Technical Oversight Committee

May 31, 2011

SETTLEMENT AGREEMENT REPORT

January - March 2011

Stuart Van Horn
Section Leader, Routine and Compliance Reporting
Restoration Sciences Department

SUMMARY

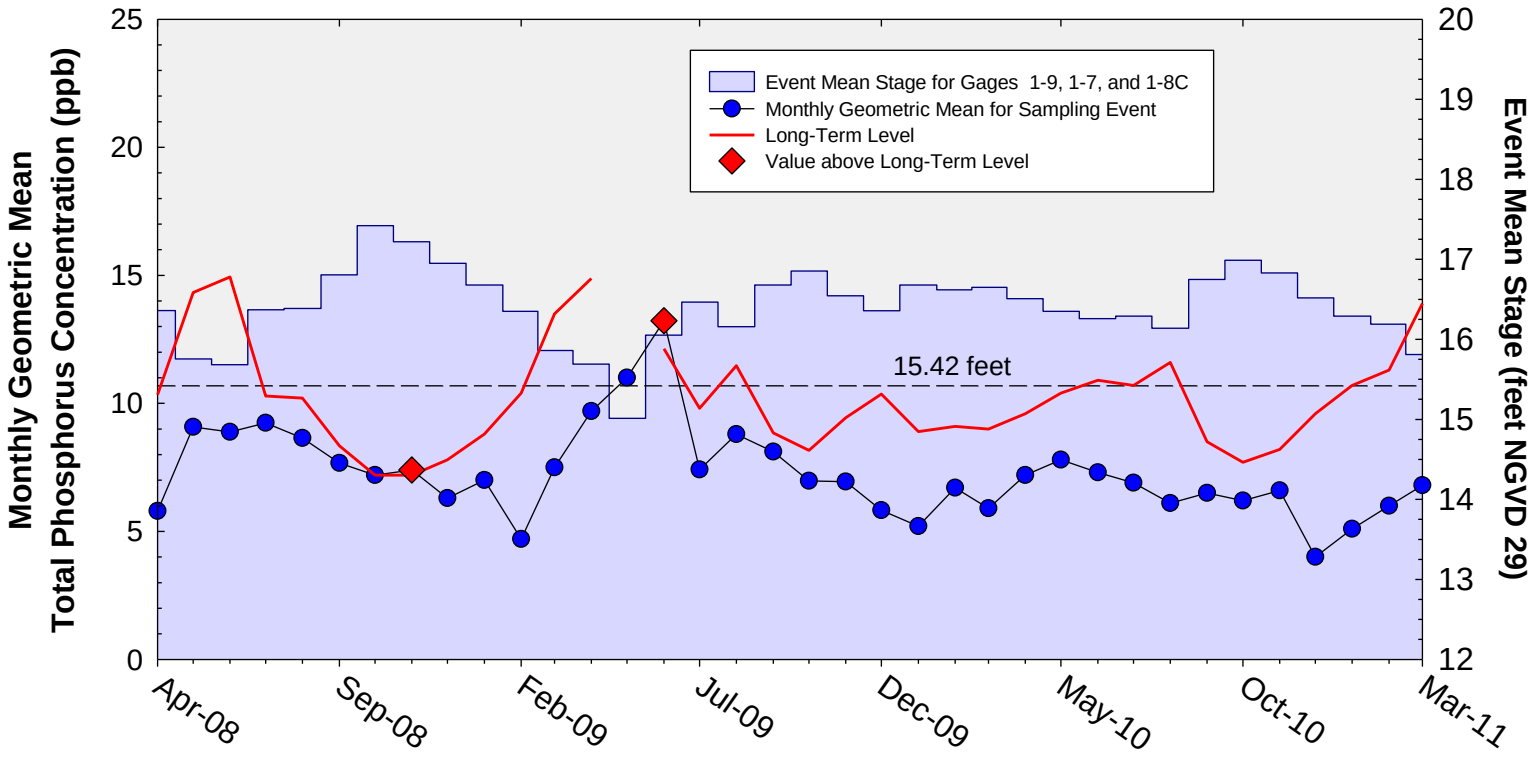
Month	Geometric Mean TP Concentration (ppb)	Long-term Level (ppb)	Mean Stage (ft NGVD 29)	Number of Samples
Arthur R. Marshall Loxahatchee National Wildlife Refuge				
Jan-2011	5.1	10.7	16.29	10
Feb-2011	6.0	11.3	16.19	10
Mar-2011	6.8 (8.1*)	13.9	15.81	6 (8*)

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					
Jan 2011	730.5	9.1	9.3	48.3	48.0
Feb 2011	695.2	9.1	9.5	49.3	45.8
Mar 2011	645.6	9.2	9.7	50.7	54.2
Everglades National Park – Taylor Slough and Coastal Basins					
Jan 2011	273.0	5.4	11.0	53.1	0.0
Feb 2011	253.5	5.4	11.0	53.1	0.0
Mar 2011	246.6	5.3	11.0	53.1	0.0

