

# Refuge's Enhanced Water Quality Program Monthly Sampling July through September, 2010 Data Updated

Presented November 30, 2010

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Submitted by:  
**Donatto Surratt**

**Everglades National Park**  
**c/o A.R.M. Loxahatchee National Wildlife Refuge**

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**REFUGE'S ENHANCED WATER QUALITY PROGRAM  
MONTHLY SAMPLING**

*July through September, 2010 Data Update*  
Submitted November 26, 2010

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**Everglades National Park  
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A.R.M. Loxahatchee National Wildlife Refuge Jul-10  
 Enhanced Water Quality Monitoring Network

Site	Sample Date	Full(F), Partial(P), None(N), Reanalyzer (R)	Depth <sup>1</sup> meter	Total Depth <sup>2</sup> meter	DCS <sup>3</sup> meter	Alkalinity mg/l	Calcium Dissolved mg/l	Carbon, Dissolved Organic mg/l	Carbon, Total Organic mg/l	Chloride mg/l	Conductivity (Field) µMHSO/cm	Nitrate + Nitrite as Nitrogen mg/l	Nitrogen, Total Kjeldahl (TKN) mg/l	Ortho-phosphate as Phosphorus mg/l	Oxygen, Dissolved (Field) mg/l	pH (Field) pH units	Phosphorus, Total mg/l	Silica mg/l	Solids, Total Dissolved (TDS) mg/l	Solids, Total Suspended (TSS) mg/l	Sulfate mg/l	Temperature (Field) DEG C	Turbidity NTU	
																								Units
A101	6-Jul	N	-	0.03	0.08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
A102	6-Jul	N	-	0.08	0.12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
A103	6-Jul	N	-	0.07	0.173	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
A104	7-Jul	F	-	>1M	133	41	33	33	126	821	0.015	2.1	0.010	2.3	7.7	0.026	23	523	9	63.0	27.8	3.5		
A105	7-Jul	P	0.08	0.16	0.21	-	-	-	33	284	-	-	-	1.5	6.8	0.019	-	-	U	7.2	27.2	-		
A106	7-Jul	P	0.06	0.12	0.19	-	-	-	20	189	-	-	-	1.8	6.8	0.015	-	-	U	1.5	27.0	-		
A107	7-Jul	N	-	0.07	0.14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
A108	7-Jul	P	0.06	0.13	0.25	-	-	-	26	129	-	-	-	4.5	6.4	0.007	-	-	U	U	28.7	-		
A109	7-Jul	F	0.11	0.23	0.29	30	8	15	15	12	104	U	0.7	U	2.6	6.5	0.009	2	81	U	0.9	27.7	0.7	
A110	7-Jul	P	0.05	0.1	0.23	-	-	-	20	122	-	-	-	5.9	6.8	0.010	-	-	U	0.5	29.1	-		
A111	7-Jul	P	0.06	0.13	0.35	-	-	-	11	78	-	-	-	4.9	6.4	0.006	-	-	U	0.7	28.3	-		
A112	7-Jul	P	0.09	0.18	0.32	-	-	-	11	105	-	-	-	4.0	6.6	0.017	-	-	U	0.7	28.0	-		
A113	7-Jul	P	0.09	0.18	0.37	-	-	-	14	84	-	-	-	3.8	6.3	0.005	-	-	U	0.6	28.8	-		
A114	7-Jul	P	0.08	0.16	0.33	-	-	-	15	92	-	-	-	3.7	6.4	0.008	-	-	U	0.5	28.9	-		
A115	8-Jul	F	0.5	-	>1M	128	45	30	30	125	-	0.037	2.0	0.010	-	-	0.023	21	520	U	72.1	-	-	
A117	8-Jul	P	0.1	0.19	0.26	-	-	-	16	-	-	-	-	-	-	-	0.028	-	U	1.7	-	-	-	
A118	8-Jul	F	0.1	0.2	0.33	30	9	16	16	13	-	U	1.1	0.008	-	-	0.010	6	84	U	0.7	-	-	
A119	8-Jul	F	0.1	0.2	0.34	27	8	15	15	13	-	U	1.1	0.008	-	-	0.009	5	87	U	0.5	-	-	
A120	8-Jul	F	0.18	0.36	0.5	15	5	14	15	16	-	U	0.9	0.006	-	-	0.007	5	78	U	U	-	0.7	
A122	8-Jul	P	0.1	0.19	0.24	-	-	-	13	-	-	-	-	-	-	-	0.018	-	-	U	1.3	-	-	
A124	8-Jul	P	0.1	0.19	0.31	-	-	-	17	-	-	-	-	-	-	-	0.016	-	-	U	0.6	-	-	
A126	8-Jul	P	0.1	0.19	0.3	-	-	-	35	254	-	-	-	3.5	6.9	0.018	-	-	U	2.0	29.9	-	-	
A127	8-Jul	P	0.07	0.15	0.24	-	-	-	17	-	-	-	-	-	-	-	0.018	-	-	U	0.6	-	-	
A128	7-Jul	P	0.05	0.11	0.35	-	-	-	16	93	-	-	-	5.0	6.4	0.006	-	-	U	U	30.7	-	-	
A129	6-Jul	F	0.5	-	>1M	132	48	20	20	102	654	0.074	1.5	0.014	3.0	7.5	0.039	10	376	U	22.8	29.8	2.6	
A130	6-Jul	P	0.09	0.19	0.26	-	-	-	18	176	-	-	-	2.7	6.6	0.014	-	-	U	1.0	30.0	-	-	
A131	6-Jul	P	0.09	0.18	0.27	-	-	-	14	110	-	-	-	3.9	6.5	0.013	-	-	U	0.7	30.1	-	-	
A132	6-Jul	F	0.5	-	>1M	118	37	24	25	64	487	0.059	1.6	0.028	2.8	7.4	0.060	12	314	5.5	18.9	30.0	6.2	
A133	6-Jul	N	-	0.04	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
A134	6-Jul	P	0.07	0.13	0.24	-	-	-	15	140	-	-	-	4.5	6.7	0.013	-	-	U	1.1	27.9	-	-	
A135	6-Jul	F	0.5	-	>1M	122	39	25	25	67	511	0.057	1.7	0.035	2.7	7.5	0.062	13	332	7	23.8	29.5	7.0	
A136	6-Jul	N	-	0.09	0.35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
A137	6-Jul	P	0.09	0.18	0.27	-	-	-	13	163	-	-	-	4.8	6.8	0.008	-	-	U	0.8	29.5	-	-	
A138	6-Jul	P	0.09	0.18	0.24	-	-	-	12	111	-	-	-	6.0	6.7	0.007	-	-	U	0.6	29.3	-	-	
A139	6-Jul	P	0.08	0.16	0.23	-	-	-	9	63	-	-	-	8.4	6.6	0.009	-	-	U	0.6	30.0	-	-	
A140	6-Jul	N	-	0.09	0.16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
A141	8-Jul	F	0.15	0.31	0.55	40	12	16	17	18	-	U	0.9	0.005	-	-	0.012	6	117	U	1.1	-	-	
Total			37																					
Full			10																					
Partial			20																					
None			7																					

