SOUTH FLORIDA WATER MANAGEMENT DISTRICT

SETTLEMENT AGREEMENT QUARTERLY REPORT

January – March 2022

Chelsea Qiu, P.E., Ph.D.
Lead Engineer
Compliance Assessment & Reporting Section
Water Quality Bureau

Technical Oversight Committee

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sfwmd.gov

SUMMARY

Month	Geometric Mean TP Concentration (ppb)	Long-Term Level (ppb)	Mean Stage (ft NGVD29)	Number of Samples
Arthur R. Marshall Loxahatchee National Wildlife Refuge				
Jan 2022	5.7	7.2	17.32	14
Feb 2022	5.0	7.3	17.12	13
Mar 2022	7.3	8.4	16.80	14

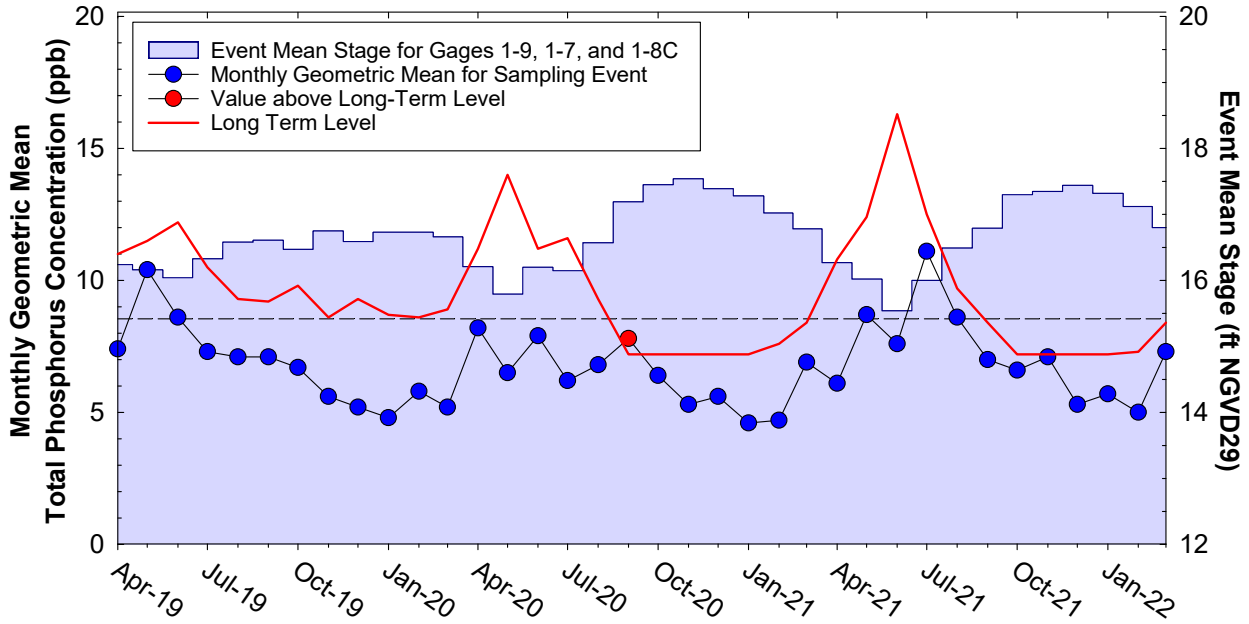
12-Month Period Ending	Total Flow (kac-ft)	12-Month TP FWMC (ppb)	Long-Term Limit (ppb)	Percent of Sampling Events Greater than 10 ppb	
				Observed (%)	Guideline (%)
Everglades National Park – Shark River Slough – *PROVISIONAL DATA and RESULTS*					
Jan 2022	1,128.9	10.1	7.6	48.1	40.1
Feb 2022	1,055.1	10.4	7.7	51.9	40.3
Mar 2022	997.4	11.0	7.9	57.7	41.5
Everglades National Park – Taylor Slough and Coastal Basins					
Jan 2022	297.7	4.8	11.0	0.0	53.1
Feb 2022	285.7	4.8	11.0	0.0	53.1
Mar 2022	286.3	4.8	11.0	0.0	53.1

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.

A.R.M Loxahatchee National Wildlife Refuge

Monthly Total Phosphorus Geometric Mean Concentrations

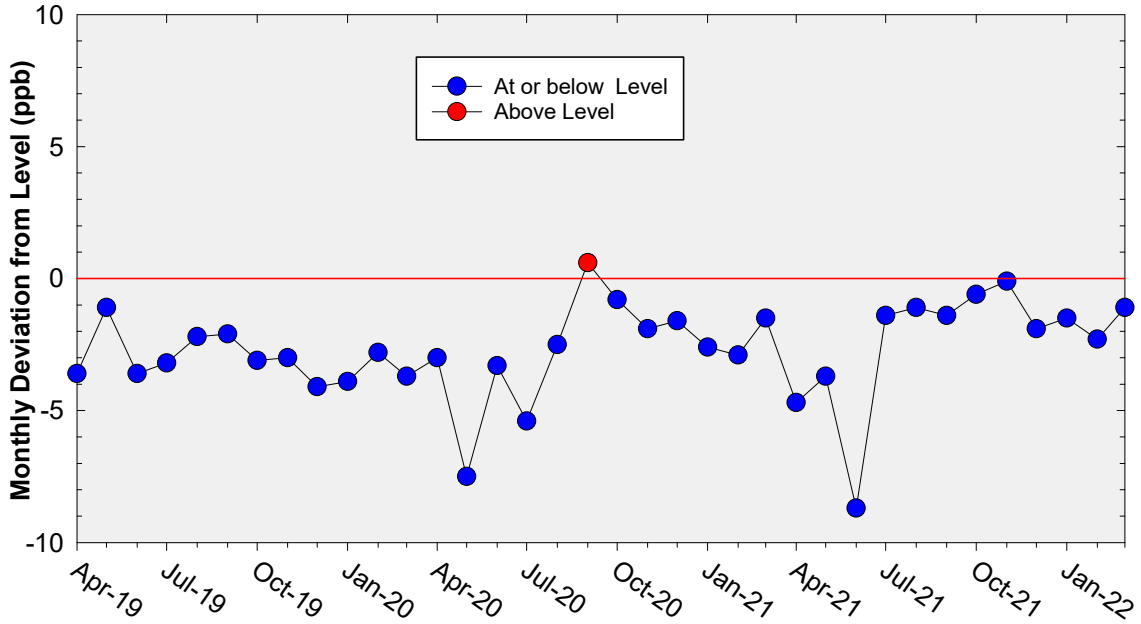


36-Month Average TP Geometric Mean = 6.8 ppb

36-Month Average TP Long-term Level is = 9.5 ppb

A.R.M Loxahatchee National Wildlife Refuge

Deviation of monthly geometric mean total phosphorus



36-Month Average TP geometric mean = 2.8 ppb below the Long-Term Level

Refuge TP Compliance Tracking

For January – July 2022

Month	Geometric Mean TP Concentration (ppb)	Long-Term Level (ppb) Effective 12/31/2006	Average Stage (feet NGVD29)	Number of Samples
1st Quarter 2022 Compliance Tracking				
Jan-2022	5.7	7.2	17.32	14
Feb-2022	5.0	7.3	17.12	13
Mar-2022	7.3	8.4	16.80	14
Preliminary Data Outlook				
Apr-2022	7.7	10.6	16.31	13
May-2022	9.1	13.3	15.89	7
Jun-2022	9.7	9.3	16.59	14
Jul-2022	7.6	10.32	16.36	12

