Appendix 2A-1: Summary of Water Year 2003 Water Quality Monitoring Results

Florida Department of Environmental Protection

Table 1. Summary of WY2003 water quality monitoring results for variables listed in Section 62-302.530, Florida Administrative Code (F.A.C.). Only water quality variables analyzed during the water year for a given region and site class are included.

Variable	Units	Area	Class	N	Arithmetic Mean	Std. Deviation	Median	Min.	Max.	Percent BDL (%)
Alkalinity	mg $CaCO_3$/L	Refuge	Inflow	73	203.2	37.8	194.8	136.4	314.6	0.0
Alkalinity	mg $CaCO_3$/L	Refuge	Rim	34	187.3	52.3	184.5	114.2	361.7	0.0
Alkalinity	mg $CaCO_3$/L	Refuge	Interior	213	107	78.2	115	4.5	236	0.0
Alkalinity	mg $CaCO_3$/L	Refuge	Outflow	65	174.3	44.7	169.4	67.7	297.8	0.0
Alkalinity	mg $CaCO_3$/L	WCA-2	Inflow	98	237.8	72.1	227.5	10	376	0.0
Alkalinity	mg $CaCO_3$/L	WCA-2	Interior	257	234.2	56.8	224.7	126.5	413.6	0.0
Alkalinity	mg $CaCO_3$/L	WCA-2	Outflow	57	212.2	46.7	217.4	114.1	305.2	0.0
Alkalinity	mg $CaCO_3$/L	WCA-3	Inflow	182	222.9	42.7	227.6	0.5	312.5	0.5
Alkalinity	mg $CaCO_3$/L	WCA-3	Interior	291	185.2	40.4	184	74.8	312.9	0.0
Alkalinity	mg $CaCO_3$/L	WCA-3	Outflow	163	150.5	38.9	150.1	82.8	280.8	0.0
Alkalinity	mg $CaCO_3$/L	Park	Inflow	178	164.1	40.8	174.2	84.9	271.9	0.0
Alkalinity	mg $CaCO_3$/L	Park	Interior	79	158.4	34.9	157.8	75.7	240.1	0.0
Specific Conductance	µmhos/cm	Refuge	Inflow	127	896	225	875	467	1511	0.0
Specific Conductance	µmhos/cm	Refuge	Rim	34	825	207	777	558	1531	0.0
Specific Conductance	µmhos/cm	Refuge	Interior	231	451	323	377	47	1033	0.0
Specific Conductance	µmhos/cm	Refuge	Outflow	66	760	204	741	160	1216	0.0
Specific Conductance	µmhos/cm	WCA-2	Inflow	140	1018	242	1061	387	1515	0.0
Specific Conductance	µmhos/cm	WCA-2	Interior	278	1079	398	982	479	2857	0.0
Specific Conductance	µmhos/cm	WCA-2	Outflow	57	913	181	914	431	1317	0.0
Specific Conductance	µmhos/cm	WCA-3	Inflow	315	772	193	778	307	1317	0.0
Specific Conductance	µmhos/cm	WCA-3	Interior	319	532	162	522	1	1202	0.0
Specific Conductance	µmhos/cm	WCA-3	Outflow	195	403	152	364	191	882	0.0
Specific Conductance	µmhos/cm	Park	Inflow	280	448	129	478	214	813	0.0
Specific Conductance	µmhos/cm	Park	Interior	80	456	137	473	143	776	0.0
Dissolved Oxygen	mg/L	Refuge	Inflow	127	3.74	2.37	3.51	0.13	10.2	0.0
Dissolved Oxygen	mg/L	Refuge	Rim	34	3.84	1.72	3.67	1.26	9	0.0

