

# SETTLEMENT AGREEMENT REPORT

October – December 2012

**Stuart Van Horn, P.E.**

*Section Leader*

Compliance Assessment & Reporting Section  
Water Quality Bureau

Technical Oversight Committee  
February 19, 2013

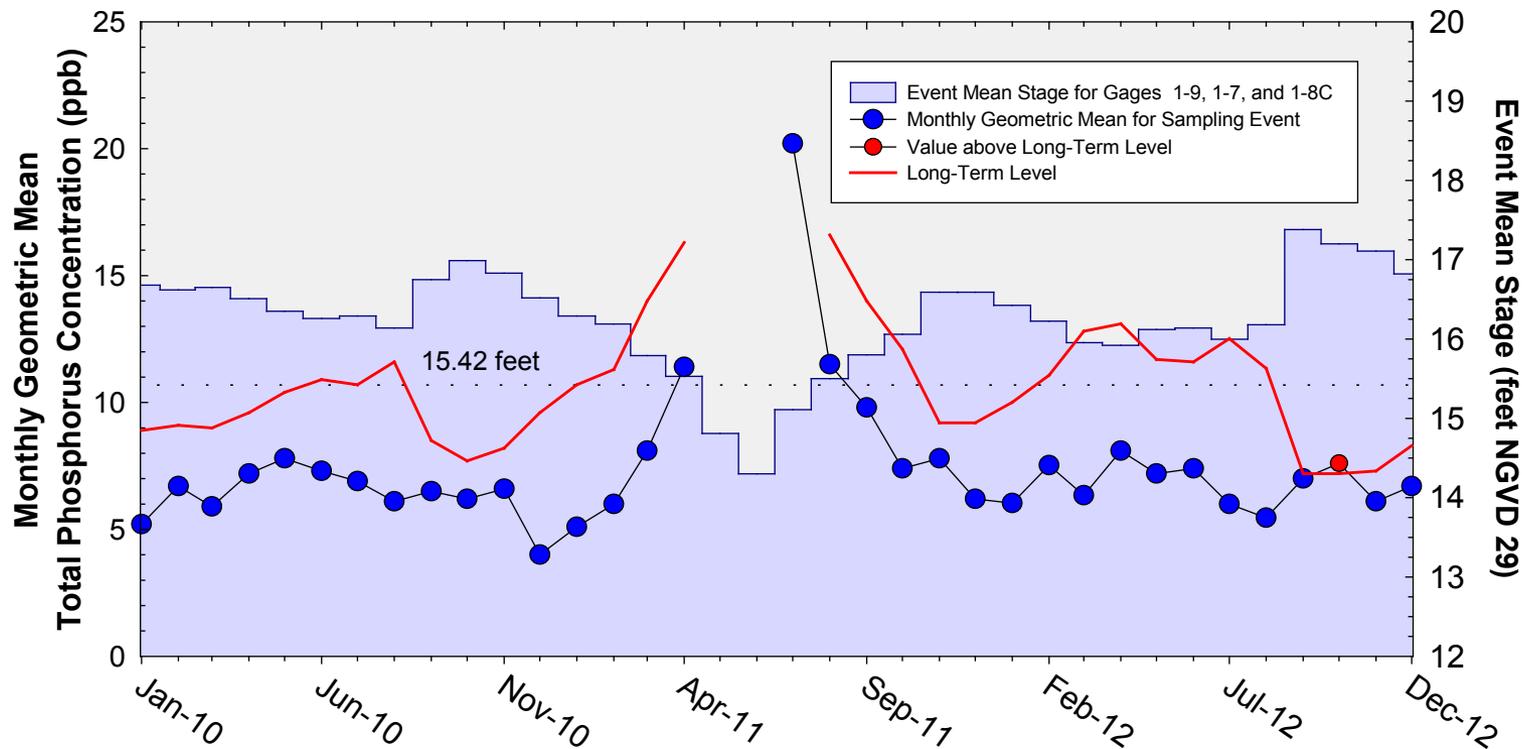


# SUMMARY

Month	Geometric Mean TP Concentration (ppb)	Long-term Level (ppb)	Mean Stage (feet NGVD 29)	Number of Samples	
<b>Arthur R. Marshall Loxahatchee National Wildlife Refuge</b>					
Oct 2012	7.6	7.2	17.20	14	
Nov 2012	6.1	7.3	17.11	14	
Dec 2012	6.7	8.3	16.82	14	
12-Month Period Ending	Total Flow (kac-ft)	12-Month Flow-weighted Mean TP Concentration (ppb)	Long-term Limit (ppb)	Percent of Sampling Events Greater than 10 ppb	
