SOUTH FLORIDA WATER MANAGEMENT DISTRICT

SETTLEMENT AGREEMENT QUARTERLY REPORT

July - September 2024

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Technical Oversight Committee

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sfwmd.gov

SUMMARY

Month	Mean Stage (ft NGVD29)	Long-Term Level (ppb)	Geometric Mean TP Concentration (ppb)	Number of Samples	
Arthur R. Marshall Loxahatchee National Wildlife Refuge					
Jul-24	16.52	9.6	9.0	14	
Aug-24	16.58	9.3	8.2	13	
Sep-24	16.79	8.4	7.1	14	
12-Month Period Ending	**Total Flow (kac-ft)**	**Long-Term Limit (ppb)**	**12-Month TP FWMC (ppb)**	**Percent of Sampling Events Greater than 10 ppb**	
				Guideline (%)	**Observed (%)**
Everglades National Park – Shark River Slough – *PROVISIONAL DATA and RESULTS*					
Jul-24	1531.0	7.6	7.9	40.1	20.0
Aug-24	1534.3	7.6	8.0	40.1	20.0
Sep-24	1521.8	7.6	8.0	40.1	20.0
Everglades National Park – Taylor Slough and Coastal Basins					
Jul-24	406.3	11.0	5.0	53.1	0.0
Aug-24	405.7	11.0	5.2	53.1	0.0
Sep-24	430.5	11.0	5.2	53.1	0.0

FWMC for SRS - computed as S12s+[S333+S333N+S355A+S355B+min(S356,S335)-S334]. S334 flow is not excluded from the total flow for long-term limit calculations.

FWMC for TS and CB – computed as (S332D-S332DX1–S328)+S328+G737+S18C.

Refuge TP Compliance Tracking with Outlook

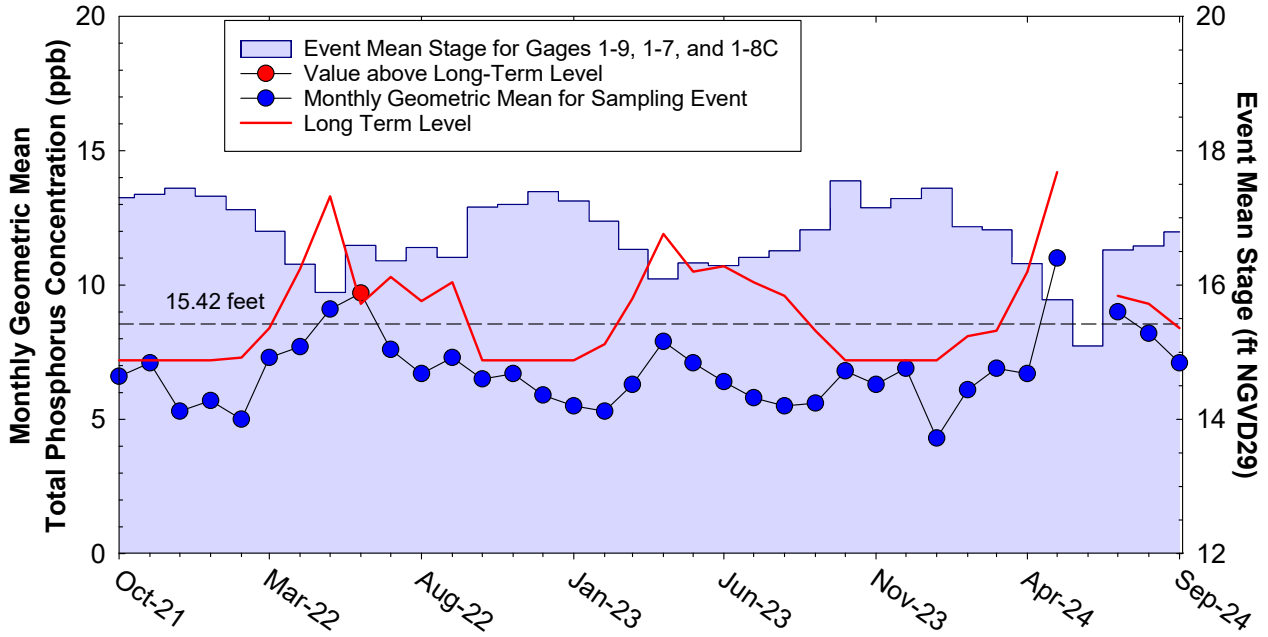
Month	Average Stage (feet NGVD29)	Long-Term Level (ppb) Effective 12/31/2006	Geometric Mean TP Concentration (ppb)	Number of Samples
3rd Quarter 2024 Compliance Tracking				
Jul-2024	16.52	9.6	9.0	14
Aug-2024	16.58	9.3	8.2	13
Sep-2024	16.79	8.4	7.1	14
Preliminary Data Outlook				
Oct-2024	17.27	7.2	7.5	14
Nov-2024	16.97	7.7	6.9	14
Dec-2024	16.75	8.6	6.7	14
Jan-2025	16.65	9.0	6.8	14

Note: 17.14 ft NGVD29 was used for the long-term level calculation when the average stage of the month exceeded the threshold of 17.14 ft.

In August, one out of 14 samples was not collected due to dry conditions.

A.R.M Loxahatchee National Wildlife Refuge

Monthly Total Phosphorus Geometric Mean Concentrations



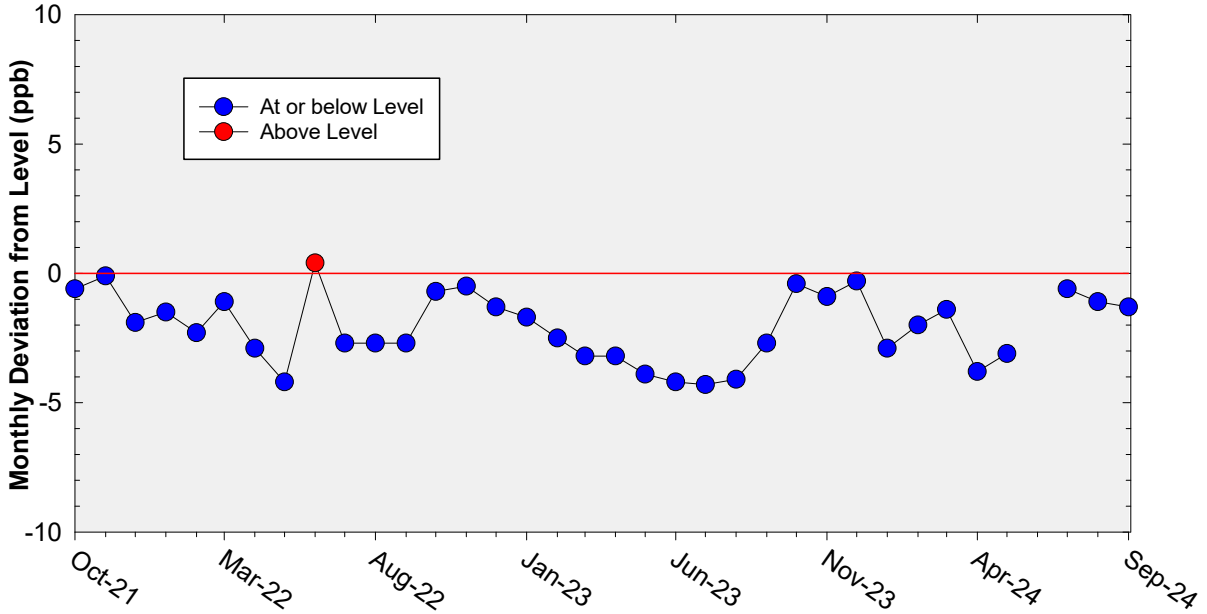
36-Month Average TP Geometric Mean = 6.8 ppb

36-Month Average TP Long-term Level is = 8.9 ppb

Note: There was no TP data for June 24 because of the dry condition.