* Including the qualified data at LOX7 and LOX8

A.R.M Loxahatchee National Wildlife Refuge

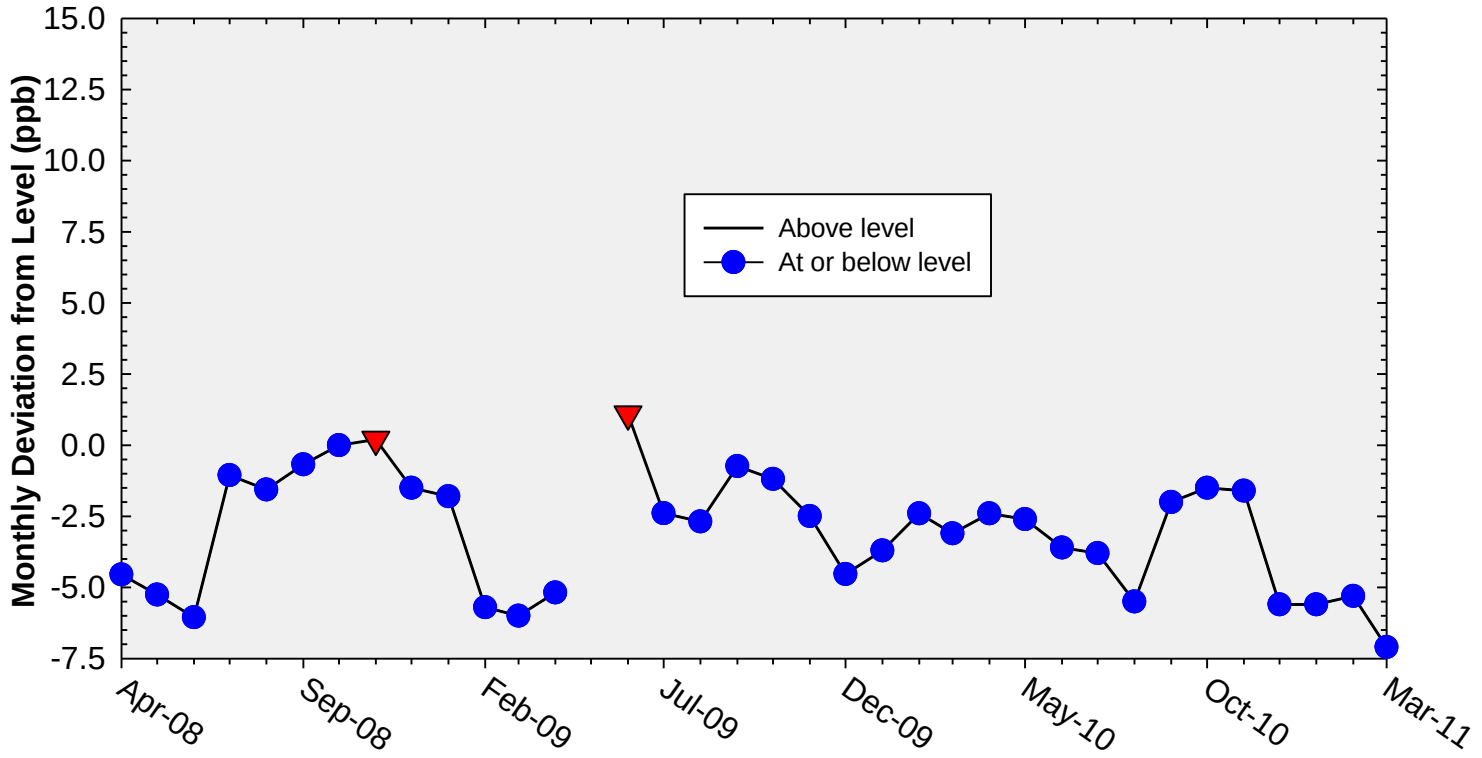
Monthly Total Phosphorus Geometric Mean Concentrations



Note: Long-term level was not applicable for May 2009 (average stage < 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 2009 (average stage < 15.42 ft).

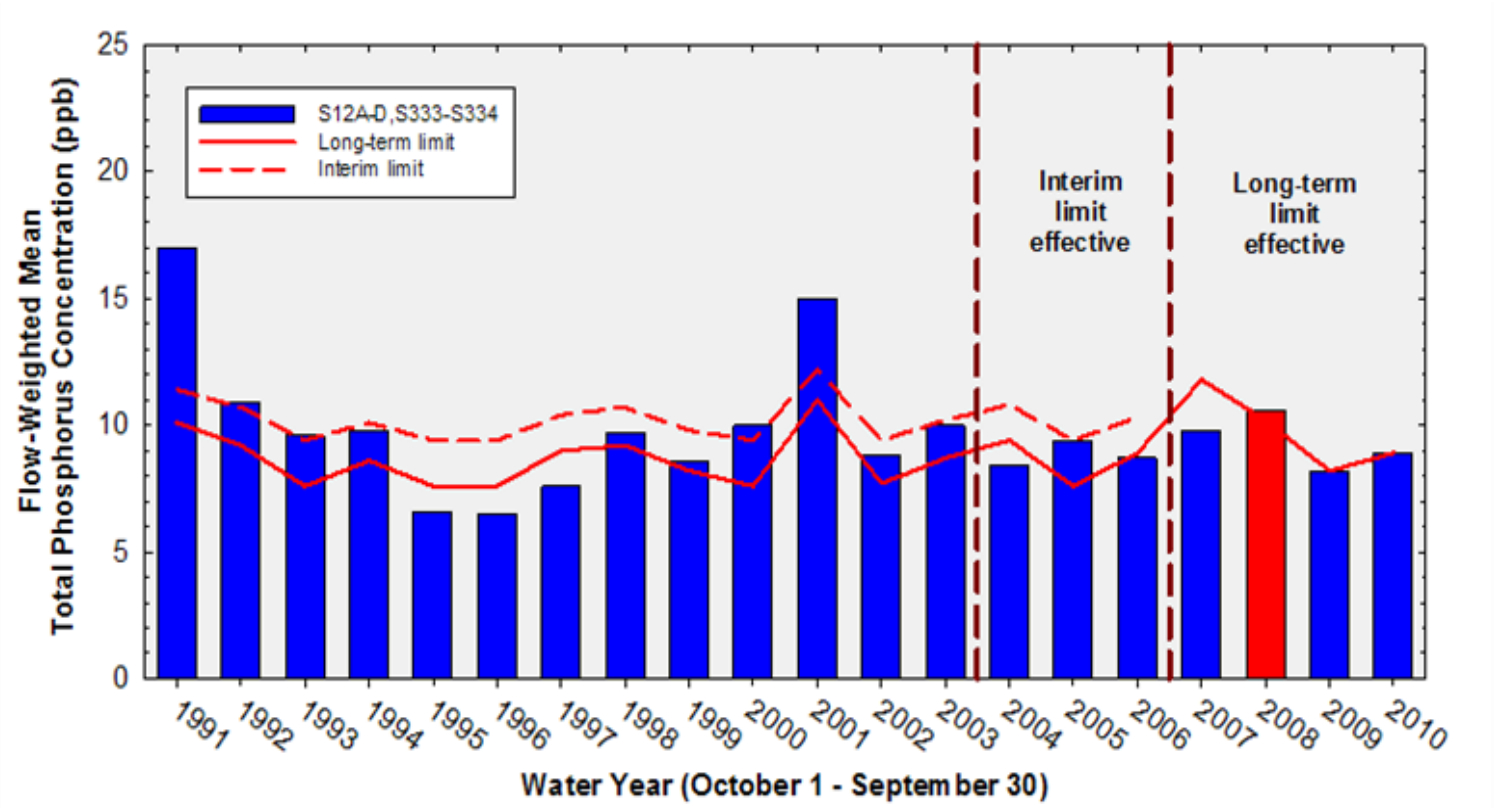
Refuge TP Compliance Tracking for January 2011 – May 2011

