

**FINAL  
MEETING SUMMARY  
Quarterly Technical Oversight Committee (TOC)  
South Florida Water Management District  
3301 Gun Club Road, West Palm Beach, FL 33406  
Thursday, October 30, 2003**

**Attendees:**

Garth Redfield, TOC Chair and Agency Rep., SFWMD  
Nick Aumen, TOC Agency Rep., NPS/ENP  
Bill Baxter, TOC Agency Rep., USACE  
Frank Nearhoof TOC Agency Rep., FDEP – Via Telephone  
Mike Waldon, TOC Agency Rep., USFWS

Joe Albers (SFWMD)  
Tim Bechtel (SFWMD)  
Ron Bearzotti (SFWMD)  
Kirk Burns (SFWMD)  
Kalani Cairns (FWS)  
Laurene Capone (EAA Research)  
Joffre Castro (ENP)  
Bahram Charkhian (SFWMD)  
Violeta Ciuca (SFWMD)  
Samira Daroub (Univ. of Florida, IFAS)  
Linda Davis (SFWMD)  
Orlando Diaz (Univ. of Florida)  
Mutat Daas (FIU-HCET)  
Paul J. DuBowoy (COE)  
Gene Duncan (Miccosukee Tribe)  
Tony Federico (MFL)  
Gary Goforth (SFWMD)  
Richard Harvey (USEPA)  
Margaret Hopkins (DOI)  
Delia Ivanoff (SFWMD)  
Bob Kadlec (DOI)  
Zdzislaw Kolasinski (SFWMD)  
Julia Lacy (SFWMD)  
Neil Larson (SFWMD)

Joan Lawrence (DOI)  
Jason Lichtstein (Gunster Yoakley)  
Linda Lindstrom (SFWMD)  
Paul Linton (SFWMD)  
Paul Lloyd (COE)  
Paul McGinnes (SFWMD)  
Philip Mancusi-Ungaro, USEPA/DOI  
Juan Manzano (SFWMD)  
Loren M. Mason (COE -SAJ)  
Anindra Mazumdar (FIU-HCET)  
Cheol Mo (SFWMD)  
Brooks Moore (COE)  
Paula Moree (SFWMD)  
Vincent Peluso (SFWMD)  
Barbara Powell (SFWMD)  
Barbara Ross (SFWMD)  
Pam Sievers (SFWMD)  
Rajiv Srivastava (FIU-HCET)  
David Struve (SFWMD)  
Sharon Trost (SFWMD)  
Stuart Van Horn (SFWMD)  
Bill Walker (DOI) – Via Telephone  
Mike Zimmerman (NPS/ENP)

**Introductory Comments:** Garth Redfield, Chair, Technical Oversight Committee (TOC), called the meeting to order at 10:15 a.m. He indicated that this is a quarterly routine meeting to discuss topics related to phosphorus control and compliance. The Chair reviewed the agenda (**Attachment 1**) and there were no recommended changes. All attendees introduced themselves.

## **1. Approval of TOC Minutes from June 3, 2003, July 24, 2003, and August 12, 2003 TOC meeting.**

Garth Redfield, Chief Environmental Scientist, Environmental Monitoring and Assessment Department, SFWMD and TOC Chair, noted that the revised June and July 2003 Minutes have been posted on the SFWMD/TOC web site. The August 12, 2003 Minutes have not yet been posted. The Chair asked if there were any additional changes to the June 3, 2003 or July 24, 2003 Minutes (**Attachments 2 and 3**). There were no additional changes requested and he moved that the Minutes be approved. There was a consensus from the TOC members to approve the June and July Minutes. The August Minutes will be reviewed at a future meeting.

## **2. Discussion of the nature of TOC Minutes and options for future Minutes.**

Garth Redfield led a discussion by the TOC of the options available regarding the procedures for providing Minutes of the TOC meetings. Redfield indicated that attempts at detailed Minutes were consuming too much staff time and causing delays in the production of Minutes. Currently, videotapes taken at the SFWMD Headquarters during meetings and anyone seeking a *verbatim* record of the meeting can request a copy of the tape from the District. However, these tapes cannot be date and time stamped which makes it time-consuming to locate material. Options of hiring of a court reporter to take *verbatim* Minutes, and purchasing a video camera that can provide the date and time stamping on videotapes were discussed. Having Paula Moree, the District's Deputy Clerk, to do draft Minutes covering topics and conclusions without extensive detail has proven very helpful. The Chair will attempt to indicate the time and agenda item more often during the meetings to aid in locating material on the tapes. Paula will continue to create Minutes in outline form at future meetings at District headquarters.

