

SETTLEMENT AGREEMENT QUARTERLY REPORT

January – March 2016

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Water Quality Bureau

Technical Oversight Committee
July 19, 2016



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					
Jan 2016	6.5	7.2	17.15	14	
Feb 2016	5.3	7.2	17.30	14	
Mar 2016	6.0	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
Everglades National Park – Shark River Slough					
Jan 2016	The quarterly flow and TP data for this table are posted separately on the TOC website. The annual compliance result for the 12-month flow-weighted mean TP concentration for the federal water year ending on September 30 will be published in this report when the final approved flow data are available.				
Feb 2016					
Mar 2016					
Everglades National Park – Taylor Slough and Coastal Basins					
Jan 2016	139.4	5.2	11.0	53.1	0.0
Feb 2016	162.2	5.1	11.0	53.1	0.0
Mar 2016	187.2	5.1	11.0	53.1	0.0

Refuge TP Compliance Tracking

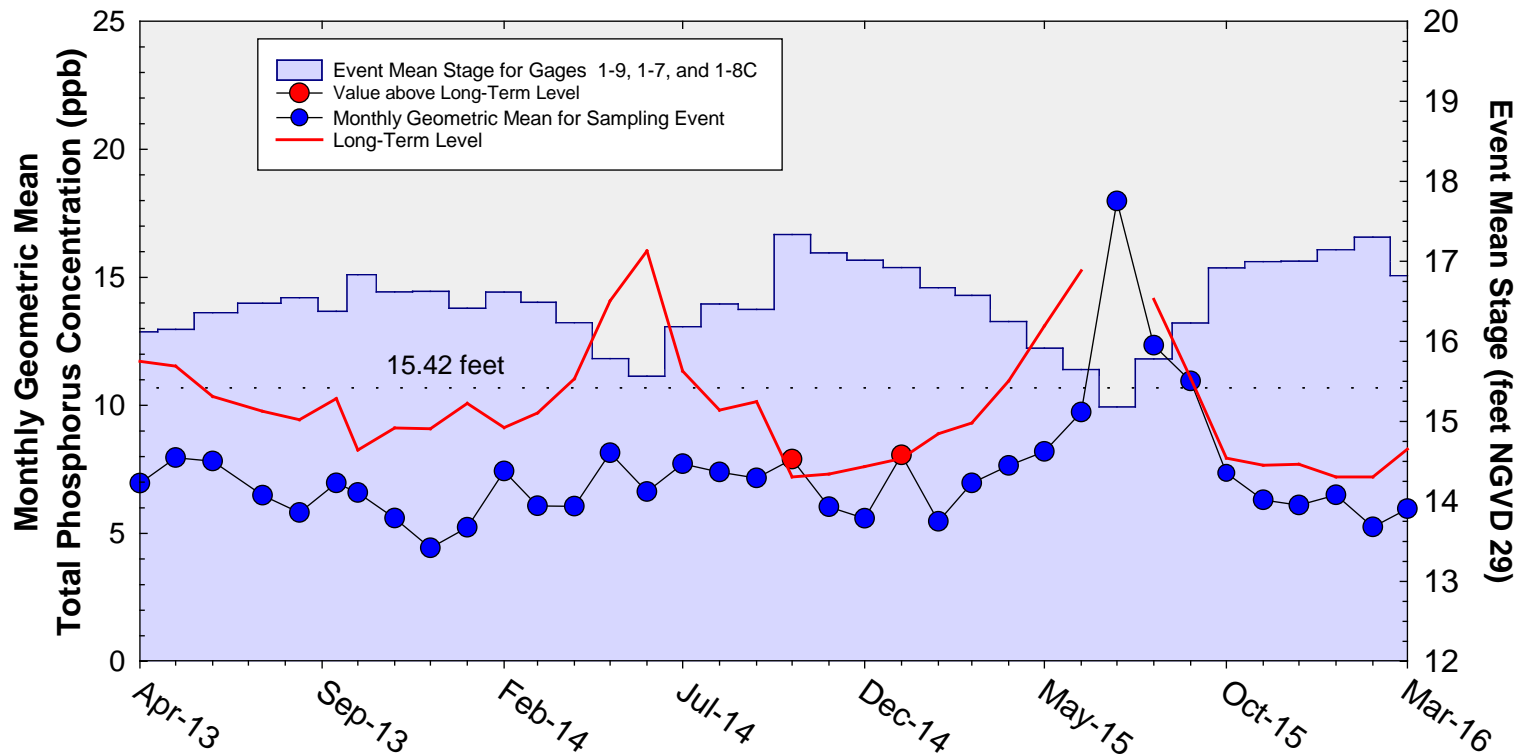
For January 2016 – June 2016

(April - June 2016 values are preliminary)

Month	Geometric Mean TP Concentration (ppb)	Long-Term Level (ppb) Effective 12/31/2006	Average Stage (feet NGVD 29)	Number of Samples
Jan-2016	6.5	7.2	17.15	14
Feb-2016	5.3	7.2	17.30	14
Mar-2016	6.0	8.3	16.82	14
Apr-2016	6.9	10.3	16.36	14
May-2016	8.8	12.7	15.96	9
Jun-2016	7.2	12.7	15.97	9

