

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

April 26, 2016

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

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## TOC Representatives:

Juli LaRock, TOC Chair, SFWMD	Frank Powell, FDEP
John Barkett, Special Master ( <i>by phone</i> )	Mark Shafer, USACE
Lori Miller, Refuge	Donatto Surratt, ENP

**Note:** *This meeting was recorded by a court reporter and copies are available for purchase. For more information, contact Florida Court Reporting (561-689-0999). Handouts and presentations are available on the TOC website ([www.sfwmd.gov/toc](http://www.sfwmd.gov/toc)). A video of the meeting is available online at <http://sfwmd.ig2.com/Citizens/Media.aspx>.*

10:00 a.m. **1. TOC Opening Business** – Juli LaRock, SFWMD

### **1A. Welcome, Announcements, and Identification of Phone Participants**

Juli LaRock called the meeting to order and welcomed attendees. Phone participants introduced themselves.

### **1B. Agenda Modifications and Documents Available on the TOC Website**

Juli LaRock reviewed the agenda and the list of files recently posted on the TOC website or sent by email.

### **1C. Approval of Meeting Summary for January 26, 2016**

The TOC did not request any changes, and approved finalizing the draft meeting summary for January 26, 2016.

#### **Associated Online Documents:**

- [Final Agenda for April 26, 2016](#)
- [Update on Process for Dealing with Excursions](#)
- [Final Meeting Summary for January 26, 2016](#)

10:10 a.m. **2. WY2015 Annual Shark River Slough Compliance** – Jonathan Madden, SFWMD

Jonathan Madden presented the final, non-provisional Shark River Slough data for Water Year 2015 compliance. The final annual TP flow-weighted mean concentration (FWMC) was 7.7 ppb, which is below the long-term limit of 11.9 ppb. The final USGS data did not change the compliance status for WY2015.

#### **Associated Online Documents:**

- [Settlement Agreement Report, WY2015 Annual Shark River Slough Compliance Presentation](#)
- [Final Shark River Slough Total Phosphorus Tracking Report, WY2015](#)

10:15 a.m. **3. Fourth Quarter 2015 Settlement Agreement Report** – Jonathan Madden, SFWMD

Jonathan Madden presented results for the fourth quarter of 2015 (October–December), including provisional results for tracking Shark River Slough.

Refuge geometric mean TP values for October–December 2015 were below the long-term level. For the December 2015 sampling trip, the sampling protocol guidance approved by the TOC in January 2009 was implemented to resample two sites due to an issue with the original sample set. It was discovered during processing that samples collected at LOX14 and LOX15 had a mix-up between the labels on the bottles and the labels on the caps. Since it was not possible to be certain which sample was from which site, those bottles were discarded and not analyzed by the lab. Resampling of those two sites was performed the following day. Results for both the original sample set (12 sites) and including the resampled stations (14 sites) were below the long-term level. Provisional Refuge calculations for January–March 2016 have geometric mean TP values below the long-term level.

Compliance for Shark River Slough is determined annually based on the water year ending September 30 each year once flow datasets are determined final at the structures owned and operated by the USACE. Provisional data is used for tracking the 12-month rolling results of flow-weighted mean TP concentration relative to the variable limit throughout the year. Interim flow-weighted mean TP values for Shark River Slough for the 12-month periods ending in October, November, and December 2015, were below the long-term limits for each period, and the percent of events greater than 10 ppb was below the guideline for the three periods.

Taylor Slough and Coastal basins compliance is also determined annually based upon the water year ending September 30, and provisional data can be used in tracking the 12-month rolling flow-weighted mean TP concentration relative to the fixed 11 ppb limit. Flow-weighted mean TP values for Taylor Slough and Coastal Basins for the 12-month periods ending in October, November, and December 2015, were below the long-term limit for each period, and the percent of events greater than 10 ppb was below the guideline for the three periods.

**Associated Online Documents:**

- [Settlement Agreement Report, Third Quarter 2014 \(July–September 2014\)](#)
- [Settlement Agreement Report, Third Quarter 2015 \(July–September 2015\)](#)
- [Settlement Agreement Report, Fourth Quarter 2015 \(October–December 2015\)](#)
- [Settlement Agreement Report, Fourth Quarter 2015 Presentation](#)
- [Quality Assessment Report for Water Quality Monitoring, Fourth Quarter 2015](#)
- [Refuge TP Compliance Table, Updated through Fourth Quarter 2015](#)
- [Provisional Shark River Slough TP Tracking Report, Fourth Quarter 2015](#)

10:30 a.m. **4. Notes on the Vertical Datum Establishment and Use at USGS Gauges 8C, 8T, 7 and 9 Within WCA1** – Jeffrey Navaille/Mark Shafer, USACE

Jeffrey Navaille presented a follow-up to the presentation given by Mark Dickman at the 10/27/2015 TOC meeting, providing further details on vertical datum establishment and use at USGS gauges 8C, 8T, 7, and 9 in WCA-1.

In 2003, sites 8T, 7, and 9 underwent a survey upgrade process establishing an NAVD88 elevation at the sites. The VertCon program was used to determine NGVD29 elevations derived from the new survey results, even though NGVD29 elevations had already been

determined in 1980. Site 8C is easier to access than the other sites and lends itself to differential leveling.

Using historical data, Jeffrey calculated mean conversion factors for the sites, which he used to compare currently reported data with NGVD29 values from 1980. Mark Dickman, USGS, conducted similar calculations, which differ slightly in some cases but are no greater than 0.025 feet different. In each of the four sites, the historic gauge height was previously published at a higher elevation than what is currently reported. Further details are included in the presentation linked to below.

