

**SOUTH FLORIDA WATER MANAGEMENT DISTRICT (SFWMD)
WATER RESOURCES ADVISORY COMMISSION (WRAC)
LAKE OKEECHOBEE COMMITTEE MEETING
Wednesday, May 28, 2008, SFWMD, Building B-1 Auditorium
3301 Gun Club Road, West Palm Beach, FL, 9:00 a.m.**

MEETING SUMMARY

Chair Wade welcomed SFWMD Governing Board member Shannon Estenoz and Ms. Tina Bond, sitting in for Richard Earp of Osceola County.

AGENDA ITEMS:

- Member Issues
- Water Conditions Summary
- Lakes Okeechobee Ecology Update
- Lake Okeechobee Service Area Water Availability Rule Update
- Lake Okeechobee River Watershed Protection Plan Updates
 - Introduction
 - Integrated Modeling Update
 - Nutrient Loading Rates and BMP Efficiency Report
 - St. Lucie River Watershed Protection Plan Update
 - Caloosahatchee River Watershed Protection Plan Update
- Northern Everglades Research and Water Quality Monitoring Plan

Future Presentations:

- **St. Lucie Estuary: Low, Average, and Peak Flows**
- **Aquifer Storage and Recovery (ASR) Status**
- **Year Round Landscape Irrigation Rule**
- **Kissimmee Basin/Upper Chain of Lakes Issues and Status**
- **Status of Water Quality Regulation in Northern Everglades**
- **Status of Lee County's \$10 Million Contribution to Water Storage/Treatment Site in Glades County**

Item 2: Member Issues:

- Discussion re: Impact of Lake Okeechobee fire. Fire has been beneficial for the lake, not good for visibility and safety on the highways.
- Primary benefit to the lake ecosystem is not because of phosphorous removal but more because of removal of sediment from the bottom that will then allow better submerged plant seed generation, and better fish bedding.
- Discussion re: need for more controlled burning by land management agencies. Response: SFWMD does controlled burning when permitted and helps with back burning. Division of Forestry is very concerned about burning during very dry conditions because they don't have enough people to man the fires. Comment that smoke caused two serious accidents with 1 fatality and other serious injuries. Comment that if you

can burn in December there will be less smoke because the vegetation is dry, not green.

- Questions: why SFWMD Governing Board decided to temporarily stop work on the Everglades Agricultural Area (EAA) Reservoir and if SFWMD is a principal or intervener in the NRDC lawsuit. Response by WRAC Vice Chair: Because the outcome of the suit could result in revocation of the sec. 404 Clean Water Act permit, the Governing Board determined it would be prudent to temporarily delay the construction. The NRDC sued the U.S. Army Corps of Engineers contesting issuance of the sec. 404 permit. The SFWMD is an intervener in the suit.
- Three meetings of the Statewide Stormwater Rule Technical Advisory Committee have been held – the next is July 9. Chapter 62-640 Bio Solids Rule hearing will be in Osceola County on June 12, 9:00 a.m., Osceola County Extension Service Offices, Osceola Heritage Park, 1921 Kissimmee Valley Lane, Kissimmee, FL
- On May 16, FDEP brought on line a “Green Travel” webpage. It is interactive and will bring up State Parks and Reserves within 100 miles of the users address.

Item 3: Water Conditions Summary: Cal Neidrauer, Chief Engineer, Operations Control Dept., SFWMD, briefed the committee about water conditions.

Discussion:

- WRAC Vice-Chair: Has weather pattern changed from a 10-year cycle? Response: May have. U.S. Army Corps of Engineers modeling for new interim Lake Okeechobee Regulation Schedule was based on highest rainfall years once every six years vs. every 10.
- Chair: If we had been able to hold more water in the lake it’s probably lake would not have gone 440+ days of record low lake levels. Response: There is debate about how much was actually released before the onslaught of the drought.
- A key to better predictions is to incorporate sufficient climate indicators in the lake regulation schedule.
- USACE: Need to look at rainfall records – this is a record drought so it is more accurate to say the record low lake levels are not due to releases following Hurricane Wilma but are likely due to the record drought.
- Question about significance of an 11’ Minimum Level for the Lake? Response: More into a prevention and recovery mode given that the new interim schedule is expected to violate the lake MFL. Need SFWMD Office of Counsel to answer.
- Florida Citrus League asked NOAA to look at world weather patterns – one significant finding: Florida is one of the most extreme weather regions in the world.
- Chair: If you look at previous droughts (1971, 1981, 1990 and 2001) and the number of days of low lake levels, the levels were somewhat higher

- because of back pumping. Now with a lower lake regulation schedule, and no back pumping, droughts will have more impact on the lake levels.
- SFWMD Staff: NOAA climate predictions show a turning away from La Niña to an El Niño condition by mid-summer, may have beneficial wind shear conditions.
 - Discussion, questions and answers about the Atlantic Multidecadal Oscillation, frequency of severe storms, accuracy of forecasts, and ability to balance water levels, discharges and water supply needs.
 - Discussion about flow test of water from the L8 reservoir to the G-92 structure on the Loxahatchee River.
 - Need to get some water into the Caloosahatchee estuary to prevent MFL violations.
 - SFWMD Staff: provided link to historic data and maps regarding waterfowls to the south. Information was used to develop water budget for the Central and Southern Florida project Restudy. Estimates were based on a 1995 baseline.

