

# South Florida Wetlands

Quarterly Newsletter

SEPTEMBER, 2005



## EARLY RAINS YIELD VALUABLE DATA



Pictured above is one of 9 flumes used to automatically measure water flow and phosphorus concentrations from agricultural operations in several University of Florida/IFAS research and education projects. The projects, located in the Lake Okeechobee priority basins, are funded by FDACS, FDEP and SFWMD in cooperation with USDA-NRCS. The wetter-than-normal spring and early summer yielded more data than expected. These studies are expected to reveal how effective certain best management practices might be in reducing phosphorus runoff from agricultural operations. Special thanks to all cooperating landowners for allowing us to install these projects.



## LAKE OKEECHOBEE ADVISORY COMMITTEE

The South Florida Water Management District recently formed a special Lake Okeechobee Advisory Committee. The committee is charged with reviewing current lake management operations and ongoing Lake Okeechobee Protection Plan projects aimed at reducing excessive phosphorus loads, decreasing extreme high and low water levels, and controlling exotic species threatening native flora and fauna. The Advisory Committee provides recommendations for improvement to SFWMD's Water Resources Advisory Commission (WRAC), a group of stakeholders and government agency representatives. Ultimately, final recommendations go before the SFWMD Governing Board for consideration.

The Lake Okeechobee Advisory Committee includes twenty-four advisory committee members appointed by the SFWMD Governing Board. The members represent agriculture, environmental and conservation interests, government agencies, and other stakeholders. A technical advisory sub-committee will be charged with compiling and reviewing existing research, management plans, and other relevant information.

To learn more about the efforts of the Lake Okeechobee Advisory Committee visit the SFWMD on the Web at:  
<http://www.sfwmd.gov>  
or contact Alyssa Dodd, UF/IFAS Palm Beach County Cooperative Extension by phone at (561) 233-1724 or via email: [ADodd@ifas.ufl.edu](mailto:ADodd@ifas.ufl.edu).

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**Wetland Resources Website:**  
<http://wer.ifas.ufl.edu/>

### WETLANDS RESTORED

In 2004, approximately 900 acres of wetlands were restored on private property in the Lake Okeechobee basins. These were accomplished through the assistance of 5 separate programs allowing for the creation, restoration and enhancement of wetlands. About 50 more wetland projects are underway for 2005 and 2006. These wetlands are in addition to the Comprehensive Everglades Restoration Projects being installed in the Okeechobee basins.



## **REDUCING PHOSPHORUS FOR LAKE OKEECHOBEE**

Queen Bee Farms, located in Highlands County, has voluntarily completed a wetland restoration project to help lower phosphorus levels within the Lake Okeechobee watershed. This 3,000 acre farm is owned by Perry Smith where he raises beef cattle and grows several row crops, including potatoes, cabbage and watermelon.

The Phosphorus Source Control Grant Program, under the South Florida Water Management District (SFWMD), partially funded the project which is estimated to reduce 0.59 metric tons of phosphorus a year from the farm. The project includes the restoration of a 200 acre wetland that acts as a bio-filter with plants using up the phosphorus for their benefit before the cleaned water is released into the Kissimmee River.

Mr. Smith worked with staff from the SFWMD, Florida Department of Environmental Protection, Florida Department of Agriculture and Consumer Services, Natural Resources Conservation Service, and the U.S. Fish and Wildlife Service to develop a restoration design that allows simple operation and maintenance for Mr. Smith while reducing the amount of phosphorus coming from the farm.

An all-gravity flow system was used to route water from ditches through the wetlands, until it reaches a weir where water is staged up approximately 2 feet. The increase in water elevation restores the historical hydrology back to the old Kissimmee River floodplain marshes which were drained decades ago for agricultural use. Water monitoring stations have been set up at the inflow and outflow points of the wetland to automatically test the effectiveness of the project.

Mr. Smith says that "the project has had little effect on the operation of the farm, but has the possibility to have a large positive impact on the environment."



*Outflow structure and water monitoring equipment installed on the Queen Bee Farms' wetland restoration project.*

By retaining water on this property and reducing phosphorus loading to Lake Okeechobee several things are accomplished: First, clean water is being sent to the lake instead of water high in phosphorus. This is a small step for the Lake Okeechobee Protection Plan to reduce the phosphorus loads and improve the water quality of Lake Okeechobee. Second, this new wetland allows for water to be retained during heavy rain events decreasing the net amount of water discharged off the property. And last but not least, this new 200-acre wetland will be a source of water, shelter, and food for South Florida wildlife.

Mr. Smith says that "my grandchildren deserve to see the same beauty in nature that I did when I was growing up, so I feel an importance to help preserve the environment."

For more information on the Phosphorus Source Control Grant Program, contact **Jace Tunnell** from the South Florida Water Management District at (561) 682-2207.

## DID YOU KNOW?

- In 1991 wetland-related ecotourism activities such as hunting, fishing, bird-watching, and photography added approximately \$59 billion to the national economy.
- An acre of wetland can store 1–1.5 million gallons of floodwater.
- Up to one-half of North American bird species nest or feed in wetlands.
- Although wetlands keep only about 5 percent of the land surface in the conterminous United States, they are home to 31 percent of our plant species.
- Seventy-five percent of commercially harvested fish are wetland-dependent. Add shellfish species and that number jumps to 95 percent.

## WETLAND RESOURCES ON THE INTERNET

Wetland education materials are becoming increasingly available as we see the benefit of teaching people of all ages about the wonders of wetlands. Many different materials are available on the internet at:

EPA's Wetlands Division

[www.epa.gov/owow/wetlands](http://www.epa.gov/owow/wetlands)

Schoolyard Habitats Program

[www.nwf.org/schoolyardhabitats](http://www.nwf.org/schoolyardhabitats)

Ducks Unlimited

[www.greenwing.org](http://www.greenwing.org)

Project WILD

[www.projectwild.org](http://www.projectwild.org)

U.S. Fish and Wildlife Service

[www.educators.fws.gov](http://www.educators.fws.gov)

U.S. Geological Survey

[www.usgs.gov/education](http://www.usgs.gov/education)

Louisiana Coast

[www.lacoast.gov/education/kids](http://www.lacoast.gov/education/kids)

National Geographic

[www.nationalgeographic.com/geographyaction](http://www.nationalgeographic.com/geographyaction)

A World in Our Backyard

[www.epa.gov/region01/students/teacher/wetlands.html](http://www.epa.gov/region01/students/teacher/wetlands.html)



## RECORD HIGH LAKE LEVELS

This past June, Lake Okeechobee's water levels ranked among the top ten highest June water levels recorded over the past 74 years.

## WETLAND ENHANCEMENT DECISION MAKING TOOLS

If you or an organization you belong to would like a presentation or need any further information, contact one of the people listed below.

- Joanna Sherman  
(863)763-3619 Ext.210
- Pat Hogue  
(863)763-6469
- Mitch Flinchum  
(561) 993-1523



**Good Things Happen  
When We Work Together!**



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