

# Refuge's Enhanced Water Quality Program Monthly Sampling

*January 2010 – March 2010 Data Update*

Posted June 1, 2010

*by:*

**Matt Harwell**

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

Parameter Information:

<b>Parameter</b>	<b>Units</b>	<b>Analysis Method</b>	<b>MDL</b>
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)	uMHOS/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

Jan-10

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	1/19/2010	F	0.15	0.29	0.33	160	48.9	7.2	29	120	745	U	1.60	0.007	5.1	7.2	0.010	7.8	450	U	9.7	16.1	0.3	
A102	1/20/2010	P	0.1	0.18	0.25	-	-	-	-	26	182	-	-	-	6.8	6.8	0.005	-	-	U	1.8	14.7	-	
A103	1/20/2010	P	0.09	-	0.28	-	-	-	-	27	183	-	-	-	5.2	7.2	0.007	-	-	U	1.2	15.4	-	
A104	1/20/2010	F	0.5	0.19	>1M	170	55.9	23	23	120	788	0.029	1.60	0.005	9.1	7.6	0.027	7.6	430	2.5	30.0	16.0	1.4	
A105	1/20/2010	F	0.15	-	0.39	160	43.8	30	30	110	700	U	1.50	0.005	4.5	7.1	0.011	14.0	410	U	10.0	15.4	0.5	
A106	1/20/2010	F	0.12	0.35	0.33	83	20.7	13	18	42	306	U	0.90	0.003	4.2	7.2	0.005	0.4	170	U	2.2	16.8	0.4	
A107	1/20/2010	P	0.06	0.24	0.17	-	-	-	-	25	153	-	-	-	4.3	6.9	0.004	-	-	U	1.1	14.3	-	
A108	1/20/2010	P	0.08	0.12	0.24	-	-	-	-	26	131	-	-	-	7.2	6.8	0.007	-	-	U	2.0	18.1	-	
A109	1/20/2010	F	0.18	0.16	0.48	41	12.4	18	19	26	179	U	1.10	0.004	6.2	6.8	0.007	1.9	110	2.0	1.8	17.0	0.4	
A110	1/20/2010	F	0.13	0.37	0.33	23	7.14	17	17	21	120	0.012	1.20	0.009	10.3	7.5	0.008	0.4	69	2.5	U	19.7	0.9	
A111	1/20/2010	F	0.12	0.4	0.29	23	6.6	12	12	15	100	U	0.54	0.005	8.6	6.7	0.005	0.3	56	U	0.6	17.3	0.4	
A112	1/20/2010	F	0.2	0.27	0.44	37	10.2	13	13	17	134	U	0.81	0.005	7.5	6.9	0.006	1.9	79	2.5	0.9	19.3	0.3	
A113	1/20/2010	F	0.2	0.25	0.43	16	5.2	12	12	15	89	U	0.73	0.007	8.1	7.0	0.005	0.3	63	2.5	0.4	18.4	0.5	
A114	1/20/2010	F	0.12	0.4	0.41	14	5.29	14	14	16	93	U	0.87	0.005	10.1	6.8	0.004	0.4	37	U	U	20.0	0.4	
A115	1/21/2010	F	0.5	-	>1M	190	54.2	28	29	130	860	0.003	1.70	0.005	9.4	7.9	0.026	15.0	500	U	47.0	16.7	1.0	
A117	1/21/2010	F	0.2	0.4	0.47	80	23	20	20	41	305	U	0.91	0.006	5.7	7.0	0.012	7.0	190	U	7.1	17.1	0.7	
A118	1/21/2010	F	0.21	0.42	0.6	29	8.79	14	14	18	123	U	0.66	0.004	6.5	6.7	0.005	4.7	83	U	1.7	18.3	0.5	
