Illinois State Water Survey Division
SURFACE WATER SECTION

SWS Contract Report 486

APPENDICES:
CACHE RIVER BASIN: HYDROLOGY, HYDRAULICS, AND SEDIMENT TRANSPORT

VOLUME 1: BACKGROUND, DATA COLLECTION, AND ANALYSIS

by Misganaw Demissie, Ta Wei Soong, Richard Allgire, Laura Keefer, and Paul Makowski

VOLUME 2: MATHEMATICAL MODELING

by Misganaw Demissie, Ta Wei Soong, and Rodolfo Camacho

Prepared for the
Illinois Department of Conservation

Champaign, Illinois
January 1990

Illinois Department of Energy and Natural Resources

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STAGE IN FEET ABOVE MEAN SEA LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JON	JUL	AUG	SEP
1	-	-	-	-	-	-	-	338.40	337.16	337.09	337.65	337.23
2	-	-	-	-	-	-	-	338.35	337.14	337.17	337.11	337.21
3	-	-	-	-	-	-	-	337.86	337.14	337.05	337.02	337.19
4	-	-	-	-	-	-	-	337.72	337.62	337.04	336.99	337.19
5	-	-	-	-	-	-	-	337.67	337.26	337.05	341.71	339.44
6	-	-	-	-	-	-	-	337.61	337.39	337.04	337.94	337.57
7	-	-	-	-	-	-	-	337.50	337.33	337.03	337.51	337.40
8	-	-	-	-	-	-	-	337.46	337.20	337.02	337.32	337.33
9	-	-	-	-	-	-	-	337.41	337.15	337.02	337.21	337.26
10	-	-	-	-	-	-	-	337.38	337.60	337.01	339.24	337.24
11	-	-	-	-	-	-	-	337.48	337.97	337.00	338.15	337.20
12	-	-	-	-	-	-	-	337.90	337.52	336.99	337.72	337.13
13	-	-	-	-	-	-	-	337.64	337.30	336.99	337.64	337.11
14	-	-	-	-	-	-	-	337.93	337.22	336.99	337.58	337.10
15	-	-	-	-	-	-	-	337.72	337.17	336.99	340.23	337.09
16	-	-	-	-	-	-	-	337.49	337.15	336.99	338.04	337.07
17	-	-	-	-	-	-	-	337.42	337.72	337.00	337.53	337.07
18	-	-	-	-	-	-	-	337.39	337.55	337.01	337.38	337.07
19	-	-	-	-	-	-	-	337.36	337.34	337.01	337.30	337.09
20	-	-	-	-	-	-	-	337.36	337.26	337.01	337.29	337.10
21	-	-	-	-	-	-	-	337.35	337.19	337.03	337.21	337.11
22	-	-	-	-	-	-	-	341.62	337.19	337.03	337.20	337.11
23	-	-	-	-	-	-	-	338.06	337.18	337.03	337.35	337.12
24	-	-	-	-	-	-	-	337.59	337.14	337.03	340.61	337.08
25	-	-	-	-	-	-	337.55	337.45	337.13	337.01	337.80	337.07
26	-	-	-	-	-	-	337.69	337.39	337.12	337.12	337.49	337.08
27	-	-	-	-	-	-	340.38	337.33	337.11	337.05	337.38	337.10
28	-	-	-	-	-	-	337.98	337.29	337.07	336.99	337.36	337.09
29	-	-	-	-		-	337.74	337.27	337.06	336.97	337.32	337.07
30	-	-	-	-		-	337.66	337.21	337.05	336.99	337.28	337.09
31	-		-	-		-		337.18		336.97	337.25	

- no record

APPENDIX A-1B. AVERAGE DAILY STAGE AT BIG CREEK AT PERKS ROAD (502) -- WATER YEAR 1986

STAGE IN FEET ABOVE MEAN SEA LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JON	JUL	AUG	SEP
1	337.12	337.99	337.92	337.10	337.08	337.16	337.12	337.05	337.22	337.00	336.97	336.94
2	337.12	337.69	337.62	337.09	337.24	337.16	337.10	337.04	337.20	337.01	336.96	336.94
3	337.10	337.54	337.42	337.09	341.57	337.15	337.10	337.03	337.17	337.00	336.96	336.96
4	337.09	337.38	337.36	337.09	338.71	337.14	337.10	337.02	337.16	336.99	336.95	336.97
5	337.10	337.29	337.36	337.08	337.94	337.15	337.50	337.02	337.16	336.98	336.95	337.00
6	337.12	337.24	337.32	337.07	338.38	337.15	337.31	337.02	337.17	336.98	336.97	336.98
7	337.12	337.19	337.29	337.06	338.03	337.14	337.24	337.01	338.37	336.97	336.98	336.95
8	337.12	337.18	337.25	337.05	337.63	337.12	337.21	337.00	337.48	336.98	336.99	336.94
9	337.11	337.18	337.22	337.04	337.53	337.12	337.19	337.01	337.46	336.98	337.03	336.95
10	337.10	337.18	337.27	337.05	337.47	337.42	337.15	337.01	337.56	337.70	339.12	336.94
11	337.12	337.20	338.73	337.06	337.41	337.31	337.14	337.01	337.35	337.06	337.26	336.94
'12	337.14	337.34	337.70	337.07	337.37	340.00	337.13	337.01	337.24	337.03	337.11	336.97
13	337.19	337.89	337.46	337.08	337.31	337.66	337.11	337.00	337.16	337.22	337.04	336.96
14	337.54	337.51	337.38	337.06	337.33	337.51	337.11	337.20	337.13	337.07	337.00	336.94
15	337.16	337.53	337.33	337.05	337.33	337.47	337.09	345.03	337.11	338.58	336.98	336.93
16	337.06	338.89	337.29	337.06	337.28	337.43	337.07	340.25	337.11	337.22	338.12	336.91
17	337.03	337.69	337.28	337.09	337.31	337.39	337.08	338.16	337.09	337.08	337.26	336.91
18	337.04	337.54	337.23	337.19	337.72	337.38	337.07	337.73	337.07	337.03	337.12	337.96
19	337.06	339.38	337.19	337.34	337.52	337.58	337.09	337.56	337.05	337.00	337.04	337.34
20	337.08	338.82	337.17	337.27	337.35	337.34	337.40	337.50	337.05	336.99	337.00	337.09
21	337.08	337.66	337.17	337.19	337.30	337.28	337.48	337.44	337.04	336.97	336.98	337.02
22	337.06	337.49	337.18	337.15	337.26	337.27	337.32	337.39	337.02	336.97	336.97	336.97
23	337.64	337.42	337.18	337.11	337.24	337.23	337.24	337.37	337.01	336.97	336.96	336.97
24	337.28	337.37	337.17	337.10	337.22	337.22	337.19	337.89	337.01	336.96	336.96	337.35
25	337.15	337.37	337.12	337.10	337.20	337.19	337.15	337.82	337.01	336.96	336.97	337.09
26	337.10	337.94	337.10	337.07	337.20	337.18	337.14	337.85	337.01	336.98	336.96	337.00
27	337.09	340.04	337.10	337.04	337.19	337.17	337.11	337.48	337.01	336.99	336.96	336.96
28	337.07	338.24	337.10	337.04	337.17	337.15	337.12	337.39	336.99	336.97	336.96	336.97
29	337.59	337.70	337.11	337.04		337.15	337.12	337.36	337.00	336.97	336.95	336.97
30	338.40	337.56	337.10	337.04		337.14	337.09	337.29	336.99	336.97	336.95	336.95
31	338.14		337.10	337.06		337.13		337.23		336.97	336.94	

APPENDIX A-1C. AVERAGE DAILY STAGE AT BIG CREEK AT PERKS ROAD (502) -- WATER YEAR 1987

STAGE IN FEET ABOVE MEAN SEA LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	337.40	337.02	338.14	337.06	337.10	338.02	337.23	337.09	337.01	338.15	336.99	336.98
2	339.03	337.01	337.67	337.05	337.40	337.54	337.31	337.09	337.02	337.32	336.98	336.98
3	337.71	337.00	337.34	337.05	337.25	337.40	337.24	337.15	337.10	337.12	336.97	336.98
4	337.34	337.04	337.26	337.04	337.16	337.33	337.18	337.32	337.01	337.03	336.97	336.98
5	337.35	337.28	337.20	337.04	337.12	337.30	337.15	337.13	337.00	336.99	336.97	336.98
6	337.12	337.18	337.15	337.04	337.10	337.27	337.14	337.09	336.99	337.00	336.97	336.99
7	337.05	337.10	337.13	337.04	337.09	337.24	337.14	337.07	336.98	337.07	336.96	336.98
8	337.01	337.08	337.14	337.03	337.07	337.22	337.13	337.05	336.98	337.04	336.97	336.99
9	336.99	337.05	337.39	337.04	337.06	337.19	337.11	337.05	336.98	337.04	336.98	337.01
10	336.97	337.03	337.27	337.08	337.06	337.15	337.12	337.04	336.97	337.04	336.99	336.99
11	336.97	337.02	337.18	337.08	337.05	337.12	337.29	337.03	336.99	337.01	336.99	336.99
12	337.00	337.02	337.13	337.06	337.07	337.10	337.19	337.03	337.00	336.99	336.99	337.00
13	337.12	337.00	337.10	337.06	337.07	337.10	337.16	337.29	337.16	336.98	336.99	337.00
14	337.21	336.99	337.08	337.05	337.11	337.10	338.46	337.13	337.03	336.98	336.99	336.97
15	337.14	337.00	337.07	337.05	337.15	337.10	337.61	337.06	337.24	336.97	336.98	336.96
16	337.09	337.01	337.07	337.05	337.37	337.09	337.48	337.04	337.09	336.97	336.98	336.98
17	337.07	337.01	337.06	337.04	337.27	337.09	337.48	337.05	337.01	336.97	336.97	337.05
18	337.05	337.00	337.05	337.07	337.22	338.82	337.37	337.11	337.00	336.96	336.97	336.97
19	337.05	337.00	337.04	337.14	337.21	339.04	337.31	337.08	337.07	336.96	336.97	336.95
20	337.05	337.00	337.03	337.12	337.21	337.58	337.26	337.07	336.99	336.96	336.97	336.94
21	337.05	336.99	337.01	337.08	337.20	337.43	337.22	337.05	336.98	336.95	336.96	336.94
22	337.05	336.99	337.02	337.07	337.18	337.36	337.17	337.05	336.98	336.96	336.96	336.94
23	337.08	336.98	337.02	337.05	337.15	337.32	337.14	337.11	336.98	336.96	336.95	336.94
24	337.18	336.98	337.37	337.04	337.13	337.29	337.13	337.10	336.97	336.96	336.94	336.93
25	337.50	337.08	337.27	337.03	337.12	337.24	337.11	337.07	336.97	336.97	336.94	336.94
26	337.25	337.36	337.15	337.03	337.11	337.21	337.09	337.07	336.98	336.94	336.95	336.94
27	337.14	337.22	337.11	337.02	337.46	337.18	337.08	337.03	336.98	336.96	336.98	336.95
28	337.07	337.13	337.09	336.99	340.62	337.16	337.07	337.01	336.98	336.98	337.01	336.95
29	337.03	337.09	337.07	337.01		337.18	337.06	337.00	336.98	337.77	336.99	336.96
30	337.02	337.07	337.06	337.04		337.47	337.07	337.03	338.24	337.13	336.99	336.98
31	337.03		337.05	337.03		337.30		337.03		337.01	336.99	

APPENDIX A-1D. AVERAGE DAILY STAGE AT BIG CREEK AT PERKS ROAD (502) -- WATER YEAR 1988

STAGE IN FEET ABOVE MEAN SEA LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	336.98	336.97	337.00	337.30	338.19	337.13	339.83	337.06	337.00	336.98	336.94	336.92
2	336.97	336.97	336.98	337.24	339.61	337.14	338.24	337.05	337.00	336.97	337.08	337.21
3	336.96	336.98	336.97	337.19	337.92	338.51	337.76	337.06	337.00	336.96	337.26	337.17
4	336.96	336.97	336.98	337.15	337.87	337.63	337.55	337.27	337.00	336.96	337.05	337.04
5	336.96	336.96	336.97	337.13	337.53	337.43	337.48	337.18	336.99	336.96	336.98	336.98
6	336.95	336.97	336.99	337.10	337.40	337.36	337.51	337.10	336.99	336.96	336.96	336.95
7	336.95	336.97	337.05	337.10	337.35	337.33	337.45	337.08	336.99	336.96	336.94	336.94
8	336.95	336.98	337.04	337.11	337.32	337.29	337.39	337.07	336.99	336.96	336.93	336.93
9	336.97	336.98	337.00	337.11	337.29	337.26	337.35	337.10	337.02	336.95	336.94	336.93
10	336.98	336.98	336.99	337.11	337.26	337.25	337.30	337.10	337.00	336.95	336.93	336.93
11	337.01	336.98	336.98	337.11	337.23	337.22	337.27	337.06	336.99	336.96	336.92	336.94
12	337.01	336.97	336.97	337.10	337.19	337.33	337.25	337.04	336.99	336.98	336.91	337.04
13	336.99	336.97	336.98	337.07	337.17	337.33	337.22	337.04	336.99	337.02	337.00	337.19
14	336.98	336.97	337.03	337.07	337.18	337.27	337.20	337.03	336.99	337.00	336.98	337.01
15	336.99	336.98	337.83	337.07	337.21	337.24	337.18	337.03	336.99	336.98	336.94	336.96
16	336.98	337.01	337.26	337.05	337.19	337.19	337.17	337.03	336.99	336.97	336.92	336.99
17	336.97	337.18	337.12	337.59	337.17	337.22	337.16	337.02	336.99	336.95	336.91	336.99
18	336.98	337.05	337.04	337.42	337.22	337.25	337.28	337.02	336.99	336.95	336.90	336.99
19	336.98	336.98	337.04	339.52	337.61	337.23	337.25	337.01	336.98	336.99	336.94	337.32
20	337.01	336.95	337.38	337.90	337.47	337.22	337.19	337.01	336.98	337.06	337.13	337.12
21	337.02	336.93	337.22	337.44	337.32	337.20	337.17	337.02	336.97	337.01	336.99	337.02
22	337.01	336.93	337.14	337.32	337.27	337.15	337.18	337.02	336.97	337.02	336.96	336.97
23	337.00	336.93	337.07	337.26	337.23	337.13	337.16	337.06	336.95	336.95	336.94	336.99
24	337.00	336.95	337.15	337.21	337.19	337.15	337.14	337.16	336.95	336.94	336.93	337.09
25	337.01	337.00	341.91	337.17	337.17	337.25	337.13	337.08	336.95	337.20	336.93	337.05
26	337.04	337.09	340.66	337.12	337.16	337.20	337.12	337.03	336.95	337.09	336.93	337.00
27	337.04	337.10	338.08	337.07	337.16	337.15	337.09	337.01	336.94	336.94	336.93	336.98
28	337.02	337.23	338.06	337.07	337.15	337.14	337.08	337.00	336.93	336.96	336.97	336.96
29	337.01	337.18	337.51	337.08	337.14	338.62	337.07	336.99	336.95	336.93	336.94	336.95
30	337.00	337.04	337.35	337.08		338.35	337.06	336.99	336.98	336.91	336.93	336.96
31	336.98		337.34	337.13		337.96		336.99		336.92	336.92	

APPENDIX A-2A. AVERAGE DAILY STAGE AT CYPRESS CREEK AT DONGOLA ROAD (503) -- WATER YEAR 1986

STAGE IN FEET ABOVE MEAN SEA LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	-	-	-	-	-	350.09	349.74	349.47	349.45	348.82	348.49	348.68
2	-	-	-	-	-	350.09	349.73	349.43	349.36	348.86	348.47	348.69
3	-	-	-	-	-	350.09	349.70	349.40	349.34	348.81	348.44	348.71
4	-	-	-	-	-	350.07	349.66	349.40	349.32	348.79	348.41	348.76
5	-	-	-	-	-	350.05	350.43	349.43	349.30	348.78	348.39	348.77
6	-	-	-	-	-	350.06	350.23	349.40	349.30	348.79	348.39	348.73
7	-	-	-	-	351.71	350.04	349.94	349.36	351.54	348.77	348.69	348.70
8	-	-	-	-	351.15	350.02	349.89	349.36	350.84	348.75	348.72	348.63
9	-	-	-	-	350.78	350.05	349.84	349.35	350.32	348.75	348.66	348.57
10	-	-	-	-	350.56	350.74	349.74	349.34	350.27	348.75	351.43	348.52
11	-	-	-	-	350.39	350.90	349.69	349.33	349.83	348.73	350.17	348.56
12	-	-	-	-	350.22	352.84	349.65	349.35	349.52	348.85	349.50	348.54
13	-	-	-	-	350.04	352.20	349.61	349.35	349.34	349.02	349.16	348.50
14	-	-	-	-	349.98	351.35	349.63	349.35	349.26	349.05	348.98	348.50
15	-	-	-	-	350.16	350.98	349.62	352.27	349.19	351.11	348.91	348.46
16	-	-	-	-	350.02	350.72	349.57	355.50	349.14	349.55	350.51	348.43
17	-	-	-	-	350.95	350.51	349.52	352.81	349.10	349.16	349.74	348.41
18	-	-	-	-	350.71	350.34	349.50	352.77	349.04	349.02	349.18	350.07
19	-	-	-	-	350.57	350.67	349.58	351.53	349.00	348.93	348.96	350.09
20	-	-	-	-	350.40	350.47	350.35	350.75	348.96	348.79	348.83	349.42
21	-	-	-	-	350.24	350.20	350.83	350.33	348.98	348.72	348.68	349.40
22	-	-	-	-	350.09	350.12	350.40	349.97	348.96	348.66	348.66	349.40
23	-	-	-	-	349.98	350.09	350.07	349.75	348.93	348.63	348.59	349.55
24	-	-	-	-	349.96	350.06	349.86	349.88	348.94	348.60	348.57	350.41
25	-	-	-	-	349.95	350.03	349.74	351.15	348.90	348.59	348.53	349.40
26	-	-	-	-	350.00	349.98	349.65	350.94	348.88	348.58	348.49	349.22
27	-	-	-	-	350.05	349.96	349.60	350.70	348.86	348.63	348.50	349.11
28	-	-	-	-	350.10	349.89	349.68	350.25	348.84	348.56	348.58	349.05
29	-	-	-	-		349.87	349.60	349.98	348.84	348.54	348.57	348.99
30	-	-	-	-		349.83	349.52	349.74	348.81	348.53	348.57	348.89
31	-		-	-		349.79		349.57		348.51	348.64	

- no record

APPENDIX A-2B. AVERAGE DAILY STAGE AT CYPRESS CREEK AT DONGOLA ROAD (503) -- WATER YEAR 1987

STAGE IN FEET ABOVE MEAN SEA LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	349.68	348.75	351.23	349.04	348.97	352.38	349.34	348.55	348.44	353.08	348.57	347.85
2	350.83	348.87	351.20	348.92	350.04	351.05	349.55	348.53	348.61	351.13	348.34	347.87
3	350.46	348.86	350.39	348.79	349.63	350.38	349.41	348.50	348.98	349.77	348.30	347.88
4	349.76	348.94	349.86	348.76	349.27	349.98	349.18	348.52	348.49	349.22	348.33	347.85
5	349.72	349.36	349.44	348.74	349.06	349.69	349.06	348.56	348.39	348.91	348.11	347.84
6	349.21	349.33	349.24	348.72	348.96	349.46	348.98	348.55	348.35	348.74	348.02	347.85
7	348.98	349.07	349.21	348.67	348.90	349.22	349.01	348.51	348.32	349.11	347.97	347.84
8	348.81	348.98	349.17	348.65	348.85	349.10	348.89	348.49	348.28	348.69	347.96	347.85
9	348.65	348.85	350.05	348.70	348.76	349.05	348.86	348.41	348.26	348.69	347.96	347.87
10	348.59	348.76	349.76	348.90	348.74	348.97	348.86	348.41	348.26	348.65	347.91	347.87
11	348.56	348.73	349.25	348.90	348.75	348.91	349.51	348.38	348.23	348.42	347.90	347.85
12	348.78	348.72	349.07	348.87	348.74	348.88	349.22	348.38	348.23	348.28	347.89	347.83
13	348.89	348.68	348.95	348.84	348.75	348.86	349.07	348.66	350.03	348.21	347.90	347.83
14	348.86	348.65	348.89	348.82	348.97	348.84	351.50	348.70	348.96	348.18	347.87	347.81
15	348.69	348.67	348.87	348.84	349.08	348.85	350.74	348.56	349.69	348.13	347.85	347.80
16	348.64	348.69	348.86	348.81	349.82	348.83	350.32	348.47	348.71	348.11	347.88	347.82
17	348.58	348.68	348.85	348.78	349.71	348.82	349.93	348.40	348.44	348.09	347.87	348.28
18	348.55	348.66	348.82	348.93	349.47	350.98	349.54	348.38	348.93	348.11	347.87	348.17
19	348.56	348.65	348.79	349.16	349.47	351.77	349.23	348.57	350.12	348.05	347.88	347.94
20	348.53	348.66	348.75	349.14	349.48	350.84	349.07	348.54	348.74	348.04	347.88	347.88
21	348.51	348.65	348.74	349.00	349.39	350.28	348.96	348.45	348.49	348.04	347.88	347.84
22	348.50	348.64	348.70	348.92	349.23	349.87	348.89	348.39	348.40	348.06	347.88	347.82
23	348.49	348.66	348.71	348.84	349.10	349.54	348.85	348.37	348.33	348.32	347.86	347.81
24	348.60	348.67	350.07	348.82	349.04	349.31	348.82	348.39	348.84	348.09	347.85	347.82
25	349.94	348.96	350.00	348.81	348.93	349.16	348.78	348.55	349.68	348.04	347.85	347.82
26	349.56	349.88	349.42	348.80	348.94	349.05	348.75	348.46	348.59	348.02	347.83	347.81
27	349.04	349.61	349.15	348.79	350.43	348.98	348.70	348.43	348.37	348.01	347.86	347.82
28	348.91	349.20	349.01	348.76	352.57	348.94	348.66	348.40	348.31	348.01	347.88	347.81
29	348.82	348.99	348.97	348.69		348.94	348.63	348.39	348.28	350.89	347.86	347.80
30	348.78	348.89	349.24	348.79		350.03	348.58	348.41	350.22	349.73	347.85	347.80
31	348.72		349.12	348.78		349.61		348.49		349.20	347.85	

APPENDIX A-2C. AVERAGE DAILY STAGE AT CYPRESS CREEK AT DONGOLA ROAD (503) -- WATER YEAR 1988

STAGE IN FEET ABOVE MEAN SEA LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JON	JUL	AUG	SEP
1	347.79	347.96	348.53	349.67	351.01	348.81	353.00	348.31	347.95	347.71	348.14	347.81
2	347.78	347.98	348.35	349.37	352.86	348.82	352.04	348.30	347.91	347.71	347.99	347.73
3	347.78	347.97	348.33	349.13	351.93	351.16	350.93	348.31	347.92	347.71	347.82	347.82
4	347.77	347.96	348.37	349.02	351.55	351.34	350.01	348.58	347.89	347.72	347.79	348.02
5	347.77	347.94	348.33	348.92	350.50	350.05	349.58	348.75	347.89	347.73	347.75	347.97
6	347.78	347.92	348.28	348.83	350.43	349.61	349.55	348.53	347.88	347.70	347.69	347.86
7	347.78	347.90	348.64	348.80	350.73	349.39	349.34	348.51	347.84	347.70	347.71	347.75
8	347.77	347.90	348.71	348.81	350.10	349.26	349.10	348.26	347.84	347.70	347.67	347.65
9	347.77	347.89	348.66	348.80	349.27	349.24	348.96	348.40	347.86	347.76	347.60	347.64
10	347.77	347.90	348.53	348.79	349.18	349.15	348.86	348.36	348.05	347.90	347.59	347.64
11	347.76	347.92	348.45	348.79	349.08	348.99	348.81	348.29	347.82	347.98	347.57	347.60
12	347.77	347.93	348.45	348.77	348.84	349.49	348.75	348.23	347.79	348.16	347.57	347.62
13	347.76	347.93	348.35	348.80	348.83	349.64	348.67	348.19	347.80	348.45	347.59	347.59
14	347.75	347.94	348.77	348.82	348.89	349.19	348.62	348.18	347.79	348.19	347.54	347.50
15	347.76	347.95	351.70	348.79	349.08	349.01	348.59	348.16	347.77	348.14	347.50	347.45
16	347.76	348.03	349.75	348.74	348.96	348.89	348.56	348.16	347.75	348.18	347.55	347.43
17	347.77	349.46	349.14	350.24	348.92	348.84	348.53	348.14	347.77	348.35	347.57	347.35
18	347.77	348.65	348.86	350.52	349.18	348.95	348.88	348.10	347.77	348.48	347.51	347.31
19	347.77	348.49	349.10	351.64	350.66	349.06	349.02	348.05	347.78	348.56	347.47	349.70
20	347.78	348.29	350.63	352.36	350.41	348.99	348.77	348.03	347.78	349.31	347.97	349.63
21	347.82	348.10	349.54	351.05	349.58	349.04	348.69	348.01	347.77	348.70	349.74	348.96
22	347.84	348.05	348.97	350.11	349.37	349.12	348.65	348.02	347.75	348.35	348.91	348.72
23	347.84	348.03	348.73	349.57	349.25	348.93	348.58	348.13	347.74	348.20	348.63	348.57
24	347.84	348.02	349.11	349.33	349.09	348.84	348.51	348.30	347.74	348.14	348.36	348.36
25	347.84	348.18	353.32	349.12	348.99	349.21	348.48	348.40	347.76	348.15	348.19	348.21
26	347.88	348.75	354.57	348.95	348.95	349.24	348.44	348.26	347.74	348.14	348.13	348.15
27	348.00	349.19	352.35	348.85	348.90	348.97	348.37	348.12	347.74	348.17	348.06	348.06
28	347.98	349.55	352.13	348.82	348.87	348.86	348.34	348.08	347.74	348.13	348.03	347.93
29	347.95	349.49	350.88	348.85	348.85	350.06	348.32	348.02	347.73	348.21	348.00	347.83
30	347.95	348.79	350.10	348.95		351.98	348.31	348.00	347.73	348.28	347.98	347.74
31	347.95		349.82	349.07		351.39		347.99		348.29	347.96	

APPENDIX A-3A. AVERAGE DAILY STAGE AT MAIN DITCH AT ROUTE 45 (505) -- WATER YEAR 1985

STAGE IN FEET ABOVE MEAN SEA LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	-	-	-	-	-	-	333.60	328.88	321.97	321.61	325.07	321.30
2	-	-	-	-	-	-	332.81	328.61	321.80	321.60	323.83	321.20
3	-	-	-	-	-	-	330.05	325.55	321.69	321.61	321.67	321.15
4	-	-	-	-	-	-	326.96	323.78	322.14	321.61	321.24	321.19
5	-	-	-	-	-	-	325.66	322.43	321.79	321.61	325.45	331.72
6	-	-	-	-	-	-	325.23	321.74	321.82	321.62	326.74	332.87
7	-	-	-	-	-	-	324.36	321.63	321.79	321.61	323.47	331.24
8	-	-	-	-	-	-	324.26	321.65	321.79	321.55	321.92	330.18
9	-	-	-	-	-	-	324.18	321.64	321.83	321.48	321.37	329.42
10	-	-	-	-	-	-	324.04	321.66	321.87	321.47	322.88	328.54
11	-	-	-	-	-	-	323.93	321.66	322.38	321.44	322.90	327.39
12	-	-	-	-	-	-	323.87	321.65	322.07	321.42	321.62	325.78
13	-	-	-	-	-	-	323.90	321.65	321.57	321.39	321.23	324.28
14	-	-	-	-	-	-	325.51	321.65	321.57	321.36	321.12	323.06
15	-	-	-	-	-	-	326.86	321.66	321.58	321.34	322.04	322.50
16	-	-	-	-	-	-	324.59	321.63	321.58	321.33	322.25	322.15
17	-	-	-	-	-	-	324.10	321.61	321.69	321.28	321.51	321.91
18	-	-	-	-	-	-	323.93	321.61	321.71	321.22	321.20	321.71
19	-	-	-	-	-	-	323.85	321.61	321.66	321.15	321.09	321.58
20	-	-	-	-	-	-	323.73	321.61	321.58	321.11	321.08	321.48
21	-	-	-	-	-	-	323.65	321.64	321.57	321.10	321.08	321.38
22	-	-	-	-	-	-	323.65	327.15	321.57	321.09	321.05	321.30
23	-	-	-	-	-	-	324.01	327.95	321.57	321.06	322.79	321.31
24	-	-	-	-	-	-	325.32	325.00	321.58	321.04	329.79	321.58
25	-	-	-	-	-	-	324.07	323.96	321.59	321.02	329.55	321.34
26	-	-	-	-	-	-	324.74	323.63	321.58	321.03	327.89	321.28
27	-	-	-	-	-	-	332.13	323.38	321.58	320.99	325.71	321.23
28	-	-	-	-	-	-	330.34	323.09	321.58	320.96	323.34	321.18
29	-	-	-	-		322.93	326.89	322.70	321.57	320.92	322.23	321.15
30	-	-	-	-		330.34	324.93	322.30	321.59	320.92	321.70	321.19
31	-		-	-		335.05		322.10		320.91	321.40	

- no record

APPENDIX A-3B. AVERAGE DAILY STAGE AT MAIN DITCH AT ROUTE 45 (505) -- WATER YEAR 1986
STAGE IN FEET ABOVE MEAN SEA LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	321.23	329.50	325.73	321.44	321.52	321.60	321.45	321.19	322.36	321.18	320.96	320.88
2	321.17	328.56	324.66	321.41	321.65	321.61	321.45	321.15	322.21	321.20	320.95	320.88
3	321.13	327.02	323.44	321.39	329.70	321.60	321.39	321.13	322.09	321.18	320.93	320.89
4	321.12	325.37	323.17	321.38	331.82	321.64	321.37	321.11	322.05	321.15	320.93	320.87
5	321.10	323.48	323.03	321.37	330.03	321.88	321.42	321.09	322.16	321.11	320.93	320.86
6	321.10	322.71	322.79	321.48	328.33	321.77	321.43	321.09	322.12	321.11	320.94	320.86
7	321.08	322.27	322.65	321.63	327.58	321.58	321.36	321.08	322.65	321.10	320.95	320.87
8	321.07	322.05	322.57	321.53	325.53	321.49	321.33	321.06	322.51	321.08	320.96	320.87
9	321.07	321.96	322.62	321.45	324.00	321.45	321.28	321.07	322.52	321.08	320.97	320.86
10	321.06	322.03	322.89	321.41	323.18	321.70	321.27	321.06	322.63	321.12	322.54	320.87
11	321.05	321.98	325.66	321.37	322.80	322.09	321.27	321.08	322.21	321.11	321.73	320.90
12	321.07	323.37	325.94	321.34	322.57	329.50	321.26	321.06	321.96	321.15	321.11	320.94
13	321.07	323.91	323.97	321.35	322.33	329.07	321.26	321.07	321.74	321.39	320.98	320.95
14	323.22	323.37	323.16	321.31	322.29	326.32	321.26	321.12	321.63	321.23	320.94	320.95
15	323.41	322.99	322.71	321.26	322.22	323.91	321.22	327.94	321.56	324.01	320.94	320.98
16	321.96	326.76	322.68	321.25	322.77	322.86	321.19	334.99	321.52	322.21	321.22	321.03
17	321.47	325.28	322.75	321.28	325.47	322.50	321.18	334.15	321.48	321.49	321.23	321.06
18	321.27	323.46	322.43	322.20	323.92	322.32	321.13	335.12	321.42	321.22	321.00	321.18
19	321.19	322.79	322.07	326.79	323.09	323.09	321.28	333.74	321.37	321.13	320.96	321.61
20	323.71	323.13	321.93	324.17	322.69	322.47	321.76	331.46	321.36	321.10	320.94	321.33
21	324.68	322.67	321.78	323.07	322.42	322.10	322.04	329.62	321.33	321.08	320.91	320.99
22	322.58	322.35	321.69	322.59	322.24	321.96	321.64	327.71	321.31	321.07	320.92	320.93
23	324.03	322.18	321.76	322.17	322.09	321.86	321.43	324.97	321.32	321.01	320.91	321.17
24	325.49	322.01	321.77	322.04	322.01	321.80	321.33	324.08	321.31	320.97	320.91	323.74
25	323.13	321.91	321.65	322.00	321.93	321.75	321.27	327.88	321.25	320.96	320.90	321.85
26	322.12	326.55	321.51	321.83	321.88	321.69	321.23	330.45	321.20	320.97	320.90	321.09
27	321.70	332.15	321.48	321.64	321.79	321.65	321.20	327.83	321.19	321.19	320.89	320.93
28	321.50	330.54	321.49	321.59	321.71	321.61	321.38	324.41	321.19	321.05	320.88	320.92
29	322.82	328.49	321.46	321.52		321.60	321.37	323.98	321.19	320.98	320.87	320.97
30	329.97	326.61	321.43	321.52		321.52	321.25	322.90	321.20	320.98	320.88	321.08
31	329.86		321.44	321.49		321.47		322.60		320.99	320.88	

APPENDIX A-3C. AVERAGE DAILY STAGE AT MAIN DITCH AT ROUTE 45 (505) -- WATER YEAR 1987

STAGE IN FEET ABOVE MEAN SEA LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	321.18	321.34	325.05	320.86	321.20	330.49	321.03	321.42	321.31	323.04	321.93	320.83
2	321.21	321.29	326.05	320.89	322.51	327.32	321.83	321.42	321.22	322.61	321.44	320.83
3	321.22	321.27	323.28	320.86	321.79	324.05	321.55	321.45	321.46	321.63	321.00	320.82
4	321.48	321.27	322.36	320.88	321.28	322.50	321.18	321.89	321.29	321.32	320.89	320.82
5	321.50	321.40	321.95	320.92	321.05	321.92	321.06	321.51	321.11	321.35	320.85	320.83
6	321.21	321.29	321.71	320.94	320.92	321.54	321.01	321.38	321.05	322.86	320.84	320.82
7	321.07	321.03	321.47	320.81	320.83	321.32	320.98	321.32	321.03	326.41	320.82	320.82
8	321.02	321.23	321.41	320.79	320.81	321.17	320.97	321.27	321.01	324.36	320.82	320.81
9	321.06	321.13	323.56	320.84	320.80	321.05	320.92	321.24	321.00	322.46	320.86	320.83
10	321.06	321.04	323.33	320.91	320.81	320.96	320.92	321.21	321.00	321.85	320.85	320.82
11	321.09	321.08	322.31	320.94	320.83	320.87	321.15	321.20	321.00	321.53	320.83	320.79
12	321.11	321.07	322.00	320.93	320.85	320.79	321.20	321.20	321.00	321.35	320.81	320.79
13	321.11	321.06	321.80	320.91	320.86	320.72	321.24	321.19	321.00	321.28	320.82	320.80
14	321.13	321.05	321.61	320.93	320.99	320.72	326.12	321.20	320.98	321.45	320.82	320.79
15	321.12	321.05	321.43	320.94	321.07	320.74	324.53	321.19	321.06	321.24	320.82	320.80
16	321.11	321.05	321.32	320.95	321.89	320.73	323.67	321.16	321.00	321.06	320.83	320.84
17	321.10	321.04	321.24	320.94	322.10	320.78	322.63	321.16	320.97	321.01	320.80	321.17
18	321.15	321.01	321.13	320.99	321.47	322.18	322.08	321.14	321.12	320.97	320.82	321.14
19	321.15	320.97	321.03	321.10	321.50	322.58	321.77	321.13	323.75	320.97	320.82	320.95
20	321.14	320.98	320.78	321.23	322.04	321.60	321.59	321.14	321.96	320.93	320.82	320.85
21	321.14	320.97	320.55	321.13	321.79	321.18	321.48	321.11	322.80	320.90	320.82	320.82
22	321.12	320.92	320.36	321.05	321.45	320.99	321.41	321.08	322.04	320.90	320.84	320.82
23	321.21	320.91	320.25	321.03	321.23	320.93	321.39	321.09	321.43	320.92	320.83	320.86
24	321.23	320.89	321.54	321.03	321.01	320.91	321.37	321.12	321.84	320.92	320.82	320.92
25	321.40	321.72	321.63	321.02	320.90	320.90	321.33	321.16	324.05	320.91	320.81	320.97
26	321.35	323.53	321.13	321.02	320.86	320.79	321.30	321.13	322.06	320.89	320.80	320.86
27	321.21	322.65	321.02	321.02	321.84	320.73	321.28	321.10	321.41	320.87	320.85	320.84
28	321.24	322.12	320.92	321.02	328.24	320.71	321.30	321.08	321.16	320.88	320.83	320.81
29	321.27	321.93	320.82	321.06		320.65	321.27	321.05	321.27	320.88	320.81	320.78
30	321.31	321.85	320.84	321.14		321.29	321.28	321.07	321.42	320.89	320.81	320.81
31	321.33		320.83	321.15		321.19		321.20		320.88	320.81	

APPENDIX A-3D. AVERAGE DAILY STAGE AT MAIN DITCH AT ROUTE 45 (505) -- WATER YEAR 1988

STAGE IN FEET ABOVE MEAN SEA LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	320.84	320.84	320.76	323.89	323.32	321.57	329.52	321.69	321.39	320.79	320.77	320.86
2	320.84	320.84	321.02	323.10	333.18	321.55	326.93	321.56	321.30	320.77	320.85	320.86
3	320.83	320.83	321.12	322.63	331.08	323.93	324.67	321.42	321.26	320.76	320.89	320.87
4	320.83	320.82	321.15	322.37	328.66	323.92	323.36	322.24	321.12	320.75	320.91	320.87
5	320.83	320.82	321.17	322.18	325.25	322.71	322.72	322.24	321.03	320.74	320.94	320.85
6	320.82	320.84	321.24	322.17	323.49	322.32	325.69	321.74	321.02	320.74	320.97	320.85
7	320.82	320.84	321.07	322.17	322.72	322.16	323.57	321.55	321.04	320.73	320.98	320.85
8	320.81	320.83	320.89	322.14	322.18	322.07	322.58	321.47	321.04	320.72	320.98	320.85
9	320.81	320.84	320.73	322.08	321.87	322.10	322.25	321.67	321.01	320.71	320.96	320.86
10	320.82	320.84	320.72	322.01	321.79	322.11	322.08	321.58	320.95	320.71	320.97	320.86
11	320.83	320.83	320.74	321.92	321.78	322.03	321.99	321.45	320.93	320.70	320.99	320.85
12	320.82	320.83	320.74	321.84	321.73	322.56	321.90	321.37	320.94	320.71	320.98	320.85
13	320.81	320.83	320.78	321.81	321.76	322.66	321.84	321.35	320.92	320.82	320.97	320.85
14	320.80	320.83	321.24	321.78	321.96	322.16	321.79	321.36	320.91	321.18	320.96	320.85
15	320.79	320.84	327.31	321.82	323.53	322.02	321.76	321.37	320.89	320.93	320.93	320.85
16	320.79	320.88	323.91	321.81	322.65	321.95	321.75	321.29	320.88	320.76	320.91	320.83
17	320.79	320.84	322.46	322.51	322.32	321.90	321.75	321.22	320.87	320.75	320.88	320.84
18	320.80	320.79	322.13	323.04	322.37	321.96	322.24	321.16	320.86	320.84	320.86	320.86
19	320.81	320.82	322.15	327.75	324.84	322.18	322.91	321.14	320.85	320.85	320.85	322.03
20	320.83	320.81	322.65	331.29	324.64	322.09	322.44	321.10	320.84	320.84	320.85	322.41
21	320.82	320.83	322.34	327.40	322.95	321.98	322.30	321.10	320.83	320.84	320.83	321.87
22	320.85	320.83	322.09	324.42	322.36	321.91	322.18	321.13	320.82	320.83	320.84	321.37
23	320.84	320.83	321.96	323.34	322.01	321.87	322.07	321.34	320.81	320.83	321.13	321.02
24	320.83	320.87	322.07	322.78	321.85	321.84	321.94	322.19	320.78	320.82	320.97	320.88
25	320.84	320.90	330.30	322.39	321.76	321.96	321.81	321.74	320.78	320.80	320.97	320.85
26	320.85	320.95	334.53	322.16	321.72	322.04	321.74	321.44	320.76	320.80	320.95	320.85
27	320.85	320.92	332.11	322.02	321.70	321.95	321.71	321.34	320.75	320.79	320.93	320.85
28	320.84	320.97	330.93	321.93	321.68	321.88	321.66	321.24	320.74	320.78	320.92	320.83
29	320.84	320.96	329.26	321.95	321.62	322.92	321.63	321.22	320.73	320.77	320.90	320.79
30	320.85	320.84	326.70	321.94		326.88	321.63	321.24	320.79	320.75	320.88	320.83
31	320.84		324.84	321.97		325.40		321.35		320.73	320.87	

APPENDIX A-4A. AVERAGE DAILY STAGE AT CACHE RIVER AT ROUTE 146 (507) -- WATER YEAR 1985
STAGE IN FEET ABOVE MEAN SEA LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	-	-	-	-	-	-	-	-	-	356.63	356.49	355.61
2	-	-	-	-	-	-	-	-	-	357.23	356.75	355.40
3	-	-	-	-	-	-	-	-	-	356.51	355.73	355.30
4	-	-	-	-	-	-	-	-	-	355.97	355.41	355.26
5	-	-	-	-	-	-	-	-	-	355.79	359.11	360.23
6	-	-	-	-	-	-	-	-	-	355.72	362.09	362.53
7	-	-	-	-	-	-	-	-	-	355.65	362.83	361.80
8	-	-	-	-	-	-	-	-	-	355.59	361.79	358.67
9	-	-	-	-	-	-	-	-	-	355.49	358.63	356.99
10	-	-	-	-	-	-	-	-	-	355.45	359.39	356.21
11	-	-	-	-	-	-	-	-	-	355.42	362.21	355.72
12	-	-	-	-	-	-	-	-	-	355.41	363.02	355.44
13	-	-	-	-	-	-	-	-	-	355.38	360.92	355.30
14	-	-	-	-	-	-	-	-	-	355.33	357.90	355.23
15	-	-	-	-	-	-	-	-	-	355.29	358.54	355.16
16	-	-	-	-	-	-	-	-	-	355.27	364.18	355.10
17	-	-	-	-	-	-	-	-	-	355.22	364.78	355.07
18	-	-	-	-	-	-	-	-	-	355.21	363.55	354.99
19	-	-	-	-	-	-	-	-	-	355.21	361.07	354.98
20	-	-	-	-	-	-	-	-	-	355.19	358.34	354.96
21	-	-	-	-	-	-	-	-	356.90	355.19	356.99	354.94
22	-	-	-	-	-	-	-	-	356.60	355.19	356.21	354.92
23	-	-	-	-	-	-	-	-	356.28	355.21	357.26	354.90
24	-	-	-	-	-	-	-	-	356.08	355.30	362.59	354.89
25	-	-	-	-	-	-	-	-	355.93	355.26	364.86	354.86
26	-	-	-	-	-	-	-	-	356.05	355.43	364.18	354.86
27	-	-	-	-	-	-	-	-	357.21	355.92	362.69	354.87
28	-	-	-	-	-	-	-	-	361.18	355.53	359.71	354.97
29	-	-	-	-		-	-	-	359.90	355.34	357.52	354.93
30	-	-	-	-		-	-	-	357.58	355.23	356.59	354.87
31	-		-	-		-		-		355.20	356.02	

- no record

APPENDIX A-4B. AVERAGE DAILY STAGE AT CACHE RIVER AT ROUTE 146 (507) -- WATER YEAR 1986
STAGE IN FEET ABOVE MEAN SEA LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	354.88	361.34	361.87	355.63	355.65	355.86	355.61	355.40	356.11	354.69	354.56	354.53
2	354.86	361.59	361.20	355.63	356.22	355.78	355.58	355.27	359.97	354.73	354.56	354.51
3	354.87	360.14	359.50	355.61	362.94	355.78	355.55	355.18	361.20	354.78	354.55	354.53
4	354.91	358.14	357.96	355.60	363.84	355.75	355.51	355.10	359.28	354.74	354.52	354.51
5	354.90	357.02	357.47	355.60	363.48	355.68	357.44	355.04	357.25	354.76	354.49	354.48
6	354.87	356.47	357.10	355.62	363.12	355.70	359.53	355.01	356.46	354.74	354.48	354.65
7	354.85	356.22	356.85	355.64	362.86	355.69	358.02	354.98	358.79	354.72	354.50	354.58
8	354.87	356.08	356.62	355.64	362.32	355.60	356.99	354.94	360.08	354.67	354.54	354.55
9	354.88	355.95	356.51	355.61	360.53	355.53	356.64	354.95	358.41	354.63	355.18	354.49
10	354.93	355.83	356.48	355.62	358.63	356.72	356.17	354.92	358.06	354.63	358.40	354.45
11	355.01	355.83	359.34	355.65	357.45	357.35	355.92	354.92	357.13	354.68	360.52	354.44
12	355.02	356.44	361.87	355.64	357.14	360.91	355.78	354.94	356.25	354.91	357.29	354.44
13	355.11	359.49	362.27	355.65	357.07	363.04	355.69	354.97	355.76	357.52	355.56	354.68
14	358.32	361.54	360.18	355.65	356.95	362.93	355.60	354.99	355.51	356.13	355.06	354.72
15	357.76	361.45	358.22	355.66	356.79	361.16	355.55	359.07	355.35	359.03	354.87	354.59
16	356.05	361.70	358.00	355.69	356.77	358.70	355.49	364.46	355.25	359.93	356.70	354.50
17	355.48	362.25	357.72	355.70	359.21	357.33	355.41	365.62	355.14	356.68	357.88	354.46
18	355.28	361.75	357.37	355.69	359.63	356.72	355.38	364.56	355.02	355.43	355.62	355.18
19	355.24	360.49	357.09	355.70	358.23	358.82	355.41	363.81	354.97	355.01	355.05	359.40
20	355.23	362.37	356.75	355.62	357.35	359.12	357.18	362.80	354.91	354.83	354.85	356.24
21	356.61	363.87	356.30	355.63	356.90	357.25	360.21	360.19	354.90	354.76	354.75	355.24
22	356.13	363.39	355.98	355.66	356.58	356.70	359.48	357.83	354.85	354.75	354.67	354.91
23	357.02	361.84	355.78	355.67	356.42	356.45	357.44	356.76	354.84	354.65	354.65	354.92
24	357.61	359.33	355.71	355.65	356.31	356.30	356.63	356.84	354.78	354.59	354.58	359.67
25	356.48	357.97	355.72	355.63	356.20	356.17	356.24	360.66	354.74	354.61	354.57	358.43
26	355.82	358.69	355.74	355.67	356.10	356.06	355.97	362.12	354.73	354.67	354.59	355.93
27	355.57	362.00	355.76	355.69	356.12	356.01	355.77	361.91	354.72	354.65	354.57	355.28
28	355.42	363.91	355.77	355.65	356.04	355.93	355.73	359.72	354.72	354.68	354.53	355.08
29	355.54	363.98	355.73	355.61		355.82	355.69	359.47	354.70	354.76	354.51	354.97
30	359.71	363.14	355.71	355.63		355.74	355.57	358.77	354.71	354.64	354.52	354.86
31	360.77		355.67	355.64		355.67		356.98		354.59	354.54	

APPENDIX A-4C. AVERAGE DAILY STAGE AT CACHE RIVER AT ROUTE 146 (507) -- WATER YEAR 1987

STAGE IN FEET ABOVE MEAN SEA LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	355.02	355.41	358.85	355.97	356.00	363.97	357.46	355.59	355.04	360.33	357.39	354.78
2	356.98	355.42	362.19	355.93	357.66	364.31	357.36	355.57	355.10	361.03	356.16	354.77
3	361.33	355.41	362.75	355.89	358.42	363.59	357.98	355.49	355.12	358.12	355.34	354.77
4	360.51	355.42	361.52	355.85	357.15	362.01	357.14	355.51	355.38	356.19	355.19	354.76
5	357.81	356.16	358.94	355.82	356.57	359.51	356.72	355.72	355.16	355.62	355.01	354.74
6	356.69	357.34	357.38	355.77	356.30	358.03	356.51	355.57	355.03	355.42	354.96	354.72
7	355.92	356.74	356.73	355.79	356.18	357.27	356.38	355.43	354.97	355.47	354.93	354.72
8	355.56	356.27	356.56	355.77	356.10	356.90	356.31	355.35	354.94	355.73	354.84	354.73
9	355.41	356.03	357.75	355.75	356.02	356.71	356.19	355.31	354.91	355.64	354.80	354.75
10	355.33	355.89	359.64	355.85	355.89	356.53	356.07	355.26	354.92	355.48	354.78	354.74
11	355.28	355.78	357.68	356.11	355.84	356.37	356.61	355.21	354.92	355.20	354.74	354.72
12	355.29	355.71	356.88	356.22	355.86	356.23	357.27	355.16	355.01	355.07	354.73	354.72
13	355.39	355.69	356.51	356.01	355.86	356.15	356.65	356.17	357.44	355.00	354.73	354.71
14	355.91	355.62	356.28	356.00	355.93	356.16	359.89	356.08	357.69	354.95	354.74	354.69
15	355.92	355.57	356.15	356.02	356.74	356.06	362.01	355.48	355.74	354.89	354.73	354.67
16	355.57	355.60	356.11	356.01	357.87	356.02	362.38	355.36	356.52	354.83	354.73	354.69
17	355.39	355.66	356.12	355.94	359.62	355.98	362.22	355.25	356.03	354.82	354.71	354.76
18	355.31	355.63	356.09	355.96	357.93	358.88	360.61	355.22	355.40	354.86	354.71	354.91
19	355.25	355.56	355.99	356.53	357.55	362.03	358.44	355.42	357.02	354.85	354.71	355.21
20	355.18	355.55	355.87	356.93	358.09	363.09	357.29	355.17	356.16	354.82	354.70	354.96
21	355.10	355.51	355.84	356.55	358.19	362.62	356.81	355.15	355.37	354.79	354.70	354.80
22	355.07	355.49	355.78	356.23	357.58	360.34	356.52	355.15	355.12	354.79	354.69	354.73
23	355.13	355.49	355.75	356.17	357.11	358.53	356.32	355.13	354.99	354.77	354.68	354.70
24	355.20	355.52	356.71	356.17	356.73	357.69	356.23	355.06	355.01	354.76	354.68	354.69
25	356.41	355.58	359.24	356.17	356.49	357.18	356.15	355.49	355.55	354.77	354.70	354.65
26	358.41	356.75	357.57	356.16	356.36	356.83	356.01	355.97	355.22	354.77	354.69	354.64
27	356.74	358.66	356.69	356.17	358.45	356.56	355.95	355.36	354.96	354.79	354.69	354.64
28	356.03	357.09	356.39	356.11	362.19	356.40	355.87	355.16	354.88	354.80	354.69	354.64
29	355.69	356.49	356.23	355.79		356.30	355.75	355.09	355.03	356.95	354.71	354.67
30	355.53	356.20	356.16	355.85		358.30	355.65	355.04	356.83	358.18	354.81	354.68
31	355.44		356.04	356.00		358.78		355.02		356.19	354.81	

APPENDIX A-4D. AVERAGE DAILY STAGE AT CACHE RIVER AT ROUTE 146 (507) -- WATER YEAR 1988
STAGE IN FEET ABOVE MEAN SEA LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JON	JUL	AUG	SEP
1	354.70	354.87	355.53	359.46	358.58	356.06	364.31	355.32	355.08	355.67	354.88	355.04
2	354.79	354.83	355.28	358.11	362.62	356.01	364.59	355.30	355.09	355.61	354.87	355.03
3	354.91	354.79	355.22	357.12	364.01	359.02	364.19	355.24	355.15	355.53	355.05	355.15
4	354.84	354.78	355.30	356.73	363.82	362.16	363.46	355.37	355.22	355.48	355.75	355.47
5	354.77	354.74	355.28	356.55	363.15	362.59	361.66	355.81	355.22	355.47	355.20	355.51
6	354.71	354.73	355.16	356.47	360.94	360.74	359.68	355.72	355.17	355.48	355.08	355.35
7	354.69	354.73	355.31	356.38	358.93	358.75	358.50	355.43	355.19	355.54	355.06	355.14
8	354.69	354.73	356.51	356.30	357.58	357.67	357.54	355.29	355.19	355.53	355.10	354.96
9	354.66	354.81	355.75	356.21	357.21	357.27	357.02	355.36	355.24	355.49	355.02	354.82
10	354.65	355.11	355.42	356.12	357.01	357.17	356.74	355.50	355.33	355.45	354.95	354.72
11	354.64	355.24	355.25	356.08	356.87	356.86	356.55	355.56	355.36	355.44	354.88	354.73
12	354.64	355.02	355.15	356.07	356.82	357.01	356.39	355.39	355.37	355.45	354.85	354.90
13	354.65	354.90	355.07	356.06	356.79	358.44	356.29	355.28	355.41	355.50	354.89	355.98
14	354.70	354.86	355.16	356.05	356.42	357.50	356.13	355.24	355.43	355.50	355.70	355.80
15	354.72	354.83	358.09	356.02	356.46	356.89	355.98	355.19	355.48	355.62	355.36	355.17
16	354.73	354.88	359.78	355.88	356.50	356.64	355.91	355.15	355.53	355.69	355.14	354.95
17	354.75	355.47	356.86	356.65	356.36	356.44	355.86	355.14	355.57	355.69	355.04	354.85
18	354.73	356.45	355.93	360.80	356.50	356.39	355.93	355.08	355.57	355.69	354.96	354.89
19	354.71	355.54	355.72	361.13	358.17	356.57	356.26	355.16	355.59	355.90	355.01	356.18
20	354.72	355.14	357.36	363.05	360.01	356.60	356.28	355.23	355.62	357.08	355.31	356.56
21	354.72	354.98	357.97	364.02	358.62	356.44	356.05	355.22	355.63	355.81	355.38	355.48
22	354.72	354.93	356.43	363.32	357.51	356.30	355.86	355.22	355.62	355.53	355.38	355.15
23	354.75	354.88	355.89	361.39	357.11	356.16	355.78	355.25	355.64	355.37	355.24	354.92
24	354.76	354.79	355.76	359.19	356.83	356.20	355.68	355.59	355.68	355.14	355.13	354.88
25	354.81	354.83	360.78	357.85	356.56	356.22	355.56	356.27	355.65	354.98	355.01	355.01
26	354.85	355.39	364.31	356.94	356.38	356.58	355.48	355.66	355.65	354.90	354.95	355.15
27	354.87	356.20	365.41	356.46	356.30	356.43	355.48	355.32	355.66	355.31	354.95	354.91
28	355.00	356.26	364.50	356.57	356.25	356.12	355.48	355.19	355.66	355.36	354.95	354.75
29	355.17	357.35	363.99	356.29	356.18	356.85	355.35	355.09	355.68	355.11	354.88	354.72
30	355.01	356.28	363.11	356.35		361.72	355.30	355.06	355.70	354.96	354.84	354.72
31	354.95		361.03	356.50		363.84		355.10		354.88	355.05	

APPENDIX A-5A. AVERAGE DAILY STAGE AT CACHE RIVER AT ROUTE 37 (508) -- WATER YEAR 1985

STAGE IN FEET ABOVE MEAN SEA LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JON	JUL	AUG	SEP
1	-	-	-	-	-	-	-	-	330.52	328.42	327.67	329.59
2	-	-	-	-	-	-	-	-	330.28	328.45	327.56	329.41
3	-	-	-	-	-	-	-	331.65	330.09	328.40	327.52	329.25
4	-	-	-	-	-	-	-	331.52	329.98	328.34	327.47	329.10
5	-	-	-	-	-	-	-	331.31	329.80	328.22	328.44	329.76
6	-	-	-	-	-	-	-	331.06	329.64	328.15	329.38	330.86
7	-	-	-	-	-	-	-	330.85	329.51	328.09	329.97	331.07
8	-	-	-	-	-	-	-	330.63	329.36	327.97	329.95	330.97
9	-	-	-	-	-	-	-	330.40	329.21	327.89	329.79	330.80
10	-	-	-	-	-	-	-	330.19	329.11	327.81	329.91	330.59
11	-	-	-	-	-	-	-	330.01	329.07	327.71	330.72	330.37
12	-	-	-	-	-	-	-	329.87	329.34	327.64	330.81	330.17
13	-	-	-	-	-	-	-	329.80	329.43	327.58	330.66	329.98
14	-	-	-	-	-	-	-	329.86	329.31	327.51	330.46	329.76
15	-	-	-	-	-	-	-	329.83	329.17	327.45	330.30	329.61
16	-	-	-	-	-	-	-	329.71	329.03	327.40	330.55	329.42
17	-	-	-	-	-	-	-	329.58	328.94	327.32	330.68	329.27
18	-	-	-	-	-	-	-	329.41	328.94	327.29	330.51	329.14
19	-	-	-	-	-	-	-	329.25	328.87	327.24	330.32	329.00
20	-	-	-	-	-	-	-	329.11	328.76	327.20	330.18	328.86
21	-	-	-	-	-	-	-	328.95	328.70	327.18	330.00	328.72
22	-	-	-	-	-	-	-	329.68	328.68	327.16	329.85	328.57
23	-	-	-	-	-	-	-	331.73	328.61	327.16	329.70	328.43
24	-	-	-	-	-	-	-	332.39	328.54	327.11	329.88	328.29
25	-	-	-	-	-	-	-	332.29	328.47	327.12	330.48	328.24
26	-	-	-	-	-	-	-	332.01	328.39	327.14	330.66	328.20
27	-	-	-	-	-	-	-	331.77	328.42	327.14	330.50	328.17
28	-	-	-	-	-	-	-	331.50	328.60	327.10	330.32	328.12
29	-	-	-	-		-	-	331.25	328.54	327.13	330.12	328.06
30	-	-	-	-		-	-	331.00	328.48	327.11	329.93	328.02
31	-		-	-		-		330.76		327.09	329.77	

- no record

APPENDIX A-5B. AVERAGE DAILY STAGE AT CACHE RIVER AT ROUTE 37 (508) -- WATER YEAR 1986

STAGE IN FEET ABOVE MEAN SEA LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	327.97	329.51	330.95	327.70	327.52	327.90	327.64	327.53	330.56	327.09	327.20	327.31
2	327.92	329.59	330.76	327.68	327.54	327.86	327.59	327.49	330.16	327.12	327.17	327.31
3	327.89	329.44	330.52	327.65	328.60	327.83	327.55	327.46	329.77	327.09	327.14	327.29
4	327.83	329.20	330.28	327.65	330.23	327.79	327.51	327.40	329.41	327.05	327.12	327.27
5	327.78	328.96	330.03	327.62	331.23	327.76	327.54	327.35	329.08	327.01	327.08	327.23
6	327.74	328.72	329.76	327.60	331.19	327.73	327.59	327.33	328.79	327.00	327.06	327.22
7	327.69	328.49	329.49	327.58	331.17	327.70	327.61	327.29	329.08	326.96	327.08	327.21
8	327.64	328.24	329.24	327.55	330.94	327.68	327.62	327.25	329.67	326.93	327.10	327.20
9	327.60	328.04	328.98	327.52	330.64	327.66	327.59	327.23	329.67	326.89	327.18	327.18
10	327.55	327.97	328.71	327.51	330.30	327.68	327.54	327.22	329.53	326.92	328.45	327.15
11	327.52	328.00	328.77	327.49	329.96	327.83	327.52	327.22	329.28	326.94	328.70	327.15
12	327.49	328.33	329.09	327.49	329.60	328.68	327.53	327.22	329.00	326.95	328.64	327.15
13	327.46	328.52	329.19	327.49	329.25	329.27	327.54	327.18	328.70	327.04	328.49	327.13
14	327.56	328.59	329.08	327.48	328.96	329.55	327.52	327.20	328.44	327.01	328.26	327.13
15	327.60	328.57	328.87	327.46	328.68	329.40	327.48	328.75	328.26	327.74	328.12	327.11
16	327.61	328.82	328.68	327.47	328.51	329.17	327.45	332.58	328.13	328.02	328.14	327.08
17	327.57	329.01	328.49	327.47	328.59	328.92	327.41	335.32	328.01	327.92	328.20	327.06
18	327.53	329.01	328.29	327.52	328.63	328.70	327.40	335.88	327.91	327.81	328.12	327.23
19	327.50	328.93	328.14	327.70	328.56	328.51	327.49	335.86	327.82	327.71	328.02	327.63
20	327.57	329.12	328.01	327.77	328.43	328.32	327.57	335.50	327.71	327.62	327.91	327.60
21	327.60	329.29	327.87	327.80	328.28	328.15	327.71	335.07	327.63	327.54	327.83	327.59
22	327.59	329.20	327.79	327.81	328.14	328.09	327.78	334.60	327.56	327.46	327.74	327.58
23	327.97	329.01	327.84	327.78	328.09	328.04	327.80	334.14	327.48	327.40	327.66	327.70
24	328.24	328.80	327.85	327.74	328.06	327.99	327.77	333.78	327.40	327.34	327.58	328.06
25	328.19	328.58	327.83	327.74	328.03	327.94	327.74	333.48	327.34	327.29	327.52	327.98
26	328.17	328.71	327.82	327.69	328.00	327.90	327.69	333.22	327.28	327.28	327.49	327.91
27	328.09	329.62	327.76	327.64	327.97	327.86	327.63	332.84	327.24	327.30	327.46	327.84
28	328.00	331.03	327.74	327.59	327.93	327.82	327.65	332.35	327.19	327.27	327.43	327.78
29	328.18	331.35	327.72	327.55		327.77	327.61	331.90	327.14	327.26	327.40	327.73
30	328.85	331.15	327.71	327.53		327.73	327.58	331.43	327.11	327.24	327.38	327.71
31	329.20		327.71	327.51		327.68		330.99		327.22	327.34	

APPENDIX A-5C. AVERAGE DAILY STAGE AT CACHE RIVER AT ROUTE 37 (508) -- WATER YEAR 1987

STAGE IN FEET ABOVE MEAN SEA LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	327.77	328.00	328.38	328.23	327.98	329.88	327.99	327.46	326.79	328.80	327.64	326.47
2	327.92	327.99	328.77	328.21	328.08	330.53	328.02	327.41	326.82	329.26	327.57	326.44
3	328.19	327.98	328.84	328.19	328.12	330.31	328.02	327.44	326.94	329.41	327.49	326.41
4	328.19	328.00	328.79	328.16	328.11	330.01	328.00	327.55	326.91	329.20	327.43	326.38
5	328.22	328.09	328.64	328.15	328.05	329.67	327.97	327.52	326.84	328.96	327.37	326.37
6	328.19	328.13	328.38	328.14	327.98	329.33	327.95	327.49	326.79	328.73	327.32	326.34
7	328.13	328.17	328.25	328.25	327.91	329.03	327.92	327.44	326.74	328.50	327.27	326.31
8	328.06	328.22	328.13	328.13	327.88	328.76	327.89	327.40	326.70	328.34	327.22	326.30
9	327.99	328.21	328.17	328.17	327.80	328.52	327.84	327.36	326.65	328.21	327.19	326.28
10	327.94	328.13	328.20	328.14	327.73	328.31	327.84	327.30	326.62	328.10	327.16	326.33
11	327.91	328.06	328.14	328.14	327.68	328.11	327.84	327.23	326.59	327.96	327.11	326.40
12	327.90	327.97	328.04	328.14	327.66	328.00	327.86	327.19	326.58	327.82	327.08	326.48
13	327.91	327.88	327.96	328.13	327.64	327.93	327.86	327.16	326.91	327.70	327.05	326.54
14	327.91	327.88	327.96	328.13	327.60	327.88	328.17	327.15	327.20	327.58	327.02	326.56
15	327.90	327.90	327.98	328.13	327.58	327.81	328.38	327.15	327.44	327.46	326.98	326.43
16	327.88	327.92	327.99	328.13	327.65	327.78	328.42	327.14	327.51	327.36	326.94	326.39
17	327.87	327.93	328.01	328.12	327.74	327.76	328.39	327.11	327.43	327.26	326.91	326.81
18	327.86	327.94	328.01	328.11	327.80	328.26	328.36	327.08	327.35	327.17	326.87	326.68
19	327.85	327.95	328.02	328.12	327.83	328.75	328.28	327.05	327.49	327.10	326.85	326.63
20	327.84	327.96	328.02	328.13	327.84	328.92	328.21	327.04	327.47	327.04	326.82	326.61
21	327.83	327.96	328.02	328.13	327.84	328.88	328.13	327.05	327.40	326.98	326.79	326.59
22	327.82	327.96	328.02	328.11	327.83	328.75	328.05	327.04	327.30	326.95	326.76	326.59
23	327.83	327.97	328.04	328.11	327.79	328.57	327.97	327.03	327.22	326.92	326.72	326.58
24	327.87	327.96	328.17	328.10	327.76	328.39	327.88	327.03	327.19	326.90	326.68	326.54
25	328.03	328.01	328.26	328.10	327.72	328.18	327.81	327.06	327.36	326.88	326.64	326.53
26	328.10	328.17	328.29	328.10	327.68	327.97	327.75	327.02	327.37	326.86	326.61	326.51
27	328.10	328.21	328.29	328.09	327.80	327.82	327.69	326.97	327.31	326.88	326.59	326.51
28	328.09	328.15	328.27	328.06	328.71	327.78	327.62	326.90	327.25	326.96	326.58	326.48
29	328.07	328.07	328.25	328.06		327.77	327.57	326.87	327.21	327.33	326.57	326.50
30	328.03	328.05	328.24	328.05		327.87	327.52	326.88	327.49	327.65	326.52	326.50
31	328.02		328.23	327.98		327.96		326.84		327.67	326.49	

APPENDIX A-5D. AVERAGE DAILY STAGE AT CACHE RIVER AT ROUTE 37 (508) -- WATER YEAR 1988

STAGE IN FEET ABOVE MEAN SEA LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	326.48	326.38	327.08	331.39	328.16	327.62	329.51	327.07	326.91	326.25	326.51	326.68
2	326.46	326.37	327.07	331.00	329.02	327.56	330.36	327.03	326.89	326.23	326.49	326.78
3	326.43	326.37	327.08	330.60	329.97	327.99	330.56	327.00	326.87	326.21	326.48	327.47
4	326.42	326.37	327.07	330.23	330.37	328.53	330.29	327.51	326.85	326.18	326.44	327.28
5	326.40	326.36	327.07	329.86	330.25	328.56	329.96	327.46	326.83	326.15	326.33	327.21
6	326.40	326.35	327.07	329.48	329.95	328.55	329.66	327.43	326.80	326.13	326.49	327.14
7	326.38	326.33	327.09	329.15	329.61	328.49	329.35	327.41	326.79	326.10	326.55	327.07
8	326.36	326.32	327.11	328.85	329.31	328.43	329.06	327.38	326.76	326.07	326.55	326.99
9	326.35	326.33	327.13	328.62	329.03	328.34	328.80	327.35	326.75	326.04	326.54	326.91
10	326.35	326.32	327.14	328.43	328.79	328.27	328.55	327.32	326.72	326.02	326.50	326.83
11	326.37	326.30	327.14	328.26	328.56	328.20	328.34	327.25	326.70	325.99	326.48	326.76
12	326.38	326.30	327.14	328.16	328.39	328.17	328.12	327.18	326.69	325.99	326.57	326.96
13	326.37	326.28	327.16	328.06	328.23	328.17	327.99	327.13	326.67	326.08	326.60	326.90
14	326.36	326.27	327.22	327.94	328.14	328.13	327.89	327.10	326.66	326.08	326.52	326.79
15	326.36	326.27	328.06	327.84	328.12	328.06	327.80	327.05	326.65	326.06	326.48	326.70
16	326.35	326.30	327.78	327.81	328.05	327.99	327.71	327.00	326.62	326.05	326.45	326.60
17	326.34	326.42	327.68	327.96	327.97	327.91	327.63	326.94	326.61	326.03	326.42	326.55
18	326.33	326.55	327.62	328.15	327.92	327.89	327.64	326.89	326.59	326.05	326.41	326.54
19	326.33	326.56	327.63	328.67	328.13	327.86	327.66	326.86	326.58	326.22	326.47	326.58
20	326.34	326.56	327.70	329.78	328.26	327.83	327.63	326.87	326.55	326.78	326.73	326.58
21	326.34	326.57	327.70	330.35	328.23	327.79	327.59	326.85	326.53	326.73	326.99	326.55
22	326.34	326.57	327.66	330.19	328.19	327.74	327.54	326.84	326.50	326.68	326.88	326.53
23	326.32	326.56	327.59	329.89	328.13	327.71	327.50	326.90	326.47	326.65	326.85	326.68
24	326.32	326.57	327.60	329.57	328.05	327.67	327.43	326.98	326.43	326.64	326.81	327.01
25	326.32	326.64	328.67	329.26	327.97	327.68	327.38	326.98	326.40	326.63	326.78	326.90
26	326.36	326.77	330.90	328.97	327.88	327.70	327.33	326.98	326.35	326.63	326.75	326.83
27	326.39	326.86	332.39	328.70	327.81	327.69	327.27	326.97	326.31	326.62	326.74	326.76
28	326.39	327.03	332.62	328.48	327.73	327.65	327.22	326.96	326.27	326.59	326.76	326.73
29	326.39	327.14	332.43	328.29	327.67	327.79	327.17	326.96	326.25	326.57	326.76	326.74
30	326.39	327.10	332.10	328.19		328.70	327.12	326.95	326.26	326.56	326.73	326.73
31	326.38		331.75	328.10		328.95		326.92		326.53	326.71	

APPENDIX A-6A. AVERAGE DAILY STAGE AT INDIAN CAMP CREEK AT ULLIN (510) -- WATER YEAR 1986

STAGE IN FEET ABOVE MEAN SEA LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	-	-	-	-	-	327.59	327.18	326.96	**	**	326.98	327.02
2	-	-	-	-	-	327.53	327.17	326.95	**	**	326.96	327.01
3	-	-	-	-	-	327.50	327.15	326.94	**	**	326.92	327.00
4	-	-	-	-	-	327.43	327.14	326.93	**	**	326.93	327.00
5	-	-	-	-	-	327.38	329.51	326.92	**	**	326.95	327.00
6	-	-	-	-	331.58	327.37	328.27	326.91	**	**	326.96	327.00
7	-	-	-	-	330.01	327.32	327.70	326.89	**	**	327.03	326.98
8	-	-	-	-	329.22	327.22	327.64	326.88	**	312.40	327.12	326.97
9	-	-	-	-	328.81	327.15	327.45	326.86	**	327.06	327.30	326.96
10	-	-	-	-	328.50	327.08	327.36	326.86	**	327.27	332.07	326.96
11	-	-	-	-	328.28	327.09	327.29	326.85	**	327.16	329.59	327.00
12	-	-	-	-	328.04	331.55	327.21	326.85	**	327.17	327.57	327.00
13	-	-	-	-	328.03	330.48	327.09	326.85	**	327.24	327.25	327.00
14	-	-	-	-	328.18	330.02	327.10	328.13	**	327.22	327.15	326.99
15	-	-	-	-	328.43	329.58	327.12	332.87	**	328.93	327.14	326.98
16	-	-	-	-	329.16	328.67	327.06	309.22	**	327.56	330.04	326.98
17	-	-	-	-	329.91	328.16	327.06	**	**	327.30	329.86	326.97
18	-	-	-	-	329.47	328.75	327.06	**	**	327.25	327.60	328.39
19	-	-	-	-	329.10	329.45	327.17	**	**	327.22	327.30	327.50
20	-	-	-	-	328.67	328.20	329.06	**	**	327.17	327.18	326.95
21	-	-	-	-	328.08	327.86	329.15	**	**	327.12	327.12	326.94
22	-	-	-	-	327.85	327.77	327.87	**	**	327.07	327.10	326.93
23	-	-	-	-	327.67	327.61	327.58	**	**	327.03	327.60	327.39
24	-	-	-	-	327.64	327.44	327.40	**	**	327.02	327.56	327.32
25	-	-	-	-	327.48	327.38	327.28	**	**	327.05	327.17	327.03
26	-	-	-	-	327.62	327.34	327.17	**	**	327.04	327.16	327.06
27	-	-	-	-	327.66	327.32	327.06	**	**	327.03	327.13	327.05
28	-	-	-	-	327.64	327.22	327.08	**	**	327.05	327.08	327.03
29	-	-	-	-		327.20	327.02	**	**	327.03	327.06	327.02
30	-	-	-	-		327.19	326.98	**	**	327.03	327.04	327.01
31	-		-	-		327.18		**		327.01	327.03	

- no record

** = missing data

APPENDIX A-6B. AVERAGE DAILY STAGE AT INDIAN CAMP CREEK AT ULLIN (510) -- WATER YEAR 1987
STAGE IN FEET ABOVE MEAN SEA LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	328.50	327.09	329.48	327.15	327.33	331.15	327.58	327.09	326.85	329.98	327.12	326.63
2	328.62	327.08	329.76	327.15	328.64	330.32	327.92	327.08	326.84	328.06	327.05	326.67
3	327.43	327.07	328.15	327.15	327.48	329.64	327.65	327.79	327.03	327.21	326.99	326.70
4	327.45	327.14	327.64	327.14	327.20	328.74	327.53	327.88	326.93	327.17	326.93	326.70
5	327.92	327.82	327.40	327.13	327.19	328.32	327.47	327.18	326.90	327.19	326.87	326.69
e	327.20	327.39	327.31	327.12	327.18	328.08	327.46	327.14	326.88	327.27	326.82	326.68
7	327.14	327.26	327.27	327.12	327.17	327.88	327.44	327.10	326.88	327.42	326.77	326.67
8	327.09	327.26	327.50	327.12	327.18	327.79	327.39	327.09	326.87	326.97	326.75	326.67
9	327.04	327.18	328.92	327.12	327.17	327.74	327.32	327.07	326.86	326.87	326.75	326.72
10	327.03	327.13	327.78	327.25	327.17	327.54	327.31	327.05	326.85	326.86	326.74	326.68
11	327.02	327.12	327.51	327.17	327.19	327.46	327.83	327.06	326.85	326.86	326.74	326.67
12	327.01	327.10	327.37	327.18	327.18	327.36	327.45	327.28	326.83	326.84	326.73	326.65
13	327.03	327.07	327.24	327.17	327.17	327.33	327.41	327.35	326.82	326.83	326.75	326.64
14	327.05	327.06	327.18	327.17	327.34	327.28	330.73	327.08	326.81	326.82	326.75	326.62
15	327.04	327.07	327.18	327.17	327.31	327.25	330.05	327.05	327.98	326.82	326.75	326.61
16	327.03	327.07	327.22	327.16	328.06	327.28	329.81	327.02	326.99	326.78	326.73	326.67
17	327.03	327.08	327.21	327.16	327.58	327.24	329.69	327.00	326.90	326.76	326.71	326.89
18	327.03	327.09	327.17	327.21	327.54	330.92	328.79	326.99	326.85	326.75	326.76	326.91
19	327.02	327.11	327.16	327.39	327.65	330.97	328.32	326.98	326.83	326.74	326.74	326.86
20	327.01	327.12	327.16	327.20	327.48	329.60	328.03	326.97	326.82	326.72	326.74	326.79
21	327.01	327.11	327.14	327.18	327.39	328.42	327.86	326.97	326.80	326.71	326.72	326.73
22	327.02	327.10	327.12	327.14	327.30	328.03	327.60	326.96	326.80	326.71	326.71	326.70
23	327.03	327.09	327.11	327.14	327.26	327.86	327.43	327.14	326.80	326.72	326.68	326.69
24	327.08	327.08	328.84	327.14	327.20	327.77	327.38	327.07	326.79	326.74	326.65	326.69
25	329.28	328.13	327.79	327.13	327.16	327.68	327.34	327.04	326.79	326.74	326.65	326.68
26	327.59	328.44	327.43	327.11	327.18	327.61	327.29	327.01	326.79	326.73	326.68	326.69
27	327.20	327.78	327.24	327.09	329.13	327.57	327.24	326.96	326.78	328.14	326.66	326.66
28	327.12	327.43	327.20	327.07	331.73	327.47	327.19	326.90	326.78	327.34	326.68	326.62
29	327.11	327.19	327.19	327.04		327.45	327.14	326.89	326.77	328.29	326.70	326.61
30	327.10	327.11	327.18	327.01		328.40	327.11	326.87	328.11	327.08	326.69	326.66
31	327.09		327.16	327.00		327.75		326.86		327.14	326.66	

APPENDIX A-6C. AVERAGE DAILY STAGE AT INDIAN CAMP CREEK AT OLLIN (510) -- WATER YEAR 1988

STAGE IN FEET ABOVE MEAN SEA LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	326.66	326.91	326.85	329.22	329.64	327.84	331.67	327.63	326.85	326.70	326.52	326.18
2	326.65	326.88	326.80	328.44	332.00	327.96	331.03	327.62	326.77	326.70	326.51	326.97
3	326.64	326.86	326.77	328.23	330.92	330.75	330.55	327.64	326.80	326.68	326.53	327.16
4	326.67	326.94	326.75	328.08	330.69	330.31	330.30	330.14	326.87	326.65	326.56	327.04
5	326.67	326.99	326.73	328.00	330.44	329.99	330.17	329.77	326.85	326.61	326.55	326.93
6	326.66	326.95	326.75	327.82	330.24	329.86	330.11	329.13	326.84	326.58	326.56	326.82
7	326.71	326.70	326.98	327.68	330.05	329.77	329.95	327.77	326.81	326.56	326.56	326.73
8	326.73	326.68	326.94	327.55	329.85	329.71	329.87	327.16	326.79	326.55	326.55	326.53
9	326.73	326.73	326.84	327.44	329.70	329.69	329.82	327.80	326.82	326.55	326.53	326.39
10	326.76	326.75	326.79	327.36	329.61	329.60	329.78	327.55	326.83	326.54	326.50	326.38
11	326.77	326.76	326.76	327.28	329.57	329.49	329.75	327.45	326.81	326.55	326.51	326.37
12	326.77	326.76	326.75	327.20	329.39	329.71	329.71	327.33	326.80	326.65	326.51	327.07
13	326.76	326.77	326.72	327.16	329.08	329.57	329.64	327.01	326.80	326.77	326.51	327.06
14	326.80	326.76	326.88	327.16	328.89	329.25	329.28	327.01	326.80	326.80	326.50	326.81
15	326.81	326.77	329.24	327.16	329.17	328.91	328.21	327.01	326.79	326.76	326.50	326.60
16	326.81	326.80	327.26	327.14	328.39	328.48	328.13	327.01	326.79	326.73	326.49	326.75
17	326.83	327.65	327.07	328.96	328.37	328.06	328.06	327.01	326.78	326.70	326.49	326.91
18	326.83	326.86	326.99	328.43	329.49	328.44	329.22	327.01	326.78	326.67	326.48	326.52
19	326.82	326.68	327.12	.330.66	330.35	328.35	328.97	326.98	326.77	326.66	326.48	326.47
20	326.87	326.59	328.56	330.98	329.67	328.13	328.29	326.96	326.76	326.71	326.79	326.49
21	326.96	326.55	327.25	330.27	329.13	328.03	328.09	326.96	326.75	326.69	327.10	326.41
22	326.89	326.54	327.10	329.84	329.11	327.87	328.03	327.03	326.74	326.64	326.97	326.42
23	326.83	326.55	326.99	329.47	328.84	327.81	327.93	327.67	326.70	326.60	326.83	326.64
24	326.79	326.58	327.45	328.79	328.61	327.73	327.82	328.59	326.68	326.56	326.65	327.17
25	326.78	327.02	331.99	328.29	328.47	328.59	327.72	327.86	326.66	326.53	326.54	327.02
26	326.80	327.29	332.79	327.99	328.29	327.93	327.68	327.67	326.66	326.54	326.48	326.81
27	326.95	327.21	331.31	328.02	328.21	327.70	327.69	327.81	326.65	326.55	326.39	326.62
28	326.99	327.69	330.95	327.74	328.02	327.67	327.71	327.75	326.65	326.53	326.49	326.53
29	326.96	327.21	330.27	327.70	328.00	329.73	327.66	327.52	326.66	326.52	326.36	326.52
30	326.92	326.93	329.96	327.74		331.25	327.64	327.66	326.70	326.52	326.26	326.52
31	326.91		329.80	327.89		330.63		327.67		326.52	326.21	

APPENDIX A-7A. AVERAGE DAILY STAGE AT CACHE RIVER AT ROUTE 51 (513) -- WATER YEAR 1986

STAGE IN FEET ABOVE MEAN SEA LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JON	JUL	AUG	SEP
1	-	-	-	-	-	320.53	320.28	319.98	324.98	320.02	319.64	319.69
2	-	-	-	-	-	320.50	320.26	319.87	324.40	319.97	319.61	319.68
3	-	-	-	-	-	320.47	320.21	319.81	323.86	319.69	319.61	319.66
4	-	-	-	-	-	320.43	320.18	319.78	323.24	319.63	319.60	319.63
5	-	-	-	-	-	320.40	321.40	319.77	322.63	319.59	319.59	319.62
6	-	-	-	-	327.08	320.37	320.92	319.77	322.11	319.54	319.59	319.61
7	-	-	-	-	326.79	320.31	320.58	319.77	325.79	319.54	319.60	319.60
8	-	-	-	-	326.29	320.25	320.49	319.74	326.34	319.49	319.66	319.59
9	-	-	-	-	325.78	320.28	320.40	319.70	325.92	319.46	319.72	319.58
10	-	-	-	-	325.29	320.82	320.28	319.67	325.47	320.78	325.99	319.57
11	-	-	-	-	324.81	321.38	320.23	319.69	324.18	320.31	324.63	319.57
12	-	-	-	-	324.27	325.73	320.20	319.73	323.07	319.99	323.02	319.61
13	-	-	-	-	323.73	326.40	320.18	319.71	322.52	320.39	322.03	319.64
14	-	-	-	-	323.15	325.69	320.16	320.49	322.06	320.13	321.41	319.68
15	-	-	-	-	322.53	324.73	320.17	326.88	321.61	325.72	320.45	319.71
16	-	-	-	-	322.00	323.80	320.10	327.91	321.24	323.41	323.49	319.74
17	-	-	-	-	323.46	323.12	320.06	327.87	320.91	321.73	322.70	319.78
18	-	-	-	-	323.38	322.61	320.04	328.43	320.52	320.80	320.70	321.57
19	-	-	-	-	322.63	323.07	320.13	328.33	320.24	320.41	320.27	322.04
20	-	-	-	-	322.11	322.26	320.74	328.13	320.10	320.14	320.07	320.54
21	-	-	-	-	321.77	321.65	321.06	328.06	320.05	320.00	319.92	320.07
22	-	-	-	-	321.42	320.97	320.57	328.02	320.01	319.89	319.82	319.88
23	-	-	-	-	320.82	320.83	320.46	327.94	319.96	319.82	319.89	320.38
24	-	-	-	-	320.73	320.68	320.34	327.99	319.91	319.79	319.94	321.92
25	-	-	-	-	320.62	320.60	320.26	327.89	319.88	319.76	319.76	321.61
26	-	-	-	-	320.61	320.54	320.18	327.73	319.88	319.72	319.74	320.97
27	-	-	-	-	320.63	320.48	320.11	327.55	319.89	319.81	319.72	320.52
28	-	-	-	-	320.57	320.39	320.17	327.21	319.92	319.75	319.70	320.18
29	-	-	-	-		320.37	320.16	326.81	319.92	319.70	319.70	319.98
30	-	-	-	-		320.34	320.06	326.25	319.90	319.69	319.69	319.88
31	-		-	-		320.30		325.57		319.66	319.69	

- no record

APPENDIX A-7B. AVERAGE DAILY STAGE AT CACHE RIVER AT ROUTE 51 (513) -- WATER YEAR 1987

STAGE IN FEET ABOVE MEAN SEA LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	321.43	319.96	323.47	320.19	319.92	327.39	320.83	319.90	319.56	325.72	319.88	319.22
2	323.05	320.05	324.36	320.15	321.42	326.69	320.86	319.90	319.53	324.89	319.75	319.24
3	322.32	320.01	323.25	320.09	320.97	325.73	320.77	320.46	319.94	323.66	319.66	319.22
4	320.85	320.04	322.49	320.05	320.68	324.63	320.67	321.10	319.76	322.64	319.57	319.24
5	321.88	320.94	321.95	320.01	320.52	323.74	320.58	320.56	319.63	321.80	319.53	319.23
6	320.51	320.80	321.60	319.98	320.36	323.15	320.48	320.25	319.53	321.46	319.51	319.25
7	320.14	320.43	321.41	319.95	320.27	322.59	320.39	320.09	319.47	321.12	319.50	319.25
8	320.01	320.31	321.41	319.93	320.20	322.18	320.30	319.99	319.45	320.29	319.48	319.32
9	319.99	320.36	322.38	319.94	320.08	321.86	320.21	319.93	319.44	320.00	319.47	319.27
10	320.23	320.80	322.04	320.14	320.03	321.56	320.18	319.87	319.43	319.98	319.44	319.23
11	320.56	320.78	321.61	320.14	320.01	321.13	320.64	319.84	319.42	319.90	319.42	319.21
12	320.70	320.79	321.38	320.07	319.98	320.48	320.50	319.82	319.42	319.82	319.40	319.19
13	320.67	320.83	321.11	320.04	319.93	320.44	320.33	320.15	319.82	319.77	319.43	319.16
14	320.42	320.23	320.40	320.05	320.04	320.43	323.88	320.01	319.75	319.70	319.42	319.13
15	320.02	320.02	320.29	320.05	320.21	320.42	322.74	319.86	320.75	319.63	319.39	319.12
16	319.87	319.98	320.26	320.01	320.95	320.42	322.05	319.82	320.29	319.55	319.37	319.25
17	319.82	319.95	320.23	319.96	321.12	320.42	321.63	319.80	319.74	319.52	319.36	319.64
18	319.78	319.92	320.19	320.06	321.02	324.64	321.19	319.84	319.60	319.50	319.38	319.55
19	319.77	319.85	320.13	320.36	320.70	326.41	320.97	319.81	319.72	319.47	319.37	319.39
20	319.75	319.88	320.07	320.37	320.58	324.84	320.70	319.74	319.64	319.44	319.37	319.27
21	319.74	319.90	320.07	320.18	320.49	323.44	320.53	319.67	319.55	319.43	319.38	319.19
22	319.74	319.88	320.02	320.12	320.39	322.43	320.40	319.65	319.49	319.41	319.40	319.14
23	319.75	319.87	320.01	320.07	320.28	322.05	320.31	319.70	319.45	319.40	319.38	319.16
24	319.92	319.85	321.42	320.05	320.17	321.74	320.26	319.83	319.42	319.42	319.38	319.19
25	322.12	320.01	321.54	320.04	320.12	321.51	320.18	319.78	319.47	319.42	319.39	319.20
26	321.46	321.67	320.93	320.03	320.08	321.30	320.11	319.77	319.45	319.42	319.32	319.22
27	320.72	321.42	320.62	320.01	321.36	321.07	320.07	319.67	319.40	319.41	319.28	319.22
28	320.53	321.38	320.43	319.96	326.27	320.85	320.00	319.58	319.37	319.71	319.30	319.21
29	320.32	321.18	320.33	319.83		320.83	319.94	319.52	319.35	322.36	319.29	319.21
30	320.12	320.56	320.29	319.81		321.34	319.91	319.52	321.72	321.36	319.28	319.28
31	320.07		320.22	319.79		320.97		319.58		320.45	319.24	

APPENDIX A-7C. AVERAGE DAILY STAGE AT CACHE RIVER AT ROUTE 51 (513) -- WATER YEAR 1988
STAGE IN FEET ABOVE MEAN SEA LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	319.30	319.37	319.40	326.03	320.32	320.60	327.60	320.21	319.64	319.44	319.55	319.21
2	319.28	319.39	319.28	325.33	322.89	320.63	327.40	320.20	319.64	319.44	319.48	321.36
3	319.25	319.41	319.19	324.65	322.86	324.72	326.89	320.21	319.62	319.42	319.44	322.18
4	319.24	319.43	319.16	324.06	322.93	324.31	326.05	322.25	319.60	319.42	319.48	320.70
5	319.24	319.44	319.14	323.52	322.48	322.88	325.19	322.02	319.58	319.42	319.36	320.31
6	319.22	319.52	319.12	322.97	321.96	322.17	324.58	321.49	319.57	319.44	319.37	320.06
7	319.18	319.53	319.18	322.44	321.58	321.70	323.83	321.06	319.58	319.43	319.28	319.92
8	319.15	319.53	319.26	322.03	321.30	321.39	323.18	320.75	319.61	319.42	319.24	319.85
9	319.17	319.52	319.25	321.56	321.03	321.28	322.70	320.56	319.65	319.44	319.26	319.75
10	319.26	319.52	319.23	320.76	320.81	321.15	322.36	320.30	319.63	319.43	319.24	319.66
11	319.26	319.52	319.16	320.60	321.65	320.99	322.08	320.16	319.62	319.45	319.25	319.61
12	319.18	319.50	319.11	320.28	321.75	321.29	321.59	320.10	319.61	319.48	319.26	319.79
13	319.15	319.50	319.11	319.64	321.03	321.38	320.90	320.05	319.60	319.58	319.23	320.02
14	319.15	319.50	319.16	319.14	320.97	321.03	320.84	319.99	319.59	319.58	319.33	319.75
15	319.15	319.50	322.41	319.11	321.38	320.86	320.83	319.94	319.55	319.46	319.30	319.62
16	319.15	319.53	320.98 .	319.07	321.18	320.75	320.82	319.88	319.54	319.43	319.27	319.73
17	319.16	319.80	320.56	319.90	321.07	320.69	320.82	319.82	319.53	319.42	319.26	320.12
18	319.16	319.72	320.26	320.22	321.40	320.89	321.13	319.76	319.51	319.48	319.25	319.77
19	319.16	319.69	320.29	321.66	323.07	321.01	321.20	319.74	319.50	319.52	319.27	320.14
20	319.21	319.67	321.36	322.94	323.08	320.92	320.85	319.73	319.50	319.65	319.57	319.92
21	319.22	319.65	320.71	322.92	322.12	320.88	320.72	319.72	319.49	319.63	320.77	319.66
22	319.17	319.62	320.32	322.49	321.61	320.68	320.67	319.74	319.50	319.51	319.77	319.57
23	319.16	319.58	320.15	322.03	321.49	320.59	320.62	319.83	319.48	319.47	319.40	319.59
24	319.17	319.63	320.20	321.66	321.16	320.55	320.57	320.24	319.46	319.47	319.25	320.28
25	319.19	319.91	325.49	321.31	320.96	321.16	320.50	319.95	319.45	319.46	319.24	320.06
26	319.25	319.91	328.32	320.93	320.87	321.13	320.47	319.76	319.44	319.48	319.25	319.87
27	319.33	319.84	328.11	320.41	320.88	320.80	320.43	319.69	319.42	319.54	319.23	319.70
28	319.36	320.01	327.97	320.08	320.74	320.71	320.35	319.67	319.41	319.58	319.33	319.57
29	319.34	319.97	327.60	319.95	320.67	322.76	320.23	319.65	319.43	319.57	319.29	319.47
30	319.34	319.51	327.16	319.50		326.84	320.21	319.63	319.44	319.55	319.25	319.42
31	319.35		326.68	319.48		326.02		319.62		319.58	319.23	

APPENDIX B.

