

# SETTLEMENT AGREEMENT REPORT

July – September 2014

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Compliance Assessment & Reporting Section  
Water Quality Bureau

Technical Oversight Committee  
February 4, 2015



# 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>					
Jul 2014	7.7	11.3	16.18	12	
Aug 2014	7.4	9.8	16.47	14	
Sep 2014	7.2	10.1	16.40	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>					
Jul 2014	The quarterly flow and TP data for this table is posted separately on the TOC website. The annual compliance result will be published in this report for the 12-month flow-weighted mean TP concentration for the federal water year ending on September 30 when the final approved flow data is available.				
Aug 2014					
Sep 2014					
<b>Everglades National Park – Taylor Slough and Coastal Basins</b>					
Jul 2014	203.2	4.5	11.0	53.1	1.3
Aug 2014	203.8	4.5	11.0	53.1	1.3
Sep 2014	196.5	4.3	11.0	53.1	1.3

## Refuge TP Compliance Tracking For July 2014 – December 2014

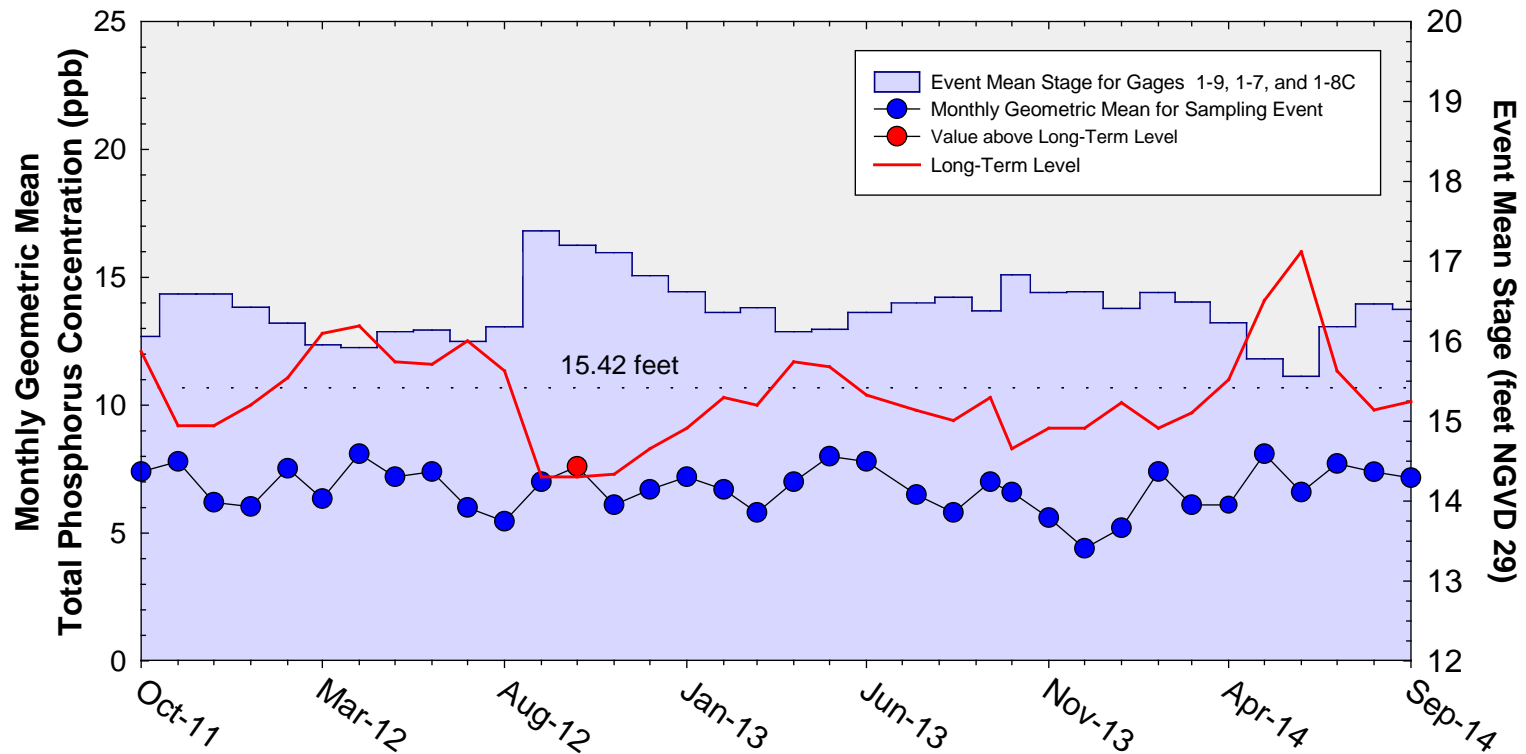
Month	Geometric Mean TP Concentration (ppb)	Long-Term Level (ppb) Effective 12/31/2006	Average Stage (feet NGVD 29)	Number of Samples
Jul-2014	7.7	11.3	16.18	12
Aug-2014	7.4	9.8	16.47	14
Sep-2014	7.2	10.1	16.40	14
Oct-2014	7.9*	7.2	17.33	14
Nov-2014	6.0	7.3	17.10	14
Dec-2014	5.5	7.6	17.01	14

Note: October to December 2014 values are preliminary.

\* October 2014 14-station geometric mean was higher than the long-term level for the month.

