

TABLE A4. Cation Data

Inflow Cations								Drain Cations							
Date	Time	Ca	Mg	Na	K	Fe	Mn	Date	Time	Ca	Mg	Na	K	Fe	Mn
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
3/3/2000	1500	51.6	9.3	56	5.4	0.138	0.0201	3/3/2000	1500	123	40.9	368.4	10.3	0.147	0.118
3/11/2000		x	x	x	x	x	x	3/11/2000		x	x	x	x	x	x
3/18/2000		x	x	x	x	x	x	3/18/2000		x	x	x	x	x	x
3/25/2000	1400	x	x	x	x	x	x	3/25/2000	1400	x	x	x	x	x	x
4/1/2000	1605	x	x	x	x	x	x	4/2/2000	1600	x	x	x	x	x	x
4/8/2000	900	x	x	x	x	x	x								
4/8/2000	1210	x	x	x	x	x	x								
4/8/2000	1510	61.2	10.4	59.8	5.6	0.067	0.0081								
4/8/2000	1805	x	x	x	x	x	x	4/8/2000	1920	192.5	40.8	331.7	9.7	x	0.118
4/8/2000	2125	x	x	x	x	x	x								
4/9/2000	0	x	x	x	x	x	x								
4/9/2000	300	x	x	x	x	x	x								
4/9/2000	600	x	x	x	x	x	x								
4/9/2000	900	x	x	x	x	x	x								
4/17/2000	1500	x	x	x	x	x	x	4/17/2000	1630	x	x	x	x	x	x
4/23/2000	1530	x	x	x	x	x	x								
4/30/2000		77.7	10.9	59.4	6	0.0301	0.0101	4/30/2000		134.6	42.3	345.4	9.6	0.0191	0.16
5/6/2000	1700	55.7	11.2	60.4	6.3	0.0171	0.0091	5/6/2000	1600	123.5	42.3	353.8	9.6	0.0381	0.16
5/14/2000	1300	x	x	x	x	x	x	5/14/2000	1300	x	x	x	x	x	x
5/20/2000	1600	46	10.6	54.2	6.4	0.042	0.011	5/20/2000	1500	111.9	42.7	370.1	10.2	0.0181	0.122
5/27/2000	1420	x	x	x	x	x	x	5/27/2000	1930	x	x	x	x	x	x
6/3/2000	1105	50.2	12.1	66	6.4	0.0631	0.0211	6/3/2000	1200	103.4	42.4	353.4	9.5	0.0241	0.154
6/10/2000	1230	x	x	x	x	x	x	6/10/2000	1230	x	x	x	x	x	x
6/17/2000	1840	45.1	10.1	47.9	5.7	0.0851	0.0081	6/17/2000	1900	112.9	42.9	359.9	9.9	0.172	0.177
6/24/2000	1000	x	x	x	x	x	x	6/24/2000	1100	x	x	x	x	x	x
7/2/2000	1500	55.8	10	47.5	6.6	1.123	0.055	7/2/2000	1500	159.6	41.5	349.1	9.9	0.0631	0.133
7/8/2000	1130	x	x	x	x	x	x	7/8/2000	1150	x	x	x	x	x	x
7/15/2000	1300	54	9.6	46.4	5.8	0.12	0.0231	7/15/2000	1300	146.3	41.7	351.1	10.2	0.0291	0.154
7/22/2000	1545	x	x	x	x	x	x	7/22/2000	1545	x	x	x	x	x	x
7/29/2000	1700	59.7	11	57.1	5.9	0.0661	0.0171	7/29/2000	1700	156	40.9	311.4	11.7	0.0361	0.095
8/5/2000	1100	x	x	x	x	x	x	8/5/2000	1100	x	x	x	x	x	x
8/12/2000	1900	55.6	9.8	45.9	5.6	0.69	0.067	8/12/2000	1900	155.3	40.9	333	10.4	0.1071	0.0531
8/20/2000	1100	x	x	x	x	x	x	8/20/2000	1100	x	x	x	x	x	x

