

# Appendix 3A-6: Water Year 2009–2013 Annual Total Phosphorus Criteria Compliance Assessment

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This appendix presents the annual total phosphorous criteria compliance assessment for Water Year 2009 through Water Year 2013 (WY2009–WY2013; May 1, 2008–April 20, 2013). **Table 1** displays the annual total phosphorous (TP) criteria compliance for the five water year period within the Everglades Protection Area (EPA), which 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). **Figure 1** depicts each area's network average geometric mean from WY2005 to the most current water year relative to the 11 micrograms per liter ( $\mu\text{g/L}$ ) network limit, and the 10  $\mu\text{g/L}$  long-term limit. **Figure 2** depicts the current water year (WY2013) annual geometric mean for each station within its respective area and network (impacted and unimpacted) relative to the 15  $\mu\text{g/L}$  annual limit, stations with insufficient data are identified with an asterisk (\*). In summary:

- 54 of the 58 TP criterion monitoring network sites had sufficient data to be included in the TP criterion assessment.
- Unimpacted portions of each WCA passed all four parts of the compliance assessment, as expected. Therefore, these areas in compliance with the 10  $\mu\text{g/L}$ .
- Even though in recent years conditions within the impacted portions of the marsh have improved (**Figure 1**), impacted portions of each WCA failed one or more parts of the criterion assessment. Therefore, these areas exceeded the criteria, as expected.

The increased percent of sites meeting the 10 and 15  $\mu\text{g/L}$  limits observed for WY2013 reflects the continued recovery from recent climatic extremes, improved treatment of the inflows, and overall improvement in phosphorus conditions within the interior marsh due to restoration activities.

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**Table 1.** Annual total phosphorus (TP) criteria compliance assessment in the EPA for the five-year period from Water Years 2009–2013 (WY2009–WY2013; May 1, 2008–April 30, 2013).

Area	Criterion Network	Water Year	Station	Sample Size (N)	Annual Site Geometric Mean (µg/L)	≤15 µg/L Pass/ Fail	Network Annual Average Geometric Mean (µg/L)	≤11 µg/L Pass/ Fail	Network Five-Year Average Geometric Mean (µg/L)	≤10 µg/L Pass/ Fail
Refuge	Impacted	2009	LOXA101	8	9.6	Pass				
	Impacted	2009	LOXA105	9	11.5	Pass				
	Impacted	2009	LOXA124	9	13.0	Pass				
	Impacted	2009	LOXA130	10	9.7	Pass				
	Impacted	2009	LOXA137	9	9.7	Pass				
	Impacted	2009	LOXA140	8	8.4	Pass				
	Impacted	2009	X1	2	N/A (42.2)	N/A				
	Impacted	2009	Z1	9	20.9	Fail				
	<b>Impacted</b>	<b>2009</b>	<b>Annual Network Average</b>							
Refuge	Impacted	2010	LOXA101	11	13.0	Pass				
	Impacted	2010	LOXA105	11	12.1	Pass				
	Impacted	2010	LOXA124	11	12.5	Pass				
	Impacted	2010	LOXA130	11	10.3	Pass				
	Impacted	2010	LOXA137	11	10.7	Pass				
	Impacted	2010	LOXA140	11	10.8	Pass				
	Impacted	2010	X1	11	33.9	Fail				
	Impacted	2010	Z1	11	26.5	Fail				
	<b>Impacted</b>	<b>2010</b>	<b>Annual Network Average</b>							
Refuge	Impacted	2011	LOXA101	6	11.1	Pass				
	Impacted	2011	LOXA105	9	13.1	Pass				
	Impacted	2011	LOXA124	10	9.8	Pass				
	Impacted	2011	LOXA130	11	10.2	Pass				
	Impacted	2011	LOXA137	10	10.8	Pass				
	Impacted	2011	LOXA140	7	8.9	Pass				
	Impacted	2011	X1	11	26.7	Fail				
	Impacted	2011	Z1	12	32.8	Fail				