## **3. Water Quality Conditions Report to the TOC and Quality Assessment Report for Water Quality Monitoring. [Presentation began at 10:25 a.m.]**

**3a. Presentation:** Tim Bechtel, Sr. Supv. Environmental Scientist, SFWMD presented information on the Settlement Agreement April-June 2003 Report. A chart showing the monthly total phosphorus geometric mean concentrations for the A.R.M. Loxahatchee National Wildlife Refuge was shown. For the 13 months since July 2002, the geometric mean total phosphorus concentrations measured in water sampled collected has been below the interim levels for the Refuge. Information on the compliance tracking was provided (**Attachment 4**).

Discussion: There was discussion of the information presented for the two year period covered by the spreadsheet supporting Table 1.

**Recommendation:** Amend Table 1. *Loxahatchee National Wildlife Refuge Total Phosphorus Compliance Tracking* to include a column with information on why or why not the data were not available.

**Follow-up Item:** Have presentation/information on having the field notes more accessible.

Dr. Bechtel's presentation continued with information on Shark River Slough total phosphorus concentration compliance tracking (Table 2) (**Attachment 4**).

Discussion: There were questions on the inclusion of S334 to the total basin flow to compute the limits. The sum of S12s and 333, and the inclusion of S334 were discussed.

**Recommendation:** Bill Walker of DOI will talk to staff and reconcile the disagreement of whether to include 334 in the data compilation for total flow.

**Follow-up Item:** A presentation will be made at the next TOC meeting to discuss the differences in flow calculation and to reconcile the data sets to be included.

The presentation continued with information on Taylor Slough and the Coastal Basins total phosphorus concentration compliance tracking, Table 3 (**Attachment 4**). Overflow Events 2000 – 2003 at the S-332B Weir were also presented (**Attachment 5**) as requested previously by the TOC. There were no data on 2002. There was only one event in 2002 associated with equipment malfunction in the detention basin. Only one short-term event was reported in 2003.

Discussion: It was agreed that it is not feasible to go back and provide correction factors for earlier overflow events. The gage is being replaced and will give much more accurate information on future overflow events. However, flow measurement is not totally reliable for the type of weir used for this detention area. There is a plus or minus of 30% in accuracy as predicted by the USACOE. Difficulty in quantifying data was discussed, as was the fact that there will be fewer overflows in the future. The status of the modification of the weir was discussed.

**3b. Presentation:** The Water Quality Assessment Report (**Attachment 6**) was presented briefly by Juan Manzano. Any further questions by any member of the TOC will be answered by Mr. Manzano via phone or e-mail.

**4. Phosphorus in Refuge Canals.** Samira Daroub, IFAS, Belle Glade. Introduction by Mike Waldon, Fish & Wildlife Service (FWS). [Presentation began at 11:20 a.m.]

**Presentation:** Dr. Samira Daroub provided information on the potential contribution of Refuge canals to phosphorus loads. She presented a summary of her research on canal P inventories, P speciation, P flux rates and P transport. Recommendations for future work were given. (**Attachment 7**).

Discussion: There was discussion on the average flux and interpretation of data. Maximum flux is between 1 and 4 parts per billion (ppb). Flux from sediments and flow conditions were discussed.  
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discussed. Questions on sampling procedures and timing of collection of samples were asked and answered. Information on phosphorus levels in sediment in the Refuge was provided. The report is completed and will be available on the IFAS website.

**Follow-up Item:** The report link will be emailed to Chair and will be linked to the TOC website.

**5. STA-1W Performance and Operational Issues.** [Presentation at 12:10 p.m.] [No handout to this presentation.]

**Presentation.** Gary Goforth, Chief Consulting Engineer, Water Resource Management, SFWMD spoke about the delivery and discharge of water into and out of the Refuge. Due to several issues there is concern over STA overload and discharging water into the Refuge with varying degrees of treatment. Gary is seeking recommendations from the TOC and he provided options for routing water: adding incremental water through STA-1W, discharging directly into the Refuge or should the District delay water deliveries?