Month	Geometric Mean TP Concentration (ppb)	Long-Term Level (ppb) Effective 12/31/2006	Average Stage (ft NGVD 29)	Number of Samples
Jan-2011	5.1	10.7	16.29	10
Feb-2011	6.0	11.3	16.19	10
Mar-2011	6.8 (8.1*)	13.9	15.81	6 (8*)
Apr-2011	11.4	16.3	15.53	7
May-2011	No Data	Not Applicable	14.87	0

* Including the qualified data at LOX7 and LOX8

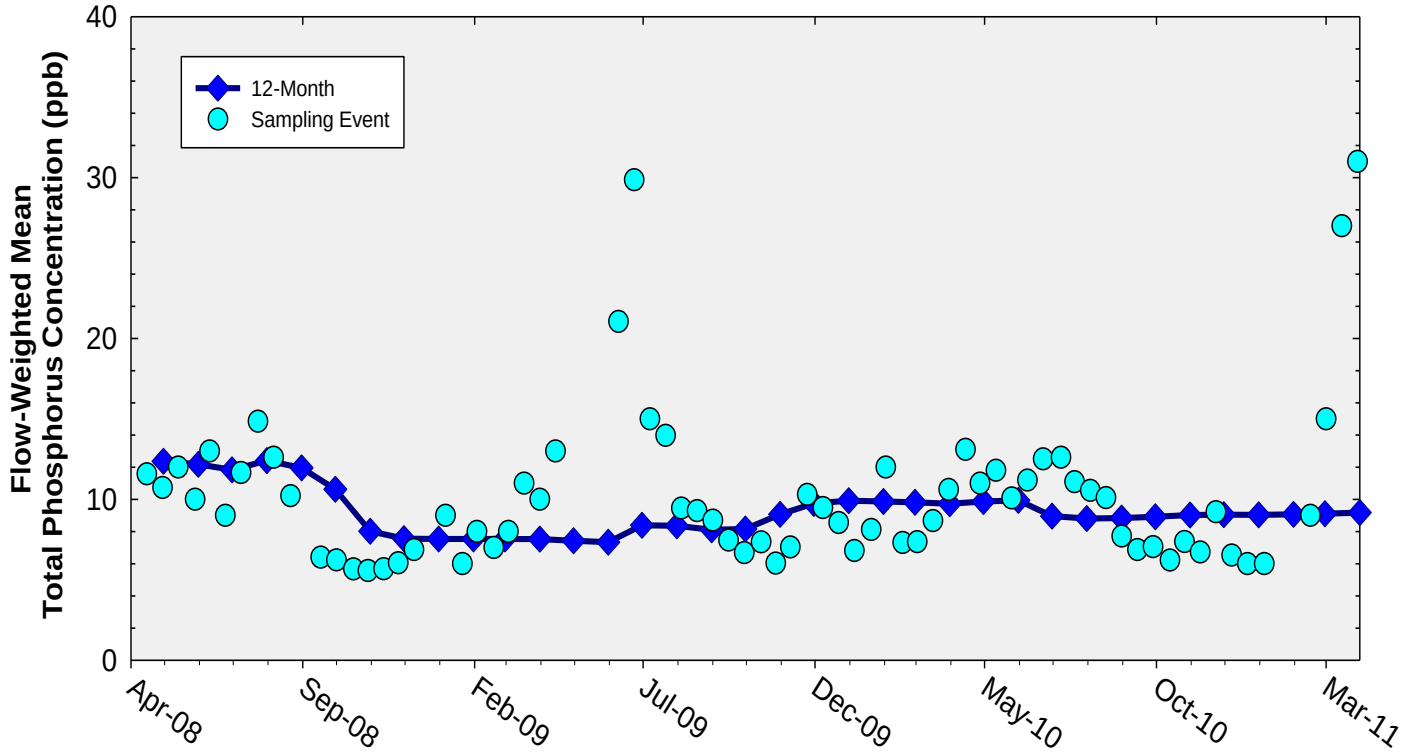
Note: April and May 2011 values are preliminary.

