

# **Appendix C**

AVERAGE MONTHLY WATER QUALITY DATA --- CATAWISSA CREEK  
SL-135-11  
CC-1

SAMPLING MONTH	pH	ACID. mg/l	ALKA. mg/l	TOT. IRON mg/l	FE++ IRON mg/l	SO4 mg/l
JUNE 1978	3.97	92	0	1.1	1.1	149
JULY	3.95	97	0	2.2	1.8	184
AUGUST	4.26	98	1	1.8	1.3	199
SEPTEMBER	4.02	96	0	1.3	1.3	183
OCTOBER	4.08	118	0	0.5	0.5	181
NOVEMBER	3.97	112	0	0.6	0.5	178
DECEMBER	4.24	82	0	0.6	0.4	153
JANUARY	4.29	61	0	0.4	0.3	118
FEBUARY	4.22	73	0	0.6	0.5	121
MARCH	4.24	43	0	0.5	0.5	116
APRIL	4.18	68	0	0.7	0.7	131
MAY	4.18	68	0	0.5	0.4	135
JUNE 1979	4.34	123	2	1.1	0.8	220

AVERAGE MONTHLY WATER QUALITY DATA --- CATAWISSA CREEK  
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CC-2

SAMPLING MONTH	FLOW cfs	pH	ACID. mg/l	ALKA. mg/l	TOT. IRON mg/l	FE++ IRON mg/l	SO4 mg/l	ACID LOAD lbs./day	IRON LOAD
JUNE 1978	0.8	4.33	20	0	1.0	0.9	39	82	3
JULY	0.6	4.31	17	0	1.7	1.5	36	52	4
AUGUST	1.5	4.55	14	1	2.3	2.0	30	78	6
SEPTEMBER	2.6	4.39	13	0	5.7	2.5	43	186	7
OCTOBER	0.6	4.33	19	0	6.7	2.3	50	62	30
NOVEMBER	0.0	4.08	23	0	12.9	5.4	47	0	0
DECEMBER	0.0	4.39	18	0	8.7	5.0	42	0	0
JANUARY	3.4	4.67	15	3	17.8	9.6	31	239	6
FEBUARY	0.0	4.69	15	3	9.1	3.6	29	0	0
MARCH	6.6	4.66	16	2	1.0	0.9	28	614	57
APRIL	1.8	4.52	17	2	1.4	1.1	52	166	13
MAY	1.8	4.46	16	1	2.0	1.5	45	167	7
JUNE 1979	5.3	4.55	23	2	4.0	0.8	59	720	12

AVERAGE MONTHLY WATER QUALITY DATA --- CATAWISSA CREEK  
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CC-3

SAMPLING MONTH	FLOW cfs	pH	ACID. mg/l	ALKA. mg/l	TOT. IRON mg/l	FE++ IRON mg/l	SO4 mg/l	ACID LOAD lbs./day	IRON LOAD
JUNE 1978	1.4	4.43	17	1	0.7	0.5	32	136	4
JULY	0.8	4.39	16	0	0.4	0.3	31	76	2
AUGUST	1.5	4.75	15	4	0.7	0.4	27	117	7
SEPTEMBER	0.9	4.42	13	0	2.4	0.8	28	59	28
OCTOBER	1.9	4.37	18	0	0.4	0.3	36	188	4
NOVEMBER	1.0	4.11	22	0	0.4	0.2	44	117	2
DECEMBER	2.3	4.45	16	0	0.5	0.3	36	203	7
JANUARY	17.8	4.76	15	3	0.9	0.8	30	1310	160
FEBUARY	0.0	4.69	15	4	0.3	0.3	24	0	0
MARCH	5.6	4.67	17	2	0.6	0.5	32	498	13
APRIL	4.4	4.56	18	6	0.5	0.4	41	406	11
MAY	3.0	4.48	18	1	0.4	0.2	40	301	7
JUNE 1979	2.4	4.55	26	2	1.2	1.1	55	531	5

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WLT-3

SAMPLING MONTH	FLOW cfs	pH	ACID. mg/l	ALKA. mg/l	TOT. IRON mg/l	FE++ IRON mg/l	S04 mg/l	ACID LOAD lbs./day	IRON LOAD
JUNE 1978	0.4	3.83	43	0	1.6	1.2	55	97	4
JULY	0.3	3.74	46	0	2.6	2.2	64	79	4
AUGUST	0.4	3.97	48	0	3.3	2.6	66	95	6
SEPTEMBER	0.2	3.59	56	0	3.7	2.9	75	75	5
OCTOBER	0.7	3.89	39	0	2.3	2.2	55	122	7
NOVEMBER	0.6	3.77	39	0	1.7	1.4	46	128	6
DECEMBER	1.6	4.10	23	0	1.3	0.7	39	197	11
JANUARY	3.6	4.12	24	1	1.1	0.9	36	483	21
FEBUARY	1.1	4.02	27	0	1.2	1.2	42	111	5
MARCH	2.9	4.02	31	0	1.1	1.0	47	501	16
APRIL	1.6	3.96	23	0	1.5	1.1	40	189	12
MAY	2.0	4.00	39	0	1.2	0.8	45	415	12
JUNE 1979	1.0	3.84	70	0	1.4	0.9	67	417	6

