

2018 Water Resource Development Work Program

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St. Johns River Water Management District

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I. Introduction

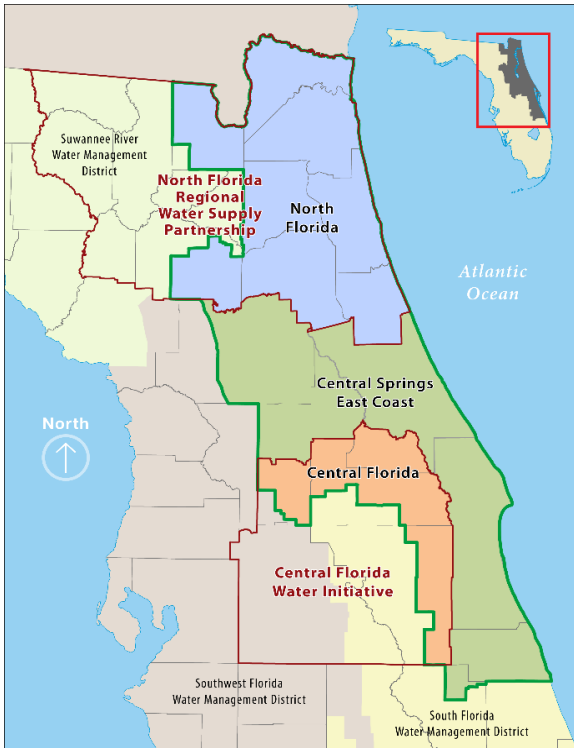
Section 373.536(6)(a)4, *Florida Statutes* (F.S.), requires each water management district to prepare an annual Five-Year Water Resource Development Work Program (WRDWP). Accordingly, this report presents the St. Johns River Water Management District's (District) Work Program for fiscal years 2018–2022 (FY 2018–FY 2022) (October 1, 2017–September 30, 2022). This document describes the District's implementation strategy for the water resource development component of the approved regional water supply plan developed or updated under Section 373.709, F.S. Further information on the District's role in managing the region's water resources is available at www.sjrwmd.com/watersupply.

Florida water law identifies two types of projects to meet water needs: water supply development projects and water resource development projects. Water supply development projects generally involve public or private facilities for water collection, treatment, and transmission, and are the responsibility of local water users. Water resource development is defined in Section 373.019(24), F.S., as “the formulation and implementation of regional water resource management strategies, including the collection and evaluation of surface water and groundwater data; structural and non-structural programs to protect and manage water resources; development of regional water resource implementation programs; construction, operation, and maintenance of major public works facilities to provide for flood, surface, and underground water storage and groundwater recharge augmentation; and related technical assistance to local governments and to government-owned and privately owned water utilities.” These types of projects are regional in nature and are primarily the District's responsibility. These projects support water supply development at the local level and are intended to ensure the availability of adequate water supplies for all uses deemed reasonable and beneficial and to maintain the function of natural systems.

II. Regional Water Supply Planning

In accordance with Chapters 163 and 373, F.S., the District is required to update regional water supply plans every five years for at least a 20-year planning horizon to ensure the availability of water to meet all existing and future reasonable-beneficial water needs and to protect natural systems from harm up to and during a 1-in-10-year drought event.

In December 2015, the District's Governing Board approved the water supply plan for the central Florida region. In January 2017, the District's Governing Board approved the water supply plan for the north Florida region. The Central Springs East Coast (CSEC) Water Supply



Plan is under development and stakeholder outreach has been initiated. The District anticipates having a draft plan for review in early 2019.

North Florida Region: Alachua, Baker, Bradford, Clay, Duval, Flagler, Nassau, Putnam, and St. Johns counties. Water supply planning in this area is conducted as part of the North Florida Regional Water Supply Partnership (NFRWSP) in coordination with the Suwannee River Water Management District (SRWMD).

Central Springs East Coast Region: Brevard, Indian River, Marion, Okeechobee, Volusia, and north Lake counties, including coordination with the South Florida and Southwest Florida water management districts.

Central Florida Region: Orange, Osceola, Seminole, and southern Lake counties. Planning

in this area is conducted as part of the Central Florida Water Initiative (CFWI) in coordination with the South Florida and Southwest Florida water management districts.

The District updates the following on an annual basis to keep the water supply plans for each of the three water supply planning regions current:

- Population and water demand projections through a 20-year planning horizon
- Groundwater modeling to assess environmental constraints
- Water conservation (WC) potential
- Water supply, alternative water supply (AWS), and water resource development (WRD) project options
- Minimum flows and levels prevention and recovery strategies

III. Funding

The District's sources of revenue are:

- Ad valorem taxes (primary revenue source)
- State sources (general revenue appropriations and funding, when available)
- Federal sources (funding from the U.S. Environmental Protection Agency and U.S. Fish and Wildlife Service)
- District sources (interest, regulatory fees, land leases, timber sales, etc.)
- District fund balance utilization (available until fund balance nears the amounts set aside for Economic Stabilization and Operating Reserve targets adopted by District Policy)

During the period from FY 2005–2006 through FY 2016–2017, the District's Governing Board approved approximately \$114 million in cooperative funding for water resource, water supply, and AWS development projects. These funds were leveraged with partner funds for total project costs of approximately \$415 million.

For FY 2017–2018, the District budgeted approximately \$36 million for water resource, water supply, and AWS development programs. The proposed budget for the five-year work program is approximately \$199 million through FY 2021–2022. Please see Table 4-2 for the five-year work program/funding projections.

IV. Water Resource Development Projects/Programs

Overview

Abandoned artesian well plugging

The purpose of this program is to protect groundwater resources by identifying, evaluating, and controlling abandoned artesian wells. Uncontrolled or improperly constructed artesian wells reduce groundwater levels and contribute to the potential contamination of both ground and surface waters. Since the program was established in 1983, the District has plugged or repaired approximately 100 abandoned artesian wells per year.

Update since 2017 WRDWP

This program will be funded at \$160,000 in FY 2017–2018 and is projected to receive funding through FY 2021–2022.

AWS, WC and WRD projects that support District water supply regions

The District's Governing Board adopted a five-year strategic plan in March 2016 for the period of October 2015 through September 2020. Five strategic priorities were identified, two of which have WRD, WC, and/or AWS project components. These two priorities are briefly described below with specific projects identified in the subsequent tables and project narratives provided at the end of this section.

- ***Water Supply***

The District must conduct water supply planning for each of its three water supply planning regions. The District develops water supply plans to identify sustainable water supply for all existing and anticipated reasonable-beneficial water uses while protecting water resources and related natural systems. Water supply plans provide a view of projected future water needs, potential water supply sources, and avoidable water resource impacts to help all water users make informed decisions regarding how to meet their future water needs. The elements of water supply planning include:

- Identify projected water demands for all reasonable-beneficial water use types through the planning horizon;
- Identify the water resource impacts that could occur as a result of meeting the projected increase in water demand with traditional sources; and
- Identify technically and economically feasible WRD, WC, and/or AWS project options that could be implemented to meet future water demands and avoid unacceptable water resource impacts.

The development of three regional plans will allow the plans to address local resource concerns expressed by stakeholders, improve planning efficiency, and reduce costs.

- *Supporting Activities*

The District addresses funding needs and identifies possible sources of funding for WRD, WC, and/or AWS projects. Florida water law identifies two types of projects used to help provide the state with adequate water supply or those that ensure natural systems are protected. Water resource development projects are generally the responsibility of the District while water supply development projects (AWS and WC) are generally the responsibility of the local entities and/or water suppliers. Currently, the District provides funding for both water resource and water supply development projects. In addition, the District also provides funding for conservation projects and strategies. To support the core mission areas, the District currently procures three cost-share programs on an annual basis:

1. The Districtwide program
2. The Rural Economic Development Initiative (REDI) Communities / Innovative Projects program
3. The Districtwide Agricultural program

Update since 2017 WRDWP

Since completion of the 2017 WRDWP the District has reconfigured water supply planning regions from five regions to three regions. The new CSEC planning region was established to meet the requirements of F.S. Chapters 163 and 373 for the counties not listed within the north Florida or central Florida regions. Projects specific to this region are solely under the authority of the District, and are included in this WRDWP. AWS and WRD projects were identified and implemented for applicable planning regions and incorporated into the current WRDWP.

