

MEMORANDUM

Date: September 21, 2011

To: Governing Board

Through: Kirby B. Green III, Executive Director
or
David W. Fisk, Assistant Executive Director

From: Harold A. Wilkening III, P.E., Director
Department of Resource Management


Subject: Water Conservation Cost-Share Program

Sep 29 2011 2:43 PM

X  ✓

Dave Fisk

Sep 26 2011 8:27 AM

X  ✓

Alfred Canepa

RECOMMENDATION

Consideration: Approval of the FY2011-2012 Water Conservation Cost-Share Program recommended projects and authorization for the Executive Director to execute the agreements, renewals, and amendments, as necessary, during the terms of the agreements.

- **Project Name:** Conservation and Demand Management
- **Contract Name:** Water Conservation Cost-Share Program FY2011-2012
- **Contractor:** Various local governments and corporations as shown in the table attached
- **Amount:** Various, as shown in the table attached
- **Completion:** Time frames vary with each project
- **Budget Info: Amount:** \$1,545,164 **Funding Available:** Original Budget
- **Account Number:** 01-31-11-6222-8301-04900
- **Account Name:** District Sources, Cooperative Funding Programs, General Program Costs
- **Budget Book:** Contingent upon approval of the FY2011-2012 budget
- **Special Notes:**
 - Staff may recommend additional projects to the Governing Board, later in the fiscal year and subject to funding availability, as applicants demonstrate the projects are ready for implementation.

BACKGROUND

The St. Johns River Water Management District (District) created the Water Conservation and Demand Management Program in FY2008-2009 as a cost share program to develop and implement innovative water conservation initiatives and to develop and analyze metrics to

demonstrate the effectiveness of water conservation planned or implemented by the District. The balance of water conservation cost sharing funds budgeted for FY 2011-2012 will be available for new applications received during the fiscal year. Projects will be considered for funding if they are in one of the following categories:

- Implementation of water conservation best management practices
- Automated tracking of historical customer account level water use information and use of the data to achieve improved water conservation
- Assistance with landscape irrigation ordinances and related education efforts
- Agricultural and commercial water conservation efforts

The District considers water conservation a major component of its water supply planning effort.

DISCUSSION

District staff was interested in providing information regarding participation in this Water Conservation Cost-Share Program to as many potential stakeholders as possible to determine interest in this program. The following methods were used:

- News releases
- Web page
- Water Watch newsletter to over 900 local government elected officials and staff
- E-mails to over 2,500 contacts in the District's governmental mailing data base
- E-mails to over 100 persons in the District's Water Conservation Subgroup
- District staff provided updates at several Water Conservation Subgroup meetings in the water supply planning process and various other workgroup meetings

A committee to evaluate and prioritize projects for this program was established consisting of four members who were District water conservation cost-share project managers and two members representing the Office of Communications and Intergovernmental Programs.

The District has a total of fifteen applications for this round, a combination of projects that were received in January 2011 or later but were deferred due to lack of funding at the time. The committee reviewed and ranked the applications with final review of the recommendations done by senior management. All fifteen projects are being recommended for inclusion in FY2011-2012 for a total of \$1,545,164 in funding. Attached is a table listing the projects with a short summary describing the projects.

District staff requests approval of the FY2011-2012 Water Conservation Cost-Share Program recommended projects and authorization for the Executive Director to execute the agreements, renewals, and amendments, as necessary, during the terms of the agreements.

| Agency Project | Project Name | Purpose | Project Cost | District Funding |
|----------------|---|---|--------------|------------------|
| City of Apopka | City of Apopka Potable Water Irrigation ET Controller | Purchase and install evapo-transpiration based irrigation controllers on 100 homes for the purpose of increasing the efficiency of potable water irrigation on residential homes. The City will purchase, install, and provide setup and education of the controller to insure maximum efficiency of the irrigation system. Historical tracking of the irrigation consumption will be conducted to determine the effectiveness of the controller and the optimum reduction in potable water consumption on landscape and turf irrigation. | \$35,000 | \$17,500 |
| City of Apopka | City of Apopka Landscape Irrigation Ordinance | The project consists of applying enforcement and education activities related to landscape irrigation and water conservation. A full time certified irrigation auditor will be dedicated to enforcing the City’s landscape irrigation ordinance. Water conservation education, assistance to homeowners, businesses, and homeowner associations will also be part of the duties of the irrigation auditor. | \$64,000 | \$32,000 |
| City of Apopka | City of Apopka Automated Tracking and Historical Consumption Data Compilation | The project will perform automated monthly analysis of historical water consumption through integration of updates to existing software. The integration will allow the City to more effectively plan, monitor, target, and take corrective action to conserve water. Key goals include developing and implementing future conservation measures that reduce consumption. Monitoring, collecting, analyzing, and reporting future actual water savings. Account level data will be provided to the District. | \$79,450 | \$39,725 |
| City of Ocoee | Strategic Water Conservation Plan | The project will install 388 smart irrigation meters as part of a Flexnet system to establish water use efficiency goals. Four subdivisions in Ocoee, Admiral Pointe, Sleepy Harbour, Veronica Place, and Hidden Oaks will be part of this project. A water conservation tracking system using GIS and data base programs will provide continual information on the success of the smart | \$132,367 | \$66,184 |