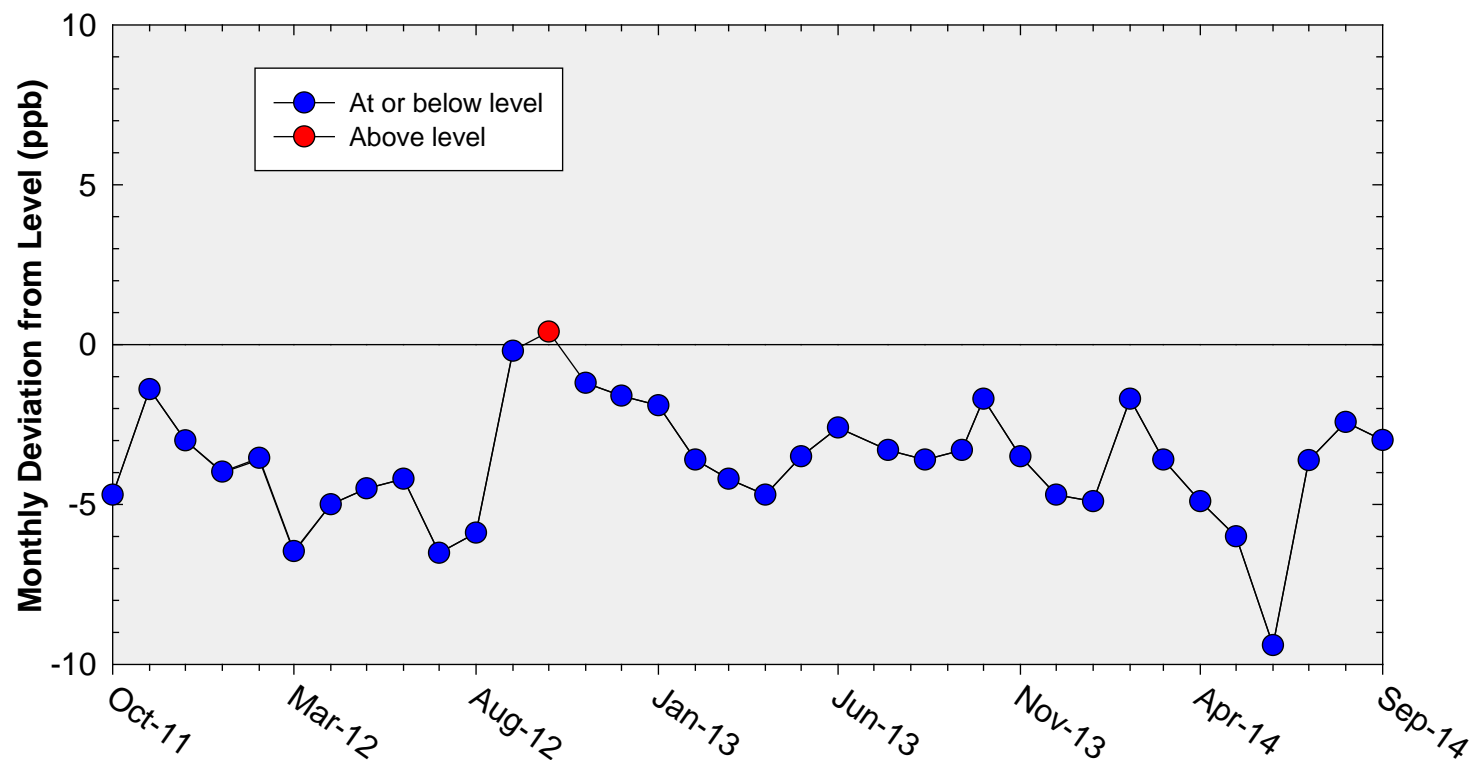
# A.R.M Loxahatchee National Wildlife Refuge

## Monthly Total Phosphorus Geometric Mean Concentrations



# A.R.M Loxahatchee National Wildlife Refuge

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



# Shark River Slough

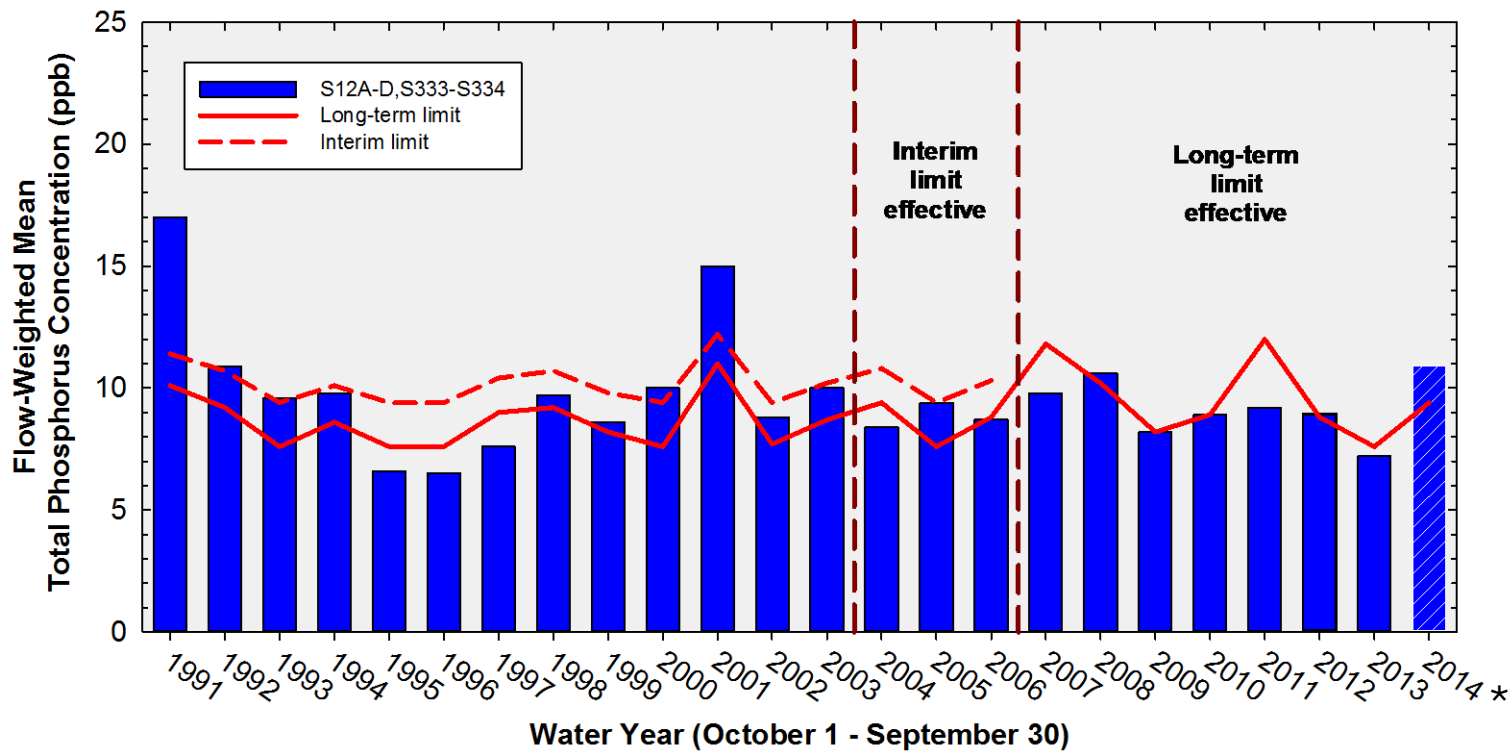
## TP Concentration Compliance Interim Tracking for July 2014 – September 2014