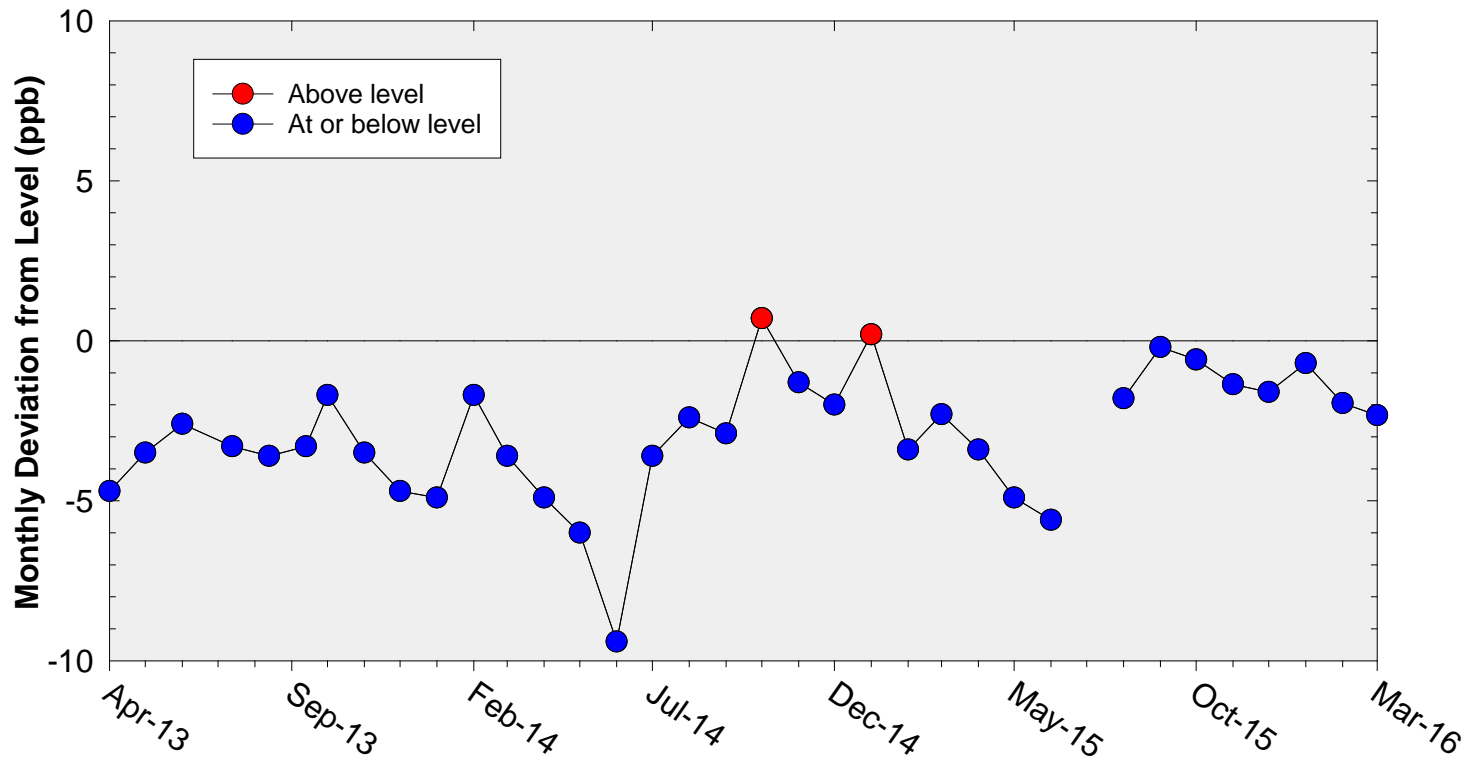
A.R.M Loxahatchee National Wildlife Refuge

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 January 2016 – March 2016

(October 2015–March 2016 Flow Data for S12s are Provisional)

