

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

**Meeting 9
October 3, 2001 - 9:30AM**

Minutes

The following were in attendance: Zhongyan Lin, Hillsborough County EPC; **Gordon Leslie, Jr.**, Hillsborough County EPC; **Dave Slonena**, Pinellas County; Stuart Dawson, Pinellas County; Doug Keesecker, Tampa Bay Water; **R. Warren Hogg**, Tampa Bay Water; Kathleen Coates, Tampa Bay Water; **Ralph Craig**, City of St. Petersburg; **Andy Smith**, Hillsborough County; Scott Emery, EHI for Hillsborough County; **Cliff Harrison**, Schreuder, Inc. for WRWSA; **Vivienne Handy**, Quest Ecology, Inc. for WRWSA; Kim Haag, United States Geological Survey; Donald Herndon, United States Geological Survey; Amy Swancar, United States Geological Survey; Terrie Lee, United States Geological Survey; Roger Copp, DHI; **Michael Hancock**, SWFWMD; Adam Munson, SWFWMD; **Ted Rochow**, SWFWMD; Ken Weber, SWFWMD; Robert Peterson, SWFWMD; **Doug Leeper**, SWFWMD; David Carr, SWFWMD; Dwayne Huneycutt, SWFWMD; and Marty Kelly, SWFWMD. Names in bold are designated representatives for the LTPRG.

Doug Leeper gave an update on the Category 3 Lake Minimum Level process. Mr. Leeper announced the District has received the final peer review report from the panel, which is available on the District's discussion board website. Mr. Leeper said that the peer review panel will be presenting the results to the District's Governing Board at the October 2001 meeting. During the District's November Governing Board meeting, District staff will present their response to the panel's findings.

Michael Hancock gave a brief update on the Peer Review Program process. The SWFWMD has received nearly 500 resume from the SFWMD for review and possible inclusion in the program. District staff is still reviewing the information. Updates will continue to be presented to the LTPRG.

Mr. Hancock announced that the District's final inventory of wetlands monitoring stations is complete, along with the recommendations for further work. Once Tampa Bay Water has had a chance to review the results and offer any comments/changes, the District and Tampa Bay Water will work cooperatively on a plan to finalize the network. The results will be presented to the LTPRG when they are completed.

Mr. Hancock also announced that the requested list of NTB II related projects is nearly complete, and will be emailed to the LTPRG and interested parties in about a week.

David Carr of the District staff presented the results of his study entitled A Comparison of Biotic Indicators of Hydrology in Southwest Florida Isolated Cypress Wetlands. Mr. Carr reported that hydrology may be the single most important factor that determines isolated cypress wetland form, function, health and size. Biotic indicators of wetland hydrology have been used extensively to determine the elevation of historic high water levels. These indicators reside at a horizontally predictable elevation in a wetland landscape based on its hydroperiod and are used to assess wetland health.

A goal of the Southwest Florida Water Management District has been to develop a methodology to use hydrologic records exclusively to determine wetland health. To accomplish this goal, a long-term hydrologic record and historic high water elevation must be established in multiple wetlands. The enigma lies in the relationships within and among the elevations of biotic indicators. This study was conducted to compare the elevation of six biotic indicators of historic high water to one another in twelve healthy, isolated cypress wetlands for the purpose of quantifying variations (if any) between the indicators. The indicators include the elevation of: 1) The inflection point on 10 *Taxodium ascendens* (buttress swelling/hypertropic) or where the angle of buttress swelling changed to an angle of more rapid descent, 2) The main root crown base of 15 *Lyonia lucida*, 3) The lower limit of 6 epiphytic mosses (main mass or collars) growing on the base of *Taxodium ascendens*, 4) The ground at 31 landward-most *Taxodium ascendens*, 5) The ground at the water-ward most roots of 10 *Serenoa repens*, and 6) The elevation of the uppermost woody adventitious root on 5 *Hypericum fasciculatum*. Generally, these indicators have been used individually or in tandem in setting normal pool elevations.

Mr. Carr found that the Kruskal-Wallis Tests revealed that the median elevations of *Lyonia*, moss collar, and *Taxodium* buttress inflection were identical. Saw palmetto and landward-most *Taxodium* elevations were also identical. Additional tests of the population variances reveal that generally, the horizontal variability of each indicator was low, 81 percent of the indicators were within 0.05 feet and 90 percent were within 0.75 feet. The average variation of all wetlands sampled were within each indicator were equal to or less than 0.04 feet (except landward-most *Taxodium*, mean 0.06 feet). Moss collar elevations were least variable (mean 0.01 feet).

Mr. Carr announced that future studies will include duplicate data collection and analyses using data collected by an additional environmental scientist, and a comparison of indicator elevations to the elevation at the hydric/non-hydric soils interface.

Terrie Lee, Kim Haag, and Amy Swancar of the USGS presented preliminary results from their ongoing study on the effects of augmentation on the hydrology, water quality and ecology of selected wetlands. Results were presented for 5 marsh wetlands in the

northern Tampa Bay region. Two of the wetlands were control sites in natural settings, two were augmented wetlands on wellfields. The last marsh wetland, also located on a wellfield, is slated to be augmented during the study. Ms. Lee compared the frequency and area of inundation in the natural and augmented wetlands, and described the groundwater flow patterns and water quality in the adjacent surficial aquifer. Ms. Haag described surface water quality of the 5 marshes and compared wetland vegetation. In addition to the 5 marshes, the USGS will begin monitoring 5 cypress wetlands this winter. In the last part of the talk, Ms. Lee outlined the USGS study goals for the wetlands that will be augmented during the study and encouraged open discussion of the objectives and approach. The USGS and its cooperators, Tampa Bay Water, Pinellas County and SWFWMD, will be refining the final scope of work for the augmentation experiments in late October.

The next regular LTPRG meeting will be held at 9:30 AM on December 5, 2001. The meeting will take place at the SWFWMD's Tampa Service Office.

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1. August Meeting 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)
 4. NTB II Projects (Michael Hancock)
3. A comparison of normal pool indicators in cypress wetlands (David Carr, SWFWMD)
4. Discussion of an ongoing study - Effects of Augmentation on Hydrology, Water Quality, and Ecology of Selected Wetlands in the Northern Tampa Bay Area, Florida (Kim Haag, Tampa Office, USGS)
5. Other issues
6. Issues for the Next Meeting - December 5, 2001 (at the Tampa Service Office)