Water conservation

The District is committed to water conservation such as implementing water conservation requirements in the consumptive use permitting program. Similarly, the District has been using its cost-share funding on water conservation projects, and staff has been providing water conservation technical assistance to utilities and local governments. Additionally, the District's regional water supply planning process includes water conservation as a key strategy in meeting future needs.

Effective water conservation projects that maximize water efficiency and reduce dependence on groundwater are included in the WRDWP.

Update since 2017 WRDWP

In FY 2011–2012, FY 2012–2013, FY 2013–2014, FY 2014–2015, FY 2015–2016, and FY 2016–2017, the District provided cooperative funding for 56 water conservation projects. The District recognizes that funding water conservation projects is more cost-effective than funding AWS projects to meet water-supply deficits in several cases and due to that reason projected funding for water conservation will increase for the five-year planning horizon.

Hydrologic and water quality data collection, monitoring and analysis

Northeast and east-central Florida relies on groundwater to meet more than 90 percent of its water supply needs. Accurate water level, water quality, and hydrogeologic data and information are required to characterize and evaluate groundwater resources.

The District's hydrologic data collection program collects data and information that support the regulatory and scientific programs (including data and information for the DWSP and WRDWP). The District operates and maintains more than 2,000 monitoring stations, processes data from approximately 350 additional sites collected by other agencies, and acquires and manages an intensive radar rainfall database. More than 8 million measurements are collected, verified, processed, and stored each year. More measurements were collected because of the inclusion of the radar rainfall database.

The District's water quality monitoring network is comprised of approximately 350 long-term sampling stations located on rivers, streams, and lakes throughout the District's 18-county service area. The accurate and timely processing of monitoring data enables the District to make sound resource protection and enhancement decisions.

The groundwater resource assessment program provides hydrogeologic evaluations. Specifically, the modeling section develops groundwater models to predict the effects of hydrologic changes on the Floridan aquifer systems.

Update since 2017 WRDWP

This program continues to be integral to the District's mission to ensure the sustainable use and protection of water resources. Staff annually review and refine the data collection program to ensure that monitoring efforts are focused on agency priorities. Numbers of monitoring sites, both hydrologic and water quality, have decreased as initiatives have been completed. Funding projections for this program are expected to remain level or decrease as a result.

The groundwater resource assessment program provides hydrogeologic evaluations and data, which enable groundwater modeling, the primary tool for predicting the effects of hydrologic changes on the Floridan aquifer systems.

Potable Reuse Projects

The District is investigating the feasibility of implementing direct or indirect potable reuse projects as a method to increase AWS in the District. Using the District's cost-share program, the Governing Board funded three potable reuse pilot projects aimed at determining the feasibility of implementing direct potable reuse. These projects are the Altamonte Springs Direct Potable Reuse Pilot Project, the Daytona Beach Potable Reuse Demonstration Testing Facility, and the JEA Water Purification Treatment Evaluation and Pilot Testing Project.

Please refer to the subsequent series of tables for identification of the WRD, WC, and AWS projects currently underway or anticipated to begin within the five-year planning horizon. For each project, the tables delineate water resource management strategies, the quantity of water produced, and funding.

Table 4-1: Project, Quantity of Water and Water Resource Management Strategies for each Project

Project Name	District Water Supply Planning Region Supported by Project	Project Type	Water Identified or Made Available (mgd)	Strategies				
				Collection and evaluation of surface water and groundwater data	Structural and nonstructural programs to protect and manage water resources	Development of regional water resource implementation programs	Construction, operation and maintenance of major public works facilities to provide flood control, water storage and recharge augmentation	Technical Assistance
Abandoned Artesian Well Plugging					*			
AWS and WRD Projects that Support District Strategic Initiatives								
Apopka Cost Share Golden Gem Rd RCW Ext	CF	AWS-Reclaimed Water	5.00			*		
Baldwin - Brandy Branch Reuse	NF	AWS-Reclaimed Water	0.25			*		
Black Creek Water Resource Development Project*	NF	AWS- Surface Water	7.00		*		*	
Bunnell Reclaimed Water Main Extension	NF	AWS-Reclaimed Water	1.14		*	*		
C-10 Reservoir Project*	CSEC	WRD- Restoration	N/A	*	*		*	
Chuluota RCW Storage Tank	CF	AWS-Reclaimed Water	0.15		*		*	
Clay County Utility Authority CR 209 Reclaimed Water Transmission Main	NF	AWS-Reclaimed Water	0.05			*		
Clay County Utility Authority Old Jennings Reclaimed Water Plant Ground Storage Tank	NF	AWS-Reclaimed Water	0.75			*	*	
Daytona Beach Potable Reuse Demo Testing Facility	CSEC	AWS - Potable Reuse	N/A			*		
Daytona Beach 2.5 MG Reuse Tank	CSEC	AWS-Reclaimed Water	2.50			*	*	
Deland Reclaimed Water Retrofit Project Phase 1	CSEC	AWS-Reclaimed Water	0.12			*		
Deland Reclaimed Water Retrofit Project Phase 2B	CSEC	AWS-Reclaimed Water	0.17			*		
Deland RCW Main Extension Phase 3 & 3A	CSEC	AWS-Reclaimed Water	0.14			*		
Deland St Johns River Intake and Surface Water Filtration System Upgrades	CSEC	AWS- Surface Water	1.50			*		
Fellsmere Water Management Area*	CSEC	WRD-Restoration	N/A	*	*		*	
Green Cove Springs North Grid RCW System Phase 2 & 3	NF	AWS-Reclaimed Water	0.14			*		
Indian River Lagoon Dispersed Water Storage Pilot Projects	CSEC	AWS-Reclaimed Water	5 to 18		*			
JEA Gate Pkwy - Shiloh Mill Blvd to Town Ctr Pkwy - RCW	NF	AWS-Reclaimed Water	0.03		*	*		
JEA Hidden Hills - RCW	NF	AWS-Reclaimed Water	0.36		*	*		
JEA Mandarin Wastewater Treatment Plant Upgrades	NF	AWS-Reclaimed Water	3.05		*			
JEA RG Skinner Parkway RW Trans	NF	AWS-Reclaimed Water	0.47			*		
JEA RiverTown Phase 3 - Parcel 23 - RCW	NF	AWS-Reclaimed Water	0.18		*	*		
JEA Water Purification Treatment Evaluation & Pilot	NF	AWS - Potable Reuse	N/A	*	*		*	
JEA William Burgess Rd	NF	AWS-Reclaimed Water	0.46			*		
Longwood Septic Tank Abatement Program Transmission Main	CF	AWS-Reclaimed Water	0.70		*	*		
Lucas Fairways Hidden Hills Golf Course RCW Connection	NF	AWS-Reclaimed Water	0.36		*	*		

*All projects are cost-share projects unless notated with asterisk

Table 4-1: Project, Quantity of Water and Water Resource Management Strategies for each Project