(October 2013 – September 2014 Flow Data for S12s are Provisional)

12-Month Period	Total Flow (kac-ft)	Flow-Weighted Mean TP Concentration (ppb)	Long-Term Limit (ppb) Effective 12/31/2006	Percent of Sampling Events Greater than 10 ppb	
				Guideline	Observed
Aug 2013 - Jul 2014	872.3	9.3	8.5	44.5	31.8
Sep 2013 - Aug 2014	747.9	10.3	9.2	47.8	40.9
Oct 2013 - Sep 2014	701.1	10.9	9.4	49.1	40.9

Note: All values are preliminary.

# Annual Flow-weighted Mean Concentrations Inflows to ENP through Shark River Slough

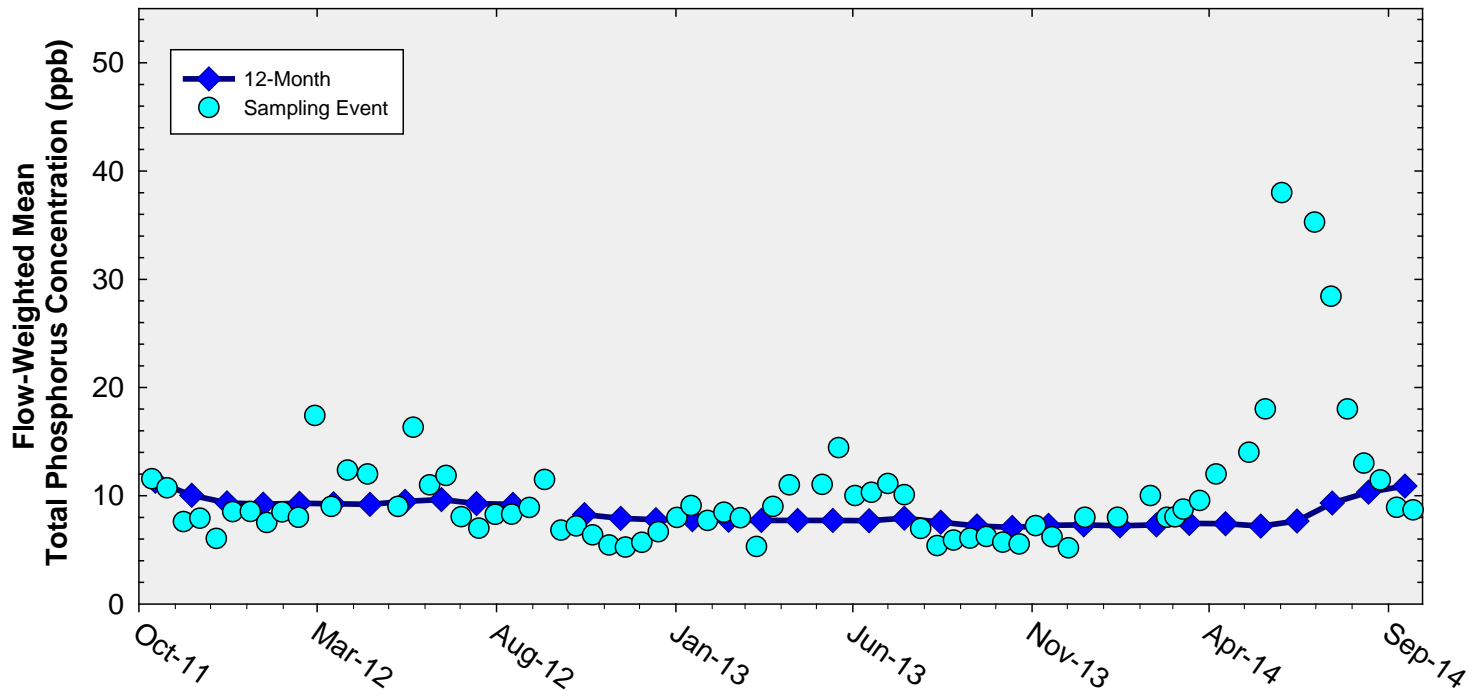


**12-month FWMC at the end of each water year compared to the TP interim and long-term limits**

\* WY2014 values are preliminary.

# Flow-Weighted Mean Concentrations Inflows to ENP through Shark River Slough

(October 2013 – September 2014 Flow Data for S12s are Provisional)