Area	Criterion Network	Water Year	Station	Sample Size (N)	Annual Site Geometric Mean (µg/L)	≤15 µg/L Pass/Fail	Network Annual Average Geometric Mean (µg/L)	≤11 µg/L Pass/Fail	Network Five-Year Average Geometric Mean (µg/L)	≤10 µg/L Pass/Fail
	<b>Impacted</b>	<b>2011</b>	<b>Annual Network Average</b>				<b>15.4</b>	<b>Fail</b>		
Refuge	Impacted	2012	LOXA101	4	N/A (14.3)	N/A				
	Impacted	2012	LOXA105	7	17.5	Fail				
	Impacted	2012	LOXA124	8	10.9	Pass				
	Impacted	2012	LOXA130	8	13.0	Pass				
	Impacted	2012	LOXA137	6	14.7	Pass				
	Impacted	2012	LOXA140	4	N/A (12.6)	N/A				
	Impacted	2012	X1	8	38.0	Fail				
	Impacted	2012	Z1	7	49.3	Fail				
	<b>Impacted</b>	<b>2012</b>	<b>Annual Network Average</b>				<b>23.9</b>	<b>Fail</b>		
Refuge	Impacted	2013	LOXA101	11	17.6	Fail				
	Impacted	2013	LOXA105	11	16.9	Fail				
	Impacted	2013	LOXA124	12	11.5	Pass				
	Impacted	2013	LOXA130	12	8.9	Pass				
	Impacted	2013	LOXA137	11	9.6	Pass				
	Impacted	2013	LOXA140	12	10.3	Pass				
	Impacted	2013	X1	12	26.6	Fail				
	Impacted	2013	Z1	14	18.3	Fail				
	<b>Impacted</b>	<b>2013</b>	<b>Annual Network Average</b>				<b>15.0</b>	<b>Fail</b>		
Refuge	<b>Impacted</b>	<b>2009 - 2013</b>	<b>Five-Year Network Average</b>						<b>16.2</b>	<b>Fail</b>
	<b>Impacted</b>	<b>2009 - 2013</b>	<b>3 of 5 Year Network Average ≤ 10 ppb</b>					<b>Fail</b>		
Refuge	Unimpacted	2009	LOX10	8	8.0	Pass				
	Unimpacted	2009	LOX11	12	6.7	Pass				
	Unimpacted	2009	LOX12	12	6.8	Pass				
	Unimpacted	2009	LOX13	12	7.0	Pass				
	Unimpacted	2009	LOX14	12	6.4	Pass				
	Unimpacted	2009	LOX15	12	6.8	Pass				
	Unimpacted	2009	LOX16	12	7.7	Pass				

Area	Criterion Network	Water Year	Station	Sample Size (N)	Annual Site Geometric Mean (µg/L)	≤15 µg/L Pass/Fail	Network Annual Average Geometric Mean (µg/L)	≤11 µg/L Pass/Fail	Network Five-Year Average Geometric Mean (µg/L)	≤10 µg/L Pass/Fail				
	Unimpacted	2009	LOX3	7	8.4	Pass								
	Unimpacted	2009	LOX4	8	9.5	Pass								
	Unimpacted	2009	LOX5	7	7.5	Pass								
	Unimpacted	2009	LOX6	10	7.6	Pass								
	Unimpacted	2009	LOX7	12	8.4	Pass								
	Unimpacted	2009	LOX8	12	11.3	Pass								
	Unimpacted	2009	LOX9	8	5.4	Pass								
	Unimpacted	2009	LOXA108	8	9.3	Pass								
	Unimpacted	2009	X4	9	8.9	Pass								
	<b>Unimpacted</b>	<b>2009</b>	<b>Annual Network Average</b>									<b>7.9</b>	<b>Pass</b>	
Refuge	Unimpacted	2010	LOX10	11	6.7	Pass								
	Unimpacted	2010	LOX11	11	6.2	Pass								
	Unimpacted	2010	LOX12	12	8.3	Pass								
	Unimpacted	2010	LOX13	11	6.3	Pass								
	Unimpacted	2010	LOX14	11	6.6	Pass								
	Unimpacted	2010	LOX15	11	6.6	Pass								
	Unimpacted	2010	LOX16	11	7.2	Pass								
	Unimpacted	2010	LOX3	9	8.1	Pass								
	Unimpacted	2010	LOX4	11	10.2	Pass								
	Unimpacted	2010	LOX5	9	7.7	Pass								
	Unimpacted	2010	LOX6	11	5.2	Pass								
	Unimpacted	2010	LOX7	11	7.5	Pass								
	Unimpacted	2010	LOX8	11	9.8	Pass								
	Unimpacted	2010	LOX9	11	6.6	Pass								
	Unimpacted	2010	LOXA108	11	8.0	Pass								
	Unimpacted	2010	X4	11	9.2	Pass								
	<b>Unimpacted</b>	<b>2010</b>	<b>Annual Network Average</b>									<b>7.5</b>	<b>Pass</b>	
	Refuge	Unimpacted	2011	LOX10	8	5.7					Pass			