Project Name	District Water Supply Planning Region Supported by Project	Project Type	Water Identified or Made Available (mgd)	Strategies				
				Collection and evaluation of surface water and groundwater data	Structural and nonstructural programs to protect and manage water resources	Development of regional water resource implementation programs	Construction, operation and maintenance of major public works facilities to provide flood control, water storage and recharge augmentation	Technical Assistance
Marion County US 441 Water Main Interconnect	CSEC	AWS-Reclaimed Water	0.12			*		
Minneola Septic to Sewer	CF	AWS-Reclaimed Water	0.40			*		
Mount Dora RCW Interconnect with Apopka	CF, CSEC	AWS-Reclaimed Water	3.00			*		
Orange County Malcolm Rd Minimized Impact Project -Lower Floridan Wells	CF	WRD-Groundwater	4.00		*	*		
Ocala Wetland Recharge	CSEC	WRD-Groundwater	5.000		*	*		
Ormond Beach South Peninsula Reclaimed Water Expansion	CSEC	AWS-Reclaimed Water	0.56			*		
Palatka RCW Extension - REDI	NF	AWS-Reclaimed Water	1.09			*		
Sanford RCW Orl-Sanford Airport Phase 2	CF	AWS-Reclaimed Water	0.10		*	*		
St Johns County St Augustine Beach Reclaimed Water Transmission Main	NF	AWS-Reclaimed Water	0.04			*		
Tater Farms Palatka Ranch RCW	NF	AWS-Reclaimed Water	0.07			*		
Taylor Creek Reservoir Improvement Project*	CF	WRD-Surface Water	11 to 24		*	*	*	
Vero Beach Reverse Osmosis WTF Expansion	CSEC	AWS-Brackish Groundwater	2.60		*	*		
Volusia County Utilities: RCW Main Extension for I-4/SR 472 Activity Center	CSEC	AWS-Reclaimed Water	0.10			*		
West Volusia Water Suppliers Project 4A Deltona Storage & Treatment System Improv	CSEC	AWS-Reclaimed Water	4.00			*		
Winter Garden Reuse Distribution Retrofit	CF	AWS-Reclaimed Water	0.06		*	*		
Water Conservation	N/A	N/A	N/A					
Alachua County Landscape Irrigation Retrofit Rebate Program	NF				*			*
Alachua County Water Star Rebate Program	NF				*			*
Cocoa Toilet Rebate Program	CSEC				*			
GRU Conservation Visualization Tool	CSEC				*			
Gainesville Regional Utilities Indoor Plumbing Retrofit Program	NF				*			*
Marion County Enhanced Irrigation Evaluation Program	CSEC				*			*
Orange County Utilities - Toilet Replacement Program	CF				*			*
Orange County Utilities - Waterwise Neighbor Program	CF				*			*
Orange County Utilities - Waterwise Neighbor Program (new & retrofit) Ph 2	CF				*			

*All projects are cost-share projects unless notated with asterisk

Table 4-1: Project, Quantity of Water and Water Resource Management Strategies for each Project

Project Name	District Water Supply Planning Region Supported by Project	Project Type	Water Identified or Made Available (mgd)	Strategies				
				Collection and evaluation of surface water and groundwater data	Structural and nonstructural programs to protect and manage water resources	Development of regional water resource implementation programs	Construction, operation and maintenance of major public works facilities to provide flood control, water storage and recharge augmentation	Technical Assistance
OUC Irrigation Conservation Phase 2	CF				*			
Santa Fe College NW Campus Plumbing Fixture Retrofit	NF				*			*
Winter Garden Water Conservation Program Expansion (Ph II)	CF				*			
Hydrologic and Water Quality Data Collection, Monitoring and Analysis **	N/A	N/A	N/A					
Hydrologic and Water Quality Data Collection and Monitoring				*				
Groundwater Assessments and Modeling				*				

*All projects are cost-share projects unless notated with asterisk

** The activities were not included in the tentative budget Appendix C as the major object is not fixed capital outlay or cooperative funding.

Table 4-2: Five-Year Work Program/Funding Projections

Project Name	Correlation to District Budget	Five-Year Work Program					Subtotal
		FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	
Abandoned Artesian Well Plugging	2.2.3/Other Water Resources Development (WRD)	\$ 160,000	\$ 160,000	\$ 160,000	\$ 160,000	\$ 160,000	\$ 800,000
AWS and WRD Projects that Support District Strategic Initiatives							
Apopka Cost Share Golden Gem Rd RCW Ext	2.2.1 / WRD Projects	\$ 308,626					\$ 308,626
Baldwin - Brandy Branch Reuse	2.2.1 / WRD Projects	\$ 444,675	\$ 444,675				\$ 889,350
Bunnell Reclaimed Water Main Extension	2.2.1 / WRD Projects	\$ 495,000					\$ 495,000
Black Creek Water Resource Development Project*	2.2.1 / WRD Projects	\$ 5,000,000	\$ 8,500,000	\$ 17,200,000	\$ 10,300,000		\$ 41,000,000
C-10 Reservoir Project*	2.3.0 / SW Projects	\$ 200,000		\$ 9,900,000	\$ 8,000,000	\$ 8,100,000	\$ 26,200,000
Chuluota RCW Storage Tank	2.2.1 / WRD Projects	\$ 390,136					\$ 390,136
Clay County Utility Authority CR 209 Reclaimed Water Transmission Main	2.2.1 / WRD Projects	\$ 14,777					\$ 14,777
Clay County Utility Authority Old Jennings Reclaimed Water Plant Ground Storage Tank	2.2.1 / WRD Projects	\$ 138,460					\$ 138,460
Daytona Beach Potable Reuse Demo Testing Facility	2.2.1 / WRD Projects	\$ 829,254					\$ 829,254
Daytona Beach 2.5 MG Reuse Tank	2.2.1 / WRD Projects	\$ 805,294					\$ 805,294
Deland Reclaimed Water Retrofit Project Phase 1	2.2.1 / WRD Projects	\$ 159,867					\$ 159,867
Deland Reclaimed Water Retrofit Project Phase 2B	2.2.1 / WRD Projects	\$ 506,250					\$ 506,250
Deland RCW Main Extension Phase 3 & 3A	2.2.1 / WRD Projects	\$ 330,000	\$ 99,000				\$ 429,000
Deland St Johns River Intake and Surface Water Filtration System Upgrades	2.2.1 / WRD Projects	\$ 600,000					\$ 600,000
Indian River Lagoon Dispersed Water Storage Pilot Projects	2.2.1 / WRD Projects	\$ 4,303,000	\$ 933,500	\$ 933,500	\$ 933,500		\$ 7,103,500
Fellsmere Water Management Area*	2.3.0 / SW Projects	\$ 1,800,000	\$ 1,300,000				\$ 3,100,000
Green Cove Springs North Grid RCW System Phase 2 & 3	2.2.1 / WRD Projects	\$ 627,000					\$ 627,000
JEA Gate Pkwy - Shiloh Mill Blvd to Town Ctr Pkwy - RCW	2.2.1 / WRD Projects	\$ 121,224					\$ 121,224
JEA Hidden Hills - RCW	2.2.1 / WRD Projects	\$ 156,707	\$ 104,472				\$ 261,179
JEA Mandarin Wastewater Treatment Plant Upgrades	2.2.1 / WRD Projects	\$ 129,555					\$ 129,555
JEA RG Skinner Parkway RW Trans	2.2.1 / WRD Projects	\$ 660,000					\$ 660,000
JEA RiverTown Phase 3 - Parcel 23 - RCW	2.2.1 / WRD Projects	\$ 38,528					\$ 38,528
JEA Water Purification Treatment Evaluation & Pilot	2.3.0 / SW Projects	\$ 661,000					\$ 661,000
JEA William Burgess Rd	2.2.1 / WRD Projects	\$ 660,000					\$ 660,000
Longwood Septic Tank Abatement Program Transmission Main	2.2.1 / WRD Projects	\$ 582,176	\$ 1,746,530				\$ 2,328,706
Lucas Fairways Hidden Hills Golf Course RCW Connection	2.2.1 / WRD Projects	\$ 27,225	\$ 4,950				\$ 32,175
Marion County US 441 Water Main Interconnect	2.2.1 / WRD Projects	\$ 353,248	\$ 353,248				\$ 706,496
Minneola Septic to Sewer	2.2.1 / WRD Projects	\$ 389,400	\$ 389,400				\$ 778,800
Mount Dora RCW Interconnect with Apopka	2.2.1 / WRD Projects	\$ 363,000					\$ 363,000
Orange County Malcolm Rd Minimized Impact Project -Lower Floridan Wells	2.2.1 / WRD Projects	\$ 165,000					\$ 165,000
Ocala Wetland Recharge	2.2.1 / WRD Projects	\$ 2,000,000	\$ 2,000,000				\$ 4,000,000
Ormond Beach South Peninsula Reclaimed Water Expansion	2.2.1 / WRD Projects	\$ 945,878					\$ 945,878
Palatka RCW Extension - REDI	2.2.1 / WRD Projects	\$ 554,610	\$ 554,610				\$ 1,109,220
Sanford RCW Orl-Sanford Airport Phase 2	2.2.1 / WRD Projects	\$ 133,827					\$ 133,827