A.R.M Loxahatchee National Wildlife Refuge

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



36-Month Average TP geometric mean = 2.1 ppb below the Long-Term Level.

Shark River Slough
TP Concentration Compliance Tracking and Outlook

PROVISIONAL DATA and RESULTS

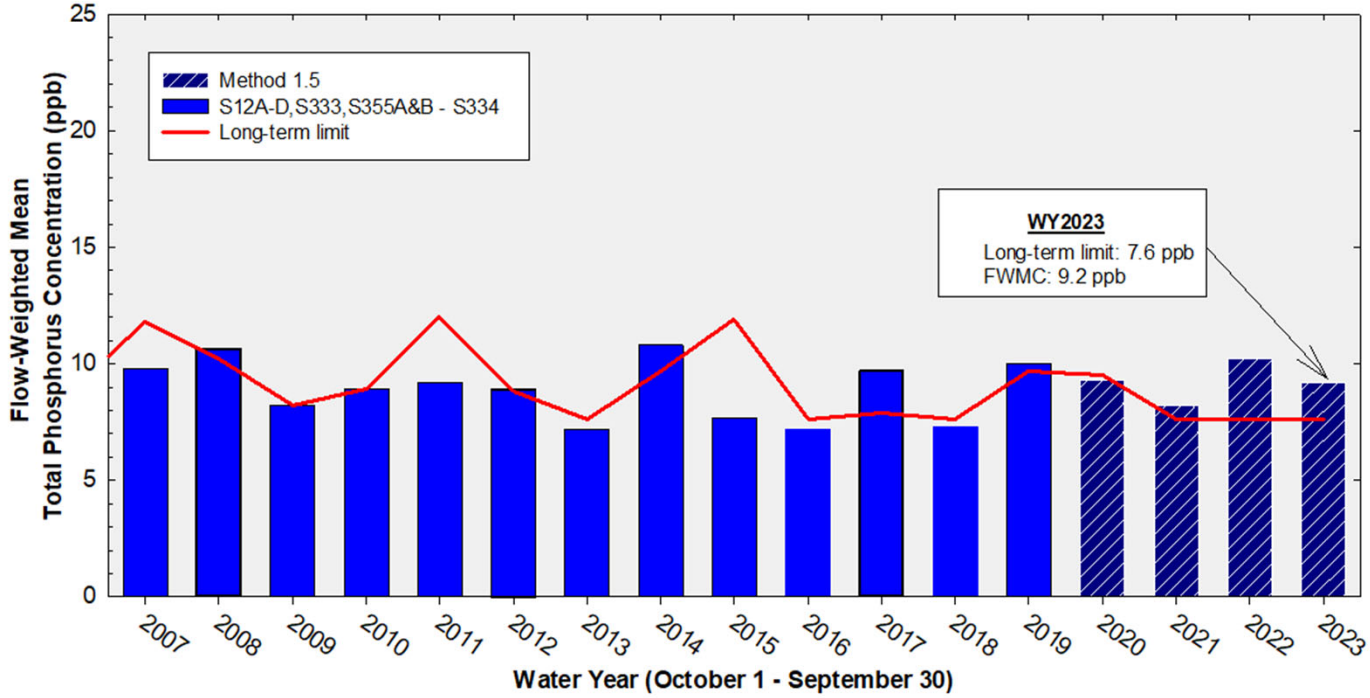
12-Month Period	Total Flow (kac-ft)	Long-Term Limit (ppb) *Effective 12/31/2006*	Flow-Weighted Mean TP Concentration (ppb)	Percent of Sampling Events Greater than 10 ppb	
				Guideline (%)	Observed (%)
3rd Quarter 2024 Compliance Tracking					
Aug 2023 - Jul 2024	1,531.0	7.6	7.9	40.1	20.0
Sep 2023 - Aug 2024	1,534.3	7.6	8.0	40.1	20.0
Oct 2023 - Sep 2024	1,521.8	7.6	8.0	40.1	20.0
Outlook					
Nov 2023 - Oct 2024	1,529.3	7.6	8.1	40.1	20.0
Dec 2023 - Nov 2024	1,536.0	7.6	7.9	40.1	16.0
Jan 2024 - Dec 2024	1,495.7	7.6	7.9	40.1	15.4

Shark River Slough PROVISIONAL RESULTS:

FWMC computed as S12A + S12B + S12C + S12D + [S333 + S333N + S355A + S355B + minimum of (S356, S335) – S334] using all flow and TP grabs on bi-weekly compliance sampling dates.

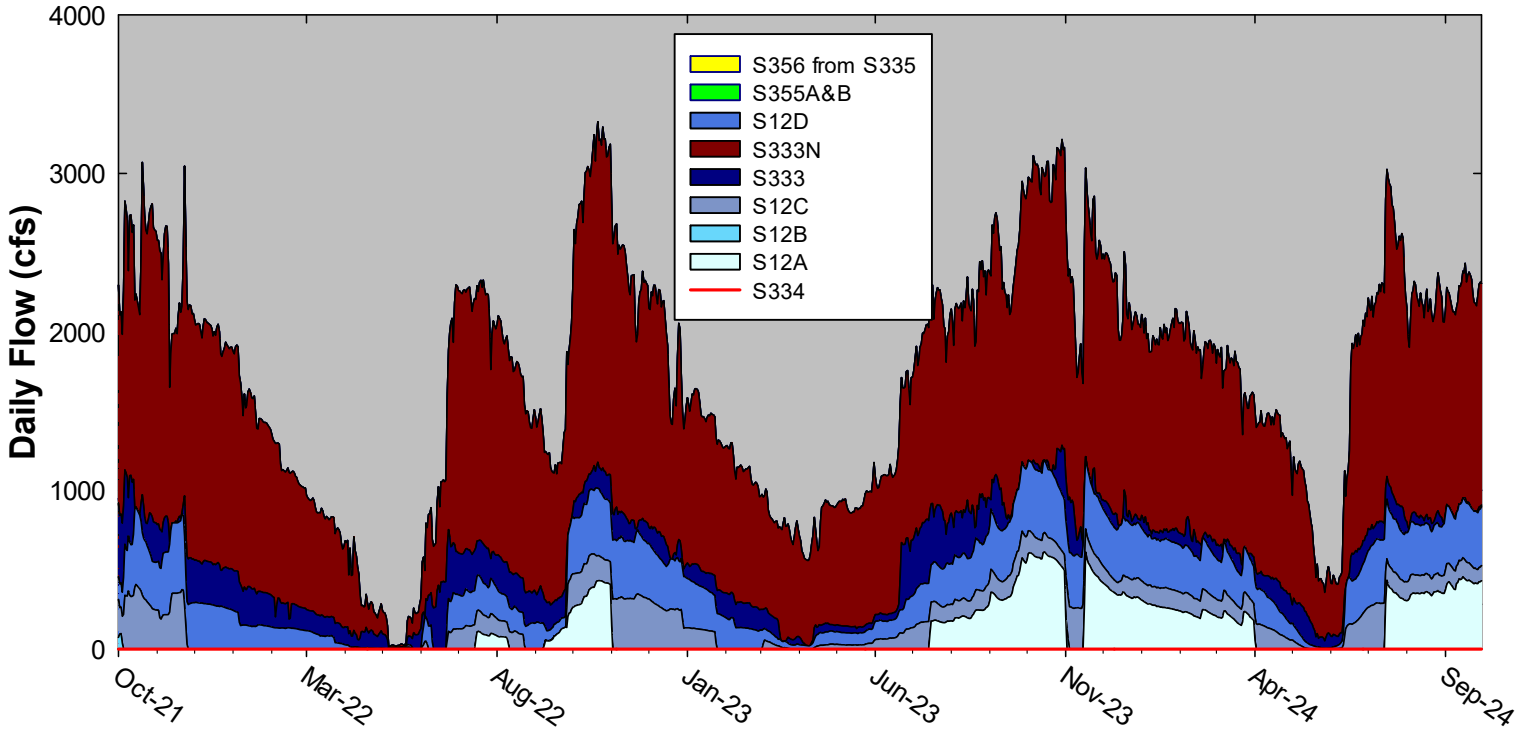
S334 flow was not excluded from the flow for long-term limit calculations.