Note: 17.14 ft NGVD29 was used for the long-term level calculation for January 2022.

Shark River Slough
TP Concentration Compliance Tracking

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	
				Observed (%)	Guideline (%)
Feb 2021 - Jan 2022	1,128.9	10.1	7.6	48.1	40.1
Mar 2021 - Feb 2022	1,055.1	10.4	7.7	51.9	40.3
Apr 2021 - Mar 2022	997.4	11.0	7.9	57.7	41.5

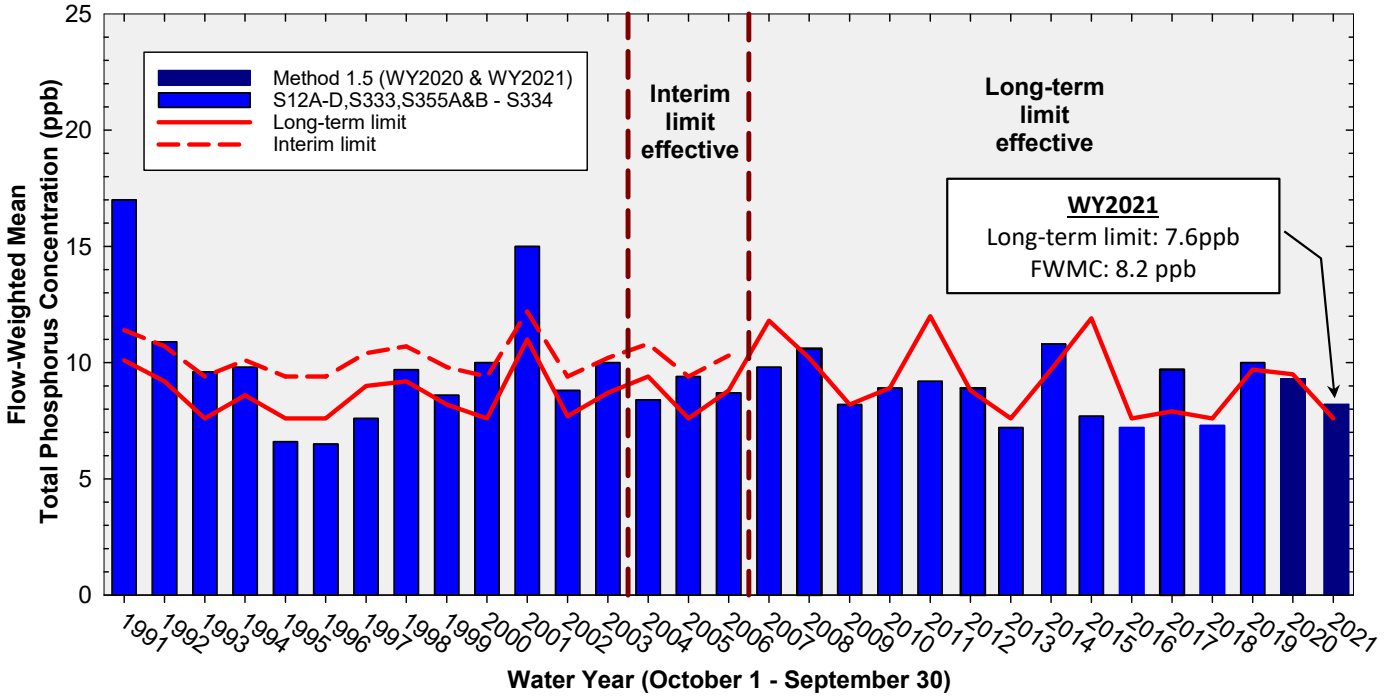
Shark River Slough PROVISIONAL RESULTS:

FWMC computed as S12s + [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

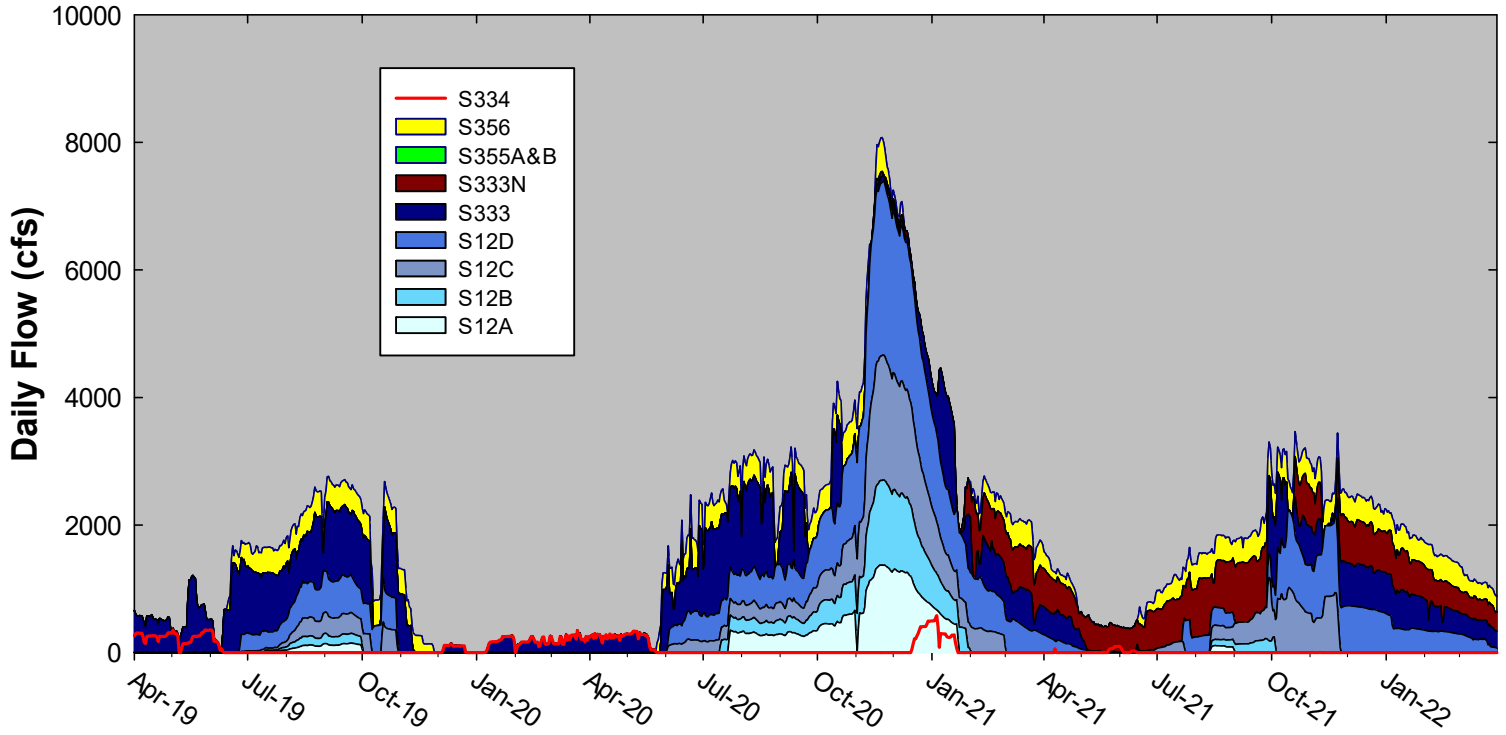
Inflows to ENP through Shark River Slough



