	229.90	209.60	326.20	1015.60	1214.00	460.00	499.90	132.50	77.50		
11	105.90	222.50	94.30	196.50	257.40	332.90	1077.20	1286.50	434.20	439.40	129.60	76.10		
12	105.90	308.40	92.90	178.60	262.90	407.40	1121.80	1310.50	396.50	398.70	126.60	74.60		
13	107.40	411.70	92.90	165.80	248.30	549.40	1177.40	1286.50	370.30	363.70	125.20	70.60		
14	101.40	494.40	90.10	160.00	224.40	700.00	1228.60	1257.60	385.60	332.90	120.80	68.30		
15	105.90	409.60	87.30	151.40	192.70	752.10	1238.20	1218.90	513.70	308.40	117.80	69.40		
16	113.30	253.80	87.30	145.60	171.50	693.80	1238.20	1158.90	636.30	286.40	117.80	71.80		
17	104.40	174.30	94.30	170.10	157.20	593.00	1247.90	1099.50	659.90	271.90	116.30	71.80		
18	84.60	141.30	91.50	209.60	148.50	524.70	1243.10	1051.10	601.20	259.20	113.30	74.60		
19	74.60	119.30	88.70	190.90	150.00	522.00	1238.20	997.80	533.00	253.80	110.40	70.60		
20	78.90	105.90	87.30	172.90	177.20	574.00	1192.10	994.20	470.30	255.60	105.90	68.30		
21	81.70	99.90	87.30	152.90	224.40	560.40	1129.20	1084.60	452.30	270.10	102.90	64.70		
22	84.60	97.10	85.90	136.90	312.80	502.70	1044.00	1181.10	422.60	279.20	101.40	63.60		
23	80.30	95.70	84.60	123.70	379.10	472.90	969.30	1272.00	383.50	262.90	99.90	64.70		
24	78.90	104.40	81.70	114.80	350.50	472.90	929.90	1344.10	350.50	242.80	99.90	64.70		
25	81.70	119.30	80.30	110.40	335.10	546.70	912.00	1377.60	354.90	229.90	108.90	64.70		
26	78.90	136.90	78.90	108.90	343.90	666.10	944.20	1387.20	394.40	207.70	113.30	64.70		
27	114.80	145.60	78.90	108.90	374.70	727.60	929.90	1377.60	381.30	190.90	108.90	68.30		
28	154.30	164.30	85.90	105.90	470.30	843.40	904.80	1339.30	365.90	181.40	98.50	84.60		
29	161.50	164.30	101.40	101.40	533.00	919.20	919.20	1281.70	381.30	171.50		98.50		
30	167.20	135.40	105.90	101.40	497.20	929.90	955.00	1199.50	483.30	164.30		101.40		
31		111.80		107.40	449.70		955.00		770.80	160.00		107.40		
Total	3060.20	5080.90	2689.80	4590.20	8297.00	15918.30	31950.40	33738.80	16646.70	14189.40	3500.80	2416.80	142079.30	Tonday
Mean	102.01	163.90	89.66	148.07	267.65	530.61	1030.66	1124.63	536.99	457.72	125.03	77.96		Ton/day
Max	167.20	494.40	105.90	255.60	533.00	929.90	1247.90	1387.20	1092.10	1062.30	161.50	107.40	1387.20	Ton/day
Min	74.60	77.50	78.90	94.30	123.70	326.20	832.70	752.10	350.50	160.00	98.50	63.60	63.60	Ton/day

WATER YEAR : 2002

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.DH - 59
Period of Available Records	1998 - Cont'd
Actual Measurement	1998 - 2002, 2005-2006, 2011 - Cont'd
Using Rating Curve Water Year	1998 - 2002
Number of observation	113
R-Square	0.7515
Remarks	Continued Sediment Station