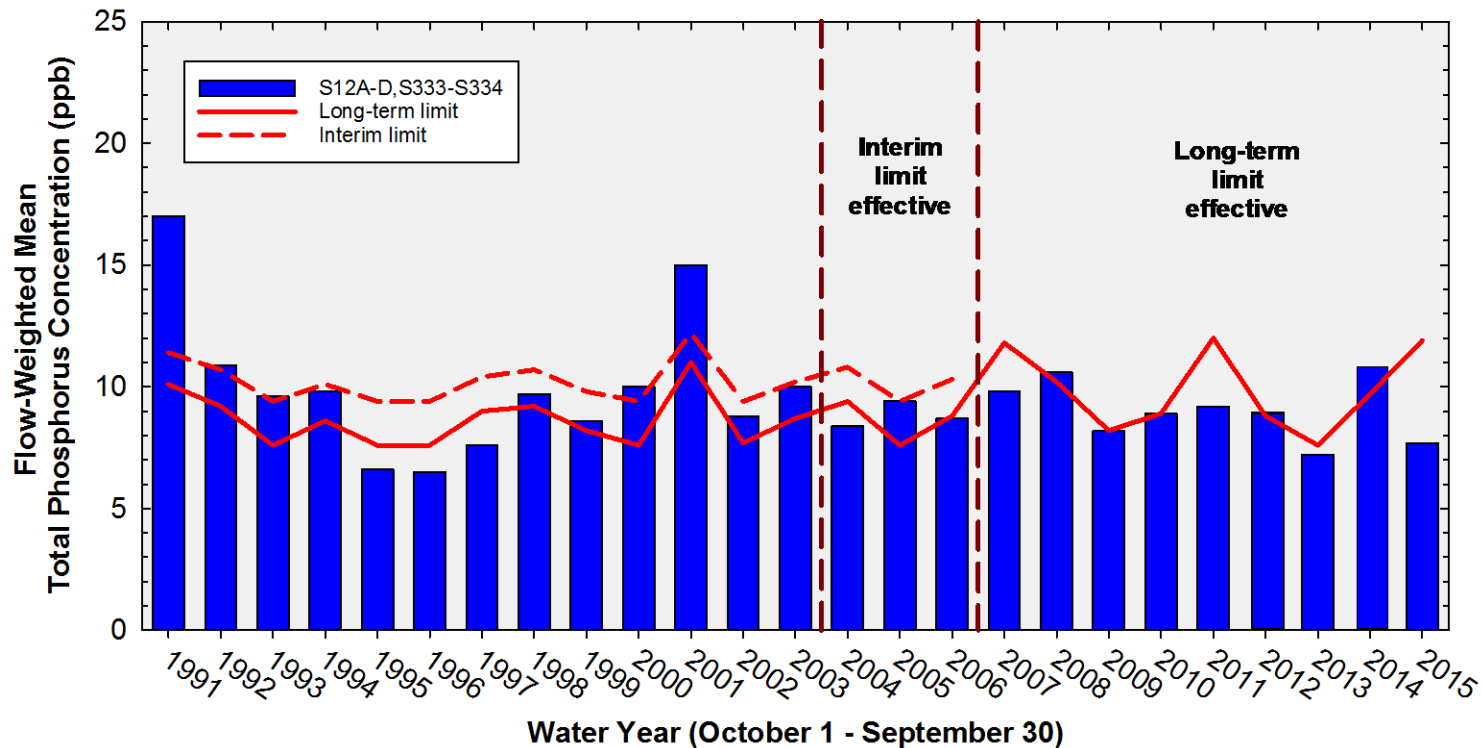
12-Month Period	Total Flow (kac-ft)	Flow-Weighted Mean TP Concentration (ppb)	Long-Term Limit (ppb) Effective 12/31/2006	Percent of Sampling Events Greater than 10 ppb	
				Guideline	Observed
Feb 2015 - Jan 2016	435.5	7.7	10.9	57.4	15.4
Mar 2015 - Feb 2016	617.0	7.0	9.9	51.6	15.4
Apr 2015 - Mar 2016	817.7	6.6	8.8	45.9	7.7

Note: 5.8 kac-ft at S355B Temporary Pump flow in March 2016 and yet to be determined flow volume through gate openings at structures S355A and S355B March 1 – 11, 2016, are not included.