* All projects are cost-share projects unless notated with asterisk

Table 4-2: Five-Year Work Program/Funding Projections

Project Name	Correlation to District Budget	Five-Year Work Program					Subtotal
		FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	
St Johns County St Augustine Beach Reclaimed Water Transmission Main	2.2.1 / WRD Projects	\$ 46,579					\$ 46,579
Tater Farms Palatka Ranch RCW	2.2.1 / WRD Projects	\$ 74,250					\$ 74,250
Taylor Creek Reservoir Improvement Project*	2.2.1 / WRD Projects	\$ 1,300,000	\$ 500,000	\$ 9,200,000	\$ 6,300,000		\$ 17,300,000
Vero Beach Reverse Osmosis WTF Expansion	2.2.1 / WRD Projects	\$ 373,055					\$ 373,055
Volusia County Utilities: RCW Main Extension for I-4/SR 472 Activity Center	2.2.1 / WRD Projects	\$ 169,785					\$ 169,785
West Volusia Water Suppliers Project 4A Deltona Storage & Treatment System Improvemts	2.2.1 / WRD Projects	\$ 3,595,550					\$ 3,595,550
Winter Garden Reuse Distribution Retrofit	2.2.1 / WRD Projects	\$ 473,485	\$ 151,515				\$ 625,000
Cost Share Placeholder (Ad Valorem)	2.2.1 / WRD Projects 2.3/SW Projects	\$ -	\$ 10,000,000	\$ 10,000,000	\$ 10,000,000	\$ 10,000,000	\$ 40,000,000
Cost Share Placeholder - Springs (State Funds)	2.2.1 / WRD Projects 2.3 / SW Projects	\$ -	\$ 10,000,000	\$ 10,000,000	\$ 10,000,000	\$ 10,000,000	\$ 40,000,000
AWS and WRD Projects that Support District Water Supply Regions - Total		\$ 30,926,421	\$ 49,381,900	\$ 42,033,500	\$ 37,133,500	\$ 15,400,000	
Water Conservation							
Alachua County Landscape Irrigation Retrofit Rebate Program	2.2.1 / WRD Projects	\$ 150,000	\$ 112,500				\$ 262,500
Alachua County Water Star Rebate Program	2.2.1 / WRD Projects	\$ 52,500	\$ 39,375				\$ 91,875
Cocoa Toilet Rebate Program	2.2.1 / WRD Projects	\$ 1,250					\$ 1,250
GRU Conservation Visualization Tool	2.2.1 / WRD Projects	\$ 25,000	\$ 26,000				\$ 51,000
Gainesville Regional Utilities Indoor Plumbing Retrofit Program	2.2.1 / WRD Projects	\$ 75,000	\$ 25,000				\$ 100,000
Marion County Enhanced Irrigation Evaluation Program	2.2.1 / WRD Projects	\$ 9,000					\$ 9,000
Orange County Utilities - Toilet Replacement Program	2.2.1 / WRD Projects	\$ 10,000					\$ 10,000
Orange County Utilities - Waterwise Neighbor Program	2.2.1 / WRD Projects	\$ 10,915					\$ 10,915
Orange County Utilities - Waterwise Neighbor Program (new & retrofit) Ph 2	2.2.1 / WRD Projects	\$ 134,790					\$ 134,790
OUC Irrigation Conservation Phase 2	2.2.1 / WRD Projects	\$ 104,070	\$ 104,070				\$ 208,140
Santa Fe College NW Campus Plumbing Fixture Retrofit	2.2.1 / WRD Projects	\$ 8,676					\$ 8,676
Winter Garden Water Conservation Program Expansion (Ph II)	2.2.1 / WRD Projects	\$ 200,000					\$ 200,000
Water Conservation - Totals		\$ 781,201	\$ 306,945	\$ -	\$ -	\$ -	
Hydrologic and Water Quality Data Collection, Monitoring and Analysis **							
Hydrologic and Water Quality Data Collection and Monitoring	1.2/Research, Data Collection, Analysis & Monitoring	\$ 4,409,780	\$ 4,409,780	\$ 4,409,780	\$ 4,409,780	\$ 4,409,780	\$ 22,048,900
Groundwater Assessments and Modeling	1.1.1 / Water Supply Planning, 1.1.3/ Water Resource Planning	\$ 216,500	\$ 216,500	\$ 216,500	\$ 216,500	\$ 216,500	\$ 1,082,500
Hydrologic and Water Quality Data Collection, Monitoring and Analysis - Totals		\$ 4,626,280	\$ 4,626,280	\$ 4,626,280	\$ 4,626,280	\$ 4,626,280	
Fiscal Year Totals		\$ 36,493,902	\$ 54,475,125	\$ 46,819,780	\$ 41,919,780	\$ 20,186,280	\$ 199,894,867

* All projects are cost-share projects unless notated with asterisk

** The activities were not included in the tentative budget Appendix C as the major object is not fixed capital outlay or cooperative funding.

Project narratives

Abandoned artesian well plugging

Status: This is a continuous program established by the District in 1983.

The goal of this program is to protect groundwater resources by identifying, evaluating, and controlling abandoned artesian wells.

Projects supporting District water supply planning regions (WSPR)

Apopka Cost-Share Golden Gem Road RCW Ext.

Status: Anticipated project completion is July 2018

WSPR: Central Florida

The project involves the construction of a reclaimed water main (RWM) the length of Golden Gem Road between Ponkan Road and Kelly Park Road, approximately 10,500 linear feet (LF), a pump station, and reservoir. Construction is scheduled to begin in December 2018.

Baldwin – Brandy Branch Reuse

Status: Anticipated project completion is February 2019

WSPR: North Florida

The project consists of the construction of an effluent wet well, transfer pumping system, controls/instrumentation, and 19,000 LF of 8-inch PVC reuse main from the Town of Baldwin WWTF to the JEA Brandy Branch site, where the reclaimed water will discharge at the JEA Cooling Station. JEA will use this water as cooling water, eliminating approximately 0.25 million gallons per day (mgd) of groundwater withdrawal. This project also eliminates discharge to a ditch that discharges into Deep Creek. Construction is scheduled to begin in April 2018.

Bunnell Reclaimed Water Main Extension

Status: Anticipated project completion is July 2018

WSPR: North Florida

The project consists of extending a reclaimed water main by 1.5 miles along Grand Reserve Boulevard to State Road (SR) 100 and Commerce Parkway and enable the city of Bunnell to connect to current potable water irrigation systems. The project also includes upgrading the pumps at the wastewater treatment plant (WWTP) to provide reclaim at a higher pressure to end users for direct irrigation use. Construction is scheduled to begin in November 2017.

SJRWMD – Black Creek WRD

Status: Anticipated project completion is September 2021

WSPR: North Florida

The scope includes the design and construction of: an intake structure on the South Fork section of Black Creek to capture water during periods of higher flows; convey the captured water through a 19,000LF transmission system; and a natural treatment system with discharge into the Keystone aquifer recharge area. The objective of the Black Creek WSD project is to capture up to 10 mgd of excess water from the south fork of Black Creek and convey the water to critical recharge areas located on the southern most portion of the Camp Blanding property. This project is scheduled for construction in 2019.

C-1 Canal Improvements Project
And C-10 Reservoir Project

Status: Phase 1 completed; Phase 2 Anticipated completion date is 2022

WSPR: Central Springs East Coast

The C-1 Project will restore a portion of the historic flows to the St. Johns River, flows which were diverted to the Indian River Lagoon when drainage canals were excavated in the early 20th century. Runoff from Palm Bay will be pumped into two separate waterbodies, the Sawgrass Lake Water Management Area and the C-10 Reservoir, for water quality improvement prior to discharging to the St. Johns River. This project benefits the Indian River Lagoon by removing nutrients, sediments, and excessive freshwater discharges, and provides benefit to the St. Johns River by restoring a significant portion of the historic flows back to the river.

The C-1 project was completed in September 2017. The C-10 Reservoir (Phase 2 of the project) is currently in the design stage and includes a 1,300-acre reservoir with a pump station and outlet structure to the Upper St. Johns River Basin. The design is 60 percent complete. Pump station design will be completed by September 2018. When implemented, Phase 2 is estimated to increase flow restoration to the St. Johns River to 50 percent of the average annual runoff from the watershed. Construction of Phase 2 is scheduled to be complete in 2022. The scheduled start of the construction of the project has been pushed out due to ranking status with other projects.