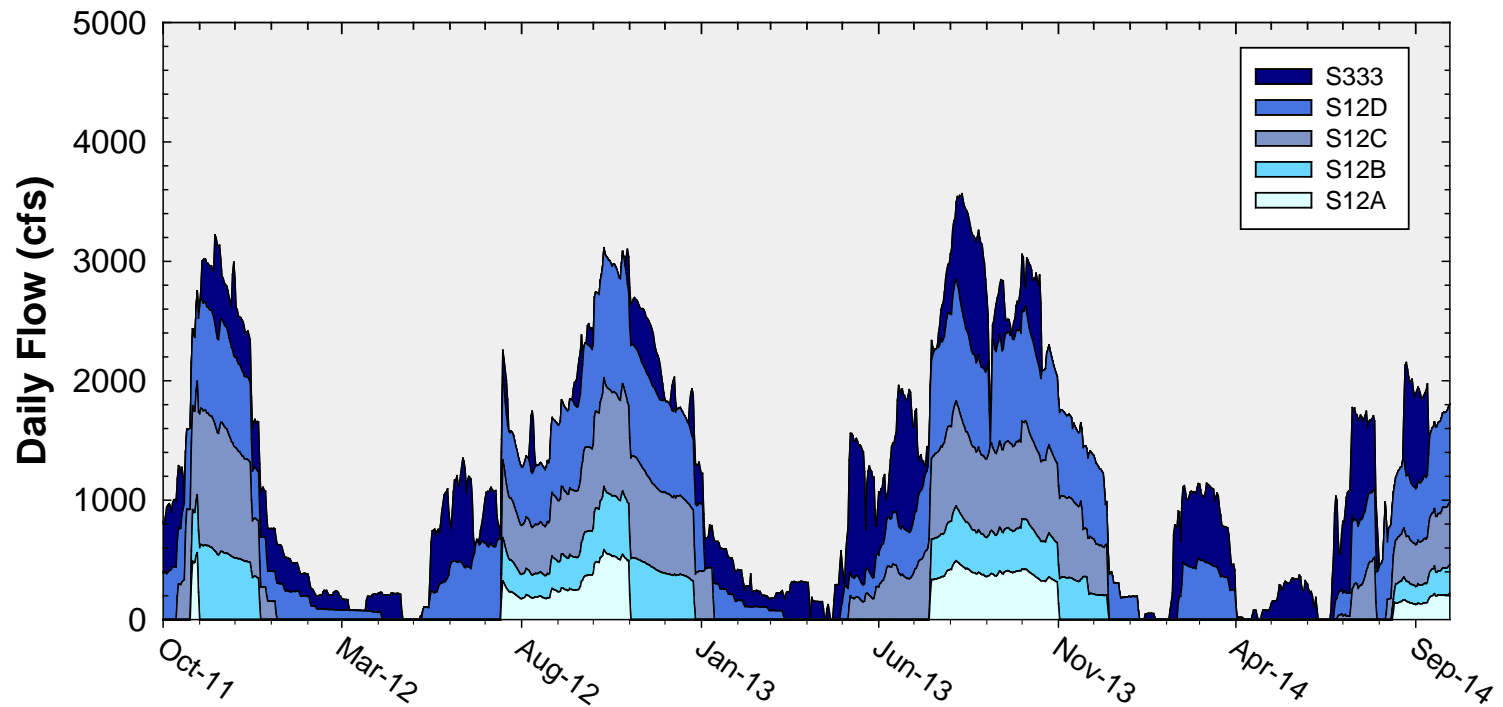


**12-month FWMC at the end of each month and the composite TP concentration for each sampling event**



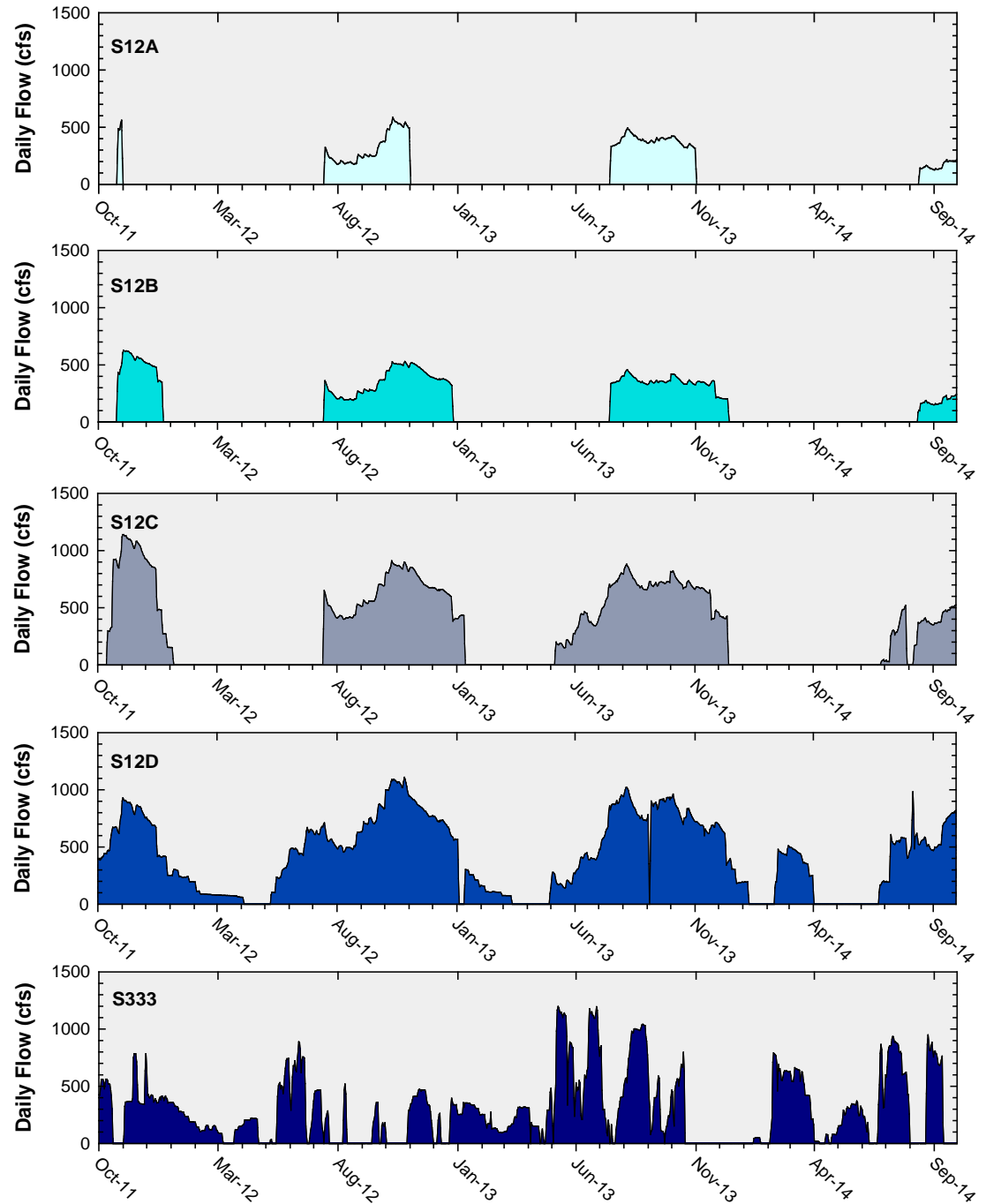
# Shark River Slough Daily Flows

(October 2013 – June 2014 Flow Data for S12s are Provisional.)

