

Appendix 3A-3: Water Year 2013 Attainment of the Everglades Dissolved Oxygen Site-Specific Alternative Criteria at Individual Stations

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Table 1 within this appendix provides statistical summaries of annual dissolved oxygen (DO) concentrations, annual DO site-specific alternative criteria (SSAC) limits, and pass/fail status of sampling locations within the Everglades Protection Area (EPA) for Water Year 2013 (WY2013) (May 1, 2012–April 30, 2013). The EPA includes Arthur R. Marshall Loxahatchee National Wildlife Refuge [Refuge, also known as Water Conservation Area 1 (WCA-1)], Water Conservation Areas 2 and 3 (WCA-2 and WCA-3, respectively), and Everglades National Park (ENP). In summary, during WY2013:

- Nine interior sampling locations failed the DO SSAC. The interior sampling locations that failed are LOXA104.5, LOXA136, Z1, Z2, 404Z1, WCA2F1, WCA2F2, CA318, and CA36.
- Inflow, outflow, and rim monitoring stations are provided for informational purposes; therefore, the SSAC pass/fail status is not applicable. However, if the SSAC was to be used to assess compliance, pass/fail is indicated in parenthesis.

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Table 1. Summary of the attainment of the Everglades dissolved oxygen (DO) site-specific alternative criterion (SSAC) at individual monitoring stations in the Arthur R. Marshall Loxahatchee National Wildlife Refuge (Refuge), Water Conservation Areas 2 and 3 (WCA-2 and WCA-3), and Everglades National Park (ENP) during Water Year 2013 (WY2013) (May 1, 2012–April 30, 2013). The SSAC assessment is based on a comparison between the mean annual measured DO [in milligrams per liter (mg/L)] and the annual calculated SSAC limit. Excursion categories are expressed in terms of "Pass" or "Fail." Inflow, outflow, and rim monitoring stations are provided for informational purposes only.

Area	Class	Station	TP Criteria Status	Mean Annual DO	Sample Size	Standard Deviation	Minimum DO	Maximum DO	Annual SSAC Limit	SSAC Pass/Fail
Refuge	Interior	LOX10	Unimpacted	4.64	11	1.65	2.33	7.64	2.40	Pass
Refuge	Interior	LOX11	Unimpacted	4.86	10	2.58	2.27	10.2	2.64	Pass
Refuge	Interior	LOX12	Unimpacted	5.00	9	2.16	2.13	7.4	2.39	Pass
Refuge	Interior	LOX13	Unimpacted	4.41	10	2.26	2.03	9.48	2.56	Pass
Refuge	Interior	LOX14	Unimpacted	5.25	10	2.5	1.38	8.78	2.61	Pass
Refuge	Interior	LOX15	Unimpacted	5.47	10	2.43	2.4	8.81	2.62	Pass
Refuge	Interior	LOX16	Unimpacted	3.68	10	2.20	0.71	7.67	2.63	Pass
Refuge	Interior	LOX3	Unimpacted	4.91	9	1.42	2.71	6.77	2.32	Pass
Refuge	Interior	LOX4	Unimpacted	3.58	12	1.88	1.13	6.83	2.80	Pass
Refuge	Interior	LOX5	Unimpacted	4.72	10	1.38	2.89	6.65	2.45	Pass
Refuge	Interior	LOX6	Unimpacted	4.06	10	2.67	1.17	8.61	2.79	Pass
Refuge	Interior	LOX7	Unimpacted	4.55	12	2.07	2.26	9.46	2.53	Pass
Refuge	Interior	LOX8	Unimpacted	4.47	12	1.83	2.5	7.97	2.5	Pass
Refuge	Interior	LOX9	Unimpacted	4.36	12	1.91	2.31	8.03	2.47	Pass
Refuge	Interior	LOXA104.5	---	2.41	11	1.63	0.82	5.60	2.65	Fail
Refuge	Interior	LOXA105	Impacted	3.03	12	1.63	0.85	5.36	2.65	Pass
Refuge	Interior	LOXA106	---	4.01	10	2.61	1.23	9.49	2.68	Pass
Refuge	Interior	LOXA107	---	3.20	7	1.32	1.69	5.47	2.48	Pass
Refuge	Interior	LOXA107U	---	4.12	9	1.09	2.4	5.93	2.25	Pass
Refuge	Interior	LOXA108	Unimpacted	4.67	9	2.48	1.82	10.30	2.19	Pass
Refuge	Interior	LOXA136	---	2.81	12	1.14	1.11	4.44	2.87	Fail
Refuge	Interior	LOXA137	Impacted	3.93	12	1.86	1.48	8.33	2.79	Pass
Refuge	Interior	LOXA138	---	5.53	11	2.29	3.05	10.30	2.67	Pass
Refuge	Interior	LOXA139	---	5.32	10	1.73	2.96	8.17	2.51	Pass
Refuge	Interior	Z1	---	2.87	4	1.21	1.55	4.48	3.42	Fail
Refuge	Interior	Z2	---	3.07	4	1.39	1.85	4.69	3.09	Fail
Refuge	Interior	Z3	---	5.17	4	1.14	3.96	6.53	2.74	Pass
Refuge	Interior	Z4	---	6.17	4	1.15	4.94	7.72	2.81	Pass
WCA2	Interior	2AC2	Unimpacted	4.49	10	1.46	2.17	7.36	2.58	Pass

