Appendix 6-4 Water Level Observation Record and Gates Operation Record

Table 6.4.1 The Upstream Water Level Observation Record（1/7）

Year : 2001 **River : Prek Thnot River** **Station : Roleang Chrey** **Recorder : Mey Nou** **Zero GH : 6.00 m**
34.70 m (MSL)

Month	January				February				March				April				May				June			
Date	Gauge height (m)			Elevation	Gauge height (m)			Elevation	Gauge height (m)			Elevation	Gauge height (m)			Elevation	Gauge height (m)			Elevation	Gauge height (m)			Elevation
	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)
1					7.15	7.15	7.15	35.85	6.96	6.97	6.97	35.67	7.19	7.16	7.18	35.88	7.00	7.01	7.01	35.71	7.05	7.05	7.05	35.75
2					7.13	7.12	7.13	35.83	6.98	7.00	6.99	35.69	7.16	7.22	7.19	35.89	7.02	7.02	7.02	35.72	7.04	7.04	7.04	35.74
3					7.11	7.10	7.11	35.81	7.00	7.00	7.00	35.70	7.25	7.24	7.25	35.95	7.02	7.00	7.01	35.71	7.03	7.03	7.03	35.73
4					7.12	7.08	7.10	35.80	7.00	6.94	6.97	35.67	7.25	7.22	7.24	35.94	6.99	6.96	6.98	35.68	7.03	7.08	7.06	35.76
5					7.08	7.09	7.09	35.79	6.94	6.96	6.95	35.65	7.21	7.16	7.19	35.89	6.96	6.96	6.96	35.66	7.09	7.08	7.09	35.79
6					7.09	7.09	7.09	35.79	6.97	6.97	6.97	35.67	7.14	7.12	7.13	35.83	6.96	6.96	6.96	35.66	7.05	7.05	7.05	35.75
7					7.09	7.09	7.09	35.79	6.97	6.94	6.96	35.66	7.12	7.11	7.12	35.82	6.95	6.95	6.95	35.65	7.06	7.11	7.09	35.79
8					7.09	7.09	7.09	35.79	6.93	6.93	6.93	35.63	7.10	7.09	7.10	35.80	6.95	6.95	6.95	35.65	7.12	7.13	7.13	35.83
9					7.09	7.09	7.09	35.79	6.93	6.94	6.94	35.64	7.08	7.07	7.08	35.78	6.96	6.98	6.97	35.67	7.18	7.20	7.19	35.89
10					7.08	7.08	7.08	35.78	6.94	6.94	6.94	35.64	7.06	7.01	7.04	35.74	6.98	6.98	6.98	35.68	7.25	7.28	7.27	35.97
11					7.07	7.05	7.06	35.76	6.95	6.95	6.95	35.65	7.03	7.02	7.03	35.73	7.00	7.00	7.00	35.70	7.25	6.12	6.69	35.39
12					7.05	7.05	7.05	35.75	6.95	6.95	6.95	35.65	7.04	7.04	7.04	35.74	7.00	6.99	7.00	35.70	5.20	3.46	4.33	33.03
13					7.05	7.04	7.05	35.75	6.95	6.97	6.96	35.66	7.04	7.04	7.04	35.74	6.98	6.98	6.98	35.68	5.93	6.18	6.06	34.76
14					7.05	7.05	7.05	35.75	6.98	6.98	6.98	35.68	7.04	7.04	7.04	35.74	6.98	6.95	6.97	35.67	6.40	6.48	6.44	35.14
15					7.05	7.05	7.05	35.75	6.98	6.98	6.98	35.68	7.03	7.02	7.03	35.73	6.94	6.94	6.94	35.64	6.61	6.67	6.64	35.34
16					7.05	7.05	7.05	35.75	6.98	7.01	7.00	35.70	7.01	7.00	7.01	35.71	6.98	6.99	6.99	35.69	6.72	6.82	6.77	35.47
17					7.05	7.04	7.05	35.75	7.02	7.04	7.03	35.73	6.99	6.94	6.97	35.67	7.02	7.02	7.02	35.72	6.85	6.90	6.88	35.58
18					7.05	7.05	7.05	35.75	7.05	7.14	7.10	35.80	6.92	6.92	6.92	35.62	7.03	7.00	7.02	35.72	6.92	6.94	6.93	35.63
19					7.05	7.05	7.05	35.75	7.20	7.28	7.24	35.94	6.92	6.92	6.92	35.62	7.02	7.00	7.01	35.71	7.02	7.02	7.02	35.72
20					7.05	7.05	7.05	35.75	7.31	7.05	7.18	35.88	6.92	6.92	6.92	35.62	7.04	7.04	7.04	35.74	7.06	7.10	7.08	35.78
21					7.05	7.05	7.05	35.75	5.85	3.84	4.85	33.55	6.94	6.96	6.95	35.65	7.04	7.04	7.04	35.74	7.16	7.16	7.16	35.86
22					7.05	7.05	7.05	35.75	2.34	2.40	2.37	31.07	6.96	6.96	6.96	35.66	7.05	7.05	7.05	35.75	7.16	7.14	7.15	35.85
23					7.05	7.00	7.03	35.73	5.60	6.74	6.17	34.87	6.94	6.88	6.91	35.61	7.05	7.05	7.05	35.75	7.11	7.10	7.11	35.81
24					7.00	7.00	7.00	35.70	7.04	7.13	7.09	35.79	6.88	6.88	6.88	35.58	7.06	7.04	7.05	35.75	7.10	7.12	7.11	35.81
25					7.00	7.00	7.00	35.70	7.16	7.17	7.17	35.87	6.88	6.86	6.87	35.57	7.03	7.03	7.03	35.73	7.12	7.16	7.14	35.84
26					7.00	6.96	6.98	35.68	7.17	7.17	7.17	35.87	6.86	6.82	6.84	35.54	7.03	7.03	7.03	35.73	7.20	7.28	7.24	35.94
27					6.96	6.95	6.96	35.66	7.16	7.14	7.15	35.85	6.81	6.81	6.81	35.51	7.03	7.00	7.02	35.72	7.31	7.16	7.24	35.94
28					6.95	6.95	6.95	35.65	7.11	7.08	7.10	35.80	6.82	6.84	6.83	35.53	7.00	7.00	7.00	35.70	7.20	6.74	6.97	35.67
29									7.08	7.08	7.08	35.78	6.88	6.90	6.89	35.59	7.00	7.00	7.00	35.70	5.90	4.74	5.32	34.02
30									7.07	7.06	7.07	35.77	6.95	6.97	6.96	35.66	6.99	6.99	6.99	35.69	3.90	3.90	3.90	32.60
31									7.11	7.18	7.15	35.85					6.99	6.98	6.99	35.69				
Average					7.06	7.05	**7.05**	**35.75**	6.80	6.77	**6.78**	**35.48**	7.01	7.00	**7.01**	**35.71**	7.00	7.00	**7.00**	**35.70**	6.80	6.67	**6.74**	**35.44**
Max					7.15	7.15	**7.15**	**35.85**	7.31	7.28	**7.31**	**36.01**	7.25	7.24	**7.25**	**35.95**	7.06	7.05	**7.06**	**35.76**	7.31	7.28	**7.31**	**36.01**
Min					6.95	6.95	**6.95**	**35.65**	2.34	2.40	**2.34**	**31.04**	6.81	6.81	**6.81**	**35.51**	6.94	6.94	**6.94**	**35.64**	3.90	3.46	**3.46**	**32.16**

Month	July				August				September				October				November				December			
Date	Gauge height (m)			Elevation	Gauge height (m)			Elevation	Gauge height (m)			Elevation	Gauge height (m)			Elevation	Gauge height (m)			Elevation	Gauge height (m)			Elevation
	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)
1	3.70	6.28	4.99	33.69	7.14	7.10	7.12	35.82	7.04	7.14	7.09	35.79	6.56	6.52	6.54	35.24	3.90	4.12	4.01	32.71	7.12	7.12	7.12	35.82
2	7.31	7.28	7.30	36.00	7.12	7.12	7.12	35.82	7.22	7.10	7.16	35.86	5.75	5.90	5.83	34.53	4.02	5.70	4.86	33.56	7.13	7.14	7.14	35.84
3	7.13	7.10	7.12	35.82	7.12	7.14	7.13	35.83	6.80	7.12	6.96	35.66	6.34	6.75	6.55	35.25	6.62	6.86	6.74	35.44	7.14	7.14	7.14	35.84
4	7.06	6.80	6.93	35.63	7.16	7.18	7.17	35.87	7.13	7.12	7.13	35.83	6.56	6.64	6.60	35.30	6.90	6.22	6.56	35.26	7.16	7.14	7.15	35.85
5	5.66	5.78	5.72	34.42	7.18	7.16	7.17	35.87	7.12	7.12	7.12	35.82	6.52	6.34	6.43	35.13	6.00	4.04	5.02	33.72	7.13	7.10	7.12	35.82
6	5.86	5.56	5.71	34.41	7.16	7.19	7.18	35.88	6.98	6.68	6.83	35.53	6.18	6.34	6.26	34.96	3.50	3.14	3.32	32.02	7.12	7.12	7.12	35.82
7	5.88	5.78	5.83	34.53	7.22	7.32	7.27	35.97	6.18	5.02	5.60	34.30	6.28	6.38	6.33	35.03	2.00	6.80	4.40	33.10	7.12	7.12	7.12	35.82
8	6.58	6.76	6.67	35.37	7.14	7.08	7.11	35.81	6.78	7.20	6.99	35.69	6.44	6.38	6.41	35.11	7.34	7.12	7.23	35.93	7.12	7.12	7.12	35.82
9	6.58	5.94	6.26	34.96	7.02	6.58	6.80	35.50	7.23	7.11	7.17	35.87	6.56	6.66	6.61	35.31	6.96	6.20	6.58	35.28	7.11	7.11	7.11	35.81
10	4.58	4.46	4.52	33.22	4.40	6.84	5.62	34.32	7.00	6.92	6.96	35.66	6.84	7.10	6.97	35.67	4.10	4.90	4.50	33.20	7.11	7.11	7.11	35.81
11	5.68	5.54	5.61	34.31	6.40	6.84	6.62	35.32	6.86	5.56	6.21	34.91	7.14	7.22	7.18	35.88	5.30	7.14	6.22	34.92	7.11	7.11	7.11	35.81
12	5.42	5.44	5.43	34.13	7.32	7.24	7.28	35.98	6.62	7.02	6.82	35.52	7.13	7.10	7.12	35.82	7.30	7.36	7.33	36.03	7.10	7.10	7.10	35.80
13	6.16	7.32	6.74	35.44	7.36	6.62	6.99	35.69	7.22	7.30	7.26	35.96	6.96	6.56	6.76	35.46	6.62	5.71	6.17	34.87	7.12	7.12	7.12	35.82
14	6.58	6.32	6.45	35.15	7.06	7.12	7.09	35.79	7.31	7.32	7.32	36.02	5.98	6.02	6.00	34.70	2.04	5.30	3.67	32.37	7.13	7.16	7.15	35.85
15	6.36	5.23	5.80	34.50	6.30	6.72	6.51	35.21	7.20	7.20	7.20	35.90	5.30	6.50	5.90	34.60	6.34	6.80	6.57	35.27	7.20	7.22	7.21	35.91
16	2.42	6.10	4.26	32.96	6.74	6.90	6.82	35.52	7.20	7.19	7.20	35.90	6.56	6.64	6.60	35.30	7.10	7.22	7.16	35.86	7.20	7.20	7.20	35.90
17	6.86	7.24	7.05	35.75	6.90	6.92	6.91	35.61	7.19	7.22	7.21	35.91	4.56	3.16	3.86	32.56	7.23	7.23	7.23	35.93	7.18	7.17	7.18	35.88
18	7.18	7.15	7.17	35.87	6.95	7.10	7.03	35.73	7.30	7.20	7.25	35.95	3.68	4.70	4.19	32.89	7.28	7.26	7.27	35.97	7.17	7.16	7.17	35.87
19	7.10	7.04	7.07	35.77	7.20	7.24	7.22	35.92	7.26	7.20	7.23	35.93	4.52	5.26	4.89	33.59	7.27	7.25	7.26	35.96	7.16	7.15	7.16	35.86
20	6.95	4.62	5.79	34.49	7.23	7.14	7.19	35.89	7.08	7.18	7.13	35.83	5.53	6.24	5.89	34.59	7.25	7.20	7.23	35.93	7.14	7.13	7.14	35.84
21	5.12	6.14	5.63	34.33	6.96	7.02	6.99	35.69	7.28	7.12	7.20	35.90	6.60	6.74	6.67	35.37	7.20	7.20	7.20	35.90	7.13	7.12	7.13	35.83
22	6.48	6.70	6.59	35.29	6.99	6.86	6.93	35.63	7.12	7.12	7.12	35.82	6.62	6.60	6.61	35.31	7.20	7.20	7.20	35.90	7.12	7.12	7.12	35.82
23	6.88	7.09	6.99	35.69	6.82	7.20	7.01	35.71	6.66	6.32	6.49	35.19	6.38	6.68	6.53	35.23	7.20	7.18	7.19	35.89	7.11	7.10	7.11	35.81
24	7.12	7.24	7.18	35.88	7.05	7.16	7.11	35.81	6.92	5.42	6.17	34.87	6.42	6.68	6.55	35.25	7.18	7.16	7.17	35.87	7.10	7.10	7.10	35.80
25	7.24	7.22	7.23	35.93	6.84	6.56	6.70	35.40	5.15	4.04	4.60	33.30	5.48	5.52	5.50	34.20	7.16	7.12	7.14	35.84	7.08	7.07	7.08	35.78
26	7.25	7.24	7.25	35.95	6.58	5.62	6.10	34.80	3.90	4.04	3.97	32.67	5.32	5.32	5.32	34.02	7.14	7.15	7.15	35.85	7.07	7.07	7.07	35.77
27	7.25	7.24	7.25	35.95	4.10	6.78	5.44	34.14	4.16	4.80	4.48	33.18	4.66	5.78	5.22	33.92	7.16	7.16	7.16	35.86	7.08	7.08	7.08	35.78
28	7.22	7.22	7.22	35.92	7.30	7.22	7.26	35.96	5.21	5.56	5.39	34.09	4.64	4.26	4.45	33.15	7.16	7.16	7.16	35.86	7.08	7.08	7.08	35.78
29	7.22	7.18	7.20	35.90	7.10	7.14	7.12	35.82	5.58	6.22	5.90	34.60	4.10	3.64	3.87	32.57	7.19	7.13	7.16	35.86	7.08	7.08	7.08	35.78
30	7.19	7.18	7.19	35.89	7.28	7.14	7.21	35.91	5.95	6.52	6.24	34.94	3.48	3.02	3.25	31.95	7.12	7.10	7.11	35.81	7.08	7.08	7.08	35.78
31	7.18	7.14	7.16	35.86	7.06	7.16	7.11	35.81					3.64	3.74	3.69	32.39					7.07	7.07	7.07	35.77
Average	6.36	6.49	**6.43**	**35.13**	6.85	6.98	**6.91**	**35.61**	6.62	6.54	**6.58**	**35.28**	5.77	5.88	**5.82**	**34.52**	6.23	6.50	**6.37**	**35.07**	7.12	7.12	**7.12**	**35.82**
Max	7.31	7.32	**7.32**	**36.02**	7.36	7.32	**7.36**	**36.06**	7.31	7.32	**7.32**	**36.02**	7.14	7.22	**7.22**	**35.92**	7.34	7.36	**7.36**	**36.06**	7.20	7.22	**7.22**	**35.92**
Min	2.42	4.46	**2.42**	**31.12**	4.10	5.62	**4.10**	**32.80**	3.90	4.04	**3.90**	**32.60**	3.48	3.02	**3.02**	**31.72**	2.00	3.14	**2.00**	**30.70**	7.07	7.07	**7.07**	**35.77**

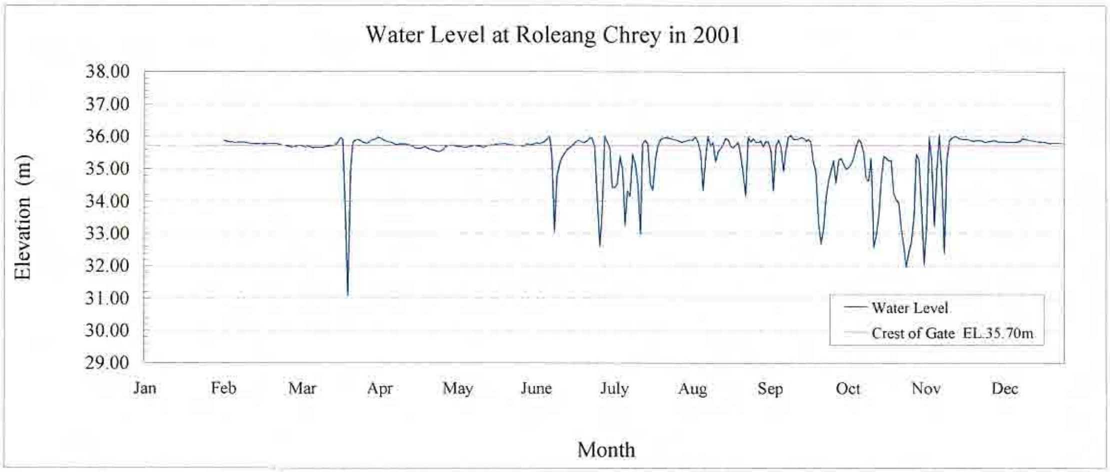


Table 6.4.1 The Upstream Water Level Observation Record （2/7）

Year : 2002 **River : Prek Thnot River** **Station : Roleang Chrey** **Recorder : Mey Nou** **Zero GH : 6.00 m**
34.70 m (MSL)

Month	January				February				March				April				May				June			
Date	Gauge height (m)			Elevation	Gauge height (m)			Elevation	Gauge height (m)			Elevation	Gauge height (m)			Elevation	Gauge height (m)			Elevation	Gauge height (m)			Elevation
	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)
1	7.06	7.06	7.06	35.76	6.82	6.82	6.82	35.52	6.62	6.62	6.62	35.32	6.58	6.60	6.59	35.29	7.00	7.07	7.04	35.74	5.35	5.38	5.37	34.07
2	7.06	7.06	7.06	35.76	6.83	6.83	6.83	35.53	6.62	6.62	6.62	35.32	6.60	6.61	6.61	35.31	7.10	7.10	7.10	35.80	5.40	5.45	5.43	34.13
3	7.04	7.04	7.04	35.74	6.84	6.85	6.85	35.55	6.62	6.64	6.63	35.33	6.61	6.60	6.61	35.31	7.08	7.04	7.06	35.76	5.49	5.54	5.52	34.22
4	7.04	7.04	7.04	35.74	6.85	6.80	6.83	35.53	6.54	6.54	6.54	35.24	6.58	6.52	6.55	35.25	7.04	7.05	7.05	35.75	5.56	5.46	5.51	34.21
5	7.04	7.04	7.04	35.74	6.80	6.80	6.80	35.50	6.54	6.54	6.54	35.24	6.48	6.46	6.47	35.17	7.04	7.04	7.04	35.74	5.50	5.52	5.51	34.21
6	7.04	7.04	7.04	35.74	6.80	6.81	6.81	35.51	6.53	6.53	6.53	35.23	6.44	6.48	6.46	35.16	7.04	7.04	7.04	35.74	5.55	5.54	5.55	34.25
7	7.04	7.04	7.04	35.74	6.82	6.84	6.83	35.53	6.53	6.52	6.53	35.23	6.48	6.48	6.48	35.18	7.05	7.05	7.05	35.75	5.58	5.60	5.59	34.29
8	7.04	7.04	7.04	35.74	6.84	6.84	6.84	35.54	6.51	6.51	6.51	35.21	6.48	6.48	6.48	35.18	7.07	7.08	7.08	35.78	5.62	5.64	5.63	34.33
9	7.04	7.03	7.04	35.74	6.84	6.84	6.84	35.54	6.50	6.50	6.50	35.20	6.48	6.48	6.48	35.18	7.05	7.04	7.05	35.75	5.65	5.66	5.66	34.36
10	7.03	6.96	7.00	35.70	6.84	6.84	6.84	35.54	6.50	6.50	6.50	35.20	6.46	6.42	6.44	35.14	7.04	7.04	7.04	35.74	5.69	5.70	5.70	34.40
11	6.98	6.98	6.98	35.68	6.84	6.84	6.84	35.54	6.41	6.42	6.42	35.12	6.42	6.50	6.46	35.16	7.03	7.00	7.02	35.72	5.72	5.74	5.73	34.43
12	6.98	6.98	6.98	35.68	6.84	6.78	6.81	35.51	6.41	6.41	6.41	35.11	6.50	6.42	6.46	35.16	7.01	7.02	7.02	35.72	5.80	5.79	5.80	34.50
13	6.98	6.98	6.98	35.68	6.78	6.78	6.78	35.48	6.41	6.41	6.41	35.11	6.62	6.72	6.67	35.37	7.04	7.05	7.05	35.75	5.82	5.90	5.86	34.56
14	6.96	6.96	6.96	35.66	6.78	6.78	6.78	35.48	6.41	6.40	6.41	35.11	6.78	6.82	6.80	35.50	7.05	7.06	7.06	35.76	6.00	6.10	6.05	34.75
15	6.94	6.90	6.92	35.62	6.77	6.70	6.74	35.44	6.40	6.40	6.40	35.10	6.85	6.92	6.89	35.59	7.08	7.06	7.07	35.77	6.28	6.34	6.31	35.01
16	6.90	6.90	6.90	35.60	6.70	6.70	6.70	35.40	6.42	6.43	6.43	35.13	6.92	6.97	6.95	35.65	7.06	7.05	7.06	35.76	6.42	6.48	6.45	35.15
17	6.91	6.84	6.88	35.58	6.70	6.70	6.70	35.40	6.44	6.40	6.42	35.12	6.98	6.99	6.99	35.69	7.04	7.02	7.03	35.73	6.56	6.54	6.55	35.25
18	6.86	6.88	6.87	35.57	6.70	6.70	6.70	35.40	6.44	6.44	6.44	35.14	7.02	7.02	7.02	35.72	7.03	7.05	7.04	35.74	6.58	6.60	6.59	35.29
19	6.90	6.93	6.92	35.62	6.70	6.72	6.71	35.41	6.38	6.34	6.36	35.06	7.02	7.03	7.03	35.73	7.04	7.02	7.03	35.73	6.68	6.74	6.71	35.41
20	6.92	6.94	6.93	35.63	6.72	6.73	6.73	35.43	6.34	6.33	6.34	35.04	7.03	7.03	7.03	35.73	7.02	7.03	7.03	35.73	6.76	6.77	6.77	35.47
21	6.94	6.96	6.95	35.65	6.74	6.74	6.74	35.44	6.33	6.33	6.33	35.03	7.04	6.97	7.01	35.71	7.04	7.03	7.04	35.74	6.80	6.79	6.80	35.50
22	6.98	6.98	6.98	35.68	6.74	6.74	6.74	35.44	6.33	6.33	6.33	35.03	7.02	7.04	7.03	35.73	7.02	7.02	7.02	35.72	6.82	6.83	6.83	35.53
23	6.98	6.95	6.97	35.67	6.74	6.72	6.73	35.43	6.33	6.24	6.29	34.99	7.04	7.02	7.03	35.73	7.02	7.02	7.02	35.72	6.84	6.86	6.85	35.55
24	6.92	6.93	6.93	35.63	6.72	6.71	6.72	35.42	6.24	6.24	6.24	34.94	7.00	6.98	6.99	35.69	7.02	5.78	6.40	35.10	6.87	6.80	6.84	35.54
25	6.92	6.90	6.91	35.61	6.70	6.70	6.70	35.40	6.24	6.23	6.24	34.94	6.98	6.97	6.98	35.68	3.52	4.02	3.77	32.47	6.82	6.80	6.81	35.51
26	6.91	6.91	6.91	35.61	6.68	6.67	6.68	35.38	6.22	6.34	6.28	34.98	6.99	6.98	6.99	35.69	4.18	4.32	4.25	32.95	6.82	6.80	6.81	35.51
27	6.91	6.91	6.91	35.61	6.66	6.60	6.63	35.33	6.34	6.35	6.35	35.05	7.04	7.02	7.03	35.73	4.54	4.60	4.57	33.27	6.89	6.90	6.90	35.60
28	6.91	6.90	6.91	35.61	6.62	6.62	6.62	35.32	6.33	6.33	6.33	35.03	7.02	7.02	7.02	35.72	4.81	4.97	4.89	33.59	7.06	7.20	7.13	35.83
29	6.90	6.89	6.90	35.60					6.37	6.52	6.45	35.15	7.04	7.04	7.04	35.74	5.10	4.96	5.03	33.73	7.24	7.20	7.22	35.92
30	6.88	6.85	6.87	35.57					6.56	6.56	6.56	35.26	7.04	7.02	7.03	35.73	5.10	5.04	5.07	33.77	7.20	7.16	7.18	35.88
31	6.85	6.82	6.84	35.54					6.56	6.57	6.57	35.27					5.26	5.20	5.23	33.93				
Average	6.96	6.96	**6.96**	**35.66**	6.76	6.76	**6.76**	**35.46**	6.43	6.44	**6.43**	**35.13**	6.78	6.79	**6.79**	**35.49**	6.50	6.48	**6.49**	**35.19**	6.25	6.26	**6.25**	**34.95**
Max	7.06	7.06	**7.06**	**35.76**	6.85	6.85	**6.85**	**35.55**	6.62	6.64	**6.64**	**35.34**	7.04	7.04	**7.04**	**35.74**	7.10	7.10	**7.10**	**35.80**	7.24	7.20	**7.24**	**35.94**
Min	6.85	6.82	**6.82**	**35.52**	6.62	6.60	**6.60**	**35.30**	6.22	6.23	**6.22**	**34.92**	6.42	6.42	**6.42**	**35.12**	3.52	4.02	**3.52**	**32.22**	5.35	5.38	**5.35**	**34.05**