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SAMPLING MONTH	FLOW cfs	pH	ACID. mg/l	ALKA. mg/l	TOT. IRON mg/l	FE++ IRON mg/l	S04 mg/l	ACID LOAD lbs./day	IRON LOAD
JUNE 1978	0.5	6.19	5	6	0.1	0.1	15	11	0
JULY	0.4	5.94	3	9	0.3	0.2	21	8	1
AUGUST	0.4	6.14	5	12	0.4	0.3	25	12	1
SEPTEMBER	0.4	6.10	1	6	0.4	0.3	20	3	1
OCTOBER	0.5	5.97	5	6	0.5	0.4	24	14	1
NOVEMBER	0.3	6.13	3	12	0.1	0.1	18	5	0
DECEMBER	0.9	6.53	3	6	0.0	0.0	20	17	0
JANUARY	3.5	6.24	7	6	0.0	0.0	16	130	0
FEBUARY	2.7	6.25	8	6	0.0	0.0	20	103	0
MARCH	3.5	6.28	11	6	0.1	0.1	21	198	1
APRIL	1.3	6.28	8	7	0.0	0.0	22	53	0
MAY	1.4	6.06	7	6	0.1	0.1	23	55	1
JUNE 1979	1.2	6.17	20	6	0.1	0.0	37	147	0

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SAMPLING MONTH	FLOW cfs	pH	ACID. mg/l	ALKA. mg/l	TOT. IRON mg/l	FE++ IRON mg/l	S04 mg/l	ACID LOAD lbs./day	IRON LOAD
JUNE 1978	2.0	4.28	24	0	0.3	0.2	31	271	3
JULY	1.7	4.18	23	0	0.2	0.1	37	218	2
AUGUST	1.6	4.45	26	1	0.1	0.1	39	226	1
SEPTEMBER	1.5	4.11	25	0	0.2	0.1	43	197	2
OCTOBER	2.1	4.21	28	0	0.2	0.2	42	304	3
NOVEMBER	1.5	4.22	25	0	0.2	0.1	43	189	1
DECEMBER	3.2	4.46	17	0	0.2	0.1	32	299	4
JANUARY	12.4	4.55	17	3	0.2	0.2	28	1146	16
FEBUARY	10.3	4.47	20	0	0.3	0.2	29	1174	16
MARCH	12.6	4.51	18	3	0.3	0.3	29	1217	23
APRIL	4.5	4.38	21	0	0.3	0.3	27	503	8
MAY	4.9	4.32	19	0	0.2	0.1	33	491	6
JUNE 1979	4.2	4.33	26	0	0.3	0.1	63	559	6

AVERAGE MONTHLY WATER QUALITY DATA --- CATAWISSA CREEK  
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 WLT A

SAMPLING MONTH	FLOW cfs	pH	ACID. mg/l	ALKA. mg/l	TOT. IRON mg/l	FE++ IRON mg/l	S04 mg/l	ACID LOAD lbs./day	IRON LOAD
JUNE 1978	14.8	3.63	181	0	1.7	1.2	277	14391	132
JULY	12.8	3.48	205	0	2.7	2.0	337	14122	181
AUGUST	14.1	3.76	218	0	2.7	1.3	431	16663	201
SEPTEMBER	11.4	3.35	283	0	3.2	1.5	371	17467	200
OCTOBER	14.1	3.46	295	0	3.1	1.8	301	21650	228
NOVEMBER	12.6	3.45	269	0	3.0	1.9	335	18353	206
DECEMBER	15.8	3.57	177	0	2.8	1.5	286	14857	236
JANUARY	22.8	3.64	138	0	1.8	1.3	223	17058	223
FEBUARY	12.7	3.56	179	0	1.7	1.6	254	12079	107
MARCH	31.3	3.67	118	0	1.5	1.3	209	19015	254
APRIL	16.5	3.60	127	0	1.6	1.4	209	11298	142
MAY	19.7	3.56	137	0	1.5	1.0	254	14579	159
JUNE 1979	20.4	3.58	213	0	1.7	1.2	261	22840	172