				Guideline	Observed
<b>Everglades National Park – Shark River Slough</b>					
Oct 2012	The flow data for this table are pending at the time of initial publication.				
Nov 2012					
Dec 2012					
<b>Everglades National Park – Taylor Slough and Coastal Basins</b>					
Oct 2012	283.6	5.3	11.0	53.1	0.0
Nov 2012	273.0	5.1	11.0	53.1	0.0
Dec 2012	279.6	5.1	11.0	53.1	0.0

# A.R.M Loxahatchee National Wildlife Refuge

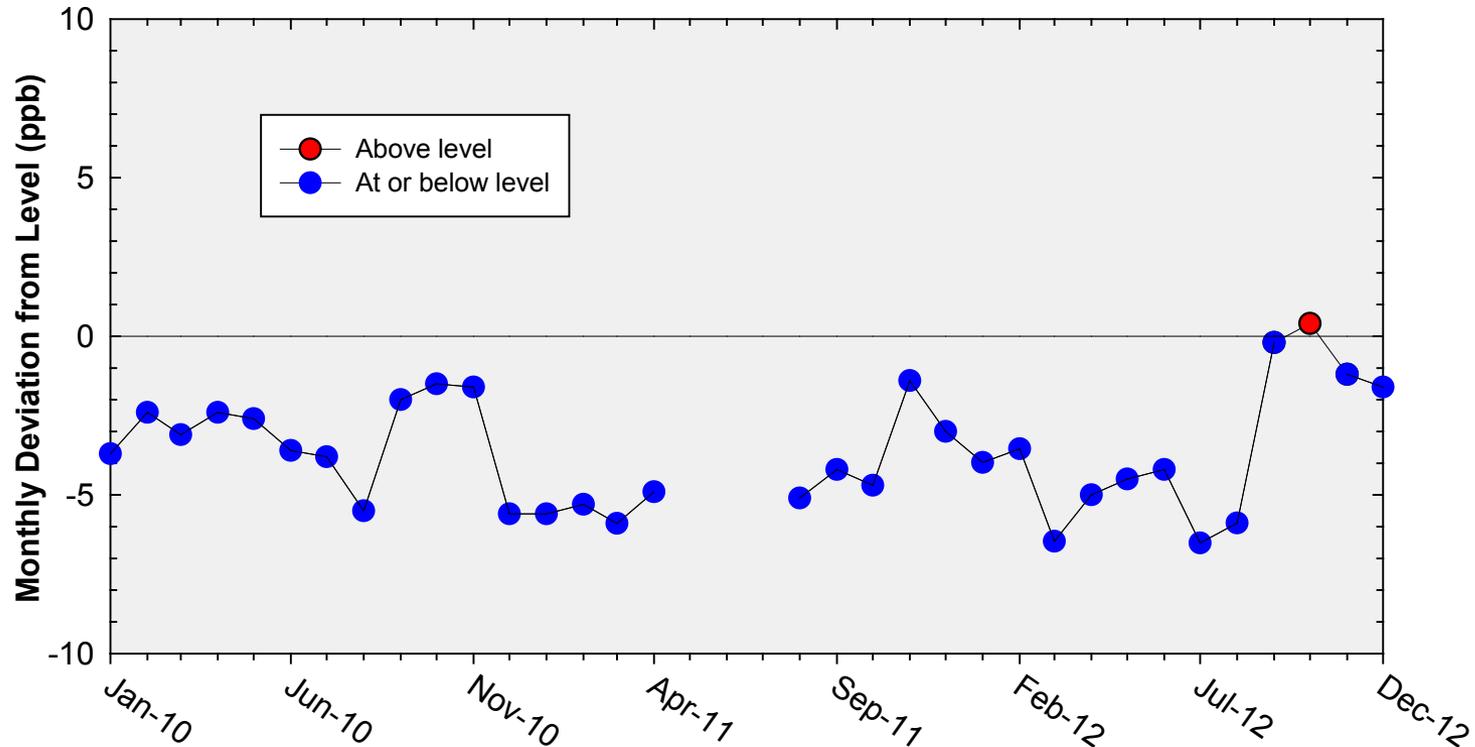
## Monthly Total Phosphorus Geometric Mean Concentrations



Note: Long-term level was not applicable for May 2011, June 2011, and July 2011 (sampling day average stages < 15.42 ft).

