

SETTLEMENT AGREEMENT REPORT

July – September 2013

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Water Quality Bureau

Technical Oversight Committee
April 1, 2014



sfwmd.gov

SUMMARY

Month	Geometric Mean TP Concentration (ppb)	Long-term Level (ppb)	Mean Stage (feet NGVD 29)	Number of Samples	
Arthur R. Marshall Loxahatchee National Wildlife Refuge					
Jul 2013	6.5	9.8	16.48	14	
Aug 2013	5.8	9.4	16.55	14	
Sep 2013	7.0	10.3	16.38	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
Everglades National Park – Shark River Slough					
Jul 2013	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 2013					
Sep 2013					
Everglades National Park – Taylor Slough and Coastal Basins					
Jul 2013	264.0	4.9	11.0	53.1	1.4
Aug 2013	255.8	4.8	11.0	53.1	1.4
Sep 2013	248.0	4.8	11.0	53.1	1.3

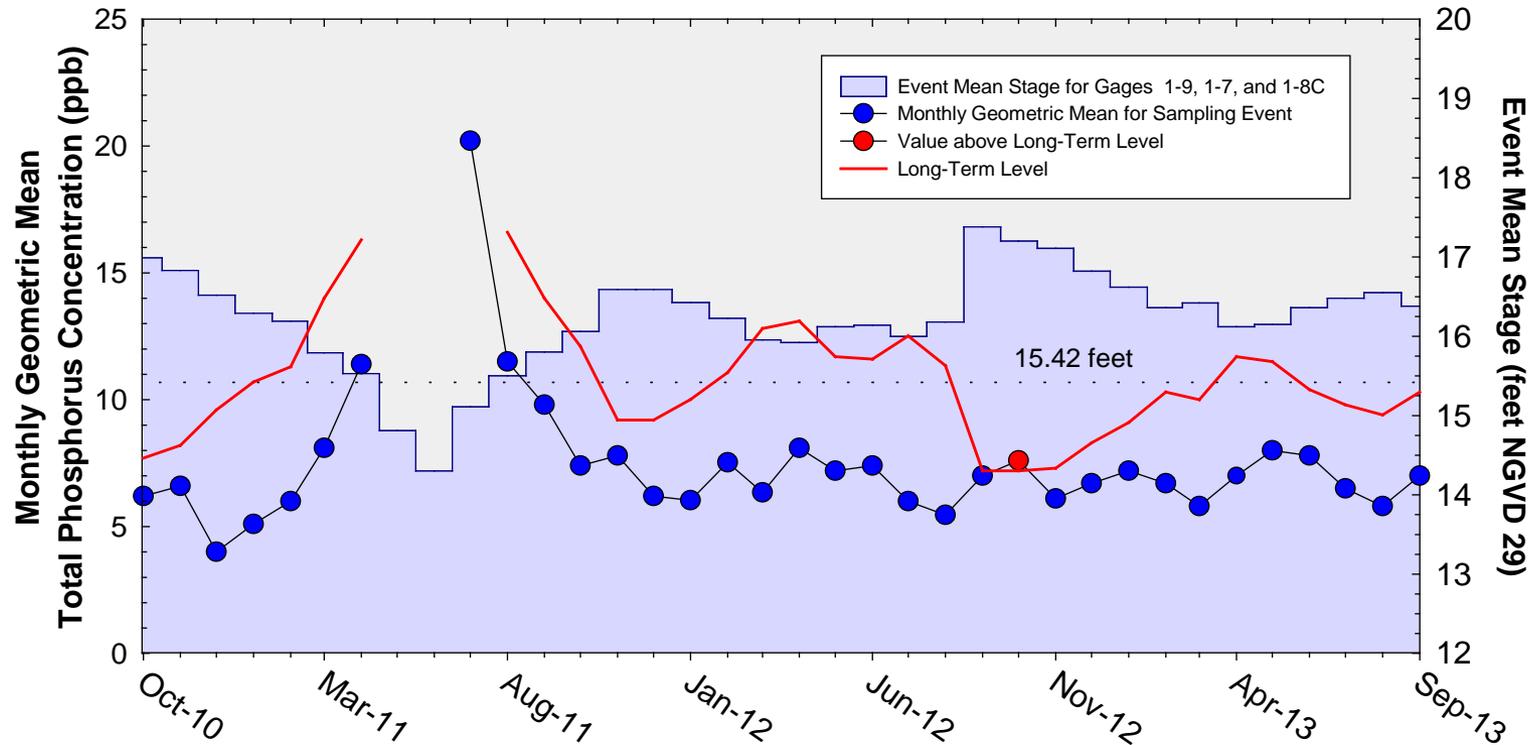
Refuge TP Compliance Tracking For July 2013 – February 2013

Month	Geometric Mean TP Concentration (ppb)	Long-Term Level (ppb) Effective 12/31/2006	Average Stage (feet NGVD 29)	Number of Samples
Jul-2013	6.5	9.8	16.48	14
Aug-2013	5.8	9.4	16.55	14
Sep-2013	7.0	10.3	16.38	14
Oct-2013	6.6	8.3	16.83	14
Nov-2013	5.6	9.1	16.62	14
Dec-2013	4.4	9.1	16.63	13
Jan-2014	5.2	10.1	16.41	12
Feb-2014	7.4	9.1	16.61	14

Note: October 2013 to February 2014 are preliminary values.

