

**SOUTH FLORIDA WATER MANAGEMENT DISTRICT (SFWMD)
WATER RESOURCES ADVISORY COMMISSION (WRAC)
LAKE OKEECHOBEE COMMITTEE MEETING
Wednesday, November 29, 2006
John Boy Auditorium, 110 Osceola Avenue, Clewiston, FL
9:00 a.m. – 3:00 p.m.**

MEETING REPORT

INTRODUCTION:

- Committee Chair Malcolm “Bubba” Wade called the meeting to order and welcomed folks to Clewiston.

AGENDA CHANGES:

- Changes to the agenda were made according to Chapter 120, Florida Statutes. The order of Items 3, 4 and 6 were changed.

- **Presentations:**

- U.S. EPA proposed Total Maximum Daily Load for Lake Okeechobee Tributaries – Update. DEP and SFWMD responses.
- Lake Okeechobee Dredging
- Lake Okeechobee Protection Plan Update
- Lake Okeechobee Committee presentations have been posted to <http://my.sfwmd.gov/wrac>, Lake Okeechobee Committee tab.

ISSUES/DISCUSSION BY COMMITTEE:

- **Member Issues:**

- Lake Okeechobee is like a patient who has been in a car accident and needs major surgery to survive. We must do as much as possible to save the lake.
- Martin County Commission approved a resolution to Congress urging passage of a Water Resources Development Act this year.
- Submerged Aquatic Vegetation is coming back. Ducks are back on the lake.
- U.S. Fish and Wildlife Service would like to participate in future Aquatic Vegetation Management meetings.

- **U.S. EPA Proposed TMDL for Lake Tributaries:**

- There is no TMDL for suspended solids?. This is because EPA only has authority under Consent Order to do TMDLs for impaired waters.
- L-8 Basin, Fisheating and Arbuckle Creeks? Not on 1998 Impaired Waters List and EPA can't change the list but can add waterbodies in future.
- Concerns about where the TMDLs will be measured.

- FDEP and SFWMD responded that there are concerns with the data used by EPA and other concerns. These concerns will be communicated to EPA in the comments provided by the May deadline.
- **Lake Okeechobee Dredging:**
 - Harbor Branch Foundation, Inc., made a presentation about a dredging evaluation, design and monitoring project over three years and asked the Committee to recommend that the WRAC hear the presentation in January. The Committee had questions about scope and costs. Committee did not object to presentation to full WRAC.
- **Lake Okeechobee Protection Plan Update:**
 - Concern that new targets for phosphorous load reduction does not include recent five years of data. Committee and staff discussed impact of the data on meeting the TMDL by 2015.
 - Draft evaluation will be provided to Committee.
 - Need to move forward with what can be done and take action to reduce phosphorous as much as possible.
- **Public Comment:** Concerns and questions raised about proposed Florida Power and Light coal burning power plant proposed for Hendry County. Question about possible impacts on Lake Okeechobee water Quality. Requested that the Committee hear presentation from FPL about these issues.
- **Committee Draft Recommendations Paper:**
 - **The Committee amended the draft recommendations and members were asked to score the strategies from 1-5 with 5 being the highest priority. The new draft is attached to this report. It is also being forwarded to the WRAC as part of the December 6, 2006 WRAC Agenda package. The Lake Okeechobee Committee Report will be presented to WRAC and the South Florida Ecosystem Restoration Task Force on December 6, 2006 by Committee Chairman Bubba Wade.**

ATTACHMENT: Draft Recommendations – Modified on 11/29/06:

**D R A F T
RECOMMENDATIONS TO PROTECT AND RESTORE LAKE
OKEECHOBEE AND THE CALOOSA HATCHEE AND ST. LUCIE ESTUARIES**

**South Florida Water Management District Water Resources Advisory
Commission, Lake Okeechobee Committee**

November 29, 2006

Members: Please Note: Items with a ** were changed or added at the 11/29/06 meeting in Clewiston. If this would change your ranking, please let me know via e-mail. In addition, please let me know via e-mail, your ranking score for the new Strategy 7 (Goal III, Obj. C) on page 6.

GOAL I: Restore and maintain the ecological health of Lake Okeechobee and ensure its continued protection.

OBJECTIVE A: Better manage lake water levels by means of a revised Lake Okeechobee water level regulation schedule.