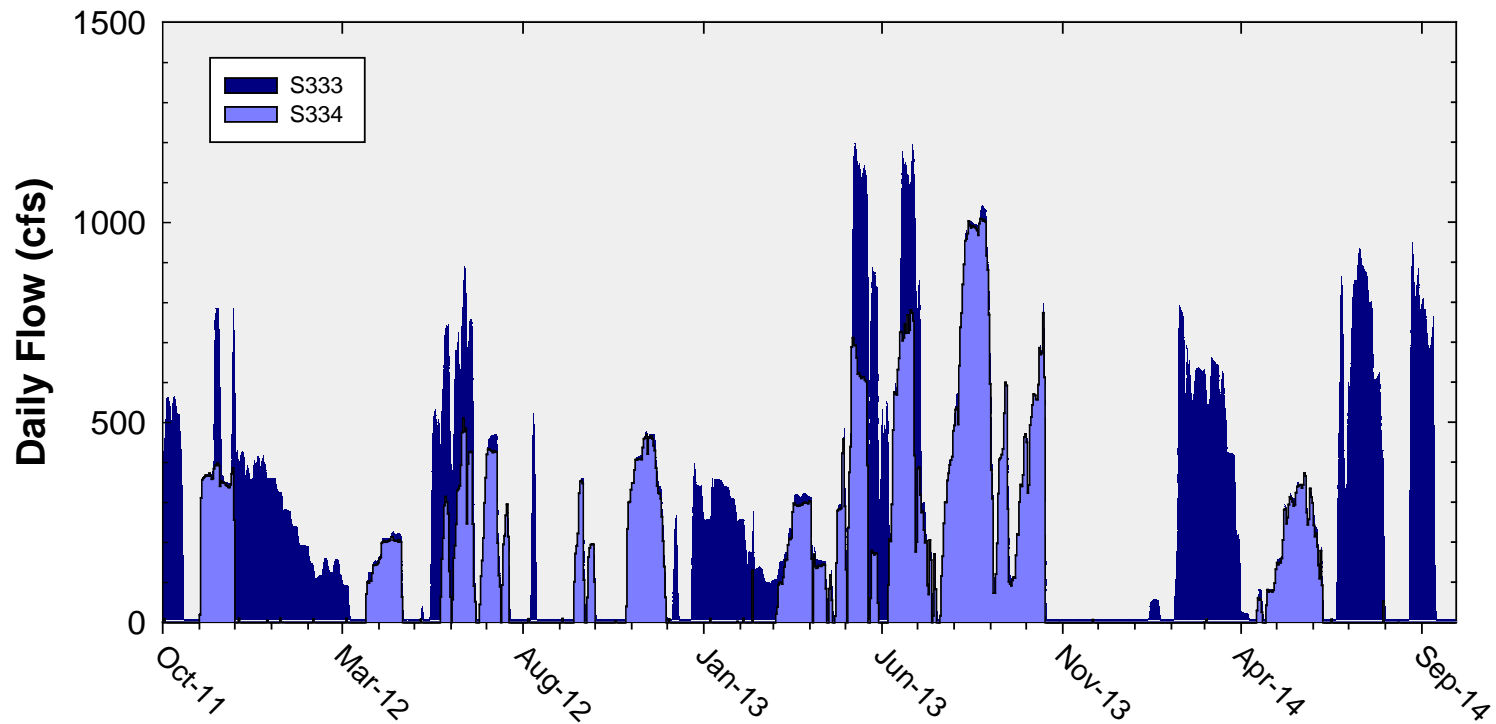


# Daily Flows at individual inflow structures to Shark River Slough

(October 2013 – September 2014 Flow Data for S12s are Provisional)