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

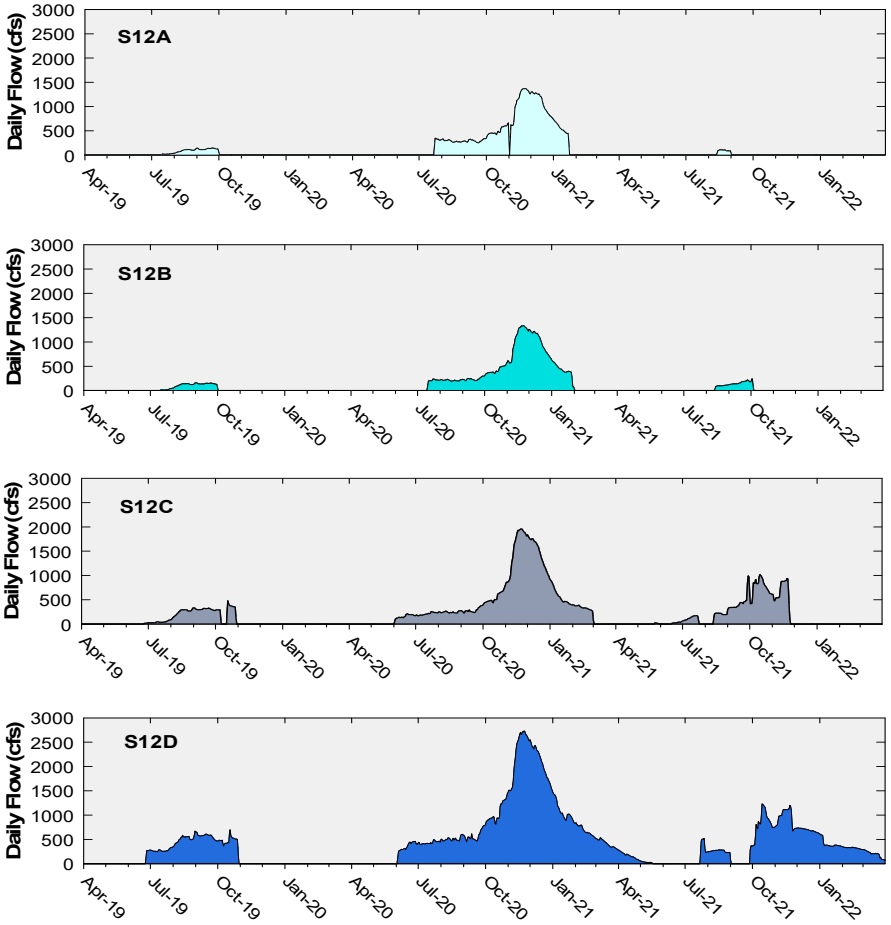
Shark River Slough Structure Daily Flows

WY2022 (October 1, 2021, to March 31, 2022) Flow Data for S12s are Provisional.

