3.3 Day Discharge Record

Water level records and day discharge tables are as follows.

Table 3.3-1 Day Discharge Record of Anyang St.1

Anyang Chong St.1

Date	1990 Jan. Water Level	Jan. Quantity (m3/s)	Feb. Water Level	Feb. Quantity (m3/s)	Mar. Water Level	Mar. Quantity (m3/s)	Apr. Water Level	Apr. Quantity (m3/s)	May Water Level	May Quantity (m3/s)	Jun. Water Level	Jun. Quantity (m3/s)	Jul. Water Level	Jul. Quantity (m3/s)	Aug. Water Level	Aug. Quantity (m3/s)	Sep. Water Level	Sep. Quantity (m3/s)	Oct. Water Level	Oct. Quantity (m3/s)	Nov. Water Level	Nov. Quantity (m3/s)	Dec. Water Level	Dec. Quantity (m3/s)
1	3.140	8.252	2.820	1.814	1.882	2.588	2.322	0.204	2.252	0.495	2.042	2.156	2.482	0.024	2.842	2.246	2.102	1.551	2.102	1.551	2.102	1.551	2.772	1.377
2	3.140	8.252	2.880	0.708	1.952	2.838	2.202	0.782	2.252	0.495	2.092	1.642	2.642	0.496	2.852	1.933	2.102	1.551	2.102	1.551	2.102	1.551	2.772	1.377
3	3.145	8.353	2.800	0.305	1.982	2.818	2.182	0.935	2.257	0.470	2.152	1.298	2.262	0.084	2.202	0.782	2.102	1.551	2.102	1.551	2.102	1.551	2.772	1.377
4	3.130	7.198	2.565	0.182	1.972	2.961	2.042	2.138	2.232	0.660	2.182	0.915	2.282	0.355	2.312	0.237	2.102	1.551	2.102	1.551	2.102	1.551	2.772	1.377
5	3.580	16.151	2.520	0.070	1.842	3.324	2.057	1.982	2.187	0.681	2.182	0.915	2.642	19.247	2.272	0.398	2.102	1.551	2.102	1.551	2.102	1.551	2.772	1.377
6	3.540	16.151	2.500	0.037	1.922	3.383	2.182	6.915	2.152	1.134	2.292	0.315	2.282	3.792	2.228	0.669	2.102	1.551	2.102	1.551	2.102	1.551	2.772	1.377
7	3.560	16.151	2.500	0.037	1.812	3.221	2.252	0.495	2.352	0.118	2.462	0.003	2.232	1.058	2.252	3.925	2.102	1.551	2.102	1.551	2.102	1.551	2.772	1.377
8	3.560	16.151	2.500	0.037	1.822	3.383	2.312	0.237	2.472	0.008	2.492	0.026	2.202	0.446	2.872	7.255	2.102	1.551	2.102	1.551	2.102	1.551	2.772	1.377
9	3.340	10.398	2.735	1.405	1.897	2.639	2.552	0.144	2.642	0.496	2.552	0.124	2.802	1.643	2.522	0.359	2.102	1.551	2.102	1.551	2.102	1.551	2.772	1.377
10	3.100	5.585	2.786	1.448	2.067	1.882	2.622	0.389	2.782	1.552	2.662	0.726	3.352	10.679	3.302	7.429	2.102	1.551	2.102	1.551	2.102	1.551	2.772	1.377
11	2.663	0.920	2.800	1.525	2.122	1.977	3.352	2.139	3.032	4.483	2.822	1.854	3.812	17.896	2.542	0.144	2.102	1.551	2.102	1.551	2.102	1.551	2.772	1.377
12	2.660	0.592	2.830	1.814	2.407	0.021	2.922	2.942	2.882	2.582	2.952	3.925	3.722	21.195	2.282	0.313	2.102	1.551	2.102	1.551	2.102	1.551	2.772	1.377
13	2.810	2.795	2.865	2.278	2.562	0.258	2.802	1.449	2.657	0.575	2.762	1.284	3.832	23.010	2.262	0.446	2.102	1.551	2.102	1.551	2.102	1.551	2.772	1.377
14	3.120	5.906	2.940	3.168	2.782	1.464	3.002	4.017	2.552	0.173	2.482	0.016	2.962	2.456	2.402	1.643	2.102	1.551	2.102	1.551	2.102	1.551	2.772	1.377
15	3.365	10.966	2.690	0.370	2.527	0.108	2.977	0.690	2.352	0.118	2.372	0.073	3.892	27.224	2.302	0.782	2.102	1.551	2.102	1.551	2.102	1.551	2.772	1.377
16	2.370	0.197	2.555	0.152	2.312	0.237	2.322	0.204	2.322	0.304	2.312	0.237	4.202	40.157	2.262	0.446	2.102	1.551	2.102	1.551	2.102	1.551	2.772	1.377
17	2.545	0.129	2.535	0.101	2.242	0.548	2.352	0.116	2.302	0.274	2.672	0.660	4.552	57.771	2.302	0.274	2.102	1.551	2.102	1.551	2.102	1.551	2.772	1.377
18	2.530	0.138	2.510	0.052	2.092	1.643	2.182	0.915	2.272	0.399	3.192	7.257	4.752	68.073	2.262	0.094	2.102	1.551	2.102	1.551	2.772	1.377	2.772	1.377
19	2.780	1.446	2.780	1.446	2.017	2.410	2.182	1.051	2.262	0.446	4.212	40.316	3.282	9.091	2.487	0.021	2.102	1.551	2.102	1.551	2.772	1.377	2.292	9.310
20	2.450	2.118	2.860	2.224	1.842	3.324	2.092	1.643	2.272	0.399	5.882	153.852	2.972	3.594	2.892	2.582	2.102	1.551	2.102	1.551	7.202	294.776	3.292	11.644
21	2.925	2.879	2.860	2.445	1.842	3.324	2.322	0.204	2.282	0.355	6.602	203.852	2.742	1.125	3.782	25.237	2.102	1.551	2.102	1.551	7.012	271.689	3.282	9.091
22	2.805	0.326	2.850	2.118	1.932	3.457	2.312	0.237	2.312	0.237	6.462	201.826	2.742	1.125	5.442	116.941	2.102	1.551	2.102	1.551	2.772	1.377	3.282	10.816
23	2.810	0.947	2.800	1.625	1.842	3.324	2.937	0.158	2.542	0.274	5.642	133.087	2.732	1.058	2.902	2.700	2.102	1.551	2.102	1.551	2.772	1.377	3.282	9.091
24	2.900	0.935	2.880	2.558	1.887	3.758	2.442	0.000	2.972	3.594	4.292	44.981	2.872	2.355	2.542	0.118	2.102	1.551	2.102	1.551	2.772	1.377	3.282	9.091
25	2.655	0.584	2.385	3.774	2.072	1.823	2.852	2.139	3.102	5.594	2.972	5.594	3.072	5.093	2.452	0.000	2.102	1.551	2.102	1.551	2.772	1.377	3.242	8.241
26	2.785	1.579	3.300	8.487	2.442	0.000	3.582	16.786	2.242	6.241	2.652	0.548	3.242	8.241	2.332	0.172	2.102	1.551	2.102	1.551	2.772	1.377	3.202	8.481
27	2.850	2.114	3.540	10.151	2.782	1.464	3.082	5.258	2.832	2.355	2.332	0.172	4.072	34.428	2.302	0.274	2.102	1.551	2.102	1.551	2.772	1.377	3.172	6.854
28	2.965	3.499	3.350	10.632	3.062	4.932	2.557	0.158	2.822	0.399	2.242	0.548	5.052	4.773	2.302	0.274	2.102	1.551	2.102	1.551	2.772	1.377	3.172	6.854
29	3.190	7.198	3.452		3.452	10.169	2.412	0.016	2.352	0.118	2.192	0.847	5.052	4.773	2.282	0.555	2.102	1.551	2.102	1.551	2.772	1.377	3.182	6.666
30	2.990	3.845	3.907		3.907	2.758	2.282	0.355	2.272	0.399	2.262	0.446	5.072	5.093	2.402	0.036	2.102	1.551	2.102	1.551	2.772	1.377	3.162	6.666
31	2.785	1.319	3.542		3.542	0.118			2.152	1.134			5.882	2.456	3.182	7.044			2.102	1.551			3.162	6.666

Date	1991 Jan. Water Level	Jan. Quantity (m3/s)	Feb. Water Level	Feb. Quantity (m3/s)	Mar. Water Level	Mar. Quantity (m3/s)	Apr. Water Level	Apr. Quantity (m3/s)	May Water Level	May Quantity (m3/s)	Jun. Water Level	Jun. Quantity (m3/s)	Jul. Water Level	Jul. Quantity (m3/s)
1	3.162	6.666	3.152	6.481	3.122	5.941	3.122	6.118	3.262	10.916	河流切れ		3.242	10.444
2	3.162	6.666	3.152	6.481	3.122	5.941	3.162	6.666	3.302	9.532	河流切れ		3.312	9.756
3	3.172	6.854	3.162	6.666	3.142	6.298	3.162	6.666	3.322	9.983	河流切れ		3.302	9.532
4	3.212	7.691	3.142	6.298	3.142	6.298	3.122	5.941	3.222	9.983	河流切れ		3.242	8.241
5	河流		3.102	5.594	3.122	6.118	3.112	5.766	3.292	9.310	河流切れ		3.162	6.666
6	河流		3.102	5.594	3.102	5.594	3.122	5.941	3.212	9.756	河流切れ		3.092	5.425
7	河流		3.122	5.941	3.092	5.425	3.112	5.766	3.202	7.633	河流切れ		3.772	22.890
8	河流		3.122	5.941	3.162	6.681	3.102	5.554	3.172	6.854	3.072	5.085		
9	河流		3.112	5.766	3.352	10.679	3.112	5.766	3.152	6.481	3.072	5.993		
10	3.122	5.941	3.142	6.298	3.202	7.633	3.112	5.766	3.122	5.941	3.067	4.932		
11	3.152	6.481	3.122	5.941	3.312	9.756	3.112	5.766	3.112	5.766	3.122	5.941	3.067	4.932
12	3.152	6.481	3.112	5.766	3.182	7.044	3.112	5.766	3.122	5.941	3.292	9.310		
13	3.152	6.481	3.122	5.941	3.152	6.481	3.242	10.444	3.112	5.766	3.232	8.035		
14	3.142	6.298	3.122	5.941	3.122	6.118	3.132	6.118	3.122	6.854	3.212	9.756		
15	3.142	6.298	3.222	7.823	3.122	5.941	3.152	6.118	3.202	7.633	3.552	10.679		
16	3.132	6.118	河流切れ		3.142	6.298	3.162	7.237	3.252	8.449	3.292	8.035		
17	3.152	6.481	河流切れ		3.152	6.481	3.172	6.854	3.262	8.661	3.322	9.983		
18	3.132	6.118	3.232	8.035	3.152	6.481	3.692	18.309	3.292	9.310	3.502	9.532		
19	3.142	6.298	3.162	6.666	3.202	7.435	3.322	11.356	3.202	7.435	3.292	9.310		
20	3.182	7.044	3.122	5.941	3.212	7.621	3.292	9.310	3.152	6.481	3.122	5.941		
21	3.172	6.854	3.112	5.766	3.172	6.854	3.192	7.237	3.102	5.594	3.112	5.766		
22	3.172	6.854	5.092	5.425	3.212	7.621	3.152	6.481	3.092	5.425	3.102	5.594		
23	3.142	6.298	河流		3.152	6.118	3.142	6.298	3.152	6.481	3.112	5.766		
24	3.152	6.481	河流		3.122	5.941	3.142	6.298	3.152	6.481	3.082	5.256		
25	3.152	6.481	河流		3.122	5.941	3.132	6.118	3.292	8.035	3.262	9.661		
26	3.122	5.941	3.102	5.594	3.122	5.941	3.102	5.594	3.692	27.224	3.172	6.854		
27	3.122	5.941	3.102	5.594	3.302	8.532	3.232	8.035	3.602	17.593	3.132	6.118		
28	3.112	5.766	3.202	7.435	3.152	6.481	3.332	10.232	3.272	8.675	3.142	6.298		
29	3.102	5.594			3.142	6.298	3.352	10.679	3.152	6.481	3.642	18.619		
30	3.112	5.766			3.172	6.854	3.352	10.679	河流切れ		3.562	16.210		
31	3.162	6.666			3.152	6.666			河流切れ					

Table 3.3-2 Day Discharge Record of Anyang St.2

Anyang Chone St.2

Date	1990 Jan. Water Level	Jan. Quantity (m3/s)	Feb. Water Level	Feb. Quantity (m3/s)	Mar. Water Level	Mar. Quantity (m3/s)	Apr. Water Level	Apr. Quantity (m3/s)	May Water Level	May Quantity (m3/s)	Jun. Water Level	Jun. Quantity (m3/s)	Jul. Water Level	Jul. Quantity (m3/s)	Aug. Water Level	Aug. Quantity (m3/s)	Sep. Water Level	Sep. Quantity (m3/s)	Oct. Water Level	Oct. Quantity (m3/s)	Nov. Water Level	Nov. Quantity (m3/s)	Dec. Water Level	Dec. Quantity (m3/s)
1	3.798	6.359	3.681	7.495	3.941	8.962	3.956	9.752	3.981	9.350	0.930	44.143	5.941	8.962	4.041	10.981	3.681	6.672	3.681	6.672	3.681	6.672	3.761	5.845
2	3.791	6.312	3.681	7.495	3.941	8.962	3.901	8.212	4.111	12.518	0.936	44.143	4.071	11.627	4.021	10.770	3.681	6.672	3.681	6.672	3.681	6.672	3.761	5.845
3	3.806	6.562	3.856	7.407	3.971	9.546	3.901	8.212	4.046	11.518	0.936	44.143	3.691	6.030	4.021	10.561	3.681	6.672	3.681	6.672	3.681	6.672	3.761	5.845
4	3.811	6.644	3.851	7.320	3.951	9.155	3.881	7.849	4.001	10.149	0.936	44.143	3.871	7.671	4.001	10.149	3.681	6.672	3.681	6.672	3.681	6.672	3.761	5.845
5	3.801	6.480	3.851	7.320	3.941	8.962	3.886	7.939	4.001	10.149	0.936	44.143	4.721	30.144	4.021	10.561	3.681	6.672	3.681	6.672	3.681	6.672	3.761	5.845
6	3.821	6.810	3.856	7.407	3.916	8.490	3.881	7.849	3.996	10.047	0.936	44.143	4.571	25.102	4.021	10.561	3.681	6.672	3.681	6.672	3.681	6.672	3.761	5.845
7	3.806	6.562	3.856	7.407	3.911	8.397	3.881	9.745	4.001	10.149	0.936	44.143	4.421	20.232	4.121	12.744	3.681	6.672	3.681	6.672	3.681	6.672	3.761	5.845
8	3.806	6.562	3.856	7.407	3.911	8.397	3.906	9.364	3.991	9.546	0.936	44.143	4.291	16.925	4.071	11.627	3.681	6.672	3.681	6.672	3.681	6.672	3.761	5.845
9	3.806	6.562	3.851	7.320	3.881	7.849	3.881	7.849	4.011	10.354	0.936	44.143	4.281	16.744	3.951	9.155	3.681	6.672	3.681	6.672	3.681	6.672	3.761	5.845
10	3.806	6.562	3.851	7.320	3.886	7.939	3.896	8.121	3.941	8.962	0.936	44.143	4.581	24.149	4.481	22.289	3.681	6.672	3.681	6.672	3.681	6.672	3.761	5.845
11	3.881	7.849	3.851	7.320	3.881	7.849	3.921	8.583	4.151	13.439	0.936	44.143	4.921	26.732	4.021	10.561	3.681	6.672	3.681	6.672	3.681	6.672	3.761	5.845
12	3.841	7.495	3.851	7.320	4.151	13.439	4.041	10.981	4.111	12.518	0.936	44.143	4.711	29.793	3.981	9.745	3.681	6.672	3.681	6.672	3.681	6.672	3.761	5.845
13	3.861	7.495	3.851	7.495	3.956	9.252	4.121	12.744	4.096	12.179	0.936	44.143	5.101	44.979	3.971	9.546	3.681	6.672	3.681	6.672	3.681	6.672	3.761	5.845
14	3.856	7.407	3.856	7.407	3.931	9.548	4.211	14.884	4.031	10.770	0.936	44.143	3.951	9.155	4.621	28.792	3.681	6.672	3.681	6.672	3.681	6.672	3.761	5.845
15	3.851	7.320	3.861	7.495	3.996	10.047	4.156	13.556	3.991	9.946	0.936	44.143	4.371	25.102	3.991	9.946	3.681	6.672	3.681	6.672	3.681	6.672	3.761	5.845
16	3.931	8.772	3.881	7.495	4.021	10.561	3.981	9.745	3.991	9.946	0.936	44.143	5.481	62.774	4.081	11.418	3.681	6.672	3.681	6.672	3.681	6.672	3.761	5.845
17	3.991	8.030	3.851	7.320	3.951	9.155	3.971	9.548	3.991	9.946	0.936	44.143	5.731	78.094	4.141	13.295	3.681	6.672	3.681	6.672	3.681	6.672	3.761	5.845
18	3.881	7.849	3.866	7.583	3.951	9.155	3.961	9.350	4.001	10.149	0.936	44.143	5.881	96.701	4.101	14.394	3.681	6.672	3.681	6.672	3.761	5.845	3.761	5.845
19	3.861	7.495	4.051	11.194	3.991	9.745	3.981	9.745	3.981	9.745	0.936	44.143	4.551	24.465	4.231	17.724	3.681	6.672	3.681	6.672	3.731	6.576	3.901	8.212
20	3.861	7.495	4.011	10.354	3.911	8.397	3.971	9.548	3.971	9.548	0.936	44.143	4.321	17.724	4.571	25.102	3.681	6.672	3.681	6.672	3.811	6.944	3.921	8.583
21	3.866	7.583	3.851	7.320	3.906	8.304	3.966	9.448	3.981	9.350	0.936	44.143	4.101	12.291	5.551	66.374	3.681	6.672	3.681	6.672	3.771	6.008	3.901	8.212
22	3.861	7.495	3.996	10.047	3.916	8.490	3.971	9.548	3.891	8.030	0.936	44.143	4.101	12.291	6.581	130.962	3.681	6.672	3.681	6.672	3.771	6.008	3.921	8.583
23	3.861	7.495	4.016	10.457	3.911	8.397	3.966	9.448	3.931	8.772	0.936	44.143	4.111	12.518	4.881	36.030	3.681	6.672	3.681	6.672	3.771	6.008	3.901	8.212
24	3.836	7.407	3.961	9.743	3.951	9.155	3.971	9.548	4.071	11.627	0.936	44.143	4.251	15.888	5.331	74.435	3.681	6.672	3.681	6.672	3.771	6.008	3.901	8.212
25	3.856	7.407	3.956	9.352	3.931	8.772	4.001	10.149	4.051	11.194	0.936	44.143	4.471	21.997	3.981	9.745	3.681	6.672	3.681	6.672	3.771	6.008	3.861	7.495
26	3.856	7.407	3.941	8.962	3.911	8.397	4.241	15.434	4.301	17.189	0.936	44.143	4.421	20.232	3.976	9.649	3.681	6.672	3.681	6.672	3.771	6.008	3.901	8.212
27	3.861	7.495	3.966	9.845	3.931	8.772	4.431	22.044	4.071	11.627	0.936	44.143	5.231	51.950	3.981	9.745	3.681	6.672	3.681	6.672	3.771	6.008	3.901	8.212
28	3.861	7.495	3.941	8.962	4.241	15.434	4.126	12.454	3.931	8.772	0.936	44.143	4.241	15.434	3.981	9.745	3.681	6.672	3.681	6.672	3.761	5.845	3.901	8.212
29	3.851	7.320			4.511	23.215	3.971	9.548	3.951	9.155	0.936	44.143	4.221	15.152	3.931	8.772	3.681	6.672	3.681	6.672	3.761	5.845	3.891	8.030
30	3.931	8.745			4.031	10.770	3.956	9.252	3.951	9.155	0.936	44.143	4.081	11.848	3.961	9.350	3.681	6.672	3.681	6.672	3.761	5.845	3.881	7.849
31	3.881	8.030			3.956	10.047			3.971	9.548			4.081	11.848	4.641	27.398			3.681	6.672			3.891	8.030

Date	1991 Jan. Water Level	Jan. Quantity (m3/s)	Feb. Water Level	Feb. Quantity (m3/s)	Mar. Water Level	Mar. Quantity (m3/s)	Apr. Water Level	Apr. Quantity (m3/s)	May Water Level	May Quantity (m3/s)	Jun. Water Level	Jun. Quantity (m3/s)	Jul. Water Level	Jul. Quantity (m3/s)
1	3.881	7.849	3.871	7.671	3.881	7.849	3.871	7.671	3.851	7.320	3.891	8.030	3.961	9.250
2	3.881	7.849	3.871	7.671	3.871	7.671	3.891	7.849	3.861	7.495	3.881	7.849	3.951	8.772
3	3.881	7.849	3.871	7.671	3.871	7.671	3.881	7.849	3.861	7.495	3.881	7.849	3.911	8.397
4	3.891	8.030	3.871	7.671	3.871	7.671	3.881	7.849	3.861	7.495	3.881	8.030	3.891	8.030
5	3.901	8.212	3.871	7.671	3.871	7.671	3.891	7.849	3.861	7.495	3.881	7.849	3.951	9.155
6	3.891	8.030	3.871	7.671	3.851	7.320	3.871	7.671	3.861	7.495	3.881	7.849	3.891	8.030
7	3.891	8.030	3.881	7.849	3.851	7.320	3.871	7.671	3.861	7.495	3.881	7.849	4.051	11.194
8	3.891	8.030	3.881	7.849	3.851	7.320	3.871	7.671	3.861	7.495	3.881	7.849		
9	3.891	8.030	3.881	7.849	3.941	8.962	3.881	7.849	3.861	7.495	3.911	8.397		
10	3.891	8.030	3.901	8.212	3.981	9.745	3.871	7.671	3.861	7.495	3.881	7.849		
11	3.891	8.030	3.891	8.030	3.921	8.772	3.871	7.671	3.871	7.671	3.891	7.849	4.051	11.194
12	3.891	8.030	3.881	7.849	3.921	8.583	3.951	9.155	3.871	7.671	3.891	7.849		
13	3.881	7.849	3.921	8.772	3.901	8.212	3.871	7.671	3.861	7.495	3.881	7.849		
14	3.881	7.849	3.891	8.030	3.911	8.397	3.881	7.849	3.861	7.495	3.881	7.849		
15	3.881	7.849	3.921	8.772	3.901	8.212	3.871	7.671	3.861	7.495	3.881	7.849		
16	3.881	7.849	[illegible]		3.891	8.030	3.871	7.671	3.861	7.495	3.881	7.849		
17	3.881	7.849	[illegible]		3.901	8.212	3.881	7.849	3.861	7.495	3.871	7.671		
18	3.881	7.849	[illegible]	7.495	3.881	7.849	4.051	12.067	3.851	7.320	3.871	7.671		
19	3.891	8.030	3.871	7.671	3.891	8.030	3.921	8.583	3.861	7.495	3.871	7.671		
20	3.901	8.212	[illegible]		3.901	8.212	3.901	8.212	3.861	7.495	3.871	7.671		
21	3.901	8.212	[illegible]		3.901	8.212	3.891	8.030	3.861	7.495	3.881	7.849		
22	3.911	8.397	[illegible]		3.901	8.212	3.851	8.030	3.861	7.495	3.881	7.849		
23	3.901	8.212	[illegible]		3.891	8.030	3.881	8.030	3.861	7.495	3.871	7.671		
24	3.901	8.212	[illegible]		3.891	8.030	3.881	7.849	3.871	7.671	3.871	7.671		
25	3.901	8.212	[illegible]		3.891	8.030	3.871	7.671	3.901	8.212	3.871	7.671		
26	3.881	7.849	3.871	7.671	3.891	8.030	3.861	7.495	3.911	8.397	3.871	7.671		
27	3.881	7.849	3.871	7.671	3.951	9.155	3.871	7.671	3.881	9.745	3.871	7.671		
28	3.881	7.849	3.911	8.397	3.901	8.212	3.871	7.671	3.921	8.583	3.871	7.671		
29	3.871	7.671			3.881	8.030	3.871	7.671	3.901	8.212	4.161	12.674		
30	3.871	7.671			3.861	7.849	3.861	7.495	3.891	8.030	4.051	10.770		
31	3.871	7.671			3.881	7.849			3.891	8.030				

Table 3.3-3 Day Discharge Record of Anyang St.3

Anyang Cheong St. 3

Date	1990 Jan. Water Level (m)	Jan. Quantity (m3/s)	Feb. Water Level (m)	Feb. Quantity (m3/s)	Mar. Water Level (m)	Mar. Quantity (m3/s)	Apr. Gauge (cm)	Apr. Quantity (m3/s)	May Gauge (cm)	May Quantity (m3/s)	Jun. Gauge (cm)	Jun. Quantity (m3/s)	Jul. Water Level (m)	Jul. Quantity (m3/s)	Aug. Water Level (m)	Aug. Quantity (m3/s)	Sep. Water Level (m)	Sep. Quantity (m3/s)	Oct. Water Level (m)	Oct. Quantity (m3/s)	Nov. Water Level (m)	Nov. Quantity (m3/s)	Dec. Water Level (m)	Dec. Quantity (m3/s)	Date	1991 Jan. Water Level (m)	Jan. Quantity (m3/s)	Feb. Water Level (m)	Feb. Quantity (m3/s)	Mar. Water Level (m)	Mar. Quantity (m3/s)	Apr. Water Level (m)	Apr. Quantity (m3/s)	May Water Level (m)	May Quantity (m3/s)	Jun. Water Level (m)	Jun. Quantity (m3/s)	Jul. Water Level (m)	Jul. Quantity (m3/s)
1	4.773	0.380	4.593	0.108	5.043	4.118	4.913	1.820	4.923	1.964	5.023	3.704	4.983	2.942	5.103	5.490	4.603	0.074	4.603	0.074	4.603	0.074	4.988	3.097	1	4.698	0.050	4.608	0.061	4.588	0.123	4.618	0.038	4.608	0.061	4.588	0.123	4.668	0.005
2	4.660	0.005	4.603	0.074	5.073	4.779	4.858	1.127	4.948	2.348	5.033	3.704	5.033	3.908	5.103	5.490	4.603	0.074	4.603	0.074	4.603	0.074	4.958	2.511	2	4.698	0.050	4.578	0.163	4.608	0.061	4.618	0.038	4.608	0.061	4.598	0.089	4.658	0.000
3	4.778	0.413	4.608	0.061	5.083	5.011	4.857	1.022	5.137	6.250	5.033	3.908	5.033	3.908	5.123	5.591	4.603	0.074	4.603	0.074	4.603	0.074	4.958	2.511	3	4.708	0.077	4.578	0.163	4.598	0.089	4.608	0.061	4.608	0.061	測定中止		4.618	0.038
4	4.818	0.726	4.606	0.061	5.073	4.779	4.758	0.262	4.873	2.786	5.033	3.908	5.159	6.784	5.103	5.490	4.603	0.074	4.603	0.074	4.603	0.074	4.958	2.679	4	4.748	0.236	4.578	0.163	4.598	0.089	4.610	0.038	4.598	0.089	測定中止		4.618	0.038
5	4.778	0.413	4.627	0.028	5.058	4.442	4.758	0.262	4.958	2.511	5.003	3.312	5.593	24.972	5.103	5.490	4.603	0.074	4.603	0.074	4.603	0.074	4.958	2.679	5	4.708	0.077	4.568	0.206	4.598	0.089	4.588	0.089	4.608	0.061	測定中止		4.658	0.000
6	4.783	0.448	4.583	0.106	5.038	3.908	4.763	0.319	4.953	2.429	4.963	2.594	5.339	12.578	5.103	5.490	4.603	0.074	4.603	0.074	4.603	0.074	4.958	2.511	6	4.708	0.077	4.578	0.163	4.598	0.089	4.618	0.038	測定中止		4.598	0.089		
7	4.778	0.413	4.583	0.106	4.993	3.125	4.993	3.125	4.843	2.268	4.813	1.820	5.213	8.516	5.103	5.490	4.603	0.074	4.603	0.074	4.603	0.074	4.958	2.511	7	4.708	0.077	4.588	0.123	4.618	0.038	4.598	0.089	4.608	0.061	4.598	0.089	5.028	2.905
8	4.783	0.448	4.586	0.123	5.023	3.704	4.908	0.640	4.943	2.268	4.983	2.943	5.139	6.250	5.063	5.011	4.603	0.074	4.603	0.074	4.603	0.074	4.948	2.348	8	4.708	0.077	4.588	0.206	4.708	0.077	4.598	0.089	4.608	0.061	4.598	0.089		
9	4.793	0.520	4.593	0.106	5.043	4.118	4.743	0.211	4.933	2.113	5.003	3.312	5.013	5.505	5.053	4.939	4.603	0.074	4.603	0.074	4.603	0.074	4.928	2.038	9	4.718	0.108	4.588	0.123	4.656	0.000	4.608	0.061	4.598	0.089	4.618	0.038		
10	4.783	0.448	4.593	0.106	5.043	4.118	4.753	0.262	4.713	0.092	5.003	3.312	5.023	3.704	5.253	9.783	4.603	0.074	4.603	0.074	4.603	0.074	4.958	2.511	10	4.708	0.077	4.608	0.061	4.678	0.014	4.608	0.061	4.598	0.089	4.578	0.163		
11	4.648	0.001	4.623	0.028	5.033	3.908	4.748	0.236	5.063	4.553	5.033	3.908	5.233	9.159	5.143	6.514	4.603	0.074	4.603	0.074	4.603	0.074	4.908	1.750	11	4.748	0.236	4.628	0.020	4.686	0.020	4.598	0.089	4.598	0.089	4.778	0.413		
12	4.653	0.000	4.606	0.061	5.153	5.384	5.078	4.779	5.088	5.128	5.058	4.393	5.473	18.307	5.063	4.553	4.603	0.074	4.603	0.074	4.603	0.074	4.908	1.750	12	4.718	0.108	4.618	0.038	4.658	0.000	4.598	0.089	4.608	0.061	4.725	0.145		
13	4.618	0.038	4.596	0.106	5.043	4.118	5.093	5.248	5.288	10.962	5.043	4.118	5.073	4.779	5.003	3.312	4.603	0.074	4.603	0.074	4.603	0.074	4.868	1.615	13	4.718	0.108	4.598	0.089	4.658	0.000	4.678	0.014	4.608	0.061	4.618	0.038		
14	4.603	0.074	4.563	0.142	5.143	6.514	5.083	5.011	4.923	3.964	5.023	3.704	5.083	5.011	5.603	24.586	4.603	0.074	4.603	0.074	4.603	0.074	4.878	1.360	14	4.718	0.108	4.598	0.089	4.648	0.001	5.098	5.368	4.608	0.061	4.618	0.038		
15	4.598	0.089	4.588	0.123	5.153	6.784	4.908	1.615	4.983	2.594	5.043	4.118	5.153	6.784	5.243	9.458	4.603	0.074	4.603	0.074	4.603	0.074	4.768	0.349	15	4.718	0.108	測定中止		4.648	0.001	4.598	0.089	4.610	0.038	4.618	0.038		
16	4.583	0.142	4.623	0.028	5.098	5.368	4.883	1.421	4.963	2.594	5.063	4.553	5.443	27.400	5.073	4.779	4.603	0.074	4.603	0.074	4.603	0.074	4.758	0.239	16	4.718	0.108	測定中止		4.623	0.008	4.603	0.061	4.608	0.061	4.628	0.020		
17	4.608	0.061	4.788	0.683	5.168	7.199	4.973	2.786	4.983	2.943	5.043	4.118	5.463	27.862	5.103	5.490	4.603	0.074	4.603	0.074	4.603	0.074	4.758	0.188	17	4.738	0.196	測定中止		4.618	0.038	4.658	0.000	4.608	0.061	4.598	0.089		
18	4.643	0.004	5.238	9.288	5.113	5.738	4.953	2.429	4.983	2.943	5.153	6.784	5.273	30.448	5.133	6.250	4.603	0.074	4.603	0.074	4.603	0.074	4.758	0.239	18	4.718	0.108	4.608	0.061	4.678	0.014	5.028	3.905	4.598	0.089	4.588	0.123		
19	4.643	0.004	5.103	5.490	5.063	5.011	4.943	2.268	4.963	2.594	5.353	13.329	5.013	5.505	5.213	8.516	4.603	0.074	4.603	0.074	4.603	0.074	4.798	0.559	19	4.738	0.188	4.598	0.089	4.628	0.020	4.708	0.077	4.598	0.089	4.598	0.089		
20	4.653	0.000	5.043	4.118	5.013	5.505	4.923	2.113	4.973	2.786	5.513	20.141	5.003	5.312	5.333	12.376	4.603	0.074	4.603	0.074	4.648	2.348	4.728	0.145	20	4.808	0.640	4.628	0.020	4.658	0.000	4.668	0.005	4.598	0.089	4.568	0.208		
21	4.653	0.000	5.043	4.118	5.023	5.704	4.943	2.268	4.973	2.786	5.073	55.017	5.013	5.505	5.473	18.307	4.603	0.074	4.603	0.074	4.958	2.511	4.738	0.188	21	4.878	1.360	4.608	0.061	4.638	0.008	4.648	0.001	4.598	0.089	4.568	0.208		
22	4.643	0.004	5.183	7.674	5.013	5.505	4.943	2.268	4.943	2.268	6.493	92.497	5.033	5.908	5.503	93.446	4.603	0.074	4.603	0.074	4.948	2.348	4.748	0.236	22	4.878	1.360	測定中止		4.648	0.001	4.638	0.008	4.598	0.089	4.568	0.208		
23	4.648	0.001	5.193	7.826	5.003	5.312	4.933	2.113	4.953	2.429	6.043	52.713	5.053	4.939	5.103	5.490	4.603	0.074	4.603	0.074	4.948	2.348	4.738	0.188	23	4.808	0.640	測定中止		4.628	0.020	4.628	0.020	4.598	0.089	4.578	0.163		
24	4.643	0.004	5.083	5.011	5.023	5.704	4.943	2.268	4.953	2.429	5.533	21.091	5.093	5.248	5.103	5.490	4.603	0.074	4.603	0.074	4.958	2.511	4.778	0.413	24	4.748	0.236	測定中止		4.628	0.020	4.628	0.020	4.598	0.089	4.588	0.123		
25	4.643	0.004	5.048	4.325	5.018	5.404	4.933	2.113	4.943	2.268	5.373	14.104	5.173	7.340	5.103	5.490	4.603	0.074	4.603	0.074	4.958	2.511	4.808	0.640	25	4.728	0.145	測定中止		4.618	0.038	4.618	0.038	4.628	0.020	4.578	0.163		
26	4.653	0.000	4.993	3.125	5.023	5.704	4.933	2.113	5.003	3.312	5.183	7.059	5.173	7.340	4.953	2.429	4.603	0.074	4.603	0.074	4.958	2.511	4.738	0.188	26	4.658	0.000	4.638	0.008	4.638	0.008	4.618	0.038	4.628	0.020	4.578	0.163		
27	4.653	0.000	5.003	3.312	5.023	5.704	4.933	2.113	5.013	3.505	5.093	5.248	5.223	8.826	4.803	0.589	4.603	0.074	4.603	0.074	4.958	2.511	4.778	0.413	27	4.598	0.089	4.598	0.089	4.688	0.030	4.618	0.038	5.528	20.551	4.588	0.123		
28	4.658	0.000	5.033	3.908	5.073	5.779	5.093	5.248	5.013	3.505	5.043	4.118	4.983	2.942	5.043	4.118	4.603	0.074	4.603	0.074	4.958	2.511	4.748	0.236	28	4.598	0.089	4.628	0.020	4.668	0.005	4.618	0.038	4.798	0.559	4.592	0.088		
29	4.743	0.211			5.043	5.268	5.148	6.649	5.003	3.312	5.033	3.908	5.043	4.118	5.103	5.490	4.603	0.074	4.603	0.074	4.958	2.511	4.718	0.108	29	4.598	0.089			4.648	0.001	4.618	0.038	4.618	0.038	4.658	0.000	4.578	0.163		
30	4.593	0.106			5.173	7.340	4.973	2.786	5.013	3.505	5.033	3.908	5.103	5.490	4.783	0.448	4.603	0.074	4.603	0.074	4.958	2.511	4.708	0.077	30	4.598	0.089			4.638	0.008	4.618	0.038	4.598	0.089	4.818	1.891		
31	4.593	0.106			5.043	4.118			5.013	3.505			5.103	5.490	5.263	13.714			4.603	0.074			4.768	0.077	31	4.598	0.089			4.618	0.038			4.588	0.123				