A.R.M Loxahatchee National Wildlife Refuge

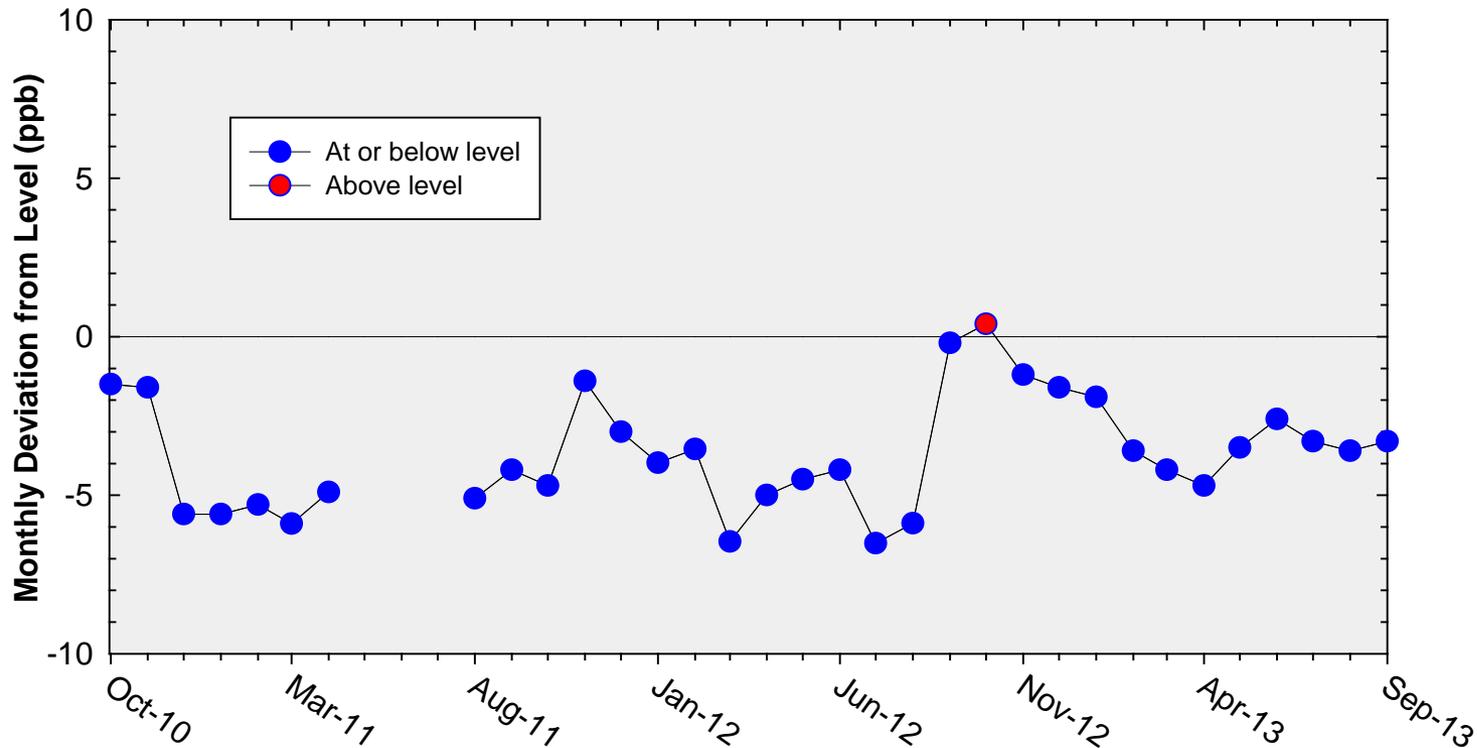
Monthly Total Phosphorus Geometric Mean Concentrations



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).

Shark River Slough

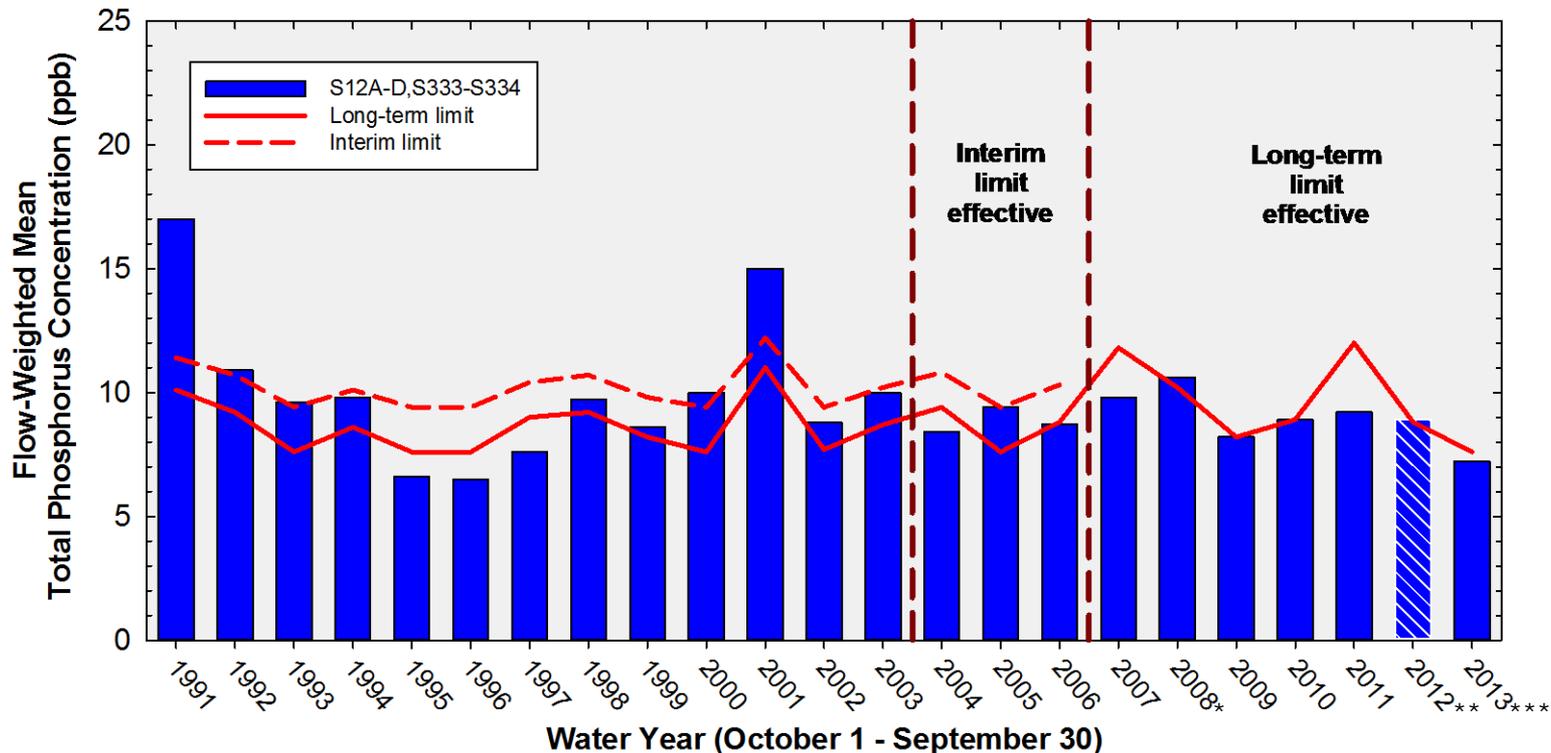
TP Concentration Compliance Interim Tracking for July 2013 – September 2013

(October 2012 – September 2013 Flow Data for S12s are Provisional)

12-Month Period	Total Flow* (kac-ft)	Flow-Weighted Mean TP Concentration (ppb)	Long-Term Limit* (ppb) <small>Effective 12/31/2006</small>	Percent of Sampling Events Greater than 10 ppb	
				Guideline*	Observed
Aug 2012 - Jul 2013	987.8	7.9	8.1	41.7	28.0
Sep 2012 - Aug 2013	1102.3	7.5	7.6	40.1	28.0
Oct 2012 - Sep 2013	1141.2	7.2	7.6	40.1	24.0

* There were 12 missing daily values for S12C in June 2013 through August 2013. The estimation for those missing values were not provided in these table.