Area	Class	Station	TP Criteria Status	Mean Annual DO	Sample Size	Standard Deviation	Minimum DO	Maximum DO	Annual SSAC Limit	SSAC Pass/Fail
WCA2	Interior	2AN.25	---	3.68	12	1.93	1.23	6.95	2.36	Pass
WCA2	Interior	2AN1	Impacted	3.52	12	1.49	1.26	6.72	2.44	Pass
WCA2	Interior	2AN2	---	3.07	9	1.17	1.42	4.54	2.21	Pass
WCA2	Interior	2AN4	---	4.47	11	1.8	2.2	7.60	2.46	Pass
WCA2	Interior	2AN6	---	4.13	9	1.64	1.38	7.16	2.32	Pass
WCA2	Interior	404Z1	Impacted	1.32	2	0.06	1.28	1.36	2.65	Fail
WCA2	Interior	C0.25	---	3.29	12	1.76	1.22	6.75	2.57	Pass
WCA2	Interior	CA27	---	3.27	9	1.00	2.08	5.41	2.23	Pass
WCA2	Interior	CA28	---	3.00	9	1.89	0.96	6.69	2.45	Pass
WCA2	Interior	CA29	Unimpacted	5.21	11	2.10	3.19	9.26	2.45	Pass
WCA2	Interior	FS0.25	---	2.87	11	1.50	0.84	5.64	2.52	Pass
WCA2	Interior	FS1	---	2.73	10	1.28	1.86	6.21	2.51	Pass
WCA2	Interior	S145	---	4.26	20	2.10	1.83	10.5	2.66	Pass
WCA2	Interior	U3	Unimpacted	5.19	11	1.86	2.98	8.21	2.49	Pass
WCA2	Interior	WCA2C4	---	5.10	10	1.69	1.67	8.15	2.57	Pass
WCA2	Interior	WCA2C5	---	3.93	8	0.98	2.52	5.61	2.36	Pass
WCA2	Interior	WCA2F1	Impacted	1.86	9	0.95	0.92	4.04	2.93	Fail
WCA2	Interior	WCA2F2	---	1.85	7	0.68	0.75	2.90	2.78	Fail
WCA2	Interior	WCA2F4	Impacted	2.75	9	0.88	1.34	4.03	2.61	Pass
WCA3	Interior	CA311	Unimpacted	4.45	12	1.62	2.21	7.78	2.21	Pass
WCA3	Interior	CA315	Unimpacted	3.62	12	1.85	0.85	7.08	2.19	Pass
WCA3	Interior	CA316	Unimpacted	2.17	12	0.91	0.59	3.55	2.05	Pass
WCA3	Interior	CA317	---	4.37	12	1.62	2.16	6.48	2.16	Pass
WCA3	Interior	CA318	---	1.92	12	0.92	0.33	3.30	2.19	Fail
WCA3	Interior	CA32	Unimpacted	4.01	8	1.70	1.82	6.48	2.52	Pass
WCA3	Interior	CA33	Impacted	3.26	7	1.18	1.93	4.90	2.33	Pass
WCA3	Interior	CA34	Unimpacted	3.27	10	1.04	0.88	4.76	2.53	Pass
WCA3	Interior	CA35	Impacted	3.37	2	0.13	3.28	3.46	1.78	Pass
WCA3	Interior	CA36	Impacted	1.97	8	1.12	0.93	4.09	2.51	Fail
WCA3	Interior	CA38	Unimpacted	4.19	10	1.30	1.80	6.02	2.27	Pass
ENP	Interior	EP	---	6.65	9	1.80	2.95	8.71	2.88	Pass
ENP	Interior	NE1	---	4.00	10	1.60	2.10	7.58	2.45	Pass
ENP	Interior	NP201	---	5.23	10	1.24	3.25	7.34	2.45	Pass
ENP	Interior	P33	---	4.37	10	2.08	1.40	7.37	2.25	Pass
ENP	Interior	P34	---	5.40	9	1.85	2.56	7.78	2.41	Pass
ENP	Interior	P35	---	4.32	9	1.80	2.48	8.34	2.87	Pass