Table 3.3-4 Day Discharge Record of Anyang St.4

Anyang Chona St.4

	1990	Jan.		Feb.		Mar.		Apr.		May		Jun.		Jul.		Aug.		Sep.		Oct.		Nov.		Dec.			1991	Jan.		Feb.		Mar.		Apr.		May		Jun.		Jul.	
Date	Water Level	Quantity (m3/s)	Water Level	Quantity (m3/s)	Water Level	Quantity (m3/s)	Water Level	Quantity (m3/s)	Water Level	Quantity (m3/s)	Water Level	Quantity (m3/s)	Water Level	Quantity (m3/s)	Water Level	Quantity (m3/s)	Water Level	Quantity (m3/s)	Water Level	Quantity (m3/s)	Water Level	Quantity (m3/s)	Water Level	Quantity (m3/s)	Date	Water Level	Quantity (m3/s)	Water Level	Quantity (m3/s)	Water Level	Quantity (m3/s)	Water Level	Quantity (m3/s)	Water Level	Quantity (m3/s)	Water Level	Quantity (m3/s)	Water Level	Quantity (m3/s)
1	4.409	3.453	4.359	2.778	4.389	3.174	4.459	4.201	4.459	4.201	4.449	4.045	4.629	7.252	4.469	4.685	4.369	52.810	4.369	2.907	4.369	2.907	4.314	2.233	1	4.334	2.468	4.334	2.468	4.314	2.590	4.354	2.714	4.344	2.590	4.334	3.243	4.574	6.199
2	4.409	3.453	4.359	2.778	4.399	3.312	4.444	3.965	4.459	4.201	4.409	3.453	4.699	8.811	4.619	7.087	4.369	61.610	4.369	2.907	4.369	2.907	4.364	2.842	2	4.324	2.349	4.354	2.468	4.334	2.468	4.364	2.842	4.344	2.590	4.334	3.243	4.564	6.351
3	4.409	3.453	4.359	2.778	4.399	3.312	4.449	4.045	4.449	4.045	4.409	3.453	4.659	12.823	4.569	6.104	4.369	40.170	4.369	2.907	4.369	2.907	4.354	2.714	3	4.344	2.590	4.344	2.590	4.334	2.468	4.354	2.714	4.344	2.590	4.334	3.106	4.554	5.874
4	4.409	3.453	4.359	2.778	4.404	3.382	4.444	3.965	4.454	4.122	4.409	3.453	4.929	14.814	4.529	5.371	4.369	26.240	4.369	2.907	4.369	2.907	4.404	3.382	4	4.344	2.590	4.344	2.590	4.334	2.468	4.354	2.714	4.344	2.590	4.334	3.243	4.544	5.640
5	4.409	3.453	4.349	2.652	4.389	3.174	4.439	3.833	4.449	4.045	4.389	3.174	5.199	21.839	4.559	5.914	4.369	18.840	4.369	2.907	4.369	2.907	4.404	3.382	5	결측		4.334	2.468	4.324	2.349	4.354	2.714	4.344	2.590	4.334	3.106	4.704	8.925
6	4.409	3.453	4.349	2.652	4.409	3.453	4.459	4.201	4.449	4.045	4.389	3.174	5.009	17.265	4.569	6.104	4.369	19.950	4.369	2.907	4.369	2.907	4.404	3.382	6	결측		4.344	2.590	4.304	2.120	4.354	2.714	4.354	2.714	4.374	2.973	4.554	5.650
7	4.409	3.453	4.349	2.652	4.399	3.312	4.469	4.357	4.484	4.273	4.389	3.174	4.879	13.877	4.519	5.195	4.369	11.090	4.369	2.907	4.369	2.907	4.404	3.382	7	결측		4.344	2.590	4.304	2.120	4.354	2.714	4.354	2.714	4.374	2.973	5.104	20.420
8	4.409	3.453	4.349	2.652	4.399	3.312	4.449	4.045	4.444	3.861	4.389	3.174	4.819	11.750	4.509	5.022	4.369	10.480	4.369	2.907	4.369	2.907	4.404	3.382	8	결측		4.354	2.714	4.424	3.669	4.344	2.590	4.344	2.590	4.374	2.973		
9	4.409	3.453	4.354	2.714	4.409	3.453	4.444	3.965	4.389	2.907	4.409	3.453	4.779	10.725	4.519	5.195	4.369	22.590	4.369	2.907	4.369	2.907	4.404	3.382	9	4.354	2.714	4.354	2.714	4.384	3.106	4.354	2.714	4.344	2.590	4.414	3.524		
10	4.409	3.453	4.354	2.714	4.409	3.453	4.444	3.965	4.449	4.045	4.409	3.453	4.649	7.711	4.849	12.550	4.369	20.530	4.369	2.907	4.369	2.907	4.404	3.382	10	4.354	2.714	4.364	2.842	4.334	2.349	4.344	2.590	4.344	2.590	4.374	2.973		
11	4.409	3.453	4.369	2.907	4.409	3.453	4.439	3.833	4.509	5.022	4.409	3.453	4.699	8.811	4.649	5.722	4.369	103.330	4.369	2.907	4.369	2.907	4.404	3.382	11	4.354	2.714	4.354	2.714	4.474	4.459	4.344	2.590	4.344	2.590	4.394	6.586		
12	4.399	3.312	4.364	2.842	4.449	3.711	4.564	6.281	4.519	5.195	4.389	3.174	4.879	18.324	4.519	5.195	4.369	238.445	4.369	2.907	4.369	2.907	4.404	3.382	12	4.344	2.590	4.344	2.590	4.404	3.382	4.344	2.590	4.344	2.590	4.524	6.283		
13	4.399	3.312	4.349	2.652	4.389	3.174	4.689	5.585	4.754	10.105	4.349	2.652	5.189	23.467	4.519	5.195	4.369	149.680	4.369	2.907	4.369	2.907	4.404	3.382	13	4.334	2.468	4.354	2.714	4.384	3.106	4.454	4.123	4.344	2.590	4.414	3.524		
14	4.384	3.106	4.349	2.652	4.409	3.453	4.504	4.936	4.559	5.550	4.479	4.320	5.499	4.652	5.129	21.284	4.369	86.490	4.369	2.907	4.369	2.907	4.404	3.382	14	4.334	2.468	4.354	2.714	4.374	3.973	4.354	2.714	4.344	2.590	4.394	3.243		
15	4.374	2.973	4.349	2.652	4.464	4.279	4.469	4.357	4.519	5.195	4.399	3.174	4.849	12.550	4.719	9.272	4.369	58.930	4.369	2.907	4.369	2.907	4.404	3.382	15	4.334	2.468	4.344	2.590	4.404	3.382	4.354	2.714	4.344	2.590	4.434	5.817		
16	4.389	2.907	4.349	2.652	4.499	4.852	4.469	4.357	4.529	5.371	4.474	4.452	5.839	53.788	4.409	5.022	4.369	39.500	4.369	2.907	4.369	2.907	4.404	3.382	16	4.344	2.590	결측		4.364	2.842	4.344	2.590	4.344	2.590	4.444	3.969		
17	4.364	2.842	4.359	2.778	4.344	5.840	4.494	4.129	4.529	5.371	4.529	5.371	5.159	22.367	4.729	9.508	4.369	29.560	4.369	2.907	4.369	2.907	4.404	3.382	17	4.354	2.714	결측		4.364	2.842	4.354	2.714	4.344	2.590	4.444	3.969		
18	4.329	2.408	4.354	2.714	4.334	5.243	4.454	4.129	4.529	5.371	4.819	16.621	4.979	16.324	4.619	7.087	4.369	2.907	4.369	2.907	4.404	3.382	4.404	3.382	18	4.344	2.590	4.524	2.349	4.354	2.714	4.364	6.010	4.344	2.590	4.444	3.969		
19	4.329	2.408	4.549	5.782	4.339	3.312	4.449	4.045	4.509	5.022	6.299	82.998	4.849	12.550	4.569	6.104	4.369	2.907	4.369	2.907	4.324	2.949	4.354	2.714	19	4.354	2.714	4.324	2.468	4.364	2.842	4.404	3.382	4.344	2.590	4.454	6.123		
20	4.314	2.233	4.459	4.852	4.389	3.174	4.434	3.837	4.479	4.520	6.379	88.360	4.609	8.884	5.139	21.849	4.369	2.907	4.369	2.907	4.354	2.714	4.374	2.973	20	4.354	2.714	4.344	2.590	4.384	3.106	4.384	3.106	4.344	2.590	4.444	3.969		
21	4.319	2.291	4.429	3.745	4.389	3.174	4.419	3.596	4.459	4.201	7.399	291.622	4.589	6.488	5.919	56.954	4.369	2.907	4.369	2.907	4.394	3.243	4.364	2.842	21	4.344	2.590	4.334	2.468	4.354	3.243	4.384	3.106	4.354	2.714	4.434	5.817		
22	4.329	2.408	4.474	4.439	4.389	3.174	4.419	3.596	4.499	5.893	8.319	299.628	4.589	6.488	6.569	102.584	4.369	2.907	4.369	2.907	4.394	3.243	4.394	3.243	22	4.354	2.714	4.334	2.468	4.384	3.106	4.374	3.973	4.354	2.714	4.434	5.817		
23	4.324	2.349	4.469	4.359	4.479	4.920	4.454	3.817	4.439	3.742	7.399	170.963	4.849	12.550	5.029	17.907	4.369	2.907	4.369	2.907	4.384	3.106	4.324	2.349	23	4.344	2.590	결측		4.374	3.973	4.384	2.842	4.344	2.590	4.444	3.969		
24	4.329	2.408	4.444	3.969	4.414	5.524	4.439	3.893	4.409	3.453	6.249	79.251	4.979	16.324	4.709	9.040	4.369	2.907	4.369	2.907	4.384	3.106	4.324	2.349	24	4.354	2.714	결측		4.374	3.973	4.364	2.842	4.354	2.714	4.454	6.123		
25	4.329	2.408	4.449	4.045	4.419	3.596	4.459	4.201	4.409	3.453	5.299	27.724	4.939	15.110	4.619	7.087	4.369	2.907	4.369	2.907	4.374	3.973	4.294	2.010	25	4.354	2.714	결측		4.364	2.842	4.364	2.842	4.384	3.106	4.504	4.936		
26	4.354	2.714	4.429	3.745	4.399	3.312	4.459	4.201	4.389	3.312	4.979	18.324	4.909	14.230	4.584	8.581	4.369	2.907	4.369	2.907	4.374	3.973	4.404	3.382	26	4.354	2.714	4.334	2.468	4.374	3.973	4.554	2.714	4.924	14.667	4.524	5.282		
27	4.349	2.907	4.429	3.745	4.399	3.312	4.669	8.142	4.379	3.035	4.809	12.658	5.409	32.338	4.569	6.104	4.369	2.907	4.369	2.907	4.374	3.973	4.404	3.382	27	4.354	2.714	4.349	2.590	4.474	4.459	4.354	2.714	4.504	4.936	4.514	5.106		
28	4.374	2.973	4.414	3.524	4.509	5.022	4.814	11.615	4.359	2.907	4.829	12.013	5.249	25.745	4.549	5.732	4.369	2.907	4.369	2.907	4.374	3.973	4.404	3.382	28	4.344	2.590	4.374	2.973	4.384	3.106	4.354	2.714	4.434	5.817	4.504	4.936		
29	4.499	4.852			4.879	8.352	4.759	10.228	4.379	3.059	4.839	12.280	4.959	15.711	4.569	6.104	4.369	2.907	4.369	2.907	4.364	2.842	4.404	3.382	29	4.334	2.468			4.364	2.842	4.354	2.714	4.414	5.524	4.924	14.667			
30	4.369	2.907			4.484	4.602	4.514	5.108	4.399	3.312	4.679	8.352	4.689	8.142	4.569	6.104	4.369	2.907	4.369	2.907	4.364	2.842	4.404	3.382	30	4.334	2.468			4.364	2.842	4.344	2.590	4.394	5.243	4.724	9.388			
31	4.359	2.778			4.459	4.201			4.419	3.596			4.519	5.195	5.049	18.361			4.365	2.907			4.344	2.590	31	4.334	2.468			4.354	2.714			4.404	3.382				

Table 3.3-5 Day Discharge Record of Anyang St.5

Anyang Chons St.5

Date	1990 Jan. Water Level	Jan. Quantity (m3/s)	Feb. Water Level	Feb. Quantity (m3/s)	Mar. Water Level	Mar. Quantity (m3/s)	Apr. Water Level	Apr. Quantity (m3/s)	May Water Level	May Quantity (m3/s)	Jun. Water Level	Jun. Quantity (m3/s)	Jul. Water Level	Jul. Quantity (m3/s)	Aug. Water Level	Aug. Quantity (m3/s)	Sep. Water Level	Sep. Quantity (m3/s)	Oct. Water Level	Oct. Quantity (m3/s)	Nov. Water Level	Nov. Quantity (m3/s)	Dec. Water Level	Dec. Quantity (m3/s)
1	5.523	13.657	5.319	4.444	5.449	8.007	5.384	6.335	5.309	4.449	5.318	4.958	5.400	8.955	5.399	6.704	5.399	5.292	5.339	5.292	5.339	5.292	5.384	6.560
2	5.539	14.015	5.285	4.244	5.446	7.971	5.389	6.457	5.389	6.457	5.278	4.048	5.409	6.955	5.379	6.215	5.339	5.292	5.339	5.292	5.339	5.292	5.334	5.182
3	5.514	13.129	5.285	4.244	5.419	13.304	5.349	5.977	5.479	8.845	5.278	4.048	5.399	6.704	5.349	5.516	5.379	5.292	5.339	5.292	5.339	5.292	5.334	5.756
4	5.509	12.955	5.284	9.763	5.559	11.282	5.399	5.977	5.399	6.704	5.289	3.856	5.479	8.845	5.295	4.444	5.359	5.292	5.339	5.292	5.339	5.292	5.334	5.756
5	5.589	12.611	5.249	9.488	5.549	10.981	5.374	6.895	5.399	6.704	5.249	3.488	5.459	8.561	5.349	5.516	5.359	5.292	5.339	5.292	5.339	5.292	5.314	4.754
6	5.589	12.611	5.259	9.670	5.444	7.971	5.359	5.744	5.409	6.955	5.249	3.488	5.549	10.901	5.349	5.977	5.359	5.292	5.339	5.292	5.339	5.292	5.314	4.754
7	5.609	12.955	5.259	9.670	5.429	7.472	5.359	5.744	5.389	6.457	5.239	3.311	5.499	9.103	5.299	4.444	5.339	5.292	5.339	5.292	5.339	5.292	5.314	4.754
8	5.619	13.304	5.259	9.670	5.429	7.472	5.349	5.516	5.379	6.215	5.259	3.670	5.499	9.429	5.279	4.048	5.339	5.292	5.339	5.292	5.339	5.292	5.304	4.546
9	5.609	12.955	5.299	4.244	5.449	8.007	5.356	5.630	5.339	5.292	5.259	3.670	5.399	6.704	5.295	4.444	5.339	5.292	5.339	5.292	5.339	5.292	5.314	2.887
10	5.609	12.955	5.324	4.966	5.449	8.007	5.389	5.977	5.419	7.211	5.289	4.244	5.359	5.292	5.359	10.645	5.339	5.292	5.339	5.292	5.339	5.292	5.304	4.546
11	5.584	8.395	5.339	5.292	5.429	7.472	5.429	7.472	5.434	7.604	5.284	4.145	5.409	6.955	5.339	5.292	5.339	5.292	5.339	5.292	5.339	5.292	5.294	4.343
12	5.909	6.442	5.359	5.744	5.584	89.515	5.554	11.121	5.489	9.103	5.279	4.048	5.489	8.561	5.309	4.849	5.339	5.292	5.339	5.292	5.339	5.292	5.304	4.546
13	5.909	4.849	5.394	6.680	5.659	14.015	5.879	15.495	5.814	12.128	5.259	3.670	5.499	9.429	5.259	3.679	5.339	5.292	5.339	5.292	5.339	5.292	5.304	4.546
14	5.909	4.849	5.419	7.211	5.644	14.185	5.489	9.139	5.409	6.955	5.399	5.292	5.479	8.845	5.569	12.272	5.339	5.292	5.339	5.292	5.339	5.292	5.304	4.546
15	5.299	4.444	5.419	7.211	5.784	19.724	5.419	7.211	5.339	5.292	5.419	7.211	5.674	15.304	5.359	5.744	5.339	5.292	5.339	5.292	5.339	5.292	5.304	4.546
16	5.299	4.444	5.469	8.561	5.559	11.282	5.409	6.955	5.344	5.404	5.524	10.486	6.269	47.202	5.339	5.311	5.339	5.292	5.339	5.292	5.339	5.292	5.294	4.343
17	5.319	4.859	5.584	12.104	5.449	8.007	5.359	5.977	5.349	5.516	5.833	14.015	5.599	28.980	5.479	8.845	5.339	5.292	5.339	5.292	5.339	5.292	5.304	4.546
18	5.339	5.292	5.619	13.304	5.484	9.218	5.369	5.977	5.349	5.516	5.669	25.523	5.540	14.377	5.479	8.845	5.339	5.292	5.339	5.292	5.339	5.292	5.304	4.546
19	5.329	5.079	6.049	32.672	5.629	15.657	5.359	5.744	5.329	5.073	6.231	49.320	5.579	11.837	5.529	10.033	5.339	5.292	5.339	5.292	5.574	11.772	5.294	4.343
20	5.329	5.079	5.878	21.693	5.509	9.724	5.374	6.095	5.319	4.658	6.479	60.526	5.589	11.607	5.634	14.560	5.339	5.292	5.339	5.292	5.334	8.580	5.324	4.966
21	5.339	5.292	5.589	11.607	5.504	8.574	5.304	4.649	5.299	4.444	7.359	144.421	5.509	9.724	5.569	28.455	5.339	5.292	5.339	5.292	5.324	4.966	5.304	4.546
22	5.309	4.849	5.449	22.599	5.499	9.435	5.349	5.516	5.299	4.444	7.779	197.082	5.479	8.845	7.539	165.882	5.339	5.292	5.339	5.292	5.324	4.966	5.244	5.404
23	5.309	4.849	5.699	16.258	5.499	9.139	5.354	5.630	5.289	4.244	6.469	59.450	5.429	7.472	5.579	13.199	5.339	5.292	5.339	5.292	5.324	4.966	5.284	4.145
24	5.314	4.754	5.619	13.304	5.834	12.825	5.854	9.630	5.279	4.048	8.274	46.218	5.449	8.007	5.454	8.144	5.339	5.292	5.339	5.292	5.324	4.966	5.314	4.754
25	5.329	5.079	5.554	11.121	5.489	9.139	5.374	6.095	5.269	3.956	5.874	21.470	5.349	10.961	5.359	5.744	5.299	5.292	5.339	5.292	5.334	5.187	5.284	3.763
26	5.329	5.079	5.529	10.339	5.429	7.472	5.389	6.244	5.269	3.956	5.749	18.257	5.609	12.955	5.329	5.079	5.329	5.292	5.339	5.292	5.329	4.966	5.574	11.772
27	5.339	5.292	5.489	9.289	5.399	6.704	5.259	3.670	5.249	3.488	5.949	14.327	5.769	19.988	5.299	4.444	5.329	5.292	5.339	5.292	5.324	4.966	5.574	11.772
28	5.374	6.095	5.489	9.139	5.779	19.511	5.389	6.244	5.259	3.911	5.509	9.724	5.859	14.015	5.289	4.244	5.339	5.292	5.339	5.292	5.324	4.966	5.574	11.772
29	5.619	13.304	5.339		8.009	30.509	5.389	6.244	5.259	3.670	5.509	9.724	5.599	12.611	5.239	3.311	5.339	5.292	5.314	4.754	5.304	4.546	5.294	4.343
30	5.359	5.744	5.339		5.689	15.674	5.309	6.849	5.269	3.956	5.459	8.561	5.579	11.837	5.279	4.048	5.339	5.292	5.339	5.292	5.314	4.754	5.284	4.145
31	5.329	5.079	5.339		5.499	9.435	5.339		5.309	4.849	5.339		5.439	7.737	5.759	18.670	5.339		5.339	5.292	4.374		5.294	4.343

Date	1991 Jan. Water Level	Jan. Quantity (m3/s)	Feb. Water Level	Feb. Quantity (m3/s)	Mar. Water Level	Mar. Quantity (m3/s)	Apr. Water Level	Apr. Quantity (m3/s)	May Water Level	May Quantity (m3/s)	Jun. Water Level	Jun. Quantity (m3/s)	Jul. Water Level	Jul. Quantity (m3/s)
1	5.284	4.145	5.294	4.343	5.284	4.145	5.284	4.343	5.254	3.578	5.254	3.578	5.334	5.182
2	5.274	3.952	5.294	4.343	5.274	3.952	5.294	4.343	5.254	3.578	5.254	3.763	5.334	5.182
3	測定		5.284	4.145	5.274	3.952	5.294	4.343	5.264	3.763	5.254	3.578	5.324	4.966
4	測定		5.294	4.343	5.274	3.952	5.294	4.343	5.254	3.578	5.254	3.578	5.314	4.754
5	測定		5.294	4.343	5.274	3.952	5.294	4.343	5.254	3.578	5.254	3.578	5.314	4.754
6	測定		5.294	4.343	5.264	3.599	5.284	4.145	5.254	3.578	5.254	3.578	5.304	4.546
7	測定		5.294	4.343	5.264	3.599	5.284	4.145	5.254	3.578	5.254	3.578	5.874	23.757
8	測定		5.304	4.546	5.264	5.880	5.284	4.145	5.274	3.952	5.244	3.399		
9	測定		5.294	4.343	5.394	6.580	5.284	4.145	5.254	3.578	5.284	4.145		
10	5.304	4.546	5.314	4.754	5.244	5.404	5.274	3.952	5.254	3.578	5.254	3.578		
11	5.304	4.546	5.304	4.546	5.594	8.580	5.284	4.145	5.254	3.578	5.474	8.793		
12	5.304	4.546	5.284	4.145	5.334	5.182	5.274	3.952	5.254	3.578	5.384	6.335		
13	5.304	4.546	5.304	4.546	5.324	4.966	5.294	6.580	5.244	3.399	5.284	4.145		
14	5.304	4.546	5.304	4.546	5.314	4.754	5.284	4.145	5.244	3.399	5.254	3.578		
15	5.294	4.343	5.364	5.880	5.304	4.546	5.274	3.952	5.244	3.399	5.254	3.578		
16	5.294	4.343	相抵切れ		5.304	4.546	5.274	3.952	5.244	3.399	5.254	3.578		
17	5.304	4.546	相抵切れ		5.304	4.546	5.284	4.145	5.244	3.399	5.254	3.578		
18	5.294	4.343	5.284	4.145	5.284	4.145	5.494	7.604	5.244	3.399	5.254	3.578		
19	5.304	4.546	5.284	4.145	5.304	4.546	5.304	4.546	5.254	3.578	5.244	3.399		
20	5.304	4.546	5.284	4.145	5.324	4.966	5.304	4.546	5.254	3.578	5.254	3.578		
21	5.294	4.343	5.284	4.145	5.324	4.966	5.304	4.546	5.254	3.578	5.254	3.763		
22	5.304	4.546	5.284	4.145	5.324	4.966	5.284	4.145	5.244	3.399	5.254	3.763		
23	5.294	4.343	5.284	4.145	5.314	4.754	5.284	8.145	5.254	3.578	5.254	3.578		
24	5.314	4.754	5.284	4.145	5.314	4.754	5.284	4.145	5.254	3.578	5.264	3.763		
25	5.304	4.546	5.284	4.145	5.304	4.546	5.274	3.952	5.284	4.145	5.284	4.145		
26	5.304	4.546	5.284	4.145	5.314	4.754	5.274	3.952	5.274	23.757	5.314	4.754		
27	5.304	4.546	5.284	4.145	5.284	8.335	5.264	3.763	5.274	6.095	5.314	4.754		
28	5.294	4.343	5.324	4.966	5.314	4.754	5.264	3.763	5.304	4.546	5.314	4.754		
29	5.294	4.343			5.304	4.546	5.254	3.763	5.274	5.952	5.734	17.645		
30	5.284	4.145			5.294	4.343	5.264	3.763	5.264	5.763	5.464	8.421		
31	5.294	4.343			5.294	4.343			5.264	3.763				