AVERAGE MONTHLY WATER QUALITY DATA --- CATAWISSA CREEK  
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 WLT-2

SAMPLING MONTH	FLOW cfs	pH	ACID. mg/l	ALKA. mg/l	TOT. IRON mg/l	FE++ IRON mg/l	S04 mg/l	ACID LOAD lbs./day	IRON LOAD
JUNE 1978	0.8	3.88	58	0	0.6	0.5	72	262	3
JULY	0.9	3.76	64	0	0.6	0.3	86	305	3
AUGUST	0.7	3.99	82	0	0.6	0.3	104	309	2
SEPTEMBER	0.7	3.60	93	0	0.8	0.3	105	332	3
OCTOBER	0.7	3.73	95	0	0.6	0.4	93	365	2
NOVEMBER	0.9	3.76	78	0	0.5	0.3	86	357	2
DECEMBER	1.9	3.87	52	0	0.5	0.3	70	493	5
JANUARY	3.6	3.93	49	0	0.5	0.4	71	951	10
FEBUARY	1.3	3.80	56	0	0.2	0.2	84	400	1
MARCH	2.4	3.86	48	0	0.5	0.5	74	616	7
APRIL	1.8	3.89	47	0	0.5	0.4	78	461	5
MAY	1.6	3.84	40	0	0.5	0.3	75	347	4
JUNE 1979	1.9	3.84	65	0	0.6	0.5	86	623	7

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SAMPLING MONTH	pH	ACID. mg/l	ALKA. mg/l	TOT. IRON mg/l	FE++ IRON mg/l	S04 mg/l
JUNE 1978	3.95	91	0	1.0	0.8	143
JULY	3.68	110	0	1.1	1.1	206
AUGUST	4.13	106	0	1.0	0.9	192
SEPTEMBER	3.56	171	0	1.4	1.2	231
OCTOBER	3.68	150	0	1.3	0.9	186
NOVEMBER	3.70	104	0	1.3	0.9	157
DECEMBER	3.98	61	0	1.4	0.7	101
JANUARY	4.23	48	1	0.5	0.4	84
FEBUARY	3.99	68	0	0.7	0.5	115
MARCH	4.10	48	0	0.8	0.9	91
APRIL	4.01	53	0	0.9	0.6	92
MAY	4.02	49	0	0.8	0.5	105
JUNE 1979	3.94	101	0	0.9	0.7	124

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SAMPLING MONTH	FLOW cfs	pH	ACID. mg/l	ALKA. mg/l	TOT. IRON mg/l	FE++ IRON mg/l	S04 mg/l	ACID LOAD lbs./day	IRON LOAD
JUNE 1978	41.1	4.04	74	0	0.6	0.5	129	18345	126
JULY	22.5	3.90	107	0	0.9	0.8	186	12801	107
AUGUST	20.2	4.08	125	0	0.8	0.6	186	13263	90
SEPTEMBER	18.3	3.60	157	0	1.5	0.9	219	15631	152
OCTOBER	21.4	3.73	146	0	0.9	0.8	155	14051	103
NOVEMBER	19.0	3.10	75	0	1.3	0.7	106	9382	107
DECEMBER	35.7	4.11	53	0	1.5	0.6	87	9823	298
JANUARY	86.1	4.26	41	0	0.5	0.4	72	6612	232
FEBUARY	0.0	3.99	71	0	0.7	0.6	113	0	0
MARCH	76.3	4.23	43	0	0.5	0.5	80	17199	194
APRIL	46.2	4.14	46	0	0.5	0.4	78	11459	131
MAY	44.3	3.34	32	0	0.3	0.3	66	9918	108
JUNE 1979	28.6	3.99	89	0	0.7	0.4	113	14827	98

AVERAGE MONTHLY WATER QUALITY DATA --- CATAWISSA CREEK  
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CC-8

SAMPLING MONTH	FLOW cfs	pH	ACID. mg/l	ALKA. mg/l	TOT. IRON mg/l	FE++ IRON mg/l	S04 mg/l	ACID LOAD lbs./day	IRON LOAD
JUNE 1978	47.8	4.57	40	1	0.7	0.4	76	14430	52
JULY	31.0	4.30	41	0	0.2	0.2	122	7223	28
AUGUST	39.1	4.62	70	2	0.4	0.4	129	14135	82
SEPTEMBER	37.2	4.44	50	1	0.8	0.6	130	7370	217
OCTOBER	70.1	4.44	45	1	0.5	0.5	92	16800	138
NOVEMBER	57.8	4.32	54	0	1.2	0.9	112	14839	361
DECEMBER	86.4	4.58	25	2	0.5	0.3	66	11727	324
JANUARY	193.4	4.67	29	5	0.2	0.2	57	25272	176
FEBUARY	0.0	4.61	35	3	0.4	0.3	63	0	00
MARCH	165.6	4.71	28	4	0.3	0.3	59	24065	297
APRIL	71.9	4.66	27	4	0.3	0.3	64	10597	109
MAY	96.1	5.07	18	8	0.4	0.3	54	12441	156
JUNE 1979	69.1	4.48	52	2	0.3	0.2	92	17275	123

