

Notes from the Quarterly Meeting of the Everglades Technical Oversight Committee (TOC)

June 25, 2024

South Florida Water Management District
3301 Gun Club Road, West Palm Beach, FL 33406

TOC Representatives:

Julianne LaRock, TOC Chair, SFWMD
John Barkett, Special Master
Daniel Crawford, USACE

Lori Miller, LNWR
Edward Smith, FDEP
Donatto Surratt, ENP

Note: This meeting was conducted in person, online, and by phone, and was recorded by a court reporter. Copies of the transcript are available for purchase. Please contact Florida Court Reporting (561-689-0999) for more information. Handouts and presentations are available on the TOC website (<https://www.sfwmd.gov/our-work/toc>) and a recording of the meeting is available online at [SFWMDTV YouTube Channel – TOC Meeting June 25, 2024](#)

Note: Definitions of agency acronyms are provided at the end of the notes.

1. TOC Opening Business – Julianne LaRock, SFWMD

1A. Welcome, Announcements, and Identification of Participants

Julianne LaRock called the meeting to order and provided instructions for participating during the meeting discussions.

1B. Agenda Modifications and Documents Available on the TOC Webpage

There were no requests to modify the agenda.

1C. Approval of Meeting Summary for February 27, 2024

The TOC approved the February 27, 2024, meeting summary with no changes.

Associated Online Documents:

- [Final Agenda for June 25, 2024](#)
- [Draft Meeting Notes for February 27, 2024](#)

2. Settlement Agreement Quarterly Report, Fourth Quarter 2023 – Chelsea Qiu, SFWMD

Chelsea Qiu presented the Settlement Agreement Report for the Fourth Quarter of 2023, October–December 2023, which includes results of surface water total phosphorus (TP) monitoring in the Arthur R. Marshall Loxahatchee National Wildlife Refuge (Refuge), Shark River Slough (SRS), and Taylor Slough and Coastal Basins (TSCB). Each area has a unique TP compliance regime. Results for SRS were calculated using provisional flow data and are preliminary. This is the first quarter of Water Year 2024.

The Refuge 14-station geometric mean TP values for October, November, and December 2023 were below the computed stage-based long-term levels (LTLs). All fourteen stations were sampled in October and December 2023, but only eight stations could be sampled in November 2023 due to weather conditions. The 36-month average TP geometric mean is 6.8 parts per billion (ppb), which is 2.4 ppb below the 36-month average LTL of 9.2 ppb.

SRS has a flow-based long-term limit that is inversely related to the 12-month total flow. Preliminary tracking results were presented for the 12-month periods ending in October, November, and December 2023. The provisional data show that TP flow-weighted mean concentrations (FWMC) for this quarter were higher than the flow-based LTLs. Specifically, the moving 12-month total flows ending in October, November, and December were consistently above 1,061 thousand acre-feet per year (kac-ft/yr), exceeding the flow range defined in Appendix A of the 1995 Consent Decree, triggering the lowest possible LTL of 7.6 ppb.

TSCB has a fixed LTL of 11 ppb. Results for the 12-month tracking periods ending in October, November, and December 2023 were presented. TP FWMC values for TSCB continued to be less than half of the LTL (11 ppb), ranging from 4.8 to 4.9 ppb during the quarter.

Questions, Comments, and Discussion:

Donatto Surratt asked for clarification regarding the mention that USACE implemented a deviation during the year. Chelsea Qiu explained that this was mentioned to indicate that S12A and S12B were kept open past their normal closure time by the temporary deviation in response to the extremely wet conditions, allowing continued flow. Under the Combined Operational Plan (COP), S12A and S12B normally close during the quarter; this restriction was placed in the COP due to the Cape Sable Seaside Sparrow nesting period.

Donatto Surratt remarked that it is interesting that water levels in WCA-3A remained high through April because we were following the regulation schedule during that period, which we rarely do, and that it is also interesting that we were tied with the compliance limit at this point of the year back in May.