$$QS = 1.4436\ QW^{1.50550}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	12.90	10.90	11.60	16.30	77.80	144.80	386.10	217.80	236.90	486.70	64.80	22.50		
2	12.20	10.30	11.60	16.30	75.60	131.40	451.90	213.80	222.50	624.50	62.70	22.50		
3	12.20	9.70	11.60	14.90	62.70	141.30	379.70	201.70	251.50	606.60	54.50	21.40		
4	12.20	10.30	10.90	18.30	75.60	134.60	354.60	286.60	213.80	411.90	52.60	21.40		
5	12.20	10.30	13.50	29.40	75.60	118.50	307.40	697.90	205.70	324.00	48.70	20.40		
6	11.60	9.70	19.30	54.50	58.60	103.10	386.10	1108.10	185.90	276.40	46.80	22.50		
7	12.20	9.70	19.30	75.60	50.60	94.30	360.80	1144.10	170.60	236.90	43.10	20.40		
8	12.90	9.70	25.90	66.90	54.50	97.20	360.80	947.70	155.70	222.50	39.50	21.40		
9	12.20	13.50	22.50	56.50	64.80	115.40	425.10	1037.30	137.90	209.70	36.80	20.40		
10	12.90	21.40	21.40	46.80	75.60	109.20	360.80	566.40	112.30	185.90	36.80	19.30		
11	14.20	25.90	17.30	39.50	77.80	182.00	438.30	479.70	85.60	174.40	38.10	20.40		
12	13.50	25.90	18.30	39.50	88.50	227.30	566.40	451.90	88.50	163.10	38.10	18.30		
13	12.90	41.20	18.30	36.80	71.20	398.90	864.50	379.70	163.10	152.00	36.80	19.30		
14	12.20	35.60	17.30	36.80	62.70	291.80	670.10	342.30	864.50	144.80	35.60	21.40		
15	12.90	24.70	36.80	35.60	50.60	213.80	472.70	336.10	979.50	134.60	35.60	19.30		
16	12.20	19.30	27.00	56.50	48.70	166.80	379.70	302.20	458.80	128.10	34.30	16.30		
17	12.20	16.30	20.40	48.70	43.10	141.30	324.00	236.90	336.10	121.70	34.30	16.30		
18	11.60	14.20	19.30	50.60	43.10	144.80	330.10	209.70	330.10	118.50	33.00	16.30		
19	10.90	13.50	18.30	44.90	48.70	163.10	312.70	291.80	256.40	148.40	31.80	15.60		
20	9.70	12.90	20.40	38.10	131.40	174.40	307.40	398.90	217.80	256.40	29.40	14.90		
21	9.10	12.20	18.30	33.00	144.80	166.80	302.20	1527.20	193.70	174.40	28.20	14.20		
22	9.10	17.30	16.30	33.00	155.70	163.10	318.00	1919.50	170.60	144.80	27.00	14.20		
23	9.10	20.40	15.60	30.60	159.40	141.30	354.60	1205.00	163.10	141.30	27.00	13.50		
24	9.10	17.30	14.90	33.00	124.90	131.40	379.70	615.50	152.00	131.40	27.00	12.90		
25	9.70	15.60	14.20	34.30	124.90	324.00	425.10	522.40	152.00	91.30	25.90	12.90		
26	12.90	16.30	14.90	30.60	193.70	367.10	405.40	508.00	155.70	73.40	24.70	24.70		
27	12.90	18.30	16.30	30.60	445.00	522.40	330.10	360.80	148.40	66.90	23.60	50.60		
28	12.90	16.30	20.40	29.40	281.50	458.80	281.50	312.70	152.00	60.60	23.60	28.20		
29	12.20	14.90	19.30	30.60	189.80	551.60	291.80	281.50	256.40	54.50		20.40		
30	11.60	12.90	19.30	34.30	159.40	445.00	266.30	256.40	1192.70	50.60		20.40		
31		12.20		46.80	163.10		241.70		1096.20	48.70		18.30		
Total	354.40	518.70	550.50	1188.70	3479.40	6565.50	12035.60	17359.60	9506.00	6165.00	1040.30	620.60	59384.30	Tonday
Mean	11.81	16.73	18.35	38.35	112.24	218.85	388.25	578.65	306.65	198.87	37.15	20.02		Ton/day
Max	14.20	41.20	36.80	75.60	445.00	551.60	864.50	1919.50	1192.70	624.50	64.80	50.60	1919.50	Ton/day
Min	9.10	9.70	10.90	14.90	43.10	94.30	241.70	201.70	85.60	48.70	23.60	12.90	9.10	Ton/day

WATER YEAR : 2002

THALE SAP SONGKHLA

Khlong Bang Kaeo at Ban Khuan In No Mo , Phutthalung (X.109)

Lat 07 - 20 - 29 N Long 100 - 03 - 35 E

Location : on left bank at Ban Khuan In No Mo.