# A.R.M Loxahatchee National Wildlife Refuge

Deviation of monthly geometric mean total phosphorus concentrations with calculated long-term levels



Note: Long-term level was not applicable for May 2011, June 2011, and July 2011 (sampling day average stages < 15.42 ft).

## Refuge TP Compliance Tracking For October 2012 – February 2013

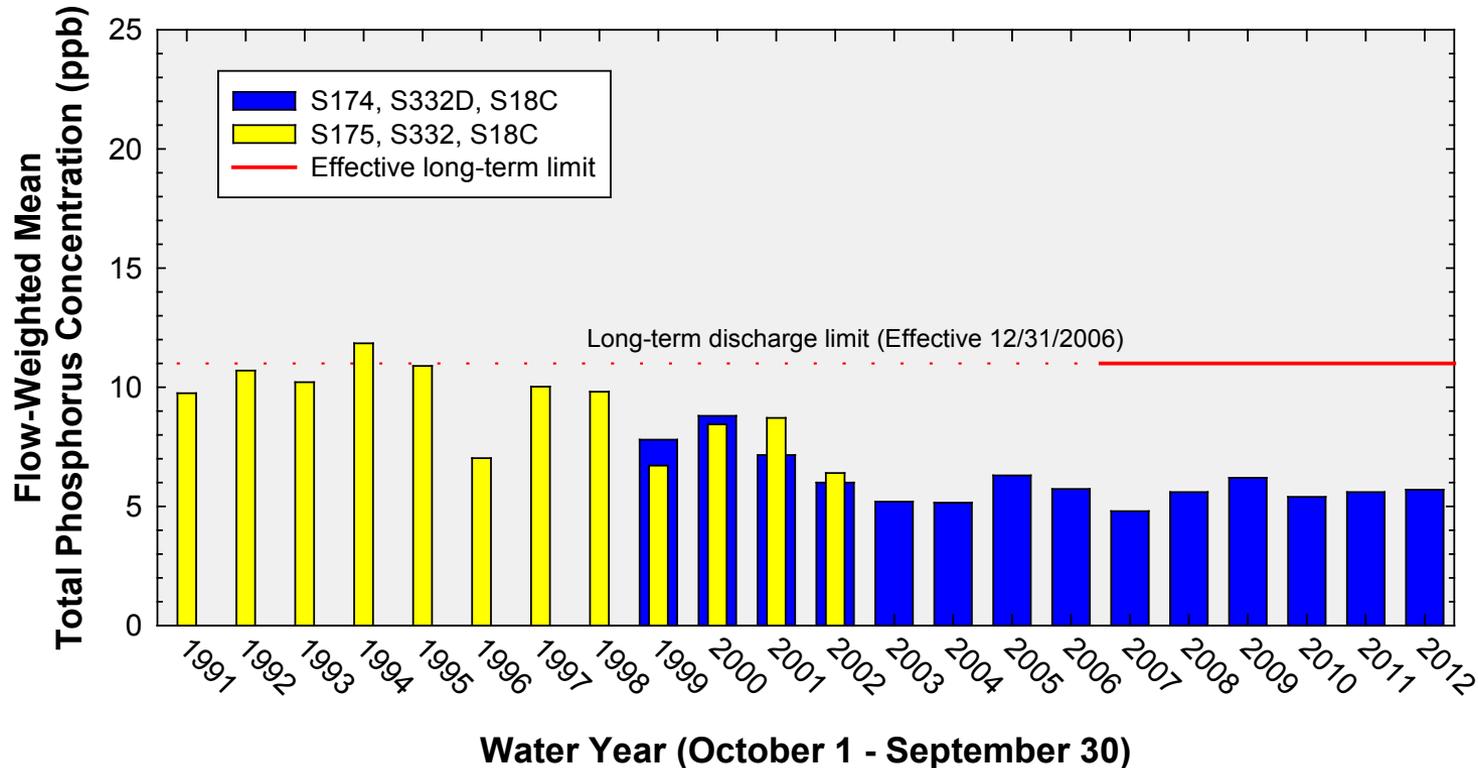
Month	Geometric Mean TP Concentration (ppb)	Long-Term Level (ppb) Effective 12/31/2006	Average Stage (feet NGVD 29)	Number of Samples
<b>Oct-2012</b>	<b>7.6*</b>	<b>7.2</b>	<b>17.20</b>	<b>14</b>
<b>Nov-2012</b>	<b>6.1</b>	<b>7.3</b>	<b>17.11</b>	<b>14</b>
<b>Dec-2012</b>	<b>6.7</b>	<b>8.3</b>	<b>16.82</b>	<b>14</b>
<b>Jan-2013</b>	<b>7.2</b>	<b>9.1</b>	<b>16.62</b>	<b>14</b>
<b>Feb-2013</b>	<b>6.7</b>	<b>10.3</b>	<b>16.36</b>	<b>13</b>