Table 3.3-6 Day Discharge Record of Anyang St.6

Anyang Gauge St.6

Date	1990 Jan. Water Level	Jan. Quantity (m3/s)	Feb. Water Level	Feb. Quantity (m3/s)	Mar. Water Level	Mar. Quantity (m3/s)	Apr. Water Level	Apr. Quantity (m3/s)	May Water Level	May Quantity (m3/s)	Jun. Water Level	Jun. Quantity (m3/s)	Jul. Gauge (cm)	Jul. Quantity (m3/s)	Aug. Water Level	Aug. Quantity (m3/s)	Sep. Gauge (cm)	Sep. Quantity (m3/s)	Oct. Water Level	Oct. Quantity (m3/s)	Nov. Gauge (cm)	Nov. Quantity (m3/s)	Dec. Water Level	Dec. Quantity (m3/s)	Date	1991 Jan. Water Level	Jan. Quantity (m3/s)	Feb. Water Level	Feb. Quantity (m3/s)	Mar. Water Level	Mar. Quantity (m3/s)	Apr. Water Level	Apr. Quantity (m3/s)	May Water Level	May Quantity (m3/s)	Jun. Water Level	Jun. Quantity (m3/s)	Jul. Water Level	Jul. Quantity (m3/s)
1	10.162	6.558	10.012	2.052	10.012	2.052	9.942	0.614	10.072	3.955	10.032	2.618	10.182	8.014	10.162	7.971	9.942	0.614	9.942	0.614	9.942	0.614	10.145	7.007	1	10.089	4.371	10.105	5.181	10.115	5.612	10.095	4.768	10.075	3.992	10.105	5.181	10.139	6.525
2	10.162	6.558	10.002	1.795	10.002	1.795	9.942	0.614	10.097	4.931	10.022	2.326	10.182	8.052	10.122	6.014	9.942	0.614	9.942	0.614	9.942	0.614	10.105	5.181	2	10.085	4.371	10.115	5.612	10.105	5.181	10.095	4.768	10.085	4.371	10.105	5.181	10.119	5.612
3	10.137	6.244	9.997	1.673	9.997	1.673	9.942	0.614	10.132	6.478	10.042	2.926	10.152	6.478	10.142	6.958	9.942	0.614	9.942	0.614	9.942	0.614	10.095	4.768	3	[illegible]		10.115	5.612	10.115	5.612	10.095	4.768	10.085	4.371	10.095	4.768	10.105	5.181
4	10.137	6.244	9.997	1.673	9.997	1.673	9.942	0.614	10.092	2.618	10.092	2.618	10.142	6.958	10.122	6.014	9.942	0.614	9.942	0.614	9.942	0.614	10.095	4.768	4	[illegible]		10.105	5.181	10.115	5.612	10.095	4.768	10.085	4.371	10.095	4.768	10.105	5.181
5	10.122	6.014	10.002	1.795	10.002	1.795	9.942	0.614	10.092	2.618	10.092	2.618	10.142	6.958	10.152	7.458	9.942	0.614	9.942	0.614	9.942	0.614	10.095	4.768	5	[illegible]		10.105	5.181	10.105	5.181	10.105	5.181	10.085	4.371	10.095	4.768	10.115	5.612
6	10.122	6.014	10.002	1.795	10.002	1.795	9.942	0.614	10.042	2.926	10.052	3.252	10.112	5.568	10.252	7.456	9.942	0.614	9.942	0.614	9.942	0.614	10.095	4.768	6	[illegible]		10.115	5.612	10.085	4.371	10.105	5.181	10.085	4.371	10.095	4.768	10.105	5.181
7	10.122	6.014	10.002	1.795	10.002	1.795	9.942	0.614	10.042	2.926	10.052	3.252	10.122	6.014	10.102	5.139	9.942	0.614	9.942	0.614	9.942	0.614	10.095	4.768	7	[illegible]		10.115	5.612	10.097	6.758	10.095	4.768	10.075	3.992	10.085	4.371	10.333	15.457
8	10.122	6.014	10.002	1.795	10.002	1.795	9.942	0.614	10.062	3.595	10.022	2.326	10.112	5.568	20.103	5.359	9.942	0.614	9.942	0.614	9.942	0.614	10.105	5.181	8	[illegible]		10.115	5.612	10.085	4.371	10.095	4.768	10.105	5.181	10.085	4.371		
9	10.122	6.014	10.012	2.052	10.012	2.052	9.942	0.614	10.042	2.926	10.012	2.052	10.122	6.244	10.122	6.014	9.942	0.614	9.942	0.614	9.942	0.614	10.075	2.355	9	[illegible]		10.115	5.612	10.157	7.507	10.092	4.768	10.085	4.371	10.105	5.181		
10	10.122	6.014	10.017	2.187	10.017	2.187	9.942	0.614	10.092	3.252	10.012	2.052	10.152	7.456	10.192	9.819	9.942	0.614	9.942	0.614	9.942	0.614	10.092	4.768	10	10.095	4.768	10.125	6.060	10.125	6.060	10.092	4.768	10.075	3.992	10.095	4.768		
11	9.942	0.614	10.017	2.187	10.017	2.187	9.942	0.614	10.092	3.595	10.072	3.955	10.152	7.458	10.122	6.014	9.942	0.614	9.942	0.614	9.942	0.614	10.092	4.768	11	10.095	4.768	10.115	5.612	10.169	8.023	10.095	4.768	10.095	4.371	10.197	9.676		
12	9.942	0.614	10.117	5.769	10.117	5.769	9.942	0.614	10.087	4.528	10.032	2.618	10.187	8.235	10.092	4.727	9.942	0.614	9.942	0.614	9.942	0.614	10.092	4.768	12	10.095	4.768	10.115	5.612	10.132	8.525	10.085	4.371	10.085	4.371	10.157	7.507		
13	10.052	3.252	10.032	2.618	10.032	2.618	9.942	0.614	10.182	7.971	10.042	2.926	10.212	10.803	10.082	4.333	9.942	0.614	9.942	0.614	9.942	0.614	10.105	5.181	13	[illegible]		10.115	5.612	10.129	6.060	10.155	7.507	10.075	3.992	10.105	5.181		
14	10.052	3.252	10.002	1.795	10.002	1.795	9.942	0.614	10.072	3.955	10.052	3.252	10.232	12.057	10.382	23.849	9.942	0.614	9.942	0.614	9.942	0.614	10.095	4.768	14	[illegible]		10.115	5.612	10.129	6.060	10.095	4.768	10.075	3.992	10.095	4.768		
15	10.052	2.618	10.002	1.795	10.002	1.795	9.942	0.614	10.072	3.955	10.132	6.478	10.282	15.481	10.182	7.971	9.942	0.614	9.942	0.614	9.942	0.614	10.095	4.768	15	[illegible]		[illegible]		10.115	5.612	10.095	4.768	10.075	3.992	10.095	4.768		
16	10.082	2.326	10.012	2.052	10.012	2.052	9.942	0.614	10.057	3.422	10.292	16.229	10.332	18.255	10.122	5.014	9.942	0.614	9.942	0.614	10.095	4.768	16	10.115	5.612	[illegible]		10.115	5.612	10.105	6.571	10.075	3.992	10.085	4.371		
17	10.042	2.926	10.017	2.187	10.017	2.187	9.942	0.614	10.052	3.252	10.202	10.202	10.282	15.481	10.162	7.971	9.942	0.614	9.942	0.614	9.942	0.614	10.095	4.371	17	10.115	5.612	[illegible]		10.129	6.060	10.095	4.768	10.075	3.992	10.085	4.371		
18	10.042	2.926	10.072	3.955	10.072	3.955	9.942	0.614	10.052	3.252	10.322	18.548	10.232	12.057	10.137	6.216	9.942	0.614	9.942	0.614	9.942	0.614	10.095	4.768	18	10.115	5.612	10.105	5.181	10.109	5.181	10.215	10.864	10.075	3.992	10.065	4.371		
19	10.037	2.730	10.122	6.478	10.122	6.478	9.942	0.614	10.032	2.618	10.312	17.768	10.137	6.716	10.142	6.958	9.942	0.614	10.182	9.108	10.182	9.108	10.145	7.007	19	10.125	6.060	10.095	4.768	10.105	5.181	10.125	6.060	10.075	3.992	10.092	4.768		
20	10.037	2.730	10.102	5.139	10.102	5.139	9.942	0.614	10.032	2.618	10.752	33.782	10.142	6.958	10.187	8.235	9.942	0.614	10.135	6.525	10.135	6.525	10.095	4.768	20	10.115	5.612	[illegible]		10.115	5.612	10.115	5.612	10.075	3.992	10.065	4.371		
21	10.032	2.326	10.082	4.333	10.082	4.333	9.942	0.614	10.062	3.595	10.832	81.636	10.142	6.958	10.272	14.770	9.942	0.614	10.105	5.181	10.105	5.181	10.095	4.768	21	10.115	5.612	[illegible]		10.115	5.612	10.115	5.612	10.075	3.992	10.065	4.371		
22	10.032	2.326	10.202	10.202	10.202	10.202	9.942	0.614	10.032	2.326	11.412	207.726	10.152	7.456	10.352	21.021	9.942	0.614	10.095	4.768	10.095	4.768	10.105	5.181	22	10.125	6.060	[illegible]		10.115	5.612	10.095	4.768	10.075	3.992	10.095	4.768		
23	10.042	2.926	10.132	6.478	10.132	6.478	9.942	0.614	10.032	2.326	10.492	54.606	10.122	6.503	10.262	14.046	9.942	0.614	10.105	5.181	10.105	5.181	10.045	2.958	23	10.115	5.612	[illegible]		10.105	5.181	10.095	4.768	10.075	3.992	10.095	4.768		
24	10.032	2.618	10.097	4.931	10.097	4.931	9.942	0.614	10.012	2.052	10.372	72.758	10.192	8.819	10.212	10.803	9.942	0.614	10.105	5.181	10.105	5.181	10.095	4.768	24	10.125	6.525	[illegible]		10.105	5.181	10.095	4.768	10.085	4.371	10.075	3.992		
25	10.032	2.618	10.072	3.955	10.072	3.955	9.942	0.614	10.022	2.326	10.272	14.770	10.192	9.819	20.182	9.052	9.942	0.614	10.105	5.181	10.105	5.181	10.003	1.820	25	10.115	5.612	[illegible]		10.105	5.181	10.095	4.768	10.105	5.181	10.085	4.371		
26	10.027	2.470	10.052	3.252	10.052	3.252	9.942	0.614	10.052	3.252	10.212	10.803	10.232	12.057	10.152	7.456	9.942	0.614	10.105	5.181	10.105	5.181	10.083	4.371	26	10.115	5.612	10.105	5.181	10.105	5.181	10.095	4.768	10.395	24.651	10.085	4.371		
27	10.022	2.326	10.047	3.087	10.047	3.087	9.942	0.614	10.032	2.618	10.142	7.205	10.302	16.385	10.142	6.958	9.942	0.614	10.105	5.181	10.105	5.181	10.283	15.564	27	10.115	5.612	10.115	5.612	10.137	6.525	10.095	4.768	10.135	8.557	10.085	4.371		
28	10.032	2.618	10.047	3.087	10.047	3.087	9.942	0.614	10.042	2.326	10.132	6.478	10.262	14.046	10.122	6.014	9.942	0.614	10.105	5.181	10.105	5.181	10.283	15.564	28	10.105	5.181	10.135	6.525	10.105	5.181	10.085	4.768	10.135	8.525	10.085	4.371		
29	10.082	4.333			10.032	2.618	9.942	0.614	10.042	2.926	10.132	6.478	10.242	12.709	10.142	6.958	9.942	0.614	10.105	5.181	10.105	5.181	10.283	15.564	29	10.105	5.181			10.105	5.181	10.095	4.768	10.115	5.612	10.223	11.484		
30	10.042	2.926			10.052	3.252	10.032	2.618	10.082	4.333	10.122	6.014	10.232	11.421	10.162	7.971	9.942	0.614	10.105	5.181	10.105	5.181	10.103	5.181	30	10.105	5.181			10.095	4.768	10.085	4.371	10.105	5.181	10.175	8.557		
31	10.027	2.470			9.942	0.614			10.092	4.333			10.242	12.709	10.372	22.756	9.942		8.943	71.891	8.943		10.097	4.768	31	10.115	5.612			10.105	5.181					10.105	5.181			

Table 3.3-7 Day Discharge Record of Yangjae St.1

Yangjae Chonn St.

Date	1990 Jan. Water Level	Jan. Quantity (m3/s)	Feb. Water Level	Feb. Quantity (m3/s)	Mar. Water Level	Mar. Quantity (m3/s)	Apr. Water Level	Apr. Quantity (m3/s)	May Water Level	May Quantity (m3/s)	Jun. Water Level	Jun. Quantity (m3/s)	1990 Jul Water Level	Jul Quantity (m3/s)	Aug. Water Level	Aug. Quantity (m3/s)	Sep. Water Level	Sep. Quantity (m3/s)	Oct. Water Level	Oct. Quantity (m3/s)	Nov. Water Level	Nov. Quantity (m3/s)	Dec. Water Level	Dec. Quantity (m3/s)
1	5.784	0.679	5.589	1.543	5.619	0.580	5.659	0.142	5.609	0.736	5.639	0.324	5.629	0.443	5.839	1.829	5.539	23.560	5.539	1.216	5.539	0.602	5.789	0.760
2	5.784	0.679	5.554	1.321	5.619	0.580	5.649	0.224	5.609	0.736	5.599	0.910	5.619	0.580	5.799	0.937	5.539	28.494	5.539	1.157	5.539	0.602	5.789	0.462
3	5.789	0.760	5.559	1.791	5.619	0.580	5.629	0.324	5.759	0.462	5.599	0.910	5.599	0.910	5.989	7.803	5.539	16.143	5.539	1.084	5.539	0.602	5.779	0.602
4	5.789	0.760	5.559	1.791	5.609	0.736	5.639	0.324	5.694	0.007	5.559	0.910	5.809	0.736	5.789	0.760	5.539	7.590	5.539	0.936	5.539	0.602	5.639	0.008
5	5.779	0.602	5.559	1.791	5.604	0.820	5.624	0.509	5.679	0.034	5.589	1.102	5.599	0.910	5.749	0.238	5.539	3.970	5.539	0.934	5.539	0.602	5.789	0.760
6	5.769	0.462	5.549	2.057	5.599	0.910	5.609	0.736	5.639	0.034	5.589	1.549	5.599	0.910	5.749	0.238	5.539	2.936	5.539	0.876	5.599	0.602	5.789	0.760
7	5.774	0.530	5.559	1.791	5.589	1.102	5.699	0.000	5.679	0.034	5.649	2.057	5.594	1.004	5.739	0.153	5.539	2.256	5.539	0.822	5.559	0.602	5.789	0.760
8	5.774	0.530	5.559	1.791	5.594	1.004	5.619	0.580	5.659	0.142	5.755	0.341	5.589	1.102	5.789	0.462	5.539	1.800	5.539	0.779	5.539	0.602	5.789	0.760
9	5.589	1.342	5.559	1.791	5.594	1.004	5.619	0.580	5.639	0.324	5.719	0.040	5.829	1.578	5.739	0.153	5.539	8.083	5.539	0.727	5.539	0.602	5.789	0.760
10	5.589	1.102	5.554	1.321	5.599	0.910	5.619	0.580	5.639	0.324	5.709	0.011	5.799	0.937	5.649	0.224	5.559	25.280	5.539	0.684	5.539	0.602	5.789	0.760
11	5.809	0.736	5.554	1.321	5.599	0.910	5.609	0.736	5.689	0.008	5.599	0.910	5.909	4.101	5.739	0.153	5.539	69.945	5.539	0.642	5.539	0.602	5.789	0.760
12	5.619	0.580	5.559	1.791	5.789	0.760	6.199	23.151	5.784	0.679	5.599	0.910	6.059	12.015	5.739	0.153	5.539	107.394	5.539	0.608	5.539	0.602	5.529	0.760
13	5.589	1.102	5.559	1.791	5.689	0.008	5.969	4.766	5.659	2.586	5.579	1.313	5.919	4.495	5.719	0.040	5.529	46.122	5.539	0.571	5.779	0.602	5.529	0.760
14	5.589	1.102	5.729	0.087	5.594	0.002	5.894	3.536	5.734	0.116	5.579	1.313	6.099	14.828	6.079	13.385	5.539	21.087	5.539	0.559	5.779	0.602	5.529	0.760
15	5.579	1.313	5.674	0.054	5.659	0.142	5.749	0.238	5.689	0.008	5.589	0.910	5.809	1.102	5.819	3.016	5.539	10.779	5.539	0.508	5.779	0.602	5.774	0.530
16	5.579	1.313	5.809	0.736	5.649	0.224	5.709	0.011	5.699	0.000	5.749	0.238	6.209	34.440	5.739	0.153	5.589	6.385	5.539	0.479	5.789	0.760	5.779	0.602
17	5.579	1.313	5.934	5.131	5.629	0.443	5.584	0.019	5.699	0.000	5.689	0.008	5.879	3.016	5.739	0.937	5.559	5.000	5.539	0.457	5.789	0.760	5.779	0.602
18	5.579	1.313	5.779	0.602	5.629	0.443	5.689	0.079	5.709	0.011	5.689	0.008	6.599	60.689	5.819	1.348	5.539	4.072	5.539	0.427	5.779	0.602	5.779	0.602
19	5.589	1.102	5.759	0.341	5.629	0.443	5.649	0.224	5.679	0.034	5.709	0.011	6.029	10.100	5.879	3.016	5.539	3.405	5.539	0.404	5.809	1.102	5.779	0.602
20	5.559	1.102	5.719	0.040	5.709	0.011	5.649	0.224	5.679	0.034	5.684	0.019	5.759	0.341	5.809	1.157	5.539	2.909	5.539	0.382	5.749	0.238	5.779	0.602
21	5.594	1.004	5.709	0.011	5.629	0.443	5.654	0.131	5.669	0.079	5.649	0.224	5.749	0.238	5.789	0.760	5.539	2.607	5.539	0.361	5.769	0.462	5.779	0.602
22	5.594	1.004	5.709	0.937	5.624	0.509	5.649	0.224	5.609	0.736	5.609	0.736	5.849	2.038	5.669	37.006	5.539	2.372	5.539	0.341	5.769	0.462	5.799	0.937
23	5.599	0.910	5.789	0.760	5.609	0.736	5.649	0.224	5.609	0.736	5.809	1.102	5.803	1.102	6.059	12.015	5.539	2.188	5.539	0.323	5.779	0.602	5.789	0.760
24	5.599	0.910	5.729	0.087	5.619	0.580	5.659	0.142	5.694	0.020	5.689	0.008	6.179	21.319	5.969	4.766	5.539	2.544	5.529	0.305	5.779	0.602	5.789	0.760
25	5.599	0.910	5.589	0.008	5.614	0.656	5.629	0.443	5.599	0.210	5.679	0.034	6.049	11.359	5.839	1.829	5.539	2.085	5.539	0.289	5.779	0.602	5.799	0.937
26	5.589	1.102	5.684	0.019	5.809	0.736	5.619	0.580	5.599	0.910	5.689	0.000	6.329	26.232	5.759	0.937	5.539	1.761	5.539	0.274	5.779	0.602	5.789	0.760
27	5.609	0.736	5.689	0.079	5.604	0.820	5.609	0.000	5.579	1.313	5.649	0.224	6.559	48.405	5.759	0.341	5.539	1.612	5.539	0.258	5.789	0.760	5.789	0.760
28	5.609	0.736	5.944	0.272	5.699	0.000	5.804	1.032	5.579	1.313	5.699	0.324	5.938	5.351	5.799	0.937	5.539	1.500	5.539	0.245	5.769	0.760	5.779	0.602
29	5.639	0.324			5.729	0.087	5.709	0.011	5.809	1.102	7.659	0.142	5.919	4.409	5.799	0.937	5.539	1.397	5.529	0.252	5.779	0.602	5.779	0.602
30	5.579	1.313			5.689	0.000	5.644	0.272	5.819	1.346	5.629	0.443	5.939	5.351	5.739	0.602	5.539	1.303	5.539	0.220	5.789	0.760	5.769	0.462
31	5.579	1.313			5.674	0.054			5.929	4.918			5.819	1.346	5.729	0.602			5.539	0.209			5.779	0.602

Date	1991 Jan. Water Level	Jan. Quantity (m3/s)	Feb. Water Level	Feb. Quantity (m3/s)	Mar. Water Level	Mar. Quantity (m3/s)	Apr. Water Level	Apr. Quantity (m3/s)	May Water Level	May Quantity (m3/s)	Jun. Water Level	Jun. Quantity (m3/s)	Jul Water Level	Jul Quantity (m3/s)
1	5.779	0.602	5.779	0.602	5.759	0.341	5.839	1.829	5.829	1.578	5.859	2.586	5.909	7.605
2	5.769	0.462	5.789	0.462	5.759	0.341	5.829	1.829	5.829	1.578	5.849	2.098	5.999	5.351
3	5.769	0.462	5.769	0.462	5.809	1.132	5.829	1.578	5.819	1.346	5.859	2.586	5.909	4.101
4	5.779	0.602	5.769	0.462	5.639	1.829	5.829	1.578	5.809	1.132	5.819	1.346	5.909	4.101
5	5.769	0.462	5.759	0.341	5.809	1.132	5.829	1.578	5.799	0.937	河状切れ		5.879	3.016
6	5.769	0.462	5.759	0.341	5.869	2.692	5.829	1.578	5.819	1.346	河状切れ		5.879	3.016
7	5.759	0.341	5.759	0.155	5.829	1.578	5.829	1.578	5.809	1.132	河状切れ		6.309	34.660
8	5.769	0.462	5.759	0.341	5.829	1.578	5.829	1.578	5.819	1.346	河状切れ			
9	5.769	0.462	5.759	0.341	5.809	1.132	5.829	1.578	5.809	1.132	河状切れ			
10	5.769	0.462	5.759	0.341	5.799	0.937	5.829	1.578	5.799	0.937	河状切れ			
11	5.769	0.462	5.789	0.462	河状切れ		5.819	1.346	5.799	0.937	6.059	12.015		
12	5.769	0.462	5.759	0.341	河状切れ		5.829	1.578	5.799	0.937	6.059	12.015		
13	5.769	0.462	5.769	0.462	河状切れ		5.879	2.016	5.799	0.937	5.869	5.359		
14	5.759	0.341	5.769	0.462	河状切れ		5.819	1.346	5.799	0.937	5.859	2.586		
15	5.769	0.462	5.769	0.462	河状切れ		5.829	1.578	5.799	0.937	5.849	2.098		
16	5.769	0.462	5.769	0.462	5.799	0.937	5.829	1.578	5.799	0.937	5.839	1.829		
17	5.779	0.602	5.759	0.341	5.799	0.937	5.849	2.098	5.809	1.132	5.839	1.829		
18	5.769	0.462	5.769	0.462	5.789	0.760	6.049	11.356	5.799	0.937	5.829	1.578		
19	5.769	0.462	5.769	0.462	5.789	0.760	5.909	4.101	5.799	0.937	5.839	1.829		
20	5.769	0.462	5.759	0.341	5.789	0.760	5.879	3.016	5.799	0.937	5.819	1.346		
21	5.769	0.462	5.755	0.341	5.789	0.760	5.855	2.386	5.799	0.937	5.819	1.346		
22	5.769	0.462	5.759	0.341	5.799	0.937	5.849	2.098	5.799	0.937	5.829	1.578		
23	5.779	0.602	5.779	0.760	5.799	0.937	5.829	1.825	5.799	0.937	5.819	1.346		
24	5.769	0.462	5.769	0.462	5.799	0.937	5.849	2.098	5.819	1.346	5.819	1.346		
25	5.779	0.602	5.769	0.462	5.789	0.760	5.839	1.829	5.839	1.829	5.819	1.346		
26	5.769	0.462	5.769	0.462	5.789	0.760	5.829	1.578	5.589	44.053	5.819	1.346		
27	5.769	0.462	5.759	0.341	5.869	2.692	5.829	1.578	6.039	10.720	5.819	1.346		
28	5.789	0.462	5.769	0.462	6.149	18.756	5.829	1.578	5.929	4.916	5.819	1.346		
29	5.769	0.462			6.359	29.600	5.819	1.346	5.889	3.359	6.259	50.976		
30	5.769	0.462			5.849	2.098	5.819	1.346	5.869	2.692	6.079	15.385		
31	5.759	0.341			5.849	2.098			5.859	2.386				

Table 3.3-8 Day Discharge Record of Yangjae St.2

Yangjae Chong St.2

Date	1990 Jan. Water Level	Jan. Quantity (m3/s)	Feb. Water Level	Feb. Quantity (m3/s)	Mar. Water Level	Mar. Quantity (m3/s)	Apr. Water Level	Apr. Quantity (m3/s)	May. Water Level	May. Quantity (m3/s)	Jun. Water Level	Jun. Quantity (m3/s)	1990 Jul. Water Level	Jul. Quantity (m3/s)	Aug. Water Level	Aug. Quantity (m3/s)	Sep. Water Level	Sep. Quantity (m3/s)	Oct. Water Level	Oct. Quantity (m3/s)	Nov. Water Level	Nov. Quantity (m3/s)	Dec. Water Level	Dec. Quantity (m3/s)
1	11.252	0.595	11.182	1.352	11.222	0.308	11.282	0.124	11.322	0.445	11.342	0.284	11.282	0.388	11.422	1.602	11.252	20.459	11.252	1.095	11.502	0.527	11.542	0.668
2	11.252	0.595	11.177	1.482	11.222	0.508	11.252	0.196	11.312	0.645	11.342	0.797	11.282	0.508	11.412	0.821	11.252	24.951	11.252	0.996	11.502	0.527	11.512	0.405
3	11.252	0.666	11.172	1.569	11.207	0.508	11.247	0.284	11.372	0.405	11.397	0.797	11.272	0.797	11.412	6.837	11.252	14.141	11.252	0.932	11.502	0.527	11.502	0.527
4	11.252	0.666	11.172	1.569	11.207	0.645	11.232	0.284	11.382	0.002	11.332	0.797	11.272	0.645	11.482	0.666	11.252	6.474	11.252	0.872	11.492	0.527	11.492	0.007
5	11.252	0.527	11.182	1.569	11.212	0.718	11.217	0.445	11.327	0.030	11.327	0.965	11.272	0.797	11.432	0.208	11.252	5.478	11.252	0.816	11.512	0.527	11.482	0.666
6	11.252	0.405	11.162	1.802	11.207	0.797	11.202	0.645	11.327	0.030	11.282	1.352	11.272	0.797	11.432	0.208	11.252	2.572	11.252	0.767	11.572	0.527	11.252	0.666
7	11.252	0.484	11.182	1.569	11.192	0.955	11.302	0.000	11.312	0.030	11.272	1.802	11.282	0.880	11.442	0.134	11.252	1.976	11.252	0.720	11.512	0.527	11.252	0.666
8	11.252	0.484	11.182	1.569	11.207	0.880	11.257	0.508	11.292	0.124	11.421	0.299	11.322	0.965	11.402	0.405	11.252	1.577	11.252	0.677	11.502	0.527	11.252	0.666
9	11.202	2.052	11.177	1.569	11.237	0.680	11.242	0.508	11.282	0.284	11.312	0.035	11.282	1.382	11.372	0.134	11.252	7.083	11.252	0.627	11.512	0.527	11.252	0.666
10	11.207	0.965	11.182	1.865	11.252	0.797	11.292	0.508	11.282	0.284	11.302	0.010	11.272	0.821	11.452	0.196	11.252	22.101	11.252	0.599	11.512	0.527	11.252	0.666
11	11.207	0.645	11.187	1.865	11.267	0.797	11.227	0.645	11.292	0.007	11.272	0.797	11.442	9.592	11.392	0.134	11.252	61.272	11.252	0.563	11.502	0.527	11.252	0.666
12	11.222	0.508	11.212	1.569	11.357	0.666	11.692	20.288	11.482	0.595	11.287	0.797	11.502	10.525	11.362	0.134	11.252	94.478	11.252	0.531	11.502	0.527	11.252	0.666
13	11.182	0.965	11.252	1.569	11.252	0.007	11.502	5.929	11.547	2.090	11.352	1.150	11.422	3.941	11.352	0.035	11.252	40.403	11.252	0.500	11.502	0.527	11.252	0.666
14	11.152	0.965	11.387	0.076	11.272	0.002	11.522	3.099	11.372	0.103	11.242	1.150	11.362	12.989	11.352	11.725	11.252	18.481	11.252	0.472	11.502	0.527	11.252	0.666
15	11.152	1.150	11.282	0.047	11.252	0.124	11.387	0.208	11.322	0.007	11.872	38.590	11.502	0.892	11.522	2.642	11.252	9.442	11.252	0.445	11.502	0.527	11.252	0.464
16	11.172	1.150	11.257	0.845	11.247	0.196	11.522	0.010	11.392	0.000	11.547	0.208	11.882	30.197	11.507	0.134	11.252	5.593	11.252	0.420	11.502	0.666	11.252	0.527
17	11.172	1.150	11.407	4.455	11.242	0.588	11.282	0.017	11.312	0.000	11.402	0.007	11.492	2.642	11.552	0.821	11.252	4.580	11.252	0.397	11.492	0.666	11.252	0.527
18	11.172	1.150	11.372	0.527	11.242	0.388	11.272	0.069	11.302	0.010	11.382	0.007	11.892	55.164	11.572	1.179	11.252	3.567	11.252	0.374	11.512	0.527	11.252	0.527
19	11.177	0.965	11.342	0.299	11.232	0.388	11.282	0.196	11.297	0.030	11.412	0.010	11.702	9.840	11.822	2.642	11.252	2.883	11.252	0.354	11.572	0.892	11.252	0.527
20	11.182	0.965	11.302	0.035	11.232	0.010	11.257	0.196	11.292	0.030	11.392	0.017	11.422	0.299	11.542	0.992	11.252	2.548	11.252	0.335	11.252	0.708	11.257	0.527
21	11.182	0.880	11.272	0.610	11.227	0.388	11.252	0.159	11.282	0.059	11.352	0.196	11.372	0.208	11.512	0.666	11.252	2.280	11.252	0.316	11.252	0.405	11.232	0.527
22	11.182	0.880	11.292	0.821	11.222	0.446	11.252	0.196	11.282	0.645	11.342	0.645	11.412	1.838	19.052	76.217	11.252	2.078	11.252	0.299	11.252	0.405	11.252	0.821
23	11.187	0.397	11.382	0.666	11.212	0.845	11.257	0.196	11.282	0.645	11.447	0.992	11.342	0.992	12.052	10.525	11.252	1.899	11.252	0.288	11.512	0.527	11.252	0.666
24	11.202	0.797	11.312	0.076	11.212	0.508	11.262	0.124	11.272	0.718	11.412	0.007	11.872	18.693	11.822	5.929	11.252	2.229	11.252	0.267	11.512	0.527	11.252	0.666
25	11.202	0.797	11.272	0.007	11.212	0.575	11.242	0.388	11.302	0.797	11.372	0.030	11.802	9.950	11.552	1.402	11.252	1.826	11.252	0.259	11.512	0.527	11.252	0.821
26	11.202	0.965	11.262	0.017	11.212	0.845	11.242	0.508	11.302	0.797	11.372	0.000	11.812	32.177	11.522	0.821	11.252	1.543	11.252	0.240	11.502	0.527	11.252	0.666
27	11.207	0.645	11.252	0.068	11.197	0.718	11.257	0.000	11.272	1.150	11.357	0.196	12.142	59.923	11.502	0.259	11.252	1.412	11.252	0.227	11.502	0.666	11.252	0.666
28	11.207	0.645	11.237	0.238	11.252	0.090	11.412	0.904	11.272	1.150	11.342	0.284	11.482	4.7687	11.432	0.821	11.252	1.316	11.252	0.215	11.502	0.666	11.252	0.527
29	11.232	0.284			11.312	0.076	11.322	0.010	11.482	0.992	11.382	0.124	11.442	3.941	11.422	0.821	11.252	1.224	11.252	0.203	11.532	0.527	11.252	0.527
30	11.172	1.150			11.282	0.000	11.272	0.238	11.502	1.179	11.327	0.588	11.472	4.687	11.402	0.527	11.252	1.143	11.252	0.193	11.502	0.666	11.252	0.405
31	11.172	1.150			11.277	0.047			11.562	4.306			11.482	1.179	11.382	0.527	11.252		11.502	0.183			11.252	0.527

Date	1991 Jan. Water Level	Jan. Quantity (m3/s)	Feb. Water Level	Feb. Quantity (m3/s)	Mar. Water Level	Mar. Quantity (m3/s)	Apr. Water Level	Apr. Quantity (m3/s)	May. Water Level	May. Quantity (m3/s)	Jun. Water Level	Jun. Quantity (m3/s)	Jul. Water Level	Jul. Quantity (m3/s)
1	工事				工事		工事		工事		工事		工事	
2	工事				工事		工事		工事		工事		工事	
3	工事				工事		工事		工事		工事		工事	
4	工事				工事		工事		工事		工事		工事	
5	工事				工事		工事		工事		工事		工事	
6	工事				工事		工事		工事		工事		工事	
7	工事				工事		工事		工事		工事		工事	
8	工事				工事		工事		工事		工事		工事	
9	工事				工事		工事		工事		工事		工事	
10	工事				工事		工事		工事		工事		工事	
11	工事				工事		工事		工事		工事		工事	
12	工事				工事		工事		工事		工事		工事	
13	工事				工事		工事		工事		工事		工事	
14	工事				工事		工事		工事		工事		工事	
15	工事				工事		工事		工事		工事		工事	
16	工事				工事		工事		工事		工事		工事	
17	工事				工事		工事		工事		工事		工事	
18	工事				工事		工事		工事		工事		工事	
19	工事				工事		工事		工事		工事		工事	
20	工事				工事		工事		工事		工事		工事	
21	工事				工事		工事		工事		工事		工事	
22	工事				工事		工事		工事		工事		工事	
23	工事				工事		工事		工事		工事		工事	
24	工事				工事		工事		工事		工事		工事	
25	工事				工事		工事		工事		工事		工事	
26	工事				工事		工事		工事		工事		工事	
27	工事				工事		工事		工事		工事		工事	
28	工事				工事		工事		工事		工事		工事	
29	工事				工事		工事		工事		工事		工事	
30	工事				工事		工事		工事		工事		工事	
31	工事				工事				工事					