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

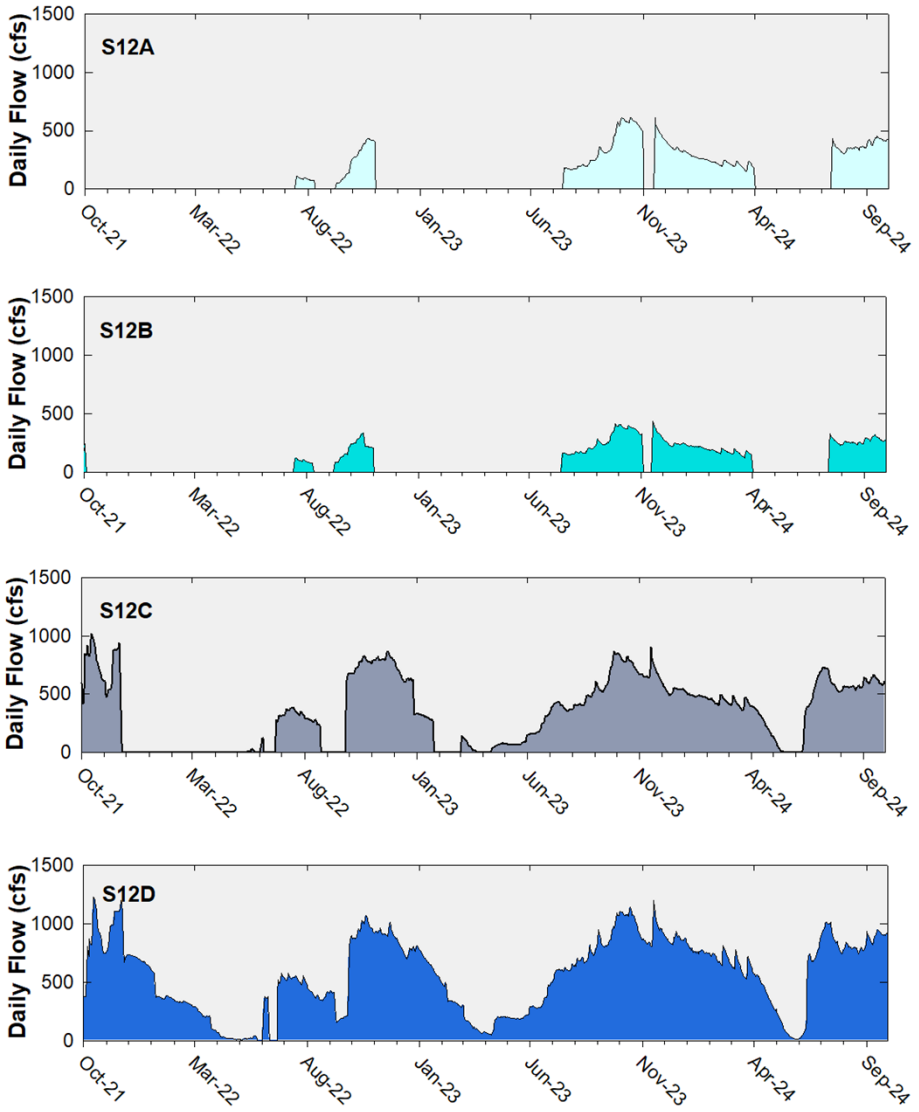


12-month FWMC at the end of each water year compared to the TP long-term limit

Shark River Slough Structure Daily Flows

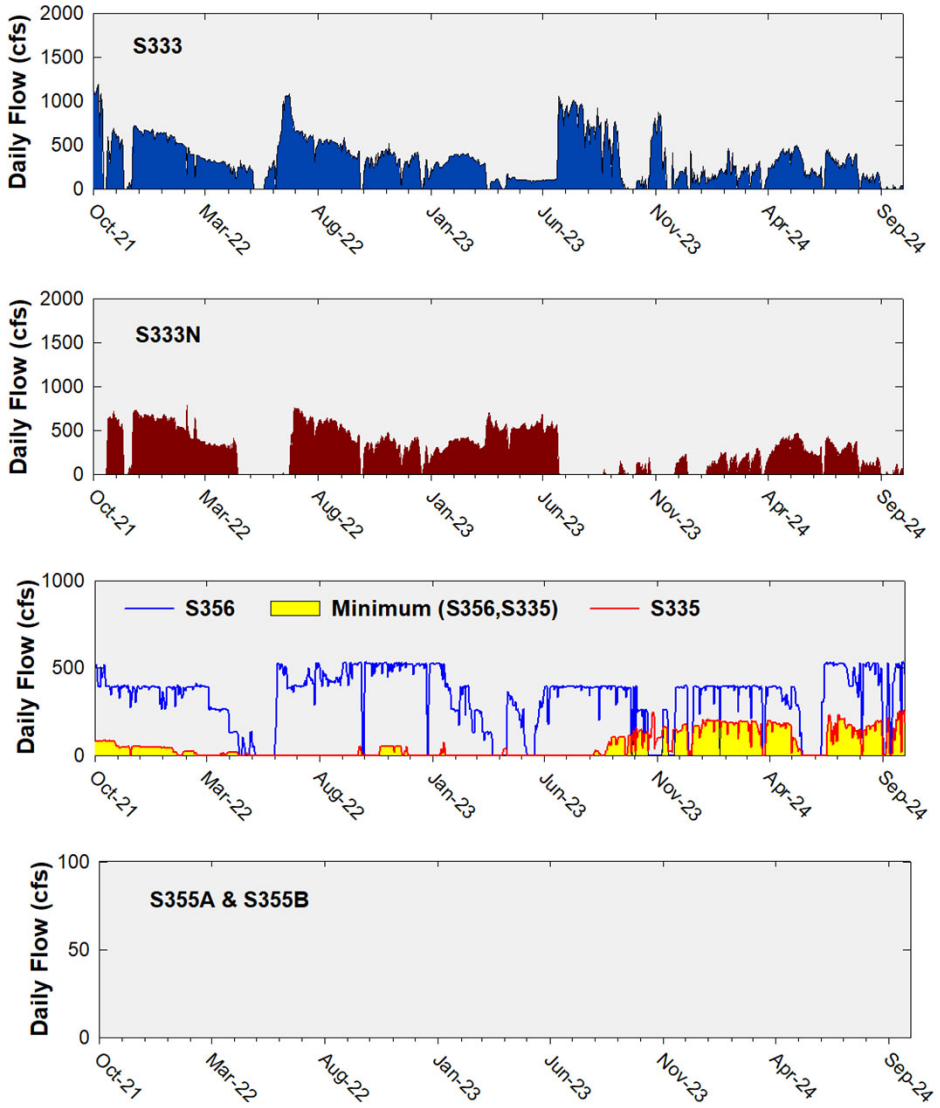


Daily Flows at S12 Structures to Shark River Slough

