

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

July 28, 2015

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 (<i>by phone</i>)	Sean Smith, USACE
Kyle Douglas-Mankin, Refuge (<i>by phone</i>)	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.igm2.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 recently posted files available on the TOC website. There were no requests for changes to the agenda.

1C. Approval of Meeting Summary for April 28, 2015

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

Associated Online Documents:

- [Agenda for July 28, 2015 meeting](#)
- [Final Notes from April 28, 2014 meeting](#)

10:07 a.m. **2. Restoration Strategies** – Jeremy McBryan, SFWMD

Jeremy McBryan presented an overview of stormwater treatment area (STA) performance, a Restoration Strategies design and construction update, an overview and status of the Restoration Strategies Science Plan, and a discussion of water quality requirements and federal and state laws intended to protect species, which have the potential to impact achievement of Everglades STA water quality criteria. Full details are included in the presentation file linked to below.

The following are highlights from the discussion that occurred after the presentation:

- While a specific cause has not been determined, the most recent increase in TP inflow concentrations (2014-2015) in STA-5/6 may be attributed to the dynamic hydrology in the region, changing inflow basin sources, water going elsewhere, etc.
- Currently, Science Plan studies are focused on the lower range of phosphorus values and biogeochemical interactions that would enable us to achieve levels below 20 ppb.

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There is not currently a specific study related to the impact of the range of inflow concentrations on achieving lower STA outflow concentrations.

- Bill Walker noted that during relatively dry periods, concentrations often increase, and suggested that evaluating loads may be a more helpful way to look at it. Mr. Barkett suggested that Jeremy give an update on STA-5/6 at a future TOC meeting, in light of Bill Walker's comment, to shed light on what is happening there, if anything.
- Frank Powell noted that storage capacity and changes coming from the completion of the L-8 FEB, A-1 FEB, C-139 Annex, Compartment B and C buildouts, L-8 divide structure, and other components are not covered in the presentation, and will bring positive changes to the system, helping with inflows.
- In the monthly NPDES discharge monitoring reports, the District includes a summary of operational impacts due to the presence of species covered under the Endangered Species Act and Migratory Bird Treaty Act.
- Between Lake Okeechobee and the STAs, there are many interchanges of water. Although it is complex to quantify which portion of the STA inflow water is attributed to the Lake versus runoff to the canals, the District makes a daily estimate based on the volume of discharges from Lake outflow structures and the volume of water entering STA inflow structures.
- A portion of Science Plan funding is dedicated and comes from the state legislature, and a portion comes from the District through ad valorem revenues. The District's share is part of a recurring budget but must be approved by the legislature each year.
- The District has used vegetation surveys to investigate and monitor the impact of Lake releases on individual STA cells, and adaptively changed flow distribution based on the findings.
- Kyle Douglas-Mankin requested assistance locating the additional data being collected in the EPA for vegetation and sediment.
- For the source controls program under Restoration Strategies, the District implemented a canal cleaning and monitoring pilot study with East Beach Water Control District in May 2013, will complete a 3-year data collection project in the West Palm Beach canal this fall, and is conducting internal analyses to help plan the future of source control projects. These projects are in addition to the existing BMP program.

Action Item #1: At a future TOC meeting, District staff will describe what is being done to reduce inflow concentrations to the STAs.

Action Item #2: District staff will provide assistance to Kyle Douglas-Mankin in locating the additional data being collected in the EPA for vegetation and sediment.

Associated Online Documents:

- [Restoration Strategies Presentation](#)

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11:30 a.m. **3. WY2014 Annual Shark River Slough Compliance** – Juli LaRock, SFWMD

Juli LaRock summarized recent activities and presentations related to Shark River Slough (SRS) compliance and the phosphorus values going into the Park during WY2014. Final values for SRS were presented in April, confirming that flow-weighted mean total phosphorus concentrations were higher than the limit. TOC representatives met with their principals.

