

# *Water Conservation Area 1*

## *Annual Total Phosphorus Criteria Compliance Assessment - WY2012*

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Technical Oversight Committee  
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# *Water Quality Standards for Phosphorus Within the Everglades Protection Area (62-302.540 F.A.C.)*

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Achievement of the criterion for the ambient monitoring network is evaluated based on data collected monthly from stations in both impacted and unimpacted areas within the WCAs. This report focuses on the Department's compliance assessment for Water Conservation Area-1

To achieve the criterion, the following four provisions must be met:

1. The five year geometric mean averaged across all stations is less than or equal to 10  $\mu\text{g/L}$ .
2. The annual geometric mean averaged across all stations is less than or equal to 10  $\mu\text{g/L}$  for three of five water years.
3. The annual geometric mean averaged across all stations is less than or equal to 11  $\mu\text{g/L}$ ; and
4. The annual geometric mean at all individual stations is less than or equal to 15  $\mu\text{g/L}$ .



# *TP Rule Part 1*

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1. The water body will have achieved the criterion if the five year (WY2008-WY2012) geometric mean averaged across all stations is less than or equal to 10  $\mu\text{g/L}$ .

Assessment results:

- Unimpacted: 8  $\mu\text{g/L}$  (Passed)
- Impacted: 19  $\mu\text{g/L}$  (Failed)



## *TP Rule Part 2*

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2. The annual geometric mean averaged across all stations is less than or equal to 10  $\mu\text{g/L}$  for three of five water years.

Assessment results:

Water Year (May 1st - April 30th )	Total Phosphorus ( $\mu\text{g/L}$ )	
	Unimpacted	Impacted
2008	8	23
2009	8	19
2010	8	16
2011	7	15
2012	8	24

<i>Status</i>	<i>Pass</i>	<i>Fail</i>
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## *TP Rule Part 3*

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3. The annual (WY2012) geometric mean averaged across all stations is less than or equal to 11  $\mu\text{g/L}$ .
  - Unimpacted: 8  $\mu\text{g/L}$  (Passed)
  - Impacted: 24  $\mu\text{g/L}$  (Failed)

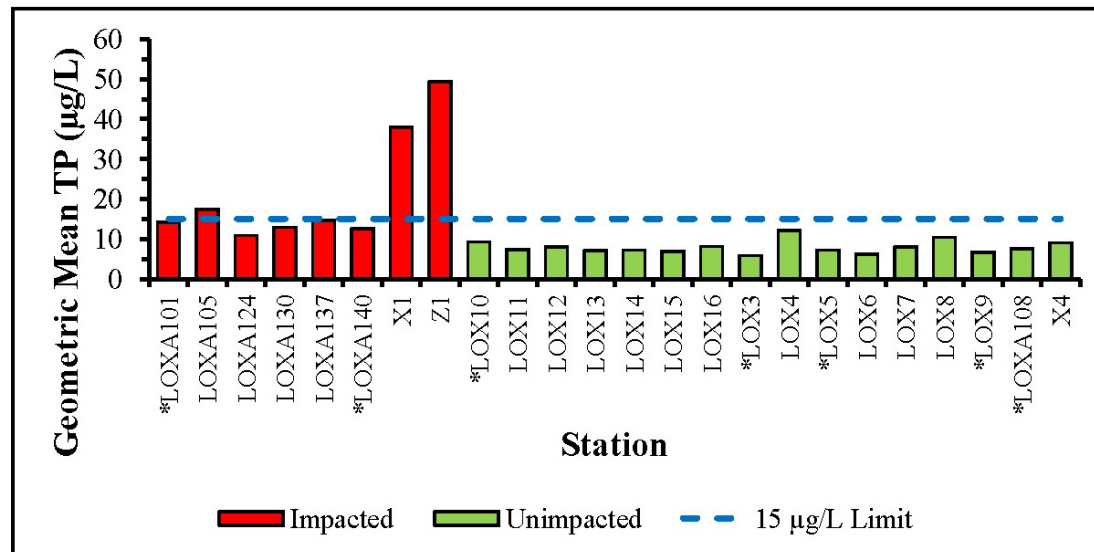


# TP Rule Part 4

4. The annual (WY2012) geometric mean at all individual stations is less than or equal to 15  $\mu\text{g/L}$ .

Assessment results:

- Unimpacted: Passed
- Impacted: Failed (X1, Z1 and LOXA105)



\* Stations with less than six samples.