Associated Online Documents:

- [Settlement Agreement Quarterly Report, Fourth Quarter 2023 \(October–December\), presentation](#)
- [Settlement Agreement Report, Fourth Quarter 2023 \(October–December\)](#)
- [Quality Assessment Report for Water Quality Monitoring, October–December 2023 \(Fourth Quarter\)](#)
- [Quality Assessment Report for Water Quality Monitoring, October–December 2023 \(Fourth Quarter\): Water Quality Data](#)
- [Arthur R. Marshall Loxahatchee National Wildlife Refuge Total Phosphorus \(TP\) Compliance Status as of Fourth Quarter 2023](#)
- [Provisional Shark River Slough Fourth Quarter 2023 Total Phosphorus \(TP\) Data Report](#)
- [Taylor Slough and Coastal Basins Fourth Quarter 2023 Total Phosphorus \(TP\) Data Report](#)

3. Shark River Slough Final Water Year 2023 Annual Compliance Results – Chelsea Qiu, SFWMD

Final results for SRS TP compliance for Water Year 2023 (October 1, 2022–September 30, 2023) were presented. The LTL was 7.6 ppb, while the TP FWMC was 9.2 ppb. The percent of sampling events greater than 10 ppb during the year was 42.3%, which was greater than the guideline of 40.1%.

Associated Online Documents:

- [Shark River Slough Final Water Year 2023 Annual Compliance Results, presentation](#)
- [Settlement Agreement Report, Third Quarter 2023 \(July–September\), Revised](#)
- [Final Shark River Slough Water Year 2023 Total Phosphorus \(TP\) Data Report](#)

4. Water Quality Conditions for Everglades National Park, Water Year 2023, Shark River Slough – Chelsea Qiu, SFWMD

Information was presented about water quality conditions for SRS inflows to Everglades National Park (ENP) in WY2023 in relation to the SRS exceedance, focusing on localized downstream conditions and phenomena.

Flow and water quality data were reviewed, and no errors were found. Rainfall and other conditions were assessed to see if the exceedance was due to extraordinary natural phenomena, and this was not found to be the case. Ultimately, what was observed in the system was the persistence of localized phenomena.

Details were presented about the relationship between TP and stage, the impact of flows during low stages, and trends of annual flow, LTL, and TP FWMC. TP concentrations and stage have shown an inverse relationship during the period of record since sampling began. Exceedance years have typically had periods of substantial flow during low stages. Overall, the higher the flow when S-333 stage is at or below 9.2 feet NGVD29, the higher the risk for an exceedance.

The implementation of COP has impacted compliance patterns in two key ways: it has lowered the 12-month LTL and raised the 12-month FWMC. On one hand, COP implementation has led to an increase in the 12-month total flow. According to the Appendix A equation, higher flow results in a lower LTL, typically around 7.6 ppb. On the other hand, the implementation of the Tamiami Trail Flow Formula associated with COP has allowed more flow into SRS during low-stage periods, which are linked with high TP concentrations, thereby elevating the 12-month FWMC. Because of these changes, the combination of a higher FWMC and a lower LTL makes exceedance inevitable.

Questions, Comments, and Discussion:

Donatto Surratt recommended adding a note to slide 5 (rainfall) to clarify that it was a normal year for rainfall, and for slide 9 (“Flow during Low Stages”) requested possibly adding the median and confidence interval for the 30 years of flow data. Regarding the information shown in the TP concentration graph (bottom left figure) on slide 11, Donatto Surratt mentioned that ENP appreciates the flows coming now and, with the S333 work, expects a decoupling of this relationship between stage and TP FWMC entering through the S-333s. He also mentioned that ENP acknowledges the condition we are in with the concentrations and response.

Lori Miller asked where the rainfall data (slide 5) was measured, and which agency or organization is its source. Chelsea Qiu indicated it is based on WCA-3A regional rainfall data from SFWMD, available on the SFWMD website, with records going back to WY1998.