Annual Flow-weighted Mean Concentrations Inflows to ENP through Shark River Slough (WY2013 Flow Data for S12s are Provisional)



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

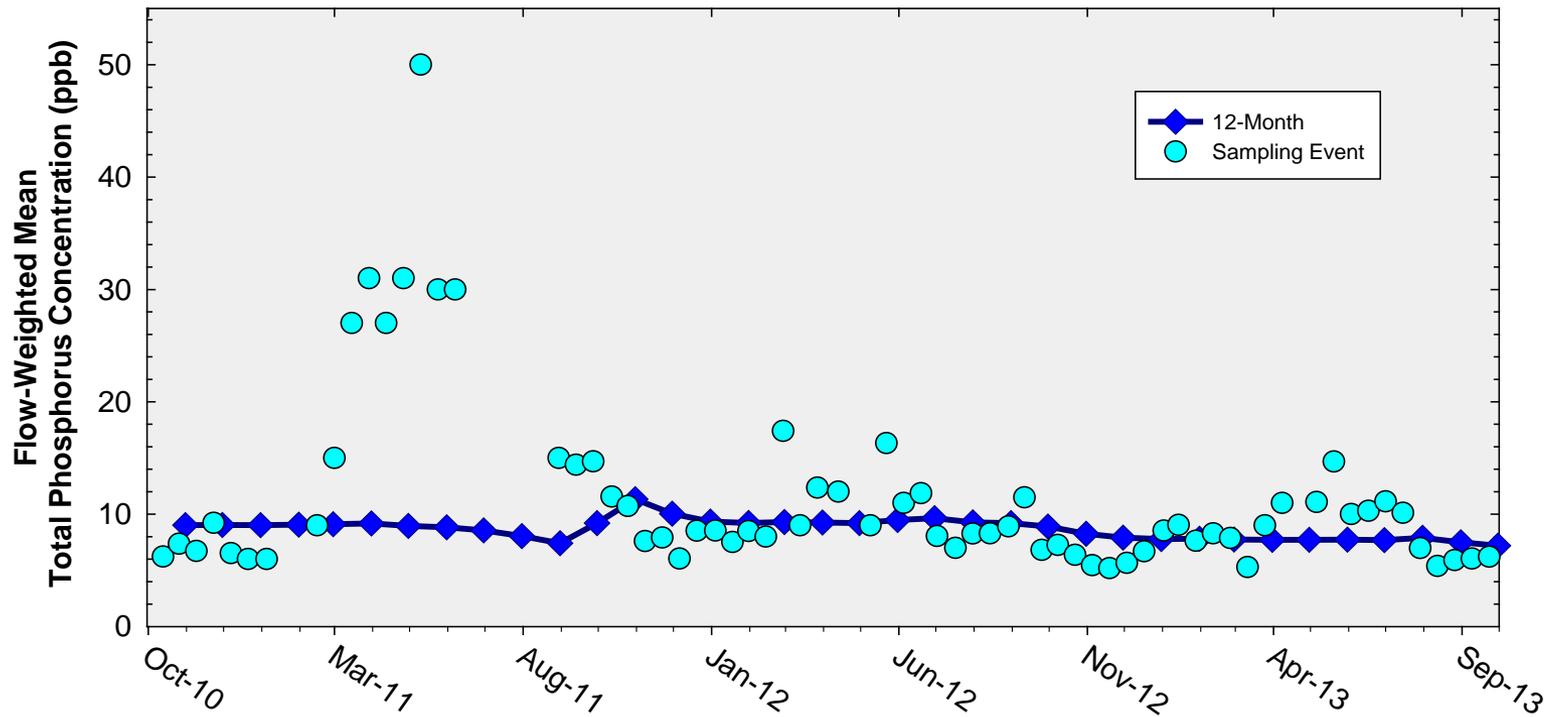
* TOC determined WY2008 exceedance did not constitute a violation of the long-term limit.

** WY2012 FWMC was 8.9 ppb without the resampled datum, and 8.8 ppb with the resampled datum. The long-term limit was 8.8 ppb.

*** WY2013 values are preliminary.

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

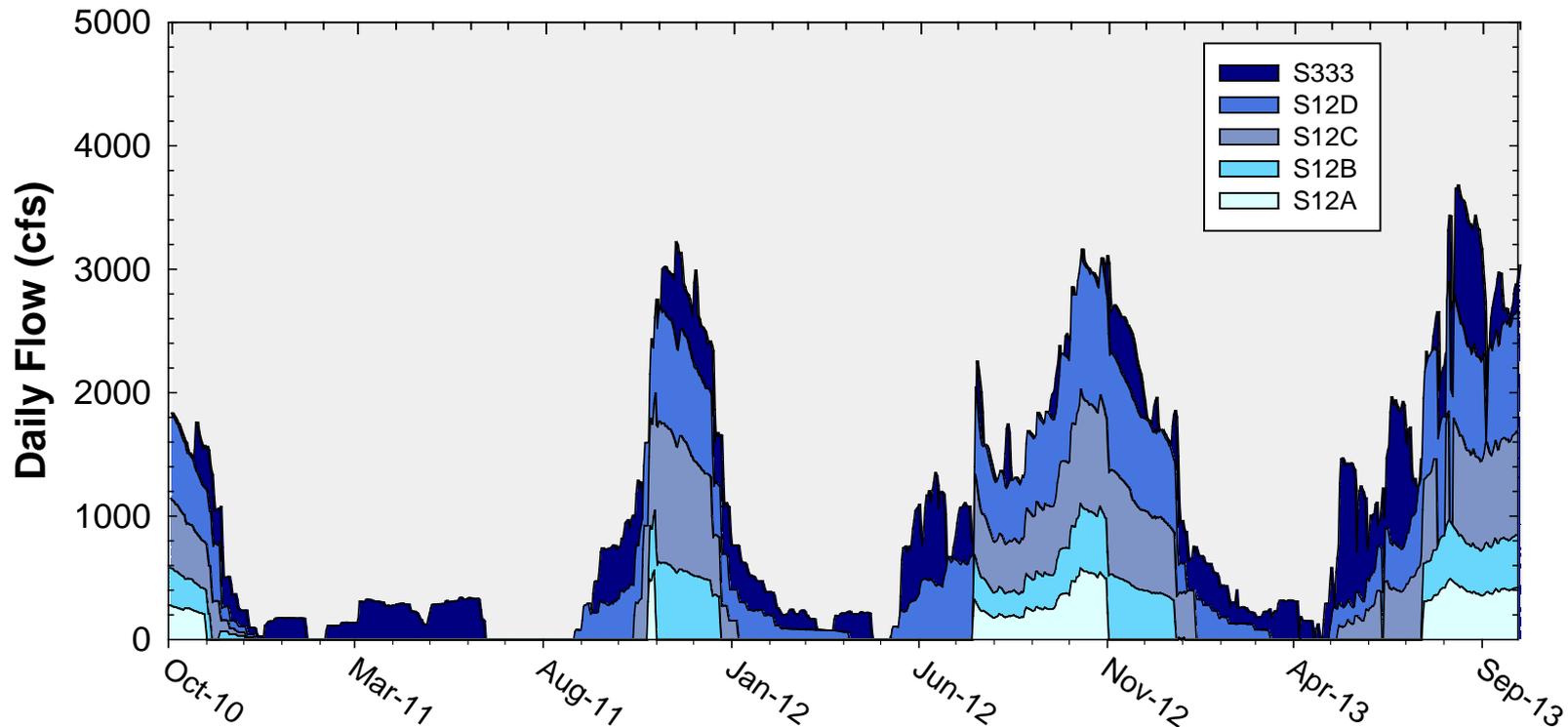
(October 2012 – September 2013 Flow Data for S12s are Provisional)



