SETTLEMENT AGREEMENT QUARTERLY REPORT

April – June 2022

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Technical Oversight Committee

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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				
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

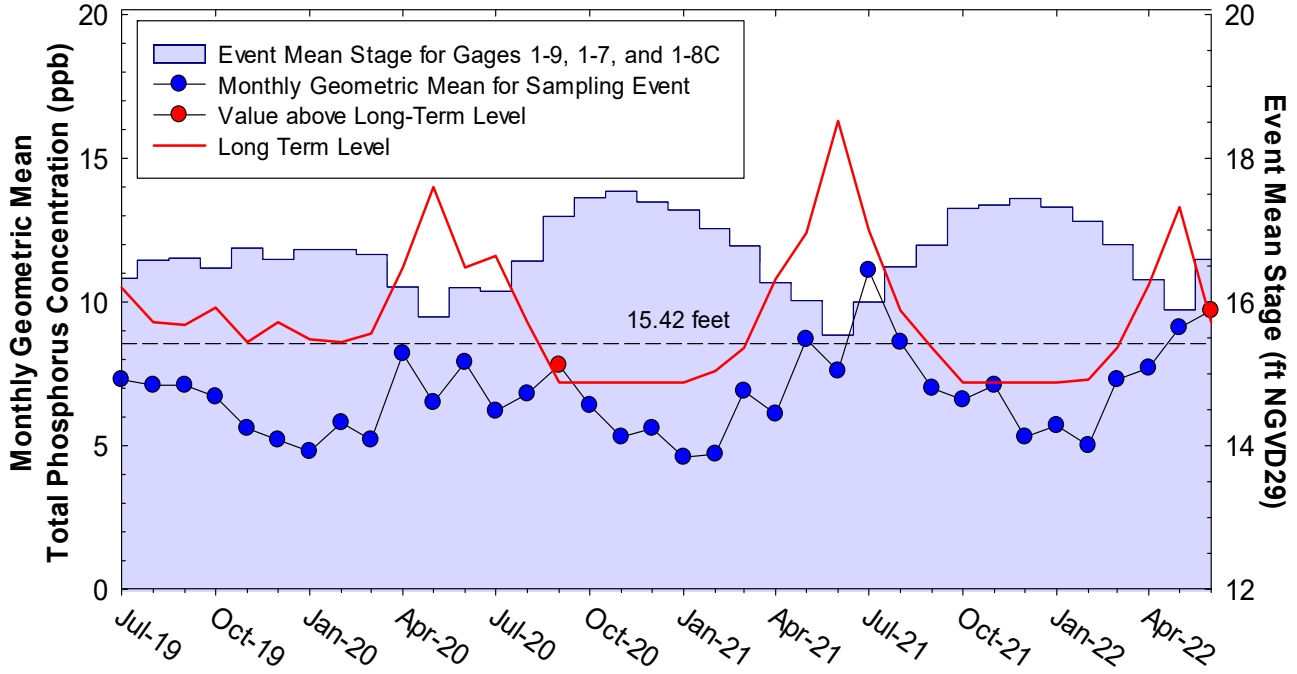
12-Month Period Ending	Total Flow (kac-ft)	12-Month TP FWMC (ppb)	Long-Term Limit (ppb)	Percent of Sampling Events Greater than 10 ppb	
				Observed (%)	Guideline (%)
Everglades National Park – Shark River Slough – *PROVISIONAL DATA and RESULTS*					
Apr 2022	953.9	10.9	8.1	57.7	42.5
May 2022	932.6	10.6	8.2	57.7	43.0
Jun 2022	973.7	10.6	8.0	57.7	42.1
Everglades National Park – Taylor Slough and Coastal Basins					
Apr 2022	273.2	4.8	11.0	2.3	53.1
May 2022	271.0	4.8	11.0	2.2	53.1
Jun 2022	288.6	5.1	11.0	4.3	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

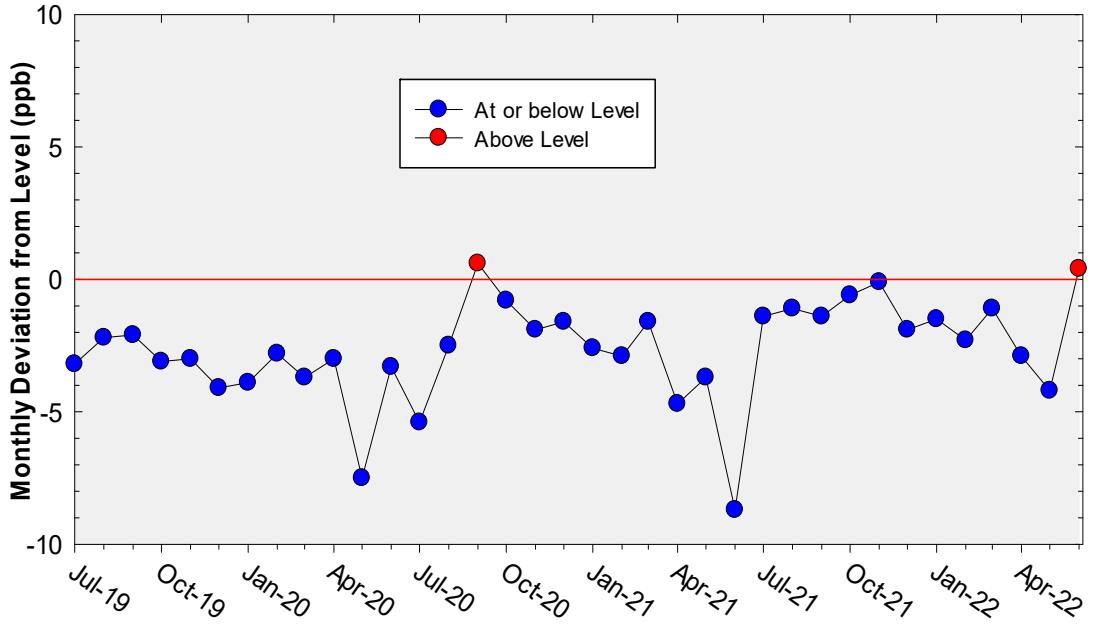


36-Month Average TP Geometric Mean = 6.8 ppb

36-Month Average TP Long-term Level is = 9.4 ppb

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 = 2.6 ppb below the Long-Term Level

Refuge TP Compliance Tracking

For April – October 2022

Month	Geometric Mean TP Concentration (ppb)	Long-Term Level (ppb) Effective 12/31/2006	Average Stage (feet NGVD29)	Number of Samples
2nd Quarter 2022 Compliance Tracking				
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
Preliminary Data Outlook				
Jul-2022	7.6	10.3	16.36	12
Aug-2022	6.7	9.4	16.56	13
Sep-2022	7.3	10.1	16.41	11
Oct-2022	6.5	7.2	17.16	14
Nov-2022	6.7	7.2	17.20	14

Note: 17.14 ft NGVD29 was used for the long-term level calculation for October and November 2022, since the average stage for this month was above the threshold of 17.14ft.