RATING CURVES FOR SEVEN ILLINOIS STATE WATER SURVEY MONITORING STATIONS

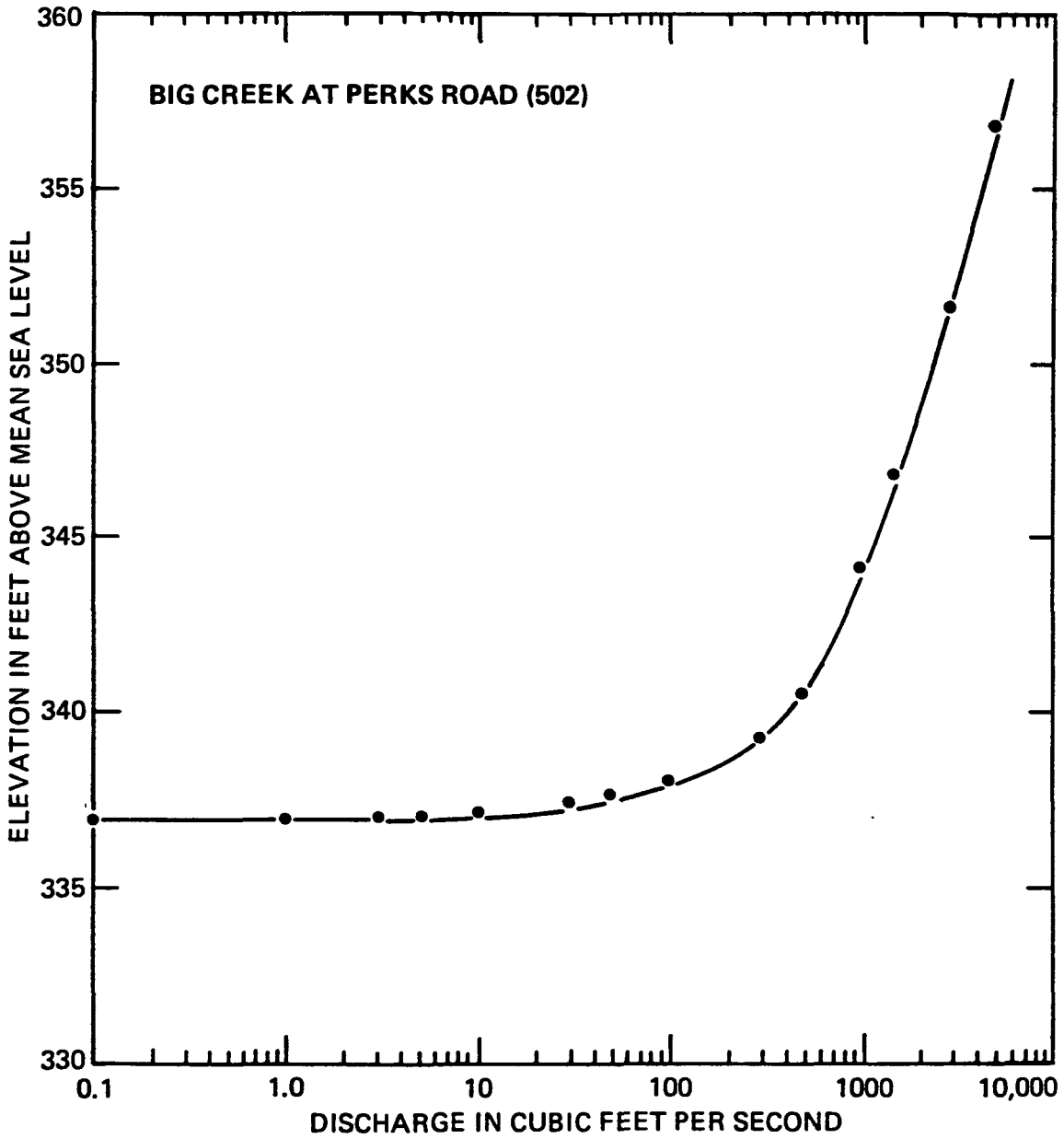


Figure B-1. Discharge rating curve for Big Creek at Perks Road

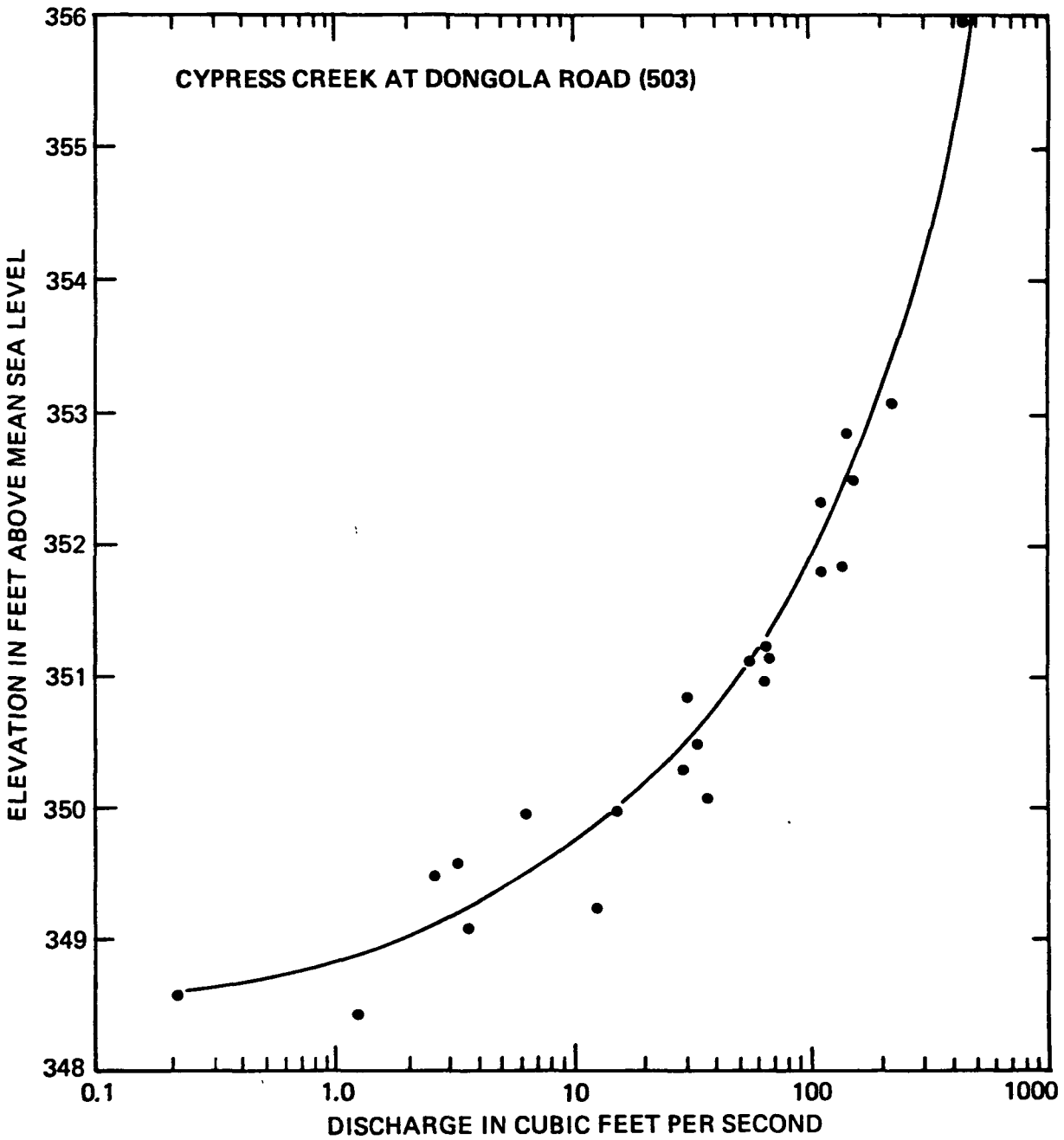


Figure B-2. Discharge rating curve for Cypress Creek at Dongola Road

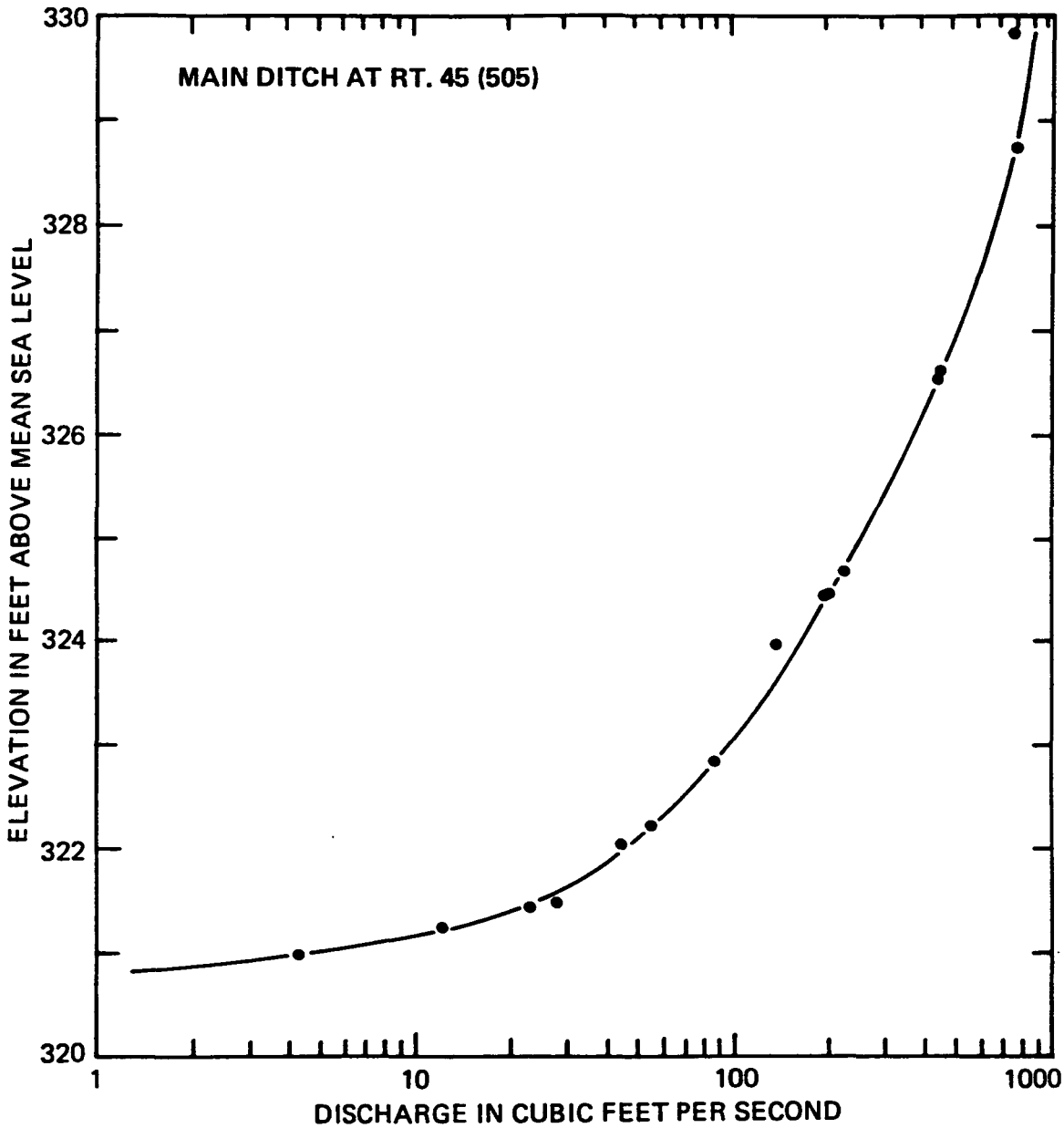


Figure B-3. Discharge rating curve for Main Ditch at Route 45

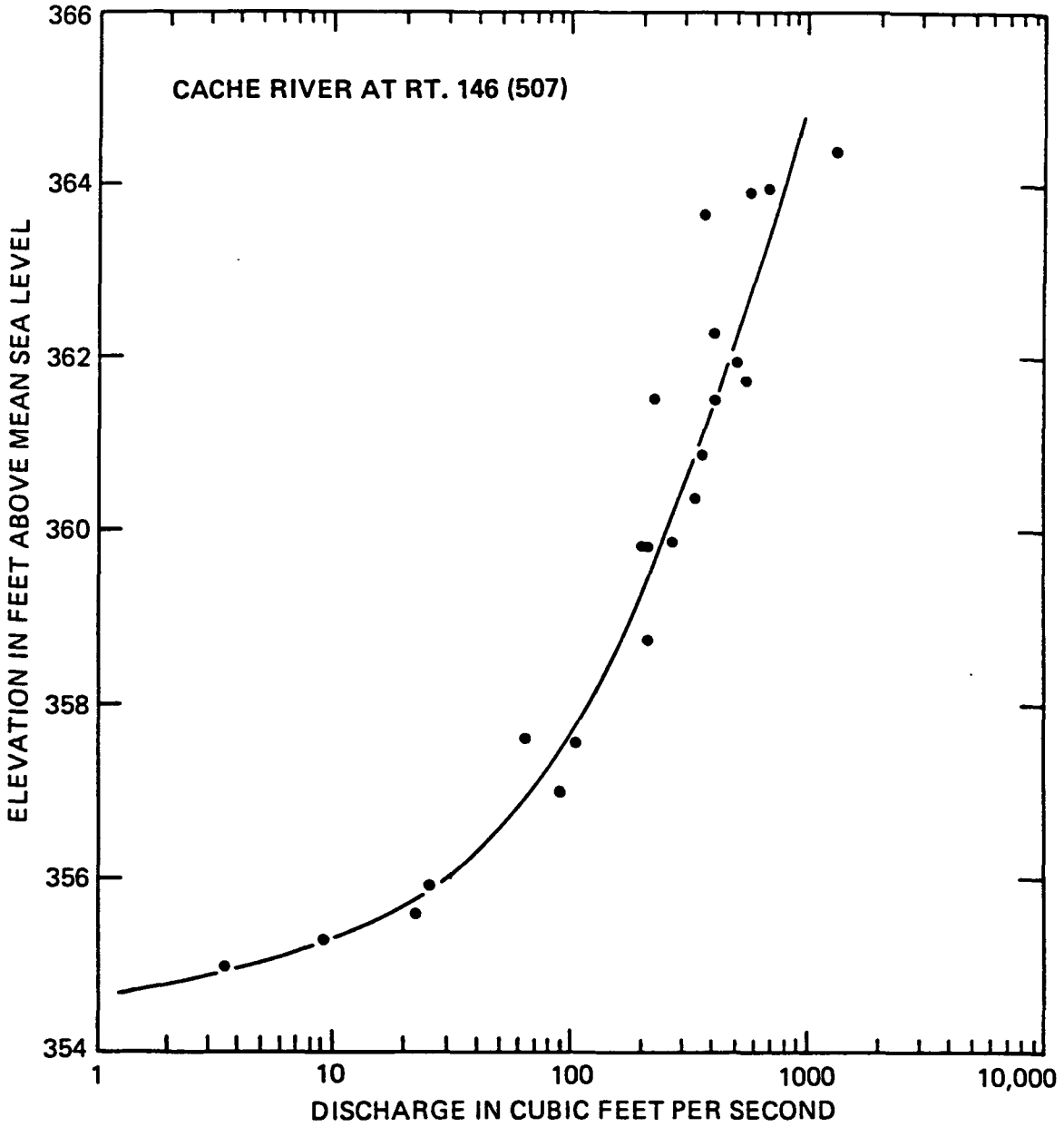


Figure B-4. Discharge rating curve for the Upper Cache River at Route 146

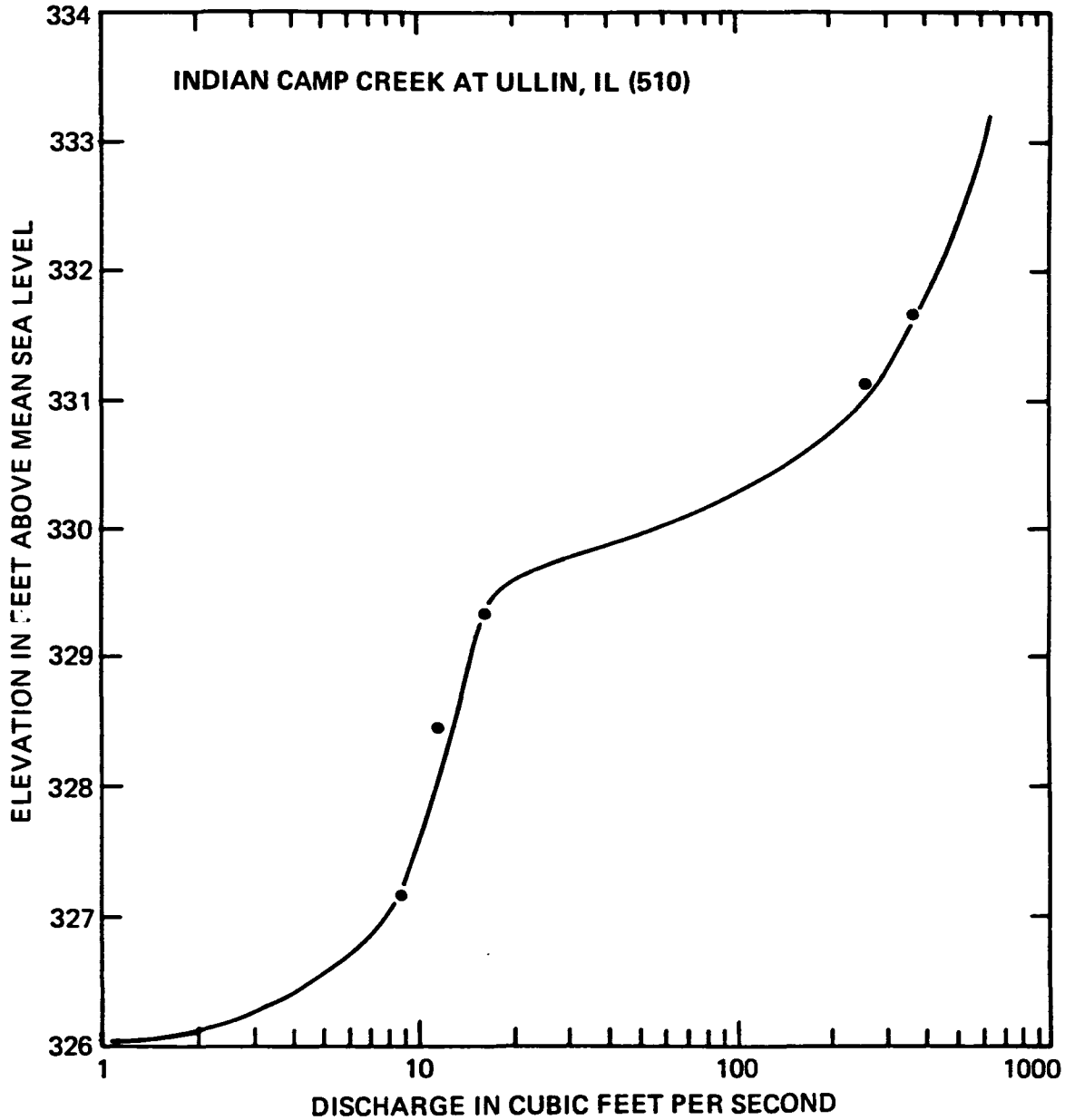


Figure B-5. Discharge rating curve for Indian Camp Creek at Ullin

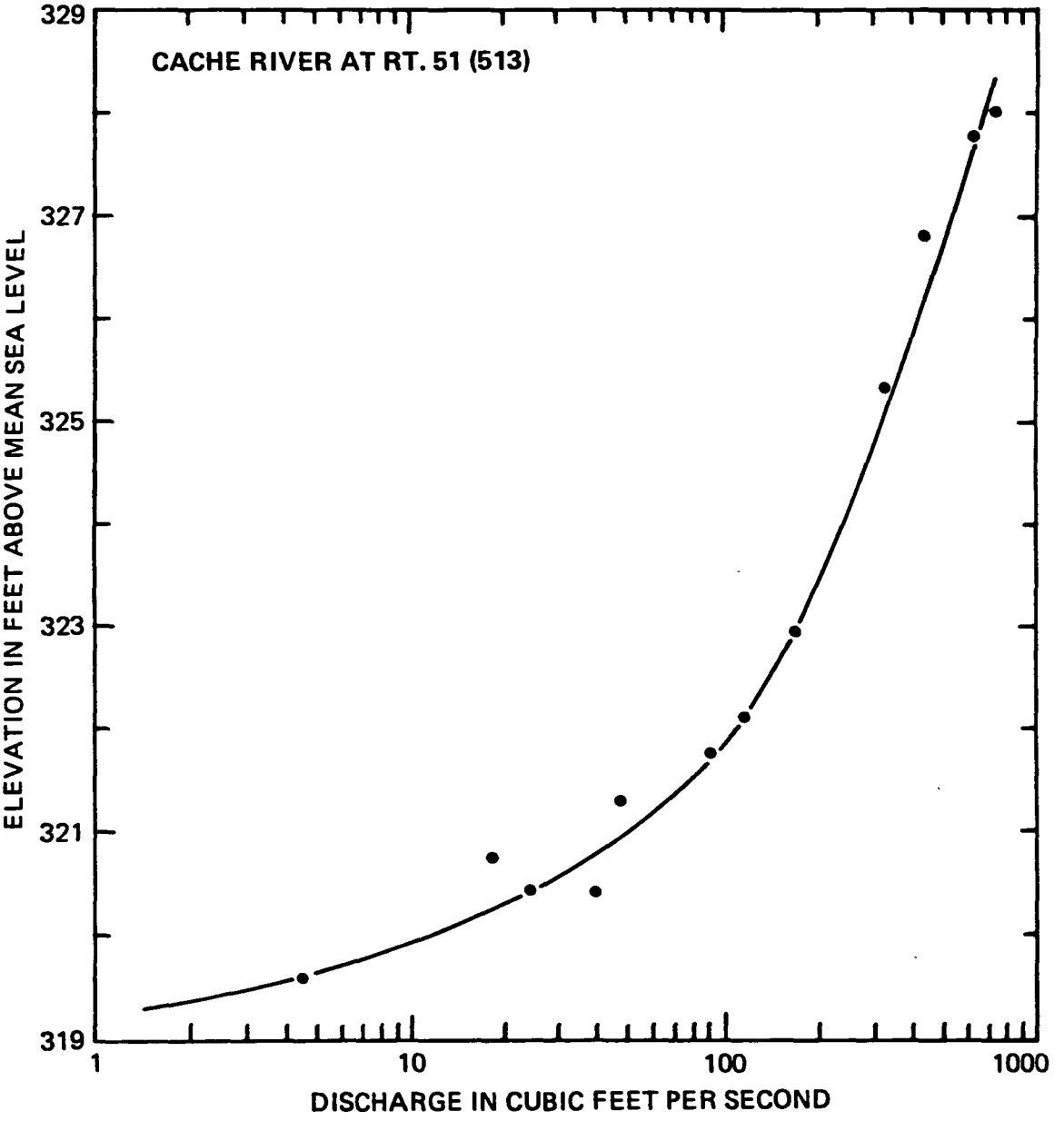


Figure B-6. Discharge rating curve for the Lower Cache River at Route 51

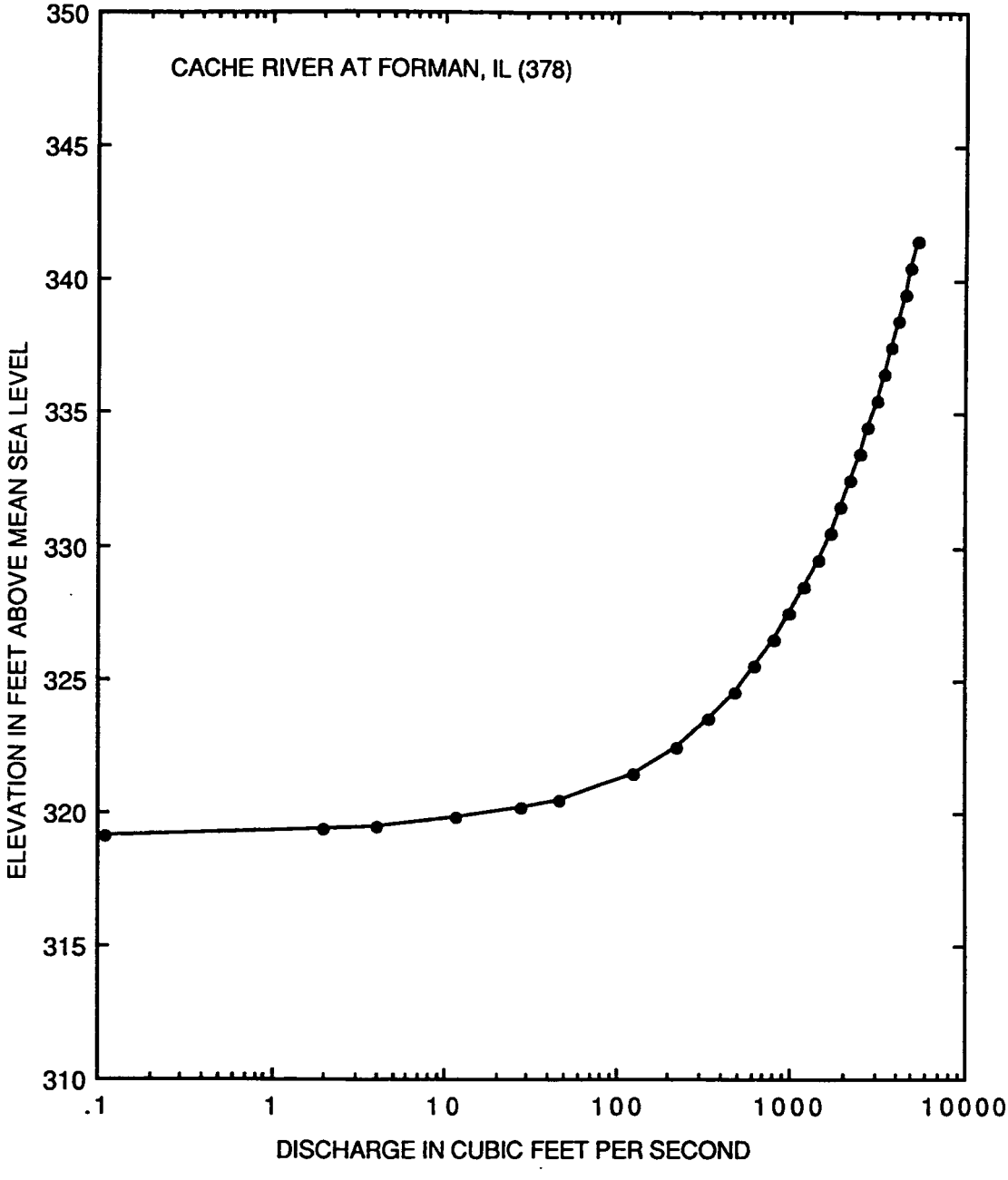


Figure B-7. Discharge rating curve for the Upper Cache River at Forman

APPENDIX C.

DAILY STREAMFLOW RECORDS AT SEVEN ILLINOIS STATE WATER SURVEY MONITORING STATIONS

APPENDIX C-1A. AVERAGE DAILY DISCHARGE AT BIG CREEK AT PERKS ROAD (502) -- WATER YEAR 1985

DISCHARGE IN CUBIC FEET PER SECOND

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	-	-	-	-	-	-	-	147.9	10.0	7.2	56.2	12.7
2	-	-	-	-	-	-	-	132.6	8.5	11.2	7.4	12.0
3	-	-	-	-	-	-	-	71.5	9.0	4.3	2.5	11.1
4	-	-	-	-	-	-	-	55.5	48.7	3.9	1.8	11.3
5	-	-	-	-	-	-	-	50.4	14.7	3.9	653.3	304.6
6	-	-	-	-	-	-	-	44.3	27.6	3.8	82.5	40.2
7	-	-	-	-	-	-	-	33.5	19.0	3.0	34.4	24.0
8	-	-	-	-	-	-	-	30.0	11.8	2.7	18.2	18.4
9	-	-	-	-	-	-	-	25.2	9.3	2.5	12.1	14.2
10	-	-	-	-	-	-	-	22.2	48.0	2.4	289.8	13.3
11	-	-	-	-	-	-	-	33.9	100.4	1.9	109.0	11.5
12	-	-	-	-	-	-	-	77.3	35.8	1.9	56.0	8.3
13	-	-	-	-	-	-	-	48.8	17.0	1.9	48.0	7.0
14	-	-	-	-	-	-	-	81.5	12.3	1.7	40.6	6.5
15	-	-	-	-	-	-	-	56.1	10.4	1.8	421.0	6.1
16	-	-	-	-	-	-	-	32.5	9.2	1.8	94.7	5.4
17	-	-	-	-	-	-	-	25.8	63.7	2.0	36.1	5.5
18	-	-	-	-	-	-	-	23.3	39.0	2.3	22.2	5.5
19	-	-	-	-	-	-	-	20.8	19.2	2.3	16.7	6.2
20	-	-	-	-	-	-	-	20.6	14.4	2.1	16.0	6.4
21	-	-	-	-	-	-	-	19.8	11.0	2.9	11.9	7.1
22	-	-	-	-	-	-	-	642.4	11.1	3.2	11.5	7.2
23	-	-	-	-	-	-	-	97.0	10.6	3.2	23.1	7.4
24	-	-	-	-	-	-	-	42.4	8.6	3.1	481.4	5.9
25	-	-	-	-	-	-	37.8	29.0	7.9	2.2	65.1	5.3
26	-	-	-	-	-	-	53.9	22.8	7.4	7.8	32.3	5.8
27	-	-	-	-	-	-	438.7	18.5	7.0	4.2	22.5	6.7
28	-	-	-	-	-	-	86.6	16.1	5.4	1.7	20.5	6.2
29	-	-	-	-		-	57.5	14.9	4.7	1.3	17.9	5.5
30	-	-	-	-		-	49.4	12.1	4.1	1.6	15.6	6.2
31	-		-	-		-		10.8		1.4	13.7	
TOTAL	-	-	-	-	-	-	723.9*	1959.5	605.8	97.2	2734.0	593.5

- no record

* partial record

APPENDIX C-1B. AVERAGE DAILY DISCHARGE AT BIG CREEK AT PERKS ROAD (502) -- WATER YEAR 1986
DISCHARGE IN CUBIC FEET PER SECOND

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.6	87.4	81.6	6.4	5.9	9.8	7.6	4.5	12.4	1.9	1.3	0.8
2	7.6	53.0	45.1	6.1	14.6	9.7	6.7	3.4	11.4	2.3	1.2	0.9
3	6.8	36.8	26.0	6.2	629.7	9.2	6.6	2.9	10.4	1.9	1.1	1.1
4	6.3	22.7	21.0	6.0	185.7	8.9	6.4	2.5	10.0	1.7	1.0	1.3
5	6.6	16.0	20.5	5.7	81.5	9.2	35.3	2.6	9.8	1.5	1.0	2.1
6	7.6	13.5	18.3	5.5	154.3	9.7	17.5	2.4	10.8	1.4	1.3	1.5
7	7.6	11.4	16.4	5.1	92.7	8.7	13.4	2.3	145.4	1.3	1.6	1.0
8	7.6	10.8	13.9	4.4	46.2	7.7	12.2	2.1	31.8	1.6	1.8	0.9
9	7.2	10.8	12.5	3.6	35.7	7.8	11.2	2.2	33.0	1.5	3.7	0.9
10	6.8	10.8	14.8	3.9	30.7	32.0	9.4	2.3	39.8	66.5	259.5	0.7
11	7.6	11.6	207.0	4.8	25.2	17.7	8.5	2.3	20.2	4.8	15.2	0.8
12	8.7	19.6	54.6	5.3	21.4	382.9	8.2	2.4	13.4	3.4	7.0	1.2
13	11.9	76.9	29.6	5.6	17.4	49.1	7.3	2.1	9.6	12.5	3.7	1.1
14	41.1	33.9	22.2	5.2	18.4	33.9	7.0	17.3	8.1	4.9	1.9	0.9
15	9.6	37.5	18.8	4.6	18.6	30.9	6.3	1384.7	7.2	182.0	1.6	0.5
16	4.8	225.3	16.4	5.1	15.5	27.2	5.5	427.3	7.1	12.5	126.4	0.3
17	2.9	52.5	15.5	6.1	17.3	23.0	5.6	110.0	6.1	5.9	15.0	0.3
18	3.6	37.2	13.2	11.3	57.8	22.1	5.4	57.3	5.4	3.0	7.5	113.9
19	4.9	300.6	11.2	19.6	35.7	42.0	6.3	38.5	4.5	2.1	3.5	22.1
20	5.8	208.0	10.4	14.9	19.8	19.1	26.9	33.1	4.0	1.7	1.9	6.2
21	5.8	49.5	10.6	11.2	17.0	15.8	31.9	27.6	3.3	1.4	1.5	2.7
22	5.0	32.3	10.7	9.1	14.7	14.7	17.8	23.2	2.6	1.3	1.3	1.3
23	62.9	25.5	11.0	7.3	13.6	13.0	13.5	21.3	2.4	1.3	1.2	1.3
24	15.9	22.0	10.4	6.4	12.7	12.3	11.3	96.2	2.3	1.2	1.1	23.7
25	9.4	21.8	7.6	6.4	11.4	11.2	9.6	69.2	2.3	1.1	1.3	6.1
26	6.6	90.3	6.8	5.2	11.5	10.6	8.6	71.4	2.2	1.5	1.2	2.0
27	6.1	395.1	6.8	3.5	11.2	10.2	7.3	31.8	2.2	1.8	1.2	1.2
28	5.2	121.4	6.7	3.3	10.5	9.5	7.7	22.9	1.9	1.4	1.1	1.2
29	52.2	53.9	7.0	3.4		9.3	7.3	20.7	2.0	1.4	1.0	1.3
30	150.9	38.5	6.8	3.5		9.0	6.1	16.2	1.9	1.4	0.9	0.9
31	108.5		6.7	4.9		8.1		13.1		1.4	0.8	
TOTAL	601.1	2126.6	760.1	199.6	1626.7	884.3	334.4	2515.8	423.5	329.6	469.8	200.2

APPENDIX C-1C. AVERAGE DAILY DISCHARGE AT BIG CREEK AT PERKS ROAD (502) -- WATER YEAR 1987

DISCHARGE IN CUBIC FEET PER SECOND

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33.1	2.7	112.4	5.0	7.0	91.7	12.8	6.0	2.3	113.9	1.8	1.6
2	259.0	2.4	51.6	4.6	24.4	37.4	17.5	6.2	2.6	20.1	1.5	1.5
3	65.2	2.1	19.7	4.0	14.1	24.3	13.4	10.3	6.9	7.5	1.4	1.5
4	23.9	3.5	14.5	3.9	10.0	18.7	10.9	19.6	2.3	3.4	1.4	1.5
5	22.1	15.5	11.8	3.6	7.6	16.5	9.6	8.4	1.9	1.8	1.4	1.4
6	7.7	10.7	9.5	3.5	6.7	14.9	8.7	6.1	1.7	2.0	1.3	1.7
7	4.3	6.7	8.3	3.4	6.0	13.6	8.6	5.4	1.6	5.3	1.2	1.6
8	2.4	5.6	8.9	3.3	5.5	12.6	8.0	4.2	1.5	3.7	1.3	1.8
9	1.8	4.4	24.1	3.5	5.1	11.2	7.2	3.9	1.5	3.8	1.6	2.3
10	1.4	3.1	14.9	5.6	4.7	9.3	7.6	3.4	1.4	3.9	1.7	1.9
11	1.3	2.8	10.7	5.6	4.2	7.4	16.2	3.1	1.7	2.2	1.7	1.7
12	2.1	2.5	8.2	5.2	5.4	6.8	11.2	2.8	2.1	1.9	1.7	2.0
13	7.5	2.0	6.6	4.8	5.3	6.6	9.8	16.8	9.9	1.6	1.7	1.9
14	12.2	1.6	5.7	4.6	7.4	6.6	154.6	8.3	3.1	1.5	1.7	1.4
15	8.7	1.9	5.4	4.6	9.2	6.5	44.3	5.0	16.1	1.3	1.6	1.1
16	6.0	2.3	5.4	3.9	23.1	6.1	31.7	3.6	6.3	1.3	1.5	1.6
17	5.2	2.2	5.1	3.4	15.1	6.2	31.1	4.2	2.5	1.3	1.4	4.5
18	4.4	2.1	4.5	5.1	12.4	215.1	21.9	6.9	2.0	1.2	1.3	1.2
19	4.1	1.9	3.7	9.1	12.1	240.5	17.5	5.6	5.4	1.1	1.4	0.9
20	4.2	1.9	2.9	7.7	12.0	41.0	14.6	5.2	1.8	1.1	1.3	0.7
21	4.2	1.9	2.4	5.6	11.7	26.5	12.5	4.4	1.6	1.1	1.2	0.7
22	4.4	1.7	2.5	5.5	10.7	20.9	10.4	4.4	1.6	1.1	1.1	0.8
23	5.9	1.6	2.8	4.1	9.3	17.9	8.9	7.3	1.5	1.2	0.9	0.7
24	10.8	1.5	23.3	3.6	8.0	15.9	7.9	6.8	1.3	1.2	0.7	0.6
25	34.2	6.5	15.3	3.3	7.4	13.7	7.2	5.4	1.3	1.3	0.9	0.7
26	14.2	21.0	9.5	3.1	7.0	12.0	6.3	5.0	1.5	0.8	1.0	0.7
27	8.7	12.6	7.1	2.8	31.0	10.6	5.9	3.3	1.5	1.3	1.5	1.0
28	5.3	8.4	6.3	1.7	479.9	9.8	5.4	2.3	1.5	1.6	2.3	0.9
29	3.1	6.4	5.5	2.4		10.7	5.1	2.1	1.5	73.2	1.9	1.2
30	2.7	5.4	5.2	3.6		30.9	5.3	3.4	160.9	8.3	1.7	1.5
31	2.9		4.4	3.2		16.5		3.3		2.5	1.7	
TOTAL	573.0	144.9	418.2	133.3	762.3	978.4	532.1	182.7	248.8	273.5	44.8	42.6

APPENDIX C-1D. AVERAGE DAILY DISCHARGE AT BIG CREEK AT PERKS ROAD (502) -- HATER YEAR 1988
DISCHARGE IN CUBIC FEET PER SECOND

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	1.3	1.9	16.8	138.4	8.1	364.9	5.0	2.0	1.5	0.7	0.5
2	1.4	1.4	1.5	13.3	330.5	8.7	119.8	4.6	2.0	1.3	7.7	13.9
3	1.2	1.5	1.3	11.2	78.5	178.5	60.5	4.6	2.0	1.2	15.7	10.4
4	1.2	1.4	1.5	9.6	73.9	46.7	38.3	15.6	1.9	1.2	4.1	3.8
5	1.1	1.1	1.4	7.9	36.5	26.9	31.3	10.6	1.9	1.1	1.5	1.5
6	1.1	1.3	1.9	6.7	23.9	21.1	34.5	6.8	1.9	1.1	1.1	1.0
7	1.1	1.3	4.3	6.6	20.1	18.3	28.8	5.8	1.8	1.2	0.7	0.7
8	1.1	1.4	3.5	6.9	18.1	16.1	23.6	5.5	1.8	1.1	0.5	0.5
9	1.4	1.6	2.0	7.1	16.3	14.7	19.9	6.7	2.5	1.0	0.7	0.6
10	1.6	1.5	1.8	6.9	14.2	13.7	16.8	6.4	2.1	1.0	0.6	0.6
11	2.1	1.5	1.5	7.1	12.9	12.6	14.8	4.6	1.8	1.1	0.4	0.7
12	2.3	1.4	1.3	6.6	11.3	19.6	13.8	3.7	1.9	1.5	0.3	4.2
13	1.8	1.4	1.5	5.5	10.5	18.8	12.3	3.6	1.7	2.6	2.3	11.2
14	1.6	1.4	3.6	5.4	10.8	15.1	11.5	3.3	1.7	2.0	1.6	2.4
15	1.6	1.5	72.4	5.4	12.2	13.3	10.7	3.0	1.7	1.5	0.8	1.2
16	1.6	2.6	15.1	4.5	11.0	11.3	10.3	3.0	1.7	1.3	0.4	1.8
17	1.4	10.8	7.5	50.9	10.5	12.5	9.8	2.8	1.7	1.1	0.3	0.3
18	1.5	4.3	3.7	26.1	12.7	13.7	15.8	2.5	1.7	0.9	0.3	1.9
19	1.5	1.5	3.7	320.4	45.0	13.2	14.1	2.4	1.6	1.8	1.1	20.2
20	2.2	1.0	24.3	77.3	30.9	12.4	11.2	2.4	1.5	4.9	8.2	8.0
21	2.5	0.7	12.3	28.0	18.2	11.5	10.3	2.5	1.4	2.2	1.9	2.5
22	2.3	0.6	8.5	18.2	15.2	9.2	10.6	2.8	1.3	2.9	1.1	1.4
23	2.0	0.6	5.1	14.3	13.0	8.4	9.9	4.7	1.0	1.0	0.8	1.9
24	2.1	1.0	10.3	12.0	11.1	9.3	8.7	9.7	1.0	0.7	0.6	6.2
25	2.3	2.1	684.6	10.2	10.3	14.0	8.0	5.5	1.0	12.7	0.6	4.1
26	3.6	6.1	494.7	7.4	9.8	11.7	7.6	2.9	0.9	6.5	0.5	2.0
27	3.5	6.8	100.2	5.6	9.8	9.6	6.3	2.1	0.7	0.8	0.6	1.5
28	2.7	13.7	96.8	5.4	9.5	8.7	5.9	1.9	0.6	1.1	1.4	1.2
29	2.3	10.7	34.1	5.6	8.6	200.3	5.5	1.8	1.0	0.6	0.7	1.0
30	1.9	3.7	20.4	5.8		141.8	5.2	1.7	1.5	0.4	0.5	1.2
31	1.6		19.3	8.1		85.8		1.7		0.4	0.5	
TOTAL	57.1	87.2	1642.0	722.8	1023.7	1005.6	940.7	140.2	47.3	59.7	58.2	108.4

APPENDIX C-2A. AVERAGE DAILY DISCHARGE AT CYPRESS CREEK AT DONGOLA ROAD (503) -- WATER YEAR 1986

DISCHARGE IN CUBIC FEET PER SECOND

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JON	JUL	AUG	SEP
1	-	-	-	-	-	14.3	7.2	4.0	3.8	0.8	0.3	0.5
2	-	-	-	-	-	14.3	6.9	3.6	3.1	0.8	0.2	0.5
3	-	-	-	-	-	14.3	6.5	3.4	2.9	0.7	0.2	0.5
4	-	-	-	-	-	13.7	6.1	3.4	2.8	0.7	0.2	0.6
5	-	-	-	-	-	13.2	30.2	3.8	2.7	0.6	0.2	0.6
6	-	-	-	-	-	13.5	19.2	3.4	2.7	0.7	0.2	0.6
7	-	-	-	-	88.3	12.9	10.8	3.1	79.8	0.6	0.8	0.5
8	-	-	-	-	62.5	12.6	9.8	3.1	48.5	0.6	0.6	0.4
9	-	-	-	-	47.3	13.1	8.8	3.0	22.0	0.6	0.8	0.3
10	-	-	-	-	33.5	43.7	7.2	3.0	20.4	0.6	81.0	0.3
11	-	-	-	-	25.0	53.2	6.5	2.8	8.9	0.6	19.0	0.3
12	-	-	-	-	18.3	160.5	6.0	3.0	4.5	0.9	4.4	0.3
13	-	-	-	-	13.0	116.4	5.5	3.0	3.0	1.3	1.9	0.3
14	-	-	-	-	11.6	70.4	5.6	3.0	2.4	1.4	1.2	0.3
15	-	-	-	-	16.9	56.0	5.5	156.3	2.0	62.0	1.0	0.2
16	-	-	-	-	13.2	44.0	5.0	478.2	1.8	5.1	40.3	0.2
17	-	-	-	-	54.6	31.1	4.5	165.9	1.6	1.9	8.2	0.2
18	-	-	-	-	43.2	22.6	4.2	153.7	1.4	1.3	2.0	41.0
19	-	-	-	-	34.5	40.8	5.1	80.0	1.2	1.0	1.2	19.2
20	-	-	-	-	25.4	29.0	27.8	45.1	1.2	0.7	0.8	3.5
21	-	-	-	-	19.0	17.4	48.4	22.8	1.2	0.5	0.5	3.4
22	-	-	-	-	14.2	15.0	25.6	11.5	1.1	0.4	0.4	3.4
23	-	-	-	-	11.6	14.4	13.8	7.3	1.0	0.4	0.4	7.2
24	-	-	-	-	11.2	13.5	9.3	13.0	1.1	0.4	0.3	31.4
25	-	-	-	-	11.1	12.6	7.2	63.6	1.0	0.4	0.3	3.4
26	-	-	-	-	12.1	11.7	5.9	54.0	0.9	0.4	0.3	2.2
27	-	-	-	-	13.3	11.1	5.4	42.2	0.8	0.4	0.3	1.6
28	-	-	-	-	14.5	9.8	6.4	19.7	0.8	0.3	0.4	1.4
29	-	-	-	-		9.4	5.3	11.6	0.8	0.3	0.3	1.2
30	-	-	-	-		8.6	4.4	7.3	0.7	0.3	0.3	1.0
31	-		-	-		7.9		5.0		0.3	0.4	
TOTAL:	-	-	-	-	594.3	921.0	320.1	1382.8	226.0	87.0	168.4	126.5

- no record
* partial record

APPENDIX C-2B. AVERAGE DAILY DISCHARGE AT CYPRESS CREEK AT DONGOLA ROAD (503) – WATER YEAR 1987

DISCHARGE IN CUBIC FEET PER SECOND

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.1	0.6	74.7	1.4	1.8	127.3	2.9	0.3	0.2	168.6	0.4	0.0
2	57.3	0.9	65.2	1.0	13.1	58.2	4.9	0.3	0.6	62.3	0.2	0.0
3	31.2	0.9	26.0	0.7	5.8	25.1	3.5	0.3	1.5	8.3	0.2	0.0
4	7.7	1.1	9.5	0.6	2.5	11.7	2.0	0.3	0.3	2.3	0.2	0.0
5	7.8	3.2	3.8	0.6	1.4	6.5	1.5	0.3	0.2	1.0	0.1	0.0
6	2.1	2.9	2.3	0.6	1.1	3.9	1.2	0.3	0.2	0.6	0.0	0.0
7	1.2	1.5	2.1	0.5	1.0	2.2	1.4	0.3	0.2	2.0	0.0	0.0
e	0.7	1.2	1.9	0.4	0.8	1.6	1.0	0.3	0.1	0.5	0.0	0.0
9	0.4	0.8	15.0	0.5	0.6	1.4	0.9	0.2	0.1	0.6	0.0	0.0
10	0.4	0.6	8.4	1.0	0.6	1.2	0.9	0.2	0.1	0.5	0.0	0.0
11	0.3	0.6	2.4	1.0	0.6	1.0	4.4	0.2	0.1	0.2	0.0	0.0
12	0.7	0.6	1.5	0.9	0.6	0.9	2.2	0.2	0.1	0.1	0.0	0.0
13	0.9	0.5	1.1	0.8	0.6	0.9	1.6	0.5	27.7	0.1	0.0	0.0
14	0.9	0.4	1.0	0.8	1.2	0.8	78.8	0.5	1.2	0.1	0.0	0.0
15	0.5	0.5	0.9	0.8	1.6	0.8	43.8	0.3	17.4	0.1	0.0	0.0
16	0.4	0.5	0.8	0.7	9.9	0.8	22.8	0.2	0.6	0.1	0.0	0.0
17	0.4	0.5	0.8	0.7	7.0	0.8	10.6	0.2	0.2	0.1	0.0	0.2
18	0.3	0.5	0.8	1.0	3.9	59.6	4.8	0.2	14.4	0.1	0.0	0.1
19	0.3	0.4	0.7	1.9	4.0	91.7	2.3	0.3	28.7	0.0	0.0	0.0
20	0.3	0.4	0.6	1.8	4.1	48.7	1.5	0.3	0.6	0.0	0.0	0.0
21	0.3	0.4	0.6	1.3	3.4	20.8	1.2	0.2	0.3	0.0	0.0	0.0
22	0.3	0.4	0.5	1.0	2.2	9.5	0.9	0.2	0.2	0.1	0.0	0.0
23	0.3	0.4	0.5	0.8	1.6	4.7	0.8	0.2	0.2	0.2	0.0	0.0
24	0.4	0.5	19.1	0.8	1.4	2.7	0.8	0.2	13.5	0.1	0.0	0.0
25	13.0	2.9	12.8	0.7	1.1	1.9	0.7	0.3	11.4	0.0	0.0	0.0
26	5.6	9.7	3.6	0.7	1.1	1.4	0.6	0.2	0.4	0.0	0.0	0.0
27	1.4	5.6	1.8	0.7	33.7	1.2	0.5	0.2	0.2	0.0	0.0	0.0
28	1.0	2.1	1.3	0.6	145.1	1.1	0.4	0.2	0.2	0.0	0.0	0.0
29	0.8	1.2	1.2	0.5		1.2	0.4	0.2	0.1	74.9	0.0	0.0
30	0.7	1.0	2.3	0.7		13.0	0.4	0.2	73.3	15.0	0.0	0.0
31	0.5		1.7	0.7		5.6		0.3		3.7	0.0	
TOTAL:	154.2	42.8	264.9	26.2	251.8	508.2	199.7	8.1	194.3	341.6	1.1	0.3

APPENDIX C-2C. AVERAGE DAILY DISCHARGE AT CYPRESS CREEK AT DONGOLA ROAD (503) -- HATER YEAR 1986
DISCHARGE IN CUBIC FEET PER SECOND

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.0	0.0	0.3	6.3	59.8	0.7	157.9	0.1	0.0	0.0	0.1	0.0
2	0.0	0.0	0.2	3.2	147.8	0.8	105.7	0.1	0.0	0.0	0.0	0.0
3	0.0	0.0	0.2	1.8	100.0	75.7	51.7	0.2	0.0	0.0	0.0	0.0
4	0.0	0.0	0.2	1.3	80.4	62.3	12.9	0.4	0.0	0.0	0.0	0.0
5	0.0	0.0	0.2	1.0	32.1	14.0	5.2	0.6	0.0	0.0	0.0	0.0
6	0.0	0.0	0.1	0.8	30.8	5.5	4.8	0.3	0.0	0.0	0.0	0.0
7	0.0	0.0	0.5	0.7	45.0	3.3	2.9	0.4	0.0	0.0	0.0	0.0
8	0.0	0.0	0.5	0.7	16.6	2.4	1.6	0.1	0.0	0.0	0.0	0.0
9	0.0	0.0	0.4	0.7	2.5	2.3	1.1	0.2	0.0	0.0	0.0	0.0
10	0.0	0.0	0.3	0.7	2.0	1.8	0.8	0.2	0.1	0.0	0.0	0.0
11	0.0	0.0	0.2	0.7	1.5	1.2	0.7	0.2	0.0	0.0	0.0	0.0
12	0.0	0.0	0.2	0.6	0.8	6.4	0.6	0.1	0.0	0.1	0.0	0.0
13	0.0	0.0	0.2,	0.7	0.8	6.3	0.5	0.1	0.0	0.2	0.0	0.0
14	0.0	0.0	1.6	0.7	1.0	2.0	0.4	0.1	0.0	0.1	0.0	0.0
15	0.0	0.0	92.6	0.7	1.6	1.3	0.4	0.1	0.0	0.1	0.0	0.0
16	0.0	0.0	8.9	0.6	1.2	0.9	0.3	0.1	0.0	0.1	0.0	0.0
17	0.0	6.0	1.8	38.8	1.0	0.8	0.3	0.1	0.0	0.2	0.0	0.0
18	0.0	0.4	0.9	33.2	2.2	1.1	1.0	0.1	0.0	0.2	0.0	0.0
19	0.0	0.3	2.0	98.0	42.8	1.4	1.4	0.0	0.0	0.4	0.0	16.4
20	0.0	0.1	39.3	116.3	28.8	1.2	0.6	0.0	0.0	3.4	0.5	6.5
21	0.0	0.1	5.2	48.5	5.3	1.6	0.5	0.0	0.0	0.5	8.9	1.2
22	0.0	0.0	1.2	15.4	3.1	1.7	0.4	0.0	0.0	0.2	1.0	0.6
23	0.0	0.0	0.6	5.1	2.4	1.0	0.4	0.1	0.0	0.1	0.4	0.4
24	0.0	0.0	5.6	2.9	1.6	0.8	0.3	0.1	0.0	0.1	0.2	0.2
25	0.0	0.1	227.6	1.7	1.2	2.5	0.3	0.2	0.0	0.1	0.1	0.1
26	0.0	0.7	359.2	1.1	1.1	2.3	0.2	0.1	0.0	0.1	0.1	0.1
27	0.0	2.1	115.7	0.8	1.9	1.2	0.2	0.1	0.0	0.1	0.0	0.0
28	0.0	6.4	110.9	0.8	0.9	0.9	0.2	0.1	0.0	0.1	0.0	0.0
29	0.0	4.6	49.8	0.8	0.6	40.6	0.2	0.0	0.0	0.1	0.0	0.0
30	0.0	0.7	15.0	1.1		95.0	0.2	0.0	0.0	0.1	0.0	0.0
31	0.0		8.4	1.6		74.4		0.0		0.1	0.0	
TOTAL:	0.0	21.5	1049.8	387.3	617.0	413.4	353.7	4.2	0.1	6.4	11.3	25.5

APPENDIX C-3A. AVERAGE DAILY DISCHARGE AT MAIN DITCH AT ROUTE 45 (505) -- WATER YEAR 1985

DISCHARGE IN CUBIC FEET PER SECOND

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	HAY	JUN	JUL	AUG	SEP
1	-	-	-	-	-	-	2016.8	831.1	45.7	35.1	278.1	14.7
2	-	-	-	-	-	-	1798.7	722.7	40.6	34.9	148.0	6.8
3	-	-	-	-	-	-	1049.0	289.2	37.2	35.2	37.1	4.5
4	-	-	-	-	-	-	454.9	130.9	52.0	35.3	11.8	6.7
5	-	-	-	-	-	-	302.8	61.8	40.1	35.3	398.4	1827.8
6	-	-	-	-	-	-	255.5	39.2	41.2	35.4	432.3	1817.5
7	-	-	-	-	-	-	168.0	35.7	40.3	35.3	115.7	1373.6
8	-	-	-	-	-	-	160.1	36.1	40.2	33.6	44.6	1061.7
9	-	-	-	-	-	-	154.3	36.1	41.2	32.1	22.5	872.7
10	-	-	-	-	-	-	144.6	36.5	42.4	31.8	93.0	689.9
11	-	-	-	-	-	-	137.2	36.5	62.2	31.1	83.1	508.5
12	-	-	-	-	-	-	133.2	36.2	50.3	30.7	35.6	314.8
13	-	-	-	-	-	-	135.0	36.3	34.1	29.1	10.4	164.6
14	-	-	-	-	-	-	306.2	36.3	34.3	23.9	3.6	89.4
15	-	-	-	-	-	-	446.7	36.4	34.5	20.6	44.0	63.8
16	-	-	-	-	-	-	188.9	35.7	34.5	18.3	55.9	51.9
17	-	-	-	-	-	-	148.5	35.2	37.4	13.1	31.4	43.9
18	-	-	-	-	-	-	137.2	35.2	38.0	7.9	7.8	38.0
19	-	-	-	-	-	-	132.1	35.3	36.6	4.7	2.8	34.5
20	-	-	-	-	-	-	124.8	35.3	34.4	3.3	2.6	32.0
21	-	-	-	-	-	-	120.4	36.0	34.2	3.0	2.5	26.5
22	-	-	-	-	-	-	120.0	675.1	34.1	2.7	2.0	15.3
23	-	-	-	-	-	-	149.2	604.4	34.3	2.2	97.0	15.9
24	-	-	-	-	-	-	266.2	232.8	34.5	1.9	1086.7	34.7
25	-	-	-	-	-	-	146.9	139.2	34.6	1.6	906.0	20.5
26	-	-	-	-	-	-	238.1	118.9	34.4	1.7	583.1	13.1
27	-	-	-	-	-	-	1616.3	105.9	34.4	1.3	307.8	8.4
28	-	-	-	-	-	-	1120.8	90.7	34.4	1.0	105.0	5.9
29	-	-	-	-		82.4	454.9	71.8	34.2	0.7	54.5	4.7
30	-	-	-	-		1370.7	219.8	56.7	34.6	0.7	37.7	6.5
31	-		-	-		2523.3		50.3		0.7	27.8	
TOTAL	-	-	-	-	-	3976.4*	12847.1	4759.5	1160.9	544.2	5068.8	9168.8

- no record

* partial record

APPENDIX C-3B. AVERAGE DAILY DISCHARGE AT MAIN DITCH AT ROUTE 45 (505) -- HATER YEAR 1986

DISCHARGE IN CUBIC FEET PER SECOND

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.5	889.3	310.1	31.2	33.0	35.0	31.3	6.4	58.8	6.0	1.0	0.5
2	5.5	697.4	199.7	30.5	36.5	35.2	31.3	4.6	53.6	7.0	0.9	0.5
3	4.0	458.5	109.4	29.6	1213.6	34.9	28.6	3.8	50.0	5.7	0.8	0.5
4	3.5	270.5	94.8	27.2	1546.2	36.2	26.5	3.2	48.7	4.5	0.8	0.5
5	3.1	112.4	87.1	24.8	1029.5	43.1	30.8	2.8	52.0	3.3	0.8	0.4
6	3.0	72.7	75.9	29.8	653.3	39.6	30.9	2.7	50.7	3.4	0.9	0.4
7	2.7	55.8	69.5	35.9	538.6	34.4	24.0	2.5	70.0	2.9	1.0	0.5
8	2.4	48.5	66.6	33.2	287.5	32.2	18.7	2.3	64.4	2.6	1.0	0.5
9	2.3	45.6	69.2	31.3	143.8	31.3	12.7	2.4	66.9	2.7	2.1	0.4
10	2.2	47.9	80.2	30.3	95.4	38.2	11.6	2.2	69.5	3.6	66.6	0.5
11	2.1	46.3	338.6	24.8	76.3	49.9	11.6	2.6	53.7	3.4	37.6	0.6
12	2.4	105.5	334.3	20.7	66.6	1079.1	10.8	2.2	45.6	4.8	3.8	0.8
13	2.4	137.0	141.4	22.1	57.8	812.6	10.7	2.4	38.6	26.5	1.2	0.9
14	111.8	105.5	94.5	16.6	56.3	378.0	10.9	3.7	35.6	8.8	0.9	1.0
15	111.0	86.0	72.3	11.2	53.9	140.3	7.8	798.1	34.0	155.4	0.8	1.2
16	45.7	433.0	71.0	10.2	85.8	79.5	6.5	2536.4	33.0	54.8	14.1	1.8
17	29.8	262.2	73.8	12.3	281.5	63.9	5.8	2189.4	32.1	31.2	11.7	2.2
18	12.0	110.5	61.5	70.4	138.2	57.4	4.0	2538.1	30.3	9.0	1.4	7.5
19	6.2	75.6	49.4	433.1	90.4	90.9	17.0	2065.3	25.6	3.8	1.0	35.2
20	170.0	93.1	44.4	160.0	71.6	62.8	39.7	1432.0	24.1	2.9	0.8	18.8
21	206.7	71.0	39.9	89.8	60.8	50.2	48.0	920.8	18.1	2.6	0.7	1.4
22	68.2	58.2	37.4	67.6	54.6	45.5	36.1	562.7	15.6	2.3	0.7	0.8
23	195.2	52.8	39.3	52.4	49.9	42.1	30.5	232.1	18.0	1.5	0.6	10.1
24	284.3	47.4	39.7	48.3	47.2	40.5	18.5	172.6	16.0	1.1	0.7	128.0
25	94.1	43.7	36.3	47.0	44.5	38.9	12.0	589.3	9.8	1.0	0.6	41.9
26	50.8	659.0	32.9	41.2	42.9	37.3	8.9	1195.4	7.1	1.1	0.6	3.6
27	37.8	1623.8	32.1	36.0	40.3	36.3	6.9	593.0	6.1	7.6	0.5	0.8
28	32.4	1172.0	32.3	34.8	38.0	35.3	24.4	179.4	6.4	2.0	0.5	0.7
29	113.7	687.1	31.6	33.1		34.9	24.3	143.3	6.2	1.2	0.5	1.1
30	1012.5	408.5	30.8	33.1		33.0	9.9	81.1	7.0	1.1	0.5	2.7
31	980.2		31.2	32.3		31.8		67.7		1.3	0.5	
TOTAL	3606.5	8976.8	2827.2	1600.8	6934.0	3600.3	590.7	16340.5	1047.5	365.1	155.6	265.8

APPENDIX C-3C. AVERAGE DAILY DISCHARGE AT MAIN DITCH AT ROUTE 45 (505) -- WATER YEAR 1987
DISCHARGE IN CUBIC FEET PER SECOND

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.2	20.7	276.9	0.5	8.9	1162.3	1.8	29.3	18.0	91.0	42.4	0.3
2	7.6	14.3	348.7	0.6	65.1	513.8	39.8	30.6	8.8	70.3	23.1	0.3
3	8.3	11.9	101.8	0.4	40.7	152.8	32.6	30.7	28.6	35.9	1.5	0.3
4	30.8	12.2	58.8	0.5	14.3	64.4	6.5	43.4	15.5	18.1	0.6	0.3
5	27.1	28.4	45.2	0.7	2.3	44.5	2.2	32.9	3.5	16.1	0.4	0.3
6	7.9	15.8	38.0	0.8	0.8	33.5	1.5	27.1	2.0	79.9	0.4	0.3
7	2.4	2.2	31.8	0.3	0.4	18.0	1.1	17.1	1.7	394.0	0.3	0.3
8	1.6	13.3	27.1	0.3	0.3	5.6	1.1	12.1	1.5	182.7	0.3	0.3
9	2.2	6.6	126.3	0.4	0.3	2.1	0.7	9.6	1.4	63.1	0.5	0.3
10	2.2	1.8	104.7	0.7	0.3	1.0	0.8	7.4	1.4	42.0	0.4	0.3
11	2.8	2.7	57.3	0.8	0.3	0.5	5.4	6.8	1.4	33.2	0.3	0.3
12	3.2	2.4	47.0	0.8	0.4	0.3	7.1	7.1	1.4	22.0	0.3	0.3
13	3.2	2.2	40.6	0.7	0.4	0.1	9.6	6.4	1.4	13.8	0.3	0.3
14	3.7	2.0	35.3	0.8	1.4	0.1	360.2	7.0	1.2	30.6	0.3	0.3
15	3.7	2.0	30.6	0.8	2.4	0.2	190.3	6.3	2.5	10.3	0.3	0.3
16	3.4	2.1	18.0	0.9	39.1	0.1	123.5	5.0	1.4	2.3	0.3	0.4
17	3.1	1.9	9.7	0.9	50.6	1.0	69.3	4.9	1.1	1.5	0.3	7.5
18	4.8	1.4	4.0	1.3	31.9	53.0	49.5	4.0	7.3	1.1	0.3	5.9
19	4.5	1.1	1.8	3.2	32.6	68.2	39.5	4.0	129.9	1.1	0.3	1.0
20	4.3	1.2	0.3	8.4	48.3	34.3	34.9	4.1	45.7	0.8	0.3	0.4
21	4.2	1.1	0.0	3.9	40.2	6.9	32.1	3.3	80.4	0.6	0.3	0.3
22	3.5	0.7	0.0	2.1	29.4	1.4	30.5	2.5	48.4	0.6	0.4	0.3
23	7.6	0.7	0.0	1.8	9.4	0.8	30.1	2.7	26.9	0.7	0.3	0.5
24	8.7	0.6	30.3	1.7	1.6	0.7	26.6	3.5	48.2	0.7	0.3	0.7
25	23.8	33.8	33.5	1.7	0.7	0.6	18.5	4.8	157.4	0.6	0.3	1.1
26	20.6	114.3	4.3	1.6	0.4	0.2	14.5	3.9	49.1	0.6	0.3	0.4
27	7.6	70.5	1.6	1.6	38.6	0.2	12.8	3.1	25.2	0.5	0.4	0.4
28	9.1	50.7	0.7	1.6	900.8	0.1	15.0	2.7	5.1	0.5	0.3	0.3
29	12.2	44.5	0.3	2.3		0.1	11.5	2.1	14.8	0.5	0.3	0.2
30	16.4	42.1	0.4	4.1		17.8	12.8	2.3	18.9	0.6	0.3	0.3
31	18.4		0.4	4.7		7.1		7.7		0.5	0.3	
TOTAL	265.1	505.2	1475.4	50.9	1361.9	2191.7	1181.8	334.4	750.1	1116.2	76.4	24.2

APPENDIX C-3D. AVERAGE DAILY DISCHARGE AT MAIN DITCH AT ROUTE 45 (505) -- HATER YEAR 1988

DISCHARGE IN CUBIC FEET PER SECOND

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.4	0.4	0.2	136.0	142.7	34.2	909.4	37.3	27.7	0.3	0.2	0.4
2	0.4	0.4	1.8	91.4	1906.4	33.8	455.1	33.9	15.7	0.2	0.4	0.4
3	0.3	0.3	3.7	68.9	1323.8	173.7	200.1	29.0	10.6	0.2	0.5	0.5
4	0.3	0.3	4.6	59.0	732.3	142.8	105.2	55.2	4.7	0.2	0.7	0.5
5	0.3	0.3	5.4	52.7	259.2	72.4	72.6	55.0	1.8	0.2	0.9	0.4
6	0.3	0.4	9.6	52.5	112.2	57.5	305.6	38.7	1.6	0.2	1.1	0.4
7	0.3	0.4	2.5	52.4	73.0	52.0	118.5	33.8	1.8	0.1	1.2	0.4
8	0.3	0.3	0.6	51.5	52.8	49.3	67.1	31.9	1.8	0.1	1.1	0.4
9	0.3	0.4	0.2	49.5	42.6	50.2	54.9	36.7	1.5	0.1	1.0	0.4
10	0.3	0.4	0.1	47.2	40.3	50.6	49.7	34.5	1.0	0.1	1.1	0.4
11	0.3	0.4	0.2	44.2	39.9	47.7	46.4	31.3	0.8	0.1	1.2	0.4
12	0.3	0.3	0.2	41.8	38.6	69.1	43.5	26.1	0.9	0.1	1.2	0.4
13	0.3	0.3	0.2	40.7	39.2	71.0	41.6	21.9	0.7	0.5	1.1	0.4
14	0.3	0.3	16.0	40.0	45.7	52.1	40.2	23.5	0.7	5.8	1.0	0.4
15	0.3	0.4	511.2	41.0	114.6	47.4	39.2	26.2	0.6	1.0	0.8	0.4
16	0.3	0.5	148.1	40.7	70.5	45.1	39.0	14.5	0.5	0.2	0.7	0.4
17	0.3	0.4	62.5	67.6	57.4	43.7	38.9	7.9	0.5	0.2	0.5	0.4
18	0.3	0.2	51.2	88.2	59.2	45.6	55.6	4.9	0.4	0.4	0.4	0.4
19	0.3	0.3	51.8	882.3	238.1	52.6	81.9	4.2	0.4	0.4	0.4	46.3
20	0.3	0.3	69.7	1382.5	202.3	49.9	61.5	3.0	0.4	0.4	0.4	60.8
21	0.3	0.3	58.0	533.1	84.2	46.0	56.7	3.1	0.3	0.4	0.3	42.8
22	0.4	0.3	49.7	177.6	58.8	43.8	52.7	4.0	0.3	0.4	0.4	22.2
23	0.4	0.4	45.5	103.9	47.1	42.4	49.3	17.8	0.3	0.3	6.9	1.9
24	0.4	0.5	49.4	75.5	42.0	41.7	44.9	53.1	0.2	0.3	1.1	0.5
25	0.4	0.6	1427.3	59.8	39.2	45.6	40.7	38.7	0.2	0.3	1.1	0.4
26	0.4	0.9	2335.6	52.3	38.1	48.2	38.7	29.4	0.2	0.3	0.9	0.4
27	0.4	0.7	1620.3	47.4	37.6	45.1	37.9	20.6	0.2	0.2	0.8	0.4
28	0.4	1.2	1281.4	44.6	37.0	42.9	36.6	9.7	0.2	0.2	0.7	0.3
29	0.4	1.0	842.0	45.0	35.5	108.9	35.7	8.1	0.2	0.2	0.6	0.3
30	0.4	0.4	424.5	45.0		450.6	35.6	9.6	0.2	0.2	0.5	0.4
31	0.4		212.6	45.7		276.6		22.1		0.1	0.5	
TOTAL	10.5	13.3	9286.1	4560.0	6010.3	2432.5	3254.8	765.7	76.4	13.7	29.7	184.1

APPENDIX C-4A. AVERAGE DAILY DISCHARGE AT CACHE RIVER AT ROUTE 146 (507) -- WATER YEAR 1985

DISCHARGE IN CUBIC FEET PER SECOND

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	-	-	-	-	-	-	-	-	-	48.1	46.3	15.7
2	-	-	-	-	-	-	-	-	-	72.3	52.4	10.7
3	-	-	-	-	-	-	-	-	-	44.6	20.0	8.6
4	-	-	-	-	-	-	-	-	-	29.0	11.1	7.8
5	-	-	-	-	-	-	-	-	-	21.9	245.7	326.0
6	-	-	-	-	-	-	-	-	-	19.3	492.3	547.3
7	-	-	-	-	-	-	-	-	-	16.8	585.7	459.2
B	-	-	-	-	-	-	-	-	-	15.2	458.2	153.4
9	-	-	-	-	-	-	-	-	-	12.6	149.9	61.0
10	-	-	-	-	-	-	-	-	-	11.7	237.5	35.8
11	-	-	-	-	-	-	-	-	-	11.1	506.9	19.4
12	-	-	-	-	-	-	-	-	-	11.0	611.2	11.6
13	-	-	-	-	-	-	-	-	-	10.4	361.1	8.8
14	-	-	-	-	-	-	-	-	-	9.2	103.7	7.4
15	-	-	-	-	-	-	-	-	-	8.5	177.8	6.2
16	-	-	-	-	-	-	-	-	-	8.1	818.2	5.3
17	-	-	-	-	-	-	-	-	-	7.1	912.9	5.0
18	-	-	-	-	-	-	-	-	-	7.1	691.8	4.1
19	-	-	-	-	-	-	-	-	-	7.0	377.5	3.9
20	-	-	-	-	-	-	-	-	-	6.6	127.2	3.8
21	-	-	-	-	-	-	-	-	56.8	6.6	60.9	3.6
22	-	-	-	-	-	-	-	-	47.0	6.7	35.9	3.4
23	-	-	-	-	-	-	-	-	37.3	7.0	94.7	3.3
24	-	-	-	-	-	-	-	-	32.5	8.8	563.3	3.1
25	-	-	-	-	-	-	-	-	28.1	7.8	928.3	2.9
26	-	-	-	-	-	-	-	-	30.8	11.3	796.9	2.9
27	-	-	-	-	-	-	-	-	97.9	26.6	570.2	3.0
28	-	-	-	-	-	-	-	-	381.8	13.6	239.4	3.9
29	-	-	-	-		-	-	-	255.4	9.5	84.2	3.5
30	-	-	-	-		-	-	-	86.8	7.3	46.7	3.0
31	-		-	-		-		-		6.9	30.3	
TOTAL	-	-	-	-	-	-	-	-	1054.4*	489.7	10438.2	1733.6

- no record

* partial record

APPENDIX C-4B. AVERAGE DAILY DISCHARGE AT CACHE RTVER AT ROUTE 146 (507) -- HATER YEAR 1986
DISCHARGE IN CUBIC FEET PER SECOND

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	NAY	JUN	JUL	AUG	SEP
1	3.0	399.0	464.4	16.3	16.9	24.9	15.6	10.8	33.4	1.8	1.2	1.1
2	2.9	428.7	385.0	16.2	38.8	21.4	14.9	8.2	268.5	2.0	1.3	1.1
3	3.0	276.3	215.9	15.6	610.3	21.3	14.1	6.6	384.2	2.3	1.2	1.2
4	3.3	115.7	106.0	15.3	735.1	20.1	13.1	5.4	201.7	2.1	1.1	1.1
5	3.3	61.5	80.4	15.3	678.2	17.9	104.7	4.7	71.8	2.2	1.0	1.0
6	3.0	42.8	64.4	16.0	624.4	18.6	218.2	4.3	42.7	2.1	1.0	1.7
7	2.9	35.8	55.2	16.5	588.5	18.2	108.6	4.0	178.5	1.9	1.0	1.3
8	3.0	32.4	47.7	16.4	520.8	15.4	60.3	3.6	268.8	1.7	1.2	1.2
9	3.1	28.7	44.1	15.7	315.8	13.5	48.3	3.6	134.6	1.5	8.5	1.0
10	3.6	23.5	43.0	15.9	144.6	60.2	34.7	3.4	111.1	1.5	172.7	0.9
11	4.3	23.3	233.2	16.8	80.2	76.0	27.3	3.4	67.1	1.9	314.6	0.9
12	4.4	42.0	464.0	16.7	65.7	370.0	21.4	3.5	36.8	3.4	79.1	0.9
13	5.6	237.4	513.6	16.7	62.9	616.2	18.0	3.9	20.8	93.3	15.6	2.0
14	154.1	422.6	283.2	16.8	58.7	599.0	15.3	4.1	13.3	32.9	5.0	2.0
15	99.6	412.2	118.8	17.0	53.3	384.7	14.1	262.7	9.8	204.8	3.0	1.3
16	30.6	441.9	107.8	18.1	53.0	151.0	12.6	857.0	7.6	259.6	76.2	1.1
17	12.7	512.8	93.8	18.5	194.4	74.7	10.9	1086.3	6.0	52.7	109.3	0.9
18	8.3	451.0	75.8	18.0	222.9	51.0	10.3	869.1	4.4	11.8	17.4	22.3
19	7.4	311.5	64.0	18.5	120.7	176.3	11.0	731.2	3.8	4.3	4.9	212.3
20	7.4	528.6	51.9	15.9	75.4	184.2	75.9	583.7	3.4	2.7	2.8	36.5
21	48.3	741.2	38.1	16.1	56.8	71.4	284.5	283.1	3.3	2.2	2.1	7.8
22	33.4	665.5	29.5	17.0	46.3	50.1	214.1	99.4	2.9	2.2	1.7	3.4
23	71.5	463.5	21.3	17.5	41.3	42.3	80.3	52.3	2.8	1.6	1.6	5.0
24	88.2	200.5	18.9	16.8	38.1	38.1	48.0	57.6	2.4	1.4	1.3	250.2
25	43.5	106.2	19.1	16.2	35.3	34.5	36.4	329.9	2.1	1.4	1.3	145.4
26	23.0	164.4	19.7	17.6	32.9	31.9	29.2	495.9	2.1	1.7	1.4	26.6
27	14.7	483.3	20.6	18.0	33.4	30.8	20.9	469.2	2.0	1.6	1.3	8.4
28	11.2	749.2	21.0	16.8	31.4	27.8	19.6	237.6	2.0	1.8	1.2	5.1
29	15.4	760.4	19.3	15.8		22.8	18.3	214.1	1.9	2.2	1.1	3.9
30	249.8	629.8	18.7	16.1		19.8	14.7	158.1	1.9	1.6	1.1	2.9
31	340.3		17.5	16.7		17.4		60.8		1.4	1.2	
TOTAL	1304.8	9791.7	3755.9	516.8	5576.1	3301.5	1615.3	6917.5	1891.7	705.6	833.4	750.5

APPENDIX C-4C. AVERAGE DAILY DISCHARGE AT CACHE RIVER AT ROUTE 146 (507) -- WATER YEAR 1987
DISCHARGE IN CUBIC FEET PER SECOND

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.9	10.9	204.7	29.9	30.7	761.8	80.4	15.1	4.6	295.6	84.3	2.3
2	76.9	11.2	504.5	27.8	96.0	818.4	76.1	14.6	5.4	366.4	34.0	2.3
3	400.7	10.9	574.5	25.8	131.4	695.8	106.5	12.6	5.8	123.7	9.5	2.3
4	314.3	11.1	426.7	24.2	66.9	483.9	66.3	13.2	10.4	35.2	6.7	2.2
5	98.6	33.8	169.3	23.0	46.1	216.2	51.0	19.2	6.2	16.2	4.3	2.1
6	50.0	74.3	77.5	20.9	37.9	109.7	44.0	14.6	4.6	11.1	3.7	2.0
7	26.4	51.6	51.1	21.5	34.8	71.7	40.0	11.4	3.9	12.2	3.5	2.0
8	14.4	37.2	45.6	20.8	32.9	56.8	38.2	9.7	3.6	20.0	2.8	2.0
9	11.0	31.2	104.4	20.1	31.1	50.5	35.0	8.8	3.3	17.1	2.5	2.1
10	9.3	26.0	227.8	24.2	25.8	44.6	32.2	7.9	3.4	13.1	2.3	2.1
11	8.3	21.2	91.5	33.2	23.8	39.8	48.4	7.1	3.4	6.9	2.1	2.0
12	8.6	18.9	56.3	35.9	24.5	36.0	71.3	6.2	5.0	5.1	2.0	2.0
13	10.7	18.2	44.2	31.0	24.8	34.0	48.6	34.9	104.4	4.2	2.0	1.9
14	26.0	16.1	37.4	30.6	27.7	34.3	276.2	31.3	100.6	3.7	2.1	1.8
15	26.7	14.7	34.1	31.1	51.9	31.9	482.1	12.6	20.5	3.2	2.0	1.7
16	14.6	15.4	33.2	30.8	108.0	31.1	528.5	10.0	45.0	2.7	2.0	1.8
17	10.6	17.0	33.4	28.6	225.3	30.0	508.5	7.8	29.7	2.6	1.9	2.2
18	9.0	16.2	32.7	28.9	104.5	201.7	324.3	7.3	10.9	2.9	1.9	3.5
19	7.7	14.4	30.3	45.3	84.6	484.3	133.5	11.1	61.9	2.9	1.9	7.0
20	6.5	14.1	25.0	58.0	112.4	621.0	72.7	6.4	33.7	2.6	1.9	3.9
21	5.3	13.1	23.5	45.5	117.7	559.9	53.8	6.1	10.1	2.4	1.8	2.5
22	5.0	12.6	21.4	36.1	86.3	296.4	44.3	6.0	5.6	2.4	1.8	2.0
23	5.8	12.8	20.3	34.6	64.8	137.4	38.5	5.7	4.0	2.3	1.8	1.9
24	6.8	13.3	55.2	34.6	51.1	91.9	36.0	4.9	4.3	2.2	1.8	1.8
25	45.5	14.8	188.0	34.6	43.3	67.4	34.1	15.8	14.8	2.2	1.8	1.6
26	131.6	56.6	86.5	34.4	39.5	54.5	31.0	27.7	7.5	2.3	1.8	1.6
27	52.0	146.2	50.0	34.5	158.2	45.8	29.1	10.0	3.8	2.4	1.8	1.6
28	30.8	65.3	40.4	33.2	506.2	40.7	25.2	6.3	3.0	2.5	1.8	1.6
29	18.4	43.5	36.1	22.1		37.9	20.3	5.3	5.3	94.8	1.9	1.7
30	13.7	35.4	34.2	24.2		138.2	16.8	4.6	73.9	126.5	2.6	1.8
31	11.5		31.5	30.4		155.8		4.4		34.8	2.5	
TOTAL	1462.6	878	3391.3	955.8	2388.2	6479.4	3392.9	358.6	598.6	1222.2	194.8	67.3

APPENDIX C-4D. AVERAGE DAILY DISCHARGE AT CACHE RIVER AT ROUTE 146 (507) -- WATER YEAR 1988

DISCHARGE IN CUBIC FEET PER SECOND

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	3.0	13.9	206.3	158.8	31.9	819.9	9.1	5.2	17.5	3.1	4.7
2	2.4	2.6	8.3	114.1	560.7	31.0	872.8	8.6	5.3	15.7	3.0	4.6
3	3.3	2.4	7.2	65.2	764.3	215.6	796.7	7.5	6.0	13.5	6.7	6.1
4	2.8	2.3	8.7	51.1	733.1	500.8	676.7	10.3	7.2	12.4	21.3	12.4
5	2.3	2.1	8.3	45.4	631.7	554.6	442.4	22.8	7.1	12.1	6.9	13.2
6	1.9	2.0	6.2	42.7	361.7	338.8	228.1	19.7	6.3	12.5	5.2	9.7
7	1.8	2.0	11.0	40.2	166.3	152.1	135.6	11.4	6.7	13.9	4.9	5.9
8	1.8	2.0	44.4	37.8	86.2	90.9	84.3	8.5	6.7	13.7	5.3	3.8
9	1.7	2.6	20.7	35.5	68.5	71.2	61.4	10.0	7.6	12.6	4.4	2.6
10	1.6	6.0	11.1	33.4	60.6	67.2	51.6	12.9	9.3	11.9	3.7	1.9
11	1.6	7.7	7.7	32.5	55.9	55.5	45.2	14.3	9.9	11.6	3.1	2.0
12	1.5	4.4	6.0	32.1	54.1	62.9	40.4	10.6	10.1	11.9	2.8	3.3
13	1.6	3.2	5.0	32.0	53.1	131.4	37.6	8.3	10.9	12.9	3.1	30.2
14	1.9	2.9	6.2	31.9	41.8	82.7	33.7	7.6	11.4	12.9	19.5	22.6
15	2.0	2.7	156.9	31.0	42.5	56.7	30.0	6.7	12.5	16.0	10.0	6.7
16	2.0	3.1	247.3	25.6	43.8	48.3	26.8	6.0	13.6	18.1	6.0	3.7
17	2.1	15.8	57.5	55.0	39.7	41.7	24.7	6.0	14.6	18.2	4.6	2.9
18	2.0	42.9	27.2	342.0	43.9	40.5	27.2	5.2	14.6	18.0	3.8	3.4
19	1.9	14.3	19.3	385.0	124.4	45.8	36.9	6.2	15.1	25.2	4.3	39.7
20	2.0	6.1	85.4	620.9	261.7	46.9	37.4	7.3	15.9	65.6	8.9	47.3
21	2.0	4.0	108.4	766.3	144.5	41.8	31.8	7.2	16.3	22.8	10.3	12.6
22	2.0	3.5	42.0	655.2	82.7	37.9	24.8	7.1	16.1	13.6	10.3	6.2
23	2.1	3.0	26.0	412.2	64.7	34.5	21.4	7.8	16.5	10.2	7.5	3.4
24	2.2	2.4	20.5	185.8	54.6	35.4	17.7	16.3	17.8	6.0	5.8	3.1
25	2.5	2.7	366.6	100.0	45.7	36.0	14.3	37.4	17.0	4.0	4.3	4.5
26	2.8	14.1	836.6	58.9	40.1	46.3	12.5	17.9	16.7	3.3	3.7	6.1
27	3.0	35.6	1041.6	42.5	37.9	41.6	12.4	9.0	17.1	10.2	3.7	3.3
28	4.6	37.0	856.1	45.9	36.7	33.3	12.3	6.6	17.2	10.0	3.7	2.2
29	6.5	76.0	761.3	37.7	34.9	72.1	9.7	5.2	17.9	5.6	3.0	2.0
30	4.3	37.6	626.3	39.4		447.7	8.7	4.9	18.6	3.8	2.7	2.0
31	3.7		370.6	43.7		736.6		5.4		3.1	4.7	
TOTAL	75.8	346	5814.3	4647.3	4894.6	4229.7	4675	323.8	367.2	438.8	190.3	272.1

APPENDIX C-5A. AVERAGE DAILY DISCHARGE AT INDIAN CAMP CREEK AT ULLIN (510) -- WATER YEAR 1986

DISCHARGE IN CUBIC FEET PER SECOND

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	-	-	-	-	-	10.5	7.4	6.1	*«	• *	6.2	6.4
2	-	-	-	-	-	10.1	7.4	6.0	**	**	6.1	6.3
3	-	-	-	-	-	10.0	7.2	6.0	**	**	5.9	6.3
4	-	-	-	-	-	9.4	7.2	5.9	**	**	5.9	6.3
5	-	-	-	-	-	8.9	53.4	5.8	**	**	6.0	6.3
6	-	-	-	-	398.5	8.9	15.0	5.8	*•	**	6.0	6.3
7	-	-	-	-	72.5	8.5	11.1	5.7	**	**	6.5	6.2
8	-	-	-	-	24.2	7.7	10.7	5.6	**	3.1	7.0	6.1
9	-	-	-	-	19.6	7.2	9.5	5.5	**	6.7	8.8	6.1
10	-	-	-	-	16.6	6.8	8.8	5.5	**	8.1	510.7	6.1
11	-	-	-	-	14.9	6.9	8.3	5.5	**	7.3	47.1	6.3
12	-	-	-	-	13.2	415.4	7.6	5.5	**	7.4	10.2	6.3
13	-	-	-	-	13.1	130.4	6.8	5.5	»»	7.9	7.9	6.3
14	-	-	-	-	14.1	62.6	6.9	72.4	**	7.7	7.2	6.2
15	-	-	-	-	16.1	30.9	7.0	795.1	**	22.6	7.2	6.2
16	-	-	-	-	42.8	18.3	6.7	283.0	**	10.2	163.5	6.2
17	-	-	-	-	52.9	14.0	6.7	**	*»	8.3	105.4	6.1
18	-	-	-	-	27.4	40.9	6.7	**	♦ *	8.0	10.4	36
19	-	-	-	-	22.8	34.8	7.4	**	**	7.7	8.3	9.9
20	-	-	-	-	18.2	14.4	32.8	• *	**	7.3	7.4	6
21	-	-	-	-	13.5	12.0	24.5	**	**	7.0	7.1	5.9
22	-	-	-	-	12.0	11.5	12.1	**	**	6.7	6.9	5.9
23	-	-	-	-	10.9	10.6	10.4	**	**	6.5	17.5	12.3
24	-	-	-	-	10.8	9.5	9.1	**	**	6.4	10.4	8.6
25	-	-	-	-	9.8	8.9	8.2	**	**	6.6	7.4	6.5
26	-	-	-	-	10.6	8.7	7.4	**	**	6.6	7.3	6.7
27	-	-	-	-	10.8	8.5	6.7	**	»*	6.5	7.1	6.6
28	-	-	-	-	10.7	7.7	6.8	**	**	6.6	6.8	6.5
29	-	-	-	-		7.6	6.4	**	**	6.5	6.6	6.4
30	-	-	-	-		7.5	6.2	**	**	6.5	6.6	6.3
31	-		-	-		7.5		**		6.3	6.5	
TOTAL	-	-	-	-	856.0*	956.6	332.4	1224.9*	**	184.5*	1033.9	229.6

- no record
* partial record
** missing data

APPENDIX C-5B. AVERAGE DAILY DISCHARGE AT INDIAN CAMP CREEK AT ULLIN (510) -- WATER YEAR 1987

DISCHARGE IN CUBIC FEET PER SECOND

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.4	6.8	87.4	7.3	8.9	271.5	10.4	6.9	5.5	86.3	7.0	3.9
2	46.2	6.8	50.0	7.2	19.4	101.1	12.5	6.8	5.4	14.3	6.6	4.2
3	9.2	6.7	14.1	7.2	9.7	36.4	10.8	25.3	6.6	7.6	6.2	4.5
4	9.8	7.2	10.7	7.2	7.6	18.9	10.1	13.1	5.9	7.4	5.9	4.5
5	13.4	11.8	9.2	7.1	7.5	15.2	9.7	7.4	5.8	7.5	5.6	4.4
6	7.6	9.0	8.4	7.0	7.4	13.5	9.6	7.1	5.7	8.1	5.3	4.3
7	7.2	8.0	8.1	7.0	7.3	12.1	9.4	6.9	5.6	9.1	5.1	4.2
e	6.9	8.0	9.8	7.0	7.4	11.6	9.0	6.8	5.6	6.1	5.0	4.2
9	6.5	7.4	22.1	7.1	7.4	11.3	8.5	6.7	5.5	5.6	5.0	4.7
10	6.5	7.1	11.6	8.0	7.4	10.2	8.4	6.6	5.5	5.6	4.9	4.4
11	6.4	7.1	10.0	7.4	7.5	9.7	12.0	6.7	5.5	5.5	4.9	4.3
12	6.4	6.9	8.9	7.4	7.4	8.8	9.6	8.2	5.4	5.5	4.8	4.1
13	6.5	6.7	7.8	7.4	7.4	8.5	9.1	8.7	5.4	5.4	5.0	4.0
14	6.6	6.6	7.4	7.4	8.6	8.2	189.2	6.8	5.3	5.4	5.0	3.9
15	6.6	6.7	7.4	7.3	8.4	7.9	65.2	6.6	20.7	5.3	5.0	3.8
16	6.5	6.7	7.7	7.3	13.5	8.2	42.2	6.4	6.2	5.1	4.8	4.3
17	6.5	6.8	7.6	7.3	10.4	7.9	36.1	6.3	5.7	5.1	4.6	5.7
18	6.4	6.9	7.4	7.6	10.2	241.6	19.4	6.2	5.5	5.0	5.0	5.8
19	6.4	7.0	7.3	9.1	10.8	230.9	15.2	6.2	5.4	4.9	4.9	5.5
20	6.3	7.0	7.3	7.6	9.8	43.3	13.1	6.1	5.3	4.7	4.9	5.2
21	6.4	7.0	7.2	7.4	9.0	16.1	12.0	6.1	5.3	4.6	4.7	4.8
22	6.4	6.9	7.1	7.2	8.3	13.1	10.5	6.1	5.2	4.6	4.6	4.5
23	6.5	6.8	7.0	7.2	8.0	12.0	9.4	7.3	5.2	4.7	4.4	4.4
24	6.8	6.8	22.4	7.2	7.6	11.5	9.0	6.7	5.2	4.9	4.1	4.4
25	47.3	21.6	11.7	7.1	7.3	11.0	8.6	6.6	5.2	4.9	4.0	4.3
26	10.4	16.7	9.4	7.0	7.5	10.6	8.2	6.4	5.2	4.8	4.3	4.4
27	7.6	11.6	7.9	6.9	27.3	10.4	7.8	6.0	5.2	88.7	4.2	4.2
28	7.0	9.3	7.6	6.8	513.6	9.7	7.5	5.8	' 5.1	8.8	4.3	3.9
29	6.9	7.5	7.5	6.5		9.4	7.2	5.7	5.1	45.8	4.5	3.8
30	6.9	7.0	7.4	6.4		16.5	6.9	5.6	84.7	6.8	4.4	4.2
31	6.9		7.3	6.3		11.4		5.5		7.2	4.2	
TOTAL	320.4	248.4	412.7	223.9	772.6	1208.5	596.6	229.6	258.9	395.3	153.2	132.8

APPENDIX C-5C. AVERAGE DAILY DISCHARGE AT INDIAN CAMP CREEK AT ULLIN (510) -- WATER YEAR 1988

DISCHARGE IN CUBIC FEET PER SECOND

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	5.8	5.5	24.4	114.1	11.9	418.0	10.7	5.5	4.6	3.1	0.8
2	4.1	5.7	5.2	16.2	530.7	12.7	236.1	10.7	5.1	4.5	3.1	6.1
3	4.0	5.6	5.1	14.5	207.0	232.5	133.8	10.7	5.2	4.3	3.2	7.3
4	4.2	5.9	4.9	13.5	158.4	99.8	99.0	146.0	5.6	4.0	3.4	6.5
5	4.2	6.2	4.8	12.9	118.0	58.5	80.1	40.3	5.5	3.8	3.3	5.9
6	4.2	6.0	4.9	11.8	89.9	46.0	72.1	23.5	5.4	3.5	3.4	5.3
7	4.6	4.5	6.2	11.0	65.1	38.5	54.3	11.5	5.3	3.4	3.4	4.8
8	4.8	4.4	6.0	10.3	45.3	33.7	47.3	7.3	5.2	3.3	3.3	3.2
9	4.8	4.8	5.4	9.5	33.3	32.5	42.2	11.7	5.3	3.3	3.2	2.0
10	5.0	5.0	5.2	8.8	29.5	29.2	39.1	10.2	5.4	3.3	3.0	1.9
11	5.1	5.1	5.0	8.2	28.8	27.7	37.0	9.5	5.3	3.3	3.0	1.9
12	5.1	5.0	5.0	7.6	26.3	36.6	34.0	8.6	5.3	4.1	3.1	6.8
13	5.1	5.1	4.7	7.3	22.5	29.2	30.5	6.4	5.2	5.1	3.0	6.7
14	5.3	5.1	5.7	7.3	20.6	24.5	25.4	6.3	5.2	5.2	3.0	5.3
15	5.3	5.1	64.1	7.3	23.9	20.6	14.4	6.3	5.2	5.1	3.0	3.8
16	5.3	5.2	8.1	7.2	15.8	16.6	13.8	6.3	5.2	4.8	2.9	4.7
17	5.4	11.2	6.7	48.1	15.6	13.3	13.3	6.3	5.2	4.5	2.9	5.8
18	5.4	5.6	6.2	16.8	40.8	16.2	25.4	6.3	5.1	4.2	2.8	3.1
19	5.3	4.4	7.1	327.9	105.2	15.5	21.6	6.2	5.1	4.2	2.8	2.7
20	5.6	3.6	24.5	228.2	36.6	13.8	15.0	6.1	5.0	4.6	4.9	2.9
21	6.1	3.3	8.0	94.2	23.0	13.1	13.5	6.0	5.0	4.4	6.9	2.2
22	5.7	3.2	6.9	44.9	22.9	12.1	13.1	6.5	4.9	4.0	6.1	2.3
23	5.4	3.4	6.3	27.5	19.9	11.7	12.4	10.9	4.5	3.7	5.4	3.9
24	5.2	3.5	10.5	19.4	17.6	11.3	11.8	18.3	4.3	3.4	4.1	7.5
25	5.1	6.4	591.8	15.0	16.4	18.0	11.2	12.0	4.2	3.2	3.3	6.4
26	5.2	8.3	766.2	13.2	15.0	12.5	11.0	10.9	4.1	3.2	2.8	5.3
27	6.0	7.6	313.2	13.1	14.4	11.1	11.0	11.7	4.1	3.3	2.0	3.9
28	6.2	11.0	221.7	11.3	13.0	10.9	11.2	11.4	4.1	3.2	2.9	3.2
29	6.1	7.7	93.7	11.1	12.9	249.6	10.9	10.1	4.2	3.2	1.8	3.2
30	5.8	5.9	55.2	11.3		306.6	10.7	10.8	4.5	3.1	1.2	3.1
31	5.8		41.1	12.3		147.2		10.8		3.1	1.0	
TOTAL	159.6	169.6	2304.9	1072.1	1882.5	1613.4	1569.2	470.3	149.2	120.9	101.3	128.5