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

Shark River Slough Daily Flows

(October 2012 – September 2013 Flow Data for S12s are Provisional)

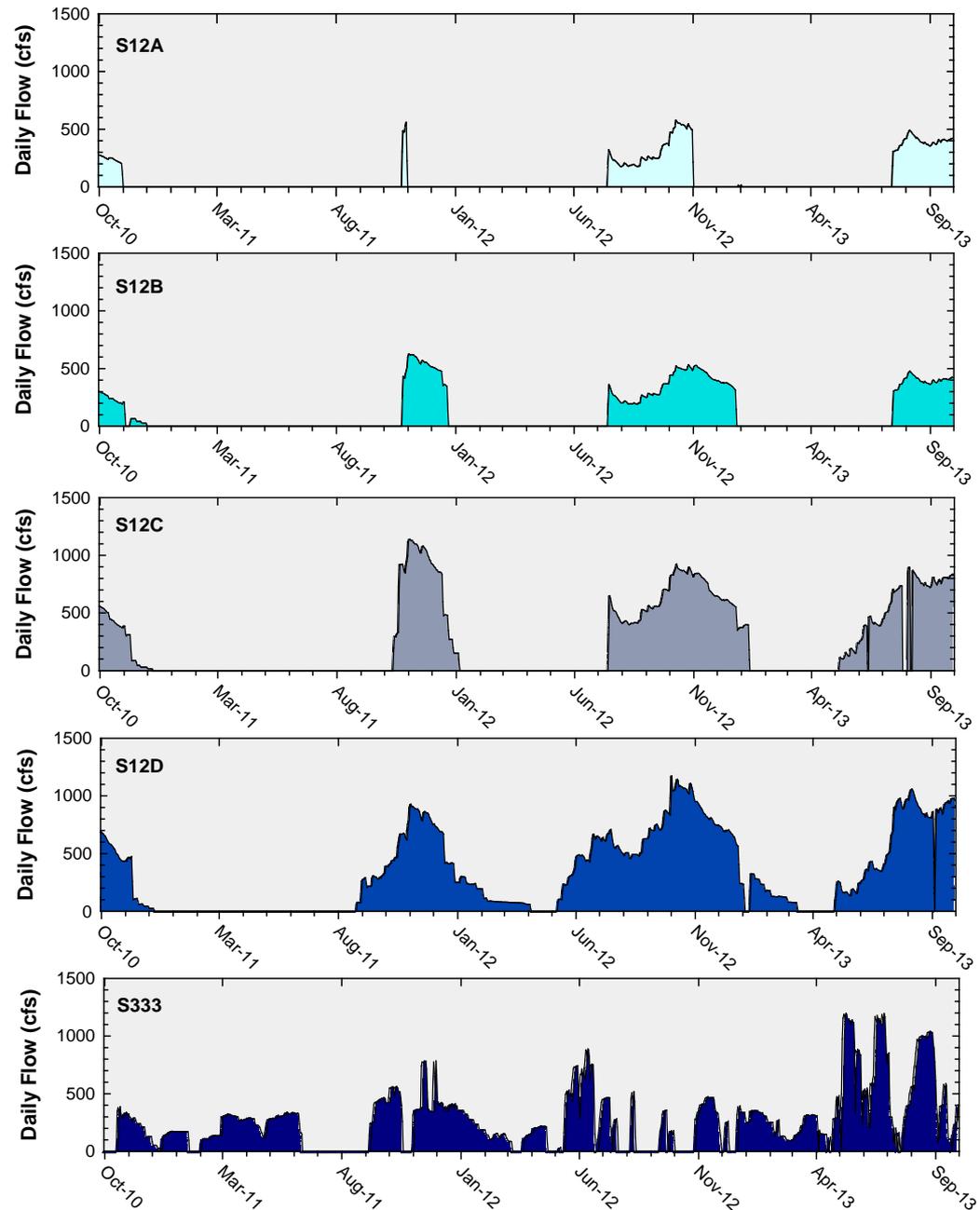


Note: There were 12 missing daily flow data at S12C in June to August 2013.