Month	July				August				September				October				November				December			
Date	Gauge height (m)			Elevation	Gauge height (m)			Elevation	Gauge height (m)			Elevation	Gauge height (m)			Elevation	Gauge height (m)			Elevation	Gauge height (m)			Elevation
	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)
1	7.15	7.08	7.12	35.82	6.74	6.73	6.74	35.44	0.73	7.10	3.92	32.62	7.12	7.20	7.16	35.86	6.86	5.64	6.25	34.95	7.01	7.06	7.04	35.74
2	7.04	7.04	7.04	35.74	6.77	6.76	6.77	35.47	7.12	7.16	7.14	35.84	7.23	7.20	7.22	35.92	6.80	7.27	7.04	35.74	6.60	4.70	5.65	34.35
3	7.05	7.04	7.05	35.75	6.77	6.74	6.76	35.46	7.10	7.05	7.08	35.78	7.21	7.22	7.22	35.92	7.32	7.06	7.19	35.89	3.00	6.00	4.50	33.20
4	7.08	6.98	7.03	35.73	6.73	6.70	6.72	35.42	6.92	6.96	6.94	35.64	7.16	7.10	7.13	35.83	6.88	6.24	6.56	35.26	6.86	7.27	7.07	35.77
5	6.97	6.98	6.98	35.68	6.70	6.68	6.69	35.39	7.05	6.90	6.98	35.68	7.14	7.22	7.18	35.88	5.40	6.42	5.91	34.61	7.00	5.84	6.42	35.12
6	7.04	7.04	7.04	35.74	6.68	6.70	6.69	35.39	6.54	5.68	6.11	34.81	7.10	6.88	6.99	35.69	7.02	7.26	7.14	35.84	2.60	4.80	3.70	32.40
7	7.04	7.05	7.05	35.75	6.72	6.80	6.76	35.46	4.50	6.54	5.52	34.22	7.12	7.28	7.20	35.90	7.12	6.72	6.92	35.62	6.24	6.84	6.54	35.24
8	7.06	7.00	7.03	35.73	6.90	7.00	6.95	35.65	7.13	5.64	6.39	35.09	7.09	6.96	7.03	35.73	6.50	4.86	5.68	34.38	7.18	7.28	7.23	35.93
9	7.16	7.19	7.18	35.88	7.12	7.10	7.11	35.81	6.60	7.02	6.81	35.51	6.90	6.92	6.91	35.61	5.64	5.50	5.57	34.27	6.88	5.76	6.32	35.02
10	7.22	7.20	7.21	35.91	7.13	7.09	7.11	35.81	7.12	7.20	7.16	35.86	6.88	6.64	6.76	35.46	4.65	4.88	4.77	33.47	4.38	4.70	4.54	33.24
11	7.20	7.16	7.18	35.88	7.12	7.08	7.10	35.80	7.00	6.88	6.94	35.64	6.86	6.94	6.90	35.60	5.55	6.26	5.91	34.61	6.30	6.94	6.62	35.32
12	7.14	7.12	7.13	35.83	7.10	7.08	7.09	35.79	6.74	6.58	6.66	35.36	6.91	7.10	7.01	35.71	6.62	6.80	6.71	35.41	7.20	7.26	7.23	35.93
13	7.12	7.12	7.12	35.82	7.08	7.00	7.04	35.74	6.32	6.00	6.16	34.86	7.22	7.20	7.21	35.91	7.00	7.03	7.02	35.72	7.28	7.28	7.28	35.98
14	7.14	7.12	7.13	35.83	7.12	7.12	7.12	35.82	5.75	6.30	6.03	34.73	7.08	6.92	7.00	35.70	7.20	7.24	7.22	35.92	7.26	7.22	7.24	35.94
15	7.10	7.04	7.07	35.77	7.12	7.16	7.14	35.84	6.62	6.76	6.69	35.39	6.98	6.88	6.93	35.63	7.26	7.25	7.26	35.96	7.20	7.18	7.19	35.89
16	7.06	7.04	7.05	35.75	7.24	7.24	7.24	35.94	6.86	6.88	6.87	35.57	6.80	5.72	6.26	34.96	7.24	7.23	7.24	35.94	7.16	7.16	7.16	35.86
17	6.97	6.92	6.95	35.65	7.12	7.04	7.08	35.78	6.80	6.78	6.79	35.49	6.00	6.08	6.04	34.74	7.23	7.22	7.23	35.93	7.16	7.16	7.16	35.86
18	6.84	6.82	6.83	35.53	6.90	6.74	6.82	35.52	6.76	6.66	6.71	35.41	6.00	6.03	6.02	34.72	7.28	7.28	7.28	35.98	7.17	7.16	7.17	35.87
19	6.76	6.76	6.76	35.46	6.50	6.68	6.59	35.29	6.36	6.32	6.34	35.04	6.56	6.80	6.68	35.38	7.22	7.16	7.19	35.89	7.16	7.16	7.16	35.86
20	6.78	6.78	6.78	35.48	7.00	7.14	7.07	35.77	5.64	6.88	6.26	34.96	6.90	6.97	6.94	35.64	7.18	7.18	7.18	35.88	7.16	7.15	7.16	35.86
21	6.76	6.78	6.77	35.47	7.10	7.14	7.12	35.82	7.28	7.26	7.27	35.97	7.00	7.03	7.02	35.72	7.25	7.25	7.25	35.95	7.14	7.13	7.14	35.84
22	6.76	6.78	6.77	35.47	7.16	5.36	6.26	34.96	7.24	7.19	7.22	35.92	7.04	7.06	7.05	35.75	7.23	7.22	7.23	35.93	7.13	7.13	7.13	35.83
23	6.78	6.78	6.78	35.48	4.20	7.06	5.63	34.33	7.18	7.23	7.21	35.91	7.10	7.08	7.09	35.79	7.16	7.18	7.17	35.87	7.13	7.16	7.15	35.85
24	6.78	6.76	6.77	35.47	5.96	6.64	6.30	35.00	7.26	7.12	7.19	35.89	7.08	7.08	7.08	35.78	7.04	7.00	7.02	35.72	7.20	7.20	7.20	35.90
25	6.72	6.66	6.69	35.39	6.90	7.10	7.00	35.70	7.14	7.12	7.13	35.83	7.08	7.08	7.08	35.78	6.94	6.66	6.80	35.50	7.17	7.15	7.16	35.86
26	6.66	6.64	6.65	35.35	6.88	6.48	6.68	35.38	7.18	7.16	7.17	35.87	7.18	7.17	7.18	35.88	4.54	6.46	5.50	34.20	7.14	7.12	7.13	35.83
27	6.66	6.60	6.63	35.33	4.60	5.82	5.21	33.91	6.94	6.84	6.89	35.59	7.10	7.10	7.10	35.80	6.74	6.83	6.79	35.49	7.12	7.10	7.11	35.81
28	6.62	6.60	6.61	35.31	6.10	6.40	6.25	34.95	6.85	6.93	6.89	35.59	7.22	7.18	7.20	35.90	6.92	7.06	6.99	35.69	7.10	7.10	7.10	35.80
29	6.60	6.60	6.60	35.30	6.52	6.42	6.47	35.17	7.01	7.08	7.05	35.75	7.02	6.60	6.81	35.51	7.16	7.17	7.17	35.87	7.10	7.09	7.10	35.80
30	6.62	6.60	6.61	35.31	6.45	5.34	5.90	34.60	7.08	7.08	7.08	35.78	5.70	6.32	6.01	34.71	7.19	7.20	7.20	35.90	7.09	7.09	7.09	35.79
31	6.64	6.60	6.62	35.32	6.62	7.18	6.90	35.60					7.14	6.98	7.06	35.76					7.07	7.06	7.07	35.77
Average	6.92	6.90	**6.91**	**35.61**	6.68	6.76	**6.72**	**35.42**	6.56	6.81	**6.69**	**35.39**	6.93	6.90	**6.92**	**35.62**	6.74	6.75	**6.74**	**35.44**	6.68	6.78	**6.73**	**35.43**
Max	7.22	7.20	**7.22**	**35.92**	7.24	7.24	**7.24**	**35.94**	7.28	7.26	**7.28**	**35.98**	7.23	7.28	**7.28**	**35.98**	7.32	7.28	**7.32**	**36.02**	7.28	7.28	**7.28**	**35.98**
Min	6.60	6.60	**6.60**	**35.30**	4.20	5.34	**4.20**	**32.90**	0.73	5.64	**0.73**	**29.43**	5.70	5.72	**5.70**	**34.40**	4.54	4.86	**4.54**	**33.24**	2.60	4.70	**2.60**	**31.30**

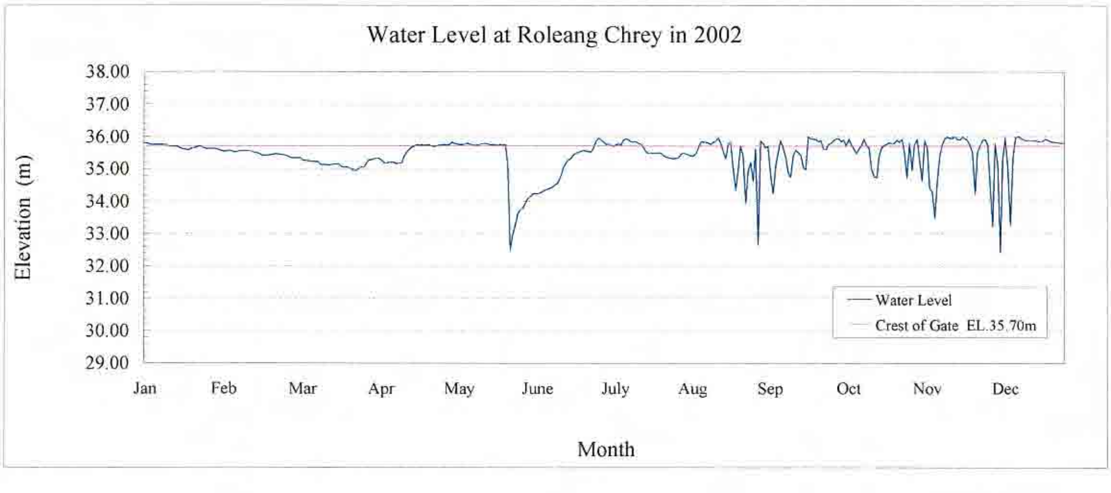


Table 6.4.1 The Upstream Water Level Observation Record（3/7）

Year : 2003 **River : Prek Thnot River** **Station : Roleang Chrey** **Recorder : Mey Nou** **Zero GH : 6.00 m**
34.70 m (MSL)

Month	January				February				March				April				May				June			
Date	Gauge height (m)			Elevation	Gauge height (m)			Elevation	Gauge height (m)			Elevation	Gauge height (m)			Elevation	Gauge height (m)			Elevation	Gauge height (m)			Elevation
	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)
1	7.05	7.06	7.06	35.76	6.82	6.78	6.80	35.50	6.38	6.36	6.37	35.07	7.10	7.15	7.13	35.83	7.08	7.12	7.10	35.80	7.10	7.09	7.10	35.80
2	7.06	7.06	7.06	35.76	6.78	6.74	6.76	35.46	6.40	6.41	6.41	35.11	7.16	7.15	7.16	35.86	7.10	7.08	7.09	35.79	7.08	7.10	7.09	35.79
3	7.04	7.02	7.03	35.73	6.74	6.73	6.74	35.44	6.42	6.43	6.43	35.13	7.14	7.10	7.12	35.82	7.05	7.05	7.05	35.75	7.13	7.12	7.13	35.83
4	7.00	6.98	6.99	35.69	6.72	6.72	6.72	35.42	6.44	6.44	6.44	35.14	7.09	7.08	7.09	35.79	7.08	7.07	7.08	35.78	7.08	7.12	7.10	35.80
5	7.00	7.00	7.00	35.70	6.72	6.72	6.72	35.42	6.44	6.40	6.42	35.12	7.08	7.08	7.08	35.78	7.07	7.07	7.07	35.77	7.16	7.16	7.16	35.86
6	7.02	7.00	7.01	35.71	6.72	6.71	6.72	35.42	6.40	6.36	6.38	35.08	7.08	7.06	7.07	35.77	7.07	7.06	7.07	35.77	7.12	7.11	7.12	35.82
7	6.99	7.00	7.00	35.70	6.70	6.68	6.69	35.39	6.36	6.36	6.36	35.06	7.05	7.02	7.04	35.74	7.05	7.02	7.04	35.74	7.08	7.08	7.08	35.78
8	7.00	7.00	7.00	35.70	6.68	6.66	6.67	35.37	6.37	6.32	6.35	35.05	7.02	6.98	7.00	35.70	7.01	7.00	7.01	35.71	7.09	7.08	7.09	35.79
9	7.00	7.02	7.01	35.71	6.66	6.66	6.66	35.36	6.36	6.30	6.33	35.03	6.98	6.99	6.99	35.69	6.97	6.90	6.94	35.64	7.08	7.06	7.07	35.77
10	7.04	7.01	7.03	35.73	6.66	6.64	6.65	35.35	6.30	6.31	6.31	35.01	7.00	7.01	7.01	35.71	6.98	6.97	6.98	35.68	7.04	7.04	7.04	35.74
11	7.01	7.00	7.01	35.71	6.64	6.62	6.63	35.33	6.32	6.36	6.34	35.04	7.01	7.02	7.02	35.72	6.97	6.97	6.97	35.67	7.04	7.00	7.02	35.72
12	7.00	6.98	6.99	35.69	6.62	6.60	6.61	35.31	6.70	6.96	6.83	35.53	7.02	6.96	6.99	35.69	6.97	6.97	6.97	35.67	7.00	7.00	7.00	35.70
13	6.98	6.98	6.98	35.68	6.59	6.56	6.58	35.28	7.12	7.14	7.13	35.83	6.92	6.88	6.90	35.60	7.01	7.03	7.02	35.72	7.00	6.94	6.97	35.67
14	6.98	7.00	6.99	35.69	6.56	6.50	6.53	35.23	7.16	7.13	7.15	35.85	6.86	6.82	6.84	35.54	7.03	7.03	7.03	35.73	6.94	6.92	6.93	35.63
15	7.00	6.99	7.00	35.70	6.50	6.49	6.50	35.20	7.12	7.10	7.11	35.81	6.80	6.77	6.79	35.49	7.04	7.05	7.05	35.75	6.92	6.91	6.92	35.62
16	6.99	6.98	6.99	35.69	6.49	6.48	6.49	35.19	7.08	7.04	7.06	35.76	6.76	6.74	6.75	35.45	7.06	7.04	7.05	35.75	6.90	6.82	6.86	35.56
17	6.98	6.95	6.97	35.67	6.48	6.46	6.47	35.17	7.04	7.00	7.02	35.72	6.72	6.70	6.71	35.41	7.05	7.06	7.06	35.76	6.84	6.84	6.84	35.54
18	6.94	6.96	6.95	35.65	6.46	6.44	6.45	35.15	7.01	7.01	7.01	35.71	6.69	6.68	6.69	35.39	7.07	7.08	7.08	35.78	6.85	6.86	6.86	35.56
19	6.96	6.97	6.97	35.67	6.44	6.43	6.44	35.14	7.01	7.01	7.01	35.71	6.68	6.67	6.68	35.38	7.09	7.09	7.09	35.79	6.88	6.88	6.88	35.58
20	6.98	6.97	6.98	35.68	6.43	6.43	6.43	35.13	7.00	7.00	7.00	35.70	6.67	6.67	6.67	35.37	7.09	7.10	7.10	35.80	6.88	6.87	6.88	35.58
21	6.97	6.95	6.96	35.66	6.43	6.38	6.41	35.11	7.02	7.06	7.04	35.74	6.67	6.66	6.67	35.37	7.10	7.11	7.11	35.81	6.86	6.85	6.86	35.56
22	6.95	6.94	6.95	35.65	6.39	6.38	6.39	35.09	7.08	7.07	7.08	35.78	6.66	6.66	6.66	35.36	7.13	7.12	7.13	35.83	6.82	6.78	6.80	35.50
23	6.94	6.94	6.94	35.64	6.38	6.36	6.37	35.07	7.07	7.02	7.05	35.75	6.63	6.56	6.60	35.30	7.13	7.16	7.15	35.85	6.77	6.75	6.76	35.46
24	6.94	6.92	6.93	35.63	6.35	6.35	6.35	35.05	7.06	7.08	7.07	35.77	6.57	6.55	6.56	35.26	7.16	7.16	7.16	35.86	6.74	6.73	6.74	35.44
25	6.92	6.91	6.92	35.62	6.35	6.31	6.33	35.03	7.10	7.09	7.10	35.80	6.53	6.45	6.49	35.19	7.16	7.14	7.15	35.85	6.72	6.78	6.75	35.45
26	6.91	6.90	6.91	35.61	6.33	6.33	6.33	35.03	7.10	7.10	7.10	35.80	6.49	6.50	6.50	35.20	7.14	7.12	7.13	35.83	6.82	6.86	6.84	35.54
27	6.90	6.88	6.89	35.59	6.35	6.37	6.36	35.06	7.22	7.31	7.27	35.97	6.51	6.51	6.51	35.21	7.10	7.09	7.10	35.80	6.89	6.94	6.92	35.62
28	6.86	6.84	6.85	35.55	6.46	6.35	6.41	35.11	7.28	7.27	7.28	35.98	6.52	6.54	6.53	35.23	7.08	7.07	7.08	35.78	7.00	7.12	7.06	35.76
29	6.84	6.84	6.84	35.54					7.22	7.20	7.21	35.91	6.70	6.75	6.73	35.43	7.06	7.06	7.06	35.76	7.14	7.16	7.15	35.85
30	6.84	6.84	6.84	35.54					7.16	7.15	7.16	35.86	6.85	6.94	6.90	35.60	7.08	7.07	7.08	35.78	7.18	7.20	7.19	35.89
31	6.84	6.82	6.83	35.53					7.14	7.10	7.12	35.82					7.09	7.10	7.10	35.80				
Average	6.97	6.96	**6.96**	**35.66**	6.55	6.53	**6.54**	**35.24**	6.83	6.84	**6.84**	**35.54**	6.83	6.82	**6.83**	**35.53**	7.07	7.06	**7.07**	**35.77**	6.97	6.97	**6.97**	**35.67**
Max	7.06	7.06	**7.06**	**35.76**	6.82	6.78	**6.82**	**35.52**	7.28	7.31	**7.31**	**36.01**	7.16	7.15	**7.16**	**35.86**	7.16	7.16	**7.16**	**35.86**	7.18	7.20	**7.20**	**35.90**
Min	6.84	6.82	**6.82**	**35.52**	6.33	6.31	**6.31**	**35.01**	6.30	6.30	**6.30**	**35.00**	6.49	6.45	**6.45**	**35.15**	6.97	6.90	**6.90**	**35.60**	6.72	6.73	**6.72**	**35.42**

Month	July				August				September				October				November				December			
Date	Gauge height (m)			Elevation	Gauge height (m)			Elevation	Gauge height (m)			Elevation	Gauge height (m)			Elevation	Gauge height (m)			Elevation	Gauge height (m)			Elevation
	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)
1	7.30	7.32	7.31	36.01	3.82	7.02	5.42	34.12	6.60	6.45	6.53	35.23	6.73	7.18	6.96	35.66	6.88	6.76	6.82	35.52	7.05	7.05	7.05	35.75
2	7.28	7.26	7.27	35.97	7.34	6.95	7.15	35.85	6.77	6.87	6.82	35.52	6.76	6.77	6.77	35.47	6.46	5.72	6.09	34.79	7.03	7.03	7.03	35.73
3	7.27	7.25	7.26	35.96	6.62	6.56	6.59	35.29	7.05	7.03	7.04	35.74	6.88	6.66	6.77	35.47	6.79	7.19	6.99	35.69	7.03	7.04	7.04	35.74
4	7.22	7.20	7.21	35.91	6.27	6.52	6.40	35.10	6.93	6.83	6.88	35.58	6.27	6.10	6.19	34.89	7.32	7.19	7.26	35.96	7.04	7.03	7.04	35.74
5	7.30	6.84	7.07	35.77	6.78	6.30	6.54	35.24	6.74	6.77	6.76	35.46	5.77	6.83	6.30	35.00	6.95	6.68	6.82	35.52	7.03	7.03	7.03	35.73
6	6.20	5.90	6.05	34.75	7.06	7.10	7.08	35.78	6.86	6.91	6.89	35.59	6.32	6.65	6.49	35.19	5.59	5.52	5.56	34.26	7.03	7.03	7.03	35.73
7	6.62	6.84	6.73	35.43	7.04	6.62	6.83	35.53	7.00	7.03	7.02	35.72	6.96	6.76	6.86	35.56	6.35	6.76	6.56	35.26	7.03	7.02	7.03	35.73
8	6.98	7.08	7.03	35.73	5.92	6.84	6.38	35.08	7.07	7.26	7.17	35.87	6.78	6.89	6.84	35.54	7.02	7.12	7.07	35.77	7.02	7.00	7.01	35.71
9	7.11	5.80	6.46	35.16	7.23	7.16	7.20	35.90	6.80	6.66	6.73	35.43	6.55	6.26	6.41	35.11	7.20	7.21	7.21	35.91	7.00	7.00	7.00	35.70
10	4.56	5.20	4.88	33.58	7.02	7.08	7.05	35.75	6.90	7.20	7.05	35.75	6.10	6.87	6.49	35.19	7.22	7.19	7.21	35.91	7.01	7.02	7.02	35.72
11	5.90	6.54	6.22	34.92	7.01	6.84	6.93	35.63	7.13	7.12	7.13	35.83	6.68	6.54	6.61	35.31	7.19	7.18	7.19	35.89	7.03	7.04	7.04	35.74
12	7.18	6.96	7.07	35.77	7.00	7.03	7.02	35.72	7.07	6.91	6.99	35.69	6.20	6.24	6.22	34.92	7.17	7.16	7.17	35.87	7.04	7.03	7.04	35.74
13	6.52	6.90	6.71	35.41	7.00	6.94	6.97	35.67	6.75	6.33	6.54	35.24	6.62	6.93	6.78	35.48	7.16	7.19	7.18	35.88	7.02	7.02	7.02	35.72
14	7.38	5.72	6.55	35.25	6.84	6.71	6.78	35.48	6.05	6.38	6.22	34.92	7.08	6.86	6.97	35.67	7.17	7.16	7.17	35.87	7.03	7.02	7.03	35.73
15	4.34	7.12	5.73	34.43	6.58	6.47	6.53	35.23	6.62	6.70	6.66	35.36	6.42	6.84	6.63	35.33	7.16	7.15	7.16	35.86	6.98	6.98	6.98	35.68
16	6.78	6.42	6.60	35.30	6.43	6.38	6.41	35.11	6.95	7.02	6.99	35.69	7.14	6.62	6.88	35.58	7.14	7.17	7.16	35.86	6.96	6.95	6.96	35.66
17	6.28	6.32	6.30	35.00	6.38	6.01	6.20	34.90	7.11	7.14	7.13	35.83	6.73	6.52	6.63	35.33	7.16	7.15	7.16	35.86	6.95	6.94	6.95	35.65
18	5.24	6.36	5.80	34.50	6.62	7.07	6.85	35.55	7.17	7.30	7.24	35.94	6.44	6.14	6.29	34.99	7.13	7.13	7.13	35.83	6.95	6.97	6.96	35.66
19	7.09	7.36	7.23	35.93	7.23	7.22	7.23	35.93	7.26	7.13	7.20	35.90	5.75	6.73	6.24	34.94	7.12	7.10	7.11	35.81	6.99	7.00	7.00	35.70
20	6.54	5.70	6.12	34.82	7.05	6.93	6.99	35.69	5.87	6.42	6.15	34.85	6.28	6.76	6.52	35.22	7.10	7.10	7.10	35.80	7.00	6.99	7.00	35.70
21	6.30	6.54	6.42	35.12	6.84	6.88	6.86	35.56	7.19	6.51	6.85	35.55	6.76	6.46	6.61	35.31	7.08	7.09	7.09	35.79	6.99	6.98	6.99	35.69
22	6.66	6.70	6.68	35.38	6.98	7.08	7.03	35.73	6.32	6.72	6.52	35.22	5.98	6.62	6.30	35.00	7.10	7.13	7.12	35.82	6.98	6.99	6.99	35.69
23	6.74	7.16	6.95	35.65	7.16	7.14	7.15	35.85	6.50	5.79	6.15	34.85	6.13	6.48	6.31	35.01	7.13	7.14	7.14	35.84	7.00	7.01	7.01	35.71
24	6.72	4.12	5.42	34.12	7.10	7.04	7.07	35.77	5.68	6.73	6.21	34.91	6.91	6.43	6.67	35.37	7.13	7.12	7.13	35.83	7.01	7.02	7.02	35.72
25	4.74	5.76	5.25	33.95	6.98	6.80	6.89	35.59	7.36	7.37	7.37	36.07	6.50	6.22	6.36	35.06	7.11	7.12	7.12	35.82	7.02	7.02	7.02	35.72
26	6.68	7.15	6.92	35.62	6.94	6.18	6.56	35.26	6.67	6.83	6.75	35.45	6.53	6.53	6.53	35.23	7.12	7.12	7.12	35.82	7.02	7.02	7.02	35.72
27	7.10	6.82	6.96	35.66	7.28	7.04	7.16	35.86	7.24	7.16	7.20	35.90	6.32	5.90	6.11	34.81	7.12	7.09	7.11	35.81	7.02	7.01	7.02	35.72
28	6.32	5.56	5.94	34.64	6.79	6.60	6.70	35.40	7.13	6.84	6.99	35.69	5.28	6.00	5.64	34.34	7.08	7.07	7.08	35.78	7.01	7.01	7.01	35.71
29	4.58	6.30	5.44	34.14	6.77	6.30	6.54	35.24	6.82	6.70	6.76	35.46	6.36	5.26	5.81	34.51	7.06	7.05	7.06	35.76	7.01	7.01	7.01	35.71
30	5.80	7.22	6.51	35.21	7.10	7.19	7.15	35.85	6.62	6.54	6.58	35.28	5.10	6.68	5.89	34.59	7.03	7.05	7.04	35.74	7.00	7.00	7.00	35.70
31	6.96	5.47	6.22	34.92	7.12	6.80	6.96	35.66					6.84	6.91	6.88	35.58					7.00	7.00	7.00	35.70
Average	6.44	6.48	**6.46**	**35.16**	6.78	6.80	**6.79**	**35.49**	6.81	6.82	**6.81**	**35.51**	6.42	6.54	**6.48**	**35.18**	7.01	6.99	**7.00**	**35.70**	7.01	7.01	**7.01**	**35.71**
Max.	7.38	7.36	**7.38**	**36.08**	7.34	7.22	**7.34**	**36.04**	7.36	7.37	**7.37**	**36.07**	7.14	7.18	**7.18**	**35.88**	7.32	7.21	**7.32**	**36.02**	7.05	7.05	**7.05**	**35.75**
Min.	4.34	4.12	**4.12**	**32.82**	3.82	6.01	**3.82**	**32.52**	5.68	5.79	**5.68**	**34.38**	5.10	5.26	**5.10**	**33.80**	5.59	5.52	**5.52**	**34.22**	6.95	6.94	**6.94**	**35.64**

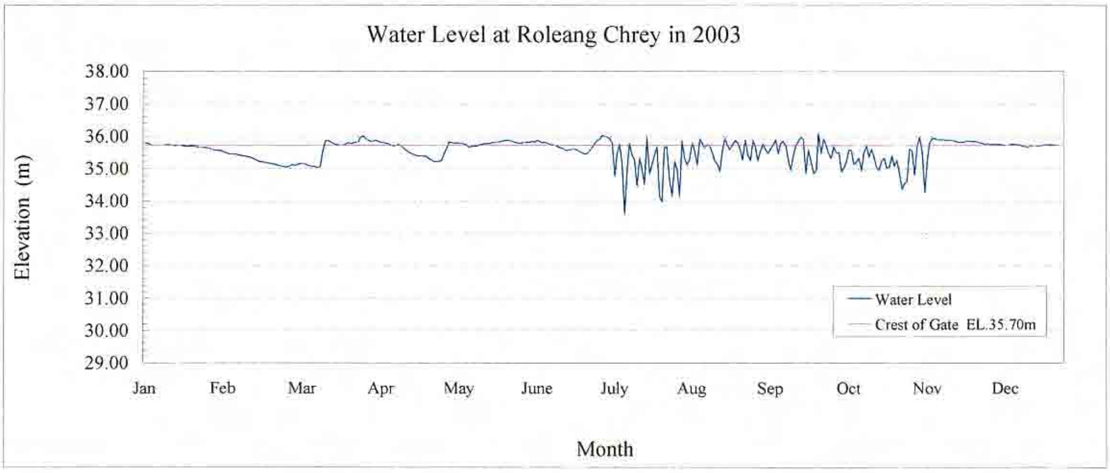


Table 6.4.1 The Upstream Water Level Observation Record （4/7）

Year : 2004 **River : Prek Thnot River** **Station : Roleang Chrey** **Recorder : Mey Nou** **Zero GH : 6.00 m**
34.70 m (MSL)

