TABLE 2

MCW-A TRACE METAL CONCENTRATIONS (µmg/L)

Date	Filter size (µm)	Se	As	V	Cr	Mn	Fe	Fe	Co	Ni	Zn	Zn	Cu	Cu	Sr	Cd	Ba	Pb
9/20/2004	0.65	0.85	1.45	0.70	0.4	NA	35	160	NA	1.5	3.2	2.3	0.58	0.64	440	0.01	96.2	0.14
	0.45	0.82	1.27	0.71	0.5	NA	34	148	NA	1.4	2.7	1.9	0.30	0.39	426	0.00	90.8	0.03
	0.10	0.67	1.15	0.62	0.4	NA	25	138	NA	1.7	3.5	2.7	0.22	0.34	401	0.01	87.0	0.02
10/3/2004	0.65	0.65	1.74	0.35	0.4	NA	39	174	NA	1.5	2.5	1.5	0.01	0.13	469	0.00	99.9	0.01
	0.45	0.63	1.60	0.35	0.4	NA	31	164	NA	1.7	2.1	1.0	ND	0.14	423	0.00	89.7	0.02
	0.10	0.61	1.70	0.29	0.4	NA	22	131	NA	1.4	2.3	1.5	ND	0.10	448	0.00	93.8	0.02
10/19/2004	0.65	0.52	0.87	0.59	0.4	NA	31	94	NA	0.9	1.7	1.1	0.35	0.40	188	0.00	57.4	0.03
	0.45	0.84	0.85	0.53	0.4	NA	27	80	NA	0.7	1.3	0.9	0.33	0.38	155	0.00	25.2	0.02
	0.10	0.60	0.81	0.55	0.4	NA	26	80	NA	0.7	1.6	1.2	0.35	0.39	169	0.00	50.3	0.05
11/20/2004	0.45	0.51	0.35	1.11	3.1	19.0	26	222	0.14	1.7	2.7	1.9	0.21	0.30	230	0.03	34.8	0.02
	0.10	0.58	0.38	1.00	2.8	19.1	22	216	0.13	1.8	2.0	1.1	0.58	0.67	228	0.03	34.6	0.02
12/12/2004	0.65	0.72	0.36	1.03	1.9	8.1	25	236	0.09	1.3	2.1	0.8	0.02	0.20	216	0.03	26.4	0.01
	0.45	0.50	0.25	1.06	1.8	10.1	20	185	0.08	1.1	2.1	1.6	1.03	1.10	206	0.03	25.2	0.03
	0.10	0.54	0.21	0.74	2.6	7.8	18	179	0.07	1.0	3.0	2.2	ND	0.03	204	0.03	23.2	0.02
1/11/2005	0.65	0.75	0.33	0.98	1.9	3.6	26	250	0.09	1.7	2.5	1.3	ND	0.15	216	0.02	27.6	0.03
	0.45	0.58	0.23	0.71	2.0	3.9	20	200	0.07	1.4	4.0	3.2	0.18	0.28	216	0.03	25.2	0.00
	0.10	0.64	0.30	0.85	1.0	4.4	26	218	0.09	1.4	2.5	1.4	ND	0.12	214	0.02	25.4	0.03
1/27/2005	0.65	0.67	0.39	1.27	2.4	7.9	24	238	0.10	1.3	2.3	1.0	0.06	0.22	236	0.02	22.2	0.02
	0.45	0.56	0.17	0.80	1.8	7.7	26	216	0.10	1.3	2.3	1.1	ND	0.12	240	0.01	21.6	0.02
	0.10	0.48	0.15	0.68	2.0	7.8	21	208	0.08	1.1	1.9	0.9	ND	0.09	234	0.03	20.6	0.03
2/9/2005	0.65	0.76	0.32	1.02	2.4	5.9	28	260	0.11	1.5	2.2	0.8	0.07	0.25	220	0.02	26.4	0.02
	0.45	0.71	0.36	1.08	2.4	5.9	24	248	0.11	1.3	2.0	0.7	0.08	0.25	216	0.02	25.0	0.02
	0.10	0.52	0.14	0.63	0.9	5.9	21	210	0.07	1.2	2.4	1.5	ND	0.08	216	0.03	23.2	0.01
2/23/2005	0.65	0.60	0.17	0.75	2.7	8.4	27	222	0.10	1.1	1.5	0.5	ND	0.05	224	0.03	24.0	0.02
	0.45	0.40	0.15	0.72	1.7	9.0	21	193	0.07	1.0	1.2	0.5	ND	0.07	218	0.03	24.8	0.03