A119	1/21/2010	F	0.16	0.32	0.51	25	7.43	15	15	16	109	U	0.82	0.004	8.2	7.1	0.005	3.3	80	U	0.5	21.0	0.5	
A120	1/21/2010	F	0.23	0.46	0.6	13	5.2	13	13	19	99	U	0.84	0.005	8.8	7.1	0.003	1.2	76	U	U	21.1	0.5	
A122	1/21/2010	F	0.19	0.38	0.47	120	36.2	23	24	57	440	U	1.20	0.004	5.4	7.1	0.006	11.0	280	U	6.9	18.8	0.8	
A124	1/21/2010	F	0.19	0.38	0.56	28	11	16	17	26	148	U	0.81	0.004	2.9	6.5	0.007	2.3	98	U	0.4	17.3	0.5	
A126	1/21/2010	F	0.17	0.35	0.51	54	17.4	16	16	43	259	U	1.10	0.005	8.4	7.7	0.006	2.0	150	2.0	1.8	19.6	0.7	
A127	1/21/2010	F	0.15	0.29	0.48	12	5.41	15	16	19	99	U	0.94	0.007	6.7	7.0	0.004	0.7	73	U	U	19.7	0.5	
A128	1/20/2010	F	0.12	0.23	0.39	12	4.57	15	14	18	114	U	1.00	0.008	10.0	7.1	0.009	0.2	69	2.0	U	21.7	0.6	
A129	1/19/2010	F	0.5	-	>1M	130	38.9	19	19	80	543	0.069	1.10	0.007	7.3	7.2	0.032	4.2	330	2.0	14.0	16.8	1.0	
A130	1/19/2010	F	0.18	0.36	0.43	48	14.4	17	17	24	182	U	0.81	0.004	5.4	6.8	0.006	4.3	120	U	1.6	17.5	0.4	
A131	1/19/2010	F	0.15	0.31	0.4	27	8.35	16	16	16	112	U	1.20	0.005	8.4	7.3	0.008	0.7	92	U	0.5	18.3	0.6	
A132	1/19/2010	F	0.5	-	1M	180	58.9	17	18	110	773	0.170	1.50	0.004	7.5	7.5	0.036	2.6	440	3.5	28.0	17.2	1.8	
A133	1/19/2010	F	0.13	0.26	0.48	49	13.9	3.7	18	25	191	U	1.20	0.003	4.7	6.8	0.026	1.9	130	3.0	0.9	17.0	0.8	
A134	1/19/2010	F	0.15	0.3	0.41	39	11.5	14	14	20	155	U	0.89	0.003	6.1	6.9	0.008	0.6	100	U	1.2	17.0	0.3	
A135	1/19/2010	F	0.5	-	>1M	210	72.7	18	18	130	893	0.210	1.70	0.003	7.2	7.6	0.028	2.7	520	3.0	35.0	16.9	2.4	
A136	1/19/2010	F	0.2	0.4	0.52	58	16.3	19	20	29	225	U	1.10	0.004	4.0	7.3	0.013	3.3	150	U	1.2	16.1	0.4	
A137	1/19/2010	F	0.13	0.26	0.31	41	12.6	17	17	21	162	U	1.10	0.004	5.4	7.2	0.009	1.0	120	2.0	1.0	16.8	0.5	
A138	1/19/2010	F	0.11	0.23	0.29	25	8.33	19	18	17	115	U	1.30	0.007	8.3	7.3	0.009	0.2	96	U	0.5	16.9	0.6	
A139	1/19/2010	P	0.1	0.19	0.24	-	-	-	-	16	95	-	-	-	8.0	7.2	0.003	-	-	U	2.7	17.5	-	
A140	1/19/2010	F	0.14	0.27	0.31	29	9.73	7	25	19	134	U	1.30	0.005	5.6	7.4	0.009	2.2	110	2.5	0.8	16.8	0.5	
A141	1/21/2010	F	0.41	0.82	1.25	69	19.3	17	18	36	260	U	1.10	0.005	5.5	6.8	0.014	9.6	160	U	3.0	17.9	0.5	
Total						37																		
Full						32																		
Partial						5																		
None						0																		