Month	January				February				March				April				May				June			
Date	Gauge height (m)			Elevation	Gauge height (m)			Elevation	Gauge height (m)			Elevation	Gauge height (m)			Elevation	Gauge height (m)			Elevation	Gauge height (m)			Elevation
	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)
1	7.00	7.00	7.00	35.70	6.91	6.91	6.91	35.61	6.69	6.69	6.69	35.39	6.13	6.14	6.14	34.84	6.18	6.19	6.19	34.89	6.75	6.70	6.73	35.43
2	7.00	7.00	7.00	35.70	6.91	6.90	6.91	35.61	6.68	6.68	6.68	35.38	6.14	6.14	6.14	34.84	6.21	6.22	6.22	34.92	6.70	6.71	6.71	35.41
3	7.00	6.99	7.00	35.70	6.90	6.90	6.90	35.60	6.68	6.64	6.66	35.36	6.07	6.04	6.06	34.76	6.26	6.27	6.27	34.97	6.74	6.77	6.76	35.46
4	6.98	6.96	6.97	35.67	6.90	6.89	6.90	35.60	6.64	6.66	6.66	35.36	6.04	6.06	6.05	34.75	6.28	6.29	6.29	34.99	6.82	6.84	6.83	35.53
5	6.93	6.93	6.93	35.63	6.89	6.89	6.89	35.59	6.68	6.68	6.68	35.38	6.06	6.06	6.06	34.76	6.27	6.26	6.27	34.97	6.87	6.88	6.88	35.58
6	6.93	6.92	6.93	35.63	6.89	6.88	6.89	35.59	6.68	6.68	6.68	35.38	6.08	6.08	6.08	34.78	6.28	6.28	6.28	34.98	6.93	6.96	6.95	35.65
7	6.92	6.92	6.92	35.62	6.88	6.88	6.88	35.58	6.68	6.67	6.68	35.38	6.10	6.12	6.11	34.81	6.30	6.20	6.25	34.95	6.99	7.01	7.00	35.70
8	6.92	6.93	6.93	35.63	6.88	6.87	6.88	35.58	6.67	6.68	6.68	35.38	6.14	6.06	6.10	34.80	6.32	6.34	6.33	35.03	7.02	7.04	7.03	35.73
9	6.94	6.95	6.95	35.65	7.02	7.01	7.02	35.72	6.68	6.58	6.63	35.33	6.06	6.08	6.07	34.77	6.36	6.51	6.44	35.14	7.09	7.12	7.11	35.81
10	6.96	6.97	6.97	35.67	7.01	6.99	7.00	35.70	6.57	6.56	6.57	35.27	6.10	6.11	6.11	34.81	6.72	6.85	6.79	35.49	7.20	7.22	7.21	35.91
11	6.97	6.98	6.98	35.68	7.00	6.98	6.99	35.69	6.57	6.55	6.56	35.26	6.12	6.12	6.12	34.82	6.91	6.96	6.94	35.64	7.22	7.21	7.22	35.92
12	6.98	6.99	6.99	35.69	6.98	6.99	6.99	35.69	6.55	6.54	6.55	35.25	6.14	6.14	6.14	34.84	7.01	7.04	7.03	35.73	7.20	7.15	7.18	35.88
13	6.99	7.00	7.00	35.70	6.99	6.99	6.99	35.69	6.54	6.44	6.49	35.19	6.16	6.16	6.16	34.86	7.00	7.01	7.01	35.71	7.14	7.14	7.14	35.84
14	7.00	7.00	7.00	35.70	6.99	6.98	6.99	35.69	6.43	6.43	6.43	35.13	6.19	6.06	6.13	34.83	6.99	6.98	6.99	35.69	7.26	7.05	7.16	35.86
15	7.00	7.00	7.00	35.70	6.95	6.96	6.96	35.66	6.43	6.42	6.43	35.13	6.08	6.08	6.08	34.78	7.08	7.10	7.09	35.79	6.20	4.88	5.54	34.24
16	7.00	7.00	7.00	35.70	6.96	6.97	6.97	35.67	6.41	6.34	6.38	35.08	6.10	6.10	6.10	34.80	7.13	7.13	7.13	35.83	6.28	7.12	6.70	35.40
17	7.00	7.00	7.00	35.70	6.97	6.97	6.97	35.67	6.33	6.32	6.33	35.03	6.12	6.14	6.13	34.83	7.12	7.10	7.11	35.81	7.28	7.10	7.19	35.89
18	7.00	6.99	7.00	35.70	6.97	6.93	6.95	35.65	6.30	6.28	6.29	34.99	6.18	6.08	6.13	34.83	7.09	7.09	7.09	35.79	7.06	6.88	6.97	35.67
19	6.99	6.99	6.99	35.69	6.93	6.93	6.93	35.63	6.26	6.26	6.26	34.96	6.11	6.12	6.12	34.82	7.09	7.08	7.09	35.79	6.40	6.32	6.36	35.06
20	6.99	6.99	6.99	35.69	6.92	6.91	6.92	35.62	6.25	6.25	6.25	34.95	6.13	6.08	6.11	34.81	7.06	7.04	7.05	35.75	6.26	5.89	6.08	34.78
21	6.99	6.99	6.99	35.69	6.91	6.90	6.91	35.61	6.24	6.22	6.23	34.93	6.12	6.12	6.12	34.82	7.02	7.00	7.01	35.71	5.40	6.24	5.82	34.52
22	6.99	6.99	6.99	35.69	6.89	6.88	6.89	35.59	6.21	6.09	6.15	34.85	6.14	6.14	6.14	34.84	6.98	6.97	6.98	35.68	6.82	7.10	6.96	35.66
23	6.99	6.98	6.99	35.69	6.89	6.83	6.86	35.56	6.10	6.09	6.10	34.80	6.15	6.15	6.15	34.85	6.96	6.96	6.96	35.66	7.22	7.25	7.24	35.94
24	6.98	6.98	6.98	35.68	6.82	6.81	6.82	35.52	6.09	6.08	6.09	34.79	6.17	6.18	6.18	34.88	6.96	6.96	6.96	35.66	7.22	7.20	7.21	35.91
25	6.98	6.98	6.98	35.68	6.81	6.80	6.81	35.51	6.10	6.10	6.10	34.80	6.20	6.21	6.21	34.91	6.96	6.95	6.96	35.66	7.18	7.13	7.16	35.86
26	6.97	6.97	6.97	35.67	6.80	6.79	6.80	35.50	6.11	6.10	6.11	34.81	6.22	6.10	6.16	34.86	6.94	6.94	6.94	35.64	7.12	7.10	7.11	35.81
27	6.96	6.96	6.96	35.66	6.78	6.78	6.78	35.48	6.12	6.13	6.13	34.83	6.12	6.13	6.13	34.83	6.92	6.92	6.92	35.62	7.12	7.10	7.11	35.81
28	6.96	6.96	6.96	35.66	6.78	6.70	6.74	35.44	6.14	6.16	6.15	34.85	6.14	6.15	6.15	34.85	6.91	6.90	6.91	35.61	7.10	7.07	7.09	35.79
29	6.95	6.92	6.94	35.64	6.70	6.70	6.70	35.40	6.19	6.19	6.19	34.89	6.16	6.16	6.16	34.86	6.90	6.88	6.89	35.59	7.04	7.15	7.10	35.80
30	6.92	6.90	6.91	35.61					6.14	6.10	6.12	34.82	6.16	6.16	6.16	34.86	6.84	6.84	6.84	35.54	7.16	7.15	7.16	35.86
31	6.90	6.90	6.90	35.60					6.11	6.12	6.12	34.82					6.82	6.80	6.81	35.51				
Average	6.97	6.97	**6.97**	**35.67**	6.90	6.89	**6.90**	**35.60**	6.40	6.38	**6.39**	**35.09**	6.13	6.12	**6.12**	**34.82**	6.77	6.78	**6.77**	**35.47**	6.89	6.88	**6.89**	**35.59**
Max	7.00	7.00	**7.00**	**35.70**	7.02	7.01	**7.02**	**35.72**	6.69	6.69	**6.69**	**35.39**	6.22	6.21	**6.22**	**34.92**	7.13	7.13	**7.13**	**35.83**	7.28	7.25	**7.28**	**35.98**
Min	6.90	6.90	**6.90**	**35.60**	6.70	6.70	**6.70**	**35.40**	6.09	6.08	**6.08**	**34.78**	6.04	6.04	**6.04**	**34.74**	6.18	6.19	**6.18**	**34.88**	5.40	4.88	**4.88**	**33.58**

Month	July				August				September				October				November				December			
Date	Gauge height (m)			Elevation	Gauge height (m)			Elevation	Gauge height (m)			Elevation	Gauge height (m)			Elevation	Gauge height (m)			Elevation	Gauge height (m)			Elevation
	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)
1	7.14	7.13	7.14	35.84	7.05	6.93	6.99	35.69	7.02	7.02	7.02	35.72	7.25	7.23	7.24	35.94	6.90	6.89	6.90	35.60	6.10	6.20	6.15	34.85
2	7.11	7.10	7.11	35.81	6.87	7.02	6.95	35.65	7.05	7.07	7.06	35.76	7.26	7.28	7.27	35.97	6.88	6.87	6.88	35.58	6.25	6.28	6.27	34.97
3	7.10	7.10	7.10	35.80	7.12	7.08	7.10	35.80	7.06	7.05	7.06	35.76	7.03	6.82	6.93	35.63	6.85	6.83	6.84	35.54	6.30	6.31	6.31	35.01
4	7.12	7.12	7.12	35.82	7.06	7.03	7.05	35.75	7.04	7.05	7.05	35.75	6.85	7.12	6.99	35.69	6.82	6.75	6.79	35.49	6.32	6.35	6.34	35.04
5	7.10	7.07	7.09	35.79	6.95	6.79	6.87	35.57	7.05	7.04	7.05	35.75	7.08	6.99	7.04	35.74	6.70	6.67	6.69	35.39	6.38	6.48	6.43	35.13
6	7.08	7.04	7.06	35.76	6.52	6.36	6.44	35.14	7.02	7.00	7.01	35.71	7.02	6.75	6.89	35.59	6.66	6.62	6.64	35.34	6.48	6.50	6.49	35.19
7	7.04	7.04	7.04	35.74	6.43	6.49	6.46	35.16	7.02	7.00	7.01	35.71	6.00	5.35	5.68	34.38	6.58	6.53	6.56	35.26	6.52	6.58	6.55	35.25
8	7.04	7.03	7.04	35.74	6.51	6.56	6.54	35.24	7.00	6.99	7.00	35.70	5.00	7.13	6.07	34.77	6.48	6.42	6.45	35.15	6.62	6.61	6.62	35.32
9	7.02	7.00	7.01	35.71	6.58	6.50	6.54	35.24	6.97	6.96	6.97	35.67	6.97	6.45	6.71	35.41	6.38	6.34	6.36	35.06	6.63	6.61	6.62	35.32
10	7.01	7.02	7.02	35.72	6.41	6.43	6.42	35.12	6.95	6.93	6.94	35.64	5.24	6.39	5.82	34.52	6.28	6.25	6.27	34.97	6.63	6.62	6.63	35.33
11	7.00	6.95	6.98	35.68	6.58	6.76	6.67	35.37	6.96	7.02	6.99	35.69	6.57	6.56	6.57	35.27	6.20	6.14	6.17	34.87	6.61	6.61	6.61	35.31
12	6.94	6.90	6.92	35.62	6.93	7.17	7.05	35.75	7.03	7.04	7.04	35.74	6.33	6.75	6.54	35.24	6.14	6.13	6.14	34.84	6.60	6.60	6.60	35.30
13	6.89	6.88	6.89	35.59	7.35	7.36	7.36	36.06	7.04	7.05	7.05	35.75	7.35	7.24	7.30	36.00	6.13	6.12	6.13	34.83	6.62	6.62	6.62	35.32
14	6.96	7.01	6.99	35.69	7.17	7.07	7.12	35.82	7.05	7.06	7.06	35.76	6.53	5.43	5.98	34.68	6.19	6.24	6.22	34.92	6.63	6.64	6.64	35.34
15	7.02	7.04	7.03	35.73	7.02	6.94	6.98	35.68	7.14	7.28	7.21	35.91	6.22	5.72	5.97	34.67	6.27	6.24	6.26	34.96	6.65	6.65	6.65	35.35
16	7.02	7.01	7.02	35.72	6.79	4.84	5.82	34.52	6.96	6.30	6.63	35.33	3.80	6.37	5.09	33.79	6.20	6.15	6.18	34.88	6.67	6.68	6.68	35.38
17	7.04	7.04	7.04	35.74	5.95	6.54	6.25	34.95	5.37	6.58	5.98	34.68	6.92	7.23	7.08	35.78	6.10	6.06	6.08	34.78	6.68	6.68	6.68	35.38
18	7.06	7.05	7.06	35.76	6.70	6.83	6.77	35.47	7.20	7.19	7.20	35.90	7.31	7.31	7.31	36.01	6.03	5.97	6.00	34.70	6.69	6.69	6.69	35.39
19	7.06	7.05	7.06	35.76	6.95	7.09	7.02	35.72	7.18	7.08	7.13	35.83	7.27	7.24	7.26	35.96	5.91	5.84	5.88	34.58	6.70	6.71	6.71	35.41
20	7.06	7.04	7.05	35.75	7.12	7.14	7.13	35.83	7.00	6.80	6.90	35.60	7.22	7.21	7.22	35.92	5.77	5.74	5.76	34.46	6.71	6.72	6.72	35.42
21	7.04	7.03	7.04	35.74	7.13	7.17	7.15	35.85	6.03	5.64	5.84	34.54	7.20	7.18	7.19	35.89	5.70	5.71	5.71	34.41	6.73	6.73	6.73	35.43
22	7.03	7.03	7.03	35.73	7.23	7.29	7.26	35.96	6.62	6.70	6.66	35.36	7.16	7.14	7.15	35.85	5.73	5.70	5.72	34.42	6.74	6.74	6.74	35.44
23	7.02	7.08	7.05	35.75	7.26	7.25	7.26	35.96	6.51	7.22	6.87	35.57	7.14	7.12	7.13	35.83	5.70	5.68	5.69	34.39	6.74	6.74	6.74	35.44
24	7.32	7.32	7.32	36.02	7.24	7.22	7.23	35.93	7.15	7.03	7.09	35.79	7.12	7.10	7.11	35.81	5.68	5.63	5.66	34.36	6.75	6.75	6.75	35.45
25	7.27	7.22	7.25	35.95	7.22	7.24	7.23	35.93	6.90	6.70	6.80	35.50	7.09	7.07	7.08	35.78	5.61	5.60	5.61	34.31	6.75	6.75	6.75	35.45
26	7.20	7.15	7.18	35.88	7.24	7.24	7.24	35.94	6.67	5.67	6.17	34.87	7.06	7.04	7.05	35.75	5.61	5.58	5.60	34.30	6.75	6.75	6.75	35.45
27	7.15	7.13	7.14	35.84	7.21	7.18	7.20	35.90	6.44	6.85	6.65	35.35	7.04	7.02	7.03	35.73	5.58	5.57	5.58	34.28	6.75	6.75	6.75	35.45
28	7.14	7.20	7.17	35.87	7.16	7.13	7.15	35.85	7.06	7.19	7.13	35.83	7.02	7.01	7.02	35.72	5.58	5.56	5.57	34.27	6.76	6.76	6.76	35.46
29	7.26	7.26	7.26	35.96	7.10	7.07	7.09	35.79	7.21	7.21	7.21	35.91	6.99	6.98	6.99	35.69	5.80	5.88	5.84	34.54	6.77	6.77	6.77	35.47
30	7.24	7.24	7.24	35.94	7.05	7.03	7.04	35.74	7.24	7.26	7.25	35.95	6.97	6.96	6.97	35.67	6.00	6.12	6.06	34.76	6.77	6.78	6.78	35.48
31	7.26	7.28	7.27	35.97	7.03	7.02	7.03	35.73					6.94	6.93	6.94	35.64					6.78	6.78	6.78	35.48
Average	7.09	7.08	**7.09**	**35.79**	6.93	6.90	**6.91**	**35.61**	6.90	6.90	**6.90**	**35.60**	6.74	6.84	**6.79**	**35.49**	6.15	6.13	**6.14**	**34.84**	6.62	6.63	**6.62**	**35.32**
Max.	7.32	7.32	**7.32**	**36.02**	7.35	7.36	**7.36**	**36.06**	7.24	7.28	**7.28**	**35.98**	7.35	7.31	**7.35**	**36.05**	6.90	6.89	**6.90**	**35.60**	6.78	6.78	**6.78**	**35.48**
Min.	6.89	6.88	**6.88**	**35.58**	5.95	4.84	**4.84**	**33.54**	5.37	5.64	**5.37**	**34.07**	3.80	5.35	**3.80**	**32.50**	5.58	5.56	**5.56**	**34.26**	6.10	6.20	**6.10**	**34.80**

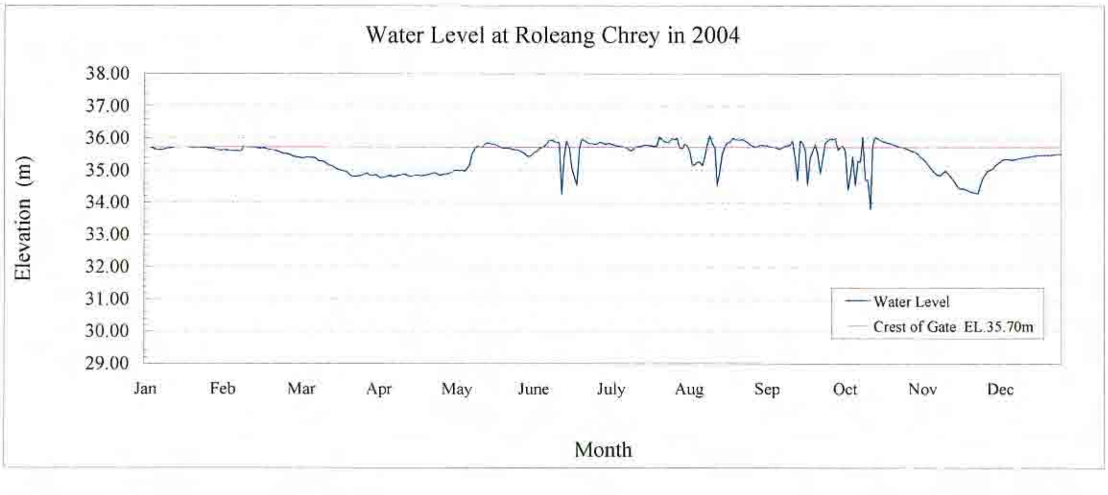


Table 6.4.1 The Upstream Water Level Observation Record （5/7）

Year : 2005 **River : Prek Thnot River** **Station : Roleang Chrey** **Recorder : Mey Nou** **Zero GH : 6.00 m**
34.70 m (MSL)

Month	January				February				March				April				May				June			
Date	Gauge height (m)			Elevation	Gauge height (m)			Elevation	Gauge height (m)			Elevation	Gauge height (m)			Elevation	Gauge height (m)			Elevation	Gauge height (m)			Elevation
	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)
1	6.79	6.79	6.79	35.49	6.67	6.66	6.67	35.37	6.15	6.16	6.16	34.86	4.76	4.76	4.76	33.46	5.86	5.82	5.84	34.54	5.82	5.84	5.83	34.53
2	6.79	6.79	6.79	35.49	6.66	6.65	6.66	35.36	6.06	6.02	6.04	34.74	4.76	4.74	4.75	33.45	5.85	5.87	5.86	34.56	5.86	5.86	5.86	34.56
3	6.79	6.79	6.79	35.49	6.64	6.64	6.64	35.34	6.02	5.96	5.99	34.69	4.76	4.72	4.74	33.44	5.88	5.89	5.89	34.59	5.87	5.88	5.88	34.58
4	6.79	6.79	6.79	35.49	6.63	6.63	6.63	35.33	5.96	5.96	5.96	34.66	4.72	4.72	4.72	33.42	5.90	5.82	5.86	34.56	5.89	5.86	5.88	34.58
5	6.79	6.79	6.79	35.49	6.63	6.63	6.63	35.33	5.96	5.96	5.96	34.66	4.84	4.86	4.85	33.55	5.82	5.82	5.82	34.52	5.80	5.73	5.77	34.47
6	6.80	6.80	6.80	35.50	6.62	6.61	6.62	35.32	5.95	5.88	5.92	34.62	5.88	6.10	5.99	34.69	5.82	5.81	5.82	34.52	5.68	5.68	5.68	34.38
7	6.80	6.80	6.80	35.50	6.60	6.59	6.60	35.30	5.89	5.89	5.89	34.59	6.18	6.20	6.19	34.89	5.80	5.76	5.78	34.48	5.68	5.68	5.68	34.38
8	6.80	6.80	6.80	35.50	6.59	6.57	6.58	35.28	5.89	5.89	5.89	34.59	6.20	6.12	6.16	34.86	5.62	5.54	5.58	34.28	5.60	5.52	5.56	34.26
9	6.80	6.80	6.80	35.50	6.57	6.57	6.57	35.27	5.89	5.84	5.87	34.57	6.08	6.00	6.04	34.74	5.54	5.54	5.54	34.24	5.46	5.50	5.48	34.18
10	6.80	6.79	6.80	35.50	6.57	6.56	6.57	35.27	5.84	5.78	5.81	34.51	5.94	5.88	5.91	34.61	5.54	5.54	5.54	34.24	5.56	5.56	5.56	34.26
11	6.79	6.79	6.79	35.49	6.56	6.56	6.56	35.26	5.78	5.74	5.76	34.46	5.88	5.88	5.88	34.58	5.53	5.53	5.53	34.23	5.59	5.60	5.60	34.30
12	6.78	6.78	6.78	35.48	6.55	6.50	6.53	35.23	5.73	5.68	5.71	34.41	5.90	5.91	5.91	34.61	5.53	5.52	5.53	34.23	5.62	5.63	5.63	34.33
13	6.78	6.78	6.78	35.48	6.51	6.50	6.51	35.21	5.60	5.54	5.57	34.27	5.92	5.93	5.93	34.63	5.52	5.51	5.52	34.22	5.72	5.78	5.75	34.45
14	6.78	6.78	6.78	35.48	6.50	6.50	6.50	35.20	5.55	5.56	5.56	34.26	5.93	5.94	5.94	34.64	5.51	5.50	5.51	34.21	5.80	5.83	5.82	34.52
15	6.78	6.78	6.78	35.48	6.50	6.45	6.48	35.18	5.56	5.56	5.56	34.26	5.94	5.94	5.94	34.64	5.50	5.49	5.50	34.20	5.82	5.82	5.82	34.52
16	6.79	6.79	6.79	35.49	6.45	6.44	6.45	35.15	5.56	5.56	5.56	34.26	5.94	5.93	5.94	34.64	5.58	5.36	5.47	34.17	5.83	5.84	5.84	34.54
17	6.79	6.78	6.79	35.49	6.43	6.39	6.41	35.11	5.56	5.56	5.56	34.26	5.93	5.86	5.90	34.60	5.24	5.22	5.23	33.93	5.85	5.86	5.86	34.56
18	6.79	6.79	6.79	35.49	6.39	6.39	6.39	35.09	5.55	5.55	5.55	34.25	5.78	5.70	5.74	34.44	5.22	5.22	5.22	33.92	5.86	5.89	5.88	34.58
19	6.79	6.79	6.79	35.49	6.39	6.37	6.38	35.08	5.54	5.46	5.50	34.20	5.70	5.70	5.70	34.40	5.22	5.22	5.22	33.92	5.88	5.88	5.88	34.58
20	6.79	6.79	6.79	35.49	6.35	6.35	6.35	35.05	5.47	5.47	5.47	34.17	6.68	5.64	6.16	34.86	5.22	5.22	5.22	33.92	5.88	5.88	5.88	34.58
21	6.79	6.79	6.79	35.49	6.34	6.33	6.34	35.04	5.46	5.38	5.42	34.12	5.58	5.58	5.58	34.28	5.23	5.25	5.24	33.94	5.88	5.87	5.88	34.58
22	6.80	6.80	6.80	35.50	6.33	6.27	6.30	35.00	5.32	5.24	5.28	33.98	5.60	5.62	5.61	34.31	5.25	5.26	5.26	33.96	5.86	5.84	5.85	34.55
23	6.80	6.79	6.80	35.50	6.27	6.23	6.25	34.95	5.18	5.12	5.15	33.85	5.64	5.66	5.65	34.35	5.26	5.28	5.27	33.97	5.84	5.84	5.84	34.54
24	6.78	6.78	6.78	35.48	6.23	6.22	6.23	34.93	5.12	5.12	5.12	33.82	5.66	5.67	5.67	34.37	5.30	5.32	5.31	34.01	5.82	5.81	5.82	34.52
25	6.77	6.77	6.77	35.47	6.21	6.19	6.20	34.90	5.12	5.04	5.08	33.78	5.70	5.71	5.71	34.41	5.34	5.35	5.35	34.05	5.80	5.79	5.80	34.50
26	6.77	6.77	6.77	35.47	6.19	6.18	6.19	34.89	5.00	4.94	4.97	33.67	5.73	5.73	5.73	34.43	5.36	5.36	5.36	34.06	5.79	5.78	5.79	34.49
27	6.77	6.77	6.77	35.47	6.17	6.15	6.16	34.86	4.95	4.94	4.95	33.65	5.76	5.76	5.76	34.46	5.37	5.38	5.38	34.08	5.78	5.77	5.78	34.48
28	6.76	6.75	6.76	35.46	6.17	6.17	6.17	34.87	4.94	4.94	4.94	33.64	5.77	5.75	5.76	34.46	5.38	5.38	5.38	34.08	5.76	5.67	5.72	34.42
29	6.70	6.68	6.69	35.39					4.93	4.90	4.92	33.62	5.78	5.79	5.79	34.49	5.38	5.40	5.39	34.09	5.63	5.56	5.60	34.30
30	6.67	6.67	6.67	35.37					4.87	4.81	4.84	33.54	5.81	5.84	5.83	34.53	5.48	5.55	5.52	34.22	5.48	5.36	5.42	34.12
31	6.67	6.67	6.67	35.37					4.78	4.76	4.77	33.47					5.69	5.73	5.71	34.41				
Average	6.78	6.78	**6.78**	**35.48**	6.45	6.44	**6.45**	**35.15**	5.52	5.49	**5.51**	**34.21**	5.69	5.65	**5.67**	**34.37**	5.51	5.50	**5.50**	**34.20**	5.76	5.75	**5.75**	**34.45**
Max.	6.80	6.80	**6.80**	**35.50**	6.67	6.66	**6.67**	**35.37**	6.15	6.16	**6.16**	**34.86**	6.68	6.20	**6.68**	**35.38**	5.90	5.89	**5.90**	**34.60**	5.89	5.89	**5.89**	**34.59**
Min.	6.67	6.67	**6.67**	**35.37**	6.17	6.15	**6.15**	**34.85**	4.78	4.76	**4.76**	**33.46**	4.72	4.72	**4.72**	**33.42**	5.22	5.22	**5.22**	**33.92**	5.46	5.36	**5.36**	**34.06**

