

**Northern Tampa Bay Phase II Local Technical Peer Review Group (LTPRG)  
SWFWMD Tampa Service Office, Hwy 301N, Tampa**

**Meeting 42**

**April 9, 2008 - 9:30AM**

## **Summary**

The following were in attendance: Patty Fesmire, Tampa Bay Water; Doug Keesecker, Tampa Bay Water; **Warren Hogg**, Tampa Bay Water; Dan Schmutz, GPI Southeast, Inc.; Diane Willis, GPI Southeast, Inc.; **Scott Emery**, EHI/Hillsborough County; **Gordon A. Leslie Jr.**, Hillsborough County EPC; Mario Cabana, Hillsborough County WRS; **Dave Slonena**, Pinellas County Utilities; Patricia Metz, United States Geological Survey; Kim Haag, United States Geological Survey; **Michael Hancock**, SWFWMD; Maya Burke, SWFWMD; John Emery, SWFWMD; Don Ellison, SWFWMD; David Carr, SWFWMD; Christina Uranowski, SWFWMD; Richard Owen, SWFWMD; Mark Barcelo, SWFWMD; Sandie Will, SWFWMD; and **Doug Leeper**, SWFWMD. Names in bold are designated representatives for the LTPRG.

Doug Leeper provided an update on the status of minimum flows and levels development for northern Tampa Bay priority water bodies. With regard to minimum flows for river/spring systems, Mr. Leeper noted that at their February 26, 2008 meeting, the Governing Board continued a public hearing that had been previously requested by Tampa Bay Water for the minimum flows proposed for the freshwater segment of the Alafia River, and also accepted submission of a peer review report on proposed minimum flows for the lower Alafia River. He also noted that at the March 25, 2008 Governing Board meeting, the Board was notified that the public hearing request that had been continued from previous months had been withdrawn. He further noted that at the March meeting, staff response to the peer review report on the lower Alafia River flows was presented to the Board. Finally, with respect to the proposed minimum flows for the Alafia River, Mr. Leeper indicated that staff were currently working on rule language associated with the minimum flows and was also in the process of developing a recovery/prevention strategy for the river system. Mr. Leeper then noted that staff expects to present proposed minimum flows for the Weeki Wachee River to the Board at the April 29, 2008 Governing Board meeting, and indicated that a report outlining the proposed minimum flows would then be subjected to a voluntary, peer-review process. With regard to the development of minimum and guidance levels for lakes in the northern Tampa Bay area, Mr. Leeper noted that staff does not anticipate an Board action on proposed levels during the next few months.

Diane Willis gave a presentation entitled "Wetland Plant Zonation Study" in which she discussed a project that has been ongoing for the past two years, and is continuing for a third year. The goal of the project, funded by the District, is to evaluate the present wetland zone classification of plants currently listed in the Wetland Assessment Procedure (WAP) methodology and to assess the appropriate wetland zone of other plant species sampled during the project. As part of the WAP, developed by the District

and Tampa Bay Water, plant species are monitored along a transect, and a score is assigned to each cover class based on the species found each year. To date, 111 species have been assigned a hydrologically-based zone in which they are expected to be found in wetlands with natural hydrologic conditions. The zones were originally assigned using data collected by local ecologic scientists over the past 30 years, as well as the expert opinion of several highly experienced wetland scientists. The study is expected to refine these determinations by inventorying very precisely surveyed plant species in several wetlands throughout the growing season.

To date, species have been inventoried along two separate transects in twelve wetlands located in the general northern Tampa Bay area. All wetlands have been monitored both biologically and hydrologically for many years, and a review of all data was performed to determine that each was experiencing relatively natural hydrologic conditions. Monitoring events occurred in June, August, and October of each year. The elevation of each plant found is reported using the depth below historic normal pool as the datum. A "likelihood" model was performed for each species, which provided statistically-based information on the likelihood of occurrence for species in each zone. Ms. Willis reported that 187 different species were analyzed, including 71 percent of the species found in the WAP zonation list. Preliminary results were reported, but Ms. Willis recommended that at least another year of data collection should be conducted before any firm conclusions are reached, particularly since the first two years of the study experienced below average rainfall. A PDF file of this presentation is posted on the NTB II website.

Don Ellison gave the third in a series of three presentations on the assessment of long-term lake fluctuations for the minimum levels analysis. Mr. Ellison reviewed the content of his last two presentations, including the definitions of several of the terms used in the District's minimum flows and levels rules (40D-8), as well as the importance of the use of long-term lake percentiles when developing minimum levels. The understanding of long-term water levels at individual lakes enables the District to account for natural rainfall variability when comparing shorter-term data to minimum levels. Because most lakes don't have long-term periods of water level data collection (defined as 60 years or more of record), it is often necessary to use models to produce simulated water levels, based on best available information. Mr. Ellison reviewed the modeling techniques discussed in the last presentation that were developed by District staff to estimate long-term lake level percentiles. The current modeling techniques involve the use of Line of Organic Correlation. This technique has been applied to model lake levels using water levels from other lakes and wells, and, more recently, using rainfall data. Mr. Ellison explained that compliance of the minimum levels developed through these techniques will be done by comparing the actual water levels with those expected through the modeling process given the actual rainfall experienced. This technique will allow for the limitations in model predictions, as well as the short-term rainfall influences on long-term conditions. Mr. Ellison used two lakes as examples to demonstrate the entire process. A PDF file of the presentation is posted on the NTB II website.

The next regular LTPRG meeting is scheduled for 9:30 AM on June 3, 2008 at SWFWMD's Tampa Service Office.

# **AGENDA**

## **Northern Tampa Bay Phase II Local Technical Peer Review Group**

### **Meeting 42 SWFWMD Tampa Service Office, Hwy 301N, Tampa**

**April 9, 2008 - 9:30AM**

1. February meeting follow-up
2. Miscellaneous updates
  - Lake MFL Update
3. Wetland Plant Zonation Study (Diane Willis, GPI Southeast, Inc.)
4. Methods for Estimating Long-term Lake Percentiles – Part III (Don Ellison, SWFWMD)
5. Issues for next meeting – June 3, 2008