Item 4: Lake Okeechobee Ecology Update: Dave Unsell, Dir., Lake Okeechobee Division, provided the status of Lake Okeechobee health and restoration projects.

Discussion:

- Age of soils (relates to experimental tilling project)
- Pahokee Marina algae bloom – there were no fish kills and it faded because it used up the available excess nutrients.
- Plans to dredge, burn or disc Bay bottom at Belle Glade? SFWMD: No because it is too wet. Equipment would sink.
- How mobile is the dredged material – will it move as lake fills up? SFWMD: There is good evidence it will stay put, especially if aquatic vegetation returns, but storms could stir up the pelagic (open water) zone again.
- Cost of disc testing? SFWMD: It has come down from original estimates to about \$2,000/acre. This includes the evaluation and monitoring activities.

Item 5: Lake Okeechobee Service Area (LOSA) Water Availability Rule Development Update: Ms. Elizabeth Ross, Sr. Specialist Attorney, Office of Counsel, SFWMD, updated the committee about the status of final draft rule language on this issue.

Discussion:

- SFWMD: Need to work on grace period for permit applications from those who had not filed. Final Draft rule will be posted on Friday, 5/29. Need comments. Will close out comment period and plan to take final draft rule to SFWMD Governing Board in June, 2008.
- Re: Retired permits - conversion of groves to residential development? SFWMD: Depending on specifics of site and types of changes, intent is

to require new uses to be supplied through Alternative Water Supplies, not from the natural system.

- WRAC Vice Chair: Effects of rule on the Lower East Coast? It is more feasible to go to Alternative Water Supplies in the agricultural areas vs. the urban areas. The Lower East Coast rule does not include same flexibility the Governing Board provides to staff in this proposed rule.
- Need to protect Loxahatchee River flows and levels. SFWMD: that is being done through the CERP Northern Palm Beach County projects and the Loxahatchee initial reservation rules; this rule applies to the Lake Okeechobee Service Area.
- WRAC Vice Chair: This rule is intended to create a baseline because if we don't establish the baseline, the ecosystem gets less water if it is allocated to uses other than fish and wildlife protection.
- Creating a grace period is a good thing. Need to make sure outreach about the new requirements is publicized in the media.
- Questions and discussion about authority to regulate water uses/sources given certain land uses. SFWMD: rule is needed because lake is becoming lake is not as consistently reliable as a water source. SFWMD statutory authorities come from the reasonable beneficial use and matching use classes sections in section 373.036, F.S., from case law and the requirements in Chapter 62-640, Florida Administrative Code.
- Discussion about some retired permit water going to the Stormwater Treatment Areas.

Chair: Kim Taplin, USACE, will provide an update on the Herbert Hoover Dike Repairs:

- Reach 1 (Port Mayaca to Belle Glade) contract has been awarded for first 3,000' section seepage barrier. Another contract to demonstrate second 3,000' section has been awarded. If techniques meet standards, will award the second 3,000' contract.
- USACE has learned from consultant that the culverts may be weak points in the dike, so all culverts in Reach 1 are being evaluated. Alternatives will be developed as part of the assessment process. Reaches 2 and 3 will be assessed after plan for Reach 1 is recommended.
- Question about location of seepage barrier in the dike. USACE: it is to be located in the center of the dike.

Item 7: River Watershed Protection Plan Updates: Temperince Morgan, Program Implementation Manager, Everglades Restoration, SFWMD:

- Status of the Lake Okeechobee Watershed Protection Plan Phase II: The Florida Legislature did not act on the submittal of the Phase II Plan, but according to the legislation, no action by the Legislature is tantamount to approval. So we are implementing the plan and will brief the Committee in the next several months about status of implementation.

1). Integrated Modeling Update: Larry Brion, Principal Engineer, Integrated Modeling Center, SFWMD, provided an update on the modeling runs for the River Watershed Protection Plans

Discussion:

- Mr. Brion clarified assumptions used in the model runs. Base was 2005. Runs to 2015 assume the Phase II plan projects will be in place.
- Question about whether Kissimmee Basin new water uses would be from alternative sources? SFWMD: Yes. Have results of CH2M Hill's work been incorporated? No not yet, but will be.
- Questions and Discussion about Kissimmee Basin Modeling and Operations Study – Lawrence Glenn will be asked to make presentation at next meeting. SFWMD will provide brief summary of initiation of rulemaking for Water Reservations for Kissimmee River Restoration at June 5 WRAC meeting.
- Reservation rule will be based on what model runs? What sources? SFWMD: Water for Kissimmee River restoration will be based on surface water. Water available for Kissimmee Basin will be based on all sources.
- Questions and discussion about reservation of water from EAA Reservoir Phase 1. SFWMD: Included 2010 planned operational conditions as a boundary condition.
- Question about how performance targets can be changed, and comment that St. Lucie Estuary does not need the 350 cfs flows as depicted in the presentation. Chair: Suggested meetings with staff to work on this. SFWMD: Modeling looked at combined rainfall, groundwater and local basin Stormwater but not lake discharges. Heard previous comments so turned off the lake discharges in the model runs.
- The Lake Okeechobee Regulation Schedule 2008 has a release of 250cfs to the St. Lucie estuary when the lake reaches 11.5'. SFWMD: This planning process does not incorporate assumptions from the LORS-2008.
- Chair: SFWMD and USACE have to go by the adopted regulation schedule for operating the lake levels. But the planning and modeling can use different assumptions. We've had a presentation based on analysis of the effects of the new schedule on the Northern Everglades plan. Conclusions were that because of the assumptions used in modeling the LORS-2008, the amount of water storage needed in the Northern Everglades might be underestimated. Need a new regulation schedule that includes projects coming online. Will result in better, more accurate plan. SFWMD: Goal is to reduce damaging discharges to the estuaries.

2). Joyce Zhang, Principal Engineer, Lake Okeechobee Div., updated the Committee about Nutrient Loading and Efficiency of "Best Management Practices" (BMPs).

Discussion:

- Role of nitrogen in the estuaries (phosphorous and nitrogen both play a vital role).
- Often a direct correlation between ratio of P and N to algal blooms.

- Delay of implementation of Indian River Lagoon CERP projects, combined with citrus canker and inability to fully use citrus grove swales and retention systems has caused Citrus BMP efficiency to go down some. Working on it.
- SFWMD: hope to improve BMP efficiency through regulatory program and will evaluate hot spots.
- Need presentation to Committee about status of regulatory programs.
- Have fewer data points for Caloosahatchee. Using St. Lucie as example.
- SFWMD: Intend to use best available designs for incorporation into plans. Working with FDACS, FDEP and IFAS, will identify gaps and recommend solutions.
- Discussed hot spots in data and possible causes: septic tanks, etc.
- Discussed differences in EAA BMP and Citrus BMP performance and reasons why there are differences.
- Discussed sources and adequacy of data used in BMP Efficiency Report. Data could be better but is adequate to show efficiency of BMPs that are in place.
- FDACS: Goal: by 2012 have all EAA BMPs in place to meet the TMDL.
- Good news is many BMPs are in place and are working well. WRAC Vice Chair: Butler Dairy is an example of one that is working well.
- Chair: One inconsistency is that agricultural producers are required to meet TMDL requirements by a date certain yet there are exemptions for developments on the coast and in the cities. SFWMD Staff: there will be requirements in the plans, according to the state legislation, for water quality and quantity in the cities and on farms.

3). Mike Voich, Project Manager, Northern Everglades Div., SFWMD, provided an update on the Caloosahatchee River Watershed Protection Plan.

Discussion:

- Question if atmospheric deposition of nitrogen was high on St. Lucie Estuary (it was very high on Lake Okeechobee at 35 mt/yr.? SFWMD: It is included in the 276.6 mt/yr.

4). Caloosahatchee River Watershed Protection Plan Update – Temperince Morgan:

Discussion:

- Target for load reduction in the absence of a TMDL for the Caloosahatchee? SFWMD: Shooting for stopping at measured background levels, if we can get there. But FDEP is working to establish the TMDL. If it is set before the plan is due, we'll work the alternatives around the TMDL.
- Lee County's \$10 mil. contribution for storage and treatment site in Glades County – status? Need presentation on this item at next meeting.

Item 8: Northern Everglades Research and Water Quality Monitoring Plan Update – Miao-Li Chang, Dir., Coastal Div., SFWMD, briefed the Committee about progress to integrate multi-agency monitoring activities in the Caloosahatchee and St. Lucie estuaries.

Discussion:

- Lee County representative: Maps and data show the lack of sufficient monitoring sites in the Caloosahatchee estuary. Chair: Are the recommendations sufficient to get better data? Yes. Trust Ms. Chang and group recommendations for improvement. Agencies involved in monitoring are cooperating.
- FDEP: Crosswalking evaluation of results? SFWMD: Good point. Do an evaluation every three years. SFWMD looking at everyone's data. Trying to integrate data as much as possible.

Public Comment: Captain Bob Pascal, PURRE, Sanibel Island, thanked SFWMD for doing excellent work on the Northern Everglades Plan and River Watershed Protection Plans. PURRE supports the effort.

- **Next Meeting:** Wednesday, June 25, Lower West Coast Service Center, 2501 MacGregor Blvd., Ft. Myers, FL

The meeting adjourned at 3:25 p.m.