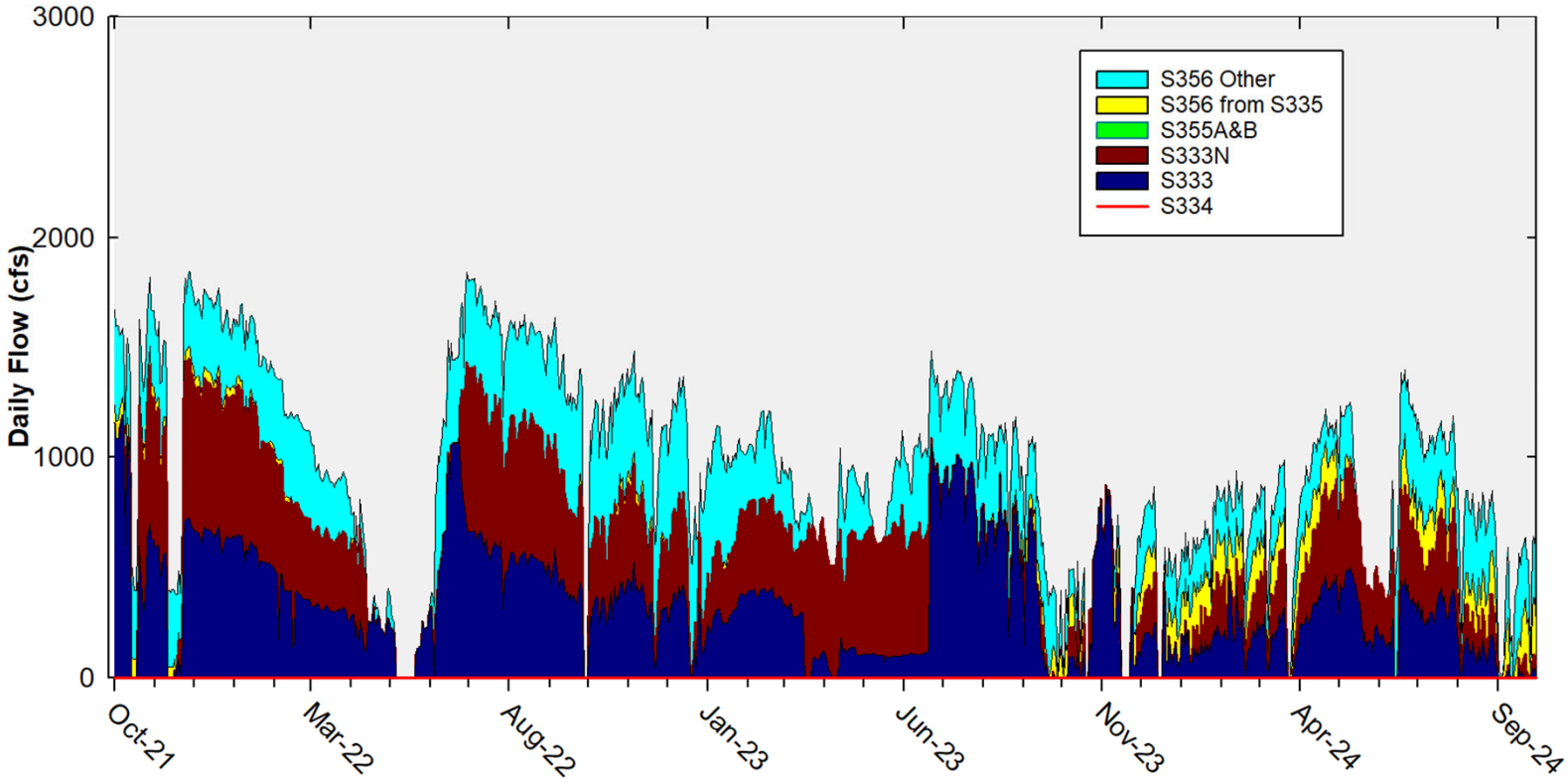


Daily Flows at Individual Inflow Structures to Shark River Slough

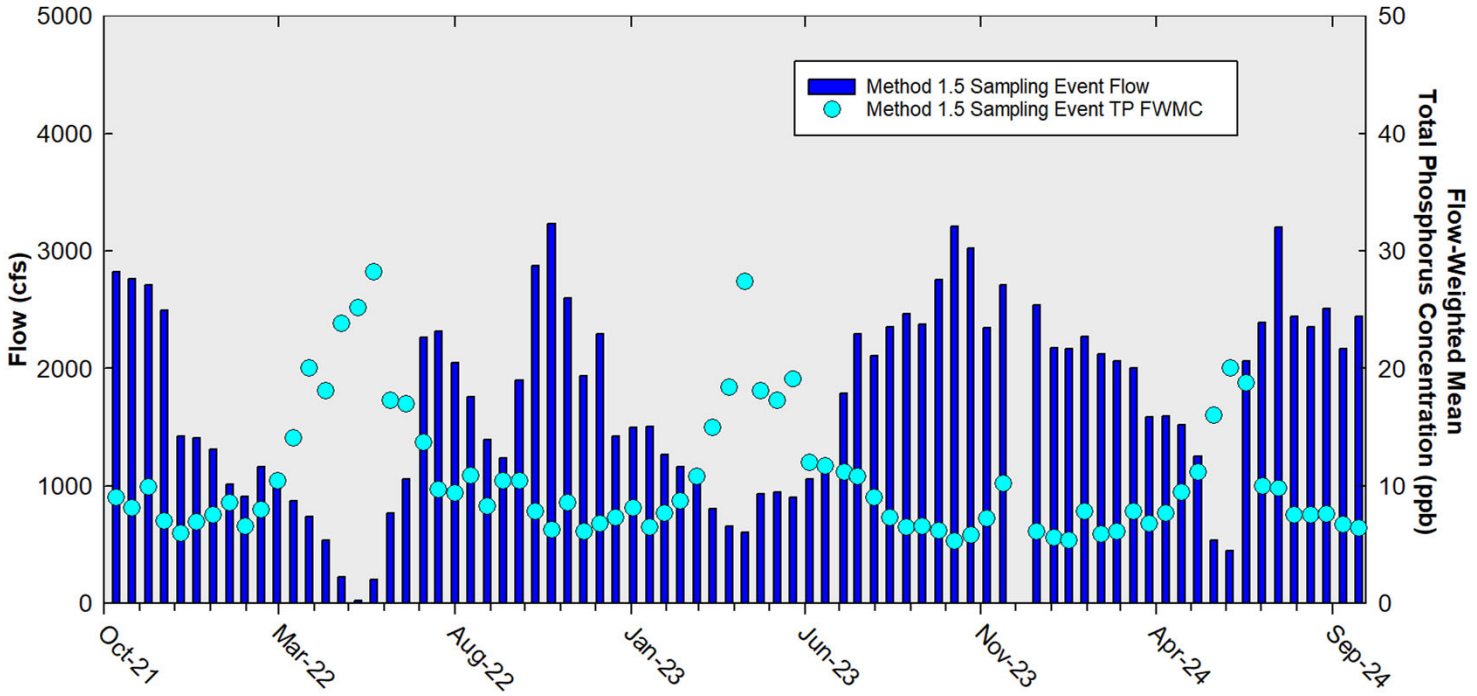
(Note: There was no flow at S355A or S355B during the period)



Daily Flows Into Shark River Slough through S333&S333N, S355A&B, and S356 and Out through S334