<sup>1</sup>Field depth is one half of the tdepth (depth of the clear water column) and is only recorded if a sample is taken.

<sup>2</sup>Total depth is depth of the clear water column.

<sup>3</sup>DCS is the depth of the water column down to the consolidated substrate.

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

\*\*\* indicates sample improperly processed for analysis

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://www.sfwmd.gov/org/ema/dbhydro/>

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

Feb-10

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	2/16/2010	F	0.13	0.26	0.3	160	45.1	27	27	120	647	U	1.40	U	6.5	7.1	0.007	4.3	410	5.3	6.1	14.4	0.5	
A102	2/16/2010	P	0.09	0.19	0.22	-	-	-	-	30	190	-	-	-	7.5	7.0	0.004	-	-	U	1.3	13.9	-	
A103	2/16/2010	P	0.09	0.18	0.21	-	-	-	-	26	164	-	-	-	5.8	7.3	0.012	-	-	3.0	1.2	14.5	-	
A104	2/17/2010	F	-	-	>1M	210	60.1	26	26	150	916	0.130	1.70	0.008	7.8	7.9	0.031	6.0	510	4.0	42.0	15.5	1.9	
A105	2/17/2010	F	0.15	0.3	0.37	170	41.3	28	28	110	648	U	1.70	U	6.2	7.4	0.010	11.0	430	2.0	8.3	13.6	0.5	
A106	2/17/2010	F	0.1	0.2	0.3	75	19.9	18	18	46	294	U	0.94	U	6.6	7.2	U	0.8	160	U	2.1	13.0	0.6	
A107	2/17/2010	P	0.05	0.11	0.17	-	-	-	-	28	154	-	-	-	5.1	7.3	U	-	-	3.0	0.9	11.4	-	
A108	2/16/2010	P	0.07	0.14	0.2	-	-	-	-	30	136	-	-	-	8.3	7.3	0.008	-	-	4.0	U	16.2	-	
A109	2/17/2010	F	0.22	0.43	0.46	38	11.6	18	18	28	173	U	1.00	U	7.2	7.2	0.006	0.8	56	U	1.4	13.6	0.4	
A110	2/17/2010	F	0.12	0.23	0.37	27	8.12	18	18	24	130	0.020	1.70	0.006	8.6	7.8	0.005	1.2	110	2.0	U	13.3	0.6	
A111	2/17/2010	F	0.15	0.29	0.45	22	6.53	12	13	17	101	U	0.72	0.007	6.7	8.3	U	0.5	80	3.0	0.6	11.7	0.4	
A112	2/17/2010	F	0.15	0.29	0.48	37	10.3	13	13	19	129	U	0.76	U	7.5	8.1	0.005	1.6	43	2.0	0.8	12.8	0.4	
A113	2/17/2010	F	0.12	0.23	0.4	15	5.36	14	14	18	92	0.004	1.00	0.010	6.9	7.9	U	0.6	28	U	0.4	11.9	0.6	
A114	2/17/2010	F	0.12	0.23	0.52	13	5.2	15	15	19	92	U	0.91	U	7.9	7.4	U	0.7	43	3.0	0.4	12.0	0.8	
A115	2/18/2010	F	-	-	>1M	200	59.5	29	29	160	956	0.064	1.70	U	8.1	7.9	0.022	8.6	610	2.5	51.0	15.5	1.3	
A117	2/18/2010	F	0.18	0.36	0.41	81	21.8	19	19	39	280	0.008	0.93	U	5.8	7.9	0.005	5.0	200	2.0	4.8	11.1	0.3	