APPENDIX C-6A. AVERAGE DAILY DISCHARGE AT CACHE RIVER AT ROUTE 51 (513) -- WATER YEAR 1986

DISCHARGE IN CUBIC FEET PER SECOND

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	-	-	-	-	-	23.1	15.6	9.4	328.0	10.7	4.6	5.0
2	-	-	-	-	-	21.9	15.1	7.5	266.2	9.4	4.5	4.9
3	-	-	-	-	-	20.8	13.9	6.4	213.5	5.0	4.5	4.8
4	-	-	-	-	-	19.8	13.3	6.0	166.2	4.6	4.4	4.6
5	-	-	-	-	-	18.7	65.6	5.9	129.7	4.4	4.4	4.6
6	-	-	-	-	578.4	17.8	40.0	5.9	104.5	4.2	4.4	4.5
7	-	-	-	-	548.1	16.4	25.1	5.9	441.2	4.1	4.5	4.5
8	-	-	-	-	494.5	14.8	21.5	5.5	501.3	3.9	4.8	4.4
9	-	-	-	-	424.6	15.5	18.7	5.0	443.4	3.8	6.8	4.4
10	-	-	-	-	362.8	39.7	15.4	4.9	384.5	39.0	460.0	4.3
11	-	-	-	-	310.1	63.9	14.3	4.9	246.2	17.2	292.4	4.3
12	-	-	-	-	252.3	455.8	13.8	5.3	155.2	9.6	152.8	4.5
13	-	-	-	-	202.4	507.3	13.2	5.1	123.7	19.1	99.3	4.7
14	-	-	-	-	160.1	412.4	12.8	44.5	101.8	12.4	64.0	4.9
15	-	-	-	-	124.3	301.9	13.0	556.7	74.4	430.1	20.7	5.1
16	-	-	-	-	98.6	208.7	11.7	675.5	55.8	182.7	218.3	5.5
17	-	-	-	-	189.8	157.9	11.0	670.5	39.4	82.4	150.8	6
18	-	-	-	-	176.0	128.3	10.6	747.5	22.8	34.6	30.2	108.6
19	-	-	-	-	129.8	154.9	12.3	731.9	14.7	19.2	15.4	100.3
20	-	-	-	-	104.3	111.2	33.9	704.1	11.8	12.6	11.2	25.2
21	-	-	-	-	83.9	78.0	47.8	695.4	10.8	9.9	8.4	11.2
22	-	-	-	-	64.5	42.7	24.6	690.4	10.1	7.7	6.7	7.6
23	-	-	-	-	35.1	35.3	20.5	679.3	9.1	6.6	8.3	29.2
24	-	-	-	-	31.2	29.0	17.1	687.5	8.1	6.1	8.9	94.2
25	-	-	-	-	26.6	25.9	15.1	673.2	7.5	5.7	5.7	75.1
26	-	-	-	-	25.9	23.5	13.4	653.9	7.6	5.3	5.5	42.8
27	-	-	-	-	26.8	21.4	12.0	632.2	7.8	6.5	5.2	22.8
28	-	-	-	-	24.5	18.3	13.1	593.5	8.4	5.6	5.0	13.4
29	-	-	-	-		17.8	12.8	550.6	8.3	5.1	5.0	9.4
30	-	-	-	-		17.0	11.0	489.4	7.9	5.0	5.0	7.5
31	-		-	-		15.9		396.6		4.8	5.0	
TOTAL	-	-	-	-	4474.6*	3035.6	578.2	10950.4	3909.9	977.3	1626.7	628.3

- no record

APPENDIX C-6B. AVERAGE DAILY DISCHARGE AT CACHE RIVER AT ROUTE 51 (513) -- WATER YEAR 1987

DISCHARGE IN CUBIC FEET PER SECOND

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	77.7	9.2	220.4	13.5	9.0	613.0	35.6	8.0	4.3	418.0	7.6	2.3
2	180.2	10.9	263.2	12.6	64.5	538.0	36.6	8.0	4.1	319.4	5.6	2.7
3	117.1	10.1	167.3	11.5	42.7	419.1	33.0	26.8	9.3	198.2	4.8	2.2
4	37.1	10.7	122.2	10.8	29.2	290.7	28.8	49.0	6.1	130.5	4.3	2.6
5	90.0	41.4	95.5	10.1	22.8	203.8	24.8	24.2	4.7	86.1	4.1	2.3
6	22.9	34.6	73.4	9.6	17.7	160.0	21.3	15.0	4.1	66.0	4.0	3.0
7	12.6	19.8	63.5	9.0	15.2	127.6	18.4	11.5	3.9	49.8	4.0	2.8
8	10.2	16.4	63.3	8.6	13.7	107.7	15.9	9.8	3.8	16.3	3.9	3.3
9	9.8	17.8	116.4	8.7	11.4	90.0	14.0	8.5	3.7	10.0	3.8	3.1
10	14.7	34.1	99.6	12.4	10.5	71.4	13.4	7.4	3.7	9.6	3.7	2.5
11	24.1	33.1	74.5	12.5	10.1	50.4	27.8	7.0	3.7	8.0	3.6	2.0
12	30.0	33.6	61.9	11.1	9.6	21.2	22.3	6.6	3.6	6.6	3.6	1.6
13	28.5	35.6	49.4	10.6	8.5	20.1	17.0	12.9	8.2	5.8	3.7	1.1
14	19.9	14.8	19.0	10.8	10.5	19.7	233.2	10.1	6.0	5.0	3.6	0.9
15	10.2	10.3	15.6	10.8	13.9	19.4	137.1	7.3	43.0	4.6	3.5	0.8
16	7.4	9.6	14.9	10.1	42.7	19.3	100.0	6.5	17.2	4.2	3.5	2.4
17	6.6	9.0	14.5	9.2	49.6	19.3	75.5	6.4	5.6	4.1	3.4	4.7
18	6.0	8.3	13.5	11.1	45.1	322.7	53.3	6.9	4.5	4.0	3.5	4.2
19	5.8	7.0	12.2	17.9	30.1	502.2	42.5	6.5	5.6	3.8	3.5	3.5
20	5.6	7.5	11.1	18.0	24.8	313.8	29.9	5.5	4.7	3.7	3.4	3.0
21	5.5	8.0	11.1	13.3	21.5	181.4	22.9	4.8	4.2	3.7	3.5	1.5
22	5.4	7.7	10.2	12.1	18.5	119.5	18.8	4.7	3.9	3.6	3.5	1.0
23	5.7	7.4	10.2	11.1	15.5	101.1	16.3	5.3	3.8	3.6	3.5	1.1
24	8.5	7.1	68.7	10.9	13.1	81.7	15.0	6.8	3.6	3.6	3.5	1.6
25	103.8	10.7	71.7	10.7	12.0	68.8	13.2	6.1	3.8	3.6	3.5	1.9
26	67.9	79.3	40.8	10.5	11.4	58.5	11.8	5.9	3.8	3.6	3.2	2.3
27	30.7	64.1	26.7	10.2	64.5	47.7	11.1	4.8	3.5	3.6	3.1	2.1
28	23.2	62.3	19.8	9.2	503.3	36.3	9.9	4.4	3.4	5.6	3.2	1.9
29	16.7	52.9	16.8	6.8		35.6	8.7	4.1	3.3	153.1	3.1	1.9
30	12.0	24.6	15.8	6.4		60.2	8.2	4.1	168.8	62.9	3.1	3.0
31	11.2		14.2	6.2		42.5		4.4		25.6	2.6	
TOTAL	1007.0	697.9	1877.4	336.3	1141.4	4762.7	1116.3	299.3	351.9	1626.2	116.9	69.3

APPENDIX C-6C. AVERAGE DAILY DISCHARGE AT CACHE RIVER AT ROUTE 51 (513) -- WATER YEAR 1988

DISCHARGE IN CUBIC FEET PER SECOND

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.2	3.4	3.6	459.7	25.9	25.5	638.7	13.9	4.7	3.7	4.2	1.9
2	3.1	3.5	3.1	368.0	143.5	26.8	614.9	13.7	4.7	3.7	3.9	74.9
3	3.0	3.6	1.6	293.4	142.6	346.9	559.1	13.8	4.6	3.6	3.8	106.0
4	2.8	3.7	1.1	231.4	146.3	259.6	462.2	118.3	4.4	3.6	3.9	30.2
5	2.6	3.7	0.9	186.0	122.0	143.8	351.6	98.8	4.4	3.6	3.4	16.3
6	2.1	4.1	0.8	148.5	96.2	107.1	285.4	67.9	4.3	3.7	3.5	11.1
7	1.5	4.1	1.4	119.7	72.7	79.7	211.4	47.2	4.4	3.7	3.1	8.3
8	1.0	4.1	2.9	100.5	58.6	62.6	162.3	31.9	4.5	3.7	2.6	7.0
9	1.3	4.1	2.9	72.4	45.7	57.4	132.8	24.7	4.7	3.7	3.0	5.6
10	2.9	4.1	2.4	32.3	34.6	51.8	115.7	15.9	4.6	3.7	2.6	4.8
11	2.9	4.1	1.1	25.8	79.3	43.7	103.2	12.9	4.6	3.8	2.9	4.5
12	1.4	4.0	0.7	15.8	83.5	58.5	75.3	11.7	4.5	3.9	2.9	6.7
13	1.0	4.0	0.8	7.3	45.3	62.6	38.7	10.8	4.5	4.4	2.5	10.3
14	1.0	4.0	1.2	1.0	42.6	45.6	35.9	9.8	4.4	4.3	3.3	5.8
15	1.0	4.0	122.0	0.8	61.9	36.8	35.4	8.6	4.2	3.8	3.2	4.6
16	1.1	4.1	43.1	0.6	53.4	31.8	35.1	7.6	4.2	3.7	3.1	6.3
17	1.1	6.5	24.3	14.5	48.1	29.3	34.8	6.6	4.1	3.7	3.0	12.1
18	1.1	5.3	15.2	15.3	64.1	38.7	50.2	5.7	4.0	3.9	2.9	5.9
19	1.1	4.9	15.8	86.3	161.4	44.8	53.9	5.5	4.0	4.1	3.1	13.0
20	2.0	4.8	61.8	147.2	156.7	39.9	36.3	5.3	4.0	4.9	5.9	8.4
21	2.2	4.7	30.9	145.4	103.9	38.1	30.8	5.3	3.9	4.7	35.8	4.8
22	1.2	4.6	16.7	122.5	74.0	28.9	28.8	5.5	4.0	4.0	6.4	4.3
23	1.2	4.4	12.7	100.3	67.8	25.4	26.4	6.8	3.9	3.9	3.6	4.6
24	1.2	5.0	14.0	77.5	52.1	23.5	24.3	14.9	3.8	3.8	2.7	15.9
25	1.6	8.2	432.9	58.8	41.6	51.4	22.1	8.9	3.8	3.8	2.6	11.0
26	2.6	8.1	730.1	40.3	37.1	50.7	21.0	5.S	3.7	3.9	2.8	7.4
27	3.3	6.9	701.2	20.8	38.1	34.2	19.7	4.9	3.6	4.2	2.4	5.1
28	3.4	10.4	683.6	11.3	31.6	30.5	17.4	4.8	3.6	4.3	3.3	4.3
29	3.3	9.6	637.9	9.0	28.5	194.3	14.4	4.7	3.7	4.3	3.1	3.8
30	3.3	4.0	587.8	4.0		554.7	14.0	4.6	3.7	4.2	2.9	3.6
31	3.4		536.6	3.9		457.5		4.6		4.3	2.4	
TOTAL	63.9	150.0	4691.1	2920.3	2159.1	3082.1	4251.8	601.4	125.5	122.6	134.8	408.5

APPENDIX C-7A. AVERAGE DAILY DISCHARGE AT CACHE RIVER AT FORMAN (378) -- WATER YEAR 1985

DISCHARGE IN CUBIC FEET PER SECOND

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.0	1190.0	669.0	1860.0	70.0	959.0	4860.0	1400.0	165.0	195.0	266.0	347.0
2	11.0	1940.0	605.0	1880.0	80.0	727.0	5070.0	1300.0	136.0	129.0	152.0	252.0
3	7.9	2360.0	684.0	1810.0	80.0	600.0	3210.0	875.0	120.0	145.0	98.0	189.0
4	5.6	3390.0	533.0	1720.0	75.0	518.0	1930.0	739.0	204.0	99.0	44.0	155.0
5	4.0	2900.0	417.0	1360.0	70.0	474.0	1360.0	764.0	334.0	67.0	541.0	979.0
6	4.2	2060.0	360.0	982.0	65.0	451.0	1030.0	720.0	297.0	57.0	843.0	1110.0
7	5.3	1450.0	309.0	762.0	60.0	348.0	783.0	603.0	229.0	47.0	502.0	621.0
8	7.4	932.0	281.0	643.0	55.0	298.0	644.0	463.0	245.0	37.0	481.0	535.0
9	17.0	676.0	346.0	545.0	50.0	308.0	502.0	353.0	154.0	31.0	463.0	396.0
10	13.0	1270.0	547.0	459.0	70.0	318.0	401.0	276.0	173.0	21.0	835.0	262.0
11	10.0	802.0	459.0	385.0	900.0	262.0	332.0	226.0	423.0	14.0	1400.0	186.0
12	8.5	569.0	359.0	311.0	1100.0	227.0	282.0	341.0	981.0	9.4	859.0	141.0
13	8.2	427.0	861.0	245.0	800.0	213.0	247.0	428.0	582.0	8.5	642.0	112.0
14	148.0	335.0	1470.0	235.0	650.0	389.0	500.0	645.0	518.0	10.0	566.0	93.0
15	304.0	283.0	1150.0	198.0	550.0	405.0	1200.0	560.0	402.0	10.0	441.0	77.0
16	226.0	247.0	806.0	170.0	500.0	280.0	789.0	505.0	270.0	9.4	1120.0	59.0
17	200.0	218.0	718.0	150.0	450.0	199.0	668.0	389.0	319.0	9.1	1040.0	46.0
18	384.0	679.0	692.0	130.0	500	155.0	609.0	253.0	532.0	4.2	858.0	38.0
19	334.0	1210.0	868.0	120.0	600	131.0	485.0	185.0	494.0	4.7	1010.0	28.0
20	361.0	735.0	774.0	110.0	900.0	120.0	342.0	146.0	419.0	3.1	953.0	19.0
21	1390.0	613.0	1800.0	100.0	1290.0	127.0	250.0	118.0	272.0	3.9	748.0	16.0
22	932.0	566.0	2170.0	90.0	1520.0	122.0	200.0	866.0	185.0	4.5	552.0	13.0
23	662.0	468.0	2500.0	80.0	1890.0	120.0	170.0	1650.0	152.0	4.4	629.0	17.0
24	682.0	375.0	2300.0	75.0	2450.0	127.0	400.0	1300.0	122.0	4.9	1590.0	25.0
25	714.0	301.0	1850.0	70.0	2830.0	119.0	800.0	883.0	102.0	4.9	1830.0	31.0
26	695.0	255.0	1380.0	65.0	2470.0	105.0	1200.0	801.0	89.0	8.1	1940.0	30.0
27	653.0	750.0	935.0	60.0	1930.0	103.0	900.0	682.0	85.0	12.0	1740.0	26.0
28	903.0	1330.0	691.0	60.0	1420.0	104.0	700.0	519.0	509.0	27.0	1370.0	17.0
29	1400.0	804.0	554.0	55.0		102.0	550.0	376.0	467.0	19.0	960.0	11.0
30	908.0	689.0	862.0	55.0		1220.0	450.0	279.0	336.0	11.0	667.0	13.0
31	962.0		1420.0	60.0		2660.0		210.0		8.2	479.0	
TOTAL	11976.1	29824.0	29370.0	14845.0	23425.0	12291.0	30864.0	18855.0	9316.0	1018.3	25619.0	5844.0

APPENDIX C-7B. AVERAGE DAILY DISCHARGE AT CACHE RIVER AT FORMAN (378) -- WATER YEAR 1986

DISCHARGE IN CUBIC FEET PER SECOND

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JON	JUL	AUG	SEP
1	11.0	934.0	1130.0	70.0	48.0	75.0	53.0	70.0	263.0	9.7	6.4	2.0
2	7.9	843.0	1020.0	66.0	68.0	66.0	50.0	51.0	314.0	9.7	5.1	7.6
3	6.5	594.0	830.0	64.0	1120.0	62.0	47.0	40.0	464.0	9.6	3.9	6.9
4	5.2	482.0	710.0	60.0	1760.0	59.0	46.0	34.0	449.0	8.9	3.2	4.0
5	4.5	341.0	586.0	57.0	1550.0	57.0	58.0	29.0	332.0	8.4	6.9	3.3
6	3.9	238.0	469.0	55.0	1110.0	55.0	247.0	25.0	209.0	7.2	8.9	3.0
7	3.7	182.0	372.0	52.0	1120.0	54.0	293.0	22.0	360.0	7.2	6.7	2.5
8	3.1	151.0	299.0	50.0	991.0	50.0	208.0	21.0	548.0	6.8	8.0	2.8
9	2.7	125.0	247.0	47.0	880.0	48.0	139.0	20.0	463.0	6.0	15.0	4.1
10	2.5	104.0	215.0	45.0	753.0	57.0	112.0	18.0	453.0	5.7	233.0	3.2
11	2.1	91.0	622.0	42.0	620.0	282.0	82.0	17.0	326.0	5.0	352.0	2.2
12	2.1	295.0	1200.0	37.0	486.0	961.0	67.0	19.0	200.0	4.9	314.0	2.2
13	2.4	556.0	1000.0	39.0	372.0	1130.0	59.0	19.0	123.0	8.1	124.0	2.0
14	38.0	653.0	600.0	39.0	322.0	696.0	55.0	22.0	83.0	139.0	46.0	1.6
15	217.0	519.0	471.0	39.0	245.0	644.0	49.0	801.0	60.0	104.0	23.0	2.9
16	126.0	832.0	350.0	38.0	243.0	585.0	46.0	2690.0	46.0	277.0	18.0	5.3
17	47.0	673.0	300.0	38.0	458.0	470.0	43.0	3830.0	38.0	240.0	143.0	3.6
18	22.0	580.0	250.0	46.0	491.0	357.0	39.0	4570.0	30.0	81.0	127.0	43.0
19	13.0	573.0	220.0	158.0	424.0	328.0	43.0	4090.0	24.0	28.0	37.0	203.0
20	45.0	797.0	198.0	196.0	317.0	405.0	88.0	2790.0	22.0	16.0	18.0	200.0
21	64.0	669.0	180.0	168.0	238.0	335.0	322.0	1870.0	19.0	12.0	13.0	56.0
22	85.0	656.0	170.0	125.0	188.0	234.0	413.0	1230.0	17.0	10.0	11.0	19.0
23	304.0	703.0	160.0	104.0	144.0	195.0	318.0	766.0	16.0	9.7	8.5	17.0
24	554.0	701.0	145.0	91.0	121.0	162.0	181.0	560.0	15.0	8.8	6.3	115.0
25	232.0	627.0	130.0	80.0	107.0	131.0	127.0	750.0	14.0	7.2	5.4	268.0
26	124.0	864.0	120.0	70.0	99.0	103.0	98.0	1300.0	13.0	5.6	4.4,	153.0
27	77.0	1600.0	100.0	60.0	90.0	90.0	80.0	1290.0	12.0	7.2	3.5	44.0
28	52.0	1710.0	90.0	50.0	85.0	82.0	116.0	741.0	12.0	7.7	3.7	20.0
29	46.0	1370.0	78.0	45.0		74.0	143.0	935.0	11.0	6.3	3.6	14.0
30	592.0	1110.0	75.0	40.0		65.0	93.0	757.0	11.0	6.8	2.6	12.0
31	753.0		72.0	40.0		60.0		424.0		8.1	2.5	
TOTAL	3448.6	19573.0	12409.0	2111.0	14450.0	7972.0	3715.0	29801.0	4947.0	1071.6	1563.6	1223.2

APPENDIX C-7C. AVERAGE DAILY DISCHARGE AT CACHE RIVER AT FORMAN (378) -- WATER YEAR 1987

DISCHARGE IN CUBIC FEET PER SECOND

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.0	11.0	211.0	48.0	30.0	1530.0	253.0	32.0	9.9	738.0	53.0	0.2
2	32.0	10.0	602.0	45.0	98.0	1060.0	210.0	30.0	8.9	764.0	108.0	0.3
3	174.0	8.9	474.0	42.0	183.0	802.0	217.0	29.0	57.0	422.0	43.0	0.4
4	346.0	9.6	440.0	39.0	164.0	788.0	203.0	32.0	31.0	228.0	18.0	0.4
5	284.0	17.0	395.0	36.0	106.0	739.0	151.0	29.0	19.0	120.0	14.0	0.6
6	133.0	52.0	262.0	34.0	78.0	621.0	125.0	32.0	16.0	73.0	8.4	0.8
7	67.0	98.0	150.0	31.0	64.0	491.0	109.0	29.0	12.0	61.0	5.7	0.8
8	38.0	73.0	107.0	30.0	55.0	390.0	100.0	25.0	8.8	65.0	4.7	1.0
9	24.0	56.0	135.0	31.0	49.0	309.0	93.0	22.0	7.1	42.0	4.4	1.1
10	18.0	44.0	235.0	34.0	44.0	247.0	85.0	20.0	5.7	36.0	3.2	0.7
11	14.0	37.0	235.0	38.0	38.0	199.0	100.0	18.0	5.2	30.0	2.5	0.6
12	12.0	30.0	137.0	45.0	36.0	166.0	138.0	16.0	4.9	20.0	2.2	0.5
13	12.0	25.0	96.0	49.0	35.0	118.0	145.0	16.0	22.0	15.0	1.9	0.4
14	15.0	22.0	74.0	44.0	40.0	90.0	633.0	44.0	129.0	12.0	1.4	0.4
15	27.0	22.0	62.0	42.0	50.0	82.0	647.0	43.0	176.0	10.0	1.0	0.4
16	33.0	21.0	56.0	42.0	143.0	73.0	615.0	26.0	68.0	8.2	0.8	0.6
17	20.0	21.0	53.0	41.0	259.0	70.0	552.0	20.0	57.0	6.6	0.6	1.5
18	15.0	19.0	51.0	41.0	247.0	190.0	498.0	18.0	40.0	5.6	0.5	1.6
19	11.0	19.0	48.0	48.0	174.0	539.0	399.0	14.0	279.0	4.8	0.5	1.7
20	8.8	18.0	44.0	74.0	178.0	522.0	266.0	17.0	165.0	4.7	0.4	3.0
21	6.2	18.0	38.0	81.0	210.0	508.0	181.0	15.0	66.0	5.4	0.3	4.5
22	4.4	16.0	34.0	63.0	198.0	501.0	124.0	11.0	34.0	4.8	0.1	2.8
23	3.9	17.0	33.0	49.0	159.0	426.0	94.0	10.0	21.0	4.4	0.1	1.8
24	4.6	17.0	63.0	62.0	124.0	319.0	80.0	11.0	17.0	3.8	0.0	1.5
25	17.0	19.0	154.0	40.0	110.0	254.0	69.0	15.0	96.0	3.3	0.0	0.9
26	107.0	99.0	198.0	30.0	96.0	183.0	61.0	20.0	31.0	2.9	0.0	0.8
27	140.0	126.0	117.0	25.0	164.0	137.0	53.0	36.0	21.0	2.8	0.2	0.6
28	66.0	160.0	82.0	20.0	1010.0	113.0	47.0	21.0	12.0	3.0	0.2	0.4
29	37.0	85.0	65.0	20.0		100.0	42.0	15.0	89.0	4.0	0.2	0.5
30	23.0	55.0	56.0	22.0		203.0	37.0	11.0	65.0	118.0	0.2	0.5
31	15.0		52.0	25.0		319.0		10.0		119.0	0.2	
TOTAL	1720.9	1225.5	4759.0	1271.0	4142.0	12089.0	6327.0	687.0	1573.5	2937.3	275.5	31.1

APPENDIX C-7D. AVERAGE DAILY DISCHARGE AT CACHE RIVER AT FORMAN (378) -- WATER YEAR 1988

DISCHARGE IN CUBIC FEET PER SECOND

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.6	3.4	55.0	984.0	173.0	59.0	1910.0	22.0	6.5	0.9	2.8	1.2
2	0.5	3.0	22.0	736.0	1660.0	55.0	2010.0	25.0	5.4	0.8	2.2	1.3
3	0.5	2.1	13.0	554.0	1790.0	311.0	1780.0	28.0	5.1	0.7	1.7	4.2
4	0.4	1.6	6.5	405.0	1220.0	597.0	1760.0	31.0	4.4	1.0	29.0	5.6
5	0.3	1.3	7.5	293.0	887.0	522.0	1550.0	36.0	4.3	1.8	22.0	4.3
6	0.3	1.2	11.0	256.0	780.0	504.0	1490.0	41.0	3.8	1.3	12.0	9.9
7	0.5	1.5	11.0	228.0	686.0	434.0	1080.0	38.0	4.2	1.0	7.2	7.8
8	1.0	1.4	8.8	188.0	543.0	302.0	722.0	36.0	4.1	0.8	5.1	5.1
9	1.2	1.1	54.0	136.0	415.0	212.0	510.0	32.0	3.4	0.7	3.3	3.5
10	0.9	0.9	28.0	92.0	320.0	166.0	370.0	30.0	2.6	0.6	2.4	2.6
11	0.9	0.8	17.0	59.0	260.0	143.0	268	29	2.8	0.6	2.1	2.1
12	0.8	0.7	11.0	44.0	199.0	146.0	205	27.0	2.4	0.7	1.5	4.6
13	0.7	3.1	8.5	45.0	172.0	189.0	165.0	23.0	2.0	1.2	1.2	22.0
14	0.4	4.0	8.9	43.0	112.0	200.0	117.0	20.0	2.1	1.1	1.2	31.0
15	0.2	3.0	389.0	38.0	117.0	144.0	88.0	17.0	1.6	1.7	5.3	27.0
16	0.3	2.6	257.0	37.0	111.0	111.0	77.0	16.0	1.7	1.3	10.0	14.0
17	0.3	2.8	230.0	84.0	105.0	95.0	76.0	13.0	1.5	1.0	4.9	7.7
18	0.3	14.0	98.0	270.0	99.0	93.0	81.0	11.0	1.4	4.1	2.9	5.9
19	0.3	57.0	55.0	1710.0	198.0	101.0	102.0	9.5	1.4	12.0	2.5	95.0
20	0.4	22.0	66.0	1623.0	363	102.0	103.0	8.6	1.8	50.0	2.3	63.0
21	0.4	9.8	134.0	1070.0	344.0	98.0	103.0	7.6	1.4	87.0	1.7	67.0
22	0.3	3.8	140.0	776.0	231.0	87.0	83.0	8.1	1.3	35.0	3.5	28.0
23	0.3	1.5	69.0	747.0	161.0	74.0	64.0	8.3	1.3	21.0	5.5	18.0
24	0.2	2.1	51.0	677.0	131.0	67.0	44.0	28.0	1.4	16.0	5.2	25.0
25	0.3	3.3	959.0	544.0	107.0	86.0	41.0	32.0	1.3	11.0	3.5	25.0
26	0.6	4.8	2300.0	386.0	89.0	110.0	38.0	45.0	1.1	7.0	2.4	14.0
27	0.8	17.0	2140.0	274.0	78.0	101.0	35.0	26.0	0.8	4.7	1.6	12.0
28	0.8	78.0	2010.0	212.0	71.0	86.0	31.0	17.0	0.8	3.3	1.9	12.0
29	2.2	94.0	2030.0	182.0	65.0	127.0	28.0	14.0	0.7	9.5	1.6	8.9
30	2.0	130.0	1730.0	144.0		1260.0	25.0	10.0	0.9	7.0	1.8	6.5
31	2.0		1330.0	109.0		988.0		8.1		4.0	1.6	
TOTAL	20.6	471.8	14250.2	12946.0	11487.0	7570.0	14956.0	697.2	73.5	288.8	151.9	534.2

APPENDIX D.

SUSPENDED SEDIMENT CONCENTRATIONS AT EIGHT ILLINOIS STATE WATER SURVEY MONITORING STATIONS

Note: **YR = year**
MO = month
DY = day
HR = hour
MN = minute

APPENDIX D-1A. COLLECTED SUSPENDED SEDIMENT CONCENTRATION DATA AT BIG CREEK AT PERKS ROAD (502) -- WATER YEAR 1984 to 1986
CONCENTRATION IN PPM

YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION
840508	1130	133.90	850403	0900	117.38	850502	1520	217.58
840911	1230	1108.80	850404	1500	76.96	850508	1505	115.21
841022	1110	73.00	850405	1510	122.11	850512	1200	344.94
850225	1130	108.90	850406	1510	161.40	850520	1623	150.68
850311	1116	52.39	850407	1505	63.78	850522	1124	5193.80
850311	1435	54.58	850408	1500	40.26	850601	1524	86.88
850312	0820	64.46	850409	1545	34.03	850606	1520	307.24
850313	0830	57.76	850410	1500	72.86	850610	1018	4060.20
850314	0810	127.69	850411	1500	39.83	850617	1343	520.38
850315	0830	33.60	850412	1500	40.00	850629	0922	108.30
850316	0820	25.39	850413	1506	40.51	850727	0943	75.70
850317	0802	26.60	850414	1601	238.20	850801	1205	2475.10
850318	0825	57.93	850415	1520	142.64	850805	1100	13226.00
850319	0835	44.39	850416	1745	38.68	850814	1330	43.35
850320	0900	48.66	850417	1510	34.31	850821	1527	32.11
850321	0900	45.31	850418	1630	105.47	850824	1028	1968.40
850322	0850	52.27	850419	1605	126.32	850905	0916	1334.50
850323	0830	68.87	850420	1512	89.08	850916	1516	70.74
850324	0800	45.22	850421	1500	77.31	850927	1517	70.05
850325	0835	42.01	850422	1420	135.02	851010	1515	67.24
850326	0745	55.11	850423	1540	130.39	851016	1515	57.12
850327	0630	79.63	850424	1414	258.05	851017	1010	39.94
850328	0820	51.75	850425	1420	125.85	851017	1514	55.77
850329	0900	63.84	850426	1410	138.47	851024	1120	79.90
850330	0900	6636.90	850427	1411	2121.40	851026	1509	23.23
850331	0820	619.17	850428	1430	146.87	851030	0810	394.79
850401	0645	221.22	850430	1730	119.65	851107	1153	26.72
850402	1024	153.25	850501	1516	1208.30	851115	1410	47.88

APPENDIX D-1B. COLLECTED SUSPENDED SEDIMENT CONCENTRATION DATA AT BIG CREEK AT PERKS ROAD (502) -- WATER YEAR 1986 to 1987
CONCENTRATION IN PPM

YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION
851115	1511	46.09	860421	1404	38.65	860924	1114	147.56
851123	1614	25.97	860421	1407	34.03	860926	1130	73.63
851127	1712	980.09	860421	1409	40.45	861001	1005	37.18
851208	1455	54.55	860421	1411	37.45	861001	1108	145.27
851216	1638	36.04	860421	1414	43.24	861001	1112	203.53
851228	1430	10.60	860501	1502	39.97	861001	1422	538.23
860117	1507	42.31	860502	1205	18.81	861002	1030	81.60
860202	1500	37.31	860717	1115	124.14	861003	1107	166.37
860203	1036	12196.00	860723	1140	15.12	861009	1518	22.15
860204	1103	394.36	860731	1131	47.47	861012	1030	26.73
860204	1106	587.54	860807	1245	48.98	861019	1355	9.94
860219	1351	33.90	860810	0742	6238.80	861023	1201	11.59
860220	1358	13.92	860810	1505	1252.90	861024	1355	17.72
860227	1124	14.74	860811	1245	148.27	861025	1318	75.95
860304	1149	8.44	860816	1056	1748.90	861029	1152	20.68
860310	1643	1898.30	860816	1106	1653.60	861105	1013	21.61
860312	1122	2086.60	860816	1502	720.93	861106	1455	36.72
860312	1753	539.80	860820	1231	77.08	861112	1252	10.44
860319	1140	174.41	860827	0937	18.89	861114	1505	24.18
860323	1505	22.68	860828	1020	19.65	861120	1244	38.45
860328	1014	22.49	860903	1235	46.82	861122	1503	34.19
860402	1213	30.60	860910	1516	65.29	861125	1154	37.70
860405	0820	72.60	860911	1034	61.66	861125	1720	46.99
860410	1238	20.73	860918	0847	86.67	861126	1530	42.02
860412	1510	27.48	860918	1434	1985.80	861201	1210	826.50
860420	1136	27.57	860918	1506	2766.10	861201	1319	707.54
860421	0926	61.02	860919	1258	155.57	861202	1128	79.09
860421	1401	37.37	860924	0817	140.85	861208	1412	14.56

APPENDIX D-1C. COLLECTED SUSPENDED SEDIMENT CONCENTRATION DATA AT BIG CREEK AT PERKS ROAD (502) -- WATER YEAR 1987
CONCENTRATION IN PPM

YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION
861209	1350	42.80	870227	1028	29.42	870331	1200	43.96
861209	1500	42.58	870227	1234	35.92	870331	2359	34.98
861216	1132	23.35	870227	1504	44.27	870409	1515	65.25
861217	1518	15.68	870228	1130	3573.80	870410	0100	31.93
861223	1119	31.60	870301	1450	163.64	870410	1136	57.69
861224	1435	30.25	870302	1029	71.83	870410	1200	36.74
861229	1247	18.85	870303	1706	41.69	870401	1512	129.17
870101	1733	13.82	870303	2359	40.57	870402	1200	35.62
870106	1201	12.75	870305	1442	42.82	870402	1250	44.67
870109	1520	24.59	870305	2359	21.86	870403	2359	28.99
870114	1147	25.48	870307	2359	24.45	870411	2359	31.37
870116	1246	39.60	870309	2359	19.03	870413	2359	37.25
870122	1032	29.17	870311	1515	51.33	870415	0951	82.86
870123	1506	23.22	870311	2359	10.90	870415	1012	81.39
870129	1251	15.43	870313	2359	11.47	870415	1200	81.89
870131	1420	50.43	870315	2359	19.59	870415	2359	59.84
870202	1210	97.68	870316	2359	31.78	870416	1200	48.16
870203	1110	25.55	870317	2359	32.71	870419	1200	34.34
870212	1309	39.07	870318	1100	975.18	870421	2359	34.38
870214	1521	46.54	870318	2359	8898.40	870422	1046	36.00
870218	1510	22.37	870325	1511	41.04	870422	1200	19.59
870219	1307	20.56	870326	2359	113.80	870426	1930	52.50
870226	1153	38.87	870327	1134	48.03	870430	1200	28.42
870227	1014	31.79	870327	1200	89.39	870430	1445	37.48
870227	1017	39.77	870329	1200	47.64	870503	2359	83.33
870227	1021	36.85	870329	2359	47.35	870504	0923	52.18
870227	1024	33.96	870330	1200	76.92	870504	0928	71.63
870227	1026	33.00	870330	2359	39.56	870504	1200	56.74

APPENDIX D-1D. COLLECTED SUSPENDED SEDIMENT CONCENTRATION DATA AT BIG CREEK AT PERKS ROAD (502) -- WATER YEAR 1987 to 1988
CONCENTRATION IN PPM

YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION
870507	1356	55.45	870701	2359	1073.20	870917	1340	81.79
870514	1154	58.11	870702	0800	386.49	870924	1303	42.43
870517	1516	37.67	870702	0918	327.26	871001	1345	18.30
870518	0918	45.97	870702	1600	251.60	871008	1250	17.75
870525	1025	72.78	870702	1650	254.52	871015	1304	7.92
870528	1139	68.74	870702	2359	198.49	871022	1314	5.14
870530	1330	58.13	870703	0800	171.58	871022	1510	5.10
870601	0930	74.25	870703	1225	128.88	871028	1331	6.85
870603	0947	93.56	870703	1600	135.11	871101	1136	8.61
870604	1203	83.59	870706	1246	51.12	871105	1250	8.13
870606	1530	35.75	870707	0800	56.96	871112	1323	5.37
870611	1138	68.62	870707	1026	49.18	871117	0640	23.28
870614	1300	69.10	870707	2359	52.61	871117	0951	14.76
870615	1102	89.20	870709	1257	74.99	871118	1307	61.54
870615	1200	680.12	870711	1309	23.37	871125	1145	9.56
870616	0920	240.05	870716	1307	23.15	871129	0915	37.74
870617	1309	56.90	870722	1512	56.66	871203	1302	18.42
870620	1325	26.33	870724	1324	48.56	871208	0830	16.67
870624	1125	23.08	870729	0716	57.66	871209	1311	15.08
870630	1217	70.66	870729	1200	826.49	871215	1039	539.14
870630	1900	2684.70	870731	1900	83.62	871215	1041	549.48
870630	2359	617.56	870807	1339	19.24	871215	1044	535.48
870701	0920	305.06	870813	1147	12.82	871215	1046	482.38
870701	1007	247.84	870823	1300	26.11	871215	1049	524.81
870701	1200	357.60	870827	1156	27.22	871215	1053	542.25
870701	1553	353.15	870903	1304	22.05	871215	1057	513.95
870701	1600	382.50	870904	1359	28.81	871215	1159	285.00
870701	1607	366.90	870910	1251	37.51	871216	1327	126.98

APPENDIX D-1E. COLLECTED SUSPENDED SEDIMENT CONCENTRATION DATA AT BIG CREEK AT PERKS ROAD (502) -- WATER YEAR 1988
CONCENTRATION IN PPM

YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION
871223	1152	39.15	880219	1004	78.23	880421	1310	22.12
871225	1012	2823.30	880219	1030	87.28	880427	1107	51.56
871225	1640	2171.50	880224	1257	26.43	880428	1500	53.67
871225	2359	3996.10	880302	1328	20.62	880504	0850	164.53
871226	1025	478.80	880303	1045	3523.20	880504	1338	56.96
871226	1200	1074.50	880303	1254	3358.80	880511	1336	63.43
871226	2359	368.47	880303	1308	3110.60	880518	1352	58.94
871227	0914	138.10	880303	2130	514.60	880518	2000	61.29
871227	1200	152.46	880304	0940	111.39	880525	1300	47.40
871228	1026	99.27	880310	1244	16.30	880530	1908	43.31
871228	1200	362.51	880316	1330	27.27	880601	1257	57.31
871228	2359	129.16	880323	1315	39.16	880615	1254	44.34
871229	1200	81.88	880325	0726	50.72	880623	1208	61.02
871230	1242	26.97	880329	1433	54.26	880629	1321	37.79
880106	1252	10.77	880329	1712	339.04	880630	0845	61.90
880113	1146	12.10	880330	0820	393.10	880713	1030	64.01
880119	1037	193.80	880330	0950	306.36	880713	1250	76.54
880119	1549	5449.60	880330	1200	231.63	880719	1005	45.99
880119	1602	5219.00	880331	1200	206.55	880720	1154	61.39
880119	1632	5021.80	880331	2359	577.79	880803	1328	68.28
880120	1058	154.73	880401	1200	782.51	880806	0800	48.98
880121	1015	56.61	880401	1307	744.34	880821	1035	15.41
880127	1307	17.37	880401	2359	177.67	880825	1137	12.15
880202	0825	1718.90	880402	1200	371.00	880902	1013	31.56
880202	1021	1453.90	880402	2359	151.29	880903	1030	110.06
880203	1317	75.40	880404	1033	96.52	880908	1304	25.69
880204	1047	102.54	880406	1149	42.50	880912	0914	15.28
880218	1459	41.13	880413	1317	20.12	880912	1100	20.28

APPENDIX D-1E (concluded). COLLECTED SUSPENDED SEDIMENT CONCENTRATION DATA AT BIG CREEK AT PERKS ROAD (502) -- WATER YEAR 1988
CONCENTRATION IN PPM

YRMODY	HRMN	CONCENTRATION
880915	1311	14.28
880919	0938	32.92
880922	1258	73.52
880928	1257	22.46
881003	1145	85.80

APPENDIX D-1F. COLLECTED SUSPENDED SEDIMENT CONCENTRATION DATA AT BIG CREEK AT PERKS ROAD* (502A) -- WATER YEAR 1988
CONCENTRATION IN PPM

YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION
860219	1414	46.74	860515	0917	11738.	860619	1218	57.95
860227	1134	24.03	860515	1448	10256.	860626	1209	101.79
860304	1200	13.84	860516	1422	1757.2	860627	1522	82.64
860312	1134	2017.40	860520	1318	90.94	860702	1222	82.44
860319	1151	94.76	860520	1810	73.60	860705	1500	78.41
860328	1025	19.33	860528	1158	108.45	860713	0925	156.70
860402	1223	22.51	860529	0957	78.44	860715	0955	3515.20
860410	1251	21.91	860604	1419	90.82	860715	1156	1291.50
860421	1437	43.19	860606	1130	68.68	860717	1135	161.44
860509	1111	73.95	860607	0830	1172.60	860723	1127	28.16
860511	1459	79.26	860615	1502	58.99	860727	0800	33.05
860514	1149	82.49						

*Note: This table contains supplemental data collected for station 502 during February through July 1986, when the old Perks Road bridge was being replaced. Station 502A was set at the next bridge downstream.

APPENDIX D-2A. COLLECTED SUSPENDED SEDIMENT CONCENTRATION DATA AT CYPRESS CREEK AT DONGOLA ROAD (503) -- WATER YEAR 1984 to 1987
CONCENTRATION IN PPM

YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION
840911	1200	31.12	860516	1140	732.08	860816	1424	867.40
840924	1047	415.35	860516	1406	590.71	860816	1500	816.73
841022	1040	87.04	860522	1100	126.17	860820	1032	41.30
850611	1045	704.44	860522	1103	126.19	860827	0907	28.05
851017	1110	26.44	860522	1106	110.80	860828	0931	31.87
851024	1210	102.50	860522	1107	122.11	860903	1203	16.89
851115	1320	52.49	860522	1110	120.56	860904	0925	20.91
860228	1106	25.47	860523	0942	100.57	860918	1242	379.06
860307	1049	17.67	860525	0922	491.27	860918	1635	701.85
860313	0925	224.08	860529	0922	122.97	860919	1150	202.61
860321	0922	124.97	860605	0928	27.82	860924	1018	456.72
860327	1128	71.58	860610	1056	156.16	860924	1020	454.34
860403	0938	58.10	860612	1318	54.87	860924	1022	452.93
860410	1035	70.65	860619	1107	45.61	860924	1023	454.38
860416	1103	44.56	860626	1036	26.00	860924	1024	441.91
860421	0949	129.00	860703	0924	26.09	860924	1027	454.06
860421	0951	130.90	860714	1203	21.23	860926	1027	72.45
860421	0953	139.32	860715	0852	2181.30	861001	0923	131.56
860421	0955	131.86	860717	0913	112.67	861001	1148	211.78
860421	0957	127.73	860724	0931	40.01	861001	1353	193.15
860421	1000	127.41	860731	0934	27.92	861001	1513	319.75
860424	0915	50.32	860807	0923	17.86	861002	0948	348.77
860501	1049	42.87	860807	1605	102.70	861003	0959	306.05
860508	1002	31.58	860811	1150	267.84	861023	1031	26.17
860515	0931	1656.50	860814	0918	64.55	861029	1042	26.61
860515	0944	1319.30	860816	0954	1115.10	861105	0903	31.64
860515	1051	2164.00	860816	1004	1313.00	861106	1003	51.69
860515	1152	2439.90	860816	1018	1474.40	861107	0929	42.12

APPENDIX D-2B. COLLECTED SUSPENDED SEDIMENT CONCENTRATION DATA AT CYPRESS CREEK AT DONGOLA ROAD (503) -- WATER YEAR 1987
CONCENTRATION IN PPM

YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION
861112	1111	13.54	870227	1311	161.98	870401	1200	54.41
861120	1017	11.78	870227	1313	166.73	870402	1044	78.93
861125	0935	7.39	870302	0956	129.44	870402	1200	83.45
861201	1139	591.96	870303	1323	95.70	870403	1200	77.86
861201	1615	439.63	870303	2359	74.40	870404	1200	165.90
861202	0949	137.88	870304	2359	69.33	870405	1200	57.17
861203	1426	58.95	870305	1155	64.17	870409	1300	75.40
861208	1104	22.37	870305	2359	64.59	870410	1041	45.44
861209	0944	165.17	870306	2359	60.77	870410	1041	44.43
861209	1012	148.44	870307	2359	70.78	870410	1200	63.53
861209	1022	138.38	870308	1200	56.98	870411	1200	205.14
861216	0945	20.89	870308	2359	66.18	870411	2359	177.38
861223	0949	17.28	870309	2359	56.15	870412	1200	140.64
861229	1015	17.98	870310	2359	52.01	870412	2359	103.03
870106	1026	14.18	870316	1154	24.53	870413	1200	73.97
870114	0955	10.67	870316	1200	35.61	870413	2359	240.98
870122	1004	14.28	870318	1200	645.69	870414	1200	1121.20
870129	1022	7.85	870318	2359	489.37	870414	2359	604.34
870203	1048	50.85	870319	1200	518.38	870415	1200	336.03
870212	1054	14.30	870319	2359	353.83	870416	1016	178.54
870219	1012	21.05	870320	1200	199.62	870416	1200	223.49
870226	1004	17.79	870320	2359	206.90	870419	2359	135.08
870227	0922	129.86	870321	1200	148.14	870419	2359	170.02
870227	1259	162.25	870322	1200	102.22	870421	2359	95.01
870227	1303	250.44	870323	1200	97.78	870422	0939	50.97
870227	1306	149.04	870326	1200	62.27	870422	2359	54.01
870227	1307	162.21	870327	1048	51.55	870429	1200	26.29
870227	1308	165.97	870327	1200	57.32	870430	1155	30.52

APPENDIX D-2C. COLLECTED SUSPENDED SEDIMENT CONCENTRATION DATA AT CYPRESS CREEK AT DONGOLA ROAD (503) -- WATER YEAR 1987 to 1988
CONCENTRATION IN PPM

YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION
870507	1059	31.32	870701	1248	465.76	870924	1049	10.20
870513	1041	61.88	870701	1400	599.56	871116	2359	162.62
870520	1010	27.37	870701	2200	1376.60	871117	0926	81.63
870528	1011	25.65	870702	0600	447.06	871118	1036	173.95
870601	0858	30.95	870702	1312	333.07	871125	1020	29.45
870603	1036	460.36	870702	1400	329.41	871127	1200	104.73
870603	1040	469.62	870702	1843	282.56	871128	1200	109.68
870603	1042	475.80	870702	2200	267.55	871129	1200	98.91
870603	1044	477.11	870703	0600	205.40	871130	0907	41.48
870603	1047	473.83	870703	0910	175.84	871203	1029	18.30
870604	1024	75.74	870703	1400	184.68	871207	0946	20.71
870611	1022	41.90	870703	2200	176.50	871209	1031	20.51
870613	1200	3156.90	870704	0600	163.33	871215	0921	822.23
870613	2359	666.76	870704	1400	137.88	871215	0927	856.37
870615	1200	1381.90	870706	1121	58.74	871215	0931	784.79
870616	0853	162.87	870707	0600	202.82	871215	0933	772.26
870617	1132	69.17	870707	1002	186.75	871215	0935	750.25
870618	2359	1964.90	870707	1400	474.79	871215	0937	734.03
870619	1200	952.86	870709	1028	55.77	871215	0939	735.96
870622	0942	285.08	870716	1043	32.51	871215	0941	731.34
870624	1009	135.30	870724	1537	43.71	871215	0944	706.54
870624	2359	5112.80	870731	1751	488.40	871215	1200	385.76
870626	1334	278.48	870807	1129	32.29	871215	1501	212.49
870629	0919	75.02	870813	1011	21.77	871216	1038	92.98
870630	2359	1451.00	870827	1025	60.12	871223	1010	23.91
870701	0921	497.73	870903	1044	9.97	871228	0944	128.40
870701	1218	445.15	870910	1034	13.32	871229	1001	76.28
870701	1231	430.09	870917	1007	98.29	871230	1016	40.54

APPENDIX D-2D. COLLECTED SUSPENDED SEDIMENT CONCENTRATION DATA AT CYPRESS CREEK AT DONGOLA ROAD (503) -- WATER YEAR 1988
CONCENTRATION IN PPM

YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION
880106	1028	13.83	880304	2359	144.49	880401	1124	635.54
880119	0956	197.80	880305	1200	98.98	880401	1139	652.10
880119	1723	3467.10	880305	2359	81.57	880401	1200	674.24
880120	1018	288.67	880306	1200	59.78	880401	2359	254.12
880121	0949	125.54	880307	1200	40.89	880402	1200	245.42
880122	1009	73.20	880308	1200	50.90	880402	2359	193.77
880127	1042	23.28	880309	0811	47.45	880403	1300	246.79
880202	0942	1011.90	880309	1200	58.44	880404	0100	212.02
880203	1033	161.40	880310	1028	40.17	880404	1004	138.40
880204	1012	151.70	880310	1200	46.00	880404	1300	168.13
880218	1102	25.29	880312	1200	101.12	880405	0100	121.50
880218	1104	29.04	880312	2359	231.47	880405	1300	117.26
880219	0946	416.95	880313	1200	91.35	880406	0100	159.29
880219	0947	419.60	880313	2359	62.70	880406	1013	126.27
880219	1200	575.77	880316	1010	23.10	880406	1300	164.36
880219	1412	614.38	880323	1101	30.06	880407	0100	125.46
880219	1535	609.60	880325	0928	65.14	880413	1023	38.07
880219	1536	633.84	880329	1017	147.80	880421	1039	38.80
880219	2359	278.65	880329	1754	695.82	880427	1006	29.63
880220	1200	121.64	880329	2359	3002.60	880504	1039	43.49
880224	1021	40.28	880330	0825	918.18	880509	0912	38.86
880302	1023	29.28	880330	1200	574.16	880511	1013	31.45
880303	1200	2965.60	880330	1720	273.14	880518	1059	19.26
880303	1534	1348.60	880330	2359	218.79	880525	1029	25.10
880303	1551	1264.00	880331	1200	296.01	880601	1028	13.26
880303	2359	684.60	880331	1255	271.60	880608	1019	16.99
880304	1200	250.07	880331	2359	451.83	880713	1027	37.75
880304	1524	196.86	880401	1018	1384.80	880720	1050	68.06

APPENDIX D-2D (concluded). COLLECTED SUSPENDED SEDIMENT CONCENTRATION DATA AT CYPRESS CREEK AT DONGOLA ROAD (503) -- WATER YEAR 1988
CONCENTRATION IN PPM

YRMODY	HRMN	CONCENTRATION
880919	1104	65.46
880919	1105	51.58
880919	2359	252.99
880920	0200	267.09
880920	0400	238.60
880920	0600	191.62
880920	0800	146.79
880920	1000	108.70
880920	1200	93.65
880920	1400	68.70
880920	1600	63.36
880922	1022	37.07
881003	1003	55.09

APPENDIX D-3A. COLLECTED SUSPENDED SEDIMENT CONCENTRATION DATA AT MAIN DITCH AT ROUTE 45 (505) -- WATER YEAR 1984 to 1985
CONCENTRATION IN PPM

YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION
840911	1335	541.26	850405	1736	690.10	850510	1325	150.04
840924	0939	305.75	850406	0929	236.00	850512	0924	79.62
850308	1706	58.76	850407	1455	153.65	850513	1603	64.13
850309	1625	112.02	850408	1745	143.14	850514	1331	70.57
850310	1400	78.80	850409	1024	80.15	850515	0841	98.35
850311	1714	95.79	850410	1641	110.57	850522	1610	484.11
850312	1725	157.08	850411	1650	131.69	850526	1700	130.12
850313	1926	117.12	850412	1553	84.68	850602	1556	34.88
850314	1720	212.00	850413	1639	71.67	850604	1638	429.52
850315	1711	167.91	850414	1758	912.84	850606	1850	157.38
850316	1130	80.26	850415	1644	235.73	850609	1942	45.61
850317	1732	117.98	850416	1630	185.01	850610	1801	110.97
850318	1730	69.85	850417	1604	110.21	850611	1706	1615.90
850319	1807	103.41	850418	1623	147.68	850616	1811	64.63
850320	2051	138.10	850419	1658	124.82	850617	1647	273.32
850321	1723	60.75	850420	1143	150.53	850623	1845	41.35
850322	1715	114.26	850421	1126	130.85	850630	1628	137.60
850323	1005	135.47	850422	1630	150.47	850707	1630	78.06
850324	1754	131.79	850423	1705	197.10	850713	0830	119.70
850325	1707	85.17	850424	1450	357.14	850720	1245	118.83
850326	1802	102.28	850425	1507	171.95	850727	1550	98.87
850328	1829	79.63	850426	1505	193.69	850803	0830	169.39
850329	1631	138.37	850427	1505	406.45	850805	1425	705.93
850330	1520	868.29	850428	1515	258.30	850816	1700	182.50
850331	1616	284.52	850429	1705	216.53	850818	1940	60.11
850402	1720	110.89	850430	1703	172.89	850820	1645	24.16
850403	1643	109.09	850501	1713	436.17	850824	1040	540.40
850404	1649	203.03	850502	1553	191.13	850831	1900	55.37

APPENDIX D-3B. COLLECTED SUSPENDED SEDIMENT CONCENTRATION DATA AT MAIN DITCH AT ROUTE 45 (505) -- WATER YEAR 1985 to 1986
CONCENTRATION IN PPM

YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION
850905	1745	352.78	851210	1655	65.34	860330	1645	51.07
850907	1200	178.68	851211	1655	575.22	860402	1418	40.79
850914	0830	80.81	851215	1425	20.74	860405	1510	79.95
850921	1300	53.65	851224	1215	34.35	860410	1639	53.99
850924	1240	106.29	851229	1600	15.90	860413	1655	62.20
850929	1230	32.46	860105	1732	24.25	860420	1635	182.15
851005	1355	17.06	860119	1710	228.96	860421	1625	172.16
851014	1545	729.46	860126	1630	75.61	860422	1337	108.34
851017	1447	76.98	860201	1550	47.47	860428	1627	239.96
851019	1320	56.81	860202	1700	71.28	860429	1640	55.09
851020	1700	506.67	860203	1640	1552.30	860430	1455	66.67
851023	1830	787.05	860204	1624	331.77	860504	1810	58.89
851024	1640	146.45	860204	1645	299.01	860509	0939	84.29
851024	1655	149.93	860206	1630	227.17	860511	1530	49.75
851028	1555	56.82	860208	1125	114.41	860514	1517	105.65
851030	1600	159.38	860215	1308	37.60	860514	1700	87.60
851031	1616	100.49	860217	1618	157.10	860515	1350	1201.30
851102	1550	97.65	860223	1700	48.71	860516	0735	1425.40
851111	1230	53.98	860302	1650	27.05	860516	1930	666.48
851115	1540	115.90	860304	1324	20.34	860517	0700	391.18
851115	1605	110.07	860309	1530	36.98	860517	1725	286.43
851117	1140	132.18	860312	1244	1615.70	860518	0640	962.14
851120	1617	162.82	860313	1738	360.74	860518	1705	238.80
851125	1730	52.71	860316	1730	117.20	860520	1435	164.61
851126	1645	1457.70	860319	1502	381.75	860521	1247	166.85
851127	1630	124.76	860321	1442	47.15	860521	1249	159.05
851128	1454	82.79	860323	1745	75.83	860521	1251	166.01
851201	1610	151.59	860328	1334	58.05	860521	1253	170.78

APPENDIX D-3C. COLLECTED SUSPENDED SEDIMENT CONCENTRATION DATA AT MAIN DITCH AT ROUTE 45 (505) -- WATER YEAR 1986 to 1987
CONCENTRATION IN PPM

YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION
860521	1255	181.85	860806	1405	37.62	861001	1640	231.47
860521	1257	178.13	860808	0915	23.61	861002	2130	185.49
860521	1259	174.14	860810	1517	267.92	861003	1735	79.71
860521	1301	172.23	860811	1634	156.98	861005	0700	412.92
860521	1303	170.86	860816	1250	169.53	861012	1145	44.01
860521	1305	173.76	860819	1735	36.41	861013	1745	34.66
860523	1515	198.74	860820	1458	43.87	861014	1715	22.82
860524	0855	171.81	860824	1630	82.14	861019	1500	35.31
860525	1430	278.50	860827	1241	53.25	861023	1430	55.97
860526	0910	810.43	860831	1530	79.93	861024	1530	49.19
860526	1905	295.57	860903	1402	237.52	861025	0720	57.92
860528	1035	234.93	860907	1740	52.10	861026	1545	269.21
860601	1815	78.80	860911	1236	51.37	861029	1350	60.40
860604	1154	90.59	860919	1458	198.81	861103	1240	73.36
860605	0800	93.11	860919	1620	201.33	861105	0624	81.00
860607	1020	295.64	860920	1730	179.02	861105	1349	75.03
860610	0715	165.25	860924	1442	396.64	861108	0635	98.48
860610	1430	100.23	860924	1444	433.68	861109	0625	153.80
860615	1640	19.64	860924	1446	402.28	861111	0625	41.67
860622	1615	38.01	860924	1448	413.33	861112	1426	25.16
860627	1122	53.64	860924	1450	418.03	861116	1535	16.20
860629	1640	29.25	860924	1452	386.93	861123	1520	68.66
860702	1514	46.77	860924	1454	386.40	861126	0647	339.22
860713	1605	97.33	860924	1457	401.36	861126	1505	289.67
860715	0955	755.56	860924	1815	328.67	861127	0815	174.39
860723	1529	35.63	860926	1326	132.29	861130	1135	40.39
860727	1130	474.26	860928	1530	42.73	861201	1447	650.13
860803	1555	23.02	861001	1248	133.98	861201	1605	609.01

APPENDIX D-3D. COLLECTED SUSPENDED SEDIMENT CONCENTRATION DATA AT MAIN DITCH AT ROUTE 45 (505) -- WATER YEAR 1987
CONCENTRATION IN PPM

YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION
861202	0615	217.85	870227	0735	135.67	870503	1410	124.21
861202	1555	125.61	870301	1500	281.30	870504	0610	391.90
861203	1640	153.45	870304	1540	187.93	870507	1604	73.75
861208	0650	60.88	870305	1632	143.33	870509	1610	64.22
861208	1203	68.56	870315	1535	76.73	870514	1623	110.37
861209	0555	146.43	870319	1540	235.61	870517	1715	169.61
861214	1640	28.95	870323	0550	126.72	870521	1423	55.98
861216	1455	62.63	870324	1720	158.38	870524	1435	73.00
861222	1610	12.08	870326	1407	53.64	870525	1242	68.20
861223	1321	14.78	870329	1538	107.47	870528	1504	61.85
861224	1445	226.99	870330	0555	198.41	870530	1730	80.59
861228	1410	29.05	870330	1550	93.64	870601	0610	102.26
861229	1442	22.87	870331	0550	61.28	870603	0612	149.41
870104	1500	18.13	870402	0555	190.69	870604	1446	84.96
870106	1402	19.03	870402	1519	136.80	870608	0620	81.88
870114	1526	51.87	870404	0859	46.51	870611	1548	35.98
870118	1455	20.75	870409	1543	104.50	870615	1645	276.84
870122	1607	21.21	870411	0715	84.56	870616	0630	48.58
870125	1515	32.32	870414	0600	1136.90	870616	1421	36.27
870129	1430	27.48	870414	1635	404.82	870617	0600	46.29
870202	0540	354.69	870415	0620	196.45	870619	0600	713.68
870208	1355	62.35	870415	1615	208.40	870620	0640	232.42
870212	1459	76.66	870416	0625	248.81	870620	1750	182.52
870215	1420	101.21	870416	1609	183.41	870621	0610	3035.60
870218	1515	55.52	870416	1700	184.43	870621	1720	436.34
870219	1649	58.29	870419	1530	122.58	870624	1400	78.17
870222	1515	95.03	870428	0605	103.20	870625	0605	775.55
870226	1513	85.58	870501	1000	56.79	870625	1615	397.58

APPENDIX D-3E. COLLECTED SUSPENDED SEDIMENT CONCENTRATION DATA AT MAIN DITCH AT ROUTE 45 (505) -- WATER YEAR 1987 to 1988
CONCENTRATION IN PPM

YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION
870626	0600	255.57	870827	1652	10.78	871216	1010	169.64
870628	1715	46.39	870830	1800	19.40	871216	1509	139.30
870629	0625	100.58	870906	1655	37.59	871219	1140	79.38
870629	1046	70.02	870913	1850	92.74	871220	1330	192.30
870630	1810	183.77	870917	0735	386.20	871223	1447	50.49
870701	0620	640.96	870917	1458	508.97	871224	1350	91.91
870701	1810	1482.50	870920	1535	35.23	871225	0850	1526.50
870702	0550	280.21	870924	1505	23.70	871225	1540	706.67
870703	0600	204.99	870929	0705	66.67	871226	0940	218.09
870705	1715	1235.00	871004	1735	59.13	871226	1540	191.04
870706	1355	276.81	871011	1440	13.84	871227	1325	132.41
870706	1945	274.05	871018	1600	47.24	871228	1530	102.40
870707	0648	851.26	871025	1615	33.40	871230	1510	93.80
870707	1306	370.07	871027	0800	34.95	871231	1130	70.16
870708	1140	213.21	871108	1600	42.98	880103	1645	24.40
870708	1155	211.26	871115	1640	34.46	880110	1500	22.90
870709	1433	188.34	871117	0625	87.76	880112	1645	24.20
870711	0830	157.26	871124	0600	39.08	880113	1444	15.13
870716	1510	31.49	871124	1545	31.20	880117	1545	555.40
870719	1810	40.29	871125	0555	107.98	880119	1550	1965.00
870724	1104	50.47	871126	1400	53.92	880120	0645	357.30
870725	1715	19.24	871128	1710	69.42	880120	1535	236.32
870730	0615	42.20	871129	1345	75.34	880120	1555	235.50
870802	1900	135.66	871130	1329	47.93	880121	0800	198.40
870807	1456	42.41	871206	1400	33.54	880122	1605	115.70
870813	1446	26.90	871214	0845	50.65	880125	0600	74.60
870815	1040	19.41	871215	0620	989.90	880127	1601	817.42
870822	1255	41.87	871215	1600	480.00	880202	0810	1003.00

APPENDIX D-3F. COLLECTED SUSPENDED SEDIMENT CONCENTRATION DATA AT MAIN DITCH AT ROUTE 45 (505) -- WATER YEAR 1988
CONCENTRATION IN PPM

YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION
880202	1640	367.59	880401	0710	713.72	880524	1402	248.71
880203	0550	182.40	880401	1715	185.22	880524	1407	212.20
880203	1550	148.76	880402	0730	100.25	880525	0625	128.78
880204	1555	138.16	880402	1715	90.15	880529	1405	52.10
880214	1420	33.06	880403	1400	125.97	880601	1429	63.41
880218	0740	89.30	880404	1635	88.16	880605	1535	43.19
880219	0815	321.90	880406	0615	1082.70	880608	1628	46.38
880219	1135	662.49	880410	1340	414.25	880609	0950	80.04
880221	1450	53.77	880413	1502	101.96	880612	1510	46.06
880223	0755	112.83	880417	1610	91.01	880615	1503	52.10
880224	1527	61.75	880418	1720	184.53	880619	1610	51.63
880228	1505	71.08	880421	1529	56.23	880625	1035	52.93
880304	0930	156.87	880424	1350	86.02	880629	1539	60.79
880304	1450	130.91	880427	1659	106.02	880702	1020	42.36
880306	1510	68.54	880501	1550	66.01	880709	0910	77.42
880310	1443	60.52	880504	1600	179.71	880713	0855	82.08
880313	1635	160.14	880504	1609	181.65	880713	1555	76.16
880316	1537	47.47	880507	0905	132.55	880719	0725	28.67
880320	1525	76.06	880509	0705	182.99	880720	0600	40.67
880323	1538	75.12	880511	1557	100.90	880721	0600	35.12
880325	1740	82.44	880514	0915	152.51	880723	1245	30.05
880326	1025	102.25	880518	1626	44.11	880731	1455	38.43
880327	1515	56.59	880521	1145	36.70	880806	1630	14.27
880329	1340	99.76	880523	0730	109.92	880821	1350	57.16
880330	0715	671.79	880524	0730	462.55	880825	1434	21.65
880330	1700	130.16	880524	1350	194.83	880828	1600	38.52
880331	0845	160.35	880524	1354	196.07	880903	0720	41.99
880331	1615	304.04	880524	1357	207.83	880904	1245	44.99

APPENDIX D-3F (concluded). COLLECTED SUSPENDED SEDIMENT CONCENTRATION DATA AT MAIN DITCH AT ROUTE 45 (505) -- WATER YEAR 1988
CONCENTRATION IN PPM

YRMODY	HRMN	CONCENTRATION
880911	1545	15.85
880912	0810	24.15
880912	1715	36.76
880917	1240	29.52
880919	0700	13.85
880920	0855	115.79
880921	0645	70.98
880922	0705	153.27
880922	1443	41.97
880924	0705	31.39
880925	1645	27.62
880928	1437	35.69
881003	1425	63.75

APPENDIX D-4A. COLLECTED SUSPENDED SEDIMENT CONCENTRATION DATA AT CACHE RIVER AT ROUTE 146 (507) -- WATER YEAR 1984 to 1985
CONCENTRATION IN PPM

YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION
840508	0845	90.04	850427	1535	458.52	850525	1537	139.27
840911	1520	209.87	850428	1533	131.67	850526	1539	114.53
840924	0837	327.65	850429	1800	233.17	850527	1530	164.40
841022	1030	55.95	850430	1810	139.52	850528	1304	156.04
850225	1450	76.40	850501	1540	248.94	850529	1540	102.93
850403	1530	119.21	850502	1550	198.66	850530	1543	116.20
850404	1530	97.32	850503	1540	135.71	850531	1545	209.45
850405	1540	702.68	850504	1537	107.91	850601	1540	165.91
850406	1555	285.39	850505	1540	510.81	850602	1545	76.78
850407	1535	304.01	850506	1500	495.79	850603	1530	71.62
850409	1520	603.50	850507	1610	739.97	850604	1540	406.44
850410	1530	308.97	850508	1535	211.04	850605	1541	364.23
850411	1530	107.23	850509	1510	530.58	850606	1546	362.99
850412	1535	104.18	850510	1534	224.49	850607	1537	320.06
850413	1540	73.35	850511	1540	200.46	850608	1536	687.78
850414	1540	170.17	850512	1541	348.15	850609	1541	329.92
850415	1550	310.57	850513	1337	508.54	850610	1427	3248.30
850416	1435	331.23	850514	1340	535.16	850611	1440	485.73
850417	1540	117.35	850515	1533	218.93	850612	1538	329.89
850418	1550	79.05	850516	1539	189.76	850613	1545	205.44
850419	1540	115.46	850517	1537	218.17	850614	1540	282.41
850420	1535	84.63	850518	1540	203.36	850615	1541	208.60
850421	1535	91.98	850519	1420	188.86	850616	1536	295.70
850422	1700	107.04	850520	1710	200.66	850617	1600	2296.70
850423	1725	318.21	850521	1510	162.45	850618	0940	1377.30
850424	1530	542.67	850522	1538	1598.70	850619	1546	472.01
850425	1526	191.11	850523	1543	179.16	850620	1538	239.54
850426	1522	236.21	850524	1535	128.80	850621	1540	219.24

APPENDIX D-4B. COLLECTED SUSPENDED SEDIMENT CONCENTRATION DATA AT CACHE RIVER AT ROUTE 146 (507) -- WATER YEAR 1985 to 1986
CONCENTRATION IN PPM

YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION
850622	1532	188.86	851024	1724	158.77	860408	1053	368.07
850623	1535	948.71	851026	1544	94.41	860408	1055	352.92
850624	1530	332.76	851031	1540	438.40	860408	1059	364.45
850625	1540	427.31	851110	1530	90.91	860408	1102	374.84
850626	1538	1258.90	851120	0828	172.35	860408	1104	358.61
850627	2015	2600.60	851120	1038	194.40	860408	1107	368.63
850628	2016	1528.40	851123	1645	64.35	860412	1546	73.44
850629	1541	726.12	851127	1752	119.01	860420	1542	130.26
850630	1549	595.20	851201	1546	139.48	860421	1223	193.40
850702	1531	590.29	851208	1535	19.10	860421	1239	185.46
850703	1540	631.02	851215	1543	36.39	860422	1047	114.64
850704	1545	453.99	860104	1530	48.37	860426	1540	74.04
850705	1543	313.53	860117	1545	76.43	860502.	1033	109.96
850706	1535	282.37	860126	1531	17.01	860504	1533	77.29
850707	1543	259.85	860202	1537	107.50	860509	1223	69.74
850708	1542	223.89	860204	1237	184.28	860514	1037	86.22
850709	1544	112.26	860219	1543	148.67	860515	1539	528.12
850727	1543	186.12	860228	1542	13.90	860518	1505	138.96
850803	1530	181.73	860302	1542	33.96	860520	0801	90.29
850805	1930	2042.30	860304	1029	8.04	860521	1532	80.63
850821	1549	140.56	860309	1536	34.54	860523	0903	101.34
850824	1541	1750.10	860312	1340	888.49	860524	1523	87.30
850901	1540	104.18	860312	1727	1160.40	860529	1540	241.06
850906	1543	650.07	860319	1015	301.06	860604	0903	111.37
850928	1541	109.07	860323	1538	51.18	860606	1538	109.17
851008	1705	27.94	860328	1522	75.82	860607	1537	486.19
851016	1645	100.81	860330	1540	111.45	860610	1611	194.15
851017	1547	100.00	860402	1054	97.71	860615	1539	89.58

APPENDIX D-4C. COLLECTED SUSPENDED SEDIMENT CONCENTRATION DATA AT CACHE RIVER AT ROUTE 146 (507) -- WATER YEAR 1986 to 1987
CONCENTRATION IN PPM

YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION
860620	0900	60.72	860925	1023	208.86	861221	1538	9.25
860622	1537	69.19	860925	1525	192.83	861223	0920	16.54
860627	1153	63.38	860926	0956	201.04	861228	1537	18.03
860702	0933	94.31	861002	0922	226.16	861229	0944	14.26
860705	1533	76.37	861002	1531	322.66	870104	1533	9.58
860713	1538	1748.00	861003	0911	463.22	870106	0956	10.48
860714	1444	264.98	861005	1535	165.12	870109	1535	11.43
860717	1540	264.17	861012	1535	94.80	870114	0923	10.44
860718	1007	181.06	861019	1542	61.12	870116	1522	39.51
860723	1038	88.20	861023	0954	50.80	870122	0933	10.28
860730	1619	200.57	861024	1535	86.37	870123	1540	11.75
860803	1541	52.90	861025	1535	117.29	870131	1540	10.96
860810	1538	1858.80	861029	0929	45.13	870205	1540	31.58
860811	1046	366.68	861102	1540	50.43	870211	1533	9.31
860811	1109	364.81	861105	1543	83.04	870212	1005	14.00
860812	0905	227.19	861107	0901	45.91	870218	1540	65.19
860813	0905	159.40	861112	1031	13.18	870219	0922	47.15
860816	0903	191.50	861114	1546	12.11	870226	0921	37.87
860816	1537	923.65	861120	0949	17.50	870227	0859	65.38
860820	1526	98.34	861122	1538	14.90	870227	1542	145.27
860824	1543	120.16	861125	0908	9.93	870228	1542	1464.00
860831	1539	83.61	861125	1455	34.90	870303	1203	89.51
860903	0909	80.51	861130	1528	24.95	870303	1205	76.92
860907	1540	96.93	861202	0921	228.12	870303	1207	84.88
860918	1543	129.74	861207	1533	19.16	870303	1209	95.83
860919	1126	401.10	861208	0851	19.28	870303	1210	90.45
860924	0927	1195.50	861214	1540	15.80	870303	1212	88.84
860925	0020	381.49	861216	0915	18.45	870303	1214	98.49

APPENDIX D-4D. COLLECTED SUSPENDED SEDIMENT CONCENTRATION DATA AT CACHE RIVER AT ROUTE 146 (507) -- WATER YEAR 1987 to 1988
CONCENTRATION IN PPM

YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION
870303	1216	79.39	870607	1521	72.71	870827	0939	73.61
870303	1218	83.82	870611	0951	56.04	870903	1003	101.64
870303	1220	78.48	870614	1526	409.32	870906	1528	121.90
870303	1223	82.67	870616	0829	325.80	870910	1005	73.84
870304	1610	85.67	870616	1559	347.73	870917	0925	93.35
870305	0920	98.58	870617	1539	223.23	870924	1011	67.80
870308	1539	122.80	870618	0924	183.25	870927	1523	74.82
870315	1540	93.49	870620	1535	215.48	871001	1014	41.07
870320	0023	319.20	870624	0945	113.11	871008	1024	33.91
870325	1540	153.09	870629	0858	108.28	871015	1012	69.22
870326	0948	120.09	870701	0856	586;87	871018	1525	41.41
870401	1542	94.71	870701	1531	868.61	871022	1020	17.93
870402	1007	99.76	870701	1842	508.17	871028	1020	23.27
870409	0909	108.02	870702	0840	550.86	871101	1523	53.89
870409	1541	121.78	870702	1910	247.52	871105	0934	83.39
870415	1544	154.62	870703	0835	262.53	871112	1007	10.54
870416	0914	165.46	870703	1525	247.40	871118	1002	112.78
870426	1955	86.89	870706	1041	89.34	871122	1520	32.00
870430	1102	69.48	870707	1449	131.78	871125	0937	48.98
870504	1740	44.10	870710	1527	254.19	871203	1000	29.00
870507	1004	79.29	870716	1003	80.09	871208	1620	73.13
870514	0914	158.37	870719	1530	84.96	871209	0949	92.02
870514	1828	83.26	870724	1022	86.10	871216	0936	197.76
870521	0918	65.51	870801	1525	737.06	871216	0941	209.26
870522	1542	91.41	870807	1025	117.67	871216	0944	197.58
870528	0917	100.40	870809	1522	211.10	871216	0948	191.08
870531	1545	66.50	870813	0938	64.87	871216	0950	201.61
870604	0947	107.35	870823	1528	141.21	871216	0952	182.78

APPENDIX D-4E. COLLECTED SUSPENDED SEDIMENT CONCENTRATION DATA AT CACHE RIVER AT ROUTE 146 (507) -- WATER YEAR 1988
CONCENTRATION IN PPM

YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION
871216	0955	254.33	880327	1527	129.80	880713	0953	42.18
871216	0958	192.12	880331	1107	134.90	880713	1525	77.75
871217	1620	81.76	880331	1123	146.61	880720	0959	280.53
871223	1515	38.71	880401	0858	124.16	880720	1530	370.52
871226	1525	224.52	880403	1526	51.40	880721	1016	207.00
871227	1530	86.04	880404	0859	47.62	880721	1018	204.84
871228	0909	55.96	880405	1446	82.71	880721	1020	202.00
871229	0925	40.25	880406	0942	123.60	880721	1022	214.05
871230	0941	32.49	880407	1528	136.60	880721	1028	216.18
880103	1525	13.30	880413	0934	86.68	880803	0920	47.83
880120	0943	341.28	880421	1002	77.36	880806	1525	59.41
880120	1454	208.60	880424	1514	119.50	880818	0922	38.67
880122	0940	77.70	880427	0934	82.67	880821	1530	69.73
880127	0954	109.77	880504	1001	107.47	880825	0937	69.68
880131	1525	120.30	880504	1520	120.26	880902	1529	67.57
880203	0948	89.30	880511	0943	129.43	880903	1520	874.07
880203	1529	115.78	880518	0955	54.90	880908	1004	32.10
880204	0941	108.60	880518	1439	58.25	880915	0943	89.18
880218	0958	27.58	880525	0925	155.35	880919	1327	161.00
880221	1535	72.12	880529	1524	95.57	880919	1434	164.51
880224	0942	72.81	880601	0959	70.69	880919	1447	169.42
880302	0935	63.64	880608	0938	55.87	880920	0914	141.63
880304	1530	630.87	880615	1000	53.08	880920	1429	125.04
880304	1600	248.31	880623	0919	53.46	880922	0944	92.39
880310	0946	92.48	880629	1003	48.72	880928	1016	60.78
880316	0945	24.45	880630	1530	69.81	881003	0930	114.52
880323	0947	143.42	880706	0920	78.02			

APPENDIX D-5A. COLLECTED SUSPENDED SEDIMENT CONCENTRATION DATA AT ROUTE 37 (508) -- WATER YEAR 1985
CONCENTRATION IN PPM

YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION
850226	1220	138.87	850406	0852	56.49	850512	0949	16.95
850308	1613	19.83	850407	1518	29.93	850513	1642	77.89
850309	1655	82.15	850408	1711	39.71	850514	1400	503.76
850310	1320	23.24	850409	1059	41.57	850515	0910	102.40
850311	1635	837.84	850410	1556	23.67	850522	1656	480.31
850312	1650	99.58	850411	1622	46.22	850602	1633	28.28
850313	1832	43.85	850412	1617	111.98	850604	1617	23.85
850314	1645	225.81	850413	1717	76.02	850606	1912	26.12
850315	1636	154.34	850414	1735	31.54	850610	1736	40.96
850316	1106	517.50	850415	1622	26.46	850611	1641	67.07
850317	1702	174.83	850416	1607	106.17	850616	1747	128.47
850318	1644	129.58	850417	1520	451.88	850617	1618	128.79
850319	1742	445.13	850418	1643	28.51	850623	1820	160.18
850320	2021	79.02	850419	1631	23.26	850628	1610	1134.10
850321	1700	212.47	850420	1214	96.60	850630	1652	211.18
850322	1646	43.30	850421	1145	25.02	850707	1604	114.45
850323	1045	34.83	850422	1540	11.88	850713	0900	208.06
850324	1728	272.08	850423	1630	75.16	850720	1215	136.88
850325	1632	103.67	850424	1430	21.41	850727	1530	106.34
850326	1714	96.41	850425	1437	28.63	850803	0800	193.28
850328	1758	298.03	850426	1430	34.88	850805	1350	1700.70
850329	1559	57.53	850427	1430	201.40	850810	1105	57.51
850330	1454	679.42	850428	1450	96.62	850816	1635	73.63
850331	1346	104.92	850429	1641	41.93	850818	1910	28.97
850402	1656	118.47	850430	1616	92.67	850820	1605	32.98
850403	1616	27.51	850501	1639	39.60	850824	1015	248.44
850404	1722	181.05	850502	1621	23.68	850831	1830	21.08
850405	1715	26.83	850511	1213	43.89	850905	1715	303.30

APPENDIX D-5B. COLLECTED SUSPENDED SEDIMENT CONCENTRATION DATA AT ROUTE 37 (508) -- WATER YEAR 1985 to 1986
CONCENTRATION IN PPM

YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION
850907	1130	79.13	851128	1515	68.53	860312	1042	1094.40
850914	0805	39.94	851201	1545	33.83	860313	1615	306.79
850916	1917	22.53	851210	1625	21.46	860316	1710	28.00
850921	1230	40.82	851211	1630	427.23	860319	1426	74.10
850924	1220	45.95	851215	1400	21.67	860328	1241	66.76
850929	1200	82.59	851224	1240	17.23	860330	1720	49.09
851005	1300	66.46	851226	1517	571.23	860402	1343	53.89
851014	1530	942.04	851229	1645	22.23	860405	1610	100.78
851017	1150	32.24	860105	1703	15.71	860413	1630	2816.20
851017	1155	58.82	860112	1600	85.39	860420	1710	91.16
851017	1158	35.10	860119	1650	113.84	860421	1605	92.22
851019	1235	276.43	860126	1605	33.51	860428	1718	1500.40
851020	1635	43.71	860201	1530	22.03	860429	1600	87.64
851023	1808	597.26	860202	1625	80.04	860430	1048	176.47
851024	1342	379.69	860203	1615	1080.20	860504	1840	61.33
851024	1630	342.55	860204	1247	48.42	860511	1615	76.83
851028	1620	119.82	860204	1625	184.08	860514	1615	61.01
851030	1625	452.04	860206	1610	70.19	860515	1320	2953.90
851031	1635	205.08	860208	1100	60.62	860515	1604	2673.60
851102	1610	83.56	860215	1406	30.06	860515	1616	2409.40
851111	1155	118.81	860217	1725	83.62	860516	0815	349.30
851115	1445	154.57	860219	1226	63.42	860516	1950	382.41
851115	1540	147.11	860223	1623	29.83	860517	0740	339.51
851117	1530	116.13	860227	1432	54.06	860517	1650	300.32
851120	1642	221.14	860302	1630	27.96	860518	0700	247.16
851125	1700	48.12	860304	1244	29.59	860518	1730	205.87
851126	1620	650.74	860307	1324	47.49	860523	1201	24.34
851127	1605	231.52	860309	1615	41.28	860524	0840	22.18

APPENDIX D-5C. COLLECTED SUSPENDED SEDIMENT CONCENTRATION DATA AT ROUTE 37 (508) -- WATER YEAR 1986 to 1987
CONCENTRATION IN PPM

YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION
860525	1505	10.95	860819	1810	76.20	861111	0655	63.56
860526	0940	22.48	860820	1313	87.26	861116	1600	43.11
860526	1835	34.45	860824	1605	47.41	861123	1550	781.86
860529	1236	51.32	860831	1450	734.08	861126	0615	27.42
860601	1850	71.16	860907	1810	72.55	861126	1535	102.98
860604	1326	67.33	860918	1545	100.18	861127	0745	1192.10
860605	0835	42.94	860918	1700	77.06	861130	1210	88.72
860607	1055	1528.00	860919	1700	58.64	861201	1411	144.22
860610	0750	75.84	860920	1800	70.31	861201	1636	154.10
860610	1541	59.58	860923	1900	69.60	861202	0650	192.99
860615	1710	211.24	860924	1850	225.37	861202	1625	159.69
860619	1448	88.37	860928	1600	41.02	861203	1606	90.91
860622	1650	105.25	861001	1710	40.42	861208	0610	26.66
860626	1523	116.30	861003	1020	371.70	861209	0640	163.96
860629	1715	92.47	861003	1750	356.60	861214	1710	33.09
860713	1640	43.98	861005	0745	240.43	861216	1250	22.75
860715	0915	2491.30	861012	1220	80.89	861222	1635	150.84
860715	1354	1056.50	861013	1815	72.57	861224	1515	25.01
860715	1417	806.32	861019	1530	66.60	861228	1440	113.24
860727	1212	172.86	861024	1635	42.35	870104	1535	23.37
860803	1630	109.10	861025	0800	67.31	870114	1315	22.90
860808	0950	49.26	861026	1615	110.56	870118	1530	62.74
860810	1545	582.02	861029	1231	76.28	870122	1508	47.60
860811	1532	391.26	861103	1310	43.81	870202	0610	81.38
860811	1556	390.33	861105	0652	51.04	870203	1154	88.77
860812	1044	210.82	861106	1312	131.53	870208	1530	134.73
860813	1238	132.42	861108	0705	86.38	870212	1351	47.59
860816	1154	106.63	861109	0657	173.70	870215	1500	1500.90

APPENDIX D-5D. COLLECTED SUSPENDED SEDIMENT CONCENTRATION DATA AT ROUTE 37 (508) -- WATER YEAR 1987
CONCENTRATION IN PPM

YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION
870218	1545	79.62	870415	1545	152.13	870617	0625	219.67
870219	1356	31.70	870416	0650	173.67	870617	1414	198.10
870222	1545	98.97	870416	1514	150.72	870618	1142	131.93
870226	1543	75.86	870416	1730	155.92	870619	0630	135.50
870227	0800	73.86	870417	1041	122.01	870620	0715	898.03
870301	1623	52.49	870419	1500	86.03	870620	1715	704.41
870302	1404	135.37	870428	0635	104.66	870621	0640	354.52
870304	1508	95.57	870501	1226	176.34	870621	1750	287.77
870305	1532	74.99	870503	1445	66.07	870624	1255	140.02
870315	1610	234.58	870504	0635	83.73	870625	0635	177.52
870319	1605	544.95	870504	1045	124.52	870625	1650	191.02
870323	0615	62.10	870507	1453	75.81	870626	0620	650.12
870324	1755	492.30	870509	1540	73.65	870626	1240	802.26
870329	1610	76.57	870517	1750	79.83	870628	1755	214.62
870330	0620	1078.50	870521	1316	146.87	870629	0650	186.81
870330	1615	1006.50	870524	1510	151.82	870629	1015	173.44
870331	0620	45.11	870525	1204	954.69	870630	1835	150.58
870402	0620	57.39	870528	1532	107.46	870701	0645	845.20
870402	1400	65.70	870530	1645	406.76	870701	1703	1067.10
870404	0930	66.67	870601	0640	59.12	870701	1835	879.44
870409	1343	70.40	870601	0952	90.81	870702	0620	447.31
870411	0745	1363.70	870603	0640	57.20	870702	0912	2473.30
870414	0630	142.27	870604	1340	37.32	870702	1500	352.55
870414	0855	162.94	870608	0653	75.87	870703	0630	133.06
870414	0918	125.48	870611	1346	29.98	870703	0938	196.66
870414	1715	302.81	870615	1600	535.10	870705	1748	57.35
870415	0650	224.28	870616	0700	569.05	870706	1318	46.81
870415	1131	178.23	870616	1319	564.23	870706	1900	40.47

APPENDIX D-5E. COLLECTED SUSPENDED SEDIMENT CONCENTRATION DATA AT ROUTE 37 (508) -- WATER YEAR 1987 to 1988
CONCENTRATION IN PPM

YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION
870707	0722	58.17	871108	1515	85.25	871228	1252	85.63
870707	1419	43.28	871115	1510	114.65	871229	1422	84.68
870708	1004	48.60	871117	0650	114.84	871230	1349	76.43
870711	0855	714.87	871124	0635	36.72	871230	1545	55.30
870716	1404	115.58	871124	1615	61.56	871231	1200	42.70
870719	1845	115.12	871125	0630	79.74	880103	1720	41.60
870724	1146	114.61	871125	1414	76.80	880106	1357	32.44
870725	1630	767.68	871126	1430	81.86	880110	1535	20.50
870730	0645	535.43	871128	1745	48.95	880112	1735	46.90
870731	1936	229.43	871129	1430	39.38	880113	1315	28.87
870802	1930	158.80	871130	1102	59.91	880117	1620	264.70
870807	1426	124.10	871206	1430	40.92	880119	1158	2428.60
870813	1528	111.33	871214	0930	390.73	880119	1351	2563.60
870815	1114	102.12	871215	0650	1029.30	880119	1625	1365.40
870822	1330	254.69	871215	1405	396.79	880120	0615	393.30
870827	1559	190.25	871215	1630	446.36	880120	1423	196.02
870830	1830	212.62	871216	1040	335.16	880120	1620	121.10
870906	1730	122.64	871216	1410	324.11	880121	0835	169.90
870913	1815	180.54	871219	1210	117.14	880121	1144	161.33
870917	0810	100.28	871220	1415	183.40	880122	1303	105.64
870917	1528	165.86	871223	1350	104.45	880122	1635	107.40
870920	1625	1244.80	871224	1425	88.05	880125	0640	77.60
870929	0815	753.18	871225	0920	589.89	880127	1404	50.57
871004	1800	158.47	871225	1530	1544.30	880202	1129	617.66
871011	1535	92.79	871226	1020	180.63	880202	1610	690.49
871018	1635	75.38	871226	1620	337.10	880203	0620	107.82
871025	1645	117.41	871227	1400	140.92	880203	1454	62.32
871027	0840	90.91	871228	1000	92.49	880203	1457	136.64

APPENDIX D-5F. COLLECTED SUSPENDED SEDIMENT CONCENTRATION DATA AT ROUTE 37 (508) -- WATER YEAR 1988
CONCENTRATION IN PPM

YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION
880203	1458	140.88	880330	1432	565.76	880506	0740	157.59
880203	1620	87.38	880330	1745	510.71	880507	0935	137.06
880204	1318	103.37	880331	0915	202.37	880509	0740	542.02
880214	1450	13.43	880331	1435	176.01	880511	1512	98.62
880218	0820	160.69	880331	1645	185.71	880514	0955	88.41
880218	1553	73.90	880401	0730	507.02	880521	1115	411.85
880219	0850	60.44	880401	1602	237.21	880523	0755	50.05
880219	1429	255.04	880401	1614	182.35	880524	0800	72.33
880221	1525	68.80	880401	1654	138.05	880525	0650	78.04
880223	0830	264.56	880401	1740	94.85	880529	1440	50.80
880224	1418	79.96	880402	0800	37.82	880605	1615	172.67
880228	1545	104.20	880402	1746	86.59	880612	1540	59.05
880302	1435	73.54	880403	1435	54.24	880619	1710	43.67
880303	1443	91.83	880404	1314	30.58	880625	0930	42.85
880304	0815	148.89	880404	1440	21.20	880702	0900	76.92
880304	1055	333.33	880406	0640	28.53	880709	1000	79.55
880306	1545	96.91	880406	1400	25.90	880713	0930	92.38
880309	0952	112.10	880410	1415	45.58	880719	0755	151.90
880310	1335	98.87	880413	1405	56.44	880720	0630	46.86
880313	1710	70.21	880417	1655	66.77	880720	1437	77.59
880316	1415	46.93	880418	1745	78.06	880721	0625	86.97
880320	1600	45.44	880421	1428	65.50	880723	1315	97.67
880323	1426	75.40	880424	1430	69.67	880731	1535	88.99
880326	0940	133.94	880427	1622	81.26	880806	1515	476.54
880327	1545	90.87	880501	1630	87.59	880821	1745	94.89
880329	1402	219.00	880504	1509	938.72	880828	1630	69.21
880329	1415	91.84	880504	1645	674.73	880903	0750	456.20
880330	0745	540.40	880505	1425	227.90	880904	1315	175.52

APPENDIX D-5F (concluded). COLLECTED SUSPENDED SEDIMENT CONCENTRATION DATA AT ROUTE 37 (508) -- WATER YEAR 1988
CONCENTRATION IN PPM

YRMODY	HRMN	CONCENTRATION
880906	1025	99.29
880911	1645	54.71
880912	0840	65.62
880912	1745	765.77
880917	1700	78.61
880919	0755	83.40
880920	0915	61.99
880921	0710	82.41
880922	0630	52.23
880924	0740	40.42
880925	1725	196.06

APPENDIX D-6A. COLLECTED SUSPENDED SEDIMENT CONCENTRATION DATA AT INDIAN CAMP CREEK AT ULLIN (510) -- WATER YEAR 1986 to 1987
CONCENTRATION IN PPM

YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION
851017	0940	75.93	860715	0925	2316.00	870122	1121	42.15
851024	1030	126.67	860715	0938	2303.90	870129	1108	27.91
851024	1045	238.43	860717	0958	142.50	870206	0942	32.70
860206	1336	2321.60	860724	1117	49.02	870212	1147	37.88
860228	1201	8.99	860731	1218	51.23	870219	1202	20.19
860307	1234	13.58	860807	1020	51.55	870226	1043	45.69
860313	1103	302.13	860814	1005	85.95	870302	1105	171.42
860321	1019	25.49	860820	1122	100.23	870305	1258	82.06
860327	1426	30.65	860827	1120	146.11	870311	1104	23.39
860403	1100	37.24	860828	1025	92.02	870326	1100	19.33
860408	1301	73.91	860904	1003	56.76	870402	1126	84.65
860410	1159	27.92	860911	0952	49.79	870409	1010	41.16
860416	1200	12.28	860918	1341	148.99	870416	1246	85.89
860424	1005	41.44	860925	1136	241.63	870422	1151	86.64
860501	1141	48.43	861001	1053	218.96	870430	1327	22.97
860508	1109	78.74	861002	1036	188.51	870507	1145	125.65
860515	1331	2312.00	861023	1117	42.38	870514	1032	246.89
860521	1526	306.96	861030	1117	18.98	870521	1018	132.53
860522	1147	210.55	861106	1050	53.59	870528	1052	84.15
860523	1315	167.85	861120	1126	23.65	870603	1347	135.94
860525	1043	672.36	861125	1013	12.76	870604	1107	106.07
860527	0937	169.60	861202	1352	127.56	870611	1057	73.12
860528	1135	130.26	861209	1105	142.34	870616	1036	412.26
860605	1111	66.98	861216	1054	20.42	870618	1017	178.35
860610	1210	249.17	861223	1037	15.28	870624	1047	90.88
860619	1139	55.51	861229	1100	10.49	870701	1401	319.83
860626	1116	124.00	870106	1111	11.56	870707	1057	243.02
860702	1117	108.60	870114	1041	32.52	870709	1110	106.73

APPENDIX D-6B. COLLECTED SUSPENDED SEDIMENT CONCENTRATION DATA AT INDIAN CAMP CREEK AT ULLIN (510) -- WATER YEAR 1987 to 1988
CONCENTRATION IN PPM

YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION
870716	1125	58.40	871216	1130	72.47	880524	1134	158.70
870724	1413	82.49	871223	1100	21.83	880525	1113	71.82
870807	1226	35.62	871230	1054	39.74	880601	1120	76.13
870813	1049	39.67	880120	1303	401.55	880608	1140	56.40
870827	1102	35.41	880203	1157	256.60	880615	1116	58.58
870903	1123	40.84	880218	1155	107.43	880623	1032	62.45
870910	1110	32.91	880224	1116	23.71	880629	1133	55.87
870917	1049	342.12	880302	1105	15.86	880706	1050	49.45
870924	1144	30.12	880310	1114	14.25	880713	1110	92.73
871001	1159	29.55	880316	1112	11.22	880720	1310	73.83
871008	1134	24.22	880323	1142	30.27	880803	1039	48.49
871015	1131	15.13	880325	1356	213.98	880818	1028	64.48
871022	1153	11.09	880330	1556	525.77	880825	1050	44.13
871028	1132	9.85	880406	1102	108.80	880902	1054	437.22
871105	1057	24.89	880413	1100	25.48	880908	1123	37.90
871112	1134	7.30	880421	1125	38.84	880915	1052	68.31
871118	1133	167.64	880427	1534	29.04	880922	1112	37.48
871125	1057	86.62	880504	1128	6866.88	880928	1115	46.96
871203	1106	24.42	880511	1146	60.42	881003	1041	45.25
871209	1114	49.95	880518	1201	271.63			