Shark River Slough Compliance Tracking Inflows from S355A, S355B, and S356

- **Precedents**
- **Data**
- **Compliance Methodology**

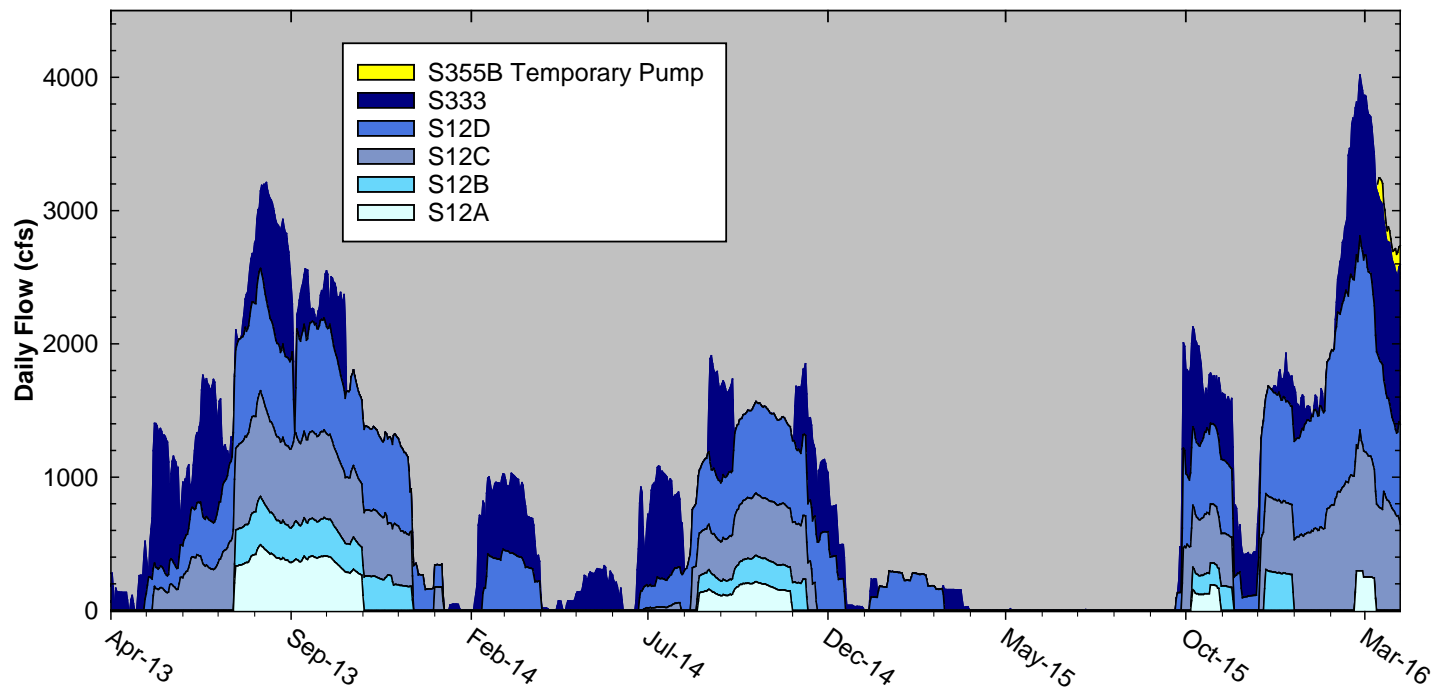
Annual Flow-weighted Mean Concentrations Inflows to ENP through Shark River Slough



Water year (12-month) FWMC compared to the TP interim and long-term limits

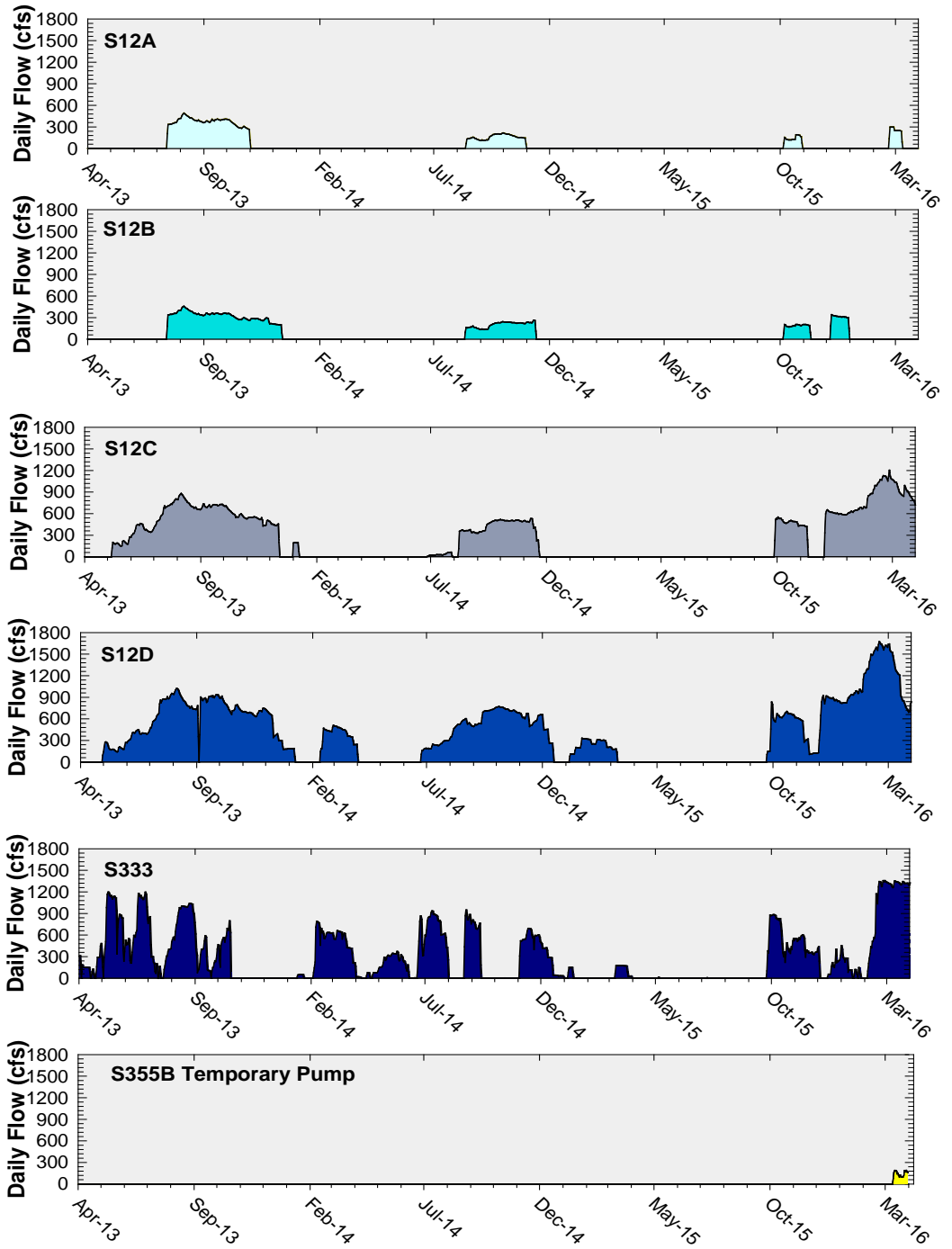
Shark River Slough Daily Flows

(October 2015–March 2016 Flow Data for S12s are Provisional)