Ban Khuan In No Mo **Amphoe** Ta Mot **Changwat** Phatthalung

Drainge Area	131 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	2002
Number of observation	18
R-Square	0.9115
Remarks	Continued Sediment Station

$$QS = 2.8786\ QW^{1.22790}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	8.00	6.70	6.30	4.70	5.90	12.10	11.60	11.60	33.40	98.70	18.40	11.10		
2	8.00	6.70	6.30	4.40	56.60	11.60	16.80	12.10	38.80	164.00	17.90	10.60		
3	7.60	6.70	6.30	4.40	25.60	9.70	17.90	16.30	43.00	221.90	17.90	10.20		
4	7.60	7.20	6.30	4.40	17.90	8.40	13.60	22.40	39.50	102.20	17.40	10.20		
5	10.60	6.70	6.30	6.30	11.60	8.40	18.40	94.30	32.10	79.60	17.40	9.70		
6	8.40	6.30	6.30	5.10	9.30	8.00	20.70	223.20	34.10	68.70	16.80	10.60		
7	8.00	8.00	6.30	5.50	8.40	8.00	16.80	124.50	120.30	61.90	16.30	10.20		
8	8.00	26.80	6.30	5.10	8.90	8.00	34.10	78.70	53.70	56.60	16.30	10.20		
9	8.00	33.40	6.30	5.10	10.20	11.10	114.00	122.40	44.40	51.50	15.70	9.70		
10	8.00	34.70	6.30	9.30	12.10	13.60	34.10	92.50	47.90	48.60	15.70	9.70		
11	8.00	42.30	10.20	12.60	15.20	15.20	22.40	88.20	40.20	45.10	16.30	9.30		
12	8.00	20.70	11.10	15.20	10.60	11.10	25.60	62.60	84.70	43.00	16.30	10.20		
13	7.60	14.70	8.00	8.40	9.30	10.20	25.60	49.40	150.60	40.90	15.70	10.60		
14	7.60	11.60	6.70	6.30	8.00	9.30	20.10	41.60	1333.90	37.40	15.20	9.70		
15	7.60	10.20	6.30	5.90	7.20	8.90	19.00	38.80	325.10	36.10	15.20	9.30		
16	9.70	9.30	7.60	7.20	7.20	8.40	19.60	34.10	135.30	38.80	18.40	8.90		
17	9.30	8.90	6.30	6.30	6.70	8.00	16.30	28.80	95.20	36.10	15.20	8.90		
18	7.60	8.40	6.30	5.90	6.30	10.60	15.20	50.10	150.60	32.70	14.20	8.40		
19	6.70	8.00	6.70	5.50	6.30	9.70	13.10	266.20	157.30	30.70	13.60	8.00		
20	6.30	7.60	6.30	5.10	6.70	8.40	12.60	199.50	114.00	28.80	13.10	8.00		
21	6.30	7.60	6.30	5.10	12.10	8.40	11.10	450.40	83.90	26.80	13.10	8.00		
22	6.30	7.60	5.90	4.70	8.00	33.40	12.10	139.60	71.00	25.60	12.60	8.00		
23	6.30	7.60	5.50	4.40	6.70	29.40	11.10	83.00	62.60	24.90	12.10	7.60		
24	6.30	7.60	5.50	4.40	7.20	25.60	13.60	67.90	55.90	26.20	11.60	10.60		
25	6.30	7.20	4.70	4.40	16.80	19.60	13.10	79.60	50.10	23.70	11.60	10.60		
26	9.70	7.20	4.70	5.50	11.60	15.20	20.10	57.40	47.20	22.40	11.10	40.90		
27	14.20	6.70	4.70	4.70	11.10	13.10	17.90	48.60	43.70	21.80	11.10	32.70		
28	8.00	6.70	4.70	4.40	8.40	13.10	14.70	43.00	53.70	21.20	11.10	20.10		
29	9.30	6.30	4.70	5.90	7.60	11.60	13.60	42.30	120.30	22.40		14.20		
30	8.40	6.30	4.70	13.10	11.60	11.10	12.60	34.70	950.10	20.10		23.00		
31		6.30		6.30	13.10		12.60		190.90	19.60		17.90		
Total	241.70	362.00	189.90	195.60	364.20	379.20	640.00	2703.80	4803.50	1578.00	417.30	387.10	12262.30	Tonday
Mean	8.06	11.68	6.33	6.31	11.75	12.64	20.65	90.13	154.95	50.90	14.90	12.49		Ton/day
Max	14.20	42.30	11.10	15.20	56.60	33.40	114.00	450.40	1333.90	221.90	18.40	40.90	1333.90	Ton/day
Min	6.30	6.30	4.70	4.40	5.90	8.00	11.10	11.60	32.10	19.60	11.10	7.60	4.40	Ton/day

