MEMORANDUM

TO: Governing Board Members

FROM: Kenneth G. Ammon, P.E., Deputy Executive Director
Everglades Restoration and Capital Projects

DATE: November 1, 2010

SUBJECT: Approve five-year oyster monitoring contract 4600002271 with Florida Gulf Coast University

Background: The purpose of this contract is to conduct a five-year study to continue a long-term monitoring program for *Crassostrea virginica* in southwest Florida. This project provides key information regarding the influence of salinity and freshwater discharges on oyster responses in the Caloosahatchee Estuary and San Carlos Bay. Currently five aspects of oyster ecology are being monitored: (1) spatial and size distribution patterns of adult oysters, (2) distribution and frequency patterns of the oyster diseases, (3) reproduction and recruitment, (4) juvenile oyster growth and survival, and (5) effects of salinity and fresh water inflow regime on the early life stages of oysters. This data will be used to determine time, intensity and duration information to assist with design of Comprehensive Everglades Restoration Plan (CERP) projects and operation of existing infrastructure.

How this helps meet the District's 10-Year Strategic Plan: One strategy identified in the Everglades Restoration and Capital Projects Program is to "increase understanding of coastal ecosystems through applied scientific, hypothesis-driven research." Through its participation in CERP and State-mandated restoration activities, the District is committed to the preservation and improvement of the aquatic resources within its boundaries. Oysters serve as key indicators of ecosystem health and restoration success in the Northern Estuaries. A thorough knowledge of the location, quantity and health of oyster reefs is imperative prior to, during, and following the implementation of the C-43 basin storage projects and other restoration activities.

Funding Source: This is a five-year contract not to exceed $1,320,000 of which $240,000 in ad valorem funds are budgeted, and the remainder is subject to Governing Board approval of the FY12-FY16 budgets.

This Board item impacts what areas of the District, both resource areas and geography: Staff from the Restoration Sciences Department, Coastal Ecosystems Division will manage the contract. The study will be conducted in the Caloosahatchee River and Estuary and San Carlos Bay.

What concerns could this Board item raise? Two concerns are the functionality and cost effectiveness of the monitoring design, and the potential for redundancy of effort within various groups within the District. However, the monitoring plan was developed jointly by Restoration Coordination & Verification (RECOVER) scientists, from both the Coastal Ecosystem Division and external experts. It has also been reviewed by the

Environmental Monitoring Coordination Team (EMCT) and has been designed to satisfy the needs of multiple District programs and activities.

Why should the Governing Board approve this item? Projects like this study are important to the overall restoration and protection of the Caloosahatchee River. The health and location of oysters in the estuaries serve as a key indicator of success for Everglades Restoration. Sound monitoring information is very important in accurately assessing the benefits of Federal and State restoration projects, including the CERP C43 basin storage project and additional storage facilities north of Lake Okeechobee.

KA/bc
Attachment – Resolution, Map