APPENDIX D-7A. COLLECTED SUSPENDED SEDIMENT CONCENTRATION DATA AT CACHE RIVER AT ROUTE 51 (513) -- WATER YEAR 1986 to 1987
CONCENTRATION IN PPM

YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION
851017	0912	68.22	860527	0951	107.94	861120	1145	33.46
860213	1052	98.34	860528	1123	102.62	861125	1139	18.43
860220	1331	125.62	860529	1136	106.21	861201	1526	396.29
860228	1241	21.40	860605	1124	129.69	861202	1429	102.63
860307	1135	29.92	860610	1222	299.32	861203	1359	89.98
860313	1018	379.89	860612	1353	259.80	861216	1115	18.55
860321	1051	93.65	860619	1156	89.29	861223	1101	16.89
860327	1326	58.71	860626	1141	129.73	861229	1151	16.96
860403	1029	83.04	860702	1153	114.14	870106	1140	15.64
860410	1129	48.83	860715	1004	3906.10	870114	1133	32.63
860416	1231	20.02	860715	1021	3583.30	870122	1149	13.85
860424	1104	80.24	860717	1034	372.07	870129	1204	22.20
860501	1229	78.22	860724	1100	73.50	870206	1034	38.08
860508	1155	95.95	860731	1241	65.21	870212	1212	51.51
860515	1355	3009.20	860807	1106	82.79	870219	1117	43.63
860521	1556	230.59	860812	1431	259.91	870226	1129	61.07
860522	1314	182.22	860813	1051	250.80	870302	1121	265.86
860523	1327	152.23	860814	1029	191.95	870305	1359	239.29
860524	1158	106.31	860820	1144	150.41	870311	1155	90.40
860524	1201	129.66	860828	1054	72.30	870326	1225	88.39
860524	1203	107.76	860904	1050	74.52	870402	1156	67.61
860524	1204	114.63	860911	1016	170.77	870409	1135	64.48
860524	1206	119.55	860918	1407	343.67	870415	2359	258.29
860524	1208	114.59	860925	1226	186.57	870416	1335	158.22
860524	1209	104.29	861002	1116	305.10	870416	2359	139.19
860524	1211	98.19	861023	1142	65.90	870417	2359	149.80
860524	1212	110.60	861030	1145	45.28	870418	2359	143.82
860525	1054	206.52	861106	1114	67.03	870419	2359	175.82

APPENDIX D-7B. COLLECTED SUSPENDED SEDIMENT CONCENTRATION DATA AT CACHE RIVER AT ROUTE 51 (513) -- WATER YEAR 1987 to 1988
CONCENTRATION IN PPM

YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION
870422	1132	122.79	870624	1107	69.20	870827	1131	78.49
870422	1200	117.13	870630	2359	1424.10	870903	1156	72.47
870425	1200	118.46	870701	1446	397.78	870917	1232	105.12
870428	1200	384.24	870701	1600	592.48	871118	1202	57.81
870430	1352	81.19	870701	2359	693.64	871125	1127	59.65
870502	1200	409.82	870702	0800	461.12	871209	1132	61.84
870502	2359	926.52	870702	1600	383.49	871215	1200	699.95
870503	1200	909.59	870702	1725	306.24	871215	2359	309.95
870503	2359	2125.50	870703	1245	231.38	871216	1206	155.25
870504	1200	777.42	870703	1600	260.02	871223	1128	65.04
870504	2359	939.20	870704	1600	234.72	871229	1104	145.94
870505	1200	564.67	870705	1600	271.63	871229	1106	168.98
870505	2359	1032.90	870705	2359	283.16	871229	1108	149.95
870507	1238	112.58	870706	0800	226.26	871229	1110	154.57
870514	1117	85.87	870707	0800	229.05	871229	1111	153.34
870521	1133	110.15	870707	1115	113.85	871229	1113	145.58
870528	1116	128.28	870708	0800	566.74	871229	1115	157.24
870604	1135	82.21	870709	0800	557.32	871229	1117	112.10
870611	1118	135.17	870709	1150	101.75	871229	1119	145.30
870615	2359	775.63	870716	1212	53.99	871230	1138	117.83
870616	1154	481.38	870724	1449	88.11	880106	1134	50.34
870616	1157	446.71	870729	1200	1560.10	880113	1112	26.53
870616	1159	464.52	870729	2359	541.56	880120	1328	334.56
870616	1200	483.63	870730	1200	305.71	880121	1549	238.33
870616	1201	483.46	870730	2359	680.27	880127	1138	85.20
870616	1204	481.17	870731	1200	818.85	880202	1524	36.62
870616	1207	475.86	870807	1259	83.68	880203	1303	193.20
870618	1039	142.77	870813	1110	89.65	880218	1327	73.11

APPENDIX D-7C. COLLECTED SUSPENDED SEDIMENT CONCENTRATION DATA AT CACHE RIVER AT ROUTE 51 (513) -- WATER YEAR 1988
CONCENTRATION IN PPM

YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION
880218	1328	88.73	880331	1200	310.03	880427	1550	84.36
880219	1200	184.64	880331	2359	348.39	880504	1200	414.72
880219	2359	216.08	880401	1200	1347.60	880504	1317	161.60
880220	1200	126.62	880401	2359	452.96	880504	2359	730.49
880220	2359	133.72	880402	1200	282.90	880505	1200	314.90
880224	1144	67.23	880402	2359	204.48	880509	1048	160.03
880302	1126	70.15	880403	1300	187.25	880511	1206	128.61
880303	1200	2039.40	880404	0100	179.34	880518	1332	64.32
880303	2359	1000.30	880404	1300	165.78	880525	1134	99.67
880304	1200	401.36	880405	0100	184.04	880601	1143	99.34
880304	2359	357.02	880405	1047	136.86	880608	1310	93.02
880305	1200	306.96	880405	1300	210.42	880615	1142	89.09
880305	2359	467.28	880406	0100	346.97	880623	1104	112.16
880306	1200	389.50	880406	1121	182.24	880629	1157	105.04
880306	2359	376.51	880406	1300	319.22	880706	1110	89.89
880307	1200	285.40	880407	0100	438.71	880713	1135	121.33
880307	2359	335.77	880407	1300	351.35	880720	1331	78.49
880308	1200	316.17	880408	0100	403.03	880803	1125	77.99
880309	1309	81.79	880408	1300	311.28	880818	1048	49.56
880310	1150	55.81	880409	0100	496.51	880825	1117	68.42
880312	2359	192.75	880409	1300	344.36	880902	1110	667.57
880313	1200	142.78	880410	0100	495.93	880908	1146	81.13
880316	1132	21.70	880410	1300	336.59	880908	1148	80.13
880323	1206	71.38	880411	0100	353.59	880908	1150	73.83
880329	2359	4268.80	880411	1300	270.22	880908	1152	83.77
880330	1200	904.32	880412	0100	310.92	880908	1154	85.13
880330	1625	340.28	880413	1151	63.51	880908	1156	83.71
880330	2359	397.05	880421	1205	83.43	880912	1125	90.15

APPENDIX D-7C (concluded). COLLECTED SUSPENDED SEDIMENT CONCENTRATION DATA AT CACHE RIVER AT ROUTE 51 (513) -- WATER YEAR 1988
CONCENTRATION IN PPM

YRMODY	HRMN	CONCENTRATION
880915	1110	59.98
880917	1200	833.12
880922	1136	49.20
880928	1133	75.46
881003	1113	107.02

APPENDIX D-8A. COLLECTED SUSPENDED SEDIMENT CONCENTRATION DATA AT CACHE RIVER AT FORMAN (378) -- WATER YEAR 1981
CONCENTRATION IN PPM

YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION
801014	1400	14.00	810420	0730	109.00	810517	1420	189.00
801029	1025	52.00	810421	0730	109.00	810518	1225	210.00
801112	1445	42.00	810422	0810	78.00	810519	1235	556.00
801126	0900	20.00	810423	0745	108.00	810520	1230	288.00
801213	1030	29.00	810424	0925	93.00	810521	1225	222.00
810128	1145	20.00	810424	1530	83.00	810522	1340	181.00
810223	1215	87.00	810425	1050	69.00	810523	0850	140.00
810301	1430	94.00	810426	1435	65.00	810524	2030	160.00
810313	0950	63.00	810427	0730	80.00	810525	1810	315.00
810320	1010	27.00	810428	0725	80.00	810526	0725	257.00
810324	1445	39.00	810429	0730	80.00	810527	0725	310.00
810403	1345	74.00	810430	1055	71.00	810527	1600	207.00
810404	0950	100.00	810501	1235	57.00	810528	0730	130.00
810405	1510	126.00	810502	1255	60.00	810529	1230	118.00
810406	0820	90.00	810503	1930	59.00	810530	1550	91.00
810407	0720	94.00	810504	0735	79.00	810531	1530	260.00
810408	0725	94.00	810505	1240	49.00	810601	0725	147.00
810409	0730	98.00	810506	0730	66.00	810602	0725	108.00
810410	0755	95.00	810507	0730	80.00	810603	0725	100.00
810411	0755	103.00	810508	1605	56.00	810604	0730	89.00
810412	1430	85.00	810509	1805	90.00	810605	1250	85.00
810413	0730	114.00	810510	1650	2038.00	810606	1530	460.00
810414	0730	110.00	810511.	0730	250.00	810607	1505	184.00
810415	1240	94.00	810512	0730	161.00	810608	0730	176.00
810416	1255	68.00	810513	0725	133.00	810609	0730	133.00
810417	0940	84.00	810514	0725	1762.00	810610	0730	113.00
810418	1734	73.00	810515	0725	398.00	810611	1230	92.00
810419	1515	93.00	810516	1610	212.00	810612	1230	88.00

APPENDIX D-8B. COLLECTED SUSPENDED SEDIMENT CONCENTRATION DATA AT CACHE RIVER AT FORMAN (378) -- WATER YEAR 1981
CONCENTRATION IN PPM

YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION
810613	1100	439.00	810628	2020	105.00	810715	1250	90.00
810614	1740	206.00	810629	0725	105.00	810715	1510	86.00
810615	0730	124.00	810629	1140	106.00	810716	0725	78.00
810616	0725	96.00	810630	0720	111.00	810716	1135	87.00
810617	0725	77.00	810630	1125	101.00	810717	1415	94.00
810617	1240	87.00	810701	0725	96.00	810717	1630	93.00
810618	0730	73.00	810701	1110	101.00	810718	0940	87.00
810618	1410	77.00	810702	1230	84.00	810718	1605	156.00
810619	1000	227.00	810702	1540	83.00	810719	0845	597.00
810619	1610	241.00	810703	0930	118.00	810719	1630	588.00
810620	0940	1136.00	810703	1750	115.00	810720	0725	743.00
810620	1535	1037.00	810704	1035	79.00	810720	1145	659.00
810621	0645	398.00	810704	1945	69.00	810721	0725	849.00
810621	1535	299.00	810705	1210	1003.00	810721	1230	628.00
810622	0730	264.00	810705	1630	748.00	810722	0730	861.00
810622	1140	256.00	810708	1810	287.00	810722	1125	721.00
810623	0735	233.00	810709	1030	243.00	810723	0730	344.00
810623	1125	229.00	810709	1510	220.00	810723	1130	362.00
810623	1430	214.00	810710	1430	181.00	810724	0550	320.00
810624	0730	144.00 '	810710	1620	168.00	810725	1915	335.00
810624	1120	140.00	810711	0825	391.00	810726	1230	200.00
810625	0725	117.00	810711	1835	511.00	810726	1800	209.00
810625	1120	111.00	810712	0840	294.00	810727	0745	165.00
810626	1125	121.00	810712	2035	233.00	810727	1340	173.00
810626	1605	117.00	810713	0730	143.00	810809	1655	61.00
810627	0510	121.00	810713	1125	132.00	810814	1440	66.00
810627	1850	121.00	810714	0730	106.00	810819	1330	86.00
810628	1030	105.00	810714	1640	92.00	810824	1220	68.00

APPENDIX D-8C. COLLECTED SUSPENDED SEDIMENT CONCENTRATION DATA AT CACHE RIVER AT FORMAN (378) -- WATER YEAR 1981 to 1985
CONCENTRATION IN PPM

YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION
810904	1055	71.00	820519	1025	69.00	830125	1245	54.00
810911	1055	53.00	820524	1150	99.00	830208	0930	24.00
810918	1300	41.00	820602	1220	288.00	830228	1240	9.00
810923	1440	26.00	820607	1000	138.00	830318	1445	37.00
811012	1345	14.00	820625	1145	68.00	830331	1200	104.00
811019	1140	10.00	820630	0915	88.00	830411	0945	91.00
811026	1120	11.00	820709	1140	477.00	830422	0930	41.00
811102	1050	19.00	820716	1055	79.00	830428	1215	34.00
811109	1245	9.00	820724	1400	57.00	830505	1000	27.00
811116	1130	41.00	820802	1045	48.00	830519	1000	55.00
811130	1130	23.00	820809	1340	49.00	830525	1145	54.00
811207	1055	30.00	820816	1130	24.00	830628	1115	2609.00
811214	1130	19.00	820823	1415	13.00	830722	1115	38.00
820104	0920	1069.00	820830	1025	200.00	830826	1145	35.00
820208	1100	113.00	820920	1100	33.00	830912	0930	26.00
820218	0945	158.00	820928	1100	23.00	830928	1215	34.00
820223	1110	78.00	821008	1035	16.00	850307	1530	57.36
820301	1200	31.00	821018	1100	34.00	850308	1640	52.68
820308	1130	17.00	821029	1205	23.00	850309	1717	66.02
820315	1245	933.00	821105	0930	15.00	850310	1345	76.55
820323	1100	136.00	821112	1040	130.00	850311	1701	70.89
820329	1045	39.00	821119	1255	13.00	850312	1710	64.67
820405	1015	245.00	821129	1055	114.00	850313	1903	80.23
820412	1155	55.00	821206	1400	53.00	850314	1733	150.62
820419	1125	171.00	821220	1000	38.00	850315	1656	115.08
820426	1200	43.00	821229	1340	55.00	850316	1040	97.85
820503	1020	45.00	830110	0920	20.00	850317	1635	74.45
820510	1400	145.00	830118	0930	13.00	850318	1711	58.07

APPENDIX D-8D. COLLECTED SUSPENDED SEDIMENT CONCENTRATION DATA AT CACHE RIVER AT FORMAN (378) -- WATER YEAR 1985
CONCENTRATION IN PPM

YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION
850319	1723	50.13	850414	1815	1147.40	850513	1615	160.67
850320	1957	52.57	850415	1558	244.31	850514	1434	425.60
850321	1640	70.93	850416	1546	148.08	850515	0938	222.74
850322	1553	50.67	850417	1545	118.81	850516	1903	154.89
850323	1019	43.95	850418	1705	93.10	850517	1456	115.68
850324	1707	58.78	850419	1613	85.95	850518	1722	85.43
850325	1652	62.58	850420	1154	72.54	850519	1730	68.64
850326	1734	76.61	850421	1201	53.15	850520	1600	56.48
850327	1800	58.64	850422	1610	38.06	850521	1730	55.14
850328	1719	41.57	850423	1648	88.43	850522	1624	1524.60
850329	1513	42.49	850424	1500	55.84	850523	0710	414.42
850330	1430	2027.40	850425	1454	261.35	850524	1750	189.24
850331	1323	420.85	850426	1450	160.04	850525	1736	119.22
850401	1554	125.21	850427	1448	600.09	850526	1900	94.18
850402	1623	144.31	850428	1505	217.79	850527	1730	90.10
850403	1553	165.42	850429	1613	137.05	850528	1415	68.28
850404	1735	42.25	850430	1554	127.36	850529	1955	52.14
850405	1653	178.70	850501	1617	847.44	850530	1830	39.72
850406	0822	220.04	850502	1603	247.01	850531	2030	37.61
850407	1444	160.76	850503	1840	167.71	850601	1757	36.12
850408	1639	131.08	850504	0829	140.01	850602	1610	32.56
850409	1013	102.63	850505	1904	101.10	850603	1536	36.08
850410	1501	68.49	850506	1603	92.34	850604	1555	731.58
850411	1603	52.79	850507	1555	80.63	850605	2110	308.21
850412	1435	64.93	850509	1624	57.10	850606	1930	170.06
850412	1440	64.99	850510	1838	47.65	850607	2013	155.34
850412	1541	56.07	850511	1250	45.01	850608	0914	179.84
850413	1749	58.43	850512	0910	77.47	850609	1858	95.68

APPENDIX D-8E. COLLECTED SUSPENDED SEDIMENT CONCENTRATION DATA AT CACHE RIVER AT FORMAN (378) -- WATER YEAR 1985 to 1986
CONCENTRATION IN PPM

YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION
850610	1700	278.10	850709	1600	111.39	851028	1640	32.95
850611	1626	939.88	850710	1855	97.27	851030	1648	235.42
850612	1930	436.20	850713	0920	100.62	851031	1655	273.87
850613	1900	230.14	850720	1255	71.88	851102	1630	124.32
850614	1841	188.36	850727	1514	115.64	851111	1125	30.99
850615	1616	144.94	850803	0845	346.24	851115	1620	111.91
850616	1727	105.87	850805	1330	2802.00	851117	1150	109.52
850617	1547	1150.50	850810	1144	470.29	851120	1700	164.29
850618	1830	261.94	850816	1615	600.45	851125	1745	49.17
850619	0735	260.62	850818	1850	173.53	851126	1605	632.36
850620	1740	172.43	850820	1545	102.34	851127	1545	379.89
850621	1838	113.58	850824	0945	891.85	851128	1430	190.19
850622	1615	93.02	850831	1800	69.08	851201	1525	76.08
850623	1800	89.61	850905	1655	1031.90	851210	1605	21.24
850624	1628	77.47	850907	1210	173.23	851211	1612	826.54
850625	1400	65.19	850914	0745	51.90	851215	1445	43.67
850626	0911	68.63	850918	1300	49.46	851224	1300	19.68
850627	1845	178.31	850921	1210	51.60	851229	1610	18.21
850628	1540	787.42	850924	1200	145.23	860105	1648	19.46
850629	0850	598.38	850929	1145	33.19	860112	1530	8.73
850630	1824	247.92	851005	1310	19.79	860119	1630	126.10
850701	1548	165.18	851014	1515	82.69	860126	1450	17.92
850702	1725	126.25	851015	1805	208.66	860201	1505	5.43
850704	1327	186.54	851017	1525	55.77	860202	1645	85.24
850705	1435	155.78	851019	1220	47.29	860203	1550	2342.10
850706	1635	142.36	851020	1620	77.77	860204	1600	546.34
850707	1540	124.10	851023	1755	1611.20	860208	1029	140.47
850708	1536	126.50	851024	1700	170.43	860215	1331	41.77

APPENDIX D-8F. COLLECTED SUSPENDED SEDIMENT CONCENTRATION DATA AT CACHE RIVER AT FORMAN (378) -- WATER YEAR 1986 to 1987
CONCENTRATION IN PPM

YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION
860217	1754	98.06	860521	1338	154.35	860911	1147	21.03
860223	1620	34.37	860524	0905	118.26	860918	1640	91.57
860302	1606	20.33	860525	1455	213.27	860919	1625	298.34
860309	1545	15.12	860526	1855	422.14	860920	1745	220.24
860313	1658	415.17	860601	1830	84.67	860924	1830	181.46
860316	1645	164.72	860605	0815	132.90	860926	1254	182.60
860323	1800	38.46	860607	1030	232.87	860928	1545	67.97
860330	1700	43.97	860610	0730	159.35	861001	1301	78.49
860405	1530	60.67	860610	1353	166.49	861001	1650	103.87
860413	1705	51.86	860615	1655	58.34	861002	2150	109.85
860420	1650	69.94	860622	1625	32.90	861003	1509	339.42
860421	1545	202.99	860629	1655	28.07	861003	1815	406.25
860422	1710	152.34	860713	1617	43.40	861005	0715	202.67
860428	1811	108.95	860715	0940	267.30	861012	1200	62.66
860429	1545	133.35	860723	1449	74.59	861013	1800	53.12
860504	1825	56.49	860727	1145	91.78	861014	1700	47.19
860511	1550	52.44	860803	1610	28.92	861019	1515	28.35
860514	1650	43.29	860807	1439	453.37	861023	1353	31.54
860515	1405	1899.20	860808	0930	49.40	861024	1516	33.38
860516	0750	1343.30	860810	1615	1381.10	861025	0735	48.78
860516	1045	672.23	860812	1122	323.68	861026	1555	130.39
860516	1100	671.70	860812	1143	313.10	861030	1340	46.60
860516	2025	426.55	860819	1750	85.32	861103	1250	32.88
860517	0715	291.08	860824	1640	45.68	861105	0637	43.04
860517	1625	185.10	860828	1409	51.26	861108	0645	61.03
860518	0725	133.96	860831	1515	30.04	861109	0638	43.27
860518	1750	134.08	860904	1156	38.03	861111	0635	30.47
860520	1502	156.38	860907	1750	22.29	861112	1401	21.11

APPENDIX D-8G. COLLECTED SUSPENDED SEDIMENT CONCENTRATION DATA AT CACHE RIVER AT FORMAN (378) -- WATER YEAR 1987
CONCENTRATION IN PPM

YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION
861116	1545	15.11	870215	1440	35.51	870416	1715	151.35
861123	1535	13.37	870218	1525	76.11	870417	1150	144.44
861126	0640	70.83	870219	1432	44.92	870419	1545	113.44
861126	1515	100.70	870222	1525	41.71	870428	0615	47.63
861127	0805	62.43	870226	1327	40.20	870503	1420	56.01
861130	1150	36.69	870227	0745	42.23	870504	0620	92.93
861201	1617	385.36	870228	1412	2279.30	870507	1527	56.58
861202	0635	382.21	870301	1540	465.62	870509	1600	58.21
861202	1522	217.46	870315	1550	33.16	870514	1356	101.18
861202	1605	224.76	870319	1550	261.85	870517	1730	52.20
861203	1627	145.91	870323	0600	109.87	870521	1347	48.30
861208	0637	23.80	870324	1740	82.98	870524	1450	54.32
861209	0615	35.34	870329	1550	50.43	870525	1133	76.79
861209	1550	55.42	870330	0605	78.63	870528	1427	63.93
861214	1655	24.61	870330	1600	104.48	870530	1715	61.21
861216	1317	20.97	870331	0605	109.68	870601	0620	65.15
861222	1620	13.19	870402	0605	56.65	870603	0625	160.76
861223	1258	9.33	870402	1442	62.04	870604	1405	154.45
861224	1500	24.65	870404	0910	64.14	870608	0635	78.94
861228	1420	31.99	870409	1407	44.93	870611	1440	44.61
870104	1512	11.44	870411	0730	45.35	870615	1630	543.95
870114	1340	8.79	870414	0612	725.34	870616	0645	327.82
870118	1510	15.17	870414	1650	507.08	870617	0610	154.19
870125	1530	13.39	870415	0630	218.37	870617	1444	143.56
870129	1604	9.64	870415	1600	225.79	870617	1447	144.62
870202	0555	50.30	870416	0635	166.50	870617	1450	139.89
870208	1410	28.86	870416	1215	165.00	870617	1454	140.47
870212	1423	11.90	870416	1235	166.00	870617	1456	136.30

APPENDIX D-8H. COLLECTED SUSPENDED SEDIMENT CONCENTRATION DATA AT CACHE RIVER AT FORMAN (378) -- WATER YEAR 1987 to 1988
CONCENTRATION IN PPM

YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION
870617	1500	140.44	870815	1055	37.63	871214	0905	16.74
870619	0610	2029.20	870822	1310	29.24	871215	0630	1448.10
870620	0655	553.21	870827	1621	10.99	871215	1610	510.80
870620	1735	544.11	870830	1815	23.52	871216	1030	196.91
870621	0620	306.39	870913	1835	31.89	871216	1438	243.95
870621	1730	140.70	870917	0750	72.31	871219	1150	67.44
870624	1329	89.85	870920	1600	78.34	871220	1355	67.80
870625	0615	1568.10	870924	1422	27.00	871223	1412	59.79
870625	1625	253.55	870929	0715	66.50	871224	1410	61.26
870626	0608	157.94	871004	1745	11.00	871225	0900	279.75
870628	1735	89.39	871011	1515	14.85	871225	1550	1311.90
870629	0635	145.37	871018	1615	18.46	871226	0950	564.78
870630	1815	230.49	871022	1431	11.78	871226	1600	459.01
870701	0630	1038.40	871025	1630	7.00	871227	1340	264.21
870701	1820	3280.10	871027	0818	13.37	871228	1045	265.47
870702	0605	515.67	871108	1530	85.60	871230	1525	119.60
870703	0615	329.76	871115	1650	12.23	871231	1140	106.27
870705	1725	91.44	871117	0635	25.13	880103	1700	66.65
870706	1920	56.90	871118	1433	29.58	880110	1515	17.52
870707	0702	76.82	871124	0615	17.50	880112	1700	2.60
870707	1341	58.31	871124	1600	14.86	880113	1410	13.25
870711	0840	75.45	871125	0610	20.18	880117	1600	79.42
870716	1438	41.10	871126	1415	14.48	880119	1605	3670.90
870719	1825	56.39	871128	1725	73.12	880120	0635	856.10
870725	1700	27.66	871129	1400	63.46	880120	1340	257.40
870730	0630	78.87	871203	1427	22.66	880120	1453	557.22
870802	1915	153.22	871206	1415	20.41	880120	1600	495.50
870813	1402	37.71	871209	1431	52.29	880121	0815	288.80

APPENDIX D-8I. COLLECTED SUSPENDED SEDIMENT CONCENTRATION DATA AT CACHE RIVER AT FORMAN (378) -- WATER YEAR 1988
CONCENTRATION IN PPM

YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION	YRMODY	HRMN	CONCENTRATION
880121	1321	250.50	880329	1355	84.85	880524	0740	103.98
880122	1615	150.80	880330	0730	1102.10	880525	0635	115.91
880125	0620	85.10	880330	1715	370.32	880528	1405	77.49
880127	1533	55.35	880331	0855	324.70	880529	1420	54.88
880202	1258	969.13	880331	1630	321.32	880601	1358	44.81
880202	1550	829.92	880401	0715	1583.80	880605	1550	39.26
880203	0610	488.04	880401	1725	708.60	880612	1520	32.73
880203	1544	316.00	880402	0740	356.57	880615	1429	26.17
880203	1600	323.66	880402	1730	242.31	880619	1650	18.52
880214	1430	21.04	880403	1415	195.20	880625	1015	35.27
880218	0800	20.86	880404	1645	134.66	880629	1452	34.62
880219	0830	48.85	880406	0625	97.10	880702	0840	29.32
880221	1500	81.37	880410	1355	60.03	880709	0925	37.07
880223	0850	48.45	880413	1435	34.77	880713	0910	32.26
880224	1452	50.02	880417	1625	24.22	880713	1424	19.54
880228	1520	34.83	880418	1730	37.72	880713	1510	39.87
880302	1500	39.28	880421	1453	30.92	880719	0740	99.21
880304	0930	495.86	880424	1410	41.62	880720	0615	85.71
880304	1147	348.68	880501	1610	40.33	880721	0610	151.43
880306	1525	138.58	880504	1550	86.39	880721	1121	114.09
880310	1410	68.44	880504	1630	86.08	880721	1125	113.99
880313	1650	291.94	880506	0725	68.02	880721	1129	107.80
880316	1510	30.42	880507	0915	64.75	880721	1132	113.16
880320	1540	21.30	880509	0720	81.77	880721	1135	111.60
880323	1451	62.46	880514	0930	91.70	880721	1138	110.80
880325	1745	72.64	880518	1517	49.31	880723	1300	84.51
880326	1015	75.81	880521	1135	49.32	880806	1645	41.39
880327	1530	71.69	880523	0740	61.75	880821	1800	25.64

APPENDIX D-8J. COLLECTED SUSPENDED SEDIMENT CONCENTRATION DATA AT CACHE RIVER AT FORMAN (378) -- WATER YEAR 1988 CONCENTRATION IN PPM

YRMODY	HRMN	CONCENTRATION
880825	1351	26.92
880828	1615	26.71
880902	1314	44.09
880903	0730	87.69
880904	1255	60.49
880908	1420	30.27
880911	1600	20.24
880912	0820	286.69
880912	1730	79.64
880915	1402	45.44
880917	1640	41.00
880919	0710	345.85
880920	0912	108.83
880920	1302	191.61
880920	1308	197.56
880920	1311	190.00
880920	1314	189.69
880921	0630	128.17
880922	0650	113.14
880922	1304	191.90
880922	1318	200.21
880922	1408	97.00
880924	0720	131.12
880925	1700	85.71

APPENDIX E.

SUSPENDED SEDIMENT LOADS AT SIX ILLINOIS STATE WATER SURVEY MONITORING STATIONS

APPENDIX E-1A. MEAN DAILY LOAD AT BIG CREEK AT PERKS ROAD (502) -- WATER YEAR 1985
SUSPENDED SEDIMENT IN TONS PER DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	-	-	-	-	-	-	-	584.3	2.3	9.7	74.5	2.0
2	-	-	-	-	-	-	-	234.5	2.0	10.5	10.1	1.9
3	-	-	-	-	-	-	-	42.3	2.0	0.9	2.7	1.4
4	-	-	-	-	-	-	-	32.6	54.6	0.7	1.1	1.4
5	-	-	-	-	-	-	-	24.7	8.8	0.7	23820.7	926.2
6	-	-	-	-	-	-	-	13.8	22.7	0.7	1249.8	27.5
7	-	-	-	-	-	-	-	10.5	9.8	0.5	101.6	6.3
8	-	-	-	-	-	-	-	9.3	4.0	0.3	49.9	4.8
9	-	-	-	-	-	-	-	7.8	2.0	0.3	12.9	2.5
10	-	-	-	-	-	-	-	5.4	246.6	0.2	6225.3	1.3
11	-	-	-	-	-	-	-	17.3	250.6	0.2	1263.4	1.1
12	-	-	-	-	-	-	-	64.5	34.1	0.2	8.0	0.8
13	-	-	-	-	-	-	-	32.4	14.2	0.2	6.0	0.7
14	-	-	-	-	-	-	-	105.3	7.3	0.2	4.7	1.0
15	-	-	-	-	-	-	-	39.0	2.0	0.2	1427.4	1.2
16	-	-	-	-	-	-	-	13.8	1.8	0.2	179.9	1.0
17	-	-	-	-	-	-	-	11.0	90.9	0.2	12.1	1.1
18	-	-	-	-	-	-	-	9.6	37.3	0.2	7.3	1.0
19	-	-	-	-	-	-	-	8.4	10.4	0.2	3.9	1.2
20	-	-	-	-	-	-	-	8.4	7.8	0.2	1.4	1.2
21	-	-	-	-	-	-	-	7.8	6.0	0.3	1.0	1.4
22	-	-	-	-	-	-	-	8704.0	6.0	0.4	1.1	1.4
23	-	-	-	-	-	-	-	592.4	5.7	0.3	5.8	1.4
24	-	-	-	-	-	-	-	34.7	2.7	0.3	1875.5	1.1
25	-	-	-	-	-	-	5.1	19.3	2.3	0.2	75.4	1.0
26	-	-	-	-	-	-	18.9	9.1	2.2	2.4	14.3	1.1
27	-	-	-	-	-	-	2789.9	7.4	2.0	0.9	9.9	1.3
28	-	-	-	-	-	-	94.7	6.4	1.6	0.3	8.0	1.2
29	-	-	-	-		-	21.5	4.4	1.4	0.2	2.9	1.1
30	-	-	-	-		-	15.9	3.0	0.9	0.1	2.5	1.2
31	-		-	-		-		2.7		0.1	2.2	
TOTAL:	-	-	-	-	-	-	2946.1*	10665.8	842.1	32.0	36461.2	997.6

- no record
* partial record

APPENDIX E-1B. MEAN DAILY LOAD AT BIG CREEK AT PERKS ROAD (502) — WATER YEAR 1986
SUSPENDED SEDIMENT IN TONS PER DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	22.8	81.7	0.3	0.6	0.4	0.6	0.5	2.4	0.8	0.2	0.1
2	1.5	14.0	31.1	0.3	30.2	0.3	0.6	0.2	2.2	0.9	0.2	0.1
3	1.4	6.3	6.2	0.3	17169.4	0.2	0.5	0.2	2.0	0.8	0.1	0.1
4	1.3	2.7	4.9	0.3	632.5	0.2	0.5	0.1	1.9	0.7	0.1	0.2
5	1.3	1.9	4.8	0.3	104.2	0.2	6.6	0.1	1.9	0.6	0.1	0.3
6	1.4	1.0	2.8	0.3	383.5	0.2	2.1	0.1	2.0	0.6	0.2	0.2
7	1.4	0.8	2.4	0.3	143.4	0.3	0.9	0.1	510.1	0.5	0.2	0.2
8	1.4	0.8	2.1	0.2	29.0	0.3	0.8	0.1	27.5	0.6	0.4	0.2
9	1.3	0.8	1.9	0.3	18.9	1.5	0.6	47.9	26.8	0.6	1.2	0.2
10	1.2	1.0	3.1	0.4	16.3	109.9	0.5	50.1	33.2	403.8	5080.4	0.1
11	1.4	1.1	379.1	0.5	13.4	41.6	0.5	50.1	8.7	1.8	11.6	0.1
12	2.0	1.9	50.8	0.6	10.0	2319.1	0.6	51.8	2.9	1.2	2.2	0.2
13	5.3	28.8	8.6	0.6	4.2	33.8	0.5	45.6	2.1	2.4	1.2	0.2
14	58.0	6.7	6.2	0.6	4.4	23.0	0.5	354.3	1.8	0.9	0.4	0.2
15	2.7	9.6	1.8	0.5	4.5	20.3	0.5	41951.1	1.6	1957.3	0.3	0.1
16	0.7	175.5	1.6	0.6	3.7	8.4	0.3	7134.9	1.5	9.3	933.1	0.1
17	0.4	11.5	1.5	0.7	9.4	7.1	0.3	419.1	1.3	2.0	12.5	0.1
18	0.5	4.9	1.3	2.5	60.8	8.4	0.3	221.3	1.2	1.0	5.8	669.3
19	0.7	399.7	1.1	6.4	18.4	28.1	0.4	146.5	1.0	0.7	0.7	26.0
20	1.0	203.2	0.8	3.4	0.8	6.2	6.4	111.9	0.9	0.3	0.4	1.5
21	1.2	7.1	0.8	2.0	0.6	4.5	7.1	3.8	0.7	0.1	0.3	0.6
22	1.0	3.2	0.8	1.6	0.6	0.9	3.3	3.2	0.6	0.1	0.3	0.2
23	263.0	1.8	0.8	1.3	0.5	0.8	2.0	2.9	0.5	0.1	0.2	0.1
24	10.9	1.5	0.8	1.1	0.5	0.8	1.7	102.3	0.5	0.1	0.1	18.5
25	1.5	1.4	0.6	1.1	0.5	0.7	1.1	69.4	0.5	0.0	0.1	1.2
26	0.4	33.4	0.2	0.6	0.5	0.6	0.8	50.7	0.6	0.1	0.1	0.4
27	0.4	926.0	0.2	0.3	0.5	0.6	0.7	8.3	0.9	0.2	0.1	0.2
28	0.4	143.6	0.2	0.3	0.4	0.6	0.7	4.1	0.8	0.2	0.1	0.2
29	26.6	43.3	0.2	0.3		0.6	0.6	3.7	0.8	0.2	0.1	0.0
30	153.3	11.8	0.3	0.3		0.6	0.5	2.9	0.7	0.2	0.1	0.0
31	78.4		0.3	0.4		0.7		2.3		0.2	0.1	
TOTAL:	623.5	2068.0	598.9	28.5	18661.4	2620.8	42.5	50839.6	639.4	2388.0	6052.7	720.9

APPENDIX E-1C. MEAN DAILY LOAD AT BIG CREEK AT PERKS ROAD (502) -- WATER YEAR 1987
SUSPENDED SEDIMENT IN TONS PER DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48.0	0.0	120.2	0.2	1.7	40.4	4.4	0.6	0.5	329.0	0.4	0.1
2	1178.7	0.0	35.8	0.2	6.2	7.7	2.1	1.0	0.6	34.7	0.3	0.1
3	158.5	0.0	2.7	0.2	1.0	2.9	1.2	1.7	1.7	3.3	0.3	0.1
4	18.6	0.3	1.5	0.1	0.7	2.1	0.9	3.7	0.5	1.3	0.1	0.1
5	16.4	1.5	1.2	0.1	0.5	1.7	0.8	1.3	0.3	0.3	0.1	0.1
6	2.5	1.1	0.6	0.1	0.5	0.9	0.8	0.9	0.2	0.3	0.1	0.1
7	1.0	0.7	0.3	0.1	0.4	0.9	1.5	0.8	0.2	0.7	0.1	0.1
8	0.2	0.6	0.4	0.2	0.6	0.8	1.4	0.6	0.1	0.6	0.1	0.2
9	0.1	0.3	2.8	0.2	0.5	0.6	1.2	0.6	0.3	0.8	0.1	0.2
10	0.1	0.1	1.3	0.4	0.5	0.6	0.8	0.3	0.3	0.6	0.1	0.2
11	0.1	0.1	0.7	0.4	0.4	0.9	1.4	0.2	0.3	0.1	0.1	0.2
12	0.2	0.1	0.5	0.4	0.6	0.2	0.9	0.2	0.4	0.1	0.1	0.2
13	2.5	0.1	0.4	0.3	0.6	0.2	0.7	5.8	2.2	0.1	0.1	0.2
14	4.6	0.1	0.4	0.3	0.9	0.2	114.5	1.3	0.6	0.1	0.1	0.6
15	3.3	0.1	0.3	0.4	1.8	0.3	9.2	0.7	23.3	0.1	0.1	0.5
16	1.7	0.2	0.3	0.4	7.8	0.4	4.5	0.3	4.1	0.1	0.1	0.7
17	0.1	0.2	0.2	0.4	3.9	0.5	4.0	0.4	0.4	0.1	0.1	1.6
18	0.1	0.2	0.2	0.5	0.8	2531.5	2.0	0.9	0.3	0.1	0.1	0.3
19	0.1	0.2	0.2	0.8	0.7	4379.8	1.6	0.8	0.8	0.1	0.1	0.2
20	0.1	0.2	0.2	0.6	0.7	121.9	1.4	0.5	0.1	0.2	0.1	0.2
21	0.1	0.2	0.2	0.4	0.7	55.8	1.2	0.3	0.1	0.2	0.1	0.1
22	0.1	0.2	0.2	0.4	0.6	43.9	0.8	0.4	0.1	0.2	0.1	0.1
23	0.2	0.1	0.2	0.3	1.0	16.2	0.5	1.5	0.1	0.2	0.1	0.1
24	0.5	0.2	6.7	0.2	0.8	1.8	0.7	1.4	0.1	0.2	0.1	0.1
25	6.8	0.7	9.1	0.2	0.8	1.5	1.0	1.1	0.1	0.2	0.1	0.1
26	3.0	2.3	5.6	0.2	0.7	2.9	0.9	1.0	0.1	0.1	0.1	0.1
27	1.2	1.0	0.9	0.1	3.1	2.4	0.8	0.6	0.2	0.1	0.1	0.1
28	0.3	0.5	0.3	0.1	5903.7	1.8	0.7	0.4	0.3	0.2	0.2	0.1
29	0.2	0.3	0.3	0.1		1.3	0.4	0.4	0.3	129.8	0.1	0.1
30	0.2	0.2	0.3	0.3		5.3	0.5	0.5	845.1	1.8	0.1	0.1
31	0.2		0.2	0.4		1.8		0.6		0.6	0.1	
TOTAL:	1449.6	11.6	194.0	9.1	5941.9	7229.4	162.6	30.8	883.7	505.8	3.3	6.8

APPENDIX E-1D. MEAN DAILY LOAD AT BIG CREEK AT PERKS ROAD (502) -- WATER YEAR 1988
SUSPENDED SEDIMENT IN TONS PER DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.1	0.0	0.1	1.2	298.1	0.5	174.6	1.0	0.3	0.2	0.1	0.0
2	0.1	0.0	0.1	1.0	1131.2	3.6	85.1	0.9	0.3	0.2	1.3	7.6
3	0.1	0.0	0.1	0.3	23.7	1239.1	22.9	0.9	0.3	0.2	3.2	3.2
4	0.1	0.0	0.1	0.3	23.9	25.9	10.0	3.9	0.3	0.2	0.7	0.7
5	0.1	0.0	0.1	0.2	3.8	8.1	5.8	2.6	0.3	0.2	0.2	0.2
6	0.1	0.0	0.1	0.2	2.5	6.4	4.0	1.2	0.4	0.2	0.2	0.1
7	0.1	0.0	0.2	0.2	2.1	3.1	3.3	0.7	0.3	0.2	0.1	0.1
8	0.1	0.0	0.2	0.2	1.9	0.7	2.7	0.6	0.4	0.2	0.1	0.0
9	0.1	0.0	0.1	0.2	1.7	0.6	2.3	0.9	0.5	0.2	0.1	0.0
10	0.1	0.0	0.1	0.2	1.5	0.6	0.9	1.0	0.4	0.2	0.0	0.0
11	0.1	0.0	0.1	0.2	1.3	1.7	0.8	0.8	0.3	0.2	0.0	0.0
12	0.1	0.0	0.1	0.2	1.3	5.9	0.8	0.6	0.3	0.3	0.0	0.5
13	0.0	0.0	0.1	0.2	1.2	5.8	0.7	0.6	0.2	0.5	0.2	1.7
14	0.0	0.0	0.2	0.2	1.2	3.5	0.6	0.6	0.2	0.4	0.1	0.2
15	0.0	0.1	119.2	0.3	1.4	1.0	0.6	0.5	0.2	0.3	0.0	0.0
16	0.0	0.3	5.6	0.3	1.2	0.8	0.6	0.5	0.2	0.2	0.0	0.1
17	0.0	0.9	2.6	58.3	1.2	0.9	0.6	0.5	0.2	0.1	0.0	0.1
18	0.0	0.7	1.3	18.3	1.4	1.0	0.9	0.4	0.2	0.1	0.0	0.2
19	0.0	0.1	1.2	3289.7	16.6	1.0	0.8	0.4	0.2	0.2	0.1	6.9
20	0.0	0.0	7.4	69.4	15.2	1.3	0.7	0.4	0.3	0.8	1.8	0.5
21	0.0	0.0	2.4	4.3	8.9	1.2	0.6	0.4	0.2	0.3	0.1	0.4
22	0.0	0.0	1.2	2.8	1.8	1.0	0.6	0.6	0.2	0.3	0.1	0.3
23	0.0	0.0	0.5	2.2	0.9	0.9	0.6	1.4	0.2	0.0	0.0	0.4
24	0.0	0.0	1.1	1.2	0.8	1.2	0.9	2.5	0.2	0.0	0.0	2.5
25	0.0	0.1	5124.2	0.5	0.7	1.9	1.1	0.7	0.2	7.7	0.0	1.6
26	0.1	0.2	4200.4	0.4	0.7	1.6	1.1	0.4	0.1	2.1	0.0	0.4
27	0.1	0.8	108.6	0.3	0.7	1.4	0.9	0.3	0.1	0.0	0.0	0.1
28	0.1	2.8	80.7	0.3	0.5	1.3	0.8	0.2	0.1	0.0	0.1	0.1
29	0.0	1.4	9.0	0.3	0.5	699.8	0.6	0.2	0.1	0.0	0.0	0.1
30	0.0	0.3	1.6	1.3		270.7	0.5	0.2	0.3	0.0	0.0	0.1
31	0.0		1.4	1.9		45.1		0.2		0.1	0.0	
TOTAL:	1.4	8.1	9669.6	3456.6	1547.7	2337.3	326.2	25.9	7.3	15.7	8.5	27.8

APPENDIX E-2A. MEAN DAILY LOAD AT CYPRESS CREEK AT DONGOLA ROAD (503) -- WATER YEAR 1986
SUSPENDED SEDIMENT IN TONS PER DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	-	-	-	-	-	1.0	1.1	0.5	0.3	0.1	0.0	0.0
2	-	-	-	-	-	1.0	1.1	0.4	0.2	0.1	0.0	0.0
3	-	-	-	-	-	1.0	1.0	0.4	0.2	0.1	0.0	0.0
4	-	-	-	-	-	0.8	0.9	0.4	0.2	0.1	0.0	0.0
5	-	-	-	-	-	0.6	10.6	0.3	0.2	0.1	0.0	0.0
6	-	-	-	-	-	0.6	6.0	0.3	9.0	0.1	0.0	0.0
7	-	-	-	-	-	0.6	2.3	0.3	306.7	0.0	0.2	0.0
8	-	-	-	-	-	0.6	1.9	0.3	130.7	0.0	0.2	0.0
9	-	-	-	-	-	0.6	1.7	0.3	24.8	0.0	0.1	0.0
10	-	-	-	-	-	103.8	1.4	0.3	8.7	0.0	584.4	0.0
11	-	-	-	-	-	106.2	1.2	1.5	2.5	0.0	19.0	0.2
12	-	-	-	-	-	633.7	1.1	13.4	0.8	0.1	3.1	0.3
13	-	-	-	-	-	89.4	0.8	13.2	0.4	0.1	0.3	0.3
14	-	-	-	-	-	30.9	0.7	13.5	0.4	0.1	0.2	0.3
15	-	-	-	-	-	24.5	0.7	1045.2	0.3	479.5	0.2	0.2
16	-	-	-	-	-	14.5	0.6	3332.0	0.2	8.0	107.0	0.2
17	-	-	-	-	-	6.5	0.5	203.3	0.2	0.6	12.4	0.2
18	-	-	-	-	-	4.7	0.9	168.4	0.2	0.4	1.1	71.9
19	-	-	-	-	-	12.6	2.4	56.0	0.2	0.3	0.3	16.5
20	-	-	-	-	-	9.6	12.6	21.1	0.1	0.2	0.1	0.9
21	-	-	-	-	1.,2	5.9	17.9	8.9	0.2	0.1	0.1	0.8
22	-	-	-	-	1.,1	5.1	6.9	3.9	0.1	0.1	0.1	5.9
23	-	-	-	-	0..8	4.8	2.6	2.0	0.1	0.0	0.0	15.8
24	-	-	-	-	0.,7	3.5	1.3	18.2	0.1	0.0	0.0	60.5
25	-	-	-	-	0.,7	2.4	1.0	89.3	0.1	0.0	0.0	1.5
26	-	-	-	-	0,.7	2.3	0.6	63.3	0.1	0.0	0.0	0.4
27	-	-	-	-	0,.9	2.2	0.5	40.9	0.1	0.0	0.0	0.3
28	-	-	-	-	1..0	1.9	0.7	13.5	0.1	0.0	0.0	0.2
29	-	-	-	-		1.8	0.6	3.9	0.1	0.0	0.0	0.1
30	-	-	-	-		1.6	0.5	2.4	0.1	0.0	0.0	0.1
31	-		-	-		1.2		1.7		0.0	0.0	
TOTAL:	-	-	-	-	7,.0*	1076.0	82.2	5118.6	487.1	490.0	729.1	177.0

- no record
* partial record

APPENDIX E-2B. MEAN DAILY LOAD AT CYPRESS CREEK AT DONGOLA ROAD (503) -- WATER YEAR 1987
SUSPENDED SEDIMENT IN TONS PER DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JON	JUL	AUG	SEP
1	13.9	0.0	78.4	0.1	0.1	199.6	0.6	0.0	0.0	677.0	0.5	0.0
2	116.0	0.0	39.3	0.0	2.6	37.6	1.1	0.0	0.6	98.0	0.2	0.0
3	34.3	0.0	4.3	0.0	0.8	6.8	0.8	0.0	1.8	4.7	0.2	0.0
4	3.4	0.1	1.5	0.0	0.2	2.3	0.9	0.0	0.1	1.0	0.1	0.0
5	4.9	0.3	0.6	0.0	0.1	1.2	0.2	0.0	0.0	0.3	0.0	0.0
6	0.5	0.4	0.2	0.0	0.1	0.7	0.2	0.0	0.0	0.1	0.0	0.0
7	0.3	0.2	0.1	0.0	0.1	0.4	0.3	0.0	0.0	1.7	0.0	0.0
8	0.2	0.1	0.2	0.0	0.1	0.3	0.2	0.0	0.0	0.5	0.0	0.0
9	0.1	0.1	5.7	0.0	0.0	0.2	0.2	0.0	0.0	0.1	0.0	0.0
10	0.0	0.0	2.6	0.0	0.0	0.2	0.1	0.0	0.0	0.1	0.0	0.0
11	0.0	0.0	0.4	0.0	0.0	0.1	2.3	0.0	0.0	0.0	0.0	0.0
12	0.1	0.0	0.2	0.0	0.0	0.1	0.9	0.0	0.0	0.0	0.0	0.0
13	0.1	0.0	0.1	0.0	0.0	0.1	0.5	0.1	246.8	0.0	0.0	0.0
14	0.1	0.0	0.1	0.0	0.1	0.1	183.3	0.1	1.9	0.0	0.0	0.0
15	0.1	0.0	0.1	0.0	0.1	0.1	49.7	0.1	60.5	0.0	0.0	0.0
16	0.1	0.0	0.1	0.0	2.0	0.1	12.3	0.0	0.3	0.0	0.0	0.0
17	0.0	0.0	0.1	0.0	1.4	0.8	5.5	0.0	0.0	0.0	0.0	0.1
18	0.0	0.0	0.0	0.0	0.5	93.9	2.3	0.0	62.6	0.0	0.0	0.0
19	0.0	0.0	0.0	0.1	0.2	141.5	0.9	0.0	138.8	0.0	0.0	0.0
20	0.0	0.0	0.0	0.1	0.2	33.3	0.7	0.0	1.6	0.0	0.0	0.0
21	0.0	0.0	0.0	0.1	0.2	9.5	0.3	0.0	0.2	0.0	0.0	0.0
22	0.0	0.0	0.0	0.0	0.1	2.7	0.2	0.0	0.2	0.0	0.0	0.0
23	0.0	0.0	0.0	0.0	0.1	1.3	0.1	0.0	0.1	0.0	0.0	0.0
24	0.1	0.0	6.4	0.0	0.1	0.7	0.1	0.0	202.1	0.0	0.0	0.0
25	11.7	0.4	4.5	0.0	0.1	0.3	0.1	0.0	447.6	0.0	0.0	0.0
26	5.0	1.8	0.6	0.0	0.1	0.2	0.1	0.0	0.3	0.0	0.0	0.0
27	0.4	0.5	0.2	0.0	13.2	0.2	0.0	0.0	0.2	0.0	0.0	0.0
28	0.2	0.2	0.1	0.0	409.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0
29	0.1	0.4	0.1	0.0		0.1	0.0	0.0	0.0	171.5	0.0	0.0
30	0.1	1.5	0.1	0.0		8.6	0.0	0.0	295.3	20.0	0.0	0.0
31	0.0		0.1	0.0		2.5		0.0		6.3	0.0	
TOTAL:	191.6	6.3	146.1	0.9	432.3	545.4	263.8	0.8	1461.1	981.3	1.0	0.1

APPENDIX E-2C. MEAN DAILY LOAD AT CYPRESS CREEK AT DONGOLA ROAD (503) -- WATER YEAR 1988
SUSPENDED SEDIMENT IN TONS PER DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.0	0.0	0.0	0.7	225.4	0.1	120.2	0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.3	432.8	0.5	67.5	0.0	0.0	0.0	0.0	0.0
3	0.0	0.0	0.0	0.1	46.4	391.4	31.8	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	0.0	0.1	33.1	100.9	6.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	11.2	4.4	1.8	0.1	0.0	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	15.3	1.0	1.9	0.1	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	27.7	0.4	1.0	0.1	0.0	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	3.2	0.3	0.6	0.0	0.0	0.0	0.0	0.0
9	0.0	0.0	0.0	0.0	0.5	0.3	0.4	0.0	0.0	0.0	0.0	0.0
10	0.0	0.0	0.0	0.0	0.4	0.2	0.1	0.0	0.0	0.0	0.0	0.0
11	0.0	0.0	0.0	0.0	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	0.2	4.2	0.1	0.0	0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	0.1	0.1	2.6	0.1	0.0	0.0	0.0	0.0	0.0
14	0.0	0.0	1.3	0.1	0.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	150.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
16	0.0	0.0	2.7	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
17	0.0	3.4	0.4	73.6	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0
18	0.0	0.2	0.1	59.4	0.4	0.1	0.1	0.0	0.0	0.2	0.0	0.0
19	0.0	0.1	1.2	920.2	54.7	0.1	0.2	0.0	0.0	0.2	0.0	8.5
20	0.0	0.1	34.6	346.8	15.2	0.1	0.1	0.0	0.0	1.0	0.9	3.1
21	0.0	0.0	0.7	23.3	1.0	0.1	0.1	0.0	0.0	0.0	19.2	0.2
22	0.0	0.0	0.1	3.1	0.5	0.1	0.1	0.0	0.0	0.0	0.6	0.1
23	0.0	0.0	0.0	1.0	0.3	0.1	0.0	0.0	0.0	0.0	0.1	0.0
24	0.0	0.0	0.3	0.6	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	644.5	0.1	0.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0
26	0.0	0.2	1056.2	0.1	0.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0
27	0.0	0.6	154.9	0.1	0.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0
28	0.0	3.9	45.2	0.1	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0
29	0.0	1.7	10.3	0.1	0.1	319.9	0.0	0.0	0.0	0.0	0.0	0.0
30	0.0	0.1	1.7	0.3		448.1	0.0	0.0	0.0	0.0	0.0	0.0
31	0.0		0.9	0.4		58.9		0.0		0.0	0.0	
TOTAL:	0.0	10.2	2105.6	1430.5	869.6	1336.3	232.1	0.5	0.0	1.5	20.9	11.9

APPENDIX E-3A. MEAN DAILY LOAD AT MAIN DITCH AT ROUTE 45 (505) -- WATER YEAR 1985

SUSPENDED SEDIMENT IN TONS PER DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	-	-	-	-	-	-	776.6	976.1	4.3	13.0	241.9	2.2
2	-	-	-	-	-	-	574.8	501.6	3.8	12.9	129.3	1.0
3	-	-	-	-	-	-	334.1	151.4	3.1	13.1	17.2	0.6
4	-	-	-	-	-	-	221.7	55.5	57.6	13.2	4.5	0.9
5	-	-	-	-	-	-	496.2	10.6	22.9	13.2	730.4	1725.7
6	-	-	-	-	-	-	246.7	6.7	17.4	12.5	735.3	1212.4
7	-	-	-	-	-	-	70.1	6.1	17.1	7.4	189.1	674.8
8	-	-	-	-	-	-	62.6	9.8	8.6	7.1	45.8	497.5
9	-	-	-	-	-	-	35.6	14.6	5.1	6.8	7.3	356.5
10	-	-	-	-	-	-	42.3	14.8	10.6	8.4	102.7	282.0
11	-	-	-	-	-	-	47.1	11.1	167.2	10.0	107.5	208.4
12	-	-	-	-	-	-	33.4	7.8	178.8	9.9	45.7	85.6
13	-	-	-	-	-	-	26.9	6.3	5.9	9.4	3.0	36.3
14	-	-	-	-	-	-	560.3	6.9	5.9	7.7	1.0	19.7
15	-	-	-	-	-	-	751.3	9.6	6.0	6.7	23.6	14.0
16	-	-	-	-	-	-	101.6	9.5	6.0	5.9	31.7	11.3
17	-	-	-	-	-	-	49.7	9.3	22.9	4.2	13.8	9.4
18	-	-	-	-	-	-	52.1	9.4	28.2	2.6	1.3	5.5
19	-	-	-	-	-	-	46.0	9.9	26.5	1.5	0.4	5.0
20	-	-	-	-	-	-	49.7	9.9	3.8	1.1	0.2	4.6
21	-	-	-	-	-	-	42.4	10.1	3.8	1.0	0.2	3.9
22	-	-	-	-	-	-	48.1	804.1	3.8	0.9	0.1	2.2
23	-	-	-	-	-	-	87.0	671.8	3.8	0.7	29.5	4.4
24	-	-	-	-	-	-	261.8	136.4	3.8	0.5	1554.6	9.9
25	-	-	-	-	-	-	79.4	54.5	3.9	0.4	1123.8	6.0
26	-	-	-	-	-	-	152.8	41.8	3.8	0.5	710.3	3.8
27	-	-	-	-	-	-	1711.3	37.2	10.7	0.4	230.1	0.8
28	-	-	-	-	-	-	863.1	31.9	12.8	0.3	26.8	0.5
29	-	-	-	-		9.6	286.4	20.6	12.7	0.2	13.8	0.4
30	-	-	-	-		2244.1	109.2	13.9	12.8	0.2	7.5	0.6
31	-		-	-		4387.1		12.3		0.2	4.2	
TOTAL:	-	-	-	-	-	6640.8*	8220.3	3671.5	673.3	171.7	6132.5	5185.8

- no record

* partial record

APPENDIX E-3B. MEAN DAILY LOAD AT MAIN DITCH AT ROUTE 45 (505) -- WATER YEAR 1986
SUSPENDED SEDIMENT IN TONS PER DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.7	258.6	126.6	1.3	4.2	3.8	3.4	1.1	12.5	0.8	0.1	0.1
2	0.4	188.7	70.8	1.3	6.5	3.0	3.4	0.8	11.4	0.9	0.1	0.3
3	0.2	109.5	32.8	1.7	4955.8	2.3	3.2	0.6	12.0	0.7	0.1	0.4
4	0.2	57.8	26.1	1.8	3819.0	2.0	5.4	0.5	11.9	0.6	0.1	0.3
5	0.1	16.6	24.0	1.6	788.4	2.4	6.6	0.4	13.1	0.4	0.1	0.2
6	0.1	10.7	19.7	2.3	403.2	2.2	6.7	0.4	12.5	0.4	0.1	0.1
7	0.1	8.1	10.9	2.9	307.6	3.3	5.2	0.6	56.8	0.4	0.1	0.1
8	0.1	7.1	10.4	2.7	89.8	3.2	3.0	0.5	51.6	0.6	0.1	0.1
9	0.1	6.6	11.2	2.5	41.9	3.1	1.9	0.6	51.6	0.7	0.1	0.1
10	0.1	7.0	14.4	2.5	20.2	4.0	1.7	0.4	28.7	0.9	40.6	0.1
11	0.1	6.7	447.0	2.0	16.1	6.4	1.7	0.4	19.7	0.9	19.5	0.1
12	0.1	23.3	451.9	1.6	14.0	4507.4	1.8	0.3	17.3	1.2	1.4	0.1
13	0.1	33.3	176.0	1.4	7.7	967.3	1.8	0.6	10.2	6.9	0.4	0.1
14	207.1	28.3	25.2	1.0	5.7	353.0	1.8	1.0	1.9	2.1	0.2	0.1
15	120.0	26.1	4.1	0.7	5.5	50.1	1.3	2504.4	1.8	275.4	0.2	0.2
16	15.3	188.4	4.1	0.6	25.2	26.4	1.0	7181.7	1.7	90.2	7.0	0.3
17	6.3	93.2	4.4	0.8	176.4	20.1	0.9	2107.9	1.7	27.4	6.5	0.4
18	2.3	33.1	3.7	30.6	59.2	17.1	0.6	3543.8	1.6	1.1	0.5	1.6
19	1.0	29.4	2.9	285.3	38.5	82.3	3.9	1141.7	2.4	0.4	0.1	18.8
20	217.1	40.7	2.7	80.1	24.4	45.3	19.6	662.7	2.5	0.3	0.1	9.8
21	293.8	31.4	3.7	40.1	8.0	6.4	24.1	424.4	1.9	0.3	0.1	0.7
22	52.6	25.6	3.5	30.2	7.2	6.9	11.5	279.5	1.6	0.2	0.1	0.3
23	355.6	10.8	3.6	19.2	6.6	8.6	8.7	127.0	1.8	0.2	0.1	3.6
24	351.4	6.7	3.7	9.8	6.2	8.3	4.5	89.0	1.7	0.1	0.2	136.5
25	30.8	6.2	3.4	9.6	5.9	8.0	2.9	458.1	1.4	0.6	0.1	36.2
26	15.5	2525.1	3.1	8.4	5.0	6.1	2.1	1408.0	1.0	1.4	0.1	1.4
27	6.4	4349.7	1.5	7.4	4.4	5.7	1.5	459.6	0.9	9.6	0.1	0.2
28	5.0	291.1	1.4	7.1	4.1	5.5	13.9	114.6	0.7	2.6	0.1	0.1
29	32.5	156.7	1.4	6.0		5.2	6.6	78.6	0.5	1.2	0.1	0.1
30	432.4	155.8	1.3	5.7		4.5	1.7	41.8	0.6	0.1	0.1	0.9
31	371.0		1.3	5.6		5.9		30.4		0.1	0.1	
TOTAL:	2518.4	8732.2	1496.4	573.7	10856.5	6175.7	152.3	20661.4	334.8	428.8	78.4	213.2

APPENDIX E-3C. MEAN DAILY LOAD AT MAIN DITCH AT ROUTE 45 (505) -- WATER YEAR 1987
SUSPENDED SEDIMENT IN TONS PER DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.9	4.1	564.4	0.0	8.5	1493.0	0.1	4.5	9.7	68.7	25.7	0.0
2	4.1	2.8	274.5	0.0	66.9	673.6	15.9	7.4	3.5	51.7	10.7	0.0
3	2.3	2.4	40.9	0.0	24.8	144.7	8.9	13.4	16.7	20.0	0.6	0.0
4	28.6	2.5	21.4	0.0	5.4	36.4	0.9	31.3	4.5	7.7	0.2	0.0
5	32.7	5.9	14.8	0.0	0.9	21.0	0.3	7.1	0.8	38.1	0.1	0.0
6	7.4	3.3	10.5	0.0	0.2	13.0	0.2	5.5	0.5	82.5	0.1	0.0
7	0.3	0.6	5.2	0.0	0.1	7.1	0.3	3.4	0.4	617.3	0.0	0.0
8	0.2	4.4	5.7	0.0	0.1	2.2	0.3	2.3	0.3	110.0	0.0	0.0
9	0.2	3.0	66.6	0.0	0.1	0.8	0.2	1.7	0.3	32.7	0.1	0.0
10	0.3	0.4	56.6	0.1	0.1	0.4	0.2	1.3	0.1	19.7	0.0	0.1
11	0.3	0.3	24.2	0.1	0.1	0.1	1.2	1.2	0.1	14.1	0.0	0.1
12	0.4	0.2	18.2	0.1	0.1	0.1	1.6	2.0	0.1	7.2	0.0	0.1
13	0.3	0.2	3.2	0.1	0.1	0.0	1.7	1.9	0.4*	4.8	0.0	0.1
14	0.3	0.1	2.8	0.1	0.4	0.0	634.2	2.1	0.9	16.6	0.0	0.1
15	0.2	0.1	3.3	0.1	0.7	0.0	112.3	1.9	1.8	3.3	0.0	0.1
16	0.2	0.1	3.1	0.1	20.3	0.0	78.2	2.1	0.2	0.2	0.0	0.1
17	0.3	0.1	1.7	0.1	27.8	0.1	34.7	2.2	0.1	0.1	0.0	10.7
18	0.5	0.1	0.7	0.1	4.8	31.4	18.1	1.9	6.1	0.1	0.0	10.9
19	0.4	0.1	0.3	0.2	5.1	47.8	13.1	1.4	208.1	0.1	0.0	0.9
20	0.4	0.2	0.0	0.5	7.6	18.1	11.5	0.6	26.1	0.1	0.0	0.0
21	0.5	0.2	0.0	0.2	9.6	3.2	10.6	0.5	235.4	0.1	0.0	0.0
22	0.5	0.1	0.0	0.1	7.6	0.5	10.1	0.4	39.5	0.1	0.0	0.0
23	1.1	0.1	0.0	0.1	2.5	0.3	9.8	0.5	12.2	0.1	0.0	0.0
24	1.2	0.1	19.3	0.1	0.4	0.3	7.4	0.7	152.1	0.1	0.0	0.1
25	11.7	25.9	23.9	0.2	0.2	0.2	5.2	0.9	340.4	0.0	0.0	0.1
26	16.7	97.0	2.6	0.1	0.1	0.0	4.0	0.7	34.4	0.0	0.0	0.0
27	5.5	33.5	0.1	0.1	17.3	0.0	3.6	0.5	12.3	0.0	0.0	0.1
28	2.0	22.4	0.1	0.1	1388.1	0.0	4.2	0.5	0.7	0.1	0.0	0.1
29	2.0	4.9	0.0	0.2		0.0	3.0	0.4	2.9	0.1	0.0	0.0
30	2.7	4.6	0.0	0.3		5.9	2.0	0.5	12.2	0.1	0.0	0.1
31	3.0	0.0	0.0	2.6		1.3		2.7		0.1	0.0	
TOTAL:	130.0	219.4	1164.0	5.9	1599.4	2501.6	993.5	103.4	1122.8	1095.4	37.9	23.6

APPENDIX E-3D. MEAN DAILY LOAD AT MAIN DITCH AT ROUTE 45 (505) -- WATER YEAR 1988
SUSPENDED SEDIMENT IN TONS PER DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.1	0.0	0.0	22.0	288.2	6.4	453.6	6.6	5.2	0.0	0.0	0.1
2	0.1	0.0	0.2	9.8	3152.8	6.4	123.5	9.6	3.1	0.0	0.0	0.1
3	0.1	0.0	0.4	4.5	601.1	143.8	64.9	12.1	1.9	0.0	0.0	0.1
4	0.1	0.0	0.4	3.9	280.8	70.1	27.1	27.0	0.6	0.0	0.0	0.1
5	0.1	0.0	0.5	3.5	0.3	21.6	15.4	26.3	0.2	0.0	0.0	0.1
6	0.1	0.1	0.9	3.5	19.6	10.7	845.5	14.5	0.2	0.0	0.0	0.1
7	0.1	0.0	0.2	3.3	23.8	9.6	233.4	12.1	0.2	0.0	0.1	0.1
8	0.0	0.0	0.1	3.2	17.2	8.7	107.3	14.2	0.2	0.0	0.0	0.0
9	0.0	0.1	0.0	3.1	13.8	8.2	70.2	18.1	0.3	0.0	0.0	0.0
10	0.0	0.1	0.0	2.9	11.7	8.3	55.5	13.2	0.2	0.0	0.0	0.0
11	0.0	0.0	0.0	2.8	3.6	7.0	51.9	8.5	0.1	0.0	0.1	0.0
12	0.0	0.0	0.0	2.7	3.4	30.4	91.1	7.1	0.1	0.0	0.1	0.0
13	0.0	0.0	0.0	1.8	3.5	37.6	57.5	8.9	0.1	0.1	0.0	0.0
14	0.0	0.0	26.8	1.6	4.0	22.5	11.1	9.6	0.1	2.5	0.1	0.0
15	0.0	0.0	1042.4	7.1	135.1	8.6	10.4	10.8	0.1	0.5	0.1	0.0
16	0.0	0.1	78.3	11.0	71.1	5.8	9.6	4.9	0.1	0.1	0.1	0.0
17	0.0	0.1	23.6	76.4	31.3	5.6	9.5	1.0	0.1	0.0	0.1	0.0
18	0.0	0.1	11.5	133.8	23.7	7.1	25.2	0.6	0.1	0.0	0.1	0.0
19	0.0	0.1	11.0	4404.7	428.6	10.8	40.9	0.5	0.1	0.0	0.1	10.2
20	0.0	0.1	35.6	1437.2	369.1	10.2	13.5	0.3	0.1	0.0	0.1	19.1
21	0.0	0.0	30.2	291.8	12.3	9.4	8.6	0.3	0.1	0.0	0.1	10.0
22	0.0	0.0	8.6	56.5	13.2	8.9	8.0	0.9	0.0	0.0	0.1	7.0
23	0.0	0.0	6.2	32.2	14.3	8.6	11.0	13.5	0.0	0.0	2.8	0.2
24	0.0	0.1	20.0	15.3	7.0	8.7	10.4	49.4	0.0	0.0	0.1	0.0
25	0.0	0.2	3537.5	12.1	6.5	10.1	9.5	13.5	0.0	0.0	0.1	0.0
26	0.0	0.1	1868.2	65.8	6.7	13.1	10.8	10.3	0.0	0.0	0.1	0.0
27	0.0	0.1	611.6	104.6	7.2	7.1	10.8	5.1	0.0	0.0	0.1	0.0
28	0.0	0.2	367.8	98.3	7.1	7.8	10.5	1.4	0.0	0.0	0.1	0.0
29	0.0	0.2	229.5	99.0	6.8	100.9	9.0	1.1	0.0	0.0	0.1	0.0
30	0.0	0.1	109.8	32.1		503.0	6.3	1.3	0.0	0.0	0.1	0.0
31	0.0		40.5	12.3		198.5		3.7		0.0	0.1	
TOTAL:	1.1	2.0	8061.8	6958.5	5563.6	1315.4	2411.9	306.4	13.2	3.8	4.6	47.4

APPENDIX E-4A. MEAN DAILY LOAD AT CACHE RIVER AT ROUTE 146 (507) -- WATER YEAR 1985
SUSPENDED SEDIMENT IN TONS PER DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	-	-	-	-	-	-	-	-	-	55.4	30.4	4.4
2	-	-	-	-	-	-	-	-	-	131.2	33.3	3.0
3	-	-	-	-	-	-	-	-	-	82.3	10.0	2.2
4	-	-	-	-	-	-	-	-	-	39.6	4.2	1.8
5	-	-	-	-	-	-	-	-	-	20.0	1216.5	475.3
6	-	-	-	-	-	-	-	-	-	15.0	2812.4	949.0
7	-	-	-	-	-	-	-	-	-	12.0	3624.5	725.6
8	-	-	-	-	-	-	-	-	-	9.4	2391.8	140.0
9	-	-	-	-	-	-	-	-	-	4.5	590.0	38.4
10	-	-	-	-	-	-	-	-	-	3.5	1040.3	22.5
11	-	-	-	-	-	-	-	-	-	3.4	2970.3	12.2
12	-	-	-	-	-	-	-	-	-	3.3	3814.2	7.3
13	-	-	-	-	-	-	-	-	-	2.8	1921.7	5.5
14	-	-	-	-	-	-	-	-	-	2.5	361.4	4.6
15	-	-	-	-	-	-	-	-	-	2.3	440.5	3.9
16	-	-	-	-	-	-	-	-	-	2.2	5439.6	3.3
17	-	-	-	-	-	-	-	-	-	2.0	6622.3	3.1
18	-	-	-	-	-	-	-	-	-	1.9	4600.0	2.0
19	-	-	-	-	-	-	-	-	-	1.9	1877.1	1.2
20	-	-	-	-	-	-	-	-	-	1.7	487.2	1.1
21	-	-	-	-	-	-	-	-	11.7	1.7	23.4	1.1
22	-	-	-	-	-	-	-	-	24.7	1.7	12.1	1.0
23	-	-	-	-	-	-	-	-	83.3	1.8	113.2	1.0
24	-	-	-	-	-	-	-	-	37.6	2.3	2626.9	0.9
25	-	-	-	-	-	-	-	-	31.2	2.0	5135.7	0.9
26	-	-	-	-	-	-	-	-	78.3	3.4	4133.9	0.9
27	-	-	-	-	-	-	-	-	538.8	13.5	2687.8	0.9
28	-	-	-	-	-	-	-	-	2757.4	5.8	878.0	1.1
29	-	-	-	-		-	-	-	785.2	4.0	305.6	1.1
30	-	-	-	-		-	-	-	148.3	2.3	90.4	0.9
31	-		-	-		-		-		1.9	41.6	
TOTALS:	-	-	-	-	-	-	-	-	4496.4*	437.1	56336.0	2416.1

- no record
* partial record

APPENDIX E-4B. MEAN DAILY LOAD AT CACHE RIVER AT ROUTE 146 (507) -- WATER YEAR 1986
SUSPENDED SEDIMENT IN TONS PER DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.9	290.1	174.4	2.1	4.6	0.9	4.1	3.2	4.6	0.5	0.2	0.3
2	0.9	306.4	133.2	2.1	17.4	1.8	3.9	2.4	331.5	0.5	0.2	0.2
3	0.7	173.8	67.5	2.0	547.4	1.3	3.7	1.7	561.8	0.6	0.2	0.3
4	0.3	54.1	24.4	2.0	498.8	0.4	3.3	1.1	191.2	0.4	0.2	0.2
5	0.3	28.6	18.5	2.0	337.2	0.4	149.5	1.0	28.8	0.5	0.2	0.2
6	0.2	19.8	10.4	2.1	292.1	0.4	350.6	0.9	12.6	0.4	0.2	0.4
7	0.2	13.0	2.9	2.2	268.1	1.6	131.3	0.8	207.7	0.4	0.4	0.4
8	0.2	8.0	2.5	2.1	228.4	1.4	62.2	0.7	348.6	0.4	0.4	0.3
9	0.2	7.1	2.2	2.1	122.5	1.3	45.6	0.7	120.8	0.4	3.1	0.3
10	0.3	5.8	2.1	2.1	50.7	12.0	27.0	0.7	51.7	0.4	786.9	0.2
11	0.4	5.4	76.3	3.3	17.9	14.6	5.6	0.6	29.6	0.5	929.0	0.2
12	0.4	9.1	175.5	3.4	14.5	713.9	4.3	0.8	12.7	0.8	54.5	0.2
13	0.5	101.9	201.3	3.4	13.9	2127.6	3.6	0.9	6.4	308.9	7.0	0.7
14	120.4	208.0	81.6	3.5	11.8	2062.3	3.0	1.0	3.5	32.3	2.2	0.7
15	64.2	205.2	11.0	3.5	10.2	1174.4	2.8	353.9	2.4	1130.8	1.6	0.5
16	10.9	220.7	10.6	3.7	10.0	399.2	2.2	1505.7	1.9	1552.3	206.9	0.4
17	3.5	274.5	9.0	3.8	93.6	103.4	1.8	2228.5	1.4	46.1	321.5	0.3
18	2.2	230.2	5.9	3.7	115.1	27.6	1.7	1050.8	0.7	6.2	33.1	33.7
19	1.8	131.1	5.0	3.8	51.5	153.0	1.8	257.0	0.6	1.6	1.7	350.5
20	1.7	263.8	4.1	3.3	29.3	170.8	24.4	142.9	0.6	0.9	0.8	22.0
21	24.8	452.6	3.0	3.3	22.0	48.4	143.8	62.9	0.6	0.7	0.6	4.3
22	14.3	383.5	2.3	1.2	17.9	25.7	72.0	27.0	0.5	0.5	0.5	1.0
23	41.8	170.2	1.7	0.8	15.9	5.8	17.6	14.6	0.5	0.4	0.5	1.1
24	44.0	89.8	1.5	0.8	5.6	5.3	10.4	13.2	0.4	0.3	0.4	697.8
25	15.7	14.8	1.5	0.7	1.3	4.8	7.3	155.8	0.4	0.3	0.4	111.6
26	6.4	28.8	1.5	0.8	1.2	6.2	5.9	269.8	0.4	0.4	0.4	14.8
27	3.8	149.9	1.8	0.8	1.3	6.3	4.2	252.3	0.3	0.8	0.4	4.6
28	2.3	261.3	2.7	0.8	1.2	5.7	3.9	110.5	0.3	1.0	0.3	2.0
29	5.6	278.5	2.5	0.8		5.4	4.4	121.7	0.3	1.2	0.3	1.1
30	276.9	202.9	2.4	4.3		6.0	4.4	106.3	0.5	0.9	0.3	0.8
31	400.1		2.3	4.5		5.2		22.4		0.7	0.3	
TOTALS:	1045.7	4589.0	1041.5	75.0	2801.2	7093.0	1106.3	6711.8	1923.0	3092.1	2354.3	1251.2

APPENDIX E-4C. MEAN DAILY LOAD AT CACHE RIVER AT ROUTE 146 (507) -- WATER YEAR 1987
SUSPENDED SEDIMENT IN TONS PER DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	1.5	125.7	0.8	1.5	3464.9	20.1	2.8	0.8	404.5	167.3	0.6
2	66.5	1.5	309.9	0.7	8.6	2890.2	21.6	2.4	1.2	423.6	54.1	0.6
3	625.8	1.5	380.7	0.7	12.5	1111.6	39.9	1.5	1.3	88.8	13.2	0.6
4	570.8	1.9	254.2	0.6	6.0	910.4	19.8	1.6	3.0	15.4	9.3	0.6
5	77.9	6.8	76.7	0.6	4.0	184.8	15.2	4.6	1.8	5.5	1.5	0.7
6	51.8	21.3	23.3	0.6	3.2	51.9	13.1	3.5	0.9	2.7	1.2	0.7
7	7.3	6.3	2.7	0.6	3.0	26.9	11.7	2.4	0.8	4.3	1.1	0.6
8	4.0	4.1	2.4	0.6	2.1	18.8	11.1	2.1	0.7	7.9	1.2	0.5
9	3.0	3.1	8.2	0.6	0.8	16.7	10.8	1.9	0.6	10.6	1.4	0.4
10	2.4	2.3	20.9	0.7	0.7	14.8	10.5	1.4	0.5	10.1	1.3	0.4
11	2.1	0.8	7.5	1.2	0.6	13.2	16.9	1.2	0.5	4.7	0.8	0.4
12	2.2	0.7	3.7	1.4	0.9	9.5	27.9	1.1	0.7	3.5	0.4	0.4
13	2.8	0.6	2.2	1.0	0.9	8.6	16.4	14.1	121.2	2.0	0.4	0.4
14	9.3	0.5	1.7	0.9	1.3	8.7	99.4	11.8	135.5	0.8	0.4	0.5
15	10.7	0.5	1.6	2.1	4.7	8.0	200.0	2.6	17.9	0.7	0.4	0.4
16	4.1	0.5	1.7	3.3	9.5	7.8	250.3	1.9	40.0	0.6	0.4	0.5
17	2.9	0.7	1.7	3.1	21.4	7.3	259.1	1.4	20.5	0.6	0.3	0.6
18	1.9	0.8	1.6	3.6	18.6	110.4	124.2	1.3	5.2	0.7	0.5	1.1
19	1.3	0.7	0.8	6.4	10.8	379.8	51.1	2.4	43.3	0.7	0.7	2.4
20	1.1	0.7	0.6	8.3	16.1	549.5	20.6	1.2	21.6	0.6	0.7	1.2
21	0.8	0.6	0.6	3.4	17.5	477.0	13.8	1.1	6.0	0.6	0.7	0.6
22	0.7	0.5	0.7	1.0	12.0	217.4	11.4	1.5	2.7	0.6	0.7	0.5
23	0.8	0.5	0.9	1.1	6.8	86.7	9.9	1.4	1.2	0.5	0.7	0.4
24	1.6	0.4	5.1	1.1	5.4	43.7	8.7	1.3	1.3	0.5	0.7	0.3
25	14.6	0.9	20.3	1.1	4.5	27.9	8.0	4.9	6.2	0.5	0.5	0.3
26	61.5	9.9	7.7	1.1	4.4	17.9	7.3	11.5	2.9	0.5	0.4	0.3
27	18.8	32.0	3.3	1.1	55.0	14.9	6.8	3.1	1.2	0.6	0.4	0.3
28	7.7	11.8	2.0	1.0	1400.8	13.3	5.5	1.7	0.9	0.6	0.4	0.3
29	2.3	5.9	1.4	0.7		12.3	3.8	1.4	1.5	49.6	0.4	0.3
30	1.7	3.2	1.3	0.7		79.9	3.2	0.8	46.4	77.5	0.5	0.2
31	1.5		1.2	1.0		90.2		0.8		15.5	0.7	
TOTALS:	1561.5	122.1	1272.0	50.9	1633.7	10875.0	1317.9	92.6	488.1	1135.0	262.4	17.0

APPENDIX E-4D. MEAN DAILY LOAD AT CACHE RIVER AT ROUTE 146 (507) -- WATER YEAR 1988
SUSPENDED SEDIMENT IN TONS PER DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JON	JUL	AUG	SEP
1	0.2	0.4	1.1	7.4	34.2	5.5	274.1	2.6	1.0	3.3	0.4	0.9
2	0.3	0.4	0.7	4.1	122.8	5.3	208.1	2.5	1.0	3.0	0.4	0.8
3	0.4	0.4	0.6	2.4	209.7	61.1	110.6	2.2	1.1	2.7	1.2	12.6
4	0.3	0.5	0.7	1.8	214.1	483.8	87.5	3.1	1.3	2.6	4.9	28.8
S	0.2	0.5	0.7	1.6	179.6	224.8	99.8	8.8	1.1	2.6	1.3	31.3
6	0.2	0.5	0.5	1.5	99.5	131.0	76.5	8.1	1.0	2.6	0.8	1.6
7	0.2	0.5	1.1	1.4	31.8	41.5	50.3	2.9	1.0	2.9	0.8	0.5
8	0.2	0.5	9.2	1.4	16.4	24.7	31.3	1.3	1.0	2.9	0.9	0.3
9	0.2	0.6	5.2	1.3	13.0	18.3	22.7	1.5	1.1	2.5	0.7	0.2
10	0.2	1.6	2.8	1.1	11.5	16.8	15.8	4.1	1.4	1.4	0.6	0.2
11	0.2	1.9	1.9	0.9	10.6	13.1	10.6	5.0	1.5	1.3	0.5	0.2
12	0.3	0.1	1.4	0.9	10.2	15.4	9.5	3.7	1.4	1.4	0.5	0.3
13	0.3	0.1	1.1	0.9	6.3	38.9	8.8	2.9	1.6	2.1	0.5	8.6
14	0.3	0.4	1.4	0.9	3.1	23.4	7.9	2.5	1.6	2.7	3.0	6.4
15	0.4	0.6	74.2	0.8	3.2	3.8	7.0	1.0	1.8	3.3	1.4	1.7
16	0.4	0.7	135.3	0.7	3.3	3.2	6.3	0.9	2.0	4.2	0.8	0.9
17	0.2	6.5	14.5	3.1	3.0	2.8	5.4	0.9	2.1	4.4	0.5	0.6
18	0.2	15.4	5.8	159.2	3.2	2.7	5.6	0.8	2.1	4.4	0.4	0.7
19	0.2	3.6	3.4	129.7	43.9	4.4	7.7	1.0	2.2	11.3	0.4	14.2
20	0.2	0.6	22.8	425.0	116.4	18.1	7.8	1.2	2.3	55.6	1.7	17.5
21	0.1	0.4	27.7	370.9	30.3	16.2	6.7	1.2	2.4	13.8	1.9	3.9
22	0.1	0.3	5.1	137.8	16.2	14.7	5.2	1.1	2.3	7.9	2.0	1.6
23	0.1	0.3	2.7	91.8	12.7	13.3	6.8	1.3	2.4	6.0	1.4	0.9
24	0.1	0.3	1.9	43.2	10.8	13.6	5.7	3.4	2.6	2.0	1.1	0.8
25	0.1	0.4	175.1	23.7	9.0	13.2	4.6	15.7	2.5	0.5	0.8	0.8
26	0.2	1.8	487.2	17.6	7.9	16.1	2.8	6.1	2.3	0.4	0.7	1.0
27	0.2	7.7	406.2	12.5	7.3	14.6	2.7	2.7	2.3	1.7	0.7	0.6
28	0.4	9.8	126.6	13.6	6.3	11.4	2.8	1.8	2.3	1.9	0.7	0.4
29	0.7	26.5	81.2	11.7	6.0	27.0	2.2	1.4	2.3	1.1	0.6	0.3
30	0.5	13.5	55.1	12.7		235.8	2.0	1.3	3.5	0.7	0.5	0.4
31	0.5		32.9	14.1		275.5		1.0		0.4	0.9	
TOTALS:	7.8	96.6	1686.0	1495.7	1242.0	1789.8	1094.8	93.6	54.1	153.4	32.9	138.7

APPENDIX E-5A. MEAN DAILY LOAD AT CACHE RIVER AT ROUTE 51 (513) -- WATER YEAR 1986
SUSPENDED SEDIMENT IN TONS PER DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	-	-	-	-	-	1.3	2.9	2.0	85.7	5.0	0.8	1.0
2	-	-	-	-	-	1.3	3.2	1.6	69.9	3.4	0.8	1.0
3	-	-	-	-	-	1.2	3.1	1.4	70.0	1.6	0.8	1.0
4	-	-	-	-	-	1.4	2.9	1.3	58.4	1.4	1.0	0.9
5	-	-	-	-	-	1.5	22.9	1.5	45.5	1.4	1.0	0.9
6	-	-	-	-	32.4	1.4	13.2	1.5	22.3	2.0	1.0	0.9
7	-	-	-	-	183.4	1.3	7.7	1.5	358.5	2.4	1.0	1.0
8	-	-	-	-	159.4	1.2	5.5	1.4	437.0	2.3	1.3	2.0
9	-	-	-	-	128.5	1.3	4.6	1.3	360.4	2.2	2.2	2.0
10	-	-	-	-	109.7	4.4	2.0	1.3	311.4	22.6	414.3	2.0
11	-	-	-	-	93.0	7.7	1.9	1.7	190.9	9.6	268.8	2.0
12	-	-	-	-	67.1	464.8	1.8	2.5	109.3	3.4	111.0	2.1
13	-	-	-	-	53.9	520.9	1.7	2.5	83.6	8.4	67.0	2.2
14	-	-	-	-	42.6	409.4	1.6	47.8	65.6	4.8	32.7	2.2
15	-	-	-	-	28.6	93.4	0.7	3612.4	48.0	4090.8	8.9	4.7
16	-	-	-	-	21.6	64.5	0.6	4520.7	35.5	1304.3	145.6	5.1
17	-	-	-	-	71.3	46.8	0.6	411.7	9.6	84.0	107.5	5.5
18	-	-	-	-	71.6	34.7	0.5	474.6	5.6	32.1	16.1	260.6
19	-	-	-	-	29.9	45.9	1.1	465.8	3.6	10.8	6.5	236.4
20	-	-	-	-	31.1	29.8	10.6	440.8	2.8	7.0	4.6	48.0
21	-	-	-	-	28.5	19.9	14.9	431.9	2.6	5.5	3.4	17.8
22	-	-	-	-	15.3	10.9	6.1	348.5	2.4	2.3	2.7	2.1
23	-	-	-	-	6.2	8.9	4.8	281.7	3.2	1.3	3.3	12.0
24	-	-	-	-	5.5	6.1	3.7	205.6	2.8	1.2	3.0	50.1
25	-	-	-	-	4.7	4.1	3.3	353.7	2.6	1.1	1.1	38.5
26	-	-	-	-	2.4	3.7	2.6	265.9	2.7	1.1	1.1	20.7
27	-	-	-	-	1.6	3.4	2.2	183.4	2.7	1.3	1.0	8.0
28	-	-	-	-	1.4	2.9	2.5	164.4	2.6	1.0	1.0	4.7
29	-	-	-	-		2.9	2.6	157.8	1.5	0.9	1.0	2.8
30	-	-	-	-		3.2	2.0	137.6	1.4	0.9	1.0	1.8
31	-		-	-		3.0		104.0		0.8	1.0	
TOTALS:	-	-	-	-	1189.5*	1803.0	133.9	12629.6	2397.8	5617.0	1212.3	739.9

- no record
* partial record

APPENDIX E-5B. MEAN DAILY LOAD AT CACHE RIVER AT ROUTE 51 (513) -- WATER YEAR 1987
SUSPENDED SEDIMENT IN TONS PER DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47.9	1.1	243.9	0.7	1.3	438.8	6.5	8.8	0.9	780.8	2.1	0.4
2	174.1	1.3	133.7	0.6	9.3	386.4	6.7	9.9	0.8	397.5	1.5	0.5
3	122.6	1.2	41.5	0.5	6.3	302.2	6.0	151.3	2.4	136.3	1.3	0.4
4	24.5	1.2	29.8	0.5	3.6	189.6	5.3	170.6	1.4	85.0	1.0	0.5
5	78.9	7.6	20.7	0.4	2.4	132.1	4.5	51.2	1.0	62.2	0.9	0.5
6	17.8	6.4	14.7	0.4	1.8	103.6	3.7	28.9	0.9	42.4	0.9	0.6
7	6.0	3.1	12.7	0.4	1.6	82.6	3.2	3.5	0.9	26.0	0.9	0.5
8	4.8	2.3	12.6	0.4	1.4	50.4	2.8	3.0	1.4	25.4	0.9	0.6
9	4.6	3.0	26.0	0.4	1.4	22.0	2.4	2.6	1.4	8.1	0.9	0.6
10	8.5	6.1	22.1	0.6	1.5	17.5	2.3	1.8	1.4	2.6	0.9	0.6
11	16.1	5.8	15.3	0.6	1.4	12.5	5.5	1.5	1.3	2.2	0.9	0.6
12	20.0	5.9	12.2	0.6	1.3	5.2	4.5	1.4	1.3	1.8	0.9	0.5
13	19.2	6.3	9.4	0.9	1.2	4.9	2.8	3.1	3.8	0.9	0.9	0.3
14	11.3	2.4	2.9	1.0	1.1	5.1	196.8	2.4	2.B	0.7	0.9	0.3
15	4.3	1.2	1.8	1.0	1.4	6.2	106.4	1.7	101.6	0.7	0.9	0.2
16	3.1	1.1	0.8	0.8	4.2	6.1	50.8	1.5	28.6	0.6	0.8	0.7
17	2.7	1.0	0.7	0.7	6.9	6.1	29.4	1.5	5.0	0.6	0.8	1.3
18	2.5	0.8	0.7	1.0	6.2	195.8	21.2	2.1	1.7	0.6	0.8	0.7
19	2.1	0.6	0.6	2.1	3.5	351.8	18.2	1.9	2.4	0.6	0.8	0.6
20	1.0	0.7	0.5	2.1	2.9	184.7	14.2	1.6	2.0	0.7	0.8	0.5
21	1.0	0.7	0.5	0.7	2.5	103.8	8.5	1.4	1.8	0.9	0.7	0.2
22	1.0	0.7	0.5	0.5	2.2	67.9	6.1	1.4	0.8	0.9	0.8	0.2
23	1.0	0.4	0.5	0.6	2.6	51.3	5.8	1.6	0.7	0.9	0.7	0.2
24	2.0	0.4	5.9	0.6	2.2	19.5	5.5	2.0	0.7	0.9	0.7	0.3
25	48.6	0.6	6.5	0.6	2.0	16.4	4.2	2.1	0.7	0.9	0.7	0.3
26	30.9	8.4	3.7	0.6	1.6	14.0	3.8	2.0	0.7	0.9	0.7	0.4
27	11.2	6.3	1.5	0.6	12.5	11.4	11.5	1.7	0.7	1.0	0.7	0.3
28	7.9	6.3	0.9	0.6	230.4	8.7	10.3	1.5	0.7	1.5	0.7	0.3
29	3.3	5.2	0.8	0.4		7.9	5.9	1.4	0.7	630.1	0.7	0.3
30	1.5	1.9	0.7	0.4		12.9	1.9	1.4	554.7	84.4	0.7	0.5
31	1.4		0.7	0.3		9.3		1.0		50.5	0.5	
TOTALS:	681.6	89.8	624.5	21.3	316.5	2826.5	556.7	467.8	725.1	2348.2	27.2	13.6

