SOUTH FLORIDA WATER MANAGEMENT DISTRICT

# NEWS RELEASE

**August 11, 2011**

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## Phosphorus Reductions Improve Water Quality

*Improved farming techniques help EAA, C-139 achieve phosphorus reduction goals*

**West Palm Beach, FL** — For the 16th consecutive year, water flowing from farmlands in the Everglades Agricultural Area (EAA) achieved phosphorus reductions that were significantly better than the 25-percent reduction required by law. With the continued implementation of improved farming techniques known as Best Management Practices (BMPs), results for the 2011 monitoring period show a 79-percent phosphorus reduction in the 470,000-acre EAA farming region south of Lake Okeechobee.

The C-139 Basin also met its goal for phosphorus levels. Located west of the EAA, the 170,000-acre C-139 farming region consists primarily of pasture land, row crops, citrus and sugarcane. Results show 20 metric tons flowed through the basin during the 2011 monitoring period, well below the limit load of 31 metric tons. The monitoring period covered May 1, 2010, to April 30, 2011.

"Improving water quality is a key component in the ongoing effort to restore and improve South Florida's ecosystems," said SFWMD Governing Board Chairman Joe Collins. "This is an important commitment made by our region's agricultural community to help in achieving meaningful phosphorus reductions that will benefit the Everglades."

In the EAA, the most commonly used BMPs are more precise fertilizer application methods, refined stormwater pumping practices, and erosion controls to reduce the amount of phosphorus transported in stormwater runoff to the Everglades and connected water bodies. In the C-139 Basin, the District has worked with farmers in recent years to improve the effectiveness of BMPs and address the unique challenges of achieving phosphorus reductions in the basin.

Phosphorus can impact the Everglades ecosystem if stormwater runoff carries excess amounts into these unique wetlands. To meet the requirements of Florida's Everglades Forever Act, the amount of phosphorus leaving the EAA must be 25 percent less than the amount before phosphorus-reduction efforts started. Data show that a 79 percent phosphorus reduction was achieved for the 2011 monitoring period. The average

reduction from the implementation of BMPs over the program's 16-year history is 55 percent, more than twice the amount required by law.

When measured in actual mass, 173.6 metric tons of phosphorus were prevented from entering the regional canal system, which sends water into the Everglades, during the 2011 monitoring period. Over the past 16 years, the BMP program has prevented 2,411 metric tons of phosphorus from leaving the EAA.

In the C-139 Basin, a BMP program has been in place for the past eight years with the goal of reducing phosphorus discharges to historic levels. In November 2010, the program requirements were enhanced to further control phosphorus levels. The District uses a model to determine the phosphorus load that the agricultural region must achieve each year based on rainfall totals. For the 2011 monitoring period, the limit load was 31 metric tons. Data show the actual mass of phosphorus discharged from the basin during that time was 20 metric tons.

Together with best farming practices, water leaving the EAA and C-139 Basins receive additional treatment in one of several Stormwater Treatment Areas (STAs) before entering the Everglades. These constructed wetlands are filled with aquatic vegetation and use "green" technology to further reduce phosphorus levels.

Since 1994, the network of six STAs south of Lake Okeechobee — with a combined treatment area of 45,000 acres — have retained approximately 1,470 metric tons of phosphorus that would have otherwise entered the Everglades. Through the end of April 2011, more than 3,800 metric tons of phosphorus have been prevented from entering the Everglades through treatment wetlands and the BMP program covering the EAA.

From May 1, 2010 to April 30, 2011, the constructed wetlands treated more than 730,000 acre-feet of water. Overall, Florida has invested more than $1.8 billion to improve Everglades water quality since 1994.

The District is currently expanding several water quality improvement projects to further enhance its water cleaning efforts:

- Construction is scheduled for completion in spring 2012 that will nearly double the size of STA-2 in western Palm Beach County to 15,140 acres. Known as Compartment B, the 6,817-acre expansion will help the STA achieve optimal performance.
- A 4,656-acre expansion of treatment wetlands in southeast Hendry County, also scheduled for completion in spring 2012, will further improve water quality flowing into the Everglades. Construction of Compartment C, a $47.5 million investment, will connect two existing Stormwater Treatment Areas (STA-5 and STA-6) in the EAA and more than double water treatment capability at the site.

- During the past winter, District staff continued to enhance STA performance by installing earthen barriers and planting bulrush in STAs where water depths have limited cattail growth.

For more information on the SFWMD's water quality improvement initiatives, please see *Just the Facts: Providing Clean Water for the Everglades*. A multimedia look at how STAs work and what water quality improvements they have delivered can be found on the District's Improving Water Quality website.

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**About the South Florida Water Management District**

*The South Florida Water Management District is a regional, governmental agency that oversees the water resources in the southern half of the state – 16 counties from Orlando to the Keys. It is the oldest and largest of the state's five water management districts. The agency mission is to manage and protect water resources of the region by balancing and improving water quality, flood control, natural systems and water supply. A key initiative is cleanup and restoration of the Everglades.*