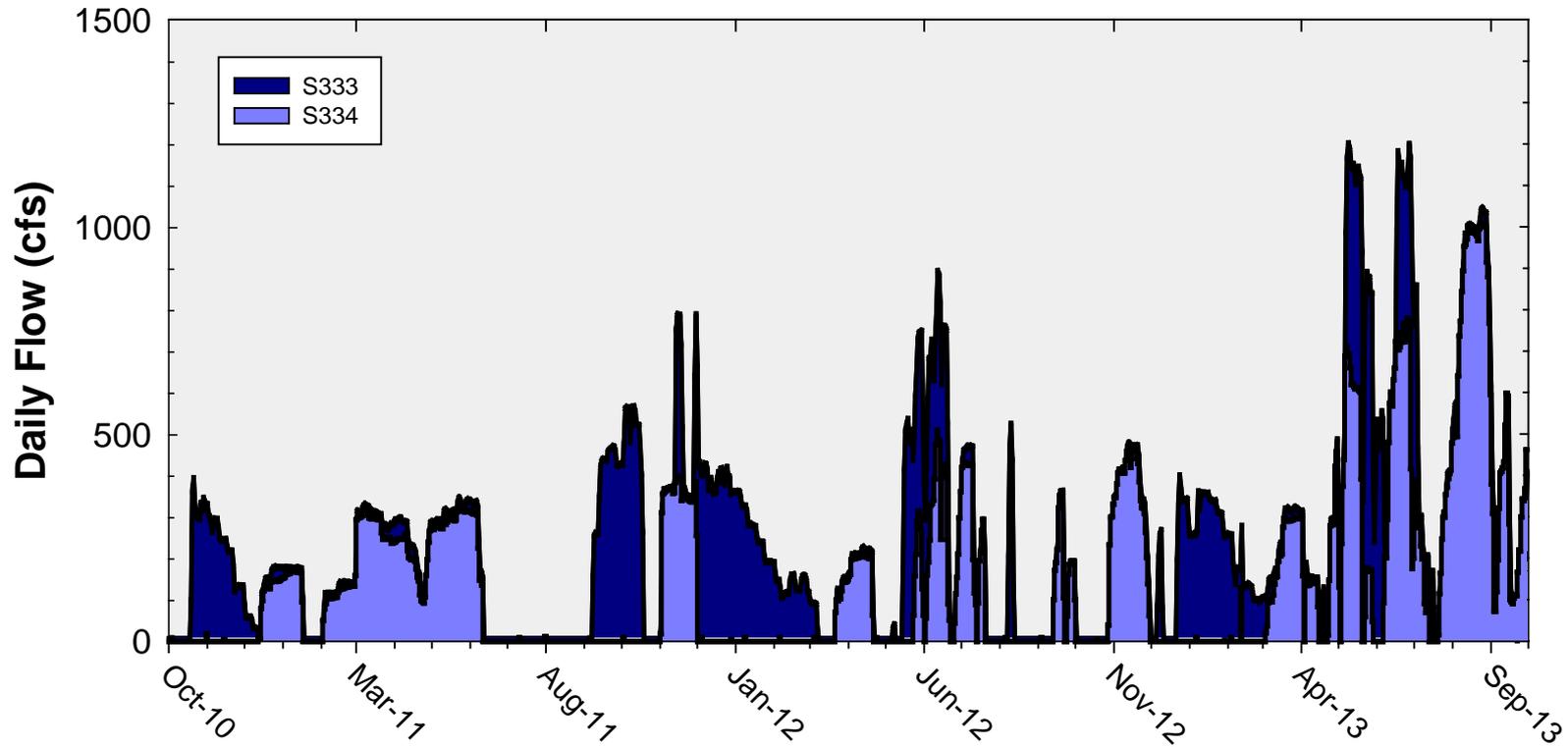
Daily Flows at individual inflow structures to Shark River Slough

(October 2012 –
September 2013 Flow
Data for S12s are
Provisional)

Note: There were 12 missing daily flow data at S12C in June to August 2013



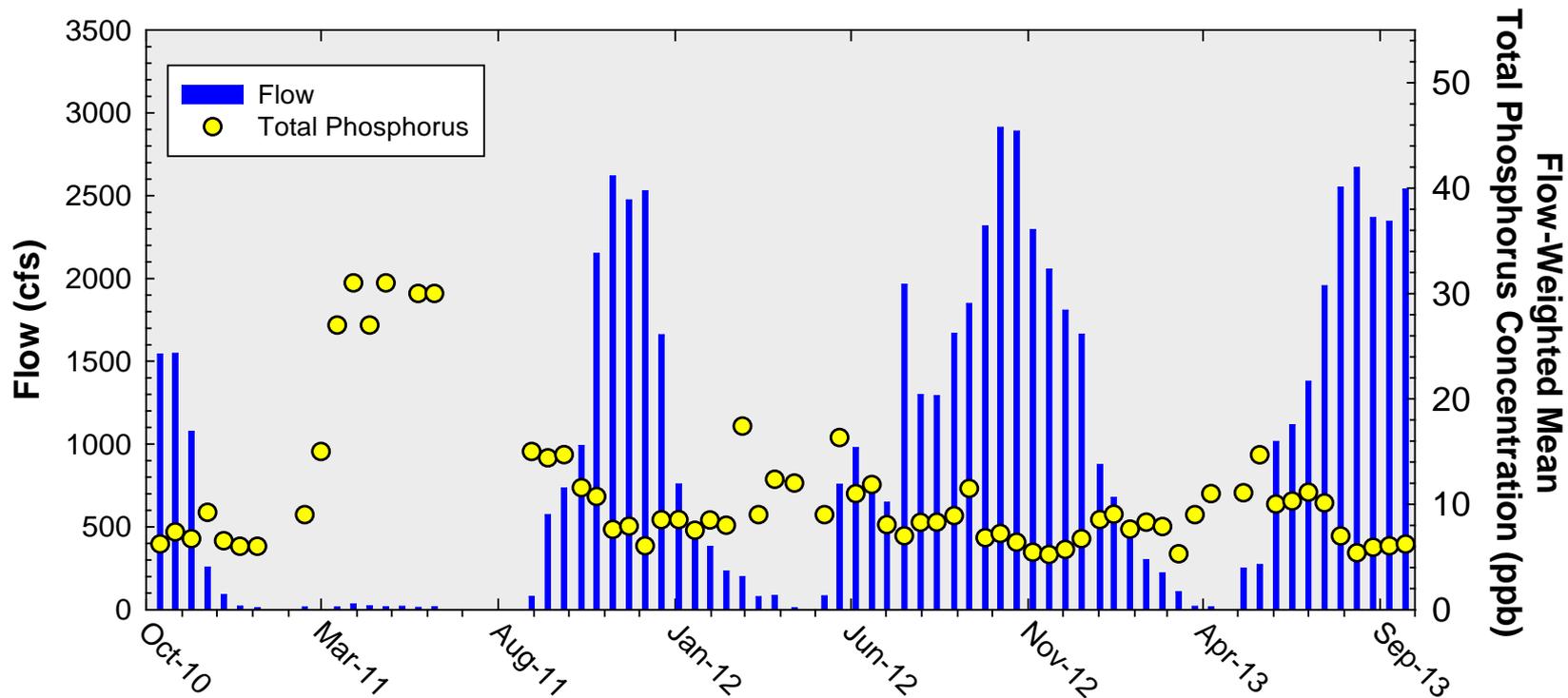
Daily Flows at S333 and S334



Shark River Slough

Sampling Event Flow and FWMC

(October 2012 – September 2013 Flow Data for S12s are Provisional)