AVERAGE MONTHLY WATER QUALITY DATA --- CATAWISSA CREEK  
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CC-9

SAMPLING MONTH	pH	ACID. mg/l	ALKA. mg/l	TOT. IRON mg/l	FE++ IRON mg/l	S04 mg/l
JUNE 1978	4.56	31	1	0.5	0.4	62
JULY	4.45	48	0	0.2	0.1	97
AUGUST	4.68	54	2	0.3	0.2	107
SEPTEMBER	4.22	63	0	0.4	0.4	127
OCTOBER	4.47	40	1	0.5	0.5	78
NOVEMBER	4.39	49	0	0.9	0.6	90
DECEMBER	4.64	26	2	0.3	0.1	59
JANUARY	4.66	24	4	0.3	0.3	50
FEBUARY	4.66	32	2	0.2	0.2	63
MARCH	4.77	26	4	0.2	0.2	52
APRIL	4.74	23	5	0.4	0.3	51
MAY	4.85	20	6	0.3	0.2	53
JUNE 1979	4.53	49	5	0.2	0.1	73

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SAMPLING MONTH	pH	ACID. mg/l	ALKA. mg/l	TOT. IRON mg/l	FE++ IRON mg/l	S04 mg/l
JUNE 1978	5.89	12	6	0.2	0.1	17
JULY	5.72	7	7	0.1	0.1	17
AUGUST	6.17	7	6	0.1	0.0	18
SEPTEMBER	5.92	6	3	0.2	0.1	18
OCTOBER	5.76	7	5	0.2	0.1	19
NOVEMBER	6.19	7	4	0.2	0.1	19
DECEMBER	6.22	6	5	0.3	0.2	24
JANUARY	5.91	8	6	0.1	0.0	20
FEBUARY	5.82	10	6	0.1	0.0	20
MARCH	5.69	11	6	0.1	0.1	27
APRIL	5.89	9	7	0.2	0.1	21
MAY	5.79	10	6	0.3	0.3	100
JUNE 1979	5.80	18	6	0.1	0.0	47

AVERAGE MONTHLY WATER QUALITY DATA -- CATAWISSA CREEK  
 SE-135-11  
 WLF-0

SAMPLING MONTH	FLOW cfs	pH	ACID. mg/l	ALKA. mg/l	TOT. IRON mg/l	FE++ IRON mg/l	S04 mg/l	ACID LOAD lbs./day	IRON LOAD
JUNE 1978	2.4	3.77	91	0	0.6	0.4	115	1197	8
JULY	1.7	3.58	87	0	0.7	0.5	124	771	6
AUGUST	1.5	3.90	106	0	1.0	0.7	145	853	8
SEPTEMBER	1.3	3.48	119	0	1.1	0.6	148	836	8
OCTOBER	1.7	3.57	140	0	1.2	0.7	138	1339	11
NOVEMBER	1.8	3.63	126	0	1.1	0.6	124	1228	10
DECEMBER	2.4	3.65	76	0	1.1	0.5	114	1009	14
JANUARY	8.1	3.62	78	0	0.9	0.5	116	3470	37
FEBUARY	3.1	3.67	66	0	0.7	0.5	114	1126	11
MARCH	4.9	3.66	66	0	0.7	0.5	107	1768	19
APRIL	2.3	3.69	59	0	0.7	0.5	99	713	8
MAY	2.3	3.65	65	0	0.8	0.6	103	824	10
JUNE 1979	2.0	3.65	133	0	0.7	0.4	127	1672	8

AVERAGE MONTHLY WATER QUALITY DATA --- CATAWISSA CREEK  
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 S-1

SAMPLING MONTH	FLOW cfs	pH	ACID. mg/l	ALKA. mg/l	TOT. IRON mg/l	FE++ IRON mg/l	S04 mg/l	ACID LOAD lbs./day	IRON LOAD
JUNE 1978	8.7	4.48	27	1	0.4	0.3	40	1319	12
JULY	5.2	4.45	26	0	0.2	0.1	52	732	4
AUGUST	4.6	4.70	28	2	0.3	0.2	51	670	7
SEPTEMBER	3.3	4.26	37	0	0.3	0.2	53	560	5
OCTOBER	3.6	4.42	37	0	0.2	0.2	49	705	4
NOVEMBER	4.2	4.34	27	0	0.2	0.1	43	569	5
DECEMBER	8.9	4.48	19	0	0.1	0.0	40	886	5
JANUARY	28.0	4.42	22	0	0.1	0.0	35	3053	15
FEBUARY	24.7	4.44	24	0	0.1	0.1	44	3469	13
MARCH	14.0	4.47	22	1	0.2	0.2	42	1731	16
APRIL	11.9	4.51	19	1	0.1	0.1	37	1238	8
MAY	16.8	4.50	20	1	0.5	0.3	29	1791	85
JUNE 1979	6.3	4.46	37	0	0.4	0.2	60	1294	13