TABLE 3

MCW-B TRACE METAL CONCENTRATIONS (µmg/L)

Date	Filter size (µm)	Se	As	V	Cr	Mn	Fe	Fe	Co	Ni	Zn	Zn	Cu	Cu	Sr	Cd	Ba	Pb
9/20/2004	0.65	0.88	1.28	0.87	0.4	NM	24	144	NM	1.6	3.1	1.2	0.38	0.51	858	0.01	45.1	0.02
	0.45	1.13	1.26	0.81	0.5	NM	23	134	NM	1.8	3.1	1.3	0.43	0.59	749	0.00	41.0	0.03
	0.10	0.93	1.30	0.77	0.5	NM	24	155	NM	2.2	3.5	1.7	0.36	0.54	816	0.01	83.8	0.02
10/3/2004	0.65	0.72	1.02	0.80	0.5	NM	21	200	NM	2.0	4.4	0.9	0.24	0.57	1166	0.00	80.4	0.01
	0.45	0.75	1.08	0.78	0.5	NM	21	192	NM	2.2	5.0	1.4	0.22	0.54	1222	0.00	82.5	0.01
	0.10	0.55	0.82	0.60	0.4	NM	17	144	NM	1.6	3.9	1.3	0.11	0.35	970	0.00	65.2	0.05
10/19/2004	0.65	0.37	0.83	0.51	0.5	NM	38	82	NM	1.4	7.8	6.9	0.42	0.46	123	0.01	30.1	0.13
	0.45	0.59	0.92	0.57	0.4	NM	23	62	NM	0.7	2.2	1.7	0.29	0.34	144	0.01	17.1	0.01
	0.10	0.45	0.74	0.49	0.4	NM	23	56	NM	0.7	1.9	1.4	0.24	0.28	117	0.00	14.2	0.01
11/20/2004	0.65	0.73	0.43	1.06	3.1	7.3	26	268	0.16	1.9	4.0	1.6	1.10	1.40	406	0.01	31.4	0.03
	0.45	0.59	0.35	0.88	3.1	14.1	19	234	0.12	1.6	4.1	2.0	0.48	0.63	396	0.03	32.8	0.01
12/12/2004	0.65	0.72	0.30	0.84	2.5	13.7	22	212	0.10	1.2	2.2	0.7	ND	0.12	294	0.02	24.0	0.29
	0.45	0.58	0.27	0.73	2.8	15.7	20	199	0.09	1.3	2.6	1.3	0.02	0.16	298	0.03	24.6	0.03
	0.10	0.61	0.39	1.00	2.0	15.1	22	228	0.11	1.4	4.8	3.0	0.17	0.35	290	0.02	25.4	0.02
1/11/2005	0.65	0.65	0.22	0.79	2.0	8.3	19	192	0.08	1.3	3.0	1.9	0.08	0.20	280	0.02	25.2	0.02
	0.45	0.72	0.40	1.09	2.1	9.1	27	236	0.10	1.3	3.2	1.6	0.07	0.24	274	0.01	25.4	0.02
	0.10	0.61	0.24	0.85	2.4	6.7	21	206	0.09	1.2	2.6	1.3	0.02	0.14	266	0.02	23.6	0.02
1/27/2005	0.65	0.70	0.23	0.82	2.4	15.4	24	246	0.11	1.6	3.1	1.1	0.01	0.18	374	0.02	23.6	0.01
	0.45	0.68	0.20	0.80	1.3	32.8	25	230	0.11	1.4	2.7	0.8	0.05	0.24	364	0.01	22.2	0.01
	0.10	0.68	0.21	0.78	1.7	14.9	23	226	0.11	1.4	2.8	1.1	ND	0.15	362	0.02	23.0	0.02
2/9/2005	0.45	0.59	0.28	0.94	2.5	9.6	25	232	0.13	1.4	2.7	1.0	0.09	0.24	282	0.02	23.4	0.02
	0.45	1.24	0.53	1.59	3.2	13.6	43	356	0.17	2.0	3.6	1.1	0.33	0.61	434	0.02	39.2	0.02
	0.10	0.72	0.42	1.16	2.3	9.3	22	238	0.11	1.4	3.0	1.5	0.09	0.23	284	0.02	24.4	0.02
2/23/2005	0.65	0.63	0.22	0.94	2.4	15.4	22	218	0.10	1.3	3.6	2.3	0.02	0.12	284	0.02	23.8	0.02
	0.45	0.67	0.36	0.95	1.5	15.7	24	246	0.11	1.3	2.2	0.7	0.25	0.46	280	0.03	25.8	0.01