Note: January and February 2013 values are preliminary.

\* October 2012 14-station geometric mean was higher than the long-term level.

# Annual Flow-Weighted Mean Concentrations

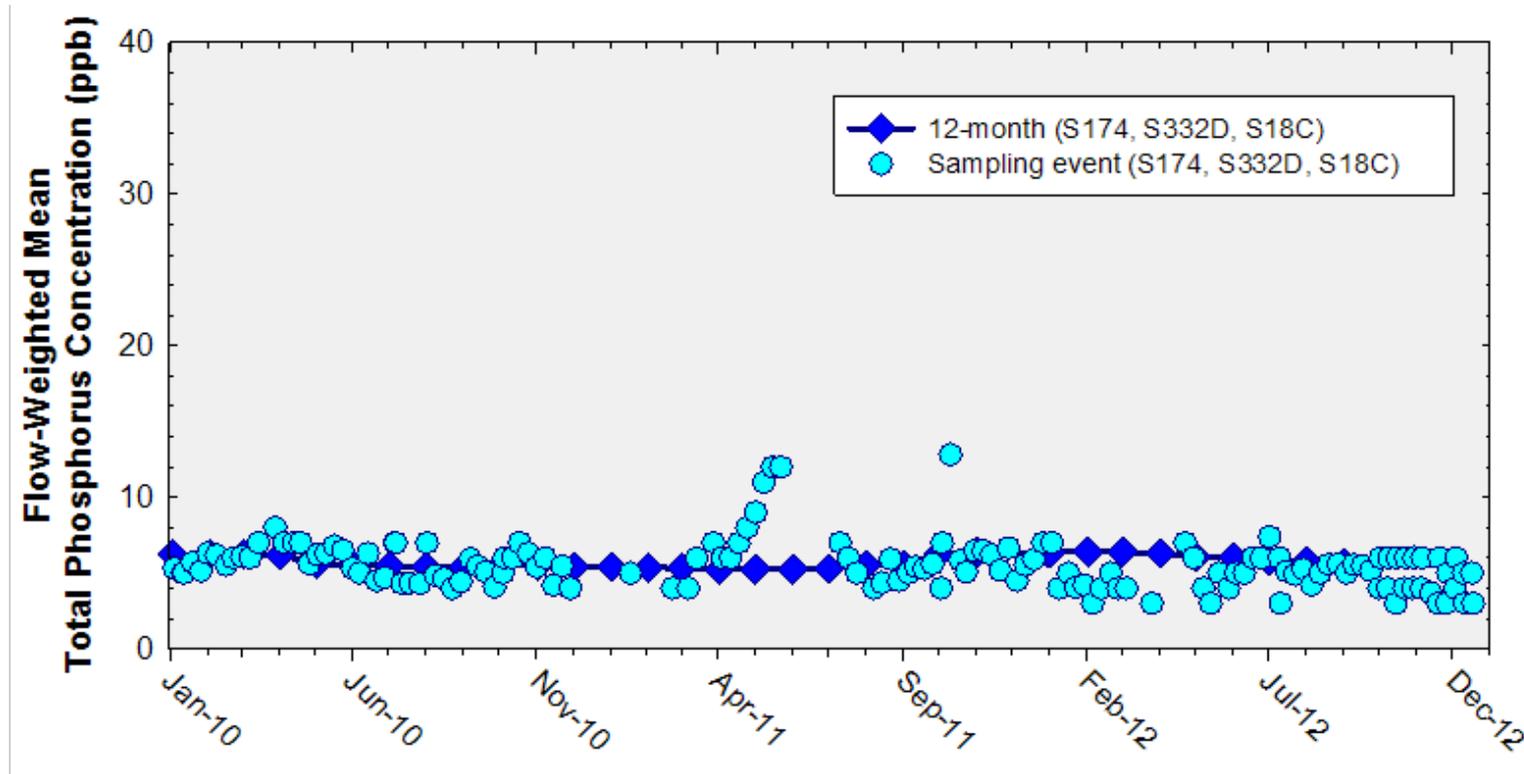
## Inflows to the ENP through Taylor Slough and Coastal Basins