Dan Crawford reiterated that the overall objectives of Everglades restoration are to establish pre-drainage wet and dry season flow patterns into ENP, among others. The expectation of higher flow volumes delivered in the dry season are exactly what the objectives of the 2020 COP Water Control Plan Modification were. Hopefully working through the S-333 Working Group recommendations will decouple those localized low flow conditions upstream of S-333 with the elevated nutrient concentrations that we are seeing. All the active construction and related efforts by the agencies towards this show that the mutual objectives are to increase the average annual and dry season flows going into ENP.

Lori Miller checked with the FWS Ecological Services office and confirmed that S12A and S12B have conditional closure dates set from October 1 through July 14. There are a few different factors that allow conditional opening or closing around and in between these dates.

Associated Online Documents:

- [Water Quality Conditions for Everglades National Park, Water Year 2023, Shark River Slough](#)
- [Direction from the Principals, February 25, 2016](#)

5. S-333 Working Group Update – Jodie Hutchins, SFWMD

As a reminder, the S-333 working group recommendations approved by the principals include the removal of canal sediments upstream of the S333 complex in the L-67A and L29 canals and at the S-333 complex intake bay, installation of low-sill weirs and implementation of a monitoring and assessment plan.

The schedule for these activities is divided into three tasks: Task 1. maintenance dredging and installation of two short-height low-sill weirs at the terminus of the dredged area, Task 2. Full-height low-sill weirs, and Task 3. Implementation of the monitoring and assessment plan.

Task 1 is expected to be completed in 2025 and Task 2 and 3 are expected to be completed in 2026. Details about the current progress of each task and individual sub-tasks were presented and are available in the presentation file (linked to farther below). All scheduling is contingent upon expedited permitting and conducive construction conditions.

Questions, Comments, and Discussion:

Mr. Barkett asked about the permit process, conditions that could affect construction, and for more information about the function of the weirs. Regarding permit acquisition, Jodie Hutchins explained that for Task 1, SFWMD has authorization from FDEP for the maintenance dredging and installation of two short-height, low-sill weirs, and is just waiting for authorization from USACE. Before we can start permit acquisition for Task 2, we need the information that will come from our round 2 modeling and project design and specifications. We do not foresee any issues achieving an expedited permit process for Task 2 because the working group has been meeting monthly and is in constant communication with FDEP and USACE.

Regarding conditions that could impact construction, Matt Morrisson, SFWMD, explained that the two biggest factors are hurricanes and heavy rainfall (which could lead to high water conditions and high flow in the canals), noting these are difficult to predict. Most of the dredging and low-sill weir installation is scheduled during the dry period when these extreme conditions are less likely to occur.

Regarding the weirs, Jodie Hutchins explained that they function by slowing down the velocity of canal water to allow suspended sediments to settle out of the water column and get trapped behind the weirs, acting as a sediment trap. Whether sediments can pass over the weirs is partly a function of the flow velocity of the canal water. Modeling will be conducted to determine the ideal placement and height of the weirs to maximize their effectiveness in limiting sediment transport.

Jodie Hutchins explained that more questions, such as determining accretion rates and the maintenance frequency needed for dredging, will be answered after the weirs are installed through monitoring and assessment.

Associated Online Documents:

- [S-333 Working Group Update](#)

6. Public Comment

There were no public comments.

7. TOC Closing Business – Julianne LaRock, SFWMD

The remaining 2024 quarterly meetings are scheduled for October 1 and December 3.

8. Adjourn – Julianne LaRock, SFWMD

Julianne LaRock adjourned the meeting.

Agency acronym definitions:

DOI – Department of Interior

ENP – Everglades National Park

FDEP – Florida Department of Environmental Protection

FWC – Florida Fish and Wildlife Conservation Commission

LNWR – Arthur M. Marshall Loxahatchee National Wildlife Refuge

NPS – National Park Service

SFWMD – South Florida Water Management District

USACE – United States Army Corps of Engineers

USEPA – United States Environmental Protection Agency

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