Month	July				August				September				October				November				December			
Date	Gauge height (m)			Elevation	Gauge height (m)			Elevation	Gauge height (m)			Elevation	Gauge height (m)			Elevation	Gauge height (m)			Elevation	Gauge height (m)			Elevation
	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)
1	5.42	5.43	5.43	34.13	7.12	6.89	7.01	35.71	6.96	6.96	6.96	35.66	6.95	6.92	6.94	35.64	7.17	7.10	7.14	35.84	7.15	7.14	7.15	35.85
2	5.43	5.44	5.44	34.14	7.02	6.85	6.94	35.64	6.94	6.91	6.93	35.63	6.92	6.92	6.92	35.62	6.47	4.85	5.66	34.36	7.13	7.13	7.13	35.83
3	5.44	5.44	5.44	34.14	6.98	6.89	6.94	35.64	6.87	6.90	6.89	35.59	6.93	7.03	6.98	35.68	6.00	7.10	6.55	35.25	7.16	7.18	7.17	35.87
4	5.46	5.42	5.44	34.14	5.80	6.64	6.22	34.92	6.86	6.85	6.86	35.56	7.04	7.04	7.04	35.74	7.25	7.30	7.28	35.98	7.21	7.23	7.22	35.92
5	5.35	5.29	5.32	34.02	6.32	6.43	6.38	35.08	6.82	6.85	6.84	35.54	7.06	7.19	7.13	35.83	7.28	7.26	7.27	35.97	7.26	7.31	7.29	35.99
6	5.21	5.15	5.18	33.88	5.20	7.08	6.14	34.84	6.88	6.88	6.88	35.58	6.92	6.90	6.91	35.61	7.27	7.22	7.25	35.95	7.36	7.11	7.24	35.94
7	5.19	5.21	5.20	33.90	7.38	7.28	7.33	36.03	6.85	6.85	6.85	35.55	7.04	6.97	7.01	35.71	7.10	6.90	7.00	35.70	7.03	6.81	6.92	35.62
8	5.22	5.24	5.23	33.93	7.22	7.21	7.22	35.92	6.85	6.86	6.86	35.56	6.84	6.56	6.70	35.40	6.76	5.84	6.30	35.00	5.80	5.00	5.40	34.10
9	5.30	5.35	5.33	34.03	7.22	7.24	7.23	35.93	6.90	6.93	6.92	35.62	5.00	6.40	5.70	34.40	5.68	6.17	5.93	34.63	6.70	7.21	6.96	35.66
10	5.40	5.70	5.55	34.25	7.22	7.21	7.22	35.92	7.00	7.02	7.01	35.71	6.91	7.30	7.11	35.81	7.36	7.10	7.23	35.93	7.35	7.36	7.36	36.06
11	6.02	6.30	6.16	34.86	7.20	7.25	7.23	35.93	7.05	7.07	7.06	35.76	7.28	7.12	7.20	35.90	6.84	6.64	6.74	35.44	7.33	7.31	7.32	36.02
12	6.49	6.60	6.55	35.25	7.14	6.92	7.03	35.73	7.07	7.10	7.09	35.79	6.94	6.68	6.81	35.51	6.80	5.80	6.30	35.00	7.27	7.23	7.25	35.95
13	6.65	6.72	6.69	35.39	6.70	6.82	6.76	35.46	7.12	7.12	7.12	35.82	6.71	6.68	6.70	35.40	6.86	7.26	7.06	35.76	7.20	7.19	7.20	35.90
14	6.75	6.75	6.75	35.45	7.02	7.26	7.14	35.84	7.12	7.19	7.16	35.86	6.72	6.74	6.73	35.43	7.34	7.36	7.35	36.05	7.17	7.16	7.17	35.87
15	6.78	6.77	6.78	35.48	7.20	7.11	7.16	35.86	7.21	7.22	7.22	35.92	6.82	7.02	6.92	35.62	7.35	7.32	7.34	36.04	7.13	7.11	7.12	35.82
16	6.75	6.72	6.74	35.44	7.07	7.02	7.05	35.75	7.26	7.27	7.27	35.97	7.10	7.16	7.13	35.83	7.30	7.25	7.28	35.98	7.10	7.09	7.10	35.80
17	6.74	6.74	6.74	35.44	7.02	6.70	6.86	35.56	7.08	6.94	7.01	35.71	7.20	7.20	7.20	35.90	7.20	7.18	7.19	35.89	7.07	7.07	7.07	35.77
18	6.76	6.76	6.76	35.46	6.26	6.20	6.23	34.93	6.83	6.90	6.87	35.57	7.26	6.77	7.02	35.72	7.16	7.19	7.18	35.88	7.07	7.06	7.07	35.77
19	6.78	6.76	6.77	35.47	6.64	6.85	6.75	35.45	6.99	7.03	7.01	35.71	6.05	6.26	6.16	34.86	7.19	7.20	7.20	35.90	7.06	7.05	7.06	35.76
20	6.78	6.80	6.79	35.49	6.93	7.00	6.97	35.67	7.22	7.15	7.19	35.89	6.68	7.20	6.94	35.64	7.25	7.36	7.31	36.01	7.04	7.04	7.04	35.74
21	6.82	6.80	6.81	35.51	7.02	7.03	7.03	35.73	7.08	7.15	7.12	35.82	7.27	7.30	7.29	35.99	7.39	7.33	7.36	36.06	7.03	7.03	7.03	35.73
22	6.80	6.78	6.79	35.49	7.03	7.03	7.03	35.73	7.02	6.76	6.89	35.59	7.29	7.26	7.28	35.98	7.29	7.23	7.26	35.96	7.03	7.03	7.03	35.73
23	6.76	6.74	6.75	35.45	7.04	7.02	7.03	35.73	6.58	7.20	6.89	35.59	7.30	6.73	7.02	35.72	7.20	7.20	7.20	35.90	7.03	7.03	7.03	35.73
24	6.74	6.72	6.73	35.43	7.02	7.08	7.05	35.75	7.15	7.12	7.14	35.84	6.91	6.53	6.72	35.42	7.20	7.17	7.19	35.89	7.03	7.03	7.03	35.73
25	6.70	6.70	6.70	35.40	7.12	7.10	7.11	35.81	6.94	6.55	6.75	35.45	6.20	6.58	6.39	35.09	7.15	7.16	7.16	35.86	7.03	7.03	7.03	35.73
26	6.86	7.08	6.97	35.67	7.10	7.04	7.07	35.77	6.00	6.30	6.15	34.85	6.73	6.15	6.44	35.14	7.16	7.13	7.15	35.85	7.03	7.03	7.03	35.73
27	7.14	7.12	7.13	35.83	7.02	7.01	7.02	35.72	6.45	6.67	6.56	35.26	4.70	6.96	5.83	34.53	7.09	7.08	7.09	35.79	7.03	7.03	7.03	35.73
28	7.11	7.20	7.16	35.86	6.96	6.96	6.96	35.66	6.75	6.85	6.80	35.50	6.45	6.16	6.31	35.01	7.06	7.10	7.08	35.78	7.03	7.03	7.03	35.73
29	7.28	7.20	7.24	35.94	6.91	6.93	6.92	35.62	6.95	7.03	6.99	35.69	6.29	6.14	6.22	34.92	7.12	7.13	7.13	35.83	7.02	7.02	7.02	35.72
30	7.13	7.07	7.10	35.80	6.95	7.01	6.98	35.68	7.05	7.01	7.03	35.73	7.17	7.10	7.14	35.84	7.13	7.13	7.13	35.83	7.01	7.01	7.01	35.71
31	7.03	7.12	7.08	35.78	7.01	7.01	7.01	35.71					6.76	5.42	6.09	34.79					6.99	6.99	6.99	35.69
Average	6.33	6.36	**6.35**	**35.05**	6.90	6.97	**6.93**	**35.63**	6.93	6.95	**6.94**	**35.64**	6.76	6.79	**6.77**	**35.47**	7.05	6.97	**7.01**	**35.71**	7.06	7.03	**7.05**	**35.75**
Max	7.28	7.20	**7.28**	**35.98**	7.38	7.28	**7.38**	**36.08**	7.26	7.27	**7.27**	**35.97**	7.30	7.30	**7.30**	**36.00**	7.39	7.36	**7.39**	**36.09**	7.36	7.36	**7.36**	**36.06**
Min	5.19	5.15	**5.15**	**33.85**	5.20	6.20	**5.20**	**33.90**	6.00	6.30	**6.00**	**34.70**	4.70	5.42	**4.70**	**33.40**	5.68	4.85	**4.85**	**33.55**	5.80	5.00	**5.00**	**33.70**

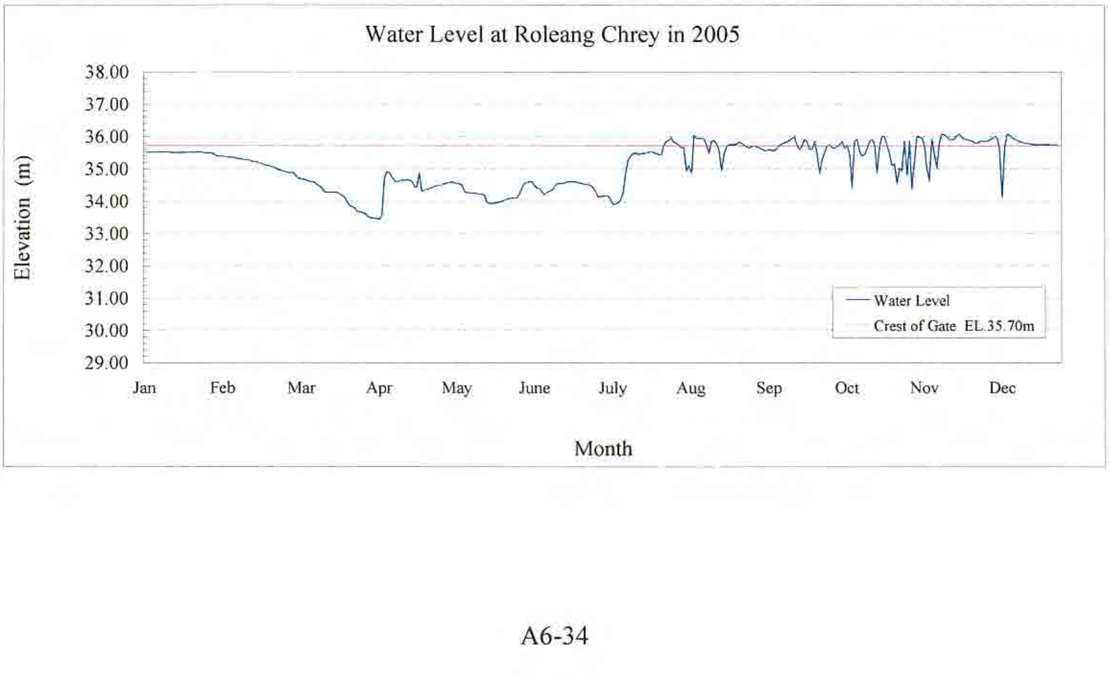


Table 6.4.1 The Upstream Water Level Observation Record （6/7）

Year : 2006 **River : Prek Thnot River** **Station : Roleang Chrey** **Recorder : Mey Nou** **Zero GH : 6.00 m**
34.70 m (MSL)

Month	January				February				March				April				May				June			
Date	Gauge height (m)			Elevation	Gauge height (m)			Elevation	Gauge height (m)			Elevation	Gauge height (m)			Elevation	Gauge height (m)			Elevation	Gauge height (m)			Elevation
	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)
1	6.99	7.00	7.00	35.70	6.61	6.61	6.61	35.31	6.43	6.44	6.44	35.14	6.22	6.20	6.21	34.91	6.41	6.40	6.41	35.11	7.10	7.09	7.10	35.80
2	7.01	7.01	7.01	35.71	6.60	6.60	6.60	35.30	6.45	6.46	6.46	35.16	6.20	6.20	6.20	34.90	6.36	6.34	6.35	35.05	7.07	7.06	7.07	35.77
3	7.02	7.02	7.02	35.72	6.60	6.60	6.60	35.30	6.47	6.49	6.48	35.18	6.22	6.24	6.23	34.93	6.35	6.34	6.35	35.05	7.05	7.03	7.04	35.74
4	7.02	7.03	7.03	35.73	6.59	6.59	6.59	35.29	6.50	6.50	6.50	35.20	6.26	6.27	6.27	34.97	6.35	6.34	6.35	35.05	7.00	7.01	7.01	35.71
5	7.03	7.02	7.03	35.73	6.59	6.57	6.58	35.28	6.52	6.48	6.50	35.20	6.29	6.29	6.29	34.99	6.36	6.37	6.37	35.07	7.00	7.00	7.00	35.70
6	6.99	6.98	6.99	35.69	6.55	6.55	6.55	35.25	6.49	6.49	6.49	35.19	6.31	6.32	6.32	35.02	6.38	6.39	6.39	35.09	7.02	7.10	7.06	35.76
7	6.96	6.94	6.95	35.65	6.55	6.55	6.55	35.25	6.50	6.50	6.50	35.20	6.33	6.33	6.33	35.03	6.50	6.58	6.54	35.24	7.10	7.16	7.13	35.83
8	6.92	6.91	6.92	35.62	6.54	6.54	6.54	35.24	6.52	6.52	6.52	35.22	6.37	6.38	6.38	35.08	6.68	6.80	6.74	35.44	7.16	7.13	7.15	35.85
9	6.90	6.90	6.90	35.60	6.54	6.54	6.54	35.24	6.52	5.53	6.03	34.73	6.38	6.40	6.39	35.09	6.90	6.91	6.91	35.61	7.14	7.15	7.15	35.85
10	6.88	6.87	6.88	35.58	6.54	6.53	6.54	35.24	6.53	6.50	6.52	35.22	6.47	6.52	6.50	35.20	6.91	6.90	6.91	35.61	7.15	7.13	7.14	35.84
11	6.86	6.83	6.85	35.55	6.52	6.50	6.51	35.21	6.50	6.50	6.50	35.20	6.60	6.66	6.63	35.33	6.88	6.85	6.87	35.57	7.10	7.08	7.09	35.79
12	6.80	6.79	6.80	35.50	6.48	6.48	6.48	35.18	6.49	6.46	6.48	35.18	6.70	6.77	6.74	35.44	6.83	6.83	6.83	35.53	7.03	7.02	7.03	35.73
13	6.76	6.74	6.75	35.45	6.47	6.45	6.46	35.16	6.40	6.42	6.41	35.11	6.77	6.75	6.76	35.46	6.83	6.83	6.83	35.53	6.98	6.97	6.98	35.68
14	6.74	6.73	6.74	35.44	6.44	6.44	6.44	35.14	6.43	6.45	6.44	35.14	6.72	6.72	6.72	35.42	6.81	6.80	6.81	35.51	6.95	6.94	6.95	35.65
15	6.71	6.73	6.72	35.42	6.43	6.41	6.42	35.12	6.45	6.45	6.45	35.15	6.70	6.69	6.70	35.40	6.80	6.78	6.79	35.49	6.93	6.92	6.93	35.63
16	6.73	6.71	6.72	35.42	6.40	6.40	6.40	35.10	6.45	6.41	6.43	35.13	6.66	6.65	6.66	35.36	6.76	6.72	6.74	35.44	6.88	6.86	6.87	35.57
17	6.70	6.70	6.70	35.40	6.38	6.36	6.37	35.07	6.41	6.40	6.41	35.11	6.64	6.64	6.64	35.34	6.73	6.76	6.75	35.45	6.85	6.92	6.89	35.59
18	6.70	6.70	6.70	35.40	6.36	6.36	6.36	35.06	6.40	6.40	6.40	35.10	6.63	6.62	6.63	35.33	6.79	6.83	6.81	35.51	7.00	7.04	7.02	35.72
19	6.68	6.70	6.69	35.39	6.37	6.37	6.37	35.07	6.40	6.40	6.40	35.10	6.59	6.58	6.59	35.29	6.85	6.87	6.86	35.56	7.04	7.05	7.05	35.75
20	6.70	6.71	6.71	35.41	6.37	6.37	6.37	35.07	6.39	6.39	6.39	35.09	6.58	6.58	6.58	35.28	6.88	6.90	6.89	35.59	7.07	7.08	7.08	35.78
21	6.70	6.70	6.70	35.40	6.37	6.37	6.37	35.07	6.38	6.38	6.38	35.08	6.57	6.58	6.58	35.28	6.90	6.90	6.90	35.60	7.09	7.08	7.09	35.79
22	6.70	6.70	6.70	35.40	6.37	6.35	6.36	35.06	6.37	6.36	6.37	35.07	6.57	6.58	6.58	35.28	7.02	7.15	7.09	35.79	7.12	7.14	7.13	35.83
23	6.70	6.69	6.70	35.40	6.36	6.37	6.37	35.07	6.36	6.34	6.35	35.05	6.58	6.58	6.58	35.28	7.19	7.17	7.18	35.88	7.15	7.22	7.19	35.89
24	6.67	6.67	6.67	35.37	6.38	6.38	6.38	35.08	6.34	6.31	6.33	35.03	6.58	6.57	6.58	35.28	7.14	7.13	7.14	35.84	7.25	7.26	7.26	35.96
25	6.67	6.67	6.67	35.37	6.38	6.38	6.38	35.08	6.31	6.30	6.31	35.01	6.56	6.55	6.56	35.26	7.11	7.12	7.12	35.82	7.26	7.20	7.23	35.93
26	6.67	6.67	6.67	35.37	6.38	6.40	6.39	35.09	6.30	6.28	6.29	34.99	6.52	6.52	6.52	35.22	7.10	7.09	7.10	35.80	7.20	7.16	7.18	35.88
27	6.67	6.66	6.67	35.37	6.42	6.43	6.43	35.13	6.27	6.27	6.27	34.97	6.50	6.50	6.50	35.20	7.07	7.07	7.07	35.77	7.13	7.11	7.12	35.82
28	6.65	6.64	6.65	35.35	6.43	6.43	6.43	35.13	6.27	6.23	6.25	34.95	6.49	6.46	6.48	35.18	7.06	7.05	7.06	35.76	7.12	7.12	7.12	35.82
29	6.64	6.63	6.64	35.34					6.23	6.23	6.23	34.93	6.45	6.45	6.45	35.15	7.05	7.06	7.06	35.76	7.13	7.12	7.13	35.83
30	6.63	6.63	6.63	35.33					6.23	6.23	6.23	34.93	6.44	6.42	6.43	35.13	7.10	7.12	7.11	35.81	7.10	7.10	7.10	35.80
31	6.62	6.62	6.62	35.32					6.22	6.22	6.22	34.92					7.12	7.11	7.12	35.82				
Average	6.79	6.78	**6.79**	**35.49**	6.47	6.46	**6.46**	**35.16**	6.40	6.37	**6.39**	**35.09**	6.50	6.50	**6.50**	**35.20**	6.81	6.82	**6.82**	**35.52**	7.07	7.08	**7.07**	**35.77**
Max	7.03	7.03	**7.03**	**35.73**	6.61	6.61	**6.61**	**35.31**	6.53	6.52	**6.53**	**35.23**	6.77	6.77	**6.77**	**35.47**	7.19	7.17	**7.19**	**35.89**	7.26	7.26	**7.26**	**35.96**
Min	6.62	6.62	**6.62**	**35.32**	6.36	6.35	**6.35**	**35.05**	6.22	5.53	**5.53**	**34.23**	6.20	6.20	**6.20**	**34.90**	6.35	6.34	**6.34**	**35.04**	6.85	6.86	**6.85**	**35.55**

Month	July				August				September				October				November				December			
Date	Gauge height (m)			Elevation	Gauge height (m)			Elevation	Gauge height (m)			Elevation	Gauge height (m)			Elevation	Gauge height (m)			Elevation	Gauge height (m)			Elevation
	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)
1	7.08	7.09	7.09	35.79	7.11	7.13	7.12	35.82	7.05	6.78	6.92	35.62	7.05	6.42	6.74	35.44	7.14	7.13	7.14	35.84	6.96	6.96	6.96	35.66
2	7.08	7.09	7.09	35.79	7.14	7.13	7.14	35.84	6.43	6.74	6.59	35.29	5.80	6.94	6.37	35.07	7.13	7.12	7.13	35.83	6.98	6.98	6.98	35.68
3	7.16	7.33	7.25	35.95	7.15	7.19	7.17	35.87	6.76	6.84	6.80	35.50	7.13	7.02	7.08	35.78	7.12	7.08	7.10	35.80	6.99	6.99	6.99	35.69
4	7.00	7.20	7.10	35.80	7.22	7.22	7.22	35.92	7.07	7.00	7.04	35.74	6.96	6.80	6.88	35.58	7.08	7.07	7.08	35.78	6.99	6.99	6.99	35.69
5	7.10	6.88	6.99	35.69	7.20	7.20	7.20	35.90	6.80	6.46	6.63	35.33	6.97	6.90	6.94	35.64	7.07	7.07	7.07	35.77	6.99	6.99	6.99	35.69
6	6.20	6.34	6.27	34.97	7.20	7.28	7.24	35.94	5.90	6.72	6.31	35.01	6.72	6.90	6.81	35.51	7.07	7.06	7.07	35.77	7.00	7.00	7.00	35.70
7	7.13	7.16	7.15	35.85	7.35	7.29	7.32	36.02	7.37	6.84	7.11	35.81	7.10	7.18	7.14	35.84	7.05	7.05	7.05	35.75	7.00	7.00	7.00	35.70
8	7.11	6.99	7.05	35.75	7.28	7.22	7.25	35.95	5.86	7.10	6.48	35.18	6.66	6.75	6.71	35.41	7.04	7.04	7.04	35.74	7.01	7.01	7.01	35.71
9	6.80	6.64	6.72	35.42	7.30	7.09	7.20	35.90	7.34	7.19	7.27	35.97	6.30	6.62	6.46	35.16	7.02	7.00	7.01	35.71	7.00	6.99	7.00	35.70
10	6.65	4.70	5.68	34.38	7.08	6.90	6.99	35.69	7.08	7.00	7.04	35.74	6.96	7.12	7.04	35.74	7.00	7.00	7.00	35.70	6.98	6.98	6.98	35.68
11	5.92	6.56	6.24	34.94	5.76	7.30	6.53	35.23	6.94	6.80	6.87	35.57	7.24	6.80	7.02	35.72	7.00	6.99	7.00	35.70	6.99	6.99	6.99	35.69
12	6.80	6.96	6.88	35.58	7.22	7.02	7.12	35.82	6.80	7.02	6.91	35.61	6.80	7.02	6.91	35.61	6.98	6.97	6.98	35.68	6.99	6.99	6.99	35.69
13	7.05	7.12	7.09	35.79	6.84	7.14	6.99	35.69	7.26	7.13	7.20	35.90	7.02	7.09	7.06	35.76	6.97	6.97	6.97	35.67	6.99	6.99	6.99	35.69
14	7.16	7.21	7.19	35.89	7.18	7.12	7.15	35.85	7.13	7.24	7.19	35.89	6.50	6.72	6.61	35.31	6.98	6.95	6.97	35.67	6.99	6.99	6.99	35.69
15	7.23	7.24	7.24	35.94	7.13	5.70	6.42	35.12	7.00	6.42	6.71	35.41	7.24	6.65	6.95	35.65	6.94	6.98	6.96	35.66	6.99	6.98	6.99	35.69
16	7.27	7.28	7.28	35.98	7.04	7.18	7.11	35.81	6.64	6.56	6.60	35.30	6.02	6.80	6.41	35.11	6.98	6.79	6.89	35.59	6.98	6.98	6.98	35.68
17	7.00	6.93	6.97	35.67	7.33	7.34	7.34	36.04	6.06	5.90	5.98	34.68	6.92	6.91	6.92	35.62	6.80	6.78	6.79	35.49	6.98	6.97	6.98	35.68
18	7.02	7.02	7.02	35.72	7.24	7.16	7.20	35.90	7.30	7.22	7.26	35.96	6.82	7.13	6.98	35.68	6.82	6.84	6.83	35.53	6.96	6.95	6.96	35.66
19	7.07	7.13	7.10	35.80	7.15	6.56	6.86	35.56	7.30	6.24	6.77	35.47	7.23	7.12	7.18	35.88	6.86	6.88	6.87	35.57	6.96	6.96	6.96	35.66
20	7.09	6.86	6.98	35.68	6.05	6.40	6.23	34.93	5.62	7.00	6.31	35.01	6.90	6.76	6.83	35.53	6.94	6.97	6.96	35.66	6.96	6.96	6.96	35.66
21	6.30	6.62	6.46	35.16	5.20	7.30	6.25	34.95	6.06	6.08	6.07	34.77	6.84	6.74	6.79	35.49	6.98	6.99	6.99	35.69	6.97	6.97	6.97	35.67
22	6.68	6.73	6.71	35.41	7.00	6.94	6.97	35.67	7.25	6.92	7.09	35.79	6.76	6.58	6.67	35.37	6.99	6.99	6.99	35.69	6.98	6.98	6.98	35.68
23	6.83	6.85	6.84	35.54	6.96	6.92	6.94	35.64	6.40	5.72	6.06	34.76	6.22	6.02	6.12	34.82	6.99	6.98	6.99	35.69	6.98	6.97	6.98	35.68
24	6.79	6.68	6.74	35.44	6.89	7.22	7.06	35.76	5.90	6.86	6.38	35.08	5.66	6.10	5.88	34.58	6.96	6.94	6.95	35.65	6.98	6.97	6.98	35.68
25	6.56	6.28	6.42	35.12	7.26	7.20	7.23	35.93	6.99	7.04	7.02	35.72	6.87	7.17	7.02	35.72	6.93	6.91	6.92	35.62	6.97	6.98	6.98	35.68
26	4.80	6.40	5.60	34.30	7.05	6.99	7.02	35.72	7.16	6.68	6.92	35.62	7.20	7.27	7.24	35.94	6.89	6.89	6.89	35.59	6.99	6.99	6.99	35.69
27	6.86	7.15	7.01	35.71	6.90	6.98	6.94	35.64	4.80	7.12	5.96	34.66	7.28	7.27	7.28	35.98	6.90	6.89	6.90	35.60	6.99	6.99	6.99	35.69
28	7.26	7.25	7.26	35.96	7.20	7.22	7.21	35.91	7.14	7.08	7.11	35.81	7.26	7.22	7.24	35.94	6.90	6.86	6.88	35.58	6.99	6.99	6.99	35.69
29	7.25	7.23	7.24	35.94	7.12	7.12	7.12	35.82	7.15	6.96	7.06	35.76	7.22	7.20	7.21	35.91	6.88	6.90	6.89	35.59	6.99	6.99	6.99	35.69
30	7.19	7.15	7.17	35.87	7.00	6.60	6.80	35.50	6.84	7.22	7.03	35.73	7.20	7.18	7.19	35.89	6.92	6.94	6.93	35.63	6.99	6.99	6.99	35.69
31	7.13	7.10	7.12	35.82	5.80	7.11	6.46	35.16					7.16	7.14	7.15	35.85					6.99	6.99	6.99	35.69
Average	6.86	6.88	**6.87**	**35.57**	6.95	7.04	**6.99**	**35.69**	6.71	6.80	**6.75**	**35.45**	6.84	6.89	**6.86**	**35.56**	6.98	6.97	**6.97**	**35.67**	6.98	6.98	**6.98**	**35.68**
Max.	7.27	7.33	**7.33**	**36.03**	7.35	7.34	**7.35**	**36.05**	7.37	7.24	**7.37**	**36.07**	7.28	7.27	**7.28**	**35.98**	7.14	7.13	**7.14**	**35.84**	7.01	7.01	**7.01**	**35.71**
Min.	4.80	4.70	**4.70**	**33.40**	5.20	5.70	**5.20**	**33.90**	4.80	5.72	**4.80**	**33.50**	5.66	6.02	**5.66**	**34.36**	6.80	6.78	**6.78**	**35.48**	6.96	6.95	**6.95**	**35.65**

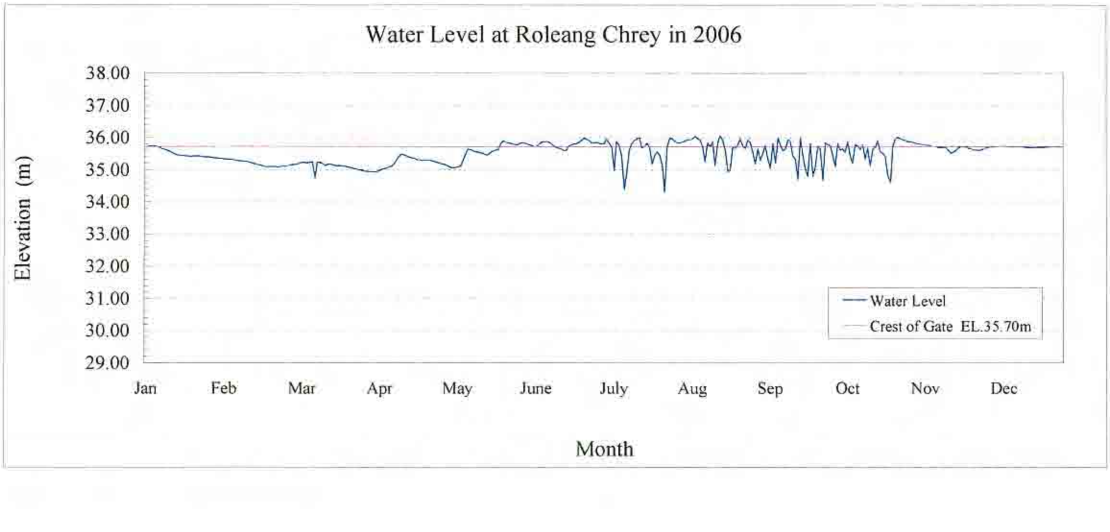
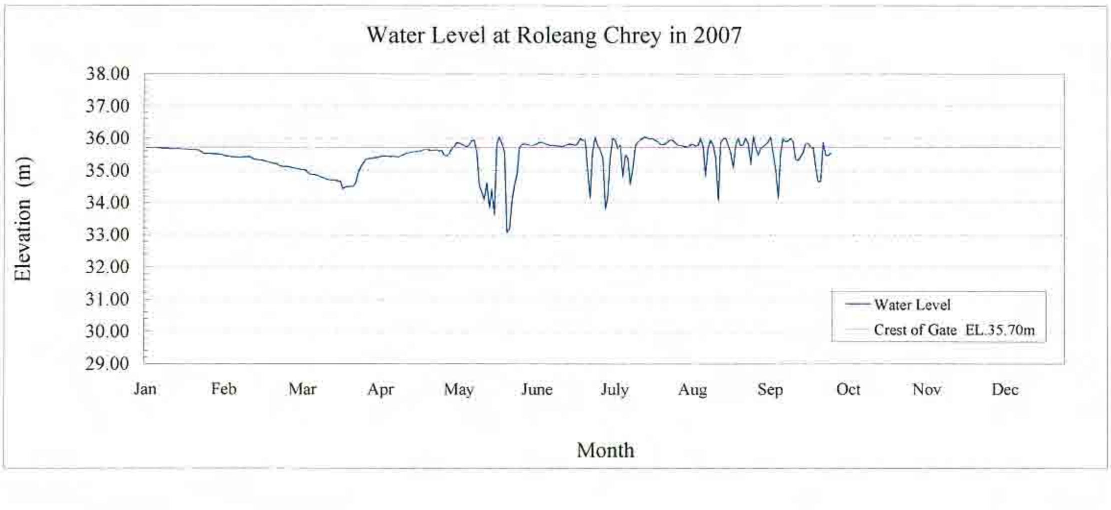