APPENDIX E-5C. MEAN DAILY LOAD AT CACHE RIVER AT ROUTE 51 (513) -- WATER YEAR 1988
SUSPENDED SEDIMENT IN TONS PER DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1.	0.5	0.5	0.6	160.9	13.9	4.8	779.0	15.6	1.2	1.1	0.9	3.5
2	0.5	0.6	0.5	129.4	47.1	7.0	507.8	15.3	1.2	1.0	0.8	112.0
3	0.5	0.6	0.3	88.3	68.0	1580.9	287.7	15.4	1.2	0.9	0.8	185.6
4	0.4	0.6	0.2	31.5	71.1	416.1	217.1	120.6	1.2	0.9	0.8	37.5
5	0.4	0.6	0.2	25.3	59.4	139.1	200.3	115.4	1.1	0.9	0.7	4.4
6	0.3	0.6	0.1	20.2	37.9	118.2	241.8	57.9	1.1	0.9	0.7	3.0
7	0.2	0.6	0.2	16.3	27.5	69.5	222.8	31.3	1.1	0.9	0.7	1.8
8	0.2	0.6	0.5	13.7	22.2	54.4	164.9	13.8	1.1	0.9	0.5	1.6
9	0.2	0.6	0.5	9.9	17.3	13.5	151.1	10.8	1.2	0.9	0.6	1.3
10	0.5	0.6	0.4	2.3	9.8	7.9	121.4	6.2	1.2	1.2	0.5	1.1
11	0.5	0.6	0.2	1.9	20.9	10.4	84.6	4.5	1.1	1.2	0.4	1.1
12	0.2	0.6	0.1	1.1	22.8	30.0	56.2	4.1	1.1	1.3	0.4	1.6
13	0.2	0.6	0.1	0.5	9.3	26.8	6.6	3.7	1.1	1.4	0.3	2.5
14	0.2	0.6	0.2	0.1	8.0	17.5	6.1	3.4	1.1	1.4	0.4	0.9
15	0.2	0.6	180.7	0.1	11.7	2.2	6.1	1.6	1.0	1.3	0.4	0.7
16	0.2	0.6	24.9	0.0	10.4	1.9	6.0	1.3	1.0	1.2	0.4	9.2
17	0.2	1.0	10.1	2.3	9.5	1.7	6.9	1.2	1.0	0.8	0.4	27.4
18	0.2	0.8	2.8	2.6	13.9	2.2	11.1	1.0	1.0	0.8	0.4	13.4
19	0.2	0.8	3.0	78.1	83.8	2.7	12.2	1.0	1.1	0.9	0.4	28.6
20	0.3	0.8	18.1	135.1	65.9	7.7	8.2	0.9	1.2	1.0	1.2	1.1
21	0.3	0.7	9.3	98.0	37.7	7.4	6.9	0.9	1.2	1.0	11.7	0.6
22	0.2	0.7	3.0	78.9	23.6	5.6	6.5	1.5	1.2	0.9	2.1	0.6
23	0.2	0.7	2.2	64.7	12.3	4.9	5.9	1.8	1.2	0.8	0.9	0.6
24	0.2	0.8	2.6	37.3	9.5	4.2	5.5	4.0	1.2	0.8	0.5	2.1
25	0.3	1.3	219.1	13.6	7.6	11.5	5.0	2.4	1.1	0.8	0.5	1.9
26	0.4	1.3	491.4	9.3	6.7	12.4	4.8	1.6	1.1	0.8	0.5	1.5
27	0.5	1.0	320.4	4.9	6.1	7.6	4.5	1.3	1.0	0.9	0.4	1.0
28	0.5	1.8	271.7	2.5	4.8	5.8	4.0	1.3	1.0	0.9	0.6	0.9
29	0.5	1.8	249.6	1.9	4.3	1773.5	3.3	1.3	1.0	0.9	3.2	0.8
30	0.5	0.7	186.8	0.7		2542.3	3.2	1.2	1.1	0.9	5.2	0.7
31	0.5		183.8	0.4		419.3		1.2		0.9	4.4	
TOTALS:	9.9	24.0	2183.6	1031.6	742.9	7308.8	3147.5	443.4	33.3	30.4	41.9	449.0

APPENDIX E-6A. MEAN DAILY LOAD AT CACHE RIVER AT FORMAN (378) -- WY81
SUSPENDED SEDIMENT IN TONS PER DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JON	JUL	AUG	SEP
1	0.1	1.8	1.0	0.3	3.3	9.4	12.4	1.1	349.5	70.6	140.0	5.9
2	0.1	1.5	1.1	0.3	9.8	10.8	9.1	1.0	193.7	51.0	96.9	4.7
3	0.1	1.0	1.0	0.3	8.8	12.4	7.4	0.8	155.1	70.6	68.6	4.4
4	0.1	0.6	0.8	0.3	9.2	11.8	11.6	0.8	119.8	37.9	51.9	4.0
5	0.1	0.4	0.7	0.3	6.8	21.8	31.9	0.5	106.9	2569.7	39.1	3.7
6	0.1	0.9	0.5	0.3	3.1	26.0	18.2	0.7	1796.1	1339.0	30.5	3.2
7	0.1	0.5	0.4	0.2	2.1	20.9	16.4	0.9	782.8	716.9	24.0	2.9
8	0.1	0.1	0.4	0.2	1.8	14.1	12.7	0.4	428.0	406.5	18.3	2.6
9	0.1	0.1	2.0	0.2	1.9	9.9	10.0	1.0	235.7	327.9	13.5	2.4
10	0.1	0.1	2.7	0.1	12.7	7.4	8.4	1800.0	172.2	243.9	11.2	2.2
11	0.1	0.1	2.1	0.1	49.1	6.1	7.5	326.5	112.7	638.8	9.5	2.0
12	0.0	0.1	2.7	0.1	35.8	4.8	5.3	149.1	117.5	296.6	8.6	1.9
13	0.0	0.1	2.3	0.1	33.5	4.1	12.9	78.8	978.8	108.1	9.8	1.7
14	0.0	0.1	1.9	0.1	20.1	3.1	14.2	5171.7	294.0	55.7	7.3	1.7
15	0.0	0.0	1.5	0.1	11.8	2.7	14.4	1168.2	125.9	38.6	7.5	2.4
16	0.0	0.0	1.2	0.1	8.5	2.7	6.6	340.8	72.1	31.3	39.8	2.9
17	0.5	0.2	1.0	0.1	16.8	2.6	6.1	270.8	51.0	31.2	29.0	1.0
18	3.8	0.3	0.83	0.1	18.4	2.1	4.1	489.7	39.6	37.0	15.2	0.3
19	2.2	0.9	0.7	0.1	18.0	1.8	4.5	2754.8	328.9	392.5	9.0	0.2
20	2.7	0.8	0.6	0.1	15.2	1.4	12.9	1450.2	4710.4	655.0	6.2	0.1
21	1.4	1.2	0.5	0.2	12.3	1.4	13.8	836.9	1698.6	986.4	5.1	0.1
22	0.8	0.9	0.4	0.2	10.5	1.3	8.4	628.7	1204.2	879.7	5.9	0.1
23	0.4	0.7	0.4	0.2	9.1	1.4	18.6	459.9	764.5	430.6	5.0	0.1
24	0.4	0.5	0.4	0.2	7.4	1.5	11.8	473.9	462.7	650.6	4.2	0.1
25	0.4	0.3	0.4	0.2	5.8	1.4	6.3	1306.3	331.5	654.0	3.9	0.1
26	0.6	0.3	0.4	0.2	5.1	1.5	4.7	788.9	280.1	296.3	3.9	0.1
27	1.0	0.6	0.4	0.3	4.4	1.5	5.0	1099.8	223.8	335.4	6.9	0.1
28	2.0	1.9	0.4	0.3	4.2	1.6	3.9	378.1	151.6	644.7	10.4	0.1
29	2.9	1.2	0.4	0.2		1.8	2.8	285.3	117.6	362.3	8.0	0.1
30	6.1	0.8	0.4	0.4		21.0	1.9	216.6	92.8	246.8	8.8	0.1
31	3.4		0.3	0.4		14.9		1022.2		193.0	9.0	
TOTAL:	29.7	18.0	29.8	6.3	345.5	225.2	303.8	21504.4	16498.1	13798.6	707.0	51.2

APPENDIX E-6B. MEAN DAILY LOAD AT CACHE RIVER AT FORMAN (378) -- WATER YEAR 1982
SUSPENDED SEDIMENT IN TONS PER DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.0	0.2	7.4	128.7	5021.4	10.8	51.4	8.8	445.8	10.6	2.8	649.4
2	0.0	0.2	11.8	130.5	5316.2	9.4	54.9	8.1	432.0	14.1	2.7	306.4
3	0.0	0.1	6.6	529.6	4072.6	8.0	150.4	6.8	380.0	29.3	2.5	254.1
4	0.0	0.2	2.7	1879.7	2172.6	6.7	319.3	8.0	384.9	70.2	2.5	248.1
5	0.0	0.2	1.5	1195.0	1086.6	6.2	409.0	46.8	281.0	286.6	2.4	244.4
6	0.0	0.2	1.4	912.3	464.9	5.6	336.2	354.9	176.9	280.6	2.4	199.0
7	0.0	0.2	1.2	574.1	259.2	4.6	235.2	228.8	104.0	262.9	2.8	132.9
8	0.1	0.1	0.9	341.1	152.1	3.7	149.8	162.7	83.1	233.6	4.6	85.1
9	0.1	0.1	0.8	226.0	126.6	29.9	102.5	145.7	64.2	256.9	4.5	54.2
10	0.1	0.3	0.7	212.0	98.6	57.0	69.8	105.4	49.3	339.4	3.1	36.4
11	0.1	0.4	0.6	241.1	85.2	96.0	45.1	68.8	39.2	244.6	2.5	25.6
12	0.1	0.5	0.6	137.4	70.5	167.4	25.2	48.3	31.9	165.0	2.1	18.2
13	0.0	0.4	0.5	115.3	58.4	339.8	27.0	35.4	24.7	107.5	1.8	12.9
14	0.0	0.3	0.5	90.0	67.9	691.2	27.8	28.2	18.8	62.3	1.5	9.4
15	0.0	0.3	1.5	78.6	77.8	3944.4	29.6	19.9	16.4	31.8	1.3	6.9
16	0.1	0.4	2.6	67.9	363.5	3523.3	192.7	15.0	99.8	14.7	1.1	4.5
17	0.1	0.4	3.6	57.7	458.8	2529.1	512.3	11.3	45.9	11.1	1.0	2.8
18	0.1	0.4	4.1	51.8	304.2	1707.6	318.5	9.0	32.8	8.1	0.8	2.0
19	0.0	0.4	5.8	46.2	238.6	1007.5	269.8	7.1	21.4	5.5	0.8	1.3
20	0.0	0.5	6.0	51.0	204.9	585.5	180.5	13.9	14.8	4.6	1.0	0.7
21	0.2	1.2	8.0	159.6	169.7	631.9	112.2	30.3	10.4	3.7	0.9	0.5
22	0.2	0.9	33.8	1217.3	122.3	317.2	70.0	17.8	7.3	3.0	0.8	0.3
23	0.2	0.8	987.6	2740.1	81.1	146.5	46.4	14.8	5.3	2.6	0.6	0.2
24	0.1	0.5	508.7	3026.2	56.7	96.8	32.1	16.3	4.3	2.2	3.2	0.2
25	0.1	0.6	571.5	4415.6	40.9	69.8	21.6	21.0	3.3	2.0	11.8	0.2
26	0.1	0.8	483.4	3693.2	30.1	47.1	13.1	22.8	5.8	1.8	31.1	0.2
27	0.1	0.4	353.1	2528.1	22.4	32.6	11.4	20.1	10.2	2.9	264.3	0.2
28	0.2	1.0	290.4	1558.7	15.7	20.8	11.7	28.6	8.0	4.6	230.1	0.2
29	0.4	1.2	236.1	917.1		12.6	10.4	268.1	11.3	4.3	187.6	0.2
30	0.4	1.2	172.0	1265.8		27.6	9.4	519.2	8.3	3.4	199.3	0.1
31	0.3		140.4	2472.8		52.7		536.6		3.1	161.9	
TOTAL:	3.1	14.4	3845.8	31060.5	21239.5	16189.3	3845.3	2828.5	2821.1	2473.0	1135.8	2296.6

APPENDIX E-6C. MEAN DAILY LOAD AT CACHE RIVER AT FORMAN (378) -- WATER YEAR 1983
SUSPENDED SEDIMENT IN TONS PER DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.1	0.2	174.5	176.8	27.7	1.3	126.3	404.9	212.4	17371.6	1.7	0.1
2	0.0	0.1	156.6	109.0	101.2	1.3	188.0	538.8	194.1	13798.4	1.7	0.1
3	0.1	0.2	396.4	72.7	74.9	1.4	207.7	535.7	222.2	10552.2	1.6	0.1
4	0.1	0.2	794.6	50.4	52.4	1.5	166.5	509.7	726.6	6989.0	1.6	0.1
5	0.0	0.2	992.1	34.8	45.4	1.8	189.1	405.0	953.3	4255.3	1.4	0.1
6	0.0	0.8	894.8	25.4	37.6	9.8	302.7	296.7	761.8	2722.2	1.0	0.1
7	0.0	0.9	664.2	19.4	27.9	20.5	435.7	167.0	477.5	1785.0	0.6	0.1
8	0.0	0.9	409.5	14.9	19.8	20.8	572.9	133.3	360.4	1246.4	0.6	0.1
9	0.0	1.3	272.2	11.6	16.0	14.3	789.4	94.2	295.8	893.8	0.7	0.1
10	13.2	1.6	174.5	9.0	13.9	10.2	749.6	69.7	243.6	645.1	0.6	0.1
11	20.3	1.8	113.0	7.8	12.4	8.6	558.7	63.0	197.2	488.0	0.6	0.0
12	22.6	1.8	77.6	6.5	10.5	7.7	393.4	55.2	140.1	361.4	0.7	0.0
13	23.4	1.5	54.5	5.4	8.5	7.4	333.1	57.9	103.7	272.6	0.6	0.0
14	17.8	1.6	40.7	4.5	6.9	8.5	516.6	84.8	79.7	200.0	0.5	0.0
15	10.3	4.7	58.1	3.7	5.9	7.8	553.0	189.8	65.9	146.4	0.4	0.1
16	5.7	2.7	72.0	3.1	5.0	6.8	512.9	237.5	473.5	100.8	0.3	0.1
17	3.6	1.4	46.2	2.5	4.3	5.8	396.4	164.8	264.0	88.0	0.3	0.1
18	2.4	0.7	33.9	1.8	3.6	6.5	256.6	114.2	305.1	62.8	0.3	0.1
19	1.5	0.3	26.1	2.4	3.1	11.1	156.0	88.9	426.8	36.8	0.3	0.1
20	1.2	0.6	20.9	2.4	2.7	22,3	97.1	73.8	91.9	20.4	0.3	0.1
21	0.9	15.2	18.2	9.5	2.4	62.7	65.4	73.6	67.3	9.4	0.3	0.1
22	0.6	37.7	16.2	60.9	2.1	63.3	44.8	146.8	58.1	2.5	0.2	0.1
23	0.5	113.6	17.4	82.3	2.0	45.6	36.3	218.0	54.1	2.3	0.2	0.1
24	0.5	140.9	110.9	80.4	1.9	32.9	31.3	170.7	55.9	2.1	0.2	0.0
25	0.4	79.7	295.1	77.1	1.8	25.8	24.4	183.2	51.3	2.0	0.2	0.1
26	0.4	59.7	689.4	62.3	1.6	23.0	20.3	379.1	46.3	1.9	0.2	0.1
27	0.4	146.0	950.3	47.9	1.3	247.0	17.6	444.5	47.8	1.8	0.2	0.1
28	0.3	391.7	922.4	36.1	1.1	236.3	15.7	456.8	7236.3	1.8	0.1	0.1
29	0.2	264.6	756.8	28.4		165.0	114.6	397.2	14282.6	1.9	0.1	0.1
30	0.2	188.0	450.2	41.4		162.9	249.9	305.5	18249.5	1.8	0.1	0.1
31	0.2		278.1	35.2		156.3		316.8		1.8	0.1	
TOTAL:	127.3	1460.5	9977.4	1125.8	493.8	1396.1	8122.1	7377.0	46744.9	62065.7	17.4	2.1

APPENDIX E-6D. MEAN DAILY LOAD AT CACHE RIVER AT FORMAN (378) -- WATER YEAR 1984

SUSPENDED SEDIMENT IN TONS PER DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.1	0.1	49.2	4.9	29.1	300.4	842.0	132.4	4.5	1.0	0.7	0.7
2	0.1	0.2	46.1	5.8	102.2	320.9	686.8	111.6	3.6	0.8	0.7	0.8
3	0.1	0.3	48.8	8.5	273.1	504.7	728.5	114.3	3.2	0.6	2.1	0.9
4	0.4	10.2	73.7	12.9	428.0	792.1	822.4	140.7	2.8	0.6	3.9	1.0
5	4.5	11.4	54.2	17.4	446.6	1003.7	606.2	188.9	2.2	78.5	8.0	0.8
6	13.7	6.5	80.3	26.4	358.2	666.8	466.8	586.3	1.5	68.9	3.6	0.7
7	7.4	2.2	62.0	22.3	432.3	375.3	403.8	1301.7	1.6	61.2	2.5	0.6
8	2.5	1.0	54.7	18.1	356.9	288.4	324.0	1377.4	1.7	44.8	2.1	0.5
9	1.4	0.7	50.1	11.9	287.5	187.7	262.4	932.3	1.6	23.5	1.7	0.9
10	0.9	0.5	43.4	10.2	1617.1	351.1	240.9	632.7	1.6	12.1	2.2	1.0
11	0.7	0.7	54.4	11.3	2192.7	442.7	217.5	476.6	1.4	6.3	1.7	47.0
12	0.9	0.8	55.2	13.1	1990.8	480.3	190.0	342.4	1.4	3.4	1.4	124.4
13	10.9	1.3	47.4	8.7	4731.2	615.1	293.9	272.3	1.2	2.4	1.5	111.8
14	12.6	1.0	55.2	7.0	3321.9	743.7	215.8	197.2	1.3	2.2	1.3	25.8
15	4.4	0.8	51.7	6.4	2219.3	753.5	171.4	128.5	1.4	1.9	1.1	12.4
16	2.2	0.6	44.8	5.2	2141.8	2453.0	127.2	64.0	17.9	1.6	1.0	7.7
17	1.5	0.4	37.1	4.5	1982.7	2240.9	94.0	28.4	25.0	1.3	1.2	5.9
18	1.2	0.4	28.4	4.3	1657.9	1868.9	67.5	25.2	6.3	4.2	1.5	4.3
19	1.0	0.4	21.2	4.1	1338.1	2265.1	61.4	22.6	2.9	2.6	2.9	4.0
20	3.2	2.8	20.9	4.0	1052.8	2155.3	57.1	21.2	16.3	1.4	2.4	4.2
21	2.5	10.8	15.3	3.8	731.5	2052.5	57.3	18.1	25.0	1.1	1.8	2.7
22	1.4	10.2	20.5	3.6	534.2	1919.0	223.4	13.5	25.6	1.1	1.9	1.7
23	3.1	32.7	26.0	5.4	425.7	1620.5	213.3	11.7	12.1	0.8	3.5	64.9
24	7.2	46.1	21.9	23.4	350.0	1226.1	202.9	20.9	24.5	0.6	2.9	123.4
25	2.8	30.0	14.8	53.7	333.4	1053.3	201.1	22.0	11.8	0.4	2.0	106.4
26	1.2	31.2	9.8	42.1	295.4	845.7	188.3	13.1	4.9	0.4	1.6	472.6
27	0.5	54.1	22.9	38.3	270.1	5966.8	156.4	10.6	2.6	0.4	1.4	350.3
28	0.4	82.4	15.5	37.4	320.3	1133.8	135.4	10.6	1.8	0.3	1.2	201.2
29	0.2	66.3	11.8	41.3	326.4	1494.2	135.5	10.5	1.5	0.4	1.0	59.0
30	0.2	53.3	8.0	40.4		1099.7	133.5	9.4	1.3	0.4	0.7	25.2
31	0.2		6.5	32.7		863.2		6.3		0.8	0.6	
TOTAL:	89.5	459.6	1151.8	529.2	30547.3	38084.3	8526.5	7243.6	210.7	325.9	62.2	1762.7

APPENDIX E-6E. MEAN DAILY LOAD AT CACHE RIVER AT FORMAN (378) -- WATER YEAR 1985
SUSPENDED SEDIMENT IN TONS PER DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.0	349.7	268.3	475.8	4.5	319.2	1638.6	3194.8	16.0	86.7	200.8	79.4
2	9.4	544.4	267.5	410.1	6.5	220.2	1970.2	543.6	11.9	43.9	128.2	55.4
3	6.6	631.0	330.5	326.6	7.8	163.8	1429.9	395.2	11.7	61.1	91.4	39.9
4	4.5	861.4	279.4	300.9	8.5	126.0	219.6	278.6	401.9	49.7	32.0	31.3
5	3.1	698.4	235.7	230.5	9.0	101.1	654.4	208.0	277.2	28.1	4082.0	2717.8
6	3.2	468.7	218.2	161.0	9.5	82.7	610.3	179.0	136.0	21.9	1066.9	3198.2
7	3.9	310.7	200.0	120.8	9.7	53.8	339.0	130.9	102.5	15.7	540.7	897.4
8	5.3	187.3	193.4	98.4	9.8	42.3	227.3	85.9	118.6	12.6	518.1	955.6
9	11.8	126.9	252.3	80.4	9.7	54.8	138.7	54.3	39.7	9.3	542.5	842.4
10	8.7	221.6	421.4	65.2	14.7	65.6	74.0	35.4	129.6	5.5	1057.4	385.7
11	6.5	129.3	372.4	52.6	203.6	50.0	47.2	27.4	1070.6	3.7	2073.5	151.9
12	5.3	84.2	306.0	40.8	266.6	39.5	47.1	108.7	1152.3	2.5	1179.7	22.8
13	4.9	57.5	769.2	30.8	206.8	46.0	38.9	185.2	360.7	2.3	812.5	16.9
14	85.3	61.6	1373.6	28.2	178.5	157.8	1544.9	739.2	262.7	2.6	655.4	13.0
15	168.3	66.0	1031.2	22.7	160.0	125.5	789.5	335.9	156.9	2.5	463.1	10.6
16	119.9	69.8	692.4	18.5	153.5	73.8	314.6	210.6	77.0	2.2	1809.6	8.1
17	111.3	72.4	589.7	15.5	145.4	39.9	213.7	121.2	988.3	2.1	1346.7	6.2
18	223.7	259.0	542.3	12.8	169.6	24.2	152.7	58.2	375.2	0.9	835.8	5.1
19	203.3	521.3	647.4	11.1	213.3	17.7	112.3	34.2	346.7	1.0	1582.9	3.8
20	229.1	298.9	548.2	9.6	334.4	17.0	66.8	22.2	194.5	0.6	259.6	2.6
21	918.3	234.4	1206.9	8.2	500.2	24.3	35.8	17.5	83.2	0.8	192.5	2.2
22	640.0	202.7	1373.2	6.9	614.0	16.6	20.5	3555.3	46.3	1.0	133.8	2.9
23	424.3	156.3	1487.8	5.7	793.9	14.2	40.5	1841.3	36.7	1.1	152.4	5.2
24	405.9	116.1	1282.0	4.9	1068.8	20.1	60.1	662.5	25.5	1.3	3814.6	9.8
25	392.2	85.9	961.5	4.2	1280.3	20.1	563.0	283.5	17.9	1.4	4582.9	10.3
26	350.0	66.6	665.2	3.5	1043.6	21.7	717.4	203.1	16.4	2.4	4962.8	8.1
27	298.9	177.7	415.4	2.9	757.7	16.3	1454.3	165.5	40.8	3.7	4216.9	5.5
28	372.0	369.7	281.0	2.6	515.1	11.6	410.5	95.4	1079.3	10.8	3135.8	2.5
29	512.7	256.5	204.4	2.1		11.7	203.0	52.8	752.5	9.3	2093.9	1.0
30	291.0	248.1	285.5	1.8		6660.4	154.3	29.8	224.3	6.4	1383.0	1.1
31	295.5		416.8	2.9		3014.5		21.3		5.5	89.7	
TOTAL:	6128.6	7934.2	18118.5	2557.6	8694.8	11652.2	14289.0	13876.5	8552.9	398.4	44037.2	9492.6

APPENDIX E-6F. MEAN DAILY LOAD AT CACHE RIVER AT FORMAN (378) -- WATER YEAR 1986
SUSPENDED SEDIMENT IN TONS PER DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.8	327.0	231.5	3.5	0.7	5.1	7.0	18.9	60.0	0.8	3.0	0.2
2	0.6	282.2	200.6	3.4	15.6	3.6	7.0	11.8	97.1	0.8	2.5	0.7
3	0.4	183.0	156.4	3.3	7063.6	3.3	6.9	7.7	181.2	0.8	2.0	0.7
4	0.3	134.3	127.5	3.1	7645.3	3.0	7.1	5.2	168.0	0.8	1.7	0.4
5	0.2	85.4	99.9	3.0	7944.1	2.8	9.5	4.3	118.8	0.8	3.7	0.3
6	0.2	53.0	75.8	2.8	6556.2	2.7	53.4	3.6	64.7	0.7	4.9	0.2
7	0.2	35.4	50.4	2.6	3519.5	2.4	78.9	3.1	225.8	0.7	3.8	0.2
8	0.2	25.1	32.7	2.5	374.8	2.1	49.8	2.8	383.7	0.7	4.6	0.2
9	0.1	17.3	20.6	2.3	320.5	2.0	29.8	2.7	311.7	0.6	9.0	0.2
10	0.1	11.5	12.3	1.8	263.6	2.5	21.1	2.5	198.7	0.6	142.8	0.2
11	0.1	7.5	1384.4	1.3	200.3	208.8	14.3	2.4	131.7	0.5	221.2	0.1
12	0.1	33.2	3231.4	0.9	144.0	893.0	10.8	2.6	70.0	0.5	202.2	0.1
13	0.1	79.4	2558.2	0.9	87.4	1263.3	8.2	2.5	36.4	1.0	81.8	0.1
14	8.5	98.5	1324.9	0.9	55.9	674.7	7.5	2.6	18.8	37.4	30.7	0.1
15	101.9	114.5	55.4	0.9	27.6	455.0	6.5	4096.4	9.4	50.3	15.5	0.2
16	25.4	291.2	38.8	0.9	27.5	259.5	6.0	5638.8	6.9	268.5	12.2	0.3
17	7.1	198.5	31.2	0.9	120.9	192.8	5.5	2455.5	5.4	219.7	98.2	0.2
18	3.0	164.0	24.2	1.1	127.6	134.6	4.8	1649.3	4.0	54.5	85.5	10.6
19	1.6	207.8	19.7	53.6	108.5	119.2	5.2	1431.8	3.0	7.5	8.5	163.1
20	9.4	352.6	16.3	71.2	75.1	163.6	16.6	1174.9	3.0	4.6	3.7	118.6
21	14.8	245.0	13.5	57.7	44.9	124.0	176.0	777.2	1.9	3.6	2.4	22.8
22	21.5	190.1	11.5	40.4	26.4	78.8	207.0	454.4	1.5	3.2	1.8	5.6
23	1318.9	150.2	9.6	31.7	13.3	20.2	119.9	247.5	1.4	3.2	1.2	8.8
24	1559.3	96.3	7.7	26.1	10.9	15.9	60.9	178.3	1.2	3.1	0.8	56.2
25	81.2	83.0	6.8	21.5	9.4	12.1	37.6	430.7	1.1	2.6	0.7	166.0
26	32.6	1471.2	6.2	3.4	8.5	8.9	26.4	2406.6	1.3	2.1	0.6	75.2
27	13.5	1636.8	5.1	2.8	7.5	7.3	19.4	1459.0	1.4	2.8	0.5	16.6
28	4.6	875.8	4.5	2.2	6.9	7.6	34.0	718.3	1.1	3.2	0.5	3.7
29	16.6	561.3	3.8	1.9		7.8	51.3	956.8	0.8	2.7	0.4	2.4
30	375.3	341.1	3.7	1.6		7.7	28.8	693.1	0.9	3.0	0.3	1.9
31	555.3		3.6	1.1		7.5		342.5		3.7	0.2	
TOTAL:	4153.9	8352.2	9768.2	351.3	34806.5	4691.8	1117.2	25183.8	2110.9	685.0	946.9	655.9

APPENDIX E-6G. MEAN DAILY LOAD AT CACHE RIVER AT FORMAN (378) -- WATER YEAR 1987
SUSPENDED SEDIMENT IN TONS PER DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.2	1.2	218.9	2.6	3.2	1918.4	57.6	4.5	1.7	4291.0	18.3	0.0
2	9.5	1.0	445.5	2.1	13.3	1240.9	33.6	4.4	2.7	1060.9	44.6	0.0
3	174.7	0.8	186.2	1.6	23.0	872.1	36.1	4.4	24.7	374.7	16.5	0.0
4	268.1	1.0	144.0	1.2	19.1	791.4	35.1	8.0	12.9	129.3	6.4	0.0
5	155.0	2.0	103.2	1.1	11.3	680.7	24.5	6.3	6.9	29.5	4.6	0.0
6	65.4	9.0	51.2	1.0	7.6	520.3	19.0	5.9	5.0	11.2	2.5	0.0
7	29.4	22.4	19.5	0.9	5.6	370.6	15.4	4.4	3.2	11.1	1.6	0.1
8	14.6	12.0	6.9	0.8	4.3	261.9	13.1	3.9	1.9	12.2	1.1	0.1
9	7.9	6.5	16.5	0.8	3.2	181.8	11.2	3.4	1.3	8.1	0.9	0.1
10	5.0	4.4	44.3	0.9	2.4	124.8	10.3	3.6	0.9	7.1	0.6	0.1
11	3.1	3.0	37.1	1.0	1.6	84.0	12.2	3.6	0.6	6.1	0.4	0.0
12	2.0	1.7	17.4	1.1	1.2	56.2	87.6	3.6	2.5	3.7	0.3	0.0
13	1.7	1.3	9.3	1.2	1.9	30.2	166.3	4.0	20.1	2.5	0.2	0.0
14	1.9	1.1	4.9	1.0	3.0	15.5	1050.4	12.0	168.8	1.8	0.1	0.0
15	3.2	1.0	3.8	1.2	4.8	7.3	386.9	9.8	257.8	1.3	0.1	0.1
16	3.5	0.8	3.2	1.4	18.9	17.8	268.6	4.8	60.0	0.9	0.1	0.1
17	1.9	0.8	2.8	1.5	43.6	27.8	214.7	2.8	21.9	0.8	0.1	0.3
18	1.3	0.7	2.5	1.7	50.6	104.7	172.9	2.5	117.0	0.8	0.1	0.3
19	0.8	0.7	2.2	2.4	21.0	380.0	121.9	1.9	1524.5	0.7	0.0	0.4
20	0.7	0.7	1.9	4.3	21.0	314.7	76.0	2.3	243.8	0.6	0.0	0.6
21	0.5	0.7	1.5	5.4	24.2	254.2	48.2	2.0	39.7	0.7	0.0	1.1
22	0.4	0.6	1.2	3.8	22.2	199.5	30.5	1.5	16.4	0.5	0.0	0.5
23	0.3	0.6	0.8	2.5	17.7	126.0	21.3	1.4	7.6	0.4	0.0	0.2
24	0.4	1.7	4.2	2.7	13.7	71.3	16.6	1.6	4.1	0.3	0.0	0.1
25	2.2	3.2	14.4	1.4	12.0	52.3	12.9	3.1	235.4	0.2	0.0	0.1
26	37.6	22.9	24.0	1.0	10.4	34.5	10.2	3.9	13.2	0.3	0.0	0.1
27	41.3	21.2	12.1	0.8	18.6	23.4	7.8	6.6	7.0	0.4	0.0	0.1
28	15.7	30.2	7.1	0.6	6199.1	17.3	6.0	3.6	2.9	0.5	0.0	0.1
29	6.7	12.2	5.1	0.5		13.6	5.6	2.5	34.8	0.7	0.0	0.1
30	2.9	5.4	3.9	1.2		50.0	5.1	1.8	40.3	25.1	0.0	0.1
31	1.7		3.2	2.0		94.2		1.7		33.2	0.0	
TOTAL:	862.6	170.8	1398.8	51.7	6578.5	8937.4	2977.6	125.8	2879.6	6016.6	98.5	4.7

APPENDIX E-6H. MEAN DAILY LOAD AT CACHE RIVER AT FORMAN (378) -- WATER YEAR 1988
SUSPENDED SEDIMENT IN TONS PER DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.1	0.4	6.4	246.6	353.5	5.9	5895.2	2.4	0.8	0.1	0.5	0.1
2	0.0	0.4	2.0	158.3	4020.9	5.8	1620.7	3.8	0.6	0.1	0.4	0.2
3	0.0	0.3	0.8	99.4	1811.9	193.3	935.6	5.4	0.6	0.1	0.3	1.0
4	0.0	0.3	0.4	65.0	1128.9	678.8	638.2	7.2	0.5	0.1	4.3	0.9
5	0.0	0.2	0.4	41.5	743.7	394.2	483.7	7.5	0.4	0.2	2.8	0.6
6	0.0	0.2	0.6	31.4	586.3	188.1	389.6	7.5	0.4	0.1	1.3	1.2
7	0.0	0.3	0.9	23.7	456.0	141.5	255.4	6.6	0.4	0.1	0.8	0.8
8	0.0	0.3	1.0	16.0	313.8	84.2	152.8	7.1	0.4	0.1	0.6	0.4
9	0.1	0.2	7.6	9.0	203.8	49.1	95.2	7.0	0.3	0.1	0.4	0.2
10	0.0	0.1	3.4	4.3	129.3	30.6	59.8	6.8	0.2	0.1	0.3	0.2
11	0.0	0.1	1.7	1.6	82.5	55.0	37.2	6.7	0.2	0.0	0.2	0.1
12	0.0	0.1	0.9	0.3	45.8	85.5	23.8	6.4	0.2	0.1	0.2	2.3
13	0.0	0.3	0.5	1.6	24.7	148.6	15.4	5.6	0.2	0.1	0.1	8.1
14	0.0	0.2	0.4	3.4	6.4	110.3	10.1	4.9	0.2	0.1	0.1	7.6
15	0.0	0.1	1026.0	4.7	6.6	45.6	7.0	3.7	0.1	0.2	0.6	3.3
16	0.0	0.1	152.6	6.3	6.3	9.1	5.6	3.0	0.1	0.2	1.2	1.6
17	0.0	0.2	104.9	18.0	5.9	7.2	5.0	2.1	0.1	0.2	0.5	0.8
18	0.0	1.1	31.3	1363.4	5.6	6.5	8.2	1.5	0.1	1.0	0.3	3.1
19	0.0	4.2	1.0	16903.4	26.0	6.4	9.7	1.3	0.1	3.2	0.2	88.5
20	0.0	1.5	12.0	2366.8	63.6	5.8	9.2	1.2	0.1	11.5	0.2	30.8
21	0.0	0.6	23.5	776.9	75.4	9.2	8.6	1.0	0.1	27.5	0.1	23.1
22	0.0	0.2	23.6	315.1	40.4	11.4	7.7	1.2	0.1	9.5	0.2	7.9
23	0.0	0.1	11.1	259.3	21.0	12.4	6.6	1.4	0.1	4.8	0.4	5.7
24	0.0	0.1	8.4	195.1	17.6	12.2	4.9	7.8	0.1	3.5	0.4	8.8
25	0.0	0.2	2055.2	124.7	13.3	16.8	4.6	10.0	0.1	2.4	0.2	5.8
26	0.0	0.2	3170.4	73.0	10.2	22.5	4.2	12.5	0.1	1.4	0.2	3.2
27	0.0	2.0	1522.5	40.8	8.1	19.5	3.9	6.3	0.1	1.0	0.1	2.8
28	0.0	15.4	1436.9	111.9	6.7	18.1	3.4	3.6	0.1	0.6	0.1	2.8
29	0.1	16.1	1052.5	165.0		29.0	3.1	2.1	0.1	1.8	0.1	2.1
30	0.1	18.6	557.2	185.1		2497.9	2.7	1.4	0.1	1.3	0.2	1.5
31	0.2		380.6	181.4		859.4		1.0		0.7	0.2	
TOTAL:	0.6	64.1	11596.7	23793.0	10214.2	5759.9	10707.1	146.0	7.00	72.2	17.5	215.5

APPENDIX F.

SEDIMENT DURATION CURVES FOR SIX ILLINOIS STATE WATER SURVEY MONITORING STATIONS

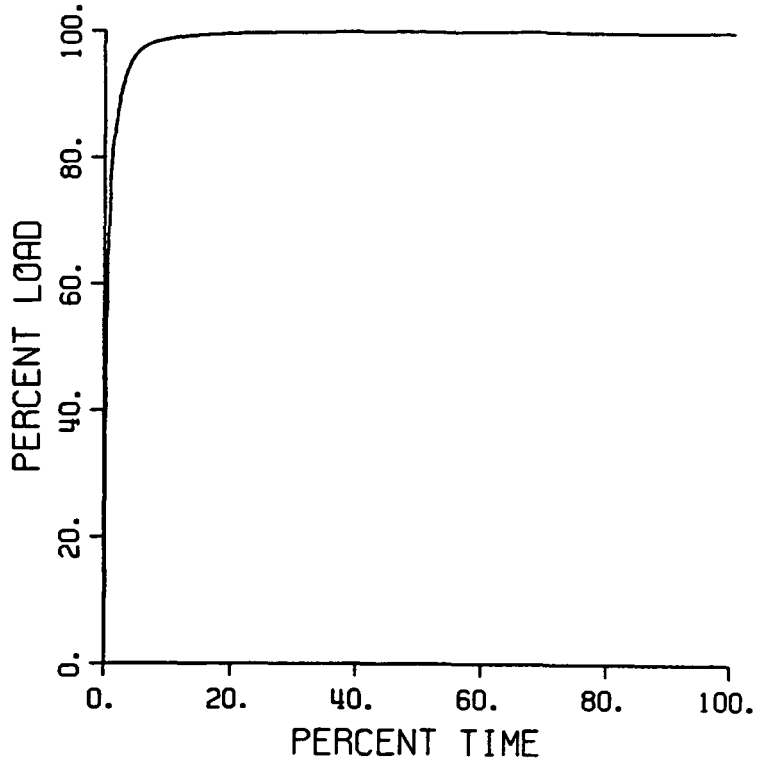


Figure F-1. Sediment duration curve for Big Creek at Perks Road

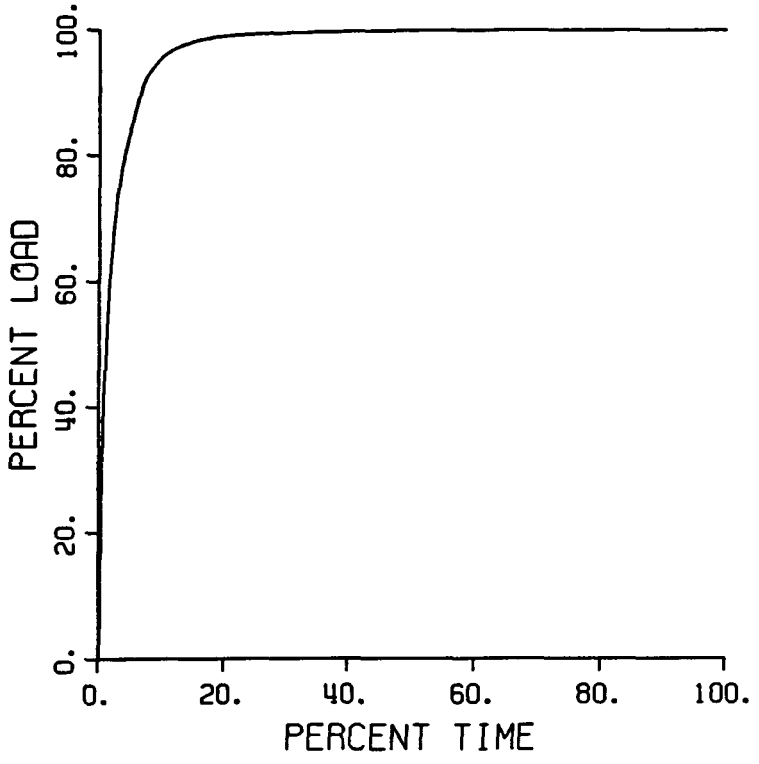


Figure F-2. Sediment duration curve for Cypress Creek at Dongola Road

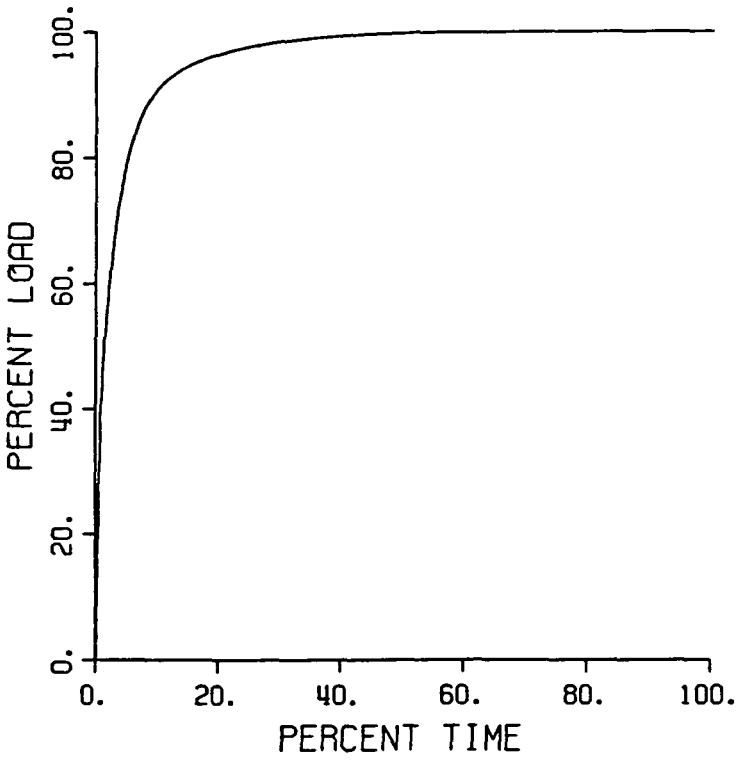


Figure F-3. Sediment duration curve for Main Ditch at Route 45

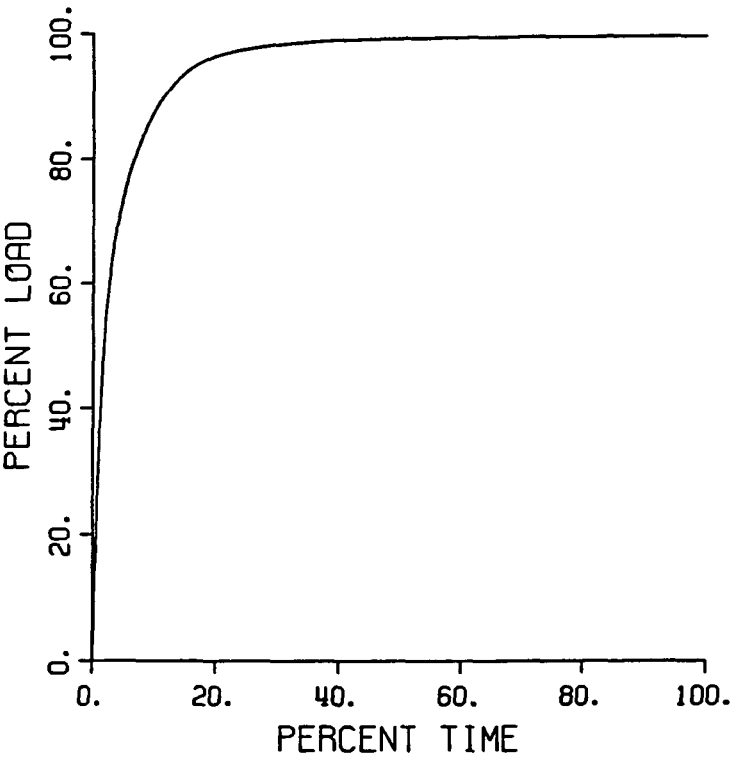


Figure F-4. Sediment duration curve for the Upper Cache River at Route 146

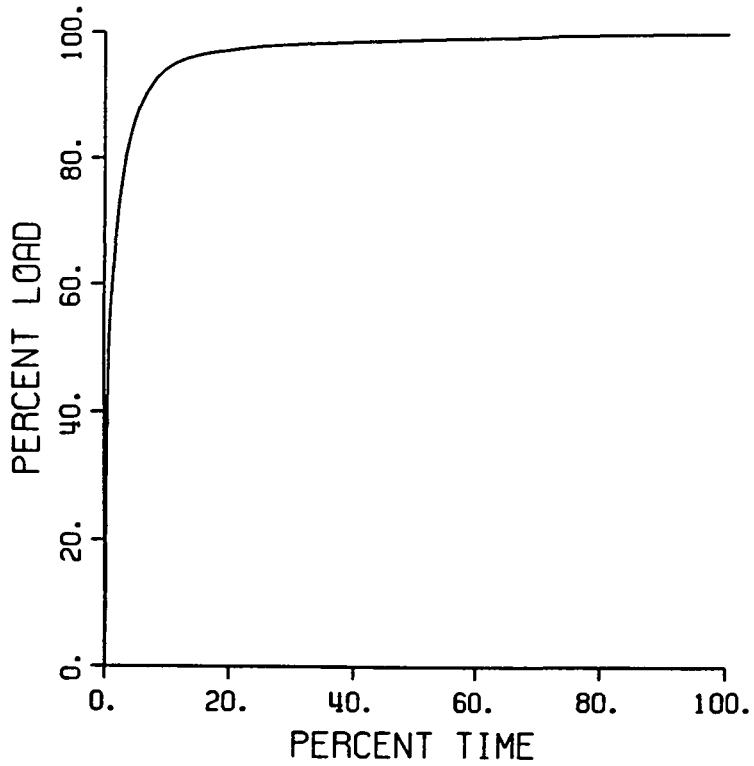


Figure F-5. Sediment duration curve for Indian Camp Creek at Ullin

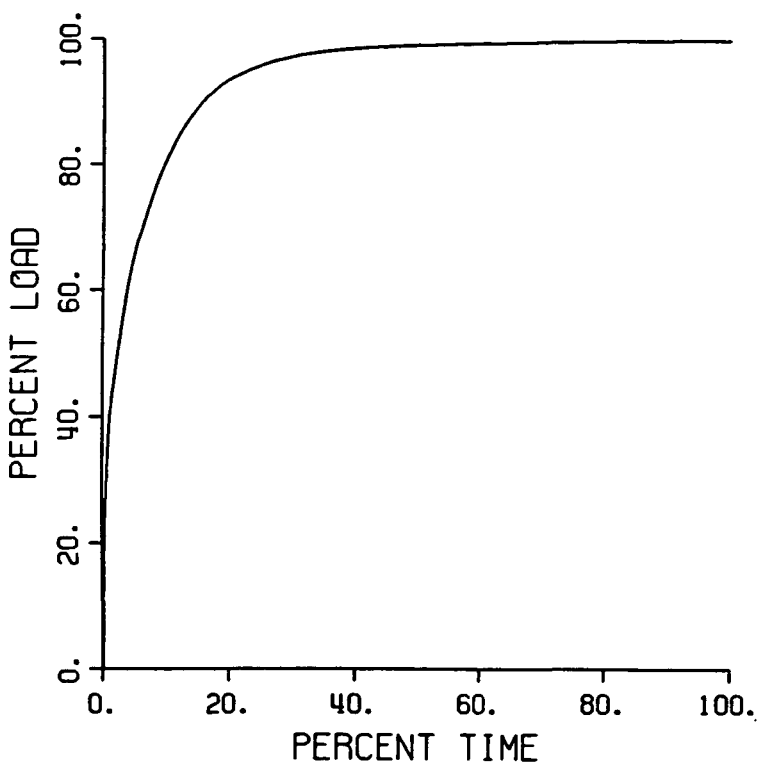


Figure F-6. Sediment duration curve for the Lower Cache River at Route 51

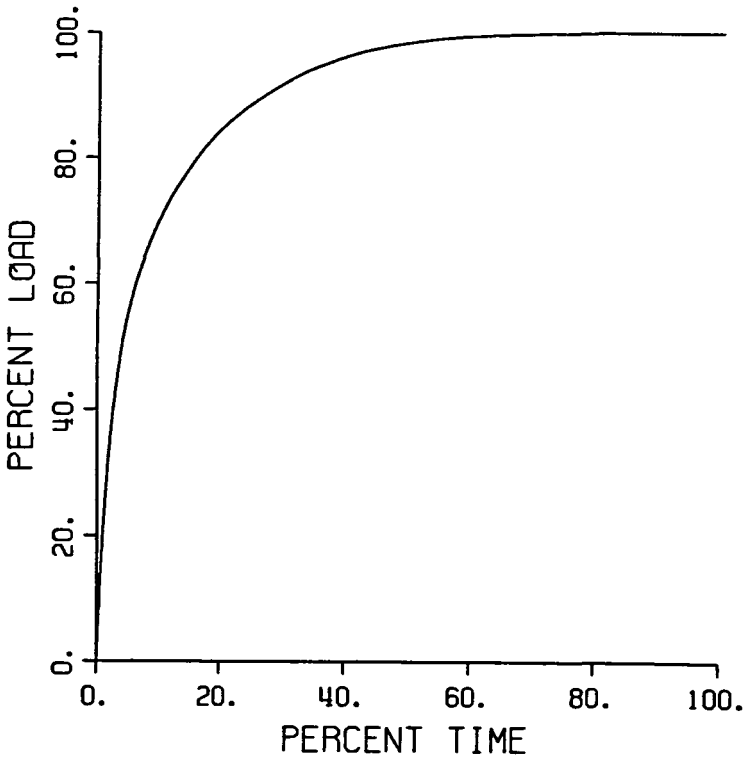


Figure F-7. Sediment duration curve for the Upper Cache River at Forman

APPENDIX G.

SEDIMENT RATING CURVES FOR SIX ILLINOIS STATE WATER SURVEY MONITORING STATIONS

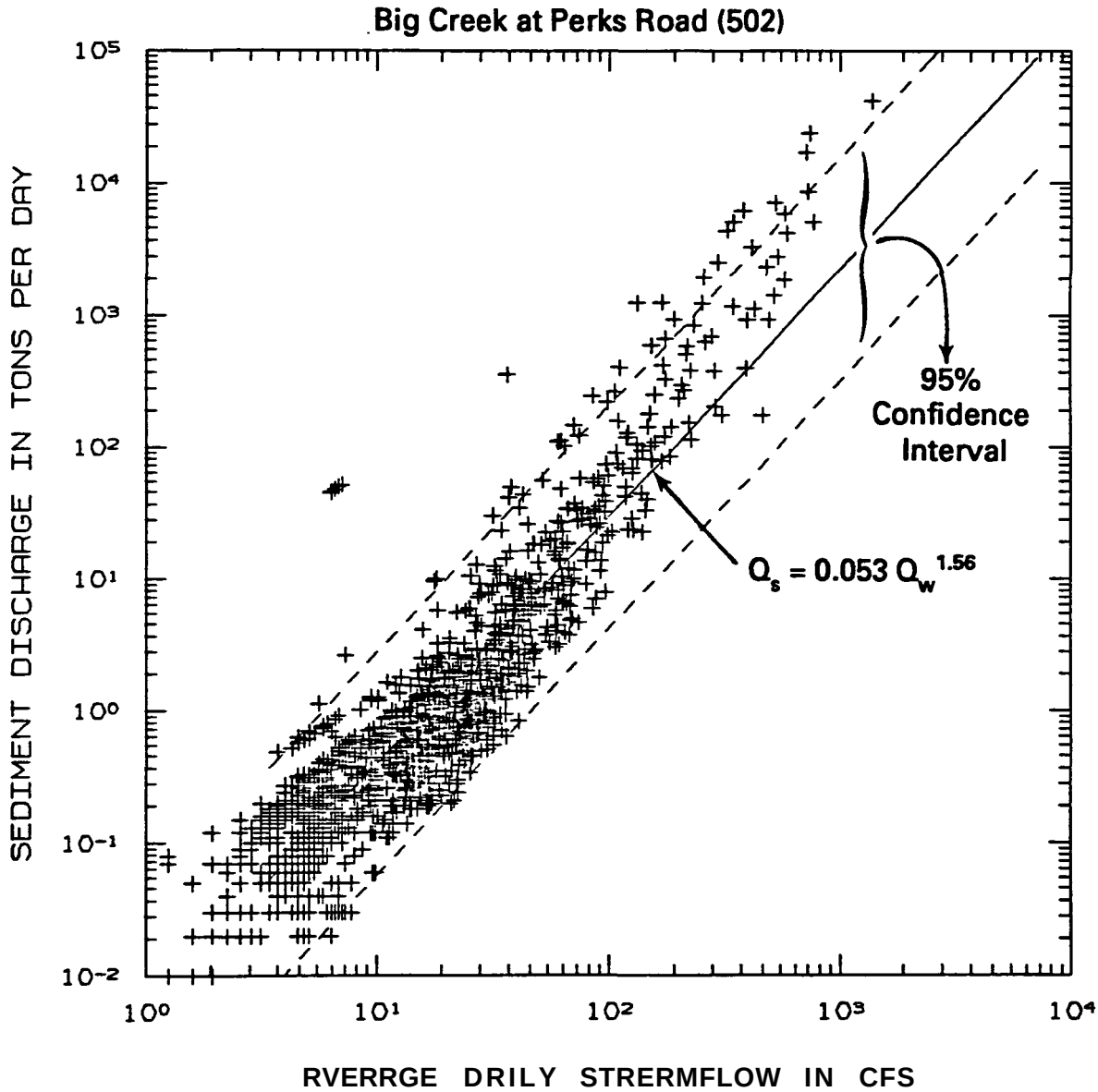


Figure G-1. Sediment discharge rating curve for Big Creek at Perks Road

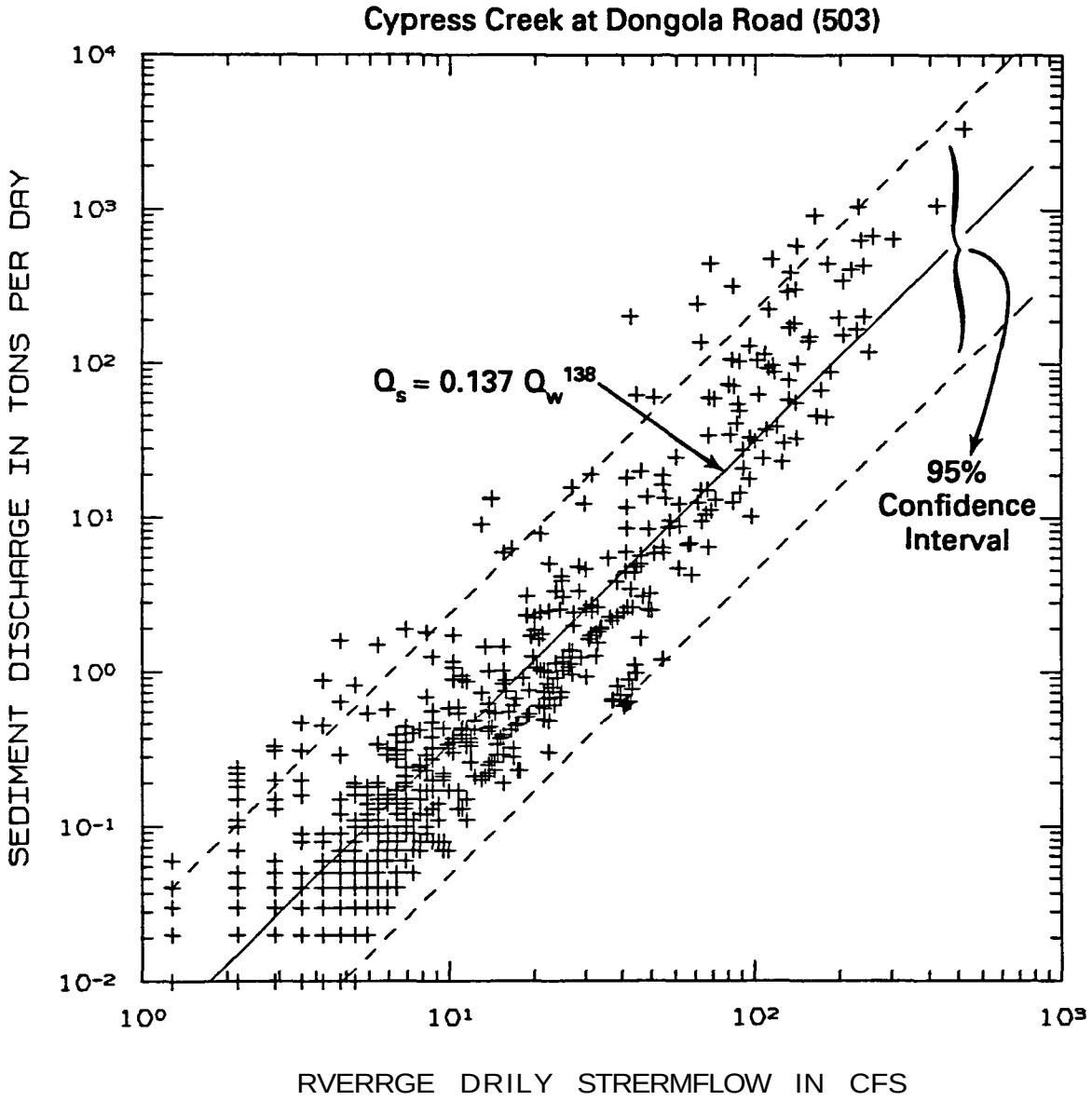


Figure G-2. Sediment discharge rating curve for Cypress Creek at Dongola Road

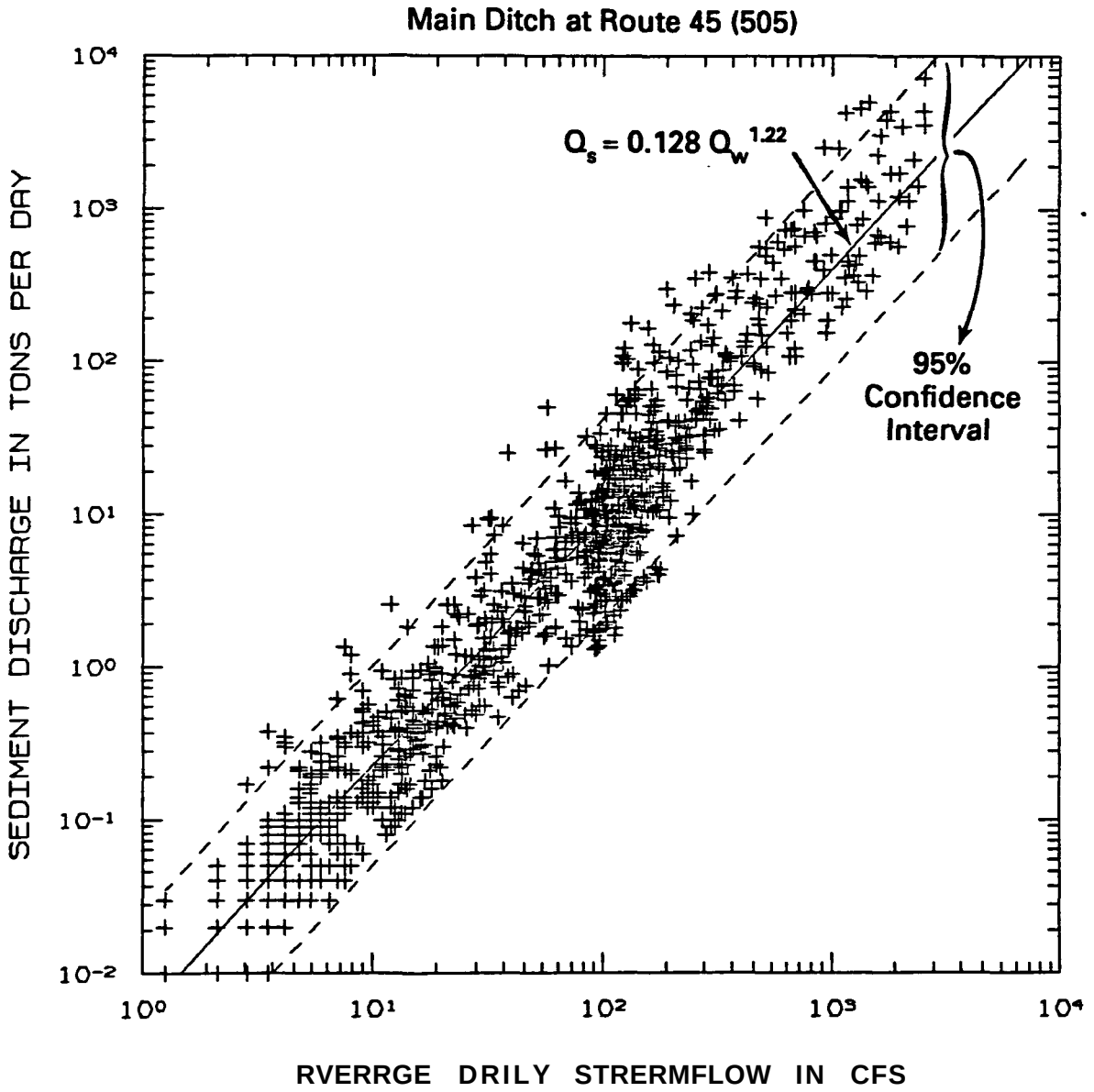


Figure G-3. Sediment discharge rating curve for Main Ditch at Route 45

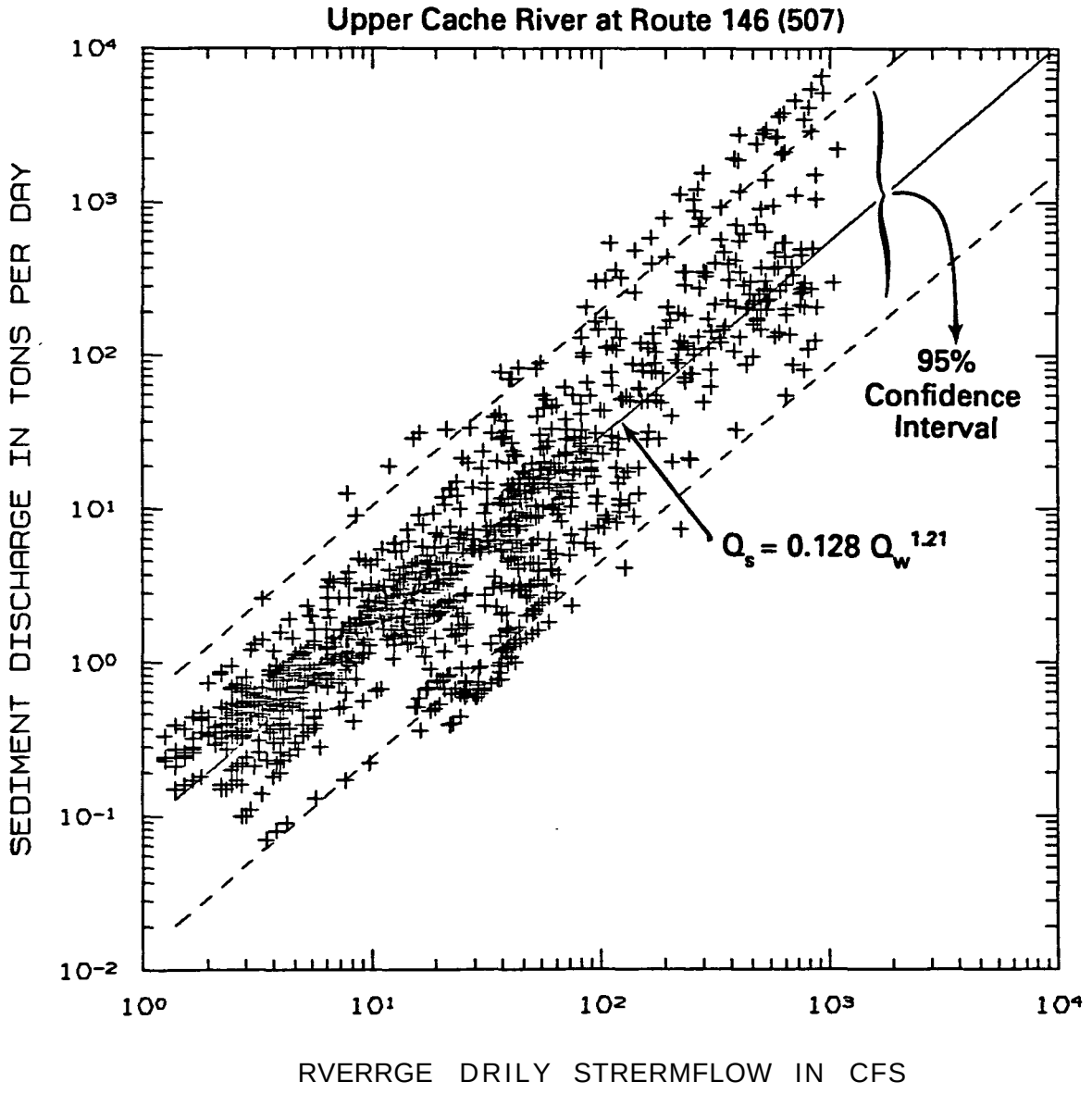


Figure G-4. Sediment discharge rating curve for the Upper Cache River at Route 146

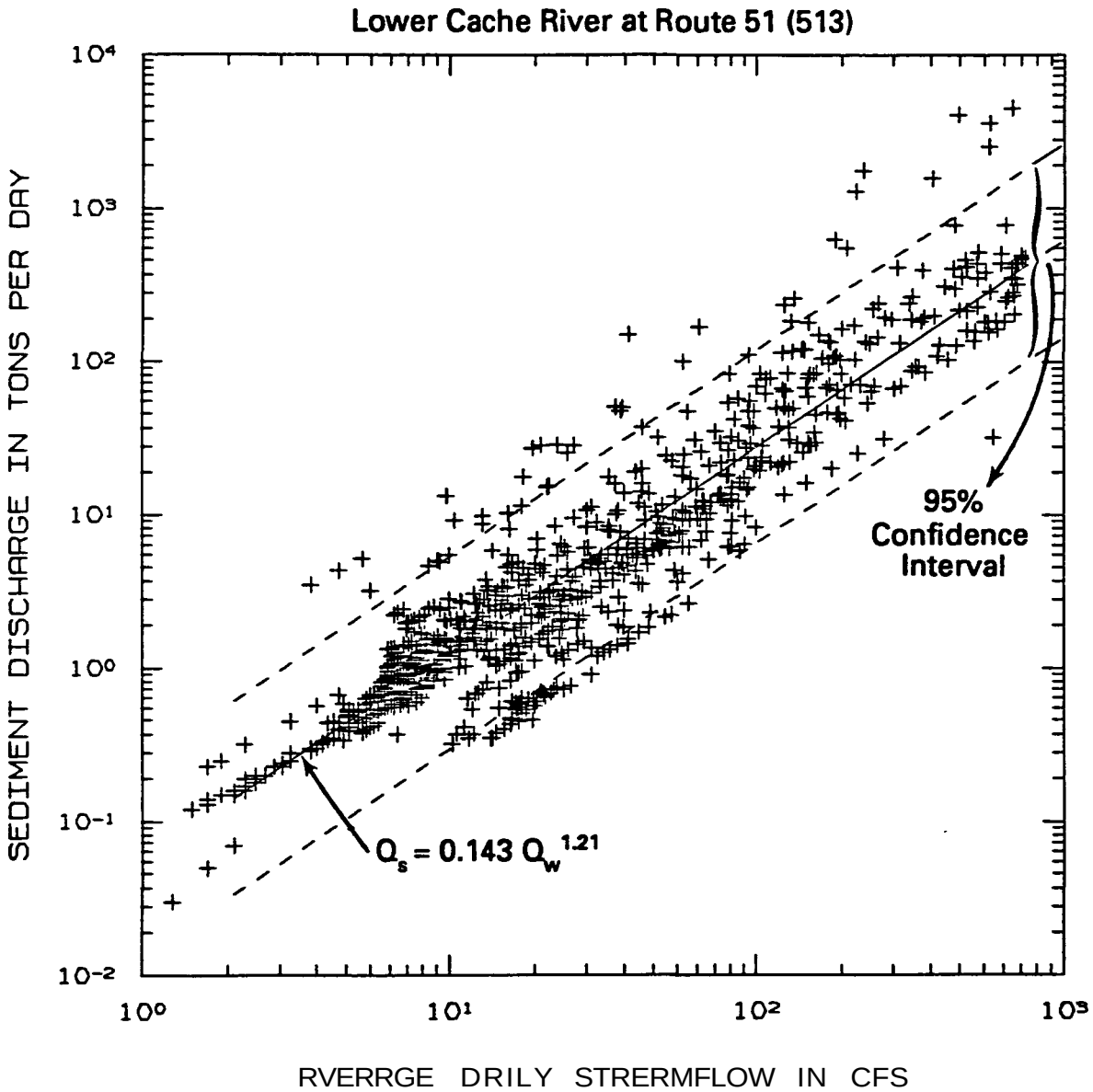


Figure G-5. Sediment discharge rating curve for the Lower Cache River at Route 51

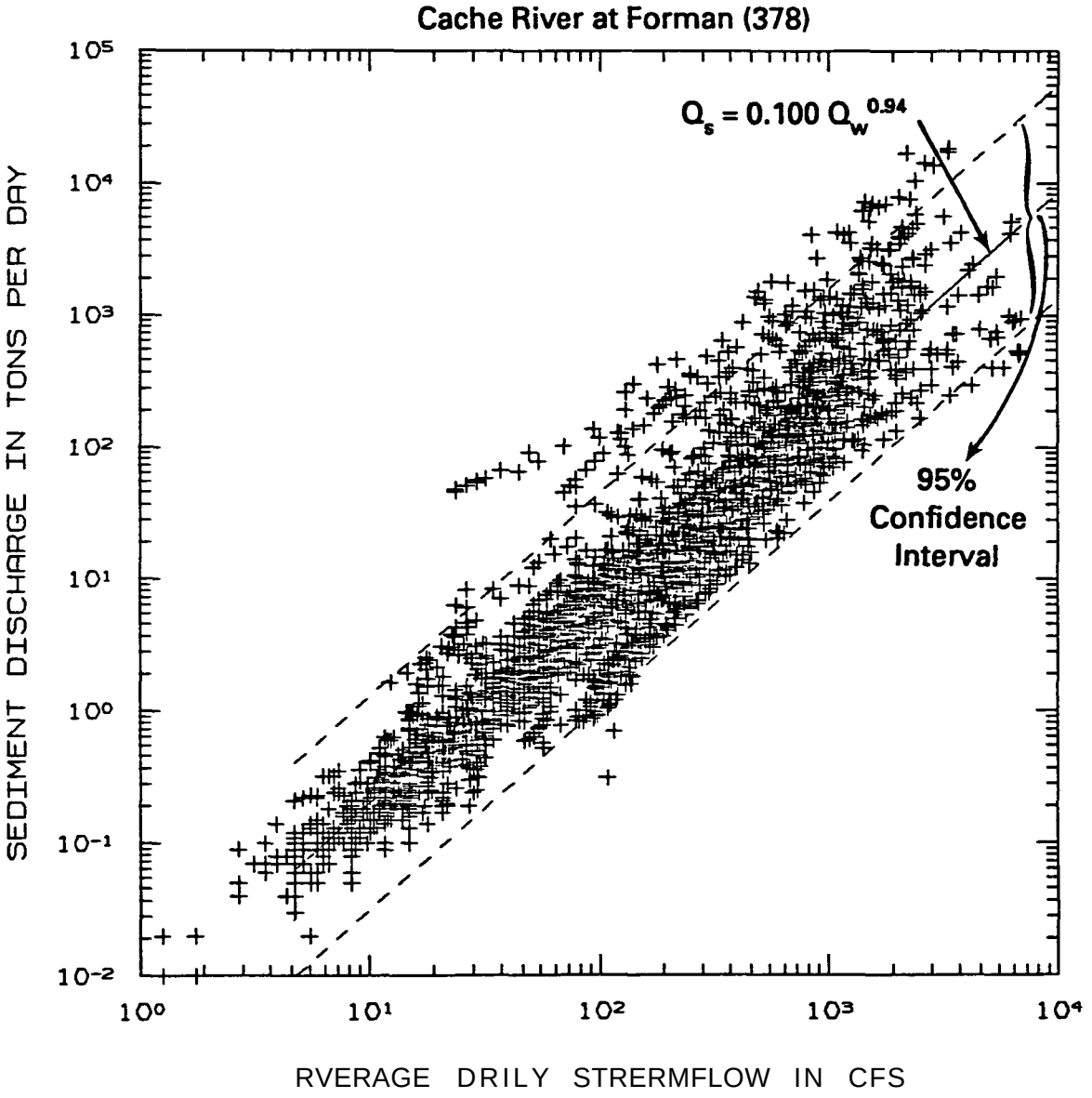


Figure G-6. Sediment discharge rating curve for the Upper Cache River at Forman

APPENDIX H.

CUMULATIVE SIZE FREQUENCIES OF THE STREAMBED AND BANE MATERIALS FOR THE UPPER AND LOWER CACHE RIVER

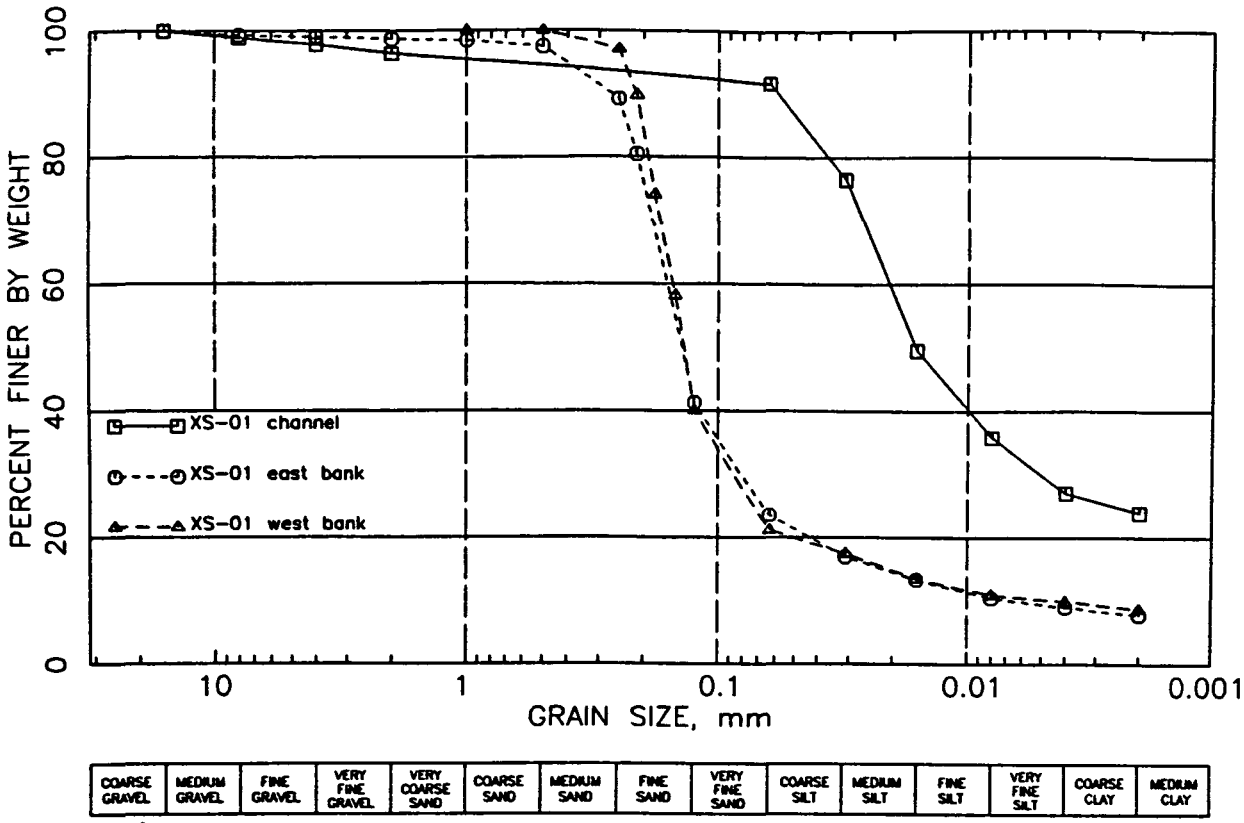


Figure H-1. Cumulative size frequencies of streambed and bank materials for cross section 1 in the Upper Cache River

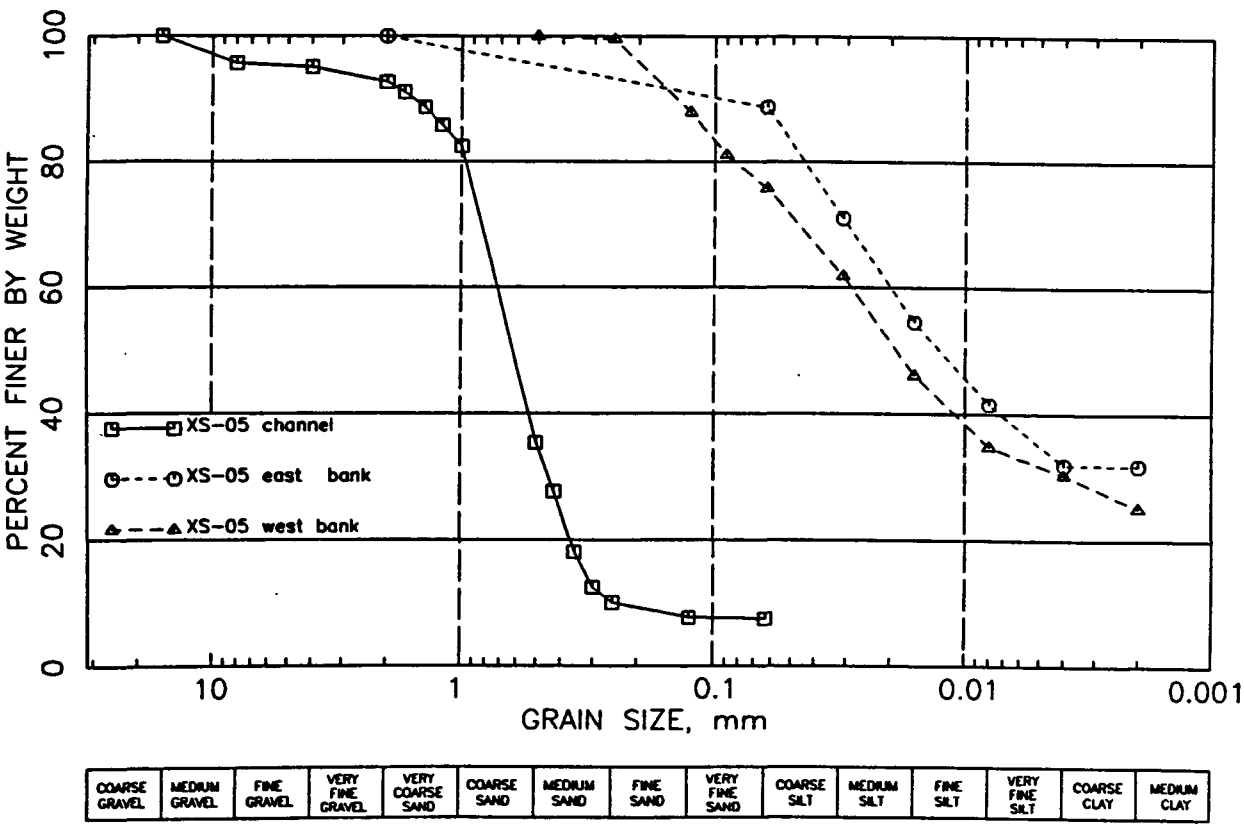


Figure H-2. Cumulative size frequencies of streambed and bank materials for cross section 5 In the Upper Cache River

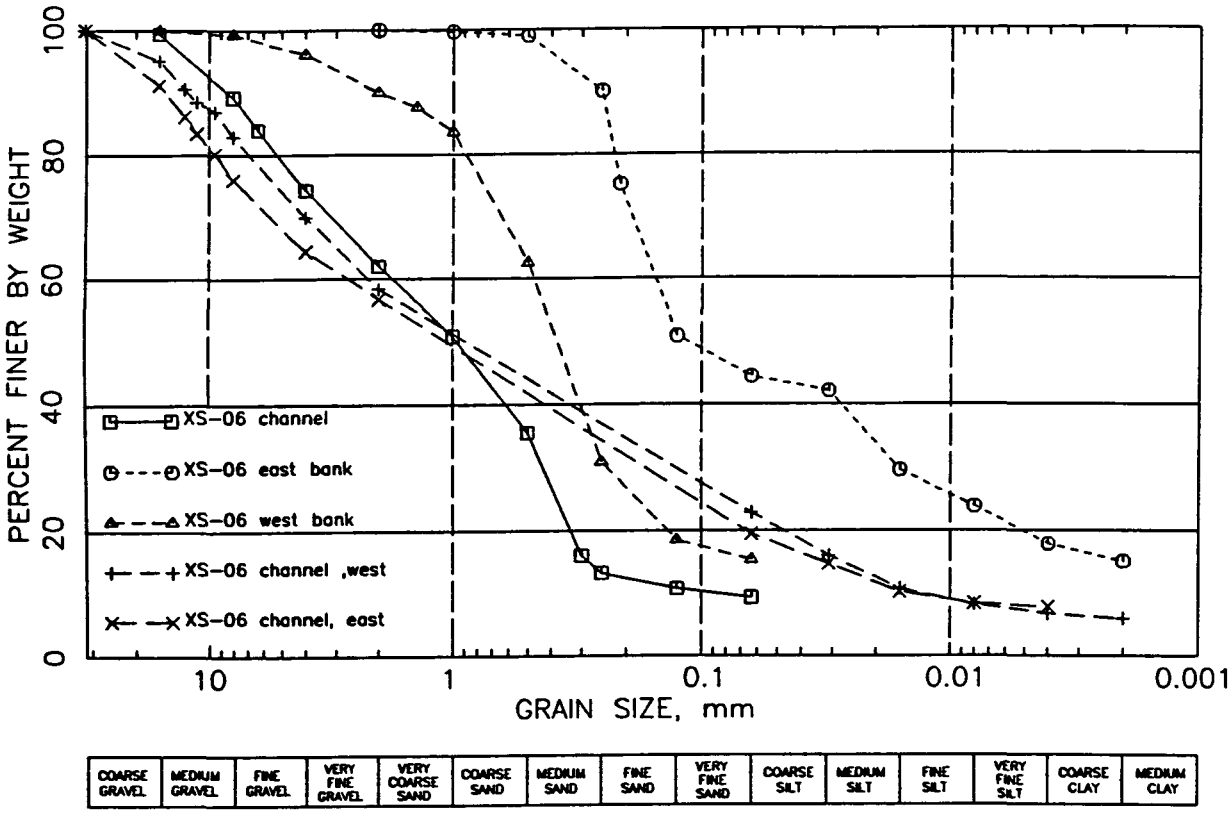


Figure H-3. Cumulative size frequencies of streambed and bank materials for cross section 6 in the Upper Cache River

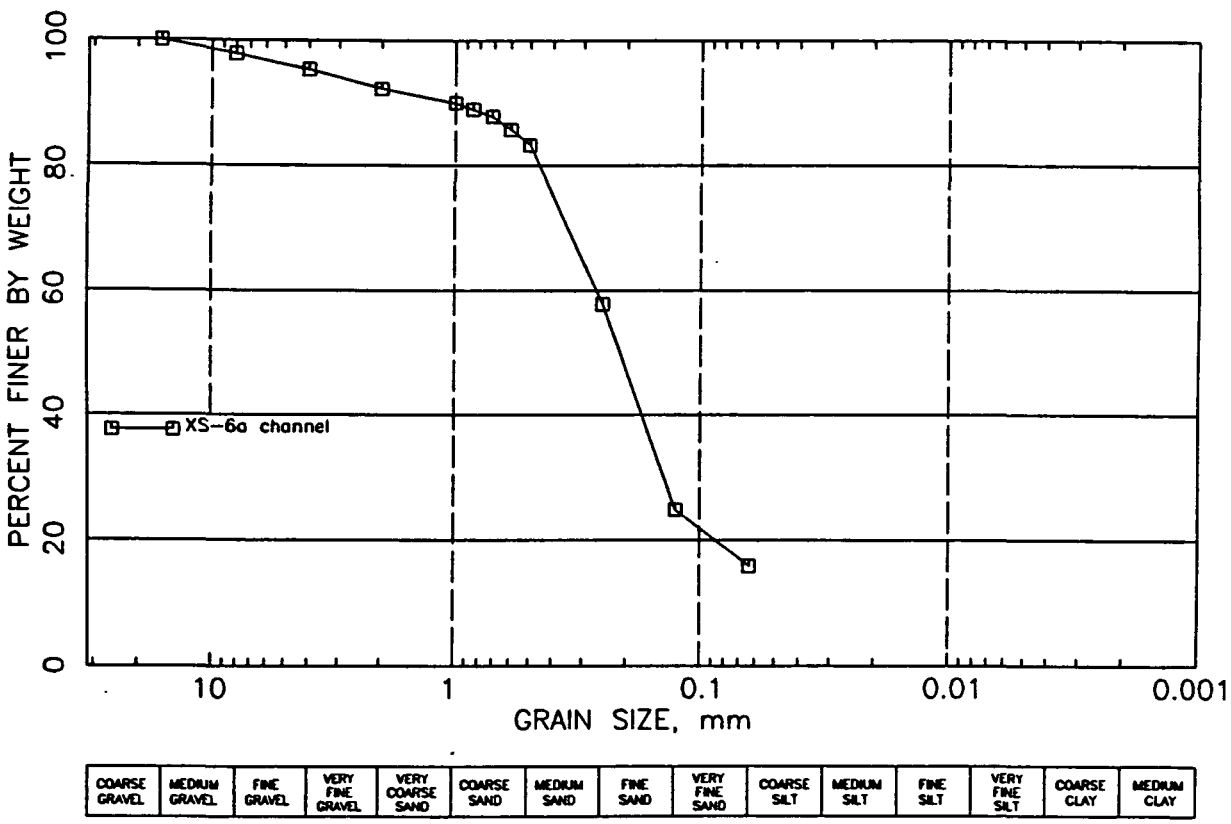


Figure H-4. Cumulative size frequencies of streambed and bank materials for cross section 6a In the Upper Cache River

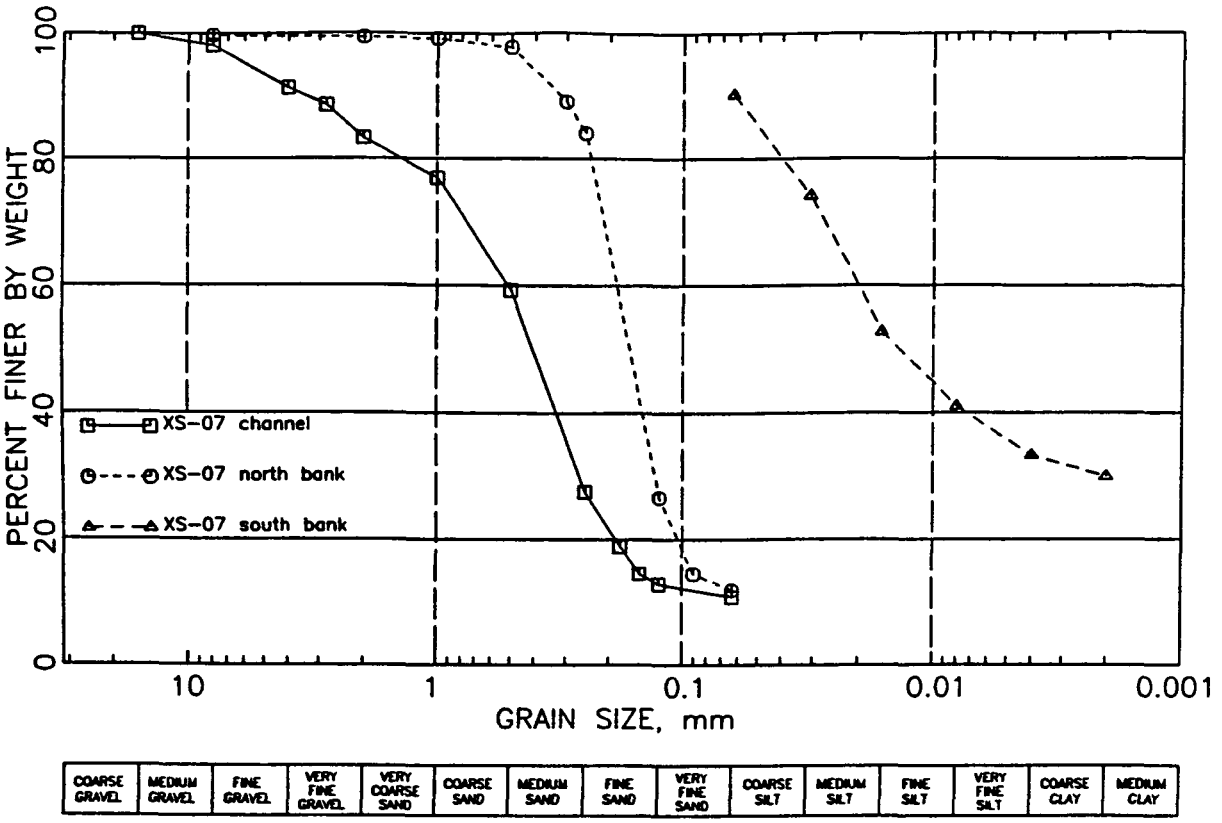


Figure H-5. Cumulative size frequencies of streambed and bank materials for cross section 7 In the Upper Cache River

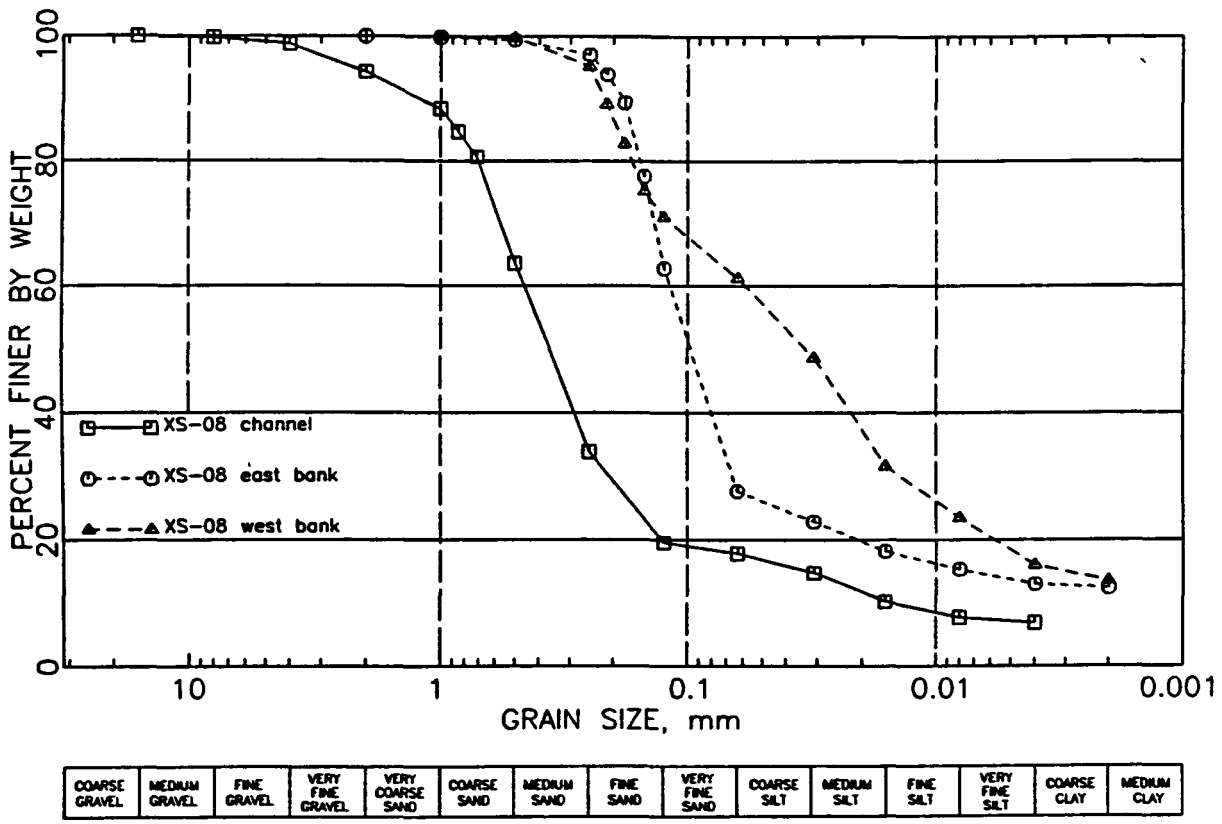


Figure H-6. Cumulative size frequencies of streambed and bank materials for cross section 8 In the Upper Cache River

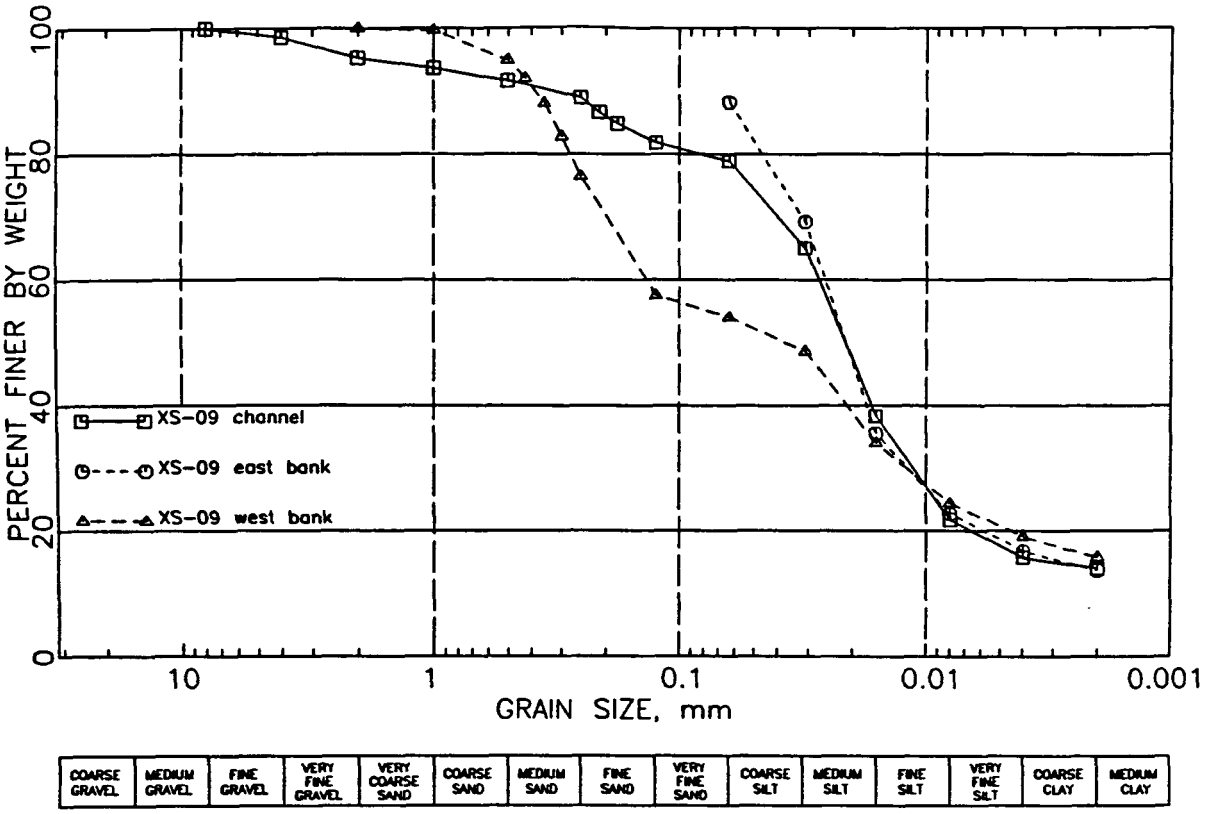


Figure H-7. Cumulative size frequencies of streambed and bank materials for cross section 9 in the Upper Cache River