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 (%)
May 2021 - Apr 2022	953.9	10.9	8.1	57.7	42.5
Jun 2021 - May 2022	932.6	10.6	8.2	57.7	43.0
Jul 2021 - Jun 2022	973.7	10.6	8.0	57.7	42.1

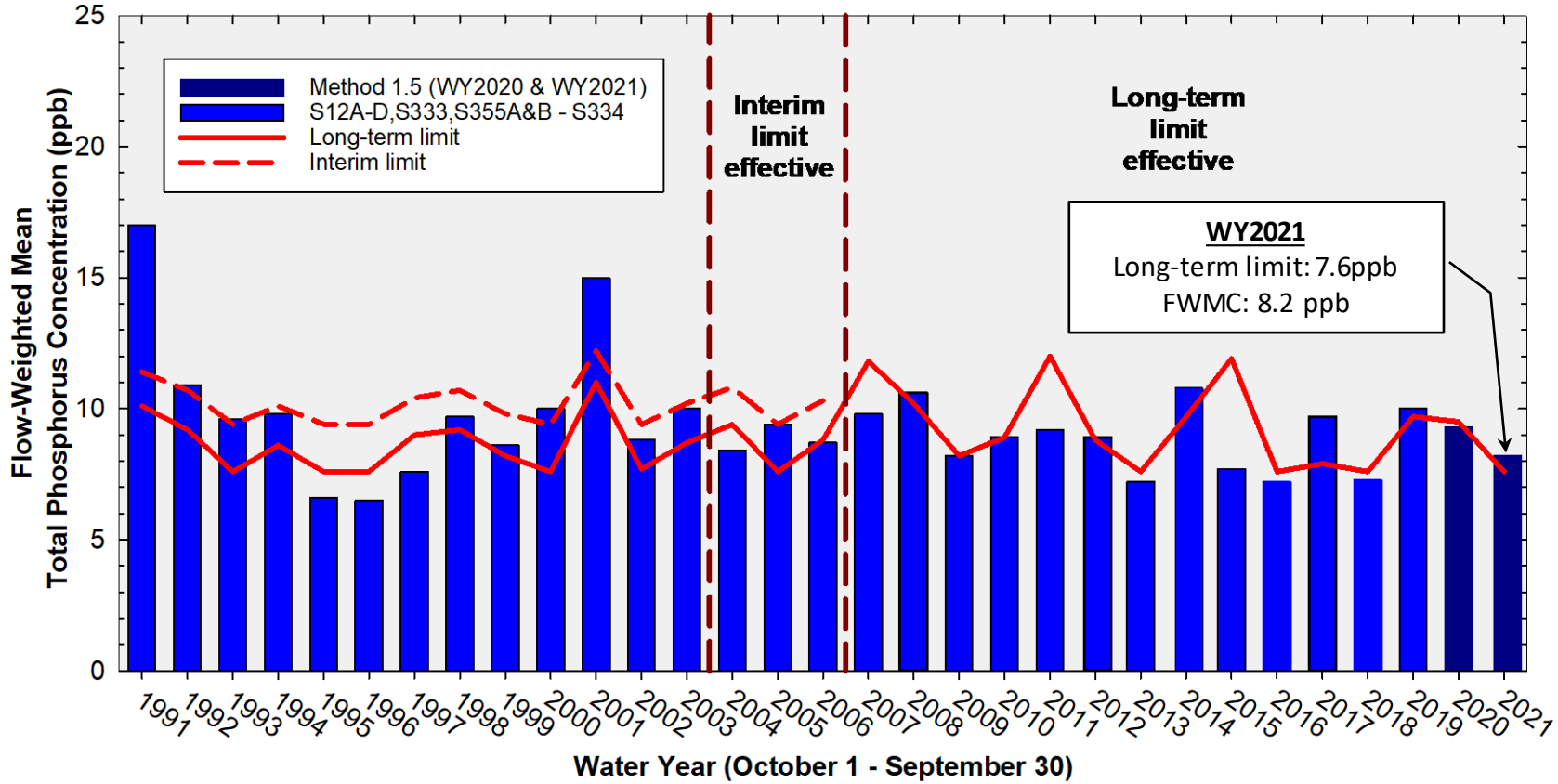
Shark River Slough PROVISIONAL RESULTS:

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

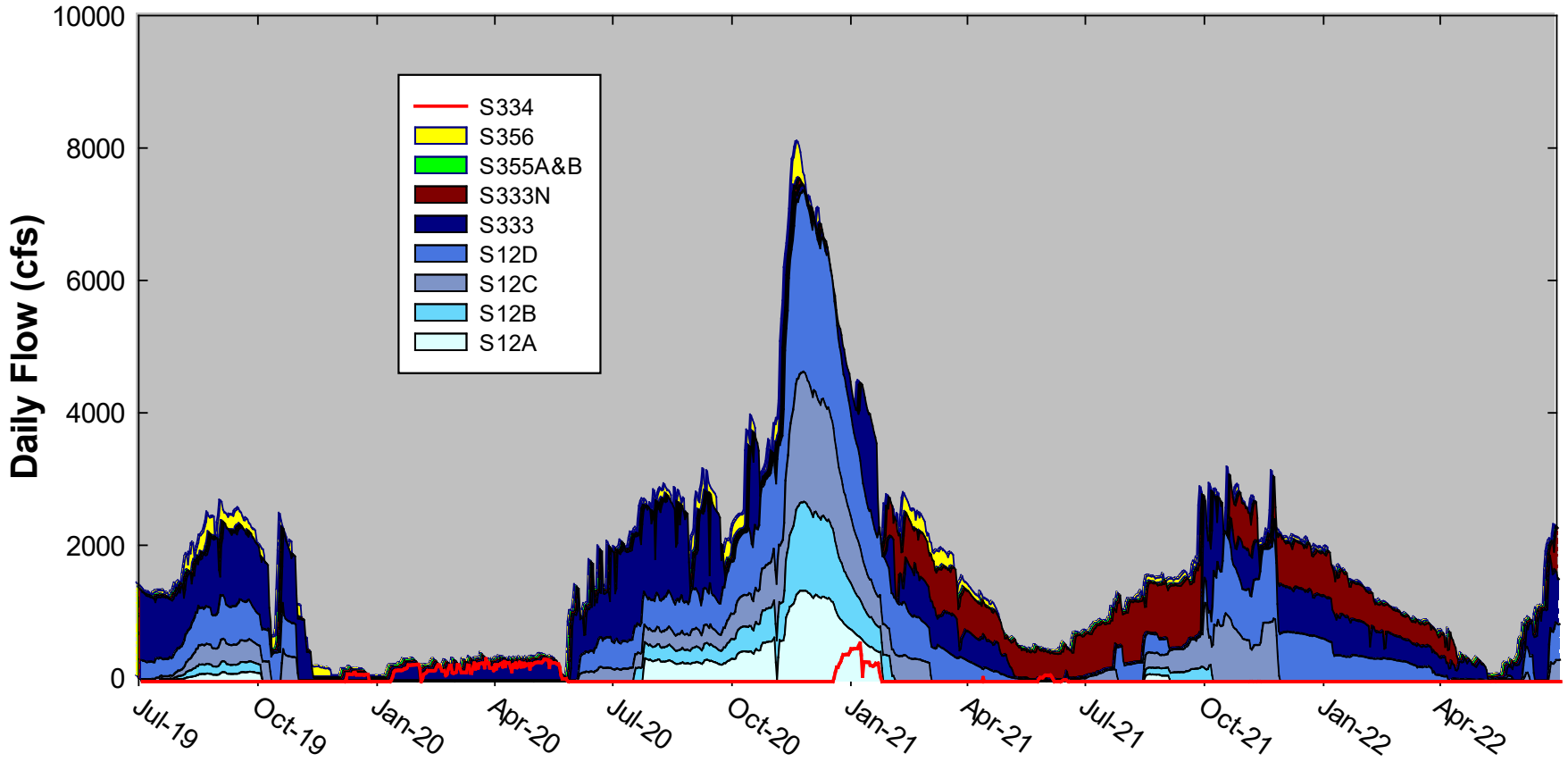
Inflows to ENP through Shark River Slough