**The 12-month FWMC at the end of each water year compared to the 11 ppb long-term TP limit**

# Flow-Weighted Mean Concentrations

Inflows to the ENP through Taylor Slough and Coastal Basins



The 12-month FWMC at the end of each month and the composite TP concentration for each sampling event

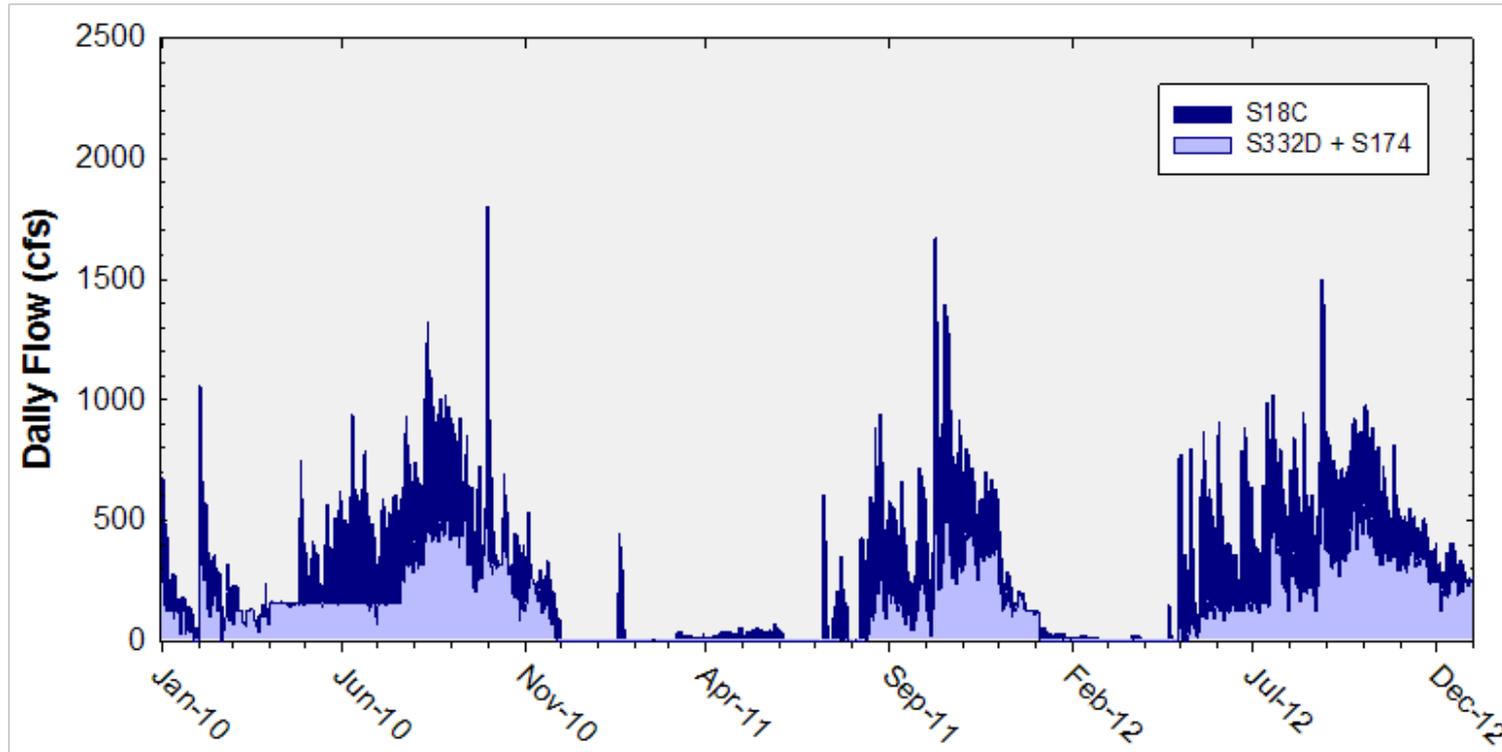
# Taylor Slough and the Coastal Basins

## TP Concentration Compliance Tracking