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

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

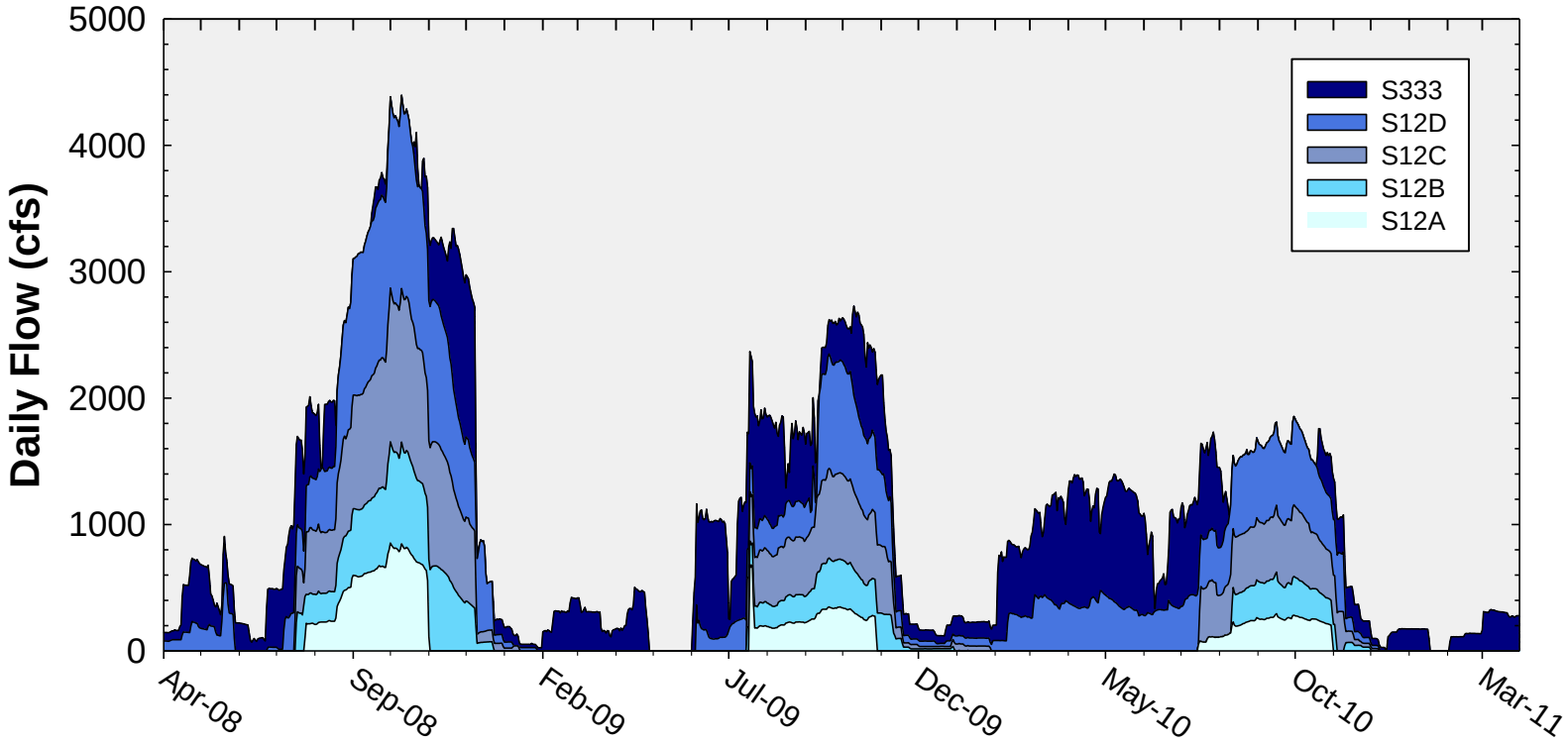


12-month FWMC at the end of each month and the composite TP concentration for each sampling event

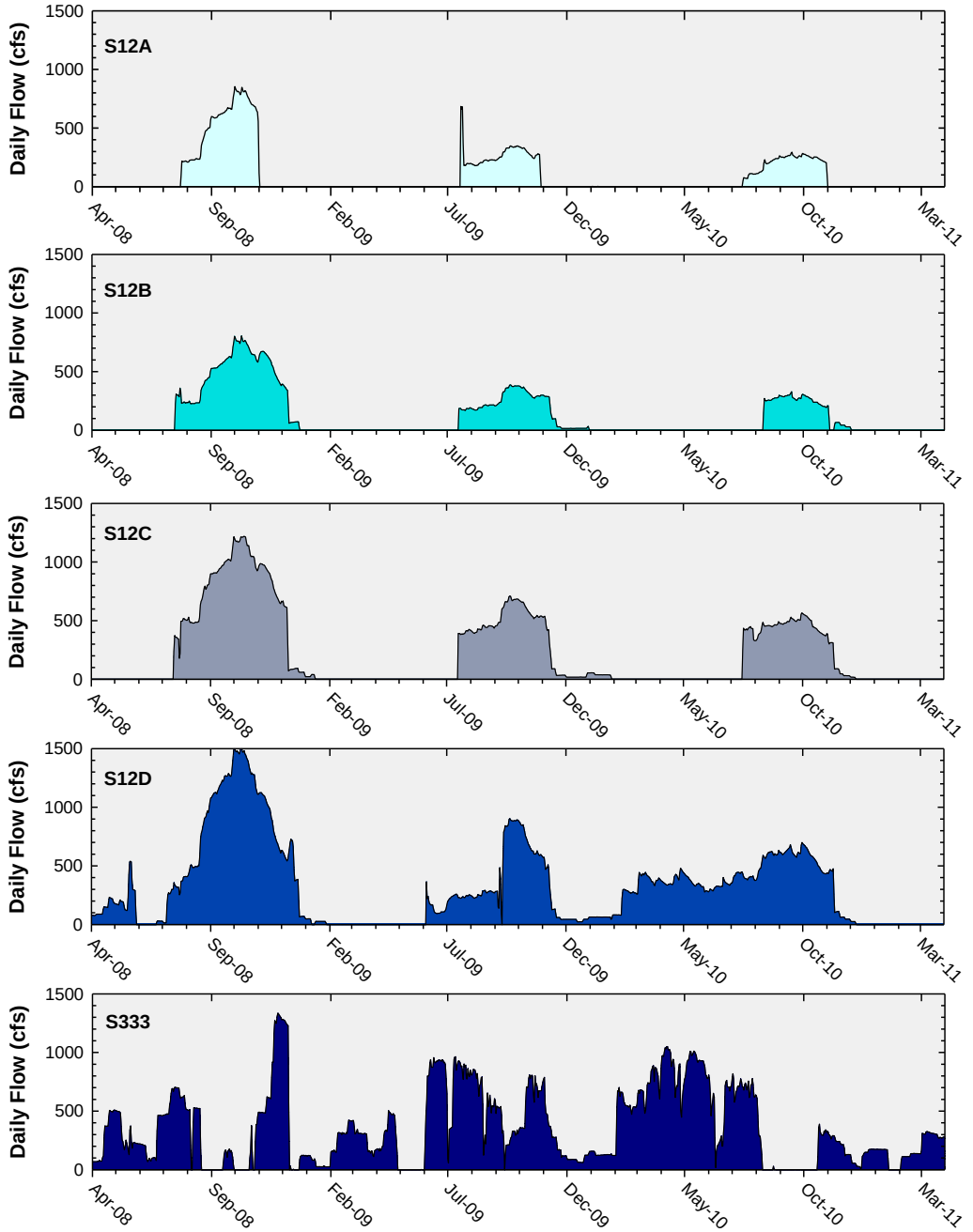
Shark River Slough
TP Concentration Compliance Tracking for January 2011 – March 2011

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
Feb 2010 - Jan 2011	730.5	9.1	9.3	48.3	48.0
Mar 2010 - Feb 2011	695.2	9.1	9.5	49.3	45.8
Apr 2010 - Mar 2011	645.6	9.2	9.7	50.7	54.2