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

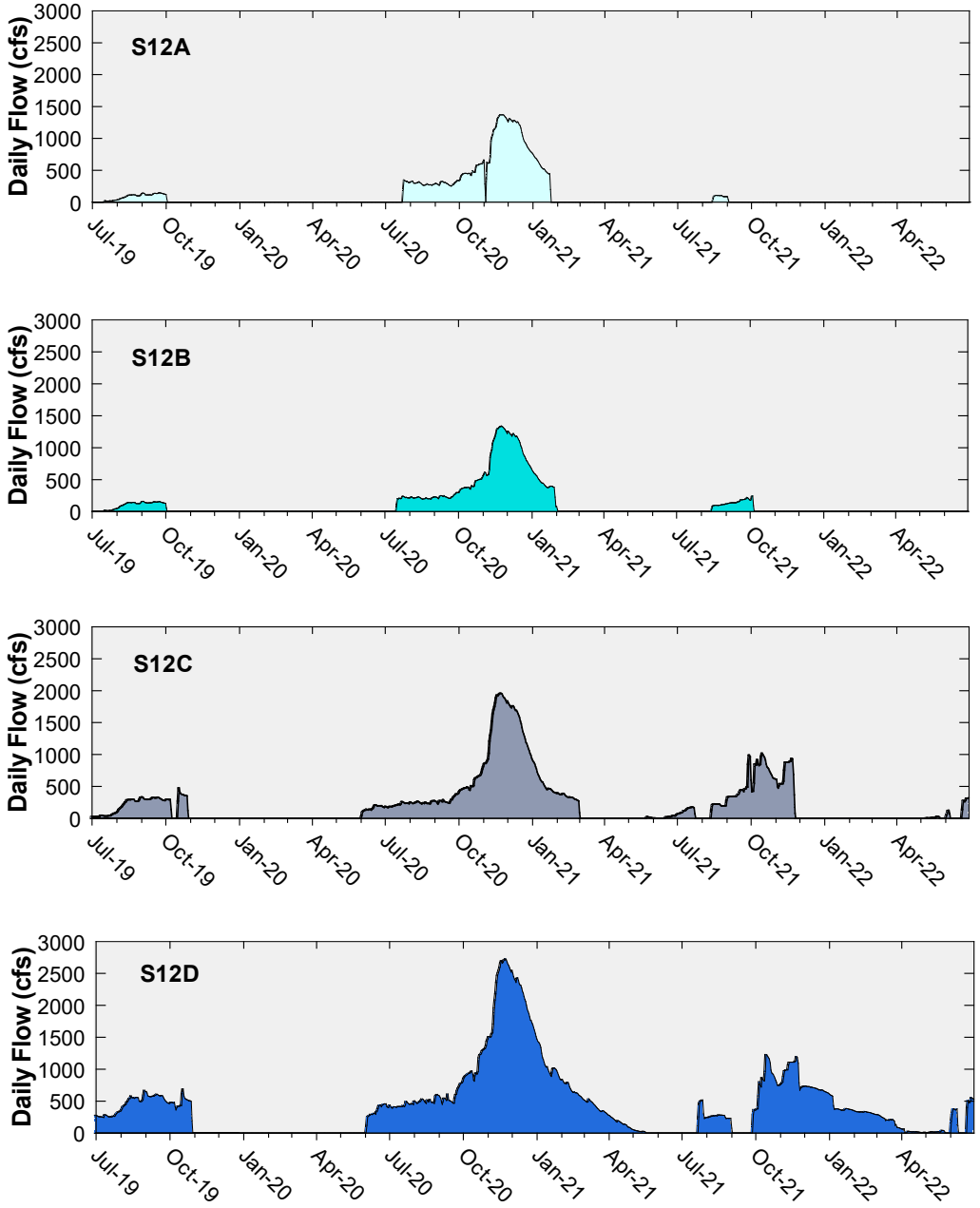
Shark River Slough Structure Daily Flows

WY2022 (October 1, 2021, to June 30, 2022) Flow Data for S12s are Provisional.