Table 3.3-9 Day Discharge Record of Yangjae St.3

Yanjae Chone St.3

Date	1990 Jan. Water Level	Jan. Quantity (m3/s)	Feb. Water Level	Feb. Quantity (m3/s)	Mar. Water Level	Mar. Quantity (m3/s)	Apr. Water Level	Apr. Quantity (m3/s)	May. Water Level	May. Quantity (m3/s)	Jun. Water Level	Jun. Quantity (m3/s)
1	15.097	0.194	15.052	0.046	15.047	0.036	15.077	0.116	15.037	0.019	15.117	0.799
2	15.097	0.194	15.052	0.046	15.052	0.046	15.077	0.116	15.047	0.036	15.057	0.057
3	15.097	0.194	15.052	0.046	15.052	0.046	15.067	0.084	15.127	0.349	15.057	0.057
4	15.097	0.194	15.047	0.036	15.052	0.046	15.057	0.057	15.097	0.194	15.027	0.008
5	15.097	0.194	15.047	0.036	15.052	0.046	15.057	0.057	15.097	0.194	15.022	0.004
6	15.097	0.194	15.047	0.036	15.047	0.036	15.047	0.036	15.087	0.152	15.017	0.002
7	15.097	0.194	15.087	0.152	15.032	0.013	15.097	0.194	15.087	0.152	15.017	0.002
8	15.097	0.194	15.082	0.133	15.037	0.019	15.082	0.133	15.072	0.099	15.207	0.986
9	15.087	0.152	15.062	0.070	15.042	0.027	15.057	0.057	15.057	0.057	15.147	0.478
10	15.072	0.099	15.062	0.070	15.067	0.084	15.047	0.036	15.037	0.019	15.097	0.194
11	15.067	0.084	15.077	0.116	15.097	0.194	15.047	0.036	15.077	0.116	15.062	0.070
12	15.067	0.084	15.077	0.116	15.107	0.241	15.377	3.409	15.117	0.293	15.062	0.070
13	15.027	0.009	15.092	0.173	15.077	0.116	15.217	1.088	15.157	0.550	15.047	0.036
14	15.027	0.009	15.132	0.380	15.117	0.293	15.207	0.986	15.087	0.152	15.017	0.002
15	15.047	0.036	15.117	0.293	15.077	0.116	15.117	0.293	15.067	0.084	15.507	4.246
16	15.047	0.036	15.097	0.194	15.082	0.133	15.107	0.241	15.097	0.194	15.347	2.876
17	15.047	0.036	15.197	0.889	15.077	0.116	15.107	0.241	15.082	0.133	15.217	1.088
18	15.047	0.036	15.167	0.627	15.062	0.070	15.092	0.173	15.072	0.099	15.167	0.627
19	15.057	0.057	15.152	0.514	15.057	0.057	15.077	0.116	15.062	0.070	15.167	0.627
20	15.052	0.046	15.117	0.293	15.052	0.046	15.067	0.084	15.057	0.057	15.197	0.889
21	15.052	0.046	15.097	0.194	15.047	0.036	15.067	0.084	15.057	0.057	15.177	0.709
22	15.047	0.036	15.192	0.842	15.047	0.036	15.067	0.084	15.057	0.057	15.157	0.550
23	15.047	0.036	15.182	0.348	15.047	0.036	15.067	0.084	15.047	0.036	15.247	1.425
24	15.052	0.046	15.117	0.293	15.057	0.057	15.067	0.084	15.037	0.019	15.167	0.627
25	15.047	0.036	15.102	0.217	15.052	0.046	15.057	0.057	15.042	0.027	15.137	0.411
26	15.047	0.036	15.077	0.116	15.037	0.019	15.047	0.036	15.037	0.019	15.137	0.411
27	15.047	0.036	15.077	0.116	15.037	0.019	15.032	0.013	15.037	0.019	15.107	0.241
28	15.052	0.046	15.072	0.099	15.092	0.173	15.187	0.827	15.027	0.008	15.107	0.241
29	15.107	0.241			15.107	0.241	15.107	0.241	15.097	0.194	15.127	0.349
30	15.077	0.116			15.097	0.194	15.057	0.057	15.107	0.241	15.097	0.194
31	15.037	0.019			15.087	0.152			15.161	0.627		

Date	1990 Jul. Water Level	Jul. Quantity (m3/s)	Aug. Water Level	Aug. Quantity (m3/s)	Sep. Water Level	Sep. Quantity (m3/s)	Oct. Water Level	Oct. Quantity (m3/s)	Nov. Water Level	Nov. Quantity (m3/s)	Dec. Water Level	Dec. Quantity (m3/s)
1	15.097	0.194	15.117	0.293	15.097	4.858	15.097	0.250	15.097	0.122	15.379	0.157
2	15.117	0.293	15.107	0.241	15.097	5.870	15.097	0.234	15.097	0.122	15.379	0.095
3	15.147	0.478	15.107	0.241	15.097	3.376	15.097	0.219	15.097	0.122	15.389	0.124
4	15.127	0.349	15.097	0.194	15.097	1.522	15.097	0.205	15.097	0.122	15.369	0.002
5	15.127	0.349	15.097	0.194	15.097	0.805	15.097	0.192	15.097	0.122	15.389	0.157
6	15.147	0.478	15.097	0.194	15.097	0.805	15.097	0.180	15.097	0.122	15.359	0.157
7	15.137	0.411	15.097	0.194	15.097	0.465	15.097	0.169	15.097	0.122	15.359	0.157
8	15.177	0.709	15.097	0.194	15.097	0.371	15.097	0.159	15.097	0.122	15.359	0.157
9	15.157	0.550	15.097	0.194	15.097	1.461	15.097	0.150	15.097	0.122	15.359	0.157
10	15.117	0.293	15.107	0.241	15.097	5.198	15.097	0.141	15.097	0.122	15.359	0.157
11	15.207	0.986	15.097	0.194	15.097	14.418	15.097	0.132	15.097	0.122	15.349	0.157
12	15.277	1.807	15.087	0.152	15.097	22.708	15.097	0.125	15.097	0.122	15.349	0.157
13	15.207	0.986	15.077	0.116	15.097	8.502	15.097	0.118	15.097	0.122	15.349	0.157
14	15.307	2.235	15.137	0.411	15.097	4.346	15.097	0.111	15.097	0.122	15.349	0.157
15	15.257	1.347	15.107	0.241	15.097	2.221	15.097	0.105	15.097	0.122	15.359	0.109
16	15.437	5.054	15.077	0.116	15.097	1.315	15.097	0.099	15.097	0.154	15.369	0.124
17	15.277	1.807	15.077	0.116	15.097	1.030	15.137	0.093	15.349	0.154	15.369	0.124
18	15.527	6.758	15.167	0.627	15.097	0.839	15.137	0.088	15.349	0.122	15.369	0.124
19	15.317	2.387	15.157	0.550	15.097	0.702	15.197	0.083	15.409	0.223	15.369	0.124
20	15.217	1.088	15.117	0.293	15.097	0.599	15.197	0.079	15.409	0.018	15.379	0.124
21	15.167	0.627	15.087	0.152	15.097	0.524	15.187	0.074	15.399	0.083	15.369	0.124
22	15.167	0.627	15.217	1.088	15.097	0.481	15.187	0.070	15.379	0.093	15.369	0.193
23	15.157	0.550	15.167	0.627	15.097	0.447	15.167	0.067	15.379	0.122	15.359	0.157
24	15.367	3.326	15.127	0.349	15.097	0.524	15.157	0.063	15.389	0.122	15.359	0.157
25	15.267	1.945	15.117	0.293	15.097	0.429	15.162	0.060	15.378	0.122	15.339	0.193
26	15.417	4.191	15.097	0.194	15.097	0.363	15.157	0.056	15.369	0.122	15.339	0.157
27	15.717	12.828	15.097	0.194	15.097	0.332	15.157	0.053	15.369	0.154	15.339	0.157
28	15.197	0.889	15.077	0.116	15.097	0.309	15.157	0.050	15.369	0.154	15.339	0.124
29	15.167	0.627	15.067	0.084	15.097	0.288	15.157	0.048	15.369	0.122	15.339	0.124
30	15.137	0.411	15.077	0.116	15.097	0.268	15.157	0.045	15.369	0.154	15.339	0.095
31	15.117	0.293	15.077	0.116			15.097	0.043			15.339	0.124

Date	1991 Jan. Water Level	Jan. Quantity (m3/s)	Feb. Water Level	Feb. Quantity (m3/s)	Mar. Water Level	Mar. Quantity (m3/s)	Apr. Water Level	Apr. Quantity (m3/s)	May. Water Level	May. Quantity (m3/s)	Jun. Water Level	Jun. Quantity (m3/s)	Jul. Water Level	Jul. Quantity (m3/s)
1	記録なし		凍結		凍結		15.299	2.116	15.269	1.701	15.319	2.419	15.379	3.446
2	記録なし		凍結		凍結		15.289	1.973	15.269	1.701	15.309	2.265	15.369	3.262
3	記録なし		凍結		凍結		15.289	1.973	15.269	1.701	15.309	2.265	15.359	3.084
4	記録なし		凍結		15.289	1.973	15.289	1.973	15.269	1.701	15.309	2.265	15.359	3.084
5	記録なし		凍結		15.289	1.973	15.289	1.973	15.269	1.701	15.299	2.116	15.349	2.910
6	記録なし		凍結		15.289	1.973	15.289	1.973	15.259	1.572	15.299	2.116	15.349	2.910
7	記録なし		凍結		15.279	1.834	15.279	1.834	15.269	1.701	記録なし		15.509	6.296
8	記録なし		凍結		15.309	2.265	15.279	1.834	15.259	1.572	記録なし			
9	記録なし		凍結		15.319	2.419	15.269	1.701	15.249	1.449	記録なし			
10	記録なし		凍結		15.299	2.116	15.269	1.701	15.249	1.449	記録なし			
11	記録なし		凍結		15.319	2.419	15.269	1.701	15.249	1.449	15.399	3.829		
12	凍結		凍結		15.309	2.265	15.269	1.701	15.239	1.331	15.359	3.084		
13	凍結		凍結		15.299	2.116	15.299	2.116	15.239	1.331	15.309	2.265		
14	凍結		凍結		15.299	2.116	15.279	1.834	15.239	1.331	15.299	2.116		
15	凍結		用紙切れ		15.299	2.116	15.279	1.834	15.229	1.217	15.289	1.973		
16	凍結		用紙切れ		15.299	2.116	15.269	1.701	15.229	1.217	15.289	1.973		
17	凍結		用紙切れ		15.299	2.116	15.319	2.419	15.229	1.217	15.289	1.973		
18	凍結		用紙切れ		15.299	2.116	15.389	3.635	15.229	1.217	15.279	1.834		
19	凍結		凍結		15.299	2.116	15.319	2.419	15.229	1.217	15.279	1.834		
20	凍結		凍結		15.299	2.116	15.299	2.116	15.229	1.217	15.279	1.834		
21	凍結		凍結		15.299	2.116	15.289	1.973	15.229	1.217	15.279	1.834		
22	凍結		凍結		15.299	2.116	15.289	1.973	15.229	1.217	15.269	1.701		
23	凍結		凍結		15.299	2.116	15.289	1.973	15.219	1.109	15.279	1.834		
24	凍結		凍結		15.299	2.116	15.279	1.834	15.239	1.331	15.269	1.701		
25	凍結		凍結		15.299	2.116	15.279	1.834	15.269	1.701	15.269	1.701		
26	凍結		凍結		15.289	1.973	15.279	1.834	15.529	6.810	15.269	1.701		
27	凍結		凍結		15.329	2.577	15.269	1.701	15.379	3.446	15.269	1.701		
28	凍結		凍結		15.309	2.265	15.269	1.701	15.349	2.910	15.269	1.701		
29	凍結				15.309	2.265	15.269	1.701	15.329	2.577	15.409	4.028		
30	凍結				15.299	2.116	15.269	1.701	15.329	2.577	15.459	5.099		
31	凍結				15.299	2.116			15.319	2.419				

Table 3.3-10 Day Discharge Record of Yangjae St.4

Yangjae Chong St.4

Date	1990 Jan. Water Level	Jan. Quantity (m3/s)	Feb. Water Level	Feb. Quantity (m3/s)	Mar. Water Level	Mar. Quantity (m3/s)	Apr. Water Level	Apr. Quantity (m3/s)	May Water Level	May Quantity (m3/s)	Jun. Water Level	Jun. Quantity (m3/s)	1990 Jul Water Level	Jul Quantity (m3/s)	Aug. Water Level	Aug. Quantity (m3/s)	Sep. Water Level	Sep. Quantity (m3/s)	Oct. Water Level	Oct. Quantity (m3/s)	Nov. Water Level	Nov. Quantity (m3/s)	Dec. Water Level	Dec. Quantity (m3/s)
1	15.420	0.579	15.470	0.197	15.510	0.197	15.535	0.346	15.500	0.057	15.550	0.875	15.500	0.579	15.560	0.875	15.420	14.496	15.420	0.746	15.420	0.370	15.270	0.467
2	15.420	0.579	15.465	0.197	15.515	0.197	15.520	0.346	15.505	0.107	15.520	0.370	15.506	0.875	15.480	0.719	15.420	17.518	15.420	0.699	15.420	0.370	15.218	0.266
3	15.420	0.579	15.480	0.197	15.510	0.197	15.525	0.251	15.810	1.042	15.520	0.178	15.530	1.427	15.830	0.719	15.420	9.936	15.420	0.654	15.420	0.370	15.188	0.142
4	15.420	0.579	15.480	0.107	15.500	0.197	15.510	0.178	15.575	0.579	15.500	0.024	15.540	1.042	15.870	0.579	15.420	4.543	15.420	0.913	15.420	0.370	15.188	0.142
5	15.420	0.579	15.485	0.107	15.500	0.197	15.485	0.178	15.560	0.579	15.485	0.012	15.540	1.042	15.610	0.579	15.420	2.402	15.420	0.574	15.420	0.370	15.209	0.220
6	15.420	0.579	15.485	0.107	15.495	0.107	15.470	0.107	15.550	0.454	15.485	0.006	15.540	1.427	15.600	0.579	15.420	1.805	15.420	0.529	15.420	0.370	15.198	0.179
7	15.420	0.579	15.485	0.454	15.485	0.099	15.565	0.579	15.550	0.454	15.500	0.006	15.570	1.227	15.580	0.579	15.420	1.387	15.420	0.506	15.420	0.370	15.198	0.179
8	15.480	0.579	15.470	0.197	15.485	0.057	15.530	0.197	15.540	0.296	15.630	2.943	15.530	2.116	15.580	0.579	15.420	1.107	15.420	0.473	15.420	0.370	15.198	0.179
9	15.480	0.454	15.480	0.208	15.480	0.081	15.515	0.178	15.530	0.178	15.580	1.427	15.580	1.442	15.520	0.579	15.420	4.958	15.420	0.447	15.420	0.370	15.178	0.110
10	15.470	0.298	15.480	0.209	15.470	0.251	15.505	0.107	15.520	0.057	15.550	0.579	15.580	0.875	15.570	0.719	15.420	15.519	15.420	0.421	15.420	0.370	15.188	0.142
11	15.470	0.251	15.465	0.346	15.470	0.579	15.480	0.107	15.540	0.346	15.520	0.209	15.680	2.943	15.630	0.579	15.420	42.006	15.420	0.335	15.420	0.370	15.188	0.142
12	15.485	0.251	15.470	0.346	15.625	0.719	15.810	10.176	15.580	0.875	15.620	0.209	15.750	5.354	15.590	0.454	15.420	68.277	15.420	0.335	15.450	0.370	15.178	0.110
13	15.450	0.024	15.470	0.516	15.580	0.346	15.660	3.248	15.685	1.542	15.510	0.107	15.650	2.943	15.620	0.346	15.420	28.356	15.420	0.351	14.428	0.370	15.178	0.110
14	15.480	0.024	15.555	1.134	15.550	0.875	15.670	2.943	15.600	0.454	15.470	0.006	15.600	5.871	18.120	1.227	15.420	12.971	15.420	0.351	14.488	0.370	15.188	0.142
15	15.480	0.107	15.485	0.875	15.550	0.346	15.610	0.875	15.550	0.251	15.900	18.444	15.730	4.818	15.810	0.719	15.420	6.827	15.420	0.312	14.618	0.370	15.178	0.110
16	15.480	0.107	15.490	0.578	15.525	0.397	15.580	0.719	15.500	0.579	15.730	8.585	15.960	19.086	15.830	0.346	15.420	5.926	15.420	0.293	14.888	0.467	15.168	0.081
17	15.470	0.107	15.750	2.854	15.520	0.346	15.560	0.719	15.565	0.397	15.890	9.248	15.780	5.394	15.840	0.346	15.420	5.075	15.420	0.273	14.978	0.467	15.178	0.110
18	15.470	0.107	15.865	1.872	15.520	0.209	15.540	0.516	15.550	0.296	15.980	1.872	18.160	20.173	15.980	1.872	15.420	5.504	15.420	0.283	15.058	0.370	15.208	0.220
19	15.475	0.130	15.600	1.534	15.515	0.178	15.525	0.346	15.540	0.209	15.580	1.872	15.730	7.125	18.160	1.442	15.420	2.094	15.420	0.268	15.098	0.486	15.268	0.556
20	15.475	0.197	15.575	0.875	15.510	0.197	15.520	0.251	15.540	0.178	15.650	2.654	15.880	3.248	15.740	0.875	15.420	1.789	15.420	0.233	14.888	0.146	15.328	1.043
21	15.470	0.197	15.550	0.579	15.500	0.107	15.515	0.251	15.540	0.178	15.610	2.116	15.800	1.872	15.700	0.454	15.420	1.600	15.420	0.222	14.718	0.284	15.338	1.139
22	15.465	0.107	15.640	2.513	15.505	0.107	15.510	0.251	15.525	0.178	15.580	1.442	15.800	1.872	16.520	2.248	15.420	1.458	15.420	0.210	14.738	0.284	15.348	1.240
23	15.460	0.197	15.815	1.755	15.490	0.107	15.510	0.251	15.525	0.107	15.720	4.254	15.580	1.442	16.020	1.872	15.420	1.333	15.420	0.189	14.758	0.370	15.338	1.139
24	15.465	0.197	15.575	0.875	15.490	0.178	15.520	0.251	15.520	0.057	15.620	1.872	15.800	5.530	16.280	1.042	15.420	1.564	15.420	0.168	14.778	0.370	15.268	0.701
25	15.465	0.107	15.550	0.648	15.490	0.197	15.500	0.178	15.510	0.081	15.575	1.227	15.780	5.806	16.420	0.875	15.420	1.282	15.420	0.178	14.868	0.370	15.178	0.110
26	15.450	0.107	15.540	0.346	15.485	0.057	15.500	0.107	15.520	0.057	15.570	1.227	15.720	12.510	16.400	0.579	15.420	1.083	15.420	0.169	14.988	0.370	15.178	0.110
27	15.460	0.107	15.540	0.346	15.470	0.057	15.490	0.099	15.520	0.057	15.530	0.719	15.760	37.695	16.420	0.579	15.420	0.991	15.420	0.159	15.099	0.467	15.193	0.160
28	15.480	0.197	15.525	0.298	15.555	0.516	15.660	1.872	15.500	0.024	15.570	0.719	15.740	2.654	16.020	0.346	15.420	0.922	15.420	0.151	15.238	0.467	15.208	0.220
29	15.520	0.719			15.570	0.719	15.595	0.719	15.590	0.529	15.650	1.042	15.630	1.872	16.200	0.251	15.420	0.859	15.420	0.145	15.158	0.370	15.198	0.179
30	15.480	0.346			15.580	0.579	15.520	0.170	15.505	0.719	15.500	0.579	15.500	1.227	16.120	0.346	15.420	0.801	15.420	0.135	14.378	0.467	15.198	0.179
31	15.480	0.057			15.550	0.454			15.620	1.872			15.560	0.875	16.100	0.346			15.420	0.129			15.188	0.142

Date	1991 Jan. Water Level	Jan. Quantity (m3/s)	Feb. Water Level	Feb. Quantity (m3/s)	Mar. Water Level	Mar. Quantity (m3/s)	Apr. Water Level	Apr. Quantity (m3/s)	May Water Level	May Quantity (m3/s)	Jun. Water Level	Jun. Quantity (m3/s)	Jul Water Level	Jul Quantity (m3/s)
1	[illegible]		[illegible]		16.358	4.861	16.078	1.349	15.998	0.745	15.988	0.682	16.078	1.349
2	[illegible]		[illegible]		16.378	5.195	16.068	1.264	15.998	0.745	15.968	0.565	16.058	1.181
3	[illegible]		[illegible]		16.368	5.027	16.078	1.349	15.998	0.745	15.908	0.279	16.018	0.879
4	[illegible]		[illegible]		16.368	5.027	16.068	1.264	15.998	0.745	15.978	0.622	16.028	0.951
5	[illegible]		[illegible]		16.358	4.861	16.068	1.264	15.958	0.510	15.958	0.510	15.998	0.745
6	[illegible]		[illegible]		16.358	4.861	16.068	1.264	15.998	0.745	15.968	0.565	15.998	0.745
7	[illegible]		[illegible]		16.358	4.861	16.048	1.102	15.988	0.682	15.968	0.682		
8	[illegible]		[illegible]		16.298	3.925	16.068	1.264	15.988	0.682	15.954	0.510		
9	[illegible]		[illegible]		16.268	3.321	16.008	0.811	15.978	0.622	15.888	0.682		
10	[illegible]		[illegible]		16.288	3.779	16.008	0.811	15.978	0.622	16.008	0.811		
11	[illegible]		[illegible]		16.238	3.089	16.058	1.181	15.968	0.565	16.218	2.833		
12	[illegible]		[illegible]		16.268	3.495	16.018	0.879	15.988	0.682	16.148	2.025		
13	[illegible]		[illegible]		16.268	3.495	16.078	1.349	15.998	0.745	16.028	0.951		
14	[illegible]		[illegible]		16.288	3.779	16.068	1.264	15.998	0.745	15.988	0.682		
15	[illegible]		[illegible]		16.288	3.779	16.028	0.951	15.968	0.682	15.998	0.745		
16	[illegible]		[illegible]		16.298	3.925	16.028	0.951	15.968	0.565	15.968	0.565		
17	[illegible]		[illegible]		16.298	3.925	16.098	1.527	15.988	0.682	15.968	0.565		
18	[illegible]		[illegible]		16.298	3.925	16.328	4.380	15.988	0.682	15.968	0.565		
19	[illegible]		[illegible]		16.248	3.221	16.158	2.130	15.988	0.682	15.978	0.622		
20	[illegible]		[illegible]		16.248	3.221	16.108	1.621	15.978	0.622	15.998	0.745		
21	[illegible]		[illegible]		16.254	3.357	16.128	1.816	15.988	0.682	15.948	0.458		
22	[illegible]		[illegible]		16.268	3.495	16.108	1.621	15.988	0.682	15.968	0.565		
23	[illegible]		[illegible]		16.263	3.495	16.028	0.951	15.978	0.622	15.948	0.458		
24	[illegible]		[illegible]		16.218	2.833	16.048	1.102	15.018	0.879	15.958	0.510		
25	[illegible]		[illegible]		16.124	1.816	16.028	0.951	16.058	1.181	15.978	0.622		
26	[illegible]		[illegible]		16.084	1.457	16.018	0.879	15.518	7.845	15.948	0.458		
27	[illegible]		[illegible]		16.348	32.530	16.178	2.358	16.008	0.811	16.138	1.918	15.948	0.458
28	[illegible]		[illegible]		16.328	31.596	16.128	1.816	15.988	0.682	16.048	1.102	15.958	0.565
29	[illegible]		[illegible]				16.218	1.717	16.008	0.811	16.068	0.811	16.238	3.089
30	[illegible]		[illegible]				16.106	1.621	15.908	0.275	15.988	0.682	16.158	2.130
31	[illegible]		[illegible]				16.098	1.527			15.988	0.682		

Table 3.3-11 Day Discharge Record of Ui St.1

Ui Chone St.1

Date	1990 Jan. Water Level	Jan. Quantity (m3/s)	Feb. Water Level	Feb. Quantity (m3/s)	Mar. Water Level	Mar. Quantity (m3/s)	Apr. Water Level	Apr. Quantity (m3/s)	May Water Level	May Quantity (m3/s)	Jun. Water Level	Jun. Quantity (m3/s)	1990 Jul. Water Level	Jul. Quantity (m3/s)	Aug. Water Level	Aug. Quantity (m3/s)	Sep. Water Level	Sep. Quantity (m3/s)	Oct. Water Level	Oct. Quantity (m3/s)	Nov. Water Level	Nov. Quantity (m3/s)	Dec. Water Level	Dec. Quantity (m3/s)	Date	1991 Jan. Water Level	Jan. Quantity (m3/s)	Feb. Water Level	Feb. Quantity (m3/s)	Mar. Water Level	Mar. Quantity (m2/s)	Apr. Water Level	Apr. Quantity (m3/s)	May Water Level	May Quantity (m3/s)	Jun. Water Level	Jun. Quantity (m3/s)	Jul. Water Level	Jul. Quantity (m3/s)
1	16.405	2.763	16.380	2.130	16.440	3.787	16.435	3.631	16.405	2.763	16.465	4.617	16.525	6.944	16.500	5.917	16.405	11.621	16.445	3.946	16.065	1.198	16.395	2.500	1	欠測		欠測		16.395	1.790	16.405	2.763	16.395	2.500	16.445	3.946
2	16.405	2.763	16.375	2.013	16.435	3.631	16.425	3.328	16.445	3.946	16.445	3.946	16.405	5.340	16.495	5.721	16.405	14.020	16.445	3.946	16.065	1.198	16.365	1.790	2	欠測		欠測		欠測		16.395	2.500	16.395	2.500	16.405	2.763	16.435	3.631
3	16.405	2.763	16.380	2.375	16.430	3.478	16.415	3.039	16.355	2.285	16.425	3.328	16.445	3.946	16.485	5.340	16.405	6.087	16.445	3.946	16.065	1.198	16.365	1.790	3	欠測		欠測		欠測		16.405	2.763	16.395	2.250	16.395	2.500	16.405	2.763
4	16.405	2.763	16.380	2.130	16.435	3.631	16.405	2.763	16.485	5.340	16.405	2.763	16.525	6.944	16.475	4.972	16.405	2.413	16.445	3.946	16.065	1.198	16.735	18.817	4	欠測		欠測		欠測		16.405	2.763	16.395	2.250	16.395	2.500	16.405	2.763
5	16.405	2.763	16.375	2.013	16.435	3.631	16.395	2.500	16.445	3.946	16.395	2.500	16.555	8.285	16.470	4.793	16.405	1.880	16.425	3.631	16.065	1.198	16.435	3.631	5	欠測		欠測		欠測		16.395	2.250	16.395	2.500	16.385	2.250	16.395	2.500
6	16.405	2.763	16.385	1.790	16.425	3.328	16.385	2.250	16.435	3.631	16.385	2.250	16.525	6.944	16.465	4.617	16.405	1.688	16.425	3.031	16.065	1.198	16.435	3.631	6	欠測		欠測		欠測		16.395	2.500	16.395	2.500	16.385	2.250	16.375	2.013
7	16.405	2.763	16.380	1.689	16.420	3.182	16.405	2.763	16.485	5.340	16.375	2.013	16.585	9.745	16.455	4.275	16.405	1.537	16.415	3.039	16.385	2.250	16.435	3.631	7	欠測		欠測		欠測		16.395	2.500	16.385	2.250	16.395	2.500	16.945	7.825
8	16.405	2.763	16.385	1.790	16.415	3.039	16.425	3.328	16.445	3.946	16.395	2.500	16.825	25.680	16.445	3.946	16.405	1.398	16.405	2.763	16.375	2.013	16.395	2.500	8	欠測		欠測		欠測		16.395	2.500	16.385	2.250	欠測切れ			
9	16.405	2.763	16.385	1.790	16.410	2.899	16.415	3.039	16.425	3.328	16.705	16.766	16.585	9.745	16.445	3.946	16.405	20.226	16.405	2.763	16.375	2.013	16.375	2.013	9	欠測		欠測		欠測		16.385	2.250	16.385	2.250	欠測切れ			
10	16.655	4.275	16.405	2.763	16.405	2.763	16.405	2.763	16.415	3.039	16.535	7.378	16.535	7.378	16.435	3.631	16.405	15.318	16.405	2.763	16.375	2.013	16.375	2.013	10	欠測		欠測		16.385	2.250	16.385	2.250	16.395	2.500	欠測切れ			
11	16.415	3.039	16.385	2.250	16.415	3.039	16.395	2.500	16.565	8.758	16.485	5.340	16.555	8.285	16.430	3.478	16.405	54.195	16.405	2.763	16.375	2.013	16.385	2.250	11	欠測		欠測		16.365	1.790	16.385	2.250	16.385	2.250	16.515	8.523		
12	16.410	2.899	16.385	2.250	16.705	16.766	16.785	22.428	16.595	6.116	16.445	3.946	16.595	7.378	16.425	3.328	16.405	29.001	16.405	2.763	16.375	2.013	16.365	1.790	12	欠測		欠測		16.365	1.790	16.385	2.250	16.375	2.013	16.475	4.972		
13	16.415	3.039	16.385	2.250	16.515	8.523	16.395	16.766	16.675	14.833	16.425	3.328	16.525	6.944	16.422	3.240	16.405	8.408	16.395	2.500	16.385	2.250	16.365	1.790	13	欠測		欠測		16.365	1.790	16.425	3.328	16.375	2.013	16.615	7.039		
14	16.395	2.500	16.380	2.130	16.485	5.340	16.455	10.610	16.505	6.116	16.405	2.763	16.535	7.378	16.745	19.527	16.405	4.370	16.395	2.500	16.385	2.500	16.375	2.013	14	欠測		欠測		16.305	0.725	16.395	2.500	16.285	2.250	16.395	2.500		
15	16.380	2.375	16.425	3.328	16.455	4.275	16.525	11.875	16.485	4.617	16.385	2.250	16.815	11.922	16.495	5.721	16.405	5.676	16.405	2.763	16.385	2.250	16.365	1.790	15	欠測		欠測		16.375	2.013	16.395	2.500	16.395	2.500	16.405	2.763		
16	16.385	2.250	16.405	2.763	16.445	3.946	16.585	9.745	16.445	3.946	16.755	20.250	16.755	20.250	16.485	4.617	16.405	3.909	16.395	2.500	16.375	2.013	16.365	1.790	16	欠測		欠測		16.375	2.013	16.395	2.500	16.395	2.500	16.395	2.500		
17	16.395	2.250	16.405	2.763	16.435	3.631	16.525	6.944	16.425	3.328	16.485	5.340	16.735	16.817	16.475	4.972	16.405	2.864	16.385	2.250	16.365	1.790	16.365	1.790	17	欠測		欠測		16.375	2.013	16.405	2.763	16.395	2.500	16.395	2.500		
18	16.395	2.250	16.395	2.500	16.425	3.631	16.515	8.523	16.445	3.946	16.805	24.063	17.155	59.958	16.455	4.275	16.405	2.666	16.385	2.250	16.385	2.250	16.355	1.579	18	欠測		欠測		16.395	2.250	16.595	10.257	16.395	2.500	16.395	2.500		
19	16.380	2.130	16.700	16.495	16.430	3.478	16.505	6.116	16.555	8.285	17.705	148.906	16.805	24.063	16.445	3.946	16.405	2.402	16.375	2.013	16.455	4.275	16.365	1.790	19	欠測		欠測		16.435	3.631	16.485	5.340	16.375	2.013	16.395	2.500		
20	16.375	2.013	16.605	10.789	16.420	3.474	16.485	5.340	16.535	7.378	17.105	55.844	16.745	19.527	16.485	5.340	16.405	2.168	16.375	2.013	16.385	2.250	15.395	1.790	20	欠測		欠測		16.375	2.013	16.455	4.275	16.375	2.013	16.385	2.250		
21	16.365	1.790	16.545	7.825	16.430	3.478	16.475	4.972	16.500	5.917	16.905	32.675	16.805	32.675	16.755	20.986	16.405	1.961	16.385	2.250	16.385	2.250	15.395	1.790	21	欠測		欠測		16.405	2.763	16.425	3.328	16.375	2.013	16.385	2.250		
22	16.405	2.763	16.575	9.245	16.430	3.478	16.475	4.972	16.475	4.972	17.205	68.400	16.825	25.680	16.705	16.766	16.405	1.774	16.385	2.250	16.385	2.250	15.395	1.790	22	欠測		欠測		16.405	2.763	16.415	3.039	16.375	2.013	16.385	2.250		
23	16.395	2.500	16.575	9.245	16.425	3.328	16.505	6.116	16.455	4.275	16.805	24.063	16.775	21.736	16.665	14.215	16.405	1.617	16.365	2.250	16.375	2.013	15.395	1.790	23	欠測		欠測		16.405	2.763	16.405	2.763	16.375	2.013	16.425	3.328		
24	16.395	2.250	16.550	8.053	16.430	3.478	16.575	9.245	16.445	3.946	17.805	169.351	17.525	83.204	16.585	9.745	16.405	1.518	16.375	2.013	16.385	1.790	15.395	1.790	24	欠測		欠測		16.395	2.500	16.445	3.946	16.385	2.250	16.385	2.250		
25	16.385	2.250	16.515	6.523	16.495	3.631	16.515	6.523	16.425	3.328	16.805	24.063	16.915	33.609	16.545	7.825	16.405	1.413	16.375	2.013	16.375	2.013	15.395	1.790	25	欠測		欠測		16.395	2.500	16.435	3.631	16.485	4.617	16.385	2.250		
26	16.385	2.250	16.475	4.972	16.425	3.328	16.485	5.340	16.415	3.039	16.785	22.498	16.785	23.274	16.525	6.944	16.405	1.317	16.375	2.013	16.385	2.250	15.395	1.790	26	欠測		欠測		16.395	2.500	16.435	3.631	16.735	18.817	16.385	2.250		
27	16.385	2.250	16.455	4.275	16.425	3.328	16.455	4.275	16.405	2.763	16.705	16.766	16.995	16.108	16.505	6.116	16.405	1.216	16.385	2.250	16.395	2.500	15.395	1.790	27	欠測		欠測		16.405	2.763	16.425	3.328	16.595	19.257	16.275	2.013		
28	16.405	2.763	16.445	3.946	16.425	3.631	16.440	3.787	16.395	2.500	16.525	6.944	16.615	11.922	16.485	5.340	16.455	1.125	16.385	2.250	16.385	2.250	15.395	1.790	28	欠測		欠測		16.405	2.763	16.395	2.500	16.475	4.972	16.375	2.013		
29	16.395	2.500			16.485	5.340	16.425	3.328	16.385	2.250	16.675	14.833	16.575	9.245	16.675	4.972	16.455	1.042	16.385	2.250	16.375	2.013	15.395	1.790	29	欠測				16.415	3.039	16.405	2.763	16.425	3.328	16.505	6.116		
30	16.385	2.250			16.465	5.340	16.405	2.763	16.375	2.013	16.525	6.944	16.545	7.825	16.505	6.116	16.455	0.965	16.395	2.500	16.385	2.250	15.395	1.790	30	欠測				16.415	3.039	16.405	2.763	16.405	2.763	16.465	4.617		
31	16.395	2.250			16.455	4.275			16.635	12.440			16.525	6.944	16.885	30.848			16.385	2.250			15.395	1.790	31	欠測				16.415	3.039			16.395	2.500				

