

**AGENDA REQUEST FOR
GOVERNING BOARD MEETING
AUGUST 10, 2010**


MEMORANDUM


Date: July 26, 2010

To: Governing Board

Through: Kirby B. Green III
Executive Director

From: Jeff Elledge
Director, Department of Water Resources

Jul 29 2010 3:52 PM

Missy McDermott

Jul 26 2010 12:58 PM

John Klatt

RECOMMENDATION

Consideration: Approval of Cost Share Contract #26639 with the St. Johns County Utility Department and Amendment #2 to Contract #24708 with the Clay County Utility Authority for the Reuse and Treatment Initiative. This would result in a \$5,721,648 increase in the Board's cumulative authorization for LSJRB Reuse and Treatment projects, to a total of \$59,522,611.

- **Project Name:** Lower St. Johns River Basin Reuse and Treatment Projects
- **Contract Name:** St. Johns County Utility Department, Reuse and Treatment Initiative
- **Contractor:** St. Johns County Utility Department
- **Amount:** \$3,000,000
- **Completion:** September 30, 2014; **Renewable:** No
- **Budget Info: Amount:** \$3,000,000; **Funding Available:** Budget Amendment
- **Budget Book:** External Budget Amendment #079
- **Account Number:** 01-42-11-6320-8301-04009
- **Account Name:** District Sources, Cooperative Funding Programs, Reuse and Treatment Project

- **Contract Name:** CCUA Cost-Share Agreement, LSJRB Reuse and Treatment Project
- **Contractor:** Clay County Utility Authority (CCUA)
- **Amount:** \$2,721,648
- **Completion:** September 30, 2012; **Renewable:** No
- **Justification:** The additional District funds will be used for construction of reclaimed water infrastructure to interconnect CCUA's northern reclaimed water service area with its southern service area via the extension of the reclaimed water main between the Ridaught Landing Waste Water Treatment Facility (WWTF) and the Mid-Clay WWTF.

- **Budget Info: Amount:** \$2,721,648 **Funding Available:** Budget Amendment
- **Budget Book:** External Budget Amendment #068
- **Account Number:** 01-42-11-6320-8301-04009
- **Account Name:** District Sources, Cooperative Funding Programs, Reuse and Treatment Projects
- **Special Notes:**
 - The Governing Board last approved the list of projects and estimated funding levels on February 9, 2010. The revised list and estimated expenditures are included below.

BACKGROUND

The District has established Lower St. Johns River (LSJR) pollutant load reduction goals and the Florida Department of Environmental Protection has adopted Total Maximum Daily Loads (TMDLs) for nutrients to the LSJR. In response to these regulatory initiatives, the District has been facilitating efficient and cost effective treatment, reuse and other projects to exceed the minimum nutrient reductions required by the TMDL allocations. Reducing nutrient discharges to below TMDL levels will help assure the sustainable future health of the LSJR.

On September 12, 2006, the District Governing Board approved cost-share funding for the implementation of the Lower St. Johns River Basin Reuse and Treatment Project (LSJRB R&T) in the amount of \$33,995,842. On August 7, 2007, the Governing Board approved a funding increase of \$11,339,385 and on February 10, 2009 approved an additional \$8,827,286 to fund identified projects. These actions authorized the Executive Director to execute agreements for identified projects up to an aggregate amount of \$53,801,013. The proposed new contract with St. Johns County Utility Department and Amendment #2 to CUA contract #24708 will increase the overall authorization to \$59,522,611. To date, the value of executed LSJRB R&T contracts is \$50,151,013. A current project summary is included below.

DISCUSSION

St. Johns County Utility Department Project

The St. Johns County Utility Department (SJCUD) is scheduled to construct a new state-of-the-art advanced wastewater treatment plant (AWT) beginning in FY 2011. The facility, the Northwest Wastewater Treatment Facility (NWWWTF) will be located approximately one mile north of International Golf Parkway (IGP) along the proposed CR 2209. Its advanced features include a 5-stage bardenpho process capable of reducing total nitrogen and phosphorus below 3 mg/l and 1 mg/l, respectively. The facility is designed to provide 100% reclaimed water (3 mgd average annual daily flow) including a 2 million gallon reclaimed water storage tank, high service reclaimed water pumps with variable frequency drives, high end filtration and UV disinfection. The total cost of the treatment and reuse components of their project is \$44,000,000. The total estimated reuse related project costs are \$8,300,000.

The District's proposed co-funding will be used to construct approximately 6.5 miles of reclaimed water transmission line from the intersection of International Golf Parkway (IGP) and CR 2209, along IGP, to the Palencia Golf Course, located approximately one mile east of Highway U.S 1.

Upon completion in 2014, the project will supply .75 mgd of new reclaimed water. Based on conservative growth projections, the project will produce and reuse an estimated 1.0 million gallons per day (mgd) of new reclaimed water by the end of Fiscal Year (FY) 2020, and 2.0 mgd by FY 2025. This translates into an estimated reduction of Total Nitrogen (TN) discharged to the St. Johns River of 10,000 pounds per year. The project will also reduce use of Floridian Aquifer ground water by approximately 0.5 mgd per day by the end of FY 2020. Additionally, this project will help the SJCUD achieve their "zero effluent discharge" goal from the Northwest Facility faster than originally planned. The proposed project allows the County to further enhance their reclaimed water transmission to new customers and limit effluent discharges to the St. Johns River well below that provided for in the Basin Management Action Plan.