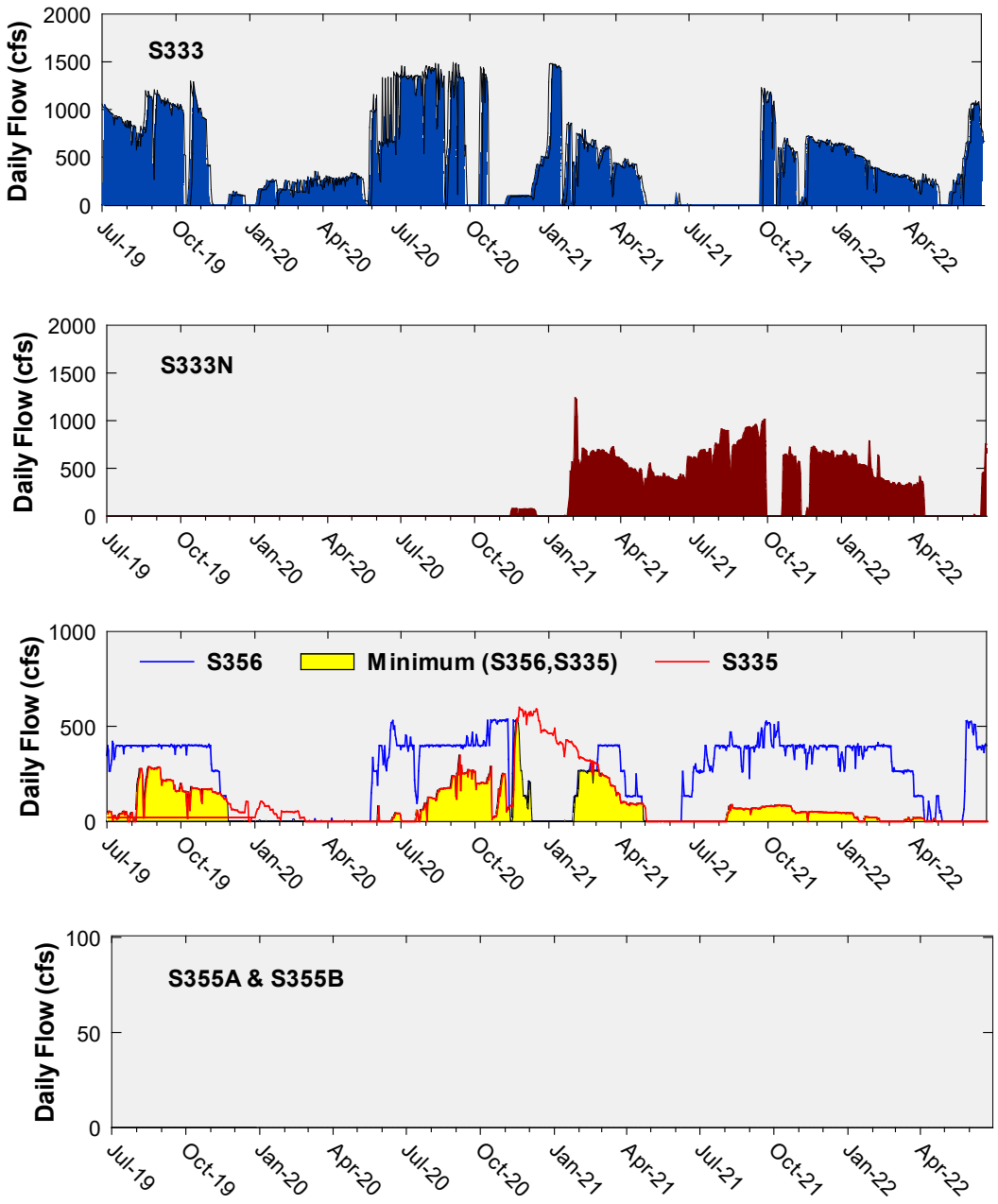


Daily Flows at S12 Structures to Shark River Slough

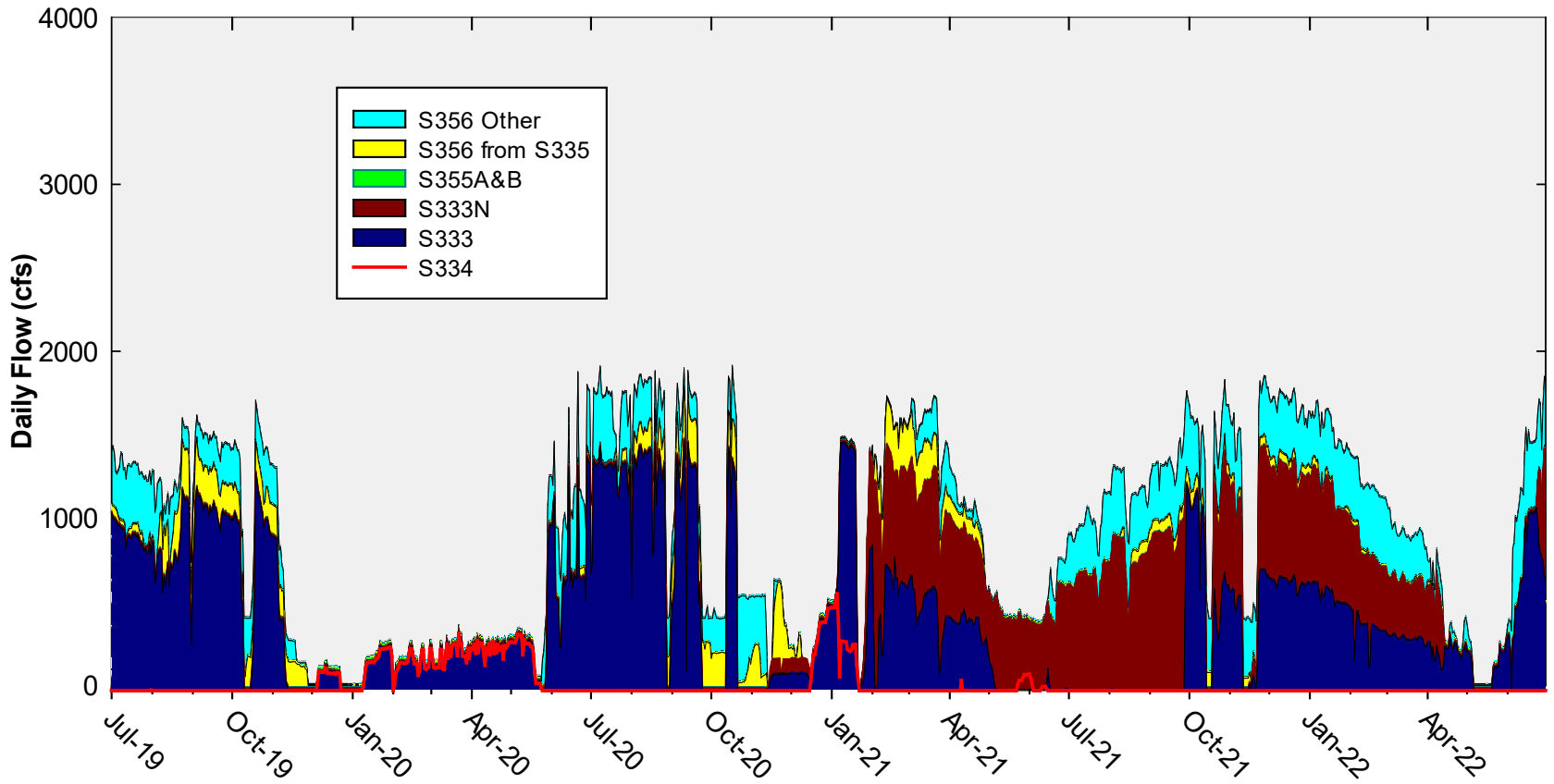
WY2022 (October 1, 2021, to June 30, 2022) Flow Data for S12s are Provisional.



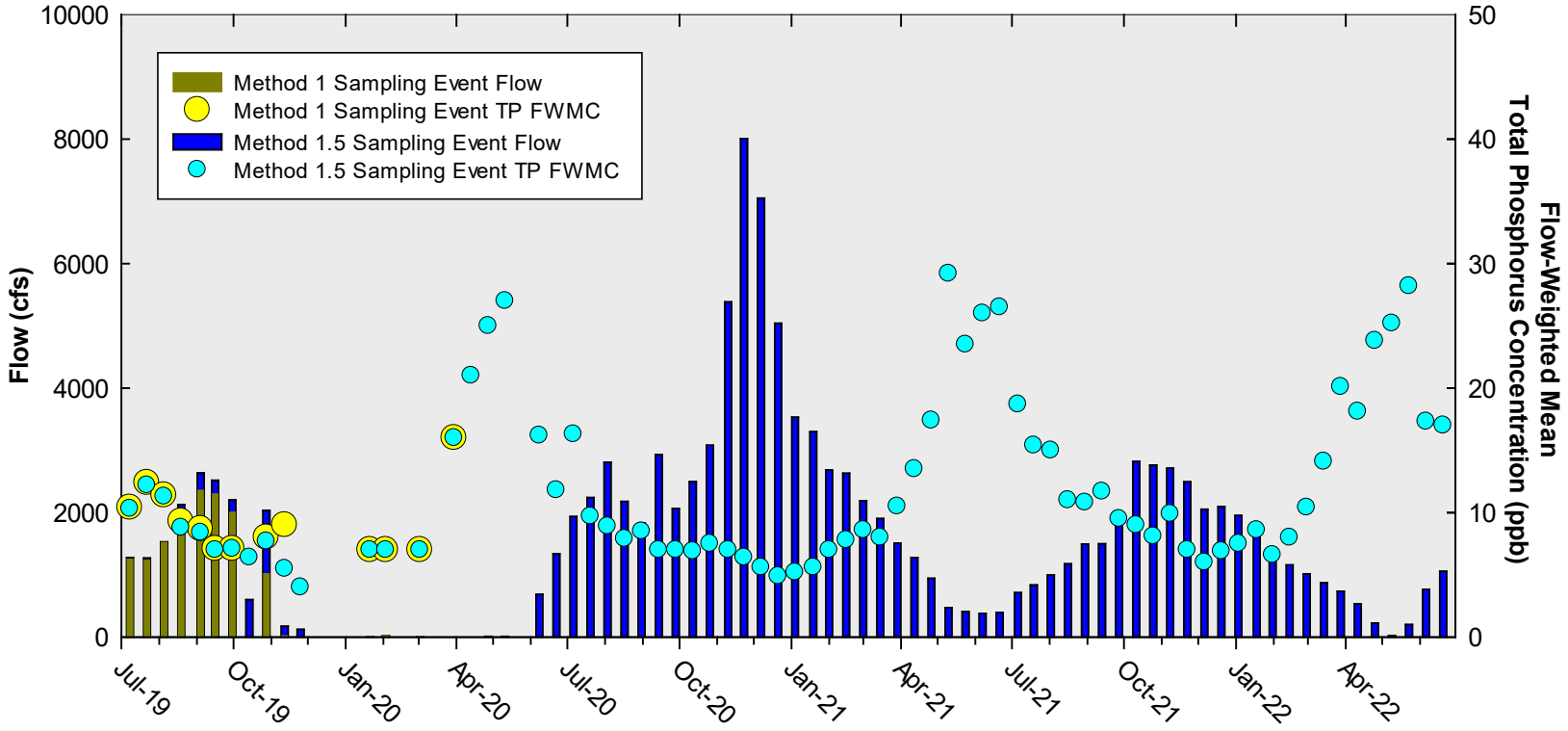
Daily Flows at Individual Inflow Structures to Shark River Slough



