# The South Florida Water Management District LOCAL GOVERNMENT NEWS



**July 2010** 



Charles Dauray
Big Cypress Basin Board
Chairman and
Governing Board
Member



Joe Collins
Governing Board
Member



Clarence S. Tears, Jr. Big Cypress Basin Director



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# In Your Region

#### **POND-er This!**

The peacefulness of a lake is an inspiring amenity in our urban landscapes. Besides their natural beauty, they play an important role to manage flooding and improve water quality. Rain runoff from streets and ditches throughout the neighborhood drain to them, because lakes are the lowest elevation in the community.

They are, in fact, the central component of the "stormwater" drainage system. Lakes are fairly delicate and the year-round growing



Healthy, well-maintained lake

season can cause them to age quickly unless preventive steps are taken. Fortunately, steps to keep them beautiful also reduce maintenance costs. First and foremost to keep in mind is that lawn fertilizer is by far the most costly and destructive agent to an urban lake. The same nutrients that make lawns green cause lake algae to proliferate. Minimize the need for fertilizer and pesticides by using plants that are "friendly" to our area. Florida-friendly landscaping typically requires less maintenance, tolerates droughts better and resists diseases and insects. Also, using native drought-resistant plants, trees, shrubs and turf often eliminates the need for irrigation, special soil, fertilizer, pesticides, and weeding.

Wise landscape maintenance is the most cost-effective strategy for keeping a healthy lake. Over-irrigating washes fertilizer past hungry roots where it accumulates in deeper soil only to be washed into the lake when summer rains arrive and rising ground water washes it laterally through our sandy soil toward lakes.

#### If you use lawn chemicals, follow these rules:



Unhealthy lake

- ♦ Don't apply fertilizer within five feet of a water body, as well as ditches and edge of pavement.
- Use time-release fertilizer of proper composition; consider fertilization through your irrigation system.
- ◆ Fertilize at the proper time of year. Applying during the wet season (June October) is wasted time and money, as nutrients leach away from plant roots and into surface and groundwater, where it becomes a pollutant.

To maintain a healthy lake, keep lawn clippings and leaves away from street gutters and storm sewer inlets, as well as rinse water from activities like car washing, carpet cleaning and pool draining. Next time you see something in your street or near a storm inlet, ask yourself if you want it going into the lake. Then take action and remove it.

#### **Picayune Strand Restoration Project Update**

The Picayune Strand Restoration Project of the Comprehensive Everglades Restoration Plan encompasses 55,000 acres and sets out to undo the environmental damage created by a failed 1960s-era real estate development called Southern Golden Gate Estates. The construction of roads and canals associated with that development disrupted natural water flow and over-drained the area, reducing its ability to recharge the aquifer. The development also directed freshwater discharges into estuaries to the south and promoted the spread of non-native invasive vegetation. These actions damaged the estuarine ecology of the Ten Thousand Islands and impacted natural wildlife habitats.

The overall restoration project involves removing more than 227 miles of road, plugging 45 miles of canals, installing three pump stations, backfilling and plugging 40 miles of canals and distributing overland flows via spreader canals. Once completed, the Picayune Strand project will recreate natural water flows, historic water level conditions and ecological connectivity to the natural lands around it, rehydrate drained wetlands, improve estuary waters and return habitat to threatened wildlife communities. Progress to date includes:

- Acquisition of 55,000 acres under public ownership at a cost of \$150 million.
- Filling and plugging seven miles of the Prairie Canal.
- Removal of 65 miles of roadways resulting in 13,000 acres of restoration.
- Removal of abandoned structures, facilities and debris from the area, including tires, asphalt, concrete and vehicles.
- Completion of 100 percent of the design, plans and permitting for the project's Merritt and Faka Union canal segments of restoration elements and pump stations.
- Construction of the Merritt pump station has been initiated. Contractor Harry Pepper & Associates will plug 14 additional miles of canals and remove 95 miles of roads in the Picayune Strand between Interstate 75 and U.S. 41 East.
- Clearing and grubbing of the Merritt pump station site is nearly complete, and road removal along southeast 134<sup>th</sup> and 132<sup>nd</sup> Avenues are in full progress.