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ENP	Interior	P36	---	3.04	10	1.02	1.46	4.90	2.62	Pass
ENP	Interior	P37	---	6.67	8	2.19	3.50	10.6	2.93	Pass
ENP	Interior	TSB	---	7.62	7	1.4	5.16	9.46	3.33	Pass
Refuge	Inflow	ENR012	---	3.03	20	1.67	0.33	5.93	2.23	NA (Pass)
Refuge	Inflow	G310	---	5.24	51	1.83	0.43	8.41	2.13	NA (Pass)
Refuge	Inflow	G338	---	3.73	51	1.56	0.88	7.20	2.04	NA (Pass)
Refuge	Inflow	G94D	---	3.86	1	0.00	3.86	3.86	2.02	NA (Pass)
Refuge	Inflow	S362	---	5.91	52	1.47	2.80	8.84	3.08	NA (Pass)
WCA2	Inflow	G335	---	3.82	51	1.28	1.04	7.40	2.29	NA (Pass)
WCA2	Inflow	G436	---	4.83	35	1.32	1.71	7.92	2.58	NA (Pass)
WCA2	Inflow	S10A	---	5.59	15	1.76	2.55	8.70	2.58	NA (Pass)
WCA2	Inflow	S10C	---	5.89	15	1.58	3.54	9.16	2.63	NA (Pass)
WCA2	Inflow	S10D	---	5.24	17	1.93	2.49	9.04	2.65	NA (Pass)
WCA2	Inflow	S7	---	5.68	44	1.4	3.05	9.25	2.29	NA (Pass)
WCA3	Inflow	G123	---	3.46	12	1.94	0.65	5.86	2.10	NA (Pass)
WCA3	Inflow	G204	---	2.54	4	1.67	1.21	4.93	2.65	NA (Fail)
WCA3	Inflow	G205	---	2.98	4	1.68	1.57	4.94	2.30	NA (Pass)
WCA3	Inflow	G206	---	2.98	4	1.03	2.04	4.28	2.29	NA (Pass)
WCA3	Inflow	G344E	---	2.45	31	1.27	0.55	5.74	2.35	NA (Pass)
WCA3	Inflow	G344F	---	2.51	31	1.19	0.58	5.48	2.4	NA (Pass)
WCA3	Inflow	G344G	---	5.12	24	1.44	1.75	8.19	2.81	NA (Pass)
WCA3	Inflow	G344H	---	6.28	24	1.45	3.51	8.54	2.94	NA (Pass)
WCA3	Inflow	G352B	---	3.94	24	1.29	2.00	6.45	2.72	NA (Pass)
WCA3	Inflow	G354C	---	2.41	22	1.35	0.35	6.07	3.29	NA (Fail)
WCA3	Inflow	G393B	---	2.18	22	1.03	0.34	4.21	3.19	NA (Fail)
WCA3	Inflow	G407	---	5.61	27	1.83	1.47	8.80	2.26	NA (Pass)
WCA3	Inflow	L3BRS	---	5.81	52	1.61	1.76	8.95	2.21	NA (Pass)
WCA3	Inflow	S11A	---	5.74	25	1.45	2.96	8.74	2.27	NA (Pass)
WCA3	Inflow	S11B	---	3.88	16	1.31	1.48	5.50	2.03	NA (Pass)
WCA3	Inflow	S11C	---	3.00	17	1.2	1.26	5.11	2.25	NA (Pass)
WCA3	Inflow	S140	---	4.39	51	1.49	1.34	8.00	2.95	NA (Pass)
WCA3	Inflow	S150	---	5.65	37	1.33	3.76	8.37	2.56	NA (Pass)
WCA3	Inflow	S190	---	7.17	52	1.81	2.75	13.2	2.85	NA (Pass)
WCA3	Inflow	S8	---	5.04	52	1.82	1.75	10.2	2.12	NA (Pass)
WCA3	Inflow	S9	---	2.47	52	1.33	0.38	7.11	2.53	NA (Fail)
WCA3	Inflow	S9A	---	2.52	53	1.06	0.84	5.37	2.61	NA (Fail)