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



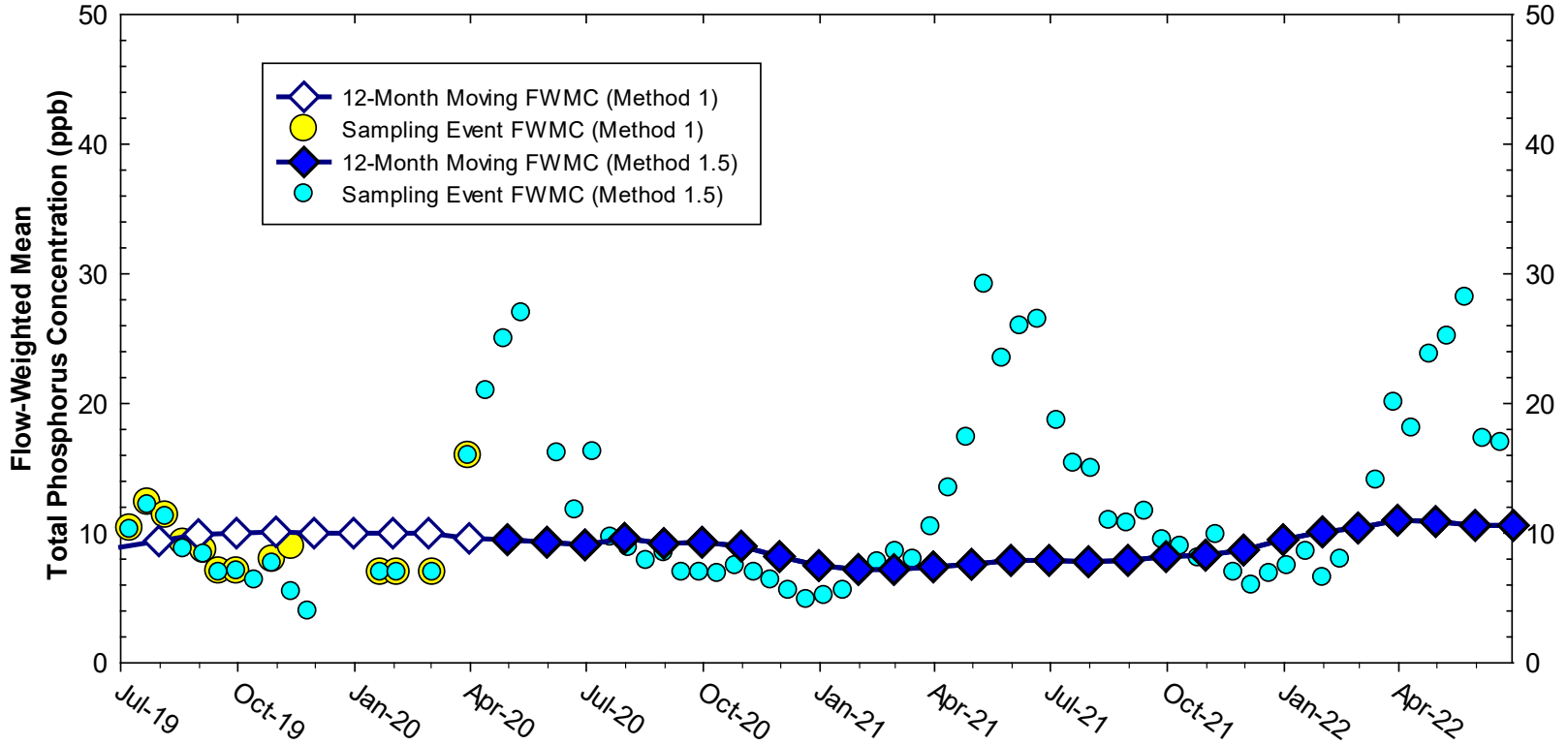
Shark River Slough
Sampling Event Flow and FWMC



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

Note: WY2022 (October 1, 2021, to June 30, 2022) Flow Data for S12s are Provisional.

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

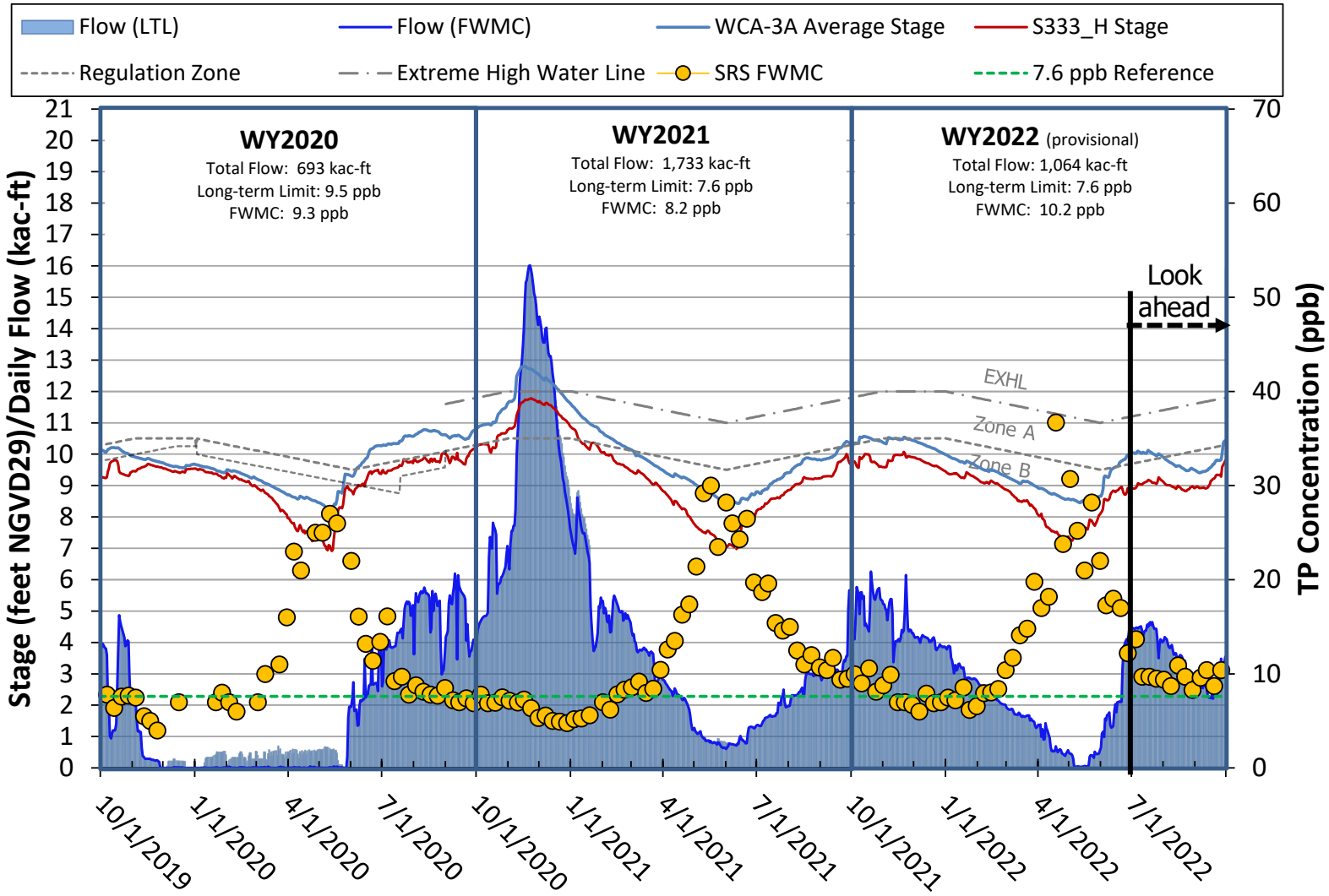


The composite TP concentration and 12-month FWMC at the end of each month for each sampling event

WY2022 (October 1, 2021, to June 30, 2022) Flow Data for S12s are Provisional.