AVERAGE MONTHLY WATER QUALITY DATA -- CATAWISSA CREEK  
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 TC-4

SAMPLING MONTH	FLOW cfs	pH	ACID. mg/l	ALKA. mg/l	TOT. IRON mg/l	FE++ IRON mg/l	S04 mg/l	ACID LOAD lbs./day	IRON LOAD
JUNE 1978	2.1	4.77	13	4	0.6	0.4	20	148	8
JULY	1.0	4.57	12	2	0.4	0.4	21	68	2
AUGUST	1.6	4.95	14	3	0.3	0.3	19	119	3
SEPTEMBER	1.6	4.63	11	1	0.3	0.2	22	87	3
OCTOBER	2.3	4.65	12	2	0.1	0.1	24	150	2
NOVEMBER	2.9	4.71	11	1	0.0	0.0	22	169	0
DECEMBER	3.7	4.81	13	4	0.1	0.0	21	218	2
JANUARY	9.7	4.66	13	3	0.0	0.0	21	591	2
FEBUARY	12.9	4.80	14	5	0.1	0.1	21	1114	7
MARCH	12.1	4.83	16	3	0.1	0.1	23	1001	5
APRIL	6.3	4.83	10	7	0.0	0.0	21	351	1
MAY	9.0	4.76	12	6	0.4	0.3	24	630	15
JUNE 1979	2.9	4.68	20	4	0.5	0.3	38	304	4

AVERAGE MONTHLY WATER QUALITY DATA -- CATAWISSA CREEK  
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 WLT-1

SAMPLING MONTH	FLOW cfs	pH	ACID. mg/l	ALKA. mg/l	TOT. IRON mg/l	FE++ IRON mg/l	S04 mg/l	ACID LOAD lbs./day	IRON LOAD
JUNE 1978	11.9	4.43	33	0	0.2	0.1	48	2299	14
JULY	3.6	4.42	32	0	0.3	0.2	57	632	5
AUGUST	2.7	4.59	39	2	0.3	0.2	67	557	4
SEPTEMBER	1.4	4.14	50	0	0.4	0.2	83	380	3
OCTOBER	2.1	4.12	64	0	0.2	0.2	91	700	3
NOVEMBER	3.3	4.40	45	0	0.3	0.2	78	787	5
DECEMBER	5.8	4.22	32	0	0.2	0.1	66	997	6
JANUARY	12.1	4.21	28	0	0.2	0.2	64	1819	11
FEBUARY	6.0	4.25	35	0	0.4	0.4	55	1226	11
MARCH	9.9	4.27	26	0	0.2	0.2	55	1361	12
APRIL	3.8	4.37	15	0	0.2	0.1	46	272	3
MAY	4.4	4.25	31	0	0.3	0.1	53	762	7
JUNE 1979	2.6	4.38	42	0	0.3	0.2	66	614	5

AVERAGE MONTHLY WATER QUALITY DATA --- CATAWISSA CREEK  
 SL-135-11  
 TC-3

SAMPLING MONTH	pH	ACID. mg/l	ALKA. mg/l	TOT. IRON mg/l	FE++ IRON mg/l	S04 mg/l
JUNE 1978	4.52	22	1	0.4	0.3	34
JULY	4.51	24	0	0.2	0.1	50
AUGUST	4.70	29	2	0.2	0.2	54
SEPTEMBER	4.28	35	0	0.3	0.2	60
OCTOBER	4.32	28	0	0.1	0.1	38
NOVEMBER	4.45	24	1	0.1	0.1	47
DECEMBER	4.49	20	0	0.1	0.0	34
JANUARY	4.40	21	0	0.1	0.1	36
FEBUARY	4.39	16	0	0.1	0.1	42
MARCH	4.48	21	1	0.1	0.1	40
APRIL	4.51	19	0	0.2	0.1	36
MAY	4.50	36	3	0.6	0.4	41
JUNE 1979	4.47	44	0	0.4	0.3	66

AVERAGE MONTHLY WATER QUALITY DATA --- CATAWISSA CREEK  
 SL-135-11  
 TC-2

SAMPLING MONTH	pH	ACID. mg/1	ALKA. mg/1	TOT. IRON mg/1	FE++ IRON mg/1	SO4 mg/1
JUNE 1978	4.47	25	1	0.6	0.5	40
JULY	4.46	22	0	0.1	0.1	53
AUGUST	4.65	33	2	0.5	0.4	54
SEPTEMBER	4.20	37	0	0.7	0.5	69
OCTOBER	4.22	39	0	0.3	0.3	52
NOVEMBER	4.42	36	0	0.4	0.4	63
DECEMBER	4.49	24	1	0.4	0.3	36
JANUARY	4.43	21	0	0.2	0.1	32
FEBUARY	4.39	26	1	0.2	0.1	44
MARCH	4.43	28	0	0.2	0.2	42
APRIL	4.61	18	2	0.2	0.2	35
MAY	4.52	20	1	0.5	0.4	43
JUNE 1979	4.50	32	5	0.5	0.3	71