Area	Criterion Network	Water Year	Station	Sample Size (N)	Annual Site Geometric Mean (µg/L)	≤15 µg/L Pass/Fail	Network Annual Average Geometric Mean (µg/L)	≤11 µg/L Pass/Fail	Network Five-Year Average Geometric Mean (µg/L)	≤10 µg/L Pass/Fail
	Unimpacted	2011	LOX11	12	6.0	Pass				
	Unimpacted	2011	LOX12	12	6.4	Pass				
	Unimpacted	2011	LOX13	11	5.8	Pass				
	Unimpacted	2011	LOX14	12	6.0	Pass				
	Unimpacted	2011	LOX15	12	6.1	Pass				
	Unimpacted	2011	LOX16	12	7.3	Pass				
	Unimpacted	2011	LOX3	7	6.3	Pass				
	Unimpacted	2011	LOX4	8	9.5	Pass				
	Unimpacted	2011	LOX5	7	7.0	Pass				
	Unimpacted	2011	LOX6	10	5.8	Pass				
	Unimpacted	2011	LOX7	11	6.7	Pass				
	Unimpacted	2011	LOX8	12	8.6	Pass				
	Unimpacted	2011	LOX9	8	5.1	Pass				
	Unimpacted	2011	LOXA108	7	6.4	Pass				
	Unimpacted	2011	X4	11	10.2	Pass				
	<b>Unimpacted</b>	<b>2011</b>	<b>Annual Network Average</b>				<b>6.8</b>	<b>Pass</b>		
Refuge	Unimpacted	2012	LOX10	5	N/A (9.3)	N/A				
	Unimpacted	2012	LOX11	9	7.4	Pass				
	Unimpacted	2012	LOX12	10	8.1	Pass				
	Unimpacted	2012	LOX13	6	7.1	Pass				
	Unimpacted	2012	LOX14	9	7.3	Pass				
	Unimpacted	2012	LOX15	10	7.0	Pass				
	Unimpacted	2012	LOX16	9	8.2	Pass				
	Unimpacted	2012	LOX3	2	N/A (5.9)	N/A				
	Unimpacted	2012	LOX4	8	12.1	Pass				
	Unimpacted	2012	LOX5	3	N/A (7.2)	N/A				
	Unimpacted	2012	LOX6	9	6.2	Pass				
	Unimpacted	2012	LOX7	9	8.0	Pass				

Area	Criterion Network	Water Year	Station	Sample Size (N)	Annual Site Geometric Mean (µg/L)	≤15 µg/L Pass/Fail	Network Annual Average Geometric Mean (µg/L)	≤11 µg/L Pass/Fail	Network Five-Year Average Geometric Mean (µg/L)	≤10 µg/L Pass/Fail
	Unimpacted	2012	LOX8	8	10.4	Pass				
	Unimpacted	2012	LOX9	5	N/A (6.7)	N/A				
	Unimpacted	2012	LOXA108	4	N/A (7.7)	N/A				
	Unimpacted	2012	X4	9	9.1	Pass				
	<b>Unimpacted</b>	<b>2012</b>	<b>Annual Network Average</b>							
Refuge	Unimpacted	2013	LOX10	11	7.6	Pass				
	Unimpacted	2013	LOX11	12	6.0	Pass				
	Unimpacted	2013	LOX12	12	6.4	Pass				
	Unimpacted	2013	LOX13	11	6.5	Pass				
	Unimpacted	2013	LOX14	12	5.2	Pass				
	Unimpacted	2013	LOX15	12	6.0	Pass				
	Unimpacted	2013	LOX16	12	6.3	Pass				
	Unimpacted	2013	LOX3	9	6.3	Pass				
	Unimpacted	2013	LOX4	12	7.7	Pass				
	Unimpacted	2013	LOX5	10	7.7	Pass				
	Unimpacted	2013	LOX6	12	5.5	Pass				
	Unimpacted	2013	LOX7	12	7.3	Pass				
	Unimpacted	2013	LOX8	12	7.8	Pass				
	Unimpacted	2013	LOX9	12	7.6	Pass				
	Unimpacted	2013	LOXA108	8	7.7	Pass				
	Unimpacted	2013	X4	12	7.5	Pass				
		<b>Impacted</b>	<b>2013</b>	<b>Annual Network Average</b>						
Refuge	<b>Unimpacted</b>	<b>2009 - 2013</b>	<b>Five-Year Network Average</b>					<b>7.4</b>	<b>Pass</b>	
	<b>Unimpacted</b>	<b>2009 - 2013</b>	<b>3 of 5 Year Network Average ≤ 10 ppb</b>				<b>Pass</b>			
WCA-2	Impacted	2009	2AN1	7	13.9	Pass				
	Impacted	2009	404Z1	6	17.7	Fail				
	Impacted	2009	CA223	4	N/A (15.9)	N/A				
	Impacted	2009	CA224	7	5.8	Pass				