**Discussion:** The amount of water would not be small. There was discussion on the dates for the Refuge stage to drop to 15. There is no certainty that it would ever meet 15 if there continues to be high demands on the Refuge. The Refuge has concerns in general about continued loading. Zone B operating criteria were discussed. Questions on STA1W, permitting, loading limits under Consent Agreement were asked. Dr. Goforth provided information on the permitting, loading limits, etc. Differing opinions were expressed on whether this is a matter for the TOC to determine. It was suggested that the Refuge needs to have input on this matter, but that it is clearly relevant to compliance issues and the TOC.

**Recommendations:** Guidance was provided that all water should be treated before being released without overloading. Stretching out water deliveries was suggested as an option.

No recommendations on water deliveries and treatment were made by Nick Aumen, TOC Agency Representative, NPS/ENP. He recommended that the District speak to the manager of the Refuge to get his recommendations directly.

**[Recessed for Lunch at 12:30 p.m. – Reconvene at 1:15 p.m.]**

**6. Update on STA-1E.** [Presentation began at 1:20 p.m.] [No handout for this presentation.]

**Presentation:** Sharon Trost, Deputy Department Director, Operations Control, SFWMD noted that several agencies have participated in providing information for the STA-1E report. The schedule and different components in the schedule was presented by Ron Bearzotti, SFWMD. The STA-1E is estimated to be completed in April 2004.

Ms. Trost reported that permitting issues have been discussed at meetings held with different agencies. Information on the modeling efforts was provided. By November 11 or 12 the draft report should be compiled and ready to distribute.

Information on the Vegetation Management Plan for STA-1E was presented.

A formal request has been sent to Corps Headquarters for PSTA testing, but the submerged and emergent plant community management is a separate issue. Information on combining the submerged and emergent was presented as well as a discussion on the role of SAV and PSTA.

No major structural changes to the STA would be involved in the Vegetation Management Plan. Research will be done, and authority sought, by the USACOE on SAV and PSTA to expand or add to a project that has already been authorized. There is estimated to be no costs associated with implementing the Vegetation Management Plan. Instituting SAV will not change the implementation of PSTA. Operations Plan of STA-1E was discussed.

**Follow-up Items:** A draft Analysis Report will be provided by Ms. Trost to TOC members and interested parties as soon as it is available. At the next TOC meeting, the USACOE will make a presentation on STA-1E regarding the authorization on the subject of combining the submerged and emergent and whether there is approval to expand or add to a project that has been authorized. The USCOE will provide a copy of their Plan to Dr. Redfield and he will post it on the TOC web page.

**7. Update on Total Flow Automatic Sampler for Pump Station S-5A.** [Presentation began at 2:10 pm]

**Presentation:** Bahram Charkhian, Director, Water Quality Monitoring, SFWMD, introduced members of the FIU Technical staff. These Professors gave a presentation on the development of a new auto-sampler at S-5A Pump Station (**Attachment 8**).

**Discussion:** The cost of the new sampling units was estimated at \$95,000 for the study and \$25-27,000 for equipment. Following a one year study, modifications will be made to the equipment.

**8. Evaluation of Water Quality Data at S65E and Development of Innovative Methodology for Flow-proportional Sampling in Open Channel Flow.**

**Presentation:** Joe Albers, Sr. Field Operations Supervisor, SFWMD gave a presentation on testing and data collection at S-65E, an important discharge structure (**Attachment 9**). Water quality data have been analyzed, a new sampling technology has been developed and bench scale testing is on-going. The goal is to provide much more accurate water quality sampling in open channels.

**9. Update on C-111 Water Quality Monitoring.**

**Presentation:** Peter Rawlik, Staff Environmental Scientist, SFWMD, gave a presentation on the C111D Monitoring Project (**Attachment 10**). He summarized the components of C-111 monitoring in the geographic context of this complex project.

**10. Additional Public Comments and Date for Next TOC meetings:** Discussion began at 2:35 p.m.

More meetings and future dates were suggested. Tuesday, January 27, 2004; Thursday, January 29, 2004; and Tuesday, February 3, 2004 were provided as options.

There was discussion on future meeting dates and scheduling, and staff will notice one or more meetings and if those are not needed then they can be cancelled. Members discussed holding two half-day meetings versus a full day meeting and there could be “technical sub-teams” that could meet and bring back information to the TOC. Dates for January and February will be scheduled and the dates put on the SFWMD web site.

Announcement: Loren M. Mason (USACE -SAJ) stated that he will be stepping down as the USACOE representative to the TOC. The new representative will be Dr. DuBowy.

Chair adjourned the meeting at 3:00 p.m.