AVERAGE MONTHLY WATER QUALITY DATA --- CATAWISSA CREEK  
 SL-135-11  
 TC-1

SAMPLING MONTH	FLOW cfs	pH	ACID. mg/1	ALKA. mg/1	TOT. IRON mg/1	FE++ IRON mg/1	SO4 mg/1	ACID LOAD lbs./day	IRON LOAD
JUNE 1978	22.5	5.23	15	6	0.3	0.2	33	1983	25
JULY	9.7	4.72	16	3	0.2	0.1	40	868	10
AUGUST	9.7	5.09	18	5	0.9	0.9	45	859	65
SEPTEMBER	11.5	4.63	17	1	0.3	0.2	55	921	17
OCTOBER	13.6	4.68	20	2	0.4	0.4	43	1499	39
NOVEMBER	8.7	4.52	19	0	0.4	0.3	54	856	17
DECEMBER	21.5	4.90	14	3	0.2	0.1	18	1622	26
JANUARY	46.4	4.89	15	5	0.2	0.1	28	3504	53
FEBUARY	46.8	4.98	17	7	0.1	0.1	42	4548	51
MARCH	41.8	4.90	18	3	0.2	0.2	43	4149	55
APRIL	36.7	5.02	15	5	0.2	0.2	34	2903	49
MAY	27.2	5.08	14	7	0.2	0.1	31	2498	44
JUNE 1979	20.5	4.69	37	3	0.2	0.1	64	4066	24



TUNNEL NO. 1

TABLE 2, AVERAGE FLOW AND WATER QUALITY DATA

Month	Flow (ft <sup>2</sup> /s)	pH Range	Acidity		Total Iron		Sulfate (mg/l)
			(mg/l)	(lbs/day)	(mg/l)	(lbs/day)	
<u>Before Streambed Reconstruction</u>							
March 1969	8.4	3.7-4.0	68	3,080	0.5	23	87
April	12.8	3.8-3.9	52	3,586	0.3	21	65
May	12.3	3.9	50	3,498	0.4	26	62
June	11.3	3.9	52	3,146	0.5	30	73
July	13.7	3.7-3.9	66	4,862	0.4	29	96
August	17.5	3.8-4.3	68	6,380	0.3	28	89
September	9.6	3.8-3.9	65	3,366	0.3	16	91
October	3.7	3.8	80	1,584	0.3	6	101
November	5.8	3.8	83	2,574	0.5	16	108
December	8.4	3.7-3.9	74	3,344	0.4	18	91
January 1970**	-	3.9	72	-	0.5	-	75
February	18.7	3.7-3.9	68	6,842	0.6	61	83
Mean	(11.1)	(3.7-4.0)	(67)	(3,842)	(0.4)	(25)	(85)
<u>After Streambed Reconstruction</u>							
March 1970	14.2	3.9-4.0	72	5,478	0.3	23	79
April	35.6	3.7-3.9	50	9,570	0.2	38	76
May	19.35	3.9	54	5,610	0.2	21	65
June	6.8	3.9	62	2,266	0.8	29	80
July**	6.5	3.9	64	2,244	0.5	18	85
August**	4.73	3.9	90	2,288	0.4	10	98
September#	-	-	-	-	-	-	-
October#	-	-	-	-	-	-	-
November#	-	-	-	-	-	-	-
December**	12.8	4.2	68	4,686	0.1	71	71
January 1971**	10.4	3.8	52	2,904	0.5	71	71
April**	15.8	3.8	40	3,388	0.7	74	74
May**	15.0	3.8	44	3,586	0.2	48	48
July**	9.4	4.0	92	4,620	0.2	74	74
Mean	(13.7)	(3.9-4.2)	(63)	(4,240)	(0.4)	(24)	(75)

\* One analysis monthly.

\*\* One sample only.

# No data available.

Monthly Tabulations

Table 8

June 1978	11.88	4.3-4.7	33	2,299	0.2	14	48
July	3.63	4.4-4.5	32	632	0.3	5	57
August	2.74	4.2-4.9	39	557	0.3	4	67
September	1.41	4.0-4.3	50	380	0.4	3	83
October	2.12	4.0-4.3	64	700	0.2	3	91
November	3.30	4.3-4.6	45	787	0.3	5	78
December	5.77	4.1-4.3	32	997	0.2	6	66
January 1979	12.08	4.2	28	1,819	0.2	11	64
February	6.04	4.1-4.4	35	1,226	0.4	11	55
March	9.91	4.1-4.4	26	1,361	0.2	12	55
April	3.85	4.3-4.5	15	272	0.2	3	46
May	4.40	4.2-4.3	31	468	0.3	5	50
June	2.62	4.4	42	614	0.3	5	66
Mean	(5.37)	(4.0-4.9)	(36)	(932)	(0.27)	(7)	(64)