## Daily Flows at S333 and S334



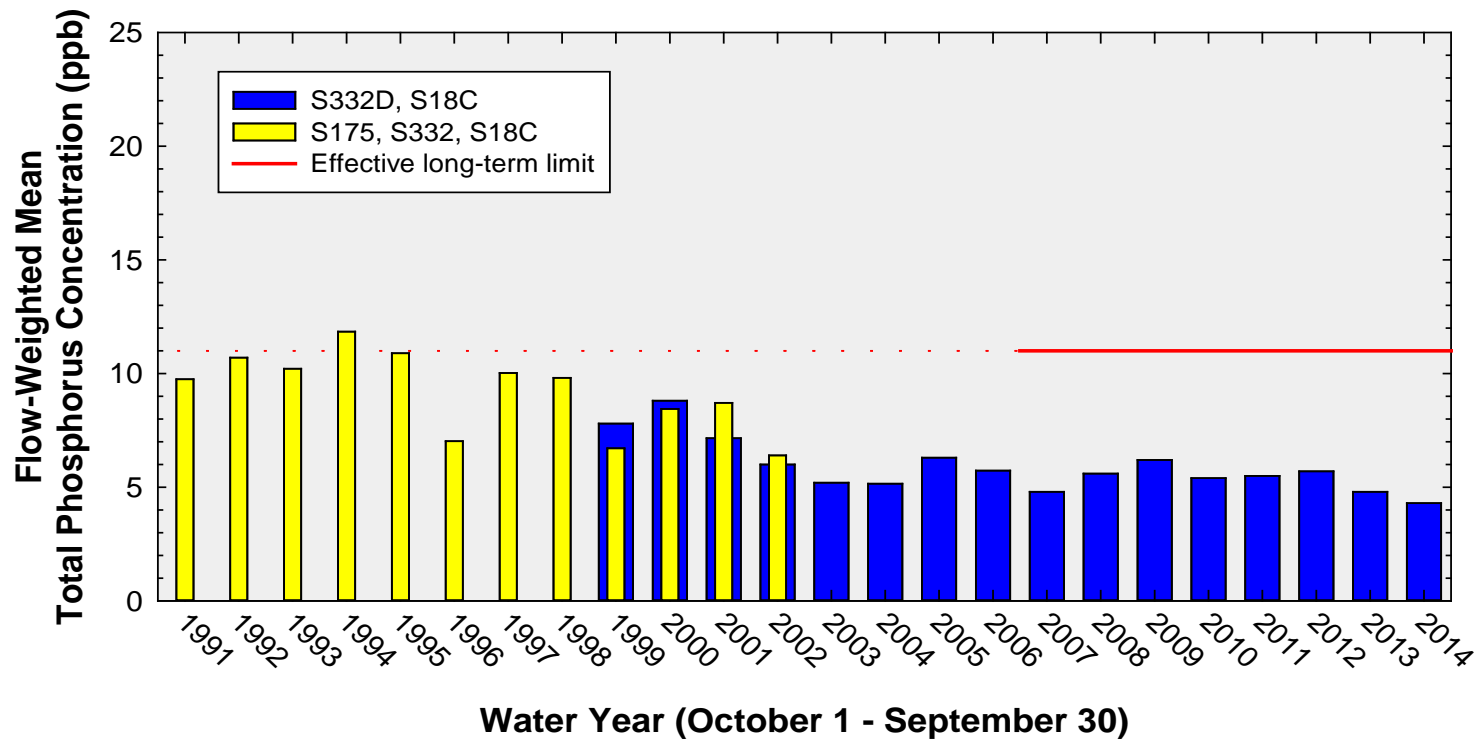


# Taylor Slough and Coastal Basins TP Concentration Compliance Tracking for July 2014 – September 2014

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
Aug 2013 - Jul 2014	203.2	4.5	11.0	53.1	1.3
Sep 2013 - Aug 2014	203.8	4.5	11.0	53.1	1.3
Oct 2013 - Sep 2014	196.5	4.3	11.0	53.1	1.3

# Annual Flow-Weighted Mean Concentrations

Inflows to the ENP through Taylor Slough and Coastal Basins

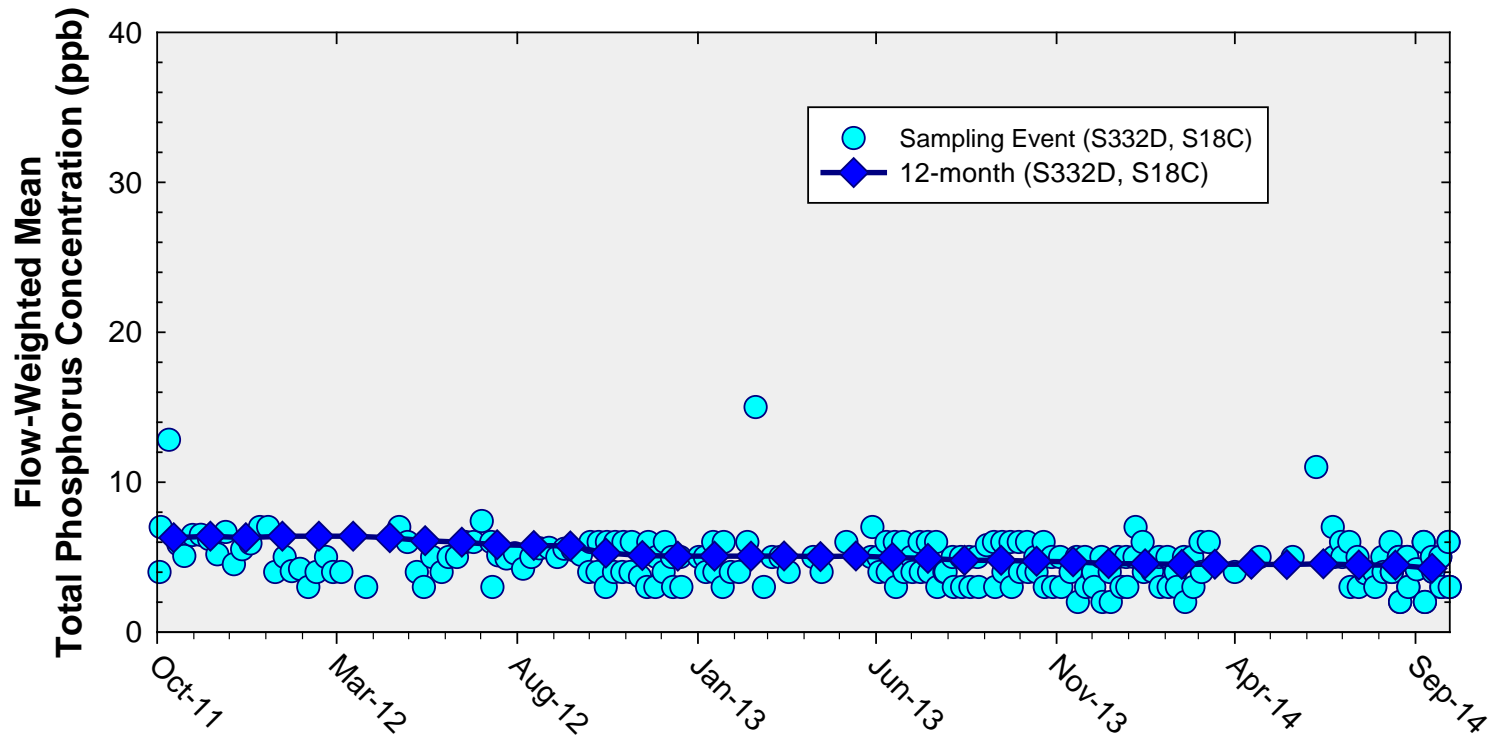


The 12-month FWMC at the end of each water year compared to the 11 ppb long-term TP limit

Note: S174 was plugged in September 2007.