Strategy 1: Revise the Lake Okeechobee Regulation schedule to benefit the lake and estuarine ecosystems while providing for appropriate water supply and flood protection and to take into account long term climate trends.

Strategy 2: Develop an action plan and criteria to periodically lower the water level of Lake Okeechobee to 12' for a minimum of 12 weeks.

****Strategy 3: Determine whether pulse releases or continuous releases are appropriate for each estuary receiving Lake Okeechobee water and implement appropriate changes to the Lake Okeechobee Regulation Schedule.**

OBJECTIVE B: Restore and protect the biodiversity of the lake ecosystem including plant and animal communities and fisheries.

Strategy 1: Create measurable objectives for the conservation of plant and animal communities and fisheries in the lake.

Strategy 2: Continue to assess seed bed viability for submerged aquatic vegetation.

****Strategy 3: Vegetation management: Improve coordination and communication between spraying agencies and the public. Evaluate the impact of aquatic plant control activities, including controlled burning, on the health of the lake ecosystem with opportunities for stakeholder input. More closely monitor the spraying activities of independent contractors and post such activities on the appropriate WEB sites.**

****Strategy 4:** Evaluate methods to reduce harmful exotic species and replenish native species to benefit the lake ecosystem.

OBJECTIVE C: Evaluate other possible solutions to improve water management within the lake and in the lake and tributary watersheds.

Strategy 1: Evaluate options to store water north of Lake Okeechobee, including the evaluation of operational plans and regulations schedules for all basins north of the Lake. Also evaluate Aquifer Storage and Recovery, and Lake Okeechobee and Estuary Recovery Plan components.

Strategy 2: Investigate the feasibility of constructing levees within the Lake Okeechobee dike to create compartments within the lake to enable more efficient water and nutrient management.

****Strategy 3:** Evaluate, and implement if feasible, additional water storage on private and public lands

****Strategy 4:** Evaluate, and implement if feasible, additional storage, conveyance and treatment options in the EAA, Caloosahatchee Basin, St. Lucie Basin, and other basins to reduce harmful discharges

OBJECTIVE D: Improve the quality of water in the lake.

Strategy 1: Complete LOER “Fast Track” and water quality improvement components as quickly as possible.

Strategy 2: Evaluate feasibility of in-lake sediment dredging as quickly as possible.

Strategy 3: Evaluate alum, calcium carbonate or other appropriate cleanup methods for use in treating appropriate segments of the lake to gain rapid water quality improvement.

Strategy 4: Meet the current Lake Okeechobee “Total Maximum Daily Load” (TMDL) an average of 140 metric tons per year of phosphorous. Implement the Lake Okeechobee Protection Plan, which is the implementation plan for the TMDL.

GOAL II: Improve the ecological health of the Caloosahatchee and St. Lucie estuaries by reducing peak flow discharges of freshwater from Lake Okeechobee and by meeting Minimum Flow and Level (MFL) requirements.

OBJECTIVE A: Increase water storage and treatment capacity on public and private lands throughout the SFWMD.

Strategy 1: Implement Lake Okeechobee and Estuary Recovery Plan component regarding water storage on public and private lands.

Strategy 2: Evaluate and implement Deep Aquifer Recharge Injection wherever feasible, as soon as possible.

Strategy 3: Implement Aquifer Storage and Recovery (ASR) well construction to the extent feasible.

Strategy 4: Assess need to add more water storage and Stormwater Treatment Area capacity to store and treat excess Lake Okeechobee water.

Strategy 5: Determine the feasibility of and need for reconfiguring discharge structures to enable mid-stage discharge capability so that less sediment is sent downstream to the estuaries.

Strategy 6: Explore additional storage opportunities through programs such as World Wildlife Fund's Florida Ranch Lands Environmental Service Project.

Strategy 7: Implement sustainable agricultural practices.

OBJECTIVE B: Increase conveyance capacities for Lake Okeechobee outflows through the C&SF project, for environmental restoration, environmental protection and reasonable beneficial uses.

Strategy 1: Evaluate existing SFWMD plans and projects to determine the need for conveyance of Lake Okeechobee water to the C-23, C-24, and C-25 basins for beneficial uses when there is excess water in Lake Okeechobee.