# Summary

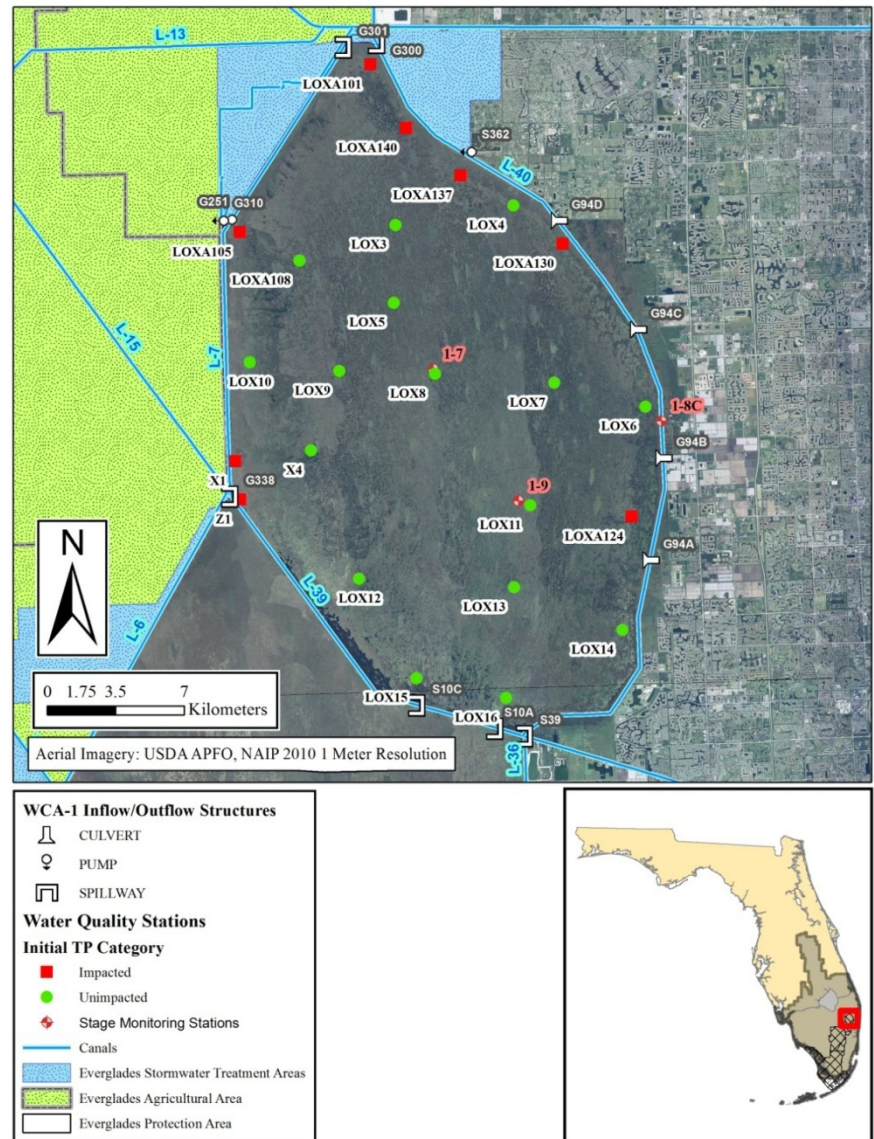
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## Phosphorus Rule\* Compliance for WCA-1 (WY2008-2012)

Part	Description	Unimpacted		Impacted	
		Actual Value (µg/L)	Passed?	Actual Value (µg/L)	Passed?
1	5-yr geometric mean TP averaged across all stations is less than 10 µg/L	8	Yes	19	No
2	Annual geometric mean TP averaged across all stations is less than 10 µg/L for 3 of 5 years	8, 8, 8, 7 and 8 (2008-2012 respectively)	Yes	23, 19, 16, 15 and 24 (2008-2012 respectively)	No
3	Annual geometric mean TP averaged across all stations is less than or equal to 11 µg/L	8	Yes	24	No
4	Annual geometric mean TP at all individual stations is less than or equal to 15 µg/L	See previous slide. (All below 15 µg/L)	Yes	See previous slide (X1, Z1 and LOXA105)	No

\*F.A.C. 62-302.540 Water Quality Standards for Phosphorus Within the Everglades Protection Area

# Supplemental Information – Sampling Locations within Water Conservation Area-1



**Figure 1.** Total phosphorus (TP) criterion assessment network stations within the Water Conservation Area-1. Sites identified were used in the Water Year 2008 – 2012 (WY2008-WY2012; May 1, 2007 – April 30, 2012) evaluation. *Supplemental - 1*