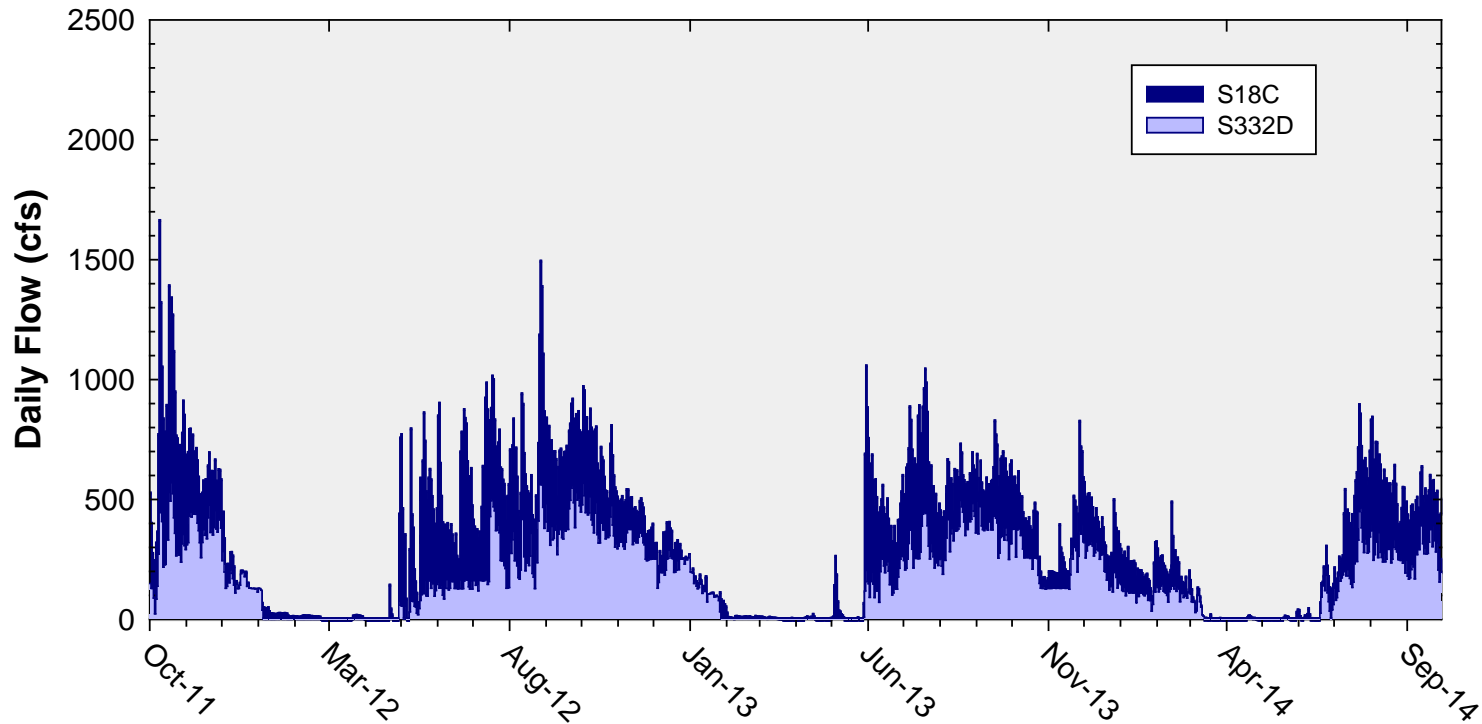
# Flow-Weighted Mean Concentrations

Inflows to the ENP through Taylor Slough and Coastal Basins



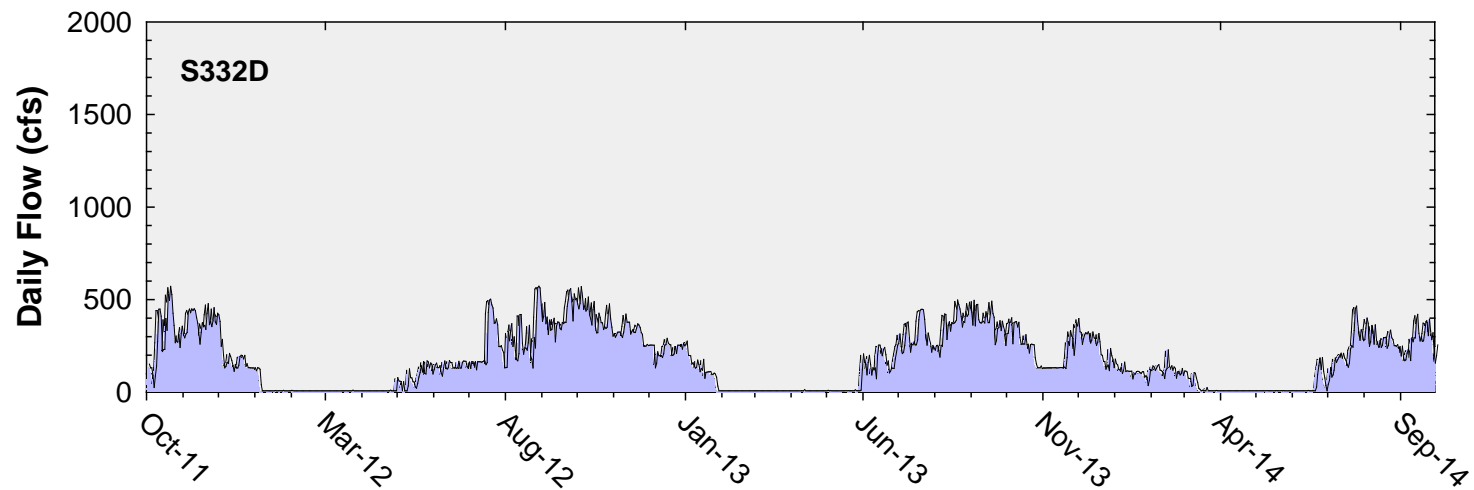
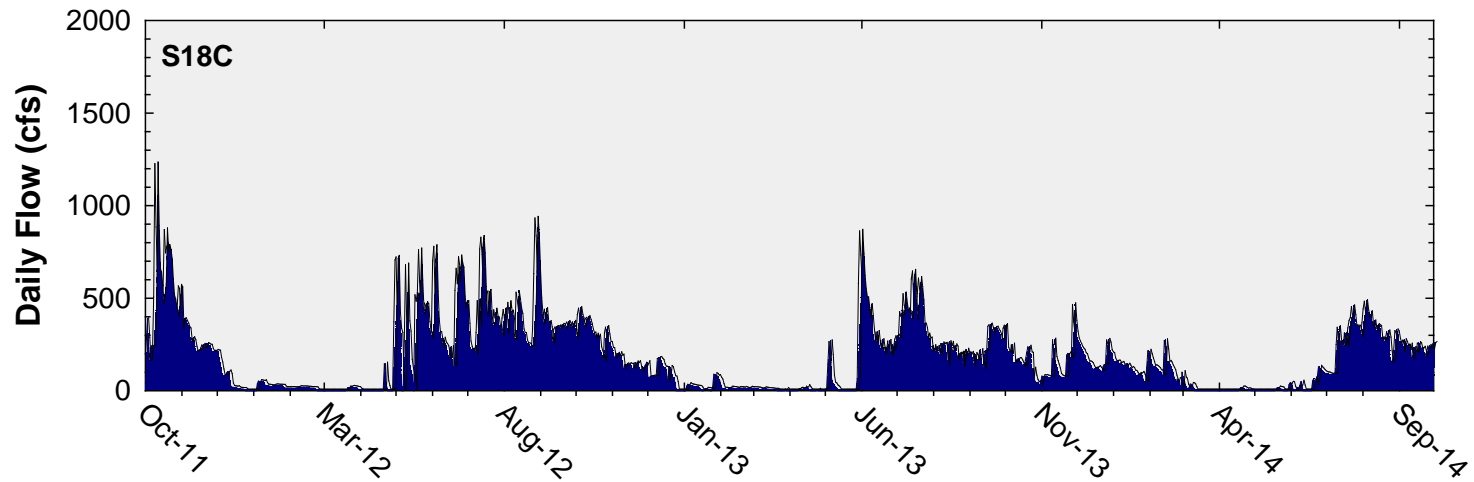
The 12-month FWMC at the end of each month and the composite TP concentration for each sampling event

