

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

**Meeting 20
December 3, 2003 - 9:30AM**

Summary

The following were in attendance: **Dave Slonena**, Pinellas County; **Mike Coates**, Tampa Bay Water; Kathleen Coates, Tampa Bay Water; Doug Keesecker, Tampa Bay Water; Chris Shea, Tampa Bay Water; **Richard Voakes**, City of St. Petersburg; Ralph Craig, City of St. Petersburg; **Andy Smith**, Hillsborough County; Scott Emery, Hillsborough County; Mario Cabana, Hillsborough County; **Vivienne Handy**, Quest Ecology for WRWSA; **Gordon Leslie**, Hillsborough County Environmental Protection Commission; **Annemarie Hammond**, Pasco County; Terrie Lee, USGS; Shannon Gonzalez, USF; **Michael Hancock**, SWFWMD; Jill Hood, SWFWMD; **Ted Rochow**, SWFWMD; David Carr, SWFWMD; Mark Barcelo, SWFWMD; Mikel Renner, SWFWMD; Robert Peterson, SWFWMD; **Doug Leeper**, SWFWMD; Marty Kelly, SWFWMD; and John Emery, SWFWMD. Names in bold are designated representatives for the LTPRG.

Doug Leeper provided an update on the status of minimum levels development for Category 3 lakes. He informed the group that the District Governing Board approved proposed rule revisions pertaining to lake MFLs at their October 28, 2003 meeting. The rule revisions include the Category 3 Lake MFL methodology and proposed levels for 14 northern Tampa Bay area lakes. Levels for Lakes Raleigh, Rogers and Starvation were not included in the proposed rule revisions. Mr. Leeper noted that District staff planned further review of information relevant to development of MFLs for these systems prior to presenting recommended levels to the Governing Board. The proposed rule revisions were published in the Florida Administrative Weekly on November 7, 2003, and Mr. Leeper noted that the proposed revisions had not been challenged. He indicated that in the absence of legal challenge(s) to the proposed rule revisions, the District would, in early 2004, hold public workshops on proposed levels for the remainder of the northern Tampa Bay area lakes scheduled for MFL adoption in 2003.

Michael Hancock presented a summary of the Wetlands Subcommittee meeting that took place on November 6, 2003 (meeting summary and presentation figures are on the NTB II website). Meetings with individual consultants that regularly perform wetland assessments are scheduled to finish next week, and a presentation on the District's findings and recommendations will be on the agenda of the February 2004 LTPRG meeting.

Mike Coates informed the group that the tour of the Gulf Coast pilot desalination plant that had been previously discussed would best be held in February or March of 2003,

since work ongoing at the plant would make the tour unproductive at this time. An announcement of the tour will be distributed to the LTPRG at the appropriate time.

Kathleen Coates gave the group a presentation on Tampa Bay Water's Recovery Analysis Methods and Data Requirements study. Ms. Coates explained the Tampa Bay Water is preparing for the assessment of recovery as withdrawals from regional wellfields are reduced, and they are investigating statistical tools to measure hydrologic recovery that will supplement the numerical modeling tools also being developed. The objectives of the study are 1) to evaluate, test, and recommend appropriate statistical methods to identify, quantify and forecast hydrologic recovery associated with withdrawal reductions, 2) identify data gaps in parameters, density of coverage, and monitoring frequency, which will limit utilization of recommended approach, and 3) recommend appropriate changes to environmental monitoring needed to address data gaps. Techniques being used in the study include 1) "data mining" for exploratory data analysis and evaluating relationships between variables and to select variables for statistical models, 2) transfer function noise (TFN) modeling, a time series analysis technique to assess recovery through time, and 3) geostatistical techniques, which use results from TFN models to interpolate recovery across space. The study also involves evaluating the existing database to assess the sufficiency of the data network. Currently, the study is limited to the Morris Bridge and Cypress Bridge wellfields, and only one wetland within the Morris Bridge wellfield has been modeled. Further work will include an expansion of the modeling technique to more wetlands, and assessments at other wellfields. Several LTPRG participants asked questions about the long-term applications of the techniques, and how they were expected to compare with numerical model results, but Ms. Coates replied that it was too early to know the answers to those questions prior to further investigations.

Shannon Gonzalez presented the results of his study "Using Anurans to Measure Wetland Health on a Central Florida Wellfield". The study sought to investigate the use of amphibians as biological indicators of wetland health. The study took place in the Starkey wellfield, and attempted to answer the following questions: 1) can the reproductive success of anurans be used to predict health of wetland systems?, 2) do the vegetation observations of wetland health mirror the reproductive success of the anurans on the site?, and 3) what environmental factors can be used to predict the reproductive success of anurans? Data was collected through a call census, a tadpole census, and environmental factor measurement, including pH and temperature. Conclusions of the study included 1) it is possible to distinguish differences in wetland health based upon frog reproductive success, 2) there was overlap between the vegetative measures and the frog measures, 3) there is variation between years in reproductive success among wetlands, 4) it is possible to measure reproductive success by documenting frog calls or tadpole captures, and 5) two important factors in the reproductive success of the frogs were identified (wetland health and period of inundation).

The next regular LTPRG meeting is scheduled for 9:30 AM on February 4, 2004 at the Tampa Service Office.

AGENDA

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1. October meeting follow-up
2. Miscellaneous updates
 - Lake MFL Update
 - Wetlands Subcommittee meeting – November 2003
 - Future presentation/field trips
3. Tampa Bay Water's Recovery Assessment Project (Kathleen Coates, Tampa Bay Water)
4. Wetland Wildlife Assessment Project (Shannon Gonzalez, USF)
5. Issues for Next Meeting – February 4, 2004 (at the Tampa Service Office)