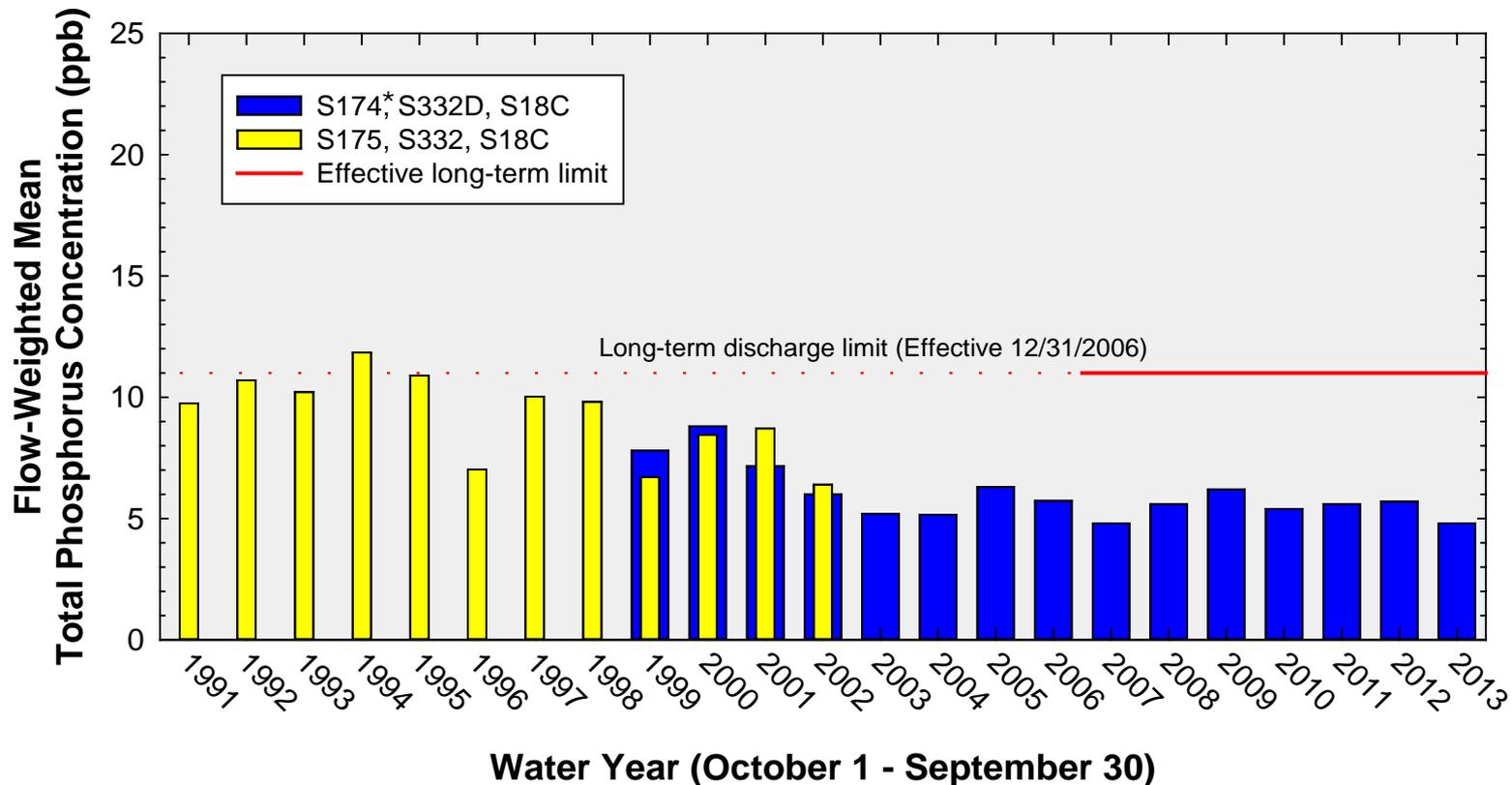
Flow at Shark River Slough structures and the corresponding TP FWMCs for individual sampling events

Taylor Slough and Coastal Basins TP Concentration Compliance Tracking for July 2013 – September 2013

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 2012 - Jul 2013	264.0	4.9	11.0	53.1	1.4
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Annual Flow-Weighted Mean Concentrations