Table 3.3-12 Day Discharge Record of Ui St.2

Ui Chong St. 2

Date	1990 Jan. Water Level	Jan. Quantity (m3/s)	Feb. Water Level	Feb. Quantity (m3/s)	Mar. Water Level	Mar. Quantity (m3/s)	Apr. Water Level	Apr. Quantity (m3/s)	May Water Level	May Quantity (m3/s)	Jun. Water Level	Jun. Quantity (m3/s)	1990 Jul. Water Level	Jul. Quantity (m3/s)	Aug. Water Level	Aug. Quantity (m3/s)	Sep. Water Level	Sep. Quantity (m3/s)	Oct. Water Level	Oct. Quantity (m3/s)	Nov. Water Level	Nov. Quantity (m3/s)	Dec. Water Level	Dec. Quantity (m3/s)
1	27.586	1.606	27.538	0.865	27.563	1.207	27.543	0.929	27.525	0.744	27.548	0.995	27.648	2.796	27.586	1.572	27.588	7.486	27.598	1.781	27.548	0.995	27.528	0.744
2	27.588	1.606	27.538	0.865	27.548	0.995	27.545	0.929	27.528	0.744	27.543	0.929	27.628	2.363	27.586	1.572	27.588	9.029	27.598	1.781	28.068	0.995	27.518	0.632
3	27.588	1.606	27.543	0.929	27.543	0.929	27.543	0.929	27.548	0.995	27.523	0.887	27.588	3.265	27.586	1.572	27.588	9.970	27.598	1.781	28.068	0.995	27.548	0.995
4	27.586	1.606	27.543	0.929	27.543	0.929	27.543	0.929	27.543	0.929	27.498	0.436	27.658	3.026	27.586	1.572	27.588	1.554	27.598	1.781	28.068	0.995	27.528	0.744
5	27.588	1.606	27.543	0.929	27.543	0.929	27.543	0.929	27.528	0.744	27.498	0.436	27.658	3.026	27.586	1.572	27.588	1.211	27.598	1.781	28.068	0.995	27.528	0.744
6	27.588	1.606	27.538	0.865	27.543	0.929	27.543	0.929	27.528	0.744	27.498	0.436	27.648	2.796	27.586	1.572	27.588	1.087	27.598	1.781	28.068	0.995	27.528	0.744
7	27.588	1.606	27.538	0.865	27.543	0.929	27.548	0.995	27.498	0.436	27.498	0.436	27.668	3.265	27.586	1.572	27.588	0.990	27.598	1.781	28.068	0.995	27.528	0.744
8	27.588	1.606	27.538	0.865	27.543	0.929	27.543	0.929	27.488	0.436	27.498	0.436	27.668	3.265	27.586	1.572	27.588	0.900	27.598	1.781	27.548	0.995	27.528	0.744
9	27.518	0.632	27.538	0.865	27.543	0.929	27.543	0.929	27.498	0.436	27.693	3.903	27.628	2.363	27.586	1.572	27.588	19.025	27.598	1.781	27.548	0.995	27.528	0.744
10	27.563	1.207	27.548	0.995	27.543	0.929	27.543	0.929	27.498	0.436	27.583	1.522	27.628	2.363	27.586	1.572	27.588	9.865	27.598	1.781	27.548	0.995	27.518	0.632
11	27.558	1.134	27.583	1.522	27.543	0.929	27.543	0.929	27.587	1.522	27.548	0.995	27.648	2.796	27.586	1.572	27.588	22.022	27.588	1.606	27.548	0.995	27.518	0.632
12	27.558	1.134	27.563	1.207	27.668	3.265	27.693	3.903	27.548	0.995	27.693	3.903	27.708	6.319	27.586	1.572	27.588	18.677	27.588	1.606	27.548	0.995	27.518	0.632
13	27.548	0.995	27.569	1.207	27.592	1.692	27.713	4.454	27.543	0.929	27.528	0.744	27.686	3.771	27.586	1.572	27.588	4.126	27.569	1.606	27.538	0.865	27.518	0.632
14	27.548	0.995	27.558	1.134	27.558	1.282	27.686	3.771	27.543	0.929	27.528	0.744	27.648	2.796	27.586	1.572	27.588	2.814	27.568	1.606	27.548	0.995	27.518	0.632
15	27.548	0.995	27.558	1.134	27.583	1.207	27.658	2.910	27.528	0.744	27.498	0.436	27.638	2.910	27.586	1.572	27.588	2.367	27.588	1.606	27.538	0.865	27.518	0.632
16	27.538	0.865	27.548	1.282	27.548	0.995	27.583	1.522	27.528	0.744	27.563	1.207	27.688	3.265	27.586	1.572	27.588	2.125	27.578	1.439	27.538	0.865	27.518	0.632
17	27.538	0.865	27.578	1.439	27.548	0.995	27.563	1.207	27.529	0.887	27.543	0.929	27.613	2.062	27.586	1.572	27.588	1.909	27.568	1.282	27.538	0.865	27.518	0.632
18	27.548	0.995	27.583	1.522	27.543	0.929	27.548	0.995	27.508	0.529	27.726	6.892	28.473	52.386	27.586	1.572	27.588	1.717	27.578	1.439	27.538	0.865	27.518	0.632
19	27.543	0.929	27.728	6.892	27.543	0.929	27.543	0.929	27.589	1.522	28.016	17.974	27.693	3.903	27.586	1.572	27.588	1.547	27.578	1.439	27.548	0.995	27.518	0.632
20	27.548	0.995	27.683	3.265	27.543	0.929	27.543	0.929	27.582	1.207	27.948	13.680	27.648	2.796	27.586	1.572	27.588	1.326	27.568	1.282	27.548	0.995	27.518	0.632
21	27.538	0.865	27.588	1.606	27.543	0.929	27.543	0.929	27.548	0.995	27.788	6.848	27.648	2.796	27.668	3.265	27.588	1.263	27.558	1.134	27.538	0.865	27.518	0.632
22	27.538	0.865	27.583	1.522	27.543	0.929	27.528	0.744	27.543	0.929	27.698	11.280	27.668	5.265	27.728	4.892	27.588	1.166	27.558	1.134	27.538	0.865	27.528	0.744
23	27.543	0.929	27.583	1.522	27.543	0.929	27.528	0.744	27.528	0.744	27.708	4.313	27.673	5.388	27.628	2.363	27.588	1.041	27.558	1.134	27.538	0.865	27.518	0.632
24	27.538	0.865	27.583	1.522	27.548	0.995	27.528	0.744	27.498	0.436	27.668	9.865	27.908	11.798	27.548	0.995	27.588	0.976	27.558	1.134	27.528	0.744	27.508	0.529
25	27.538	0.865	27.568	1.282	27.548	0.995	27.528	0.744	27.498	0.436	27.728	4.892	27.793	7.024	27.528	0.744	27.588	0.910	27.558	1.134	27.538	0.865	27.508	0.529
26	27.538	0.865	27.568	1.282	27.543	0.929	27.528	0.744	27.488	0.436	27.728	4.892	27.668	5.265	27.528	0.744	27.588	0.845	27.548	0.995	27.528	0.744	27.498	0.436
27	27.538	0.865	27.563	1.207	27.543	0.929	27.526	0.744	27.489	0.436	27.688	7.771	27.613	2.062	27.528	0.744	27.588	0.789	27.548	0.995	27.538	0.865	27.538	0.436
28	27.538	0.865	27.563	1.207	27.543	0.929	27.528	0.744	27.498	0.436	27.648	2.796	27.578	1.439	27.528	0.744	26.068	0.725	27.568	0.995	27.528	0.744	27.498	0.436
29	27.538	0.865			27.563	0.929	27.528	0.744	27.498	0.436	27.708	4.313	27.578	1.439	27.528	0.744	27.608	0.671	27.548	0.995	27.528	0.744	27.508	0.529
30	27.538	0.865			27.563	1.207	27.528	0.744	27.488	0.436	27.648	2.796	27.568	1.282	27.528	0.744	27.588	0.621	27.538	0.865	27.528	0.744	27.508	0.529
31	27.538	0.865			27.563	1.207			27.565	1.207			27.568	1.282	27.708	4.313			27.538	0.865			27.518	0.632

Date	1991 Jan. Water Level	Jan. Quantity (m3/s)	Feb. Water Level	Feb. Quantity (m3/s)	Mar. Water Level	Mar. Quantity (m3/s)	Apr. Water Level	Apr. Quantity (m3/s)	May Water Level	May Quantity (m3/s)	Jun. Water Level	Jun. Quantity (m3/s)	Jul. Water Level	Jul. Quantity (m3/s)
1	27.518	0.632	27.528	0.237	測休		27.558	1.134	27.518	0.632	27.498	0.436	27.488	0.351
2	27.518	0.632	27.568	0.047	測休		27.558	1.134	27.518	0.632	27.508	0.529	27.488	0.351
3	27.518	0.632	測休		測休		27.558	1.134	27.518	0.632	27.498	0.436	27.488	0.351
4	27.518	0.632	測休		27.513	0.632	27.548	0.995	27.518	0.632	27.488	0.351	27.488	0.351
5	測休		測休		27.508	0.529	27.568	1.282	27.518	0.632	27.498	0.436	27.478	0.276
6	測休		測休		27.488	0.351	27.558	0.865	27.518	0.632	27.498	0.436	27.478	0.276
7	測休		測休		27.508	0.529	27.548	0.995	27.518	0.632	27.498	0.436	27.563	1.282
8	測休		測休		27.538	0.865	27.548	0.995	27.518	0.632	27.498	0.436		
9	測休		測休		27.528	0.744	27.508	0.865	27.498	0.436	27.498	0.436		
10	測休		測休		27.558	1.134	27.528	0.865	27.498	0.436	27.548	0.995		
11	測休		測休		27.558	1.134	27.528	0.865	27.498	0.436	27.548	0.995		
12	測休		測休		27.578	1.439	27.528	0.744	27.508	0.529	27.548	0.995		
13	測休		測休		27.578	1.439	27.548	0.995	27.508	0.529	27.518	0.632		
14	測休		27.478	0.276	27.558	1.134	27.568	1.282	27.488	0.351	27.508	0.529		
15	測休		27.518	0.632	27.558	1.134	27.568	1.282	27.488	0.351	27.498	0.436		
16	27.458	0.152	27.528	0.744	27.548	0.995	27.528	0.865	27.498	0.436	27.498	0.436		
17	27.498	0.351	27.518	0.632	27.548	0.995	27.548	0.995	27.498	0.436	27.498	0.436		
18	27.478	0.276	27.518	0.632	27.578	1.439	27.648	2.796	27.498	0.436	27.488	0.351		
19	27.438	0.065	測休		27.598	1.781	27.628	2.363	27.508	0.529	27.498	0.436		
20	27.468	0.209	測休		27.588	1.781	27.589	1.606	27.508	0.529	27.498	0.436		
21	27.508	0.529	測休		27.578	1.439	27.588	1.282	27.498	0.436	27.498	0.436		
22	27.498	0.436	測休		27.558	1.134	27.578	1.439	27.498	0.436	27.488	0.351		
23	27.488	0.351	測休		27.558	1.134	27.548	0.995	27.498	0.436	27.488	0.351		
24	27.488	0.209	測休		27.558	1.134	27.568	1.282	27.508	0.529	27.488	0.351		
25	27.478	0.276	測休		27.558	1.134	27.558	1.134	27.548	0.995	27.488	0.351		
26	27.478	0.276	測休		27.558	1.134	27.548	0.995	27.718	4.598	27.488	0.351		
27	27.458	0.152	測休		27.578	1.439	27.528	0.865	27.698	2.575	27.478	0.276		
28	27.488	0.351	測休		27.598	1.781	27.538	0.865	27.578	1.439	27.478	0.276		
29	27.488	0.104			27.578	1.439	27.538	0.865	27.558	0.865	27.518	0.632		
30	27.488	0.035			27.578	1.439	27.528	0.744	27.528	0.744	27.498	0.436		
31	27.368	0.047			27.558	1.134			27.508	0.529				

Table 3.3-13 Day Discharge Record of Chungroung St.1

Chungroung Chong St.1

	1990	Jan.		Feb.		Mar.		Apl.		May.		Jun.	1990	Jul.		Aug.		Sep.		Oct.		Nov.		Dec.		1991	Jan.		Feb.		Mar.		Apl.		May.		Jun.		Jul.	
Date	Water Lebel	Quantity (m3/s)	Water Lebel	Quantity (m3/s)	Water Lebel	Quantity (m3/s)	Water Lebel	Quantity (m3/s)	Water Lebel	Quantity (m3/s)	Water Lebel	Quantity (m3/s)	Water Lebel	Quantity (m3/s)	Water Lebel	Quantity (m3/s)	Water Lebel	Quantity (m3/s)	Water Lebel	Quantity (m3/s)	Water Lebel	Quantity (m3/s)	Water Lebel	Quantity (m3/s)	Date	Water Lebel	Quantity (m3/s)	Water Lebel	Quantity (m3/s)	Water Lebel	Quantity (m3/s)	Water Lebel	Quantity (m3/s)	Water Lebel	Quantity (m3/s)	Gauge (cm)	Quantity (m3/s)
1	12.968	0.027	12.868	0.146	12.978	0.048	12.998	0.076	13.023	0.244	13.118	0.974	13.038	0.434	13.033	0.272	13.018	5.519	13.018	1.145	13.122	0.221	13.202	0.136	1	欠測		欠測		13.072	0.540	13.172	1.646	13.082	0.624	12.982	0.059	13.182	1.790
2	12.968	0.027	12.945	0.002	12.978	0.048	12.988	0.076	13.018	0.193	13.118	0.974	13.038	0.301	13.033	0.272	13.018	1.199	13.018	1.059	13.122	0.208	13.192	0.182	2	欠測		欠測		13.072	0.540	13.182	1.790	13.002	0.124	12.982	0.059	13.152	1.377
3	12.968	0.027	12.945	0.002	12.938	0.109	13.018	0.193	13.038	0.301	13.218	2.356	13.028	0.301	13.033	0.272	13.018	3.389	13.018	0.981	13.122	0.196	13.192	0.193	3	欠測		欠測		13.072	0.540	13.182	1.790	12.972	0.035	12.972	0.035	13.132	1.122
4	12.968	0.027	12.968	0.027	12.938	0.109	12.938	0.109	13.028	0.244	13.218	2.356	13.038	0.301	13.033	0.272	13.018	2.022	13.018	0.911	13.122	0.185	13.192	0.189	4	欠測				13.062	0.463	13.092	0.714	13.172	1.646	12.952	0.008	12.982	0.018	13.122	1.018
5	12.968	0.027	12.978	0.048	13.018	0.193	12.938	0.109	13.028	0.244	13.118	0.974	13.218	2.356	13.033	0.272	13.018	1.856	13.018	0.871	13.142	0.198	13.202	0.178	5	欠測				13.062	0.463	13.152	1.508	13.172	1.646	12.952	0.008	12.962	0.006	13.142	1.251
6	12.968	0.027	13.048	0.364	13.018	0.193	12.978	0.048	13.028	0.244	13.118	0.974	13.058	0.301	13.033	0.272	13.018	1.634	13.018	0.825	13.122	0.224	13.202	0.164	6	欠測				13.062	0.463	13.172	1.646	13.152	1.508	12.952	0.221	12.952	0.006	13.122	1.018
7	12.958	0.027	12.958	0.012	13.038	0.301	12.978	0.048	13.028	0.244	13.118	0.974	13.038	0.301	13.033	0.272	13.018	1.478	13.018	0.906	13.182	6.670	13.202	0.151	7	欠測				13.142	1.251	13.172	1.646	13.152	1.377	13.022	0.219	12.942	0.001	12.202	0.095
8	12.968	0.027	12.978	0.048	13.048	0.364	12.988	0.027	13.038	0.301	13.128	1.086	13.048	0.364	13.053	0.272	13.018	1.335	13.018	0.814	13.182	0.369	13.192	0.138	8	欠測		河底切れ		13.192	1.839	13.132	1.192	13.072	0.286	12.932	0.001		
9	12.988	0.027	12.978	0.048	13.058	0.434	13.028	0.244	13.038	0.301	14.318	57.171	13.048	0.364	13.028	0.244	13.018	7.230	13.018	0.774	13.182	0.362	13.192	0.127	9	欠測		河底切れ		13.202	2.095	13.122	1.018	13.012	0.165	12.992	0.088		
10	12.988	0.027	12.988	0.109	13.078	0.590	13.038	0.301	13.028	0.244	13.028	0.244	13.038	0.301	13.028	0.244	13.018	11.148	13.018	0.727	13.182	0.352	13.182	0.116	10	欠測		河底切れ		13.192	1.839	13.122	1.018	12.972	0.035	12.972	0.035		
11	12.958	0.012	12.868	0.027	13.088	0.617	12.988	0.076	13.028	0.244	13.028	0.244	13.028	0.301	13.028	0.244	13.018	27.147	13.018	0.680	13.182	0.331	13.182	0.107	11	欠測		河底切れ		13.212	2.256	13.122	1.018	12.992	0.063	13.112	0.911		
12	12.968	0.027	12.988	0.027	13.078	0.590	12.988	0.076	13.028	0.244	13.028	0.244	13.038	0.301	13.028	0.244	13.018	26.703	13.018	0.635	13.182	0.306	13.182	0.098	12	欠測		河底切れ		13.202	2.095	13.122	1.018	12.922	0.008	13.132	1.132		
13	12.988	0.027	12.968	0.027	13.068	0.509	13.058	0.434	13.048	0.364	13.028	0.244	13.048	0.364	13.028	0.244	13.018	7.875	13.018	0.595	13.182	0.280	13.182	0.090	13	欠測		河底切れ		13.202	2.095	15.172	1.646	12.912	0.020	13.092	0.714		
14	12.958	0.012	12.958	0.012	13.058	0.434	13.038	0.301	13.038	0.301	13.038	0.301	13.048	0.364	13.033	0.272	13.018	5.840	13.018	0.554	13.182	0.257	13.182	0.088	14	欠測		河底切れ		13.202	2.095	13.122	1.018	12.992	0.063	13.002	0.524		
15	12.958	0.012	12.978	0.048	13.058	0.434	12.988	0.076	13.028	0.244	13.718	18.268	13.048	0.364	13.033	0.272	13.018	5.128	13.018	0.518	13.182	0.235	13.182	0.096	15	欠測		河底切れ		13.192	1.839	13.112	0.911	12.982	0.059	13.012	0.165		
16	12.958	0.012	12.978	0.048	13.068	0.509	12.978	0.048	13.028	0.244	13.068	0.364	13.068	0.364	13.038	0.301	13.018	4.563	13.018	0.485	13.162	0.215	13.182	0.096	16	欠測		河底切れ		13.192	1.839	13.102	0.809	12.982	0.059	13.052	0.391		
17	12.958	0.012	12.968	0.027	13.088	0.617	12.958	0.012	13.028	0.244	13.068	0.364	13.068	0.509	13.073	0.272	13.018	4.095	13.952	0.454	13.182	0.197	13.182	0.092	17	欠測		河底切れ		13.192	1.839	13.112	0.911	12.872	0.150	13.062	0.328		
18	12.958	0.012	12.978	0.048	13.088	0.509	12.958	0.012	13.038	0.301	13.028	0.244	13.518	10.102	13.033	0.272	13.018	3.928	13.962	0.429	13.192	0.197	13.192	0.096	18	欠測		河底切れ		13.182	1.790	13.262	3.154	12.872	0.150	13.012	0.165		
19	12.958	0.012	12.978	0.048	13.048	0.364	12.948	0.027	13.048	0.364	13.418	6.930	13.088	0.677	13.028	0.244	13.018	3.246	13.962	0.425	13.192	0.200	13.192	0.080	19	欠測		河底切れ		13.182	1.790	13.162	1.508	12.862	0.172	12.992	0.088		
20	12.958	0.012	12.998	0.109	13.018	0.193	13.028	0.244	13.028	0.244	13.762	20.665	13.068	0.509	13.048	0.364	13.018	2.812	13.962	0.446	13.192	0.209	13.182	0.074	20	欠測		河底切れ		13.182	1.790	13.132	1.132	12.962	0.172	12.972	0.035		
21	12.978	0.048	12.998	0.109	13.018	0.193	13.048	0.364	13.028	0.244	13.538	10.611	13.048	0.364	13.053	0.470	13.018	2.621	13.962	0.439	13.192	0.283	13.182	0.068	21	欠測		河底切れ		13.182	1.790	13.122	1.018	12.862	0.172	12.952	0.006		
22	12.978	0.048	12.998	0.109	13.018	0.193	13.038	0.301	13.038	0.301	13.258	3.027	13.048	0.364	13.128	0.996	13.018	2.365	13.152	0.429	13.192	0.255	13.182	0.066	22	欠測		河底切れ		13.172	1.646	13.102	0.809	12.862	0.172	12.942	0.001		
23	12.978	0.048	12.998	0.109	13.028	0.244	13.018	0.193	13.028	0.244	13.198	2.027	13.068	0.509	13.043	0.332	13.018	2.141	13.192	0.396	13.192	0.238	13.172	0.062	23	欠測		河底切れ		13.082	0.463	13.182	1.508	13.172	1.646	13.102	0.809	12.852	0.221	13.102	0.809		
24	12.978	0.048	12.998	0.109	13.018	0.193	12.978	0.048	13.028	0.244	13.318	4.956	13.068	0.509	13.033	0.272	13.018	2.160	13.192	0.372	13.192	0.225	13.172	0.058	24	欠測		河底切れ		13.072	0.540	13.182	1.508	13.172	1.646	13.102	0.809	12.852	0.221	13.012	0.165		
25	12.978	0.048	13.048	0.364	13.008	0.148	12.978	0.048	13.028	0.244	13.158	1.302	13.043	0.332	13.028	0.244	13.018	1.887	13.192	0.346	13.192	0.202	13.162	0.054	25	欠測		河底切れ		13.082	0.463	13.162	1.508	13.172	1.646	13.092	0.714	12.922	0.008	13.032	0.624		
26	12.978	0.048	12.978	0.048	13.008	0.148	12.968	0.027	13.028	0.244	13.118	0.974	13.043	0.332	13.038	0.272	13.018	1.738	13.192	0.325	13.192	0.198	13.160	0.050	26	欠測				13.162	1.508	13.172	1.646	13.082	0.624	12.932	2.598	13.082	0.624		
27	12.978	0.048	12.968	0.027	12.998	0.109	12.968	0.027	13.028	0.244	13.128	1.086	13.043	0.332	13.038	0.272	13.018	1.596	13.172	0.304	13.182	0.187	13.160	0.047	27	欠測				13.122	1.018	13.172	1.646	13.082	0.624	13.142	1.251	13.082	0.463		
28	12.978	0.048	12.958	0.012	13.028	0.244	13.038	0.301	13.028	0.244	13.058	0.770	13.043	0.332	13.033	0.272	13.038	1.466	13.172	0.285	13.182	0.174	13.160	0.043	28	欠測				13.082	0.624	13.182	1.790	13.082	0.624	13.102	0.809	13.092	0.714		
29	12.988	0.076			13.028	0.244	13.028	0.244	13.038	0.301	13.058	0.434	13.038	0.301	13.043	0.332	13.018	1.348	13.152	0.267	13.182	0.160	13.160	0.041	29	13.062	0.463			13.182	1.790	13.082	0.624	13.072	0.549	13.142	1.251		
30	12.988	0.076			13.018	0.193	12.998	0.109	13.038	0.301	13.058	0.434	13.038	0.301	13.043	0.332	13.018	1.211	13.122	0.250	13.182	0.148	13.160	0.038	30	13.052	0.391			13.182	1.790	13.062	0.463	13.032	0.265	13.172	1.646		
31	12.988	0.076			12.998	0.109			13.028	0.244			13.038	0.301	13.033	0.824			13.122	0.235			13.160	0.036	31	欠測				13.172	1.646			12.992	0.088				

Table 3.3-14 Day Discharge Record of Chungroung St.2

Chungroung Chong St.2

Date	1990 Jan. Water Level	Jan. Quantity (m3/s)	Feb. Water Level	Feb. Quantity (m3/s)	Mar. Water Level	Mar. Quantity (m3/s)	Apl. Water Level	Apl. Quantity (m3/s)	May. Water Level	May. Quantity (m3/s)	Jun. Water Level	Jun. Quantity (m3/s)	1990 Jul. Water Level	Jul. Quantity (m3/s)	Aug. Water Level	Aug. Quantity (m3/s)	Sep. Water Level	Sep. Quantity (m3/s)	Oct. Water Level	Oct. Quantity (m3/s)	Nov. Water Level	Nov. Quantity (m3/s)	Dec. Water Level	Dec. Quantity (m3/s)
1	16.042	0.020	16.052	0.041	16.082	0.146	16.017	0.124	16.102	0.259	16.132	0.467	16.242	1.812	16.157	0.696	16.122	5.098	18.122	1.059	16.044	0.024	16.054	0.046
2	16.042	0.020	16.052	0.041	16.077	0.124	16.082	0.146	16.142	0.563	16.132	0.467	16.242	1.812	16.157	0.696	16.122	6.650	16.122	0.978	16.044	0.024	16.054	0.046
3	16.042	0.020	16.052	0.041	16.077	0.124	16.082	0.146	16.142	0.563	16.132	0.467	16.242	1.812	16.152	0.647	16.122	5.122	16.122	0.905	16.054	0.046	16.064	0.075
4	16.042	0.020	16.052	0.041	16.072	0.104	16.077	0.124	16.112	0.317	16.122	0.389	16.222	1.502	16.152	0.647	16.122	1.868	16.122	0.841	16.054	0.046	16.054	0.046
5	16.042	0.020	16.077	0.124	16.072	0.104	16.077	0.124	16.112	0.317	16.122	0.389	16.182	0.970	16.152	0.647	16.122	1.715	16.122	0.805	16.054	0.046	16.054	0.046
6	16.042	0.020	16.077	0.124	16.077	0.124	16.072	0.104	16.102	0.259	16.122	0.389	16.182	0.970	16.152	0.647	16.122	1.509	16.122	0.762	16.054	0.046	16.054	0.046
7	16.042	0.020	16.082	0.146	16.077	0.124	16.087	0.085	16.102	0.259	16.132	0.467	16.242	2.796	16.152	0.647	16.122	1.366	16.122	0.837	16.044	0.024	16.044	0.024
8	16.042	0.020	16.082	0.146	16.077	0.124	16.087	0.085	16.132	0.467	16.242	1.812	16.192	1.092	16.152	0.647	16.122	1.273	16.122	0.752	16.054	0.046	16.054	0.046
9	16.042	0.020	16.082	0.146	16.077	0.124	16.072	0.104	16.132	0.467	16.182	0.970	16.152	0.647	16.147	0.599	16.122	6.716	16.122	0.715	16.054	0.046	16.054	0.046
10	16.042	0.020	16.122	0.389	16.077	0.124	16.072	0.104	16.102	0.259	16.132	0.467	16.147	0.800	16.147	0.599	16.122	10.298	16.122	0.672	16.064	0.075	16.044	0.024
11	16.042	0.020	16.077	0.124	16.077	0.124	16.072	0.104	16.137	0.509	16.142	0.553	16.152	0.647	16.147	0.599	16.122	20.457	16.122	0.628	16.054	0.046	16.044	0.024
12	16.037	0.012	16.077	0.124	16.112	0.317	16.207	1.289	16.152	0.647	16.132	0.467	16.157	0.696	16.147	0.599	16.122	26.986	16.122	0.587	16.054	0.046	16.054	0.046
13	16.037	0.012	16.082	0.146	16.102	0.259	16.112	0.317	16.147	0.800	16.192	0.467	16.187	1.030	16.147	0.599	16.122	7.366	16.122	0.547	16.054	0.046	16.064	0.075
14	16.042	0.020	16.082	0.146	16.102	0.259	16.092	0.186	16.152	0.647	16.142	0.553	16.192	0.747	16.157	0.696	16.122	5.305	16.122	0.511	16.054	0.046	16.054	0.046
15	16.042	0.020	16.087	0.224	16.102	0.259	16.082	0.146	16.162	0.747	16.132	0.467	16.157	0.696	16.152	0.647	16.122	4.798	16.122	0.478	16.054	0.046	16.064	0.075
16	16.042	0.020	16.077	0.124	16.072	0.104	16.087	0.170	16.162	0.747	16.132	0.467	16.182	0.970	16.147	0.970	16.122	4.215	16.122	0.448	16.054	0.046	16.064	0.075
17	16.042	0.020	16.077	0.124	16.082	0.069	16.157	0.696	16.152	0.747	16.142	0.553	16.147	0.800	16.172	0.855	16.122	3.754	16.122	0.419	16.054	0.046	16.054	0.046
18	16.052	0.041	16.082	0.146	16.082	0.069	16.102	0.253	16.167	0.800	16.212	1.358	16.167	0.800	16.172	0.855	16.122	3.351	16.054	0.405	16.044	0.024	16.064	0.075
19	16.057	0.054	16.082	0.146	16.062	0.069	16.097	0.224	16.152	0.647	18.402	5.035	16.157	0.696	16.162	0.747	16.122	2.988	16.084	0.392	16.064	0.075	16.054	0.046
20	16.042	0.020	16.077	0.124	16.067	0.085	16.102	0.253	16.152	0.647	16.922	28.908	16.157	0.696	16.282	2.151	16.122	2.690	16.054	0.412	16.044	0.024	16.054	0.046
21	16.052	0.041	16.082	0.069	16.072	0.104	16.097	0.224	16.147	0.599	18.482	7.792	16.192	1.092	16.332	3.585	16.122	2.421	16.054	0.405	16.044	0.024	16.074	0.112
22	16.052	0.041	16.102	0.259	16.082	0.146	16.097	0.224	16.122	0.467	16.282	2.519	16.172	0.855	16.302	2.915	16.122	2.185	16.054	0.366	16.064	0.075	16.074	0.112
23	16.052	0.041	16.082	0.146	16.082	0.146	16.112	0.317	16.122	0.389	16.252	1.978	16.157	0.696	16.272	3.221	16.122	1.978	16.054	0.366	16.064	0.075	16.074	0.112
24	16.052	0.041	16.077	0.124	16.082	0.146	16.132	0.467	16.122	0.389	16.782	20.050	16.202	1.222	16.202	1.222	16.122	1.985	16.054	0.343	16.064	0.075	16.074	0.112
25	16.052	0.041	16.077	0.124	16.087	0.146	16.192	0.467	16.112	0.317	16.562	10.714	16.182	0.970	16.192	1.092	16.122	1.747	16.054	0.321	16.064	0.075	16.074	0.112
26	16.052	0.041	16.077	0.124	16.082	0.146	16.112	0.317	16.112	0.317	16.352	4.034	16.212	1.358	16.182	0.747	16.122	1.605	16.054	0.300	16.054	0.046	16.074	0.112
27	16.052	0.041	16.077	0.124	16.072	0.104	16.102	0.259	16.112	0.317	16.302	2.915	16.192	1.092	16.162	0.747	16.122	1.475	16.044	0.281	16.064	0.075	16.074	0.112
28	16.052	0.041	16.077	0.124	16.077	0.124	16.102	0.259	16.122	0.389	16.262	2.151	16.162	0.747	16.162	0.747	16.122	1.354	16.054	0.263	16.064	0.075	16.074	0.112
29	16.052	0.041			16.072	0.104	16.112	0.317	16.122	0.389	16.242	1.812	16.157	0.696	16.157	0.696	16.122	1.245	16.044	0.246	16.064	0.075	16.074	0.112
30	16.042	0.020			16.062	0.069	16.102	0.259	16.122	0.389	16.242	1.812	16.157	0.696	16.157	0.696	16.122	1.148	16.044	0.221	16.064	0.075	16.074	0.112
31	16.052	0.041			16.062	0.069			16.132	0.467			16.157	0.696	16.242	1.812			16.044	0.217			16.074	0.112