TABLE 4

MCW-C TRACE METAL CONCENTRATIONS (µmg/L)

Date	Filter size (µm)	Se	AsO	V	Cr	Mn	Fe	Fe	Co	Ni	Zn	Zn	Cu	Cu	Sr	Cd	Ba	Pb
9/20/2004	0.65	0.60	0.98	0.67	0.4	NA	19	142	NA	1.3	2.6	0.9	0.22	0.40	491	0.00	67.0	0.02
	0.45	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	0.10	0.72	1.10	0.71	0.5	NA	22	135	NA	1.6	3.2	1.6	0.41	0.55	526	0.01	69.0	0.02
10/3/2004	0.65	0.56	0.85	0.62	0.6	NA	24	158	NA	1.5	3.4	1.6	0.41	0.59	462	0.01	63.4	0.06
	0.45	0.67	0.89	0.61	0.6	NA	23	169	NA	1.6	3.7	1.9	0.36	0.52	464	0.01	64.3	0.03
	0.10	0.61	0.83	0.51	0.5	NA	23	135	NA	1.5	4.0	2.5	0.30	0.44	436	0.01	59.9	0.18
10/19/2004	0.65	0.32	0.74	0.55	0.5	NA	24	64	NA	1.3	5.4	4.7	0.19	0.28	119	0.01	32.3	0.07
	0.45	0.62	1.05	0.69	0.5	NA	55	100	NA	1.0	3.8	3.2	0.48	0.54	145	0.01	18.4	0.06
	0.10	0.35	0.83	0.63	0.5	NA	54	104	NA	1.2	5.1	4.2	0.44	0.50	120	0.01	31.9	0.07
11/20/2004	0.65	0.62	0.47	1.14	1.6	3.4	29	306	0.13	1.8	3.6	1.2	0.54	0.74	382	0.03	30.8	0.01
	0.45	0.95	0.53	1.15	2.5	8.3	28	294	0.12	1.8	3.5	0.9	0.14	0.42	374	0.01	30.0	0.02
	0.10	0.56	0.39	0.82	2.7	8.2	20	232	0.10	1.5	2.7	1.1	0.07	0.26	306	0.03	27.4	0.02
12/12/2004	0.65	0.81	0.41	1.04	1.3	5.9	23	256	0.11	1.3	2.5	0.6	0.07	0.30	310	0.02	26.4	0.01
	0.45	0.58	0.31	0.76	2.5	12.8	19	212	0.08	1.2	3.0	1.5	0.10	0.24	312	0.03	24.8	0.03
	0.10	0.70	0.45	1.02	2.1	12.3	20	228	0.10	1.3	3.4	1.6	-0.04	0.14	296	0.02	24.2	0.01
1/11/2005	0.65	0.51	0.28	0.80	2.8	3.7	18	202	0.08	1.3	3.0	1.7	0.09	0.21	292	0.02	24.0	0.03
	0.10	0.58	0.25	0.74	2.3	5.0	19	197	0.07	1.3	2.6	1.3	0.08	0.19	280	0.02	23.2	0.02
1/27/2005	0.65	0.73	0.25	0.98	2.3	14.3	23	244	0.11	1.5	6.0	4.0	0.15	0.30	318	0.02	23.0	0.02
	0.45	0.57	0.26	1.02	1.8	20.4	23	224	0.13	1.5	3.2	1.6	0.48	0.62	316	0.01	22.0	0.02
	0.10	0.72	0.42	1.24	2.3	14.8	22	246	0.11	1.4	3.7	1.7	0.13	0.32	308	0.01	23.0	0.02
2/9/2005	0.65	0.70	0.31	0.95	2.2	7.5	24	238	0.11	1.3	2.8	1.1	0.15	0.30	278	0.02	23.2	0.01
	0.10	0.81	0.45	1.24	2.4	7.8	27	258	0.12	1.5	3.3	1.5	0.19	0.37	294	0.02	25.2	0.02
2/23/2005	0.65	0.81	0.32	0.81	2.2	13.2	22	212	0.09	1.2	2.6	1.2	0.05	0.23	272	0.02	21.6	0.02
	0.45	0.55	0.25	0.80	2.5	14.0	18	189	0.07	1.0	1.9	0.6	0.27	0.39	280	0.03	23.0	0.03