A118	2/18/2010	F	0.17	0.35	0.42	37	9	14	14	20	128	U	0.90	U	6.1	7.9	0.004	3.8	110	2.5	1.4	11.3	0.3	
A119	2/18/2010	F	0.18	0.36	0.44	25	8	16	16	19	109	0.006	1.10	U	7.0	7.5	U	3.0	97	2.0	0.5	10.7	0.3	
A120	2/18/2010	F	0.21	0.43	0.59	22	5.43	14	14	21	101	U	0.99	U	5.0	7.6	U	1.2	55	2.0	U	11.9	0.3	
A122	2/18/2010	F	0.18	0.37	0.46	110	34.3	21	21	56	385	U	1.30	U	4.5	7.5	0.005	9.8	260	U	6.2	11.3	0.3	
A124	2/15/2010	F	0.2	0.39	0.55	22	10.6	16	17	30	149	U	0.89	U	4.1	7.4	0.009	2.1	110	2.0	0.4	12.5	0.3	
A126	2/15/2010	F	0.12	0.25	0.48	55	17.7	16	16	47	261	U	0.97	U	6.7	7.2	0.005	0.1	170	U	1.7	12.6	0.4	
A127	2/15/2010	F	0.12	0.25	0.47	8.5	5.77	16	16	22	105	U	0.98	U	8.1	7.6	U	0.7	90	U	U	13.2	0.3	
A128	2/18/2010	F	0.1	0.2	0.3	11	4.74	16	16	21	109	U	1.00	U	8.5	7.5	U	0.5	110	2.0	U	11.4	0.5	
A129	2/15/2010	F	0.5	-	>1M	160	60.5	22	23	140	838	0.230	1.50	0.011	6.2	7.4	0.038	4.1	510	6.0	28.0	15.4	2.3	
A130	2/15/2010	F	0.16	0.32	0.43	45	15.4	17	17	25	176	0.003	3.00	U	5.1	7.0	0.007	3.3	150	3.0	1.3	12.9	0.4	
A131	2/15/2010	F	0.11	0.23	0.36	25	9.08	17	17	19	116	U	1.10	U	8.4	7.1	0.006	1.1	99	3.3	0.6	13.0	0.5	
A132	2/15/2010	F	0.5	-	>1M	210	71.2	24	25	180	1008	0.310	1.80	0.007	6.7	7.6	0.037	3.6	620	6.5	32.0	15.5	2.8	
A133	2/15/2010	P	0.06	0.12	0.32	-	-	-	-	31	202	-	-	-	3.8	7.0	0.028	-	-	2.0	1.1	13.8	-	
A134	2/15/2010	F	0.21	0.42	0.43	37	13	15	15	24	159	U	0.86	U	5.9	7.1	0.008	0.9	120	2.5	1.3	13.2	0.4	
A135	2/16/2010	F	0.5	-	>1M	210	71.9	22	23	180	981	0.330	2.00	U	7.2	7.6	0.030	2.7	U	5.0	29.0	15.3	4.1	
A136	2/16/2010	F	0.11	0.22	0.59	55	18	20	20	31	226	U	1.10	U	2.9	6.9	0.008	2.5	160	U	1.0	13.9	0.3	
A137	2/16/2010	F	0.18	0.36	0.42	38	12.6	18	18	23	153	U	1.10	U	5.9	7.0	0.009	0.9	120	2.0	0.8	14.3	0.4	
A138	2/16/2010	P	0.1	0.19	0.25	-	-	-	-	21	123	-	-	-	7.5	7.5	0.004	-	-	2.0	0.5	14.1	-	
A139	2/16/2010	P	0.08	0.16	0.21	-	-	-	-	19	98	-	-	-	8.0	7.4	0.007	-	-	7.0	0.4	13.7	-	
A140	2/16/2010	P	0.09	0.18	0.26	-	-	-	-	21	132	-	-	-	7.2	7.6	0.005	-	-	4.0	0.7	14.7	-	
A141	2/18/2010	F	0.39	0.78	1.03	68	19.1	17	17	37	251	0.006	1.10	U	5.5	7.4	0.010	9.4	200	2.7	3.3	13.3	0.7	
Total			37																					
Full			29																					
Partial			8																					
None			0																					