WATER YEAR : 2002

THALE SAP SONGKHLA

Khlong U - Taphao at Ban Khlong Ngae, Songkhla (X.173)

Lat 06 - 47 - 40 N Long 100 - 26 - 42 E

Location : on right bank at the bridge on Hat Yai - Sadao Highway.

Ban Khlong Ngae **Amphoe** Sadao **Changwat** Songkhla

Drainge Area	969 sq.km.
Method of sampling	Depth Integrating
Instrument Used	US.DH - 59
Period of Available Records	1998 - Cont' d
Actual Measurement	1998 - Cont' d
Using Rating Curve Water Year	2002
Number of observation	24
R-Square	0.8424
Remarks	Continued Sediment Station

$$QS = 1.5684\ QW^{1.58190}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	7.80	70.60	10.10	7.80	6.90	21.90	89.20	110.50	194.80	2697.40	12.70	4.50		
2	7.50	35.60	9.80	7.80	6.60	21.30	139.20	214.50	234.50	1796.60	12.30	4.30		
3	7.50	17.80	10.10	8.10	10.50	16.30	292.30	234.50	399.70	1839.80	11.50	4.30		
4	7.20	13.20	11.20	9.80	18.30	12.70	384.60	336.00	634.60	1304.40	11.20	4.30		
5	11.90	11.90	10.50	11.20	14.50	11.90	307.00	322.70	536.30	531.60	10.80	8.50		
6	41.20	10.80	9.40	11.20	13.20	13.60	381.60	226.40	513.20	273.50	9.80	12.30		
7	38.00	16.80	9.80	11.20	9.40	14.50	294.70	171.10	299.40	174.50	9.40	15.00		
8	30.70	76.30	10.80	10.80	8.50	12.30	338.70	123.90	177.60	134.90	8.50	14.50		
9	19.80	155.50	10.10	10.10	18.30	11.50	399.70	253.10	205.50	113.10	7.80	14.10		
10	15.90	179.30	9.40	9.40	16.80	74.00	314.80	412.00	257.50	96.50	7.20	14.10		
11	16.30	209.10	35.60	9.40	26.10	97.70	330.70	301.90	232.50	82.00	6.90	14.50		
12	12.30	166.40	17.80	12.70	34.10	92.80	462.30	226.40	133.50	71.80	6.90	14.10		
13	9.40	94.00	12.70	16.80	23.70	82.00	976.70	187.90	79.70	63.00	6.90	14.10		
14	9.10	38.80	10.80	16.30	14.10	45.50	1366.10	191.30	64.10	58.00	6.60	14.10		
15	8.50	26.80	10.50	11.50	10.50	24.30	1008.60	246.80	94.00	51.60	6.30	14.10		
16	8.10	21.30	15.40	9.80	8.80	17.80	832.70	244.80	70.60	45.50	6.30	14.10		
17	8.50	17.80	25.50	9.10	7.80	16.80	545.70	160.10	67.30	40.40	7.50	12.70		
18	10.10	15.90	15.90	10.50	7.20	15.90	236.60	106.60	194.80	38.80	6.90	12.70		
19	8.10	14.50	11.50	23.70	7.20	20.80	153.90	287.50	203.70	38.00	6.90	12.30		
20	7.50	13.60	10.10	19.80	7.50	15.90	109.20	862.80	119.80	34.10	6.00	6.90		
21	7.50	12.70	9.80	11.50	9.40	14.10	72.90	608.90	74.00	34.10	5.70	4.10		
22	10.10	11.90	9.40	8.10	9.10	15.00	58.00	545.70	56.10	28.00	5.50	4.30		
23	17.80	11.20	9.10	7.50	9.10	139.20	97.70	438.50	42.10	25.50	5.20	4.80		
24	11.50	11.90	8.80	6.90	10.50	273.50	187.90	246.80	34.10	23.70	5.20	4.10		
25	9.40	15.40	8.10	6.00	17.30	248.90	179.30	883.10	29.30	21.30	5.00	7.20		
26	15.00	26.10	7.80	6.00	24.30	205.50	268.90	1669.20	24.90	19.30	4.80	15.00		
27	42.10	16.80	7.80	5.70	23.10	143.40	232.50	634.60	22.50	18.80	4.80	15.00		
28	54.30	13.20	7.80	5.70	14.10	122.50	160.10	309.60	687.40	16.80	4.80	20.30		
29	55.20	11.20	8.10	5.70	22.50	163.30	193.10	155.50	1905.30	15.40	0.00	16.30		
30	67.30	10.50	8.10	5.70	19.80	158.50	201.90	107.90	2697.40	14.50	0.00	79.70		
31	0.00	9.40	0.00	6.90	15.00	0.00	149.40	0.00	4407.60	13.60	0.00	117.10		
Total	575.60	1356.30	351.80	312.70	444.20	2123.40	10766.00	10820.60	14693.80	9716.50	209.40	513.40	51883.70	Tonday
Mean	19.19	43.75	11.73	10.09	14.33	70.78	347.29	360.69	473.99	313.44	7.48	16.56		Ton/day
Max	67.30	209.10	35.60	23.70	34.10	273.50	1366.10	1669.20	4407.60	2697.40	12.70	117.10	4407.60	Ton/day
Min	7.20	9.40	7.80	5.70	6.60	11.50	58.00	106.60	22.50	13.60	4.80	4.10	4.10	Ton/day

