

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

July 29, 2014

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

TOC Representatives:

Juli LaRock, TOC Chair, SFWMD

Frank Powell, FDEP

John Barkett, Special Master *(by phone)*

Jim Riley, USACE *(on behalf of Sean Smith)*

Melissa Martin, 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). 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, welcomed attendees, and asked phone participants to introduce themselves. Juli announced “WebEx”, the new web-based application that allows remote participants to follow the meeting.

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

Juli LaRock reviewed the agenda and the list of recently posted files available on the TOC website, and called for any last-minute changes to the agenda. Agenda changes were not requested.

1C. Approval of Meeting Summary for April 1, 2014

Juli LaRock asked if the TOC members had any changes to the notes from the previous TOC meeting. No further changes were requested, and the TOC approved finalizing the draft meeting summary.

Associated online documents:

- [Agenda for July 29, 2014 meeting](#)
- [Notes from April 1, 2014 meeting](#)

10:10 a.m. 2. WebEx of TOC Meetings – Kim Chuirazzi, SFWMD

Kim Chuirazzi gave an overview of the new WebEx option for remotely participating in TOC meetings, along with basic instructions for accessing and using the service. WebEx allows users to view the presentation slides being shown at the meeting, and hear audio of the speaker. Kim also gave a refresher overview of the TOC website and the new numbering scheme being used for read-ahead documents.

Associated online documents:

- [TOC WebEx Instructions](#)

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10:15 a.m. **3. WY2013 Annual Shark River Slough (SRS) Compliance** – Stuart Van Horn, SFWMD

Stuart Van Horn presented the final, non-provisional SRS data. Many results remain unchanged from the provisional values provided in previous TOC meetings. The final TP flow-weighted mean concentration (FWMC) was 7.2 ppb, below the long-term limit.

Donatto Surratt suggested an investigation into the relatively low value (compared to recent years) to understand what management activities may have contributed to it. Stuart Van Horn indicated the District would consider assisting with an investigation if Donatto wanted to pursue that. Juli LaRock suggested that a comprehensive analysis of WY2013 and WY2014 be performed when the data are available.

Associated online documents:

- [Shark River Slough WY2013 Final Data Report](#)
- [Settlement Agreement Report, July–September 2013, WY2013 Annual Shark River Slough Compliance Presentation](#)
- [Settlement Agreement Report, Third Quarter 2013 \(July–September 2013\)](#)

10:25 a.m. **4. Fourth Quarter 2013 Settlement Agreement Report** – Stuart Van Horn, SFWMD

Stuart Van Horn presented results for the fourth quarter of 2013 (October–December 2013), noting that the SRS results are not yet final because they are based on provisional data. Stuart described two issues during the quarter involving missing data. The first issue occurred at stage station 1-9 in the Refuge. Stage was not recorded on 10/22 (the first day of the October sampling event), after almost a month of missing data (which coincided with the federal shutdown), causing a large gap in the data. Data was available at the other sites and for the second day at station 1-9, thus, allowing an estimation of the stage at 1-9 by District staff. The second issue was a missing TP sample for Shark River Slough. During the sampling event on 12/30 at S-12D, no sample was collected because the structure was closed when the crew arrived. This was in accordance with District protocol. However, it ended up flowing later in the day, after the crew had departed.

Associated online documents:

- [Settlement Agreement Report, Fourth Quarter 2013 \(October–December 2013\)](#)
- [Settlement Agreement Report, Fourth Quarter 2013 Presentation](#)
- [Quality Assessment Report for Water Quality Monitoring, Fourth Quarter 2013](#)
- [Provisional Shark River Slough TP Tracking Report, Fourth Quarter 2013](#)
- [Refuge TP Compliance Table, Fourth Quarter 2013](#)

10:40 a.m. **5. First Quarter 2014 Settlement Agreement Report** – Stuart Van Horn, SFWMD

Stuart Van Horn presented results for the first quarter of 2014 (January–March 2014), which showed that the Refuge was below the long-term level, and the inflows (SRS and TSCB) to the Park were below the long-term limits. SRS results were calculated using provisional data

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and will be recalculated once final data are available. Stuart also presented Refuge second quarter 2014 provisional results, which were all below the long-term level.