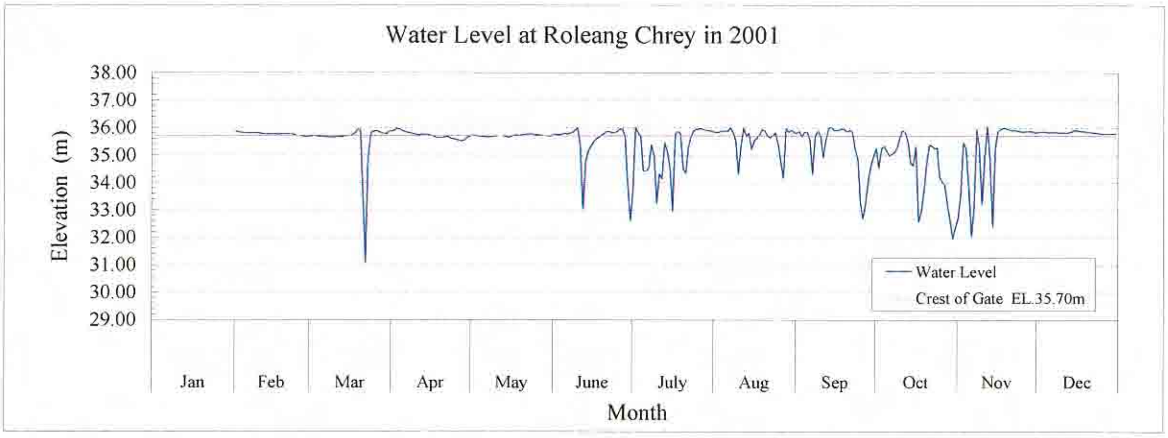
Table 6.4.1　The Upstream Water Level Observation Record（7/7）

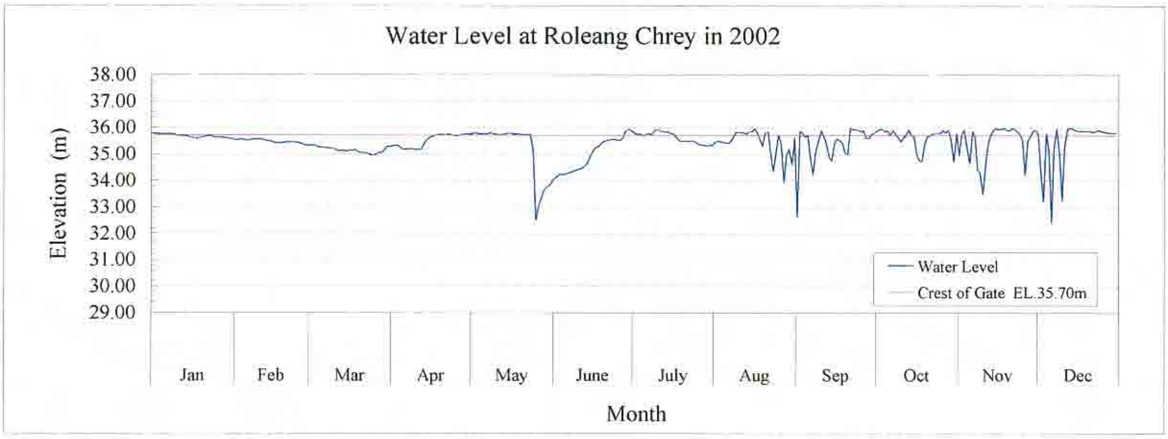
Year : 2007　**River : Prek Thnot River**　**Station : Roleang Chrey**　**Recorder : Mey Nou**　**Zero GH : 6.00 m**
34.70 m (MSL)

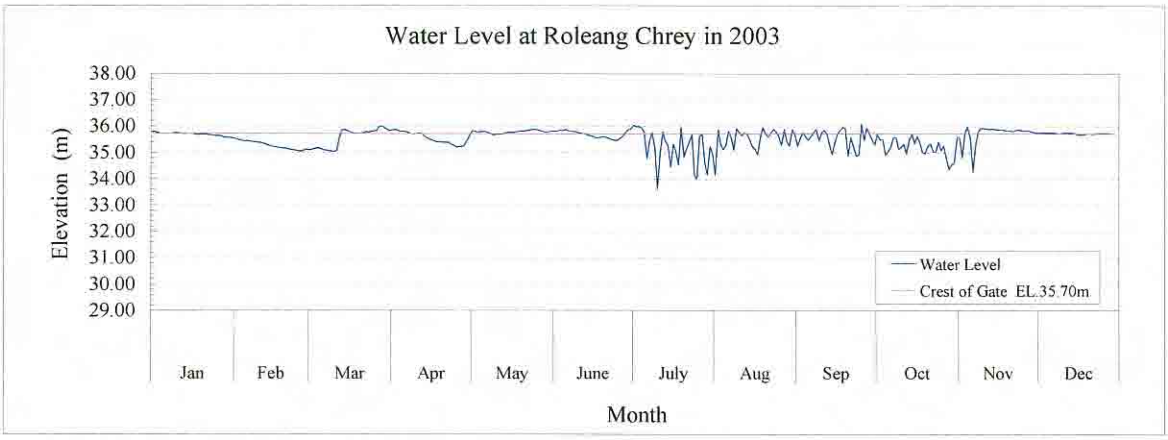
Month	January				February				March				April				May				June			
Date	Gauge height (m)			Elevation	Gauge height (m)			Elevation	Gauge height (m)			Elevation	Gauge height (m)			Elevation	Gauge height (m)			Elevation	Gauge height (m)			Elevation
	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)
1	6.99	6.99	6.99	35.69	6.76	6.72	6.74	35.44	6.35	6.34	6.35	35.05	6.66	6.66	6.66	35.36	6.76	6.80	6.78	35.48	7.10	7.08	7.09	35.79
2	6.99	6.99	6.99	35.69	6.72	6.72	6.72	35.42	6.33	6.33	6.33	35.03	6.68	6.68	6.68	35.38	6.92	6.97	6.95	35.65	7.08	7.04	7.06	35.76
3	6.99	6.99	6.99	35.69	6.72	6.71	6.72	35.42	6.32	6.31	6.32	35.02	6.68	6.68	6.68	35.38	7.00	7.02	7.01	35.71	7.05	7.07	7.06	35.76
4	6.99	6.99	6.99	35.69	6.71	6.70	6.71	35.41	6.30	6.30	6.30	35.00	6.72	6.72	6.72	35.42	7.13	7.15	7.14	35.84	7.08	7.06	7.07	35.77
5	6.99	6.98	6.99	35.69	6.70	6.70	6.70	35.40	6.30	6.29	6.30	35.00	6.73	6.72	6.73	35.43	7.14	7.12	7.13	35.83	7.10	7.12	7.11	35.81
6	6.98	6.98	6.98	35.68	6.70	6.69	6.70	35.40	6.29	6.16	6.23	34.93	6.72	6.72	6.72	35.42	7.10	7.08	7.09	35.79	7.16	7.16	7.16	35.86
7	6.98	6.96	6.97	35.67	6.69	6.68	6.69	35.39	6.16	6.16	6.16	34.86	6.72	6.72	6.72	35.42	7.08	7.05	7.07	35.77	7.16	7.13	7.15	35.85
8	6.96	6.96	6.96	35.66	6.68	6.69	6.69	35.39	6.16	6.15	6.16	34.86	6.71	6.71	6.71	35.41	7.01	7.01	7.01	35.71	7.12	7.10	7.11	35.81
9	6.96	6.96	6.96	35.66	6.70	6.70	6.70	35.40	6.15	6.14	6.15	34.85	6.72	6.72	6.72	35.42	7.06	7.07	7.07	35.77	7.10	7.07	7.09	35.79
10	6.96	6.95	6.96	35.66	6.70	6.70	6.70	35.40	6.14	6.12	6.13	34.83	6.72	6.71	6.72	35.42	7.11	7.29	7.20	35.90	7.06	7.06	7.06	35.76
11	6.94	6.94	6.94	35.64	6.70	6.70	6.70	35.40	6.12	6.06	6.09	34.79	6.70	6.70	6.70	35.40	7.26	7.18	7.22	35.92	7.06	7.05	7.06	35.76
12	6.95	6.95	6.95	35.65	6.69	6.63	6.66	35.36	6.06	6.05	6.06	34.76	6.73	6.73	6.73	35.43	6.94	6.76	6.85	35.55	7.05	7.04	7.05	35.75
13	6.95	6.95	6.95	35.65	6.62	6.62	6.62	35.32	6.05	6.00	6.03	34.73	6.74	6.78	6.76	35.46	5.94	5.66	5.80	34.50	7.04	7.04	7.04	35.74
14	6.95	6.95	6.95	35.65	6.62	6.61	6.62	35.32	6.00	6.00	6.00	34.70	6.81	6.81	6.81	35.51	5.34	5.92	5.63	34.33	7.04	7.04	7.04	35.74
15	6.95	6.95	6.95	35.65	6.60	6.60	6.60	35.30	6.00	5.96	5.98	34.68	6.82	6.82	6.82	35.52	4.70	6.04	5.37	34.07	7.03	7.00	7.02	35.72
16	6.94	6.94	6.94	35.64	6.60	6.59	6.60	35.30	5.98	5.98	5.98	34.68	6.83	6.86	6.85	35.55	5.94	5.86	5.90	34.60	7.04	7.07	7.06	35.76
17	6.94	6.94	6.94	35.64	6.58	6.56	6.57	35.27	5.98	5.97	5.98	34.68	6.86	6.86	6.86	35.56	4.35	5.87	5.11	33.81	7.08	7.08	7.08	35.78
18	6.94	6.93	6.94	35.64	6.54	6.54	6.54	35.24	5.96	5.96	5.96	34.66	6.86	6.86	6.86	35.56	5.70	5.64	5.67	34.37	7.10	7.10	7.10	35.80
19	6.92	6.92	6.92	35.62	6.53	6.52	6.53	35.23	5.95	5.93	5.94	34.64	6.86	6.88	6.87	35.57	3.72	6.10	4.91	33.61	7.10	7.08	7.09	35.79
20	6.92	6.92	6.92	35.62	6.50	6.50	6.50	35.20	5.70	5.72	5.71	34.41	6.88	6.90	6.89	35.59	7.00	7.22	7.11	35.81	7.06	7.03	7.05	35.75
21	6.92	6.92	6.92	35.62	6.49	6.49	6.49	35.19	5.76	5.77	5.77	34.47	6.92	6.93	6.93	35.63	7.28	7.33	7.31	36.01	7.10	7.13	7.12	35.82
22	6.91	6.91	6.91	35.61	6.48	6.46	6.47	35.17	5.78	5.78	5.78	34.48	6.93	6.93	6.93	35.63	7.14	7.06	7.10	35.80	7.24	7.29	7.27	35.97
23	6.90	6.81	6.86	35.56	6.45	6.40	6.43	35.13	5.78	5.78	5.78	34.48	6.93	6.91	6.92	35.62	6.88	6.80	6.84	35.54	7.25	7.18	7.22	35.92
24	6.80	6.80	6.80	35.50	6.40	6.40	6.40	35.10	5.78	5.80	5.79	34.49	6.90	6.90	6.90	35.60	6.02	2.70	4.36	33.06	7.12	7.34	7.23	35.93
25	6.80	6.80	6.80	35.50	6.40	6.40	6.40	35.10	5.84	5.90	5.87	34.57	6.88	6.92	6.90	35.60	4.17	4.70	4.44	33.14	6.90	5.72	6.31	35.01
26	6.80	6.80	6.80	35.50	6.40	6.40	6.40	35.10	6.16	6.20	6.18	34.88	6.92	6.91	6.92	35.62	5.21	5.54	5.38	34.08	5.71	5.12	5.42	34.12
27	6.80	6.80	6.80	35.50	6.39	6.38	6.39	35.09	6.32	6.38	6.35	35.05	6.90	6.86	6.88	35.58	5.78	5.96	5.87	34.57	6.40	7.20	6.80	35.50
28	6.80	6.79	6.80	35.50	6.37	6.36	6.37	35.07	6.44	6.56	6.50	35.20	6.88	6.92	6.90	35.60	6.09	6.20	6.15	34.85	7.38	7.24	7.31	36.01
29	6.79	6.79	6.79	35.49					6.60	6.62	6.61	35.31	6.80	6.72	6.76	35.46	6.96	7.02	6.99	35.69	7.10	7.00	7.05	35.75
30	6.78	6.78	6.78	35.48					6.63	6.65	6.64	35.34	6.70	6.74	6.72	35.42	7.08	7.10	7.09	35.79	6.90	6.90	6.90	35.60
31	6.78	6.78	6.78	35.48					6.65	6.66	6.66	35.36					7.10	7.10	7.10	35.80				
Average	6.91	6.91	**6.91**	**35.61**	6.59	6.58	**6.58**	**35.28**	6.13	6.13	**6.13**	**34.83**	6.80	6.80	**6.80**	**35.50**	6.35	6.46	**6.41**	**35.11**	7.02	6.98	**7.00**	**35.70**
Max	6.99	6.99	**6.99**	**35.69**	6.76	6.72	**6.76**	**35.46**	6.65	6.66	**6.66**	**35.36**	6.93	6.93	**6.93**	**35.63**	7.28	7.33	**7.33**	**36.03**	7.38	7.34	**7.38**	**36.08**
Min.	6.78	6.78	**6.78**	**35.48**	6.37	6.36	**6.36**	**35.06**	5.70	5.72	**5.70**	**34.40**	6.66	6.66	**6.66**	**35.36**	3.72	2.70	**2.70**	**31.40**	5.71	5.12	**5.12**	**33.82**

Month	July				August				September				October				November				December			
Date	Gauge height (m)			Elevation	Gauge height (m)			Elevation	Gauge height (m)			Elevation	Gauge height (m)			Elevation	Gauge height (m)			Elevation	Gauge height (m)			Elevation
	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)	(7:00)	(19:00)	Average	(MSL)
1	6.81	6.54	6.68	35.38	7.06	7.05	7.06	35.76	6.86	6.66	6.76	35.46												
2	6.02	4.16	5.09	33.79	7.04	7.03	7.04	35.74	6.92	7.00	6.96	35.66												
3	5.10	5.78	5.44	34.14	7.02	7.02	7.02	35.72	7.01	7.05	7.03	35.73												
4	6.42	6.96	6.69	35.39	7.02	7.01	7.02	35.72	7.03	7.12	7.08	35.78												
5	7.22	7.36	7.29	35.99	7.04	7.12	7.08	35.78	7.14	7.20	7.17	35.87												
6	7.20	7.20	7.20	35.90	7.10	7.08	7.09	35.79	7.40	7.24	7.32	36.02												
7	6.96	6.96	6.96	35.66	7.06	7.02	7.04	35.74	6.98	6.64	6.81	35.51												
8	7.14	7.00	7.07	35.77	7.02	7.10	7.06	35.76	6.50	6.08	6.29	34.99												
9	6.08	6.06	6.07	34.77	7.26	7.30	7.28	35.98	6.20	4.62	5.41	34.11												
10	6.50	7.00	6.75	35.45	7.24	6.78	7.01	35.71	6.44	7.12	6.78	35.48												
11	6.92	6.39	6.66	35.36	5.86	6.36	6.11	34.81	7.28	7.26	7.27	35.97												
12	5.78	5.90	5.84	34.54	6.74	7.24	6.99	35.69	7.18	7.18	7.18	35.88												
13	6.02	6.67	6.35	35.05	7.19	7.24	7.22	35.92	7.16	7.23	7.20	35.90												
14	7.00	7.10	7.05	35.75	7.12	7.00	7.06	35.76	7.26	7.28	7.27	35.97												
15	7.16	7.18	7.17	35.87	6.70	6.70	6.70	35.40	7.40	7.00	7.20	35.90												
16	7.19	7.24	7.22	35.92	4.86	5.82	5.34	34.04	6.40	6.86	6.63	35.33												
17	7.28	7.30	7.29	35.99	6.92	7.36	7.14	35.84	7.20	5.98	6.59	35.29												
18	7.33	7.30	7.32	36.02	7.24	7.27	7.26	35.96	6.74	6.70	6.72	35.42												
19	7.27	7.26	7.27	35.97	7.29	7.28	7.29	35.99	6.80	6.86	6.83	35.53												
20	7.26	7.28	7.27	35.97	7.12	6.97	7.05	35.75	7.06	7.16	7.11	35.81												
21	7.28	7.26	7.27	35.97	6.86	6.80	6.83	35.53	7.24	7.02	7.13	35.83												
22	7.24	7.18	7.21	35.91	6.74	5.98	6.36	35.06	7.11	6.88	7.00	35.70												
23	7.16	7.18	7.17	35.87	6.92	7.24	7.08	35.78	6.96	6.98	6.97	35.67												
24	7.10	7.07	7.09	35.79	7.36	7.22	7.29	35.99	6.64	6.04	6.34	35.04												
25	7.10	7.08	7.09	35.79	7.10	7.02	7.06	35.76	6.22	5.67	5.95	34.65												
26	7.08	7.12	7.10	35.80	7.03	7.13	7.08	35.78	4.66	7.22	5.94	34.64												
27	7.16	7.18	7.17	35.87	7.17	7.38	7.28	35.98	7.22	7.08	7.15	35.85												
28	7.21	7.24	7.23	35.93	7.26	6.98	7.12	35.82	6.86	6.64	6.75	35.45												
29	7.28	7.13	7.21	35.91	5.97	7.00	6.49	35.19	6.74	6.76	6.75	35.45												
30	7.18	7.08	7.13	35.83	7.45	7.24	7.35	36.05	6.80	6.85	6.83	35.53												
31	7.06	7.07	7.07	35.77	7.02	7.00	7.01	35.71																
Average	6.89	6.88	**6.88**	**35.58**	6.93	6.99	**6.96**	**35.66**	6.85	6.78	**6.81**	**35.51**												
Max	7.33	7.36	**7.36**	**36.06**	7.45	7.38	**7.45**	**36.15**	7.40	7.28	**7.40**	**36.10**												
Min	5.10	4.16	**4.16**	**32.86**	4.86	5.82	**4.86**	**33.56**	4.66	4.62	**4.62**	**33.32**												









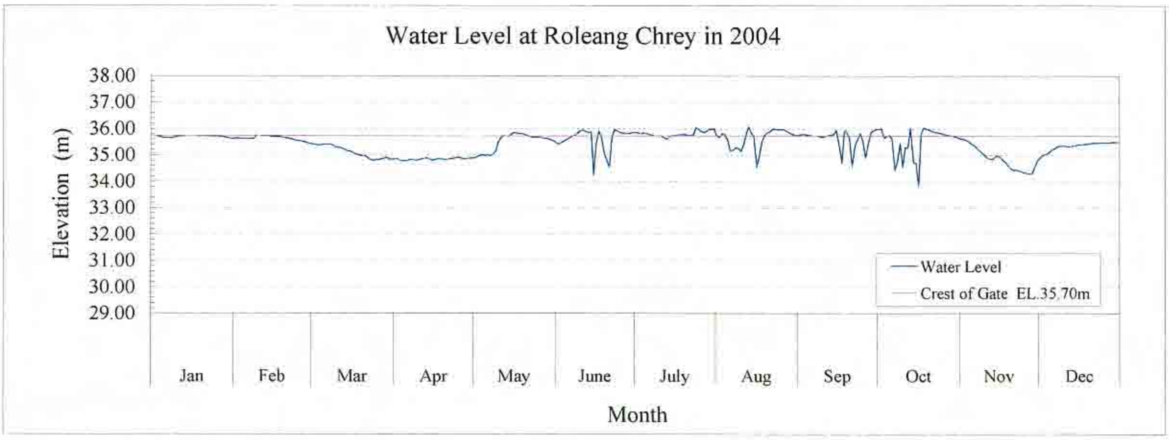
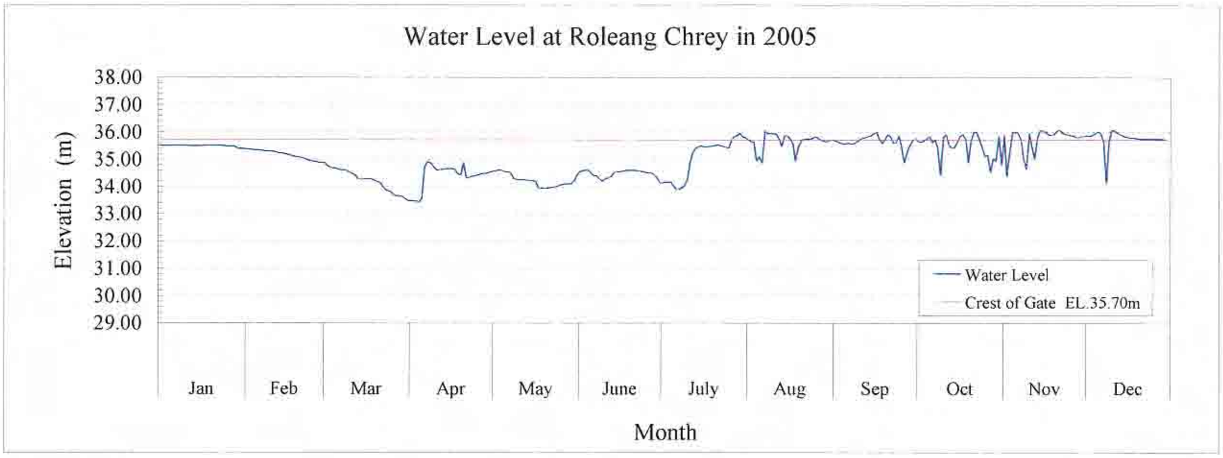
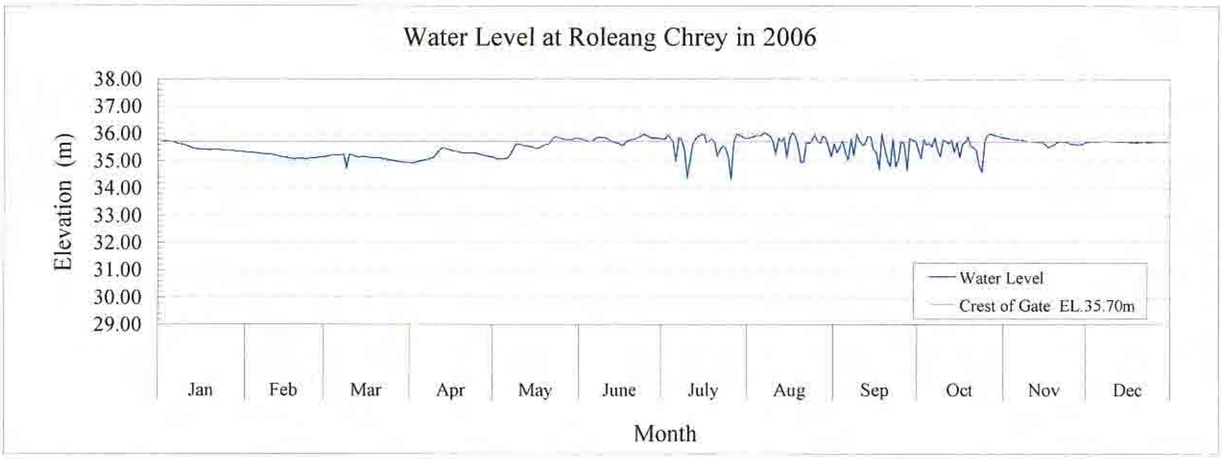


Figure 6.4.1 The Upstream Water Level Fluctuation (1/2)





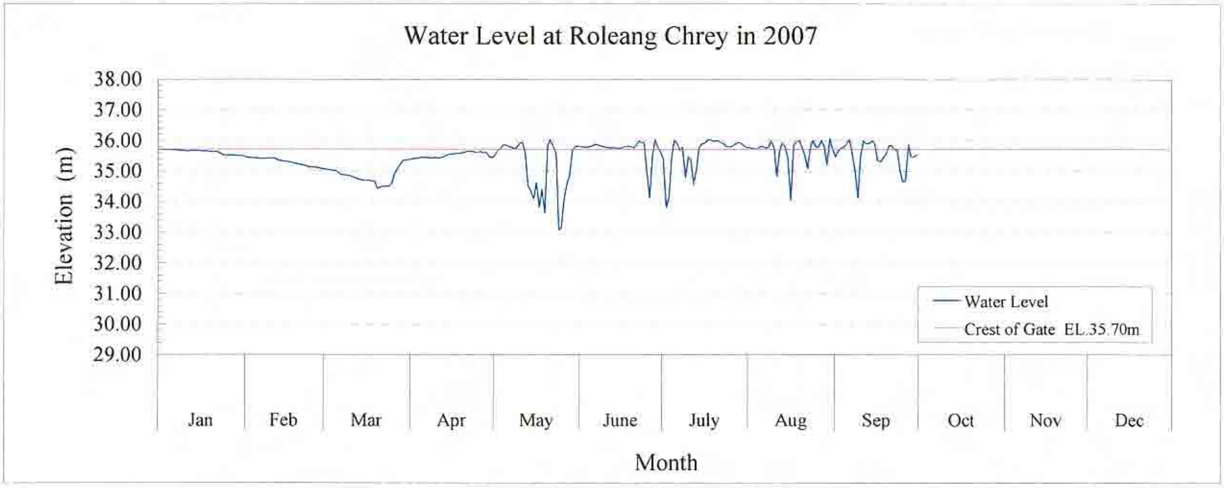


Figure 6.4.1 The Upstream Water Level Fluctuation (2/2)

Table 6.4.2 The Gates Operation Record (1/7)

Year : 2001 **River : Prek Thnot River** **Station : Roleang Chrey** **Recorder : Mey Nou**

Month	January							
Date	Roleang Chrey						North	South
	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos	Hn(m)	Hs(m)
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
Opening days								
Hmax (m)								
Nmax (nos.)								

Month	February							
Date	Roleang Chrey						North	South
	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos	Hn(m)	Hs(m)
1								
2								
3								
4							0.30	
5								
6								
7								
8								
9								
10								
11							0.30	
12								
13							0.30	
14								
15								
16								
17							0.40	
18								
19								
20								
21								
22								
23							0.30	
24								
25								
26							0.40	
27							0.40	
28								
29								
30								
31								
Opening days							7	
Hmax (m)							0.40	
Nmax (nos.)								

Month	March							
Date	Roleang Chrey						North	South
	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos	Hn(m)	Hs(m)
1								
2								
3								
4							0.40	
5								
6								
7								
8								
9								
10								
11								
12								
13							0.30	
14								
15								
16								
17								
18								
19								
20	0.50					1		
21	1.00					1		
22	close							
23								
24								
25								
26								
27								
28							0.40	
29								
30							0.40	
31								
Opening days	2						4	
Hmax (m)	1.00						0.40	
Nmax (nos.)	1							

Month	April							
Date	Roleang Chrey						North	South
	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)
1							0.30	
2							0.30	
3							0.30	
4							0.30	
5								
6								
7								
8								
9							0.40	
10								
11								
12								
13								
14								
15								
16								
17							0.40	
18								
19								
20								
21								
22								
23							0.40	
24								
25								
26							0.40	
27								
28								
29								
30								
31								
Opening days							8	
Hmax (m)							0.40	
Nmax (nos.)								