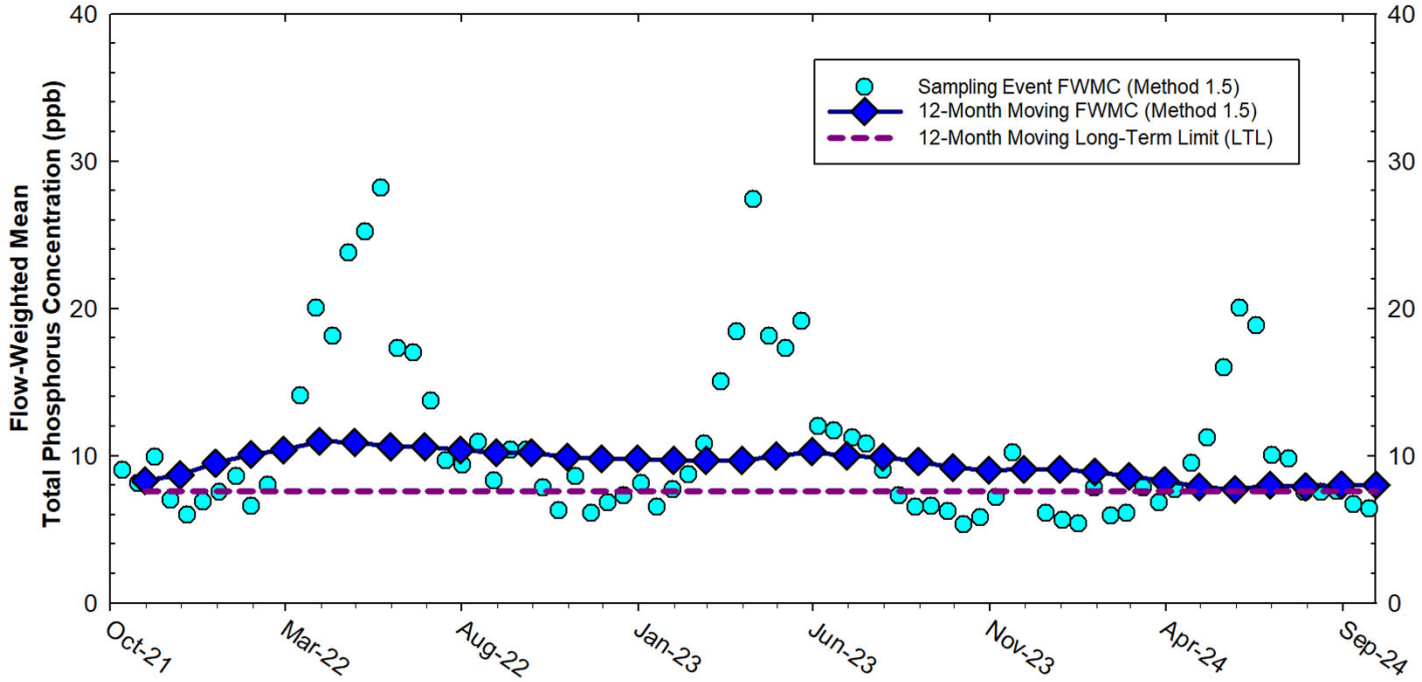
Shark River Slough
Sampling Event Flow and FWMC



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

Shark River Slough

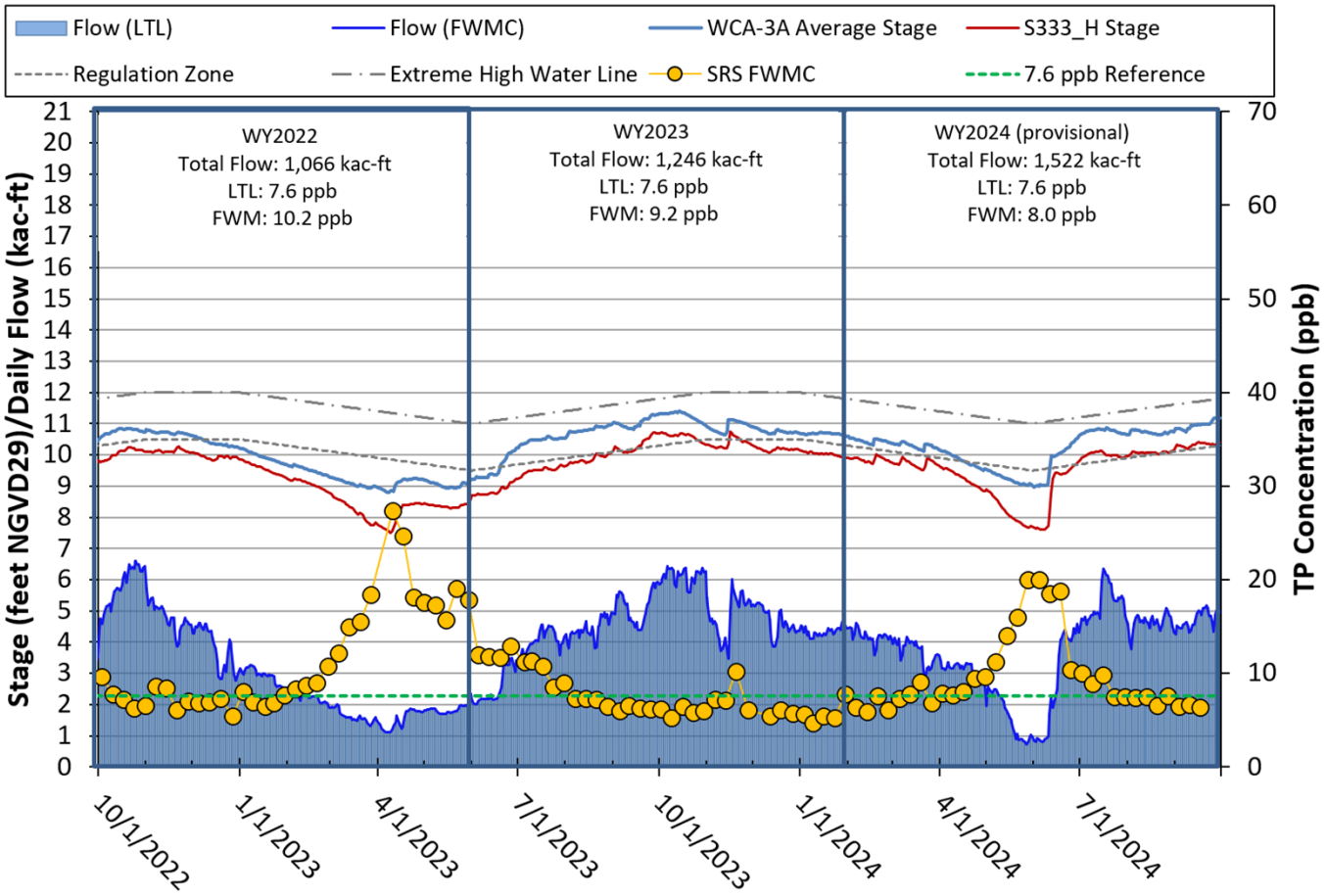
12-month Moving Flow-Weighted Mean TP and Long-Term Limit