Inflows to the ENP through Taylor Slough and Coastal Basins

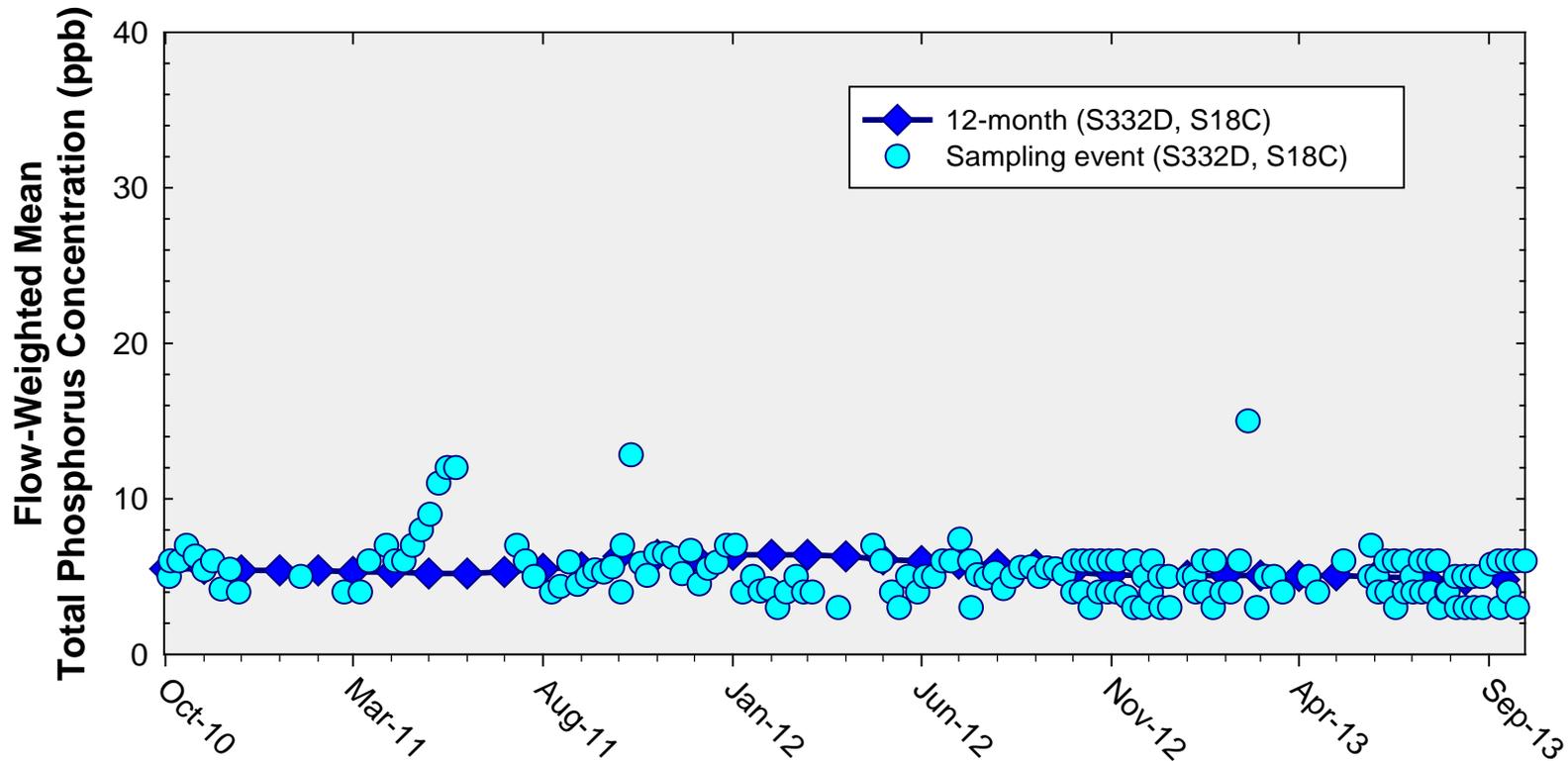


The 12-month FWMC at the end of each water year compared to the 11 ppb long-term TP limit