Month	May							
Date	Roleang Chrey						North	South
	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)
1								
2								
3							0.30	
4							0.40	
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18							0.30	
19							0.30	
20								
21								
22								
23								
24							0.40	
25								
26								
27							0.40	
28								
29								
30								
31								
Opening days							6	
Hmax (m)							0.40	
Nmax (nos.)								

Month	June							
Date	Roleang Chrey						North	South
	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)
1								
2								
3								
4								
5							0.30	
6								
7								
8							0.40	
9							0.40	
10	0.60					1		
11	1.20					1		
12	1.20					1		
13	close							
14								
15								
16								
17								
18								
19								
20							0.40	
21							0.40	
22								
23								
24								
25								
26								
27	0.50					1		
28	1.50					1		
29	1.50					1		
30	1.50					1		
31								
Opening days	7						5	
Hmax (m)	1.50						0.40	
Nmax (nos.)	1							

Month	July							
Date	Roleang Chrey						North	South
	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos	Hn(m)	Hs(m)
1	close							
2	0.40					1		
3	0.40					1		
4	1.50	1.00	1.00			3		
5	3.00	2.00	2.00			3		
6	6.00	5.00	5.00	3.00		4		
7	6.00	6.00	6.00	3.00		4		
8	7.00	7.00	7.00	7.00	7.00	5		
9	7.00	7.00	7.00	7.00	7.00	5		
10	7.00	7.00	7.00	7.00	7.00	5		
11	1.50	1.50	0.80			3		
12	6.00					1		
13	0.80	0.80				2		
14	0.80	0.80				2		
15	0.80	0.80				2		
16	close							
17	0.30					1	0.30	
18	0.30					1	0.40	
19	0.30					1	0.40	
20	0.30					1	0.40	
21	close							
22							0.40	
23								
24							0.40	
25							0.40	
26							0.40	
27							0.40	
28							0.40	
29							0.40	
30							0.40	
31							0.40	
Opening days	18						13	
Hmax (m)	7.00						0.40	
Nmax (nos.)	5							

Month	August							
Date	Roleang Chrey						North	South
	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)
1							0.40	
2								
3								
4								
5								
6								
7	0.30					1		
8	0.30					1		
9	0.80					1		
10	close							
11								
12	0.80					1		
13	1.30	1.30				2		
14	1.00	1.00				2		
15	0.50	0.50				2		
16	0.50	0.50				2		
17	0.50	0.50				2		
18	0.50	0.50				2		
19	0.50	0.50				2		
20	0.80	0.80				2		
21	0.80	0.80				2		
22	0.80	0.40				2		
23	1.00	0.70				2		
24	0.80	0.80	0.80			3		
25	0.80	0.80	0.80			3		
26	0.90	0.90				2		
27	close							
28	0.30					1	0.40	
29	0.30					1		
30	1.40	0.70				2	0.40	
31	0.70	0.70				2		
Opening days	22						3	
Hmax (m)	1.40						0.40	
Nmax (nos.)	3	x 0.80						

Month	September							
Date	Roleang Chrey						North	South
	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)
1	1.10	1.10				2		
2	1.10	1.10				2		
3	0.70	0.70				2		
4	0.40	0.40				2	0.40	
5	0.40	0.40				2		
6	0.40	0.40				2	0.40	
7	close							
8	0.30					1		
9	0.30					1		
10	0.30					1		
11	1.00	1.00				2		
12	close						0.40	
13							0.30	
14	0.30					1		
15	0.30					1		
16	0.30					1		
17	0.30					1		
18	0.70					1		
19	0.80					1		
20	1.40					1		
21	1.10					1		
22	0.80	0.80				2		
23	0.80	0.80				2		
24	2.50	1.50	1.50			3		
25	2.50	1.50	1.50			3		
26	5.00	5.00	5.00	5.00	5.00	5		
27	3.00	2.40	2.40			3		
28	2.50	1.50	1.50			3		
29	3.00	1.50	1.50			3		
30	3.50	1.50	1.50			3		
31								
Opening days	27						4	
Hmax (m)	5.00						0.40	
Nmax (nos.)	5							

Month	October							
Date	Roleang Chrey						North	South
	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos	Hn(m)	Hs(m)
1	3.50	2.00	2.00			3		
2	2.50	1.50	1.50			3		
3	3.00	1.50	1.50			3		
4	3.50	2.00	2.00			3		
5	4.00	2.50	2.50			3		
6	3.00	1.50	1.50			3		
7	3.00	1.50	1.50			3		
8	3.50	1.50	1.50			3		
9	4.00	2.00	2.00			3		
10	6.00	6.00	5.00	5.00	1.50	5		
11	7.50	7.50	7.50	7.50	7.50	5		
12	7.50	7.50	7.50	7.50	7.50	5		
13	7.50	7.50	7.50	7.50	7.50	5		
14	5.00	4.00	4.00			3		
15	2.00	1.50	1.50			3		
16	2.00	1.50	1.50			3		
17	1.50	1.00	1.00			3		
18	1.00					1		
19	0.40					1		
20	0.70					1		
21	0.70					1		
22	0.70	0.50				2		
23	1.00	1.00	0.70			3		
24	1.00	1.00	0.70			3		
25	4.00	3.00	3.00			3		
26	4.00	3.00	3.00			3		
27	3.00					1		
28	2.50					1		
29	2.00					1		
30	1.50					1		
31	1.50					1		
Opening days	31							
Hmax (m)	7.50							
Nmax (nos.)	5							

Month	November							
Date	Roleang Chrey						North	South
	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos	Hn(m)	Hs(m)
1	1.70					1		
2	0.50					1		
3	0.50					1		
4	1.40					1		
5	1.40					1		
6	0.60					1		
7	close							
8	0.40					1		
9	0.40					1		
10	0.40					1		
11	close							
12	0.40					1		
13	0.40					1		
14	close							
15								
16								
17							0.30	
18							0.40	
19								
20							0.40	
21							0.40	
22							0.40	
23							0.40	
24							0.40	
25							0.40	
26								
27								
28								
29							0.30	
30							0.30	
31								
Opening days	11						10	
Hmax (m)	1.70						0.40	
Nmax (nos.)	1							

Month	December							
Date	Roleang Chrey						North	South
	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos	Hn(m)	Hs(m)
1								
2								
3								
4							0.40	
5							0.40	
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
Opening days							2	
Hmax (m)							0.40	
Nmax (nos.)								

Table 6.4.2 The Gates Operation Record (2/7)

Year : 2002 **River : Prek Thnot River** **Station : Roleang Chrey** **Recorder : Mey Nou**

Month	January								February							
Date	Roleang Chrey						North	South	Roleang Chrey						North	South
	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)
1																
2																
3															0.40	
4																
5																
6																
7																
8																
9																
10							0.30									
11																
12							0.30								0.40	
13							0.30									
14							0.30									
15							0.30								0.40	
16							0.30									
17							0.40									
18																
19							0.30									
20							0.30									
21																
22																
23							0.30								0.30	
24															0.30	
25							0.30								0.30	
26															0.30	
27															0.40	
28																
29																
30							0.30									
31							0.30									
Opening days							13								8	
Hmax (m)							0.40								0.40	
Nmax (nos.)																

Month	March								April							
Date	Roleang Chrey						North	South	Roleang Chrey						North	South
	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)
1																
2																
3							0.40								0.30	
4																
5																
6																
7																
8																
9															0.30	
10							0.40								0.30	
11															0.30	
12															0.30	
13																
14																
15																
16																
17							0.40									
18							0.40									
19							0.40									
20																
21															0.40	
22																
23							0.40									
24																
25																
26																
27																
28																
29																
30															0.40	
31																
Opening days							6								7	
Hmax (m)							0.40								0.40	
Nmax (nos.)																

Month	May								June							
Date	Roleang Chrey						North	South	Roleang Chrey						North	South
	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)
1							0.40									
2																
3							0.40									
4															0.20	
5																
6															0.20	
7																
8																
9																
10																
11							0.40									
12															0.20	
13																
14																
15							0.40									
16																
17							0.40								0.30	
18															0.30	
19							0.40									
20															0.30	
21															0.30	
22																
23																
24	0.70					1									0.40	
25	close														0.40	
26															0.40	
27																
28							0.30									
29															0.40	
30															0.40	
31																
Opening days	1						7								12	
Hmax (m)	0.70						0.40								0.40	
Nmax (nos.)	1															

Month	July								August							
Date	Roleang Chrey						North	South	Roleang Chrey						North	South
	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)
1							0.40								0.30	0.30
2							0.40								0.30	0.30
3															0.30	0.30
4							0.40								0.30	0.30
5															0.30	0.30
6															0.30	0.30
7															0.30	0.30
8							0.40								0.30	0.30
9							0.40								0.30	0.30
10															0.30	0.30
11							0.30								0.30	0.30
12							0.30								0.30	0.30
13															0.30	0.30
14							0.40								0.30	0.30
15							0.30								0.30	0.30
16							0.30	0.30	0.30					1	0.30	0.30
17							0.30	0.30							0.30	0.30
18							0.30	0.30							0.30	0.30
19							0.30	0.30							0.30	0.30
20							0.30	0.30							0.30	0.30
21							0.30	0.30	0.60	0.60				2		
22							0.30	0.30	1.50	1.00	1.00			3		
23							0.30	0.30	1.00	0.50	0.50			3		
24							0.30	0.30								
25							0.30	0.30	1.00					1		
26							0.30	0.30	1.00					1		
27							0.30	0.30	0.30					1		
28							0.30	0.30	0.30					1		
29							0.30	0.30	0.30					1		
30							0.30	0.30	2.00	0.50	0.50			3		
31							0.30	0.30	close							
Opening days							25	16	10						20	20
Hmax (m)							0.40	0.30	2.00						0.30	0.30
Nmax (nos.)									3	(1.50+1.00x2)						

Month	September								October							
Date	Roleang Chrey						North	South	Roleang Chrey						North	South
	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)
1	0.40					1	0.40		0.35					1	0.20	0.20
2	0.90					1			0.35					1	0.20	0.20
3	0.90					1			0.35					1	0.20	0.20
4	0.30					1			0.35					1	0.20	0.20
5	0.30					1			0.50					1	0.20	0.20
6	0.30					1			0.50					1	0.20	0.20
7	close								0.90					1	0.20	0.20
8	1.00	0.50	0.50			3			0.90					1	0.20	0.20
9	1.00	0.50	0.50			3			0.70					1	0.20	0.20
10	0.30					1			0.30					1	0.20	0.20
11	0.30					1			0.30					1	0.20	0.20
12	0.30					1			0.30					1	0.20	0.20
13	0.30					1			0.40					1	0.20	0.20
14	0.10					1			0.30					1	0.20	0.20
15	0.10					1			0.30					1	0.20	0.20
16	0.10					1			close							
17	0.10					1										
18	0.10					1			1.50	1.50				2		
19	0.20					1			close							
20	close														0.50	0.50
21	0.10					1										
22	0.15					1									0.40	0.40
23	0.25					1									0.40	0.40
24	0.25					1									0.40	0.40
25	0.25					1									0.40	0.40
26	1.00	0.50				2			0.40					1		
27	1.00	0.50				2			0.40					1		
28	0.25					1			0.40					1		
29	0.25					1			0.40					1		
30	0.25					1			close							
31									0.30					1		
Opening days	28						1		21						20	20
Hmax (m)	1.00						0.40		1.50						0.50	0.50
Nmax (nos.)	3	(1.00+0.50x2)							2							

Month	November								December							
Date	Roleang Chrey						North	South	Roleang Chrey						North	South
	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)
1	1.50	1.00				2	0.20	0.20	1.00					1		
2	0.40					1	0.20	0.20	1.00	0.50				2		
3	0.40					1	0.20	0.20	close							
4	0.40					1	0.20	0.20	0.40					1	0.40	0.40
5	close						0.20	0.20	0.50	0.50				2		
6	0.20					1	0.20	0.20	close							
7	1.50	0.60				2	0.20	0.20								
8	1.50	0.60				2	0.20	0.20	0.60					1		
9	0.50					1	0.20	0.20	1.00					1		
10	close								close							
11							0.20	0.20								
12							0.20	0.20								
13							0.20	0.20								
14							0.20	0.20								
15							0.20	0.20								
16							0.20	0.20								
17							0.20	0.20								
18	0.20					1	0.20	0.20								
19	0.20					1	0.20	0.20								
20	0.20					1	0.20	0.20								
21	0.20					1	0.20	0.20								
22	0.20					1	0.20	0.20								
23	0.20					1	0.20	0.20								
24	0.20					1	0.20	0.20								
25	1.00					1										
26	close															
27																
28																
29																
30																
31																
Opening days	16						23	23	6						1	1
Hmax (m)	1.50						0.20	0.20	1.00						0.40	0.40
Nmax (nos.)	2	(1.50+0.60)							2	(1.00+0.50)						

Table 6.4.2 The Gates Operation Record (3/7)

Year : 2003 **River : Prek Thnot River** **Station : Roleang Chrey** **Recorder : Mey Nou**

Month	January								February								March								April							
Date	Roleang Chrey						North	South	Roleang Chrey						North	South	Roleang Chrey						North	South	Roleang Chrey						North	South
	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos	Hn(m)	Hs(m)	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos	Hn(m)	Hs(m)	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos	Hn(m)	Hs(m)	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos	Hn(m)	Hs(m)
1															0.30	0.10							0.30									
2																																
3								0.20								0.10																
4								0.20																								
5								0.20															0.30									
6								0.20															0.30									
7															0.30																0.40	
8															0.30	0.30							0.30								0.40	
9																							0.30									
10															0.20																	
11															0.20								0.30									
12															0.10								0.40								0.30	
13															0.10																0.30	
14															0.30								0.30								0.30	
15																							0.30								0.30	
16																							0.40								0.30	
17							0.30									0.10							0.40								0.30	
18								0.40								0.10															0.30	
19								0.40																								
20								0.40							0.30																	
21							0.50																0.30									
22																															0.30	
23															0.10								0.40								0.30	
24															0.10																0.30	
25															0.30								0.30								0.30	
26																																
27								0.10															0.40	0.40								
28							0.30								0.30	0.10							0.40	0.40								
29																							0.40	0.40								
30																																
31																							0.40									
Opening days							3	8							13	6							18	3							13	
Hmax (m)							0.50	0.40							0.30	0.30							0.40	0.40							0.40	
Nmax (nos.)																																

Month	May								June								July								August							
Date	Roleang Chrey						North	South	Roleang Chrey						North	South	Roleang Chrey						North	South	Roleang Chrey						North	South
	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos	Hn(m)	Hs(m)
1							0.20									0.20							0.40	0.20	close						0.30	
2							0.20									0.20							0.40	0.20	0.50					1		
3																0.30							0.40	0.20	0.70					1	0.30	0.30
4																0.30							0.40	0.20	0.30					1	0.30	0.30
5																0.30	0.60					1			0.80	0.50				2	0.30	0.30
6																0.30	0.60					1			0.80	0.50				2	0.30	0.30
7							0.30									0.30	0.10					1	0.40		0.80	0.50				2	0.30	0.30
8							0.30									0.20	0.10					1	0.40		0.80					1	0.30	0.30
9							0.10									0.20	0.60					1	0.40		0.80					1	0.30	0.30
10							0.10										close								0.80					1	0.30	0.30
11							0.10								0.40								0.30		0.80					1	0.30	0.30
12																	0.40					1	0.30		0.30					1	0.30	0.30
13															0.40		0.70					1	0.30		0.30					1	0.30	0.30
14															0.20		1.50	1.00	1.00			3			0.30					1	0.30	0.30
15															0.20		1.00	0.60				2			0.30					1	0.30	0.30
16							0.30								0.20		1.00	1.00	0.50			3			0.30					1	0.30	0.30
17																	1.00	0.50	0.50			3			close							
18																	0.70	0.60	0.60			3									0.30	0.30
19																	0.70	0.50				2			0.30					1	0.30	0.30
20															0.20	0.10	0.30					1	0.30		0.30					1	0.30	0.30
21															0.20	0.10	0.30					1	0.30		0.30					1	0.30	0.30
22							0.30								0.20	0.10	0.30					1	0.30		0.30					1	0.30	0.30
23							0.20								0.20	0.10	1.00	0.60				2			0.30					1	0.30	0.30
24							0.20	0.20							0.20	0.10	2.70	2.70	1.00	1.00		4			0.30					1	0.30	0.30
25							0.20	0.20							0.20	0.10	5.50	5.50	5.50	5.50	5.50	5			0.30					1	0.30	0.30
26							0.20	0.20							0.20	0.10	7.50	7.50	7.50	7.50	7.50	5			0.30					1	0.30	0.30
27							0.20	0.20							0.20	0.10	7.50	7.50	7.50	7.50	7.50	5			0.50					1	0.30	0.30
28							0.20	0.20							0.20	0.10	7.50	7.50	7.50	7.50		4			0.50					1	0.30	0.30
29							0.20	0.20							0.40	0.20	1.50	1.00	1.00			3			0.20					1	0.30	0.30
30							0.30								0.40	0.20	1.50	0.50				2			1.00	0.50				2		
31							0.30										1.50	0.50				2			1.00	0.50				2		
Opening days							18	6							16	20	25						13	4	28						27	26
Hmax (m)							0.30	0.20							0.40	0.30	7.50						0.40	0.20	1.00						0.30	0.30
Nmax (nos.)																	5								2	(1.00+0.50)						

Month	September								October								November								December							
Date	Roleang Chrey						North	South	Roleang Chrey						North	South	Roleang Chrey						North	South	Roleang Chrey						North	South
	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)
1	1.00	0.50				2			1.50	1.00	1.00			3			0.50					1	0.20	0.20							0.20	0.20
2	1.00	0.50				2	0.30	0.30	2.50	1.50	1.50			3			close														0.30	0.30
3	0.80					1	0.30	0.30	3.00	3.00	2.00	2.00		4									0.40	0.40							0.30	0.30
4	0.80					1	0.30	0.30	4.00	4.00	2.00	2.00		4			0.50					1									0.30	0.30
5	0.80					1	0.30	0.30	2.50	1.70	1.70			3			0.50					1									0.30	0.30
6	0.60					1	0.30	0.30	2.50	1.00	1.00			3			close														0.30	0.30
7	0.60					1	0.40	0.40	2.50	1.00	1.00			3									0.40	0.40							0.30	0.30
8	1.00					1	0.40	0.40	2.50	2.50	1.00	1.00		4									0.40	0.40							0.30	0.30
9	1.00					1	0.40	0.40	3.00	2.50	1.00	1.00		4									0.40	0.40							0.30	0.30
10	0.80					1	0.40	0.40	2.00	0.70	0.70			3									0.40	0.40							0.30	0.30
11	1.00					1	0.20	0.20	1.50	0.70	0.70			3									0.40	0.40							0.30	0.30
12	1.00					1	0.20	0.20	1.00	0.50	0.50			3									0.40	0.40							0.30	0.30
13	1.00					1	0.20	0.20	0.70	0.40	0.40			3									0.40	0.40							0.30	0.30
14	0.40					1	0.20	0.20	0.70	0.40	0.40			3									0.40	0.40							0.30	0.30
15	0.40					1	0.20	0.20	0.70	0.40	0.40			3									0.40	0.40							0.30	0.30
16	0.40					1	0.20	0.20	2.50	1.50	1.50			3									0.40	0.40							0.30	0.30
17	0.40					1	0.20	0.20	2.50	1.50	1.50	0.50		4									0.40	0.40								
18	0.60					1	0.20	0.20	3.00	2.00	2.00	1.00		4									0.40	0.40								
19	1.00	0.50				2	0.20	0.20	2.50	1.00	1.00			3									0.40	0.40								
20	0.50					1	0.20	0.20	1.50	0.50	0.50			3									0.40	0.40								
21	1.00	0.50	0.50			3			1.50	0.50	0.50			3									0.40	0.40								
22	2.00	1.00	1.00			3			1.50	0.50	0.50			3									0.40	0.40								
23	0.70	0.50	0.50			3			1.00	0.50	0.50			3									0.40	0.40								
24	close								2.50	1.00	1.00			3									0.40	0.40								
25	1.00	0.50				2			3.00	2.00	2.00	1.00		4									0.40	0.40								
26	0.50	0.30				2			4.00	3.00	3.00	2.50		4									0.40	0.40								
27	1.00	0.50				2			3.00	3.00	3.00	0.50	0.50	5									0.40	0.40								
28	1.00	0.50				2			1.70	0.50				2									0.40	0.40								
29	1.00	0.50				2			1.70	0.50				2									0.40	0.40								
30	1.00	0.50				2			0.70					1									0.40	0.40								
31									0.50					1																		
Opening days	29						19	19	31								3						26	26							16	16
Hmax (m)	2.00						0.40	0.40	4.00								0.50						0.40	0.40							0.30	0.30
Nmax (nos.)	3	(2.00+1.00x2)							5	(4.00+3.00x2+2.50)							1															

Table 6.4.2 The Gates Operation Record (4/7)

Year : 2004 **River : Prek Thnot River** **Station : Roleang Chrey** **Recorder : Mey Nou**

Month	January							
Date	Roleang Chrey						North	South
	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)
1								
2								
3								
4							0.40	
5							0.10	
6							0.10	
7							0.10	
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28							0.20	
29							0.20	
30							0.20	
31								
Opening days							7	
Hmax (m)							0.40	
Nmax (nos.)								

Month	February							
Date	Roleang Chrey						North	South
	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)
1								
2							0.30	
3								
4								
5								
6								
7								
8								
9								0.10
10								0.10
11								0.10
12								
13								0.10
14								0.10
15								0.10
16								
17								
18							0.20	
19								
20								
21								
22								
23							0.30	
24								
25								
26								
27								
28							0.30	
29								
30								
31								
Opening days							4	6
Hmax (m)							0.30	0.10
Nmax (nos.)								

Month	March							
Date	Roleang Chrey						North	South
	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)
1								
2								
3							0.30	
4								
5								
6								0.10
7								0.10
8							0.30	
9								0.10
10								0.10
11								0.10
12								0.10
13							0.30	
14								
15								
16							0.30	
17								0.10
18								0.10
19								0.10
20								
21								0.10
22							0.30	
23								
24								
25								
26							0.20	
27							0.20	
28							0.20	
29							0.20	
30							0.30	
31								
Opening days							10	10
Hmax (m)							0.30	0.10
Nmax (nos.)								

Month	April							
Date	Roleang Chrey						North	South
	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)
1								
2							0.20	
3								0.20
4								0.10
5								0.20
6								
7								0.20
8							0.30	
9								0.20
10								0.20
11								0.20
12								
13								
14							0.30	
15								
16								
17								
18							0.30	
19								
20							0.30	
21								
22								0.20
23								
24								
25								
26							0.40	
27								
28								
29								0.30
30								
31								
Opening days							6	9
Hmax (m)							0.40	0.30
Nmax (nos.)								

Month	May							
Date	Roleang Chrey						North	South
	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)
1								
2								
3								0.10
4								
5								
6								
7							0.40	
8								
9								
10							0.40	
11							0.40	0.20
12							0.40	0.20
13							0.40	0.20
14							0.40	0.20
15							0.30	0.20
16							0.30	0.20
17							0.30	0.20
18								0.20
19								0.20
20								0.20
21							0.20	
22							0.20	
23								
24								
25								
26								
27								
28							0.10	
29							0.30	
30								
31							0.20	
Opening days							14	11
Hmax (m)							0.40	0.20
Nmax (nos.)								

Month	June							
Date	Roleang Chrey						North	South
	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)
1							0.30	
2								
3								
4								
5								
6								
7							0.10	
8							0.10	
9							0.20	
10							0.20	
11							0.10	
12							0.10	
13							0.10	
14	0.25					1		
15	0.50					1		
16	0.30					1		
17	1.00					1	0.20	0.20
18	1.00					1	0.20	0.20
19	1.00					1	0.20	0.20
20	1.00					1	0.20	0.20
21	close							
22							0.20	0.20
23							0.20	0.20
24							0.20	0.20
25							0.20	0.20
26							0.20	0.20
27							0.20	0.20
28							0.20	0.20
29							0.20	0.20
30							0.20	0.20
31								
Opening days	7						21	13
Hmax (m)	1.00						0.30	0.20
Nmax (nos.)	1							

Month	July							
Date	Roleang Chrey						North	South
	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)
1							0.20	0.20
2							0.20	0.20
3							0.20	0.20
4							0.20	0.20
5							0.30	
6							0.40	
7							0.40	
8							0.40	
9							0.40	
10							0.40	
11							0.40	
12							0.40	
13							0.40	
14							0.40	
15							0.40	
16							0.40	
17							0.50	
18							0.40	
19							0.40	
20							0.40	
21							0.40	
22							0.40	
23							0.40	
24							0.40	
25							0.40	
26							0.40	
27							0.40	
28							0.40	
29							0.40	
30							0.40	
31							0.40	
Opening days							31	4
Hmax (m)							0.50	0.20
Nmax (nos.)								

Month	August							
Date	Roleang Chrey						North	South
	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)
1	0.30					1		
2	0.30					1		
3	0.30					1		
4	0.30					1		
5	0.30					1		
6	0.30					1		
7	0.10					1		
8	0.10					1		
9	0.10					1		
10	0.10					1		
11	close							
12								
13	0.30					1		
14	0.30					1		
15	0.30					1		
16	close							
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
Opening days	13							
Hmax (m)	0.30							
Nmax (nos.)	1							

Month	September							
Date	Roleang Chrey						North	South
	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15	0.50					1		
16	0.50					1		
17	close							
18	0.50					1		
19	1.10					1		
20	1.10					1		
21	1.10					1		
22	1.00					1		
23	0.50					1		
24	0.50					1		
25	0.50					1		
26	close							
27								
28								
29								
30								
31								
Opening days	10							
Hmax (m)	1.10							
Nmax (nos.)	1							

Month	October							
Date	Roleang Chrey						North	South
	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)
1								
2	0.30					1		
3	0.30					1		
4	0.30					1		
5	0.50	0.30				2		
6	1.00	0.30	0.30			3		
7	1.00	0.30	0.30			3		
8	1.20					1		
9	1.20	0.30				2		
10	0.80					1		
11	0.80					1		
12	0.50					1		
13	0.80					1		
14	0.80					1		
15	0.80					1		
16	close							
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
Opening days	14							
Hmax (m)	1.20							
Nmax (nos.)	3	(1.00+0.30x2)						

Month	November							
Date	Roleang Chrey						North	South
	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)
1							0.40	0.40
2							0.40	0.40
3							0.40	0.40
4							0.40	0.40
5							0.40	0.40
6							0.40	0.40
7							0.40	0.40
8							0.40	0.40
9							0.40	0.40
10							0.40	0.40
11							0.40	0.40
12							0.40	0.40
13							0.40	0.40
14							0.40	0.40
15							0.40	0.40
16							0.40	0.40
17							0.50	0.50
18							0.50	0.50
19							0.50	0.50
20							0.50	0.50
21							0.50	0.50
22							0.50	0.50
23							0.50	0.50
24							0.50	0.50
25							0.50	0.50
26							0.50	0.50
27							0.50	0.50
28							0.50	0.50
29								
30							0.20	0.20
31								
Opening days							29	29
Hmax (m)							0.50	0.50
Nmax (nos.)								

Month	December							
Date	Roleang Chrey						North	South
	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
Opening days								
Hmax (m)								
Nmax (nos.)								

Table 6.4.2 The Gates Operation Record (5/7)

Year : 2005 **River : Prek Thnot River** **Station : Roleang Chrey** **Recorder : Mey Nou**

Month	January							
Date	Roleang Chrey						North	South
	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
Opening days								
Hmax (m)								
Nmax (nos.)								

Month	February							
Date	Roleang Chrey						North	South
	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
Opening days								
Hmax (m)								
Nmax (nos.)								

Month	March							
Date	Roleang Chrey						North	South
	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)
1							0.30	
2							0.30	
3							0.30	
4								
5								
6								
7								
8								
9							0.30	
10							0.30	
11							0.30	
12							0.30	
13							0.30	
14								
15								
16								
17								
18								
19							0.30	
20								
21							0.30	
22							0.30	
23							0.30	
24								
25							0.30	
26							0.30	
27								
28								
29							0.30	
30							0.30	
31							0.30	
Opening days							17	
Hmax (m)							0.30	
Nmax (nos.)								