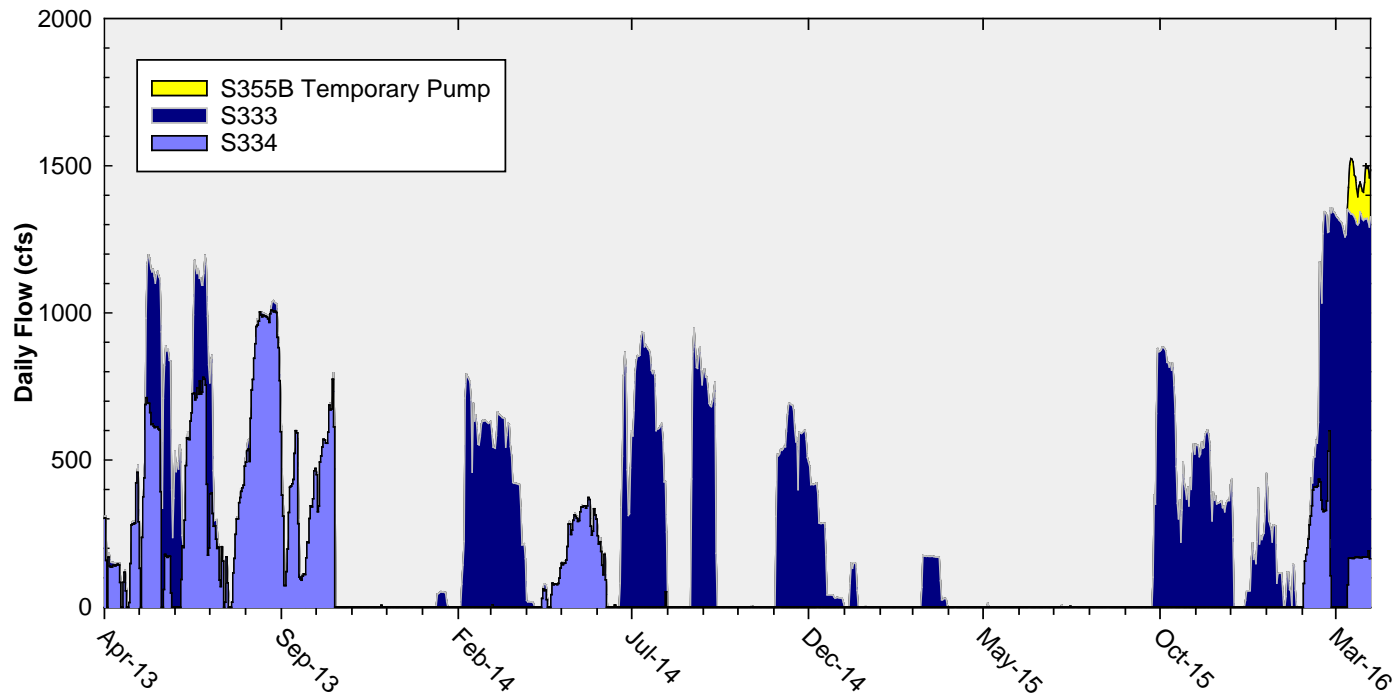


Daily Flows at Individual Inflow Structures to Shark River Slough

(October 2015–March 2016
Flow Data for S12s are
Provisional)