TABLE 5

SELECTED MAJOR CATION CONCENTRATIONS

		MCW-A				MCW-B				MCW-C			
Date	Filter size (µm)	Na	Mg	Al	K	Na	Mg	Al	K	Na	Mg	Al	K
9/20/2004	0.65	7636	NA	13.0	1883	5143	NA	12.1	2156	10143	NA	25.5	1247
	0.45	7429	NA	19.7	1948	4506	NA	9.4	1909	NA	NA	NA	NA
	0.1	7610	NA	8.5	1597	11169	NA	18.7	1727	10117	NA	20.3	1429
10/3/2004	0.65	12208	NA	6.2	1636	27792	NA	22.5	1844	16234	NA	13.9	1294
	0.45	11727	NA	4.5	1390	26883	NA	20.3	1909	17273	NA	12.7	1178
	0.1	9753	NA	4.4	1481	17662	NA	11.5	1558	13247	NA	9.5	1135
10/19/2004	0.65	3481	NA	32.1	1935	2961	NA	33.8	1649	3260	NA	12.4	1390
	0.45	1295	NA	9.9	1831	1177	NA	5.0	1922	2156	NA	16.9	1987
	0.1	2948	NA	12.0	1987	1075	NA	6.7	1662	6364	NA	41.3	1416
11/20/2004	0.45	3100	4940	3.7	1104	2720	5340	17.5	1080	2800	4500	6.5	1744
	0.1	3080	4860	5.9	1070	4100	6600	3.4	1134	3140	4340	1.4	1658
12/12/2004	0.65	1202	2760	3.5	1390	1352	3340	2.5	1452	3140	5140	2.5	880
	0.45	1810	3400	3.8	744	1704	3700	2.7	774	1918	3360	4.6	1432
	0.1	1488	3160	2.2	694	1604	3080	3.3	1400	2080	3940	29.8	752
1/11/2005	0.65	1194	2840	1.8	1270	2020	3980	4.1	728	2280	3120	2.3	1318
	0.45	1446	3220	3.6	1266	2220	3140	1.7	1512	NA	NA	NA	NA
	0.1	1210	2760	1.4	1214	1464	3260	1.4	1300	2120	3480	2.2	1356
1/27/2005	0.65	2100	3180	3.1	1140	2620	4040	1.8	1304	4220	3660	3.9	1090
	0.45	1290	3160	1.6	1146	2660	4040	1.6	1312	4400	3800	1.7	1128
	0.1	1722	3240	1.6	1132	2620	4000	1.2	1284	6660	3540	2.6	1038
2/9/2005	0.65	1700	3780	3.5	590	1410	3320	2.5	1340	1622	3220	2.3	1386
	0.45	1398	2980	2.7	1136	2660	4800	3.6	1962	NA	NA	NA	NA
	0.1	1688	2900	6.9	1106	2320	3300	1.9	1342	2680	3400	2.8	1466
2/23/2005	0.65	1376	3060	2.8	1122	1486	3500	2.3	1274	2580	4280	7.6	668
	0.45	NA	NA	NA	NA	NA	NA	NA	NA	1610	3240	4.4	1212
	0.1	1040	3020	4.2	1116	1498	3240	3.6	1228	NA	NA	NA	NA

TABLE 6
PHOSPHORUS CONCENTRATIONS (mg/L)