(1) Sample depth

(2) Total depth is depth of the clear water column

(3) Depth to consolidated substrate

U indicates that the compound was analyzed for but not detected; see "LOXA\_Parameter\_Info" tab for table of MDLs.

Additional information on the Enhanced Water Quality Monitoring Network can be found at:

[http://sofia.usgs.gov/ox\\_monitor\\_model/wq\\_network.html](http://sofia.usgs.gov/ox_monitor_model/wq_network.html)

Data from June 2004 to May 2006 available on DBHYDRO:

[http://my.sfwmd.gov/dbhydro/sq/show\\_dbkey\\_info.main\\_menu](http://my.sfwmd.gov/dbhydro/sq/show_dbkey_info.main_menu)

Field notes are maintained by the Everglades Program Team at the A.R.M. Loxahatchee National Wildlife Refuge.

A.R.M. Loxahatchee National Wildlife Refuge Aug-10  
 Enhanced Water Quality Monitoring Network

Site	Sample Date	Full(F), Partial(P), None(N), Reanalyzer (R) Units	Depth <sup>1</sup> meter	Total Depth <sup>2</sup> meter	DCS <sup>3</sup> meter	Alkalinity mg/l	Calcium Dissolved mg/l	Carbon, Dissolved Organic mg/l	Carbon, Total Organic mg/l	Chloride mg/l	Conductivity (Field) µMHSO/cm	Nitrate + Nitrite as Nitrogen mg/l	Nitrogen, Total Kjeldahl (TKN) mg/l	Ortho-phosphate as Phosphorus mg/l	Oxygen, Dissolved (Field) mg/l	pH (Field) pH units	Phosphorus, Total mg/l	Silica mg/l	Solids, Total Dissolved (TDS) mg/l	Solids, Total Suspended (TSS) mg/l	Sulfate mg/l	Temperature (Field) DEG C	Turbidity NTU
A101	10-Aug	P	0.05	0.1	0.13	-	-	-	-	48	345	-	-	-	3.1	6.9	0.032	-	-	U	2.4	26.8	-
A102	10-Aug	N	-	-	0.09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A103	10-Aug	N	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A104	11-Aug	F	-	-	>1M	149	45	30	31	161	959	0.047	2.1	0.007	3.7	7.8	0.034	24	583	U	65.4	28.6	1.1
A105	11-Aug	P	-	0.14	0.23	-	-	-	-	69	433	-	-	-	1.5	6.7	0.024	-	-	U	9.0	25.6	-
A106	11-Aug	P	0.03	0.14	0.17	-	-	-	-	27	206	-	-	-	3.6	6.7	0.014	-	-	U	2.3	27.1	-
A107	11-Aug	N	-	-	0.09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A108	10-Aug	N	-	-	0.13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A109	11-Aug	P	0.21	0.18	0.39	-	-	-	-	10	84	-	-	-	5.1	6.7	0.010	-	-	U	0.9	27.4	-
A110	11-Aug	P	0.07	0.14	0.21	-	-	-	-	25	170	-	-	-	5.1	6.7	0.010	-	-	U	0.6	27.1	-
A111	11-Aug	F	0.21	0.2	0.41	13	4	10	10	9	63	0.014	0.7	0.003	4.4	6.3	0.008	2	41	U	0.7	26.7	0.4