Month	April							
Date	Roleang Chrey						North	South
	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)
1								
2								
3								
4								
5								
6							0.30	
7							0.30	
8							0.30	
9							0.30	
10							0.30	
11								
12								
13								
14								
15								0.10
16								0.30
17								0.30
18								0.30
19								
20							0.30	
21							0.30	
22								
23								
24								
25								
26								
27								
28							0.30	
29								
30								
31								
Opening days							8	4
Hmax (m)							0.30	0.30
Nmax (nos.)								

Month	May							
Date	Roleang Chrey						North	South
	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)
1							0.30	
2								
3								
4							0.30	
5								
6								
7							0.30	
8							0.30	
9								
10								
11								
12								
13								
14								
15								
16							0.30	
17							0.30	
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
Opening days							6	
Hmax (m)							0.30	
Nmax (nos.)								

Month	June							
Date	Roleang Chrey						North	South
	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)
1								
2								
3								
4							0.30	
5							0.30	
6							0.30	
7							0.30	
8							0.30	
9							0.30	
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27							0.30	
28							0.30	
29							0.30	
30							0.30	
31								
Opening days							10	
Hmax (m)							0.30	
Nmax (nos.)								

Month	July							
Date	Roleang Chrey						North	South
	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)
1								
2								
3								
4								0.30
5								0.30
6								0.30
7								
8								
9								
10								
11								
12								
13								
14							0.30	
15							0.30	
16							0.30	
17							0.30	0.30
18							0.30	0.30
19							0.30	0.30
20							0.30	0.30
21							0.30	0.30
22							0.30	0.30
23							0.30	0.30
24							0.30	0.30
25							0.30	0.30
26							0.60	0.60
27							0.60	0.60
28							0.60	0.60
29	0.20					1		
30	0.20					1		
31	0.50					1		
Opening days	3						15	15
Hmax (m)	0.50						0.60	0.60
Nmax (nos.)	1							

Month	August							
Date	Roleang Chrey						North	South
	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)
1	1.50	0.50				2		
2	1.50	0.70	0.70			3		
3	1.70	1.00	1.00			3		
4	1.20	0.50	0.50			3		
5	0.30	0.30	0.30			3		
6	close							
7	0.50					1		
8	0.50					1		
9	0.50					1		
10	0.50					1		
11	0.50					1		
12	0.60					1		
13	0.30					1		
14	0.90					1		
15	0.90					1		
16	0.40					1		
17	0.40					1		
18	close							
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
Opening days	16							
Hmax (m)	1.70							
Nmax (nos.)	3	(1.70+1.00x2)						

Month	September							
Date	Roleang Chrey						North	South
	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16	0.20					1		
17	0.20					1		
18	0.20					1		
19	0.20					1		
20	1.20					1		
21	1.20	0.50				2		
22	1.20	0.50				2		
23	0.50					1		
24	0.50					1		
25	0.50					1		
26	0.10					1		
27	0.10					1		
28	0.10					1		
29	0.10					1		
30	0.10					1		
31								
Opening days	15							
Hmax (m)	1.20							
Nmax (nos.)	2	(1.20+0.50)						

Month	October							
Date	Roleang Chrey						North	South
	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)
1	0.10					1		
2	0.10					1		
3	0.10					1		
4	0.10					1		
5	0.10					1		
6	0.30					1		
7	0.30					1		
8	1.00					1		
9	close							
10	0.20					1		
11	0.40					1		
12	0.40					1		
13	0.40					1		
14	0.40					1		
15	0.40					1		
16	0.40					1		
17	0.40					1		
18	0.50					1		
19	close							
20								
21								
22								
23	0.60					1		
24	1.00	0.50	0.50			3		
25	1.50	0.50	0.50			3		
26	2.00	1.00	1.00			3		
27	1.20	0.50	0.50			3		
28	1.20	0.50	0.50			3		
29	0.20					1		
30	1.00					1		
31	close							
Opening days	25							
Hmax (m)	2.00							
Nmax (nos.)	3	(2.00+1.00x2)						

Month	November							
Date	Roleang Chrey						North	South
	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)
1	0.70					1		
2	close							
3								
4								
5								
6	0.60					1		
7	0.60					1		
8	1.20					1		
9	close							
10	0.70					1		
11	0.40					1		
12	1.80	0.70				2		
13	close							
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
Opening days	7							
Hmax (m)	1.80							
Nmax (nos.)	2	(1.80+0.70)						

Month	December							
Date	Roleang Chrey						North	South
	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)
1								
2								
3								
4								
5	0.50					1		
6	0.50					1		
7	0.50					1		
8	close							
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
Opening days	3							
Hmax (m)	0.50							
Nmax (nos.)	1							

Table 6.4.2 The Gates Operation Record (6/7)

Year : 2006 **River : Prek Thnot River** **Station : Roleang Chrey** **Recorder : Mey Nou**

Month	January								February							
Date	Roleang Chrey						North	South	Roleang Chrey						North	South
	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)
1																
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																
17																
18																
19																
20																
21																
22																
23																
24																
25																
26																
27																
28																
29																
30																
31																
Opening days																
Hmax (m)																
Nmax (nos.)																

Month	March								April							
Date	Roleang Chrey						North	South	Roleang Chrey						North	South
	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)
1																
2																
3																
4																
5							0.30	0.30								
6																
7																
8																
9																
10							0.30	0.30								
11																
12							0.30	0.30							0.40	0.40
13							0.30	0.30							0.40	0.40
14															0.40	0.40
15															0.40	0.40
16															0.30	0.30
17															0.30	0.30
18															0.30	0.30
19															0.30	0.30
20															0.30	0.30
21															0.30	0.30
22								0.30							0.30	0.30
23															0.30	0.30
24								0.30							0.30	0.30
25															0.30	0.30
26															0.30	0.30
27															0.30	0.30
28															0.30	0.30
29															0.30	0.30
30															0.30	0.30
31																
Opening days							4	6							19	19
Hmax (m)							0.30	0.30							0.40	0.40
Nmax (nos.)																

Month	May								June							
Date	Roleang Chrey						North	South	Roleang Chrey						North	South
	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos	Hn(m)	Hs(m)
1															0.30	0.30
2															0.30	0.30
3															0.30	0.30
4															0.30	0.30
5															0.30	0.30
6															0.30	0.30
7															0.30	0.30
8															0.30	0.30
9							0.30	0.30							0.30	0.30
10							0.30	0.30							0.30	0.30
11							0.30	0.30							0.30	0.30
12							0.30	0.30							0.30	0.30
13							0.30	0.30							0.30	0.30
14							0.30	0.30							0.30	0.30
15							0.30	0.30							0.30	0.30
16							0.30	0.30							0.30	0.30
17							0.30	0.30							0.30	0.30
18							0.30	0.30							0.30	0.30
19							0.30	0.30							0.30	0.30
20							0.30	0.30							0.30	0.30
21							0.40	0.40							0.30	0.30
22							0.40	0.40							0.30	0.30
23							0.40	0.40							0.30	0.30
24							0.40	0.40							0.30	0.30
25							0.40	0.40							0.30	0.30
26							0.40	0.40							0.30	0.30
27							0.40	0.40							0.30	0.30
28							0.40	0.40							0.30	0.30
29							0.40	0.40							0.30	0.30
30							0.40	0.40							0.30	0.30
31							0.40	0.40								
Opening days							23	23							30	30
Hmax (m)							0.40	0.40							0.30	0.30
Nmax (nos.)																

Month	July								August							
Date	Roleang Chrey						North	South	Roleang Chrey						North	South
	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos	Hn(m)	Hs(m)	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)
1							0.40	0.40							0.40	0.40
2							0.40	0.40							0.40	0.40
3	1.00					1									0.40	0.40
4	1.50	0.50				2									0.40	0.40
5	1.50	0.50	0.50			3									0.40	0.40
6	1.50	0.50	0.50			3									0.40	0.40
7	0.40					1			1.30					1		
8	0.80					1			1.50	0.50	0.50			3		
9	0.30					1			2.50	1.50	1.50	0.50	0.50	5		
10	close								2.50	1.50	1.50	0.50	0.50	5		
11							0.40	0.40	1.50	1.30	1.30	0.50	0.50	5		
12							0.40	0.40	1.40					1		
13							0.40	0.40	1.40					1		
14							0.40	0.40	1.40					1		
15							0.40	0.40	1.00	0.50	0.50			3		
16	0.50					1			7.50	7.50	7.50	7.50	7.50	5		
17	0.50					1			7.50	7.50	7.50	7.50	7.50	5		
18	0.80					1			7.50	7.50	7.50	7.50	7.50	5		
19	1.20					1			7.50	7.50	7.50	7.50	7.50	5		
20	0.40					1			7.50	7.50	7.50	7.50	7.50	5		
21	0.40					1			7.50	7.50	7.50	7.50	7.50	5		
22	0.40					1			7.50	7.50	7.50	7.50	7.50	5		
23	0.40					1			7.50	7.50	7.50	7.50	7.50	5		
24	0.40					1			7.50	7.50	7.50	7.50	7.50	5		
25	0.40					1			7.50	7.50	7.50	7.50	7.50	5		
26	close								7.50	7.50	7.50	7.50	7.50	5		
27									7.50	7.50	7.50	7.50	7.50	5		
28									0.40					1		
29									0.40					1		
30									1.00	0.50				2		
31									1.50					1		
Opening days	17						7	7	25						6	6
Hmax (m)	1.50						0.40	0.40	7.50						0.40	0.40
Nmax (nos.)	3	(1.50+0.50x2)							5							

Month	September								October							
Date	Roleang Chrey						North	South	Roleang Chrey						North	South
	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)
1	1.50					1			1.40	1.20	0.50	0.50	0.50	5		
2	0.80					1			1.20	0.50	0.50			3		
3	0.80					1			1.20	0.50	0.50			3		
4	0.80					1			1.20	0.50	0.50			3		
5	1.20					1			1.20	0.50	0.50			3		
6	1.20					1			1.20	0.50	0.50			3		
7	1.40	0.50				2			1.20	0.50	0.50			3		
8	close								1.80	1.00	1.00			3		
9	0.50					1			1.10	0.50	0.10			3		
10	0.50					1			1.10	0.50	0.10			3		
11	0.50					1			1.50	0.50	0.50			3		
12	0.50					1			2.00	1.00	1.00			3		
13	0.50					1			2.00	1.00	1.00			3		
14	0.50					1			1.40					1		
15	1.80	0.50				2			1.00	0.50	0.50			3		
16	1.80	0.50				2			0.80					1		
17	close								0.80					1		
18	0.80					1			1.30					1		
19	1.50	0.50	0.50			3			1.30					1		
20	1.50	0.30	0.30			3			1.10					1		
21	1.00	0.40	0.40			3			1.10					1		
22	2.00	1.00	1.00			3			1.00					1		
23	2.00	1.00	1.00			3			1.00					1		
24	1.50	0.50	0.50			3			close							
25	2.00	0.80	0.80			3										
26	2.00	0.80	0.80			3										
27	1.50	0.80	0.80			3										
28	2.40	2.40	2.30	0.50	0.50	5										
29	1.40	1.20	0.50	0.50	0.50	5										
30	1.40	1.20	0.50	0.50	0.50	5										
31																
Opening days	28								23							
Hmax (m)	2.40								2.00							
Nmax (nos.)	5	(2.40x2+2.30+0.50x2)							5	(2.00+1.00x2)						

Month	November								December							
Date	Roleang Chrey						North	South	Roleang Chrey						North	South
	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos	Hn(m)	Hs(m)
1																
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																
17																
18																
19																
20																
21																
22																
23																
24																
25																
26																
27																
28																
29																
30																
31																
Opening days																
Hmax (m)																
Nmax (nos.)																

Table 6.4.2 The Gates Operation Record (7/7)

Year : 2007 **River : Prek Thnot River** **Station : Roleang Chrey** **Recorder : Mey Nou**

Month	January								February							
Date	Roleang Chrey						North	South	Roleang Chrey						North	South
	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)
1															0.20	0.20
2																
3																
4																
5																
6																
7																
8																
9																
10																
11															0.20	0.20
12																
13																
14																
15																
16																
17																
18																
19																
20																
21																
22															0.20	0.20
23															0.20	0.20
24																
25																
26																
27																
28																
29																
30																
31																
Opening days															4	4
Hmax (m)															0.20	0.20
Nmax (nos.)																

Month	March								April							
Date	Roleang Chrey						North	South	Roleang Chrey						North	South
	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)
1																
2																
3																
4																
5																
6							0.30	0.30								
7																
8																
9																
10							0.30	0.30								
11							0.30	0.30								
12																
13																
14																
15																
16																
17																
18																
19							0.30	0.30								
20																
21																
22																
23																
24																
25																
26																
27																
28																
29																
30																
31																
Opening days							4	4								
Hmax (m)							0.30	0.30								
Nmax (nos.)																

Month	May								June							
Date	Roleang Chrey						North	South	Roleang Chrey						North	South
	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)
1																
2																
3																
4							0.50	0.50								
5							0.50	0.50								
6							0.50	0.50								
7							0.50	0.50								
8							0.50	0.50								
9							0.50	0.50								
10							0.50	0.50								
11	0.50					1										
12	0.50					1										
13	0.50					1										
14	2.00	1.70	1.70			3										
15	1.50	1.50	0.70	0.70		4										
16	1.50	1.50	0.70	0.70		4										
17	1.50	1.50	0.70	0.70		4										
18	1.50	1.50	0.70	0.70		4										
19	close															
20																
21	0.20					1										
22	0.20					1			0.20					1		
23	0.20					1			0.20					1		
24	close								1.00	0.50				2		
25									0.70					1		
26									close							
27																
28									0.30					1		
29									0.30					1		
30									0.30					1		
31																
Opening days	11						7	7	7							
Hmax (m)	2.00						0.50	0.50	1.00							
Nmax (nos.)	4	(2.00+1.70x2)							2	(1.00+0.50)						

Month	July								August							
Date	Roleang Chrey						North	South	Roleang Chrey						North	South
	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)
1	0.30					1										
2	close															
3																
4																
5	0.30					1										
6	1.50	0.70				2										
7	1.50	0.70				2										
8	1.50	1.00				2										
9	0.70					1			0.30					1		
10	0.70					1			1.00	0.50				2		
11	0.70					1			0.60					1		
12	close								0.60					1		
13									0.60					1		
14									0.60					1		
15									0.60					1		
16									close							
17									0.60					1		
18									0.60					1		
19									0.60					1		
20									0.60					1		
21									0.60					1		
22									close							
23									0.40					1		
24									0.40					1		
25									0.40					1		
26									0.40					1		
27									1.00	0.50				2		
28									1.00	0.50				2		
29									close							
30									1.20					1		
31									1.20					1		
Opening days	8								20							
Hmax (m)	1.50								1.20							
Nmax (nos.)	2	(1.50+1.00)							2	(1.00+0.50)						

Month	September								October							
Date	Roleang Chrey						North	South	Roleang Chrey						North	South
	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)
1	1.20					1										
2	0.50					1										
3	0.50					1										
4	0.50					1										
5	0.50					1										
6	1.20					1										
7	0.70					1										
8	0.50					1										
9	close															
10																
11	0.20					1										
12	0.20					1										
13	0.20					1										
14	0.30					1										
15	1.20					1										
16	1.00					1										
17	1.40	0.50				2										
18	1.20	0.50				2										
19	0.60	0.20				2										
20	0.60	0.20				2										
21	1.00	0.20				2										
22	1.20	0.50				2										
23	1.80	1.00	1.00			3										
24	0.80	0.50				2										
25	0.80	0.50				2										
26	close															
27	1.00					1										
28	1.00					1										
29	0.50					1										
30	0.50					1										
31																
Opening days	27															
Hmax (m)	1.80															
Nmax (nos.)	3	(1.80+1.00x2)														

Month	November								December							
Date	Roleang Chrey						North	South	Roleang Chrey						North	South
	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)	H1(m)	H2(m)	H3(m)	H4(m)	H5(m)	nos.	Hn(m)	Hs(m)
1																
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																
17																
18																
19																
20																
21																
22																
23																
24																
25																
26																
27																
28																
29																
30																
31																
Opening days																
Hmax (m)																
Nmax (nos.)																

Table 6.4.3 The Highest Upstream Water Level and Maximum Gate Opening Height

Year: February 2001 ~ September 2007
Station: Roleang Chrey Regulator

Note: There is no reliable relation between the highest water level each month and the maximum gate opening height.

Year	January			February			March			April		
	Reading	Water level (m)	Maximum gate opening height	Reading	Water level (m)	Maximum gate opening height	Reading	Water level (m)	Maximum gate opening height	Reading	Water level (m)	Maximum gate opening height
2001	-	-		7.15	35.85	-	7.31	36.01	1.0m×1no.	7.25	35.95	-
2002	7.06	35.76	-	6.85	35.55	-	6.62	35.32	-	7.04	35.74	-
2003	7.06	35.76	-	6.82	35.52	-	7.31	36.01	-	7.16	35.86	-
2004	7.00	35.70	-	7.02	35.72	-	6.69	35.39	-	6.22	34.92	-
2005	6.80	35.50	-	6.67	35.37	-	6.16	34.86	-	6.20	34.90	-
2006	7.03	35.73	-	6.61	35.31	-	6.53	35.23	-	6.77	35.47	-
2007	6.99	35.69	-	6.76	35.46	-	6.66	35.36	-	6.93	35.63	-
Highest water level		35.76			35.85			36.01			35.95	

Year	May			June			July			August		
	Reading	Water level (m)	Maximum gate opening height	Reading	Water level (m)	Maximum gate opening height	Reading	Water level (m)	Maximum gate opening height	Reading	Water level (m)	Maximum gate opening height
2001	7.06	35.76	-	7.31	36.01	1.5m×1no.	7.32	36.02	7.0m×5nos.	7.36	36.06	0.8m×3nos.
2002	7.10	35.80	0.7m×1no.	7.24	35.94	-	7.22	35.92	-	7.24	35.94	1.5m×1no.+1.0m×2nos.
2003	7.16	35.86	-	7.20	35.90	-	7.38	36.08	7.5m×5nos.	7.34	36.04	1.0m×1no.+0.5m×1no.
2004	7.13	35.83	-	7.28	35.98	1.0m×1no.	7.32	36.02	-	7.36	36.06	0.3m×1no.
2005	5.90	34.60	-	5.89	34.59	-	7.28	35.98	0.5m×1no.	7.38	36.08	1.7m×1no.+1.0m×2nos.
2006	7.19	35.89	-	7.26	35.96	-	7.33	36.03	1.5m×1no.+0.5m×2nos.	**7.35**	**36.05**	**7.5m×5nos.**
2007	7.33	36.03	2.0m×1no.+1.7m×2nos.	7.38	36.08	1.0m×1no.+0.5m×1no.	7.36	36.06	1.5m×1no.+1.0m×1no.	7.45	36.15	1.0m×1no.+0.5m×1no.
Highest water level		36.03			36.08			36.08			**36.15**	

Year	September			October			November			December		
	Reading	Water level (m)	Maximum gate opening height	Reading	Water level (m)	Maximum gate opening height	Reading	Water level (m)	Maximum gate opening height	Reading	Water level (m)	Maximum gate opening height
2001	7.32	36.02	5.0m×5nos.	7.22	35.92	7.5m×5nos.	7.28	35.98	1.7m×1no.	7.22	35.92	-
2002	7.28	35.98	1.0m×1no.+0.5m×2nos.	7.23	35.93	1.5m×2nos.	7.32	36.02	1.5m×1no.+0.6m×1no.	7.28	35.98	1.0m×1no.+0.5m×1no.
2003	7.36	36.06	2.0m×1no.+1.0m×2nos.	7.14	35.84	4.0m+3.0m×2nos.+2.5m	7.32	36.02	0.5m×1no.	7.05	35.75	-
2004	7.26	35.96	1.1m×1no.	7.35	36.05	1.0m×1no.+0.3m×2nos.	6.90	35.60	-	6.78	35.48	-
2005	7.27	35.97	1.2m×1no.+0.5m×1no.	7.30	36.00	2.0m×1no.+1.0m×2nos.	7.39	36.09	1.8m×1no.+0.7m×1no.	7.36	36.06	0.5m×1no.
2006	7.37	36.07	(2.4m+0.5m)×2+2.3m	7.28	35.98	2.0m×1no.+1.0m×2nos.	7.14	35.84	-	7.01	35.71	-
2007	7.40	36.10	1.8m×1no.+1.0m×2nos.	-	-		-	-		-	-	
Highest water level		36.10			36.05			36.09			36.06	

Appendix 6-5 Hydraulic Calculation Results

Table 6.5.1 Non-uniform Flow Calculation of Prek Thnot River (1/2) （Flood Discharge 1,600 m^3/s）

No.	Station No. of Cross Section	Distance L (m)	Accumulated Distance Lac (m)	Discharge Q (m^3/s)	River Bed Elevation BL (m)	River Bank Elevation BH (m)	Water Depth d (m)	Water Level EL (m)	Flow Area A (m^2)	Velocity V (m/s)	Velocity Head hv (m)	Hydraulic Mean Depth R (m)	Roughness Coefficient n	Slope of Friction Sf	Friction Loss hl (m) = Sf x L x cv	Energy Head EL+hv (m)	Floude Fr
1	C-31	0.00	0.00	1600.00	25.581	34.106	7.000	32.581	378.335	4.229	0.912	4.877	0.035	0.003	0.000	33.493	0.602
2	C-30	89.26	89.26	1600.00	25.388	34.324	7.331	32.719	356.507	4.488	1.028	4.830	0.035	0.003	0.253	33.747	0.640
3	C-29	229.28	318.54	1600.00	26.702	34.515	6.943	33.645	444.900	3.596	0.660	5.012	0.035	0.002	0.558	34.305	0.504
4	C-28	218.74	537.28	1600.00	25.394	35.350	8.504	33.898	394.950	4.051	0.837	5.472	0.035	0.002	0.430	34.736	0.530
5	C-27	188.58	725.85	1600.00	26.845	35.198	7.885	34.730	641.047	2.496	0.318	3.927	0.035	0.001	0.313	35.048	0.397
6	C-26	231.89	957.75	1600.00	27.338	34.943	7.595	34.933	593.225	2.697	0.371	5.254	0.035	0.001	0.256	35.304	0.371
7	C-25	241.15	1198.90	1600.00	26.447	35.472	8.756	35.203	657.489	2.434	0.302	5.802	0.035	0.001	0.202	35.505	0.317
8	C-24	209.61	1408.51	1600.00	26.517	35.951	8.770	35.287	590.179	2.711	0.375	6.148	0.035	0.001	0.157	35.662	0.342
9	C-23	182.37	1590.87	1600.00	24.766	35.627	10.800	35.566	800.993	1.998	0.204	6.768	0.035	0.000	0.108	35.770	0.240
10	C-22	172.08	1762.95	1600.00	27.546	35.622	8.018	35.564	659.124	2.427	0.301	5.651	0.035	0.001	0.095	35.864	0.320
11	C-21	171.96	1934.92	1600.00	28.238	36.349	7.579	35.817	976.439	1.639	0.137	5.694	0.035	0.000	0.089	35.954	0.218
12	C-20	27.67	1962.59	1600.00	28.058	36.579	7.767	35.825	973.114	1.644	0.138	5.605	0.035	0.000	0.009	35.963	0.220
13	**C-19**	**23.96**	**1986.55**	**1600.00**	**27.311**	**36.093**	**8.545**	**35.856**	**1067.198**	**1.499**	**0.115**	**5.191**	**0.035**	**0.000**	**0.008**	**35.971**	**0.209**
14	C-18	23.01	2009.56	1600.00	25.481	36.534	10.354	35.835	956.465	1.673	0.143	6.145	0.035	0.000	0.007	35.978	0.212
15	C-17	25.30	2034.86	1600.00	26.183	36.663	9.544	35.727	707.103	2.263	0.261	6.254	0.035	0.001	0.011	35.988	0.282
16	C-16	28.82	2063.68	1600.00	27.886	39.750	7.555	35.441	477.512	3.351	0.573	6.099	0.035	0.001	0.026	36.014	0.392

Table 6.5.1 Non-uniform Flow Calculation of Prek Thnot River (2/2) (Flood Discharge 1,000 m^3/s)

Downstream from the Regulator (Q=1000m3/s) Coefficient of velocity cv = 1.0 Unit: m

No.	Station No. of Cross Section	Distance	Accumulated Distance	Discharge	River Bed Elevation	River Bank Elevation	Water Depth	Water Level	Flow Area	Velocity	Velocity Head	Hydraulic Mean Depth	Roughness Coefficient	Slope of Friction	Friction Loss hl (m)	Energy Head EL+hv	Floude
		L (m)	Lac (m)	Q (m^3/s)	BL (m)	BH (m)	d (m)	EL (m)	A (m^2)	V (m/s)	hv (m)	R (m)	n	Sf	= Sf x L x cv	(m)	Fr
1	C-31	0.00	0.00	1000.00	25.581	34.106	5.000	30.581	236.807	4.223	0.910	3.493	0.035	0.004	0.000	31.491	0.713
2	C-30	89.26	89.26	1000.00	25.388	34.324	5.560	30.948	238.063	4.201	0.900	3.620	0.035	0.004	0.357	31.848	0.696
3	C-29	229.28	318.54	1000.00	26.702	34.515	5.302	32.004	308.447	3.242	0.536	3.831	0.035	0.002	0.692	32.540	0.522
4	C-28	218.74	537.28	1000.00	25.394	35.350	7.014	32.408	298.516	3.350	0.573	4.449	0.035	0.002	0.440	32.980	0.491
5	C-27	188.58	725.85	1000.00	26.845	35.198	6.136	32.981	441.460	2.265	0.262	4.272	0.035	0.001	0.263	33.243	0.345
6	C-26	231.89	957.75	1000.00	27.338	34.943	5.829	33.167	408.611	2.447	0.306	4.225	0.035	0.001	0.230	33.473	0.376
7	C-25	241.15	1198.90	1000.00	26.447	35.472	7.011	33.458	482.810	2.071	0.219	4.984	0.035	0.001	0.204	33.676	0.292
8	C-24	209.61	1408.51	1000.00	26.517	35.951	7.037	33.554	434.934	2.299	0.270	4.851	0.035	0.001	0.147	33.824	0.328
9	C-23	182.37	1590.87	1000.00	24.766	35.627	9.021	33.787	603.036	1.658	0.140	5.381	0.035	0.000	0.104	33.928	0.225
10	C-22	172.08	1762.95	1000.00	27.546	35.622	6.248	33.794	473.804	2.111	0.227	4.495	0.035	0.001	0.094	34.021	0.313
11	C-21	171.96	1934.92	1000.00	28.238	36.349	5.770	34.008	675.602	1.480	0.112	4.118	0.035	0.000	0.098	34.120	0.232
12	C-20	27.67	1962.59	1000.00	28.058	36.579	5.960	34.018	670.773	1.491	0.113	4.087	0.035	0.000	0.011	34.131	0.235
13	**C-19**	**23.96**	**1986.55**	**1000.00**	**27.311**	**36.093**	**6.738**	**34.049**	**751.127**	**1.331**	**0.090**	**4.484**	**0.035**	**0.000**	**0.009**	**34.140**	**0.200**
14	C-18	23.01	2009.56	1000.00	25.481	36.534	8.560	34.041	694.543	1.440	0.106	4.967	0.035	0.000	0.007	34.147	0.203
15	C-17	25.30	2034.86	1000.00	26.183	36.663	7.795	33.978	536.764	1.863	0.177	5.777	0.035	0.000	0.009	34.155	0.241
16	C-16	28.82	2063.68	1000.00	27.886	39.750	5.925	33.811	373.435	2.678	0.366	4.977	0.035	0.001	0.021	34.176	0.354

Table 6.5.2 Overflow Water Depth and Level over the Existing End Sill (1/3)
(Flood Discharge 1,600 m^3/s)

Design flood discharge $Q =$ 1,600.0 m^3/s **(50-year probable flood discharge)**

Width of downstream apron $B =$ 72.50 m
Length of downstream apron $L =$ 10.00 m
Height of end sill $W =$ 1.25 m
Overflow depth (input) $h_1 =$ 5.651 m
Ratio of h_1/L $h_1/L =$ 0.57