TABLE A4. Cation Data

Inflow Cations								Drain Cations							
Date	Time	Ca	Mg	Na	K	Fe	Mn	Date	Time	Ca	Mg	Na	K	Fe	Mn
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
8/26/2000	1000	61.5	10.1	51.7	6	0.0631	0.0121	8/26/2000	1000	163.3	44.1	389.7	11.5	0.0451	0.145
9/2/2000	1000	x	x	x	x	x	x	9/2/2000	1000	x	x	x	x	x	x
9/10/2000	900	61.8	10.8	54	6.3	0.0961	0.0141	9/10/2000		154.7	43.8	383.4	11.9	0.0611	0.469
9/17/2000	1045	x	x	x	x	x	x	9/17/2000	1045	x	x	x	x	x	x
9/23/2000	930	x	x	x	x	x	x	9/23/2000	930	x	x	x	x	x	x
9/29/2000	600	x	x	x	x	x	x	9/29/2000	1830	x	x	x	x	x	x
9/30/2000	0	x	x	x	x	x	x	9/30/2000	0	152	42.4	375.9	10.8	0.364	0.233
9/30/2000	700	x	x	x	x	x	x	9/30/2000	700	x	x	x	x	x	x
9/30/2000	1200	62.9	11.2	70.8	7.1	0.331	0.056	9/30/2000	1200	x	x	x	x	x	x
9/30/2000	1700	x	x	x	x	x	x	9/30/2000	1730	x	x	x	x	x	x
10/7/2000	1200	x	x	x	x	x	x	10/7/2000		x	x	x	x	x	x
10/14/2000	1000	62.5	11.1	66.2	6.9	0.0281	0.0061	10/14/2000		157.2	42.5	347.3	10.3	0.0221	0.348
10/21/2000		60.7	10.6	62.2	6.9	0.0451	0.0521	10/21/2000		152.3	41.6	347.4	10.7	0.0141	0.376
10/28/2000	1100	x	x	x	x	x	x	10/28/2000	1100	x	x	x	x	x	x
11/4/2000	900	66.914	9.783	60.439	4.97	x	x	11/4/2000	900	180.03	40.825	292.98	9.79	x	x
11/11/2000		68.594	10.354	65.34	5.51	x	x	11/11/2000		189.28	42.879	302.45	9.03	x	x
11/18/2000		71.918	11.223	66.747	5.59	x	x	11/18/2000		194.49	43.752	300.29	9.63	x	x
11/26/2000		63.137	9.872	58.419	5.21	x	x	11/26/2000		198.47	45.233	305.17	9.1	x	x
12/2/2000		71.861	11.495	67.946	5.87	x	x	12/2/2000		193.8	41.658	313.78	10.15	x	x
12/9/2000		68.429	10.139	68.619	6.04	x	x	12/9/2000		197.45	41.139	295.62	10.62	x	x
12/16/2000	1500	74.522	9.464	62.315	5.61	x	x	12/16/2000	1500	215.46	39.459	314.08	9.5	x	x
12/22/2000	1600	82.185	9.064	60.306	5.35	x	x	12/22/2000	1600	238.74	39.27	304.12	9.8	x	x
12/30/2000	1300	86.344	x	64.053	5.6	x	x	12/30/2000	1300	253.59	x	310.02	9.42	x	x
1/6/2001	1400	84.976	x	65.486	5.76	x	x	1/6/2001	1400	251.66	x	312.67	9.64	x	x
1/13/2001	1600	84.133	x	67.679	6.02	x	x	1/13/2001	1600	247.18	x	318.1	10.14	x	x
1/20/2001	1500	70.22	11.8	75.41	6.38	x	x	1/20/2001	1500	167.42	45.35	361.91	10.83	x	x
1/29/2001	1400	67.46	10.98	71.06	6.11	x	x	1/29/2001	1400	165.31	44.75	367.91	10.84	x	x
2/3/2001	1400	200.18	42.97	372.83	11.14	x	x	2/3/2001	1400	72.81	12.12	85.88	6.86	x	x
2/11/2001	400	72.26	12.98	88.29	6.96	x	x	2/11/2001	400	194.78	45.04	359.17	11.2	x	x
2/17/2001	1500	75.55	11.53	90.49	6.94	x	x	2/17/2001	1500	203.73	44.03	371.09	11.36	x	x
2/25/2001	1700	77.88	11.87	89.79	6.86	x	x	2/25/2001	1700	184.37	45.33	345.34	11.05	x	x
3/4/2001	1600	65.77	9.98	54.76	5.42	x	x	3/4/2001	1600	142.97	43.8	336.86	10.35	x	x
3/10/2001	1500	85.93	12.98	79.34	6.85	x	x	3/10/2001	1500	182.32	45.4	355.4	11.42	x	x

TABLE A4. Cation Data

Inflow Cations								Drain Cations							
Date	Time	Ca	Mg	Na	K	Fe	Mn	Date	Time	Ca	Mg	Na	K	Fe	Mn
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
3/17/2001	1400	71.74	11.01	62.52	6.59	x	x	3/17/2001	1400	181.8	45.01	322.98	10.57	x	x
3/24/2001	1600	75.69	11.26	61.81	6.73	x	x	3/24/2001	1600	179.24	45.22	350.16	11.34	x	x
3/31/2001	1500	73.07	11.54	72.9	6.76	x	x	3/31/2001	1500	187.75	46.65	363.08	11.3	x	x
4/7/2001	1600	73.65	11	58.88	6.27	x	x	4/7/2001	1600	182.7	46.1	332.32	11.39	x	x
4/14/2001	1600	73.26	11.86	63.26	6.58	x	x	4/14/2001	1600	180.31	45.71	335.91	11.05	x	x
4/22/2001	1600	74.02	11.53	54.78	6.3	x	x	4/22/2001	1600	183.11	46.90	344.84	11.01	x	x
4/28/2001	1400	71.49	11.59	53.68	6.48	x	x	4/28/2001	1400	180.11	47.61	341.88	11.02	x	x
5/6/2001	1400	65.23	9.94	45.63	5.71	x	x	5/6/2001	1400	168.25	45.39	343.57	10.84	x	x
5/12/2001	1400	61.60	9.18	43.44	5.63	x	x	5/12/2001	1400	180.65	44.46	346.59	11.12	x	x
5/19/2001	100	67.17	9.65	43.69	5.25	x	x	5/19/2001	100	186.94	43.79	331.06	11.33	x	x
5/19/2001	700	63.00	x	41.91	5.16	x	x	5/19/2001	700	245.09	x	342.89	10.54	x	x
5/19/2001	1300	68.50	9.44	48.72	5.32	x	x	5/19/2001	1300	185.46	43.29	326.18	10.48	x	x
5/19/2001	1900	71.46	9.76	49.97	5.52	x	x	5/19/2001	1900	192.82	43.76	328.37	10.55	x	x
5/26/2001	1100	62.75	x	42.60	5.2	x	x	5/26/2001	1100	184.13	x	328.09	10.51	x	x
6/2/2001	1700	51.97	8.24	39.17	4.83	x	x	6/2/2001	1700	194.65	42.63	332.60	10.24	x	x
6/9/2001	900	53.66	8.67	43.24	5.89	x	x	6/9/2001	900	178.55	42.78	323.51	10.5	x	x

Note: Blank Cells indicate that no sample was taken. An "x" indicates that data results are incomplete.