WATER YEAR : 2002

PATTANI RIVER BASIN

Pattani River at Ban Yu Ra Pan, Yala (X.77A)

Lat 06 - 16 - 35 N Long 101 - 17 - 33 E

Location : on right bank at the bridge of Yala - Be Thong Highway.

Ban Yu Ra Pan **Amphoe** Ban Nang Sata **Changwat** Yala

Drainge Area	2,308 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 - 2002
Number of observation	128
R-Square	0.7872
Remarks	Continued Sediment Station

$$QS = 1.3424\ QW^{1.27040}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	118.90	48.40	101.90	44.00	67.30	34.20	147.40	84.20	134.60	65.00	39.80	38.40		
2	144.20	157.20	96.80	51.30	72.10	60.40	237.50	76.90	101.90	57.30	39.80	42.60		
3	131.40	267.40	101.90	60.40	58.80	55.80	173.90	49.80	89.20	52.80	39.80	109.70		
4	331.50	173.90	67.30	144.20	42.60	65.00	167.20	46.90	125.10	49.80	48.40	118.90		
5	157.20	118.90	55.80	58.80	39.80	69.70	55.80	42.60	49.80	49.80	54.30	144.20		
6	94.20	205.20	62.70	45.50	67.30	39.80	46.90	42.60	89.20	57.30	45.50	118.90		
7	74.50	241.60	86.70	39.80	76.90	42.60	45.50	39.80	72.10	55.80	44.00	39.80		
8	52.80	137.80	45.50	125.10	60.40	35.60	84.20	38.40	131.40	62.70	46.90	57.30		
9	258.50	96.80	81.80	57.30	89.20	32.90	72.10	46.90	107.00	60.40	42.60	44.00		
10	285.40	134.60	74.50	89.20	67.30	32.90	52.80	45.50	104.50	125.10	42.60	51.30		
11	101.90	404.70	74.50	67.30	42.60	29.90	181.60	65.00	115.80	48.40	42.60	104.50		
12	104.50	404.70	52.80	72.10	45.50	30.70	177.70	104.50	84.20	44.00	38.40	101.90		
13	54.30	432.20	76.90	144.20	55.80	29.90	137.80	76.90	65.00	44.00	42.60	154.00		
14	51.30	170.50	58.80	52.80	60.40	37.00	157.20	84.20	54.30	42.60	41.20	48.40		
15	62.70	421.20	225.30	55.80	69.70	38.40	128.30	46.90	44.00	42.60	41.20	41.20		
16	60.40	322.20	137.80	67.30	69.70	79.30	144.20	49.80	62.70	42.60	42.60	147.40		
17	65.00	185.50	51.30	131.40	67.30	74.50	125.10	52.80	86.70	49.80	49.80	99.30		