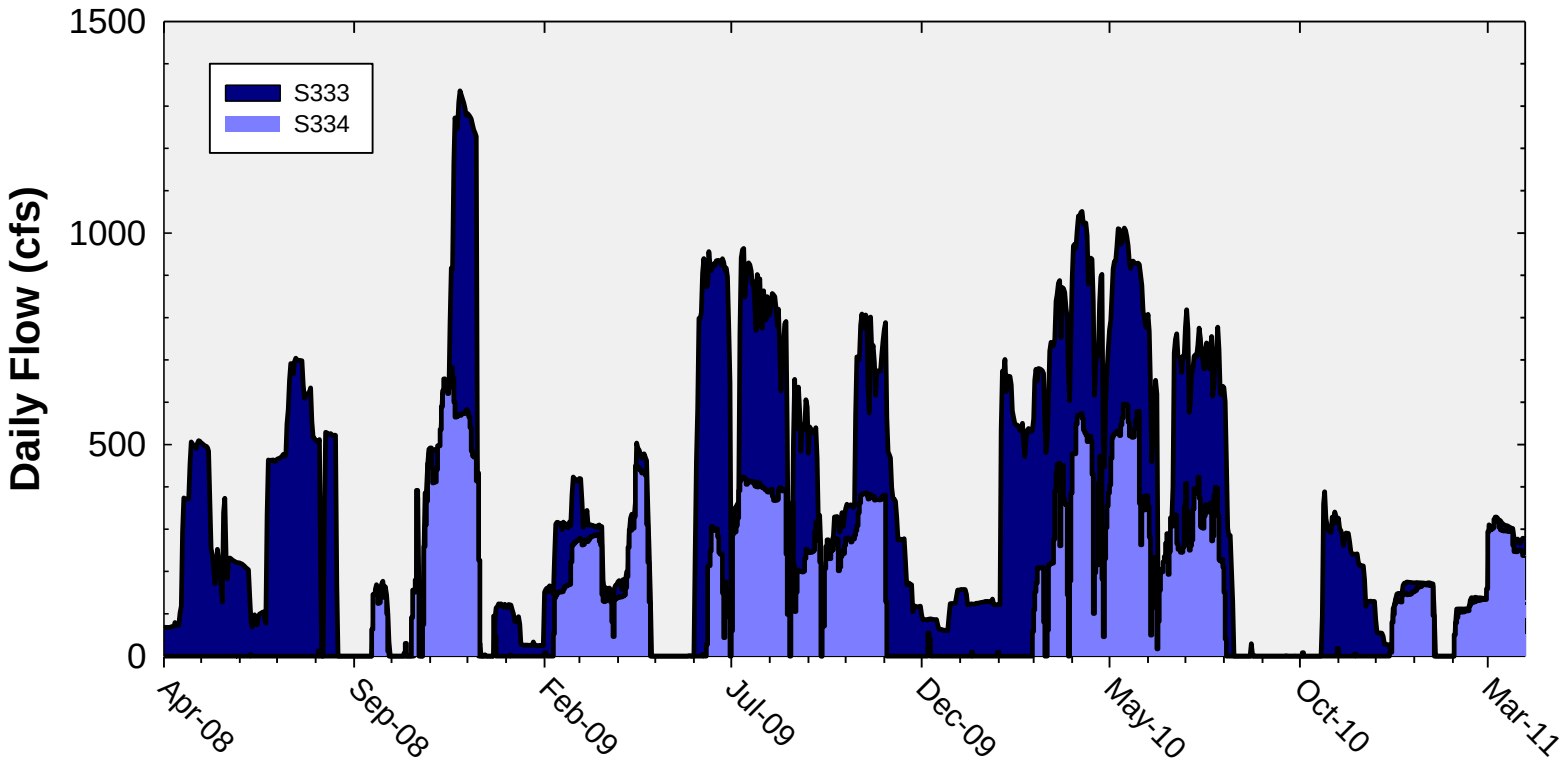
Shark River Slough Daily Flows



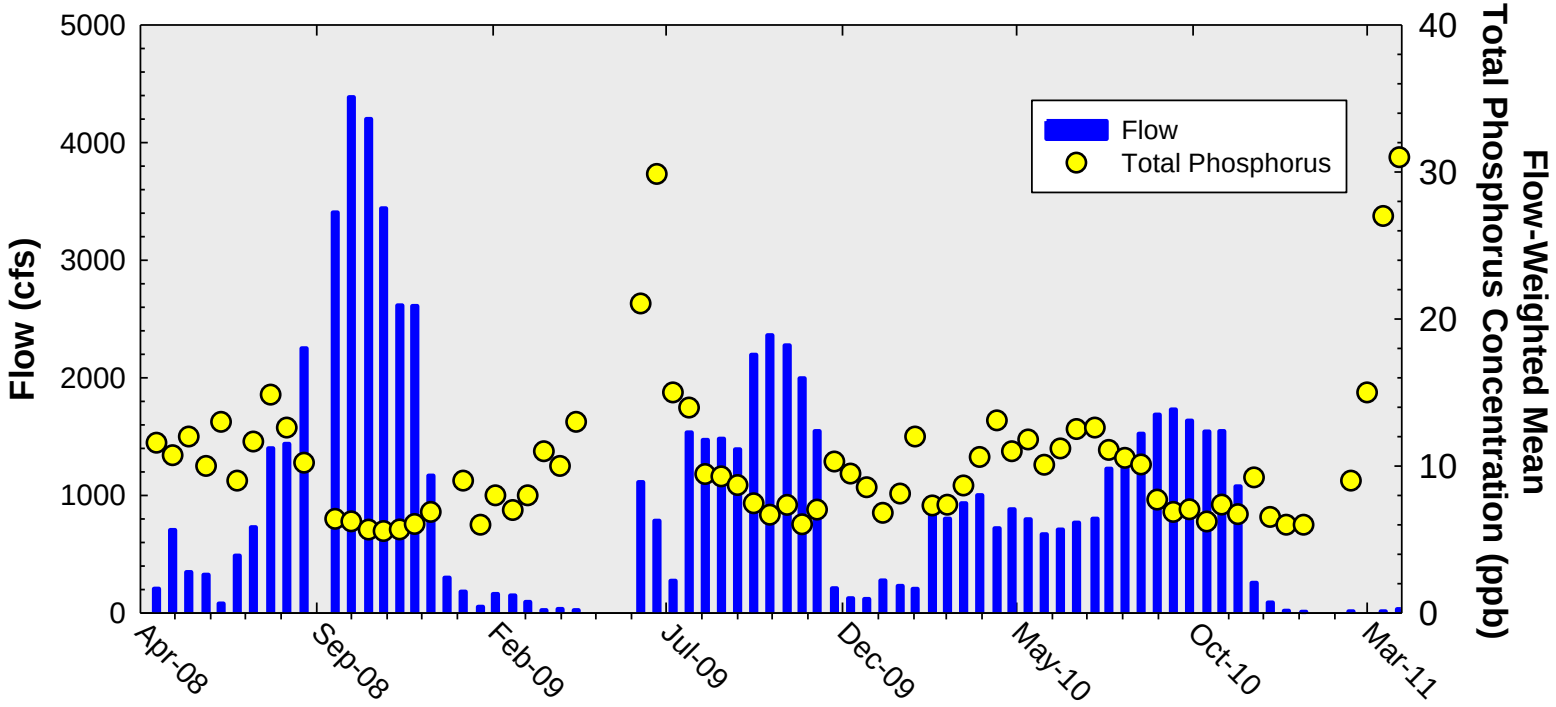
Daily Flows at individual inflow structures to Shark River Slough