A112	11-Aug	P	0.14	0.18	0.32	-	-	-	-	9	82	-	-	-	5.1	6.3	0.011	-	-	U	0.7	27.1	-
A113	11-Aug	P	0.16	0.19	0.35	-	-	-	-	9	63	-	-	-	4.7	6.2	0.008	-	-	U	0.6	27.1	-
A114	11-Aug	F	0.12	0.21	0.33	13	4	11	11	11	69	0.015	0.8	0.003	3.2	6.8	0.006	2	51	U	0.5	26.6	0.4
A115	12-Aug	F	0.5	-	>1M	108	36	21	21	70	515	0.086	1.3	0.012	4.1	7.5	0.034	12	320	U	33.2	30.0	1.4
A117	12-Aug	F	0.12	0.24	0.35	42	12	15	15	12	126	0.01	1.0	0.004	3.2	6.4	0.017	4	98	U	1.2	28.6	0.6
A118	12-Aug	F	0.1	0.2	0.48	24	7	13	14	11	86	U	0.8	0.005	3.6	6.2	0.011	5	69	U	0.7	29.1	0.4
A119	12-Aug	F	0.19	0.38	0.5	23	7	14	14	11	83	0.012	1.1	0.006	3.9	6.5	0.009	4	65	U	0.5	30.3	1.1
A120	12-Aug	F	0.2	0.4	0.52	15	5	13	13	15	88	U	1.0	0.005	3.3	6.2	0.007	5	58	U	U	29.6	0.8
A122	12-Aug	F	0.17	0.33	0.2	41	13	13	14	9	113	U	0.9	0.007	1.1	6.5	0.017	2	80	U	1.1	28.1	0.9
A124	9-Aug	P	0.07	0.15	0.37	-	-	-	-	18	117	-	-	-	5.0	6.6	0.013	-	-	U	0.5	29.6	-
A126	9-Aug	P	0.08	0.18	0.33	-	-	-	-	47	281	-	-	-	6.7	6.8	0.018	-	-	U	2.3	31.8	-
A127	9-Aug	P	0.05	0.1	0.27	-	-	-	-	21	116	-	-	-	8.3	6.6	0.012	-	-	U	0.5	32.6	-
A128	12-Aug	P	0.06	0.12	0.29	-	-	-	-	13	77	-	-	-	5.6	6.3	0.007	-	-	U	U	31.7	-
A129	9-Aug	F	0.5	-	>1M	91	32	21	21	69	438	0.03	1.4	0.005	1.3	6.8	0.037	9	270	U	11.7	29.3	1.2
A130	9-Aug	F	0.12	0.23	0.32	38	13	18	18	16	132	U	0.9	0.004	3.2	6.3	0.008	6	104	U	1.1	28.7	0.4
A131	9-Aug	F	0.11	0.22	0.33	22	8	15	15	12	91	0.01	1.1	0.005	7.1	6.5	0.012	8	79	U	0.6	30.2	0.6
A132	9-Aug	F	0.5	-	>1M	106	39	21	21	92	556	0.037	1.5	0.005	1.7	7.0	0.036	10	324	U	17.8	29.8	1.6
A133	9-Aug	P	0.05	0.1	0.14	-	-	-	-	15	129	-	-	-	2.5	6.2	0.017	-	-	U	1.0	29.1	-
A134	9-Aug	F	0.1	0.2	0.31	32	10	15	15	14	113	U	1.0	0.004	6.9	6.6	0.011	6	88	U	0.9	29.9	1.6
A135	10-Aug	F	0.5	-	>1M	106	38	20	20	97	576	0.061	1.5	0.007	2.0	7.2	0.032	10	340	U	19.3	29.0	1.5
A136	10-Aug	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A137	10-Aug	P	0.07	0.14	0.26	-	-	-	-	13	121	-	-	-	3.9	6.5	0.008	-	-	U	0.7	28.4	-
A138	10-Aug	P	0.06	0.13	0.29	-	-	-	-	12	96	-	-	-	4.8	6.5	0.008	-	-	U	0.6	27.4	-
A139	10-Aug	P	0.07	0.14	0.26	-	-	-	-	7	67	-	-	-	4.1	6.3	0.006	-	-	U	0.5	27.5	-
A140	10-Aug	P	0.08	0.16	0.21	-	-	-	-	15	118	-	-	-	6.1	6.6	0.010	-	-	U	0.7	27.7	-
A141	12-Aug	F	0.15	0.3	0.6	29	8	12	13	13	105	U	0.8	0.005	3.3	6.3	0.013	6	84	U	0.7	28.0	0.5
Total			37																				
Full			16																				
Partial			16																				
None			5																				