Area	Criterion Network	Water Year	Station	Sample Size (N)	Annual Site Geometric Mean (µg/L)	≤15 µg/L Pass/Fail	Network Annual Average Geometric Mean (µg/L)	≤11 µg/L Pass/Fail	Network Five-Year Average Geometric Mean (µg/L)	≤10 µg/L Pass/Fail
	Impacted	2009	WCA2F1	15	23.9	Fail				
	Impacted	2009	WCA2F4	15	10.7	Pass				
	Impacted	2009	WCAF3	6	11.5	Pass				
	<b>Impacted</b>	<b>2009</b>	<b>Annual Network Average</b>							
WCA-2	Impacted	2010	2AN1	11	22.2	Fail				
	Impacted	2010	404Z1	10	20.8	Fail				
	Impacted	2010	CA223	8	21.1	Fail				
	Impacted	2010	CA224	11	6.6	Pass				
	Impacted	2010	WCA2F1	11	23.3	Fail				
	Impacted	2010	WCA2F4	11	10.5	Pass				
	<b>Impacted</b>	<b>2010</b>	<b>Annual Network Average</b>							
WCA-2	Impacted	2011	2AN1	7	16.9	Fail				
	Impacted	2011	404Z1	9	20.6	Fail				
	Impacted	2011	CA223	7	17.2	Fail				
	Impacted	2011	CA224	8	6.2	Pass				
	Impacted	2011	WCA2F1	10	19.1	Fail				
	Impacted	2011	WCA2F4	8	9.1	Pass				
	<b>Impacted</b>	<b>2011</b>	<b>Annual Network Average</b>							
WCA-2	Impacted	2012	2AN1	10	13.6	Pass				
	Impacted	2012	404Z1	8	15.0	Pass				
	Impacted	2012	CA223	5	N/A (40.7)	N/A				
	Impacted	2012	CA224	8	6.7	Pass				
	Impacted	2012	WCA2F1	8	23.4	Fail				
	Impacted	2012	WCA2F4	10	10.1	Pass				
	<b>Impacted</b>	<b>2012</b>	<b>Annual Network Average</b>							
WCA-2	Impacted	2013	2AN1	12	15.4	Pass				
	Impacted	2013	404Z1	7	32.8	Fail				
	Impacted	2013	CA223	11	17.3	Fail				

Area	Criterion Network	Water Year	Station	Sample Size (N)	Annual Site Geometric Mean (µg/L)	≤15 µg/L Pass/Fail	Network Annual Average Geometric Mean (µg/L)	≤11 µg/L Pass/Fail	Network Five-Year Average Geometric Mean (µg/L)	≤10 µg/L Pass/Fail
	Impacted	2013	CA224	11	6.1	Pass				
	Impacted	2013	WCA2F1	10	31.1	Fail				
	Impacted	2013	WCA2F4	10	9.3	Pass				
	<b>Unimpacted</b>	<b>2013</b>	<b>Annual Network Average</b>							
WCA-2	<b>Impacted</b>	<b>2009 - 2013</b>	<b>Five-Year Network Average</b>					<b>15.8</b>	<b>Fail</b>	
	<b>Impacted</b>	<b>2009 - 2013</b>	<b>3 of 5 Year Network Average ≤ 10 ppb</b>				<b>Fail</b>			
WCA-2	Unimpacted	2009	2AC2	7	8.4	Pass				
	Unimpacted	2009	CA217	8	4.9	Pass				
	Unimpacted	2009	CA222	7	4.4	Pass				
	Unimpacted	2009	CA26	8	4.8	Pass				
	Unimpacted	2009	CA29	16	4.8	Pass				
	Unimpacted	2009	E5	8	5.0	Pass				
	Unimpacted	2009	U1	10	6.6	Pass				
	Unimpacted	2009	U3	9	5.1	Pass				
	Unimpacted	2009	WCA2F5	8	6.2	Pass				
	<b>Unimpacted</b>	<b>2009</b>	<b>Annual Network Average</b>							
WCA-2	Unimpacted	2010	2AC2	9	9.8	Pass				
	Unimpacted	2010	CA217	11	4.5	Pass				
	Unimpacted	2010	CA222	11	4.8	Pass				
	Unimpacted	2010	CA26	10	4.5	Pass				
	Unimpacted	2010	CA29	11	4.7	Pass				
	Unimpacted	2010	U1	11	5.8	Pass				
	Unimpacted	2010	U3	11	4.5	Pass				
	Unimpacted	2010	WCA2F5	11	5.2	Pass				
	<b>Unimpacted</b>	<b>2010</b>	<b>Annual Network Average</b>							
WCA-2	Unimpacted	2011	2AC2	4	N/A (6.7)	N/A				
	Unimpacted	2011	CA217	11	5.1	Pass				
	Unimpacted	2011	CA222	9	4.4	Pass				