<sup>1</sup>Field depth is one half of the ddepth (depth of the clear water column) and is only recorded if a sample is taken.

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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

Mar-10

Site	Sample Date	Full(F), Partial(P), None(N), Reanalyzer (R)	Depth <sup>1</sup>	Total Depth <sup>2</sup>	DCS <sup>3</sup>	Alkalinity	Calcium Dissolved	Carbon, Dissolved Organic	Carbon, Total Organic	Chloride	Conductivity (Field)	Nitrate + Nitrite as Nitrogen	Nitrogen, Total Kjeldahl (TKN)	Ortho-phosphate as Phosphorus	Oxygen, Dissolved (Field)	pH (Field)	Phosphorus, Total	Silica	Solids, Total Dissolved (TDS)	Solids, Total Suspended (TSS)	Sulfate	Temperature (Field)	Turbidity
		Units	meter	meter	meter	mg/l	mg/l	mg/l	mg/l	mg/l	µMHSO/cm	mg/l	mg/l	mg/l	mg/l	pH units	mg/l	mg/l	mg/l	mg/l	mg/l	DEG C	NTU
A101	3/9/2010	P	0.09	0.18	0.22	-	-	-	-	120	659	-	-	-	5.9	7.5	0.013	-	-	2.0	5.2	16.7	-
A102	3/9/2010	P	0.06	0.13	0.2	-	-	-	-	33	204	-	-	-	9.0	7.1	0.004	-	-	U	1.4	15.3	-
A103	3/9/2010	N	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A104	3/10/2010	F	-	-	>1M	190	58.6	23	23	160	910	0.167	1.50	U	7.8	7.8	0.027	2.2	530	4.0	28.0	17.5	2.8
A105	3/10/2010	P	0.08	0.17	0.36	-	-	-	-	98	596	-	-	-	4.6	7.5	U	-	-	4.0	5.9	16.7	-
A106	3/10/2010	P	0.08	0.16	0.23	-	-	-	-	51	328	-	-	-	4.7	7.4	U	-	-	5.0	1.4	18.6	-
A107	3/10/2010	N	-	-	0.06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A108	3/9/2010	P	0.05	0.11	0.16	-	-	-	-	38	168	-	-	-	4.2	7.0	0.010	-	-	3.0	0.4	19.2	-
A109	3/10/2010	F	0.15	0.29	0.48	40	11.4	17	18	28	175	U	1.00	0.005	9.3	7.5	U	0.1	130	4.0	1.2	17.7	0.6
A110	3/10/2010	P	0.07	0.15	0.31	-	-	-	-	28	157	-	-	-	6.9	7.4	0.004	-	-	4.0	U	18.9	-
A111	3/10/2010	P	0.09	0.19	0.35	-	-	-	-	18	111	-	-	-	8.0	8.3	U	-	-	3.0	0.5	17.1	-
A112	3/10/2010	F	0.12	0.23	0.44	38	9.96	15	15	20	142	U	0.86	0.004	6.0	6.2	U	1.8	110	4.0	0.8	17.4	0.4
A113	3/10/2010	P	0.08	0.16	0.33	-	-	-	-	20	108	-	-	-	7.0	8.0	U	-	-	2.0	U	17.5	-
A114	3/10/2010	P	0.09	0.18	0.33	-	-	-	-	21	107	-	-	-	8.2	7.4	U	-	-	3.0	U	17.9	-
A115	3/11/2010	F	-	-	>1M	190	55.2	28	28	150	923	0.019	1.70	0.003	7.8	7.8	0.020	5.6	540	3.0	48.0	17.7	1.1