* S174 was plugged in September 2007

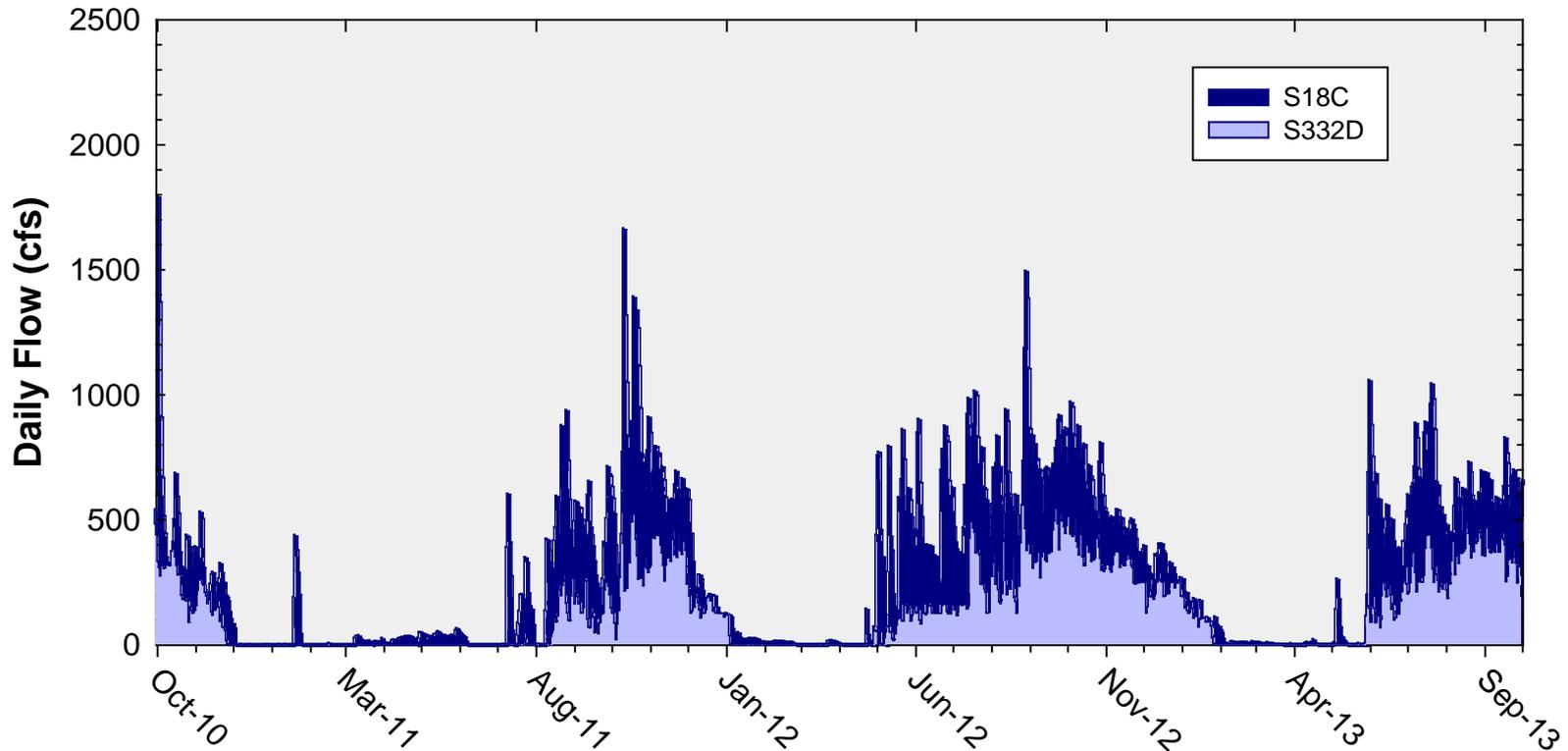
Flow-Weighted Mean Concentrations

Inflows to the ENP through Taylor Slough and Coastal Basins

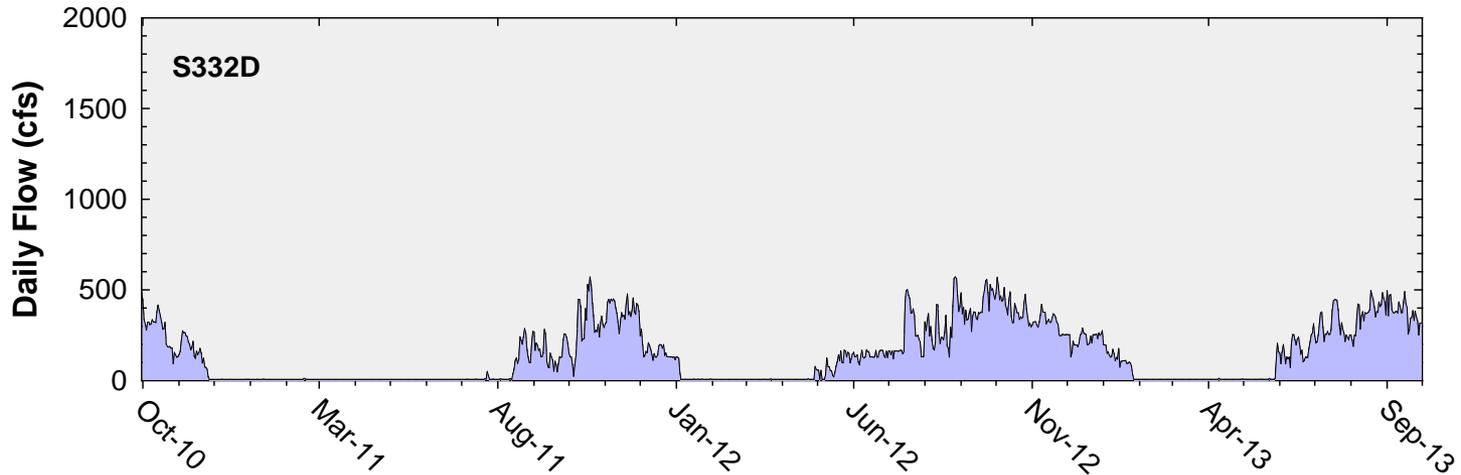
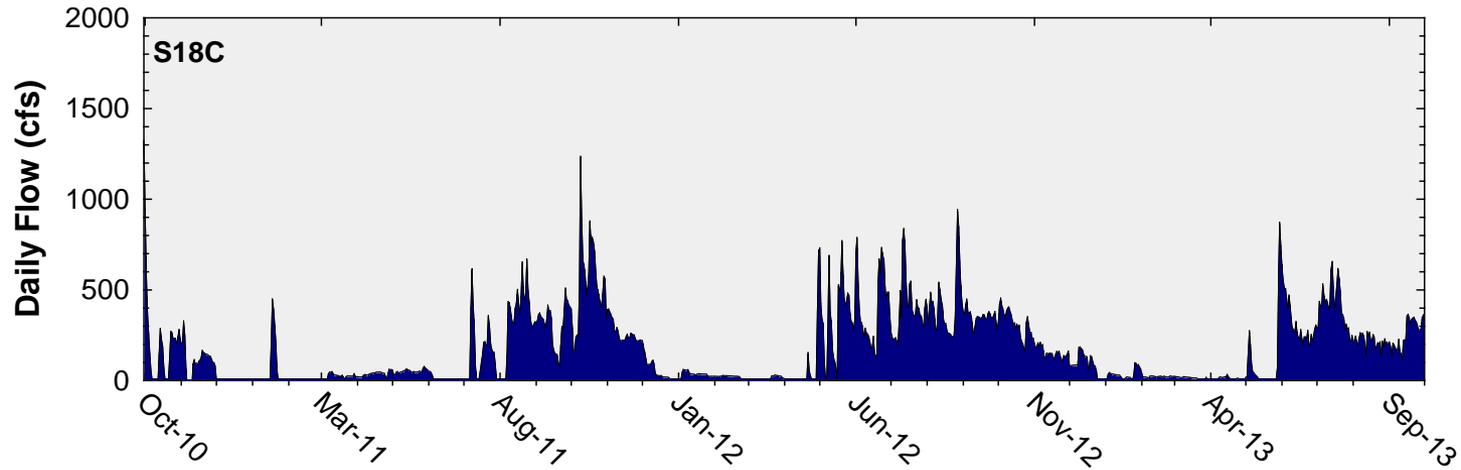


The 12-month FWMC at the end of each month and the composite TP concentration for each sampling event

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

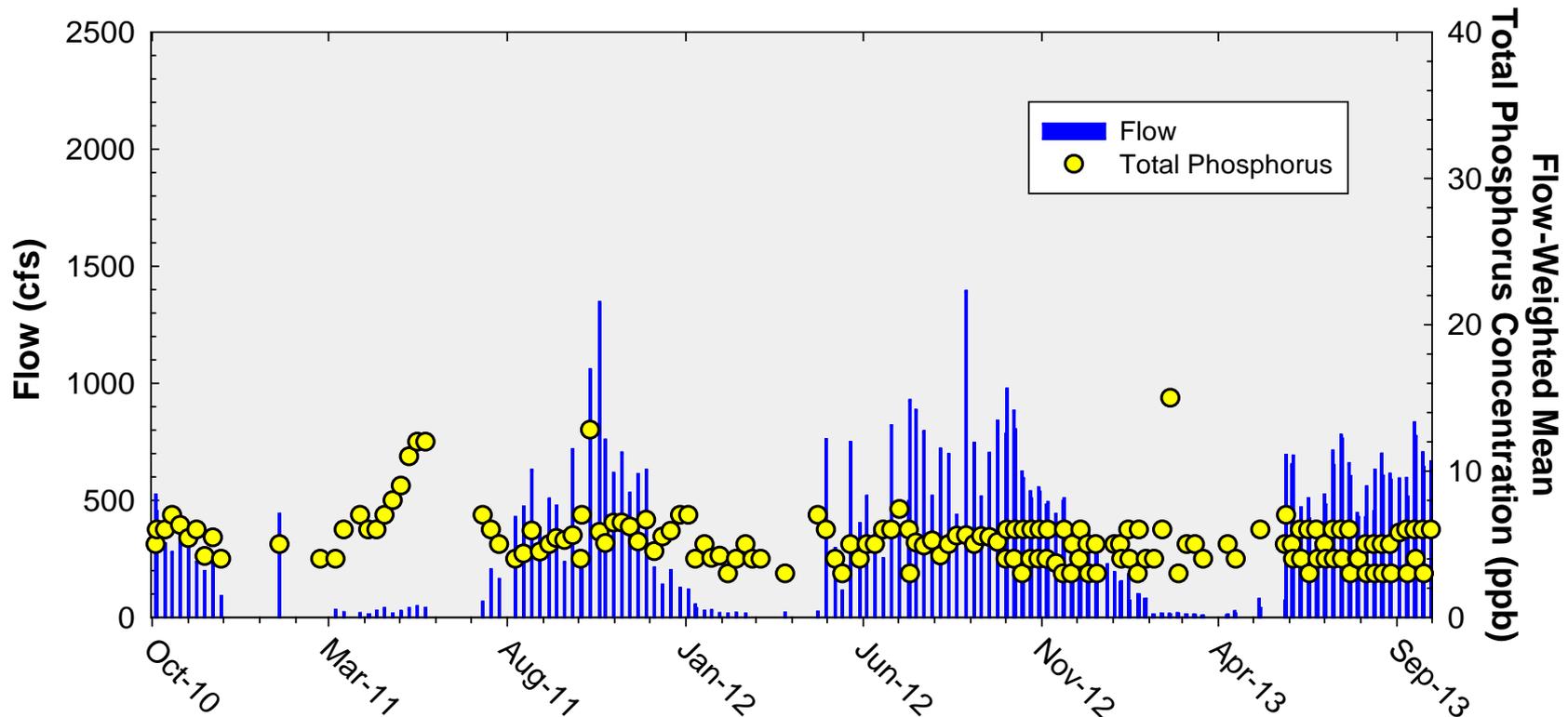


Daily Flows at individual Taylor Slough and Coastal Basins structures into the ENP



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