Daily Flows at S333 and S334

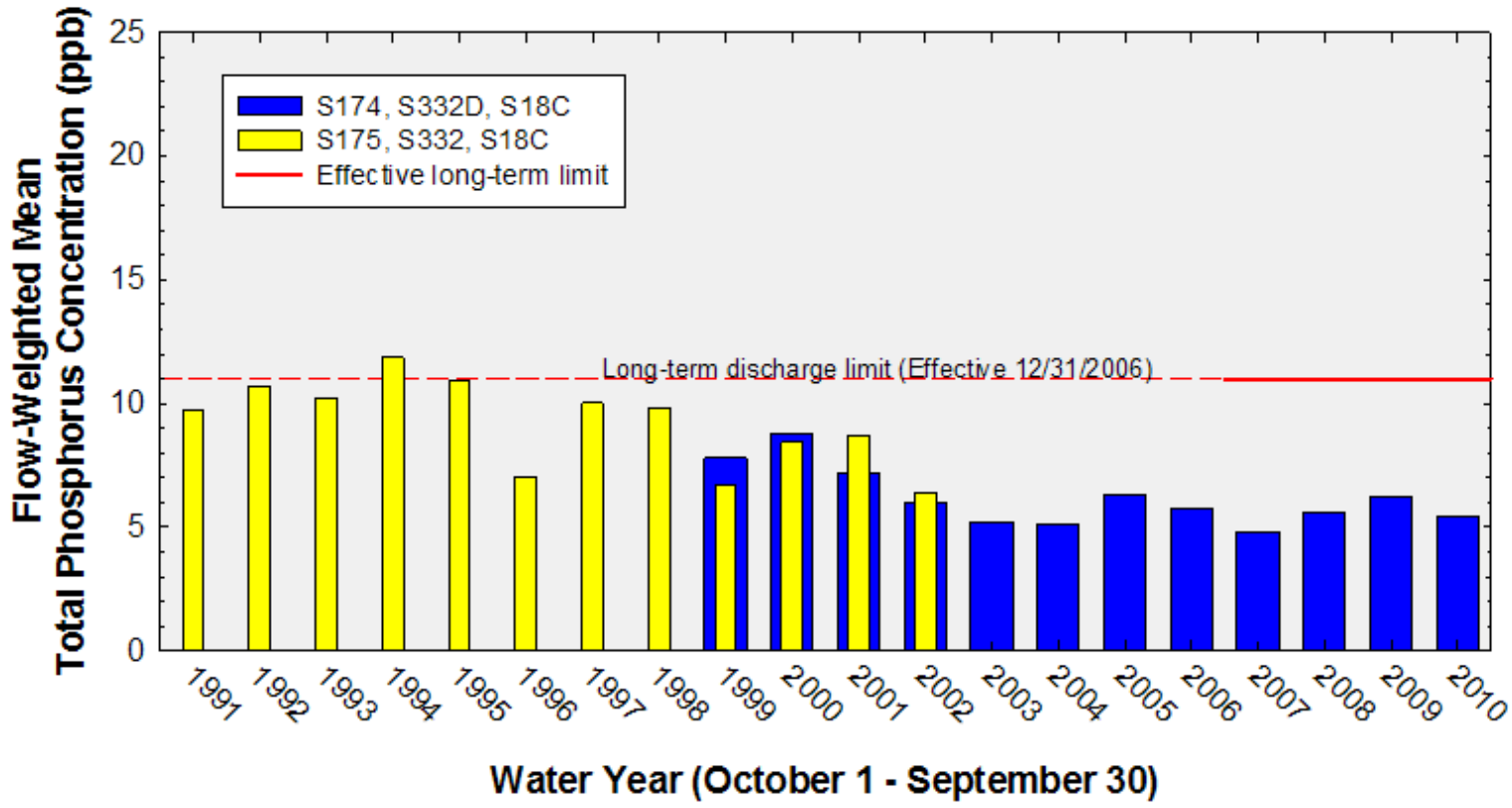


Shark River Slough
Sampling Event Flow and FWMC



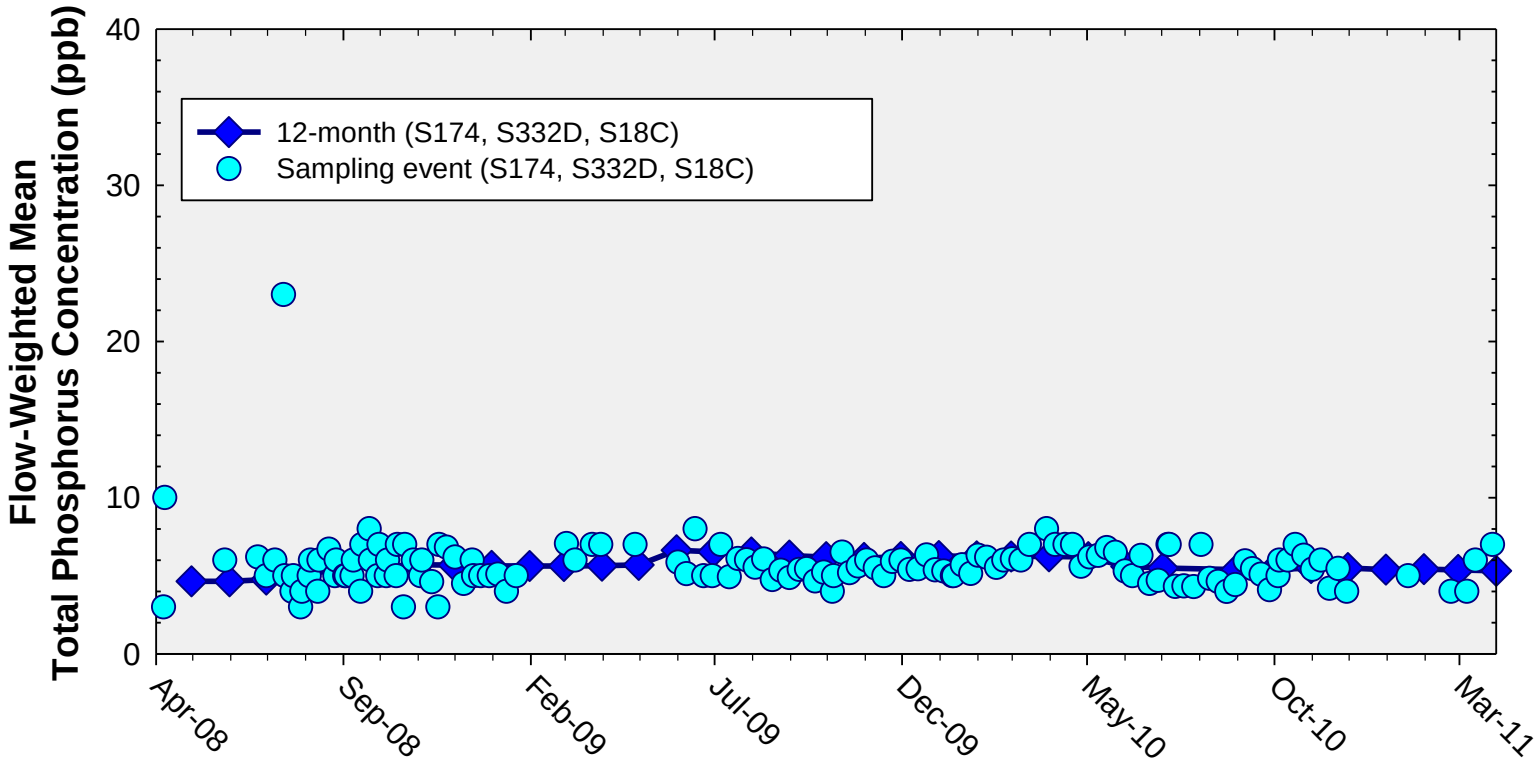
Flow at Shark River Slough structures and the corresponding TP FWMCs for individual sampling events