(1) Sample depth

(2) Total depth is depth of the clear water column

(3) Depth to consolidated substrate

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A.R.M. Loxahatchee National Wildlife Refuge Sep-10  
Enhanced Water Quality Monitoring Network

Site	Sample Date	Full(F), Partial(P), None(N), Reanalyzer (R) Units	Depth <sup>1</sup> meter	Total Depth <sup>2</sup> meter	DCS <sup>3</sup> meter	Alkalinity mg/l	Calcium Dissolved mg/l	Carbon, Dissolved Organic mg/l	Carbon, Total Organic mg/l	Chloride mg/l	Conductivity (Field) µMHSO/cm	Nitrate + Nitrite as Nitrogen mg/l	Nitrogen, Total Kjeldahl (TKN) mg/l	Ortho-phosphate as Phosphorus mg/l	Oxygen, Dissolved (Field) mg/l	pH (Field) pH units	Phosphorus, Total mg/l	Silica mg/l	Solids, Total		Sulfate mg/l	Temperature (Field) DEG C	Turbidity NTU
																			Dissolved (TDS) mg/l	Suspended (TSS) mg/l			
A101	14-Sep	F	0.04	0.3	0.42	141	49	31	31	107	709	U	1.3	0.010	2.3	7.1	0.022	27	460	U	33.6	27.9	0.4
A102	14-Sep	F	0.07	0.27	0.34	72	25	22	22	64	395	U	0.9	0.007	2.0	6.7	0.016	19	252	U	12.8	27.5	0.5
A103	14-Sep	F	0.13	0.4	0.53	99	34	29	29	88	528	U	1.1	0.008	1.5	6.8	0.020	21	342	U	10.4	27.7	0.7
A104	15-Sep	F	0.5	>1M	>1M	237	79	41	41	148	1102	0.061	2.4	0.010	4.4	7.7	0.031	30	724	U	89.7	29.4	0.7
A105	15-Sep	F	0.2	0.4	0.51	162	54	34	35	121	847	U	2.1	0.005	1.8	7.1	0.026	28	549	U	66.9	28.1	0.5
A106	15-Sep	F	0.16	0.33	0.4	126	38	26	26	97	629	U	1.4	0.005	2.1	7.0	0.015	21	400	U	27.8	27.9	0.4
A107	15-Sep	F	0.11	0.22	0.33	49	14	30	28	24	187	U	1.1	0.003	1.6	6.6	0.019	10	162	U	0.7	27.4	0.5
A108	14-Sep	F	0.06	0.29	0.35	15	6	21	21	23	124	U	1.1	0.003	4.4	6.5	0.009	3	99	U	0.5	28.4	0.7
A109	15-Sep	F	0.16	0.32	0.54	42	15	17	17	44	262	U	0.8	0.003	1.2	6.5	0.011	10	174	U	9.0	27.6	0.6
A110	15-Sep	F	0.17	0.35	0.43	22	6	13	13	13	88	U	0.8	U	4.6	6.7	0.007	4	70	U	0.6	27.4	0.5
A111	15-Sep	F	0.19	0.38	0.6	16	5	12	12	8	67	U	0.7	U	3.1	6.3	0.007	4	59	U	0.7	27.3	0.5
A112	15-Sep	F	0.17	0.35	0.58	28	8	16	15	8	86	U	0.9	0.003	1.4	6.3	0.010	5	83	U	0.7	27.8	0.6
A113	15-Sep	F	0.17	0.34	0.52	15	4	12	12	8	63	U	0.8	0.002	4.0	6.4	0.005	3	59	U	0.6	26.9	0.4
A114	15-Sep	F	0.19	0.38	0.59	16	4	12	12	8	69	U	0.7	0.002	1.2	6.3	0.005	3	54	U	0.6	26.7	0.4
A115	16-Sep	F	0.5	>1M	>1M	241	89	41	41	149	1115	0.061	2.8	0.014	3.2	7.7	0.033	29	740	U	93.0	29.6	0.9
A117	16-Sep	F	0.21	0.43	0.54	122	44	29	29	102	652	U	1.9	0.005	1.3	6.9	0.033	22	440	U	39.1	28.2	2.0