SITE		MCW-A		MCW-B		MCW-C	
Date	Filter size (µm)	TP	SRP	TP	SRP	TP	SRP
8/11/2004	0.65	NA	NA	0.83	NA		NA
	0.45	NA	NA	0.77	NA		NA
	0.10	NA	NA	0.64	NA		NA
8/19/2004	0.65	NA	NA	0.54	NA	0.67	NA
	0.45	NA	NA	0.42	NA	0.44	NA
	0.10	NA	NA	0.37	NA	0.42	NA
8/23/2004	0.65	0.51	NA	0.48	NA		NA
	0.45	0.56	NA	0.49	NA		NA
	0.10	0.51	NA	0.49	NA		NA
9/20/2004	0.65	0.86	NA	0.78	NA	0.90	NA
	0.45	0.65	NA	0.75	NA	0.82	NA
	0.10	0.77	NA	0.76	NA	0.85	NA
10/3/2004	Unfiltered	1.04	NA	0.63	NA	0.73	NA
	0.65	0.79	0.84	0.33	0.43	0.83	0.67
	0.45	1.01	0.90	0.33	0.42	0.85	0.64
	0.10	0.87	0.87	0.45	0.42	0.84	0.64
10/19/2004	Unfiltered	2.28	NA	5.08	NA	7.13	NA
	0.65	1.37	1.35	1.20	1.08	1.11	1.35
	0.45	1.21	1.33	1.10	1.13	1.17	1.31
	0.10	1.20	1.37	1.98	1.01	1.22	1.23
11/9/2004	Unfiltered	1.10	NA	1.12	NA	1.17	NA
	0.65	0.50	0.45	0.55	0.51	0.58	0.59
	0.45	0.50	0.49	0.53	0.53	0.62	0.58
	0.10	0.58	0.52	0.60	0.61	0.67	0.67
11/20/2004	Unfiltered	0.51	NA	0.51	NA	0.66	NA
	0.65	0.46	0.35	0.37	0.35	0.51	0.56
	0.45	0.48	0.38	0.36	0.34	0.50	0.55
	0.10	0.34	0.39	0.35	0.36	0.55	0.57
12/12/2004	Unfiltered	0.71	NA	0.84	NA	0.85	NA

Table 6 con't

	0.65	0.66	0.76	0.74	0.76	0.81	0.78
	0.45	0.56	0.64	0.65	0.66	0.73	0.79
	0.10	0.62	0.61	0.72	0.71	0.75	0.82
1/11/2005	Unfiltered	0.63	NA	0.77	NA	1.00	NA
	0.65	0.51	0.54	0.61	0.57	0.67	0.79
	0.45	0.53	0.50	0.63	0.57	0.67	0.69
	0.10	0.50	0.51	0.50	0.58	0.69	0.68
2/9/2005	Unfiltered	0.55	NA	0.68	NA	0.92	NA
	0.65	0.40	0.44	0.51	0.44	0.57	0.56
	0.45	0.47	0.38	0.36	0.47	0.52	0.55
	0.10	0.38	0.34	0.47	0.46	0.54	0.52
2/23/2005	Unfiltered	0.57	NA	0.69	NA	0.78	NA
	0.65	0.52	0.47	0.56	0.55	0.70	0.69
	0.45	0.46	0.52	0.63	0.62	0.63	0.73
	0.10	0.45	0.45	0.54	0.55	0.63	0.63

TP- Total Phosphorus (organic and inroganic)

SRP- Soluble Reactive Phosphorus (inorganic orthophosphate and polyphosphate)

Table 7
STREAM VISUAL ASSESSEMNT PROTOCOL SCORES

MCW-A Date	Epifaunal Substrate/ Available Cover	Embedded	Velocity/ Depth Regime	Sediment Deposition	Channel Flow Status	Channel Alteration	Frequency of Riffles (or bends)	Bank Stability	Vegetative Protection	Riparian Vegetation Zone Width	TOTAL
10/19/04	13	13	18	17	18	12	13	11	13	10	138
9/20/04	13	7	8	19	19	12	7	14	12	10	121
10/3/04	15	10	10	16	16	15	10	16	18	10	136
4/27/05	8	7	18	17	8	13	15	13	13	12	124
MCW-B											
10/3/04	16	10	13	16	15	15	16	14	18	8	141
4/27/05	14	5	11	18	18	13	11	17	18	8	133
7/28/04	17	18	9	17	8	14	13	14	14	6	130
9/20/04	9	16	16	13	17	9	13	10	10	6	119
MCW-C											
4/27/05	16	13	17	15	17	12	12	16	16	9	143
9/20/04	13	13	14	16	19	13	16	18	14	10	146
Pts Possible	20	20	20	20	20	20	20	20	20	20	200

Epifaunal Substrate- availability of habitat cover for spawning, feeding, etc.
Embeddedness- depth to which cobbles are surrounded by small particles and clays.
Velocity/depth regime- four stream regimes; fast and shallow, fast and deep, slow and shallow, and slow and deep.
Sediment Deposition- formation of bars and amount of sediment on channel bed.
Channel Flow Status- amount to which the stream fills the channel.
Channel Alteration- amount to which the stream segment being assessed has been modified by construction.
Frequency of Riffles- frequency of riffles and pools for benthic colonization.
Bank Stability- degree to which the bank is eroding.
Vegetative Protection- availability of cover used by riparian obligates.
Riparian Vegetation Zone- width of zone along each bank.