Chuluota RCW Storage Tank

Status: Anticipated project completion is September 2018

WSPR: Central Florida

The project consists of the construction of a 500,000-gallon reclaimed water ground storage tank, associated pumping facilities, and modification and reactivation of the existing pond and pump station at the Chuluota WWTP site. Construction is scheduled to begin in October 2017.

Clay County Utility Authority (CCUA) County Road (CR) 209 Reclaimed Water Transmission Main

Status: Anticipated project completion is January 2018

WSPR: North Florida

This project will construct a 3,800 LF of 20-inch diameter reclaimed water main extension to serve the future development area near the intersection of CR 220 and CR 209/Henley Road. Construction start was delayed until June 2017 due to staff changes at CCUA.

CCUA Old Jennings Reclaimed Water Plant Ground Storage Tank

Status: Anticipated project completion is March 2018

WSPR: North Florida

This project will construct a 750,000-gallon ground storage tank at the Old Jennings Road Reclaimed Water Plant facility. The tank will be installed inside the existing facility and be directly integrated into the existing reclaimed water transmission/distribution system. Construction start was delayed until August 2017 due to staff changes at CCUA.

Daytona Beach Potable Reuse Demonstration Testing Facility

Status: Anticipated project completion is March 2018

WSPR: Central Spring East Coast

The project will enable Daytona Beach to investigate how Direct Potable Reuse (DPR) can be successfully implemented in the city's system. Once the demonstration facility has been

constructed, it will operate for 24 months. The facility will be located at the city's Westside Regional Waste Water Treatment Facility (WWTF), which currently produces high-level disinfected reclaimed water intended for public access reuse. This location will minimize complexity and cost of piping for providing reclaimed water to the facility and allow for treated water to return to WWTF. The facility will produce approximately 200,000 gallons per day (gpd) of product water and 60,000 gpd of concentrate water, which will be recycled back to the WWTF. Construction on the project began in April 2017.

Daytona Beach 2.5 Million Gallon (mg) Reuse Tank

Status: Anticipated project completion is May 2018

WSPR: Central Spring East Coast

This project includes construction of a 2.5 mg reclaimed water storage tank. Construction began in April 2017. The completion date for the project was moved to May 2018 as the schedule for the project was developed for a scope of work.

DeLand Reclaimed Water Retrofit Project Phase 1

Status: Anticipated project completion is December 2017

WSPR: Central Spring East Coast

The project consists of retrofitting three areas currently served with potable water for irrigation to reclaimed irrigation supply. The three areas include Blue Lake Woods Subdivision, University Avenue Region, and South Ridge Pointe subdivision. Construction on the project began in March 2017. The project start and completion dates were revised during schedule development for the scope of work.

DeLand Reclaimed Water Retrofit Project Phase 2B

Status: Anticipated project completion is March 2018

WSPR: Central Spring East Coast

The project consists of retrofitting two areas currently served with potable water for irrigation to reclaimed irrigation supply: the Waterford and Heather Glen subdivisions. Construction on the project began in June 2017. The project start and completion dates were revised during schedule development for the scope of work.

DeLand RCW Main Extension Phase 3 and 3A

Status: Anticipated project completion is November 2018

WSPR: Central Spring East Coast

The project involves the installation of a 6-inch reclaimed water main through the Crystal Cove subdivision (145 homes) and installation of a 12-inch line along McGregor Road from Woodland Boulevard to Crystal Cove Boulevard. The project also includes installation of reclaimed water mains throughout the Alexandria Pointe subdivision (94 homes). Construction is scheduled to begin in January 2018.

DeLand St. Johns River Intake and Surface Water Filtration System Upgrades

Status: Anticipated project completion is December 2018

WSPR: Central Spring East Coast

The project involves upgrading the existing pump station at the St. Johns River. Additionally, one automatic backwash filter will be upgraded to match the other two that were funded in a previous cost-share program. Construction is scheduled to begin in January 2018.

Fellsmere Water Management Area

Status: Anticipated project completion is October 2019

WSPR: Central Spring East Coast

The Fellsmere Water Management Area is a component of the Upper St. Johns River Basin Project and involves construction of a 10,000-acre reservoir to treat agricultural discharges prior to entering the St. Johns Water Management Area. The project provides potential for additional water supply and improved wildlife habitat. This is one of the final components of the Upper St. Johns River Basin Project, collectively restoring more than 160,000 acres of the St. Johns River headwaters.

Current status: The eastern perimeter levee, the emergency overflow weir, and the southern inlet have been completed. Remaining components of the project to be completed include the relocation of Pump Station 6, improvement of the East-West Flow-way, and construction of the public boat ramp at Access Point 1.

Green Cove Springs North Grid RCW System Phase 2 and 3

Status: Anticipated project completion is September 2018

WSPR: North Florida

This project is multi-phased. Phases 2 and 3 include installation of a reclaimed water line to the Black Creek Marina development and connection to the Phase 1 termination point at Edgewater Landing. Phase 3 is the final leg of the reclaimed water main from the Harbor Road Water Reclamation Facility to the termination point of Phase 1. Construction on the project began in August 2017. Start was delayed due to change in the route for reclaimed water line.

Indian River Lagoon Dispersed Water Storage Pilot Projects

Status: Anticipated construction completion is September 2018; operations continues for 10 years after construction

WSPR: Indian River Lagoon

The District is evaluating environmental benefits from using groves and other private lands for retention of stormwater to reduce excess freshwater and nutrients being released to the Indian River Lagoon. Two pilot projects, one at 2,000 acres and the other at 200 acres, are in the final design phase and when complete should store about 18 mgd and 5 mgd, respectively, on an annual basis. Nutrient reductions should be approximately 24 MT and 3 MT nitrogen and 3 MT phosphorus and 1 MT phosphorus annually, respectively.

JEA Gate Parkway – Shiloh Mill Blvd to Town Center Parkway — RCW

Status: Anticipated project completion is August 2018

WSPR: North Florida

This project is composed of 2,400 LF of 8-inch reclaimed water pipe to serve planned developments. Construction on the project is scheduled to begin in January 2018.

JEA Hidden Hills — RCW

Status: Anticipated project completion is March 2019

WSPR: North Florida

This project is composed of 1,600 LF of 12-inch, 2,300 LF of 8-inch and 130 LF of 6-inch reclaimed water pipe to serve Hidden Hills Golf and County Club. Construction is scheduled to begin in January 2018.

JEA Mandarin Wastewater Treatment Plant Upgrades

Status: Anticipated project completion is December 2017

WSPR: North Florida

This project includes construction of a 1.6 mg equalization basin, high service pump, and disinfection to provide operational storage and equalization of available reclaimed water flow over a 24-hour period. This will increase the reclaimed water operational capacity from 5.7 mgd to 8.75 mgd annual average. Construction began in September 2016. Funds that were not expended have been moved into FY 2018 budget. Project completion was delayed by three months due to issues with the switchgear in the electrical building needing to be resized. Significant rainfall also caused delays.

JEA RG Skinner Parkway Reclaimed Water Transmission

Status: Anticipated project completion is September 2018

WSPR: North Florida

This project is the second phase of a project to expand the reclaimed water system to convey reclaimed water between the Arlington East and Mandarin WWTFs, while also providing reclaimed water in the highest customer demand regions of northern St. Johns County and southern Duval County. Construction on the project has been delayed due to issues with the developer and is now scheduled to begin in October 2017.

JEA RiverTown Phase 3 — Parcel 23 — RCW

Status: Anticipated project completion is August 2018

WSPR: North Florida

This project is composed of 2,500 LF of 10-inch reclaimed water pipe to serve Parcel 23 of the RiverTown development. Construction is scheduled to begin in February 2018.