Associated online documents:

- [Settlement Agreement Report, First Quarter 2014 \(January–March 2014\)](#)
- [Settlement Agreement Report, First Quarter 2014 Presentation](#)
- [Quality Assessment Report for Water Quality Monitoring, First Quarter 2014](#)
- [Provisional Shark River Slough TP Tracking Report, First Quarter 2014](#)
- [Refuge Enhanced Water Quality Program, First Quarter 2014 Update](#)
- [Refuge TP Compliance Table, First Quarter 2014](#)
- [Refuge Enhanced Water Quality Program, Second Quarter 2014 Update](#)

10:50 a.m. 6. USGS Stage Data in the Refuge Used in Settlement Agreement Reporting

– Stuart Van Horn, SFWMD

Stuart Van Horn explained that daily average stage data for stations 1-7, 1-9, and 1-8C, associated with the sampling events, are averaged together to determine the monthly long-term compliance level for the Refuge. Consequently, accurate stage data for all three stations for each sampling day is needed to properly calculate the long-term level and evaluate Settlement Agreement compliance for the Refuge.

Stuart related the circumstances associated with 24 days (from September 29 to October 22, 2013) of missing stage data at Refuge station 1-9. The data gap resulted from equipment malfunction during a federal shut-down, when USGS staff were not on duty. Stuart gave an overview of the District's standard operating procedures for processing hydrologic data and dealing with gaps in the data. For the October 22–23 sampling event at the site, complete stage data was not available for October 22, but was available for October 23, and this was used for both days. This was not a problem, but there is concern for how the data would be estimated if both days had been missing. During the discussion, Donatto conducted a quick search of the USGS website and noted that there is stage data shown for October 22, starting at about 1 am. Stuart indicated that District staff will look into why that data is not in the District's database.

Stuart explained that the District uses simple linear interpolation for small data gaps, and stated that the real issue is what to do with large gaps. Stuart called for ideas and suggestions from TOC representatives.

Melissa Martin asked whether the methods the District uses for hydrologic data estimation and interpolation are similar to what other peer agencies use, and suggested that the Refuge or USACE have a separate discussion with the USGS about this and report at the next meeting. Bill Walker mentioned a USGS or NOAA application that is used for estimating rainfall data in similar situations, and Stuart asked Melissa to look into that with the USGS.

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→ **Action Item #1:** District staff will recheck with USGS on the availability of stage data at station 1-9 on October 22, 2013.

→ **Action Item #2:** Refuge staff will contact USGS to discuss options for USGS to estimate gaps of stage data in the event of future situations where the District is unable to do so within its hydrologic standard operating procedures.

Associated online documents:

- [USGS Stage Data in the Refuge Used in Settlement Agreement Reporting](#)

11:15 a.m. 7. New SFWMD Method for Determination of Total Nitrogen in Water

– Richard Walker, SFWMD

Richard Walker gave a history of total nitrogen (TN) analysis at the District laboratory, summarized the lab's new TN method and validation procedures, discussed implications of the change to the new analytical method, and conveyed that the SFWMD is seeking TOC approval to proceed with the new method.

Richard explained the data analyses and comparisons that were conducted for the new method use water quality samples from various stations in South Florida. Donatto Surratt asked how much of the test data represented marsh stations.

Richard explained that the new method is not yet in the federal registry, but was adopted into Standard Methods in 2005, is being used in at least two other Florida labs, and is a good method for the types of samples collected for TOC purposes. NO_x analyses will not be phased out, but will continue to be done as needed.