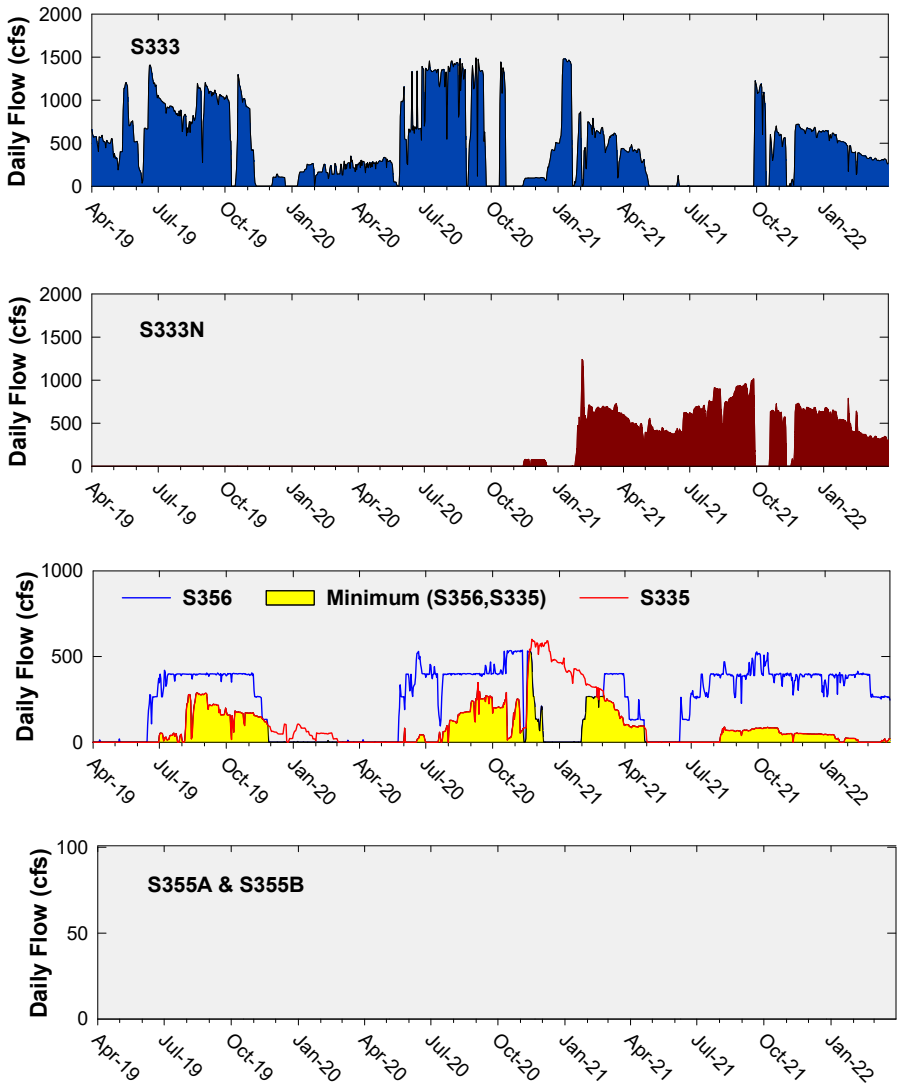


Daily Flows at S12 Structures to Shark River Slough

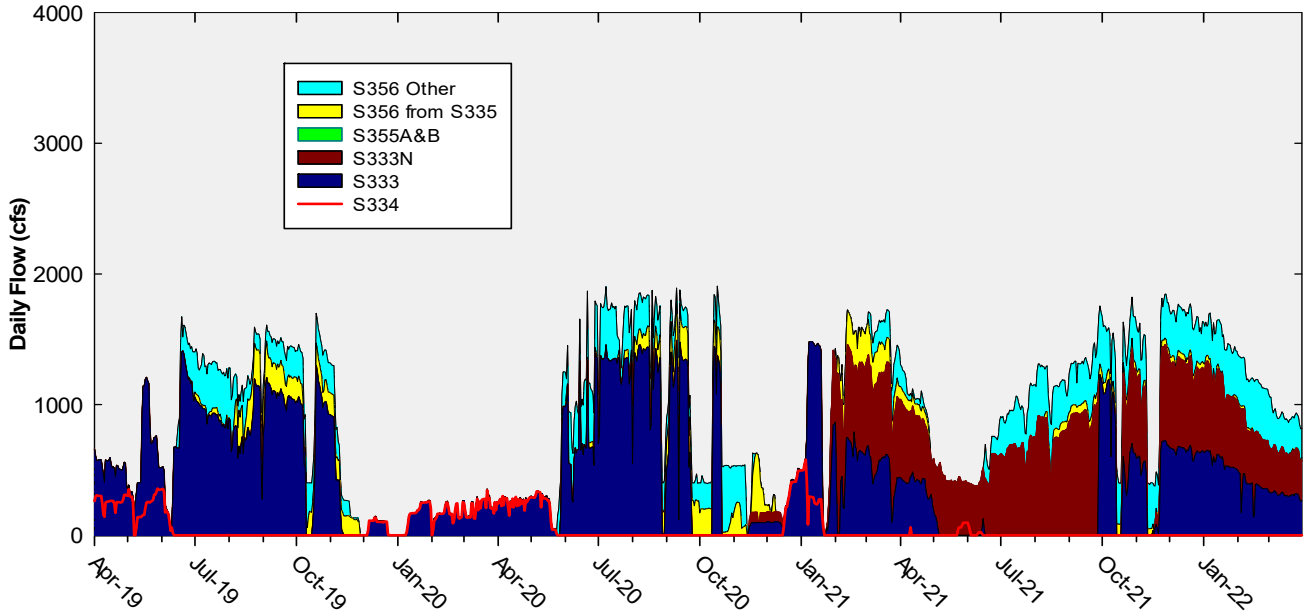
WY2022 (October 1, 2021, to March 31, 2022) Flow Data for S12s are Provisional.



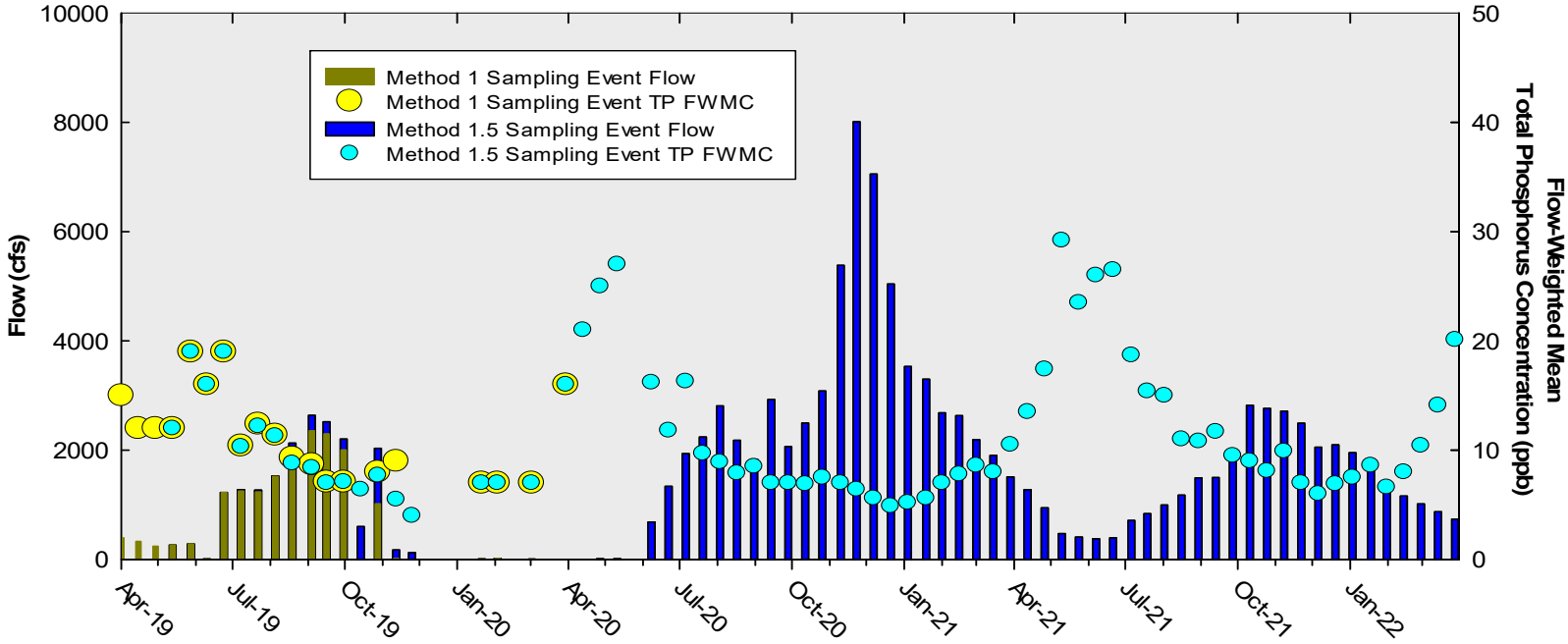
Daily Flows at Individual Inflow Structures to Shark River Slough