18	137.80	241.60	67.30	65.00	45.50	38.40	55.80	46.90	76.90	44.00	79.30	150.70		
19	99.30	432.20	67.30	49.80	76.90	45.50	249.90	84.20	383.00	44.00	74.50	213.20		
20	79.30	258.50	76.90	46.90	57.30	41.20	125.10	101.90	134.60	41.20	54.30	91.70		
21	144.20	217.20	45.50	38.40	112.70	37.00	81.80	69.70	89.20	69.70	41.20	131.40		
22	193.30	189.40	60.40	163.90	89.20	30.70	65.00	189.40	67.30	79.30	44.00	62.70		
23	173.90	91.70	54.30	109.70	76.90	96.80	52.80	104.50	79.30	65.00	44.00	181.60		
24	181.60	128.30	44.00	45.50	421.20	34.20	74.50	58.80	131.40	44.00	57.30	99.30		
25	154.00	128.30	107.00	41.20	49.80	35.60	57.30	96.80	86.70	67.30	42.60	125.10		
26	303.70	60.40	72.10	131.40	58.80	29.90	57.30	101.90	69.70	46.90	41.20	39.80		
27	79.30	39.80	45.50	57.30	57.30	65.00	72.10	81.80	49.80	79.30	48.40	48.40		
28	44.00	49.80	79.30	65.00	72.10	44.00	150.70	67.30	167.20	96.80	39.80	96.80		
29	74.50	54.30	48.40	144.20	60.40	38.40	134.60	65.00	65.00	112.70		58.80		
30	45.50	79.30	44.00	104.50	41.20	96.80	167.20	62.70	134.60	49.80		41.20		
31		57.30		94.20	41.20		79.30		84.20	60.40		118.90		
Total	3859.10	5950.90	2264.30	2463.50	2313.20	1422.10	3558.60	2124.60	3136.40	1850.40	1308.70	2921.40	33173.20	Tonday
Mean	128.64	191.96	75.48	79.47	74.62	47.40	114.79	70.82	101.17	59.69	46.74	94.24		Ton/day
Max	331.50	432.20	225.30	163.90	421.20	96.80	249.90	189.40	383.00	125.10	79.30	213.20	432.20	Ton/day
Min	44.00	39.80	44.00	38.40	39.80	29.90	45.50	38.40	44.00	41.20	38.40	38.40	29.90	Ton/day

WATER YEAR : 2002

SOUTHERN PENINSULA WEST COAST

Khlong Palian at Ban Lam Khlaeng, Trang (X.139)

Lat 07 - 19 - 10 N Long 99 - 49 - 06 E

Location : on right bank at Ban Lam Khlaeng.

Ban Lam Khlaeng **Amphoe** Palian **Changwat** Trang

Drainge Area	152 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 - 2002
Number of observation	304
R-Square	0.7874
Remarks	Continued Sediment Station