Clay County Utility Authority, Amendment #2

CCUA has entered into an Interlocal Agreement with the Town of Orange Park to treat their wastewater effluent to meet high level disinfection standards and to reuse this treated effluent in CCUA's reclaimed water system. Through its initial cost share agreement with the District, Contract #24708, CCUA is managing the engineering and construction of a reuse and treatment project scheduled for construction from FY 2007 through FY12. Amendment #1 provided a clarification of the scope of the original agreement but did not add time or funding. Proposed Amendment #2 will provide additional co-funding (50%) for the construction of the interconnection of CCUA's northern reclaimed water service area with its southern service area. This project is known as the Ridaught Landing to Mid-Clay Reclaimed Water Main Extension Project and is included in the District's West River Initiative Program.

This project will help to meet the reclaimed water demand of CCUA's southern service area by transferring reclaimed water from existing wastewater treatment plants currently discharging to the Lower St. Johns River in Clay and Duval Counties to CCUA's southern service area. To meet the current reclaimed water demand for the existing 1,200 active reclaimed water accounts, CCUA must augment its reclaimed water supply with 0.75 to 1.0 mgd of supplemental ground water on an annual average daily basis. As CCUA's reclaimed water system develops, the reclaimed water demand within this southern service area is expected to grow to an estimated 14.0 mgd by 2030. CCUA will only be able to meet an estimated 5 mgd of this demand from its existing wastewater customers leaving a deficit of 9.0 mgd that will need to be supplied from an alternative water source. This project will supply additional reclaimed water to offset this supplemental groundwater withdrawal.

This project will facilitate the supply of an estimated 3.0 mgd of reclaimed water by the end of FY 2012. The project, along with plant upgrades undertaken by CCUA, will reduce the amount of TN discharged to the St. Johns River by an estimated 76,750 pounds per year. At build-out, this project, as part of CCUA's overall wastewater and reclaimed water system, is expected to be able to reduce TN loadings by 107,396 pounds per year.

The District anticipates that the West River Initiative Program will include additional projects and/or phases which may be funded in future years. The components of these projects include the installation of reclaimed water mains; treatment systems associated with reclaimed water; and associated improvements.

Approval of this recommendation will increase the Executive Director's contracting authorization from \$53,801,013 to \$59,522,611 for the projects listed in the table below. The Total Value of

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Re: Contracts 26639 & 24708, Amendment #2

the District Share listed below is greater than that amount; however, staff anticipates a reduction in the District's Share for the JEA Reuse Project. Staff will adjust project values and District share in accordance with actual costs within the limits of the Executive Director's current contracting authorization.

Reuse Projects	Project Cost	District Share	District %	Status
JEA**	\$31,780,000	\$15,890,000	50%	**Current
Clay County Utility Authority	\$24,640,454	\$12,320,227	50%	Current
Clay County Utility Authority A #2	\$5,443,296	\$2,721,648	50%	Proposed
***St. Johns County Utility Dept	\$8,300,000	\$3,000,000	36%	Proposed
Jacksonville-WSEA Septic Tank	\$4,980,000	\$2,000,000	40%	Current
Palatka	\$7,710,000	\$3,743,500	49%	Current
Atlantic Beach	\$2,000,000	\$1,000,000	50%	Authorized Aug, 2007
Neptune Beach	\$612,000	\$250,000	41%	Current
NAS Jacksonville	\$2,000,000	\$1,000,000	50%	Authorized Aug, 2007
Jacksonville Beach - Reuse	\$8,000,000	\$4,000,000	50%	Current
Advanced Wastewater Treatment (AWT) Projects	Project Cost	District Share	District %	Status
JEA Arlington East- AWT*	\$20,000,000	\$3,620,000	18%	Current
Jacksonville Beach - AWT	\$12,000,000	\$6,000,000	50%	Current
JEA Arlington East AWT Upgrade*	*	\$1,500,000	26%	Authorized Feb, 2009
Jacksonville Beach AWT Upgrade	\$3,000,000	\$1,000,000	33%	Current
Atlantic Beach	\$12,000,000	\$1,000,000	8%	Authorized Feb, 2009
Neptune Beach	\$1,750,000	\$700,000	40%	Current
Orange Park AWT Upgrade	\$5,500,000	\$627,286	11%	Current
TOTALS	\$ 149,713,750	\$ 60,372,661		
* Included in Waste Water Treatment component of the JEA Reuse and Treatment Agreement - Project Cost of \$20,000,000				
** Contract amendment discussions are occurring which may reduce the District's share in JEA reuse projects without decreasing the amount of load reduction.				
*** The total estimated cost of the St. Johns County Utility Dept Advanced Wastewater Treatment and Reuse project is \$44,000,000. The District is not contributing funding for the AWT portion of the project.				