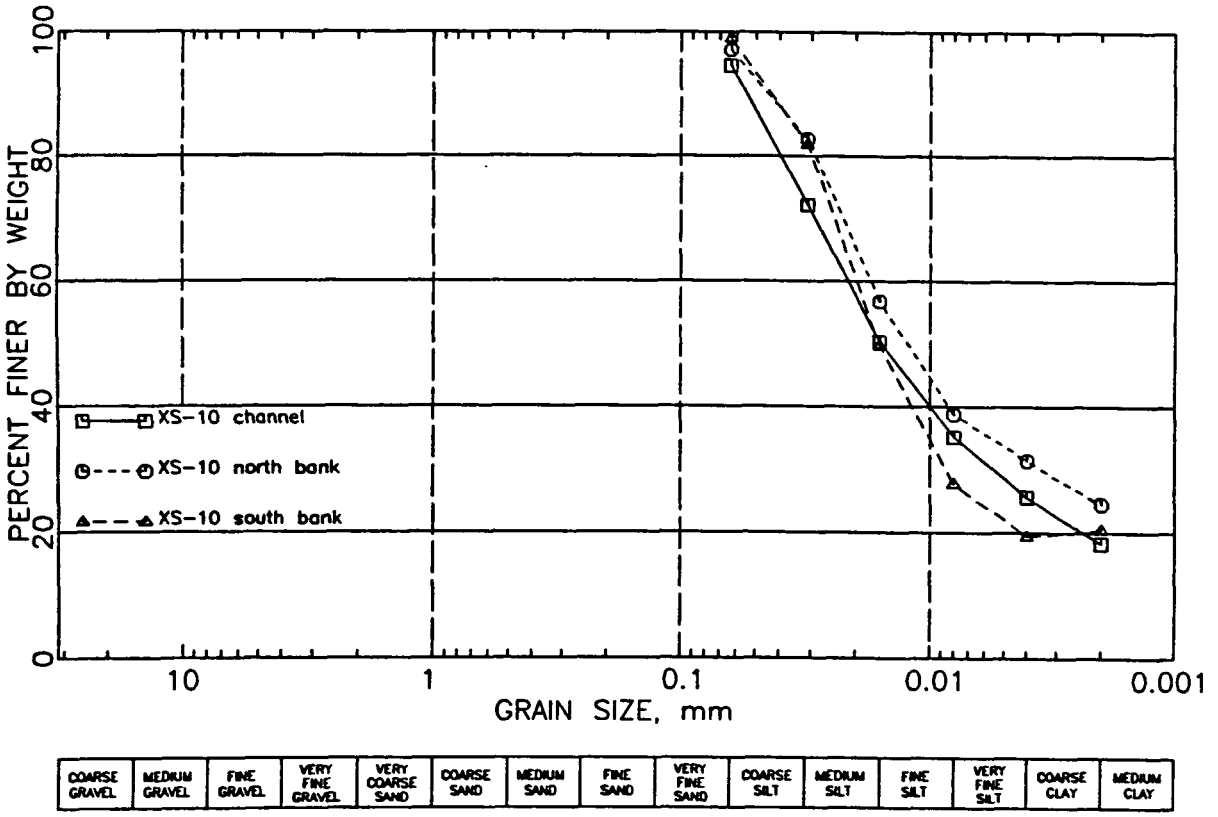


Figure H-8. Cumulative size frequencies of streambed and bank materials for cross section 10 In the Upper Cache River

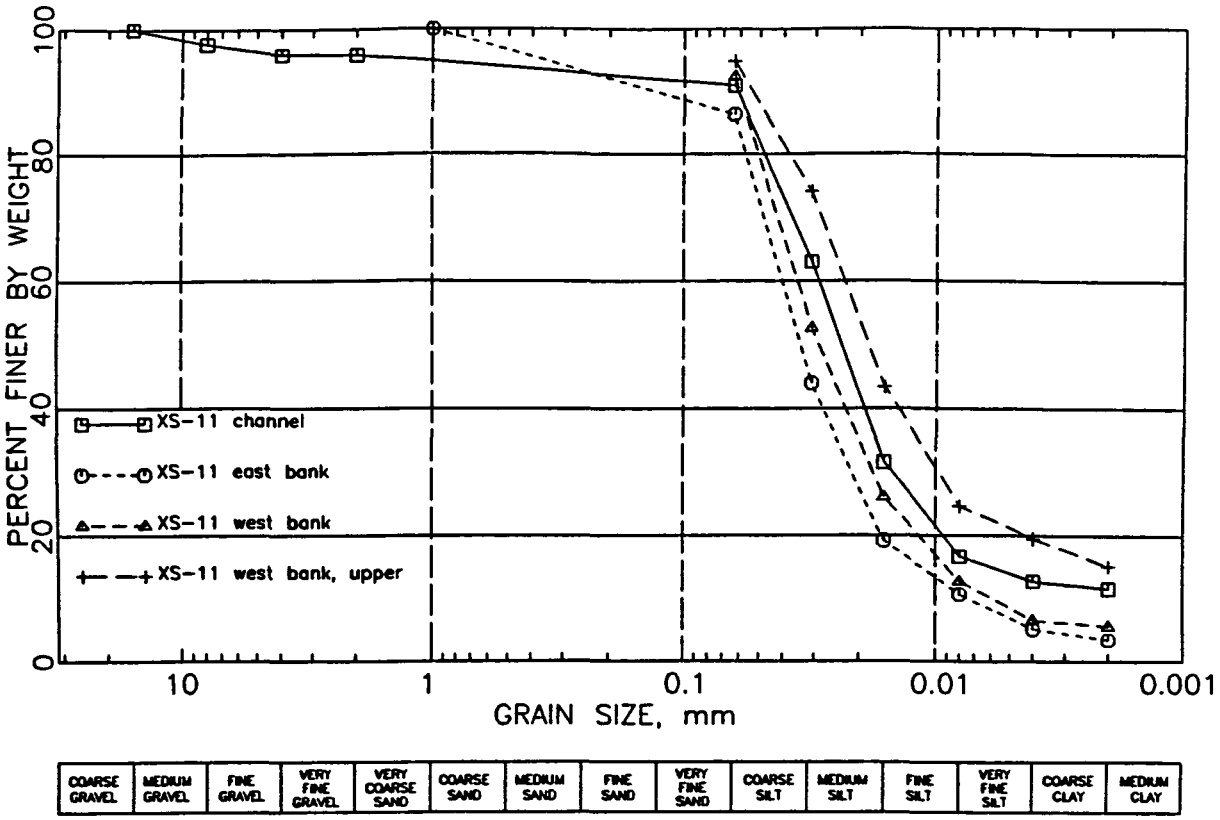


Figure H-9. Cumulative size frequencies of streambed and bank materials for cross section 11 In the Upper Cache River

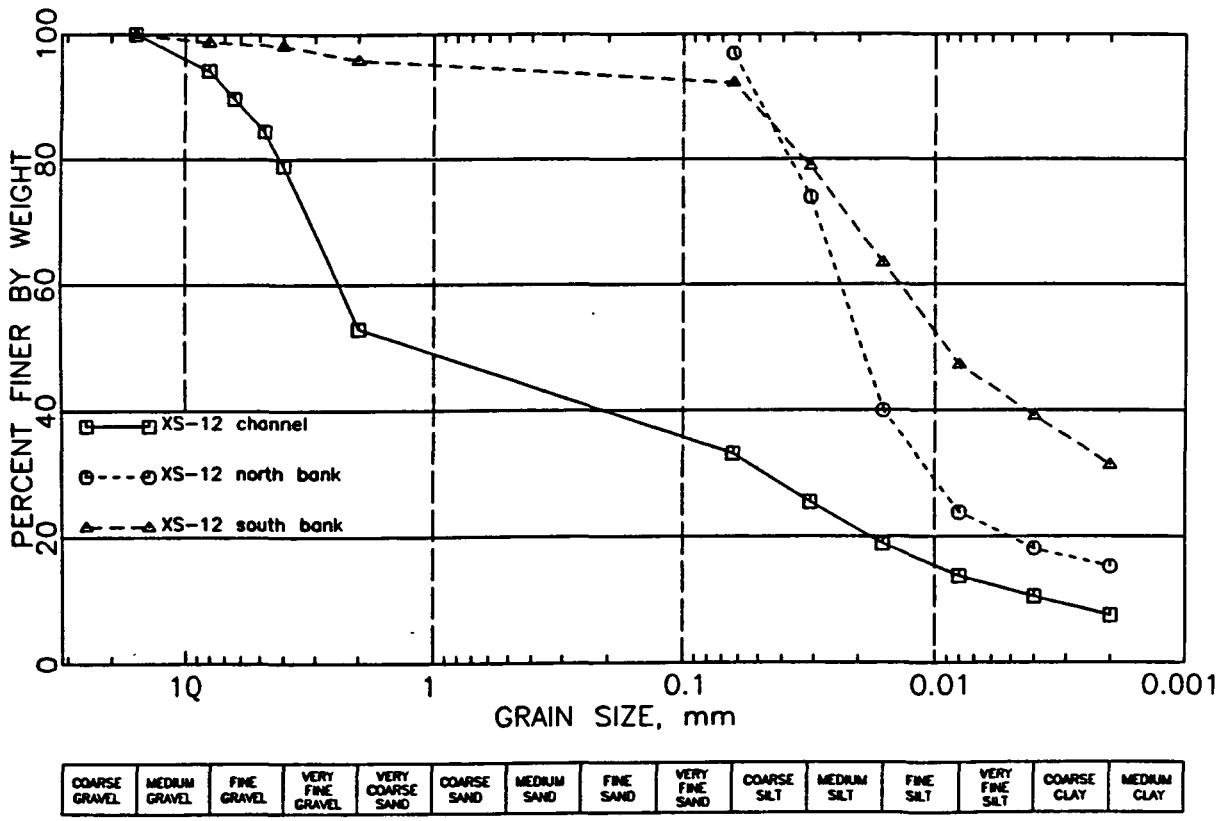


Figure H-10. Cumulative size frequencies of streambed and bank materials for cross section 12 In the Upper Cache River

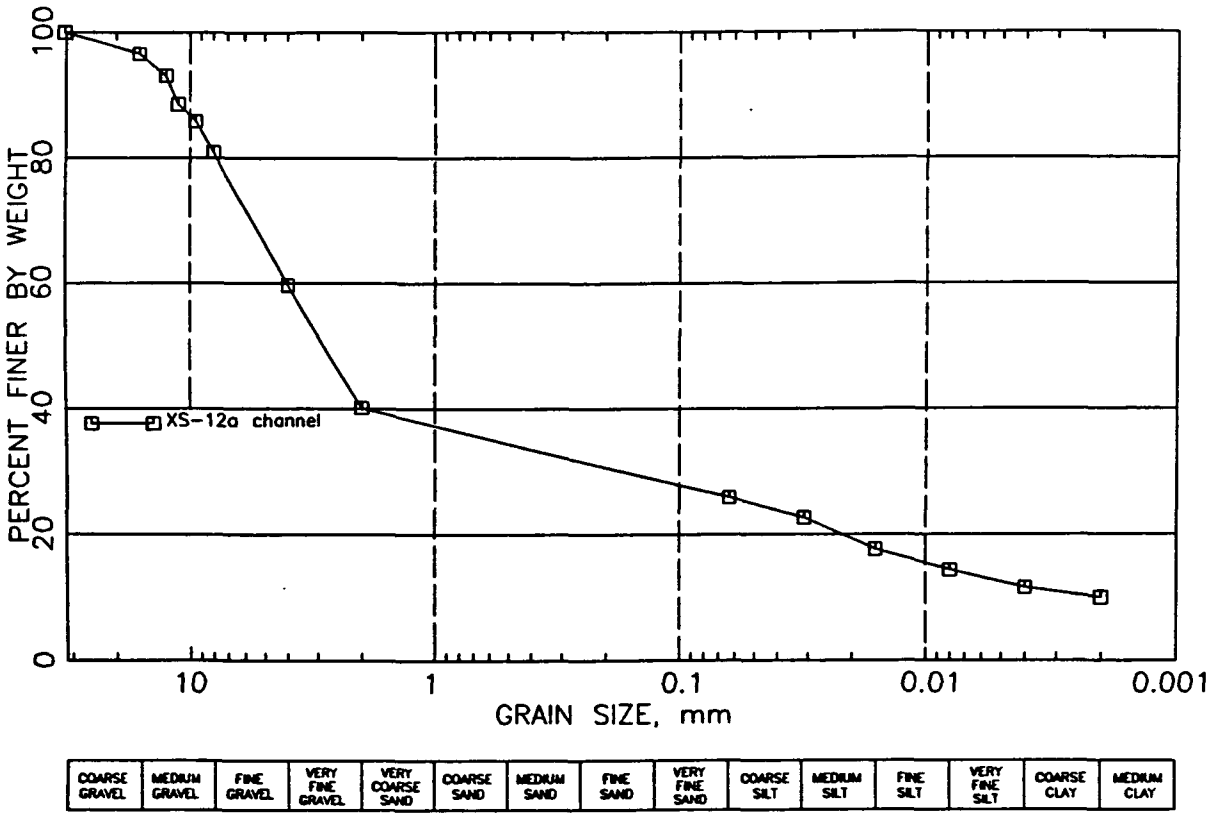


Figure H-11. Cumulative size frequencies of streambed and bank materials for cross section 12a In the Upper Cache River

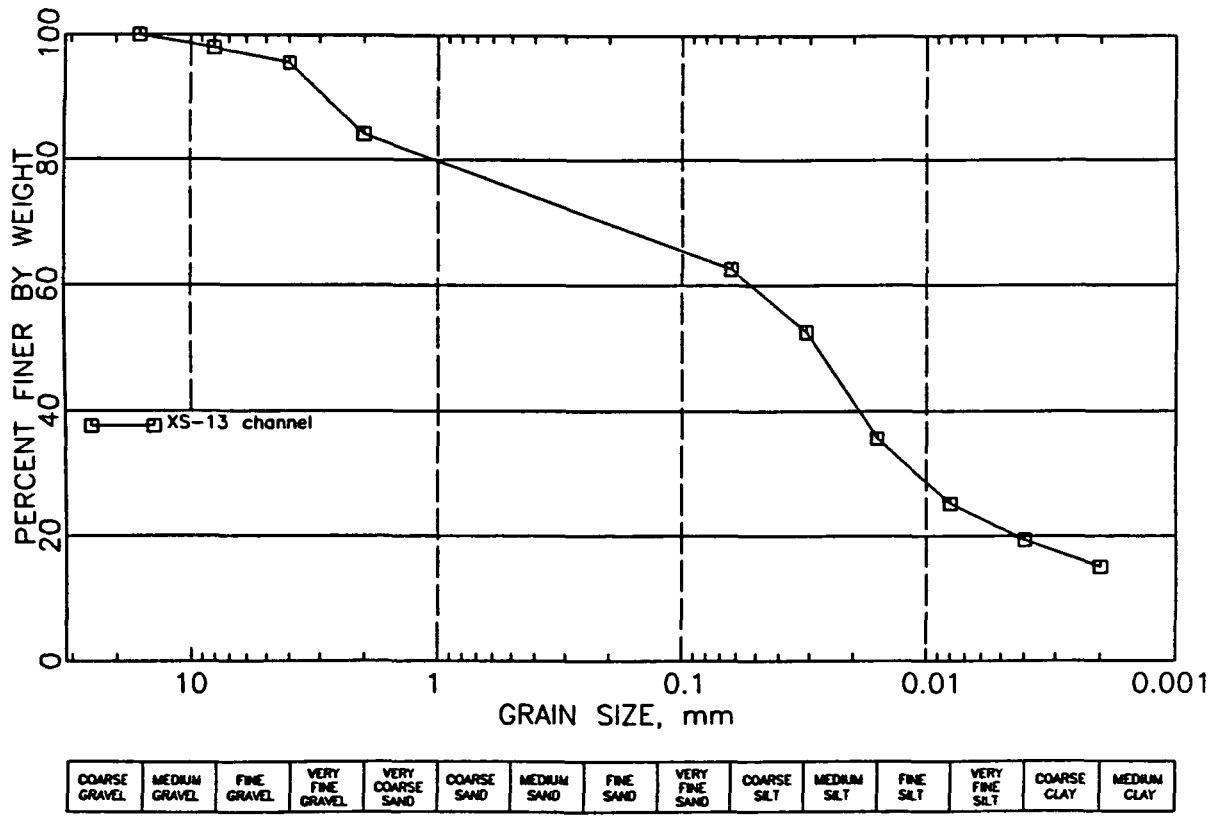


Figure H-12. Cumulative size frequencies of streambed and bank materials for cross section 13 In the Upper Cache River

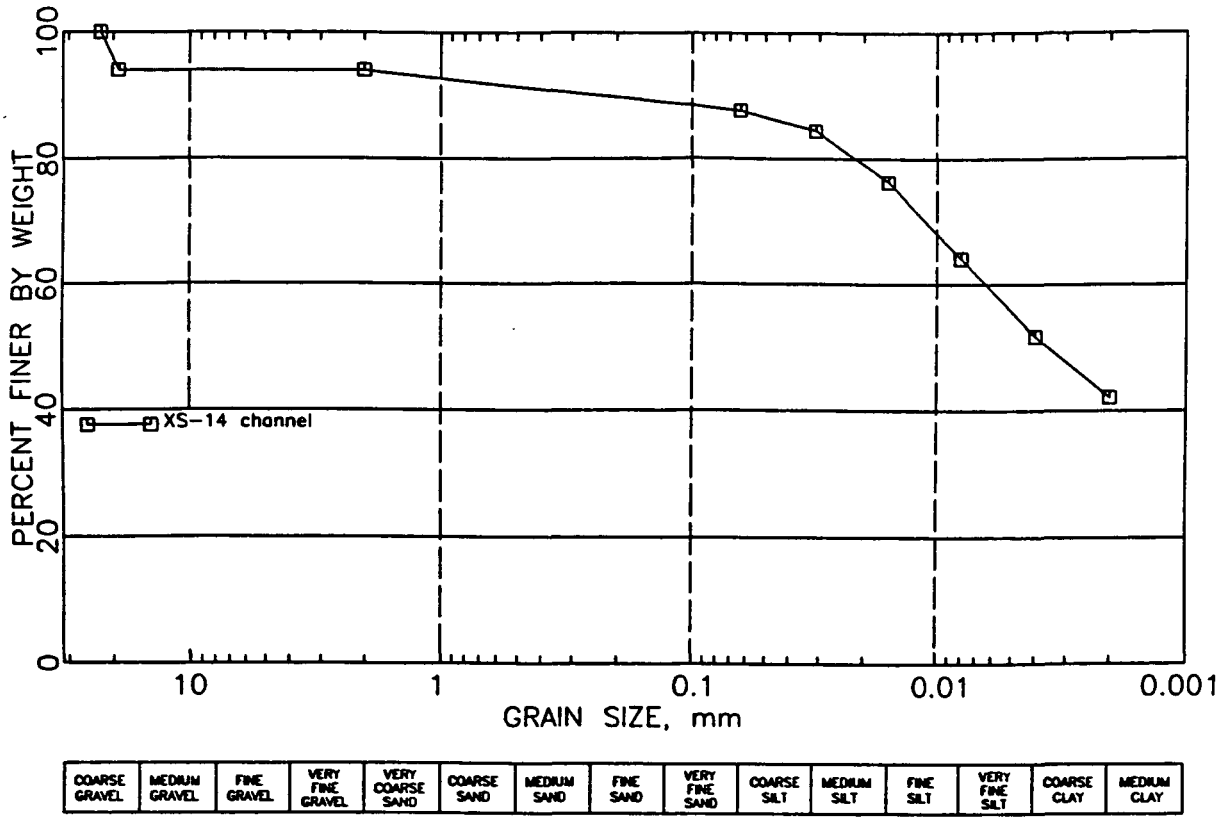


Figure H-13. Cumulative size frequencies of streambed and bank materials for cross section 14 in the Upper Cache River

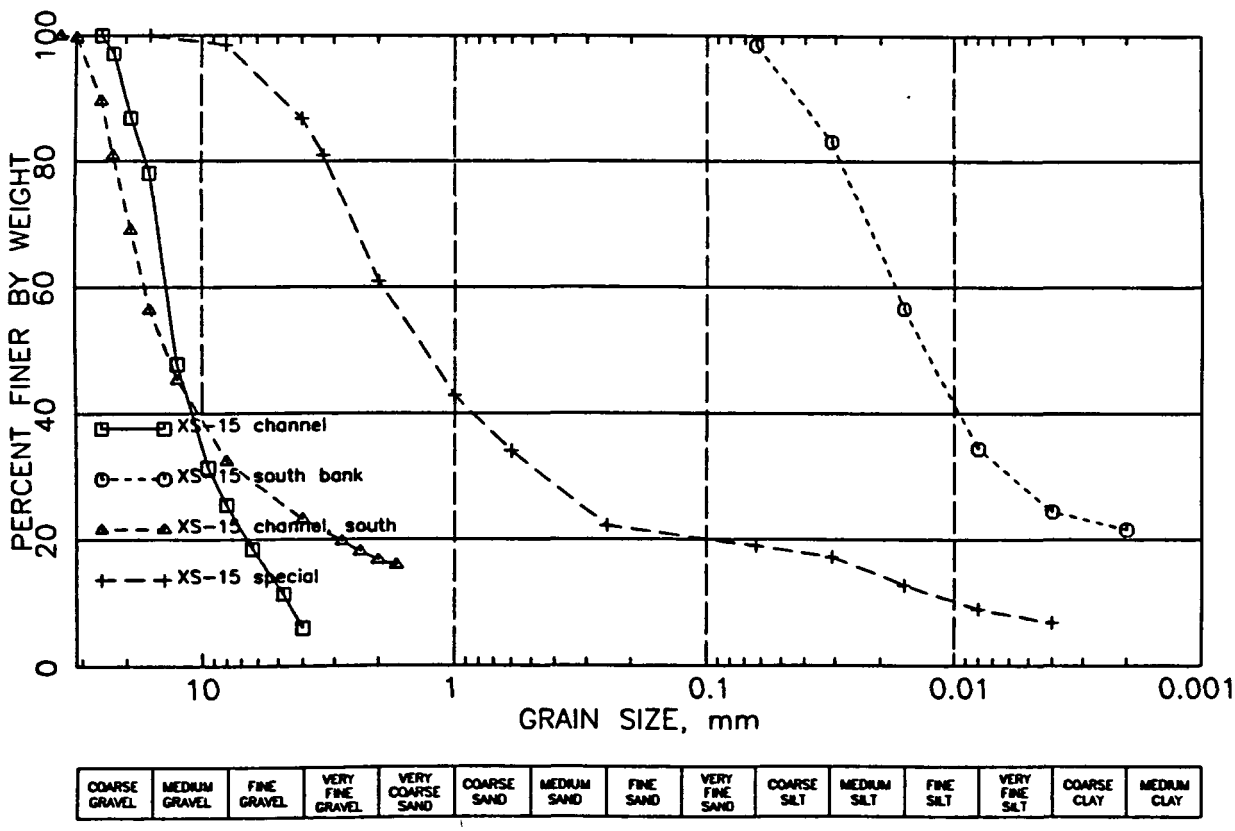


Figure H-14. Cumulative size frequencies of streambed and bank materials for cross section 15 in the Upper Cache River

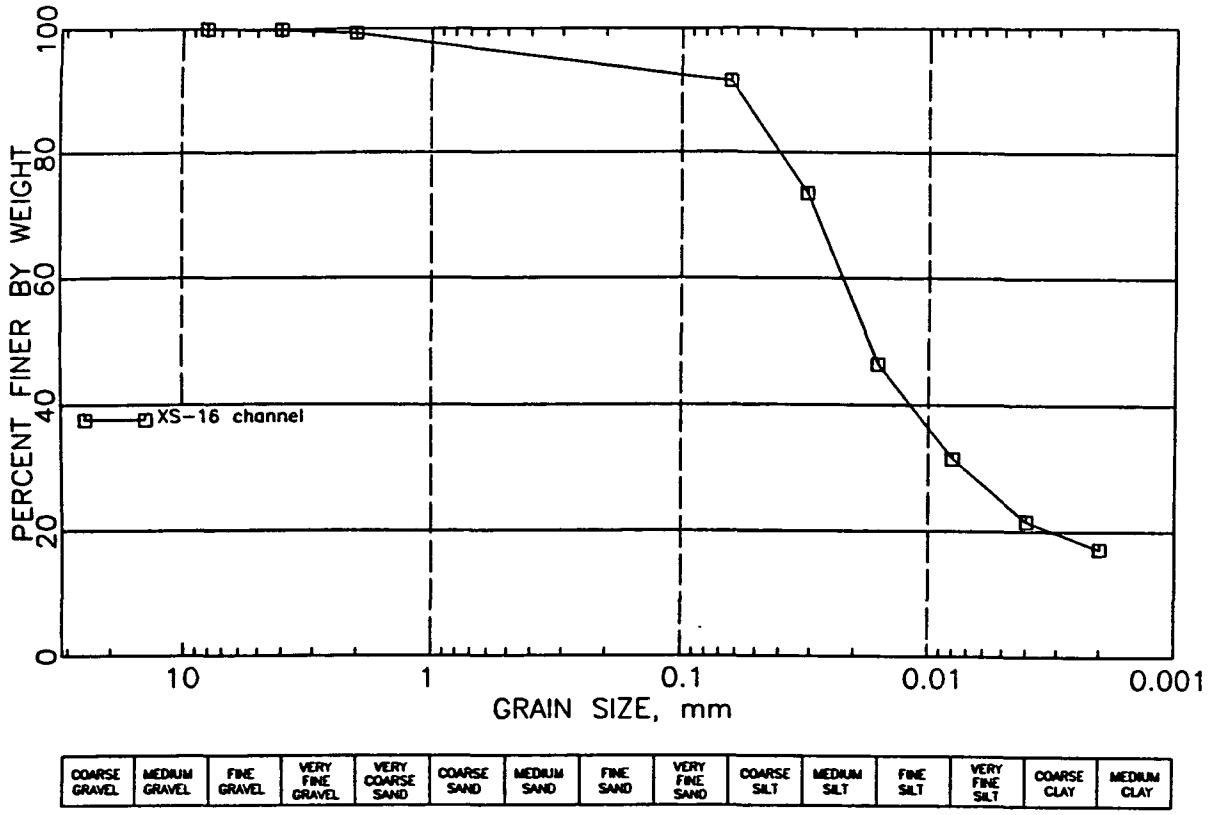


Figure H-15. Cumulative size frequencies of streambed and bank materials for cross section 16 in the Upper Cache River

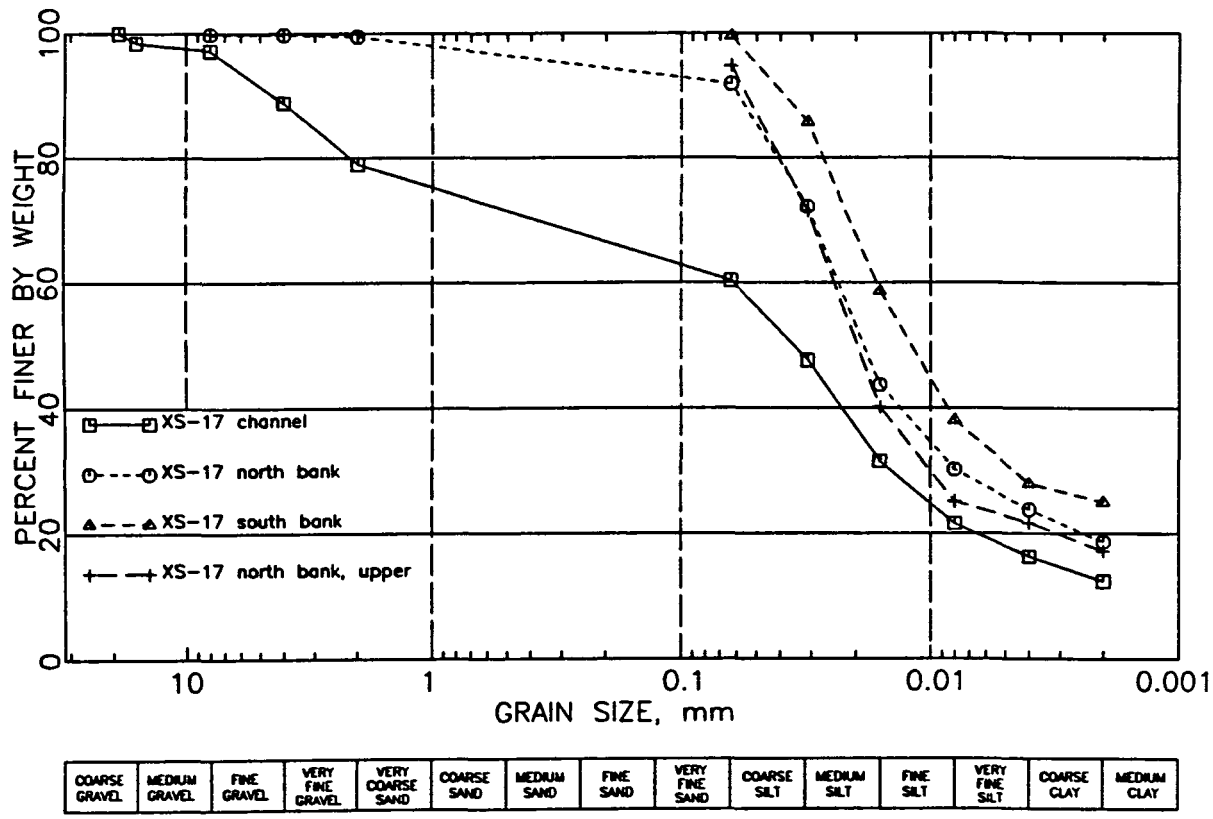


Figure H-16. Cumulative size frequencies of streambed and bank materials for cross section 17 in the Upper Cache River

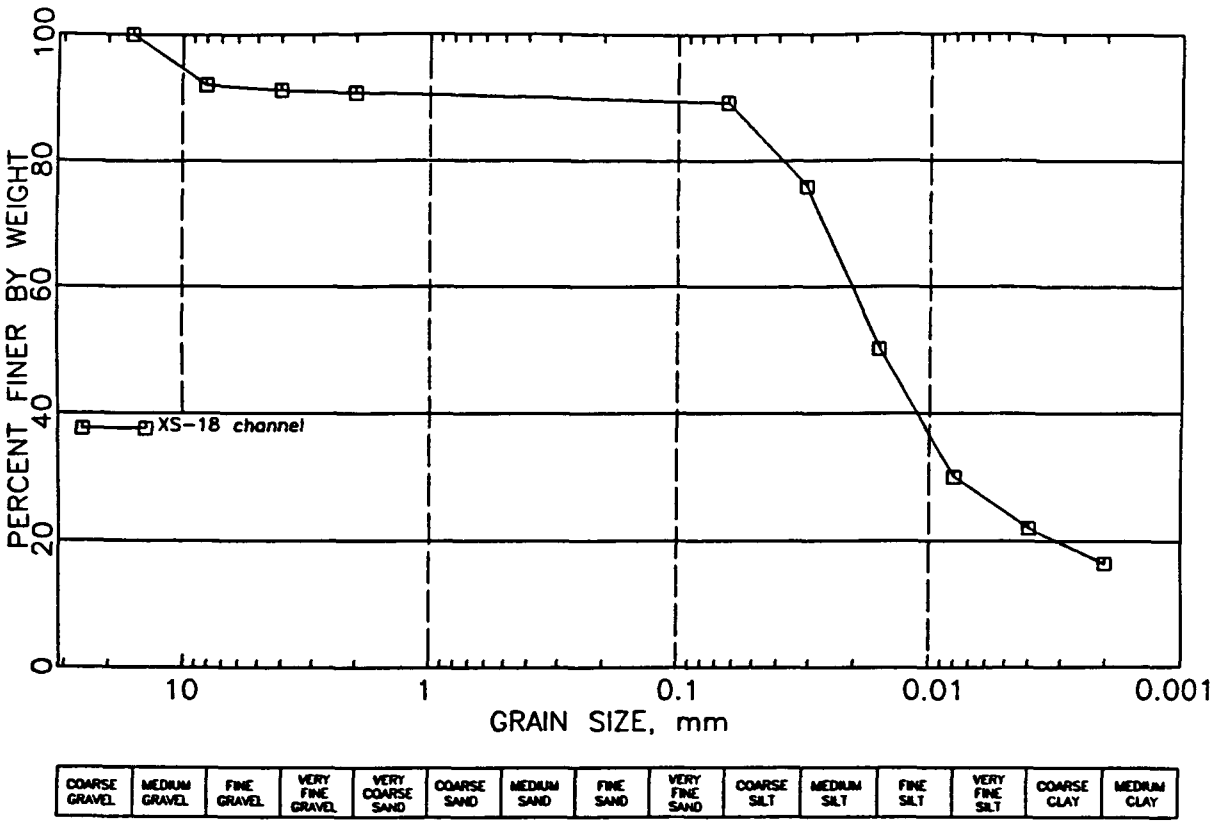


Figure H-17. Cumulative size frequencies of streambed and bank materials for cross section 18 in the Upper Cache River

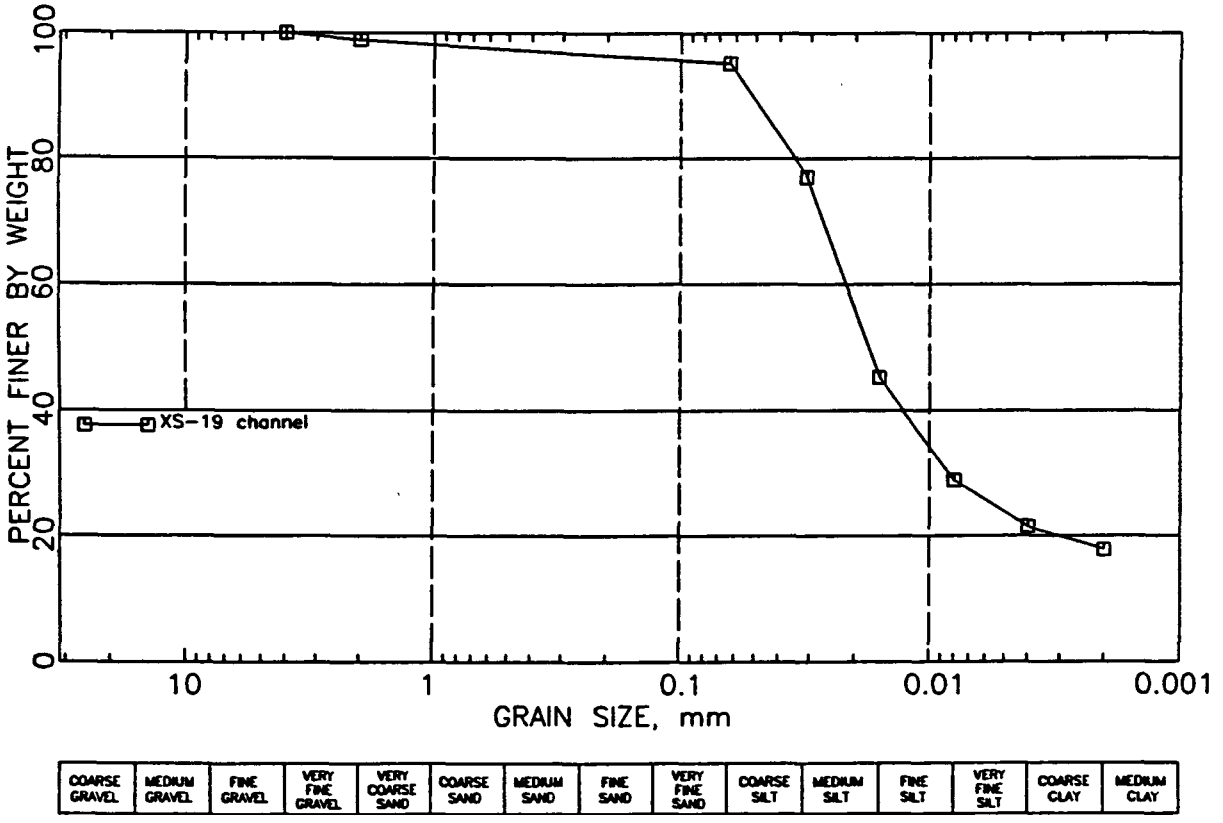


Figure H-18. Cumulative size frequencies of streambed and bank materials for cross section 19 in the Upper Cache River

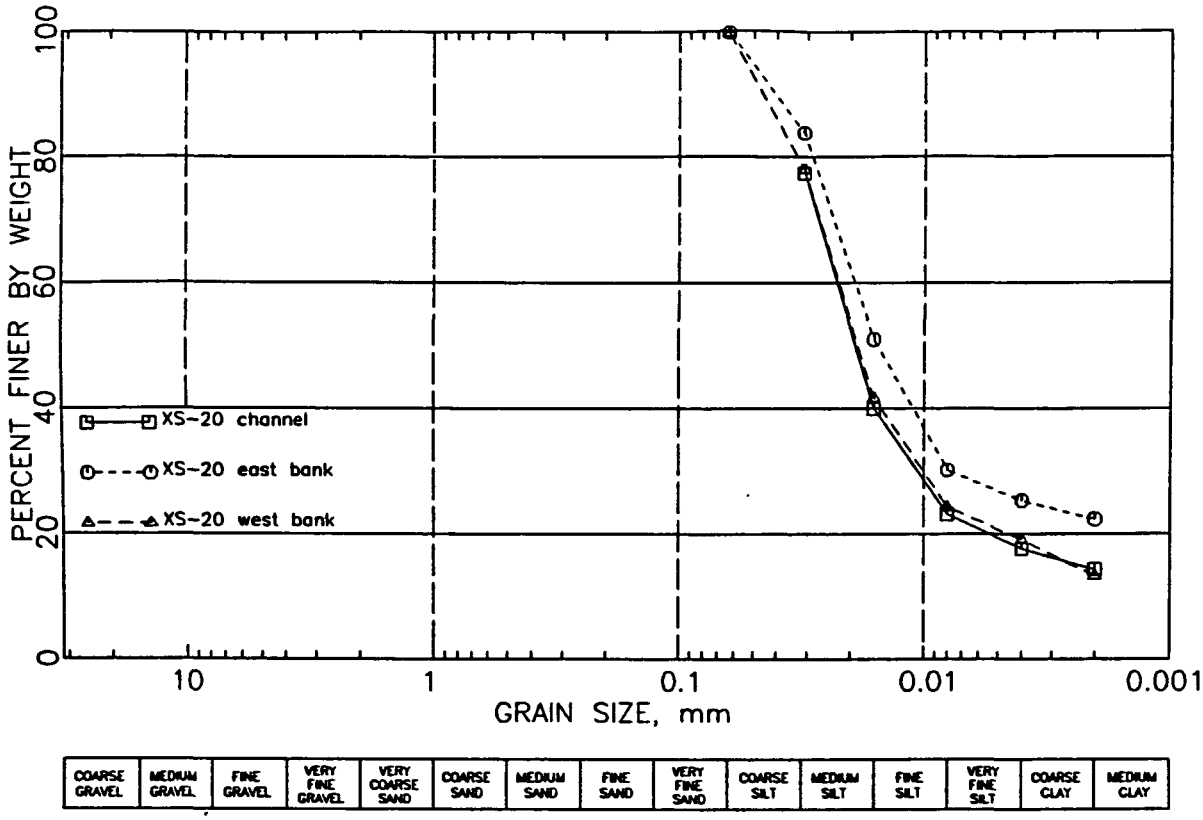


Figure H-19. Cumulative size frequencies of streambed and bank materials for cross section 20 In the Upper Cache River

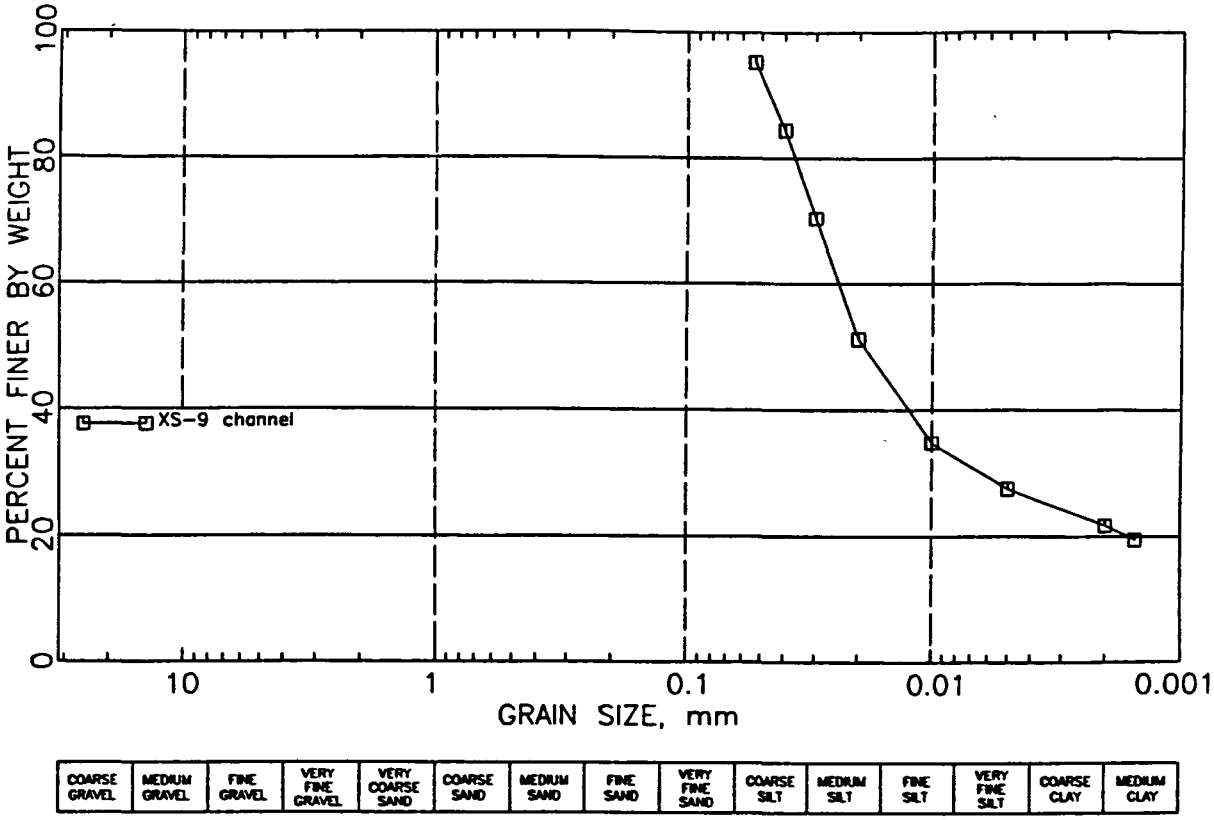


Figure H-20. Cumulative size frequencies of streambed and bank materials for cross section 9 in the Lower Cache River

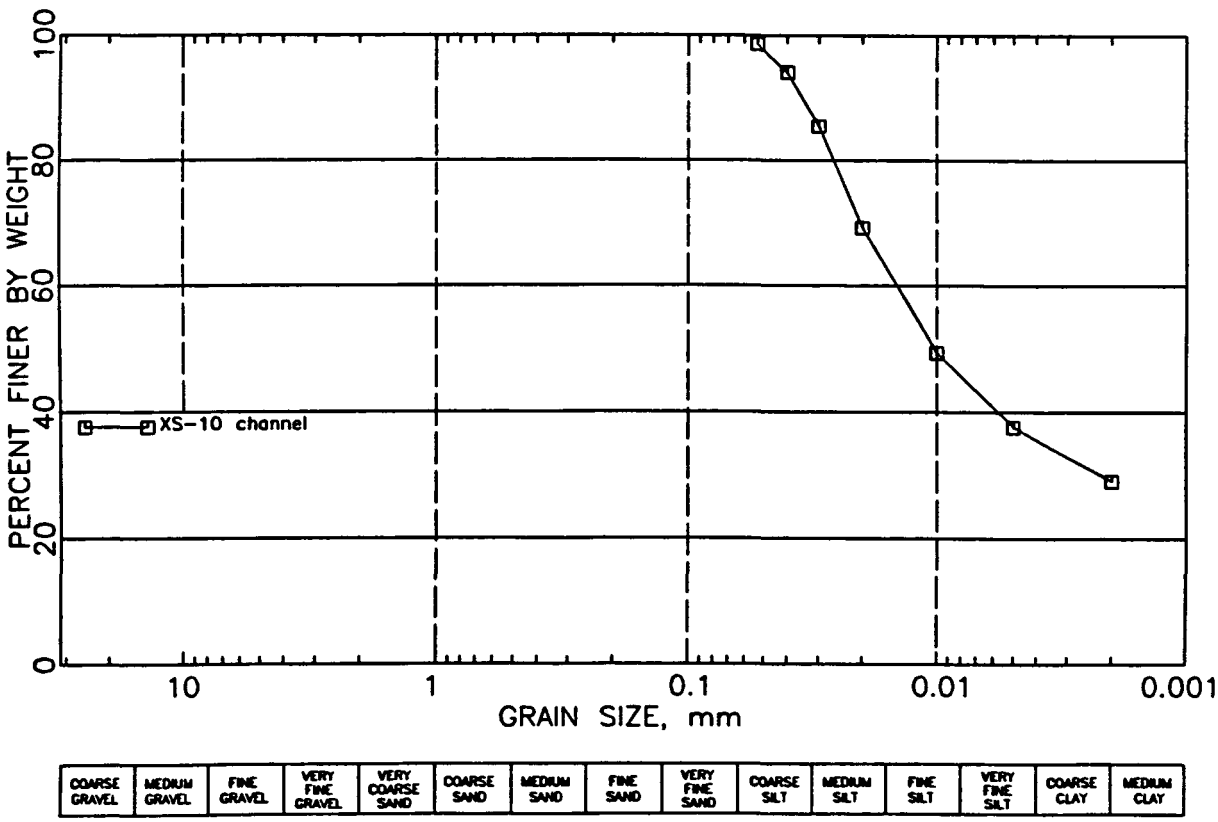


Figure H-21. Cumulative size frequencies of streambed and bank materials for cross section 10 in the Lower Cache River

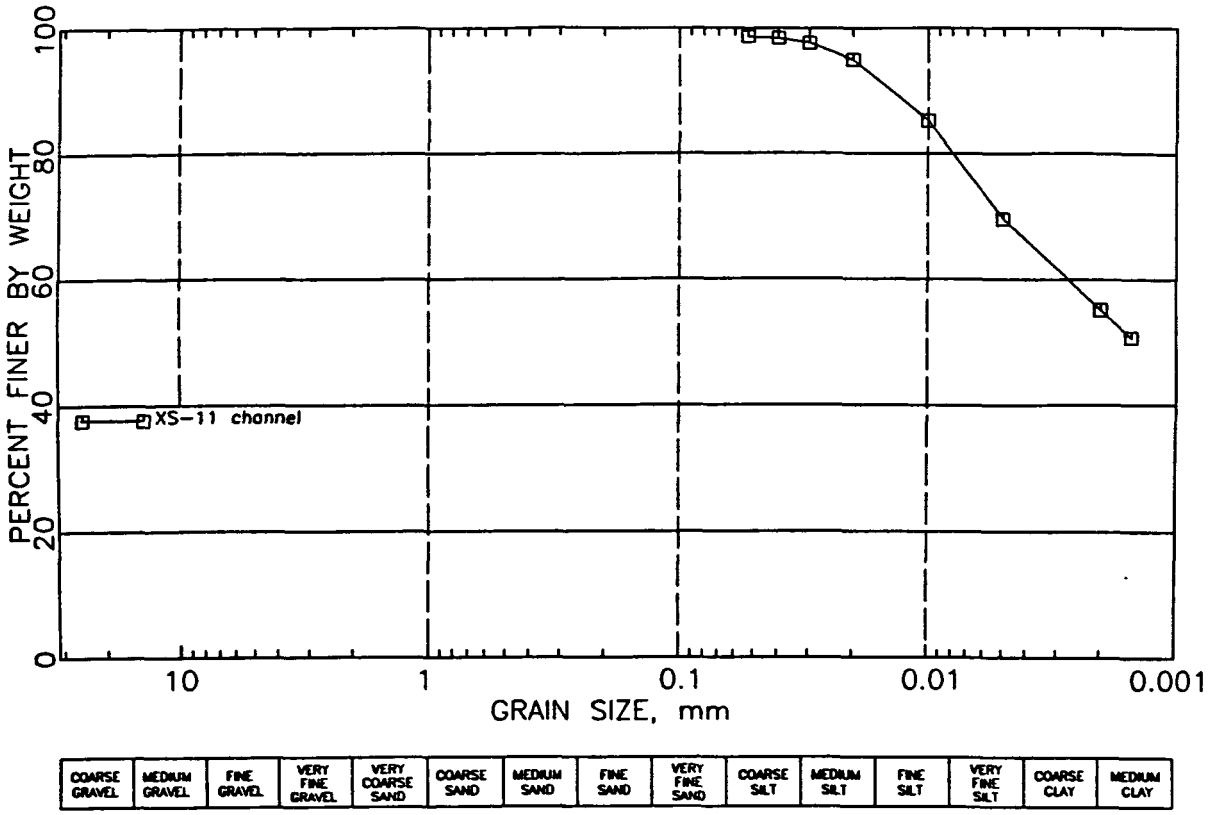


Figure H-22. Cumulative size frequencies of streambed and bank materials for cross section 11 in the Lower Cache River

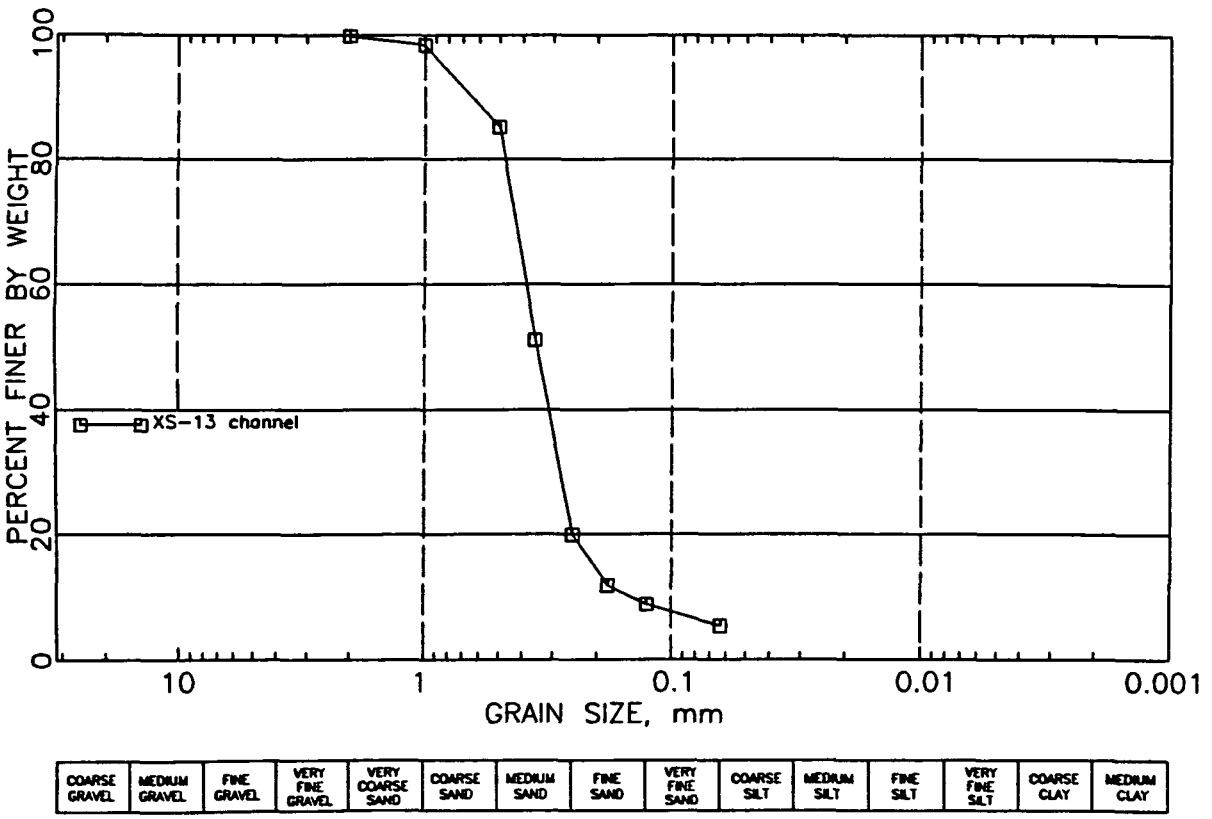


Figure H-23. Cumulative size frequencies of streambed and bank materials for cross section 13 in the Lower Cache River

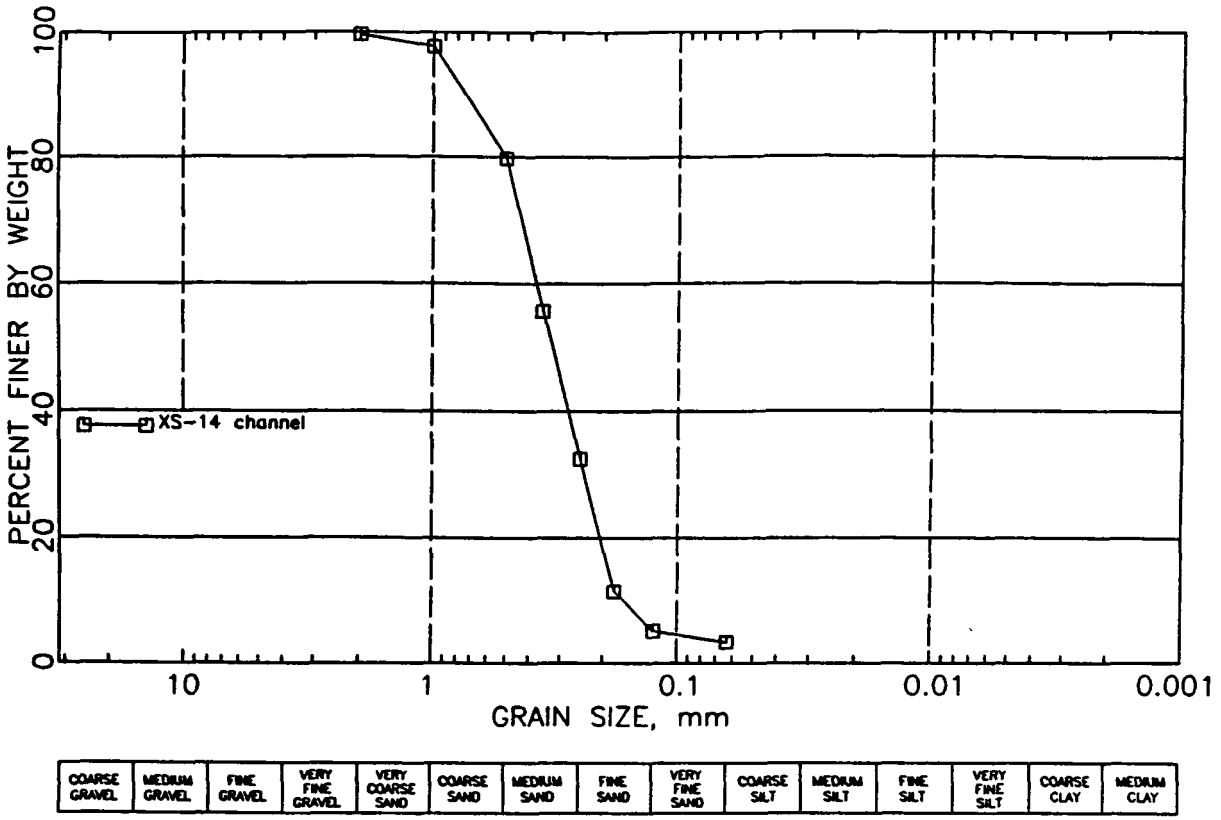


Figure H-24. Cumulative size frequencies of streambed and bank materials **for** cross section 14 In the Lower Cache River

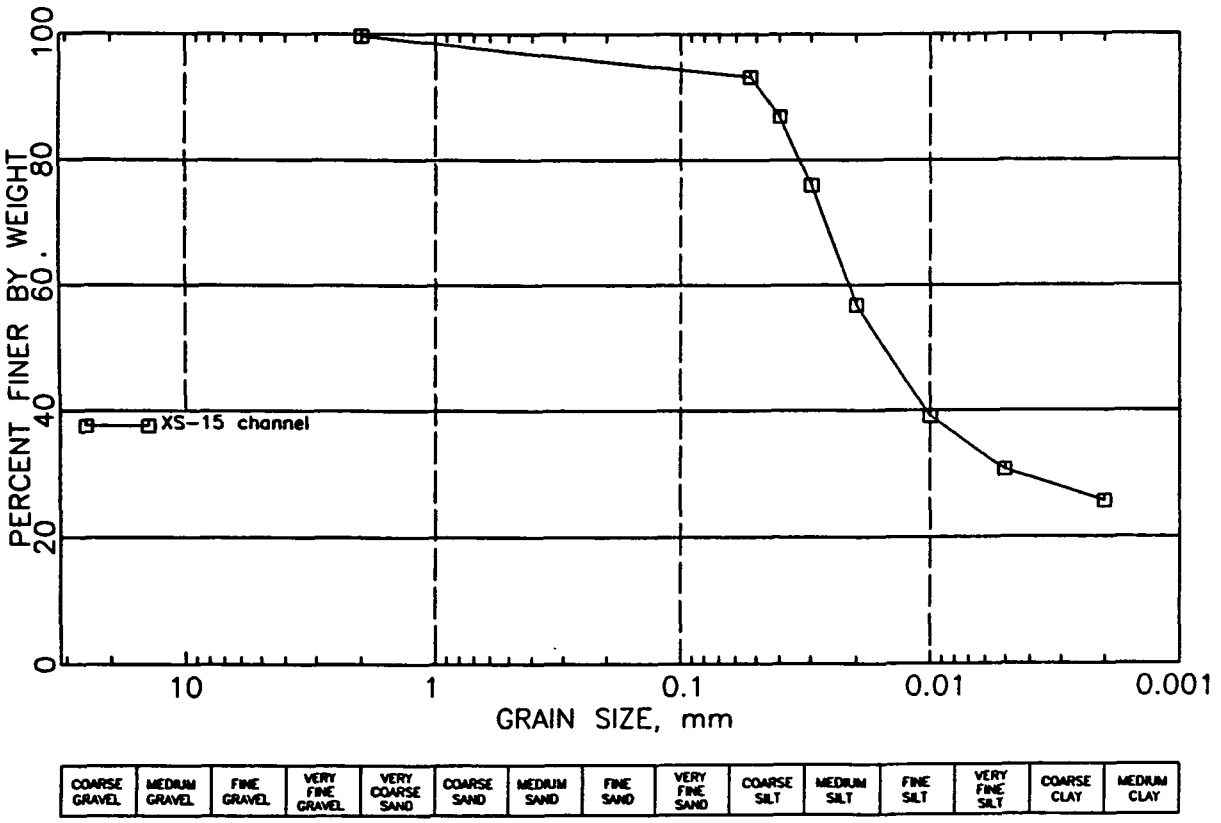


Figure H-25. Cumulative size frequencies of streambed and bank materials **for** cross section 15 in the Lower Cache River

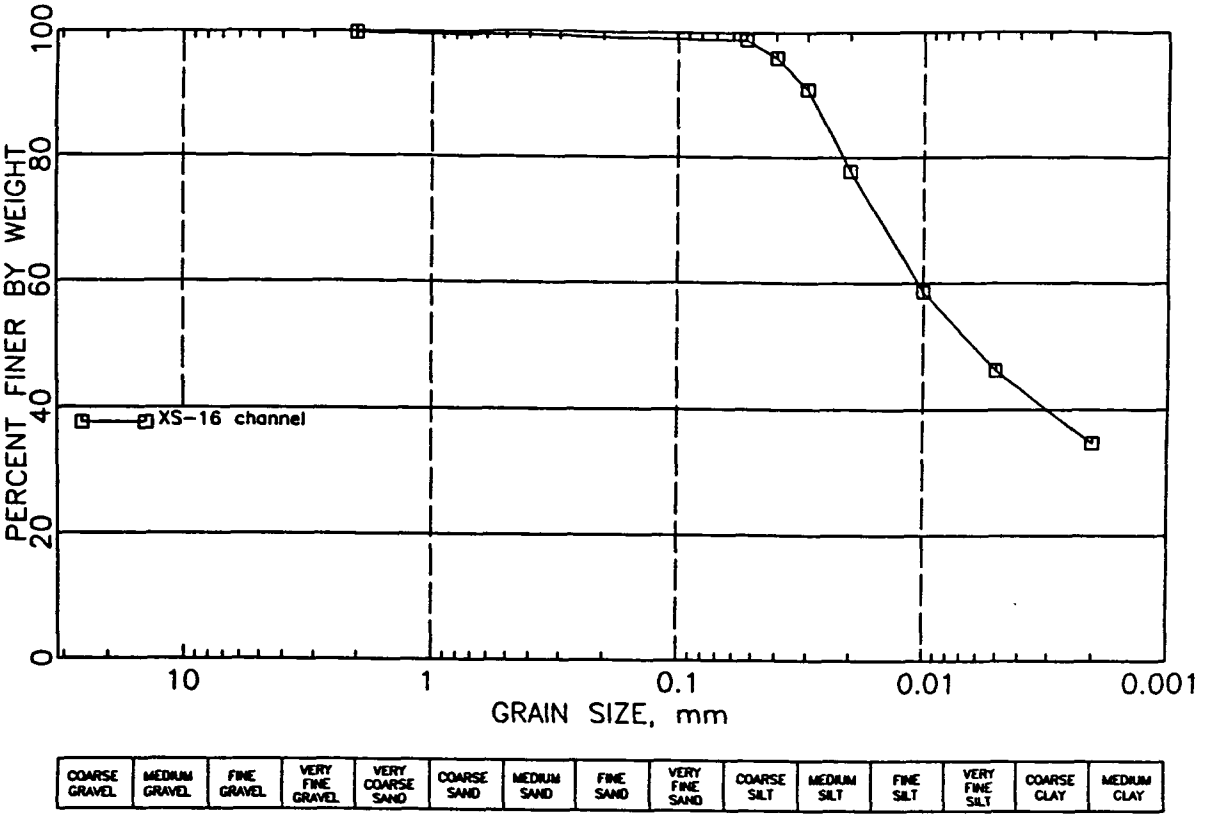


Figure H-26. Cumulative size frequencies of streambed and bank materials for cross section 16 in the Lower Cache River

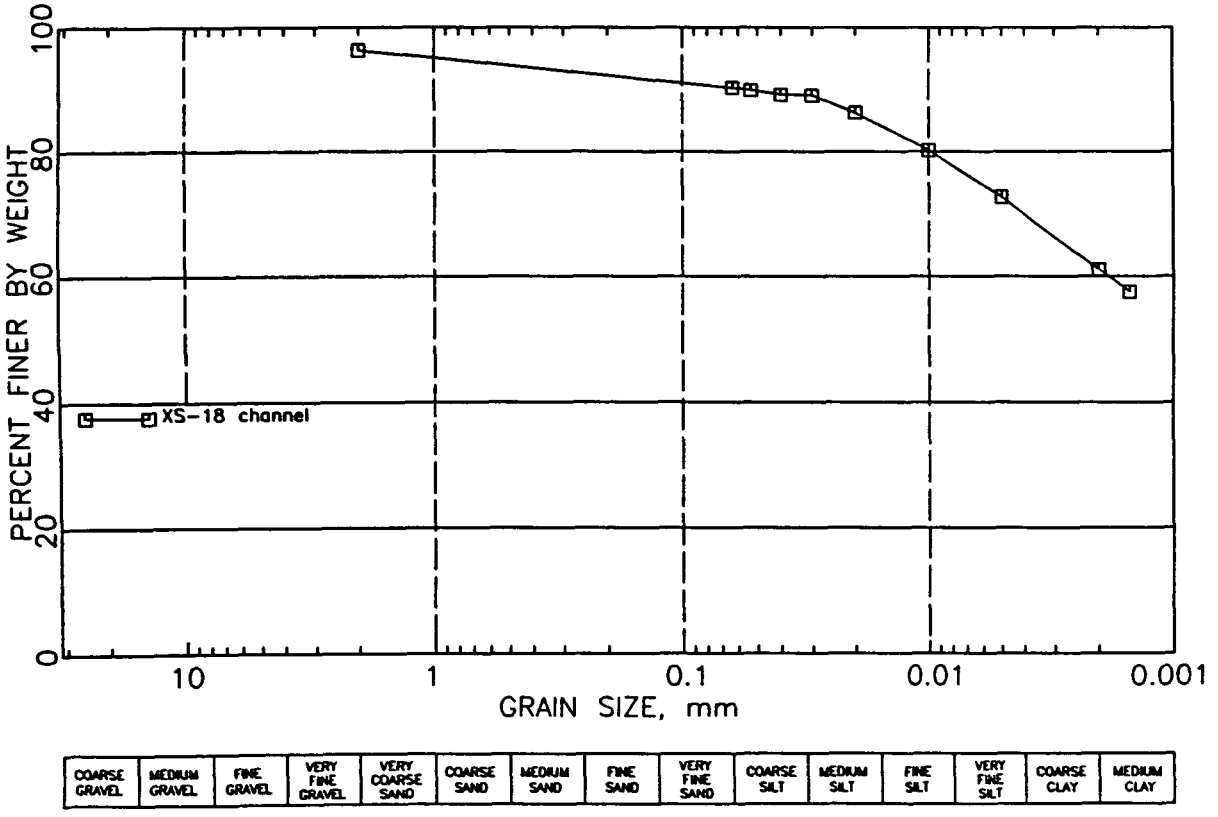


Figure H-27. Cumulative size frequencies of streambed and bank materials for cross section 18 in the Lower Cache River

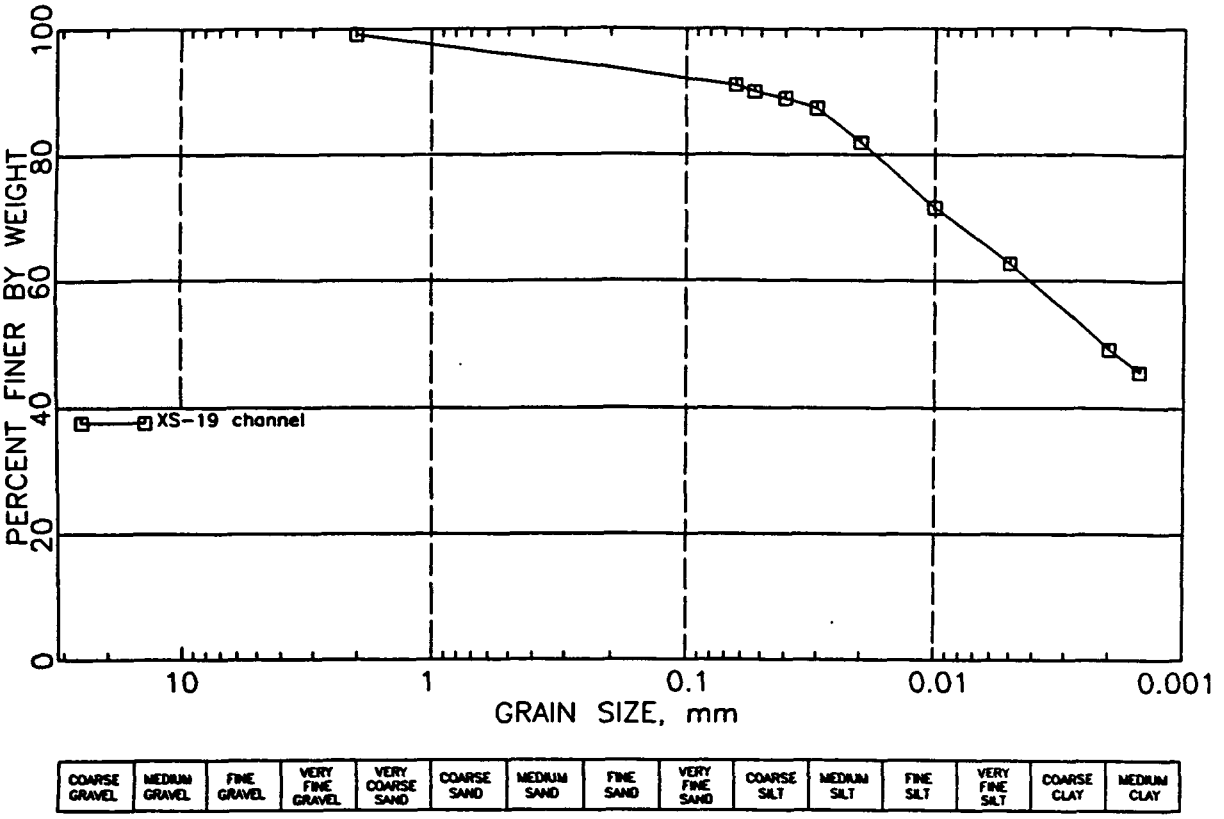


Figure H-28. Cumulative size frequencies of streambed and bank materials for cross section 19 in the Lower Cache River

APPENDIX I.

MONTHLY WATER QUALITY DATA FOR THE CACHE RIVER AT FORMAN AND AT SANDUSKY

Nomenclature

NTU: nephelometric turbidity - an empirical measure of turbidity based on a measurement of light scattering characteristics (Tyndall effect) of the particulate matter in the sample

mHOS: electrical conductivity; the reciprocal of the resistance in ohms measured between two opposite faces of a centimeter cube of an aqueous solution at a specified temperature

mg: milligrams

mg/1: milligrams per liter

µg/1: micrograms per liter

*Data presented in this appendix are taken from USGS Water Resources Data Books for Illinois.

Appendix I-1. Monthly Water Quality Data for the Cache River at Forman
Water Year 1979

Date	Time	Specific conductance (micro-mHOS)	pH (standard (units)	Temperature (degrees C)	Turbidity (NTU)	Oxygen dissolved (mg/l)	Oxygen demand chemical (low level) (mg/l)	Coliform fecal 0.45 UM-MF (cols./ 100 ml)
10-18	1400	293	7.6	13.0	--	9.2	0	<50
11-09	1045	--	--	9.0	--	--	--	--
11-20	1400	243	7.3	10.0	--	8.4	24	450
12-14	1300	--	--	1.0	--	--	--	--
12-18	1400	210	7.3	4.0	--	11.4	41	3100
01-24	1400	123	7.0	1.5	--	12.0	59	K1700
01-31	1115	--	--	1.0	--	--	--	--
02-21	1300	222	8.3	2.0	--	13.0	37	K800
03-02	1300	--	--	3.5	--	--	--	--
03-13	1400	152	7.5	9.0	--	11.3	14	K40
03-14	1225	--	--	7.0	--	--	--	--
04-02	1400	93	7.0	13.5	--	7.5	30	2000
05-02	1200	--	--	16.0	--	--	--	--
05-21	1300	307	7.6	19.5	--	--	20	--
05-21	1400	309	7.6	19.5	--	9.5	24	300
06-14	1135	--	--	23.5	--	--	--	--
06-19	1400	288	7.9	25.0	--	7.1	53	50
07-18	1300	259	7.7	25.5	--	7.1	13	K120
08-15	1300	215	7.6	20.5	--	10.7	23	K700
09-17	1300	262	7.7	20.0	--	8.0	255	300

Appendix I-1. Concluded

Date	Calcium total recov-erable (mg/l as Ca)	Magnesium total recov-erable (mg/1 as Na)	Sodium total recov-erable (mg/l as Na)	Potassium total recov-erable (mg/l as K)	Solids residue at 105 degrees C suspended (mg/l)	Solids volatile suspended (mg/l)	Nitrogen NO_2+NO_3 total (mg/l as N)	Nitrogen ammonia total (mg/l as N)	Ammonia un-ionized (mg/l as N)
10-18	--	--	--	--	7	0	.10	.00	--
11-20	--	--	--	--	65	4	.60	.05	--
12-18	--	--	--	--	26	3	.90	.05	--
01-24	--	--	--	--	340	20	.60	.20	--
02-21	--	--	--	--	300	41	1.1	.40	--
03-13	--	--	--	--	47	2	.50	.10	--
04-02	--	--	--	--	46	6	.20	.00	--
05-21	--	--	--	--	120	21	.70	.10	--
05-21	--	--	--	--	90	12	.80	.10	--
06-19	--	--	--	--	75	7	.40	.05	--
07-18	--	--	--	--	60	8	.70	.00	--
08-15	--	--	--	--	95	--	.60	.10	--
09-17	--	--	--	--	33	6	.30	.00	--

K Results based on colony count outside the acceptable range (non-ideal colony count).

Appendix I-2. Monthly Water Quality Data for the Cache River at Sandusky
Water Year 1979

Date	Time	Specific conductance (micro-mHOS)	pH (standard (units)	Temperature (decrees C)	Turbidity (NTU)	Oxygen dissolved (mg/l	Oxygen demand chemical (low level) (mg/l)	Conform fcc&l 0.45 UM-MF (cols./ 100 ml)
10-17	1000	482	7.7	9.0	--	6.8	30	540
11-13	0900	458	7.1	16.5	--	5.5	41	K700
12-13	1000	144	7.1	5.0	--	8.9	0	K600
01-03	0900	129	7.4	-10.0	--	12.0	81	1500
02-14	0900	333	8.3	4.0	--	10.7	150	K620
05-21	0900	245	7.6	16.5	--	--	24	--
05-21	1000	248	7.5	18.0	--	7.1	20	K990
06-11	0900	362	7.7	20.0	--	--	18	K6300
07-05	0900	434	7.6	23.5	--	6.5	115	K920
08-01	0900	393	7.6	25.5	--		0	--
09-12	1000	465	7.5	25.0	--	8.6	5	570

Date	Calcium total recoverable (mg/l as Ca)	Magnesium total recoverable (mg/l as Na)	Sodium total recoverable (mg/l as Na)	Potassium total recoverable! (mg/l as K)	Solids residue at 105 degrees C suspended (mg/l)	Solids volatile suspended (mg/l	Nitrogen NO_2+NO_3 total (mg/l as N)	Nitrogen ammonia total (mg/l as N)	Ammonia un-ionized (mg/l as N)
10-17	--	--	--	--	23	4	.00	.10	--
11-13	--	--	--	--	23	2	.00	.05	--
12-13	--	--	--	--	55	3	.60	.10	--
01-03	--	--	--	--	63	8	.60	.05	--
02-14	--	--	--	--	27	7	1.0	.20	--
05-21	--	--	--	--	190	16	.50	.15	--
05-21	--	--	--	--	175	20	.40	.15	--
06-11	--	--	--	--	165	52	.60	.20	--
07-05	--	--	--	--	80	16	.50	.10	--
08-01	--	--	--	--	120	15	.30	.20	--
09-12	--	--	--	--	31	5	.20	.10	--

K Results based on colony count outside the acceptable range (non-ideal colony count).

Appendix I-2. Concluded

Date	Phosphorus total (mg/l as P)	Phosphorus dissolved (mg/l as P)	Aluminum total recoverable (ug/1) as Al)	Barium total recoverable (ug/1) as Ba)	Beryllium total recoverable (Ug/1) as Be)	Boron total recoverable (ug/1) as B)	Cadmium total recoverable (ug/1) as Cd)	Chromium total recoverable (mg/l) as Cr)	Cobalt total recoverable (ug/1) as Co)	Copper total recoverable (ug/1) as Cu)
10-17	--	--	--	--	--	--	--	--	--	0
11-13	--	--	--	--	--	--	--	--	--	0
12-13	--	--	--	--	--	--	--	--	--	0
01-03	--	--	--	--	--	--	--	--	--	10
02-14	--	--	--	--	--	--	--	--	--	0
05-21	--	--	--	--	--	--	--	--	--	0
05-21	--	--	--	--	--	--	--	--	--	0
06-11	--	--	--	--	--	--	--	--	--	10
07-05	--	--	--	--	--	--	--	--	--	0
08-01	--	--	--	--	--	--	--	--	--	0
09-12	--	--	--	--	--	--	--	--	--	0

Date	Iron total recoverable (µg/l as Fe)	Lead total recoverable (µg/l as Pb)	Manganese total recoverable (µg/l as Mn)	Mercury total recoverable (µg/l as Hg)	Nickel total recoverable (µg/l as Ni)	Silver total recoverable (µg/l as Ag)	Strontium total recoverable (µg/l as Sr)	Vanadium total (µg/l as V)	Zinc total recoverable (µg/l as Zn)
10-17	--	30	--	.0	--	--	--	--	--
11-13	--	30	--	.0	--	--	--	--	--
12-13	--	0	--	.0	--	--	--	--	--
01-03	--	0	--	.0	--	--	--	--	--
02-14	--	0	--	.0	--	--	--	--	--
05-21	3800	0	890	.0	--	--	--	--	0
05-21	3500	0	850	.0	--	--	--	--	0
06-11	4300	0	1000	.0	--	--	--	--	0
07-05	2400	0	830	.0	--	--	--	--	0
08-01	2800	0	660	.0	--	--	--	--	0
09-12	1500	0	640	.0	--	--	--	--	0

Appendix I-3. Monthly Water Quality Data for the Cache River at Forman
Water Year 1980

Date	Time	Specific conductance (micro-mHOS)	pH (standard (units)	Temperature (decrees C)	Turbidity (NTU)	Oxygen dissolved (mg/l	Oxygen demand chemical (low level) (mg/l)	Coliform fecal 0.45 UM-MF (cols/ 100 ml)
10-24	1300	471	7.6	14.0	--	5.0	16	K70
10-24	1400	463	7.6	14.0	--	4.0	49	K20
11-14	1830	--	--	6.0	--	--	--	--
11-19	1300	252	7.6	10.0	--	6.5	160	K170
12-06	1300	188	7.1	5.0	--	9.4	23	K170
12-11	1455	--	--	6.0	--	--	--	--
01-03	1200	237	7.2	4.0	--	11.5	29	K200
02-05	1200	380	7.6	.0	--	13.0	7	K60
02-07	1135	--	--	.5	--	--	--	--
03-10	1300	270	7.2	8.0	--	12.3	16	510
03-10	1530	--	--	17.0	--	--	--	--
04-09	1400	227	7.3	14.0	--	8.5	51	2400
04-09	1500	228	7.4	14.0	--	8.5	47	2900
05-13	1300	362	7.6	19.0	--	7.8	16	K200
06-02	1430	--	--	21.5	--	--	--	--
06-12	1300	370	7.7	21.0	--	6.9	17	K50
07-07	1300	206	7.4	27.0	--	5.1	30	1350
07-14	1115	--	--	26.0	--	--	--	--
07-28	1300	202	7.4	23.5	--	5.3	45	8400
08-18	1245	--	--	27.5	--	--	--	--
09-10	1200	255	7.6	25.0	--	2.5	20	K100

Appendix I-3. Continued

Date	Calcium total recov-erable (mg/l as Ca)	Magnesium total recov-erable (mg/l as Mg)	Sodium total recov-erable (mg/l as Na)	Potassium total recov-erable (mg/l as K)	Solids residue at 105 degrees C suspended (mg/l)	Solids volatile suspended (mg/l)	Nitrogen NO_2+NO_3 total (mg/l as N)	Nitrogen ammonia total (mg/l as N)	Ammonia un-ionized (mg/l as N)
10-24	--	--	--	--	37	10	.00	.00	--
10-24	--	--	--	--	28	7	.00	.10	--
11-19	--	--	--	--	15	1	.30	.00	--
12-06	--	--	--	--	25	6	.30	.05	--
01-03	--	--	--	--	11	2	.50	.05	--
02-05	39	7.7	15	2.7	9	1	.90	.10	--
03-10	--	--	10	2.4	60	9	.60	.15	--
04-09	26	5.0	8.0	2.4	90	9	.50	.20	--
04-09	26	5.0	8.0	2.4	90	10	.50	.20	--
05-13	41	8.0	14	2.6	34	11	.30	.00	--
06-12	41	7.7	13	3.5	70	12	.40	.00	--
07-07	24	5.0	6.0	4.4	150	11	.90	.10	--
07-28	24	5.3	6.0	5.1	450	45	.60	.10	--
09-10	23	5.2	14	2.2	60	7	.10	.00	--

K Results based on colony count outside the acceptable range (non-ideal colony count).

Appendix I-3. Continued

Date	Phosphorus total (me/l as P)	Phosphorus dissolved (ms/l as P)	Aluminum total recov-erable (µg/1) as Al)	Barium total recov-erable (µg/1) as Ba)	Beryllium total recov-erable (µg/1) as Be)	Boron total recov-erable (µg/1) as B)	Cadmium total recov-erable (µg/1) as Cd)	Chromium total recov-erable (µg/1) as Cr)	Cobalt total recov-erable (µg/1) as Co)	Copper total recov-erable (µg/1) as Cu
10-24	--	--	--	--	--	--	0	--	--	0
10-24	--	--	--	--	--	--	0	--	--	0
11-19	--	--	--	--	--	--	0	--	--	0
12-06	--	--	--	--	--	--	0	--	--	0
01-03	--	--	--	50	--	20	0	0	--	0
02-05	--	--	--	50	0	20	0	0	<5	0
03-10	--	--	--	60	0	20	0	0	<5	0
04-09	--	--	--	70	0	30	0	0	<5	10
04-09	--	--	--	70	0	30	0	0	<5	10
05-13	--	--	--	80	0	30	0	0	<5	0
06-12	--	--	--	100	0	50	0	10	6	10
07-07	--	--	--	120	<1	50	0	0	<10	10
07-28	--	--	--	200	<1	0	0	0	12	10
09-10	--	--	--	60	<1	50	0	0	<10	0

Appendix I-3. Concluded

Date	Iron total recoverable (µg/l as Fe)	Lead total recoverable (µg/l as Pb)	Manganese total recoverable (µg/l as Mn)	Mercury total recoverable (mg/l as Hg)	Nickel total recoverable (µg/l as Ni)	Silver total recoverable (µg/l as Ag)	Strontium total recoverable (µg/l as Sr)	Vanadium total (µg/l as V)	Zinc total recoverable (µg/l as Zn)
10-24	--	--	--	--	--	--	--	--	--
10-24	--	--	--	--	--	--	--	--	--
11-19	--	--	--	--	--	--	--	--	--
12-06	--	--	--	--	--	--	--	--	--
01-03	1400	0	120	--	0	0	--	--	0
02-05	700	0	160	--	0	0	160	<3	0
03-10	2200	0	190	--	0	0	110	<5	0
04-09	2900	0	300	--	0	0	110	<5	10
04-09	2900	0	300	--	0	0	110	<5	10
05-13	1300	0	410	--	0	--	200	<5	0
06-12	2000	0	740	--	10	0	180	8.0	10
07-07	8800	0	650	--	10	0	120	25	20
07-28	13000	0	1200	--	0	0	120		
09-10	1600	0	350	--	0	0	110	<10	10

Appendix I-4. Monthly Water Quality Data for the Cache River at Sandusky
Water Year 1980

Date	Time	Specific conductance (micro-mHOS)	pH (standard units)	Temperature (degrees C)	Turbidity (NTU)	Oxygen dissolved (mg/l)	Oxygen demand chemical (low level) (me/l)	Coliform fecal 0.45 UM-MF (cols./ 100 ml)
10-15	0900	494	7.5	13.0	--	7.8	0	130
10-15	1000	497	7.6	13.0	--	7.6	18	K170
11-15	0900	318	7.6	6.5	--	8.0	140	K750
12-13	1400	190	7.3	5.0	--	10.4	48	K8600
12-27	0900	198	7.2	6.0	--	8.5	27	K300
01-14	0900	195	7.1	5.0	--	10.0	41	350
02-05	0900	390	7.7	1.5	--	12.5	22	K900
03-05	0900	305	7.4	5.0	--	12.5	11	480
04-01	0900	160	7.2	10.0	--	11.2	33	K13000
04-01	1000	162	7.3	10.0	--	10.5	33	K15000
05-20	0900	383	7.5	19.0	--	8.4	17	550
06-10	0900	440	--	19.5	--	8.0	13	820
07-09	0900	468	7.6	24.0	--	4.5	15	220
07-22	0900	520	7.6	22.0	--	5.4	20	490
09-11	0900	490	7.6	18.0	--	5.3	10	K800

Appendix I-4. Continued

Date	Calcium total recov-erable (mg/l as Ca)	Magnesium total recov-erable (mg/l as Na)	Sodium total recov-erable (mg/l as Na)	Potassium total recov-erable (mg/l as K)	Solids residue at 105 degrees C suspended (mg/l)	Solids volatile suspended (mg/l)	Nitrogen NO_2+NO_3 total (mg/l as N)	Nitrogen ammonia total (mg/l as N)	Ammonia un-ionized (mg/l as N)
10-15	--	--	--	--	48	5	.10	.25	--
10-15	--	--	--	--	28	4	.10	.30	--
11-15	--	--	--	--	45	1	.50	.20	--
12-13	--	--	--	--	75	6	.80	.10	--
12-27	--	--	--	--	100	11	.70	.10	--
01-14	--	--	--	--	70	4	.70	.20	--
02-05	45	10	9.0	2.5	21	3	.60	.15	--
03-05	35	7.7	7.8	2.2	50	10	.70	.20	--
04-01	20	4.0	4.0	2.2	120	16	.60	.15	--
04-01	20	4.0	4.0	2.2	110	15	.50	.10	--
05-20	51	11	9.0	2.1	95	10	.50	.20	--
06-10	54	13	8.0	2.0	75	9	.20	.10	--
07-09	62	16	9.0	2.3	85	6	.20	.20	--
07-22	65	19	10	2.0	46	6	.20	.10	--
09-11	63	18	9.0	2.4	37	2	.10	.20	--

K Results based on colony count outside the acceptable range (non-ideal colony count).

Appendix I-4. Continued

Date	Phosphorus total (pie/l as P)	Phosphorus dissolved (mg/l as P)	Aluminum total recov-erable (µg/l) as Al)	Barium total recov-erable (µg/l) as Ba)	Beryllium total recov-erable (µg/l) as Be)	Boron total recov-erable (µg/l) as B)	Cadmium total recov-erable (µg/l) as Cd)	Chromium total recov-erable (µg/l) as Cr)	Cobalt total recov-erable (µg/l) as Co)	Copper total recov-erable (µg/l as Cu
10-15	--	--	--	--	--	--	--	--	--	0
11-15	--	--	--	--	--	--	--	--	--	20
12-13	--	--	--	--	--	--	--	--	--	10
12-27	--	--	--	--	--	--	--	--	--	0
01-14	--	--	--	90	--	30	0	0	--	9
02-05	--	--	--	70	0	20	0	0	<5	0
03-05	--	--	--	70	0	40	0	0	<5	0
04-01	--	--	--	90	0	20	0	0	<3	0
04-01	--	--	--	90	0	20	0	0	<3	0
05-20	--	--	--	110	0	30	0	0	<3	0
06-10	--	--	--	120	0	40	0	10	<5	10
07-09	--	--	--	150	<1	40	0	0	<10	0
07-22	--	--	--	140	<1	30	0	0	<5	0
09-11	--	--	--	130	<1	60	0	0	<10	0

Appendix I-4. Concluded

Date	Iron total recoverable (µg/l as Fe)	Lead total recoverable (µg/l as Pb)	Manganese total recoverable (µg/l as Mn)	Mercury total recoverable (µg/l as Hg)	Nickel total recoverable (µg/l as Nil	Silver total recoverable (µg/l as Ag)	Strontium total recoverable (µg/l as Sr)	Vanadium total (µg/l as V)	Zinc total recoverable (µg/l as Zn)
10-15	1900	0	660	.0	--	--	--	--	0
11-15	2600	0	400	.0	--	--	--	--	10
12-13	3700	0	370	.0	--	--	--	--	30
12-27	4000	0	250	.0	--	--	--	--	0
01-14	4630	0	250	.0	0	0	--	--	10
02-05	1520	0	340	.0	0	0	150	<3.0	0
03-05	1800	0	230	.0	0	0	125	<5.0	10
04-01	4100	0	240	.0	0	0	86	<5.0	20
04-01	3960	0	240	.0	0	0	86	<4.0	13
05-20	3100	0	870	.0	0	0	170	<4.0	8
06-10	2200	0	820	.0	10	0	180	5.0	0
07-09	2700	0	940	.0	0	0	200	<10	10
07-22	1800	0	750	.0	0	0	210	<5.0	6
09-11	1600	0	580	.0	0	0	210	<10	0

Appendix I-5. Monthly Water Quality Data for the Cache River at Forman
Water Year 1981

Date	Time	Specific conductance (micro-mHOS)	pH (standard units)	Temperature (decrees C)	Turbidity (NTU)	Oxygen dissolved (mg/l)	Oxygen demand chemical (low level) (mg/l)	Coliform fecal 0.45 UM-MF (cols./ 100 ml)
10-06	1100	398	7.9	12.0	--	9.0	17	K170
10-30	1100	424	9.6	8.0	--	8.7	26	K730
12-08	1300	368	7.8	10.0	--	8.7	24	K700
12-24	1200	415	7.6	2.0	--	12.3	25	K20
01-26	1300	460	7.3	3.5	--	14.0	20	<10
02-24	1300	315	7.4	7.0	--	11.5	20	<10
04-14	1300	320	7.2	19.0	48	6.6	32	K100
04-30	0900	E650	7.3	20.5	34	5.6	24	--
05-26	1300	132	6.1	19.5	140	4.7	40	K1200
07-17	1100	170	7.1	26.0	40	5.2	26	--
08-03	1300	160	6.9	24.0	17	5.2	29	K100

Date	Calcium total recoverable (mg/l as Ca)	Magnesium total recoverable (mg/l as Na)	Sodium total recoverable (mg/l as Na)	Potassium total recoverable (mg/l as K)	Solids residue at 105 degrees C suspended (mg/l)	Solids volatile suspended (mg/l)	Nitrogen NO_2+NO_3 total (mg/l as N)	Nitrogen ammonia total (mg/l as N)	Ammonia un-ionized (mg/l as N)
10-06	40	9.0	23	5.0	11	4	.20	.000	--
10-30	42	9.0	29	7.0	26	9	.00	.000	--
12-08	40	9.0	18	7.0	26	2	.10	.000	--
12-24	44	10	22	5.4	17	7	.20	.000	--
01-26	52	12	25	6.3	160	140	.00	.000	--
02-24	34	8.0	15	4.0	24	5	1.4	.200	--
04-14	38	9.5	15	4.2	65	40	.30	.100	--
04-30	41	9.4	15	4.2	65	10	.50	.100	--
05-26	18	4.2	4.3	3.5	190	27	.50	.100	--
07-17	20	4.0	4.8	3.8	80	--	.30	.100	--
08-03	19	3.8	4.9	3.2	65	6	1.1	.070	

K Results based on colony count outside the acceptable range (non-ideal colony count).