Variable	Units	Area	Class	N	Arithmetic Mean	Std. Deviation	Median	Min.	Max.	Percent BDL (%)
Dissolved Oxygen	mg/L	Refuge	Interior	231	2.92	2.08	2.33	0.19	10.05	0.0
Dissolved Oxygen	mg/L	Refuge	Outflow	66	5.24	2.25	5.18	1.61	9.88	0.0
Dissolved Oxygen	mg/L	WCA-2	Inflow	139	5.06	2.05	4.89	0.64	9.88	0.0
Dissolved Oxygen	mg/L	WCA-2	Interior	275	3	1.96	2.56	0.2	8.81	0.0
Dissolved Oxygen	mg/L	WCA-2	Outflow	50	5.12	2.11	5.2	0.91	10.31	0.0
Dissolved Oxygen	mg/L	WCA-3	Inflow	306	5.09	2.42	5.17	0.18	13.53	0.0
Dissolved Oxygen	mg/L	WCA-3	Interior	319	2.8	1.89	2.24	0.19	8.78	0.0
Dissolved Oxygen	mg/L	WCA-3	Outflow	194	3.37	1.64	3.23	0.4	8.45	0.0
Dissolved Oxygen	mg/L	Park	Inflow	280	3.45	1.97	3.29	0.17	8.9	0.0
Dissolved Oxygen	mg/L	Park	Interior	71	5.21	2.01	4.92	0.95	9.25	0.0
pH	Units	Refuge	Inflow	127	7.5	0.22	7.46	7.1	8.11	0.0
pH	Units	Refuge	Rim	34	7.47	0.14	7.47	7.2	7.86	0.0
pH	Units	Refuge	Interior	231	6.92	0.39	7.01	5.91	7.73	0.0
pH	Units	Refuge	Outflow	66	7.61	0.26	7.65	7	8.1	0.0
pH	Units	WCA-2	Inflow	140	7.6	0.25	7.58	7.06	8.36	0.0
pH	Units	WCA-2	Interior	278	7.45	0.2	7.45	6.83	8.04	0.0
pH	Units	WCA-2	Outflow	57	7.47	0.32	7.41	6.87	8.62	0.0
pH	Units	WCA-3	Inflow	318	7.48	0.37	7.41	6.72	8.85	0.0
pH	Units	WCA-3	Interior	319	7.34	0.19	7.31	6.92	7.93	0.0
pH	Units	WCA-3	Outflow	195	7.31	0.19	7.3	6.9	8.02	0.0
pH	Units	Park	Inflow	280	7.34	0.25	7.3	6.44	8.21	0.0
pH	Units	Park	Interior	80	7.57	0.3	7.49	6.74	8.53	0.0
Total Antimony	µg/L	WCA-3	Inflow	4	<2.2	0.79	<2.2	<2.2	2.7	75.0
Total Arsenic	µg/L	WCA-3	Inflow	4	3.79	1.94	3.35	2.1	6.36	0.0
Total Cadmium	µg/L	Refuge	Inflow	4	0.31	0.18	<0.3	<0.3	0.499	50.0
Total Cadmium	µg/L	WCA-2	Inflow	2	<0.3	N/A	<0.3	<0.3	<0.3	100
Total Cadmium	µg/L	WCA-3	Inflow	15	0.34	0.23	<0.3	<0.3	0.75	53.3
Total Cadmium	µg/L	WCA-3	Outflow	8	<0.3	0.06	<0.3	<0.3	0.32	87.5
Total Cadmium	µg/L	Park	Inflow	16	<0.3	0.37	<0.3	<0.3	1.62	87.5
Total Copper	µg/L	Refuge	Inflow	4	3.36	1.79	3.45	1.63	4.91	0.0
Total Copper	µg/L	WCA-2	Inflow	2	2.12	0.71	2.12	1.62	2.62	0.0
Total Copper	µg/L	WCA-3	Inflow	15	2.61	2	2.01	<1.2	5.83	33.3
Total Copper	µg/L	WCA-3	Outflow	8	<1.2	0.42	<1.2	<1.2	1.71	75.0
Total Copper	µg/L	Park	Inflow	16	<1.2	0.44	<1.2	<1.2	1.71	62.5
Total Iron	µg/L	Refuge	Inflow	6	200	263	62	38	695	0.0
Total Iron	µg/L	Refuge	Rim	4	850	724	626	246	1902	0.0
Total Iron	µg/L	Refuge	Interior	40	71	53	59	2	204	2.5
Total Iron	µg/L	Refuge	Outflow	14	83	99	53	13	317	0.0
Total Iron	µg/L	WCA-2	Inflow	15	59	72	45	12	308	0.0
Total Iron	µg/L	WCA-2	Interior	17	17	15	11	2	58	5.9