JEA Water Purification Treatment Evaluation and Pilot

Status: Anticipated project completion is September 2018

WSPR: North Florida

This project is a treatment performance pilot study to compare emerging technologies, Microfiltration and Reverse Osmosis (MFRO), and Ozone and Biologically Activated Carbon (Ozone-BAC) on two different effluent streams. The main purpose of the study will be establishing a treatment methodology for an alternative water supply. The source water for the pilot study will be provided by the Buckman Water Reclamation Facility (WRF) and the Southwest WRF. The project will not only consider current state and federal requirements for aquifer recharge water quality but also test for contaminants of emerging concern (CECs). The pilot project began in August 2017.

JEA William Burgess Road

Status: Anticipated project completion is June 2018

WSPR: North Florida

This project will provide reclaimed water via a 13,000 LF of reclaimed water pipe to a major development called the East Nassau Community Planning Area in Nassau County. Construction start date was delayed until September 2017 due to a change in design at the request of Nassau County Public Works Department. Project may be completed by the contract expiration date but need to extend will be assessed in March 2018.

Longwood Septic Tank Abatement Program Transmission Main

Status: Anticipated project completion is December 2019

WSPR: Central Florida

The project involves the construction of a 4-mile sewer transmission pipe connecting the city of Longwood with the Altamonte Springs Regional Water Reclamation Facility (ASRWRF). Construction is scheduled to begin in June 2018.

Lucas Fairways Hidden Hills Golf Course RCW Connection

Status: Anticipated project completion is December 2018

WSPR: North Florida

The project will enable JEA to supply reclaimed water to the club for golf course irrigation. The project consists of meters, valves, piping, and appurtenances required to connect to JEA's reclaimed water line. Construction is scheduled to begin in May 2018.

Marion County U.S. 441 Water Main Interconnect

Status: Anticipated project completion is April 2018

WSPR: Central Springs East Coast

The project consists of constructing a water main interconnect between two non-connected potable water systems (PWS). The proposed water main will be approximately 11,200 LF of 16-inch PVC connecting the Spruce Creek Golf and Country Club (SCGCC) PWS to the Stonecrest PWS. Marion County Utilities (MCU) will be reallocating approximately 0.12 mgd of withdrawals from the Upper Floridan aquifer about 5.5 miles further from Silver Springs, thereby reducing the MCU withdrawal impacts to Silver Springs. Construction is scheduled to begin in October 2017.

Minneola Septic to Sewer

Status: Anticipated project completion is September 2019

WSPR: Central Florida

This project is the first phase of a three-phase project to install infrastructure consisting of transmission lines, force mains, and a lift station. This will allow the connection of 22 parcels to the sewer system and abandon 22 septic tanks. The 22 parcels consist of seven commercial and 15 residential properties. Once all the phases are complete, the project will result in the collection and treatment of approximately 0.4 mgd of reclaimed water. Construction is scheduled to begin in November 2017.

Mount Dora RCW Interconnect with Apopka

Status: Anticipated project completion is March 2019

WSPR: Central Florida and Central Springs East Coast

This project includes the construction of a reclaimed water interconnect between the city of Mount Dora and city of Apopka systems. Construction is scheduled to begin in February 2018.

Orange County Utilities: Malcolm Road Minimized Impact Project – LFA Wells

Status: Anticipated completion date is June 2018

WSPR: Central Florida

This project includes construction of a Lower Floridan aquifer (LFA) production well at the planned Malcolm Road Water Supply Facility (MRWSF). Construction began in August 2015. Contractor had issues with well drilling and had to re-drill well. Funds that were not expended

for the previous three fiscal years have moved into the FY 2018 budget. Subsurface conditions caused delays in the drilling and a six-month extension is required to complete the project.

Ocala Wetland Recharge

Status: Anticipated project completion is June 2019

WSPR: Central Florida and Central Springs East Coast

The project will construct a 33-acre groundwater recharge wetland that will receive advanced treated wastewater from the city's Water Reclamation facilities (WRF) #2, #3, and stormwater from the Old City Yard Drainage Retention Area. Construction on the project is scheduled to begin in January 2018.

Ormond Beach South Peninsula Reclaimed Water Expansion

Status: Anticipated completion date is March 2018

WSPR: Central Springs East Coast

This project includes expansion of the city's reclaimed water distribution network throughout the South Peninsula area of the city of Ormond Beach. Upon completion, the project reduces groundwater withdrawals from the city's Rima Ridge wells by approximately 0.56 mgd due to a reduction in demand of potable water for irrigation purposes. Construction on the project began in February 2017. The project completion date was revised during schedule development for the scope of work.

Palatka RCW Extension — REDI

Status: Anticipated project completion is May 2019

WSPR: North Florida

This project consists of the installation of a rotary vacuum filter and a chemical backwash pump at a reclaimed water holding pond; the addition of a reclaimed water service PVC piping of 20 LF to Tater Farms Turf grass location; the addition of a reclaimed water service of 30 LF to the 250-acre spray field location adjacent to the WWTP; and the extension of the reclaimed water infrastructure by 6,500 LF to the northern end of Riverfront Park (Phase II). This extension will include availability of service connections to the Hampton Inn, Riverfront Park, and the St. Johns River Center. The final step in this project is a holding pond to be located within the city's 250-acre parcel adjacent to the WWTP to be utilized as a reclaimed water holding pond for the irrigation of the spray field and an alternative disposal site during extreme wet weather events. Construction on the project is scheduled to begin in April 2018.

Sanford RCW Orlando — Sanford Airport Phase 2

Status: Anticipated project completion is March 2018

WSPR: Central Florida

The project involves the installation of RCW main along the Lake Mary Boulevard extension from the intersection of East Lake Mary Boulevard and Brisson Road, extending the RCW main 2,800 LF to the west. Construction on the project is scheduled to begin in October 2017.

St. Johns County St. Augustine Beach Reclaimed Water Transmission Main

Status: Anticipated completion date is January 2018

WSPR: North Florida

This project includes expansion of the county's reclaimed water system by providing an 8-inch diameter reclaimed water main from the Ocean Cay development to the St. Augustine Beach City Hall and park. In addition, the reclaimed water main will also serve the Ocean Ridge

subdivision (73 homes). The new reuse main will also provide future service to customers along the route. Construction began in April 2017. Completion of project has been delayed due to FDOT drilling on 16th Street and issues with the permit.

Tater Farms Palatka Ranch RCW

Status: Anticipated project completion is September 2018

WSPR: North Florida

This project consists of construction of the infrastructure necessary to receive treated wastewater from the city of Palatka to use for irrigating sod. Construction is scheduled to begin in January 2018.

Taylor Creek Reservoir Improvement Project

Status: Anticipated completion is October 2022

WSPR: Central Florida

This project is intended to restore the levee to its original design characteristics and to incorporate two overflow spillways and a levee toe drainage system. The District is pursuing a project to change the current reservoir operating schedule and corresponding water levels, which range from 41 to 43 feet National Geodetic Vertical Datum (NGVD), to an operating schedule that would bring the water level in the reservoir to 46 feet NGVD. Raising the water level would increase the water supply yield from the reservoir without any supplemental diversions from the St. Johns River. The improvements proposed for this project support the increased water level in the reservoir. Final design is being completed by District staff. The U.S. Army Corps of Engineers is completing the 408 review and providing comments to District staff that will require additional modeling and may impact the schedule. Design is expected to be complete in 2018 for bid on construction. Estimated construction budget has increased due to changes needed in the design.

Vero Beach Reverse Osmosis (RO) Water Treatment Facility Expansion

Status: Anticipated completion is October 2017

WSPR: Central Springs East Coast

This project involves expanding RO capacity from 2 to 4.5 mgd, improves finished water quality, and decreases operation of the lime softening plant. Also, two new high-pressure pumps and two RO skids will be installed, as well as modifications to the sulfuric acid and scale inhibitor feed system. Construction began in April 2016. Project required a time extension due to the need of the installation of an odor control unit.

Volusia County Utilities: Reclaimed Water Main Extension for I-4/SR 472 Activity Center

Status: Anticipated completion is March 2018

WSPR: Central Springs East Coast

The project consists of providing reclaimed water for irrigation to a new commercial /office/light industrial activity development at the intersection of I-4 and SR472 in Volusia County. Construction on the project began in August 2017. Project construction was delayed due to a redesign required by utility conflicts.