Area	Criterion Network	Water Year	Station	Sample Size (N)	Annual Site Geometric Mean (µg/L)	≤15 µg/L Pass/Fail	Network Annual Average Geometric Mean (µg/L)	≤11 µg/L Pass/Fail	Network Five-Year Average Geometric Mean (µg/L)	≤10 µg/L Pass/Fail
	Unimpacted	2011	CA26	8	4.5	Pass				
	Unimpacted	2011	CA29	9	4.9	Pass				
	Unimpacted	2011	U1	11	5.4	Pass				
	Unimpacted	2011	U3	10	4.3	Pass				
	Unimpacted	2011	WCA2F5	9	5.5	Pass				
	<b>Unimpacted</b>	<b>2011</b>	<b>Annual Network Average</b>							
WCA-2	Unimpacted	2012	2AC2	8	7.4	Pass				
	Unimpacted	2012	CA217	9	5.4	Pass				
	Unimpacted	2012	CA222	8	4.4	Pass				
	Unimpacted	2012	CA26	9	4.3	Pass				
	Unimpacted	2012	CA29	10	5.4	Pass				
	Unimpacted	2012	U1	10	7.2	Pass				
	Unimpacted	2012	U3	9	4.9	Pass				
	Unimpacted	2012	WCA2F5	9	5.5	Pass				
	<b>Unimpacted</b>	<b>2012</b>	<b>Annual Network Average</b>							
WCA-2	Unimpacted	2013	2AC2	10	7.5	Pass				
	Unimpacted	2013	CA217	12	4.6	Pass				
	Unimpacted	2013	CA222	12	4.8	Pass				
	Unimpacted	2013	CA26	11	4.6	Pass				
	Unimpacted	2013	CA29	12	5.5	Pass				
	Unimpacted	2013	U1	11	5.6	Pass				
	Unimpacted	2013	U3	12	4.8	Pass				
	Unimpacted	2013	WCA2F5	12	6.0	Pass				
	<b>Unimpacted</b>	<b>2013</b>	<b>Annual Network Average</b>							
WCA-2	<b>Unimpacted</b>	2009 - 2013	<b>Five-Year Network Average</b>						<b>5.4</b>	<b>Pass</b>
	<b>Unimpacted</b>	2009 - 2013	<b>3 of 5 Year Network Average ≤ 10 ppb</b>					<b>Pass</b>		
WCA-3	Impacted	2009	CA314	12	4.3	Pass				
	Impacted	2009	CA324	6	11.1	Pass				

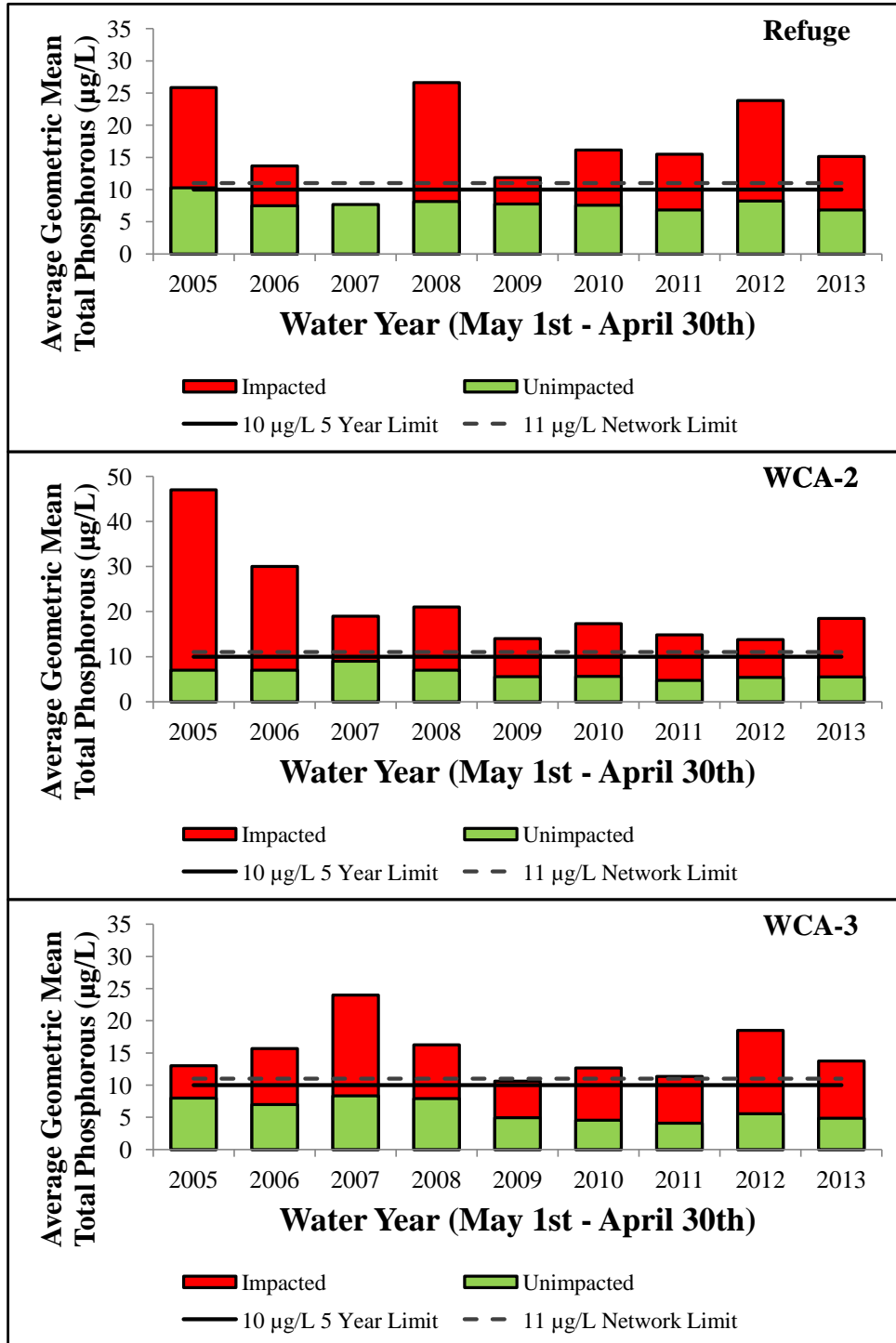
Area	Criterion Network	Water Year	Station	Sample Size (N)	Annual Site Geometric Mean (µg/L)	≤15 µg/L Pass/ Fail	Network Annual Average Geometric Mean (µg/L)	≤11 µg/L Pass/ Fail	Network Five-Year Average Geometric Mean (µg/L)	≤10 µg/L Pass/ Fail
	Impacted	2009	CA33	14	8.4	Pass				
	Impacted	2009	CA35	11	6.9	Pass				
	Impacted	2009	CA36	15	23.1	Fail				
	<b>Impacted</b>	<b>2009</b>	<b>Annual Network Average</b>							
WCA-3	Impacted	2010	CA314	12	4.5	Pass				
	Impacted	2010	CA324	5	N/A (12.5)	N/A				
	Impacted	2010	CA33	8	8.8	Pass				
	Impacted	2010	CA35	5	N/A (7.1)	N/A				
	Impacted	2010	CA36	8	23.6	Fail				
	<b>Impacted</b>	<b>2010</b>	<b>Annual Network Average</b>							
WCA-3	Impacted	2011	CA314	10	4.0	Pass				
	Impacted	2011	CA324	4	N/A (10.4)	N/A				
	Impacted	2011	CA33	7	7.5	Pass				
	Impacted	2011	CA35	6	5.6	Pass				
	Impacted	2011	CA36	9	22.0	Fail				
	<b>Impacted</b>	<b>2011</b>	<b>Annual Network Average</b>							
WCA-3	Impacted	2012	CA314	10	6.4	Pass				
	Impacted	2012	CA324	5	N/A (9.7)	N/A				
	Impacted	2012	CA33	5	N/A (8)	N/A				
	Impacted	2012	CA35	3	N/A (5.9)	N/A				
	Impacted	2012	CA36	6	30.9	Fail				
	<b>Unimpacted</b>	<b>2012</b>	<b>Annual Network Average</b>							
WCA-3	Impacted	2013	CA314	12	3.8	Pass				
	Impacted	2013	CA324	6	10.3	Pass				
	Impacted	2013	CA33	8	9.0	Pass				
	Impacted	2013	CA35	2	N/A (6)	N/A				
	Impacted	2013	CA36	8	32.1	Fail				
	<b>Unimpacted</b>	<b>2013</b>	<b>Annual Network Average</b>							