Appendix I-5. Concluded

Date	Phosphorus total (me/l as P)	Phosphorus dissolved (mg/l as P)	Aluminum total recov-erable (µg/l) as Al)	Barium total recov-erable (µg/l) as Ba)	Beryllium total recov-erable (µg/l) as Be)	Boron total recov-erable (µg/l) as B)	Cadmium total recov-erable (µg/l) as Cd)	Chromium total recov-erable (µg/l) as Cr)	Cobalt total recov-erable (µg/l) as Co)	Copper total recov-erable (µg/l) as Cu)
10-06	--	--	--	70	70	60	0	0	<10	0
10-30	--	--	--	80	<1	90	0	10	<10	0
12-08	--	--	--	90	<1	60	0	0	<10	0
12-24	--	--	--	60	<1	50	0	0	<10	0
01-26	--	--	--	70	<1	50	0	0	<10	0
02-24	--	--	--	70	<1	20	0	0	<10	0
04-14	--	--	--	95	<1	32	<3	<5	<5	<5
04-30	--	--	--	97	<1	44	<3	<5	<5	<5
05-26	--	--	--	110	<1	29	<3	<5	6	<5
07-17	--	--	--	83	<1	37	<3	<5	<5	<5
08-03	--	--	--	74	<1	33	<3	<5	<5	<5

Date	Iron total recov-erable (µg/l as Fe)	Lead total recov-erable (µg/l as Pb)	Manganese total recov-erable (µg/l as Mn)	Mercury total recov-erable: (µg/l as Hg)	Nickel total recov-erable (µg/l as Ni)	Silver total recov-erable (µg/l as Ag)	Strontium total recov-erable (µg/l as Sr)	Vanadium total (µg/l as V)	Zinc total recov-erable (µg/l as Zn)
10-06	410	0	190	–	0	0	200	<10	0
10-30	1200	0	780	--	10	0	250	<10	0
12-08	1200	0	210	--	0	0	250	<10	0
12-24	660	0	130	--	0	0	240	<10	0
01-26	780	0	310	--	0	0	280	<10	0
02-24	1900	0	1800	--	0	0	160	<10	10
04-14	3100	<50	630	--	<5	<3	196	<5.0	9
04-30	1900	<50	790	--	5	<3	201	<5.0	15
05-26	7200	<50	410	--	10	<3	85	13	10
07-17	3275	<50	511	--	8	<3	93	5.0	13
08-03	3228	<50	454	--	<5	<3	94	<5.0	7

Appendix I-6. Monthly Water Quality Data for the Cache River at Sandusky
Water Year 1981

Date	Time	Specific conductance (micro-mHOS)'	pH (standard (units)	Temperature (degrees C)	Turbidity (NTU)	Oxygen dissolved (mg/l)	Oxygen demand chemical (low level) (mg/l)	Coliform fccal 0.45 UM-MF (cols./ 100 ml)
10-09	0900	224	7.4	17.0	--	4.1	7	340
12-02	0900	450	7.5	10.5	--	7.7	12	3300
12-30	0900	512	7.6	6.0	--	7.5	8	K100
01-21	0900	488	7.5	7.0	--	7.4	7	440
02-25	0900	380	7.4	8.0	--	9.5	16	K700
03-25	0900	414	7.1	10.0	--	7.9	14	K640
05-21	0900	163	6.9	15.0	--	5.5	33	21000
06-24	0900	172	7.2	24.0	--	4.0	31	K130
07-21	0900	136	7.2	24.0	--	5.4	84	22000
08-13	0900	363	7.6	22.0	--	--	17	K1600
09-24	0900	500	7.3	15.0	--	6.6	9	240

Date	Calcium total recoverable (mg/1 as Ca)	Magnesium total recoverable (mg/l as Na)	Sodium total recoverable (mg/l as Na)	Potassium total recoverable (mg/l as K)	Solids residue at 105 degrees C suspended (mg/l)	Solids volatile suspended (mg/l)	Nitrogen NO_2+NO_3 total (mg/l as N)	Nitrogen ammonia total (mg/l as N)	Ammonia un-ionized (mg/l as N)
10-09	72	22	10	2.0	10	7	.00	.200	--
12-02	67	17	12	3.0	41	4	.20	.200	--
12-30	67	19	11	1.6	47	12	.00	.100	
01-21	72	20	13	2.2	90	10	.00	.100	
02-25	54	13	11	2.6	40	11	.50	.200	
03-25	57	16	12	2.4	36	6	.00	.200	
05-21	22	5.3	4.1	3.7	190	28	1.3	.100	
06-24	25	5.0	3.6	4.2	165	25	.30	.100	
07-21	28	7.7	2.7	6.0	2100	160	.68	.060	
08-13	55	12	8.2	3.6	120	25	.45	.160	
09-24	74	20	13	2.1	26	8	<.10	<.100	

K Results based on colony count outside the acceptable range (non-ideal colony count).

Appendix I-6. Concluded

Date	Phosphorus total (me/l as P)	Phosphorus dissolved (me/l as P)	Aluminum total recov-erable (µg/l) as Al)	Barium total recov-erable (µg/l) as Ba)	Beryllium total recov-erable (µg/l) as Be	Boron total recov-erable (µg/l) as B)	Cadmium total recov-erable (µg/l) as Cd)	Chromium total recov-erable (µg/1) as Cr)	Cobalt total recov-erable (µg/1) as Co)	Copper total recov-erable (µg/1) as Cu)
10-09	--	--	--	130	<1	30	0	0	<10	0
12-02	--	--	--	120	<1	20	0	0	<10	0
12-30	--	--	--	100	<1	30	0	10	<10	0
01-21	--	--	--	120	<1	20	0	0	<10	0
02-25	--	--	--	100	<1	20	0	0	<10	0
03-25	--	--	--	110	<1	33	<3	8	5	<5
05-21	--	--	--	150	<1	32	<3	5	9	11
06-24	--	--	--	120	<1	36	<3	<5	<5	5
07-21	--	--	--	506	2	23	4	<5	33	24
08-13	--	--	--	134	<1	36	<3	<5	<5	<5
09-24	--	--	--	140	<1	30	<3	<5	<5	<5

Date	Iron total recov-erable (µg/1 as Fe)	Lead total recov-erable (µg/1 as Pb)	Manganese total recov-erable (µg/1 as Mn)	Mercury total recov-erable (µg/1 as Hg)	Nickel total recov-erable (µg/1 as Ni)	Silver total recov-erable (µg/1 as Ag)	Strontium total recov-erable (µg/1 as Sr)	Vanadium total (µg/1 as V)	Zinc total recov-erable (µg/1 as Zn)
10-09	1400	0	570	--	--	--	--	--	--
12-02	1500	0	470	--	--	--	--	--	--
12-30	2100	0	420	--	--	--	--	--	--
01-21	2300	0	560	--	--	--	--	--	--
02-25	2000	0	530	--	--	--	--	--	--
03-25	2300	<50	580	--	--	--	--	--	--
05-21	12000	<50	430	--	--	--	--	--	--
06-24	5100	<50	650	--	--	--	--	--	--
07-21	42740	<50	2719	--	--	--	--	--	--
08-13	3339	<50	632	--	--	--	--	--	--
09-24	1450	<50	634	--	--	--	--	--	--

Appendix I-7. Monthly Water Quality Data for the Cache River at Forman
Water Year 1984

Date	Time	Specific conductance (micro-mHOS)	pH (standard (units)	Temperature (degrees C)	Turbidity (NTU)	Oxygen dissolved (mg/l)	Oxygen demand chemical flow level) (mg/l)	Conform fecal 0.45 UM-MF (cols./ 100 ml)
10-18	1200	291	6.9	14.5	4.3	7.8	22	450
11-17	1300	282	7.2	7.0	4.1	10.5	23	K30
01-10	1200	232	7.1	.5	5.5	13.4	20	K760
02-16	1200	155	7.4	7.5	9.0	8.5	17	210
04-16	1300	184	6.9	12.5	11	8.2	18	K110
05-24	1200	257	6.7	20.0	15	6.2	20	K90
07-12	1300	176	7.2	26.0	2.5	5.9	23	330
08-15	1200	327	7.6	25.5	23	6.9	19	<10
09-11	1200	439	7.5	21.5	73	5.4	19	K760

Date	Calcium total recoverable (mg/l as Ca)	Magnesium total recoverable (mg/l as Na)	Sodium total recoverable (mg/l as Na)	Potassium total recoverable (mg/l as K)	Solids residue at 105 degrees C suspended (mg/l)	Solids volatile suspended (mg/l)	Nitrogen NO_2+NO_3 total (mg/l as N)	Nitrogen ammonia total (mg/l as N)	Ammonia un-ionized (mg/l as N)
10-18	34	7.8	14	4.8	46	14	.68	<.100	<.001
11-17	36	7.7	10	4.5	10	2	.46	<.100	<.001
01-10	26	5.7	11	3.2	24	20	.75	.260	<.001
02-16	18	4.2	5.4	2.8	100	8	1.1	<.100	<.001
04-16	24	5.0	5.4	1.7	77	5	.41	.100	<.001
05-24	32	6.7	10	2.3	110	9	.83	<.100	<.001
07-12	20	4.5	7.0	3.9	65	56	.70	<.100	<.001
08-15	38	8.6	16	4.3	28	8	<.10	<.100	<.002
09-11	44	10	21	4.5	206	26	.11	.130	.002

K Results based on colony count outside the acceptable range (non-ideal colony count).

Appendix I-7. Concluded

Bate	Phosphorus total (me/l as P)	Phosphorus dissolved (me/l as P)	Aluminum total recov-erable (µgfl as Al	Barium total recov-erable (µg/1 as Ba)	Beryllium total recov-erable (µg/1 as Be)	Boron total recov-erablei (µgfl as B)	Cadmium total recov-erable (µg/1) as Cd)	Chromium total recov-erable (µg/1 as Cr)	Cobalt total recov-erable (µug/1 as Co)	Copper total recov-erable (µgfl as Cu)
10-18	--	--	1300	92	<1	<50	<3	<5	<5	<5
11-17	--	--	660	68	<1	<50	<3	<5	<5	<5
01-10	--	--	700	58	<2	<50	<3	<5	<5	<5
02-16	.170	.040	4000	91	<1	<50	<3	<5	<5	<5
04-16	.100	.040	700	65	<1	<50	<3	<5	<5	<5
05-24	.160	.160	1300	85	<1	<50	<3	<5	<5	<5
07-12	.170	.070	3000	84	<1	62	<3	<5	<5	<5
08-15	.100	.060	1300	100	<1	51	<3	<5	<5	<5
09-11	.190	.040	2200	100	<1	60	<3	<5	<5	<5

Date	Iron total recov-erable (µg/l) as Fe)	Lead total recov-erable (µg/l) as Pb)	Manganese total recov-erable (µg/l) as Mn)	Mercury total recov-erable (µg/1) as He)	Nickel total recov-erable (µg/l) as Ni)	Silver total recov-erable (µg/l) as Ag)	Strontium total recov-erable (µg/l) as Sr)	Vanadium total (µg/l) as V)	Zinc total recov-erable (µg/l) asZn)
10-18	1900	<50	290	--	<5	<3	260	<5	<100
11-17	1400	<50	160	--	<5	<3	240	<5	<100
01-10	1600	<50	500	--	<5	<3	130	<5	<50
02-16	4800	<50	260	--	<5	<3	86	5	<50
04-16	1500	<50	260	<.1	<5	<3	120	<5	<50
05-24	3100	<50	520	--	<5	<3	170	<5	<50
07-12	4000	<50	340	<.1	11	<3	120	6	<100
08-15	1200	<50	420	<.1	15	<3	210	<5	<50
09-11	2300	<50	860	<.1	<5	<3	240	<5	<50

Appendix I-8. Monthly Water Quality Data for the Cache River at Sandusky
Water Year 1984

Date	Time	Specific conductance (micro-mHOS)	pH (standard (units)	Temperature (degrees C)	Turbidity (NTU)	Oxygen dissolvedI (mg/l)	Oxygen demand chemical (low level) (mg/l	Coliform fecal 0.45 UM-MF (cols./ 100 ml)
11-02	1300	473	7.1	14.5	5.1	6.7	9	K750
12-07	1300	137	7.1	5.0	7.1	9.0	21	2700
01-17	1300	388	7.0	2.5	2.0	10.3	8	400
02-08	1300	324	7.5	2.5	3.9	11.5	13	K70
03-20	1300	116	6.5	8.5	90	9.6	22	3200
05-23	1200	163	6.2	19.5	9.7	8.8	12	<10
07-10	1200	397	7.4	24.0	3.3	5.2	16	2700
08-14	1200	467	7.3	20.5	7.5	5.4	11	420
09-10	1200	506	7.3	18.0	16	4.9	8	2600

Date	Calcium total recoverable (mg/l as Ca)	Magnesium total recoverable (mg/l as Na)	Sodium total recoverable (mg/l as Na)	Potassium total recoverable! (mg/l as K)	Solids residue at 105 degrees C suspended (mg/l)	Solids volatile suspended (mg/l)	Nitrogen NO_2+NO_3 total (mg/l as N)	Nitrogen mmonia total (mg/l as N)	Ammonia un-ionized (mg/l as N)
11-02	67	18	10	1.9	56	12	.24	.130	<.001
12-07	18	2.9	2.0	2.7	84	10	.74	<.100	<.001
01-17	56	12	8.7	2.2	10	1	.91	.250	<.001
02-08	44	9.9	8.6	2.1	17	3	.75	.110	<.001
03-20	18	4.4	2.9	2.3	190	10	.58	<.100	<.00l
05-23	21	4.5	3.7	1.7	5	0	.13	<.100	<.001
07-10	52	15	9.9	3.0	50	43	.82	.260	.004
08-14	65	18	12	2.3	50	6	<.10	<.100	<.001
09-10	65	19	9.3	1.9	7	6	<.10	.270	.002

K Results based on colony count outside the acceptable range (non-ideal colony count).

Appendix I-8. Concluded

Date	Phosphorus total (mg/l as P)	Phosphorus dissolved (mg/l as P)	Aluminum total recoverable (mg/l as Al)	Barium total recoverable (mg/l as Ba)	Beryllium total recoverable (mg/l as Be)	Boron total recoverable (mg/l as B)	Cadmium total recoverable (mg/l as Cd)	Chromium total recoverable (mg/l as Cr)	Cobalt total recoverable (mg/l as Co)	Copper total recoverable (mg/l as Cu)
11-02	--	.--	750	100	<1	<50	<3	5	8	<5
12-07	--	.--	3700	87	<2	<50	<3	<5	<5	6
01-17	--	.--	190	90	<1	<50	5	<5	<5	<5
02-08	.100	.030	400	81	<1	<50	3	7	<5	<5
03-20	.410	.090	6000	100	<1	<50	3	6	<5	7
05-23	.100	.060	390	57	<1	<50	<3	<5	<5	<5
07-10	.130	.040	1500	100	<1	<50	4	11	7	<5
08-14	.150	.060	880	200	<1	67	<3	10	7	<5
09-10	.120	.020	530	200	<1	<50	<3	<5	<5	<5

Dale	Iron total recoverable (µg/l as Fe)	Lead total recoverable (µg/1 as Pb)	Manganese total recoverable (µg/1 as Mn)	Mercury total recoverable (µg/1 as Hg)	Nickel total recoverable (µg/l as Ni)	Silver total recoverable (µg/l as Ag)	Strontium total recoverable (µg/l as Sr)	Vanadium total (µg/l as V)	Zinc total recoverable (µg/l as Zn)
11-02	1900	<100	540	<.l	17	<3	210	<5	<50
12-07	5300	<50	200	<.l	8	<3	81	8	<100
01-17	690	<50	540	<.l	9	<3	180	<5	<100
02-08	1400	<50	320	<.l	8	<3	160	<5	<50
03-20	9600	<50	370	<.l	14	<3	77	12	<50
05-23	1100	<50	520	<.l	<5	<3	95	<5	<50
07-10	2000	<100	740	<.l	15	3	200	10	<50
08-14	1900	<100	660	<.l	16	6	250	9	<50
09-10	1400	<50	730	<.l	<5	<3	250	<5	<50

Appendix I-9. Monthly Water Quality Data for the Cache River at Forman
Water Year 1982

Date	Time	Specific conductance (micro-mHOS)	pH (standard (units)	Temperature (decrees C)	Turbidity (NTU)	Oxygen dissolved (mg/l)	Oxygen demand chemical (low level) (mg/l)	Coliform fecal 0.45 UM-MF (cols./ 100 ml)
10-15	1200	350	7.5	16.0	11	6.0	14	K70
11-13	1010	--	--	10.0	--	--	--	_
11-16	0900	440	7.6	10.0	12	8.6	31	K160
12-07	1040	--	--	7.5	--	--	--	--
12-30	1300	227	6.8	1.0	33	12.5	27	K1000
01-19	1030	--	--	.0	--	--	--	--
02-08	1300	123	6.3	.0	83	9.6	26	K100
02-22	1240	--	--	8.5	--	--	--	--
03-03	1155	--	--	7.5	--	--	--	--
04-05	1200	148	6.6	12.0	160	8.0	39	2200
04-05	1255	--	--	12.5	--	--	--	_
06-07	0900	179	6.6	20.0	95	6.1	33	K60
06-08	1225	--	--	23.0	--	--	--	--
06-28	1300	271	7.0	23.0	43	--	26	K80
07-26	1300	330	6.6	26.0	35	--	25	56
09-02	1245	--	--	24.0	--	--	--	--
09-28	1300	215	6.6	17.0	20	8.5	33	--

Appendix I-9. Continued

Dale	Calcium total recov-erable (mg/l as Ca)	Magnesium total recov-erable (mg/l as Na)	Sodium total recov-erable (mg/l as Na)	Potassium total recov-erable (mg/l as K)	Solids residue at 105 degrees C suspended (mg/l)	Solids volatile suspended (mg/1)	Nitrogen NO_2+NO_3 total (mg/l as N)	Nitrogen ammonia total (mg/l as N)	Ammonia un-ionized (mg/l as N)
10-15	44	10	13	4.4	35	5	.13	<.100	--
11-13	--	--	--	--	--	--	--	--	--
11-16	44	9.8	18	6.2	27	6	<.10	.510	--
12-07	--	--	--	--	--	--	--	--	--
12-30	27	6.1	9.8	4.2	10	8	1.2	.590	--
01-19	--	--	--	--	--	--	--	--	--
02-08	17	3.8	4.9	2.7	85	24	.94	<.100	--
02-22	--	--	--	--	--	--	--	--	--
03-03	--	--	--	--	--	--	--	--	--
04-05	20	4.5	6.1	2.7	100	21	.50	.200	--
04-05	--	--	--	--	--	--	--	--	--
06-07	21	4.4	6.4	3.1	100	0	.85	.240	--
06-08	--	--	--	--	--	--	--	--	--
06-28	37	7.4	12	3.7	65	14	.41	<.100	--
07-26	24	5.5	7.3	3.3	46	13	.60	<.100	--
09-02	--	--	--	--	--	--	--	--	--
09-28	26	5.7	8.6	3.8	26	2	.18	.180	--

K Results based on colony count outside the acceptable range (non-ideal colony count).

Appendix I-9. Continued

Dale	Phosphorus total (mg/l as P)	Phosphorus dissolved (mg/l as P)	Aluminum total recov-erable (µg/l) as Al)	Barium total recov-erable (µg/l) as Ba)	Beryllium total recov-erable (µg/l) as Be)	Boron total recov-erable (µg/l) as B)	Cadmium total recov-erable (µg/l) as Cd)	Chromium total recov-erable (µg/l) as Cr)	Cobalt total recov-erable (µg/l) as Co)	Copper total recov-erable (µg/l) as Cu)
10-15	--	--	--	104	<1	44	<3	6	6	<5
11-13	--	--	--	--	--	--	--	--	--	--
11-16	--	--	--	87	<1	76	<3	<5	<5	<5
12-07	--	--	--	--	--	--	--	--	--	--
12-30	--	--	--	62	<1	26	<3	6	<5	<5
01-19	--	--	--	--	--	--	--	--	--	--
02-08	--	--	--	61	<1	14	<3	<5	<5	<5
02-22	--	--	--	--	--	--	--	--	--	--
03-03	--	--	--	--	--	--	--	--	--	--
04-05	--	--	--	100	<l	20	<3	<5	<5	10
04-05	--	--	--	--	--	--	--	--	--	--
06-07	--	--	--	100	<1	35	<3	<5	<5	<5
06-08	--	--	--	--	--	--	--	--	--	--
06-28	--	--	--	103	<1	47	<3	9	7	6
07-26	--	--	--	74	<1	30	<3	<5	<5	<5
09-02	--	--	--	--	--	--	--	--	--	--
09-28	--	--	--	68	<l	35	<3	<5	<5	<5

Appendix I-9. Concluded

Date	Iron total recoverable (µg/l as Fe)	Lead total recoverable (µg/l as Pb)	Manganese total recoverable (µg/l as Mn)	Mercury total recoverable (µg/l as He)	Nickel total recoverable (µg/l as Ni)	Silver total recoverable (µg/l as Ag)	Strontium total recoverable (µg/l as Sr)	Vanadium total (µg/l as V)	Zinc total recoverable (mg/l as Zn)
10-15	598	<50	161	--	9	5	195	<5.0	<5
11-13	--	--	--	--	--	--	--	--	--
11-16	913	<50	648	--	8	<3	239	<5.0	<5
12-07	--	--	--	--	--	--	--	--	--
12-30	1680	<50	202	--	<5	<3	122	<5.0	<200
01-19	--	--	--	--	--	--	--		
02-08	4528	<50	208	--	6	<3	77	7.0	<200
02-22	--	--	--	--	--	--	--	--	--
03-03	--	--	--	--	--	--	--	--	--
04-05	7282	<50	394	--	17	<3	87	14	<200
04-05	--	--	--	--	--	--	--	--	--
06-07	6114	<50	464	--	7	<3	111	10	<200
06-08	--	--	--	--	--	--	--	--	--
06-28	2923	<50	389	--	<5	3	178	10	<200
07-26	2676	<50	333	--	<5	<3	117	<5.0	<100
09-02	--	--	--	--	--	--	--	--	--
09-28	1836	<50	222	--	<5	<3	127	<5.0	<50

Appendix I-10. Monthly Water Quality Data for the Cache River at Sandusky
Water Year 1982

Date	Time	Specific conductance (micro-mHOS)	pH (standard (units)	Temperature (degrees C)	Turbidity (NTU)	Oxygen dissolved (mg/l)	Oxygen demand chemical (low level) (mg/l)	Coliform fecal 0.45 UM-MF (cols./ 100 ml)
10-06	0900	480	7.4	18.0	--	6.1	11	<10
11-16	1200	483	7.6	12.0	--	6.6	12	K180
01-06	0900	236	6.9	5.0	--	9.5	24	K1300
02-10	0900	109	6.3	.0	--	10.0	23	K100
03-23	0900	197	6.7	13.0	--	8.1	--	K860
06-08	0900	238	6.7	23.0	80	5.5	26	2300
07-13	0900	221	6.6	24.0	160	4.8	27	K1300
08-26	1000	171	6.6	22.0	260	4.9	50	4000

Date	Calcium total recoverable (mg/l as Ca	Magnesium total recoverable (mg/l as Na	Sodium total recoverable (mg/l as Na)	Potassium total recoverable! (mg/l as K	Solids residue at 105 degrees C suspended (mg/l)	Solids volatile suspended (mg/l)	Nitrogen NO_2+NO_3 total (mg/l as N)	Nitrogen ammonia total (mg/l as N)	Ammonia un-ionized (mg/l as N)
10-06	68	17	13	2.4	69	10	<.10	.100	--
11-16	64	16	9.0	2.1	58	8	<.10	.100	
01-06	34	7.5	7.1	3.7	70	2	.87	<.100	--
02-10	16	4.0	3.1	2.8	125	7	.99	<.100	--
03-23	27	5.2	5.3	2.7	120	23	.53	.120	--
06-08	33	6.9	6.0	3.1	110	5	1.2	.510	--
07-13	30	7.2	5.5	4.4	390	40	.56	<.100	--
08-26	24	5.8	3.4	5.7	380	20	.69	<.100	--

K Results based on colony count outside the acceptable range (non-ideal colony count).

Appendix I-10. Concluded

Date	Phosphorus total (me/l as P)	Phosphorus dissolved (me/l as P)	Aluminum total recoverable (µg/l as Al)	Barium total recoverable (µg/l as Ba)	Beryllium total recoverable (µg/l as Be)	Boron total recoverable (µg/l as B)	Cadmium total recoverable (µg/l as Cd)	Chromium total recoverable (µg/l as Cr)	Cobalt total recoverable (µg/l as Co)	Copper total recoverable (µg/l as Cu)
10-06	--	--	--	154	<1	23	<3	<5	<5	<5
11-16	--	--	--	130	<1	33	<3	<5	6	<5
01-06	--	--	--	91	<1	19	<3	<5	<5	<5
02-10	--	--	--	82	<1	<5	<3	<5	<5	<5
02-23	--	--	--	98	<1	18	<3	<5	<5	<5
06-08	--	--	--	129	<1	33	<3	<5	<5	<5
07-13	--	--	--	161	<1	42	<3	<5	6	9
08-26	--	--	--	202	<1	47	<3	8	7	13

Date	Iron total recoverable (µg/1 as Fe)	Lead total recoverable (µg/1 as Pb)	Manganese total recoverable (µg/1 as Mn)	Mercury total recoverable (µg/l as Hg)	Nickel total recoverable (µg/1 as Ni)	Silver total recoverable (µg/1 as Ag)	Strontium total recoverable (µg/1 as Sr)	Vanadium total (µg/1 as V)	Zinc total recoverable (µg/1 as Zn)
10-06	2203	<50	1005	<.1	<5	<3	104	<5.0	43
11-16	1780	<50	593	<.1	8	<3	229	<5.0	9
01-06	4010	<50	298	<.1	<5	<3	123	<5.0	<200
02-10	7208	<50	308	<.1	7	<3	67	10	<200
03-23	2660	<50	352	<.1	<5	<3	123	<5.0	<200
06-08	6446	<50	601	<.1	8	<3	131	11	<200
07-13	10190	<50	885	<.1	11	<3	115	19	263
08-26	14390	<50	997	<.1	18	<3	96	23	125

Appendix I-11. Monthly Water Quality Data for the Cache River at Forman
Water Year 1983

Date	Time	Specific conductance (micro-mHOS)	pH (standard (units)	Temperature (degrees C)	Turbidity (NTU)	Oxygen dissolved (mg/l)	Oxygen demand chemical (low level) (mg/l)	Coliform fecal 0.45 UM-MF (cols./ 100 ml)
10-06	1200	260	6.6	21.0	12	8.7	18	<10
10-13	1035	--	--	19.5	--	--	--	--
12-06	1055	--	--	13.5	--	--	--	--
12-14	1145	--	--	5.0	--	--	--	--
12-16	1200	162	6.7	4.5	53	9.8	27	K7400
01-14	1340	--	--	4.0	--	--	--	--
01-24	1400	--	8.0	1.5	40	12.1	20	K1100
02-22	1250	--	--	10.0	--	--	--	--
02-28	1300	--	7.4	6.0	2.6	11.1	10	--
02-24	1000	240	7.0	6.5	18	12.4	18	590
05-05	1000	89	6.1	16.0	27	6.5	20	--
06-16	1000	310	6.9	22.0	13	7.2	18	370
07-29	1055	--	--	26.5	--	--	--	--
08-23	1200	399	7.1	25.5	8.1	5.5	16	K20
09-07	1120	--	--	28.5	--	--	--	--
09-20	1200	491	7.0	23.0	4.6	10.1	19	320

Appendix M1. Continued

Date	Calcium total recov-erable (mg/l as Ca)	Magnesiun total recov-erable (mg/l as Na)	Sodium total recov-erable (mg/l as Na)	Potassium total recov-erable (mg/l as K)	Solids residue at 105 degrees C suspended (mg/l)	Solids volatile suspended (mg/l)	Nitrogen NO_2+NO_3 total (mg/l as N)	Nitrogen ammonia total (mg/l as N)	Ammonia un-ionized (mg/l as N)
10-06	31	7.1	11	3.9	7	3	<.10	<.100	--
10-13	--	--	--	--	--	--	--	--	--
12-06	--	--	--	--	--	--	--	--	--
12-14	--	--	--	--	--	--	--	--	--
12-16	22	4.7	6.6	3.1	70	8	.50	<.100	--
01-14	--	--	--	--	--	--	--	--	--
01-24	24	5.0	9.4	2.4	50	12	.87	.100	--
02-22	--	--	--	--	--	--	--	--	--
02-28	44	8.9	17	2.6	9	3	.18	<.100	--
03-24	27	6.0	12	2.5	34	10	.43	<.100	--
05-05	12	2.5	2.4	2.4	32	7.	.18	<.100	--
06-16	38	6.8	11	3.2	165	40	.51	<.100	--
07-29	--	--	--	--	--	--	--	--	--
08-23	49	9.9	16	3.8	10	4	<.10	.140	--
09-07	--	--	--	--	--	--	--	--	--
09-20	57	14	20	3.6	12	3	<.10	<.100	--

K Results based on colony count outside the acceptable range (non-ideal colony count).

Appendix I-11. Continued

Date	Phosphorus total (mg/l as P)	Phosphorus dissolved (mg/l as P)	Aluminum total recov-erable (µg/l) as Al)	Barium total recov-erable (µg/l) as Ba)	Beryllium total recov-erable (µg/l) as Be)	Boron total recov-erable (µg/l) as B)	Cadmium total recov-erable (µg/l) as Cd)	Chromium total recov-erable (µg/l) as Cr)	Cobalt total recov-erable (µg/l) as Co)	Copper total recov-erable (µg/1) as Cu)
10-06	--	--	--	79	<1	41	<3	<5	<5	<5
10-13	--	--	--	--	--	--	--	--	--	--
12-06	--	--	--	--	--	--	--	--	--	--
12-14	--	--	--	--	--	--	--	--	--	--
12-16	--	--	--	71	<1	15	<3	<5	<5	<5
01-14	--	--	--	--	--	--	--	--	--	--
01-24	--	--	--	57	<1	7	<3	<5	<5	<5
02-22	--	--	--	--	--	--	--	--	--	--
02-28	--	--	--	61	<1	21	<3	<5	<5	<5
03-24	--	--	--	62	<1	22	<3	<5	<5	<5
05-05	--	--	--	56	<l	16	<3	<5	<5	<5
06-16	--	--	--	100	<1	28	<3	<5	<5	<5
07-29	--	--	--	--	--	--	--	--	--	--
08-23	--	--	--	100	2	59	<3	11	9	<5
09-07	--	--	--	--	--	--	--	--	--	--
09-20	--	--	--	100	<1	<50	<3	<5	<5	<5

Appendix I-11. Concluded

Date	Iron total recoverable (µg/l as Fe)	Lead total recoverable (µg/l as Pb)	Manganese total recoverable (µg/l as Mn)	Mercury total recoverable (µg/l as Her)	Nickel total recoverable (µg/l as Ni)	Silver total recoverable (µg/l as Ag)	Strontium total recoverable (µg/l as Sr)	Vanadium total (µg/l as V)	Zinc total recoverable (µg/l as Zn)
10-06	700	<50	210	--	<5	<3	140	<5.0	<50
10-13	--	--	--	--	--	--	--	--	--
12-06	--	--	--	--	--	--	--	--	--
12-14	--	--	--	--	--	--	.-	--	--
12-16	3800	<50	240	--	<5	<3	100	<5.0	<100
01-14	--	--	--	--	--	--	--	--	--
01-24	1200	<50	240	--	<5	<3	110	<5.0	<50
02-22	--	--	--	--	.-	--	--	--	--
02-28	980	<50	230	--	<5	<3	210	<5.0	170
03-24	1600	<50	250	--	<5	<3	130	<5.0	<100
05-05	2900	<50	100	--	<5	<3	56	7.0	5100
06-16	3900	<50	760	--	6	<3	220	7.0	<100
07-29	--	--	--	--	--	--	--	--	--
08-23	580	<50	290	--	17	3	220	7.0	130
09-07	--	--	--	--	--	--	--	--	--
09-20	750	<50	240	--	<5	<3	240	<5.0	<50

Appendix I-12. Monthly Water Quality Data for the Cache River at Sandusky
Water Year 1983

Date	Time	Specific conductance (micro-mHOS)	pH (standard (units)	Temperature (decrees C)	Turbidity (NTU)	Oxygen dissolved (mg/l)	Oxygen demand chemical (low level) (me/l)	Coliform fecal 0.45 UM-MF (cols./ 100 ml)
10-04	1000	473	6.8	18.0	17	6.0	14	K1900
12-02	0900	169	6.5	12.0	65	7.3	27	K300
02-01	0900	298	7.8	5.5	5.1	10.7	12	220
03-02	1300	409	7.0	9.0	4.7	9.3	11	--
04-05	1300	217	6.8	11.0	31	9.1	17	K160
05-03	1300	58	5.9	17.5	66	6.3	25	260
06-22	1300	454	7.0	21.5	11	5.8	12	K500
08-17	1300	504	7.0	21.5	5.1	6.1	9	540
08-31	1200	509	7.0	21.5	5.0	6.4	7	K160

Date	Calcium total recoverable (mg/l as Ca)	Magnesium total recoverable (mg/l as Na)	Sodium total recoverable (mg/l as Na)	Potassium total recoverable (mg/l as K)	Solids residue at 105 degrees C suspended mg/l)	Solids volatile suspended (mg/l)	Nitrogen NO_2+NO_3 total (mg/l as_N)	Nitrogen ammonia total (mg/l as N)	Ammonia un-ionized (mg/l as N)
10-04	72	19	12	2.6	60	0	.170	.100	--
12-02	23	5.0	4.3	4.0	90	8	.570	<.100	--
02-01	37	7.4	6.4	1.9	40	7	.930	<.100	--
03-02	59	13	14	2.2	17	3	.370	<.100	--
04-05	26	5.8	6.1	2.3	22	4	.730	<.100	--
05-03	8.1	1.9	1.3	1.7	68	8	.380	.130	--
06-22	64	16	9.8	2.1	160	25	.550	.160	--
08-17	70	21	8.8	1.7	53	8	.100	.130	--
08-31	71	21	11	1.7	35	10	.130	.150	--

K Results based on colony count outside the acceptable range (non-ideal colony count).

Appendix I-12. Concluded

Date	Phosphorus total (mg/l as P)	Phosphorus dissolved fmg/l as P)	Aluminum total recov-erable (µg/l) as Al)	Barium total recov-erable (µg/l) as Ba)	Beryllium total recov-erable (µg/l) as Be)	Boron total recov-erable (µg/l) as B)	Cadmium total recov-erable (µg/l) as Cd)	Chromium total recov-erable (µg/l) as Cr)	Cobalt total recov-erable (µg/l) as Co)	Copper total recov-erable (µg/l) as Cu)
10-04	--	--	--	100	<1	16	<3	<5	<5	<5
12-02	--	--	--	85	<1	21	<3	5	<5	6
02-01	--	--	--	83	<1	19	<3	<5	<5	<5
03-02	--	--	--	98	<1	18	<3	<5	<5	<5
04-05	--	--	--	72	<1	19	<3	<5	<5	<5
05-03	--	--	--	68	<1	7	<3	<5	<5	<5
06-22	--	--	--	200	<1	39	<3	6	<5	<5
08-17	--	--	--	100	<1	13	<3	<5	<5	<5
08-31	--	--	--	100	<1	17	<3	6	<5	<5

Date	Iron total recov-erable (µg/l as Fe)	Lead total recov-erable (µg/l as Pb	Manganese total recov-erable (µg/l as Mn)	Mercury total recov-erable (µg/l as Hg)	Nickel total recov-erable (µg/l as Ni)	Silver total recov-erable (µg/l as Ag)	Strontium total recov-erable (µg/l as Sr)	Vanadium total (µg/l asV)	Zinc total recov-erable (µg/l as Zn)
10-04	2000	<50	750	<.l	<5	<3	250	<5	<50
12-02	3900	<50	260	<.l	7	<3	90	9	<50
02-01	1900	<50	310	<.l	7	<3	150	<5	<100
03-02	1400	<50	410	<.l	<5	<3	200	<5	170
04-05	2100	<50	220	<.l	<5	<3	110	<5	<100
05-03	1900	<50	180	<.l	<5	<3	41	<5	120
06-22	4000	<50	1000	<.l	9	<3	210	10	120
08-17	1800	<50	620	<.l	<5	<3	230	<5	<100
08-31	1500	<50	500	.2	12	4	230	<5	<50

Appendix I-13. Monthly Water Quality Data for the Cache River at Forman
Water Year 1985

Date	Time	Specific conductance (micro-mHOS)	pH (standard (units)	Temperature (degrees C)	Turbidity (NTU)	Oxygen dissolved (mg/l)	Oxygen demand chemical (low level) (mg/l)	Coliform fecal 0.45 UM-MF (cols./ 100 ml)
10-15	1200	286	7.2	19.5	47	5.9	33	3900
11-29	1200	156	6.8	7.0	47	8.1	26	2000
01-10	1100	191	7.4	1.5	28	11.0	10	3000
02-06	1200	323	7.9	1.0	4.4	10.1	9	250
03-19	1200	243	7.2	10.0	34	10.0	16	K20
05-01	1100	134	6.4	18.0	380	15.8	57	26000
07-10	0700	247	6.9	25.5	38	5.4	21	<1
08-15	1200	134	6.2	25.0	36	4.4	25	<10
08-28	1300	92	6.0	21.0	49	5.1	23	K90

Date	Calcium total recoverable (mg/l as Ca)	Magnesium total recoverable (mg/l as Na)	Sodium total recoverable (mg/l as Na)	Potassium total recoverable (mg/l as K)	Solids residue at 105 degrees C suspended (mg/l)	Solids volatile suspended (mg/l)	Nitrogen NO_2+NO_3 total (mg/l as N)	Nitrogen ammonia total (mg/l as N)	Ammonia un-ionized (mg/l as N)
10-15	32	7.7	16	5.2	270	30	0.59	0.10	<0.001
11-29	17	3.8	5.1	3.8	7	3	0.22	<0.10	<0.001
01-10	22	4.2	6.8	2.3	21	6	0.46	0.15	<0.001
02-06	37	7.3	18	2.4	10	2	0.78	0.27	0.002
03-19	32	6.3	8.7	1.8	50	9	0.41	<0.10	<0.001
05-01	19	5.3	4.5	3.2	1080	70	0.30	0.55	<0.001
07-10	31	5.9	9.7	3.2	45	<1	0.89	<0.10	<0.001
08-15	16	3.1	3.7	3.4	145	10	0.18	<0.10	<0.001
08-28	12	2.8	1.7	2.1	90	7	0.16	<0.10	<0.001

K Results based on colony count outside the acceptable range (non-ideal colony count).

Appendix I-13. Concluded

Date	Phosphorus total (mg/l as P)	Phosphorus dissolved (mg/l as P)	Aluminum total recoverable (µg/l) as Al	Barium total recoverable (µg/l) as Ba)	Beryllium total recoverable (µg/l) as Be)	Boron total recoverable (µg/l) as B)	Cadmium total recoverable (µg/l) as Cd)	Chromium total recoverable (µg/l) as Cr)	Cobalt total recoverable (µg/l) as Co)	Copper total recoverable (µg/l) as Cu
10-15	0.04	0.10	8400	200	<1	80	<3	10	5	9
11-29	0.21	0.09	1400	60	<1	<50	<3	<5	<5	<5
01-10	0.10	0.06	710	50	<1	<50	<3	<5	<5	<5
02-06	0.09	0.04	180	60	<2	<50	<3	<5	<5	<5
03-19	0.12	0.05	580	60	<1	<50	<3	6	<5	<5
05-01	0.79	0.10	9100	200	<1	<50	<3	14	10	21
07-10	0.16	0.06	1100	80	<1	<50	<3	<5	<5	<5
08-15	0.23	0.11	1900	80	<1	<50	<3	<5	<5	<5
08-28	0.19	<0.01	1600	60	<1	<50	<3	<5	<5	6

Date	Iron total recoverable (µg/l as Fe)	Lead total recoverable (µg/l as Pb)	Manganese total recoverable (µg/l as Mn)	Mercury total recoverable (µg/l as Hg)	Nickel total recoverable (µg/l as Ni)	Silver total recoverable (µg/l as Ag)	Strontium total recoverable (µg/l as Sr)	Vanadium total (µg/l as V)	Zinc total recoverable (µg/l as Zn)
10-15	10000	<50	930	<0.1	10	<3	290	16	<100
11-29	2000	<50	220	<0.1	<5	<3	90	<5	<50
01-10	1500	<50	130	<0.1	<5	<3	110	<5	<100
02-06	900	<50	520	<0.1	<5	<3	180	<5	<100
03-19	1400	<50	290	<0.1	11	3	160	5	<50
05-01	15000	<50	1500	<0.1	24	<3	90	26	<100
07-10	2200	<50	340	<0.1	<5	<3	140	<5	<50
08-15	3700	<50	640	<0.1	7	<3	80	5	<50
08-28	3000	<50	130	<0.1	<5	<3	60	<5	<50

Appendix I-14. Monthly Water Quality Data for the Cache River at Sandusky
Water Year 1985

Date	Time	Specific conductance (micro-mHOS)	pH (standard (units)	Temperature (degrees C)	Turbidity (NTU)	Oxygen dissolved (mg/l)	Oxygen demand chemical (low level) (me/l)	Coliform fecal 0.45 UM-MF (cols./ 100 ml)
10-31	1200	182	7.0	17.0	56	4.6	32	2600
11-28	1200	146	7.7	8.5	52	7.8	30	2700
12-24	1200	96	6.6	7.0	64	7.2	19	K1300
02-05	1200	376	7.2	2.0	14	10.7	10	270
03-20	1200	227	6.6	12.5	9.0	8.9	24	K10
04-29	1200	150	6.4	20.0	89	4.9	23	K800
06-05	1200	193	6.5	23.0	38	4.9	23	<10
07-24	1200	480	7.1	21.5	19	6.0	8	K850
09-09	1200	126	6.1	26.0	52	3.5	22	K600

Date	Calcium total recoverable (mg/l as Ca)	Magnesium total recoverable (mg/l as Na)	Sodium total recoverable (mg/l as Na)	Potassium total recoverable (mg/l as K)	Solids residue at 105 degrees C suspended (mg/l)	Solids volatile suspended (mg/l)	Nitrogen NO_2+NO_3 total (mg/l as N)	Nitrogen ammonia total (mg/l as N)	Ammonia un-ionized (mg/l as N)
10-31	23	4.8	4.4	3.3	194	12	0.30	<0.10	<0.001
11-28	18	3.7	3.4	4.2	18	0	0.23	<0.10	<0.001
12-24	11	3.0	1.8	2.3	54	7	0.16	<0.10	<0.001
02-05	52	11	9.7	1.6	20	3	0.84	0.22	<0.001
03-20	31	6.4	5.9	2.1	20	4	0.21	<0.10	<0.001
04-29	20	4.3	4.0	2.7	53	5	0.40	0.18	<0.001
06-05	27	5.4	4.6	2.9	328	12	0.47	0.15	<0.001
07-24	68	18	11	1.9	50	4	0.11	<0.10	<0.001
09-09	15	3.7	1.6	2.6	80	2	0.11	<0.10	<0.001

K Results based on colony count outside the acceptable range (non-ideal colony count).

Appendix I-14. Concluded

Date	Phosphorus total (me/las P)	Phosphorus dissolved (mg/las P)	Aluminum total recov-erable (µg/l) as Al)	Barium total recov-erable (µg/l) as Ba)	Beryllium total recov-erable (µg/l) as Be)	Boron total recov-erable (µg/l) as B)	Cadmium total recov-erable (µg/l) as Cd)	Chromium total recov-erable (µg/l) as Cr)	Cobalt total recov-erable (µg/l) as Co)	Copper total recov-erable (µg/1) as Cu)
10-31	0.37	0.15	2700	100	<1	<50	<3	<5	<5	6
11-28	0.34	0.14	2400	90	<1	<50	<3	<5	<5	5
12-24	0.27	0.09	2400	70	<1	<50	<3	<5	<5	<5
02-05	0.10	0.02	270	80	<1	<50	<3	<5	<5	<5
03-20	0.09	0.02	430	60	<1	<50	<3	<5	<5	<5
04-29	0.33	0.09	4400	90	<1	<50	<3	9	7	8
06-05	0.33	0.11	3900	100	<1	<50	<3	6	6	7
07-24	0.13	0.03	1000	100	<1	<50	<3	<5	<5	<5
09-09	0.29	0.13	2100	80	<1	<50	<3	8	6	8

Date	Iron total recov-erable (µg/l as Fe)	Lead total recov-erable (µg/l as Pb)	Manganese total recov-erable (µg/l as Mn)	Mercury total recov-erable (µg/l as Hg)	Nickel total recov-erable (µg/l as Ni)	Silver total recov-erable (µg/l as Ag)	Strontium total recov-erable (µg/l as Sr)	Vanadium total (µg/l as V)	Zinc total recov-erable (µg/1 as Zn)
10-31	4400	<50	600	<0.1	9	<3	110	7	<50
11-28	3200	<50	310	<0.1	9	<3	80	8	<100
12-24	3700	<50	190	<0.1	6	<3	50	6	<50
02-05	1500	<50	860	<0.1	<5	<3	170	<5	<50
03-20	1100	<50	270	<0.1	7	<3	120	<5	<100
04-29	6400	<100	340	<0.1	17	<3	100	13	<50
06-05	7200	<50	810	<0.1	10	<3	100	11	<100
07-24	2200	<50	670	<0.1	<5	<3	200	<5	<50
09-09	3700	<50	440	<0.1	15	5	70	11	<50

Appendix I-15. Monthly Water Quality Data for the Cache River at Forman
Water Year 1986

Date	Time	Specific conductance (micro-mHOS)	pH (standard units)	Temperature (degrees C)	Turbidity (NTU)	Oxygen dissolved (mg/l)	Oxygen demand chemical (low level) (mg/l)	Coliform fecal 0.45 UM-MF (cols./ 100 ml)
10-31	1000	207	6.70	12.5	51	7.7	28	K600
12-05	1100	178	6.50	4.0	--	12.0	19	<10
01-30	1200	317	8.70	0.0	6.9	15.4	10	<10
02-27	1100	105	7.50	6.5	17	11.8	11	<10
03-27	1100	288	7.30	13.0	14	9.7	18	<10
04-30	1100	266	7.10	19.0	46	7.5	25	<10
07-08	1200	397	7.80	29.0	18	9.2	17	K20
08-13	1200	160	6.90	22.5	91	6.6	22	<10
09-29	1500	204	6.60	25.0	9.1	5.1	22	K330

Dots	Calcium total recoverable (mg/l as Ca)	Magnesium total recoverable (mg/l as Na)	Sodium total recoverable (mg/l as Na)	Potassium total recoverable (mg/l as K)	Solids residue at 105 degrees C suspended (mg/l)	Solids volatile suspended (mg/l)	Nitrogen NO_2+NO_3 total (mg/l as N)	Nitrogen ammonia total (mg/l as N)	Ammonia un-ionized (mg/l as N)
10-31	24	5.4	7.8	5.1	114	8	0.46	<0.10	<0.001
12-05	20	3.8	5.7	2.8	26	4	0.41	0.12	<0.001
01-30	40	7.8	14	2.4	10	1	0.50	<0.10	<0.004
02-27	38	7.5	13	2.6	15	2	0.68	<0.10	<0.001
03-27	36	6.9	11	2.5	60	4	0.45	<0.10	<0.001
04-30	31	6.5	15	3.0	354	46	0.55	<0.10	<0.001
07-08	49	10	16	3.3	30	2	<0.10	<0.10	<0.005
08-13	18	3.9	7.0	3.1	182	18	0.37	<0.10	<0.001
09-29	25	5.2	6.1	5.2	83	11	0.28	<0.10	<0.001

K Results based on colony count outside the acceptable range (non-ideal colony count).

Appendix I-15. Concluded

Date	Phosphorus total (mg/l as P)	Phosphorus dissolved (mg/l as P)	Aluminum total recov-erable (µg/1) as AD	Barium total recov-erable (µg/1) as Ba)	Beryllium total recov-erable (µg/1) as Be)	Boron total recov-erable (µg/1) as B)	Cadmium total recov-erable (µg/1) as Cd)	Chromium total recov-erable (µg/1) as Cr)	Cobalt total recov-erable (µg/1) as Co)	Copper total recov-erable (µg/1) as Cu)
10-31	0.33	0.15	3000	90	<0.5	<50	<3	<5	<5	<5
12-05	0.11	0.04	980	60	<0.5	<50	<3	<5	<5	<5
01-30	0.08	0.02	150	50	<0.5	<50	<3	<5	<5	<5
02-27	0.09	0.02	510	70	<0.5	<50	<3	<5	<5	<5
03-27	0.12	0.02	1200	70	<0.5	<50	<3	<5	<5	<5
04-30	0.18	0.03	1600	90	<0.5	<50	20	<5	<5	<5
07-08	0.08	0.02	590	100	<2.0	<50	<3	13	10	<5
08-13	0.27	0.04	5400	100	2.0	<50	<3	5	<5	<5
09-29	0.24	0.08	2100	90	<0.5	<50	<3	<5	<5	

Date	Iron total recov-erable (µ g/l as Fe)	Lead total recov-erable (µ g/l as Pb)	Manganese total recov-erable (µ g/l as Mn)	Mercury total recov-erable (µ g/l as Hg)	Nickel total recov-erable (µ g/l as Ni)	Silver total recov-erable (µ g/l as Ag)	Strontium total recov-erable (µ g/l as Sr)	Vanadium total (µ g/l as V)	Zinc total recov-erable (µ g/l as Zn)
10-31	4600	<50	460	--	<5	<3	150	<5	<50
12-05	1900	<50	120	<0.01	<5	<3	110	<5	<50
01-30	800	<50	240	<0.01	<5	3	200	<5	<5
02-27	1100	<50	250	<0.01	<5	<3	190	<5	<50
02-27	2100	<40	400	<0.01	9	<3	190	5	<50
04-30	2600	<50	400	<0.01	<5	<3	170	<5	<50
07-08	1100	<50	340	<0.01	25	6	240	8	<50
08-13	6500	<50	470	<0.01	<5	<3	120	9	<50
09-29	3300	<50	530	<0.05	<5	<3	170	<5	<50

Appendix I-16. Monthly Water Quality Data for the Cache River at Sandusky
Water Year 1986

Date	Time	Specific conductance (micro-mHOS)	pH (standard (units)	Temperature (degrees C)	Turbidity (NTU)	Oxygen dissolved (mg/l)	Oxygen demand chemical (low level) (mg/l)	Coliform fecal 0.45 UM-MF (cols./ 100 ml)
11-07	1200	259	6.80	10.5	17	7.7	15	K400
12-18	1200	284	6.90	2.0	31	10.9	14	K20
01-28	1200	400	7.50	2.0	11	13.0	9	420
03-05	1200	377	7.30	6.0	14	11.3	10	K1200
04-16	1100	391	7.10	12.5	11	8.8	10	K30
05-06	1100	454	7.10	18.0	10	6.3	7	K50
07-10	1100	415	7.00	25.5	72	5.5	20	4900
08-20	1100	317	7.00	22.0	41	5.5	14	K800
09-25	1100	197	6.40	23.0	52	4.5	29	2000

Date	Calcium total recoverable (mg/l as Ca)	Magnesium total recoverable (mg/l as Na)	Sodium total recoverable (mg/l as Na)	1Potassium total recoverable (mg/l as K)	Solids residue at 105 degrees C suspended (mg/l)	Solids volatile suspended (mg/l)	Nitrogen NO_2+NO_3 total (mg/l as N)	Nitrogen ammonia total (mg/l as N)	Ammonia un-ionized (mg/l as N)
11-07	33	7.3	6.2	3.9	68	<1	0.36	<0.10	<0.001
12-18	37	7.3	8.0	2.5	41	6	0.71	0.12	<0.001
01-28	59	13	11	2.0	12	2	0.48	<0.10	<0.001
03-05	56	12	9.8	1.9	21	3	0.62	<0.10	<0.001
04-16	58	13	9.9	1.3	18	3	0.34	<0.10	<0.001
05-06	65	15	11	1.9	33	4	0.38	0.13	<0.001
07-10	62	13	11	2.3	320	25	0.17	0.10	<0.001
08-20	44	10	6.0	3.0	96	12	0.29	0.10	<0.001
09-25	27	7.3	9.8	5.7	460	44	0.20	<0.10	<0.001

K Results based on colony count outside the acceptable range (non-ideal colony count).

Appendix I-16. Concluded

Date	Phosphorus total (mg/l as P)	Phosphorus dissolved (mg/l as P)	Aluminum total recov-erable (µg/1) as AH	Barium total recov-erable (µg/l) as Ba)	Beryllium total recov-erable (µg/l) as Ba)	Boron total recov-erable (µg/l) as B)	Cadmium total recov-erable (µg/l) as Cd)	Chromium total recov-erable (µg/l) as Cr)	Cobalt total recov-erable (µg/l) as Co)	Copper total recov-erable (µg/1) as Cu)
11-07	0.19	0.06	1200	80	<0.5	<50	<3	<5	<5	<5
12-18	0.16	0.03	1000	80	<0.5	<50	<3	<5	<5	<5
01-28	0.13	0.02	120	90	<0.5	<50	<3	<5	<5	<5
03-05	0.10	0.02	320	90	<0.5	<50	<3	<5	<5	<5
04-16	0.09	0.01	300	100	<0.5	<50	<3	<5	<5	<5
05-06	0.10	0.02	460	100	<1.0	<50	<3	<5	<5	<5
07-10	0.30	0.04	3300	200	3.0	<50	<3	7	9	7
08-20	0.20	0.04	1700	100	<1.0	<50	<3	9	9	<5
09-25	1.00	0.65	10000	200	<0.5	<50	13	11	<5	7

Date	Iron total recov-erable (µg/l as Fe)	Lead total recov-erable (µg/l as Pb)	Manganese total recov-erable (µg/l as Mn)	Mercury total recov-erable (µg/l as Hg)	Nickel total recov-erable (µg/l as Ni)	Silver total recov-erable (µg/l as Ag)	Strontium total recov-erable (µg/l as Sr)	Vanadium total (µg/l as V)	Zinc total recov-erable <µg/l as Zn)
11-07	2900	<50	380	0.05	<5	<3	130	<5	<50
12-18	2400	<50	400	<0.01	<5	<3	140	<5	<50
01-28	1500	<50	520	<0.01	7	<3	220	<5	<50
03-05	1400	<50	520	<0.01	<5	<3	170	<5	<50
04-16	1400	<50	540	<0.01	<5	<3	200	<5	<50
05-06	1300	<50	690	<0.01	9	5	220	6	<50
07-10	6200	<50	980	<0.01	5	<3	220	12	<50
08-20	3400	<50	450	<0.01	9	<3	170	5	<50
09-25	14000	<100	970	<0.05	17	<3	130	21	<100

Appendix I-17. Monthly Water Quality Data for the Cache River at Forman
Water Year 1987

Date	Time	Specific conductance (micro-mHOS)	pH (standard (units)	Temperature (degrees C)	Turbidity (NTU)	Oxygen dissolved (mg/l)	Oxygen demand chemical (low level) (mg/l)	Coliform fecal 0.45 UM-MF (cols./ 100 ml)
11-17	1100	360	7.90	5.0	8.5	12.0	18	<10
12-17	1100	258	7.80	4.0	19	11.1	17	K10
01-29	1100	359	7.80	0.5	3.1	13.6	14	K40
03-10	1100	204	6.90	9.0	44	8.7	20	K80
04-09	1100	266	7.50	13.5	15	9.9	11	K30
06-01	1200	408	7.40	25.0	6.6	6.0	18	K90
07-02	1100	144	6.60	22.5	36	4.9	--	<5
07-20	1100	294	7.30	26.5	3.6	6.9	--	K50
09-29	1000	278	7.20	19.0	7.9	7.1	26	500

Date	Calcium total recoverable (mg/l as-Ca)	Magnesium total recoverable (mg/l as Na)	Sodium total recoverable (mg/l as Na)	Potassium total recoverable (mg/l as K)	Solids residue at 105 degrees C suspended (mg/l)	Solids volatile suspended (mg/l)	Nitrogen NO_2+NO_3 total (mg/l as N)	Nitrogen ammonia total (mg/l as N)	Ammonia un-ionized (mg/l as N)
11-17	44	9.6	15	4.7	8	2	0.330	0.200	<0.002
12-17	32	6.6	11	2.8	12	3	0.560	<0.100	<0.001
01-29	46	9.9	20	2.6	6	1	0.470	<0.100	<0.001
03-10	24	5.1	8.4	3.1	46	6	0.260	<0.100	<0.001
04-09	35	7.7	13	2.1	42	6	0.240	<0.100	<0.001
06-01	47	9.9	20	3.1	48	4	0.300	<0.100	<0.001
07-02	17	4.6	5.6	3.9	308	28	0.620	0.140	<0.001
07-20	32	7.4	13	4.2	--	--	0.210	<0.100	<0.001
09-29	37	8.0	11	4.6	20	4	<0.100	<0.100	<0.001

K Results based on colony count outside the acceptable range (non-ideal colony count).

Appendix I-17. Concluded

Date	Phosphorus total (mg/l as P)	Phosphorus dissolved (mg/l as P)	Aluminum total recov-erable (µg/l) as Al	Barium total recov-erable (µg/l) as Ba)	Beryllium total recov-erable (µg/l) as Be)	Boron total recov-erable (µg/l) as B)	Cadmium total recov-erable (µg/l) as Cd)	Chromium total recov-erable (µg/l) as Cr)	Cobalt total recov-erable (µg/l) as Co)	Copper total recov-erable (µg/l) as Cu)
11-17	0.140	0.060	240	70	<0.5	<50	<3	<5	<5	<5
12-17	0.130	0.030	650	50	<0.5	<50	<3	<5	<5	<5
01-29	0.110	0.050	180	50	<0.5	<50	<3	<5	<5	<5
03-10	0.100	0.030	1800	60	<0.5	<50	<3	<5	<5	<5
04-09	0.090	0.040	1300	60	<0.5	<50	<3	12	<5	<5
06-01	0.090	0.050	970	100	<0.5	<50	<3	<5	<5	
07-02	0.740	0.120	8000	100	2.0	<50	<3	11	9	
07-20	0.130	0.040	1300	80	<0.5	<50	<3	<5	<5	
09-29	0.110	0.030	650	100	<0.5	<50	<3	6	<5	

Date	Iron total recov-erable (µg/l as Fe)	Lead total recov-erable (µg/l as Pb)	Mangariese total recov-erable (µg/l as Mn)	Mercury total recov-erable (µg/l as Hg)	Nickel total recov-erable (µg/l as Ni)	Silver total recov-erable (µg/l as Ag)	Strontium total recov-erable (µg/l as Sr)	Vanadium total (µg/l as V)	Zinc total recov-erable (µg/l as Zn)
11-17	740	<50	200	<0.05	<5	<3	280	<5	<50
12-17	1600	<50	140	<0.05	<5	<3	190	<5	<50
01-29	880	<50	190	<0.05	<5	3	270	<5	<50
03-10	3100	<50	250	<0.05	<5	<3	130	<5	<50
04-09	1600	<50	350	<0.05	<5	<3	180	<5	<50
06-01	1500	<50	580	<0.05	<5	<3	290	6	<50
07-02	11000	110	720	<0.05	13	<3	90	19	<100
07-20	1500	<100	490	<0.05	5	<3	180	<5	<50
09-29	1100	<50	300	<0.05	<5	<3	200	<5	<50

Appendix I-18. Monthly Water Quality Data for the Cache River at Sandusky
Water Year 1987

Date	Time	Specific conductance (micro-mHOS)	pH (standard (units)	Temperature (degrees C)	Turbidity (NTU)	Oxygen dissolved (mg/l)	Oxygen demand chemical flow level) (mg/l)	Coliform fecal 0.45 UM-MF (cols./ 100 ml)
11-03	1100	403	--	13.0	7.6	7.5	11	K1700
12-10	1100	260	7.30	6.0	39	9.3	23	K1500
01-28	1200	442	7.50	4.5	4.6	12.4	3300	500
03-12	1100	330	7.20	7.5	14	9.8	8	370
04-20	1100	305	7.00	19.0	7.2	6.4	15	K60
06-02	1100	483	7.30	21.0	2.0	5.7	7	5600
07-08	1100	275	6.90	24.0	6.6	4.8	--	K1500
07-21	1100	482	7.10	20.5	2.7	5.0	--	660
09-08	1100	536	7.10	19.0	9.0	6.2	10	K800

Date	Calcium total recoverable (mg/l as Ca)	Magnesium total recoverable (mg/l as Na)	Sodium total recoverable (mg/l as Na)	Potassium total recoverable (mg/l as K)	Solids residue at 105 degrees C suspended (mg/l)	Solids volatile suspended (mg/l)	Nitrogen NO_2+NO_3 total (mg/l as N)	Nitrogen ammonia total (mg/l as N)	Ammonia un-ionized (mg/l as N)
11-03	54	13	8.7	2.8	32	5	0.190	<0.100	--
12-10	36	7.4	7.1	3.7	172	22	0.380	<0.100	<0.001
01-28	63	16	12	1.6	11	2	1.20	<0.100	<0.001
03-12	45	9.7	9.0	2.8	42	4	0.620	<0.100	<0.001
04-20	40	8.0	9.0	2.0	9	2	0.440	<0.100	<0.001
06-02	66	17	11	1.4	41	5	0.170	0.120	0.001
07-08	35	8.8	6.4	3.4	152	15	0.310	0.250	0.001
07-21	62	18	11	2.1	--	--	<0.100	<0.100	<0.001
09-08	73	20	0.4	1.5	38	5	0.110	0.200	<0.001

K Results based on colony count outside the acceptable range (non-ideal colony count).

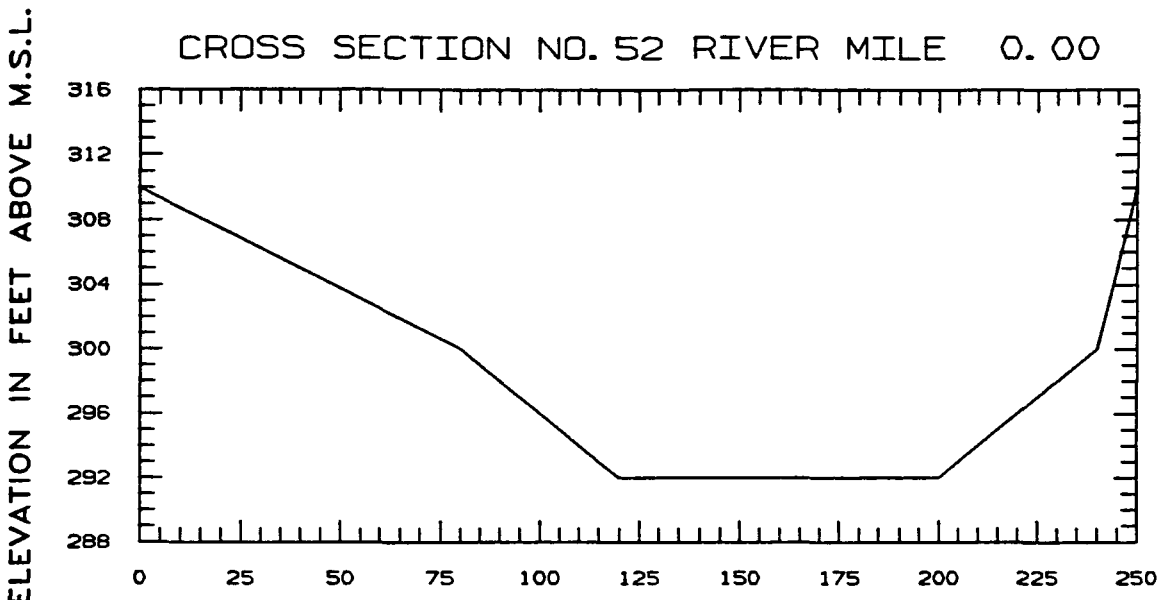
Appendix I-18. Concluded

Date	Phosphorus total (mg/l as P)	Phosphorus dissolved (mg/l as P)	Aluminum total recoverable (µg/l) as Al)	Barium total recoverable (µgfl) as Ba)	Beryllium total recoverable (µgfl) as Be)	Boron total recoverable (µgfl) as B)	Cadmium total recoverable (µg/l) as Cd)	Chromium total recoverable (µg/l) as Cr)	Cobalt total recoverable (µg/l) as Co)	Copper total recoverable (µgfl) as Cu)
11-03	0.160	0.030	510	100	<0.5	<50	<3	<5	<5	<5
12-10	0.280	0.100	1700	80	<0.5	<50	<3	<5	<5	<5
01-28	4.60	0.020	120	90	<0.5	<50	<3	<5	<5	<5
03-12	0.100	0.020	740	80	<0.5	<50	<3	<5	<5	<5
04-20	0.110	0.040	490	80	<0.5	<50	<3	<5	<5	<5
06-02	0.120	0.030	530	100	<0.5	<50	<3	<5	5	<5
07-08	0.290	0.050	3600	100	<0.5	<50	<3	<5	<5	<5
07-21	0.120	0.020	890	100	<0.5	<50	<3	6	<5	
09-08	0.170	0.020	670	100	<0.5	<50	<3	<5	<5	

Date	Iron total recoverable (µgfl as Fe)	Lead total recoverable (µgfl as Pb)	Manganese total recoverable (µgfl as Mn)	Mercury total recoverable (µgfl as Hg)	Nickel total recoverable (µgfl as Ni)	Silver total recoverable (µgfl as Ag)	Strontium total recoverable (µg/l as Sr)	Vanadium total (µg/l as V)	Zinc total recoverable (µgfl as Zn)
11-03	2000	<50	630	<0.05	<5	7	180	<5	<50
12-10	3200	<50	350	<0.05	7	<3	150	<5	<50
01-28	2100	<50	550	<0.05	6	<3	210	<5	<50
03-12	2100	<50	490	<0.05	<5	<3	160	<4	<100
04-20	1500	<50	480	<0.05	<5	<3	160	<5	<50
06-02	1600	<50	610	<0.05	<5	4	230	<5	<50
07-08	5100	<50	690	<0.05	<5	<3	140	6	<50
07-21	1700	<100	550	<0.05	21	<3	230	6	<50
09-08	2200	<50	520	<0.05	13	<3	230	<5	<50

APPENDIX TO VOLUME 2:

GEOMETRY OF CROSS SECTIONS THAT WERE USED IN THE HEC-6 MODEL FOR THE UPPER CACHE RIVER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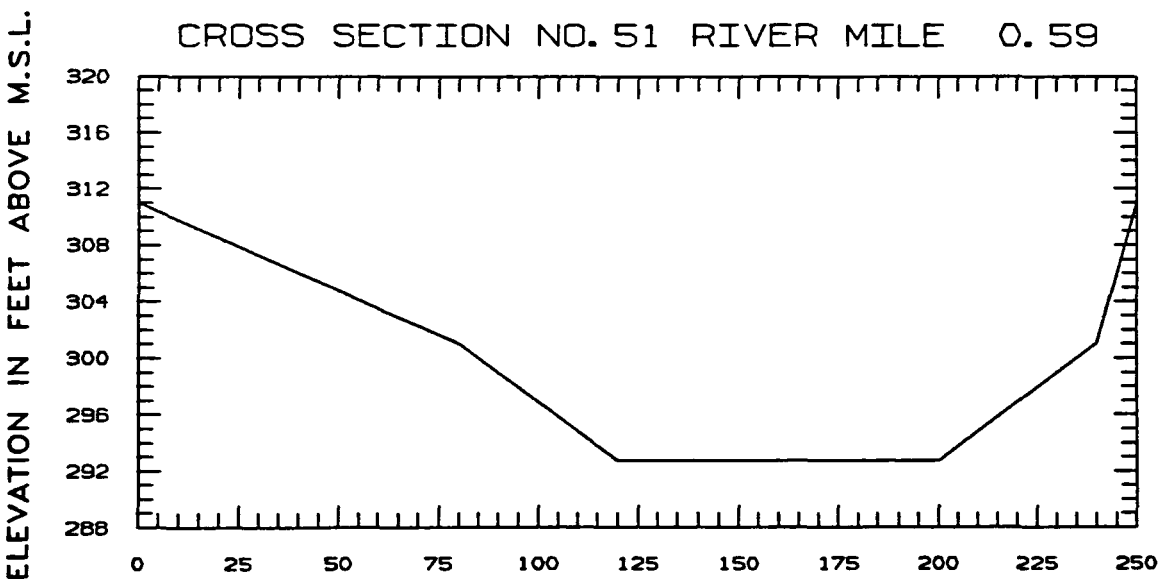
DISTANCE IN FEET FROM LEFT BANK LOOKING UPSTREAM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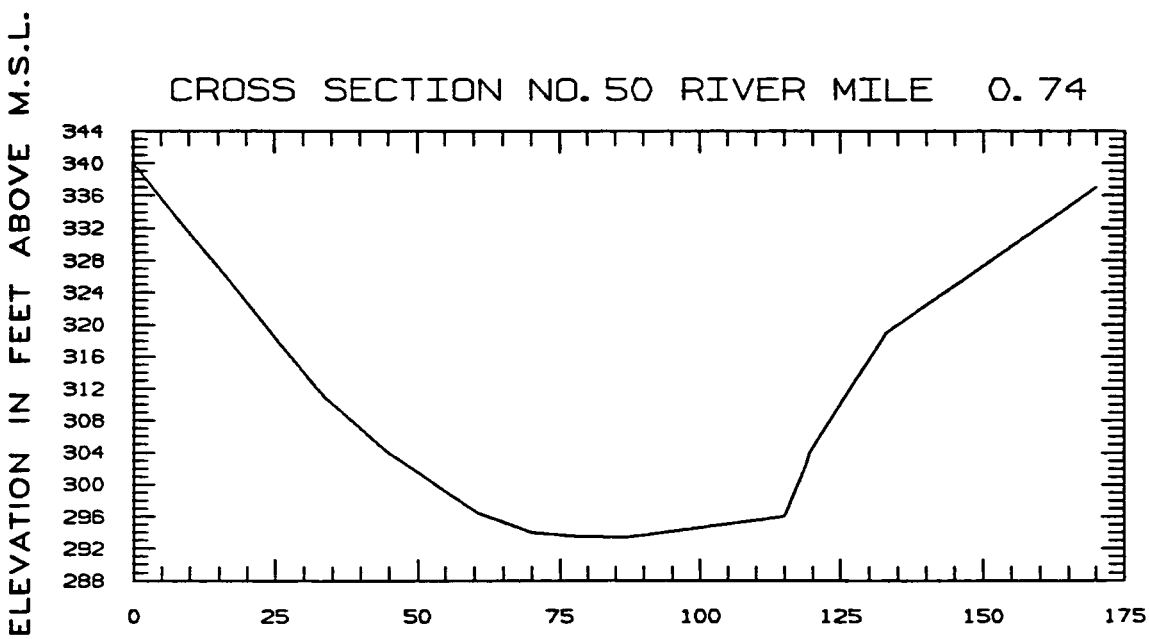
DISTANCE IN FEET FROM LEFT BANK LOOKING UPSTREAM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340
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332
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324
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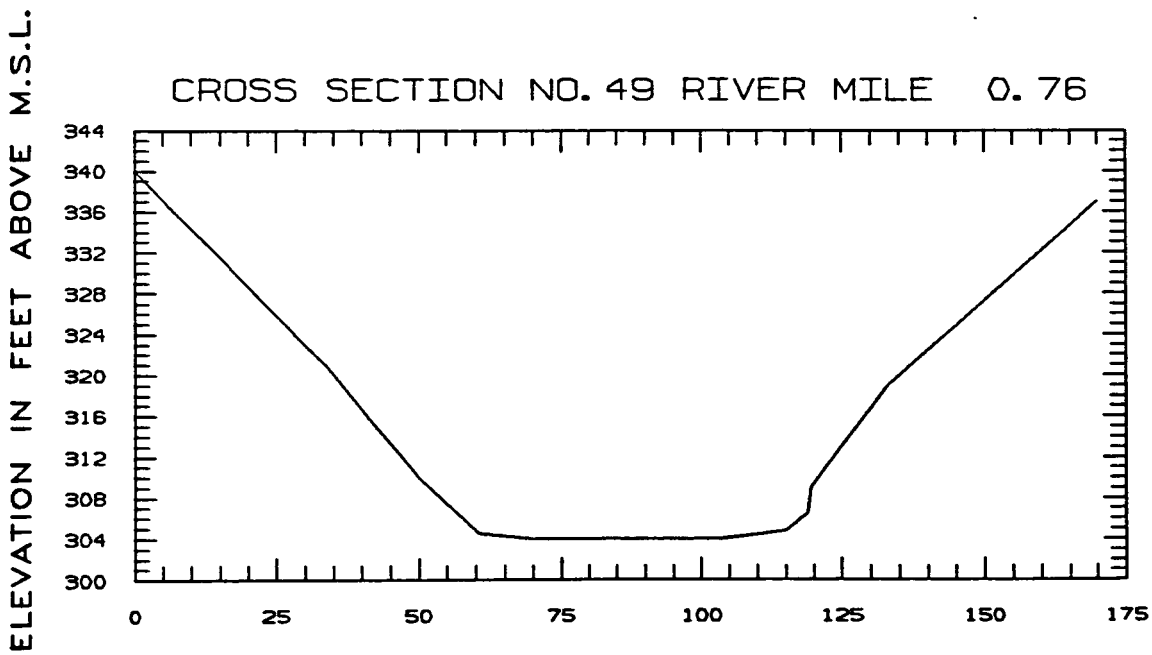
DISTANCE IN FEET FROM LEFT BANK LOOKING UPSTREAM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328
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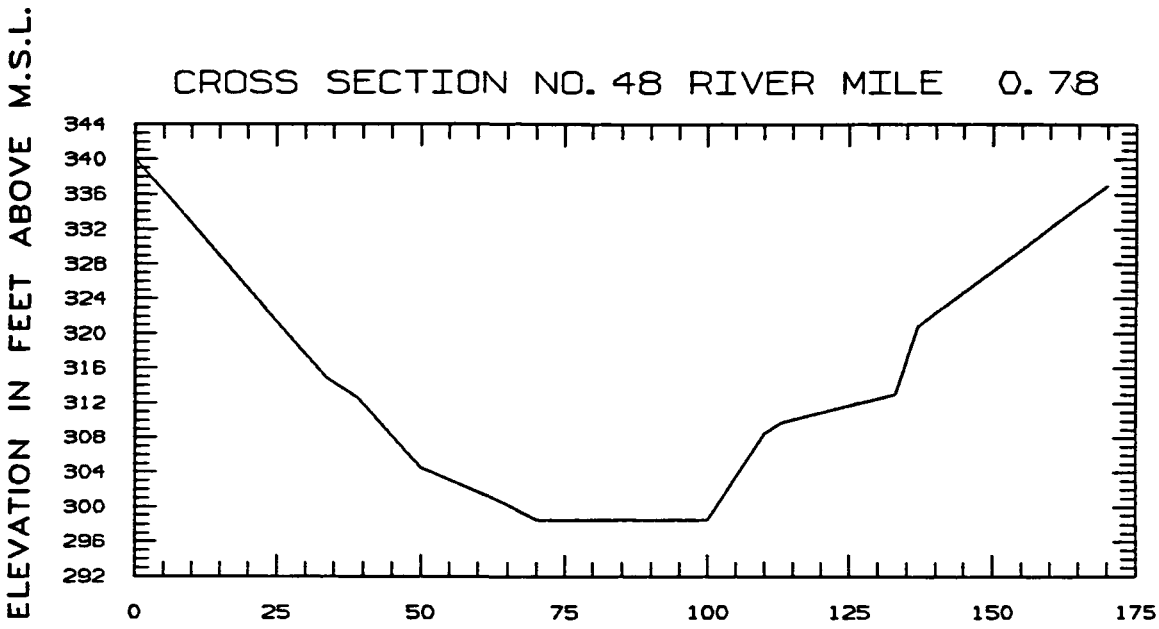
DISTANCE IN FEET FROM LEFT BANK LOOKING UPSTREAM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336
332
328
324
320
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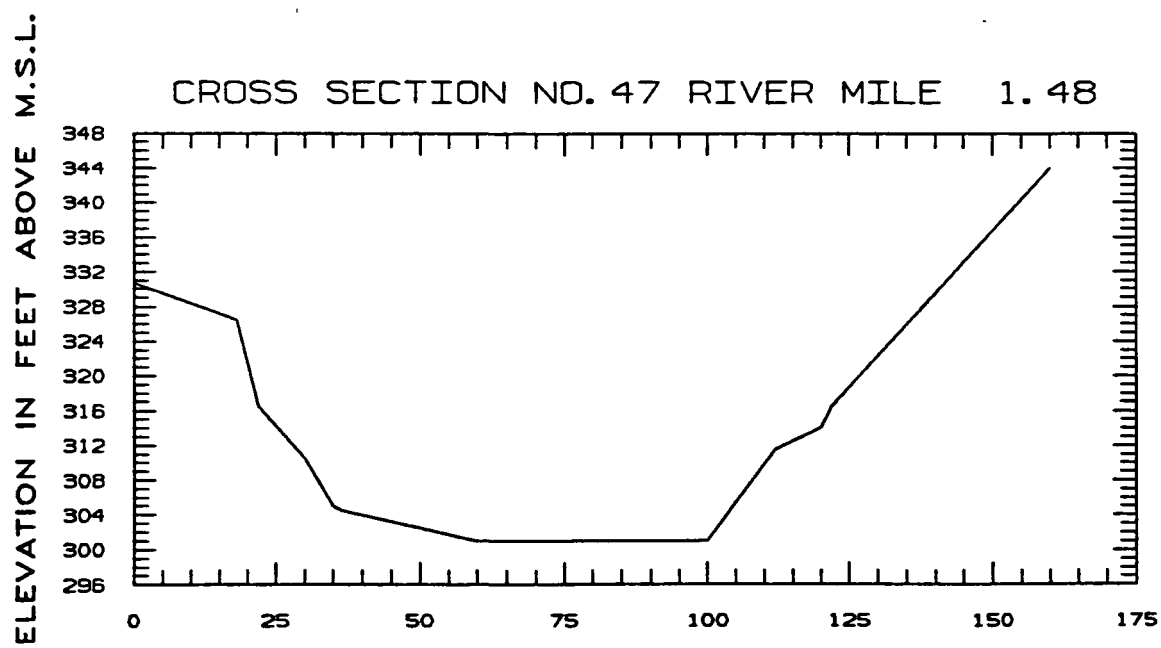
125
150
175
DISTANCE IN FEET FROM LEFT BANK LOOKING UPSTREAM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340
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332
328
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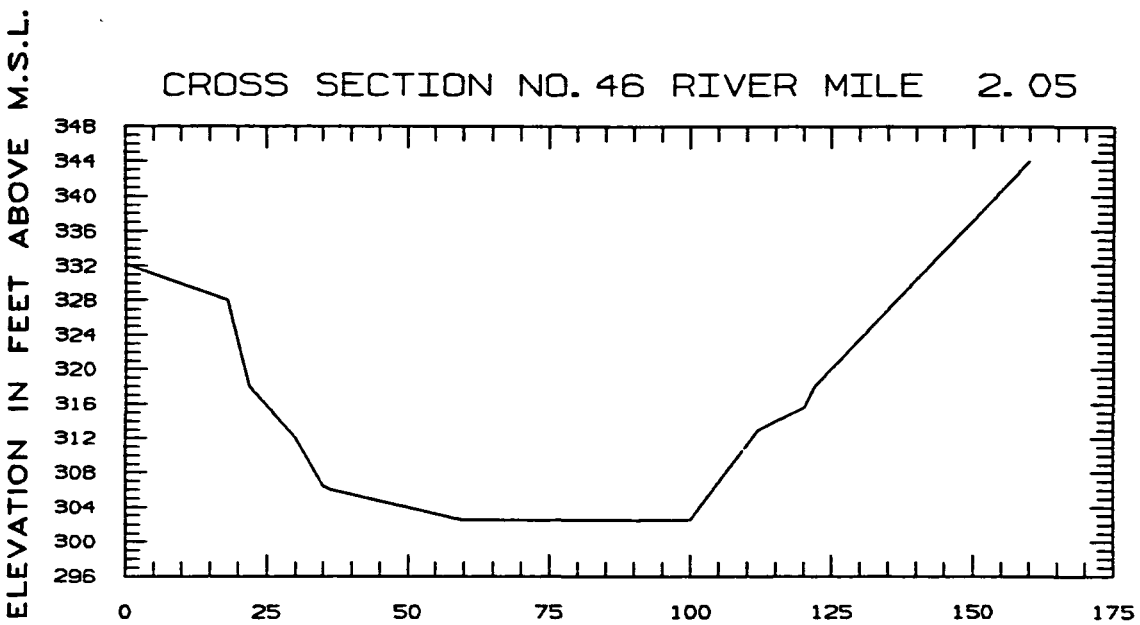
DISTANCE IN FEET FROM LEFT BANK LOOKING UPSTREAM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332
328
324
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150
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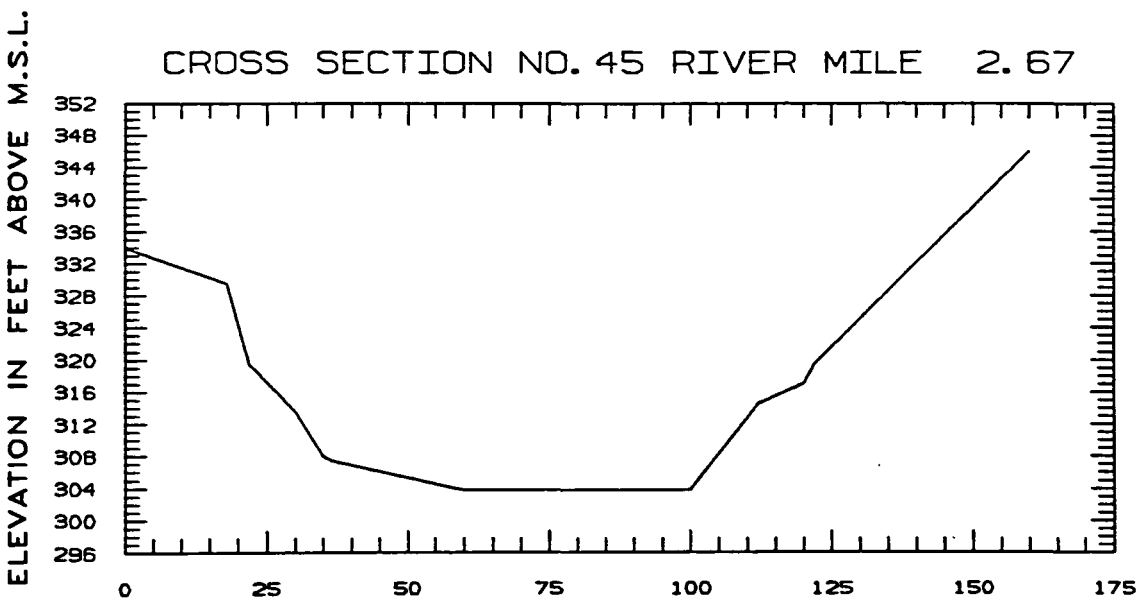
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348
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340
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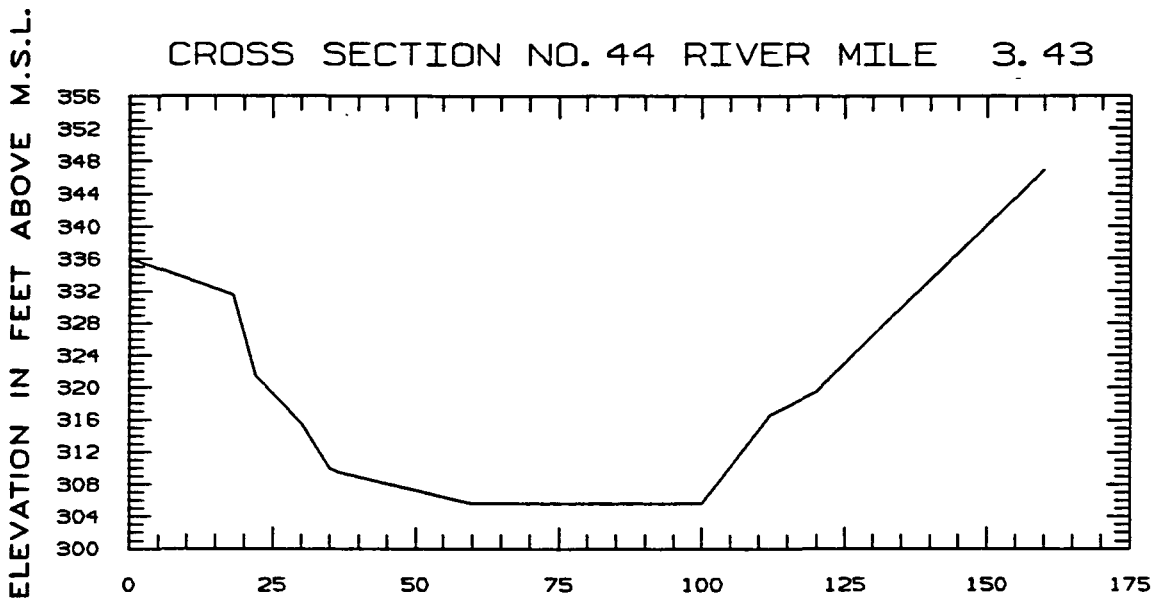
125
150
175
DISTANCE IN FEET FROM LEFT BANK LOOKING UPSTREAM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352
348
344
340
336
332
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300
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50
75
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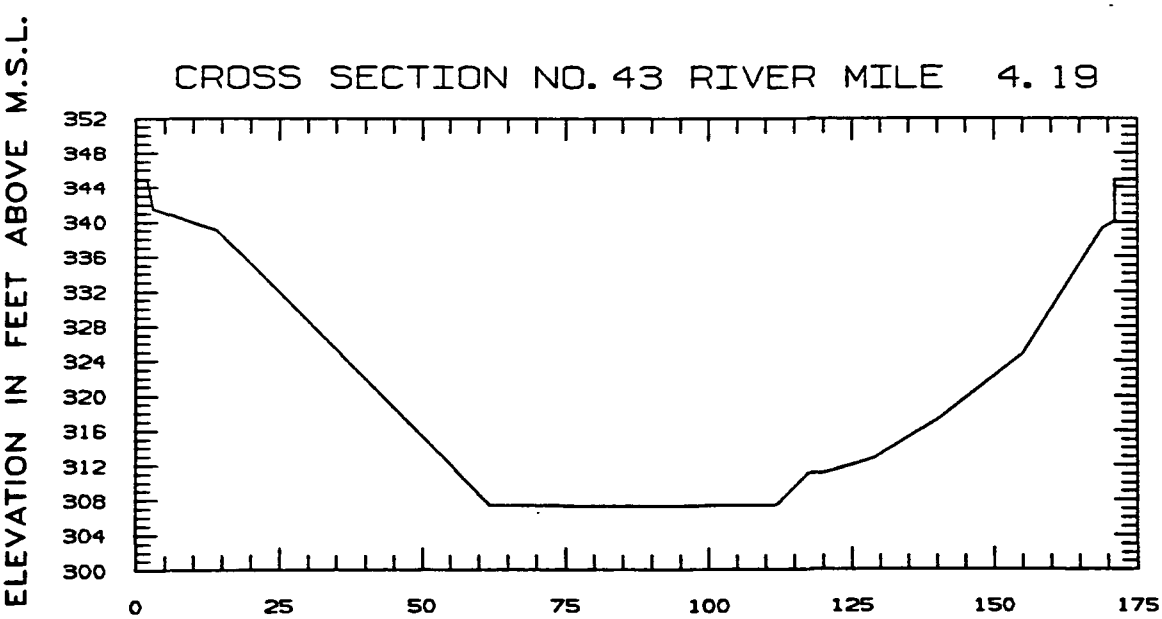
125
150
175
DISTANCE IN FEET FROM LEFT BANK LOOKING UPSTREAM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332
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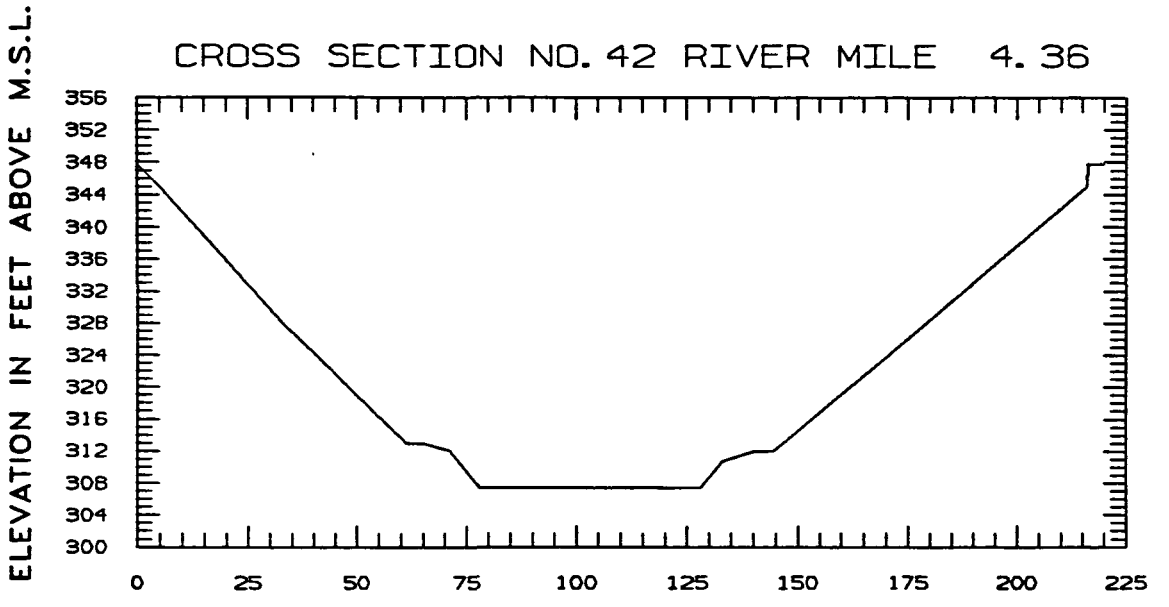
DISTANCE IN FEET FROM LEFT BANK LOOKING UPSTREAM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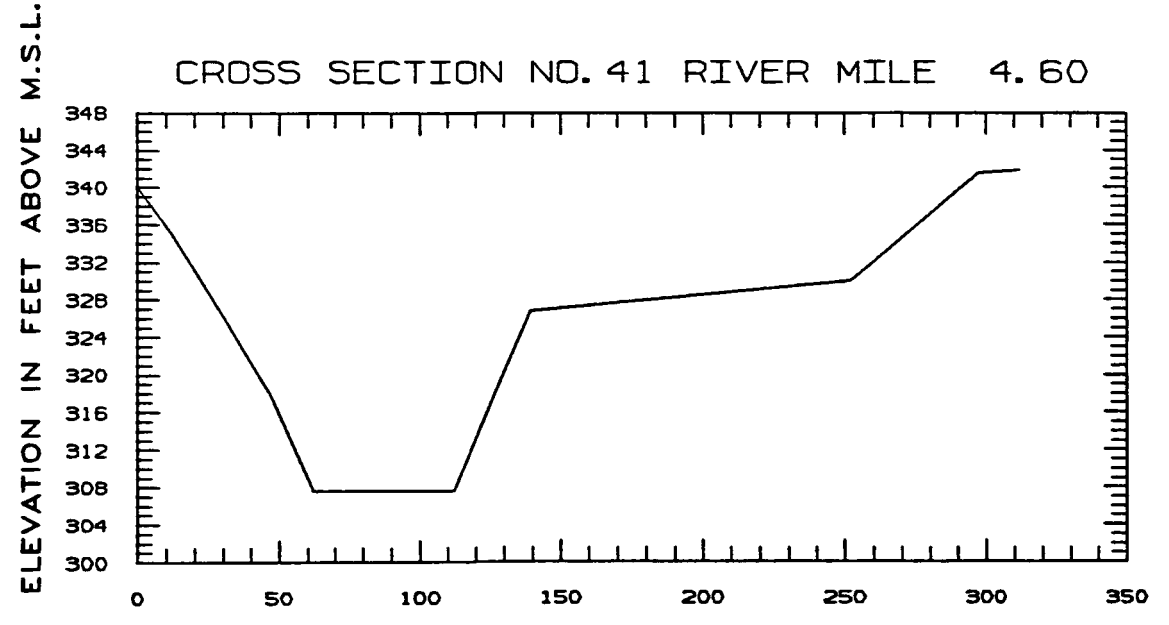
DISTANCE IN FEET FROM LEFT BANK LOOKING UPSTREAM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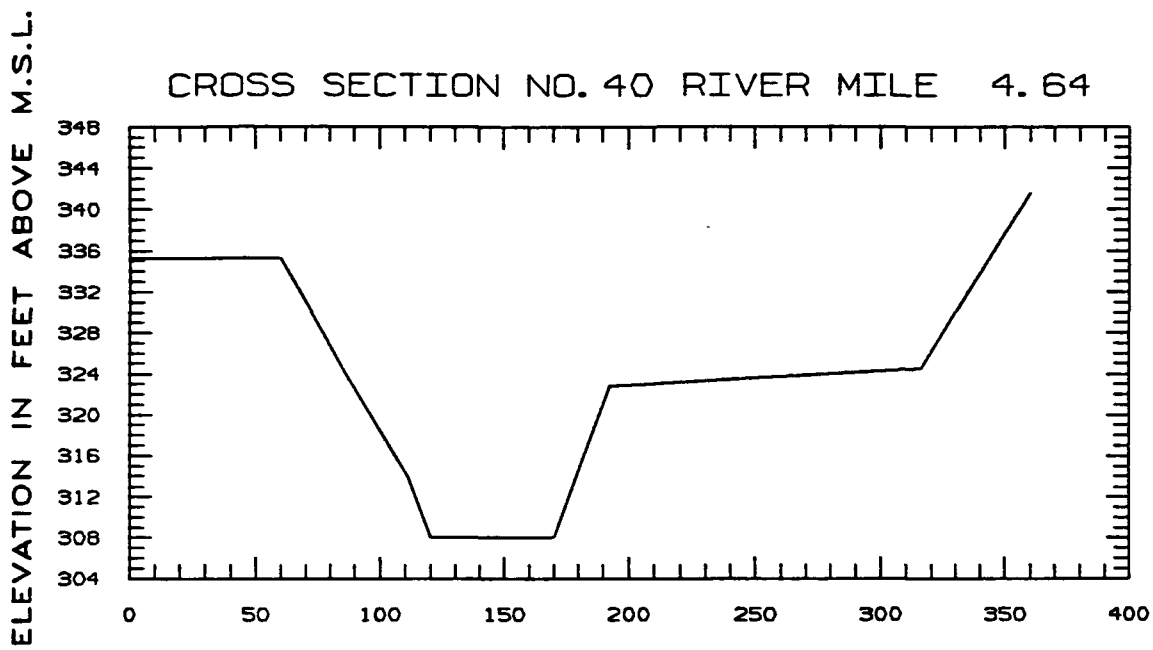
DISTANCE IN FEET FROM LEFT BANK LOOKING UPSTREAM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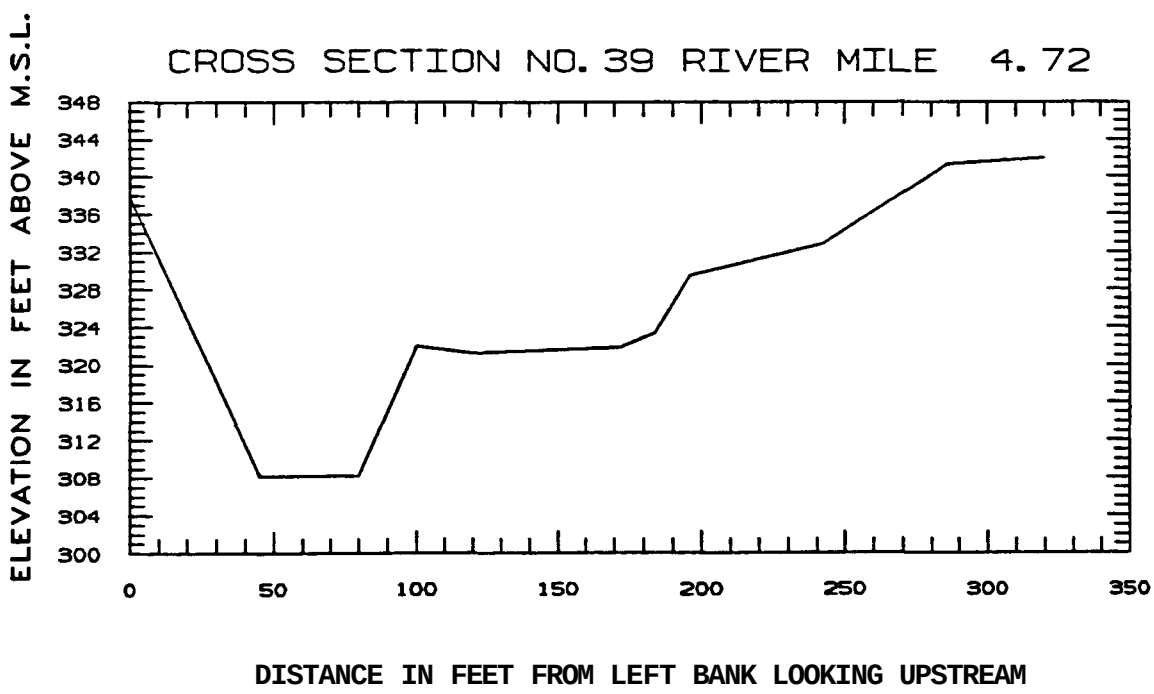
DISTANCE IN FEET FROM LEFT BANK LOOKING UPSTREAM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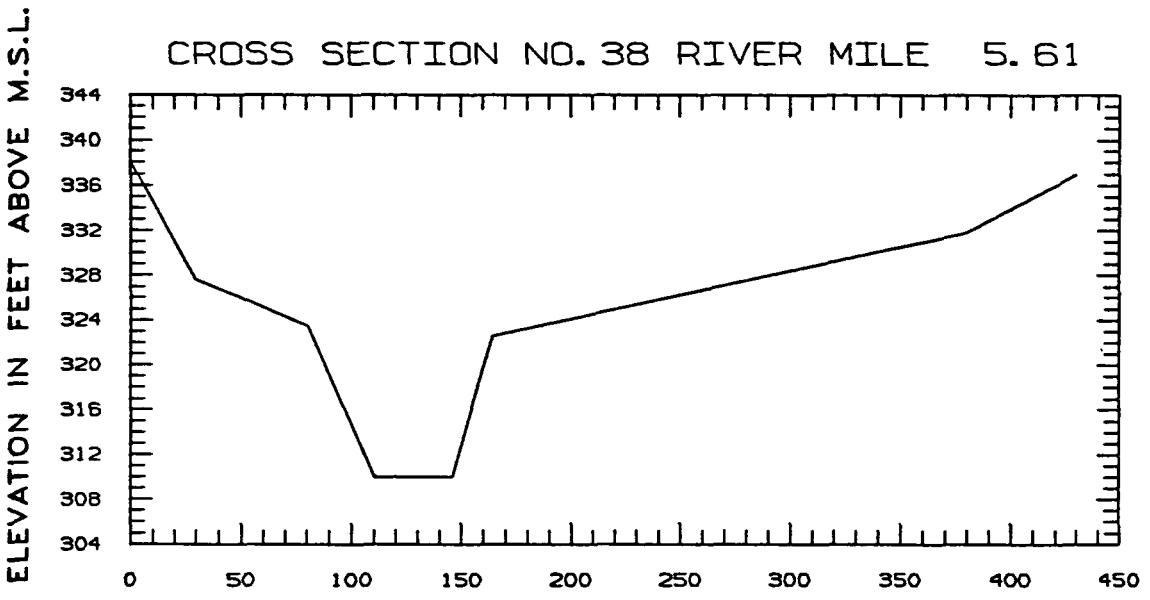
DISTANCE IN FEET FROM LEFT BANK LOOKING UPSTREAM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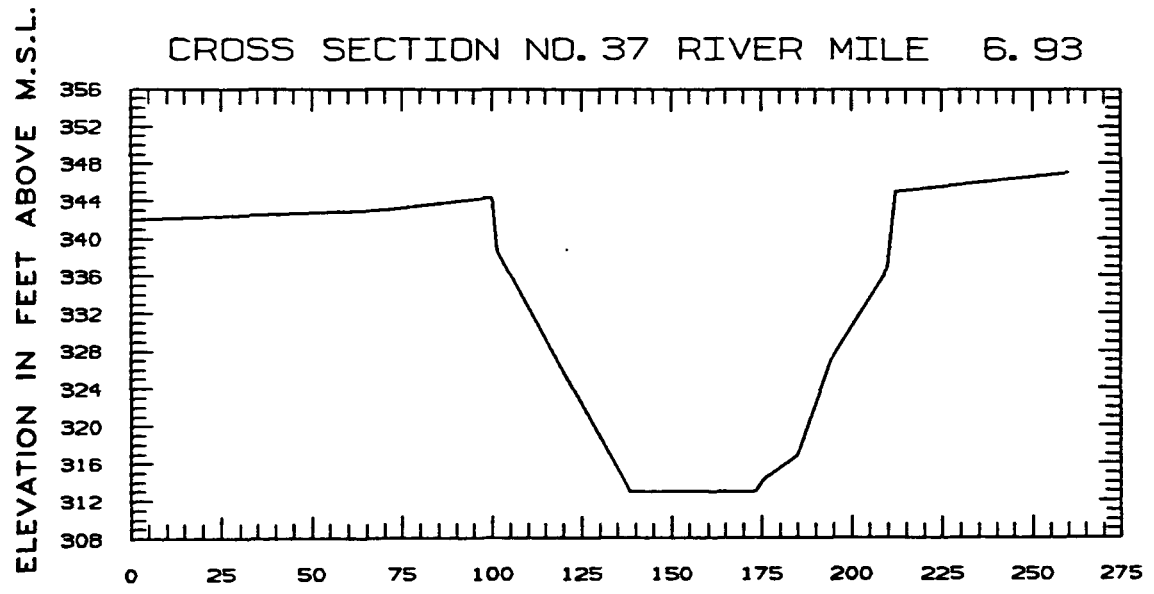
DISTANCE IN FEET FROM LEFT BANK LOOKING UPSTREAM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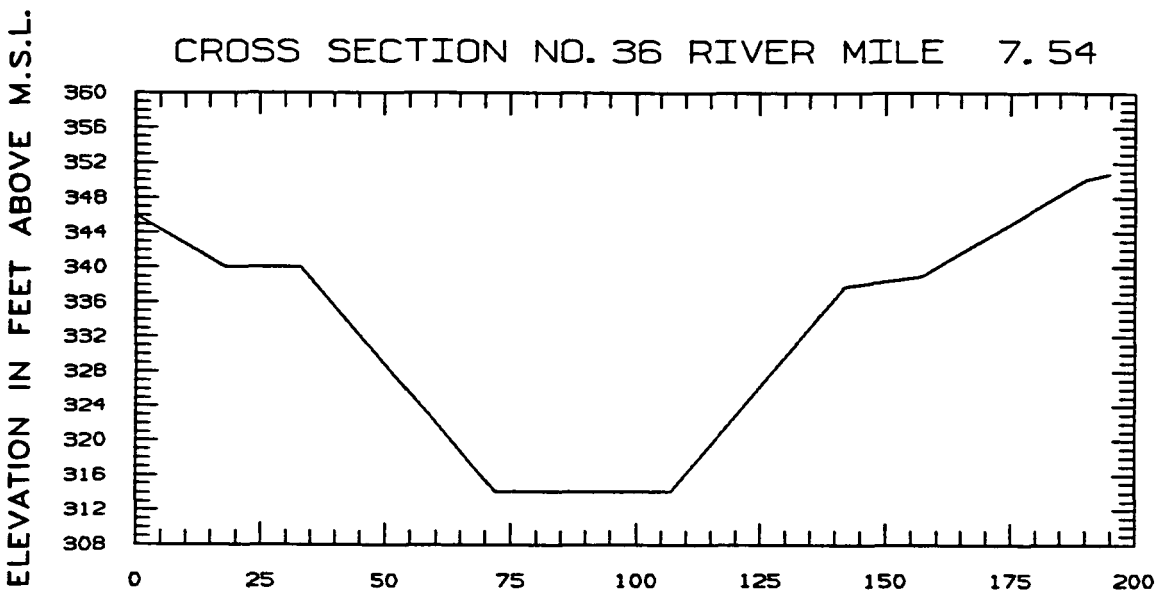
DISTANCE IN FEET FROM LEFT BANK LOOKING UPSTREAM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50
75
100
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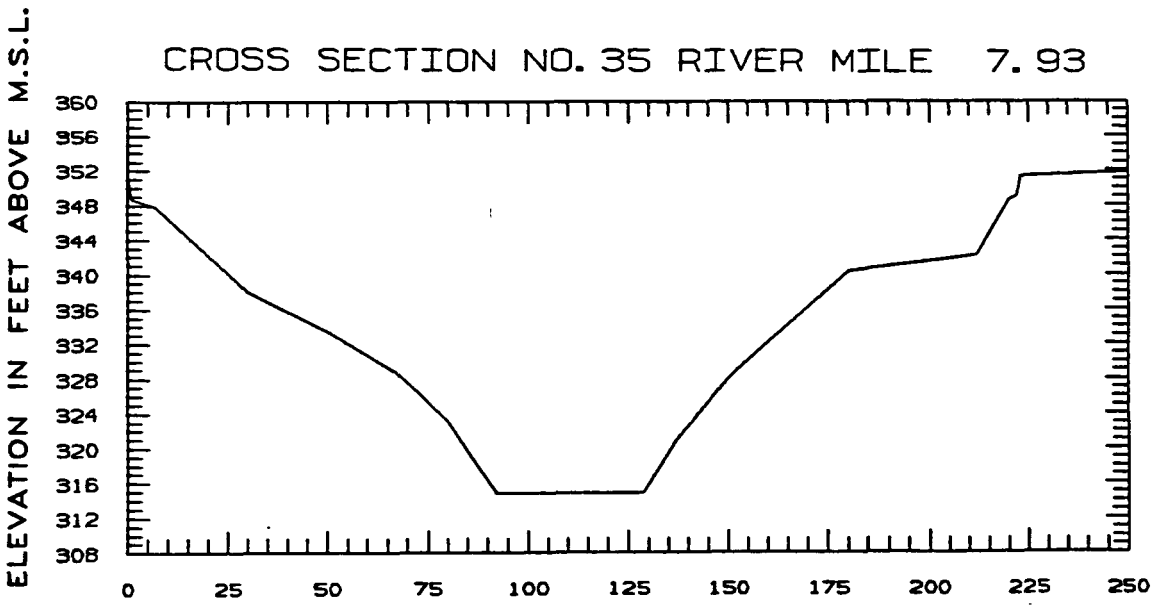
150
175
200
DISTANCE IN FEET FROM LEFT BANK LOOKING UPSTREAM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150
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200
225
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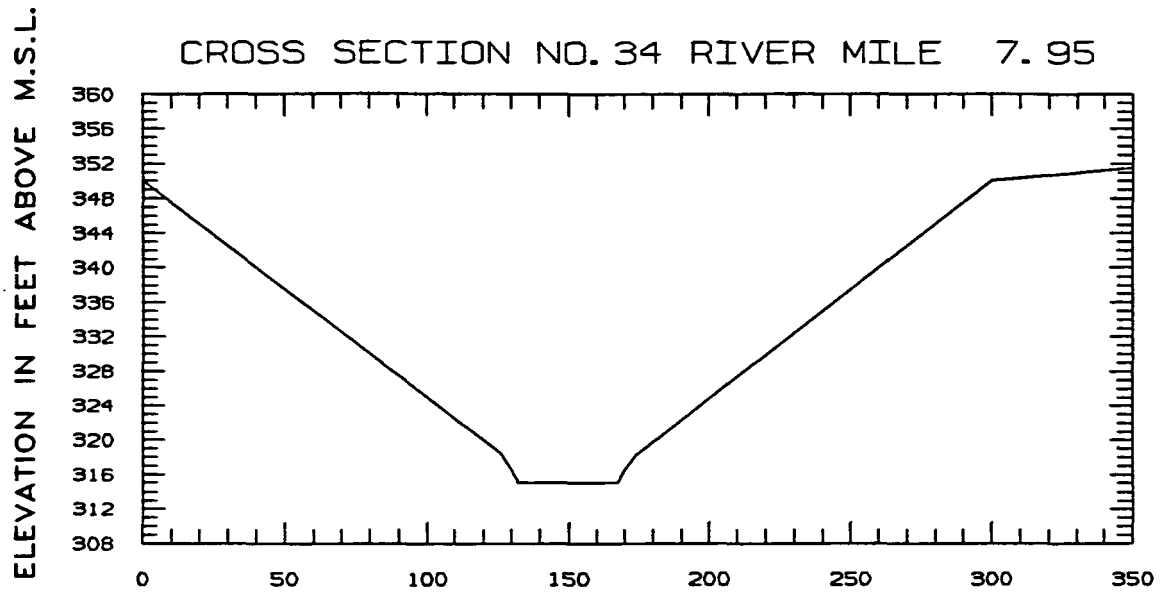
DISTANCE IN FEET FROM LEFT BANK LOOKING UPSTREAM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352
348
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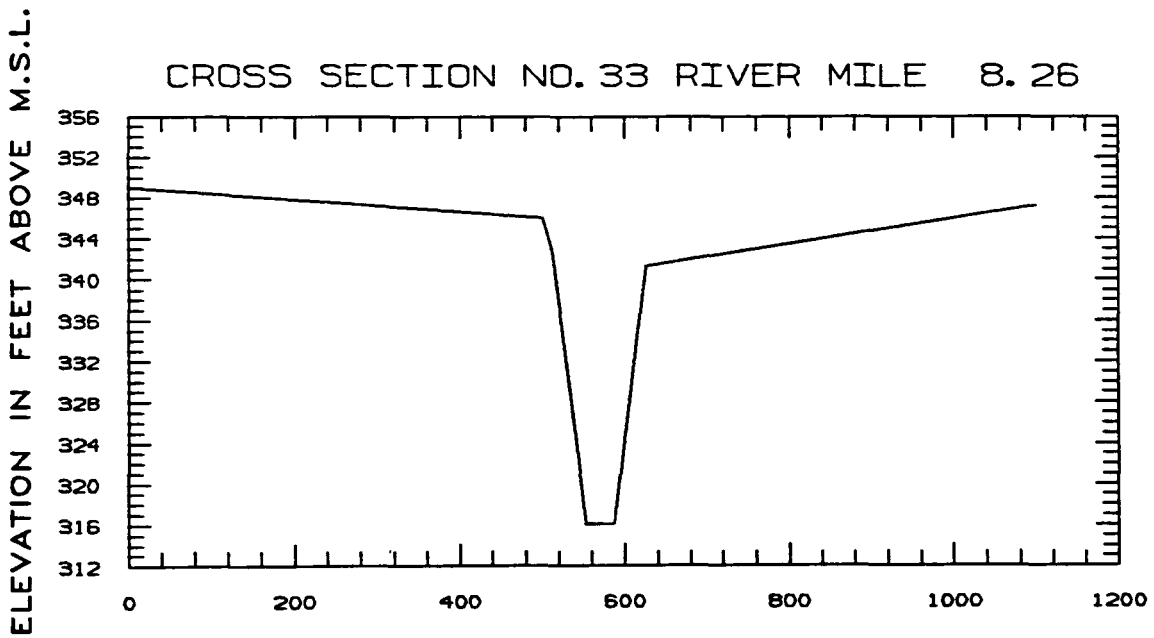
DISTANCE IN FEET FROM LEFT BANK LOOKING UPSTREAM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352
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344
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800
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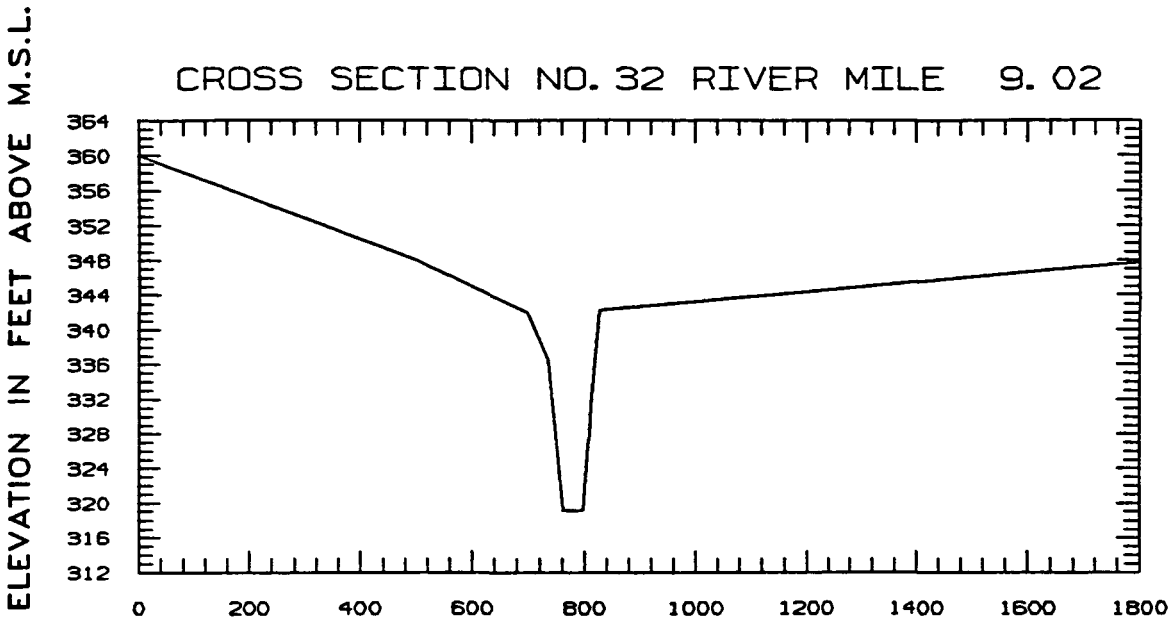
DISTANCE IN FEET FROM LEFT BANK LOOKING UPSTREAM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352
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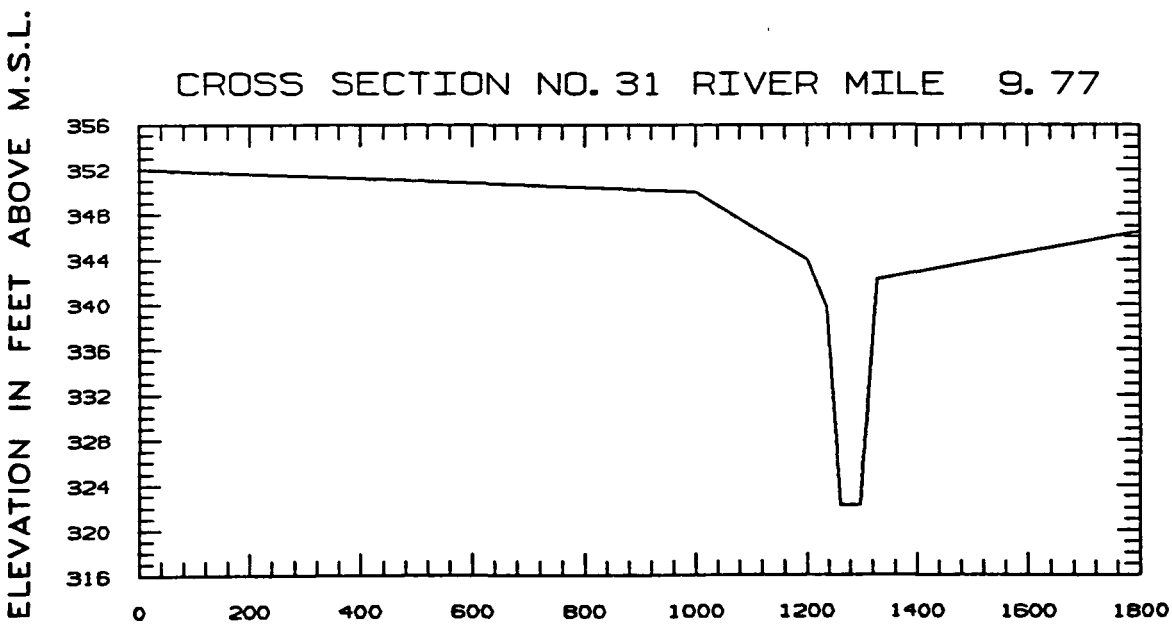
1400
1600
1800
DISTANCE IN FEET FROM LEFT BANK LOOKING UPSTREAM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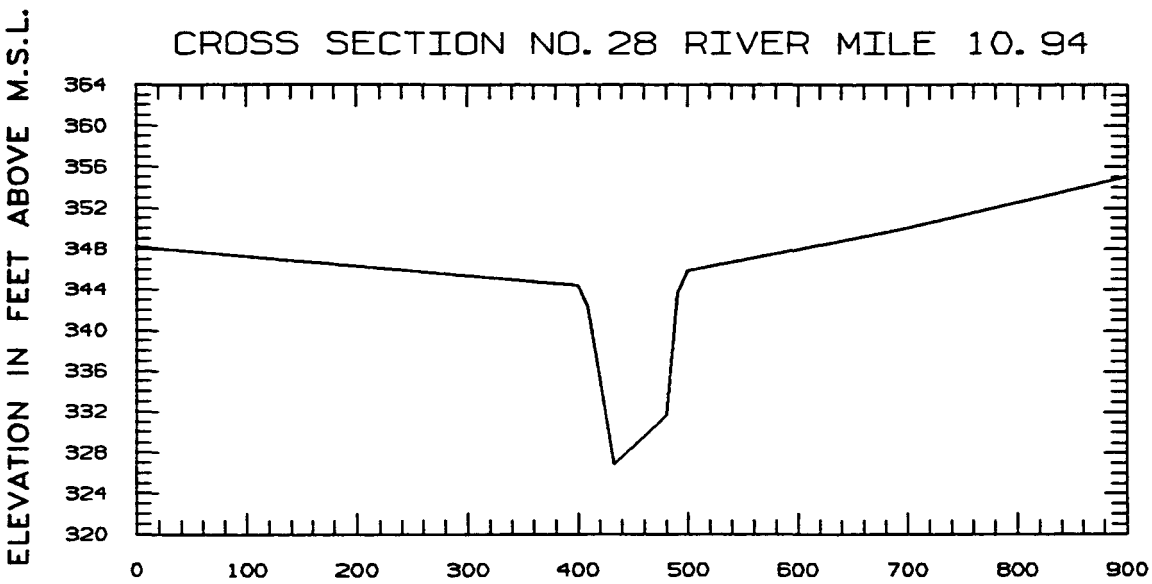
1600
1800
DISTANCE IN FEET FROM LEFT BANK LOOKING UPSTREAM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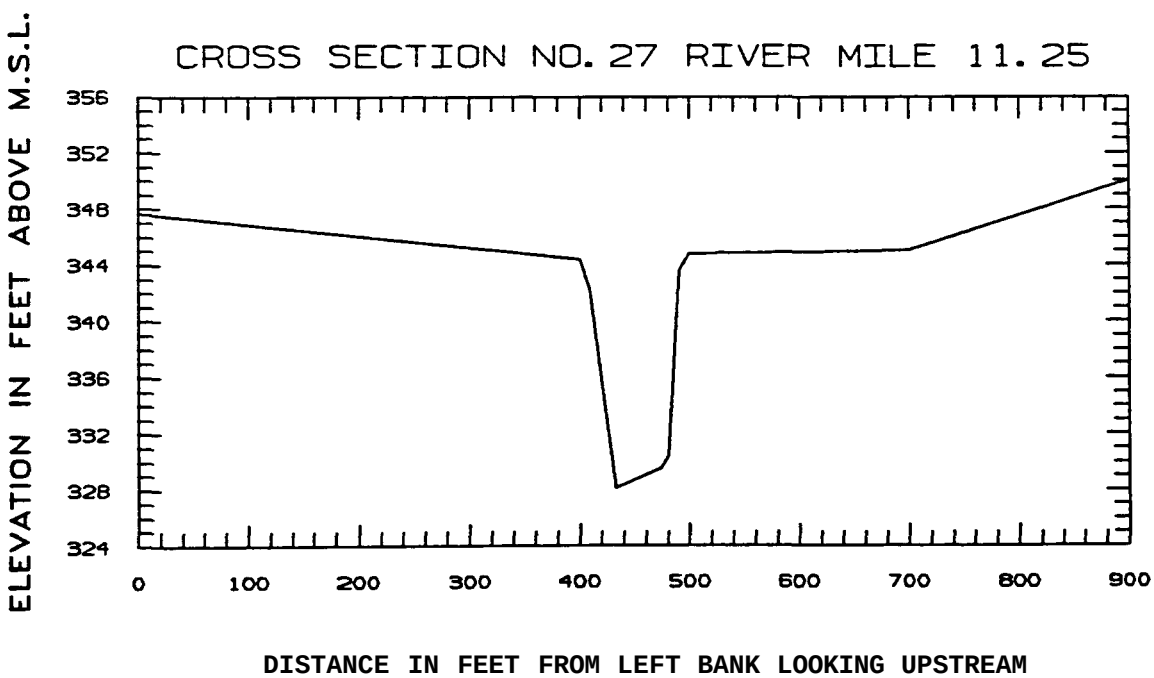
600
700
800
900
DISTANCE IN FEET FROM LEFT BANK LOOKING UPSTREAM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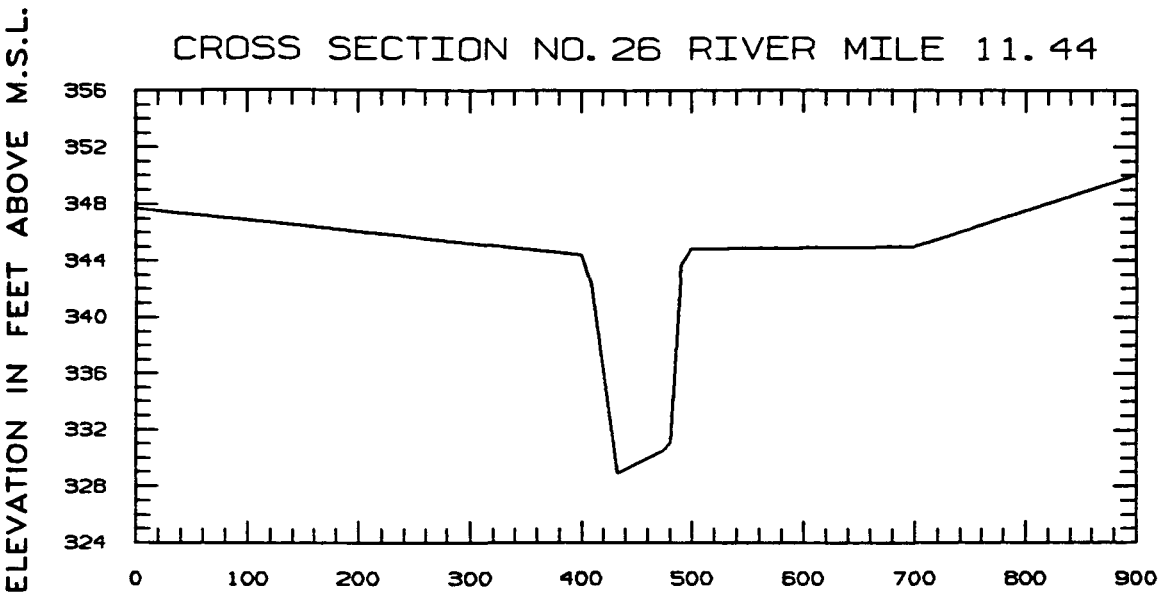
700
800
900
DISTANCE IN FEET FROM LEFT BANK LOOKING UPSTREAM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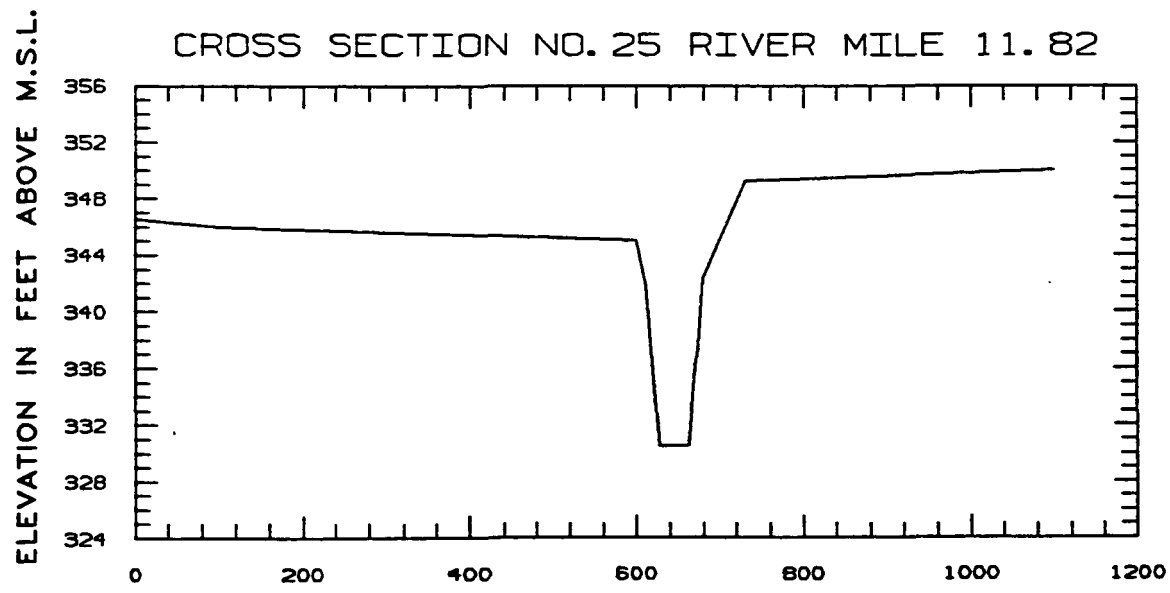
500
600
700
800
900
DISTANCE IN FEET FROM LEFT BANK LOOKING UPSTREAM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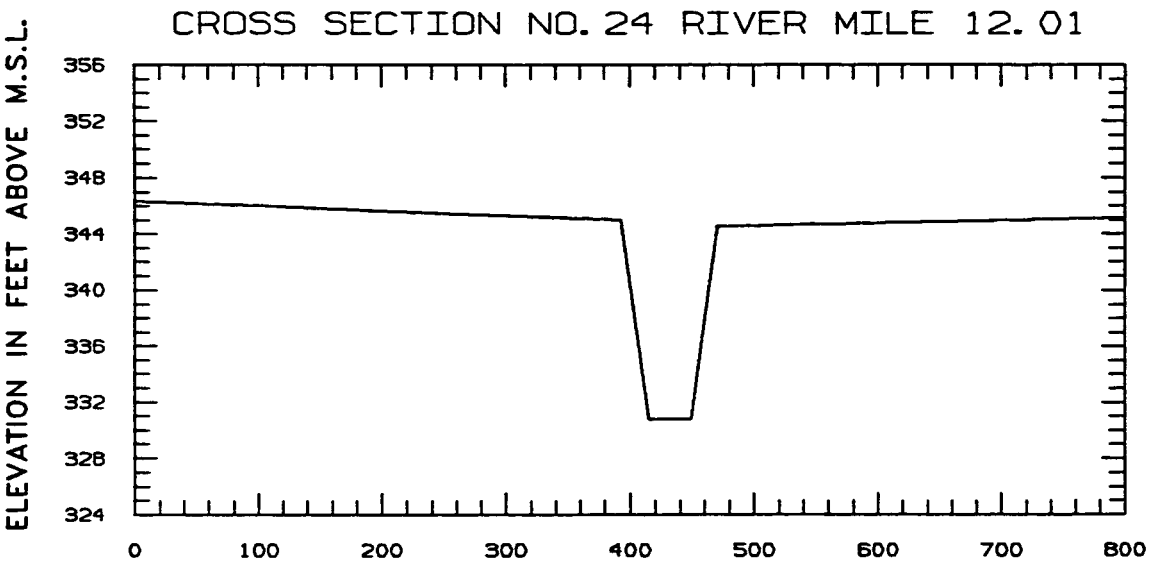
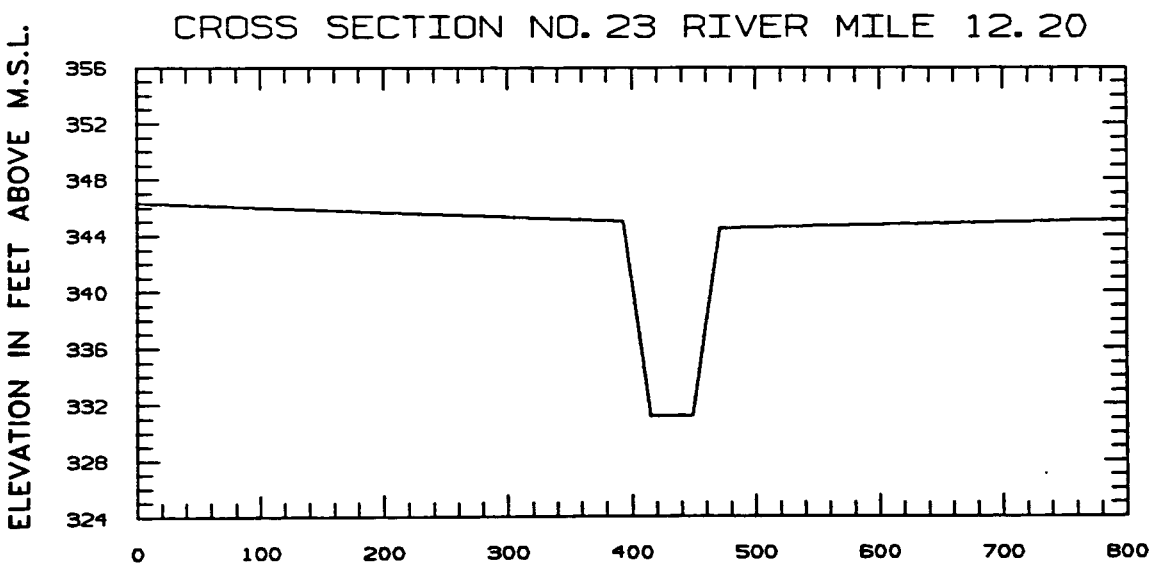
348
344
340
336
332
328
324
0
200
400
600
800
1000
1200
DISTANCE IN FEET FROM LEFT BANK LOOKING UPSTREAM


CROSS SECTION NO. 24 RIVER MILE 12.01
ELEVATION IN FEET ABOVE M.S.L.
356
352
348
344
340
336
332
328
324
0
100
200
300
400
500
600
700
800
DISTANCE IN FEET FROM LEFT BANK LOOKING UPSTREAM


CROSS SECTION NO. 23 RIVER MILE 12.20
ELEVATION IN FEET ABOVE M.S.L.
356
352
348
344
340
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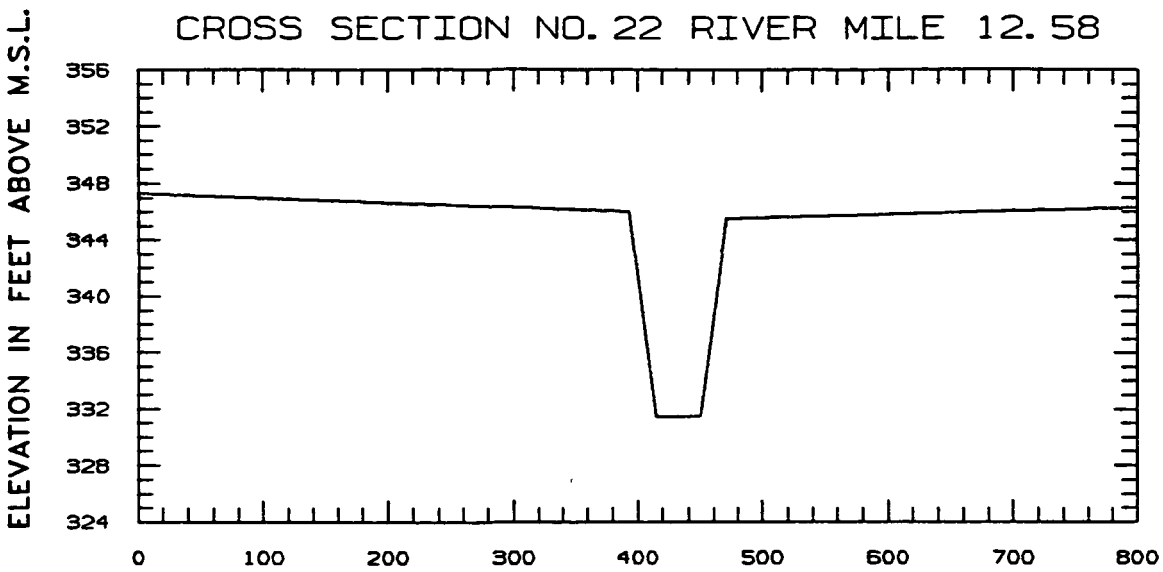
332
328
324
0
100
200
300
400
500
600
700
800
DISTANCE IN FEET FROM LEFT BANK LOOKING UPSTREAM


CROSS SECTION NO. 22 RIVER MILE 12.58
ELEVATION IN FEET ABOVE M.S.L.
356
352
348
344
340
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332
328
324
0
100
200
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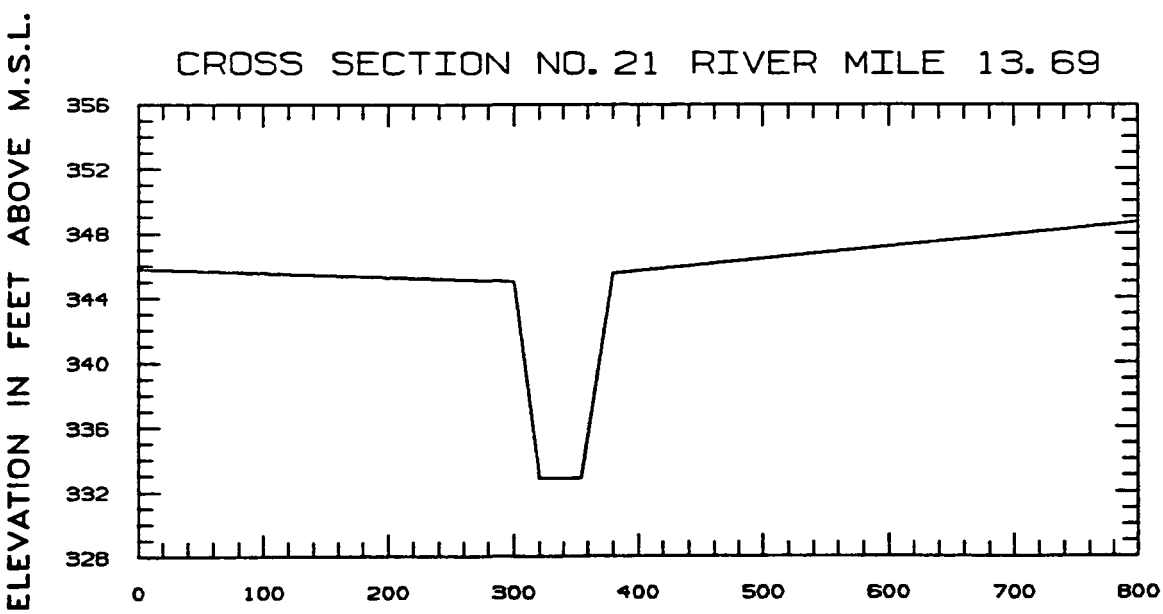
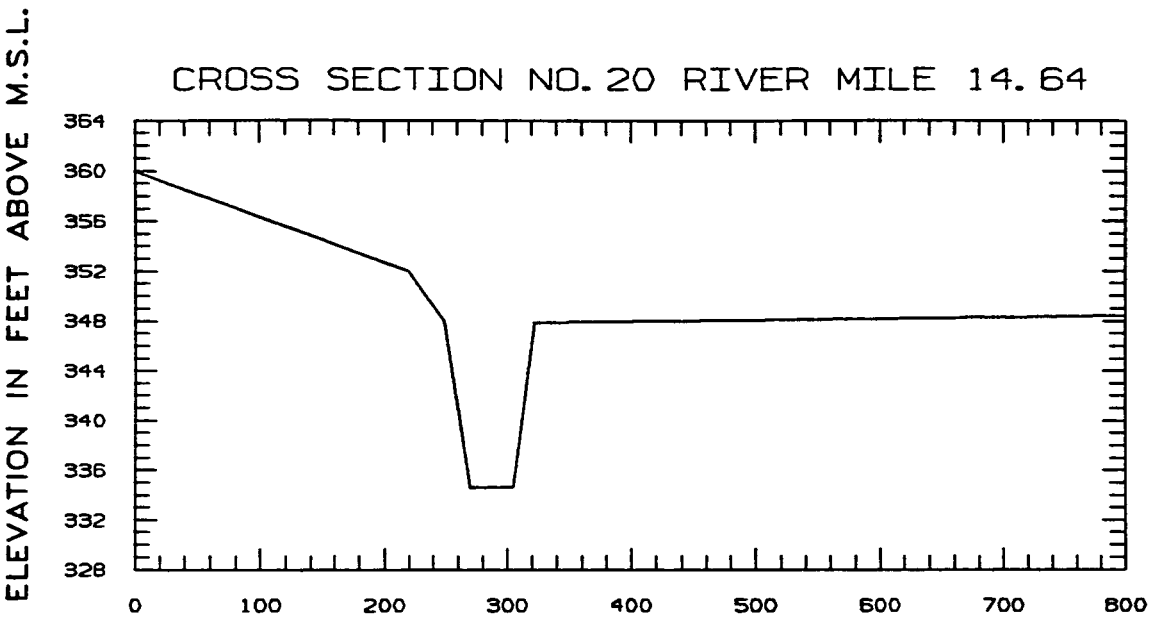
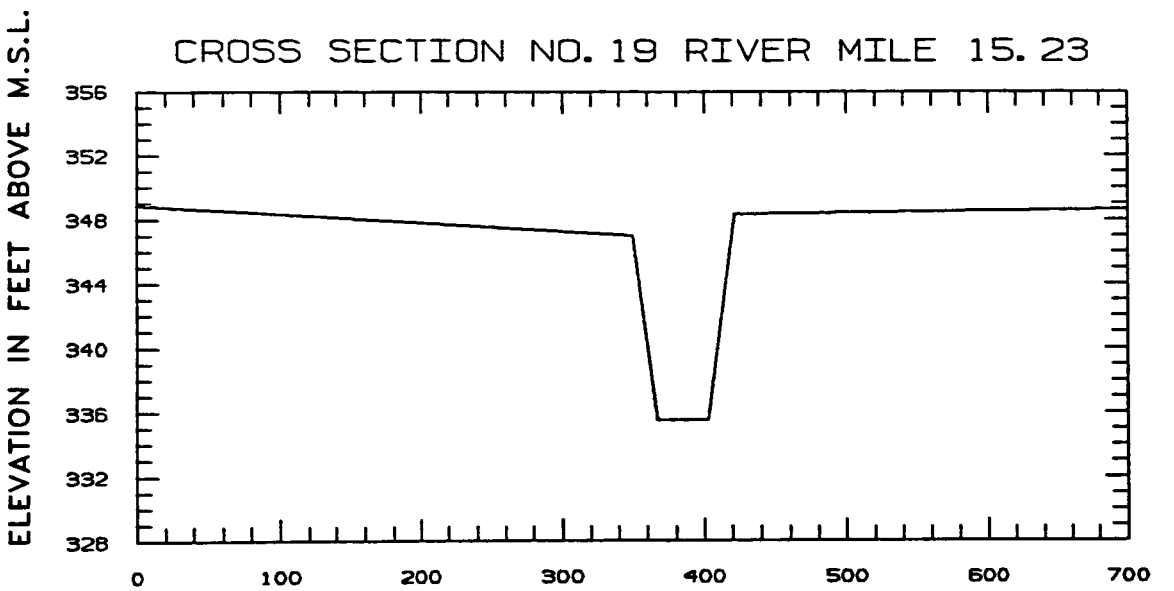
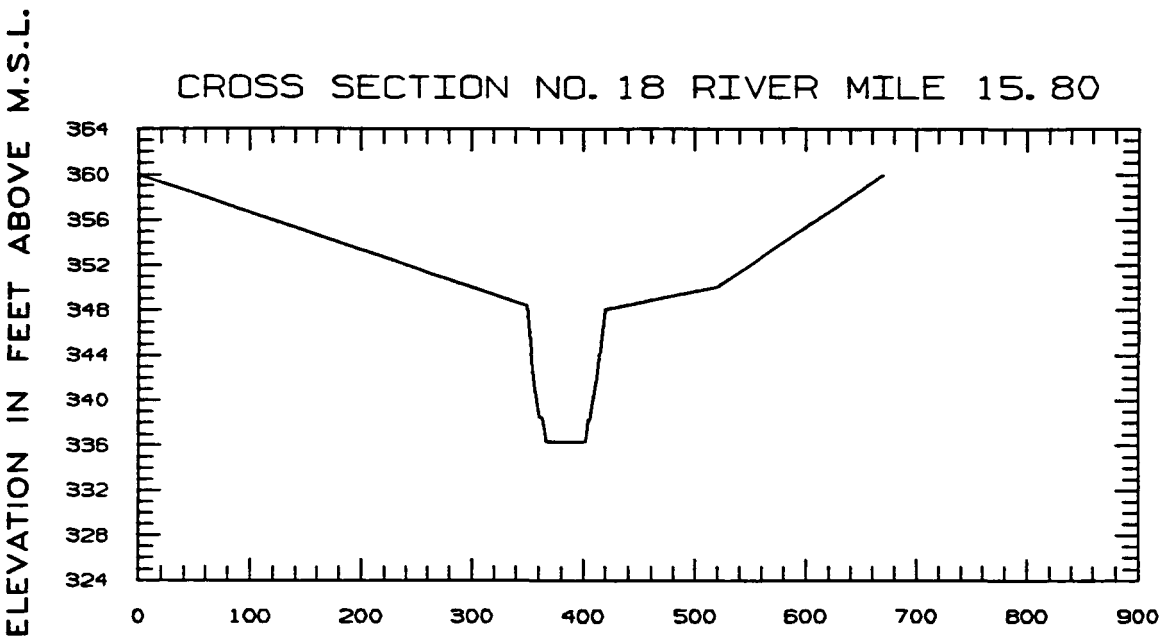
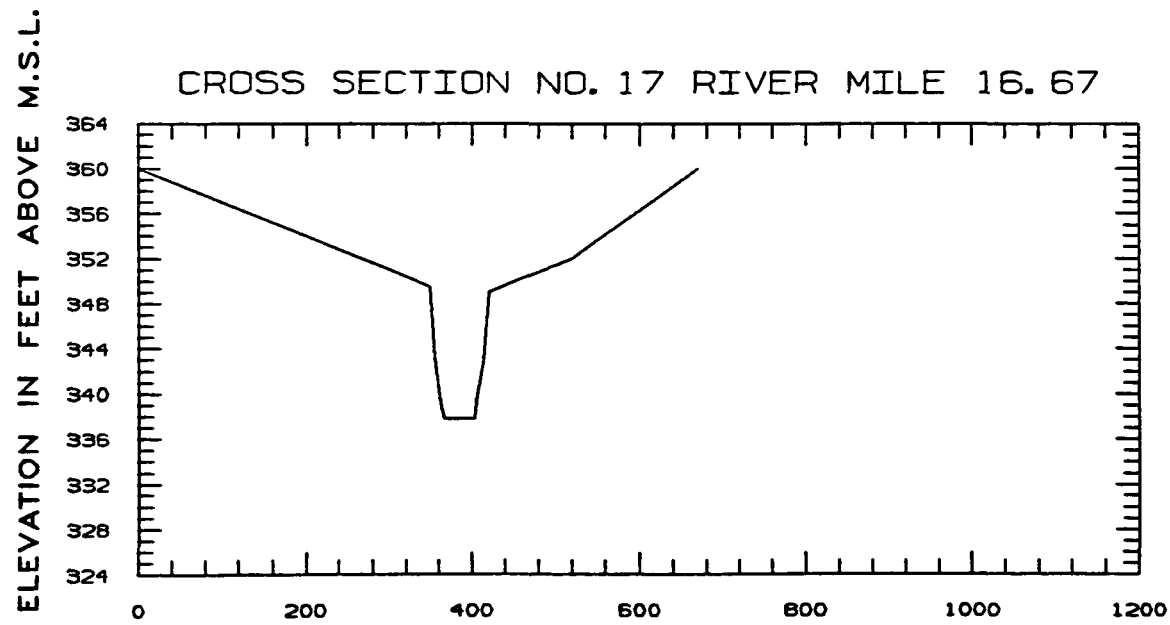
400
500
600
700
800
DISTANCE IN FEET FROM LEFT BANK LOOKING UPSTREAM

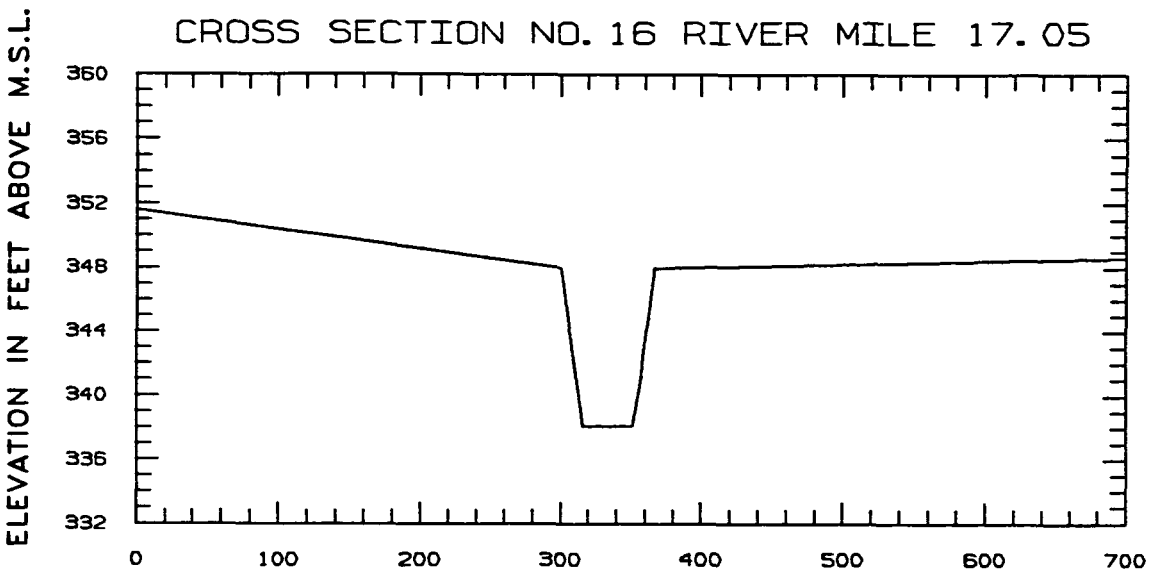

CROSS SECTION NO. 21 RIVER MILE 13.69
ELEVATION IN FEET ABOVE M.S.L.
356
352
348
344
340
336
332
328
0
100
200
300
400
500
600
700
800
DISTANCE IN FEET FROM LEFT BANK LOOKING UPSTREAM

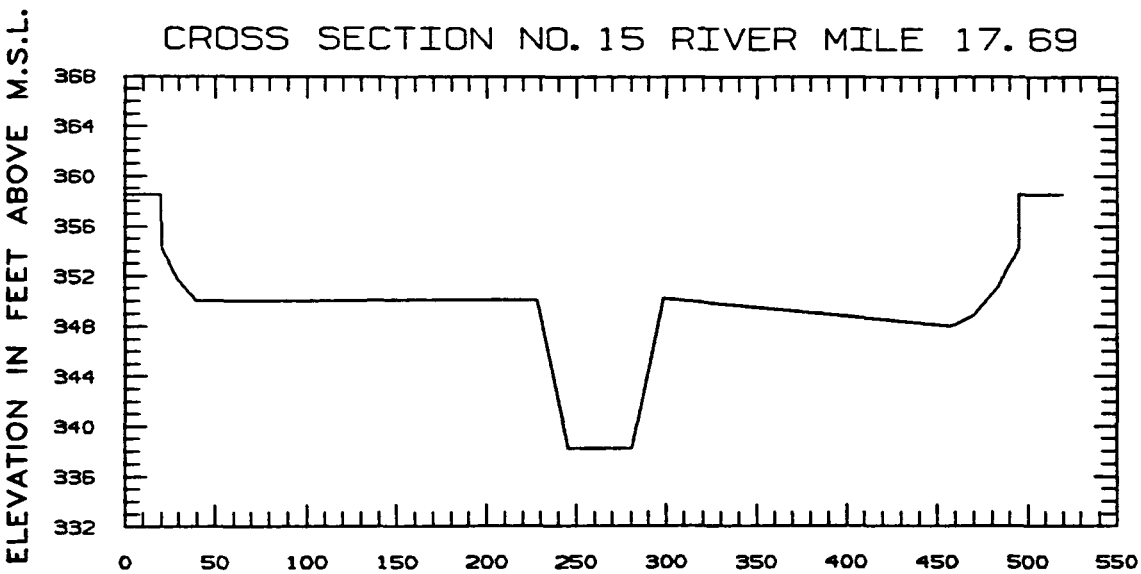

CROSS SECTION NO. 20 RIVER MILE 14.64
ELEVATION IN FEET ABOVE M.S.L.
364
360
356
352
348
344
340
336
332
328
0
100
200
300
400
500
600
700
800
DISTANCE IN FEET FROM LEFT BANK LOOKING UPSTREAM

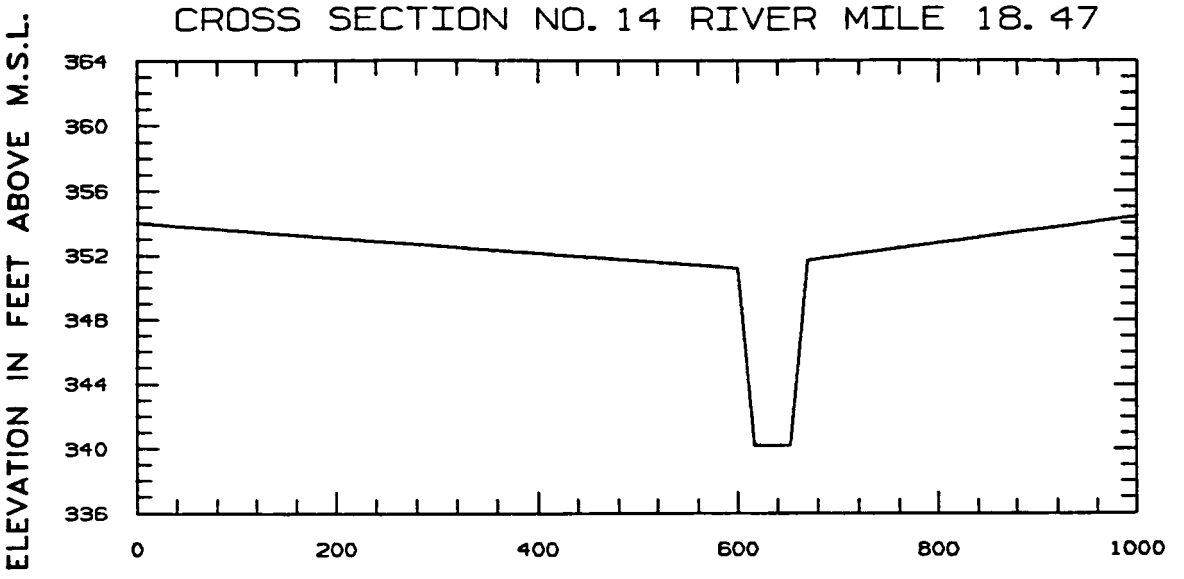

CROSS SECTION NO. 19 RIVER MILE 15.23
ELEVATION IN FEET ABOVE M.S.L.
356
352
348
344
340
336
332
328
0
100
200
300
400
500
600
700
DISTANCE IN FEET FROM LEFT BANK LOOKING UPSTREAM

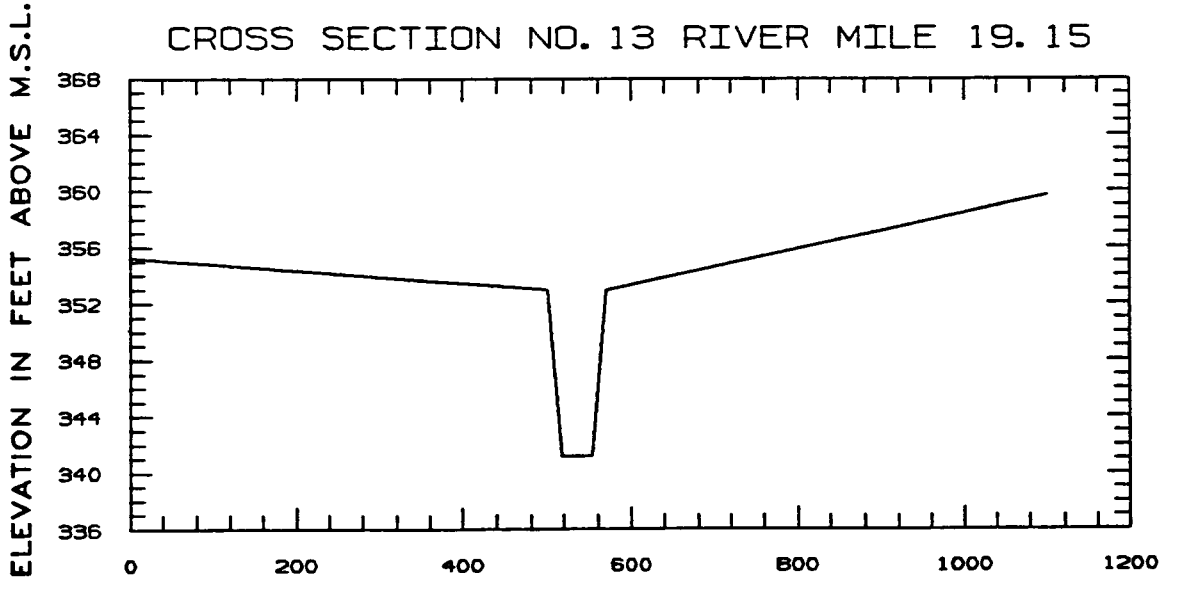

CROSS SECTION NO. 18 RIVER MILE 15.80
ELEVATION IN FEET ABOVE M.S.L.
364
360
356
352
348
344
340
336
332
328
324
0
100
200
300
400
500
600
700
800
900
DISTANCE IN FEET FROM LEFT BANK LOOKING UPSTREAM

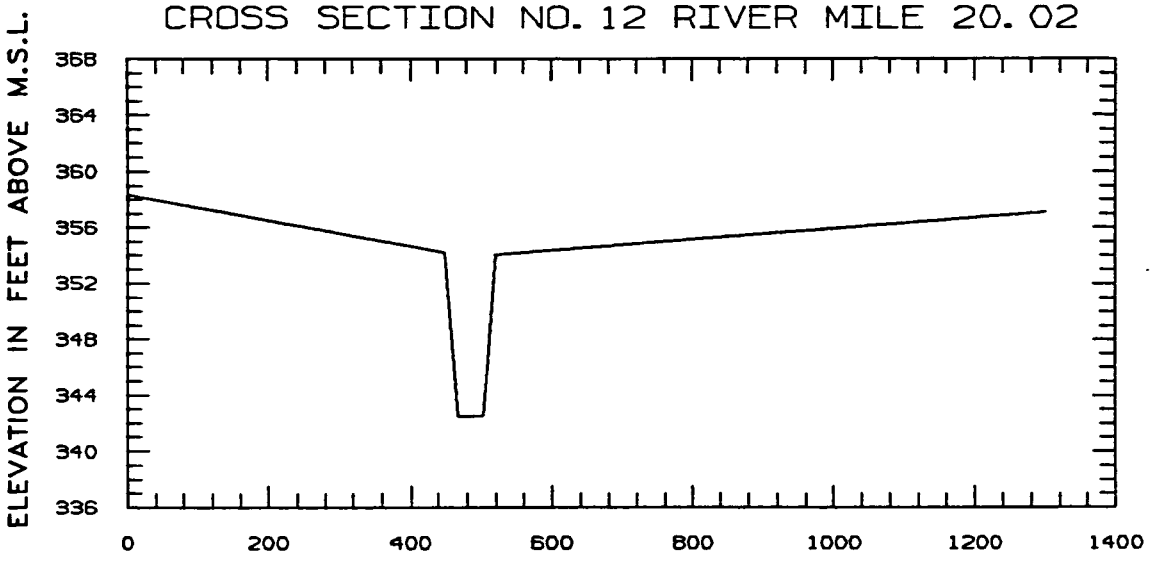

CROSS SECTION NO. 17 RIVER MILE 16.67
ELEVATION IN FEET ABOVE M.S.L.
364
360
356
352
348
344
340
336
332
328
324
0
200
400
600
800
1000
1200
DISTANCE IN FEET FROM LEFT BANK LOOKING UPSTREAM

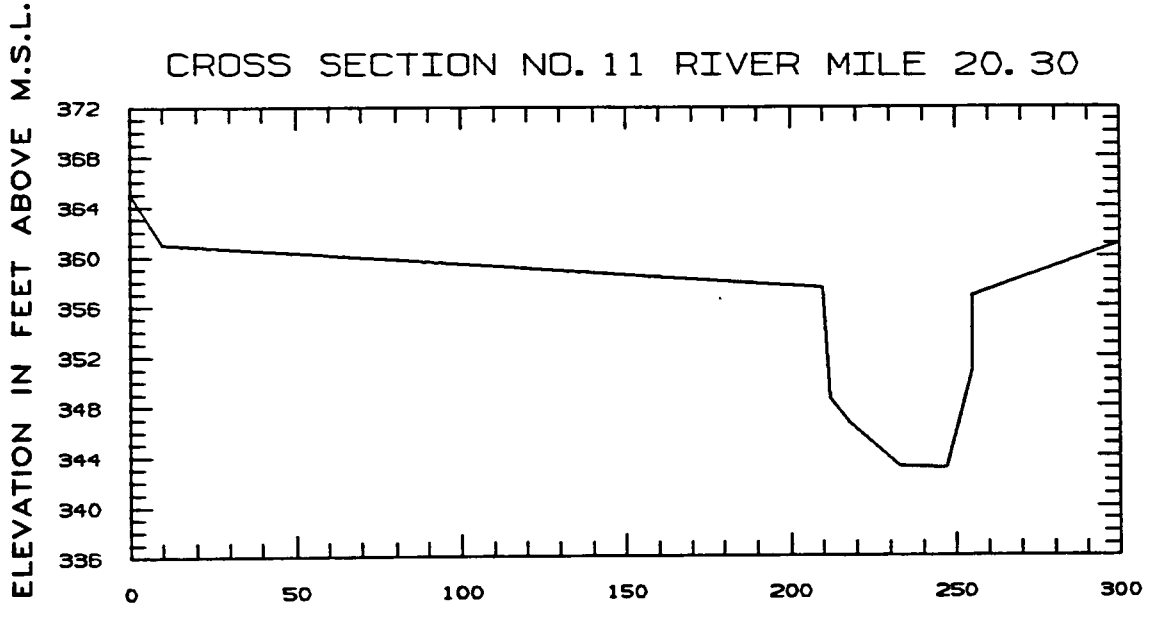

CROSS SECTION NO. 16 RIVER MILE 17.05
ELEVATION IN FEET ABOVE M.S.L.
360
356
352
348
344
340
336
332
0
100
200
300
400
500
600
700
DISTANCE IN FEET FROM LEFT BANK LOOKING UPSTREAM

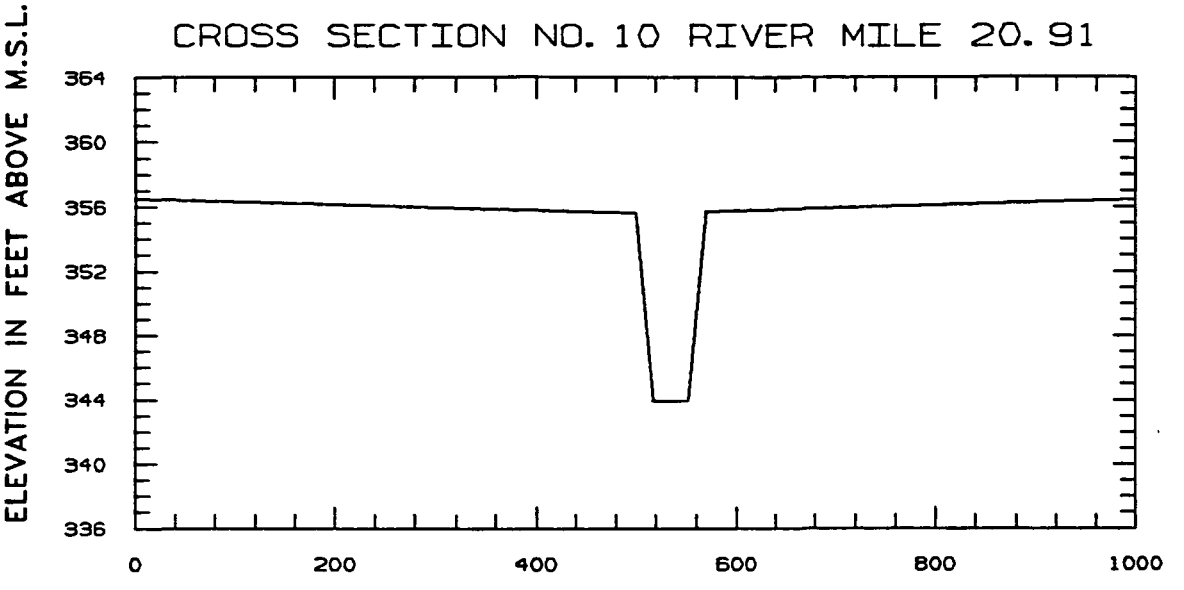

CROSS SECTION NO. 15 RIVER MILE 17.69
ELEVATION IN FEET ABOVE M.S.L.
368
364
360
356
352
348
344
340
336
332
0
50
100
150
200
250
300
350
400
450
500
550
DISTANCE IN FEET FROM LEFT BANK LOOKING UPSTREAM

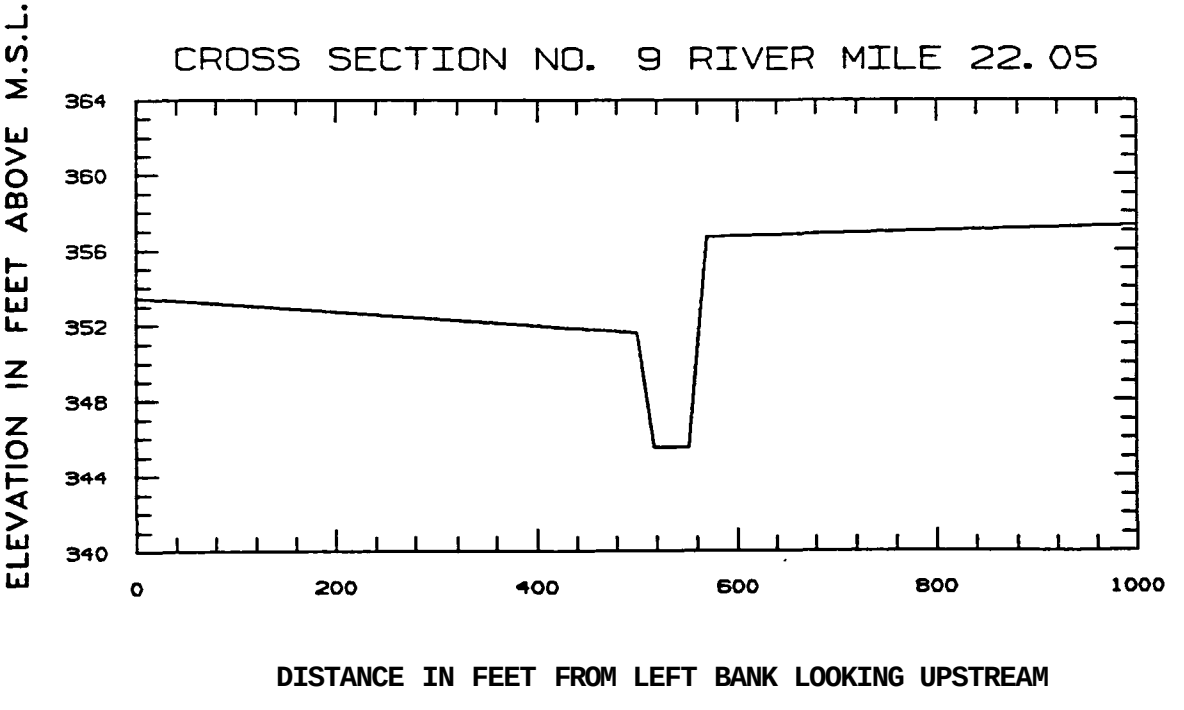

CROSS SECTION NO. 14 RIVER MILE 18.47
ELEVATION IN FEET ABOVE M.S.L.
364
360
356
352
348
344
340
336
0
200
400
600
800
1000
DISTANCE IN FEET FROM LEFT BANK LOOKING UPSTREAM

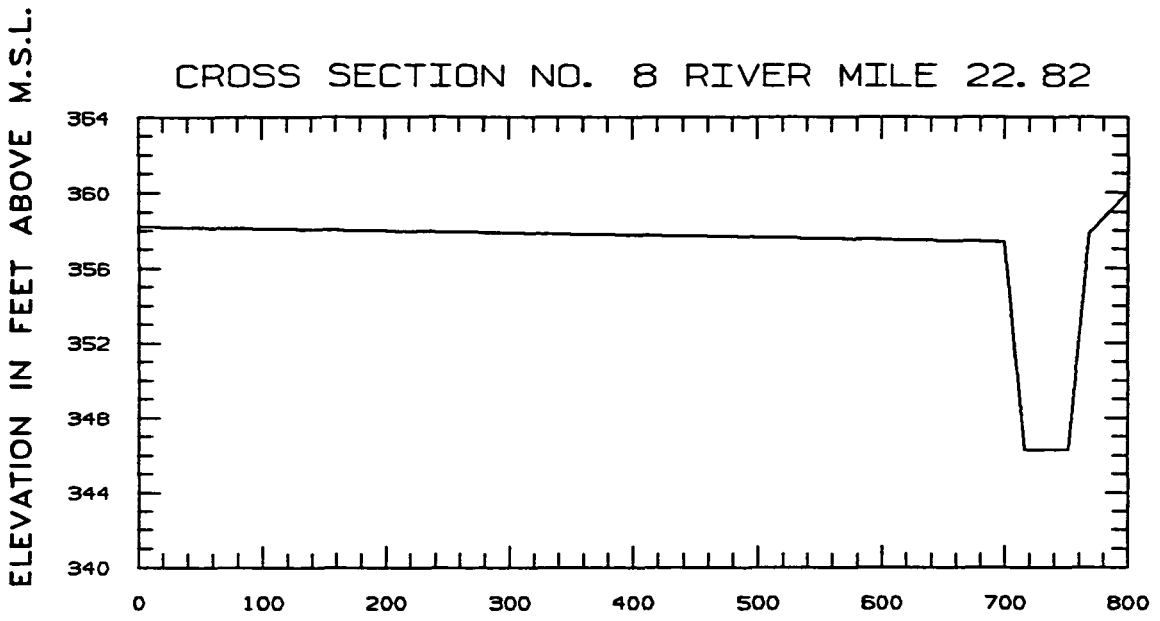

CROSS SECTION NO. 13 RIVER MILE 19.15
ELEVATION IN FEET ABOVE M.S.L.
368
364
360
356
352
348
344
340
336
0
200
400
600
800
1000
1200
DISTANCE IN FEET FROM LEFT BANK LOOKING UPSTREAM

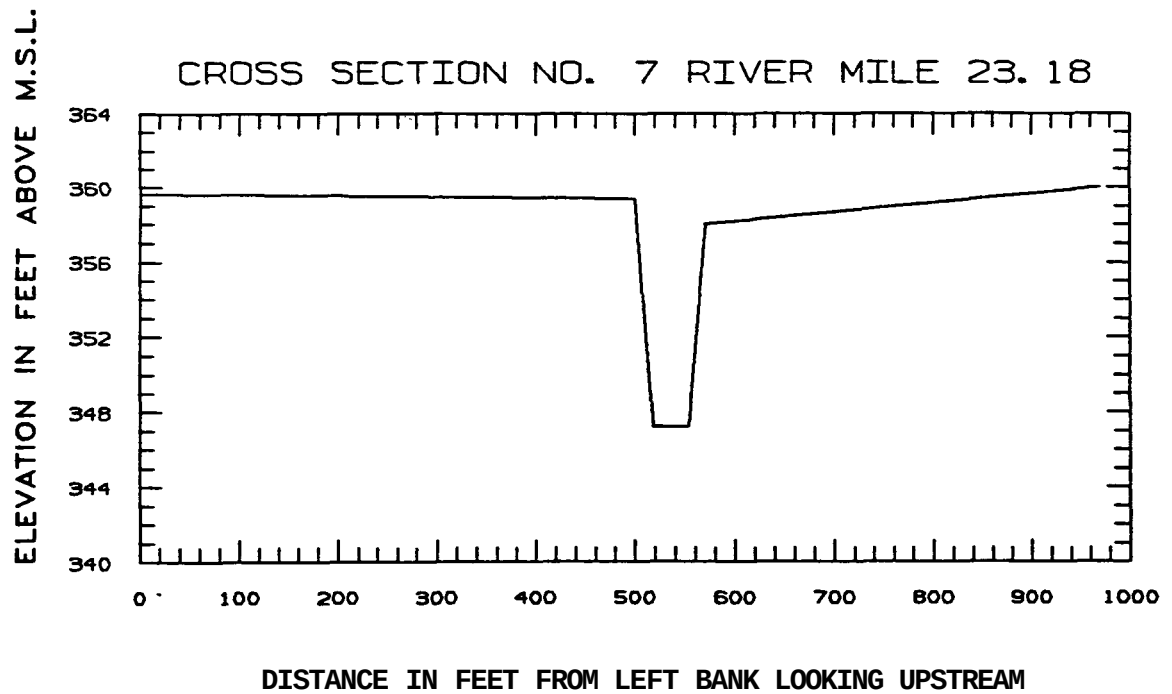

CROSS SECTION NO. 12 RIVER MILE 20.02
ELEVATION IN FEET ABOVE M.S.L.
368
364
360
356
352
348
344
340
336
0
200
400
600
800
1000
1200
1400
DISTANCE IN FEET FROM LEFT BANK LOOKING UPSTREAM

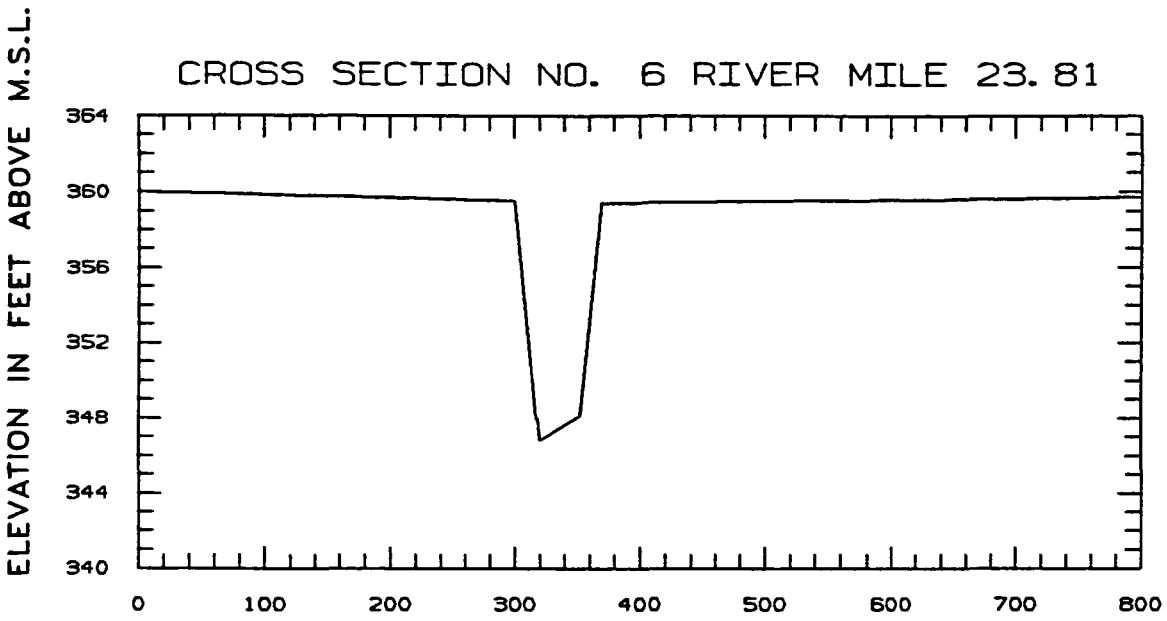

CROSS SECTION NO. 11 RIVER MILE 20.30
ELEVATION IN FEET ABOVE M.S.L.
372
368
364
360
356
352
348
344
340
336
0
50
100
150
200
250
300
DISTANCE IN FEET FROM LEFT BANK LOOKING UPSTREAM

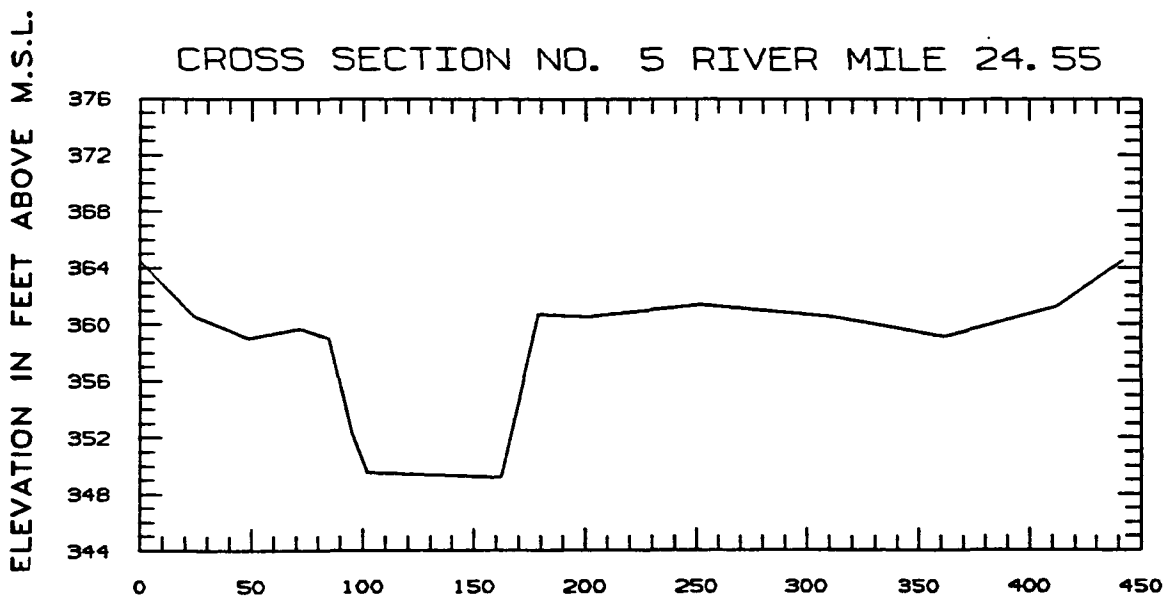

CROSS SECTION NO. 10 RIVER MILE 20.91
ELEVATION IN FEET ABOVE M.S.L.
364
360
356
352
348
344
340
336
0
200
400
600
800
1000
DISTANCE IN FEET FROM LEFT BANK LOOKING UPSTREAM

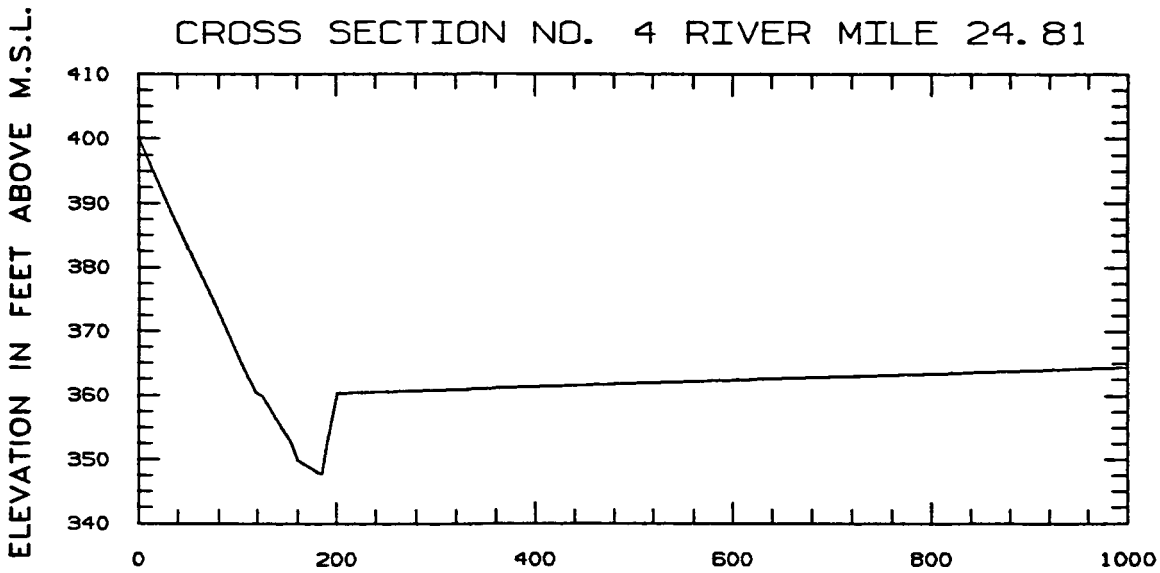

CROSS SECTION NO. 9 RIVER MILE 22.05
ELEVATION IN FEET ABOVE M.S.L.
364
360
356
352
348
344
340
0
200
400
600
800
1000
DISTANCE IN FEET FROM LEFT BANK LOOKING UPSTREAM

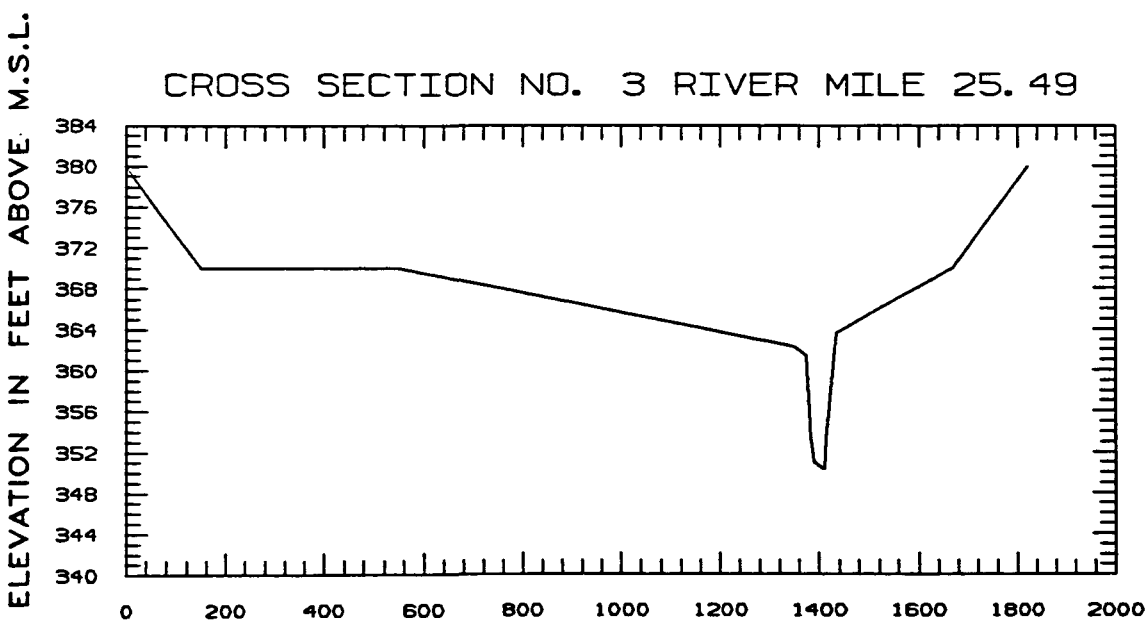

CROSS SECTION NO. 8 RIVER MILE 22.82
ELEVATION IN FEET ABOVE M.S.L.
364
360
356
352
348
344
340
0
100
200
300
400
500
600
700
800
DISTANCE IN FEET FROM LEFT BANK LOOKING UPSTREAM

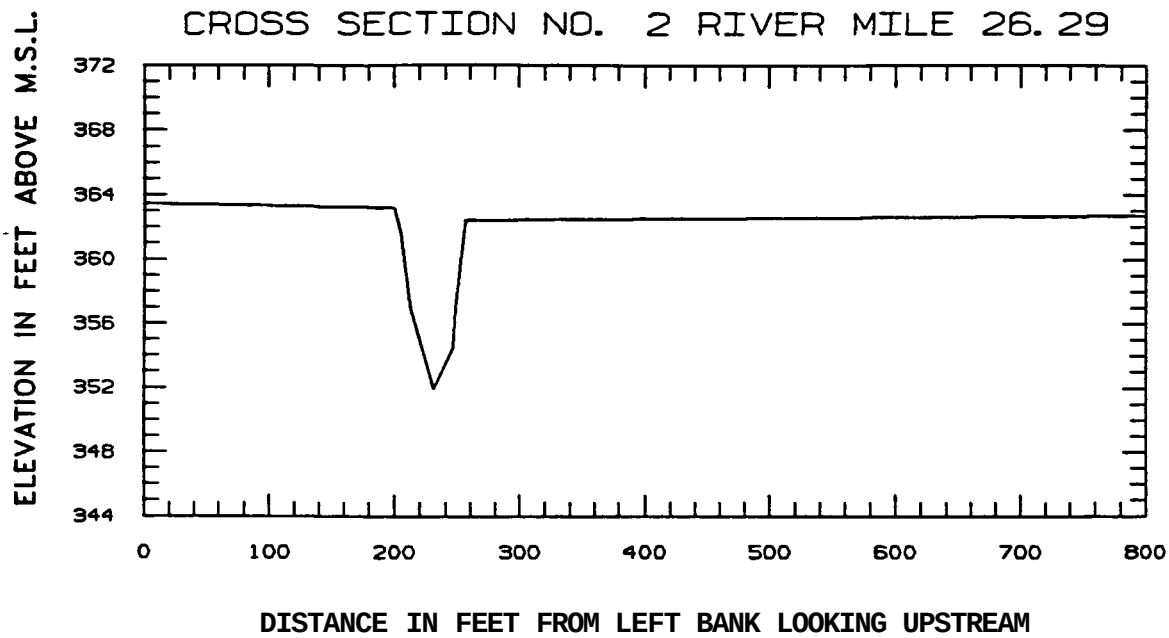

CROSS SECTION NO. 7 RIVER MILE 23.18
ELEVATION IN FEET ABOVE M.S.L.
364
360
356
352
348
344
340
0
100
200
300
400
500
600
700
800
900
1000
DISTANCE IN FEET FROM LEFT BANK LOOKING UPSTREAM

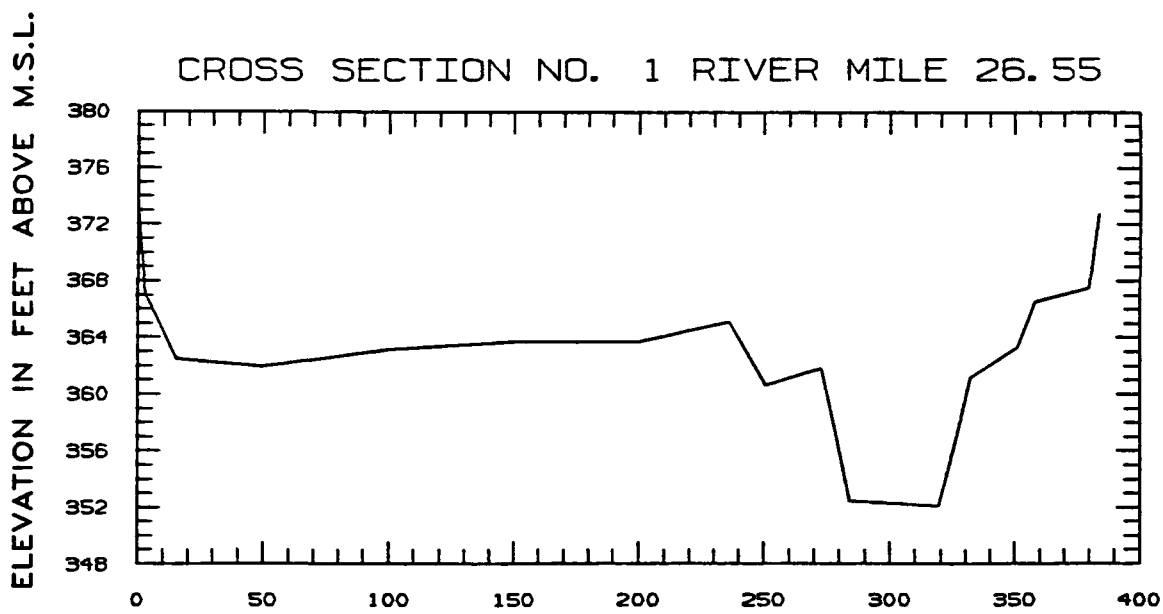

CROSS SECTION NO. 6 RIVER MILE 23.81
ELEVATION IN FEET ABOVE M.S.L.
364
360
356
352
348
344
340
0
100
200
300
400
500
600
700
800
DISTANCE IN FEET FROM LEFT BANK LOOKING UPSTREAM


CROSS SECTION NO. 5 RIVER MILE 24.55
ELEVATION IN FEET ABOVE M.S.L.
376
372
368
364
360
356
352
348
344
0
50
100
150
200
250
300
350
400
450
DISTANCE IN FEET FROM LEFT BANK LOOKING UPSTREAM


CROSS SECTION NO. 4 RIVER MILE 24.81
ELEVATION IN FEET ABOVE M.S.L.
410
400
390
380
370
360
350
340
0
200
400
600
800
1000
DISTANCE IN FEET FROM LEFT BANK LOOKING UPSTREAM


CROSS SECTION NO. 3 RIVER MILE 25.49
ELEVATION IN FEET ABOVE M.S.L.
384
380
376
372
368
364
360
356
352
348
344
340
0
200
400
600
800
1000
1200
1400
1600
1800
2000
DISTANCE IN FEET FROM LEFT BANK LOOKING UPSTREAM


CROSS SECTION NO. 2 RIVER MILE 26.29
ELEVATION IN FEET ABOVE M.S.L.
372
368
364
360
356
352
348
344
0
100
200
300
400
500
600
700
800
DISTANCE IN FEET FROM LEFT BANK LOOKING UPSTREAM


CROSS SECTION NO. 1 RIVER MILE 26.55
ELEVATION IN FEET ABOVE M.S.L.
380
376
372
368
364
360
356
352
348
0
50
100
150
200
250
300
350
400
DISTANCE IN FEET FROM LEFT BANK LOOKING UPSTREAM