WY2020, 2021 & 2022* Stage, Flow, and TP FWMC

Inflows to ENP through Shark River Slough



*** WY2022 results are Provisional**

Taylor Slough and Coastal Basins

TP Concentration Compliance Tracking

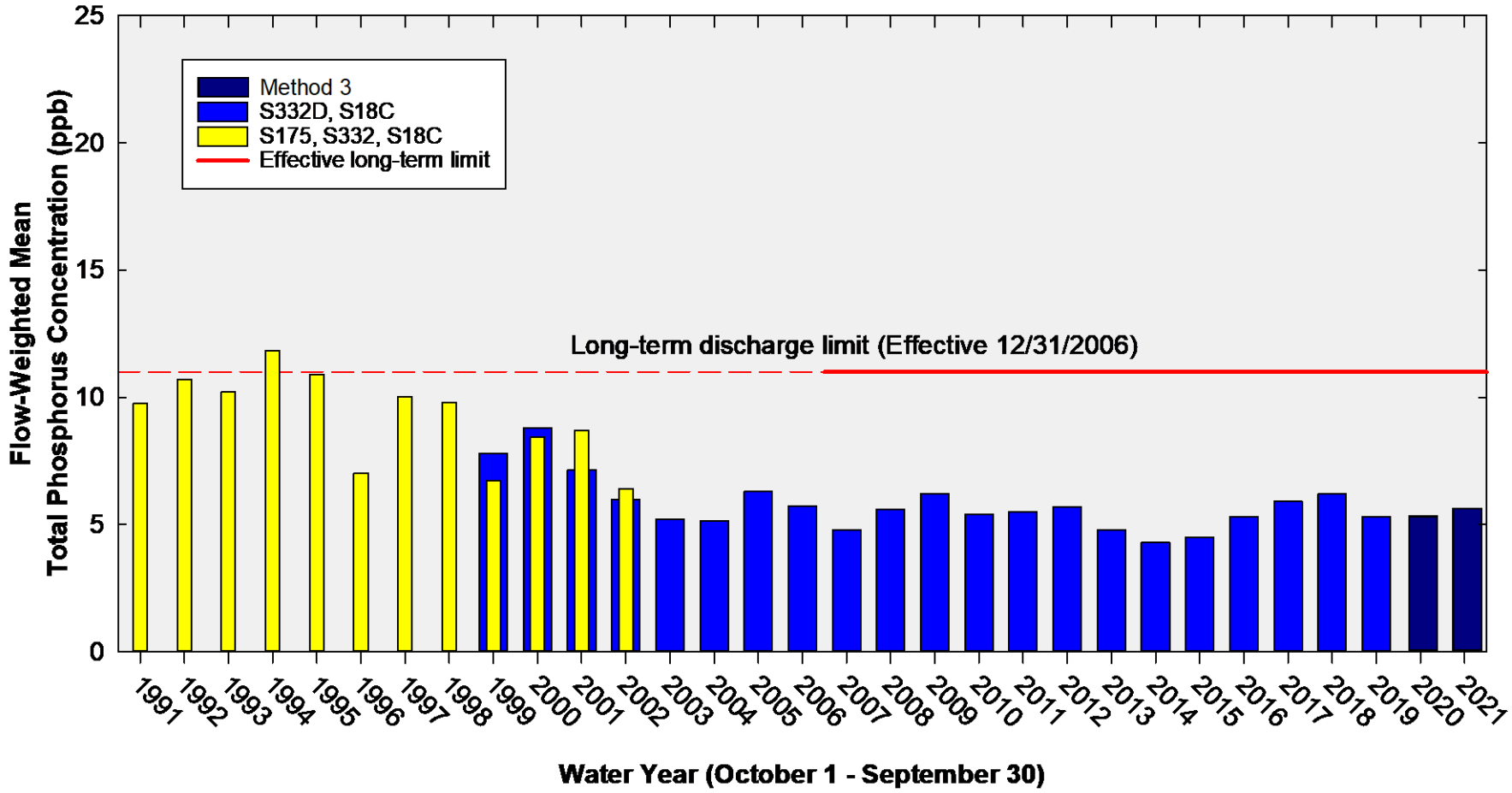
12-Month Period	Total Flow (kac-ft)	Flow-Weighted Mean TP Concentration in ppb LTL = 11.0 ppb Effective 12/31/2006	Observed Percent of Sampling Events Greater than 10 ppb Guideline = 53.1%
May 2021 - Apr 2022	273.2	4.8	2.3
Jun 2021 - May 2022	271.0	4.8	2.2
Jul 2021 - Jun 2022	288.6	5.1	4.3

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

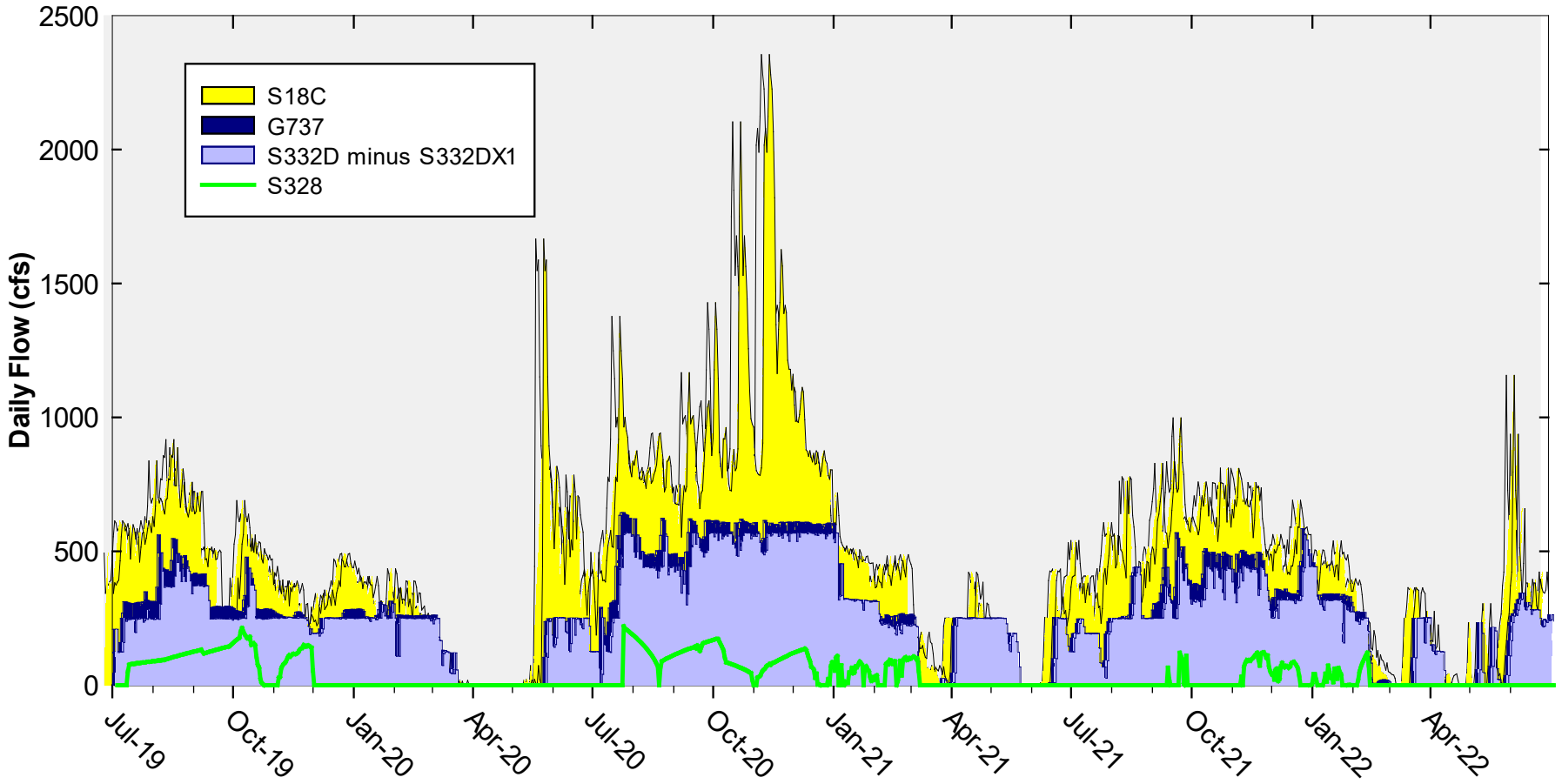
Inflows to the ENP through Taylor Slough and Coastal Basins