Daily Flows at S333, S334, and S355B Temporary Pumps



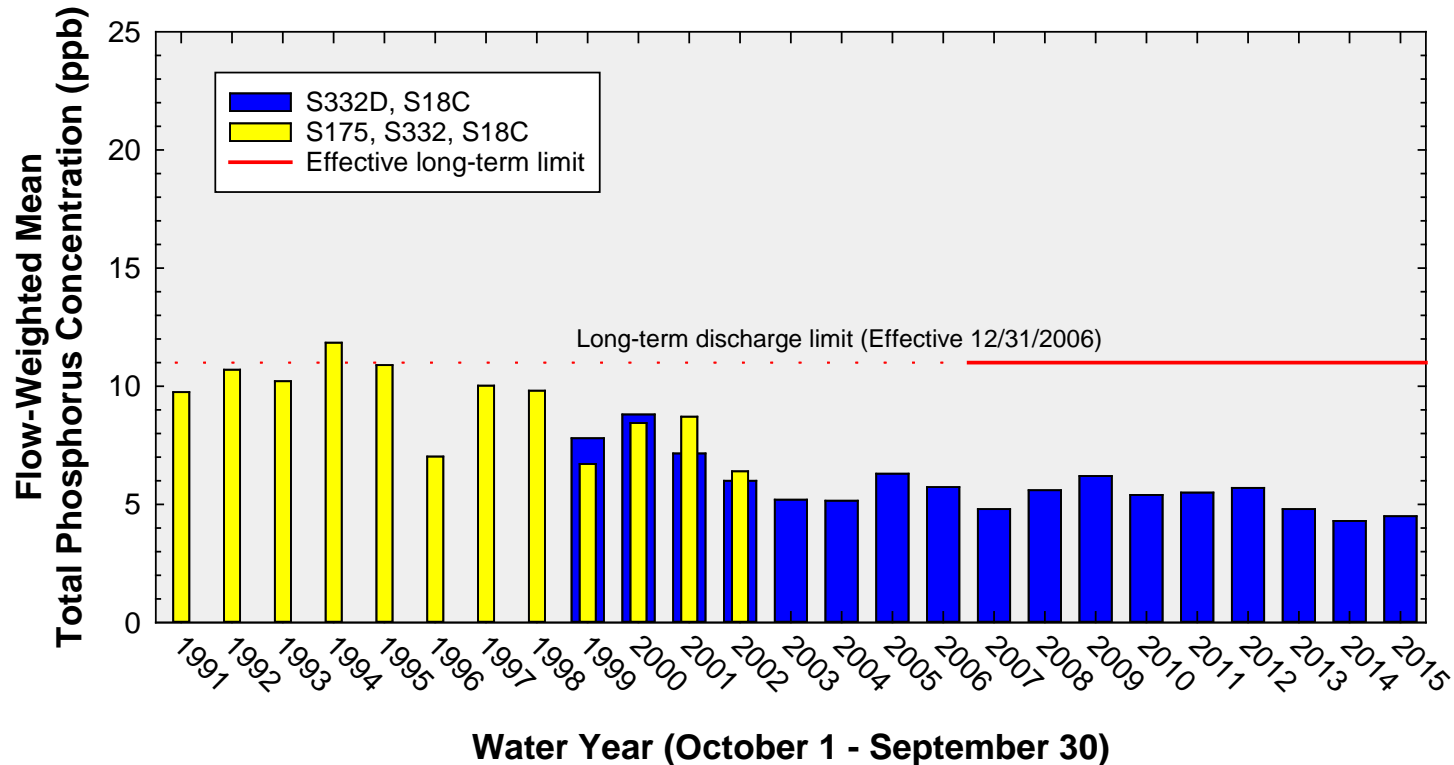
Taylor Slough and Coastal Basins

TP Concentration Compliance Tracking

for January 2016 – March 2016

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
Feb 2015 - Jan 2016	139.4	5.2	11.0	53.1	0.0
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Annual Flow-Weighted Mean Concentrations Inflows to the ENP through Taylor Slough and Coastal Basins

