

## MEMORANDUM

**TO:** Governing Board Members

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

**DATE:** December 23, 2009

**SUBJECT:** Amendment to Contract 3600000952 -Taylor Creek Algal Turf Scrubber® (ATS™) Nutrient Recovery Facility with HydroMentia, Inc.

**Background:** Operation of the Taylor Creek Algal Turf Scrubber® (ATS™) nutrient recovery facility in Okeechobee County commenced in late January of 2007. This facility was designed and constructed to remove excess nutrients, primarily phosphorus, from Taylor Creek, a major tributary to Lake Okeechobee. However, during the last 30 months of operation, nutrient reduction rates have been well below expectations. The facility was projected to remove 4,000 lbs of total phosphorous (TP) per year, but water quality based TP removal to date is only about 200 lbs. The lack of system performance has been attributed to documented toxicity within the Taylor Creek system that is inhibiting growth and development of natural periphyton communities. It is the intent of the fourth year of operations to continue investigation of water quality conditions resulting from agricultural activities in the Taylor Creek Basin that are deleteriously impacting algal turf development. Research efforts will focus on the identification of the cause and source of the toxicity and evaluation of pre-treatment systems to eliminate the toxicity and restore function and performance of the TC-ATS™. A summary report of overall system performance for the first four years of operations and findings of all toxicity studies and investigations will be submitted to the District at the conclusion of the project in January 2011.

**How this helps meet the District's 10-Year Strategic Plan:** This project supports the Governing Board's strategic priority to reduce phosphorus loads to Lake Okeechobee.

**Funding Source:** This amendment provides funding for operation and maintenance of the ATS™ Nutrient Recovery Facility, and authorizes a Sole Source Procurement as an exception to the general standards of competition. It also extends the term one year from January 31, 2010 to January 31, 2011, and increases funding in the total amount of \$270,000 for which dedicated funds (Save Our Everglades Trust Fund) are available from HydroMentia contract 4600001289 which is being terminated. Total funding for contract 3600000952 including this amendment is \$4,201,610.

**This Board item impacts what areas of the District, both resource areas and geography:** The area of impact is the S-191 Basin, which is one of the four priority basins in the Lake Okeechobee Watershed. District resources for this project are from the Lake Okeechobee Division.

**What concerns could this Board item raise?** Successful completion of the project is contingent upon continued collaboration from the District, FDEP and FDACS for ongoing operations and maintenance and whether the issue of non-performance can be resolved to make it an effective treatment technology.

**Why should the Governing Board approve this item?** This project is designed to provide nutrient removal cost information that can be used for potential watershed-wide implementation of both this technology and other future treatment systems.

KA/OV

Attachment – Resolution, Map