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

Stage, Flow, and TP FWMC

Inflows to ENP through Shark River Slough



*** WY2024 results are Provisional**

Taylor Slough and Coastal Basins

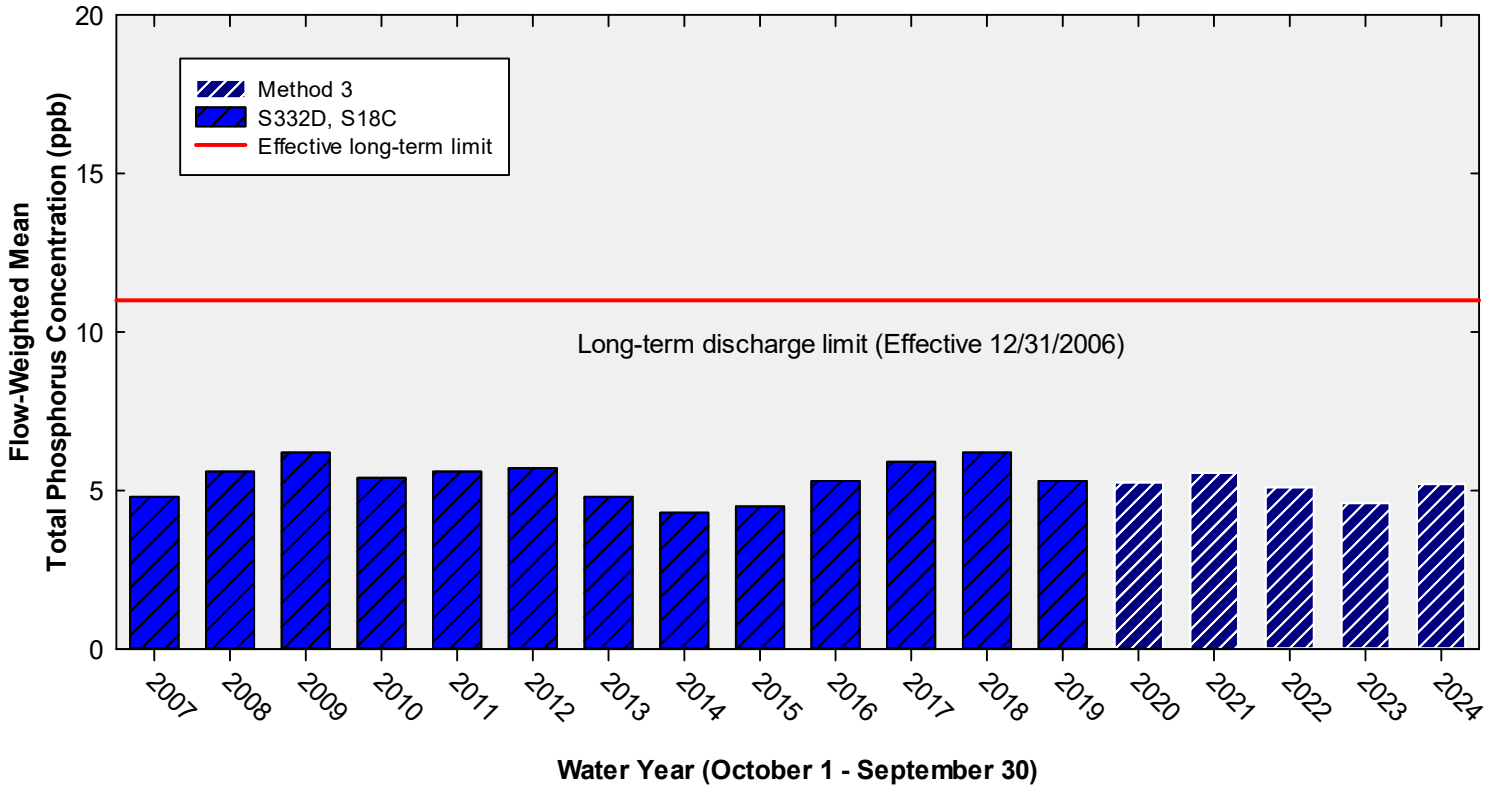
TP Concentration Compliance Tracking

12-Month Period	Total Flow (kac-ft)	Flow-Weighted Mean TP Concentration in ppb LTL = 11.0 ppb Effective 12/31/2006	Observed Percent of Sampling Events Greater than 10 ppb Guideline = 53.1%
Aug 2023 - Jul 2024	406.3	5.0	0.0
Sep 2023 - Aug 2024	405.7	5.2	0.0
Oct 2023 - Sep 2024	430.5	5.2	0.0

FWMC computed as [(S332D-S332DX1–S328)+S328+G737+S18C] using all flow and TP grabs on weekly sampling.

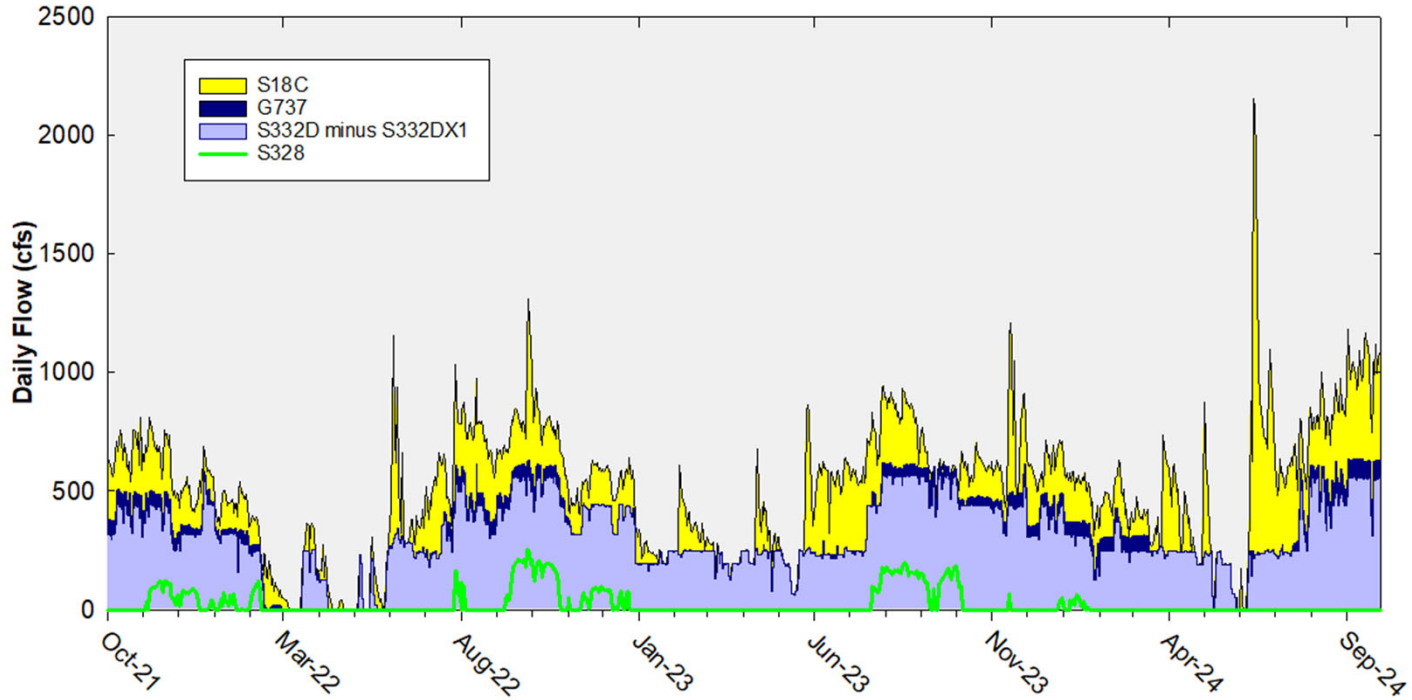
Total flow is [(S332D-S332DX1)+G737+S18C]

Annual Flow-Weighted Mean Concentrations of Inflows to the ENP through Taylor Slough and Coastal Basins