Flow coefficient $C_1 =$ 1.643

Flow coefficient for rectangle weir

h_1/L	C_1
$0 < h_1/L \leqq 0.1$	$1.642\,(h_1/L)^{0.022}$
$0.1 \leqq h_1/L \leqq 0.4$	$1.552 + 0.083\,(h_1/L)$
$0.4 \leqq h_1/L \leqq$ (1.5 to 1.9)	$1.444 + 0.352\,(h_1/L)$
(1.5 to 1.9) $\leqq h_1/L$	$1.785 + 0.237\,(h_1/W)$

(Hydraulic calculation formula, 1999, pp.244)

Overflow depth (output) $H_1 =$ 5.651 m $= \exp[\,2/3 \ln\{\,Q/(C_1 B)\,\}\,]$
= (input) OK

Top elevation of end sill $EL_1 =$ 29.25 m

Upstream water level $WL =$ **34.90 m**

(Reference)

Critical depth at end sill $H_c =$ 3.68 m

Water level at critical depth $WL =$ 32.93 m

Table 6.5.2 Overflow Water Depth and Level over the Existing End Sill (1/3)
(Flood Discharge 1,000 m^3/s)

Design flood discharge $Q =$ 1,000.0 m^3/s **(5-year probable flood discharge)**

Width of downstream apron $B =$ 72.50 m
Length of downstream apron $L =$ 10.00 m
Height of end sill $W =$ 1.25 m
Overflow depth (input) $h_1 =$ 4.218 m
Ratio of h_1/L $h_1/L =$ 0.42

Flow coefficient $C_1 =$ 1.592

Flow coefficient for rectangle weir

h_1/L	C_1
$0 < h_1/L \leqq 0.1$	$1.642\,(h_1/L)^{0.022}$
$0.1 \leqq h_1/L \leqq 0.4$	$1.552 + 0.083\,(h_1/L)$
$0.4 \leqq h_1/L \leqq$ (1.5 to 1.9)	$1.444 + 0.352\,(h_1/L)$
(1.5 to 1.9) $\leqq h_1/L$	$1.785 + 0.237\,(h_1/W)$

(Hydraulic calculation formula, 1999, pp.244)

Overflow depth (output) $H_1 =$ 4.218 m $= \exp[\,2/3 \ln\{\,Q/(C_1 B)\,\}\,]$
= (input) OK

Top elevation of end sill $EL_1 =$ 29.25 m

Upstream water level $WL =$ **33.47 m**

(Reference)

Critical depth at end sill $H_c =$ 2.69 m

Water level at critical depth $WL =$ 31.94 m

Table 6.5.2 Overflow Water Depth and Level over the Existing End Sill (3/3)
(Flood Discharge 1,200 m^3/s)

Design flood discharge $Q =$ 1,200.0 m^3/s **(10-year probable flood discharge)**

Width of downstream apron $B =$ 72.50 m

Length of downstream apron $L =$ 10.00 m

Height of end sill $W =$ 1.25 m

Overflow depth (input) $h1 =$ 4.727 m

Ratio of h1/L $h1/L =$ 0.47

Flow coefficient $C1 =$ 1.610

Flow coefficient for rectangle weir

h1/L	C1
$0 < h1/L \leqq 0.1$	$1.642\,(h1/L)^{0.022}$
$0.1 \leqq h1/L \leqq 0.4$	$1.552 + 0.083\,(h1/L)$
$0.4 \leqq h1/L \leqq (1.5 \text{ to } 1.9)$	$1.444 + 0.352\,(h1/L)$
$(1.5 \text{ to } 1.9) \leqq h1/L$	$1.785 + 0.237\,(h1/W)$

(Hydraulic calculation formula, 1999, pp.244)

Overflow depth (output) $H1 =$ 4.727 m $= \exp[\,2/3 \ln\{\,Q / (C1\,B)\,\}\,]$

= (input) OK

Top elevation of end sill $EL1 =$ 29.25 m

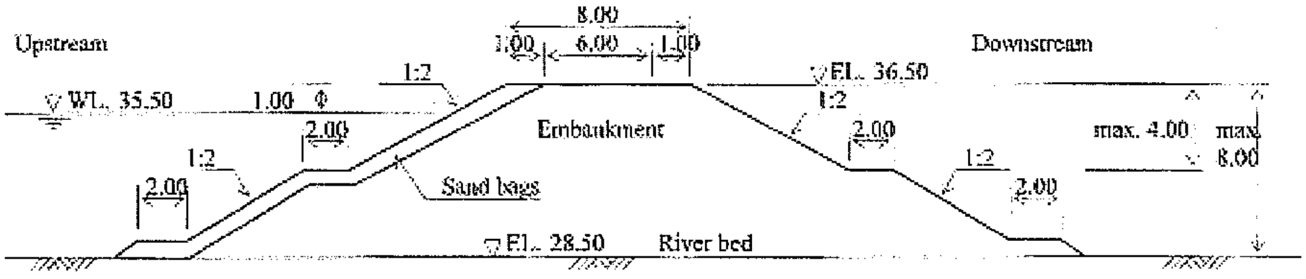
Upstream water level $WL =$ **33.98 m**

(Reference)

Critical depth at end sill $Hc =$ 3.03 m

Water level at critical depth $WL =$ 32.28 m

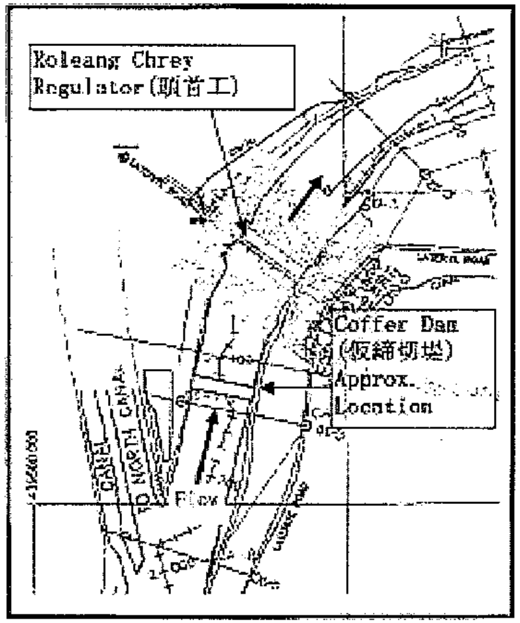
Appendix 6-6 Design of Temporary Coffer Dam

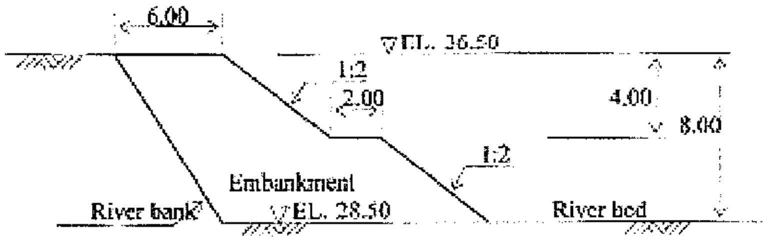


Typical Cross Section of Cofferdam

Top length of cofferdam L = 100 m

PLAN





Typical Cross Section of Access Road

Slope of road I = 8.0%
Length of road L = 100 m

Figure 6.6.1 Typical Cross Section of Temporary Coffer Dam and Approach Road to River Inside Area

ローレンチェリー護岸工　鉄路切堤

縮尺 ; 1/ 534

最小安全率 F s min = 2.404
円弧の中心 X = 45.00 (m)
Y = 19.00 (m)
半径 R = 19.00 (m)
抵抗モーメント M r = 13794.4 (kN・m)
起動モーメント M d = 7810.3 (kN・m)

層番号	湿潤重量	飽和重量	内部摩擦角	粘着力	粘着力の一次係数	水平震度	鉛直震度
-	(kN/m³)	(kN/m³)	(度)	(kN/m²)			
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

水の単位体積重量 = [illegible] (kN/m³)

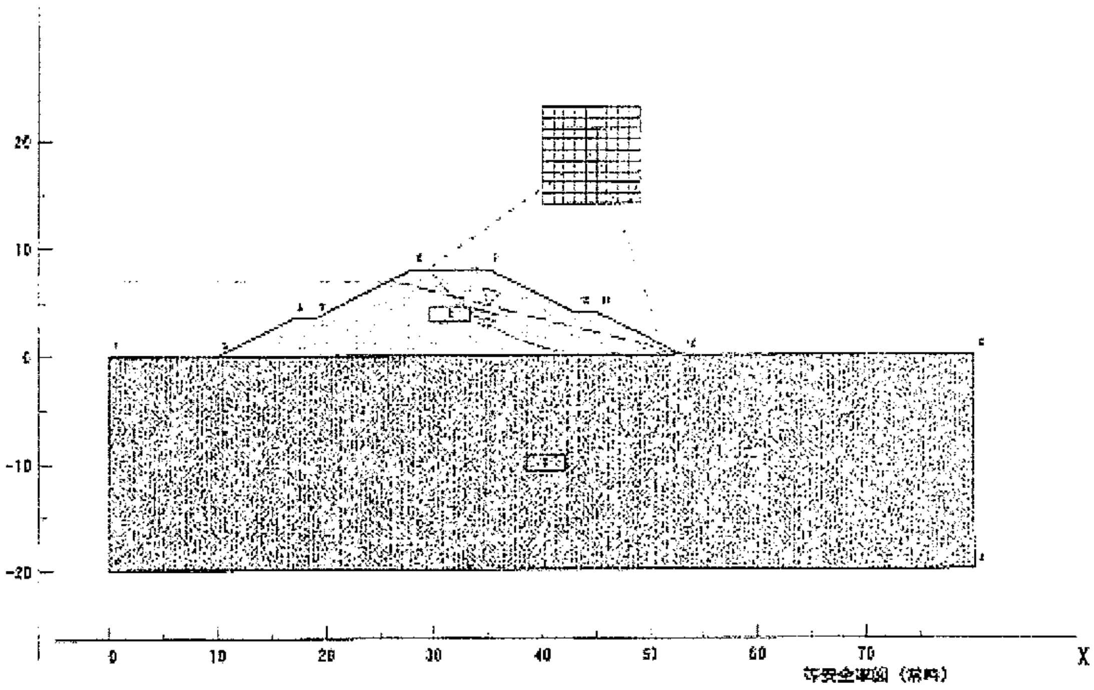


Figure 6.6.2 Slope Stability Analysis Result (Normal Case)

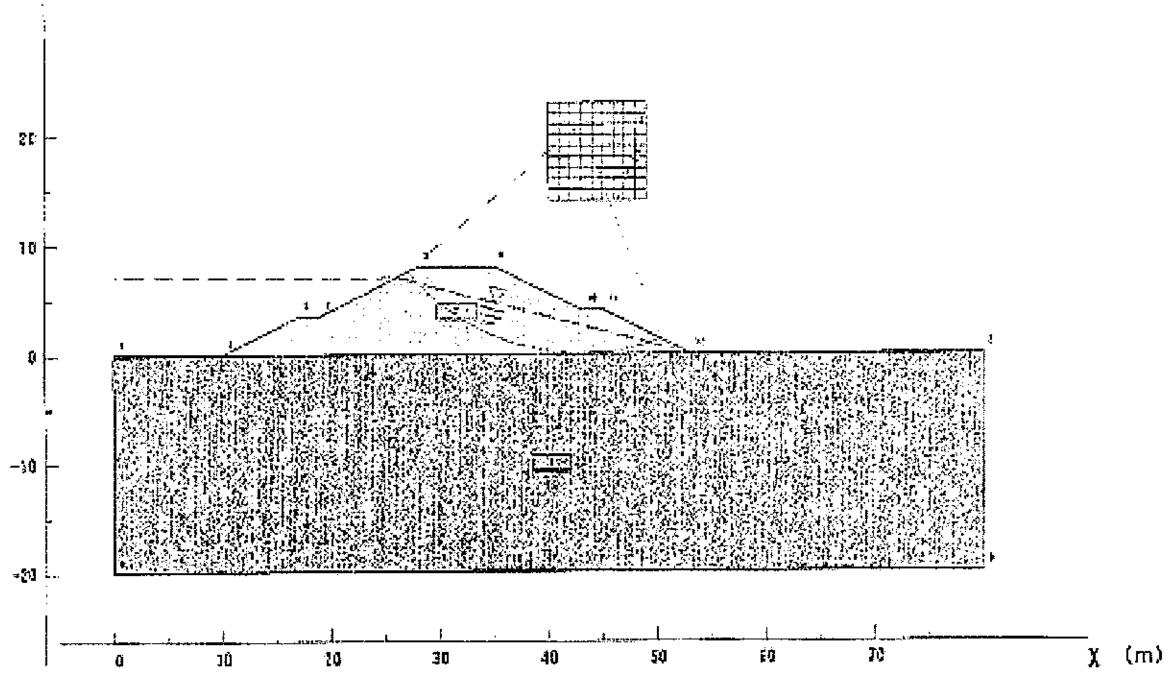
ローレンチェリー頭首工　仮締切堤

縮尺 ： 1/ 634

最小安全率	Fs MIN	=	1.761	
円弧の中心	X	=	43.00	(m)
	Y	=	21.00	(m)
半径	R	=	21.00	(m)
抵抗モーメント	Mr	=	22738.0	(kN・m)
起動モーメント	Mo	=	12914.0	(kN・m)

層番号	湿潤重量 (kN/m³)	飽和重量 (kN/m³)	内部摩擦角 (度)	粘着力 (kN/m²)	粘着力Cの一次係数	水平震度	鉛直震度
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.150	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.150	[illegible]

水の単位体積重量 = 9.80 (kN/m³)



等安全率図（地震時）

Figure 6.6.3 Slope Stability Analysis Result (Under Earthquake Condition)

Appendix 6-7 Basic Design of Gate and Mechanical Works

6-7 Basic Design of Gate and Mechanical Works

6-7.1 Gates and Mechanical Works for Roleang Chrey Regulator

(1) Basic Design Policy

1) All the existing bushings and pins should be replaced with new ones.
2) Since five (5) sets of gate leaves and wheels are still in good condition, they should be re-used after rust removal and new painting.
3) Since the hoist system with control panels, such as, hoists, motors, wire-ropes, etc. have deteriorated for the past 33 years; they should be totally replaced with new ones.

(2) Scale and dimension of Rehabilitation Work (Mechanical Work)

The scale and dimension of rehabilitation work for Mechanical Work are as follows:

1) Replacement of the existing wheel bushings and pins with new ones : refer to Drawings No.2-12、13

Scope of works: Disassemble, design, repair and installation of main wheels

Quantity : 40 Units (=8 units/gate×5 gate leaf)

Bushing : The bearing bush shall be replaced by oilless bearing, Oilles Industries, #500SP or equivalent.

Pin : Pin shall be replaced by stainless steel or hard chromium plated forged steel pin.

Pin shall be of eccentric adjustable type. It shall be adjusted at site so that the tread of four wheels lies on common plane.

Grease nipple shall be equipped to the pin.

Main wheel and pin shall be assembled.

Pins and bushings shall be purchased in Japan as a rule and transported to Cambodia from Japan by air cargo.

2) Rust removal and re-painting of five (5) gate leaves : refer to Drawing No.2-12

Scope of work:

Gate leaf with clear span 12.5m ×effective height 6.7m × 5gates shall be sand blasted and painted. Approximate Area for painting = 522.1m2/gate leaf × 5 sets

Cleaning : Sand blasting, surface grade ISO Sa 2 1/2

Painting : Nonbleed type tar epoxy paint, minimum dry film thickness 300 μm

Final color will be directed later by MOWRAM.

3) Replacement of rubber seals fixed on the gate leaves with new ones : refer to Drawing No.2-12

Type : Three edges with rubber seal, clear span: 12.5m, effective height: 6.7m x 5 gate leaf

Disassembling and disposing of existing seal rubber (Sides: music note type, Bottom: flat type). They should be disassembled before Rust removal.

Renewal of rubber seal:

Seal rubber clamp and fixing bolts shall be replaced with stainless steel ones.

Type of Seal rubber shall be same as present ones, and shall be installed after repainting of gate leaf.

Seal rubber shall be purchased in Japan as a rule and transported to Cambodia from Japan.

4) Replacement of all the existing hoist systems with new ones : refer to Drawing No.2-14

Scope of work: Designing, manufacturing, transportation, installation, testing, and commissioning of the new hoist on existing operation bridge.

Type :Wirerope winch type hoist with counter weight, one motor two drums

Quantity : Five (5) sets

Capacity :Self weight 40tons + friction force of wheel + friction forth of rubber seal + weight of overflow water of 50cm depth – Existing counter-weight(approx. 14tons/gate leaf)
Hoist type: Electric and manual operation
Control system: Local control and remote control from control house of Roleang Chrey
Speed : 0.3 m/min at electric drive
Accessories : Upper and lower limit switches, safety equipment, overload relay, position indicator and so on required for gate operation.
Removal of hoist:
Scope of work : Removing, checking, demolishing, transportation and disposing of hoist including dram, wirerope, speed reducer, brake, electric motor, control panel etc. Note: Existing counterweights and their wireropes will be reused.

5) Replacement of existing control panels with new ones on the operation deck : refer to Drawing No.2-14
Type Self standing, outdoor, whether proof control panel
Quantity : Five (5) sets
Details : Following equipment shall be installed but not be confined to; Three push button switches, volt meter, am meter, molded case circuit breaker (MCCB), magnetic contactor, relay, indication lights, 200 V convenience outlet, space heater and other necessary equipment, and connection cable from panel to hoist equipment.
Quantity : Five (5) sets

6) Installation of new control panel at the existing O&M office : refer to Drawing No.2-14
Type : Self standing, indoor control panel
Quantity : One (1) complete set
Purpose : To control the gates of Roleang Chrey Regulator
Details Following equipment shall be installed but not be confined to;
Three push button switches, volt meter, am meter, molded case circuit breaker (MCCB), magnetic contactor, gate position indicators, indication lights, 200 V convenience outlet, space heater and other necessary equipment
Remarks : One (1) complete set of remote panels for 5 gates installed at the existing control house of Roleang Chrey regulator, including new main distribution panels and new distribution panels for lighting of the control house.
The Main distribution panels include all connection cables between the existing engine generators remote control panels, local control panels and new hoist systems. New distribution panels for lighting also includes connection cables between panels and lighting equipments.

7) Installation of lightening arrestors (3 sets) on the regulator including earthing networks:

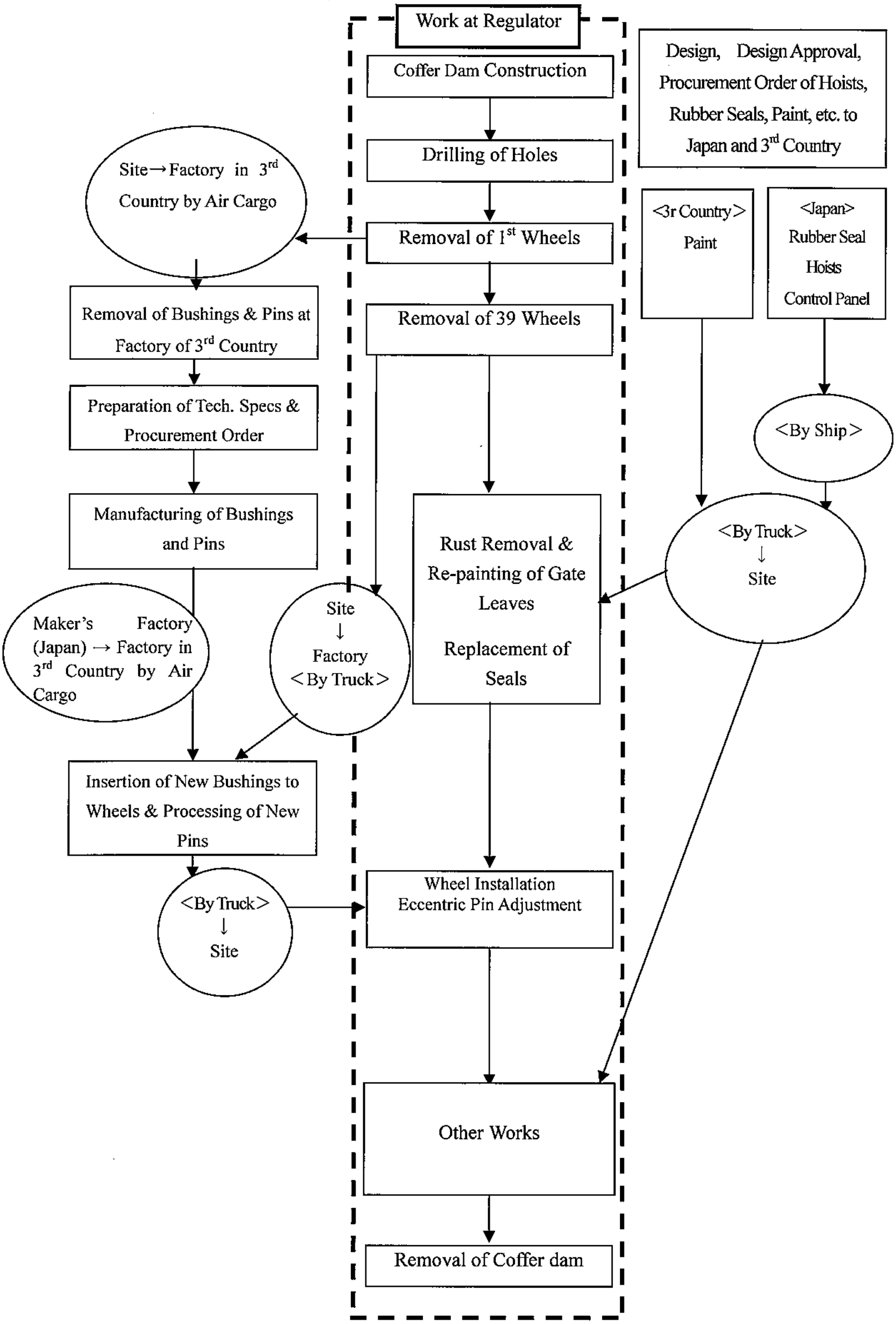
8) Spare part (rubber seal for one gate, magnetic contactor 40 units for control panels)

(2) Hoisting Load

The approximate hoisting load of hoist system are as follows:

Approximate Hoisting Load:

Gate Leaf dead load	: 40 t	(downward)
Wheel Friction Load	: 9 t	(downward)
Rubber Seal Friction Load	: 3 t	(downward)
Counter-weight dead load	: 14 t	(upward)
Total	: 38 t	(downward)



Standard Work Flow of Gate Rehabilitation

6-7.2 Gate and Mechanical Works for River Outlet Works

(1) Basic Design Policy

1) The river outlet structure should be constructed on the right bank of the regulator for stable irrigation water supply to Kandal Steung irrigation area of 1,950 ha (completed in August 2007 under Japan's grand aid scheme and located at about 40 km downstream of the regulator) without using the regulator's gate.
2) Since five (5) sets of gate leaves and wheels are still in good condition, they should be re-used after rust removal and new painting.
3) Since the hoist system with control panels, such as, hoists, motors, wire-ropes, etc. have deteriorated for the past 33 years; they should be totally replaced with new ones.

(2) Design Features

1) The river outlet structure will consist of inlet, culvert and outlet. The inlet of the river outlet structure will be constructed at the upstream of the regulator, while the outlet of the river outlet structure will be constructed at the downstream of the regulator.
2) At the inlet, two (2) sets of slide gates for discharge regulation and another two (2) sets of slide gates for repair and maintenance will be installed..
3) All the gates will be of clear span 1 m x effective height 1 m, four-edge seal, and the gates will be operated by hands. The river outlet structure will be constructed on the right bank of the regulator since O&M office is located on the right bank..
4) The inlet base elevation will be higher than that of the concrete apron of the regulator in order to minimize the floating sand entrance, and in front of the inlet gates, trash rack will be installed in order to prevent entrance of foreign materials and floating logs. At the outlet, an energy dissipater will be constructed, and grid-bars will be installed for safety of residents.

(3) Scale and dimension of Construction Work (Mechanical Work)

The scale and dimension of construction work for mechanical work of river outlet works are as follows:

1) Bypass gate for river outlet works : refer to Drawing No.2-15

Scope of work:

Designing, manufacturing, supplying, transporting, installation, testing and commissioning of following gate.

Type : Steel slide gate
Quantity : Discharge regulating gate : 2 sets
Maintenance gate : 2 sets
Clear span : 1.0 m
Height : 1.0 m
Lift : 1.0 m
Seal : Four edges with rubber seal
Design head : 6.0 m
Head at operation : 6.0 m
Hoist type: : Manual operation with Rack-pinion/ screw spindle type

2) Screen at Inlet : refer to Drawing No.2-10

Scope of work:

Designing, manufacturing, supplying, transporting, installation of following Screen.

Type :Slant type fixed trashrack
Quantity : Upper deck: 2 sets,
Lower deck: 2 sets
Clear span : 1.0 m
Effective Height: Vertical height 3.0 m (= 3.030m actual length)
Angle : 16.7 degree to y axis

Bar Spacing : 75mm (at bar center)
Design head : 0.4 m
Maximum allowable torsion at center: 1.7 mm (= δ =1/600 x clear span 1,000 mm)
Allowable thickness of corrosion: 2 mm
Minimum thickness of plates: 4.5 mm
Removal operation: Manual Rake
Cleaning (Factory): Sand blasting, surface grade ISO Sa 2 1/2
Painting : In-organic Zinc rich type + tar epoxy paint, minimum dry film thickness 300 µm

3) Screen at Outlet : refer to Drawing No.2-10
Scope of work:
Designing, manufacturing, supplying, transporting, installation of following Screen.
Type :fixed type grid bars
Quantity : Two (2) sets
Clear span : 1.4 m
Effective Height: Vertical height 1.4 m
Bar Spacing : 150 mm (at bar center, vertical bars), 350 mm (max., at bar center, horizontal)

6-7.3 Gate and Mechanical Works for Andong Sla Intake

(1) Basic Design Policy

1) The intake gates should be replaced with new ones in order to recover the original functions and prevent leakage.

2) Since design discharge of the intake gates is 10.4 m3/sec, four (4) sets of the existing gates should be dismantled and two (2) sets of new radial gates should be installed at the center of the intake. The gates should be operated by hands.

3) Since the location of trunnion pin of the existing gates is lower than design water level, it should be located above the design water level at EL 36.0 m.

(2) Design Features

The base elevation of the new gates will be EL 32.0 m, which is the same as that of the existing gate. The gate will have such design figures as gate radius of 5 m, design water head of 4.0 m and hoisting height of 5.0 m.

(3) Scale and dimension of Construction Work (Mechanical Work)

The scale of replacement of the intake gates is as follows:

1) Renewal of Andong Sla Intake Gate : refer to Drawing No.3-6

Scope of work:

Designing, manufacturing, supplying, transporting, installation, testing and commissioning of following gate.

Type	: Steel radial gate
Quantity	: Two 2 sets
Clear span	: 4.0 m
Height	: 2.7 m
Radius of skin plate	: 5.0 m
Hoisting height	: 3.0 m
Seal system	: Four edges rubber seal (Front seal)
Design head	: 4.5 m
Head at operation	: 4.5 m
Height of trunnion pin	: 4.0 m from sill level
Control system	: Manual operation
Hoist	: Dual swing type Rack pinion/ Dual swing type Screw spindle hoist
Accessories	: Position indicator and so on required for gate operation.

2) Removal of existing Andong Sla Intake Gate : refer to Drawing No.3-6

Scope of work:

Removing, checking, demolishing, transporting and disposing of following gates

Type	: Steel radial gate
Quantity	: Four (4) sets
Clear span	: 4.0 m
Height	: 2.7 m
Hoist	: Manual hoist

3) Hoist Deck: refer to Drawing No.3-6

Scope of work:

Designing, manufacturing, supplying, transporting, installation, and commissioning of following hoist deck.

Type	: Steel girder construction with cover plate
Quantity	: 2 sets
Minimum width	: 1.0 m

Clear span of hoist deck: 4.0 m
The minimum thickness of checkered plates: 4.5 mm
Design load:

- Normal load condition
  - Dead weight of hoist deck and hoist
  - Operating load of hoist
  - Crowded load of 500 kgf/m^2 on the deck
  - Thermal load due to temperature variation of 40 degree Celsius
- Overload condition
  - All loads imposed due to the gate jammed condition during raising operation
  - Seismic load (Seismic intensity of 0.1)
  - Wind load of 300 kgf/m^2