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ENP	Inflow	S12A	---	3.55	51	1.08	1.54	6.09	2.14	NA (Pass)
ENP	Inflow	S12B	---	3.63	23	1.72	1.49	9.14	2.14	NA (Pass)
ENP	Inflow	S12C	---	2.96	24	1.08	1.62	5.49	2.34	NA (Pass)
ENP	Inflow	S12D	---	3.46	40	0.87	2.16	6.57	2.53	NA (Pass)
ENP	Inflow	S18C	---	5.47	52	2.33	1.69	8.85	3.16	NA (Pass)
ENP	Inflow	S332DX	---	2.63	52	1.86	0.58	7.28	2.74	NA (Fail)
ENP	Inflow	S333	---	3.53	51	0.87	2.08	5.27	2.59	NA (Pass)
ENP	Inflow	S355A	---	5.19	11	0.95	3.08	6.51	2.75	NA (Pass)
ENP	Inflow	S355B	---	4.43	11	1.38	2.60	6.72	2.98	NA (Pass)
Refuge	Outflow	G94B	---	3.65	14	1.09	1.21	5.37	3.56	NA (Pass)
Refuge	Outflow	S10A	---	5.59	15	1.76	2.55	8.70	2.58	NA (Pass)
Refuge	Outflow	S10C	---	5.89	15	1.58	3.54	9.16	2.63	NA (Pass)
Refuge	Outflow	S10D	---	5.24	17	1.93	2.49	9.04	2.65	NA (Pass)
Refuge	Outflow	S39	---	5.52	21	2.00	2.88	8.74	2.78	NA (Pass)
WCA2	Outflow	S11A	---	5.74	25	1.45	2.96	8.74	2.27	NA (Pass)
WCA2	Outflow	S11B	---	3.88	16	1.31	1.48	5.50	2.03	NA (Pass)
WCA2	Outflow	S11C	---	3.00	17	1.20	1.26	5.11	2.25	NA (Pass)
WCA2	Outflow	S34	---	5.07	20	1.61	1.32	7.34	2.15	NA (Pass)
WCA2	Outflow	S38	---	3.05	24	1.36	1.21	5.83	2.91	NA (Pass)
WCA3	Outflow	S12A	---	3.55	51	1.08	1.54	6.09	2.14	NA (Pass)
WCA3	Outflow	S12B	---	3.63	23	1.72	1.49	9.14	2.14	NA (Pass)
WCA3	Outflow	S12C	---	2.96	24	1.08	1.62	5.49	2.34	NA (Pass)
WCA3	Outflow	S12D	---	3.46	40	0.87	2.16	6.57	2.53	NA (Pass)
WCA3	Outflow	S142	---	4.56	12	1.38	2.83	7.79	2.24	NA (Pass)
WCA3	Outflow	S31	---	3.27	15	1.58	1.26	7.53	2.99	NA (Pass)
WCA3	Outflow	S333	---	3.53	51	0.87	2.08	5.27	2.59	NA (Pass)
WCA3	Outflow	S344	---	2.2	4	0.78	1.47	3.20	2.30	NA (Fail)
WCA3	Outflow	S355A	---	5.19	11	0.95	3.08	6.51	2.75	NA (Pass)
WCA3	Outflow	S355B	---	4.43	11	1.38	2.60	6.72	2.98	NA (Pass)
WCA3	Outflow	US41-25	---	2.87	22	1.10	1.29	5.53	2.60	NA (Pass)
Refuge	Rim	LOXA104	---	5.29	12	2.09	1.12	10.00	2.21	NA (Pass)
Refuge	Rim	LOXA135	---	4.86	12	1.86	2.51	8.99	2.71	NA (Pass)
Refuge	Rim	Z0	---	7.34	4	1.11	6.23	8.72	2.84	NA (Pass)