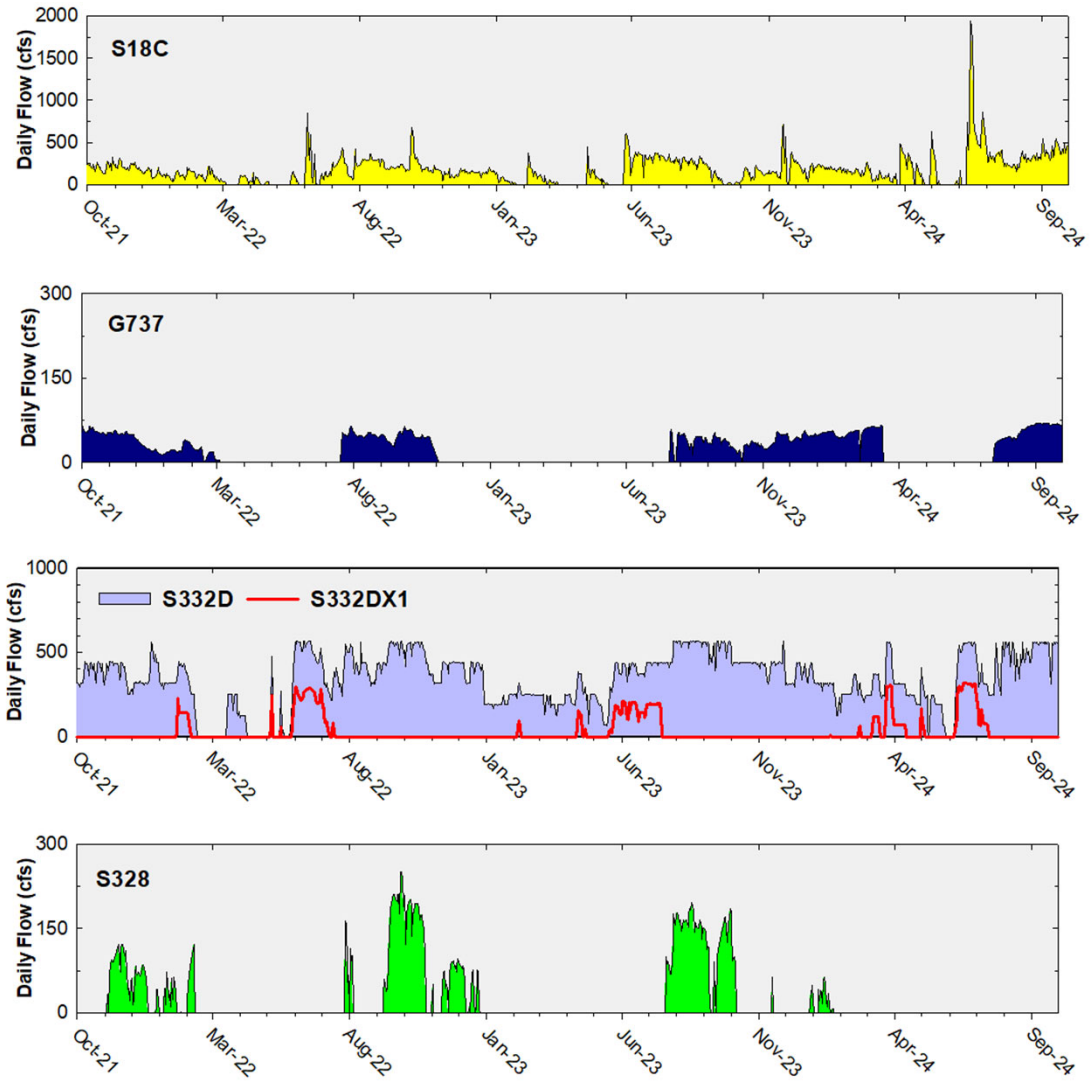


The 12-month FWMC at the end of each water year compared to the 11 ppb long-term TP limit

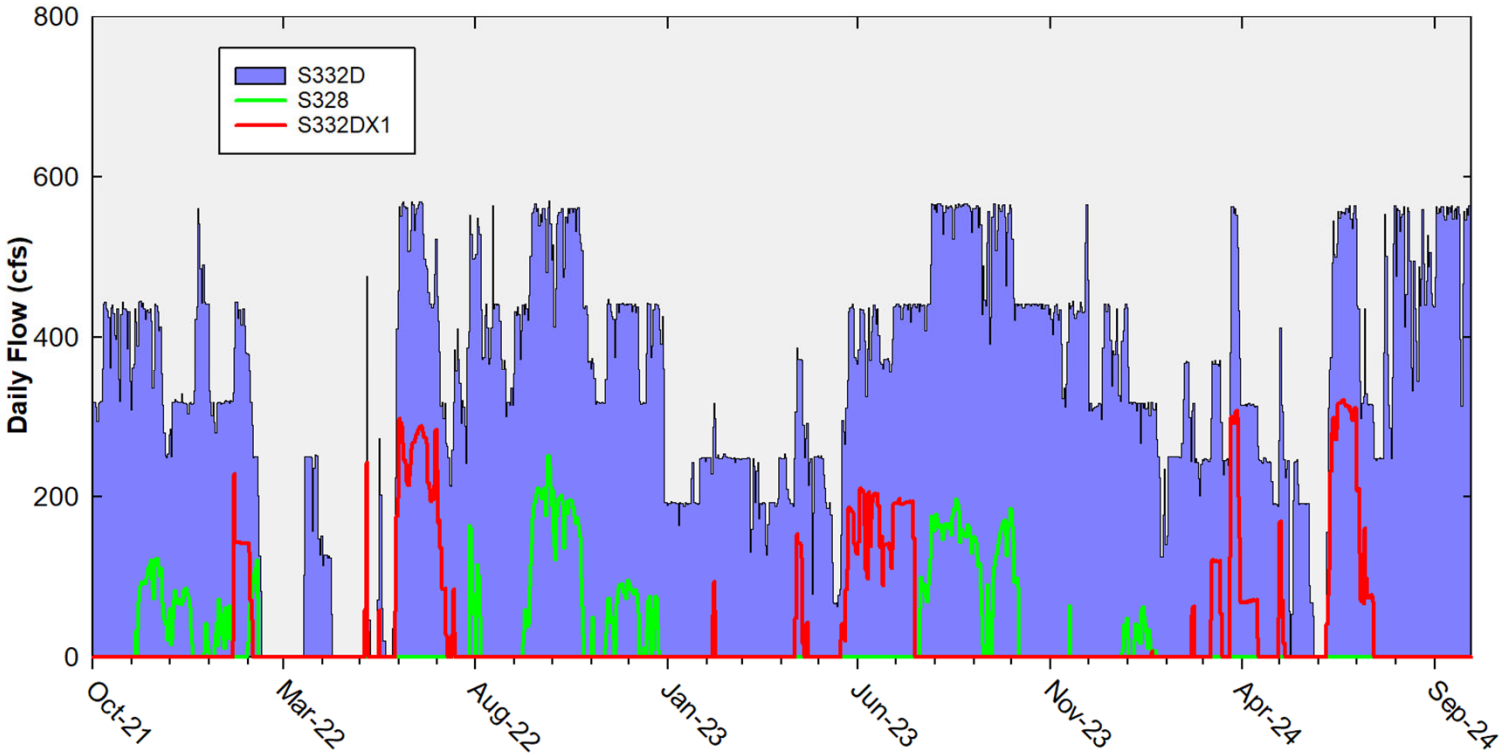
Daily Flows at Taylor Slough and Coastal Basins Structures into ENP