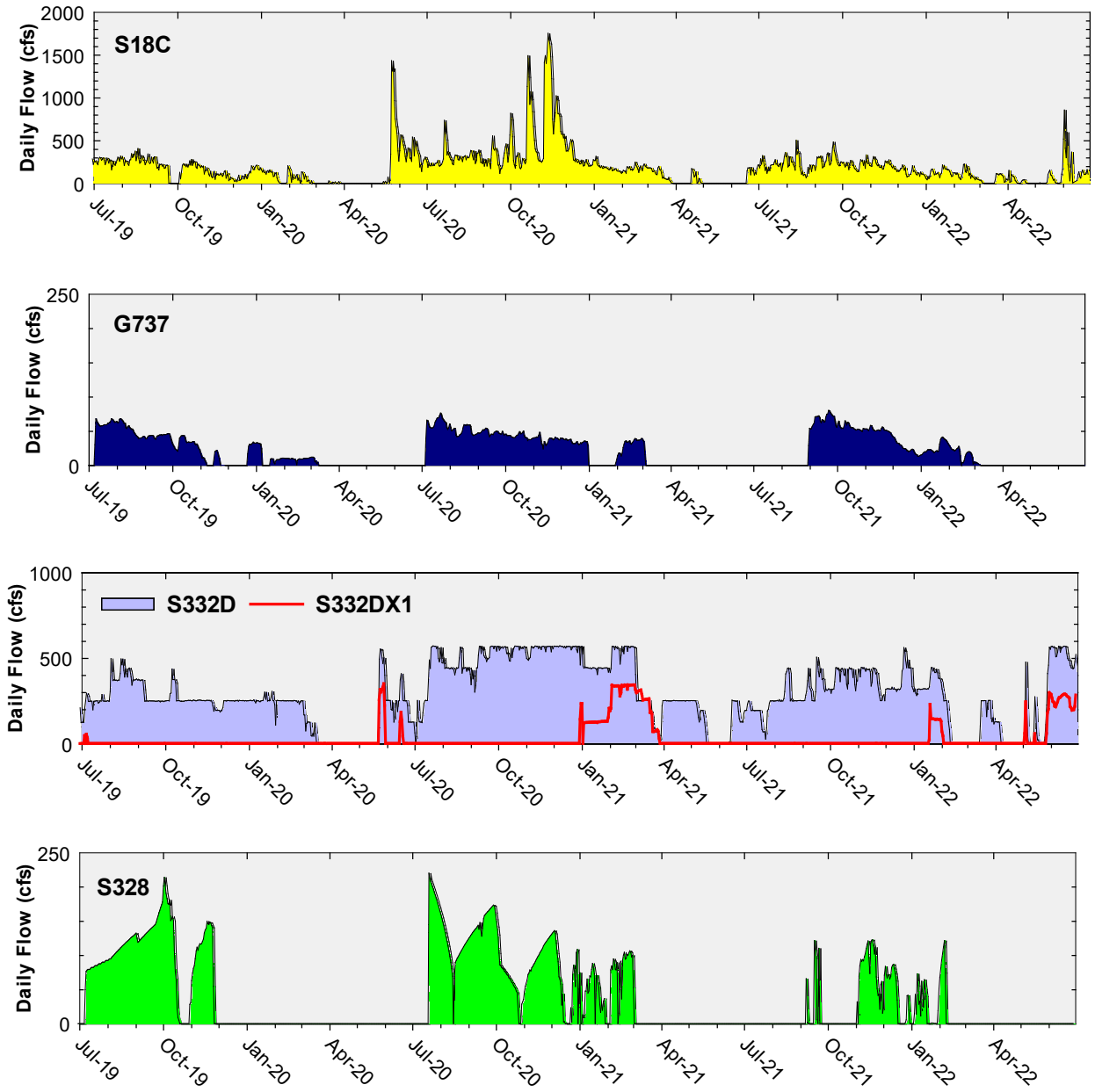
The 12-month FWMC at the end of each water year compared to the 11 ppb long-term TP limit

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

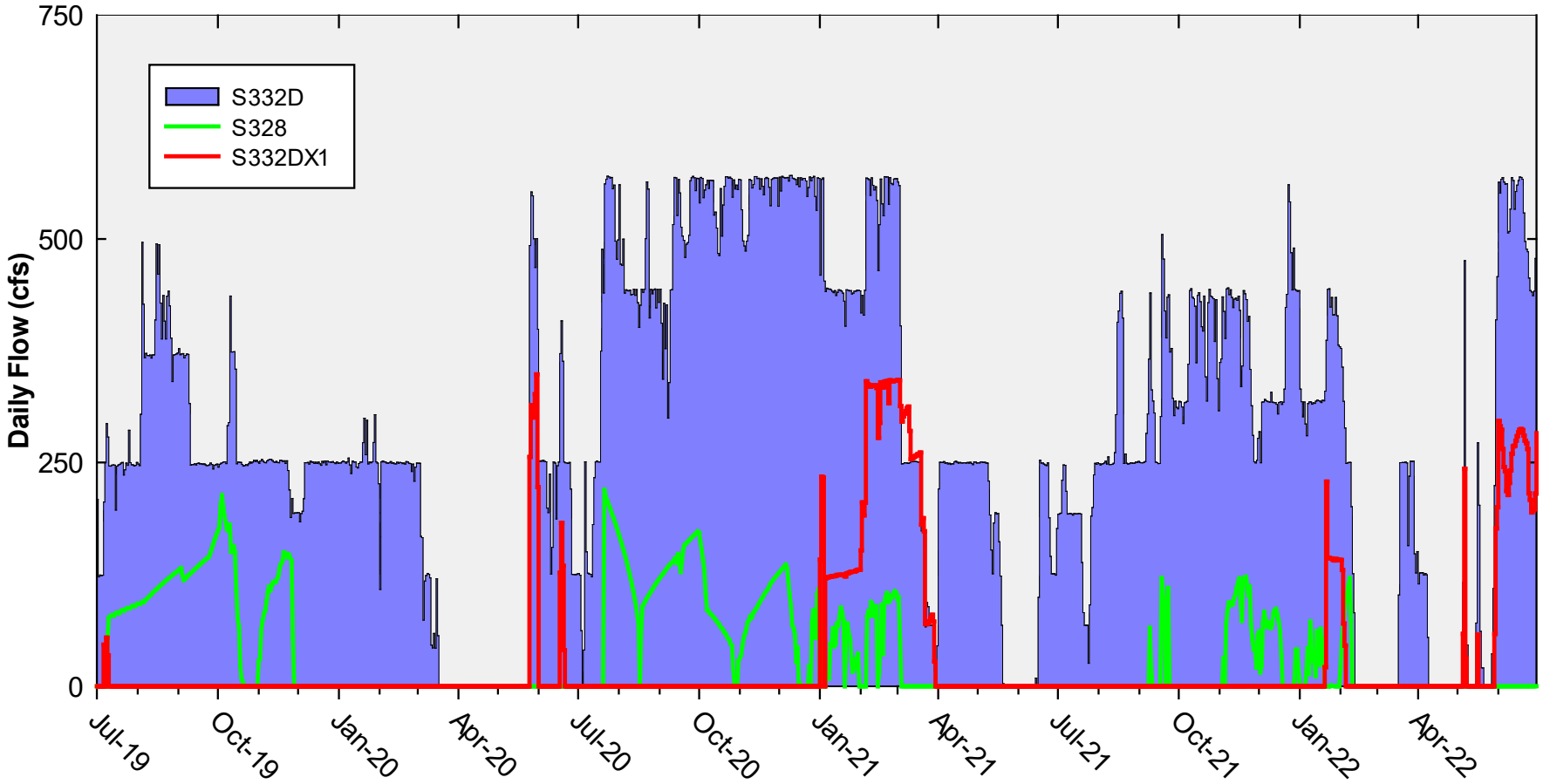
Daily Flows at Taylor Slough and Coastal Basins Structures into ENP