Area	Criterion Network	Water Year	Station	Sample Size (N)	Annual Site Geometric Mean (µg/L)	≤15 µg/L Pass/Fail	Network Annual Average Geometric Mean (µg/L)	≤11 µg/L Pass/Fail	Network Five-Year Average Geometric Mean (µg/L)	≤10 µg/L Pass/Fail
WCA-3	<b>Impacted</b>	<b>2009 - 2013</b>	<b>Five-Year Network Average</b>						<b>12.4</b>	<b>Fail</b>
	<b>Impacted</b>	<b>2009 - 2013</b>	<b>3 of 5 Year Network Average ≤ 10 ppb</b>					<b>Fail</b>		
WCA-3	Unimpacted	2009	3ASMESO	11	3.7	Pass				
	Unimpacted	2009	CA311	19	4.7	Pass				
	Unimpacted	2009	CA315	20	4.9	Pass				
	Unimpacted	2009	CA316	20	6.3	Pass				
	Unimpacted	2009	CA319	12	4.5	Pass				
	Unimpacted	2009	CA32	17	5.7	Pass				
	Unimpacted	2009	CA325	7	4.6	Pass				
	Unimpacted	2009	CA34	16	6.8	Pass				
	Unimpacted	2009	CA38	16	4.9	Pass				
	Unimpacted	2009	CA39	11	4.8	Pass				
	Unimpacted	2009	CA3B1	10	3.6	Pass				
	Unimpacted	2009	CA3B2	11	4.6	Pass				
	Unimpacted	2009	S345B6	11	3.1	Pass				
		<b>Unimpacted</b>	<b>2009</b>	<b>Annual Network Average</b>				<b>4.8</b>	<b>Pass</b>	
WCA-3	Unimpacted	2010	3ASMESO	11	3.8	Pass				
	Unimpacted	2010	CA311	10	4.0	Pass				
	Unimpacted	2010	CA315	10	4.3	Pass				
	Unimpacted	2010	CA316	10	6.4	Pass				
	Unimpacted	2010	CA319	11	4.7	Pass				
	Unimpacted	2010	CA32	11	4.9	Pass				
	Unimpacted	2010	CA325	11	4.6	Pass				
	Unimpacted	2010	CA34	10	7.0	Pass				
	Unimpacted	2010	CA38	9	4.4	Pass				
	Unimpacted	2010	CA39	11	4.9	Pass				
	Unimpacted	2010	CA3B1	10	3.4	Pass				
	Unimpacted	2010	CA3B2	11	4.4	Pass				