Daily Flows at Individual Taylor Slough and Coastal Basins Structures

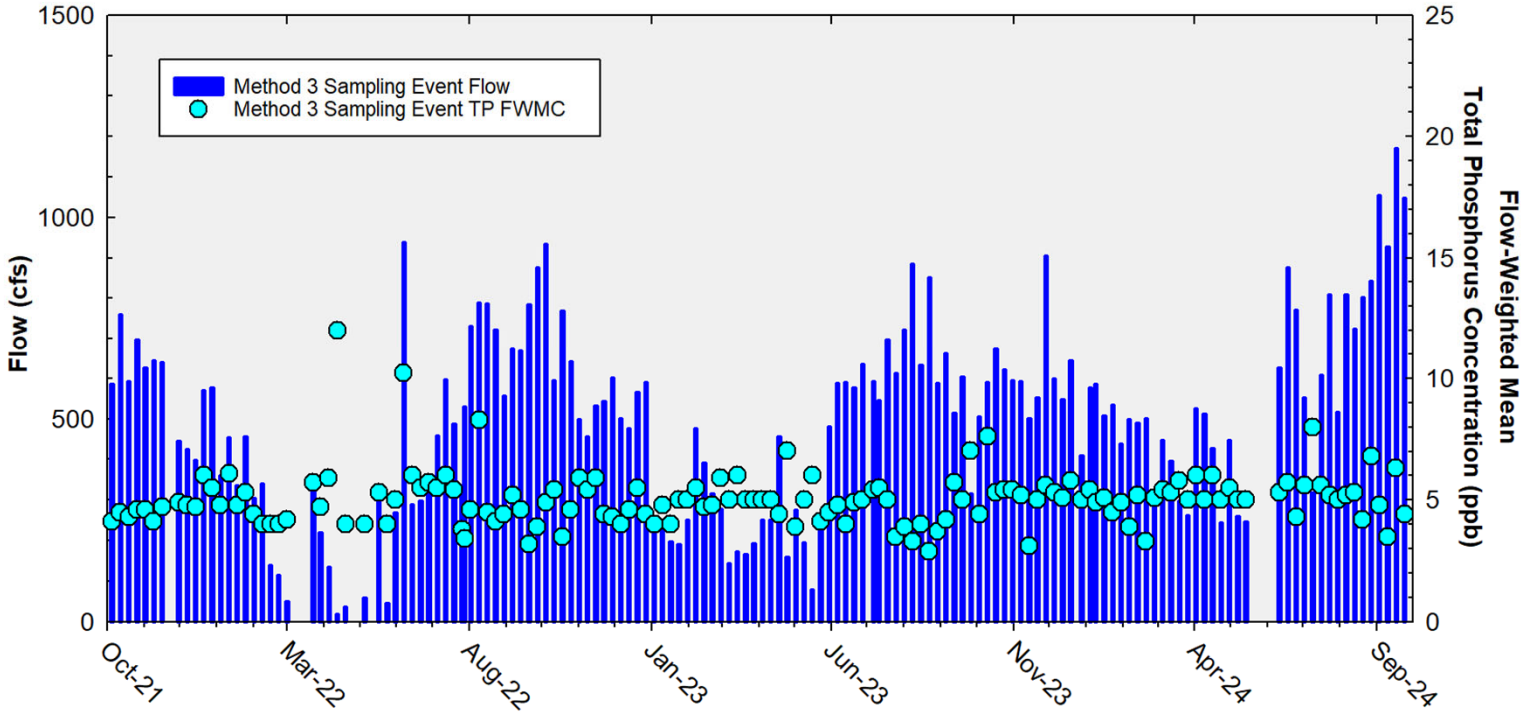


Daily Flows In and Out of S332D Flowway



Taylor Slough and Coastal Basins

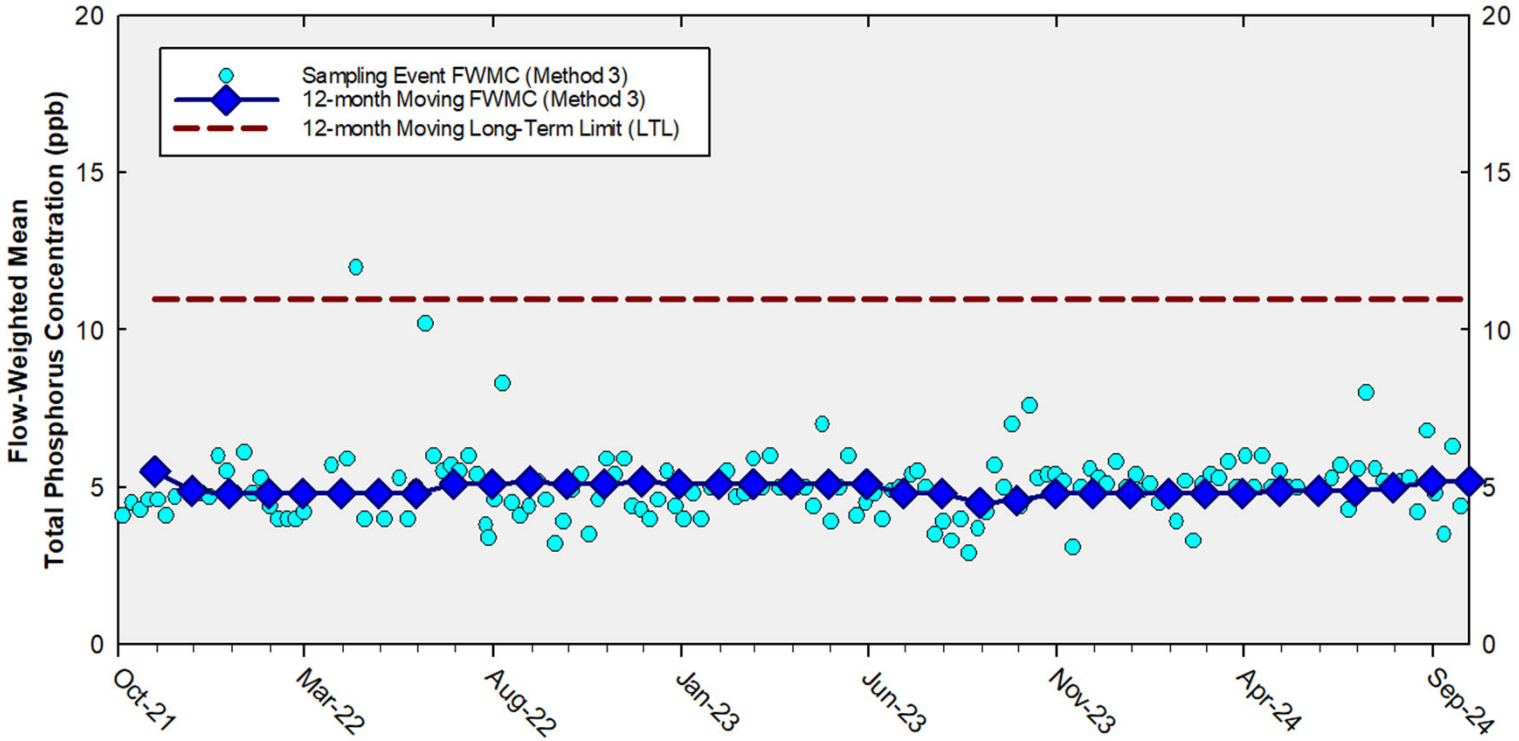
Sampling Event Flow and FWMC



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

Taylor Slough and Coastal Basins

12-month Moving Flow-Weighted Mean TP and Long-Term Limit



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


Thank You