TABLE 3, AVERAGE FLOW AND WATER QUALITY DATA

Month	Flow (ft <sup>2</sup> /s)	pH Range	Acidity		Total Iron		Sulfate (mg/l)
			(mg/l)	(lbs/day)	(mg/l)	(lbs/day)	
<u>Before Streambed Reconstruction</u>							
March 1969	5.4	3.7-3.8	67	1,958	0.5	15	116
April	7.9	3.7-3.8	76	3,234	0.4	17	84
May	4.9	3.6-3.7	72	1,892	0.8	21	87
June	3.6	3.6-3.7	79	1,540	1.0	19	115
July	7.0	3.4-3.6	110	4,114	0.8	30	159
August	6.9	3.7-3.8	90	3,344	0.5	19	124
September	4.4	3.6	92	2,178	0.7	17	142
October	2.8	3.6-3.7	87	1,276	0.4	6	145
November	1.8	3.6-3.8	92	902	0.5	5	137
December	2.7	3.7	81	1,166	0.7	10	104
January 1970#	-	-	-	-	-	-	-
February	5.6	3.3-3.7	108	3,234	1.7	51	113
Mean	(4.8)	(3.4-3.8)	(87)	(2,258)	(0.7)	(19)	(107)
<u>After Streambed Reconstruction</u>							
March 1970	4.6	3.7-3.8	92	2,266	0.6	15	105
April	8.4	3.6-3.7	92	4,158	0.6	27	101
May	4.5	3.7	83	2,024	0.4	10	94
June	3.6	3.6	88	1,716	1.8	35	106
July**	3.0	3.6	100	1,606	1.4	23	125
August**	3.8	3.6	92	1,892	0.7	14	120
September**	3.8	3.5	104	2,134	2.9	59	134
October	2.9	3.5-3.6	92	1,430	1.7	27	119
November#	-	-	-	-	-	-	-
December**	2.9	3.6	80	1,254	0.4	6	103
January 1971**	3.1	3.6	76	1,298	1.1	19	97
April**	3.9	3.6	84	1,760	0.9	19	201
May**	3.7	3.7	64	1,276	0.2	4	65
July**	2.0	3.7	92	968	0.7	7	130
Mean	(3.9)	(3.5-3.8)	(88)	(1,829)	(1.0)	(20)	(115)

\* One analysis monthly.

\*\* One sample only.

# No data available.

## Monthly Tabulations

Table 9

June 1978	0.84	3.8-4.1	58	262	0.6	3	72
July	0.87	3.7-3.8	64	305	0.6	3	86
August	0.87	3.7-4.3	82	309	0.6	2	104
September	0.66	3.5-3.7	93	332	0.8	3	105
October	0.74	3.6-3.9	95	365	0.6	2	93
November	0.85	3.6-3.9	78	357	0.5	2	86
December	1.90	3.8-4.0	52	493	0.5	5	69
January 1979	3.62	3.8-4.3	49	951	0.5	10	71
February	1.35	3.8	56	400	0.2	1	84
March	2.37	3.8-3.9	48	616	0.5	7	74
April	1.82	3.9	47	461	0.5	5	78
May	1.62	3.8-3.9	40	347	0.5	4	75
June	1.88	3.8-3.9	65	627	0.6	7	86
Mean	(1.49)	(3.8-4.1)	(64)	(448)	(0.6)	(4)	(83)

TABLE 4, AVERAGE FLOW AND WATER QUALITY DATA

Month	Flow (ft <sup>2</sup> /s)	pH Range	Acidity		Total Iron		Sulfate (mg/l)
			(mg/l)	(lbs/day)	(mg/l)	(lbs/day)	
<u>Before Streambed Reconstruction</u>							
March 1969	14.5	4.7-6.3	30	2,332	1.5	117	61
April	21.3	4.5-4.9	33	3,784	0.6	68	45
May	19.8	4.3-4.6	39	4,158	0.9	97	49
June	8.9	3.9-4.1	51	2,420	1.3	61	85
July	10.5	3.9-4.2	50	2,838	1.3	75	123
August	21.8	3.9-4.3	56	6,578	0.5	59	117
September	10.9	4.5-5.1	103	6,050	0.9	53	130
October	1.8	5.3-6.5	33	330	0.4	44	117
November	4.7	4.5-6.2	41	1,056	0.2	4	95
December	6.4	4.6-4.8	57	1,936	0.6	22	89
January 1970#	-	-	-	-	-	-	-
February	14.5	4.6	48	3,740	0.7	55	54
Mean	(12.3)	(3.9-6.3)	(49)	(3,202)	(0.8)	(50)	(88)
<u>After Streambed Reconstruction</u>							
March 1970	2.05	3.9	68	748	0.7	9	75
April	7.27	3.8-4.0	64	2,508	0.4	15	55
May	2.61	3.7-3.9	57	792	1.1	15	54
June	.64	3.5	82	286	7.1	24	82
July**	.67	3.4	96	330	10.8	40	115
August**	2.3	3.9	90	1,078	0.4	4	98
September	.11	3.2	136	88	4.8	2	148
October	1.6	3.3-3.7	100	858	10.9	100	116
November#	-	-	-	-	-	-	-
December**	.46	3.7	48	110	1.6	4	71
January 1971**	1.7	3.6	52	462	3.3	29	65
April**	2.0	3.7	52	572	1.7	20	75
May**	3	3.8	44	704	1.8	29	37
July**	.53	3.6	88	264	5.5	15	97
Mean	(1.92)	(3.2-3.9)	(75)	(677)	(3.9)	(24)	(84)