### for October 2012 – December 2012

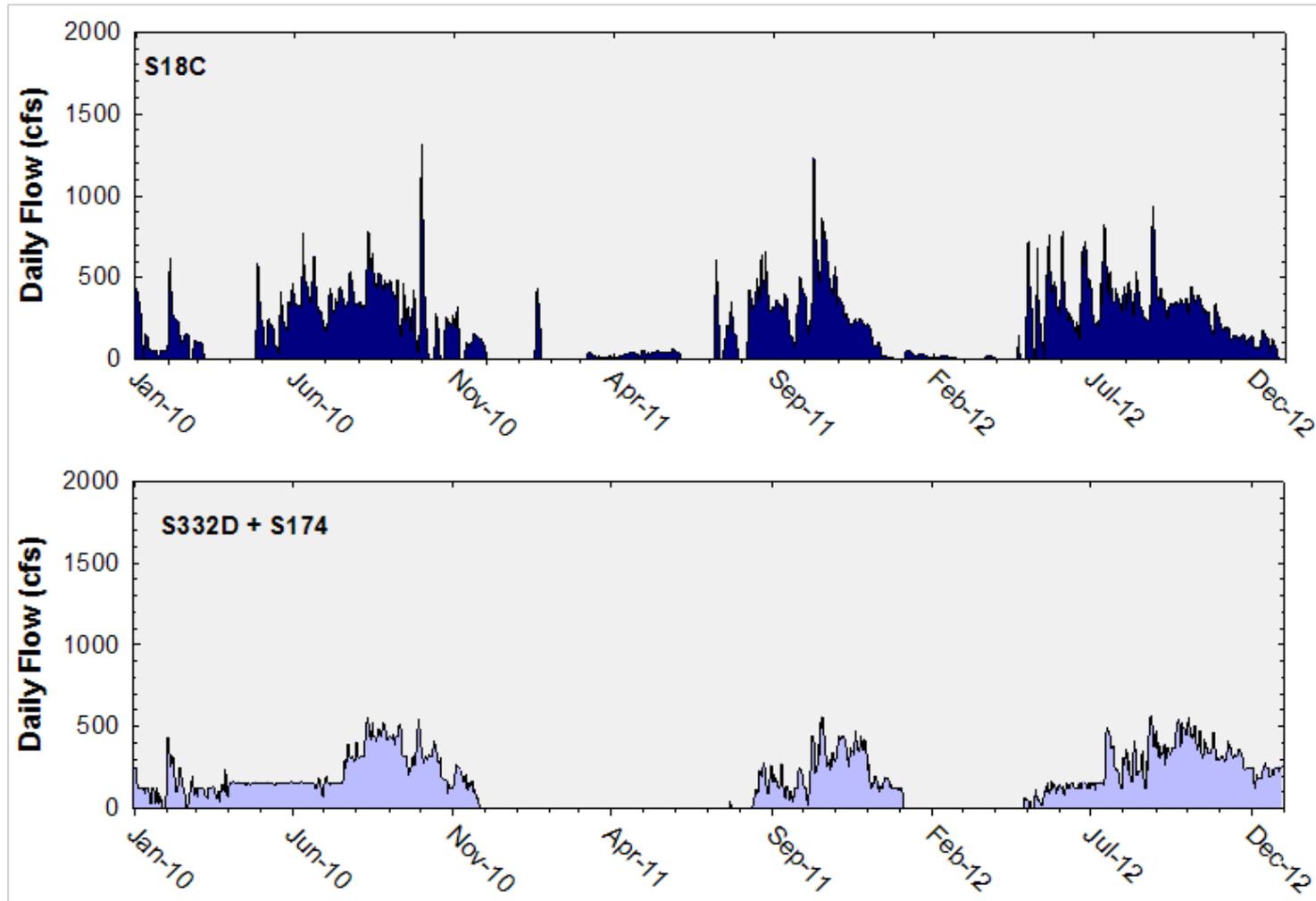
12-Month Period	Total Flow (kac-ft)	Flow-Weighted Mean TP Concentration (ppb)	Long-Term Limit (ppb) <i>Effective 12/31/2006</i>	Percent of Sampling Events Greater than 10 ppb	
				Guideline	Observed
Nov 2011 - Oct 2012	283.6	5.3	11.0	53.1	0.0
Dec 2011 - Nov 2012	273.0	5.1	11.0	53.1	0.0
Jan 2012 - Dec 2012	279.6	5.1	11.0	53.1	0.0

