



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

NEWS RELEASE

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CONTACT:

Gabe Margasak

South Florida Water Management District

Office: (561) 682-2800 or Cellular: (561) 670-1245

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Robotic Rakes Boost SFWMD Flood Control System *Ongoing automation effort increases efficiency and effectiveness*



An automatic rake system in western Palm Beach County keeps a critical pump station clear of vegetation. (Click on the pictures for larger versions.)

West Palm Beach, FL — Robotic rakes that prevent pumps from clogging with vegetation and debris are approved for construction and installation at key South Florida Water Management District (SFWMD) flood control structures near the north shore of Lake Okeechobee. The mechanized workers are part of an ongoing effort to upgrade the regional flood control system — which protects 7.7 million residents — by automating facilities so they can be operated from the District’s high-tech control room in West Palm Beach.

“Advancing technology allows us to continually strengthen flood control for residents, businesses and the environment,” said Tommy Strowd, SFWMD Division Director of Operations, Maintenance and Construction. “Automation increases the effectiveness of the system, decreases downtime and allows the human operator to focus on related critical responsibilities, especially during storms.”

Automated rakes will be installed at the S-133 structure near the City of Okeechobee and the S-135 structure in western Martin County. These structures provide for flood control in areas east of the Kissimmee River.

Currently, operators at these pump stations manually clear out debris, which is most challenging during severe storms. Heavy rainfall typically sends tons of vegetation into regional canals, potentially clogging downstream pumps. The automatic rakes will operate continuously whenever the pumps are running. In the next phase of the upgrade, the pump stations themselves will be automated so they also can be remotely operated from the District's West Palm Beach headquarters or other facilities.

Included in the \$9.7 million contract is roadwork and related repairs at these flood-control facilities. Completing this work during the rake installation is a cost-saving measure.

Installation of the automated rakes is a component of the District's \$182 million investment in Fiscal Year 2013 to operate and maintain South Florida's regional flood control system, including \$50 million to refurbish the extensive network of canals, levees and water control structures.

Currently, the District has 45 automated debris rakes throughout its 16-county area. In all, about 422 District structures, including gates, pumps and weirs, are remotely operated.

South Florida's Water Control System

- Authorized by the U.S. Congress in 1948, the system covers a 16,000-square-mile area.
- Today's expanded system includes nearly 2,000 miles of canals and more than 2,800 miles of levees/berms.
- There are 645 water control structures, more than 700 culverts and 69 pump stations.
- There are nearly 3,500 hydrologic monitoring stations at more than 650 flow sites, including more than 200 rain gauges and 26 weather stations.

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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.