Richard contrasted the TKN method versus the new TN method, noting that while TKN is appropriate for highly contaminated/organic samples, it has greater chance for error because sample digestion is done in an open vessel. The new TN procedure digestion is in a closed vessel, reducing the risk of contamination and reduction in sample volume. It was requested that the graphs be replotted using just samples at the low end (0 to 3 ppb TN) and also with just marsh sites, and that the data that was used be shared along with the results. Richard suggested that the District could continue to do both TKN and the new TN analysis concurrently for a short time so the results of each method can be compared.

Bill Walker suggested that there seem to be greater differences between the two methods in samples with higher values, recommended a TN-TKN calculation for long-term trends to make former TKN measurements consistent with the new TN method, and noted that the new method may have a greater impact at sites where productivity is nitrogen-limited, such as Florida Bay and other coastal areas.

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→ **Action Item #3:** District staff will provide data and analyses used to compare historical TN (calculated from TKN + NO_x) with the new TN method, will replot the test values using data only from marsh stations, and will continue using both methods for a period of time to show how they compare.

Associated online documents:

- [A New SFWMD Method for Determination of Total Nitrogen \(TN\) in Water Presentation](#)
- [SFWMD Lab Certification](#)
- [Standard Operating Procedure for the Determination of Total Nitrogen](#)
- [Total Nitrogen Methods Fact Sheet](#)

11:45 a.m. **8. Water Quality Monitoring Update** – Pete Rawlik, SFWMD

Pete Rawlik gave a brief update on water quality monitoring by the District, noting:

- S-150: Temporary suspension of monitoring from May 6, 2014 until May 2015 (expected) due to construction at the site. Data from the site are not part of compliance calculations.
- S-362: Temporary switch from flow-proportional to time-proportional autosampling due to loss of power related to nearby construction. Power has been restored and flow-proportional sampling is expected to resume on August 4.
- Tamiami Trail Culverts: Issues achieving representative sampling due to interference by people partially or completely obstructing some of the culverts to prevent water from leaving the adjacent marsh. District management has determined that under such conditions the samples are not representative and should not be collected or reported, which affected sampling events on May 14, May 29, and June 10.
- S12s at Tamiami Trail: Vehicle traffic has made physical access to the sites too dangerous for staff. The District is looking into a solution, and will speak with the USACE about gaining access to the footbridge at the structure.
- S-356: Time-proportional autosampler was found to be contaminated with insect larvae, leading to rejection of samples collected on June 23 and 30. The equipment has since been cleaned.

Associated online documents:

- [Water Quality Monitoring Update: July 2014 Presentation](#)

12:05 p.m. **9. Update of the Appendix A Subteam** – Ernie Marks, FDEP

Ernie Marks provided a brief update on the Appendix A subteam. Due to summer vacations, meetings have been limited. The sub-team met on June 3, and heard comments and technical questions from the federal parties, to which the team has been responsive. The sub-team will meet again on August 26, focusing on the S-356 pump station because of the priorities associated with it and the potential testing that will happen in the future. Since the

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April 1, 2014 TOC meeting, the subteam has been doing “due diligence”—reviewing and considering a number of potential alternatives have been proposed by federal parties.

Melodie Naja (Everglades Foundation) asked when the questions and options being reviewed by the sub-team will be presented in more detail. Ernie explained that there is currently a significant push to deal with projects at the southern end of the Everglades (C-111 project, 2.6 mile bridge, etc.), and as things move forward and depending on how much progress is made at the next several meetings, more information will be brought to the TOC as soon as possible.

12:10 p.m. **10. Public Comment (as requested)**

Drew Martin (Sierra Club) commented that the Sierra Club would like to see more water flowing into the Shark River Slough, especially when total phosphorus concentrations are low, and stated that, if sampling is being reduced due to lack of funding, it should be rectified.

12:15 p.m. **11. TOC Closing Business** – Juli LaRock, SFWMD

The next quarterly meeting was confirmed for October 21. There were no requests for special meetings.

Juli LaRock adjourned the meeting.