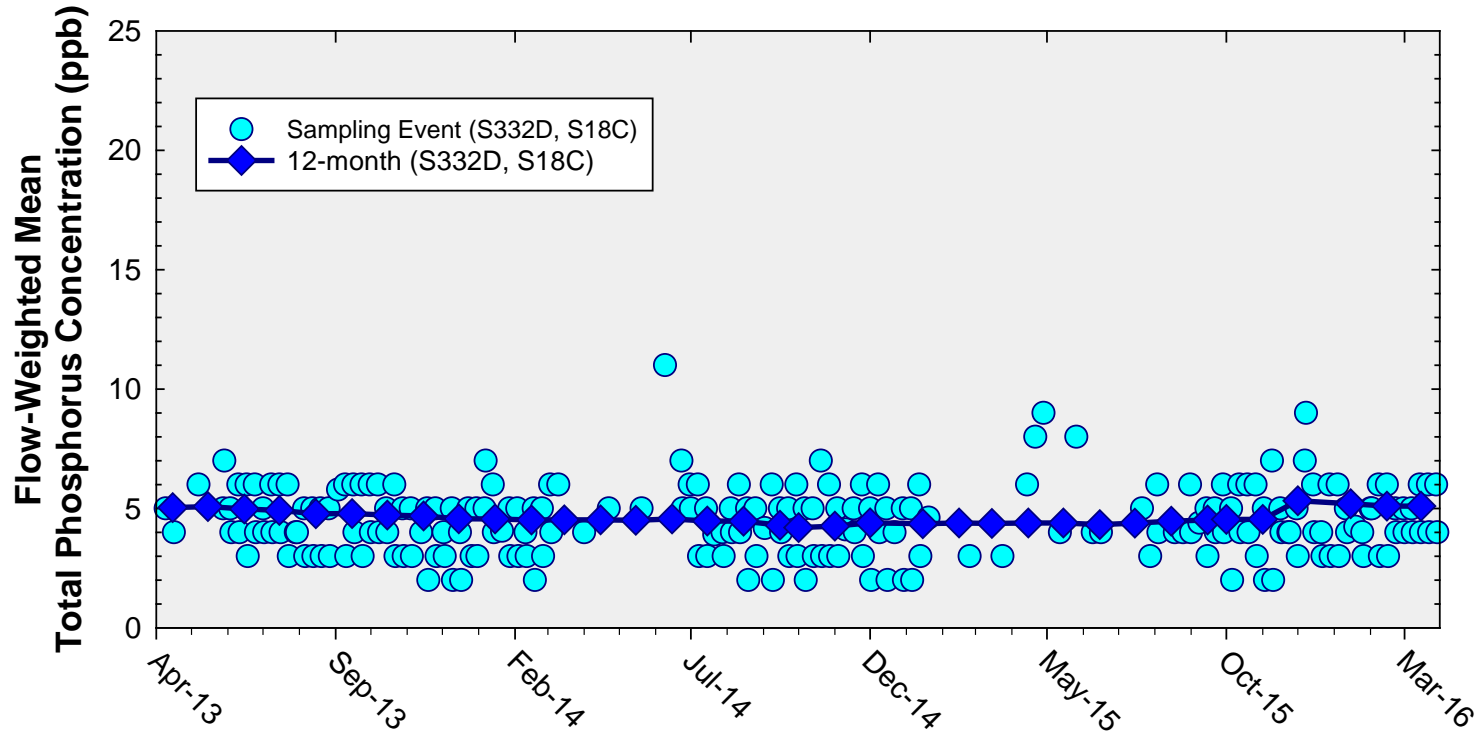


The 12-month FWMC at the end of each water year compared to the 11 ppb long-term TP limit

Note: Blue bars show S332D, S18C, & S174 until September 2007 when S174 was plugged.