$$QS = 3.3578\ QW^{0.96910}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	6.10	6.10	7.30	8.50	12.40	48.70	39.30	23.40	23.00	23.90	12.70	8.90		
2	5.80	5.80	7.30	6.70	320.30	48.10	42.90	23.00	24.80	28.40	12.70	8.90		
3	5.80	5.50	7.30	6.70	50.50	35.70	48.10	23.90	23.00	35.70	12.40	8.90		
4	5.80	5.50	12.40	8.90	44.50	33.40	46.30	23.00	21.60	27.90	12.10	8.50		
5	7.70	5.50	9.70	9.10	33.40	31.10	45.10	24.80	20.80	26.10	11.70	8.50		
6	6.40	5.20	10.10	7.90	27.50	28.40	45.70	30.70	19.90	24.30	11.70	8.90		
7	7.90	6.10	8.90	8.30	23.90	26.10	43.90	25.60	36.60	22.50	11.70	8.90		
8	6.40	11.70	13.70	7.30	26.60	26.10	54.10	24.80	22.50	21.60	11.40	8.50		
9	7.00	19.40	10.70	7.70	37.00	42.40	55.30	29.30	21.20	20.30	11.10	8.50		
10	9.10	24.30	10.10	10.70	35.70	112.40	45.70	25.20	20.30	19.90	11.10	8.50		
11	7.00	38.80	26.10	15.30	39.70	64.20	38.40	24.30	19.90	19.40	10.70	8.30		
12	6.40	14.00	15.00	21.20	31.60	43.90	48.70	22.50	21.60	18.50	11.40	8.30		
13	6.10	10.40	12.10	13.70	26.60	39.30	42.40	22.10	34.30	18.10	11.10	7.90		
14	5.50	9.50	10.70	12.10	23.00	33.80	37.50	22.50	77.20	17.60	11.10	7.90		
15	6.10	8.30	10.10	10.70	20.80	30.70	34.30	25.60	37.50	17.20	10.70	7.90		
16	7.00	7.70	9.70	10.10	19.40	29.30	33.40	21.60	31.60	17.20	11.10	7.70		
17	6.40	7.30	9.50	9.50	18.10	30.20	32.00	19.90	29.30	17.20	11.40	7.70		
18	5.50	7.00	10.10	9.10	17.20	33.80	43.30	27.00	32.50	16.70	11.10	7.30		
19	5.50	6.70	12.70	8.90	16.30	32.90	38.40	85.60	30.20	16.30	10.40	7.30		
20	5.50	6.70	9.70	8.50	18.50	31.10	33.80	47.50	29.30	15.60	10.10	7.30		
21	5.20	7.30	9.50	8.30	19.90	41.10	30.70	73.60	26.60	15.30	9.70	7.30		
22	5.50	7.30	8.90	9.10	16.70	181.00	30.20	45.10	24.80	15.30	9.70	7.30		
23	5.50	9.50	8.30	8.30	19.00	126.20	31.10	36.10	23.90	14.60	9.70	7.30		
24	5.50	10.40	7.70	8.50	28.80	107.50	33.80	33.80	22.50	14.60	9.50	7.30		
25	6.40	12.70	7.70	9.10	35.20	67.70	32.90	33.80	21.60	14.30	9.50	9.10		
26	8.50	10.40	7.90	9.70	36.10	60.60	33.40	29.80	20.80	14.00	9.10	12.40		
27	8.90	10.40	7.70	8.30	38.40	51.70	29.30	27.50	25.20	13.70	9.10	11.40		
28	8.30	8.50	7.30	8.30	31.60	50.50	27.90	25.60	24.30	13.70	8.90	9.50		
29	9.50	8.30	7.30	10.40	36.10	46.90	27.00	24.80	31.60	13.30		8.50		
30	7.70	7.90	7.00	24.30	43.90	41.50	27.00	23.90	36.10	13.00		11.10		
31		7.70		16.00	48.10		25.60		27.00	12.70		9.70		
Total	200.00	311.90	302.50	321.20	1196.80	1576.30	1177.50	926.30	861.50	578.90	302.90	265.50	8021.30	Tonday
Mean	6.67	10.06	10.08	10.36	38.61	52.54	37.98	30.88	27.79	18.67	10.82	8.56		Ton/day
Max	9.50	38.80	26.10	24.30	320.30	181.00	55.30	85.60	77.20	35.70	12.70	12.40	320.30	Ton/day
Min	5.20	5.20	7.00	6.70	12.40	26.10	25.60	19.90	19.90	12.70	8.90	7.30	5.20	Ton/day

WATER YEAR : 2002

SOUTHERN PENINSULA WEST COAST

Khlong Langu at Ban Wang Pa Khian , Satun (X.150)

Lat 06 - 56 - 30 N Long 99 - 52 - 33 E

Location : on right bank at Ban Wang Pa Khian.