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

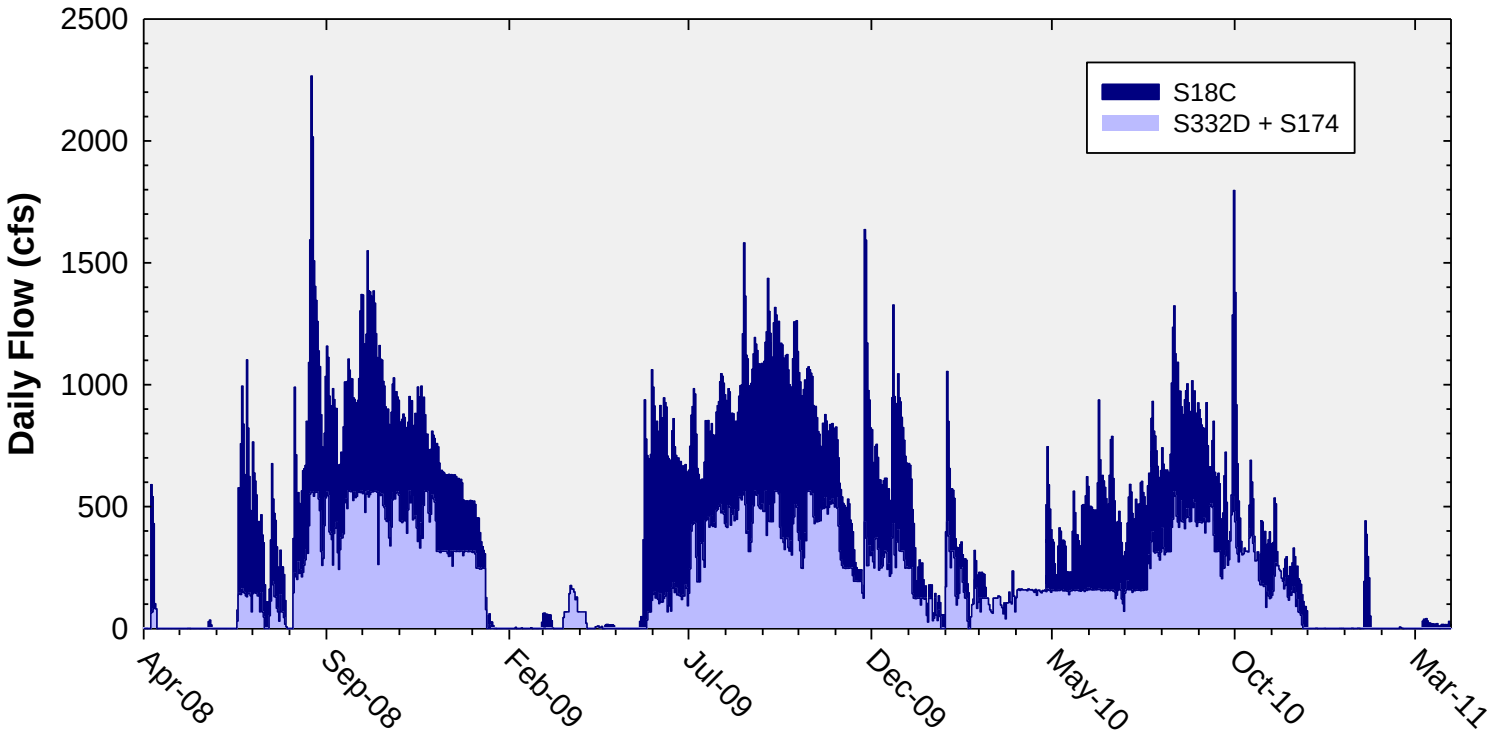


The 12-month FWMC at the end of each month and the composite TP concentration for each sampling event

Taylor Slough and the Coastal Basins TP Concentration Compliance Tracking for January 2011 – March 2011