Daily Flows at Individual Taylor Slough and Coastal Basins Structures

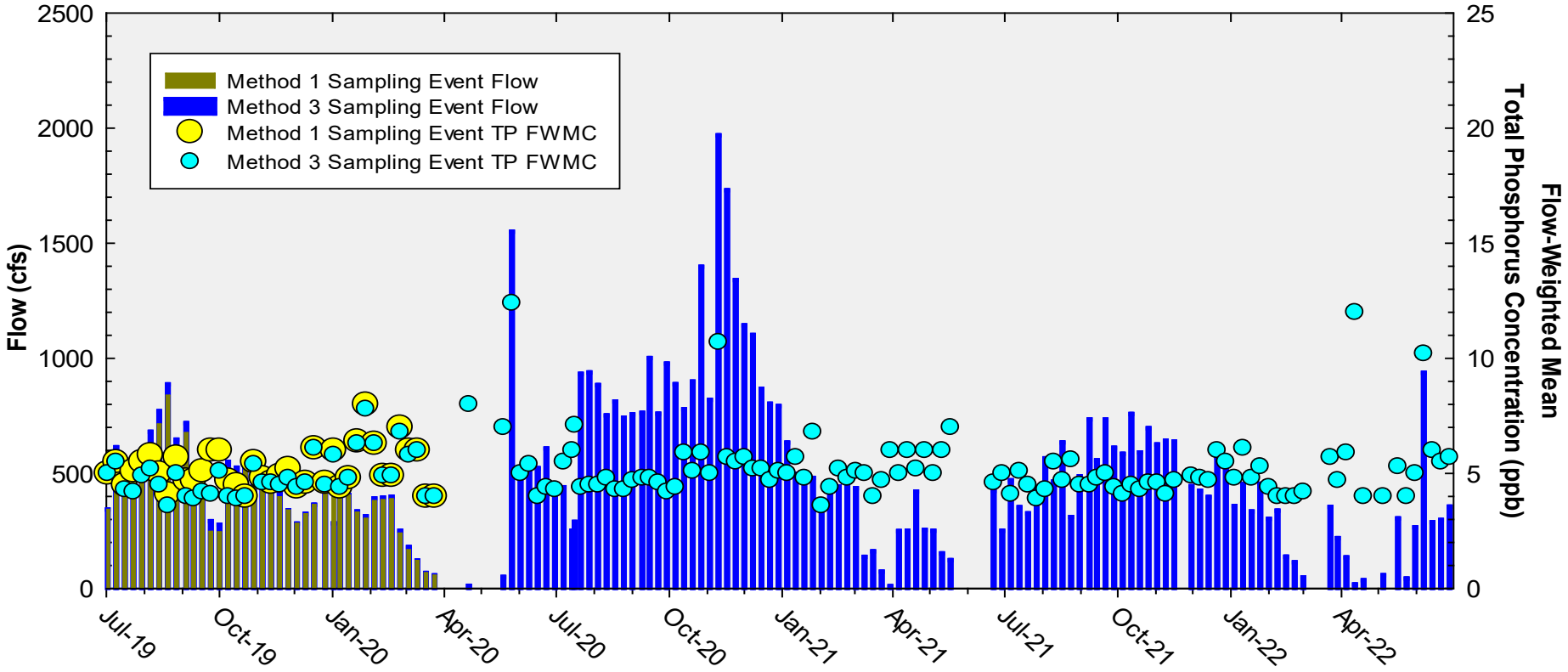


Daily Flows In and Out of S332D Flowway



Taylor Slough and Coastal Basins

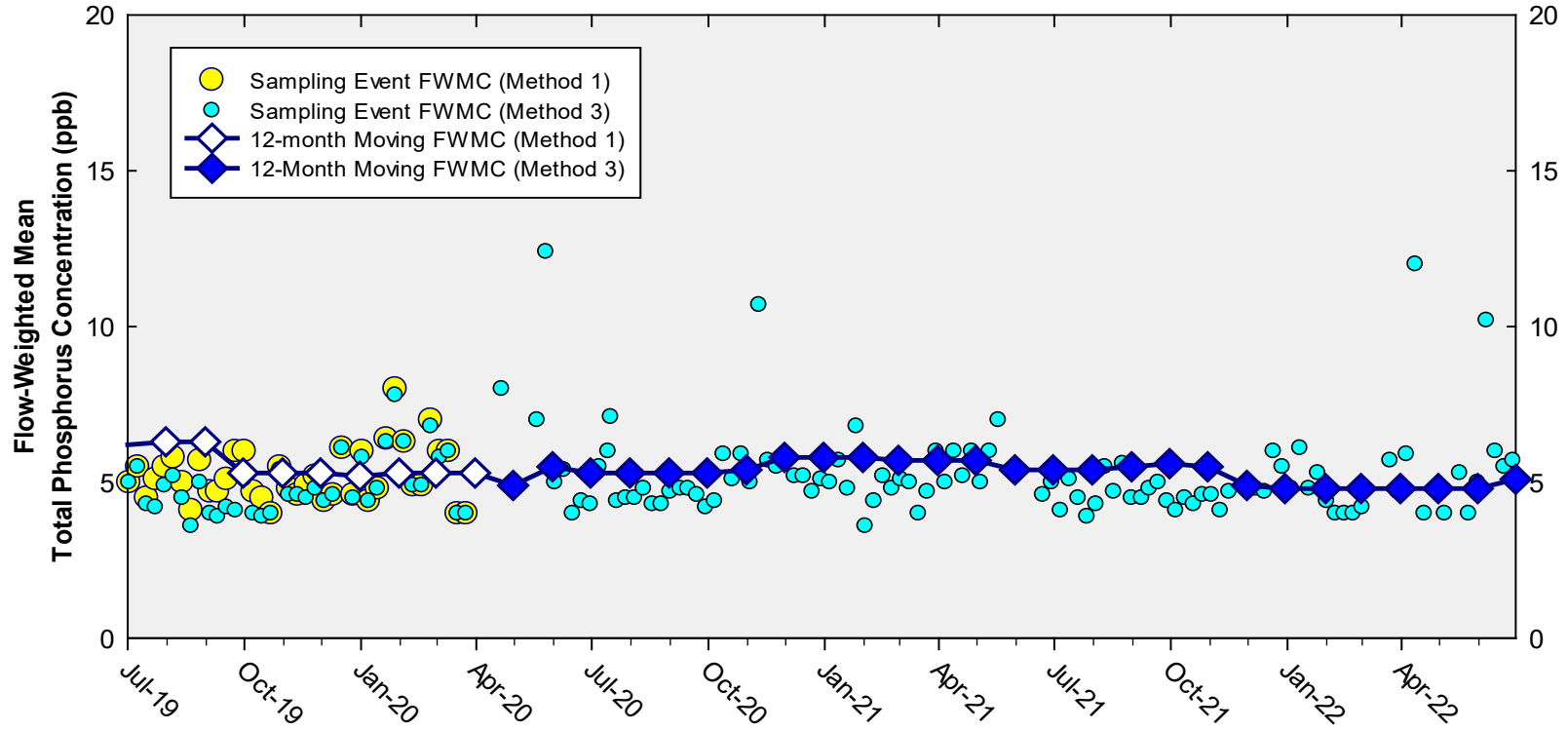
Sampling Event Flow and FWMC



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

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