Strategy 2: Evaluate the need to create works necessary to reestablish a more natural distribution and timing of water

from the C-25 basin to the St. Johns River Water Management District when there is excess water in the system.

Strategy 3: Interbasin/Interdistrict Transfers: Determine the feasibility of using excess Lake Okeechobee water in the SFWMD Big Cypress basin, and the Southwest Florida and St. Johns River Water Management Districts.

Strategy 4: Evaluate the need for and feasibility for additional conveyance capacity, flow ways, reservoirs, etc., to send Lake Okeechobee water to the south (re: Corps of Engineers Reconnaissance Study, mid-1990s).

Strategy 5: Evaluate a plan, with appropriate conveyance to water utilities, to reduce the harmful discharge of water to tide.

Strategy 6: Evaluate the feasibility of providing excess Lake Okeechobee water to water utilities as needed.

OBJECTIVE C: Improve water quality in the Caloosahatchee and St. Lucie estuaries to meet Federal and State water standards.

Strategy 1: Establish and meet estuary Total Maximum Daily Loads (TMDLs) and other water quality standards.

Strategy 2: Implement LOER water quality improvement programs.

GOAL III: **Protect land and water resources in the Lake Okeechobee and tributary watersheds while also protecting private property rights, flood protection and water supply needs.**

OBJECTIVE A: Create incentives for landowners to retain natural areas to reduce runoff, store water and improve water quality.

Strategy 1: Evaluate implementation of transfer of Development Rights and Rural Land Stewardship programs in Lake Okeechobee tributary watersheds.

Strategy 2: Determine appropriate phosphorous reduction requirements for conversion of land uses in the Lake Okeechobee and tributary watersheds.

Strategy 3: For Lake tributary basin, evaluate leasing vs. acquiring land for storage and treatment, especially in areas impacted by citrus canker.

Strategy 4: When leasing lands for storage and treatment, evaluate feasibility of restoring wetlands as a lease provision.

Strategy 5: Provide credits, compensation or other incentives for landowners who store more water on their land.

Strategy 6: Complete the Long Term Management Plan for the Kissimmee Chain of Lakes to better assess water management needs in that region.

Strategy 7: Initiate a study to determine watershed storage and nutrient needs in Lake Istokpoga's watershed.

OBJECTIVE B: Implement alternative water supply development, water reuse and conservation in the Lake Okeechobee watershed, its tributary watersheds, and downstream water users.

Strategy 1: Rapidly complete and implement the SFWMD Lake Okeechobee Water Shortage Management Plan.

Strategy 2: Need to quickly resolve issue of temporary vs. permanent forward pumps and impacts on water supply and Lake and Estuarine Ecology and recreation.

Strategy 3: Support desalination plants and water reuse and water conservation programs in coastal counties, to augment public water supply.

Strategy 4: Continue efforts to reduce water supply dependence on Lake Okeechobee by creating alternative water supply solutions

OBJECTIVE C: Improve quality of water flowing into the lake.

Strategy 1: Evaluate aeration and chemical treatment in canals at strategic inflow points to settle out nutrients and solids flowing into the lake.

Strategy 2: Speed up the timeframe for implementation of agricultural and urban "Best Management Practices" (BMPs).

****Strategy 3:** Implement agricultural and urban BMP programs for any water sources flowing into the lake.

****Strategy 4:** Rapidly implement the State of Florida's initiative regarding use of phosphorous and nitrogen fertilizers for urban turf applications in Lake Okeechobee and tributary basins.

****Strategy 5:** The Florida Department of Environmental Protection should establish Lake Okeechobee tributary Total Maximum Daily Loads and implementation plans to achieve the targets.

Strategy 6: Determine the feasibility of and need for reconfiguring discharge structures to enable mid-stage discharge capability so that less sediment enters the lake.

****Strategy 7:** Evaluate and implement alternatives to the land application of bio-solids in the Lake Okeechobee watershed.

OBJECTIVE D: Assure that the Lake Okeechobee Hoover Dike provides adequate flood protection

Strategy 1: Expedite rehabilitation of the Hoover dike and all other appropriate flood protection.

Strategy 2: As soon as possible, reevaluate the outflow capacity of the Lake to assure that the design discharge capacity of Lake outflow structures is maintained.