Discussion followed about differences between the way site 8C was handled compared to the other sites, and the TOC felt that further consideration and collaboration between the agencies is needed to come to consensus on conversion factors related to the sites.

**Action Item #1:** Survey staff from the USGS, USACE, and SFWMD (Mark Dickman, Jeffrey Navaille, and Howard Ehmke) will discuss and develop a consensus for the three sites and will report this to the TOC.

**Associated Online Documents:**

- [Notes on the Vertical Datum Establishment and Use at USGS Gauges 8C, 8T, 7 and 9 within WCA1](#)

11:20 a.m. **5. Update on Sub-Committee for Dealing with Refuge Stage Data Gaps** – Donatto Surratt, Everglades National Park, and Eduardo Patino, USGS

Donatto Surratt gave an update on the TOC sub-committee for filling stage data gaps for the Refuge. Eduardo Patino presented an overview of EDEN, including a discussion of data filters used to flag potentially erroneous or missing data and a comparison and contrast between the EDEN gap-fill method and water balance method, noting that the two methods yield similar results. Because field visits are required for USGS to provide approved final data, the frequency of the visits is a constraint to how quickly gaps can be resolved and final data provided. Possible solutions that would allow final data to be provided more quickly would be to increase the frequency of field visits or to reduce the amount of missing data by installing backup sensors at key sites. These ideas would have to be worked out with Mark Dickman and his group.

**TOC Consensus:**

The TOC agreed with the sub-committee's recommendation to proceed with using the EDEN gap-fill method for dealing with data gaps. On a case-by-case basis, when there are data gaps in the future, the TOC will deal with provisional data until final data are available.

**Associated Online Documents:**

- [Update on Sub-Committee for Dealing with Refuge Stage Data Gaps](#)

11:45 a.m. **6. High Water Emergency Order** – Stuart Van Horn, SFWMD

Stuart Van Horn gave a presentation on water quality into Shark River Slough during the recent high water emergency operations. This was previously presented to the Water Resources Advisory Council. Due to very strong El Niño conditions, South Florida has experienced a record-setting, extraordinarily wet dry season, which led to very high water

levels in the water conservation areas, particularly WCA-3A. To mitigate the situation, FDEP issued an emergency order to lower water levels in WCA-3A to alleviate impacts to wildlife, natural resources, and the ecology of the estuaries.

Currently, WCA-3A stage is decreasing but is still above the regulation schedule. Overall, flow-weighted mean TP concentrations to Shark River Slough are staying very low (6.8 ppb between October 1, 2015 and April 17, 2016). High flow volumes will likely continue and result in a low TP limit of 7.6 ppb for WY2016. Frank Powell noted that the Fish and Wildlife Service has a recreational closure at WCA-3A when stage reaches 11.5 feet, but it does not lead to a release of water.

**Associated Online Documents:**

- [High Water Emergency Order Presentation](#)
- [Finding of No Significant Impact L-29 Canal and South Dade Conveyance System Temporary Emergency Deviation to Affect Relief of High Water Levels within WCA3A](#)
- [Notice of Availability Temporary Deviation WCA3A](#)
- [Resolution High Water Levels Emergency Operations](#)

12:10 p.m. **7. Recommendations to the TOC Concerning Monitoring for the Settlement Agreement –**  
Pete Rawlik, SFWMD

Pete Rawlik gave an overview of recent activities of the water quality monitoring sub-team and presented the following recommendations for the TOC: (1) provide clarifications for G300 and G301 monitoring, (2) add supplemental monitoring of ions at G311 and G302, (3) reduce pesticides monitoring at 5 stations from quarterly to semi-annually, and (4) maintain annual copper monitoring at S5A during the wet season. In the future, the sub-team will discuss iron and a surrogate station for S5AE, S5AW, and S5AS.

**TOC Consensus:**

The TOC accepted the water quality monitoring sub-team recommendations.

**Associated Online Documents:**

- [Recommendations to the TOC Concerning Monitoring for the Settlement Agreement](#)

12:20 p.m. **8. Update on Appendix A Sub-team –** Paul Julian, FDEP

Paul Julian reported that the team met on January 20 and received a presentation from Mark Dickman about hydrologic data collection efforts, mostly associated with S-356, and also discussed alternatives to incorporate S-356 in the Appendix A compliance calculation. Action items were for the federal parties to go back and evaluate their methods with the current data, and the state was to review what was presented by the federal team and evaluate some alternatives. The next meeting is planned for mid-July.

12:21 p.m. **9. Public Comments**

Drew Martin (Sierra Club) asked if there is a way to forecast when more fresh water is needed in Florida Bay so we can lower the risk of algal blooms and prevent seagrass die-offs, and whether it is possible to “tag” phosphorus and other water quality constituents to determine their ultimate sources.

Melodie Naja (Everglades Foundation) asked whether there are any data or reports related to the temporary pumps that move water from WCA-3B to the L-29 canal.

Melodie Naja also asked whether there were any ecological impacts within the Refuge from the high TP inflow and outflow concentrations that Donatto mentioned having occurred in February and March for STA-1W.

12:28 p.m. **10. TOC Closing Business** – Juli LaRock, SFWMD

The next quarterly meeting is scheduled for July 19, and a subsequent quarterly meeting was scheduled for October 18, 2016.

Juli LaRock adjourned the meeting.