Date	1991 Jan. Water Level	Jan. Quantity (m3/s)	Feb. Water Level	Feb. Quantity (m3/s)	Mar. Water Level	Mar. Quantity (m3/s)	Apl. Water Level	Apl. Quantity (m3/s)	May. Water Level	May. Quantity (m3/s)	Jun. Water Level	Jun. Quantity (m3/s)	Jul. Water Level	Jul. Quantity (m3/s)
1	測休		測休		測休		16.044	0.024	16.014	0.001	欠測		16.174	0.877
2	測休		測休		16.044	0.024	16.024	0.001	欠測		16.144	0.571		
3	測休		測休		16.054	0.046	16.024	0.001	欠測		16.144	0.571		
4	測休		測休		16.054	0.046	16.024	0.001	欠測		16.144	0.571		
5	測休		測休		16.054	0.046	16.044	0.024	16.024	0.001	欠測		16.144	0.571
6	測休		測休		16.054	0.046	16.054	0.046	16.024	0.009	欠測		16.134	0.484
7	測休		測休		16.054	0.046	16.044	0.024	16.024	0.001	欠測		16.194	1.137
8	測休		測休		16.054	0.046	16.044	0.024	16.024	0.009	欠測			
9	測休		測休		16.054	0.046	16.044	0.024	16.024	0.001	欠測			
10	測休		測休		16.054	0.046	16.044	0.024	16.024	0.001	欠測			
11	測休		測休		16.054	0.046	16.044	0.024	16.024	0.001	欠測			
12	測休		測休		16.054	0.046	16.044	0.024	16.024	0.001	欠測			
13	測休		測休		16.054	0.046	16.064	0.075	16.024	0.001	欠測			
14	測休		測休		16.054	0.046	16.054	0.046	16.024	0.001	欠測			
15	測休		測休		16.054	0.046	16.044	0.024	欠測		欠測			
16	測休		測休		16.054	0.046	16.044	0.024	欠測		欠測			
17	測休		測休		16.064	0.075	16.064	0.024	欠測		欠測			
18	測休		測休		16.064	0.075	16.134	0.484	欠測		欠測			
19	測休		測休		16.064	0.075	16.054	0.046	欠測		欠測			
20	測休		測休		16.074	0.112	16.054	0.046	欠測		欠測			
21	測休		測休		16.074	0.112	16.054	0.046	欠測		欠測			
22	測休		測休		16.054	0.046	16.044	0.024	欠測		欠測			
23	測休		測休		16.054	0.046	16.044	0.024	欠測		欠測			
24	測休		測休		16.054	0.046	16.044	0.024	欠測		欠測			
25	測休		測休		16.054	0.046	16.044	0.024	欠測		欠測			
26	測休		測休		16.054	0.046	16.054	0.009	欠測		16.124	0.404		
27	測休		測休		16.084	0.158	16.044	0.024	欠測		16.124	0.404		
28	測休		測休		16.054	0.046	16.044	0.024	欠測		16.124	0.404		
29	測休				16.054	0.046	16.034	0.009	欠測		16.104	0.268		
30	測休				16.054	0.046	16.024	0.001	欠測		16.124	0.677		
31	測休				16.054	0.046			欠測					

Table 3.3-15 Day Discharge Record of Chungroung St.3

Chungroung Chong St. 3

Date	1990 Jan. Water Lebel	Jan. Quantity (m3/s)	Feb. Water Lebel	Feb. Quantity (m3/s)	Mar. Water Lebel	Mar. Quantity (m3/s)	Apl. Water Lebel	Apl. Quantity (m3/s)	May. Water Lebel	May. Quantity (m3/s)	Jun. Water Lebel	Jun. Quantity (m3/s)	1990 Jul. Water Lebel	Jul. Quantity (m3/s)	Aug. Water Lebel	Aug. Quantity (m3/s)	Sep. Water Lebel	Sep. Quantity (m3/s)	Oct. Water Lebel	Oct. Quantity (m3/s)	Nov. Water Lebel	Nov. Quantity (m3/s)	Dec. Water Lebel	Dec. Quantity (m3/s)
1	25.036	0.011	25.036	0.023	25.036	0.082	25.036	0.069	25.036	0.142	25.156	0.719	25.256	2.161	25.286	2.745	25.036	2.853	25.036	0.592	25.251	0.013	25.231	0.026
2	25.036	0.011	25.036	0.023	25.036	0.069	25.036	0.082	25.036	0.310	25.156	0.719	25.256	2.161	25.286	2.745	25.036	5.722	25.036	0.547	25.251	0.013	25.241	0.026
3	25.036	0.011	25.036	0.023	25.036	0.069	25.036	0.082	25.036	0.310	25.156	0.719	25.256	2.161	25.286	2.745	25.036	1.747	25.036	0.507	25.251	0.026	25.241	0.042
4	25.036	0.011	25.036	0.023	25.036	0.058	25.036	0.069	25.036	0.178	25.156	0.719	25.246	1.982	25.286	2.745	25.036	1.046	25.036	0.471	25.251	0.026	25.231	0.026
5	25.036	0.011	25.036	0.069	25.036	0.058	25.036	0.069	25.036	0.178	25.156	0.719	25.256	2.161	25.286	2.745	25.036	0.960	25.036	0.450	25.241	0.026	25.241	0.026
6	25.036	0.011	25.036	0.069	25.036	0.069	25.036	0.058	25.036	0.142	25.156	0.719	25.246	1.982	25.286	2.745	25.036	0.845	25.036	0.426	25.241	0.026	25.241	0.026
7	25.036	0.011	25.036	0.082	25.036	0.069	25.036	0.048	25.036	0.142	25.156	0.719	25.256	2.161	25.288	2.745	25.036	0.764	25.036	0.468	25.241	0.013	25.241	0.013
8	25.036	0.011	25.036	0.082	25.036	0.069	25.036	0.048	25.036	0.262	25.156	0.719	25.256	2.745	25.286	2.745	25.036	0.690	25.036	0.421	25.251	0.026	25.241	0.026
9	25.036	0.011	25.036	0.082	25.036	0.069	25.186	0.058	25.036	0.262	25.156	0.719	25.256	2.161	25.276	2.542	25.036	2.759	25.036	0.690	25.241	0.026	25.241	0.026
10	25.036	0.011	25.036	0.218	25.036	0.069	25.036	0.058	25.036	0.142	25.156	0.719	25.256	2.161	25.276	2.542	25.036	5.744	25.036	0.376	25.251	0.042	25.241	0.013
11	25.036	0.011	25.036	0.069	25.036	0.069	25.036	0.058	25.036	0.285	25.146	0.617	25.306	3.179	25.276	2.542	25.036	11.450	25.036	0.352	25.251	0.026	25.241	0.013
12	25.036	0.007	25.036	0.069	25.036	0.178	25.036	0.722	25.036	0.382	25.146	0.617	25.316	3.298	25.276	2.542	25.036	13.800	25.036	0.378	25.251	0.026	25.241	0.026
13	25.036	0.007	25.036	0.082	25.036	0.142	25.036	0.178	25.036	0.448	25.146	0.617	25.286	2.745	25.276	2.542	25.036	4.123	25.036	0.306	25.251	0.026	25.241	0.042
14	25.036	0.011	25.036	0.082	25.036	0.142	25.036	0.170	25.036	0.382	25.146	0.617	25.296	2.955	25.276	2.542	25.036	5.020	25.036	0.286	25.251	0.026	25.251	0.026
15	25.036	0.011	25.036	0.125	25.036	0.142	25.036	0.082	25.036	0.418	25.146	0.617	25.306	3.179	25.276	2.542	25.036	2.852	25.036	0.268	25.251	0.026	25.251	0.042
16	25.036	0.011	25.036	0.069	25.036	0.058	25.036	0.095	25.036	0.418	25.186	1.203	25.346	4.121	25.286	2.745	25.036	2.359	25.036	0.251	25.251	0.026	25.251	0.042
17	25.036	0.011	25.036	0.069	25.036	0.039	25.036	0.390	25.036	0.418	25.156	0.719	25.286	2.745	25.286	2.745	25.036	2.101	25.251	0.235	25.251	0.026	25.241	0.026
18	25.036	0.023	25.036	0.082	25.036	0.039	25.036	0.142	25.036	0.448	25.296	2.348	25.486	8.418	25.286	2.745	25.036	1.876	25.251	0.227	25.251	0.013	25.241	0.042
19	25.036	0.930	25.036	0.082	25.036	0.039	25.036	0.125	25.036	0.382	25.446	7.025	25.386	5.156	25.286	2.745	25.036	1.678	25.241	0.200	25.251	0.042	25.241	0.026
20	25.036	0.011	25.036	0.069	25.036	0.048	25.036	0.142	25.036	0.382	25.236	1.811	25.376	4.914	25.306	3.173	25.036	1.506	25.251	0.210	25.251	0.013	25.293	0.026
21	25.036	0.023	25.036	0.039	25.036	0.058	25.036	0.125	25.036	0.335	25.516	9.538	25.396	5.682	25.536	10.920	25.536	1.355	25.251	0.227	25.251	0.013	25.293	0.063
22	25.036	0.023	25.036	0.142	25.036	0.082	25.036	0.125	25.036	0.262	25.316	9.398	25.316	5.398	25.466	7.711	25.036	1.229	25.251	0.217	25.251	0.042	25.221	0.063
23	25.036	0.023	25.036	0.082	25.036	0.082	25.036	0.178	25.156	0.719	25.286	2.745	25.296	2.955	25.306	3.173	25.036	1.107	25.251	0.205	25.241	0.042	25.221	0.063
24	25.036	0.023	25.036	0.069	25.036	0.082	25.036	0.262	25.156	0.719	25.796	23.334	25.356	4.376	25.246	1.982	25.036	1.117	25.251	0.182	25.241	0.042	25.231	0.063
25	25.036	0.023	25.036	0.069	25.036	0.082	25.036	0.262	25.156	0.719	25.596	12.859	25.336	3.873	25.246	1.982	25.036	0.976	25.251	0.180	25.251	0.042	25.071	0.063
26	25.036	0.023	25.036	0.069	25.036	0.082	25.036	0.178	25.146	0.617	25.386	5.194	25.376	4.914	25.246	1.982	25.036	0.898	25.251	0.168	25.241	0.026	25.071	0.063
27	25.036	0.023	25.036	0.069	25.036	0.058	25.036	0.142	25.156	0.719	25.336	5.823	25.336	3.873	25.246	1.982	25.036	0.825	25.251	0.157	25.241	0.042	25.071	0.063
28	25.036	0.023	25.036	0.069	25.036	0.069	25.036	0.142	25.146	0.617	25.296	2.955	25.296	2.955	25.246	1.982	25.036	0.758	25.251	0.147	25.251	0.042	25.071	0.063
29	25.036	0.023			25.036	0.058	25.036	0.178	25.146	0.617	25.276	2.542	25.286	2.745	25.246	1.982	25.036	0.697	25.251	0.138	25.241	0.042	25.071	0.063
30	25.036	0.011			25.036	0.039	25.036	0.142	25.156	0.719	25.276	2.542	25.286	2.745	25.246	1.982	25.036	0.642	25.251	0.128	25.241	0.042	25.071	0.063
31	25.036	0.023			25.036	0.039			25.156	0.628			25.286	2.745	25.456	7.369			25.251	0.122			25.071	0.063

Date	1991 Jan. Water Lebel	Jan. Quantity (m3/s)	Feb. Water Lebel	Feb. Quantity (m3/s)	Mar. Water Lebel	Mar. Quantity (m3/s)	Apl. Water Lebel	Apl. Quantity (m3/s)	May. Water Lebel	May. Quantity (m3/s)	Jun. Water Lebel	Jun. Quantity (m3/s)	Jul. Water Lebel	Jul. Quantity (m3/s)
1	用紙切れ		25.221	1.568	25.231	1.728	25.241	1.895	25.221	1.568	25.201	1.272	25.191	1.135
2	用紙切れ		25.221	1.568	25.231	1.728	25.231	1.728	25.221	1.568	25.201	1.272	25.201	1.272
3	用紙切れ		25.231	1.728	25.231	1.728	25.231	1.728	25.221	1.568	25.201	1.272	25.191	1.135
4	用紙切れ		25.221	1.568	25.231	1.728	25.231	1.728	25.221	1.568	25.201	1.272	25.201	1.272
5	用紙切れ		25.221	1.568	25.221	1.568	25.221	1.568	25.221	1.568	25.201	1.272	25.201	1.272
6	25.201	1.272	25.231	1.728	25.221	1.728	25.231	1.728	25.221	1.568	25.201	1.272	25.201	1.272
7	25.191	1.007	25.241	1.895	25.221	1.568	25.231	1.728	25.221	1.568	25.191	1.135	25.241	1.895
8	25.191	1.135	用紙切れ		25.241	1.895	25.221	1.568	25.221	1.568	25.191	1.135		
9	25.201	1.272	用紙切れ		25.251	2.070	25.221	1.568	25.221	1.568	25.201	1.272		
10	25.211	1.416	用紙切れ		25.241	1.895	25.221	1.568	25.221	1.568	25.201	1.272		
11	25.211	1.416	用紙切れ		25.251	2.070	25.221	1.568	25.211	1.416	25.191	1.272		
12	25.221	1.568	用紙切れ		25.241	1.895	25.221	1.568	25.221	1.568	25.201	1.272		
13	25.221	1.568	用紙切れ		25.241	1.895	25.241	1.895	25.221	1.568	25.201	1.272		
14	25.221	1.568	25.281	2.645	25.251	2.070	25.231	1.728	25.221	1.568	25.201	1.272		
15	25.221	1.568	25.251	2.070	25.251	2.070	25.231	1.728	25.221	1.568	25.201	1.272		
16	25.221	1.568	25.231	1.728	25.241	1.895	25.231	1.728	25.221	1.568	25.201	1.272		
17	25.191	1.135	25.231	1.728	25.241	1.895	25.231	1.728	25.221	1.568	25.201	1.272		
18	25.231	1.728	25.231	1.728	25.231	1.728	25.231	2.645	25.221	1.568	25.201	1.272		
19	25.231	1.728	25.221	1.568	25.231	1.728	25.241	1.895	25.221	1.568	25.201	1.272		
20	25.231	1.728	25.231	1.728	25.241	1.895	25.241	1.895	25.211	1.416	25.201	1.272		
21	25.231	1.728	25.221	1.568	25.241	1.895	25.241	1.895	25.211	1.416	25.201	1.272		
22	25.231	1.728	25.231	1.728	25.241	1.895	25.231	1.728	25.211	1.416	25.211	1.416		
23	25.231	1.728	25.241	1.895	25.231	1.728	25.231	1.728	25.211	1.416	25.211	1.416		
24	25.231	1.728	25.231	1.728	25.231	1.728	25.231	1.728	25.211	1.416	25.181	2.007		
25	25.231	1.728	25.231	1.728	25.231	1.728	25.231	1.728	25.211	1.416	25.191	1.007		
26	25.231	1.728	25.231	1.728	25.231	1.728	25.231	1.728	25.211	1.416	25.161	1.007		
27	25.231	1.728	25.231	1.728	25.241	1.895	25.221	1.568	25.231	1.728	25.181	1.007		
28	25.231	1.728	25.231	1.728	25.241	1.895	25.231	1.728	25.231	1.728	25.151	0.667		
29	25.231	1.728			25.241	1.895	25.231	1.728	25.201	1.272	25.191	1.135		
30	25.221	1.568			25.241	1.895	25.221	1.568	25.201	1.272	25.211	1.416		
31	25.221	1.568			25.241	1.895			25.201	1.272				

Chapter 4 Recommendation of Monitoring and Supplement Survey

4.1 Rainfall Observation

(1) Raingauge Station Network

It is considered advisable to install raingauges every 30 to 50 km^2. The raingauge station densities of each basin, which include the existing raingauges and those installed by JICA, are represented in Table 2-1.

Table 4-1 Number and Density of Raingauges

Basin	Existing	New	Density
Anyang	7	3	28.7 km^2
Yangjae	4	0	14.8
Ui	3	1	6.6
Chungroung	3	1	9.1

The present raingauges are sufficient and this condition should be maintained.

According to past records, the rainfall pattern of Songbulsa in the Ui Chong Basin are slightly different from the others and its cause is still unknown. In order to find its cause, it is necessary to continue the observation. If the present location is judged to be improper, a movement of the instrument should be considered.

(2) Maintenance of Self Recording Raingauge

Attention must be given to the following points.

1) The following must be changed periodically.
   - Chart paper once a month

- Recording pen every 3 months
- Battery every 3 months

2) Calibration

3) Time Adjustment

4) Removal of waste in the cup

c. Reading and the arrangement of the chart data

The data should be arranged 10 minutes, 1 hour, 1 day, 1 month and 1 year, immediately after changing the chart.

4.2 Discharge Observation

(1) Reforming Watergauge Network

The present self registering watergauges are located in the 15 places which the preliminary study team chose. It is advisable to relocate the watergauge at St.4 downstream of the Kehwa Chong in terms of investigating river water balance and pollution balance, because Kehwa Chong has the widest basin among the tributaries of the Anyang Chong. It is, therefore, necessary to understand correctly the discharge and pollution input loading of Kehwa Chong in order to properly establish the water quality and flow-regime improvement plan. The proposed watergauge station in the Kehwa Chong can substitute the existing St.4.

(2) Construction Work in the River

Many of the Anyang and Yangjae Chong water level data were affected by the construction work carried out in the river. The contractor ought to inform the river administrative body for approval prior to the commencement, and in response the river administrative body should take necessary actions to minimize the influence of the construction works to the watergauges. If it is difficult to implement such actions, the river administrative body should at least keep a record of the construction work description, location, period, etc. for

reference.

(3) Maintenance of Watergauges

Attention must be given to the following points.

1) The following must be changed periodically.
   - Chart paper once a month
   - Recording pen every 3 months
   - Battery every 3 months
2) Calibration
3) Time Adjustment
4) Removal of waste and sludge in the pipe

Supervision should be conducted quite often if construction work is conducted nearby.

At present, the mode of the chart speed is set once a month. There are no problems, however, if it is changed to once every 3 months mode.

(4) The data obtained in this survey shows the following strange water level fluctuation pattern.

1) The backwater of Han River, which was caused by a tidal wave at St.1 and 2 in the Anyang Chong, resulted in water level fluctuation.
2) The Anyang and Chungroung Chong water level remarkably fluctuated during the dry season.
3) The watergauge floats freezed and melted from December to February resulting in water level fluctuation.

Data reading should be conducted cautiously so that the above mentioned data will not be included in the basic data.

(5) Discharge Survey

It is necessary to prepare the accurate H-Q curves by carrying out discharge survey at various water levels so that discharge can be

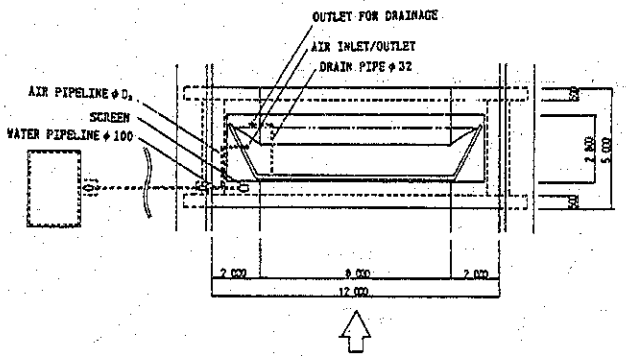
computed by means of water level data. This study has prepared the H-Q curve of each observation station. The accuracy of the H-Q curve, however, can be increased through repetitive discharge observations.

Due to the depth and the thick bed sediments of Anyang Chong, it is very difficult to carry out discharge survey unless a boat is prepared. However, it can be conducted easily in Yangjae, Ui and Chungroung Chong.

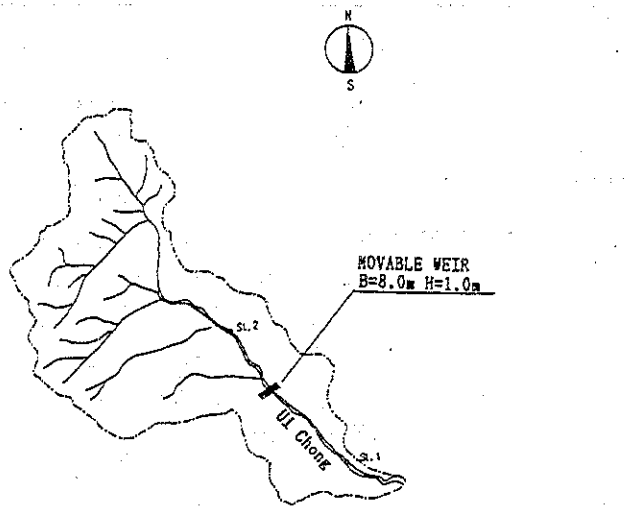
In case the river cross section varies largely due to construction or flood, a new H-Q curve should be prepared based on new survey data.

Annex

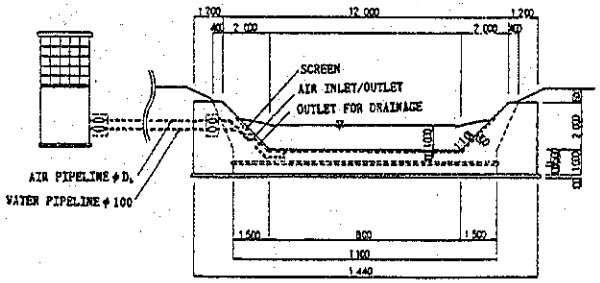
Drawings for Flow Regime Improvement Work



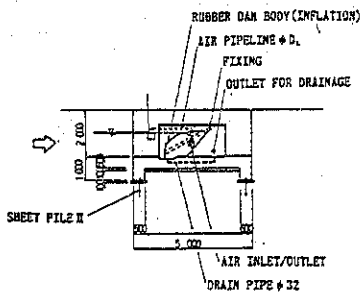
Plan View 0 1 2 3 4 5M



Location Map 0 1 2 3 4 5K



View-Looking To Downstream 0 1 2 3 4 5M

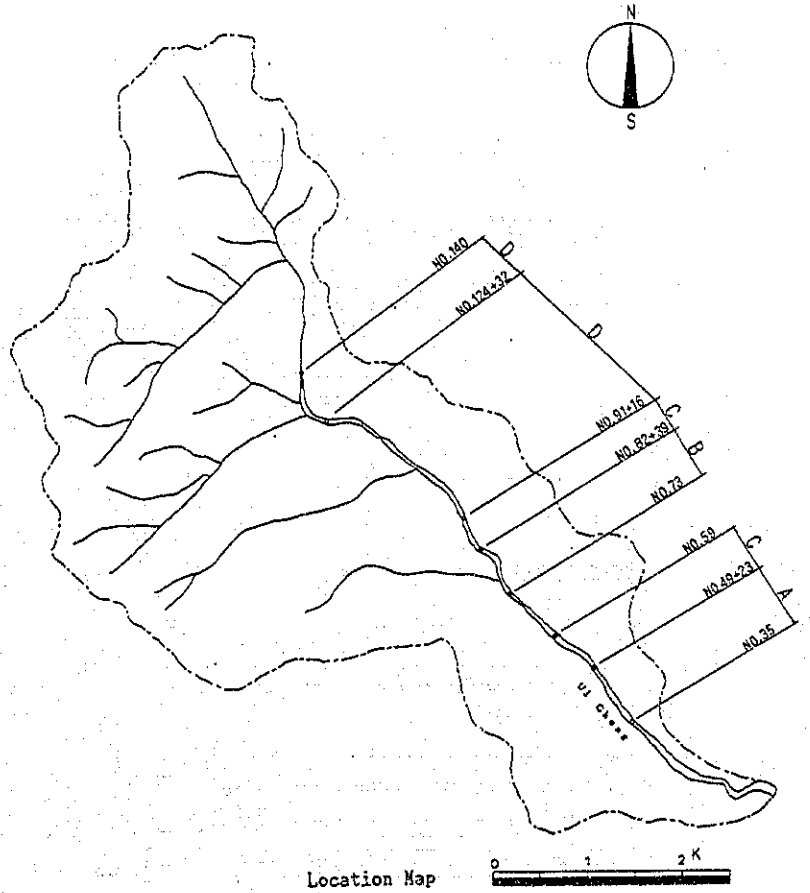


Cross Section 0 1 2 3 4 5M

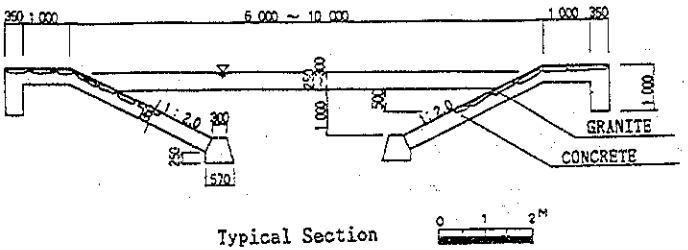
Movable Weir for Ui Chong

LEGEND	FIG
	Movable Weir for Ui Chong
	SOURCE
	SCALE
	DATE OF DRAWING

The Study on River Environment Improvement for The Tributary of Han River System in Seoul Municipality and Its Vicinity



Location Map



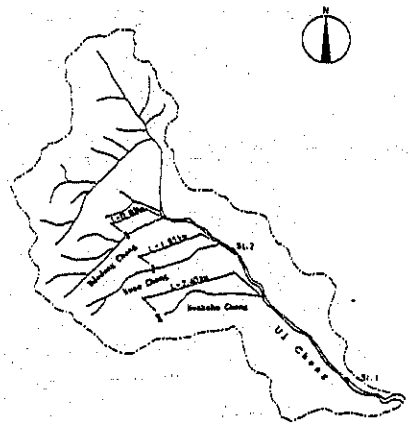
Typical Section

Type	Width(m)	Length(m)	Depth(m)
A	10	723	0.3
B	9	489	0.3
C	8	904	0.3
D	6	2434	0.25

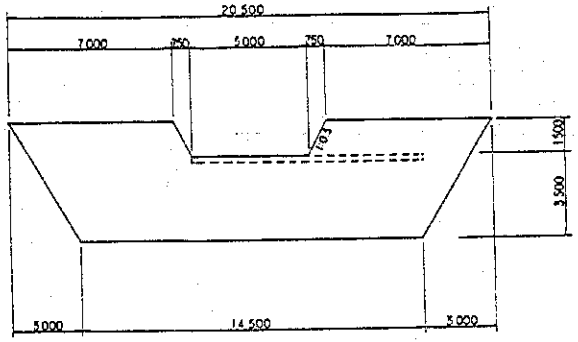
Low Water Channel Improvement Work

LEGEND	FIG
	Low Water Channel Improvement Work
	SOURCE
	SCALE
	DATE OF DRAWING

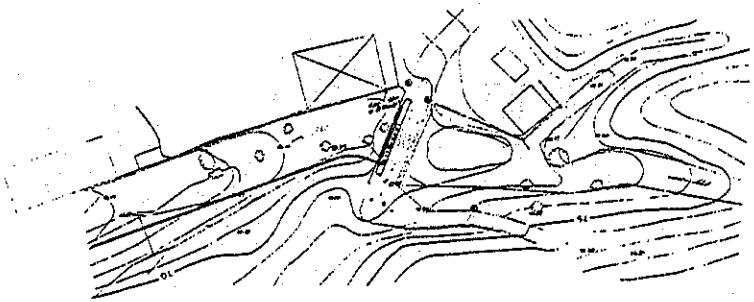
The Study on River Environment Improvement for The Tributary of Han River System in Seoul Municipality and Its Vicinity



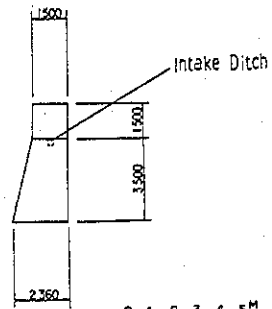
Location Map 0 1 2 3 4 5 K



Front View 0 1 2 3 4 5



Site Plan 0 10 20 30 40 50 M

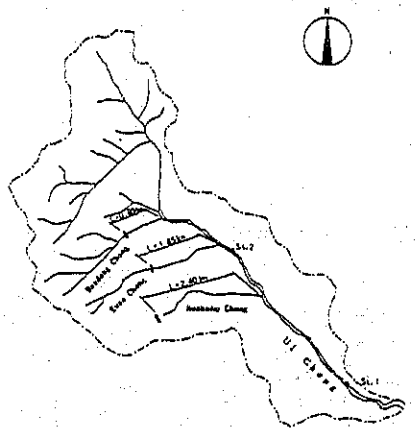


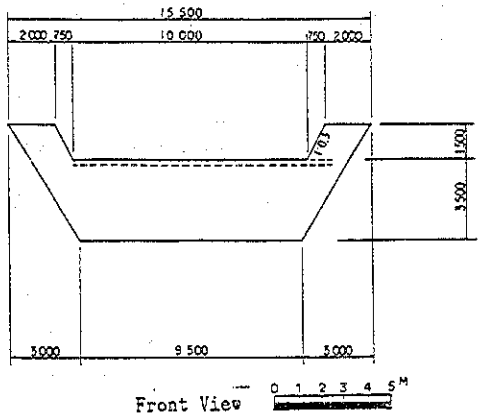
Side View 0 1 2 3 4 5 M

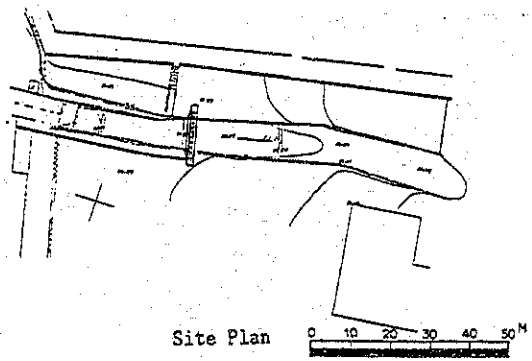
Water Introduction Work Plan for Daedong Chong