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

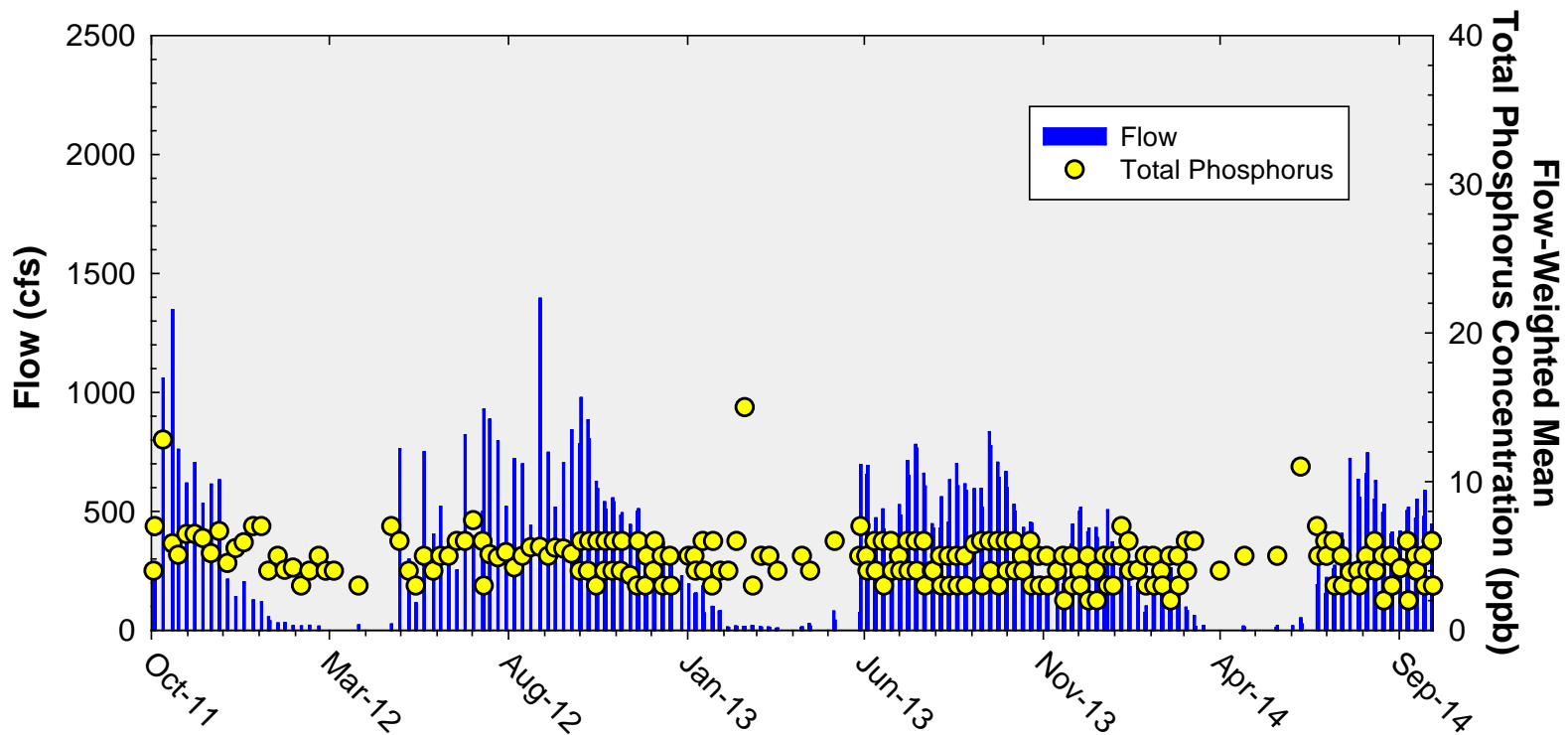




# Daily Flows at Individual Taylor Slough and Coastal Basins Structures into ENP



# 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

