

## M E M O R A N D U M

**TO:** Governing Board Members

**FROM:** Tommy B. Strowd, Deputy Executive Director, Operations & Maintenance

**DATE:** February 25, 2011

**SUBJECT:** 4600002387 – Golden Gate 6 & 7 Weir Replacement, Collier County, Florida

**Background:** The Golden Gate Weir No. 6 and Golden Gate Weir No. 7 are located in Collier County in Golden Gate Estates. The structures are relatively close to each other, approximately 15 miles east of Naples and approximately 11 miles north of I-75.

The existing Golden Gate Canal water control structures Weir No. 6 (GG-6) and Weir No. 7 (GG-7) are fixed crest weirs with V-notch relief mechanisms. Originally constructed in the 1960's, the Golden Gate Canal weirs GG-6 and GG-7 are structurally dilapidated. They are incapable of meeting the current water management objectives for dry season water supply storage and for releasing flood water during the wet season.

The retrofit of these two weirs will provide management flexibility for water conservation and flood control. Replacing and improving these two structures in FY11 is a part of the Big Cypress Basin's (BCB) Strategic Plan (2010-2020).

**How this helps meet the District's 10-year Strategic Plan:** The proposed structural modifications are necessary to preserve and improve the structure's basic functions of maintaining the dry season conservation with the ability to release floodwaters during the wet season. The specific strategies from the Big Cypress Basin's Strategic Plan that this project targets are:

- **Maximize flood protection:** The proposed operable gate will enhance pre-storm draw down capabilities and retrofit old inefficient water control facilities to meet current design conditions and management strategies;
- **Enhance and protect Big Cypress Basin ecosystems:** The increased weir overflow elevation and adjustable weirs will improve the water storage capacity when needed the most and provide a controlled step-up of water levels to prevent over-drainage of the Golden Gate canal basin's northern region.

**Funding Source:** The lowest responsive and responsible bidder is Zep Construction, Inc. with a total amount of \$1,164,000 of which, \$600,000 is budgeted using ad valorem funds within the Operations & Maintenance Capital Program and the remainder is subject to Governing Board approval of the FY12 budget.

**This Board item impacts what areas of the District, both resource areas and geography:** The GG 6 & 7 Structures are located in Collier County in the Big Cypress Basin and control water levels at the north end of Golden Gate Estates. The Everglades Restoration and Capital Projects Resource Area will oversee the project, funded by the Operations and Maintenance Capital Program.

**What concerns could this Board item raise?** The proposed project will add flexibility to the current water management operations for the basins served by the structures. As a result, the canal water levels will be kept higher during the normally dry season for water conservation. SFWMD staff has analyzed the proposed operational changes and do not anticipate adverse impacts.

**Why should the Governing Board approve this item?**

Board approval is required at the March Governing Board meeting. By not implementing the proposed gate replacement, the structures risk failure and will continue to require a crane to make seasonal adjustments for flood protection and water conservation. If continued, this type of operating condition will eventually require more expensive emergency repair/replacement and may lead to uncontrolled discharges. Manual operation of these gate structures with a crane also increases risk to SFWMD personnel and delays the time required to react to unforeseen storm events. The proposed gate replacement and automation is consistent with the Strategic Plan, the Big Cypress Basin's (BCB) Five-Year Plan (2010-2015) and was included in the FY11 budget.

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