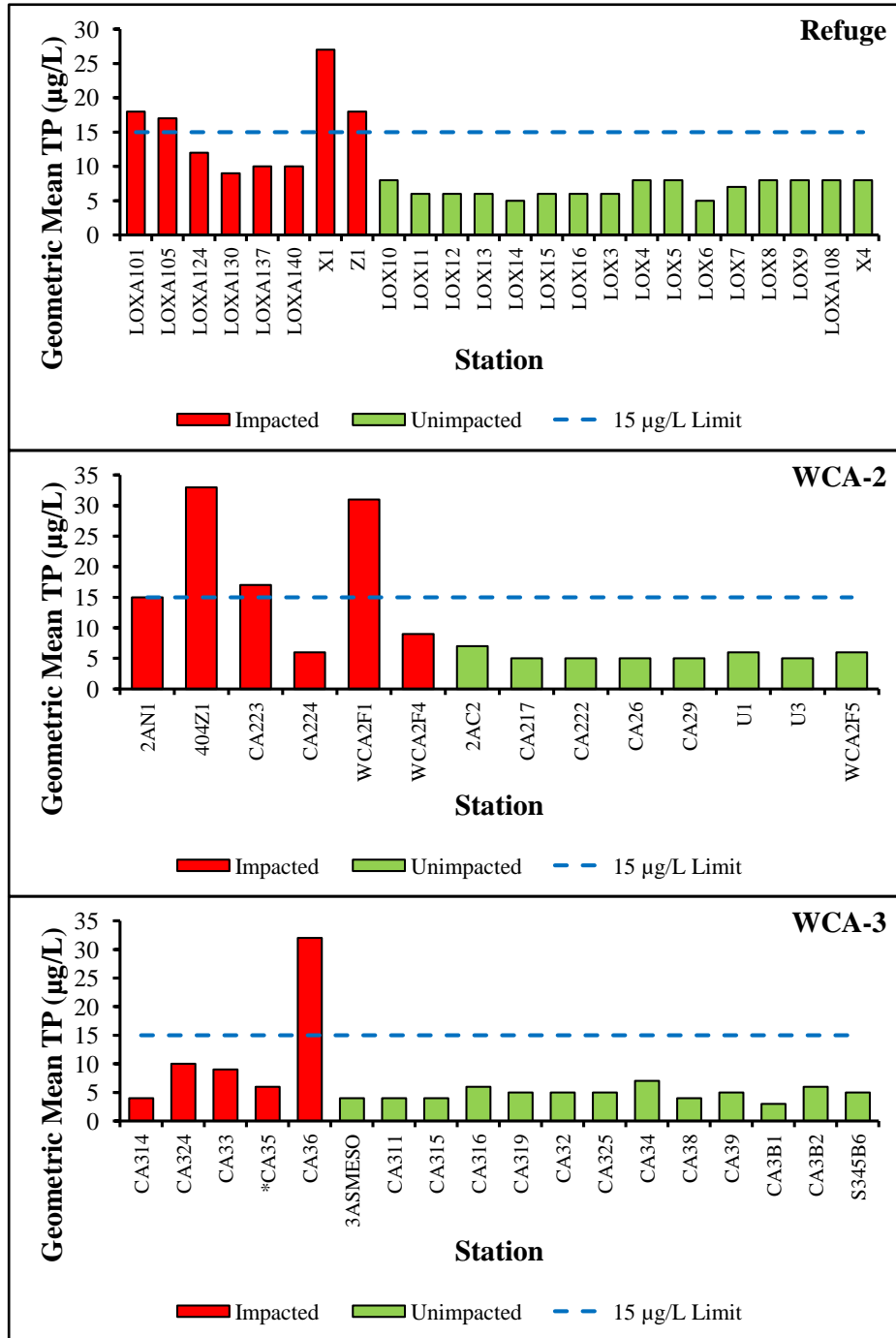
Area	Criterion Network	Water Year	Station	Sample Size (N)	Annual Site Geometric Mean (µg/L)	≤15 µg/L Pass/Fail	Network Annual Average Geometric Mean (µg/L)	≤11 µg/L Pass/Fail	Network Five-Year Average Geometric Mean (µg/L)	≤10 µg/L Pass/Fail
	Unimpacted	2010	S345B6	11	3.4	Pass	4.6	Pass		
	<b>Unimpacted</b>	<b>2010</b>	<b>Annual Network Average</b>							
WCA-3	Unimpacted	2011	3ASMESO	9	3.5	Pass	4.2	Pass		
	Unimpacted	2011	CA311	10	4.3	Pass				
	Unimpacted	2011	CA315	11	4.3	Pass				
	Unimpacted	2011	CA316	10	6.0	Pass				
	Unimpacted	2011	CA319	10	4.4	Pass				
	Unimpacted	2011	CA32	7	4.8	Pass				
	Unimpacted	2011	CA325	6	4.6	Pass				
	Unimpacted	2011	CA34	8	5.4	Pass				
	Unimpacted	2011	CA38	8	3.5	Pass				
	Unimpacted	2011	CA39	8	4.3	Pass				
	Unimpacted	2011	CA3B1	9	3.2	Pass				
	Unimpacted	2011	CA3B2	10	3.3	Pass				
	Unimpacted	2011	S345B6	10	3.0	Pass				
	<b>Unimpacted</b>	<b>2011</b>	<b>Annual Network Average</b>							
WCA-3	Unimpacted	2012	3ASMESO	9	5.3	Pass	4.2	Pass		
	Unimpacted	2012	CA311	8	4.8	Pass				
	Unimpacted	2012	CA315	9	5.3	Pass				
	Unimpacted	2012	CA316	8	6.9	Pass				
	Unimpacted	2012	CA319	10	5.8	Pass				
	Unimpacted	2012	CA32	8	5.0	Pass				
	Unimpacted	2012	CA325	8	3.8	Pass				
	Unimpacted	2012	CA34	7	6.4	Pass				
	Unimpacted	2012	CA38	6	3.8	Pass				
	Unimpacted	2012	CA39	10	6.1	Pass				
	Unimpacted	2012	CA3B1	7	3.1	Pass				
	Unimpacted	2012	CA3B2	8	7.7	Pass				