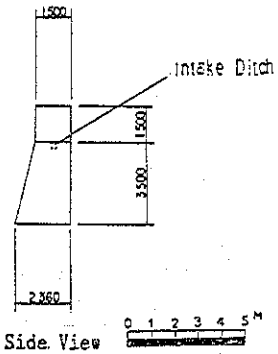
LEGEND	FIG
	Water Introduction Work
	Plan for Daedong Chong
	SOURCE
	SCALE
	DATE OF DRAWING

The Study on River Environment Improvement for The Tributary of Han River System in Seoul Municipality and Its Vicinity





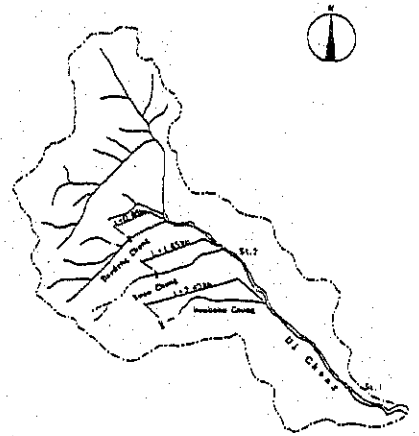




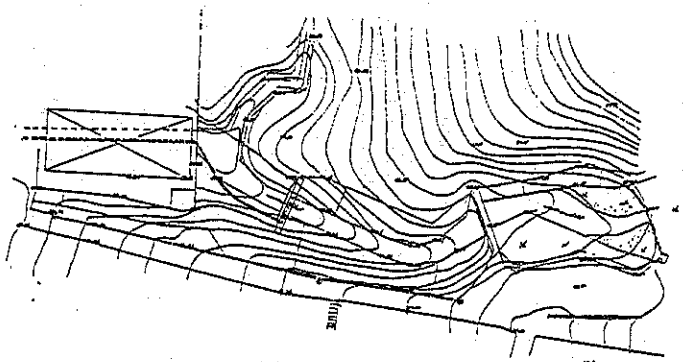
Water Introduction Work Plan for Kwao Chong

LEGEND	FIG
	Water Introduction Work Plan for Kwao Chong
	SOURCE
	SCALE
	DATE OF DRAWING

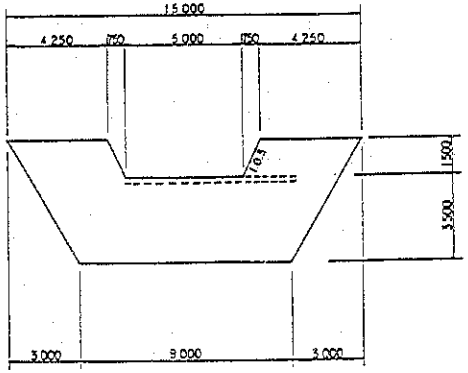
The Study on River Environment Improvement for The Tributary of Han River System in Seoul Municipality and Its Vicinity



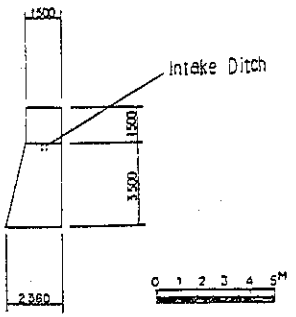
Location Map 0 1 2 3 4 5KM



Site Plan 0 10 20 30 40 50M



Front View 0 1 2 3 4 5M



Side View 0 1 2 3 4 5M

Water Introduction Work Plan for Hwakohu Chong

LEGEND	FIG
	Water Introduction Work
	Plan for Hwakohu Chong
	SOURCE
	SCALE
	DATE OF DRAWING

The Study on River Environment Improvement for The Tributary of San River System in Seoul Municipality and Its Vicinity

SUPPORTING REPORT II

WATER QUALITY AND SEDIMENT QUALITY

CONTENTS

Annex

Abbreviation

As	Arsenic
BOD	Biochemical Oxygen Demand
Cd	Cadmium
CN	Cyanide
COD(Mn)	Chemical Oxygen Demand by Potassium Dichromate Method
COD(Cr)	Chemical Oxygen Demand by Potassium Permanganate Method
Coli-form	Coliform Bacteria
$Cr^{(6+)}$	Sexivalent Chromium
DBOD	Dissolved Biochemical Oxygen Demand
DCOD	Dissolved Chemical Oxygen Demand
DL	Dried Loss
DO	Dissolved Oxygen
EC	Electric Conductivity
H_2S	Hydrogen Sulfide
IL	Ignition Loss
MBAS	Methylene Blue Active Substance
MPN	Most Probable Number
NH_4-N	Ammonium Nitrogen
NH_3-N	Nitrate Nitrogen
NH_2-N	Nitrite Nitrogen
Pb	Lead
PCB	Polychlorinated Biphenyls
pH	Potential of Hydrogen
PO_4-P	Phosphate Phosphorus
SS	Suspended Solid
SS(IL)	Ignition Loss of Suspended Solid
TDP	Total Dissolved Phosphorus
THg	Total Mercury
TKN	Total Kjeldahl Nitrogen
TN	Total Nitrogen
TON	Total Organic Nitrogen
TP	Total Phosphorus
TR	Total Residue
TR(IL)	Ignition Loss of Total Residue
Turbid.	Turbidity

List of Tables

List of Figures

Water Quality and Sediment Quality

Chapter 1 Introduction

The small river waters of Han Guang System in Seoul have seriously been polluted but the discharges have greatly been decreased accompanying the development of the areas surrounding the rivers. People who live near the rivers have desired for the return of their environment and waters to their former conditions.

This study was proposed to complete the above mentioned, and the four rivers of Anyang Chong, Yangjae Chong, Ui Chong and Chungroung Chong were chosen for conducting this study.

The water quality and sediment quality were surveyed on Anyang Chong several times in the past. On other rivers, however, no study was carried out.

On Anyang Chong, surveys were conducted by the Government of Seoul from 1984 to 1987. This results showed that BOD in Anyang Chong was very high around 200 mg/l and COD(Mn) and SS were also obtained in quite high values. However, after that, the intercepting pipe was completed, and industrial waste water was treated.

The survey this time has been conducted for getting further informations including daily change, monthly variation, freshet time and side-inflow of water quality, and sediment quality including benthos on Anyang Chong. New information about those from Yangjae Chong, Ui Chong and Chungroung Chong were tried to be obtained for taking measures. The sampling stations for water and sediment were set up and the survey on these stations was started in January, 1990, and continued to May, 1991.

Chapter 2 Survey, Sampling and Analytical Method

2.1 Survey and Sampling for Water Quality

2.1.1 Regular Sampling for Monthly Variation

(1) Survey and sampling station

Stations for survey and water sampling were set on the four rivers of Anyang Chong, Yangjae Chong, Ui Chong and Chungroung Chong (Fig. 2.1.1-1).

These stations on each river were chosen to cover the study area in Seoul.

The surveys and samplings were done regularly once a month from January, 1990 to May, 1991.

The surveys and samplings were conducted at the surface on the center of the rivers.

However, construction on the mouth of Torim Chong, A-St. 3, for the repair of the intercepting pipe was carried out from February, 1990, to January, 1991. The water qualities at this station showed the effect of the construction.

On Yangjae Chong, construction was also started from July, 1990, and is still continuing on the riverbed for the length of the river.

Ui Chong had a short period of construction in June, 1990, just in the upper part of U-St. 2.

These constructions surely affect the results of water qualities and therefore, must be taken into account when considering the results.

(2) Measuring and analytical items

Measuring items for regular samples are below:
WT, pH, DO, COD, BOD, SS, NH4-N and NO2-N from January 1990 to May 1991, and measurement of coli-form bacteria groups from June 1990 to May 1991.

EC and turbidity were sometimes recorded depending on the equipment use.

2.1.2 24-hour-survey and -sampling for Hourly Change

(1) Stations for survey and sampling

Stations for hourly change were set on the same stations as the regular samplings (Fig. 2.1.1-1).

The surveys and samplings were started in July, 1990 and continued until May, 1991. It was conducted every two months to obtain hourly changes of water quality resulting from daily activities of population in the area.

These results were expected to provide basic information for the planning of river water treatment facilities.

Samplings were taken 13 times within 24 hours at the interval of 2 hours at every station.

(2) Measuring and analytical items

Analytical items for these surveys were the regular analytical items plus oxygen consumption rate, Dissolved-COD, Dissolved-BOD, MBAS, settleable SS matter, sulfide, Total-N, Total-Dissolved-N, NO3-N, Total-P, and Total-Dissolved-P.

Coli-form groups were not counted for these series of samples.

LEGEND

Station		Regular and 24hr. Sampling	Freshet Time Sampling	River Sediment Sampling
Anyang Chong	A-St. 1	●	●	●
	A-St. 2	●	●	●
	A-St. 3	●		
	A-St. 4	●		
	A-St. 5	●	●	●
	A-St. 6	●	●	●
	A-St. 7	●		
	A5'			●
Yangjae Chong	Y-St. 1	●	●	●
	Y-St. 2	●		●
	Y-St. 3	●	●	
	Y-St. 4	●		
	Y1'			●
Chungroung Chong	C-St. 1	●	●	●
	C-St. 2	●		●
	C-St. 3	●	●	
Ui Chong	U-St. 1	●	●	●
	U-St. 2	●	●	●

Additional Sampling : AN0～AN4, K1～K4, O1.O2, T1.D1, YG1～YG3
CH1, Ui1～Ui4.Ui9.Ui13.Ui14

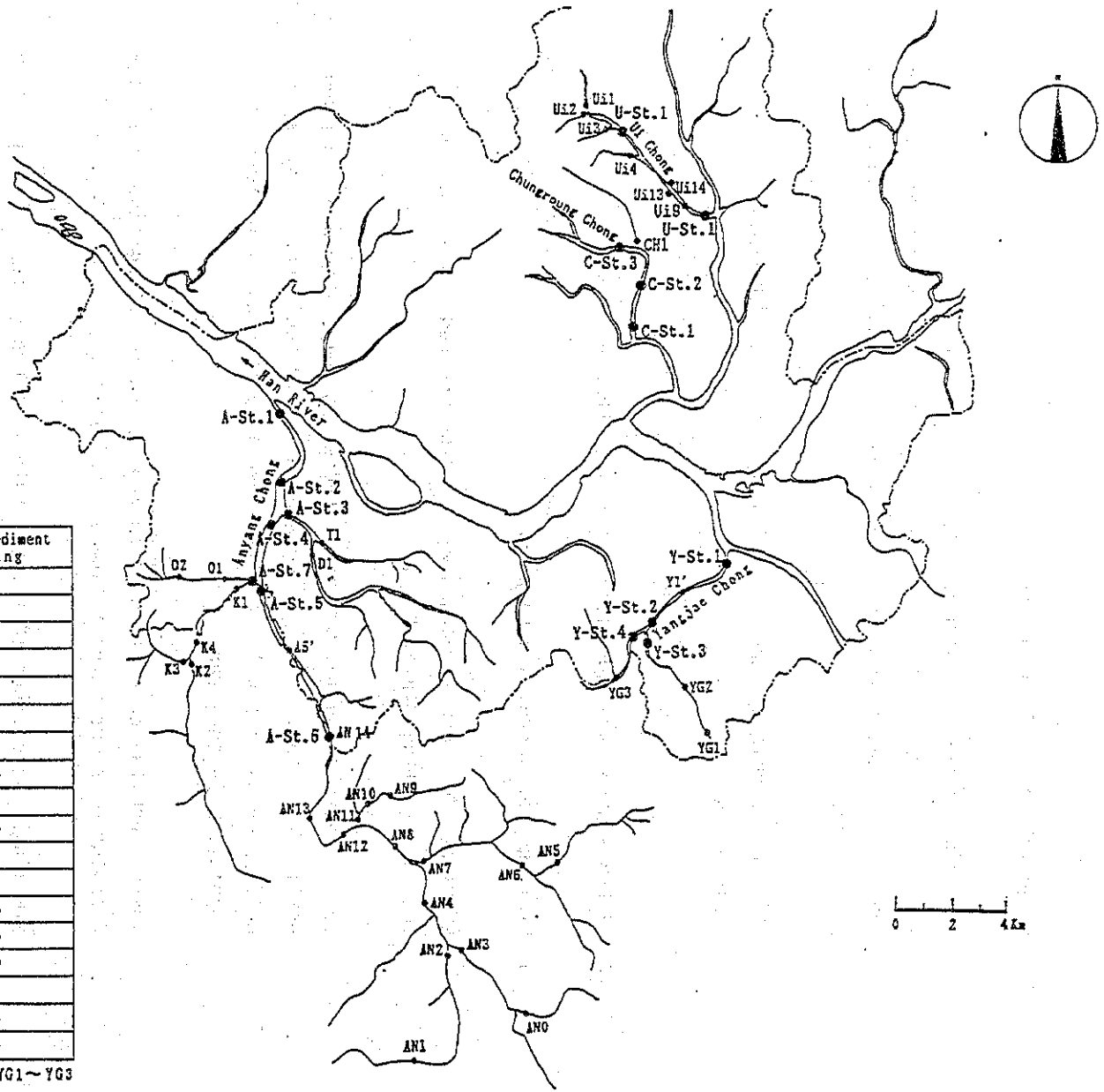


Fig. 2.1.1-1 Sampling Station for Water Quality and Sediment Quality

2.1.3 CN and THg Measurement

Hopefully CN and Hg do not appear in the river water, even in the case where waste water is discarded without any treatment from the industries in the area.

The water for these analyses were sampled in July, August, November 1990, and from January to May, 1991 on the same sampling dates and stations as the regular monthly samplings.

2.1.4 Survey and Sampling at Freshet Time

In Korea, freshet occurs almost every year from the end of June to early September. River condition during freshet is significantly different from the normal.

The water in the first flush to the rivers is thought to have high concentrations of contaminants due to inflowing from inside and outside the rivers.

(1) Station for freshet time survey

Water samples were collected at the selected stations from the regular ones during the freshet on each river (shown in Figure 2.1.1-1).

(2) Sampling date for freshet time survey

Anyang Chong: September 10-11,1990
November 9, 1990,
February 27-28, 1991

Yangjae Chong: August 31, 1990
November 3, 1990
February 27-28, 1991
June 10-14, 1991

Ui Chong: August 31, 1990
November 3, 1990
February 27-28, 1991

Chungroung Chong: August 31, 1990
November 3, 1990
February 27-28, 1991
July 1-3, 1991

Some results from these surveys, however, do not show the suitable water quality and conditions of freshet time. Therefore, those results were omitted from the discussions for freshet time.

Samplings were usually done 13 times during the freshet at an interval of half an hour or an hour. The last time on Yangjae Chong and Chungroung Chong, however, the water sampling and surveys were carried out to get the whole figures of the water quality and pollution load brought about by freshet within 3 or 4 days.

(3) Analytical item

Analytical items for these survey from August to February were the same as those for the regular surveys.

COD(Mn), COD(Cr), SS, SS(IL), TR, TR(IL), TN, NO3-N, NO2-N and NH4-N were analysed for the last survey on Yangjae Chong.

Items mentioned above plus PO4-P and Cl^- were measured for the last time in Chungroung Chong.

2.1.5 Survey for Self-purification Capacity

In one section of Yangjae Chong between the Yong Dong 2nd Bridge and the Yong Dong 5th Bridge (flow-down duration: 1 hour and 14 min.) and in two sections of Ui Chong between U-St. 1 and U-St. 2, the self-purification capacities were measured on September 19, 1990.

In these sections, water velocity was measured using several buoys which were followed by surveyors from the first point to the second point.

Water was collected at the first point where the buoys were placed, then at the second when the buoys reached that point.

BOD was measured by the ordinary method, and TN and COD(Cr) were analysed using HACH Water Analyzer.

2.1.6. Survey on Side-inflow into the Four Rivers

There are many small inflows from both sides of the banks on the four rivers (see Figs. 3.1.4-1, 3.2.4-1, 3.3.4-1 and 3.4.4-1).

Measurements of discharge and water samplings for quality analyses were conducted on every side-inflown of Anyang Chong on June 14-15, 1990, and on June 12, 1990, for Yangjae Chong. COD(Mn) and SS were measured.

Surveys at Ui Chong and at Chungroung Chong were conducted on September 4, and on July 12, 1990, respectively. COD(Cr), T-KN, NH4-N, NO_3-N and NO_2-N were analysed by the HACH Water Analyzer.

2.1.7. Additional Survey and Sampling

(1) Water was collected from several points on the inside of four rivers and analysed of COD(Cr), TN and NH4-N using the HACK Water Analyzer for comparing with the results of ordinary laboratory analyses (Figs. 3.1.5-1 and 2, Figs. 3.2.5-1 and 2).

(2) Water was sampled from the outside of the study areas of the four rivers and analysed to add further information on the water qualities inside of the study areas.

(3) From May to July, 1991, water was sampled from the four rivers being accompanied directly with measuring discharges. The comparisons between COD(Mn) and COD(Cr), and SS measured by the ordinary method and SS measured by the optical density method for comparison between COD(Mn) and COD(Cr), and SS by ordinary method and SS by optical density method were archived.

Other items of SS(IL), TR, TR(IL), TN, NO2-N NO3-N and NH4-N were analysed to determine the rough figure of organic and inorganic matters in the water.

2.2 Analytical Method for Water Quality

Most water quality analyses were done using the methods in the "Korean Standard Methods for the Drinking Water and Waste Water".

Analyses for sulfide, NO_3-N and CN followed the methods of the "American Standard Methods for Water and Wastewater".

COD(Mn) were measured by using the Japanese method of KMnO4 (oxidized and heated in the water bath for 30 min.).

2.3 Treatment of Obtained Water Quality Data

Data included in the results of the regular monthly surveys, which were obtained from 24-hour surveys, were treated statistically, i.e. statistically larger or smaller values were omitted for estimating the mean values. Values which were extraordinarily larger or smaller wherein the causes affected were known was also omitted. Then these mean values were sited under columns.

Other values, which were known to be affected by some causes were explained.

2.4 Survey and Sampling for River Sediment Quality

2.4.1 Station

In the Fig. 2.1.1-1, A-St. 1, 2, 5, 5' and 6 on Anyang Chong, Y-St. 1, Y' and 2 on Yangjae Chong, U-St. 1 and 2 on Ui Chong and C-St. 1 and 2 on Chungroung Chong are the sampling stations for the river sediment survey.

2.4.2 Sampling and Analytical Item and Method

(1) River surface sediment was collected by dredge from the central part of each river on December 5, 1990.

The following items were measured and analysed for sediments:
Particle-size, PCB, Organic-P, CN, As, Cr+6, Cd, Pb, Sulfide, Drying Loss and Ignition Loss by the method of "Korean Standard for the Sediment".

Of those, PCB and Organic-P were analysed in the National Institute of Environment of Korea using the Korean standard method.

(2) Macro-benthos

Number and species of macro-benthos were counted and identified by the National Institute of Environment of Korea.

Chapter 3 Result and Discussion

3.1 Anyang Chong

3.1.1 Hourly Change of Water Quality

A-St. 1 is affected by back water from Hang Gang. The water level therefore showed hourly changes when the station was affected during the tidal time (September, 1990 and May, 1991). The differences between the highest and lowest water level were 115 cm in September and 31 cm in May, respectively (Fig. 3.1.1-1).

On the same date in September, the back water effect was also found on the water level at A-St. 2, although the difference between the highest and the lowest water levels was small (25 cm).

It seems, however, that there were no systematic hourly changes in the water qualities and water levels on the other sampling dates and sampling stations.

An hourly change appearing in water quality and water discharge may also be a reflection of the human activities and some other factors present in the river. Anyang Chong, however, is too large to be significantly affected by those kinds of human activities. Besides, domestic waste water and sewage are collected by an intercepting sewer pipe and transported to the treatment plant. Consequently, a systematic hourly change was not found in the water quality and water discharge by means of 2-hour-interval surveys.

24-hour surveys of water quality concentrations, however, showed large variances, and the mean of those values are thought to represent figures on the sampling date more accurately than the values taken once a day. Several mean values, therefore, were included in the results of the regular monthly data to be discussed, although some problems may exist in the combination of the more

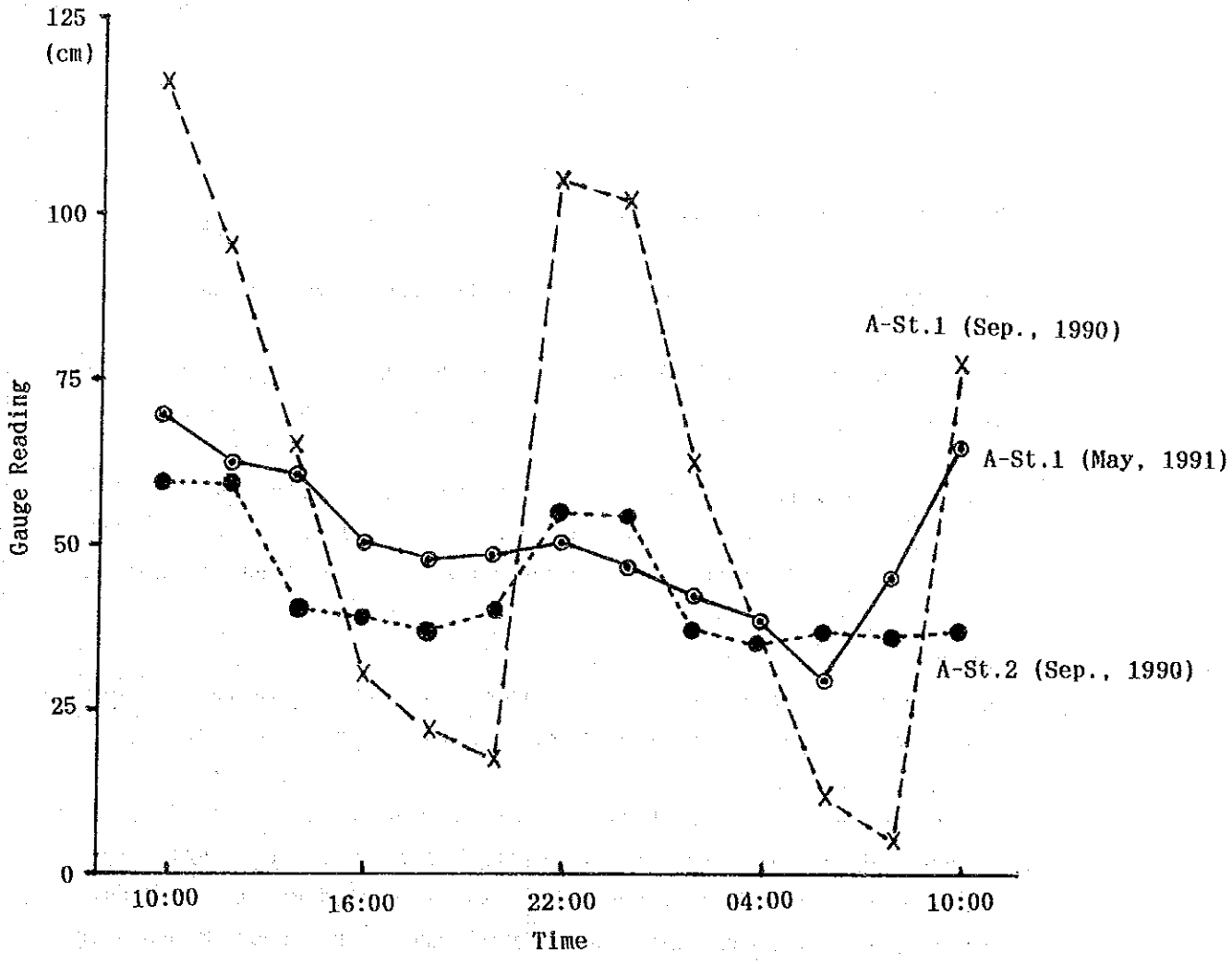


Fig. 3.1.1-1 Water Gauge Reading at A-St. 1 and A-St. 2 with the Effect by Hang Gang Back Water

accurate mean values and the data which were sampled once a day.

Results are shown in Tables A-1.1-1-42.

3.1.2 Monthly Variation of Water Quality

(1) Water quality variation obtained from the regular monthly survey

It is clear that Hang Gang has a back water effect on A-St. 1. All results, therefore, of this station are restricted as references.

Anyang Chong has already been polluted seriously due to the developing economic condition in Seoul. This river reflects this situation and presently looks like a sewage rather than a natural river.

The color is a mixture of dark brown and gray, sometimes nearly black, and the water reeks of sewage at A-St. 1 and A-St. 2.

Hs or methane gas bubbles were often seen at A-St. 1. It is understandable, through for incredibly low DO (0.0 - 6.6 mg/l) were constantly measured throughout the sampling period at all stations. 0.0 mg/l was found on July 5 or July 30, and even higher values such as 0.1 and 0.6 mg/l on the other dates (Tables 3.1.2-1-7 and Figs. 3.1.2-1 and 2).

Relatively higher DO content was found in the colder months, December and January. The highest DO of 6.6 mg/l was found at A-St. 3 in January, 1990. The values measured in April and May of 1991 were relatively lower than the values in the same months of 1990. It is assumed then that the pollution in this river is further increasing.

Lower DO at A-St. 7 indicates that Kaehwa Chong is more seriously polluted than Anyang Chong, and higher DO at A-St. 6, which is located higher than the other stations, indicates that the

Table 3.1.2-1 Water Quality of Anyang Chong, A-St. 1

Item / Date	WT (°C)	pH	EC (mS/cm)	DO (mg/l)	COD(Mn) (mg/l)	BOD (mg/l)	SS (mg/l)	NH4-N (mg/l)	NO2-N (mg/l)	Coli-form (MPN/100ml)	CN (mg/l)	Hg (mg/l)	Gauge (cm)
Jan. 31, 1990	3.8	7.2	-	2.5	48.1	66.8	47.0	6.80	0.076	-	-	-	2
Feb. 22, 1990	8.0	7.0	-	0.6	49.3	61.2	95.0	10.01	0.111	-	-	-	10
Mar. 20, 1990	15.0	7.0	-	1.2	48.1	92.4	33.0	16.43	0.013	-	-	-	-16
Apr. 20, 1990	23.0	7.1	-	1.7	50.8	104.6	31.4	15.63	0.014	-	-	-	-1
May 28, 1990	21.5	7.4	-	0.8	33.1	52.0	35.0	12.61	0.028	-	-	-	52
Jun. 22, 1990	19.5	7.3	0.9	0.6	13.4	20.1	14.4	4.77	-	920	-	-	456
Jul. 5, 1990	23.4	6.9	-	0.0	29.5	60.0	34.2	12.96	0.042	-	-	-	-
Jul. 30, 1990	25.3	7.1	-	0.0	22.2	54.0	22.5	1.76	0.000	1200	0.000	0.000	97
Aug. 25, 1990	25.5	7.2	-	0.1	17.3	13.5	19.0	8.29	0.000	1200	0.000	0.000	35
Sep. 7, 1990	25.2	7.1	-	1.2	23.8	32.1	21.3	10.53	0.017	-	-	-	58
Sep. 22, 1990	20.6	7.2	-	2.4	22.0	18.3	57.4	11.20	0.000	1100	-	-	95
Oct. 22, 1990	18.2	7.0	-	1.2	41.1	33.6	24.0	12.50	0.000	1200	-	-	78
Nov. 13, 1990	14.1	7.1	-	1.6	30.9	59.8	24.8	17.71	0.018	-	-	-	36
Nov. 26, 1990	12.8	7.0	-	0.2	91.1	48.0	27.0	11.67	0.148	9200	0.000	0.000	47
Dec. 24, 1990	7.2	7.3	-	0.2	44.1	79.4	49.6	10.80	0.205	9200	-	-	45
Jan. 5, 1991	3.7	7.4	-	1.2	56.8	62.3	51.7	19.13	0.132	9600	0.028	0.000	40
Jan. 15, 1991	1.1	7.1	-	1.8	76.0	93.1	39.2	14.16	0.047	-	-	-	37
Feb. 5, 1991	3.4	7.2	-	2.8	61.5	72.0	56.0	11.24	0.022	12000	0.006	0.000	38
Mar. 5, 1991	8.4	7.5	-	0.2	53.6	70.9	41.9	15.39	0.031	-	-	-	35
Mar. 21, 1991	6.7	7.3	-	2.4	45.4	38.5	47.0	11.96	0.000	5800	0.010	0.000	32
Apr. 29, 1991	14.0	7.3	-	0.2	54.8	64.8	78.2	10.51	0.000	8200	0.007	0.000	40
May 21, 1991	14.0	7.8	-	0.2	20.0	15.6	46.0	5.83	0.000	4300	0.008	0.000	40
May 31, 1991	21.8	7.8	-	0.4	43.9	58.0	46.7	12.65	0.000	-	-	-	50

Table 3.1.2-2 Water Quality of Anyang Chong, A-St. 2

Item / Date	WT (°C)	pH	EC (mS/cm)	DO (mg/l)	COD(Mn) (mg/l)	BOD (mg/l)	SS (mg/l)	NH4-N (mg/l)	NO2-N (mg/l)	Coli-form (MPN/100ml)	CN (mg/l)	Hg (mg/l)	Gauge (cm)
Jan. 31, 1990	3.6	7.3	-	2.1	50.1	54.8	62.0	11.81	0.028	-	-	-	21
Feb. 22, 1990	8.0	7.3	-	2.4	43.7	70.5	43.0	7.45	0.099	-	-	-	32
Mar. 20, 1990	12.0	7.2	-	2.0	69.5	158.0	142.0	14.50	0.013	-	-	-	23
Apr. 20, 1990	21.0	7.1	-	1.2	58.1	143.0	578.3	12.83	0.024	-	-	-	29
May 28, 1990	26.4	7.4	-	1.0	45.4	74.0	72.0	14.96	0.031	-	-	-	25
Jun. 22, 1990	19.8	7.3	0.8	0.5	17.4	27.0	35.2	5.74	-	540	-	-	420
Jul. 5, 1990	24.3	7.1	-	0.0	35.7	63.0	72.8	13.01	0.000	-	-	-	37
Jul. 30, 1990	25.7	6.7	-	0.0	22.6	48.0	65.5	1.86	0.014	970	0.000	0.000	40
Aug. 25, 1990	27.0	7.2	-	0.6	17.3	10.5	25.0	9.69	0.000	950	0.000	0.000	45
Sep. 7, 1990	25.8	7.2	-	0.3	23.4	23.9	49.8	11.81	0.007	-	-	-	44
Sep. 22, 1990	17.1	7.0	-	2.5	26.6	21.4	48.6	11.96	0.000	1800	-	-	38
Oct. 22, 1990	15.4	6.9	-	0.5	46.1	24.8	26.7	11.96	0.000	2200	-	-	-
Nov. 13, 1990	13.3	7.2	-	1.9	34.1	46.6	20.0	16.43	0.019	-	-	-	27
Nov. 26, 1990	11.3	7.3	-	0.8	48.1	54.5	36.0	12.50	0.000	3500	0.000	0.000	28
Dec. 24, 1990	6.4	7.2	-	3.1	42.8	77.0	49.9	12.32	0.234	4300	-	-	25
Jan. 5, 1991	4.2	7.1	-	2.4	58.5	69.0	59.2	17.40	0.197	4800	0.000	0.000	22
Jan. 15, 1991	2.2	7.4	-	3.0	68.5	92.6	42.2	15.64	0.044	-	-	-	20
Feb. 5, 1991	4.7	7.4	-	3.2	60.8	75.0	74.0	13.04	0.018	6400	0.007	0.000	21
Mar. 5, 1991	7.7	7.3	-	2.0	56.5	74.8	33.1	15.28	0.036	-	-	-	18
Mar. 21, 1991	8.0	7.4	-	1.8	56.1	33.0	41.0	11.85	0.000	8200	0.014	0.000	25
Apr. 29, 1991	15.0	7.0	-	0.4	50.8	62.7	53.6	10.87	0.000	9800	0.005	0.000	35
May 21, 1991	15.0	7.5	-	0.4	14.7	24.6	42.0	2.50	0.271	5400	0.007	0.000	25
May 31, 1991	21.2	7.6	-	0.4	29.1	26.8	20.4	10.97	0.000	-	-	-	11