\* One analysis monthly.

\*\* One sample only.

# No data available.

## Monthly Tabulations

Table 10

June 1978	0.42	3.7-4.0	43	97	1.6	4	55
July	0.34	3.6-3.9	46	79	2.6	4	64
August	0.39	3.8-4.3	48	95	3.3	6	66
September	0.25	3.4-3.7	56	75	3.7	5	75
October	0.74	3.7-4.1	39	122	2.2	7	55
November	0.63	3.6-3.9	39	128	1.7	6	46
December	1.57	4.0-4.2	23	197	1.3	11	39
January 1979	3.62	4.0-4.4	24	483	1.1	21	36
February	1.06	4.0-4.1	27	111	1.2	5	42
March	2.92	3.9-4.1	31	501	1.1	16	47
April	1.55	3.9-4.0	23	189	1.5	12	40
May	2.01	3.9-4.0	39	415	1.2	12	45
June	1.03	3.9-4.0	70	417	1.4	6	67
Mean	(1.27)	(3.4-4.4)	(39)	(224)	(1.8)	(9)	(52)

AUDENRIED TUNNEL

TABLE 5, AVERAGE FLOW AND WATER QUALITY DATA

Month	Flow (ft <sup>2</sup> /s)	pH Range	Acidity		Total Iron		Sulfate (mg/l)
			(mg/l)	(lbs/day)	(mg/l)	(lbs/day)	
November 1969*	13.38	3.3	432	32,100	5.4	402	660
Devember*	21.87	3.2	420	49,500	4.5	530	500
February*	38.16	3.4	300	61,700	3.9	802	480
March	-	-	-	-	-	-	-
April*	69.28	3.5	256	95,600	0.9	336	366
May*	29.34	3.4	320	50,600	3.3	521	488
June*	17.53	3.3	344	32,500	3.9	368	454
July*	11.27	3.3	344	20,900	6.8	417	550
August*	24.99	3.4	372	50,100	3.4	458	548
September	14.15	3.2	350	26,700	8.0	613	495
Mean	(26.70)	(3.2-3.5)	(349)	(46,633)	(4.46)	(494)	(505)

Table 6

June 1978	14.75	3.5-3.8	181	14,391	1.7	132	277
July	12.83	3.4-3.6	205	14,122	2.7	181	337
August	14.14	3.4-4.1	218	16,663	2.7	201	351
September	11.38	3.2-3.5	283	17,467	3.2	200	371
October	14.10	3.3-3.6	295	21,650	3.1	228	301
November	12.58	3.3-3.6	269	18,353	3.0	206	335
December	15.75	3.5-3.8	177	14,857	2.8	236	286
January 1979	22.84	3.6-3.7	138	17,058	1.8	223	223
February	12.69	3.5-3.6	179	12,079	1.7	107	254
March	31.26	3.6-3.7	118	19,015	1.5	254	209
April	16.49	3.6	127	11,298	1.6	142	209
May	19.70	3.6	137	14,579	1.5	159	254
June	20.40	3.4-3.7	213	22,840	1.7	172	261
Mean	(15.69)	(3.2-4.1)	(195)	(16,490)	(2.2)	(189)	(282)

\* One analysis monthly.

\*\* One sample only.

# No data available.

Additional Tests

Table II

	pH	Mg.	Mn.	Al.	K.	Na.	Si.	Cl.	TOC	Solids
WLT 1	4.1	4.8	.44	3.12	1.3	6.6	6.3	4	-	-
2	3.9	4.6	.6	3.54		.96	11.1	1	1	108
3	4.3	1.5	.21	1.5	1.02	.84	5.2	1	3	64
A	3.7	18.1	3.2	12.6	.74	9.4	22.4	9	2	414
0	3.6	11.4	1.5	7.4	2.6	3.0	13.1	1	-	230
					1.5					