A117	3/11/2010	F	0.16	0.32	0.37	60	18.9	19	20	35	267	U	0.87	0.003	6.0	7.4	0.004	3.2	170	4.0	3.1	18.7	1.2
A118	3/11/2010	F	0.15	0.29	0.48	27	7.87	14	14	20	125	U	0.68	U	6.0	7.5	U	1.4	81	2.0	1.5	18.2	0.4
A119	3/11/2010	F	0.12	0.25	0.43	30	8.91	18	19	21	132	U	1.20	0.004	6.2	7.4	U	2.5	96	3.0	0.4	20.3	0.6
A120	3/11/2010	F	0.23	0.46	0.23	14	5.75	17	17	23	110	U	1.30	0.003	8.3	7.5	U	1.0	78	4.0	U	20.9	0.6
A122	3/11/2010	F	0.15	0.29	0.43	85	22.9	20	21	44	320	U	0.97	U	3.8	7.5	U	5.9	200	U	3.9	19.3	0.4
A124	3/8/2010	F	0.17	0.35	0.6	24	10.1	16	15	27	134	U	0.79	U	4.6	7.4	0.019	0.7	78	4.0	0.4	15.3	0.4
A126	3/8/2010	F	0.2	0.39	0.51	42	15	15	15	35	201	0.006	0.95	U	9.5	7.6	0.014	U	130	4.0	1.0	18.1	0.5
A127	3/8/2010	F	0.16	0.33	0.45	9.9	5.98	17	17	23	108	0.003	1.00	0.006	8.0	7.3	U	0.7	69	4.0	U	18.8	0.4
A128	3/11/2010	P	0.08	0.17	0.28	-	-	-	-	2	121	-	-	-	3.9	7.2	U	-	-	5.0	U	21.1	-
A129	3/8/2010	F	0.5	-	>1M	76	23.2	16	16	46	300	0.013	0.86	0.009	4.8	7.0	0.054	1.4	170	4.0	3.4	16.3	1.3
A130	3/8/2010	F	0.15	0.3	0.39	45	15.1	16	16	27	186	0.003	0.77	0.008	5.7	7.0	0.003	2.8	110	2.0	1.4	17.0	0.4
A131	3/8/2010	F	0.17	0.34	0.37	23	9.89	18	18	20	115	U	1.00	U	8.2	6.8	U	1.6	79	3.0	0.5	17.2	0.6
A132	3/8/2010	F	0.5	-	>1M	84	27.2	17	17	53	338	0.021	0.94	U	5.0	7.1	0.038	1.8	190	4.0	3.8	16.6	1.6
A133	3/8/2010	P	0.08	0.16	0.33	-	-	-	-	31	209	-	-	-	4.8	7.0	0.014	-	-	4.0	0.8	18.0	-
A134	3/8/2010	F	0.15	0.29	0.39	43	14.6	16	16	26	171	U	0.86	0.009	6.8	7.3	0.019	0.6	110	3.0	1.1	16.9	0.3
A135	3/9/2010	F	-	-	>1M	95	31.6	17	18	62	394	0.028	1.00	0.016	5.8	7.7	0.032	1.8	250	3.0	5.6	17.3	1.3
A136	3/9/2010	F	0.12	0.23	0.49	60	17.8	21	22	33	226	U	1.30	U	3.5	7.6	0.017	1.3	170	3.0	0.9	17.3	0.8
A137	3/9/2010	F	0.12	0.23	0.35	43	15.8	21	21	24	177	0.004	1.20	U	6.2	7.7	0.005	1.4	130	3.0	0.4	17.4	1.0
A138	3/9/2010	P	0.08	0.17	0.23	-	-	-	-	27	143	-	-	-	6.0	7.8	U	-	-	2.0	0.7	18.1	-
A139	3/9/2010	P	0.05	0.1	0.14	-	-	-	-	23	119	-	-	-	5.0	7.0	U	-	-	2.0	U	18.0	-
A140	3/9/2010	P	0.07	0.14	0.28	-	-	-	-	24	155	-	-	-	6.3	7.8	U	-	-	U	0.6	18.6	-
A141	3/11/2010	F	0.44	0.85	>1M	46	13.2	16	16	28	191	0.003	1.10	U	5.9	7.3	U	5.6	140	4.0	1.3	19.6	0.5
Total			37																				
Full			21																				
Partial			14																				
None			2																				