Table 3.1.2-3 Water Quality of Anyang Chong, A-St. 3

Item / Date	WT (°C)	pH	EC (mS/cm)	DO (mg/l)	COD(Mn) (mg/l)	BOD (mg/l)	SS (mg/l)	NH4-N (mg/l)	NO2-N (mg/l)	Coli-form (MPN/100ml)	CN (mg/l)	Hg (mg/l)	Gauge (cm)
Jan. 31, 1990	2.8	7.5	-	6.6	15.0	6.3	51.0	5.06	0.021	-	-	-	-10
Feb. 22, 1990	8.1	7.2	-	3.6	50.8	82.0	62.0	7.40	0.108	-	-	-	58
Mar. 20, 1990	16.0	7.2	-	3.1	140.3	235.0	156.0	10.01	0.735	-	-	-	41
Apr. 20, 1990	21.4	7.0	-	1.4	30.1	122.0	71.9	11.62	0.618	-	-	-	33
May 28, 1990	23.8	7.5	-	3.1	78.8	98.7	9.0	5.64	0.034	-	-	-	41
Jun. 22, 1990	21.5	8.6	1.0	1.5	48.1	129.0	121.0	8.43	-	170	-	-	189
Jul. 5, 1990	21.6	7.0	-	0.1	36.3	100.0	87.8	9.67	0.052	-	-	-	56
Jul. 30, 1990	25.0	7.4	-	0.0	24.4	51.0	26.0	2.06	0.000	450	0.000	0.000	50
Aug. 25, 1990	25.3	7.1	-	0.7	24.0	29.1	59.5	11.51	0.000	1500	0.000	0.000	50
Sep. 7, 1990	25.1	7.1	-	0.2	29.5	51.0	70.6	12.59	0.022	-	-	-	50
Sep. 22, 1990	20.8	7.2	-	2.8	19.0	18.5	50.4	10.00	0.000	1500	-	-	60
Oct. 22, 1990	17.9	7.1	-	0.1	54.2	47.2	42.7	8.04	0.000	1900	-	-	40
Nov. 13, 1990	13.2	7.2	-	2.2	45.0	39.5	28.0	13.60	0.034	-	-	-	43
Nov. 26, 1990	14.2	7.1	-	0.4	48.1	74.5	63.0	12.08	0.000	5400	0.000	0.000	35
Dec. 24, 1990	6.0	7.0	-	4.2	48.1	86.6	57.0	10.87	0.691	4000	-	-	32
Jan. 5, 1991	6.4	7.0	-	1.8	52.1	46.5	47.1	15.00	0.171	4500	0.011	0.000	30
Jan. 15, 1991	3.8	7.4	-	3.5	47.2	53.4	44.2	11.19	0.367	-	-	-	17
Feb. 5, 1991	5.6	7.2	-	2.4	33.4	30.0	39.0	11.83	0.030	8200	0.000	0.000	23
Mar. 5, 1991	7.6	7.5	-	2.5	20.6	16.0	25.3	7.43	0.030	-	-	-	17
Mar. 21, 1991	7.2	7.2	-	2.1	15.0	8.5	29.0	7.01	0.039	4300	0.026	0.000	28
Apr. 29, 1991	14.0	7.6	-	0.1	47.0	38.6	45.3	3.55	0.028	7400	0.009	0.000	18
May 21, 1991	16.2	7.3	-	0.8	10.0	4.6	34.0	2.69	0.233	2800	0.005	0.000	12
May 31, 1991	21.6	7.7	-	2.3	9.6	11.6	18.8	5.85	0.126	-	-	-	14

Table 3.1.2-4 Water Quality of Anyang Chong, A-St. 4

Date	Item	WT (°C)	pH	EC (mS/cm)	DO (mg/l)	COD(Mn) (mg/l)	BOD (mg/l)	SS (mg/l)	NH4-N (mg/l)	NO2-N (mg/l)	Coli-form (MPN/100ml)	CN (mg/l)	Hg (mg/l)	Gauge (cm)
Jan. 31,	1990	4.2	7.5	-	3.5	60.1	74.0	82.0	12.37	0.033	-	-	-	-1
Feb. 22,	1990	8.1	6.9	-	1.7	40.1	54.0	47.0	7.26	0.091	-	-	-	11
Mar. 20,	1990	15.0	7.6	-	2.2	76.5	98.6	144.3	14.60	0.022	-	-	-	2
Apr. 20,	1990	22.0	7.1	-	0.7	94.2	136.0	423.3	18.90	0.036	-	-	-	7
May 28,	1990	24.4	7.2	-	1.6	44.1	45.0	63.0	12.34	0.026	-	-	-	0
Jun. 22,	1990	19.9	7.0	0.9	0.2	14.0	20.8	28.4	5.22	-	110	-	-	400
Jul. 5,	1990	25.1	7.1	-	0.0	35.5	60.7	83.1	12.06	0.000	-	-	-	21
Jul. 30,	1990	26.7	7.2	-	0.0	24.2	73.0	19.0	2.05	0.000	90	0.000	0.000	30
Aug. 25,	1990	27.7	7.2	-	1.3	20.0	12.0	21.0	9.78	0.000	1200	0.000	0.000	25
Sep. 7,	1990	26.9	7.1	-	0.4	30.0	26.6	56.6	11.59	0.012	-	-	-	25
Sep. 22,	1990	20.0	7.1	-	1.7	21.0	11.6	25.7	10.87	0.000	2100	-	-	25
Oct. 22,	1990	17.0	7.3	-	2.7	42.1	25.8	24.0	14.02	0.000	2500	-	-	21
Nov. 13,	1990	13.6	7.2	-	2.2	36.4	47.0	26.4	17.90	0.021	-	-	-	19
Nov. 26,	1990	12.4	7.1	-	0.5	50.1	37.0	44.0	15.10	0.000	5400	0.000	0.000	21
Dec. 24,	1990	6.8	7.0	-	2.2	55.1	99.2	52.8	12.68	0.000	5400	-	-	20
Jan. 5,	1991	5.9	7.1	-	3.2	58.1	57.0	64.1	19.57	0.263	4100	0.000	0.000	18
Jan. 15,	1991	2.4	7.5	-	3.2	62.2	81.3	42.7	15.49	0.031	-	-	-	11
Feb. 5,	1991	6.1	7.6	-	2.1	59.5	78.6	56.0	11.24	0.034	6400	0.000	0.000	17
Mar. 5,	1991	8.0	7.4	-	2.2	51.3	66.3	29.8	15.61	0.021	-	-	-	10
Mar. 21,	1991	6.9	7.4	-	1.4	60.1	57.0	88.0	11.96	0.000	12000	0.021	0.000	18
Apr. 29,	1991	14.0	7.3	-	0.7	48.1	46.8	56.0	7.97	0.000	11000	0.023	0.000	35
May 21,	1991	14.8	7.3	-	2.0	24.0	12.0	84.0	5.98	0.154	3100	0.005	0.000	35
May 31,	1991	21.7	7.7	-	0.6	40.5	48.9	45.6	9.89	0.000	-	-	-	20

Table 3.1.2-5 Water Quality of Anyang Chong, A-St. 5

Date	Item	WT (°C)	pH	EC (mS/cm)	DO (mg/l)	COD(Mn) (mg/l)	BOD (mg/l)	SS (mg/l)	NH4-N (mg/l)	NO2-N (mg/l)	Coli-form (MPN/100ml)	CN (mg/l)	Hg (mg/l)	Gauge (cm)
Jan. 31,	1990	3.4	7.6	-	3.5	65.1	76.5	95.9	9.48	0.035	-	-	-	-1
Feb. 22,	1990	8.7	7.2	-	2.5	41.7	59.3	43.0	6.43	0.096	-	-	-	51
Mar. 20,	1990	17.0	7.1	-	2.4	56.8	87.0	60.0	13.41	0.034	-	-	-	17
Apr. 20,	1990	23.6	7.0	-	2.1	44.7	82.0	37.5	13.60	0.014	-	-	-	4
May 28,	1990	25.7	7.4	-	2.0	38.7	38.6	31.0	11.33	0.022	-	-	-	-10
Jun. 22,	1990	19.7	7.3	0.9	2.4	12.0	26.9	186.0	5.76	-	250	-	-	244
Jul. 5,	1990	25.2	7.6	0.6	0.6	28.6	56.0	58.6	11.56	0.033	-	-	-	39
Jul. 30,	1990	27.0	7.2	-	0.0	23.6	61.5	16.5	1.79	0.000	180	0.000	0.000	24
Aug. 25,	1990	28.0	7.2	-	1.0	16.7	12.4	18.8	9.09	0.008	1200	0.000	0.000	2
Sep. 7,	1990	26.1	7.0	-	0.2	27.2	26.1	52.0	13.45	0.004	-	-	-	43
Sep. 22,	1990	19.1	7.0	-	2.0	20.5	12.5	22.3	10.85	0.077	1700	-	-	50
Oct. 22,	1990	16.2	7.1	-	2.6	45.1	30.0	34.5	13.37	0.000	2600	-	-	38
Nov. 13,	1990	13.8	7.2	-	1.7	43.4	44.9	27.8	17.31	0.011	-	-	-	38
Nov. 26,	1990	13.8	7.3	-	1.0	46.1	27.8	35.0	13.54	0.000	2500	0.000	0.000	30
Dec. 24,	1990	5.8	7.1	-	1.7	52.1	93.8	69.6	13.04	0.213	9200	-	-	28
Jan. 5,	1991	5.2	6.9	-	3.7	64.1	70.5	49.5	18.04	0.228	8800	0.000	0.000	25
Jan. 15,	1991	2.9	7.6	-	2.1	71.3	79.1	42.8	18.14	0.020	-	-	-	30
Feb. 5,	1991	6.4	7.5	-	3.2	56.1	36.6	52.0	10.87	0.051	9200	0.000	0.000	23
Mar. 5,	1991	8.2	7.5	-	4.0	55.3	83.9	33.1	14.39	0.016	-	-	-	20
Mar. 21,	1991	6.4	7.6	-	2.4	55.7	45.5	86.0	10.98	0.020	9000	0.017	0.000	23
Apr. 29,	1991	16.0	7.2	-	1.2	44.1	34.8	41.3	8.48	0.000	10800	0.037	0.000	21
May 28,	1991	17.2	7.5	-	3.8	24.0	21.0	77.3	5.94	0.275	4300	0.004	0.000	18
May 31,	1991	23.4	7.5	-	0.4	32.0	38.8	37.4	9.36	0.000	-	-	-	28

Table 3.1.2-6 Water Quality of Anyang Chong, A-St. 6

Date	Item	WT (°C)	pH	EC (mS/cm)	DO (mg/l)	COD(Mn) (mg/l)	BOD (mg/l)	SS (mg/l)	NH4-N (mg/l)	NO2-N (mg/l)	Coli-form (MPN/100ml)	CN (mg/l)	Hg (mg/l)	Gauge (cm)
Jan. 31,	1990	5.5	7.4	-	5.9	40.9	52.5	50.3	7.93	0.028	-	-	-	9
Feb. 22,	1990	6.2	7.1	-	3.1	45.6	65.3	80.0	7.90	0.049	-	-	-	26
Mar. 20,	1990	14.0	7.1	-	2.8	39.5	63.8	25.0	11.90	0.288	-	-	-	-
Apr. 20,	1990	23.0	7.0	-	2.9	45.4	95.6	24.8	13.41	0.053	-	-	-	-
May 28,	1990	26.2	7.3	-	2.8	35.1	75.0	49.0	13.39	0.026	-	-	-	10
Jun. 22,	1990	19.4	7.1	0.8	4.7	12.0	26.0	151.0	3.22	-	180	-	-	147
Jul. 5,	1990	24.9	7.0	-	0.0	33.3	50.2	54.7	10.84	0.040	-	-	-	61
Jul. 30,	1990	27.2	7.0	-	0.2	22.3	48.0	22.5	1.66	0.026	210	0.000	0.000	23
Aug. 25,	1990	28.2	7.1	-	0.5	23.4	21.0	25.8	10.42	0.000	1400	0.000	0.000	28
Sep. 7,	1990	25.4	7.1	-	0.3	24.2	27.2	42.1	12.76	0.079	-	-	-	42
Sep. 22,	1990	20.0	7.3	-	2.2	19.0	8.4	13.9	8.21	0.024	1500	-	-	42
Oct. 22,	1990	17.7	7.3	-	3.6	42.1	28.8	30.0	11.20	0.000	1900	-	-	29
Nov. 13,	1990	13.1	7.1	-	1.2	51.4	38.9	19.5	22.89	0.027	-	-	-	33
Nov. 26,	1990	10.9	7.2	-	1.2	45.1	26.3	24.5	13.13	0.684	4300	0.000	0.000	28
Dec. 24,	1990	6.0	7.3	-	2.5	45.4	81.8	33.6	12.68	0.618	8800	-	-	26
Jan. 5,	1991	4.9	7.0	-	4.4	62.1	48.0	46.0	5.10	0.289	7800	0.000	0.000	23
Jan. 15,	1991	2.5	7.0	-	2.2	69.3	89.7	42.0	15.23	0.024	-	-	-	17
Feb. 5,	1991	5.2	7.5	-	2.9	74.8	66.0	82.0	12.40	0.007	9100	0.000	0.000	21
Mar. 5,	1991	8.0	7.5	-	3.7	52.5	93.9	28.8	16.53	0.022	-	-	-	15
Mar. 21,	1991	5.9	7.3	-	2.0	62.4	48.0	79.3	10.44	0.014	8600	0.043	0.000	20
Apr. 29,	1991	17.0	7.5	-	0.4	43.4	31.3	51.3	10.80	0.000	9400	0.085	0.000	20
May 28,	1991	16.0	7.5	-	4.0	25.2	22.2	46.7	6.98	0.000	3400	0.008	0.000	20
May 31,	1991	23.8	7.7	-	0.5	29.3	28.6	14.0	8.10	0.000	-	-	-	25

Table 3.1.2-7 Water Quality of Anyang Chong, A-St. 7

Item / Date	WT (°C)	pH	EC (mS/cm)	DO (mg/l)	COD(Mn) (mg/l)	BOD (mg/l)	SS (mg/l)	NH4-N (mg/l)	NO2-N (mg/l)	Coli-form (MPN/100ml)	CN (mg/l)	Hg (mg/l)	Gauge (cm)
Jan. 31, 1990	3.0	7.4	-	2.4	61.8	68.8	103.8	11.14	0.055	-	-	-	-
Feb. 22, 1990	7.8	7.1	-	1.7	55.9	72.0	49.0	12.47	0.116	-	-	-	-
Mar. 20, 1990	12.0	7.3	-	1.7	70.2	143.0	78.0	23.71	0.033	-	-	-	-
Apr. 20, 1990	20.0	7.3	-	2.6	44.5	87.0	60.3	11.99	0.025	-	-	-	-
May 28, 1990	26.8	7.1	-	1.2	42.1	55.7	64.0	14.51	0.036	-	-	-	-
Jun. 22, 1990	20.8	7.3	1.1	2.3	26.7	19.0	199.5	3.06	-	920	-	-	-
Jul. 5, 1990	25.4	7.6	0.7	0.6	30.5	47.0	46.3	10.59	0.047	-	-	-	31
Jul. 30, 1990	28.2	7.4	-	0.0	22.4	51.0	20.5	1.69	0.029	850	0.000	0.000	-
Aug. 25, 1990	28.1	7.3	-	1.5	19.4	9.0	14.5	10.03	0.000	700	0.000	0.000	-
Sep. 7, 1990	24.0	7.2	-	0.0	24.0	27.9	36.2	12.51	0.533	-	-	-	10
Sep. 22, 1990	17.6	7.1	-	2.1	16.5	9.5	14.6	6.72	0.028	2100	-	-	32
Oct. 22, 1990	16.8	7.2	-	2.8	48.1	54.6	44.0	15.33	0.000	2600	-	-	27
Nov. 13, 1990	13.4	7.2	-	1.8	47.1	51.9	48.8	19.49	0.009	-	-	-	12
Nov. 26, 1990	13.4	7.1	-	0.3	47.1	51.0	65.0	17.71	0.000	3500	0.000	0.000	24
Dec. 24, 1990	7.4	7.1	-	3.8	56.1	101.0	91.8	14.49	0.000	16000	-	-	21
Jan. 5, 1991	6.7	7.1	-	1.9	88.2	102.0	199.8	21.30	0.059	17000	0.800	0.000	19
Jan. 15, 1991	2.4	7.7	-	2.1	67.2	53.6	79.2	17.65	0.035	-	-	-	25
Feb. 5, 1991	6.2	7.6	-	2.4	85.5	77.4	75.0	15.73	0.005	15000	0.000	0.000	16
Mar. 5, 1991	8.1	7.2	-	6.0	44.2	92.6	51.5	17.49	0.022	-	-	-	9
Mar. 21, 1991	8.2	7.2	-	1.2	44.1	37.0	52.0	12.72	0.054	11000	0.067	0.000	14
Apr. 29, 1991	19.0	7.7	-	0.1	122.2	114.0	130.4	7.97	0.000	16000	0.092	0.000	23
May 28, 1991	18.4	7.8	-	0.1	23.5	14.8	36.0	10.20	0.196	5400	0.011	0.000	18
May 31, 1991	23.9	7.7	-	0.4	36.2	48.0	62.0	11.77	0.000	-	-	-	19

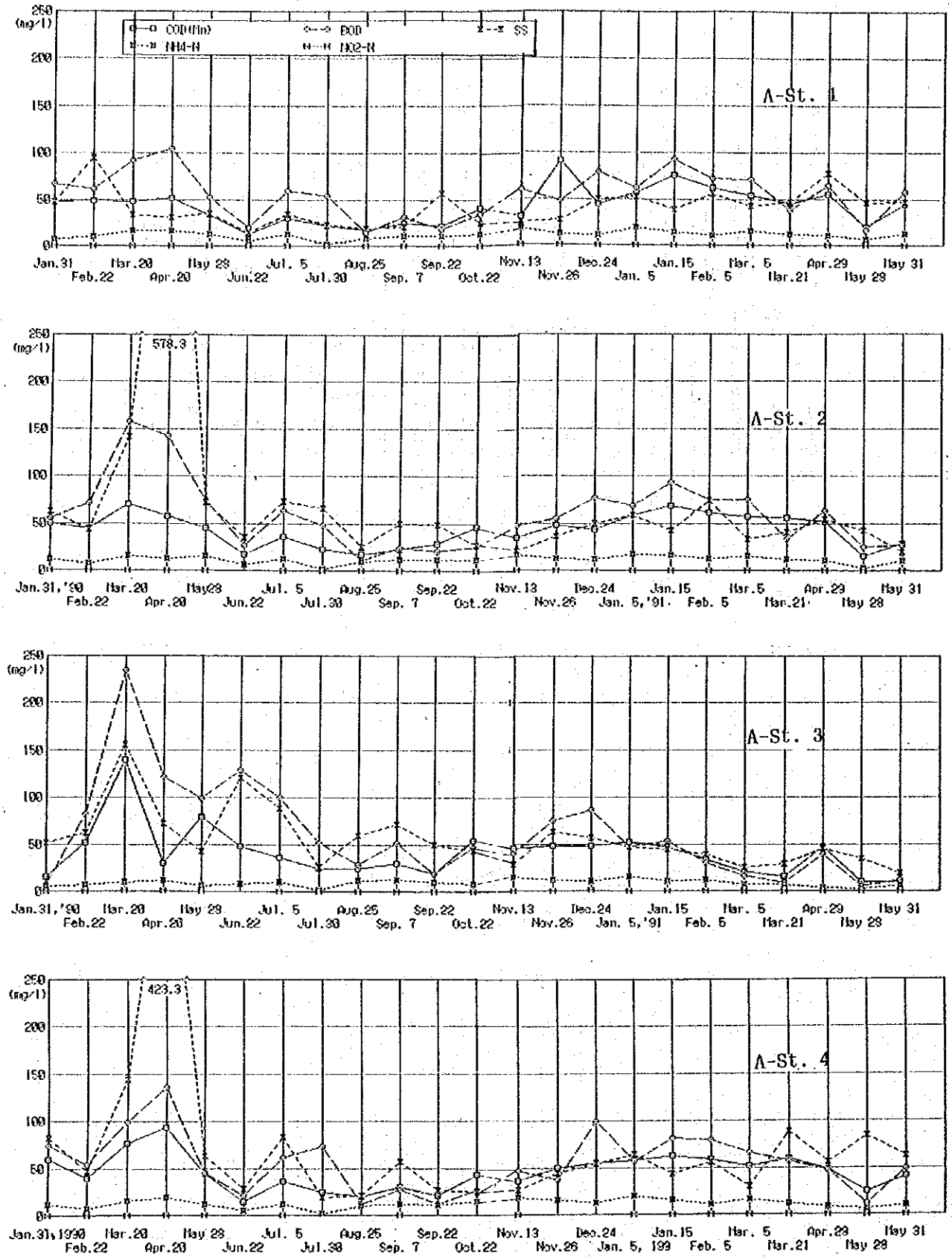


Fig. 3.1.2-1 Monthly Variation of Water Quality of Anyang Chong, A-St. 1 - A-St. 4, from January, 1990, to May, 1991

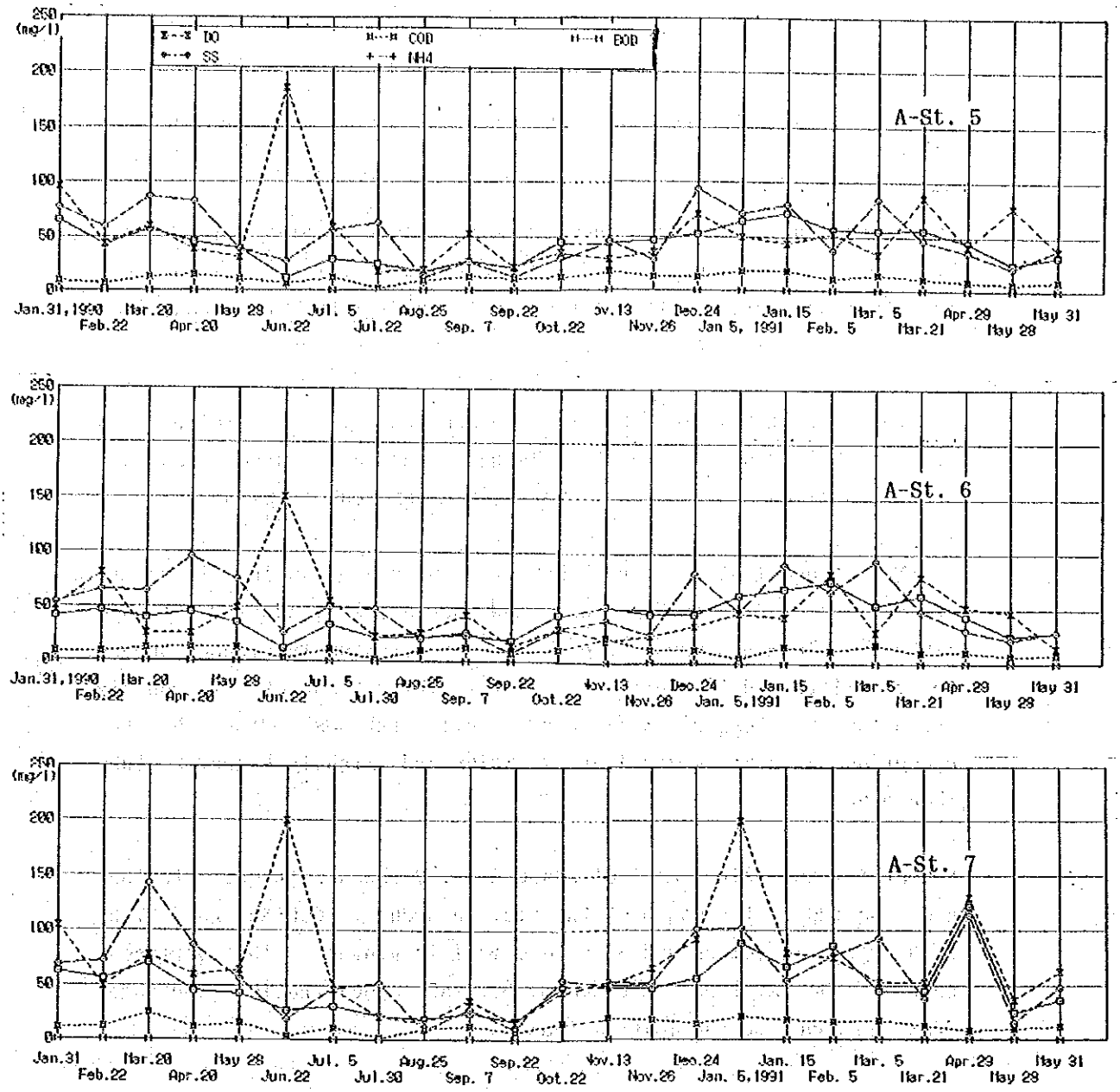


Fig. 3.1.2-2 Monthly Variation of Water Quality of Anayng Chong, A-St. 5 - A-St. 7, from January, 1990 to May, 1991

pollutants are transported downstream along with the flow of the river.

EC, though only measured once or twice, had very high values from 0.6 to 1.1 mS/cm (mean : 0.86 mS/cm). Based on this it is supposed then that untreated waste water was emitted from the many industries along the riversides, especially above the study area.

pH ranged from 6.7 to 7.6 with an exceptionally high value of 8.6 at A-St. 3 in June 22, when the discharge was quite larger than the other occasions. Normally, it was neutral or weak alkaline.

COD(Mn) concentration curve showed a tendency of being lower in summer, from June to September, and increasing gradually toward winter. The month when the peak of concentration was found seemed to be little different every year. This tendency of monthly variation of COD(Mn) were found at all stations, with the few exceptions at A-St. 4 and A-St. 7, which had slightly higher values than others.

Except for the values at A-St.3 and A-St. 7, because those stations are located on the mouth of the small branches, COD(Mn) was 17.3-36.3 mg/l in summer and 58.5-76.0 mg/l in winter. The variances between the stations were small, but the concentration increased from the upper to the lower stream.

A-St. 3 is located on the mouth of Torim Chong, where the repairing and construction of the sewer pipe was completed in January, 1991. The completion of the construction work decreased the volume of sewage, which contained quite high COD(Mn), inflowing into the river much decreased. This brought about a decrease in COD(Mn), especially after March, 1991.

COD(Mn) of Anyang Chong was very high, however, these were lower than those obtained in 1984-1987(100-250 mg/l). It seems that the intercepting sewer system has been developed and the waste water from the industries have been treated more carefully.

The monthly distribution pattern of BOD was similar to those of COD(Mn),i.e. low BOD concentrations (10.5-32.1 mg/l) with high discharge in the hotter season, August-September, and high BOD (48.0-158.0 mg/l) with low discharge in the colder season (Fig. 3.1.2-3). The range, however, of the variance of BOD was greater than those of COD(Mn).

Higher values of BOD were obtained at A-St. 3 and A-St. 7. However, like COD(Mn), BOD at A-St. 3 decreased greatly after March, 1991.

BOD values were generally 1.5-2.0 times higher than COD(Mn) values at all stations, which is usually found in sewage. The higher ratio were found at A-St. 3 before the construction was completed, and the water was the real sewage, and at A-St. 7, where there is no sewer system upper stream of Kaehwa Chong.

BOD obtained in 1984-1987 was 80-150 mg/l, which was higher than the present value. Contrasted to this time, however, BOD/COD(Mn) were usually lower than 1, which is believed to result from the waste water from industries having to be treated more efficiently than before.

SS showed the similar patterns of monthly variation to BOD and COD(Mn), but had irregularly high values on several occasions (13.9-133.4 mg/l). SS at A-St. 2 and A-St. 4 showed incredibly high values on April 20 (578.3 mg/l at A-St. 2 and 235.0 mg/l at A-St. 4), while SS values at A-St. 5, A-St.6 and A-St. 7, on June 22, fell within the middle range which was probably an effect of the heavy rainfall three days before.

Compared to the COD(Mn) and BOD patterns, SS values had no clear pattern of being higher downstream than upstream.

The fluctuations of those three qualities mentioned above at A-St. 1 seemed to be stabilized by the back water of Hang Gang, for the variances of these values were smaller than the other stations.

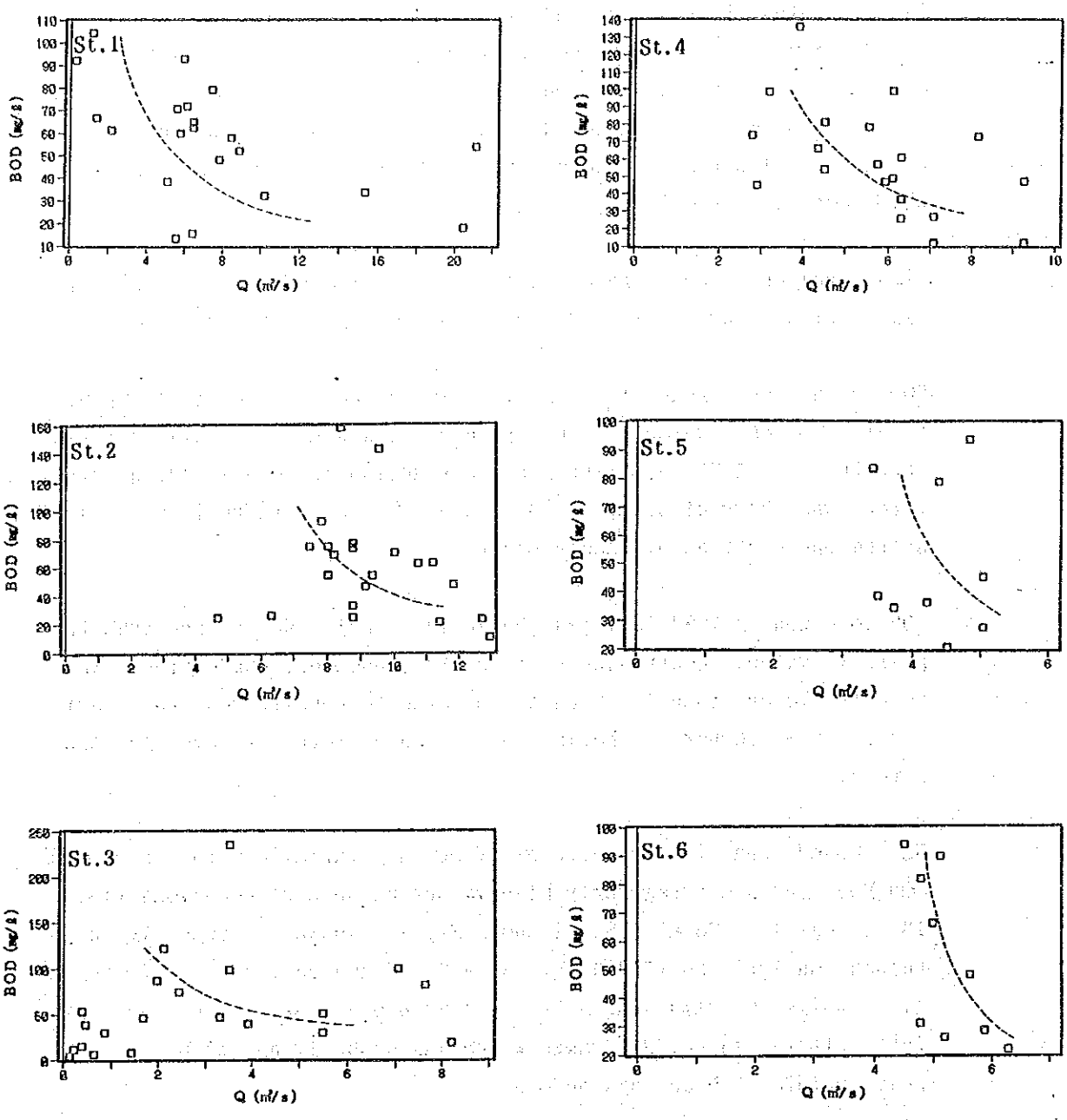


Fig. 3.1.2-3 Relation between Water Quality and Discharge of Anyang Chong