A118	16-Sep	F	0.21	0.42	0.54	45	14	17	17	25	192	U	0.9	0.005	2.3	6.6	0.011	10	129	U	1.9	28.1	0.6
A119	16-Sep	F	0.21	0.42	0.52	26	8	14	14	11	88	U	1.1	0.005	5.1	6.8	0.007	7	76	U	0.6	29.0	0.9
A120	16-Sep	F	0.2	0.4	0.59	15	5	14	14	14	86	U	0.9	0.003	3.9	6.4	0.004	6	69	U	-0.1	28.5	0.7
A122	16-Sep	F	0.22	0.44	0.51	99	37	23	23	61	444	U	1.4	0.003	2.9	6.8	0.021	14	288	U	15.4	27.9	1.2
A124	13-Sep	F	0.19	0.38	0.6	47	17	18	18	43	256	U	1.1	0.007	0.8	6.9	0.018	12	162	U	1.7	27.9	0.6
A126	13-Sep	F	0.17	0.35	0.57	152	53	28	28	121	767	U	1.6	0.009	0.6	6.9	0.020	19	486	U	40.0	28.2	1.3
A127	13-Sep	F	0.15	0.31	0.51	18	7	16	16	14	94	U	1.1	0.010	1.9	6.5	0.009	7	79	U	-0.1	29.7	0.8
A128	16-Sep	F	0.12	0.25	0.48	15	5	14	14	11	73	U	0.8	0.004	6.5	6.6	0.004	3	61	U	-0.1	29.8	0.4
A129	13-Sep	F	0.5	>1M	>1M	150	55	29	30	130	834	0.037	2.0	0.009	2.2	7.5	0.032	19	521	U	53.9	29.8	2.3
A130	13-Sep	F	0.16	0.32	0.49	149	51	30	30	121	753	0.012	1.6	0.011	0.5	6.9	0.026	20	487	U	32.1	28.1	1.7
A131	13-Sep	F	0.2	0.41	0.55	45	16	23	24	24	79	U	1.1	0.009	1.4	6.6	0.011	9	142	U	0.7	28.6	0.4
A132	13-Sep	F	0.5	>1M	>1M	196	71	39	40	141	1005	0.029	2.3	0.011	2.0	7.5	0.038	30	660	U	85.9	30.0	1.9
A133	13-Sep	F	0.11	0.23	0.3	126	47	27	28	108	656	U	1.7	0.009	1.1	6.8	0.046	18	412	U	18.0	27.9	2.4
A134	13-Sep	F	0.18	0.37	0.55	100	38	26	26	101	571	U	1.4	0.009	1.4	6.9	0.021	18	369	U	18.5	28.9	0.8
A135	14-Sep	F	>1M	>1M	>1M	131	50	23	23	123	738	0.026	1.2	0.006	3.1	7.6	0.020	13	439	U	36.2	29.8	1.1
A136	14-Sep	F	0.16	0.33	0.49	135	51	27	28	117	739	U	1.5	0.007	0.2	6.9	0.033	20	441	U	23.9	27.3	3.9
A137	14-Sep	F	0.18	0.29	0.47	73	30	27	27	74	415	U	1.4	0.007	0.4	6.6	0.018	16	279	U	6.5	28.5	0.7
A138	14-Sep	F	0.19	0.25	0.44	39	13	21	22	16	39	U	1.2	0.004	2.1	6.6	0.009	9	127	U	0.8	28.1	0.5
A139	14-Sep	F	0.1	0.22	0.32	17	6	18	18	0	86	U	1.1	U	2.0	6.3	0.007	3	80	U	0.5	27.8	0.6
A140	14-Sep	F	0.11	0.29	0.4	74	29	32	32	73	413	0.015	1.5	0.007	2.7	6.8	0.018	20	284	U	4.6	28.1	0.7
A141	16-Sep	F	0.99	0.98	>1M	97	33	23	24	74	493	U	1.4	0.003	3.9	6.7	0.013	15	310	U	22.3	27.5	2.7
Total			37																				
Full			37																				
Partial			0																				
None			0																				

(1) Sample depth

(2) Total depth is depth of the clear water column

(3) Depth to consolidated substrate

U indicates that the compound was analyzed for but not detected; see "LOXA\_Parameter\_Info" tab for table of MDLs.