West Volusia Water Suppliers Project 4A Deltona Storage and Treatment System Improvements

Status: Anticipated completion is December 2018

WSPR: Central Springs East Coast

This project includes construction of a 3 mg stormwater storage tank, 1 mg reclaimed water storage tank, chemical treatment, flocculation, filtration, and chlorination systems. The project will augment reclaimed water for peak irrigation demands. Construction began in November 2016. Project was delayed waiting for approval of a State Revolving Fund loan.

Winter Garden Reuse Distribution Retrofit

Status: Anticipated project completion is January 2019

WSPR: Central Florida

This is the third and final phase for reclaimed retrofit efforts in the Stoneybrook West community. The project includes 221 properties to be converted from potable water for irrigation to reuse water. Project includes backflow prevention devices, and project construction includes all labor, materials, equipment, and incidentals via both open trench and directional drilling. The city currently discharges some unused reclaimed water via rapid infiltration basins (RIBS); therefore, this project is not expected to provide a surplus. Construction is scheduled to begin in December 2017.

Water conservation

Alachua County Landscape Irrigation Retrofit Rebate Program

Status: Anticipated completion is January 2019

WSPR: North Florida

This project is a rebate program to encourage Alachua County residents to retrofit their landscapes with either Florida-Friendly Landscapes (FFL) that require no irrigation or FFL with correctly installed micro-irrigation. Due to delays with the execution of funding agreements, the project start date was delayed. Project schedule was updated once the executed contract was in place. Project began in March 2017.

Alachua County Water StarSM Rebate Program

Status: Anticipated completion is February 2019

WSPR: North Florida

This project contains a financial incentive for builders to apply for Florida Water StarSM certification for new construction. The builders will receive a rebate of \$700 upon proof of certification. Due to delays with the execution of funding agreements, the project start date was delayed. Project schedule was updated once the executed contract was in place. Project began in March 2017.

Cocoa Toilet Rebate Program

Status: Anticipated completion is September 2018

WSPR: Central Springs East Coast

The project consists of a toilet rebate program that will be available to city of Cocoa Utilities water customers. It includes a maximum of two rebates per account. The program will replace 50 3.5-gallons per flush (gpf) toilets with 1.28-gpf (or lower) toilets. The project is scheduled to start October 2017.

GRU Conservation Visualization Tool

Status: Anticipated completion is September 2019

WSPR: Central Springs East Coast

The Consumption and Conservation Programs Visualization Tool will be developed and maintained by the University of Florida. This tool measures the impact of various conservation efforts. The software's reporting facilities allow for consumption data to be evaluated pre- and post-implementation of either individual or multiple conservation programs. The tool's evaluation capabilities will be used to measure the effectiveness of not only existing and future conservation efforts, but also of the software itself. This project is scheduled to start October 2017.

Gainesville Regional Utilities Indoor Plumbing Retrofit Program

Status: Anticipated completion is January 2019

WSPR: North Florida

This program includes rebates for indoor plumbing fixture retrofits. The program will rebate 50 percent of the costs of replacing inefficient water fixtures with high-efficiency fixtures. Due to delays with the execution of funding agreements, the project start date was delayed. Project schedule was updated once the executed contract was in place. Project began in March 2017.

Marion County Enhanced Irrigation Evaluation Program

Status: Anticipated completion is September 2018

WSPR: Central Springs East Coast

The program will provide evaluations for approximately 90 enhanced irrigation system evaluations to Marion County Utility's high-water use customers. The project began in October 2016.

Orange County Utilities — Toilet Replacement Program

Status: Anticipated completion is September 2018

WSPR: Central Florida

This project is a rebate program to retrofit approximately 200 toilets with higher-efficiency toilets. Due to delays with the execution of funding agreements, the project start date was delayed. Project schedule was updated once the executed contract was in place. Project began in March 2017.

Orange County Utilities — Waterwise Neighbor Program

Status: Anticipated completion is September 2018

WSPR: Central Florida

This program includes rebates for indoor plumbing fixture retrofits to communities near Wekiwa Springs. The program will rebate 50 percent of the costs of replacing low-efficiency fixtures. Due to delays with the execution of funding agreements, the project start date was delayed. Project schedule was updated once the executed contract was in place. Project began in March 2017.

Orange County Utilities — Waterwise Neighbor Program (new and retrofit) Phase 2

Status: Anticipated completion is September 2018

WSPR: Central Florida

This program includes rebates for indoor plumbing fixture retrofits. The program will rebate 50 percent of the costs of replacing low-efficiency fixtures for approximately 300 new construction homes in Orange County. The project is scheduled to begin in December 2017.

OUC Irrigation Conservation Phase 2

Status: Anticipated completion is September 2019

WSPR: Central Florida

This is the second phase of OUC's Conservation Project with enhancements designed to increase customer participation rates. Customers are informed of reduced prices for other services, including irrigation repairs, ET controllers, soil moisture sensors, and FFL. OUC is also including an ongoing low-flow toilet rebate program for residential and commercial customers as part of the Phase 2 program. In addition, OUC will procure online water survey software to encourage additional water conservation. This project is scheduled to start in October 2017

Santa Fe College N.W. Campus Plumbing Fixture Retrofit

Status: Anticipated completion is September 2018

WSPR: North Florida

This project includes retrofitting indoor plumbing fixtures at Santa Fe College's main campus with more efficient plumbing fixtures. Due to delays with the execution of funding agreements, the project start date was delayed. Project schedule was updated once the executed contract was in place. Project began in March 2017.

Winter Garden Water Conservation Program Expansion (Phase II)

Status: Anticipated completion is September 2018

WSPR: Central Florida

This project is the second phase of an expansion to the city of Winter Garden's system that manages and communicates water use at the account-level. This can provide information to customers to initiate actions with water conservation results. It allows immediate information so that the customer can securely access hourly, daily, and monthly usage, as well as to be alerted to water leaks via portal or in receipt of email or text alerts. The proactive communication of water use data provides an improvement and expansion to the city's water conservation efforts. This project is scheduled to begin December 2017.