Ban Wang Pa Khian **Amphoe** Langu **Changwat** Satun

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	1998 - 2002
Number of observation	130
R-Square	0.8180
Remarks	Continued Sediment Station

$$QS = 1.2236\ QW^{1.24640}$$

Suspended Sediment , in Tons per Day. Water Year 1 April 2002 to 31 March 2003

Date	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual	
1	4.90	5.30	4.70	4.50	18.00	101.00	183.40	48.70	49.90	40.60	10.90	5.70		
2	4.70	4.50	4.50	5.10	646.60	93.60	133.90	40.00	130.00	31.30	10.50	5.50		
3	4.50	4.20	4.40	4.70	812.80	49.90	199.70	34.00	66.00	87.00	10.50	5.30		
4	4.40	4.00	5.10	4.50	438.80	45.50	177.90	40.60	45.50	51.20	10.10	5.30		
5	4.70	3.80	6.10	5.70	203.20	49.30	150.50	42.40	36.40	37.60	9.40	5.30		
6	6.30	3.60	9.00	6.30	50.60	53.80	111.60	57.70	34.00	31.80	9.00	5.50		
7	5.50	3.80	10.90	5.90	37.00	34.60	86.20	65.30	31.30	28.70	8.30	5.90		
8	6.10	5.70	10.10	6.30	76.20	29.20	243.80	53.80	38.20	25.60	7.90	5.70		
9	5.10	80.00	10.90	5.90	152.50	85.40	170.20	69.50	30.70	24.10	7.90	5.30		
10	4.70	34.60	6.90	15.10	117.80	220.90	216.20	55.70	26.60	22.70	7.60	4.70		
11	5.90	49.90	83.90	25.60	115.10	428.60	91.90	46.10	24.10	21.40	7.60	4.70		
12	4.90	32.30	22.20	41.80	87.80	172.40	176.80	46.10	23.20	20.90	8.30	4.50		
13	4.90	15.90	18.00	27.10	53.80	85.40	321.30	39.40	24.60	20.10	8.30	5.50		
14	4.90	9.70	15.50	16.30	38.80	57.70	156.40	35.80	69.50	19.20	7.90	5.10		
15	4.50	7.60	18.40	10.90	29.70	44.30	89.40	43.70	69.50	18.40	7.60	4.50		
16	4.20	6.50	10.90	14.70	25.10	37.60	156.40	32.80	41.80	18.00	6.70	4.40		
17	4.50	5.90	10.10	10.90	22.20	54.40	88.60	30.70	36.40	18.80	6.90	4.20		
18	4.70	5.70	10.50	16.70	19.70	113.30	73.90	27.60	91.10	18.80	7.20	4.20		
19	4.20	5.10	22.20	19.70	17.60	110.70	72.40	88.60	62.50	17.20	7.20	4.00		
20	3.80	4.90	15.10	11.20	18.00	60.40	61.10	115.10	46.80	16.30	6.70	4.00		
21	3.80	4.70	9.70	8.60	17.60	55.70	49.90	114.20	36.40	15.50	6.50	3.80		
22	3.80	4.50	7.20	7.20	15.10	375.50	62.50	296.90	32.30	14.70	6.50	3.60		
23	3.60	4.50	6.30	6.50	12.80	950.80	58.30	148.50	29.70	14.70	6.30	3.60		
24	3.40	4.90	5.90	6.10	12.40	846.60	48.00	77.70	27.10	14.30	6.30	3.60		
25	3.60	7.90	5.70	6.10	20.50	490.60	56.40	157.40	24.60	13.90	6.10	4.20		
26	6.50	9.00	5.10	9.40	19.70	157.40	83.10	80.80	23.60	13.10	5.90	5.30		
27	15.50	7.20	4.90	7.90	51.80	213.80	59.00	59.00	23.60	13.10	5.90	11.60		
28	8.60	6.90	5.10	6.30	29.20	241.40	43.00	48.00	48.70	12.40	5.70	6.90		
29	14.70	5.70	5.50	6.90	23.20	207.90	69.50	41.80	27.60	11.60		6.70		
30	7.90	4.70	5.10	93.60	27.10	191.50	56.40	41.20	49.90	11.20		12.80		
31		4.50		29.70	40.60		67.40		55.70	11.20		18.00		
Total	168.80	357.50	359.90	447.20	3251.30	5659.20	3615.10	2079.10	1357.30	715.40	215.70	179.40	18405.90	Tonday
Mean	5.63	11.53	12.00	14.43	104.88	188.64	116.62	69.30	43.78	23.08	7.70	5.79		Ton/day
Max	15.50	80.00	83.90	93.60	812.80	950.80	321.30	296.90	130.00	87.00	10.90	18.00	950.80	Ton/day
Min	3.40	3.60	4.40	4.50	12.40	29.20	43.00	27.60	23.20	11.20	5.70	3.60	3.40	Ton/day