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



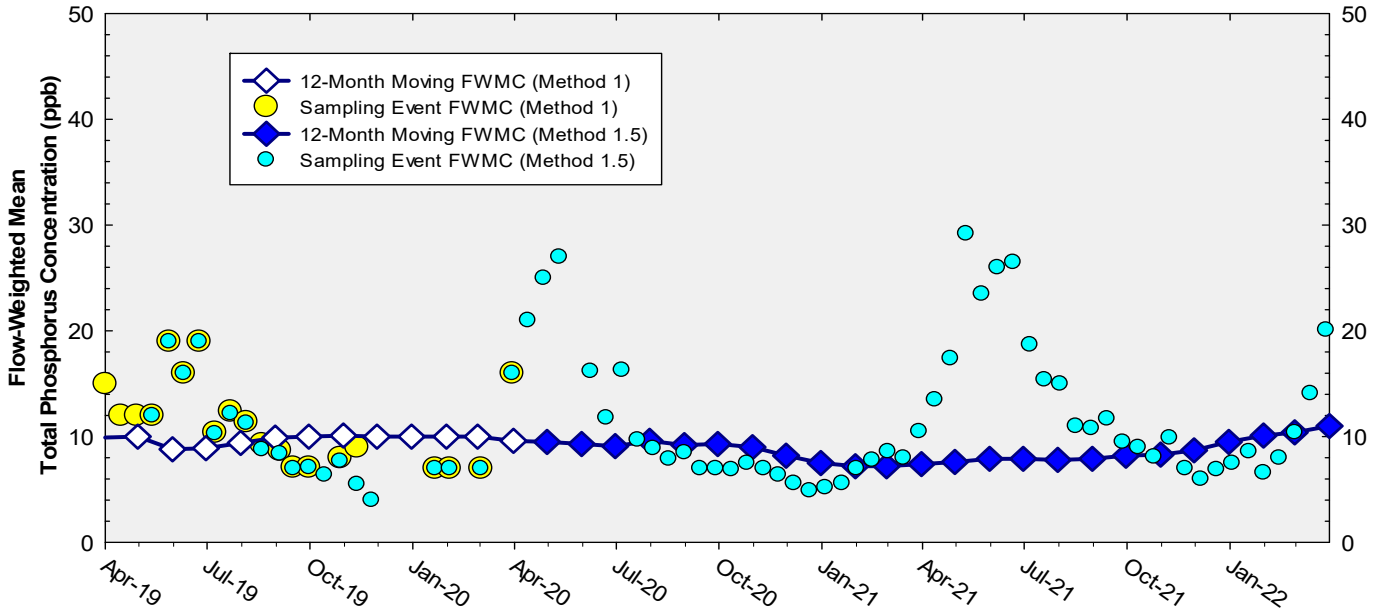
Shark River Slough
Sampling Event Flow and FWMC



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

Note: WY2022 (October 1, 2021, to March 31, 2022) Flow Data for S12s are Provisional.

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

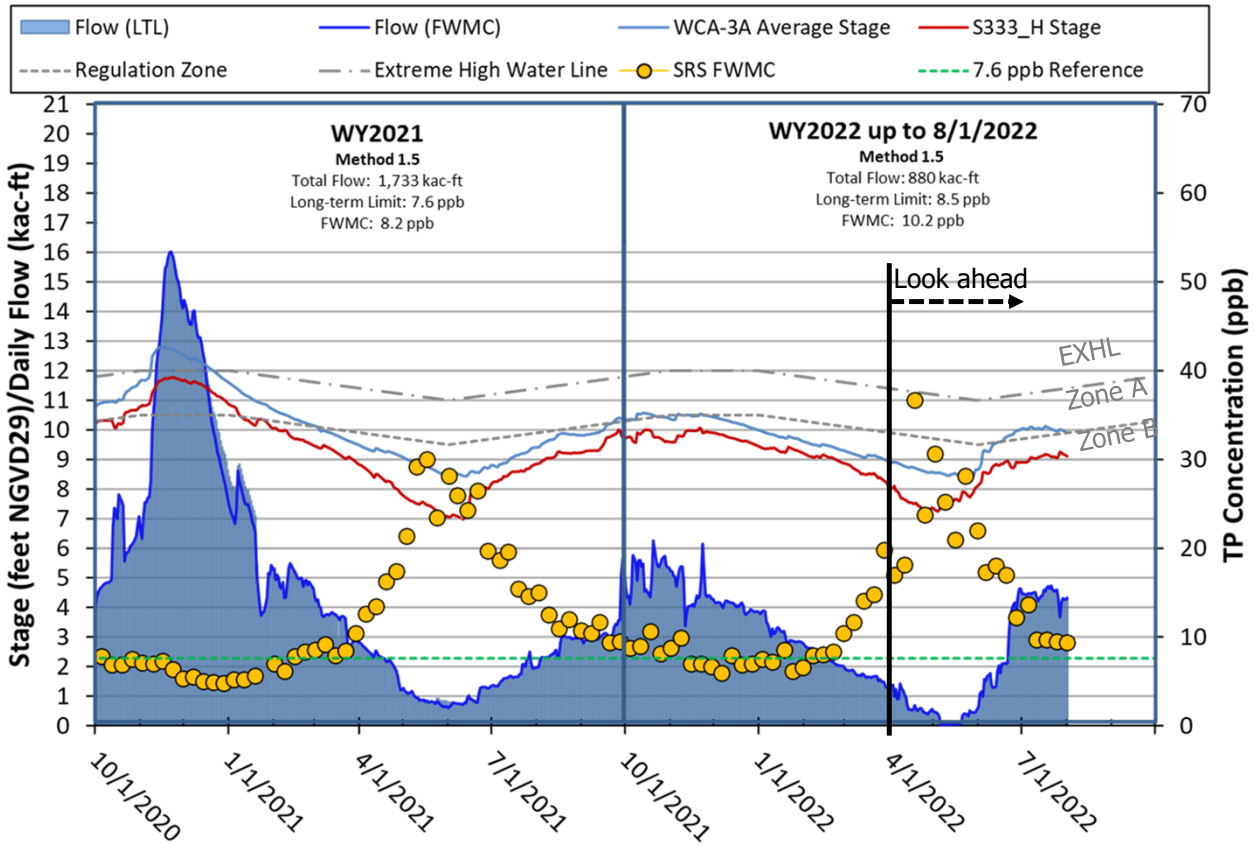


The composite TP concentration and 12-month FWMC at the end of each month for each sampling event

WY2022 (October 1, 2021, to March 31, 2022) Flow Data for S12s are Provisional.