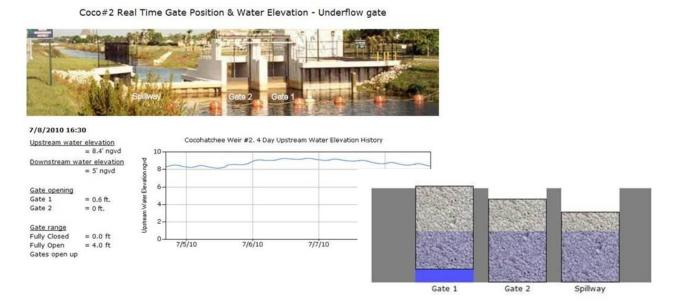
Merritt pump station construction in progress June 9, 2010.

# Real-time Flood Stages and Gate Operations Coming to a Website Near You

The subtropical weather of southwest Florida, its low relief topography and rapid human encroachments into our natural wetlands have made us vulnerable to frequent ravages of floods and droughts. The flood conveyance capacity of our drainage system, particularly in the Golden Gate Estates, is limited, as the canals were primarily constructed to lower the water table for building home-sites and do not have capacity to effectively carry runoff from large storm events. While numerous enhancements have been made to the canals and water control structure network, flood protection of the Estates area continues to be a concern.

In order to provide more efficient flood protection services to residents, the Big Cypress Basin is completing development of a real-time flood modeling and decision-making support system for operation of the water control gates and disseminating information to the public. The project utilizes the Basin's real-time meteorological, hydrologic data and gate positions to model and forecast both surface water and groundwater stages to be able to provide flood warning and related information to field staff who then operate the control gates accordingly. This real-time information will soon be available to the public on the SFWMD Big Cypress Basin website.

#### **Simulation:**



The Web display will show a structure photograph with identifying labels, characteristics of the gates and their current position, a recent history of the water level and a schematic of the gate positions. The example here shows the gate positions viewed from downstream with a single gate in operation and water going over the spillway.

The goal is to make this new operational Web feature available for the public to use this September. Stay tuned for further development on this project.

## **Progress on Golden Gate Weir #3**

Contractor Thomas Marine Inc. has finished installing and testing the gates for the new weir. They are now in the process of finishing the rip rap along the canal bank which will provide stabilization. During the next two months, the electrical work will be completed and the control panels installed. Once the new weir is finished and operational, the existing weir upstream will be removed. Demolition and removal of the old structure will begin in September.



The project is on schedule and should be completed by the end of October. The new structure will enhance flood conveyance capacity and provide additional storage for groundwater recharge.

# **Spotlight on Big Cypress Basin Board Members**



Noah Standridge was appointed to the Big Cypress Basin Board by Governor Crist in June, 2009, and is the Board Secretary. Mr. Standridge is president of Walker Exotic Tree Eradication, a land management company specializing in ecological restoration. He also founded Centrus Planning, a land and policy consulting firm. Mr. Standridge believes collaboration and consensus-based solutions are key to successful community and environmental planning. Experience with both state and local government planning initiatives, as well as private development, has allowed him to build constructive relationships on both sides of the regulatory process.











BCB Board members left to right: Charles Dauray, Chairman, John Sorey, Vice Chairman, Pam Mac'Kie, John Vaughn and Fred Thomas

# Waiting for Your Invitation

Big Cypress Basin Service Center staff are available to meet with groups about water resource topics in our area.

Technical experts, scientists and other specialists can tailor a presentation to meet specific needs or answer questions regarding many water-related topics.

This service is free and available by contacting Lisa Koehler at (239) 263-7615, x7603, or by e-mail at lkoehler@sfwmd.gov

## **Out and About**

• SFWMD Governing Board Workshop and Meeting August 11 and 12

West Palm Beach

• Big Cypress Basin Board Meeting

August 27 at 9 a.m. City of Naples, City Hall Council Chamber, 735 Eighth Street S.

• SFWMD Governing Board Workshop and Meeting

September 8 and 9 West Palm Beach