# Taylor Slough and Coastal Basins Daily Flows

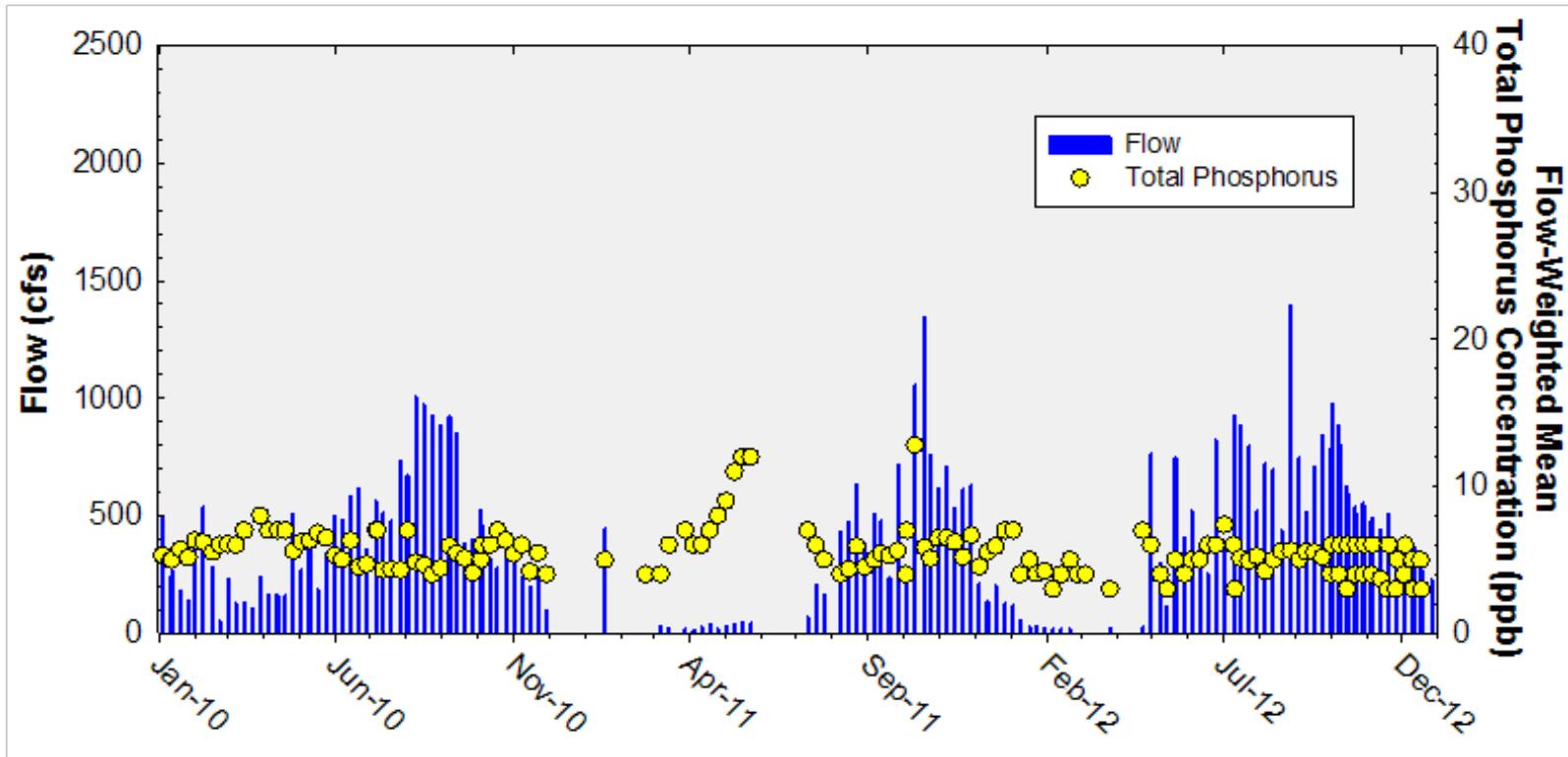


**Daily flows into Everglades National Park  
through Taylor Slough and Coastal Basins**

# Daily Flows at individual Taylor Slough and Coastal Basins structures into the ENP



# Taylor Slough and Coastal Basins Sampling Event Flow and FWMC



**Flow at Taylor Slough and Coastal Basins structures and the corresponding TP FWMCs for individual sampling events**

Thank You