WY2021 & 2022* Stage, Flow, and TP FWMC

Inflows to ENP through Shark River Slough



* WY2022 Up to Date results are Provisional data for Look Ahead

Taylor Slough and Coastal Basins

TP Concentration Compliance Tracking

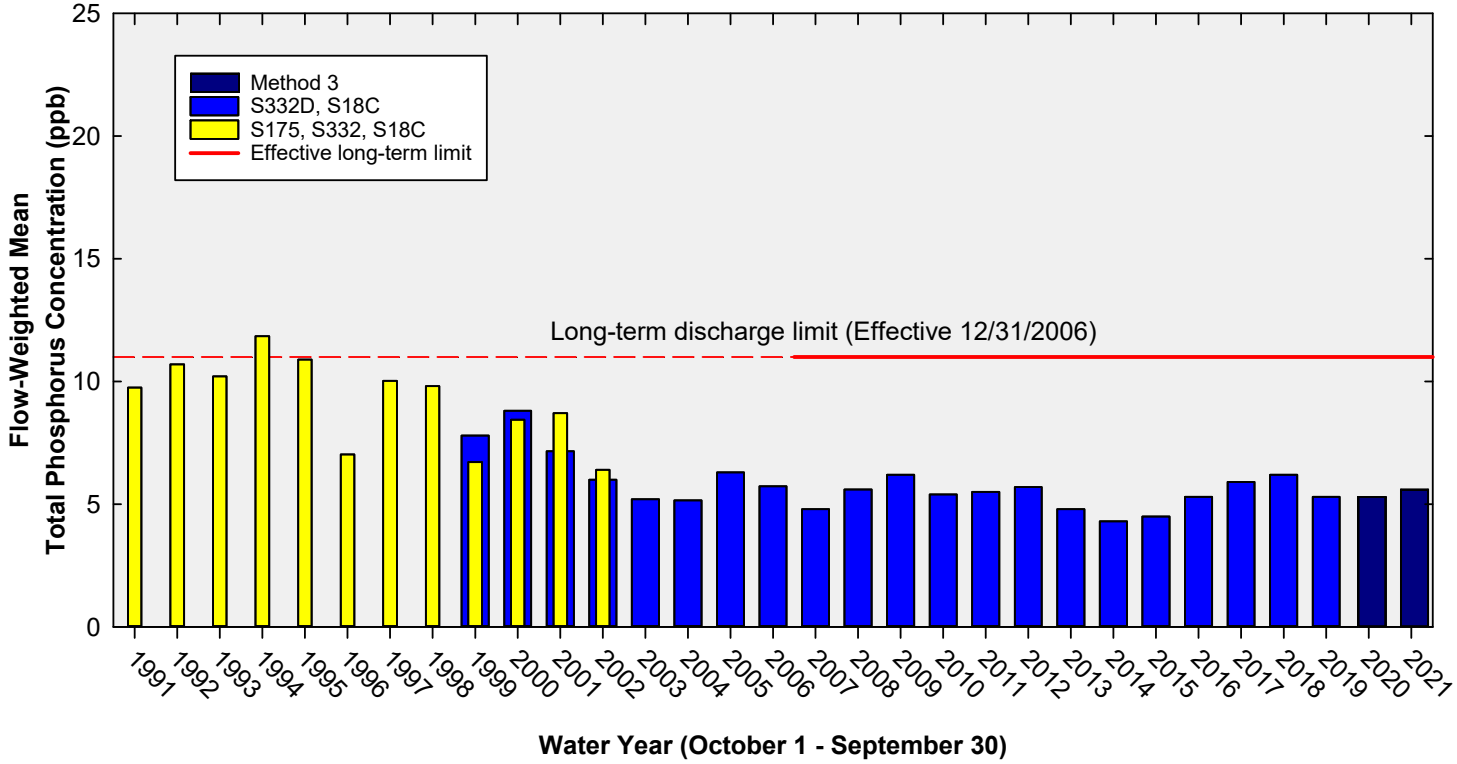
12-Month Period	Total Flow (kac-ft)	Flow-Weighted Mean TP Concentration in ppb LTL = 11.0 ppb Effective 12/31/2006	Observed Percent of Sampling Events Greater than 10 ppb Guideline = 53.1%
Feb 2021 - Jan 2022	297.7	4.8	0.0
Mar 2021 - Feb 2022	285.7	4.8	0.0
Apr 2021 - Mar 2021	286.3	4.8	0.0

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

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

Annual Flow-Weighted Mean Concentrations

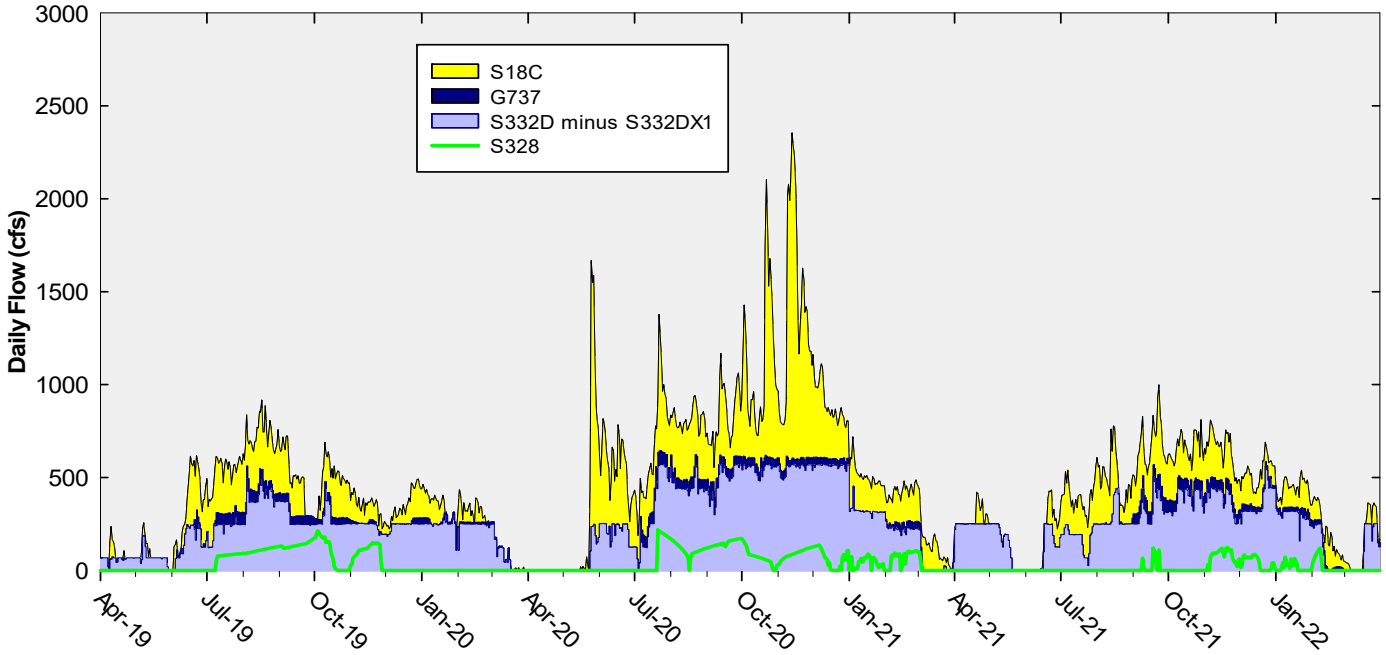
Inflows to the ENP through Taylor Slough and Coastal Basins