Additional information on the Enhanced Water Quality Monitoring Network can be found at:

[http://sofia.usgs.gov/lox\\_monitor\\_model/wq\\_network.html](http://sofia.usgs.gov/lox_monitor_model/wq_network.html)

Data from June 2004 to May 2006 available on DBHYDRO:

[http://nv.sfwmd.gov/dbhydrosql/show\\_dbkey\\_info.main\\_menu](http://nv.sfwmd.gov/dbhydrosql/show_dbkey_info.main_menu)

Field notes are maintained by the Everglades Program Team at the A.R.M. Loxahatchee National Wildlife Refuge.

## A.R.M. Loxahatchee National Wildlife Refuge Enhanced Water Quality Monitoring Network

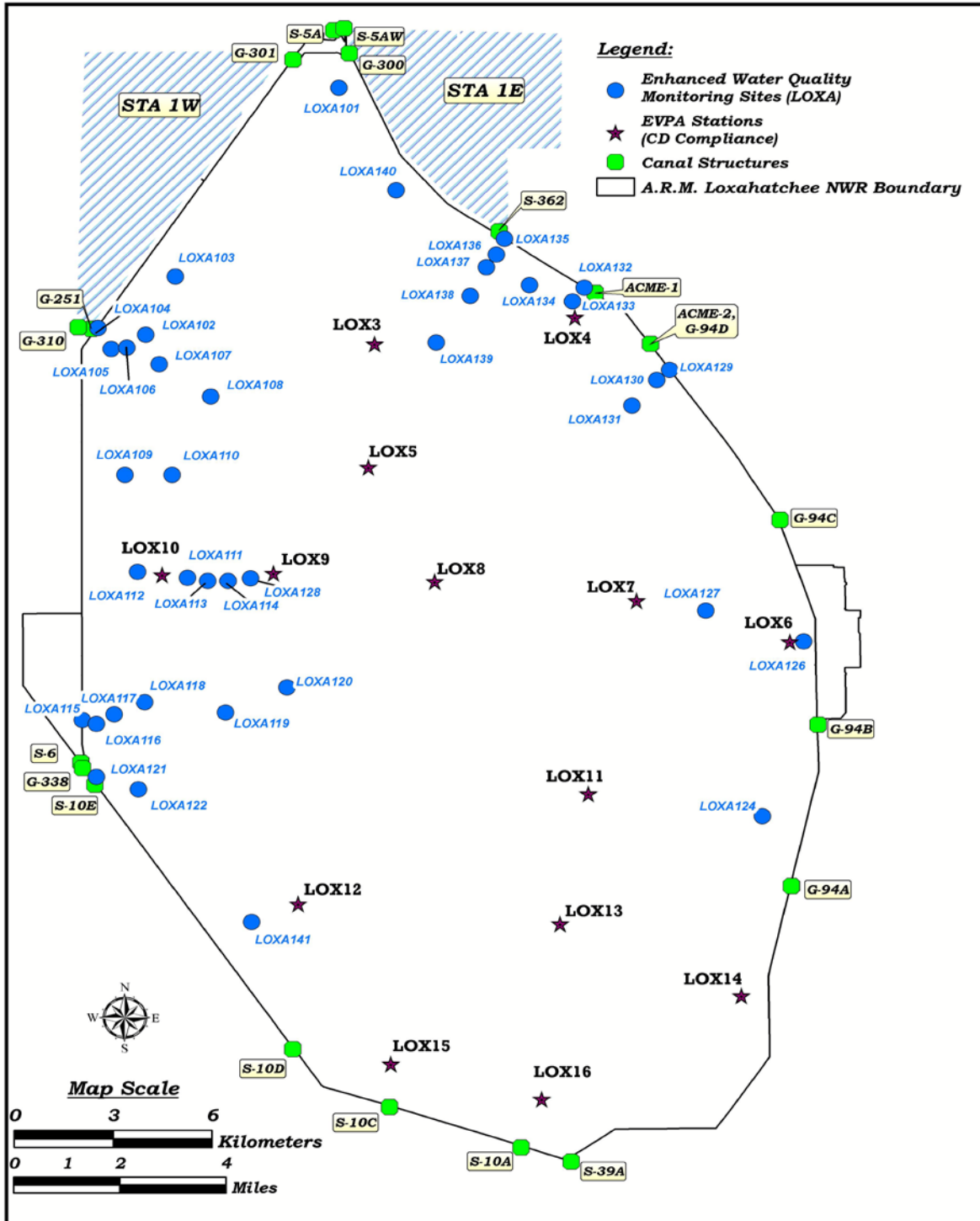
Parameter Information:

Parameter	Units	Analysis Method	MDL
Alkalinity as CaCO <sub>3</sub> , Total	mg/L	310.1	1.9
Calcium Dissolved	mg/L	200.7	0.014
Carbon, Dissolved Organic	mg/L	415.1	0.5
Carbon, Total Organic	mg/L	415.1	0.5
Chloride	mg/L	300.0	0.052
Conductivity (Field)	µMHOS/cm	120.1 (Field)	-
Nitrate + Nitrite as Nitrogen	mg/L	300.0	0.004
Nitrogen, Total Kjeldahl (TKN)	mg/L	351.2	0.1
Ortho-phosphate as Phosphorus	mg/L	365.1	0.003
Oxygen, Dissolved (Field)	mg/L	360.1	1
pH (Field)	pH units	150.1	-
Phosphorus, Total	mg/L	365.3	0.003
Silica	mg/L	370.1	0.068
Solids, Total Dissolved (TDS)	mg/L	160.1	4.7
Solids, Total Suspended (TSS)	mg/L	160.2	1.6
Sulfate	mg/L	300.0	0.16
Temperature (Field)	DEG C	170.1	-
Turbidity	NTU	180.1	0.17

Note: Nitrate and Nitrite not analyzed after June 2006

# A.R.M. Loxahatchee National Wildlife Refuge Enhanced Water Quality Monitoring Network

Map of sites:



**Coordinates of sites:**

Name	Alt Name	Latitude	Longitude	X_DMS*	Y_DMS*	X_DM**	Y_DM**
LOXA101	A101	26.66739249	-80.36636475	80° 21' 58.91" W	26° 40' 2.61" N	80° 21.9818333' W	26° 40.0435' N
LOXA102	A102	26.59598877	-80.42553769	80° 25' 31.94" W	26° 35' 45.56" N	80° 25.532333' W	26° 35.7593333333333' N
LOXA103	A103	26.61285142	-80.41643631	80° 24' 59.17" W	26° 36' 46.27" N	80° 24.98616667' W	26° 36.7711666666667' N
LOXA104	A104	26.59798188	-80.44004508	80° 26' 24.16" W	26° 35' 52.73" N	80° 26.4026667' W	26° 35.8788333333333' N
LOXA105	A105	26.59189923	-80.43609407	80° 26' 9.94" W	26° 35' 30.84" N	80° 26.1656667' W	26° 35.514' N
LOXA106	A106	26.59220622	-80.43128096	80° 25' 52.61" W	26° 35' 31.94" N	80° 25.876833' W	26° 35.5323333333333' N
LOXA107	A107	26.58739046	-80.42144468	80° 25' 17.20" W	26° 35' 14.61" N	80° 25.286667' W	26° 35.2435' N
LOXA108	A108	26.5779601	-80.40585344	80° 24' 21.07" W	26° 34' 40.66" N	80° 24.35116667' W	26° 34.6776666666667' N
LOXA109	A109	26.55528865	-80.43205157	80° 25' 55.39" W	26° 33' 19.04" N	80° 25.92316667' W	26° 33.3173333333333' N
LOXA110	A110	26.55523973	-80.41769154	80° 25' 3.69" W	26° 33' 18.86" N	80° 25.0615' W	26° 33.3143333333333' N
LOXA111	A111	26.52533583	-80.41314705	80° 24' 47.33" W	26° 31' 31.21" N	80° 24.7888333' W	26° 31.5201666666667' N
LOXA112	A112	26.52712473	-80.42837332	80° 25' 42.14" W	26° 31' 37.65" N	80° 25.702333' W	26° 31.6275' N
LOXA113	A113	26.52442784	-80.40699875	80° 24' 25.20" W	26° 31' 27.94" N	80° 24.42' W	26° 31.4656666666667' N
LOXA114	A114	26.52439258	-80.40083965	80° 24' 3.02" W	26° 31' 27.81" N	80° 24.050333' W	26° 31.4635' N
LOXA115	A115	26.48422578	-80.44533675	80° 26' 43.21" W	26° 29' 3.21" N	80° 26.7201667' W	26° 29.0535' N
LOXA116	A116	26.4830586	-80.441098	80° 26' 27.95" W	26° 28' 59.01" N	80° 26.4658333' W	26° 28.9835' N
LOXA117	A117	26.48580427	-80.4356858	80° 26' 8.47" W	26° 29' 8.90" N	80° 26.14116667' W	26° 29.1483333333333' N
LOXA118	A118	26.48928924	-80.42639091	80° 25' 35.01" W	26° 29' 21.44" N	80° 25.5835' W	26° 29.3573333333333' N
LOXA119	A119	26.48621462	-80.40180845	80° 24' 6.51" W	26° 29' 10.37" N	80° 24.1085' W	26° 29.1728333333333' N
LOXA120	A120	26.49341054	-80.38307987	80° 22' 59.09" W	26° 29' 36.28" N	80° 22.9848333' W	26° 29.6046666666667' N
LOXA121	A121	26.46767673	-80.44113231	80° 26' 28.08" W	26° 28' 3.64" N	80° 26.468' W	26° 28.0606666666667' N
LOXA122	A122	26.46404297	-80.42843367	80° 25' 42.36" W	26° 27' 50.55" N	80° 25.706' W	26° 27.8425' N
LOXA123	A123	26.42675307	-80.40036372	80° 24' 1.31" W	26° 25' 36.31" N	80° 24.0218333' W	26° 25.6051666666667' N
LOXA124	A124	26.45535397	-80.23875455	80° 14' 19.52" W	26° 27' 19.27" N	80° 14.325333' W	26° 27.3211666666667' N
LOXA126	A126	26.50601148	-80.22585171	80° 13' 33.07" W	26° 30' 21.64" N	80° 13.55116667' W	26° 30.3606666666667' N
LOXA127	A127	26.51513474	-80.25555976	80° 15' 20.02" W	26° 30' 54.49" N	80° 15.3336667' W	26° 30.9081666666667' N
LOXA128	A128	26.52516286	-80.3940121	80° 23' 38.44" W	26° 31' 30.59" N	80° 23.6406667' W	26° 31.5098333333333' N
LOXA129	A129	26.58500726	-80.26608256	80° 15' 57.90" W	26° 35' 6.03" N	80° 15.965' W	26° 35.1005' N
LOXA130	A130	26.58211881	-80.27005531	80° 16' 12.20" W	26° 34' 55.63" N	80° 16.20333' W	26° 34.9271666666667' N
LOXA131	A131	26.57474791	-80.27764653	80° 16' 39.53" W	26° 34' 29.09" N	80° 16.6588333' W	26° 34.4848333333333' N
LOXA132	A132	26.60900561	-80.29189939	80° 17' 30.84" W	26° 36' 32.42" N	80° 17.514' W	26° 36.5403333333333' N
LOXA133	A133	26.6050896	-80.29557491	80° 17' 44.07" W	26° 36' 18.32" N	80° 17.7345' W	26° 36.3053333333333' N
LOXA134	A134	26.60985664	-80.30860325	80° 18' 30.97" W	26° 36' 35.48" N	80° 18.51616667' W	26° 36.5913333333333' N
LOXA135	A135	26.62335538	-80.31612276	80° 18' 58.04" W	26° 37' 24.08" N	80° 18.967333' W	26° 37.4013333333333' N
LOXA136	A136	26.61879302	-80.31866688	80° 19' 7.20" W	26° 37' 7.65" N	80° 19.12' W	26° 37.1275' N
LOXA137	A137	26.61510337	-80.32170327	80° 19' 18.13" W	26° 36' 54.37" N	80° 19.30216667' W	26° 36.9061666666667' N
LOXA138	A138	26.60681693	-80.32666537	80° 19' 36.00" W	26° 36' 24.54" N	80° 19.6' W	26° 36.409' N
LOXA139	A139	26.59332525	-80.33715389	80° 20' 13.75" W	26° 35' 35.97" N	80° 20.22916667' W	26° 35.5995' N
LOXA140	A140	26.63760323	-80.34909432	80° 20' 56.74" W	26° 38' 15.37" N	80° 20.9456667' W	26° 38.2561666666667' N
LOXA141	A141	26.42708333	-80.3942	80° 23' 39.12" W	26° 38' 37.5" N	80° 23.652' W	26° 38.625' N

\* DMS = Degrees Minutes Seconds

\*\* DM = Degrees Minutes Decimal Minutes

Additional information on the coordinates for the Enhanced Water Quality Monitoring Network can be found at:

[http://sofia.usgs.gov/lox\\_monitor\\_model/workplans/EnhancedWQsamplingStations\\_.pdf](http://sofia.usgs.gov/lox_monitor_model/workplans/EnhancedWQsamplingStations_.pdf)