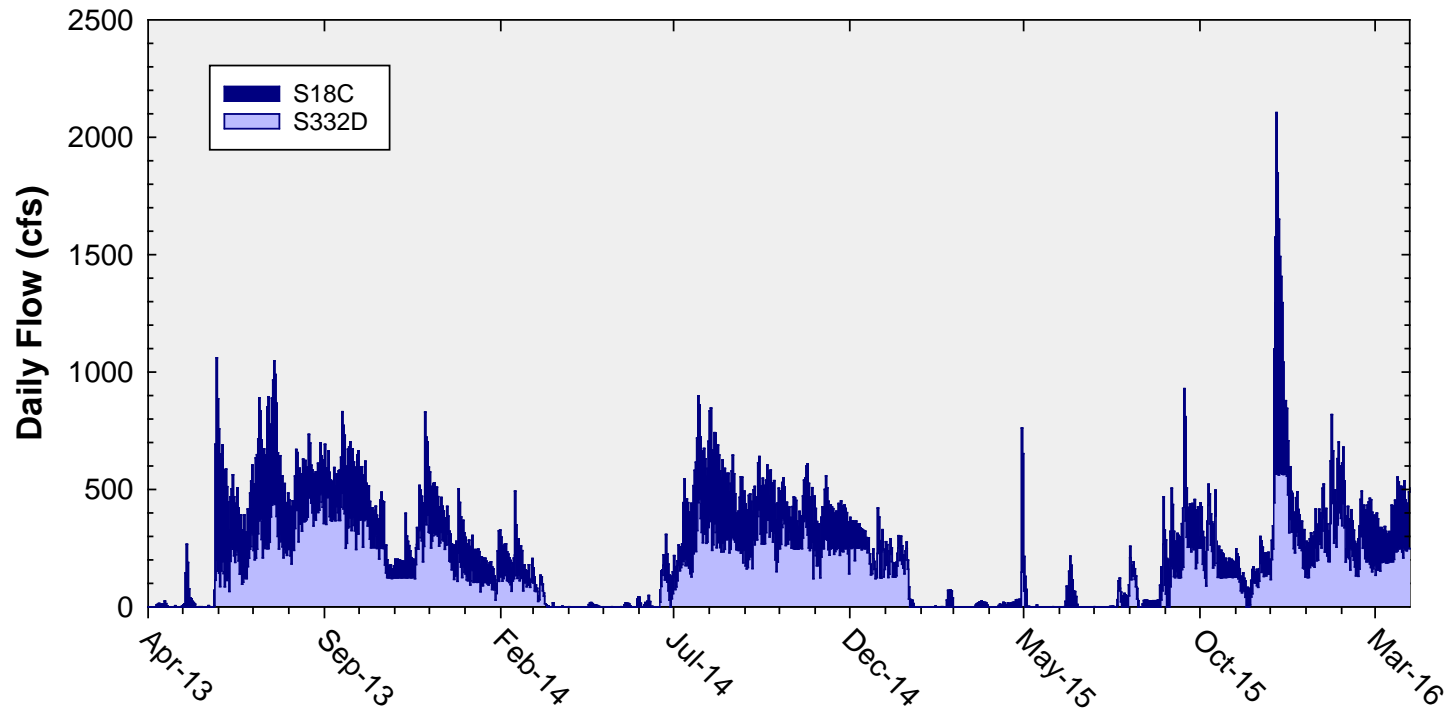
Flow-Weighted Mean Concentrations

Inflows to the ENP through Taylor Slough and Coastal Basins

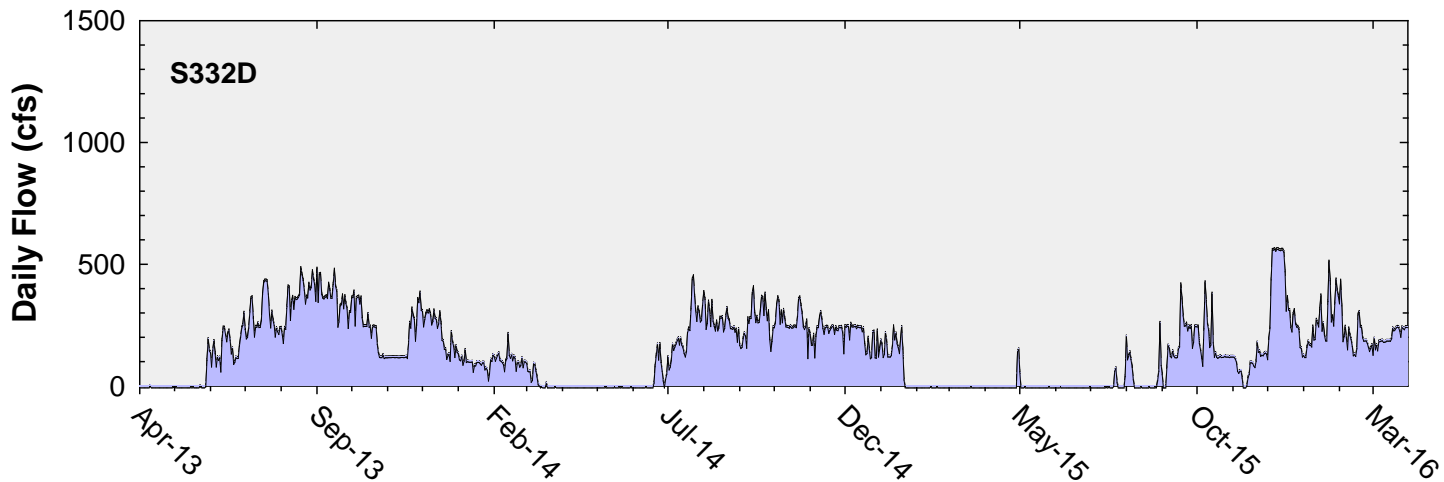
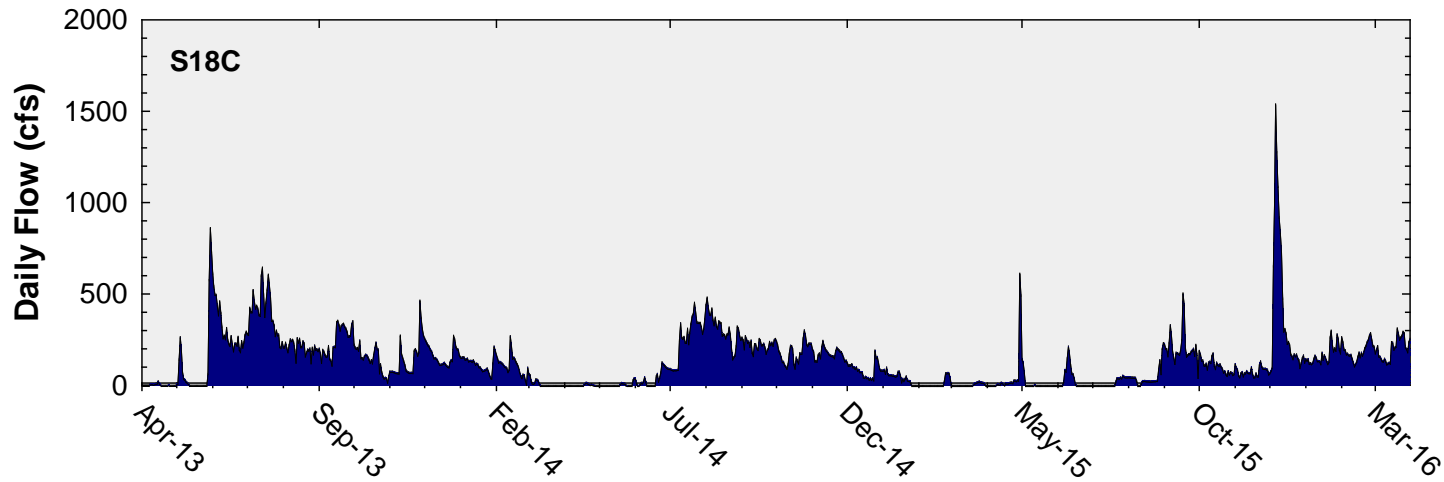


The 12-month FWMC at the end of each month and the composite TP concentration for each sampling event

Daily Flows at Taylor Slough and Coastal Basins Structures into ENP



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



Thank You