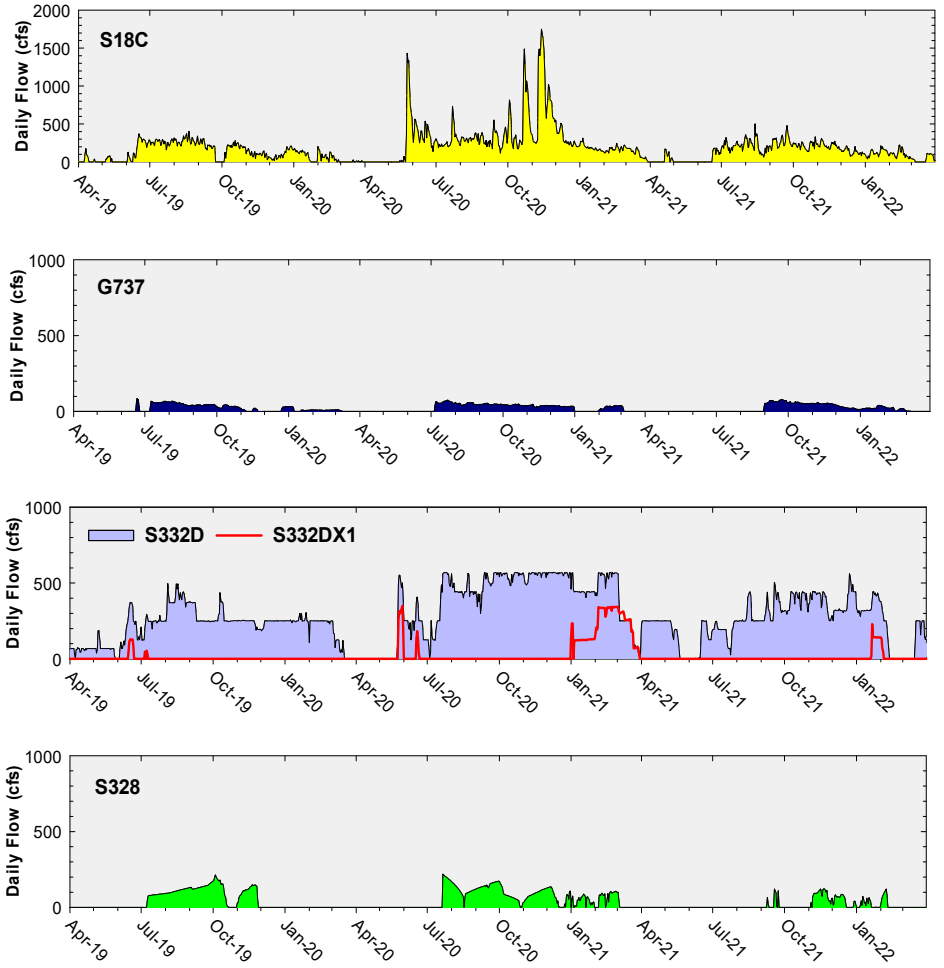
The 12-month FWMC at the end of each water year compared to the 11 ppb long-term TP limit

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

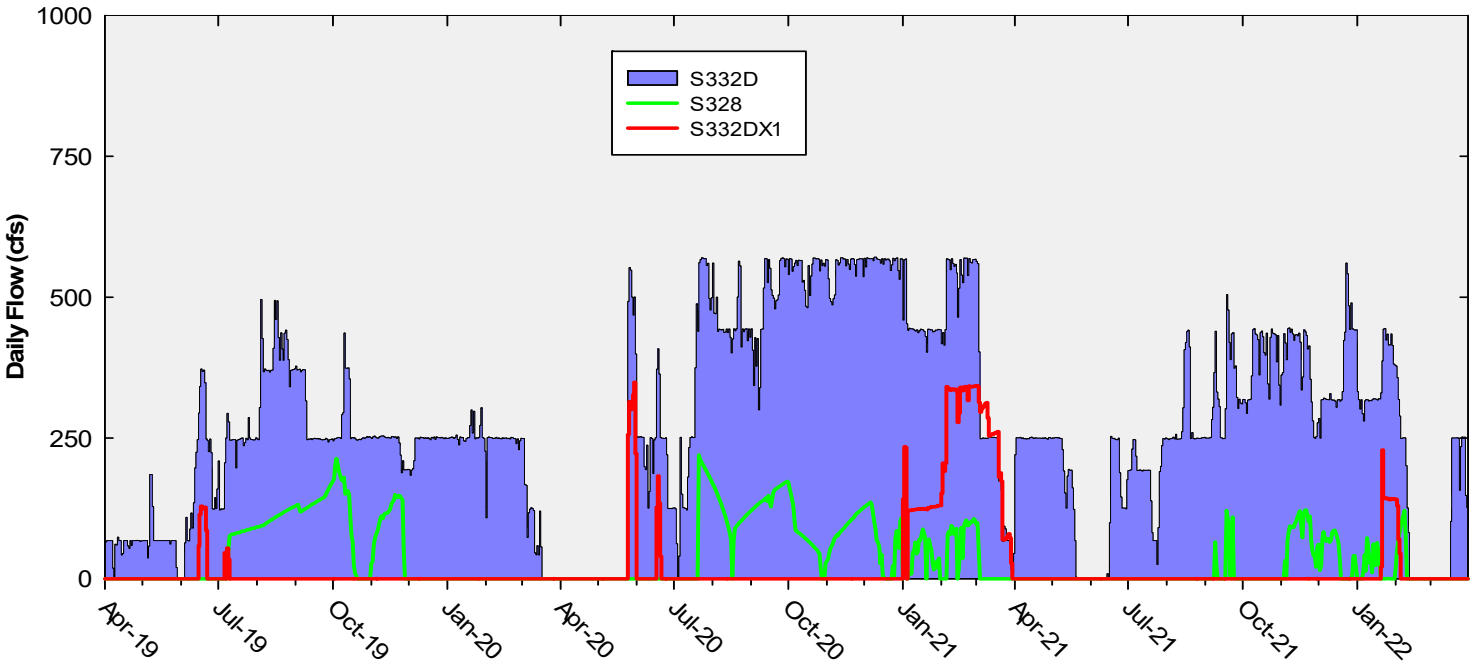
Daily Flows at Taylor Slough and Coastal Basins Structures into ENP