Appendix A: Approved BMAP Related Projects

Name	Contract Number	SJR Basin	Construction Cost \$	SJR Cost-Share Total Amount \$	BMAP	WBID(s)	County	Manager	Schedule Start	Schedule Finish	TN Reduction	TP Reduction (lbs/yr)
State: In Progress												
Crescent City Crescent Lake Outfall Improvements	28663	LSJR	\$500,000.00	\$500,000.00	LSJR Mainstem	2606B 2606A	Putnam	Patrick Burger	10/3/2016	3/30/2018	180	65
Eustis Eastern Wastewater Treatment Plant Expansion	28818	Wekiva	\$7,500,000.00	\$2,475,000.00	Wekiva	2955 2929A	Lake	Mary Brabham	12/21/2016	6/29/2018	91,378	
Fellsmere North Regional Lake	30174	IRL	\$608,415.00	\$500,000.00	Central IRL	5003B1 5003C1	Indian River	Melisa Diolosa	4/12/2017	1/2/2018	212	104
Longwood North CR 427 and Lake Ruth Septic Tank Removal	28735	Lk. Jesup	\$2,013,040.00	\$664,303.00	Lk. Jesup	2981	Seminole	Mark Brandenburg	6/30/2017	2/21/2018	3,193	515
Longwood South Septic Tank Abatement Phase 2	28734	Lk. Jesup	\$1,336,610.00	\$441,081.00	Lk. Jesup	2981	Seminole	Mark Brandenburg	6/30/2017	9/28/2018	1,550	250
Merritt Island Septic Phase Out	28731	IRL	\$2,764,410.00	\$912,255.00	Banana River	2963EA 2963F3 2963D1	Brevard	Melisa Diolosa	3/1/2017	9/28/2018	2,501	822
St. Johns County Bannan Lakes 2.0 MG RCW Tank and Pump Station	28746	LSJR/Mill Creek	\$1,740,000.00	\$574,200.00	LSJR Mainstem	2460 2411 2474	St. Johns	Derek Busby	6/20/2017	4/20/2018	3,559	1,186
Volusia County Advanced Wastewater Treatment for the Protection of Blue Spring	28459	Blue Springs (Volusia)	\$12,129,500.00	\$7,527,500.00	BMAP for Bl. Spring in development	2893B	Volusia	Mary Brabham	5/23/2016	12/29/2017	27,000	14,000
State: Not Started												
Apopka Water Reclamation Facility Nutrient Removal	28457	Wekiva	\$6,078,000.00	\$3,039,000.00	Wekiva	2956 2967	Orange	Mary Brabham	3/1/2018	3/1/2019	45,662	
Baldwin Brandy Branch Reuse		LSJR	\$2,695,000.00	\$889,350.00	N/A	2298 2226 2245	Duval	Patrick Burger	1/1/2017	10/15/2017	8,143	1,598
Brevard County Micco Sewer Line Extension		Indian River Lagoon	\$1,953,917.00	\$644,793.00	Central IRL	5003D1 2963A1	Brevard	Melisa Diolosa	10/2/2017	9/30/2019	449	
Bunnell WWTP Treatment	31866	St. Johns River/Crescent Lake	\$266,160.00	\$266,160.00	N/A	2606B 2615 2621 2610	Flagler	Derek Busby	12/29/2017	7/5/2018	7,915	381
Cocoa Beach Muck Removal Phase 3		Indian River Lagoon	\$1,844,496.00	\$608,684.00	Banana River	2963C1 2963D1	Brevard	Melisa Diolosa	11/30/2017	9/6/2019	34,002	55,495
Daytona Beach Bennett Swamp Rehydration and Conservation	31865	Halifax River	\$5,336,544.00	\$1,761,060.00	N/A	2634 2654	Volusia	Mark Brandenburg	10/2/2017	3/31/2018	54,000	18,000
Deland RCW Main Extension Phases 3 and 3A		St. Johns River	\$1,300,000.00	\$429,000.00	BMAP for Bl. Spring in development	2893B	Volusia	Mark Brandenburg	1/15/2018	11/15/2018	3,444	430
Fernandina Beach Area 1 Drainage Improvements		St. Mary's River	\$251,282.57	\$251,282.57	N/A	2127A 2124A	Nassau	Nitesh Tripathi	3/1/2018	8/30/2018	50	10
Flagler County Malacompria Basin Project Phase 1	28649	Northern Coastal	\$2,550,160.00	\$500,000.00	N/A	2363 2595	Flagler	Melisa Diolosa	7/3/2017	6/29/2018	183	47
Green Cove Springs North Grid RCW System Phase 2 and 3	28807	St. Johns River	\$2,000,000.00	\$660,000.00	LSJR Mainstem	2213	Clay	Derek Busby	6/30/2017	6/27/2018	3,000	215
Indian River County North Sebastian Phase 1 Septic to Sewer	28771	Indian River Lagoon	\$1,967,395.00	\$649,240.35	Central IRL	5003D1 5003C1	Indian River	Melisa Diolosa	8/10/2017	6/29/2018	2,190	365
Indian River County Osprey Acres Stormwater Park	28730	Indian River Lagoon	\$7,436,921.35	\$1,200,250.00	Central IRL	5003B1	Indian River	Melisa Diolosa	8/15/2017	3/30/2018	9,000	400
JEA Gate Parkway Shiloh Mill Boulevard to Town Center Parkway RCW	31855	St. Johns River	\$367,344.00	\$121,224.00	LSJR Mainstem	2213F 2213E 2213G	Duval	Carol Brown	1/30/2018	8/31/2018	553	128
JEA Hidden Hills RCW	31856	St. Johns River	\$791,450.00	\$261,179.00	LSJR Mainstem	2213B 2213A	Duval	Carol Brown	1/16/2018	3/29/2019	5,965	1,385
JEA RG Skinner Parkway RW Trans	28815	St. Johns River	\$2,000,000.00	\$660,000.00	LSJR Mainstem	2213C 2213D 2213E 2213F	Duval	Carol Brown	10/2/2017	9/28/2018	183,255	51,141
JEA River Town Phase 3 Parcel 23 RCW	31857	St. Johns River	\$116,750.00	\$38,528.00	LSJR Mainstem	2213H 2213I	St. Johns	Carol Brown	2/1/2018	8/31/2018	1,320	147
JEA Water Purification Treatment Evaluation and Pilot Testing	30175	St. Johns River	\$1,800,000.00	\$900,000.00	LSJR Mainstem	2213C 2213D 2213E 2213F	Duval	Carol Brown	7/3/2017	9/28/2018	482	25
JEA William Burgess Road	28806	St. Mary's River	\$2,000,000.00	\$660,000.00	N/A	2129A	Nassau	Carol Brown	10/2/2017	9/28/2018	42,617	6,088
Lost Lake RV Park WWTP Upgrade		Apopka	\$250,000.00	\$82,500.00	Wekiva	2967 2956	Orange	Mary Brabham	10/16/2017	1/5/2018	767	

Appendix A: Approved BMAP Related Projects

Name	Contract Number	SJR Basin	Construction Cost \$	SJR Cost-Share Total Amount \$	BMAP	WBID(s)	County	Manager	Schedule Start	Schedule Finish	TN Reduction (lbs/yr)	TP Reduction (lbs/yr)
Marion County Silver Springs Shores DRA Retrofit		Ocklawaha	\$686,461.00	\$226,532.00	Silver Springs, Silver Springs Group, and Upper Silver River	2772 2740	Marion	Patrick Burger			218	
Minneola Septic to Sewer Phase 1		Upper Ocklawaha	\$2,360,000.00	\$778,800.00	Upper Ocklawaha	2839A 2839H	Lake	Melisa Diolosa	11/1/2017	9/30/2019	496	
New Smyrna Beach Isleboro Stormwater Improvement Project	28772	Northern Coastal/Halifax River	\$7,424,000.00	\$2,449,920.00	N/A	2678 2674A	Volusia	Patrick Burger	1/9/2017	9/28/2018	602	185
Ocala Wetland Recharge		Ocklawaha	\$8,362,766.00	\$2,000,000.00	Silver Springs, Silver Springs Group, and Upper Silver River	2772	Marion	Patrick Burger	1/5/2018	1/3/2019	29,000	30,500
Orange County EPD Lake Jennie Jewel Alum Treatment	31843	Econlockhatchee	\$362,425.00	\$119,600.00	L. Okeechobee	3168Z	Orange	Mark Brandenburg	1/2/2018	3/30/2019	45	1,239
Orange County EPD Lake Lawne Irrigation Facility	38144	Wekiva	\$2,035,252.00	\$671,633.00	Wekiva	3004C	Orange	Mark Brandenburg	11/27/2017	8/31/2018	650	106
Putnam WWTP Expansion		St. Johns River	\$2,250,000.00	\$2,000,000.00	LSJR Mainstem	2213L 2213M 2213N	Putnam	Nitesh Tripathi	12/4/2017	10/1/2019	270	45
St. Augustine Lincolnville Drainage Improvements		Northern Coastal/Matanzas River	\$310,000.00	\$102,300.00	N/A	2491	St. Johns	Derek Busby	1/31/2018	10/3/2018	441	72
St. Johns County Players Club RCW Facility		Northern Coastal	\$26,400,500.00	\$2,000,000.00	N/A	2320B2 2320B1 2205C	St. Johns	Derek Busby	1/31/2018	1/31/2020	29,418	9,698
Titusville South Street Basin Baffle Boxes		Indian River Lagoon	\$337,920.00	\$110,000.00	North IRL	2963EA 2963F3 2963D1	Brevard	Melisa Diolosa	4/2/2018	4/30/2019	720	125
Volusia County Gemini Springs Baffle Box		St. Johns River	\$380,000.00	\$125,400.00	Gemini Sp in development. Could end up in Lakes Harney, Monroe, Middle St. Johns River (MSJR), and Smith Canal	2893	Volusia	Melisa Diolosa	10/2/2017	2/28/2018	854	133
Volusia County Rio Way Drainage Improvements		Northern Coastal/Halifax River	\$1,660,789.00	\$548,060.00	N/A	2363	Volusia	Melisa Diolosa	11/1/2017	10/31/2018	127	34
Volusia RCW Main Extension for I-4/SR 472 Activity Center	28819	St. Johns River	\$614,500.00	\$202,785.00	Volusia Blue in development	2893B	Volusia	Mary Brabham	8/30/2017	3/30/2018	2,434	304