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| | | irrigation meters. Data from the meters will be used to enhance existing water conservation programs. | | |
| City of Orange City | Targeted Conservation Through Automated Meter Reading | The project will provide for the replacement of 3,750 water meters with two way radio read meters and the upgrade of 1,500 meters with Mueller Systems advance metering infrastructure(AMI) nodes to make them compatible with the new AMI system. Server/software installation, city employee training and integration with the utility billing system will be provided as well. This technology will be used to develop a better understanding of key types or residential water use as well as peak times of consumption in order to develop a more effective water conservation education program. Orange City will monitor the data to better target educational efforts. | \$991,321 | \$200,000 |
| Seminole County | Seminole County Toilet Rebate Program | Seminole County proposes to establish a toilet replacement rebate program to residential customers with their service area. Up to 2 high volume toilets(3.5 gallon or more) per residence will be replaced with low volume(1.28 gallon or lower) toilets. Up to a maximum of 2,000 toilets may be replace in this program for an estimated eligible 18,900 pre-1994 residential structures. | \$200,000 | \$100,000 |
| City of St Augustine | Water Use Benchmarking, Tracking, and Conservation Initiative | The project will provide for minimizing water losses and increasing water conservation through the implementation of new software, account level analysis of customer data with parcel and land use information along with the integration of the City's customer information system, geographic information system, asset maintenance management systems, and workflows. Customer data conversion, account level analysis and implementation of the new billing system will allow staff to more effectively record and track customer water usage history. | \$182,500 | \$91,250 |
| City of Winter Garden | AMR for Water Use Efficiency | The project proposes to upgrade 4,062 water meters to a two-way radio read automatic meter reading system in this Phase I. The Flexnet system will provide account level water use data to enable more robust compliance/enforcement of the City's water conservation and irrigation ordinance, accurate meter reading, | \$750,000 | \$200,000 |

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| | | leak detection, and customer service. | | |
| St Johns County | Retrofit Data Collection for Water Conservation Planning | The project will retrofit indoor and outdoor portions of thirty homes to provide the District with two years of pre and post installation water use data. St. Johns County has agreed to carry this project out on behalf of SJRWMD in order to provide data to be used for water conservation planning. | \$130,000 | \$130,000 |
| St Johns County | Reliability and Performance Testing of New Landscape Irrigation Technology | The purpose of this project is to field verify the use of smart irrigation controllers with moisture sensors and remote monitoring to encourage the reduction of water use among those homeowner groups with the highest consumption. The project involves the installation of 500 remotely monitored smart controllers with moisture sensors into existing homes and monitor for a period of three years. The project is currently funded for \$100,000. Original project cost share funding was reduced from \$590,400 in Spring 2011 due to budget reductions. The additional \$100,000 requested will increase the level of effort to a present total of \$200,000 of District funding. | \$1,180,800 | \$100,000 |
| University of Florida - IFAS | Water Conserving Cold Protection Strategies for Leatherleaf Fern | The project will evaluate the efficacy of a low pressure lower volume mist/fog based system, as compared to the current impact sprinkler high volume standard to conserve water and to cold protect immature and mature fronds of leatherleaf fern. | \$68,750 | \$68,750 |
| Gainesville Regional Utilities | Optimization and Reliability of Selected Indoor Water Conservation Retrofits | The project will combine account level billing data, geographical information systems, and customer attributes in a method that systematically targets water conservation program participants to optimize water savings. In addition, evaluation of the reliability and performance of indoor water conservation products such as toilets and spray rinse nozzles will be performed. | \$554,122 | \$200,000 |
| University of Florida – TREEO | Water Conservation | The project will provide for the development and training of | \$99,990 | \$30,000 |

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| | Coordinator Training Certificate Program | current water conservation practitioners or to train new individuals the body of knowledge on current water conservation topics and initiatives in the State of Florida. | | |
| City of Daytona Beach | Implementation /Conversion of Utility Billing Software | The project will implement a utility billing software program that will allow tracking of consumption by type of location, meter size, meter type, age of meter, allow for tracking and scheduling of back flow preventers, schedule meter maintenance, and a work order system for repairs and maintenance. In the next fiscal year, this software and our automated meter reading system will allow us to identify and locate leaks for repair thereby reducing water loss. | \$850,000 | \$200,000 |
| Alachua County | Landscape Irrigation Code Implementation and Education | Project will continue inspection of priority areas and response to complaints regarding violation of landscape irrigation restrictions. Information will be distributed about irrigation system maintenance, rainfall sensors, and a water use reduction contest. Irrigation workshops will be held with lawn care professionals and targeted homeowners. | \$139,511 | \$69,755 |