Variable	Units	Area	Class	N	Arithmetic Mean	Std. Deviation	Median	Min.	Max.	Percent BDL (%)
Total Iron	µg/L	WCA-2	Outflow	6	32	21	30	11	61	0.0
Total Iron	µg/L	WCA-3	Inflow	41	174	138	139	11	606	0.0
Total Iron	µg/L	WCA-3	Interior	28	94	139	44	2	586	7.1
Total Iron	µg/L	WCA-3	Outflow	24	81	48	86	17	173	0.0
Total Iron	µg/L	Park	Inflow	34	169	181	123	17	909	0.0
Total Lead	µg/L	WCA-3	Inflow	4	<0.8	N/A	<0.8	<0.8	<0.8	100
Total Nickel	µg/L	WCA-3	Inflow	4	0.392	0.284	0.25	0.25	0.818	75.0
Total Selenium	µg/L	WCA-3	Inflow	4	<1.0	N/A	<1.0	<1.0	<1.0	100
Total Silver	µg/L	WCA-3	Inflow	4	<0.02	N/A	<0.02	<0.02	<0.02	100
Total Thallium	µg/L	WCA-3	Inflow	4	<0.5	N/A	<0.5	<0.5	<0.5	100
Total Zinc	µg/L	Refuge	Inflow	4	<4	N/A	<4	<4	<4	100
Total Zinc	µg/L	WCA-2	Inflow	2	<4	N/A	<4	<4	<4	100
Total Zinc	µg/L	WCA-3	Inflow	15	<4	4.8	<4	<4	20.6	93.3
Total Zinc	µg/L	WCA-3	Outflow	8	<4	N/A	<4	<4	<4	100
Total Zinc	µg/L	Park	Inflow	16	<4	N/A	<4	<4	8.7	75.0
Turbidity	NTU	Refuge	Inflow	73	3.64	3.46	2.43	0.42	17.4	0.0
Turbidity	NTU	Refuge	Rim	12	18.9	16.6	14.4	3.37	52.4	0.0
Turbidity	NTU	Refuge	Interior	115	0.69	0.31	0.61	0.05	1.9	0.9
Turbidity	NTU	Refuge	Outflow	64	3.75	3.74	2.34	0.74	21.7	0.0
Turbidity	NTU	WCA-2	Inflow	77	4.82	4.62	3.33	0.44	23.6	0.0
Turbidity	NTU	WCA-2	Interior	140	1.12	1.42	0.75	0.24	13.7	0.0
Turbidity	NTU	WCA-2	Outflow	57	1.87	1.4	1.57	0.21	7.91	0.0
Turbidity	NTU	WCA-3	Inflow	156	2.91	2.53	2.06	0.21	20.2	0.0
Turbidity	NTU	WCA-3	Interior	191	0.73	0.6	0.56	0.26	5.22	0.0
Turbidity	NTU	WCA-3	Outflow	163	1.49	1.94	0.96	0.31	15.2	0.0
Turbidity	NTU	Park	Inflow	178	1.76	1.99	1.13	0.31	15.2	0.0
Turbidity	NTU	Park	Interior	75	1.69	1.91	1.11	0.28	13.8	0.0
Un-ionized Ammonia	mg/L	Refuge	Inflow	73	0.0016	0.0018	0.0011	0.00003	0.01	6.8
Un-ionized Ammonia	mg/L	Refuge	Rim	32	0.0026	0.0034	0.0014	0.0002	0.0155	0.0
Un-ionized Ammonia	mg/L	Refuge	Interior	203	0.0001	0.0002	0.0001	0.000003	0.0009	33.5
Un-ionized Ammonia	mg/L	Refuge	Outflow	66	0.0007	0.0007	0.0005	0.00005	0.0039	18.2
Un-ionized Ammonia	mg/L	WCA-2	Inflow	98	0.0056	0.0124	0.0011	0.0001	0.0595	4.1
Un-ionized Ammonia	mg/L	WCA-2	Interior	255	0.0005	0.0004	0.0004	0.00002	0.0025	8.6
Un-ionized Ammonia	mg/L	WCA-2	Outflow	57	0.0007	0.0006	0.0005	0.00003	0.003	14.0
Un-ionized Ammonia	mg/L	WCA-3	Inflow	194	0.0019	0.0028	0.0012	0.0001	0.0325	7.2
Un-ionized Ammonia	mg/L	WCA-3	Interior	291	0.0002	0.0003	0.0002	0.00003	0.0026	26.5
Un-ionized Ammonia	mg/L	WCA-3	Outflow	156	0.0011	0.0019	0.0005	0.00002	0.0116	5.8
Un-ionized Ammonia	mg/L	Park	Inflow	172	0.0011	0.0016	0.0006	0.00002	0.0116	8.1
Un-ionized Ammonia	mg/L	Park	Interior	79	0.0014	0.0022	0.0007	0.0001	0.013	3.8