Area	Criterion Network	Water Year	Station	Sample Size (N)	Annual Site Geometric Mean (µg/L)	≤15 µg/L Pass/Fail	Network Annual Average Geometric Mean (µg/L)	≤11 µg/L Pass/Fail	Network Five-Year Average Geometric Mean (µg/L)	≤10 µg/L Pass/Fail
	Unimpacted	2012	S345B6	9	7.6	Pass				
	<b>Unimpacted</b>	<b>2012</b>	<b>Annual Network Average</b>					<b>5.5</b>	<b>Pass</b>	
WCA-3	Unimpacted	2013	3ASMESO	12	3.9	Pass				
	Unimpacted	2013	CA311	12	4.4	Pass				
	Unimpacted	2013	CA315	12	4.1	Pass				
	Unimpacted	2013	CA316	12	6.0	Pass				
	Unimpacted	2013	CA319	12	4.7	Pass				
	Unimpacted	2013	CA32	9	4.8	Pass				
	Unimpacted	2013	CA325	9	4.7	Pass				
	Unimpacted	2013	CA34	10	6.6	Pass				
	Unimpacted	2013	CA38	10	4.4	Pass				
	Unimpacted	2013	CA39	12	5.0	Pass				
	Unimpacted	2013	CA3B1	12	2.7	Pass				
	Unimpacted	2013	CA3B2	11	5.8	Pass				
	Unimpacted	2013	S345B6	12	4.7	Pass				
	<b>Unimpacted</b>	<b>2013</b>	<b>Annual Network Average</b>					<b>4.8</b>	<b>Pass</b>	
WCA-3	<b>Unimpacted</b>	<b>2009 - 2013</b>	<b>Five-Year Network Average</b>						<b>4.8</b>	<b>Pass</b>
	<b>Unimpacted</b>	<b>2009 - 2013</b>	<b>3 of 5 Year Network Average ≤ 10 ppb</b>					<b>Pass</b>		

µg/L – micrograms per liter  
 N/A – Mean calculation not applicable  
 Refuge – Arthur R. Marshall Loxahatchee National Wildlife Refuge  
 WCA-2 – Water Conservation Area 2  
 WCA-3 – Water Conservation Area 3



**Figure 1.** Network (impacted and unimpacted) trends for the Refuge, Water Conservation Area 2 (WCA-2), and Water Conservation Area 3 (WCA-3) from WY2005 to WY2013 relative to the 10 µg/L long-term (five-year) and the 11 µg/L network limits. [Note: \*Due to extreme weather events and drought conditions, a data gap exists for WY2007 within the Refuge.]



**Figure 2.** TP geometric mean for each station during WY2013 for the Refuge, WCA-2, and WCA-3 relative to the 15 µg/L annual limit. Stations with less than six samples are identified with an asterisk (\*).