

MEMORANDUM

TO: Governing Board Members

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

DATE: March 1, 2011

SUBJECT: Hybrid Wetland Treatment Technology Contract Amendment for Funding and Term Extension – Contract 4600001034-A04

Background: In August 2007, the District and the Florida Department of Agriculture and Consumer Services (FDACS) teamed up on a project to demonstrate the technical efficacy and cost-effectiveness of the Hybrid Wetland Treatment Technology (HWTT) in the Lake Okeechobee and St. Lucie watersheds.

Currently, five full-scale systems are in operation and continue optimization efforts to maximize phosphorus load reduction and improve cost-effectiveness. One additional HWTT system is currently under construction at the Taylor Creek/Grassy Island property.

Initial optimization efforts for these systems focused on maximizing treatment effectiveness through management of key design and operational parameters. Monitoring and optimization results to date are promising; the full-scale systems are reducing total phosphorus (TP) concentrations in the range of 66% to 93%. However, the wide spatial and temporal variations in water chemistry within the Lake Okeechobee tributaries indicate that continuation of the optimization period is desirable to further improve efficiencies prior to implementation of permanent HWTT facilities in the watershed.

This amendment will add \$1,484,120 in available legislative appropriations and extend the existing contract with FDACS for the continued monitoring, maintenance, operation and optimization of the existing six facilities through the remainder of FY 2011. Once the optimization and study period is complete, HWTT systems may prove to be a predictable, sustainable and cost-effective technology for achieving water quality targets in the Northern Everglades and Estuaries Protection Area.

How this helps meet the District's 10-Year Strategic Plan: This project supports the Governing Board's strategic priorities and plan to achieve water quality improvements through the use of innovative nutrient control strategies and reduce phosphorus loads entering Lake Okeechobee.

Funding Source: This is amendment 4 to Contract 4600001034 with the Florida Department of Agriculture and Consumer Services in the amount of \$1,484,120 for the continued monitoring, maintenance, operation and optimization of six Hybrid Wetland Treatment Technology facilities in the Lake Okeechobee and St. Lucie Watersheds, to extend the term by two months from November 14, 2011 to January 13, 2012, and authorizes a budget transfer of Save Our Everglades Trust Fund funds from Managerial Reserves, Restoration Program, CERP Support to Everglades Restoration and Capital Projects, Restoration Program, Lake Okeechobee projects.

This Board item impacts what areas of the District, both resource areas and geography: The areas of impact are the Lake Okeechobee and northern estuary watersheds. District resources for this project include staff from the Restoration Sciences and Policy and Coordination Departments.

What concerns could this Board item raise? Successful completion of the project is contingent upon continued operation, monitoring, optimization and collaboration between the District and FDACS.

Why should the Governing Board approve this item? Further optimization and successful implementation of this technology will provide nutrient removal cost information and phosphorus load reductions that may be used for watershed-wide implementation of the HWTT technology or other similar future treatment systems.

Attachment – Resolution, Map
KGA/jl