Daily Flows at Individual Taylor Slough and Coastal Basins Structures

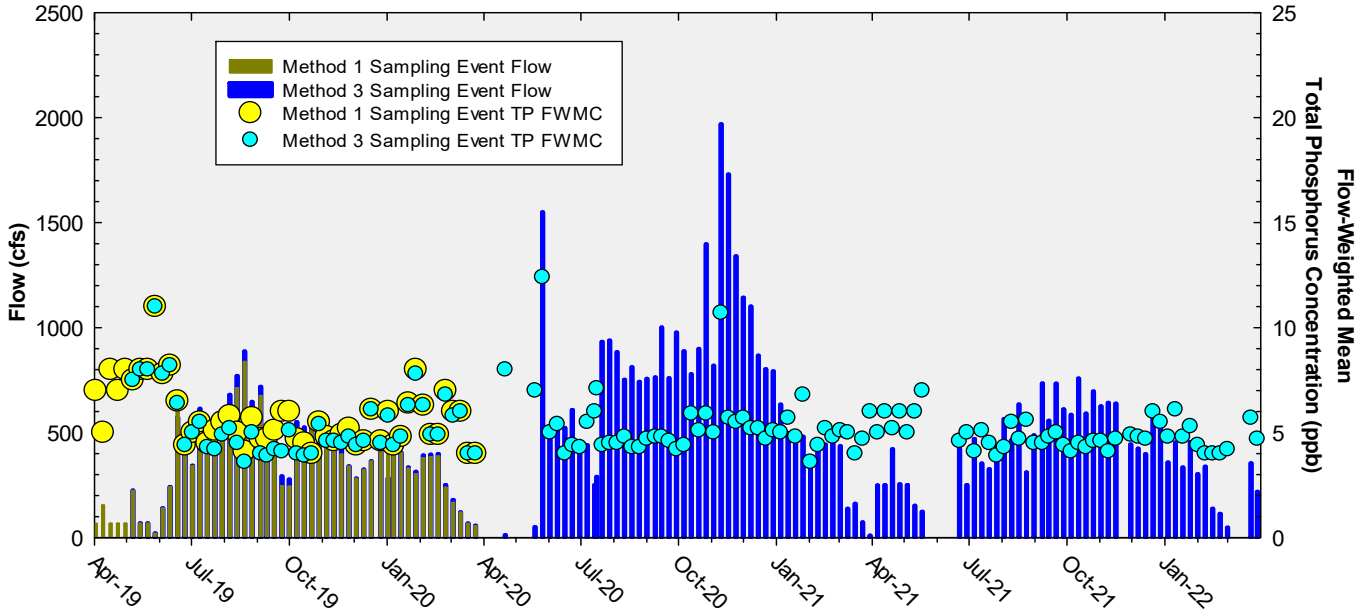


Daily Flows Into and Out of C-111 Detention Area



Taylor Slough and Coastal Basins

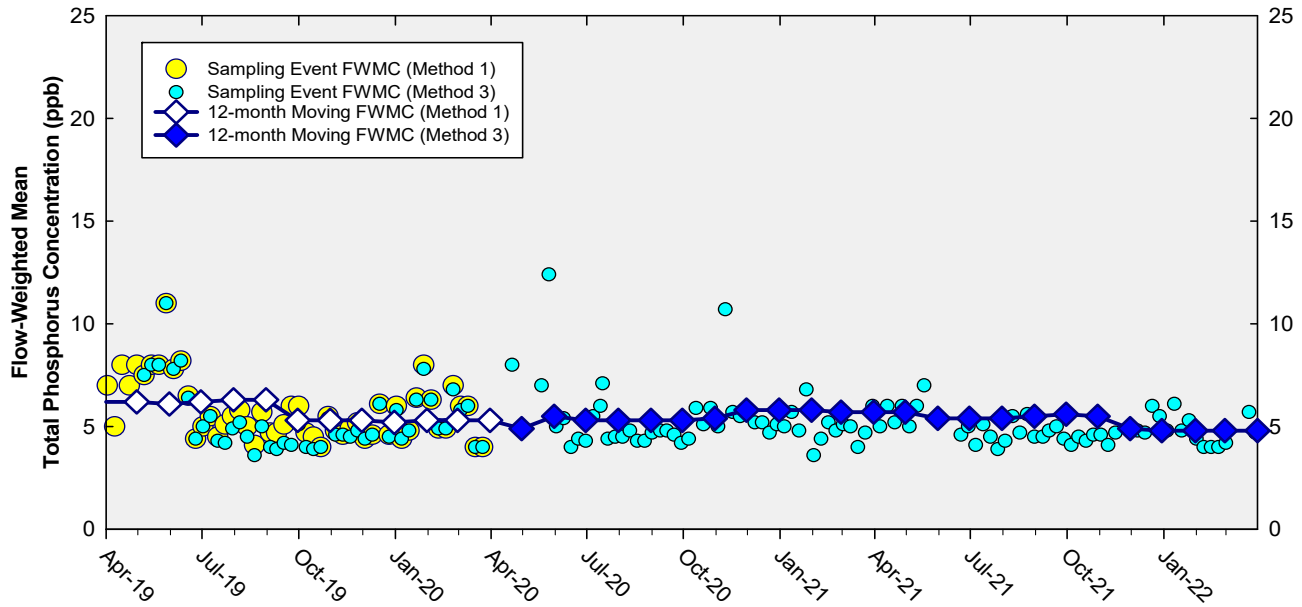
Sampling Event Flow and FWMC



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

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


Thank You