

**Northern Tampa Bay Phase II Local Technical Peer Review Group
Cypress Creek Well Field Facility**

**Meeting 7
June 6, 2001 - 9:30AM**

Minutes

The following were in attendance: Zhongyan Lin, Hillsborough County EPC; Gordon Leslie, Jr., Hillsborough County EPC; Dave Slonena, Pinellas County; Doug Keesecker, Tampa Bay Water; Chris Shea, Tampa Bay Water; Jeff Geurink, Tampa Bay Water; Patty Fesmire, Tampa Bay Water; Richard Voakes, City of St. Petersburg; Scott Emery, Hillsborough County; Cliff Harrison, Schreuder, Inc. for WRWSA; Annemarie Gueli, Pasco County; Amy Swancar, United States Geological Survey; Terrie Lee, United States Geological Survey; John Emery, SWFWMD; Michael Hancock, SWFWMD; Adam Munson, SWFWMD; Ted Rochow, SWFWMD; Ken Weber, SWFWMD; Robert Peterson, SWFWMD; Doug Leeper, SWFWMD; Bob Perry, SWFWMD.

Doug Leeper gave a brief update on the Category 3 Lake Minimum Level process. Mr. Leeper said that one of the two reviews of the application of the Hoyer and Canfield (1994) information has been completed. A copy of the review (by Dr. Keith Bildstein) was distributed to the group. The peer review process for the Category 3 Minimum Level methodology is expected to begin soon, and will take approximately three months. Copies of the Hoyer and Canfield reviews will be included in the materials given to the peer review team.

Michael Hancock presented a brief update on the time line for establishment of the Chapter 373 Peer Review Program. The District is working with the South Florida Water Management District to make Southwest Florida Water Management District's program as consistent as possible. Mr. Hancock said that he expected all of the information on the SFWMD's program to be available by the end of June. The District hopes to have its program in place by October 1.

Mr. Hancock also gave a brief update on the data network inventory. The District has been working with Tampa Bay Water to finalize the location and details of their data collection network, which should be complete within the next couple of weeks. The District is also installing more than 80 surficial aquifer wells in and near its network of monitored wetlands, which should be completed by the end of the month.

Chris Shea and John Emery gave a presentation on the status of the previously adopted MFL wetlands. Mr. Emery explained the location and purpose of the MFL sites (found in

Chapter 40D-8 FAC), with particular emphasis on the isolated cypress wetland sites. Currently, there are 41 isolated cypress wetland sites, 12 lake sites (Category 1 and 2), and seven saltwater intrusion well sites. All of these sites are being monitored as part of Special Conditions required by the Consolidated Wellfield Permit. It was noted that two of the wetland sites are in need of instrumentation before data can be collected. Mr. Shea showed some examples of water level data collected at selected MFL wetland and lake sites since October 1998. As expected, the trends are downward due to ongoing drought conditions and continued high groundwater withdrawal rates. Tampa Bay Water is working on a method to allow for viewing of the provisional collected data.

Jeff Geurink gave a presentation on the recent peer review of the Integrated Surface and Ground-water Model (ISGW). Dr. Geurink gave a brief review of the history of the model's development, and potential applications of the model. The peer review team, consisting of WEST Consultants, Inc., Gartner Lee Limited, and AQUA TERRA Consultants, were asked to identify major hydrologic processes, compare ISGW to other integrated models, assess the functions of the ISGW code, assess the model representation of the physical system, evaluate the calibration metrics, and assess the appropriate applications of the model. The reviewers identified several model code improvements, including replacing the model's current ET algorithm and developing model code documentation. Several conceptualization improvements were suggested, including basing several model parameters on more specific land use information. Data improvements were suggested, such as adding additional rain gauges, assessing the use of radar, and collecting more aquifer characteristic data. Several calibration metric improvements were offered, and alternative hydrologic models that may be worth pursuing were identified, including nested numerical or analytical models, artificial neural networks, and alternative integrated models. Dr. Geurink explained that the SWFWMD and Tampa Bay Water plan to work cooperatively on the further development of the ISGW model, as well as on investigations of alternative models.

The next regular LTPRG meeting will be held at 9:30 AM on August 1, 2001. The meeting will take place at the SWFWMD's Tampa Service Office, and will include presentations from the Hillsborough County EPC on soils studies in wetlands, and a presentation by John Trommer on the ongoing USGS study of the hydrology of the Upper Hillsborough River.

Agenda

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1. April Meeting(s) Follow-up
2. Miscellaneous Updates
 1. Category 3 Lakes MFLs (Doug Leeper)
 2. Chapter 373 Peer Review (Michael Hancock)
 3. Data network inventory (Michael Hancock)
3. Status of instrumentation on MFL wetlands (John Emery/Chris Shea)
4. Results of ISGW model review and future modeling plans (Jeff Guerink)
5. Other issues
6. Issues for the Next Meeting - August 1, 2001 (at the Tampa Service Office)