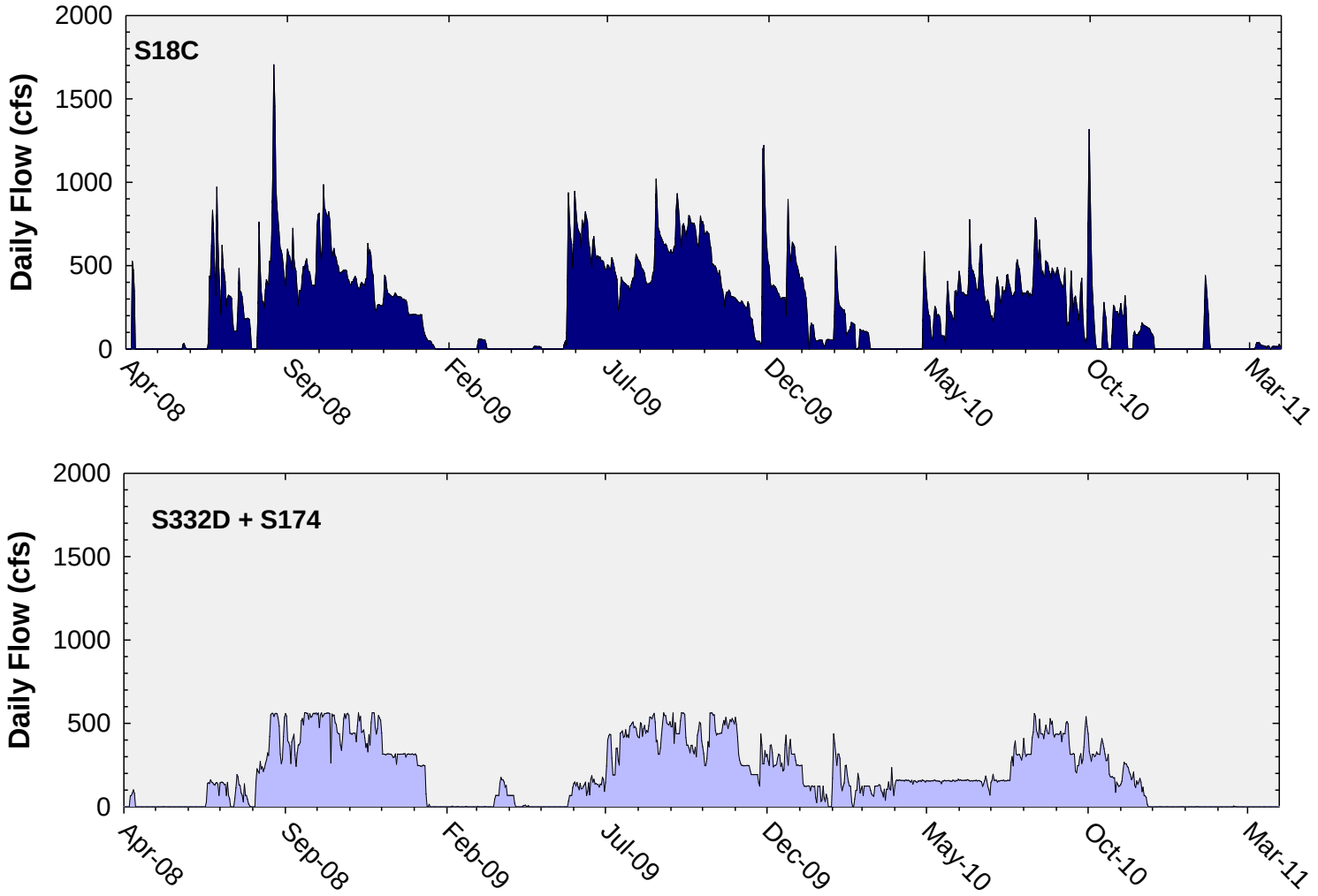
12-Month Period	Total Flow (kac-ft)	Flow-Weighted Mean TP Concentration (ppb)	Long-Term Limit (ppb) *Effective 12/31/2006*	Percent of Sampling Events Greater than 10 ppb	
				Guideline	Observed
Feb 2010 - Jan 2011	273.0	5.4	11.0	53.1	0.0
Mar 2010 - Feb 2011	253.5	5.4	11.0	53.1	0.0
Apr 2010 - Mar 2011	246.6	5.3	11.0	53.1	0.0

Taylor Slough and Coastal Basins Daily Flows

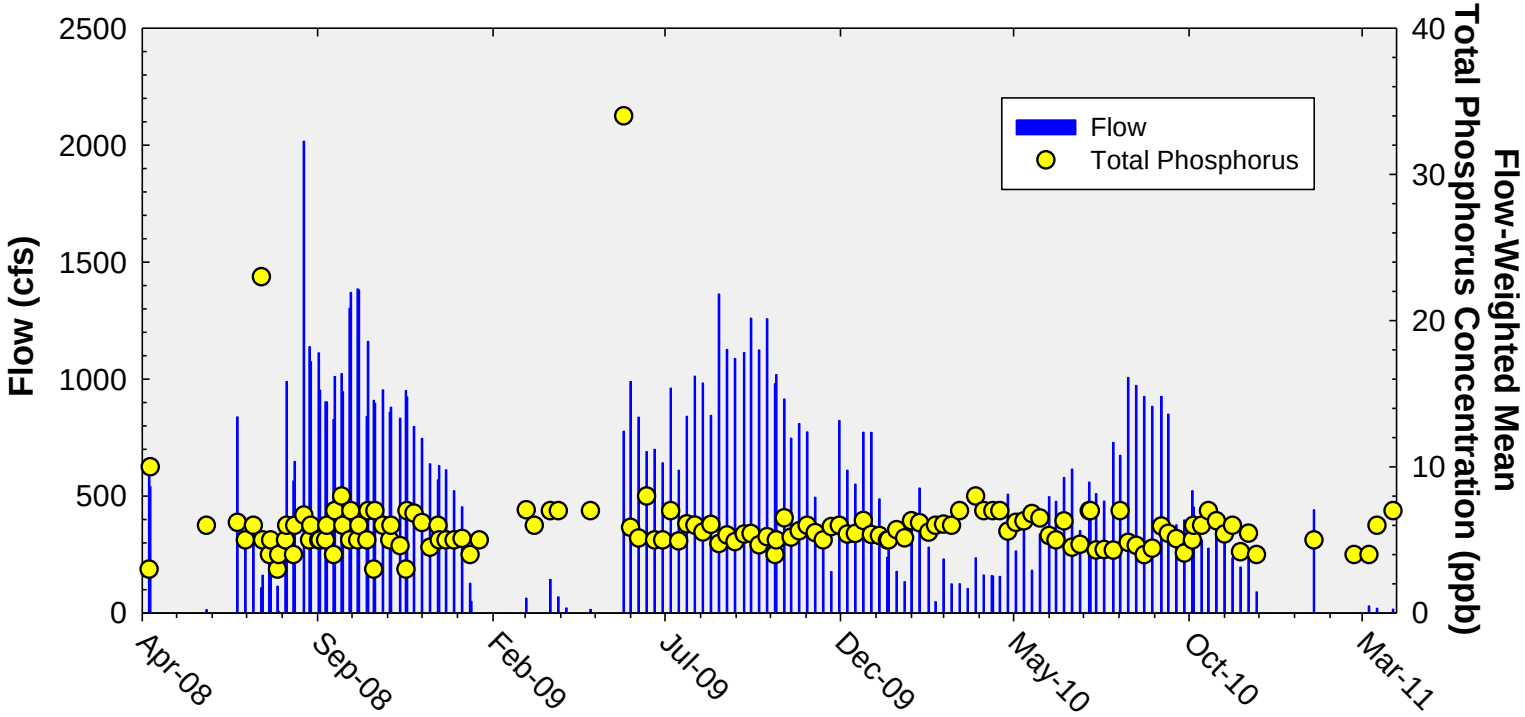


Daily flows into Everglades National Park through Taylor Slough and Coastal Basins

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