To address the WY2014 SRS water quality data, Juli proposed the following: “The TOC representatives have reached consensus on a technically based recommendation for compliance with Appendix A. Based on current circumstances and information, including a review of the data relevant to the 12-month flow-weighted mean TP concentration for Shark River Slough for Water Year 2014, the TOC representatives agree that the measures planned and currently underway, including implementation of measures in the State NPDES and EFA permits and associated Consent Orders, are expected to achieve the requisite water quality in inflows from the Water Conservation Areas to Shark River Slough. Based on the consideration of the long term downward trends for the flow-weighted means, the trends for the frequencies of samples exceeding 10 parts per billion, and other information, the TOC does not believe that any further technical analysis of the WY2014 Shark River Slough water quality data is needed by the TOC.” Donatto Surrat moved to accept the language, and Sean Smith seconded.

Juli LaRock and Kirk Burns confirmed for Special Master Barkett that there has been no determination of levels being due to error or extraordinary natural phenomenon. Special Master Barkett, FDEP Counsel Charles Demonaco, and SFWMD Counsel Kirk Burns discussed language and legal requirements in the Settlement Agreement and Consent Order related to determination of violations, potential consequences, and options for resolution.

Mr. Barkett cautioned the TOC that any proposed language regarding exceedance of the limit should match key points in the Consent Decree and Settlement Agreement (i.e. acknowledge that there was a violation and explain that remedies are in place that satisfy the language on page C-4) and have stronger details about the basis for the conclusions that have been reached. Charles Demonaco suggested that FDEP and SFWMD counsel work with staff to draft a document in line with Mr. Barkett’s suggestion and present for a vote at a special TOC meeting.

Action Item #3: To readdress how to deal with the WY2014 phosphorus exceedances at Shark River Slough, FDEP and SFWMD counsel will work with staff to draft a document that better matches key language in the requirements of the Consent Order and includes greater detail about the basis for the conclusions, and will present it for a vote at a special TOC meeting.

12:00 p.m. **4. First Quarter 2015 Settlement Agreement Report** – Stuart Van Horn, SFWMD

Stuart Van Horn presented results for the first quarter of 2015 (January–March). In January 2015, the geometric mean total phosphorus (TP) concentration for the Refuge was 8.1 ppb, which was higher than the long-term level (7.9 ppb). Because there was also an excursion in

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October 2014, there have now been two excursions in a 12-month period, which is considered an exceedance according to the language in Appendix B. Overall, the Refuge trend over the years is very good, despite occasional exceedances.

For the first quarter of 2015, TP flow-weighted mean concentrations for Shark River Slough were a little higher than the long-term level. There was very little flow in this quarter; however, the flow-weighted means are calculated based on a 12-month period. Therefore, the higher values seen in the first quarter of 2015 are a carryover from higher concentrations in April, May, and June 2014. TP values for Taylor Creek and Coastal Basins for the quarter were below the long-term limit and guidelines.

Associated Online Documents:

- [Settlement Agreement Report, First Quarter 2015 \(January–March 2015\)](#)
- [Settlement Agreement Report, First Quarter 2015 Presentation](#)
- [Quality Assessment Report for Water Quality Monitoring, First Quarter 2015](#)
- [Refuge TP Compliance Table, 1999 through First Quarter 2015](#)
- [Provisional Shark River Slough TP Tracking Report, First Quarter 2015](#)

12:25 p.m. **5. Water Quality Conditions for the Arthur R. Marshall Loxahatchee National Wildlife Refuge, 2014 and 2015** – Donatto Surratt, ENP, and Stuart Van Horn, SFWMD

A. Water Quality Trends for the Refuge (2014-2015), Donatto Surratt, ENP

Donatto Surratt gave an updated version of the presentation shown in February, revised with data from February 2014 through February 2015, which showed water quality trends in the Refuge since 2014, including recent exceedances. This presentation was shown to the principals in June. Conditions appear to have improved since the last exceedance in January.

B. Long-Term Trends for the Refuge (Appendix B) (1999-2015), Stuart Van Horn, SFWMD

Stuart Van Horn presented an overview of long-term trends for the Refuge, covering data from 1999, when the interim limit for the Refuge (under Appendix B) went into effect, to present. The Consent Decree does not indicate exactly how “long term” is determined. Stuart presented two methods for evaluating the trend.