<sup>1</sup>Field depth is one half of the tdepth (depth of the clear water column) and is only recorded if a sample is taken.

<sup>2</sup>Total depth is depth of the clear water column.

<sup>3</sup>DCS is the depth of the water column down to the consolidated substrate.

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

"\*\*" indicates sample improperly processed for analysis

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)

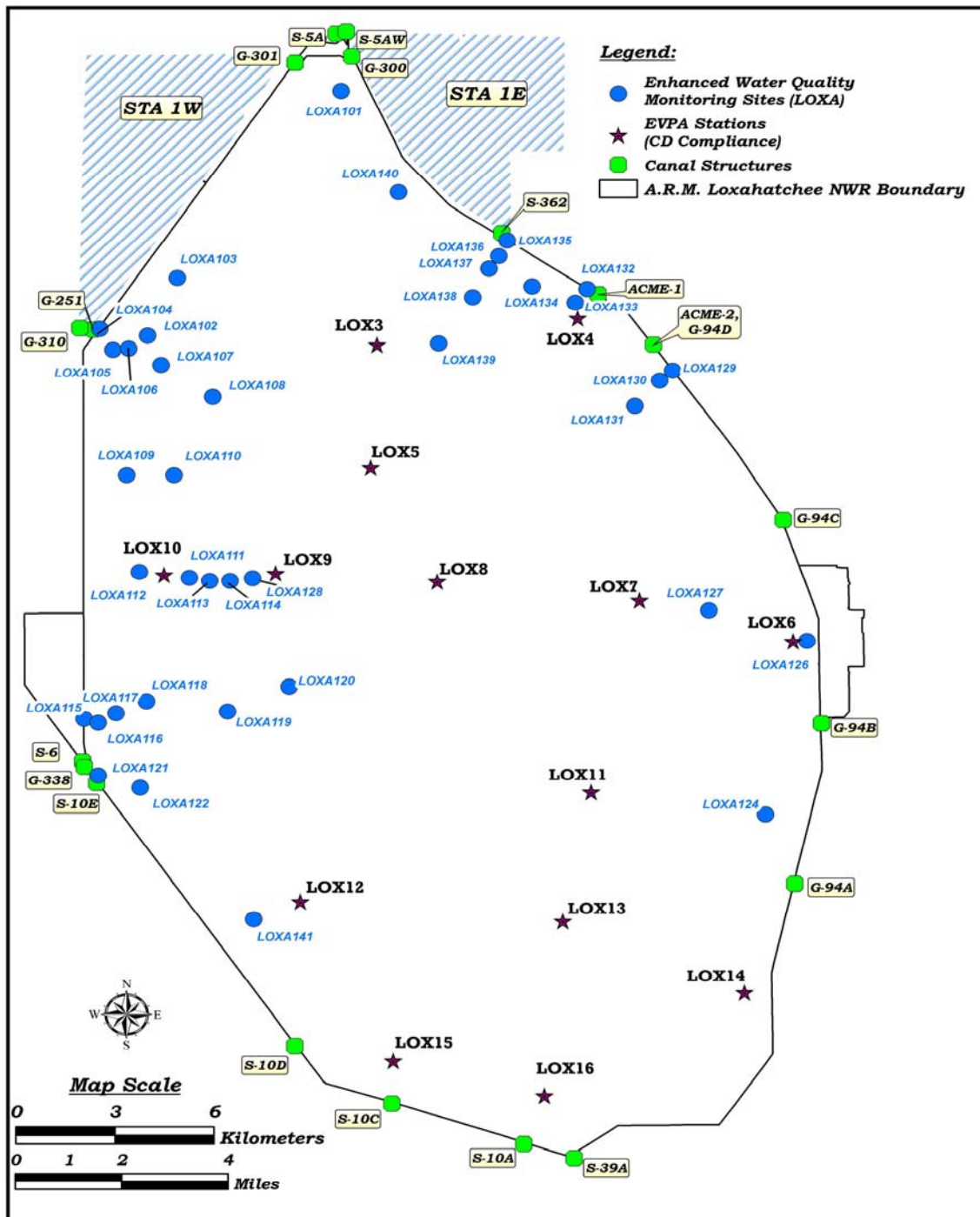
Data from June 2004 to May 2006 available on DBHYDRO:

<http://www.sfwmd.gov/org/ema/dbhydro/>

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

Map of sites:



Coordinates of sites:

Name	Latitude	Longitude	X_DMS*	Y_DMS*	X_DM**	Y_DM**
LOXA101	26.667392489	-80.366364752	80° 21' 58.91" W	26° 40' 2.61" N	80° 21.9818333' W	26° 40.0435' N
LOXA102	26.595988767	-80.425537688	80° 25' 31.94" W	26° 35' 45.56" N	80° 25.532333' W	26° 35.7593333333333' N
LOXA103	26.612851423	-80.416436308	80° 24' 59.17" W	26° 36' 46.27" N	80° 24.98616667' W	26° 36.7711666666667' N
LOXA104	26.597981879	-80.440045081	80° 26' 24.16" W	26° 35' 52.73" N	80° 26.4026667' W	26° 35.8788333333333' N
LOXA105	26.591899226	-80.436094071	80° 26' 9.94" W	26° 35' 30.84" N	80° 26.1656667' W	26° 35.514' N
LOXA106	26.592206216	-80.431280960	80° 25' 52.61" W	26° 35' 31.94" N	80° 25.876833' W	26° 35.5323333333333' N
LOXA107	26.587390459	-80.421444676	80° 25' 17.20" W	26° 35' 14.61" N	80° 25.286667' W	26° 35.2435' N
LOXA108	26.577960101	-80.405853442	80° 24' 21.07" W	26° 34' 40.66" N	80° 24.35116667' W	26° 34.6776666666667' N
LOXA109	26.555288645	-80.432051570	80° 24' 55.20" W	26° 33' 19.04" N	80° 25.92316667' W	26° 33.3173333333333' N
LOXA110	26.555239734	-80.417691537	80° 25' 3.69" W	26° 33' 18.86" N	80° 25.0615' W	26° 33.3143333333333' N
LOXA111	26.525335828	-80.413147047	80° 24' 47.33" W	26° 31' 31.21" N	80° 24.7888333' W	26° 31.5201666666667' N
LOXA112	26.527124725	-80.428373322	80° 25' 42.14" W	26° 31' 37.65" N	80° 25.702333' W	26° 31.6275' N
LOXA113	26.524427841	-80.406998750	80° 24' 25.20" W	26° 31' 27.94" N	80° 24.42' W	26° 31.4656666666667' N
LOXA114	26.524392580	-80.400839654	80° 24' 3.02" W	26° 31' 27.81" N	80° 24.050333' W	26° 31.4635' N
LOXA115	26.484225781	-80.445336745	80° 26' 43.21" W	26° 29' 3.21" N	80° 26.7201667' W	26° 29.0535' N
LOXA116	26.483058602	-80.441097999	80° 26' 27.95" W	26° 28' 59.01" N	80° 26.4658333' W	26° 28.9835' N
LOXA117	26.485804269	-80.435685796	80° 26' 8.47" W	26° 29' 8.90" N	80° 26.14116667' W	26° 29.1483333333333' N
LOXA118	26.489289243	-80.426390912	80° 25' 35.01" W	26° 29' 21.44" N	80° 25.5835' W	26° 29.3573333333333' N
LOXA119	26.486214619	-80.401808449	80° 24' 6.51" W	26° 29' 10.37" N	80° 24.1085' W	26° 29.1728333333333' N
LOXA120	26.493410539	-80.383079866	80° 22' 59.09" W	26° 29' 36.28" N	80° 22.9848333' W	26° 29.6046666666667' N
LOXA121	26.467676727	-80.441132313	80° 26' 28.08" W	26° 28' 3.64" N	80° 26.468' W	26° 28.0606666666667' N
LOXA122	26.464042966	-80.428433669	80° 25' 42.36" W	26° 27' 50.55" N	80° 25.706' W	26° 27.8425' N
LOXA123	26.426753074	-80.400363722	80° 24' 1.31" W	26° 25' 36.31" N	80° 24.0218333' W	26° 25.6051666666667' N
LOXA124	26.455353967	-80.238754550	80° 14' 19.52" W	26° 27' 19.27" N	80° 14.325333' W	26° 27.3211666666667' N
LOXA126	26.506011481	-80.225851709	80° 13' 33.07" W	26° 30' 21.64" N	80° 13.55116667' W	26° 30.3606666666667' N
LOXA127	26.515134740	-80.255559757	80° 15' 20.02" W	26° 30' 54.49" N	80° 15.3336667' W	26° 30.9081666666667' N
LOXA128	26.525162864	-80.394012101	80° 23' 38.44" W	26° 31' 30.59" N	80° 23.6406667' W	26° 31.5098333333333' N
LOXA129	26.585007262	-80.266082555	80° 15' 57.90" W	26° 35' 6.03" N	80° 15.965' W	26° 35.1005' N
LOXA130	26.582118809	-80.270055306	80° 16' 12.20" W	26° 34' 55.63" N	80° 16.20333' W	26° 34.9271666666667' N
LOXA131	26.574747906	-80.277646525	80° 16' 39.53" W	26° 34' 29.09" N	80° 16.6588333' W	26° 34.4848333333333' N
LOXA132	26.609005614	-80.291899387	80° 17' 30.84" W	26° 36' 32.42" N	80° 17.514' W	26° 36.5403333333333' N
LOXA133	26.605089596	-80.295574907	80° 17' 44.07" W	26° 36' 18.32" N	80° 17.7345' W	26° 36.3053333333333' N
LOXA134	26.609856637	-80.308603250	80° 18' 30.97" W	26° 36' 35.48" N	80° 18.51616667' W	26° 36.5913333333333' N
LOXA135	26.623355381	-80.316122757	80° 18' 58.04" W	26° 37' 24.08" N	80° 18.967333' W	26° 37.4013333333333' N
LOXA136	26.618793017	-80.318666883	80° 19' 7.20" W	26° 37' 7.65" N	80° 19.12' W	26° 37.1275' N
LOXA137	26.615103372	-80.321703271	80° 19' 18.13" W	26° 36' 54.37" N	80° 19.30216667' W	26° 36.9061666666667' N
LOXA138	26.606816926	-80.326665374	80° 19' 36.00" W	26° 36' 24.54" N	80° 19.6' W	26° 36.409' N
LOXA139	26.593325251	-80.337153885	80° 20' 13.75" W	26° 35' 35.97" N	80° 20.22916667' W	26° 35.5995' N
LOXA140	26.637603226	-80.349094316	80° 20' 56.74" W	26° 38' 15.37" N	80° 20.9456667' W	26° 38.2561666666667' N
LOXA141	26.42708333	-80.39420	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)