Since January 2007, there have been six excursions, representing about 6 percent of the total number of samples collected. Five of the excursions were within about 1 ppb of the expected long-term average concentration of 7 ppb. Four of the excursions occurred at the higher end of the stage level.

From 1999 to 2015, there has been an approximately 3 ppb reduction in TP concentration, bringing the level to about 7 ppb. However, seasonal fluctuations are expected in interior marsh concentrations. Overall, TP concentrations show a statistically significant downward trend, consistent with the goals of the Consent Decree. Based on the TOC’s desire and direction moving forward, different types of analysis could be considered if the current methods are not sufficient.

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Bill Walker commented that he feels that “long term” is well defined in the Consent Decree through the equation, and that the current approach of using the equation and supplementing it with other analyses (to compare the concentrations with 7 ppb) is the best approach and there is no need to seek other methods of analysis.

District staff have done a lot of analysis related to the two most recent exceedances and are dialoguing with Refuge staff on what additional information should be evaluated, and will delve into that to see if there is anything else of importance to look into.

Special Master Barkett suggested evaluating how to proceed. Charles Demonaco affirmed that this will be done, including additional discussion amongst staff members, amongst the TOC, and with the principals.

Mike Walden commented that during 1999 to 2015, the method detection limit (MDL) for total phosphorus changed from 4 ppb to 2 ppb, and asked if that made any difference in the calculations. District staff (Cheol Mo) confirmed that there were no values below 4 ppb during this time, and Bill Walker noted that the MDL changed around 2003, which is outside the period of analysis in the presentation (1/2007 – 3/2015). Stuart indicated that District staff will review the data to see if this had any impact on the overall result.

Drew Martin commented that he had heard that clean water leaving the STAs is mixed with less clean water, asked if this is true, and also asked if there are ways to get additional water to the Refuge during dry times, and how this might impact water quality.

Action Item #4: District and Refuge technical staff will look further into the two most recent exceedances to see if there is any additional information or approaches to pursue, and will report findings at a future TOC meeting.

Action Item #5: District technical staff will review the data used in the presentation to see if there was any impact on the overall result related to the earlier change in MDL from 4 ppb to 2 ppb.

Action Item #6: Staff will follow-up with Drew Martin with information related to his comments and questions.

Associated Online Documents:

- [Water Quality Conditions for the Refuge \(2014-2015\)](#)
- [Long-Term Trends for the Refuge \(Appendix B\) \(1999-2015\)](#)

1:27 p.m. **6. Update on Sub-Committee for Dealing with Refuge Stage Data Gaps**
– Kyle Douglas-Mankin, USFWS

Kyle Douglas-Mankin provided an update, noting that the sub-committee for dealing with Refuge stage data gaps has continued meet and work on the issue, and that there is nothing

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new to report at this time. The sub-committee will continue to work through the details and report back to the TOC next quarter.

1:28 a.m. **7. Update on the Appendix A Subteam** – Ed Smith, FDEP

Ed Smith noted that the subteam met on June 30 with the priorities to protect the ENP and develop a decision support tool that is independent of the Appendix A calculation. The goals of the decision support tool is to expedite the decision making process for the principals when there are concentrations above the limit.

The team did not alter the items included in the change conditions list, but decided to sort the list by operational timelines into current conditions, expected near-term changes, and long-term changes. The team generated a number of specific ideas about the decision making tool and had several action items, including a follow-up meeting scheduled for mid-August.

1:34 p.m. **7. Public Comment**

Drew Martin, Sierra Club, questioned whether cleaner water leaving the STAs is due to the STAs working better because of operational decisions, or simply because cleaner water (through rainfall, etc.) is entering them. Drew also asked whether manure piles in the Wellington area could pose a risk to water quality in the Refuge if a heavy rain or storm event caused runoff from the piles.

Melody Naja, Everglades Foundation, requested an update at the next TOC on S-356, regarding changes there and how it will affect water quality.

1:37 p.m. **8. TOC Closing Business** – Juli LaRock, SFWMD

Julie reviewed the action items.

A special meeting was tentatively scheduled for August 25 with a backup date of September 22 (which is also a governing board meeting day), and the next quarterly meeting is scheduled for October 27, 2015.

Juli LaRock adjourned the meeting.